SITE INVESTIGATION AND REMEDIAL ACTIONS REPORT

Cristo Rey Jesuit High School – Historic Fill
BRRTS #02-41-583465

1818 W. National Avenue, Milwaukee, Wisconsin 53204 | August 2022

Prepared For:

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Submitted To:

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kapur all in

SUBMITTAL CERTIFICATION
SITE INVESTIGATION AND
REMEDIAL ACTIONS REPORT

Cristo Rey Jesuit High School – Historic Fill
1818 W National Avenue
Milwaukee, Wisconsin 53204

"I hereby certify that I am a scientist as that term is defined in s. NR 712.03 (3), Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in ch. NR 700 to 726, Wis. Adm. Code."

Travis W. Peterson — 8-11-2022
Date

Kapur Inc.
Travis W. Peterson, Associate
Economic Development Manager

"I hereby certify that I am a registered professional engineer in the State of Wisconsin, registered in accordance with the requirements of ch. A-E 4, Wis. Adm. Code; that this document has been prepared in accordance with the Rules of Professional Conduct in ch. A-E 8, Wis. Adm. Code; and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code."

WISCONSIN CHRISTOPHER E. SBERNA E-46803 JACKSON, WI PROFESSIONAL ENGINEER

8-11-22
Date

Kapur Inc.
Chris Sberna, P.E.

"I hereby certify that I am a scientist as that term is defined in s. NR 712.03 (3), Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in ch. NR 700 to 726, Wis. Adm. Code."

8-11-2022
Date

Kapur Inc.
Grant Zwiefelhofer
Geologist

TABLE OF CONTENTS

SITE MAPS AND FIGURES

TABLES

APPENDICES

EXECUTIVE SUMMARY

Kapur Inc. (Kapur) prepared this Site Investigation (SI) and Remedial Actions (RA) Report for the Cristo Rey Jesuit High School – Historic Fill, BRRTS Activity # 02-41-583465 located at 1818 W National Avenue in the City of Milwaukee, Milwaukee County, Wisconsin. Kapur performed the SIRA in compliance with Wisconsin Administrative Code Chapter NR 716 to further investigate contaminant impacts identified during a geotechnical drilling associated with redevelopment activities.

The subject property was a vacant commercial building and associated with several closed LUST sites. Due to the association with the closed LUST sites, soil was screened and sampled during the geotechnical drilling activities.

The purpose of the investigation was to determine the nature, degree and extent of soil and groundwater impacts associated with historical onsite activities as a filling station, grocery store, and parking area.

Site Investigation Results

Soil

Kapur collected twenty-four (24) soil samples from twenty-three (23) direct push borings advanced on September 18, 2018 and December 5, 2018. The samples were submitted for analysis of PAHs, RCRA metals, and VOCs. Laboratory analytical results of the soil investigation indicated:

- PAHs:
    - Benzo(a)pyrene and benzo(b)fluoranthene were detected with concentrations exceeding the applicable ch. NR 720 Industrial Direct Contact RCL.
    - Benzo(a)anthracene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene were detected with concentrations exceeding the applicable ch. NR 720 Non-Industrial Direct Contact RCLs.
    - Chrysene and naphthalene were detected in with concentrations exceeding the applicable ch. NR 720 Soil to Groundwater Pathway RCL.
- RCRA Metals:
    - Arsenic and lead were detected with concentrations exceeding the applicable ch. NR 720 Industrial Direct Contact RCL.
    - Cadmium was detected with concentrations exceeding the applicable ch. NR 720 Industrial Direct Contact RCL.

- Barium, Mercury, Selenium, and Silver were detected with concentrations exceeding the applicable ch. NR 720 Soil to Groundwater Pathway RCL.

- VOCs:
  - 1,2-Dichlorobenzene, 1,2-dichloroethane, 1-4-dichlorobenzene, chlorobenzene, methylene chloride, and naphthalene were detected with concentrations exceeding the applicable ch. NR 720 Soil to Groundwater Pathway RCLs.

Remedial Action

One remedial option was assessed to address residual soil contamination at the site. The remedial option included

1. Excavation of high-impacted areas, natural attenuation of residual soil impacts, and use of engineered barriers/surface cover (where existing) and institutional controls.

From June 2019 through June 2020 Kapur monitored soil excavation and relocation activities during the construction project. The work completed adhered to the approved Materials Management Plan with little to no deviation, except less material being reused onsite due to unforeseen site/soil conditions, weather impacts and construction requirements. A total of 818.10 tons of impacted soil material was excavated from the areas around the higher-impacted soils and transported offsite for disposal.

Currently the subject property consists of a school building, two asphalt parking lots, and landscaped greenspace and hardscape. These features will act as an engineered barrier, limiting the potential direct contact hazard and surface infiltration. Although vapor intrusion is not expected to be an issue, a proactive construction plan included installation of a passive sub-slab ventilation system that is in use currently. This system is designed to easily be converted to an active depressurized system should the need arise.

Opinions and Recommendations

The above redevelopment and monitoring activities have shown that the current site conditions and development are protective of the soil direct contact, infiltration and vapor intrusion pathway risk factors. Understanding only field screening of the subsurface soil was completed in the area of the open ERP contaminant plume. Field observation and screening results suggest it is likely the contaminant plume is much smaller than originally estimated. Based upon the extent of soil

excavation completed and the engineered barriers constructed over the estimated plume, natural attenuation processes are anticipated to further breakdown the residual contamination. As such, Kapur does not believe additional investigation activities are warranted and the case be approved to submit for closure consideration.

LIST OF ABBREVIATIONS

bgs	Below Ground Surface
BRRTS	Bureau for Remediation and Redevelopment Tracking System
BTV	Background Threshold Value
ES	Enforcement Standard
ESA	Environmental Site Assessment
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
LDL	Laboratory Detection Limit
LUST	Leaking Underground Storage Tank
MDL	Method Detection Limit
MRL	Method Reporting Limit
MSL	Mean Sea Level
PAH	Polynuclear Aromatic Hydrocarbons
PAL	Preventive Action Limit
PID	Photoionization Detector
ppm	Parts Per Million
ppmv	Parts Per Million by Volume in air
ppb	Parts Per Billion
PVC	Polyvinyl Chloride
RAOR	Remedial Action Options Report
RCL	Residual Contaminant Level
RCRA	Resource Conservation and Recovery Act
SI	Site Investigation
USGS	United States Geologic Survey
UST	Underground Storage Tank
VOC	Volatile Organic Compound
WDNR	Wisconsin Department of Natural Resources
WTM	Wisconsin Transverse Mercator

1.0 INTRODUCTION

Kapur Inc. (Kapur) prepared this Site Investigation (SI) and Remedial Action Options Report (RAOR) for Cristo Rey Jesuit High School – Historic Fill (WDNR ERP Activity # 02-41-583465) located at 1818 West National Avenue in the City of Milwaukee, Milwaukee County, Wisconsin. Kapur performed this investigation in compliance with Wisconsin Administrative Code (Chapter NR 716) to further investigate contaminant impacts identified during a geotechnical investigation activities conducted onsite.

1.1 Site Location

The subject property consists of a single Tax Parcel ID Number 4339927111 totaling 7.587 acres located in the Northwest ¼ of the Southeast ¼ of Section 31, Township 7N, Range 22E (Ref. 1). Wisconsin Transverse Mercator (WTM) coordinates for the center of the parcel are: X 688168.43398 and Y 285506.30500. The site is located on the north side of West National Avenue in the City of Milwaukee, Milwaukee County, Wisconsin (See Figure B.1.a for topographic site location and Figure B.1.b for a detailed site map of the subject property). The recorded parcel legal description is:

4339927111**:**
LANDS IN SE 1/4 SEC 31-7-22 LANDS IN SD 1/4 SEC AND PARCELS 1 & 2 CSM NO 4352 COM AT A PT 35' S OF THE NW COR OF SD 1/4 SEC BEING THE S LI OF W PIERCE ST & THE E LI OF S 20TH ST-TH S 337.89'-TH N 88DEG 29' 19' E 188.0'-TH S 44DEG O2' 28' E 82.0'-TH S 21DEG 31' 55' E 80.0' TO A PT ON N LI OF W NATIONAL AV-TH ELY ALG SD LI 575.68' TO A PT-TH NLY 402.91' TO A PT IN S LI W PIERCE ST-TH WLY 848.55' TO THE PT OF COMM

1.2 Purpose and Scope

The purpose of the SI activities at the subject property was to determine the nature and extent of soil and groundwater contaminant impacts associated with impacts associated with historical onsite activities as a filling station, grocery store, and parking. The following scope of work was verbally discussed and approved by the Wisconsin Department of Natural Resources (WDNR) prior to onsite SI activities:

- Coordination with drilling subcontractor, laboratory, and Diggers Hotline.
- Review of previous Environmental Site Assessments completed at the subject property.
- Installation of twenty-three (23) direct push soil borings.
- A total of seventy-nine (79) soil samples were field screened during drilling operations utilizing a PID.

- Collection of 24 soil samples for laboratory analysis of polynuclear aromatic hydrocarbons (PAHs), Resource Conservation and Recovery Act (RCRA) Metals, and volatile organic compounds (VOCs).
- Soil excavation and relocation monitoring.
- A total of 818.10 tons of impacted soil was transported for disposal to the Orchard Ridge Landfill.

1.3 Owner, Consultant, and Subcontractors List

The following section summarizes the names, addresses, and telephone numbers of the property owner, consultant, and subcontractors:

Owner:

Cristo Rey Jesuit High School
1818 West National Avenue
Milwaukee, Wisconsin 53204
Email: astith@cristoreymilwaukee.org
Phone: (414) 436-4600
Contact: Mr. Andrew Stith

Consultant:

Kapur Inc.
7711 North Port Washington Road
Milwaukee, Wisconsin 53217
Email: gzwiefelhofer@kapurinc.com
Phone: (414) 410-5256
Contact: Grant Zwiefelhofer, Geologist

Contractors for Commodity Services

Geoprobe Borings:

Giles Engineering Associates, Inc.
N8 W22350 Johnson Drive
Waukesha, Wisconsin 53186
Phone: (262) 544-0118
Contact: Keith Flowers

Baake Field Services LLC
5256 N 27th Street
Milwaukee, Wisconsin 53209
Phone: (414)292-7569
Contact: Matthew Baake

Analytical Testing: Pace Analytical Services, Inc.
1241 Bellevue Street
Green Bay, Wisconsin 54302
WDNR Lab Certification # 405132750
Phone: (920) 321-6405
Contact: Christopher Hyska

1.4 Site Description

The subject site was originally developed as residential properties prior to 1937. The land use gradually transitioned to commercial from circa 1937 through 1995 until the most recent site layout, prior to redevelopment, was constructed between 1995 and 2000 that included a commercial grocery store and asphalt parking. The site is identified as having several listings within the BRRTS database including:

1. Mrs Karls (Interstate Brands Corp.) FID: 241302490, LUST: 03-41-000547
2. NDC Inc Mega Marts, FID: 241878450, LUST: 03-41-099673
3. Wenninger Co, FID: 241116040, LUST: 03-41-001060
4. NDC Inc/Mega Marts, FID: 241883070, LUST: 03-41-101491
5. Value Village, FID: 241532940, LUST: 03-41-001317
6. **1818 W National Ave, FID: 241878450, ERP: 02-41-583465 (Open Case)**

All five LUST activities at the site have been closed, though the ERP designation remains open and was opened as a requirement for approval of the ch. NR 718 Material Management Plan. Residual polynuclear aromatic hydrocarbons (PAHs), Volatile Organic Compounds (VOCs) and Resource Conservation and Recovery Act (RCRA) metals contamination remains onsite.

The site has undergone redevelopment into an educational (high school) facility. The redevelopment included removal of the former grocery store structure and parking areas and construction of the new slab-on-grade school building, an athletic field, asphalt parking areas, landscaped greenspace and hardscape.

2.0 GEOLOGY AND RECEPTORS

2.1 Regional and Local Geology and Hydrology

2.1.1 Site Topography

The topography of the subject property gently slopes from the southwest to the northeast with a ground surface elevation ranging from 625 to 638 feet above MSL (Ref. 2). The surrounding

topography slopes gently from east to west. The property consists of a high school building, an athletic field, asphalt parking areas, landscaped greenspace and hardscape.

2.1.2 Site Geology

Native soil types for the subject site range from silty clay through clay loam and silty clay loam to silt loam. The average composition is about 12 percent sand, 43 percent silt, and 45 percent clay. Stones are generally small and not abundant (Ref. 3). Bedrock in the region is part of the Sulurian System which consists of undivided dolomite including Cayugan, Niagaran, and Alexandrian series from the Paleozoic age. The depth of bedrock in this area is expected to be between 50 and 100 ft bgs (Ref. 4).

2.1.3 Site Hydrogeology

Groundwater was not encountered during site investigation or remediation activities. Local groundwater flow is expected to be to the east, toward Lake Michigan. Hydraulic conductivity specific to the subject property was not obtained. Estimated hydraulic conductivity of site-specific native soils (silts and clays) is 6.31 m/yr to 1.48 x 10^{-3} m/yr (Ref. 5). The estimated relative permeability for native soils (silts and clays) is moderate to very low (Ref. 5).

2.2 Receptors

Field and laboratory results indicate soil contamination is present at B-1, B-12, B-14/GP-14, B-19, B-21, and B-23. However, groundwater was not encountered during site investigation activities. The subject property is currently covered with an engineered barrier/cap that minimized the potential for infiltration.

Based upon information obtained for this investigation, no other sensitive areas or receptors were identified in the immediate vicinity of the site. Municipal water and sewer are supplied to the subject property. According the Wisconsin Department of Natural Resources (WDNR) online Well Driller Viewer records database, there are no private well construction reports within 1,200 feet of the subject property

2.3 Proximity to Other Potential Sources of Contamination

The subject property is in an area containing industrial, commercial, and residential zoning as follows:

- The site is bounded on the north by West Pierce Street and RSR Services and a multi-unit residential building beyond
- The property is bounded on the east by Triple E's Autobody shop and National Avenue Hotel.

- The property is bounded on the south by West National Avenue and Citgo – National Quick Mart (03-41-001454) and residential properties beyond.
- The property is bounded on the west by Advance Auto Parts (03-41-000423) and South 20th Street and residential properties beyond.

3.0 SITE INVESTIGATION RESULTS

3.1 Methods of Investigation

3.1.1 Soil Boring Installation

On September 17-18, 2018, twenty-three (23) geotechnical borings were advanced from 11 to 26 ft bgs (B-1 through B-23), using direct push methods by Giles Engineering Associates, Inc. (Giles) of Waukesha, Wisconsin. During these boring, Kapur logged the soil and collected samples from eleven (11) of the geotechnical borings. A total of sixty-five (65) soil samples were field screened for VOCs using a miniRAE 3000 PID during sampling activities. Fifteen total samples were collected from the borings and submitted for laboratory analysis of PAHs, RCRA mentals, and VOCs. Excess soil cuttings were containerized and handled by Giles and brought to Orchard Ridge in Menomonee Falls, Wisconsin for disposal.

On December 5, 2018, five (5) soil borings were advanced from 5 to 10 ft bgs (GP-13-GP-17), using direct push methods by Baake Field Services LLC (Baake) of Milwaukee, Wisconsin. A total of fourteen (14) soil samples were field screened for VOCs using a miniRAE 3000 PID during sampling activities. Seven (7) total samples were collected and submitted for laboratory analysis of PAHs, RCRA mentals, and VOCs. Excess soil cuttings were containerized and handled by Baake and brought to Orchard Ridge in Menomonee Falls, Wisconsin for disposal.

3.2 Analytical Results

Pace Analytical Services, Inc. (Pace) of Green Bay, Wisconsin (WDNR Certification Number: 405132750) analyzed the soil and groundwater samples for this investigation.

3.2.1 Soil

Kapur collected samples from the soil borings advanced on September 18, 2018 & December 5, 2018, that were submitted for analysis of PAHS, lead, and VOCs. Field observation and laboratory analytical results of the soil investigation indicated:

- The soils observed during this investigation generally included fill material (sand and clay), underlain by native soils (silt and clay).

- PID readings ranged from 0.0 parts per million by volume (ppmv) to 51.4 ppmv (B-23 (14.5-16')). PID readings that are less than 10 ppmv are considered background level.
- Laboratory analysis indicated:
    - Of the PAHs:
        - Benzo(a)pyrene was detected with a concentration of 2.19 mg/kg at B-21 (2-3.5'). Benzo(b)fluoranthene was detected with a concentration of2.74 mg/kg at B-21 (2-3.5').These concentrations exceed the applicable ch. NR 720 Industrial Direct Contact RCL.
        - Benzo(a)anthracene was detected with a concentration of 2.09 mg/kg at B-21 (2-3.5'). Benzo(a)pyrene was detected with concentrations of 0.142 mg/kg at B-19 (0.5-3.5'), 0.744 mg/kg at B-23 (0.5-2), and 0.3 mg/kg at B-14 (1-3'). Dibenz(a,h)anthracene was detected with a concentration of 0.306 mg/kg at B-21 (2-3.5'). Indeno(1,2,3-cd)pyrene was detected with a concentration of 1.19 mg/kg at B-21 (2-3.5'). These concentrations exceed the applicable ch. NR 720 Non-Industrial Direct Contact RCLs.
        - Benzo(b)fluoranthene was detected with a concentration of 0.905 mg/kg at B-23 (0.5-2'). Chrysene was detected with concentrations of 0.173 mg/kg at B-19 (0.5-3.5'), 2.41 mg/kg at B-21 (2-3.5'), 0.827 mg/kg at B-23 (0.5-2'), and 0.30 at B-14 (1-3'). Naphthalene was detected with concentrations of 1.09 mg/kg at B-21 (2-3.5') and 3.51 mg/kg at B-21 (2-3.5'). These concentrations, along with previously stated concentrations of benzo(a)anthracene at B-21 (2-3.5') and B-23 (0.5-2'), and concentrations of benzo(b)fluoranthene at B-21 (2-3.5'), exceed the applicable ch. NR 720 Soil to Groundwater Pathway RCL.
    - Of the RCRA Metals:
        - Arsenic was detected with concentrations of 8.0 mg/kg at B-1 (2-3.5') and 9.1 mg/kg at B-21 (2-3.5'). Lead was detected with a concentration of 8,250 mg/kg at B-21 (2-3.5'). These concentrations exceed the applicable ch. NR 720 Industrial Direct Contact RCL.
        - Cadmium was detected with a concentration of 104 mg/kg at B-21 (2-3.5'). Lead was detected with a concentration of 429 at B-12 (2-3.5'). These concentrations exceed the applicable ch. NR 720 Industrial Direct Contact RCL.
        - At SB-21 (2-3.5) barium was detected with a concentration of 660 mg/kg, mercury with a concentration of 0.22 mg/kg, Selenium with a concentration of 3.9 mg/kg, and Silver at a concentration of 1.1 mg/kg. These concentrations,

along with previously stated concentraions of arsenic at B-1 (2-3.5') and B-21 (2-3.5'), cadmium at B-21 (2-3.5'), and lead at B-12 (2-3.5') and B-21 (2-3.5'), exceed the applicable ch. NR 720 Soil to Groundwater Pathway RCL.

- Of the VOCs:
  - 1,2-Dichlorobenzene was detected with a concentration of 1.29 mg/kg at B-21 (2-3.5'). 1,2-Dichloroethane was detected at concentrations of 0.0396 mg/kg at B-4 (2-3.5'), 0.174 mg/kg at B-12 (2-3.5'), and 0.115 mg/kg at B-23 (0.5-2'). 1-4-Dichlorobenzene was detected at concentrations of 0.306 mg/kg at B-12 (2-3.5') and 1.17 mg/kg at B-21 (2-3.5'). Chlorobenzene was detected at concentrations of 0.243 mg/kg at B-12 (2-3.5') and 1.43 mg/kg at B-21 (2-3.5'). Naphthalene was detected with a concentration of 1.14 mg/kg at B-21 (2-3.5'). These concentrations exceed the applicable ch. NR 720 Soil to Groundwater Pathway RCLs.

Table A.1. details the soil analytical results for the soil sampling activities. Figures B.2.a.i through B.2.a.iii illustrate the soil boring locations and soil contamination based upon analytical results. Figures B.3.a through B.3.a.ii show the plan view and geologic cross section from A to A'. Complete analytical reports and chain of custody are included in Appendix C.

Background Threshold Value

Arsenic was detected at concentrations above the ch. NR 720 Direct Contact Industrial RCLs or ch. NR 720 Direct Contact Industrial RCLs in all soil samples collected during the site investigation activities. However, the Background Threshold Value (BTV) is equal to 8.0 mg/kg, meaning that all values below the BTV are considered an exceedance of ch. NR 720 standards. After considering the BTV for arsenic, only samples collected at B-1 (2-3.5') and B-21 (2-3.5') are above the ch. NR 720 Direct Contact Industrial RCLs.

Methylene chloride was detected in all of the samples collected during the September 18, 2018 sampling event. The laboratory believed this to be caused by laboratory contamination, as it was present during the sample analysis procedures. Due to this, there concentrations are estimated, and are not considered above the ch. 720 NR Soil to Groundwater RCLs.

3.3 Vapor Intrusion Assessment

An analysis for the potential presence of a vapor intrusion concern onsite was completed that included an assessment of the contaminant type, identified concentrations, relative location, media impacted and existing site conditions. The assessment concluded that, though

contaminants of concern were identified, the concentrations of residual soils were at very low levels only exceeding the Soil to Groundwater Pathway RCLs. Additionally, part of the proactive construction plan included the installation of a sub-slab ventilation system designed to easily be converted to an active depressurized system should the need arise. The system is currently operating in a passive mode, though a wind driven turbine style vent has been installed to facilitate vapor removal as another proactive measure.

3.4 Emerging Contaminants (PFAS) Evaluation

An evaluation for the potential of PFAS compounds to have been historically or currently produced, used, handled, or stored onsite was conducted. The likelihood is minimal given the current and historic use of the site as a filling station, grocery store, and parking area; therefore, additional assessment of PFAs is not warranted.

3.5 Contaminant Migration

Local groundwater flow direction is expected to flow to the east towards Lake Michigan. Groundwater was not encountered during site investigation activities. The subject property is currently covered with some type of barrier/cap that infiltration is not likely.

4.0 REMEDIAL ACTIONS

One remedial option was assessed to address residual soil and groundwater contamination at the site. The remedial option included

1. Excavation of high-impacted areas, natural attenuation of residual soil impacts, and use of engineered barriers/surface cover (where existing) and institutional controls.

Based on investigative findings and field results, an excavation of the higher-impacted soils was needed. From June 2019 through June 2020 Kapur monitored soil excavation and relocation activities during the construction project. The work completed adhered to the approved Materials Management Plan with little to no deviation, except for less material being reused onsite due to unforeseen site/soil conditions, weather impacts and construction requirements. Some soils planned for reuse were deemed unsuitable as they did not meet compaction requirements and were transported offsite under approved waste manifest.

A total of 818.10 tons or an est. 585 cubic yards of impacted soil material was transported offsite for disposal as either low hazardous 'daily cover' or 'bio-treated' waste soil at Waste management – Orchard Ridge licensed landfill facility under approved manifest. Biotreated waste soil

originated from an area of contaminant impacts identified as a potential 'new' release during initial subsurface soil profiling and is listed as BRRTS #02-41-583465 1818 W. NATIONAL AVENUE. Throughout the course of excavation activities being performed, Kapur performed periodic inspections and field screening of the soils being disturbed. Soil conditions observed during construction did not vary significantly from those identified during previous geotechnical and soil profiling activities completed.

Onsite excavation activities and utility installations suggest the area of impact associated with the open ERP case is much smaller than originally estimated, as adjacent utility trench excavations did not trigger a reading above background levels on the PID nor were any stained or odorous soils noted. The same area was excavated down a minimum 2-3 feet as a large are of soil material onsite was deemed not suitable for construction and was transported to Waste Management Orchard Ridge landfill for disposal. The area was filled with large gravel/stone material and compacted acting as a tracking pad for vehicles entering and leaving the construction site. Groundwater was not encountered during excavation activities.

The area in question is now located mostly, if not entirely under an engineered barrier of asphalt driveway and concrete walkway. Research of the site history and potential contaminant source has been performed and though no clear point source for the petroleum contamination has been identified, the impacts are most likely attributed to historic filling (waste fill/foundry sand) that occurred onsite as previous commercial buildings were being razed and site grading was completed.

The area will be maintained to be sure the existing engineered barriers (cap) remains in place and without defect. Additionally, part of the proactive construction plan included installation of a sub-slab ventilation system designed to easily be converted to an active depressurized system should the need arise, and obvious volatile contaminated soils be encountered during construction. The system is currently operating in a passive mode though a wind driven turbine style vent has been installed to facilitate vapor removal as another proactive measure.

5.0 FINDINGS AND CONCLUSIONS

The findings and conclusions regarding Cristo Rey Jesuit High School – Historic Fill SI activities at 1818 West National Avenue in the City of Milwaukee, Wisconsin are summarized below:

Site Investigation Results

Soil

Site specific soil was generally composed of asphalt, concrete or topsoil / underlain by brown silty with depths ranging from 2 to 25 feet below ground surface (ft bgs). The brown silty clay was underlain by a silt and sandy silt.

SI activities indicate that subsurface contamination containing PAHs, RCRA Metals, and VOCs are present above the ch. NR 720 standards from approximately 0.5 to 13 ft bgs in various areas of the subject property. Analytical results indicate that subsurface contamination containing PAHs are present above the ch. NR 720 Direct Contact Non-Industrial RCLs from approximately 0.5 to 3.5 ft bgs at GP-14, B-19, and B-23 and above the ch. NR 720 Direct Contact Industrial RCLs from approximately 2 to 3.5 ft bgs in B-21. Subsurface contamination containing lead are present above the ch. NR 720 Direct Contact Non-Industrial RCLs from 2 to 3.5 ft bgs at B-12 and above the ch. NR 720 Soil to Groundwater RCLs from 0.5 to 2 ft bgs at B-23. There is soil contamination of arsenic above the ch. NR 720 Direct Contact Industrial RCLs from 2 to 3.5 ft bgs at B-1 and B-21. Also from 2 to 3.5 ft bgs at B21, there are lead is present above the ch. NR 720 Direct Contact Industrial RCLs, cadmium is above the ch. NR 720 Direct Contact Non-Industrial RCLs, and barium, mercury, selenuim, and silver are above the ch. NR 720 Soil to Groundwater RCLs.

Subsurface contamination containing VOCs are present above the ch. NR 720 Soil to Groundwater Pathway RCLs from approximately 2 to 3.5 ft bgs in B-21, 12 to 13.5 ft bgs in B-23, and 2 to 11 ft bgs in B-12.

In most soil borings, PAH, RCRA metals, and VOC contamination identified decreases with depth. Except VOC contamination in soil boing B-12 and B-23.

Remedial Actions

Based on these findings, the higher-impacted soils were excavated and transported offsite for disposal. A total of 818.10 tons of impacted soil was taken to the Waste Management – Orchard Ridge Landfill. Closure samples were not collected after the excavation activities. Therefore, Kapur has estimated the residual soil contamination based on infield soil screening and observations noted during excavation inspection. Residual naphthalene above the ch. NR 720 Soil to Groundwater RCLs and arsenic soil contamination above the ch. NR 720 Direct Contact Industrial RCLs remain in the areas of B-23 and B-1, respectively.

The redevelopment of the project site has been completed. During redevelopment activities, clean fill from the subject property and offsite was used to raise the surface elevation approximately 2-4 feet throughout the property. Currently the property consists of a school building, two asphalt parking areas, an athletic field, and landscaped greenspace and hardscape. The residual soil

contamination is now located mostly, if not entirely under an engineered barrier of asphalt parking area and concrete walkway. Research of the site history and potential contaminant source has been performed and though no clear point source for the petroleum contamination has been identified, the impacts are most likely attributed to historic filling (waste fill/foundry sand) that occurred onsite as previous commercial buildings were being razed and site grading was completed.

The area will be maintained to be sure the existing engineered barriers (cap) remains in place and without defect. Additionally, part of the proactive construction plan included installation of a sub-slab ventilation system designed to easily be converted to an active depressurized system should the need arise, and obvious volatile contaminated soils be encountered during construction. The system is currently operating in a passive mode though a wind driven turbine style vent has been installed to facilitate vapor removal as another proactive measure.

6.0 OPINIONS AND RECOMMEDATIONS

Based on the findings and conclusions for the Cristo Rey Jesuit High School – Historic Fill property SI activities at 1818 West National Avenue in the City of Milwaukee, Wisconsin, Kapur makes the following recommendations:

The above redevelopment and monitoring activities have shown that the current site conditions and development are protective of the soil direct contact, infiltration, and vapor intrusion pathway risk factors. The 2-4 feet of clean fill used to raise the property ensures that there is no residual contamination within four feet of ground surface. The engineered barriers constructed over the residual contamination also limits the potential for direct contact. Groundwater was not encountered during the site investigation activities, so it is unlikely for the migration of any residual contamination. Natural attenuation processes are anticipated to further breakdown the residual contamination. As such, Kapur does not believe additional investigation activities are warranted and the case be approved to submit for closure consideration.

Based upon the analytical results and current site conditions, we believe the subject property meets the criteria to submit for Case Closure per ch. NR 726 with a PAL exemption for the soil impacts remaining. Preparation of Case Closure documentation for review and closure approval is warranted for the open ERP activity Cristo Rey Jesuit High School – Historic Fill (BRRTS #02-41-583465) on the subject property.

7.0 REFERENCES

1. Milwaukee County GIS and Land Information Interactive Map https://lio.milwaukeecountywi.gov/Html5Viewer/index.html?viewer=MCLIO-Map
2. United States Geological Survey Topographic Maps (2018). Milwaukee, Wisconsin Quadrangle, 7.5 Minute Series.
3. Syverson, K.M. Clayton, L., Attig, J.W., and Mickelson, D,M., eds., 2011, Lexicon of Pleistocene Stratigraphic Units of Wisconsin: Wisconsin Geological and Natural History Survey Technical Report 1, 180 p.
4. M. G. Mudrey, Jr, B.A. Brown and J. K. Greenberg (1982). Bed Rock Geologic Map of Wisconsin.
5. Freeze, R.A., and Cherry, J.A., 1979, Groundwater: Englewood Cliffs, NJ, Prentice-Hall, 604 p.

Disclaimer:

This investigation has been conducted to assess likely sources of environmental concern and does not represent an exhaustive study of all possible concerns at the Site. The conclusions and recommendations contained herein have been developed through the interpretation of currently available information and represent the professional opinion of Kapur. Other than this, no warranty is implied or intended.

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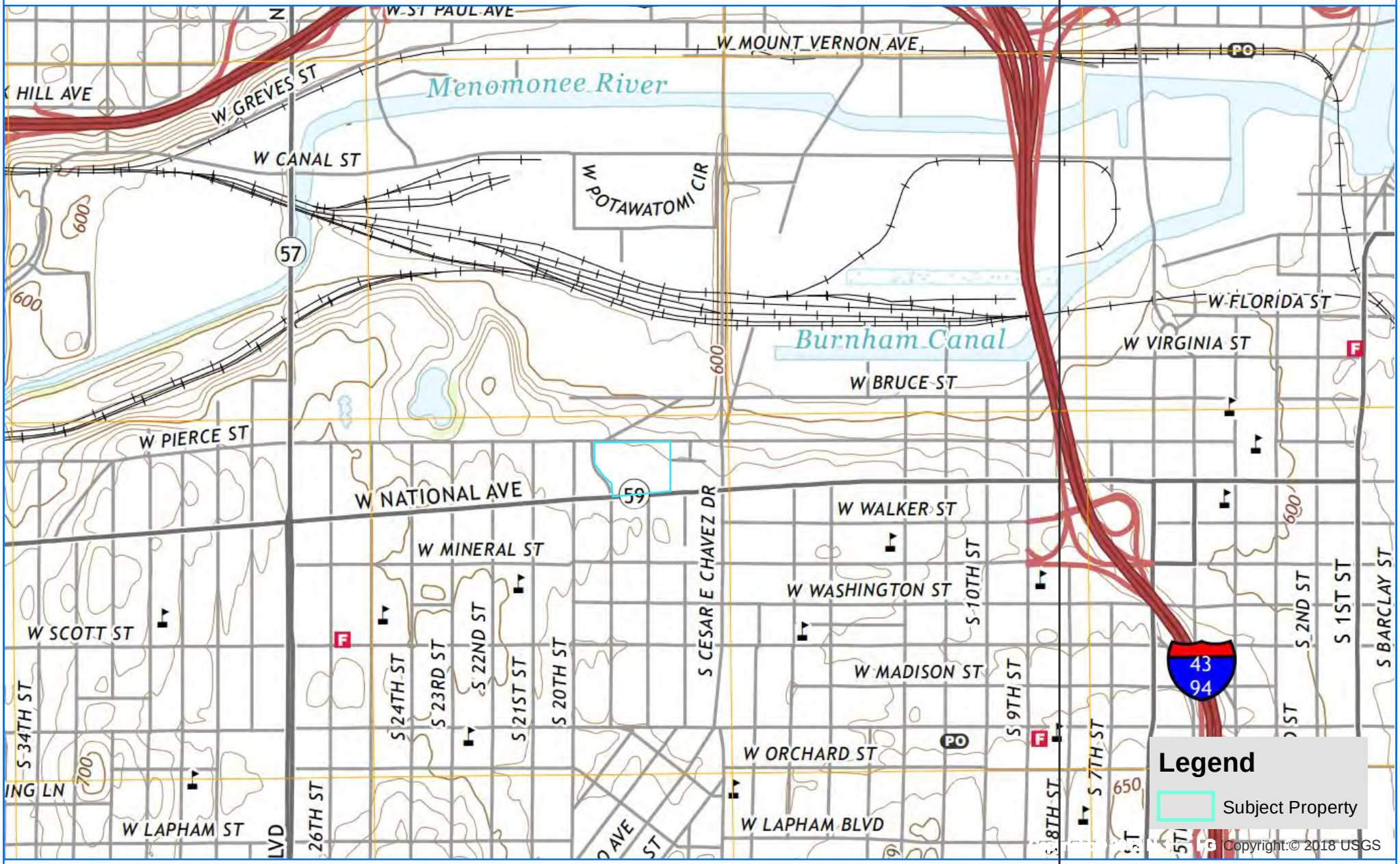
SITE MAPS AND FIGURES



SHEET: LOCATION MAP

FIGURE: B.1.a

PROJECT: CRISTO REY JESUIT HIGH SCHOOL - HISTORIC FILL

LOCATION: 1818 WEST NATIONAL AVENUE, MILWAUKEE, WISCONSIN 53204

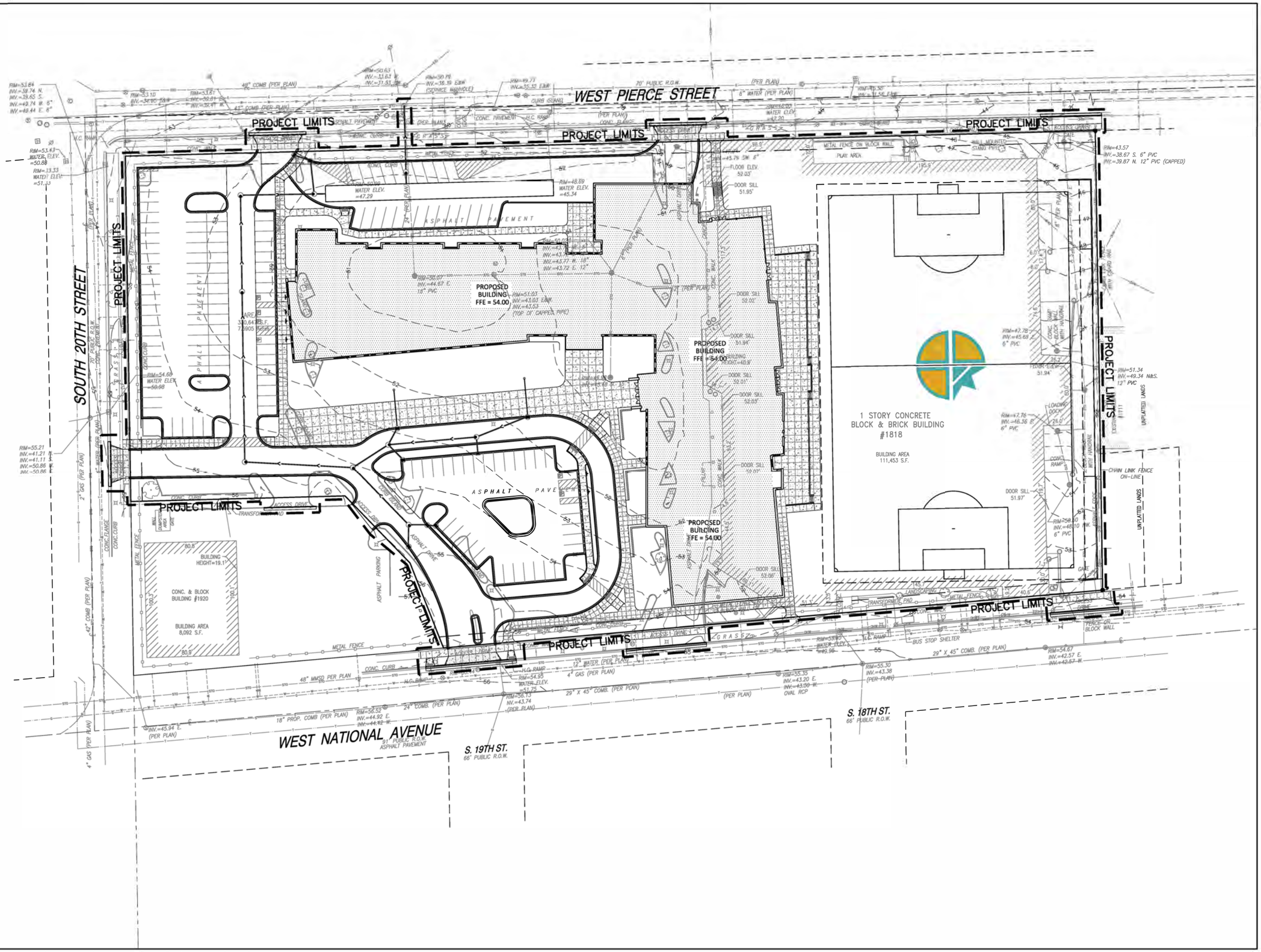
NORTH ARROW:

0 300 600 Feet

1 inch = 600 feet

we listen. we innovate. we turn your vision into reality.

DRAWN BY:	CHECKED BY:	APPROVED BY:	PROJECT NO.	DATE:	REVISION DATE:
JMS	TEH	TWP	20.0258.01	07/14/2020	



FILENAME: S:_SiteDsgn\Bray Architects\180231 Cristo Rey Jesuit HS\Environmental\Figures\DETAILED SITE MAP.dwg

KAPUR & ASSOCIATES, INC.
CONSULTING ENGINEERS
7711 N. PORT WASHINGTON ROAD
MILWAUKEE, WISCONSIN 53217
Phone: 414.351.6668 Fax: 414.351.4117
www.kapurengineers.com

PROJECT:
CRISTO REY JESUIT HIGH SCHOOL

LOCATION:
1818 WEST NATIONAL AVE.
MILWAUKEE, WI 53204

CLIENT:

RELEASE:

REVISIONS:

#	DATE	DESCRIPTION

NORTH ARROW:

SCALE: 1 = 80'
0 40 80

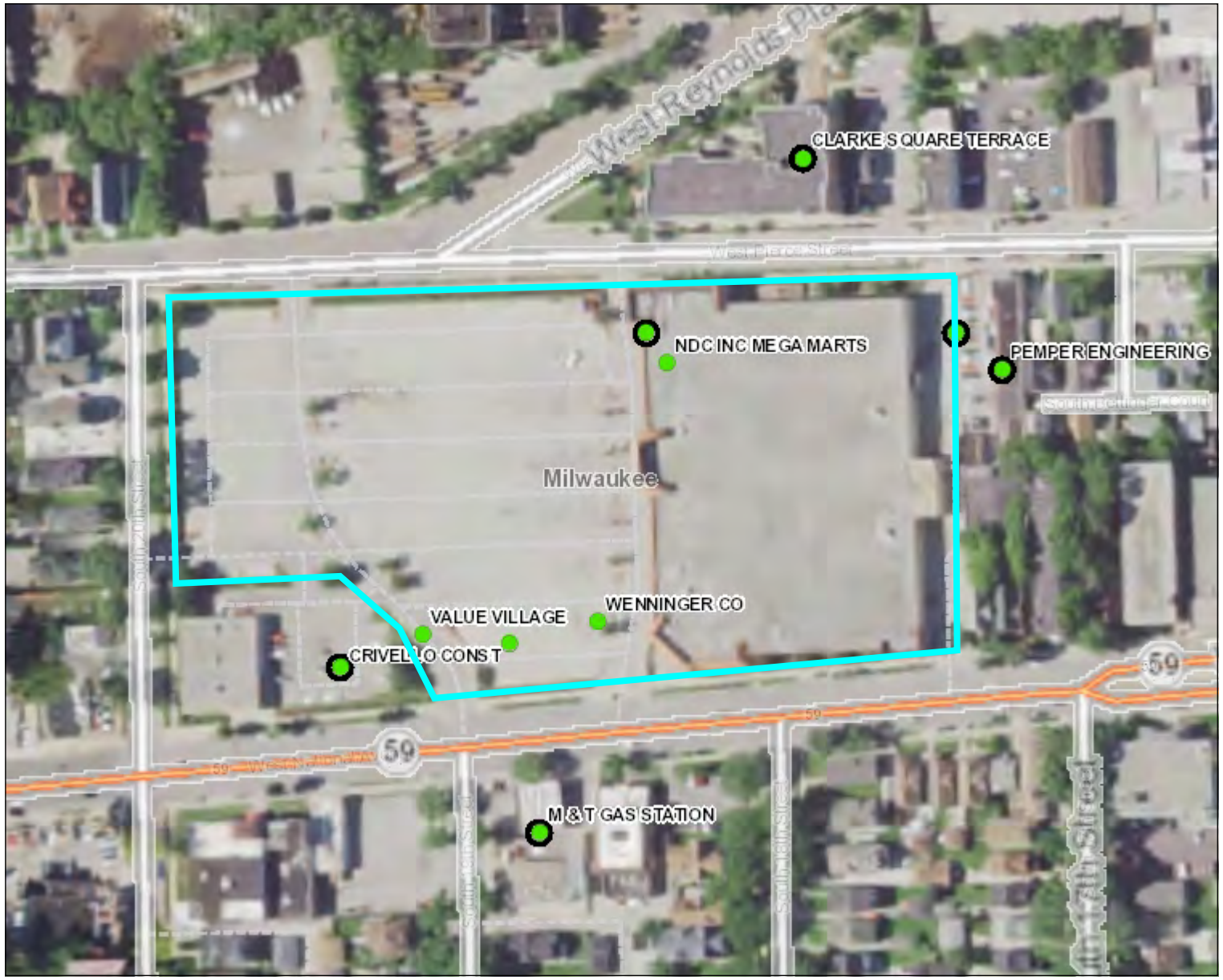
SEAL:

SHEET:
DETAILED SITE MAP

PROJECT MANAGER:	TP
PROJECT NUMBER:	180231.01
DATE:	02/04/2019

SHEET NUMBER:
B.1.b.

WDNR RR Sites Map



Legend

- Open Site
- Closed Site
- Continuing Obligations Apply
- Facility-wide Site

Notes

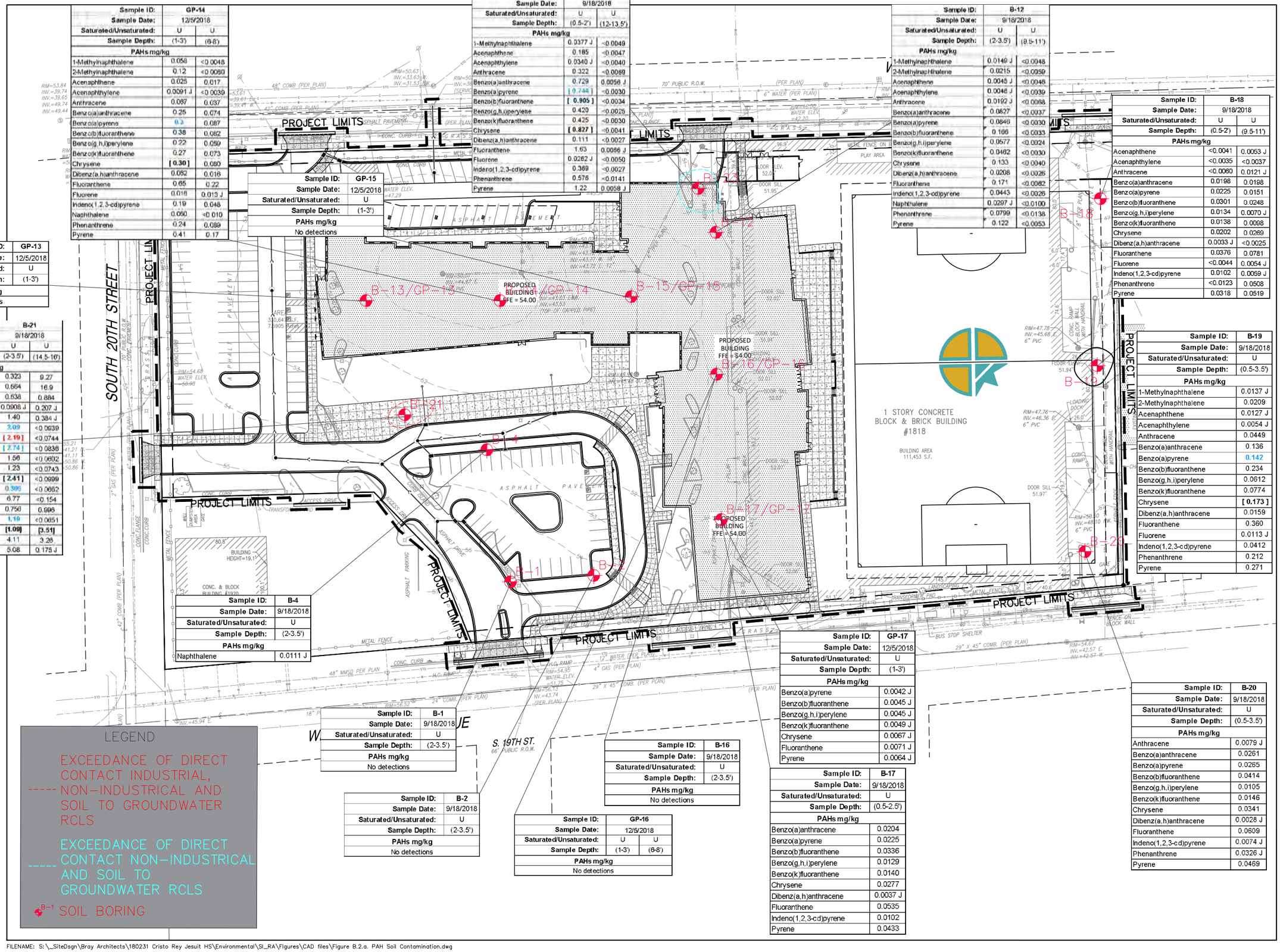
1818 West National Avenue

0.1 0 0.03 0.1 Miles

NAD_1983_HARN_Wisconsin_TM

1: 1,980

Note: Not all sites are mapped.



Sample ID:	GP-14	
Sample Date:	12/5/2018	
Saturated/Unsaturated:	U	U
Sample Depth:	(1-3')	(6-8')
PAHs mg/kg		
1-Methylnaphthalene	0.058	<0.0048
2-Methylnaphthalene	0.12	<0.0060
Acenaphthene	0.025	0.017
Acenaphthylene	0.0091 J	<0.0039
Anthracene	0.087	0.037
Benzo(a)anthracene	0.25	0.074
Benzo(a)pyrene	0.3	0.087
Benzo(b)fluoranthene	0.38	0.082
Benzo(g,h,i)perylene	0.22	0.059
Benzo(k)fluoranthene	0.27	0.073
Chrysene	[0.30]	0.080
Dibenz(a,h)anthracene	0.062	0.016
Fluoranthene	0.65	0.22
Fluorene	0.016	0.013 J
Indeno(1,2,3-cd)pyrene	0.19	0.048
Naphthalene	0.060	<0.010
Phenanthrene	0.24	0.089
Pyrene	0.41	0.17

Sample ID:	B-23	
Sample Date:	9/18/2018	
Saturated/Unsaturated:	U	U
Sample Depth:	(0.5-2')	(12-13.5')
PAHs mg/kg		
1-Methylnaphthalene	0.0377 J	<0.0049
Acenaphthene	0.185	<0.0047
Acenaphthylene	0.0340 J	<0.0040
Anthracene	0.322	<0.0069
Benzo(a)anthracene	0.729	0.0056 J
Benzo(a)pyrene	[0.744]	<0.0030
Benzo(b)fluoranthene	[0.905]	<0.0034
Benzo(g,h,i)perylene	0.420	<0.0025
Benzo(k)fluoranthene	0.425	<0.0030
Chrysene	[0.827]	<0.0041
Dibenz(a,h)anthracene	0.111	<0.0027
Fluoranthene	1.63	0.0056 J
Fluorene	0.0282 J	<0.0050
Indeno(1,2,3-cd)pyrene	0.369	<0.0027
Phenanthrene	0.576	<0.0141
Pyrene	1.22	0.0058 J

Sample ID:	GP-15
Sample Date:	12/5/2018
Saturated/Unsaturated:	U
Sample Depth:	(1-3')
PAHs mg/kg	
No detections	

Sample ID:	B-12	
Sample Date:	9/18/2018	
Saturated/Unsaturated:	U	U
Sample Depth:	(2-3.5')	(9.5-11')
PAHs mg/kg		
1-Methylnaphthalene	0.0149 J	<0.0048
2-Methylnaphthalene	0.0215	<0.0059
Acenaphthene	0.0045 J	<0.0046
Acenaphthylene	0.0046 J	<0.0039
Anthracene	0.0192 J	<0.0068
Benzo(a)anthracene	0.0827	<0.0037
Benzo(a)pyrene	0.0846	<0.0030
Benzo(b)fluoranthene	0.166	<0.0033
Benzo(g,h,i)perylene	0.0577	<0.0024
Benzo(k)fluoranthene	0.0462	<0.0030
Chrysene	0.133	<0.0040
Dibenz(a,h)anthracene	0.0208	<0.0026
Fluoranthene	0.171	<0.0062
Indeno(1,2,3-cd)pyrene	0.0443	<0.0026
Naphthalene	0.0297 J	<0.0100
Phenanthrene	0.0799	<0.0138
Pyrene	0.122	<0.0053

Sample ID:	B-18	
Sample Date:	9/18/2018	
Saturated/Unsaturated:	U	U
Sample Depth:	(0.5-2')	(9.5-11')
PAHs mg/kg		
Acenaphthene	<0.0041	0.0053 J
Acenaphthylene	<0.0035	<0.0037
Anthracene	<0.0060	0.0121 J
Benzo(a)anthracene	0.0198	0.0198
Benzo(a)pyrene	0.0225	0.0151
Benzo(b)fluoranthene	0.0301	0.0248
Benzo(g,h,i)perylene	0.0134	0.0070 J
Benzo(k)fluoranthene	0.0138	0.0098
Chrysene	0.0202	0.0269
Dibenz(a,h)anthracene	0.0033 J	<0.0025
Fluoranthene	0.0376	0.0781
Fluorene	<0.0044	0.0054 J
Indeno(1,2,3-cd)pyrene	0.0102	0.0059 J
Phenanthrene	<0.0123	0.0508
Pyrene	0.0318	0.0519

Sample ID:	GP-13
Sample Date:	12/5/2018
Saturated/Unsaturated:	U
Sample Depth:	(1-3')
PAHs mg/kg	
No detections	

Sample ID:	B-21	
Sample Date:	9/18/2018	
Saturated/Unsaturated:	U	U
Sample Depth:	(2-3.5')	(14.5-16')
PAHs mg/kg		
1-Methylnaphthalene	0.323	9.27
2-Methylnaphthalene	0.554	16.9
Acenaphthene	0.538	0.884
Acenaphthylene	0.0908 J	0.207 J
Anthracene	1.40	0.384 J
Benzo(a)anthracene	2.09	<0.0939
Benzo(a)pyrene	[2.19]	<0.0744
Benzo(b)fluoranthene	[2.74]	<0.0836
Benzo(g,h,i)perylene	1.56	<0.0602
Benzo(k)fluoranthene	1.23	<0.0743
Chrysene	[2.41]	<0.0999
Dibenz(a,h)anthracene	0.306	<0.0662
Fluoranthene	6.77	<0.154
Fluorene	0.750	0.995
Indeno(1,2,3-cd)pyrene	1.19	<0.0651
Naphthalene	[1.09]	[3.51]
Phenanthrene	4.11	3.26
Pyrene	5.08	0.175 J

Sample ID:	B-4
Sample Date:	9/18/2018
Saturated/Unsaturated:	U
Sample Depth:	(2-3.5')
PAHs mg/kg	
Naphthalene	0.0111 J

Sample ID:	B-1
Sample Date:	9/18/2018
Saturated/Unsaturated:	U
Sample Depth:	(2-3.5')
PAHs mg/kg	
No detections	

Sample ID:	B-2
Sample Date:	9/18/2018
Saturated/Unsaturated:	U
Sample Depth:	(2-3.5')
PAHs mg/kg	
No detections	

Sample ID:	B-16
Sample Date:	9/18/2018
Saturated/Unsaturated:	U
Sample Depth:	(2-3.5')
PAHs mg/kg	
No detections	

Sample ID:	GP-16	
Sample Date:	12/5/2018	
Saturated/Unsaturated:	U	U
Sample Depth:	(1-3')	(6-8')
PAHs mg/kg		
No detections		

Sample ID:	GP-17
Sample Date:	12/5/2018
Saturated/Unsaturated:	U
Sample Depth:	(1-3')
PAHs mg/kg	
Benzo(a)pyrene	0.0042 J
Benzo(b)fluoranthene	0.0045 J
Benzo(g,h,i)perylene	0.0045 J
Benzo(k)fluoranthene	0.0049 J
Chrysene	0.0067 J
Fluoranthene	0.0071 J
Pyrene	0.0064 J

Sample ID:	B-17
Sample Date:	9/18/2018
Saturated/Unsaturated:	U
Sample Depth:	(0.5-2.5')
PAHs mg/kg	
Benzo(a)anthracene	0.0204
Benzo(a)pyrene	0.0225
Benzo(b)fluoranthene	0.0336
Benzo(g,h,i)perylene	0.0129
Benzo(k)fluoranthene	0.0140
Chrysene	0.0277
Dibenz(a,h)anthracene	0.0037 J
Fluoranthene	0.0535
Indeno(1,2,3-cd)pyrene	0.0102
Pyrene	0.0433

Sample ID:	B-19
Sample Date:	9/18/2018
Saturated/Unsaturated:	U
Sample Depth:	(0.5-3.5')
PAHs mg/kg	
1-Methylnaphthalene	0.0137 J
2-Methylnaphthalene	0.0209
Acenaphthene	0.0127 J
Acenaphthylene	0.0054 J
Anthracene	0.0449
Benzo(a)anthracene	0.136
Benzo(a)pyrene	0.142
Benzo(b)fluoranthene	0.234
Benzo(g,h,i)perylene	0.0612
Benzo(k)fluoranthene	0.0774
Chrysene	[0.173]
Dibenz(a,h)anthracene	0.0159
Fluoranthene	0.360
Fluorene	0.0113 J
Indeno(1,2,3-cd)pyrene	0.0412
Phenanthrene	0.212
Pyrene	0.271

Sample ID:	B-20
Sample Date:	9/18/2018
Saturated/Unsaturated:	U
Sample Depth:	(0.5-3.5')
PAHs mg/kg	
Anthracene	0.0079 J
Benzo(a)anthracene	0.0261
Benzo(a)pyrene	0.0265
Benzo(b)fluoranthene	0.0414
Benzo(g,h,i)perylene	0.0105
Benzo(k)fluoranthene	0.0146
Chrysene	0.0341
Dibenz(a,h)anthracene	0.0028 J
Fluoranthene	0.0609
Indeno(1,2,3-cd)pyrene	0.0074 J
Phenanthrene	0.0326 J
Pyrene	0.0469

LEGEND

EXCEEDANCE OF DIRECT CONTACT INDUSTRIAL, NON-INDUSTRICAL AND SOIL TO GROUNDWATER RCLS

EXCEEDANCE OF DIRECT CONTACT NON-INDUSTRICAL AND SOIL TO GROUNDWATER RCLS

B-1 SOIL BORING

KAPUR & ASSOCIATES, INC.
CONSULTING ENGINEERS
7711 N. PORT WASHINGTON ROAD
MILWAUKEE, WISCONSIN 53217
Phone: 414.351.6668 Fax: 414.351.4117
www.kapurengineers.com

PROJECT:
CRISTO REY JESUIT HIGH SCHOOL

LOCATION:
1818 WEST NATIONAL AVE.
MILWAUKEE, WI 53204

CLIENT:

RELEASE:

REVISIONS:

#	DATE	DESCRIPTION

NORTH ARROW:

SCALE: 1 = 80'
0 40 80

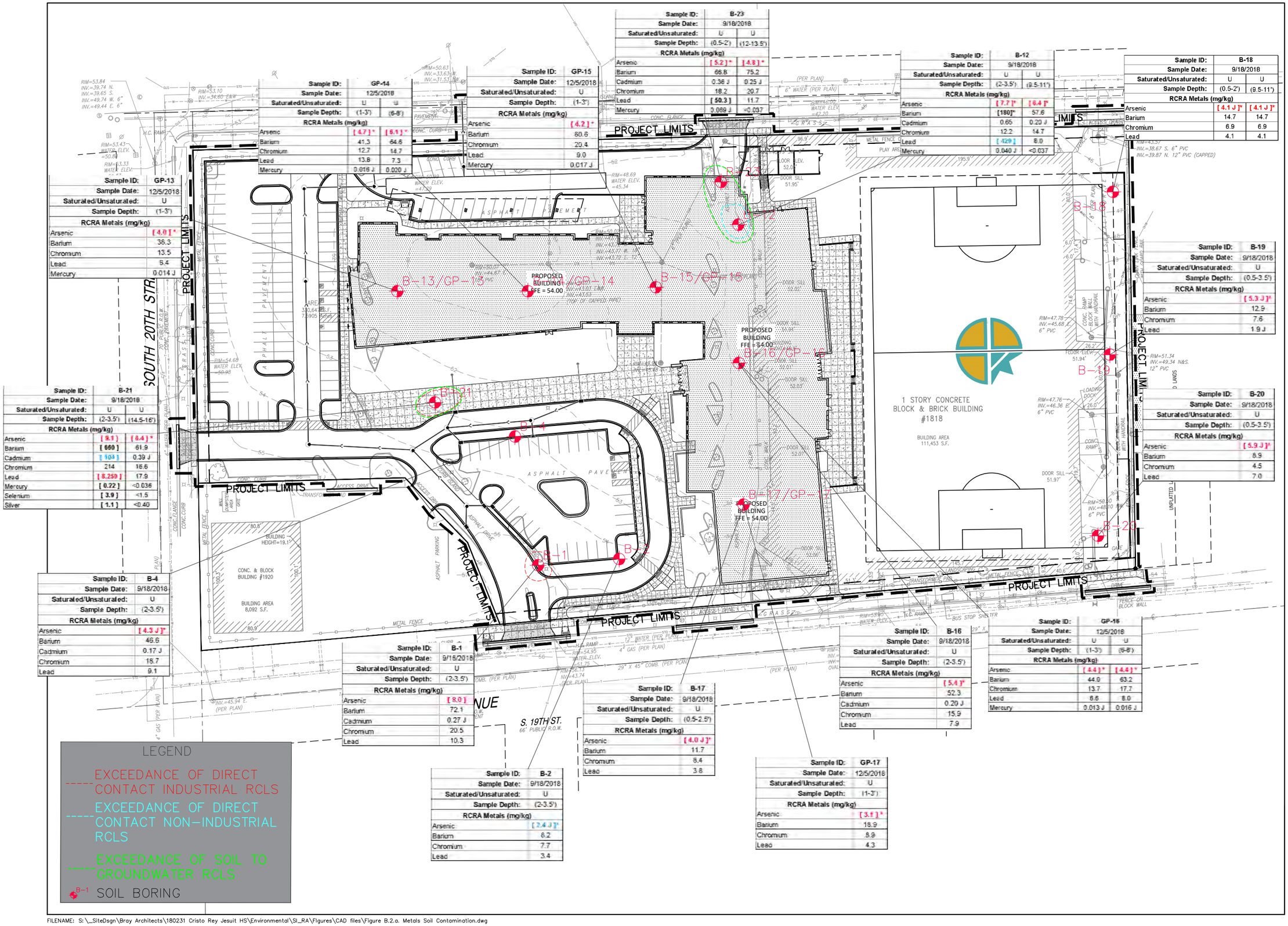
SEAL:

SHEET:
PAH SOIL CONTAMINATION

PROJECT MANAGER: GZ
PROJECT NUMBER: 180231.01
DATE: 07/21/2022

SHEET NUMBER:
B.2.A.i

FILENAME: S:_SiteDsgn\Bray Architects\180231 Cristo Rey Jesuit HS\Environmental\SI_RA\Figures\CAD files\Figure B.2.a. PAH Soil Contamination.dwg



Sample ID:	GP-13
Sample Date:	12/5/2018
Saturated/Unsaturated:	U
Sample Depth:	(1-3')
RCRA Metals (mg/kg)	
Arsenic	[4.0]*
Barium	38.3
Chromium	13.5
Lead	5.4
Mercury	0.014 J

Sample ID:	GP-14	
Sample Date:	12/5/2018	
Saturated/Unsaturated:	U	U
Sample Depth:	(1-3')	(6-8')
RCRA Metals (mg/kg)		
Arsenic	[4.7]*	[5.1]*
Barium	41.3	64.6
Chromium	12.7	14.7
Lead	13.8	7.3
Mercury	0.016 J	0.020 J

Sample ID:	GP-15
Sample Date:	12/5/2018
Saturated/Unsaturated:	U
Sample Depth:	(1-3')
RCRA Metals (mg/kg)	
Arsenic	[4.2]*
Barium	60.6
Chromium	20.4
Lead	9.0
Mercury	0.017 J

Sample ID:	B-23	
Sample Date:	9/18/2018	
Saturated/Unsaturated:	U	U
Sample Depth:	(0.5-2')	(12-13.5')
RCRA Metals (mg/kg)		
Arsenic	[5.2]*	[4.8]*
Barium	66.8	75.2
Cadmium	0.36 J	0.25 J
Chromium	18.2	20.7
Lead	[50.3]	11.7
Mercury	0.069 J	<0.037

Sample ID:	B-12	
Sample Date:	9/18/2018	
Saturated/Unsaturated:	U	U
Sample Depth:	(2-3.5')	(9.5-11')
RCRA Metals (mg/kg)		
Arsenic	[7.7]*	[8.4]*
Barium	[180]*	57.6
Cadmium	0.65	0.20 J
Chromium	12.2	14.7
Lead	[429]	8.0
Mercury	0.040 J	<0.037

Sample ID:	B-18	
Sample Date:	9/18/2018	
Saturated/Unsaturated:	U	U
Sample Depth:	(0.5-2')	(9.5-11')
RCRA Metals (mg/kg)		
Arsenic	[4.1 J]*	[4.1 J]*
Barium	14.7	14.7
Chromium	6.9	6.9
Lead	4.1	4.1

Sample ID:	B-19
Sample Date:	9/18/2018
Saturated/Unsaturated:	U
Sample Depth:	(0.5-3.5')
RCRA Metals (mg/kg)	
Arsenic	[5.3 J]*
Barium	12.9
Chromium	7.6
Lead	1.9 J

Sample ID:	B-20
Sample Date:	9/18/2018
Saturated/Unsaturated:	U
Sample Depth:	(0.5-3.5')
RCRA Metals (mg/kg)	
Arsenic	[5.9 J]*
Barium	8.9
Chromium	4.5
Lead	7.0

Sample ID:	B-21	
Sample Date:	9/18/2018	
Saturated/Unsaturated:	U	U
Sample Depth:	(2-3.5')	(14.5-16')
RCRA Metals (mg/kg)		
Arsenic	[9.1]	[8.4]*
Barium	[660]	61.9
Cadmium	[104]	0.39 J
Chromium	214	16.6
Lead	[8,250]	17.9
Mercury	[0.22]	<0.036
Selenium	[3.9]	<1.5
Silver	[1.1]	<0.40

Sample ID:	B-4
Sample Date:	9/18/2018
Saturated/Unsaturated:	U
Sample Depth:	(2-3.5')
RCRA Metals (mg/kg)	
Arsenic	[4.3 J]*
Barium	46.6
Cadmium	0.17 J
Chromium	18.7
Lead	9.1

Sample ID:	B-1
Sample Date:	9/18/2018
Saturated/Unsaturated:	U
Sample Depth:	(2-3.5')
RCRA Metals (mg/kg)	
Arsenic	[8.0]
Barium	72.1
Cadmium	0.27 J
Chromium	20.5
Lead	10.3

Sample ID:	B-2
Sample Date:	9/18/2018
Saturated/Unsaturated:	U
Sample Depth:	(2-3.5')
RCRA Metals (mg/kg)	
Arsenic	[2.4 J]*
Barium	8.2
Chromium	7.7
Lead	3.4

Sample ID:	B-17
Sample Date:	9/18/2018
Saturated/Unsaturated:	U
Sample Depth:	(0.5-2.5')
RCRA Metals (mg/kg)	
Arsenic	[4.0 J]*
Barium	11.7
Chromium	8.4
Lead	3.8

Sample ID:	B-16
Sample Date:	9/18/2018
Saturated/Unsaturated:	U
Sample Depth:	(2-3.5')
RCRA Metals (mg/kg)	
Arsenic	[5.4]*
Barium	52.3
Cadmium	0.20 J
Chromium	15.9
Lead	7.9

Sample ID:	GP-16	
Sample Date:	12/5/2018	
Saturated/Unsaturated:	U	U
Sample Depth:	(1-3')	(6-8')
RCRA Metals (mg/kg)		
Arsenic	[4.4]*	[4.4]*
Barium	44.0	63.2
Chromium	13.7	17.7
Lead	8.6	8.9
Mercury	0.013 J	0.016 J

Sample ID:	GP-17
Sample Date:	12/5/2018
Saturated/Unsaturated:	U
Sample Depth:	(1-3')
RCRA Metals (mg/kg)	
Arsenic	[3.1]*
Barium	18.9
Chromium	8.9
Lead	4.3

LEGEND

- EXCEEDANCE OF DIRECT CONTACT INDUSTRIAL RCLS
- EXCEEDANCE OF DIRECT CONTACT NON-INDUSTRIAL RCLS
- EXCEEDANCE OF SOIL TO GROUNDWATER RCLS
- B-1 SOIL BORING

FILENAME: S:_SiteDsgn\Bray Architects\180231 Cristo Rey Jesuit HS\Environmental\SI_RA\Figures\CAD files\Figure B.2.a. Metals Soil Contamination.dwg

KAPUR & ASSOCIATES, INC.
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PROJECT:
CRISTO REY JESUIT HIGH SCHOOL

LOCATION:
1818 WEST NATIONAL AVE.
MILWAUKEE, WI 53204

CLIENT:

RELEASE:

REVISIONS:

#	DATE	DESCRIPTION

NORTH ARROW:

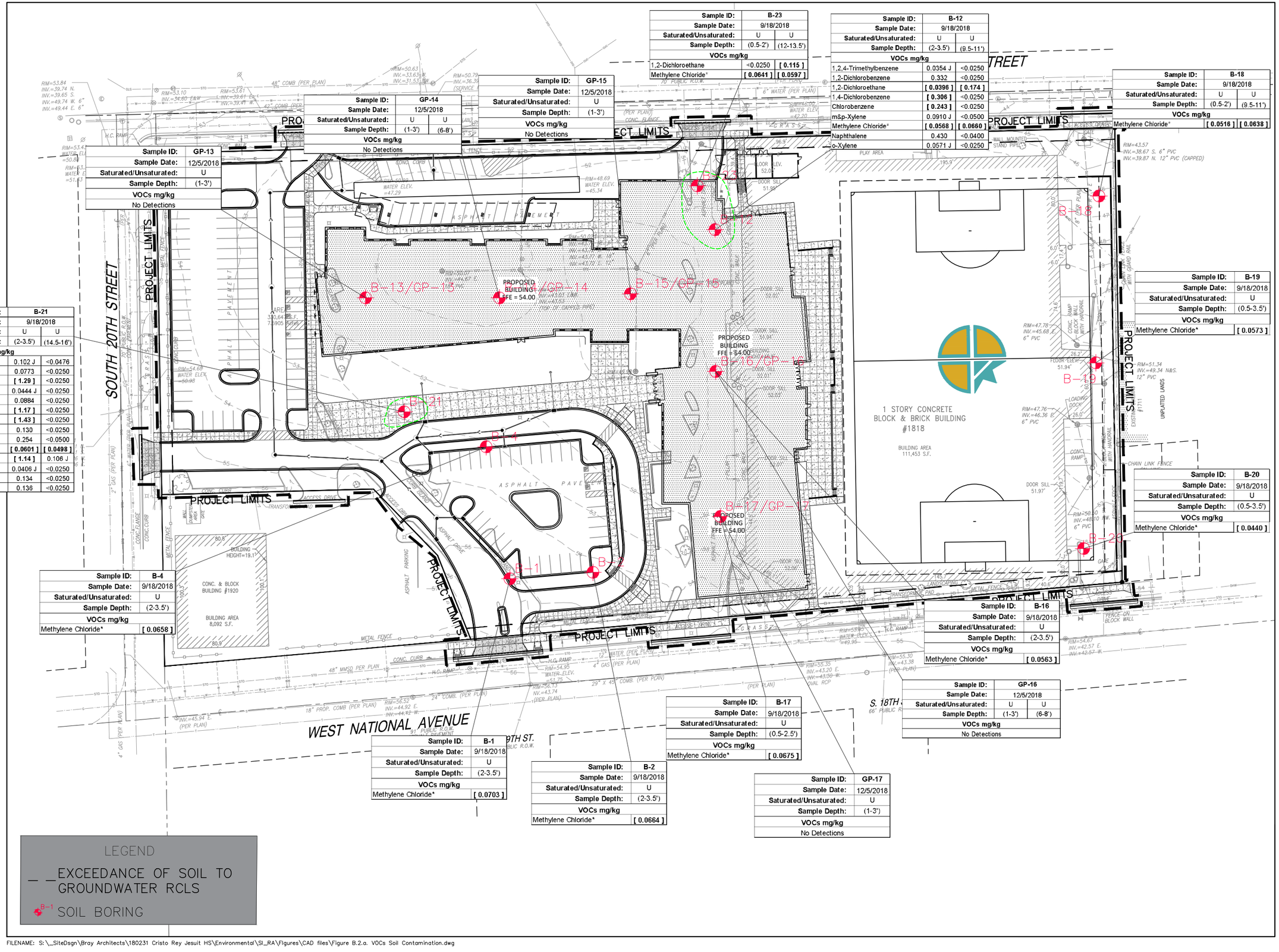
SCALE: 1 = 80'
0 40 80

SEAL:

SHEET:
METALS SOIL CONTAMINATION

PROJECT MANAGER:	GZ
PROJECT NUMBER:	180231.01
DATE:	07/21/2022

SHEET NUMBER:
B.2.a.ii



Sample ID:	B-21	
Sample Date:	9/18/2018	
Saturated/Unsaturated:	U	U
Sample Depth:	(2-3.5')	(14.5-16')
VOCs mg/kg		
1,2,4-Trichlorobenzene	0.102 J	<0.0476
1,2,4-Trimethylbenzene	0.0773	<0.0250
1,2-Dichlorobenzene	[1.29]	<0.0250
1,3,5-Trimethylbenzene	0.0444 J	<0.0250
1,3-Dichlorobenzene	0.0884	<0.0250
1,4-Dichlorobenzene	[1.17]	<0.0250
Chlorobenzene	[1.43]	<0.0250
Ethylbenzene	0.130	<0.0250
m&p-Xylene	0.254	<0.0500
Methylene Chloride*	[0.0601]	[0.0498]
Naphthalene	[1.14]	0.106 J
n-Butylbenzene	0.0406 J	<0.0250
o-Xylene	0.134	<0.0250
Toluene	0.136	<0.0250

Sample ID:	GP-13
Sample Date:	12/5/2018
Saturated/Unsaturated:	U
Sample Depth:	(1-3')
VOCs mg/kg	
No Detections	

Sample ID:	GP-14	
Sample Date:	12/5/2018	
Saturated/Unsaturated:	U	U
Sample Depth:	(1-3')	(6-8')
VOCs mg/kg		
No Detections		

Sample ID:	GP-15
Sample Date:	12/5/2018
Saturated/Unsaturated:	U
Sample Depth:	(1-3')
VOCs mg/kg	
No Detections	

Sample ID:	B-23	
Sample Date:	9/18/2018	
Saturated/Unsaturated:	U	U
Sample Depth:	(0.5-2')	(12-13.5')
VOCs mg/kg		
1,2-Dichloroethane	<0.0250	[0.115]
Methylene Chloride*	[0.0641]	[0.0597]

Sample ID:	B-12	
Sample Date:	9/18/2018	
Saturated/Unsaturated:	U	U
Sample Depth:	(2-3.5')	(9.5-11')
VOCs mg/kg		
1,2,4-Trimethylbenzene	0.0354 J	<0.0250
1,2-Dichlorobenzene	0.332	<0.0250
1,2-Dichloroethane	[0.0396]	[0.174]
1,4-Dichlorobenzene	[0.306]	<0.0250
Chlorobenzene	[0.243]	<0.0250
m&p-Xylene	0.0910 J	<0.0500
Methylene Chloride*	[0.0568]	[0.0660]
Naphthalene	0.430	<0.0400
o-Xylene	0.0571 J	<0.0250

Sample ID:	B-18	
Sample Date:	9/18/2018	
Saturated/Unsaturated:	U	U
Sample Depth:	(0.5-2')	(9.5-11')
VOCs mg/kg		
Methylene Chloride*	[0.0516]	[0.0638]

Sample ID:	B-19
Sample Date:	9/18/2018
Saturated/Unsaturated:	U
Sample Depth:	(0.5-3.5')
VOCs mg/kg	
Methylene Chloride*	[0.0573]

Sample ID:	B-20
Sample Date:	9/18/2018
Saturated/Unsaturated:	U
Sample Depth:	(0.5-3.5')
VOCs mg/kg	
Methylene Chloride*	[0.0440]

Sample ID:	B-4
Sample Date:	9/18/2018
Saturated/Unsaturated:	U
Sample Depth:	(2-3.5')
VOCs mg/kg	
Methylene Chloride*	[0.0658]

Sample ID:	B-16
Sample Date:	9/18/2018
Saturated/Unsaturated:	U
Sample Depth:	(2-3.5')
VOCs mg/kg	
Methylene Chloride*	[0.0563]

Sample ID:	GP-16	
Sample Date:	12/5/2018	
Saturated/Unsaturated:	U	U
Sample Depth:	(1-3')	(6-8')
VOCs mg/kg		
No Detections		

Sample ID:	B-1
Sample Date:	9/18/2018
Saturated/Unsaturated:	U
Sample Depth:	(2-3.5')
VOCs mg/kg	
Methylene Chloride*	[0.0703]

Sample ID:	B-2
Sample Date:	9/18/2018
Saturated/Unsaturated:	U
Sample Depth:	(2-3.5')
VOCs mg/kg	
Methylene Chloride*	[0.0664]

Sample ID:	B-17
Sample Date:	9/18/2018
Saturated/Unsaturated:	U
Sample Depth:	(0.5-2.5')
VOCs mg/kg	
Methylene Chloride*	[0.0675]

Sample ID:	GP-17
Sample Date:	12/5/2018
Saturated/Unsaturated:	U
Sample Depth:	(1-3')
VOCs mg/kg	
No Detections	

LEGEND

EXCEEDANCE OF SOIL TO GROUNDWATER RCLS

B-1 SOIL BORING

FILENAME: S:_SiteDsgn\Bray Architects\180231 Cristo Rey Jesuit HS\Environmental\SI_RA\Figures\CAD files\Figure B.2.a. VOCs Soil Contamination.dwg

KAPUR & ASSOCIATES, INC.
CONSULTING ENGINEERS
7711 N. PORT WASHINGTON ROAD
MILWAUKEE, WISCONSIN 53217
Phone: 414.351.6668 Fax: 414.351.4117
www.kapurengineers.com

PROJECT:
CRISTO REY JESUIT HIGH SCHOOL

LOCATION:
1818 WEST NATIONAL AVE.
MILWAUKEE, WI 53204

CLIENT:

RELEASE:

REVISIONS:

#	DATE	DESCRIPTION

NORTH ARROW:

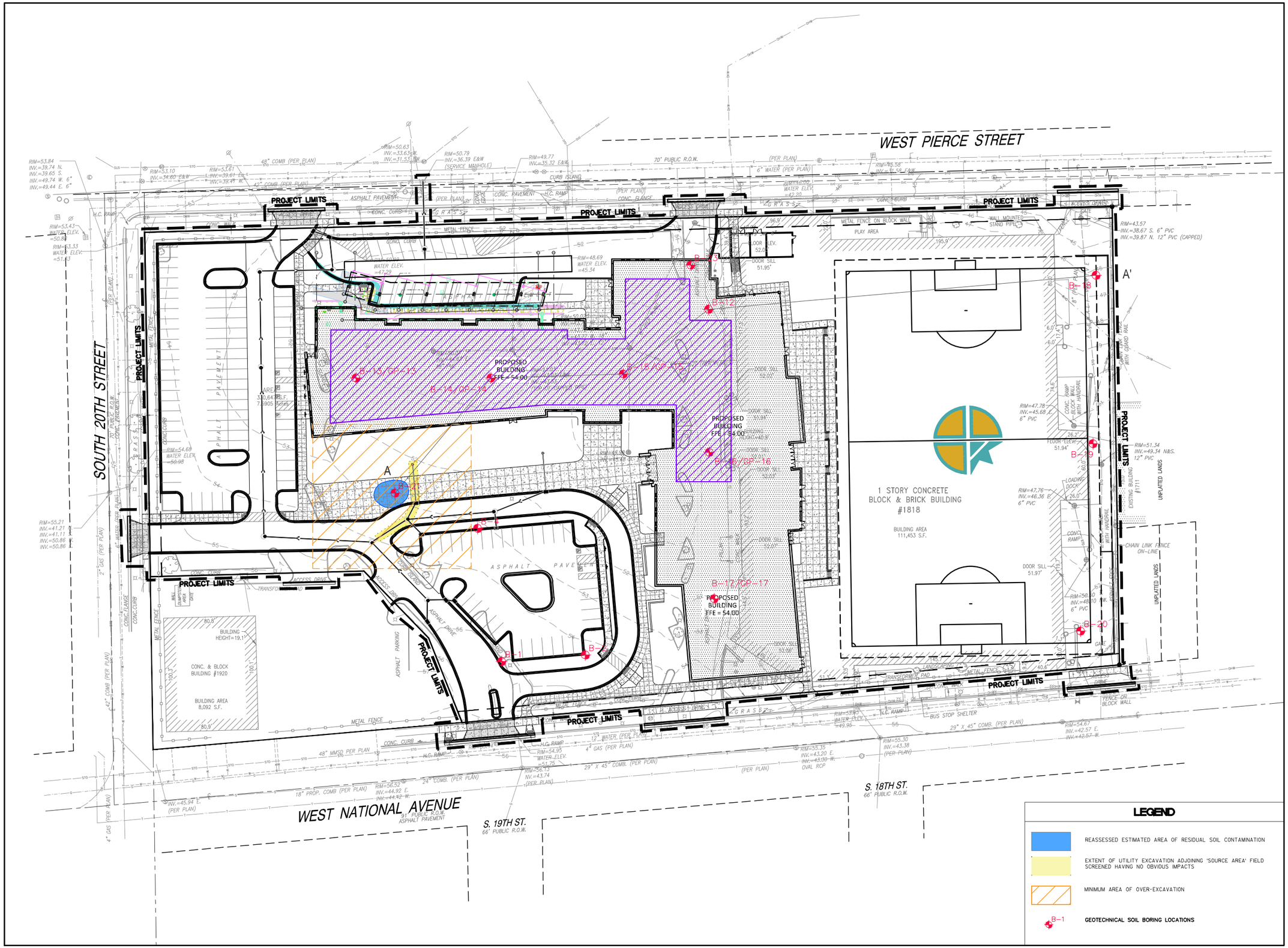
SCALE: 1 = 80'
0 40 80

SEAL:

SHEET:
VOC SOIL CONTAMINATION

PROJECT MANAGER:	GZ
PROJECT NUMBER:	180231.01
DATE:	07/21/2022

SHEET NUMBER:
B.2.a.iii



LEGEND

- REASSESSED ESTIMATED AREA OF RESIDUAL SOIL CONTAMINATION
- EXTENT OF UTILITY EXCAVATION ADJOINING 'SOURCE AREA' FIELD SCREENED HAVING NO OBVIOUS IMPACTS
- MINIMUM AREA OF OVER-EXCAVATION
- B-1 GEOTECHNICAL SOIL BORING LOCATIONS

FILENAME: S:_SiteDsgn\Bray Architects\180231 Cristo Rey Jesuit HS\Environmental\Figures\Cross-Section Plan View.dwg

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PROJECT:
CRISTO REY JESUIT HIGH SCHOOL

LOCATION:
1818 WEST NATIONAL AVE.
MILWAUKEE, WI
53204

CLIENT:

RELEASE:

REVISIONS:

#	DATE	DESCRIPTION

NORTH ARROW:

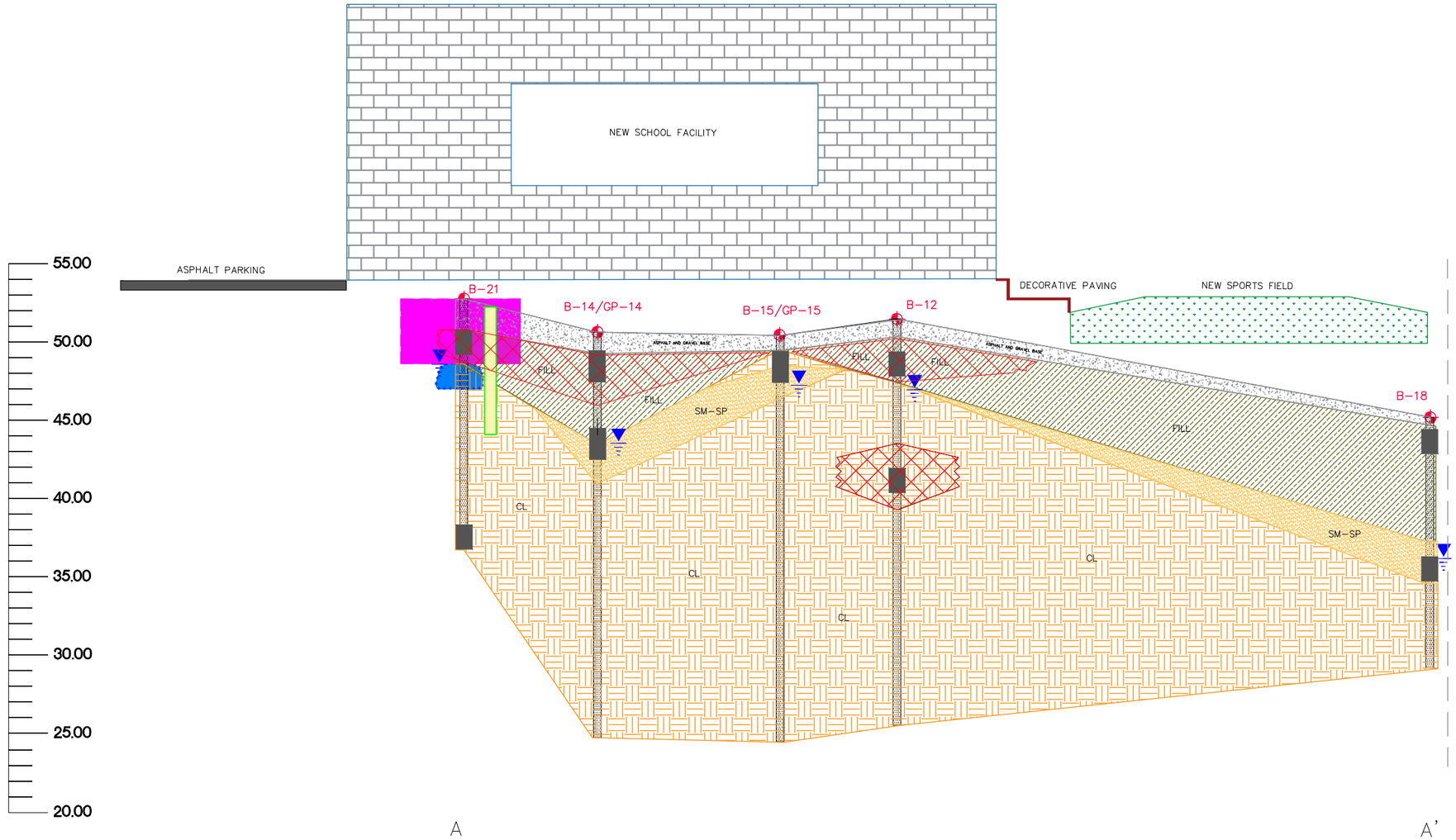
SCALE: 1 = 80'
0 40 80

SEAL:

SHEET:
GEOLOGIC CROSS-SECTION PLAN VIEW

PROJECT MANAGER:	TP
PROJECT NUMBER:	180231.01
DATE:	01/29/2019

SHEET NUMBER:
B.3.a.



PRE-CONSTRUCTION ESTIMATED EXTENT OF SOIL CONTAMINATION FOLLOWING GEOTECHNICAL/ENVIRONMENTAL ASSESSMENT

Soil Classification:
CL = Clay of low plasticity
CH = Clay of high plasticity
MH = Elastic silt
ML = Silt
SC = Clayey sand
SM = Silty sand
SP = Poorly graded sand
SW = Well graded sand, fine to coarse

LEGEND

- REASSESSED ESTIMATED AREA OF RESIDUAL SOIL CONTAMINATION
- EXTENT OF UTILITY EXCAVATION ADJOINING 'SOURCE AREA' FIELD SCREENED HAVING NO OBVIOUS IMPACTS
- MINIMUM AREA OF OVER-EXCAVATION OF 3-4 FEET BGS OR GREATER
- B-1 GEOTECHNICAL/ENVIRONMENTAL SOIL BORING LOCATIONS
- SOIL SAMPLING INTERVAL
- APPARENT SHALLOW (PERCHED) WATER TABLE IDENTIFIED VIA GEOTECH SOIL BORINGS

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PROJECT:
CRISTO REY JESUIT HIGH SCHOOL

LOCATION:
1818 WEST NATIONAL AVE. MILWAUKEE, WI 53204

CLIENT:

RELEASE:

REVISIONS:

#	DATE	DESCRIPTION

NORTH ARROW:

SCALE: 1 = 80'
0 40 80

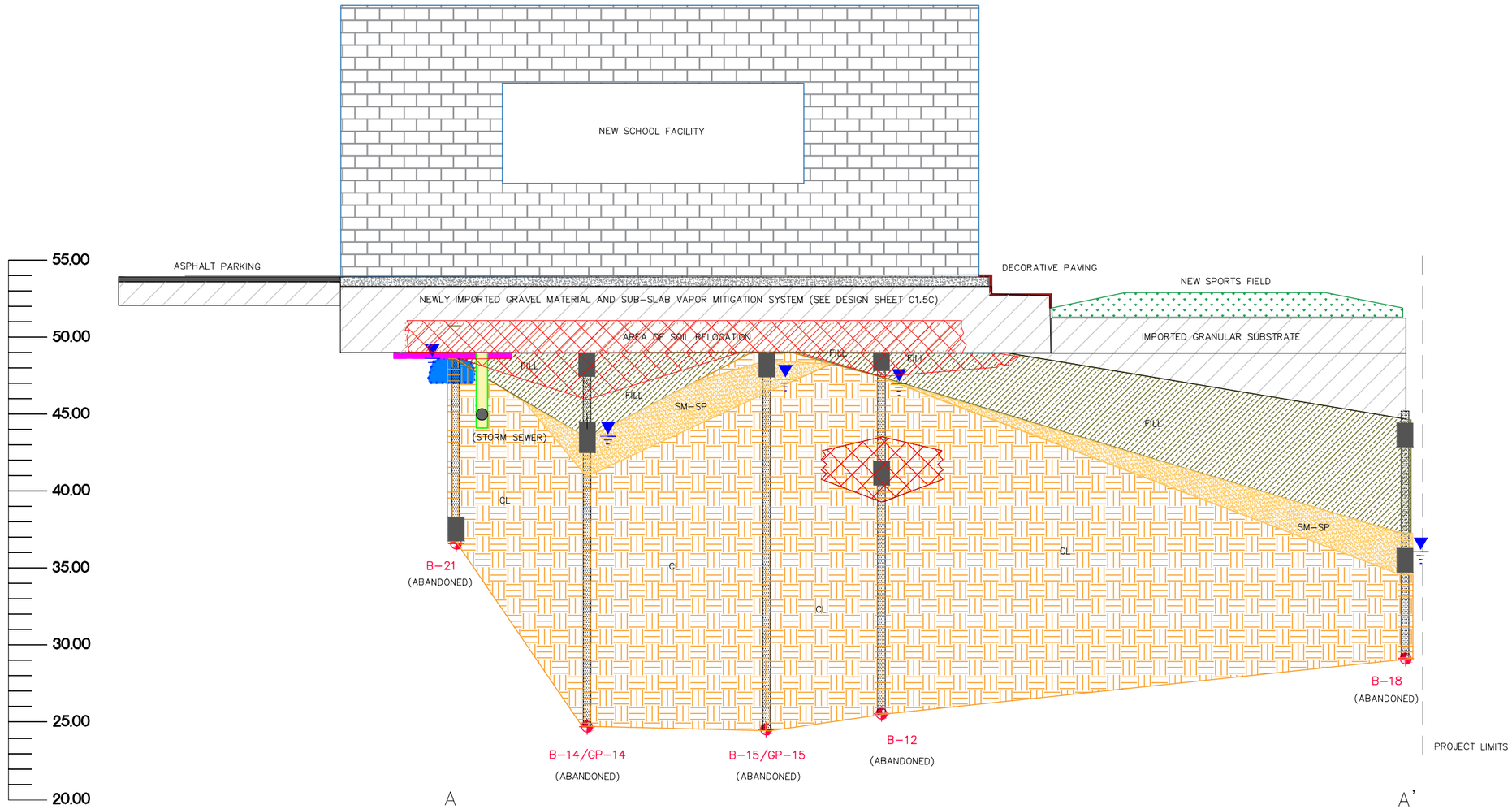
SEAL:

SHEET:
PRE-CONSTRCUTION GEOLOGIC CROSS-SECTION A-A'

PROJECT MANAGER:	TP
PROJECT NUMBER:	180231.01
DATE:	01/29/2019

SHEET NUMBER:
B.3.a.i

FILENAME: S:_SiteDsgn\Bray Architects\180231 Cristo Rey Jesuit HS\Environmental\Figures\Cross-Section A-A' Pre Construction.dwg



POST-CONSTRUCTION ESTIMATED EXTENT OF SOIL CONTAMINATION FOLLOWING GEOTECHNICAL/ENVIRONMENTAL ASSESSMENT

Soil Classification:
CL = Clay of low plasticity
CH = Clay of high plasticity
MH = Elastic silt
ML = Silt
SC = Clayey sand
SM = Silty sand
SP = Poorly graded sand
SW = Well graded sand, fine to coarse

LEGEND

- REASSESSED ESTIMATED AREA OF RESIDUAL SOIL CONTAMINATION
- EXTENT OF UTILITY EXCAVATION ADJOINING 'SOURCE AREA' FIELD SCREENED HAVING NO OBVIOUS IMPACTS
- MINIMUM AREA OF OVER-EXCAVATION OF 3-4 FEET BGS OR GREATER
- B-1 GEOTECHNICAL/ENVIRONMENTAL SOIL BORING LOCATIONS
- SOIL SAMPLING INTERVAL
- APPARENT SHALLOW (PERCHED) WATER TABLE IDENTIFIED VIA GEOTECH SOIL BORINGS (PRE-CONSTRUCTION)

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PROJECT:
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LOCATION:
1818 WEST NATIONAL AVE. MILWAUKEE, WI 53204

CLIENT:

RELEASE:

REVISIONS:

#	DATE	DESCRIPTION

NORTH ARROW:

SCALE: 1 = 80'
0 40 80

SEAL:

SHEET:
POST-CONSTRUCTION GEOLOGIC CROSS-SECTION A-A'

PROJECT MANAGER:	TP
PROJECT NUMBER:	180231.01
DATE:	01/29/2019

SHEET NUMBER:
B.3.a.ii

FILENAME: S:_SiteDsgn\Bray Architects\180231 Cristo Rey Jesuit HS\Environmental\Figures\Cross-Section A-A' Post Construct REV.dwg

TABLES

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Table A.1: Soil Analytical Results
1818 West National Ave
Milwaukee, Wisconsin

Parameter	Units	ch. NR 720 Direct Contact Industrial RCLs	ch. NR 720 Direct Contact Non-Industrial RCLs	ch. NR 720 Soil to Groundwater Pathway RCLs	EPA TCLP Limits	Background Threshold Value	Sample Date: 09/18/2018											
							B-1	B-2	B-4	B-12	B-12 TCLP	B-12	B-16	B-17	B-18	B-18	B-19	B-20
						Soil Type:	GW	SW-SM	ML	ML	ML	GW	SW-SM	GW/CL	CL-ML	GW	ML	ML
						Saturated/Unsaturated:	U	U	U	U	U	U	U	U	U	U	U	U
						Sample Depth:	(2-3.5)	(2-3.5)	(2-3.5)	(2-3.5)	(2-3.5)	(9.5-11)	(2-3.5)	(.5-2.5)	(.5-2)	(9.5-11)	(.5-3.5)	(.5-3.5)
Polynuclear Aromatic Hydrocarbons (PAHs)																		
1-Methylnaphthalene	mg/kg	72.7	17.6				<0.0048	<0.0043	<0.0048	0.0149 J		<0.0048	<0.0048	<0.0045	<0.0043	<0.0045	0.0137 J	<0.0043
2-Methylnaphthalene	mg/kg	3,010	239.0				<0.0060	<0.0053	<0.0060	0.0215		<0.0059	<0.0059	<0.0055	<0.0053	<0.0056	0.0209	<0.0053
Acenaphthene	mg/kg	45,200	3,590				<0.0046	<0.0041	<0.0047	0.0045 J		<0.0046	<0.0046	<0.0043	<0.0041	0.0053 J	0.0127 J	<0.0041
Acenaphthylene	mg/kg						<0.0039	<0.0035	<0.0040	0.0048 J		<0.0039	<0.0039	<0.0037	<0.0035	<0.0037	0.0054 J	<0.0035
Anthracene	mg/kg	100,000	17,900	196.9492			<0.0068	<0.0061	<0.0069	0.0192 J		<0.0068	<0.0067	<0.0063	<0.0060	0.0121 J	0.0449	0.0079 J
Benzo(a)anthracene	mg/kg	20.8	1.14				<0.0038	<0.0034	<0.0038	0.0827		<0.0037	<0.0037	0.0204	0.0198	0.0198	0.136	0.0261
Benzo(a)pyrene	mg/kg	2.11	0.115	0.47			<0.0030	<0.0027	<0.0030	0.0846		<0.0030	<0.0030	0.0225	0.0225	0.0151	0.142	0.0265
Benzo(b)fluoranthene	mg/kg	21.1	1.15	0.4793			<0.0034	<0.0030	<0.0034	0.166		<0.0033	<0.0033	0.0336	0.0301	0.0248	0.234	0.0414
Benzo(g,h,i)perylene	mg/kg						<0.0024	<0.0022	<0.0024	0.0577		<0.0024	<0.0024	0.0129	0.0134	0.0070 J	0.0612	0.0105
Benzo(k)fluoranthene	mg/kg	211	11.5				<0.0030	<0.0027	<0.0030	0.0462		<0.0030	<0.0030	0.0140	0.0138	0.0098	0.0774	0.0146
Chrysene	mg/kg	2,110	115	0.1446			<0.0040	<0.0036	<0.0040	0.133		<0.0040	<0.0040	0.0277	0.0202	0.0269	**[0.173]**	0.0341
Dibenz(a,h)anthracene	mg/kg	2.11	0.115				<0.0027	<0.0024	<0.0027	0.0208		<0.0026	<0.0026	0.0037 J	0.0033 J	<0.0025	0.0159	0.0028 J
Fluoranthene	mg/kg	30,100	2,390	88.8778			<0.0062	<0.0055	<0.0063	0.171		<0.0062	<0.0062	0.0535	0.0376	0.0781	0.360	0.0609
Fluorene	mg/kg	30,100	2,390	14.8299			<0.0049	<0.0044	<0.0050	<0.0047		<0.0049	<0.0049	<0.0046	<0.0044	0.0054 J	0.0113 J	<0.0044
Indeno(1,2,3-cd)pyrene	mg/kg	21.1	1.15				<0.0026	<0.0023	<0.0026	0.0443		<0.0026	<0.0026	0.0102	0.0102	0.0059 J	0.0412	0.0074 J
Naphthalene	mg/kg	26	5.2	0.66			<0.0100	<0.0090	0.0111 J	0.0297 J		<0.0100	<0.0099	<0.0093	<0.0089	<0.0094	<0.0096	<0.0090
Phenanthrene	mg/kg						<0.0139	<0.0124	<0.0140	0.0799		<0.0138	<0.0138	<0.0129	<0.0123	0.0508	0.212	0.0326 J
Pyrene	mg/kg	22,600	1,790	54.5455			<0.0054	<0.0048	<0.0054	0.122		<0.0053	<0.0053	0.0433	0.0318	0.0519	0.271	0.0469
RCRA Metals																		
Arsenic	mg/kg	3.0	0.677	0.5484	5	8	[8.0]	[2.4 J]*	[4.3 J]*	[7.7]*		[6.4]*	[5.4]*	[4.0 J]*	[4.1 J]*	[4.9 J]*	[5.3 J]*	[5.9 J]*
Barium	mg/kg	100,000	15,300	164.8	100	364	72.1	8.2	46.6	**[180]***		57.6	52.3	11.7	14.7	45.2	12.9	8.9
Cadmium	mg/kg	985	71.1	0.752	1	1	0.27 J	<0.14	0.17 J	0.65		0.20 J	0.20 J	<0.14	<0.27	<0.27	<0.29	<0.28
Chromium	mg/kg			360,000	5	44	20.5	7.7	18.7	12.2		14.7	15.9	8.4	6.9	9.0	7.6	4.5
Lead	mg/kg	800	400	27	5	52	10.3	3.4	9.1	[429]	2.9	8.0	7.9	3.8	4.1	5.2	1.9 J	7.0
Mercury	mg/kg	3.13	3.13	0.208	0.2		<0.037	<0.036	<0.038	0.040 J		<0.037	<0.038	<0.035	<0.034	<0.039	<0.039	<0.034
Selenium	mg/kg	5,840	391	0.52	1		<1.6	<1.4	<1.5	<1.5		<1.5	<1.4	<1.4	<2.7	<2.7	<2.8	<2.7
Silver	mg/kg	391	5,110	0.85	5		<0.41	<0.36	<0.40	<0.39		<0.38	<0.37	<0.37	<0.70	<0.71	<0.74	<0.72
Volatile Organic Compounds (VOCs)																		
1,2,4-Trichlorobenzene	mg/kg	113	24	0.41			<0.0476	<0.0476	<0.0476	<0.0476		<0.0476	<0.0476	<0.0476	<0.0476	<0.0476	<0.0476	<0.0476
1,2,4-Trimethylbenzene	mg/kg	219	219	1.382			<0.0250	<0.0250	<0.0250	0.0354 J		<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250
1,2-Dichlorobenzene	mg/kg	376	376	1.2			<0.0250	<0.0250	<0.0250	0.332		<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250
1,2-Dichloroethane	mg/kg	3	0.652	0.0028			<0.0250	<0.0250	<0.0250	**[0.0396]**		**[0.174]**	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250
1,3,5-Trimethylbenzene	mg/kg	182	182	1.382			<0.0250	<0.0250	<0.0250	<0.0250		<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250
1,3-Dichlorobenzene	mg/kg	297	297	1.2			<0.0250	<0.0250	<0.0250	<0.0250		<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250
1,4-Dichlorobenzene	mg/kg	16.4	3.7	0.14			<0.0250	<0.0250	<0.0250	**[0.306]**		<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250
Chlorobenzene	mg/kg	761	370	0.14			<0.0250	<0.0250	<0.0250	**[0.243]**		<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250
Ethylbenzene	mg/kg	35.4	8.02	1.57			<0.0250	<0.0250	<0.0250	<0.0250		<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250
m&p-Xylene	mg/kg	260	260	3.96			<0.0500	<0.0500	<0.0500	0.0910 J		<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500
Methylene Chloride*	mg/kg	1,070	61	0.0026			**[0.0703]**	**[0.0664]**	**[0.0658]**	**[0.0568]**		**[0.0660]**	**[0.0563]**	**[0.0675]**	**[0.0516]**	**[0.0638]**	**[0.0573]**	**[0.0440]**
Naphthalene	mg/kg	24.1	5.52	0.6582			<0.0400	<0.0400	<0.0400	0.430		<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400
n-Butylbenzene	mg/kg	108	108				<0.0250	<0.0250	<0.0250	<0.0250		<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250
o-Xylene	mg/kg	260	260	3.96			<0.0250	<0.0250	<0.0250	0.0571 J		<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250
Toluene	mg/kg	818	818	1.1072			<0.0250	<0.0250	<0.0250	<0.0250		<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250	<0.0250
Percent Moisture	%						16.2	6.1	16.7	12.1		15.5	15.3	9.9	5.5	10.3	12.5	6.1
PID	ppmv						0.5	0.7	0.6	0.9		1	0.7	0.8	0.4	0.8	1.2	0.7

Notes:

Only analytes with a detection in at least one sample are shown
(2-3) = sample depth in feet below ground surface
RCL = Residual Contaminant Level
PID - Photoionization Detector
ppmv = parts per million by volume in air
NR = Not Reported/Below Detection Limits
NA = Not Analyzed

Concentrations equal to or exceeding the NR 720 Soil RCL Industrial Direct Contact Standards are **bold red**
Concentrations equal to or exceeding the NR 720 Soil RCL Non-Industrial Direct Contact Standards are **bold blue**
Concentrations equal to or exceeding the NR 720 Soil RCL (via EPA RSLs) Soil to Groundwater Standards are in **[Brackets]**
J = Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
mg/kg = milligrams per kilogram
* = Above industrial standard but below background threshold value

Soil Classification:
GW = Well graded gravel, fine to coarse
SW = Well graded sand, fine to coarse
SM = Silty sand
ML = Silt
CL = Clay of low plasticity

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Table A.1: Soil Analytical Results
1818 West National Ave
Milwaukee, Wisconsin

Parameter	Units	ch. NR 720 Direct Contact Industrial RCLs	ch. NR 720 Direct Contact Non-Industrial RCLs	ch. NR 720 Soil to Groundwater Pathway RCLs	EPA TCLP Limits	Background Threshold Value	Sample Date: 09/18/2018					Sample Date: 12/05/2018						
							B-21	B-21 TCLP	B-21	B-23	B-23	GP-13	GP-14	GP-14	GP-15	GP-16	GP-16	GP-17
						Soil Type:	GW	GW	SW	GW/SW	GW	SW	ML	ML	CL	CL	CL	SW
						Saturated/Unsaturated:	U	U	U	U	U	U	U	U	U	U	U	U
						Sample Depth:	(2-3.5)	(2-3.5)	(14.5-16)	(.5-2)	(12-13.5)	(1-3)	(1-3)	(6-8)	(1-3)	(1-3)	(6-8)	(1-3)
Polynuclear Aromatic Hydrocarbons (PAHs)																		
1-Methylnaphthalene	mg/kg	72.7	17.6				0.323		9.27	0.0377 J	<0.0049	<0.0049	0.058	<0.0048	<0.0048	<0.0047	<0.0049	<0.0046
2-Methylnaphthalene	mg/kg	3,010	239.0				0.564		16.9	<0.0223	<0.0061	<0.0061	0.12	<0.0060	<0.0060	<0.0059	<0.0061	<0.0057
Acenaphthene	mg/kg	45,200	3,590				0.538		0.884	0.185	<0.0047	<0.0047	0.025	0.017	<0.0046	<0.0046	<0.0047	<0.0044
Acenaphthylene	mg/kg						0.0908 J		0.207 J	0.0340 J	<0.0040	<0.0040	0.0091 J	<0.0039	<0.0039	<0.0039	<0.0040	<0.0038
Anthracene	mg/kg	100,000	17,900	196.9492			1.40		0.384 J	0.322	<0.0069	<0.0070	0.067	0.037	<0.0068	<0.0067	<0.0069	<0.0065
Benzo(a)anthracene	mg/kg	20.8	1.14				2.09		<0.0939	0.729	0.0056 J	<0.0039	0.25	0.074	<0.0038	<0.0037	<0.0039	<0.0036
Benzo(a)pyrene	mg/kg	2.11	0.115	0.47			[2.19]		<0.0744	[0.744]	<0.0030	<0.0031	0.30	0.087	<0.0030	<0.0030	<0.0031	0.0042 J
Benzo(b)fluoranthene	mg/kg	21.1	1.15	0.4793			[2.74]		<0.0836	[0.905]	<0.0034	<0.0035	0.38	0.082	<0.0034	<0.0033	<0.0034	0.0045 J
Benzo(g,h,i)perylene	mg/kg						1.56		<0.0602	0.420	<0.0025	<0.0025	0.22	0.059	<0.0024	<0.0024	<0.0025	0.0045 J
Benzo(k)fluoranthene	mg/kg	211	11.5				1.23		<0.0743	0.425	<0.0030	<0.0031	0.27	0.073	<0.0030	<0.0030	<0.0030	0.0049 J
Chrysene	mg/kg	2,110	115	0.1446			[2.41]		<0.0999	[0.827]	<0.0041	<0.0041	[0.30]	0.080	<0.0040	<0.0040	<0.0041	0.0067 J
Dibenz(a,h)anthracene	mg/kg	2.11	0.115				0.306		<0.0662	0.111	<0.0027	<0.0027	0.062	0.016	<0.0027	<0.0026	<0.0027	<0.0025
Fluoranthene	mg/kg	30,100	2,390	88.8778			6.77		<0.154	1.63	0.0066 J	<0.0064	0.65	0.22	<0.0062	<0.0061	<0.0063	0.0071 J
Fluorene	mg/kg	30,100	2,390	14.8299			0.756		0.996	0.0262 J	<0.0050	<0.0051	0.016	0.013 J	<0.0049	<0.0049	<0.0050	<0.0047
Indeno(1,2,3-cd)pyrene	mg/kg	21.1	1.15				1.19		<0.0651	0.369	<0.0027	<0.0027	0.19	0.048	<0.0026	<0.0026	<0.0027	<0.0025
Naphthalene	mg/kg	26	5.2	0.66			[1.09]		[3.51]	<0.0376	<0.0102	<0.010	0.060	<0.010	<0.010	<0.0099	<0.010	<0.0096
Phenanthrene	mg/kg						4.11		3.26	0.576	<0.0141	<0.014	0.24	0.089	<0.014	<0.014	<0.014	<0.013
Pyrene	mg/kg	22,600	1,790	54.5455			5.08		0.175 J	1.22	0.0058 J	<0.0055	0.41	0.17	<0.0054	<0.0053	<0.0055	0.0064 J
RCRA Metals																		
Arsenic	mg/kg	3.0	0.677	0.5484	5	8	[9.1]		[6.4] *	[5.2] *	[4.8] *	[4.0] *	[4.7] *	[6.1] *	[4.2] *	[4.4] *	[4.4] *	[3.1] *
Barium	mg/kg	100,000	15,300	164.8	100	364	[660]		61.9	66.8	75.2	38.3	41.3	64.6	60.6	44.0	63.2	18.9
Cadmium	mg/kg	985	71.1	0.752	1	1	[104]	0.28	0.39 J	0.36 J	0.25 J	<0.16	<0.15	<0.15	<0.15	<0.15	<0.16	<0.15
Chromium	mg/kg			360,000	5	44	214		16.6	18.2	20.7	13.5	12.7	14.7	20.4	13.7	17.7	8.9
Lead	mg/kg	800	400	27	5	52	[8,250]	4.1	17.9	[50.3]*	11.7	6.4	13.8	7.3	9.0	6.6	8.0	4.3
Mercury	mg/kg	3.13	3.13	0.208	0.2		[0.22]		<0.036	0.069 J	<0.037	0.014 J	0.016 J	0.020 J	0.017 J	0.013 J	0.016 J	<0.011
Selenium	mg/kg	5,840	391	0.52	1		[3.9]		<1.5	<1.4	<1.4	<1.6	<1.5	<1.5	<1.5	<1.5	<1.6	<1.5
Silver	mg/kg	391	5,110	0.85	5		[1.1]		<0.40	<0.37	<0.38	<0.41	<0.38	<0.39	<0.38	<0.39	<0.41	<0.39
Volatile Organic Compounds (VOCs)																		
1,2,4-Trichlorobenzene	mg/kg	113	24	0.41			0.102 J		<0.0476	<0.0476	<0.0476	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
1,2,4-Trimethylbenzene	mg/kg	219	219	1.382			0.0773		<0.0250	<0.0250	<0.0250	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
1,2-Dichlorobenzene	mg/kg	376	376	1.2			[1.29]		<0.0250	<0.0250	<0.0250	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
1,2-Dichloroethane	mg/kg	3	0.652	0.0028			<0.0250		<0.0250	<0.0250	[0.115]	<0.025	<0.025	<0.025	<0.025	<0.025	0.0022	<0.025
1,3,5-Trimethylbenzene	mg/kg	182	182	1.382			0.0444 J		<0.0250	<0.0250	<0.0250	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
1,3-Dichlorobenzene	mg/kg	297	297	1.2			0.0884		<0.0250	<0.0250	<0.0250	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
1,4-Dichlorobenzene	mg/kg	16.4	3.7	0.14			[1.17]		<0.0250	<0.0250	<0.0250	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Chlorobenzene	mg/kg	761	370	0.14			[1.43]		<0.0250	<0.0250	<0.0250	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Ethylbenzene	mg/kg	35.4	8.02	1.57			0.130		<0.0250	<0.0250	<0.0250	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
m&p-Xylene	mg/kg	260	260	3.96			0.254		<0.0500	<0.0500	<0.0500	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Methylene Chloride*	mg/kg	1,070	61	0.0026			[0.0601]		[0.0498]	[0.0641]	[0.0597]	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Naphthalene	mg/kg	24.1	5.52	0.6582			[1.14]		0.106 J	<0.0400	<0.0400	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
n-Butylbenzene	mg/kg	108	108				0.0406 J		<0.0250	<0.0250	<0.0250	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
o-Xylene	mg/kg	260	260	3.96			0.134		<0.0250	<0.0250	<0.0250	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Toluene	mg/kg	818	818	1.1072			0.136		<0.0250	<0.0250	<0.0250	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025	<0.025
Percent Moisture	%						13.3		15.5	10.4	17.4	18.1	11.4	16.4	16.4	15.1	17.8	12.4
PID	ppmv						9.4		51.4	1	0.6	0.5	0.5	0.3	0.5	0.4	0.4	0.4

Notes:

Only analytes with a detection in at least one sample are shown
(2-3) = sample depth in feet below ground surface
RCL = Residual Contaminant Level
PID - Photoionization Detector
ppmv = parts per million by volume in air
NR = Not Reported/Below Detection Limits
NA = Not Analyzed

Concentrations equal to or exceeding the NR 720 Soil RCL Industrial Direct Contact Standards are **bold red**
Concentrations equal to or exceeding the NR 720 Soil RCL Non-Industrial Direct Contact Standards are **bold blue**
Concentrations equal to or exceeding the NR 720 Soil RCL (via EPA RSLs) Soil to Groundwater Standards are in **[Brackets]**
J = Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
mg/kg = milligrams per kilogram
* = Above industrial standard but below background threshold value

Soil Classification:
GW = Well graded gravel, fine to coarse
SW = Well graded sand, fine to coarse
SM = Silty sand
ML = Silt
CL = Clay of low plasticity

APPENDICES

APPENDIX A

SITE PHOTOGRAPHS

PHOTOGRAPHIC LOG

Photo #	Date
1	12/05/18

Description

Subject Property: Former strip mall during soil sampling event.

Photo #	Date
2	9/30/19

Description

Subject Property: Hotspot excavation.

PHOTOGRAPHIC LOG

Photo #	Date
3	9/30/19

Description

Subject Property:
Hotspot excavation

Photo #	Date
4	1/15/20

Description

Subject Property:
Construction of vapor mitigation system.

PHOTOGRAPHIC LOG

Photo #	Date
5	04/07/21

Description

Subject Property: Main entrance and parking lot off S. 19th Street (facing east).

Photo #	Date
6	04/07/21

Description

Subject Property: Looking from southeast adjoining property parking lot (facing NE).

PHOTOGRAPHIC LOG

Photo #	Date
7	04/07/21

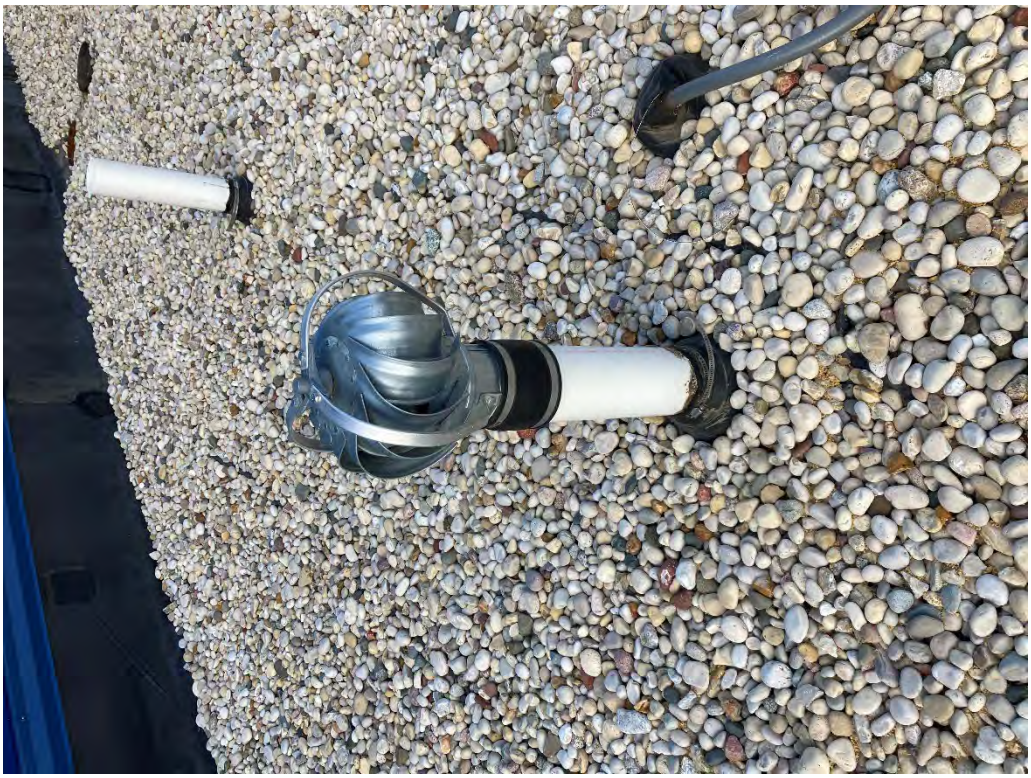
Description

Subject Property: Completed sidewalk and landscaping southern extent showing S. 20th Street (facing W).

Photo #	Date
8	04/07/21

Description

Subject Property: Wind turbine of sub-slab ventilation system.



APPENDIX B

WDNR SOIL BORING LOGS

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐ ______

Facility/Project Name	License/Permit/Monitoring Number	Boring Number B-21

Boring Drilled By: Name of crew chief (first, last) and Firm First Name Last Name Firm	Date Drilling Started	Date Drilling Completed	Drilling Method

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

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane ______ N, ______ E S☐/C☐/N☐ | Lat ______ | Local Grid Location ______ Feet ☐ N ☐ S ______ Feet ☐ E ☐ W
______ 1/4 of ______ 1/4 of Section ______, T ______ N,R ______ | Long ______

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

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	Plastic Limit	P 200	RQD/ Comments
	6"-20			Asph., Buried asphalt	1.1									
	2-3.5			SAA, No Recovery for sample, odor	9.4									
	4.5-6			SAA upper 6, gray clay, moist, firm	9.3									
	7-8.5			gray, SAA as bottom	1.0									
	9.5-11			SAA	1.0									
	14.5-16			odor in sand seam ~15.5' Rest is SAA	51.4									
	19.5-21													
	24.5-26													

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

Signature

Firm Kapur & Associates, Inc.
7711 N. Port Washington Road, Milwaukee, WI 53217
Phone: (414) 351-6668

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
		B-4

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name Last Name Firm			

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

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane _____ N, _____ E S☐/C☐/N☐ Lat _____
_____ 1/4 of _____ 1/4 of Section _____ ,T _____ N,R _____ Long _____

Local Grid Location
☐ N ☐ E
_____ Feet ☐ S _____ Feet ☐ W

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

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	Plastic Limit	P 200	RQD/ Comments
	6"-2			No Recovery										
	2-3.5			Brown, dry, firm, silty clay	0.6									
	3.5-6			No Recovery										
	7-8.5			Grey, clay, moist, firm	0.5									
	9.5-11			SAA	0.2									
	11.5-14													
	14.5-16													
	19.5-21													
	24.5-26													

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Signature

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Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐ ____________

Facility/Project Name	License/Permit/Monitoring Number	Boring Number B-1

Boring Drilled By: Name of crew chief (first, last) and Firm First Name Last Name Firm	Date Drilling Started	Date Drilling Completed	Drilling Method

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

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane ____________ N, ____________ E S☐/C☐ /N☐ Lat ____________
______ 1/4 of ______ 1/4 of Section ______ ,T ______ N,R ______ Long ____________
Local Grid Location ______ Feet ☐ N ☐ S ______ Feet ☐ E ☐ W

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

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	Plastic Limit	P 200	RQD/ Comments
	0-2			No Recovery										
	2-3.5			[illegible]	0.5									
	[illegible] 6			SAA	0.3									
	[illegible]			SAA	0.6									
	[illegible]			SAA	0.4									
	[illegible]													
	[illegible]													
	[illegible]													

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

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Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐ ____________

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
		B-2

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name Last Name Firm			

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

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane ____________ N, ____________ E S☐/C☐/N☐ | Lat ____________
______ 1/4 of ______ 1/4 of Section ______ ,T ______ N,R ______ | Long ____________
Local Grid Location ______ Feet ☐ N ☐ S ______ Feet ☐ E ☐ W

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

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	Plastic Limit	P 200	RQD/ Comments
	6"-2'			Asphalt + fine sand. Brown, loose	0.2									
	2-3.5			Brown, fine sand, loose, dry	0.7									
	4.5-6			gray, fine sand, loose, dry	0.9									
	[illegible]-8.5			Sat at [illegible], [illegible] [illegible] [illegible] [illegible]	1.0									
	9.5-11			Same, brown SAA [illegible] [illegible] gray clay	0.8									
	14.5-16													
	19.5-21													
	21.5-2[illegible]													

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

Signature	Firm
	Kapur & Associates, Inc. **7711 N. Port Washington Road, Milwaukee, WI 53217** **Phone: (414) 351-6668**

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Form 4400-122 Rev. 7-98

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

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
		B-17

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name Last Name Firm			

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

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane _____ N, _____ E S☐/C☐/N☐ Lat _____
_____ 1/4 of _____ 1/4 of Section _____ ,T _____ N,R _____ Long _____

Local Grid Location
_____ Feet ☐ N ☐ S _____ Feet ☐ E ☐ W

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

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	Plastic Limit	P 200	RQD/ Comments
	6"-25			Brown, fine sd, some dry	0.8									
	2-35			SAA - No water Hitting	0.5									
	4.5-6			SAA	1.1									
	7-85			Sat, sandy and w/ some clay water	0.6									
	9.5-11			SAA as the grey	0.7									
	12.5-14			grey, silty clay, some fine	0.6									
	14.5-21			SAA										
	24.5-26			SAA	0.6									

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

Signature

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Phone: (414) 351-6668

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐ ____________

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
		B-16

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name Last Name Firm			

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

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane ____________ N, ____________ E S☐/C☐/N☐ Lat ____________
______ 1/4 of ______ 1/4 of Section ______ ,T ______ N,R ______ Long ____________

Local Grid Location
______ Feet ☐ N ☐ S ______ Feet ☐ E ☐ W

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

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	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plastic Limit	Soil Properties: P 200	RQD/ Comments
	6"-2'			silt, gry, soft, dry	0.5									
	2-3.5			gry, silt w/ clay, moist, soft	0.5									
	4.5-6			gry, silt, moist, soft	1.1									
	7-8.5			gry, silty clay, moist, soft	0.8									
	9.5-11			gry, sand at top, SAA	0.7									
	14.5-16			gry, clay, moist, firm	0.8									
	19.5-21			gry, SAA	0.5									
	24.5-26			SAA	0.5									

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

Signature	Firm **Kapur & Associates, Inc.** **7711 N. Port Washington Road, Milwaukee, WI 53217** **Phone: (414) 351-6668**

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
		B-20

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name Last Name Firm			

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

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane ____________ N, ____________ E S☐/C☐ /N☐ Lat ____________
______ 1/4 of ______ 1/4 of Section ______ ,T ______ N,R ______ Long ____________

Local Grid Location ☐ N ☐ E ______ Feet ☐ S ______ Feet ☐ W

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

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	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plastic Limit	Soil Properties: P 200	RQD/ Comments
	(ft)			tan, fill, gravel, loose, dry	0.7			Not - [illegible] Recovery						
	2-3.5			SAA	0.6									
	4.5-6			SAA	0.4									
	7-8.5			tan, moist, silt, SM	0.5									
	9.5-11			SAA	0.6									
	12-13.5			SAA	0.3									
	14.5-16			SAA	0.4									

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

Signature	Firm
	Kapur & Associates, Inc. **7711 N. Port Washington Road, Milwaukee, WI 53217** **Phone: (414) 351-6668**

Route to: Watershed/Wastewater ☐ Waste Management ☐
Remediation/Redevelopment ☐ Other ☐ ______________

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
		B-19

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name Last Name Firm			

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

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane ______ N, ______ E S☐/C☐/N☐ Lat ______
______ 1/4 of ______ 1/4 of Section ______, T ______ N, R ______ Long ______

Local Grid Location
______ Feet ☐ N ☐ S ______ Feet ☐ E ☐ W

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

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	Plastic Limit	P 200	RQD/ Comments
	6"-2'			Asphalt/fill	1.2									
	2-3.5			Brown, fine sand, loose, dry w/ clay	1.7									
	4.5-6			Brn, [illegible] /dry /silty clay, [illegible]	0.4									
	7-8.5			Tan, silt, dry, loose	1.0									
	9.5-11			SAA, wet at ~10.5'	0.6									
	12-13.5			SAA Saturated	0.3									
	14.5-16			SAA	0.5									

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

Signature

Firm Kapur & Associates, Inc.
7711 N. Port Washington Road, Milwaukee, WI 53217
Phone: (414) 351-6668

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
		B-18

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name Last Name Firm			

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

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane _____ N, _____ E S☐/C☐ /N☐ Lat _____
_____ 1/4 of _____ 1/4 of Section _____ ,T _____ N,R _____ Long _____

Local Grid Location
☐ N ☐ E
_____ Feet ☐ S _____ Feet ☐ W

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

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	Plastic Limit	P 200	RQD/ Comments
	6" 2			Fill, sand + gravel	0.9									
	2-3.5			SAA	1.5									
	4.5-6			SAA	1.3									
	7-8.5			SAA - Not enough for sample	1.0									
	[illegible]			Saturated, SAA	0.8									
	10-11.5			Sat. gry, cl, fm.	13.4									
	[illegible]				5.7									

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Signature

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7711 N. Port Washington Road, Milwaukee, WI 53217
Phone: (414) 351-6668

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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
		B-12

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name Last Name Firm			

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

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane ______________ N, ______________ E S☐/C☐/N☐ Lat ______________
______ 1/4 of ______ 1/4 of Section ______ ,T ______ N,R ______ Long ______________
Local Grid Location ______ Feet ☐ N ☐ S ______ Feet ☐ E ☐ W

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

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	Soil Properties: Moisture Content	Soil Properties: Liquid Limit	Soil Properties: Plastic Limit	Soil Properties: P 200	RQD/Comments
	0-2			Fill	0.6									
	2-3.5			Sand + gravel, loose, dry	0.9									
	4.5-6			Brown, fine sand/fill, loose, dry, [illegible]	0.7									
	7-8.5			gray, clay, sat, soft	1.5									
	9-11			Silt, clay, moist, soft, gray	1.0									
	[illegible]			Clay, gray, moist, soft	0.7									
	14.5-20			SAA	0.8									
	[illegible]			gray, sand, loose, silt	0.8									

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

Signature	Firm
	Kapur & Associates, Inc. **7711 N. Port Washington Road, Milwaukee, WI 53217** **Phone: (414) 351-6668**

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
		B-23

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name Last Name Firm			

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

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane ____________ N, ____________ E S☐/C☐/N☐ Lat ____________
______ 1/4 of ______ 1/4 of Section ______ ,T ______ N,R ______ Long ____________
Local Grid Location ☐ N ☐ E
______ Feet ☐ S ______ Feet ☐ W

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

Sample									Soil Properties					
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	Compressive Strength	Moisture Content	Liquid Limit	Plastic Limit	P 200	RQD/ Comments
	(6"-2)			Fill w/ Brown [illegible]	1.0									
	2-3.5			Fill ↓										
	4.5-6			↓ No Recovery										
	7-8.5			Gravel ↓										
	[illegible]-11			gravel, sand, loose,										
	12-13.5			[illegible], [illegible], [illegible], moist	0.6									
	14.5-16			same	0.6									

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

Signature	Firm
	Kapur & Associates, Inc. **7711 N. Port Washington Road, Milwaukee, WI 53217** **Phone: (414) 351-6668**

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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 ☐ _____

Page 1 of 1

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
		6 of 13

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name White Last Name Blake Firm	Dec 5	Dec. 5	Geoprobe

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

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐	Lat _____	Local Grid Location
State Plane _____ N, _____ E S☐/C☐/N☐		☐N ☐E
_____ 1/4 of _____ 1/4 of Section _____ ,T _____ N,R _____	Long _____	_____ Feet ☐S _____ Feet ☐W

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

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	Plastic Limit	P 200	RQD/ Comments
			1	Asphalt + Base 0.1										PID
			2	Fill sand										1-3=0.5
				Slightly Silty Sand		Moist @ 3'								3-5=0.5
			5	end of Boring										

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

Signature

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Department of Natural Resources

Soil Boring Log Information

Form 4400-122 Rev. 7-98

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

Page 1 of 1

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
		GP-14

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name Matt Last Name Blakke Firm	12/05	12/05	GeoProbe

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

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane _____ N, _____ E S☐/C☐ /N☐ Lat _____
_____ 1/4 of _____ 1/4 of Section _____ ,T _____ N,R _____ Long _____

Local Grid Location
☐ N ☐ E
_____ Feet ☐ S _____ Feet ☐ W

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

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	Plastic Limit	P 200	RQD/ Comments
				0-1 Asphalt & base slightly silty sand gray 2' organics 3" gray slighty silty sand 5' 3" organics mix w/sand ↓ gray s-silty sand 10' EOB			Moist @ 6'							PID 1-3=0.5 3-5=0.3 6-8 0.3 8-10 0.4

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

Signature

Firm **Kapur & Associates, Inc.**
7711 N. Port Washington Road, Milwaukee, WI 53217
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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 ☐ _____

Page 1 of 1

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
		GP-15

Boring Drilled By: Name of crew chief (first, last) and Firm First Name Last Name Firm	Date Drilling Started	Date Drilling Completed	Drilling Method

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

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane _____ N, _____ E S☐/C☐/N☐ Lat _____
_____ 1/4 of _____ 1/4 of Section _____ ,T _____ N,R _____ Long _____

Local Grid Location
☐ N ☐ E
_____ Feet ☐ S _____ Feet ☐ W

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

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	Plastic Limit	P 200	RQD/ Comments
			0-1	Asphalt + Base										PID
			1-3	reddish brown sandy clay-clayey sand										1-3 = 0.5
					Moist @ 3'									
			3-5	Gray clayey sand										3-5 = 0.4
				5' EOB										

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

Signature

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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
		GP-16

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name Last Name Firm			

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

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane _____ N. _____ E S☐/C☐ /N☐
_____ 1/4 of _____ 1/4 of Section _____ ,T _____ N,R _____
Lat _____
Long _____

Local Grid Location
☐ N ☐ E
_____ Feet ☐ S _____ Feet ☐ W

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

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	Plastic Limit	P 200	RQD/ Comments
				0-1 Asphalt + base reddish brown clayey sand w/iron mottles				Moist @ 2'						PID 1-3 = 0.4 3-5 = 0.4 6-8 = 0.4 8-10 = 0.4
				3.5' gray clayey sand w/iron mottles										
				6' ↓ gray clayey FS										
				10' EOB										

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

Signature

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7711 N. Port Washington Road, Milwaukee, WI 53217
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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 ☐ _____

Page 1 of 1

Facility/Project Name	License/Permit/Monitoring Number	Boring Number
		GP-17

Boring Drilled By: Name of crew chief (first, last) and Firm	Date Drilling Started	Date Drilling Completed	Drilling Method
First Name Last Name Firm	12/5/18	12/5/18	Geoprobe

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

Local Grid Origin ☐ (estimated: ☐) or Boring Location ☐
State Plane _____ N, _____ E S☐/C☐/N☐ | Lat _____
_____ 1/4 of _____ 1/4 of Section _____ ,T _____ N,R _____ | Long _____

Local Grid Location
☐ N ☐ E
_____ Feet ☐ S _____ Feet ☐ W

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

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	Plastic Limit	P 200	RQD/ Comments
			0	0-1 Asphalt + base										PID
			1	1-2.5 reddish brown clayey sand										0-3 = 0.4
			2.5	Moist @ 2.5										3-5 = 0.3
			5	2.5-5 gray clayey sand										
				EOB										

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

Signature

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APPENDIX C

LABORATORY ANALYTICAL REPORTS
&
CHAIN OF CUSTODY

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

October 03, 2018

Travis Peterson
Kapur & Associates, Inc.
7711 N. Port Washington Road
Milwaukee, WI 53217

RE: Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Dear Travis Peterson:
Enclosed are the analytical results for sample(s) received by the laboratory on September 21, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Christopher Hyska
christopher.hyska@pacelabs.com
(920)469-2436
Project Manager

Enclosures

cc: Kapur Environmental, Kapur & Associates, Inc.

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

CERTIFICATIONS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky UST Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 12064
North Dakota Certification #: R-150
Virginia VELAP ID: 460263
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444
USDA Soil Permit #: P330-16-00157
Federal Fish & Wildlife Permit #: LE51774A-0

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE SUMMARY

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40176305001	**B-1 (2-3.5)**	Solid	09/18/18 09:00	09/21/18 15:10
40176305002	**B-2 (2-3.5)**	Solid	09/18/18 09:30	09/21/18 15:10
40176305003	**B-4 (2-3.5)**	Solid	09/18/18 10:00	09/21/18 15:10
40176305004	**B-12 (2-3.5)**	Solid	09/18/18 10:30	09/21/18 15:10
40176305005	**B-12 (9.5-11)**	Solid	09/18/18 10:45	09/21/18 15:10
40176305006	**B-16 (2-3.5)**	Solid	09/18/18 11:00	09/21/18 15:10
40176305007	**B-17 (6"-2.5)**	Solid	09/18/18 11:30	09/21/18 15:10
40176305008	**B-18 (6"-2)**	Solid	09/18/18 12:00	09/21/18 15:10
40176305009	**B-18 (9.5-11)**	Solid	09/18/18 12:15	09/21/18 15:10
40176305010	**B-19 (6"-3.5)**	Solid	09/18/18 12:30	09/21/18 15:10
40176305011	**B-20 (6"-3.5)**	Solid	09/18/18 13:00	09/21/18 15:10
40176305012	**B-21 (2-3.5)**	Solid	09/18/18 13:30	09/21/18 15:10
40176305013	**B-21 (14.5-16)**	Solid	09/18/18 13:45	09/21/18 15:10
40176305014	**B-23 (6"-2)**	Solid	09/18/18 14:00	09/21/18 15:10
40176305015	**B-23 (12-13.5)**	Solid	09/18/18 14:45	09/21/18 15:10

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE ANALYTE COUNT

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40176305001	**B-1 (2-3.5)**	EPA 6010	TXW	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		EPA 8260	SMT	64	PASI-G
		ASTM D2974-87	JXM	1	PASI-G
40176305002	**B-2 (2-3.5)**	EPA 6010	TXW	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		EPA 8260	SMT	64	PASI-G
		ASTM D2974-87	JXM	1	PASI-G
40176305003	**B-4 (2-3.5)**	EPA 6010	TXW	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		EPA 8260	SMT	64	PASI-G
		ASTM D2974-87	JXM	1	PASI-G
40176305004	**B-12 (2-3.5)**	EPA 6010	TXW	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		EPA 8260	SMT	64	PASI-G
		ASTM D2974-87	JXM	1	PASI-G
40176305005	**B-12 (9.5-11)**	EPA 6010	TXW	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		EPA 8260	SMT	64	PASI-G
		ASTM D2974-87	JXM	1	PASI-G
40176305006	**B-16 (2-3.5)**	EPA 6010	TXW	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		EPA 8260	SMT	64	PASI-G
		ASTM D2974-87	JXM	1	PASI-G
40176305007	**B-17 (6"-2.5)**	EPA 6010	TXW	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		EPA 8260	SMT	64	PASI-G
		ASTM D2974-87	JXM	1	PASI-G
40176305008	**B-18 (6"-2)**	EPA 6010	TXW	7	PASI-G
		EPA 7471	AJT	1	PASI-G

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE ANALYTE COUNT

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 8270 by SIM	ARO	20	PASI-G
		EPA 8260	SMT	64	PASI-G
		ASTM D2974-87	JXM	1	PASI-G
40176305009	**B-18 (9.5-11)**	EPA 6010	TXW	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		EPA 8260	SMT	64	PASI-G
		ASTM D2974-87	JXM	1	PASI-G
40176305010	**B-19 (6"-3.5)**	EPA 6010	TXW	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		EPA 8260	MDS	64	PASI-G
		ASTM D2974-87	JXM	1	PASI-G
40176305011	**B-20 (6"-3.5)**	EPA 6010	TXW	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		EPA 8260	SMT	64	PASI-G
		ASTM D2974-87	JXM	1	PASI-G
40176305012	**B-21 (2-3.5)**	EPA 6010	TXW	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		EPA 8260	SMT	64	PASI-G
		ASTM D2974-87	JXM	1	PASI-G
40176305013	**B-21 (14.5-16)**	EPA 6010	TXW	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		EPA 8260	SMT	64	PASI-G
		ASTM D2974-87	JXM	1	PASI-G
40176305014	**B-23 (6"-2)**	EPA 6010	TXW	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		EPA 8260	SMT	64	PASI-G
		ASTM D2974-87	JXM	1	PASI-G
40176305015	**B-23 (12-13.5)**	EPA 6010	TXW	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		EPA 8260	SMT	64	PASI-G

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SAMPLE ANALYTE COUNT

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		ASTM D2974-87	JXM	1	PASI-G

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SUMMARY OF DETECTION

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40176305001	**B-1 (2-3.5)**					
EPA 6010	Arsenic	8.0	mg/kg	5.9	09/28/18 10:09	
EPA 6010	Barium	72.1	mg/kg	0.59	09/28/18 10:09	
EPA 6010	Cadmium	0.27J	mg/kg	0.59	09/28/18 10:09	
EPA 6010	Chromium	20.5	mg/kg	1.2	09/28/18 10:09	
EPA 6010	Lead	10.3	mg/kg	2.4	09/28/18 10:09	
EPA 8260	Methylene Chloride	70.3J	ug/kg	71.6	09/25/18 12:02	B
ASTM D2974-87	Percent Moisture	16.2	%	0.10	09/25/18 14:48	
40176305002	**B-2 (2-3.5)**					
EPA 6010	Arsenic	2.4J	mg/kg	5.2	09/28/18 10:17	
EPA 6010	Barium	8.2	mg/kg	0.52	09/28/18 10:17	
EPA 6010	Chromium	7.7	mg/kg	1.0	09/28/18 10:17	
EPA 6010	Lead	3.4	mg/kg	2.1	09/28/18 10:17	
EPA 8260	Methylene Chloride	66.4	ug/kg	63.9	09/25/18 12:25	B
ASTM D2974-87	Percent Moisture	6.1	%	0.10	09/25/18 14:48	
40176305003	**B-4 (2-3.5)**					
EPA 6010	Arsenic	4.3J	mg/kg	5.9	09/28/18 10:19	
EPA 6010	Barium	46.6	mg/kg	0.59	09/28/18 10:19	
EPA 6010	Cadmium	0.17J	mg/kg	0.59	09/28/18 10:19	
EPA 6010	Chromium	18.7	mg/kg	1.2	09/28/18 10:19	
EPA 6010	Lead	9.1	mg/kg	2.3	09/28/18 10:19	
EPA 8270 by SIM	Naphthalene	11.1J	ug/kg	33.7	09/25/18 15:08	
EPA 8260	Methylene Chloride	65.8J	ug/kg	72.0	09/25/18 12:48	B
ASTM D2974-87	Percent Moisture	16.7	%	0.10	09/25/18 14:48	
40176305004	**B-12 (2-3.5)**					
EPA 6010	Arsenic	7.7	mg/kg	5.6	09/28/18 10:22	
EPA 6010	Barium	180	mg/kg	0.56	09/28/18 10:22	
EPA 6010	Cadmium	0.65	mg/kg	0.56	09/28/18 10:22	
EPA 6010	Chromium	12.2	mg/kg	1.1	09/28/18 10:22	
EPA 6010	Lead	429	mg/kg	2.2	09/28/18 10:22	
EPA 7471	Mercury	0.040J	mg/kg	0.13	09/26/18 09:46	
EPA 8270 by SIM	Acenaphthene	4.5J	ug/kg	14.7	09/26/18 15:40	
EPA 8270 by SIM	Acenaphthylene	4.8J	ug/kg	12.5	09/26/18 15:40	
EPA 8270 by SIM	Anthracene	19.2J	ug/kg	21.6	09/26/18 15:40	
EPA 8270 by SIM	Benzo(a)anthracene	82.7	ug/kg	12.1	09/26/18 15:40	
EPA 8270 by SIM	Benzo(a)pyrene	84.6	ug/kg	9.5	09/26/18 15:40	
EPA 8270 by SIM	Benzo(b)fluoranthene	166	ug/kg	10.7	09/26/18 15:40	
EPA 8270 by SIM	Benzo(g,h,i)perylene	57.7	ug/kg	7.7	09/26/18 15:40	
EPA 8270 by SIM	Benzo(k)fluoranthene	46.2	ug/kg	9.5	09/26/18 15:40	
EPA 8270 by SIM	Chrysene	133	ug/kg	12.8	09/26/18 15:40	
EPA 8270 by SIM	Dibenz(a,h)anthracene	20.8	ug/kg	8.5	09/26/18 15:40	
EPA 8270 by SIM	Fluoranthene	171	ug/kg	19.8	09/26/18 15:40	
EPA 8270 by SIM	Indeno(1,2,3-cd)pyrene	44.3	ug/kg	8.4	09/26/18 15:40	
EPA 8270 by SIM	1-Methylnaphthalene	14.9J	ug/kg	15.3	09/26/18 15:40	
EPA 8270 by SIM	2-Methylnaphthalene	21.5	ug/kg	19.0	09/26/18 15:40	
EPA 8270 by SIM	Naphthalene	29.7J	ug/kg	32.0	09/26/18 15:40	
EPA 8270 by SIM	Phenanthrene	79.9	ug/kg	44.2	09/26/18 15:40	

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SUMMARY OF DETECTION

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40176305004	**B-12 (2-3.5)**					
EPA 8270 by SIM	Pyrene	122	ug/kg	17.1	09/26/18 15:40	
EPA 8260	1,2,4-Trimethylbenzene	35.4J	ug/kg	68.3	09/25/18 13:12	
EPA 8260	1,2-Dichlorobenzene	332	ug/kg	68.3	09/25/18 13:12	
EPA 8260	1,2-Dichloroethane	39.6J	ug/kg	68.3	09/25/18 13:12	
EPA 8260	1,4-Dichlorobenzene	306	ug/kg	68.3	09/25/18 13:12	
EPA 8260	Chlorobenzene	243	ug/kg	68.3	09/25/18 13:12	
EPA 8260	Methylene Chloride	56.8J	ug/kg	68.3	09/25/18 13:12	B
EPA 8260	Naphthalene	430	ug/kg	284	09/25/18 13:12	
EPA 8260	m&p-Xylene	91.0J	ug/kg	137	09/25/18 13:12	
EPA 8260	o-Xylene	57.1J	ug/kg	68.3	09/25/18 13:12	
ASTM D2974-87	Percent Moisture	12.1	%	0.10	09/25/18 14:48	
40176305005	**B-12 (9.5-11)**					
EPA 6010	Arsenic	6.4	mg/kg	5.6	09/28/18 10:24	
EPA 6010	Barium	57.6	mg/kg	0.56	09/28/18 10:24	
EPA 6010	Cadmium	0.20J	mg/kg	0.56	09/28/18 10:24	
EPA 6010	Chromium	14.7	mg/kg	1.1	09/28/18 10:24	
EPA 6010	Lead	8.0	mg/kg	2.2	09/28/18 10:24	
EPA 8260	1,2-Dichloroethane	174	ug/kg	71.0	09/25/18 13:35	
EPA 8260	Methylene Chloride	66.0J	ug/kg	71.0	09/25/18 13:35	B
ASTM D2974-87	Percent Moisture	15.5	%	0.10	09/25/18 14:48	
40176305006	**B-16 (2-3.5)**					
EPA 6010	Arsenic	5.4	mg/kg	5.3	09/28/18 10:27	
EPA 6010	Barium	52.3	mg/kg	0.53	09/28/18 10:27	
EPA 6010	Cadmium	0.20J	mg/kg	0.53	09/28/18 10:27	
EPA 6010	Chromium	15.9	mg/kg	1.1	09/28/18 10:27	
EPA 6010	Lead	7.9	mg/kg	2.1	09/28/18 10:27	
EPA 8260	Methylene Chloride	56.3J	ug/kg	70.8	09/25/18 13:58	B
ASTM D2974-87	Percent Moisture	15.3	%	0.10	09/25/18 14:48	
40176305007	**B-17 (6''-2.5)**					
EPA 6010	Arsenic	4.0J	mg/kg	5.4	09/28/18 10:34	
EPA 6010	Barium	11.7	mg/kg	0.54	09/28/18 10:34	
EPA 6010	Chromium	8.4	mg/kg	1.1	09/28/18 10:34	
EPA 6010	Lead	3.8	mg/kg	2.2	09/28/18 10:34	
EPA 8270 by SIM	Benzo(a)anthracene	20.4	ug/kg	11.8	09/26/18 15:58	
EPA 8270 by SIM	Benzo(a)pyrene	22.5	ug/kg	9.3	09/26/18 15:58	
EPA 8270 by SIM	Benzo(b)fluoranthene	33.6	ug/kg	10.4	09/26/18 15:58	
EPA 8270 by SIM	Benzo(g,h,i)perylene	12.9	ug/kg	7.5	09/26/18 15:58	
EPA 8270 by SIM	Benzo(k)fluoranthene	14.0	ug/kg	9.3	09/26/18 15:58	
EPA 8270 by SIM	Chrysene	27.7	ug/kg	12.4	09/26/18 15:58	
EPA 8270 by SIM	Dibenz(a,h)anthracene	3.7J	ug/kg	8.3	09/26/18 15:58	
EPA 8270 by SIM	Fluoranthene	53.5	ug/kg	19.3	09/26/18 15:58	
EPA 8270 by SIM	Indeno(1,2,3-cd)pyrene	10.2	ug/kg	8.1	09/26/18 15:58	
EPA 8270 by SIM	Pyrene	43.3	ug/kg	16.6	09/26/18 15:58	
EPA 8260	Methylene Chloride	67.5	ug/kg	66.6	09/25/18 14:21	B
ASTM D2974-87	Percent Moisture	9.9	%	0.10	09/25/18 14:48	

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SUMMARY OF DETECTION

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40176305008	**B-18 (6''-2)**					
EPA 6010	Arsenic	4.1J	mg/kg	10.2	10/02/18 18:18	D3
EPA 6010	Barium	14.7	mg/kg	1.0	10/02/18 18:18	
EPA 6010	Chromium	6.9	mg/kg	2.0	10/02/18 18:18	
EPA 6010	Lead	4.1	mg/kg	4.1	10/02/18 18:18	
EPA 8270 by SIM	Benzo(a)anthracene	19.8	ug/kg	11.2	09/26/18 16:15	
EPA 8270 by SIM	Benzo(a)pyrene	22.5	ug/kg	8.9	09/26/18 16:15	
EPA 8270 by SIM	Benzo(b)fluoranthene	30.1	ug/kg	10	09/26/18 16:15	
EPA 8270 by SIM	Benzo(g,h,i)perylene	13.4	ug/kg	7.2	09/26/18 16:15	
EPA 8270 by SIM	Benzo(k)fluoranthene	13.8	ug/kg	8.9	09/26/18 16:15	
EPA 8270 by SIM	Chrysene	20.2	ug/kg	11.9	09/26/18 16:15	
EPA 8270 by SIM	Dibenz(a,h)anthracene	3.3J	ug/kg	7.9	09/26/18 16:15	
EPA 8270 by SIM	Fluoranthene	37.6	ug/kg	18.4	09/26/18 16:15	
EPA 8270 by SIM	Indeno(1,2,3-cd)pyrene	10.2	ug/kg	7.8	09/26/18 16:15	
EPA 8270 by SIM	Pyrene	31.8	ug/kg	15.9	09/26/18 16:15	
EPA 8260	Methylene Chloride	51.6J	ug/kg	63.5	09/25/18 14:44	B
ASTM D2974-87	Percent Moisture	5.5	%	0.10	09/25/18 14:48	
40176305009	**B-18 (9.5-11)**					
EPA 6010	Arsenic	4.9J	mg/kg	10.3	10/02/18 18:20	D3
EPA 6010	Barium	45.2	mg/kg	1.0	10/02/18 18:20	
EPA 6010	Chromium	9.0	mg/kg	2.1	10/02/18 18:20	
EPA 6010	Lead	5.2	mg/kg	4.1	10/02/18 18:20	
EPA 8270 by SIM	Acenaphthene	5.3J	ug/kg	14.4	09/26/18 16:32	
EPA 8270 by SIM	Anthracene	12.1J	ug/kg	21.2	09/26/18 16:32	
EPA 8270 by SIM	Benzo(a)anthracene	19.8	ug/kg	11.8	09/26/18 16:32	
EPA 8270 by SIM	Benzo(a)pyrene	15.1	ug/kg	9.3	09/26/18 16:32	
EPA 8270 by SIM	Benzo(b)fluoranthene	24.8	ug/kg	10.5	09/26/18 16:32	
EPA 8270 by SIM	Benzo(g,h,i)perylene	7.0J	ug/kg	7.6	09/26/18 16:32	
EPA 8270 by SIM	Benzo(k)fluoranthene	9.8	ug/kg	9.3	09/26/18 16:32	
EPA 8270 by SIM	Chrysene	26.9	ug/kg	12.5	09/26/18 16:32	
EPA 8270 by SIM	Fluoranthene	78.1	ug/kg	19.4	09/26/18 16:32	
EPA 8270 by SIM	Fluorene	5.4J	ug/kg	15.4	09/26/18 16:32	
EPA 8270 by SIM	Indeno(1,2,3-cd)pyrene	5.9J	ug/kg	8.2	09/26/18 16:32	
EPA 8270 by SIM	Phenanthrene	50.8	ug/kg	43.3	09/26/18 16:32	
EPA 8270 by SIM	Pyrene	51.9	ug/kg	16.7	09/26/18 16:32	
EPA 8260	Methylene Chloride	63.8J	ug/kg	66.9	09/25/18 15:07	B
ASTM D2974-87	Percent Moisture	10.3	%	0.10	09/25/18 14:49	
40176305010	**B-19 (6''-3.5)**					
EPA 6010	Arsenic	5.3J	mg/kg	10.8	10/02/18 18:23	D3
EPA 6010	Barium	12.9	mg/kg	1.1	10/02/18 18:23	
EPA 6010	Chromium	7.6	mg/kg	2.2	10/02/18 18:23	
EPA 6010	Lead	1.9J	mg/kg	4.3	10/02/18 18:23	D3
EPA 8270 by SIM	Acenaphthene	12.7J	ug/kg	14.7	09/26/18 16:50	
EPA 8270 by SIM	Acenaphthylene	5.4J	ug/kg	12.6	09/26/18 16:50	
EPA 8270 by SIM	Anthracene	44.9	ug/kg	21.7	09/26/18 16:50	
EPA 8270 by SIM	Benzo(a)anthracene	136	ug/kg	12.1	09/26/18 16:50	
EPA 8270 by SIM	Benzo(a)pyrene	142	ug/kg	9.6	09/26/18 16:50	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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SUMMARY OF DETECTION

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40176305010	**B-19 (6''-3.5)**					
EPA 8270 by SIM	Benzo(b)fluoranthene	234	ug/kg	10.7	09/26/18 16:50	
EPA 8270 by SIM	Benzo(g,h,i)perylene	61.2	ug/kg	7.7	09/26/18 16:50	
EPA 8270 by SIM	Benzo(k)fluoranthene	77.4	ug/kg	9.5	09/26/18 16:50	
EPA 8270 by SIM	Chrysene	173	ug/kg	12.8	09/26/18 16:50	
EPA 8270 by SIM	Dibenz(a,h)anthracene	15.9	ug/kg	8.5	09/26/18 16:50	
EPA 8270 by SIM	Fluoranthene	360	ug/kg	19.9	09/26/18 16:50	
EPA 8270 by SIM	Fluorene	11.3J	ug/kg	15.8	09/26/18 16:50	
EPA 8270 by SIM	Indeno(1,2,3-cd)pyrene	41.2	ug/kg	8.4	09/26/18 16:50	
EPA 8270 by SIM	1-Methylnaphthalene	13.7J	ug/kg	15.3	09/26/18 16:50	
EPA 8270 by SIM	2-Methylnaphthalene	20.9	ug/kg	19.1	09/26/18 16:50	
EPA 8270 by SIM	Phenanthrene	212	ug/kg	44.3	09/26/18 16:50	
EPA 8270 by SIM	Pyrene	271	ug/kg	17.1	09/26/18 16:50	
EPA 8260	Methylene Chloride	57.3J	ug/kg	68.6	09/25/18 15:30	B
ASTM D2974-87	Percent Moisture	12.5	%	0.10	09/25/18 14:49	
40176305011	**B-20 (6''-3.5)**					
EPA 6010	Arsenic	5.9J	mg/kg	10.5	10/02/18 18:25	D3
EPA 6010	Barium	8.9	mg/kg	1.0	10/02/18 18:25	
EPA 6010	Chromium	4.5	mg/kg	2.1	10/02/18 18:25	
EPA 6010	Lead	7.0	mg/kg	4.2	10/02/18 18:25	
EPA 8270 by SIM	Anthracene	7.9J	ug/kg	20.2	09/26/18 17:07	
EPA 8270 by SIM	Benzo(a)anthracene	26.1	ug/kg	11.3	09/26/18 17:07	
EPA 8270 by SIM	Benzo(a)pyrene	26.5	ug/kg	8.9	09/26/18 17:07	
EPA 8270 by SIM	Benzo(b)fluoranthene	41.4	ug/kg	10.0	09/26/18 17:07	
EPA 8270 by SIM	Benzo(g,h,i)perylene	10.5	ug/kg	7.2	09/26/18 17:07	
EPA 8270 by SIM	Benzo(k)fluoranthene	14.6	ug/kg	8.9	09/26/18 17:07	
EPA 8270 by SIM	Chrysene	34.1	ug/kg	11.9	09/26/18 17:07	
EPA 8270 by SIM	Dibenz(a,h)anthracene	2.8J	ug/kg	7.9	09/26/18 17:07	
EPA 8270 by SIM	Fluoranthene	60.9	ug/kg	18.5	09/26/18 17:07	
EPA 8270 by SIM	Indeno(1,2,3-cd)pyrene	7.4J	ug/kg	7.8	09/26/18 17:07	
EPA 8270 by SIM	Phenanthrene	32.6J	ug/kg	41.3	09/26/18 17:07	
EPA 8270 by SIM	Pyrene	46.9	ug/kg	16.0	09/26/18 17:07	
EPA 8260	Methylene Chloride	44.0J	ug/kg	63.9	09/25/18 16:06	B
ASTM D2974-87	Percent Moisture	6.1	%	0.10	09/25/18 14:49	
40176305012	**B-21 (2-3.5)**					
EPA 6010	Arsenic	9.1	mg/kg	5.6	09/28/18 10:46	
EPA 6010	Barium	660	mg/kg	0.56	09/28/18 10:46	
EPA 6010	Cadmium	104	mg/kg	0.56	09/28/18 10:46	
EPA 6010	Chromium	214	mg/kg	1.1	09/28/18 10:46	
EPA 6010	Lead	8250	mg/kg	225	10/02/18 18:28	
EPA 6010	Selenium	3.9J	mg/kg	4.9	09/28/18 10:46	
EPA 6010	Silver	1.1	mg/kg	1.1	09/28/18 10:46	
EPA 7471	Mercury	0.22	mg/kg	0.13	09/26/18 10:04	
EPA 8270 by SIM	Acenaphthene	538	ug/kg	297	09/26/18 13:06	
EPA 8270 by SIM	Acenaphthylene	90.8J	ug/kg	253	09/26/18 13:06	
EPA 8270 by SIM	Anthracene	1400	ug/kg	438	09/26/18 13:06	
EPA 8270 by SIM	Benzo(a)anthracene	2090	ug/kg	244	09/26/18 13:06	

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SUMMARY OF DETECTION

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40176305012	**B-21 (2-3.5)**					
EPA 8270 by SIM	Benzo(a)pyrene	2190	ug/kg	193	09/26/18 13:06	
EPA 8270 by SIM	Benzo(b)fluoranthene	2740	ug/kg	217	09/26/18 13:06	
EPA 8270 by SIM	Benzo(g,h,i)perylene	1560	ug/kg	156	09/26/18 13:06	
EPA 8270 by SIM	Benzo(k)fluoranthene	1230	ug/kg	193	09/26/18 13:06	
EPA 8270 by SIM	Chrysene	2410	ug/kg	258	09/26/18 13:06	
EPA 8270 by SIM	Dibenz(a,h)anthracene	306	ug/kg	172	09/26/18 13:06	
EPA 8270 by SIM	Fluoranthene	6770	ug/kg	401	09/26/18 13:06	
EPA 8270 by SIM	Fluorene	756	ug/kg	318	09/26/18 13:06	
EPA 8270 by SIM	Indeno(1,2,3-cd)pyrene	1190	ug/kg	169	09/26/18 13:06	
EPA 8270 by SIM	1-Methylnaphthalene	323	ug/kg	309	09/26/18 13:06	
EPA 8270 by SIM	2-Methylnaphthalene	564	ug/kg	385	09/26/18 13:06	
EPA 8270 by SIM	Naphthalene	1090	ug/kg	647	09/26/18 13:06	
EPA 8270 by SIM	Phenanthrene	4110	ug/kg	894	09/26/18 13:06	
EPA 8270 by SIM	Pyrene	5080	ug/kg	346	09/26/18 13:06	
EPA 8260	1,2,4-Trichlorobenzene	102J	ug/kg	288	09/25/18 16:29	
EPA 8260	1,2,4-Trimethylbenzene	77.3	ug/kg	69.2	09/25/18 16:29	
EPA 8260	1,2-Dichlorobenzene	1290	ug/kg	69.2	09/25/18 16:29	
EPA 8260	1,3,5-Trimethylbenzene	44.4J	ug/kg	69.2	09/25/18 16:29	
EPA 8260	1,3-Dichlorobenzene	88.4	ug/kg	69.2	09/25/18 16:29	
EPA 8260	1,4-Dichlorobenzene	1170	ug/kg	69.2	09/25/18 16:29	
EPA 8260	Chlorobenzene	1430	ug/kg	69.2	09/25/18 16:29	
EPA 8260	Ethylbenzene	130	ug/kg	69.2	09/25/18 16:29	
EPA 8260	Methylene Chloride	60.1J	ug/kg	69.2	09/25/18 16:29	B
EPA 8260	Naphthalene	1140	ug/kg	288	09/25/18 16:29	
EPA 8260	Toluene	136	ug/kg	69.2	09/25/18 16:29	
EPA 8260	m&p-Xylene	254	ug/kg	138	09/25/18 16:29	
EPA 8260	n-Butylbenzene	40.6J	ug/kg	69.2	09/25/18 16:29	
EPA 8260	o-Xylene	134	ug/kg	69.2	09/25/18 16:29	
ASTM D2974-87	Percent Moisture	13.3	%	0.10	09/25/18 14:49	
40176305013	**B-21 (14.5-16)**					
EPA 6010	Arsenic	6.4	mg/kg	5.8	09/28/18 10:49	
EPA 6010	Barium	61.9	mg/kg	0.58	09/28/18 10:49	
EPA 6010	Cadmium	0.39J	mg/kg	0.58	09/28/18 10:49	
EPA 6010	Chromium	16.6	mg/kg	1.2	09/28/18 10:49	
EPA 6010	Lead	17.9	mg/kg	2.3	09/28/18 10:49	
EPA 8270 by SIM	Acenaphthene	884	ug/kg	382	09/26/18 12:31	
EPA 8270 by SIM	Acenaphthylene	207J	ug/kg	326	09/26/18 12:31	
EPA 8270 by SIM	Anthracene	384J	ug/kg	563	09/26/18 12:31	
EPA 8270 by SIM	Fluorene	996	ug/kg	409	09/26/18 12:31	
EPA 8270 by SIM	1-Methylnaphthalene	9270	ug/kg	397	09/26/18 12:31	
EPA 8270 by SIM	2-Methylnaphthalene	16900	ug/kg	495	09/26/18 12:31	
EPA 8270 by SIM	Naphthalene	3510	ug/kg	832	09/26/18 12:31	
EPA 8270 by SIM	Phenanthrene	3260	ug/kg	1150	09/26/18 12:31	
EPA 8270 by SIM	Pyrene	175J	ug/kg	444	09/26/18 12:31	
EPA 8260	Methylene Chloride	49.8J	ug/kg	71.0	09/25/18 16:52	B
EPA 8260	Naphthalene	106J	ug/kg	296	09/25/18 16:52	
ASTM D2974-87	Percent Moisture	15.5	%	0.10	09/25/18 14:49	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SUMMARY OF DETECTION

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40176305014	**B-23 (6''-2)**					
EPA 6010	Arsenic	5.2J	mg/kg	5.4	09/28/18 10:51	
EPA 6010	Barium	66.8	mg/kg	0.54	09/28/18 10:51	
EPA 6010	Cadmium	0.36J	mg/kg	0.54	09/28/18 10:51	
EPA 6010	Chromium	18.2	mg/kg	1.1	09/28/18 10:51	
EPA 6010	Lead	50.3	mg/kg	2.2	09/28/18 10:51	
EPA 7471	Mercury	0.069J	mg/kg	0.12	09/26/18 10:13	
EPA 8270 by SIM	Acenaphthene	185	ug/kg	57.6	09/26/18 14:49	
EPA 8270 by SIM	Acenaphthylene	34.0J	ug/kg	49.1	09/26/18 14:49	
EPA 8270 by SIM	Anthracene	322	ug/kg	84.8	09/26/18 14:49	
EPA 8270 by SIM	Benzo(a)anthracene	729	ug/kg	47.3	09/26/18 14:49	
EPA 8270 by SIM	Benzo(a)pyrene	744	ug/kg	37.4	09/26/18 14:49	
EPA 8270 by SIM	Benzo(b)fluoranthene	905	ug/kg	42.0	09/26/18 14:49	
EPA 8270 by SIM	Benzo(g,h,i)perylene	420	ug/kg	30.2	09/26/18 14:49	
EPA 8270 by SIM	Benzo(k)fluoranthene	425	ug/kg	37.3	09/26/18 14:49	
EPA 8270 by SIM	Chrysene	827	ug/kg	50.0	09/26/18 14:49	
EPA 8270 by SIM	Dibenz(a,h)anthracene	111	ug/kg	33.3	09/26/18 14:49	
EPA 8270 by SIM	Fluoranthene	1630	ug/kg	77.7	09/26/18 14:49	
EPA 8270 by SIM	Fluorene	26.2J	ug/kg	61.6	09/26/18 14:49	
EPA 8270 by SIM	Indeno(1,2,3-cd)pyrene	369	ug/kg	32.7	09/26/18 14:49	
EPA 8270 by SIM	1-Methylnaphthalene	37.7J	ug/kg	59.8	09/26/18 14:49	
EPA 8270 by SIM	Phenanthrene	576	ug/kg	173	09/26/18 14:49	
EPA 8270 by SIM	Pyrene	1220	ug/kg	67.0	09/26/18 14:49	
EPA 8260	Methylene Chloride	64.1J	ug/kg	67.0	09/25/18 19:11	B
ASTM D2974-87	Percent Moisture	10.4	%	0.10	09/25/18 14:49	
40176305015	**B-23 (12-13.5)**					
EPA 6010	Arsenic	4.8J	mg/kg	5.5	09/28/18 10:54	
EPA 6010	Barium	75.2	mg/kg	0.55	09/28/18 10:54	
EPA 6010	Cadmium	0.25J	mg/kg	0.55	09/28/18 10:54	
EPA 6010	Chromium	20.7	mg/kg	1.1	09/28/18 10:54	
EPA 6010	Lead	11.7	mg/kg	2.2	09/28/18 10:54	
EPA 8270 by SIM	Benzo(a)anthracene	5.6J	ug/kg	12.8	09/26/18 11:40	
EPA 8270 by SIM	Fluoranthene	6.6J	ug/kg	21.1	09/26/18 11:40	
EPA 8270 by SIM	Pyrene	5.8J	ug/kg	18.2	09/26/18 11:40	
EPA 8260	1,2-Dichloroethane	115	ug/kg	72.7	09/25/18 17:15	
EPA 8260	Methylene Chloride	59.7J	ug/kg	72.7	09/25/18 17:15	B
ASTM D2974-87	Percent Moisture	17.4	%	0.10	09/25/18 14:49	

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ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-1 (2-3.5) **Lab ID: 40176305001** Collected: 09/18/18 09:00 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**8.0**	mg/kg	5.9	1.2	1	09/26/18 07:12	09/28/18 10:09	7440-38-2	
Barium	**72.1**	mg/kg	0.59	0.18	1	09/26/18 07:12	09/28/18 10:09	7440-39-3	
Cadmium	**0.27J**	mg/kg	0.59	0.16	1	09/26/18 07:12	09/28/18 10:09	7440-43-9	
Chromium	**20.5**	mg/kg	1.2	0.33	1	09/26/18 07:12	09/28/18 10:09	7440-47-3	
Lead	**10.3**	mg/kg	2.4	0.71	1	09/26/18 07:12	09/28/18 10:09	7439-92-1	
Selenium	**<1.6**	mg/kg	5.2	1.6	1	09/26/18 07:12	09/28/18 10:09	7782-49-2	
Silver	**<0.41**	mg/kg	1.2	0.41	1	09/26/18 07:12	09/28/18 10:09	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**<0.037**	mg/kg	0.12	0.037	1	09/25/18 12:34	09/26/18 09:34	7439-97-6	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**<4.6**	ug/kg	15.4	4.6	1	09/25/18 08:51	09/25/18 14:34	83-32-9	
Acenaphthylene	**<3.9**	ug/kg	13.1	3.9	1	09/25/18 08:51	09/25/18 14:34	208-96-8	
Anthracene	**<6.8**	ug/kg	22.6	6.8	1	09/25/18 08:51	09/25/18 14:34	120-12-7	
Benzo(a)anthracene	**<3.8**	ug/kg	12.6	3.8	1	09/25/18 08:51	09/25/18 14:34	56-55-3	
Benzo(a)pyrene	**<3.0**	ug/kg	10	3.0	1	09/25/18 08:51	09/25/18 14:34	50-32-8	
Benzo(b)fluoranthene	**<3.4**	ug/kg	11.2	3.4	1	09/25/18 08:51	09/25/18 14:34	205-99-2	
Benzo(g,h,i)perylene	**<2.4**	ug/kg	8.1	2.4	1	09/25/18 08:51	09/25/18 14:34	191-24-2	
Benzo(k)fluoranthene	**<3.0**	ug/kg	10	3.0	1	09/25/18 08:51	09/25/18 14:34	207-08-9	
Chrysene	**<4.0**	ug/kg	13.3	4.0	1	09/25/18 08:51	09/25/18 14:34	218-01-9	
Dibenz(a,h)anthracene	**<2.7**	ug/kg	8.9	2.7	1	09/25/18 08:51	09/25/18 14:34	53-70-3	
Fluoranthene	**<6.2**	ug/kg	20.7	6.2	1	09/25/18 08:51	09/25/18 14:34	206-44-0	
Fluorene	**<4.9**	ug/kg	16.4	4.9	1	09/25/18 08:51	09/25/18 14:34	86-73-7	
Indeno(1,2,3-cd)pyrene	**<2.6**	ug/kg	8.7	2.6	1	09/25/18 08:51	09/25/18 14:34	193-39-5	
1-Methylnaphthalene	**<4.8**	ug/kg	16.0	4.8	1	09/25/18 08:51	09/25/18 14:34	90-12-0	
2-Methylnaphthalene	**<6.0**	ug/kg	19.9	6.0	1	09/25/18 08:51	09/25/18 14:34	91-57-6	
Naphthalene	**<10.0**	ug/kg	33.5	10.0	1	09/25/18 08:51	09/25/18 14:34	91-20-3	
Phenanthrene	**<13.9**	ug/kg	46.2	13.9	1	09/25/18 08:51	09/25/18 14:34	85-01-8	
Pyrene	**<5.4**	ug/kg	17.9	5.4	1	09/25/18 08:51	09/25/18 14:34	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	55	%	10-115		1	09/25/18 08:51	09/25/18 14:34	321-60-8	
Terphenyl-d14 (S)	53	%	10-121		1	09/25/18 08:51	09/25/18 14:34	1718-51-0	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,1,1,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	630-20-6	W
1,1,1-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	71-55-6	W
1,1,2,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	79-34-5	W
1,1,2-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	79-00-5	W
1,1-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	75-34-3	W
1,1-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	75-35-4	W
1,1-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	563-58-6	W
1,2,3-Trichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	87-61-6	W
1,2,3-Trichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	96-18-4	W
1,2,4-Trichlorobenzene	**<47.6**	ug/kg	250	47.6	1	09/25/18 08:00	09/25/18 12:02	120-82-1	W

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-1 (2-3.5) **Lab ID: 40176305001** Collected: 09/18/18 09:00 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,2,4-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	95-63-6	W
1,2-Dibromo-3-chloropropane	**<91.2**	ug/kg	250	91.2	1	09/25/18 08:00	09/25/18 12:02	96-12-8	W
1,2-Dibromoethane (EDB)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	106-93-4	W
1,2-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	95-50-1	W
1,2-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	107-06-2	W
1,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	78-87-5	W
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	108-67-8	W
1,3-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	541-73-1	W
1,3-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	142-28-9	W
1,4-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	106-46-7	W
2,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	594-20-7	W
2-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	95-49-8	W
4-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	106-43-4	W
Benzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	71-43-2	W
Bromobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	108-86-1	W
Bromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	74-97-5	W
Bromodichloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	75-27-4	W
Bromoform	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	75-25-2	W
Bromomethane	**<69.9**	ug/kg	250	69.9	1	09/25/18 08:00	09/25/18 12:02	74-83-9	W
Carbon tetrachloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	56-23-5	W
Chlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	108-90-7	W
Chloroethane	**<67.0**	ug/kg	250	67.0	1	09/25/18 08:00	09/25/18 12:02	75-00-3	W
Chloroform	**<46.4**	ug/kg	250	46.4	1	09/25/18 08:00	09/25/18 12:02	67-66-3	W
Chloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	74-87-3	W
Dibromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	124-48-1	W
Dibromomethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	74-95-3	W
Dichlorodifluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	75-71-8	W
Diisopropyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	108-20-3	W
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	100-41-4	W
Hexachloro-1,3-butadiene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	87-68-3	W
Isopropylbenzene (Cumene)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	98-82-8	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	1634-04-4	W
Methylene Chloride	**70.3J**	ug/kg	71.6	29.8	1	09/25/18 08:00	09/25/18 12:02	75-09-2	B
Naphthalene	**<40.0**	ug/kg	250	40.0	1	09/25/18 08:00	09/25/18 12:02	91-20-3	W
Styrene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	100-42-5	W
Tetrachloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	127-18-4	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	108-88-3	W
Trichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	79-01-6	W
Trichlorofluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	75-69-4	W
Vinyl chloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	75-01-4	W
cis-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	156-59-2	W
cis-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	10061-01-5	W
m&p-Xylene	**<50.0**	ug/kg	120	50.0	1	09/25/18 08:00	09/25/18 12:02	179601-23-1	W
n-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	104-51-8	W
n-Propylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	103-65-1	W

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-1 (2-3.5) **Lab ID: 40176305001** Collected: 09/18/18 09:00 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	95-47-6	W
p-Isopropyltoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	99-87-6	W
sec-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	135-98-8	W
tert-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	98-06-6	W
trans-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	156-60-5	W
trans-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:02	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	108	%	57-148		1	09/25/18 08:00	09/25/18 12:02	1868-53-7	
Toluene-d8 (S)	103	%	58-142		1	09/25/18 08:00	09/25/18 12:02	2037-26-5	
4-Bromofluorobenzene (S)	84	%	48-130		1	09/25/18 08:00	09/25/18 12:02	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**16.2**	%	0.10	0.10	1		09/25/18 14:48		

Sample: B-2 (2-3.5) **Lab ID: 40176305002** Collected: 09/18/18 09:30 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**2.4J**	mg/kg	5.2	1.1	1	09/26/18 07:12	09/28/18 10:17	7440-38-2	
Barium	**8.2**	mg/kg	0.52	0.16	1	09/26/18 07:12	09/28/18 10:17	7440-39-3	
Cadmium	**<0.14**	mg/kg	0.52	0.14	1	09/26/18 07:12	09/28/18 10:17	7440-43-9	
Chromium	**7.7**	mg/kg	1.0	0.29	1	09/26/18 07:12	09/28/18 10:17	7440-47-3	
Lead	**3.4**	mg/kg	2.1	0.62	1	09/26/18 07:12	09/28/18 10:17	7439-92-1	
Selenium	**<1.4**	mg/kg	4.5	1.4	1	09/26/18 07:12	09/28/18 10:17	7782-49-2	
Silver	**<0.36**	mg/kg	1.0	0.36	1	09/26/18 07:12	09/28/18 10:17	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**<0.036**	mg/kg	0.12	0.036	1	09/25/18 12:34	09/26/18 09:36	7439-97-6	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**<4.1**	ug/kg	13.7	4.1	1	09/25/18 08:51	09/25/18 14:51	83-32-9	
Acenaphthylene	**<3.5**	ug/kg	11.7	3.5	1	09/25/18 08:51	09/25/18 14:51	208-96-8	
Anthracene	**<6.1**	ug/kg	20.2	6.1	1	09/25/18 08:51	09/25/18 14:51	120-12-7	
Benzo(a)anthracene	**<3.4**	ug/kg	11.3	3.4	1	09/25/18 08:51	09/25/18 14:51	56-55-3	
Benzo(a)pyrene	**<2.7**	ug/kg	8.9	2.7	1	09/25/18 08:51	09/25/18 14:51	50-32-8	
Benzo(b)fluoranthene	**<3.0**	ug/kg	10.0	3.0	1	09/25/18 08:51	09/25/18 14:51	205-99-2	
Benzo(g,h,i)perylene	**<2.2**	ug/kg	7.2	2.2	1	09/25/18 08:51	09/25/18 14:51	191-24-2	
Benzo(k)fluoranthene	**<2.7**	ug/kg	8.9	2.7	1	09/25/18 08:51	09/25/18 14:51	207-08-9	
Chrysene	**<3.6**	ug/kg	11.9	3.6	1	09/25/18 08:51	09/25/18 14:51	218-01-9	
Dibenz(a,h)anthracene	**<2.4**	ug/kg	7.9	2.4	1	09/25/18 08:51	09/25/18 14:51	53-70-3	
Fluoranthene	**<5.5**	ug/kg	18.5	5.5	1	09/25/18 08:51	09/25/18 14:51	206-44-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-2 (2-3.5) **Lab ID: 40176305002** Collected: 09/18/18 09:30 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Fluorene	**<4.4**	ug/kg	14.7	4.4	1	09/25/18 08:51	09/25/18 14:51	86-73-7	
Indeno(1,2,3-cd)pyrene	**<2.3**	ug/kg	7.8	2.3	1	09/25/18 08:51	09/25/18 14:51	193-39-5	
1-Methylnaphthalene	**<4.3**	ug/kg	14.3	4.3	1	09/25/18 08:51	09/25/18 14:51	90-12-0	
2-Methylnaphthalene	**<5.3**	ug/kg	17.8	5.3	1	09/25/18 08:51	09/25/18 14:51	91-57-6	
Naphthalene	**<9.0**	ug/kg	29.9	9.0	1	09/25/18 08:51	09/25/18 14:51	91-20-3	
Phenanthrene	**<12.4**	ug/kg	41.3	12.4	1	09/25/18 08:51	09/25/18 14:51	85-01-8	
Pyrene	**<4.8**	ug/kg	16.0	4.8	1	09/25/18 08:51	09/25/18 14:51	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	51	%	10-115		1	09/25/18 08:51	09/25/18 14:51	321-60-8	
Terphenyl-d14 (S)	47	%	10-121		1	09/25/18 08:51	09/25/18 14:51	1718-51-0	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,1,1,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	630-20-6	W
1,1,1-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	71-55-6	W
1,1,2,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	79-34-5	W
1,1,2-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	79-00-5	W
1,1-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	75-34-3	W
1,1-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	75-35-4	W
1,1-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	563-58-6	W
1,2,3-Trichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	87-61-6	W
1,2,3-Trichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	96-18-4	W
1,2,4-Trichlorobenzene	**<47.6**	ug/kg	250	47.6	1	09/25/18 08:00	09/25/18 12:25	120-82-1	W
1,2,4-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	95-63-6	W
1,2-Dibromo-3-chloropropane	**<91.2**	ug/kg	250	91.2	1	09/25/18 08:00	09/25/18 12:25	96-12-8	W
1,2-Dibromoethane (EDB)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	106-93-4	W
1,2-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	95-50-1	W
1,2-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	107-06-2	W
1,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	78-87-5	W
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	108-67-8	W
1,3-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	541-73-1	W
1,3-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	142-28-9	W
1,4-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	106-46-7	W
2,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	594-20-7	W
2-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	95-49-8	W
4-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	106-43-4	W
Benzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	71-43-2	W
Bromobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	108-86-1	W
Bromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	74-97-5	W
Bromodichloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	75-27-4	W
Bromoform	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	75-25-2	W
Bromomethane	**<69.9**	ug/kg	250	69.9	1	09/25/18 08:00	09/25/18 12:25	74-83-9	W
Carbon tetrachloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	56-23-5	W
Chlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	108-90-7	W
Chloroethane	**<67.0**	ug/kg	250	67.0	1	09/25/18 08:00	09/25/18 12:25	75-00-3	W
Chloroform	**<46.4**	ug/kg	250	46.4	1	09/25/18 08:00	09/25/18 12:25	67-66-3	W

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-2 (2-3.5) **Lab ID: 40176305002** Collected: 09/18/18 09:30 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
Chloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	74-87-3	W
Dibromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	124-48-1	W
Dibromomethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	74-95-3	W
Dichlorodifluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	75-71-8	W
Diisopropyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	108-20-3	W
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	100-41-4	W
Hexachloro-1,3-butadiene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	87-68-3	W
Isopropylbenzene (Cumene)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	98-82-8	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	1634-04-4	W
Methylene Chloride	**66.4**	ug/kg	63.9	26.6	1	09/25/18 08:00	09/25/18 12:25	75-09-2	B
Naphthalene	**<40.0**	ug/kg	250	40.0	1	09/25/18 08:00	09/25/18 12:25	91-20-3	W
Styrene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	100-42-5	W
Tetrachloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	127-18-4	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	108-88-3	W
Trichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	79-01-6	W
Trichlorofluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	75-69-4	W
Vinyl chloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	75-01-4	W
cis-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	156-59-2	W
cis-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	10061-01-5	W
m&p-Xylene	**<50.0**	ug/kg	120	50.0	1	09/25/18 08:00	09/25/18 12:25	179601-23-1	W
n-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	104-51-8	W
n-Propylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	103-65-1	W
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	95-47-6	W
p-Isopropyltoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	99-87-6	W
sec-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	135-98-8	W
tert-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	98-06-6	W
trans-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	156-60-5	W
trans-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:25	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	145	%	57-148		1	09/25/18 08:00	09/25/18 12:25	1868-53-7	
Toluene-d8 (S)	138	%	58-142		1	09/25/18 08:00	09/25/18 12:25	2037-26-5	
4-Bromofluorobenzene (S)	114	%	48-130		1	09/25/18 08:00	09/25/18 12:25	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**6.1**	%	0.10	0.10	1		09/25/18 14:48		

Sample: B-4 (2-3.5) **Lab ID: 40176305003** Collected: 09/18/18 10:00 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**4.3J**	mg/kg	5.9	1.2	1	09/26/18 07:12	09/28/18 10:19	7440-38-2	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-4 (2-3.5) **Lab ID: 40176305003** Collected: 09/18/18 10:00 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Barium	**46.6**	mg/kg	0.59	0.18	1	09/26/18 07:12	09/28/18 10:19	7440-39-3	
Cadmium	**0.17J**	mg/kg	0.59	0.16	1	09/26/18 07:12	09/28/18 10:19	7440-43-9	
Chromium	**18.7**	mg/kg	1.2	0.33	1	09/26/18 07:12	09/28/18 10:19	7440-47-3	
Lead	**9.1**	mg/kg	2.3	0.70	1	09/26/18 07:12	09/28/18 10:19	7439-92-1	
Selenium	**<1.5**	mg/kg	5.1	1.5	1	09/26/18 07:12	09/28/18 10:19	7782-49-2	
Silver	**<0.40**	mg/kg	1.2	0.40	1	09/26/18 07:12	09/28/18 10:19	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**<0.038**	mg/kg	0.13	0.038	1	09/25/18 12:34	09/26/18 09:39	7439-97-6	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**<4.7**	ug/kg	15.5	4.7	1	09/25/18 08:51	09/25/18 15:08	83-32-9	
Acenaphthylene	**<4.0**	ug/kg	13.2	4.0	1	09/25/18 08:51	09/25/18 15:08	208-96-8	
Anthracene	**<6.9**	ug/kg	22.8	6.9	1	09/25/18 08:51	09/25/18 15:08	120-12-7	
Benzo(a)anthracene	**<3.8**	ug/kg	12.7	3.8	1	09/25/18 08:51	09/25/18 15:08	56-55-3	
Benzo(a)pyrene	**<3.0**	ug/kg	10.1	3.0	1	09/25/18 08:51	09/25/18 15:08	50-32-8	
Benzo(b)fluoranthene	**<3.4**	ug/kg	11.3	3.4	1	09/25/18 08:51	09/25/18 15:08	205-99-2	
Benzo(g,h,i)perylene	**<2.4**	ug/kg	8.1	2.4	1	09/25/18 08:51	09/25/18 15:08	191-24-2	
Benzo(k)fluoranthene	**<3.0**	ug/kg	10.0	3.0	1	09/25/18 08:51	09/25/18 15:08	207-08-9	
Chrysene	**<4.0**	ug/kg	13.4	4.0	1	09/25/18 08:51	09/25/18 15:08	218-01-9	
Dibenz(a,h)anthracene	**<2.7**	ug/kg	8.9	2.7	1	09/25/18 08:51	09/25/18 15:08	53-70-3	
Fluoranthene	**<6.3**	ug/kg	20.9	6.3	1	09/25/18 08:51	09/25/18 15:08	206-44-0	
Fluorene	**<5.0**	ug/kg	16.6	5.0	1	09/25/18 08:51	09/25/18 15:08	86-73-7	
Indeno(1,2,3-cd)pyrene	**<2.6**	ug/kg	8.8	2.6	1	09/25/18 08:51	09/25/18 15:08	193-39-5	
1-Methylnaphthalene	**<4.8**	ug/kg	16.1	4.8	1	09/25/18 08:51	09/25/18 15:08	90-12-0	
2-Methylnaphthalene	**<6.0**	ug/kg	20.1	6.0	1	09/25/18 08:51	09/25/18 15:08	91-57-6	
Naphthalene	**11.1J**	ug/kg	33.7	10.1	1	09/25/18 08:51	09/25/18 15:08	91-20-3	
Phenanthrene	**<14.0**	ug/kg	46.6	14.0	1	09/25/18 08:51	09/25/18 15:08	85-01-8	
Pyrene	**<5.4**	ug/kg	18.0	5.4	1	09/25/18 08:51	09/25/18 15:08	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	63	%	10-115		1	09/25/18 08:51	09/25/18 15:08	321-60-8	
Terphenyl-d14 (S)	56	%	10-121		1	09/25/18 08:51	09/25/18 15:08	1718-51-0	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,1,1,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	630-20-6	W
1,1,1-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	71-55-6	W
1,1,2,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	79-34-5	W
1,1,2-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	79-00-5	W
1,1-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	75-34-3	W
1,1-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	75-35-4	W
1,1-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	563-58-6	W
1,2,3-Trichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	87-61-6	W
1,2,3-Trichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	96-18-4	W
1,2,4-Trichlorobenzene	**<47.6**	ug/kg	250	47.6	1	09/25/18 08:00	09/25/18 12:48	120-82-1	W
1,2,4-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	95-63-6	W

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-4 (2-3.5) **Lab ID: 40176305003** Collected: 09/18/18 10:00 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,2-Dibromo-3-chloropropane	**<91.2**	ug/kg	250	91.2	1	09/25/18 08:00	09/25/18 12:48	96-12-8	W
1,2-Dibromoethane (EDB)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	106-93-4	W
1,2-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	95-50-1	W
1,2-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	107-06-2	W
1,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	78-87-5	W
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	108-67-8	W
1,3-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	541-73-1	W
1,3-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	142-28-9	W
1,4-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	106-46-7	W
2,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	594-20-7	W
2-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	95-49-8	W
4-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	106-43-4	W
Benzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	71-43-2	W
Bromobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	108-86-1	W
Bromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	74-97-5	W
Bromodichloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	75-27-4	W
Bromoform	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	75-25-2	W
Bromomethane	**<69.9**	ug/kg	250	69.9	1	09/25/18 08:00	09/25/18 12:48	74-83-9	W
Carbon tetrachloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	56-23-5	W
Chlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	108-90-7	W
Chloroethane	**<67.0**	ug/kg	250	67.0	1	09/25/18 08:00	09/25/18 12:48	75-00-3	W
Chloroform	**<46.4**	ug/kg	250	46.4	1	09/25/18 08:00	09/25/18 12:48	67-66-3	W
Chloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	74-87-3	W
Dibromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	124-48-1	W
Dibromomethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	74-95-3	W
Dichlorodifluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	75-71-8	W
Diisopropyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	108-20-3	W
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	100-41-4	W
Hexachloro-1,3-butadiene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	87-68-3	W
Isopropylbenzene (Cumene)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	98-82-8	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	1634-04-4	W
Methylene Chloride	**65.8J**	ug/kg	72.0	30.0	1	09/25/18 08:00	09/25/18 12:48	75-09-2	B
Naphthalene	**<40.0**	ug/kg	250	40.0	1	09/25/18 08:00	09/25/18 12:48	91-20-3	W
Styrene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	100-42-5	W
Tetrachloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	127-18-4	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	108-88-3	W
Trichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	79-01-6	W
Trichlorofluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	75-69-4	W
Vinyl chloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	75-01-4	W
cis-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	156-59-2	W
cis-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	10061-01-5	W
m&p-Xylene	**<50.0**	ug/kg	120	50.0	1	09/25/18 08:00	09/25/18 12:48	179601-23-1	W
n-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	104-51-8	W
n-Propylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	103-65-1	W
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	95-47-6	W

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-4 (2-3.5) **Lab ID: 40176305003** Collected: 09/18/18 10:00 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
p-Isopropyltoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	99-87-6	W
sec-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	135-98-8	W
tert-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	98-06-6	W
trans-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	156-60-5	W
trans-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 12:48	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	116	%	57-148		1	09/25/18 08:00	09/25/18 12:48	1868-53-7	
Toluene-d8 (S)	110	%	58-142		1	09/25/18 08:00	09/25/18 12:48	2037-26-5	
4-Bromofluorobenzene (S)	95	%	48-130		1	09/25/18 08:00	09/25/18 12:48	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**16.7**	%	0.10	0.10	1		09/25/18 14:48		

Sample: B-12 (2-3.5) **Lab ID: 40176305004** Collected: 09/18/18 10:30 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**7.7**	mg/kg	5.6	1.2	1	09/26/18 07:12	09/28/18 10:22	7440-38-2	
Barium	**180**	mg/kg	0.56	0.17	1	09/26/18 07:12	09/28/18 10:22	7440-39-3	
Cadmium	**0.65**	mg/kg	0.56	0.15	1	09/26/18 07:12	09/28/18 10:22	7440-43-9	
Chromium	**12.2**	mg/kg	1.1	0.31	1	09/26/18 07:12	09/28/18 10:22	7440-47-3	
Lead	**429**	mg/kg	2.2	0.67	1	09/26/18 07:12	09/28/18 10:22	7439-92-1	
Selenium	**<1.5**	mg/kg	4.9	1.5	1	09/26/18 07:12	09/28/18 10:22	7782-49-2	
Silver	**<0.39**	mg/kg	1.1	0.39	1	09/26/18 07:12	09/28/18 10:22	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**0.040J**	mg/kg	0.13	0.038	1	09/25/18 12:34	09/26/18 09:46	7439-97-6	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**4.5J**	ug/kg	14.7	4.4	1	09/25/18 08:51	09/26/18 15:40	83-32-9	
Acenaphthylene	**4.8J**	ug/kg	12.5	3.8	1	09/25/18 08:51	09/26/18 15:40	208-96-8	
Anthracene	**19.2J**	ug/kg	21.6	6.5	1	09/25/18 08:51	09/26/18 15:40	120-12-7	
Benzo(a)anthracene	**82.7**	ug/kg	12.1	3.6	1	09/25/18 08:51	09/26/18 15:40	56-55-3	
Benzo(a)pyrene	**84.6**	ug/kg	9.5	2.9	1	09/25/18 08:51	09/26/18 15:40	50-32-8	
Benzo(b)fluoranthene	**166**	ug/kg	10.7	3.2	1	09/25/18 08:51	09/26/18 15:40	205-99-2	
Benzo(g,h,i)perylene	**57.7**	ug/kg	7.7	2.3	1	09/25/18 08:51	09/26/18 15:40	191-24-2	
Benzo(k)fluoranthene	**46.2**	ug/kg	9.5	2.9	1	09/25/18 08:51	09/26/18 15:40	207-08-9	
Chrysene	**133**	ug/kg	12.8	3.8	1	09/25/18 08:51	09/26/18 15:40	218-01-9	
Dibenz(a,h)anthracene	**20.8**	ug/kg	8.5	2.5	1	09/25/18 08:51	09/26/18 15:40	53-70-3	
Fluoranthene	**171**	ug/kg	19.8	5.9	1	09/25/18 08:51	09/26/18 15:40	206-44-0	
Fluorene	**<4.7**	ug/kg	15.7	4.7	1	09/25/18 08:51	09/26/18 15:40	86-73-7	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Green Bay, WI 54302
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ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-12 (2-3.5) **Lab ID: 40176305004** Collected: 09/18/18 10:30 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Indeno(1,2,3-cd)pyrene	**44.3**	ug/kg	8.4	2.5	1	09/25/18 08:51	09/26/18 15:40	193-39-5	
1-Methylnaphthalene	**14.9J**	ug/kg	15.3	4.6	1	09/25/18 08:51	09/26/18 15:40	90-12-0	
2-Methylnaphthalene	**21.5**	ug/kg	19.0	5.7	1	09/25/18 08:51	09/26/18 15:40	91-57-6	
Naphthalene	**29.7J**	ug/kg	32.0	9.6	1	09/25/18 08:51	09/26/18 15:40	91-20-3	
Phenanthrene	**79.9**	ug/kg	44.2	13.3	1	09/25/18 08:51	09/26/18 15:40	85-01-8	
Pyrene	**122**	ug/kg	17.1	5.1	1	09/25/18 08:51	09/26/18 15:40	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	62	%	10-115		1	09/25/18 08:51	09/26/18 15:40	321-60-8	
Terphenyl-d14 (S)	54	%	10-121		1	09/25/18 08:51	09/26/18 15:40	1718-51-0	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,1,1,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	630-20-6	W
1,1,1-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	71-55-6	W
1,1,2,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	79-34-5	W
1,1,2-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	79-00-5	W
1,1-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	75-34-3	W
1,1-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	75-35-4	W
1,1-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	563-58-6	W
1,2,3-Trichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	87-61-6	W
1,2,3-Trichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	96-18-4	W
1,2,4-Trichlorobenzene	**<47.6**	ug/kg	250	47.6	1	09/25/18 08:00	09/25/18 13:12	120-82-1	W
1,2,4-Trimethylbenzene	**35.4J**	ug/kg	68.3	28.4	1	09/25/18 08:00	09/25/18 13:12	95-63-6	
1,2-Dibromo-3-chloropropane	**<91.2**	ug/kg	250	91.2	1	09/25/18 08:00	09/25/18 13:12	96-12-8	W
1,2-Dibromoethane (EDB)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	106-93-4	W
1,2-Dichlorobenzene	**332**	ug/kg	68.3	28.4	1	09/25/18 08:00	09/25/18 13:12	95-50-1	
1,2-Dichloroethane	**39.6J**	ug/kg	68.3	28.4	1	09/25/18 08:00	09/25/18 13:12	107-06-2	
1,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	78-87-5	W
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	108-67-8	W
1,3-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	541-73-1	W
1,3-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	142-28-9	W
1,4-Dichlorobenzene	**306**	ug/kg	68.3	28.4	1	09/25/18 08:00	09/25/18 13:12	106-46-7	
2,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	594-20-7	W
2-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	95-49-8	W
4-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	106-43-4	W
Benzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	71-43-2	W
Bromobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	108-86-1	W
Bromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	74-97-5	W
Bromodichloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	75-27-4	W
Bromoform	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	75-25-2	W
Bromomethane	**<69.9**	ug/kg	250	69.9	1	09/25/18 08:00	09/25/18 13:12	74-83-9	W
Carbon tetrachloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	56-23-5	W
Chlorobenzene	**243**	ug/kg	68.3	28.4	1	09/25/18 08:00	09/25/18 13:12	108-90-7	
Chloroethane	**<67.0**	ug/kg	250	67.0	1	09/25/18 08:00	09/25/18 13:12	75-00-3	W
Chloroform	**<46.4**	ug/kg	250	46.4	1	09/25/18 08:00	09/25/18 13:12	67-66-3	W
Chloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	74-87-3	W

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-12 (2-3.5) **Lab ID: 40176305004** Collected: 09/18/18 10:30 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
Dibromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	124-48-1	W
Dibromomethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	74-95-3	W
Dichlorodifluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	75-71-8	W
Diisopropyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	108-20-3	W
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	100-41-4	W
Hexachloro-1,3-butadiene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	87-68-3	W
Isopropylbenzene (Cumene)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	98-82-8	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	1634-04-4	W
Methylene Chloride	**56.8J**	ug/kg	68.3	28.4	1	09/25/18 08:00	09/25/18 13:12	75-09-2	B
Naphthalene	**430**	ug/kg	284	45.6	1	09/25/18 08:00	09/25/18 13:12	91-20-3	
Styrene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	100-42-5	W
Tetrachloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	127-18-4	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	108-88-3	W
Trichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	79-01-6	W
Trichlorofluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	75-69-4	W
Vinyl chloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	75-01-4	W
cis-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	156-59-2	W
cis-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	10061-01-5	W
m&p-Xylene	**91.0J**	ug/kg	137	56.9	1	09/25/18 08:00	09/25/18 13:12	179601-23-1	
n-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	104-51-8	W
n-Propylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	103-65-1	W
o-Xylene	**57.1J**	ug/kg	68.3	28.4	1	09/25/18 08:00	09/25/18 13:12	95-47-6	
p-Isopropyltoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	99-87-6	W
sec-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	135-98-8	W
tert-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	98-06-6	W
trans-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	156-60-5	W
trans-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:12	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	108	%	57-148		1	09/25/18 08:00	09/25/18 13:12	1868-53-7	
Toluene-d8 (S)	105	%	58-142		1	09/25/18 08:00	09/25/18 13:12	2037-26-5	
4-Bromofluorobenzene (S)	87	%	48-130		1	09/25/18 08:00	09/25/18 13:12	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**12.1**	%	0.10	0.10	1		09/25/18 14:48		

Sample: B-12 (9.5-11) **Lab ID: 40176305005** Collected: 09/18/18 10:45 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**6.4**	mg/kg	5.6	1.2	1	09/26/18 07:12	09/28/18 10:24	7440-38-2	
Barium	**57.6**	mg/kg	0.56	0.17	1	09/26/18 07:12	09/28/18 10:24	7440-39-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-12 (9.5-11) **Lab ID: 40176305005** Collected: 09/18/18 10:45 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Cadmium	**0.20J**	mg/kg	0.56	0.15	1	09/26/18 07:12	09/28/18 10:24	7440-43-9	
Chromium	**14.7**	mg/kg	1.1	0.31	1	09/26/18 07:12	09/28/18 10:24	7440-47-3	
Lead	**8.0**	mg/kg	2.2	0.67	1	09/26/18 07:12	09/28/18 10:24	7439-92-1	
Selenium	**<1.5**	mg/kg	4.9	1.5	1	09/26/18 07:12	09/28/18 10:24	7782-49-2	
Silver	**<0.38**	mg/kg	1.1	0.38	1	09/26/18 07:12	09/28/18 10:24	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**<0.037**	mg/kg	0.12	0.037	1	09/25/18 12:34	09/26/18 09:48	7439-97-6	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**<4.6**	ug/kg	15.3	4.6	1	09/25/18 08:51	09/25/18 15:25	83-32-9	
Acenaphthylene	**<3.9**	ug/kg	13.0	3.9	1	09/25/18 08:51	09/25/18 15:25	208-96-8	
Anthracene	**<6.8**	ug/kg	22.5	6.8	1	09/25/18 08:51	09/25/18 15:25	120-12-7	
Benzo(a)anthracene	**<3.7**	ug/kg	12.5	3.7	1	09/25/18 08:51	09/25/18 15:25	56-55-3	
Benzo(a)pyrene	**<3.0**	ug/kg	9.9	3.0	1	09/25/18 08:51	09/25/18 15:25	50-32-8	
Benzo(b)fluoranthene	**<3.3**	ug/kg	11.1	3.3	1	09/25/18 08:51	09/25/18 15:25	205-99-2	
Benzo(g,h,i)perylene	**<2.4**	ug/kg	8.0	2.4	1	09/25/18 08:51	09/25/18 15:25	191-24-2	
Benzo(k)fluoranthene	**<3.0**	ug/kg	9.9	3.0	1	09/25/18 08:51	09/25/18 15:25	207-08-9	
Chrysene	**<4.0**	ug/kg	13.2	4.0	1	09/25/18 08:51	09/25/18 15:25	218-01-9	
Dibenz(a,h)anthracene	**<2.6**	ug/kg	8.8	2.6	1	09/25/18 08:51	09/25/18 15:25	53-70-3	
Fluoranthene	**<6.2**	ug/kg	20.6	6.2	1	09/25/18 08:51	09/25/18 15:25	206-44-0	
Fluorene	**<4.9**	ug/kg	16.3	4.9	1	09/25/18 08:51	09/25/18 15:25	86-73-7	
Indeno(1,2,3-cd)pyrene	**<2.6**	ug/kg	8.7	2.6	1	09/25/18 08:51	09/25/18 15:25	193-39-5	
1-Methylnaphthalene	**<4.8**	ug/kg	15.8	4.8	1	09/25/18 08:51	09/25/18 15:25	90-12-0	
2-Methylnaphthalene	**<5.9**	ug/kg	19.7	5.9	1	09/25/18 08:51	09/25/18 15:25	91-57-6	
Naphthalene	**<10**	ug/kg	33.2	10	1	09/25/18 08:51	09/25/18 15:25	91-20-3	
Phenanthrene	**<13.8**	ug/kg	45.9	13.8	1	09/25/18 08:51	09/25/18 15:25	85-01-8	
Pyrene	**<5.3**	ug/kg	17.7	5.3	1	09/25/18 08:51	09/25/18 15:25	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	65	%	10-115		1	09/25/18 08:51	09/25/18 15:25	321-60-8	
Terphenyl-d14 (S)	60	%	10-121		1	09/25/18 08:51	09/25/18 15:25	1718-51-0	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,1,1,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	630-20-6	W
1,1,1-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	71-55-6	W
1,1,2,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	79-34-5	W
1,1,2-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	79-00-5	W
1,1-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	75-34-3	W
1,1-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	75-35-4	W
1,1-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	563-58-6	W
1,2,3-Trichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	87-61-6	W
1,2,3-Trichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	96-18-4	W
1,2,4-Trichlorobenzene	**<47.6**	ug/kg	250	47.6	1	09/25/18 08:00	09/25/18 13:35	120-82-1	W
1,2,4-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	95-63-6	W
1,2-Dibromo-3-chloropropane	**<91.2**	ug/kg	250	91.2	1	09/25/18 08:00	09/25/18 13:35	96-12-8	W

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-12 (9.5-11) **Lab ID: 40176305005** Collected: 09/18/18 10:45 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,2-Dibromoethane (EDB)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	106-93-4	W
1,2-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	95-50-1	W
1,2-Dichloroethane	**174**	ug/kg	71.0	29.6	1	09/25/18 08:00	09/25/18 13:35	107-06-2	
1,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	78-87-5	W
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	108-67-8	W
1,3-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	541-73-1	W
1,3-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	142-28-9	W
1,4-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	106-46-7	W
2,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	594-20-7	W
2-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	95-49-8	W
4-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	106-43-4	W
Benzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	71-43-2	W
Bromobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	108-86-1	W
Bromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	74-97-5	W
Bromodichloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	75-27-4	W
Bromoform	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	75-25-2	W
Bromomethane	**<69.9**	ug/kg	250	69.9	1	09/25/18 08:00	09/25/18 13:35	74-83-9	W
Carbon tetrachloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	56-23-5	W
Chlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	108-90-7	W
Chloroethane	**<67.0**	ug/kg	250	67.0	1	09/25/18 08:00	09/25/18 13:35	75-00-3	W
Chloroform	**<46.4**	ug/kg	250	46.4	1	09/25/18 08:00	09/25/18 13:35	67-66-3	W
Chloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	74-87-3	W
Dibromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	124-48-1	W
Dibromomethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	74-95-3	W
Dichlorodifluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	75-71-8	W
Diisopropyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	108-20-3	W
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	100-41-4	W
Hexachloro-1,3-butadiene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	87-68-3	W
Isopropylbenzene (Cumene)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	98-82-8	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	1634-04-4	W
Methylene Chloride	**66.0J**	ug/kg	71.0	29.6	1	09/25/18 08:00	09/25/18 13:35	75-09-2	B
Naphthalene	**<40.0**	ug/kg	250	40.0	1	09/25/18 08:00	09/25/18 13:35	91-20-3	W
Styrene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	100-42-5	W
Tetrachloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	127-18-4	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	108-88-3	W
Trichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	79-01-6	W
Trichlorofluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	75-69-4	W
Vinyl chloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	75-01-4	W
cis-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	156-59-2	W
cis-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	10061-01-5	W
m&p-Xylene	**<50.0**	ug/kg	120	50.0	1	09/25/18 08:00	09/25/18 13:35	179601-23-1	W
n-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	104-51-8	W
n-Propylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	103-65-1	W
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	95-47-6	W
p-Isopropyltoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	99-87-6	W

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-12 (9.5-11) **Lab ID: 40176305005** Collected: 09/18/18 10:45 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
sec-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	135-98-8	W
tert-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	98-06-6	W
trans-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	156-60-5	W
trans-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:35	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	115	%	57-148		1	09/25/18 08:00	09/25/18 13:35	1868-53-7	
Toluene-d8 (S)	109	%	58-142		1	09/25/18 08:00	09/25/18 13:35	2037-26-5	
4-Bromofluorobenzene (S)	90	%	48-130		1	09/25/18 08:00	09/25/18 13:35	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**15.5**	%	0.10	0.10	1		09/25/18 14:48		

Sample: B-16 (2-3.5) **Lab ID: 40176305006** Collected: 09/18/18 11:00 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**5.4**	mg/kg	5.3	1.1	1	09/26/18 07:12	09/28/18 10:27	7440-38-2	
Barium	**52.3**	mg/kg	0.53	0.16	1	09/26/18 07:12	09/28/18 10:27	7440-39-3	
Cadmium	**0.20J**	mg/kg	0.53	0.14	1	09/26/18 07:12	09/28/18 10:27	7440-43-9	
Chromium	**15.9**	mg/kg	1.1	0.30	1	09/26/18 07:12	09/28/18 10:27	7440-47-3	
Lead	**7.9**	mg/kg	2.1	0.64	1	09/26/18 07:12	09/28/18 10:27	7439-92-1	
Selenium	**<1.4**	mg/kg	4.6	1.4	1	09/26/18 07:12	09/28/18 10:27	7782-49-2	
Silver	**<0.37**	mg/kg	1.1	0.37	1	09/26/18 07:12	09/28/18 10:27	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**<0.038**	mg/kg	0.13	0.038	1	09/25/18 12:34	09/26/18 09:50	7439-97-6	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**<4.6**	ug/kg	15.2	4.6	1	09/25/18 08:51	09/25/18 15:42	83-32-9	
Acenaphthylene	**<3.9**	ug/kg	13.0	3.9	1	09/25/18 08:51	09/25/18 15:42	208-96-8	
Anthracene	**<6.7**	ug/kg	22.4	6.7	1	09/25/18 08:51	09/25/18 15:42	120-12-7	
Benzo(a)anthracene	**<3.7**	ug/kg	12.5	3.7	1	09/25/18 08:51	09/25/18 15:42	56-55-3	
Benzo(a)pyrene	**<3.0**	ug/kg	9.9	3.0	1	09/25/18 08:51	09/25/18 15:42	50-32-8	
Benzo(b)fluoranthene	**<3.3**	ug/kg	11.1	3.3	1	09/25/18 08:51	09/25/18 15:42	205-99-2	
Benzo(g,h,i)perylene	**<2.4**	ug/kg	8.0	2.4	1	09/25/18 08:51	09/25/18 15:42	191-24-2	
Benzo(k)fluoranthene	**<3.0**	ug/kg	9.9	3.0	1	09/25/18 08:51	09/25/18 15:42	207-08-9	
Chrysene	**<4.0**	ug/kg	13.2	4.0	1	09/25/18 08:51	09/25/18 15:42	218-01-9	
Dibenz(a,h)anthracene	**<2.6**	ug/kg	8.8	2.6	1	09/25/18 08:51	09/25/18 15:42	53-70-3	
Fluoranthene	**<6.2**	ug/kg	20.6	6.2	1	09/25/18 08:51	09/25/18 15:42	206-44-0	
Fluorene	**<4.9**	ug/kg	16.3	4.9	1	09/25/18 08:51	09/25/18 15:42	86-73-7	
Indeno(1,2,3-cd)pyrene	**<2.6**	ug/kg	8.7	2.6	1	09/25/18 08:51	09/25/18 15:42	193-39-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-16 (2-3.5) **Lab ID: 40176305006** Collected: 09/18/18 11:00 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
1-Methylnaphthalene	**<4.8**	ug/kg	15.8	4.8	1	09/25/18 08:51	09/25/18 15:42	90-12-0	
2-Methylnaphthalene	**<5.9**	ug/kg	19.7	5.9	1	09/25/18 08:51	09/25/18 15:42	91-57-6	
Naphthalene	**<9.9**	ug/kg	33.2	9.9	1	09/25/18 08:51	09/25/18 15:42	91-20-3	
Phenanthrene	**<13.8**	ug/kg	45.8	13.8	1	09/25/18 08:51	09/25/18 15:42	85-01-8	
Pyrene	**<5.3**	ug/kg	17.7	5.3	1	09/25/18 08:51	09/25/18 15:42	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	46	%	10-115		1	09/25/18 08:51	09/25/18 15:42	321-60-8	
Terphenyl-d14 (S)	50	%	10-121		1	09/25/18 08:51	09/25/18 15:42	1718-51-0	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,1,1,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	630-20-6	W
1,1,1-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	71-55-6	W
1,1,2,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	79-34-5	W
1,1,2-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	79-00-5	W
1,1-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	75-34-3	W
1,1-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	75-35-4	W
1,1-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	563-58-6	W
1,2,3-Trichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	87-61-6	W
1,2,3-Trichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	96-18-4	W
1,2,4-Trichlorobenzene	**<47.6**	ug/kg	250	47.6	1	09/25/18 08:00	09/25/18 13:58	120-82-1	W
1,2,4-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	95-63-6	W
1,2-Dibromo-3-chloropropane	**<91.2**	ug/kg	250	91.2	1	09/25/18 08:00	09/25/18 13:58	96-12-8	W
1,2-Dibromoethane (EDB)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	106-93-4	W
1,2-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	95-50-1	W
1,2-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	107-06-2	W
1,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	78-87-5	W
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	108-67-8	W
1,3-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	541-73-1	W
1,3-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	142-28-9	W
1,4-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	106-46-7	W
2,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	594-20-7	W
2-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	95-49-8	W
4-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	106-43-4	W
Benzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	71-43-2	W
Bromobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	108-86-1	W
Bromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	74-97-5	W
Bromodichloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	75-27-4	W
Bromoform	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	75-25-2	W
Bromomethane	**<69.9**	ug/kg	250	69.9	1	09/25/18 08:00	09/25/18 13:58	74-83-9	W
Carbon tetrachloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	56-23-5	W
Chlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	108-90-7	W
Chloroethane	**<67.0**	ug/kg	250	67.0	1	09/25/18 08:00	09/25/18 13:58	75-00-3	W
Chloroform	**<46.4**	ug/kg	250	46.4	1	09/25/18 08:00	09/25/18 13:58	67-66-3	W
Chloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	74-87-3	W
Dibromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	124-48-1	W

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-16 (2-3.5) **Lab ID: 40176305006** Collected: 09/18/18 11:00 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
Dibromomethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	74-95-3	W
Dichlorodifluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	75-71-8	W
Diisopropyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	108-20-3	W
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	100-41-4	W
Hexachloro-1,3-butadiene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	87-68-3	W
Isopropylbenzene (Cumene)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	98-82-8	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	1634-04-4	W
Methylene Chloride	**56.3J**	ug/kg	70.8	29.5	1	09/25/18 08:00	09/25/18 13:58	75-09-2	B
Naphthalene	**<40.0**	ug/kg	250	40.0	1	09/25/18 08:00	09/25/18 13:58	91-20-3	W
Styrene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	100-42-5	W
Tetrachloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	127-18-4	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	108-88-3	W
Trichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	79-01-6	W
Trichlorofluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	75-69-4	W
Vinyl chloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	75-01-4	W
cis-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	156-59-2	W
cis-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	10061-01-5	W
m&p-Xylene	**<50.0**	ug/kg	120	50.0	1	09/25/18 08:00	09/25/18 13:58	179601-23-1	W
n-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	104-51-8	W
n-Propylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	103-65-1	W
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	95-47-6	W
p-Isopropyltoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	99-87-6	W
sec-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	135-98-8	W
tert-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	98-06-6	W
trans-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	156-60-5	W
trans-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 13:58	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	109	%	57-148		1	09/25/18 08:00	09/25/18 13:58	1868-53-7	
Toluene-d8 (S)	107	%	58-142		1	09/25/18 08:00	09/25/18 13:58	2037-26-5	
4-Bromofluorobenzene (S)	87	%	48-130		1	09/25/18 08:00	09/25/18 13:58	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**15.3**	%	0.10	0.10	1		09/25/18 14:48		

Sample: B-17 (6"-2.5) **Lab ID: 40176305007** Collected: 09/18/18 11:30 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**4.0J**	mg/kg	5.4	1.1	1	09/26/18 07:12	09/28/18 10:34	7440-38-2	
Barium	**11.7**	mg/kg	0.54	0.16	1	09/26/18 07:12	09/28/18 10:34	7440-39-3	
Cadmium	**<0.14**	mg/kg	0.54	0.14	1	09/26/18 07:12	09/28/18 10:34	7440-43-9	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-17 (6"-2.5) **Lab ID: 40176305007** Collected: 09/18/18 11:30 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Chromium	**8.4**	mg/kg	1.1	0.30	1	09/26/18 07:12	09/28/18 10:34	7440-47-3	
Lead	**3.8**	mg/kg	2.2	0.65	1	09/26/18 07:12	09/28/18 10:34	7439-92-1	
Selenium	**<1.4**	mg/kg	4.7	1.4	1	09/26/18 07:12	09/28/18 10:34	7782-49-2	
Silver	**<0.37**	mg/kg	1.1	0.37	1	09/26/18 07:12	09/28/18 10:34	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**<0.035**	mg/kg	0.12	0.035	1	09/25/18 12:34	09/26/18 09:53	7439-97-6	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**<4.3**	ug/kg	14.3	4.3	1	09/25/18 08:51	09/26/18 15:58	83-32-9	
Acenaphthylene	**<3.7**	ug/kg	12.2	3.7	1	09/25/18 08:51	09/26/18 15:58	208-96-8	
Anthracene	**<6.3**	ug/kg	21.1	6.3	1	09/25/18 08:51	09/26/18 15:58	120-12-7	
Benzo(a)anthracene	**20.4**	ug/kg	11.8	3.5	1	09/25/18 08:51	09/26/18 15:58	56-55-3	
Benzo(a)pyrene	**22.5**	ug/kg	9.3	2.8	1	09/25/18 08:51	09/26/18 15:58	50-32-8	
Benzo(b)fluoranthene	**33.6**	ug/kg	10.4	3.1	1	09/25/18 08:51	09/26/18 15:58	205-99-2	
Benzo(g,h,i)perylene	**12.9**	ug/kg	7.5	2.3	1	09/25/18 08:51	09/26/18 15:58	191-24-2	
Benzo(k)fluoranthene	**14.0**	ug/kg	9.3	2.8	1	09/25/18 08:51	09/26/18 15:58	207-08-9	
Chrysene	**27.7**	ug/kg	12.4	3.7	1	09/25/18 08:51	09/26/18 15:58	218-01-9	
Dibenz(a,h)anthracene	**3.7J**	ug/kg	8.3	2.5	1	09/25/18 08:51	09/26/18 15:58	53-70-3	
Fluoranthene	**53.5**	ug/kg	19.3	5.8	1	09/25/18 08:51	09/26/18 15:58	206-44-0	
Fluorene	**<4.6**	ug/kg	15.3	4.6	1	09/25/18 08:51	09/26/18 15:58	86-73-7	
Indeno(1,2,3-cd)pyrene	**10.2**	ug/kg	8.1	2.4	1	09/25/18 08:51	09/26/18 15:58	193-39-5	
1-Methylnaphthalene	**<4.5**	ug/kg	14.9	4.5	1	09/25/18 08:51	09/26/18 15:58	90-12-0	
2-Methylnaphthalene	**<5.5**	ug/kg	18.5	5.5	1	09/25/18 08:51	09/26/18 15:58	91-57-6	
Naphthalene	**<9.3**	ug/kg	31.2	9.3	1	09/25/18 08:51	09/26/18 15:58	91-20-3	
Phenanthrene	**<12.9**	ug/kg	43.0	12.9	1	09/25/18 08:51	09/26/18 15:58	85-01-8	
Pyrene	**43.3**	ug/kg	16.6	5.0	1	09/25/18 08:51	09/26/18 15:58	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	67	%	10-115		1	09/25/18 08:51	09/26/18 15:58	321-60-8	
Terphenyl-d14 (S)	60	%	10-121		1	09/25/18 08:51	09/26/18 15:58	1718-51-0	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,1,1,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	630-20-6	W
1,1,1-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	71-55-6	W
1,1,2,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	79-34-5	W
1,1,2-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	79-00-5	W
1,1-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	75-34-3	W
1,1-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	75-35-4	W
1,1-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	563-58-6	W
1,2,3-Trichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	87-61-6	W
1,2,3-Trichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	96-18-4	W
1,2,4-Trichlorobenzene	**<47.6**	ug/kg	250	47.6	1	09/25/18 08:00	09/25/18 14:21	120-82-1	W
1,2,4-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	95-63-6	W
1,2-Dibromo-3-chloropropane	**<91.2**	ug/kg	250	91.2	1	09/25/18 08:00	09/25/18 14:21	96-12-8	W
1,2-Dibromoethane (EDB)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	106-93-4	W

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-17 (6"-2.5) **Lab ID: 40176305007** Collected: 09/18/18 11:30 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,2-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	95-50-1	W
1,2-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	107-06-2	W
1,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	78-87-5	W
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	108-67-8	W
1,3-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	541-73-1	W
1,3-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	142-28-9	W
1,4-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	106-46-7	W
2,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	594-20-7	W
2-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	95-49-8	W
4-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	106-43-4	W
Benzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	71-43-2	W
Bromobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	108-86-1	W
Bromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	74-97-5	W
Bromodichloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	75-27-4	W
Bromoform	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	75-25-2	W
Bromomethane	**<69.9**	ug/kg	250	69.9	1	09/25/18 08:00	09/25/18 14:21	74-83-9	W
Carbon tetrachloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	56-23-5	W
Chlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	108-90-7	W
Chloroethane	**<67.0**	ug/kg	250	67.0	1	09/25/18 08:00	09/25/18 14:21	75-00-3	W
Chloroform	**<46.4**	ug/kg	250	46.4	1	09/25/18 08:00	09/25/18 14:21	67-66-3	W
Chloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	74-87-3	W
Dibromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	124-48-1	W
Dibromomethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	74-95-3	W
Dichlorodifluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	75-71-8	W
Diisopropyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	108-20-3	W
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	100-41-4	W
Hexachloro-1,3-butadiene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	87-68-3	W
Isopropylbenzene (Cumene)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	98-82-8	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	1634-04-4	W
Methylene Chloride	**67.5**	ug/kg	66.6	27.7	1	09/25/18 08:00	09/25/18 14:21	75-09-2	B
Naphthalene	**<40.0**	ug/kg	250	40.0	1	09/25/18 08:00	09/25/18 14:21	91-20-3	W
Styrene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	100-42-5	W
Tetrachloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	127-18-4	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	108-88-3	W
Trichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	79-01-6	W
Trichlorofluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	75-69-4	W
Vinyl chloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	75-01-4	W
cis-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	156-59-2	W
cis-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	10061-01-5	W
m&p-Xylene	**<50.0**	ug/kg	120	50.0	1	09/25/18 08:00	09/25/18 14:21	179601-23-1	W
n-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	104-51-8	W
n-Propylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	103-65-1	W
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	95-47-6	W
p-Isopropyltoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	99-87-6	W
sec-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	135-98-8	W

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-17 (6"-2.5) **Lab ID: 40176305007** Collected: 09/18/18 11:30 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
tert-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	98-06-6	W
trans-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	156-60-5	W
trans-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:21	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	102	%	57-148		1	09/25/18 08:00	09/25/18 14:21	1868-53-7	
Toluene-d8 (S)	103	%	58-142		1	09/25/18 08:00	09/25/18 14:21	2037-26-5	
4-Bromofluorobenzene (S)	81	%	48-130		1	09/25/18 08:00	09/25/18 14:21	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**9.9**	%	0.10	0.10	1		09/25/18 14:48		

Sample: B-18 (6"-2) **Lab ID: 40176305008** Collected: 09/18/18 12:00 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**4.1J**	mg/kg	10.2	2.1	2	09/26/18 07:12	10/02/18 18:18	7440-38-2	D3
Barium	**14.7**	mg/kg	1.0	0.31	2	09/26/18 07:12	10/02/18 18:18	7440-39-3	
Cadmium	**<0.27**	mg/kg	1.0	0.27	2	09/26/18 07:12	10/02/18 18:18	7440-43-9	D3
Chromium	**6.9**	mg/kg	2.0	0.57	2	09/26/18 07:12	10/02/18 18:18	7440-47-3	
Lead	**4.1**	mg/kg	4.1	1.2	2	09/26/18 07:12	10/02/18 18:18	7439-92-1	
Selenium	**<2.7**	mg/kg	8.9	2.7	2	09/26/18 07:12	10/02/18 18:18	7782-49-2	D3
Silver	**<0.70**	mg/kg	2.0	0.70	2	09/26/18 07:12	10/02/18 18:18	7440-22-4	D3
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**<0.034**	mg/kg	0.11	0.034	1	09/25/18 12:34	09/26/18 09:55	7439-97-6	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**<4.1**	ug/kg	13.7	4.1	1	09/25/18 08:51	09/26/18 16:15	83-32-9	
Acenaphthylene	**<3.5**	ug/kg	11.6	3.5	1	09/25/18 08:51	09/26/18 16:15	208-96-8	
Anthracene	**<6.0**	ug/kg	20.1	6.0	1	09/25/18 08:51	09/26/18 16:15	120-12-7	
Benzo(a)anthracene	**19.8**	ug/kg	11.2	3.4	1	09/25/18 08:51	09/26/18 16:15	56-55-3	
Benzo(a)pyrene	**22.5**	ug/kg	8.9	2.7	1	09/25/18 08:51	09/26/18 16:15	50-32-8	
Benzo(b)fluoranthene	**30.1**	ug/kg	10	3.0	1	09/25/18 08:51	09/26/18 16:15	205-99-2	
Benzo(g,h,i)perylene	**13.4**	ug/kg	7.2	2.2	1	09/25/18 08:51	09/26/18 16:15	191-24-2	
Benzo(k)fluoranthene	**13.8**	ug/kg	8.9	2.7	1	09/25/18 08:51	09/26/18 16:15	207-08-9	
Chrysene	**20.2**	ug/kg	11.9	3.6	1	09/25/18 08:51	09/26/18 16:15	218-01-9	
Dibenz(a,h)anthracene	**3.3J**	ug/kg	7.9	2.4	1	09/25/18 08:51	09/26/18 16:15	53-70-3	
Fluoranthene	**37.6**	ug/kg	18.4	5.5	1	09/25/18 08:51	09/26/18 16:15	206-44-0	
Fluorene	**<4.4**	ug/kg	14.6	4.4	1	09/25/18 08:51	09/26/18 16:15	86-73-7	
Indeno(1,2,3-cd)pyrene	**10.2**	ug/kg	7.8	2.3	1	09/25/18 08:51	09/26/18 16:15	193-39-5	
1-Methylnaphthalene	**<4.3**	ug/kg	14.2	4.3	1	09/25/18 08:51	09/26/18 16:15	90-12-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-18 (6"-2) **Lab ID: 40176305008** Collected: 09/18/18 12:00 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
2-Methylnaphthalene	**<5.3**	ug/kg	17.7	5.3	1	09/25/18 08:51	09/26/18 16:15	91-57-6	
Naphthalene	**<8.9**	ug/kg	29.8	8.9	1	09/25/18 08:51	09/26/18 16:15	91-20-3	
Phenanthrene	**<12.3**	ug/kg	41.1	12.3	1	09/25/18 08:51	09/26/18 16:15	85-01-8	
Pyrene	**31.8**	ug/kg	15.9	4.8	1	09/25/18 08:51	09/26/18 16:15	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	72	%	10-115		1	09/25/18 08:51	09/26/18 16:15	321-60-8	
Terphenyl-d14 (S)	64	%	10-121		1	09/25/18 08:51	09/26/18 16:15	1718-51-0	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,1,1,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	630-20-6	W
1,1,1-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	71-55-6	W
1,1,2,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	79-34-5	W
1,1,2-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	79-00-5	W
1,1-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	75-34-3	W
1,1-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	75-35-4	W
1,1-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	563-58-6	W
1,2,3-Trichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	87-61-6	W
1,2,3-Trichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	96-18-4	W
1,2,4-Trichlorobenzene	**<47.6**	ug/kg	250	47.6	1	09/25/18 08:00	09/25/18 14:44	120-82-1	W
1,2,4-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	95-63-6	W
1,2-Dibromo-3-chloropropane	**<91.2**	ug/kg	250	91.2	1	09/25/18 08:00	09/25/18 14:44	96-12-8	W
1,2-Dibromoethane (EDB)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	106-93-4	W
1,2-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	95-50-1	W
1,2-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	107-06-2	W
1,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	78-87-5	W
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	108-67-8	W
1,3-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	541-73-1	W
1,3-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	142-28-9	W
1,4-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	106-46-7	W
2,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	594-20-7	W
2-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	95-49-8	W
4-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	106-43-4	W
Benzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	71-43-2	W
Bromobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	108-86-1	W
Bromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	74-97-5	W
Bromodichloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	75-27-4	W
Bromoform	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	75-25-2	W
Bromomethane	**<69.9**	ug/kg	250	69.9	1	09/25/18 08:00	09/25/18 14:44	74-83-9	W
Carbon tetrachloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	56-23-5	W
Chlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	108-90-7	W
Chloroethane	**<67.0**	ug/kg	250	67.0	1	09/25/18 08:00	09/25/18 14:44	75-00-3	W
Chloroform	**<46.4**	ug/kg	250	46.4	1	09/25/18 08:00	09/25/18 14:44	67-66-3	W
Chloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	74-87-3	W
Dibromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	124-48-1	W
Dibromomethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	74-95-3	W

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-18 (6"-2) **Lab ID: 40176305008** Collected: 09/18/18 12:00 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
Dichlorodifluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	75-71-8	W
Diisopropyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	108-20-3	W
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	100-41-4	W
Hexachloro-1,3-butadiene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	87-68-3	W
Isopropylbenzene (Cumene)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	98-82-8	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	1634-04-4	W
Methylene Chloride	**51.6J**	ug/kg	63.5	26.4	1	09/25/18 08:00	09/25/18 14:44	75-09-2	B
Naphthalene	**<40.0**	ug/kg	250	40.0	1	09/25/18 08:00	09/25/18 14:44	91-20-3	W
Styrene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	100-42-5	W
Tetrachloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	127-18-4	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	108-88-3	W
Trichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	79-01-6	W
Trichlorofluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	75-69-4	W
Vinyl chloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	75-01-4	W
cis-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	156-59-2	W
cis-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	10061-01-5	W
m&p-Xylene	**<50.0**	ug/kg	120	50.0	1	09/25/18 08:00	09/25/18 14:44	179601-23-1	W
n-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	104-51-8	W
n-Propylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	103-65-1	W
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	95-47-6	W
p-Isopropyltoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	99-87-6	W
sec-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	135-98-8	W
tert-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	98-06-6	W
trans-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	156-60-5	W
trans-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 14:44	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	112	%	57-148		1	09/25/18 08:00	09/25/18 14:44	1868-53-7	
Toluene-d8 (S)	108	%	58-142		1	09/25/18 08:00	09/25/18 14:44	2037-26-5	
4-Bromofluorobenzene (S)	83	%	48-130		1	09/25/18 08:00	09/25/18 14:44	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**5.5**	%	0.10	0.10	1		09/25/18 14:48		

Sample: B-18 (9.5-11) **Lab ID: 40176305009** Collected: 09/18/18 12:15 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**4.9J**	mg/kg	10.3	2.2	2	09/26/18 07:12	10/02/18 18:20	7440-38-2	D3
Barium	**45.2**	mg/kg	1.0	0.31	2	09/26/18 07:12	10/02/18 18:20	7440-39-3	
Cadmium	**<0.27**	mg/kg	1.0	0.27	2	09/26/18 07:12	10/02/18 18:20	7440-43-9	D3
Chromium	**9.0**	mg/kg	2.1	0.57	2	09/26/18 07:12	10/02/18 18:20	7440-47-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-18 (9.5-11) **Lab ID: 40176305009** Collected: 09/18/18 12:15 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Lead	**5.2**	mg/kg	4.1	1.2	2	09/26/18 07:12	10/02/18 18:20	7439-92-1	
Selenium	**<2.7**	mg/kg	9.0	2.7	2	09/26/18 07:12	10/02/18 18:20	7782-49-2	D3
Silver	**<0.71**	mg/kg	2.1	0.71	2	09/26/18 07:12	10/02/18 18:20	7440-22-4	D3
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**<0.039**	mg/kg	0.13	0.039	1	09/25/18 12:34	09/26/18 09:57	7439-97-6	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**5.3J**	ug/kg	14.4	4.3	1	09/25/18 08:51	09/26/18 16:32	83-32-9	
Acenaphthylene	**<3.7**	ug/kg	12.3	3.7	1	09/25/18 08:51	09/26/18 16:32	208-96-8	
Anthracene	**12.1J**	ug/kg	21.2	6.4	1	09/25/18 08:51	09/26/18 16:32	120-12-7	
Benzo(a)anthracene	**19.8**	ug/kg	11.8	3.5	1	09/25/18 08:51	09/26/18 16:32	56-55-3	
Benzo(a)pyrene	**15.1**	ug/kg	9.3	2.8	1	09/25/18 08:51	09/26/18 16:32	50-32-8	
Benzo(b)fluoranthene	**24.8**	ug/kg	10.5	3.2	1	09/25/18 08:51	09/26/18 16:32	205-99-2	
Benzo(g,h,i)perylene	**7.0J**	ug/kg	7.6	2.3	1	09/25/18 08:51	09/26/18 16:32	191-24-2	
Benzo(k)fluoranthene	**9.8**	ug/kg	9.3	2.8	1	09/25/18 08:51	09/26/18 16:32	207-08-9	
Chrysene	**26.9**	ug/kg	12.5	3.8	1	09/25/18 08:51	09/26/18 16:32	218-01-9	
Dibenz(a,h)anthracene	**<2.5**	ug/kg	8.3	2.5	1	09/25/18 08:51	09/26/18 16:32	53-70-3	
Fluoranthene	**78.1**	ug/kg	19.4	5.8	1	09/25/18 08:51	09/26/18 16:32	206-44-0	
Fluorene	**5.4J**	ug/kg	15.4	4.6	1	09/25/18 08:51	09/26/18 16:32	86-73-7	
Indeno(1,2,3-cd)pyrene	**5.9J**	ug/kg	8.2	2.5	1	09/25/18 08:51	09/26/18 16:32	193-39-5	
1-Methylnaphthalene	**<4.5**	ug/kg	14.9	4.5	1	09/25/18 08:51	09/26/18 16:32	90-12-0	
2-Methylnaphthalene	**<5.6**	ug/kg	18.6	5.6	1	09/25/18 08:51	09/26/18 16:32	91-57-6	
Naphthalene	**<9.4**	ug/kg	31.3	9.4	1	09/25/18 08:51	09/26/18 16:32	91-20-3	
Phenanthrene	**50.8**	ug/kg	43.3	13.0	1	09/25/18 08:51	09/26/18 16:32	85-01-8	
Pyrene	**51.9**	ug/kg	16.7	5.0	1	09/25/18 08:51	09/26/18 16:32	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	63	%	10-115		1	09/25/18 08:51	09/26/18 16:32	321-60-8	
Terphenyl-d14 (S)	59	%	10-121		1	09/25/18 08:51	09/26/18 16:32	1718-51-0	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,1,1,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	630-20-6	W
1,1,1-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	71-55-6	W
1,1,2,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	79-34-5	W
1,1,2-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	79-00-5	W
1,1-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	75-34-3	W
1,1-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	75-35-4	W
1,1-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	563-58-6	W
1,2,3-Trichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	87-61-6	W
1,2,3-Trichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	96-18-4	W
1,2,4-Trichlorobenzene	**<47.6**	ug/kg	250	47.6	1	09/25/18 08:00	09/25/18 15:07	120-82-1	W
1,2,4-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	95-63-6	W
1,2-Dibromo-3-chloropropane	**<91.2**	ug/kg	250	91.2	1	09/25/18 08:00	09/25/18 15:07	96-12-8	W
1,2-Dibromoethane (EDB)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	106-93-4	W
1,2-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	95-50-1	W

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-18 (9.5-11) **Lab ID: 40176305009** Collected: 09/18/18 12:15 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,2-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	107-06-2	W
1,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	78-87-5	W
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	108-67-8	W
1,3-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	541-73-1	W
1,3-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	142-28-9	W
1,4-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	106-46-7	W
2,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	594-20-7	W
2-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	95-49-8	W
4-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	106-43-4	W
Benzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	71-43-2	W
Bromobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	108-86-1	W
Bromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	74-97-5	W
Bromodichloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	75-27-4	W
Bromoform	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	75-25-2	W
Bromomethane	**<69.9**	ug/kg	250	69.9	1	09/25/18 08:00	09/25/18 15:07	74-83-9	W
Carbon tetrachloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	56-23-5	W
Chlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	108-90-7	W
Chloroethane	**<67.0**	ug/kg	250	67.0	1	09/25/18 08:00	09/25/18 15:07	75-00-3	W
Chloroform	**<46.4**	ug/kg	250	46.4	1	09/25/18 08:00	09/25/18 15:07	67-66-3	W
Chloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	74-87-3	W
Dibromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	124-48-1	W
Dibromomethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	74-95-3	W
Dichlorodifluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	75-71-8	W
Diisopropyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	108-20-3	W
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	100-41-4	W
Hexachloro-1,3-butadiene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	87-68-3	W
Isopropylbenzene (Cumene)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	98-82-8	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	1634-04-4	W
Methylene Chloride	**63.8J**	ug/kg	66.9	27.9	1	09/25/18 08:00	09/25/18 15:07	75-09-2	B
Naphthalene	**<40.0**	ug/kg	250	40.0	1	09/25/18 08:00	09/25/18 15:07	91-20-3	W
Styrene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	100-42-5	W
Tetrachloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	127-18-4	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	108-88-3	W
Trichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	79-01-6	W
Trichlorofluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	75-69-4	W
Vinyl chloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	75-01-4	W
cis-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	156-59-2	W
cis-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	10061-01-5	W
m&p-Xylene	**<50.0**	ug/kg	120	50.0	1	09/25/18 08:00	09/25/18 15:07	179601-23-1	W
n-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	104-51-8	W
n-Propylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	103-65-1	W
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	95-47-6	W
p-Isopropyltoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	99-87-6	W
sec-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	135-98-8	W
tert-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	98-06-6	W

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-18 (9.5-11) **Lab ID: 40176305009** Collected: 09/18/18 12:15 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
trans-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	156-60-5	W
trans-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:07	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	106	%	57-148		1	09/25/18 08:00	09/25/18 15:07	1868-53-7	
Toluene-d8 (S)	101	%	58-142		1	09/25/18 08:00	09/25/18 15:07	2037-26-5	
4-Bromofluorobenzene (S)	82	%	48-130		1	09/25/18 08:00	09/25/18 15:07	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**10.3**	%	0.10	0.10	1		09/25/18 14:49		

Sample: B-19 (6"-3.5) **Lab ID: 40176305010** Collected: 09/18/18 12:30 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**5.3J**	mg/kg	10.8	2.3	2	09/26/18 07:12	10/02/18 18:23	7440-38-2	D3
Barium	**12.9**	mg/kg	1.1	0.32	2	09/26/18 07:12	10/02/18 18:23	7440-39-3	
Cadmium	**<0.29**	mg/kg	1.1	0.29	2	09/26/18 07:12	10/02/18 18:23	7440-43-9	D3
Chromium	**7.6**	mg/kg	2.2	0.60	2	09/26/18 07:12	10/02/18 18:23	7440-47-3	
Lead	**1.9J**	mg/kg	4.3	1.3	2	09/26/18 07:12	10/02/18 18:23	7439-92-1	D3
Selenium	**<2.8**	mg/kg	9.4	2.8	2	09/26/18 07:12	10/02/18 18:23	7782-49-2	D3
Silver	**<0.74**	mg/kg	2.2	0.74	2	09/26/18 07:12	10/02/18 18:23	7440-22-4	D3
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**<0.039**	mg/kg	0.13	0.039	1	09/25/18 12:34	09/26/18 09:59	7439-97-6	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**12.7J**	ug/kg	14.7	4.4	1	09/25/18 08:51	09/26/18 16:50	83-32-9	
Acenaphthylene	**5.4J**	ug/kg	12.6	3.8	1	09/25/18 08:51	09/26/18 16:50	208-96-8	
Anthracene	**44.9**	ug/kg	21.7	6.5	1	09/25/18 08:51	09/26/18 16:50	120-12-7	
Benzo(a)anthracene	**136**	ug/kg	12.1	3.6	1	09/25/18 08:51	09/26/18 16:50	56-55-3	
Benzo(a)pyrene	**142**	ug/kg	9.6	2.9	1	09/25/18 08:51	09/26/18 16:50	50-32-8	
Benzo(b)fluoranthene	**234**	ug/kg	10.7	3.2	1	09/25/18 08:51	09/26/18 16:50	205-99-2	
Benzo(g,h,i)perylene	**61.2**	ug/kg	7.7	2.3	1	09/25/18 08:51	09/26/18 16:50	191-24-2	
Benzo(k)fluoranthene	**77.4**	ug/kg	9.5	2.9	1	09/25/18 08:51	09/26/18 16:50	207-08-9	
Chrysene	**173**	ug/kg	12.8	3.9	1	09/25/18 08:51	09/26/18 16:50	218-01-9	
Dibenz(a,h)anthracene	**15.9**	ug/kg	8.5	2.6	1	09/25/18 08:51	09/26/18 16:50	53-70-3	
Fluoranthene	**360**	ug/kg	19.9	5.9	1	09/25/18 08:51	09/26/18 16:50	206-44-0	
Fluorene	**11.3J**	ug/kg	15.8	4.7	1	09/25/18 08:51	09/26/18 16:50	86-73-7	
Indeno(1,2,3-cd)pyrene	**41.2**	ug/kg	8.4	2.5	1	09/25/18 08:51	09/26/18 16:50	193-39-5	
1-Methylnaphthalene	**13.7J**	ug/kg	15.3	4.6	1	09/25/18 08:51	09/26/18 16:50	90-12-0	
2-Methylnaphthalene	**20.9**	ug/kg	19.1	5.7	1	09/25/18 08:51	09/26/18 16:50	91-57-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-19 (6"-3.5) **Lab ID: 40176305010** Collected: 09/18/18 12:30 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Naphthalene	**<9.6**	ug/kg	32.1	9.6	1	09/25/18 08:51	09/26/18 16:50	91-20-3	
Phenanthrene	**212**	ug/kg	44.3	13.3	1	09/25/18 08:51	09/26/18 16:50	85-01-8	
Pyrene	**271**	ug/kg	17.1	5.2	1	09/25/18 08:51	09/26/18 16:50	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	65	%	10-115		1	09/25/18 08:51	09/26/18 16:50	321-60-8	
Terphenyl-d14 (S)	60	%	10-121		1	09/25/18 08:51	09/26/18 16:50	1718-51-0	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,1,1,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	630-20-6	W
1,1,1-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	71-55-6	W
1,1,2,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	79-34-5	W
1,1,2-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	79-00-5	W
1,1-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	75-34-3	W
1,1-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	75-35-4	W
1,1-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	563-58-6	W
1,2,3-Trichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	87-61-6	W
1,2,3-Trichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	96-18-4	W
1,2,4-Trichlorobenzene	**<47.6**	ug/kg	250	47.6	1	09/25/18 08:00	09/25/18 15:30	120-82-1	W
1,2,4-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	95-63-6	W
1,2-Dibromo-3-chloropropane	**<91.2**	ug/kg	250	91.2	1	09/25/18 08:00	09/25/18 15:30	96-12-8	W
1,2-Dibromoethane (EDB)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	106-93-4	W
1,2-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	95-50-1	W
1,2-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	107-06-2	W
1,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	78-87-5	W
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	108-67-8	W
1,3-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	541-73-1	W
1,3-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	142-28-9	W
1,4-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	106-46-7	W
2,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	594-20-7	W
2-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	95-49-8	W
4-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	106-43-4	W
Benzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	71-43-2	W
Bromobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	108-86-1	W
Bromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	74-97-5	W
Bromodichloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	75-27-4	W
Bromoform	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	75-25-2	W
Bromomethane	**<69.9**	ug/kg	250	69.9	1	09/25/18 08:00	09/25/18 15:30	74-83-9	W
Carbon tetrachloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	56-23-5	W
Chlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	108-90-7	W
Chloroethane	**<67.0**	ug/kg	250	67.0	1	09/25/18 08:00	09/25/18 15:30	75-00-3	W
Chloroform	**<46.4**	ug/kg	250	46.4	1	09/25/18 08:00	09/25/18 15:30	67-66-3	W
Chloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	74-87-3	W
Dibromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	124-48-1	W
Dibromomethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	74-95-3	W
Dichlorodifluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	75-71-8	W

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-19 (6"-3.5) **Lab ID: 40176305010** Collected: 09/18/18 12:30 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
Diisopropyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	108-20-3	W
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	100-41-4	W
Hexachloro-1,3-butadiene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	87-68-3	W
Isopropylbenzene (Cumene)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	98-82-8	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	1634-04-4	W
Methylene Chloride	**57.3J**	ug/kg	68.6	28.6	1	09/25/18 08:00	09/25/18 15:30	75-09-2	B
Naphthalene	**<40.0**	ug/kg	250	40.0	1	09/25/18 08:00	09/25/18 15:30	91-20-3	W
Styrene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	100-42-5	W
Tetrachloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	127-18-4	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	108-88-3	W
Trichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	79-01-6	W
Trichlorofluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	75-69-4	W
Vinyl chloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	75-01-4	W
cis-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	156-59-2	W
cis-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	10061-01-5	W
m&p-Xylene	**<50.0**	ug/kg	120	50.0	1	09/25/18 08:00	09/25/18 15:30	179601-23-1	W
n-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	104-51-8	W
n-Propylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	103-65-1	W
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	95-47-6	W
p-Isopropyltoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	99-87-6	W
sec-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	135-98-8	W
tert-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	98-06-6	W
trans-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	156-60-5	W
trans-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 15:30	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	102	%	57-148		1	09/25/18 08:00	09/25/18 15:30	1868-53-7	
Toluene-d8 (S)	100	%	58-142		1	09/25/18 08:00	09/25/18 15:30	2037-26-5	
4-Bromofluorobenzene (S)	81	%	48-130		1	09/25/18 08:00	09/25/18 15:30	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**12.5**	%	0.10	0.10	1		09/25/18 14:49		

Sample: B-20 (6"-3.5) **Lab ID: 40176305011** Collected: 09/18/18 13:00 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**5.9J**	mg/kg	10.5	2.2	2	09/26/18 07:12	10/02/18 18:25	7440-38-2	D3
Barium	**8.9**	mg/kg	1.0	0.31	2	09/26/18 07:12	10/02/18 18:25	7440-39-3	
Cadmium	**<0.28**	mg/kg	1.0	0.28	2	09/26/18 07:12	10/02/18 18:25	7440-43-9	D3
Chromium	**4.5**	mg/kg	2.1	0.58	2	09/26/18 07:12	10/02/18 18:25	7440-47-3	
Lead	**7.0**	mg/kg	4.2	1.3	2	09/26/18 07:12	10/02/18 18:25	7439-92-1	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-20 (6"-3.5) **Lab ID: 40176305011** Collected: 09/18/18 13:00 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Selenium	**<2.7**	mg/kg	9.1	2.7	2	09/26/18 07:12	10/02/18 18:25	7782-49-2	D3
Silver	**<0.72**	mg/kg	2.1	0.72	2	09/26/18 07:12	10/02/18 18:25	7440-22-4	D3
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**<0.034**	mg/kg	0.11	0.034	1	09/25/18 12:34	09/26/18 10:02	7439-97-6	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**<4.1**	ug/kg	13.7	4.1	1	09/25/18 08:51	09/26/18 17:07	83-32-9	
Acenaphthylene	**<3.5**	ug/kg	11.7	3.5	1	09/25/18 08:51	09/26/18 17:07	208-96-8	
Anthracene	**7.9J**	ug/kg	20.2	6.1	1	09/25/18 08:51	09/26/18 17:07	120-12-7	
Benzo(a)anthracene	**26.1**	ug/kg	11.3	3.4	1	09/25/18 08:51	09/26/18 17:07	56-55-3	
Benzo(a)pyrene	**26.5**	ug/kg	8.9	2.7	1	09/25/18 08:51	09/26/18 17:07	50-32-8	
Benzo(b)fluoranthene	**41.4**	ug/kg	10.0	3.0	1	09/25/18 08:51	09/26/18 17:07	205-99-2	
Benzo(g,h,i)perylene	**10.5**	ug/kg	7.2	2.2	1	09/25/18 08:51	09/26/18 17:07	191-24-2	
Benzo(k)fluoranthene	**14.6**	ug/kg	8.9	2.7	1	09/25/18 08:51	09/26/18 17:07	207-08-9	
Chrysene	**34.1**	ug/kg	11.9	3.6	1	09/25/18 08:51	09/26/18 17:07	218-01-9	
Dibenz(a,h)anthracene	**2.8J**	ug/kg	7.9	2.4	1	09/25/18 08:51	09/26/18 17:07	53-70-3	
Fluoranthene	**60.9**	ug/kg	18.5	5.5	1	09/25/18 08:51	09/26/18 17:07	206-44-0	
Fluorene	**<4.4**	ug/kg	14.7	4.4	1	09/25/18 08:51	09/26/18 17:07	86-73-7	
Indeno(1,2,3-cd)pyrene	**7.4J**	ug/kg	7.8	2.3	1	09/25/18 08:51	09/26/18 17:07	193-39-5	
1-Methylnaphthalene	**<4.3**	ug/kg	14.3	4.3	1	09/25/18 08:51	09/26/18 17:07	90-12-0	
2-Methylnaphthalene	**<5.3**	ug/kg	17.8	5.3	1	09/25/18 08:51	09/26/18 17:07	91-57-6	
Naphthalene	**<9.0**	ug/kg	29.9	9.0	1	09/25/18 08:51	09/26/18 17:07	91-20-3	
Phenanthrene	**32.6J**	ug/kg	41.3	12.4	1	09/25/18 08:51	09/26/18 17:07	85-01-8	
Pyrene	**46.9**	ug/kg	16.0	4.8	1	09/25/18 08:51	09/26/18 17:07	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	65	%	10-115		1	09/25/18 08:51	09/26/18 17:07	321-60-8	
Terphenyl-d14 (S)	60	%	10-121		1	09/25/18 08:51	09/26/18 17:07	1718-51-0	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,1,1,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	630-20-6	W
1,1,1-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	71-55-6	W
1,1,2,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	79-34-5	W
1,1,2-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	79-00-5	W
1,1-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	75-34-3	W
1,1-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	75-35-4	W
1,1-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	563-58-6	W
1,2,3-Trichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	87-61-6	W
1,2,3-Trichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	96-18-4	W
1,2,4-Trichlorobenzene	**<47.6**	ug/kg	250	47.6	1	09/25/18 08:00	09/25/18 16:06	120-82-1	W
1,2,4-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	95-63-6	W
1,2-Dibromo-3-chloropropane	**<91.2**	ug/kg	250	91.2	1	09/25/18 08:00	09/25/18 16:06	96-12-8	W
1,2-Dibromoethane (EDB)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	106-93-4	W
1,2-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	95-50-1	W
1,2-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	107-06-2	W

REPORT OF LABORATORY ANALYSIS

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1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-20 (6"-3.5) **Lab ID: 40176305011** Collected: 09/18/18 13:00 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	78-87-5	W
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	108-67-8	W
1,3-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	541-73-1	W
1,3-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	142-28-9	W
1,4-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	106-46-7	W
2,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	594-20-7	W
2-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	95-49-8	W
4-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	106-43-4	W
Benzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	71-43-2	W
Bromobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	108-86-1	W
Bromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	74-97-5	W
Bromodichloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	75-27-4	W
Bromoform	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	75-25-2	W
Bromomethane	**<69.9**	ug/kg	250	69.9	1	09/25/18 08:00	09/25/18 16:06	74-83-9	W
Carbon tetrachloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	56-23-5	W
Chlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	108-90-7	W
Chloroethane	**<67.0**	ug/kg	250	67.0	1	09/25/18 08:00	09/25/18 16:06	75-00-3	W
Chloroform	**<46.4**	ug/kg	250	46.4	1	09/25/18 08:00	09/25/18 16:06	67-66-3	W
Chloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	74-87-3	W
Dibromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	124-48-1	W
Dibromomethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	74-95-3	W
Dichlorodifluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	75-71-8	W
Diisopropyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	108-20-3	W
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	100-41-4	W
Hexachloro-1,3-butadiene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	87-68-3	W
Isopropylbenzene (Cumene)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	98-82-8	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	1634-04-4	W
Methylene Chloride	**44.0J**	ug/kg	63.9	26.6	1	09/25/18 08:00	09/25/18 16:06	75-09-2	B
Naphthalene	**<40.0**	ug/kg	250	40.0	1	09/25/18 08:00	09/25/18 16:06	91-20-3	W
Styrene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	100-42-5	W
Tetrachloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	127-18-4	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	108-88-3	W
Trichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	79-01-6	W
Trichlorofluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	75-69-4	W
Vinyl chloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	75-01-4	W
cis-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	156-59-2	W
cis-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	10061-01-5	W
m&p-Xylene	**<50.0**	ug/kg	120	50.0	1	09/25/18 08:00	09/25/18 16:06	179601-23-1	W
n-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	104-51-8	W
n-Propylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	103-65-1	W
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	95-47-6	W
p-Isopropyltoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	99-87-6	W
sec-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	135-98-8	W
tert-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	98-06-6	W
trans-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	156-60-5	W

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-20 (6"-3.5) **Lab ID: 40176305011** Collected: 09/18/18 13:00 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
trans-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:06	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	110	%	57-148		1	09/25/18 08:00	09/25/18 16:06	1868-53-7	
Toluene-d8 (S)	103	%	58-142		1	09/25/18 08:00	09/25/18 16:06	2037-26-5	
4-Bromofluorobenzene (S)	85	%	48-130		1	09/25/18 08:00	09/25/18 16:06	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**6.1**	%	0.10	0.10	1		09/25/18 14:49		

Sample: B-21 (2-3.5) **Lab ID: 40176305012** Collected: 09/18/18 13:30 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**9.1**	mg/kg	5.6	1.2	1	09/26/18 07:12	09/28/18 10:46	7440-38-2	
Barium	**660**	mg/kg	0.56	0.17	1	09/26/18 07:12	09/28/18 10:46	7440-39-3	
Cadmium	**104**	mg/kg	0.56	0.15	1	09/26/18 07:12	09/28/18 10:46	7440-43-9	
Chromium	**214**	mg/kg	1.1	0.31	1	09/26/18 07:12	09/28/18 10:46	7440-47-3	
Lead	**8250**	mg/kg	225	67.5	100	09/26/18 07:12	10/02/18 18:28	7439-92-1	
Selenium	**3.9J**	mg/kg	4.9	1.5	1	09/26/18 07:12	09/28/18 10:46	7782-49-2	
Silver	**1.1**	mg/kg	1.1	0.39	1	09/26/18 07:12	09/28/18 10:46	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**0.22**	mg/kg	0.13	0.038	1	09/25/18 12:34	09/26/18 10:04	7439-97-6	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**538**	ug/kg	297	89.4	20	09/25/18 09:33	09/26/18 13:06	83-32-9	
Acenaphthylene	**90.8J**	ug/kg	253	75.9	20	09/25/18 09:33	09/26/18 13:06	208-96-8	
Anthracene	**1400**	ug/kg	438	132	20	09/25/18 09:33	09/26/18 13:06	120-12-7	
Benzo(a)anthracene	**2090**	ug/kg	244	73.1	20	09/25/18 09:33	09/26/18 13:06	56-55-3	
Benzo(a)pyrene	**2190**	ug/kg	193	57.9	20	09/25/18 09:33	09/26/18 13:06	50-32-8	
Benzo(b)fluoranthene	**2740**	ug/kg	217	65.1	20	09/25/18 09:33	09/26/18 13:06	205-99-2	
Benzo(g,h,i)perylene	**1560**	ug/kg	156	46.8	20	09/25/18 09:33	09/26/18 13:06	191-24-2	
Benzo(k)fluoranthene	**1230**	ug/kg	193	57.8	20	09/25/18 09:33	09/26/18 13:06	207-08-9	
Chrysene	**2410**	ug/kg	258	77.7	20	09/25/18 09:33	09/26/18 13:06	218-01-9	
Dibenz(a,h)anthracene	**306**	ug/kg	172	51.5	20	09/25/18 09:33	09/26/18 13:06	53-70-3	
Fluoranthene	**6770**	ug/kg	401	120	20	09/25/18 09:33	09/26/18 13:06	206-44-0	
Fluorene	**756**	ug/kg	318	95.4	20	09/25/18 09:33	09/26/18 13:06	86-73-7	
Indeno(1,2,3-cd)pyrene	**1190**	ug/kg	169	50.7	20	09/25/18 09:33	09/26/18 13:06	193-39-5	
1-Methylnaphthalene	**323**	ug/kg	309	92.7	20	09/25/18 09:33	09/26/18 13:06	90-12-0	
2-Methylnaphthalene	**564**	ug/kg	385	115	20	09/25/18 09:33	09/26/18 13:06	91-57-6	
Naphthalene	**1090**	ug/kg	647	194	20	09/25/18 09:33	09/26/18 13:06	91-20-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
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ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-21 (2-3.5) **Lab ID: 40176305012** Collected: 09/18/18 13:30 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Phenanthrene	**4110**	ug/kg	894	268	20	09/25/18 09:33	09/26/18 13:06	85-01-8	
Pyrene	**5080**	ug/kg	346	104	20	09/25/18 09:33	09/26/18 13:06	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	39	%	10-115		20	09/25/18 09:33	09/26/18 13:06	321-60-8	
Terphenyl-d14 (S)	34	%	10-121		20	09/25/18 09:33	09/26/18 13:06	1718-51-0	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,1,1,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	630-20-6	W
1,1,1-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	71-55-6	W
1,1,2,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	79-34-5	W
1,1,2-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	79-00-5	W
1,1-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	75-34-3	W
1,1-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	75-35-4	W
1,1-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	563-58-6	W
1,2,3-Trichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	87-61-6	W
1,2,3-Trichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	96-18-4	W
1,2,4-Trichlorobenzene	**102J**	ug/kg	288	54.8	1	09/25/18 08:00	09/25/18 16:29	120-82-1	
1,2,4-Trimethylbenzene	**77.3**	ug/kg	69.2	28.8	1	09/25/18 08:00	09/25/18 16:29	95-63-6	
1,2-Dibromo-3-chloropropane	**<91.2**	ug/kg	250	91.2	1	09/25/18 08:00	09/25/18 16:29	96-12-8	W
1,2-Dibromoethane (EDB)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	106-93-4	W
1,2-Dichlorobenzene	**1290**	ug/kg	69.2	28.8	1	09/25/18 08:00	09/25/18 16:29	95-50-1	
1,2-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	107-06-2	W
1,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	78-87-5	W
1,3,5-Trimethylbenzene	**44.4J**	ug/kg	69.2	28.8	1	09/25/18 08:00	09/25/18 16:29	108-67-8	
1,3-Dichlorobenzene	**88.4**	ug/kg	69.2	28.8	1	09/25/18 08:00	09/25/18 16:29	541-73-1	
1,3-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	142-28-9	W
1,4-Dichlorobenzene	**1170**	ug/kg	69.2	28.8	1	09/25/18 08:00	09/25/18 16:29	106-46-7	
2,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	594-20-7	W
2-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	95-49-8	W
4-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	106-43-4	W
Benzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	71-43-2	W
Bromobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	108-86-1	W
Bromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	74-97-5	W
Bromodichloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	75-27-4	W
Bromoform	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	75-25-2	W
Bromomethane	**<69.9**	ug/kg	250	69.9	1	09/25/18 08:00	09/25/18 16:29	74-83-9	W
Carbon tetrachloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	56-23-5	W
Chlorobenzene	**1430**	ug/kg	69.2	28.8	1	09/25/18 08:00	09/25/18 16:29	108-90-7	
Chloroethane	**<67.0**	ug/kg	250	67.0	1	09/25/18 08:00	09/25/18 16:29	75-00-3	W
Chloroform	**<46.4**	ug/kg	250	46.4	1	09/25/18 08:00	09/25/18 16:29	67-66-3	W
Chloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	74-87-3	W
Dibromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	124-48-1	W
Dibromomethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	74-95-3	W
Dichlorodifluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	75-71-8	W
Diisopropyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	108-20-3	W

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
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ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-21 (2-3.5) **Lab ID: 40176305012** Collected: 09/18/18 13:30 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
Ethylbenzene	**130**	ug/kg	69.2	28.8	1	09/25/18 08:00	09/25/18 16:29	100-41-4	
Hexachloro-1,3-butadiene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	87-68-3	W
Isopropylbenzene (Cumene)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	98-82-8	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	1634-04-4	W
Methylene Chloride	**60.1J**	ug/kg	69.2	28.8	1	09/25/18 08:00	09/25/18 16:29	75-09-2	B
Naphthalene	**1140**	ug/kg	288	46.2	1	09/25/18 08:00	09/25/18 16:29	91-20-3	
Styrene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	100-42-5	W
Tetrachloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	127-18-4	W
Toluene	**136**	ug/kg	69.2	28.8	1	09/25/18 08:00	09/25/18 16:29	108-88-3	
Trichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	79-01-6	W
Trichlorofluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	75-69-4	W
Vinyl chloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	75-01-4	W
cis-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	156-59-2	W
cis-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	10061-01-5	W
m&p-Xylene	**254**	ug/kg	138	57.6	1	09/25/18 08:00	09/25/18 16:29	179601-23-1	
n-Butylbenzene	**40.6J**	ug/kg	69.2	28.8	1	09/25/18 08:00	09/25/18 16:29	104-51-8	
n-Propylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	103-65-1	W
o-Xylene	**134**	ug/kg	69.2	28.8	1	09/25/18 08:00	09/25/18 16:29	95-47-6	
p-Isopropyltoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	99-87-6	W
sec-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	135-98-8	W
tert-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	98-06-6	W
trans-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	156-60-5	W
trans-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:29	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	129	%	57-148		1	09/25/18 08:00	09/25/18 16:29	1868-53-7	
Toluene-d8 (S)	127	%	58-142		1	09/25/18 08:00	09/25/18 16:29	2037-26-5	
4-Bromofluorobenzene (S)	106	%	48-130		1	09/25/18 08:00	09/25/18 16:29	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**13.3**	%	0.10	0.10	1		09/25/18 14:49		

Sample: B-21 (14.5-16) **Lab ID: 40176305013** Collected: 09/18/18 13:45 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**6.4**	mg/kg	5.8	1.2	1	09/26/18 07:12	09/28/18 10:49	7440-38-2	
Barium	**61.9**	mg/kg	0.58	0.17	1	09/26/18 07:12	09/28/18 10:49	7440-39-3	
Cadmium	**0.39J**	mg/kg	0.58	0.15	1	09/26/18 07:12	09/28/18 10:49	7440-43-9	
Chromium	**16.6**	mg/kg	1.2	0.32	1	09/26/18 07:12	09/28/18 10:49	7440-47-3	
Lead	**17.9**	mg/kg	2.3	0.69	1	09/26/18 07:12	09/28/18 10:49	7439-92-1	
Selenium	**<1.5**	mg/kg	5.0	1.5	1	09/26/18 07:12	09/28/18 10:49	7782-49-2	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-21 (14.5-16) **Lab ID: 40176305013** Collected: 09/18/18 13:45 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Silver	**<0.40**	mg/kg	1.2	0.40	1	09/26/18 07:12	09/28/18 10:49	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**<0.036**	mg/kg	0.12	0.036	1	09/25/18 12:34	09/26/18 10:06	7439-97-6	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**884**	ug/kg	382	115	25	09/25/18 09:33	09/26/18 12:31	83-32-9	
Acenaphthylene	**207J**	ug/kg	326	97.6	25	09/25/18 09:33	09/26/18 12:31	208-96-8	
Anthracene	**384J**	ug/kg	563	169	25	09/25/18 09:33	09/26/18 12:31	120-12-7	
Benzo(a)anthracene	**<93.9**	ug/kg	314	93.9	25	09/25/18 09:33	09/26/18 12:31	56-55-3	
Benzo(a)pyrene	**<74.4**	ug/kg	248	74.4	25	09/25/18 09:33	09/26/18 12:31	50-32-8	
Benzo(b)fluoranthene	**<83.6**	ug/kg	279	83.6	25	09/25/18 09:33	09/26/18 12:31	205-99-2	
Benzo(g,h,i)perylene	**<60.2**	ug/kg	201	60.2	25	09/25/18 09:33	09/26/18 12:31	191-24-2	
Benzo(k)fluoranthene	**<74.3**	ug/kg	248	74.3	25	09/25/18 09:33	09/26/18 12:31	207-08-9	
Chrysene	**<99.9**	ug/kg	332	99.9	25	09/25/18 09:33	09/26/18 12:31	218-01-9	
Dibenz(a,h)anthracene	**<66.2**	ug/kg	221	66.2	25	09/25/18 09:33	09/26/18 12:31	53-70-3	
Fluoranthene	**<154**	ug/kg	515	154	25	09/25/18 09:33	09/26/18 12:31	206-44-0	
Fluorene	**996**	ug/kg	409	123	25	09/25/18 09:33	09/26/18 12:31	86-73-7	
Indeno(1,2,3-cd)pyrene	**<65.1**	ug/kg	217	65.1	25	09/25/18 09:33	09/26/18 12:31	193-39-5	
1-Methylnaphthalene	**9270**	ug/kg	397	119	25	09/25/18 09:33	09/26/18 12:31	90-12-0	
2-Methylnaphthalene	**16900**	ug/kg	495	148	25	09/25/18 09:33	09/26/18 12:31	91-57-6	
Naphthalene	**3510**	ug/kg	832	249	25	09/25/18 09:33	09/26/18 12:31	91-20-3	
Phenanthrene	**3260**	ug/kg	1150	345	25	09/25/18 09:33	09/26/18 12:31	85-01-8	
Pyrene	**175J**	ug/kg	444	134	25	09/25/18 09:33	09/26/18 12:31	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	87	%	10-115		25	09/25/18 09:33	09/26/18 12:31	321-60-8	
Terphenyl-d14 (S)	70	%	10-121		25	09/25/18 09:33	09/26/18 12:31	1718-51-0	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,1,1,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	630-20-6	W
1,1,1-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	71-55-6	W
1,1,2,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	79-34-5	W
1,1,2-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	79-00-5	W
1,1-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	75-34-3	W
1,1-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	75-35-4	W
1,1-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	563-58-6	W
1,2,3-Trichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	87-61-6	W
1,2,3-Trichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	96-18-4	W
1,2,4-Trichlorobenzene	**<47.6**	ug/kg	250	47.6	1	09/25/18 08:00	09/25/18 16:52	120-82-1	W
1,2,4-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	95-63-6	W
1,2-Dibromo-3-chloropropane	**<91.2**	ug/kg	250	91.2	1	09/25/18 08:00	09/25/18 16:52	96-12-8	W
1,2-Dibromoethane (EDB)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	106-93-4	W
1,2-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	95-50-1	W
1,2-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	107-06-2	W
1,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	78-87-5	W

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-21 (14.5-16) **Lab ID: 40176305013** Collected: 09/18/18 13:45 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	108-67-8	W
1,3-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	541-73-1	W
1,3-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	142-28-9	W
1,4-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	106-46-7	W
2,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	594-20-7	W
2-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	95-49-8	W
4-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	106-43-4	W
Benzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	71-43-2	W
Bromobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	108-86-1	W
Bromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	74-97-5	W
Bromodichloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	75-27-4	W
Bromoform	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	75-25-2	W
Bromomethane	**<69.9**	ug/kg	250	69.9	1	09/25/18 08:00	09/25/18 16:52	74-83-9	W
Carbon tetrachloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	56-23-5	W
Chlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	108-90-7	W
Chloroethane	**<67.0**	ug/kg	250	67.0	1	09/25/18 08:00	09/25/18 16:52	75-00-3	W
Chloroform	**<46.4**	ug/kg	250	46.4	1	09/25/18 08:00	09/25/18 16:52	67-66-3	W
Chloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	74-87-3	W
Dibromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	124-48-1	W
Dibromomethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	74-95-3	W
Dichlorodifluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	75-71-8	W
Diisopropyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	108-20-3	W
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	100-41-4	W
Hexachloro-1,3-butadiene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	87-68-3	W
Isopropylbenzene (Cumene)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	98-82-8	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	1634-04-4	W
Methylene Chloride	**49.8J**	ug/kg	71.0	29.6	1	09/25/18 08:00	09/25/18 16:52	75-09-2	B
Naphthalene	**106J**	ug/kg	296	47.4	1	09/25/18 08:00	09/25/18 16:52	91-20-3	
Styrene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	100-42-5	W
Tetrachloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	127-18-4	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	108-88-3	W
Trichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	79-01-6	W
Trichlorofluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	75-69-4	W
Vinyl chloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	75-01-4	W
cis-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	156-59-2	W
cis-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	10061-01-5	W
m&p-Xylene	**<50.0**	ug/kg	120	50.0	1	09/25/18 08:00	09/25/18 16:52	179601-23-1	W
n-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	104-51-8	W
n-Propylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	103-65-1	W
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	95-47-6	W
p-Isopropyltoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	99-87-6	W
sec-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	135-98-8	W
tert-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	98-06-6	W
trans-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	156-60-5	W
trans-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 16:52	10061-02-6	W

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-21 (14.5-16) **Lab ID: 40176305013** Collected: 09/18/18 13:45 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
Surrogates									
Dibromofluoromethane (S)	109	%	57-148		1	09/25/18 08:00	09/25/18 16:52	1868-53-7	
Toluene-d8 (S)	108	%	58-142		1	09/25/18 08:00	09/25/18 16:52	2037-26-5	
4-Bromofluorobenzene (S)	87	%	48-130		1	09/25/18 08:00	09/25/18 16:52	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**15.5**	%	0.10	0.10	1		09/25/18 14:49		

Sample: B-23 (6"-2) **Lab ID: 40176305014** Collected: 09/18/18 14:00 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**5.2J**	mg/kg	5.4	1.1	1	09/26/18 07:12	09/28/18 10:51	7440-38-2	
Barium	**66.8**	mg/kg	0.54	0.16	1	09/26/18 07:12	09/28/18 10:51	7440-39-3	
Cadmium	**0.36J**	mg/kg	0.54	0.14	1	09/26/18 07:12	09/28/18 10:51	7440-43-9	
Chromium	**18.2**	mg/kg	1.1	0.30	1	09/26/18 07:12	09/28/18 10:51	7440-47-3	
Lead	**50.3**	mg/kg	2.2	0.65	1	09/26/18 07:12	09/28/18 10:51	7439-92-1	
Selenium	**<1.4**	mg/kg	4.7	1.4	1	09/26/18 07:12	09/28/18 10:51	7782-49-2	
Silver	**<0.37**	mg/kg	1.1	0.37	1	09/26/18 07:12	09/28/18 10:51	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**0.069J**	mg/kg	0.12	0.037	1	09/25/18 12:34	09/26/18 10:13	7439-97-6	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**185**	ug/kg	57.6	17.3	4	09/25/18 09:33	09/26/18 14:49	83-32-9	
Acenaphthylene	**34.0J**	ug/kg	49.1	14.7	4	09/25/18 09:33	09/26/18 14:49	208-96-8	
Anthracene	**322**	ug/kg	84.8	25.5	4	09/25/18 09:33	09/26/18 14:49	120-12-7	
Benzo(a)anthracene	**729**	ug/kg	47.3	14.2	4	09/25/18 09:33	09/26/18 14:49	56-55-3	
Benzo(a)pyrene	**744**	ug/kg	37.4	11.2	4	09/25/18 09:33	09/26/18 14:49	50-32-8	
Benzo(b)fluoranthene	**905**	ug/kg	42.0	12.6	4	09/25/18 09:33	09/26/18 14:49	205-99-2	
Benzo(g,h,i)perylene	**420**	ug/kg	30.2	9.1	4	09/25/18 09:33	09/26/18 14:49	191-24-2	
Benzo(k)fluoranthene	**425**	ug/kg	37.3	11.2	4	09/25/18 09:33	09/26/18 14:49	207-08-9	
Chrysene	**827**	ug/kg	50.0	15.1	4	09/25/18 09:33	09/26/18 14:49	218-01-9	
Dibenz(a,h)anthracene	**111**	ug/kg	33.3	10	4	09/25/18 09:33	09/26/18 14:49	53-70-3	
Fluoranthene	**1630**	ug/kg	77.7	23.2	4	09/25/18 09:33	09/26/18 14:49	206-44-0	
Fluorene	**26.2J**	ug/kg	61.6	18.5	4	09/25/18 09:33	09/26/18 14:49	86-73-7	
Indeno(1,2,3-cd)pyrene	**369**	ug/kg	32.7	9.8	4	09/25/18 09:33	09/26/18 14:49	193-39-5	
1-Methylnaphthalene	**37.7J**	ug/kg	59.8	18.0	4	09/25/18 09:33	09/26/18 14:49	90-12-0	
2-Methylnaphthalene	**<22.3**	ug/kg	74.5	22.3	4	09/25/18 09:33	09/26/18 14:49	91-57-6	
Naphthalene	**<37.6**	ug/kg	125	37.6	4	09/25/18 09:33	09/26/18 14:49	91-20-3	
Phenanthrene	**576**	ug/kg	173	52.0	4	09/25/18 09:33	09/26/18 14:49	85-01-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
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ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-23 (6"-2) **Lab ID: 40176305014** Collected: 09/18/18 14:00 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Pyrene	**1220**	ug/kg	67.0	20.1	4	09/25/18 09:33	09/26/18 14:49	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	58	%	10-115		4	09/25/18 09:33	09/26/18 14:49	321-60-8	
Terphenyl-d14 (S)	53	%	10-121		4	09/25/18 09:33	09/26/18 14:49	1718-51-0	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,1,1,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	630-20-6	W
1,1,1-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	71-55-6	W
1,1,2,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	79-34-5	W
1,1,2-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	79-00-5	W
1,1-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	75-34-3	W
1,1-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	75-35-4	W
1,1-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	563-58-6	W
1,2,3-Trichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	87-61-6	W
1,2,3-Trichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	96-18-4	W
1,2,4-Trichlorobenzene	**<47.6**	ug/kg	250	47.6	1	09/25/18 08:00	09/25/18 19:11	120-82-1	W
1,2,4-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	95-63-6	W
1,2-Dibromo-3-chloropropane	**<91.2**	ug/kg	250	91.2	1	09/25/18 08:00	09/25/18 19:11	96-12-8	W
1,2-Dibromoethane (EDB)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	106-93-4	W
1,2-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	95-50-1	W
1,2-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	107-06-2	W
1,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	78-87-5	W
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	108-67-8	W
1,3-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	541-73-1	W
1,3-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	142-28-9	W
1,4-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	106-46-7	W
2,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	594-20-7	W
2-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	95-49-8	W
4-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	106-43-4	W
Benzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	71-43-2	W
Bromobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	108-86-1	W
Bromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	74-97-5	W
Bromodichloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	75-27-4	W
Bromoform	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	75-25-2	W
Bromomethane	**<69.9**	ug/kg	250	69.9	1	09/25/18 08:00	09/25/18 19:11	74-83-9	W
Carbon tetrachloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	56-23-5	W
Chlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	108-90-7	W
Chloroethane	**<67.0**	ug/kg	250	67.0	1	09/25/18 08:00	09/25/18 19:11	75-00-3	W
Chloroform	**<46.4**	ug/kg	250	46.4	1	09/25/18 08:00	09/25/18 19:11	67-66-3	W
Chloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	74-87-3	W
Dibromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	124-48-1	W
Dibromomethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	74-95-3	W
Dichlorodifluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	75-71-8	W
Diisopropyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	108-20-3	W
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	100-41-4	W

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-23 (6"-2) **Lab ID: 40176305014** Collected: 09/18/18 14:00 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
Hexachloro-1,3-butadiene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	87-68-3	W
Isopropylbenzene (Cumene)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	98-82-8	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	1634-04-4	W
Methylene Chloride	**64.1J**	ug/kg	67.0	27.9	1	09/25/18 08:00	09/25/18 19:11	75-09-2	B
Naphthalene	**<40.0**	ug/kg	250	40.0	1	09/25/18 08:00	09/25/18 19:11	91-20-3	W
Styrene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	100-42-5	W
Tetrachloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	127-18-4	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	108-88-3	W
Trichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	79-01-6	W
Trichlorofluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	75-69-4	W
Vinyl chloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	75-01-4	W
cis-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	156-59-2	W
cis-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	10061-01-5	W
m&p-Xylene	**<50.0**	ug/kg	120	50.0	1	09/25/18 08:00	09/25/18 19:11	179601-23-1	W
n-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	104-51-8	W
n-Propylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	103-65-1	W
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	95-47-6	W
p-Isopropyltoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	99-87-6	W
sec-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	135-98-8	W
tert-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	98-06-6	W
trans-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	156-60-5	W
trans-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 19:11	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	116	%	57-148		1	09/25/18 08:00	09/25/18 19:11	1868-53-7	
Toluene-d8 (S)	113	%	58-142		1	09/25/18 08:00	09/25/18 19:11	2037-26-5	
4-Bromofluorobenzene (S)	89	%	48-130		1	09/25/18 08:00	09/25/18 19:11	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**10.4**	%	0.10	0.10	1		09/25/18 14:49		

Sample: B-23 (12-13.5) **Lab ID: 40176305015** Collected: 09/18/18 14:45 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**4.8J**	mg/kg	5.5	1.1	1	09/26/18 07:12	09/28/18 10:54	7440-38-2	
Barium	**75.2**	mg/kg	0.55	0.16	1	09/26/18 07:12	09/28/18 10:54	7440-39-3	
Cadmium	**0.25J**	mg/kg	0.55	0.15	1	09/26/18 07:12	09/28/18 10:54	7440-43-9	
Chromium	**20.7**	mg/kg	1.1	0.30	1	09/26/18 07:12	09/28/18 10:54	7440-47-3	
Lead	**11.7**	mg/kg	2.2	0.66	1	09/26/18 07:12	09/28/18 10:54	7439-92-1	
Selenium	**<1.4**	mg/kg	4.8	1.4	1	09/26/18 07:12	09/28/18 10:54	7782-49-2	
Silver	**<0.38**	mg/kg	1.1	0.38	1	09/26/18 07:12	09/28/18 10:54	7440-22-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-23 (12-13.5) **Lab ID: 40176305015** Collected: 09/18/18 14:45 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**<0.037**	mg/kg	0.12	0.037	1	09/25/18 12:34	09/26/18 10:16	7439-97-6	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**<4.7**	ug/kg	15.6	4.7	1	09/25/18 09:33	09/26/18 11:40	83-32-9	
Acenaphthylene	**<4.0**	ug/kg	13.3	4.0	1	09/25/18 09:33	09/26/18 11:40	208-96-8	
Anthracene	**<6.9**	ug/kg	23.0	6.9	1	09/25/18 09:33	09/26/18 11:40	120-12-7	
Benzo(a)anthracene	**5.6J**	ug/kg	12.8	3.8	1	09/25/18 09:33	09/26/18 11:40	56-55-3	
Benzo(a)pyrene	**<3.0**	ug/kg	10.1	3.0	1	09/25/18 09:33	09/26/18 11:40	50-32-8	
Benzo(b)fluoranthene	**<3.4**	ug/kg	11.4	3.4	1	09/25/18 09:33	09/26/18 11:40	205-99-2	
Benzo(g,h,i)perylene	**<2.5**	ug/kg	8.2	2.5	1	09/25/18 09:33	09/26/18 11:40	191-24-2	
Benzo(k)fluoranthene	**<3.0**	ug/kg	10.1	3.0	1	09/25/18 09:33	09/26/18 11:40	207-08-9	
Chrysene	**<4.1**	ug/kg	13.6	4.1	1	09/25/18 09:33	09/26/18 11:40	218-01-9	
Dibenz(a,h)anthracene	**<2.7**	ug/kg	9.0	2.7	1	09/25/18 09:33	09/26/18 11:40	53-70-3	
Fluoranthene	**6.6J**	ug/kg	21.1	6.3	1	09/25/18 09:33	09/26/18 11:40	206-44-0	
Fluorene	**<5.0**	ug/kg	16.7	5.0	1	09/25/18 09:33	09/26/18 11:40	86-73-7	
Indeno(1,2,3-cd)pyrene	**<2.7**	ug/kg	8.9	2.7	1	09/25/18 09:33	09/26/18 11:40	193-39-5	
1-Methylnaphthalene	**<4.9**	ug/kg	16.2	4.9	1	09/25/18 09:33	09/26/18 11:40	90-12-0	
2-Methylnaphthalene	**<6.1**	ug/kg	20.2	6.1	1	09/25/18 09:33	09/26/18 11:40	91-57-6	
Naphthalene	**<10.2**	ug/kg	34.0	10.2	1	09/25/18 09:33	09/26/18 11:40	91-20-3	
Phenanthrene	**<14.1**	ug/kg	47.0	14.1	1	09/25/18 09:33	09/26/18 11:40	85-01-8	
Pyrene	**5.8J**	ug/kg	18.2	5.5	1	09/25/18 09:33	09/26/18 11:40	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	72	%	10-115		1	09/25/18 09:33	09/26/18 11:40	321-60-8	
Terphenyl-d14 (S)	61	%	10-121		1	09/25/18 09:33	09/26/18 11:40	1718-51-0	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,1,1,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	630-20-6	W
1,1,1-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	71-55-6	W
1,1,2,2-Tetrachloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	79-34-5	W
1,1,2-Trichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	79-00-5	W
1,1-Dichloroethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	75-34-3	W
1,1-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	75-35-4	W
1,1-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	563-58-6	W
1,2,3-Trichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	87-61-6	W
1,2,3-Trichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	96-18-4	W
1,2,4-Trichlorobenzene	**<47.6**	ug/kg	250	47.6	1	09/25/18 08:00	09/25/18 17:15	120-82-1	W
1,2,4-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	95-63-6	W
1,2-Dibromo-3-chloropropane	**<91.2**	ug/kg	250	91.2	1	09/25/18 08:00	09/25/18 17:15	96-12-8	W
1,2-Dibromoethane (EDB)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	106-93-4	W
1,2-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	95-50-1	W
1,2-Dichloroethane	**115**	ug/kg	72.7	30.3	1	09/25/18 08:00	09/25/18 17:15	107-06-2	
1,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	78-87-5	W
1,3,5-Trimethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	108-67-8	W
1,3-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	541-73-1	W
1,3-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	142-28-9	W

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-23 (12-13.5) **Lab ID: 40176305015** Collected: 09/18/18 14:45 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,4-Dichlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	106-46-7	W
2,2-Dichloropropane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	594-20-7	W
2-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	95-49-8	W
4-Chlorotoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	106-43-4	W
Benzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	71-43-2	W
Bromobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	108-86-1	W
Bromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	74-97-5	W
Bromodichloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	75-27-4	W
Bromoform	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	75-25-2	W
Bromomethane	**<69.9**	ug/kg	250	69.9	1	09/25/18 08:00	09/25/18 17:15	74-83-9	W
Carbon tetrachloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	56-23-5	W
Chlorobenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	108-90-7	W
Chloroethane	**<67.0**	ug/kg	250	67.0	1	09/25/18 08:00	09/25/18 17:15	75-00-3	W
Chloroform	**<46.4**	ug/kg	250	46.4	1	09/25/18 08:00	09/25/18 17:15	67-66-3	W
Chloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	74-87-3	W
Dibromochloromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	124-48-1	W
Dibromomethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	74-95-3	W
Dichlorodifluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	75-71-8	W
Diisopropyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	108-20-3	W
Ethylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	100-41-4	W
Hexachloro-1,3-butadiene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	87-68-3	W
Isopropylbenzene (Cumene)	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	98-82-8	W
Methyl-tert-butyl ether	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	1634-04-4	W
Methylene Chloride	**59.7J**	ug/kg	72.7	30.3	1	09/25/18 08:00	09/25/18 17:15	75-09-2	B
Naphthalene	**<40.0**	ug/kg	250	40.0	1	09/25/18 08:00	09/25/18 17:15	91-20-3	W
Styrene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	100-42-5	W
Tetrachloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	127-18-4	W
Toluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	108-88-3	W
Trichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	79-01-6	W
Trichlorofluoromethane	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	75-69-4	W
Vinyl chloride	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	75-01-4	W
cis-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	156-59-2	W
cis-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	10061-01-5	W
m&p-Xylene	**<50.0**	ug/kg	120	50.0	1	09/25/18 08:00	09/25/18 17:15	179601-23-1	W
n-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	104-51-8	W
n-Propylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	103-65-1	W
o-Xylene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	95-47-6	W
p-Isopropyltoluene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	99-87-6	W
sec-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	135-98-8	W
tert-Butylbenzene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	98-06-6	W
trans-1,2-Dichloroethene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	156-60-5	W
trans-1,3-Dichloropropene	**<25.0**	ug/kg	60.0	25.0	1	09/25/18 08:00	09/25/18 17:15	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	103	%	57-148		1	09/25/18 08:00	09/25/18 17:15	1868-53-7	
Toluene-d8 (S)	96	%	58-142		1	09/25/18 08:00	09/25/18 17:15	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Sample: B-23 (12-13.5) **Lab ID: 40176305015** Collected: 09/18/18 14:45 Received: 09/21/18 15:10 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
Surrogates									
4-Bromofluorobenzene (S)	79	%	48-130		1	09/25/18 08:00	09/25/18 17:15	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**17.4**	%	0.10	0.10	1		09/25/18 14:49		

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

QC Batch: 301143 Analysis Method: EPA 7471
QC Batch Method: EPA 7471 Analysis Description: 7471 Mercury
Associated Lab Samples: 40176305001, 40176305002, 40176305003, 40176305004, 40176305005, 40176305006, 40176305007, 40176305008, 40176305009, 40176305010, 40176305011, 40176305012, 40176305013, 40176305014, 40176305015

METHOD BLANK: 1758834 Matrix: Solid
Associated Lab Samples: 40176305001, 40176305002, 40176305003, 40176305004, 40176305005, 40176305006, 40176305007, 40176305008, 40176305009, 40176305010, 40176305011, 40176305012, 40176305013, 40176305014, 40176305015

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	mg/kg	<0.035	0.12	09/26/18 09:18	

LABORATORY CONTROL SAMPLE: 1758835

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/kg	.83	0.85	102	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1758836 1758837

Parameter	Units	40176292001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/kg	<0.042	1	1	1.1	1.1	102	102	85-115	2	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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(920)469-2436

QUALITY CONTROL DATA

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

QC Batch: 301034 Analysis Method: EPA 6010
QC Batch Method: EPA 3050 Analysis Description: 6010 MET
Associated Lab Samples: 40176305001, 40176305002, 40176305003, 40176305004, 40176305005, 40176305006, 40176305007, 40176305008, 40176305009, 40176305010, 40176305011, 40176305012, 40176305013, 40176305014, 40176305015

METHOD BLANK: 1758360 Matrix: Solid
Associated Lab Samples: 40176305001, 40176305002, 40176305003, 40176305004, 40176305005, 40176305006, 40176305007, 40176305008, 40176305009, 40176305010, 40176305011, 40176305012, 40176305013, 40176305014, 40176305015

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/kg	<1.0	5.0	09/28/18 10:05	
Barium	mg/kg	<0.15	0.50	09/28/18 10:05	
Cadmium	mg/kg	<0.13	0.50	09/28/18 10:05	
Chromium	mg/kg	<0.28	1.0	09/28/18 10:05	
Lead	mg/kg	<0.60	2.0	09/28/18 10:05	
Selenium	mg/kg	<1.3	4.4	09/28/18 10:05	
Silver	mg/kg	<0.34	1.0	09/28/18 10:05	

LABORATORY CONTROL SAMPLE: 1758361

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/kg	50	50.3	101	80-120	
Barium	mg/kg	50	50.2	100	80-120	
Cadmium	mg/kg	50	49.7	99	80-120	
Chromium	mg/kg	50	50.6	101	80-120	
Lead	mg/kg	50	49.6	99	80-120	
Selenium	mg/kg	50	51.0	102	80-120	
Silver	mg/kg	25	25.1	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1758362 1758363

Parameter	Units	40176305001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/kg	8.0	59.7	59.5	63.5	61.7	93	90	75-125	3	20	
Barium	mg/kg	72.1	59.7	59.5	136	130	106	98	75-125	4	20	
Cadmium	mg/kg	0.27J	59.7	59.5	58.1	57.6	97	96	75-125	1	20	
Chromium	mg/kg	20.5	59.7	59.5	78.7	77.2	98	95	75-125	2	20	
Lead	mg/kg	10.3	59.7	59.5	64.0	61.9	90	87	75-125	3	20	
Selenium	mg/kg	<1.6	59.7	59.5	57.0	56.4	96	95	75-125	1	20	
Silver	mg/kg	<0.41	29.8	29.7	29.3	28.6	98	96	75-125	2	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

QUALITY CONTROL DATA

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

QC Batch: 301170 Analysis Method: EPA 8260
QC Batch Method: EPA 5035/5030B Analysis Description: 8260 MSV Med Level Normal List
Associated Lab Samples: 40176305001, 40176305002, 40176305003, 40176305004, 40176305005, 40176305006, 40176305007, 40176305008, 40176305009, 40176305010, 40176305011, 40176305012, 40176305013, 40176305014, 40176305015

METHOD BLANK: 1758936 Matrix: Solid
Associated Lab Samples: 40176305001, 40176305002, 40176305003, 40176305004, 40176305005, 40176305006, 40176305007, 40176305008, 40176305009, 40176305010, 40176305011, 40176305012, 40176305013, 40176305014, 40176305015

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/kg	<13.7	50.0	09/25/18 09:29	
1,1,1-Trichloroethane	ug/kg	<14.4	50.0	09/25/18 09:29	
1,1,2,2-Tetrachloroethane	ug/kg	<17.5	50.0	09/25/18 09:29	
1,1,2-Trichloroethane	ug/kg	<20.2	50.0	09/25/18 09:29	
1,1-Dichloroethane	ug/kg	<17.6	50.0	09/25/18 09:29	
1,1-Dichloroethene	ug/kg	<17.6	50.0	09/25/18 09:29	
1,1-Dichloropropene	ug/kg	<14.0	50.0	09/25/18 09:29	
1,2,3-Trichlorobenzene	ug/kg	<17.0	50.0	09/25/18 09:29	
1,2,3-Trichloropropane	ug/kg	<22.3	50.0	09/25/18 09:29	
1,2,4-Trichlorobenzene	ug/kg	<47.6	250	09/25/18 09:29	
1,2,4-Trimethylbenzene	ug/kg	<12.2	50.0	09/25/18 09:29	
1,2-Dibromo-3-chloropropane	ug/kg	<91.2	250	09/25/18 09:29	
1,2-Dibromoethane (EDB)	ug/kg	<14.7	50.0	09/25/18 09:29	
1,2-Dichlorobenzene	ug/kg	<16.2	50.0	09/25/18 09:29	
1,2-Dichloroethane	ug/kg	<15.0	50.0	09/25/18 09:29	
1,2-Dichloropropane	ug/kg	<16.8	50.0	09/25/18 09:29	
1,3,5-Trimethylbenzene	ug/kg	<14.5	50.0	09/25/18 09:29	
1,3-Dichlorobenzene	ug/kg	<13.2	50.0	09/25/18 09:29	
1,3-Dichloropropane	ug/kg	<12.0	50.0	09/25/18 09:29	
1,4-Dichlorobenzene	ug/kg	<15.9	50.0	09/25/18 09:29	
2,2-Dichloropropane	ug/kg	<12.6	50.0	09/25/18 09:29	
2-Chlorotoluene	ug/kg	<15.8	50.0	09/25/18 09:29	
4-Chlorotoluene	ug/kg	<13.0	50.0	09/25/18 09:29	
Benzene	ug/kg	<9.2	20.0	09/25/18 09:29	
Bromobenzene	ug/kg	<20.6	50.0	09/25/18 09:29	
Bromochloromethane	ug/kg	<21.4	50.0	09/25/18 09:29	
Bromodichloromethane	ug/kg	<9.8	50.0	09/25/18 09:29	
Bromoform	ug/kg	<19.8	50.0	09/25/18 09:29	
Bromomethane	ug/kg	<69.9	250	09/25/18 09:29	
Carbon tetrachloride	ug/kg	<12.1	50.0	09/25/18 09:29	
Chlorobenzene	ug/kg	<14.8	50.0	09/25/18 09:29	
Chloroethane	ug/kg	<67.0	250	09/25/18 09:29	
Chloroform	ug/kg	<46.4	250	09/25/18 09:29	
Chloromethane	ug/kg	<20.4	50.0	09/25/18 09:29	
cis-1,2-Dichloroethene	ug/kg	<16.6	50.0	09/25/18 09:29	
cis-1,3-Dichloropropene	ug/kg	<16.6	50.0	09/25/18 09:29	
Dibromochloromethane	ug/kg	<17.9	50.0	09/25/18 09:29	
Dibromomethane	ug/kg	<19.3	50.0	09/25/18 09:29	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

METHOD BLANK: 1758936 Matrix: Solid

Associated Lab Samples: 40176305001, 40176305002, 40176305003, 40176305004, 40176305005, 40176305006, 40176305007, 40176305008, 40176305009, 40176305010, 40176305011, 40176305012, 40176305013, 40176305014, 40176305015

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Dichlorodifluoromethane	ug/kg	<12.3	50.0	09/25/18 09:29	
Diisopropyl ether	ug/kg	<17.7	50.0	09/25/18 09:29	
Ethylbenzene	ug/kg	<12.4	50.0	09/25/18 09:29	
Hexachloro-1,3-butadiene	ug/kg	<24.5	50.0	09/25/18 09:29	
Isopropylbenzene (Cumene)	ug/kg	<12.6	50.0	09/25/18 09:29	
m&p-Xylene	ug/kg	<34.4	100	09/25/18 09:29	
Methyl-tert-butyl ether	ug/kg	<12.7	50.0	09/25/18 09:29	
Methylene Chloride	ug/kg	48.2J	50.0	09/25/18 09:29	
n-Butylbenzene	ug/kg	<10.5	50.0	09/25/18 09:29	
n-Propylbenzene	ug/kg	<11.6	50.0	09/25/18 09:29	
Naphthalene	ug/kg	<40.0	250	09/25/18 09:29	
o-Xylene	ug/kg	<14.0	50.0	09/25/18 09:29	
p-Isopropyltoluene	ug/kg	<12.0	50.0	09/25/18 09:29	
sec-Butylbenzene	ug/kg	<11.9	50.0	09/25/18 09:29	
Styrene	ug/kg	<9.0	50.0	09/25/18 09:29	
tert-Butylbenzene	ug/kg	<9.5	50.0	09/25/18 09:29	
Tetrachloroethene	ug/kg	<12.9	50.0	09/25/18 09:29	
Toluene	ug/kg	<11.2	50.0	09/25/18 09:29	
trans-1,2-Dichloroethene	ug/kg	<16.5	50.0	09/25/18 09:29	
trans-1,3-Dichloropropene	ug/kg	<14.4	50.0	09/25/18 09:29	
Trichloroethene	ug/kg	<23.6	50.0	09/25/18 09:29	
Trichlorofluoromethane	ug/kg	<24.7	50.0	09/25/18 09:29	
Vinyl chloride	ug/kg	<21.1	50.0	09/25/18 09:29	
4-Bromofluorobenzene (S)	%	88	48-130	09/25/18 09:29	
Dibromofluoromethane (S)	%	107	57-148	09/25/18 09:29	
Toluene-d8 (S)	%	109	58-142	09/25/18 09:29	

LABORATORY CONTROL SAMPLE: 1758937

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/kg	2500	2320	93	70-130	
1,1,2,2-Tetrachloroethane	ug/kg	2500	2540	102	68-130	
1,1,2-Trichloroethane	ug/kg	2500	2470	99	70-130	
1,1-Dichloroethane	ug/kg	2500	2420	97	67-132	
1,1-Dichloroethene	ug/kg	2500	2540	101	67-128	
1,2,4-Trichlorobenzene	ug/kg	2500	2590	104	51-131	
1,2-Dibromo-3-chloropropane	ug/kg	2500	2290	92	49-117	
1,2-Dibromoethane (EDB)	ug/kg	2500	2690	108	70-130	
1,2-Dichlorobenzene	ug/kg	2500	2360	95	70-130	
1,2-Dichloroethane	ug/kg	2500	2180	87	65-137	
1,2-Dichloropropane	ug/kg	2500	2380	95	75-126	
1,3-Dichlorobenzene	ug/kg	2500	2320	93	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

LABORATORY CONTROL SAMPLE: 1758937

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dichlorobenzene	ug/kg	2500	2160	86	70-130	
Benzene	ug/kg	2500	2470	99	70-130	
Bromodichloromethane	ug/kg	2500	2310	92	70-130	
Bromoform	ug/kg	2500	2260	90	57-117	
Bromomethane	ug/kg	2500	2330	93	48-135	
Carbon tetrachloride	ug/kg	2500	2350	94	65-133	
Chlorobenzene	ug/kg	2500	2320	93	70-130	
Chloroethane	ug/kg	2500	2770	111	37-165	
Chloroform	ug/kg	2500	2320	93	72-126	
Chloromethane	ug/kg	2500	1660	66	34-120	
cis-1,2-Dichloroethene	ug/kg	2500	2390	96	70-130	
cis-1,3-Dichloropropene	ug/kg	2500	2390	96	69-130	
Dibromochloromethane	ug/kg	2500	2480	99	68-130	
Dichlorodifluoromethane	ug/kg	2500	1170	47	22-100	
Ethylbenzene	ug/kg	2500	2410	96	79-121	
Isopropylbenzene (Cumene)	ug/kg	2500	2540	102	70-130	
m&p-Xylene	ug/kg	5000	5170	103	70-130	
Methyl-tert-butyl ether	ug/kg	2500	2440	98	66-129	
Methylene Chloride	ug/kg	2500	2490	100	68-129	
o-Xylene	ug/kg	2500	2500	100	70-130	
Styrene	ug/kg	2500	2430	97	70-130	
Tetrachloroethene	ug/kg	2500	2170	87	70-130	
Toluene	ug/kg	2500	2480	99	80-123	
trans-1,2-Dichloroethene	ug/kg	2500	2610	104	70-130	
trans-1,3-Dichloropropene	ug/kg	2500	2630	105	67-130	
Trichloroethene	ug/kg	2500	2310	92	70-130	
Trichlorofluoromethane	ug/kg	2500	2680	107	64-134	
Vinyl chloride	ug/kg	2500	2090	84	52-122	
4-Bromofluorobenzene (S)	%			99	48-130	
Dibromofluoromethane (S)	%			105	57-148	
Toluene-d8 (S)	%			102	58-142	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1758938 1758939

Parameter	Units	40176305001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/kg	<25.0	1490	1490	1290	1330	86	89	62-130	3	20	
1,1,2,2-Tetrachloroethane	ug/kg	<25.0	1490	1490	1640	1500	110	100	64-137	9	20	
1,1,2-Trichloroethane	ug/kg	<25.0	1490	1490	1520	1470	102	98	70-130	3	20	
1,1-Dichloroethane	ug/kg	<25.0	1490	1490	1370	1460	92	98	65-132	6	20	
1,1-Dichloroethene	ug/kg	<25.0	1490	1490	1170	1380	79	92	50-128	16	21	
1,2,4-Trichlorobenzene	ug/kg	<47.6	1490	1490	1740	1720	113	111	51-148	1	20	
1,2-Dibromo-3-chloropropane	ug/kg	<91.2	1490	1490	1470	1300	99	87	43-134	13	23	
1,2-Dibromoethane (EDB)	ug/kg	<25.0	1490	1490	1500	1360	101	91	70-130	10	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

QUALITY CONTROL DATA

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1758938 1758939

Parameter	Units	40176305001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,2-Dichlorobenzene	ug/kg	<25.0	1490	1490	1660	1490	111	100	70-130	11	20	
1,2-Dichloroethane	ug/kg	<25.0	1490	1490	1310	1320	88	88	65-139	0	20	
1,2-Dichloropropane	ug/kg	<25.0	1490	1490	1350	1520	91	102	74-128	12	20	
1,3-Dichlorobenzene	ug/kg	<25.0	1490	1490	1540	1460	103	98	70-130	5	20	
1,4-Dichlorobenzene	ug/kg	<25.0	1490	1490	1530	1370	103	92	70-130	11	20	
Benzene	ug/kg	<25.0	1490	1490	1430	1440	96	97	66-132	1	20	
Bromodichloromethane	ug/kg	<25.0	1490	1490	1370	1500	92	100	69-130	9	20	
Bromoform	ug/kg	<25.0	1490	1490	1460	1380	98	92	57-130	6	20	
Bromomethane	ug/kg	<69.9	1490	1490	1240	1210	83	81	34-145	2	20	
Carbon tetrachloride	ug/kg	<25.0	1490	1490	1290	1260	86	85	54-133	2	20	
Chlorobenzene	ug/kg	<25.0	1490	1490	1410	1370	95	92	70-130	3	20	
Chloroethane	ug/kg	<67.0	1490	1490	1430	1430	96	96	33-165	0	20	
Chloroform	ug/kg	<46.4	1490	1490	1340	1390	90	93	72-128	4	20	
Chloromethane	ug/kg	<25.0	1490	1490	656	677	44	45	20-120	3	20	
cis-1,2-Dichloroethene	ug/kg	<25.0	1490	1490	1410	1440	95	96	69-130	2	20	
cis-1,3-Dichloropropene	ug/kg	<25.0	1490	1490	1350	1490	91	100	65-130	10	20	
Dibromochloromethane	ug/kg	<25.0	1490	1490	1500	1430	101	96	65-130	5	20	
Dichlorodifluoromethane	ug/kg	<25.0	1490	1490	378	360	25	24	10-109	5	29	
Ethylbenzene	ug/kg	<25.0	1490	1490	1420	1440	95	97	63-127	2	20	
Isopropylbenzene (Cumene)	ug/kg	<25.0	1490	1490	1460	1380	98	93	66-130	5	20	
m&p-Xylene	ug/kg	<50.0	2980	2980	3010	3060	101	103	70-130	1	20	
Methyl-tert-butyl ether	ug/kg	<25.0	1490	1490	1480	1490	99	100	62-135	1	20	
Methylene Chloride	ug/kg	70.3J	1490	1490	1600	1570	102	101	68-129	2	20	
o-Xylene	ug/kg	<25.0	1490	1490	1380	1470	93	98	69-130	6	20	
Styrene	ug/kg	<25.0	1490	1490	1460	1470	98	98	70-130	0	20	
Tetrachloroethene	ug/kg	<25.0	1490	1490	1280	1270	86	85	70-130	0	20	
Toluene	ug/kg	<25.0	1490	1490	1460	1460	98	98	80-123	0	20	
trans-1,2-Dichloroethene	ug/kg	<25.0	1490	1490	1410	1510	95	101	70-130	7	20	
trans-1,3-Dichloropropene	ug/kg	<25.0	1490	1490	1520	1510	102	101	67-130	1	20	
Trichloroethene	ug/kg	<25.0	1490	1490	1320	1380	89	93	70-130	4	20	
Trichlorofluoromethane	ug/kg	<25.0	1490	1490	1260	1200	84	80	41-134	5	26	
Vinyl chloride	ug/kg	<25.0	1490	1490	855	856	57	57	39-122	0	20	
4-Bromofluorobenzene (S)	%						94	88	48-130			
Dibromofluoromethane (S)	%						102	113	57-148			
Toluene-d8 (S)	%						104	101	58-142			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

QC Batch: 301132 Analysis Method: EPA 8270 by SIM
QC Batch Method: EPA 3546 Analysis Description: 8270/3546 MSSV PAH by SIM
Associated Lab Samples: 40176305001, 40176305002, 40176305003, 40176305004, 40176305005, 40176305006, 40176305007, 40176305008, 40176305009, 40176305010, 40176305011

METHOD BLANK: 1758799 Matrix: Solid
Associated Lab Samples: 40176305001, 40176305002, 40176305003, 40176305004, 40176305005, 40176305006, 40176305007, 40176305008, 40176305009, 40176305010, 40176305011

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1-Methylnaphthalene	ug/kg	<4.0	13.4	09/25/18 11:59	
2-Methylnaphthalene	ug/kg	<5.0	16.7	09/25/18 11:59	
Acenaphthene	ug/kg	<3.9	12.9	09/25/18 11:59	
Acenaphthylene	ug/kg	<3.3	11.0	09/25/18 11:59	
Anthracene	ug/kg	<5.7	19.0	09/25/18 11:59	
Benzo(a)anthracene	ug/kg	<3.2	10.6	09/25/18 11:59	
Benzo(a)pyrene	ug/kg	<2.5	8.4	09/25/18 11:59	
Benzo(b)fluoranthene	ug/kg	<2.8	9.4	09/25/18 11:59	
Benzo(g,h,i)perylene	ug/kg	<2.0	6.8	09/25/18 11:59	
Benzo(k)fluoranthene	ug/kg	<2.5	8.4	09/25/18 11:59	
Chrysene	ug/kg	<3.4	11.2	09/25/18 11:59	
Dibenz(a,h)anthracene	ug/kg	<2.2	7.4	09/25/18 11:59	
Fluoranthene	ug/kg	<5.2	17.4	09/25/18 11:59	
Fluorene	ug/kg	<4.1	13.8	09/25/18 11:59	
Indeno(1,2,3-cd)pyrene	ug/kg	<2.2	7.3	09/25/18 11:59	
Naphthalene	ug/kg	<8.4	28.1	09/25/18 11:59	
Phenanthrene	ug/kg	<11.6	38.8	09/25/18 11:59	
Pyrene	ug/kg	<4.5	15.0	09/25/18 11:59	
2-Fluorobiphenyl (S)	%	77	10-115	09/25/18 11:59	
Terphenyl-d14 (S)	%	71	10-121	09/25/18 11:59	

LABORATORY CONTROL SAMPLE: 1758800

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/kg	333	265	79	45-103	
2-Methylnaphthalene	ug/kg	333	250	75	43-98	
Acenaphthene	ug/kg	333	252	76	43-100	
Acenaphthylene	ug/kg	333	236	71	40-100	
Anthracene	ug/kg	333	248	74	50-113	
Benzo(a)anthracene	ug/kg	333	237	71	49-102	
Benzo(a)pyrene	ug/kg	333	267	80	51-105	
Benzo(b)fluoranthene	ug/kg	333	268	80	49-105	
Benzo(g,h,i)perylene	ug/kg	333	223	67	34-113	
Benzo(k)fluoranthene	ug/kg	333	279	84	54-110	
Chrysene	ug/kg	333	268	80	55-116	
Dibenz(a,h)anthracene	ug/kg	333	217	65	45-108	
Fluoranthene	ug/kg	333	271	81	50-118	
Fluorene	ug/kg	333	256	77	41-103	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

LABORATORY CONTROL SAMPLE: 1758800

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Indeno(1,2,3-cd)pyrene	ug/kg	333	223	67	43-115	
Naphthalene	ug/kg	333	237	71	44-92	
Phenanthrene	ug/kg	333	259	78	51-104	
Pyrene	ug/kg	333	247	74	51-106	
2-Fluorobiphenyl (S)	%			73	10-115	
Terphenyl-d14 (S)	%			66	10-121	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1758801 1758802

Parameter	Units	40175843006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1-Methylnaphthalene	ug/kg	1530	366	368	1180J	1120J	-95	-111	21-105		30	M6
2-Methylnaphthalene	ug/kg	3460	366	368	2310	2250	-314	-328	18-103	2	29	M6
Acenaphthene	ug/kg	<341	366	368	<341	<342	68	62	31-100		28	
Acenaphthylene	ug/kg	<290	366	368	<290	<290	68	61	30-100		27	
Anthracene	ug/kg	<502	366	368	<502	<503	67	58	27-113		30	
Benzo(a)anthracene	ug/kg	<279	366	368	362J	339J	99	92	28-102		30	
Benzo(a)pyrene	ug/kg	<221	366	368	221J	<221	60	50	27-105		32	
Benzo(b)fluoranthene	ug/kg	<248	366	368	258J	<249	70	62	24-109		37	
Benzo(g,h,i)perylene	ug/kg	<179	366	368	<179	<179	0	0	10-113		38	M6
Benzo(k)fluoranthene	ug/kg	<221	366	368	267J	<221	73	57	35-110		31	
Chrysene	ug/kg	<296	366	368	<297	<297	80	72	29-116		29	
Dibenz(a,h)anthracene	ug/kg	<197	366	368	<197	<197	0	0	22-108		32	M6
Fluoranthene	ug/kg	<458	366	368	<458	<459	82	74	27-118		34	
Fluorene	ug/kg	<364	366	368	<364	<365	73	65	31-103		28	
Indeno(1,2,3-cd)pyrene	ug/kg	<193	366	368	<193	<194	0	0	18-115		33	M6
Naphthalene	ug/kg	24400	366	368	15700	15600	-2390	-2410	34-92	1	31	M6
Phenanthrene	ug/kg	<1020	366	368	<1020	<1030	56	48	28-104		32	
Pyrene	ug/kg	<397	366	368	<397	<398	80	76	13-117		40	
2-Fluorobiphenyl (S)	%						67	61	10-115			
Terphenyl-d14 (S)	%						61	57	10-121			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

QC Batch: 301133 Analysis Method: EPA 8270 by SIM
QC Batch Method: EPA 3546 Analysis Description: 8270/3546 MSSV PAH by SIM
Associated Lab Samples: 40176305012, 40176305013, 40176305014, 40176305015

METHOD BLANK: 1758803 Matrix: Solid
Associated Lab Samples: 40176305012, 40176305013, 40176305014, 40176305015

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1-Methylnaphthalene	ug/kg	<4.0	13.4	09/25/18 14:00	
2-Methylnaphthalene	ug/kg	<5.0	16.7	09/25/18 14:00	
Acenaphthene	ug/kg	<3.9	12.9	09/25/18 14:00	
Acenaphthylene	ug/kg	<3.3	11.0	09/25/18 14:00	
Anthracene	ug/kg	<5.7	19.0	09/25/18 14:00	
Benzo(a)anthracene	ug/kg	<3.2	10.6	09/25/18 14:00	
Benzo(a)pyrene	ug/kg	<2.5	8.4	09/25/18 14:00	
Benzo(b)fluoranthene	ug/kg	<2.8	9.4	09/25/18 14:00	
Benzo(g,h,i)perylene	ug/kg	<2.0	6.8	09/25/18 14:00	
Benzo(k)fluoranthene	ug/kg	<2.5	8.4	09/25/18 14:00	
Chrysene	ug/kg	<3.4	11.2	09/25/18 14:00	
Dibenz(a,h)anthracene	ug/kg	<2.2	7.5	09/25/18 14:00	
Fluoranthene	ug/kg	<5.2	17.4	09/25/18 14:00	
Fluorene	ug/kg	<4.1	13.8	09/25/18 14:00	
Indeno(1,2,3-cd)pyrene	ug/kg	<2.2	7.3	09/25/18 14:00	
Naphthalene	ug/kg	<8.4	28.1	09/25/18 14:00	
Phenanthrene	ug/kg	<11.7	38.8	09/25/18 14:00	
Pyrene	ug/kg	<4.5	15.0	09/25/18 14:00	
2-Fluorobiphenyl (S)	%	70	10-115	09/25/18 14:00	
Terphenyl-d14 (S)	%	61	10-121	09/25/18 14:00	

LABORATORY CONTROL SAMPLE: 1758804

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/kg	333	189	57	45-103	
2-Methylnaphthalene	ug/kg	333	182	54	43-98	
Acenaphthene	ug/kg	333	190	57	43-100	
Acenaphthylene	ug/kg	333	175	52	40-100	
Anthracene	ug/kg	333	199	60	50-113	
Benzo(a)anthracene	ug/kg	333	204	61	49-102	
Benzo(a)pyrene	ug/kg	333	224	67	51-105	
Benzo(b)fluoranthene	ug/kg	333	220	66	49-105	
Benzo(g,h,i)perylene	ug/kg	333	203	61	34-113	
Benzo(k)fluoranthene	ug/kg	333	246	74	54-110	
Chrysene	ug/kg	333	229	69	55-116	
Dibenz(a,h)anthracene	ug/kg	333	169	51	45-108	
Fluoranthene	ug/kg	333	223	67	50-118	
Fluorene	ug/kg	333	194	58	41-103	
Indeno(1,2,3-cd)pyrene	ug/kg	333	189	57	43-115	
Naphthalene	ug/kg	333	185	56	44-92	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

LABORATORY CONTROL SAMPLE: 1758804

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phenanthrene	ug/kg	333	209	63	51-104	
Pyrene	ug/kg	333	210	63	51-106	
2-Fluorobiphenyl (S)	%			55	10-115	
Terphenyl-d14 (S)	%			56	10-121	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1758805 1758806

Parameter	Units	40176256003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1-Methylnaphthalene	ug/kg	<4.8	393	393	219	234	55	59	21-105	6	30	
2-Methylnaphthalene	ug/kg	<5.9	393	393	208	221	52	55	18-103	6	29	
Acenaphthene	ug/kg	<0.0046 mg/kg	393	393	232	242	59	61	31-100	4	28	
Acenaphthylene	ug/kg	<0.0039 mg/kg	393	393	212	218	54	55	30-100	3	27	
Anthracene	ug/kg	<0.0067 mg/kg	393	393	228	226	58	57	27-113	1	30	
Benzo(a)anthracene	ug/kg	<0.0037 mg/kg	393	393	218	216	55	55	28-102	1	30	
Benzo(a)pyrene	ug/kg	<0.0030 mg/kg	393	393	236	234	60	59	27-105	1	32	
Benzo(b)fluoranthene	ug/kg	<0.0033 mg/kg	393	393	243	232	62	59	24-109	5	37	
Benzo(g,h,i)perylene	ug/kg	<0.0024 mg/kg	393	393	221	219	56	56	10-113	1	38	
Benzo(k)fluoranthene	ug/kg	<0.0030 mg/kg	393	393	247	256	63	65	35-110	3	31	
Chrysene	ug/kg	<0.0040 mg/kg	393	393	248	249	63	63	29-116	0	29	
Dibenz(a,h)anthracene	ug/kg	<0.0026 mg/kg	393	393	196	190	50	48	22-108	3	32	
Fluoranthene	ug/kg	<0.0062 mg/kg	393	393	257	255	65	65	27-118	1	34	
Fluorene	ug/kg	<0.0049 mg/kg	393	393	234	235	60	60	31-103	0	28	
Indeno(1,2,3-cd)pyrene	ug/kg	<0.0026 mg/kg	393	393	214	209	54	53	18-115	2	33	
Naphthalene	ug/kg	0.022J mg/kg	393	393	219	222	50	51	34-92	1	31	
Phenanthrene	ug/kg	<0.014 mg/kg	393	393	245	243	62	62	28-104	1	32	
Pyrene	ug/kg	<0.0053 mg/kg	393	393	244	243	62	62	13-117	0	40	
2-Fluorobiphenyl (S)	%						53	59	10-115			
Terphenyl-d14 (S)	%						53	54	10-121			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

QC Batch: 301217 Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 40176305001, 40176305002, 40176305003, 40176305004, 40176305005, 40176305006, 40176305007, 40176305008, 40176305009, 40176305010, 40176305011, 40176305012, 40176305013, 40176305014, 40176305015

SAMPLE DUPLICATE: 1759134

Parameter	Units	40176257002 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	17.0	17.4	3	10	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALIFIERS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

DEFINITIONS

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

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-G	Pace Analytical Services - Green Bay

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
D3	Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
M6	Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.
W	Non-detect results are reported on a wet weight basis.

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40176305001	**B-1 (2-3.5)**	EPA 3050	301034	EPA 6010	301409
40176305002	**B-2 (2-3.5)**	EPA 3050	301034	EPA 6010	301409
40176305003	**B-4 (2-3.5)**	EPA 3050	301034	EPA 6010	301409
40176305004	**B-12 (2-3.5)**	EPA 3050	301034	EPA 6010	301409
40176305005	**B-12 (9.5-11)**	EPA 3050	301034	EPA 6010	301409
40176305006	**B-16 (2-3.5)**	EPA 3050	301034	EPA 6010	301409
40176305007	**B-17 (6"-2.5)**	EPA 3050	301034	EPA 6010	301409
40176305008	**B-18 (6"-2)**	EPA 3050	301034	EPA 6010	301409
40176305009	**B-18 (9.5-11)**	EPA 3050	301034	EPA 6010	301409
40176305010	**B-19 (6"-3.5)**	EPA 3050	301034	EPA 6010	301409
40176305011	**B-20 (6"-3.5)**	EPA 3050	301034	EPA 6010	301409
40176305012	**B-21 (2-3.5)**	EPA 3050	301034	EPA 6010	301409
40176305013	**B-21 (14.5-16)**	EPA 3050	301034	EPA 6010	301409
40176305014	**B-23 (6"-2)**	EPA 3050	301034	EPA 6010	301409
40176305015	**B-23 (12-13.5)**	EPA 3050	301034	EPA 6010	301409
40176305001	**B-1 (2-3.5)**	EPA 7471	301143	EPA 7471	301244
40176305002	**B-2 (2-3.5)**	EPA 7471	301143	EPA 7471	301244
40176305003	**B-4 (2-3.5)**	EPA 7471	301143	EPA 7471	301244
40176305004	**B-12 (2-3.5)**	EPA 7471	301143	EPA 7471	301244
40176305005	**B-12 (9.5-11)**	EPA 7471	301143	EPA 7471	301244
40176305006	**B-16 (2-3.5)**	EPA 7471	301143	EPA 7471	301244
40176305007	**B-17 (6"-2.5)**	EPA 7471	301143	EPA 7471	301244
40176305008	**B-18 (6"-2)**	EPA 7471	301143	EPA 7471	301244
40176305009	**B-18 (9.5-11)**	EPA 7471	301143	EPA 7471	301244
40176305010	**B-19 (6"-3.5)**	EPA 7471	301143	EPA 7471	301244
40176305011	**B-20 (6"-3.5)**	EPA 7471	301143	EPA 7471	301244
40176305012	**B-21 (2-3.5)**	EPA 7471	301143	EPA 7471	301244
40176305013	**B-21 (14.5-16)**	EPA 7471	301143	EPA 7471	301244
40176305014	**B-23 (6"-2)**	EPA 7471	301143	EPA 7471	301244
40176305015	**B-23 (12-13.5)**	EPA 7471	301143	EPA 7471	301244
40176305001	**B-1 (2-3.5)**	EPA 3546	301132	EPA 8270 by SIM	301168
40176305002	**B-2 (2-3.5)**	EPA 3546	301132	EPA 8270 by SIM	301168
40176305003	**B-4 (2-3.5)**	EPA 3546	301132	EPA 8270 by SIM	301168
40176305004	**B-12 (2-3.5)**	EPA 3546	301132	EPA 8270 by SIM	301168
40176305005	**B-12 (9.5-11)**	EPA 3546	301132	EPA 8270 by SIM	301168
40176305006	**B-16 (2-3.5)**	EPA 3546	301132	EPA 8270 by SIM	301168
40176305007	**B-17 (6"-2.5)**	EPA 3546	301132	EPA 8270 by SIM	301168
40176305008	**B-18 (6"-2)**	EPA 3546	301132	EPA 8270 by SIM	301168
40176305009	**B-18 (9.5-11)**	EPA 3546	301132	EPA 8270 by SIM	301168
40176305010	**B-19 (6"-3.5)**	EPA 3546	301132	EPA 8270 by SIM	301168
40176305011	**B-20 (6"-3.5)**	EPA 3546	301132	EPA 8270 by SIM	301168
40176305012	**B-21 (2-3.5)**	EPA 3546	301133	EPA 8270 by SIM	301196
40176305013	**B-21 (14.5-16)**	EPA 3546	301133	EPA 8270 by SIM	301196
40176305014	**B-23 (6"-2)**	EPA 3546	301133	EPA 8270 by SIM	301196
40176305015	**B-23 (12-13.5)**	EPA 3546	301133	EPA 8270 by SIM	301196
40176305001	**B-1 (2-3.5)**	EPA 5035/5030B	301170	EPA 8260	301172
40176305002	**B-2 (2-3.5)**	EPA 5035/5030B	301170	EPA 8260	301172

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40176305

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40176305003	**B-4 (2-3.5)**	EPA 5035/5030B	301170	EPA 8260	301172
40176305004	**B-12 (2-3.5)**	EPA 5035/5030B	301170	EPA 8260	301172
40176305005	**B-12 (9.5-11)**	EPA 5035/5030B	301170	EPA 8260	301172
40176305006	**B-16 (2-3.5)**	EPA 5035/5030B	301170	EPA 8260	301172
40176305007	**B-17 (6"-2.5)**	EPA 5035/5030B	301170	EPA 8260	301172
40176305008	**B-18 (6"-2)**	EPA 5035/5030B	301170	EPA 8260	301172
40176305009	**B-18 (9.5-11)**	EPA 5035/5030B	301170	EPA 8260	301172
40176305010	**B-19 (6"-3.5)**	EPA 5035/5030B	301170	EPA 8260	301172
40176305011	**B-20 (6"-3.5)**	EPA 5035/5030B	301170	EPA 8260	301172
40176305012	**B-21 (2-3.5)**	EPA 5035/5030B	301170	EPA 8260	301172
40176305013	**B-21 (14.5-16)**	EPA 5035/5030B	301170	EPA 8260	301172
40176305014	**B-23 (6"-2)**	EPA 5035/5030B	301170	EPA 8260	301172
40176305015	**B-23 (12-13.5)**	EPA 5035/5030B	301170	EPA 8260	301172
40176305001	**B-1 (2-3.5)**	ASTM D2974-87	301217		
40176305002	**B-2 (2-3.5)**	ASTM D2974-87	301217		
40176305003	**B-4 (2-3.5)**	ASTM D2974-87	301217		
40176305004	**B-12 (2-3.5)**	ASTM D2974-87	301217		
40176305005	**B-12 (9.5-11)**	ASTM D2974-87	301217		
40176305006	**B-16 (2-3.5)**	ASTM D2974-87	301217		
40176305007	**B-17 (6"-2.5)**	ASTM D2974-87	301217		
40176305008	**B-18 (6"-2)**	ASTM D2974-87	301217		
40176305009	**B-18 (9.5-11)**	ASTM D2974-87	301217		
40176305010	**B-19 (6"-3.5)**	ASTM D2974-87	301217		
40176305011	**B-20 (6"-3.5)**	ASTM D2974-87	301217		
40176305012	**B-21 (2-3.5)**	ASTM D2974-87	301217		
40176305013	**B-21 (14.5-16)**	ASTM D2974-87	301217		
40176305014	**B-23 (6"-2)**	ASTM D2974-87	301217		
40176305015	**B-23 (12-13.5)**	ASTM D2974-87	301217		

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UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

Page 1 of

40176305

CHAIN OF CUSTODY

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

(Please Print Clearly)	
Company Name:	Hapx and Associates
Branch/Location:	Milwaukee
Project Contact:	T. Peterson
Phone:	414-751-7279
Project Number:	18.0231.01
Project Name:	Cristo Rey
Project State:	WI
Sampled By (Print):	Alex Amundson
Sampled By (Sign):	
PO #:	Regulatory Program:

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	SAME
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes

A = Air	W = Water
B = Biota	DW = Drinking Water
C = Charcoal	GW = Ground Water
O = Oil	SW = Surface Water
S = Soil	WW = Waste Water
SI = Sludge	WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	Analyses Requested: PAH's	RCRA Metals	VOC's	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
001	B-1 (2-3.5)	9-18-18	9AM	S	N	A	X	X	X			
002	B-2 (2-3.5)		9:30	S	N	A	X	X	X			
003	B-4 (2-3.5)		10	S	N	A	X	X	X			
004	B-12 (2-3.5)		10:30	S	N	A	X	X	X			
005	B-12 (9.5-11)		10:45	S	N	A	X	X	X			
006	B-16 (2-3.5)		11	S	N	A	X	X	X			
007	B-17 (6"-2.5)		11:30	S	N	A	X	X	X			
008	B-18 (6"-2)		12 PM	S	N	A	X	X	X			
009	B-18 (9.5-11)		12:15	S	N	A	X	X	X			
010	B-19 (6"-3.5)		12:30	S	N	A	X	X	X			
011	B-20 (6"-3.5)		1	S	N	A	X	X	X			
012	B-21 (2-3.5)		1:30	S	N	A	X	X	X			
013	B-21 (14.5-16)		1:45	S	N	A	X	X	X			

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:	
Email #2:	
Telephone:	
Fax:	

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
	9/21/18 11:55	Mary Jannin	9/21/18 11:55
Mary Jannin	9/21/18 1245	[illegible] pace	9/21/18 1245
[illegible] pace	9/21/18 1510	[illegible]	9/21/18 1510
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:

PACE Project No.: 40176305

Receipt Temp = 8.9 °C

Sample Receipt pH OK / Adjusted

Cooler Custody Seal: Present / ~~Not Present~~ Intact / Not Intact

C019a(27Jun2006)

Version 6.0 06/14/06

ORIGINAL

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

Page 1 of

40176205

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CHAIN OF CUSTODY

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

(Please Print Clearly)	
Company Name:	Hapor and Associates
Branch/Location:	Milwaukee
Project Contact:	T. Peterson
Phone:	414-751-7279
Project Number:	18.0231.01
Project Name:	Cristo Rey
Project State:	WI
Sampled By (Print):	Alex Amundson
Sampled By (Sign):	
PO #:	Regulatory Program:

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	SAME
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes

A = Air	W = Water
B = Biota	DW = Drinking Water
C = Charcoal	GW = Ground Water
O = Oil	SW = Surface Water
S = Soil	WW = Waste Water
SI = Sludge	WP = Wipe

FILTERED? (YES/NO)
PRESERVATION (CODE)*

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	Y/N	Pick Letter	Analyses Requested: RCRA Metals	Analyses Requested: VOCs	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
					N	A	N	N			
014	B-23(6'-2)	9-18-18		S	X	X	X				
015	B-23(12-13.5)	2:45		S	X	X	X				

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:	
Email #2:	
Telephone:	
Fax:	

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
[signature]	9/21/18 11:55	Mary Jannin	9/21/18 11:55
Mary Jannin	9/21/18 1245	PBOWS PACE	9/21/18 1245
PBOWS PACE	9/21/18 1510	[signature]	9/21/18 1510
Relinquished By:	Date/Time:	Received By:	Date/Time:
Relinquished By:	Date/Time:	Received By:	Date/Time:

PACE Project No.: 40176205
Receipt Temp = RQ °C
Sample Receipt pH OK / Adjusted
Cooler Custody Seal Present / ~~Not Present~~ Intact / Not Intact

C019a(27Jun2006)
Version 6.0 06/14/06
ORIGINAL

Pace Analytical Services, LLC
1241 Bellevue Street, Suite 9
Green Bay, WI 54302

Sample Preservation Receipt Form

Client Name: Kapur Project # WO# 76305

All containers needing preservation have been checked and noted below: □Yes □No ☑N/A

Lab Lot# of pH paper: Lab Std #ID of preservation (if pH adjusted): Initial when completed: Date/ Time:

	Glass							Plastic							Vials						Jars			General								
Pace Lab #	AG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP2N	BP2Z	BP3U	BP3C	BP3N	BP3S	DG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	WGFU	WPFU	SP5T	ZPLC	GN	VOA Vials (>6mm) *	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)
001																																	2.5 / 5 / 10
002																																	2.5 / 5 / 10
003																																	2.5 / 5 / 10
004																																	2.5 / 5 / 10
005																																	2.5 / 5 / 10
006																																	2.5 / 5 / 10
007																																	2.5 / 5 / 10
008																																	2.5 / 5 / 10
009																																	2.5 / 5 / 10
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015																																	2.5 / 5 / 10
016																																	2.5 / 5 / 10
017																																	2.5 / 5 / 10
018																																	2.5 / 5 / 10
019																																	2.5 / 5 / 10
020																																	2.5 / 5 / 10

Exceptions to preservation check: VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other: Headspace in VOA Vials (>6mm) : □Yes □No ☑N/A ***If yes look in headspace column**

AG1U	1 liter amber glass	BP1U	1 liter plastic unpres	DG9A	40 mL amber ascorbic	JGFU	4 oz amber jar unpres
AG1H	1 liter amber glass HCL	BP2N	500 mL plastic HNO3	DG9T	40 mL amber Na Thio	WGFU	4 oz clear jar unpres
AG4S	125 mL amber glass H2SO4	BP2Z	500 mL plastic NaOH, Znact	VG9U	40 mL clear vial unpres	WPFU	4 oz plastic jar unpres
AG4U	120 mL amber glass unpres	BP3U	250 mL plastic unpres	VG9H	40 mL clear vial HCL		
AG5U	100 mL amber glass unpres	BP3C	250 mL plastic NaOH	VG9M	40 mL clear vial MeOH	SP5T	120 mL plastic Na Thiosulfate
AG2S	500 mL amber glass H2SO4	BP3N	250 mL plastic HNO3	VG9D	40 mL clear vial DI	ZPLC	ziploc bag
BG3U	250 mL clear glass unpres	BP3S	250 mL plastic H2SO4			GN:	

Pace Analytical 1241 Bellevue Street, Green Bay, WI 54302	Document Name: **Sample Condition Upon Receipt (SCUR)**	Document Revised: 25Apr2018
	Document No.: **F-GB-C-031-Rev.07**	Issuing Authority: Pace Green Bay Quality Office

Sample Condition Upon Receipt Form (SCUR)

Project #: **WO# : 40176305**

Client Name: Kapp

Courier: ☐ CS Logistics ☐ Fed Ex ☐ Speedee ☐ UPS ☐ Waltco
☐ Client ☑ Pace Other: _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Custody Seal on Samples Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

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

Thermometer Used SR - NA **Type of Ice:** Wet Blue Dry None ☑ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: /Corr: RO

Temp Blank Present: ☐ yes ☑ no **Biological Tissue is Frozen:** ☐ yes ☐ no

Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C.

Person examining contents:
Date: 9/21/18
Initials: [illegible]

Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☐Yes ☑No ☐N/A	2. page #
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No	5.
- VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes ☑No	6.
Rush Turn Around Time Requested:	☐Yes ☑No	7.
Sufficient Volume: For Analysis: ☑Yes ☐No MS/MSD: ☐Yes ☑No ☐N/A		8.
Correct Containers Used:	☑Yes ☐No	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
-Pace IR Containers Used:	☐Yes ☐No ☑N/A	
Containers Intact:	☑Yes ☐No	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: S		
Trip Blank Present:	☑Yes ☐No ☐N/A	13.
Trip Blank Custody Seals Present	☑Yes ☐No ☐N/A	
Pace Trip Blank Lot # (if purchased): B732401VP		

Client Notification/ Resolution: If checked, see attached form for additional comments ☐
Person Contacted: _____ Date/Time: _____
Comments/ Resolution: _____

Project Manager Review: _____ **Date:** _____

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

December 17, 2018

Travis Peterson
Kapur & Associates, Inc.
7711 N. Port Washington Road
Milwaukee, WI 53217

RE: Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

Dear Travis Peterson:
Enclosed are the analytical results for sample(s) received by the laboratory on December 06, 2018. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Christopher Hyska
christopher.hyska@pacelabs.com
(920)469-2436
Project Manager

Enclosures

cc: Kapur Environmental, Kapur & Associates, Inc.

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

CERTIFICATIONS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky UST Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 12064
North Dakota Certification #: R-150
Virginia VELAP ID: 460263
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444
USDA Soil Permit #: P330-16-00157
Federal Fish & Wildlife Permit #: LE51774A-0

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE SUMMARY

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40180602001	**GP-13 (1-3)**	Solid	12/05/18 09:45	12/06/18 13:40
40180602002	**GP-14 (1-3)**	Solid	12/05/18 10:00	12/06/18 13:40
40180602003	**GP-14 (6-8)**	Solid	12/05/18 10:15	12/06/18 13:40
40180602004	**GP-15 (1-3)**	Solid	12/05/18 10:28	12/06/18 13:40
40180602005	**GP-16 (1-3)**	Solid	12/05/18 10:45	12/06/18 13:40
40180602006	**GP-16 (6-8)**	Solid	12/05/18 10:55	12/06/18 13:40
40180602007	**GP-17 (1-3)**	Solid	12/05/18 11:10	12/06/18 13:40
40180602008	**TRIP BLANK**	Solid	12/05/18 00:00	12/06/18 13:40

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE ANALYTE COUNT

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40180602001	**GP-13 (1-3)**	EPA 6010	TXW	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		EPA 8260	MDS	64	PASI-G
		ASTM D2974-87	JXS	1	PASI-G
40180602002	**GP-14 (1-3)**	EPA 6010	TXW	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		EPA 8260	MDS	64	PASI-G
		ASTM D2974-87	JXS	1	PASI-G
40180602003	**GP-14 (6-8)**	EPA 6010	TXW	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		EPA 8260	MDS	64	PASI-G
		ASTM D2974-87	JXS	1	PASI-G
40180602004	**GP-15 (1-3)**	EPA 6010	TXW	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		EPA 8260	MDS	64	PASI-G
		ASTM D2974-87	JXS	1	PASI-G
40180602005	**GP-16 (1-3)**	EPA 6010	TXW	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		EPA 8260	MDS	64	PASI-G
		ASTM D2974-87	JXS	1	PASI-G
40180602006	**GP-16 (6-8)**	EPA 6010	TXW	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		EPA 8260	MDS	64	PASI-G
		ASTM D2974-87	JXS	1	PASI-G
40180602007	**GP-17 (1-3)**	EPA 6010	TXW	7	PASI-G
		EPA 7471	AJT	1	PASI-G
		EPA 8270 by SIM	ARO	20	PASI-G
		EPA 8260	MDS	64	PASI-G
		ASTM D2974-87	JXS	1	PASI-G
40180602008	**TRIP BLANK**	EPA 8260	MDS	64	PASI-G

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SUMMARY OF DETECTION

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40180602001	**GP-13 (1-3)**					
EPA 6010	Arsenic	4.0J	mg/kg	6.0	12/17/18 11:46	
EPA 6010	Barium	38.3	mg/kg	0.60	12/17/18 11:46	
EPA 6010	Chromium	13.5	mg/kg	1.2	12/17/18 11:46	
EPA 6010	Lead	6.4	mg/kg	2.4	12/17/18 11:46	
EPA 7471	Mercury	0.014J	mg/kg	0.042	12/17/18 09:31	
ASTM D2974-87	Percent Moisture	18.1	%	0.10	12/11/18 14:18	
40180602002	**GP-14 (1-3)**					
EPA 6010	Arsenic	4.7J	mg/kg	5.5	12/17/18 11:48	
EPA 6010	Barium	41.3	mg/kg	0.55	12/17/18 11:48	
EPA 6010	Chromium	12.7	mg/kg	1.1	12/17/18 11:48	
EPA 6010	Lead	13.8	mg/kg	2.2	12/17/18 11:48	
EPA 7471	Mercury	0.016J	mg/kg	0.038	12/17/18 09:38	
EPA 8270 by SIM	Acenaphthene	0.025	mg/kg	0.015	12/12/18 16:01	
EPA 8270 by SIM	Acenaphthylene	0.0091J	mg/kg	0.012	12/12/18 16:01	
EPA 8270 by SIM	Anthracene	0.067	mg/kg	0.021	12/12/18 16:01	
EPA 8270 by SIM	Benzo(a)anthracene	0.25	mg/kg	0.012	12/12/18 16:01	
EPA 8270 by SIM	Benzo(a)pyrene	0.30	mg/kg	0.0095	12/12/18 16:01	
EPA 8270 by SIM	Benzo(b)fluoranthene	0.38	mg/kg	0.011	12/12/18 16:01	
EPA 8270 by SIM	Benzo(g,h,i)perylene	0.22	mg/kg	0.0076	12/12/18 16:01	
EPA 8270 by SIM	Benzo(k)fluoranthene	0.27	mg/kg	0.0094	12/12/18 16:01	
EPA 8270 by SIM	Chrysene	0.30	mg/kg	0.013	12/12/18 16:01	
EPA 8270 by SIM	Dibenz(a,h)anthracene	0.062	mg/kg	0.0084	12/12/18 16:01	
EPA 8270 by SIM	Fluoranthene	0.65	mg/kg	0.020	12/12/18 16:01	
EPA 8270 by SIM	Fluorene	0.016	mg/kg	0.016	12/12/18 16:01	
EPA 8270 by SIM	Indeno(1,2,3-cd)pyrene	0.19	mg/kg	0.0083	12/12/18 16:01	
EPA 8270 by SIM	1-Methylnaphthalene	0.058	mg/kg	0.015	12/12/18 16:01	
EPA 8270 by SIM	2-Methylnaphthalene	0.12	mg/kg	0.019	12/12/18 16:01	
EPA 8270 by SIM	Naphthalene	0.060	mg/kg	0.032	12/12/18 16:01	
EPA 8270 by SIM	Phenanthrene	0.24	mg/kg	0.044	12/12/18 16:01	
EPA 8270 by SIM	Pyrene	0.41	mg/kg	0.017	12/12/18 16:01	
ASTM D2974-87	Percent Moisture	11.4	%	0.10	12/11/18 14:18	
40180602003	**GP-14 (6-8)**					
EPA 6010	Arsenic	6.1	mg/kg	5.6	12/17/18 11:51	
EPA 6010	Barium	64.6	mg/kg	0.56	12/17/18 11:51	
EPA 6010	Chromium	14.7	mg/kg	1.1	12/17/18 11:51	
EPA 6010	Lead	7.3	mg/kg	2.2	12/17/18 11:51	
EPA 7471	Mercury	0.020J	mg/kg	0.037	12/17/18 09:40	
EPA 8270 by SIM	Acenaphthene	0.017	mg/kg	0.015	12/12/18 16:18	
EPA 8270 by SIM	Anthracene	0.037	mg/kg	0.023	12/12/18 16:18	
EPA 8270 by SIM	Benzo(a)anthracene	0.074	mg/kg	0.013	12/12/18 16:18	
EPA 8270 by SIM	Benzo(a)pyrene	0.087	mg/kg	0.010	12/12/18 16:18	
EPA 8270 by SIM	Benzo(b)fluoranthene	0.082	mg/kg	0.011	12/12/18 16:18	
EPA 8270 by SIM	Benzo(g,h,i)perylene	0.059	mg/kg	0.0081	12/12/18 16:18	
EPA 8270 by SIM	Benzo(k)fluoranthene	0.073	mg/kg	0.010	12/12/18 16:18	
EPA 8270 by SIM	Chrysene	0.080	mg/kg	0.013	12/12/18 16:18	
EPA 8270 by SIM	Dibenz(a,h)anthracene	0.016	mg/kg	0.0089	12/12/18 16:18	

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SUMMARY OF DETECTION

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

Lab Sample ID / Method	Client Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40180602003	**GP-14 (6-8)**					
EPA 8270 by SIM	Fluoranthene	0.22	mg/kg	0.021	12/12/18 16:18	
EPA 8270 by SIM	Fluorene	0.013J	mg/kg	0.017	12/12/18 16:18	
EPA 8270 by SIM	Indeno(1,2,3-cd)pyrene	0.048	mg/kg	0.0088	12/12/18 16:18	
EPA 8270 by SIM	Phenanthrene	0.089	mg/kg	0.046	12/12/18 16:18	
EPA 8270 by SIM	Pyrene	0.17	mg/kg	0.018	12/12/18 16:18	
ASTM D2974-87	Percent Moisture	16.4	%	0.10	12/11/18 14:18	
40180602004	**GP-15 (1-3)**					
EPA 6010	Arsenic	4.2J	mg/kg	5.6	12/17/18 11:53	
EPA 6010	Barium	60.6	mg/kg	0.56	12/17/18 11:53	
EPA 6010	Chromium	20.4	mg/kg	1.1	12/17/18 11:53	
EPA 6010	Lead	9.0	mg/kg	2.2	12/17/18 11:53	
EPA 7471	Mercury	0.017J	mg/kg	0.040	12/17/18 09:43	
ASTM D2974-87	Percent Moisture	16.4	%	0.10	12/11/18 14:19	
40180602005	**GP-16 (1-3)**					
EPA 6010	Arsenic	4.4J	mg/kg	5.6	12/17/18 11:56	
EPA 6010	Barium	44.0	mg/kg	0.56	12/17/18 11:56	
EPA 6010	Chromium	13.7	mg/kg	1.1	12/17/18 11:56	
EPA 6010	Lead	6.6	mg/kg	2.2	12/17/18 11:56	
EPA 7471	Mercury	0.013J	mg/kg	0.039	12/17/18 09:45	
ASTM D2974-87	Percent Moisture	15.1	%	0.10	12/11/18 14:19	
40180602006	**GP-16 (6-8)**					
EPA 6010	Arsenic	4.4J	mg/kg	5.9	12/17/18 12:03	
EPA 6010	Barium	63.2	mg/kg	0.59	12/17/18 12:03	
EPA 6010	Chromium	17.7	mg/kg	1.2	12/17/18 12:03	
EPA 6010	Lead	8.0	mg/kg	2.4	12/17/18 12:03	
EPA 7471	Mercury	0.016J	mg/kg	0.041	12/17/18 09:47	
EPA 8260	1,2-Dichloroethane	0.22	mg/kg	0.073	12/07/18 15:01	
ASTM D2974-87	Percent Moisture	17.8	%	0.10	12/11/18 14:19	
40180602007	**GP-17 (1-3)**					
EPA 6010	Arsenic	3.1J	mg/kg	5.7	12/17/18 12:08	
EPA 6010	Barium	18.9	mg/kg	0.57	12/17/18 12:08	
EPA 6010	Chromium	8.9	mg/kg	1.1	12/17/18 12:08	
EPA 6010	Lead	4.3	mg/kg	2.3	12/17/18 12:08	
EPA 8270 by SIM	Benzo(a)pyrene	0.0042J	mg/kg	0.0095	12/12/18 15:09	
EPA 8270 by SIM	Benzo(b)fluoranthene	0.0045J	mg/kg	0.011	12/12/18 15:09	L1
EPA 8270 by SIM	Benzo(g,h,i)perylene	0.0045J	mg/kg	0.0077	12/12/18 15:09	
EPA 8270 by SIM	Benzo(k)fluoranthene	0.0049J	mg/kg	0.0095	12/12/18 15:09	
EPA 8270 by SIM	Chrysene	0.0067J	mg/kg	0.013	12/12/18 15:09	
EPA 8270 by SIM	Fluoranthene	0.0071J	mg/kg	0.020	12/12/18 15:09	
EPA 8270 by SIM	Pyrene	0.0064J	mg/kg	0.017	12/12/18 15:09	
ASTM D2974-87	Percent Moisture	12.4	%	0.10	12/11/18 14:19	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

Sample: GP-13 (1-3) **Lab ID: 40180602001** Collected: 12/05/18 09:45 Received: 12/06/18 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**4.0J**	mg/kg	6.0	1.3	1	12/14/18 08:48	12/17/18 11:46	7440-38-2	
Barium	**38.3**	mg/kg	0.60	0.18	1	12/14/18 08:48	12/17/18 11:46	7440-39-3	
Cadmium	**<0.16**	mg/kg	0.60	0.16	1	12/14/18 08:48	12/17/18 11:46	7440-43-9	
Chromium	**13.5**	mg/kg	1.2	0.34	1	12/14/18 08:48	12/17/18 11:46	7440-47-3	
Lead	**6.4**	mg/kg	2.4	0.72	1	12/14/18 08:48	12/17/18 11:46	7439-92-1	
Selenium	**<1.6**	mg/kg	5.3	1.6	1	12/14/18 08:48	12/17/18 11:46	7782-49-2	
Silver	**<0.41**	mg/kg	1.2	0.41	1	12/14/18 08:48	12/17/18 11:46	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**0.014J**	mg/kg	0.042	0.013	1	12/14/18 12:08	12/17/18 09:31	7439-97-6	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**<0.0047**	mg/kg	0.016	0.0047	1	12/11/18 09:01	12/11/18 15:58	83-32-9	
Acenaphthylene	**<0.0040**	mg/kg	0.013	0.0040	1	12/11/18 09:01	12/11/18 15:58	208-96-8	
Anthracene	**<0.0070**	mg/kg	0.023	0.0070	1	12/11/18 09:01	12/11/18 15:58	120-12-7	
Benzo(a)anthracene	**<0.0039**	mg/kg	0.013	0.0039	1	12/11/18 09:01	12/11/18 15:58	56-55-3	
Benzo(a)pyrene	**<0.0031**	mg/kg	0.010	0.0031	1	12/11/18 09:01	12/11/18 15:58	50-32-8	
Benzo(b)fluoranthene	**<0.0035**	mg/kg	0.012	0.0035	1	12/11/18 09:01	12/11/18 15:58	205-99-2	
Benzo(g,h,i)perylene	**<0.0025**	mg/kg	0.0083	0.0025	1	12/11/18 09:01	12/11/18 15:58	191-24-2	
Benzo(k)fluoranthene	**<0.0031**	mg/kg	0.010	0.0031	1	12/11/18 09:01	12/11/18 15:58	207-08-9	
Chrysene	**<0.0041**	mg/kg	0.014	0.0041	1	12/11/18 09:01	12/11/18 15:58	218-01-9	
Dibenz(a,h)anthracene	**<0.0027**	mg/kg	0.0091	0.0027	1	12/11/18 09:01	12/11/18 15:58	53-70-3	
Fluoranthene	**<0.0064**	mg/kg	0.021	0.0064	1	12/11/18 09:01	12/11/18 15:58	206-44-0	
Fluorene	**<0.0051**	mg/kg	0.017	0.0051	1	12/11/18 09:01	12/11/18 15:58	86-73-7	
Indeno(1,2,3-cd)pyrene	**<0.0027**	mg/kg	0.0090	0.0027	1	12/11/18 09:01	12/11/18 15:58	193-39-5	
1-Methylnaphthalene	**<0.0049**	mg/kg	0.016	0.0049	1	12/11/18 09:01	12/11/18 15:58	90-12-0	
2-Methylnaphthalene	**<0.0061**	mg/kg	0.020	0.0061	1	12/11/18 09:01	12/11/18 15:58	91-57-6	
Naphthalene	**<0.010**	mg/kg	0.034	0.010	1	12/11/18 09:01	12/11/18 15:58	91-20-3	
Phenanthrene	**<0.014**	mg/kg	0.047	0.014	1	12/11/18 09:01	12/11/18 15:58	85-01-8	
Pyrene	**<0.0055**	mg/kg	0.018	0.0055	1	12/11/18 09:01	12/11/18 15:58	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	65	%	10-115		1	12/11/18 09:01	12/11/18 15:58	321-60-8	
Terphenyl-d14 (S)	65	%	10-121		1	12/11/18 09:01	12/11/18 15:58	1718-51-0	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,1,1,2-Tetrachloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	630-20-6	W
1,1,1-Trichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	71-55-6	W
1,1,2,2-Tetrachloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	79-34-5	W
1,1,2-Trichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	79-00-5	W
1,1-Dichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	75-34-3	W
1,1-Dichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	75-35-4	W
1,1-Dichloropropene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	563-58-6	W
1,2,3-Trichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	87-61-6	W
1,2,3-Trichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	96-18-4	W
1,2,4-Trichlorobenzene	**<0.048**	mg/kg	0.25	0.048	1	12/07/18 08:15	12/07/18 16:09	120-82-1	W

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

Sample: GP-13 (1-3) **Lab ID: 40180602001** Collected: 12/05/18 09:45 Received: 12/06/18 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,2,4-Trimethylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	95-63-6	W
1,2-Dibromo-3-chloropropane	**<0.091**	mg/kg	0.25	0.091	1	12/07/18 08:15	12/07/18 16:09	96-12-8	W
1,2-Dibromoethane (EDB)	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	106-93-4	W
1,2-Dichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	95-50-1	W
1,2-Dichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	107-06-2	W
1,2-Dichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	78-87-5	W
1,3,5-Trimethylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	108-67-8	W
1,3-Dichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	541-73-1	W
1,3-Dichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	142-28-9	W
1,4-Dichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	106-46-7	W
2,2-Dichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	594-20-7	W
2-Chlorotoluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	95-49-8	W
4-Chlorotoluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	106-43-4	W
Benzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	71-43-2	W
Bromobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	108-86-1	W
Bromochloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	74-97-5	W
Bromodichloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	75-27-4	W
Bromoform	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	75-25-2	W
Bromomethane	**<0.070**	mg/kg	0.25	0.070	1	12/07/18 08:15	12/07/18 16:09	74-83-9	W
Carbon tetrachloride	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	56-23-5	W
Chlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	108-90-7	W
Chloroethane	**<0.067**	mg/kg	0.25	0.067	1	12/07/18 08:15	12/07/18 16:09	75-00-3	W
Chloroform	**<0.046**	mg/kg	0.25	0.046	1	12/07/18 08:15	12/07/18 16:09	67-66-3	W
Chloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	74-87-3	W
Dibromochloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	124-48-1	W
Dibromomethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	74-95-3	W
Dichlorodifluoromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	75-71-8	W
Diisopropyl ether	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	108-20-3	W
Ethylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	100-41-4	W
Hexachloro-1,3-butadiene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	87-68-3	W
Isopropylbenzene (Cumene)	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	98-82-8	W
Methyl-tert-butyl ether	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	1634-04-4	W
Methylene Chloride	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	75-09-2	W
Naphthalene	**<0.040**	mg/kg	0.25	0.040	1	12/07/18 08:15	12/07/18 16:09	91-20-3	W
Styrene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	100-42-5	W
Tetrachloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	127-18-4	W
Toluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	108-88-3	W
Trichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	79-01-6	W
Trichlorofluoromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	75-69-4	W
Vinyl chloride	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	75-01-4	L1,W
cis-1,2-Dichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	156-59-2	W
cis-1,3-Dichloropropene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	10061-01-5	W
m&p-Xylene	**<0.050**	mg/kg	0.12	0.050	1	12/07/18 08:15	12/07/18 16:09	179601-23-1	W
n-Butylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	104-51-8	W
n-Propylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	103-65-1	W

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

Sample: GP-13 (1-3) **Lab ID: 40180602001** Collected: 12/05/18 09:45 Received: 12/06/18 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
o-Xylene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	95-47-6	W
p-Isopropyltoluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	99-87-6	W
sec-Butylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	135-98-8	W
tert-Butylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	98-06-6	W
trans-1,2-Dichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	156-60-5	W
trans-1,3-Dichloropropene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 16:09	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	101	%	57-148		1	12/07/18 08:15	12/07/18 16:09	1868-53-7	
Toluene-d8 (S)	94	%	58-142		1	12/07/18 08:15	12/07/18 16:09	2037-26-5	
4-Bromofluorobenzene (S)	85	%	48-130		1	12/07/18 08:15	12/07/18 16:09	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**18.1**	%	0.10	0.10	1		12/11/18 14:18		

Sample: GP-14 (1-3) **Lab ID: 40180602002** Collected: 12/05/18 10:00 Received: 12/06/18 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**4.7J**	mg/kg	5.5	1.2	1	12/14/18 08:48	12/17/18 11:48	7440-38-2	
Barium	**41.3**	mg/kg	0.55	0.17	1	12/14/18 08:48	12/17/18 11:48	7440-39-3	
Cadmium	**<0.15**	mg/kg	0.55	0.15	1	12/14/18 08:48	12/17/18 11:48	7440-43-9	
Chromium	**12.7**	mg/kg	1.1	0.31	1	12/14/18 08:48	12/17/18 11:48	7440-47-3	
Lead	**13.8**	mg/kg	2.2	0.66	1	12/14/18 08:48	12/17/18 11:48	7439-92-1	
Selenium	**<1.5**	mg/kg	4.8	1.5	1	12/14/18 08:48	12/17/18 11:48	7782-49-2	
Silver	**<0.38**	mg/kg	1.1	0.38	1	12/14/18 08:48	12/17/18 11:48	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**0.016J**	mg/kg	0.038	0.011	1	12/14/18 12:08	12/17/18 09:38	7439-97-6	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**0.025**	mg/kg	0.015	0.0044	1	12/11/18 09:01	12/12/18 16:01	83-32-9	
Acenaphthylene	**0.0091J**	mg/kg	0.012	0.0037	1	12/11/18 09:01	12/12/18 16:01	208-96-8	
Anthracene	**0.067**	mg/kg	0.021	0.0065	1	12/11/18 09:01	12/12/18 16:01	120-12-7	
Benzo(a)anthracene	**0.25**	mg/kg	0.012	0.0036	1	12/11/18 09:01	12/12/18 16:01	56-55-3	
Benzo(a)pyrene	**0.30**	mg/kg	0.0095	0.0028	1	12/11/18 09:01	12/12/18 16:01	50-32-8	
Benzo(b)fluoranthene	**0.38**	mg/kg	0.011	0.0032	1	12/11/18 09:01	12/12/18 16:01	205-99-2	
Benzo(g,h,i)perylene	**0.22**	mg/kg	0.0076	0.0023	1	12/11/18 09:01	12/12/18 16:01	191-24-2	
Benzo(k)fluoranthene	**0.27**	mg/kg	0.0094	0.0028	1	12/11/18 09:01	12/12/18 16:01	207-08-9	
Chrysene	**0.30**	mg/kg	0.013	0.0038	1	12/11/18 09:01	12/12/18 16:01	218-01-9	
Dibenz(a,h)anthracene	**0.062**	mg/kg	0.0084	0.0025	1	12/11/18 09:01	12/12/18 16:01	53-70-3	
Fluoranthene	**0.65**	mg/kg	0.020	0.0059	1	12/11/18 09:01	12/12/18 16:01	206-44-0	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

Sample: GP-14 (1-3) **Lab ID: 40180602002** Collected: 12/05/18 10:00 Received: 12/06/18 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Fluorene	**0.016**	mg/kg	0.016	0.0047	1	12/11/18 09:01	12/12/18 16:01	86-73-7	
Indeno(1,2,3-cd)pyrene	**0.19**	mg/kg	0.0083	0.0025	1	12/11/18 09:01	12/12/18 16:01	193-39-5	
1-Methylnaphthalene	**0.058**	mg/kg	0.015	0.0045	1	12/11/18 09:01	12/12/18 16:01	90-12-0	
2-Methylnaphthalene	**0.12**	mg/kg	0.019	0.0057	1	12/11/18 09:01	12/12/18 16:01	91-57-6	
Naphthalene	**0.060**	mg/kg	0.032	0.0095	1	12/11/18 09:01	12/12/18 16:01	91-20-3	
Phenanthrene	**0.24**	mg/kg	0.044	0.013	1	12/11/18 09:01	12/12/18 16:01	85-01-8	
Pyrene	**0.41**	mg/kg	0.017	0.0051	1	12/11/18 09:01	12/12/18 16:01	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	83	%	10-115		1	12/11/18 09:01	12/12/18 16:01	321-60-8	
Terphenyl-d14 (S)	47	%	10-121		1	12/11/18 09:01	12/12/18 16:01	1718-51-0	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,1,1,2-Tetrachloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	630-20-6	W
1,1,1-Trichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	71-55-6	W
1,1,2,2-Tetrachloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	79-34-5	W
1,1,2-Trichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	79-00-5	W
1,1-Dichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	75-34-3	W
1,1-Dichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	75-35-4	W
1,1-Dichloropropene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	563-58-6	W
1,2,3-Trichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	87-61-6	W
1,2,3-Trichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	96-18-4	W
1,2,4-Trichlorobenzene	**<0.048**	mg/kg	0.25	0.048	1	12/07/18 08:15	12/07/18 15:46	120-82-1	W
1,2,4-Trimethylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	95-63-6	W
1,2-Dibromo-3-chloropropane	**<0.091**	mg/kg	0.25	0.091	1	12/07/18 08:15	12/07/18 15:46	96-12-8	W
1,2-Dibromoethane (EDB)	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	106-93-4	W
1,2-Dichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	95-50-1	W
1,2-Dichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	107-06-2	W
1,2-Dichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	78-87-5	W
1,3,5-Trimethylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	108-67-8	W
1,3-Dichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	541-73-1	W
1,3-Dichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	142-28-9	W
1,4-Dichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	106-46-7	W
2,2-Dichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	594-20-7	W
2-Chlorotoluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	95-49-8	W
4-Chlorotoluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	106-43-4	W
Benzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	71-43-2	W
Bromobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	108-86-1	W
Bromochloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	74-97-5	W
Bromodichloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	75-27-4	W
Bromoform	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	75-25-2	W
Bromomethane	**<0.070**	mg/kg	0.25	0.070	1	12/07/18 08:15	12/07/18 15:46	74-83-9	W
Carbon tetrachloride	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	56-23-5	W
Chlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	108-90-7	W
Chloroethane	**<0.067**	mg/kg	0.25	0.067	1	12/07/18 08:15	12/07/18 15:46	75-00-3	W
Chloroform	**<0.046**	mg/kg	0.25	0.046	1	12/07/18 08:15	12/07/18 15:46	67-66-3	W

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

Sample: GP-14 (1-3) **Lab ID: 40180602002** Collected: 12/05/18 10:00 Received: 12/06/18 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
Chloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	74-87-3	W
Dibromochloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	124-48-1	W
Dibromomethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	74-95-3	W
Dichlorodifluoromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	75-71-8	W
Diisopropyl ether	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	108-20-3	W
Ethylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	100-41-4	W
Hexachloro-1,3-butadiene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	87-68-3	W
Isopropylbenzene (Cumene)	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	98-82-8	W
Methyl-tert-butyl ether	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	1634-04-4	W
Methylene Chloride	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	75-09-2	W
Naphthalene	**<0.040**	mg/kg	0.25	0.040	1	12/07/18 08:15	12/07/18 15:46	91-20-3	W
Styrene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	100-42-5	W
Tetrachloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	127-18-4	W
Toluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	108-88-3	W
Trichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	79-01-6	W
Trichlorofluoromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	75-69-4	W
Vinyl chloride	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	75-01-4	L1,W
cis-1,2-Dichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	156-59-2	W
cis-1,3-Dichloropropene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	10061-01-5	W
m&p-Xylene	**<0.050**	mg/kg	0.12	0.050	1	12/07/18 08:15	12/07/18 15:46	179601-23-1	W
n-Butylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	104-51-8	W
n-Propylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	103-65-1	W
o-Xylene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	95-47-6	W
p-Isopropyltoluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	99-87-6	W
sec-Butylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	135-98-8	W
tert-Butylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	98-06-6	W
trans-1,2-Dichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	156-60-5	W
trans-1,3-Dichloropropene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:46	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	113	%	57-148		1	12/07/18 08:15	12/07/18 15:46	1868-53-7	
Toluene-d8 (S)	104	%	58-142		1	12/07/18 08:15	12/07/18 15:46	2037-26-5	
4-Bromofluorobenzene (S)	95	%	48-130		1	12/07/18 08:15	12/07/18 15:46	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**11.4**	%	0.10	0.10	1		12/11/18 14:18		

Sample: GP-14 (6-8) **Lab ID: 40180602003** Collected: 12/05/18 10:15 Received: 12/06/18 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**6.1**	mg/kg	5.6	1.2	1	12/14/18 08:48	12/17/18 11:51	7440-38-2	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

Sample: GP-14 (6-8) **Lab ID: 40180602003** Collected: 12/05/18 10:15 Received: 12/06/18 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Barium	**64.6**	mg/kg	0.56	0.17	1	12/14/18 08:48	12/17/18 11:51	7440-39-3	
Cadmium	**<0.15**	mg/kg	0.56	0.15	1	12/14/18 08:48	12/17/18 11:51	7440-43-9	
Chromium	**14.7**	mg/kg	1.1	0.31	1	12/14/18 08:48	12/17/18 11:51	7440-47-3	
Lead	**7.3**	mg/kg	2.2	0.67	1	12/14/18 08:48	12/17/18 11:51	7439-92-1	
Selenium	**<1.5**	mg/kg	4.9	1.5	1	12/14/18 08:48	12/17/18 11:51	7782-49-2	
Silver	**<0.39**	mg/kg	1.1	0.39	1	12/14/18 08:48	12/17/18 11:51	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**0.020J**	mg/kg	0.037	0.011	1	12/14/18 12:08	12/17/18 09:40	7439-97-6	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**0.017**	mg/kg	0.015	0.0046	1	12/11/18 09:01	12/12/18 16:18	83-32-9	
Acenaphthylene	**<0.0039**	mg/kg	0.013	0.0039	1	12/11/18 09:01	12/12/18 16:18	208-96-8	
Anthracene	**0.037**	mg/kg	0.023	0.0068	1	12/11/18 09:01	12/12/18 16:18	120-12-7	
Benzo(a)anthracene	**0.074**	mg/kg	0.013	0.0038	1	12/11/18 09:01	12/12/18 16:18	56-55-3	
Benzo(a)pyrene	**0.087**	mg/kg	0.010	0.0030	1	12/11/18 09:01	12/12/18 16:18	50-32-8	
Benzo(b)fluoranthene	**0.082**	mg/kg	0.011	0.0034	1	12/11/18 09:01	12/12/18 16:18	205-99-2	
Benzo(g,h,i)perylene	**0.059**	mg/kg	0.0081	0.0024	1	12/11/18 09:01	12/12/18 16:18	191-24-2	
Benzo(k)fluoranthene	**0.073**	mg/kg	0.010	0.0030	1	12/11/18 09:01	12/12/18 16:18	207-08-9	
Chrysene	**0.080**	mg/kg	0.013	0.0040	1	12/11/18 09:01	12/12/18 16:18	218-01-9	
Dibenz(a,h)anthracene	**0.016**	mg/kg	0.0089	0.0027	1	12/11/18 09:01	12/12/18 16:18	53-70-3	
Fluoranthene	**0.22**	mg/kg	0.021	0.0062	1	12/11/18 09:01	12/12/18 16:18	206-44-0	
Fluorene	**0.013J**	mg/kg	0.017	0.0050	1	12/11/18 09:01	12/12/18 16:18	86-73-7	
Indeno(1,2,3-cd)pyrene	**0.048**	mg/kg	0.0088	0.0026	1	12/11/18 09:01	12/12/18 16:18	193-39-5	
1-Methylnaphthalene	**<0.0048**	mg/kg	0.016	0.0048	1	12/11/18 09:01	12/12/18 16:18	90-12-0	
2-Methylnaphthalene	**<0.0060**	mg/kg	0.020	0.0060	1	12/11/18 09:01	12/12/18 16:18	91-57-6	
Naphthalene	**<0.010**	mg/kg	0.034	0.010	1	12/11/18 09:01	12/12/18 16:18	91-20-3	
Phenanthrene	**0.089**	mg/kg	0.046	0.014	1	12/11/18 09:01	12/12/18 16:18	85-01-8	
Pyrene	**0.17**	mg/kg	0.018	0.0054	1	12/11/18 09:01	12/12/18 16:18	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	64	%	10-115		1	12/11/18 09:01	12/12/18 16:18	321-60-8	
Terphenyl-d14 (S)	63	%	10-121		1	12/11/18 09:01	12/12/18 16:18	1718-51-0	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,1,1,2-Tetrachloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	630-20-6	W
1,1,1-Trichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	71-55-6	W
1,1,2,2-Tetrachloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	79-34-5	W
1,1,2-Trichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	79-00-5	W
1,1-Dichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	75-34-3	W
1,1-Dichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	75-35-4	W
1,1-Dichloropropene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	563-58-6	W
1,2,3-Trichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	87-61-6	W
1,2,3-Trichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	96-18-4	W
1,2,4-Trichlorobenzene	**<0.048**	mg/kg	0.25	0.048	1	12/07/18 08:15	12/07/18 13:31	120-82-1	W
1,2,4-Trimethylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	95-63-6	W

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

Sample: GP-14 (6-8) **Lab ID: 40180602003** Collected: 12/05/18 10:15 Received: 12/06/18 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,2-Dibromo-3-chloropropane	**<0.091**	mg/kg	0.25	0.091	1	12/07/18 08:15	12/07/18 13:31	96-12-8	W
1,2-Dibromoethane (EDB)	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	106-93-4	W
1,2-Dichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	95-50-1	W
1,2-Dichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	107-06-2	W
1,2-Dichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	78-87-5	W
1,3,5-Trimethylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	108-67-8	W
1,3-Dichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	541-73-1	W
1,3-Dichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	142-28-9	W
1,4-Dichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	106-46-7	W
2,2-Dichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	594-20-7	W
2-Chlorotoluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	95-49-8	W
4-Chlorotoluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	106-43-4	W
Benzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	71-43-2	W
Bromobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	108-86-1	W
Bromochloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	74-97-5	W
Bromodichloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	75-27-4	W
Bromoform	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	75-25-2	W
Bromomethane	**<0.070**	mg/kg	0.25	0.070	1	12/07/18 08:15	12/07/18 13:31	74-83-9	W
Carbon tetrachloride	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	56-23-5	W
Chlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	108-90-7	W
Chloroethane	**<0.067**	mg/kg	0.25	0.067	1	12/07/18 08:15	12/07/18 13:31	75-00-3	W
Chloroform	**<0.046**	mg/kg	0.25	0.046	1	12/07/18 08:15	12/07/18 13:31	67-66-3	W
Chloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	74-87-3	W
Dibromochloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	124-48-1	W
Dibromomethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	74-95-3	W
Dichlorodifluoromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	75-71-8	W
Diisopropyl ether	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	108-20-3	W
Ethylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	100-41-4	W
Hexachloro-1,3-butadiene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	87-68-3	W
Isopropylbenzene (Cumene)	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	98-82-8	W
Methyl-tert-butyl ether	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	1634-04-4	W
Methylene Chloride	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	75-09-2	W
Naphthalene	**<0.040**	mg/kg	0.25	0.040	1	12/07/18 08:15	12/07/18 13:31	91-20-3	W
Styrene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	100-42-5	W
Tetrachloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	127-18-4	W
Toluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	108-88-3	W
Trichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	79-01-6	W
Trichlorofluoromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	75-69-4	W
Vinyl chloride	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	75-01-4	L1,W
cis-1,2-Dichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	156-59-2	W
cis-1,3-Dichloropropene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	10061-01-5	W
m&p-Xylene	**<0.050**	mg/kg	0.12	0.050	1	12/07/18 08:15	12/07/18 13:31	179601-23-1	W
n-Butylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	104-51-8	W
n-Propylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	103-65-1	W
o-Xylene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	95-47-6	W

REPORT OF LABORATORY ANALYSIS

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Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

Sample: GP-14 (6-8) **Lab ID: 40180602003** Collected: 12/05/18 10:15 Received: 12/06/18 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
p-Isopropyltoluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	99-87-6	W
sec-Butylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	135-98-8	W
tert-Butylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	98-06-6	W
trans-1,2-Dichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	156-60-5	W
trans-1,3-Dichloropropene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 13:31	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	93	%	57-148		1	12/07/18 08:15	12/07/18 13:31	1868-53-7	
Toluene-d8 (S)	88	%	58-142		1	12/07/18 08:15	12/07/18 13:31	2037-26-5	
4-Bromofluorobenzene (S)	76	%	48-130		1	12/07/18 08:15	12/07/18 13:31	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**16.4**	%	0.10	0.10	1		12/11/18 14:18		

Sample: GP-15 (1-3) **Lab ID: 40180602004** Collected: 12/05/18 10:28 Received: 12/06/18 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**4.2J**	mg/kg	5.6	1.2	1	12/14/18 08:48	12/17/18 11:53	7440-38-2	
Barium	**60.6**	mg/kg	0.56	0.17	1	12/14/18 08:48	12/17/18 11:53	7440-39-3	
Cadmium	**<0.15**	mg/kg	0.56	0.15	1	12/14/18 08:48	12/17/18 11:53	7440-43-9	
Chromium	**20.4**	mg/kg	1.1	0.31	1	12/14/18 08:48	12/17/18 11:53	7440-47-3	
Lead	**9.0**	mg/kg	2.2	0.67	1	12/14/18 08:48	12/17/18 11:53	7439-92-1	
Selenium	**<1.5**	mg/kg	4.9	1.5	1	12/14/18 08:48	12/17/18 11:53	7782-49-2	
Silver	**<0.38**	mg/kg	1.1	0.38	1	12/14/18 08:48	12/17/18 11:53	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**0.017J**	mg/kg	0.040	0.012	1	12/14/18 12:08	12/17/18 09:43	7439-97-6	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**<0.0046**	mg/kg	0.015	0.0046	1	12/11/18 09:01	12/11/18 16:16	83-32-9	
Acenaphthylene	**<0.0039**	mg/kg	0.013	0.0039	1	12/11/18 09:01	12/11/18 16:16	208-96-8	
Anthracene	**<0.0068**	mg/kg	0.023	0.0068	1	12/11/18 09:01	12/11/18 16:16	120-12-7	
Benzo(a)anthracene	**<0.0038**	mg/kg	0.013	0.0038	1	12/11/18 09:01	12/11/18 16:16	56-55-3	
Benzo(a)pyrene	**<0.0030**	mg/kg	0.010	0.0030	1	12/11/18 09:01	12/11/18 16:16	50-32-8	
Benzo(b)fluoranthene	**<0.0034**	mg/kg	0.011	0.0034	1	12/11/18 09:01	12/11/18 16:16	205-99-2	
Benzo(g,h,i)perylene	**<0.0024**	mg/kg	0.0081	0.0024	1	12/11/18 09:01	12/11/18 16:16	191-24-2	
Benzo(k)fluoranthene	**<0.0030**	mg/kg	0.010	0.0030	1	12/11/18 09:01	12/11/18 16:16	207-08-9	
Chrysene	**<0.0040**	mg/kg	0.013	0.0040	1	12/11/18 09:01	12/11/18 16:16	218-01-9	
Dibenz(a,h)anthracene	**<0.0027**	mg/kg	0.0089	0.0027	1	12/11/18 09:01	12/11/18 16:16	53-70-3	
Fluoranthene	**<0.0062**	mg/kg	0.021	0.0062	1	12/11/18 09:01	12/11/18 16:16	206-44-0	
Fluorene	**<0.0049**	mg/kg	0.016	0.0049	1	12/11/18 09:01	12/11/18 16:16	86-73-7	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

Sample: GP-15 (1-3) **Lab ID: 40180602004** Collected: 12/05/18 10:28 Received: 12/06/18 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Indeno(1,2,3-cd)pyrene	**<0.0026**	mg/kg	0.0088	0.0026	1	12/11/18 09:01	12/11/18 16:16	193-39-5	
1-Methylnaphthalene	**<0.0048**	mg/kg	0.016	0.0048	1	12/11/18 09:01	12/11/18 16:16	90-12-0	
2-Methylnaphthalene	**<0.0060**	mg/kg	0.020	0.0060	1	12/11/18 09:01	12/11/18 16:16	91-57-6	
Naphthalene	**<0.010**	mg/kg	0.034	0.010	1	12/11/18 09:01	12/11/18 16:16	91-20-3	
Phenanthrene	**<0.014**	mg/kg	0.046	0.014	1	12/11/18 09:01	12/11/18 16:16	85-01-8	
Pyrene	**<0.0054**	mg/kg	0.018	0.0054	1	12/11/18 09:01	12/11/18 16:16	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	69	%	10-115		1	12/11/18 09:01	12/11/18 16:16	321-60-8	
Terphenyl-d14 (S)	65	%	10-121		1	12/11/18 09:01	12/11/18 16:16	1718-51-0	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,1,1,2-Tetrachloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	630-20-6	W
1,1,1-Trichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	71-55-6	W
1,1,2,2-Tetrachloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	79-34-5	W
1,1,2-Trichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	79-00-5	W
1,1-Dichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	75-34-3	W
1,1-Dichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	75-35-4	W
1,1-Dichloropropene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	563-58-6	W
1,2,3-Trichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	87-61-6	W
1,2,3-Trichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	96-18-4	W
1,2,4-Trichlorobenzene	**<0.048**	mg/kg	0.25	0.048	1	12/07/18 08:15	12/07/18 14:16	120-82-1	W
1,2,4-Trimethylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	95-63-6	W
1,2-Dibromo-3-chloropropane	**<0.091**	mg/kg	0.25	0.091	1	12/07/18 08:15	12/07/18 14:16	96-12-8	W
1,2-Dibromoethane (EDB)	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	106-93-4	W
1,2-Dichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	95-50-1	W
1,2-Dichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	107-06-2	W
1,2-Dichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	78-87-5	W
1,3,5-Trimethylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	108-67-8	W
1,3-Dichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	541-73-1	W
1,3-Dichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	142-28-9	W
1,4-Dichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	106-46-7	W
2,2-Dichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	594-20-7	W
2-Chlorotoluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	95-49-8	W
4-Chlorotoluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	106-43-4	W
Benzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	71-43-2	W
Bromobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	108-86-1	W
Bromochloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	74-97-5	W
Bromodichloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	75-27-4	W
Bromoform	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	75-25-2	W
Bromomethane	**<0.070**	mg/kg	0.25	0.070	1	12/07/18 08:15	12/07/18 14:16	74-83-9	W
Carbon tetrachloride	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	56-23-5	W
Chlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	108-90-7	W
Chloroethane	**<0.067**	mg/kg	0.25	0.067	1	12/07/18 08:15	12/07/18 14:16	75-00-3	W
Chloroform	**<0.046**	mg/kg	0.25	0.046	1	12/07/18 08:15	12/07/18 14:16	67-66-3	W
Chloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	74-87-3	W

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

Sample: GP-15 (1-3) **Lab ID: 40180602004** Collected: 12/05/18 10:28 Received: 12/06/18 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
Dibromochloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	124-48-1	W
Dibromomethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	74-95-3	W
Dichlorodifluoromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	75-71-8	W
Diisopropyl ether	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	108-20-3	W
Ethylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	100-41-4	W
Hexachloro-1,3-butadiene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	87-68-3	W
Isopropylbenzene (Cumene)	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	98-82-8	W
Methyl-tert-butyl ether	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	1634-04-4	W
Methylene Chloride	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	75-09-2	W
Naphthalene	**<0.040**	mg/kg	0.25	0.040	1	12/07/18 08:15	12/07/18 14:16	91-20-3	W
Styrene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	100-42-5	W
Tetrachloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	127-18-4	W
Toluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	108-88-3	W
Trichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	79-01-6	W
Trichlorofluoromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	75-69-4	W
Vinyl chloride	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	75-01-4	L1,W
cis-1,2-Dichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	156-59-2	W
cis-1,3-Dichloropropene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	10061-01-5	W
m&p-Xylene	**<0.050**	mg/kg	0.12	0.050	1	12/07/18 08:15	12/07/18 14:16	179601-23-1	W
n-Butylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	104-51-8	W
n-Propylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	103-65-1	W
o-Xylene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	95-47-6	W
p-Isopropyltoluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	99-87-6	W
sec-Butylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	135-98-8	W
tert-Butylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	98-06-6	W
trans-1,2-Dichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	156-60-5	W
trans-1,3-Dichloropropene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:16	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	105	%	57-148		1	12/07/18 08:15	12/07/18 14:16	1868-53-7	
Toluene-d8 (S)	100	%	58-142		1	12/07/18 08:15	12/07/18 14:16	2037-26-5	
4-Bromofluorobenzene (S)	92	%	48-130		1	12/07/18 08:15	12/07/18 14:16	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**16.4**	%	0.10	0.10	1		12/11/18 14:19		

Sample: GP-16 (1-3) **Lab ID: 40180602005** Collected: 12/05/18 10:45 Received: 12/06/18 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**4.4J**	mg/kg	5.6	1.2	1	12/14/18 08:48	12/17/18 11:56	7440-38-2	
Barium	**44.0**	mg/kg	0.56	0.17	1	12/14/18 08:48	12/17/18 11:56	7440-39-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

Sample: GP-16 (1-3) **Lab ID: 40180602005** Collected: 12/05/18 10:45 Received: 12/06/18 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Cadmium	**<0.15**	mg/kg	0.56	0.15	1	12/14/18 08:48	12/17/18 11:56	7440-43-9	
Chromium	**13.7**	mg/kg	1.1	0.31	1	12/14/18 08:48	12/17/18 11:56	7440-47-3	
Lead	**6.6**	mg/kg	2.2	0.67	1	12/14/18 08:48	12/17/18 11:56	7439-92-1	
Selenium	**<1.5**	mg/kg	4.9	1.5	1	12/14/18 08:48	12/17/18 11:56	7782-49-2	
Silver	**<0.39**	mg/kg	1.1	0.39	1	12/14/18 08:48	12/17/18 11:56	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**0.013J**	mg/kg	0.039	0.012	1	12/14/18 12:08	12/17/18 09:45	7439-97-6	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**<0.0046**	mg/kg	0.015	0.0046	1	12/11/18 09:01	12/11/18 15:07	83-32-9	
Acenaphthylene	**<0.0039**	mg/kg	0.013	0.0039	1	12/11/18 09:01	12/11/18 15:07	208-96-8	
Anthracene	**<0.0067**	mg/kg	0.022	0.0067	1	12/11/18 09:01	12/11/18 15:07	120-12-7	
Benzo(a)anthracene	**<0.0037**	mg/kg	0.012	0.0037	1	12/11/18 09:01	12/11/18 15:07	56-55-3	
Benzo(a)pyrene	**<0.0030**	mg/kg	0.0099	0.0030	1	12/11/18 09:01	12/11/18 15:07	50-32-8	
Benzo(b)fluoranthene	**<0.0033**	mg/kg	0.011	0.0033	1	12/11/18 09:01	12/11/18 15:07	205-99-2	
Benzo(g,h,i)perylene	**<0.0024**	mg/kg	0.0080	0.0024	1	12/11/18 09:01	12/11/18 15:07	191-24-2	
Benzo(k)fluoranthene	**<0.0030**	mg/kg	0.0098	0.0030	1	12/11/18 09:01	12/11/18 15:07	207-08-9	
Chrysene	**<0.0040**	mg/kg	0.013	0.0040	1	12/11/18 09:01	12/11/18 15:07	218-01-9	
Dibenz(a,h)anthracene	**<0.0026**	mg/kg	0.0088	0.0026	1	12/11/18 09:01	12/11/18 15:07	53-70-3	
Fluoranthene	**<0.0061**	mg/kg	0.020	0.0061	1	12/11/18 09:01	12/11/18 15:07	206-44-0	
Fluorene	**<0.0049**	mg/kg	0.016	0.0049	1	12/11/18 09:01	12/11/18 15:07	86-73-7	
Indeno(1,2,3-cd)pyrene	**<0.0026**	mg/kg	0.0086	0.0026	1	12/11/18 09:01	12/11/18 15:07	193-39-5	
1-Methylnaphthalene	**<0.0047**	mg/kg	0.016	0.0047	1	12/11/18 09:01	12/11/18 15:07	90-12-0	
2-Methylnaphthalene	**<0.0059**	mg/kg	0.020	0.0059	1	12/11/18 09:01	12/11/18 15:07	91-57-6	
Naphthalene	**<0.0099**	mg/kg	0.033	0.0099	1	12/11/18 09:01	12/11/18 15:07	91-20-3	
Phenanthrene	**<0.014**	mg/kg	0.046	0.014	1	12/11/18 09:01	12/11/18 15:07	85-01-8	
Pyrene	**<0.0053**	mg/kg	0.018	0.0053	1	12/11/18 09:01	12/11/18 15:07	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	58	%	10-115		1	12/11/18 09:01	12/11/18 15:07	321-60-8	
Terphenyl-d14 (S)	58	%	10-121		1	12/11/18 09:01	12/11/18 15:07	1718-51-0	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,1,1,2-Tetrachloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	630-20-6	W
1,1,1-Trichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	71-55-6	W
1,1,2,2-Tetrachloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	79-34-5	W
1,1,2-Trichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	79-00-5	W
1,1-Dichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	75-34-3	W
1,1-Dichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	75-35-4	W
1,1-Dichloropropene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	563-58-6	W
1,2,3-Trichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	87-61-6	W
1,2,3-Trichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	96-18-4	W
1,2,4-Trichlorobenzene	**<0.048**	mg/kg	0.25	0.048	1	12/07/18 08:15	12/07/18 14:38	120-82-1	W
1,2,4-Trimethylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	95-63-6	W
1,2-Dibromo-3-chloropropane	**<0.091**	mg/kg	0.25	0.091	1	12/07/18 08:15	12/07/18 14:38	96-12-8	W

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

Sample: GP-16 (1-3) **Lab ID: 40180602005** Collected: 12/05/18 10:45 Received: 12/06/18 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,2-Dibromoethane (EDB)	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	106-93-4	W
1,2-Dichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	95-50-1	W
1,2-Dichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	107-06-2	W
1,2-Dichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	78-87-5	W
1,3,5-Trimethylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	108-67-8	W
1,3-Dichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	541-73-1	W
1,3-Dichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	142-28-9	W
1,4-Dichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	106-46-7	W
2,2-Dichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	594-20-7	W
2-Chlorotoluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	95-49-8	W
4-Chlorotoluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	106-43-4	W
Benzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	71-43-2	W
Bromobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	108-86-1	W
Bromochloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	74-97-5	W
Bromodichloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	75-27-4	W
Bromoform	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	75-25-2	W
Bromomethane	**<0.070**	mg/kg	0.25	0.070	1	12/07/18 08:15	12/07/18 14:38	74-83-9	W
Carbon tetrachloride	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	56-23-5	W
Chlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	108-90-7	W
Chloroethane	**<0.067**	mg/kg	0.25	0.067	1	12/07/18 08:15	12/07/18 14:38	75-00-3	W
Chloroform	**<0.046**	mg/kg	0.25	0.046	1	12/07/18 08:15	12/07/18 14:38	67-66-3	W
Chloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	74-87-3	W
Dibromochloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	124-48-1	W
Dibromomethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	74-95-3	W
Dichlorodifluoromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	75-71-8	W
Diisopropyl ether	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	108-20-3	W
Ethylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	100-41-4	W
Hexachloro-1,3-butadiene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	87-68-3	W
Isopropylbenzene (Cumene)	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	98-82-8	W
Methyl-tert-butyl ether	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	1634-04-4	W
Methylene Chloride	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	75-09-2	W
Naphthalene	**<0.040**	mg/kg	0.25	0.040	1	12/07/18 08:15	12/07/18 14:38	91-20-3	W
Styrene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	100-42-5	W
Tetrachloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	127-18-4	W
Toluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	108-88-3	W
Trichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	79-01-6	W
Trichlorofluoromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	75-69-4	W
Vinyl chloride	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	75-01-4	L1,W
cis-1,2-Dichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	156-59-2	W
cis-1,3-Dichloropropene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	10061-01-5	W
m&p-Xylene	**<0.050**	mg/kg	0.12	0.050	1	12/07/18 08:15	12/07/18 14:38	179601-23-1	W
n-Butylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	104-51-8	W
n-Propylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	103-65-1	W
o-Xylene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	95-47-6	W
p-Isopropyltoluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	99-87-6	W

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

Sample: GP-16 (1-3) **Lab ID: 40180602005** Collected: 12/05/18 10:45 Received: 12/06/18 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
sec-Butylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	135-98-8	W
tert-Butylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	98-06-6	W
trans-1,2-Dichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	156-60-5	W
trans-1,3-Dichloropropene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 14:38	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	107	%	57-148		1	12/07/18 08:15	12/07/18 14:38	1868-53-7	
Toluene-d8 (S)	103	%	58-142		1	12/07/18 08:15	12/07/18 14:38	2037-26-5	
4-Bromofluorobenzene (S)	93	%	48-130		1	12/07/18 08:15	12/07/18 14:38	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**15.1**	%	0.10	0.10	1		12/11/18 14:19		

Sample: GP-16 (6-8) **Lab ID: 40180602006** Collected: 12/05/18 10:55 Received: 12/06/18 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**4.4J**	mg/kg	5.9	1.2	1	12/14/18 08:48	12/17/18 12:03	7440-38-2	
Barium	**63.2**	mg/kg	0.59	0.18	1	12/14/18 08:48	12/17/18 12:03	7440-39-3	
Cadmium	**<0.16**	mg/kg	0.59	0.16	1	12/14/18 08:48	12/17/18 12:03	7440-43-9	
Chromium	**17.7**	mg/kg	1.2	0.33	1	12/14/18 08:48	12/17/18 12:03	7440-47-3	
Lead	**8.0**	mg/kg	2.4	0.71	1	12/14/18 08:48	12/17/18 12:03	7439-92-1	
Selenium	**<1.6**	mg/kg	5.2	1.6	1	12/14/18 08:48	12/17/18 12:03	7782-49-2	
Silver	**<0.41**	mg/kg	1.2	0.41	1	12/14/18 08:48	12/17/18 12:03	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**0.016J**	mg/kg	0.041	0.012	1	12/14/18 12:08	12/17/18 09:47	7439-97-6	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**<0.0047**	mg/kg	0.016	0.0047	1	12/11/18 09:01	12/11/18 16:33	83-32-9	
Acenaphthylene	**<0.0040**	mg/kg	0.013	0.0040	1	12/11/18 09:01	12/11/18 16:33	208-96-8	
Anthracene	**<0.0069**	mg/kg	0.023	0.0069	1	12/11/18 09:01	12/11/18 16:33	120-12-7	
Benzo(a)anthracene	**<0.0039**	mg/kg	0.013	0.0039	1	12/11/18 09:01	12/11/18 16:33	56-55-3	
Benzo(a)pyrene	**<0.0031**	mg/kg	0.010	0.0031	1	12/11/18 09:01	12/11/18 16:33	50-32-8	
Benzo(b)fluoranthene	**<0.0034**	mg/kg	0.011	0.0034	1	12/11/18 09:01	12/11/18 16:33	205-99-2	
Benzo(g,h,i)perylene	**<0.0025**	mg/kg	0.0082	0.0025	1	12/11/18 09:01	12/11/18 16:33	191-24-2	
Benzo(k)fluoranthene	**<0.0030**	mg/kg	0.010	0.0030	1	12/11/18 09:01	12/11/18 16:33	207-08-9	
Chrysene	**<0.0041**	mg/kg	0.014	0.0041	1	12/11/18 09:01	12/11/18 16:33	218-01-9	
Dibenz(a,h)anthracene	**<0.0027**	mg/kg	0.0091	0.0027	1	12/11/18 09:01	12/11/18 16:33	53-70-3	
Fluoranthene	**<0.0063**	mg/kg	0.021	0.0063	1	12/11/18 09:01	12/11/18 16:33	206-44-0	
Fluorene	**<0.0050**	mg/kg	0.017	0.0050	1	12/11/18 09:01	12/11/18 16:33	86-73-7	
Indeno(1,2,3-cd)pyrene	**<0.0027**	mg/kg	0.0089	0.0027	1	12/11/18 09:01	12/11/18 16:33	193-39-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

Sample: GP-16 (6-8) **Lab ID: 40180602006** Collected: 12/05/18 10:55 Received: 12/06/18 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
1-Methylnaphthalene	**<0.0049**	mg/kg	0.016	0.0049	1	12/11/18 09:01	12/11/18 16:33	90-12-0	
2-Methylnaphthalene	**<0.0061**	mg/kg	0.020	0.0061	1	12/11/18 09:01	12/11/18 16:33	91-57-6	
Naphthalene	**<0.010**	mg/kg	0.034	0.010	1	12/11/18 09:01	12/11/18 16:33	91-20-3	
Phenanthrene	**<0.014**	mg/kg	0.047	0.014	1	12/11/18 09:01	12/11/18 16:33	85-01-8	
Pyrene	**<0.0055**	mg/kg	0.018	0.0055	1	12/11/18 09:01	12/11/18 16:33	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	72	%	10-115		1	12/11/18 09:01	12/11/18 16:33	321-60-8	
Terphenyl-d14 (S)	58	%	10-121		1	12/11/18 09:01	12/11/18 16:33	1718-51-0	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,1,1,2-Tetrachloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	630-20-6	W
1,1,1-Trichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	71-55-6	W
1,1,2,2-Tetrachloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	79-34-5	W
1,1,2-Trichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	79-00-5	W
1,1-Dichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	75-34-3	W
1,1-Dichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	75-35-4	W
1,1-Dichloropropene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	563-58-6	W
1,2,3-Trichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	87-61-6	W
1,2,3-Trichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	96-18-4	W
1,2,4-Trichlorobenzene	**<0.048**	mg/kg	0.25	0.048	1	12/07/18 08:15	12/07/18 15:01	120-82-1	W
1,2,4-Trimethylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	95-63-6	W
1,2-Dibromo-3-chloropropane	**<0.091**	mg/kg	0.25	0.091	1	12/07/18 08:15	12/07/18 15:01	96-12-8	W
1,2-Dibromoethane (EDB)	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	106-93-4	W
1,2-Dichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	95-50-1	W
1,2-Dichloroethane	**0.22**	mg/kg	0.073	0.030	1	12/07/18 08:15	12/07/18 15:01	107-06-2	
1,2-Dichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	78-87-5	W
1,3,5-Trimethylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	108-67-8	W
1,3-Dichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	541-73-1	W
1,3-Dichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	142-28-9	W
1,4-Dichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	106-46-7	W
2,2-Dichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	594-20-7	W
2-Chlorotoluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	95-49-8	W
4-Chlorotoluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	106-43-4	W
Benzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	71-43-2	W
Bromobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	108-86-1	W
Bromochloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	74-97-5	W
Bromodichloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	75-27-4	W
Bromoform	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	75-25-2	W
Bromomethane	**<0.070**	mg/kg	0.25	0.070	1	12/07/18 08:15	12/07/18 15:01	74-83-9	W
Carbon tetrachloride	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	56-23-5	W
Chlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	108-90-7	W
Chloroethane	**<0.067**	mg/kg	0.25	0.067	1	12/07/18 08:15	12/07/18 15:01	75-00-3	W
Chloroform	**<0.046**	mg/kg	0.25	0.046	1	12/07/18 08:15	12/07/18 15:01	67-66-3	W
Chloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	74-87-3	W
Dibromochloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	124-48-1	W

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

Sample: GP-16 (6-8) **Lab ID: 40180602006** Collected: 12/05/18 10:55 Received: 12/06/18 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
Dibromomethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	74-95-3	W
Dichlorodifluoromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	75-71-8	W
Diisopropyl ether	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	108-20-3	W
Ethylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	100-41-4	W
Hexachloro-1,3-butadiene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	87-68-3	W
Isopropylbenzene (Cumene)	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	98-82-8	W
Methyl-tert-butyl ether	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	1634-04-4	W
Methylene Chloride	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	75-09-2	W
Naphthalene	**<0.040**	mg/kg	0.25	0.040	1	12/07/18 08:15	12/07/18 15:01	91-20-3	W
Styrene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	100-42-5	W
Tetrachloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	127-18-4	W
Toluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	108-88-3	W
Trichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	79-01-6	W
Trichlorofluoromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	75-69-4	W
Vinyl chloride	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	75-01-4	L1,W
cis-1,2-Dichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	156-59-2	W
cis-1,3-Dichloropropene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	10061-01-5	W
m&p-Xylene	**<0.050**	mg/kg	0.12	0.050	1	12/07/18 08:15	12/07/18 15:01	179601-23-1	W
n-Butylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	104-51-8	W
n-Propylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	103-65-1	W
o-Xylene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	95-47-6	W
p-Isopropyltoluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	99-87-6	W
sec-Butylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	135-98-8	W
tert-Butylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	98-06-6	W
trans-1,2-Dichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	156-60-5	W
trans-1,3-Dichloropropene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:01	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	94	%	57-148		1	12/07/18 08:15	12/07/18 15:01	1868-53-7	
Toluene-d8 (S)	90	%	58-142		1	12/07/18 08:15	12/07/18 15:01	2037-26-5	
4-Bromofluorobenzene (S)	79	%	48-130		1	12/07/18 08:15	12/07/18 15:01	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**17.8**	%	0.10	0.10	1		12/11/18 14:19		

Sample: GP-17 (1-3) **Lab ID: 40180602007** Collected: 12/05/18 11:10 Received: 12/06/18 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**3.1J**	mg/kg	5.7	1.2	1	12/14/18 08:48	12/17/18 12:08	7440-38-2	
Barium	**18.9**	mg/kg	0.57	0.17	1	12/14/18 08:48	12/17/18 12:08	7440-39-3	
Cadmium	**<0.15**	mg/kg	0.57	0.15	1	12/14/18 08:48	12/17/18 12:08	7440-43-9	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

Sample: GP-17 (1-3) **Lab ID: 40180602007** Collected: 12/05/18 11:10 Received: 12/06/18 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Chromium	**8.9**	mg/kg	1.1	0.32	1	12/14/18 08:48	12/17/18 12:08	7440-47-3	
Lead	**4.3**	mg/kg	2.3	0.68	1	12/14/18 08:48	12/17/18 12:08	7439-92-1	
Selenium	**<1.5**	mg/kg	5.0	1.5	1	12/14/18 08:48	12/17/18 12:08	7782-49-2	
Silver	**<0.39**	mg/kg	1.1	0.39	1	12/14/18 08:48	12/17/18 12:08	7440-22-4	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**<0.011**	mg/kg	0.038	0.011	1	12/14/18 12:08	12/17/18 09:54	7439-97-6	
8270 MSSV PAH by SIM	Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3546								
Acenaphthene	**<0.0044**	mg/kg	0.015	0.0044	1	12/12/18 08:38	12/12/18 15:09	83-32-9	
Acenaphthylene	**<0.0038**	mg/kg	0.013	0.0038	1	12/12/18 08:38	12/12/18 15:09	208-96-8	
Anthracene	**<0.0065**	mg/kg	0.022	0.0065	1	12/12/18 08:38	12/12/18 15:09	120-12-7	
Benzo(a)anthracene	**<0.0036**	mg/kg	0.012	0.0036	1	12/12/18 08:38	12/12/18 15:09	56-55-3	
Benzo(a)pyrene	**0.0042J**	mg/kg	0.0095	0.0029	1	12/12/18 08:38	12/12/18 15:09	50-32-8	
Benzo(b)fluoranthene	**0.0045J**	mg/kg	0.011	0.0032	1	12/12/18 08:38	12/12/18 15:09	205-99-2	L1
Benzo(g,h,i)perylene	**0.0045J**	mg/kg	0.0077	0.0023	1	12/12/18 08:38	12/12/18 15:09	191-24-2	
Benzo(k)fluoranthene	**0.0049J**	mg/kg	0.0095	0.0029	1	12/12/18 08:38	12/12/18 15:09	207-08-9	
Chrysene	**0.0067J**	mg/kg	0.013	0.0038	1	12/12/18 08:38	12/12/18 15:09	218-01-9	
Dibenz(a,h)anthracene	**<0.0025**	mg/kg	0.0085	0.0025	1	12/12/18 08:38	12/12/18 15:09	53-70-3	
Fluoranthene	**0.0071J**	mg/kg	0.020	0.0059	1	12/12/18 08:38	12/12/18 15:09	206-44-0	
Fluorene	**<0.0047**	mg/kg	0.016	0.0047	1	12/12/18 08:38	12/12/18 15:09	86-73-7	
Indeno(1,2,3-cd)pyrene	**<0.0025**	mg/kg	0.0084	0.0025	1	12/12/18 08:38	12/12/18 15:09	193-39-5	
1-Methylnaphthalene	**<0.0046**	mg/kg	0.015	0.0046	1	12/12/18 08:38	12/12/18 15:09	90-12-0	
2-Methylnaphthalene	**<0.0057**	mg/kg	0.019	0.0057	1	12/12/18 08:38	12/12/18 15:09	91-57-6	
Naphthalene	**<0.0096**	mg/kg	0.032	0.0096	1	12/12/18 08:38	12/12/18 15:09	91-20-3	
Phenanthrene	**<0.013**	mg/kg	0.044	0.013	1	12/12/18 08:38	12/12/18 15:09	85-01-8	
Pyrene	**0.0064J**	mg/kg	0.017	0.0051	1	12/12/18 08:38	12/12/18 15:09	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	62	%	10-115		1	12/12/18 08:38	12/12/18 15:09	321-60-8	
Terphenyl-d14 (S)	53	%	10-121		1	12/12/18 08:38	12/12/18 15:09	1718-51-0	
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,1,1,2-Tetrachloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	630-20-6	W
1,1,1-Trichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	71-55-6	W
1,1,2,2-Tetrachloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	79-34-5	W
1,1,2-Trichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	79-00-5	W
1,1-Dichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	75-34-3	W
1,1-Dichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	75-35-4	W
1,1-Dichloropropene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	563-58-6	W
1,2,3-Trichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	87-61-6	W
1,2,3-Trichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	96-18-4	W
1,2,4-Trichlorobenzene	**<0.048**	mg/kg	0.25	0.048	1	12/07/18 08:15	12/07/18 15:24	120-82-1	W
1,2,4-Trimethylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	95-63-6	W
1,2-Dibromo-3-chloropropane	**<0.091**	mg/kg	0.25	0.091	1	12/07/18 08:15	12/07/18 15:24	96-12-8	W
1,2-Dibromoethane (EDB)	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	106-93-4	W

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

Sample: GP-17 (1-3) **Lab ID: 40180602007** Collected: 12/05/18 11:10 Received: 12/06/18 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,2-Dichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	95-50-1	W
1,2-Dichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	107-06-2	W
1,2-Dichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	78-87-5	W
1,3,5-Trimethylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	108-67-8	W
1,3-Dichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	541-73-1	W
1,3-Dichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	142-28-9	W
1,4-Dichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	106-46-7	W
2,2-Dichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	594-20-7	W
2-Chlorotoluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	95-49-8	W
4-Chlorotoluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	106-43-4	W
Benzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	71-43-2	W
Bromobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	108-86-1	W
Bromochloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	74-97-5	W
Bromodichloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	75-27-4	W
Bromoform	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	75-25-2	W
Bromomethane	**<0.070**	mg/kg	0.25	0.070	1	12/07/18 08:15	12/07/18 15:24	74-83-9	W
Carbon tetrachloride	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	56-23-5	W
Chlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	108-90-7	W
Chloroethane	**<0.067**	mg/kg	0.25	0.067	1	12/07/18 08:15	12/07/18 15:24	75-00-3	W
Chloroform	**<0.046**	mg/kg	0.25	0.046	1	12/07/18 08:15	12/07/18 15:24	67-66-3	W
Chloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	74-87-3	W
Dibromochloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	124-48-1	W
Dibromomethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	74-95-3	W
Dichlorodifluoromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	75-71-8	W
Diisopropyl ether	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	108-20-3	W
Ethylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	100-41-4	W
Hexachloro-1,3-butadiene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	87-68-3	W
Isopropylbenzene (Cumene)	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	98-82-8	W
Methyl-tert-butyl ether	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	1634-04-4	W
Methylene Chloride	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	75-09-2	W
Naphthalene	**<0.040**	mg/kg	0.25	0.040	1	12/07/18 08:15	12/07/18 15:24	91-20-3	W
Styrene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	100-42-5	W
Tetrachloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	127-18-4	W
Toluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	108-88-3	W
Trichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	79-01-6	W
Trichlorofluoromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	75-69-4	W
Vinyl chloride	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	75-01-4	L1,W
cis-1,2-Dichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	156-59-2	W
cis-1,3-Dichloropropene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	10061-01-5	W
m&p-Xylene	**<0.050**	mg/kg	0.12	0.050	1	12/07/18 08:15	12/07/18 15:24	179601-23-1	W
n-Butylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	104-51-8	W
n-Propylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	103-65-1	W
o-Xylene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	95-47-6	W
p-Isopropyltoluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	99-87-6	W
sec-Butylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	135-98-8	W

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

Sample: GP-17 (1-3) **Lab ID: 40180602007** Collected: 12/05/18 11:10 Received: 12/06/18 13:40 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
tert-Butylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	98-06-6	W
trans-1,2-Dichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	156-60-5	W
trans-1,3-Dichloropropene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 15:24	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	112	%	57-148		1	12/07/18 08:15	12/07/18 15:24	1868-53-7	
Toluene-d8 (S)	106	%	58-142		1	12/07/18 08:15	12/07/18 15:24	2037-26-5	
4-Bromofluorobenzene (S)	93	%	48-130		1	12/07/18 08:15	12/07/18 15:24	460-00-4	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**12.4**	%	0.10	0.10	1		12/11/18 14:19		

Sample: TRIP BLANK **Lab ID: 40180602008** Collected: 12/05/18 00:00 Received: 12/06/18 13:40 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
1,1,1,2-Tetrachloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	630-20-6	W
1,1,1-Trichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	71-55-6	W
1,1,2,2-Tetrachloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	79-34-5	W
1,1,2-Trichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	79-00-5	W
1,1-Dichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	75-34-3	W
1,1-Dichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	75-35-4	W
1,1-Dichloropropene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	563-58-6	W
1,2,3-Trichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	87-61-6	W
1,2,3-Trichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	96-18-4	W
1,2,4-Trichlorobenzene	**<0.048**	mg/kg	0.25	0.048	1	12/07/18 08:15	12/07/18 12:24	120-82-1	W
1,2,4-Trimethylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	95-63-6	W
1,2-Dibromo-3-chloropropane	**<0.091**	mg/kg	0.25	0.091	1	12/07/18 08:15	12/07/18 12:24	96-12-8	W
1,2-Dibromoethane (EDB)	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	106-93-4	W
1,2-Dichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	95-50-1	W
1,2-Dichloroethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	107-06-2	W
1,2-Dichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	78-87-5	W
1,3,5-Trimethylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	108-67-8	W
1,3-Dichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	541-73-1	W
1,3-Dichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	142-28-9	W
1,4-Dichlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	106-46-7	W
2,2-Dichloropropane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	594-20-7	W
2-Chlorotoluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	95-49-8	W
4-Chlorotoluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	106-43-4	W
Benzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	71-43-2	W
Bromobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	108-86-1	W
Bromochloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	74-97-5	W

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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ANALYTICAL RESULTS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

Sample: TRIP BLANK **Lab ID: 40180602008** Collected: 12/05/18 00:00 Received: 12/06/18 13:40 Matrix: Solid

Results reported on a "wet-weight" basis

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical Method: EPA 8260 Preparation Method: EPA 5035/5030B								
Bromodichloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	75-27-4	W
Bromoform	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	75-25-2	W
Bromomethane	**<0.070**	mg/kg	0.25	0.070	1	12/07/18 08:15	12/07/18 12:24	74-83-9	W
Carbon tetrachloride	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	56-23-5	W
Chlorobenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	108-90-7	W
Chloroethane	**<0.067**	mg/kg	0.25	0.067	1	12/07/18 08:15	12/07/18 12:24	75-00-3	W
Chloroform	**<0.046**	mg/kg	0.25	0.046	1	12/07/18 08:15	12/07/18 12:24	67-66-3	W
Chloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	74-87-3	W
Dibromochloromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	124-48-1	W
Dibromomethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	74-95-3	W
Dichlorodifluoromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	75-71-8	W
Diisopropyl ether	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	108-20-3	W
Ethylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	100-41-4	W
Hexachloro-1,3-butadiene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	87-68-3	W
Isopropylbenzene (Cumene)	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	98-82-8	W
Methyl-tert-butyl ether	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	1634-04-4	W
Methylene Chloride	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	75-09-2	W
Naphthalene	**<0.040**	mg/kg	0.25	0.040	1	12/07/18 08:15	12/07/18 12:24	91-20-3	W
Styrene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	100-42-5	W
Tetrachloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	127-18-4	W
Toluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	108-88-3	W
Trichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	79-01-6	W
Trichlorofluoromethane	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	75-69-4	W
Vinyl chloride	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	75-01-4	L1,W
cis-1,2-Dichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	156-59-2	W
cis-1,3-Dichloropropene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	10061-01-5	W
m&p-Xylene	**<0.050**	mg/kg	0.12	0.050	1	12/07/18 08:15	12/07/18 12:24	179601-23-1	W
n-Butylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	104-51-8	W
n-Propylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	103-65-1	W
o-Xylene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	95-47-6	W
p-Isopropyltoluene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	99-87-6	W
sec-Butylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	135-98-8	W
tert-Butylbenzene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	98-06-6	W
trans-1,2-Dichloroethene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	156-60-5	W
trans-1,3-Dichloropropene	**<0.025**	mg/kg	0.060	0.025	1	12/07/18 08:15	12/07/18 12:24	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	111	%	57-148		1	12/07/18 08:15	12/07/18 12:24	1868-53-7	
Toluene-d8 (S)	104	%	58-142		1	12/07/18 08:15	12/07/18 12:24	2037-26-5	
4-Bromofluorobenzene (S)	98	%	48-130		1	12/07/18 08:15	12/07/18 12:24	460-00-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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QUALITY CONTROL DATA

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

QC Batch: 309254 Analysis Method: EPA 7471
QC Batch Method: EPA 7471 Analysis Description: 7471 Mercury
Associated Lab Samples: 40180602001, 40180602002, 40180602003, 40180602004, 40180602005, 40180602006, 40180602007

METHOD BLANK: 1806320 Matrix: Solid
Associated Lab Samples: 40180602001, 40180602002, 40180602003, 40180602004, 40180602005, 40180602006, 40180602007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Mercury	mg/kg	<0.010	0.035	12/17/18 09:26	

LABORATORY CONTROL SAMPLE: 1806321

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/kg	0.83	0.83	99	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1806322 1806323

Parameter	Units	40180602001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/kg	0.014J	1	1	1.0	1.0	99	101	85-115	0	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(920)469-2436

QUALITY CONTROL DATA

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

QC Batch: 309088 Analysis Method: EPA 6010
QC Batch Method: EPA 3050 Analysis Description: 6010 MET
Associated Lab Samples: 40180602001, 40180602002, 40180602003, 40180602004, 40180602005, 40180602006, 40180602007

METHOD BLANK: 1805454 Matrix: Solid
Associated Lab Samples: 40180602001, 40180602002, 40180602003, 40180602004, 40180602005, 40180602006, 40180602007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Arsenic	mg/kg	<1.0	5.0	12/17/18 11:05	
Barium	mg/kg	<0.15	0.50	12/17/18 11:05	
Cadmium	mg/kg	<0.13	0.50	12/17/18 11:05	
Chromium	mg/kg	<0.28	1.0	12/17/18 11:05	
Lead	mg/kg	<0.60	2.0	12/17/18 11:05	
Selenium	mg/kg	<1.3	4.4	12/17/18 11:05	
Silver	mg/kg	<0.34	1.0	12/17/18 11:05	

LABORATORY CONTROL SAMPLE & LCSD: 1805455 1805456

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Arsenic	mg/kg	50	47.0	47.8	94	96	80-120	2	20	
Barium	mg/kg	50	50.6	51.9	101	104	80-120	2	20	
Cadmium	mg/kg	50	49.1	50.4	98	101	80-120	3	20	
Chromium	mg/kg	50	51.1	52.6	102	105	80-120	3	20	
Lead	mg/kg	50	50.2	51.4	100	103	80-120	2	20	
Selenium	mg/kg	50	49.2	51.6	98	103	80-120	5	20	
Silver	mg/kg	25	24.8	25.6	99	102	80-120	3	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1805457 1805458

Parameter	Units	40180907001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/kg	4.5J	53.6	53.6	54.1	52.6	93	90	75-125	3	20	
Barium	mg/kg	28.3	53.6	53.6	91.4	98.4	118	131	75-125	7	20	M0
Cadmium	mg/kg	<0.14	53.6	53.6	55.4	54.2	103	101	75-125	2	20	
Chromium	mg/kg	10.2	53.6	53.6	65.5	66.4	103	105	75-125	1	20	
Lead	mg/kg	5.2	53.6	53.6	61.7	57.0	105	97	75-125	8	20	
Selenium	mg/kg	<1.4	53.6	53.6	55.0	53.7	103	100	75-125	3	20	
Silver	mg/kg	<0.37	26.9	26.8	27.4	26.9	102	100	75-125	2	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

QC Batch: 308660 Analysis Method: EPA 8260
QC Batch Method: EPA 5035/5030B Analysis Description: 8260 MSV Med Level Normal List
Associated Lab Samples: 40180602001, 40180602002, 40180602003, 40180602004, 40180602005, 40180602006, 40180602007, 40180602008

METHOD BLANK: 1802982 Matrix: Solid
Associated Lab Samples: 40180602001, 40180602002, 40180602003, 40180602004, 40180602005, 40180602006, 40180602007, 40180602008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	mg/kg	<0.014	0.050	12/07/18 10:07	
1,1,1-Trichloroethane	mg/kg	<0.014	0.050	12/07/18 10:07	
1,1,2,2-Tetrachloroethane	mg/kg	<0.018	0.050	12/07/18 10:07	
1,1,2-Trichloroethane	mg/kg	<0.020	0.050	12/07/18 10:07	
1,1-Dichloroethane	mg/kg	<0.018	0.050	12/07/18 10:07	
1,1-Dichloroethene	mg/kg	<0.018	0.050	12/07/18 10:07	
1,1-Dichloropropene	mg/kg	<0.014	0.050	12/07/18 10:07	
1,2,3-Trichlorobenzene	mg/kg	<0.017	0.050	12/07/18 10:07	
1,2,3-Trichloropropane	mg/kg	<0.022	0.050	12/07/18 10:07	
1,2,4-Trichlorobenzene	mg/kg	<0.048	0.25	12/07/18 10:07	
1,2,4-Trimethylbenzene	mg/kg	<0.012	0.050	12/07/18 10:07	
1,2-Dibromo-3-chloropropane	mg/kg	<0.091	0.25	12/07/18 10:07	
1,2-Dibromoethane (EDB)	mg/kg	<0.015	0.050	12/07/18 10:07	
1,2-Dichlorobenzene	mg/kg	<0.016	0.050	12/07/18 10:07	
1,2-Dichloroethane	mg/kg	<0.015	0.050	12/07/18 10:07	
1,2-Dichloropropane	mg/kg	<0.017	0.050	12/07/18 10:07	
1,3,5-Trimethylbenzene	mg/kg	<0.014	0.050	12/07/18 10:07	
1,3-Dichlorobenzene	mg/kg	<0.013	0.050	12/07/18 10:07	
1,3-Dichloropropane	mg/kg	<0.012	0.050	12/07/18 10:07	
1,4-Dichlorobenzene	mg/kg	<0.016	0.050	12/07/18 10:07	
2,2-Dichloropropane	mg/kg	<0.013	0.050	12/07/18 10:07	
2-Chlorotoluene	mg/kg	<0.016	0.050	12/07/18 10:07	
4-Chlorotoluene	mg/kg	<0.013	0.050	12/07/18 10:07	
Benzene	mg/kg	<0.0092	0.020	12/07/18 10:07	
Bromobenzene	mg/kg	<0.021	0.050	12/07/18 10:07	
Bromochloromethane	mg/kg	<0.021	0.050	12/07/18 10:07	
Bromodichloromethane	mg/kg	<0.0098	0.050	12/07/18 10:07	
Bromoform	mg/kg	<0.020	0.050	12/07/18 10:07	
Bromomethane	mg/kg	<0.070	0.25	12/07/18 10:07	
Carbon tetrachloride	mg/kg	<0.012	0.050	12/07/18 10:07	
Chlorobenzene	mg/kg	<0.015	0.050	12/07/18 10:07	
Chloroethane	mg/kg	<0.067	0.25	12/07/18 10:07	
Chloroform	mg/kg	<0.046	0.25	12/07/18 10:07	
Chloromethane	mg/kg	<0.020	0.050	12/07/18 10:07	
cis-1,2-Dichloroethene	mg/kg	<0.017	0.050	12/07/18 10:07	
cis-1,3-Dichloropropene	mg/kg	<0.017	0.050	12/07/18 10:07	
Dibromochloromethane	mg/kg	<0.018	0.050	12/07/18 10:07	
Dibromomethane	mg/kg	<0.019	0.050	12/07/18 10:07	
Dichlorodifluoromethane	mg/kg	<0.012	0.050	12/07/18 10:07	
Diisopropyl ether	mg/kg	<0.018	0.050	12/07/18 10:07	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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(920)469-2436

QUALITY CONTROL DATA

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

METHOD BLANK: 1802982 Matrix: Solid
Associated Lab Samples: 40180602001, 40180602002, 40180602003, 40180602004, 40180602005, 40180602006, 40180602007, 40180602008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethylbenzene	mg/kg	<0.012	0.050	12/07/18 10:07	
Hexachloro-1,3-butadiene	mg/kg	<0.024	0.050	12/07/18 10:07	
Isopropylbenzene (Cumene)	mg/kg	<0.013	0.050	12/07/18 10:07	
m&p-Xylene	mg/kg	<0.034	0.10	12/07/18 10:07	
Methyl-tert-butyl ether	mg/kg	<0.013	0.050	12/07/18 10:07	
Methylene Chloride	mg/kg	<0.016	0.050	12/07/18 10:07	
n-Butylbenzene	mg/kg	<0.011	0.050	12/07/18 10:07	
n-Propylbenzene	mg/kg	<0.012	0.050	12/07/18 10:07	
Naphthalene	mg/kg	<0.040	0.25	12/07/18 10:07	
o-Xylene	mg/kg	<0.014	0.050	12/07/18 10:07	
p-Isopropyltoluene	mg/kg	<0.012	0.050	12/07/18 10:07	
sec-Butylbenzene	mg/kg	<0.012	0.050	12/07/18 10:07	
Styrene	mg/kg	<0.0090	0.050	12/07/18 10:07	
tert-Butylbenzene	mg/kg	<0.0095	0.050	12/07/18 10:07	
Tetrachloroethene	mg/kg	<0.013	0.050	12/07/18 10:07	
Toluene	mg/kg	<0.011	0.050	12/07/18 10:07	
trans-1,2-Dichloroethene	mg/kg	<0.016	0.050	12/07/18 10:07	
trans-1,3-Dichloropropene	mg/kg	<0.014	0.050	12/07/18 10:07	
Trichloroethene	mg/kg	<0.024	0.050	12/07/18 10:07	
Trichlorofluoromethane	mg/kg	<0.025	0.050	12/07/18 10:07	
Vinyl chloride	mg/kg	<0.021	0.050	12/07/18 10:07	
4-Bromofluorobenzene (S)	%	87	48-130	12/07/18 10:07	
Dibromofluoromethane (S)	%	102	57-148	12/07/18 10:07	
Toluene-d8 (S)	%	98	58-142	12/07/18 10:07	

LABORATORY CONTROL SAMPLE: 1802983

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	mg/kg	2.5	2.9	116	70-130	
1,1,2,2-Tetrachloroethane	mg/kg	2.5	2.6	106	68-130	
1,1,2-Trichloroethane	mg/kg	2.5	2.7	109	70-130	
1,1-Dichloroethane	mg/kg	2.5	3.0	121	67-132	
1,1-Dichloroethene	mg/kg	2.5	2.8	114	67-128	
1,2,4-Trichlorobenzene	mg/kg	2.5	2.7	108	51-131	
1,2-Dibromo-3-chloropropane	mg/kg	2.5	2.6	102	49-117	
1,2-Dibromoethane (EDB)	mg/kg	2.5	2.4	98	70-130	
1,2-Dichlorobenzene	mg/kg	2.5	2.7	109	70-130	
1,2-Dichloroethane	mg/kg	2.5	2.9	115	65-137	
1,2-Dichloropropane	mg/kg	2.5	3.0	119	75-126	
1,3-Dichlorobenzene	mg/kg	2.5	2.7	108	70-130	
1,4-Dichlorobenzene	mg/kg	2.5	2.5	102	70-130	
Benzene	mg/kg	2.5	2.9	116	70-130	
Bromodichloromethane	mg/kg	2.5	2.9	116	70-130	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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(920)469-2436

QUALITY CONTROL DATA

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

LABORATORY CONTROL SAMPLE: 1802983

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromoform	mg/kg	2.5	2.3	91	57-117	
Bromomethane	mg/kg	2.5	2.8	113	48-135	
Carbon tetrachloride	mg/kg	2.5	2.9	116	65-133	
Chlorobenzene	mg/kg	2.5	2.8	110	70-130	
Chloroethane	mg/kg	2.5	3.2	129	37-165	
Chloroform	mg/kg	2.5	2.9	116	72-126	
Chloromethane	mg/kg	2.5	2.8	113	34-120	
cis-1,2-Dichloroethene	mg/kg	2.5	2.9	114	70-130	
cis-1,3-Dichloropropene	mg/kg	2.5	2.6	103	69-130	
Dibromochloromethane	mg/kg	2.5	2.7	109	68-130	
Dichlorodifluoromethane	mg/kg	2.5	2.5	99	22-100	
Ethylbenzene	mg/kg	2.5	2.9	114	79-121	
Isopropylbenzene (Cumene)	mg/kg	2.5	3.0	121	70-130	
m&p-Xylene	mg/kg	5	5.7	114	70-130	
Methyl-tert-butyl ether	mg/kg	2.5	2.5	100	66-129	
Methylene Chloride	mg/kg	2.5	2.7	107	68-129	
o-Xylene	mg/kg	2.5	3.0	118	70-130	
Styrene	mg/kg	2.5	2.6	106	70-130	
Tetrachloroethene	mg/kg	2.5	2.9	115	70-130	
Toluene	mg/kg	2.5	2.8	113	80-123	
trans-1,2-Dichloroethene	mg/kg	2.5	2.6	104	70-130	
trans-1,3-Dichloropropene	mg/kg	2.5	2.4	98	67-130	
Trichloroethene	mg/kg	2.5	3.0	119	70-130	
Trichlorofluoromethane	mg/kg	2.5	3.0	118	64-134	
Vinyl chloride	mg/kg	2.5	3.1	126	52-122	L1
4-Bromofluorobenzene (S)	%			107	48-130	
Dibromofluoromethane (S)	%			107	57-148	
Toluene-d8 (S)	%			102	58-142	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1802984 1802985

Parameter	Units	40180602003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	mg/kg	<0.025	1.4	1.4	1.7	1.7	112	112	62-130	0	20	
1,1,2,2-Tetrachloroethane	mg/kg	<0.025	1.4	1.4	1.6	1.7	108	116	64-137	7	20	
1,1,2-Trichloroethane	mg/kg	<0.025	1.4	1.4	1.7	1.7	111	116	70-130	4	20	
1,1-Dichloroethane	mg/kg	<0.025	1.4	1.4	1.6	1.7	110	113	65-132	2	20	
1,1-Dichloroethene	mg/kg	<0.025	1.4	1.4	1.5	1.5	97	99	50-128	2	21	
1,2,4-Trichlorobenzene	mg/kg	<0.048	1.4	1.4	1.7	1.8	116	118	51-148	2	20	
1,2-Dibromo-3-chloropropane	mg/kg	<0.091	1.4	1.4	1.5	1.7	102	111	43-134	8	23	
1,2-Dibromoethane (EDB)	mg/kg	<0.025	1.4	1.4	1.5	1.5	98	103	70-130	4	20	
1,2-Dichlorobenzene	mg/kg	<0.025	1.4	1.4	1.7	1.7	114	114	70-130	0	20	
1,2-Dichloroethane	mg/kg	<0.025	1.4	1.4	1.7	1.7	112	112	65-139	1	20	
1,2-Dichloropropane	mg/kg	<0.025	1.4	1.4	1.7	1.6	111	110	74-128	2	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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(920)469-2436

QUALITY CONTROL DATA

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1802984 1802985

Parameter	Units	40180602003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,3-Dichlorobenzene	mg/kg	<0.025	1.4	1.4	1.7	1.7	111	113	70-130	2	20	
1,4-Dichlorobenzene	mg/kg	<0.025	1.4	1.4	1.7	1.6	117	109	70-130	7	20	
Benzene	mg/kg	<0.025	1.4	1.4	1.6	1.6	109	109	66-132	0	20	
Bromodichloromethane	mg/kg	<0.025	1.4	1.4	1.6	1.7	108	111	69-130	3	20	
Bromoform	mg/kg	<0.025	1.4	1.4	1.5	1.6	99	104	57-130	5	20	
Bromomethane	mg/kg	<0.070	1.4	1.4	1.3	1.3	85	86	34-145	1	20	
Carbon tetrachloride	mg/kg	<0.025	1.4	1.4	1.6	1.6	110	108	54-133	2	20	
Chlorobenzene	mg/kg	<0.025	1.4	1.4	1.6	1.7	109	112	70-130	2	20	
Chloroethane	mg/kg	<0.067	1.4	1.4	1.7	1.7	111	111	33-165	0	20	
Chloroform	mg/kg	<0.046	1.4	1.4	1.7	1.7	112	112	72-128	0	20	
Chloromethane	mg/kg	<0.025	1.4	1.4	1.1	1.1	71	74	20-120	4	20	
cis-1,2-Dichloroethene	mg/kg	<0.025	1.4	1.4	1.5	1.6	103	107	69-130	4	20	
cis-1,3-Dichloropropene	mg/kg	<0.025	1.4	1.4	1.5	1.6	98	104	65-130	6	20	
Dibromochloromethane	mg/kg	<0.025	1.4	1.4	1.6	1.7	105	111	65-130	6	20	
Dichlorodifluoromethane	mg/kg	<0.025	1.4	1.4	0.77	0.77	51	52	10-109	1	29	
Ethylbenzene	mg/kg	<0.025	1.4	1.4	1.6	1.7	108	112	63-127	4	20	
Isopropylbenzene (Cumene)	mg/kg	<0.025	1.4	1.4	1.7	1.7	114	116	66-130	2	20	
m&p-Xylene	mg/kg	<0.050	3	3	3.3	3.4	112	115	70-130	3	20	
Methyl-tert-butyl ether	mg/kg	<0.025	1.4	1.4	1.4	1.6	95	105	62-135	9	20	
Methylene Chloride	mg/kg	<0.025	1.4	1.4	1.5	1.5	101	102	68-129	1	20	
o-Xylene	mg/kg	<0.025	1.4	1.4	1.7	1.7	114	113	69-130	1	20	
Styrene	mg/kg	<0.025	1.4	1.4	1.5	1.5	102	100	70-130	2	20	
Tetrachloroethene	mg/kg	<0.025	1.4	1.4	1.6	1.7	109	115	70-130	6	20	
Toluene	mg/kg	<0.025	1.4	1.4	1.7	1.7	112	112	80-123	0	20	
trans-1,2-Dichloroethene	mg/kg	<0.025	1.4	1.4	1.5	1.5	101	103	70-130	2	20	
trans-1,3-Dichloropropene	mg/kg	<0.025	1.4	1.4	1.4	1.5	94	99	67-130	5	20	
Trichloroethene	mg/kg	<0.025	1.4	1.4	1.7	1.7	111	115	70-130	4	20	
Trichlorofluoromethane	mg/kg	<0.025	1.4	1.4	1.6	1.5	104	102	41-134	2	26	
Vinyl chloride	mg/kg	<0.025	1.4	1.4	1.3	1.3	86	87	39-122	1	20	
4-Bromofluorobenzene (S)	%						87	91	48-130			
Dibromofluoromethane (S)	%						92	93	57-148			
Toluene-d8 (S)	%						90	90	58-142			

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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(920)469-2436

QUALITY CONTROL DATA

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

QC Batch: 308890 Analysis Method: EPA 8270 by SIM
QC Batch Method: EPA 3546 Analysis Description: 8270/3546 MSSV PAH by SIM
Associated Lab Samples: 40180602001, 40180602002, 40180602003, 40180602004, 40180602005, 40180602006

METHOD BLANK: 1804409 Matrix: Solid
Associated Lab Samples: 40180602001, 40180602002, 40180602003, 40180602004, 40180602005, 40180602006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1-Methylnaphthalene	mg/kg	<0.0040	0.013	12/11/18 12:13	
2-Methylnaphthalene	mg/kg	<0.0050	0.017	12/11/18 12:13	
Acenaphthene	mg/kg	<0.0039	0.013	12/11/18 12:13	
Acenaphthylene	mg/kg	<0.0033	0.011	12/11/18 12:13	
Anthracene	mg/kg	<0.0057	0.019	12/11/18 12:13	
Benzo(a)anthracene	mg/kg	<0.0032	0.011	12/11/18 12:13	
Benzo(a)pyrene	mg/kg	<0.0025	0.0084	12/11/18 12:13	
Benzo(b)fluoranthene	mg/kg	<0.0028	0.0094	12/11/18 12:13	
Benzo(g,h,i)perylene	mg/kg	<0.0020	0.0068	12/11/18 12:13	
Benzo(k)fluoranthene	mg/kg	<0.0025	0.0084	12/11/18 12:13	
Chrysene	mg/kg	<0.0034	0.011	12/11/18 12:13	
Dibenz(a,h)anthracene	mg/kg	<0.0022	0.0074	12/11/18 12:13	
Fluoranthene	mg/kg	<0.0052	0.017	12/11/18 12:13	
Fluorene	mg/kg	<0.0041	0.014	12/11/18 12:13	
Indeno(1,2,3-cd)pyrene	mg/kg	<0.0022	0.0073	12/11/18 12:13	
Naphthalene	mg/kg	<0.0084	0.028	12/11/18 12:13	
Phenanthrene	mg/kg	<0.012	0.039	12/11/18 12:13	
Pyrene	mg/kg	<0.0045	0.015	12/11/18 12:13	
2-Fluorobiphenyl (S)	%	76	10-115	12/11/18 12:13	
Terphenyl-d14 (S)	%	68	10-121	12/11/18 12:13	

LABORATORY CONTROL SAMPLE: 1804410

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	mg/kg	0.33	0.24	71	45-103	
2-Methylnaphthalene	mg/kg	0.33	0.24	71	43-98	
Acenaphthene	mg/kg	0.33	0.29	86	43-100	
Acenaphthylene	mg/kg	0.33	0.29	86	40-100	
Anthracene	mg/kg	0.33	0.25	74	50-113	
Benzo(a)anthracene	mg/kg	0.33	0.27	81	49-102	
Benzo(a)pyrene	mg/kg	0.33	0.31	92	51-105	
Benzo(b)fluoranthene	mg/kg	0.33	0.32	95	49-105	
Benzo(g,h,i)perylene	mg/kg	0.33	0.27	81	34-113	
Benzo(k)fluoranthene	mg/kg	0.33	0.31	93	54-110	
Chrysene	mg/kg	0.33	0.28	84	55-116	
Dibenz(a,h)anthracene	mg/kg	0.33	0.29	86	45-108	
Fluoranthene	mg/kg	0.33	0.29	86	50-118	
Fluorene	mg/kg	0.33	0.30	92	41-103	
Indeno(1,2,3-cd)pyrene	mg/kg	0.33	0.29	88	43-115	
Naphthalene	mg/kg	0.33	0.25	76	44-92	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
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QUALITY CONTROL DATA

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

LABORATORY CONTROL SAMPLE: 1804410

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phenanthrene	mg/kg	0.33	0.25	76	51-104	
Pyrene	mg/kg	0.33	0.31	92	51-106	
2-Fluorobiphenyl (S)	%			73	10-115	
Terphenyl-d14 (S)	%			87	10-121	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1804411 1804412

Parameter	Units	40180602005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1-Methylnaphthalene	mg/kg	<0.0047	0.39	0.39	0.25	0.26	63	67	21-105	5	30	
2-Methylnaphthalene	mg/kg	<0.0059	0.39	0.39	0.26	0.27	65	68	18-103	4	29	
Acenaphthene	mg/kg	<0.0046	0.39	0.39	0.32	0.32	81	82	31-100	1	28	
Acenaphthylene	mg/kg	<0.0039	0.39	0.39	0.31	0.31	78	80	30-100	2	27	
Anthracene	mg/kg	<0.0067	0.39	0.39	0.28	0.27	71	69	27-113	2	30	
Benzo(a)anthracene	mg/kg	<0.0037	0.39	0.39	0.29	0.28	74	71	28-102	4	30	
Benzo(a)pyrene	mg/kg	<0.0030	0.39	0.39	0.34	0.32	85	81	27-105	6	32	
Benzo(b)fluoranthene	mg/kg	<0.0033	0.39	0.39	0.35	0.36	89	90	24-109	2	37	
Benzo(g,h,i)perylene	mg/kg	<0.0024	0.39	0.39	0.19	0.18	48	46	10-113	5	38	
Benzo(k)fluoranthene	mg/kg	<0.0030	0.39	0.39	0.38	0.35	96	88	35-110	8	31	
Chrysene	mg/kg	<0.0040	0.39	0.39	0.30	0.29	77	74	29-116	4	29	
Dibenz(a,h)anthracene	mg/kg	<0.0026	0.39	0.39	0.23	0.22	59	57	22-108	5	32	
Fluoranthene	mg/kg	<0.0061	0.39	0.39	0.32	0.31	80	77	27-118	4	34	
Fluorene	mg/kg	<0.0049	0.39	0.39	0.34	0.33	86	85	31-103	0	28	
Indeno(1,2,3-cd)pyrene	mg/kg	<0.0026	0.39	0.39	0.23	0.22	59	56	18-115	5	33	
Naphthalene	mg/kg	<0.0099	0.39	0.39	0.26	0.29	65	74	34-92	13	31	
Phenanthrene	mg/kg	<0.014	0.39	0.39	0.28	0.27	71	69	28-104	3	32	
Pyrene	mg/kg	<0.0053	0.39	0.39	0.29	0.28	74	69	13-117	7	40	
2-Fluorobiphenyl (S)	%						57	58	10-115			
Terphenyl-d14 (S)	%						59	58	10-121			

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

QC Batch: 308982
QC Batch Method: EPA 3546
Analysis Method: EPA 8270 by SIM
Analysis Description: 8270/3546 MSSV PAH by SIM
Associated Lab Samples: 40180602007

METHOD BLANK: 1804810
Matrix: Solid
Associated Lab Samples: 40180602007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1-Methylnaphthalene	mg/kg	<0.0040	0.013	12/12/18 11:41	
2-Methylnaphthalene	mg/kg	<0.0050	0.017	12/12/18 11:41	
Acenaphthene	mg/kg	<0.0039	0.013	12/12/18 11:41	
Acenaphthylene	mg/kg	<0.0033	0.011	12/12/18 11:41	
Anthracene	mg/kg	<0.0057	0.019	12/12/18 11:41	
Benzo(a)anthracene	mg/kg	<0.0032	0.011	12/12/18 11:41	
Benzo(a)pyrene	mg/kg	<0.0025	0.0084	12/12/18 11:41	
Benzo(b)fluoranthene	mg/kg	<0.0028	0.0094	12/12/18 11:41	
Benzo(g,h,i)perylene	mg/kg	<0.0020	0.0068	12/12/18 11:41	
Benzo(k)fluoranthene	mg/kg	<0.0025	0.0084	12/12/18 11:41	
Chrysene	mg/kg	<0.0034	0.011	12/12/18 11:41	
Dibenz(a,h)anthracene	mg/kg	<0.0022	0.0074	12/12/18 11:41	
Fluoranthene	mg/kg	<0.0052	0.017	12/12/18 11:41	
Fluorene	mg/kg	<0.0041	0.014	12/12/18 11:41	
Indeno(1,2,3-cd)pyrene	mg/kg	<0.0022	0.0073	12/12/18 11:41	
Naphthalene	mg/kg	<0.0084	0.028	12/12/18 11:41	
Phenanthrene	mg/kg	<0.012	0.039	12/12/18 11:41	
Pyrene	mg/kg	<0.0045	0.015	12/12/18 11:41	
2-Fluorobiphenyl (S)	%	111	10-115	12/12/18 11:41	
Terphenyl-d14 (S)	%	78	10-121	12/12/18 11:41	

LABORATORY CONTROL SAMPLE: 1804811

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	mg/kg	0.33	0.26	77	45-103	
2-Methylnaphthalene	mg/kg	0.33	0.26	77	43-98	
Acenaphthene	mg/kg	0.33	0.32	96	43-100	
Acenaphthylene	mg/kg	0.33	0.32	96	40-100	
Anthracene	mg/kg	0.33	0.28	83	50-113	
Benzo(a)anthracene	mg/kg	0.33	0.30	89	49-102	
Benzo(a)pyrene	mg/kg	0.33	0.32	96	51-105	
Benzo(b)fluoranthene	mg/kg	0.33	0.38	113	49-105	L1
Benzo(g,h,i)perylene	mg/kg	0.33	0.27	80	34-113	
Benzo(k)fluoranthene	mg/kg	0.33	0.32	95	54-110	
Chrysene	mg/kg	0.33	0.30	91	55-116	
Dibenz(a,h)anthracene	mg/kg	0.33	0.29	87	45-108	
Fluoranthene	mg/kg	0.33	0.32	95	50-118	
Fluorene	mg/kg	0.33	0.34	103	41-103	
Indeno(1,2,3-cd)pyrene	mg/kg	0.33	0.30	89	43-115	
Naphthalene	mg/kg	0.33	0.28	83	44-92	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

LABORATORY CONTROL SAMPLE: 1804811

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phenanthrene	mg/kg	0.33	0.29	86	51-104	
Pyrene	mg/kg	0.33	0.27	82	51-106	
2-Fluorobiphenyl (S)	%			82	10-115	
Terphenyl-d14 (S)	%			78	10-121	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1804812 1804813

Parameter	Units	40180602007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1-Methylnaphthalene	mg/kg	<0.0046	0.38	0.38	0.25	0.25	65	67	21-105	3	30	
2-Methylnaphthalene	mg/kg	<0.0057	0.38	0.38	0.25	0.26	66	67	18-103	2	29	
Acenaphthene	mg/kg	<0.0044	0.38	0.38	0.30	0.32	78	85	31-100	9	28	
Acenaphthylene	mg/kg	<0.0038	0.38	0.38	0.29	0.31	77	83	30-100	7	27	
Anthracene	mg/kg	<0.0065	0.38	0.38	0.24	0.27	63	70	27-113	10	30	
Benzo(a)anthracene	mg/kg	<0.0036	0.38	0.38	0.26	0.28	67	74	28-102	10	30	
Benzo(a)pyrene	mg/kg	0.0042J	0.38	0.38	0.27	0.31	70	80	27-105	13	32	
Benzo(b)fluoranthene	mg/kg	0.0045J	0.38	0.38	0.29	0.34	74	88	24-109	16	37	
Benzo(g,h,i)perylene	mg/kg	0.0045J	0.38	0.38	0.24	0.28	61	73	10-113	18	38	
Benzo(k)fluoranthene	mg/kg	0.0049J	0.38	0.38	0.28	0.31	71	79	35-110	10	31	
Chrysene	mg/kg	0.0067J	0.38	0.38	0.27	0.30	68	76	29-116	10	29	
Dibenz(a,h)anthracene	mg/kg	<0.0025	0.38	0.38	0.25	0.30	64	78	22-108	19	32	
Fluoranthene	mg/kg	0.0071J	0.38	0.38	0.28	0.28	71	72	27-118	2	34	
Fluorene	mg/kg	<0.0047	0.38	0.38	0.31	0.33	81	88	31-103	8	28	
Indeno(1,2,3-cd)pyrene	mg/kg	<0.0025	0.38	0.38	0.26	0.30	67	79	18-115	15	33	
Naphthalene	mg/kg	<0.0096	0.38	0.38	0.27	0.28	70	73	34-92	3	31	
Phenanthrene	mg/kg	<0.013	0.38	0.38	0.25	0.28	65	71	28-104	9	32	
Pyrene	mg/kg	0.0064J	0.38	0.38	0.26	0.23	65	60	13-117	8	40	
2-Fluorobiphenyl (S)	%						61	66	10-115			
Terphenyl-d14 (S)	%						60	57	10-121			

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

QC Batch: 308947 Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 40180602001, 40180602002, 40180602003, 40180602004, 40180602005, 40180602006, 40180602007

SAMPLE DUPLICATE: 1804671

Parameter	Units	40180775002 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	7.2	7.1	0	10	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALIFIERS

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

DEFINITIONS

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

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor, percent moisture, initial weight and final volume.

LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-G	Pace Analytical Services - Green Bay

ANALYTE QUALIFIERS

L1	Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results may be biased high.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
W	Non-detect results are reported on a wet weight basis.

Pace Analytical Services, LLC
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 18.0231.01 CRISTO REY
Pace Project No.: 40180602

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40180602001	**GP-13 (1-3)**	EPA 3050	309088	EPA 6010	309359
40180602002	**GP-14 (1-3)**	EPA 3050	309088	EPA 6010	309359
40180602003	**GP-14 (6-8)**	EPA 3050	309088	EPA 6010	309359
40180602004	**GP-15 (1-3)**	EPA 3050	309088	EPA 6010	309359
40180602005	**GP-16 (1-3)**	EPA 3050	309088	EPA 6010	309359
40180602006	**GP-16 (6-8)**	EPA 3050	309088	EPA 6010	309359
40180602007	**GP-17 (1-3)**	EPA 3050	309088	EPA 6010	309359
40180602001	**GP-13 (1-3)**	EPA 7471	309254	EPA 7471	309272
40180602002	**GP-14 (1-3)**	EPA 7471	309254	EPA 7471	309272
40180602003	**GP-14 (6-8)**	EPA 7471	309254	EPA 7471	309272
40180602004	**GP-15 (1-3)**	EPA 7471	309254	EPA 7471	309272
40180602005	**GP-16 (1-3)**	EPA 7471	309254	EPA 7471	309272
40180602006	**GP-16 (6-8)**	EPA 7471	309254	EPA 7471	309272
40180602007	**GP-17 (1-3)**	EPA 7471	309254	EPA 7471	309272
40180602001	**GP-13 (1-3)**	EPA 3546	308890	EPA 8270 by SIM	308920
40180602002	**GP-14 (1-3)**	EPA 3546	308890	EPA 8270 by SIM	308920
40180602003	**GP-14 (6-8)**	EPA 3546	308890	EPA 8270 by SIM	308920
40180602004	**GP-15 (1-3)**	EPA 3546	308890	EPA 8270 by SIM	308920
40180602005	**GP-16 (1-3)**	EPA 3546	308890	EPA 8270 by SIM	308920
40180602006	**GP-16 (6-8)**	EPA 3546	308890	EPA 8270 by SIM	308920
40180602007	**GP-17 (1-3)**	EPA 3546	308982	EPA 8270 by SIM	309013
40180602001	**GP-13 (1-3)**	EPA 5035/5030B	308660	EPA 8260	308664
40180602002	**GP-14 (1-3)**	EPA 5035/5030B	308660	EPA 8260	308664
40180602003	**GP-14 (6-8)**	EPA 5035/5030B	308660	EPA 8260	308664
40180602004	**GP-15 (1-3)**	EPA 5035/5030B	308660	EPA 8260	308664
40180602005	**GP-16 (1-3)**	EPA 5035/5030B	308660	EPA 8260	308664
40180602006	**GP-16 (6-8)**	EPA 5035/5030B	308660	EPA 8260	308664
40180602007	**GP-17 (1-3)**	EPA 5035/5030B	308660	EPA 8260	308664
40180602008	**TRIP BLANK**	EPA 5035/5030B	308660	EPA 8260	308664
40180602001	**GP-13 (1-3)**	ASTM D2974-87	308947		
40180602002	**GP-14 (1-3)**	ASTM D2974-87	308947		
40180602003	**GP-14 (6-8)**	ASTM D2974-87	308947		
40180602004	**GP-15 (1-3)**	ASTM D2974-87	308947		
40180602005	**GP-16 (1-3)**	ASTM D2974-87	308947		
40180602006	**GP-16 (6-8)**	ASTM D2974-87	308947		
40180602007	**GP-17 (1-3)**	ASTM D2974-87	308947		

(Please Print Clearly)	
Company Name:	Kapur & Associates, Inc
Branch/Location:	Milwaukee
Project Contact:	Travis Peterson
Phone:	414-751-7279
Project Number:	18.0231.01
Project Name:	Cristo Rey
Project State:	WI
Sampled By (Print):	Patricia Hermann
Sampled By (Sign):	Patricia Hermann
PO #:	Regulatory Program:

Pace Analytical®
www.pacelabs.com

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

Page 1 of

PG

40180602

CHAIN OF CUSTODY

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

Quote #:	
Mail To Contact:	
Mail To Company:	
Mail To Address:	
Invoice To Contact:	
Invoice To Company:	
Invoice To Address:	
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes

A = Air	W = Water
B = Biota	DW = Drinking Water
C = Charcoal	GW = Ground Water
O = Oil	SW = Surface Water
S = Soil	WW = Waste Water
SI = Sludge	WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO) Y/N	PRESERVATION (CODE)* Pick Letter	Analyses Requested: VOCs	RCRA Metals	PAHs	Dry Weight	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
001	GP-13 (1-3)	12/5/18	9:45	SOIL	N	F	X	X	X	X			
002	GP-14 (1-3)		10:00		N	A	X	X	X	X			
003	GP-14 (6-8)		10:15		N	A	X	X	X	X			
004	GP-15 (1-3)		10:28		N	A	X	X	X	X			
005	GP-16 (1-3)		10:45		N	A	X	X	X	X			
006	GP-16 (6-8)		10:55		N	A	X	X	X	X			
007	GP-17 (1-3)		11:10		N	A	X	X	X	X			
008	Trip Blank	—	—				X						

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

Email #1:	
Email #2:	
Telephone:	
Fax:	

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
	12/6/18 11:05		12/6/18 11:05
	12/6/18 1135		12/6/18 1135
	12/6/18 1340		12/6/18 1340

PACE Project No. 40180602

Receipt Temp = R9 °C

Sample Receipt pH OK / Adjusted

Cooler Custody Seal Present / Not Present
Intact / Not Intact

C019a(27Jun2006)

Version 6.0 06/14/06

ORIGINAL

Pace Analytical Services, LLC
1241 Bellevue Street, Suite 9
Green Bay, WI 54302

Sample Preservation Receipt Form

Client Name: Kapp

Project # 40180602

All containers needing preservation have been checked and noted below: □Yes □No □N/A

Lab Lot# of pH paper:

Lab Std #ID of preservation (if pH adjusted):

Initial when completed:

Date/ Time:

Pace Lab #	Glass							Plastic							Vials						Jars			General			VOA Vials (>6mm) *	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)
	AG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP2N	BP2Z	BP3U	BP3C	BP3N	BP3S	DG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	WGFU	WPFU	SP5T	ZPLC	GN							
001																																	2.5 / 5 / 10
002																																	2.5 / 5 / 10
003																																	2.5 / 5 / 10
004																																	2.5 / 5 / 10
005																																	2.5 / 5 / 10
006																																	2.5 / 5 / 10
007																																	2.5 / 5 / 10
008																																	2.5 / 5 / 10
009																																	2.5 / 5 / 10
010																																	2.5 / 5 / 10
011																																	2.5 / 5 / 10
012																																	2.5 / 5 / 10
013																																	2.5 / 5 / 10
014																																	2.5 / 5 / 10
015																																	2.5 / 5 / 10
016																																	2.5 / 5 / 10
017																																	2.5 / 5 / 10
018																																	2.5 / 5 / 10
019																																	2.5 / 5 / 10
020																																	2.5 / 5 / 10

Exceptions to preservation check: VOA, Coliform, TOC, TOX, TOH, O&G, WI DRO, Phenolics, Other: _____ Headspace in VOA Vials (>6mm) : □Yes □No □N/A ***If yes look in headspace column**

AG1U	1 liter amber glass	BP1U	1 liter plastic unpres	DG9A	40 mL amber ascorbic	JGFU	4 oz amber jar unpres
AG1H	1 liter amber glass HCL	BP2N	500 mL plastic HNO3	DG9T	40 mL amber Na Thio	WGFU	4 oz clear jar unpres
AG4S	125 mL amber glass H2SO4	BP2Z	500 mL plastic NaOH, Znact	VG9U	40 mL clear vial unpres	WPFU	4 oz plastic jar unpres
AG4U	120 mL amber glass unpres	BP3U	250 mL plastic unpres	VG9H	40 mL clear vial HCL		
AG5U	100 mL amber glass unpres	BP3C	250 mL plastic NaOH	VG9M	40 mL clear vial MeOH	SP5T	120 mL plastic Na Thiosulfate
AG2S	500 mL amber glass H2SO4	BP3N	250 mL plastic HNO3	VG9D	40 mL clear vial DI	ZPLC	ziploc bag
BG3U	250 mL clear glass unpres	BP3S	250 mL plastic H2SO4			GN:	

Pace Analytical™ 1241 Bellevue Street, Green Bay, WI 54302	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: 25Apr2018
	Document No.: F-GB-C-031-Rev.07	Issuing Authority: Pace Green Bay Quality Office

Sample Condition Upon Receipt Form (SCUR)

Project #: WO#: 40180602

40180602

Client Name: Kapur

Courier: ☐ CS Logistics ☐ Fed Ex ☐ Speedee ☐ UPS ☐ Waltco ☐ Client ☐ Pace Other: _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☐ yes ☐ no Seals intact: ☐ yes ☐ no

Custody Seal on Samples Present: ☐ yes ☐ no Seals intact: ☐ yes ☐ no

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

Thermometer Used SR - NP **Type of Ice:** Wet Blue Dry None ☐ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: /Corr: RO

Temp Blank Present: ☐ yes ☐ no **Biological Tissue is Frozen:** ☐ yes ☐ no

Temp should be above freezing to 6°C.
Biota Samples may be received at ≤ 0°C.

Person examining contents:
Date: 12/6/18
Initials: CMB

Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☐Yes ☑No ☐N/A	2. invoice to, page #1 CMB 12/6/18
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No	5.
- VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☐Yes ☑No	6.
Rush Turn Around Time Requested:	☐Yes ☑No	7.
Sufficient Volume: For Analysis: ☑Yes ☐No MS/MSD: ☐Yes ☑No ☐N/A		8.
Correct Containers Used:	☑Yes ☐No	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
-Pace IR Containers Used:	☐Yes ☐No ☑N/A	
Containers Intact:	☑Yes ☐No	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix: S	☐Yes ☑No ☐N/A	12. 007 label is blank placed by process of elimination CMB 12/6/18
Trip Blank Present:	☑Yes ☐No ☐N/A	13.
Trip Blank Custody Seals Present	☑Yes ☐No ☐N/A	
Pace Trip Blank Lot # (if purchased): B814101VB		

Client Notification/ Resolution: If checked, see attached form for additional comments ☐

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ **Date:** 12/7/18

APPENDIX D

METHODS OF INVESTIGATION

METHODS OF INVESTIGATION

1. Drilling and Collection of Soil Samples

Hydraulic Push (Geoprobe)

On September 17-18, 2018, twenty-three (23) geotechnical borings, designated B-1 through B-23 were installed at the site using hydraulic push sampling. On December 5, 2018, five (5) soil borings, designated GP-13 through GP-17 were installed at the site using hydraulic push sampling. During drilling, continuous soil samples were obtained from soil borings in general accordance with the Standard Penetration Test (SPT) procedure (ASTM D-1586) ensuring that no gaps appeared in soil column. The samples were examined by a Kapur for color, odor, texture, moistness, and other characteristics of the soil. These observations were used to prepare descriptive geologic logs for each boring and classify the soils according to Unified Soil Classification System (USCS).

3. Decontamination Procedures

All downhole boring and sampling equipment was decontaminated before use and between the borings and sampling events. The macro-core sampler was decontaminated by the drilling contractor personnel between samples by scrubbing off soil particles with a brush and water in a bucket with an Alconox solution and then rinsing the sampler in a separate bucket of clean water. Two or more macro-core samplers were used alternately to minimize drilling delays during decontamination of the sampler.

4. Field-Screening of Soil Samples

A portion of each sample was field-screened for the presence of Volatile Organic Compounds (VOCs) using a Mini RAE 3000 Photoionization Detector (PID) equipped with an 11.7 eV probe. The samples were tested by filling a zip tight plastic freezer storage (zip-lock) bag half-full of desegregated soil and then sealing the bag. The bags were then set aside for a minimum of 20 minutes to allow any VOCs present within the soil to volatilize and equilibrate within headspace in the bag. If the ambient outside temperature was less than 70 degrees Fahrenheit, then the sample was heated by storing the sample bag adjacent to the heating vent inside a heated truck cab. The VOC concentration in the bag headspace was then measured by gently piercing the bag with the tip of the PID probe and recording the highest meter response shown on the Mini RAE 3000 meter. A background measurement of ambient VOCs was also made immediately prior to each sample measurement and recorded on the PID forms. The PID was calibrated at the beginning using a standard of 100 parts per million (ppm) isobutylene gas and the manufacturer recommended calibration procedures.

5. Laboratory Analysis of Soil Samples

In addition to the soil used for PID testing, a separate portion of each sample was preserved for possible laboratory analyses. These samples were preserved by placing the soil in a labeled zip-lock bag, and then placing the bag into a cooler with ice. Two samples from each of the borings were selected for laboratory analyses of, VOCs, Polynuclear Aromatic Hydrocarbons (PAHs), and Resource Conservation Recovery Act (RCRA) Metals.

The samples were collected in the laboratory provided jars. All samples were stored in a cooler with ice and maintained at a temperature of approximately 40 degrees Fahrenheit until delivered under chain of custody procedures to the laboratory personnel. Analytical methods used for analyzing the soil samples were: EPA Method 8260 for VOCs, EPA Method 8270 for PAHs, and EPA Method 6010 for RCRA Metals.

6. Boring Abandonment Procedures

After the completion of soil sampling, the soil borings were properly abandoned in accordance with Chapter NR 141 of the Wisconsin Administrative Code (WAC). Each boring was backfilled to the ground surface with granular bentonite. The WDNR borehole abandonment forms were completed for each boring and are included as an appendix of this report.