PERIODIC REVIEW REPORT NYSDEC SITE No.: 709001

For

FORMER BORDEN CHEMICAL FACILITY 108-112 NORTH MAIN STREET BAINBRIDGE, NEW YORK 13733

Prepared for

COLUMBUS REAL ESTATE LLC 111 EAST HARGETT STREET SUITE 300 RALEIGH, NORTH CAROLINA 27601

Prepared by

PROFESSIONAL SERVICE INDUSTRIES, INC. 104 ERIE BOULEVARD, SCHENECTADY, NEW YORK 12305 TELEPHONE: (518) 377-9841

PSI Project No 0836538

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David W. Myers, C.G.

David W. Myers, C.G. Senior Environmental Specialist

Paul Misiaszek, CHMM Principal Consultant & Environmental Specialist

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#### 1.0 EXECUTIVE SUMMARY

This Periodic Review Report (PRR) is required as an element of the remedial program at Former Borden Resin Facility (hereinafter referred to as the "Site") under the New York State (NYS) Inactive Hazardous Waste Disposal Site Remedial Program administered by New York State Department of Environmental Conservation (NYSDEC). The site was remediated in accordance with Order on Consent Index #A7-01210-87-09, Site # 709001, which was executed on November 21, 1990 and amended last on November 14, 2008; however, limited soil and groundwater contamination still exist at the Site. The Site location is shown in **Figure 1**.

The project site as described in the NYSDEC approved Site Management Plan (SMP) covers the 78.66-acre property. Extensive soil, sediment and groundwater Resource Conservation Recovery Act (RCRA) Investigations were conducted to evaluate all Solid Waste Management Units (SWMUs). The SWMUs that were investigated and remediated on the 78.66 acre Site are noted below:

- PCB Area;
- Bone Yard:
- Phenol Recovery Area (PRA);
- Land Application Areas (LAA);
- Storm/Process Sewers:
- · Eastern (Beatty) Creek; and
- Groundwater.

Exposure to remaining contamination in soil/fill at the site is prevented by a soil cover system placed over a portion of the site as defined as generally within the areas subject to Deed Notification. PSI performed the 2015 annual inspection on November 3, 2015 and the observations made during the annual inspection did not indicate the presence of any breaches, penetrations or temporarily removed soil exposing any underlying remaining contamination.

The restoration associated with the excavations of Ponds 1 and 2 have been completed as documented in the November 2013 PRR. The concentrations of phenolics and BTEX compounds detected in the November 3, 2015 sampling are generally significantly lower to those encountered during the May 2015 and November 2014 sampling events. The elevation of groundwater is lower in November 2015 than the May 2015 time frame but very similar to the November 2014 time frame. The phenolic and BTEX fluctuations observed during the November 3, 2015 sampling event are typical of what has occurred during the last six (6) to eight years (8) and trying to relate them to seasonal changes can't at this time be accurately stated.

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The Institutional Controls (ICs) required by the SMP should be continued and Site restrictions that previously applied to the Site Property should still apply.

The responsible remedial party has prepared a written statement to NYSDEC that certifies, under penalty of perjury, that: (1) controls employed at the Site Property, except as noted at the end of Section 2, are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and, (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitute a violation or failure to comply with the SMP. The following PRR is the required annual statement that certifies as requested.

#### 2.0 SITE OVERVIEW

The Site originally was approximately a 210-acre property located in Village of Bainbridge, Chenango County, New York (See **Figure 1**.). This property was originally owned and operated by Borden, Inc. beginning in the early 1940's and continuing until approximately 1981. The facility produced solid and liquid synthetic resins such as phenol-formaldehyde, urea-formaldehyde, melamine-formaldehyde, and polyvinyl acetate in large reactor vessels on site. The facility generated and stored wastes associated with the production of these resins in several areas of the site.

In early 1981 production activities were terminated and Borden began closing the facility in conjunction with the Unites States Environmental Protection Agency (EPA) and the NYSDEC. Various sampling events conducted by consultants, EPA, and NYSDEC since 1981 have identified contamination at the site.

In 1990 Borden entered into a Consent Agreement with the State of New York to develop and implement an inactive hazardous waste disposal site remedial program. Facility investigation reports were submitted in July 1992 and August 1996 by others and approved by NYSDEC in December 1996. A Corrective Measures Study (CMS) Report was submitted in February 1997 and was revised and approved by the NYSDEC in April 1998. In December 1997 the site was purchased by Columbus Real Estate, LLC. (CRE). A final Corrective Measures Implementation (CMI) Plan was approved by the NYSDEC in November 1998.

Sections of the original 210-acre area have been released from the Order on Consent by NYSDEC. PSI understands that an 111-acre parcel north of the former Borden Facility was released with no outstanding remedial obligations in November 14, 2008. The project site as described in the NYSDEC approved SMP covers the 78.66-acre property within the boundaries shown in **Figure 2**.

Extensive soil, sediment and groundwater RCRA Investigations were conducted to evaluate all SWMUs. Data from hundreds of soil/sediment samples and 40 groundwater monitoring wells were gathered to define the extent of any impacts. From these data, Interim Corrective Measures (ICM) and Final Corrective Measures (FCM) actions and goals for Site remedy were created and presented in the NYSDEC *Final Statement of Basis for the Former Borden Facility* (FSOB) dated 19 November 1998.

The SWMUs that were investigated and remediated on the 78.66 acre Site are noted below and shown on **Figure 3**:

PCB Area;

- Bone Yard;
- PRA;
- LAA;
- Storm/Process Sewers:
- · Eastern (Beatty) Creek; and
- Groundwater.

Remaining contamination at the Site is discussed below by specific area.

#### PCB Area:

The contamination is located in the native soil below the clean fill materials used to backfill the excavation. Contamination in the smaller northern area is located at a depth between 4 to 6-feet bgs at concentrations <4 mg/kg. There are no known active public or private utilities in this area.

#### **Bone Yard Area:**

Contaminated soil is located at a depth between 1 to 6-feet bgs located beneath the fill material used to backfill the excavation. There are no known active public or private utilities in this area.

#### **Phenol Recovery Area:**

Conservative soil management activities in the PRA area will start at depths of 3-feet bgs. The majority of the area is covered with clean fill materials or soils that have been remediated. The fill depth varies across the area. One known underground utility is located in the southern portion of the PRA area, running east to west across the PRA area. The utility is a water line reportedly connected to the fire water suppression line at the Borden Facility and during excavation of this area the integrity of the line was compromised leading to flooding of the excavation.

#### Land Application Area:

The extent of deed restrictions in the LAA ranges from 1 to 6-feet bgs beneath imported fill materials. There are no known active public or private utilities in this area.

#### **Storm and Process Sewers:**

Sediment within the Storm and Process Sewers has reported PCB concentrations above one mg/kg. These sediments were not remediated or mitigated. The depth

of the contamination is unknown; however, bedding below other sanitary sewers was not contaminated much more than 1-foot below the pipe invert.

#### **Groundwater:**

Residual groundwater contamination is limited to the PRA and Boneyard areas.

#### **Present Property Status:**

PSI understands that the following parcels were recently foreclosed by Chenago County: 254.-1-42.1; 254.1-43; 254.1-44.12; 254.19-1-1.2; 254.19-1-2; 254.19-1-3 and 254.19-1-4 (not subject to the SMP). The parcel 265.08-1-5 (also not subject to the SMP) was withdrawn from foreclosure. The County has received bids on the foreclosed properties and discussions with the Chenago County Clerk indicate the foreclosed properties were purchased by John Payne Enterprises, LLC of Bainbridge, New York.

CRE is prepared to continue carrying out Consent Order obligations related to the Site through the use of a dedicated remediation account and financial assurance accounts. CRE would require an access agreement from John Payne Enterprises, LLC to carry out these obligations.

## 3.0 REMEDY PERFORMANCE, EFFECTIVENESS AND PROTECTIVENESS

Since remaining contaminated soil and groundwater exists beneath the site, Engineering Controls and Institutional Controls (EC/ICs) are required to protect human health and the environment; however, for the former Borden Facility only Institutional Controls (ICs) are applicable. This PRR provides a description and present status of all ICs on the site; and the present status of the on-site SWMUs as set forth in the Environmental Deed Restriction for the project Site.

#### 3.1 INSTITUTIONAL CONTROL SYSTEMS

#### Soil Cover

Exposure to remaining contamination in soil/fill at the site is prevented by a soil cover system placed over a portion of the site as defined as generally within the areas subject to Deed Notification. These areas are the PCB area, the Boneyard area, the PRA area and the LAA areas as shown on **Figure 3**. The Soil Cover System is required to be inspected annually for disturbances and erosional features. PSI performed the 2015 annual inspection on November 3, 2015. Observations made during PSI's November 2015 annual inspection did not indicate the presence of any breaches, penetrations or temporarily removed soil exposing any underlying remaining contamination. Procedures for the inspection of these area covers were as discussed in the Monitoring Plan included in Section 4 of the Site SMP.

#### 3.2 PRA SOIL WORK

In April 2007, NYSDEC agreed to a land farming remedial effort for soil stockpiled during the 2005 excavation of Ponds 1 and 2 as shown on **Figure 4**. Stockpiles were leveled and contoured to slope towards the aerated ponds. At monthly intervals the upper foot of soil was sampled for phenols; areas that reported low phenolic concentrations were pushed into Pond 1 and the remaining stockpiled soil was re-leveled and tilled. Land farming activities continued until October 2008 when the majority of excavated soil had been removed from the stockpile area. At the conclusion of the land farming activities, Pond 1 was approximately 90 to 95 percent filled to original pre-excavation elevations. A contingency to the Site SMP by the NYSDEC was that the Pond 2 excavation and the remaining area of the Pond 1 excavation be backfilled to approximate original grade. As previously discussed in the November 2013 PRR, backfilling operations associated with Ponds 1 and 2 were completed in December 2012 and May 2013.

During the June 28, 2013 groundwater sampling event, PSI and their landscaping sub-contractor hydro-seeded the area associated with the former excavations of Ponds 1 and 2.

#### 3.3 SITE-RELATED GROUNDWATER

Residual groundwater contamination is limited to the PRA and Boneyard areas. The primary constituents of concern in the PRA are toluene, phenolic compounds and formaldehyde. To a lesser extent, benzene, ethylbenzene, xylene and semi-volatile tentatively identified compounds (TICs) have been reported. The constituent of concerns in the Boneyard are PCBs and formaldehyde.

To evaluate any potential reduction in concentrations of contaminants or potential off-site migration, semi-annual groundwater monitoring is proposed for 5-years (2015 is the second year of this five year period), followed by an additional 5-years of annual sampling of on-site and off-site monitoring wells will be conducted. The monitoring frequency after 10-years (if necessary) will be determined by the Qualified Environmental Professional (QEP) and approved by the NYSDEC. Trends in contaminant concentrations of groundwater in the affected areas will be evaluated to determine if the remedy continues to be effective in achieving remedial goals. Monitoring programs are summarized in the Table below.

#### Monitoring Plan

Monitoring Program	Frequency*	Matrix	Analysis
Groundwater	Semi-annually for 5-years, followed by 5-years of annual sampling to be reevaluated in 10-years	Groundwater	BTEX, phenols, PCBs, and formaldehyde as specified in <b>Table 1</b> .

<sup>\*</sup> The frequency of events will be conducted as specified until otherwise approved by the NYSDEC.

Groundwater monitoring will be performed on a periodic basis to assess the performance of the remedy. The network of monitoring wells (**Figures 4 and 4A**) has been installed to monitor both up-gradient and down-gradient groundwater conditions at the site. **Table 1** presents the monitoring wells to be sampled and the analyses required. The November 2015 groundwater sampling event is summarized in Section 4.

#### 4.0 MONITORING PLAN COMPLIANCE REPORT

#### 4.1 MONITORING WELL MEASUREMENTS

PSI collected depth to water level measurements from nine (9) monitoring wells (MW-15, MW-16, MW-19, MW-27, MW-28, MW-30, MW-35R, OW-10R, and OW-35R) associated with the PRA as required by the SMP during the November 3, 2015 sampling event. Monitoring well locations are presented on **Figure 4.** Monitoring Well MW-35R was installed on March 28, 2014 in the approximate location of Former MW-35 which could not be relocated. The approximate locations of monitoring wells MW-2B, MW-17 and MW-21 which are sampled during the May semi-annual event are presented on **Figure 4A**.

Ground water level measurements were collected using an electronic water level indicator and recorded to an accuracy of 0.01 feet. The water level indicator probe and tape was washed with a Liquinox® solution and rinsed with distilled water between measurements. Depths to water measurements were used to calculate ground water elevations for the Site as presented on **Table 2**. Groundwater levels were approximately 0.10-feet to 1.12-feet lower than the May 2015 sampling event with the exception of OW-10R which is 0.03 feet higher. A ground water elevation contour map for the PRA was drafted from these data and presented as **Figure 5**. As shown on **Figure 5**, ground water appears to flow generally in a southeasterly component under the Site toward Beatty Creek. Beatty Creek then continues southeast for approximately 1-mile and flows into the Susquehanna River.

#### 4.2 GROUNDWATER SAMPLING

During the sampling event, water samples were obtained from nine (9) monitoring wells as required by the NYSDEC. In addition, a water sample was collected from Beatty Creek just east of the railroad bridge from a running portion of the creek as a "grab" sample.

The monitoring wells were purged and sampled in accordance with the United States Environmental Protection Agency's (USEPA) low-flow well purging/sample collection techniques. PSI used calibrated YSI 600XL meters equipped with flow-through cells with probes and meters for measuring ground water quality parameters such as pH, temperature, specific conductivity, dissolved oxygen and oxidation/ reduction potential. Wells were purged until ground water parameters stabilized for three consecutive readings at five-minute intervals. A sample was then collected from each well. The purge water was collected in pails and then disposed on the ground adjacent to the well where the sample was obtained. All samples were placed in a pre-chilled thermally insulated container containing ice prior to delivery to the analytical laboratory, Pace Analytical (Pace) of Schenectady, New York under chain of custody (COC) protocol. Pace is a New York State Department of Health (NYSDOH) Environmental Laboratory

Accreditation Program (ELAP) approved laboratory. The samples were analyzed according to the matrix presented in **Table 3**. Ground water quality parameters, pH, temperature, conductivity, DO and ORP are summarized and presented on **Table 4**.

#### 4.3 GROUNDWATER SAMPLING RESULTS

Ten (10) of the ten (10) samples were analyzed for phenol by USEPA Method 8270. As shown on **Table 5**, phenol was detected above the NYSDEC Part 703.5 Standard of 1.0 microgram per liter ( $\mu$ g/l) in samples collected from MW-15, MW-19, MW-30, and OW-10R. The concentrations were 121,407  $\mu$ g/l, 6.0  $\mu$ g/l, 24.0  $\mu$ g/l, and 12.0  $\mu$ g/l, respectively. Phenol was detected at a concentration of 88.0  $\mu$ g/l in the Duplicate Sample which was taken at the OW-35R location. The OW-35R sample indicated that Phenol was detected at a concentration of 1.4  $\mu$ g/l. Phenol was not detected above the project laboratory reporting limit of 1.0  $\mu$ g/l in the remaining five (5) samples. The concentrations of phenol detected in the November 3, 2015 sampling are "lower" in MW-15, MW-19, MW-30 and OW-10R than the May 2015 sampling event but in the OW-35R (Duplicate) there was an increase in the phenol concentration as shown on **Table 6**.

Benzene, toluene, ethylbenzene and xylene (BTEX) compounds analyzed during the November 3, 2015 sampling event are summarized on **Table 5**. Benzene was reported above the NYSDEC Part 703.5 Standard of 1.0  $\mu$ g/l in MW-15, MW-28, OW-10R and OW-35R. The results from these four (4) wells ranged from 1.7  $\mu$ g/l in OW-35R to 22.0  $\mu$ g/l in MW-15. Ethylbenzene was reported above the NYSDEC Part 703.5 Standard of 5.0  $\mu$ g/l in MW-15 at a concentration of 6.0  $\mu$ g/l. Toluene was reported above the NYSDEC Part 703.5 Standard of 5.0  $\mu$ g/l in MW-15, and OW-10R. The results from these two wells ranged from 460  $\mu$ g/l in MW-15 to 10  $\mu$ g/l in OW-10R. Xylenes were detected in MW-15 and OW-10R but the concentrations were below the NYSDEC Part 703.5 Standard of 5.0  $\mu$ g/l. The BTEX concentrations observed during this November 2015 sampling event were generally lower than the May 2015 sampling event.

A copy of the analytical data and laboratory report with associated QA/QC are included as **Appendix A**.

#### 4.4 MONITORED NATURAL ATTENUATION EVALUATION

Ground water quality parameters, pH, temperature, specific conductivity, DO and ORP are summarized and presented on **Table 4**. There does not appear to be any direct relationship between the samples with the higher concentrations of phenols and BTEX concentrations with any of the natural attenuation parameters during this round of sampling.

#### 5.0 CONCLUSIONS/RECOMMENDATIONS

#### 5.1 CONCLUSIONS

The concentrations of phenol and BTEX compounds detected in the November 3, 2015 sampling are generally significantly lower to those encountered during the May 2015 and November 2014 sampling events. The elevation of groundwater is generally lower in November 2015 than the May 2015 time frame but very similar to the November 2014 time frame. The phenol and BTEX fluctuations observed during the November 3, 2015 sampling event are typical of what has occurred during the last six (6) to eight years (8) and trying to relate them to seasonal changes can't at this time be accurately stated.

#### **5.2 RECOMMENDATIONS**

The Institutional Controls required by the SMP should be continued and are as follows: (1) monitor soil cover system; (2) prevent future exposure to contamination by controlling disturbances of the subsurface; and, (3) limit the use and development of the site to restrictive commercial uses only.

Site restrictions that previously applied to the Site Property should still apply and are:

- The property may only be used for restricted commercial or restricted industrial use provided that the long-term Engineering Control included in the Site SMP is employed.
- The property may not be used for unrestricted, residential, or restricted residential use without additional remediation and amendment of the Environmental Deed Restriction(s), as approved by the NYSDEC.
- All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with the Site SMP.
- The use of the groundwater underlying the property is prohibited without treatment rendering it safe for intended use.
- The potential for vapor intrusion must be evaluated for any buildings developed in the PRA and any potential impacts that are identified must be monitored or mitigated.
- Vegetable gardens and farming on the property are prohibited.

• The responsible remedial party has prepared a written statement to NYSDEC that certifies, under penalty of perjury, that: (1) controls employed at the Site Property, except as noted at the end of Section 2, are unchanged from the previous certification or that any changes to the controls were approved by the NYSDEC; and, (2) nothing has occurred that impairs the ability of the controls to protect public health and environment or that constitute a violation or failure to comply with the SMP. NYSDEC retains the right to access such Site Property at any time in order to evaluate the continued maintenance of any and all controls. This certification shall be submitted annually, or an alternate period of time that NYSDEC may allow and will be made by an expert that the NYSDEC finds acceptable. This PRR is the required annual statement that certifies as requested above.

#### 6.0 RESTRICTIONS OF USE

#### **6.1 WARRANTY**

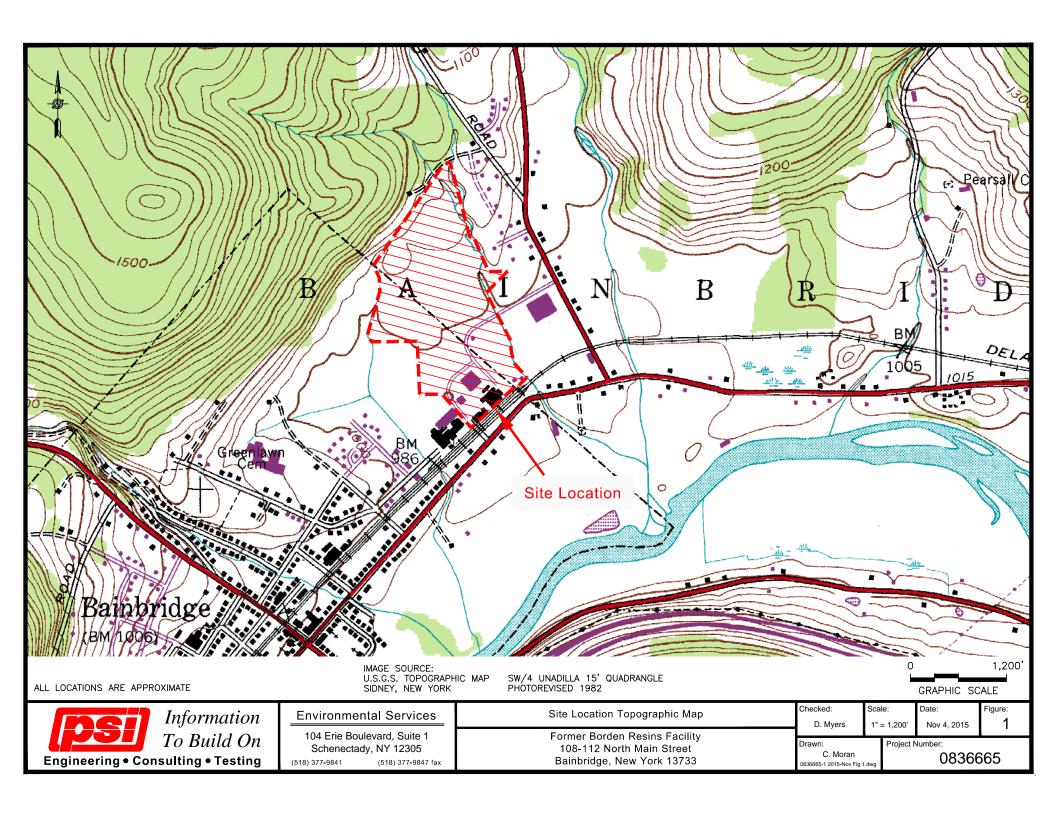
The information provided in this Periodic Review Report prepared by PSI under Project Number 0836665-1 is intended exclusively for CRE as they pertain to the Former Borden Facility located in Bainbridge, New York. The professional services provided have been performed in accordance with practices generally accepted by other appropriate environmental professionals, geologists, engineers, and environmental scientists practicing in this field. No other warranty, either expressed or implied, is made.

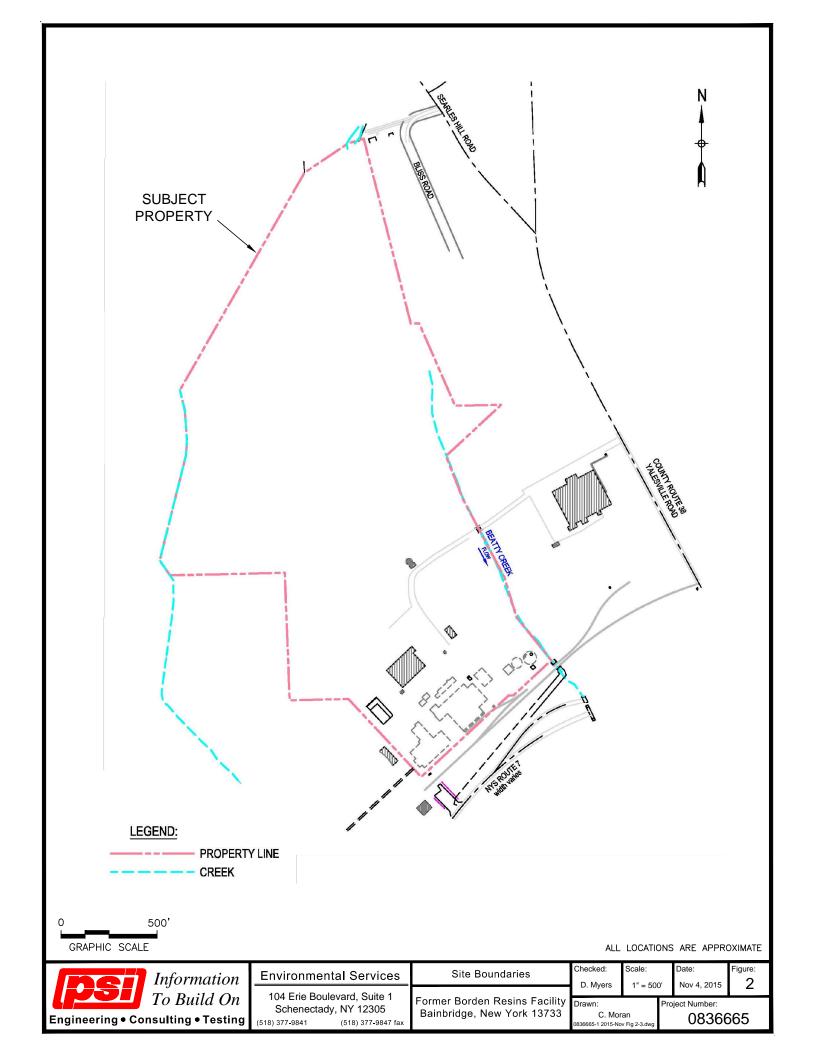
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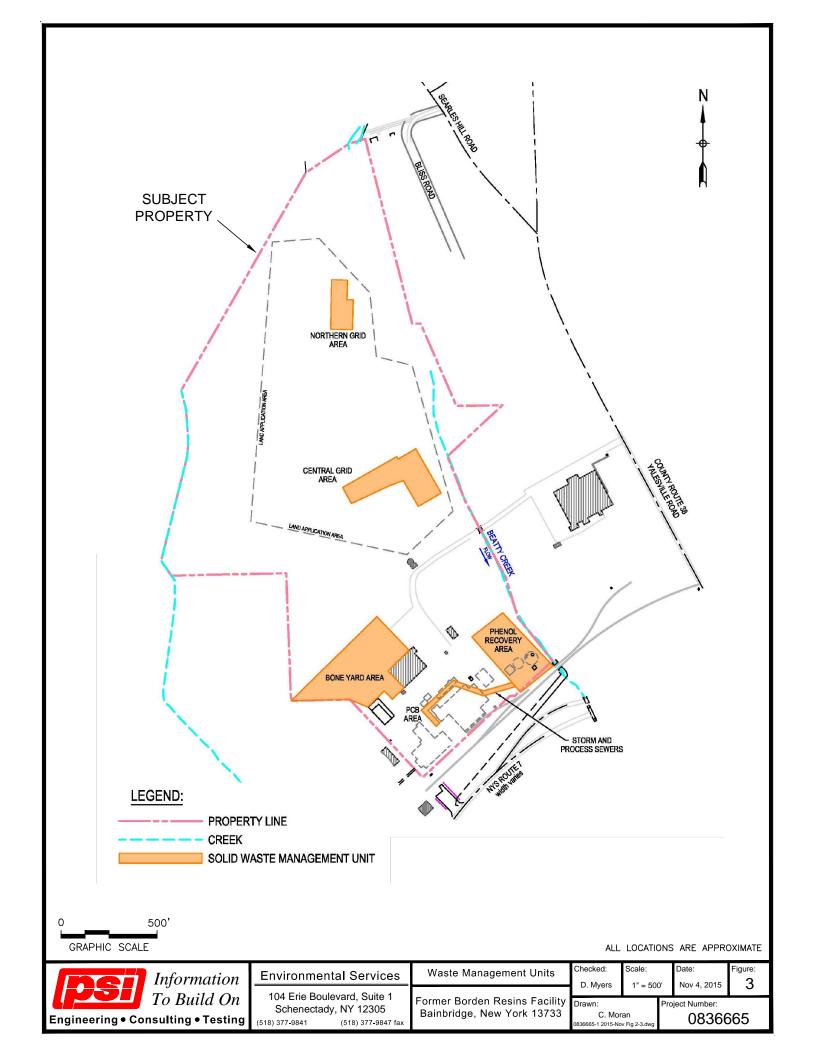
#### **6.2 USE BY THIRD PARTIES**

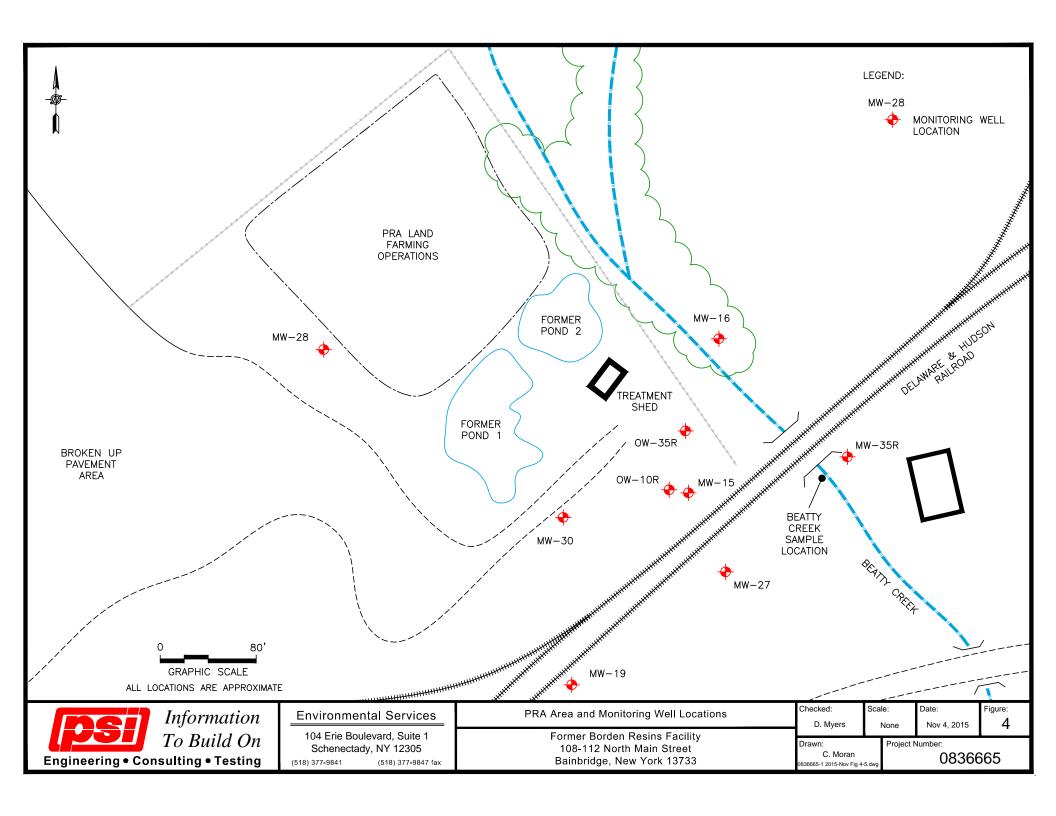
This report was prepared pursuant to the contract PSI has with CRE, and that contractual relationship included an exchange of information about the subject property that was unique and between PSI and its client and serves as the basis upon which this report was prepared. Because of the importance of the communication between PSI and its client, reliance or any use of this report by anyone other than CRE and the State Regulator (the NYSDEC) for whom it was prepared, is prohibited and therefore not foreseeable to PSI.

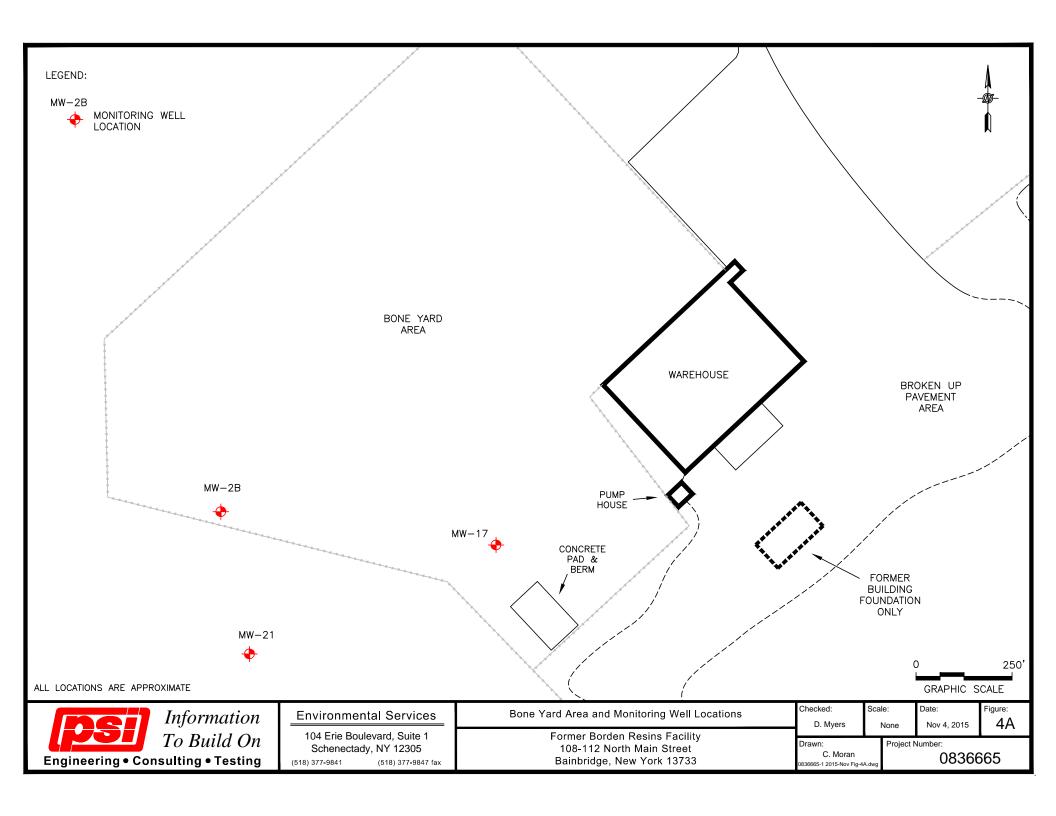
## **FIGURES**

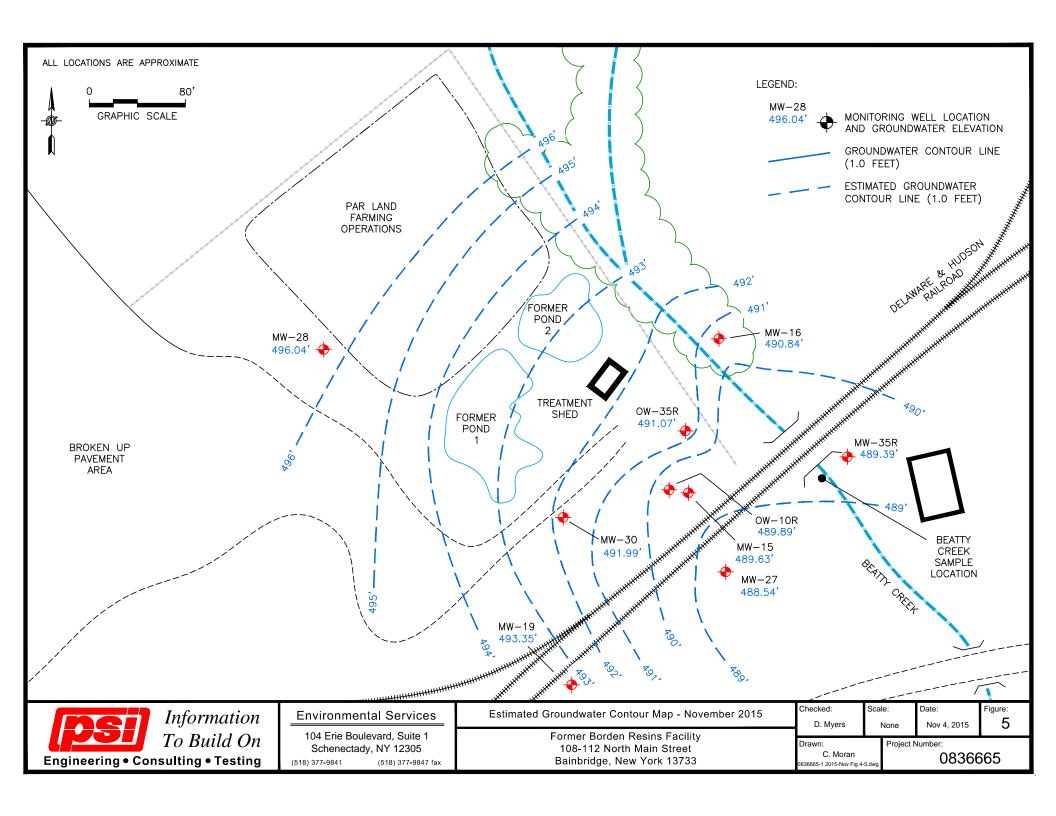












## **TABLES**

## Table 1 - "Sampling Matrix"

Former Borden Resins Facility

Bainbridge, New York PSI Project No.: 0836665-1 NYSDEC Site No. 709001

Well/	Phenols by	BTEX	Formaldehyde	PCBs
Monitoring	USEPA Method			
Point	8270			
Beatty Creek	Semi-annually	Semi-annually	N/A	N/A
MW-2B	N/A	N/A	N/A	Annually
MW-15	Semi-annually	Semi-annually	N/A	N/A
MW-16	Semi-annually	Semi-annually	Annually	N/A
MW-17	N/A	N/A	N/A	Annually
MW-19	Semi-annually	Semi-annually	N/A	N/A
MW-20	N/A*	N/A*	N/A*	N/A*
MW-22	N/A	N/A	N/A	Annually
MW-27	Semi-annually	Semi-annually	Annually	N/A
MW-28	Semi-annually	Semi-annually	N/A	N/A
MW-30	Semi-annually	Semi-annually	N/A	N/A
MW-35R	Semi-annually	Semi-annually	N/A	N/A
OW-10R	Semi-annually	Semi-annually	Annualy	N/A
OW-35R	Semi-annually	Semi-annually	N/A	N/A

Semi-annually = May and November

Annually = May

N/A = Not Applicable

 $N/A^*$  = Not Applicable - Well destroyed by 2010 mowing operations.

MW-35R re-installed March 28, 2014.

Original MW-35 not located during November 2013 sampling event.

#### Table 2 - "Ground Water Elevations - Present and Historic"

Former Borden Resins Facility Bainbridge, New York PSI Project No.: 0836665-1 NYSDEC Site No. 709001

Monitoring	Reference	21-M	ay-14	12-N	ov-14	12-May-15		3-Nov-15	
Well ID	Elevation	Depth to	Water	Depth to	Water	Depth to	Water	Depth to	Water
	(feet)*	Water	Elevation	Water	Elevation	Water	Elevation	Water	Elevation
MW-2B	505.40	4.41	500.99	NA	NA	5.48	499.92	NA	NA
MW-15	501.02	10.6	490.42	11.36	489.66	11.32	489.70	11.39	489.63
MW-16	496.32	5.00	491.32	5.29	491.03	5.38	490.94	5.48	490.84
MW-17	506.43	4.80	501.63	NA	NA	5.98	500.45	NA	NA
MW-19	504.04	8.96	495.08	10.24	493.80	9.91	494.13	10.69	493.35
MW-21	505.29	6.95	498.34	NA	NA	6.78	498.51	NA	NA
MW-27	493.65	4.12	489.53	4.91	488.74	4.89	488.76	5.11	488.54
MW-28	502.28	4.23	498.05	5.68	496.60	5.48	496.80	6.24	496.04
MW-30	502.29	7.81	494.48	9.82	492.47	9.18	493.11	10.30	491.99
MW-35R	494.44	4.45	489.99	4.85	489.59	4.82	489.62	5.05	489.39
OW-10R	502.49	11.27	491.22	12.70	489.79	12.63	489.86	12.60	489.89
OW-35R	502.04	10.12	491.92	10.75	491.29	10.52	491.52	10.97	491.07

<sup>\* -</sup> Elevations based on new topo obtained from Kaatskill Mountain Surveyors on 28 April 2011.

NA = Not Applicable - Not measured or sampled during the November sampling event

NM = Not Measured

Note - MW-35R re- installed on March 28, 2014. Unable to find original MW-35 monitoring well in November 2013.

**Table 3 - Sample Analyses - November 2015** 

Analyte

		11 y t C
Well	BTEX	Phenols (8270)
MW-15	X	X
MW-16	X	X
MW-19	X	X
MW-27	X	X
MW-28	X	X
MW-30	X	X
MW-35R	X	X
OW-10R	X	X
OW-035R	X	X
Beatty Creek	X	X

Table 4 - "Field Results" - Natural Attenuation Parameters

Former Borden Resins Facility

Bainbridge, NY

PSI Project No.: 0836665-1

			November 3, 2015											
Parameters	NYSDEC Guidance Value or Standard	MW-2B	MW-15	MW-16	MW-17	MW-19	MW-21	MW-27	MW-28	MW-30	MW-35R	OW-10R	OW-35R	Beatty Creek
Temperature (°C)	NS	NA	13.7	11.5	NA	12.2	NA	14.0	15.7	16.1	14.90	13.5	16.6	NA
Conductivity (µS/cm)	NS	NA	856	170	NA	375	NA	187	497	457	125	541	480	NA
DO (mg/l)	NS	NA	0.41	0.57	NA	1.75	NA	0.72	0.64	0.41	3.71	0.53	0.71	NA
рН	NS	NA	6.72	8.04	NA	6.65	NA	6.53	6.72	6.62	6.89	6.48	6.58	NA
Turbidity (NTUs)	NS	NA	26.40	2.50	NA	5.30	NA	26.40	43.90	15.30	201.10	26.10	10.80	NA
ORP (mV)	NS	NA	-15.7	119.2	NA	166.3	NA	-10.1	92.7	117.2	123.1	-48.5	-41.3	NA

### Note:

NS: no standard NA: not analyzed

MW-20 destroyed during 2010 mowing operations.

## Table 5 - "Analytical Results - BTEX-Phenols"

Former Borden Resins Facility

Bainbridge, NY PSI Project No.: 0836665-1

_			November 3, 2015												
Analyte (μg/L)	NYSDEC Standards TOGS 1.1.1 (µg/L)	MW-2B	MW-15	MW-16	MW-17	MW-19	MW-21	MW-27	MW-28	MW-30	MW-35R	OW-10R	OW-035R	Duplicate	Beatty Creek
Benzene	1	NA	22.0	BRL	NA	BRL	NA	BRL	2.3	BRL	BRL	7.1	1.7	1.7	BRL
Ethylbenzene	5	NA	6.0	BRL	NA	BRL	NA	BRL	BRL	BRL	BRL	1.0	BRL	BRL	BRL
Toluene	5	NA	460	BRL	NA	BRL	NA	BRL	BRL	BRL	BRL	10	BRL	BRL	BRL
Xylenes - Total	5	NA	1.4	BRL	NA	BRL	NA	BRL	BRL	BRL	BRL	1.5	BRL	BRL	BRL
Phenols	1	NA	121,407	BRL	NA	6.0	NA	BRL	BRL	24.0	BRL	12.0	1.4	88.0	BRL

### Note:

BRL: Below Reporting Limit (see analytical report for reporting limits.)
Duplicate - Collected from OW-35R.
NA: not analyized

Phenols analyzed by EPA 8270. **Bold:** Above NYSDEC Referenced Standard

## Table 6 - Historic "Analytical Results - Total Phenolics"

Former Borden Resins Facility

Bainbridge, New York PSI Project No.: 0836665-1 NYSDEC Site No. 709001

		Total Phenolics (µg/L)											
Date	MW-15	MW-16	MW-19	MW-20	MW-27	MW-28	MW-30	MW-35R	OW-10R	OW-35R	Beatty Creek		
3-Nov-15	121,407	BRL	6.0	Destroyed	BRL	BRL	24.0	BRL	12.0	88.0*	BRL		
12-May-15	238,000	BRL	6.36	Destroyed	62.4	46.4	53.4	BRL	6,655	25.14	BRL		
12-Nov-14	55,100	BRL	4.43	Destroyed	BRL	39.9	6.46	BRL	1,896	7.79	BRL		
21-May-14	69,159	BRL	BRL	Destroyed	12.75	0.891	161	BRL	1.319	BRL	BRL		
14-Nov-13	63,240J	BRL	8.1J	Destroyed	BRL	BRL	14	NS	44.3J	2.22J	BRL		
28-Jun-13	177,010	BRL	9.46	Destroyed	BRL	BRL	BRL	NS	5,714	BRL	BRL		
12-May-11	33,200	BRL	BRL	Destroyed	BRL	BRL	BRL	BRL	1,460	19	BRL		
23-Feb-11	118	BRL	NS	Destroyed	BRL	BRL	BRL	BRL	15,700	166	BRL		
4-Nov-10	379	BRL	BRL	Destroyed	BRL	BRL	BRL	BRL	3,842	14.1	BRL		
26-Aug-10	4,640	BRL	NS	Destroyed	BRL	1.64 J	1.89 J	BRL	6,440	2.19 J	BRL		
13-May-10	5,047	BRL	6.5	BRL	BRL	BRL	BRL	BRL	4,099	154	BRL		
17-Feb-10	4,095	6.2	NS	BRL	BRL	BRL	BRL	BRL	2,371	2.1	BRL		
10-Nov-09	4,657	BRL	BRL	BRL	BRL	BRL	BRL	BRL	8,730	BRL	BRL		
4-Aug-09	635.5	BRL	NS	BRL	BRL	BRL	BRL	BRL	1,124	BRL	BRL		
5-May-09	4,660	BRL	8.3	5.2	3.4	2.6	BRL	BRL	9,330	17.93	4		
10-Feb-09	1,545	BRL	BRL	BRL	BRL	BRL	BRL	BRL	550	10.7	BRL		
20-Nov-08	783	BRL	7.94	BRL	BRL	2.51	1.67	1.83	3,416	142.7	BRL		
27-Aug-08	9.3	BRL	NS	BRL	BRL	BRL	BRL	BRL	19.8	BRL	BRL		
8-May-08	959	BRL	3	BRL	BRL	BRL	BRL	BRL			BRL		
26 Feb -08 <sup>1</sup>	42.3	BRL	NS	NS*	BRL	BRL	BRL	BRL			BRL		
26-Feb-08	6,600	BRL	NS	NS*	BRL	BRL	BRL	BRL			BRL		
20-Nov-07	220	18	25	BRL	150	BRL	BRL	BRL			BRL		
15-Aug-07	43	BRL	NS	BRL	BRL	79	BRL	BRL			BRL		
17-May-07	329	16	BRL	BRL	32	20	BRL	30			BRL		
13-Feb-07	BRL	BRL	NS	BRL	BRL	20	986	BRL			BRL		
28-Nov-06	560	NS	NS	NS	NS	NS	NS	NS			NS		
23-Aug-06	ND	NS	NS	NS	NS	NS	NS	NS			NS		
3-May-06	572	BRL	NS	NS	BRL	BRL	BRL	BRL			BRL		

NYSDEC Ambient ground water standard (Part 703.5) for total phenolics is  $1 \, \mu g/L$ . **Bold** Numbers indicate value is above cleanup standard.

BRL: Below Reporting Limit (see analytical report for reporting limits.)

 $88.0^{\ast}$  - Indicates detection in Duplicate Sample but Sample OW-35R was 1.4  $\mu g/L$ 

USEPA Method 8270 used during 26 Feb 08 sampling event and thereafter. Prior to February 2008, all results based on Total Recoverable Phenolics (TRP) analyses.

MW-35R re-installed March 28, 2014.

 $<sup>^{\</sup>rm 1}$  = Samples analyzed by EPA Method 8270 as a comparison to TRP analysis.

 $<sup>\</sup>hbox{\it ---} Well not installed. NS=Well Not Sampled; NS'=Not Sampled because groundwater in well was "frozen".$ 

 $<sup>\</sup>boldsymbol{J}$  = Estimated concentration detected below the RDL and above the MDL.

# APPENDIX A LABORATORY ANALYTICAL RESULTS



### Pace Analytical e-Report

Report prepared for: PROFESSIONAL SERVICE INDUSTRIES 104 ERIE BOULEVARD SCHENECTADY, NY 12305 CONTACT: DAVE MYER

-----

**Project ID:** FORMER BORDEN FACILITY 0836665-1

Sampling Date(s): November 03, 2015

**Lab Report ID:** 15110059

Client Service Contact: Chelsea Farmer (518) 346-4592 ext. 3843

\_\_\_\_\_

Analysis Included: EPA Method 8260C EPA 8270 - Sub (Full List)

Test results meet all National Environmental Laboratory Accreditation Conference (NELAC) requirements unless noted in the case narrative. The results contained within this document relate only to the samples included in this report. Pace Analytical is responsible only for the certified testing and is not directly responsible for the integrity of the sample before laboratory receipt. This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc.

Jan Pfelger

Dan Pfalzer Laboratory Director



Certifications: New York (EPA: NY00906, ELAP: 11078), New Jersey (NY026), Connecticut (PH-0337), Massachusetts (M-NY906), Virginia (1884)

Pace Analytical Services, Inc. | 2190 Technology Drive | Schenectady, NY 12308 Phone: 518.346.4592 | internet: www.pacelabs.com This page intentionally left blank.

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1

## **CASE NARRATIVE**

#### \*REVISEDCASE NARRATIVE\*

This data package (SDG ID: 15110059) consists of 11 water samples received on 11/03/2015. The samples are from Project Name: FORMER BORDEN FACILITY 0836665-1.

#### Revised Report

(1.) This data package was revised to report phenol at a lower detection limit.

This sample delivery group consists of the following samples:

<u>Lab Sample ID</u>	Client ID	Collection Date
AS34735	MW-19	11/03/2015 11:00
AS34736	MW-27	11/03/2015 10:55
AS34737	MW-35R	11/03/2015 11:55
AS34738	MW-16	11/03/2015 11:50
AS34739	MW-28	11/03/2015 12:30
AS34740	MW-30	11/03/2015 13:05
AS34741	OW-35R	11/03/2015 13:05
AS34742	OW-10R	11/03/2015 13:55
AS34743	MW-15	11/03/2015 13:40
AS34744	DUPE	11/03/2015 13:10
AS34745	BEATTY CREEK	11/03/2015 11:40

#### Sample Delivery and Receipt Conditions

- (1.) All samples were delivered to the laboratory via DROP OFF delivery service on 11/03/2015.
- (2.) All samples were received at the laboratory intact and within holding times.
- (3.) All samples were received at the laboratory properly preserved, if applicable.

#### Subcontract (Volatile) Analysis

Please see the Pace Analytical Services Long Island laboratory report for method and quality assurance details pertaining to Volatile Organic Compound analysis. The following technical and administrative items were noted for the analysis:

(1.) All quality assurance parameters were met for this analysis, unless otherwise noted.

#### Subcontract (Semi-volatile) Analysis

Please see the Pace Analytical Services Long Island laboratory report for method and quality assurance details pertaining to Semi Volatile Organic Compound analysis. The following technical and administrative items were noted for the analysis:

(1.) All quality assurance parameters were met for this analysis, unless otherwise noted.

Respectfully submitted,

Chelsea L. Farmer Project Manager

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## **QUALIFIERS**

#### **Definitions**

- B Denotes analyte observed in associated method blank or extraction blank. Analyte concentration should be considered as estimated.
- D Surrogate was diluted. The analysis of the sample required a dilution such that the surrogate concentration was diluted outside the laboratory acceptance criteria.
- E Denotes analyte concentration exceeded calibration range of instrument. Sample could not be reanalyzed at secondary dilution due to insufficient sample amount, quick turn-around request, sample matrix interference or hold time excursion. Concentration result should be considered as estimated.
- J Denotes an estimated concentration. The concentration result is greater than or equal to the Method Detection Limit (MDL) but less than the Practical Quantitation Limit (PQL).
- MDL Adjusted Method Detection Limit.
- P Indicates relative percent difference (RPD) between primary and secondary gas chromatograph (GC) column analysis exceeds 40 % or indicates percent difference (PD) between primary and secondary gas chromatograph (GC) column analysis exceeds 25 %.
- PQL Practical Quantitation Limit. PQLs are adjusted for sample weight/volume and dilution factors.
- RL Reporting Limit Denotes lowest analyte concentration reportable for the sample based on regulatory or project specific limits.
- U Denotes analyte not detected at concentration greater than the Practical Quantitation Limit (PQL) or the Reporting Limit (RL) or the Method Detection Limit (MDL) as applicable.
- Z Chromatographic interference due to polychlorinated biphenyl (PCB) co-elution.
- \* Value not within control limits.

## SAMPLE CHAIN OF CUSTODY



# CHAIN-OF-CUSTODY / Analyt <15110059P1> cument The Chain-of-Custody is a LEGAL DOCUMENT. All references to the control of the c

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#### <15110059**P**2>



#### Sample Condition Upon Receipt

CLIENT NAME: 13 PROJECT: Former Porden Facility Other Client Pace □ UPS COURIER: FedEx N/A=> INTACT: Yes No 🗆 **CUSTODY SEAL PRESENT:** Yes □ No 25 TRACKING # ICE USED: Wet None □ Blue □ Other 🗆 Bubble Bags None □ PACKING MATERIAL: Bubble Wrap COOLER TEMPERATURE (°C): 2.9, 7, 4 THERMOMETER USED: #164 #122087967 🗆 IR Gun 03 Temp should be above freezing to 6°C N/A 🅪 BIOLOGICAL TISSUE IS FROZEN: Yes No □ Temperature is Acceptable? **⊗**res □No COMMENTS: 1. □No Chain of Custody Present: **₩**Yes 2. Missing Chain of Custody Filled Out: ZONo □Yes Chain of Custody Relinquished: □No **Y**es 4. Sampler Name / Signature on COC: **₩**es □No 5. Samples Arrived within Hold Time: X Yes □No 6. Short Hold Time Analysis (<72hr): ≥Ko □Yes TAT DNI22 INV Rush Turn Around Time Requested: ŻΩνο □Yes 8. Sufficient Volume: □No 9. Correct Containers Used: □No □No - Pace Containers Used: 10. ₽Ŷes □No Containers Intact: 11. Filtered volume received for Dissolved tests: DXI/A □No 12. Sample Labels match COC: Yes □No - Includes date/time/ID/Analysis 13. XN/A All containers needing preservation have been □Yes □No checked: N/A □No □Yes All containers needing preservation are in Initial when compliance with EPA recommendation: NA completed: <u>NA</u> Lot # of added preservative: - Exceptions that are not checked: TOC, VOA, Subcontract Analyses 14. XNo Headspace in VOA Vials (>6mm): □N/A □Yes 15. **X**VA Trip Blank Present: □Yes □No **S**N/A Trip Blank Custody Seals Present: □No □Yes Pace Trip Blank Lot #: MW Line-Out (Includes Copying Shipping Documents and verifying sample pH): Sample Receipt form filled in: Log In (Includes notifying PM of any discrepacies and documenting in LIMS): Labeling (Includes Scanning Bottles and entering LAB IDs into pH logbook):

## SAMPLE RECEIPT





#### SAMPLE RECEIPT REPORT 15110059

Pace Analytical Services, Inc. 2190 Technology Drive Schenectady, NY 12308 Phone: 518.346.4592 Fax: 518.381.6055

**CLIENT: PROFESSIONAL SERVICE INDUSTRIES** 

PROJECT: FORMER BORDEN FACILITY

LRF: 15110059

REPORT: ANALYTICAL REPORT

EDD: NO LRF TAT: 1 WEEK RECEIVED DATE: 11/03/2015 16:20

SAMPLE SEALS INTACT: NA SHIPPED VIA: DROP OFF <sup>1,2</sup>SAMPLES PRESERVED PER METHOD GUIDANCE: YES <sup>3</sup> SAMPLES REC'D IN HOLDTIME: YES SHIPPING ID: T. RANKIN-PSI

NUMBER OF COOLERS: 2 CUSTODY SEAL INTACT: NA COOLER STATUS: CHILLED **TEMPERATURE(S):** 52.9, 7.4 °C

**DISPOSAL:** BY LAB (45 DAYS) **COC DISCREPANCY: NO** 

COMMENTS: NO TAT ON COC

CLIENT ID (LAB ID)	TAT-DUE Date <sup>4</sup>	DATE-TIME SAMPLED	MATRIX	METHOD	TEST DESCRIPTION	QC REQUEST
MW-19 (AS34735)	1 WEEK 11-11-15	11/03/2015 11:00	Water	E8260C	EPA Method 8260C	
	1 WEEK 11-11-15	11/03/2015 11:00	Water	E8270D-FULL	EPA 8270 - Sub (Full List)	
MW-27 (AS34736)	1 WEEK 11-11-15	11/03/2015 10:55	Water	E8260C	EPA Method 8260C	
	1 WEEK 11-11-15	11/03/2015 10:55	Water	E8270D-FULL	EPA 8270 - Sub (Full List)	
MW-35R (AS34737)	1 WEEK 11-11-15	11/03/2015 11:55	Water	E8260C	EPA Method 8260C	
	1 WEEK 11-11-15	11/03/2015 11:55	Water	E8270D-FULL	EPA 8270 - Sub (Full List)	
MW-16 (AS34738)	1 WEEK 11-11-15	11/03/2015 11:50	Water	E8260C	EPA Method 8260C	
	1 WEEK 11-11-15	11/03/2015 11:50	Water	E8270D-FULL	EPA 8270 - Sub (Full List)	
MW-28 (AS34739)	1 WEEK 11-11-15	11/03/2015 12:30	Water	E8260C	EPA Method 8260C	
	1 WEEK 11-11-15	11/03/2015 12:30	Water	E8270D-FULL	EPA 8270 - Sub (Full List)	
MW-30 (AS34740)	1 WEEK 11-11-15	11/03/2015 13:05	Water	E8260C	EPA Method 8260C	
	1 WEEK 11-11-15	11/03/2015 13:05	Water	E8270D-FULL	EPA 8270 - Sub (Full List)	
OW-35R (AS34741)	1 WEEK 11-11-15	11/03/2015 13:05	Water	E8260C	EPA Method 8260C	
	1 WEEK 11-11-15	11/03/2015 13:05	Water	E8270D-FULL	EPA 8270 - Sub (Full List)	
OW-10R (AS34742)	1 WEEK 11-11-15	11/03/2015 13:55	Water	E8260C	EPA Method 8260C	
	1 WEEK 11-11-15	11/03/2015 13:55	Water	E8270D-FULL	EPA 8270 - Sub (Full List)	
MW-15 (AS34743)	1 WEEK 11-11-15	11/03/2015 13:40	Water	E8260C	EPA Method 8260C	
	1 WEEK 11-11-15	11/03/2015 13:40	Water	E8270D-FULL	EPA 8270 - Sub (Full List)	
DUPE (AS34744)	1 WEEK 11-11-15	11/03/2015 13:10	Water	E8260C	EPA Method 8260C	
	1 WEEK 11-11-15	11/03/2015 13:10	Water	E8270D-FULL	EPA 8270 - Sub (Full List)	
BEATTY CREEK (AS34745)	1 WEEK 11-11-15	11/03/2015 11:40	Water	E8260C	EPA Method 8260C	
	1 WEEK 11-11-15	11/03/2015 11:40	Water	E8270D-FULL	EPA 8270 - Sub (Full List)	

<sup>&</sup>lt;sup>1</sup>The pH preservation check of Oil and Grease (Method 1664) and Total Organic Carbon (Method 5310B) are performed as soon as possible after sample receipt and may not be included in this report.

#### **Reporting Parameters and Lists**

The pH preservation check of aqueous volatile samples is not performed until after the analysis of the sample to maintain zero headspace and is not included in this report.

Samples received for pH analysis are not marked as a hold time exceedance here. SW-846 methods suggests analysis to be done within 15 minutes of sample collection. Because of transportation time it 4is not possible for the laboratory to perform the test in that time. Sample Certificates of Analysis reports are noted as such.

Samples arriving at the laboratory after 4:00 pm are assigned a due date as if they arrived the following business day unless other arrangements have been made.

The due date represents the date the lab report is expected to be completed on or before 5:00 pm (EST) for the date specified.

<sup>5</sup>All samples which require thermal preservation shall be considered acceptable when received greater than 6 degrees Celsius if they are collected on the same day as received and there is evidence that the chilling process has begun, such as arrival on ice. Control limits are between 0-6 Degrees Celsius. Control limits do not apply for metals analysis.

<sup>6</sup>Samples requesting analysis for Orthophosphate (SM 4500-P E-99,-11) require the samples to be filtered in the field within 15 minutes of the sampling event. Samples that are received unfiltered will be noted as not method compliant on the Certificates of Analysis.

# Subcontract Analysis



TEL: (631) 694-3040 FAX: (631) 420-8436 NYSDOH ID#10478 www.pacelabs.com

Pace Analytical Services Inc.

Schenectady, NY 12308

Attn To:

Collected By: CLIENT

Collected

Received

2190 Technology Drive

William A. Kotas

: 11/3/2015 11:00:00 AM

: 11/4/2015

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

**Sample Information:** 

Type: Aqueous

Origin:

AS34735 \*Report re-issued 11/18 for 8270 reporting limits

Client Sample ID: MW-19

Lab No. : 1511245-001

Analytical Method: SW8260C :		Prep N		Analyst: BL			
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>		Analyzed:	Container:
Benzene	< 1.0		1	μg/L		11/06/2015 9:51 PM	Container-01 of 03
Ethylbenzene	< 1.0		1	μg/L		11/06/2015 9:51 PM	Container-01 of 03
Toluene	< 1.0		1	μg/L		11/06/2015 9:51 PM	Container-01 of 03
Xylene (total)	< 1.0		1	μg/L		11/06/2015 9:51 PM	Container-01 of 03
Surr: 1,2-Dichloroethane-d4	97.8		1	%REC	Limit 53-183	11/06/2015 9:51 PM	Container-01 of 03
Surr: 4-Bromofluorobenzene	96.7		1	%REC	Limit 63-140	11/06/2015 9:51 PM	Container-01 of 03
Surr: Toluene-d8	90.6		1	%REC	Limit 60-135	11/06/2015 9:51 PM	Container-01 of 03

Analytical Method: SW8270D :		Prep N	Method: SW	/3520C	Prep Date: 11/5	5/2015 7:48:36 PM	Analyst: GMV
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>		Analyzed:	Container:
2,4,5-Trichlorophenol	< 5.0		1	μg/L		11/10/2015 5:51 PM	Container-01 of 01
2,4,6-Trichlorophenol	< 5.0		1	μg/L		11/10/2015 5:51 PM	Container-01 of 01
2,4-Dichlorophenol	< 5.0		1	μg/L		11/10/2015 5:51 PM	Container-01 of 01
2,4-Dimethylphenol	< 5.0	S	1	μg/L		11/10/2015 5:51 PM	Container-01 of 01
2,4-Dinitrophenol	< 5.0		1	μg/L		11/10/2015 5:51 PM	Container-01 of 01
2-Chlorophenol	< 5.0	S	1	μg/L		11/10/2015 5:51 PM	Container-01 of 01
2-Methylphenol	< 5.0		1	μg/L		11/10/2015 5:51 PM	Container-01 of 01
2-Nitrophenol	< 5.0	S	1	μg/L		11/10/2015 5:51 PM	Container-01 of 01
4,6-Dinitro-2-methylphenol	< 5.0		1	μg/L		11/10/2015 5:51 PM	Container-01 of 01
4-Chloro-3-methylphenol	< 5.0		1	μg/L		11/10/2015 5:51 PM	Container-01 of 01
4-Methylphenol	< 5.0		1	μg/L		11/10/2015 5:51 PM	Container-01 of 01
4-Nitrophenol	6.0		1	μg/L		11/10/2015 5:51 PM	Container-01 of 01
Pentachlorophenol	< 5.0	С	1	μg/L		11/10/2015 5:51 PM	Container-01 of 01
Phenol	< 1.0		1	μg/L		11/10/2015 5:51 PM	Container-01 of 01
Surr: 2,4,6-Tribromophenol	99.2		1	%REC	Limit 10-123	11/10/2015 5:51 PM	Container-01 of 01
Surr: 2-Chlorophenol-d4	50.8		1	%REC	Limit 33-110	11/10/2015 5:51 PM	Container-01 of 01
Surr: 2-Fluorophenol	44.5		1	%REC	Limit 21-110	11/10/2015 5:51 PM	Container-01 of 01
Surr: Phenol-d5	54.4		1	%REC	Limit 10-110	11/10/2015 5:51 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

Date Reported:

D.F. = Dilution Factor D = Results for Dilution

H = Received/analyzed outside of analytical holding time

+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

c = Calibration acceptability criteria exceeded for this analyte

11/18/2015

R = Reporting limit below calibration range. Value estimated.

J = Estimated value - below calibration range

S = Recovery exceeded control limits for this analyte

N = Indicates presumptive evidence of compound

Test results meet the requirements of NELAC unless otherwise noted.

Cathlin Panzarella

Project Manager

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Page 1 of 23



TEL: (631) 694-3040 FAX: (631) 420-8436 NYSDOH ID#10478 www.pacelabs.com

2190 Technology Drive Schenectady, NY 12308

Pace Analytical Services Inc.

William A. Kotas : 11/3/2015 10:55:00 AM

: 11/4/2015

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

**Sample Information:** 

Type: Aqueous

Origin:

Lab No. : 1511245-002

Client Sample ID: MW-27

AS34736 \*Report re-issued 11/18 for 8270 reporting limits Received

Collected By: CLIENT

Attn To:

Collected

Analytical Method: SW8260C:		Prep N	Method: 503	80C				Analyst: BL
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>			Analyzed:	Container:
Benzene	< 1.0		1	μg/L			11/06/2015 10:11 PM	Container-01 of 03
Ethylbenzene	< 1.0		1	μg/L			11/06/2015 10:11 PM	Container-01 of 03
Toluene	< 1.0		1	μg/L			11/06/2015 10:11 PM	Container-01 of 03
Xylene (total)	< 1.0		1	μg/L			11/06/2015 10:11 PM	Container-01 of 03
Surr: 1,2-Dichloroethane-d4	99.2		1	%REC	Limit 5	53-183	11/06/2015 10:11 PM	Container-01 of 03
Surr: 4-Bromofluorobenzene	98.4		1	%REC	Limit 6	3-140	11/06/2015 10:11 PM	Container-01 of 03
Surr: Toluene-d8	91.4		1	%REC	Limit 6	60-135	11/06/2015 10:11 PM	Container-01 of 03

Analytical Method: SW8270D :		Prep N	Method: SW	/3520C	Prep D	ate: 11/5/2015 7:48:36 PM	Analyst: GMV
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>		Analyzed:	Container:
2,4,5-Trichlorophenol	< 5.0		1	μg/L		11/10/2015 6:21 PM	Container-01 of 01
2,4,6-Trichlorophenol	< 5.0		1	μg/L		11/10/2015 6:21 PM	Container-01 of 01
2,4-Dichlorophenol	< 5.0		1	μg/L		11/10/2015 6:21 PM	Container-01 of 01
2,4-Dimethylphenol	< 5.0	S	1	μg/L		11/10/2015 6:21 PM	Container-01 of 01
2,4-Dinitrophenol	< 5.0		1	μg/L		11/10/2015 6:21 PM	Container-01 of 01
2-Chlorophenol	< 5.0	S	1	μg/L		11/10/2015 6:21 PM	Container-01 of 01
2-Methylphenol	< 5.0		1	μg/L		11/10/2015 6:21 PM	Container-01 of 01
2-Nitrophenol	< 5.0	S	1	μg/L		11/10/2015 6:21 PM	Container-01 of 01
4,6-Dinitro-2-methylphenol	< 5.0		1	μg/L		11/10/2015 6:21 PM	Container-01 of 01
4-Chloro-3-methylphenol	< 5.0		1	μg/L		11/10/2015 6:21 PM	Container-01 of 01
4-Methylphenol	< 5.0		1	μg/L		11/10/2015 6:21 PM	Container-01 of 01
4-Nitrophenol	< 5.0		1	μg/L		11/10/2015 6:21 PM	Container-01 of 01
Pentachlorophenol	< 5.0	С	1	μg/L		11/10/2015 6:21 PM	Container-01 of 01
Phenol	< 1.0		1	μg/L		11/10/2015 6:21 PM	Container-01 of 01
Surr: 2,4,6-Tribromophenol	96.9		1	%REC	Limit 10-123	11/10/2015 6:21 PM	Container-01 of 01
Surr: 2-Chlorophenol-d4	57.7		1	%REC	Limit 33-110	11/10/2015 6:21 PM	Container-01 of 01
Surr: 2-Fluorophenol	49.1		1	%REC	Limit 21-110	11/10/2015 6:21 PM	Container-01 of 01
Surr: Phenol-d5	56.9		1	%REC	Limit 10-110	11/10/2015 6:21 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

H = Received/analyzed outside of analytical holding time

+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

c = Calibration acceptability criteria exceeded for this analyte

R = Reporting limit below calibration range. Value estimated.

J = Estimated value - below calibration range

S = Recovery exceeded control limits for this analyte

N = Indicates presumptive evidence of compound

Date Reported: 11/18/2015 Cathlin Panzarella

Project Manager

Test results meet the requirements of NELAC unless otherwise noted.

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Page 2 of 23



TEL: (631) 694-3040 FAX: (631) 420-8436 www.pacelabs.com

NYSDOH ID#10478 Pace Analytical Services Inc.

William A. Kotas

: 11/3/2015 11:55:00 AM

2190 Technology Drive Schenectady, NY 12308

LABORATORY RESULTS Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

**Sample Information:** 

Type: Aqueous

Origin:

Lab No. : 1511245-003

Client Sample ID: MW-35R

Received : 11/4/2015 AS34737 \*Report re-issued 11/18 for 8270 reporting limits

Collected By: CLIENT

Attn To:

Collected

Analytical Method: SW8260C:		Prep I	Method: 503	30C				Analyst: BL
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>			Analyzed:	Container:
Benzene	< 1.0		1	μg/L			11/06/2015 10:31 PM	Container-01 of 03
Ethylbenzene	< 1.0		1	μg/L			11/06/2015 10:31 PM	Container-01 of 03
Toluene	< 1.0		1	μg/L			11/06/2015 10:31 PM	Container-01 of 03
Xylene (total)	< 1.0		1	μg/L			11/06/2015 10:31 PM	Container-01 of 03
Surr: 1,2-Dichloroethane-d4	99.1		1	%REC	Limit	53-183	11/06/2015 10:31 PM	Container-01 of 03
Surr: 4-Bromofluorobenzene	98.5		1	%REC	Limit	63-140	11/06/2015 10:31 PM	Container-01 of 03
Surr: Toluene-d8	91.8		1	%REC	Limit	60-135	11/06/2015 10:31 PM	Container-01 of 03
Analytical Method: SW8270D :		Prep N	Method: SW	/3520C		Prep Dat	te: 11/5/2015 7:48:36 PM	Analyst: GMV
D ( / )								

Analytical Method: SW8270D :		Prep N	Method: SW	/3520C	Prep Da	te: 11/5/2015 7:48:36 PM	Analyst: GMV
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>		Analyzed:	Container:
2,4,5-Trichlorophenol	< 5.0		1	μg/L		11/10/2015 6:50 PM	Container-01 of 01
2,4,6-Trichlorophenol	< 5.0		1	μg/L		11/10/2015 6:50 PM	Container-01 of 01
2,4-Dichlorophenol	< 5.0		1	μg/L		11/10/2015 6:50 PM	Container-01 of 01
2,4-Dimethylphenol	< 5.0	S	1	μg/L		11/10/2015 6:50 PM	Container-01 of 01
2,4-Dinitrophenol	< 5.0		1	μg/L		11/10/2015 6:50 PM	Container-01 of 01
2-Chlorophenol	< 5.0	S	1	μg/L		11/10/2015 6:50 PM	Container-01 of 01
2-Methylphenol	< 5.0		1	μg/L		11/10/2015 6:50 PM	Container-01 of 01
2-Nitrophenol	< 5.0	S	1	μg/L		11/10/2015 6:50 PM	Container-01 of 01
4,6-Dinitro-2-methylphenol	< 5.0		1	μg/L		11/10/2015 6:50 PM	Container-01 of 01
4-Chloro-3-methylphenol	< 5.0		1	μg/L		11/10/2015 6:50 PM	Container-01 of 01
4-Methylphenol	< 5.0		1	μg/L		11/10/2015 6:50 PM	Container-01 of 01
4-Nitrophenol	< 5.0		1	μg/L		11/10/2015 6:50 PM	Container-01 of 01
Pentachlorophenol	< 5.0	С	1	μg/L		11/10/2015 6:50 PM	Container-01 of 01
Phenol	< 1.0		1	μg/L		11/10/2015 6:50 PM	Container-01 of 01
Surr: 2,4,6-Tribromophenol	86.8		1	%REC	Limit 10-123	11/10/2015 6:50 PM	Container-01 of 01
Surr: 2-Chlorophenol-d4	49.6		1	%REC	Limit 33-110	11/10/2015 6:50 PM	Container-01 of 01
Surr: 2-Fluorophenol	42.9		1	%REC	Limit 21-110	11/10/2015 6:50 PM	Container-01 of 01
Surr: Phenol-d5	48.3		1	%REC	Limit 10-110	11/10/2015 6:50 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

Date Reported:

D.F. = Dilution Factor D = Results for Dilution

H = Received/analyzed outside of analytical holding time

+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

c = Calibration acceptability criteria exceeded for this analyte

R = Reporting limit below calibration range. Value estimated.

11/18/2015

J = Estimated value - below calibration range

S = Recovery exceeded control limits for this analyte

N = Indicates presumptive evidence of compound

Test results meet the requirements of NELAC unless otherwise noted.

Cathlin Panzarella

Project Manager

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TEL: (631) 694-3040 FAX: (631) 420-8436 NYSDOH ID#10478 www.pacelabs.com

SW8260C:

Results

< 1.0

Qualifier

Pace Analytical Services Inc.

William A. Kotas

2190 Technology Drive Schenectady, NY 12308 LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Lab No. : 1511245-004

Client Sample ID: MW-16

Prep Method: 5030C

D.F

1

Origin:

Analyzed:

**Sample Information:** 

Analyst: BL

Container:

Type: Aqueous

11/06/2015 10:50 PM Container-01 of 03

Collected : 11/3/2015 11:50:00 AM

Received : 11/4/2015

Analytical Method:

AS34738 \*Report re-issued 11/18 for 8270 reporting limits

**Units** 

μg/L

Collected By: CLIENT

Parameter(s)

Benzene

Attn To:

Ethylbenzene	< 1.0		1	μg/L			11/06/2015 10:50 PM	Container-01 of 03
Toluene	< 1.0		1	μg/L			11/06/2015 10:50 PM	Container-01 of 03
Xylene (total)	< 1.0		1	μg/L			11/06/2015 10:50 PM	Container-01 of 03
Surr: 1,2-Dichloroethane-d4	99.3		1	%REC	Limit	53-183	11/06/2015 10:50 PM	Container-01 of 03
Surr: 4-Bromofluorobenzene	95.3		1	%REC	Limit	63-140	11/06/2015 10:50 PM	Container-01 of 03
Surr: Toluene-d8	90.8		1	%REC	Limit	60-135	11/06/2015 10:50 PM	Container-01 of 03
Analytical Method: SW8270D :		Prep N	Method: SW	/3520C		Prep Date	e: 11/5/2015 7:48:36 PM	Analyst: GMV
Parameter(s)	Results	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>			Analyzed:	Container:
2,4,5-Trichlorophenol	< 5.0		1	μg/L			11/10/2015 7:19 PM	Container-01 of 01
2,4,6-Trichlorophenol	< 5.0		1	μg/L			11/10/2015 7:19 PM	Container-01 of 01
2,4-Dichlorophenol	< 5.0		1	μg/L			11/10/2015 7:19 PM	Container-01 of 01
2,4-Dimethylphenol	< 5.0	S	1	μg/L			11/10/2015 7:19 PM	Container-01 of 01
2,4-Dinitrophenol	< 5.0		1	μg/L			11/10/2015 7:19 PM	Container-01 of 01
2-Chlorophenol	< 5.0	S	1	μg/L			11/10/2015 7:19 PM	Container-01 of 01
2-Methylphenol	< 5.0		1	μg/L			11/10/2015 7:19 PM	Container-01 of 01
2-Nitrophenol	< 5.0	S	1	μg/L			11/10/2015 7:19 PM	Container-01 of 01
4,6-Dinitro-2-methylphenol	< 5.0		1	μg/L			11/10/2015 7:19 PM	Container-01 of 01
4-Chloro-3-methylphenol	< 5.0		1	μg/L			11/10/2015 7:19 PM	Container-01 of 01
4-Methylphenol	< 5.0		1	μg/L			11/10/2015 7:19 PM	Container-01 of 01
4-Nitrophenol	< 5.0		1	μg/L			11/10/2015 7:19 PM	Container-01 of 01
Pentachlorophenol	< 5.0	С	1	μg/L			11/10/2015 7:19 PM	Container-01 of 01
Phenol	< 1.0		1	μg/L			11/10/2015 7:19 PM	Container-01 of 01
Surr: 2,4,6-Tribromophenol	67.2		1	%REC	Limit	10-123	11/10/2015 7:19 PM	Container-01 of 01
Surr: 2-Chlorophenol-d4	49.9		1	%REC	Limit	33-110	11/10/2015 7:19 PM	Container-01 of 01
Surr: 2-Fluorophenol	40.8		1	%REC	Limit	21-110	11/10/2015 7:19 PM	Container-01 of 01
Surr: Phenol-d5	47.4		1	%REC	Limit	10-110	11/10/2015 7:19 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

H = Received/analyzed outside of analytical holding time

+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

c = Calibration acceptability criteria exceeded for this analyte

R = Reporting limit below calibration range. Value estimated.

J = Estimated value - below calibration range

S = Recovery exceeded control limits for this analyte

N = Indicates presumptive evidence of compound

Date Reported: 11/18/2015 Cathlin Panzarella

Project Manager

Test results meet the requirements of NELAC unless otherwise noted.

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TEL: (631) 694-3040 FAX: (631) 420-8436 www.pacelabs.com

SW8260C:

NYSDOH ID#10478 Pace Analytical Services Inc.

William A. Kotas

2190 Technology Drive Schenectady, NY 12308

LABORATORY RESULTS Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

**Sample Information:** Lab No. : 1511245-005 Type: Aqueous

Client Sample ID: MW-28

Prep Method: 5030C

D.F

1

1

Results Qualifier

2.3

< 1.0

Origin:

11/06/2015 11:10 PM Container-01 of 03

11/06/2015 11:10 PM Container-01 of 03

Analyzed:

Analyst: BL

Container:

Collected : 11/3/2015 12:30:00 PM

Received : 11/4/2015

Analytical Method:

AS34739 \*Report re-issued 11/18 for 8270 reporting limits

**Units** 

μg/L

μg/L

Collected By: CLIENT

Parameter(s)

Benzene

Ethylbenzene

Attn To:

Toluene	< 1.0		1	μg/L			11/06/2015 11:10 PM	Container-01 of 03
Xylene (total)	< 1.0		1	μg/L			11/06/2015 11:10 PM	Container-01 of 03
Surr: 1,2-Dichloroethane-d4	101		1	%REC	Limit	53-183	11/06/2015 11:10 PM	Container-01 of 03
Surr: 4-Bromofluorobenzene	99.6		1	%REC	Limit	63-140	11/06/2015 11:10 PM	Container-01 of 03
Surr: Toluene-d8	91.4		1	%REC	Limit	60-135	11/06/2015 11:10 PM	Container-01 of 03
Analytical Method: SW8270D :		Prep N	Method: SW	/3520C		Prep Date:	11/5/2015 7:48:36 PM	Analyst: GMV
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>			Analyzed:	Container:
2,4,5-Trichlorophenol	< 5.0		1	μg/L			11/10/2015 7:49 PM	Container-01 of 01
2,4,6-Trichlorophenol	< 5.0		1	μg/L			11/10/2015 7:49 PM	Container-01 of 01
2,4-Dichlorophenol	< 5.0		1	μg/L			11/10/2015 7:49 PM	Container-01 of 01
2,4-Dimethylphenol	< 5.0	S	1	μg/L			11/10/2015 7:49 PM	Container-01 of 01
2,4-Dinitrophenol	< 5.0		1	μg/L			11/10/2015 7:49 PM	Container-01 of 01
2-Chlorophenol	< 5.0	S	1	μg/L			11/10/2015 7:49 PM	Container-01 of 01
2-Methylphenol	< 5.0		1	μg/L			11/10/2015 7:49 PM	Container-01 of 01
2-Nitrophenol	< 5.0	S	1	μg/L			11/10/2015 7:49 PM	Container-01 of 01
4,6-Dinitro-2-methylphenol	< 5.0		1	μg/L			11/10/2015 7:49 PM	Container-01 of 01
4-Chloro-3-methylphenol	< 5.0		1	μg/L			11/10/2015 7:49 PM	Container-01 of 01
4-Methylphenol	< 5.0		1	μg/L			11/10/2015 7:49 PM	Container-01 of 01
4-Nitrophenol	< 5.0		1	μg/L			11/10/2015 7:49 PM	Container-01 of 01
Pentachlorophenol	< 5.0	С	1	μg/L			11/10/2015 7:49 PM	Container-01 of 01
Phenol	< 1.0		1	μg/L			11/10/2015 7:49 PM	Container-01 of 01
Surr: 2,4,6-Tribromophenol	93.5		1	%REC	Limit	10-123	11/10/2015 7:49 PM	Container-01 of 01
Surr: 2-Chlorophenol-d4	46.9		1	%REC	Limit	33-110	11/10/2015 7:49 PM	Container-01 of 01
Surr: 2-Fluorophenol	41.3		1	%REC	Limit	21-110	11/10/2015 7:49 PM	Container-01 of 01
Surr: Phenol-d5	49.4		1	%REC	Limit	10-110	11/10/2015 7:49 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

Date Reported:

D.F. = Dilution Factor D = Results for Dilution

H = Received/analyzed outside of analytical holding time

+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

c = Calibration acceptability criteria exceeded for this analyte

11/18/2015

R = Reporting limit below calibration range. Value estimated.

J = Estimated value - below calibration range

S = Recovery exceeded control limits for this analyte

N = Indicates presumptive evidence of compound

Test results meet the requirements of NELAC unless otherwise noted.

Cathlin Panzarella

Project Manager

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Page 5 of 23



TEL: (631) 694-3040 FAX: (631) 420-8436 www.pacelabs.com

NYSDOH ID#10478 Pace Analytical Services Inc.

William A. Kotas

: 11/3/2015 1:05:00 PM

2190 Technology Drive Schenectady, NY 12308

: 11/4/2015

Client Sample ID: MW-30

AS34740 \*Report re-issued 11/18 for 8270 reporting limits

Lab No. : 1511245-006

Collected By: CLIENT

Attn To:

Collected

Received

#### LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

**Sample Information:** 

Type: Aqueous

Origin:

Analytical Method: SW8260C :	•	Prep I	Method: 500	30C	•		_	Analyst: BL
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>			Analyzed:	Container:
Benzene	< 1.0		1	μg/L			11/06/2015 11:30 PM	Container-01 of 03
Ethylbenzene	< 1.0		1	μg/L			11/06/2015 11:30 PM	Container-01 of 03
Toluene	< 1.0		1	μg/L			11/06/2015 11:30 PM	Container-01 of 03
Xylene (total)	< 1.0		1	μg/L			11/06/2015 11:30 PM	Container-01 of 03
Surr: 1,2-Dichloroethane-d4	98.2		1	%REC	Limit	53-183	11/06/2015 11:30 PM	Container-01 of 03
Surr: 4-Bromofluorobenzene	98.4		1	%REC	Limit	63-140	11/06/2015 11:30 PM	Container-01 of 03
Surr: Toluene-d8	91.3		1	%REC	Limit	60-135	11/06/2015 11:30 PM	Container-01 of 03
Analytical Method: SW8270D :		Prep I	Method: SW	/3520C		Prep Dat	e: 11/5/2015 7:48:36 PM	Analyst: GMV
Parameter(s)	Paculte	Qualifier	DE	Linite			Analyzed:	Container:

Analytical Method: SW8270D :		Prep N	Method: SW	/3520C	Prep Date	11/5/2015 7:48:36 PM	Analyst: GMV
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>		Analyzed:	Container:
2,4,5-Trichlorophenol	< 5.0		1	μg/L		11/10/2015 8:18 PM	Container-01 of 01
2,4,6-Trichlorophenol	< 5.0		1	μg/L		11/10/2015 8:18 PM	Container-01 of 01
2,4-Dichlorophenol	< 5.0		1	μg/L		11/10/2015 8:18 PM	Container-01 of 01
2,4-Dimethylphenol	< 5.0	S	1	μg/L		11/10/2015 8:18 PM	Container-01 of 01
2,4-Dinitrophenol	< 5.0		1	μg/L		11/10/2015 8:18 PM	Container-01 of 01
2-Chlorophenol	< 5.0	S	1	μg/L		11/10/2015 8:18 PM	Container-01 of 01
2-Methylphenol	< 5.0		1	μg/L		11/10/2015 8:18 PM	Container-01 of 01
2-Nitrophenol	< 5.0	S	1	μg/L		11/10/2015 8:18 PM	Container-01 of 01
4,6-Dinitro-2-methylphenol	< 5.0		1	μg/L		11/10/2015 8:18 PM	Container-01 of 01
4-Chloro-3-methylphenol	< 5.0		1	μg/L		11/10/2015 8:18 PM	Container-01 of 01
4-Methylphenol	< 5.0		1	μg/L		11/10/2015 8:18 PM	Container-01 of 01
4-Nitrophenol	< 5.0		1	μg/L		11/10/2015 8:18 PM	Container-01 of 01
Pentachlorophenol	< 5.0	С	1	μg/L		11/10/2015 8:18 PM	Container-01 of 01
Phenol	24		1	μg/L		11/10/2015 8:18 PM	Container-01 of 01
Surr: 2,4,6-Tribromophenol	87.2		1	%REC	Limit 10-123	11/10/2015 8:18 PM	Container-01 of 01
Surr: 2-Chlorophenol-d4	59.4		1	%REC	Limit 33-110	11/10/2015 8:18 PM	Container-01 of 01
Surr: 2-Fluorophenol	49.7		1	%REC	Limit 21-110	11/10/2015 8:18 PM	Container-01 of 01
Surr: Phenol-d5	58.2		1	%REC	Limit 10-110	11/10/2015 8:18 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

Date Reported:

D.F. = Dilution Factor D = Results for Dilution

H = Received/analyzed outside of analytical holding time

+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

c = Calibration acceptability criteria exceeded for this analyte

R = Reporting limit below calibration range. Value estimated.

11/18/2015

J = Estimated value - below calibration range

S = Recovery exceeded control limits for this analyte

N = Indicates presumptive evidence of compound

Test results meet the requirements of NELAC unless otherwise noted.

Cathlin Panzarella

Project Manager

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William A. Kotas

SW8260C:

LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

NYSDOH ID#10478 <u>www.pacelabs.com</u>
Pace Analytical Services Inc.
2190 Technology Drive

Schenectady, NY 12308

Lab No. : 1511245-007

**Units** 

μg/L

Sample Information:

Analyst: BL

Container:

Type: Aqueous

11/06/2015 11:50 PM Container-01 of 03

Client Sample ID: OW-35R

Origin:

Analyzed:

Collected : 11/3/2015 1:05:00 PM

Received : 11/4/2015

Analytical Method:

AS34741 \*Report re-issued 11/18 for 8270 reporting limits

Prep Method: 5030C

D.F

1

Qualifier

Results

17

Collected By: CLIENT

Parameter(s)

Benzene

Attn To:

Ethylbenzene	< 1.0		1	μg/L			11/06/2015 11:50 PM	Container-01 of 03
Toluene	< 1.0		1	μg/L			11/06/2015 11:50 PM	Container-01 of 03
Xylene (total)	< 1.0		1	μg/L			11/06/2015 11:50 PM	Container-01 of 03
Surr: 1,2-Dichloroethane-d4	101		1	%REC	Limit	53-183	11/06/2015 11:50 PM	Container-01 of 03
Surr: 4-Bromofluorobenzene	99.5		1	%REC	Limit	63-140	11/06/2015 11:50 PM	Container-01 of 03
Surr: Toluene-d8	90.9		1	%REC	Limit	60-135	11/06/2015 11:50 PM	Container-01 of 03
Analytical Method: SW8270D :		Prep N	Method: SW	/3520C		Prep Date: 1	1/5/2015 7:48:36 PM	Analyst: GMV
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>			Analyzed:	Container:
2,4,5-Trichlorophenol	< 5.0		1	μg/L			11/10/2015 8:47 PM	Container-01 of 01
2,4,6-Trichlorophenol	< 5.0		1	μg/L			11/10/2015 8:47 PM	Container-01 of 01
2,4-Dichlorophenol	< 5.0		1	μg/L			11/10/2015 8:47 PM	Container-01 of 01
2,4-Dimethylphenol	< 5.0	S	1	μg/L			11/10/2015 8:47 PM	Container-01 of 01
2,4-Dinitrophenol	< 5.0		1	μg/L			11/10/2015 8:47 PM	Container-01 of 01
2-Chlorophenol	< 5.0	S	1	μg/L			11/10/2015 8:47 PM	Container-01 of 01
2-Methylphenol	< 5.0		1	μg/L			11/10/2015 8:47 PM	Container-01 of 01
2-Nitrophenol	< 5.0	S	1	μg/L			11/10/2015 8:47 PM	Container-01 of 01
4,6-Dinitro-2-methylphenol	< 5.0		1	μg/L			11/10/2015 8:47 PM	Container-01 of 01
4-Chloro-3-methylphenol	< 5.0		1	μg/L			11/10/2015 8:47 PM	Container-01 of 01
4-Methylphenol	< 5.0		1	μg/L			11/10/2015 8:47 PM	Container-01 of 01
4-Nitrophenol	< 5.0		1	μg/L			11/10/2015 8:47 PM	Container-01 of 01
Pentachlorophenol	< 5.0	С	1	μg/L			11/10/2015 8:47 PM	Container-01 of 01
Phenol	1.4		1	μg/L			11/10/2015 8:47 PM	Container-01 of 01
Surr: 2,4,6-Tribromophenol	86.2		1	%REC	Limit	10-123	11/10/2015 8:47 PM	Container-01 of 01
Surr: 2-Chlorophenol-d4	46.4		1	%REC	Limit	33-110	11/10/2015 8:47 PM	Container-01 of 01
Surr: 2-Fluorophenol	40.7		1	%REC	Limit	21-110	11/10/2015 8:47 PM	Container-01 of 01

%REC

Limit 10-110

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

Date Reported:

Surr: Phenol-d5

D.F. = Dilution Factor D = Results for Dilution

H = Received/analyzed outside of analytical holding time

+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

45.8

c = Calibration acceptability criteria exceeded for this analyte

R = Reporting limit below calibration range. Value estimated.

11/18/2015

J = Estimated value - below calibration range

S = Recovery exceeded control limits for this analyte

N = Indicates presumptive evidence of compound

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11/10/2015 8:47 PM Container-01 of 01

Caitlin Panzarella

Project Manager



TEL: (631) 694-3040 FAX: (631) 420-8436 www.pacelabs.com

NYSDOH ID#10478 Pace Analytical Services Inc.

2190 Technology Drive Schenectady, NY 12308

Lab No. : 1511245-008

Client Sample ID: OW-10R William A. Kotas

Collected : 11/3/2015 1:55:00 PM AS34742 \*Report re-issued 11/18 for 8270 reporting limits Received : 11/4/2015

Collected By: CLIENT

Attn To:

LABORATORY RESULTS Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

**Sample Information:** 

Type: Aqueous

Origin:

Analytical Method: SW8260C:		Prep N	<u>1ethod:</u> 503	30C				Analyst: BL
Parameter(s)	Results Q	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>			Analyzed:	Container:
Benzene	7.1		1	μg/L			11/07/2015 12:09 AM	Container-01 of 03
Ethylbenzene	1.0		1	μg/L			11/07/2015 12:09 AM	Container-01 of 03
Toluene	10		1	μg/L			11/07/2015 12:09 AM	Container-01 of 03
Xylene (total)	1.5		1	μg/L			11/07/2015 12:09 AM	Container-01 of 03
Surr: 1,2-Dichloroethane-d4	98.8		1	%REC	Limit	53-183	11/07/2015 12:09 AM	Container-01 of 03
Surr: 4-Bromofluorobenzene	99.5		1	%REC	Limit	63-140	11/07/2015 12:09 AM	Container-01 of 03
Surr: Toluene-d8	91.2		1	%REC	Limit	60-135	11/07/2015 12:09 AM	Container-01 of 03
Analytical Mothod: SW8270D:		Drop N	Aothod: SM	125200		Drop Dot	o: 11/5/2015 7:49:36 DM	Analyst: GMV

Analytical Method: SW8270D :		Prep N	Method: SW	/3520C	Prep D	ate: 11/5/2015 7:48:36 PM	Analyst: GMV
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>		Analyzed:	Container:
2,4,5-Trichlorophenol	< 5.0		1	μg/L		11/10/2015 9:16 PM	Container-01 of 01
2,4,6-Trichlorophenol	< 5.0		1	μg/L		11/10/2015 9:16 PM	Container-01 of 01
2,4-Dichlorophenol	< 5.0		1	μg/L		11/10/2015 9:16 PM	Container-01 of 01
2,4-Dimethylphenol	< 5.0	S	1	μg/L		11/10/2015 9:16 PM	Container-01 of 01
2,4-Dinitrophenol	< 5.0		1	μg/L		11/10/2015 9:16 PM	Container-01 of 01
2-Chlorophenol	< 5.0	S	1	μg/L		11/10/2015 9:16 PM	Container-01 of 01
2-Methylphenol	< 5.0		1	μg/L		11/10/2015 9:16 PM	Container-01 of 01
2-Nitrophenol	< 5.0	S	1	μg/L		11/10/2015 9:16 PM	Container-01 of 01
4,6-Dinitro-2-methylphenol	< 5.0		1	μg/L		11/10/2015 9:16 PM	Container-01 of 01
4-Chloro-3-methylphenol	< 5.0		1	μg/L		11/10/2015 9:16 PM	Container-01 of 01
4-Methylphenol	< 5.0		1	μg/L		11/10/2015 9:16 PM	Container-01 of 01
4-Nitrophenol	< 5.0		1	μg/L		11/10/2015 9:16 PM	Container-01 of 01
Pentachlorophenol	< 5.0	С	1	μg/L		11/10/2015 9:16 PM	Container-01 of 01
Phenol	12		1	μg/L		11/10/2015 9:16 PM	Container-01 of 01
Surr: 2,4,6-Tribromophenol	93.5		1	%REC	Limit 10-123	11/10/2015 9:16 PM	Container-01 of 01
Surr: 2-Chlorophenol-d4	40.7		1	%REC	Limit 33-110	11/10/2015 9:16 PM	Container-01 of 01
Surr: 2-Fluorophenol	35.6		1	%REC	Limit 21-110	11/10/2015 9:16 PM	Container-01 of 01
Surr: Phenol-d5	43.2		1	%REC	Limit 10-110	11/10/2015 9:16 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.

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D.F. = Dilution Factor D = Results for Dilution

H = Received/analyzed outside of analytical holding time

+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

c = Calibration acceptability criteria exceeded for this analyte

R = Reporting limit below calibration range. Value estimated.

J = Estimated value - below calibration range

S = Recovery exceeded control limits for this analyte

N = Indicates presumptive evidence of compound

Date Reported: 11/18/2015 Cathlin Panzarella

Project Manager

Test results meet the requirements of NELAC unless otherwise noted.

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TEL: (631) 694-3040 FAX: (631) 420-8436 NYSDOH ID#10478 www.pacelabs.com

SW8260C:

Pace Analytical Services Inc.

2190 Technology Drive Schenectady, NY 12308

LABORATORY RESULTS Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

**Sample Information:** Lab No. : 1511245-009 Type: Aqueous

Client Sample ID: MW-15

**Units** 

ua/l

Origin:

11/07/2015 12:29 AM Container-01 of 03

Analyzed:

Analyst: BL

Container:

William A. Kotas Collected : 11/3/2015 1:40:00 PM

Received : 11/4/2015

Analytical Method:

AS34743 \*Report re-issued 11/18 for 8270 reporting limits

Prep Method: 5030C

D.F

1

Results Qualifier

Collected By: CLIENT

Parameter(s)

Benzene

Attn To:

Benzene	22		1	µg/L			11/0//2015 12:29 AW	Container-01 of 03
Ethylbenzene	6.0		1	μg/L			11/07/2015 12:29 AM	Container-01 of 03
Toluene	460	D	5	μg/L			11/07/2015 7:00 PM	Container-02 of 03
Xylene (total)	1.4		1	μg/L			11/07/2015 12:29 AM	Container-01 of 03
Surr: 1,2-Dichloroethane-d4	98.9		1	%REC	Limit	53-183	11/07/2015 12:29 AM	Container-01 of 03
Surr: 4-Bromofluorobenzene	99.5		1	%REC	Limit	63-140	11/07/2015 12:29 AM	Container-01 of 03
Surr: Toluene-d8	91.0		1	%REC	Limit	60-135	11/07/2015 12:29 AM	Container-01 of 03
Analytical Method: SW8270D :		Prep M	ethod: SW	3520C		Prep Date:	11/5/2015 7:48:36 PM	Analyst: GMV
Parameter(s)	Results	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>			Analyzed:	Container:
2,4,5-Trichlorophenol	< 5.0		1	μg/L			11/10/2015 9:44 PM	Container-01 of 01
2,4,6-Trichlorophenol	< 5.0		1	μg/L			11/10/2015 9:44 PM	Container-01 of 01
2,4-Dichlorophenol	< 5.0		1	μg/L			11/10/2015 9:44 PM	Container-01 of 01
2,4-Dimethylphenol	< 5.0	S	1	μg/L			11/10/2015 9:44 PM	Container-01 of 01
2,4-Dinitrophenol	< 5.0		1	μg/L			11/10/2015 9:44 PM	Container-01 of 01
2-Chlorophenol	6.5	S	1	μg/L			11/10/2015 9:44 PM	Container-01 of 01
2-Methylphenol	< 5.0		1	μg/L			11/10/2015 9:44 PM	Container-01 of 01
2-Nitrophenol	< 5.0	S	1	μg/L			11/10/2015 9:44 PM	Container-01 of 01
4,6-Dinitro-2-methylphenol	< 5.0		1	μg/L			11/10/2015 9:44 PM	Container-01 of 01
4-Chloro-3-methylphenol	< 5.0		1	μg/L			11/10/2015 9:44 PM	Container-01 of 01
4-Methylphenol	1,400	D	100	μg/L			11/11/2015 3:19 PM	Container-01 of 01
4-Nitrophenol	< 5.0		1	μg/L			11/10/2015 9:44 PM	Container-01 of 01
Pentachlorophenol	< 5.0	С	1	μg/L			11/10/2015 9:44 PM	Container-01 of 01
Phenol	120,000	D	2000	μg/L			11/11/2015 4:17 PM	Container-01 of 01
Surr: 2,4,6-Tribromophenol	89.6		1	%REC	Limit	10-123	11/10/2015 9:44 PM	Container-01 of 01
Surr: 2-Chlorophenol-d4	109		1	%REC	Limit	33-110	11/10/2015 9:44 PM	Container-01 of 01
Surr: 2-Fluorophenol	522	S	1	%REC	Limit	21-110	11/10/2015 9:44 PM	Container-01 of 01
Surr: Phenol-d5	62.6		1	%REC	Limit	10-110	11/10/2015 9:44 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

Date Reported:

D.F. = Dilution Factor D = Results for Dilution

H = Received/analyzed outside of analytical holding time

+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

c = Calibration acceptability criteria exceeded for this analyte

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11/18/2015

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S = Recovery exceeded control limits for this analyte

N = Indicates presumptive evidence of compound

Test results meet the requirements of NELAC unless otherwise noted.

Cathlin Panzarella

Project Manager

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TEL: (631) 694-3040 FAX: (631) 420-8436 www.pacelabs.com

NYSDOH ID#10478 Pace Analytical Services Inc.

2190 Technology Drive Schenectady, NY 12308

LABORATORY RESULTS Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

Lab No. : 1511245-010

Client Sample ID: DUPE

**Sample Information:** 

Type: Aqueous

Origin:

Attn To: William A. Kotas Collected : 11/3/2015 1:10:00 PM

Received : 11/4/2015 AS34744 \*Report re-issued 11/18 for 8270 reporting limits

Collected By: CLIENT

Analytical Method: SW8260C :		Prep I	Method: 503	30C			Analyst: KG
Parameter(s)	Results	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>		Analyzed:	Container:
Benzene	1.7		1	μg/L		11/09/2015 4:21 PM	Container-01 of 03
Ethylbenzene	< 1.0		1	μg/L		11/09/2015 4:21 PM	Container-01 of 03
Toluene	< 1.0		1	μg/L		11/09/2015 4:21 PM	Container-01 of 03
Xylene (total)	< 1.0		1	μg/L		11/09/2015 4:21 PM	Container-01 of 03
Surr: 1,2-Dichloroethane-d4	98.3		1	%REC	Limit 53-183	11/09/2015 4:21 PM	Container-01 of 03
Surr: 4-Bromofluorobenzene	100		1	%REC	Limit 63-140	11/09/2015 4:21 PM	Container-01 of 03
Surr: Toluene-d8	90.3		1	%REC	Limit 60-135	11/09/2015 4:21 PM	Container-01 of 03
Analytical Method: SW8270D :		Prep I	Method: SW	/3520C	Prep Date:	11/5/2015 7:48:36 PM	Analyst: GMV
Parameter(s)	Results	<u>Qualifier</u>	<u>D.F.</u>	<u>Units</u>		Analyzed:	Container:
2,4,5-Trichlorophenol	< 5.0		1	μg/L		11/10/2015 10:13 PM	Container-01 of 01
2,4,6-Trichlorophenol	< 5.0		1	μg/L		11/10/2015 10:13 PM	Container-01 of 01
2,4-Dichlorophenol	< 5.0		1	μg/L		11/10/2015 10:13 PM	Container-01 of 01
2,4-Dimethylphenol	< 5.0	S	1	μg/L		11/10/2015 10:13 PM	Container-01 of 01
2,4-Dinitrophenol	< 5.0		1	μg/L		11/10/2015 10:13 PM	Container-01 of 01
2-Chlorophenol	< 5.0	S	1	μg/L		11/10/2015 10:13 PM	Container-01 of 01
2-Methylphenol	< 5.0		1	μg/L		11/10/2015 10:13 PM	Container-01 of 01
2-Nitrophenol	< 5.0	S	1	μg/L		11/10/2015 10:13 PM	Container-01 of 01
4,6-Dinitro-2-methylphenol	< 5.0		1	μg/L		11/10/2015 10:13 PM	Container-01 of 01
4-Chloro-3-methylphenol	< 5.0		1	μg/L		11/10/2015 10:13 PM	Container-01 of 01
4-Methylphenol	< 5.0		1	μg/L		11/10/2015 10:13 PM	Container-01 of 01
4-Nitrophenol	< 5.0		1	μg/L		11/10/2015 10:13 PM	Container-01 of 01
Pentachlorophenol	< 5.0	С	1	μg/L		11/10/2015 10:13 PM	Container-01 of 01
Phenol	88	D	4	μg/L		11/11/2015 3:48 PM	Container-01 of 01
Surr: 2,4,6-Tribromophenol	94.6		1	%REC	Limit 10-123	11/10/2015 10:13 PM	Container-01 of 01
Surr: 2-Chlorophenol-d4	49.2		1	%REC	Limit 33-110	11/10/2015 10:13 PM	Container-01 of 01
Surr: 2-Fluorophenol	40.8		1	%REC	Limit 21-110	11/10/2015 10:13 PM	Container-01 of 01
Surr: Phenol-d5	54.9		1	%REC	Limit 10-110	11/10/2015 10:13 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

D.F. = Dilution Factor D = Results for Dilution

H = Received/analyzed outside of analytical holding time

+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

c = Calibration acceptability criteria exceeded for this analyte

R = Reporting limit below calibration range. Value estimated.

J = Estimated value - below calibration range

S = Recovery exceeded control limits for this analyte

N = Indicates presumptive evidence of compound

Date Reported: 11/18/2015



Project Manager

Test results meet the requirements of NELAC unless otherwise noted.

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LABORATORY RESULTS

Results for the samples and analytes requested

The lab is not directly responsible for the integrity of the sample before receipt at the lab and is responsible only for the certified tests requested.

NYSDOH ID#10478 <u>www.pacelabs.com</u>

Pace Analytical Services Inc.

2190 Technology Drive Schenectady, NY 12308

Lab No. : 1511245-011

Sample Information:

Type: Aqueous

Attn To: William A. Kotas

: 11/3/2015 11:40:00 AM

Client Sample ID: BEATTY CREEK

AS34745 \*Report re-issued 11/18 for 8270 reporting limits

Origin:

Received : 11/4/2015

Collected By: CLIENT

Collected

Analytical Method: SW8260C :		Prep Method: 503	30C			Analyst: BL
Parameter(s)	Results Qual	ifier D.F.	<u>Units</u>		Analyzed:	Container:
Benzene	< 1.0	1	μg/L		11/07/2015 1:09 AM	Container-01 of 03
Ethylbenzene	< 1.0	1	μg/L		11/07/2015 1:09 AM	Container-01 of 03
Toluene	< 1.0	1	μg/L		11/07/2015 1:09 AM	Container-01 of 03
Xylene (total)	< 1.0	1	μg/L		11/07/2015 1:09 AM	Container-01 of 03
Surr: 1,2-Dichloroethane-d4	100	1	%REC	Limit 53-183	11/07/2015 1:09 AM	Container-01 of 03
Surr: 4-Bromofluorobenzene	97.2	1	%REC	Limit 63-140	11/07/2015 1:09 AM	Container-01 of 03
Surr: Toluene-d8	91.9	1	%REC	Limit 60-135	11/07/2015 1:09 AM	Container-01 of 03

Analytical Method: SW8270D :		Prep N	Method: SW	/3520C	Prep Date:	11/5/2015 7:48:36 PM	Analyst: GMV
Parameter(s)	Results	Qualifier	<u>D.F.</u>	<u>Units</u>		Analyzed:	Container:
2,4,5-Trichlorophenol	< 5.0		1	μg/L		11/10/2015 10:42 PM	Container-01 of 01
2,4,6-Trichlorophenol	< 5.0		1	μg/L		11/10/2015 10:42 PM	Container-01 of 01
2,4-Dichlorophenol	< 5.0		1	μg/L		11/10/2015 10:42 PM	Container-01 of 01
2,4-Dimethylphenol	< 5.0	S	1	μg/L		11/10/2015 10:42 PM	Container-01 of 01
2,4-Dinitrophenol	< 5.0		1	μg/L		11/10/2015 10:42 PM	Container-01 of 01
2-Chlorophenol	< 5.0	S	1	μg/L		11/10/2015 10:42 PM	Container-01 of 01
2-Methylphenol	< 5.0		1	μg/L		11/10/2015 10:42 PM	Container-01 of 01
2-Nitrophenol	< 5.0	S	1	μg/L		11/10/2015 10:42 PM	Container-01 of 01
4,6-Dinitro-2-methylphenol	< 5.0		1	μg/L		11/10/2015 10:42 PM	Container-01 of 01
4-Chloro-3-methylphenol	< 5.0		1	μg/L		11/10/2015 10:42 PM	Container-01 of 01
4-Methylphenol	< 5.0		1	μg/L		11/10/2015 10:42 PM	Container-01 of 01
4-Nitrophenol	< 5.0		1	μg/L		11/10/2015 10:42 PM	Container-01 of 01
Pentachlorophenol	< 5.0	С	1	μg/L		11/10/2015 10:42 PM	Container-01 of 01
Phenol	< 1.0		1	μg/L		11/10/2015 10:42 PM	Container-01 of 01
Surr: 2,4,6-Tribromophenol	88.6		1	%REC	Limit 10-123	11/10/2015 10:42 PM	Container-01 of 01
Surr: 2-Chlorophenol-d4	68.3		1	%REC	Limit 33-110	11/10/2015 10:42 PM	Container-01 of 01
Surr: 2-Fluorophenol	60.7		1	%REC	Limit 21-110	11/10/2015 10:42 PM	Container-01 of 01
Surr: Phenol-d5	69.3		1	%REC	Limit 10-110	11/10/2015 10:42 PM	Container-01 of 01

Qualifiers: E = Value above quantitation range, Value estimated.

B = Found in Blank

Date Reported:

D.F. = Dilution Factor D = Results for Dilution

H = Received/analyzed outside of analytical holding time

+ = NYSDOH ELAP does not offer certification for this analyte / matrix / method

c = Calibration acceptability criteria exceeded for this analyte

R = Reporting limit below calibration range. Value estimated.

11/18/2015

J = Estimated value - below calibration range

S = Recovery exceeded control limits for this analyte

N = Indicates presumptive evidence of compound

Test results meet the requirements of NELAC unless otherwise noted.

Cathlin Panzarella

Project Manager

This report shall not be reproduced except in full, without the written approval of the laboratory.

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#### **QC SUMMARY REPORT**

WO#:

1511245

18-Nov-15

Client: Pace Analytical Services Inc.

**Project:** 15110059 PSI **BatchID:** 52850

Website: www.pacelabs.com

Sample ID: MB-52850	SampType: MBLK	TestCode: 8270			Prep Date			RunNo: 868		
Client ID: PBW	Batch ID: <b>52850</b>	TestNo: SW8	270 SW3520C		Analysis Date	: 11/10/2	015	SeqNo: 188	3757	
Analyte	Result	PQL SPK	alue SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	< 10	10								
2-Chlorophenol	< 10	10								
2-Methylphenol	< 10	10								
2-Nitrophenol	< 10	10								
2,4-Dimethylphenol	< 10	10								
2,4-Dichlorophenol	< 10	10								
4-Chloro-3-methylphenol	< 10	10								
2,4,6-Trichlorophenol	< 10	10								
2,4,5-Trichlorophenol	< 25	25								
2,4-Dinitrophenol	< 25	25								
4-Nitrophenol	< 25	25								
4,6-Dinitro-2-methylphenol	< 25	25								
Pentachlorophenol	< 25	25								
Surr: 2-Fluorophenol	45	7	5.00	59.8	21	110				
Surr: Nitrobenzene-d5	36	5	0.00	72.9	35	114				
Surr: Phenol-d5	48	7	5.00	64.5	10	110				
Surr: 2,4,6-Tribromophenol	64	7	5.00	85.1	10	123				
Surr: 2-Fluorobiphenyl	33	5	0.00	66.3	43	116				
Surr: 4-Terphenyl-d14	42	5	0.00	84.8	33	141				
Surr: 2-Chlorophenol-d4	54	7	5.00	72.5	33	110				
Surr: 1,2-Dichlorobenzene-d4	25	5	0.00	50.8	16	110				

lifiers

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- O RSD is greater than RSDlimit
- S Spike Recovery outside accepted recovery limits
- D Dilution was required.
- M Manual Integration used to determine area response
- P Second column confirmation exceeds

- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

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#### **QC SUMMARY REPORT**

WO#: 1511245

18-Nov-15

Client: Pace Analytical Services Inc.

**Project:** 15110059 PSI **BatchID:** 52850

Website: www.pacelabs.com

Sample ID: LFB-52850	SampType: <b>LFB</b>	TestCoo	le: <b>8270_W_T</b>	CL Units: µg/L		Prep Date	: 11/5/20	15	RunNo: 868	335	
Client ID: ZZZZZZ	Batch ID: 52850	TestN	o: <b>SW8270</b>	SW3520C		Analysis Date	: 11/10/2	015	SeqNo: 188	33758	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	20	10	50.00	0	39.2	10	99				
2-Chlorophenol	18	10	50.00	0	36.9	43	106				S
2-Methylphenol	22	10	50.00	0	43.4	41	131				
2-Nitrophenol	20	10	50.00	0	39.3	41	128				S
2,4-Dimethylphenol	18	10	50.00	0	35.4	39	135				S
2,4-Dichlorophenol	23	10	50.00	0	45.0	44	127				
4-Chloro-3-methylphenol	31	10	50.00	0	62.7	48	124				
2,4,6-Trichlorophenol	33	10	50.00	0	65.6	55	114				
2,4,5-Trichlorophenol	34	25	50.00	0	68.9	55	125				
2,4-Dinitrophenol	34	25	50.00	0	68.1	11	101				
4-Nitrophenol	47	25	50.00	0	93.5	10	102				
4,6-Dinitro-2-methylphenol	55	25	50.00	0	110	28	150				
Pentachlorophenol	47	25	50.00	0	93.5	12	124				
Surr: 2-Fluorophenol	23		75.00		30.0	21	110				
Surr: Nitrobenzene-d5	19		50.00		38.6	35	114				
Surr: Phenol-d5	32		75.00		42.7	10	110				
Surr: 2,4,6-Tribromophenol	71		75.00		94.3	10	123				
Surr: 2-Fluorobiphenyl	24		50.00		47.7	43	116				
Surr: 4-Terphenyl-d14	38		50.00		75.7	33	141				
Surr: 2-Chlorophenol-d4	29		75.00		38.1	33	110				
Surr: 1,2-Dichlorobenzene-d4	13		50.00		26.8	16	110				

Qualifiers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- O RSD is greater than RSDlimit
- S Spike Recovery outside accepted recovery limits
- D Dilution was required.
- M Manual Integration used to determine area response
- P Second column confirmation exceeds

- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

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#### **QC SUMMARY REPORT**

WO#:

1511245

18-Nov-15

Client: Pace Analytical Services Inc.

**Project:** 15110059 PSI **BatchID:** 52850

Website: www.pacelabs.com

Sample ID: MB-52850	SampType: MBLK	TestCod	e: <b>8270_W_4</b> -	2 Units: μg/L		Prep Dat	te: 11/5/20	15	RunNo: 868		
Client ID: PBW	Batch ID: <b>52850</b>	TestN	o: <b>SW8270</b>	SW3520C		Analysis Dat	te: 11/10/2	015	SeqNo: 188	33792	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	< 1.0	1.0									
2-Chlorophenol	< 5.0	5.0									
2-Methylphenol	< 5.0	5.0									
4-Methylphenol	< 5.0	5.0									
2-Nitrophenol	< 5.0	5.0									
2,4-Dimethylphenol	< 5.0	5.0									
2,4-Dichlorophenol	< 5.0	5.0									
4-Chloro-3-methylphenol	< 5.0	5.0									
2,4,6-Trichlorophenol	< 5.0	5.0									
2,4,5-Trichlorophenol	< 5.0	5.0									
2,4-Dinitrophenol	< 5.0	5.0									
4-Nitrophenol	< 5.0	5.0									
4,6-Dinitro-2-methylphenol	< 5.0	5.0									
Pentachlorophenol	< 5.0	5.0									
Surr: 2-Fluorophenol	45		75.00		59.8	21	110				
Surr: Phenol-d5	48		75.00		64.5	10	110				
Surr: 2,4,6-Tribromophenol	64		75.00		85.1	10	123				
Surr: 2-Chlorophenol-d4	54		75.00		72.5	33	110				

Sample ID: LFB-52850	SampType: <b>LFB</b>	TestCod	e: <b>8270_W_4</b>	-2 Units: μg/L		Prep Da	te: 11/5/20	15	RunNo: 868	341	
Client ID: ZZZZZZ	Batch ID: <b>52850</b>	TestN	o: <b>SW8270</b>	SW3520C		Analysis Da	te: 11/10/2	015	SeqNo: 188	33793	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	20	1.0	50.00	0	39.2	10	99				
2-Chlorophenol	18	5.0	50.00	0	36.9	43	106				S

Qualifiers:

- \* Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- O RSD is greater than RSDlimit
- S Spike Recovery outside accepted recovery limits
- D Dilution was required.
- M Manual Integration used to determine area response
- P Second column confirmation exceeds

- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

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#### **QC SUMMARY REPORT**

WO#: 1511245

18-Nov-15

Client: Pace Analytical Services Inc.

Project: 15110059 PSI BatchID: 52850

Website: www.pacelabs.com

Sample ID: LFB-52850 Client ID: ZZZZZZ	SampType: <b>LFB</b> Batch ID: <b>52850</b>		de: 8270_W_4-2 No: SW8270	2 Units: μg/L SW3520C	Analysis Date: 11/10/2015				RunNo: <b>868</b> SeqNo: <b>188</b>		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2-Methylphenol	22	5.0	50.00	0	43.4	41	131				
4-Methylphenol	25	5.0	50.00	0	50.5	41	101				
2-Nitrophenol	20	5.0	50.00	0	39.3	41	128				S
2,4-Dimethylphenol	18	5.0	50.00	0	35.4	39	135				S
2,4-Dichlorophenol	23	5.0	50.00	0	45.0	44	127				
4-Chloro-3-methylphenol	31	5.0	50.00	0	62.7	48	124				
2,4,6-Trichlorophenol	33	5.0	50.00	0	65.6	55	114				
2,4,5-Trichlorophenol	34	5.0	50.00	0	68.9	55	125				
2,4-Dinitrophenol	34	5.0	50.00	0	68.1	11	101				
4-Nitrophenol	47	5.0	50.00	0	93.5	10	102				
4,6-Dinitro-2-methylphenol	55	5.0	50.00	0	110	28	150				
Pentachlorophenol	47	5.0	50.00	0	93.5	12	124				
Surr: 2-Fluorophenol	23		75.00		30.0	21	110				
Surr: Phenol-d5	32		75.00		42.7	10	110				
Surr: 2,4,6-Tribromophenol	71		75.00		94.3	10	123				
Surr: 2-Chlorophenol-d4	29		75.00		38.1	33	110				

Qualifiers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- O RSD is greater than RSDlimit
- S Spike Recovery outside accepted recovery limits
- D Dilution was required.
- M Manual Integration used to determine area response
- P Second column confirmation exceeds

- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

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PACE ANALYTICAL 575 Broad Hollow Road Melville, NY 11747 TEL: (631) 694-3040 FAX: (631) 420-8436 Website: www.pacelabs.com

#### **QC SUMMARY REPORT**

WO#:

1511245

18-Nov-15

Client: Pace Analytical Services Inc.

**Project:** 15110059 PSI **BatchID: R86668** 

Project:	15110059 PSI							Ŀ	BatchID: F	R86668		
Sample ID: VBLK11	<b>0615A</b> Sam	pType: <b>MBLK</b>	TestCod	de: <b>8260_W_S</b>	SUF Units: µg/L		Prep Da	te:		RunNo: 866	668	
Client ID: PBW	Ва	tch ID: <b>R86668</b>	TestN	No: <b>SW8260</b>			Analysis Da	te: 11/6/20	115	SeqNo: 187	79718	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
Benzene		< 1.0	1.0									
Toluene		< 1.0	1.0									
Ethylbenzene		< 1.0	1.0									
Surr: 1,2-Dichloroe	thane-d4	50		50.00		99.5	53	183				
Surr: Toluene-d8		46		50.00		91.0	60	135				
Surr: 4-Bromofluor	obenzene	48		50.00		96.7	63	140				
Sample ID: LFB1106	615A Sam	рТуре: <b>LFB</b>	TestCod	de: <b>8260_W_S</b>	SUF Units: µg/L		Prep Da	te:		RunNo: 866	668	
Client ID: ZZZZZZ	. Ba	tch ID: R86668	TestN	lo: <b>SW8260</b>			Analysis Da	te: 11/6/20	15	SeqNo: 187	79719	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
Benzene		54	1.0	50.00	0	107	73	119				
Toluene		45	1.0	50.00	0	91.0	72	119				
Ethylbenzene		45	1.0	50.00	0	89.2	70	113				
Surr: 1,2-Dichloroe	thane-d4	49		50.00		97.6	53	183				
Surr: Toluene-d8		46		50.00		92.1	60	135				
Surr: 4-Bromofluor	obenzene	51		50.00		103	63	140				
Sample ID: <b>1511253</b>	- <b>005BMS</b> Sam	рТуре: <b>МЅ</b>	TestCod	de: <b>8260_W_S</b>	SUF Units: µg/L		Prep Da	te:		RunNo: 866	668	
Client ID: ZZZZZZ	. Ba	tch ID: R86668	TestN	lo: <b>SW8260</b>			Analysis Da	te: 11/7/20	15	SeqNo: 187	79737	
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
				50.00	0	110	73	119				

H Holding times for preparation or analysis exceeded M Manual Integration used to determine area response ND Not Detected at the Reporting Limit

RSD is greater than RSDlimit P Second column confirmation exceeds R RPD outside accepted recovery limits

Spike Recovery outside accepted recovery limits

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#### **QC SUMMARY REPORT**

WO#: 1511245

18-Nov-15

Client: Pace Analytical Services Inc.

**Project:** 15110059 PSI **BatchID: R86668** 

Website: www.pacelabs.com

Sample ID: 1511253-005BMS Client ID: ZZZZZZ	SampType: MS Batch ID: R86668		de: <b>8260_W_S</b> do: <b>SW8260</b>	UF Units: µg/L	Analysis Date: 11/7/2015				RunNo: 866 SeqNo: 187		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toluene	47	1.0	50.00	0	94.8	72	119				
Ethylbenzene	47	1.0	50.00	0	94.1	70	113				
Surr: 1,2-Dichloroethane-d4	50		50.00		99.1	53	183				
Surr: Toluene-d8	46		50.00		92.3	60	135				
Surr: 4-Bromofluorobenzene	52		50.00		104	63	140				

Sample ID: <b>1511253-005BMSD</b>	SampType: MSD	TestCod	de: <b>8260_W_S</b>	UF Units: μg/L		Prep Da	te:		RunNo: 866	668	
Client ID: ZZZZZZ	Batch ID: <b>R86668</b>	TestN	lo: <b>SW8260</b>			Analysis Da	te: 11/7/20	15	SeqNo: 187	79738	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	54	1.0	50.00	0	107	73	119	54.99	2.34	30	
Toluene	46	1.0	50.00	0	92.7	72	119	47.42	2.33	30	
Ethylbenzene	46	1.0	50.00	0	91.3	70	113	47.03	3.02	30	
Surr: 1,2-Dichloroethane-d4	50		50.00		99.3	53	183		0	30	
Surr: Toluene-d8	46		50.00		92.1	60	135		0	30	
Surr: 4-Bromofluorobenzene	51		50.00		103	63	140		0	30	

Qualifiers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- O RSD is greater than RSDlimit
- S Spike Recovery outside accepted recovery limits
- D Dilution was required.
- M Manual Integration used to determine area response
- P Second column confirmation exceeds

- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

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#### **QC SUMMARY REPORT**

WO#:

1511245

18-Nov-15

Client: Pace Analytical Services Inc.

**Project:** 15110059 PSI **BatchID: R86669** 

Website: www.pacelabs.com

Sample ID: VBLK110715 Client ID: PBW	SampType: MBLK Batch ID: R86669		TestCode: 8260_W_SUF Units: µg/L TestNo: SW8260			Prep Da Analysis Da		15	RunNo: 866 SeqNo: 187		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	< 10	10									
Toluene	< 10	10									
Ethylbenzene	< 10	10									
Xylene (total)	< 10	10									
Surr: 1,2-Dichloroethane-d4	49		50.00		98.6	53	183				
Surr: Toluene-d8	45		50.00		91.0	60	135				
Surr: 4-Bromofluorobenzene	49		50.00		97.6	63	140				

Sample ID: LFB110715	SampType: <b>LFB</b>	TestCoo	de: <b>8260_W_S</b>	,					RunNo: 866	669	
Client ID: ZZZZZZ	Batch ID: <b>R86669</b>	TestN	lo: <b>SW8260</b>		Analysis Date: 11/7/2015				SeqNo: 187	79818	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	46	10	50.00	0	91.9	73	119				
Toluene	41	10	50.00	0	81.4	72	119				
Ethylbenzene	41	10	50.00	0	81.4	70	113				
Xylene (total)	130	10	150.0	0	83.9	71	109				
Surr: 1,2-Dichloroethane-d4	49		50.00		98.6	53	183				
Surr: Toluene-d8	46		50.00		91.5	60	135				
Surr: 4-Bromofluorobenzene	51		50.00		103	63	140				

Qualifiers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- O RSD is greater than RSDlimit
- S Spike Recovery outside accepted recovery limits
- D Dilution was required.
- M Manual Integration used to determine area response
- P Second column confirmation exceeds

- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

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#### **QC SUMMARY REPORT**

WO#:

1511245 18-Nov-15

Client: Pace Analytical Services Inc.

**Project:** 15110059 PSI **BatchID: R86669** 

Website: www.pacelabs.com

Sample ID: 1511559-001AMS Client ID: ZZZZZZ	SampType: MS Batch ID: R86669		e: <b>8260_W_S</b> o: <b>SW8260</b>	SUF Units: µg/L	Prep Date: Analysis Date: 11/8/2015			15	RunNo: <b>866</b> SeqNo: <b>187</b>		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	56	10	50.00	0	111	73	119				
Toluene	49	10	50.00	0	97.5	72	119				
Ethylbenzene	49	10	50.00	0	97.5	70	113				
Xylene (total)	150	10	150.0	0	100	71	109				
Surr: 1,2-Dichloroethane-d4	50		50.00		99.0	53	183				
Surr: Toluene-d8	46		50.00		92.0	60	135				
Surr: 4-Bromofluorobenzene	52		50.00		104	63	140				

Sample ID: <b>1511559-001AMSD</b>	SampType: MSD	TestCode: 8260_W_SUF Units: μg/L Prep Date:						RunNo: <b>86669</b>			
Client ID: ZZZZZZ	Batch ID: <b>R86669</b>	TestN	lo: <b>SW8260</b>			Analysis Da	te: 11/8/20	15	SeqNo: 187	79834	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toluene	47	10	50.00	0	94.0	72	119	48.73	3.59	30	
Ethylbenzene	47	10	50.00	0	93.5	70	113	48.76	4.21	30	
Xylene (total)	140	10	150.0	0	95.3	71	109	150.4	5.11	30	
Surr: 1,2-Dichloroethane-d4	49		50.00		98.5	53	183		0	30	
Surr: Toluene-d8	45		50.00		90.5	60	135		0	30	
Surr: 4-Bromofluorobenzene	52		50.00		104	63	140		0	30	

Qualifiers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- O RSD is greater than RSDlimit
- S Spike Recovery outside accepted recovery limits
- D Dilution was required.
- M Manual Integration used to determine area response
- P Second column confirmation exceeds

- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

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#### **QC SUMMARY REPORT**

WO#:

1511245

Website: www.pacelabs.com 18-Nov-15

Client: Pace Analytical Services Inc.

**Project:** 15110059 PSI **BatchID: R86679** 

Sample ID: VBLK110915 Client ID: PBW	SampType: MBLK Batch ID: R86679	TestCode: <b>8260_W_SUF</b> Units: µg/L TestNo: <b>SW8260</b>			L Prep Date: Analysis Date: 11/9/2015				RunNo: 866 SegNo: 188		
Oliche IB. 1 BW	Baterrib. Rooms	1031110.	0110200			Allalysis Da	.c. 11/3/20	10	Ocqivo. 100	00200	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	< 10	10									
Toluene	< 10	10									
Ethylbenzene	< 10	10									
Xylene (total)	< 10	10									
Surr: 1,2-Dichloroethane-d4	49		50.00		98.3	53	183				
Surr: Toluene-d8	45		50.00		90.4	60	135				
Surr: 4-Bromofluorobenzene	49		50.00		98.4	63	140				

Sample ID: LFB110915	SampType: <b>LFB</b>	TestCode: 8260_W_SUF Units: µg/L			/L Prep Date:				RunNo: 866		
Client ID: ZZZZZZ	Batch ID: <b>R86679</b>	TestN	lo: <b>SW8260</b>		Analysis Date: 11/9/2015			15	SeqNo: 188	33254	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	52	10	50.00	0	104	73	119				
Toluene	45	10	50.00	0	91.0	72	119				
Ethylbenzene	44	10	50.00	0	88.4	70	113				
Xylene (total)	140	10	150.0	0	93.0	71	109				
Surr: 1,2-Dichloroethane-d4	50		50.00		99.2	53	183				
Surr: Toluene-d8	45		50.00		90.2	60	135				
Surr: 4-Bromofluorobenzene	52		50.00		104	63	140				

Qualifiers: \* Value exceeds Maximum Contaminant Level

H Holding times for preparation or analysis exceeded

O RSD is greater than RSDlimit

S Spike Recovery outside accepted recovery limits

D Dilution was required.

M Manual Integration used to determine area response

P Second column confirmation exceeds

E Value above quantitation range

ND Not Detected at the Reporting Limit

R RPD outside accepted recovery limits

Page 20 of 23





#### **QC SUMMARY REPORT**

WO#: 1511245

18-Nov-15

Client: Pace Analytical Services Inc.

**Project:** 15110059 PSI **BatchID: R86679** 

Website: www.pacelabs.com

Sample ID: 1511448-003BMS Client ID: ZZZZZZ	SampType: MS Batch ID: R86679	TestNo: <b>SW8260</b> Units: µg/L			L Prep Date: Analysis Date: 11/9/2015				RunNo: 866 SeqNo: 188		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	1,200	200	1,000	0	121	73	119				DS
Toluene	1,000	200	1,000	0	105	72	119				D
Ethylbenzene	1,000	200	1,000	0	102	70	113				D
Xylene (total)	3,100	200	3,000	0	105	71	109				D
Surr: 1,2-Dichloroethane-d4	970		1,000		96.7	53	183				D
Surr: Toluene-d8	920		1,000		91.8	60	135				D
Surr: 4-Bromofluorobenzene	1,000		1,000		103	63	140				D

Qualifiers:

- Value exceeds Maximum Contaminant Level
- H Holding times for preparation or analysis exceeded
- O RSD is greater than RSDlimit
- S Spike Recovery outside accepted recovery limits
- D Dilution was required.
- M Manual Integration used to determine area response
- P Second column confirmation exceeds

- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

Page 21 of 23





PACE ANALYTICAL 575 Broad Hollow Road Melville, NY 11747

TEL: (631) 694-3040 FAX: (631) 420-8436

**Sample Receipt Checklist** 

Website: www.pacelabs.com

Date and Time Received: 11/4/2015

Client Name: PACE-NY		Date and Time Received: 11/4/2015				
Work Order Number: 1511245 RcptNo: 1			Received by	/: Paige Dohei	rty	
Completed by: Paige Dokerty		Reviewe	d by: Ca	thinT	Panzarella	
Completed Date: <u>11/5/2015 3:16:16 AM</u>		Reviewe	d Date:	<u>11/9/201</u>	<u>5 1:37:06 PM</u>	
Carrier name: PACE Pickup						
Chain of custody present? Chain of custody signed when relinquished and received? Chain of custody agrees with sample labels? Are matrices correctly identified on Chain of custody? Is it clear what analyses were requested? Custody seals intact on sample bottles?	Yes Yes Yes Yes Yes		No	Not Present	✓	
Samples in proper container/bottle? Were correct preservatives used and noted? Preservative added to bottles:	Yes Yes	<b>Y</b>	No 🗌 No 🗆	NA		
Sample Condition? Sufficient sample volume for indicated test? Were container labels complete (ID, Pres, Date)? All samples received within holding time?	Intact Yes Yes Yes	<b>&gt;</b>	Broken U No U No U No U	Leaking		
Was an attempt made to cool the samples? All samples received at a temp. of > 0° C to 6.0° C? Response when temperature is outside of range:	Yes Yes	<b>&gt; &gt; &gt;</b>	No O	NA NA		
Sample Temp. taken and recorded upon receipt?  Water - Were bubbles absent in VOC vials?  Water - Was there Chlorine Present?	Yes Yes Yes		No	To 1 No Vials NA	.6 °	
Water - pH acceptable upon receipt?	Yes	<b>✓</b>	No 🗆	No Water		
Are Samples considered acceptable?  Custody Seals present?	Yes Yes	<b>✓</b>	No □ No □			
Airbill or Sticker? Airbill No:	Air Bill		Sticker	Not Present	✓	
Case Number: SDG:		SAS	:			
Any No response should be detailed in the comments section be	pelow, if applicat	ole.				
	Person Conta	acted:	In Person:			
Regarding: Comments: CorrectiveAction:						
3033470/1000/1.						



<u>WorkOrder</u>: 1511245

#### Certifications

STATE	CERTIFICATION#
NEW YORK	10478
NEWJERSEY	NY1 58
CONNECTICUT	PH-0435
MARYLAND	208
MAS S AC HUS ETTS	M-NY026
NEW HAMPS HIRE	2987
RHODE IS LAND	LAO00340
PENNS YLVANIA	68-00350

Page 23 of 23

ace I

CHAIN OF CUSTODY RECORD	USTOE	)Y RE	CORD		PAGE 10F 2			DISP	SAL REQUI	REMENTS: (	DISPOSAL REQUIREMENTS: (To be filled in by Client)	n by Client)
	0 100		-	(					O REI	RETURN TO CLIENT	<b>-</b>	
2190 Technology Drive, Schenectady, NY 12308	<b>Ical V</b> ve. Scher	<b>ervic</b> nectad	:es, = . NY 12	اع 308 308	LRF# 15110059			<u> </u>	DISF	DISPOSAL BY RECEIVING LAB ARCHIVAL BY RECFIVING I AB	CEIVING LAB	
Telephone (518) 346- www.pacelabs.com	4592	Fax (5	18) 381-	6055		(LAB USE ONLY)		Additional chan	al charges incurre tetails.	d for disposal (if h	Additional charges incurred for disposal (if hazardous) or archival.	al.
CLIENT (REPORTS TO BE SENT TO):		1	PROJECT#/PROJECT NAME	DIECT NAME:				<b>ENTER AN</b>	ALYSIS AND	METHOD NUN	ENTER ANALYSIS AND METHOD NUMBER REQUESTED	TED
PACE		•	15110059			PRESER	PRESERVATIVE CODE:	DE:				PRESERVATIVE KEY
		1	LOCATION (CITY/STATE) ADDRESS	Y/STATE) ADD	RESS:	BOT	BOTTLE TYPE:					0 - ICE
PROJECT MANAGER:						BOT	BOTTLE SIZE:					1- HCL
Chelsea Farmer			≥			SA		_	_	\	<u></u>	2 - HNO3 3 - H2SQ4
Project:			REQUIRED TURN AROUND TIME:	IN AROUND TIN				<u> </u>		\	\	4 - NaOH
0836538-1					11/11/2015		\	OZZ8.	_	_	\	/ 5 - Zn. Acetate
Notes:		[2	100			၀၁	\	] ] ] [3, E.]	_	<u></u>	\ \	6 - МеОН
Noveml			NAME OF COURIER (IF USED):	OEK (IF USED);		30 A	~09Z83	ONBHU COOZ8B	_	\	\	7 - NaHSO4 8 - Other (Na2SO3)
ELECTRONIC RESULTS	Chelsea.Farmer@pacelabs.com	acelabs.com			LAB	381	_	\	_	_	<u> </u>	
	Nicole.Johnson@pacelabs.com	celabs.com		GRAB/	SAMPLE ID	VUV	<u></u>	\	\ \	<u></u>		
SAMPLE ID	DATE	TIME	MATRIX	COMP	(LAB USE ONLY)	'				/		REMARKS:
MW-19	11/3/15	11:00		GRAB	AS34735	4	` ×	×			1211	245
MW-27	11/3/15	10:55	_	GRAB	AS34736	4	` ×	×				
MW-35R	11/3/15	11:55		GRAB	AS34737	4	` ×	×				
MW-16	11/3/15	11:50		GRAB	AS34738	4	^ ×	×				
MW-28	11/3/15	12:30		GRAB	AS34739	4	^ ×	×				
MW-30	11/3/15	13:05	Γ	GRAB	AS34740	4	^ ×	×				
OW-35R	11/3/15	13:05	7	GRAB	AS34741	4	×					
OW-10R	11/3/15	13:55	L	GRAB	AS34742	4	×	_				
MW-15	11/3/15	13:40	L	GRAB	AS34743	4	×	_				
DUPE 1	11/3/15   1	13:10	L	3AB	AS34744	4	×	_(				
	TEMP:	Ö	COC TAPE: /	z	lſ	PROPERLY	PROPERLY PRESERVED:	Ž	Z) f	OTHER NOTES	: Analytical Report [I	OTHER NOTES: Analytical Report [LEVEL-2] EDD: None
RECEIVED BROKEN OR LEAKING: Y			COC DISCREPANCIES:		/x (N)	RECVD W/I	RECVD W/I HOLDING TIMES:	ES:	z			-
_	S. CONT. BE	RECEIVED BY		CICAINTINGS	RECENTATION BY	y i	RECEIVED BY		RELIN	RELINQUISHED BY	noi Tr kinois	RECEIVED BY
Mark La			1	STOWN OF THE	a Most	Manual Man		Cart I	SIGNATORE		SIGNATORE	
PRINTED NAME	PRINTEDINAME	MAS	Mall 1	PRINTED NAME	Marray	PRINTED NAM	Majas	STAIL	PRINTED NAME		PRINTED NAME	
COMPANY Jaco	COMPANY	17/2	thi	COMPANY	se lath	COMPANY	WIL	, , , , ,	COMPANY		COMPANY	
·	DATE/TIME 3	1-1		DATE/THME	51-4-1	DATE/TIME	SIHHI		DATE/TIME		DATE/TIME	
		• 			<b></b>	777	10 0100					S:\LOGIN\MDLCOCS

CHAIN OF CUSTODY RECORD	USTODY R	ECORE	_	PAGE 2 OF 2		SIQ	POSAL REQU	DISPOSAL REQUIREMENTS: (To be filled in by Client)	be filled in by	Client)
Daco Analytical Comison Inc	Saco Ico	- 000	2					RETURN TO CLIENT		
2190 Technology Drive, Schenectady, NY 12308	e, Schenecta	idy, NY 1.	2308 2308	LRF# 15110059			DISF ARC	DISPOSAL BY RECEIVING LAB ARCHIVAL BY RECEIVING LAB	IVING LAB	
Telephone (518) 346-www.pacelabs.com	4592 Fax (	(518) 381	-6055	(LAB US	(LAB USE ONLY)	Addit. Call fo	Additional charges incurre Call for details.	Additional charges incurred for disposal (if hazardous) or archival. Call for details.	rdous) or archival.	
CLIENT (REPORTS TO BE SENT TO):		PROJECT#/PROJECT NAME:	OJECT NAME:			ENTER A	ANALYSIS AND	ENTER ANALYSIS AND METHOD NUMBER REQUESTED	ER REQUESTED	
PACE		15110059	6		PRESERVATIVE CODE:	'E CODE:				PRESERVATIVE KEY
		LOCATION (CI	LOCATION (CITY/STATE) ADDRESS:	DRESS:	BOTTLE TYPE:	YPE:				0 - ICE
PROJECT MANAGER:					BOTTLE SIZE:	SIZE:				] - HCL
Chelsea Farmer		Ż			SA	\	_	\ \ \		/ 2 - HNO3 3 - H2SO4
Project: 0836538-1		REQUIRED TU	REQUIRED TURN AROUND TIME.	IME: 11/11/2015	∃NIATI		904	\	\	4 - NaOH 5 - 7n Acetate
Notes:		T			NO:	4 / AU	ŽRS.		<u>'</u>	6 - MeOH
		NAME OF COU	NAME OF COURIER (IF USED):		R OF C	STONAHO B-DOSES			\	7 - NaHSO4
ELECTRONIC RESULTS Che	Chelsea.Farmer@pacelabs.com	Ę		LAB	381		_	<u></u>	_	
Nicc	Nicole. Johnson@pacelabs.com	E	GRAB/	SAMPLE ID	\ V\\\	\ \	\	_		
SAMPLE ID	DATE TIME	MATRIX	COMP	(LAB USE ONLY)	_			/ /	/ REI	REMARKS:
BEATTY CREEK	11/3/15 11:40	_	GRAB	AS34745	4 X	×				
AMBIENT OR CHILLED: TEMP:	<u>d</u>	COC TAPE:	z >		PROPERLY PRESERVED.	RVED: Y	Z	OTHER NOTES: An	OTHER NOTES: Analytical Report [LEVEL-2] EDD: None	2] EDD: None
RECEIVED BROKEN OR LEAKING: Y	N	COC DISCREPANCIES:	NCIES:		RECVD W/I HOLDING TIMES.	IG TIMES: Y	z			
RELINQUISHED BY	RECEIVED B	111		RECENOUISHED BY	4	RECEIVED BY		RELINQUISHED BY		RECEIVED BY
dr.	SIGNATURE MININ	Willy	SIGNATURE	If Would	SIGNATURE	Columb	SIGNATURE		SIGNATURE	
tricta Navwen	PRINTED-NAME MICH	May!	PRINTED NAME	" Mallo	PRINTEIN NAME	KINE	PRINTED NAME		PRINTED NAME	
Paco" (	SOMBANY DALL	"COUR	COMPANY	1 , KN-M	COMPANY / HALL	27-1	COMPANY		COMPANY	
DATE/TIME I	DATE/TIME	15	DATE/TIME 1	\$1/4/1	DATE/TIME (/ #/	15	DATE/TIME		DATE/TIME	
				/, /						S:\LOGIN\MDLCOCS

Important Note: By signing this form you are accepting Pace's NET 30 day payment lerms and agreeing to late charges of 1 5% per month for any invoices not paid within 30 days.

15-Mav-2007

F-ALL-O-020rev.07.

CHAIN-OF-CUSTODY / Analyt <15110059P1> sument

The Chain-of-Custody is a LEGAL DOCUMENT. All rele

Section C

Section B

accurately.

Page:

Pace Project No./ Lab I.D. DRINKING WATER (V/V) Samples Infact \$34743 SAMPLE CONDITIONS AS34740 30174 AS34739 183473 X 752474 A 34 24 ത OTHER 大くてという 579CS Sealed Cooler (Y/V) 8821 AS 341, Custody Received on Ice (Y/N) > GROUND WATER Residual Chlorine (Y/N) 11/3/5/16/2012.9 J T O° ni qmeT REGULATORY AGENCY RCRA Requested Analysis Filtered (Y/N) TIME STATE Site Location NPDES DATE UST DATE Signed (MM/DD/YY): [1] ] ACCEPTED BY / AFFILIATION 0978 N/A ↓ tasT sisylsnA↓ Methanol Other COM BANK I Preservatives <sub>E</sub>O<sub>S</sub>S<sub>S</sub>BN HOBN HCI nvoice Information: €ОИН Company Name: H<sup>5</sup>2O<sup>†</sup> Nubleselved Reference:
Pace Project
Manager:
Pace Profile #: 1620 ace Quote 7 4 7 TIME Address: 4 4 4 4 4 4 4 # OF CONTAINERS SAMPLER NAME AND SIGNATURE PRINT Name of SAMPLER: SIGNATURE of SAMPLER: SAMPLE TEMP AT COLLECTION ) हो। DATE 10:55 13:30 1.05 11.53 11:50 1:05 11.40 112 K 11.00 1535 40 01. TIME COMPOSITE END/GRAB Project Name:
FORM 2 BORNS FACILITY
Project Number: DATE COLLECTED RELINQUISHED BY / AFFILIATION TIME COMPOSITE START DATE Required Project Information: Report To: CODY TO: (G=GRAB C=COMP) SAMPLE TYPE **~**) Purchase Order No.: MATRIX CODE ORIGINAL 교육 점 점 점 P P P Matrix Codes MATRIX / CODE Drinking Water Water Waste Water Product Soil/Solid Wipe Air Tissue Other 12305 ray. BEATTO CREEK ADDITIONAL COMMENTS ASUNYOUS DEINE (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE 5W-35R mw - 35R , 28 GW - IO'R mm - 30 mw - 16 SAMPLE ID mm - 37 151 - WA JUST 9152 12 P1- MM dupe S. Henry Canada S183775846 Required Client Information Required Client Information گ چ Section D 10 11 9 1 2 # MBTI w 8 6

Face Analytical "
www.pacelabs.com

# <15110059P2>

# Sample Condition Upon Receipt

				⊿ اد	CLIENI NAME: 13/ PROJECT: FOCK of Prodon FOCK I +	Proposit	-40.11.th	
	Ş		, and the	. ]				
dex D UPS D		CHISTODY SEAL DRESENT: Ves	ENT. Vec	S S	INTACT: Yes	<u> </u>	N/A=>	
TRACKING #	Buhhla Ra	None -	Other		ICE USED: Wet	Blue	None	
	IR Gun 03	7087		COOLER TEM	COOLER TEMPERATURE (°C): $2.9$			i
1				<b> </b>	Temp should be above freezing to 6°C	ove freezing to	. و د	
BIOLOGICAL TISSUE IS FRUZEN: YES		Q VA			in Appropriately 2			
COMMENTS:				emperature	emperature is Acceptable:	Sales	LING	Γ
Chain of Custody Present:	s Q	ONO	į.					
Chain of Custody Filled Out:	□Yes		2. MISSING	187 P				
Chain of Custody Relinquished:	<b>Zer</b> es	ON.	3.					
Sampler Name / Signature on COC:	Š	□No	4.					
Samples Arrived within Hold Time:	A See	ONO	5.					
Short Hold Time Analysis (<72hr):	□Yes	ON <sub>o</sub>	9.					
Rush Turn Around Time Requested:	□yes	ŻŚ	7. W.	MISSING	IA71			1
Sufficient Volume:	¥¥Yes	□No	8.					
Correct Containers Used:	ss.	ON0	<u>ق</u>					
- Pace Containers Used:	Yes	□No						
Containers Intact:	<b>€</b>	ONO	10.					
Filtered volume received for Dissolved tests:		ON0	11.					
Sample Labels match COC:	×.	ON []	12.					
- Includes date/time/ID/Analysis								-
All containers needing preservation have been checked:	□Yes	CINO	13.					
Incorporation are in	. DYes	ONO						
compliance with EPA recommendation:		٤.	Initial when	4			¥   •	
- Exceptions that are not checked: TOC, VOA, Subcontract Analyses	tract Analyses		completed:	Y Y	Lot # of added preservative:	ervative:	2	
Headspace in VOA Vials (>6mm):	□Yes	XNo DNA	14.					
Trip Blank Present:	□Yes	ONO ONO	15.					
Trip Blank Custody Seals Present:	□Yes	V ON□						
Pace Trip Blank Lot #:	٠	-					A A to a second	1=
Sample Receipt form filled in:		Line-Out (Includes Copying Shipping Documents and veritying sample pH):	Copying Shippi	ng Document	s and veritying san			<u>े</u> ते
		Log In (Includes notifying PM of any discrepacies and documenting in LIMS):	ifying PM of a	ıy discrepacie	s and documentin	•	THE 117 117	\ L
		Labeling (Includes Scanning Bottles and entering LAB IDs into pH logbook):	canning Bottle	s and enterin	g LAB IDs into pH I	ogbook):	14 W	E



# Enclosure 2 NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION Site Management Periodic Review Report Notice Institutional and Engineering Controls Certification Form



S	ite	No.	709	9001		Site Details			Box 1	
s	ite	Name	Во	rden Chemi	cai					
				108-112 Nort	h Main Street	Zip Code: 13733				
_				~	6 per appro	ved Smp-	- Section	1,1,1		
R	ер	orting P	Period	d: Decembe	er 04, 2014 to Dec	cember 04, 2015				
									YES	NO
1		Is the in	nform	nation above	correct?					×
		if NO, ir	nclud	de handwritte	n above or on a s	separate sheet.				
2					e property been s ing this Reporting	sold, subdivided, r Period?	merged, or under	rgone a		×
3				een any char RR 375-1.11(		site during this Re	porting Period			×
4.					and/or local perming this Reporting	its (e.g., building, Period?	discharge) been	issued		×
		If you a that do	answ ocum	vered YES to nentation has	questions 2 thr been previous!	u 4, include docu y submitted with	ımentation or e this certification	vidence on form.		
5.		is the si	ite cı	urrently unde	rgoing developme	ent?			o	×
									Box 2	
									YES	NO
6.		is the co Industria		nt site use co	nsistent with the t	use(s) listed below	<i>l</i> ?		×	0
7.		Are all i	ICs/E	ECs in place a	and functioning as	s designed?			×	٥
		IF '	THE DC	ANSWER TO NOT COMP	EITHER QUESTI LETE THE REST	ON 6 OR 7 IS NO, OF THIS FORM.	sign and date b Otherwise conti	elow and Inue.		
Cor	rec	tive Me	asur	res Work Plai	1 must be submit	ted along with thi	s form to addres	ss these issu	es.	
Si	gn	ature of	Own	er, Remedial	Party or Designate	ed Representative		Date		

SITE NO. 709001 Box 3

#### Description of Institutional Controls

Parcel 254.-1-42.1

\* Columbus Real Estate, LLC

Institutional Control

O&M Plan IC/EC Plan

Ground Water Use Restriction Soil Management Plan Landuse Restriction Monitoring Plan Site Management Plan

Site use restricted to commercial or industrial. Deed restriction requires compliance with SMP, SMP addresses residual PCBs in soil in some portions of the site. SMP also addresses groundwater contamination/monitoring and reporting provisions.

254.-1-43

Columbus Real Estate, LLC

Ground Water Use Restriction Soil Management Plan Landuse Restriction Monitoring Plan Site Management Plan O&M Plan

1C/EC Plan

Site use restricted to commercial or industrial. Deed restriction requires compliance with SMP. SMP addresses residual PCBs in soil in some portions of the site. SMP also addresses groundwater contamination/monitoring and reporting provisions.

254.-1-44.12



Columbus Real Estate, LLC

O&M Plan

IC/EC Plan

Ground Water Use Restriction Soil Management Plan Landuse Restriction Monitoring Plan Site Management Plan

Site use restricted to commercial or industrial. Deed restriction requires compliance with SMP. SMP addresses residual PCBs in soil in some portions of the site. SMP also addresses groundwater contamination/monitoring and reporting provisions.

254.19-1-1.2



Columbus Real Estate, LLC

Ground Water Use Restriction Soil Management Plan Landuse Restriction Monitoring Plan Site Management Plan O&M Plan IC/EC Plan

Site use restricted to commercial or industrial. Deed restriction requires compliance with SMP, SMP addresses residual PCBs in soil in some portions of the site. SMP also addresses groundwater contamination/monitoring and reporting provisions.

254.19-1-2

Columbus Real Estate, LLC

O&M Plan

IC/EC Plan Ground Water Use Restriction

Soil Management Plan Landuse Restriction Monitoring Plan Site Management Plan

Site use restricted to commercial or industrial. Deed restriction requires compliance with SMP, SMP addresses residual PCBs in soit in some portions of the site. SMP also addresses groundwater contamination/monitoring and reporting provisions.

254.19-1-3

\* Columbus Real Estate, LLC

Ground Water Use Restriction Soil Management Plan Landuse Restriction Monitoring Plan Site Management Plan O&M Plan IC/EC Plan

Site use restricted to commercial or industrial. Deed restriction requires compliance with SMP. SMP addresses residual PCBs in soil in some portions of the site. SMP also addresses groundwater contamination/monitoring and reporting provisions.

**Description of Engineering Controls** 

Box 4

None Required

Not Applicable/No EC's

\* See Present Property Status handwritten below Box 6.

		Box 5
	Periodic Review Report (PRR) Certification Statements	
1.	I certify by checking "YES" below that:	
	<ul> <li>a) the Periodic Review report and all attachments were prepared under the direction of reviewed by, the party making the certification;</li> </ul>	and
	<ul> <li>b) to the best of my knowledge and belief, the work and conclusions described in this care in accordance with the requirements of the site remedial program, and generally accordance in practices; and the information presented is accurate and complete.</li> </ul>	ertification cepted
	h YES	NO
	×	
2.	If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Ir or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of t following statements are true:	istitutional he
	<ul> <li>(a) the Institutional Control and/or Engineering Control(s) employed at this site is unchathed the that the Control was put in-place, or was last approved by the Department;</li> </ul>	nged since
	<ul><li>(b) nothing has occurred that would impair the ability of such Control, to protect public h the environment;</li></ul>	ealth and
	<ul><li>(c) access to the site will continue to be provided to the Department, to evaluate the remincluding access to evaluate the continued maintenance of this Control;</li></ul>	nedy,
	<ul> <li>(d) nothing has occurred that would constitute a violation or failure to comply with the S Management Plan for this Control; and</li> </ul>	ite
	(e) if a financial assurance mechanism is required by the oversight document for the sit mechanism remains valid and sufficient for its intended purpose established in the docu	e, the ment.
	YES	NO

IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

X

Date

#### IC CERTIFICATIONS SITE NO. 709001

	Box 6
SITE OWNER OR DESIGNATED REPRESENTATIVE SIGN.  I certify that all information and statements in Boxes 1,2, and 3 are true. I und statement made herein is punishable as a Class "A" misdemeanor, pursuant to Penal Law.  S. H. Fogleman, III, President 111 & Hargett State LLCat Rate igh, No print name print business address  am certifying as Remedial Partia	derstand that a false to Section 210.45 of the
am certifying as Kemedial Party	(Owner or Remedial Party)
for the Site named in the Site Details Section of this form.  Signature of Owner, Remedial Party, or Designated Representative Rendering Certification	2 11 2015 Date

Present Property Status:

Columbus Real Estate (CRE) understands that the following parcels were recently foreclosed by Chenago County: 254.1-1-42.1; 254.1-1-43; 254.1-44.12; 254.19-1-1.2; 254.19-1-2; 254.19-1-3; and 254.19-1-4 (Not subject to the SMP). The parcel 265.08-1-5 (also not subject to the SMP) was withdrawn from foreclosure. The County has received bids on the foreclosed properties and discussions with the Chenago County Clerk indicate the foreclosed properties were purchased by John Payne Enterprises, LLC of Bainbridge, New York.

CRE is prepared to continue carrying out Consent Order obligations related to the Site through the use of a dedicated remediation account and financial assurance accounts. CRE would require an access agreement from John Payne Enterprises, LLC to carry out these obligations.

Stamp

(Required for PE)

Date

Signature of, for the Owner or Remedial Party,

Rendering Certification