Prepared for:

ROPER PUMP COMPANY
3475 Old Maysville Road
Commerce, GA 30529

VOLUNTARY REMEDIATION PROGRAM PROGRESS REPORT
Roper Pump Company
Commerce, Georgia

Prepared by:

EPS

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April 2016

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Justin Vickery, P.G.
Associate

April 2016

EPS

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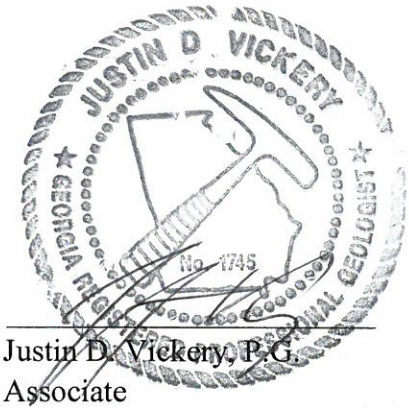
VOLUNTARY REMEDIATION PROGRAM PROGRESS REPORT
Roper Pump Company
Commerce, Georgia

GROUNDWATER SCIENTIST STATEMENT

I certify that I am a qualified ground water scientist who has received a baccalaureate or post-graduate degree in the natural sciences or engineering, and have sufficient training and experience in ground water hydrology and related fields, as demonstrated by state registration and completion of accredited university courses, that enable me to make sound professional judgments regarding groundwater monitoring and contaminant fate and transport. I further certify that this Progress Report was prepared by me or by a subordinate working under my direction.



Certified by: _____ Date: 4-13-16

Justin D. Vickery, P.G.
Associate
No. 1745

1. INTRODUCTION

1.1 Purpose of the Report

This is the second Semi-Annual Voluntary Remediation Program ("VRP") Progress Report, which is being submitted on behalf of Roper Pump Company ("Roper") related to its manufacturing facility located at 3475 Old Maysville Road in Commerce, Georgia, more specifically Jackson County Tax Parcel 034-032 (the "Site"). The location of the Site is shown on Figure 1 (all figures are included in the Figures attachment). The purpose of this Progress Report is to describe the activities conducted during the period of October 2015 through March 2016 ("Reporting Period") and to discuss the activities planned for the next reporting period.

1.2 Background

In May 2009, during construction activities associated with a facility expansion, Roper discovered that soils and groundwater adjacent to an abandoned storm sewer line had have elevated concentrations of volatile organic compounds ("VOCs"), primarily tetrachloroethene ("PCE"). Figure 2 is a Site Plan and shows the location of the abandoned storm sewer line. Roper submitted a Release Notification to the Georgia Environmental Protection Division ("EPD") pursuant to the Hazardous Site Response Act ("HSRA") on July 13, 2009.

On November 23, 2009, EPD informed Roper that the Site was listed on the Georgia Hazardous Site Inventory ("HSI"), HSI #10901, designating it as a Class II cleanup priority site. On October 4, 2013, the EPD requested that a Compliance Status Report ("CSR") or a Corrective Action Plan ("CAP") be submitted by April 4, 2014. In a meeting on April 3, 2014, EPD agreed to delay the submittal of a CAP and that Roper should submit a data report by May 8, 2014. In May 2014, Roper submitted the Report of Site Characterization and Remedial Action (EPS, 2014a) to the EPD. In a letter dated August 22, 2014, the EPD requested that Roper submit either a VRP Application or a CSR by December 31, 2014. On December 18, 2014, Roper submitted a VRP Application (EPS, 2014b), and the EPD approved Roper's entry into the VRP in a letter dated April 13, 2015. In latter correspondence, EPD agreed to a reporting schedule of April 15 and October 15 of each year.

Finally, on August 26, 2015, the EPD issued a letter amending the April 13, 2015 VRP participant acceptance letter by removing the requirement for an environmental assessment targeting the industrial operations on the adjacent property.

2. VRP Project Management

2.1 Professional Geologist Oversight

This Progress Report includes a certification by Justin Vickery, P.G., the Professional Geologist specified in the VRP Application. Appendix A contains a monthly summary of hours invoiced by the P.G. during the Reporting Period.

2.2 Milestone Schedule

An updated milestone schedule is included in Appendix B.

2.3 Conceptual Site Model

The VRP Application (EPS, 2014b) included a Preliminary Conceptual Site Model ("CSM"). Since that time, additional Site data has been collected which has allowed us to update the CSM. The updated CSM, attached in Appendix C, includes graphical depictions (updated cross sections) and discussion of additional assessment off-site (horizontal delineation) and additional deeper well installation on-site (vertical delineation).

3. ACTIVITIES COMPLETED DURING CURRENT REPORTING PERIOD

3.1 Overview

Section 3 discusses the activities conducted during this Reporting Period, including:

- On-site and off-site groundwater assessment;
- Collection of sediment from the ditch on the adjoining parcel to the Roper VRP site;
- Ongoing remediation utilizing the vadose zone soil vapor extraction ("SVE") system; and
- Initiation of biotreatability testing.

3.2 Groundwater Assessment

3.2.1 Additional Monitoring Well Installation

Three additional monitoring wells were installed during the current Reporting Period. One deep monitoring well MW-15D, was installed on the Roper property at the downgradient boundary, as an offset cluster to shallow well MW-4. Two shallow monitoring wells MW-16 and MW-17, were installed at downgradient, off-site locations. These well locations are shown on Figure 3, and boring logs with monitoring well construction information are included in Appendix D.

Boring MW-15D was advanced using hollow stem auger ("HSA") drilling methods, and soil samples were collected for logging the lithology with a split spoon sampler. The borehole was drilled to 84 feet below the ground surface ("ft.-bgs") with an 8¼-inch outside diameter ("OD") HSA, to the depth of drilling refusal at the top of bedrock. A 2-inch inside diameter ("ID"), Schedule 40 PVC well with 10 feet of 0.01-inch slotted screen was installed from 84 to 74 ft.-bgs. A sand filter pack was installed in the annulus between the borehole and well from 84 to 72 ft.-bgs, followed by a 2-ft. bentonite seal and then grout to the ground surface. A locking well cap was placed on the well, and the well was completed with an 8-inch diameter, flush-mounted well vault installed in a 2-ft. by 2-ft. concrete well pad.

Borings MW-16 and MW-17 were first advanced to using direct push macro-core sampling methods (for water depth and lithology evaluation) and reamed with a larger-diameter HSA and completed to depths of 35 ft.-bgs and 40 ft.-bgs, respectively. A 2-inch ID, schedule 40 PVC well with 10 feet of 0.01-inch slotted screen was installed in each of these borings, and a filter sand pack was installed in the annulus extending from the bottom of the well up to 2 ft. above the well screen followed by a 2-ft. bentonite seal and grout to the ground surface. Locking well caps were placed on the wells, and the wells were completed with 8-inch diameter, flush-mounted well vaults installed in 2-ft. by 2-ft. concrete well pads.

3.2.2 Groundwater Sampling and Analytical Test Methods

EPS conducted groundwater sampling at the Site on March 2-4, 2016. Samples were collected from 18 of the 20[1] existing on-site and off-site monitoring wells for VOC analysis by EPA Method 8260B. Samples collected from on-site wells were also analyzed for hexavalent chromium by EPA Method 218.6.

Prior to purging the monitoring wells, groundwater depths in each of the wells were measured with a water level meter, which was decontaminated between wells using a phosphate-free detergent solution and a distilled water rinse. Groundwater depths and elevations are summarized on Table 1, and Figure 4 is a potentiometric surface map showing the groundwater flow direction. The direction of groundwater flow is from west to east across the Roper property, with a steepened gradient evident off-site to the east.

Each of the wells was then purged using "tubing in screen interval" purging methods (USEPA, 2013) prior to sample collection. For wells with shallow groundwater (less than 30 ft-bgs), purging was conducted using a peristaltic pump, and for wells with deeper groundwater, a downhole pump was used. The tubing intake (peristaltic pump) or the downhole pump were lowered to the middle of the screen interval and the wells were pumped at a low flow rate until pH and conductivity stabilized (for pH, +/- 0.3 standard pH units and for conductivity, +/- 10%) and turbidity stabilized below 10 Nephelometric Turbidity Units (NTUs). Monitoring Well Sampling Forms are included in Appendix E.

Once purging was complete, samples were collected for hexavalent chromium analysis by pouring the water straight from the tubing into the sample containers. VOC samples were collected from peristaltic pumps by turning the pump off, bringing the tubing to the ground surface, disconnecting the tubing from the pump, and pouring the water in the tubing into the sampling vials. VOC samples were collected in two 40 milliliter ("mL") glass vials preserved with hydrochloric acid, while verifying zero head space in the vials. Samples for hexavalent chromium were collected in 250 mL bottles. The samples were placed on ice in a cooler, logged under standard chain-of-custody procedures, and transported to Pace Analytical (Pace) laboratory in Ormond Beach, Florida. Laboratory reports are included in Appendix F.

3.2.3 Monitoring Well Sampling Results

Sampling results for VOCs for the March 2016 sampling event are provided in Table 2, and VOCs detected in groundwater are shown in map view on Figure 5. Figures 6 through 8 show individual VOC constituent groundwater results as a multiple of their respective Type 1 RRS criteria for PCE, trichloroethene ("TCE"), and cis-1,2-dichloroethene ("cDCE"), respectively.[2] Each figure is shown as an A/B pair to separate the shallower (A) from the deeper (B) data in order to better

[1] Bio-Trap® samplers had previously been deployed in two of the wells (MW-7 and MW-9S) and therefore could not be sampled during the March 2016 event.

[2] The only other VOC to exceed its Type 1 RRS was benzene, limited to well MW-11 (and consistent with past sampling results from this well). All other benzene locations were non-detect.

visualize the results. Results from the current sampling event are generally consistent with previous sampling events. The following is a summary of the current sampling results:

- PCE was detected in monitoring wells located in the vicinity of the release area and down-gradient of the release area. Along the eastern (down-gradient) property line, PCE was detected at concentrations ranging from non-detect to 129 µg/L in shallow wells (MW-3, MW-4, MW-8, MW-11, and MW-16) and at 1,540 µg/L in deep well MW-15D. PCE was detected in newly installed off-site monitoring wells MW-16 (26 µg/L) and MW-17 (553 µg/L). PCE was not detected in wells to the north, south, or west of the release area.
- TCE is the first in a series of PCE degradation products. TCE was generally detected in the same wells as PCE and in some instances at higher concentrations, indicating that groundwater conditions are undergoing intrinsic degradation. Along the eastern property line, TCE concentrations in shallow wells ranged from 7.1 µg/L to 64.7 µg/L, and the TCE concentration in deep well MW-15D was 89 µg/L. Like PCE, TCE was detected in the furthest down-gradient well MW-17 at a concentrations higher than the property line concentrations. TCE was not detected in wells to the north, south, or west of the release area.
- cDCE, generated from the intrinsic degradation of TCE, was detected in several of the monitoring wells within the core of the plume at concentrations ranging from 13.2 µg/L to 74.2 µg/L. cDCE was also detected in the furthest down-gradient wells: MW-16 at 5.2 µg/L and MW-17 at 15.5 µg/L.
- Vinyl chloride was not detected in the groundwater samples, consistent with past sampling results.
- Benzene was detected in a single well in the southern portion of the Site (MW-11 at 52.6 µg/L) similar in concentration to past sampling results for this well. Well MW-16 installed during this Reporting Period, downgradient of MW-11, reported non-detect for benzene indicating the benzene extent on-site is quite limited.
- Hexavalent chromium sampling results for the March 2016 sampling event are shown on Figure 9A (shallow) / 9B (deep) and summarized in Table 3. During the previous sampling event in September 2015 hexavalent chromium was detected at notable concentration levels in three of the deep wells (MW-9D, MW-12D, and MW-13D), at concentrations ranging from 62 µg/L to 191 µg/L. Concentrations in the same wells were approximately an order of magnitude lower in the current event, ranging from 2.6 µg/L to 18.2 µg/L. The Residential RRS for hexavalent chromium is 1.7 µg/L. The hexavalent chromium result from the new deep well located along the down-gradient property line, MW-15D, was 0.15 µg/L or about an order of magnitude below the Residential RRS. In MW-14, located near the southern property corner, hexavalent chromium was previously detected at 3.5 µg/L, which is above the Residential RRS. None of the shallow wells, including MW-14, exceeded the hexavalent chromium Residential RRS in the March 2016 sampling event. Thus it is concluded the hexavalent chromium condition has been adequately delineated on-site and further assessment for hexavalent chromium is not warranted.

3.3 Soil/Sediment Sampling of the Ditch

EPS collected a soil/sediment sample (SD-1) from the ditch west of the Roper facility (offsite)[3], for analysis of specific metals of interest: arsenic, cadmium, chromium (total and hexavalent), and lead. The sample location is shown on Figure 10. All metals were reported at concentrations below their respective Residential RRS values, and summarized in the table below.

Parameter	SD-1 Concentration (mg/kg)	Residential RRS (mg/kg)
Arsenic	2.7	20
Cadmium	2.2	12
Chromium, total	37.4	3,600,000
Chromium, hexavalent	< 0.068	29
Lead	61.7	270
Mercury	0.087	2

3.4 Updates to Risk Evaluation

3.4.1 Revised Soil Risk Reduction Standard for Chromium, total

The soil RRS for total chromium has been revised based on Comment 8 in EPD's January 5, 2016 letter. The revised RRS values (Types 1-4) and supporting computational documentation are provided in Appendix G.

3.4.2 Ecological Risk Screening

Drainage from the Site exits the property on the western side of the facility, passing through a culvert beneath the rail tracks and emptying into a ditch (at Outfall 001). The presence of surface water is not continuous along the drainage between the Site and Highway 98 to the west (see Photograph 1 below). The ditch has the appearance of a somewhat broad low-relief swale. Trash and debris is present throughout the area. West of Highway 98, the ditch travels through the middle of another industrial facility.

[3] This sample was collected in response to EPD correspondence to Roper dated August 26, 2015 regarding the adjacent Roper facility (not part of the VRP site), at the confluence of the adjacent facility runoff into the ditch.

Photograph 1. A photograph of the ditch taken at the point where standing water downslope of Outfall 001 dissipates into a dry drainage swale. This is slightly upslope of the confluence of the Outfall 001 drainage and runoff from the adjacent non-VRP Roper facility.

The stretch of the ditch between the Site and Highway 98 is not an aquatic habitat. Regardless, in response to an EPD request, we have provided a comparison of sampling results from the Outfall 001 area and the SD-1 location to EPA's Ecological Screening Values ("ESV").[4]

Table 4 shows a comparison of sample results to ESVs. Only metals were detected in the soil/sediment samples. Each detected metal exceeded at least one of the ESVs. However, the maximum detected concentrations were within an order magnitude of the ESVs and are

[4] ESVs are conservative-based criteria, below which it can be concluded with a high degree of confidence that there is no risk to ecological receptors. However the converse is not true – one should not conclude there is risk when the condition exceeds ESVs. ESVs for some media and receptors may not be available from each source. Thus, consideration of a range of sources provides greater opportunity for identification of ESVs. ESVs are consolidated under the Oak Ridge National Laboratories ("ORNL") Risk Assessment Information System ("RAIS") Ecological Benchmark Tool ("BMT"). The BMT was used to obtain the ESVs. Soil ESVs are primarily derived to protect soil-dwelling terrestrial invertebrates; sediment ESVs are primarily derived to protect organisms that live and feed in direct contact with sediment (i.e., sediment benthos).

representative of natural background concentrations.[5] Thus, given the fact that the ditch does not provide a quality habitat, along with the observed low concentrations in soil and sediment, further ecological assessment is not warranted.

3.5 Remediation

3.5.1 SVE System Operations

The SVE system has remained in operation since installation in October 2010 with more than 8,000 pounds of VOCs removed over that time. Typical of SVE remediation, the rate of VOC removal is diminishing as reflected in the carbon change-out history shown in the table below.

Spent Carbon Shipment Date	Initial Weight of Fresh Carbon (lbs.)	Final Weight of Spent Carbon (lbs.)	VOCs Mass (lbs.)
16-Sep-13	4,000	5,418	1,418
19-Sep-12	4,000	5,734	1,734
01-Mar-12	4,000	5,930	1,930
29-Jul-11	4,000	5,407	1,407
20-Jan-11	4,000	5,870	1,870
		Total	**8,359**

System operation is monitored on a monthly schedule using a photoionization detector ("PID"). As requested by EPD in Comment 6 of its letter dated January 5, 2016, the monitoring records for the current Reporting Period are enclosed with this report as Appendix H. Treatment efficiency ("TE") was measured in the past from four sets of VOC air sampling events, testing chemical-specific VOCs as influent (at the knock-out tank ("KOT")) and effluent (after each of the two carbon canisters ("CC") installed in series. As shown in the table below, the carbon treatment is effective at removal of VOCs from the air stream.

[5] Table 2 (Type 1 Soil Criteria), Appendix III of the HSRA Rules are based upon the State of Georgia representation of naturally-occurring levels of metals in soil within the state.

	Mar-11				Apr-12				Jun-12				Sep-12			
Parameter	**KOT**	**CC1**	**CC2**	**TE**	**KOT**	**CC1**	**CC2**	**TE**	**KOT**	**CC1**	**CC2**	**TE**	**KOT**	**CC1**	**CC2**	**TE**
1,1-Dichloroethene	ND	NM	180		ND	ND	ND		ND	ND	18		ND	ND	ND	
cis-1,2-Dichloroethene	ND	NM	1700		ND	ND	ND		ND	ND	ND		ND	ND	ND	
Trichloroethene	5600	NM	1200	79%	ND	ND	ND		ND	1400	26		ND	ND	ND	
Toluene	12000	NM	6900	43%	ND	ND	ND		ND	ND	60		ND	16	14	
Tetrachloroethene	300000	NM	7000	98%	110000	ND	ND	100%	85000	130000	1600	98%	61000	<27	<25	100%
Methylene chloride	ND	NM			ND	ND	36		ND	ND	ND		ND	ND	ND	
m,p-Xylene	ND	NM	130						ND	ND	19		ND	ND	ND	
Notes:	ND - not detected															
	NM - not measured															
	KOT - knockout tank [system influent]															
	CC - carbon canister #1 and #2 [system effluent]															
	TE - treatment efficiency															

3.5.2 Groundwater Treatability Study

A groundwater treatability study was initiated on February 5, 2016, to assess the feasibility of *in situ* bioremediation. Bio-Trap® sampler units were deployed in wells MW-7 and MW-9S (these monitoring wells typically exhibit the highest Site PCE concentrations). The samplers test for both bio-stimulation (*i.e.*, stimulation of native microbial population through addition of a carbon source) and bio-augmentation (*i.e.*, addition of a cultured bacterial strain). The Bio-Trap® sampler units were retrieved on April 8, 2016 and shipped to the vendor for analysis. A report of *in situ* bioremediation feasibility will be provided in the next Progress Report.

4. PLANNED ACTIVITIES FOR NEXT REPORTING PERIOD

4.1 Planned Assessment and Sampling

4.1.1 Delineation

Additional horizontal delineation of VOCs (PCE and daughter products) in groundwater is warranted further off-site to the east. A shallow monitoring well is proposed at the location shown on Figure 11.

4.1.2 Hexavalent Chromium Confirmation Assessment

As stated above, the March 2016 hexavalent chromium groundwater concentrations in the deep on-site monitoring wells were approximately an order of magnitude lower than the prior September 2015 results. Deep wells MW-6DS, MW-9D, MW-12D, MW-13D, and MW-15D will be sampled to confirm the lower hexavalent chromium concentrations.

5. REFERENCES

Environmental Planning Specialists, Inc. (EPS), 2014a. *Report of Site Characterization and Remedial Action*.

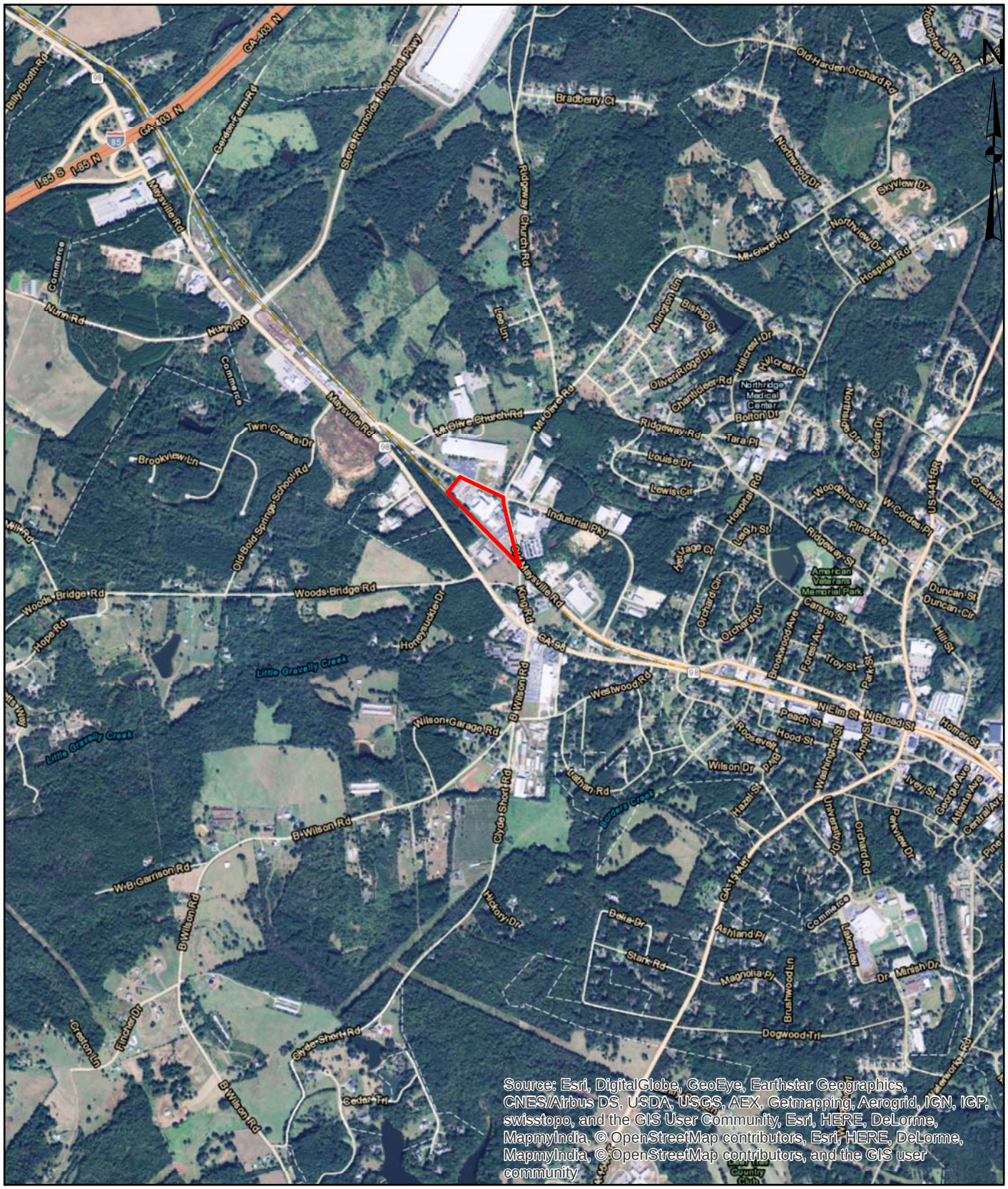
Environmental Planning Specialists, Inc. (EPS), 2014b. *Voluntary Remediation Program Application*

Environmental Planning Specialists, Inc. (EPS), 2015. *Technical Memorandum: Development of Soil- and Groundwater-based Risk Reduction Standards (2nd Revision).*

Sowers, G.F. and Richardson, T.L. (1983). *Residual Soils of Piedmont and Blue Ridge.* Transportation Research Record 919, Transportation Research Board, Washington-DC, 10-16.

USEPA, 2013. *Operating Procedure: Groundwater Sampling.* US Environmental Protection Agency Science and Ecosystem Support Division, Athens, Georgia.

FIGURES



Source: ESRI On-line Ortho Photo, March 2014

0 1,000 2,000
Feet

Legend

Parcel 034 032 Boundary

Roper Pump Company
Site Location Map

EPS
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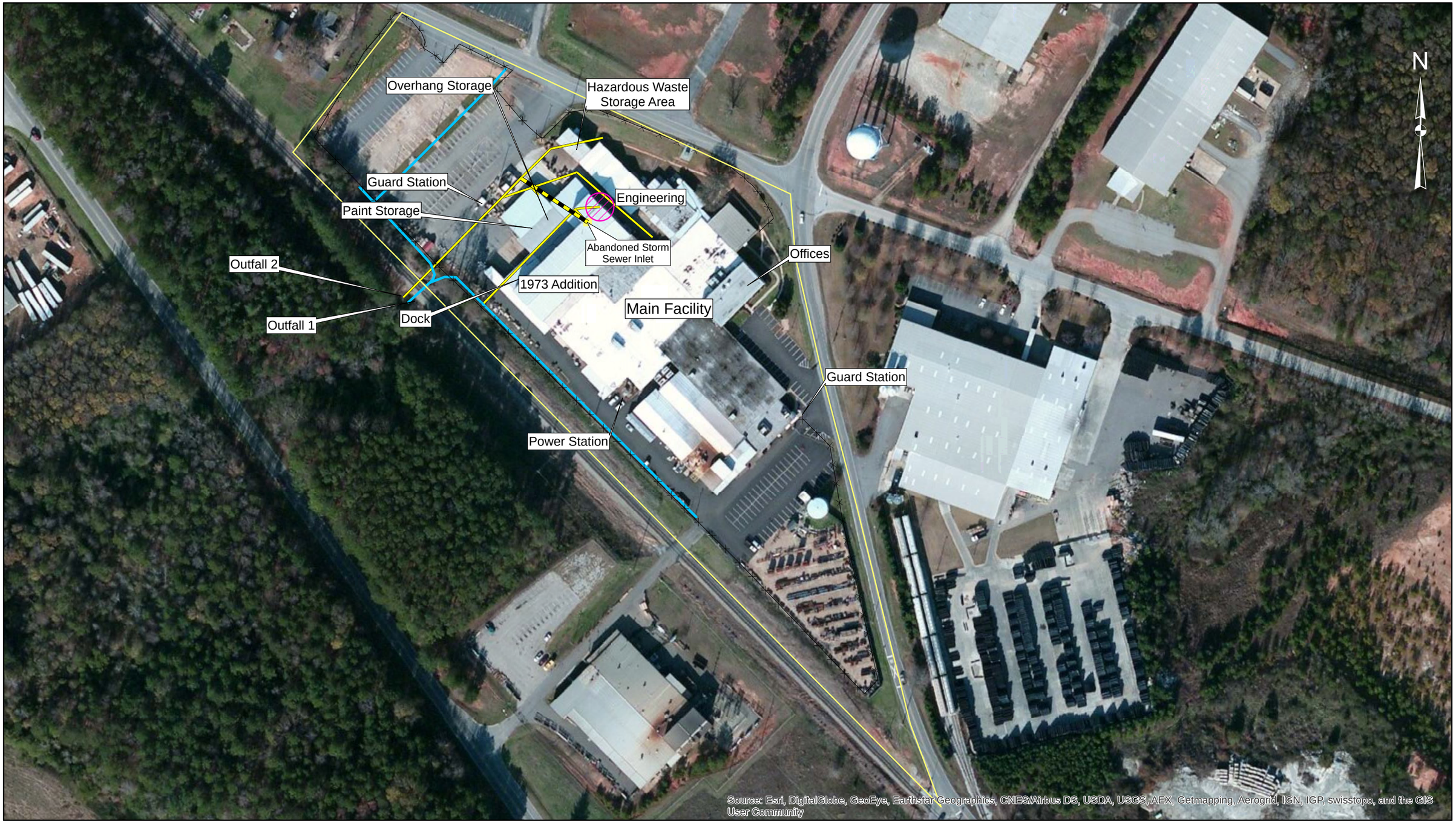
Figure No.1



0 150 300
Feet

Legend

- Abandoned Storm Sewer
- Facility Drainage Ditch
- Active Storm Drain
- Fence
- 1960's Drum and Equipment Storage (approximate)

Roper Pump Company
Site Plan

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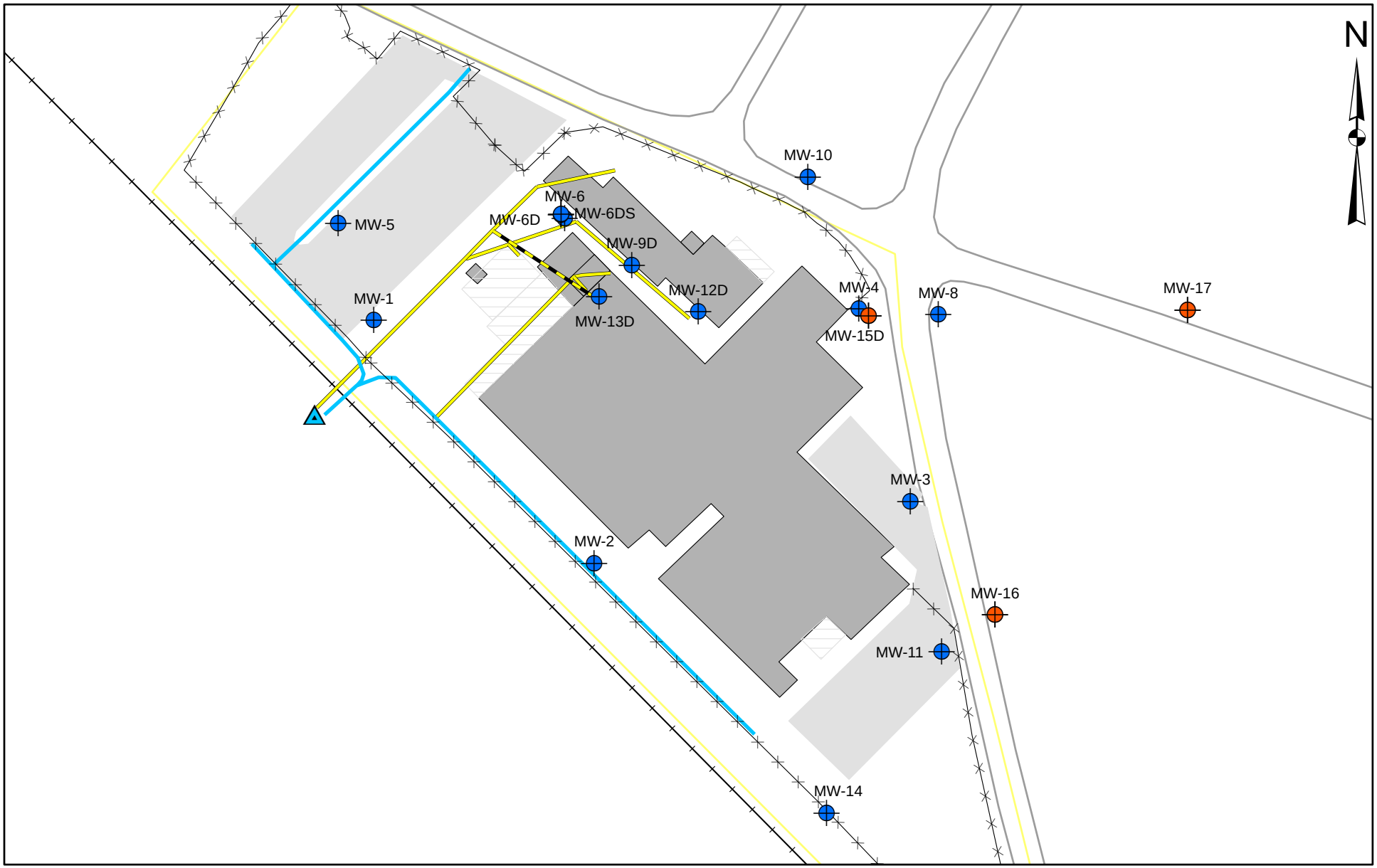
Figure No. 2



0 75 150
Feet

Legend

- Abandoned Storm Sewer
- Active Storm Drain
- Parking Lot
- Roads
- Fence
- Railroad
- Overhang
- Roper Property Line
- Building
- Facility Drainage Ditch
- Stormwater Outfall

Monitoring Well Network

- Monitoring Well (Installed during current reporting period)
- Monitoring Well

Roper Pump Company
Monitoring Well Network
(March 2016)

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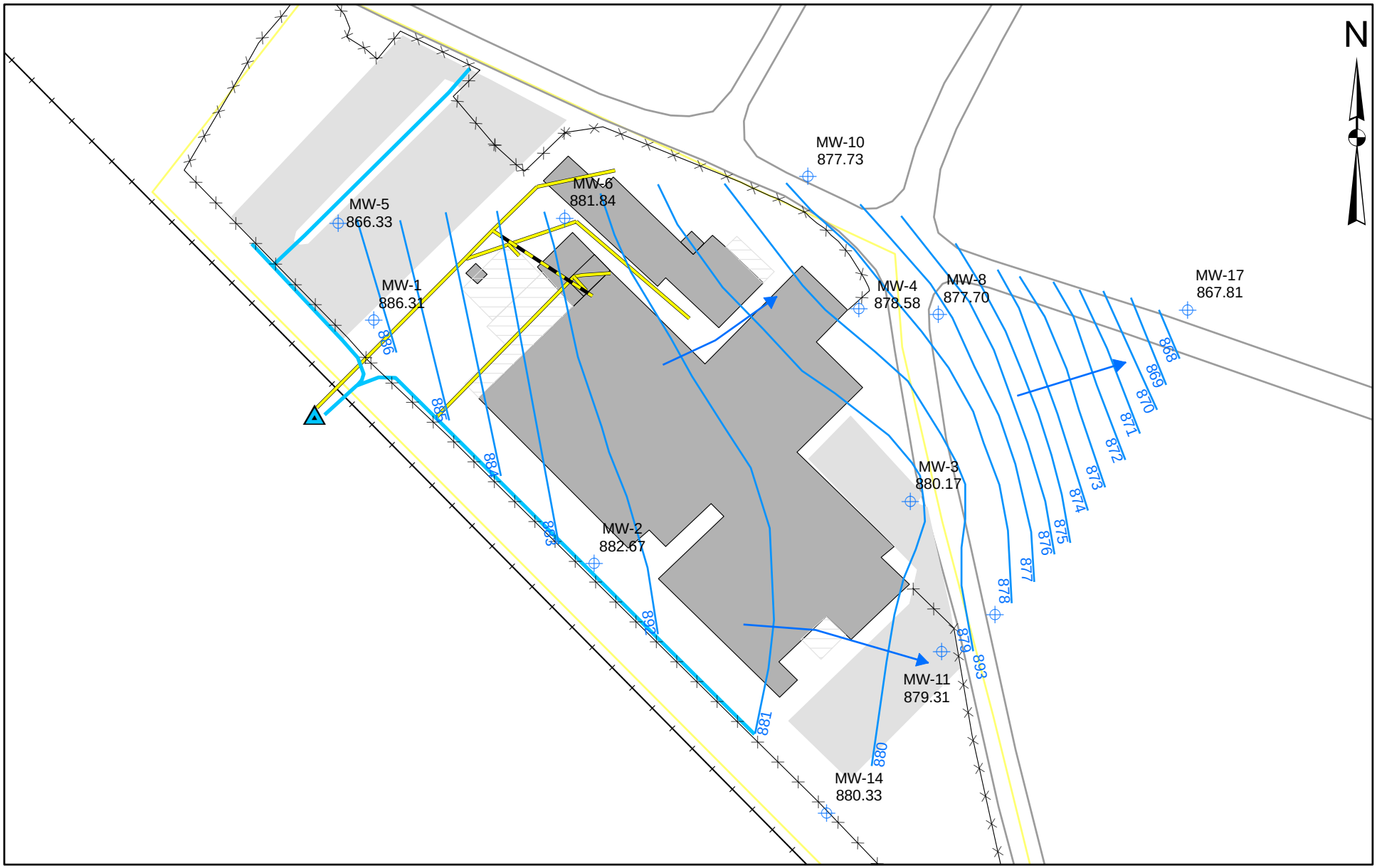
Figure No. 3



0 75 150
Feet

Legend

- Abandoned Storm Sewer
- Active Storm Drain
- Parking Lot
- Roads
- Fence
- Railroad
- Overhang
- Roper Property Line
- Building
- Facility Drainage Ditch
- Stormwater Outfall

Potentiometric Features

- Monitoring Well Location
- 876 Potentiometric Surface Lines (Excludes "D" wells)
- Groundwater Flow Direction
- 867.81 Groundwater Elevation at Well

Roper Pump Company
Potentiometric Surface Map
(March 2016)

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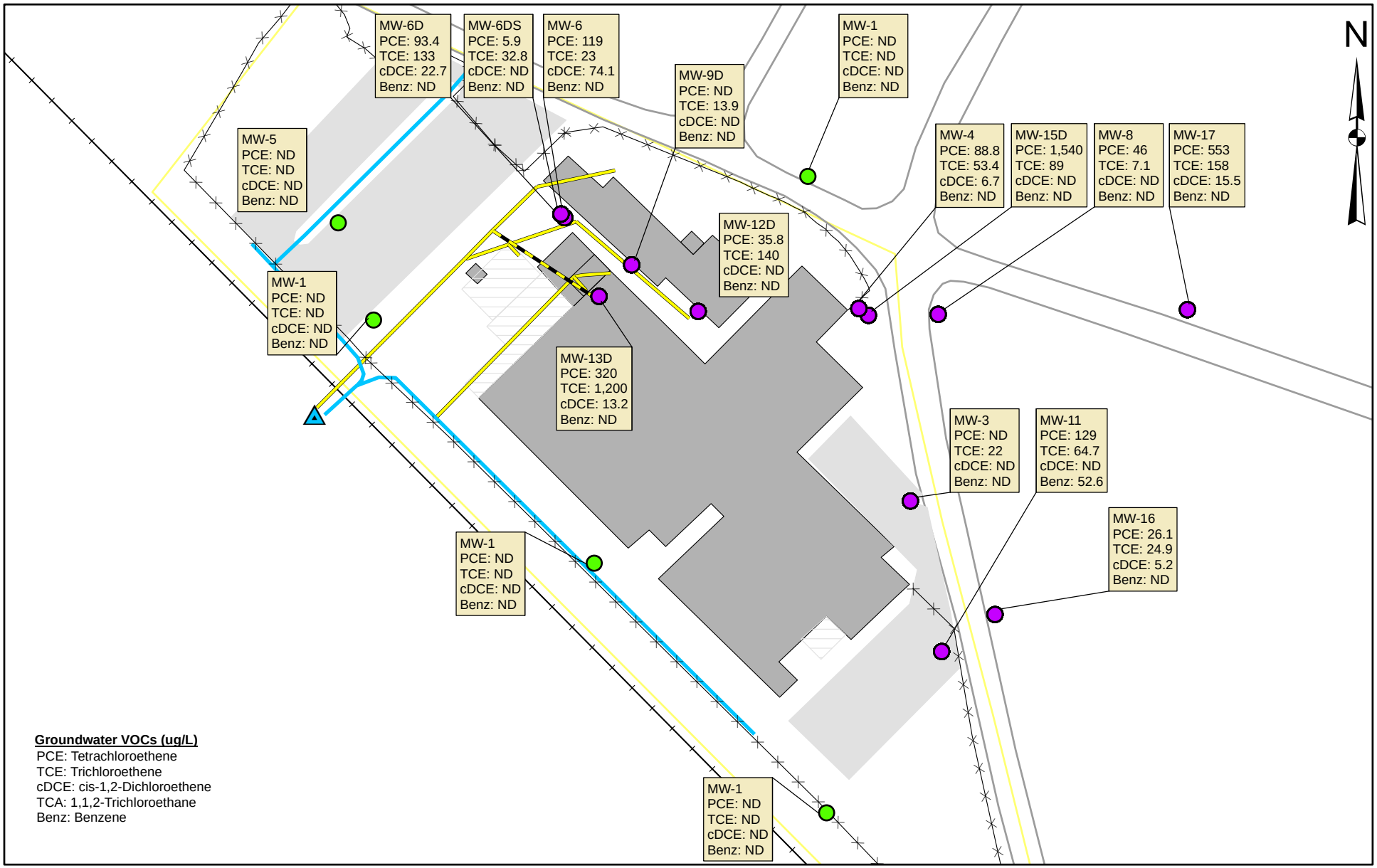
Figure No. 4



0 75 150
Feet

Legend

- Abandoned Storm Sewer
- Active Storm Drain
- Parking Lot
- Roads
- Fence
- Railroad
- Overhang
- Roper Property Line
- Building
- Facility Drainage Ditch
- Stormwater Outfall

Groundwater Status

- VOC Detected
- No VOC Detected (ND: Non-detect)

Roper Pump Company
Groundwater VOCs
(Sampled March 2016)

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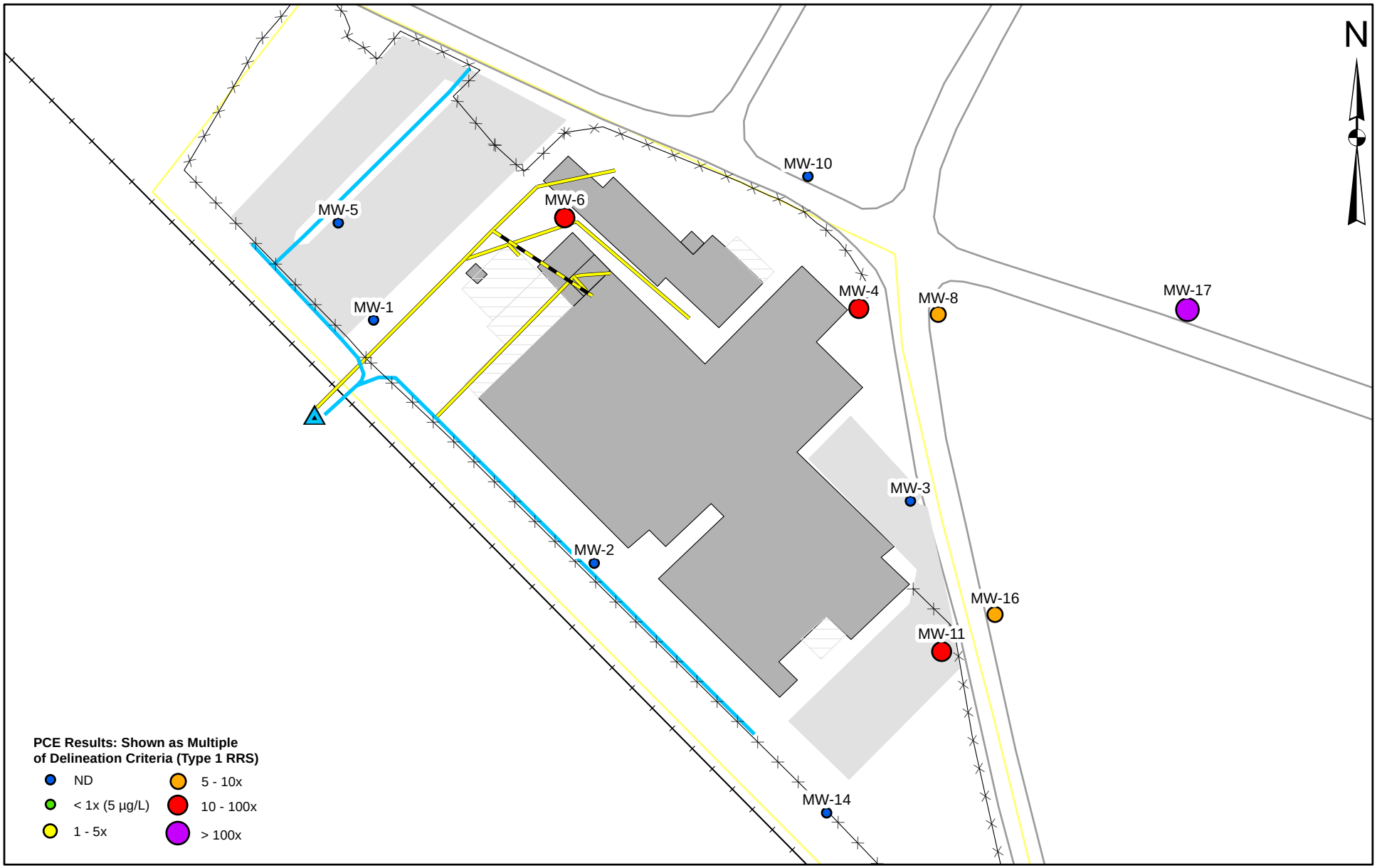
Figure No. 5



0 75 150
Feet

Legend

- Abandoned Storm Sewer
- Active Storm Drain
- Parking Lot
- Roads
- Fence
- Railroad
- Overhang
- Roper Property Line
- Building
- Facility Drainage Ditch
- Stormwater Outfall

Roper Pump Company
Shallow Groundwater Tetrachloroethene
(Sampled March 2016)

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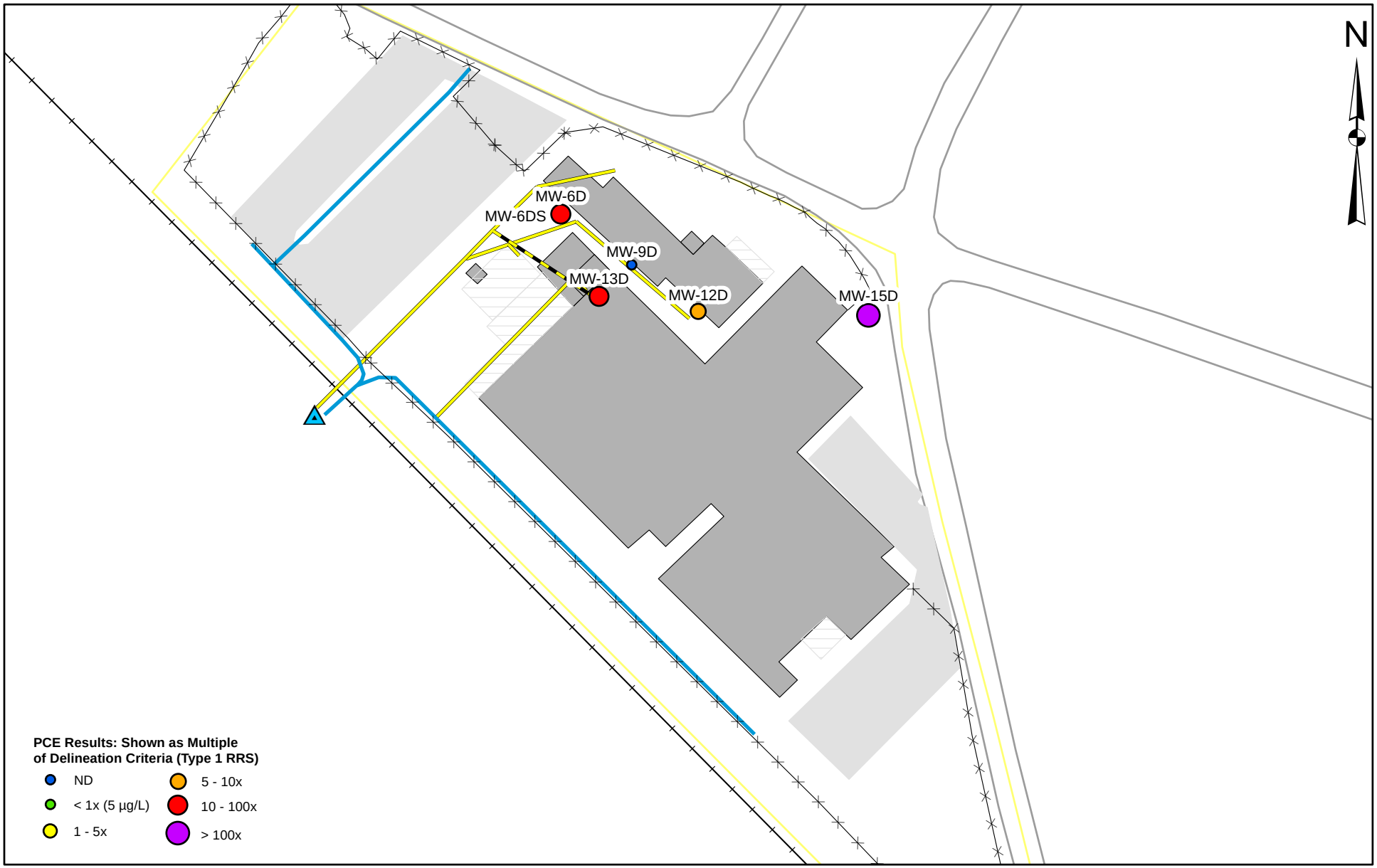
Figure No. 6A



0 75 150
Feet

Legend

- Abandoned Storm Sewer
- Active Storm Drain
- Parking Lot
- Roads
- Fence
- Railroad
- Overhang
- Roper Property Line
- Building
- Facility Drainage Ditch
- Stormwater Outfall

Roper Pump Company
Deep Groundwater Tetrachloroethene
(Sampled March 2016)

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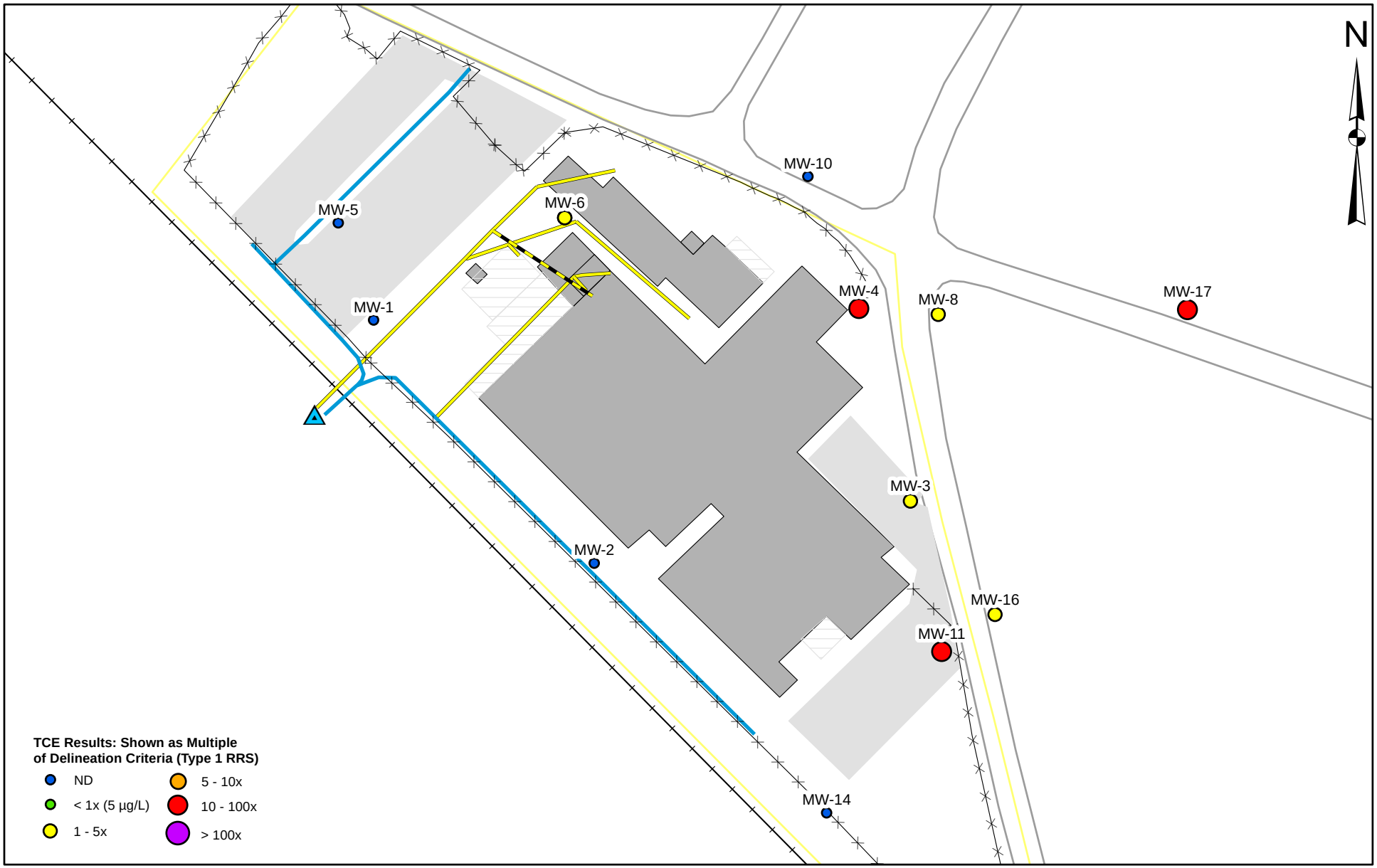
Figure No. 6B



0 75 150
Feet

Legend

- Abandoned Storm Sewer
- Active Storm Drain
- Parking Lot
- Roads
- Fence
- Railroad
- Overhang
- Roper Property Line
- Building
- Facility Drainage Ditch
- Stormwater Outfall

Roper Pump Company
Shallow Groundwater Trichloroethene
(Sampled March 2016)

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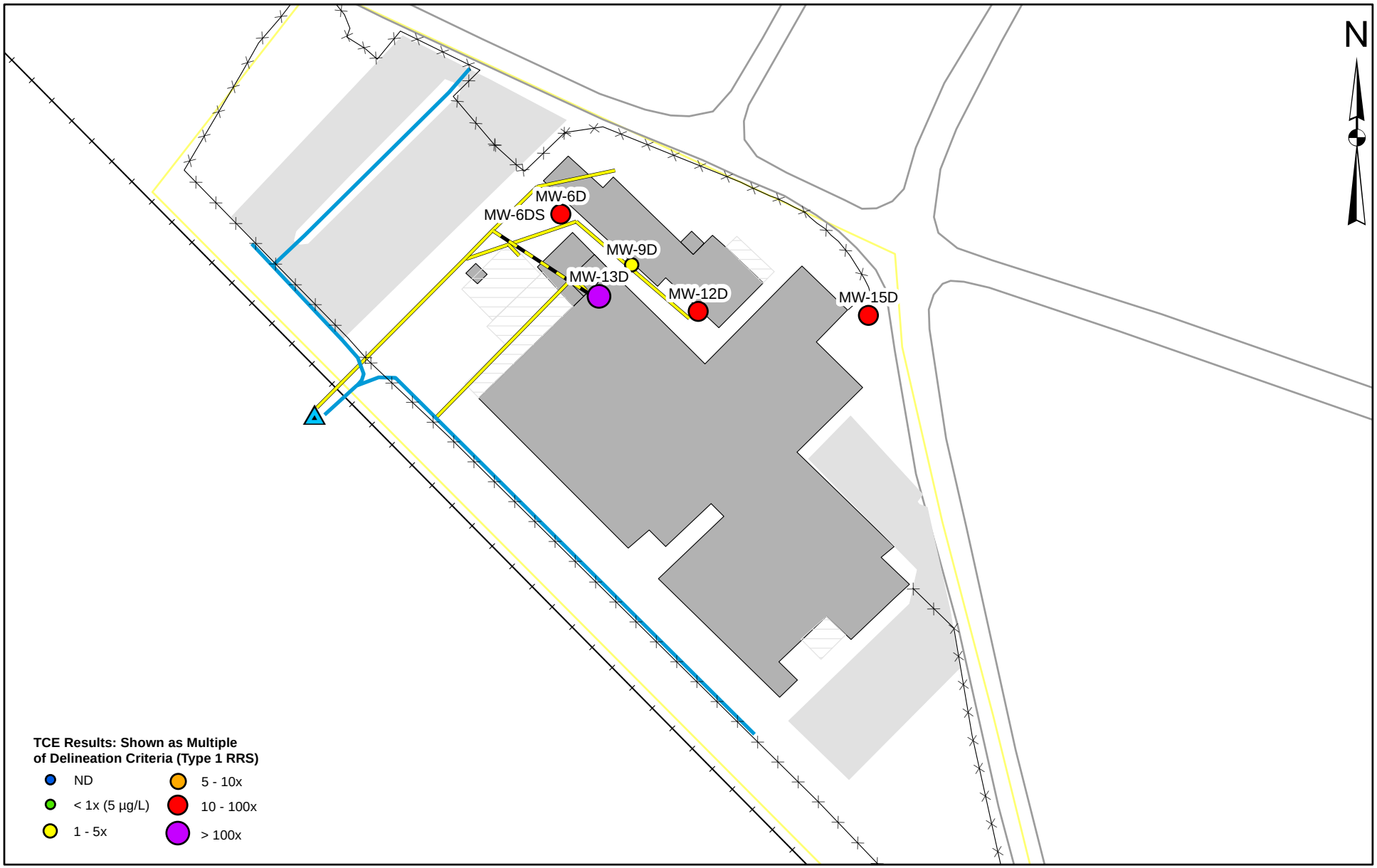
Figure No. 7A



0 75 150
Feet

Legend

- Abandoned Storm Sewer
- Active Storm Drain
- Parking Lot
- Roads
- Fence
- Railroad
- Overhang
- Roper Property Line
- Building
- Facility Drainage Ditch
- Stormwater Outfall

Roper Pump Company
Deep Groundwater Trichloroethene
(Sampled March 2016)

EPS
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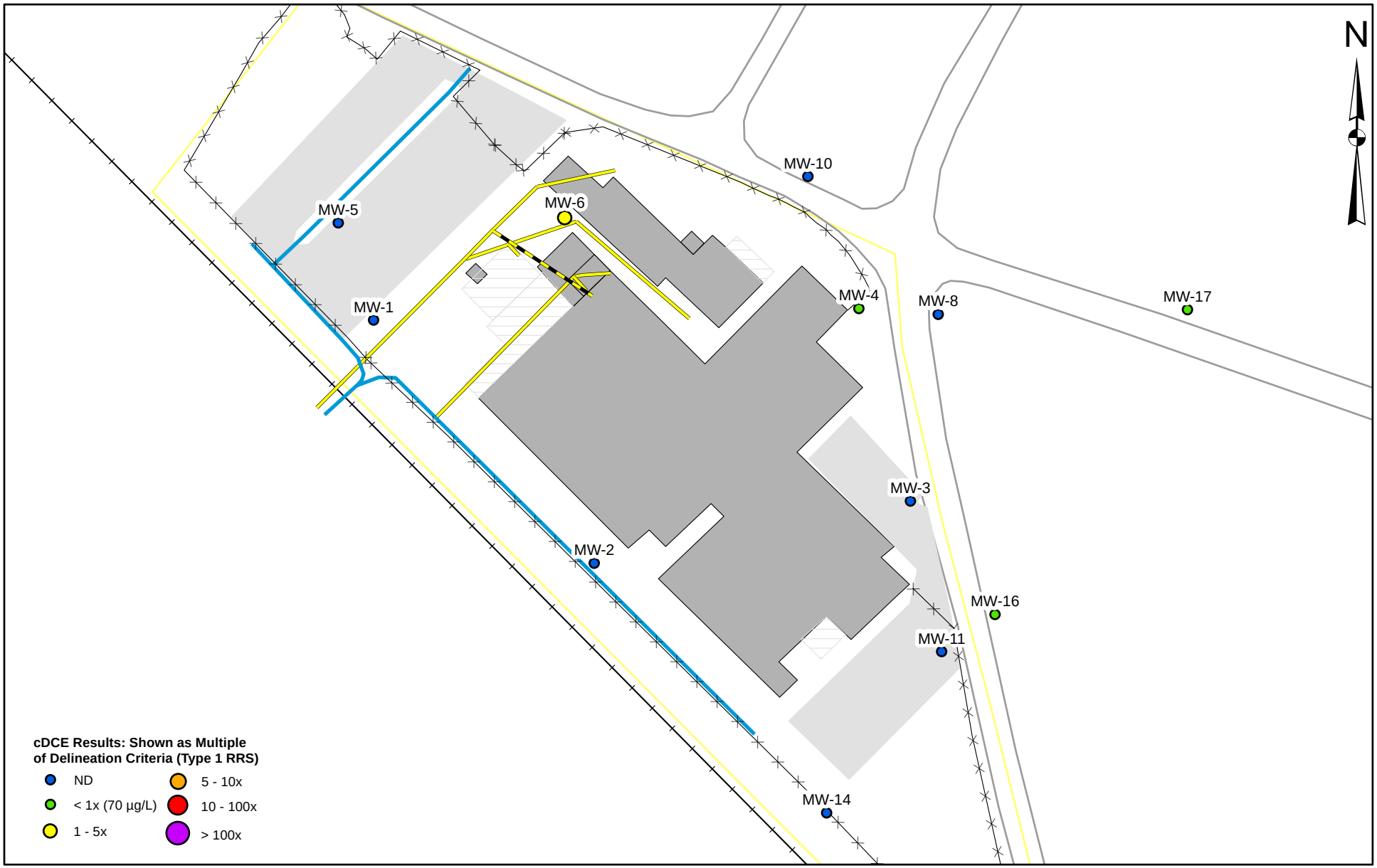
Figure No. 7B



0 75 150
Feet

Legend

- Abandoned Storm Sewer
- Active Storm Drain
- Parking Lot
- Roads
- Fence
- Railroad
- Overhang
- Roper Property Line
- Building
- Facility Drainage Ditch
- Stormwater Outfall

Roper Pump Company
Shallow Groundwater cis-Dichloroethene
(Sampled March 2016)

EPS
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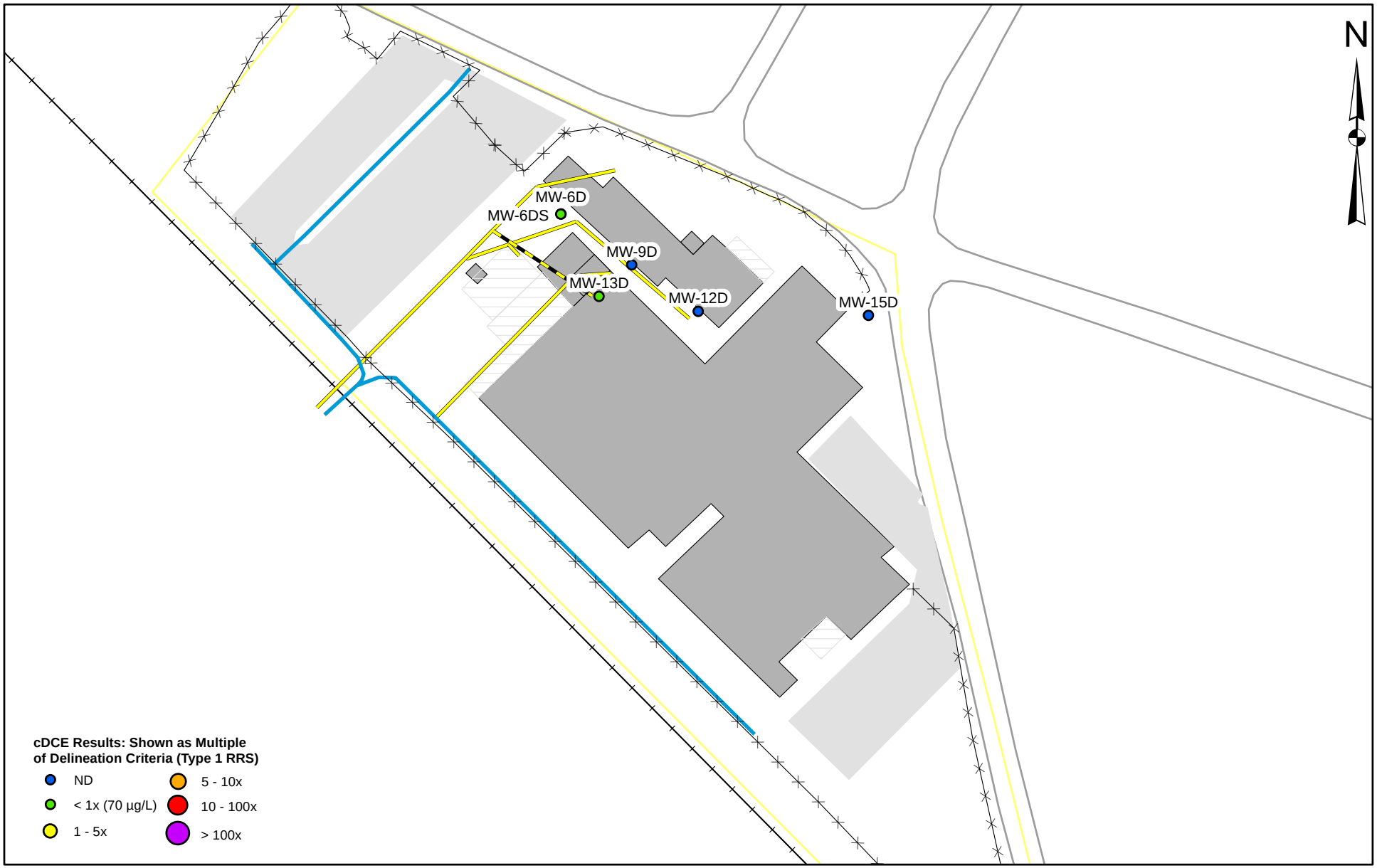
Figure No. 8A



0 75 150
Feet

Legend

- Abandoned Storm Sewer
- Active Storm Drain
- Parking Lot
- Roads
- Fence
- Railroad
- Overhang
- Roper Property Line
- Building
- Facility Drainage Ditch
- Stormwater Outfall

Roper Pump Company
Deep Groundwater cis-Dichloroethene
(Sampled March 2016)

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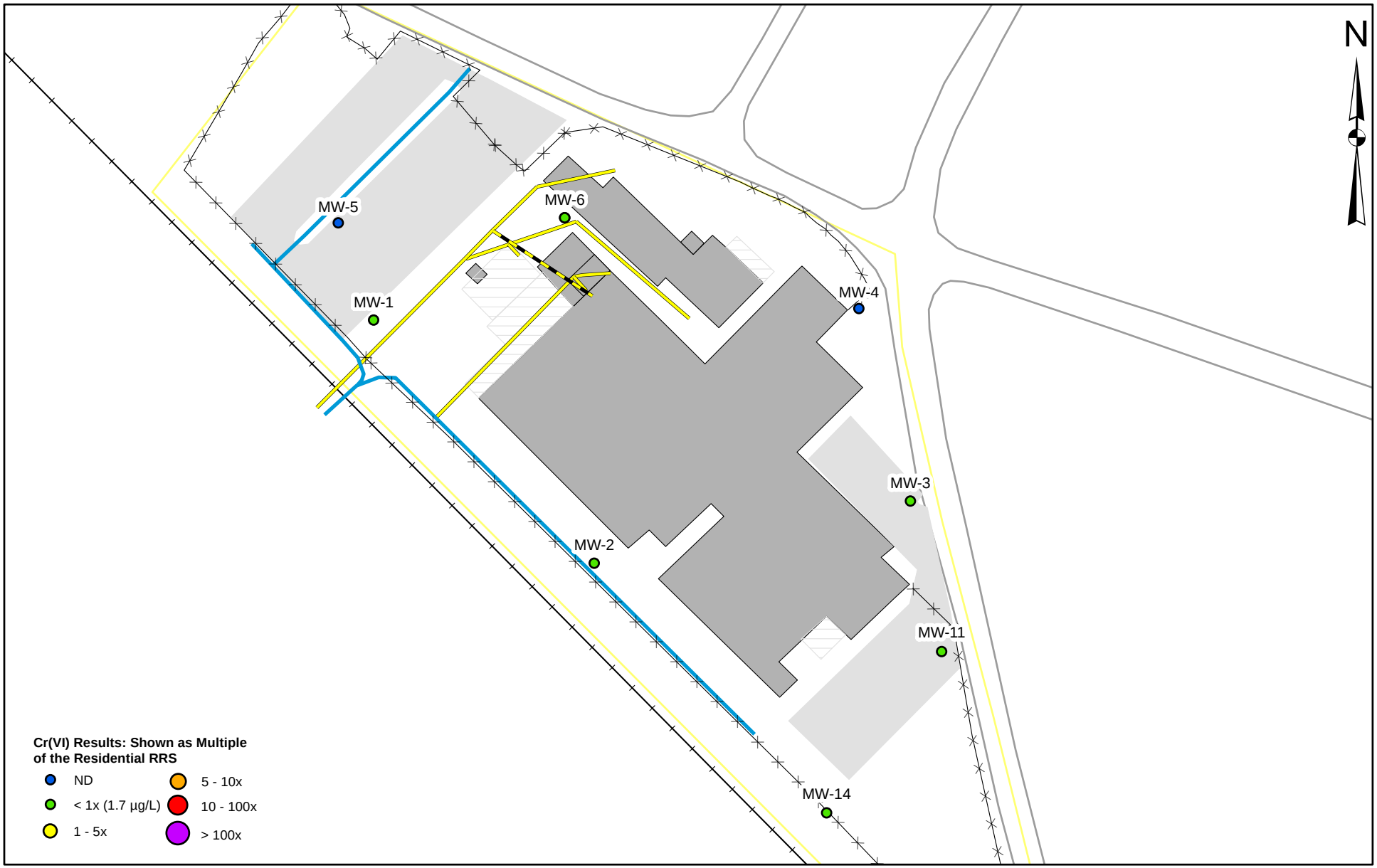
Figure No. 8B



0 75 150
Feet

Legend

- Abandoned Storm Sewer
- Active Storm Drain
- Parking Lot
- Roads
- Fence
- Railroad
- Overhang
- Roper Property Line
- Building
- Facility Drainage Ditch
- Stormwater Outfall

Roper Pump Company
Shallow Groundwater Hexavalent Chromium
(Sampled March 2016)

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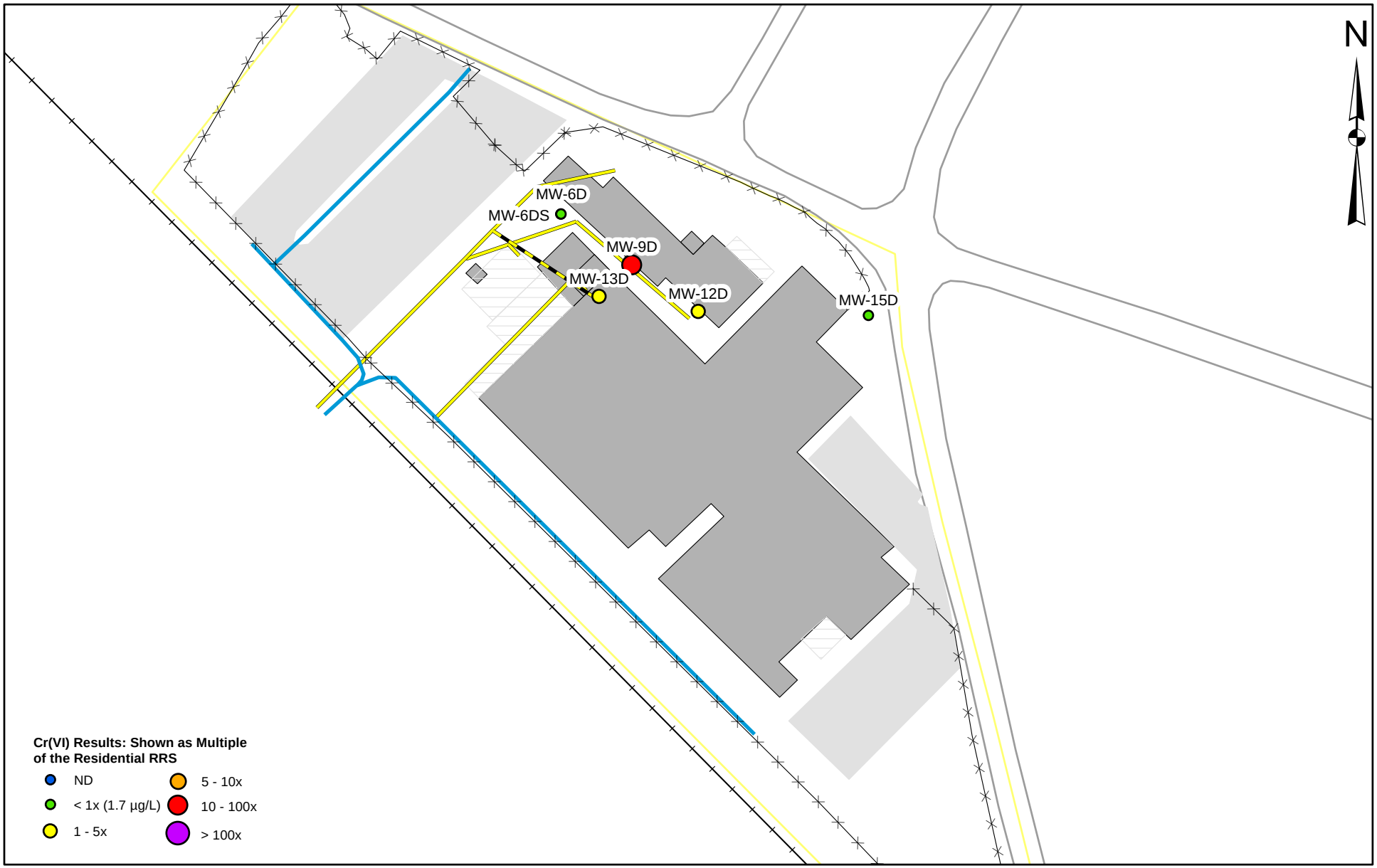
Figure No. 9A



0 75 150
Feet

Legend

- Abandoned Storm Sewer
- Active Storm Drain
- Parking Lot
- Roads
- Fence
- Railroad
- Overhang
- Roper Property Line
- Building
- Facility Drainage Ditch
- Stormwater Outfall

Roper Pump Company
Deep Groundwater Hexavalent Chromium
(Sampled March 2016)

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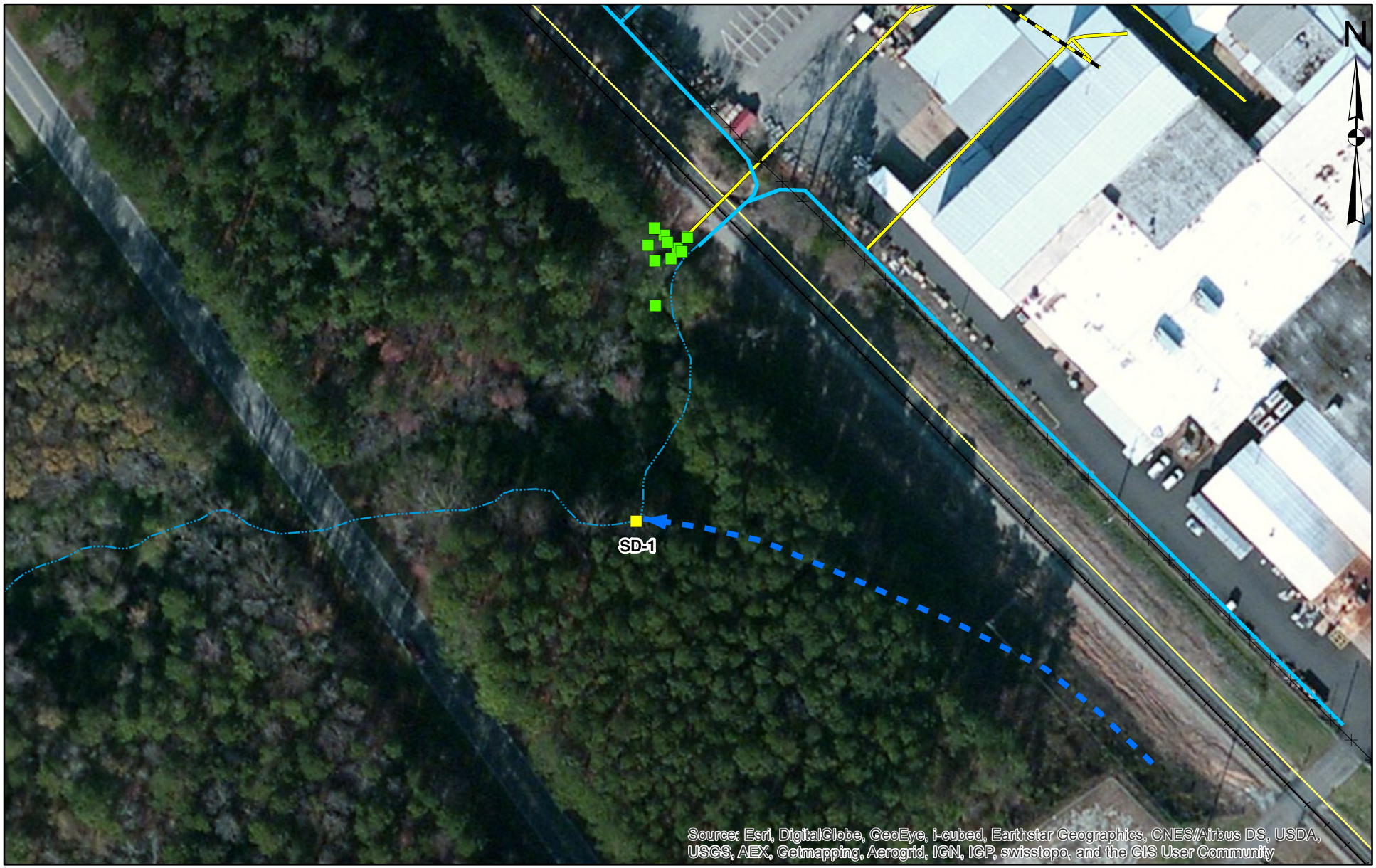
Figure No. 9B



0 50 100
Feet

Legend

- Abandoned Storm Sewer
- Storm Drain
- Fence
- Railroad
- Roper Property Line
- Drainage Ditch
- Stream (intermittent)
- Stormwater Flow

Soil/Sediment Sample Locations

- Sampled during current reporting period
- Prior Characterization Sample

Roper Pump Company
Ecological Assessment Locations

EPS
F:\Roper_Pump\GIS_Projects\VRP_April2016ProgRep

Figure No. 10

0 150 300
Feet

Legend

- Roper Property Line
- Existing Monitoring Well
- Proposed Horizontal Delineation Well

Roper Pump Company
Proposed Delineation Wells

Environmental Planning Specialists, Inc.
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Figure No.11

TABLES

Table 1
Monitoring Well Construction Data and Groundwater Elevations
Roper Pump Company
Commerce, Georgia

Well ID	Well Completion Date	Water Level Measurment Date	Well Screened Interval (ft-bgs)	Well TOC Elevation (ft-NGVD)	Total Well Depth (ft-bgs)	Depth to Water (ft-BTOC)	Potentiometric Elevation (ft-NGVD)
MW-1	2/10/2014	3/2/2016	11.5 - 26.5	895.62	26.5	9.31	886.31
MW-2	2/10/2014	3/2/2016	9.9 - 24.9	896.57	24.9	13.90	882.67
MW-3	2/17/2014	3/2/2016	11.9 - 26.9	901.06	26.9	20.89	880.17
MW-4	2/18/2014	3/4/2016	9.7 - 24.7	899.10	24.7	20.52	878.58
MW-5	2/18/2014	3/2/2016	9.9 - 24.9	898.65	24.9	12.32	886.33
MW-6	2/17/2014	3/3/2016	9.2 - 24.2	898.33	24.2	16.49	881.84
MW-6D	2/14/2014	3/4/2016	33 - 43	898.31	42.85	16.74	881.57
MW-6DS	2/14/2014	3/3/2016	61 - 66	898.25	66.48	16.52	881.73
MW-7	2/18/2014	3/2/2016	9.4 - 24.4	898.12	24.4	NM	NM
MW-8	10/28/2014	3/4/2016	24.5 - 34.5	903.70	34.5	26.00	877.70
MW-9D	10/29/2014	3/2/2016	63.5 - 68.5	898.48	68.5	17.81	880.67
MW-9S	10/29/2014	3/2/2016	16 - 26	898.31	26	NM	NM
MW-10	10/29/2014	3/2/2016	29.5 - 39.5	906.94	39.5	29.21	877.73
MW-11	10/29/2014	3/2/2016	24 - 34	901.31	34	22.00	879.31
MW-12D	8/31/2015	3/3/2016	81.5 - 86.5	898.27	86.5	17.97	880.30
MW-13D	8/28/2015	3/3/2016	64 - 69	898.26	69	17.60	880.66
MW-14	8/27/2015	3/2/2016	25 - 35	899.1	35	18.77	880.33
MW-15D	2/24/2016	3/4/2016	74 - 84	898.10	84	22.25	875.85
MW-16	2/25/2016	3/3/2016	25 - 35	900.87	35	22.22	878.65
MW-17	2/25/2016	3/4/2016	30 - 40	899.92	40	32.11	867.81

ft-bgs = feet below ground surface
TOC = top of casing
ft-NGVD = feet above National Geodetic Vertical Datum
ft-BTOC = feet below top of casing
NM = not measured (due to placement of Bio-Trap (R) sampler in the well)

EPS

Table 2
Summary of VOCs in Groundwater (March 2016)
Roper Pump Company
Commerce, Georgia

Well ID *	Date Sampled	Benzene (µg/L)	cis-1,2-Dichloroethene (µg/L)	Tetrachloroethene (µg/L)	Trichloroethene (µg/L)
Delineation Criteria (Type 1 RRS)		**5**	**70**	**5**	**5**
	Residential RRS	**5.4**	**70**	**19**	**5**
	Industrial RRS	**8.72**	**200**	**98**	**5.2**
MW-1	3/2/2016	<5	<5	<5	<5
MW-2	3/2/2016	<5	<5	<5	<5
MW-3	3/2/2016	<5	<5	<5	**22**
MW-4	3/4/2016	<5	**6.7**	**88.8**	**53.4**
MW-5	3/2/2016	<5	<5	<5	<5
MW-6	3/3/2016	<5	**74.2**	**119**	**23**
MW-6D	3/4/2016	<5	**22.7**	**93.4**	**133**
MW-6DS	3/3/2016	<5	<5	**5.9**	**32.8**
MW-7	March 2016	NM	NM	NM	NM
MW-8	3/4/2016	<5	<5	**46**	**7.1**
MW-9S	March 2016	NM	NM	NM	NM
MW-9D	3/2/2016	<5	<5	<5	**13.9**
MW-10	3/2/2016	<5	<5	<5	<5
MW-11	3/2/2016	**52.6**	<5	**129**	**64.7**
MW-12D	3/3/2016	<5	<5	**35.8**	**140**
MW-13D	3/3/2016	<5	**13.2**	**320**	**1200**
MW-14	3/2/2016	<5	<5	<5	<5
MW-15D	3/4/2016	<5	<5	**1540**	**89**
MW-16	3/3/2016	<5	**5.2**	26.1	**24.9**
MW-17	3/4/2016	<5	**15.5**	**553**	**158**

µg/L = micrograms per liter
RRS = Risk Reduction Standard
NM = not measured (due to placement of Bio-Trap (R) sampler in the well)

EPS

Table 3
Summary of Hexavalent Chromium in Groundwater (March 2016)
Roper Pump Company
Commerce, Georgia

Sample ID	Date Sampled	Hexavalent Chromium (mg/L)
	Residential RRS	**1.7**
	NonResidential RRS	**5.7**
MW-1	3/2/2016	**0.045**
MW-2	3/2/2016	**0.059**
MW-3	3/2/2016	**0.09**
MW-4	3/4/2016	**0.018**
MW-5	3/2/2016	ND
MW-6	3/3/2016	**0.14**
MW-6D	3/4/2016	**0.19**
MW-6DS	3/3/2016	**0.24**
MW-7	March 2016	NM
MW-9S	March 2016	NM
MW-9D	3/2/2016	**18.2**
MW-11	3/2/2016	**0.21**
MW-12D	3/3/2016	**5.3**
MW-13D	3/3/2016	**2.6**
MW-14	3/2/2016	**1.2**
MW-15D	3/4/2016	**0.15**

µg/L: micrograms per liter
RRS: Risk Reduction Standard
ND: Non-Detect
NM = not measured (due to placement of Bio-Trap (R) sampler in the well)

Table 4.
Comparison of Soil/Sediment Results from the Ditch to Ecological Screening Values
Roper Pump Company
Commerce, Georgia

Parameter	Number of Samples	Range of Detected Concentrations (mg/kg)	Average (mg/kg)	Median (mg/kg)	HSRA Table 2* (mg/kg)	Region 4 Sediment Ecological Screening Value (mg/kg)	Region 4 Soil Effects Value (mg/kg)	Region 5 Sediment Ecological Screening Level (mg/kg)	Region 5 Soil Ecological Screening Level (mg/kg)
Arsenic	11	2.7 - 20	5.8	3.2	20	7.2	10	9.79	5.7
Barium	10	16 - 52	27	23	1000		165		1.0
Cadmium	11	2.2	1.5	1.5	2.0	1	1.6	0.99	0.0022
Chromium	11	22 - 53	35	31	100	52.3	0.4		
Lead	11	14.5 - 76	38	25	75	30.2	50	35.8	0.054
Mercury	11	0.087 - 0.23	0.08	0.06	0.5	0.13	0.1	0.174	0.10

* Hazardous Site Response Act - Table 2 of Appendix III

APPENDIX A

Professional Geologist Summary of Hours

Environmental Planning Specialists, Inc.
Roper Pump PG Hours (Justin Vickery)
October 2015 through March 2016

	Oct 15	Nov 15	Dec 15	Jan 16	Feb 16	Mar 16	TOTAL
Roper Pump Company:Site Remediation:April 2016 Progress Report							
A-Associate:A-Document Preparation	0.00	0.00	0.00	0.00	0.00	5.50	5.50
Total Roper Pump Company:Site Remediation:April 2016 Progress Report	0.00	0.00	0.00	0.00	0.00	5.50	5.50
Roper Pump Company:Site Remediation:General Consulting							
A-Associate:A-Document Preparation	0.00	3.25	0.00	4.00	0.00	0.00	7.25
A-Associate:A-Meeting	0.00	0.00	3.50	0.00	0.00	0.00	3.50
A-Associate:A-Planning / Preparation	0.00	19.25	0.00	0.50	0.00	0.00	19.75
A-Associate:A-Project Management	5.25	2.75	6.50	1.25	0.25	0.50	16.50
A-Associate:A-Project Support	0.00	0.00	0.00	3.25	0.25	0.00	3.50
A-Associate:A-Teleconference	0.00	0.00	0.00	0.50	0.00	0.00	0.50
Total Roper Pump Company:Site Remediation:General Consulting	5.25	25.25	10.00	9.50	0.50	0.50	51.00
Roper Pump Company:Site Remediation:GW Sampling Event							
A-Associate:A-Data Evaluation	0.00	0.00	0.00	0.00	0.00	2.50	2.50
A-Associate:A-Planning / Preparation	0.00	0.00	0.00	0.00	5.75	0.00	5.75
A-Associate:A-Project Management	0.00	0.00	0.00	0.00	0.00	12.00	12.00
Total Roper Pump Company:Site Remediation:GW Sampling Event	0.00	0.00	0.00	0.00	5.75	14.50	20.25
Roper Pump Company:Site Remediation:Monitoring Well Installation							
A-Associate:A-Planning / Preparation	0.00	0.00	1.00	0.00	3.00	0.00	4.00
A-Associate:A-Project Management	0.00	0.00	3.75	1.50	8.00	5.25	18.50
Total Roper Pump Company:Site Remediation:Monitoring Well Installation	0.00	0.00	4.75	1.50	11.00	5.25	22.50
Roper Pump Company:Site Remediation:Sediment Sampling and Eco Screening							
A-Associate:A-Project Management	0.00	0.00	0.00	0.00	0.00	0.25	0.25
Total Roper Pump Company:Site Remediation:Sediment Sampling and Eco Screening	0.00	0.00	0.00	0.00	0.00	0.25	0.25
TOTAL	**5.25** TOT	**25.25** TOT	**14.75** TOT	**11.00** TOT	**17.25** TOT	**26.00** TOT	**99.50**

APPENDIX B

Milestone Schedule

PROJECTED MILESTONE SCHEDULE
Roper Pump Company
Commerce, Georgia

Task Name	2015			2016				2017				2018				2019				2020
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
VRP Enrollment (approval)	X																			
On-Property Horizontal Groundwater Delineation				X																
On-Property Vertical Delineation																				
Off-Property Horizontal Groundwater Delineation																				
Apply to Include Off-Site Properties In VRP																				
Semi-Annual Progress Reports			X		X															
Updated CSM, Final Remdiation Plan, and Preliminary Cost Estimate																				
Remedial Activities																				
Compliance Status Report																				

Notes: Planned Activity
Reporting Period Progress Complete
X Completed Activity

EPS

APPENDIX C

Conceptual Site Model
Update to Hydrogeologic Cross Sections

C1 UPDATED CONCEPTUAL SITE MODEL

C1.1 Overview

A conceptual site model ("CSM") is intended to establish a common understanding about the Site and its environmental condition, to facilitate the development of remedial action objectives, and to allow an informed decision regarding possible remedial action measures. A preliminary CSM was presented in the VRP Application, which has been updated herein to capture additional information gathered since the time of the application. The preliminary CSM discussed all elements common to the CSM including: (i) the surface and subsurface features at the Site, (ii) nature and extent of the environmental condition, (iii) fate and transport characteristics of chemicals of concern at the Site, and (iv) potential receptors and exposure pathways. This update to the CSM is limited to the Site hydrogeologic characteristics (a component of item i above).

C1.2 Updates to the Subsurface Features of the Site

C1.2.1 Site Geologic and Hydrogeologic Setting

Soils in the Piedmont, such as at the Site, are derived from underlying metamorphic rocks through weathering, disintegration, and decay where the predominant metamorphic rocks are gneisses and schists. According to the NRSC Soil Survey available via the internet, the Site contains predominantly Cecil sandy loam derived primarily from fine to coarse grained gneisses followed by hornblende and tale schists.

It is customary in describing the hydrogeologic setting in Piedmont geology to describe the downward weathering progression in the context of texture, mineralogy and density (or resistance to drilling) as follows:

- Residuum (soil) – generally dominated by clay (oxidized orange) with no relict bedrock texture to typical depth of up to 10 feet ("ft") below ground surface ("bgs"); relative permeability low
- Saprolite – soil with relict rock texture retained; clay-bearing silt or sand with some rock fragments to typical depth of 45ft-bgs or more; relative permeability medium
- Partially weathered rock ("PWR") – highly variable texture from saprolitic to rock-like typically 5 to 15ft. in thickness; defined on basis of "blow counts" as N value > 50 by most geotechnical engineers (and the depth of drilling refusal using hollow-stem auger rotary drilling); relative permeability high; and
- Rock – not weathered therefore no component or clay or other unconsolidated soil; relative permeability low to medium.

Groundwater in the Piedmont Province occurs under unconfined conditions where the potentiometric surface mimics the ground surface topography. Along topographically low areas, the water table typically occurs within the soil to saprolite portions of the hydrogeological profile. Along topographically high areas, the water table often occurs in underlying crystalline bedrock. The saprolite portion of the hydrogeological system generally contains significantly more fluid compared to the same volume of bedrock. The crystalline bedrock exhibits essentially no primary porosity/permeability and relies upon secondary permeability features such as fractures and faults for the transmission and storage of groundwater. These secondary permeability features generally are not abundant and of a relatively small apertures, which limits the amount of fluid flowing through the bedrock.

Permeability differences in Piedmont lithology have been shown to differ significantly between partially weathered rock and consolidated bedrock. Sowers and Richardson (1983) show partially weathered rock permeability ranging from 10^{-1} to 10^{-5} cm/sec and consider bedrock to be impervious. Therefore, any portion of the groundwater plume migrating into bedrock fractures at the Site is expected to be minimal and is not expected to migrate any significant distance within the bedrock. Furthermore, remediation and vertical delineation in bedrock at the Site would be technically impracticable as the incremental expenditures would be disproportionate to the incremental benefit due to the nature of Piedmont bedrock.

EPS conducted a thorough review of all boring logs for the Site as part of the work to complete this CSM update. Most of the deep soil borings and many of the borings for monitoring well installation were drilling by direct-push technology with a macrocore sampler for lithology identification. This drilling technology does not create the same down-force penetration as conventional rotary drilling and reaches drilling refusal at shallower depths, potentially mis-interpreting where PWR and top of rock are encountered. Many of the boring logs from the direct-push drilling logged PWR as shallow as 10 ft-bgs. However, in comparing these logs with those from rotary drilling where blow counts were recorded, it is apparent what was described as PWR was actually saprolite. Two rotary-drilled borings recorded blow counts in excess of 50, well MW-9D at 65 ft.-bgs and well MW-15D at 72 ft.-bgs.

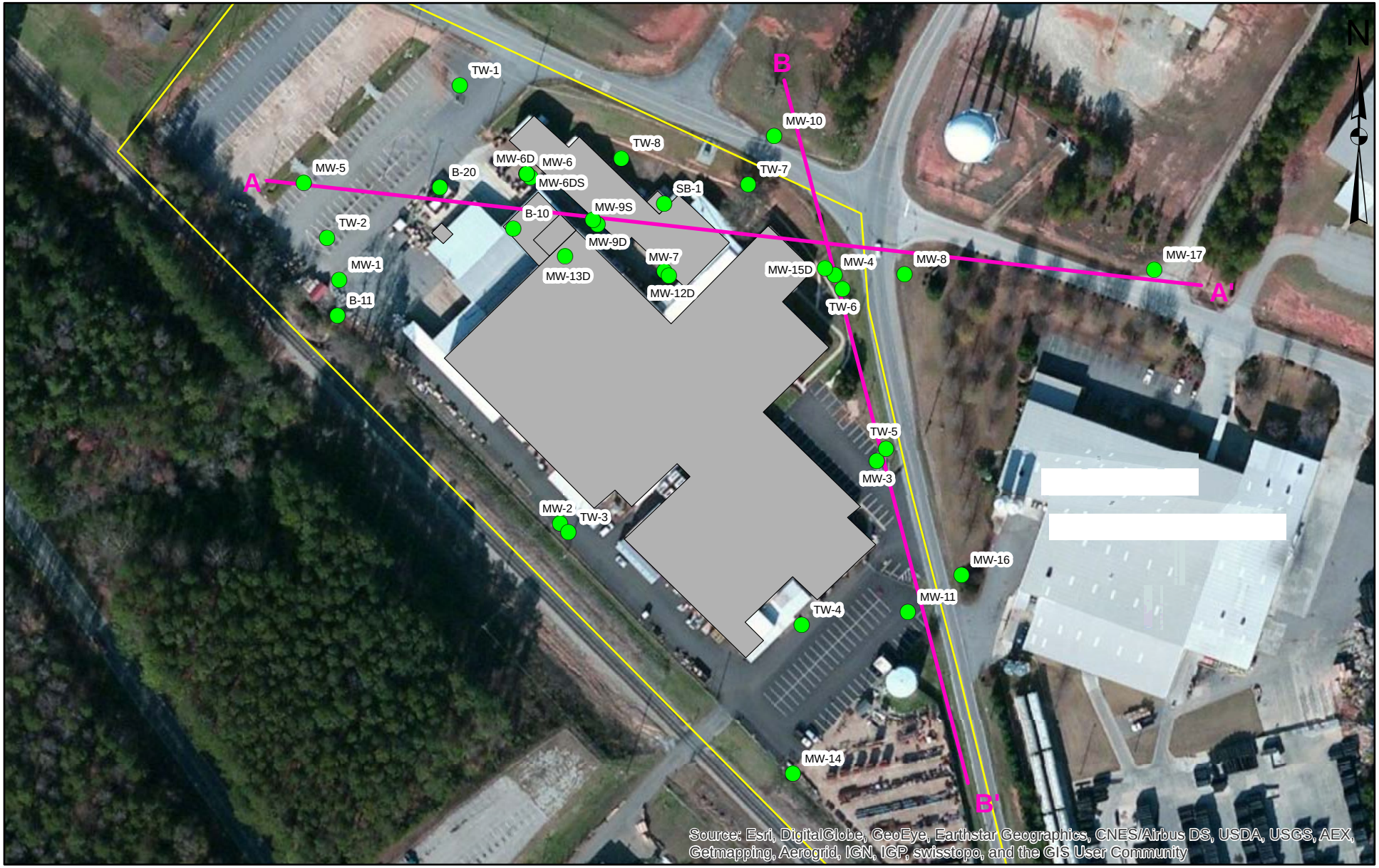
Hydrogeologic cross sections have been updated for a west-east orientation (A-A', in the direction of groundwater flow) and north-south orientation (B-B', perpendicular to the direction of groundwater flow, along the eastern property line of the Site, as shown in Figure C-1. Updates to the hydrogeological cross sections are presented on Figure C-2 (A-A') and Figure C-3 (B-B'). Monitoring well installation details (i.e., screened intervals) and constituents of interest detections are also shown on the cross sections.

C1.2.2 Groundwater Direction and Flow Velocity

Depth to groundwater typically ranges between approximately 18 to 22 ft.-bgs for the Site. The groundwater flow direction has been interpreted to be in an easterly/southeasterly direction with a hydraulic gradient of approximately 0.015 ft./ft. and steepening gradient indicated by the recent off-Site well installations.

Hydraulic conductivity in the shallow wells has been tested from standard slug test methods, with values as follows: 1.3 x 10^{-4} cm/s (MW-1); 1.5 x10^{-4} (MW-2); 3.3 x 10^{-5} (MW-5); and 2.1 x 10^{-4} cm/s (MW-6). These values are typical of Piedmont saprolite. Deeper monitoring wells screened in PWR have not been hydraulically tested but it is expected the hydraulic conductivity is higher for this zone.

Groundwater velocity at the Site was calculated using the range of hydraulic conductivity from the slug test results (2.1 x 10^{-4} cm/s to 1.5 x10^{-4}) and the average hydraulic gradient (0.015 ft./ft.). Effective porosity was assumed to be 20%. Groundwater velocity is calculated to range from 2.5 to 16 ft./year.



0 37.5 75 150
Feet

Legend

- Boring Location
- Cross Section
- Property Line

Roper Pump Company
Cross Section Locations

EPS
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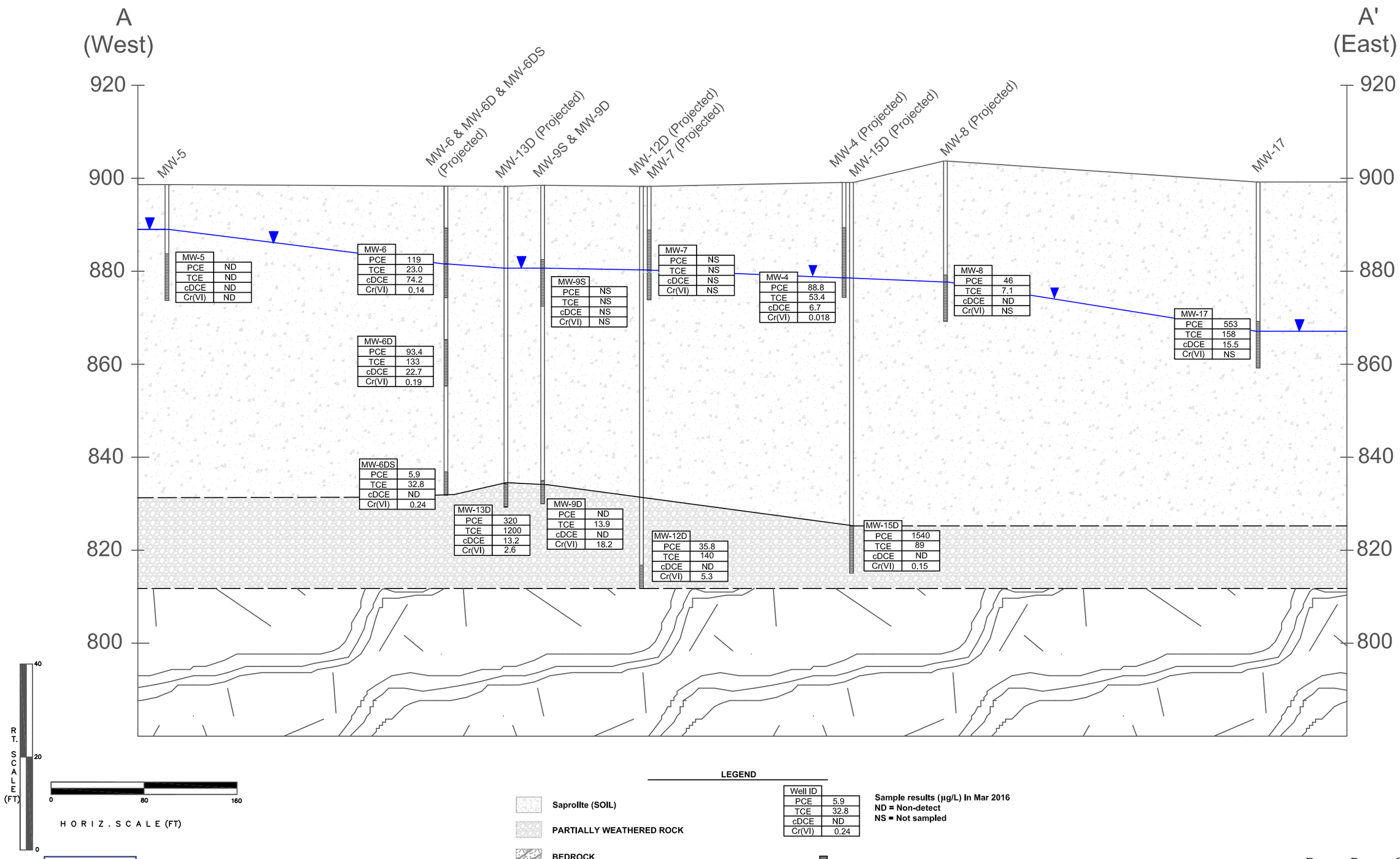
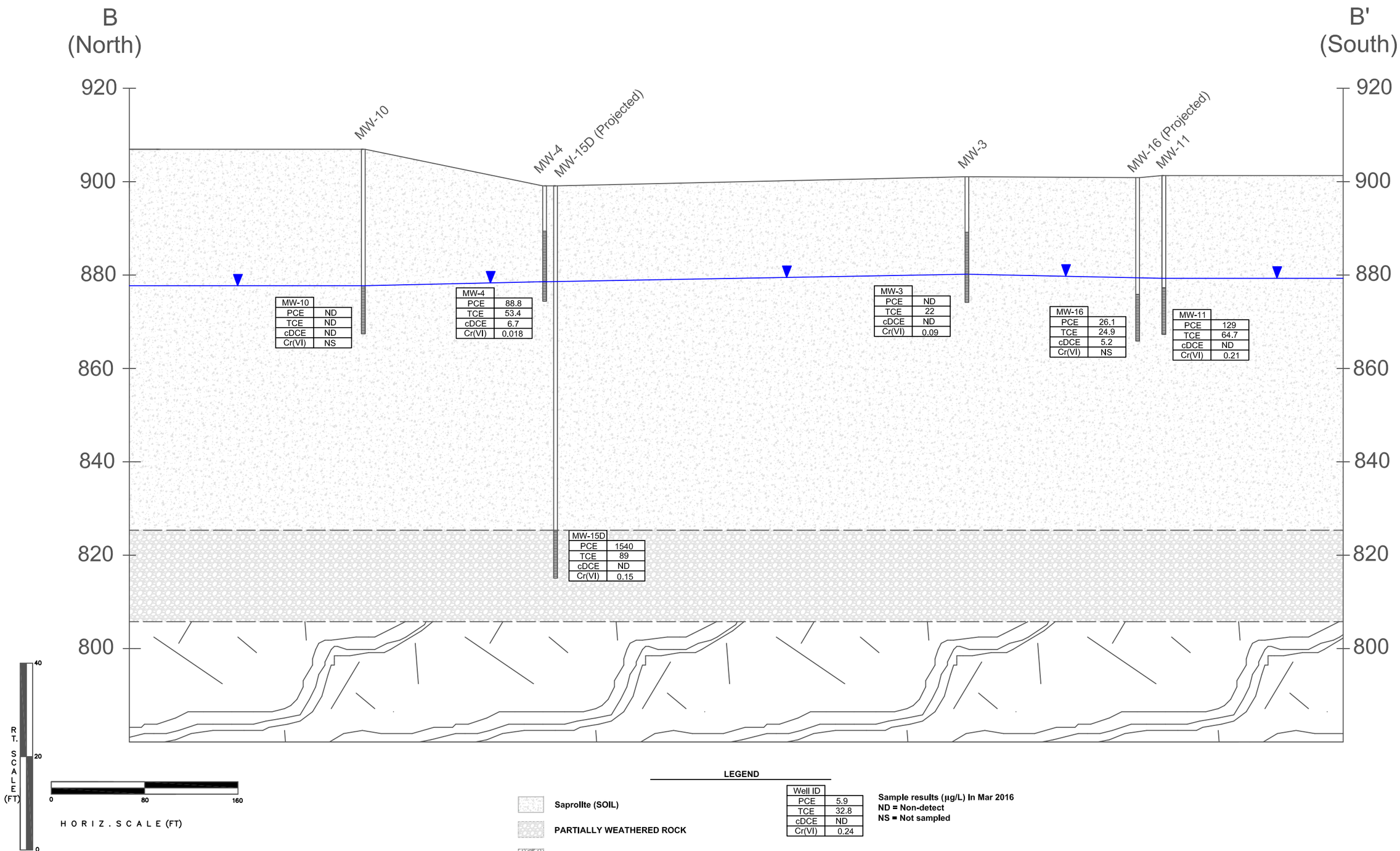
Figure No. C-1



F:\Roper_Pump\1 Reports\IVRP Progress Reports\2016 April\App C CSM\CMS Figures\Fig C-2 Cross Section A-A' (parallel to axis).dwg

Roper Pump Company
Cross Section A - A'

Figure No. C-2



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Roper Pump Company
Cross Section B - B'

Figure No. C-3

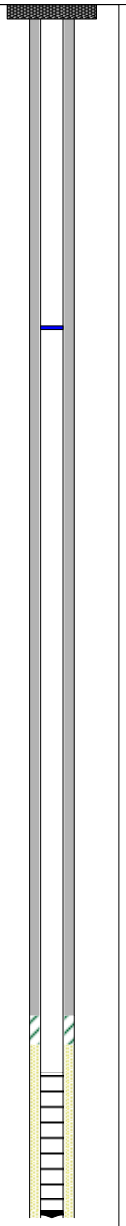
APPENDIX D

Boring Logs and Well Construction Information

PROJECT: **Roper Pump**	**Log of Boring No. MW-15D**	
SITE LOCATION: Roper Pump	TOP OF CASING ELEVATION (ft): 899.16	
DRILLING CONTRACTOR: Geo-lab	DATE STARTED: 2/24/2016	DATE FINISHED: 2/24/2016
DRILLING METHOD: Rotary Auger	TOTAL DEPTH (ft.): 84	SCREEN INTERVAL (ft.): 74-84
DRILLING EQUIPMENT: CME	DEPTH TO WATER AT TIME OF BORING (ft.): NM	CASING (ft.): 0-84
SAMPLING METHOD: Split spoon	BOREHOLE DIAMETER (In.): 4.25	WELL DIAMETER (In.): 2
LOGGED BY: Sofie Weber-Snapp		

Ground Surface Elevation (ft): N/A

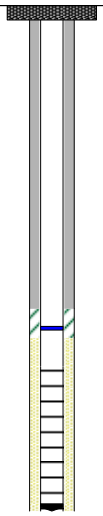
DEPTH (feet)	SAMPLES Sample No. Location	SAMPLES Blows/ Foot	PID Reading	DESCRIPTION	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
0	4-5-6			Grass, rootmass, brown top soil	
				Red clay	
5	3-4-4			Red, orange clay	
10	4-4-6			White, tan saprolite	
15	3-2-4			White, tan saprolite with orange clay	
20	2-2-2			Red, orange clay, some saprolite	Depth to water on 3/4/2016: 22.25
25	3-4-5				
30	3-4-6			Pink, white saprolite, coarse	
35	4-6-8			Saturated red clay	
				Wet brown sand	
40	7-11-13			White, pink saprolite, coarse	
45	9-13-22			Gray, white saprolite, coarse	
50	9-11-13				
55	10-16-17			Orange clay with white, coarse, saprolite	
				Orange clay with coarse, saprolite	
60	6-11-13			White saprolite, coarse, some sand	
65	15-16-17			White saprolite, coarse	
70	50/3			White weathered rock, coarse	
75	50/1				
80				No recovery	Refusal at 84 ft bgs.
85					



EPS

PROJECT: **Roper Pump**	**Log of Boring No. MW-16**	
SITE LOCATION: Roper Pump	TOP OF CASING ELEVATION (ft): 900.87	
DRILLING CONTRACTOR: Geo-lab	DATE STARTED: 2/25/2016	DATE FINISHED: 2/25/2016
DRILLING METHOD: Hollow Stem Auger	TOTAL DEPTH (ft.): 35	SCREEN INTERVAL (ft.): 25-35
DRILLING EQUIPMENT: Geoprobe	DEPTH TO WATER AT TIME OF BORING (ft.): NM	CASING (ft.): 0-35
SAMPLING METHOD: Macrocore liner	BOREHOLE DIAMETER (In.): 4.25	WELL DIAMETER (In.): 2
LOGGED BY: Sofie Weber-Snapp		

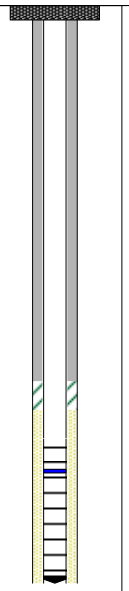
DEPTH (feet)	SAMPLES: Sample No. Location	SAMPLES: Blows/ Foot	PID Reading	DESCRIPTION (Ground Surface Elevation (ft): N/A)	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
0				Grass, top soil	
				Top soil, gravel	
5				Red, orange clay	
10				Tan, white saprolite with red orange clay	
15				Red, brown sand	
20				White, gray saprolite	
				Red, brown sand with white saprolite	Depth to water on 3/4/2016: 22.22
25				White, gray saprolite	
				Red, orange clay with pink purple sand, saturated	
30				Tan sand, saturated	
35				White, gray saprolite	
				Tan sand	
40				White, gray saprolite	Boring terminated at 40 ft bgs.
45					
50					
55					
60					
65					
70					
75					
80					
85					



EPS

PROJECT:	Roper Pump	Log of Boring No.	MW-17
SITE LOCATION:	Roper Pump	TOP OF CASING ELEVATION (ft):	899.92
DRILLING CONTRACTOR:	Geo-lab	DATE STARTED: 2/25/2016	DATE FINISHED: 2/25/2016
DRILLING METHOD:	Hollow Stem Auger	TOTAL DEPTH (ft.): 40	SCREEN INTERVAL (ft.): 30-40
DRILLING EQUIPMENT:	Geoprobe	DEPTH TO WATER AT TIME OF BORING (ft.): NM	CASING (ft.): 0-40
SAMPLING METHOD:	Macrocore liner	BOREHOLE DIAMETER (In.): 4.25	WELL DIAMETER (In.): 2
LOGGED BY:	Sofie Weber-Snapp		

DEPTH (feet)	SAMPLES: Sample No. Location	SAMPLES: Blows/ Foot	PID Reading	DESCRIPTION (Ground Surface Elevation (ft): N/A)	WELL CONSTRUCTION DETAILS AND/OR DRILLING REMARKS
0				Gravel, grass	
5				Red, orange clay	
10				White, gray saprolite	
				Brown, tan sand, some red clay	
15				Red, brown sand	
20				Red, brown sand with white gray saprolite	
25				Brown sand with white, gray saprolite	
30				Brown sand with white, gray saprolite	Depth to water on 3/4/2016: 32.11
				White, gray saprolite	
35				White, gray coarse saprolite	
40					Boring terminated at 40 ft bgs.
45					
50					
55					
60					
65					
70					
75					
80					
85					



EPS

APPENDIX E

Monitoring Well Sampling Forms

EPS

Monitoring Well Sampling Form

EPS Project: ROPER **Date:** 3/2/16

Well ID: MW4 **Field Conditions:** 40F, CLOUDY
Sampling Performed By: AT, MWG
Well Construction: FLUSH **General Condition of Well:** GOOD
Well Labeled: NO **Well Cap:** ✓ **Well Locked:** ✓ **Condition of surrounding area:** GOOD
Well depth from TOC: 26.5 **Depth to Water from TOC:** 9.31
Well Diameter (in): 2" **Method of measure:** WATER LEVEL METER
Height (Ht) of water in well (Well depth from TOC - Static level from TOC): 17.19
Volume of water in well (Ht. x(.16 for 2")(.653 for 4")(1.469 for 6"): 2.75 **Three Well Volumes (gal):** 8.25
Purging Method: low flow / low volume **Time @ Start of Purge:** 0730
Sample Method: low flow / straw **Sample Parameters:** VOC, Hex. Chromium

Time	Volume (gal)	Temp (oC)	pH	Cond. (mS/cm)	DO (mg/L)	Turbidity (NTU)	ORP (mV)	WATER LEVEL	Comments
0800	1.0	13.78	4.42	0.055	6.65	29.3	411	~~10~~ 9.41	
0815	1.5	13.54	4.46	0.053	6.48	25.0	418	9.40	
0829	2.5	13.53	4.46	0.051	6.58	22.9	422	9.41	CLEANED OUT HORIBA
0851	3.5	15.49	4.45	0.046	6.50	11.3	432	9.42	
0912	4.5	15.03	4.47	0.044	6.38	9.67	439	9.44	
~~0920~~	~~5.0~~ WT								
0940	5.5	15.84	4.48	0.044	6.32	7.99	440	9.46	

Sample ID: 16062-MW-1 Time Collected: 0945 Technician Signature: M. Weber-Goehr

1315 Hex. Chromium

EPS

Monitoring Well Sampling Form

EPS Project: ROPER **Date:** 3/2/16

Well ID: MW-2 **Field Conditions:** 46F, SUN
Sampling Performed By: AT, MWG
Well Construction: FLUSH **General Condition of Well:** GOOD
Well Labeled: NO **Well Cap:** ✓ **Well Locked:** ✓ **Condition of surrounding area:** GOOD
Well depth from TOC: 24.9 **Depth to Water from TOC:** 13.90
Well Diameter (in): 2" **Method of measure:** WATER LEVEL
Height (Ht) of water in well (Well depth from TOC - Static level from TOC): 11
Volume of water in well (Ht. x(.16 for 2")(.653 for 4")(1.469 for 6"): 1.76 **Three Well Volumes (gal):** 5.28
Purging Method: low flow/low volume **Time @ Start of Purge:** 1040
Sample Method: low flow/straw **Sample Parameters:** VOC, Hex. Chromium

Time	Volume (gal)	Temp (oC)	pH	Cond. (mS/cm)	DO (mg/L)	Turbidity (NTU)	ORP (mV)	WATER LEVEL	Comments
1100	0.75							14.06	
1110	1.0	17.52	5.62	0.056	4.22	1.74	513	14.05	
1120	1.25	17.97	5.61	0.056	4.12	1.40	512	14.05	
1130	1.75	18.19	5.60	0.056	3.96	1.20	513	14.06	
1140		18.45	5.58	0.056	4.10	1.15	514	14.07	

Sample ID: 16062-MW-2 Time Collected: 1145 Technician Signature: M. Weber Goehe

1350 Hex. Chromium

EPS

Monitoring Well Sampling Form

EPS Project: ROPER **Date:** 3/2/16

Well ID: MW-3 **Field Conditions:** 50F, SUN
Sampling Performed By: AT, MWG
Well Construction: FLUSH **General Condition of Well:** GOOD
Well Labeled: NO **Well Cap:** ✓ **Well Locked:** **Condition of surrounding area:** GOOD
Well depth from TOC: 26.9 **Depth to Water from TOC:** 20.89
Well Diameter (in): 2" **Method of measure:** WATER LEVEL
Height (Ht) of water in well (Well depth from TOC - Static level from TOC): 6.01
Volume of water in well (Ht. x(.16 for 2")(.653 for 4")(1.469 for 6"): 0.96 **Three Well Volumes (gal):** 2.88
Purging Method: low flow/low volume **Time @ Start of Purge:** 1440
Sample Method: low flow/straw **Sample Parameters:** VOC, Hex. Chromium

Time	Volume (gal)	Temp (oC)	pH	Cond. (mS/cm)	DO (mg/L)	Turbidity (NTU)	ORP (mV)	water level (ft. bgs) Comments
1515	0.5	18.72	4.91	0.062	4.96	0.39	536	21.59
1525	0.75	19.11	4.86	0.062	3.62	0.00	535	21.61 * purging @ slowest possible rate
1535	1.0	19.30	4.81	0.061	3.53	0.00	529	21.62
1545	1.25	19.64	4.79	0.061	3.40	0.00	527	21.64
1600	1.5	19.74	4.78	0.061	3.21	0.00	528	

Sample ID: 16062-MW-3 Time Collected: 1602 Technician Signature M. Weber-Goehe

EPS

Monitoring Well Sampling Form

EPS Project: ROPER **Date:** 3/4/16

Well ID: MW-4 **Field Conditions:** 40F, ~~GOOD~~ MUD SUN

Sampling Performed By: AT, MWG

Well Construction: FLUSH **General Condition of Well:** GOOD

Well Labeled: NO **Well Cap:** ✓ **Well Locked:** ✓ **Condition of surrounding area:** GOOD

Well depth from TOC: 24.7 **Depth to Water from TOC:** 20.52

Well Diameter (in): 2" **Method of measure:** WATER LEVEL

Height (Ht) of water in well (Well depth from TOC - Static level from TOC): 4.18

Volume of water in well (Ht. x(.16 for 2")(.653 for 4")(1.469 for 6"): 0.67 **Three Well Volumes (gal):** 2.0

Purging Method: low flow/low volume **Time @ Start of Purge:** 0820

Sample Method: low flow/straw **Sample Parameters:** VOC, Hex Chromium

Time	Volume (gal)	Temp (oC)	pH	Cond. (mS/cm)	DO (mg/L)	Turbidity (NTU)	ORP (mV)	WATER LEVEL	Comments
0830	0.25	8.98	4.75	0.057	6.22	0	474	21.11	
0850	0.75	9.85	4.72	0.055	5.49	0	484	21.19	
0900	1.00	12.88	4.62	0.044	3.92	0	505	21.22	
0915	1.75	14.10	4.62	0.042	3.96	0	510	21.25	
0927	2.5	15.12	4.62	0.042	3.77	0	513	21.29	

Sample ID: 16064-MW-4 Time Collected: 0930 Technician Signature: M. Weber-Goeke

1315 Hex Chromium

EPS

Monitoring Well Sampling Form

EPS Project: ROPER **Date:** 3/2/16

Well ID: MW-5 **Field Conditions:** 40F, CLOUDY
Sampling Performed By: AT, MWG
Well Construction: FLUSH **General Condition of Well:** GOOD
Well Labeled: NO **Well Cap:** ✓ **Well Locked:** ✓ **Condition of surrounding area:** GOOD
Well depth from TOC: 24.9 **Depth to Water from TOC:** 12.32
Well Diameter (in): 2" **Method of measure:** WATER LEVEL
Height (Ht) of water in well (Well depth from TOC - Static level from TOC): 12.58
Volume of water in well (Ht. x(.16 for 2")(.653 for 4")(1.469 for 6"): 2.01 **Three Well Volumes (gal):** 6.04
Purging Method: low flow/low volume **Time @ Start of Purge:** 0740
Sample Method: low flow/straw **Sample Parameters:** VOC, Hex Chromium

Time	Volume (gal)	Temp (oC)	pH	Cond. (mS/cm)	DO (mg/L)	Turbidity (NTU)	ORP (mV)	WATER LEVEL Comments
0800	0.75							13.96
0812	1.0	14.33	5.19	0.039	6.68	5.31	470	
0826	1.5	16.40	5.13	0.031	5.71	3.03	509	14.36
0852	3.0	16.93	5.01	0.029	4.86	1.79	531	14.57 pump set at lowest rate
0910	3.5	16.76	5.00	0.027	4.36	1.22	535	14.59
0950	5.0	17.24	5.00	0.028	4.28	0.59	532	14.62

Sample ID: 16062-MW-5 Time Collected: 0953 Technician Signature: M. Weber-Goeh
1320 Hex. Chromium

Monitoring We Sampling Form

EPS

EPS Project: Roper **Date:** 3/3/16

Well ID: MW-6 **Field Conditions:** SUN, 40F
Sampling Performed By: AT, MWG
Well Construction: FLUSH **General Condition of Well:** GOOD
Well Labeled: **Well Cap:** ✓ **Well Locked:** ✓ **Condition of surrounding area:** GOOD
Well depth from TOC: 24.2 **Depth to Water from TOC:** 16.49
Well Diameter (in): 2" **Method of measure:** WATER LEVEL
Height (Ht) of water in well (Well depth from TOC - Static level from TOC): 7.71
Volume of water in well (Ht. x(.16 for 2")(.653 for 4")(1.469 for 6"): 1.23 **Three Well Volumes (gal):** 3.7
Purging Method: low flow / low volume **Time @ Start of Purge:** 0830
Sample Method: low flow / straw **Sample Parameters:** VOC, Hex. Chromium

Time	Volume (gal)	Temp (oC)	pH	Cond. (mS/cm)	DO (mg/L)	Turbidity (NTU)	ORP (mV)	WATER LEVEL	Comments
0835	0.25	15.22	4.80	0.108	7.80	41.7	484	16.72	
0850	0.75	16.93	4.87	0.087	7.55	8.07	504	16.79	
0905	1.25	16.95	4.94	0.087	7.30	4.02	507	16.81	
0920	2.5	17.22	4.86	0.089	7.14	2.01	516	16.81	
0930	3.0	17.52	4.89	0.091	6.76	2.01	516		

Sample ID: 16063-MW-6 Time Collected: 0935 Hex. Chromium 1407 Technician Signature M. Weber-Gaeta
16063-DUP-1 1000 1415

EPS

Monitoring Well Sampling Form

EPS Project: ROPER **Date:** 3/4/16

Well ID: MW-6D **Field Conditions:** 40F, SUN

Sampling Performed By: AT, MWG

Well Construction: FLUSH **General Condition of Well:** GOOD

Well Labeled: ~~NO~~ YES **Well Cap:** ✓ **Well Locked:** ✓ **Condition of surrounding area:** GOOD

Well depth from TOC: 42.85 **Depth to Water from TOC:** 16.74

Well Diameter (in): 2" **Method of measure:** WATER LEVEL

Height (Ht) of water in well (Well depth from TOC - Static level from TOC): 26.11

Volume of water in well (Ht. x(.16 for 2")(.653 for 4")(1.469 for 6"): 4.18 **Three Well Volumes (gal):** 12.53

Purging Method: low flow/low volume **Time @ Start of Purge:** 0804

Sample Method: low flow/straw **Sample Parameters:** VOC, Hex Chromium

Time	Volume (gal)	Temp (oC)	pH	Cond. (mS/cm)	DO (mg/L)	Turbidity (NTU)	ORP (mV)	WATER LEVEL	Comments
0832	1.0	17.04	5.12	0.043	4.34	0	359	19.27	pump set at lowest rate.
0842	1.25	16.16	5.27	0.043	3.94	0	364	18.89	
0902	2.0	16.96	5.36	0.043	4.05	0	361	18.94	
0912	2.25	16.97	5.39	0.043	3.86	0	360	18.90	
0922	2.75	17.05	5.40	0.043	3.74	0	359	18.90	

Sample ID: 16064-MW-6D Time Collected: 0925 Technician Signature: M Weber-Gocke

1310 Hex. Chromium

Monitoring Well Sampling Form

EPS

EPS Project: Roper **Date:** 3/3/16

Well ID: MW-6DS **Field Conditions:** 40F, SUN
Sampling Performed By: AT, MWG
Well Construction: FLUSH **General Condition of Well:** GOOD
Well Labeled: NO **Well Cap:** ✓ **Well Locked:** ✓ **Condition of surrounding area:** GOOD
Well depth from TOC: 66.48 **Depth to Water from TOC:** 16.52
Well Diameter (in): 2" **Method of measure:** WATER LEVEL
Height (Ht) of water in well (Well depth from TOC - Static level from TOC): 49.96
Volume of water in well (Ht. x(.16 for 2")(.653 for 4")(1.469 for 6"): 7.99 **Three Well Volumes (gal):** 23.98
Purging Method: low flow/low volume **Time @ Start of Purge:** 1030
Sample Method: low flow/straw **Sample Parameters:** VOC, Hex Chromium

Time	Volume (gal)	Temp (oC)	pH	Cond. (mS/cm)	DO (mg/L)	Turbidity (NTU)	ORP (mV)	WATER LEVEL	Comments
1055	0.75	17.91	4.92	0.027	5.95	0	515	17.09	
1135	2.00	17.27	4.93	0.027	6.77	0	502	17.05	
1145	2.25	16.95	4.92	0.027	5.54	0	517	17.07	
1155	2.5	16.95	4.93	0.027	5.48	0	520	17.09	

Sample ID: 16063-MW-6DS Time Collected: 1200 Technician Signature M. Weber-Goehe

1400 Hex Chromium

Monitoring Well Sampling Form

EPS

EPS Project: ROPER **Date:** 3/4/16

Well ID: MW-8 **Field Conditions:** 40F, SUN
Sampling Performed By: AT, MWG
Well Construction: FLUSH **General Condition of Well:** GOOD
Well Labeled: NO **Well Cap:** ✓ **Well Locked:** ✓ **Condition of surrounding area:** GOOD
Well depth from TOC: 34.5 **Depth to Water from TOC:** 26.00
Well Diameter (in): 2" **Method of measure:** WATER LEVEL
Height (Ht) of water in well (Well depth from TOC - Static level from TOC): 8.5
Volume of water in well (Ht. x(.16 for 2")(.653 for 4")(1.469 for 6"): 1.36 **Three Well Volumes (gal):** 4.08
Purging Method: low flow / low volume **Time @ Start of Purge:** 1005
Sample Method: low flow / straw **Sample Parameters:** VOC

Time	Volume (gal)	Temp (oC)	pH	Cond. (mS/cm)	DO (mg/L)	Turbidity (NTU)	ORP (mV)	WATER LEVEL	Comments
1013	0.25	15.88	4.66	0.036	2.94	0	314	26.21	
1025	0.50	17.06	4.60	0.041	2.63	0	322	26.33	
1040	0.75	16.60	4.68	0.044	2.32	0	328	26.26	
1052	1.00	17.25	4.63	0.045	2.47	0	337	26.29	

Sample ID: 16064-MW-8 Time Collected: 1055 Technician Signature: M Weber Goeke

EPS

Monitoring Well Sampling Form

EPS Project: ROPER **Date:** 3/2/16

Well ID: MW-9D **Field Conditions:** 46F, SUN
Sampling Performed By: AT, MWG
Well Construction: FLUSH **General Condition of Well:** GOOD
Well Labeled: NO **Well Cap:** ✓ **Well Locked:** ✓ **Condition of surrounding area:** GOOD
Well depth from TOC: 68.5 **Depth to Water from TOC:** 17.81
Well Diameter (in): 2" **Method of measure:** WATER LEVEL
Height (Ht) of water in well (Well depth from TOC - Static level from TOC): 50.69
Volume of water in well (Ht. x(.16 for 2")(.653 for 4")(1.469 for 6"): 8.11 **Three Well Volumes (gal):** 24.33
Purging Method: low flow/low volume **Time @ Start of Purge:** 1024
Sample Method: low flow/straw **Sample Parameters:** VOC, Hex. Chromium

Time	Volume (gal)	Temp (oC)	pH	Cond. (mS/cm)	DO (mg/L)	Turbidity (NTU)	ORP (mV)	WATER LEVEL Comments
								18.35
1135	1.5	16.91	9.32	0.266	0.74	1.77	120	18.40
1153	1.75	17.72	9.79	0.250	0.84	1.38	90	18.38
1208	2.25	17.59	9.75	0.237	0.89	1.58	78	18.35
1225	3.00	16.82	9.71	0.228	0.91	1.74		18.31

Sample ID: 16062-MW-9D Time Collected: 1230 Technician Signature: M. Weber Goehe

1400 Hex. Chromium

EPS

Monitoring We Sampling Form

EPS Project: ROPER **Date:** 3/2/16

Well ID: MW-10 **Field Conditions:** 40F, CLOUDY
Sampling Performed By: AT, MWG
Well Construction: FLUSH **General Condition of Well:** GOOD
Well Labeled: NO **Well Cap:** ✓ **Well Locked:** ✓ **Condition of surrounding area:** GOOD
Well depth from TOC: 39.5 **Depth to Water from TOC:** 29.21
Well Diameter (in): 2" **Method of measure:** WATER LEVEL
Height (Ht) of water in well (Well depth from TOC - Static level from TOC): ~~MW-9 9.2~~ 10.29
Volume of water in well (Ht. x(.16 for 2")(.653 for 4")(1.469 for 6"): 1.65 **Three Well Volumes (gal):** 4.9
Purging Method: low flow/low volume **Time @ Start of Purge:** 0755
Sample Method: straw/low flow **Sample Parameters:** VOC

Time	Volume (gal)	Temp (oC)	pH	Cond. (mS/cm)	DO (mg/L)	Turbidity (NTU)	ORP (mV)	WATER LEVEL	Comments
0856	6.5	16.59	4.52	0.039	2.60	10.7	412	29.55	pump set at lowest rate
0906	7.5	17.76	4.58	0.038	2.40	5.45	414	29.55	
0918	8.5	17.79	4.59	0.038	2.35	3.20	417	29.56	
0928	9.5	18.09	4.59	0.038	2.34	2.34	419	29.56	

Sample ID: 16062-MW-10 Time Collected: 0930 Technician Signature: M Weber-Gaeke

Monitoring Well Sampling Form

EPS

EPS Project: ROPER **Date:** 3/2/16

Well ID: MW-11 **Field Conditions:** 50F, SUN
Sampling Performed By: AT, MWG
Well Construction: FLUSH **General Condition of Well:** GOOD
Well Labeled: NO **Well Cap:** ✓ **Well Locked:** ✓ **Condition of surrounding area:** GOOD
Well depth from TOC: 34.00 **Depth to Water from TOC:** 22.00
Well Diameter (in): 2" **Method of measure:** WATERLEVEL
Height (Ht) of water in well (Well depth from TOC - Static level from TOC): 12
Volume of water in well (Ht. x(.16 for 2")(.653 for 4")(1.469 for 6"): 1.92 **Three Well Volumes (gal):** 5.76
Purging Method: low flow/low volume **Time @ Start of Purge:** 1457
Sample Method: low flow / straw **Sample Parameters:** VOC, Hex. Chromium

Time	Volume (gal)	Temp (oC)	pH	Cond. (mS/cm)	DO (mg/L)	Turbidity (NTU)	ORP (mV)	WATERLEVEL (Ht) Comments
1512	0.5	19.52	4.61	0.068	0.08	6.45	345	22.19
1522	0.75	20.06	4.56	0.066	0	2.60	351	22.19
1532	1.0	20.20	4.57	0.064	0	0.68	355	22.20
1542	1.25	20.31	4.60	0.064	0	0.70	353	22.20
1552	1.5	20.44	4.61	0.063	0	0.90	351	22.20

Sample ID: 16062-MW-11 Time Collected: 1555 Technician Signature: M. Weber Goehe

Monitoring Well Sampling Form

EPS

EPS Project: ROPER **Date:** 3/3/16

Well ID: MW-12D **Field Conditions:** SUN, 40F
Sampling Performed By: AT, MWG
Well Construction: FLUSH **General Condition of Well:** GOOD
Well Labeled: NO **Well Cap:** ✓ **Well Locked:** ✓ **Condition of surrounding area:** GOOD
Well depth from TOC: 86.5 **Depth to Water from TOC:** 17.97
Well Diameter (in): 2" **Method of measure:** WATER LEVEL
Height (Ht) of water in well (Well depth from TOC - Static level from TOC): 68.53
Volume of water in well (Ht. x(.16 for 2")(.653 for 4")(1.469 for 6"): 10.96 **Three Well Volumes (gal):** 32.89
Purging Method: low flow / low volume **Time @ Start of Purge:** 0820
Sample Method: low flow / straw **Sample Parameters:** VOC, Hex. Chromium

Time	Volume (gal)	Temp (oC)	pH	Cond. (mS/cm)	DO (mg/L)	Turbidity (NTU)	ORP (mV)	WATER LEVEL	Comments
0830	2.0	17.27	9.50	0.192	2.06	289	168	19.83	
0845	4.5	17.81	9.23	0.146	2.47	922	180	19.81	
0900	7.5	17.97	9.05	0.126	2.83	19.6	196	19.82	
0915	9.5	17.75	8.89	0.113	3.03	5.54	208	19.81	
0940	13.0	18.27	8.72	0.102	2.96	0.06	225	19.79	
0950	14.0	18.44	8.68	0.100	2.97	0	227	19.78	
1000	15.0	18.72	8.67	0.097	3.01	0	231	19.79	

Sample ID: 16063-MW-12D Time Collected: 1005 / 1408 Technician Signature: M. Weber Gaeke

Hex. Chromium

EPS

Monitoring We Sampling Form

EPS Project: ROPER **Date:** 3/3/16

Well ID: MW-13D **Field Conditions:** 45F, SUN
Sampling Performed By: AT, MWG
Well Construction: FLUSH **General Condition of Well:** GOOD
Well Labeled: **Well Cap:** ✓ **Well Locked:** ✓ **Condition of surrounding area:** GOOD
Well depth from TOC: 69 **Depth to Water from TOC:** 17.60
Well Diameter (in): 2" **Method of measure:** WATER LEVEL
Height (Ht) of water in well (Well depth from TOC - Static level from TOC): 51.4
Volume of water in well (Ht. x(.16 for 2")(.653 for 4")(1.469 for 6"): 8.22 **Three Well Volumes (gal):** 24.67
Purging Method: low flow / low volume **Time @ Start of Purge:** 1050
Sample Method: low flow / straw **Sample Parameters:** VOC, Hex Chromium

Time	Volume (gal)	Temp (oC)	pH	Cond. (mS/cm)	DO (mg/L)	Turbidity (NTU)	ORP (mV)	WATER LEVEL	Comments
1125	6.0	18.98	6.54	0.051	1.96	19.8	382	18.91	
1135	7.5	19.53	5.81	0.050	1.76	2.55	389	18.91	
1145	9.0	19.69	5.75	0.049	1.68	0.63	394	18.80	
1155	10.0	19.71	5.74	0.049	1.66	0	395	18.80	

Sample ID: 16063-MW-13D Time Collected: 1200 Technician Signature M. Weber-Goche

1404 Hex. Chromium

EPS

Monitoring Well Sampling Form

EPS Project: ROPER **Date:** 3/2/16

Well ID: MW-14 **Field Conditions:** 46F, SUN
Sampling Performed By: AT, MWG
Well Construction: FLUSH **General Condition of Well:** GOOD
Well Labeled: NO **Well Cap:** ✓ **Well Locked:** ✓ **Condition of surrounding area:** GOOD
Well depth from TOC: 35 **Depth to Water from TOC:** 18.77
Well Diameter (in): 2" **Method of measure:** WATER LEVEL
Height (Ht) of water in well (Well depth from TOC - Static level from TOC): 16.23
Volume of water in well (Ht. x(.16 for 2")(.653 for 4")(1.469 for 6"): 2.59 **Three Well Volumes (gal):** 7.8
Purging Method: low flow / low volume **Time @ Start of Purge:**
Sample Method: low flow / straw **Sample Parameters:** VOC, Hex. Chromium

Time	Volume (gal)	Temp (oC)	pH	Cond. (mS/cm)	DO (mg/L)	Turbidity (NTU)	ORP (mV)	WATER LEVEL	Comments
1112		17.38	4.56	0.059	3.99	27.0	425	19.12	
1122	4.5	17.72	4.51	0.058	3.09	13.6	428	19.15	
1148	7.5	17.87	4.48	0.058	2.66	3.6	412	19.15	
1200	10.0	17.90	4.49	0.058		0.69	412	19.16	

Sample ID: 16062-MW-14 Time Collected: 1205 Technician Signature: M. Weber-Goche

1330 Hex. Chromium

Monitoring We Sampling Form

EPS

EPS Project: ROPER **Date:** 3/4/16

Well ID: MW-15D **Field Conditions:** 40F, SUN
Sampling Performed By: AT, MWG
Well Construction: FLUSH **General Condition of Well:** GOOD
Well Labeled: ✓ **Well Cap:** ✓ **Well Locked:** ✓ **Condition of surrounding area:** GOOD
Well depth from TOC: 84 **Depth to Water from TOC:** 22.25
Well Diameter (in): 2" **Method of measure:** WATER LEVEL
Height (Ht) of water in well (Well depth from TOC - Static level from TOC): 61.75
Volume of water in well (Ht. x(.16 for 2")(.653 for 4")(1.469 for 6"): 9.88 **Three Well Volumes (gal):** 29.64
Purging Method: low flow / low volume **Time @ Start of Purge:** 0950
Sample Method: low flow / straw **Sample Parameters:** VOC, Hex Chromium

Time	Volume (gal)	Temp (oC)	pH	Cond. (mS/cm)	DO (mg/L)	Turbidity (NTU)	ORP (mV)	WATER LEVEL	Comments
1045								27.81	
1151								26.31	
1155		18.77	6.14	0.057	3.85	32.8	-429	26.34	
1205		19.45	9.03	0.061	1.51	54.3	-475	29.41	Horiba problems
1217		19.36	7.95	0.054	1.77	41.2	-466	~~30.53~~ 29.53	
1227		19.63	8.06	0.055	1.71	42.6	-462	29.52	
1237		19.70	7.78	0.053	1.88	29.3	-456	29.52	
1251		19.94	7.54	0.053	1.99	25.4	-455	29.48	
1301		20.04	7.57	0.051	1.97	18.7	-442	29.07	
1311		20.29	7.38	0.049	2.01	16.1	-441	29.32	
1321		20.39	7.41	0.051	2.09	14.8	-437	29.31	
1329	15	20.18	7.39	0.050	2.09	9.7	-445	29.29	

Sample ID: 16064-MW-15D Time Collected: 1330 Technician Signature M. Weber Goeke

EPS

Monitoring Well Sampling Form

EPS Project: ROPER **Date:** 3/3/16

Well ID: MW-16 **Field Conditions:** SUN, 40F
Sampling Performed By: AT, MWG
Well Construction: FLUSH **General Condition of Well:** GOOD
Well Labeled: ✓ **Well Cap:** ✓ **Well Locked:** ✓ **Condition of surrounding area:** GOOD
Well depth from TOC: 35.10' **Depth to Water from TOC:** 22.22'
Well Diameter (in): 2" **Method of measure:** WATER LEVEL
Height (Ht) of water in well (Well depth from TOC - Static level from TOC):
Volume of water in well (Ht. x(.16 for 2")(.653 for 4")(1.469 for 6"): **Three Well Volumes (gal):**
Purging Method: low flow /low volume **Time @ Start of Purge:** 8:50
Sample Method: low flow /straw **Sample Parameters:** VOC

Time	Volume (gal)	Temp (oC)	pH	Cond. (mS/cm)	DO (mg/L)	Turbidity (NTU)	ORP (mV)	Comments
0935	2.5	9.49	4.06	0.084	5.76	11.7	255	22.40
0945	3.0	9.66	4.03	0.078	3.25	8.36	241	22.40
0955	3.5	11.01	4.04	0.075	3.16	6.77	226	22.42
1005	4.0	12.09	4.05	0.075	2.81	6.00	220	22.41

Sample ID: 160 63 - MW-16 Time Collected: ~~1008~~ AT 10:08 Technician Signature

Monitoring We Sampling Form

EPS

EPS Project: ROPER **Date:** 3/4/16

Well ID: MW-17 **Field Conditions:** 40F, SUN

Sampling Performed By: ~~MWH FLUSH~~ AT, MWH

Well Construction: FLUSH **General Condition of Well:** GOOD

Well Labeled: ✓ **Well Cap:** ✓ **Well Locked:** ✓ **Condition of surrounding area:** GOOD

Well depth from TOC: 40 **Depth to Water from TOC:** 32.11

Well Diameter (in): 2" **Method of measure:** WATER LEVEL

Height (Ht) of water in well (Well depth from TOC - Static level from TOC): 7.89

Volume of water in well (Ht. x(.16 for 2")(.653 for 4")(1.469 for 6"): 1.3 **Three Well Volumes (gal):** 3.79

Purging Method: low flow / low volume **Time @ Start of Purge:** 1030

Sample Method: low flow / straw **Sample Parameters:** VOC

Time	Volume (gal)	Temp (oC)	pH	Cond. (mS/cm)	DO (mg/L)	Turbidity (NTU)	ORP (mV)	WATER LEVEL	Comments
1050	3.0	17.81	5.18	0.044	8.02	8.88	467	32.87	
1106	6.0	18.51	4.96	0.027	6.82	4.06	461	32.31	
1116	7.5	18.64	4.96	0.027	6.41	0.86	461	32.32	
1126	8.5	18.74	4.95	0.027	6.45	2.84	458	32.33	

Sample ID: 16064 MW-17 Time Collected: 1130 Technician Signature M. Weber Goche

APPENDIX F

Laboratory Analytical Reports

Pace Analytical Services, Inc.
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

March 30, 2016

Mr. Justin Vickery
Environmental Planning Specialist, Inc.
1050 Crown Pointe Parkway
Suite 550
Atlanta, GA 30338

RE: Project: Roper
Pace Project No.: 35232226

Dear Mr. Vickery:
Enclosed are the analytical results for sample(s) received by the laboratory on March 03, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

This is a revised report. 03/30/2016

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

Sincerely,

Todd Rea
todd.rea@pacelabs.com
Project Manager

Enclosures

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CERTIFICATIONS

Project: Roper
Pace Project No.: 35232226

Ormond Beach Certification IDs
8 East Tower Circle, Ormond Beach, FL 32174
Alabama Certification #: 41320
Connecticut Certification #: PH-0216
Delaware Certification: FL NELAC Reciprocity
Florida Certification #: E83079
Georgia Certification #: 955
Guam Certification: FL NELAC Reciprocity
Hawaii Certification: FL NELAC Reciprocity
Illinois Certification #: 200068
Indiana Certification: FL NELAC Reciprocity
Kansas Certification #: E-10383
Louisiana Certification #: FL NELAC Reciprocity
Louisiana Environmental Certificate #: 05007
Maryland Certification: #346
Michigan Certification #: 9911
Mississippi Certification: FL NELAC Reciprocity
Missouri Certification #: 236
Montana Certification #: Cert 0074
Nebraska Certification: NE-OS-28-14
Nevada Certification: FL NELAC Reciprocity
New York Certification #: 11608
North Carolina Environmental Certificate #: 667
North Carolina Certification #: 12710
North Dakota Certification #: R-216
Oklahoma Certification #: D9947
Pennsylvania Certification #: 68-00547
Puerto Rico Certification #: FL01264
South Carolina Certification: #96042001
Tennessee Certification #: TN02974
Texas Certification: FL NELAC Reciprocity
US Virgin Islands Certification: FL NELAC Reciprocity
Virginia Environmental Certification #: 460165
Wyoming Certification: FL NELAC Reciprocity
West Virginia Certification #: 9962C
Wisconsin Certification #: 399079670
Wyoming (EPA Region 8): FL NELAC Reciprocity

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SAMPLE SUMMARY

Project: Roper
Pace Project No.: 35232226

Lab ID	Sample ID	Matrix	Date Collected	Date Received
35232226010	**16062-MW-5**	Water	03/02/16 13:20	03/03/16 08:30
35232226011	**16062-MW-1**	Water	03/02/16 13:15	03/03/16 08:30
35232226012	**16062-MW-9D**	Water	03/02/16 14:00	03/03/16 08:30
35232226013	**16062-MW-2**	Water	03/02/16 13:50	03/03/16 08:30
35232226014	**16062-MW-14**	Water	03/02/16 13:30	03/03/16 08:30
35232226015	**16062-MW-11**	Water	03/02/16 15:55	03/03/16 08:30
35232226016	**16062-MW-3**	Water	03/02/16 16:02	03/03/16 08:30

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SAMPLE ANALYTE COUNT

Project: Roper
Pace Project No.: 35232226

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
35232226010	**16062-MW-5**	EPA 218.6	TK1	1	PASI-O
35232226011	**16062-MW-1**	EPA 218.6	TK1	1	PASI-O
35232226012	**16062-MW-9D**	EPA 218.6	TK1	1	PASI-O
35232226013	**16062-MW-2**	EPA 218.6	TK1	1	PASI-O
35232226014	**16062-MW-14**	EPA 218.6	TK1	1	PASI-O
35232226015	**16062-MW-11**	EPA 218.6	TK1	1	PASI-O
35232226016	**16062-MW-3**	EPA 218.6	TK1	1	PASI-O

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PROJECT NARRATIVE

Project: Roper
Pace Project No.: 35232226

Date: March 30, 2016

The sampler's name and signature were not listed on the COC.

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ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232226

Sample: 16062-MW-5 **Lab ID: 35232226010** Collected: 03/02/16 13:20 Received: 03/03/16 08:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Hexavalent Chromium 24 Hour	Analytical Method: EPA 218.6								
Chromium, Hexavalent	**<0.0082**	ug/L	0.025	0.0082	1		03/03/16 11:14	18540-29-9	

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ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232226

Sample: 16062-MW-1 **Lab ID: 35232226011** Collected: 03/02/16 13:15 Received: 03/03/16 08:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Hexavalent Chromium 24 Hour	Analytical Method: EPA 218.6								
Chromium, Hexavalent	**0.044**	ug/L	0.025	0.0082	1		03/03/16 11:27	18540-29-9	

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ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232226

Sample: 16062-MW-9D **Lab ID: 35232226012** Collected: 03/02/16 14:00 Received: 03/03/16 08:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Hexavalent Chromium 24 Hour	Analytical Method: EPA 218.6								
Chromium, Hexavalent	**18.2**	ug/L	2.5	0.82	100		03/03/16 13:17	18540-29-9	

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ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232226

Sample: 16062-MW-2 **Lab ID: 35232226013** Collected: 03/02/16 13:50 Received: 03/03/16 08:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Hexavalent Chromium 24 Hour	Analytical Method: EPA 218.6								
Chromium, Hexavalent	**0.059**	ug/L	0.025	0.0082	1		03/04/16 02:42	18540-29-9	H5

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ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232226

Sample: 16062-MW-14 **Lab ID: 35232226014** Collected: 03/02/16 13:30 Received: 03/03/16 08:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Hexavalent Chromium 24 Hour	Analytical Method: EPA 218.6								
Chromium, Hexavalent	**1.2**	ug/L	0.25	0.082	10		03/03/16 13:44	18540-29-9	H1

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ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232226

Sample: 16062-MW-11 **Lab ID: 35232226015** Collected: 03/02/16 15:55 Received: 03/03/16 08:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Hexavalent Chromium 24 Hour	Analytical Method: EPA 218.6								
Chromium, Hexavalent	**0.21**	ug/L	0.025	0.0082	1		03/03/16 12:19	18540-29-9	

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ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232226

Sample: 16062-MW-3 **Lab ID: 35232226016** Collected: 03/02/16 16:02 Received: 03/03/16 08:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Hexavalent Chromium 24 Hour	Analytical Method: EPA 218.6								
Chromium, Hexavalent	**0.090**	ug/L	0.025	0.0082	1		03/03/16 12:32	18540-29-9	

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QUALITY CONTROL DATA

Project: Roper
Pace Project No.: 35232226

QC Batch: WETA/55538 | Analysis Method: EPA 218.6
QC Batch Method: EPA 218.6 | Analysis Description: Chromium, Hexavalent by IC 24 Hour
Associated Lab Samples: 35232226010, 35232226011, 35232226012, 35232226013, 35232226014, 35232226015, 35232226016

METHOD BLANK: 1495915 | Matrix: Water
Associated Lab Samples: 35232226010, 35232226011, 35232226012, 35232226013, 35232226014, 35232226015, 35232226016

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chromium, Hexavalent	ug/L	<0.0082	0.025	0.0082	03/03/16 09:56	

LABORATORY CONTROL SAMPLE: 1495916

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	ug/L	.075	0.077	103	90-110	

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

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QUALIFIERS

Project: Roper
Pace Project No.: 35232226

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-O	Pace Analytical Services - Ormond Beach

ANALYTE QUALIFIERS

H1	Analysis conducted outside the EPA method holding time.
H5	Reanalysis conducted in excess of EPA method holding time. Results confirm original analysis performed in hold time.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Roper
Pace Project No.: 35232226

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
35232226010	**16062-MW-5**	EPA 218.6	WETA/55538		
35232226011	**16062-MW-1**	EPA 218.6	WETA/55538		
35232226012	**16062-MW-9D**	EPA 218.6	WETA/55538		
35232226013	**16062-MW-2**	EPA 218.6	WETA/55538		
35232226014	**16062-MW-14**	EPA 218.6	WETA/55538		
35232226015	**16062-MW-11**	EPA 218.6	WETA/55538		
35232226016	**16062-MW-3**	EPA 218.6	WETA/55538		

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CHAIN-OF- ... nt

The Chain-of-Custod ...

WO# : 35232226
35232226

Page: 1 of 2

2016795

Section A
Required Client Information:

Company:	EPS
Address:	1050 Crown Pointe Pkwy. Atlanta, GA 30338
Email To:	jvickery@enviplanning.com
Phone:	404-315-9113
Fax:	404-315-8509
Requested Due Date/TAT:	

Section B
Required Project Information:

Report To:	Justin Vickery
Copy To:	
Purchase Order No.:	
Project Name:	Roper
Project Number:	

Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	
Pace Profile #:	8068

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location
STATE: _____

Section D
Required Client Information

Matrix Codes
MATRIX / CODE

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

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

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

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test: VOC by 8260	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	16062-MW-10	WT		3/2/16	0930				3				X					X		
2	16062-MW-5	WT		3/2/16	0953				3				X					X		
3	16062-MW-1	WT		3/2/16	0945				3				X					X		
4	16062-MW-9D	WT		3/2/16	1230				3				X					X		
5	16062-MW-2	WT		3/2/16	1145				3				X					X		
6	16062-MW-14	WT		3/2/16	1205				3				X					X		
7	16062-TRIP BLANK	WT							3				X					X		
8	16062-MW-11	WT		3/2/16	1555				3				X					X		
9	16062-MW-3	WT		3/2/16	1602				3				X					X		
10																				
11																				
12																				

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	[illegible] / Pace	2/29/16	1600	N. Weber-Guehe	3/1/16		
SAMPLING KIT-EMPTY	N. Weber-Guehe	3/2/16	1605	[illegible]	3/2/16	16:05	
	DA	3/2/16	17:30				

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER: | DATE Signed (MM/DD/YY):

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

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

Pace Analytical®
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

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

2016796

Section A Required Client Information:

Company: EPS
Address: 1050 Crown Pointe Pkwy.
Atlanta, GA 30338
Email To: jvickery@envplanning.com
Phone: 404-315-9113 Fax: 404-315-8509
Requested Due Date/TAT:

Section B Required Project Information:

Report To: Justin Vickery
Copy To:
Purchase Order No.:
Project Name: Roper
Project Number:

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #: 8068

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: _____

Section D Required Client Information

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

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N): Hex. Chromium	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	16062-MW-5	WT		3/2/16	~~0953~~		1320		1	X								X		
2	16062-MW-1	WT		3/2/16	~~0945~~		1315		1	X								X		
3	16062-MW-9D	WT		3/2/16	1400				1	X								X		
4	16062-MW-2	WT		3/2/16	1350				1	X								X		
5	16062-MW-14	WT		3/2/16	1330				1	X								X		
6	16062-MW-11	WT		3/2/16	1555				1	X								X		
7	16062-MW-3	WT		3/2/16	1602				1	X								X		
8																				
9																				
10																				
11																				
12																				

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
	On PACE	2/29/16	1600	M. Weber-Guelke	3/1/16	
SAMPLING KIT-EMPTY	M. Weber-Guelke	3/2/16	1605	D. [illegible]	3-2-16	16:05
	DA	3/2/16	17:30			

SAMPLE CONDITIONS: Temp in °C; Received on Ice (Y/N); Custody Sealed Cooler (Y/N); Samples Intact (Y/N)

ORIGINAL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER:
SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY):

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical Florida Laboratory	Document Name: Sample Condition Upon Receipt Form	Document Revised: December 28, 2015
	Document No.: F-FL-C-007 rev. 07	Issuing Authority: Pace Florida Quality Office

Sample Condition Upon Receipt Form (SCUR)

Project #
Project Manager:
Client:

WO# : 35232226
PM: TSR Due Date: 03/10/16
CLIENT: ENVIPS

Date and Initials of person examining contents: 3/3/16 K
Label:
Deliver:
pH: K

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

Shipping Method: ☑ First Overnight ☐ Priority Overnight ☐ Standard Overnight ☐ Ground

Billing: ☐ Recipient ☑ Sender ☐ Third Party ☐ Unkown Cooler Size if Applicable:

Tracking # 8093 9899 6615

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

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other Biological Tissue is Frozen: Yes No N/A

Thermometer Used T 222 Type of Ice: (Wet) Blue None ☐ Samples on ice, cooling process has begun

Cooler #1 Temperature°C -0.6 (Visual) 0 (Correction Factor) 0.6 (Actual)

Cooler #2 Temperature°C ____ (Visual) ____ (Correction Factor) ____ (Actual)

Cooler #3 Temperature°C ____ (Visual) ____ (Correction Factor) ____ (Actual)

Cooler #4 Temperature°C ____ (Visual) ____ (Correction Factor) ____ (Actual)

Cooler #5 Temperature°C ____ (Visual) ____ (Correction Factor) ____ (Actual)

Cooler #6 Temperature°C ____ (Visual) ____ (Correction Factor) ____ (Actual)

Temp should be above freezing to 6°C

				Comments:
Chain of Custody Present	☑ Yes	☐ No	☐ N/A	
Chain of Custody Filled Out	☑ Yes	☐ No	☐ N/A	
Relinquished Signature & Sampler Name COC	☑ Yes	☐ No	☐ N/A	
Samples Arrived within Hold Time	☑ Yes	☐ No	☐ N/A	
Rush TAT requested on COC	☐ Yes	☑ No	☐ N/A	
Sufficient Volume	☑ Yes	☐ No	☐ N/A	
Correct Containers Used	☑ Yes	☐ No	☐ N/A	
Pace Containers Used	☑ Yes	☐ No	☐ N/A	
Containers Intact	☑ Yes	☐ No	☐ N/A	
Sample Labels match COC (sample IDs & date/time of collection)	☑ Yes	☐ No	☐ N/A	
All containers needing acid/base preservation have been checked.	☐ Yes	☐ No	☑ N/A	HNO3 pH<2 HCl pH<2
All Containers needing preservation are found to be in compliance with EPA recommendation: Exceptions: VOA, Coliform, TOC, O&G	☐ Yes	☐ No	☑ N/A	H2SO4 pH<2 NaOH pH>12 NaOH/ZnOAc pH>9
No Headspace in VOA Vials (>6mm):	☑ Yes	☐ No	☐ N/A	
Trip Blank Present:	☑ Yes	☐ No	☐ N/A	

Client Notification/ Resolution:

Person Contacted: Date/Time:

Comments/ Resolution (use back for additional comments):

Project Manager Review: Date:

Pace Analytical Services, Inc.
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

March 30, 2016

Mr. Justin Vickery
Environmental Planning Specialist, Inc.
1050 Crown Pointe Parkway
Suite 550
Atlanta, GA 30338

RE: Project: Roper
Pace Project No.: 35232226

Dear Mr. Vickery:
Enclosed are the analytical results for sample(s) received by the laboratory on March 03, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

This is a revised report. 03/30/2016

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

Sincerely,

Todd Rea
todd.rea@pacelabs.com
Project Manager

Enclosures

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Pace Analytical Services, Inc.
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

CERTIFICATIONS

Project: Roper
Pace Project No.: 35232226

Ormond Beach Certification IDs
8 East Tower Circle, Ormond Beach, FL 32174
Alabama Certification #: 41320
Connecticut Certification #: PH-0216
Delaware Certification: FL NELAC Reciprocity
Florida Certification #: E83079
Georgia Certification #: 955
Guam Certification: FL NELAC Reciprocity
Hawaii Certification: FL NELAC Reciprocity
Illinois Certification #: 200068
Indiana Certification: FL NELAC Reciprocity
Kansas Certification #: E-10383
Louisiana Certification #: FL NELAC Reciprocity
Louisiana Environmental Certificate #: 05007
Maryland Certification: #346
Michigan Certification #: 9911
Mississippi Certification: FL NELAC Reciprocity
Missouri Certification #: 236
Montana Certification #: Cert 0074
Nebraska Certification: NE-OS-28-14
Nevada Certification: FL NELAC Reciprocity
New York Certification #: 11608
North Carolina Environmental Certificate #: 667
North Carolina Certification #: 12710
North Dakota Certification #: R-216
Oklahoma Certification #: D9947
Pennsylvania Certification #: 68-00547
Puerto Rico Certification #: FL01264
South Carolina Certification: #96042001
Tennessee Certification #: TN02974
Texas Certification: FL NELAC Reciprocity
US Virgin Islands Certification: FL NELAC Reciprocity
Virginia Environmental Certification #: 460165
Wyoming Certification: FL NELAC Reciprocity
West Virginia Certification #: 9962C
Wisconsin Certification #: 399079670
Wyoming (EPA Region 8): FL NELAC Reciprocity

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Ormond Beach, FL 32174
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SAMPLE ANALYTE COUNT

Project: Roper
Pace Project No.: 35232226

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
35232226001	**16062-MW-10**	EPA 8260	SK1	52	PASI-O
35232226002	**16062-MW-5**	EPA 8260	SK1	52	PASI-O
35232226003	**16062-MW-1**	EPA 8260	SK1	52	PASI-O
35232226004	**16062-MW-9D**	EPA 8260	SK1	52	PASI-O
35232226005	**16062-MW-2**	EPA 8260	SK1	52	PASI-O
35232226006	**16062-MW-14**	EPA 8260	SK1	52	PASI-O
35232226007	**16062-Trip Blank**	EPA 8260	SK1	52	PASI-O
35232226008	**16062-MW-11**	EPA 8260	SK1	52	PASI-O
35232226009	**16062-MW-3**	EPA 8260	SK1	52	PASI-O

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8 East Tower Circle
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(386)672-5668

PROJECT NARRATIVE

Project: Roper
Pace Project No.: 35232226

Date: March 30, 2016

The sampler's name and signature were not listed on the COC.

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Ormond Beach, FL 32174
(386)672-5668

ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232226

Sample: 16062-MW-10 **Lab ID: 35232226001** Collected: 03/02/16 09:30 Received: 03/03/16 08:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	**<50.0**	ug/L	50.0	1		03/11/16 20:34	67-64-1	
Benzene	**<5.0**	ug/L	5.0	1		03/11/16 20:34	71-43-2	
Bromodichloromethane	**<5.0**	ug/L	5.0	1		03/11/16 20:34	75-27-4	
Bromoform	**<5.0**	ug/L	5.0	1		03/11/16 20:34	75-25-2	
Bromomethane	**<5.0**	ug/L	5.0	1		03/11/16 20:34	74-83-9	
2-Butanone (MEK)	**<50.0**	ug/L	50.0	1		03/11/16 20:34	78-93-3	
Carbon disulfide	**<10.0**	ug/L	10.0	1		03/11/16 20:34	75-15-0	
Carbon tetrachloride	**<5.0**	ug/L	5.0	1		03/11/16 20:34	56-23-5	
Chlorobenzene	**<5.0**	ug/L	5.0	1		03/11/16 20:34	108-90-7	
Chloroethane	**<10.0**	ug/L	10.0	1		03/11/16 20:34	75-00-3	
Chloroform	**<5.0**	ug/L	5.0	1		03/11/16 20:34	67-66-3	
Chloromethane	**<10.0**	ug/L	10.0	1		03/11/16 20:34	74-87-3	
Cyclohexane	**<5.0**	ug/L	5.0	1		03/11/16 20:34	68411-77-8..	
1,2-Dibromo-3-chloropropane	**<5.0**	ug/L	5.0	1		03/11/16 20:34	96-12-8	
Dibromochloromethane	**<5.0**	ug/L	5.0	1		03/11/16 20:34	124-48-1	
1,2-Dibromoethane (EDB)	**<5.0**	ug/L	5.0	1		03/11/16 20:34	106-93-4	
1,2-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/11/16 20:34	95-50-1	
1,3-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/11/16 20:34	541-73-1	
1,4-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/11/16 20:34	106-46-7	
Dichlorodifluoromethane	**<10.0**	ug/L	10.0	1		03/11/16 20:34	75-71-8	
1,1-Dichloroethane	**<5.0**	ug/L	5.0	1		03/11/16 20:34	75-34-3	
1,2-Dichloroethane	**<5.0**	ug/L	5.0	1		03/11/16 20:34	107-06-2	
1,1-Dichloroethene	**<5.0**	ug/L	5.0	1		03/11/16 20:34	75-35-4	
cis-1,2-Dichloroethene	**<5.0**	ug/L	5.0	1		03/11/16 20:34	156-59-2	
trans-1,2-Dichloroethene	**<5.0**	ug/L	5.0	1		03/11/16 20:34	156-60-5	
1,2-Dichloropropane	**<5.0**	ug/L	5.0	1		03/11/16 20:34	78-87-5	
cis-1,3-Dichloropropene	**<5.0**	ug/L	5.0	1		03/11/16 20:34	10061-01-5	
trans-1,3-Dichloropropene	**<5.0**	ug/L	5.0	1		03/11/16 20:34	10061-02-6	
Ethylbenzene	**<5.0**	ug/L	5.0	1		03/11/16 20:34	100-41-4	
2-Hexanone	**<10.0**	ug/L	10.0	1		03/11/16 20:34	591-78-6	
Isopropylbenzene (Cumene)	**<5.0**	ug/L	5.0	1		03/11/16 20:34	98-82-8	
Methyl acetate	**<5.0**	ug/L	5.0	1		03/11/16 20:34	79-20-9	
Methylcyclohexane	**<5.0**	ug/L	5.0	1		03/11/16 20:34	108-87-2	
Methylene Chloride	**<5.0**	ug/L	5.0	1		03/11/16 20:34	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<10.0**	ug/L	10.0	1		03/11/16 20:34	108-10-1	
Methyl-tert-butyl ether	**<5.0**	ug/L	5.0	1		03/11/16 20:34	1634-04-4	
Styrene	**<5.0**	ug/L	5.0	1		03/11/16 20:34	100-42-5	
1,1,2,2-Tetrachloroethane	**<5.0**	ug/L	5.0	1		03/11/16 20:34	79-34-5	
Tetrachloroethene	**<5.0**	ug/L	5.0	1		03/11/16 20:34	127-18-4	L3
Toluene	**<5.0**	ug/L	5.0	1		03/11/16 20:34	108-88-3	
1,2,4-Trichlorobenzene	**<5.0**	ug/L	5.0	1		03/11/16 20:34	120-82-1	
1,1,1-Trichloroethane	**<5.0**	ug/L	5.0	1		03/11/16 20:34	71-55-6	
1,1,2-Trichloroethane	**<5.0**	ug/L	5.0	1		03/11/16 20:34	79-00-5	
Trichloroethene	**<5.0**	ug/L	5.0	1		03/11/16 20:34	79-01-6	
Trichlorofluoromethane	**<5.0**	ug/L	5.0	1		03/11/16 20:34	75-69-4	
1,1,2-Trichlorotrifluoroethane	**<10.0**	ug/L	10.0	1		03/11/16 20:34	76-13-1	
Vinyl chloride	**<2.0**	ug/L	2.0	1		03/11/16 20:34	75-01-4	

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8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232226

Sample: 16062-MW-10 **Lab ID: 35232226001** Collected: 03/02/16 09:30 Received: 03/03/16 08:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
m&p-Xylene	**<5.0**	ug/L	5.0	1		03/11/16 20:34	179601-23-1	
o-Xylene	**<5.0**	ug/L	5.0	1		03/11/16 20:34	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	99	%	70-114	1		03/11/16 20:34	460-00-4	
1,2-Dichloroethane-d4 (S)	110	%	86-125	1		03/11/16 20:34	17060-07-0	
Toluene-d8 (S)	88	%	87-113	1		03/11/16 20:34	2037-26-5	

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ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232226

Sample: 16062-MW-5 **Lab ID: 35232226002** Collected: 03/02/16 09:53 Received: 03/03/16 08:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	**<50.0**	ug/L	50.0	1		03/11/16 21:22	67-64-1	
Benzene	**<5.0**	ug/L	5.0	1		03/11/16 21:22	71-43-2	
Bromodichloromethane	**<5.0**	ug/L	5.0	1		03/11/16 21:22	75-27-4	
Bromoform	**<5.0**	ug/L	5.0	1		03/11/16 21:22	75-25-2	
Bromomethane	**<5.0**	ug/L	5.0	1		03/11/16 21:22	74-83-9	
2-Butanone (MEK)	**<50.0**	ug/L	50.0	1		03/11/16 21:22	78-93-3	
Carbon disulfide	**<10.0**	ug/L	10.0	1		03/11/16 21:22	75-15-0	
Carbon tetrachloride	**<5.0**	ug/L	5.0	1		03/11/16 21:22	56-23-5	M1
Chlorobenzene	**<5.0**	ug/L	5.0	1		03/11/16 21:22	108-90-7	
Chloroethane	**<10.0**	ug/L	10.0	1		03/11/16 21:22	75-00-3	
Chloroform	**<5.0**	ug/L	5.0	1		03/11/16 21:22	67-66-3	M1
Chloromethane	**<10.0**	ug/L	10.0	1		03/11/16 21:22	74-87-3	
Cyclohexane	**<5.0**	ug/L	5.0	1		03/11/16 21:22	68411-77-8..	
1,2-Dibromo-3-chloropropane	**<5.0**	ug/L	5.0	1		03/11/16 21:22	96-12-8	
Dibromochloromethane	**<5.0**	ug/L	5.0	1		03/11/16 21:22	124-48-1	
1,2-Dibromoethane (EDB)	**<5.0**	ug/L	5.0	1		03/11/16 21:22	106-93-4	
1,2-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/11/16 21:22	95-50-1	
1,3-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/11/16 21:22	541-73-1	
1,4-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/11/16 21:22	106-46-7	
Dichlorodifluoromethane	**<10.0**	ug/L	10.0	1		03/11/16 21:22	75-71-8	
1,1-Dichloroethane	**<5.0**	ug/L	5.0	1		03/11/16 21:22	75-34-3	M1
1,2-Dichloroethane	**<5.0**	ug/L	5.0	1		03/11/16 21:22	107-06-2	M1
1,1-Dichloroethene	**<5.0**	ug/L	5.0	1		03/11/16 21:22	75-35-4	
cis-1,2-Dichloroethene	**<5.0**	ug/L	5.0	1		03/11/16 21:22	156-59-2	M1
trans-1,2-Dichloroethene	**<5.0**	ug/L	5.0	1		03/11/16 21:22	156-60-5	M1
1,2-Dichloropropane	**<5.0**	ug/L	5.0	1		03/11/16 21:22	78-87-5	
cis-1,3-Dichloropropene	**<5.0**	ug/L	5.0	1		03/11/16 21:22	10061-01-5	
trans-1,3-Dichloropropene	**<5.0**	ug/L	5.0	1		03/11/16 21:22	10061-02-6	
Ethylbenzene	**<5.0**	ug/L	5.0	1		03/11/16 21:22	100-41-4	
2-Hexanone	**<10.0**	ug/L	10.0	1		03/11/16 21:22	591-78-6	
Isopropylbenzene (Cumene)	**<5.0**	ug/L	5.0	1		03/11/16 21:22	98-82-8	
Methyl acetate	**<5.0**	ug/L	5.0	1		03/11/16 21:22	79-20-9	
Methylcyclohexane	**<5.0**	ug/L	5.0	1		03/11/16 21:22	108-87-2	
Methylene Chloride	**<5.0**	ug/L	5.0	1		03/11/16 21:22	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<10.0**	ug/L	10.0	1		03/11/16 21:22	108-10-1	
Methyl-tert-butyl ether	**<5.0**	ug/L	5.0	1		03/11/16 21:22	1634-04-4	M1
Styrene	**<5.0**	ug/L	5.0	1		03/11/16 21:22	100-42-5	
1,1,2,2-Tetrachloroethane	**<5.0**	ug/L	5.0	1		03/11/16 21:22	79-34-5	
Tetrachloroethene	**<5.0**	ug/L	5.0	1		03/11/16 21:22	127-18-4	L3
Toluene	**<5.0**	ug/L	5.0	1		03/11/16 21:22	108-88-3	
1,2,4-Trichlorobenzene	**<5.0**	ug/L	5.0	1		03/11/16 21:22	120-82-1	
1,1,1-Trichloroethane	**<5.0**	ug/L	5.0	1		03/11/16 21:22	71-55-6	M1
1,1,2-Trichloroethane	**<5.0**	ug/L	5.0	1		03/11/16 21:22	79-00-5	
Trichloroethene	**<5.0**	ug/L	5.0	1		03/11/16 21:22	79-01-6	
Trichlorofluoromethane	**<5.0**	ug/L	5.0	1		03/11/16 21:22	75-69-4	
1,1,2-Trichlorotrifluoroethane	**<10.0**	ug/L	10.0	1		03/11/16 21:22	76-13-1	M1
Vinyl chloride	**<2.0**	ug/L	2.0	1		03/11/16 21:22	75-01-4	

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ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232226

Sample: 16062-MW-5 **Lab ID: 35232226002** Collected: 03/02/16 09:53 Received: 03/03/16 08:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
m&p-Xylene	**<5.0**	ug/L	5.0	1		03/11/16 21:22	179601-23-1	
o-Xylene	**<5.0**	ug/L	5.0	1		03/11/16 21:22	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	97	%	70-114	1		03/11/16 21:22	460-00-4	
1,2-Dichloroethane-d4 (S)	115	%	86-125	1		03/11/16 21:22	17060-07-0	
Toluene-d8 (S)	94	%	87-113	1		03/11/16 21:22	2037-26-5	

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ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232226

Sample: 16062-MW-1 **Lab ID: 35232226003** Collected: 03/02/16 09:45 Received: 03/03/16 08:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	**<50.0**	ug/L	50.0	1		03/11/16 21:46	67-64-1	
Benzene	**<5.0**	ug/L	5.0	1		03/11/16 21:46	71-43-2	
Bromodichloromethane	**<5.0**	ug/L	5.0	1		03/11/16 21:46	75-27-4	
Bromoform	**<5.0**	ug/L	5.0	1		03/11/16 21:46	75-25-2	
Bromomethane	**<5.0**	ug/L	5.0	1		03/11/16 21:46	74-83-9	
2-Butanone (MEK)	**<50.0**	ug/L	50.0	1		03/11/16 21:46	78-93-3	
Carbon disulfide	**<10.0**	ug/L	10.0	1		03/11/16 21:46	75-15-0	
Carbon tetrachloride	**<5.0**	ug/L	5.0	1		03/11/16 21:46	56-23-5	
Chlorobenzene	**<5.0**	ug/L	5.0	1		03/11/16 21:46	108-90-7	
Chloroethane	**<10.0**	ug/L	10.0	1		03/11/16 21:46	75-00-3	
Chloroform	**<5.0**	ug/L	5.0	1		03/11/16 21:46	67-66-3	
Chloromethane	**<10.0**	ug/L	10.0	1		03/11/16 21:46	74-87-3	
Cyclohexane	**<5.0**	ug/L	5.0	1		03/11/16 21:46	68411-77-8..	
1,2-Dibromo-3-chloropropane	**<5.0**	ug/L	5.0	1		03/11/16 21:46	96-12-8	
Dibromochloromethane	**<5.0**	ug/L	5.0	1		03/11/16 21:46	124-48-1	
1,2-Dibromoethane (EDB)	**<5.0**	ug/L	5.0	1		03/11/16 21:46	106-93-4	
1,2-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/11/16 21:46	95-50-1	
1,3-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/11/16 21:46	541-73-1	
1,4-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/11/16 21:46	106-46-7	
Dichlorodifluoromethane	**<10.0**	ug/L	10.0	1		03/11/16 21:46	75-71-8	
1,1-Dichloroethane	**<5.0**	ug/L	5.0	1		03/11/16 21:46	75-34-3	
1,2-Dichloroethane	**<5.0**	ug/L	5.0	1		03/11/16 21:46	107-06-2	
1,1-Dichloroethene	**<5.0**	ug/L	5.0	1		03/11/16 21:46	75-35-4	
cis-1,2-Dichloroethene	**<5.0**	ug/L	5.0	1		03/11/16 21:46	156-59-2	
trans-1,2-Dichloroethene	**<5.0**	ug/L	5.0	1		03/11/16 21:46	156-60-5	
1,2-Dichloropropane	**<5.0**	ug/L	5.0	1		03/11/16 21:46	78-87-5	
cis-1,3-Dichloropropene	**<5.0**	ug/L	5.0	1		03/11/16 21:46	10061-01-5	
trans-1,3-Dichloropropene	**<5.0**	ug/L	5.0	1		03/11/16 21:46	10061-02-6	
Ethylbenzene	**<5.0**	ug/L	5.0	1		03/11/16 21:46	100-41-4	
2-Hexanone	**<10.0**	ug/L	10.0	1		03/11/16 21:46	591-78-6	
Isopropylbenzene (Cumene)	**<5.0**	ug/L	5.0	1		03/11/16 21:46	98-82-8	
Methyl acetate	**<5.0**	ug/L	5.0	1		03/11/16 21:46	79-20-9	
Methylcyclohexane	**<5.0**	ug/L	5.0	1		03/11/16 21:46	108-87-2	
Methylene Chloride	**<5.0**	ug/L	5.0	1		03/11/16 21:46	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<10.0**	ug/L	10.0	1		03/11/16 21:46	108-10-1	
Methyl-tert-butyl ether	**<5.0**	ug/L	5.0	1		03/11/16 21:46	1634-04-4	
Styrene	**<5.0**	ug/L	5.0	1		03/11/16 21:46	100-42-5	
1,1,2,2-Tetrachloroethane	**<5.0**	ug/L	5.0	1		03/11/16 21:46	79-34-5	
Tetrachloroethene	**<5.0**	ug/L	5.0	1		03/11/16 21:46	127-18-4	L3
Toluene	**<5.0**	ug/L	5.0	1		03/11/16 21:46	108-88-3	
1,2,4-Trichlorobenzene	**<5.0**	ug/L	5.0	1		03/11/16 21:46	120-82-1	
1,1,1-Trichloroethane	**<5.0**	ug/L	5.0	1		03/11/16 21:46	71-55-6	
1,1,2-Trichloroethane	**<5.0**	ug/L	5.0	1		03/11/16 21:46	79-00-5	
Trichloroethene	**<5.0**	ug/L	5.0	1		03/11/16 21:46	79-01-6	
Trichlorofluoromethane	**<5.0**	ug/L	5.0	1		03/11/16 21:46	75-69-4	
1,1,2-Trichlorotrifluoroethane	**<10.0**	ug/L	10.0	1		03/11/16 21:46	76-13-1	
Vinyl chloride	**<2.0**	ug/L	2.0	1		03/11/16 21:46	75-01-4	

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ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232226

Sample: 16062-MW-1 **Lab ID: 35232226003** Collected: 03/02/16 09:45 Received: 03/03/16 08:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
m&p-Xylene	**<5.0**	ug/L	5.0	1		03/11/16 21:46	179601-23-1	
o-Xylene	**<5.0**	ug/L	5.0	1		03/11/16 21:46	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	98	%	70-114	1		03/11/16 21:46	460-00-4	
1,2-Dichloroethane-d4 (S)	110	%	86-125	1		03/11/16 21:46	17060-07-0	
Toluene-d8 (S)	101	%	87-113	1		03/11/16 21:46	2037-26-5	

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ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232226

Sample: 16062-MW-9D **Lab ID: 35232226004** Collected: 03/02/16 12:30 Received: 03/03/16 08:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	**<50.0**	ug/L	50.0	1		03/11/16 22:10	67-64-1	
Benzene	**<5.0**	ug/L	5.0	1		03/11/16 22:10	71-43-2	
Bromodichloromethane	**<5.0**	ug/L	5.0	1		03/11/16 22:10	75-27-4	
Bromoform	**<5.0**	ug/L	5.0	1		03/11/16 22:10	75-25-2	
Bromomethane	**<5.0**	ug/L	5.0	1		03/11/16 22:10	74-83-9	
2-Butanone (MEK)	**<50.0**	ug/L	50.0	1		03/11/16 22:10	78-93-3	
Carbon disulfide	**<10.0**	ug/L	10.0	1		03/11/16 22:10	75-15-0	
Carbon tetrachloride	**<5.0**	ug/L	5.0	1		03/11/16 22:10	56-23-5	
Chlorobenzene	**<5.0**	ug/L	5.0	1		03/11/16 22:10	108-90-7	
Chloroethane	**<10.0**	ug/L	10.0	1		03/11/16 22:10	75-00-3	
Chloroform	**<5.0**	ug/L	5.0	1		03/11/16 22:10	67-66-3	
Chloromethane	**<10.0**	ug/L	10.0	1		03/11/16 22:10	74-87-3	
Cyclohexane	**<5.0**	ug/L	5.0	1		03/11/16 22:10	68411-77-8..	
1,2-Dibromo-3-chloropropane	**<5.0**	ug/L	5.0	1		03/11/16 22:10	96-12-8	
Dibromochloromethane	**<5.0**	ug/L	5.0	1		03/11/16 22:10	124-48-1	
1,2-Dibromoethane (EDB)	**<5.0**	ug/L	5.0	1		03/11/16 22:10	106-93-4	
1,2-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/11/16 22:10	95-50-1	
1,3-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/11/16 22:10	541-73-1	
1,4-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/11/16 22:10	106-46-7	
Dichlorodifluoromethane	**<10.0**	ug/L	10.0	1		03/11/16 22:10	75-71-8	
1,1-Dichloroethane	**<5.0**	ug/L	5.0	1		03/11/16 22:10	75-34-3	
1,2-Dichloroethane	**<5.0**	ug/L	5.0	1		03/11/16 22:10	107-06-2	
1,1-Dichloroethene	**<5.0**	ug/L	5.0	1		03/11/16 22:10	75-35-4	
cis-1,2-Dichloroethene	**<5.0**	ug/L	5.0	1		03/11/16 22:10	156-59-2	
trans-1,2-Dichloroethene	**<5.0**	ug/L	5.0	1		03/11/16 22:10	156-60-5	
1,2-Dichloropropane	**<5.0**	ug/L	5.0	1		03/11/16 22:10	78-87-5	
cis-1,3-Dichloropropene	**<5.0**	ug/L	5.0	1		03/11/16 22:10	10061-01-5	
trans-1,3-Dichloropropene	**<5.0**	ug/L	5.0	1		03/11/16 22:10	10061-02-6	
Ethylbenzene	**<5.0**	ug/L	5.0	1		03/11/16 22:10	100-41-4	
2-Hexanone	**<10.0**	ug/L	10.0	1		03/11/16 22:10	591-78-6	
Isopropylbenzene (Cumene)	**<5.0**	ug/L	5.0	1		03/11/16 22:10	98-82-8	
Methyl acetate	**<5.0**	ug/L	5.0	1		03/11/16 22:10	79-20-9	
Methylcyclohexane	**<5.0**	ug/L	5.0	1		03/11/16 22:10	108-87-2	
Methylene Chloride	**<5.0**	ug/L	5.0	1		03/11/16 22:10	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<10.0**	ug/L	10.0	1		03/11/16 22:10	108-10-1	
Methyl-tert-butyl ether	**<5.0**	ug/L	5.0	1		03/11/16 22:10	1634-04-4	
Styrene	**<5.0**	ug/L	5.0	1		03/11/16 22:10	100-42-5	
1,1,2,2-Tetrachloroethane	**<5.0**	ug/L	5.0	1		03/11/16 22:10	79-34-5	
Tetrachloroethene	**<5.0**	ug/L	5.0	1		03/11/16 22:10	127-18-4	L1
Toluene	**<5.0**	ug/L	5.0	1		03/11/16 22:10	108-88-3	
1,2,4-Trichlorobenzene	**<5.0**	ug/L	5.0	1		03/11/16 22:10	120-82-1	
1,1,1-Trichloroethane	**<5.0**	ug/L	5.0	1		03/11/16 22:10	71-55-6	
1,1,2-Trichloroethane	**<5.0**	ug/L	5.0	1		03/11/16 22:10	79-00-5	
Trichloroethene	**13.9**	ug/L	5.0	1		03/11/16 22:10	79-01-6	
Trichlorofluoromethane	**<5.0**	ug/L	5.0	1		03/11/16 22:10	75-69-4	
1,1,2-Trichlorotrifluoroethane	**<10.0**	ug/L	10.0	1		03/11/16 22:10	76-13-1	
Vinyl chloride	**<2.0**	ug/L	2.0	1		03/11/16 22:10	75-01-4	

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ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232226

Sample: 16062-MW-9D **Lab ID: 35232226004** Collected: 03/02/16 12:30 Received: 03/03/16 08:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
m&p-Xylene	**<5.0**	ug/L	5.0	1		03/11/16 22:10	179601-23-1	
o-Xylene	**<5.0**	ug/L	5.0	1		03/11/16 22:10	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	85	%	70-114	1		03/11/16 22:10	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	86-125	1		03/11/16 22:10	17060-07-0	
Toluene-d8 (S)	103	%	87-113	1		03/11/16 22:10	2037-26-5	

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ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232226

Sample: 16062-MW-2 **Lab ID: 35232226005** Collected: 03/02/16 11:45 Received: 03/03/16 08:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	**<50.0**	ug/L	50.0	1		03/11/16 22:34	67-64-1	
Benzene	**<5.0**	ug/L	5.0	1		03/11/16 22:34	71-43-2	
Bromodichloromethane	**<5.0**	ug/L	5.0	1		03/11/16 22:34	75-27-4	
Bromoform	**<5.0**	ug/L	5.0	1		03/11/16 22:34	75-25-2	
Bromomethane	**<5.0**	ug/L	5.0	1		03/11/16 22:34	74-83-9	
2-Butanone (MEK)	**<50.0**	ug/L	50.0	1		03/11/16 22:34	78-93-3	
Carbon disulfide	**<10.0**	ug/L	10.0	1		03/11/16 22:34	75-15-0	
Carbon tetrachloride	**<5.0**	ug/L	5.0	1		03/11/16 22:34	56-23-5	
Chlorobenzene	**<5.0**	ug/L	5.0	1		03/11/16 22:34	108-90-7	
Chloroethane	**<10.0**	ug/L	10.0	1		03/11/16 22:34	75-00-3	
Chloroform	**<5.0**	ug/L	5.0	1		03/11/16 22:34	67-66-3	
Chloromethane	**<10.0**	ug/L	10.0	1		03/11/16 22:34	74-87-3	
Cyclohexane	**<5.0**	ug/L	5.0	1		03/11/16 22:34	68411-77-8..	
1,2-Dibromo-3-chloropropane	**<5.0**	ug/L	5.0	1		03/11/16 22:34	96-12-8	
Dibromochloromethane	**<5.0**	ug/L	5.0	1		03/11/16 22:34	124-48-1	
1,2-Dibromoethane (EDB)	**<5.0**	ug/L	5.0	1		03/11/16 22:34	106-93-4	
1,2-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/11/16 22:34	95-50-1	
1,3-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/11/16 22:34	541-73-1	
1,4-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/11/16 22:34	106-46-7	
Dichlorodifluoromethane	**<10.0**	ug/L	10.0	1		03/11/16 22:34	75-71-8	
1,1-Dichloroethane	**<5.0**	ug/L	5.0	1		03/11/16 22:34	75-34-3	
1,2-Dichloroethane	**<5.0**	ug/L	5.0	1		03/11/16 22:34	107-06-2	
1,1-Dichloroethene	**<5.0**	ug/L	5.0	1		03/11/16 22:34	75-35-4	
cis-1,2-Dichloroethene	**<5.0**	ug/L	5.0	1		03/11/16 22:34	156-59-2	
trans-1,2-Dichloroethene	**<5.0**	ug/L	5.0	1		03/11/16 22:34	156-60-5	
1,2-Dichloropropane	**<5.0**	ug/L	5.0	1		03/11/16 22:34	78-87-5	
cis-1,3-Dichloropropene	**<5.0**	ug/L	5.0	1		03/11/16 22:34	10061-01-5	
trans-1,3-Dichloropropene	**<5.0**	ug/L	5.0	1		03/11/16 22:34	10061-02-6	
Ethylbenzene	**<5.0**	ug/L	5.0	1		03/11/16 22:34	100-41-4	
2-Hexanone	**<10.0**	ug/L	10.0	1		03/11/16 22:34	591-78-6	
Isopropylbenzene (Cumene)	**<5.0**	ug/L	5.0	1		03/11/16 22:34	98-82-8	
Methyl acetate	**<5.0**	ug/L	5.0	1		03/11/16 22:34	79-20-9	
Methylcyclohexane	**<5.0**	ug/L	5.0	1		03/11/16 22:34	108-87-2	
Methylene Chloride	**<5.0**	ug/L	5.0	1		03/11/16 22:34	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<10.0**	ug/L	10.0	1		03/11/16 22:34	108-10-1	
Methyl-tert-butyl ether	**<5.0**	ug/L	5.0	1		03/11/16 22:34	1634-04-4	
Styrene	**<5.0**	ug/L	5.0	1		03/11/16 22:34	100-42-5	
1,1,2,2-Tetrachloroethane	**<5.0**	ug/L	5.0	1		03/11/16 22:34	79-34-5	
Tetrachloroethene	**<5.0**	ug/L	5.0	1		03/11/16 22:34	127-18-4	L1
Toluene	**<5.0**	ug/L	5.0	1		03/11/16 22:34	108-88-3	
1,2,4-Trichlorobenzene	**<5.0**	ug/L	5.0	1		03/11/16 22:34	120-82-1	
1,1,1-Trichloroethane	**<5.0**	ug/L	5.0	1		03/11/16 22:34	71-55-6	
1,1,2-Trichloroethane	**<5.0**	ug/L	5.0	1		03/11/16 22:34	79-00-5	
Trichloroethene	**<5.0**	ug/L	5.0	1		03/11/16 22:34	79-01-6	
Trichlorofluoromethane	**<5.0**	ug/L	5.0	1		03/11/16 22:34	75-69-4	
1,1,2-Trichlorotrifluoroethane	**<10.0**	ug/L	10.0	1		03/11/16 22:34	76-13-1	
Vinyl chloride	**<2.0**	ug/L	2.0	1		03/11/16 22:34	75-01-4	

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(386)672-5668

ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232226

Sample: 16062-MW-2 **Lab ID: 35232226005** Collected: 03/02/16 11:45 Received: 03/03/16 08:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
m&p-Xylene	**<5.0**	ug/L	5.0	1		03/11/16 22:34	179601-23-1	
o-Xylene	**<5.0**	ug/L	5.0	1		03/11/16 22:34	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	99	%	70-114	1		03/11/16 22:34	460-00-4	
1,2-Dichloroethane-d4 (S)	111	%	86-125	1		03/11/16 22:34	17060-07-0	
Toluene-d8 (S)	104	%	87-113	1		03/11/16 22:34	2037-26-5	

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ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232226

Sample: 16062-MW-14 **Lab ID: 35232226006** Collected: 03/02/16 12:05 Received: 03/03/16 08:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	**<50.0**	ug/L	50.0	1		03/11/16 22:58	67-64-1	
Benzene	**<5.0**	ug/L	5.0	1		03/11/16 22:58	71-43-2	
Bromodichloromethane	**<5.0**	ug/L	5.0	1		03/11/16 22:58	75-27-4	
Bromoform	**<5.0**	ug/L	5.0	1		03/11/16 22:58	75-25-2	
Bromomethane	**<5.0**	ug/L	5.0	1		03/11/16 22:58	74-83-9	
2-Butanone (MEK)	**<50.0**	ug/L	50.0	1		03/11/16 22:58	78-93-3	
Carbon disulfide	**<10.0**	ug/L	10.0	1		03/11/16 22:58	75-15-0	
Carbon tetrachloride	**<5.0**	ug/L	5.0	1		03/11/16 22:58	56-23-5	
Chlorobenzene	**<5.0**	ug/L	5.0	1		03/11/16 22:58	108-90-7	
Chloroethane	**<10.0**	ug/L	10.0	1		03/11/16 22:58	75-00-3	
Chloroform	**<5.0**	ug/L	5.0	1		03/11/16 22:58	67-66-3	
Chloromethane	**<10.0**	ug/L	10.0	1		03/11/16 22:58	74-87-3	
Cyclohexane	**<5.0**	ug/L	5.0	1		03/11/16 22:58	68411-77-8..	
1,2-Dibromo-3-chloropropane	**<5.0**	ug/L	5.0	1		03/11/16 22:58	96-12-8	
Dibromochloromethane	**<5.0**	ug/L	5.0	1		03/11/16 22:58	124-48-1	
1,2-Dibromoethane (EDB)	**<5.0**	ug/L	5.0	1		03/11/16 22:58	106-93-4	
1,2-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/11/16 22:58	95-50-1	
1,3-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/11/16 22:58	541-73-1	
1,4-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/11/16 22:58	106-46-7	
Dichlorodifluoromethane	**<10.0**	ug/L	10.0	1		03/11/16 22:58	75-71-8	
1,1-Dichloroethane	**<5.0**	ug/L	5.0	1		03/11/16 22:58	75-34-3	
1,2-Dichloroethane	**<5.0**	ug/L	5.0	1		03/11/16 22:58	107-06-2	
1,1-Dichloroethene	**<5.0**	ug/L	5.0	1		03/11/16 22:58	75-35-4	
cis-1,2-Dichloroethene	**<5.0**	ug/L	5.0	1		03/11/16 22:58	156-59-2	
trans-1,2-Dichloroethene	**<5.0**	ug/L	5.0	1		03/11/16 22:58	156-60-5	
1,2-Dichloropropane	**<5.0**	ug/L	5.0	1		03/11/16 22:58	78-87-5	
cis-1,3-Dichloropropene	**<5.0**	ug/L	5.0	1		03/11/16 22:58	10061-01-5	
trans-1,3-Dichloropropene	**<5.0**	ug/L	5.0	1		03/11/16 22:58	10061-02-6	
Ethylbenzene	**<5.0**	ug/L	5.0	1		03/11/16 22:58	100-41-4	
2-Hexanone	**<10.0**	ug/L	10.0	1		03/11/16 22:58	591-78-6	
Isopropylbenzene (Cumene)	**<5.0**	ug/L	5.0	1		03/11/16 22:58	98-82-8	
Methyl acetate	**<5.0**	ug/L	5.0	1		03/11/16 22:58	79-20-9	
Methylcyclohexane	**<5.0**	ug/L	5.0	1		03/11/16 22:58	108-87-2	
Methylene Chloride	**<5.0**	ug/L	5.0	1		03/11/16 22:58	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<10.0**	ug/L	10.0	1		03/11/16 22:58	108-10-1	
Methyl-tert-butyl ether	**<5.0**	ug/L	5.0	1		03/11/16 22:58	1634-04-4	
Styrene	**<5.0**	ug/L	5.0	1		03/11/16 22:58	100-42-5	
1,1,2,2-Tetrachloroethane	**<5.0**	ug/L	5.0	1		03/11/16 22:58	79-34-5	
Tetrachloroethene	**<5.0**	ug/L	5.0	1		03/11/16 22:58	127-18-4	L3
Toluene	**<5.0**	ug/L	5.0	1		03/11/16 22:58	108-88-3	
1,2,4-Trichlorobenzene	**<5.0**	ug/L	5.0	1		03/11/16 22:58	120-82-1	
1,1,1-Trichloroethane	**<5.0**	ug/L	5.0	1		03/11/16 22:58	71-55-6	
1,1,2-Trichloroethane	**<5.0**	ug/L	5.0	1		03/11/16 22:58	79-00-5	
Trichloroethene	**<5.0**	ug/L	5.0	1		03/11/16 22:58	79-01-6	
Trichlorofluoromethane	**<5.0**	ug/L	5.0	1		03/11/16 22:58	75-69-4	
1,1,2-Trichlorotrifluoroethane	**<10.0**	ug/L	10.0	1		03/11/16 22:58	76-13-1	
Vinyl chloride	**<2.0**	ug/L	2.0	1		03/11/16 22:58	75-01-4	

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ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232226

Sample: 16062-MW-14 **Lab ID: 35232226006** Collected: 03/02/16 12:05 Received: 03/03/16 08:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
m&p-Xylene	**<5.0**	ug/L	5.0	1		03/11/16 22:58	179601-23-1	
o-Xylene	**<5.0**	ug/L	5.0	1		03/11/16 22:58	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	98	%	70-114	1		03/11/16 22:58	460-00-4	
1,2-Dichloroethane-d4 (S)	115	%	86-125	1		03/11/16 22:58	17060-07-0	
Toluene-d8 (S)	107	%	87-113	1		03/11/16 22:58	2037-26-5	

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ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232226

Sample: 16062-Trip Blank **Lab ID: 35232226007** Collected: 03/02/16 08:00 Received: 03/03/16 08:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	**<50.0**	ug/L	50.0	1		03/11/16 18:58	67-64-1	
Benzene	**<5.0**	ug/L	5.0	1		03/11/16 18:58	71-43-2	
Bromodichloromethane	**<5.0**	ug/L	5.0	1		03/11/16 18:58	75-27-4	
Bromoform	**<5.0**	ug/L	5.0	1		03/11/16 18:58	75-25-2	
Bromomethane	**<5.0**	ug/L	5.0	1		03/11/16 18:58	74-83-9	
2-Butanone (MEK)	**<50.0**	ug/L	50.0	1		03/11/16 18:58	78-93-3	
Carbon disulfide	**<10.0**	ug/L	10.0	1		03/11/16 18:58	75-15-0	
Carbon tetrachloride	**<5.0**	ug/L	5.0	1		03/11/16 18:58	56-23-5	
Chlorobenzene	**<5.0**	ug/L	5.0	1		03/11/16 18:58	108-90-7	
Chloroethane	**<10.0**	ug/L	10.0	1		03/11/16 18:58	75-00-3	
Chloroform	**<5.0**	ug/L	5.0	1		03/11/16 18:58	67-66-3	
Chloromethane	**<10.0**	ug/L	10.0	1		03/11/16 18:58	74-87-3	
Cyclohexane	**<5.0**	ug/L	5.0	1		03/11/16 18:58	68411-77-8..	
1,2-Dibromo-3-chloropropane	**<5.0**	ug/L	5.0	1		03/11/16 18:58	96-12-8	
Dibromochloromethane	**<5.0**	ug/L	5.0	1		03/11/16 18:58	124-48-1	
1,2-Dibromoethane (EDB)	**<5.0**	ug/L	5.0	1		03/11/16 18:58	106-93-4	
1,2-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/11/16 18:58	95-50-1	
1,3-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/11/16 18:58	541-73-1	
1,4-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/11/16 18:58	106-46-7	
Dichlorodifluoromethane	**<10.0**	ug/L	10.0	1		03/11/16 18:58	75-71-8	
1,1-Dichloroethane	**<5.0**	ug/L	5.0	1		03/11/16 18:58	75-34-3	
1,2-Dichloroethane	**<5.0**	ug/L	5.0	1		03/11/16 18:58	107-06-2	
1,1-Dichloroethene	**<5.0**	ug/L	5.0	1		03/11/16 18:58	75-35-4	
cis-1,2-Dichloroethene	**<5.0**	ug/L	5.0	1		03/11/16 18:58	156-59-2	
trans-1,2-Dichloroethene	**<5.0**	ug/L	5.0	1		03/11/16 18:58	156-60-5	
1,2-Dichloropropane	**<5.0**	ug/L	5.0	1		03/11/16 18:58	78-87-5	
cis-1,3-Dichloropropene	**<5.0**	ug/L	5.0	1		03/11/16 18:58	10061-01-5	
trans-1,3-Dichloropropene	**<5.0**	ug/L	5.0	1		03/11/16 18:58	10061-02-6	
Ethylbenzene	**<5.0**	ug/L	5.0	1		03/11/16 18:58	100-41-4	
2-Hexanone	**<10.0**	ug/L	10.0	1		03/11/16 18:58	591-78-6	
Isopropylbenzene (Cumene)	**<5.0**	ug/L	5.0	1		03/11/16 18:58	98-82-8	
Methyl acetate	**<5.0**	ug/L	5.0	1		03/11/16 18:58	79-20-9	
Methylcyclohexane	**<5.0**	ug/L	5.0	1		03/11/16 18:58	108-87-2	
Methylene Chloride	**<5.0**	ug/L	5.0	1		03/11/16 18:58	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<10.0**	ug/L	10.0	1		03/11/16 18:58	108-10-1	
Methyl-tert-butyl ether	**<5.0**	ug/L	5.0	1		03/11/16 18:58	1634-04-4	
Styrene	**<5.0**	ug/L	5.0	1		03/11/16 18:58	100-42-5	
1,1,2,2-Tetrachloroethane	**<5.0**	ug/L	5.0	1		03/11/16 18:58	79-34-5	
Tetrachloroethene	**<5.0**	ug/L	5.0	1		03/11/16 18:58	127-18-4	L3
Toluene	**<5.0**	ug/L	5.0	1		03/11/16 18:58	108-88-3	
1,2,4-Trichlorobenzene	**<5.0**	ug/L	5.0	1		03/11/16 18:58	120-82-1	
1,1,1-Trichloroethane	**<5.0**	ug/L	5.0	1		03/11/16 18:58	71-55-6	
1,1,2-Trichloroethane	**<5.0**	ug/L	5.0	1		03/11/16 18:58	79-00-5	
Trichloroethene	**<5.0**	ug/L	5.0	1		03/11/16 18:58	79-01-6	
Trichlorofluoromethane	**<5.0**	ug/L	5.0	1		03/11/16 18:58	75-69-4	
1,1,2-Trichlorotrifluoroethane	**<10.0**	ug/L	10.0	1		03/11/16 18:58	76-13-1	
Vinyl chloride	**<2.0**	ug/L	2.0	1		03/11/16 18:58	75-01-4	

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ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232226

Sample: 16062-Trip Blank **Lab ID: 35232226007** Collected: 03/02/16 08:00 Received: 03/03/16 08:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
m&p-Xylene	**<5.0**	ug/L	5.0	1		03/11/16 18:58	179601-23-1	
o-Xylene	**<5.0**	ug/L	5.0	1		03/11/16 18:58	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	95	%	70-114	1		03/11/16 18:58	460-00-4	
1,2-Dichloroethane-d4 (S)	115	%	86-125	1		03/11/16 18:58	17060-07-0	
Toluene-d8 (S)	110	%	87-113	1		03/11/16 18:58	2037-26-5	

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ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232226

Sample: 16062-MW-11 **Lab ID: 35232226008** Collected: 03/02/16 15:55 Received: 03/03/16 08:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	**<50.0**	ug/L	50.0	1		03/11/16 23:22	67-64-1	
Benzene	**52.6**	ug/L	5.0	1		03/11/16 23:22	71-43-2	
Bromodichloromethane	**<5.0**	ug/L	5.0	1		03/11/16 23:22	75-27-4	
Bromoform	**<5.0**	ug/L	5.0	1		03/11/16 23:22	75-25-2	
Bromomethane	**<5.0**	ug/L	5.0	1		03/11/16 23:22	74-83-9	
2-Butanone (MEK)	**<50.0**	ug/L	50.0	1		03/11/16 23:22	78-93-3	
Carbon disulfide	**<10.0**	ug/L	10.0	1		03/11/16 23:22	75-15-0	
Carbon tetrachloride	**<5.0**	ug/L	5.0	1		03/11/16 23:22	56-23-5	
Chlorobenzene	**<5.0**	ug/L	5.0	1		03/11/16 23:22	108-90-7	
Chloroethane	**<10.0**	ug/L	10.0	1		03/11/16 23:22	75-00-3	
Chloroform	**<5.0**	ug/L	5.0	1		03/11/16 23:22	67-66-3	
Chloromethane	**<10.0**	ug/L	10.0	1		03/11/16 23:22	74-87-3	
Cyclohexane	**<5.0**	ug/L	5.0	1		03/11/16 23:22	68411-77-8..	
1,2-Dibromo-3-chloropropane	**<5.0**	ug/L	5.0	1		03/11/16 23:22	96-12-8	
Dibromochloromethane	**<5.0**	ug/L	5.0	1		03/11/16 23:22	124-48-1	
1,2-Dibromoethane (EDB)	**<5.0**	ug/L	5.0	1		03/11/16 23:22	106-93-4	
1,2-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/11/16 23:22	95-50-1	
1,3-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/11/16 23:22	541-73-1	
1,4-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/11/16 23:22	106-46-7	
Dichlorodifluoromethane	**<10.0**	ug/L	10.0	1		03/11/16 23:22	75-71-8	
1,1-Dichloroethane	**<5.0**	ug/L	5.0	1		03/11/16 23:22	75-34-3	
1,2-Dichloroethane	**<5.0**	ug/L	5.0	1		03/11/16 23:22	107-06-2	
1,1-Dichloroethene	**<5.0**	ug/L	5.0	1		03/11/16 23:22	75-35-4	
cis-1,2-Dichloroethene	**<5.0**	ug/L	5.0	1		03/11/16 23:22	156-59-2	
trans-1,2-Dichloroethene	**<5.0**	ug/L	5.0	1		03/11/16 23:22	156-60-5	
1,2-Dichloropropane	**<5.0**	ug/L	5.0	1		03/11/16 23:22	78-87-5	
cis-1,3-Dichloropropene	**<5.0**	ug/L	5.0	1		03/11/16 23:22	10061-01-5	
trans-1,3-Dichloropropene	**<5.0**	ug/L	5.0	1		03/11/16 23:22	10061-02-6	
Ethylbenzene	**<5.0**	ug/L	5.0	1		03/11/16 23:22	100-41-4	
2-Hexanone	**<10.0**	ug/L	10.0	1		03/11/16 23:22	591-78-6	
Isopropylbenzene (Cumene)	**<5.0**	ug/L	5.0	1		03/11/16 23:22	98-82-8	
Methyl acetate	**<5.0**	ug/L	5.0	1		03/11/16 23:22	79-20-9	
Methylcyclohexane	**<5.0**	ug/L	5.0	1		03/11/16 23:22	108-87-2	
Methylene Chloride	**<5.0**	ug/L	5.0	1		03/11/16 23:22	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<10.0**	ug/L	10.0	1		03/11/16 23:22	108-10-1	
Methyl-tert-butyl ether	**<5.0**	ug/L	5.0	1		03/11/16 23:22	1634-04-4	
Styrene	**<5.0**	ug/L	5.0	1		03/11/16 23:22	100-42-5	
1,1,2,2-Tetrachloroethane	**<5.0**	ug/L	5.0	1		03/11/16 23:22	79-34-5	
Tetrachloroethene	**129**	ug/L	5.0	1		03/11/16 23:22	127-18-4	L1
Toluene	**<5.0**	ug/L	5.0	1		03/11/16 23:22	108-88-3	
1,2,4-Trichlorobenzene	**<5.0**	ug/L	5.0	1		03/11/16 23:22	120-82-1	
1,1,1-Trichloroethane	**<5.0**	ug/L	5.0	1		03/11/16 23:22	71-55-6	
1,1,2-Trichloroethane	**<5.0**	ug/L	5.0	1		03/11/16 23:22	79-00-5	
Trichloroethene	**64.7**	ug/L	5.0	1		03/11/16 23:22	79-01-6	
Trichlorofluoromethane	**<5.0**	ug/L	5.0	1		03/11/16 23:22	75-69-4	
1,1,2-Trichlorotrifluoroethane	**<10.0**	ug/L	10.0	1		03/11/16 23:22	76-13-1	
Vinyl chloride	**<2.0**	ug/L	2.0	1		03/11/16 23:22	75-01-4	

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ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232226

Sample: 16062-MW-11 **Lab ID: 35232226008** Collected: 03/02/16 15:55 Received: 03/03/16 08:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
m&p-Xylene	**<5.0**	ug/L	5.0	1		03/11/16 23:22	179601-23-1	
o-Xylene	**<5.0**	ug/L	5.0	1		03/11/16 23:22	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	99	%	70-114	1		03/11/16 23:22	460-00-4	
1,2-Dichloroethane-d4 (S)	111	%	86-125	1		03/11/16 23:22	17060-07-0	
Toluene-d8 (S)	95	%	87-113	1		03/11/16 23:22	2037-26-5	

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ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232226

Sample: 16062-MW-3 **Lab ID: 35232226009** Collected: 03/02/16 16:02 Received: 03/03/16 08:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	**<50.0**	ug/L	50.0	1		03/11/16 23:46	67-64-1	
Benzene	**<5.0**	ug/L	5.0	1		03/11/16 23:46	71-43-2	
Bromodichloromethane	**<5.0**	ug/L	5.0	1		03/11/16 23:46	75-27-4	
Bromoform	**<5.0**	ug/L	5.0	1		03/11/16 23:46	75-25-2	
Bromomethane	**<5.0**	ug/L	5.0	1		03/11/16 23:46	74-83-9	
2-Butanone (MEK)	**<50.0**	ug/L	50.0	1		03/11/16 23:46	78-93-3	
Carbon disulfide	**<10.0**	ug/L	10.0	1		03/11/16 23:46	75-15-0	
Carbon tetrachloride	**<5.0**	ug/L	5.0	1		03/11/16 23:46	56-23-5	
Chlorobenzene	**<5.0**	ug/L	5.0	1		03/11/16 23:46	108-90-7	
Chloroethane	**<10.0**	ug/L	10.0	1		03/11/16 23:46	75-00-3	
Chloroform	**<5.0**	ug/L	5.0	1		03/11/16 23:46	67-66-3	
Chloromethane	**<10.0**	ug/L	10.0	1		03/11/16 23:46	74-87-3	
Cyclohexane	**<5.0**	ug/L	5.0	1		03/11/16 23:46	68411-77-8..	
1,2-Dibromo-3-chloropropane	**<5.0**	ug/L	5.0	1		03/11/16 23:46	96-12-8	
Dibromochloromethane	**<5.0**	ug/L	5.0	1		03/11/16 23:46	124-48-1	
1,2-Dibromoethane (EDB)	**<5.0**	ug/L	5.0	1		03/11/16 23:46	106-93-4	
1,2-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/11/16 23:46	95-50-1	
1,3-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/11/16 23:46	541-73-1	
1,4-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/11/16 23:46	106-46-7	
Dichlorodifluoromethane	**<10.0**	ug/L	10.0	1		03/11/16 23:46	75-71-8	
1,1-Dichloroethane	**<5.0**	ug/L	5.0	1		03/11/16 23:46	75-34-3	
1,2-Dichloroethane	**<5.0**	ug/L	5.0	1		03/11/16 23:46	107-06-2	
1,1-Dichloroethene	**<5.0**	ug/L	5.0	1		03/11/16 23:46	75-35-4	
cis-1,2-Dichloroethene	**<5.0**	ug/L	5.0	1		03/11/16 23:46	156-59-2	
trans-1,2-Dichloroethene	**<5.0**	ug/L	5.0	1		03/11/16 23:46	156-60-5	
1,2-Dichloropropane	**<5.0**	ug/L	5.0	1		03/11/16 23:46	78-87-5	
cis-1,3-Dichloropropene	**<5.0**	ug/L	5.0	1		03/11/16 23:46	10061-01-5	
trans-1,3-Dichloropropene	**<5.0**	ug/L	5.0	1		03/11/16 23:46	10061-02-6	
Ethylbenzene	**<5.0**	ug/L	5.0	1		03/11/16 23:46	100-41-4	
2-Hexanone	**<10.0**	ug/L	10.0	1		03/11/16 23:46	591-78-6	
Isopropylbenzene (Cumene)	**<5.0**	ug/L	5.0	1		03/11/16 23:46	98-82-8	
Methyl acetate	**<5.0**	ug/L	5.0	1		03/11/16 23:46	79-20-9	
Methylcyclohexane	**<5.0**	ug/L	5.0	1		03/11/16 23:46	108-87-2	
Methylene Chloride	**<5.0**	ug/L	5.0	1		03/11/16 23:46	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<10.0**	ug/L	10.0	1		03/11/16 23:46	108-10-1	
Methyl-tert-butyl ether	**<5.0**	ug/L	5.0	1		03/11/16 23:46	1634-04-4	
Styrene	**<5.0**	ug/L	5.0	1		03/11/16 23:46	100-42-5	
1,1,2,2-Tetrachloroethane	**<5.0**	ug/L	5.0	1		03/11/16 23:46	79-34-5	
Tetrachloroethene	**<5.0**	ug/L	5.0	1		03/11/16 23:46	127-18-4	L1
Toluene	**<5.0**	ug/L	5.0	1		03/11/16 23:46	108-88-3	
1,2,4-Trichlorobenzene	**<5.0**	ug/L	5.0	1		03/11/16 23:46	120-82-1	
1,1,1-Trichloroethane	**<5.0**	ug/L	5.0	1		03/11/16 23:46	71-55-6	
1,1,2-Trichloroethane	**<5.0**	ug/L	5.0	1		03/11/16 23:46	79-00-5	
Trichloroethene	**21.8**	ug/L	5.0	1		03/11/16 23:46	79-01-6	
Trichlorofluoromethane	**<5.0**	ug/L	5.0	1		03/11/16 23:46	75-69-4	
1,1,2-Trichlorotrifluoroethane	**<10.0**	ug/L	10.0	1		03/11/16 23:46	76-13-1	
Vinyl chloride	**<2.0**	ug/L	2.0	1		03/11/16 23:46	75-01-4	

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ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232226

Sample: 16062-MW-3 **Lab ID: 35232226009** Collected: 03/02/16 16:02 Received: 03/03/16 08:30 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
m&p-Xylene	**<5.0**	ug/L	5.0	1		03/11/16 23:46	179601-23-1	
o-Xylene	**<5.0**	ug/L	5.0	1		03/11/16 23:46	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	98	%	70-114	1		03/11/16 23:46	460-00-4	
1,2-Dichloroethane-d4 (S)	112	%	86-125	1		03/11/16 23:46	17060-07-0	
Toluene-d8 (S)	92	%	87-113	1		03/11/16 23:46	2037-26-5	

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QUALITY CONTROL DATA

Project: Roper
Pace Project No.: 35232226

QC Batch: MSV/17856 | Analysis Method: EPA 8260
QC Batch Method: EPA 8260 | Analysis Description: 8260 MSV
Associated Lab Samples: 35232226001, 35232226002, 35232226003, 35232226004, 35232226005, 35232226006, 35232226007, 35232226008, 35232226009

METHOD BLANK: 1504718 | Matrix: Water
Associated Lab Samples: 35232226001, 35232226002, 35232226003, 35232226004, 35232226005, 35232226006, 35232226007, 35232226008, 35232226009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	<5.0	5.0	03/11/16 18:34	
1,1,2,2-Tetrachloroethane	ug/L	<5.0	5.0	03/11/16 18:34	
1,1,2-Trichloroethane	ug/L	<5.0	5.0	03/11/16 18:34	
1,1,2-Trichlorotrifluoroethane	ug/L	<10.0	10.0	03/11/16 18:34	
1,1-Dichloroethane	ug/L	<5.0	5.0	03/11/16 18:34	
1,1-Dichloroethene	ug/L	<5.0	5.0	03/11/16 18:34	
1,2,4-Trichlorobenzene	ug/L	<5.0	5.0	03/11/16 18:34	
1,2-Dibromo-3-chloropropane	ug/L	<5.0	5.0	03/11/16 18:34	
1,2-Dibromoethane (EDB)	ug/L	<5.0	5.0	03/11/16 18:34	
1,2-Dichlorobenzene	ug/L	<5.0	5.0	03/11/16 18:34	
1,2-Dichloroethane	ug/L	<5.0	5.0	03/11/16 18:34	
1,2-Dichloropropane	ug/L	<5.0	5.0	03/11/16 18:34	
1,3-Dichlorobenzene	ug/L	<5.0	5.0	03/11/16 18:34	
1,4-Dichlorobenzene	ug/L	<5.0	5.0	03/11/16 18:34	
2-Butanone (MEK)	ug/L	<50.0	50.0	03/11/16 18:34	
2-Hexanone	ug/L	<10.0	10.0	03/11/16 18:34	
4-Methyl-2-pentanone (MIBK)	ug/L	<10.0	10.0	03/11/16 18:34	
Acetone	ug/L	<50.0	50.0	03/11/16 18:34	
Benzene	ug/L	<5.0	5.0	03/11/16 18:34	
Bromodichloromethane	ug/L	<5.0	5.0	03/11/16 18:34	
Bromoform	ug/L	<5.0	5.0	03/11/16 18:34	
Bromomethane	ug/L	<5.0	5.0	03/11/16 18:34	
Carbon disulfide	ug/L	<10.0	10.0	03/11/16 18:34	
Carbon tetrachloride	ug/L	<5.0	5.0	03/11/16 18:34	
Chlorobenzene	ug/L	<5.0	5.0	03/11/16 18:34	
Chloroethane	ug/L	<10.0	10.0	03/11/16 18:34	
Chloroform	ug/L	<5.0	5.0	03/11/16 18:34	
Chloromethane	ug/L	<10.0	10.0	03/11/16 18:34	
cis-1,2-Dichloroethene	ug/L	<5.0	5.0	03/11/16 18:34	
cis-1,3-Dichloropropene	ug/L	<5.0	5.0	03/11/16 18:34	
Cyclohexane	ug/L	<5.0	5.0	03/11/16 18:34	
Dibromochloromethane	ug/L	<5.0	5.0	03/11/16 18:34	
Dichlorodifluoromethane	ug/L	<10.0	10.0	03/11/16 18:34	
Ethylbenzene	ug/L	<5.0	5.0	03/11/16 18:34	
Isopropylbenzene (Cumene)	ug/L	<5.0	5.0	03/11/16 18:34	
m&p-Xylene	ug/L	<5.0	5.0	03/11/16 18:34	
Methyl acetate	ug/L	<5.0	5.0	03/11/16 18:34	
Methyl-tert-butyl ether	ug/L	<5.0	5.0	03/11/16 18:34	
Methylcyclohexane	ug/L	<5.0	5.0	03/11/16 18:34	
Methylene Chloride	ug/L	<5.0	5.0	03/11/16 18:34	

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QUALITY CONTROL DATA

Project: Roper
Pace Project No.: 35232226

METHOD BLANK: 1504718 Matrix: Water

Associated Lab Samples: 35232226001, 35232226002, 35232226003, 35232226004, 35232226005, 35232226006, 35232226007, 35232226008, 35232226009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
o-Xylene	ug/L	<5.0	5.0	03/11/16 18:34	
Styrene	ug/L	<5.0	5.0	03/11/16 18:34	
Tetrachloroethene	ug/L	<5.0	5.0	03/11/16 18:34	
Toluene	ug/L	<5.0	5.0	03/11/16 18:34	
trans-1,2-Dichloroethene	ug/L	<5.0	5.0	03/11/16 18:34	
trans-1,3-Dichloropropene	ug/L	<5.0	5.0	03/11/16 18:34	
Trichloroethene	ug/L	<5.0	5.0	03/11/16 18:34	
Trichlorofluoromethane	ug/L	<5.0	5.0	03/11/16 18:34	
Vinyl chloride	ug/L	<2.0	2.0	03/11/16 18:34	
1,2-Dichloroethane-d4 (S)	%	112	86-125	03/11/16 18:34	
4-Bromofluorobenzene (S)	%	98	70-114	03/11/16 18:34	
Toluene-d8 (S)	%	105	87-113	03/11/16 18:34	

LABORATORY CONTROL SAMPLE: 1504719

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	24.9	124	70-130	
1,1,2,2-Tetrachloroethane	ug/L	20	21.5	107	70-130	
1,1,2-Trichloroethane	ug/L	20	22.2	111	70-130	
1,1,2-Trichlorotrifluoroethane	ug/L	20	21.1	105	70-130	
1,1-Dichloroethane	ug/L	20	22.0	110	70-130	
1,1-Dichloroethene	ug/L	20	21.1	106	70-130	
1,2,4-Trichlorobenzene	ug/L	20	22.2	111	70-130	
1,2-Dibromo-3-chloropropane	ug/L	20	24.0	120	64-130	
1,2-Dibromoethane (EDB)	ug/L	20	22.3	112	70-130	
1,2-Dichlorobenzene	ug/L	20	22.1	110	70-130	
1,2-Dichloroethane	ug/L	20	24.6	123	70-130	
1,2-Dichloropropane	ug/L	20	22.2	111	70-130	
1,3-Dichlorobenzene	ug/L	20	22.7	113	70-130	
1,4-Dichlorobenzene	ug/L	20	22.3	111	70-130	
2-Butanone (MEK)	ug/L	40	<50.0	108	55-167	
2-Hexanone	ug/L	40	47.3	118	65-130	
4-Methyl-2-pentanone (MIBK)	ug/L	40	46.7	117	70-130	
Acetone	ug/L	40	<50.0	118	40-150	
Benzene	ug/L	20	21.7	108	70-130	
Bromodichloromethane	ug/L	20	23.7	118	70-130	
Bromoform	ug/L	20	20.6	103	68-130	
Bromomethane	ug/L	20	13.8	69	38-179	
Carbon disulfide	ug/L	20	19.4	97	51-155	
Carbon tetrachloride	ug/L	20	25.0	125	70-130	
Chlorobenzene	ug/L	20	21.2	106	70-130	
Chloroethane	ug/L	20	19.5	98	59-149	
Chloroform	ug/L	20	23.3	117	70-130	

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QUALITY CONTROL DATA

Project: Roper
Pace Project No.: 35232226

LABORATORY CONTROL SAMPLE: 1504719

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloromethane	ug/L	20	19.0	95	68-130	
cis-1,2-Dichloroethene	ug/L	20	22.7	114	70-130	
cis-1,3-Dichloropropene	ug/L	20	22.6	113	70-130	
Cyclohexane	ug/L	20	22.3	112	50-150	
Dibromochloromethane	ug/L	20	21.3	106	70-130	
Dichlorodifluoromethane	ug/L	20	17.6	88	67-130	
Ethylbenzene	ug/L	20	21.0	105	70-130	
Isopropylbenzene (Cumene)	ug/L	20	20.6	103	70-130	
m&p-Xylene	ug/L	40	43.7	109	70-130	
Methyl acetate	ug/L	20	20.9	105	50-150	
Methyl-tert-butyl ether	ug/L	20	23.2	116	70-130	
Methylcyclohexane	ug/L	20	21.6	108	50-150	
Methylene Chloride	ug/L	20	21.2	106	70-130	
o-Xylene	ug/L	20	21.4	107	70-130	
Styrene	ug/L	20	21.4	107	70-130	
Tetrachloroethene	ug/L	20	30.5	153	66-133	L0
Toluene	ug/L	20	21.5	107	70-130	
trans-1,2-Dichloroethene	ug/L	20	21.9	110	70-130	
trans-1,3-Dichloropropene	ug/L	20	22.0	110	70-130	
Trichloroethene	ug/L	20	22.9	115	70-130	
Trichlorofluoromethane	ug/L	20	20.6	103	70-131	
Vinyl chloride	ug/L	20	18.2	91	69-140	
1,2-Dichloroethane-d4 (S)	%			111	86-125	
4-Bromofluorobenzene (S)	%			96	70-114	
Toluene-d8 (S)	%			105	87-113	

MATRIX SPIKE SAMPLE: 1505774

Parameter	Units	35232226002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	<5.0	20	29.8	149	70-130	M1
1,1,2,2-Tetrachloroethane	ug/L	<5.0	20	23.0	115	70-130	
1,1,2-Trichloroethane	ug/L	<5.0	20	23.7	118	70-130	
1,1,2-Trichlorotrifluoroethane	ug/L	<10.0	20	28.3	142	70-130	M1
1,1-Dichloroethane	ug/L	<5.0	20	27.2	136	70-130	M1
1,1-Dichloroethene	ug/L	<5.0	20	25.8	129	70-130	
1,2,4-Trichlorobenzene	ug/L	<5.0	20	23.2	116	70-130	
1,2-Dibromo-3-chloropropane	ug/L	<5.0	20	22.8	114	70-130	
1,2-Dibromoethane (EDB)	ug/L	<5.0	20	23.6	118	70-130	
1,2-Dichlorobenzene	ug/L	<5.0	20	24.4	122	70-130	
1,2-Dichloroethane	ug/L	<5.0	20	27.1	136	70-130	M1
1,2-Dichloropropane	ug/L	<5.0	20	21.5	108	70-130	
1,3-Dichlorobenzene	ug/L	<5.0	20	23.2	116	70-130	
1,4-Dichlorobenzene	ug/L	<5.0	20	23.5	118	70-130	
2-Butanone (MEK)	ug/L	<50.0	40	<50.0	100	70-130	
2-Hexanone	ug/L	<10.0	40	41.1	103	70-130	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Roper
Pace Project No.: 35232226

MATRIX SPIKE SAMPLE: 1505774

Parameter	Units	35232226002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
4-Methyl-2-pentanone (MIBK)	ug/L	<10.0	40	43.5	109	70-130	
Acetone	ug/L	<50.0	40	50.8	127	70-130	
Benzene	ug/L	<5.0	20	24.1	121	70-130	
Bromodichloromethane	ug/L	<5.0	20	23.5	117	70-130	
Bromoform	ug/L	<5.0	20	22.4	112	70-130	
Bromomethane	ug/L	<5.0	20	15.3	76	70-130	
Carbon disulfide	ug/L	<10.0	20	26.1	130	70-130	
Carbon tetrachloride	ug/L	<5.0	20	30.8	154	70-130	M1
Chlorobenzene	ug/L	<5.0	20	22.3	112	70-130	
Chloroethane	ug/L	<10.0	20	24.4	122	70-130	
Chloroform	ug/L	<5.0	20	27.7	139	70-130	M1
Chloromethane	ug/L	<10.0	20	17.0	85	70-130	
cis-1,2-Dichloroethene	ug/L	<5.0	20	27.5	137	70-130	M1
cis-1,3-Dichloropropene	ug/L	<5.0	20	22.7	113	70-130	
Cyclohexane	ug/L	<5.0	20	28.3	142	50-150	
Dibromochloromethane	ug/L	<5.0	20	22.9	115	70-130	
Dichlorodifluoromethane	ug/L	<10.0	20	17.0	85	70-130	
Ethylbenzene	ug/L	<5.0	20	22.6	113	70-130	
Isopropylbenzene (Cumene)	ug/L	<5.0	20	22.9	114	70-130	
m&p-Xylene	ug/L	<5.0	40	46.7	117	70-130	
Methyl acetate	ug/L	<5.0	20	19.1	95	50-150	
Methyl-tert-butyl ether	ug/L	<5.0	20	26.5	132	70-130	M1
Methylcyclohexane	ug/L	<5.0	20	23.0	115	50-150	
Methylene Chloride	ug/L	<5.0	20	25.3	126	70-130	
o-Xylene	ug/L	<5.0	20	23.8	119	70-130	
Styrene	ug/L	<5.0	20	22.7	114	70-130	
Tetrachloroethene	ug/L	<5.0	20	20.6	103	70-130	
Toluene	ug/L	<5.0	20	23.8	118	70-130	
trans-1,2-Dichloroethene	ug/L	<5.0	20	26.3	132	70-130	M1
trans-1,3-Dichloropropene	ug/L	<5.0	20	24.5	123	70-130	
Trichloroethene	ug/L	<5.0	20	22.8	114	70-130	
Trichlorofluoromethane	ug/L	<5.0	20	25.1	126	70-130	
Vinyl chloride	ug/L	<2.0	20	20.3	101	70-130	
1,2-Dichloroethane-d4 (S)	%				118	86-125	
4-Bromofluorobenzene (S)	%				96	70-114	
Toluene-d8 (S)	%				96	87-113	

SAMPLE DUPLICATE: 1505773

Parameter	Units	35232226001 Result	Dup Result	RPD	Qualifiers
1,1,1-Trichloroethane	ug/L	<5.0	<5.0		
1,1,2,2-Tetrachloroethane	ug/L	<5.0	<5.0		
1,1,2-Trichloroethane	ug/L	<5.0	<5.0		
1,1,2-Trichlorotrifluoroethane	ug/L	<10.0	<10.0		
1,1-Dichloroethane	ug/L	<5.0	<5.0		

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

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

QUALITY CONTROL DATA

Project: Roper
Pace Project No.: 35232226

SAMPLE DUPLICATE: 1505773

Parameter	Units	35232226001 Result	Dup Result	RPD	Qualifiers
1,1-Dichloroethene	ug/L	<5.0	<5.0		
1,2,4-Trichlorobenzene	ug/L	<5.0	<5.0		
1,2-Dibromo-3-chloropropane	ug/L	<5.0	<5.0		
1,2-Dibromoethane (EDB)	ug/L	<5.0	<5.0		
1,2-Dichlorobenzene	ug/L	<5.0	<5.0		
1,2-Dichloroethane	ug/L	<5.0	<5.0		
1,2-Dichloropropane	ug/L	<5.0	<5.0		
1,3-Dichlorobenzene	ug/L	<5.0	<5.0		
1,4-Dichlorobenzene	ug/L	<5.0	<5.0		
2-Butanone (MEK)	ug/L	<50.0	<50.0		
2-Hexanone	ug/L	<10.0	<10.0		
4-Methyl-2-pentanone (MIBK)	ug/L	<10.0	<10.0		
Acetone	ug/L	<50.0	<50.0		
Benzene	ug/L	<5.0	<5.0		
Bromodichloromethane	ug/L	<5.0	<5.0		
Bromoform	ug/L	<5.0	<5.0		
Bromomethane	ug/L	<5.0	<5.0		
Carbon disulfide	ug/L	<10.0	<10.0		
Carbon tetrachloride	ug/L	<5.0	<5.0		
Chlorobenzene	ug/L	<5.0	<5.0		
Chloroethane	ug/L	<10.0	<10.0		
Chloroform	ug/L	<5.0	<5.0		
Chloromethane	ug/L	<10.0	<10.0		
cis-1,2-Dichloroethene	ug/L	<5.0	<5.0		
cis-1,3-Dichloropropene	ug/L	<5.0	<5.0		
Cyclohexane	ug/L	<5.0	<5.0		
Dibromochloromethane	ug/L	<5.0	<5.0		
Dichlorodifluoromethane	ug/L	<10.0	<10.0		
Ethylbenzene	ug/L	<5.0	<5.0		
Isopropylbenzene (Cumene)	ug/L	<5.0	<5.0		
m&p-Xylene	ug/L	<5.0	<5.0		
Methyl acetate	ug/L	<5.0	<5.0		
Methyl-tert-butyl ether	ug/L	<5.0	<5.0		
Methylcyclohexane	ug/L	<5.0	<5.0		
Methylene Chloride	ug/L	<5.0	<5.0		
o-Xylene	ug/L	<5.0	<5.0		
Styrene	ug/L	<5.0	<5.0		
Tetrachloroethene	ug/L	<5.0	<5.0		
Toluene	ug/L	<5.0	<5.0		
trans-1,2-Dichloroethene	ug/L	<5.0	<5.0		
trans-1,3-Dichloropropene	ug/L	<5.0	<5.0		
Trichloroethene	ug/L	<5.0	<5.0		
Trichlorofluoromethane	ug/L	<5.0	<5.0		
Vinyl chloride	ug/L	<2.0	<2.0		
1,2-Dichloroethane-d4 (S)	%	110	111	1	
4-Bromofluorobenzene (S)	%	99	99	0	
Toluene-d8 (S)	%	88	90	2	

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REPORT OF LABORATORY ANALYSIS

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Ormond Beach, FL 32174
(386)672-5668

QUALIFIERS

Project: Roper
Pace Project No.: 35232226

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-O	Pace Analytical Services - Ormond Beach

ANALYTE QUALIFIERS

L0	Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
L1	Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.
L3	Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

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Ormond Beach, FL 32174
(386)672-5668

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Roper
Pace Project No.: 35232226

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
35232226001	**16062-MW-10**	EPA 8260	MSV/17856		
35232226002	**16062-MW-5**	EPA 8260	MSV/17856		
35232226003	**16062-MW-1**	EPA 8260	MSV/17856		
35232226004	**16062-MW-9D**	EPA 8260	MSV/17856		
35232226005	**16062-MW-2**	EPA 8260	MSV/17856		
35232226006	**16062-MW-14**	EPA 8260	MSV/17856		
35232226007	**16062-Trip Blank**	EPA 8260	MSV/17856		
35232226008	**16062-MW-11**	EPA 8260	MSV/17856		
35232226009	**16062-MW-3**	EPA 8260	MSV/17856		

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CHAIN-OF-[illegible]nt

The Chain-of-Custod[illegible]y.

WO# : 35232226

35232226

Page: 1 of 2

2016795

Section A Required Client Information:

Company:	EPS
Address:	1050 Crown Pointe Pkwy. Atlanta, GA 30338
Email To:	jvickery@envplanning.com
Phone:	404-315-9113
Fax:	404-315-8509
Requested Due Date/TAT:	

Section B Required Project Information:

Report To:	Justin Vickery
Copy To:	
Purchase Order No.:	
Project Name:	Roper
Project Number:	

Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	
Pace Profile #:	8068

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: _____

Section D Required Client Information

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

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

ITEM #	SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test: VOC by 8260	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	16062-MW-10	WT		3/2/16	0930				3				X					X		
2	16062-MW-5	WT		3/2/16	0953				3				X					X		
3	16062-MW-1	WT		3/2/16	0945				3				X					X		
4	16062-MW-9D	WT		3/2/16	1230				3				X					X		
5	16062-MW-2	WT		3/2/16	1145				3				X					X		
6	16062-MW-14	WT		3/2/16	1205				3				X					X		
7	16062-TRIP BLANK	WT							3				X					X		
8	16062-MW-11	WT		3/2/16	1555				3				X					X		
9	16062-MW-3	WT		3/2/16	1602				3				X					X		
10																				
11																				
12																				

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	[illegible] / Pace	2/29/16	1600	N. Weber-Guehe	3/1/16		
SAMPLING KIT-EMPTY	N. Weber-Guehe	3/2/16	1605	[illegible]	3/2/16	16:05	
	DA	3/2/16	17:30				

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY):

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

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

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www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

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

2016796

Section A Required Client Information:

Company: EPS
Address: 1050 Crown Pointe Pkwy.
Atlanta, GA 30338
Email To: jvickery@envplanning.com
Phone: 404-315-9113 Fax: 404-315-8509
Requested Due Date/TAT:

Section B Required Project Information:

Report To: Justin Vickery
Copy To:
Purchase Order No.:
Project Name: Roper
Project Number:

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #: 8068

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: _____

Section D Required Client Information

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

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N): Hex. Chromium	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	16062-MW-5	WT		3/2/16	~~0953~~		1320		1	X								X		
2	16062-MW-1	WT		3/2/16	~~0945~~		1315		1	X								X		
3	16062-MW-9D	WT		3/2/16	1400				1	X								X		
4	16062-MW-2	WT		3/2/16	1350				1	X								X		
5	16062-MW-14	WT		3/2/16	1330				1	X								X		
6	16062-MW-11	WT		3/2/16	1555				1	X								X		
7	16062-MW-3	WT		3/2/16	1602				1	X								X		
8																				
9																				
10																				
11																				
12																				

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
	On PACE	2/29/16	1600	M. Weber-Guelke	3/1/16	
SAMPLING KIT-EMPTY	M. Weber-Guelke	3/2/16	1605	D. [illegible]	3-2-16	16:05
	DA	3/2/16	17:30			

SAMPLE CONDITIONS: Temp in °C; Received on Ice (Y/N); Custody Sealed Cooler (Y/N); Samples Intact (Y/N)

ORIGINAL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER:
SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY):

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical Florida Laboratory	Document Name: Sample Condition Upon Receipt Form	Document Revised: December 28, 2015
	Document No.: F-FL-C-007 rev. 07	Issuing Authority: Pace Florida Quality Office

Sample Condition Upon Receipt Form (SCUR)

Project #
Project Manager:
Client:

WO# : 35232226
PM: TSR Due Date: 03/10/16
CLIENT: ENVIPS

Date and Initials of person examining contents: 3/3/16 K
Label:
Deliver:
pH: K

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

Shipping Method: ☑ First Overnight ☐ Priority Overnight ☐ Standard Overnight ☐ Ground

Billing: ☐ Recipient ☑ Sender ☐ Third Party ☐ Unkown Cooler Size if Applicable:

Tracking # 8093 9899 6615

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

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other Biological Tissue is Frozen: Yes No N/A

Thermometer Used T 222 Type of Ice: (Wet) Blue None ☐ Samples on ice, cooling process has begun

Cooler #1 Temperature°C -0.6 (Visual) 0 (Correction Factor) 0.6 (Actual)
Cooler #2 Temperature°C (Visual) (Correction Factor) (Actual)
Cooler #3 Temperature°C (Visual) (Correction Factor) (Actual)
Cooler #4 Temperature°C (Visual) (Correction Factor) (Actual)
Cooler #5 Temperature°C (Visual) (Correction Factor) (Actual)
Cooler #6 Temperature°C (Visual) (Correction Factor) (Actual)

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present	☑ Yes ☐ No ☐ N/A	
Chain of Custody Filled Out	☑ Yes ☐ No ☐ N/A	
Relinquished Signature & Sampler Name COC	☑ Yes ☐ No ☐ N/A	
Samples Arrived within Hold Time	☑ Yes ☐ No ☐ N/A	
Rush TAT requested on COC	☐ Yes ☑ No ☐ N/A	
Sufficient Volume	☑ Yes ☐ No ☐ N/A	
Correct Containers Used	☑ Yes ☐ No ☐ N/A	
Pace Containers Used	☑ Yes ☐ No ☐ N/A	
Containers Intact	☑ Yes ☐ No ☐ N/A	
Sample Labels match COC (sample IDs & date/time of collection)	☑ Yes ☐ No ☐ N/A	
All containers needing acid/base preservation have been checked.	☐ Yes ☐ No ☑ N/A	HNO3 pH<2 HCl pH<2
All Containers needing preservation are found to be in compliance with EPA recommendation:	☐ Yes ☐ No ☑ N/A	H2SO4 pH<2 NaOH pH>12
Exceptions: VOA, Coliform, TOC, O&G		NaOH/ZnOAc pH>9
No Headspace in VOA Vials (>6mm):	☑ Yes ☐ No ☐ N/A	
Trip Blank Present:	☑ Yes ☐ No ☐ N/A	

Client Notification/ Resolution:

Person Contacted: Date/Time:

Comments/ Resolution (use back for additional comments):

Project Manager Review: Date:

Pace Analytical Services, Inc.
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

March 30, 2016

Mr. Justin Vickery
Environmental Planning Specialist, Inc.
1050 Crown Pointe Parkway
Suite 550
Atlanta, GA 30338

RE: Project: Roper
Pace Project No.: 35232445

Dear Mr. Vickery:
Enclosed are the analytical results for sample(s) received by the laboratory on March 04, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

This is a revised report. 03/30/2016

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

Sincerely,

Todd Rea
todd.rea@pacelabs.com
Project Manager

Enclosures

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Ormond Beach, FL 32174
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CERTIFICATIONS

Project: Roper
Pace Project No.: 35232445

Ormond Beach Certification IDs
8 East Tower Circle, Ormond Beach, FL 32174
Alabama Certification #: 41320
Connecticut Certification #: PH-0216
Delaware Certification: FL NELAC Reciprocity
Florida Certification #: E83079
Georgia Certification #: 955
Guam Certification: FL NELAC Reciprocity
Hawaii Certification: FL NELAC Reciprocity
Illinois Certification #: 200068
Indiana Certification: FL NELAC Reciprocity
Kansas Certification #: E-10383
Louisiana Certification #: FL NELAC Reciprocity
Louisiana Environmental Certificate #: 05007
Maryland Certification: #346
Michigan Certification #: 9911
Mississippi Certification: FL NELAC Reciprocity
Missouri Certification #: 236
Montana Certification #: Cert 0074
Nebraska Certification: NE-OS-28-14
Nevada Certification: FL NELAC Reciprocity
New York Certification #: 11608
North Carolina Environmental Certificate #: 667
North Carolina Certification #: 12710
North Dakota Certification #: R-216
Oklahoma Certification #: D9947
Pennsylvania Certification #: 68-00547
Puerto Rico Certification #: FL01264
South Carolina Certification: #96042001
Tennessee Certification #: TN02974
Texas Certification: FL NELAC Reciprocity
US Virgin Islands Certification: FL NELAC Reciprocity
Virginia Environmental Certification #: 460165
Wyoming Certification: FL NELAC Reciprocity
West Virginia Certification #: 9962C
Wisconsin Certification #: 399079670
Wyoming (EPA Region 8): FL NELAC Reciprocity

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SAMPLE SUMMARY

Project: Roper
Pace Project No.: 35232445

Lab ID	Sample ID	Matrix	Date Collected	Date Received
35232445001	**16063-Equipment Blank**	Water	03/03/16 14:15	03/04/16 08:25
35232445002	**16063-MW-6**	Water	03/03/16 14:00	03/04/16 08:25
35232445003	**16063-MW-12D**	Water	03/03/16 14:08	03/04/16 08:25
35232445004	**16063-Dup-1**	Water	03/03/16 14:15	03/04/16 08:25
35232445005	**16063-MW-6DS**	Water	03/03/16 14:07	03/04/16 08:25
35232445006	**16063-MW-13D**	Water	03/03/16 14:04	03/04/16 08:25

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Ormond Beach, FL 32174
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SAMPLE ANALYTE COUNT

Project: Roper
Pace Project No.: 35232445

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
35232445001	**16063-Equipment Blank**	EPA 218.6	TK1	1	PASI-O
35232445002	**16063-MW-6**	EPA 218.6	TK1	1	PASI-O
35232445003	**16063-MW-12D**	EPA 218.6	TK1	1	PASI-O
35232445004	**16063-Dup-1**	EPA 218.6	TK1	1	PASI-O
35232445005	**16063-MW-6DS**	EPA 218.6	TK1	1	PASI-O
35232445006	**16063-MW-13D**	EPA 218.6	TK1	1	PASI-O

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8 East Tower Circle
Ormond Beach, FL 32174
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PROJECT NARRATIVE

Project: Roper
Pace Project No.: 35232445

Date: March 30, 2016

The sampler's name and signature were not listed on the COC.

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Ormond Beach, FL 32174
(386)672-5668

ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232445

Sample: 16063-Equipment Blank **Lab ID: 35232445001** Collected: 03/03/16 14:15 Received: 03/04/16 08:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Hexavalent Chromium 24 Hour	Analytical Method: EPA 218.6								
Chromium, Hexavalent	**0.082**	ug/L	0.025	0.0082	1		03/04/16 12:07	18540-29-9	

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ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232445

Sample: 16063-MW-6 **Lab ID: 35232445002** Collected: 03/03/16 14:00 Received: 03/04/16 08:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Hexavalent Chromium 24 Hour	Analytical Method: EPA 218.6								
Chromium, Hexavalent	**0.15**	ug/L	0.025	0.0082	1		03/04/16 12:20	18540-29-9	

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ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232445

Sample: 16063-MW-12D **Lab ID: 35232445003** Collected: 03/03/16 14:08 Received: 03/04/16 08:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Hexavalent Chromium 24 Hour	Analytical Method: EPA 218.6								
Chromium, Hexavalent	**5.3**	ug/L	1.2	0.41	50		03/04/16 22:38	18540-29-9	1p,H5

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(386)672-5668

ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232445

Sample: 16063-Dup-1 **Lab ID: 35232445004** Collected: 03/03/16 14:15 Received: 03/04/16 08:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Hexavalent Chromium 24 Hour	Analytical Method: EPA 218.6								
Chromium, Hexavalent	**0.14**	ug/L	0.025	0.0082	1		03/04/16 12:46	18540-29-9	

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Ormond Beach, FL 32174
(386)672-5668

ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232445

Sample: 16063-MW-6DS **Lab ID: 35232445005** Collected: 03/03/16 14:07 Received: 03/04/16 08:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Hexavalent Chromium 24 Hour	Analytical Method: EPA 218.6								
Chromium, Hexavalent	**0.24**	ug/L	0.025	0.0082	1		03/04/16 12:59	18540-29-9	

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ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232445

Sample: 16063-MW-13D **Lab ID: 35232445006** Collected: 03/03/16 14:04 Received: 03/04/16 08:25 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Hexavalent Chromium 24 Hour	Analytical Method: EPA 218.6								
Chromium, Hexavalent	**2.6**	ug/L	1.2	0.41	50		03/04/16 22:51	18540-29-9	1p,H5

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Ormond Beach, FL 32174
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QUALITY CONTROL DATA

Project: Roper
Pace Project No.: 35232445

QC Batch: WETA/55560 | Analysis Method: EPA 218.6
QC Batch Method: EPA 218.6 | Analysis Description: Chromium, Hexavalent by IC 24 Hour
Associated Lab Samples: 35232445001, 35232445002, 35232445003, 35232445004, 35232445005, 35232445006

METHOD BLANK: 1497018 | Matrix: Water
Associated Lab Samples: 35232445001, 35232445002, 35232445003, 35232445004, 35232445005, 35232445006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chromium, Hexavalent	ug/L	<0.0082	0.025	0.0082	03/04/16 13:51	

LABORATORY CONTROL SAMPLE: 1497019

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	ug/L	.075	0.079	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1497020 1497021

Parameter	Units	35232434001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chromium, Hexavalent	ug/L	0.39	.38	.38	0.75	0.75	96	95	90-110	0	20	H1

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

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Roper
Pace Project No.: 35232445

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-O	Pace Analytical Services - Ormond Beach

ANALYTE QUALIFIERS

1p	Sample was run in hold but was over the curve and needed a dilution
H1	Analysis conducted outside the EPA method holding time.
H5	Reanalysis conducted in excess of EPA method holding time. Results confirm original analysis performed in hold time.

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Ormond Beach, FL 32174
(386)672-5668

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Roper
Pace Project No.: 35232445

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
35232445001	**16063-Equipment Blank**	EPA 218.6	WETA/55560		
35232445002	**16063-MW-6**	EPA 218.6	WETA/55560		
35232445003	**16063-MW-12D**	EPA 218.6	WETA/55560		
35232445004	**16063-Dup-1**	EPA 218.6	WETA/55560		
35232445005	**16063-MW-6DS**	EPA 218.6	WETA/55560		
35232445006	**16063-MW-13D**	EPA 218.6	WETA/55560		

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CH… Document
The C… eted accurately.

WO# : 35232445
35232445

Page: of
1998020

Section A
Required Client Information:

Company: EPS	
Address: 1050 Crown Pointe Pkwy	
Atlanta, GA	
Email To: jvickery@envplanning.com	
Phone: 404-315-9113 Fax:	
Requested Due Date/TAT:	

Section B
Required Project Information:

Report To: Justin Vickery	
Copy To:	
Purchase Order No.:	
Project Name: Roper	
Project Number:	

Attention:	
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	
Pace Profile #:	

REGULATORY AGENCY
☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location
STATE: _____

Section D
Required Client Information

Matrix Codes
MATRIX / CODE

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

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other – Buffer #2	Analysis Test (Y/N): Hex. Chromium	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	16063-Equipment Blank	WT		3/3/16	~~0715~~ 1400		1415		1								X	X		
2	16063-MW-6	WT		3/3/16	1400				1								X	X		
3	16063-MW-120	WT		3/3/16	1408				1								X	X		
4	16063-OUP-1	WT		3/3/16	1415				1								X	X		
5	16063-MW-6DS	WT		3/3/16	1407				1								X	X		
6	16063-MW-130	WT		3/3/16	1404				1								X	X		
7																				
8																				
9																				
10																				
11																				
12																				

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	M. Weber-Gaehe	3/3/16	400pm	B Pitt	3-3	1600	
				[illegible]	3/4/16	08:20	

ORIGINAL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER:
SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY):

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

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

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CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: of

1998016

Section A Required Client Information:

Company: EPS
Address: 1050 Crown Pointe Pkwy, Atlanta, GA
Email To: jvickery@envplanning.com
Phone: 404-315-9113 Fax:
Requested Due Date/TAT:

Section B Required Project Information:

Report To: Justin Vickery
Copy To:
Purchase Order No.:
Project Name: Roper
Project Number:

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: _____

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

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

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

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start DATE	COLLECTED Composite Start TIME	COLLECTED Composite End/Grab DATE	COLLECTED Composite End/Grab TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test: VOC by 8260	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	16063-EquipmentBlank	WT		3/3/16	0715				3				X					X		
2	16063-MW-6	WT		3/3/16	0935				3				X					X		
3	16063-MW2D	WT		3/3/16	1005				3				X					X		
4	16063-DUP-1	WT		3/3/16	1000				3				X					X		
5	16063-TRIPBLANK	WT		3/3/16					3				X					X		
6	16063-MW-16	WT		3/3/16	1008				3				X					X		
7	16063-MW-6DS	WT		3/3/16	1200				3				X					X		
8	16063-MW-13D	WT		3/3/16	1200				3				X					X		
9																				
10																				
11																				
12																				

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	M. Weber-Goeke	3/3/16	1600	B. Dotrt	3/3	1600	
				[illegible]	3/4/16	0825	

ORIGINAL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER:
SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY):

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

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical Florida Laboratory	Document Name Sample Condition Upon Receipt Form	Document Revised: December 28, 2015
	Document No F-FL-C-007 rev. 07	Issuing Authority Pace Florida Quality Office

Sample Condition Upon Receipt Form (SCUR)

Project #: **WO# : 35232445**

Project Manager: **PM: TSR** **Due Date: 03/11/16**

Client: **CLIENT: ENVIPS**

Date and Initials of person examining contents: DT 3/4/16
Label: DT
Deliver: DT
pH: DT

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

Shipping Method: ☑ First Overnight ☐ Priority Overnight ☐ Standard Overnight ☐ Ground

Billing: ☐ Recipient ☐ Sender ☐ Third Party ☑ Unkown Cooler Size if Applicable:

Tracking # 7825 1662 0618

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

Packing Material: ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other Biological Tissue is Frozen: Yes No N/A

Thermometer Used T-223 Type of Ice: (Wet) Blue None ☐ Samples on ice, cooling process has begun

Cooler #1 Temperature°C 0.8 (Visual) 0 (Correction Factor) 0.8 (Actual)

Cooler #2 Temperature°C ____ (Visual) ____ (Correction Factor) ____ (Actual)

Cooler #3 Temperature°C ____ (Visual) ____ (Correction Factor) ____ (Actual)

Cooler #4 Temperature°C ____ (Visual) ____ (Correction Factor) ____ (Actual)

Cooler #5 Temperature°C ____ (Visual) ____ (Correction Factor) ____ (Actual)

Cooler #6 Temperature°C ____ (Visual) ____ (Correction Factor) ____ (Actual)

Temp should be above freezing to 6°C

				Comments:
Chain of Custody Present	☒ Yes	☐ No	☐ N/A	
Chain of Custody Filled Out	☒ Yes	☐ No	☐ N/A	
Relinquished Signature & Sampler Name COC	☐ Yes	☑ No	☐ N/A	not relinquished or sampler
Samples Arrived within Hold Time	☒ Yes	☐ No	☐ N/A	
Rush TAT requested on COC	☐ Yes	☒ No	☐ N/A	
Sufficient Volume	☒ Yes	☐ No	☐ N/A	
Correct Containers Used	☒ Yes	☐ No	☐ N/A	
Pace Containers Used	☒ Yes	☐ No	☐ N/A	
Containers Intact	☒ Yes	☐ No	☐ N/A	
Sample Labels match COC (sample IDs & date/time of collection)	☒ Yes	☐ No	☐ N/A	
All containers needing acid/base preservation have been checked.	☒ Yes	☐ No	☐ N/A	HNO3 pH<2 HCl pH<2 H2SO4 pH<2 NaOH pH>12 NaOH/ZnOAc pH>9 See below.
All Containers needing preservation are found to be in compliance with EPA recommendation Exceptions: VOA, Coliform, TOC, O&G	☐ Yes	☒ No	☐ N/A	
No Headspace in VOA Vials (>6mm):	☒ Yes	☐ No	☐ N/A	
Trip Blank Present:	☒ Yes	☐ No	☐ N/A	

Client Notification/ Resolution:

Person Contacted: ____ Date/Time: ____

Comments/ Resolution (use back for additional comments):

#1 9.12 #6 9.08
#2 9.33
#3 9.08
#4 9.05
#5 9.09

Project Manager Review: ____ Date: ____

Pace Analytical Services, Inc.
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

March 30, 2016

Mr. Justin Vickery
Environmental Planning Specialist, Inc.
1050 Crown Pointe Parkway
Suite 550
Atlanta, GA 30338

RE: Project: Roper
Pace Project No.: 35232445

Dear Mr. Vickery:
Enclosed are the analytical results for sample(s) received by the laboratory on March 04, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

This is a revised report. 03/30/2016

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

Sincerely,

Todd Rea
todd.rea@pacelabs.com
Project Manager

Enclosures

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CERTIFICATIONS

Project: Roper
Pace Project No.: 35232445

Ormond Beach Certification IDs
8 East Tower Circle, Ormond Beach, FL 32174
Alabama Certification #: 41320
Connecticut Certification #: PH-0216
Delaware Certification: FL NELAC Reciprocity
Florida Certification #: E83079
Georgia Certification #: 955
Guam Certification: FL NELAC Reciprocity
Hawaii Certification: FL NELAC Reciprocity
Illinois Certification #: 200068
Indiana Certification: FL NELAC Reciprocity
Kansas Certification #: E-10383
Louisiana Certification #: FL NELAC Reciprocity
Louisiana Environmental Certificate #: 05007
Maryland Certification: #346
Michigan Certification #: 9911
Mississippi Certification: FL NELAC Reciprocity
Missouri Certification #: 236
Montana Certification #: Cert 0074
Nebraska Certification: NE-OS-28-14
Nevada Certification: FL NELAC Reciprocity
New York Certification #: 11608
North Carolina Environmental Certificate #: 667
North Carolina Certification #: 12710
North Dakota Certification #: R-216
Oklahoma Certification #: D9947
Pennsylvania Certification #: 68-00547
Puerto Rico Certification #: FL01264
South Carolina Certification: #96042001
Tennessee Certification #: TN02974
Texas Certification: FL NELAC Reciprocity
US Virgin Islands Certification: FL NELAC Reciprocity
Virginia Environmental Certification #: 460165
Wyoming Certification: FL NELAC Reciprocity
West Virginia Certification #: 9962C
Wisconsin Certification #: 399079670
Wyoming (EPA Region 8): FL NELAC Reciprocity

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SAMPLE ANALYTE COUNT

Project: Roper
Pace Project No.: 35232445

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
35232445007	**16063-Equipment Blank**	EPA 8260	SK1	52	PASI-O
35232445008	**16063-MW-6**	EPA 8260	SK1	52	PASI-O
35232445009	**16063-MW-12D**	EPA 8260	SK1	52	PASI-O
35232445010	**16063-Dup-1**	EPA 8260	SK1	52	PASI-O
35232445011	**16063-Trip Blank**	EPA 8260	SK1	52	PASI-O
35232445012	**16063-MW-16**	EPA 8260	SK1	52	PASI-O
35232445013	**16063-MW-6DS**	EPA 8260	SK1	52	PASI-O
35232445014	**16063-MW-13D**	EPA 8260	SK1	52	PASI-O

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PROJECT NARRATIVE

Project: Roper
Pace Project No.: 35232445

Date: March 30, 2016

The sampler's name and signature were not listed on the COC.

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Ormond Beach, FL 32174
(386)672-5668

ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232445

Sample: 16063-Equipment Blank **Lab ID: 35232445007** Collected: 03/03/16 07:15 Received: 03/04/16 08:25 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	**<50.0**	ug/L	50.0	1		03/12/16 12:28	67-64-1	
Benzene	**<5.0**	ug/L	5.0	1		03/12/16 12:28	71-43-2	
Bromodichloromethane	**<5.0**	ug/L	5.0	1		03/12/16 12:28	75-27-4	
Bromoform	**<5.0**	ug/L	5.0	1		03/12/16 12:28	75-25-2	
Bromomethane	**<5.0**	ug/L	5.0	1		03/12/16 12:28	74-83-9	
2-Butanone (MEK)	**<50.0**	ug/L	50.0	1		03/12/16 12:28	78-93-3	
Carbon disulfide	**<10.0**	ug/L	10.0	1		03/12/16 12:28	75-15-0	
Carbon tetrachloride	**<5.0**	ug/L	5.0	1		03/12/16 12:28	56-23-5	L3
Chlorobenzene	**<5.0**	ug/L	5.0	1		03/12/16 12:28	108-90-7	
Chloroethane	**<10.0**	ug/L	10.0	1		03/12/16 12:28	75-00-3	
Chloroform	**<5.0**	ug/L	5.0	1		03/12/16 12:28	67-66-3	
Chloromethane	**<10.0**	ug/L	10.0	1		03/12/16 12:28	74-87-3	
Cyclohexane	**<5.0**	ug/L	5.0	1		03/12/16 12:28	68411-77-8..	
1,2-Dibromo-3-chloropropane	**<5.0**	ug/L	5.0	1		03/12/16 12:28	96-12-8	
Dibromochloromethane	**<5.0**	ug/L	5.0	1		03/12/16 12:28	124-48-1	
1,2-Dibromoethane (EDB)	**<5.0**	ug/L	5.0	1		03/12/16 12:28	106-93-4	
1,2-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/12/16 12:28	95-50-1	
1,3-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/12/16 12:28	541-73-1	
1,4-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/12/16 12:28	106-46-7	
Dichlorodifluoromethane	**<10.0**	ug/L	10.0	1		03/12/16 12:28	75-71-8	
1,1-Dichloroethane	**<5.0**	ug/L	5.0	1		03/12/16 12:28	75-34-3	
1,2-Dichloroethane	**<5.0**	ug/L	5.0	1		03/12/16 12:28	107-06-2	
1,1-Dichloroethene	**<5.0**	ug/L	5.0	1		03/12/16 12:28	75-35-4	
cis-1,2-Dichloroethene	**<5.0**	ug/L	5.0	1		03/12/16 12:28	156-59-2	
trans-1,2-Dichloroethene	**<5.0**	ug/L	5.0	1		03/12/16 12:28	156-60-5	
1,2-Dichloropropane	**<5.0**	ug/L	5.0	1		03/12/16 12:28	78-87-5	
cis-1,3-Dichloropropene	**<5.0**	ug/L	5.0	1		03/12/16 12:28	10061-01-5	
trans-1,3-Dichloropropene	**<5.0**	ug/L	5.0	1		03/12/16 12:28	10061-02-6	
Ethylbenzene	**<5.0**	ug/L	5.0	1		03/12/16 12:28	100-41-4	
2-Hexanone	**<10.0**	ug/L	10.0	1		03/12/16 12:28	591-78-6	
Isopropylbenzene (Cumene)	**<5.0**	ug/L	5.0	1		03/12/16 12:28	98-82-8	
Methyl acetate	**<5.0**	ug/L	5.0	1		03/12/16 12:28	79-20-9	
Methylcyclohexane	**<5.0**	ug/L	5.0	1		03/12/16 12:28	108-87-2	
Methylene Chloride	**<5.0**	ug/L	5.0	1		03/12/16 12:28	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<10.0**	ug/L	10.0	1		03/12/16 12:28	108-10-1	
Methyl-tert-butyl ether	**<5.0**	ug/L	5.0	1		03/12/16 12:28	1634-04-4	
Styrene	**<5.0**	ug/L	5.0	1		03/12/16 12:28	100-42-5	
1,1,2,2-Tetrachloroethane	**<5.0**	ug/L	5.0	1		03/12/16 12:28	79-34-5	
Tetrachloroethene	**<5.0**	ug/L	5.0	1		03/12/16 12:28	127-18-4	
Toluene	**<5.0**	ug/L	5.0	1		03/12/16 12:28	108-88-3	
1,2,4-Trichlorobenzene	**<5.0**	ug/L	5.0	1		03/12/16 12:28	120-82-1	L3
1,1,1-Trichloroethane	**<5.0**	ug/L	5.0	1		03/12/16 12:28	71-55-6	L3
1,1,2-Trichloroethane	**<5.0**	ug/L	5.0	1		03/12/16 12:28	79-00-5	
Trichloroethene	**<5.0**	ug/L	5.0	1		03/12/16 12:28	79-01-6	
Trichlorofluoromethane	**<5.0**	ug/L	5.0	1		03/12/16 12:28	75-69-4	L3
1,1,2-Trichlorotrifluoroethane	**<10.0**	ug/L	10.0	1		03/12/16 12:28	76-13-1	L3
Vinyl chloride	**<2.0**	ug/L	2.0	1		03/12/16 12:28	75-01-4	

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ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232445

Sample: 16063-Equipment Blank **Lab ID: 35232445007** Collected: 03/03/16 07:15 Received: 03/04/16 08:25 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
m&p-Xylene	**<5.0**	ug/L	5.0	1		03/12/16 12:28	179601-23-1	
o-Xylene	**<5.0**	ug/L	5.0	1		03/12/16 12:28	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	96	%	70-114	1		03/12/16 12:28	460-00-4	
1,2-Dichloroethane-d4 (S)	111	%	86-125	1		03/12/16 12:28	17060-07-0	
Toluene-d8 (S)	84	%	87-113	1		03/12/16 12:28	2037-26-5	S0

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ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232445

Sample: 16063-MW-6 **Lab ID: 35232445008** Collected: 03/03/16 09:35 Received: 03/04/16 08:25 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	**<50.0**	ug/L	50.0	1		03/12/16 17:39	67-64-1	
Benzene	**<5.0**	ug/L	5.0	1		03/12/16 17:39	71-43-2	
Bromodichloromethane	**<5.0**	ug/L	5.0	1		03/12/16 17:39	75-27-4	
Bromoform	**<5.0**	ug/L	5.0	1		03/12/16 17:39	75-25-2	
Bromomethane	**<5.0**	ug/L	5.0	1		03/12/16 17:39	74-83-9	
2-Butanone (MEK)	**<50.0**	ug/L	50.0	1		03/12/16 17:39	78-93-3	
Carbon disulfide	**<10.0**	ug/L	10.0	1		03/12/16 17:39	75-15-0	
Carbon tetrachloride	**<5.0**	ug/L	5.0	1		03/12/16 17:39	56-23-5	L3
Chlorobenzene	**<5.0**	ug/L	5.0	1		03/12/16 17:39	108-90-7	
Chloroethane	**<10.0**	ug/L	10.0	1		03/12/16 17:39	75-00-3	
Chloroform	**<5.0**	ug/L	5.0	1		03/12/16 17:39	67-66-3	
Chloromethane	**<10.0**	ug/L	10.0	1		03/12/16 17:39	74-87-3	
Cyclohexane	**<5.0**	ug/L	5.0	1		03/12/16 17:39	68411-77-8..	
1,2-Dibromo-3-chloropropane	**<5.0**	ug/L	5.0	1		03/12/16 17:39	96-12-8	
Dibromochloromethane	**<5.0**	ug/L	5.0	1		03/12/16 17:39	124-48-1	
1,2-Dibromoethane (EDB)	**<5.0**	ug/L	5.0	1		03/12/16 17:39	106-93-4	
1,2-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/12/16 17:39	95-50-1	
1,3-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/12/16 17:39	541-73-1	
1,4-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/12/16 17:39	106-46-7	
Dichlorodifluoromethane	**<10.0**	ug/L	10.0	1		03/12/16 17:39	75-71-8	
1,1-Dichloroethane	**<5.0**	ug/L	5.0	1		03/12/16 17:39	75-34-3	
1,2-Dichloroethane	**<5.0**	ug/L	5.0	1		03/12/16 17:39	107-06-2	
1,1-Dichloroethene	**<5.0**	ug/L	5.0	1		03/12/16 17:39	75-35-4	
cis-1,2-Dichloroethene	**74.2**	ug/L	5.0	1		03/12/16 17:39	156-59-2	
trans-1,2-Dichloroethene	**<5.0**	ug/L	5.0	1		03/12/16 17:39	156-60-5	
1,2-Dichloropropane	**<5.0**	ug/L	5.0	1		03/12/16 17:39	78-87-5	
cis-1,3-Dichloropropene	**<5.0**	ug/L	5.0	1		03/12/16 17:39	10061-01-5	
trans-1,3-Dichloropropene	**<5.0**	ug/L	5.0	1		03/12/16 17:39	10061-02-6	
Ethylbenzene	**<5.0**	ug/L	5.0	1		03/12/16 17:39	100-41-4	
2-Hexanone	**<10.0**	ug/L	10.0	1		03/12/16 17:39	591-78-6	
Isopropylbenzene (Cumene)	**<5.0**	ug/L	5.0	1		03/12/16 17:39	98-82-8	
Methyl acetate	**<5.0**	ug/L	5.0	1		03/12/16 17:39	79-20-9	
Methylcyclohexane	**<5.0**	ug/L	5.0	1		03/12/16 17:39	108-87-2	
Methylene Chloride	**<5.0**	ug/L	5.0	1		03/12/16 17:39	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<10.0**	ug/L	10.0	1		03/12/16 17:39	108-10-1	
Methyl-tert-butyl ether	**<5.0**	ug/L	5.0	1		03/12/16 17:39	1634-04-4	
Styrene	**<5.0**	ug/L	5.0	1		03/12/16 17:39	100-42-5	
1,1,2,2-Tetrachloroethane	**<5.0**	ug/L	5.0	1		03/12/16 17:39	79-34-5	
Tetrachloroethene	**119**	ug/L	5.0	1		03/12/16 17:39	127-18-4	
Toluene	**<5.0**	ug/L	5.0	1		03/12/16 17:39	108-88-3	
1,2,4-Trichlorobenzene	**<5.0**	ug/L	5.0	1		03/12/16 17:39	120-82-1	L3
1,1,1-Trichloroethane	**<5.0**	ug/L	5.0	1		03/12/16 17:39	71-55-6	L3
1,1,2-Trichloroethane	**<5.0**	ug/L	5.0	1		03/12/16 17:39	79-00-5	
Trichloroethene	**22.5**	ug/L	5.0	1		03/12/16 17:39	79-01-6	
Trichlorofluoromethane	**<5.0**	ug/L	5.0	1		03/12/16 17:39	75-69-4	L3
1,1,2-Trichlorotrifluoroethane	**<10.0**	ug/L	10.0	1		03/12/16 17:39	76-13-1	L3
Vinyl chloride	**<2.0**	ug/L	2.0	1		03/12/16 17:39	75-01-4	

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ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232445

Sample: 16063-MW-6 **Lab ID: 35232445008** Collected: 03/03/16 09:35 Received: 03/04/16 08:25 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
m&p-Xylene	**<5.0**	ug/L	5.0	1		03/12/16 17:39	179601-23-1	
o-Xylene	**<5.0**	ug/L	5.0	1		03/12/16 17:39	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	97	%	70-114	1		03/12/16 17:39	460-00-4	
1,2-Dichloroethane-d4 (S)	115	%	86-125	1		03/12/16 17:39	17060-07-0	
Toluene-d8 (S)	104	%	87-113	1		03/12/16 17:39	2037-26-5	

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ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232445

Sample: 16063-MW-12D **Lab ID: 35232445009** Collected: 03/03/16 10:05 Received: 03/04/16 08:25 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	**<50.0**	ug/L	50.0	1		03/12/16 18:27	67-64-1	
Benzene	**<5.0**	ug/L	5.0	1		03/12/16 18:27	71-43-2	
Bromodichloromethane	**<5.0**	ug/L	5.0	1		03/12/16 18:27	75-27-4	
Bromoform	**<5.0**	ug/L	5.0	1		03/12/16 18:27	75-25-2	
Bromomethane	**<5.0**	ug/L	5.0	1		03/12/16 18:27	74-83-9	M1
2-Butanone (MEK)	**<50.0**	ug/L	50.0	1		03/12/16 18:27	78-93-3	
Carbon disulfide	**<10.0**	ug/L	10.0	1		03/12/16 18:27	75-15-0	
Carbon tetrachloride	**<5.0**	ug/L	5.0	1		03/12/16 18:27	56-23-5	L3,M0
Chlorobenzene	**<5.0**	ug/L	5.0	1		03/12/16 18:27	108-90-7	
Chloroethane	**<10.0**	ug/L	10.0	1		03/12/16 18:27	75-00-3	
Chloroform	**<5.0**	ug/L	5.0	1		03/12/16 18:27	67-66-3	
Chloromethane	**<10.0**	ug/L	10.0	1		03/12/16 18:27	74-87-3	
Cyclohexane	**<5.0**	ug/L	5.0	1		03/12/16 18:27	68411-77-8..	
1,2-Dibromo-3-chloropropane	**<5.0**	ug/L	5.0	1		03/12/16 18:27	96-12-8	
Dibromochloromethane	**<5.0**	ug/L	5.0	1		03/12/16 18:27	124-48-1	
1,2-Dibromoethane (EDB)	**<5.0**	ug/L	5.0	1		03/12/16 18:27	106-93-4	
1,2-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/12/16 18:27	95-50-1	
1,3-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/12/16 18:27	541-73-1	
1,4-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/12/16 18:27	106-46-7	
Dichlorodifluoromethane	**<10.0**	ug/L	10.0	1		03/12/16 18:27	75-71-8	
1,1-Dichloroethane	**<5.0**	ug/L	5.0	1		03/12/16 18:27	75-34-3	
1,2-Dichloroethane	**<5.0**	ug/L	5.0	1		03/12/16 18:27	107-06-2	
1,1-Dichloroethene	**<5.0**	ug/L	5.0	1		03/12/16 18:27	75-35-4	M1
cis-1,2-Dichloroethene	**<5.0**	ug/L	5.0	1		03/12/16 18:27	156-59-2	
trans-1,2-Dichloroethene	**<5.0**	ug/L	5.0	1		03/12/16 18:27	156-60-5	
1,2-Dichloropropane	**<5.0**	ug/L	5.0	1		03/12/16 18:27	78-87-5	
cis-1,3-Dichloropropene	**<5.0**	ug/L	5.0	1		03/12/16 18:27	10061-01-5	
trans-1,3-Dichloropropene	**<5.0**	ug/L	5.0	1		03/12/16 18:27	10061-02-6	
Ethylbenzene	**<5.0**	ug/L	5.0	1		03/12/16 18:27	100-41-4	
2-Hexanone	**<10.0**	ug/L	10.0	1		03/12/16 18:27	591-78-6	
Isopropylbenzene (Cumene)	**<5.0**	ug/L	5.0	1		03/12/16 18:27	98-82-8	
Methyl acetate	**<5.0**	ug/L	5.0	1		03/12/16 18:27	79-20-9	
Methylcyclohexane	**<5.0**	ug/L	5.0	1		03/12/16 18:27	108-87-2	
Methylene Chloride	**<5.0**	ug/L	5.0	1		03/12/16 18:27	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<10.0**	ug/L	10.0	1		03/12/16 18:27	108-10-1	
Methyl-tert-butyl ether	**<5.0**	ug/L	5.0	1		03/12/16 18:27	1634-04-4	
Styrene	**<5.0**	ug/L	5.0	1		03/12/16 18:27	100-42-5	
1,1,2,2-Tetrachloroethane	**<5.0**	ug/L	5.0	1		03/12/16 18:27	79-34-5	
Tetrachloroethene	**35.8**	ug/L	5.0	1		03/12/16 18:27	127-18-4	
Toluene	**<5.0**	ug/L	5.0	1		03/12/16 18:27	108-88-3	
1,2,4-Trichlorobenzene	**<5.0**	ug/L	5.0	1		03/12/16 18:27	120-82-1	L3
1,1,1-Trichloroethane	**<5.0**	ug/L	5.0	1		03/12/16 18:27	71-55-6	L3,M0
1,1,2-Trichloroethane	**<5.0**	ug/L	5.0	1		03/12/16 18:27	79-00-5	
Trichloroethene	**140**	ug/L	5.0	1		03/12/16 18:27	79-01-6	M1
Trichlorofluoromethane	**<5.0**	ug/L	5.0	1		03/12/16 18:27	75-69-4	L3
1,1,2-Trichlorotrifluoroethane	**<10.0**	ug/L	10.0	1		03/12/16 18:27	76-13-1	L3
Vinyl chloride	**<2.0**	ug/L	2.0	1		03/12/16 18:27	75-01-4	

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ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232445

Sample: 16063-MW-12D **Lab ID: 35232445009** Collected: 03/03/16 10:05 Received: 03/04/16 08:25 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
m&p-Xylene	**<5.0**	ug/L	5.0	1		03/12/16 18:27	179601-23-1	
o-Xylene	**<5.0**	ug/L	5.0	1		03/12/16 18:27	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	99	%	70-114	1		03/12/16 18:27	460-00-4	
1,2-Dichloroethane-d4 (S)	131	%	86-125	1		03/12/16 18:27	17060-07-0	S0
Toluene-d8 (S)	105	%	87-113	1		03/12/16 18:27	2037-26-5	

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ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232445

Sample: 16063-Dup-1 **Lab ID: 35232445010** Collected: 03/03/16 10:00 Received: 03/04/16 08:25 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	**<50.0**	ug/L	50.0	1		03/12/16 18:52	67-64-1	
Benzene	**<5.0**	ug/L	5.0	1		03/12/16 18:52	71-43-2	
Bromodichloromethane	**<5.0**	ug/L	5.0	1		03/12/16 18:52	75-27-4	
Bromoform	**<5.0**	ug/L	5.0	1		03/12/16 18:52	75-25-2	
Bromomethane	**<5.0**	ug/L	5.0	1		03/12/16 18:52	74-83-9	
2-Butanone (MEK)	**<50.0**	ug/L	50.0	1		03/12/16 18:52	78-93-3	
Carbon disulfide	**<10.0**	ug/L	10.0	1		03/12/16 18:52	75-15-0	
Carbon tetrachloride	**<5.0**	ug/L	5.0	1		03/12/16 18:52	56-23-5	L3
Chlorobenzene	**<5.0**	ug/L	5.0	1		03/12/16 18:52	108-90-7	
Chloroethane	**<10.0**	ug/L	10.0	1		03/12/16 18:52	75-00-3	
Chloroform	**<5.0**	ug/L	5.0	1		03/12/16 18:52	67-66-3	
Chloromethane	**<10.0**	ug/L	10.0	1		03/12/16 18:52	74-87-3	
Cyclohexane	**<5.0**	ug/L	5.0	1		03/12/16 18:52	68411-77-8..	
1,2-Dibromo-3-chloropropane	**<5.0**	ug/L	5.0	1		03/12/16 18:52	96-12-8	
Dibromochloromethane	**<5.0**	ug/L	5.0	1		03/12/16 18:52	124-48-1	
1,2-Dibromoethane (EDB)	**<5.0**	ug/L	5.0	1		03/12/16 18:52	106-93-4	
1,2-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/12/16 18:52	95-50-1	
1,3-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/12/16 18:52	541-73-1	
1,4-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/12/16 18:52	106-46-7	
Dichlorodifluoromethane	**<10.0**	ug/L	10.0	1		03/12/16 18:52	75-71-8	
1,1-Dichloroethane	**<5.0**	ug/L	5.0	1		03/12/16 18:52	75-34-3	
1,2-Dichloroethane	**<5.0**	ug/L	5.0	1		03/12/16 18:52	107-06-2	
1,1-Dichloroethene	**<5.0**	ug/L	5.0	1		03/12/16 18:52	75-35-4	
cis-1,2-Dichloroethene	**67.5**	ug/L	5.0	1		03/12/16 18:52	156-59-2	
trans-1,2-Dichloroethene	**<5.0**	ug/L	5.0	1		03/12/16 18:52	156-60-5	
1,2-Dichloropropane	**<5.0**	ug/L	5.0	1		03/12/16 18:52	78-87-5	
cis-1,3-Dichloropropene	**<5.0**	ug/L	5.0	1		03/12/16 18:52	10061-01-5	
trans-1,3-Dichloropropene	**<5.0**	ug/L	5.0	1		03/12/16 18:52	10061-02-6	
Ethylbenzene	**<5.0**	ug/L	5.0	1		03/12/16 18:52	100-41-4	
2-Hexanone	**<10.0**	ug/L	10.0	1		03/12/16 18:52	591-78-6	
Isopropylbenzene (Cumene)	**<5.0**	ug/L	5.0	1		03/12/16 18:52	98-82-8	
Methyl acetate	**<5.0**	ug/L	5.0	1		03/12/16 18:52	79-20-9	
Methylcyclohexane	**<5.0**	ug/L	5.0	1		03/12/16 18:52	108-87-2	
Methylene Chloride	**<5.0**	ug/L	5.0	1		03/12/16 18:52	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<10.0**	ug/L	10.0	1		03/12/16 18:52	108-10-1	
Methyl-tert-butyl ether	**<5.0**	ug/L	5.0	1		03/12/16 18:52	1634-04-4	
Styrene	**<5.0**	ug/L	5.0	1		03/12/16 18:52	100-42-5	
1,1,2,2-Tetrachloroethane	**<5.0**	ug/L	5.0	1		03/12/16 18:52	79-34-5	
Tetrachloroethene	**103**	ug/L	5.0	1		03/12/16 18:52	127-18-4	
Toluene	**<5.0**	ug/L	5.0	1		03/12/16 18:52	108-88-3	
1,2,4-Trichlorobenzene	**<5.0**	ug/L	5.0	1		03/12/16 18:52	120-82-1	L3
1,1,1-Trichloroethane	**<5.0**	ug/L	5.0	1		03/12/16 18:52	71-55-6	L3
1,1,2-Trichloroethane	**<5.0**	ug/L	5.0	1		03/12/16 18:52	79-00-5	
Trichloroethene	**21.4**	ug/L	5.0	1		03/12/16 18:52	79-01-6	
Trichlorofluoromethane	**<5.0**	ug/L	5.0	1		03/12/16 18:52	75-69-4	L3
1,1,2-Trichlorotrifluoroethane	**<10.0**	ug/L	10.0	1		03/12/16 18:52	76-13-1	L3
Vinyl chloride	**<2.0**	ug/L	2.0	1		03/12/16 18:52	75-01-4	

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8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232445

Sample: 16063-Dup-1 **Lab ID: 35232445010** Collected: 03/03/16 10:00 Received: 03/04/16 08:25 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
m&p-Xylene	**<5.0**	ug/L	5.0	1		03/12/16 18:52	179601-23-1	
o-Xylene	**<5.0**	ug/L	5.0	1		03/12/16 18:52	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	100	%	70-114	1		03/12/16 18:52	460-00-4	
1,2-Dichloroethane-d4 (S)	115	%	86-125	1		03/12/16 18:52	17060-07-0	
Toluene-d8 (S)	104	%	87-113	1		03/12/16 18:52	2037-26-5	

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ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232445

Sample: 16063-Trip Blank **Lab ID: 35232445011** Collected: 03/03/16 00:00 Received: 03/04/16 08:25 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	**<50.0**	ug/L	50.0	1		03/12/16 12:04	67-64-1	
Benzene	**<5.0**	ug/L	5.0	1		03/12/16 12:04	71-43-2	
Bromodichloromethane	**<5.0**	ug/L	5.0	1		03/12/16 12:04	75-27-4	
Bromoform	**<5.0**	ug/L	5.0	1		03/12/16 12:04	75-25-2	
Bromomethane	**<5.0**	ug/L	5.0	1		03/12/16 12:04	74-83-9	
2-Butanone (MEK)	**<50.0**	ug/L	50.0	1		03/12/16 12:04	78-93-3	
Carbon disulfide	**<10.0**	ug/L	10.0	1		03/12/16 12:04	75-15-0	
Carbon tetrachloride	**<5.0**	ug/L	5.0	1		03/12/16 12:04	56-23-5	L3
Chlorobenzene	**<5.0**	ug/L	5.0	1		03/12/16 12:04	108-90-7	
Chloroethane	**<10.0**	ug/L	10.0	1		03/12/16 12:04	75-00-3	
Chloroform	**<5.0**	ug/L	5.0	1		03/12/16 12:04	67-66-3	
Chloromethane	**<10.0**	ug/L	10.0	1		03/12/16 12:04	74-87-3	
Cyclohexane	**<5.0**	ug/L	5.0	1		03/12/16 12:04	68411-77-8..	
1,2-Dibromo-3-chloropropane	**<5.0**	ug/L	5.0	1		03/12/16 12:04	96-12-8	
Dibromochloromethane	**<5.0**	ug/L	5.0	1		03/12/16 12:04	124-48-1	
1,2-Dibromoethane (EDB)	**<5.0**	ug/L	5.0	1		03/12/16 12:04	106-93-4	
1,2-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/12/16 12:04	95-50-1	
1,3-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/12/16 12:04	541-73-1	
1,4-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/12/16 12:04	106-46-7	
Dichlorodifluoromethane	**<10.0**	ug/L	10.0	1		03/12/16 12:04	75-71-8	
1,1-Dichloroethane	**<5.0**	ug/L	5.0	1		03/12/16 12:04	75-34-3	
1,2-Dichloroethane	**<5.0**	ug/L	5.0	1		03/12/16 12:04	107-06-2	
1,1-Dichloroethene	**<5.0**	ug/L	5.0	1		03/12/16 12:04	75-35-4	
cis-1,2-Dichloroethene	**<5.0**	ug/L	5.0	1		03/12/16 12:04	156-59-2	
trans-1,2-Dichloroethene	**<5.0**	ug/L	5.0	1		03/12/16 12:04	156-60-5	
1,2-Dichloropropane	**<5.0**	ug/L	5.0	1		03/12/16 12:04	78-87-5	
cis-1,3-Dichloropropene	**<5.0**	ug/L	5.0	1		03/12/16 12:04	10061-01-5	
trans-1,3-Dichloropropene	**<5.0**	ug/L	5.0	1		03/12/16 12:04	10061-02-6	
Ethylbenzene	**<5.0**	ug/L	5.0	1		03/12/16 12:04	100-41-4	
2-Hexanone	**<10.0**	ug/L	10.0	1		03/12/16 12:04	591-78-6	
Isopropylbenzene (Cumene)	**<5.0**	ug/L	5.0	1		03/12/16 12:04	98-82-8	
Methyl acetate	**<5.0**	ug/L	5.0	1		03/12/16 12:04	79-20-9	
Methylcyclohexane	**<5.0**	ug/L	5.0	1		03/12/16 12:04	108-87-2	
Methylene Chloride	**<5.0**	ug/L	5.0	1		03/12/16 12:04	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<10.0**	ug/L	10.0	1		03/12/16 12:04	108-10-1	
Methyl-tert-butyl ether	**<5.0**	ug/L	5.0	1		03/12/16 12:04	1634-04-4	
Styrene	**<5.0**	ug/L	5.0	1		03/12/16 12:04	100-42-5	
1,1,2,2-Tetrachloroethane	**<5.0**	ug/L	5.0	1		03/12/16 12:04	79-34-5	
Tetrachloroethene	**<5.0**	ug/L	5.0	1		03/12/16 12:04	127-18-4	
Toluene	**<5.0**	ug/L	5.0	1		03/12/16 12:04	108-88-3	
1,2,4-Trichlorobenzene	**<5.0**	ug/L	5.0	1		03/12/16 12:04	120-82-1	L3
1,1,1-Trichloroethane	**<5.0**	ug/L	5.0	1		03/12/16 12:04	71-55-6	L3
1,1,2-Trichloroethane	**<5.0**	ug/L	5.0	1		03/12/16 12:04	79-00-5	
Trichloroethene	**<5.0**	ug/L	5.0	1		03/12/16 12:04	79-01-6	
Trichlorofluoromethane	**<5.0**	ug/L	5.0	1		03/12/16 12:04	75-69-4	L3
1,1,2-Trichlorotrifluoroethane	**<10.0**	ug/L	10.0	1		03/12/16 12:04	76-13-1	L3
Vinyl chloride	**<2.0**	ug/L	2.0	1		03/12/16 12:04	75-01-4	

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(386)672-5668

ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232445

Sample: 16063-Trip Blank **Lab ID: 35232445011** Collected: 03/03/16 00:00 Received: 03/04/16 08:25 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
m&p-Xylene	**<5.0**	ug/L	5.0	1		03/12/16 12:04	179601-23-1	
o-Xylene	**<5.0**	ug/L	5.0	1		03/12/16 12:04	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	97	%	70-114	1		03/12/16 12:04	460-00-4	
1,2-Dichloroethane-d4 (S)	117	%	86-125	1		03/12/16 12:04	17060-07-0	
Toluene-d8 (S)	106	%	87-113	1		03/12/16 12:04	2037-26-5	

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ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232445

Sample: 16063-MW-16 **Lab ID: 35232445012** Collected: 03/03/16 10:08 Received: 03/04/16 08:25 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	**<50.0**	ug/L	50.0	1		03/12/16 19:16	67-64-1	
Benzene	**<5.0**	ug/L	5.0	1		03/12/16 19:16	71-43-2	
Bromodichloromethane	**<5.0**	ug/L	5.0	1		03/12/16 19:16	75-27-4	
Bromoform	**<5.0**	ug/L	5.0	1		03/12/16 19:16	75-25-2	
Bromomethane	**<5.0**	ug/L	5.0	1		03/12/16 19:16	74-83-9	
2-Butanone (MEK)	**<50.0**	ug/L	50.0	1		03/12/16 19:16	78-93-3	
Carbon disulfide	**<10.0**	ug/L	10.0	1		03/12/16 19:16	75-15-0	
Carbon tetrachloride	**<5.0**	ug/L	5.0	1		03/12/16 19:16	56-23-5	L3
Chlorobenzene	**<5.0**	ug/L	5.0	1		03/12/16 19:16	108-90-7	
Chloroethane	**<10.0**	ug/L	10.0	1		03/12/16 19:16	75-00-3	
Chloroform	**<5.0**	ug/L	5.0	1		03/12/16 19:16	67-66-3	
Chloromethane	**<10.0**	ug/L	10.0	1		03/12/16 19:16	74-87-3	
Cyclohexane	**<5.0**	ug/L	5.0	1		03/12/16 19:16	68411-77-8..	
1,2-Dibromo-3-chloropropane	**<5.0**	ug/L	5.0	1		03/12/16 19:16	96-12-8	
Dibromochloromethane	**<5.0**	ug/L	5.0	1		03/12/16 19:16	124-48-1	
1,2-Dibromoethane (EDB)	**<5.0**	ug/L	5.0	1		03/12/16 19:16	106-93-4	
1,2-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/12/16 19:16	95-50-1	
1,3-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/12/16 19:16	541-73-1	
1,4-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/12/16 19:16	106-46-7	
Dichlorodifluoromethane	**<10.0**	ug/L	10.0	1		03/12/16 19:16	75-71-8	
1,1-Dichloroethane	**<5.0**	ug/L	5.0	1		03/12/16 19:16	75-34-3	
1,2-Dichloroethane	**<5.0**	ug/L	5.0	1		03/12/16 19:16	107-06-2	
1,1-Dichloroethene	**<5.0**	ug/L	5.0	1		03/12/16 19:16	75-35-4	
cis-1,2-Dichloroethene	**5.2**	ug/L	5.0	1		03/12/16 19:16	156-59-2	
trans-1,2-Dichloroethene	**<5.0**	ug/L	5.0	1		03/12/16 19:16	156-60-5	
1,2-Dichloropropane	**<5.0**	ug/L	5.0	1		03/12/16 19:16	78-87-5	
cis-1,3-Dichloropropene	**<5.0**	ug/L	5.0	1		03/12/16 19:16	10061-01-5	
trans-1,3-Dichloropropene	**<5.0**	ug/L	5.0	1		03/12/16 19:16	10061-02-6	
Ethylbenzene	**<5.0**	ug/L	5.0	1		03/12/16 19:16	100-41-4	
2-Hexanone	**<10.0**	ug/L	10.0	1		03/12/16 19:16	591-78-6	
Isopropylbenzene (Cumene)	**<5.0**	ug/L	5.0	1		03/12/16 19:16	98-82-8	
Methyl acetate	**<5.0**	ug/L	5.0	1		03/12/16 19:16	79-20-9	
Methylcyclohexane	**<5.0**	ug/L	5.0	1		03/12/16 19:16	108-87-2	
Methylene Chloride	**<5.0**	ug/L	5.0	1		03/12/16 19:16	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<10.0**	ug/L	10.0	1		03/12/16 19:16	108-10-1	
Methyl-tert-butyl ether	**<5.0**	ug/L	5.0	1		03/12/16 19:16	1634-04-4	
Styrene	**<5.0**	ug/L	5.0	1		03/12/16 19:16	100-42-5	
1,1,2,2-Tetrachloroethane	**<5.0**	ug/L	5.0	1		03/12/16 19:16	79-34-5	
Tetrachloroethene	**26.1**	ug/L	5.0	1		03/12/16 19:16	127-18-4	
Toluene	**<5.0**	ug/L	5.0	1		03/12/16 19:16	108-88-3	
1,2,4-Trichlorobenzene	**<5.0**	ug/L	5.0	1		03/12/16 19:16	120-82-1	L3
1,1,1-Trichloroethane	**<5.0**	ug/L	5.0	1		03/12/16 19:16	71-55-6	L3
1,1,2-Trichloroethane	**<5.0**	ug/L	5.0	1		03/12/16 19:16	79-00-5	
Trichloroethene	**24.9**	ug/L	5.0	1		03/12/16 19:16	79-01-6	
Trichlorofluoromethane	**<5.0**	ug/L	5.0	1		03/12/16 19:16	75-69-4	L3
1,1,2-Trichlorotrifluoroethane	**<10.0**	ug/L	10.0	1		03/12/16 19:16	76-13-1	L3
Vinyl chloride	**<2.0**	ug/L	2.0	1		03/12/16 19:16	75-01-4	

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ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232445

Sample: 16063-MW-16 **Lab ID: 35232445012** Collected: 03/03/16 10:08 Received: 03/04/16 08:25 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
m&p-Xylene	**<5.0**	ug/L	5.0	1		03/12/16 19:16	179601-23-1	
o-Xylene	**<5.0**	ug/L	5.0	1		03/12/16 19:16	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	99	%	70-114	1		03/12/16 19:16	460-00-4	
1,2-Dichloroethane-d4 (S)	116	%	86-125	1		03/12/16 19:16	17060-07-0	
Toluene-d8 (S)	105	%	87-113	1		03/12/16 19:16	2037-26-5	

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ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232445

Sample: 16063-MW-6DS **Lab ID: 35232445013** Collected: 03/03/16 12:00 Received: 03/04/16 08:25 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	**<50.0**	ug/L	50.0	1		03/12/16 19:40	67-64-1	
Benzene	**<5.0**	ug/L	5.0	1		03/12/16 19:40	71-43-2	
Bromodichloromethane	**<5.0**	ug/L	5.0	1		03/12/16 19:40	75-27-4	
Bromoform	**<5.0**	ug/L	5.0	1		03/12/16 19:40	75-25-2	
Bromomethane	**<5.0**	ug/L	5.0	1		03/12/16 19:40	74-83-9	
2-Butanone (MEK)	**<50.0**	ug/L	50.0	1		03/12/16 19:40	78-93-3	
Carbon disulfide	**<10.0**	ug/L	10.0	1		03/12/16 19:40	75-15-0	
Carbon tetrachloride	**<5.0**	ug/L	5.0	1		03/12/16 19:40	56-23-5	L3
Chlorobenzene	**<5.0**	ug/L	5.0	1		03/12/16 19:40	108-90-7	
Chloroethane	**<10.0**	ug/L	10.0	1		03/12/16 19:40	75-00-3	
Chloroform	**<5.0**	ug/L	5.0	1		03/12/16 19:40	67-66-3	
Chloromethane	**<10.0**	ug/L	10.0	1		03/12/16 19:40	74-87-3	
Cyclohexane	**<5.0**	ug/L	5.0	1		03/12/16 19:40	68411-77-8..	
1,2-Dibromo-3-chloropropane	**<5.0**	ug/L	5.0	1		03/12/16 19:40	96-12-8	
Dibromochloromethane	**<5.0**	ug/L	5.0	1		03/12/16 19:40	124-48-1	
1,2-Dibromoethane (EDB)	**<5.0**	ug/L	5.0	1		03/12/16 19:40	106-93-4	
1,2-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/12/16 19:40	95-50-1	
1,3-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/12/16 19:40	541-73-1	
1,4-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/12/16 19:40	106-46-7	
Dichlorodifluoromethane	**<10.0**	ug/L	10.0	1		03/12/16 19:40	75-71-8	
1,1-Dichloroethane	**<5.0**	ug/L	5.0	1		03/12/16 19:40	75-34-3	
1,2-Dichloroethane	**<5.0**	ug/L	5.0	1		03/12/16 19:40	107-06-2	
1,1-Dichloroethene	**<5.0**	ug/L	5.0	1		03/12/16 19:40	75-35-4	
cis-1,2-Dichloroethene	**<5.0**	ug/L	5.0	1		03/12/16 19:40	156-59-2	
trans-1,2-Dichloroethene	**<5.0**	ug/L	5.0	1		03/12/16 19:40	156-60-5	
1,2-Dichloropropane	**<5.0**	ug/L	5.0	1		03/12/16 19:40	78-87-5	
cis-1,3-Dichloropropene	**<5.0**	ug/L	5.0	1		03/12/16 19:40	10061-01-5	
trans-1,3-Dichloropropene	**<5.0**	ug/L	5.0	1		03/12/16 19:40	10061-02-6	
Ethylbenzene	**<5.0**	ug/L	5.0	1		03/12/16 19:40	100-41-4	
2-Hexanone	**<10.0**	ug/L	10.0	1		03/12/16 19:40	591-78-6	
Isopropylbenzene (Cumene)	**<5.0**	ug/L	5.0	1		03/12/16 19:40	98-82-8	
Methyl acetate	**<5.0**	ug/L	5.0	1		03/12/16 19:40	79-20-9	
Methylcyclohexane	**<5.0**	ug/L	5.0	1		03/12/16 19:40	108-87-2	
Methylene Chloride	**<5.0**	ug/L	5.0	1		03/12/16 19:40	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<10.0**	ug/L	10.0	1		03/12/16 19:40	108-10-1	
Methyl-tert-butyl ether	**<5.0**	ug/L	5.0	1		03/12/16 19:40	1634-04-4	
Styrene	**<5.0**	ug/L	5.0	1		03/12/16 19:40	100-42-5	
1,1,2,2-Tetrachloroethane	**<5.0**	ug/L	5.0	1		03/12/16 19:40	79-34-5	
Tetrachloroethene	**5.9**	ug/L	5.0	1		03/12/16 19:40	127-18-4	
Toluene	**<5.0**	ug/L	5.0	1		03/12/16 19:40	108-88-3	
1,2,4-Trichlorobenzene	**<5.0**	ug/L	5.0	1		03/12/16 19:40	120-82-1	L3
1,1,1-Trichloroethane	**<5.0**	ug/L	5.0	1		03/12/16 19:40	71-55-6	L3
1,1,2-Trichloroethane	**<5.0**	ug/L	5.0	1		03/12/16 19:40	79-00-5	
Trichloroethene	**32.8**	ug/L	5.0	1		03/12/16 19:40	79-01-6	
Trichlorofluoromethane	**<5.0**	ug/L	5.0	1		03/12/16 19:40	75-69-4	L3
1,1,2-Trichlorotrifluoroethane	**<10.0**	ug/L	10.0	1		03/12/16 19:40	76-13-1	L3
Vinyl chloride	**<2.0**	ug/L	2.0	1		03/12/16 19:40	75-01-4	

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ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232445

Sample: 16063-MW-6DS **Lab ID: 35232445013** Collected: 03/03/16 12:00 Received: 03/04/16 08:25 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
m&p-Xylene	**<5.0**	ug/L	5.0	1		03/12/16 19:40	179601-23-1	
o-Xylene	**<5.0**	ug/L	5.0	1		03/12/16 19:40	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	97	%	70-114	1		03/12/16 19:40	460-00-4	
1,2-Dichloroethane-d4 (S)	113	%	86-125	1		03/12/16 19:40	17060-07-0	
Toluene-d8 (S)	99	%	87-113	1		03/12/16 19:40	2037-26-5	

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ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232445

Sample: 16063-MW-13D **Lab ID: 35232445014** Collected: 03/03/16 12:00 Received: 03/04/16 08:25 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	**<50.0**	ug/L	50.0	1		03/12/16 20:04	67-64-1	
Benzene	**<5.0**	ug/L	5.0	1		03/12/16 20:04	71-43-2	
Bromodichloromethane	**<5.0**	ug/L	5.0	1		03/12/16 20:04	75-27-4	
Bromoform	**<5.0**	ug/L	5.0	1		03/12/16 20:04	75-25-2	
Bromomethane	**<5.0**	ug/L	5.0	1		03/12/16 20:04	74-83-9	
2-Butanone (MEK)	**<50.0**	ug/L	50.0	1		03/12/16 20:04	78-93-3	
Carbon disulfide	**<10.0**	ug/L	10.0	1		03/12/16 20:04	75-15-0	
Carbon tetrachloride	**<5.0**	ug/L	5.0	1		03/12/16 20:04	56-23-5	L3
Chlorobenzene	**<5.0**	ug/L	5.0	1		03/12/16 20:04	108-90-7	
Chloroethane	**<10.0**	ug/L	10.0	1		03/12/16 20:04	75-00-3	
Chloroform	**<5.0**	ug/L	5.0	1		03/12/16 20:04	67-66-3	
Chloromethane	**<10.0**	ug/L	10.0	1		03/12/16 20:04	74-87-3	
Cyclohexane	**<5.0**	ug/L	5.0	1		03/12/16 20:04	68411-77-8..	
1,2-Dibromo-3-chloropropane	**<5.0**	ug/L	5.0	1		03/12/16 20:04	96-12-8	
Dibromochloromethane	**<5.0**	ug/L	5.0	1		03/12/16 20:04	124-48-1	
1,2-Dibromoethane (EDB)	**<5.0**	ug/L	5.0	1		03/12/16 20:04	106-93-4	
1,2-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/12/16 20:04	95-50-1	
1,3-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/12/16 20:04	541-73-1	
1,4-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/12/16 20:04	106-46-7	
Dichlorodifluoromethane	**<10.0**	ug/L	10.0	1		03/12/16 20:04	75-71-8	
1,1-Dichloroethane	**<5.0**	ug/L	5.0	1		03/12/16 20:04	75-34-3	
1,2-Dichloroethane	**<5.0**	ug/L	5.0	1		03/12/16 20:04	107-06-2	
1,1-Dichloroethene	**<5.0**	ug/L	5.0	1		03/12/16 20:04	75-35-4	
cis-1,2-Dichloroethene	**13.2**	ug/L	5.0	1		03/12/16 20:04	156-59-2	
trans-1,2-Dichloroethene	**<5.0**	ug/L	5.0	1		03/12/16 20:04	156-60-5	
1,2-Dichloropropane	**<5.0**	ug/L	5.0	1		03/12/16 20:04	78-87-5	
cis-1,3-Dichloropropene	**<5.0**	ug/L	5.0	1		03/12/16 20:04	10061-01-5	
trans-1,3-Dichloropropene	**<5.0**	ug/L	5.0	1		03/12/16 20:04	10061-02-6	
Ethylbenzene	**<5.0**	ug/L	5.0	1		03/12/16 20:04	100-41-4	
2-Hexanone	**<10.0**	ug/L	10.0	1		03/12/16 20:04	591-78-6	
Isopropylbenzene (Cumene)	**<5.0**	ug/L	5.0	1		03/12/16 20:04	98-82-8	
Methyl acetate	**<5.0**	ug/L	5.0	1		03/12/16 20:04	79-20-9	
Methylcyclohexane	**9.4**	ug/L	5.0	1		03/12/16 20:04	108-87-2	
Methylene Chloride	**<5.0**	ug/L	5.0	1		03/12/16 20:04	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<10.0**	ug/L	10.0	1		03/12/16 20:04	108-10-1	
Methyl-tert-butyl ether	**<5.0**	ug/L	5.0	1		03/12/16 20:04	1634-04-4	
Styrene	**<5.0**	ug/L	5.0	1		03/12/16 20:04	100-42-5	
1,1,2,2-Tetrachloroethane	**<5.0**	ug/L	5.0	1		03/12/16 20:04	79-34-5	
Tetrachloroethene	**320**	ug/L	250	50		03/13/16 22:55	127-18-4	
Toluene	**<5.0**	ug/L	5.0	1		03/12/16 20:04	108-88-3	
1,2,4-Trichlorobenzene	**<5.0**	ug/L	5.0	1		03/12/16 20:04	120-82-1	L3
1,1,1-Trichloroethane	**<5.0**	ug/L	5.0	1		03/12/16 20:04	71-55-6	L3
1,1,2-Trichloroethane	**<5.0**	ug/L	5.0	1		03/12/16 20:04	79-00-5	
Trichloroethene	**1200**	ug/L	250	50		03/13/16 22:55	79-01-6	
Trichlorofluoromethane	**<5.0**	ug/L	5.0	1		03/12/16 20:04	75-69-4	L3
1,1,2-Trichlorotrifluoroethane	**<10.0**	ug/L	10.0	1		03/12/16 20:04	76-13-1	L3
Vinyl chloride	**<2.0**	ug/L	2.0	1		03/12/16 20:04	75-01-4	

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ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232445

Sample: 16063-MW-13D **Lab ID: 35232445014** Collected: 03/03/16 12:00 Received: 03/04/16 08:25 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
m&p-Xylene	**<5.0**	ug/L	5.0	1		03/12/16 20:04	179601-23-1	
o-Xylene	**<5.0**	ug/L	5.0	1		03/12/16 20:04	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	88	%	70-114	1		03/12/16 20:04	460-00-4	
1,2-Dichloroethane-d4 (S)	111	%	86-125	1		03/12/16 20:04	17060-07-0	
Toluene-d8 (S)	100	%	87-113	1		03/12/16 20:04	2037-26-5	

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QUALITY CONTROL DATA

Project: Roper
Pace Project No.: 35232445

QC Batch: MSV/17858 | Analysis Method: EPA 8260
QC Batch Method: EPA 8260 | Analysis Description: 8260 MSV
Associated Lab Samples: 35232445007, 35232445008, 35232445009, 35232445010, 35232445011, 35232445012, 35232445013, 35232445014

METHOD BLANK: 1504767 | Matrix: Water
Associated Lab Samples: 35232445007, 35232445008, 35232445009, 35232445010, 35232445011, 35232445012, 35232445013, 35232445014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	<5.0	5.0	03/12/16 11:40	
1,1,2,2-Tetrachloroethane	ug/L	<5.0	5.0	03/12/16 11:40	
1,1,2-Trichloroethane	ug/L	<5.0	5.0	03/12/16 11:40	
1,1,2-Trichlorotrifluoroethane	ug/L	<10.0	10.0	03/12/16 11:40	
1,1-Dichloroethane	ug/L	<5.0	5.0	03/12/16 11:40	
1,1-Dichloroethene	ug/L	<5.0	5.0	03/12/16 11:40	
1,2,4-Trichlorobenzene	ug/L	<5.0	5.0	03/12/16 11:40	
1,2-Dibromo-3-chloropropane	ug/L	<5.0	5.0	03/12/16 11:40	
1,2-Dibromoethane (EDB)	ug/L	<5.0	5.0	03/12/16 11:40	
1,2-Dichlorobenzene	ug/L	<5.0	5.0	03/12/16 11:40	
1,2-Dichloroethane	ug/L	<5.0	5.0	03/12/16 11:40	
1,2-Dichloropropane	ug/L	<5.0	5.0	03/12/16 11:40	
1,3-Dichlorobenzene	ug/L	<5.0	5.0	03/12/16 11:40	
1,4-Dichlorobenzene	ug/L	<5.0	5.0	03/12/16 11:40	
2-Butanone (MEK)	ug/L	<50.0	50.0	03/12/16 11:40	
2-Hexanone	ug/L	<10.0	10.0	03/12/16 11:40	
4-Methyl-2-pentanone (MIBK)	ug/L	<10.0	10.0	03/12/16 11:40	
Acetone	ug/L	<50.0	50.0	03/12/16 11:40	
Benzene	ug/L	<5.0	5.0	03/12/16 11:40	
Bromodichloromethane	ug/L	<5.0	5.0	03/12/16 11:40	
Bromoform	ug/L	<5.0	5.0	03/12/16 11:40	
Bromomethane	ug/L	<5.0	5.0	03/12/16 11:40	
Carbon disulfide	ug/L	<10.0	10.0	03/12/16 11:40	
Carbon tetrachloride	ug/L	<5.0	5.0	03/12/16 11:40	
Chlorobenzene	ug/L	<5.0	5.0	03/12/16 11:40	
Chloroethane	ug/L	<10.0	10.0	03/12/16 11:40	
Chloroform	ug/L	<5.0	5.0	03/12/16 11:40	
Chloromethane	ug/L	<10.0	10.0	03/12/16 11:40	
cis-1,2-Dichloroethene	ug/L	<5.0	5.0	03/12/16 11:40	
cis-1,3-Dichloropropene	ug/L	<5.0	5.0	03/12/16 11:40	
Cyclohexane	ug/L	<5.0	5.0	03/12/16 11:40	
Dibromochloromethane	ug/L	<5.0	5.0	03/12/16 11:40	
Dichlorodifluoromethane	ug/L	<10.0	10.0	03/12/16 11:40	
Ethylbenzene	ug/L	<5.0	5.0	03/12/16 11:40	
Isopropylbenzene (Cumene)	ug/L	<5.0	5.0	03/12/16 11:40	
m&p-Xylene	ug/L	<5.0	5.0	03/12/16 11:40	
Methyl acetate	ug/L	<5.0	5.0	03/12/16 11:40	
Methyl-tert-butyl ether	ug/L	<5.0	5.0	03/12/16 11:40	
Methylcyclohexane	ug/L	<5.0	5.0	03/12/16 11:40	
Methylene Chloride	ug/L	<5.0	5.0	03/12/16 11:40	

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QUALITY CONTROL DATA

Project: Roper
Pace Project No.: 35232445

METHOD BLANK: 1504767 Matrix: Water

Associated Lab Samples: 35232445007, 35232445008, 35232445009, 35232445010, 35232445011, 35232445012, 35232445013, 35232445014

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
o-Xylene	ug/L	<5.0	5.0	03/12/16 11:40	
Styrene	ug/L	<5.0	5.0	03/12/16 11:40	
Tetrachloroethene	ug/L	<5.0	5.0	03/12/16 11:40	
Toluene	ug/L	<5.0	5.0	03/12/16 11:40	
trans-1,2-Dichloroethene	ug/L	<5.0	5.0	03/12/16 11:40	
trans-1,3-Dichloropropene	ug/L	<5.0	5.0	03/12/16 11:40	
Trichloroethene	ug/L	<5.0	5.0	03/12/16 11:40	
Trichlorofluoromethane	ug/L	<5.0	5.0	03/12/16 11:40	
Vinyl chloride	ug/L	<2.0	2.0	03/12/16 11:40	
1,2-Dichloroethane-d4 (S)	%	112	86-125	03/12/16 11:40	
4-Bromofluorobenzene (S)	%	98	70-114	03/12/16 11:40	
Toluene-d8 (S)	%	106	87-113	03/12/16 11:40	

LABORATORY CONTROL SAMPLE: 1504768

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	26.3	132	70-130	L0
1,1,2,2-Tetrachloroethane	ug/L	20	19.6	98	70-130	
1,1,2-Trichloroethane	ug/L	20	21.9	109	70-130	
1,1,2-Trichlorotrifluoroethane	ug/L	20	28.2	141	70-130	L0
1,1-Dichloroethane	ug/L	20	24.9	124	70-130	
1,1-Dichloroethene	ug/L	20	25.1	126	70-130	
1,2,4-Trichlorobenzene	ug/L	20	26.5	132	70-130	L0
1,2-Dibromo-3-chloropropane	ug/L	20	19.9	100	64-130	
1,2-Dibromoethane (EDB)	ug/L	20	21.7	108	70-130	
1,2-Dichlorobenzene	ug/L	20	23.2	116	70-130	
1,2-Dichloroethane	ug/L	20	25.1	125	70-130	
1,2-Dichloropropane	ug/L	20	22.1	110	70-130	
1,3-Dichlorobenzene	ug/L	20	24.0	120	70-130	
1,4-Dichlorobenzene	ug/L	20	23.1	115	70-130	
2-Butanone (MEK)	ug/L	40	<50.0	80	55-167	
2-Hexanone	ug/L	40	33.1	83	65-130	
4-Methyl-2-pentanone (MIBK)	ug/L	40	35.3	88	70-130	
Acetone	ug/L	40	<50.0	91	40-150	
Benzene	ug/L	20	22.0	110	70-130	
Bromodichloromethane	ug/L	20	25.6	128	70-130	
Bromoform	ug/L	20	20.9	105	68-130	
Bromomethane	ug/L	20	21.3	107	38-179	
Carbon disulfide	ug/L	20	26.0	130	51-155	
Carbon tetrachloride	ug/L	20	27.4	137	70-130	L0
Chlorobenzene	ug/L	20	21.9	109	70-130	
Chloroethane	ug/L	20	25.0	125	59-149	
Chloroform	ug/L	20	24.0	120	70-130	

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QUALITY CONTROL DATA

Project: Roper
Pace Project No.: 35232445

LABORATORY CONTROL SAMPLE: 1504768

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloromethane	ug/L	20	22.6	113	68-130	
cis-1,2-Dichloroethene	ug/L	20	22.4	112	70-130	
cis-1,3-Dichloropropene	ug/L	20	25.3	126	70-130	
Cyclohexane	ug/L	20	22.5	112	50-150	
Dibromochloromethane	ug/L	20	21.5	107	70-130	
Dichlorodifluoromethane	ug/L	20	22.4	112	67-130	
Ethylbenzene	ug/L	20	22.2	111	70-130	
Isopropylbenzene (Cumene)	ug/L	20	22.1	111	70-130	
m&p-Xylene	ug/L	40	46.5	116	70-130	
Methyl acetate	ug/L	20	15.3	77	50-150	
Methyl-tert-butyl ether	ug/L	20	24.5	123	70-130	
Methylcyclohexane	ug/L	20	23.1	115	50-150	
Methylene Chloride	ug/L	20	24.2	121	70-130	
o-Xylene	ug/L	20	23.4	117	70-130	
Styrene	ug/L	20	23.3	116	70-130	
Tetrachloroethene	ug/L	20	19.7	99	66-133	
Toluene	ug/L	20	21.7	109	70-130	
trans-1,2-Dichloroethene	ug/L	20	25.2	126	70-130	
trans-1,3-Dichloropropene	ug/L	20	24.1	120	70-130	
Trichloroethene	ug/L	20	23.9	119	70-130	
Trichlorofluoromethane	ug/L	20	29.5	147	70-131	L0
Vinyl chloride	ug/L	20	23.7	119	69-140	
1,2-Dichloroethane-d4 (S)	%			110	86-125	
4-Bromofluorobenzene (S)	%			98	70-114	
Toluene-d8 (S)	%			105	87-113	

MATRIX SPIKE SAMPLE: 1505770

Parameter	Units	35232445009 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	<5.0	20	28.3	141	70-130	M0
1,1,2,2-Tetrachloroethane	ug/L	<5.0	20	18.6	93	70-130	
1,1,2-Trichloroethane	ug/L	<5.0	20	19.7	99	70-130	
1,1,2-Trichlorotrifluoroethane	ug/L	<10.0	20	17.4	87	70-130	
1,1-Dichloroethane	ug/L	<5.0	20	25.3	127	70-130	
1,1-Dichloroethene	ug/L	<5.0	20	27.2	136	70-130	M1
1,2,4-Trichlorobenzene	ug/L	<5.0	20	18.8	94	70-130	
1,2-Dibromo-3-chloropropane	ug/L	<5.0	20	19.7	98	70-130	
1,2-Dibromoethane (EDB)	ug/L	<5.0	20	19.4	97	70-130	
1,2-Dichlorobenzene	ug/L	<5.0	20	20.0	100	70-130	
1,2-Dichloroethane	ug/L	<5.0	20	24.0	120	70-130	
1,2-Dichloropropane	ug/L	<5.0	20	20.2	101	70-130	
1,3-Dichlorobenzene	ug/L	<5.0	20	19.9	99	70-130	
1,4-Dichlorobenzene	ug/L	<5.0	20	19.8	99	70-130	
2-Butanone (MEK)	ug/L	<50.0	40	<50.0	86	70-130	
2-Hexanone	ug/L	<10.0	40	33.6	84	70-130	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Roper
Pace Project No.: 35232445

MATRIX SPIKE SAMPLE: 1505770

Parameter	Units	35232445009 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
4-Methyl-2-pentanone (MIBK)	ug/L	<10.0	40	33.1	83	70-130	
Acetone	ug/L	<50.0	40	<50.0	79	70-130	
Benzene	ug/L	<5.0	20	24.6	123	70-130	
Bromodichloromethane	ug/L	<5.0	20	22.4	112	70-130	
Bromoform	ug/L	<5.0	20	19.7	98	70-130	
Bromomethane	ug/L	<5.0	20	12.1	61	70-130	M1
Carbon disulfide	ug/L	<10.0	20	15.6	78	70-130	
Carbon tetrachloride	ug/L	<5.0	20	28.3	142	70-130	M0
Chlorobenzene	ug/L	<5.0	20	20.2	101	70-130	
Chloroethane	ug/L	<10.0	20	21.3	107	70-130	
Chloroform	ug/L	<5.0	20	25.9	126	70-130	
Chloromethane	ug/L	<10.0	20	22.8	114	70-130	
cis-1,2-Dichloroethene	ug/L	<5.0	20	25.6	122	70-130	
cis-1,3-Dichloropropene	ug/L	<5.0	20	20.3	101	70-130	
Cyclohexane	ug/L	<5.0	20	18.7	94	50-150	
Dibromochloromethane	ug/L	<5.0	20	18.9	94	70-130	
Dichlorodifluoromethane	ug/L	<10.0	20	18.6	93	70-130	
Ethylbenzene	ug/L	<5.0	20	20.4	102	70-130	
Isopropylbenzene (Cumene)	ug/L	<5.0	20	19.8	99	70-130	
m&p-Xylene	ug/L	<5.0	40	42.3	106	70-130	
Methyl acetate	ug/L	<5.0	20	14.9	75	50-150	
Methyl-tert-butyl ether	ug/L	<5.0	20	20.6	103	70-130	
Methylcyclohexane	ug/L	<5.0	20	19.2	90	50-150	
Methylene Chloride	ug/L	<5.0	20	23.6	118	70-130	
o-Xylene	ug/L	<5.0	20	20.5	103	70-130	
Styrene	ug/L	<5.0	20	19.2	96	70-130	
Tetrachloroethene	ug/L	35.8	20	56.9	106	70-130	
Toluene	ug/L	<5.0	20	21.0	101	70-130	
trans-1,2-Dichloroethene	ug/L	<5.0	20	25.6	128	70-130	
trans-1,3-Dichloropropene	ug/L	<5.0	20	19.8	99	70-130	
Trichloroethene	ug/L	140	20	170	149	70-130	M1
Trichlorofluoromethane	ug/L	<5.0	20	25.1	125	70-130	
Vinyl chloride	ug/L	<2.0	20	22.5	113	70-130	
1,2-Dichloroethane-d4 (S)	%				124	86-125	
4-Bromofluorobenzene (S)	%				98	70-114	
Toluene-d8 (S)	%				105	87-113	

SAMPLE DUPLICATE: 1505769

Parameter	Units	35232445008 Result	Dup Result	RPD	Qualifiers
1,1,1-Trichloroethane	ug/L	<5.0	<5.0		
1,1,2,2-Tetrachloroethane	ug/L	<5.0	<5.0		
1,1,2-Trichloroethane	ug/L	<5.0	<5.0		
1,1,2-Trichlorotrifluoroethane	ug/L	<10.0	<10.0		
1,1-Dichloroethane	ug/L	<5.0	<5.0		

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

REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

QUALITY CONTROL DATA

Project: Roper
Pace Project No.: 35232445

SAMPLE DUPLICATE: 1505769

Parameter	Units	35232445008 Result	Dup Result	RPD	Qualifiers
1,1-Dichloroethene	ug/L	<5.0	<5.0		
1,2,4-Trichlorobenzene	ug/L	<5.0	<5.0		
1,2-Dibromo-3-chloropropane	ug/L	<5.0	<5.0		
1,2-Dibromoethane (EDB)	ug/L	<5.0	<5.0		
1,2-Dichlorobenzene	ug/L	<5.0	<5.0		
1,2-Dichloroethane	ug/L	<5.0	<5.0		
1,2-Dichloropropane	ug/L	<5.0	<5.0		
1,3-Dichlorobenzene	ug/L	<5.0	<5.0		
1,4-Dichlorobenzene	ug/L	<5.0	<5.0		
2-Butanone (MEK)	ug/L	<50.0	<50.0		
2-Hexanone	ug/L	<10.0	<10.0		
4-Methyl-2-pentanone (MIBK)	ug/L	<10.0	<10.0		
Acetone	ug/L	<50.0	<50.0		
Benzene	ug/L	<5.0	<5.0		
Bromodichloromethane	ug/L	<5.0	<5.0		
Bromoform	ug/L	<5.0	<5.0		
Bromomethane	ug/L	<5.0	<5.0		
Carbon disulfide	ug/L	<10.0	<10.0		
Carbon tetrachloride	ug/L	<5.0	<5.0		
Chlorobenzene	ug/L	<5.0	<5.0		
Chloroethane	ug/L	<10.0	<10.0		
Chloroform	ug/L	<5.0	<5.0		
Chloromethane	ug/L	<10.0	<10.0		
cis-1,2-Dichloroethene	ug/L	74.2	71.1	4	
cis-1,3-Dichloropropene	ug/L	<5.0	<5.0		
Cyclohexane	ug/L	<5.0	<5.0		
Dibromochloromethane	ug/L	<5.0	<5.0		
Dichlorodifluoromethane	ug/L	<10.0	<10.0		
Ethylbenzene	ug/L	<5.0	<5.0		
Isopropylbenzene (Cumene)	ug/L	<5.0	<5.0		
m&p-Xylene	ug/L	<5.0	<5.0		
Methyl acetate	ug/L	<5.0	<5.0		
Methyl-tert-butyl ether	ug/L	<5.0	<5.0		
Methylcyclohexane	ug/L	<5.0	<5.0		
Methylene Chloride	ug/L	<5.0	<5.0		
o-Xylene	ug/L	<5.0	<5.0		
Styrene	ug/L	<5.0	<5.0		
Tetrachloroethene	ug/L	119	112	6	
Toluene	ug/L	<5.0	<5.0		
trans-1,2-Dichloroethene	ug/L	<5.0	<5.0		
trans-1,3-Dichloropropene	ug/L	<5.0	<5.0		
Trichloroethene	ug/L	22.5	21.7	4	
Trichlorofluoromethane	ug/L	<5.0	<5.0		
Vinyl chloride	ug/L	<2.0	<2.0		
1,2-Dichloroethane-d4 (S)	%	115	113	2	
4-Bromofluorobenzene (S)	%	97	99	2	
Toluene-d8 (S)	%	104	105	1	

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

REPORT OF LABORATORY ANALYSIS

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8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

QUALIFIERS

Project: Roper
Pace Project No.: 35232445

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-O	Pace Analytical Services - Ormond Beach

ANALYTE QUALIFIERS

L0	Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
L3	Analyte recovery in the laboratory control sample (LCS) exceeded QC limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
S0	Surrogate recovery outside laboratory control limits.

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Ormond Beach, FL 32174
(386)672-5668

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Roper
Pace Project No.: 35232445

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
35232445007	**16063-Equipment Blank**	EPA 8260	MSV/17858		
35232445008	**16063-MW-6**	EPA 8260	MSV/17858		
35232445009	**16063-MW-12D**	EPA 8260	MSV/17858		
35232445010	**16063-Dup-1**	EPA 8260	MSV/17858		
35232445011	**16063-Trip Blank**	EPA 8260	MSV/17858		
35232445012	**16063-MW-16**	EPA 8260	MSV/17858		
35232445013	**16063-MW-6DS**	EPA 8260	MSV/17858		
35232445014	**16063-MW-13D**	EPA 8260	MSV/17858		

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CH… Document
The C… eted accurately.

WO# : 35232445
35232445

Page: of
1998020

Section A
Required Client Information:

Company: EPS	
Address: 1050 Crown Pointe Pkwy	
Atlanta, GA	
Email To: jvickery@envplanning.com	
Phone: 404-315-9113 Fax:	
Requested Due Date/TAT:	

Section B
Required Project Information:

Report To: Justin Vickery	
Copy To:	
Purchase Order No.:	
Project Name: Roper	
Project Number:	

Attention:	
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	
Pace Profile #:	

REGULATORY AGENCY
☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location
STATE: _____

Section D
Required Client Information

Matrix Codes
MATRIX / CODE

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

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other – Buffer #2	Analysis Test (Y/N): Hex. Chromium	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	16063-Equipment Blank	WT		3/3/16	~~0715~~ 1400		1415		1								X	X		
2	16063-MW-6	WT		3/3/16	1400				1								X	X		
3	16063-MW-120	WT		3/3/16	1408				1								X	X		
4	16063-OUP-1	WT		3/3/16	1415				1								X	X		
5	16063-MW-6DS	WT		3/3/16	1407				1								X	X		
6	16063-MW-130	WT		3/3/16	1404				1								X	X		
7																				
8																				
9																				
10																				
11																				
12																				

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	M. Weber-Gaehe	3/3/16	400pm	B Pitt	3-3	1600	
				[illegible]	3/4/16	08:20	

ORIGINAL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER:
SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY):

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

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

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www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: of

1998016

Section A Required Client Information:

Company: EPS
Address: 1050 Crown Pointe Pkwy
Atlanta, GA
Email To: jvickery@envplanning.com
Phone: 404-315-9113 Fax:
Requested Due Date/TAT:

Section B Required Project Information:

Report To: Justin Vickery
Copy To:
Purchase Order No.:
Project Name: Roper
Project Number:

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: _____

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

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

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

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start DATE	COLLECTED Composite Start TIME	COLLECTED Composite End/Grab DATE	COLLECTED Composite End/Grab TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test: VOC by 8260	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	16063-EquipmentBlank	WT		3/3/16	0715				3				X					X		
2	16063-MW-6	WT		3/3/16	0935				3				X					X		
3	16063-MW2D	WT		3/3/16	1005				3				X					X		
4	16063-DUP-1	WT		3/3/16	1000				3				X					X		
5	16063-TRIPBLANK	WT		3/3/16					3				X					X		
6	16063-MW-16	WT		3/3/16	1008				3				X					X		
7	16063-MW-6DS	WT		3/3/16	1200				3				X					X		
8	16063-MW-13D	WT		3/3/16	1200				3				X					X		
9																				
10																				
11																				
12																				

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	M. Weber-Goeke	3/3/16	1600	B. Dotrt	3/3	1600	
				[illegible]	3/4/16	0825	

ORIGINAL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER:
SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY):

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

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical Florida Laboratory	Document Name Sample Condition Upon Receipt Form	Document Revised: December 28, 2015
	Document No F-FL-C-007 rev. 07	Issuing Authority Pace Florida Quality Office

Sample Condition Upon Receipt Form (SCUR)

Project #: **WO# : 35232445**

Project Manager: **PM: TSR** **Due Date: 03/11/16**

Client: **CLIENT: ENVIPS**

Date and Initials of person examining contents: DT 3/4/16
Label: DT
Deliver: DT
pH: DT

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

Shipping Method: ☑ First Overnight ☐ Priority Overnight ☐ Standard Overnight ☐ Ground

Billing: ☐ Recipient ☐ Sender ☐ Third Party ☑ Unkown Cooler Size if Applicable:

Tracking # 7825 1662 0618

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

Packing Material: ☑ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other Biological Tissue is Frozen: Yes No N/A

Thermometer Used T-223 Type of Ice: (Wet) Blue None ☐ Samples on ice, cooling process has begun

Cooler #1 Temperature°C 0.8 (Visual) 0 (Correction Factor) 0.8 (Actual)

Cooler #2 Temperature°C ____ (Visual) ____ (Correction Factor) ____ (Actual)

Cooler #3 Temperature°C ____ (Visual) ____ (Correction Factor) ____ (Actual)

Cooler #4 Temperature°C ____ (Visual) ____ (Correction Factor) ____ (Actual)

Cooler #5 Temperature°C ____ (Visual) ____ (Correction Factor) ____ (Actual)

Cooler #6 Temperature°C ____ (Visual) ____ (Correction Factor) ____ (Actual)

Temp should be above freezing to 6°C

				Comments:
Chain of Custody Present	☒ Yes	☐ No	☐ N/A	
Chain of Custody Filled Out	☒ Yes	☐ No	☐ N/A	
Relinquished Signature & Sampler Name COC	☐ Yes	☑ No	☐ N/A	not relinquished or sampler
Samples Arrived within Hold Time	☒ Yes	☐ No	☐ N/A	
Rush TAT requested on COC	☐ Yes	☒ No	☐ N/A	
Sufficient Volume	☒ Yes	☐ No	☐ N/A	
Correct Containers Used	☒ Yes	☐ No	☐ N/A	
Pace Containers Used	☒ Yes	☐ No	☐ N/A	
Containers Intact	☒ Yes	☐ No	☐ N/A	
Sample Labels match COC (sample IDs & date/time of collection)	☒ Yes	☐ No	☐ N/A	
All containers needing acid/base preservation have been checked.	☒ Yes	☐ No	☐ N/A	HNO3 pH<2 HCl pH<2 H2SO4 pH<2 NaOH pH>12 NaOH/ZnOAc pH>9 See below.
All Containers needing preservation are found to be in compliance with EPA recommendation Exceptions: VOA, Coliform, TOC, O&G	☐ Yes	☒ No	☐ N/A	
No Headspace in VOA Vials (>6mm):	☒ Yes	☐ No	☐ N/A	
Trip Blank Present:	☒ Yes	☐ No	☐ N/A	

Client Notification/ Resolution:

Person Contacted: ____ Date/Time: ____

Comments/ Resolution (use back for additional comments):

#1 9.12 #6 9.08
#2 9.33
#3 9.08
#4 9.05
#5 9.09

Project Manager Review: ____ Date: ____

Pace Analytical Services, Inc.
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

March 30, 2016

Mr. Justin Vickery
Environmental Planning Specialist, Inc.
1050 Crown Pointe Parkway
Suite 550
Atlanta, GA 30338

RE: Project: Roper
Pace Project No.: 35232774

Dear Mr. Vickery:
Enclosed are the analytical results for sample(s) received by the laboratory on March 05, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

This is a revised report. 03/30/2016

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

Sincerely,

Todd Rea
todd.rea@pacelabs.com
Project Manager

Enclosures

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Ormond Beach, FL 32174
(386)672-5668

CERTIFICATIONS

Project: Roper
Pace Project No.: 35232774

New Orleans Certification IDs

California Env. Lab Accreditation Program Branch: 11277CA
Florida Department of Health (NELAC): E87595
Illinois Environmental Protection Agency: 0025721
Kansas Department of Health and Environment (NELAC): E-10266
Louisiana Dept. of Environmental Quality (NELAC/LELAP): 02006
Pennsylviania Dept. of Env Protection (NELAC): 68-04202
Texas Commission on Env. Quality (NELAC): T104704405-09-TX
U.S. Dept. of Agriculture Foreign Soil Import: P330-10-00119

Ormond Beach Certification IDs

8 East Tower Circle, Ormond Beach, FL 32174
Alabama Certification #: 41320
Connecticut Certification #: PH-0216
Delaware Certification: FL NELAC Reciprocity
Florida Certification #: E83079
Georgia Certification #: 955
Guam Certification: FL NELAC Reciprocity
Hawaii Certification: FL NELAC Reciprocity
Illinois Certification #: 200068
Indiana Certification: FL NELAC Reciprocity
Kansas Certification #: E-10383
Louisiana Certification #: FL NELAC Reciprocity
Louisiana Environmental Certificate #: 05007
Maryland Certification: #346
Michigan Certification #: 9911
Mississippi Certification: FL NELAC Reciprocity
Missouri Certification #: 236
Montana Certification #: Cert 0074
Nebraska Certification: NE-OS-28-14
Nevada Certification: FL NELAC Reciprocity
New York Certification #: 11608
North Carolina Environmental Certificate #: 667
North Carolina Certification #: 12710
North Dakota Certification #: R-216
Oklahoma Certification #: D9947
Pennsylvania Certification #: 68-00547
Puerto Rico Certification #: FL01264
South Carolina Certification: #96042001
Tennessee Certification #: TN02974
Texas Certification: FL NELAC Reciprocity
US Virgin Islands Certification: FL NELAC Reciprocity
Virginia Environmental Certification #: 460165
Wyoming Certification: FL NELAC Reciprocity
West Virginia Certification #: 9962C
Wisconsin Certification #: 399079670
Wyoming (EPA Region 8): FL NELAC Reciprocity

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SAMPLE SUMMARY

Project: Roper
Pace Project No.: 35232774

Lab ID	Sample ID	Matrix	Date Collected	Date Received
35232774001	**16064-MW-4**	Water	03/04/16 13:15	03/05/16 11:05
35232774002	**16064-MW-6D**	Water	03/04/16 13:10	03/05/16 11:05
35232774003	**16064-MW-15D**	Water	03/04/16 13:30	03/05/16 11:05
35232774010	**16063-SD-1**	Solid	03/03/16 13:50	03/05/16 11:05

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Ormond Beach, FL 32174
(386)672-5668

SAMPLE ANALYTE COUNT

Project: Roper
Pace Project No.: 35232774

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
35232774001	**16064-MW-4**	EPA 218.6	TK1	1	PASI-O
35232774002	**16064-MW-6D**	EPA 218.6	TK1	1	PASI-O
35232774003	**16064-MW-15D**	EPA 218.6	TK1	1	PASI-O
35232774010	**16063-SD-1**	EPA 6010	MEW	4	PASI-O
		EPA 7471	CKJ	1	PASI-O
		ASTM D2974-87	MLO	1	PASI-O
		EPA 7196	JMA	1	PASI-N

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PROJECT NARRATIVE

Project: Roper
Pace Project No.: 35232774

Date: March 30, 2016

The sampler's name and signature were not listed on the COC.

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Ormond Beach, FL 32174
(386)672-5668

ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232774

Sample: 16064-MW-4 **Lab ID: 35232774001** Collected: 03/04/16 13:15 Received: 03/05/16 11:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Hexavalent Chromium 24 Hour	Analytical Method: EPA 218.6								
Chromium, Hexavalent	**0.018J**	ug/L	0.025	0.0082	1		03/05/16 11:16	18540-29-9	

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ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232774

Sample: 16064-MW-6D **Lab ID: 35232774002** Collected: 03/04/16 13:10 Received: 03/05/16 11:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Hexavalent Chromium 24 Hour	Analytical Method: EPA 218.6								
Chromium, Hexavalent	**0.19**	ug/L	0.025	0.0082	1		03/05/16 12:43	18540-29-9	

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Ormond Beach, FL 32174
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ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232774

Sample: 16064-MW-15D **Lab ID: 35232774003** Collected: 03/04/16 13:30 Received: 03/05/16 11:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Hexavalent Chromium 24 Hour	Analytical Method: EPA 218.6								
Chromium, Hexavalent	**0.15**	ug/L	0.025	0.0082	1		03/05/16 11:41	18540-29-9	M1

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Ormond Beach, FL 32174
(386)672-5668

ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232774

Sample: 16063-SD-1 **Lab ID: 35232774010** Collected: 03/03/16 13:50 Received: 03/05/16 11:05 Matrix: Solid

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

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical Method: EPA 6010 Preparation Method: EPA 3050								
Arsenic	**2.7**	mg/kg	0.74	0.37	1	03/09/16 08:30	03/10/16 09:44	7440-38-2	
Cadmium	**2.2**	mg/kg	0.074	0.037	1	03/09/16 08:30	03/10/16 09:44	7440-43-9	
Chromium	**37.4**	mg/kg	0.37	0.19	1	03/09/16 08:30	03/10/16 09:44	7440-47-3	
Lead	**61.7**	mg/kg	0.74	0.37	1	03/09/16 08:30	03/10/16 09:44	7439-92-1	
7471 Mercury	Analytical Method: EPA 7471 Preparation Method: EPA 7471								
Mercury	**0.087**	mg/kg	0.012	0.0058	1	03/09/16 17:00	03/10/16 13:43	7439-97-6	
Percent Moisture	Analytical Method: ASTM D2974-87								
Percent Moisture	**29.7**	%	0.10	0.10	1		03/14/16 11:00		
Chromium, Hexavalent, soluble	Analytical Method: EPA 7196 Preparation Method: EPA 7196								
Chromium, Hexavalent	**<0.068**	mg/kg	0.14	0.068	1	03/10/16 13:06	03/10/16 17:07	18540-29-9	M1

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Pace Analytical Services, Inc.
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

QUALITY CONTROL DATA

Project: Roper
Pace Project No.: 35232774

QC Batch: MERP/6691 | Analysis Method: EPA 7471
QC Batch Method: EPA 7471 | Analysis Description: 7471 Mercury
Associated Lab Samples: 35232774010

METHOD BLANK: 1501056 | Matrix: Solid
Associated Lab Samples: 35232774010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/kg	<0.0040	0.0080	0.0040	03/10/16 12:58	

LABORATORY CONTROL SAMPLE: 1501057

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/kg	.079	0.072	92	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1501058 1501059

Parameter	Units	35232416001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/kg	0.075	.44	.44	0.47	0.42	91	78	80-120	12	20	M1

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Roper
Pace Project No.: 35232774

QC Batch: MPRP/29072
QC Batch Method: EPA 3050
Analysis Method: EPA 6010
Analysis Description: 6010 MET Solid
Associated Lab Samples: 35232774010

METHOD BLANK: 1500889
Matrix: Solid
Associated Lab Samples: 35232774010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/kg	<0.26	0.51	0.26	03/10/16 08:37	
Cadmium	mg/kg	<0.026	0.051	0.026	03/10/16 08:37	
Chromium	mg/kg	<0.13	0.26	0.13	03/10/16 08:37	
Lead	mg/kg	<0.26	0.51	0.26	03/10/16 08:37	

LABORATORY CONTROL SAMPLE: 1500890

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	mg/kg	13	12.5	96	80-120	
Cadmium	mg/kg	1.3	1.3	102	80-120	
Chromium	mg/kg	13	12.5	96	80-120	
Lead	mg/kg	13	13.7	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1500891 1500892

Parameter	Units	35232430002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	mg/kg	2.6	36.5	39.2	40.4	41.2	104	99	75-125	2	20	
Cadmium	mg/kg	1.5	3.6	4	5.8	5.7	119	108	75-125	2	20	
Chromium	mg/kg	30.5	36.5	39.2	79.1	76.1	133	117	75-125	4	20	M1
Lead	mg/kg	30.4	36.5	39.2	77.3	76.9	129	119	75-125	1	20	M1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Roper
Pace Project No.: 35232774

QC Batch: PMST/4335
QC Batch Method: ASTM D2974-87
Analysis Method: ASTM D2974-87
Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 35232774010

SAMPLE DUPLICATE: 1506026

Parameter	Units	35232430001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	48.9	68.1	33	10	D6

SAMPLE DUPLICATE: 1506027

Parameter	Units	35233101001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	17.3	17.7	2	10	

SAMPLE DUPLICATE: 1506028

Parameter	Units	35233110004 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	6.9	7.0	2	10	

SAMPLE DUPLICATE: 1506029

Parameter	Units	35233200004 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	16.6	16.4	1	10	

SAMPLE DUPLICATE: 1506030

Parameter	Units	35233478001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	25.4	24.4	4	10	

SAMPLE DUPLICATE: 1506031

Parameter	Units	35233502003 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	1.8	1.8	0	10	

SAMPLE DUPLICATE: 1506032

Parameter	Units	35233531002 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	17.0	18.3	7	10	

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QUALITY CONTROL DATA

Project: Roper
Pace Project No.: 35232774

SAMPLE DUPLICATE: 1506033

Parameter	Units	35233598001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	8.2	8.0	2	10	

SAMPLE DUPLICATE: 1506034

Parameter	Units	35233663009 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	14.4	13.4	7	10	

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QUALITY CONTROL DATA

Project: Roper
Pace Project No.: 35232774

QC Batch: WETA/55640 | Analysis Method: EPA 218.6
QC Batch Method: EPA 218.6 | Analysis Description: Chromium, Hexavalent by IC 24 Hour
Associated Lab Samples: 35232774001, 35232774002, 35232774003

METHOD BLANK: 1499060 | Matrix: Water
Associated Lab Samples: 35232774001, 35232774002, 35232774003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chromium, Hexavalent	ug/L	<0.0082	0.025	0.0082	03/05/16 07:19	

LABORATORY CONTROL SAMPLE: 1499061

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	ug/L	.075	0.072	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1499062 1499063

Parameter	Units	35232774003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chromium, Hexavalent	ug/L	0.15	.025	.025	0.19	0.18	127	104	90-110	3	20	M1

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Roper
Pace Project No.: 35232774

QC Batch: WETA/9218 | Analysis Method: EPA 7196
QC Batch Method: EPA 7196 | Analysis Description: 7196 Chromium, Hexavalent
Associated Lab Samples: 35232774010

METHOD BLANK: 206536 | Matrix: Solid
Associated Lab Samples: 35232774010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chromium, Hexavalent	mg/kg	0.053J	0.10	0.050	03/10/16 13:09	

LABORATORY CONTROL SAMPLE: 206537

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	mg/kg	2	2.0	99	80-120	

MATRIX SPIKE SAMPLE: 206539

Parameter	Units	35232774010 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	mg/kg	<0.068	3.55	<0.070	0	75-125	M1

MATRIX SPIKE SAMPLE: 206614

Parameter	Units	60214118009 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	mg/kg	0.25	2.55	1.4	43	75-125	M1

MATRIX SPIKE SAMPLE: 206615

Parameter	Units	60214118012 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	mg/kg	ND	2.56	2.6	102	75-125	

SAMPLE DUPLICATE: 206538

Parameter	Units	35232774010 Result	Dup Result	RPD	Max RPD	Qualifiers
Chromium, Hexavalent	mg/kg	<0.068	<0.068		20	

SAMPLE DUPLICATE: 206605

Parameter	Units	60214118009 Result	Dup Result	RPD	Max RPD	Qualifiers
Chromium, Hexavalent	mg/kg	0.25	0.20	23	20	D6

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Roper
Pace Project No.: 35232774

SAMPLE DUPLICATE: 206607

Parameter	Units	60214118012 Result	Dup Result	RPD	Max RPD	Qualifiers
Chromium, Hexavalent	mg/kg	ND	<0.050		20	

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QUALIFIERS

Project: Roper
Pace Project No.: 35232774

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-N	Pace Analytical Services - New Orleans
PASI-O	Pace Analytical Services - Ormond Beach

ANALYTE QUALIFIERS

D6	The precision between the sample and sample duplicate exceeded laboratory control limits.
D6	The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Roper
Pace Project No.: 35232774

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
35232774010	**16063-SD-1**	EPA 3050	MPRP/29072	EPA 6010	ICP/17481
35232774010	**16063-SD-1**	EPA 7471	MERP/6691	EPA 7471	MERC/6661
35232774010	**16063-SD-1**	ASTM D2974-87	PMST/4335		
35232774001	**16064-MW-4**	EPA 218.6	WETA/55640		
35232774002	**16064-MW-6D**	EPA 218.6	WETA/55640		
35232774003	**16064-MW-15D**	EPA 218.6	WETA/55640		
35232774010	**16063-SD-1**	EPA 7196	WETA/9218	EPA 7196	WETA/9256

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CHAIN ... ument

The Chain-... accurately.

WO# : 35232774

35232774

Page: 2 of 2

2016793

Section A
Required Client Information:

Company:	EPS
Address:	1050 Crown Pointe Pkwy Atlanta, GA
Email To:	jvickery@envplanning.com
Phone:	404-315-9113
Fax:	
Requested Due Date/TAT:	

Section B
Required Project Information:

Report To:	Justin Vickery
Copy To:	
Purchase Order No.:	
Project Name:	ROPER
Project Number:	

Attention:	
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	
Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location
STATE: _____

Section D
Required Client Information

Matrix Codes
MATRIX / CODE

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

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other Buffer #2	Analysis Test: Hex. Chromium (Y/N)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	16064-MW-4	WT		3/4/16	1315				1								X	X		
2	16064-MW-6D	WT		3/4/16	1310				1								X	X		
3	16064-MW-15D	WT		3/4/16	1330				1								X	X		
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
SAMPLING KIT-EMPTY	[illegible] PACE	2/29/16	1600	M. Weber-Goehe	3/2/14	0800				
	M. Weber-Goehe	3/4/16	1340	B Petit	3-4	1340				
				DOE F-223	3/5/16	1105	-0.4	Y	N	Y
							Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY):

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

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CHAIN-OF-CUSTODY / Analytical Request Document

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

Page:- 1 of 2

2016794

Section A Required Client Information:

Company: EPS
Address: 1050 Crown Pointe Pkwy, Atlanta, GA
Email To: jvickery@envplanning.com
Phone: 404-315-9113 Fax:
Requested Due Date/TAT:

Section B Required Project Information:

Report To: JUSTIN VICKERY
Copy To:
Purchase Order No.:
Project Name: ROPER
Project Number:

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location STATE: _____

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

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

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start DATE	COLLECTED Composite Start TIME	COLLECTED Composite End/Grab DATE	COLLECTED Composite End/Grab TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N): VOC by 8260	Arsenic	Cadmium	Total Chromium	Hex Chromium	Lead	Mercury	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	16064-MW-4	WT		3/4/16	0930				3				X					X								
2	16064-MW-6D	WT		3/4/16	0925				3				X					X								
3	16064-MW-8	WT		3/4/16	1055				3				X					X								
4	16064-MW-15D	WT		3/4/16					3				X					X								
5	16064-MW-17	WT		3/4/16	1130				3				X					X								
6	16064-TRIPBLANK	WT		3/4/16					3				X					X								
7	16063-SD-1	WT		3/3/16	1350				1	X									X	X	X	X	X	X		
8																										
9																										
10																										
11																										
12																										

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
SAMPLING KIT EMPTY	[signature] Pace	2/29/16	1605	Marcel Weber-Goeke	3/2/16	0800				
	M. Weber-Goeke	3/4/16	1340	B. Petet	3-4	1340				
				DRC T-223	3/3/16	1105	-0.4	Y	N	
							Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

ORIGINAL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER:
SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY):

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

Pace Analytical Florida Laboratory	Document Name: Sample Condition Upon Receipt Form	Document Revised: December 28, 2015
	Document No.: F-FL-C-007 rev. 07	Issuing Authority: Pace Florida Quality Office

Sa

WO#: 35232774

PM: TSR Due Date: 03/14/16

CLIENT: ENVIPS

Project :

Project Manager

Client:

Date and Initials of person examining contents: 3/5/14 1105

Label:

Deliver:

pH:

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

Shipping Method: ☑ First Overnight ☐ Priority Overnight ☐ Standard Overnight ☐ Ground

Billing: ☐ Recipient ☐ Sender ☑ Third Party ☐ Unkown **Cooler Size if Applicable:**

Tracking # 7825 2367 0750

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

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other **Biological Tissue is Frozen:** Yes No N/A

Thermometer Used T-223 **Type of Ice:** Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler #1 Temperature°C -0.4 **(Visual)** Ø **(Correction Factor)** -0.4 **(Actual)**

Cooler #2 Temperature°C _____ **(Visual)** _____ **(Correction Factor)** _____ **(Actual)**

Cooler #3 Temperature°C _____ **(Visual)** _____ **(Correction Factor)** _____ **(Actual)**

Cooler #4 Temperature°C _____ **(Visual)** _____ **(Correction Factor)** _____ **(Actual)**

Cooler #5 Temperature°C _____ **(Visual)** _____ **(Correction Factor)** _____ **(Actual)**

Cooler #6 Temperature°C _____ **(Visual)** _____ **(Correction Factor)** _____ **(Actual)**

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present	☑ Yes ☐ No ☐ N/A	
Chain of Custody Filled Out	☐ Yes ☑ No ☐ N/A	No time for MW-150 8260 slot. container two 1330
Relinquished Signature & Sampler Name COC	☐ Yes ☑ No ☐ N/A	Sampler Name not filled out
Samples Arrived within Hold Time	☑ Yes ☐ No ☐ N/A	
Rush TAT requested on COC	☐ Yes ☑ No ☐ N/A	
Sufficient Volume	☑ Yes ☐ No ☐ N/A	
Correct Containers Used	☑ Yes ☐ No ☐ N/A	
Pace Containers Used	☑ Yes ☐ No ☐ N/A	
Containers Intact	☑ Yes ☐ No ☐ N/A	
Sample Labels match COC (sample IDs & date/time of collection)	☑ Yes ☐ No ☐ N/A	
All containers needing acid/base preservation have been checked.	☐ Yes ☐ No ☑ N/A	HNO3 pH<2 HCl pH<2 H2SO4 pH<2
All Containers needing preservation are found to be in compliance with EPA recommendation:	☐ Yes ☐ No ☑ N/A	NaOH pH>12
Exceptions: VOA, Coliform, TOC, O&G		NaOH/ZnOAc pH>9
No Headspace in VOA Vials (>6mm):	☑ Yes ☐ No ~~☐ N/A~~	
Trip Blank Present:	☑ Yes ☐ No ~~☐ N/A~~	

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____

Comments/ Resolution (use back for additional comments):

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

Pace Analytical Services, Inc.
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

March 31, 2016

Mr. Justin Vickery
Environmental Planning Specialist, Inc.
1050 Crown Pointe Parkway
Suite 550
Atlanta, GA 30338

RE: Project: Roper
Pace Project No.: 35232774

Dear Mr. Vickery:
Enclosed are the analytical results for sample(s) received by the laboratory on March 05, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

This is a revised report. 03/31/2016

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

Sincerely,

Todd Rea
todd.rea@pacelabs.com
Project Manager

Enclosures

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Pace Analytical Services, Inc.
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

CERTIFICATIONS

Project: Roper
Pace Project No.: 35232774

Ormond Beach Certification IDs
8 East Tower Circle, Ormond Beach, FL 32174
Alabama Certification #: 41320
Connecticut Certification #: PH-0216
Delaware Certification: FL NELAC Reciprocity
Florida Certification #: E83079
Georgia Certification #: 955
Guam Certification: FL NELAC Reciprocity
Hawaii Certification: FL NELAC Reciprocity
Illinois Certification #: 200068
Indiana Certification: FL NELAC Reciprocity
Kansas Certification #: E-10383
Louisiana Certification #: FL NELAC Reciprocity
Louisiana Environmental Certificate #: 05007
Maryland Certification: #346
Michigan Certification #: 9911
Mississippi Certification: FL NELAC Reciprocity
Missouri Certification #: 236
Montana Certification #: Cert 0074
Nebraska Certification: NE-OS-28-14
Nevada Certification: FL NELAC Reciprocity
New York Certification #: 11608
North Carolina Environmental Certificate #: 667
North Carolina Certification #: 12710
North Dakota Certification #: R-216
Oklahoma Certification #: D9947
Pennsylvania Certification #: 68-00547
Puerto Rico Certification #: FL01264
South Carolina Certification: #96042001
Tennessee Certification #: TN02974
Texas Certification: FL NELAC Reciprocity
US Virgin Islands Certification: FL NELAC Reciprocity
Virginia Environmental Certification #: 460165
Wyoming Certification: FL NELAC Reciprocity
West Virginia Certification #: 9962C
Wisconsin Certification #: 399079670
Wyoming (EPA Region 8): FL NELAC Reciprocity

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SAMPLE ANALYTE COUNT

Project: Roper
Pace Project No.: 35232774

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
35232774004	**16064-MW-4**	EPA 8260	SK1	52	PASI-O
35232774005	**16064-MW-6D**	EPA 8260	SK1	52	PASI-O
35232774006	**16064-MW-8**	EPA 8260	SK1	52	PASI-O
35232774007	**16064-MW-15D**	EPA 8260	SK1	52	PASI-O
35232774008	**16064-MW-17**	EPA 8260	SK1	52	PASI-O
35232774009	**16064-Trip Blank**	EPA 8260	SK1	52	PASI-O

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PROJECT NARRATIVE

Project: Roper
Pace Project No.: 35232774

Date: March 31, 2016

The sampler's name and signature were not listed on the COC.

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ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232774

Sample: 16064-MW-4 **Lab ID: 35232774004** Collected: 03/04/16 09:30 Received: 03/05/16 11:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	**<50.0**	ug/L	50.0	1		03/12/16 23:41	67-64-1	
Benzene	**<5.0**	ug/L	5.0	1		03/12/16 23:41	71-43-2	
Bromodichloromethane	**<5.0**	ug/L	5.0	1		03/12/16 23:41	75-27-4	
Bromoform	**<5.0**	ug/L	5.0	1		03/12/16 23:41	75-25-2	
Bromomethane	**<5.0**	ug/L	5.0	1		03/12/16 23:41	74-83-9	
2-Butanone (MEK)	**<50.0**	ug/L	50.0	1		03/12/16 23:41	78-93-3	
Carbon disulfide	**<10.0**	ug/L	10.0	1		03/12/16 23:41	75-15-0	
Carbon tetrachloride	**<5.0**	ug/L	5.0	1		03/12/16 23:41	56-23-5	
Chlorobenzene	**<5.0**	ug/L	5.0	1		03/12/16 23:41	108-90-7	
Chloroethane	**<10.0**	ug/L	10.0	1		03/12/16 23:41	75-00-3	
Chloroform	**<5.0**	ug/L	5.0	1		03/12/16 23:41	67-66-3	
Chloromethane	**<10.0**	ug/L	10.0	1		03/12/16 23:41	74-87-3	
Cyclohexane	**<5.0**	ug/L	5.0	1		03/12/16 23:41	68411-77-8..	
1,2-Dibromo-3-chloropropane	**<5.0**	ug/L	5.0	1		03/12/16 23:41	96-12-8	
Dibromochloromethane	**<5.0**	ug/L	5.0	1		03/12/16 23:41	124-48-1	
1,2-Dibromoethane (EDB)	**<5.0**	ug/L	5.0	1		03/12/16 23:41	106-93-4	
1,2-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/12/16 23:41	95-50-1	
1,3-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/12/16 23:41	541-73-1	
1,4-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/12/16 23:41	106-46-7	
Dichlorodifluoromethane	**<10.0**	ug/L	10.0	1		03/12/16 23:41	75-71-8	
1,1-Dichloroethane	**<5.0**	ug/L	5.0	1		03/12/16 23:41	75-34-3	
1,2-Dichloroethane	**<5.0**	ug/L	5.0	1		03/12/16 23:41	107-06-2	
1,1-Dichloroethene	**<5.0**	ug/L	5.0	1		03/12/16 23:41	75-35-4	
cis-1,2-Dichloroethene	**6.7**	ug/L	5.0	1		03/12/16 23:41	156-59-2	
trans-1,2-Dichloroethene	**<5.0**	ug/L	5.0	1		03/12/16 23:41	156-60-5	
1,2-Dichloropropane	**<5.0**	ug/L	5.0	1		03/12/16 23:41	78-87-5	
cis-1,3-Dichloropropene	**<5.0**	ug/L	5.0	1		03/12/16 23:41	10061-01-5	
trans-1,3-Dichloropropene	**<5.0**	ug/L	5.0	1		03/12/16 23:41	10061-02-6	
Ethylbenzene	**<5.0**	ug/L	5.0	1		03/12/16 23:41	100-41-4	
2-Hexanone	**<10.0**	ug/L	10.0	1		03/12/16 23:41	591-78-6	
Isopropylbenzene (Cumene)	**<5.0**	ug/L	5.0	1		03/12/16 23:41	98-82-8	
Methyl acetate	**<5.0**	ug/L	5.0	1		03/12/16 23:41	79-20-9	
Methylcyclohexane	**<5.0**	ug/L	5.0	1		03/12/16 23:41	108-87-2	
Methylene Chloride	**<5.0**	ug/L	5.0	1		03/12/16 23:41	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<10.0**	ug/L	10.0	1		03/12/16 23:41	108-10-1	
Methyl-tert-butyl ether	**<5.0**	ug/L	5.0	1		03/12/16 23:41	1634-04-4	
Styrene	**<5.0**	ug/L	5.0	1		03/12/16 23:41	100-42-5	
1,1,2,2-Tetrachloroethane	**<5.0**	ug/L	5.0	1		03/12/16 23:41	79-34-5	
Tetrachloroethene	**88.8**	ug/L	5.0	1		03/12/16 23:41	127-18-4	
Toluene	**<5.0**	ug/L	5.0	1		03/12/16 23:41	108-88-3	
1,2,4-Trichlorobenzene	**<5.0**	ug/L	5.0	1		03/12/16 23:41	120-82-1	
1,1,1-Trichloroethane	**<5.0**	ug/L	5.0	1		03/12/16 23:41	71-55-6	
1,1,2-Trichloroethane	**<5.0**	ug/L	5.0	1		03/12/16 23:41	79-00-5	
Trichloroethene	**53.4**	ug/L	5.0	1		03/12/16 23:41	79-01-6	
Trichlorofluoromethane	**<5.0**	ug/L	5.0	1		03/12/16 23:41	75-69-4	
1,1,2-Trichlorotrifluoroethane	**<10.0**	ug/L	10.0	1		03/12/16 23:41	76-13-1	
Vinyl chloride	**<2.0**	ug/L	2.0	1		03/12/16 23:41	75-01-4	

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(386)672-5668

ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232774

Sample: 16064-MW-4 **Lab ID: 35232774004** Collected: 03/04/16 09:30 Received: 03/05/16 11:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
m&p-Xylene	**<5.0**	ug/L	5.0	1		03/12/16 23:41	179601-23-1	
o-Xylene	**<5.0**	ug/L	5.0	1		03/12/16 23:41	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	96	%	70-114	1		03/12/16 23:41	460-00-4	
1,2-Dichloroethane-d4 (S)	112	%	86-125	1		03/12/16 23:41	17060-07-0	
Toluene-d8 (S)	104	%	87-113	1		03/12/16 23:41	2037-26-5	

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ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232774

Sample: 16064-MW-6D **Lab ID: 35232774005** Collected: 03/04/16 09:25 Received: 03/05/16 11:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	**<50.0**	ug/L	50.0	1		03/13/16 00:06	67-64-1	
Benzene	**<5.0**	ug/L	5.0	1		03/13/16 00:06	71-43-2	
Bromodichloromethane	**<5.0**	ug/L	5.0	1		03/13/16 00:06	75-27-4	
Bromoform	**<5.0**	ug/L	5.0	1		03/13/16 00:06	75-25-2	
Bromomethane	**<5.0**	ug/L	5.0	1		03/13/16 00:06	74-83-9	
2-Butanone (MEK)	**<50.0**	ug/L	50.0	1		03/13/16 00:06	78-93-3	
Carbon disulfide	**<10.0**	ug/L	10.0	1		03/13/16 00:06	75-15-0	
Carbon tetrachloride	**<5.0**	ug/L	5.0	1		03/13/16 00:06	56-23-5	
Chlorobenzene	**<5.0**	ug/L	5.0	1		03/13/16 00:06	108-90-7	
Chloroethane	**<10.0**	ug/L	10.0	1		03/13/16 00:06	75-00-3	
Chloroform	**<5.0**	ug/L	5.0	1		03/13/16 00:06	67-66-3	
Chloromethane	**<10.0**	ug/L	10.0	1		03/13/16 00:06	74-87-3	
Cyclohexane	**<5.0**	ug/L	5.0	1		03/13/16 00:06	68411-77-8..	
1,2-Dibromo-3-chloropropane	**<5.0**	ug/L	5.0	1		03/13/16 00:06	96-12-8	
Dibromochloromethane	**<5.0**	ug/L	5.0	1		03/13/16 00:06	124-48-1	
1,2-Dibromoethane (EDB)	**<5.0**	ug/L	5.0	1		03/13/16 00:06	106-93-4	
1,2-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/13/16 00:06	95-50-1	
1,3-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/13/16 00:06	541-73-1	
1,4-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/13/16 00:06	106-46-7	
Dichlorodifluoromethane	**<10.0**	ug/L	10.0	1		03/13/16 00:06	75-71-8	
1,1-Dichloroethane	**<5.0**	ug/L	5.0	1		03/13/16 00:06	75-34-3	
1,2-Dichloroethane	**<5.0**	ug/L	5.0	1		03/13/16 00:06	107-06-2	
1,1-Dichloroethene	**<5.0**	ug/L	5.0	1		03/13/16 00:06	75-35-4	
cis-1,2-Dichloroethene	**22.7**	ug/L	5.0	1		03/13/16 00:06	156-59-2	
trans-1,2-Dichloroethene	**<5.0**	ug/L	5.0	1		03/13/16 00:06	156-60-5	
1,2-Dichloropropane	**<5.0**	ug/L	5.0	1		03/13/16 00:06	78-87-5	
cis-1,3-Dichloropropene	**<5.0**	ug/L	5.0	1		03/13/16 00:06	10061-01-5	
trans-1,3-Dichloropropene	**<5.0**	ug/L	5.0	1		03/13/16 00:06	10061-02-6	
Ethylbenzene	**<5.0**	ug/L	5.0	1		03/13/16 00:06	100-41-4	
2-Hexanone	**<10.0**	ug/L	10.0	1		03/13/16 00:06	591-78-6	
Isopropylbenzene (Cumene)	**<5.0**	ug/L	5.0	1		03/13/16 00:06	98-82-8	
Methyl acetate	**<5.0**	ug/L	5.0	1		03/13/16 00:06	79-20-9	
Methylcyclohexane	**<5.0**	ug/L	5.0	1		03/13/16 00:06	108-87-2	
Methylene Chloride	**<5.0**	ug/L	5.0	1		03/13/16 00:06	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<10.0**	ug/L	10.0	1		03/13/16 00:06	108-10-1	
Methyl-tert-butyl ether	**<5.0**	ug/L	5.0	1		03/13/16 00:06	1634-04-4	
Styrene	**<5.0**	ug/L	5.0	1		03/13/16 00:06	100-42-5	
1,1,2,2-Tetrachloroethane	**<5.0**	ug/L	5.0	1		03/13/16 00:06	79-34-5	
Tetrachloroethene	**93.4**	ug/L	5.0	1		03/13/16 00:06	127-18-4	
Toluene	**<5.0**	ug/L	5.0	1		03/13/16 00:06	108-88-3	
1,2,4-Trichlorobenzene	**<5.0**	ug/L	5.0	1		03/13/16 00:06	120-82-1	
1,1,1-Trichloroethane	**<5.0**	ug/L	5.0	1		03/13/16 00:06	71-55-6	
1,1,2-Trichloroethane	**<5.0**	ug/L	5.0	1		03/13/16 00:06	79-00-5	
Trichloroethene	**133**	ug/L	5.0	1		03/13/16 00:06	79-01-6	
Trichlorofluoromethane	**<5.0**	ug/L	5.0	1		03/13/16 00:06	75-69-4	
1,1,2-Trichlorotrifluoroethane	**<10.0**	ug/L	10.0	1		03/13/16 00:06	76-13-1	
Vinyl chloride	**<2.0**	ug/L	2.0	1		03/13/16 00:06	75-01-4	

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ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232774

Sample: 16064-MW-6D **Lab ID: 35232774005** Collected: 03/04/16 09:25 Received: 03/05/16 11:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
m&p-Xylene	**<5.0**	ug/L	5.0	1		03/13/16 00:06	179601-23-1	
o-Xylene	**<5.0**	ug/L	5.0	1		03/13/16 00:06	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	98	%	70-114	1		03/13/16 00:06	460-00-4	
1,2-Dichloroethane-d4 (S)	115	%	86-125	1		03/13/16 00:06	17060-07-0	
Toluene-d8 (S)	105	%	87-113	1		03/13/16 00:06	2037-26-5	

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ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232774

Sample: 16064-MW-8 **Lab ID: 35232774006** Collected: 03/04/16 10:55 Received: 03/05/16 11:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	**<50.0**	ug/L	50.0	1		03/13/16 00:30	67-64-1	
Benzene	**<5.0**	ug/L	5.0	1		03/13/16 00:30	71-43-2	
Bromodichloromethane	**<5.0**	ug/L	5.0	1		03/13/16 00:30	75-27-4	
Bromoform	**<5.0**	ug/L	5.0	1		03/13/16 00:30	75-25-2	
Bromomethane	**<5.0**	ug/L	5.0	1		03/13/16 00:30	74-83-9	
2-Butanone (MEK)	**<50.0**	ug/L	50.0	1		03/13/16 00:30	78-93-3	
Carbon disulfide	**<10.0**	ug/L	10.0	1		03/13/16 00:30	75-15-0	
Carbon tetrachloride	**<5.0**	ug/L	5.0	1		03/13/16 00:30	56-23-5	
Chlorobenzene	**<5.0**	ug/L	5.0	1		03/13/16 00:30	108-90-7	
Chloroethane	**<10.0**	ug/L	10.0	1		03/13/16 00:30	75-00-3	
Chloroform	**<5.0**	ug/L	5.0	1		03/13/16 00:30	67-66-3	
Chloromethane	**<10.0**	ug/L	10.0	1		03/13/16 00:30	74-87-3	
Cyclohexane	**<5.0**	ug/L	5.0	1		03/13/16 00:30	68411-77-8..	
1,2-Dibromo-3-chloropropane	**<5.0**	ug/L	5.0	1		03/13/16 00:30	96-12-8	
Dibromochloromethane	**<5.0**	ug/L	5.0	1		03/13/16 00:30	124-48-1	
1,2-Dibromoethane (EDB)	**<5.0**	ug/L	5.0	1		03/13/16 00:30	106-93-4	
1,2-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/13/16 00:30	95-50-1	
1,3-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/13/16 00:30	541-73-1	
1,4-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/13/16 00:30	106-46-7	
Dichlorodifluoromethane	**<10.0**	ug/L	10.0	1		03/13/16 00:30	75-71-8	
1,1-Dichloroethane	**<5.0**	ug/L	5.0	1		03/13/16 00:30	75-34-3	
1,2-Dichloroethane	**<5.0**	ug/L	5.0	1		03/13/16 00:30	107-06-2	
1,1-Dichloroethene	**<5.0**	ug/L	5.0	1		03/13/16 00:30	75-35-4	
cis-1,2-Dichloroethene	**<5.0**	ug/L	5.0	1		03/13/16 00:30	156-59-2	
trans-1,2-Dichloroethene	**<5.0**	ug/L	5.0	1		03/13/16 00:30	156-60-5	
1,2-Dichloropropane	**<5.0**	ug/L	5.0	1		03/13/16 00:30	78-87-5	
cis-1,3-Dichloropropene	**<5.0**	ug/L	5.0	1		03/13/16 00:30	10061-01-5	
trans-1,3-Dichloropropene	**<5.0**	ug/L	5.0	1		03/13/16 00:30	10061-02-6	
Ethylbenzene	**<5.0**	ug/L	5.0	1		03/13/16 00:30	100-41-4	
2-Hexanone	**<10.0**	ug/L	10.0	1		03/13/16 00:30	591-78-6	
Isopropylbenzene (Cumene)	**<5.0**	ug/L	5.0	1		03/13/16 00:30	98-82-8	
Methyl acetate	**<5.0**	ug/L	5.0	1		03/13/16 00:30	79-20-9	
Methylcyclohexane	**<5.0**	ug/L	5.0	1		03/13/16 00:30	108-87-2	
Methylene Chloride	**<5.0**	ug/L	5.0	1		03/13/16 00:30	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<10.0**	ug/L	10.0	1		03/13/16 00:30	108-10-1	
Methyl-tert-butyl ether	**<5.0**	ug/L	5.0	1		03/13/16 00:30	1634-04-4	
Styrene	**<5.0**	ug/L	5.0	1		03/13/16 00:30	100-42-5	
1,1,2,2-Tetrachloroethane	**<5.0**	ug/L	5.0	1		03/13/16 00:30	79-34-5	
Tetrachloroethene	**45.8**	ug/L	5.0	1		03/13/16 00:30	127-18-4	
Toluene	**<5.0**	ug/L	5.0	1		03/13/16 00:30	108-88-3	
1,2,4-Trichlorobenzene	**<5.0**	ug/L	5.0	1		03/13/16 00:30	120-82-1	
1,1,1-Trichloroethane	**<5.0**	ug/L	5.0	1		03/13/16 00:30	71-55-6	
1,1,2-Trichloroethane	**<5.0**	ug/L	5.0	1		03/13/16 00:30	79-00-5	
Trichloroethene	**7.1**	ug/L	5.0	1		03/13/16 00:30	79-01-6	
Trichlorofluoromethane	**<5.0**	ug/L	5.0	1		03/13/16 00:30	75-69-4	
1,1,2-Trichlorotrifluoroethane	**<10.0**	ug/L	10.0	1		03/13/16 00:30	76-13-1	
Vinyl chloride	**<2.0**	ug/L	2.0	1		03/13/16 00:30	75-01-4	

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(386)672-5668

ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232774

Sample: 16064-MW-8 **Lab ID: 35232774006** Collected: 03/04/16 10:55 Received: 03/05/16 11:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
m&p-Xylene	**<5.0**	ug/L	5.0	1		03/13/16 00:30	179601-23-1	
o-Xylene	**<5.0**	ug/L	5.0	1		03/13/16 00:30	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	99	%	70-114	1		03/13/16 00:30	460-00-4	
1,2-Dichloroethane-d4 (S)	117	%	86-125	1		03/13/16 00:30	17060-07-0	
Toluene-d8 (S)	107	%	87-113	1		03/13/16 00:30	2037-26-5	

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ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232774

Sample: 16064-MW-15D **Lab ID: 35232774007** Collected: 03/04/16 13:30 Received: 03/05/16 11:05 Matrix: Water

Comments: • Sample collection time was not listed on the COC. Collection time was taken from the sample containers.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	**<50.0**	ug/L	50.0	1		03/13/16 15:08	67-64-1	
Benzene	**<5.0**	ug/L	5.0	1		03/13/16 15:08	71-43-2	
Bromodichloromethane	**<5.0**	ug/L	5.0	1		03/13/16 15:08	75-27-4	
Bromoform	**<5.0**	ug/L	5.0	1		03/13/16 15:08	75-25-2	
Bromomethane	**<5.0**	ug/L	5.0	1		03/13/16 15:08	74-83-9	
2-Butanone (MEK)	**<50.0**	ug/L	50.0	1		03/13/16 15:08	78-93-3	
Carbon disulfide	**<10.0**	ug/L	10.0	1		03/13/16 15:08	75-15-0	
Carbon tetrachloride	**<5.0**	ug/L	5.0	1		03/13/16 15:08	56-23-5	
Chlorobenzene	**<5.0**	ug/L	5.0	1		03/13/16 15:08	108-90-7	
Chloroethane	**<10.0**	ug/L	10.0	1		03/13/16 15:08	75-00-3	
Chloroform	**<5.0**	ug/L	5.0	1		03/13/16 15:08	67-66-3	
Chloromethane	**<10.0**	ug/L	10.0	1		03/13/16 15:08	74-87-3	
Cyclohexane	**<5.0**	ug/L	5.0	1		03/13/16 15:08	68411-77-8..	
1,2-Dibromo-3-chloropropane	**<5.0**	ug/L	5.0	1		03/13/16 15:08	96-12-8	
Dibromochloromethane	**<5.0**	ug/L	5.0	1		03/13/16 15:08	124-48-1	
1,2-Dibromoethane (EDB)	**<5.0**	ug/L	5.0	1		03/13/16 15:08	106-93-4	
1,2-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/13/16 15:08	95-50-1	
1,3-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/13/16 15:08	541-73-1	
1,4-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/13/16 15:08	106-46-7	
Dichlorodifluoromethane	**<10.0**	ug/L	10.0	1		03/13/16 15:08	75-71-8	
1,1-Dichloroethane	**<5.0**	ug/L	5.0	1		03/13/16 15:08	75-34-3	
1,2-Dichloroethane	**<5.0**	ug/L	5.0	1		03/13/16 15:08	107-06-2	
1,1-Dichloroethene	**<5.0**	ug/L	5.0	1		03/13/16 15:08	75-35-4	
cis-1,2-Dichloroethene	**<5.0**	ug/L	5.0	1		03/13/16 15:08	156-59-2	
trans-1,2-Dichloroethene	**<5.0**	ug/L	5.0	1		03/13/16 15:08	156-60-5	
1,2-Dichloropropane	**<5.0**	ug/L	5.0	1		03/13/16 15:08	78-87-5	
cis-1,3-Dichloropropene	**<5.0**	ug/L	5.0	1		03/13/16 15:08	10061-01-5	
trans-1,3-Dichloropropene	**<5.0**	ug/L	5.0	1		03/13/16 15:08	10061-02-6	
Ethylbenzene	**<5.0**	ug/L	5.0	1		03/13/16 15:08	100-41-4	
2-Hexanone	**<10.0**	ug/L	10.0	1		03/13/16 15:08	591-78-6	
Isopropylbenzene (Cumene)	**<5.0**	ug/L	5.0	1		03/13/16 15:08	98-82-8	
Methyl acetate	**<5.0**	ug/L	5.0	1		03/13/16 15:08	79-20-9	
Methylcyclohexane	**<5.0**	ug/L	5.0	1		03/13/16 15:08	108-87-2	
Methylene Chloride	**<5.0**	ug/L	5.0	1		03/13/16 15:08	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<10.0**	ug/L	10.0	1		03/13/16 15:08	108-10-1	
Methyl-tert-butyl ether	**<5.0**	ug/L	5.0	1		03/13/16 15:08	1634-04-4	
Styrene	**<5.0**	ug/L	5.0	1		03/13/16 15:08	100-42-5	
1,1,2,2-Tetrachloroethane	**<5.0**	ug/L	5.0	1		03/13/16 15:08	79-34-5	
Tetrachloroethene	**1540**	ug/L	250	50		03/15/16 15:24	127-18-4	
Toluene	**<5.0**	ug/L	5.0	1		03/13/16 15:08	108-88-3	
1,2,4-Trichlorobenzene	**<5.0**	ug/L	5.0	1		03/13/16 15:08	120-82-1	
1,1,1-Trichloroethane	**<5.0**	ug/L	5.0	1		03/13/16 15:08	71-55-6	
1,1,2-Trichloroethane	**<5.0**	ug/L	5.0	1		03/13/16 15:08	79-00-5	
Trichloroethene	**89.0**	ug/L	5.0	1		03/13/16 15:08	79-01-6	
Trichlorofluoromethane	**<5.0**	ug/L	5.0	1		03/13/16 15:08	75-69-4	
1,1,2-Trichlorotrifluoroethane	**<10.0**	ug/L	10.0	1		03/13/16 15:08	76-13-1	

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ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232774

Sample: 16064-MW-15D **Lab ID: 35232774007** Collected: 03/04/16 13:30 Received: 03/05/16 11:05 Matrix: Water

Comments: • Sample collection time was not listed on the COC. Collection time was taken from the sample containers.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Vinyl chloride	**<2.0**	ug/L	2.0	1		03/13/16 15:08	75-01-4	
m&p-Xylene	**<5.0**	ug/L	5.0	1		03/13/16 15:08	179601-23-1	
o-Xylene	**<5.0**	ug/L	5.0	1		03/13/16 15:08	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	98	%	70-114	1		03/13/16 15:08	460-00-4	
1,2-Dichloroethane-d4 (S)	118	%	86-125	1		03/13/16 15:08	17060-07-0	
Toluene-d8 (S)	104	%	87-113	1		03/13/16 15:08	2037-26-5	

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ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232774

Sample: 16064-MW-17 **Lab ID: 35232774008** Collected: 03/04/16 11:30 Received: 03/05/16 11:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	**<50.0**	ug/L	50.0	1		03/13/16 15:32	67-64-1	
Benzene	**<5.0**	ug/L	5.0	1		03/13/16 15:32	71-43-2	
Bromodichloromethane	**<5.0**	ug/L	5.0	1		03/13/16 15:32	75-27-4	
Bromoform	**<5.0**	ug/L	5.0	1		03/13/16 15:32	75-25-2	
Bromomethane	**<5.0**	ug/L	5.0	1		03/13/16 15:32	74-83-9	
2-Butanone (MEK)	**<50.0**	ug/L	50.0	1		03/13/16 15:32	78-93-3	
Carbon disulfide	**<10.0**	ug/L	10.0	1		03/13/16 15:32	75-15-0	
Carbon tetrachloride	**<5.0**	ug/L	5.0	1		03/13/16 15:32	56-23-5	
Chlorobenzene	**<5.0**	ug/L	5.0	1		03/13/16 15:32	108-90-7	
Chloroethane	**<10.0**	ug/L	10.0	1		03/13/16 15:32	75-00-3	
Chloroform	**<5.0**	ug/L	5.0	1		03/13/16 15:32	67-66-3	
Chloromethane	**<10.0**	ug/L	10.0	1		03/13/16 15:32	74-87-3	
Cyclohexane	**<5.0**	ug/L	5.0	1		03/13/16 15:32	68411-77-8..	
1,2-Dibromo-3-chloropropane	**<5.0**	ug/L	5.0	1		03/13/16 15:32	96-12-8	
Dibromochloromethane	**<5.0**	ug/L	5.0	1		03/13/16 15:32	124-48-1	
1,2-Dibromoethane (EDB)	**<5.0**	ug/L	5.0	1		03/13/16 15:32	106-93-4	
1,2-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/13/16 15:32	95-50-1	
1,3-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/13/16 15:32	541-73-1	
1,4-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/13/16 15:32	106-46-7	
Dichlorodifluoromethane	**<10.0**	ug/L	10.0	1		03/13/16 15:32	75-71-8	
1,1-Dichloroethane	**<5.0**	ug/L	5.0	1		03/13/16 15:32	75-34-3	
1,2-Dichloroethane	**<5.0**	ug/L	5.0	1		03/13/16 15:32	107-06-2	
1,1-Dichloroethene	**<5.0**	ug/L	5.0	1		03/13/16 15:32	75-35-4	
cis-1,2-Dichloroethene	**15.5**	ug/L	5.0	1		03/13/16 15:32	156-59-2	
trans-1,2-Dichloroethene	**<5.0**	ug/L	5.0	1		03/13/16 15:32	156-60-5	
1,2-Dichloropropane	**<5.0**	ug/L	5.0	1		03/13/16 15:32	78-87-5	
cis-1,3-Dichloropropene	**<5.0**	ug/L	5.0	1		03/13/16 15:32	10061-01-5	
trans-1,3-Dichloropropene	**<5.0**	ug/L	5.0	1		03/13/16 15:32	10061-02-6	
Ethylbenzene	**<5.0**	ug/L	5.0	1		03/13/16 15:32	100-41-4	
2-Hexanone	**<10.0**	ug/L	10.0	1		03/13/16 15:32	591-78-6	
Isopropylbenzene (Cumene)	**<5.0**	ug/L	5.0	1		03/13/16 15:32	98-82-8	
Methyl acetate	**<5.0**	ug/L	5.0	1		03/13/16 15:32	79-20-9	
Methylcyclohexane	**<5.0**	ug/L	5.0	1		03/13/16 15:32	108-87-2	
Methylene Chloride	**<5.0**	ug/L	5.0	1		03/13/16 15:32	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<10.0**	ug/L	10.0	1		03/13/16 15:32	108-10-1	
Methyl-tert-butyl ether	**<5.0**	ug/L	5.0	1		03/13/16 15:32	1634-04-4	
Styrene	**<5.0**	ug/L	5.0	1		03/13/16 15:32	100-42-5	
1,1,2,2-Tetrachloroethane	**<5.0**	ug/L	5.0	1		03/13/16 15:32	79-34-5	
Tetrachloroethene	**553**	ug/L	125	25		03/15/16 15:51	127-18-4	
Toluene	**<5.0**	ug/L	5.0	1		03/13/16 15:32	108-88-3	
1,2,4-Trichlorobenzene	**<5.0**	ug/L	5.0	1		03/13/16 15:32	120-82-1	
1,1,1-Trichloroethane	**<5.0**	ug/L	5.0	1		03/13/16 15:32	71-55-6	
1,1,2-Trichloroethane	**<5.0**	ug/L	5.0	1		03/13/16 15:32	79-00-5	
Trichloroethene	**158**	ug/L	5.0	1		03/13/16 15:32	79-01-6	
Trichlorofluoromethane	**<5.0**	ug/L	5.0	1		03/13/16 15:32	75-69-4	
1,1,2-Trichlorotrifluoroethane	**<10.0**	ug/L	10.0	1		03/13/16 15:32	76-13-1	
Vinyl chloride	**<2.0**	ug/L	2.0	1		03/13/16 15:32	75-01-4	

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ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232774

Sample: 16064-MW-17 **Lab ID: 35232774008** Collected: 03/04/16 11:30 Received: 03/05/16 11:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
m&p-Xylene	**<5.0**	ug/L	5.0	1		03/13/16 15:32	179601-23-1	
o-Xylene	**<5.0**	ug/L	5.0	1		03/13/16 15:32	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	96	%	70-114	1		03/13/16 15:32	460-00-4	
1,2-Dichloroethane-d4 (S)	110	%	86-125	1		03/13/16 15:32	17060-07-0	
Toluene-d8 (S)	102	%	87-113	1		03/13/16 15:32	2037-26-5	

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ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232774

Sample: 16064-Trip Blank **Lab ID: 35232774009** Collected: 03/04/16 00:00 Received: 03/05/16 11:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
Acetone	**<50.0**	ug/L	50.0	1		03/13/16 13:56	67-64-1	
Benzene	**<5.0**	ug/L	5.0	1		03/13/16 13:56	71-43-2	
Bromodichloromethane	**<5.0**	ug/L	5.0	1		03/13/16 13:56	75-27-4	
Bromoform	**<5.0**	ug/L	5.0	1		03/13/16 13:56	75-25-2	
Bromomethane	**<5.0**	ug/L	5.0	1		03/13/16 13:56	74-83-9	
2-Butanone (MEK)	**<50.0**	ug/L	50.0	1		03/13/16 13:56	78-93-3	
Carbon disulfide	**<10.0**	ug/L	10.0	1		03/13/16 13:56	75-15-0	
Carbon tetrachloride	**<5.0**	ug/L	5.0	1		03/13/16 13:56	56-23-5	
Chlorobenzene	**<5.0**	ug/L	5.0	1		03/13/16 13:56	108-90-7	
Chloroethane	**<10.0**	ug/L	10.0	1		03/13/16 13:56	75-00-3	
Chloroform	**<5.0**	ug/L	5.0	1		03/13/16 13:56	67-66-3	
Chloromethane	**<10.0**	ug/L	10.0	1		03/13/16 13:56	74-87-3	
Cyclohexane	**<5.0**	ug/L	5.0	1		03/13/16 13:56	68411-77-8..	
1,2-Dibromo-3-chloropropane	**<5.0**	ug/L	5.0	1		03/13/16 13:56	96-12-8	
Dibromochloromethane	**<5.0**	ug/L	5.0	1		03/13/16 13:56	124-48-1	
1,2-Dibromoethane (EDB)	**<5.0**	ug/L	5.0	1		03/13/16 13:56	106-93-4	
1,2-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/13/16 13:56	95-50-1	
1,3-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/13/16 13:56	541-73-1	
1,4-Dichlorobenzene	**<5.0**	ug/L	5.0	1		03/13/16 13:56	106-46-7	
Dichlorodifluoromethane	**<10.0**	ug/L	10.0	1		03/13/16 13:56	75-71-8	
1,1-Dichloroethane	**<5.0**	ug/L	5.0	1		03/13/16 13:56	75-34-3	
1,2-Dichloroethane	**<5.0**	ug/L	5.0	1		03/13/16 13:56	107-06-2	
1,1-Dichloroethene	**<5.0**	ug/L	5.0	1		03/13/16 13:56	75-35-4	
cis-1,2-Dichloroethene	**<5.0**	ug/L	5.0	1		03/13/16 13:56	156-59-2	
trans-1,2-Dichloroethene	**<5.0**	ug/L	5.0	1		03/13/16 13:56	156-60-5	
1,2-Dichloropropane	**<5.0**	ug/L	5.0	1		03/13/16 13:56	78-87-5	
cis-1,3-Dichloropropene	**<5.0**	ug/L	5.0	1		03/13/16 13:56	10061-01-5	
trans-1,3-Dichloropropene	**<5.0**	ug/L	5.0	1		03/13/16 13:56	10061-02-6	
Ethylbenzene	**<5.0**	ug/L	5.0	1		03/13/16 13:56	100-41-4	
2-Hexanone	**<10.0**	ug/L	10.0	1		03/13/16 13:56	591-78-6	
Isopropylbenzene (Cumene)	**<5.0**	ug/L	5.0	1		03/13/16 13:56	98-82-8	
Methyl acetate	**<5.0**	ug/L	5.0	1		03/13/16 13:56	79-20-9	
Methylcyclohexane	**<5.0**	ug/L	5.0	1		03/13/16 13:56	108-87-2	
Methylene Chloride	**<5.0**	ug/L	5.0	1		03/13/16 13:56	75-09-2	
4-Methyl-2-pentanone (MIBK)	**<10.0**	ug/L	10.0	1		03/13/16 13:56	108-10-1	
Methyl-tert-butyl ether	**<5.0**	ug/L	5.0	1		03/13/16 13:56	1634-04-4	
Styrene	**<5.0**	ug/L	5.0	1		03/13/16 13:56	100-42-5	
1,1,2,2-Tetrachloroethane	**<5.0**	ug/L	5.0	1		03/13/16 13:56	79-34-5	
Tetrachloroethene	**<5.0**	ug/L	5.0	1		03/13/16 13:56	127-18-4	
Toluene	**<5.0**	ug/L	5.0	1		03/13/16 13:56	108-88-3	
1,2,4-Trichlorobenzene	**<5.0**	ug/L	5.0	1		03/13/16 13:56	120-82-1	
1,1,1-Trichloroethane	**<5.0**	ug/L	5.0	1		03/13/16 13:56	71-55-6	
1,1,2-Trichloroethane	**<5.0**	ug/L	5.0	1		03/13/16 13:56	79-00-5	
Trichloroethene	**<5.0**	ug/L	5.0	1		03/13/16 13:56	79-01-6	
Trichlorofluoromethane	**<5.0**	ug/L	5.0	1		03/13/16 13:56	75-69-4	
1,1,2-Trichlorotrifluoroethane	**<10.0**	ug/L	10.0	1		03/13/16 13:56	76-13-1	
Vinyl chloride	**<2.0**	ug/L	2.0	1		03/13/16 13:56	75-01-4	

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Ormond Beach, FL 32174
(386)672-5668

ANALYTICAL RESULTS

Project: Roper
Pace Project No.: 35232774

Sample: 16064-Trip Blank **Lab ID: 35232774009** Collected: 03/04/16 00:00 Received: 03/05/16 11:05 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260							
m&p-Xylene	**<5.0**	ug/L	5.0	1		03/13/16 13:56	179601-23-1	
o-Xylene	**<5.0**	ug/L	5.0	1		03/13/16 13:56	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	99	%	70-114	1		03/13/16 13:56	460-00-4	
1,2-Dichloroethane-d4 (S)	118	%	86-125	1		03/13/16 13:56	17060-07-0	
Toluene-d8 (S)	107	%	87-113	1		03/13/16 13:56	2037-26-5	

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QUALITY CONTROL DATA

Project: Roper
Pace Project No.: 35232774

QC Batch: MSV/17862 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 35232774004, 35232774005, 35232774006

METHOD BLANK: 1504909 Matrix: Water
Associated Lab Samples: 35232774004, 35232774005, 35232774006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	<5.0	5.0	03/12/16 22:53	
1,1,2,2-Tetrachloroethane	ug/L	<5.0	5.0	03/12/16 22:53	
1,1,2-Trichloroethane	ug/L	<5.0	5.0	03/12/16 22:53	
1,1,2-Trichlorotrifluoroethane	ug/L	<10.0	10.0	03/12/16 22:53	
1,1-Dichloroethane	ug/L	<5.0	5.0	03/12/16 22:53	
1,1-Dichloroethene	ug/L	<5.0	5.0	03/12/16 22:53	
1,2,4-Trichlorobenzene	ug/L	<5.0	5.0	03/12/16 22:53	
1,2-Dibromo-3-chloropropane	ug/L	<5.0	5.0	03/12/16 22:53	
1,2-Dibromoethane (EDB)	ug/L	<5.0	5.0	03/12/16 22:53	
1,2-Dichlorobenzene	ug/L	<5.0	5.0	03/12/16 22:53	
1,2-Dichloroethane	ug/L	<5.0	5.0	03/12/16 22:53	
1,2-Dichloropropane	ug/L	<5.0	5.0	03/12/16 22:53	
1,3-Dichlorobenzene	ug/L	<5.0	5.0	03/12/16 22:53	
1,4-Dichlorobenzene	ug/L	<5.0	5.0	03/12/16 22:53	
2-Butanone (MEK)	ug/L	<50.0	50.0	03/12/16 22:53	
2-Hexanone	ug/L	<10.0	10.0	03/12/16 22:53	
4-Methyl-2-pentanone (MIBK)	ug/L	<10.0	10.0	03/12/16 22:53	
Acetone	ug/L	<50.0	50.0	03/12/16 22:53	
Benzene	ug/L	<5.0	5.0	03/12/16 22:53	
Bromodichloromethane	ug/L	<5.0	5.0	03/12/16 22:53	
Bromoform	ug/L	<5.0	5.0	03/12/16 22:53	
Bromomethane	ug/L	<5.0	5.0	03/12/16 22:53	
Carbon disulfide	ug/L	<10.0	10.0	03/12/16 22:53	
Carbon tetrachloride	ug/L	<5.0	5.0	03/12/16 22:53	
Chlorobenzene	ug/L	<5.0	5.0	03/12/16 22:53	
Chloroethane	ug/L	<10.0	10.0	03/12/16 22:53	
Chloroform	ug/L	<5.0	5.0	03/12/16 22:53	
Chloromethane	ug/L	<10.0	10.0	03/12/16 22:53	
cis-1,2-Dichloroethene	ug/L	<5.0	5.0	03/12/16 22:53	
cis-1,3-Dichloropropene	ug/L	<5.0	5.0	03/12/16 22:53	
Cyclohexane	ug/L	<5.0	5.0	03/12/16 22:53	
Dibromochloromethane	ug/L	<5.0	5.0	03/12/16 22:53	
Dichlorodifluoromethane	ug/L	<10.0	10.0	03/12/16 22:53	
Ethylbenzene	ug/L	<5.0	5.0	03/12/16 22:53	
Isopropylbenzene (Cumene)	ug/L	<5.0	5.0	03/12/16 22:53	
m&p-Xylene	ug/L	<5.0	5.0	03/12/16 22:53	
Methyl acetate	ug/L	<5.0	5.0	03/12/16 22:53	
Methyl-tert-butyl ether	ug/L	<5.0	5.0	03/12/16 22:53	
Methylcyclohexane	ug/L	<5.0	5.0	03/12/16 22:53	
Methylene Chloride	ug/L	<5.0	5.0	03/12/16 22:53	
o-Xylene	ug/L	<5.0	5.0	03/12/16 22:53	

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QUALITY CONTROL DATA

Project: Roper
Pace Project No.: 35232774

METHOD BLANK: 1504909 Matrix: Water
Associated Lab Samples: 35232774004, 35232774005, 35232774006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Styrene	ug/L	<5.0	5.0	03/12/16 22:53	
Tetrachloroethene	ug/L	<5.0	5.0	03/12/16 22:53	
Toluene	ug/L	<5.0	5.0	03/12/16 22:53	
trans-1,2-Dichloroethene	ug/L	<5.0	5.0	03/12/16 22:53	
trans-1,3-Dichloropropene	ug/L	<5.0	5.0	03/12/16 22:53	
Trichloroethene	ug/L	<5.0	5.0	03/12/16 22:53	
Trichlorofluoromethane	ug/L	<5.0	5.0	03/12/16 22:53	
Vinyl chloride	ug/L	<2.0	2.0	03/12/16 22:53	
1,2-Dichloroethane-d4 (S)	%	115	86-125	03/12/16 22:53	
4-Bromofluorobenzene (S)	%	99	70-114	03/12/16 22:53	
Toluene-d8 (S)	%	106	87-113	03/12/16 22:53	

LABORATORY CONTROL SAMPLE: 1504910

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	25.2	126	70-130	
1,1,2,2-Tetrachloroethane	ug/L	20	18.6	93	70-130	
1,1,2-Trichloroethane	ug/L	20	19.1	96	70-130	
1,1,2-Trichlorotrifluoroethane	ug/L	20	24.2	121	70-130	
1,1-Dichloroethane	ug/L	20	24.1	121	70-130	
1,1-Dichloroethene	ug/L	20	21.7	109	70-130	
1,2,4-Trichlorobenzene	ug/L	20	19.6	98	70-130	
1,2-Dibromo-3-chloropropane	ug/L	20	20.0	100	64-130	
1,2-Dibromoethane (EDB)	ug/L	20	19.2	96	70-130	
1,2-Dichlorobenzene	ug/L	20	20.2	101	70-130	
1,2-Dichloroethane	ug/L	20	23.4	117	70-130	
1,2-Dichloropropane	ug/L	20	19.8	99	70-130	
1,3-Dichlorobenzene	ug/L	20	21.0	105	70-130	
1,4-Dichlorobenzene	ug/L	20	20.4	102	70-130	
2-Butanone (MEK)	ug/L	40	<50.0	82	55-167	
2-Hexanone	ug/L	40	35.8	89	65-130	
4-Methyl-2-pentanone (MIBK)	ug/L	40	34.0	85	70-130	
Acetone	ug/L	40	<50.0	118	40-150	
Benzene	ug/L	20	19.7	98	70-130	
Bromodichloromethane	ug/L	20	22.0	110	70-130	
Bromoform	ug/L	20	19.4	97	68-130	
Bromomethane	ug/L	20	14.3	71	38-179	
Carbon disulfide	ug/L	20	21.7	108	51-155	
Carbon tetrachloride	ug/L	20	25.0	125	70-130	
Chlorobenzene	ug/L	20	19.7	98	70-130	
Chloroethane	ug/L	20	22.2	111	59-149	
Chloroform	ug/L	20	24.9	124	70-130	
Chloromethane	ug/L	20	17.4	87	68-130	
cis-1,2-Dichloroethene	ug/L	20	24.0	120	70-130	

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QUALITY CONTROL DATA

Project: Roper
Pace Project No.: 35232774

LABORATORY CONTROL SAMPLE: 1504910

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
cis-1,3-Dichloropropene	ug/L	20	21.4	107	70-130	
Cyclohexane	ug/L	20	22.4	112	50-150	
Dibromochloromethane	ug/L	20	19.2	96	70-130	
Dichlorodifluoromethane	ug/L	20	14.7	74	67-130	
Ethylbenzene	ug/L	20	19.8	99	70-130	
Isopropylbenzene (Cumene)	ug/L	20	20.4	102	70-130	
m&p-Xylene	ug/L	40	40.4	101	70-130	
Methyl acetate	ug/L	20	21.0	105	50-150	
Methyl-tert-butyl ether	ug/L	20	23.4	117	70-130	
Methylcyclohexane	ug/L	20	19.2	96	50-150	
Methylene Chloride	ug/L	20	22.0	110	70-130	
o-Xylene	ug/L	20	19.8	99	70-130	
Styrene	ug/L	20	19.6	98	70-130	
Tetrachloroethene	ug/L	20	20.7	103	66-133	
Toluene	ug/L	20	18.9	94	70-130	
trans-1,2-Dichloroethene	ug/L	20	23.4	117	70-130	
trans-1,3-Dichloropropene	ug/L	20	20.1	101	70-130	
Trichloroethene	ug/L	20	20.5	102	70-130	
Trichlorofluoromethane	ug/L	20	23.6	118	70-131	
Vinyl chloride	ug/L	20	19.0	95	69-140	
1,2-Dichloroethane-d4 (S)	%			121	86-125	
4-Bromofluorobenzene (S)	%			100	70-114	
Toluene-d8 (S)	%			105	87-113	

MATRIX SPIKE SAMPLE: 1505788

Parameter	Units	35232557002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	0.50U	20	24.0	120	70-130	
1,1,2,2-Tetrachloroethane	ug/L	0.12U	20	15.3	76	70-130	
1,1,2-Trichloroethane	ug/L	0.50U	20	19.3	97	70-130	
1,1,2-Trichlorotrifluoroethane	ug/L	0.50U	20	18.3	92	70-130	
1,1-Dichloroethane	ug/L	0.50U	20	20.4	102	70-130	
1,1-Dichloroethene	ug/L	0.50U	20	24.8	124	70-130	
1,2,4-Trichlorobenzene	ug/L	0.50U	20	18.4	92	70-130	
1,2-Dibromo-3-chloropropane	ug/L	1.0U	20	20.8	104	70-130	
1,2-Dibromoethane (EDB)	ug/L	0.50U	20	18.4	92	70-130	
1,2-Dichlorobenzene	ug/L	0.50U	20	21.0	105	70-130	
1,2-Dichloroethane	ug/L	0.50U	20	23.5	117	70-130	
1,2-Dichloropropane	ug/L	0.50U	20	19.5	97	70-130	
1,3-Dichlorobenzene	ug/L	0.50U	20	18.7	93	70-130	
1,4-Dichlorobenzene	ug/L	0.50U	20	20.7	104	70-130	
2-Butanone (MEK)	ug/L	5.0U	40	<50.0	79	70-130	
2-Hexanone	ug/L	5.0U	40	33.1	83	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	5.0U	40	33.0	83	70-130	
Acetone	ug/L	10.0U	40	<50.0	97	70-130	

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QUALITY CONTROL DATA

Project: Roper
Pace Project No.: 35232774

MATRIX SPIKE SAMPLE: 1505788

Parameter	Units	35232557002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	0.10U	20	19.8	99	70-130	
Bromodichloromethane	ug/L	0.27U	20	21.9	110	70-130	
Bromoform	ug/L	0.50U	20	18.6	93	70-130	
Bromomethane	ug/L	0.50U	20	12.9	64	70-130	M1
Carbon disulfide	ug/L	5.0U	20	17.2	86	70-130	
Carbon tetrachloride	ug/L	0.50U	20	24.1	120	70-130	
Chlorobenzene	ug/L	0.50U	20	19.6	98	70-130	
Chloroethane	ug/L	0.50U	20	26.9	135	70-130	M1
Chloroform	ug/L	0.50U	20	21.3	107	70-130	
Chloromethane	ug/L	0.62U	20	24.7	124	70-130	
cis-1,2-Dichloroethene	ug/L	0.50U	20	21.0	105	70-130	
cis-1,3-Dichloropropene	ug/L	0.25U	20	20.2	101	70-130	
Cyclohexane	ug/L	0.50U	20	16.5	83	50-150	
Dibromochloromethane	ug/L	0.26U	20	18.9	94	70-130	
Dichlorodifluoromethane	ug/L	0.50U	20	27.5	138	70-130	M1
Ethylbenzene	ug/L	0.50U	20	20.1	100	70-130	
Isopropylbenzene (Cumene)	ug/L	0.50U	20	18.9	95	70-130	
m&p-Xylene	ug/L	1.0U	40	40.6	102	70-130	
Methyl acetate	ug/L	1.0U	20	12.5	62	50-150	
Methyl-tert-butyl ether	ug/L	0.50U	20	19.9	100	70-130	
Methylcyclohexane	ug/L	0.50U	20	18.7	93	50-150	
Methylene Chloride	ug/L	2.5U	20	21.0	105	70-130	
o-Xylene	ug/L	0.50U	20	19.8	99	70-130	
Styrene	ug/L	0.50U	20	18.3	92	70-130	
Tetrachloroethene	ug/L	0.50U	20	17.6	88	70-130	
Toluene	ug/L	0.56J	20	20.0	97	70-130	
trans-1,2-Dichloroethene	ug/L	0.50U	20	23.4	117	70-130	
trans-1,3-Dichloropropene	ug/L	0.25U	20	18.3	92	70-130	
Trichloroethene	ug/L	0.50U	20	21.1	106	70-130	
Trichlorofluoromethane	ug/L	0.50U	20	25.5	127	70-130	
Vinyl chloride	ug/L	0.50U	20	24.9	124	70-130	
1,2-Dichloroethane-d4 (S)	%				114	86-125	
4-Bromofluorobenzene (S)	%				97	70-114	
Toluene-d8 (S)	%				104	87-113	

SAMPLE DUPLICATE: 1505787

Parameter	Units	35232557001 Result	Dup Result	RPD	Qualifiers
1,1,1-Trichloroethane	ug/L	0.50U	<5.0		
1,1,2,2-Tetrachloroethane	ug/L	0.12U	<5.0		
1,1,2-Trichloroethane	ug/L	0.50U	<5.0		
1,1,2-Trichlorotrifluoroethane	ug/L	0.50U	<10.0		
1,1-Dichloroethane	ug/L	0.50U	<5.0		
1,1-Dichloroethene	ug/L	0.50U	<5.0		
1,2,4-Trichlorobenzene	ug/L	0.50U	<5.0		

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QUALITY CONTROL DATA

Project: Roper
Pace Project No.: 35232774

SAMPLE DUPLICATE: 1505787

Parameter	Units	35232557001 Result	Dup Result	RPD	Qualifiers
1,2-Dibromo-3-chloropropane	ug/L	1.0U	<5.0		
1,2-Dibromoethane (EDB)	ug/L	0.50U	<5.0		
1,2-Dichlorobenzene	ug/L	0.50U	<5.0		
1,2-Dichloroethane	ug/L	0.50U	<5.0		
1,2-Dichloropropane	ug/L	0.50U	<5.0		
1,3-Dichlorobenzene	ug/L	0.50U	<5.0		
1,4-Dichlorobenzene	ug/L	0.50U	<5.0		
2-Butanone (MEK)	ug/L	5.0U	<50.0		
2-Hexanone	ug/L	5.0U	<10.0		
4-Methyl-2-pentanone (MIBK)	ug/L	5.0U	<10.0		
Acetone	ug/L	10.0U	<50.0		
Benzene	ug/L	0.10U	<5.0		
Bromodichloromethane	ug/L	0.27U	<5.0		
Bromoform	ug/L	0.50U	<5.0		
Bromomethane	ug/L	0.50U	<5.0		
Carbon disulfide	ug/L	5.0U	<10.0		
Carbon tetrachloride	ug/L	0.50U	<5.0		
Chlorobenzene	ug/L	0.50U	<5.0		
Chloroethane	ug/L	0.50U	<10.0		
Chloroform	ug/L	0.50U	<5.0		
Chloromethane	ug/L	0.62U	<10.0		
cis-1,2-Dichloroethene	ug/L	0.50U	<5.0		
cis-1,3-Dichloropropene	ug/L	0.25U	<5.0		
Cyclohexane	ug/L	0.50U	<5.0		
Dibromochloromethane	ug/L	0.26U	<5.0		
Dichlorodifluoromethane	ug/L	0.50U	<10.0		
Ethylbenzene	ug/L	0.50U	<5.0		
Isopropylbenzene (Cumene)	ug/L	0.50U	<5.0		
m&p-Xylene	ug/L	1.0U	<5.0		
Methyl acetate	ug/L	1.0U	<5.0		
Methyl-tert-butyl ether	ug/L	0.50U	<5.0		
Methylcyclohexane	ug/L	0.50U	<5.0		
Methylene Chloride	ug/L	2.5U	<5.0		
o-Xylene	ug/L	0.50U	<5.0		
Styrene	ug/L	0.50U	<5.0		
Tetrachloroethene	ug/L	0.50U	<5.0		
Toluene	ug/L	0.50U	<5.0		
trans-1,2-Dichloroethene	ug/L	0.50U	<5.0		
trans-1,3-Dichloropropene	ug/L	0.25U	<5.0		
Trichloroethene	ug/L	0.50U	<5.0		
Trichlorofluoromethane	ug/L	0.50U	<5.0		
Vinyl chloride	ug/L	0.50U	<2.0		
1,2-Dichloroethane-d4 (S)	%	115	114	1	
4-Bromofluorobenzene (S)	%	98	99	1	
Toluene-d8 (S)	%	107	106	0	

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QUALITY CONTROL DATA

Project: Roper
Pace Project No.: 35232774

QC Batch: MSV/17873 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 35232774007, 35232774008, 35232774009

METHOD BLANK: 1505799 Matrix: Water
Associated Lab Samples: 35232774007, 35232774008, 35232774009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	<5.0	5.0	03/13/16 13:32	
1,1,2,2-Tetrachloroethane	ug/L	<5.0	5.0	03/13/16 13:32	
1,1,2-Trichloroethane	ug/L	<5.0	5.0	03/13/16 13:32	
1,1,2-Trichlorotrifluoroethane	ug/L	<10.0	10.0	03/13/16 13:32	
1,1-Dichloroethane	ug/L	<5.0	5.0	03/13/16 13:32	
1,1-Dichloroethene	ug/L	<5.0	5.0	03/13/16 13:32	
1,2,4-Trichlorobenzene	ug/L	<5.0	5.0	03/13/16 13:32	
1,2-Dibromo-3-chloropropane	ug/L	<5.0	5.0	03/13/16 13:32	
1,2-Dibromoethane (EDB)	ug/L	<5.0	5.0	03/13/16 13:32	
1,2-Dichlorobenzene	ug/L	<5.0	5.0	03/13/16 13:32	
1,2-Dichloroethane	ug/L	<5.0	5.0	03/13/16 13:32	
1,2-Dichloropropane	ug/L	<5.0	5.0	03/13/16 13:32	
1,3-Dichlorobenzene	ug/L	<5.0	5.0	03/13/16 13:32	
1,4-Dichlorobenzene	ug/L	<5.0	5.0	03/13/16 13:32	
2-Butanone (MEK)	ug/L	<50.0	50.0	03/13/16 13:32	
2-Hexanone	ug/L	<10.0	10.0	03/13/16 13:32	
4-Methyl-2-pentanone (MIBK)	ug/L	<10.0	10.0	03/13/16 13:32	
Acetone	ug/L	<50.0	50.0	03/13/16 13:32	
Benzene	ug/L	<5.0	5.0	03/13/16 13:32	
Bromodichloromethane	ug/L	<5.0	5.0	03/13/16 13:32	
Bromoform	ug/L	<5.0	5.0	03/13/16 13:32	
Bromomethane	ug/L	<5.0	5.0	03/13/16 13:32	
Carbon disulfide	ug/L	<10.0	10.0	03/13/16 13:32	
Carbon tetrachloride	ug/L	<5.0	5.0	03/13/16 13:32	
Chlorobenzene	ug/L	<5.0	5.0	03/13/16 13:32	
Chloroethane	ug/L	<10.0	10.0	03/13/16 13:32	
Chloroform	ug/L	<5.0	5.0	03/13/16 13:32	
Chloromethane	ug/L	<10.0	10.0	03/13/16 13:32	
cis-1,2-Dichloroethene	ug/L	<5.0	5.0	03/13/16 13:32	
cis-1,3-Dichloropropene	ug/L	<5.0	5.0	03/13/16 13:32	
Cyclohexane	ug/L	<5.0	5.0	03/13/16 13:32	
Dibromochloromethane	ug/L	<5.0	5.0	03/13/16 13:32	
Dichlorodifluoromethane	ug/L	<10.0	10.0	03/13/16 13:32	
Ethylbenzene	ug/L	<5.0	5.0	03/13/16 13:32	
Isopropylbenzene (Cumene)	ug/L	<5.0	5.0	03/13/16 13:32	
m&p-Xylene	ug/L	<5.0	5.0	03/13/16 13:32	
Methyl acetate	ug/L	<5.0	5.0	03/13/16 13:32	
Methyl-tert-butyl ether	ug/L	<5.0	5.0	03/13/16 13:32	
Methylcyclohexane	ug/L	<5.0	5.0	03/13/16 13:32	
Methylene Chloride	ug/L	<5.0	5.0	03/13/16 13:32	
o-Xylene	ug/L	<5.0	5.0	03/13/16 13:32	

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Pace Analytical Services, Inc.
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

QUALITY CONTROL DATA

Project: Roper
Pace Project No.: 35232774

METHOD BLANK: 1505799 Matrix: Water
Associated Lab Samples: 35232774007, 35232774008, 35232774009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Styrene	ug/L	<5.0	5.0	03/13/16 13:32	
Tetrachloroethene	ug/L	<5.0	5.0	03/13/16 13:32	
Toluene	ug/L	<5.0	5.0	03/13/16 13:32	
trans-1,2-Dichloroethene	ug/L	<5.0	5.0	03/13/16 13:32	
trans-1,3-Dichloropropene	ug/L	<5.0	5.0	03/13/16 13:32	
Trichloroethene	ug/L	<5.0	5.0	03/13/16 13:32	
Trichlorofluoromethane	ug/L	<5.0	5.0	03/13/16 13:32	
Vinyl chloride	ug/L	<2.0	2.0	03/13/16 13:32	
1,2-Dichloroethane-d4 (S)	%	118	86-125	03/13/16 13:32	
4-Bromofluorobenzene (S)	%	100	70-114	03/13/16 13:32	
Toluene-d8 (S)	%	107	87-113	03/13/16 13:32	

LABORATORY CONTROL SAMPLE: 1505800

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	22.0	110	70-130	
1,1,2,2-Tetrachloroethane	ug/L	20	18.6	93	70-130	
1,1,2-Trichloroethane	ug/L	20	20.0	100	70-130	
1,1,2-Trichlorotrifluoroethane	ug/L	20	22.0	110	70-130	
1,1-Dichloroethane	ug/L	20	20.7	103	70-130	
1,1-Dichloroethene	ug/L	20	18.4	92	70-130	
1,2,4-Trichlorobenzene	ug/L	20	20.2	101	70-130	
1,2-Dibromo-3-chloropropane	ug/L	20	21.1	106	64-130	
1,2-Dibromoethane (EDB)	ug/L	20	20.1	101	70-130	
1,2-Dichlorobenzene	ug/L	20	20.5	103	70-130	
1,2-Dichloroethane	ug/L	20	23.0	115	70-130	
1,2-Dichloropropane	ug/L	20	21.3	106	70-130	
1,3-Dichlorobenzene	ug/L	20	21.1	106	70-130	
1,4-Dichlorobenzene	ug/L	20	20.8	104	70-130	
2-Butanone (MEK)	ug/L	40	<50.0	83	55-167	
2-Hexanone	ug/L	40	36.4	91	65-130	
4-Methyl-2-pentanone (MIBK)	ug/L	40	36.0	90	70-130	
Acetone	ug/L	40	<50.0	93	40-150	
Benzene	ug/L	20	19.5	98	70-130	
Bromodichloromethane	ug/L	20	24.2	121	70-130	
Bromoform	ug/L	20	20.2	101	68-130	
Bromomethane	ug/L	20	12.3	61	38-179	
Carbon disulfide	ug/L	20	18.1	90	51-155	
Carbon tetrachloride	ug/L	20	22.7	114	70-130	
Chlorobenzene	ug/L	20	20.6	103	70-130	
Chloroethane	ug/L	20	21.0	105	59-149	
Chloroform	ug/L	20	21.6	108	70-130	
Chloromethane	ug/L	20	20.3	102	68-130	
cis-1,2-Dichloroethene	ug/L	20	20.5	102	70-130	

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Pace Analytical Services, Inc.
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

QUALITY CONTROL DATA

Project: Roper
Pace Project No.: 35232774

LABORATORY CONTROL SAMPLE: 1505800

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
cis-1,3-Dichloropropene	ug/L	20	19.6	98	70-130	
Cyclohexane	ug/L	20	19.1	96	50-150	
Dibromochloromethane	ug/L	20	20.6	103	70-130	
Dichlorodifluoromethane	ug/L	20	21.2	106	67-130	
Ethylbenzene	ug/L	20	21.0	105	70-130	
Isopropylbenzene (Cumene)	ug/L	20	20.8	104	70-130	
m&p-Xylene	ug/L	40	42.8	107	70-130	
Methyl acetate	ug/L	20	16.2	81	50-150	
Methyl-tert-butyl ether	ug/L	20	20.0	100	70-130	
Methylcyclohexane	ug/L	20	20.9	104	50-150	
Methylene Chloride	ug/L	20	20.0	100	70-130	
o-Xylene	ug/L	20	21.7	109	70-130	
Styrene	ug/L	20	20.7	103	70-130	
Tetrachloroethene	ug/L	20	18.6	93	66-133	
Toluene	ug/L	20	20.4	102	70-130	
trans-1,2-Dichloroethene	ug/L	20	20.8	104	70-130	
trans-1,3-Dichloropropene	ug/L	20	21.5	108	70-130	
Trichloroethene	ug/L	20	21.1	105	70-130	
Trichlorofluoromethane	ug/L	20	21.8	109	70-131	
Vinyl chloride	ug/L	20	20.4	102	69-140	
1,2-Dichloroethane-d4 (S)	%			114	86-125	
4-Bromofluorobenzene (S)	%			100	70-114	
Toluene-d8 (S)	%			90	87-113	

MATRIX SPIKE SAMPLE: 1506104

Parameter	Units	35232654002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	0.50U	20	27.4	137	70-130	M1
1,1,2,2-Tetrachloroethane	ug/L	0.12U	20	20.9	105	70-130	
1,1,2-Trichloroethane	ug/L	0.50U	20	22.5	112	70-130	
1,1,2-Trichlorotrifluoroethane	ug/L	0.50U	20	26.3	131	70-130	M1
1,1-Dichloroethane	ug/L	0.50U	20	22.2	111	70-130	
1,1-Dichloroethene	ug/L	0.50U	20	25.7	128	70-130	
1,2,4-Trichlorobenzene	ug/L	0.50U	20	22.1	111	70-130	
1,2-Dibromo-3-chloropropane	ug/L	1.0U	20	22.5	112	70-130	
1,2-Dibromoethane (EDB)	ug/L	0.50U	20	22.7	113	70-130	
1,2-Dichlorobenzene	ug/L	0.50U	20	22.9	114	70-130	
1,2-Dichloroethane	ug/L	0.50U	20	26.3	131	70-130	M1
1,2-Dichloropropane	ug/L	0.50U	20	21.5	108	70-130	
1,3-Dichlorobenzene	ug/L	0.50U	20	23.0	115	70-130	
1,4-Dichlorobenzene	ug/L	0.50U	20	22.1	111	70-130	
2-Butanone (MEK)	ug/L	5.0U	40	<50.0	82	70-130	
2-Hexanone	ug/L	5.0U	40	37.6	94	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	5.0U	40	36.6	92	70-130	
Acetone	ug/L	10.0U	40	<50.0	83	70-130	

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REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

QUALITY CONTROL DATA

Project: Roper
Pace Project No.: 35232774

MATRIX SPIKE SAMPLE: 1506104

Parameter	Units	35232654002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	0.10U	20	22.2	111	70-130	
Bromodichloromethane	ug/L	0.27U	20	26.7	134	70-130	M1
Bromoform	ug/L	0.50U	20	22.0	110	70-130	
Bromomethane	ug/L	0.50U	20	11.7	59	70-130	M1
Carbon disulfide	ug/L	5.0U	20	21.7	108	70-130	
Carbon tetrachloride	ug/L	0.50U	20	26.9	134	70-130	M1
Chlorobenzene	ug/L	0.50U	20	22.4	112	70-130	
Chloroethane	ug/L	0.50U	20	23.2	116	70-130	
Chloroform	ug/L	0.50U	20	25.2	126	70-130	
Chloromethane	ug/L	0.62U	20	20.7	104	70-130	
cis-1,2-Dichloroethene	ug/L	0.50U	20	23.8	119	70-130	
cis-1,3-Dichloropropene	ug/L	0.25U	20	24.9	124	70-130	
Cyclohexane	ug/L	0.50U	20	21.2	106	50-150	
Dibromochloromethane	ug/L	0.26U	20	22.2	111	70-130	
Dichlorodifluoromethane	ug/L	0.50U	20	17.0	85	70-130	
Ethylbenzene	ug/L	0.50U	20	23.0	115	70-130	
Isopropylbenzene (Cumene)	ug/L	0.50U	20	23.4	117	70-130	
m&p-Xylene	ug/L	1.0U	40	48.4	121	70-130	
Methyl acetate	ug/L	1.0U	20	17.6	88	50-150	
Methyl-tert-butyl ether	ug/L	0.50U	20	22.8	114	70-130	
Methylcyclohexane	ug/L	0.50U	20	22.5	112	50-150	
Methylene Chloride	ug/L	2.5U	20	24.0	120	70-130	
o-Xylene	ug/L	0.50U	20	24.0	120	70-130	
Styrene	ug/L	0.50U	20	22.9	115	70-130	
Tetrachloroethene	ug/L	0.50U	20	20.0	100	70-130	
Toluene	ug/L	0.50U	20	22.5	111	70-130	
trans-1,2-Dichloroethene	ug/L	0.50U	20	25.3	126	70-130	
trans-1,3-Dichloropropene	ug/L	0.25U	20	23.9	119	70-130	
Trichloroethene	ug/L	0.50U	20	24.8	124	70-130	
Trichlorofluoromethane	ug/L	0.50U	20	27.3	136	70-130	M1
Vinyl chloride	ug/L	0.50U	20	21.5	108	70-130	
1,2-Dichloroethane-d4 (S)	%				119	86-125	
4-Bromofluorobenzene (S)	%				98	70-114	
Toluene-d8 (S)	%				105	87-113	

SAMPLE DUPLICATE: 1506103

Parameter	Units	35232654001 Result	Dup Result	RPD	Qualifiers
1,1,1-Trichloroethane	ug/L	0.50U	<5.0		
1,1,2,2-Tetrachloroethane	ug/L	0.12U	<5.0		
1,1,2-Trichloroethane	ug/L	0.50U	<5.0		
1,1,2-Trichlorotrifluoroethane	ug/L	0.50U	<10.0		
1,1-Dichloroethane	ug/L	0.50U	<5.0		
1,1-Dichloroethene	ug/L	0.50U	<5.0		
1,2,4-Trichlorobenzene	ug/L	0.50U	<5.0		

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REPORT OF LABORATORY ANALYSIS

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Pace Analytical Services, Inc.
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

QUALITY CONTROL DATA

Project: Roper
Pace Project No.: 35232774

SAMPLE DUPLICATE: 1506103

Parameter	Units	35232654001 Result	Dup Result	RPD	Qualifiers
1,2-Dibromo-3-chloropropane	ug/L	1.0U	<5.0		
1,2-Dibromoethane (EDB)	ug/L	0.50U	<5.0		
1,2-Dichlorobenzene	ug/L	0.50U	<5.0		
1,2-Dichloroethane	ug/L	0.50U	<5.0		
1,2-Dichloropropane	ug/L	0.50U	<5.0		
1,3-Dichlorobenzene	ug/L	0.50U	<5.0		
1,4-Dichlorobenzene	ug/L	0.50U	<5.0		
2-Butanone (MEK)	ug/L	5.0U	<50.0		
2-Hexanone	ug/L	5.0U	<10.0		
4-Methyl-2-pentanone (MIBK)	ug/L	5.0U	<10.0		
Acetone	ug/L	10.0U	<50.0		
Benzene	ug/L	0.10U	<5.0		
Bromodichloromethane	ug/L	0.27U	<5.0		
Bromoform	ug/L	0.50U	<5.0		
Bromomethane	ug/L	0.50U	<5.0		
Carbon disulfide	ug/L	5.0U	<10.0		
Carbon tetrachloride	ug/L	0.50U	<5.0		
Chlorobenzene	ug/L	0.50U	<5.0		
Chloroethane	ug/L	0.50U	<10.0		
Chloroform	ug/L	0.50U	<5.0		
Chloromethane	ug/L	0.62U	<10.0		
cis-1,2-Dichloroethene	ug/L	1.1	<5.0	22	
cis-1,3-Dichloropropene	ug/L	0.25U	<5.0		
Cyclohexane	ug/L	0.50U	<5.0		
Dibromochloromethane	ug/L	0.26U	<5.0		
Dichlorodifluoromethane	ug/L	0.50U	<10.0		
Ethylbenzene	ug/L	0.50U	<5.0		
Isopropylbenzene (Cumene)	ug/L	0.50U	<5.0		
m&p-Xylene	ug/L	1.0U	<5.0		
Methyl acetate	ug/L	1.0U	<5.0		
Methyl-tert-butyl ether	ug/L	0.50U	<5.0		
Methylcyclohexane	ug/L	0.50U	<5.0		
Methylene Chloride	ug/L	2.5U	<5.0		
o-Xylene	ug/L	0.50U	<5.0		
Styrene	ug/L	0.50U	<5.0		
Tetrachloroethene	ug/L	0.50U	<5.0		
Toluene	ug/L	0.50U	<5.0		
trans-1,2-Dichloroethene	ug/L	0.50U	<5.0		
trans-1,3-Dichloropropene	ug/L	0.25U	<5.0		
Trichloroethene	ug/L	0.50U	<5.0		
Trichlorofluoromethane	ug/L	0.50U	<5.0		
Vinyl chloride	ug/L	0.50U	<2.0		
1,2-Dichloroethane-d4 (S)	%	120	119	0	
4-Bromofluorobenzene (S)	%	123	97	24	
Toluene-d8 (S)	%	107	107	1	

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Pace Analytical Services, Inc.
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

QUALIFIERS

Project: Roper
Pace Project No.: 35232774

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-O	Pace Analytical Services - Ormond Beach

ANALYTE QUALIFIERS

M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

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Pace Analytical Services, Inc.
8 East Tower Circle
Ormond Beach, FL 32174
(386)672-5668

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Roper
Pace Project No.: 35232774

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
35232774004	**16064-MW-4**	EPA 8260	MSV/17862		
35232774005	**16064-MW-6D**	EPA 8260	MSV/17862		
35232774006	**16064-MW-8**	EPA 8260	MSV/17862		
35232774007	**16064-MW-15D**	EPA 8260	MSV/17873		
35232774008	**16064-MW-17**	EPA 8260	MSV/17873		
35232774009	**16064-Trip Blank**	EPA 8260	MSV/17873		

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CHAIN ... ument

The Chain-... accurately.

WO# : 35232774

35232774

Page: 2 of 2

2016793

Section A
Required Client Information:

Company:	EPS
Address:	1050 Crown Pointe Pkwy Atlanta, GA
Email To:	jvickery@envplanning.com
Phone:	404-315-9113
Fax:	
Requested Due Date/TAT:	

Section B
Required Project Information:

Report To:	Justin Vickery
Copy To:	
Purchase Order No.:	
Project Name:	ROPER
Project Number:	

Attention:	
Company Name:	
Address:	
Pace Quote Reference:	
Pace Project Manager:	
Pace Profile #:	

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location
STATE: _____

Section D
Required Client Information

Matrix Codes
MATRIX / CODE

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

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other Buffer #2	Analysis Test (Y/N) Hex. Chromium	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	16064-MW-4	WT		3/4/16	1315				1								X	X		
2	16064-MW-6D	WT		3/4/16	1310				1								X	X		
3	16064-MW-15D	WT		3/4/16	1330				1								X	X		
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
SAMPLING KIT-EMPTY	[illegible] PACE	2/29/16	1600	M. Weber-Goehe	3/2/14	0800				
	M. Weber-Goehe	3/4/16	1340	B Petit	3-4	1340				
				DOE F-223	3/5/16	1105	-0.4	Y	N	Y
							Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY):

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

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CHAIN-OF-CUSTODY / Analytical Request Document

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

Page:- 1 of 2

2016794

Section A
Required Client Information:

Company: EPS
Address: 1050 Crown Pointe Pkwy
Atlanta, GA
Email To: jvickery@envplanning.com
Phone: 404-315-9113 Fax:
Requested Due Date/TAT:

Section B
Required Project Information:

Report To: JUSTIN VICKERY
Copy To:
Purchase Order No.:
Project Name: ROPER
Project Number:

Section C
Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____

Site Location
STATE: _____

Section D
Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Matrix Codes
MATRIX / CODE

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

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start DATE	COLLECTED Composite Start TIME	COLLECTED Composite End/Grab DATE	COLLECTED Composite End/Grab TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test (Y/N): VOC by 8260	Arsenic	Cadmium	Total Chromium	Hex Chromium	Lead	Mercury	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	16064-MW-4	WT		3/4/16	0930				3				X					X								
2	16064-MW-6D	WT		3/4/16	0925				3				X					X								
3	16064-MW-8	WT		3/4/16	1055				3				X					X								
4	16064-MW-15D	WT		3/4/16					3				X					X								
5	16064-MW-17	WT		3/4/16	1130				3				X					X								
6	16064-TRIPBLANK	WT		3/4/16					3				X					X								
7	16063-SD-1	WT		3/3/16	1350				1	X									X	X	X	X	X	X		
8																										
9																										
10																										
11																										
12																										

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
SAMPLING KIT EMPTY	[signature] Pace	2/29/16	1605	Marcel Weber-Goeke	3/2/16	0800				
	M. Weber-Goeche	3/4/16	1340	B. Petet	3-4	1340				
				DRC T-223	3/3/16	1105	-0.4	Y	N	
							Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY):

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-May-2007

Pace Analytical Florida Laboratory	Document Name: Sample Condition Upon Receipt Form	Document Revised: December 28, 2015
	Document No.: F-FL-C-007 rev. 07	Issuing Authority: Pace Florida Quality Office

Sa

WO#: 35232774

PM: TSR Due Date: 03/14/16

CLIENT: ENVIPS

Project :

Project Manager

Client:

Date and Initials of person examining contents: 3/5/14 1105

Label:

Deliver: DL

pH:

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

Shipping Method: ☑ First Overnight ☐ Priority Overnight ☐ Standard Overnight ☐ Ground

Billing: ☐ Recipient ☐ Sender ☑ Third Party ☐ Unkown **Cooler Size if Applicable:**

Tracking # 7825 2367 0750

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

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other **Biological Tissue is Frozen:** Yes No N/A

Thermometer Used T-223 **Type of Ice:** Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler #1 Temperature°C -0.4 **(Visual)** Ø **(Correction Factor)** -0.4 **(Actual)**

Cooler #2 Temperature°C _____ **(Visual)** _____ **(Correction Factor)** _____ **(Actual)**

Cooler #3 Temperature°C _____ **(Visual)** _____ **(Correction Factor)** _____ **(Actual)**

Cooler #4 Temperature°C _____ **(Visual)** _____ **(Correction Factor)** _____ **(Actual)**

Cooler #5 Temperature°C _____ **(Visual)** _____ **(Correction Factor)** _____ **(Actual)**

Cooler #6 Temperature°C _____ **(Visual)** _____ **(Correction Factor)** _____ **(Actual)**

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present	☑ Yes ☐ No ☐ N/A	
Chain of Custody Filled Out	☐ Yes ☑ No ☐ N/A	No time for MW-150 8260 slot. container two 1330
Relinquished Signature & Sampler Name COC	☐ Yes ☑ No ☐ N/A	Sampler Name not filled out
Samples Arrived within Hold Time	☑ Yes ☐ No ☐ N/A	
Rush TAT requested on COC DL 3/5	~~☐ Yes~~ ☑ No ☐ N/A	
Sufficient Volume	☑ Yes ☐ No ☐ N/A	
Correct Containers Used	☑ Yes ☐ No ☐ N/A	
Pace Containers Used	☑ Yes ☐ No ☐ N/A	
Containers Intact	☑ Yes ☐ No ☐ N/A	
Sample Labels match COC (sample IDs & date/time of collection)	☑ Yes ☐ No ☐ N/A	
All containers needing acid/base preservation have been checked.	☐ Yes ☐ No ☑ N/A	HNO3 pH<2 HCl pH<2
All Containers needing preservation are found to be in compliance with EPA recommendation:	☐ Yes ☐ No ☑ N/A	H2SO4 pH<2 NaOH pH>12
Exceptions: VOA, Coliform, TOC, O&G		NaOH/ZnOAc pH>9
No Headspace in VOA Vials (>6mm):	☑ Yes ☐ No ~~☐ N/A~~	
Trip Blank Present:	☑ Yes ☐ No ~~☐ N/A~~	

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____

Comments/ Resolution (use back for additional comments):

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

APPENDIX G

Risk Reduction Standard – Revised for Chromium, total

Table 1. Chemical Specific Parameters

Parameter	CASText	HSRA NC (mg/kg)	HSRA Table 2 Soil (mg/kg)	HSRA Table 1 GW (mg/L)	GA MCL (mg/L)	Kd (L/kg)
Chromium total	7440-47-3	1200	100	0.1	0.1	1800000

Parameter	NonCancer Toxicity Values			Cancer Toxicity Values		
	Oral RfD (mg/kg-d)	Inhalation RFC (mg/m^3)	Inhalation RfD (mg/kg-d)	Oral CSF (per mg/kg-d)	Inhalation Unit Risk (per $\mu g/m^3$)	Inhalation CSF (per mg/kg-d)
Chromium total						

HSRA: Hazardous Site Response Act's Hazardous Site Response Rules ("Rules")

NC: Notification Concentration - Appendix I of the Rules

Table 2 Soil: Appendix III Table 2 of the Rules

Table 1 GW: Appendix III Table 1 of the Rules

GA MCL: Georgia Maximum Contaminant Level (Rules for Safe Drinking Water)

Kd value from SSG assumping a pH of 7

Toxicity values are from the EPA Regional Screening Level Summary Table (Nov 2015)

Table 2. Residential Groundwater RRS Calculation

Analyte	TYPE 1 GW RRS			
	Rule 391-3-19-.07(6)(b) and Guidance: The lesser of Table 1 App III and GA MCL (or where NA, the higher of DL or Bkg)			
	Table 1, App III mg/L	GA MCL mg/L	Bkg* mg/L	Type 1 GW RRS mg/L
Chromium total	0.1	0.1		**0.1**

Analyte	TYPE 2 GW RRS						
	Rule 391-3-19-.07(7)(b): The lesser of Items 1 and 2 (or where NA, the higher of Table 1 App III, background or DL)						
	Item 1: RAGS Eqn 2 (NC)*	Item 2: RAGS Eqn 1 (C)*		Alternate, if NA			Residential GW RRS - higher of Type 1 and 2
	Adult / Child mg/L	Adult / Child mg/L	Lesser of Items 1 and 2	Table 1, App III mg/L	Bkg* mg/L	Type 2 GW RRS mg/L	mg/L
Chromium total				0.1		**0.1**	**0.1**

* As there are no toxicity values for total Chromium, the risk/hazard to children, adults and workers were not calcualted.

Table 3. Non-Residential Groundwater RRS Calculation

Analyte	TYPE 3 GW RRS	TYPE 4 GW RRS						
	Rule 391-3-19-.07(8)(c) Same as Type 1 GW RRS	Rule 391-3-19-.07(9)(c): The lesser of Items 1 and 2 (or where NA, the higher of Table 1 App III, background and DL)						
		Item 1: Eqn 2 (NC)*	Item 2: Eqn 1 (C)*	Lesser of Items 1 and 2	Alternate		Type 4 GW RRS	Residential RRS - higher of
	mg/L	mg/L	mg/L	mg/L	Table 1 App III mg/L	Bkg*	mg/L	mg/L
Chromium total	**0.1**				0.1		**0.1**	**0.1**

* As there are no toxicity values for total Chromium, the risk/hazard to children, adults and workers were not calcualted.

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Table 4. Protection of Groundwater Soil Screening Level (SSL) Calculation

Analyte		Type 1/2 SSL			Type 4 SSL		
	Soil-Water Partition Coefficient (Kd)	Residential GW RRS (Higher of Type 1 and 2)	Target Soil Leachate Concentration (Cw = GW RRS * DAF)	Type 1/2 SSL[b]	Nonres GW RRS (Higher of Type 3 and 4)	Target Soil Leachate Concentration (Cw = GW RRS * DAF)	Type 4 SSL[b]
	(L/kg)	(mg/L)	(mg/L)	(mg/kg)	(mg/L)	(mg/L)	(mg/kg)
Chromium total	1800000	0.1	2	3600000	0.1	2	3600000

Notes:

DAF	**20**
OC (site specific organic carbon)=	**0.2%**
n (porosity) [c] =	**0.43**
ps (soil particle den. kg/L) [c] =	**2.65**
0w (water-filled soil por) [c] =	**0.3**
0a (air-filled soil por) [c] *= n - 0w*	**0.13**
pb (dry soil bulk den. kg/L) [c] =	**1.5**

[a]H is set to zero for metals, with the exception of mercury

[b]equation 4-10, Supplemental SSG (USEPA 2002) (p. 4-28), **SSL = Cw*(Kd+((0w+0a*H')/pb))**

[c]Default Soil Screening Guidance Values

NA = No Appendix III Groundwater Concentration available; SSL cannot be calculated.

EPS

Table 5. Soil Residential Risk Reduction Standards

Analyte	TYPE 1 - SOIL											
	Rule 391-3-19-.07(6)(c): Table 2 Appendix III, or if not listed, the the least of Items 1-3 (and if not calculable the higher of background and DL)											
	Table 2 - Appendix III	Item 1 of Rule 391-3-19-.07(6)(c): Higher of (i), (ii), (iii)				Item 2 RAGS Eqn. 7 (NC)	Item 3 RAGS Eqn. 6 (C) [2]			Least of Items 1 - 3	Bkg [3]	Type 1 Soil RRS
		(i): Appendix I (NC) - exclude []	(ii): Table 1 GW x 100 factor	(iii): TCLP [1]	Higher of i - iii	Adult	Adult	Carcin. Class	Adjusted Adult			
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg		mg/kg	mg/kg	mg/kg	mg/kg
Chromium total	100	1200	10		1200					1200		**100**

Analyte	TYPE 2 - SOIL (DAF 20)										Residential Soil RRS - higher of Type 1 and 2 (DAF 20)
	Rule 391-3-19-.07(7)(c): Least of Items 1-4 (and if not calculable, the higher of Table 2 Appendix III, background and DL)										
	Item 1 Type 1/2 SSL Protective of Groundwater (DAF 20)	Item 2 RAGS Eqn 7 (NC) [2]		Item 3 RAGS Eqn 6 (C) [2]		Item 4 IEUBK Lead	Least of Items 1 - 4	Alternate, if NA		Type 2 RRS (DAF 20)	
		Adult	Child	Adult	Child			Table 2, Appendix	Bkg [3]		
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium total	3600000						3600000	100		**3600000**	**3600000**

1) NA - TCLP results not available for this Site

2) NA - no toxicity values

3) NA - Background not determined for this Site

EPS

Table 6. Soil Non-Residential Risk Reduction Standards

Analyte	TYPE 3 SOIL												
	Item 1: Rule 391-3-19-.07(8)(d)1.						Item 2: Rule 391-3-19-.07(8)(d)2				Alternate if NA	Type 3 SS (<2') RRS: Lower of Items 1 and 2, if NA then Bkg or DL	Type 3 SB (>2') RRS: Item 1, , if NA then Bkg or DL
	(i): Item 1 of Rule 391-3-19-.07(6)(c)			(ii)	(iii)	Item 1: Highest of (i), (ii) and (iii)	(i)	(ii)	(iii)	Item 2: Lowest of (i), (ii) and (iii)	Bkg [3]		
	Appendix I (NC) - exclude []	Type 1 GW x 100 factor	TCLP [1]	Table 2 of Appendix III	Lead		RAGS Eqn. 7 Worker NC [2]	RAGS Eqn. 6 Worker C [2]	Lead				
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Chromium total	1200	10				1200						1200	1200

Analyte	Type 4 Soil (DAF 20)											
	Item 1: Rule 391-3-19.-07(9)(d)	Item 2: Rule 391-3-19.-07(9)(d)				Alternate, if NA		Type 4 SS RRS: Lesser of Items 1 and 2	Type 4 SB RRS: Item 1			
	Type 3/4 SSL Protection of Groundwater (DAF 20)	(i) RAGS Eqn.7 Worker NC [2]	(ii) RAGS Eqn. 6 Worker C [2]	(iii) Lead	Item 2: Lowest of (i),(ii) and (iii)	Table 2, Appendix III	Bkg [3]	if NA highest of Table 2 Appendix III, Bkg or DL		Non-Res SS (DAF 20)	Non-Res SB (DAF 20)	
	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	
Chromium total	3600000							3600000	3600000	3600000	3600000	

1) NA - TCLP results not available for this Site

2) NA - no toxicity values

3) NA - Background not determined for this Site

EPS

APPENDIX H

Monthly SVE System Monitoring Records
(Oct 2015 – Mar 2016)

SVE System Inspection Form

Roper Pump

Commerce, Geogia

Date 10-23-2015

Technician Roy L. Amos

Exterior Manifold	Vacuum (in Hg)	PID (ppm)	Gate Valve Open	Gate Valve Closed
Line 1-1	2.0	Ø	✓	
Line 1-2	2.0	2.2	✓	
Line 1-3	2.0	16.0	✓	
Line 1-4	0.5	1.8	✓	
Line 2-1	2.0	9.5	✓	
Line 2-2	1.0	87.5	✓	
Line 2-3	2.0	12.2	✓	
Line 2-4	1.0	56.8	✓	
Line 2-5	2.0	.5	✓	
Line 3-1	2.0	7.6	✓	
Line 3-2	2.0	25.7	✓	
Line 3-3	1.0	4.6	✓	
Line 3-4	1.0	2.6	✓	
Line 3-5	1.0	1.2	✓	
Line 4-1	2.0	—	✓	
Line 4-2	1.0	—	✓	
Line 4-3	1.0	—	✓	
Line 4-4	2.0	—	✓	
Line 4-5	2.0	1.9	✓	

Location	Vacuum (in H_2O)	PID (ppm)	Butterfly Valve (% Open)
VI & BFV-201 (interior manifold)	42		100%
VI & BFV-202 (interior manifold)	40		100%
VI & BFV-203 (interior manifold)	38		100%
VI & BFV-204 (interior manifold)	38		100%
VI-205 (knock-out tank)	47	Ø	
VI-206 (particulate filter)	52		
Carbon Canister 1	45	30	
Carbon Canister 2	50	Ø	
BFV-205 (carbon bypass)			

Routine Maintenance	
Clean Air Filter	
Previous Cleaning	06-13
Next Cleaning Due	01-16
Grease Blower	
Previous Application	—
Next ApplicationDue	—

Magnehelic Gauge	Pressure (in H_2O)
Before dilution valve	.41
After dilution valve	.9

Control Panel Readings		
VT-201	443	in H_2O
FT-201	.40	in H_2O

Pressure Gauge	Pressure (psi)
P-201 (blower discharge)	Ø
P-202 (transfer pump)	Ø

Temperature Gauge	°C
T-201 (blower discharge)	39°C

Comments: DUE TO LINE 4 BEING UNDER WATER IT WAS SUGGESTED TO CLOSE THE LINES DOWN FOR A FEW MONTHS. SO I CLOSED ONE 4 OFF, AND LEFT OTHER LINES ON. WILL DO A CLEAN OUT AND PUMP OUT OF LINES IN NOVEMBER.

SVE System Inspection Form

Roper Pump

Commerce, Geogia

Date 11-20-2015

Technician Boy L Amos

Exterior Manifold	Vacuum (in Hg)	PID (ppm)	Gate Valve Open	Gate Valve Closed
Line 1-1	1.0	2.3	✓	
Line 1-2	2.5	5.6	✓	
Line 1-3	2.5	8.7	✓	
Line 1-4	.5	.68	✓	
Line 2-1	2.5	1.4	✓	
Line 2-2	1.0	9.5	✓	
Line 2-3	2.5	3.0	✓	
Line 2-4	1.0	34.9	✓	
Line 2-5	2.0	6.1	✓	
Line 3-1	2.0	4.0	✓	
Line 3-2	2.0	11.1	✓	
Line 3-3	1.5	1.4	✓	
Line 3-4	1.0	1.3	✓	
Line 3-5	2.0	1.0	✓	
Line 4-1	2.5	—		✓
Line 4-2	1.5	.3	✓	
Line 4-3	1.0	.3	✓	
Line 4-4	2.0	.6	✓	
Line 4-5	2.0	.8	✓	

Location	Vacuum (in H_2O)	PID (ppm)	Butterfly Valve (% Open)
VI & BFV-201 (interior manifold)	44	.4	100%
VI & BFV-202 (interior manifold)	42	1.2	100%
VI & BFV-203 (interior manifold)	41	3.0	100%
VI & BFV-204 (interior manifold)	41	1.6	100%
VI-205 (knock-out tank)	46	1.3	
VI-206 (particulate filter)	54		
Carbon Canister 1	47	.6	
Carbon Canister 2	52	.7	
BFV-205 (carbon bypass)			CLOSED

Routine Maintenance	
Clean Air Filter	
Previous Cleaning	11-10-15
Next Cleaning Due	02-10-16
Grease Blower	
Previous Application	11-10-15
Next ApplicationDue	02-10-15

Magnehelic Gauge	Pressure (in H_2O)
Before dilution valve	.40
After dilution valve	.85

Control Panel Readings		
VT-201	46.5	in H_2O
FT-201	.42	in H_2O

Pressure Gauge	Pressure (psi)
P-201 (blower discharge)	Ø
P-202 (transfer pump)	Ø

Temperature Gauge	°C
T-201 (blower discharge)	49°C

Comments: Last Time Carbon Was Cleaned Out Was -(07-26-2013)-
- Did a Filter Clean Out on 11-16-15
- Pump Water Out of Lines 11-17-15

4-1 Is Completely Filled with Water.

SVE System Inspection Form

Roper Pump

Commerce, Geogia

Date 12-18-2015

Technician Roy L. Amos

Exterior Manifold	Vacuum (in Hg)	PID (ppm)	Gate Valve Open	Gate Valve Closed
Line 1-1	1.0	2.1	✓	
Line 1-2	2.5	5.5	✓	
Line 1-3	2.5	8.5	✓	
Line 1-4	.5	.5	✓	
Line 2-1	2.5	1.4	✓	
Line 2-2	1.0	9.5	✓	
Line 2-3	2.5	3.0	✓	
Line 2-4	1.0	33.2	✓	
Line 2-5	2.0	6.0	✓	
Line 3-1	2.0	4.2	✓	
Line 3-2	2.0	10.0	✓	
Line 3-3	1.5	1.2	✓	
Line 3-4	1.0	1.2	✓	
Line 3-5	2.0	1.0	✓	
Line 4-1	2.5	—	Ø	✓
Line 4-2	1.5	.2	✓	
Line 4-3	1.0	.2	✓	
Line 4-4	2.0	.5	✓	
Line 4-5	2.0	.9	✓	

Location	Vacuum (in H_2O)	PID (ppm)	Butterfly Valve (% Open)
VI & BFV-201 (interior manifold)	45	.5	100 %
VI & BFV-202 (interior manifold)	42	1.0	100 %
VI & BFV-203 (interior manifold)	40	3.3	100 %
VI & BFV-204 (interior manifold)	40	1.7	100 %
VI-205 (knock-out tank)	45	1.5	
VI-206 (particulate filter)	55		
Carbon Canister 1	45	.7	
Carbon Canister 2	50	.7	
BFV-205 (carbon bypass)			CLOSED

Routine Maintenance	
Clean Air Filter	
Previous Cleaning	11-16-15
Next Cleaning Due	02-16-16
Grease Blower	
Previous Application	11-16-15
Next ApplicationDue	02-16-16

Magnehelic Gauge	Pressure (in H_2O)
Before dilution valve	.40
After dilution valve	.85

Control Panel Readings		
VT-201	46.0	in H_2O
FT-201	.40	in H_2O

Pressure Gauge	Pressure (psi)
P-201 (blower discharge)	Ø
P-202 (transfer pump)	Ø

Temperature Gauge	°C
T-201 (blower discharge)	50°C

Comments:

4-1
-(Completely Full of Water)-

SVE System Inspection Form

Roper Pump

Commerce, Geogia

Date 01-14-16

Technician Roy L. Amos

Exterior Manifold	Vacuum (in Hg)	PID (ppm)	Gate Valve Open	Gate Valve Closed
Line 1-1	1.0	2.1	✓	
Line 1-2	2.5	5.0	✓	
Line 1-3	2.5	8.3	✓	
Line 1-4	.5	.5	✓	
Line 2-1	2.5	1.2	✓	
Line 2-2	1.0	9.0	✓	
Line 2-3	2.5	3.0	✓	
Line 2-4	1.0	32.0	✓	
Line 2-5	2.0	6.0	✓	
Line 3-1	2.0	4.1	✓	
Line 3-2	2.0	9.9	✓	
Line 3-3	1.5	1.3	✓	
Line 3-4	1.0	1.0	✓	
Line 3-5	2.0	.8	✓	
Line 4-1	2.5	—		✓
Line 4-2	1.5	.3	✓	
Line 4-3	1.0	.2	✓	
Line 4-4	2.0	.7	✓	
Line 4-5	2.0	1.0	✓	

Location	Vacuum (in H_2O)	PID (ppm)	Butterfly Valve (% Open)
VI & BFV-201 (interior manifold)	43	.5	100%
VI & BFV-202 (interior manifold)	42	1.0	100%
VI & BFV-203 (interior manifold)	41	3.2	100%
VI & BFV-204 (interior manifold)	41	1.8	100%
VI-205 (knock-out tank)	44	1.5	
VI-206 (particulate filter)	54		
Carbon Canister 1	44	.6	
Carbon Canister 2	50	.7	
BFV-205 (carbon bypass)			CLOSED

Routine Maintenance	
Clean Air Filter	
Previous Cleaning	11-16-15
Next Cleaning Due	02-16-16
Grease Blower	
Previous Application	11-16-15
Next ApplicationDue	02-16-16

Magnehelic Gauge	Pressure (in H_2O)
Before dilution valve	.42
After dilution valve	.85

Control Panel Readings		
VT-201	45.5	in H_2O
FT-201	.45	in H_2O

Pressure Gauge	Pressure (psi)
P-201 (blower discharge)	Ø
P-202 (transfer pump)	Ø

Temperature Gauge	°C
T-201 (blower discharge)	48 °C

Comments:

4-1
-(completely Full of Water

SVE System Inspection Form

Roper Pump

Commerce, Geogia

Date 02-19-2016

Technician Roy L. Amos

Exterior Manifold	Vacuum (in Hg)	PID (ppm)	Gate Valve Open	Gate Valve Closed
Line 1-1	1.0	2.1	✓	
Line 1-2	2.5	5.0	✓	
Line 1-3	2.5	7.9	✓	
Line 1-4	.5	.7	✓	
Line 2-1	2.0	1.0	✓	
Line 2-2	1.0	8.6	✓	
Line 2-3	2.5	2.5	✓	
Line 2-4	1.0	28.6	✓	
Line 2-5	2.0	6.0	✓	
Line 3-1	2.0	4.1	✓	
Line 3-2	2.0	8.7	✓	
Line 3-3	1.5	1.3	✓	
Line 3-4	1.0	1.2	✓	
Line 3-5	2.0	.8	✓	
Line 4-1	2.5	—		✓
Line 4-2	1.5	.4	✓	
Line 4-3	1.0	.5	✓	
Line 4-4	2.0	.7	✓	
Line 4-5	2.0	1.0	✓	

Location	Vacuum (in H_20)	PID (ppm)	Butterfly Valve (% Open)
VI & BFV-201 (interior manifold)	43	.5	100 %
VI & BFV-202 (interior manifold)	40	1.0	100 %
VI & BFV-203 (interior manifold)	40	3.2	100 %
VI & BFV-204 (interior manifold)	40	1.8	100 %
VI-205 (knock-out tank)	45	1.5	
VI-206 (particulate filter)	54		
Carbon Canister 1	44	.7	
Carbon Canister 2	50	.8	
BFV-205 (carbon bypass)			

Routine Maintenance	
Clean Air Filter	
Previous Cleaning	02-19
Next Cleaning Due	05-20
Grease Blower	
Previous Application	02-19
Next ApplicationDue	05-20

Magnehelic Gauge	Pressure (in H_2O)
Before dilution valve	.40
After dilution valve	.85

Control Panel Readings		
VT-201	45.5	in H_2O
FT-201	.40	in H_2O

Pressure Gauge	Pressure (psi)
P-201 (blower discharge)	Ø
P-202 (transfer pump)	Ø

Temperature Gauge	°C
T-201 (blower discharge)	47°C

Comments:

4-1 is Under Water

SVE System Inspection Form

Roper Pump

Commerce, Geogia

Date 03-18-2016

Technician Roy L. Amos

Exterior Manifold	Vacuum (in Hg)	PID (ppm)	Gate Valve Open	Gate Valve Closed
Line 1-1	1.0	2.1	✓	
Line 1-2	2.5	5.2	✓	
Line 1-3	2.5	8.1	✓	
Line 1-4	.5	.5	✓	
Line 2-1	2.5	1.2	✓	
Line 2-2	1.0	8.4	✓	
Line 2-3	2.5	2.6	✓	
Line 2-4	1.0	30.2	✓	
Line 2-5	2.0	6.0	✓	
Line 3-1	2.0	3.8	✓	
Line 3-2	2.0	10.7	✓	
Line 3-3	1.5	1.2	✓	
Line 3-4	1.0	1.2	✓	
Line 3-5	2.0	1.0	✓	
Line 4-1	2.5	—		✓
Line 4-2	1.5	.2	✓	
Line 4-3	1.0	.2	✓	
Line 4-4	2.0	.2	✓	
Line 4-5	2.0	.4	✓	

Location	Vacuum (in H_20)	PID (ppm)	Butterfly Valve (% Open)
VI & BFV-201 (interior manifold)	45	.4	100%
VI & BFV-202 (interior manifold)	42	1.2	100%
VI & BFV-203 (interior manifold)	40	3.0	100%
VI & BFV-204 (interior manifold)	40	1.6	100%
VI-205 (knock-out tank)	45	1.3	
VI-206 (particulate filter)	52		
Carbon Canister 1	45	.6	
Carbon Canister 2	52	.8	
BFV-205 (carbon bypass)			

Routine Maintenance	
Clean Air Filter	
Previous Cleaning	2-19
Next Cleaning Due	5-20
Grease Blower	
Previous Application	2.19
Next ApplicationDue	5-20

Magnehelic Gauge	Pressure (in H_2O)
Before dilution valve	.40
After dilution valve	.85

Control Panel Readings		
VT-201	45.5	in H_2O
FT-201	.40	in H_2O

Pressure Gauge	Pressure (psi)
P-201 (blower discharge)	Ø
P-202 (transfer pump)	Ø

Temperature Gauge	°C
T-201 (blower discharge)	48°c

Comments:

4.1 Sq Under Water Water