



April 24, 2013

Mr. Maurice Moore
Division of Hazardous Waste Management
New York State Department of Environmental Protection
270 Michigan Avenue
Buffalo, NY 14203-2999

**Subject: 2012 Annual Performance Monitoring Report
Essex/Hope Site
Jamestown, New York
URS Project No. 41569501**

Dear Mr. Moore:

Enclosed please find the 2012 Annual Performance Monitoring Report for the above referenced project. Should you have any questions or desire additional information, please contact me at (412) 503-4670 or Mark Dowiak at (412) 503-4672.

Sincerely,

A handwritten signature in black ink, reading "Valerie Sibeto".

URS

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Enclosure

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**2012 Annual
Performance
Monitoring Report
Essex/Hope Site
Jamestown, New York**

March 2013 - Final

***Prepared for:
Essex Specialty Products, Inc.
Auburn Hills, Michigan***

URS Project No. 41569501

2012 ANNUAL PERFORMANCE MONITORING REPORT

**Essex/Hope Site
Jamestown, New York**

Prepared for:
Essex Specialty Products, Inc.
Auburn Hills, Michigan

Prepared by:

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URS Project No. 41569501

March 2013

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1.0 Introduction

On behalf of Essex Specialty Products, Inc. (ESP), URS has prepared this Annual Performance Monitoring Report for the remedial action at the Essex/Hope Site in Jamestown, New York (NO.9-07-015). This report is required by the 1995 NYSDEC Order on Consent and as outlined in the Performance Monitoring Plan (PMP) originally prepared by Radian International in June 1997, and most recently revised by URS Corp. in February, 2011. This report summarizes the operations and performance monitoring of the site remedial systems for the calendar year of 2012. A site location map is provided as Figure 1.

Section 2.0 of the report summarizes groundwater flow conditions under pumping influence, Section 3.0 summarizes groundwater quality, and Section 4.0 discusses future plans.

1.1 Remedial Systems Overview

There are three separate areas that are the focus of remedial action and include the North Parking Lot (NPL) Area, the former Underground Storage Tanks (UST) Area, and the former Aboveground Storage Tank/Underground Storage Tank (AST/UST) Area. These areas and the site monitoring points are illustrated on Figure 2.

The remedial systems at the Essex/Hope Site were designed and constructed to address impacted groundwater and soils by a combination of soil vapor extraction, air sparging, and a groundwater extraction and treatment. The original remedial action design and implementation was based upon the March 1994 Record of Decision (ROD) issued by the New York State Department of Environmental Conservation (NYSDEC) and included:

- A groundwater remediation system consisting of an extraction well network of five (5) shallow and two (2) deep recovery wells and activated carbon pre-treatment with onsite discharge to the local POTW;
- Soil remediation in the AST/UST and UST Areas by soil vapor extraction (SVE) for volatile organic constituents occurring above the shallow water table.
- Soil excavation in the NPL Area, conducted in September and October of 1996, to remove impacted soils in the former sump and surrounding areas.
- Air sparging in the shallow water-bearing zone of the NPL, UST and AST/UST Areas to supplement the treatment of impacted groundwater via enhanced biodegradation and volatilization of organic constituents. A soil vapor extraction system was added to the NPL Area to collect volatile organic constituents (VOCs) volatilized from the shallow groundwater in this area.
- The remedial areas were capped with either asphalt or concrete to enhance surface water runoff and minimize infiltration.

- A network of monitoring wells across the site (as designated in the Performance Monitoring Plan) is used to measure the effectiveness of the groundwater remedial activities.

1.2 Supplemental Remedial Activities

Voluntary supplemental remedial activities were initiated in 2000, with the approval of the NYSDEC, to refine the understanding of the extent of site related subsurface constituents and to evaluate potential remedial alternatives to enhance remedial effectiveness at the site. Evaluation of those studies continued during 2001 and 2002, and measures to remove residual VOCs in the UST Area were implemented between 2001 and 2003. The results of the additional studies and UST Area work are reported under separate cover. A summary of the additional activities performed at the Site after the initial remedial actions is as follows:

- A pilot scale zero-valent iron permeable reactive barrier (PRB) was injected around recovery well RW-2D and within the lower semi-confined water-bearing zone beneath Building 5 in July 2000. The pilot PRB is designed to evaluate the effectiveness of this technology to reduce and control the migration of dissolved VOC constituents from the site. As part of this evaluation, additional groundwater piezometers were installed in the upper unconfined water-bearing zone and lower semi-confined water-bearing zone for performance monitoring of the pilot PRB. Collection of pilot test data was completed in July 2001, and further evaluation based upon site performance monitoring data was completed in December 2002. Data concerning this pilot test was submitted to the NYSDEC as the Interim Results, PRB Pilot Results for First Four Sample Rounds (URS, February 2001). A final pilot test report detailing results through December 2002 was submitted to NYSDEC in July 2003.
- The former underground storage tanks (USTs) in the UST Area were uncovered in August 2000 and evaluated as a potential ongoing source of VOCs in this area. Additional test borings and groundwater piezometers were installed within the upper shallow semi-confined water-bearing zones in this area to evaluate groundwater and soil chemical conditions, and to refine groundwater flow direction and constituent migration. Results of these activities were reported in the Plant #5 East Area and UST Area Investigations Report (URS, March 2001).
- As part of the UST Area investigation, the area east of Building 5 was evaluated at the request of the NYSDEC to determine the source of vinyl chloride within the lower semi-confined water-bearing zone at Monitoring Well MW-19D, located on the Site's eastern property line. A network of test borings and deep piezometers were installed within the UST Area and on the offsite property to the east for evaluation of chemical conditions within the soil and groundwater. Results of these activities were reported in the Plant #5 East Area and UST Area Investigations Report (URS, March 2001).
- The former USTs (Tanks 1 through 4) in the UST Area were uncovered during 2001 and cleaned-out to remove residual liquids from the tanks. Openings were cut in each tank and the fluid contents removed, and each tank was rinsed with potable water. Following rinsing, the tanks were treated using the Biox[®] Process to remove residual organic constituents in the tanks by chemical oxidation and biodegradation. Results of the tank

cleaning were submitted to the NYSDEC in the Tank Closure Work Plan (URS, September 2001).

- Based upon the results of the Biox solution treatment of the USTs, where VOCs were not reduced below the “clean closure” standard of 5 µg/L within Tanks T-1, T-3 and T-4 as required by the NYSDEC, a UST removal program was initiated by Essex Specialty Products. All five (5) of the former USTs in the UST Area, and over 1000 tons of soil were removed between the period of November 2002 and January 2003. Results of this activity have been submitted to the NYSDEC in the UST Removal Interim Report (URS, February 2003).
- A site investigation was completed in October 2003 to further define conditions in the UST Area and the vinyl chloride groundwater plume on the east side of the former Plant No. 5 building. This investigation was completed to provide data to address potential additional measures for the site cleanup. These potential measures focus on insitu methods especially those that are able to treat both the UST Area contaminants (toluene, ethylbenzene, xylenes) and the vinyl chloride plume. Results of the investigation are reported under separate cover. The new monitoring wells installed as part of these investigations, MW's: 21D, 22D, 23S, 23D and 24S, are shown on Figure 2. Of these wells, MW-21D and MW-22D were added to the Performance Monitoring Plan (PMP) as directed by the NYSDEC. The results of this investigation have been submitted to the NYSDEC in the UST Area and Groundwater Vinyl Chloride Investigations Report (URS, June 2004).
- Supplemental site investigations were performed from November, 2005 through June, 2006 for the UST Area and the offsite groundwater zones. The objectives of the investigations were as follows:
 - *Determine the extent of the residual VOC contamination in the UST Area shallow soils and groundwater.* The most recent investigations (2003) found VOCs in shallow groundwater approximately 30 feet south of the former USTs. Additional investigations were necessary to further delineate the extent of the VOCs to the south and east, and offsite, if necessary.
 - *Determine the extent of the VOC contamination in shallow groundwater in the vicinity of Monitoring Well 14S.* Performance monitoring has indicated that shallow groundwater VOCs have persisted at elevated levels (> 1ppm) in monitoring well 14S, north of the NPL Area and offsite, north of Hopkins Avenue. Previous investigations (June, 2004 report) indicated that MW-14S had a TCE level of 2700 ppb, which was the highest TCE detected in the shallow water-bearing zone. This TCE level was one to two orders of magnitude higher than the TCE levels in shallow zone recovery wells, RW-1S and RW-2S, respectively. Additional investigations were needed in the area around MW-14S to determine the extent of the elevated TCE, and the potential for offsite sources of VOCs.
 - *Determine the extent of the VOCs in deep groundwater in the offsite area northeast and east of CPM Plant No. 5.* The latest offsite groundwater investigations (2003) found VOCs in deep groundwater to the northeast (MW-22D) of the site, approximately 50 ft beyond the property boundary. This area is in the downgradient groundwater direction (under non-pumping conditions), and the VOCs are expected to be residual

contamination from migration of the historic plume. Additional investigations were necessary to determine the extent of the offsite deep groundwater VOC plume. The investigations included discrete sampling of the shallow and deep groundwater zones using the direct-push drilling equipment and residential vapor sampling by shallow probes installed near occupied buildings above the shallow VOC plume locations. The results of these investigations were summarized in a separate report submitted to NYDEC in December 2006.

- *Phase I of the Supplemental Remedial Actions* was initiated in November of 2007. These included a new recovery well, RW-6D and monitoring wells, MW-25S and MW-25D to the north of the site along Hopkins Avenue. Residential vapor sampling was also performed at 159 Hopkins Avenue.
- Recovery Well RW-6D installation was completed in the second half of 2008 and placed on-line in September 2008. *Phase II Supplemental Remedial Activities* commenced in November 2008 with the installation of a residential vapor mitigation system at 159 Hopkins Avenue.
- VOCs in the UST Area shallow groundwater and other offsite shallow and deep groundwater zones are currently being evaluated for insitu treatment technologies. A chemical oxidation treatability study was completed for UST Area soils and groundwater in 2010.
- A Remedial Action Work Plan for insitu chemical oxidation (ISCO) of the UST Area was submitted in August 2011 and continued Phase II remedial actions commenced in the fourth quarter of 2011. Four (4) shallow monitoring wells (MW-26S, MW-27S, MW-28S, and MW-29S) were installed in the UST Area to better evaluate the extent of VOCs in the area and for monitoring of the subsequent ISCO results.
- ISCO was conducted in November 2011 to treat the shallow groundwater in the UST Area. The area surrounding RW-6D was also treated at this time to address the acetone plume in the deep groundwater zone. Performance monitoring of groundwater and soils was initiated in December 2011 and continued through 2012. Results of these activities were summarized in a separate report submitted to NYSDEC in the fourth quarter of 2012.

1.3 Major System Modifications

Major modifications to the original remedial systems configuration since startup in 1997 have included the following:

- Groundwater extraction from Recovery Well RW-1D, screened across the deep water-bearing zone in the NPL Area, was discontinued in June 1999 with the approval of the NYSDEC. As reported in the 1999 Annual Performance Monitoring Report (Radian International, April 1999), a pumping evaluation completed in the first half of 1999 revealed that vertical leakage was occurring from the shallow water-bearing zone to the deep water-bearing zone due to pumping from the deep zone. Based upon this information, and the fact that the majority of the groundwater constituents are recovered

from RW-2D, NYSDEC recommended that RW-1D be shut down as documented in the June 17, 1999 correspondence from the NYSDEC to Radian International.

- The air sparging system in the NPL Area was shut down in July 2000, with the approval of the NYSDEC, to prevent the oxidation of the newly installed Pilot Permeable Reactive Barrier (PRB) and zero-valent iron injections in that area. The soil vapor extraction system has continued to be operated in this area as needed to collect potential gases produced by subsurface reactions associated with the Pilot PRB and zero-valent iron injections in that area.
- Air sparging in the UST Area was discontinued in October 2000 after mechanical failure of the air sparge pump. Since the combined soil vapor extraction/air sparging system had reached its practical remedial effectiveness, Essex Specialty Products initiated activities to evaluate conditions in this area in 2000 and implement supplemental remedial activities to replace the original system, with the approval of the NYSDEC. These supplemental remedial activities include the *insitu* cleaning of the former USTs completed in December 2001 and February 2003, and the UST removals completed between November 2002 and January 2003.
- The soil vapor extraction system and groundwater recovery system (Recovery Wells RW-4S and RW-5S) in the UST Area were shut down in November 2002 for the UST removal activities. Excavation work resulted in complete removal of the electrical system for the UST Area, Recovery Well RW-4S, and underground piping to the soil vapor extraction/air sparging wells and existing Recovery Well RW-5S. These systems are currently shut down. There are no plans at this time to redesign or reconstruct the UST Area remediation system.
- The AST/UST Area system was shut down since August of 2006 and remains offline pending supplemental remedial action in the AST/UST and UST areas and eventual permanent disconnection. The SVE System in the NPL Area was operated on a voluntary basis as an additional safeguard against potential vapor release. However, the system was shut down in November 2007 following review of air stream sample analyses that indicated this area poses no potential hazard associated with vapor release.
- System modifications were implemented as a result of the findings of the 2005-2006 UST Area and Offsite Groundwater Investigations. One new recovery well (RW-6D) was installed in November 2007 in the deep groundwater zone VOC plume offsite to the north. RW-6D was placed on-line in September, 2008. RW-6D was temporarily shut down in August 2011 due to elevated levels of acetone in excess of permit limits in the treatment system effluent. Due to the difficulty of acetone treatment by carbon, normal operations of the recovery well have been postponed until post-ISCO monitoring results illustrate decreased concentrations of the compound. RW-6D remained offline for most of the 1st half of 2012 while continued efforts were made to address the acetone hotspot. URS' research determined that acetone is not included on the USEPA list of Total Toxic Organics (TTOs) and therefore, not considered a compound of interest. On June 6, 2012, a letter of notification was sent to the City of Jamestown Board of Public Utilities (BPU) advising that acetone would no longer be reported as a TTO. RW-6D was subsequently restarted on June 11, 2012.

1.4 Performance Criteria

The performance criteria to evaluate remediation effectiveness are the Remedial Action Objectives (RAOs) included as Appendix A in the March 1994 Record of Decision (ROD) for the site. Table 1 summarizes the RAOs for the site. Performance monitoring completed during the 2012 calendar year consisted of monthly groundwater pre-treatment system influent and effluent analysis, semi-annual recovery well groundwater analysis, and annual groundwater sampling of the monitoring wells selected as performance monitoring points. No performance monitoring soil sampling was completed during 2012. Soil sampling and additional groundwater monitoring of treatment areas was conducted as part of the UST Area ISCO activities.

2.0 Groundwater Flow Evaluation

This section presents a summary of the 2012 groundwater flow conditions based on quarterly measurements as well as an annual evaluation of the extraction system. The annual evaluation reviews each extraction well's pumping rates, the amount of pore volume exchanged in each remedial area and groundwater flow conditions over the course of the extraction period.

The site groundwater has been identified as two (2) zones for descriptive purposes. These are the shallow water-bearing (shallow) and the lower fine-sand water bearing zone (deep zone). Detailed descriptions of these geologic zones are found in other site reports.

Water level measurements were obtained periodically during system operation and are provided in Appendix A. Groundwater contour maps representative of pumping conditions during the reporting period are provided as Figures 3 through 10 for the shallow and deep water-bearing zones.

2.1 Groundwater Extraction System Operation and Maintenance

The groundwater extraction system was operated continuously throughout the reporting period with the exception of system shutdowns and routine maintenance as summarized below:

- All recovery wells were offline between March 17, 2011 and March 22, 2011 for repair of the groundwater treatment system effluent pipe.
- All recovery wells were offline between January 4, 2012 and January 5, 2012, between April 30, 2012 and May 2, 2012, and between October 22, 2012 and October 23, 2012 for carbon changeout activities.
- All recovery wells were offline periodically between August 13, 2012 and August 15, 2012, between August 20, 2012 and August 22, 2012, and between October 15, 2012 and October 17, 2012 for well development activities and RW-2D and RW-6D acid treatments.
- All recovery wells were offline between August 22, 2012 and September 25, 2012 and between November 20, 2012 and December 18, 2012 for system pump repair.
- Recovery Well RW-3S was shut down between October 7, 2012 and October 17, 2012 for motor replacement.
- Recovery Well RW-6D was shutdown from January 1 through June 11, 2012 because of excessive acetone presence in deep groundwater in the well capture area. The well was restarted after evaluation of acetone treatability and potential toxicity to the Jamestown POTW.

2.2 Annual Groundwater Extraction

Groundwater pumping volumes are provided in Table 2. In 2012, over 1.43 million gallons of groundwater were extracted and treated by the recovery system. Approximately 1.05 million gallons of groundwater were extracted from the deep groundwater zone and over 382,000 gallons of groundwater were extracted from the shallow water-bearing zone. Detailed groundwater extraction monitoring data from each treatment area is provided as Appendix A-2.

2.3 Groundwater Flow Conditions

Groundwater flow conditions in the shallow and deep water-bearing zones at the site for 2012 were a typical reflection of normal site operations. Groundwater contour maps representing pumping conditions within the shallow and deep zones are provided as Figures 3 through 10.

Pumping conditions in each groundwater zone remained consistent with conditions experienced during previous years with the exception of the extended period of RW-6D shutdown. Reduced deep zone VOC capture occurred during this period, however the plume migration was not significant since the recovery well to the west RW-2D provided some drawdown in the plume hotspot area around MW-21D. Downgradient monitoring well MW-22D northeast of RW-6D did not exhibit any VOC increases over the period of RW-6D shutdown indicating containment of the VOC plume in the deep zone. Deep groundwater flow conditions around RW-6D during the June 11, 2012 monitoring event indicate that drawdown is not occurring near this recovery well because water level measurements were collected prior to restarting the pump.

3.0 Water Quality Results and Summary

Groundwater sampling for 2012 consisted of the following:

- Semi-Annual Recovery Well Sampling for VOCs
- Annual Sampling of the Performance Monitoring Plan (PMP) well network for VOCs (conducted in September 2011)
- Monthly influent and effluent sampling of the wastewater pre-treatment system in support of POTW permit requirements.

Table 3 summarizes the semi-annual recovery well analytical data for 2012. The annual performance monitoring well data is provided in Table 4. Tables 5 through 7 represent the wastewater influent, treatment and effluent sample data for 2011. Recovery Well performance data is illustrated in Appendix A-3. Laboratory Certificates of Analysis are included in Appendix B. The following sections describe the conditions occurring in each of the three remedial areas, with a comparison to previous analytical results.

3.1 North Parking Lot (NPL)/Northeast Site Area

Both the shallow water-bearing zone and the deeper lower fine sand water-bearing zone are monitored in this area. The shallow monitoring system for area consists of Recovery Wells RW-1S and RW-2S, as well as monitoring wells MW-6, MW-7S, MW-14S, MW-15S, and MW-25S. The deep water-bearing zone monitoring network consists of Recovery Wells RW-2D and RW-6D, and Monitoring Wells MW-7D, MW-8, MW-14D, MW-15D, MW-16D, MW-19D, MW-21D, MW-22D, MW-25D, and VP-6D. Recovery wells RW-2D and RW-6D demonstrated continued efficiency by removing nearly 200 lbs of VOCs from the deep groundwater zone. Note: due to the increasing trend of VOCs in MW-15D, MW-16D was added to the network of monitoring wells to be sampled to confirm that VOCs are not migrating north of MW-15D in any significant manner. Monitoring Well MW-22D, northeast of RW-6D, continues to show consistence decrease in VOCs over time.

3.2 AST/UST Area

The AST/UST Area shallow groundwater is monitored by Recovery Well RW-3S and Monitoring Well MW-2. Recovery Well RW-3 removed trace VOCs in 2012. There were 15.6 µg/L of Isopropylbenzene detected in MW-2.

3.3 UST Area

This area is currently monitored by MW-20. Prior to UST removal activities in 2002, RW-4S and RW-5S were effective in removing approximately 110 lbs of VOCs from the groundwater since system startup. As previously mentioned, these RWs are no longer in service.

The UST Area is currently being monitored for baseline (pre-ISCO) and post-ISCO performance conditions. The results of this monitoring were presented to NYDEC in a report following completion of the monitoring activities.

3.4 Groundwater Treatment System

The site groundwater treatment system consists of a 2,200 gallon equalization tank, transfer pump, sediment filters, and two (2) 900 lb granular carbon treatment vessels arranged in series. A third carbon treatment vessel is retained as a spare for carbon change-outs. The groundwater pumped from the recovery wells is discharged to the equalization tank, and pumped through the carbon vessels for pre-treatment prior to discharge to the City of Jamestown Publicly Owned Treatment Works (POTW) for final treatment.

Pursuant to the City of Jamestown Board of Public Utilities (BPU) Industrial Wastewater Discharge Permit Number 26 (Permit), the pre-treatment system is monitored for pH and Toxic Organic VOCs to ensure compliance with the discharge requirements. Sampling points include the influent, primary carbon effluent and secondary carbon effluent (discharge to POTW). These points are sampled on a monthly basis and reported to the Jamestown BPU on a semi-annual basis.

Groundwater pre-treatment system data for 2010 is summarized in Tables 5 through 7. These tables represent system influent, individual carbon vessel effluent and post carbon (system discharge to POTW) concentrations. Note that after June 2003, only two carbon vessels were used for treatment of groundwater prior to discharge to the POTW. The third carbon vessel was removed from the treatment system after the UST removal activities were complete. Pre-Carbon influent concentrations reflect a composite from all of the operating groundwater extraction wells prior to pre-treatment.

4.0 Future Plans

Operation, maintenance and monitoring of the remedial systems will continue in Year 2013. Phase II of the Supplemental Remedial Actions will continue with additional groundwater monitoring in the ISCO injection areas in the UST Area.

In 2013 Dow will assess options for further supplemental remedial actions for the shallow and deep groundwater zones at the site. These include the UST Area shallow groundwater and the deep groundwater zone near hotspot near Hopkins Avenue.

TABLES

Table 1
Soil and Groundwater Remedial Action Objectives (RAOs)
Essex/Hope Site
Jamestown, New York

MEDIA	PARAMETER	RAO
Soil	Total Volatile Organics Compounds (VOCs)	10 ppm
	Each individual VOC	1 ppm
	Total Semi-Volatile Organic Compounds (SVOCs)	500 ppm
	Each Individual SVOC	50 ppm
	Polychlorinated Biphenyls (PCBs)	10 ppm
Groundwater⁽¹⁾	Trans-1,2-Dichloroethylene	5 ppb
	Trichloroethene (trichloroethylene)	5 ppb
	Vinyl Chloride	5 ppb
	Ethylbenzene	5 ppb
	Toluene	5 ppb
	Xylene	5 ppb
	PCBs	0.1 ppb

⁽¹⁾ = Other compounds, not listed, would have RAOs in compliance with NYSDEC Ambient Groundwater Quality Standards.

ppm = part per million

ppb = part per billion

Table 2

**2012 Groundwater Extraction Summary
Essex/Hope Site
Jamestown, NY**

Period	Recovery Well				
	RW-1S Gallons Pumped	RW-2S Gallons Pumped	RW-3S Gallons Pumped	RW-2D Gallons Pumped	RW-6D Gallons Pumped
1st Quarter	15,385	117,422	4,787	283,829	53
2nd Quarter	12,050	99,763	1,791	320,013	9,308
3rd Quarter	5,993	57,550	509	122,009	8,116
4th Quarter	12,747	52,310	2,214	200,473	105,782
Total	46,175	327,045	9,301	926,323	123,259

Period	Site Area		
	NPLS Shallow Area Gallons Pumped	AST Area Gallons Pumped	Lower Fine Sand Water Bearing Zone Gallons Pumped
1st Quarter	132,807	4,787	283,882
2nd Quarter	111,813	1,791	329,321
3rd Quarter	63,543	509	130,124
4th Quarter	65,057	2,214	306,255
Total	373,220	9,301	1,049,583

Period	Total Estimated Gallons Pumped - All Areas
1st Quarter	421,476
2nd Quarter	442,925
3rd Quarter	194,177
4th Quarter	373,526
Total	1,432,104

Table 3

2012 Semi-Annual Recovery Well Analytical Results (µg/L)
Essex/Hope Site
Jamestown, NY

June 12, 2012

Volatile Organic Compounds	Site GW RAOs	RW-1S	RW-2S	RW-2D	RW-6D	RW-3S
Acetone		ND	ND	ND	20,600	ND
Benzene		ND	ND	10	23.9	1.1
2-Butanone		ND	ND	ND	259	ND
Carbon Disulfide		ND	ND	ND	ND	ND
Chloromethane		ND	ND	ND	ND	ND
Isopropylbenzene (Cumene)		ND	ND	ND	ND	4.2
1,1-Dichloroethane		ND	ND	ND	ND	ND
1,1-Dichloroethene		ND	ND	27.4	28.9	ND
cis-1,2-Dichloroethene		459	42	7,660	16,700	ND
trans-1,2-Dichloroethene	5	ND	ND	165	181	ND
Ethylbenzene	5	ND	ND	ND	ND	ND
4-Methyl-2-pentanone		ND	ND	ND	ND	ND
Methylene Chloride		ND	ND	ND	ND	ND
Tetrachloroethene		ND	ND	ND	ND	ND
Toluene	5	ND	ND	ND	ND	ND
Trichloroethene	5	294	10.8	1,040	3,900	ND
Vinyl Chloride	5	16.9	ND	837	3,390	ND
Xylenes (total)	5	ND	ND	ND	ND	ND

November 15, 2012

Volatile Organic Compounds	Site GW RAOs	RW-1S	RW-2S	RW-2D	RW-6D*	RW-3S
Acetone		ND	ND	ND	89,600	ND
Benzene		ND	ND	7.9	75.4	18.0
2-Butanone		ND	ND	ND	351	ND
Carbon Disulfide		ND	ND	ND	ND	ND
Chloroform		ND	ND	ND	ND	ND
Isopropylbenzene (Cumene)		ND	ND	ND	ND	10.4
1,1-Dichloroethane		ND	ND	ND	ND	ND
1,1-Dichloroethene		ND	ND	17.6	76.9	ND
cis-1,2-Dichloroethene		528	12.5	2,770	17,300	51.2
trans-1,2-Dichloroethene	5	7.0	ND	64.6	648	ND
Ethylbenzene	5	ND	ND	ND	ND	ND
4-Methyl-2-pentanone		ND	ND	ND	ND	ND
Methylene Chloride		ND	ND	ND	ND	ND
Tetrachloroethene		ND	ND	ND	ND	ND
Toluene	5	ND	ND	ND	ND	ND
Trichloroethene	5	216	10.1	2,170	12,700	74.8
Vinyl Chloride	5	16.9	ND	335	2,270	26.6
Xylenes (total)	5	ND	ND	ND	ND	7.2

Notes:

Site GW RAOs = Site Groundwater Remedial Action Objectives

µg/l = Micrograms per liter

ND = Not Detected/Below minimum laboratory reporting limit

*RW-6D was sampled on November 14, 2012.

Table 4

2012 Annual PMP Wells Analytical Results (µg/L)
Essex/Hope Site
Jamestown, NY

Volatile Organic Compounds	MW-2	MW-6	MW-7D	MW-7S	MW-8	MW-14D	MW-14S	MW-15D	MW-15S	MW-16D	MW-19D	MW-20	MW-21D*	MW-22D	MW-25D	MW-25S	PZ-7D	VP-6D
Acetone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	678,000	ND	ND	ND	ND	ND
Benzene	ND	ND	9.3	ND	ND	ND	ND	2.2	ND	ND	ND	ND	105	ND	ND	ND	ND	ND
Chloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2,500	ND	ND	ND	ND	ND
Isopropylbenzene (Cumene)	15.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	54.8	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	13.6	ND	ND	ND	ND	159	ND	ND	ND	ND	140	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	ND	10.5	1,750	9.8	104	ND	6.1	21,900	7.9	ND	ND	ND	138,000	246	ND	31.0	108	ND
trans-1,2-Dichloroethene	ND	ND	34.2	ND	ND	ND	ND	239	ND	ND	ND	ND	631	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	341	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone (MIBK)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	13.6	ND	ND	ND	ND	ND
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.3	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	ND	10.5	348	11.4	ND	ND	27.5	9,510	7.7	ND	ND	ND	180	1,780	ND	239	160	ND
Vinyl Chloride	ND	ND	242	ND	14.8	6.6	ND	814	ND	ND	25.3	ND	63,400	4.5	ND	ND	41.1	ND
Xylenes (total)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,760	ND	ND	ND	ND	ND	ND

ND = Not detected

µg/L = Micrograms per liter

*Duplicate sample collected, greater concentration shown.

Table 5
POTW Monthly Monitoring Summary
2012 System Pre-Carbon
Volatile Organic Compounds (µg/L)

Sample Date	17-Jan-12	15-Feb-12	20-Mar-12	19-Apr-12	18-May-12	11-Jun-12	27-Jul-12	20-Aug-12	26-Sep-12	31-Oct-12	20-Nov-12	3-Jan-13
Acetone	ND	ND	ND	ND	ND	ND	4,470	4,900	75,400	47,100	23,200	18,500
2-Butanone	ND	ND	ND	ND	ND	ND	17.7	18.4	171	227	125	69.5
Benzene	4.0	8.3	7.3	6.2	7.7	8.2	7.7	6.5	18.4	56.3	29.7	20.6
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene (Cumene)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	10.9	23.0	17.6	14.9	17.9	18.5	10.3	7.2	23.0	30.4	31.7	19.1
cis-1,2-Dichloroethene	2,800	5,650	5,210	4,840	4,650	5,380	3,840	1,780	9,130	9,970	8,270	6,510
trans-1,2-Dichloroethene	56.2	87.5	67.8	107	84.1	99.3	58.2	15.1	156	41.9	238	130
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	476	649	611	469	839	817	ND	812	1,730	7,360	4,640	4,230
Vinyl Chloride	346	630	427	368	394	426	326	333	1,660	1,050	925	727
Total Xylenes	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pre-Carbon TOTAL VOCs	3,693	7,048	6,341	5,805	5,993	6,749	8,730	7,872	88,288	65,836	37,459	30,206

Notes:

ND = Not detected/Below minimum laboratory reporting limit

µg/L = micrograms per liter

Pre-Carbon sample results represent system influent.

System Carbon was changed out on January 4, 2012, May 1, 2012, and October 23, 2012.

System was shut down from August 22, 2012 through September 25, 2012 and November 20, 2012 through December 18, 2012 for pump repair.

Table 6
POTW Monthly Monitoring Summary
2012 System Primary Carbon Effluent
Volatile Organic Compounds (µg/L)

Sample Date	17-Jan-12	15-Feb-12	20-Mar-12	19-Apr-12	18-May-12	11-Jun-12	27-Jul-12	20-Aug-12	26-Sep-12	31-Oct-12	20-Nov-12	3-Jan-13
Acetone	ND	ND	ND	ND	ND	ND	394	19.0	3,960	24,200	18,200	22,200
2-Butanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	16.4	65.5
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene (Cumene)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	5.5	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	12.5	15.1	1,730	3,450	11.0	11.4	17.1	27.7	53.1	29.6	36.8	464
trans-1,2-Dichloroethene	ND	ND	ND	27.8	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	7.7	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	564	637	767	488	4.5	6.2	ND	896	1,030	1,060	850	959
Total Xylenes	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Primary-Carbon TOTAL VOCs	577	652	2,497	3,979	16	18	411	943	5,043	25,290	19,103	23,689

Notes:

ND = Not detected/Below minimum laboratory reporting limit

µg/L = micrograms per liter

Primary Carbon sample results represent effluent from the first carbon vessel in the two (2) carbon vessel system.

System Carbon was changed out on January 4, 2012, May 1, 2012, and October 23, 2012.

System was shut down from August 22, 2012 through September 25, 2012 and November 20, 2012 through December 18, 2012 for pump repair.

Table 7
POTW Monthly Monitoring Summary
2012 System Post Carbon Effluent
Volatile Organic Compounds (µg/L)

Sample Date	17-Jan-12	15-Feb-12	20-Mar-12	19-Apr-12	18-May-12	11-Jun-12	27-Jul-12	20-Aug-12	26-Sep-12	31-Oct-12	20-Nov-12	3-Jan-13
Acetone	ND	ND	ND	ND	ND	ND	ND	ND	21.2	20,100	17,000	22,300
2-Butanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene (Cumene)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	255	268	206	169	49.5	34.0	25.5	21.8	18.8	54.2	53.3	31.0
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	7.2	9.5	6.2	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	119	495	655	833	1.8	1.3	1.6	9.5	19.6	11.0	810	805
Total Xylenes	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Post-Carbon TOTAL VOCs	381	773	867	1,002	51	35	27	31	60	20,165	17,863	23,136
Post-Carbon TOTAL TTOs	381	773	867	1,002	51	35	27	31	38	65	863	836

Notes:

ND = Not detected/Below minimum laboratory reporting limit

µg/L = micrograms per liter

POTW Discharge Limit = 2,130 ug/L Total Toxic Organics (TTOs)

Post-Carbon sample results represent system effluent from the secondary carbon vessel (or the third carbon vessel if used) to the POTW.

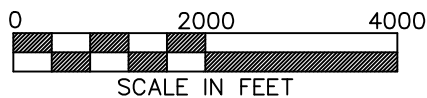
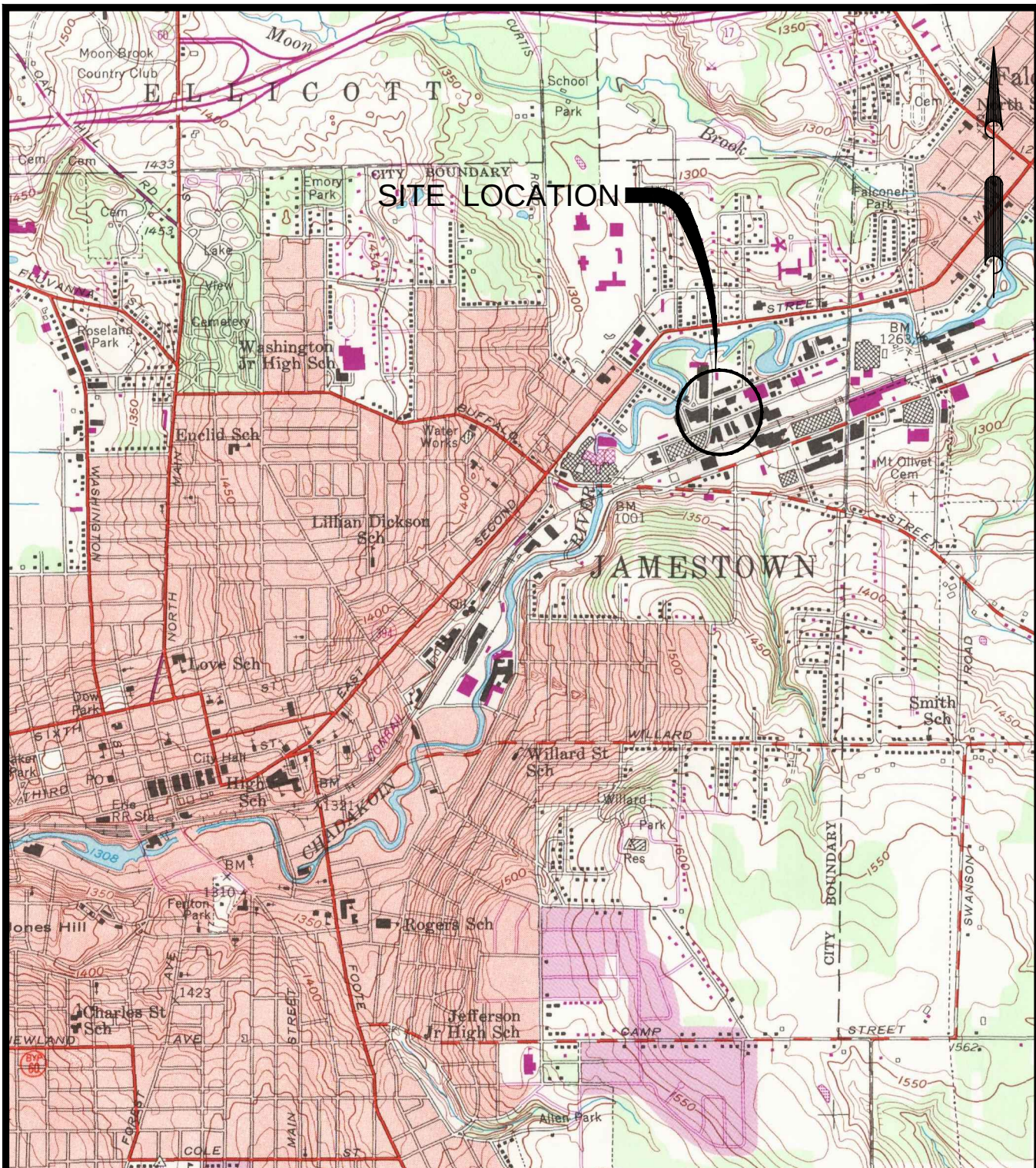
Post-Carbon sample is a laboratory prepared composite of four (4) grab samples taken at 30-minute intervals.

System Carbon was changed out on January 4, 2012, May 1, 2012, and October 23, 2012.

System was shut down from August 22, 2012 through September 25, 2012 and November 20, 2012 through December 18, 2012 for pump repair.

FIGURES

FILE: \ESSEX\HOP\2006-MAP\MPM-2012\2000USGS.DWG



REFERENCE:

BASE MAP IS A PORTION OF THE U.S.G.S. 7.5 MINUTE TOPOGRAPHIC SERIES JAMESTOWN, NY QUADRANGLE. DATED: 1954, PHOTOREVISED: 1979. SCALE: 1" = 2000', CONTOUR INTERVAL IS 10 FEET.



2012 ANNUAL PERFORMANCE MONITORING REPORT SITE LOCATION MAP

ESSEX/HOPE SITE

JAMESTOWN, NY

CLIENT: ESSEX SPECIALTY PRODUCTS, INC.

JOB NUMBER: 41569501

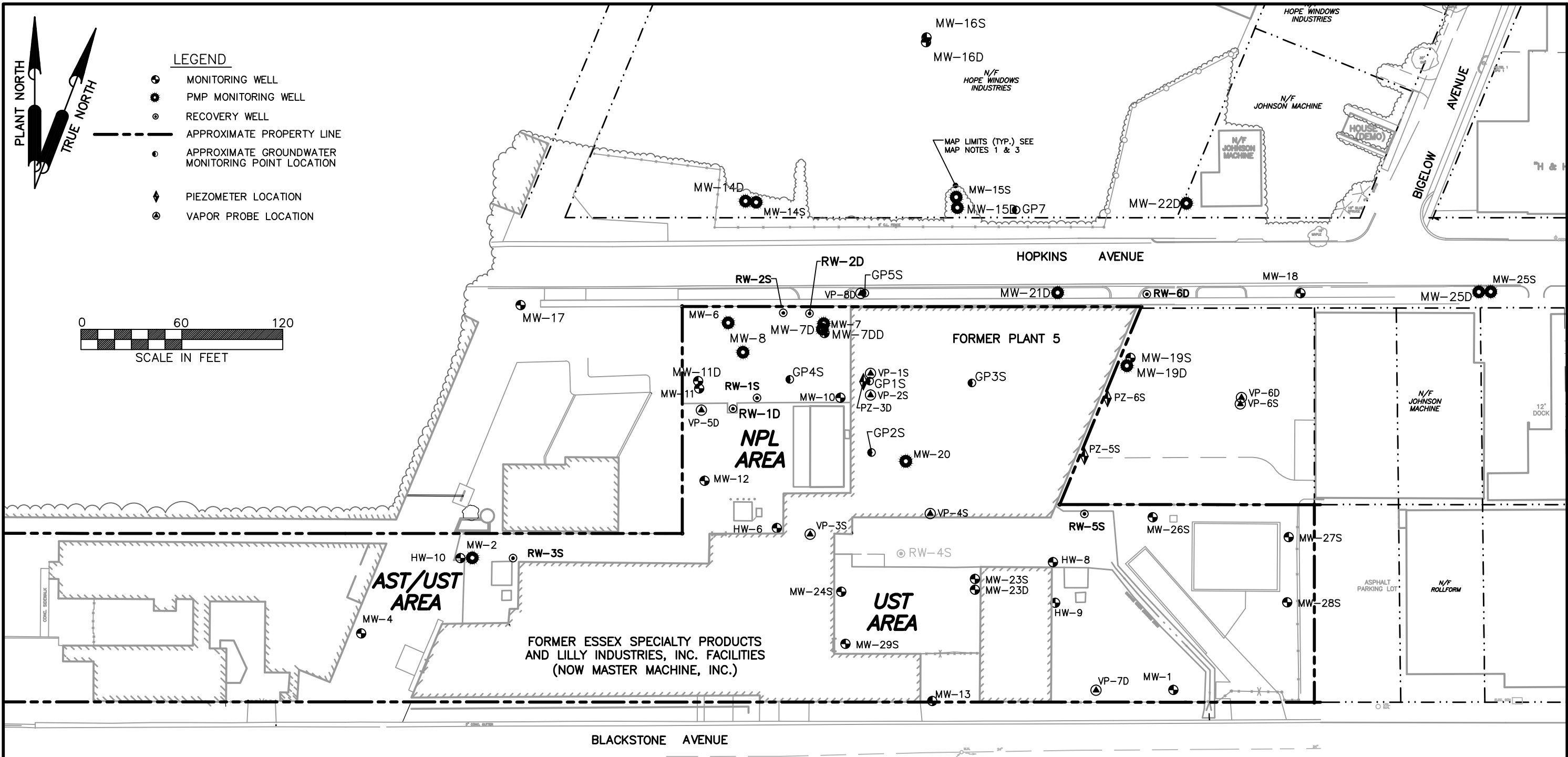
SCALE: AS SHOWN

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FILE: \ESSEX\HOP\2006-MAP\PM-PMP-2012-A-JUL-2012-PMP-BASE-MAP



MAP REFERENCE AND CONTROL NOTES:

1. BASE MAPPING INCLUDING THE LOCATIONS OF SOME OF THE BUILDINGS, ROADS, CURBS/SIDEWALKS, FENCING, PAVED AREAS, ALL UTILITIES (UNDERGROUND UTILITY LOCATIONS ARE APPROXIMATE), AND PROPERTY BOUNDARY WAS PROVIDED BY MICHAEL J. RODGERS AND ASSOCIATES, LAND SURVEYORS, BEMUS POINT, NEW YORK, N.Y.S. LICENSE No. 49232. THE BASE MAP WAS A SEPIA HARD COPY AT A SCALE OF 1"=20', DATED APRIL 15, 1992, LAST REVISION DATE MARCH 10, 1993. RECOVERY WELLS, SPARGE WELLS, AND SVE WELLS WERE SURVEYED AUGUST, 1997. MONITORING WELLS IN THE VICINITY OF THE REMEDIAL ACTION CONSTRUCTION WERE SURVEYED AUGUST, 1997, MONITORING WELLS MW-18, MW-21D, MW-22D, MW-23S, MW-23D, MW-24S, ALL RECOVERY WELLS (RW), ALL GEOPROBES (GP) (EXCEPT GP-4S), ALL PIEZOMETERS (PZ), AND ALL VAPOR PROBES (VP) (EXCEPT VP-3S) WERE LOCATED BY URS FIELD SURVEY AUGUST 2006. RW-6 PIPELINE LOCATED BY FIELD MEASUREMENTS ON 10/17/2008. RW-6, MW-25S AND MW-25D LOCATED BY URS FIELD SURVEY JUNE 30, 2009. COORDINATE INFORMATION SHOWN AT THE BUILDING CORNERS CAME FROM THE MICHAEL J. RODGERS SURVEY DONE ON JANUARY 9, 1998. ALL OTHER BUILDING CORNERS ARE APPROXIMATE. THE SITE AREA BEYOND THE 1998 SURVEY WAS MAPPED BY URS CORPORATION IN AUGUST 2006. THIS MAPPING USED THE SAME VERTICAL AND HORIZONTAL REFERENCE DATA AS THE PREVIOUS SURVEY. THE MAPPING WAS MERGED WITH THE 1998 DATA TO PRODUCE A COMPOSITE SITE BASE MAP. THE LIMITS OF THE COMPOSITE SURVEY MAP ARE SHOWN ON THE DRAWING. SEE MAP REFERENCE 3.

2. VERTICAL BENCH MARK INFORMATION CAME FROM U.S.G.S. PLAQUE U-88-S.E. ABUTT. ERIE R.R. BRIDGE OVER BUFFALO ST., ELEV.=1296.034 (NATIONAL GEODETIC VERTICAL DATUM, 1929). HORIZONTAL COORDINATES PROVIDED FOR THE MONITORING WELLS AND THE PROPERTY CORNERS ARE BASED ON A LOCAL GRID ESTABLISHED BY THE SURVEYOR. N10000, E10000 IS A PK NAIL SET IN THE CONCRETE CURB/GUTTER AND IS PART OF THE ORIGINAL TRAVERSE. IRON STAKES WERE SET AT THE PROPERTY CORNERS.

3. AREAS OUTSIDE OF CLOUD LINE: PROPERTY LINES AND MAPPING ADJACENT TO BIGELOW AVENUE, NORTH & SOUTH OF HOPKINS AVENUE & EAST OF BIGELOW AVENUE, AND SOUTH OF BLACKSTONE AVENUE WERE TAKEN FROM A VARIETY OF SOURCES INCLUDING SEPIA MYLAR SITE MAP (SEE REFERENCE 1), USGS 7.5 MINUTE TOPOGRAPHIC MAP - JAMESTOWN, NY, CITY OF JAMESTOWN TAX MAP RECORDS, AND URS FIELD RECONNAISSANCE. LOCATIONS AND DIMENSIONS IN THESE AREAS ARE APPROXIMATE.

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URS

PITTSBURGH, PENNSYLVANIA

2012 ANNUAL PERFORMANCE MONITORING REPORT
SITE PLAN

ESSEX/HOPE SITE

JAMESTOWN, NY

CLIENT: ESSEX SPECIALTY PRODUCTS, INC.

JOB NUMBER: 41569501

SCALE: AS SHOWN

FIGURE
NUMBER

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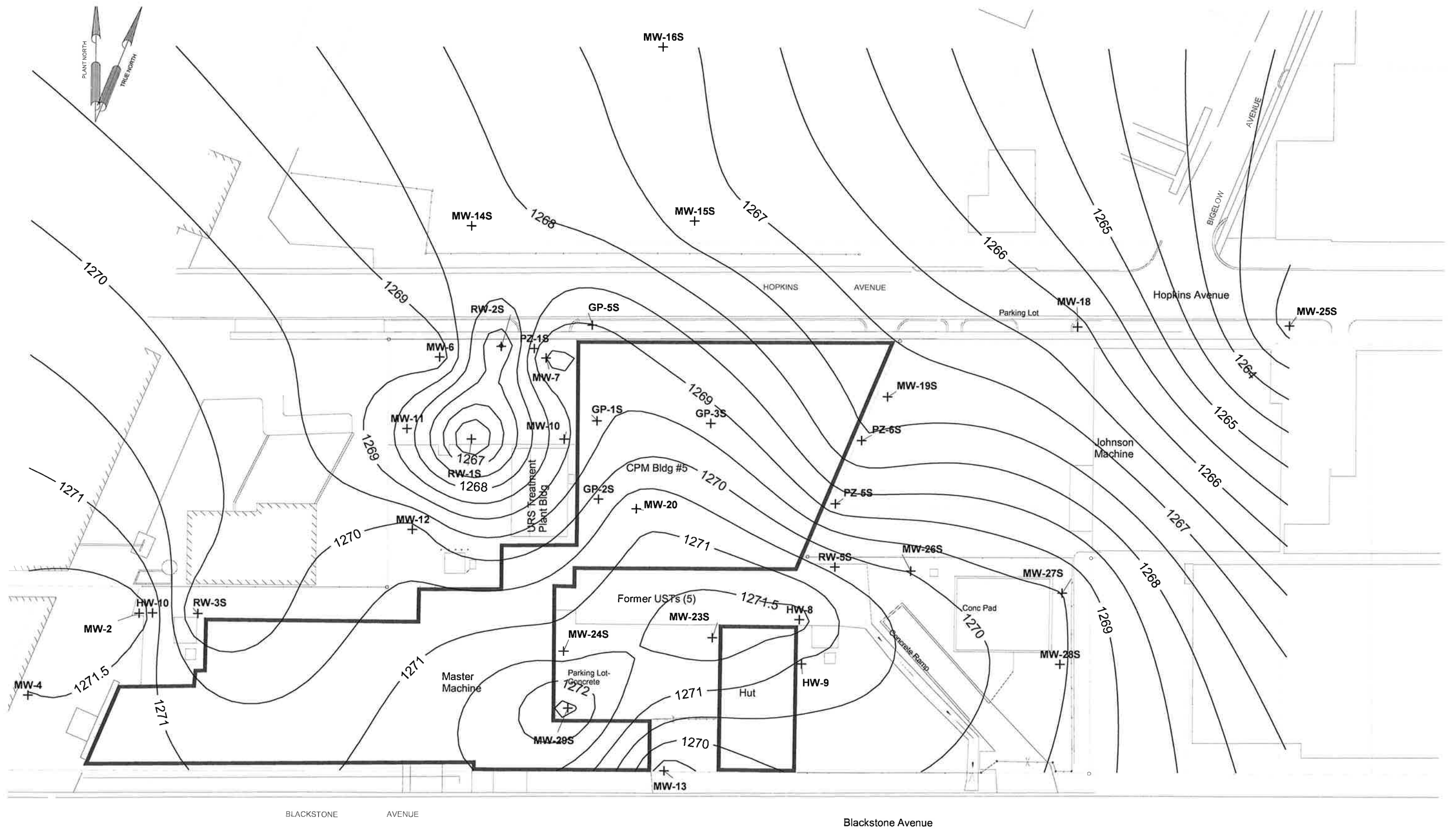


Figure 3- Shallow Groundwater Potentiometric Surface Map March 13, 2012

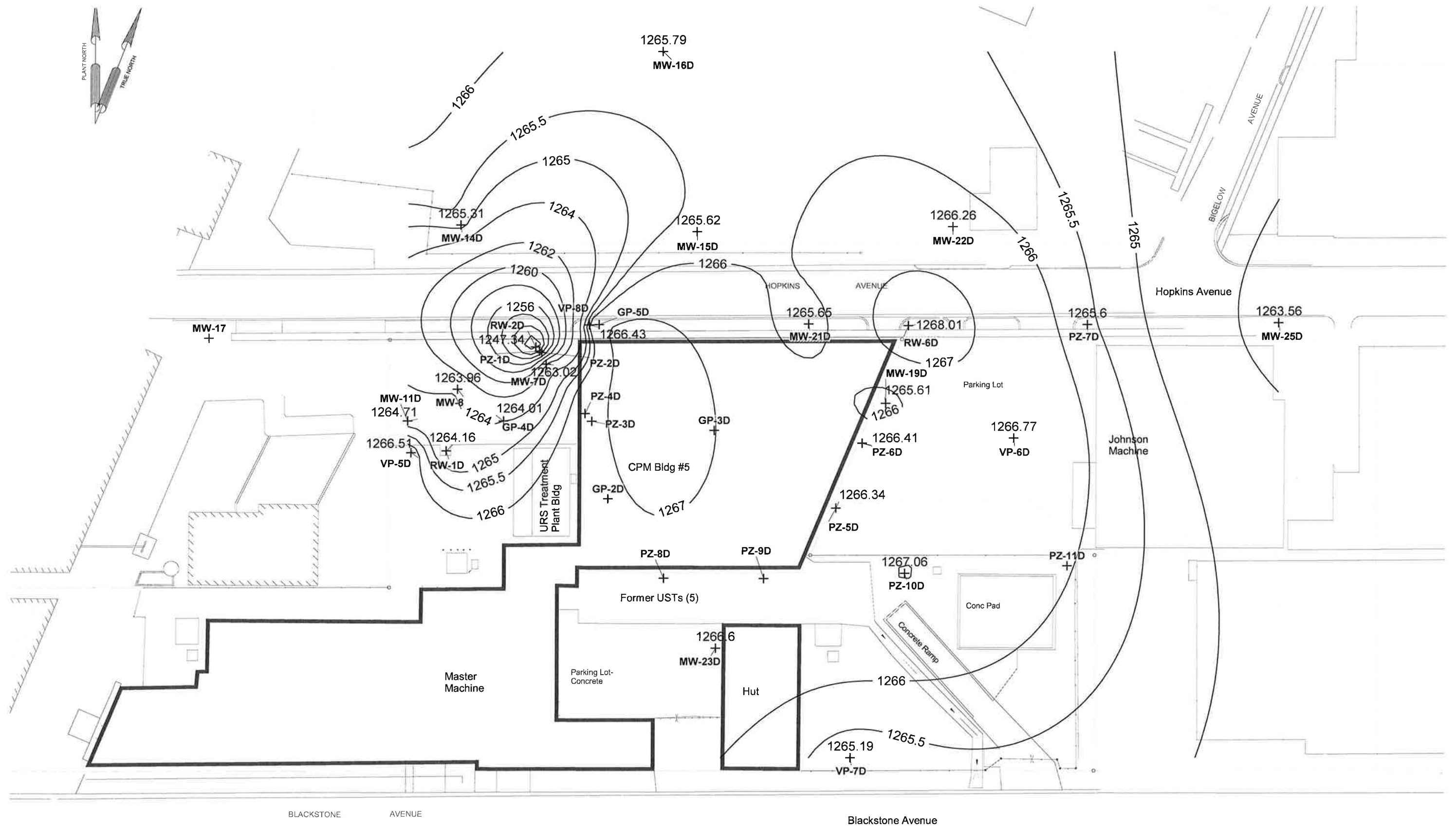


**Figure 4- Deep Groundwater Potentiometric Surface Map
March 13, 2012**

2012 Annual Performance
Monitoring Report

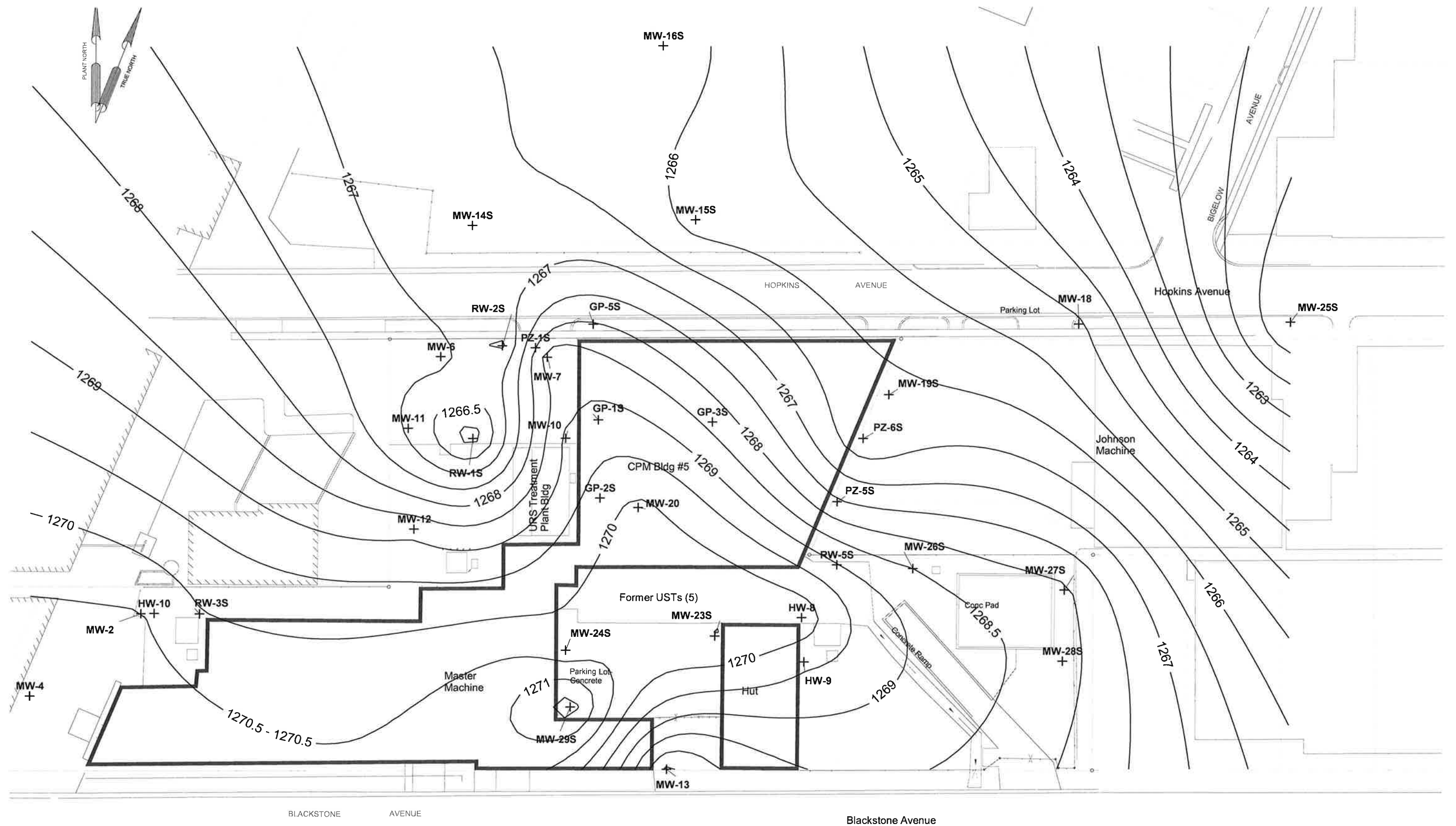


**Figure 5- Shallow Groundwater Potentiometric Surface Map
June 11, 2012**

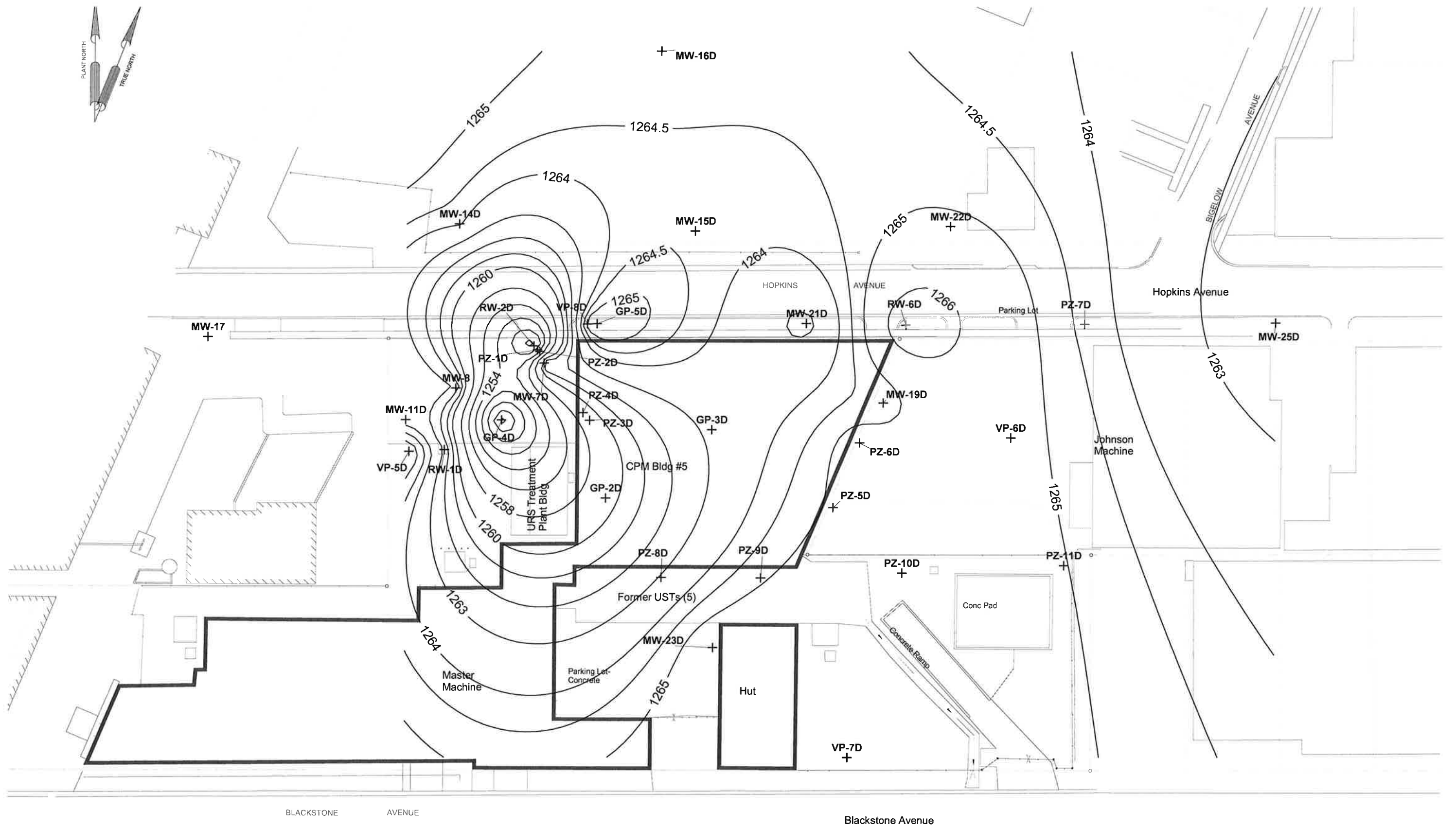


**Figure 6- Deep Groundwater
Potentiometric Surface Map
June 11, 2012**

2012 Annual Performance
Monitoring Report

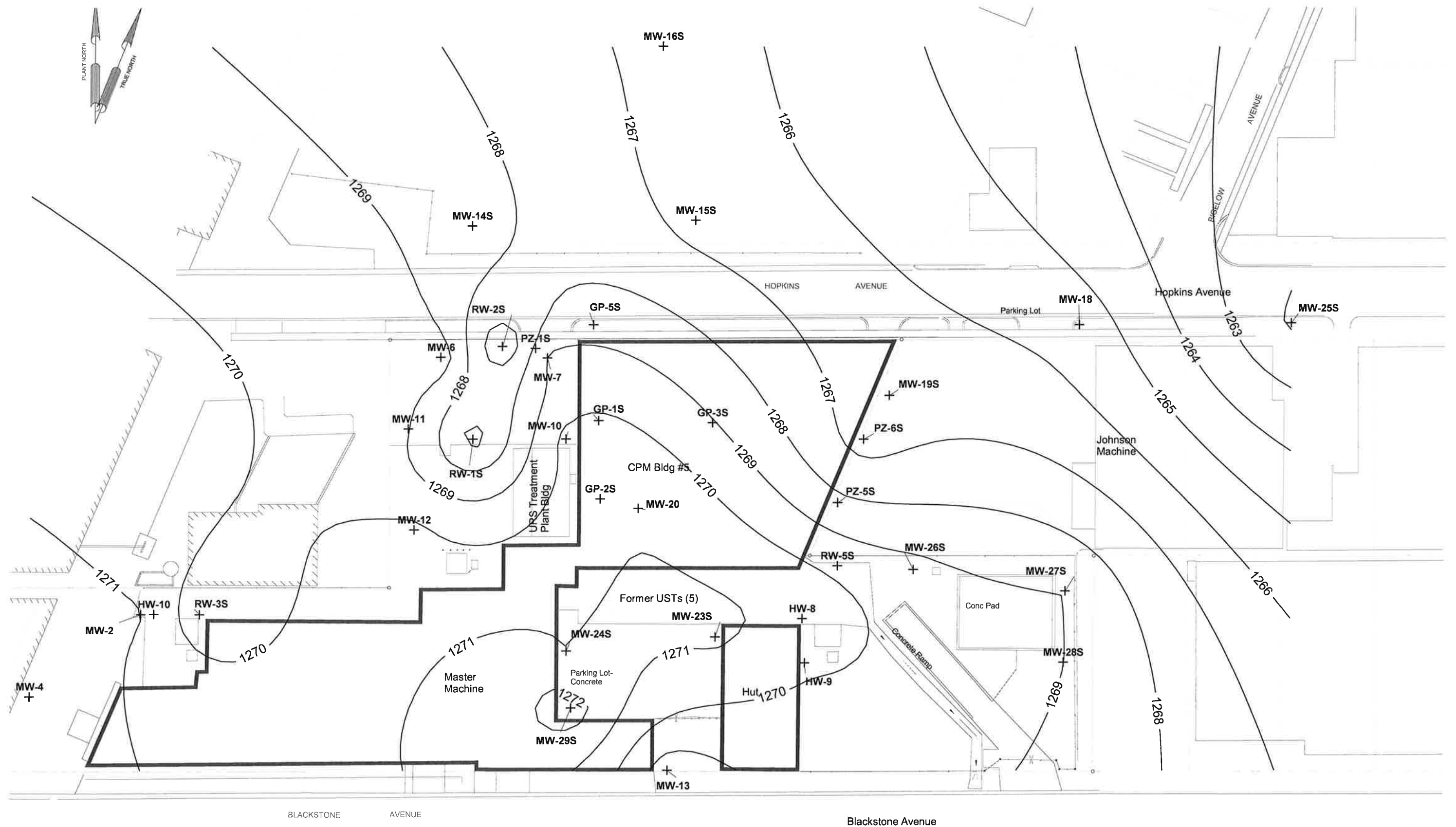
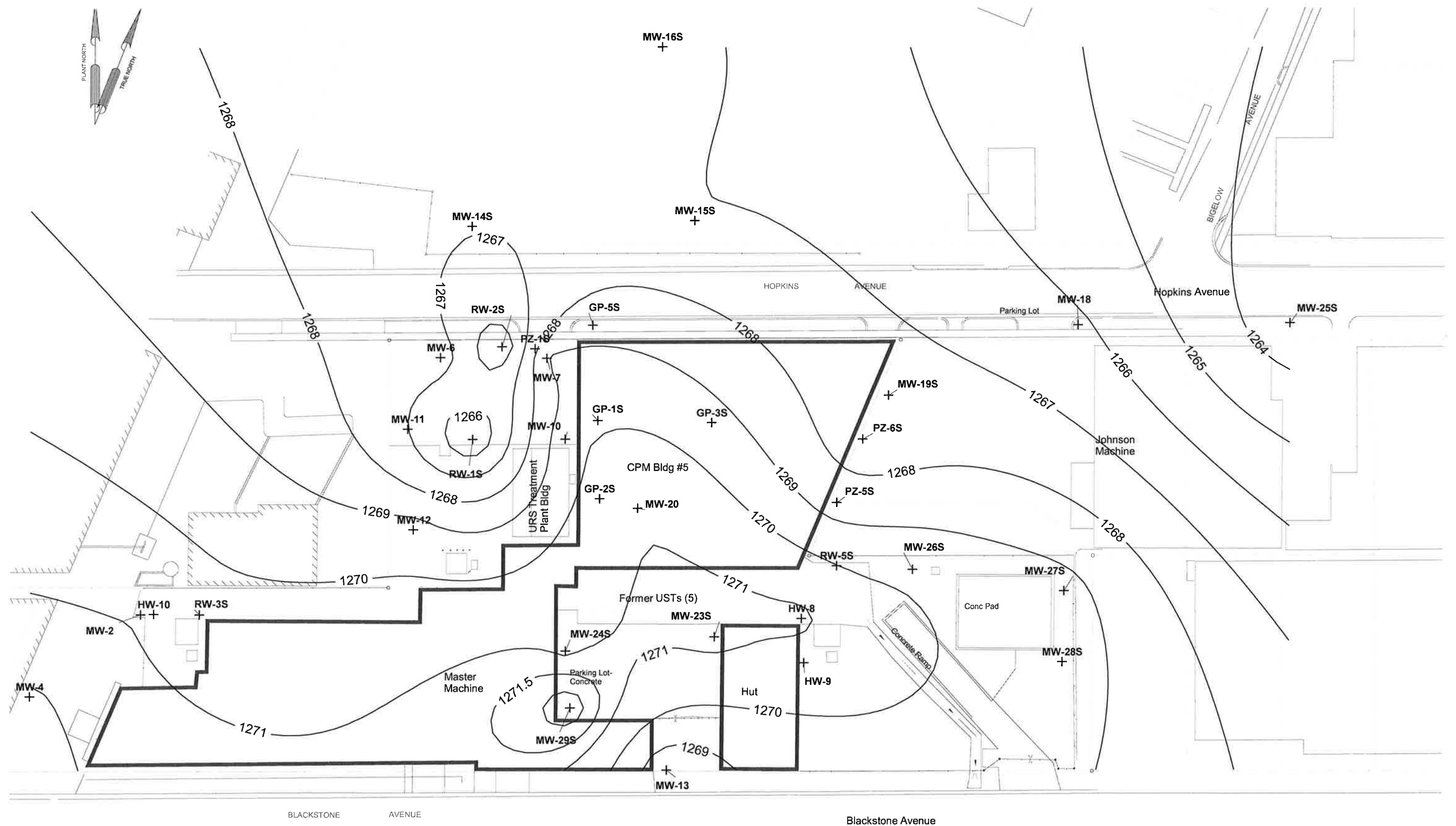


**Figure 7-Shallow Groundwater
Potentiometric Surface Map
September 24, 2012**



Essex Specialty Products, Inc.
Essex/Hope Site, Jamestown, NY
URS 41569501

**Figure 9- Shallow Groundwater
Potentiometric Surface Map
November 12, 2012**

2012 Annual Performance
Monitoring Report

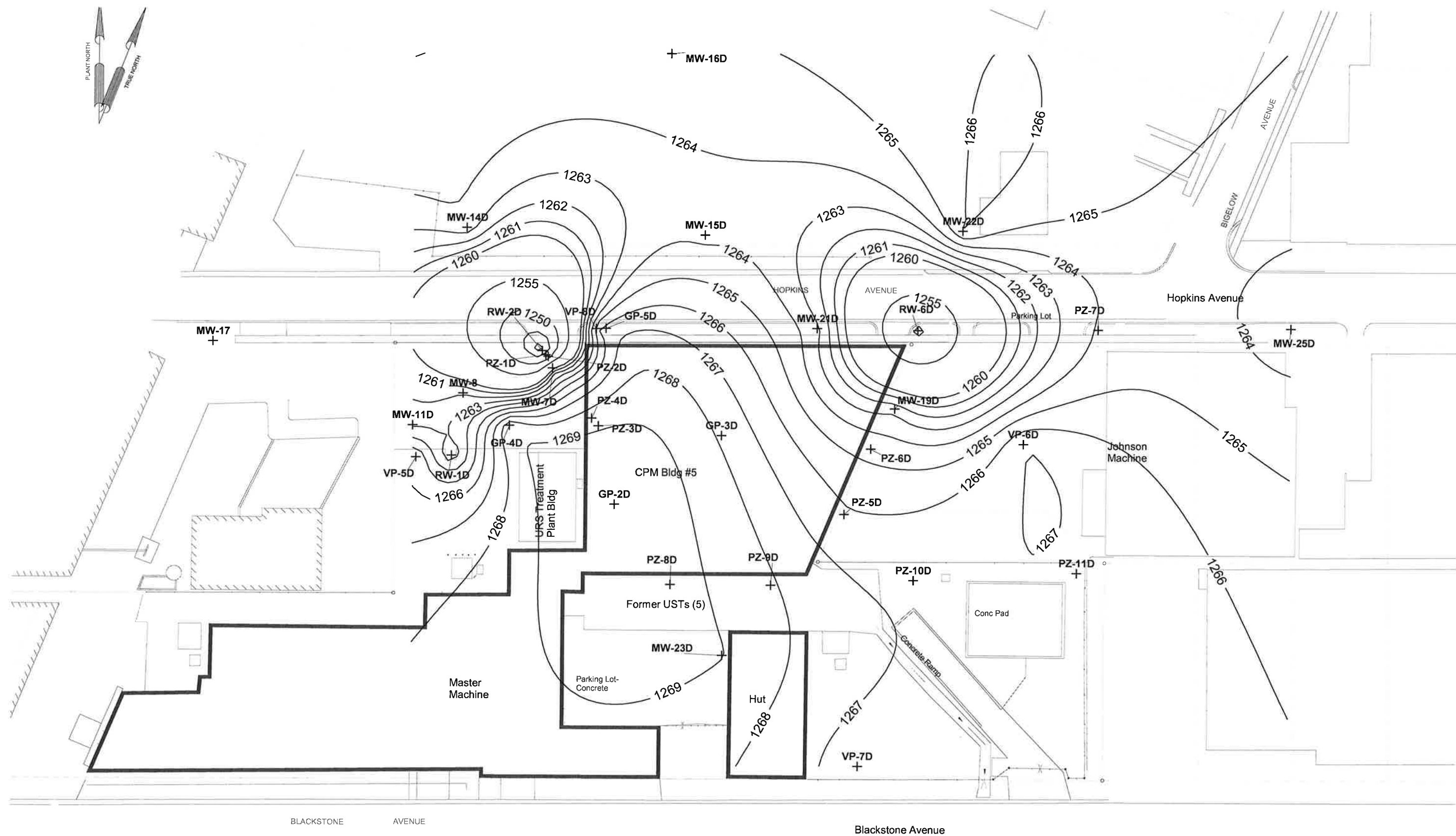
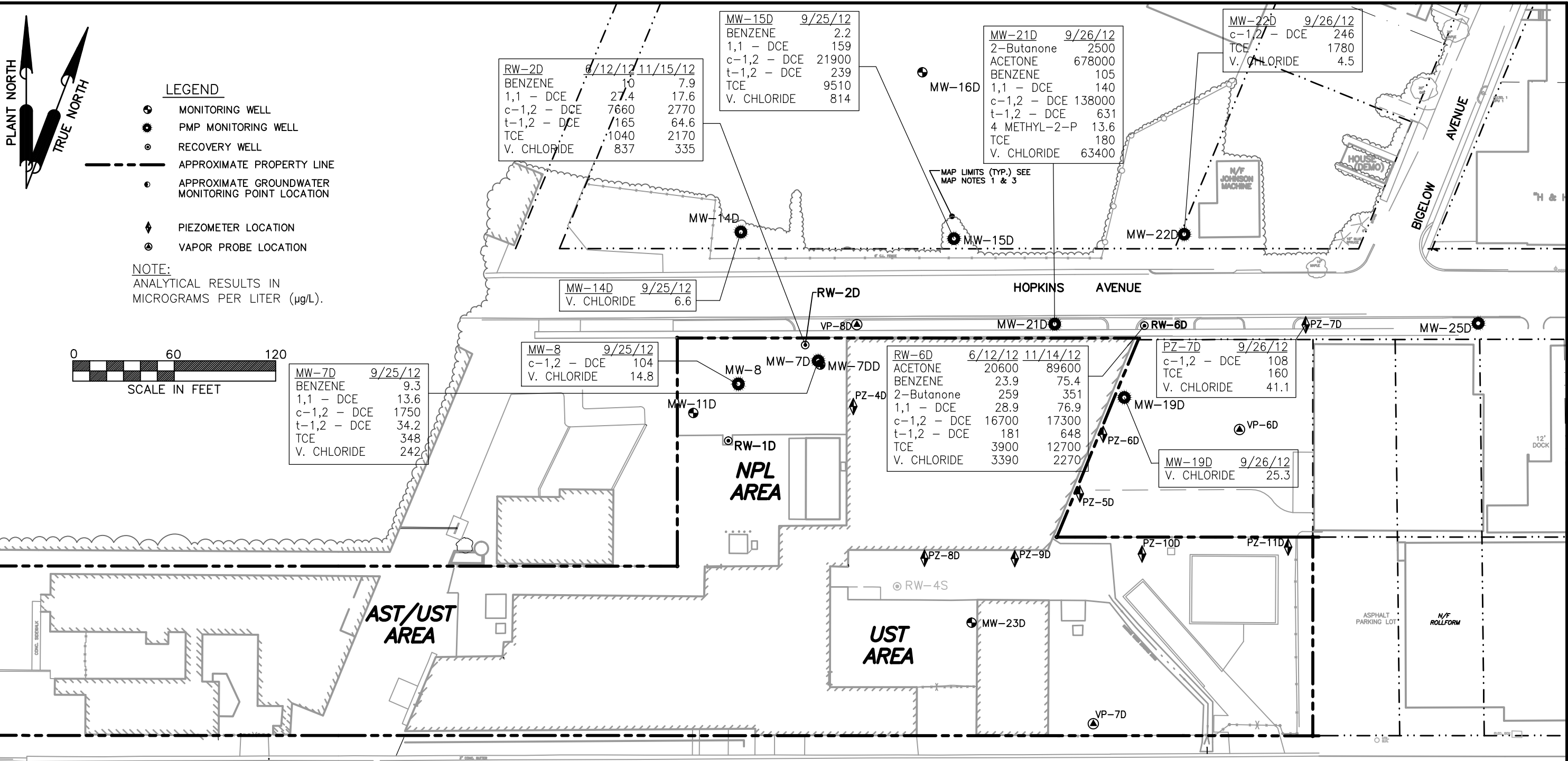


**Figure 10- Deep Groundwater
Potentiometric Surface Map
November 12, 2012**

2012 Annual Performance
Monitoring Report

0043021711333KKGG
FILE: \\ESSEXHOP\2006-MAP\PMW-2012-A-JUL-2012-PMW-BASE-MAP



MAP REFERENCE AND CONTROL NOTES:

1. BASE MAPPING INCLUDING THE LOCATIONS OF SOME OF THE BUILDINGS, ROADS, CURBS/SIDEWALKS, FENCING, PAVED AREAS, ALL UTILITIES (UNDERGROUND UTILITY LOCATIONS ARE APPROXIMATE), AND PROPERTY BOUNDARY WAS PROVIDED BY MICHAEL J. RODGERS AND ASSOCIATES, LAND SURVEYORS, BEMUS POINT, NEW YORK, N.Y.S. LICENSE No. 49232. THE BASE MAP WAS A SEPIA HARD COPY AT A SCALE OF 1"=20', DATED APRIL 15, 1992, LAST REVISION DATE MARCH 10, 1993. RECOVERY WELLS, SPARGE WELLS, AND SVE WELLS WERE SURVEYED AUGUST, 1997. MONITORING WELLS IN THE VICINITY OF THE REMEDIAL ACTION CONSTRUCTION WERE SURVEYED AUGUST, 1997, MONITORING WELLS MW-18, MW-21D, MW-22D, MW-23S, MW-23D, MW-24S, ALL RECOVERY WELLS (RW), ALL GEOPROBES (GP) (EXCEPT GP-4S), ALL PIEZOMETERS (PZ), AND ALL VAPOR PROBES (VP) (EXCEPT VP-3S) WERE LOCATED BY URS FIELD SURVEY AUGUST 2006. RW-6 PIPELINE LOCATED BY FIELD MEASUREMENTS ON 10/17/2008. RW-6, MW-25S AND MW-25D LOCATED BY URS FIELD SURVEY JUNE 30, 2009. COORDINATE INFORMATION SHOWN AT THE BUILDING CORNERS CAME FROM THE MICHAEL J. RODGERS SURVEY DONE ON JANUARY 9, 1998. ALL OTHER BUILDING CORNERS ARE APPROXIMATE. THE SITE AREA BEYOND THE 1998 SURVEY WAS MAPPED BY URS CORPORATION IN AUGUST 2006. THIS MAPPING USED THE SAME VERTICAL AND HORIZONTAL REFERENCE DATA AS THE PREVIOUS SURVEY. THE MAPPING WAS MERGED WITH THE 1998 DATA TO PRODUCE A COMPOSITE SITE BASE MAP. THE LIMITS OF THE COMPOSITE SURVEY MAP ARE SHOWN ON THE DRAWING. SEE MAP REFERENCE 3.

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PITTSBURGH, PENNSYLVANIA

**2012 ANNUAL PERFORMANCE MONITORING REPORT
DEEP GROUNDWATER ANALYTICAL DATA, 2012**

ESSEX/HOPE SITE

JAMESTOWN, NY

CLIENT: ESSEX SPECIALTY PRODUCTS, INC.

JOB NUMBER: 41569501

SCALE: AS SHOWN

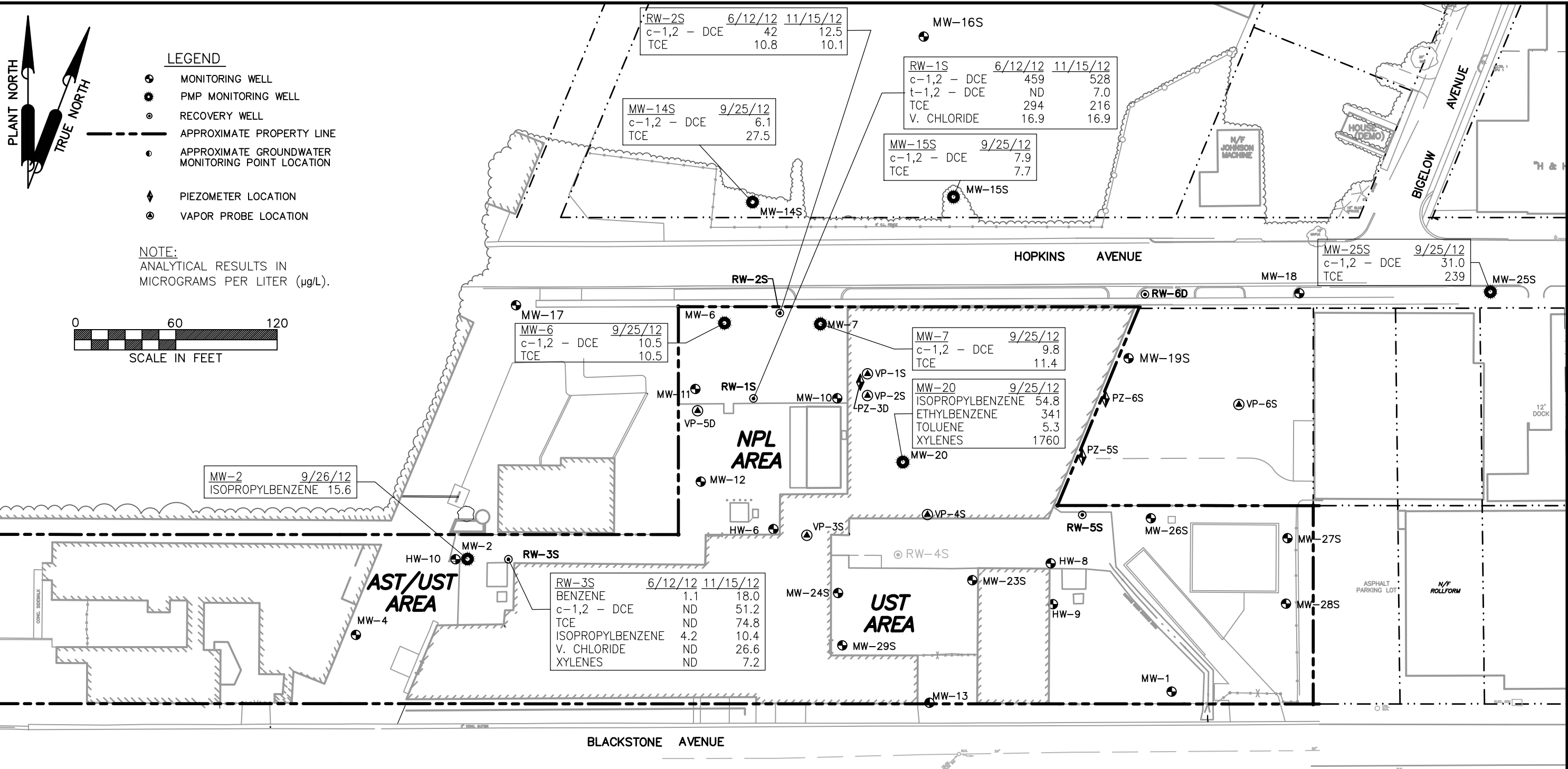
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FILE: \ESSEX\HOP\2006-MAP\PMW-2012-A-JUL-2012-PMW-BASE-MAP



MAP REFERENCE AND CONTROL NOTES:

1. BASE MAPPING INCLUDING THE LOCATIONS OF SOME OF THE BUILDINGS, ROADS, CURBS/SIDEWALKS, FENCING, PAVED AREAS, ALL UTILITIES (UNDERGROUND UTILITY LOCATIONS ARE APPROXIMATE), AND PROPERTY BOUNDARY WAS PROVIDED BY MICHAEL J. RODGERS AND ASSOCIATES, LAND SURVEYORS, BEMUS POINT, NEW YORK, N.Y.S. LICENSE No. 49232. THE BASE MAP WAS A SEPIA HARD COPY AT A SCALE OF 1"=20', DATED APRIL 15, 1992, LAST REVISION DATE MARCH 10, 1993. RECOVERY WELLS, SPARGE WELLS, AND SVE WELLS WERE SURVEYED AUGUST, 1997. MONITORING WELLS IN THE VICINITY OF THE REMEDIAL ACTION CONSTRUCTION WERE SURVEYED AUGUST, 1997, MONITORING WELLS MW-18, MW-21D, MW-22D, MW-23S, MW-23D, MW-24S, ALL RECOVERY WELLS (RW), ALL GEOPROBES (GP) (EXCEPT GP-4S), ALL PIEZOMETERS (PZ), AND ALL VAPOR PROBES (VP) (EXCEPT VP-3S) WERE LOCATED BY URS FIELD SURVEY AUGUST 2006. RW-6 PIPELINE LOCATED BY FIELD MEASUREMENTS ON 10/17/2008. RW-6, MW-25S AND MW-25D LOCATED BY URS FIELD SURVEY JUNE 30, 2009. COORDINATE INFORMATION SHOWN AT THE BUILDING CORNERS CAME FROM THE MICHAEL J. RODGERS SURVEY DONE ON JANUARY 9, 1998. ALL OTHER BUILDING CORNERS ARE APPROXIMATE. THE SITE AREA BEYOND THE 1998 SURVEY WAS MAPPED BY URS CORPORATION IN AUGUST 2006. THIS MAPPING USED THE SAME VERTICAL AND HORIZONTAL REFERENCE DATA AS THE PREVIOUS SURVEY. THE MAPPING WAS MERGED WITH THE 1998 DATA TO PRODUCE A COMPOSITE SITE BASE MAP. THE LIMITS OF THE COMPOSITE SURVEY MAP ARE SHOWN ON THE DRAWING. SEE MAP REFERENCE 3.

2. VERTICAL BENCH MARK INFORMATION CAME FROM U.S.G.S. PLAQUE U-88-S.E. ABUTT. ERIE R.R. BRIDGE OVER BUFFALO ST., ELEV.=1296.034 (NATIONAL GEODETIC VERTICAL DATUM, 1929). HORIZONTAL COORDINATES PROVIDED FOR THE MONITORING WELLS AND THE PROPERTY CORNERS ARE BASED ON A LOCAL GRID ESTABLISHED BY THE SURVEYOR. N10000, E10000 IS A PK NAIL SET IN THE CONCRETE CURB/GUTTER AND IS PART OF THE ORIGINAL TRAVERSE. IRON STAKES WERE SET AT THE PROPERTY CORNERS.

3. AREAS OUTSIDE OF CLOUD LINE: PROPERTY LINES AND MAPPING ADJACENT TO BIGELOW AVENUE, NORTH & SOUTH OF HOPKINS AVENUE & EAST OF BIGELOW AVENUE, AND SOUTH OF BLACKSTONE AVENUE WERE TAKEN FROM A VARIETY OF SOURCES INCLUDING SEPIA MYLAR SITE MAP (SEE REFERENCE 1), USGS 7.5 MINUTE TOPOGRAPHIC MAP - JAMESTOWN, NY, CITY OF JAMESTOWN TAX MAP RECORDS, AND URS FIELD RECONNAISSANCE. LOCATIONS AND DIMENSIONS IN THESE AREAS ARE APPROXIMATE.

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PITTSBURGH, PENNSYLVANIA

**2012 ANNUAL PERFORMANCE MONITORING REPORT
SHALLOW GROUNDWATER ANALYTICAL DATA, 2012**

ESSEX/HOPE SITE

JAMESTOWN, NY

CLIENT: ESSEX SPECIALTY PRODUCTS, INC.

JOB NUMBER: 41569501

SCALE: AS SHOWN

FIGURE
NUMBER

12

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APPENDIX A

GROUNDWATER EXTRACTION MONITORING DATA

APPENDIX A-1

WATER LEVEL DATA

APPENDIX A-1

2012 Water Level Data Essex/Hope Site Jamestown, NY

Monitoring Location	Northing	Easting	Reference Elevation (ft msl)	Depth to Top of Screen	Depth to Bottom of Screen	Screened Zone	March 13, 2012			June 11, 2012		
							Depth to Water	Depth to Top of Pump	Groundwater Elevation (ft msl)	Depth to Water	Depth to Top of Pump	Groundwater Elevation (ft msl)
MW-1	9758.7161	10383.6499	1280.48		20.0	Shallow	NA	NA	NA	NA	NA	NA
MW-2	9837.1531	9959.6857	1279.87		16.0	Shallow	8.01	NA	1271.86	9.34	NA	1270.53
MW-4	9792.3277	9900.7631	1281.02	13.0	18.0	Shallow	9.53	NA	1271.49	10.09	NA	1270.93
MW-5	9789.6222	9631.761	1280.82	9.5	20.0	Shallow	NA	NA	NA	NA	NA	NA
MW-6	9977.1197	10118.8762	1277.98			Shallow	8.56	NA	1269.42	10.76	NA	1267.22
MW-7	9976.6467	10175.6797	1277.73	10.0	20.0	Shallow	7.99	NA	1269.74	8.92	NA	1268.81
MW-7D	9973.2593	10174.8524	1277.8	35.0	45.0	Deep	14.78	NA	1263.02	15.56	NA	1262.24
MW-7DD	9970.8547	10176.2698	1277.74	90.0	100.0	Glacial Till	NA	NA	NA	NA	NA	NA
MW-8	9959.6089	10127.6898	1277.97	39.6	49.6	Deep	14.01	NA	1263.96	15.03	NA	1262.94
MW-10	9932.4702	10185.7078	1277.94	8.5	18.5	Shallow	NA	NA	NA	8.81	NA	1269.13
MW-11	9937.9912	10101.7016	1277.75	5.0	15.0	Shallow	9.53	NA	1268.22	10.84	NA	1266.91
MW-11D	9942.3792	10101.1482	1277.85	35.0	45.0	Deep	13.14	NA	1264.71	14.21	NA	1263.64
MW-12	9883.0874	10104.9278	1278.18	4.0	14.0	Shallow	7.94	NA	1270.24	9.32	NA	1268.86
MW-13	9752.0619	10240.2934	1278.12	8.0	18.0	Shallow	8.95	NA	1269.17	10.74	NA	1267.38
MW-14S	10048.7753	10135.5198	1280.25	10.0	20.0	Shallow	12.08	NA	1268.17	13.68	NA	1266.57
MW-14D	10049.5051	10129.1897	1280.01	40.0	50.0	Deep	14.70	NA	1265.31	15.93	NA	1264.08
MW-15S	10051.8272	10254.4862	1279.55	10.0	20.0	Shallow	12.33	NA	1267.22	13.76	NA	1265.79
MW-15D	10045.5611	10255.205	1279.46	34.0	44.0	Deep	13.84	NA	1265.62	15.12	NA	1264.34
MW-16S	10146.7788	10236.8582	1279.32	7.0	17.0	Shallow	12.09	NA	1267.23	12.94	NA	1266.38
MW-16D	10143.9497	10236.6005	1279.05	36.0	46.0	Deep	13.26	NA	1265.79	14.41	NA	1264.64
MW-17	9987.6315	9995.5207	1278.7			Deep	NA	NA	NA	NA	NA	NA
MW-18	9994.6655	10459.2207	1275.49		20.0	Shallow	9.35	NA	1266.14	10.40	NA	1265.09
MW-19S	9956.1454	10358.207	1276.82	9.0	19.0	Shallow	9.50	NA	1267.32	10.66	NA	1266.16
MW-19D	9951.569	10355.9748	1276.21	34.0	44.0	Deep	10.60	NA	1265.61	11.64	NA	1264.57
MW-20	9894.7336	10224.5128	1278.56	6.5	11.5	Shallow	7.70	NA	1270.86	8.44	NA	1270.12
MW-21D	9995.0094	10314.801	1276.12	31.5	41.0	Deep	10.47	NA	1265.65	13.41	NA	1262.71
MW-22D	10048.1687	10391.3548	1276.04	32.5	42.0	Deep	9.78	NA	1266.26	10.91	NA	1265.13
MW-23S	9824.696	10265.6365	1277.85	5.0	14.5	Shallow	6.02	NA	1271.83	7.33	NA	1270.52
MW-23D	9818.3152	10265.6675	1277.89	28.0	37.5	Deep	11.29	NA	1266.60	12.19	NA	1265.70

APPENDIX A-1

2012 Water Level Data Essex/Hope Site Jamestown, NY

Monitoring Location	Northing	Easting	Reference Elevation (ft msl)	Depth to Top of Screen	Depth to Bottom of Screen	Screened Zone	March 13, 2012			June 11, 2012		
							Depth to Water	Depth to Top of Pump	Groundwater Elevation (ft msl)	Depth to Water	Depth to Top of Pump	Groundwater Elevation (ft msl)
MW-24S	9817.1277	10186.2119	1278.77	5.0	14.5	Shallow	7.55	NA	1271.22	8.61	NA	1270.16
MW-25S	9995.6	10572.35	1272.76	7.0	17.0	Shallow	9.97	NA	1262.79	11.28	NA	1261.48
MW-25D	9995.46	10565.28	1273.41	31.0	41.0	Deep	9.85	NA	1263.56	11.30	NA	1262.11
MW-26S	9861.3519	10371.3241	1279.422	5.0	15.0	Shallow	9.43	NA	1269.99	10.91	NA	1268.51
MW-27S	9849.63382	10452.2197	1278.864	10.0	20.0	Shallow	9.33	NA	1269.53	10.76	NA	1268.10
MW-28S	9810.84281	10451.4089	1279.25	7.0	17.0	Shallow	9.68	NA	1269.57	11.06	NA	1268.19
MW-29S	9786.06533	10188.6419	1280.7	4.0	14.0	Shallow	7.95	NA	1272.75	8.89	NA	1271.81
HW-8	9834.664	10312.0885	1277.81	6.0	16.0	Shallow	6.10	NA	1271.71	7.47	NA	1270.34
HW-9	9810.5264	10313.3873	1280.78	6.0	16.0	Shallow	9.89	NA	1270.89	11.18	NA	1269.60
HW-10	9837.2976	9966.7406	1279.55	7.0	17.0	Shallow	NA	NA	NA	NA	NA	NA
RW-1S	9932.3606	10136.0515	1275.81	10.5	16.0	Shallow	10.09	11.50	1265.72	10.11	11.50	1265.70
RW-1D	9925.9898	10121.7689	1276.34	32.0	57.0	Deep	12.18	NA	1264.16	13.35	NA	1262.99
RW-2S	9982.9501	10151.7112	1276.33	10.0	15.5	Shallow	9.45	12.70	1266.88	9.93	12.70	1266.40
RW-2D	9982.6088	10169.3122	1276.35	27.0	42.0	Deep	29.01	36.90	1247.34	27.91	36.90	1248.44
RW-3S	9837.0894	9990.9663	1278.14	9.0	13.5	Shallow	8.72	8.80	1269.42	8.12	8.80	1270.02
RW-5S	9863.4298	10330.7462	1277.29	7.0	10.0	Shallow	NA	NA	NA	NA	NA	NA
RW-6D	9994.04	10367.91	1277.33			Deep	9.32	NA	1268.01	10.54	NA	1266.79
GP-1S	9942.4384	10203.1085	1278.83	8.0	12.8	Shallow	NA	NA	NA	NA	NA	NA
GP-2S	9899.8775	10204.1632	1278.46	2.6	12.6	Shallow	NA	NA	NA	NA	NA	NA
GP-2D	9899.7358	10207.9807	1278.56	30.0	34.8	Deep	NA	NA	NA	NA	NA	NA
GP-3S	9941.2543	10263.8898	1278.59	4.0	14.0	Shallow	NA	NA	NA	NA	NA	NA
GP-3D	9936.9027	10264.588	1278.62	34.0	38.8	Deep	NA	NA	NA	NA	NA	NA
GP-4S	9940.86*	10154.97*	1278.06	10.8	15.8	Shallow	8.47	NA	1269.59	9.30	NA	1268.76
GP-4D	9942.1743	10152.2232	1277.95	39.0	43.8	Deep	13.94	NA	1264.01	32.74	NA	1245.21
GP-5S	9994.7299	10200.2055	1277.44	7.0	11.8	Shallow	NA	NA	NA	NA	NA	NA
GP-5D	9994.8642	10202.9906	1276.81	36.0	40.8	Deep	NA	NA	NA	NA	NA	NA
PZ-1S	9981.8469	10169.3122	1277.77			Shallow	NA	NA	NA	NA	NA	NA
PZ-1D	9980.4294	10171.2636	1277.64			Deep	NA	NA	NA	NA	NA	NA
PZ-2D	9979.5627	10172.4761	1277.55			Deep	NA	NA	NA	NA	NA	NA

APPENDIX A-1

2012 Water Level Data Essex/Hope Site Jamestown, NY

Monitoring Location	Northing	Easting	Reference Elevation (ft msl)	Depth to Top of Screen	Depth to Bottom of Screen	Screened Zone	March 13, 2012			June 11, 2012		
							Depth to Water	Depth to Top of Pump	Groundwater Elevation (ft msl)	Depth to Water	Depth to Top of Pump	Groundwater Elevation (ft msl)
PZ-3D	9942.0414	10199.2937	1278.8	20.0	40.0	Deep	NA	NA	NA	NA	NA	NA
PZ-4D	9946.2326	10195.679	1278.71			Deep	NA	NA	NA	NA	NA	NA
PZ-5S	9897.7381	10330.7876	1276.42	5.5	12.0	Shallow	7.69	NA	1268.73	8.88	NA	1267.54
PZ-5D	9894.5731	10329.7148	1276.4	21.0	42.0	Deep	10.06	NA	1266.34	11.29	NA	1265.11
PZ-6S	9932.2079	10344.4895	1276.61	8.5	13.5	Shallow	9.08	NA	1267.53	10.52	NA	1266.09
PZ-6D	9929.8004	10343.4742	1276.62	25.5	45.5	Deep	10.21	NA	1266.41	11.16	NA	1265.46
PZ-7D	9994.5452	10463.2465	1275.68	22.0	42.0	Deep	10.08	NA	1265.60	11.33	NA	1264.35
PZ-8D	9856.4908	10237.8118	1278.12	21.0	41.0	Deep	NA	NA	NA	NA	NA	NA
PZ-9D	9856.2398	10291.1658	1277.3	19.0	39.0	Deep	NA	NA	NA	NA	NA	NA
PZ-10D	9858.9821	10366.4236	1277.52	26.5	46.5	Deep	10.46	NA	1267.06	11.73	NA	1265.79
PZ-11D	9863.0677	10452.8989	1276.63	21.3	41.3	Deep	NA	NA	NA	NA	NA	NA
VP-5D	9925.1052	10103.0141	1277.88	12.5	34.3	Deep	11.37	NA	1266.51	12.31	NA	1265.57
VP-6S	9928.8123	10423.4628	1276.48	18.3	24.0	Deep upper gravel	9.69	NA	1266.79	10.83	NA	1265.65
VP-6D	9932.5744	10424.1378	1276.6	29.5	39.5	Deep	9.83	NA	1266.77	11.31	NA	1265.29
VP-7D	9758.4881	10337.7133	1278.64	20.4	39.3	Deep	13.45	NA	1265.19	13.07	NA	1265.57
VP-8D	9994.6178	10197.8133	1277.15	20.0	39.0	Deep	10.72	NA	1266.43	11.63	NA	1265.52

Notes:

NM = Not Measure
NA = Not Applicable

RW-4S, RW-5S taken offline in October 2002 for UST Removal.
Wells RW-4S, TW-01, and HW-7 destroyed during UST removal operations.

APPENDIX A-1

2012 Water Level Data Essex/Hope Site Jamestown, NY

Monitoring Location	Northing	Easting	Reference Elevation (ft msl)	Depth to Top of Screen	Depth to Bottom of Screen	Screened Zone	September 24, 2012			November 12, 2012		
							Depth to Water	Depth to Top of Pump	Groundwater Elevation (ft msl)	Depth to Water	Depth to Top of Pump	Groundwater Elevation (ft msl)
MW-1	9758.7161	10383.6499	1280.48		20.0	Shallow	NA	NA	NA	NA	NA	NA
MW-2	9837.1531	9959.6857	1279.87		16.0	Shallow	8.78	NA	1271.09	8.94	NA	1270.93
MW-4	9792.3277	9900.7631	1281.02	13.0	18.0	Shallow	9.54	NA	1271.48	9.47	NA	1271.55
MW-5	9789.6222	9631.761	1280.82	9.5	20.0	Shallow	NA	NA	NA	NA	NA	NA
MW-6	9977.1197	10118.8762	1277.98			Shallow	8.33	NA	1269.65	10.41	NA	1267.57
MW-7	9976.6467	10175.6797	1277.73	10.0	20.0	Shallow	8.51	NA	1269.22	8.61	NA	1269.12
MW-7D	9973.2593	10174.8524	1277.8	35.0	45.0	Deep	11.70	NA	1266.10	16.89	NA	1260.91
MW-7DD	9970.8547	10176.2698	1277.74	90.0	100.0	Glacial Till	NA	NA	NA	NA	NA	NA
MW-8	9959.6089	10127.6898	1277.97	39.6	49.6	Deep	11.47	NA	1266.50	15.95	NA	1262.02
MW-10	9932.4702	10185.7078	1277.94	8.5	18.5	Shallow	7.62	NA	1270.32	8.28	NA	1269.66
MW-11	9937.9912	10101.7016	1277.75	5.0	15.0	Shallow	8.68	NA	1269.07	10.73	NA	1267.02
MW-11D	9942.3792	10101.1482	1277.85	35.0	45.0	Deep	10.59	NA	1267.26	14.99	NA	1262.86
MW-12	9883.0874	10104.9278	1278.18	4.0	14.0	Shallow	7.97	NA	1270.21	8.74	NA	1269.44
MW-13	9752.0619	10240.2934	1278.12	8.0	18.0	Shallow	9.70	NA	1268.42	9.96	NA	1268.16
MW-14S	10048.7753	10135.5198	1280.25	10.0	20.0	Shallow	11.81	NA	1268.44	13.22	NA	1267.03
MW-14D	10049.5051	10129.1897	1280.01	40.0	50.0	Deep	12.87	NA	1267.14	16.35	NA	1263.66
MW-15S	10051.8272	10254.4862	1279.55	10.0	20.0	Shallow	12.88	NA	1266.67	12.50	NA	1267.05
MW-15D	10045.5611	10255.205	1279.46	34.0	44.0	Deep	12.83	NA	1266.63	15.67	NA	1263.79
MW-16S	10146.7788	10236.8582	1279.32	7.0	17.0	Shallow	12.61	NA	1266.71	11.94	NA	1267.38
MW-16D	10143.9497	10236.6005	1279.05	36.0	46.0	Deep	12.57	NA	1266.48	14.25	NA	1264.80
MW-17	9987.6315	9995.5207	1278.7			Deep	NA	NA	NA	NA	NA	NA
MW-18	9994.6655	10459.2207	1275.49		20.0	Shallow	9.94	NA	1265.55	9.33	NA	1266.16
MW-19S	9956.1454	10358.207	1276.82	9.0	19.0	Shallow	10.14	NA	1266.68	9.36	NA	1267.46
MW-19D	9951.569	10355.9748	1276.21	34.0	44.0	Deep	11.68	NA	1264.53	13.47	NA	1262.74
MW-20	9894.7336	10224.5128	1278.56	6.5	11.5	Shallow	7.64	NA	1270.92	7.59	NA	1270.97
MW-21D	9995.0094	10314.801	1276.12	31.5	41.0	Deep	10.75	NA	1265.37	12.81	NA	1263.31
MW-22D	10048.1687	10391.3548	1276.04	32.5	42.0	Deep	10.52	NA	1265.52	10.05	NA	1265.99
MW-23S	9824.696	10265.6365	1277.85	5.0	14.5	Shallow	6.69	NA	1271.16	6.61	NA	1271.24
MW-23D	9818.3152	10265.6675	1277.89	28.0	37.5	Deep	10.56	NA	1267.33	8.85	NA	1269.04

APPENDIX A-1

2012 Water Level Data Essex/Hope Site Jamestown, NY

Monitoring Location	Northing	Easting	Reference Elevation (ft msl)	Depth to Top of Screen	Depth to Bottom of Screen	Screened Zone	September 24, 2012			November 12, 2012		
							Depth to Water	Depth to Top of Pump	Groundwater Elevation (ft msl)	Depth to Water	Depth to Top of Pump	Groundwater Elevation (ft msl)
MW-24S	9817.1277	10186.2119	1278.77	5.0	14.5	Shallow	7.76	NA	1271.01	7.93	NA	1270.84
MW-25S	9995.6	10572.35	1272.76	7.0	17.0	Shallow	10.90	NA	1261.86	9.46	NA	1263.30
MW-25D	9995.46	10565.28	1273.41	31.0	41.0	Deep	10.78	NA	1262.63	9.94	NA	1263.47
MW-26S	9861.3519	10371.3241	1279.422	5.0	15.0	Shallow	10.14	NA	1269.28	9.64	NA	1269.78
MW-27S	9849.63382	10452.2197	1278.864	10.0	20.0	Shallow	9.89	NA	1268.97	9.50	NA	1269.36
MW-28S	9810.84281	10451.4089	1279.25	7.0	17.0	Shallow	10.24	NA	1269.01	9.82	NA	1269.43
MW-29S	9786.06533	10188.6419	1280.7	4.0	14.0	Shallow	8.11	NA	1272.59	8.23	NA	1272.47
HW-8	9834.664	10312.0885	1277.81	6.0	16.0	Shallow	6.81	NA	1271.00	6.63	NA	1271.18
HW-9	9810.5264	10313.3873	1280.78	6.0	16.0	Shallow	10.64	NA	1270.14	10.21	NA	1270.57
HW-10	9837.2976	9966.7406	1279.55	7.0	17.0	Shallow	NA	NA	NA	NA	NA	NA
RW-1S	9932.3606	10136.0515	1275.81	10.5	16.0	Shallow	9.23	11.50	1266.58	10.73	11.50	1265.08
RW-1D	9925.9898	10121.7689	1276.34	32.0	57.0	Deep	9.12	NA	1267.22	14.17	NA	1262.17
RW-2S	9982.9501	10151.7112	1276.33	10.0	15.5	Shallow	10.28	12.70	1266.05	11.19	12.70	1265.14
RW-2D	9982.6088	10169.3122	1276.35	27.0	42.0	Deep	23.91	36.90	1252.44	36.94	36.90	1239.41
RW-3S	9837.0894	9990.9663	1278.14	9.0	13.5	Shallow	8.74	8.80	1269.40	7.83	8.80	1270.31
RW-5S	9863.4298	10330.7462	1277.29	7.0	10.0	Shallow	NA	NA	NA	NA	NA	NA
RW-6D	9994.04	10367.91	1277.33			Deep	31.96	NA	1245.37	28.30	NA	1249.03
GP-1S	9942.4384	10203.1085	1278.83	8.0	12.8	Shallow	NA	NA	NA	NA	NA	NA
GP-2S	9899.8775	10204.1632	1278.46	2.6	12.6	Shallow	NA	NA	NA	NA	NA	NA
GP-2D	9899.7358	10207.9807	1278.56	30.0	34.8	Deep	NA	NA	NA	NA	NA	NA
GP-3S	9941.2543	10263.8898	1278.59	4.0	14.0	Shallow	NA	NA	NA	NA	NA	NA
GP-3D	9936.9027	10264.588	1278.62	34.0	38.8	Deep	NA	NA	NA	NA	NA	NA
GP-4S	9940.86*	10154.97*	1278.06	10.8	15.8	Shallow	8.26	NA	1269.80	16.07	NA	1261.99
GP-4D	9942.1743	10152.2232	1277.95	39.0	43.8	Deep	10.32	NA	1267.63	9.02	NA	1268.93
GP-5S	9994.7299	10200.2055	1277.44	7.0	11.8	Shallow	NA	NA	NA	NA	NA	NA
GP-5D	9994.8642	10202.9906	1276.81	36.0	40.8	Deep	NA	NA	NA	NA	NA	NA
PZ-1S	9981.8469	10169.3122	1277.77			Shallow	NA	NA	NA	NA	NA	NA
PZ-1D	9980.4294	10171.2636	1277.64			Deep	NA	NA	NA	NA	NA	NA
PZ-2D	9979.5627	10172.4761	1277.55			Deep	NA	NA	NA	NA	NA	NA

APPENDIX A-1

2012 Water Level Data Essex/Hope Site Jamestown, NY

Monitoring Location	Northing	Easting	Reference Elevation (ft msl)	Depth to Top of Screen	Depth to Bottom of Screen	Screened Zone	September 24, 2012			November 12, 2012		
							Depth to Water	Depth to Top of Pump	Groundwater Elevation (ft msl)	Depth to Water	Depth to Top of Pump	Groundwater Elevation (ft msl)
PZ-3D	9942.0414	10199.2937	1278.8	20.0	40.0	Deep	NA	NA	NA	NA	NA	NA
PZ-4D	9946.2326	10195.679	1278.71			Deep	NA	NA	NA	NA	NA	NA
PZ-5S	9897.7381	10330.7876	1276.42	5.5	12.0	Shallow	8.22	NA	1268.20	7.89	NA	1268.53
PZ-5D	9894.5731	10329.7148	1276.4	21.0	42.0	Deep	9.88	NA	1266.52	10.30	NA	1266.10
PZ-6S	9932.2079	10344.4895	1276.61	8.5	13.5	Shallow	10.04	NA	1266.57	9.23	NA	1267.38
PZ-6D	9929.8004	10343.4742	1276.62	25.5	45.5	Deep	10.19	NA	1266.43	12.02	NA	1264.60
PZ-7D	9994.5452	10463.2465	1275.68	22.0	42.0	Deep	10.84	NA	1264.84	11.59	NA	1264.09
PZ-8D	9856.4908	10237.8118	1278.12	21.0	41.0	Deep	NA	NA	NA	NA	NA	NA
PZ-9D	9856.2398	10291.1658	1277.3	19.0	39.0	Deep	NA	NA	NA	NA	NA	NA
PZ-10D	9858.9821	10366.4236	1277.52	26.5	46.5	Deep	NA	NA	NA	NA	NA	NA
PZ-11D	9863.0677	10452.8989	1276.63	21.3	41.3	Deep	NA	NA	NA	NA	NA	NA
VP-5D	9925.1052	10103.0141	1277.88	12.5	34.3	Deep	9.64	NA	1268.24	11.88	NA	1266.00
VP-6S	9928.8123	10423.4628	1276.48	18.3	24.0	Deep upper gravel	10.29	NA	1266.19	9.76	NA	1266.72
VP-6D	9932.5744	10424.1378	1276.6	29.5	39.5	Deep	8.79	NA	1267.81	9.62	NA	1266.98
VP-7D	9758.4881	10337.7133	1278.64	20.4	39.3	Deep	12.58	NA	1266.06	12.18	NA	1266.46
VP-8D	9994.6178	10197.8133	1277.15	20.0	39.0	Deep	9.93	NA	1267.22	11.31	NA	1265.84

Notes:

NM = Not Measure
NA = Not Applicable

RW-4S, RW-5S taken offline in October 2002 for UST Removal.
Wells RW-4S, TW-01, and HW-7 destroyed during UST removal operations.

APPENDIX A-2

Groundwater Extraction System Monitoring Data

APPENDIX A-2

2012 Groundwater Extraction System Monitoring Data Essex/Hope Site Jamestown, NY

Date	NPL Area - Shallow WBZ			L.F. Sand WBZ			AST/UST Area - Shallow	Comments
	RW-1S	RW-2S	Total GPM	RW-2D	RW-6D	Total GPM	RW-3S	
	Avg. GPM	Avg. GPM		Avg. GPM	Avg. GPM		Avg. GPM	
01/04/12	0.230	1.00	1.23	1.25	offline	1.25	0.057	RWs reset; down on arrival. RWs offline at 1320 hrs for carbon change out. RWs online 1/5/12 at 0805 hrs following change out activities.
01/17/12	0.132	1.91	2.04	2.42	offline	2.42	0.065	
02/03/12	0.266	1.92	2.19	2.39	offline	2.39	0.090	
02/05/12				2.37	offline	2.37		RWs down on arrival due to high tank alarm. Minimal pumping during this time. RW-2D ran continuous on local. Obstruction discovered in flow meter. Effluent line and flow meter cleaned and normal pumping resumed.
02/15/12				2.34	offline	2.34		
03/01/12				2.33	offline	2.33		
03/13/12	0.117	1.03	1.15	2.34	offline	2.34	0.017	
03/20/12	0.116	1.14	1.26	2.37	offline	2.37	0.015	RW-6D online for 1 hr following VFD replacement for Post-ISCO sampling.
04/05/12	0.081	0.618	0.70	2.37	offline	2.37	0.008	
04/19/12	0.053	0.739	0.79	2.34	offline	2.34	0.0002	
04/30/12	0.157	1.57	1.73	2.32	offline	2.32	0.043	RWs offline at 1045 hrs for carbon change out activities. RW-2S meter replaced. RWs online 5/2/12 at 1030 hrs following change out activities.
05/18/12	0.134	1.57	1.70	2.39	offline	2.39	0.031	
05/30/12	0.052	0.25	0.30	2.16	offline	2.16	0.0005	RW-2D down on arrival; reset.
06/11/12	0.067	0.463	0.53	2.27		2.27	0.004	RW-6D online at 1545 hrs.
06/13/12	0.092	0.930	1.02	2.26	0.532	2.79	0.029	
06/27/12	0.062	0.400	0.46	2.23	0.393	2.62	0.003	
07/14/12	0.040	0.099	0.14	2.21	0.144	2.35	0.0005	RW-6D down on arrival due to VFD fault; reset.
07/27/12	0.086	0.970	1.06	2.16	0.068	2.23	0.015	RW-2D reset; bus undervoltage.
08/10/12	0.094	0.880	0.97	0.204	0.026	0.23	0.006	RW-2D reset; down on arrival.

APPENDIX A-2

2012 Groundwater Extraction System Monitoring Data Essex/Hope Site Jamestown, NY

Date	NPL Area - Shallow WBZ			L.F. Sand WBZ			AST/UST Area - Shallow	Comments
	RW-1S	RW-2S	Total GPM	RW-2D	RW-6D	Total GPM	RW-3S	
	Avg. GPM	Avg. GPM		Avg. GPM	Avg. GPM		Avg. GPM	
08/13/12	0.077	0.877	0.95	2.29	0.005	2.30	0.005	RWs offline at 1130 hrs for RW-2D acid treatment. RWs online 8/15/12 at 1935 hrs.
08/16/12	0.137	1.66	1.80	2.20	0.025	2.23	0.014	
08/20/12	0.093	1.22	1.31	0.460	0.005	0.47	0.007	RW-2D reset on arrival.
08/21/12	0.075	0.705	0.78	1.80	0.005	1.81	0.003	RW-2S offline from 0940 hrs to 1055 hrs for development activities. RW-2D offline at 1105 hrs for development activities and remain offline due to bad motor. RWs offline 8/22/12 at 0815 hrs for well development activities and remain offline for GAC pump repair.
09/26/12	0.151	2.57	2.72	2.27	1.41	3.68	0	RW-2D motor replaced on 9/25/12 and RWs back online at 0930 hrs following GAC pump repair.
10/07/12	0.067	0.722	0.79	2.18	1.28	3.46	offline	RW-3S offline due to bad motor.
10/15/12	0.067	0.763	0.83	2.17	1.23	3.40	offline	RWs offline at 1210 hrs for RW-6D acid treatment. RW-3S motor replaced. RWs online 10/17/12 at 1320 hrs following completion of acid treatment activities.
10/18/12	0.082	1.33	1.41	2.35	1.56	3.91	0.0002	
10/22/12	0.130	0.096	0.23	2.44	1.48	3.92	0.031	RWs offline at 1135 hrs for carbon change out activities. RW-2D level probes replaced. RWs online 10/23/12 at 0920 hrs. RW-2S electrical contactor replaced.
10/31/12	0.291	0.001	0.29	2.56	1.44	4.00	0.103	RW-2D reset; bus undervoltage. RW-2S reset; VFD on stop mode.
11/12/12	0.290	1.02	1.31	3.15	1.45	4.60	0.035	RW-2S offline from 11/13/12 at 1225 hrs to 11/15/12 at 1250 hrs for electrical malfunction.
11/20/12	0.100	0.972	1.07	3.09	1.36	4.45	0.010	RWs offline at 1140 hrs for GAC pump repair.
12/19/12	0.424	2.87	3.29	3.68	1.68	5.36	0.088	
01/03/13	0.129	1.91	2.039	3.14	1.31	4.45	0.032	

Notes:

RW-6D offline due to elevated acetone levels.

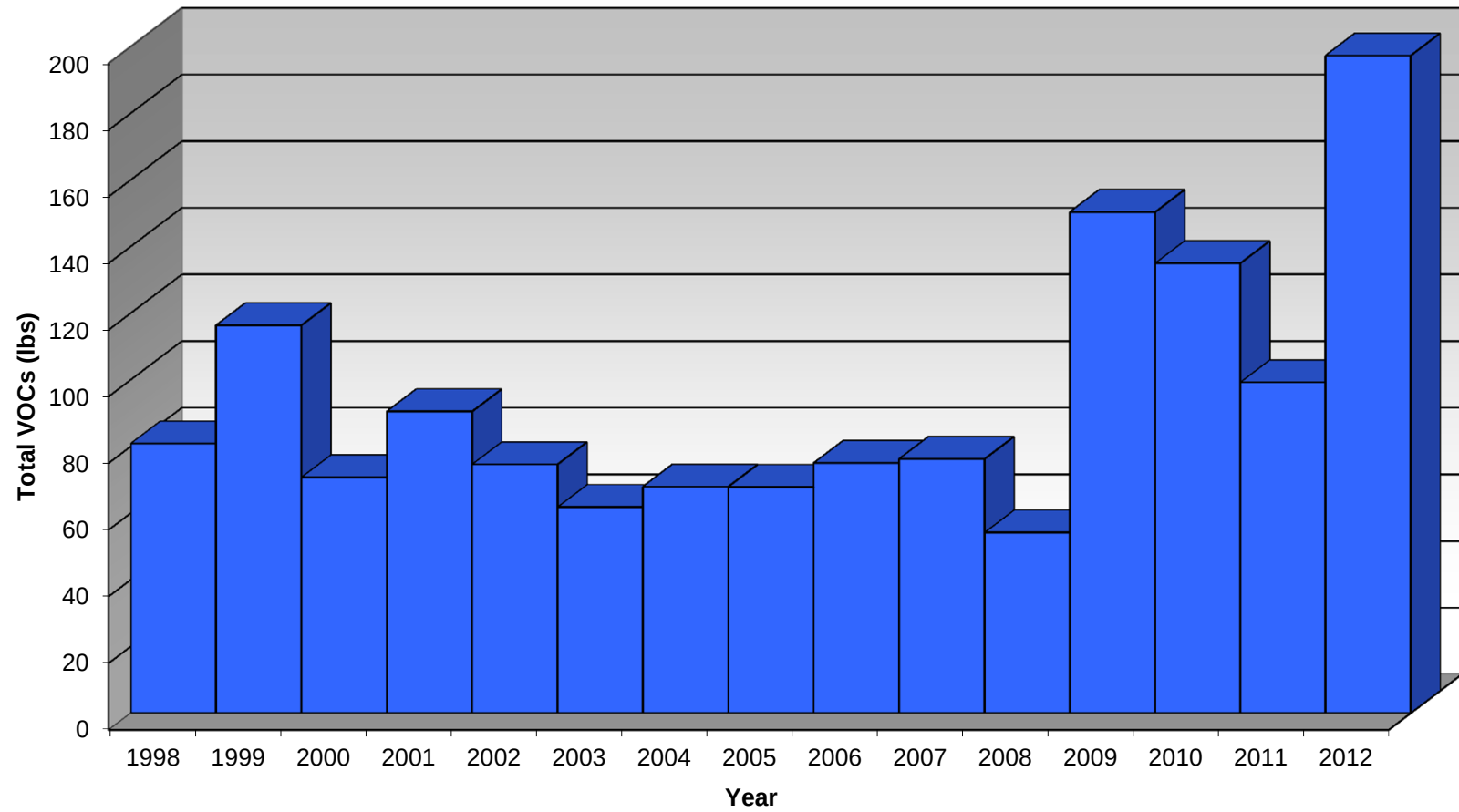
APPENDIX A-3

Recovery Well Performance Data

APPENDIX A-3 - Recovery Well Performance Data

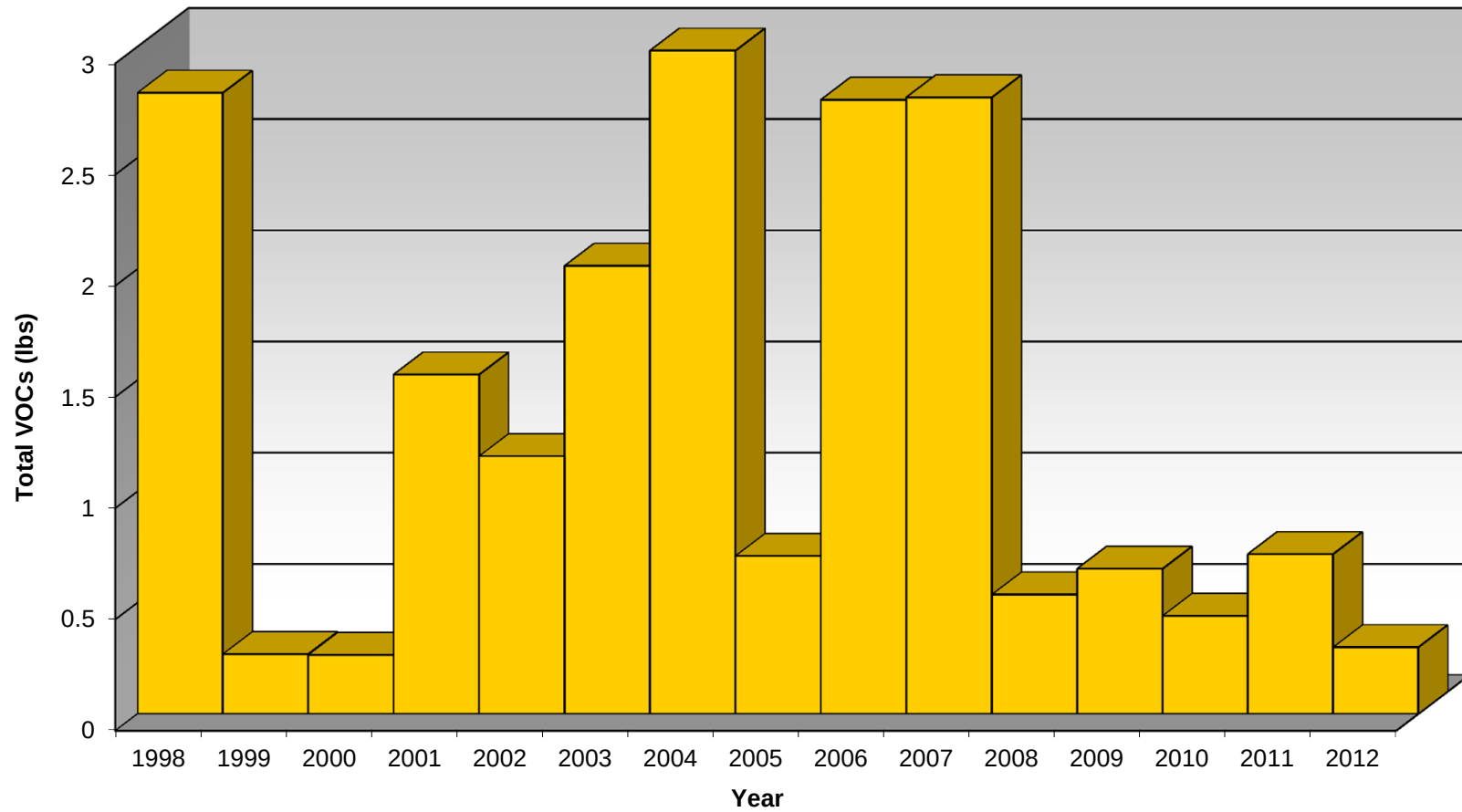
TOTAL SITE VOCs MASS REMOVED

**Essex/Hope Site
Jamestown, NY**



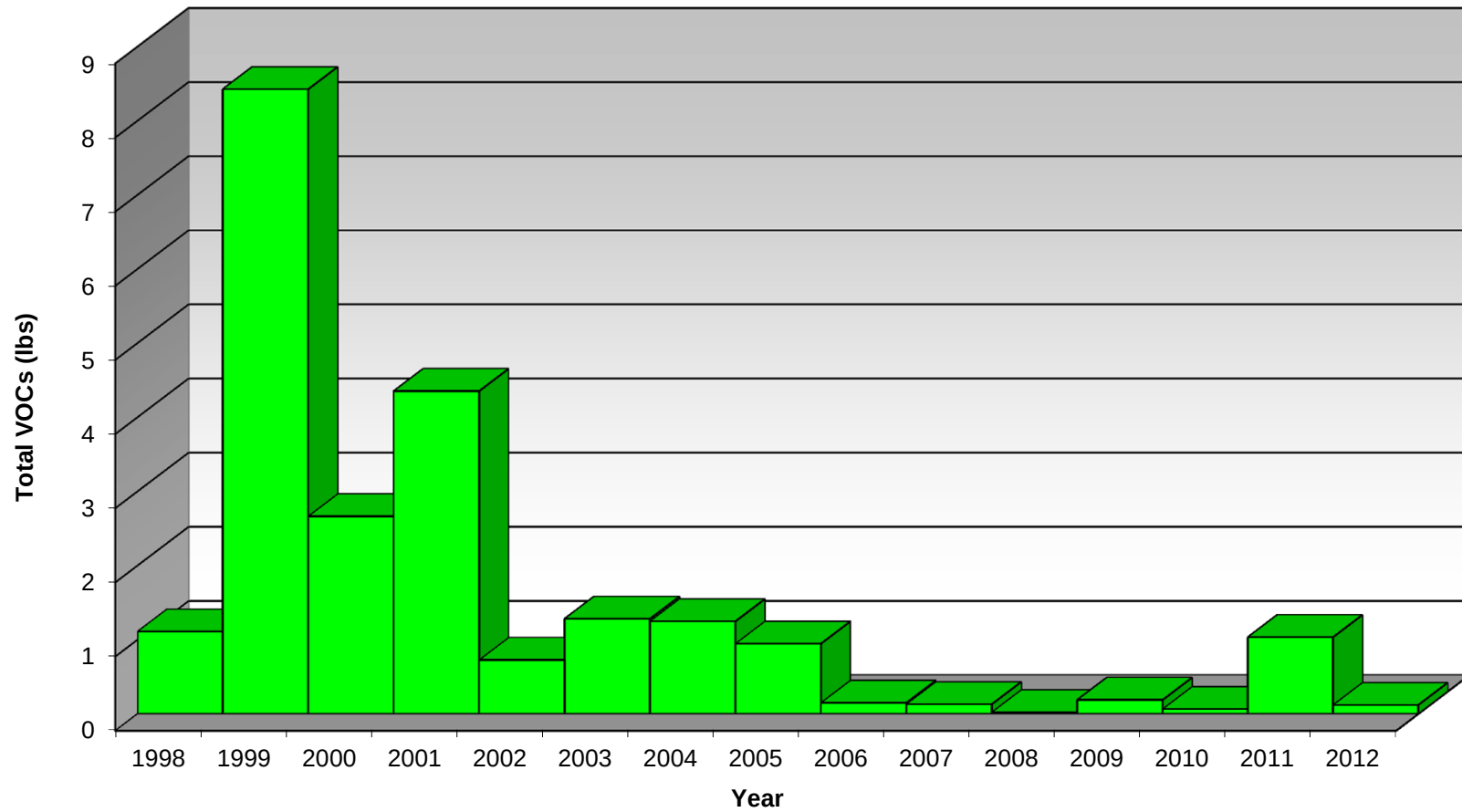
APPENDIX A-3 - Recovery Well Performance Data

RW-1S - Total VOCs Mass Removed
Essex/Hope Site
Jamestown, NY



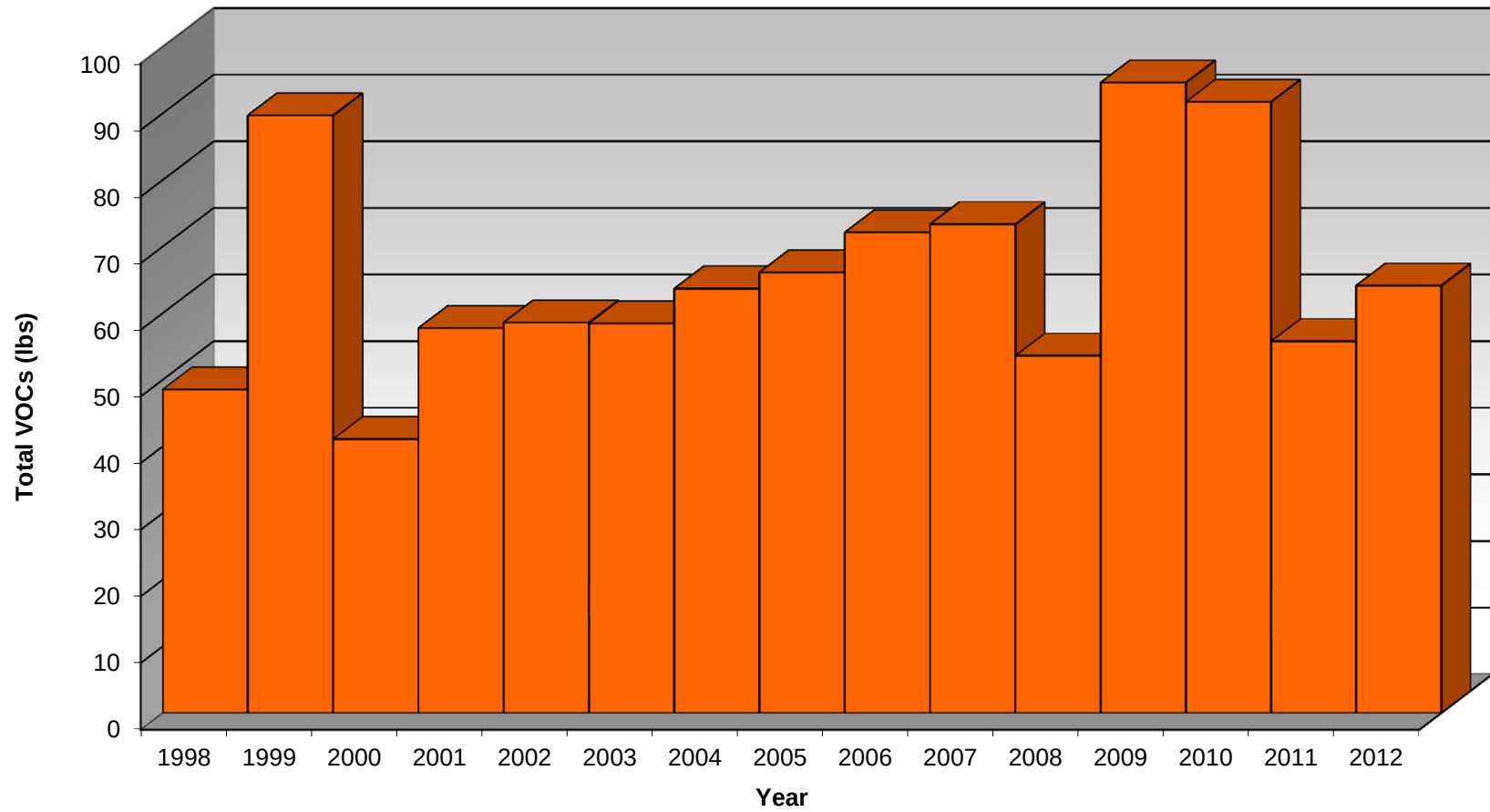
APPENDIX A-3 - Recovery Well Performance Data

RW-2S - Total VOCs Mass Removed
Essex/Hope Site
Jamestown, NY



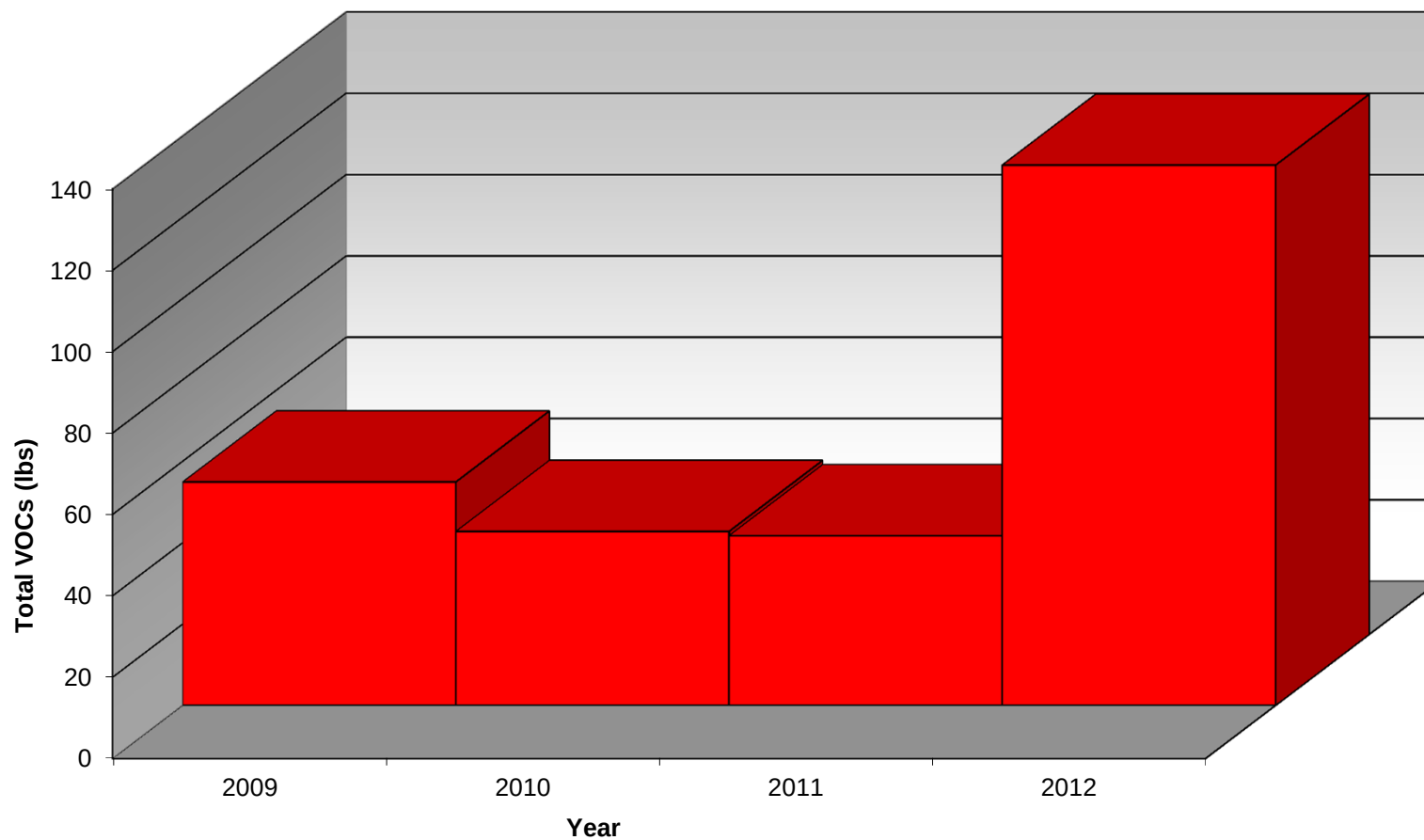
APPENDIX A-3 - Recovery Well Performance Data

RW-2D - Total VOCs Mass Removed
Essex/Hope Site
Jamestown, NY



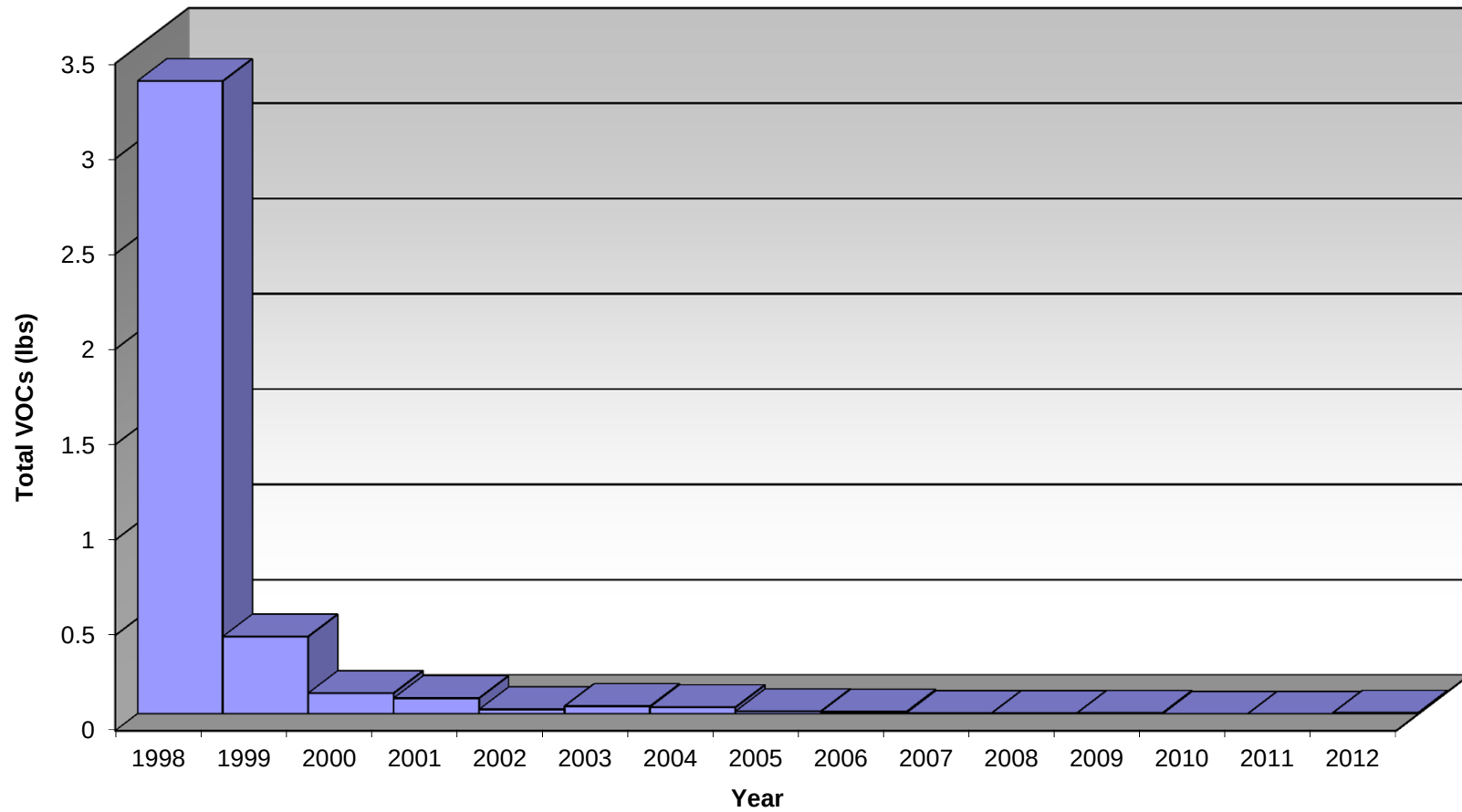
APPENDIX A-3 - Recovery Well Performance Data

RW-6D - Total VOCs Mass Removed
Essex/Hope Site
Jamestown, NY



APPENDIX A-3 - Recovery Well Performance Data

RW-3S - Total VOCs Mass Removed
Essex/Hope Site
Jamestown, NY



APPENDIX B

LABORATORY ANALYTICAL DATA

APPENDIX B-1

2012 SEMI-ANNUAL RECOVERY WELL DATA

June 27, 2012

Mr. Mark Dowiak
URS Corporation
Foster Plaza 4
501 Holiday Drive, Suite 300
Pittsburgh, PA 15220

RE: Project: 41569181.10000 Essex-Hope
Pace Project No.: 3071297

Dear Mr. Dowiak:

Enclosed are the analytical results for sample(s) received by the laboratory on June 13, 2012. 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.

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

Sincerely,



Rachel Christner for
Timothy Reed
timothy.reed@pacelabs.com
Project Manager

Enclosures

cc: Ms. Valerie Sibeto, URS Corporation



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 41569181.10000 Essex-Hope

Pace Project No.: 3071297

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4 Greensburg, PA 15601

ACCLASS DOD-ELAP Accreditation #: ADE-1544

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California/TNI Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH 0694

Delaware Certification

Florida/TNI Certification #: E87683

Guam/PADEP Certification

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Idaho Certification

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Iowa Certification #: 391

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Kentucky Certification #: 90133

Louisiana/TNI Certification #: LA080002

Louisiana/TNI Certification #: 4086

Maine Certification #: PA0091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nevada Certification

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188

Utah/TNI Certification #: ANTE

Virgin Island/PADEP Certification

Virginia Certification #: 00112

Virginia VELAP (Cert # 460198)

Washington Certification #: C868

West Virginia Certification #: 143

Wisconsin/PADEP Certification

Wyoming Certification #: 8TMS-Q

REPORT OF LABORATORY ANALYSIS

Page 2 of 11

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ANALYTICAL RESULTS

Project: 41569181.10000 Essex-Hope

Pace Project No.: 3071297

Sample: RW-2D		Lab ID: 3071297001		Collected: 06/12/12 13:55		Received: 06/13/12 09:30		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND	ug/L	10.0	1			06/23/12 13:36	67-64-1	
Benzene	10	ug/L	1.0	1			06/23/12 13:36	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1			06/23/12 13:36	75-27-4	
Bromoform	ND	ug/L	5.0	1			06/23/12 13:36	75-25-2	
Bromomethane	ND	ug/L	5.0	1			06/23/12 13:36	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1			06/23/12 13:36	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1			06/23/12 13:36	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1			06/23/12 13:36	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1			06/23/12 13:36	108-90-7	
Chloroethane	ND	ug/L	5.0	1			06/23/12 13:36	75-00-3	
Chloroform	ND	ug/L	5.0	1			06/23/12 13:36	67-66-3	
Chloromethane	ND	ug/L	5.0	1			06/23/12 13:36	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1			06/23/12 13:36	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1			06/23/12 13:36	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1			06/23/12 13:36	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1			06/23/12 13:36	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1			06/23/12 13:36	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1			06/23/12 13:36	107-06-2	
1,1-Dichloroethene	27.4	ug/L	5.0	1			06/23/12 13:36	75-35-4	
cis-1,2-Dichloroethene	7660	ug/L	100	20			06/23/12 14:01	156-59-2	
trans-1,2-Dichloroethene	165	ug/L	5.0	1			06/23/12 13:36	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1			06/23/12 13:36	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1			06/23/12 13:36	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1			06/23/12 13:36	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1			06/23/12 13:36	100-41-4	
2-Hexanone	ND	ug/L	10.0	1			06/23/12 13:36	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1			06/23/12 13:36	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1			06/23/12 13:36	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1			06/23/12 13:36	108-10-1	
Styrene	ND	ug/L	5.0	1			06/23/12 13:36	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1			06/23/12 13:36	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1			06/23/12 13:36	127-18-4	
Toluene	ND	ug/L	5.0	1			06/23/12 13:36	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1			06/23/12 13:36	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1			06/23/12 13:36	79-00-5	
Trichloroethene	1040	ug/L	100	20			06/23/12 14:01	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1			06/23/12 13:36	75-69-4	
Vinyl chloride	837	ug/L	20.0	20			06/23/12 14:01	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1			06/23/12 13:36	179601-23-1	
o-Xylene	ND	ug/L	5.0	1			06/23/12 13:36	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	101	%	70-130	1			06/23/12 13:36	460-00-4	
1,2-Dichloroethane-d4 (S)	118	%	70-130	1			06/23/12 13:36	17060-07-0	
Toluene-d8 (S)	103	%	70-130	1			06/23/12 13:36	2037-26-5	

ANALYTICAL RESULTS

Project: 41569181.10000 Essex-Hope

Pace Project No.: 3071297

Sample: RW-2S		Lab ID: 3071297002		Collected: 06/12/12 14:00		Received: 06/13/12 09:30		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND	ug/L	10.0	1		06/23/12 15:15	67-64-1		
Benzene	ND	ug/L	1.0	1		06/23/12 15:15	71-43-2		
Bromodichloromethane	ND	ug/L	5.0	1		06/23/12 15:15	75-27-4		
Bromoform	ND	ug/L	5.0	1		06/23/12 15:15	75-25-2		
Bromomethane	ND	ug/L	5.0	1		06/23/12 15:15	74-83-9		
2-Butanone (MEK)	ND	ug/L	10.0	1		06/23/12 15:15	78-93-3		
Carbon disulfide	ND	ug/L	5.0	1		06/23/12 15:15	75-15-0		
Carbon tetrachloride	ND	ug/L	5.0	1		06/23/12 15:15	56-23-5		
Chlorobenzene	ND	ug/L	5.0	1		06/23/12 15:15	108-90-7		
Chloroethane	ND	ug/L	5.0	1		06/23/12 15:15	75-00-3		
Chloroform	ND	ug/L	5.0	1		06/23/12 15:15	67-66-3		
Chloromethane	ND	ug/L	5.0	1		06/23/12 15:15	74-87-3		
Dibromochloromethane	ND	ug/L	5.0	1		06/23/12 15:15	124-48-1		
1,2-Dichlorobenzene	ND	ug/L	5.0	1		06/23/12 15:15	95-50-1		
1,3-Dichlorobenzene	ND	ug/L	5.0	1		06/23/12 15:15	541-73-1		
1,4-Dichlorobenzene	ND	ug/L	5.0	1		06/23/12 15:15	106-46-7		
1,1-Dichloroethane	ND	ug/L	5.0	1		06/23/12 15:15	75-34-3		
1,2-Dichloroethane	ND	ug/L	5.0	1		06/23/12 15:15	107-06-2		
1,1-Dichloroethene	ND	ug/L	5.0	1		06/23/12 15:15	75-35-4		
cis-1,2-Dichloroethene	42.0	ug/L	5.0	1		06/23/12 15:15	156-59-2		
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		06/23/12 15:15	156-60-5		
1,2-Dichloropropane	ND	ug/L	5.0	1		06/23/12 15:15	78-87-5		
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		06/23/12 15:15	10061-01-5		
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		06/23/12 15:15	10061-02-6		
Ethylbenzene	ND	ug/L	5.0	1		06/23/12 15:15	100-41-4		
2-Hexanone	ND	ug/L	10.0	1		06/23/12 15:15	591-78-6		
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		06/23/12 15:15	98-82-8		
Methylene Chloride	ND	ug/L	5.0	1		06/23/12 15:15	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		06/23/12 15:15	108-10-1		
Styrene	ND	ug/L	5.0	1		06/23/12 15:15	100-42-5		
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		06/23/12 15:15	79-34-5		
Tetrachloroethene	ND	ug/L	5.0	1		06/23/12 15:15	127-18-4		
Toluene	ND	ug/L	5.0	1		06/23/12 15:15	108-88-3		
1,1,1-Trichloroethane	ND	ug/L	5.0	1		06/23/12 15:15	71-55-6		
1,1,2-Trichloroethane	ND	ug/L	5.0	1		06/23/12 15:15	79-00-5		
Trichloroethene	10.8	ug/L	5.0	1		06/23/12 15:15	79-01-6		
Trichlorofluoromethane	ND	ug/L	5.0	1		06/23/12 15:15	75-69-4		
Vinyl chloride	ND	ug/L	1.0	1		06/23/12 15:15	75-01-4		
m&p-Xylene	ND	ug/L	5.0	1		06/23/12 15:15	179601-23-1		
o-Xylene	ND	ug/L	5.0	1		06/23/12 15:15	95-47-6		
Surrogates									
4-Bromofluorobenzene (S)	102	%	70-130	1		06/23/12 15:15	460-00-4		
1,2-Dichloroethane-d4 (S)	127	%	70-130	1		06/23/12 15:15	17060-07-0		
Toluene-d8 (S)	102	%	70-130	1		06/23/12 15:15	2037-26-5		

ANALYTICAL RESULTS

Project: 41569181.10000 Essex-Hope

Pace Project No.: 3071297

Sample: RW-3S		Lab ID: 3071297003		Collected: 06/12/12 14:05		Received: 06/13/12 09:30		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND	ug/L	10.0	1			06/23/12 13:12	67-64-1	
Benzene	1.1	ug/L	1.0	1			06/23/12 13:12	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1			06/23/12 13:12	75-27-4	
Bromoform	ND	ug/L	5.0	1			06/23/12 13:12	75-25-2	
Bromomethane	ND	ug/L	5.0	1			06/23/12 13:12	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1			06/23/12 13:12	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1			06/23/12 13:12	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1			06/23/12 13:12	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1			06/23/12 13:12	108-90-7	
Chloroethane	ND	ug/L	5.0	1			06/23/12 13:12	75-00-3	
Chloroform	ND	ug/L	5.0	1			06/23/12 13:12	67-66-3	
Chloromethane	ND	ug/L	5.0	1			06/23/12 13:12	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1			06/23/12 13:12	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1			06/23/12 13:12	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1			06/23/12 13:12	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1			06/23/12 13:12	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1			06/23/12 13:12	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1			06/23/12 13:12	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1			06/23/12 13:12	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1			06/23/12 13:12	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1			06/23/12 13:12	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1			06/23/12 13:12	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1			06/23/12 13:12	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1			06/23/12 13:12	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1			06/23/12 13:12	100-41-4	
2-Hexanone	ND	ug/L	10.0	1			06/23/12 13:12	591-78-6	
Isopropylbenzene (Cumene)	4.2	ug/L	1.0	1			06/23/12 13:12	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1			06/23/12 13:12	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1			06/23/12 13:12	108-10-1	
Styrene	ND	ug/L	5.0	1			06/23/12 13:12	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1			06/23/12 13:12	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1			06/23/12 13:12	127-18-4	
Toluene	ND	ug/L	5.0	1			06/23/12 13:12	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1			06/23/12 13:12	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1			06/23/12 13:12	79-00-5	
Trichloroethene	ND	ug/L	5.0	1			06/23/12 13:12	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1			06/23/12 13:12	75-69-4	
Vinyl chloride	ND	ug/L	1.0	1			06/23/12 13:12	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1			06/23/12 13:12	179601-23-1	
o-Xylene	ND	ug/L	5.0	1			06/23/12 13:12	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130	1			06/23/12 13:12	460-00-4	
1,2-Dichloroethane-d4 (S)	124	%	70-130	1			06/23/12 13:12	17060-07-0	
Toluene-d8 (S)	101	%	70-130	1			06/23/12 13:12	2037-26-5	

ANALYTICAL RESULTS

Project: 41569181.10000 Essex-Hope

Pace Project No.: 3071297

Sample: RW-1S		Lab ID: 3071297004		Collected: 06/12/12 14:10		Received: 06/13/12 09:30		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND	ug/L	10.0	1		06/23/12 14:26	67-64-1		
Benzene	ND	ug/L	1.0	1		06/23/12 14:26	71-43-2		
Bromodichloromethane	ND	ug/L	5.0	1		06/23/12 14:26	75-27-4		
Bromoform	ND	ug/L	5.0	1		06/23/12 14:26	75-25-2		
Bromomethane	ND	ug/L	5.0	1		06/23/12 14:26	74-83-9		
2-Butanone (MEK)	ND	ug/L	10.0	1		06/23/12 14:26	78-93-3		
Carbon disulfide	ND	ug/L	5.0	1		06/23/12 14:26	75-15-0		
Carbon tetrachloride	ND	ug/L	5.0	1		06/23/12 14:26	56-23-5		
Chlorobenzene	ND	ug/L	5.0	1		06/23/12 14:26	108-90-7		
Chloroethane	ND	ug/L	5.0	1		06/23/12 14:26	75-00-3		
Chloroform	ND	ug/L	5.0	1		06/23/12 14:26	67-66-3		
Chloromethane	ND	ug/L	5.0	1		06/23/12 14:26	74-87-3		
Dibromochloromethane	ND	ug/L	5.0	1		06/23/12 14:26	124-48-1		
1,2-Dichlorobenzene	ND	ug/L	5.0	1		06/23/12 14:26	95-50-1		
1,3-Dichlorobenzene	ND	ug/L	5.0	1		06/23/12 14:26	541-73-1		
1,4-Dichlorobenzene	ND	ug/L	5.0	1		06/23/12 14:26	106-46-7		
1,1-Dichloroethane	ND	ug/L	5.0	1		06/23/12 14:26	75-34-3		
1,2-Dichloroethane	ND	ug/L	5.0	1		06/23/12 14:26	107-06-2		
1,1-Dichloroethene	ND	ug/L	5.0	1		06/23/12 14:26	75-35-4		
cis-1,2-Dichloroethene	459	ug/L	50.0	10		06/23/12 14:50	156-59-2		
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		06/23/12 14:26	156-60-5		
1,2-Dichloropropane	ND	ug/L	5.0	1		06/23/12 14:26	78-87-5		
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		06/23/12 14:26	10061-01-5		
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		06/23/12 14:26	10061-02-6		
Ethylbenzene	ND	ug/L	5.0	1		06/23/12 14:26	100-41-4		
2-Hexanone	ND	ug/L	10.0	1		06/23/12 14:26	591-78-6		
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		06/23/12 14:26	98-82-8		
Methylene Chloride	ND	ug/L	5.0	1		06/23/12 14:26	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		06/23/12 14:26	108-10-1		
Styrene	ND	ug/L	5.0	1		06/23/12 14:26	100-42-5		
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		06/23/12 14:26	79-34-5		
Tetrachloroethene	ND	ug/L	5.0	1		06/23/12 14:26	127-18-4		
Toluene	ND	ug/L	5.0	1		06/23/12 14:26	108-88-3		
1,1,1-Trichloroethane	ND	ug/L	5.0	1		06/23/12 14:26	71-55-6		
1,1,2-Trichloroethane	ND	ug/L	5.0	1		06/23/12 14:26	79-00-5		
Trichloroethene	294	ug/L	5.0	1		06/23/12 14:26	79-01-6		
Trichlorofluoromethane	ND	ug/L	5.0	1		06/23/12 14:26	75-69-4		
Vinyl chloride	16.9	ug/L	1.0	1		06/23/12 14:26	75-01-4		
m&p-Xylene	ND	ug/L	5.0	1		06/23/12 14:26	179601-23-1		
o-Xylene	ND	ug/L	5.0	1		06/23/12 14:26	95-47-6		
Surrogates									
4-Bromofluorobenzene (S)	98	%	70-130	1		06/23/12 14:26	460-00-4		
1,2-Dichloroethane-d4 (S)	121	%	70-130	1		06/23/12 14:26	17060-07-0		
Toluene-d8 (S)	99	%	70-130	1		06/23/12 14:26	2037-26-5		

QUALITY CONTROL DATA

Project: 41569181.10000 Essex-Hope

Pace Project No.: 3071297

QC Batch: MSV/13075 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 3071297001, 3071297002, 3071297003, 3071297004

METHOD BLANK: 455358 Matrix: Water

Associated Lab Samples: 3071297001, 3071297002, 3071297003, 3071297004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	5.0	06/23/12 09:05	
1,1,2,2-Tetrachloroethane	ug/L	ND	5.0	06/23/12 09:05	
1,1,2-Trichloroethane	ug/L	ND	5.0	06/23/12 09:05	
1,1-Dichloroethane	ug/L	ND	5.0	06/23/12 09:05	
1,1-Dichloroethene	ug/L	ND	5.0	06/23/12 09:05	
1,2-Dichlorobenzene	ug/L	ND	5.0	06/23/12 09:05	
1,2-Dichloroethane	ug/L	ND	5.0	06/23/12 09:05	
1,2-Dichloropropane	ug/L	ND	5.0	06/23/12 09:05	
1,3-Dichlorobenzene	ug/L	ND	5.0	06/23/12 09:05	
1,4-Dichlorobenzene	ug/L	ND	5.0	06/23/12 09:05	
2-Butanone (MEK)	ug/L	ND	10.0	06/23/12 09:05	
2-Hexanone	ug/L	ND	10.0	06/23/12 09:05	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	06/23/12 09:05	
Acetone	ug/L	ND	10.0	06/23/12 09:05	
Benzene	ug/L	ND	1.0	06/23/12 09:05	
Bromodichloromethane	ug/L	ND	5.0	06/23/12 09:05	
Bromoform	ug/L	ND	5.0	06/23/12 09:05	
Bromomethane	ug/L	ND	5.0	06/23/12 09:05	
Carbon disulfide	ug/L	ND	5.0	06/23/12 09:05	
Carbon tetrachloride	ug/L	ND	5.0	06/23/12 09:05	
Chlorobenzene	ug/L	ND	5.0	06/23/12 09:05	
Chloroethane	ug/L	ND	5.0	06/23/12 09:05	
Chloroform	ug/L	ND	5.0	06/23/12 09:05	
Chloromethane	ug/L	ND	5.0	06/23/12 09:05	
cis-1,2-Dichloroethene	ug/L	ND	5.0	06/23/12 09:05	
cis-1,3-Dichloropropene	ug/L	ND	5.0	06/23/12 09:05	
Dibromochloromethane	ug/L	ND	5.0	06/23/12 09:05	
Ethylbenzene	ug/L	ND	5.0	06/23/12 09:05	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	06/23/12 09:05	
m&p-Xylene	ug/L	ND	5.0	06/23/12 09:05	
Methylene Chloride	ug/L	ND	5.0	06/23/12 09:05	
o-Xylene	ug/L	ND	5.0	06/23/12 09:05	
Styrene	ug/L	ND	5.0	06/23/12 09:05	
Tetrachloroethene	ug/L	ND	5.0	06/23/12 09:05	
Toluene	ug/L	ND	5.0	06/23/12 09:05	
trans-1,2-Dichloroethene	ug/L	ND	5.0	06/23/12 09:05	
trans-1,3-Dichloropropene	ug/L	ND	5.0	06/23/12 09:05	
Trichloroethene	ug/L	ND	5.0	06/23/12 09:05	
Trichlorofluoromethane	ug/L	ND	5.0	06/23/12 09:05	
Vinyl chloride	ug/L	ND	1.0	06/23/12 09:05	
1,2-Dichloroethane-d4 (S)	%	121	70-130	06/23/12 09:05	
4-Bromofluorobenzene (S)	%	100	70-130	06/23/12 09:05	
Toluene-d8 (S)	%	102	70-130	06/23/12 09:05	

Date: 06/27/2012 04:40 PM

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 41569181.10000 Essex-Hope

Pace Project No.: 3071297

LABORATORY CONTROL SAMPLE: 455359

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	20.4	102	64.3-127	
1,1,2,2-Tetrachloroethane	ug/L	20	17.8	89	64.6-121	
1,1,2-Trichloroethane	ug/L	20	18.8	94	75.6-120	
1,1-Dichloroethane	ug/L	20	23.2	116	68.5-122	
1,1-Dichloroethene	ug/L	20	23.4	117	57.1-120	
1,2-Dichlorobenzene	ug/L	20	18.7	94	69.6-120	
1,2-Dichloroethane	ug/L	20	21.4	107	60.5-133	
1,2-Dichloropropane	ug/L	20	21.6	108	71-120	
1,3-Dichlorobenzene	ug/L	20	18.7	94	68.4-121	
1,4-Dichlorobenzene	ug/L	20	18.2	91	68.5-123	
2-Butanone (MEK)	ug/L	20	25.5	127	55.7-138	
2-Hexanone	ug/L	20	24.7	124	67-133	
4-Methyl-2-pentanone (MIBK)	ug/L	20	25.2	126	64.5-121	L1
Acetone	ug/L	20	24.3	121	57.6-168	
Benzene	ug/L	20	20.5	103	69.8-120	
Bromodichloromethane	ug/L	20	19.9	99	66.5-120	
Bromoform	ug/L	20	17.6	88	61.1-120	
Bromomethane	ug/L	20	26.2	131	10.6-200	
Carbon disulfide	ug/L	20	25.9	130	60.2-122	L1
Carbon tetrachloride	ug/L	20	20.4	102	60.1-127	
Chlorobenzene	ug/L	20	19.2	96	72-120	
Chloroethane	ug/L	20	27.3	137	36.8-142	
Chloroform	ug/L	20	20.6	103	69-122	
Chloromethane	ug/L	20	28.2	141	37.2-129	CU,L3
cis-1,2-Dichloroethene	ug/L	20	23.0	115	69.5-123	
cis-1,3-Dichloropropene	ug/L	20	19.3	96	74.3-120	
Dibromochloromethane	ug/L	20	18.8	94	66.1-120	
Ethylbenzene	ug/L	20	19.1	95	70.9-124	
Isopropylbenzene (Cumene)	ug/L	20	22.7	113	68.3-129	
m&p-Xylene	ug/L	40	40.1	100	70.4-130	
Methylene Chloride	ug/L	20	19.4	97	61.5-125	
o-Xylene	ug/L	20	19.2	96	70.6-127	
Styrene	ug/L	20	20.0	100	69.9-120	
Tetrachloroethene	ug/L	20	17.0	85	63.4-121	
Toluene	ug/L	20	20.5	103	71.5-120	
trans-1,2-Dichloroethene	ug/L	20	21.7	109	64.1-120	
trans-1,3-Dichloropropene	ug/L	20	19.3	96	71-120	
Trichloroethene	ug/L	20	17.5	88	65.9-120	
Trichlorofluoromethane	ug/L	20	26.4	132	44.8-137	
Vinyl chloride	ug/L	20	24.1	120	51-127	
1,2-Dichloroethane-d4 (S)	%			114	70-130	
4-Bromofluorobenzene (S)	%			96	70-130	
Toluene-d8 (S)	%			102	70-130	

QUALITY CONTROL DATA

Project: 41569181.10000 Essex-Hope

Pace Project No.: 3071297

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 455360 455361											
Parameter	Units	3071348009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	20	20	21.1	17.8	105	89	64.3-127	17	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	19.3	16.1	96	81	64.6-121	18	
1,1,2-Trichloroethane	ug/L	ND	20	20	19.7	17.1	99	86	75.6-120	14	
1,1-Dichloroethane	ug/L	ND	20	20	22.7	18.4	113	92	68.5-122	21	
1,1-Dichloroethene	ug/L	ND	20	20	21.0	18.4	105	92	57.1-120	13	
1,2-Dichlorobenzene	ug/L	ND	20	20	18.5	17.4	92	87	69.6-120	6	
1,2-Dichloroethane	ug/L	ND	20	20	19.8	16.6	99	83	60.5-133	18	
1,2-Dichloropropane	ug/L	ND	20	20	20.7	17.6	104	88	71-120	16	
1,3-Dichlorobenzene	ug/L	ND	20	20	17.6	16.9	88	85	68.4-121	4	
1,4-Dichlorobenzene	ug/L	ND	20	20	17.9	16.8	90	84	68.5-123	7	
2-Butanone (MEK)	ug/L	ND	20	20	24.5	19.8	122	99	55.7-138	21	
2-Hexanone	ug/L	ND	20	20	26.8	21.9	134	110	67-133	20	M0
4-Methyl-2-pentanone (MIBK)	ug/L	ND	20	20	26.7	21.9	133	109	64.5-121	20	M0
Acetone	ug/L	ND	20	20	24.0	22.7	110	104	57.6-168	6	
Benzene	ug/L	ND	20	20	21.8	18.4	108	91	69.8-120	17	
Bromodichloromethane	ug/L	ND	20	20	19.4	16.3	97	82	66.5-120	17	
Bromoform	ug/L	ND	20	20	16.3	14.7	81	73	61.1-120	11	
Bromomethane	ug/L	ND	20	20	22.0	20.3	110	102	10.6-200	8	
Carbon disulfide	ug/L	ND	20	20	27.1	26.1	135	130	60.2-122	4	M0
Carbon tetrachloride	ug/L	ND	20	20	19.6	17.1	98	86	60.1-127	13	
Chlorobenzene	ug/L	ND	20	20	19.3	17.8	96	89	72-120	8	
Chloroethane	ug/L	ND	20	20	27.3	27.1	137	136	36.8-142	.7	
Chloroform	ug/L	ND	20	20	20.6	17.2	103	86	69-122	18	
Chloromethane	ug/L	ND	20	20	25.9	28.0	129	140	37.2-129	8	M0
cis-1,2-Dichloroethene	ug/L	ND	20	20	21.5	18.1	108	91	69.5-123	17	
cis-1,3-Dichloropropene	ug/L	ND	20	20	19.3	16.5	96	83	74.3-120	15	
Dibromochloromethane	ug/L	ND	20	20	18.3	16.2	92	81	66.1-120	12	
Ethylbenzene	ug/L	ND	20	20	20.2	18.3	101	91	70.9-124	10	
Isopropylbenzene (Cumene)	ug/L	ND	20	20	21.0	19.8	105	99	68.3-129	6	
m&p-Xylene	ug/L	ND	40	40	39.7	36.9	99	92	70.4-130	7	
Methylene Chloride	ug/L	ND	20	20	18.3	14.9	92	75	61.5-125	20	
o-Xylene	ug/L	ND	20	20	20.1	18.6	100	93	70.6-127	8	
Styrene	ug/L	ND	20	20	19.2	18.3	96	91	69.9-120	5	
Tetrachloroethene	ug/L	ND	20	20	18.6	17.5	93	87	63.4-121	6	
Toluene	ug/L	ND	20	20	21.1	18.8	105	94	71.5-120	11	
trans-1,2-Dichloroethene	ug/L	ND	20	20	20.5	17.0	103	85	64.1-120	19	
trans-1,3-Dichloropropene	ug/L	ND	20	20	19.3	16.5	96	83	71-120	15	
Trichloroethene	ug/L	ND	20	20	19.5	17.5	98	88	65.9-120	11	
Trichlorofluoromethane	ug/L	ND	20	20	26.4	26.0	132	130	44.8-137	2	
Vinyl chloride	ug/L	ND	20	20	28.1	28.2	140	141	51-127	.7	M0
1,2-Dichloroethane-d4 (S)	%						99	95	70-130		
4-Bromofluorobenzene (S)	%						98	97	70-130		
Toluene-d8 (S)	%						101	101	70-130		

QUALIFIERS

Project: 41569181.10000 Essex-Hope

Pace Project No.: 3071297

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

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.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

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.

ANALYTE QUALIFIERS

CU	The continuing calibration for this compound is outside of Pace Analytical acceptance limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.
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.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 41569181.10000 Essex-Hope

Pace Project No.: 3071297

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
3071297001	RW-2D	EPA 8260	MSV/13075		
3071297002	RW-2S	EPA 8260	MSV/13075		
3071297003	RW-3S	EPA 8260	MSV/13075		
3071297004	RW-1S	EPA 8260	MSV/13075		

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information: Company: URS CORP Address: FOSTER PLAZA 4 501 HOLLYWOOD DR. STE 300 PITTSBURGH, PA 15220 Email To: _____ Phone: 412-503-4700 Fax: 412-503-4701 Requested Due Date/TAT: STANDARD		Section B Required Project Information: Report To: MARY DOWIAK Copy To: VALERIE SIBETO Purchase Order No.: 41529181 Project Name: ESSEX/HOPE DAMSDOWN Project Number: 41529181.10000		Section C Invoice Information: Attention: _____ Company Name: _____ Address: _____ Pace Quote Reference: _____ Pace Project Manager: _____ Pace Profile #: _____		Page: 1 of 1 1492352
REGULATORY AGENCY ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☐ OTHER _____			Site Location: NY STATE: _____			

ITEM #	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 CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives Unpreserved H ₂ SO ₄ HNO ₃ HCl NaOH Na ₂ S ₂ O ₃ Methanol Other	Analysis Test ↓ Analysis Test ↓	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
					COMPOSITE START	COMPOSITE END/GRAB							
			DATE	TIME	DATE	TIME							
1	RW-2D		6/12/12	1355				3					001
2	RW-2S		6/12/12	1400				3					002
3	RW-3S		6/12/12	1405				3					003
4	RW-1S		6/12/12	1410				3					004
5													
6													
7													
8													
9													
10													
11													
12													
ADDITIONAL COMMENTS SEMI-ANNUAL RW SAMPLING - NOTE: RW-UD SAMPLED W POST-1500 ROUND 3													
RELINQUISHED BY / AFFILIATION Valerie Sibeto / URS 6-12-12 ~ 1405 Valerie Sibeto / URS 6-13-12 0800 4.3													
ACCEPTED BY / AFFILIATION Valerie Sibeto / URS 6-12-12 ~ 1405 Valerie Sibeto / URS 6-13-12 0800 4.3													
DATE 6-12-12 ~ 1405 6-13-12 0800 4.3													
TIME 1405 0800 4.3													
SAMPLE CONDITIONS Received on Ice (Y/N) _____ Custody Sealed Cooler (Y/N) _____ Samples Intact (Y/N) _____													

SAMPLER NAME AND SIGNATURE PRINT Name of SAMPLER: VALERIE SIBETO SIGNATURE of SAMPLER: <i>Valerie Sibeto</i> DATE Signed (MM/DD/YY): 6-12-12		Temp in °C _____ Received on Ice (Y/N) _____ Custody Sealed Cooler (Y/N) _____ Samples Intact (Y/N) _____



Sample Condition Upon Receipt

Client Name: WDSProject # 3071297Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____Tracking #: 872640256919Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ noPacking Material: ☒ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____Thermometer Used (5) 6 7Type of Ice: Wet Blue None☒ Samples on ice, cooling process has begunCooler Temperature 4.3

Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Comments:

Date and Initials of person examining contents: VEL 6/13/12

Chain of Custody Present:	☒ Yes ☐ No ☐ N/A	1.
Chain of Custody Filled Out:	☒ Yes ☐ No ☐ N/A	2.
Chain of Custody Relinquished:	☒ Yes ☐ No ☐ N/A	3.
Sampler Name & Signature on COC:	☒ Yes ☐ No ☐ N/A	4.
Samples Arrived within Hold Time:	☒ Yes ☐ No ☐ N/A	5.
Short Hold Time Analysis (<72hr):	☐ Yes ☒ No ☐ N/A	6.
Rush Turn Around Time Requested:	☐ Yes ☒ No ☐ N/A	7.
Sufficient Volume:	☒ Yes ☐ No ☐ N/A	8.
Correct Containers Used:	☒ Yes ☐ No ☐ N/A	9.
-Pace Containers Used:	☒ Yes ☐ No ☐ N/A	
Containers Intact:	☒ Yes ☐ No ☐ N/A	10.
Filtered volume received for Dissolved tests	☐ Yes ☐ No ☒ N/A	11.
Sample Labels match COC:	☒ Yes ☐ No ☐ N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>WDS</u>		
All containers needing preservation have been checked.	☐ Yes ☐ No ☒ N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐ Yes ☐ No ☒ N/A	
exceptions: <u>VOA</u> coliform, TOC, O&G, WH-DRO (water)	☒ Yes ☐ No	initial when completed <u>VEL</u> Lot # of added preservative
Samples checked for dechlorination:	☐ Yes ☐ No ☒ N/A	14.
Headspace in VOA Vials (>6mm):	☐ Yes ☒ No ☐ N/A	15.
Trip Blank Present:	☐ Yes ☐ No ☒ N/A	16.
Trip Blank Custody Seals Present	☐ Yes ☐ No ☒ N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required?

Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: [Signature]Date: 6/14/12

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

3071297

Client Name: AD-3

[illegible]

ANALYTICAL RESULTS

Project: 41569123/Essex-Hope

Pace Project No.: 3071263

Sample: RW-6D		Lab ID: 3071263007	Collected: 06/12/12 13:30	Received: 06/13/12 09:30	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP		Analytical Method: EPA 6010B Preparation Method: EPA 3005						
Iron	11900	ug/L	70.0	1	06/14/12 15:49	06/15/12 13:31	7439-89-6	
8260 MSV		Analytical Method: EPA 8260						
Acetone	20600	ug/L	2000	200		06/18/12 16:50	67-64-1	
Benzene	23.9	ug/L	1.0	1		06/15/12 17:01	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		06/15/12 17:01	75-27-4	
Bromoform	ND	ug/L	5.0	1		06/15/12 17:01	75-25-2	
Bromomethane	ND	ug/L	5.0	1		06/15/12 17:01	74-83-9	
2-Butanone (MEK)	259	ug/L	10.0	1		06/15/12 17:01	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		06/15/12 17:01	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		06/15/12 17:01	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		06/15/12 17:01	108-90-7	
Chloroethane	ND	ug/L	5.0	1		06/15/12 17:01	75-00-3	
Chloroform	ND	ug/L	5.0	1		06/15/12 17:01	67-66-3	
Chloromethane	ND	ug/L	5.0	1		06/15/12 17:01	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		06/15/12 17:01	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		06/15/12 17:01	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		06/15/12 17:01	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		06/15/12 17:01	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		06/15/12 17:01	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		06/15/12 17:01	107-06-2	
1,1-Dichloroethene	28.9	ug/L	5.0	1		06/15/12 17:01	75-35-4	
cis-1,2-Dichloroethene	16700	ug/L	1000	200		06/18/12 16:50	156-59-2	
trans-1,2-Dichloroethene	181	ug/L	5.0	1		06/15/12 17:01	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		06/15/12 17:01	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		06/15/12 17:01	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		06/15/12 17:01	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		06/15/12 17:01	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		06/15/12 17:01	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		06/15/12 17:01	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		06/15/12 17:01	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		06/15/12 17:01	108-10-1	
Styrene	ND	ug/L	5.0	1		06/15/12 17:01	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		06/15/12 17:01	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		06/15/12 17:01	127-18-4	
Toluene	ND	ug/L	5.0	1		06/15/12 17:01	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		06/15/12 17:01	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		06/15/12 17:01	79-00-5	
Trichloroethene	3900	ug/L	1000	200		06/18/12 16:50	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		06/15/12 17:01	75-69-4	
Vinyl chloride	3390	ug/L	200	200		06/18/12 16:50	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		06/15/12 17:01	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		06/15/12 17:01	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	98	%	70-130	1		06/15/12 17:01	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	70-130	1		06/15/12 17:01	17060-07-0	
Toluene-d8 (S)	102	%	70-130	1		06/15/12 17:01	2037-26-5	

Date: 06/27/2012 04:43 PM

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 41569123/Essex-Hope

Pace Project No.: 3071263

Sample: RW-6D		Lab ID: 3071263007		Collected: 06/12/12 13:30		Received: 06/13/12 09:30		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
2320B Alkalinity		Analytical Method: SM 2320B							
Alkalinity, Total as CaCO3		477	mg/L	10.0	1		06/15/12 17:30		
Iron, Ferric (Calculation)		Analytical Method: SM 3500-Fe D#4							
Iron, Ferric		8.9	mg/L	0.10	1		06/27/12 14:50	7439-89-6	N2
Iron, Ferrous		Analytical Method: SM 3500-Fe D#4							
Iron, Ferrous		2.9	mg/L	0.10	1		06/13/12 14:51		H1,H6
4500S2F Sulfide, Iodometric		Analytical Method: SM 4500-S F (2000)							
Sulfide		ND	mg/L	1.0	1		06/14/12 21:02	18496-25-8	
ASTM D516-9002 Sulfate Water		Analytical Method: ASTM D516-90,02							
Sulfate		ND	mg/L	10.0	1		06/19/12 11:39	14808-79-8	

November 27, 2012

Mr. Mark Dowiak
URS Corporation
Foster Plaza 6
681 Andersen Drive, Suite 400
Pittsburgh, PA 15220

RE: Project: Essex/Hope Jamestown
Pace Project No.: 3082101

Dear Mr. Dowiak:

Enclosed are the analytical results for sample(s) received by the laboratory on November 16, 2012. 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.

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

Sincerely,



Timothy Reed

timothy.reed@pacelabs.com
Project Manager

Enclosures

cc: Ms. Valerie Sibeto, URS Corporation



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Essex/Hope Jamestown

Pace Project No.: 3082101

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4 Greensburg, PA 15601

ACCLASS DOD-ELAP Accreditation #: ADE-1544

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California/TNI Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683

Guam/PADEP Certification

Hawaii/PADEP Certification

Idaho Certification

Illinois/PADEP Certification

Indiana/PADEP Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana/TNI Certification #: LA080002

Louisiana/TNI Certification #: 4086

Maine Certification #: PA0091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nevada Certification

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188

Utah/TNI Certification #: ANTE

Virgin Island/PADEP Certification

Virginia Certification #: 00112

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia Certification #: 143

Wisconsin/PADEP Certification

Wyoming Certification #: 8TMS-Q

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Essex/Hope Jamestown
Pace Project No.: 3082101

Sample: RW-2D		Lab ID: 3082101001	Collected: 11/15/12 09:00	Received: 11/16/12 09:35	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND	ug/L	10.0	1		11/20/12 21:51	67-64-1	
Benzene	7.9	ug/L	1.0	1		11/20/12 21:51	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		11/20/12 21:51	75-27-4	
Bromoform	ND	ug/L	5.0	1		11/20/12 21:51	75-25-2	
Bromomethane	ND	ug/L	5.0	1		11/20/12 21:51	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		11/20/12 21:51	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		11/20/12 21:51	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		11/20/12 21:51	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		11/20/12 21:51	108-90-7	
Chloroethane	ND	ug/L	5.0	1		11/20/12 21:51	75-00-3	
Chloroform	ND	ug/L	5.0	1		11/20/12 21:51	67-66-3	
Chloromethane	ND	ug/L	5.0	1		11/20/12 21:51	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		11/20/12 21:51	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		11/20/12 21:51	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		11/20/12 21:51	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		11/20/12 21:51	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		11/20/12 21:51	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		11/20/12 21:51	107-06-2	
1,1-Dichloroethene	17.6	ug/L	5.0	1		11/20/12 21:51	75-35-4	
cis-1,2-Dichloroethene	2770	ug/L	100	20		11/20/12 22:17	156-59-2	
trans-1,2-Dichloroethene	64.6	ug/L	5.0	1		11/20/12 21:51	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		11/20/12 21:51	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		11/20/12 21:51	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		11/20/12 21:51	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		11/20/12 21:51	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		11/20/12 21:51	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		11/20/12 21:51	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		11/20/12 21:51	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		11/20/12 21:51	108-10-1	
Styrene	ND	ug/L	5.0	1		11/20/12 21:51	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		11/20/12 21:51	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		11/20/12 21:51	127-18-4	
Toluene	ND	ug/L	5.0	1		11/20/12 21:51	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		11/20/12 21:51	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		11/20/12 21:51	79-00-5	
Trichloroethene	2170	ug/L	100	20		11/20/12 22:17	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		11/20/12 21:51	75-69-4	
Vinyl chloride	335	ug/L	1.0	1		11/20/12 21:51	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		11/20/12 21:51	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		11/20/12 21:51	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	102	%	85-115	1		11/20/12 21:51	460-00-4	
1,2-Dichloroethane-d4 (S)	110	%	77-119	1		11/20/12 21:51	17060-07-0	
Toluene-d8 (S)	99	%	85-115	1		11/20/12 21:51	2037-26-5	

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown

Pace Project No.: 3082101

Sample: RW-2S		Lab ID: 3082101002	Collected: 11/15/12 09:15	Received: 11/16/12 09:35	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND	ug/L	10.0	1		11/20/12 20:09	67-64-1	
Benzene	ND	ug/L	1.0	1		11/20/12 20:09	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		11/20/12 20:09	75-27-4	
Bromoform	ND	ug/L	5.0	1		11/20/12 20:09	75-25-2	
Bromomethane	ND	ug/L	5.0	1		11/20/12 20:09	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		11/20/12 20:09	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		11/20/12 20:09	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		11/20/12 20:09	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		11/20/12 20:09	108-90-7	
Chloroethane	ND	ug/L	5.0	1		11/20/12 20:09	75-00-3	
Chloroform	ND	ug/L	5.0	1		11/20/12 20:09	67-66-3	
Chloromethane	ND	ug/L	5.0	1		11/20/12 20:09	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		11/20/12 20:09	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		11/20/12 20:09	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		11/20/12 20:09	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		11/20/12 20:09	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		11/20/12 20:09	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		11/20/12 20:09	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		11/20/12 20:09	75-35-4	
cis-1,2-Dichloroethene	12.5	ug/L	5.0	1		11/20/12 20:09	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		11/20/12 20:09	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		11/20/12 20:09	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		11/20/12 20:09	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		11/20/12 20:09	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		11/20/12 20:09	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		11/20/12 20:09	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		11/20/12 20:09	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		11/20/12 20:09	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		11/20/12 20:09	108-10-1	
Styrene	ND	ug/L	5.0	1		11/20/12 20:09	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		11/20/12 20:09	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		11/20/12 20:09	127-18-4	
Toluene	ND	ug/L	5.0	1		11/20/12 20:09	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		11/20/12 20:09	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		11/20/12 20:09	79-00-5	
Trichloroethene	10.1	ug/L	5.0	1		11/20/12 20:09	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		11/20/12 20:09	75-69-4	
Vinyl chloride	ND	ug/L	1.0	1		11/20/12 20:09	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		11/20/12 20:09	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		11/20/12 20:09	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	100	%	85-115	1		11/20/12 20:09	460-00-4	
1,2-Dichloroethane-d4 (S)	110	%	77-119	1		11/20/12 20:09	17060-07-0	
Toluene-d8 (S)	97	%	85-115	1		11/20/12 20:09	2037-26-5	

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown
Pace Project No.: 3082101

Sample: RW-1S		Lab ID: 3082101003	Collected: 11/15/12 09:35	Received: 11/16/12 09:35	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND	ug/L	10.0	1		11/20/12 21:00	67-64-1	
Benzene	ND	ug/L	1.0	1		11/20/12 21:00	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		11/20/12 21:00	75-27-4	
Bromoform	ND	ug/L	5.0	1		11/20/12 21:00	75-25-2	
Bromomethane	ND	ug/L	5.0	1		11/20/12 21:00	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		11/20/12 21:00	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		11/20/12 21:00	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		11/20/12 21:00	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		11/20/12 21:00	108-90-7	
Chloroethane	ND	ug/L	5.0	1		11/20/12 21:00	75-00-3	
Chloroform	ND	ug/L	5.0	1		11/20/12 21:00	67-66-3	
Chloromethane	ND	ug/L	5.0	1		11/20/12 21:00	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		11/20/12 21:00	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		11/20/12 21:00	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		11/20/12 21:00	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		11/20/12 21:00	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		11/20/12 21:00	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		11/20/12 21:00	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		11/20/12 21:00	75-35-4	
cis-1,2-Dichloroethene	528	ug/L	50.0	10		11/20/12 21:26	156-59-2	
trans-1,2-Dichloroethene	7.0	ug/L	5.0	1		11/20/12 21:00	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		11/20/12 21:00	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		11/20/12 21:00	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		11/20/12 21:00	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		11/20/12 21:00	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		11/20/12 21:00	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		11/20/12 21:00	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		11/20/12 21:00	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		11/20/12 21:00	108-10-1	
Styrene	ND	ug/L	5.0	1		11/20/12 21:00	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		11/20/12 21:00	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		11/20/12 21:00	127-18-4	
Toluene	ND	ug/L	5.0	1		11/20/12 21:00	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		11/20/12 21:00	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		11/20/12 21:00	79-00-5	
Trichloroethene	216	ug/L	5.0	1		11/20/12 21:00	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		11/20/12 21:00	75-69-4	
Vinyl chloride	16.9	ug/L	1.0	1		11/20/12 21:00	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		11/20/12 21:00	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		11/20/12 21:00	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	103	%	85-115	1		11/20/12 21:00	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	77-119	1		11/20/12 21:00	17060-07-0	
Toluene-d8 (S)	99	%	85-115	1		11/20/12 21:00	2037-26-5	

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown

Pace Project No.: 3082101

Sample: RW-3S		Lab ID: 3082101004	Collected: 11/15/12 09:50	Received: 11/16/12 09:35	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND	ug/L	10.0	1		11/20/12 20:34	67-64-1	
Benzene	18.0	ug/L	1.0	1		11/20/12 20:34	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		11/20/12 20:34	75-27-4	
Bromoform	ND	ug/L	5.0	1		11/20/12 20:34	75-25-2	
Bromomethane	ND	ug/L	5.0	1		11/20/12 20:34	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		11/20/12 20:34	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		11/20/12 20:34	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		11/20/12 20:34	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		11/20/12 20:34	108-90-7	
Chloroethane	ND	ug/L	5.0	1		11/20/12 20:34	75-00-3	
Chloroform	ND	ug/L	5.0	1		11/20/12 20:34	67-66-3	
Chloromethane	ND	ug/L	5.0	1		11/20/12 20:34	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		11/20/12 20:34	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		11/20/12 20:34	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		11/20/12 20:34	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		11/20/12 20:34	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		11/20/12 20:34	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		11/20/12 20:34	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		11/20/12 20:34	75-35-4	
cis-1,2-Dichloroethene	51.2	ug/L	5.0	1		11/20/12 20:34	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		11/20/12 20:34	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		11/20/12 20:34	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		11/20/12 20:34	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		11/20/12 20:34	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		11/20/12 20:34	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		11/20/12 20:34	591-78-6	
Isopropylbenzene (Cumene)	10.4	ug/L	1.0	1		11/20/12 20:34	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		11/20/12 20:34	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		11/20/12 20:34	108-10-1	
Styrene	ND	ug/L	5.0	1		11/20/12 20:34	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		11/20/12 20:34	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		11/20/12 20:34	127-18-4	
Toluene	ND	ug/L	5.0	1		11/20/12 20:34	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		11/20/12 20:34	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		11/20/12 20:34	79-00-5	
Trichloroethene	74.8	ug/L	5.0	1		11/20/12 20:34	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		11/20/12 20:34	75-69-4	
Vinyl chloride	26.6	ug/L	1.0	1		11/20/12 20:34	75-01-4	
m&p-Xylene	7.2	ug/L	5.0	1		11/20/12 20:34	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		11/20/12 20:34	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	101	%	85-115	1		11/20/12 20:34	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	77-119	1		11/20/12 20:34	17060-07-0	
Toluene-d8 (S)	98	%	85-115	1		11/20/12 20:34	2037-26-5	

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown

Pace Project No.: 3082101

Sample: TB-01		Lab ID: 3082101005	Collected: 11/15/12 00:01	Received: 11/16/12 09:35	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND	ug/L	10.0	1		11/20/12 19:43	67-64-1	
Benzene	ND	ug/L	1.0	1		11/20/12 19:43	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		11/20/12 19:43	75-27-4	
Bromoform	ND	ug/L	5.0	1		11/20/12 19:43	75-25-2	
Bromomethane	ND	ug/L	5.0	1		11/20/12 19:43	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		11/20/12 19:43	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		11/20/12 19:43	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		11/20/12 19:43	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		11/20/12 19:43	108-90-7	
Chloroethane	ND	ug/L	5.0	1		11/20/12 19:43	75-00-3	
Chloroform	ND	ug/L	5.0	1		11/20/12 19:43	67-66-3	
Chloromethane	ND	ug/L	5.0	1		11/20/12 19:43	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		11/20/12 19:43	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		11/20/12 19:43	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		11/20/12 19:43	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		11/20/12 19:43	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		11/20/12 19:43	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		11/20/12 19:43	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		11/20/12 19:43	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		11/20/12 19:43	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		11/20/12 19:43	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		11/20/12 19:43	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		11/20/12 19:43	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		11/20/12 19:43	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		11/20/12 19:43	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		11/20/12 19:43	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		11/20/12 19:43	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		11/20/12 19:43	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		11/20/12 19:43	108-10-1	
Styrene	ND	ug/L	5.0	1		11/20/12 19:43	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		11/20/12 19:43	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		11/20/12 19:43	127-18-4	
Toluene	ND	ug/L	5.0	1		11/20/12 19:43	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		11/20/12 19:43	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		11/20/12 19:43	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		11/20/12 19:43	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		11/20/12 19:43	75-69-4	
Vinyl chloride	ND	ug/L	1.0	1		11/20/12 19:43	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		11/20/12 19:43	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		11/20/12 19:43	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	96	%	85-115	1		11/20/12 19:43	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	77-119	1		11/20/12 19:43	17060-07-0	
Toluene-d8 (S)	98	%	85-115	1		11/20/12 19:43	2037-26-5	

QUALITY CONTROL DATA

Project: Essex/Hope Jamestown

Pace Project No.: 3082101

QC Batch: MSV/14616 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 3082101001, 3082101002, 3082101003, 3082101004, 3082101005

METHOD BLANK: 514554 Matrix: Water
Associated Lab Samples: 3082101001, 3082101002, 3082101003, 3082101004, 3082101005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	5.0	11/20/12 14:36	
1,1,2,2-Tetrachloroethane	ug/L	ND	5.0	11/20/12 14:36	
1,1,2-Trichloroethane	ug/L	ND	5.0	11/20/12 14:36	
1,1-Dichloroethane	ug/L	ND	5.0	11/20/12 14:36	
1,1-Dichloroethene	ug/L	ND	5.0	11/20/12 14:36	
1,2-Dichlorobenzene	ug/L	ND	5.0	11/20/12 14:36	
1,2-Dichloroethane	ug/L	ND	5.0	11/20/12 14:36	
1,2-Dichloropropane	ug/L	ND	5.0	11/20/12 14:36	
1,3-Dichlorobenzene	ug/L	ND	5.0	11/20/12 14:36	
1,4-Dichlorobenzene	ug/L	ND	5.0	11/20/12 14:36	
2-Butanone (MEK)	ug/L	ND	10.0	11/20/12 14:36	
2-Hexanone	ug/L	ND	10.0	11/20/12 14:36	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	11/20/12 14:36	
Acetone	ug/L	ND	10.0	11/20/12 14:36	
Benzene	ug/L	ND	1.0	11/20/12 14:36	
Bromodichloromethane	ug/L	ND	5.0	11/20/12 14:36	
Bromoform	ug/L	ND	5.0	11/20/12 14:36	
Bromomethane	ug/L	ND	5.0	11/20/12 14:36	
Carbon disulfide	ug/L	ND	5.0	11/20/12 14:36	
Carbon tetrachloride	ug/L	ND	5.0	11/20/12 14:36	
Chlorobenzene	ug/L	ND	5.0	11/20/12 14:36	
Chloroethane	ug/L	ND	5.0	11/20/12 14:36	
Chloroform	ug/L	ND	5.0	11/20/12 14:36	
Chloromethane	ug/L	ND	5.0	11/20/12 14:36	
cis-1,2-Dichloroethene	ug/L	ND	5.0	11/20/12 14:36	
cis-1,3-Dichloropropene	ug/L	ND	5.0	11/20/12 14:36	
Dibromochloromethane	ug/L	ND	5.0	11/20/12 14:36	
Ethylbenzene	ug/L	ND	5.0	11/20/12 14:36	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	11/20/12 14:36	
m&p-Xylene	ug/L	ND	5.0	11/20/12 14:36	
Methylene Chloride	ug/L	ND	5.0	11/20/12 14:36	
o-Xylene	ug/L	ND	5.0	11/20/12 14:36	
Styrene	ug/L	ND	5.0	11/20/12 14:36	
Tetrachloroethene	ug/L	ND	5.0	11/20/12 14:36	
Toluene	ug/L	ND	5.0	11/20/12 14:36	
trans-1,2-Dichloroethene	ug/L	ND	5.0	11/20/12 14:36	
trans-1,3-Dichloropropene	ug/L	ND	5.0	11/20/12 14:36	
Trichloroethene	ug/L	ND	5.0	11/20/12 14:36	
Trichlorofluoromethane	ug/L	ND	5.0	11/20/12 14:36	
Vinyl chloride	ug/L	ND	1.0	11/20/12 14:36	
1,2-Dichloroethane-d4 (S)	%	110	77-119	11/20/12 14:36	
4-Bromofluorobenzene (S)	%	103	85-115	11/20/12 14:36	
Toluene-d8 (S)	%	97	85-115	11/20/12 14:36	

Date: 11/27/2012 04:24 PM

REPORT OF LABORATORY ANALYSIS

Page 8 of 12

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QUALITY CONTROL DATA

Project: Essex/Hope Jamestown

Pace Project No.: 3082101

LABORATORY CONTROL SAMPLE: 514555

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	19.7	98	62-125	
1,1,2,2-Tetrachloroethane	ug/L	20	16.6	83	61-117	
1,1,2-Trichloroethane	ug/L	20	18.3	91	72-119	
1,1-Dichloroethane	ug/L	20	17.9	89	63-123	
1,1-Dichloroethene	ug/L	20	18.3	92	57-127	
1,2-Dichlorobenzene	ug/L	20	18.1	91	70-116	
1,2-Dichloroethane	ug/L	20	19.8	99	62-125	
1,2-Dichloropropane	ug/L	20	16.6	83	69-115	
1,3-Dichlorobenzene	ug/L	20	18.2	91	71-118	
1,4-Dichlorobenzene	ug/L	20	18.2	91	67-119	
2-Butanone (MEK)	ug/L	20	10.1	51	48-136	
2-Hexanone	ug/L	20	15.3	77	52-130	
4-Methyl-2-pentanone (MIBK)	ug/L	20	15.1	76	57-124	
Acetone	ug/L	20	14.2	71	49-138	
Benzene	ug/L	20	17.8	89	66-122	
Bromodichloromethane	ug/L	20	17.3	87	63-118	
Bromoform	ug/L	20	18.0	90	46-130	
Bromomethane	ug/L	20	11.8	59	10-175	
Carbon disulfide	ug/L	20	21.5	107	59-142	
Carbon tetrachloride	ug/L	20	18.7	93	55-126	
Chlorobenzene	ug/L	20	17.8	89	70-121	
Chloroethane	ug/L	20	22.2	111	24-161	
Chloroform	ug/L	20	18.9	95	62-126	
Chloromethane	ug/L	20	12.4	62	37-147	
cis-1,2-Dichloroethene	ug/L	20	17.9	90	64-121	
cis-1,3-Dichloropropene	ug/L	20	17.9	89	64-118	
Dibromochloromethane	ug/L	20	17.4	87	60-120	
Ethylbenzene	ug/L	20	18.0	90	69-119	
Isopropylbenzene (Cumene)	ug/L	20	19.7	98	68-126	
m&p-Xylene	ug/L	40	37.0	93	70-124	
Methylene Chloride	ug/L	20	18.0	90	59-128	
o-Xylene	ug/L	20	18.4	92	67-123	
Styrene	ug/L	20	18.7	94	67-146	
Tetrachloroethene	ug/L	20	18.3	91	62-125	
Toluene	ug/L	20	17.7	89	72-115	
trans-1,2-Dichloroethene	ug/L	20	17.4	87	59-122	
trans-1,3-Dichloropropene	ug/L	20	18.5	93	64-120	
Trichloroethene	ug/L	20	17.3	86	62-125	
Trichlorofluoromethane	ug/L	20	20.4	102	54-158	
Vinyl chloride	ug/L	20	17.1	86	52-145	
1,2-Dichloroethane-d4 (S)	%			111	77-119	
4-Bromofluorobenzene (S)	%			100	85-115	
Toluene-d8 (S)	%			99	85-115	

QUALITY CONTROL DATA

Project: Essex/Hope Jamestown

Pace Project No.: 3082101

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 514556 514557											
Parameter	Units	3082061003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	20	20	19.2	21.3	96	107	62-125	10	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	15.7	17.2	79	86	61-117	9	
1,1,2-Trichloroethane	ug/L	ND	20	20	16.9	17.8	84	89	72-119	5	
1,1-Dichloroethane	ug/L	ND	20	20	17.2	18.8	86	94	63-123	9	
1,1-Dichloroethene	ug/L	ND	20	20	18.5	20.2	92	101	57-127	9	
1,2-Dichlorobenzene	ug/L	ND	20	20	17.1	18.4	85	92	70-116	8	
1,2-Dichloroethane	ug/L	ND	20	20	18.9	21.2	94	106	62-125	11	
1,2-Dichloropropane	ug/L	ND	20	20	15.9	17.1	80	85	69-115	7	
1,3-Dichlorobenzene	ug/L	ND	20	20	16.8	18.5	84	93	71-118	10	
1,4-Dichlorobenzene	ug/L	ND	20	20	17.1	18.2	86	91	67-119	6	
2-Butanone (MEK)	ug/L	ND	20	20	12.0	12.7	60	64	48-136	6	
2-Hexanone	ug/L	ND	20	20	15.3	17.0	76	85	52-130	11	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	20	20	16.9	17.5	84	88	57-124	4	
Acetone	ug/L	ND	20	20	15.7	17.4	76	85	49-138	10	
Benzene	ug/L	ND	20	20	17.1	17.9	86	89	66-122	5	
Bromodichloromethane	ug/L	ND	20	20	16.0	17.3	80	87	63-118	8	
Bromoform	ug/L	ND	20	20	17.0	17.9	85	90	46-130	5	
Bromomethane	ug/L	ND	20	20	8.2	5.2	41	26	10-175	45	M0
Carbon disulfide	ug/L	ND	20	20	24.0	23.8	120	119	59-142	1	
Carbon tetrachloride	ug/L	ND	20	20	18.3	19.3	92	96	55-126	5	
Chlorobenzene	ug/L	ND	20	20	16.8	17.7	84	89	70-121	5	
Chloroethane	ug/L	ND	20	20	26.1	24.8	131	124	24-161	5	
Chloroform	ug/L	ND	20	20	17.7	19.7	89	99	62-126	11	
Chloromethane	ug/L	ND	20	20	13.2	11.9	66	59	37-147	10	
cis-1,2-Dichloroethene	ug/L	ND	20	20	17.9	19.2	90	96	64-121	7	
cis-1,3-Dichloropropene	ug/L	ND	20	20	16.7	17.1	83	86	64-118	3	
Dibromochloromethane	ug/L	ND	20	20	15.2	16.8	76	84	60-120	10	
Ethylbenzene	ug/L	ND	20	20	17.1	18.3	85	91	69-119	7	
Isopropylbenzene (Cumene)	ug/L	ND	20	20	19.5	20.9	97	105	68-126	7	
m&p-Xylene	ug/L		40	40	35.5	37.5	89	94	70-124	5	
Methylene Chloride	ug/L	ND	20	20	17.3	18.5	86	93	59-128	7	
o-Xylene	ug/L		20	20	17.5	18.5	88	93	67-123	6	
Styrene	ug/L	ND	20	20	17.0	18.5	85	92	67-146	9	
Tetrachloroethene	ug/L	ND	20	20	18.5	19.7	93	99	62-125	6	
Toluene	ug/L	ND	20	20	17.0	18.2	85	91	72-115	7	
trans-1,2-Dichloroethene	ug/L	ND	20	20	17.3	18.6	86	93	59-122	7	
trans-1,3-Dichloropropene	ug/L	ND	20	20	16.8	18.3	84	91	64-120	8	
Trichloroethene	ug/L	ND	20	20	16.8	18.1	84	91	62-125	8	
Trichlorofluoromethane	ug/L	ND	20	20	24.1	24.1	121	121	54-158	.01	
Vinyl chloride	ug/L	ND	20	20	20.6	18.3	103	91	52-145	12	
1,2-Dichloroethane-d4 (S)	%						108	110	77-119		
4-Bromofluorobenzene (S)	%						101	101	85-115		
Toluene-d8 (S)	%						97	95	85-115		

QUALIFIERS

Project: Essex/Hope Jamestown

Pace Project No.: 3082101

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

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.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

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.

ANALYTE QUALIFIERS

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Essex/Hope Jamestown

Pace Project No.: 3082101

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
3082101001	RW-2D	EPA 8260	MSV/14616		
3082101002	RW-2S	EPA 8260	MSV/14616		
3082101003	RW-1S	EPA 8260	MSV/14616		
3082101004	RW-3S	EPA 8260	MSV/14616		
3082101005	TB-01	EPA 8260	MSV/14616		

CHAIN-OF-CUSTODY / Analytical Request Document

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



Section A

Required Client Information:

Company: **URS CORP**
 Address: **POSTER PLAZA 6**
681 ANDERSON DR. STE. 400
PITTSBURGH, PA 15220
 Email To: _____
 Phone: **412-503-4700**
 Fax: **412-503-4701**
 Requested Due Date/TAT: **STANDARD**

Section B

Required Project Information:

Report To: **MARK DOWIAK**
 Copy To: **VALERIE SIBETO**
 Purchase Order No.: **41569181**
 Project Name: **ESSEX/HOPE DAMESTOWN**
 Project Number: **41569181.1000**

Section C

Invoice Information:

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

Page: **1**

of **1**

1614427

REGULATORY AGENCY

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

Site Location

STATE: **NY**

Pace Project No./ Lab I.D.

3082101

Requested Analysis Filtered (Y/N)

ITEM #	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 WIP Air AR Tissue TS Other OT	COLLECTED				SAMPLE TYPE (G=GRAB C=COMP) (see valid codes to left)	MATRIX CODE	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives								Analysis Test ↑ Y/N ↑	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
			COMPOSITE START	COMPOSITE END/GRAB	DATE	TIME					Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
1	RW-2D				11.15.12	0900				3																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											</

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION		DATE		TIME		ACCEPTED BY / AFFILIATION		DATE		TIME		SAMPLE CONDITIONS	
SEMI-ANNUAL RW SAMPLING	Valerie Sibeto / URS		11.15.12		1030		Fred Ex. Dir.		11.15.12		1030			
4th QTR 2012 - NOTE: RW-4D							Valerie Sibeto		11-16-12		0935		2.4	
SAMPLED AS PART OF													Y	
POST LSA MAINTENANCE													N	

SAMPLER NAME AND SIGNATURE
 PRINT Name of SAMPLER: **VALERIE SIBETO**
 SIGNATURE of SAMPLER: *Valerie Sibeto*
 DATE Signed (MM/DD/YY): **11.15.12**

ORIGINAL



Sample Condition Upon Receipt

Client Name: URS CORP

Project # 3062101

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

Tracking #: 8739 8101 9519

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

Packing Material: ☒ Bubble Wrap ☐ Bubble Bags ☐ None ☒ Other Ziploc

Thermometer Used 5 6 ⑦

Type of Ice: Wet Blue None ☒ Samples on ice, cooling process has begun

Cooler Temperature 2.4

Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Comments:

Date and Initials of person examining contents: THW 11-16-12

Chain of Custody Present:	☒ Yes ☐ No ☐ N/A	1.
Chain of Custody Filled Out:	☒ Yes ☐ No ☐ N/A	2.
Chain of Custody Relinquished:	☒ Yes ☐ No ☐ N/A	3.
Sampler Name & Signature on COC:	☒ Yes ☐ No ☐ N/A	4.
Samples Arrived within Hold Time:	☒ Yes ☐ No ☐ N/A	5.
Short Hold Time Analysis (<72hr):	☐ Yes ☒ No ☐ N/A	6.
Rush Turn Around Time Requested:	☐ Yes ☒ No ☐ N/A	7.
Sufficient Volume:	☒ Yes ☐ No ☐ N/A	8.
Correct Containers Used:	☒ Yes ☐ No ☐ N/A	9.
-Pace Containers Used:	☒ Yes ☐ No ☐ N/A	
Containers Intact:	☒ Yes ☐ No ☐ N/A	10.
Filtered volume received for Dissolved tests	☐ Yes ☐ No ☒ N/A	11.
Sample Labels match COC:	☒ Yes ☐ No ☐ N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>WTA THW 11-16-12</u>		
All containers needing preservation have been checked.	☐ Yes ☐ No ☒ N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐ Yes ☐ No ☒ N/A	
exceptions: <u>VOA</u> , coliform, TOC, O&G, WI-DRO (water)	☒ Yes ☐ No	Initial when completed <u>THW</u> Lot # of added preservative
Samples checked for dechlorination:	☐ Yes ☐ No ☒ N/A	14.
Headspace in VOA Vials (>6mm):	☐ Yes ☒ No ☐ N/A	15.
Trip Blank Present:	☒ Yes ☐ No ☐ N/A	16.
Trip Blank Custody Seals Present	☒ Yes ☐ No ☐ N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____

Date: 11/19/12

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Project Number: 3082101

Client Name: JKS Corp

[illegible]

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown 41569123

Pace Project No.: 3081968

Sample: RW-6D		Lab ID: 3081968007	Collected: 11/14/12 15:00	Received: 11/15/12 09:25	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP		Analytical Method: EPA 6010B Preparation Method: EPA 3005						
Iron	7400	ug/L	70.0	1	12/04/12 09:28	12/04/12 14:44	7439-89-6	B
8270 MSSV Semivolatile Organic		Analytical Method: EPA 8270 Preparation Method: EPA 3510						
Acenaphthene	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	83-32-9	N2
Acenaphthylene	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	208-96-8	
Anthracene	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	120-12-7	
Azobenzene	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	103-33-3	
Benzo(a)anthracene	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	56-55-3	
Benzo(a)pyrene	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	205-99-2	
Benzo(g,h,i)perylene	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	191-24-2	
Benzo(k)fluoranthene	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	207-08-9	
Benzoic acid	ND	ug/L	104	1	11/19/12 09:00	11/20/12 20:45	65-85-0	
Benzyl alcohol	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	100-51-6	
4-Bromophenylphenyl ether	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	101-55-3	
Butylbenzylphthalate	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	85-68-7	
Carbazole	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	86-74-8	
4-Chloro-3-methylphenol	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	59-50-7	
4-Chloroaniline	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	108-60-1	
2-Chloronaphthalene	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	91-58-7	
2-Chlorophenol	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	7005-72-3	
Chrysene	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	53-70-3	
Dibenzofuran	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	132-64-9	
1,2-Dichlorobenzene	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	91-94-1	
2,4-Dichlorophenol	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	120-83-2	
Diethylphthalate	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	84-66-2	
2,4-Dimethylphenol	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	105-67-9	
Dimethylphthalate	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	131-11-3	
Di-n-butylphthalate	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/L	2.6	1	11/19/12 09:00	11/20/12 20:45	534-52-1	
2,4-Dinitrophenol	ND	ug/L	2.6	1	11/19/12 09:00	11/20/12 20:45	51-28-5	
2,4-Dinitrotoluene	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	121-14-2	
2,6-Dinitrotoluene	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	606-20-2	
Di-n-octylphthalate	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	117-81-7	
Fluoranthene	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	206-44-0	
Fluorene	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	87-68-3	
Hexachlorobenzene	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	118-74-1	

Date: 12/05/2012 03:54 PM

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Essex/Hope Jamestown 41569123

Pace Project No.: 3081968

Sample: RW-6D		Lab ID: 3081968007	Collected: 11/14/12 15:00	Received: 11/15/12 09:25	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Semivolatile Organic		Analytical Method: EPA 8270 Preparation Method: EPA 3510						
Hexachlorocyclopentadiene	ND ug/L		1.0	1	11/19/12 09:00	11/20/12 20:45	77-47-4	
Hexachloroethane	ND ug/L		1.0	1	11/19/12 09:00	11/20/12 20:45	67-72-1	
Indeno(1,2,3-cd)pyrene	ND ug/L		1.0	1	11/19/12 09:00	11/20/12 20:45	193-39-5	
Isophorone	ND ug/L		1.0	1	11/19/12 09:00	11/20/12 20:45	78-59-1	
1-Methylnaphthalene	ND ug/L		1.0	1	11/19/12 09:00	11/20/12 20:45	90-12-0	N2
2-Methylnaphthalene	ND ug/L		1.0	1	11/19/12 09:00	11/20/12 20:45	91-57-6	
2-Methylphenol(o-Cresol)	ND ug/L		1.0	1	11/19/12 09:00	11/20/12 20:45	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND ug/L		2.1	1	11/19/12 09:00	11/20/12 20:45		
Naphthalene	ND ug/L		1.0	1	11/19/12 09:00	11/20/12 20:45	91-20-3	
2-Nitroaniline	ND ug/L		2.6	1	11/19/12 09:00	11/20/12 20:45	88-74-4	
3-Nitroaniline	ND ug/L		2.6	1	11/19/12 09:00	11/20/12 20:45	99-09-2	
4-Nitroaniline	ND ug/L		2.6	1	11/19/12 09:00	11/20/12 20:45	100-01-6	
Nitrobenzene	ND ug/L		1.0	1	11/19/12 09:00	11/20/12 20:45	98-95-3	
2-Nitrophenol	ND ug/L		1.0	1	11/19/12 09:00	11/20/12 20:45	88-75-5	
4-Nitrophenol	ND ug/L		1.0	1	11/19/12 09:00	11/20/12 20:45	100-02-7	
N-Nitrosodimethylamine	ND ug/L		1.0	1	11/19/12 09:00	11/20/12 20:45	62-75-9	
N-Nitroso-di-n-propylamine	ND ug/L		1.0	1	11/19/12 09:00	11/20/12 20:45	621-64-7	
N-Nitrosodiphenylamine	ND ug/L		1.0	1	11/19/12 09:00	11/20/12 20:45	86-30-6	
Pentachlorophenol	ND ug/L		2.6	1	11/19/12 09:00	11/20/12 20:45	87-86-5	
Phenanthrene	ND ug/L		1.0	1	11/19/12 09:00	11/20/12 20:45	85-01-8	
Phenol	ND ug/L		1.0	1	11/19/12 09:00	11/20/12 20:45	108-95-2	
Pyrene	ND ug/L		1.0	1	11/19/12 09:00	11/20/12 20:45	129-00-0	
1,2,4-Trichlorobenzene	ND ug/L		1.0	1	11/19/12 09:00	11/20/12 20:45	120-82-1	
2,4,5-Trichlorophenol	ND ug/L		2.6	1	11/19/12 09:00	11/20/12 20:45	95-95-4	
2,4,6-Trichlorophenol	ND ug/L		1.0	1	11/19/12 09:00	11/20/12 20:45	88-06-2	
Surrogates								
Nitrobenzene-d5 (S)	63 %		35-114	1	11/19/12 09:00	11/20/12 20:45	4165-60-0	
2-Fluorobiphenyl (S)	67 %		43-116	1	11/19/12 09:00	11/20/12 20:45	321-60-8	
Terphenyl-d14 (S)	115 %		33-141	1	11/19/12 09:00	11/20/12 20:45	1718-51-0	
Phenol-d6 (S)	24 %		10-110	1	11/19/12 09:00	11/20/12 20:45	13127-88-3	
2-Fluorophenol (S)	40 %		21-110	1	11/19/12 09:00	11/20/12 20:45	367-12-4	
2,4,6-Tribromophenol (S)	82 %		10-123	1	11/19/12 09:00	11/20/12 20:45	118-79-6	
8260 MSV		Analytical Method: EPA 8260						
Acetone	89600 ug/L		10000	1000		11/27/12 14:41	67-64-1	
Benzene	75.4 ug/L		1.0	1		11/22/12 07:43	71-43-2	
Bromodichloromethane	ND ug/L		5.0	1		11/22/12 07:43	75-27-4	
Bromoform	ND ug/L		5.0	1		11/22/12 07:43	75-25-2	
Bromomethane	ND ug/L		5.0	1		11/22/12 07:43	74-83-9	
2-Butanone (MEK)	351 ug/L		10.0	1		11/22/12 07:43	78-93-3	
Carbon disulfide	ND ug/L		5.0	1		11/22/12 07:43	75-15-0	
Carbon tetrachloride	ND ug/L		5.0	1		11/22/12 07:43	56-23-5	
Chlorobenzene	ND ug/L		5.0	1		11/22/12 07:43	108-90-7	
Chloroethane	ND ug/L		5.0	1		11/22/12 07:43	75-00-3	
Chloroform	ND ug/L		5.0	1		11/22/12 07:43	67-66-3	
Chloromethane	ND ug/L		5.0	1		11/22/12 07:43	74-87-3	
Dibromochloromethane	ND ug/L		5.0	1		11/22/12 07:43	124-48-1	

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ANALYTICAL RESULTS

Project: Essex/Hope Jamestown 41569123

Pace Project No.: 3081968

Sample: RW-6D		Lab ID: 3081968007	Collected: 11/14/12 15:00	Received: 11/15/12 09:25	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
1,2-Dichlorobenzene	ND	ug/L	5.0	1		11/22/12 07:43	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		11/22/12 07:43	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		11/22/12 07:43	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		11/22/12 07:43	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		11/22/12 07:43	107-06-2	
1,1-Dichloroethene	76.9	ug/L	5.0	1		11/22/12 07:43	75-35-4	
cis-1,2-Dichloroethene	17300	ug/L	500	100		11/26/12 17:08	156-59-2	
trans-1,2-Dichloroethene	648	ug/L	5.0	1		11/22/12 07:43	156-60-5	1c,E
1,2-Dichloropropane	ND	ug/L	5.0	1		11/22/12 07:43	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		11/22/12 07:43	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		11/22/12 07:43	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		11/22/12 07:43	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		11/22/12 07:43	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		11/22/12 07:43	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		11/22/12 07:43	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		11/22/12 07:43	108-10-1	
Styrene	ND	ug/L	5.0	1		11/22/12 07:43	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		11/22/12 07:43	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		11/22/12 07:43	127-18-4	
Toluene	ND	ug/L	5.0	1		11/22/12 07:43	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		11/22/12 07:43	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		11/22/12 07:43	79-00-5	
Trichloroethene	12700	ug/L	500	100		11/26/12 17:08	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		11/22/12 07:43	75-69-4	
Vinyl chloride	2270	ug/L	100	100		11/26/12 17:08	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		11/22/12 07:43	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		11/22/12 07:43	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	100	%	85-115	1		11/22/12 07:43	460-00-4	
1,2-Dichloroethane-d4 (S)	91	%	77-119	1		11/22/12 07:43	17060-07-0	
Toluene-d8 (S)	86	%	85-115	1		11/22/12 07:43	2037-26-5	
2320B Alkalinity		Analytical Method: SM 2320B						
Alkalinity, Total as CaCO3	420	mg/L	10.0	1		11/16/12 14:18		
Iron, Ferric (Calculation)		Analytical Method: SM 3500-Fe D#4						
Iron, Ferric	4.7	mg/L	0.10	1		12/05/12 08:36	7439-89-6	N2
Iron, Ferrous		Analytical Method: SM 3500-Fe D#4						
Iron, Ferrous	2.7	mg/L	1.0	10		11/15/12 16:07		H6
4500S2F Sulfide, Iodometric		Analytical Method: SM 4500-S F (2000)						
Sulfide	ND	mg/L	1.0	1		11/19/12 23:46	18496-25-8	
ASTM D516-9002 Sulfate Water		Analytical Method: ASTM D516-90,02						
Sulfate	450	mg/L	100	10		11/28/12 12:29	14808-79-8	

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April 24, 2013

Mr. Maurice Moore
Division of Hazardous Waste Management
New York State Department of Environmental Protection
270 Michigan Avenue
Buffalo, NY 14203-2999

**Subject: 2012 Annual Performance Monitoring Report
Essex/Hope Site
Jamestown, New York
URS Project No. 41569501**

Dear Mr. Moore:

Enclosed please find the 2012 Annual Performance Monitoring Report for the above referenced project. Should you have any questions or desire additional information, please contact me at (412) 503-4670 or Mark Dowiak at (412) 503-4672.

Sincerely,

A handwritten signature in black ink, reading "Valerie Sibeto".

URS

Valerie Sibeto
Site O&M Manager
URS Dow Business Unit
(412) 503-4670

Enclosure

cc: Tim King – Dow Chemical Corporation
Matt Forcucci – NY State Dept. of Health
Carlo J. Montisano – Custom Production MFG., Inc.
Mark Dowiak, P.E. - URS Corporation

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**2012 Annual
Performance
Monitoring Report
Essex/Hope Site
Jamestown, New York**

March 2013 - Final

***Prepared for:
Essex Specialty Products, Inc.
Auburn Hills, Michigan***

URS Project No. 41569501

2012 ANNUAL PERFORMANCE MONITORING REPORT

**Essex/Hope Site
Jamestown, New York**

Prepared for:
Essex Specialty Products, Inc.
Auburn Hills, Michigan

Prepared by:

Foster Plaza 4
501 Holiday Drive, Suite 300
Pittsburgh, PA 15220

URS Project No. 41569501

March 2013

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1.0 Introduction

On behalf of Essex Specialty Products, Inc. (ESP), URS has prepared this Annual Performance Monitoring Report for the remedial action at the Essex/Hope Site in Jamestown, New York (NO.9-07-015). This report is required by the 1995 NYSDEC Order on Consent and as outlined in the Performance Monitoring Plan (PMP) originally prepared by Radian International in June 1997, and most recently revised by URS Corp. in February, 2011. This report summarizes the operations and performance monitoring of the site remedial systems for the calendar year of 2012. A site location map is provided as Figure 1.

Section 2.0 of the report summarizes groundwater flow conditions under pumping influence, Section 3.0 summarizes groundwater quality, and Section 4.0 discusses future plans.

1.1 Remedial Systems Overview

There are three separate areas that are the focus of remedial action and include the North Parking Lot (NPL) Area, the former Underground Storage Tanks (UST) Area, and the former Aboveground Storage Tank/Underground Storage Tank (AST/UST) Area. These areas and the site monitoring points are illustrated on Figure 2.

The remedial systems at the Essex/Hope Site were designed and constructed to address impacted groundwater and soils by a combination of soil vapor extraction, air sparging, and a groundwater extraction and treatment. The original remedial action design and implementation was based upon the March 1994 Record of Decision (ROD) issued by the New York State Department of Environmental Conservation (NYSDEC) and included:

- A groundwater remediation system consisting of an extraction well network of five (5) shallow and two (2) deep recovery wells and activated carbon pre-treatment with onsite discharge to the local POTW;
- Soil remediation in the AST/UST and UST Areas by soil vapor extraction (SVE) for volatile organic constituents occurring above the shallow water table.
- Soil excavation in the NPL Area, conducted in September and October of 1996, to remove impacted soils in the former sump and surrounding areas.
- Air sparging in the shallow water-bearing zone of the NPL, UST and AST/UST Areas to supplement the treatment of impacted groundwater via enhanced biodegradation and volatilization of organic constituents. A soil vapor extraction system was added to the NPL Area to collect volatile organic constituents (VOCs) volatilized from the shallow groundwater in this area.
- The remedial areas were capped with either asphalt or concrete to enhance surface water runoff and minimize infiltration.

- A network of monitoring wells across the site (as designated in the Performance Monitoring Plan) is used to measure the effectiveness of the groundwater remedial activities.

1.2 Supplemental Remedial Activities

Voluntary supplemental remedial activities were initiated in 2000, with the approval of the NYSDEC, to refine the understanding of the extent of site related subsurface constituents and to evaluate potential remedial alternatives to enhance remedial effectiveness at the site. Evaluation of those studies continued during 2001 and 2002, and measures to remove residual VOCs in the UST Area were implemented between 2001 and 2003. The results of the additional studies and UST Area work are reported under separate cover. A summary of the additional activities performed at the Site after the initial remedial actions is as follows:

- A pilot scale zero-valent iron permeable reactive barrier (PRB) was injected around recovery well RW-2D and within the lower semi-confined water-bearing zone beneath Building 5 in July 2000. The pilot PRB is designed to evaluate the effectiveness of this technology to reduce and control the migration of dissolved VOC constituents from the site. As part of this evaluation, additional groundwater piezometers were installed in the upper unconfined water-bearing zone and lower semi-confined water-bearing zone for performance monitoring of the pilot PRB. Collection of pilot test data was completed in July 2001, and further evaluation based upon site performance monitoring data was completed in December 2002. Data concerning this pilot test was submitted to the NYSDEC as the Interim Results, PRB Pilot Results for First Four Sample Rounds (URS, February 2001). A final pilot test report detailing results through December 2002 was submitted to NYSDEC in July 2003.
- The former underground storage tanks (USTs) in the UST Area were uncovered in August 2000 and evaluated as a potential ongoing source of VOCs in this area. Additional test borings and groundwater piezometers were installed within the upper shallow semi-confined water-bearing zones in this area to evaluate groundwater and soil chemical conditions, and to refine groundwater flow direction and constituent migration. Results of these activities were reported in the Plant #5 East Area and UST Area Investigations Report (URS, March 2001).
- As part of the UST Area investigation, the area east of Building 5 was evaluated at the request of the NYSDEC to determine the source of vinyl chloride within the lower semi-confined water-bearing zone at Monitoring Well MW-19D, located on the Site's eastern property line. A network of test borings and deep piezometers were installed within the UST Area and on the offsite property to the east for evaluation of chemical conditions within the soil and groundwater. Results of these activities were reported in the Plant #5 East Area and UST Area Investigations Report (URS, March 2001).
- The former USTs (Tanks 1 through 4) in the UST Area were uncovered during 2001 and cleaned-out to remove residual liquids from the tanks. Openings were cut in each tank and the fluid contents removed, and each tank was rinsed with potable water. Following rinsing, the tanks were treated using the Biox[®] Process to remove residual organic constituents in the tanks by chemical oxidation and biodegradation. Results of the tank

cleaning were submitted to the NYSDEC in the Tank Closure Work Plan (URS, September 2001).

- Based upon the results of the Biox solution treatment of the USTs, where VOCs were not reduced below the “clean closure” standard of 5 µg/L within Tanks T-1, T-3 and T-4 as required by the NYSDEC, a UST removal program was initiated by Essex Specialty Products. All five (5) of the former USTs in the UST Area, and over 1000 tons of soil were removed between the period of November 2002 and January 2003. Results of this activity have been submitted to the NYSDEC in the UST Removal Interim Report (URS, February 2003).
- A site investigation was completed in October 2003 to further define conditions in the UST Area and the vinyl chloride groundwater plume on the east side of the former Plant No. 5 building. This investigation was completed to provide data to address potential additional measures for the site cleanup. These potential measures focus on insitu methods especially those that are able to treat both the UST Area contaminants (toluene, ethylbenzene, xylenes) and the vinyl chloride plume. Results of the investigation are reported under separate cover. The new monitoring wells installed as part of these investigations, MW's: 21D, 22D, 23S, 23D and 24S, are shown on Figure 2. Of these wells, MW-21D and MW-22D were added to the Performance Monitoring Plan (PMP) as directed by the NYSDEC. The results of this investigation have been submitted to the NYSDEC in the UST Area and Groundwater Vinyl Chloride Investigations Report (URS, June 2004).
- Supplemental site investigations were performed from November, 2005 through June, 2006 for the UST Area and the offsite groundwater zones. The objectives of the investigations were as follows:
 - *Determine the extent of the residual VOC contamination in the UST Area shallow soils and groundwater.* The most recent investigations (2003) found VOCs in shallow groundwater approximately 30 feet south of the former USTs. Additional investigations were necessary to further delineate the extent of the VOCs to the south and east, and offsite, if necessary.
 - *Determine the extent of the VOC contamination in shallow groundwater in the vicinity of Monitoring Well 14S.* Performance monitoring has indicated that shallow groundwater VOCs have persisted at elevated levels (> 1ppm) in monitoring well 14S, north of the NPL Area and offsite, north of Hopkins Avenue. Previous investigations (June, 2004 report) indicated that MW-14S had a TCE level of 2700 ppb, which was the highest TCE detected in the shallow water-bearing zone. This TCE level was one to two orders of magnitude higher than the TCE levels in shallow zone recovery wells, RW-1S and RW-2S, respectively. Additional investigations were needed in the area around MW-14S to determine the extent of the elevated TCE, and the potential for offsite sources of VOCs.
 - *Determine the extent of the VOCs in deep groundwater in the offsite area northeast and east of CPM Plant No. 5.* The latest offsite groundwater investigations (2003) found VOCs in deep groundwater to the northeast (MW-22D) of the site, approximately 50 ft beyond the property boundary. This area is in the downgradient groundwater direction (under non-pumping conditions), and the VOCs are expected to be residual

contamination from migration of the historic plume. Additional investigations were necessary to determine the extent of the offsite deep groundwater VOC plume. The investigations included discrete sampling of the shallow and deep groundwater zones using the direct-push drilling equipment and residential vapor sampling by shallow probes installed near occupied buildings above the shallow VOC plume locations. The results of these investigations were summarized in a separate report submitted to NYDEC in December 2006.

- *Phase I of the Supplemental Remedial Actions* was initiated in November of 2007. These included a new recovery well, RW-6D and monitoring wells, MW-25S and MW-25D to the north of the site along Hopkins Avenue. Residential vapor sampling was also performed at 159 Hopkins Avenue.
- Recovery Well RW-6D installation was completed in the second half of 2008 and placed on-line in September 2008. *Phase II Supplemental Remedial Activities* commenced in November 2008 with the installation of a residential vapor mitigation system at 159 Hopkins Avenue.
- VOCs in the UST Area shallow groundwater and other offsite shallow and deep groundwater zones are currently being evaluated for insitu treatment technologies. A chemical oxidation treatability study was completed for UST Area soils and groundwater in 2010.
- A Remedial Action Work Plan for insitu chemical oxidation (ISCO) of the UST Area was submitted in August 2011 and continued Phase II remedial actions commenced in the fourth quarter of 2011. Four (4) shallow monitoring wells (MW-26S, MW-27S, MW-28S, and MW-29S) were installed in the UST Area to better evaluate the extent of VOCs in the area and for monitoring of the subsequent ISCO results.
- ISCO was conducted in November 2011 to treat the shallow groundwater in the UST Area. The area surrounding RW-6D was also treated at this time to address the acetone plume in the deep groundwater zone. Performance monitoring of groundwater and soils was initiated in December 2011 and continued through 2012. Results of these activities were summarized in a separate report submitted to NYSDEC in the fourth quarter of 2012.

1.3 Major System Modifications

Major modifications to the original remedial systems configuration since startup in 1997 have included the following:

- Groundwater extraction from Recovery Well RW-1D, screened across the deep water-bearing zone in the NPL Area, was discontinued in June 1999 with the approval of the NYSDEC. As reported in the 1999 Annual Performance Monitoring Report (Radian International, April 1999), a pumping evaluation completed in the first half of 1999 revealed that vertical leakage was occurring from the shallow water-bearing zone to the deep water-bearing zone due to pumping from the deep zone. Based upon this information, and the fact that the majority of the groundwater constituents are recovered

from RW-2D, NYSDEC recommended that RW-1D be shut down as documented in the June 17, 1999 correspondence from the NYSDEC to Radian International.

- The air sparging system in the NPL Area was shut down in July 2000, with the approval of the NYSDEC, to prevent the oxidation of the newly installed Pilot Permeable Reactive Barrier (PRB) and zero-valent iron injections in that area. The soil vapor extraction system has continued to be operated in this area as needed to collect potential gases produced by subsurface reactions associated with the Pilot PRB and zero-valent iron injections in that area.
- Air sparging in the UST Area was discontinued in October 2000 after mechanical failure of the air sparge pump. Since the combined soil vapor extraction/air sparging system had reached its practical remedial effectiveness, Essex Specialty Products initiated activities to evaluate conditions in this area in 2000 and implement supplemental remedial activities to replace the original system, with the approval of the NYSDEC. These supplemental remedial activities include the *insitu* cleaning of the former USTs completed in December 2001 and February 2003, and the UST removals completed between November 2002 and January 2003.
- The soil vapor extraction system and groundwater recovery system (Recovery Wells RW-4S and RW-5S) in the UST Area were shut down in November 2002 for the UST removal activities. Excavation work resulted in complete removal of the electrical system for the UST Area, Recovery Well RW-4S, and underground piping to the soil vapor extraction/air sparging wells and existing Recovery Well RW-5S. These systems are currently shut down. There are no plans at this time to redesign or reconstruct the UST Area remediation system.
- The AST/UST Area system was shut down since August of 2006 and remains offline pending supplemental remedial action in the AST/UST and UST areas and eventual permanent disconnection. The SVE System in the NPL Area was operated on a voluntary basis as an additional safeguard against potential vapor release. However, the system was shut down in November 2007 following review of air stream sample analyses that indicated this area poses no potential hazard associated with vapor release.
- System modifications were implemented as a result of the findings of the 2005-2006 UST Area and Offsite Groundwater Investigations. One new recovery well (RW-6D) was installed in November 2007 in the deep groundwater zone VOC plume offsite to the north. RW-6D was placed on-line in September, 2008. RW-6D was temporarily shut down in August 2011 due to elevated levels of acetone in excess of permit limits in the treatment system effluent. Due to the difficulty of acetone treatment by carbon, normal operations of the recovery well have been postponed until post-ISCO monitoring results illustrate decreased concentrations of the compound. RW-6D remained offline for most of the 1st half of 2012 while continued efforts were made to address the acetone hotspot. URS' research determined that acetone is not included on the USEPA list of Total Toxic Organics (TTOs) and therefore, not considered a compound of interest. On June 6, 2012, a letter of notification was sent to the City of Jamestown Board of Public Utilities (BPU) advising that acetone would no longer be reported as a TTO. RW-6D was subsequently restarted on June 11, 2012.

1.4 Performance Criteria

The performance criteria to evaluate remediation effectiveness are the Remedial Action Objectives (RAOs) included as Appendix A in the March 1994 Record of Decision (ROD) for the site. Table 1 summarizes the RAOs for the site. Performance monitoring completed during the 2012 calendar year consisted of monthly groundwater pre-treatment system influent and effluent analysis, semi-annual recovery well groundwater analysis, and annual groundwater sampling of the monitoring wells selected as performance monitoring points. No performance monitoring soil sampling was completed during 2012. Soil sampling and additional groundwater monitoring of treatment areas was conducted as part of the UST Area ISCO activities.

2.0 Groundwater Flow Evaluation

This section presents a summary of the 2012 groundwater flow conditions based on quarterly measurements as well as an annual evaluation of the extraction system. The annual evaluation reviews each extraction well's pumping rates, the amount of pore volume exchanged in each remedial area and groundwater flow conditions over the course of the extraction period.

The site groundwater has been identified as two (2) zones for descriptive purposes. These are the shallow water-bearing (shallow) and the lower fine-sand water bearing zone (deep zone). Detailed descriptions of these geologic zones are found in other site reports.

Water level measurements were obtained periodically during system operation and are provided in Appendix A. Groundwater contour maps representative of pumping conditions during the reporting period are provided as Figures 3 through 10 for the shallow and deep water-bearing zones.

2.1 Groundwater Extraction System Operation and Maintenance

The groundwater extraction system was operated continuously throughout the reporting period with the exception of system shutdowns and routine maintenance as summarized below:

- All recovery wells were offline between March 17, 2011 and March 22, 2011 for repair of the groundwater treatment system effluent pipe.
- All recovery wells were offline between January 4, 2012 and January 5, 2012, between April 30, 2012 and May 2, 2012, and between October 22, 2012 and October 23, 2012 for carbon changeout activities.
- All recovery wells were offline periodically between August 13, 2012 and August 15, 2012, between August 20, 2012 and August 22, 2012, and between October 15, 2012 and October 17, 2012 for well development activities and RW-2D and RW-6D acid treatments.
- All recovery wells were offline between August 22, 2012 and September 25, 2012 and between November 20, 2012 and December 18, 2012 for system pump repair.
- Recovery Well RW-3S was shut down between October 7, 2012 and October 17, 2012 for motor replacement.
- Recovery Well RW-6D was shutdown from January 1 through June 11, 2012 because of excessive acetone presence in deep groundwater in the well capture area. The well was restarted after evaluation of acetone treatability and potential toxicity to the Jamestown POTW.

2.2 Annual Groundwater Extraction

Groundwater pumping volumes are provided in Table 2. In 2012, over 1.43 million gallons of groundwater were extracted and treated by the recovery system. Approximately 1.05 million gallons of groundwater were extracted from the deep groundwater zone and over 382,000 gallons of groundwater were extracted from the shallow water-bearing zone. Detailed groundwater extraction monitoring data from each treatment area is provided as Appendix A-2.

2.3 Groundwater Flow Conditions

Groundwater flow conditions in the shallow and deep water-bearing zones at the site for 2012 were a typical reflection of normal site operations. Groundwater contour maps representing pumping conditions within the shallow and deep zones are provided as Figures 3 through 10.

Pumping conditions in each groundwater zone remained consistent with conditions experienced during previous years with the exception of the extended period of RW-6D shutdown. Reduced deep zone VOC capture occurred during this period, however the plume migration was not significant since the recovery well to the west RW-2D provided some drawdown in the plume hotspot area around MW-21D. Downgradient monitoring well MW-22D northeast of RW-6D did not exhibit any VOC increases over the period of RW-6D shutdown indicating containment of the VOC plume in the deep zone. Deep groundwater flow conditions around RW-6D during the June 11, 2012 monitoring event indicate that drawdown is not occurring near this recovery well because water level measurements were collected prior to restarting the pump.

3.0 Water Quality Results and Summary

Groundwater sampling for 2012 consisted of the following:

- Semi-Annual Recovery Well Sampling for VOCs
- Annual Sampling of the Performance Monitoring Plan (PMP) well network for VOCs (conducted in September 2011)
- Monthly influent and effluent sampling of the wastewater pre-treatment system in support of POTW permit requirements.

Table 3 summarizes the semi-annual recovery well analytical data for 2012. The annual performance monitoring well data is provided in Table 4. Tables 5 through 7 represent the wastewater influent, treatment and effluent sample data for 2011. Recovery Well performance data is illustrated in Appendix A-3. Laboratory Certificates of Analysis are included in Appendix B. The following sections describe the conditions occurring in each of the three remedial areas, with a comparison to previous analytical results.

3.1 North Parking Lot (NPL)/Northeast Site Area

Both the shallow water-bearing zone and the deeper lower fine sand water-bearing zone are monitored in this area. The shallow monitoring system for area consists of Recovery Wells RW-1S and RW-2S, as well as monitoring wells MW-6, MW-7S, MW-14S, MW-15S, and MW-25S. The deep water-bearing zone monitoring network consists of Recovery Wells RW-2D and RW-6D, and Monitoring Wells MW-7D, MW-8, MW-14D, MW-15D, MW-16D, MW-19D, MW-21D, MW-22D, MW-25D, and VP-6D. Recovery wells RW-2D and RW-6D demonstrated continued efficiency by removing nearly 200 lbs of VOCs from the deep groundwater zone. Note: due to the increasing trend of VOCs in MW-15D, MW-16D was added to the network of monitoring wells to be sampled to confirm that VOCs are not migrating north of MW-15D in any significant manner. Monitoring Well MW-22D, northeast of RW-6D, continues to show consistence decrease in VOCs over time.

3.2 AST/UST Area

The AST/UST Area shallow groundwater is monitored by Recovery Well RW-3S and Monitoring Well MW-2. Recovery Well RW-3 removed trace VOCs in 2012. There were 15.6 µg/L of Isopropylbenzene detected in MW-2.

3.3 UST Area

This area is currently monitored by MW-20. Prior to UST removal activities in 2002, RW-4S and RW-5S were effective in removing approximately 110 lbs of VOCs from the groundwater since system startup. As previously mentioned, these RWs are no longer in service.

The UST Area is currently being monitored for baseline (pre-ISCO) and post-ISCO performance conditions. The results of this monitoring were presented to NYDEC in a report following completion of the monitoring activities.

3.4 Groundwater Treatment System

The site groundwater treatment system consists of a 2,200 gallon equalization tank, transfer pump, sediment filters, and two (2) 900 lb granular carbon treatment vessels arranged in series. A third carbon treatment vessel is retained as a spare for carbon change-outs. The groundwater pumped from the recovery wells is discharged to the equalization tank, and pumped through the carbon vessels for pre-treatment prior to discharge to the City of Jamestown Publicly Owned Treatment Works (POTW) for final treatment.

Pursuant to the City of Jamestown Board of Public Utilities (BPU) Industrial Wastewater Discharge Permit Number 26 (Permit), the pre-treatment system is monitored for pH and Toxic Organic VOCs to ensure compliance with the discharge requirements. Sampling points include the influent, primary carbon effluent and secondary carbon effluent (discharge to POTW). These points are sampled on a monthly basis and reported to the Jamestown BPU on a semi-annual basis.

Groundwater pre-treatment system data for 2010 is summarized in Tables 5 through 7. These tables represent system influent, individual carbon vessel effluent and post carbon (system discharge to POTW) concentrations. Note that after June 2003, only two carbon vessels were used for treatment of groundwater prior to discharge to the POTW. The third carbon vessel was removed from the treatment system after the UST removal activities were complete. Pre-Carbon influent concentrations reflect a composite from all of the operating groundwater extraction wells prior to pre-treatment.

4.0 Future Plans

Operation, maintenance and monitoring of the remedial systems will continue in Year 2013. Phase II of the Supplemental Remedial Actions will continue with additional groundwater monitoring in the ISCO injection areas in the UST Area.

In 2013 Dow will assess options for further supplemental remedial actions for the shallow and deep groundwater zones at the site. These include the UST Area shallow groundwater and the deep groundwater zone near hotspot near Hopkins Avenue.

TABLES

Table 1
Soil and Groundwater Remedial Action Objectives (RAOs)
Essex/Hope Site
Jamestown, New York

MEDIA	PARAMETER	RAO
Soil	Total Volatile Organics Compounds (VOCs)	10 ppm
	Each individual VOC	1 ppm
	Total Semi-Volatile Organic Compounds (SVOCs)	500 ppm
	Each Individual SVOC	50 ppm
	Polychlorinated Biphenyls (PCBs)	10 ppm
Groundwater⁽¹⁾	Trans-1,2-Dichloroethylene	5 ppb
	Trichloroethene (trichloroethylene)	5 ppb
	Vinyl Chloride	5 ppb
	Ethylbenzene	5 ppb
	Toluene	5 ppb
	Xylene	5 ppb
	PCBs	0.1 ppb

⁽¹⁾ = Other compounds, not listed, would have RAOs in compliance with NYSDEC Ambient Groundwater Quality Standards.

ppm = part per million

ppb = part per billion

Table 2

**2012 Groundwater Extraction Summary
Essex/Hope Site
Jamestown, NY**

Period	Recovery Well				
	RW-1S Gallons Pumped	RW-2S Gallons Pumped	RW-3S Gallons Pumped	RW-2D Gallons Pumped	RW-6D Gallons Pumped
1st Quarter	15,385	117,422	4,787	283,829	53
2nd Quarter	12,050	99,763	1,791	320,013	9,308
3rd Quarter	5,993	57,550	509	122,009	8,116
4th Quarter	12,747	52,310	2,214	200,473	105,782
Total	46,175	327,045	9,301	926,323	123,259

Period	Site Area		
	NPLS Shallow Area Gallons Pumped	AST Area Gallons Pumped	Lower Fine Sand Water Bearing Zone Gallons Pumped
1st Quarter	132,807	4,787	283,882
2nd Quarter	111,813	1,791	329,321
3rd Quarter	63,543	509	130,124
4th Quarter	65,057	2,214	306,255
Total	373,220	9,301	1,049,583

Period	Total Estimated Gallons Pumped - All Areas
1st Quarter	421,476
2nd Quarter	442,925
3rd Quarter	194,177
4th Quarter	373,526
Total	1,432,104

Table 3

**2012 Semi-Annual Recovery Well Analytical Results (µg/L)
Essex/Hope Site
Jamestown, NY**

June 12, 2012

Volatile Organic Compounds	Site GW RAOs	RW-1S	RW-2S	RW-2D	RW-6D	RW-3S
Acetone		ND	ND	ND	20,600	ND
Benzene		ND	ND	10	23.9	1.1
2-Butanone		ND	ND	ND	259	ND
Carbon Disulfide		ND	ND	ND	ND	ND
Chloromethane		ND	ND	ND	ND	ND
Isopropylbenzene (Cumene)		ND	ND	ND	ND	4.2
1,1-Dichloroethane		ND	ND	ND	ND	ND
1,1-Dichloroethene		ND	ND	27.4	28.9	ND
cis-1,2-Dichloroethene		459	42	7,660	16,700	ND
trans-1,2-Dichloroethene	5	ND	ND	165	181	ND
Ethylbenzene	5	ND	ND	ND	ND	ND
4-Methyl-2-pentanone		ND	ND	ND	ND	ND
Methylene Chloride		ND	ND	ND	ND	ND
Tetrachloroethene		ND	ND	ND	ND	ND
Toluene	5	ND	ND	ND	ND	ND
Trichloroethene	5	294	10.8	1,040	3,900	ND
Vinyl Chloride	5	16.9	ND	837	3,390	ND
Xylenes (total)	5	ND	ND	ND	ND	ND

November 15, 2012

Volatile Organic Compounds	Site GW RAOs	RW-1S	RW-2S	RW-2D	RW-6D*	RW-3S
Acetone		ND	ND	ND	89,600	ND
Benzene		ND	ND	7.9	75.4	18.0
2-Butanone		ND	ND	ND	351	ND
Carbon Disulfide		ND	ND	ND	ND	ND
Chloroform		ND	ND	ND	ND	ND
Isopropylbenzene (Cumene)		ND	ND	ND	ND	10.4
1,1-Dichloroethane		ND	ND	ND	ND	ND
1,1-Dichloroethene		ND	ND	17.6	76.9	ND
cis-1,2-Dichloroethene		528	12.5	2,770	17,300	51.2
trans-1,2-Dichloroethene	5	7.0	ND	64.6	648	ND
Ethylbenzene	5	ND	ND	ND	ND	ND
4-Methyl-2-pentanone		ND	ND	ND	ND	ND
Methylene Chloride		ND	ND	ND	ND	ND
Tetrachloroethene		ND	ND	ND	ND	ND
Toluene	5	ND	ND	ND	ND	ND
Trichloroethene	5	216	10.1	2,170	12,700	74.8
Vinyl Chloride	5	16.9	ND	335	2,270	26.6
Xylenes (total)	5	ND	ND	ND	ND	7.2

Notes:

Site GW RAOs = Site Groundwater Remedial Action Objectives

µg/l = Micrograms per liter

ND = Not Detected/Below minimum laboratory reporting limit

*RW-6D was sampled on November 14, 2012.

Table 4

2012 Annual PMP Wells Analytical Results (µg/L)
Essex/Hope Site
Jamestown, NY

Volatile Organic Compounds	MW-2	MW-6	MW-7D	MW-7S	MW-8	MW-14D	MW-14S	MW-15D	MW-15S	MW-16D	MW-19D	MW-20	MW-21D*	MW-22D	MW-25D	MW-25S	PZ-7D	VP-6D
Acetone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	678,000	ND	ND	ND	ND	ND
Benzene	ND	ND	9.3	ND	ND	ND	ND	2.2	ND	ND	ND	ND	105	ND	ND	ND	ND	ND
Chloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2,500	ND	ND	ND	ND	ND
Isopropylbenzene (Cumene)	15.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	54.8	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	13.6	ND	ND	ND	ND	159	ND	ND	ND	ND	140	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	ND	10.5	1,750	9.8	104	ND	6.1	21,900	7.9	ND	ND	ND	138,000	246	ND	31.0	108	ND
trans-1,2-Dichloroethene	ND	ND	34.2	ND	ND	ND	ND	239	ND	ND	ND	ND	631	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	341	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone (MIBK)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	13.6	ND	ND	ND	ND	ND
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.3	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	ND	10.5	348	11.4	ND	ND	27.5	9,510	7.7	ND	ND	ND	180	1,780	ND	239	160	ND
Vinyl Chloride	ND	ND	242	ND	14.8	6.6	ND	814	ND	ND	25.3	ND	63,400	4.5	ND	ND	41.1	ND
Xylenes (total)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,760	ND	ND	ND	ND	ND	ND

ND = Not detected

µg/L = Micrograms per liter

*Duplicate sample collected, greater concentration shown.

Table 5
POTW Monthly Monitoring Summary
2012 System Pre-Carbon
Volatile Organic Compounds (µg/L)

Sample Date	17-Jan-12	15-Feb-12	20-Mar-12	19-Apr-12	18-May-12	11-Jun-12	27-Jul-12	20-Aug-12	26-Sep-12	31-Oct-12	20-Nov-12	3-Jan-13
Acetone	ND	ND	ND	ND	ND	ND	4,470	4,900	75,400	47,100	23,200	18,500
2-Butanone	ND	ND	ND	ND	ND	ND	17.7	18.4	171	227	125	69.5
Benzene	4.0	8.3	7.3	6.2	7.7	8.2	7.7	6.5	18.4	56.3	29.7	20.6
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene (Cumene)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	10.9	23.0	17.6	14.9	17.9	18.5	10.3	7.2	23.0	30.4	31.7	19.1
cis-1,2-Dichloroethene	2,800	5,650	5,210	4,840	4,650	5,380	3,840	1,780	9,130	9,970	8,270	6,510
trans-1,2-Dichloroethene	56.2	87.5	67.8	107	84.1	99.3	58.2	15.1	156	41.9	238	130
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	476	649	611	469	839	817	ND	812	1,730	7,360	4,640	4,230
Vinyl Chloride	346	630	427	368	394	426	326	333	1,660	1,050	925	727
Total Xylenes	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pre-Carbon TOTAL VOCs	3,693	7,048	6,341	5,805	5,993	6,749	8,730	7,872	88,288	65,836	37,459	30,206

Notes:

ND = Not detected/Below minimum laboratory reporting limit

µg/L = micrograms per liter

Pre-Carbon sample results represent system influent.

System Carbon was changed out on January 4, 2012, May 1, 2012, and October 23, 2012.

System was shut down from August 22, 2012 through September 25, 2012 and November 20, 2012 through December 18, 2012 for pump repair.

Table 6
POTW Monthly Monitoring Summary
2012 System Primary Carbon Effluent
Volatile Organic Compounds (µg/L)

Sample Date	17-Jan-12	15-Feb-12	20-Mar-12	19-Apr-12	18-May-12	11-Jun-12	27-Jul-12	20-Aug-12	26-Sep-12	31-Oct-12	20-Nov-12	3-Jan-13
Acetone	ND	ND	ND	ND	ND	ND	394	19.0	3,960	24,200	18,200	22,200
2-Butanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	16.4	65.5
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene (Cumene)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	5.5	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	12.5	15.1	1,730	3,450	11.0	11.4	17.1	27.7	53.1	29.6	36.8	464
trans-1,2-Dichloroethene	ND	ND	ND	27.8	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	7.7	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	564	637	767	488	4.5	6.2	ND	896	1,030	1,060	850	959
Total Xylenes	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Primary-Carbon TOTAL VOCs	577	652	2,497	3,979	16	18	411	943	5,043	25,290	19,103	23,689

Notes:

ND = Not detected/Below minimum laboratory reporting limit

µg/L = micrograms per liter

Primary Carbon sample results represent effluent from the first carbon vessel in the two (2) carbon vessel system.

System Carbon was changed out on January 4, 2012, May 1, 2012, and October 23, 2012.

System was shut down from August 22, 2012 through September 25, 2012 and November 20, 2012 through December 18, 2012 for pump repair.

Table 7
POTW Monthly Monitoring Summary
2012 System Post Carbon Effluent
Volatile Organic Compounds (µg/L)

Sample Date	17-Jan-12	15-Feb-12	20-Mar-12	19-Apr-12	18-May-12	11-Jun-12	27-Jul-12	20-Aug-12	26-Sep-12	31-Oct-12	20-Nov-12	3-Jan-13
Acetone	ND	ND	ND	ND	ND	ND	ND	ND	21.2	20,100	17,000	22,300
2-Butanone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene (Cumene)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	255	268	206	169	49.5	34.0	25.5	21.8	18.8	54.2	53.3	31.0
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	7.2	9.5	6.2	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	119	495	655	833	1.8	1.3	1.6	9.5	19.6	11.0	810	805
Total Xylenes	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Post-Carbon TOTAL VOCs	381	773	867	1,002	51	35	27	31	60	20,165	17,863	23,136
Post-Carbon TOTAL TTOs	381	773	867	1,002	51	35	27	31	38	65	863	836

Notes:

ND = Not detected/Below minimum laboratory reporting limit

µg/L = micrograms per liter

POTW Discharge Limit = 2,130 ug/L Total Toxic Organics (TTOs)

Post-Carbon sample results represent system effluent from the secondary carbon vessel (or the third carbon vessel if used) to the POTW.

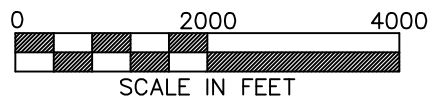
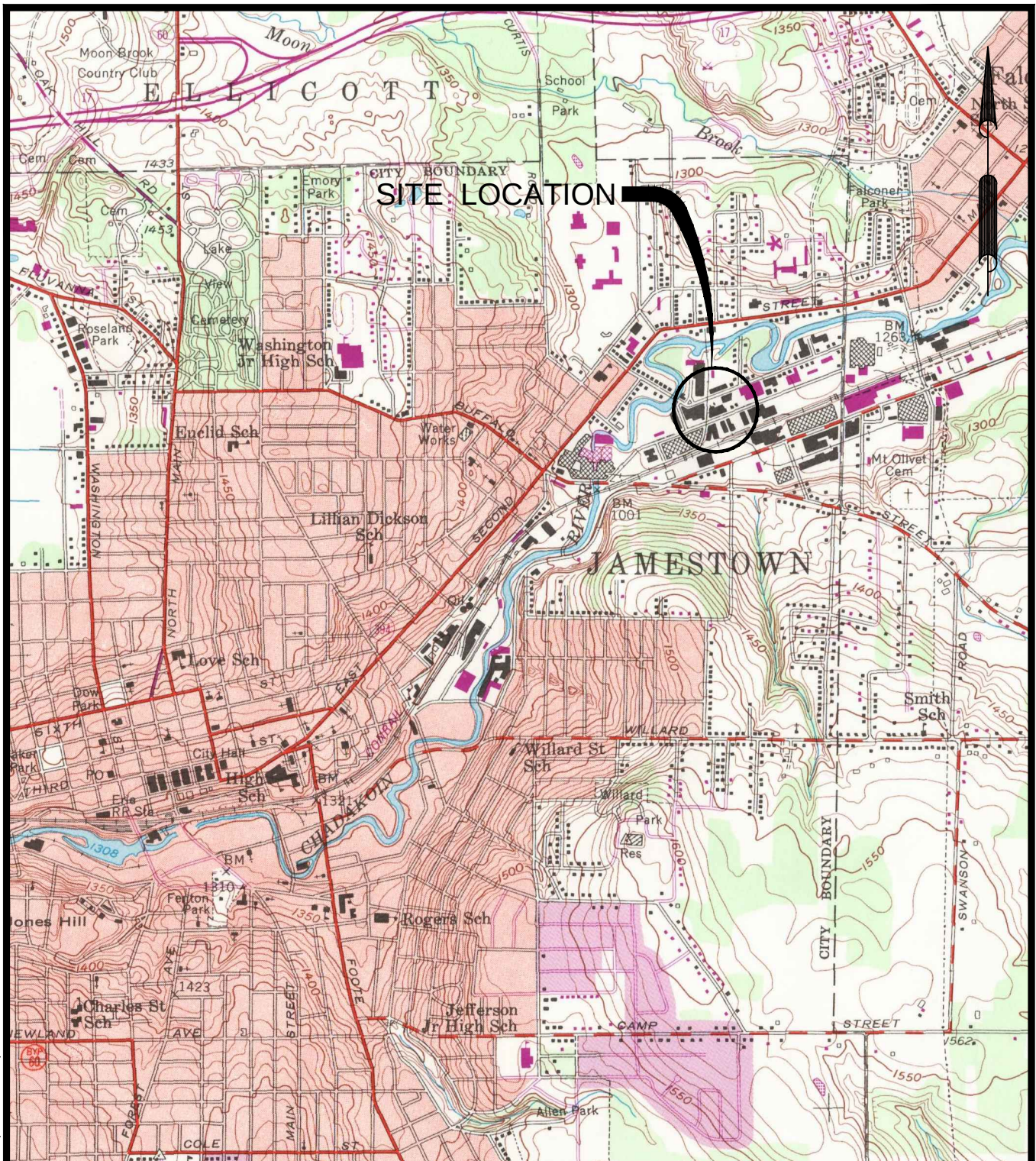
Post-Carbon sample is a laboratory prepared composite of four (4) grab samples taken at 30-minute intervals.

System Carbon was changed out on January 4, 2012, May 1, 2012, and October 23, 2012.

System was shut down from August 22, 2012 through September 25, 2012 and November 20, 2012 through December 18, 2012 for pump repair.

FIGURES

FILE: \ESSEX\HOP\2006-MAP\MPM-2012\2000USGS.DWG



REFERENCE:

BASE MAP IS A PORTION OF THE U.S.G.S. 7.5 MINUTE TOPOGRAPHIC SERIES JAMESTOWN, NY QUADRANGLE. DATED: 1954, PHOTOREVISED: 1979. SCALE: 1" = 2000', CONTOUR INTERVAL IS 10 FEET.



2012 ANNUAL PERFORMANCE MONITORING REPORT SITE LOCATION MAP

ESSEX/HOPE SITE

JAMESTOWN, NY

CLIENT: ESSEX SPECIALTY PRODUCTS, INC.

JOB NUMBER: 41569501

SCALE: AS SHOWN

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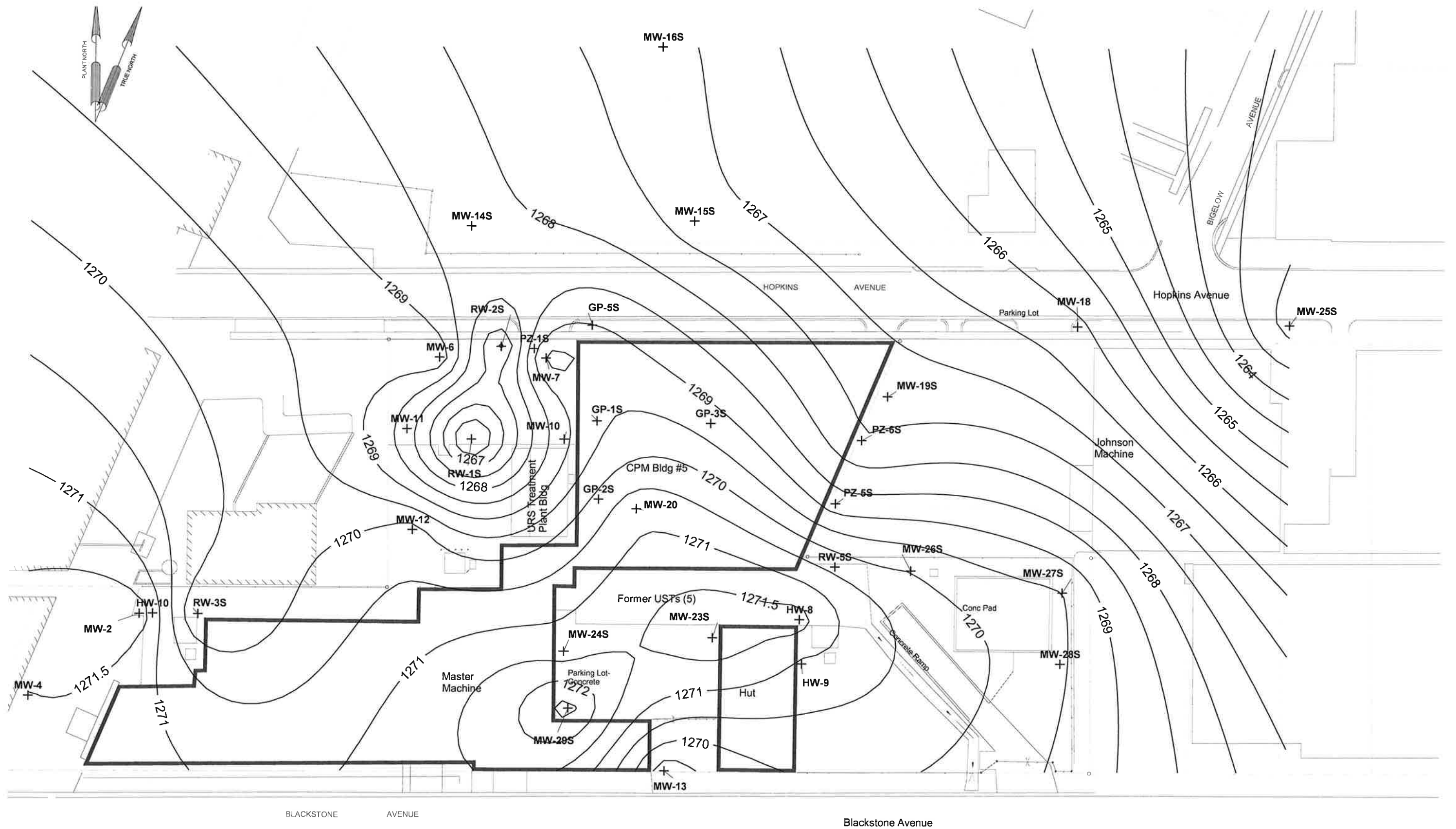


**Figure 3- Shallow Groundwater
Potentiometric Surface Map
March 13, 2012**

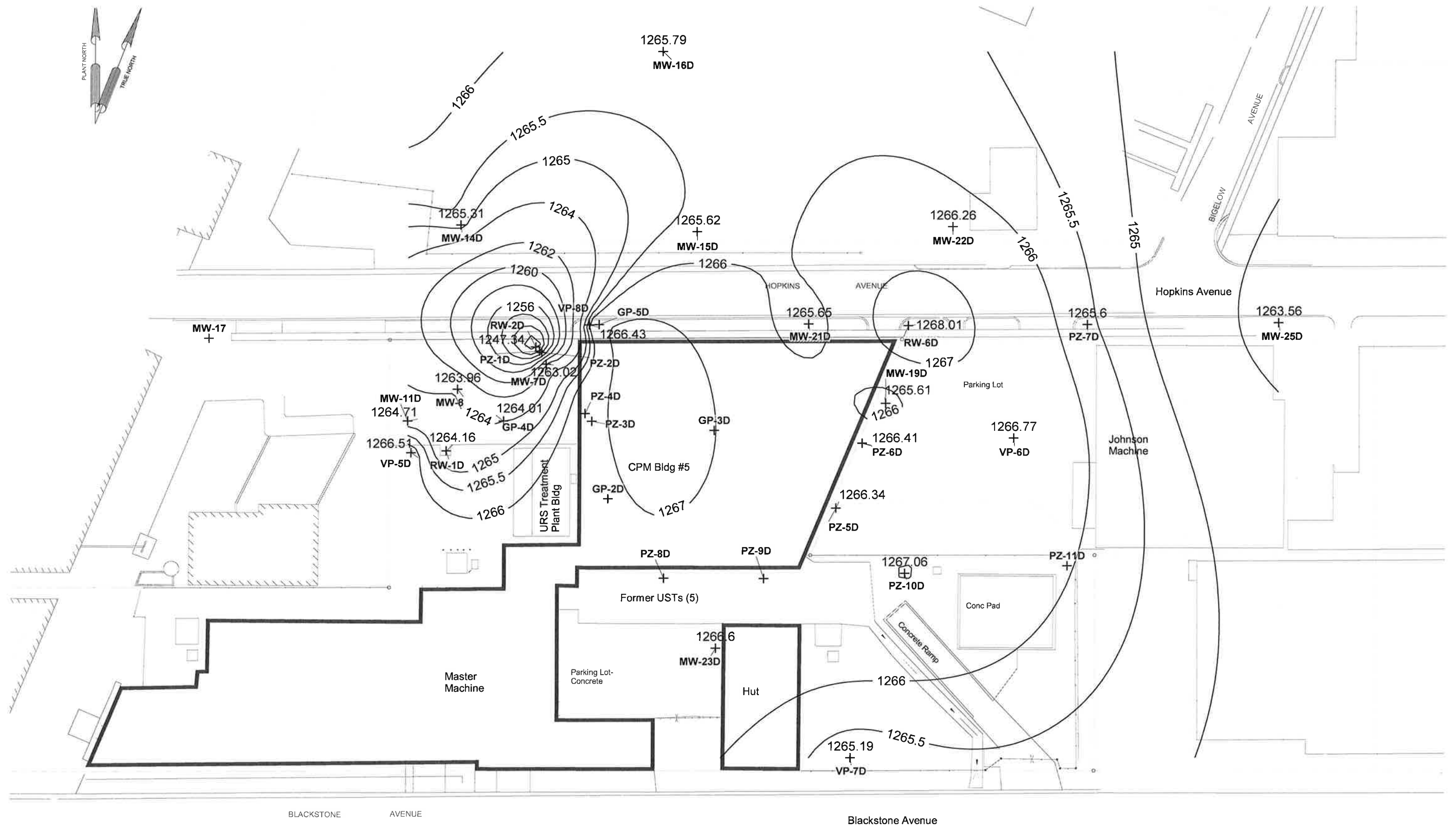


**Figure 4- Deep Groundwater Potentiometric Surface Map
March 13, 2012**

2012 Annual Performance
Monitoring Report

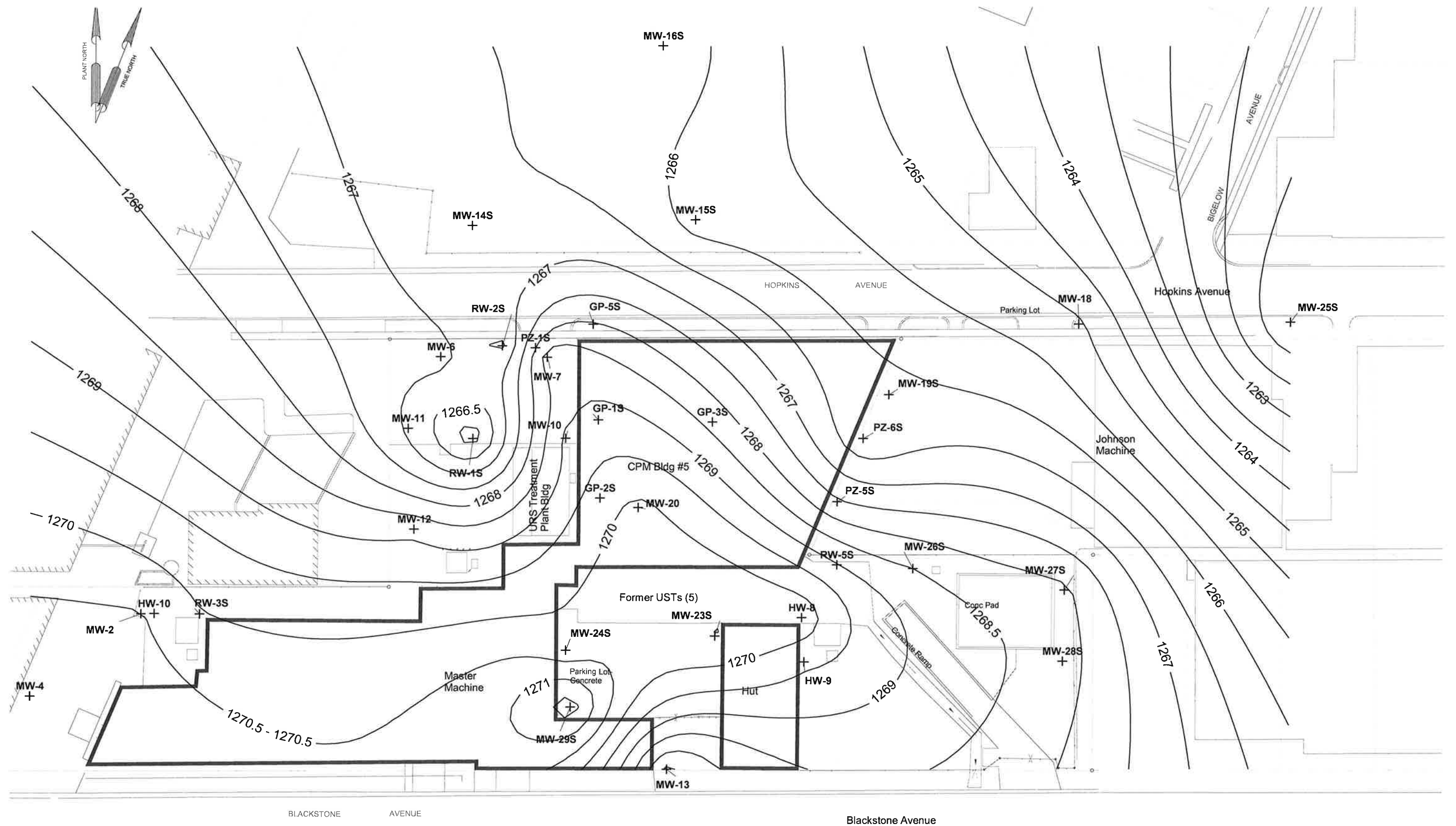


**Figure 5- Shallow Groundwater
Potentiometric Surface Map
June 11, 2012**

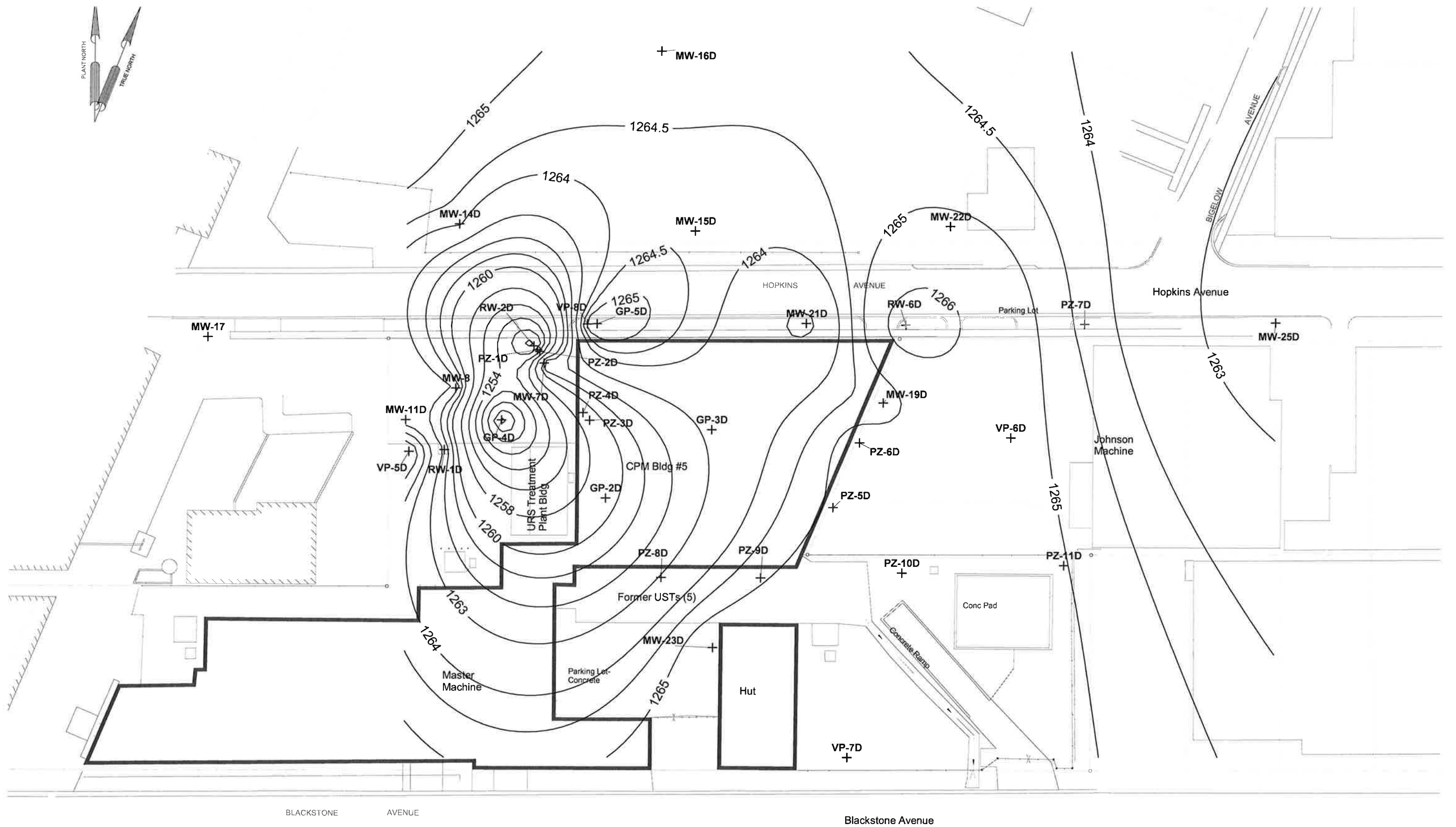


**Figure 6- Deep Groundwater
Potentiometric Surface Map
June 11, 2012**

2012 Annual Performance
Monitoring Report

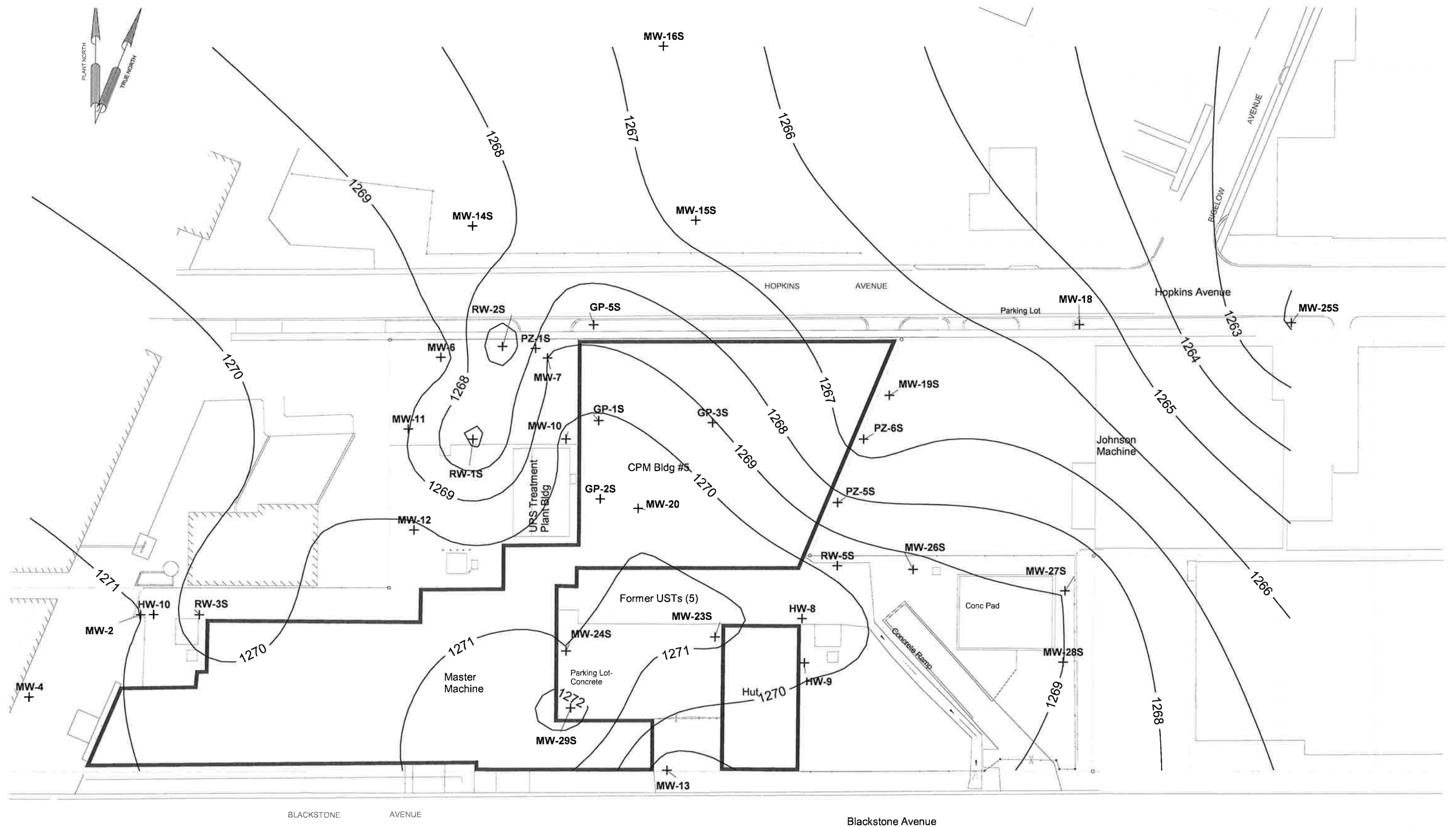
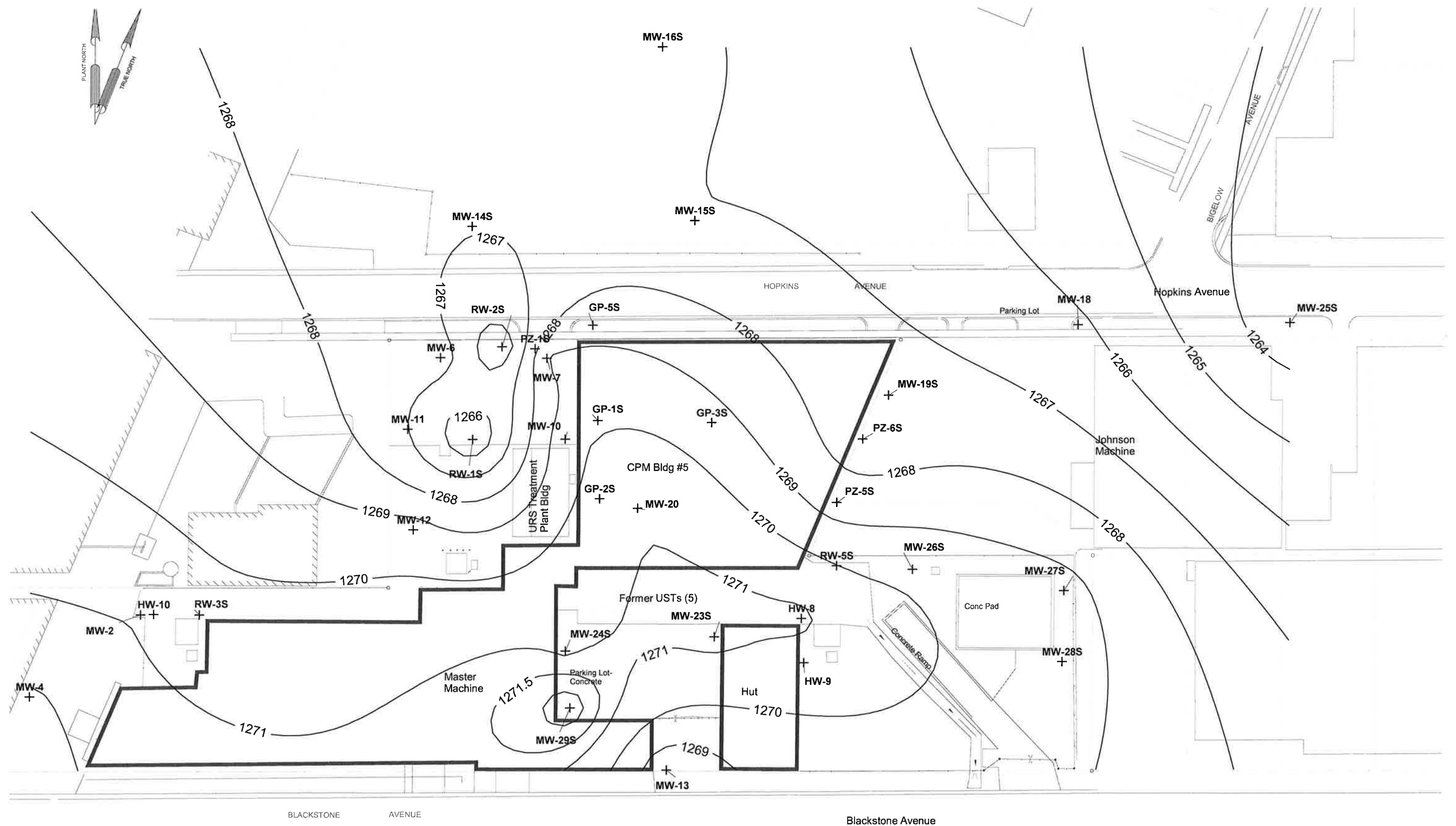


**Figure 7-Shallow Groundwater
Potentiometric Surface Map
September 24, 2012**



Essex Specialty Products, Inc.
Essex/Hope Site, Jamestown, NY
URS 41569501

**Figure 9- Shallow Groundwater
Potentiometric Surface Map
November 12, 2012**

2012 Annual Performance
Monitoring Report

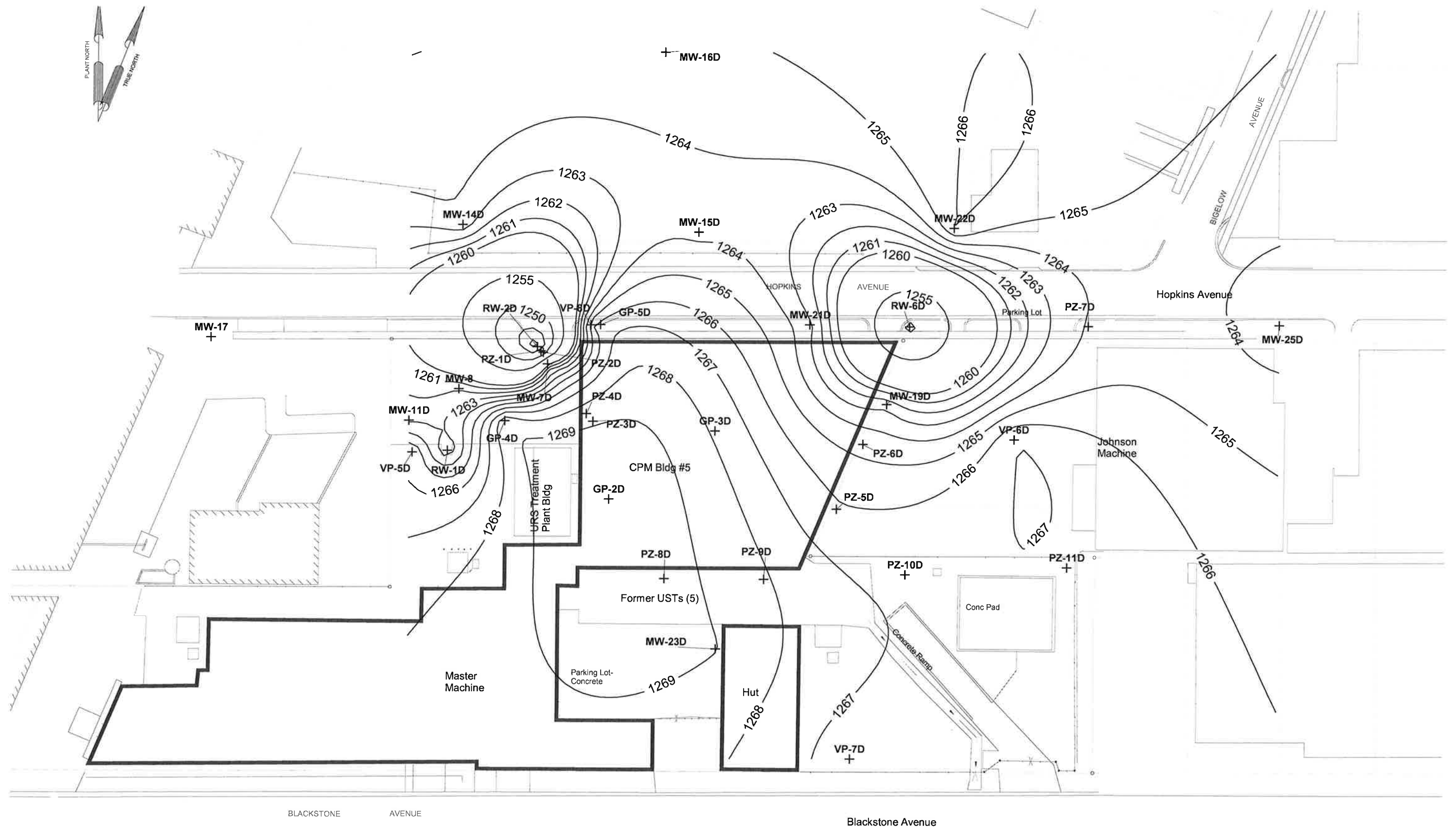
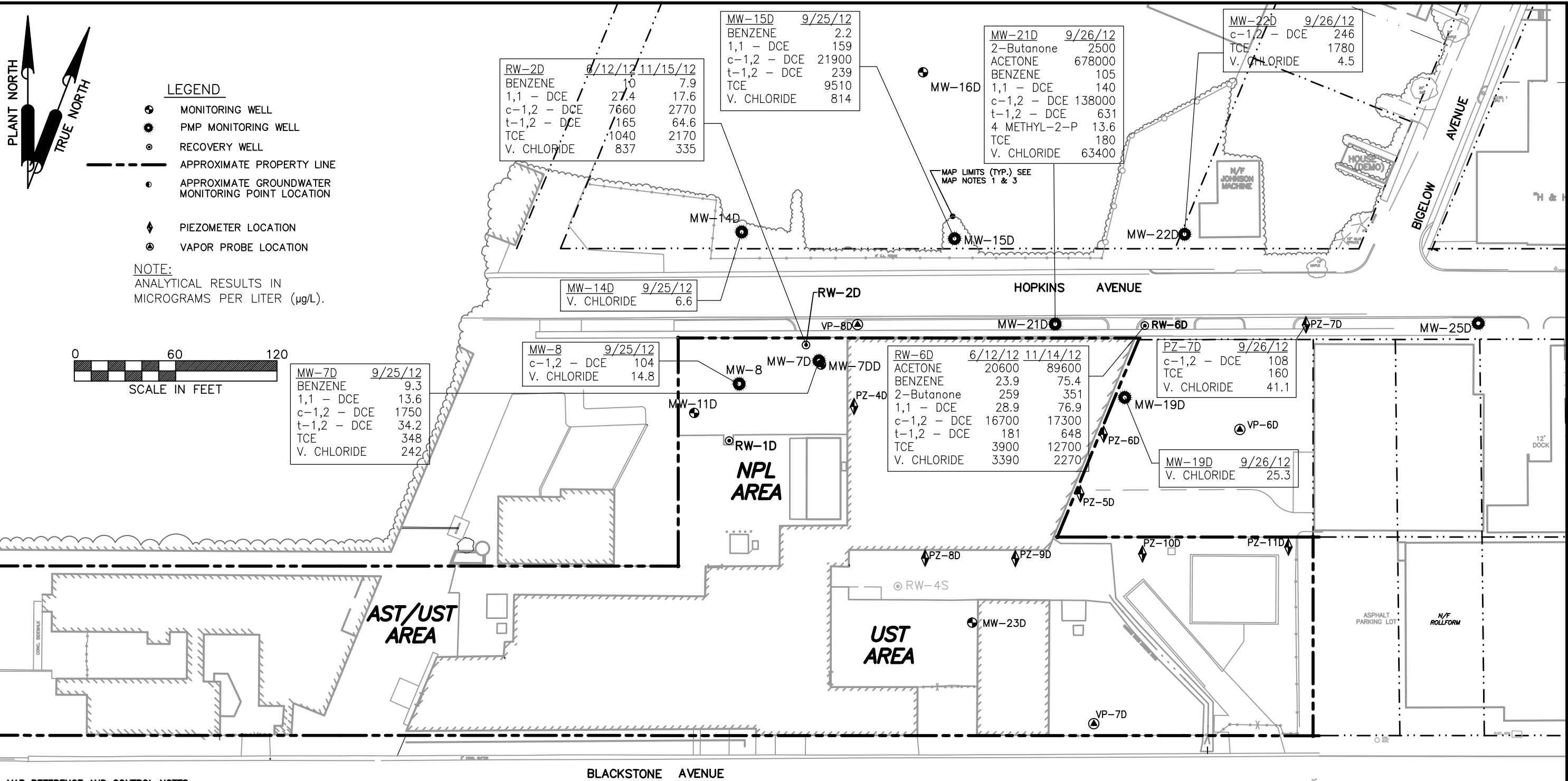


Figure 10- Deep Groundwater Potentiometric Surface Map November 12, 2012

2012 Annual Performance Monitoring Report

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URS

PITTSBURGH, PENNSYLVANIA

**2012 ANNUAL PERFORMANCE MONITORING REPORT
DEEP GROUNDWATER ANALYTICAL DATA, 2012**

ESSEX/HOPE SITE

JAMESTOWN, NY

CLIENT: ESSEX SPECIALTY PRODUCTS, INC.

JOB NUMBER: 41569501

SCALE: AS SHOWN

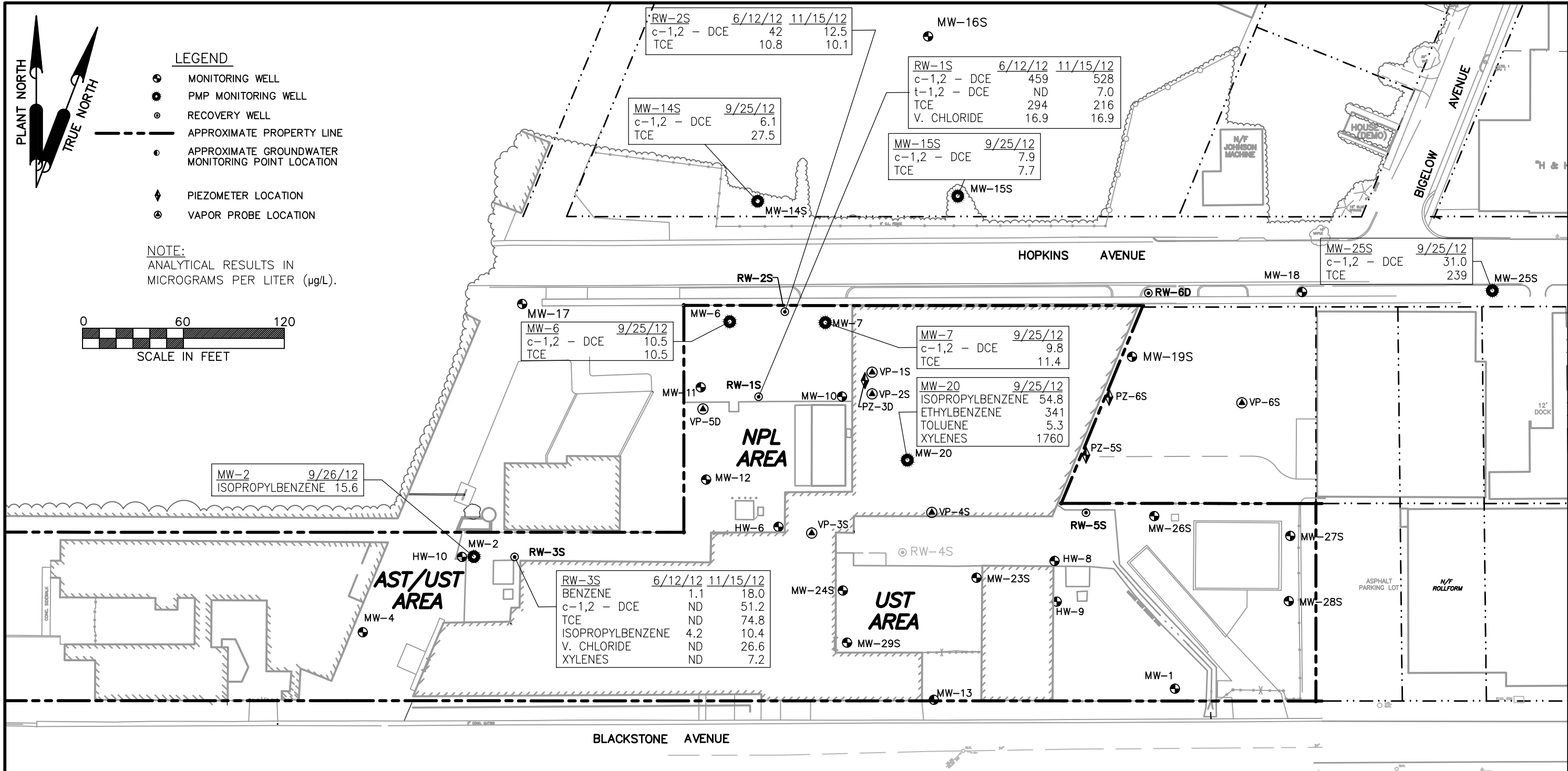
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FILE: \\ESSEXHOP\2006-MAP\PMW-2012-A-JUL-2012-PMW-BASE-MAP



MAP REFERENCE AND CONTROL NOTES:

1. BASE MAPPING INCLUDING THE LOCATIONS OF SOME OF THE BUILDINGS, ROADS, CURBS/SIDEWALKS, FENCING, PAVED AREAS, ALL UTILITIES (UNDERGROUND UTILITY LOCATIONS ARE APPROXIMATE), AND PROPERTY BOUNDARY WAS PROVIDED BY MICHAEL J. RODGERS AND ASSOCIATES, LAND SURVEYORS, BEMUS POINT, NEW YORK, N.Y.S. LICENSE No. 49232. THE BASE MAP WAS A SEPIA HARD COPY AT A SCALE OF 1"=20', DATED APRIL 15, 1992, LAST REVISION DATE MARCH 10, 1993. RECOVERY WELLS, SPARGE WELLS, AND SVE WELLS WERE SURVEYED AUGUST, 1997. MONITORING WELLS IN THE VICINITY OF THE REMEDIAL ACTION CONSTRUCTION WERE SURVEYED AUGUST, 1997, MONITORING WELLS MW-18, MW-21D, MW-22D, MW-23S, MW-23D, MW-24S, ALL RECOVERY WELLS (RW), ALL GEOPROBES (GP) (EXCEPT GP-4S), ALL PIEZOMETERS (PZ), AND ALL VAPOR PROBES (VP) (EXCEPT VP-3S) WERE LOCATED BY URS FIELD SURVEY AUGUST 2006. RW-6 PIPELINE LOCATED BY FIELD MEASUREMENTS ON 10/17/2008. RW-6, MW-25S AND MW-25D LOCATED BY URS FIELD SURVEY JUNE 30, 2009. COORDINATE INFORMATION SHOWN AT THE BUILDING CORNERS CAME FROM THE MICHAEL J. RODGERS SURVEY DONE ON JANUARY 9, 1998. ALL OTHER BUILDING CORNERS ARE APPROXIMATE. THE SITE AREA BEYOND THE 1998 SURVEY WAS MAPPED BY URS CORPORATION IN AUGUST 2006. THIS MAPPING USED THE SAME VERTICAL AND HORIZONTAL REFERENCE DATA AS THE PREVIOUS SURVEY. THE MAPPING WAS MERGED WITH THE 1998 DATA TO PRODUCE A COMPOSITE SITE BASE MAP. THE LIMITS OF THE COMPOSITE SURVEY MAP ARE SHOWN ON THE DRAWING. SEE MAP REFERENCE 3.

2. VERTICAL BENCH MARK INFORMATION CAME FROM U.S.G.S. PLAQUE U-88-S.E. ABUTT. ERIE R.R. BRIDGE OVER BUFFALO ST., ELEV.=1296.034 (NATIONAL GEODETIC VERTICAL DATUM, 1929). HORIZONTAL COORDINATES PROVIDED FOR THE MONITORING WELLS AND THE PROPERTY CORNERS ARE BASED ON A LOCAL GRID ESTABLISHED BY THE SURVEYOR. N10000, E10000 IS A PK NAIL SET IN THE CONCRETE CURB/GUTTER AND IS PART OF THE ORIGINAL TRAVERSE. IRON STAKES WERE SET AT THE PROPERTY CORNERS.

3. AREAS OUTSIDE OF CLOUD LINE: PROPERTY LINES AND MAPPING ADJACENT TO BIGELOW AVENUE, NORTH & SOUTH OF HOPKINS AVENUE & EAST OF BIGELOW AVENUE, AND SOUTH OF BLACKSTONE AVENUE WERE TAKEN FROM A VARIETY OF SOURCES INCLUDING SEPIA MYLAR SITE MAP (SEE REFERENCE 1), USGS 7.5 MINUTE TOPOGRAPHIC MAP - JAMESTOWN, NY, CITY OF JAMESTOWN TAX MAP RECORDS, AND URS FIELD RECONNAISSANCE. LOCATIONS AND DIMENSIONS IN THESE AREAS ARE APPROXIMATE.

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PITTSBURGH, PENNSYLVANIA

**2012 ANNUAL PERFORMANCE MONITORING REPORT
SHALLOW GROUNDWATER ANALYTICAL DATA, 2012**

ESSEX/HOPE SITE

JAMESTOWN, NY

CLIENT: ESSEX SPECIALTY PRODUCTS, INC.

JOB NUMBER: 41569501

SCALE: AS SHOWN

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APPENDIX A

GROUNDWATER EXTRACTION MONITORING DATA

APPENDIX A-1

WATER LEVEL DATA

APPENDIX A-1

2012 Water Level Data Essex/Hope Site Jamestown, NY

Monitoring Location	Northing	Easting	Reference Elevation (ft msl)	Depth to Top of Screen	Depth to Bottom of Screen	Screened Zone	March 13, 2012			June 11, 2012		
							Depth to Water	Depth to Top of Pump	Groundwater Elevation (ft msl)	Depth to Water	Depth to Top of Pump	Groundwater Elevation (ft msl)
MW-1	9758.7161	10383.6499	1280.48		20.0	Shallow	NA	NA	NA	NA	NA	NA
MW-2	9837.1531	9959.6857	1279.87		16.0	Shallow	8.01	NA	1271.86	9.34	NA	1270.53
MW-4	9792.3277	9900.7631	1281.02	13.0	18.0	Shallow	9.53	NA	1271.49	10.09	NA	1270.93
MW-5	9789.6222	9631.761	1280.82	9.5	20.0	Shallow	NA	NA	NA	NA	NA	NA
MW-6	9977.1197	10118.8762	1277.98			Shallow	8.56	NA	1269.42	10.76	NA	1267.22
MW-7	9976.6467	10175.6797	1277.73	10.0	20.0	Shallow	7.99	NA	1269.74	8.92	NA	1268.81
MW-7D	9973.2593	10174.8524	1277.8	35.0	45.0	Deep	14.78	NA	1263.02	15.56	NA	1262.24
MW-7DD	9970.8547	10176.2698	1277.74	90.0	100.0	Glacial Till	NA	NA	NA	NA	NA	NA
MW-8	9959.6089	10127.6898	1277.97	39.6	49.6	Deep	14.01	NA	1263.96	15.03	NA	1262.94
MW-10	9932.4702	10185.7078	1277.94	8.5	18.5	Shallow	NA	NA	NA	8.81	NA	1269.13
MW-11	9937.9912	10101.7016	1277.75	5.0	15.0	Shallow	9.53	NA	1268.22	10.84	NA	1266.91
MW-11D	9942.3792	10101.1482	1277.85	35.0	45.0	Deep	13.14	NA	1264.71	14.21	NA	1263.64
MW-12	9883.0874	10104.9278	1278.18	4.0	14.0	Shallow	7.94	NA	1270.24	9.32	NA	1268.86
MW-13	9752.0619	10240.2934	1278.12	8.0	18.0	Shallow	8.95	NA	1269.17	10.74	NA	1267.38
MW-14S	10048.7753	10135.5198	1280.25	10.0	20.0	Shallow	12.08	NA	1268.17	13.68	NA	1266.57
MW-14D	10049.5051	10129.1897	1280.01	40.0	50.0	Deep	14.70	NA	1265.31	15.93	NA	1264.08
MW-15S	10051.8272	10254.4862	1279.55	10.0	20.0	Shallow	12.33	NA	1267.22	13.76	NA	1265.79
MW-15D	10045.5611	10255.205	1279.46	34.0	44.0	Deep	13.84	NA	1265.62	15.12	NA	1264.34
MW-16S	10146.7788	10236.8582	1279.32	7.0	17.0	Shallow	12.09	NA	1267.23	12.94	NA	1266.38
MW-16D	10143.9497	10236.6005	1279.05	36.0	46.0	Deep	13.26	NA	1265.79	14.41	NA	1264.64
MW-17	9987.6315	9995.5207	1278.7			Deep	NA	NA	NA	NA	NA	NA
MW-18	9994.6655	10459.2207	1275.49		20.0	Shallow	9.35	NA	1266.14	10.40	NA	1265.09
MW-19S	9956.1454	10358.207	1276.82	9.0	19.0	Shallow	9.50	NA	1267.32	10.66	NA	1266.16
MW-19D	9951.569	10355.9748	1276.21	34.0	44.0	Deep	10.60	NA	1265.61	11.64	NA	1264.57
MW-20	9894.7336	10224.5128	1278.56	6.5	11.5	Shallow	7.70	NA	1270.86	8.44	NA	1270.12
MW-21D	9995.0094	10314.801	1276.12	31.5	41.0	Deep	10.47	NA	1265.65	13.41	NA	1262.71
MW-22D	10048.1687	10391.3548	1276.04	32.5	42.0	Deep	9.78	NA	1266.26	10.91	NA	1265.13
MW-23S	9824.696	10265.6365	1277.85	5.0	14.5	Shallow	6.02	NA	1271.83	7.33	NA	1270.52
MW-23D	9818.3152	10265.6675	1277.89	28.0	37.5	Deep	11.29	NA	1266.60	12.19	NA	1265.70

APPENDIX A-1

2012 Water Level Data Essex/Hope Site Jamestown, NY

Monitoring Location	Northing	Easting	Reference Elevation (ft msl)	Depth to Top of Screen	Depth to Bottom of Screen	Screened Zone	March 13, 2012			June 11, 2012		
							Depth to Water	Depth to Top of Pump	Groundwater Elevation (ft msl)	Depth to Water	Depth to Top of Pump	Groundwater Elevation (ft msl)
MW-24S	9817.1277	10186.2119	1278.77	5.0	14.5	Shallow	7.55	NA	1271.22	8.61	NA	1270.16
MW-25S	9995.6	10572.35	1272.76	7.0	17.0	Shallow	9.97	NA	1262.79	11.28	NA	1261.48
MW-25D	9995.46	10565.28	1273.41	31.0	41.0	Deep	9.85	NA	1263.56	11.30	NA	1262.11
MW-26S	9861.3519	10371.3241	1279.422	5.0	15.0	Shallow	9.43	NA	1269.99	10.91	NA	1268.51
MW-27S	9849.63382	10452.2197	1278.864	10.0	20.0	Shallow	9.33	NA	1269.53	10.76	NA	1268.10
MW-28S	9810.84281	10451.4089	1279.25	7.0	17.0	Shallow	9.68	NA	1269.57	11.06	NA	1268.19
MW-29S	9786.06533	10188.6419	1280.7	4.0	14.0	Shallow	7.95	NA	1272.75	8.89	NA	1271.81
HW-8	9834.664	10312.0885	1277.81	6.0	16.0	Shallow	6.10	NA	1271.71	7.47	NA	1270.34
HW-9	9810.5264	10313.3873	1280.78	6.0	16.0	Shallow	9.89	NA	1270.89	11.18	NA	1269.60
HW-10	9837.2976	9966.7406	1279.55	7.0	17.0	Shallow	NA	NA	NA	NA	NA	NA
RW-1S	9932.3606	10136.0515	1275.81	10.5	16.0	Shallow	10.09	11.50	1265.72	10.11	11.50	1265.70
RW-1D	9925.9898	10121.7689	1276.34	32.0	57.0	Deep	12.18	NA	1264.16	13.35	NA	1262.99
RW-2S	9982.9501	10151.7112	1276.33	10.0	15.5	Shallow	9.45	12.70	1266.88	9.93	12.70	1266.40
RW-2D	9982.6088	10169.3122	1276.35	27.0	42.0	Deep	29.01	36.90	1247.34	27.91	36.90	1248.44
RW-3S	9837.0894	9990.9663	1278.14	9.0	13.5	Shallow	8.72	8.80	1269.42	8.12	8.80	1270.02
RW-5S	9863.4298	10330.7462	1277.29	7.0	10.0	Shallow	NA	NA	NA	NA	NA	NA
RW-6D	9994.04	10367.91	1277.33			Deep	9.32	NA	1268.01	10.54	NA	1266.79
GP-1S	9942.4384	10203.1085	1278.83	8.0	12.8	Shallow	NA	NA	NA	NA	NA	NA
GP-2S	9899.8775	10204.1632	1278.46	2.6	12.6	Shallow	NA	NA	NA	NA	NA	NA
GP-2D	9899.7358	10207.9807	1278.56	30.0	34.8	Deep	NA	NA	NA	NA	NA	NA
GP-3S	9941.2543	10263.8898	1278.59	4.0	14.0	Shallow	NA	NA	NA	NA	NA	NA
GP-3D	9936.9027	10264.588	1278.62	34.0	38.8	Deep	NA	NA	NA	NA	NA	NA
GP-4S	9940.86*	10154.97*	1278.06	10.8	15.8	Shallow	8.47	NA	1269.59	9.30	NA	1268.76
GP-4D	9942.1743	10152.2232	1277.95	39.0	43.8	Deep	13.94	NA	1264.01	32.74	NA	1245.21
GP-5S	9994.7299	10200.2055	1277.44	7.0	11.8	Shallow	NA	NA	NA	NA	NA	NA
GP-5D	9994.8642	10202.9906	1276.81	36.0	40.8	Deep	NA	NA	NA	NA	NA	NA
PZ-1S	9981.8469	10169.3122	1277.77			Shallow	NA	NA	NA	NA	NA	NA
PZ-1D	9980.4294	10171.2636	1277.64			Deep	NA	NA	NA	NA	NA	NA
PZ-2D	9979.5627	10172.4761	1277.55			Deep	NA	NA	NA	NA	NA	NA

APPENDIX A-1

2012 Water Level Data Essex/Hope Site Jamestown, NY

Monitoring Location	Northing	Easting	Reference Elevation (ft msl)	Depth to Top of Screen	Depth to Bottom of Screen	Screened Zone	March 13, 2012			June 11, 2012		
							Depth to Water	Depth to Top of Pump	Groundwater Elevation (ft msl)	Depth to Water	Depth to Top of Pump	Groundwater Elevation (ft msl)
PZ-3D	9942.0414	10199.2937	1278.8	20.0	40.0	Deep	NA	NA	NA	NA	NA	NA
PZ-4D	9946.2326	10195.679	1278.71			Deep	NA	NA	NA	NA	NA	NA
PZ-5S	9897.7381	10330.7876	1276.42	5.5	12.0	Shallow	7.69	NA	1268.73	8.88	NA	1267.54
PZ-5D	9894.5731	10329.7148	1276.4	21.0	42.0	Deep	10.06	NA	1266.34	11.29	NA	1265.11
PZ-6S	9932.2079	10344.4895	1276.61	8.5	13.5	Shallow	9.08	NA	1267.53	10.52	NA	1266.09
PZ-6D	9929.8004	10343.4742	1276.62	25.5	45.5	Deep	10.21	NA	1266.41	11.16	NA	1265.46
PZ-7D	9994.5452	10463.2465	1275.68	22.0	42.0	Deep	10.08	NA	1265.60	11.33	NA	1264.35
PZ-8D	9856.4908	10237.8118	1278.12	21.0	41.0	Deep	NA	NA	NA	NA	NA	NA
PZ-9D	9856.2398	10291.1658	1277.3	19.0	39.0	Deep	NA	NA	NA	NA	NA	NA
PZ-10D	9858.9821	10366.4236	1277.52	26.5	46.5	Deep	10.46	NA	1267.06	11.73	NA	1265.79
PZ-11D	9863.0677	10452.8989	1276.63	21.3	41.3	Deep	NA	NA	NA	NA	NA	NA
VP-5D	9925.1052	10103.0141	1277.88	12.5	34.3	Deep	11.37	NA	1266.51	12.31	NA	1265.57
VP-6S	9928.8123	10423.4628	1276.48	18.3	24.0	Deep upper gravel	9.69	NA	1266.79	10.83	NA	1265.65
VP-6D	9932.5744	10424.1378	1276.6	29.5	39.5	Deep	9.83	NA	1266.77	11.31	NA	1265.29
VP-7D	9758.4881	10337.7133	1278.64	20.4	39.3	Deep	13.45	NA	1265.19	13.07	NA	1265.57
VP-8D	9994.6178	10197.8133	1277.15	20.0	39.0	Deep	10.72	NA	1266.43	11.63	NA	1265.52

Notes:

NM = Not Measure
NA = Not Applicable

RW-4S, RW-5S taken offline in October 2002 for UST Removal.
Wells RW-4S, TW-01, and HW-7 destroyed during UST removal operations.

APPENDIX A-1

2012 Water Level Data Essex/Hope Site Jamestown, NY

Monitoring Location	Northing	Easting	Reference Elevation (ft msl)	Depth to Top of Screen	Depth to Bottom of Screen	Screened Zone	September 24, 2012			November 12, 2012		
							Depth to Water	Depth to Top of Pump	Groundwater Elevation (ft msl)	Depth to Water	Depth to Top of Pump	Groundwater Elevation (ft msl)
MW-1	9758.7161	10383.6499	1280.48		20.0	Shallow	NA	NA	NA	NA	NA	NA
MW-2	9837.1531	9959.6857	1279.87		16.0	Shallow	8.78	NA	1271.09	8.94	NA	1270.93
MW-4	9792.3277	9900.7631	1281.02	13.0	18.0	Shallow	9.54	NA	1271.48	9.47	NA	1271.55
MW-5	9789.6222	9631.761	1280.82	9.5	20.0	Shallow	NA	NA	NA	NA	NA	NA
MW-6	9977.1197	10118.8762	1277.98			Shallow	8.33	NA	1269.65	10.41	NA	1267.57
MW-7	9976.6467	10175.6797	1277.73	10.0	20.0	Shallow	8.51	NA	1269.22	8.61	NA	1269.12
MW-7D	9973.2593	10174.8524	1277.8	35.0	45.0	Deep	11.70	NA	1266.10	16.89	NA	1260.91
MW-7DD	9970.8547	10176.2698	1277.74	90.0	100.0	Glacial Till	NA	NA	NA	NA	NA	NA
MW-8	9959.6089	10127.6898	1277.97	39.6	49.6	Deep	11.47	NA	1266.50	15.95	NA	1262.02
MW-10	9932.4702	10185.7078	1277.94	8.5	18.5	Shallow	7.62	NA	1270.32	8.28	NA	1269.66
MW-11	9937.9912	10101.7016	1277.75	5.0	15.0	Shallow	8.68	NA	1269.07	10.73	NA	1267.02
MW-11D	9942.3792	10101.1482	1277.85	35.0	45.0	Deep	10.59	NA	1267.26	14.99	NA	1262.86
MW-12	9883.0874	10104.9278	1278.18	4.0	14.0	Shallow	7.97	NA	1270.21	8.74	NA	1269.44
MW-13	9752.0619	10240.2934	1278.12	8.0	18.0	Shallow	9.70	NA	1268.42	9.96	NA	1268.16
MW-14S	10048.7753	10135.5198	1280.25	10.0	20.0	Shallow	11.81	NA	1268.44	13.22	NA	1267.03
MW-14D	10049.5051	10129.1897	1280.01	40.0	50.0	Deep	12.87	NA	1267.14	16.35	NA	1263.66
MW-15S	10051.8272	10254.4862	1279.55	10.0	20.0	Shallow	12.88	NA	1266.67	12.50	NA	1267.05
MW-15D	10045.5611	10255.205	1279.46	34.0	44.0	Deep	12.83	NA	1266.63	15.67	NA	1263.79
MW-16S	10146.7788	10236.8582	1279.32	7.0	17.0	Shallow	12.61	NA	1266.71	11.94	NA	1267.38
MW-16D	10143.9497	10236.6005	1279.05	36.0	46.0	Deep	12.57	NA	1266.48	14.25	NA	1264.80
MW-17	9987.6315	9995.5207	1278.7			Deep	NA	NA	NA	NA	NA	NA
MW-18	9994.6655	10459.2207	1275.49		20.0	Shallow	9.94	NA	1265.55	9.33	NA	1266.16
MW-19S	9956.1454	10358.207	1276.82	9.0	19.0	Shallow	10.14	NA	1266.68	9.36	NA	1267.46
MW-19D	9951.569	10355.9748	1276.21	34.0	44.0	Deep	11.68	NA	1264.53	13.47	NA	1262.74
MW-20	9894.7336	10224.5128	1278.56	6.5	11.5	Shallow	7.64	NA	1270.92	7.59	NA	1270.97
MW-21D	9995.0094	10314.801	1276.12	31.5	41.0	Deep	10.75	NA	1265.37	12.81	NA	1263.31
MW-22D	10048.1687	10391.3548	1276.04	32.5	42.0	Deep	10.52	NA	1265.52	10.05	NA	1265.99
MW-23S	9824.696	10265.6365	1277.85	5.0	14.5	Shallow	6.69	NA	1271.16	6.61	NA	1271.24
MW-23D	9818.3152	10265.6675	1277.89	28.0	37.5	Deep	10.56	NA	1267.33	8.85	NA	1269.04

APPENDIX A-1

2012 Water Level Data Essex/Hope Site Jamestown, NY

Monitoring Location	Northing	Easting	Reference Elevation (ft msl)	Depth to Top of Screen	Depth to Bottom of Screen	Screened Zone	September 24, 2012			November 12, 2012		
							Depth to Water	Depth to Top of Pump	Groundwater Elevation (ft msl)	Depth to Water	Depth to Top of Pump	Groundwater Elevation (ft msl)
MW-24S	9817.1277	10186.2119	1278.77	5.0	14.5	Shallow	7.76	NA	1271.01	7.93	NA	1270.84
MW-25S	9995.6	10572.35	1272.76	7.0	17.0	Shallow	10.90	NA	1261.86	9.46	NA	1263.30
MW-25D	9995.46	10565.28	1273.41	31.0	41.0	Deep	10.78	NA	1262.63	9.94	NA	1263.47
MW-26S	9861.3519	10371.3241	1279.422	5.0	15.0	Shallow	10.14	NA	1269.28	9.64	NA	1269.78
MW-27S	9849.63382	10452.2197	1278.864	10.0	20.0	Shallow	9.89	NA	1268.97	9.50	NA	1269.36
MW-28S	9810.84281	10451.4089	1279.25	7.0	17.0	Shallow	10.24	NA	1269.01	9.82	NA	1269.43
MW-29S	9786.06533	10188.6419	1280.7	4.0	14.0	Shallow	8.11	NA	1272.59	8.23	NA	1272.47
HW-8	9834.664	10312.0885	1277.81	6.0	16.0	Shallow	6.81	NA	1271.00	6.63	NA	1271.18
HW-9	9810.5264	10313.3873	1280.78	6.0	16.0	Shallow	10.64	NA	1270.14	10.21	NA	1270.57
HW-10	9837.2976	9966.7406	1279.55	7.0	17.0	Shallow	NA	NA	NA	NA	NA	NA
RW-1S	9932.3606	10136.0515	1275.81	10.5	16.0	Shallow	9.23	11.50	1266.58	10.73	11.50	1265.08
RW-1D	9925.9898	10121.7689	1276.34	32.0	57.0	Deep	9.12	NA	1267.22	14.17	NA	1262.17
RW-2S	9982.9501	10151.7112	1276.33	10.0	15.5	Shallow	10.28	12.70	1266.05	11.19	12.70	1265.14
RW-2D	9982.6088	10169.3122	1276.35	27.0	42.0	Deep	23.91	36.90	1252.44	36.94	36.90	1239.41
RW-3S	9837.0894	9990.9663	1278.14	9.0	13.5	Shallow	8.74	8.80	1269.40	7.83	8.80	1270.31
RW-5S	9863.4298	10330.7462	1277.29	7.0	10.0	Shallow	NA	NA	NA	NA	NA	NA
RW-6D	9994.04	10367.91	1277.33			Deep	31.96	NA	1245.37	28.30	NA	1249.03
GP-1S	9942.4384	10203.1085	1278.83	8.0	12.8	Shallow	NA	NA	NA	NA	NA	NA
GP-2S	9899.8775	10204.1632	1278.46	2.6	12.6	Shallow	NA	NA	NA	NA	NA	NA
GP-2D	9899.7358	10207.9807	1278.56	30.0	34.8	Deep	NA	NA	NA	NA	NA	NA
GP-3S	9941.2543	10263.8898	1278.59	4.0	14.0	Shallow	NA	NA	NA	NA	NA	NA
GP-3D	9936.9027	10264.588	1278.62	34.0	38.8	Deep	NA	NA	NA	NA	NA	NA
GP-4S	9940.86*	10154.97*	1278.06	10.8	15.8	Shallow	8.26	NA	1269.80	16.07	NA	1261.99
GP-4D	9942.1743	10152.2232	1277.95	39.0	43.8	Deep	10.32	NA	1267.63	9.02	NA	1268.93
GP-5S	9994.7299	10200.2055	1277.44	7.0	11.8	Shallow	NA	NA	NA	NA	NA	NA
GP-5D	9994.8642	10202.9906	1276.81	36.0	40.8	Deep	NA	NA	NA	NA	NA	NA
PZ-1S	9981.8469	10169.3122	1277.77			Shallow	NA	NA	NA	NA	NA	NA
PZ-1D	9980.4294	10171.2636	1277.64			Deep	NA	NA	NA	NA	NA	NA
PZ-2D	9979.5627	10172.4761	1277.55			Deep	NA	NA	NA	NA	NA	NA

APPENDIX A-1

2012 Water Level Data Essex/Hope Site Jamestown, NY

Monitoring Location	Northing	Easting	Reference Elevation (ft msl)	Depth to Top of Screen	Depth to Bottom of Screen	Screened Zone	September 24, 2012			November 12, 2012		
							Depth to Water	Depth to Top of Pump	Groundwater Elevation (ft msl)	Depth to Water	Depth to Top of Pump	Groundwater Elevation (ft msl)
PZ-3D	9942.0414	10199.2937	1278.8	20.0	40.0	Deep	NA	NA	NA	NA	NA	NA
PZ-4D	9946.2326	10195.679	1278.71			Deep	NA	NA	NA	NA	NA	NA
PZ-5S	9897.7381	10330.7876	1276.42	5.5	12.0	Shallow	8.22	NA	1268.20	7.89	NA	1268.53
PZ-5D	9894.5731	10329.7148	1276.4	21.0	42.0	Deep	9.88	NA	1266.52	10.30	NA	1266.10
PZ-6S	9932.2079	10344.4895	1276.61	8.5	13.5	Shallow	10.04	NA	1266.57	9.23	NA	1267.38
PZ-6D	9929.8004	10343.4742	1276.62	25.5	45.5	Deep	10.19	NA	1266.43	12.02	NA	1264.60
PZ-7D	9994.5452	10463.2465	1275.68	22.0	42.0	Deep	10.84	NA	1264.84	11.59	NA	1264.09
PZ-8D	9856.4908	10237.8118	1278.12	21.0	41.0	Deep	NA	NA	NA	NA	NA	NA
PZ-9D	9856.2398	10291.1658	1277.3	19.0	39.0	Deep	NA	NA	NA	NA	NA	NA
PZ-10D	9858.9821	10366.4236	1277.52	26.5	46.5	Deep	NA	NA	NA	NA	NA	NA
PZ-11D	9863.0677	10452.8989	1276.63	21.3	41.3	Deep	NA	NA	NA	NA	NA	NA
VP-5D	9925.1052	10103.0141	1277.88	12.5	34.3	Deep	9.64	NA	1268.24	11.88	NA	1266.00
VP-6S	9928.8123	10423.4628	1276.48	18.3	24.0	Deep upper gravel	10.29	NA	1266.19	9.76	NA	1266.72
VP-6D	9932.5744	10424.1378	1276.6	29.5	39.5	Deep	8.79	NA	1267.81	9.62	NA	1266.98
VP-7D	9758.4881	10337.7133	1278.64	20.4	39.3	Deep	12.58	NA	1266.06	12.18	NA	1266.46
VP-8D	9994.6178	10197.8133	1277.15	20.0	39.0	Deep	9.93	NA	1267.22	11.31	NA	1265.84

Notes:

NM = Not Measure
NA = Not Applicable

RW-4S, RW-5S taken offline in October 2002 for UST Removal.
Wells RW-4S, TW-01, and HW-7 destroyed during UST removal operations.

APPENDIX A-2

Groundwater Extraction System Monitoring Data

APPENDIX A-2

2012 Groundwater Extraction System Monitoring Data Essex/Hope Site Jamestown, NY

Date	NPL Area - Shallow WBZ			L.F. Sand WBZ			AST/UST Area - Shallow	Comments
	RW-1S	RW-2S	Total GPM	RW-2D	RW-6D	Total GPM	RW-3S	
	Avg. GPM	Avg. GPM		Avg. GPM	Avg. GPM		Avg. GPM	
01/04/12	0.230	1.00	1.23	1.25	offline	1.25	0.057	RWs reset; down on arrival. RWs offline at 1320 hrs for carbon change out. RWs online 1/5/12 at 0805 hrs following change out activities.
01/17/12	0.132	1.91	2.04	2.42	offline	2.42	0.065	
02/03/12	0.266	1.92	2.19	2.39	offline	2.39	0.090	
02/05/12				2.37	offline	2.37		RWs down on arrival due to high tank alarm. Minimal pumping during this time. RW-2D ran continuous on local. Obstruction discovered in flow meter. Effluent line and flow meter cleaned and normal pumping resumed.
02/15/12				2.34	offline	2.34		
03/01/12				2.33	offline	2.33		
03/13/12	0.117	1.03	1.15	2.34	offline	2.34	0.017	
03/20/12	0.116	1.14	1.26	2.37	offline	2.37	0.015	RW-6D online for 1 hr following VFD replacement for Post-ISCO sampling.
04/05/12	0.081	0.618	0.70	2.37	offline	2.37	0.008	
04/19/12	0.053	0.739	0.79	2.34	offline	2.34	0.0002	
04/30/12	0.157	1.57	1.73	2.32	offline	2.32	0.043	RWs offline at 1045 hrs for carbon change out activities. RW-2S meter replaced. RWs online 5/2/12 at 1030 hrs following change out activities.
05/18/12	0.134	1.57	1.70	2.39	offline	2.39	0.031	
05/30/12	0.052	0.25	0.30	2.16	offline	2.16	0.0005	RW-2D down on arrival; reset.
06/11/12	0.067	0.463	0.53	2.27		2.27	0.004	RW-6D online at 1545 hrs.
06/13/12	0.092	0.930	1.02	2.26	0.532	2.79	0.029	
06/27/12	0.062	0.400	0.46	2.23	0.393	2.62	0.003	
07/14/12	0.040	0.099	0.14	2.21	0.144	2.35	0.0005	RW-6D down on arrival due to VFD fault; reset.
07/27/12	0.086	0.970	1.06	2.16	0.068	2.23	0.015	RW-2D reset; bus undervoltage.
08/10/12	0.094	0.880	0.97	0.204	0.026	0.23	0.006	RW-2D reset; down on arrival.

APPENDIX A-2

2012 Groundwater Extraction System Monitoring Data Essex/Hope Site Jamestown, NY

Date	NPL Area - Shallow WBZ			L.F. Sand WBZ			AST/UST Area - Shallow	Comments
	RW-1S	RW-2S	Total	RW-2D	RW-6D	Total	RW-3S	
	Avg. GPM	Avg. GPM		Avg. GPM	Avg. GPM		Avg. GPM	
08/13/12	0.077	0.877	0.95	2.29	0.005	2.30	0.005	RWs offline at 1130 hrs for RW-2D acid treatment. RWs online 8/15/12 at 1935 hrs.
08/16/12	0.137	1.66	1.80	2.20	0.025	2.23	0.014	
08/20/12	0.093	1.22	1.31	0.460	0.005	0.47	0.007	RW-2D reset on arrival.
08/21/12	0.075	0.705	0.78	1.80	0.005	1.81	0.003	RW-2S offline from 0940 hrs to 1055 hrs for development activities. RW-2D offline at 1105 hrs for development activities and remain offline due to bad motor. RWs offline 8/22/12 at 0815 hrs for well development activities and remain offline for GAC pump repair.
09/26/12	0.151	2.57	2.72	2.27	1.41	3.68	0	RW-2D motor replaced on 9/25/12 and RWs back online at 0930 hrs following GAC pump repair.
10/07/12	0.067	0.722	0.79	2.18	1.28	3.46	offline	RW-3S offline due to bad motor.
10/15/12	0.067	0.763	0.83	2.17	1.23	3.40	offline	RWs offline at 1210 hrs for RW-6D acid treatment. RW-3S motor replaced. RWs online 10/17/12 at 1320 hrs following completion of acid treatment activities.
10/18/12	0.082	1.33	1.41	2.35	1.56	3.91	0.0002	
10/22/12	0.130	0.096	0.23	2.44	1.48	3.92	0.031	RWs offline at 1135 hrs for carbon change out activities. RW-2D level probes replaced. RWs online 10/23/12 at 0920 hrs. RW-2S electrical contactor replaced.
10/31/12	0.291	0.001	0.29	2.56	1.44	4.00	0.103	RW-2D reset; bus undervoltage. RW-2S reset; VFD on stop mode.
11/12/12	0.290	1.02	1.31	3.15	1.45	4.60	0.035	RW-2S offline from 11/13/12 at 1225 hrs to 11/15/12 at 1250 hrs for electrical malfunction.
11/20/12	0.100	0.972	1.07	3.09	1.36	4.45	0.010	RWs offline at 1140 hrs for GAC pump repair.
12/19/12	0.424	2.87	3.29	3.68	1.68	5.36	0.088	
01/03/13	0.129	1.91	2.039	3.14	1.31	4.45	0.032	

Notes:

RW-6D offline due to elevated acetone levels.

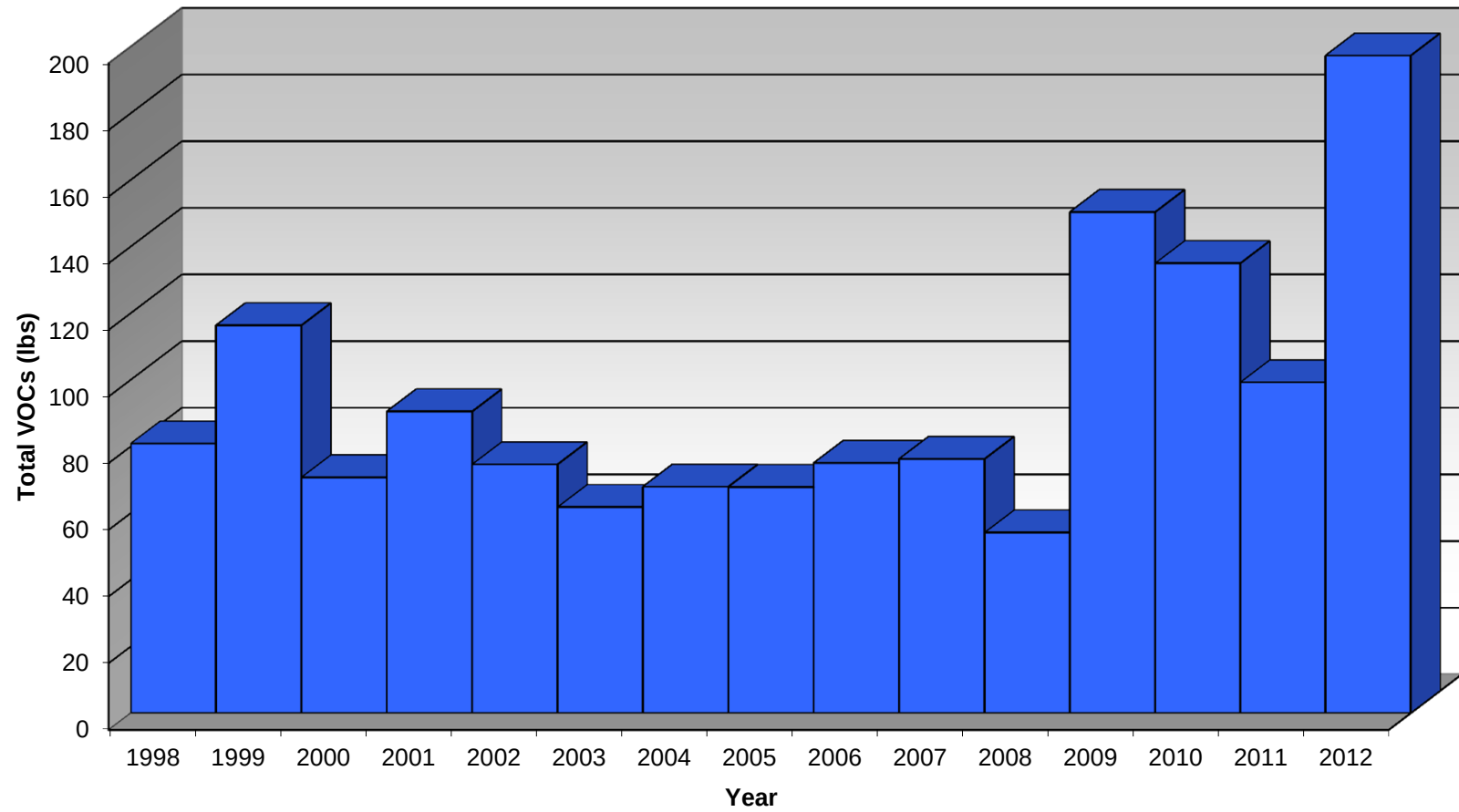
APPENDIX A-3

Recovery Well Performance Data

APPENDIX A-3 - Recovery Well Performance Data

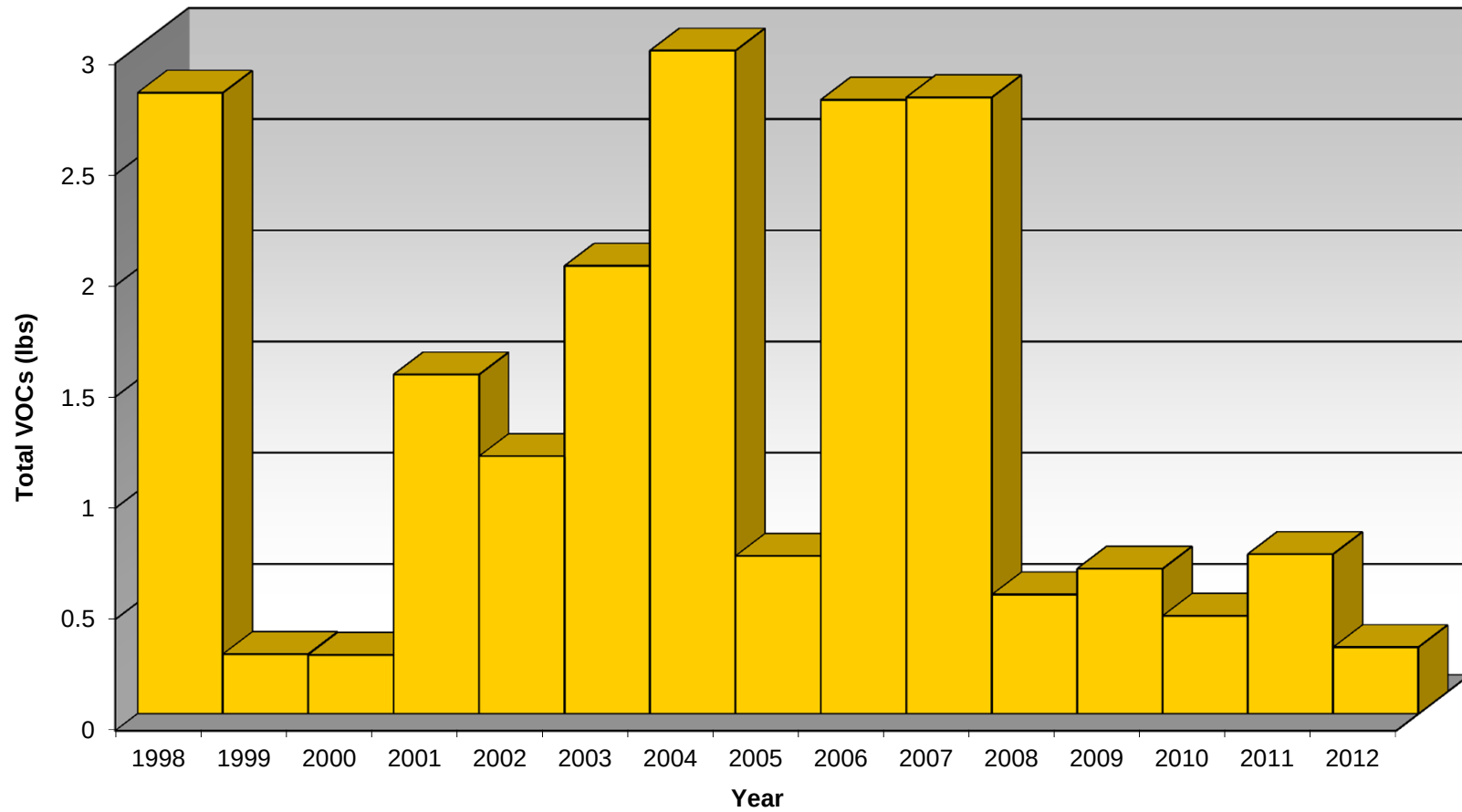
TOTAL SITE VOCs MASS REMOVED

**Essex/Hope Site
Jamestown, NY**



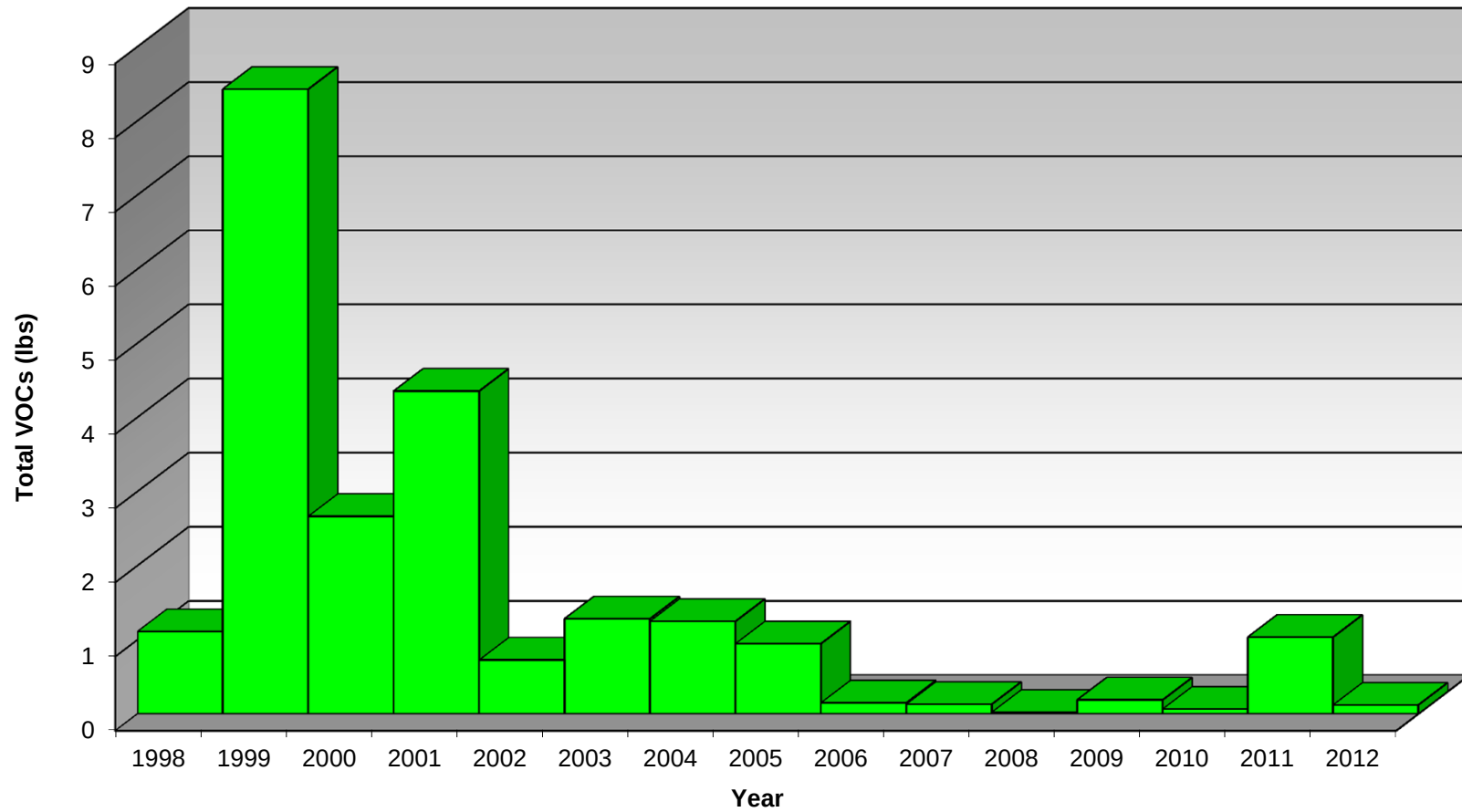
APPENDIX A-3 - Recovery Well Performance Data

RW-1S - Total VOCs Mass Removed
Essex/Hope Site
Jamestown, NY



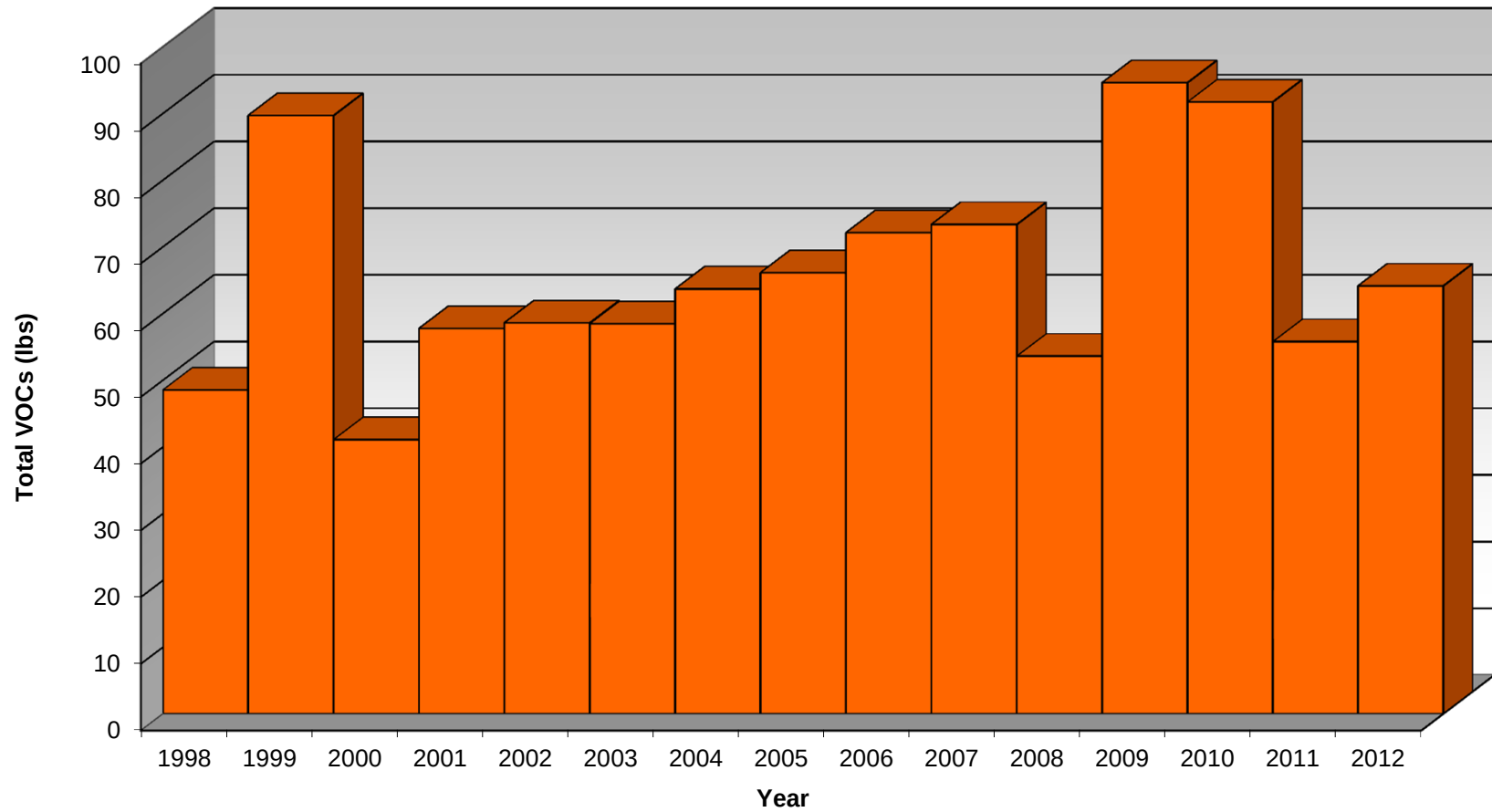
APPENDIX A-3 - Recovery Well Performance Data

RW-2S - Total VOCs Mass Removed
Essex/Hope Site
Jamestown, NY



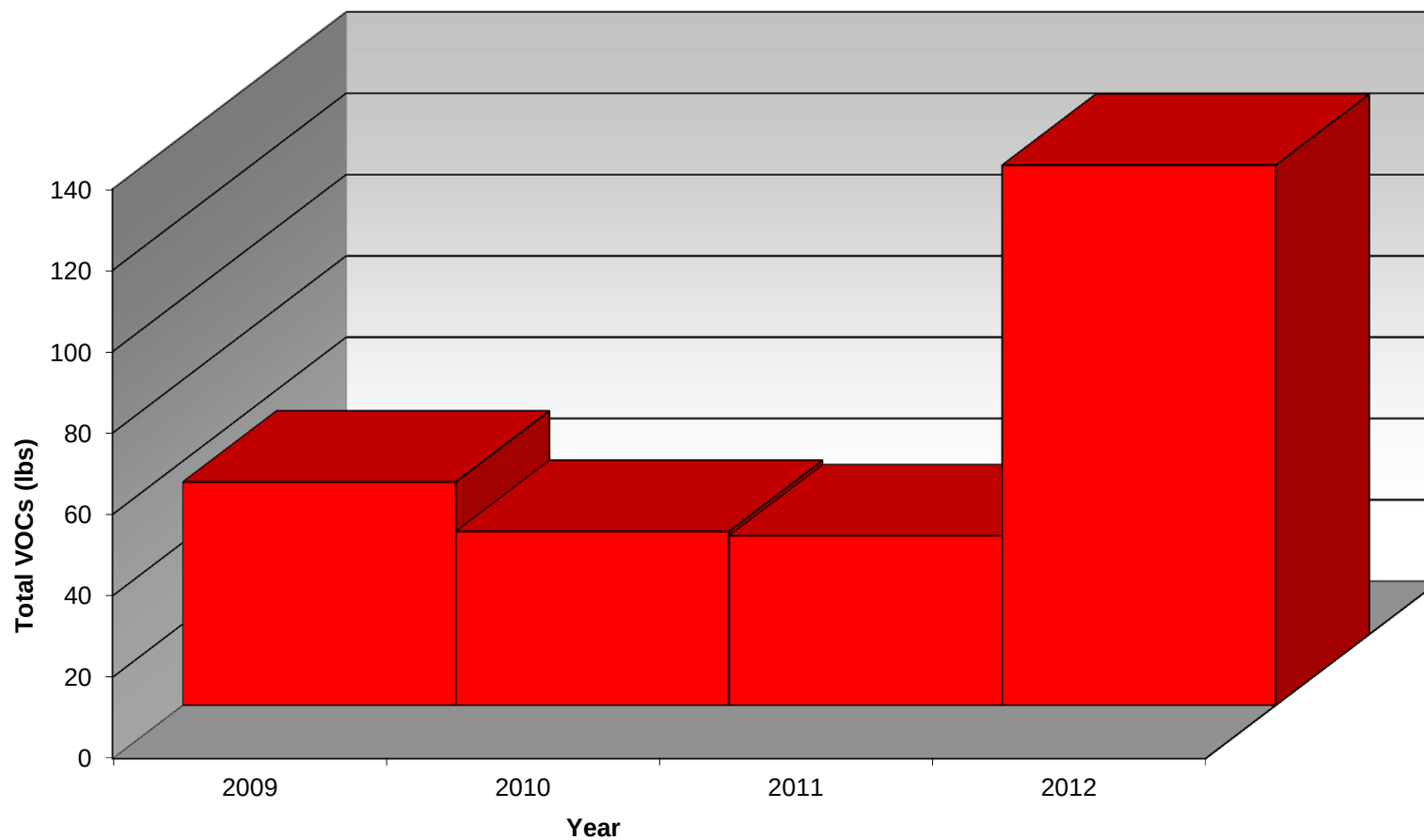
APPENDIX A-3 - Recovery Well Performance Data

RW-2D - Total VOCs Mass Removed
Essex/Hope Site
Jamestown, NY



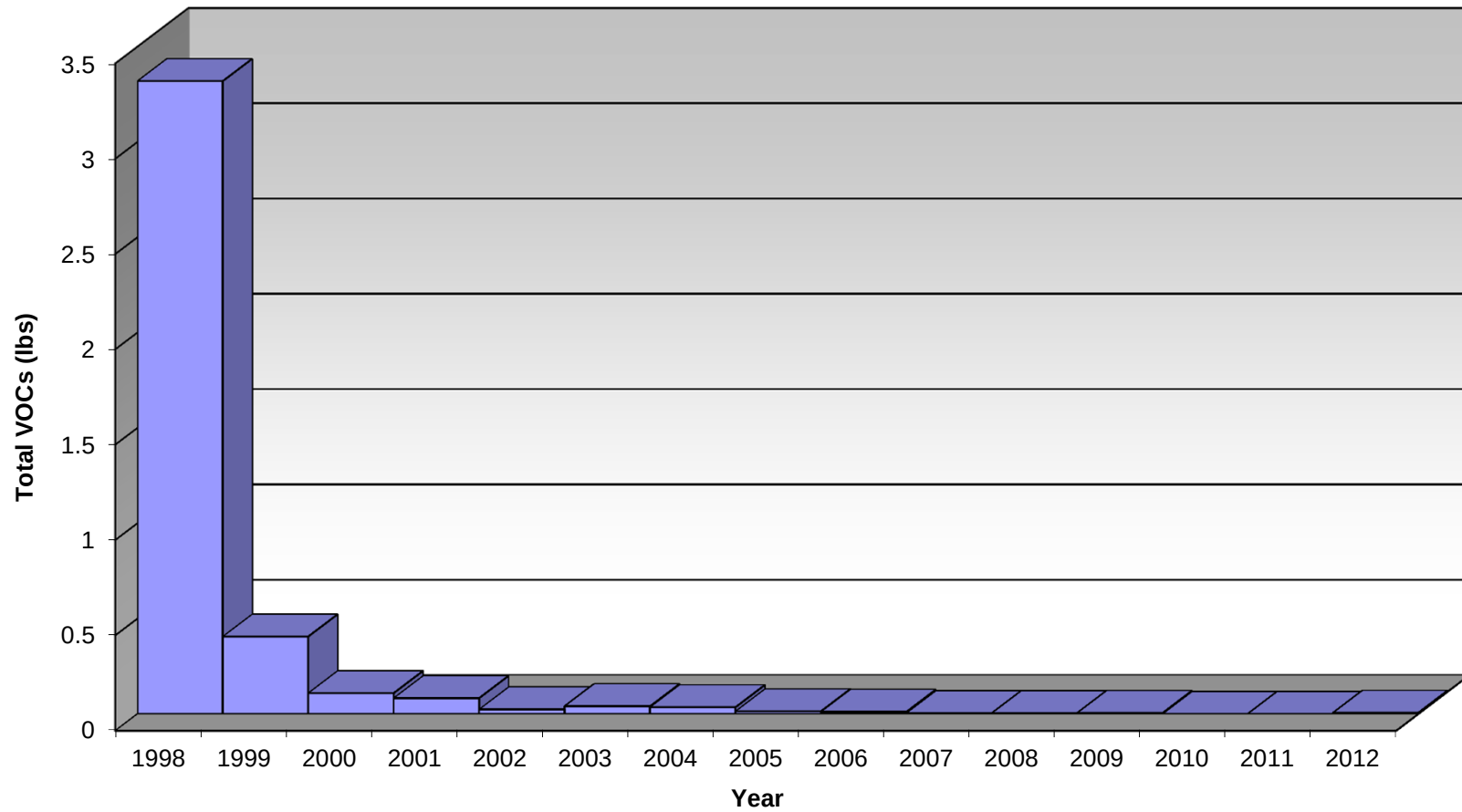
APPENDIX A-3 - Recovery Well Performance Data

RW-6D - Total VOCs Mass Removed
Essex/Hope Site
Jamestown, NY



APPENDIX A-3 - Recovery Well Performance Data

RW-3S - Total VOCs Mass Removed
Essex/Hope Site
Jamestown, NY



APPENDIX B

LABORATORY ANALYTICAL DATA

APPENDIX B-1

2012 SEMI-ANNUAL RECOVERY WELL DATA

June 27, 2012

Mr. Mark Dowiak
URS Corporation
Foster Plaza 4
501 Holiday Drive, Suite 300
Pittsburgh, PA 15220

RE: Project: 41569181.10000 Essex-Hope
Pace Project No.: 3071297

Dear Mr. Dowiak:

Enclosed are the analytical results for sample(s) received by the laboratory on June 13, 2012. 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.

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

Sincerely,



Rachel Christner for
Timothy Reed
timothy.reed@pacelabs.com
Project Manager

Enclosures

cc: Ms. Valerie Sibeto, URS Corporation



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 41569181.10000 Essex-Hope

Pace Project No.: 3071297

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4 Greensburg, PA 15601

ACCLASS DOD-ELAP Accreditation #: ADE-1544

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California/TNI Certification #: 04222CA

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New York/TNI Certification #: 10888

North Carolina Certification #: 42706

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188

Utah/TNI Certification #: ANTE

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Virginia Certification #: 00112

Virginia VELAP (Cert # 460198)

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REPORT OF LABORATORY ANALYSIS

Page 2 of 11

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ANALYTICAL RESULTS

Project: 41569181.10000 Essex-Hope

Pace Project No.: 3071297

Sample: RW-2D		Lab ID: 3071297001		Collected: 06/12/12 13:55		Received: 06/13/12 09:30		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND	ug/L	10.0	1			06/23/12 13:36	67-64-1	
Benzene	10	ug/L	1.0	1			06/23/12 13:36	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1			06/23/12 13:36	75-27-4	
Bromoform	ND	ug/L	5.0	1			06/23/12 13:36	75-25-2	
Bromomethane	ND	ug/L	5.0	1			06/23/12 13:36	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1			06/23/12 13:36	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1			06/23/12 13:36	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1			06/23/12 13:36	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1			06/23/12 13:36	108-90-7	
Chloroethane	ND	ug/L	5.0	1			06/23/12 13:36	75-00-3	
Chloroform	ND	ug/L	5.0	1			06/23/12 13:36	67-66-3	
Chloromethane	ND	ug/L	5.0	1			06/23/12 13:36	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1			06/23/12 13:36	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1			06/23/12 13:36	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1			06/23/12 13:36	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1			06/23/12 13:36	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1			06/23/12 13:36	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1			06/23/12 13:36	107-06-2	
1,1-Dichloroethene	27.4	ug/L	5.0	1			06/23/12 13:36	75-35-4	
cis-1,2-Dichloroethene	7660	ug/L	100	20			06/23/12 14:01	156-59-2	
trans-1,2-Dichloroethene	165	ug/L	5.0	1			06/23/12 13:36	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1			06/23/12 13:36	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1			06/23/12 13:36	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1			06/23/12 13:36	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1			06/23/12 13:36	100-41-4	
2-Hexanone	ND	ug/L	10.0	1			06/23/12 13:36	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1			06/23/12 13:36	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1			06/23/12 13:36	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1			06/23/12 13:36	108-10-1	
Styrene	ND	ug/L	5.0	1			06/23/12 13:36	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1			06/23/12 13:36	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1			06/23/12 13:36	127-18-4	
Toluene	ND	ug/L	5.0	1			06/23/12 13:36	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1			06/23/12 13:36	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1			06/23/12 13:36	79-00-5	
Trichloroethene	1040	ug/L	100	20			06/23/12 14:01	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1			06/23/12 13:36	75-69-4	
Vinyl chloride	837	ug/L	20.0	20			06/23/12 14:01	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1			06/23/12 13:36	179601-23-1	
o-Xylene	ND	ug/L	5.0	1			06/23/12 13:36	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	101	%	70-130	1			06/23/12 13:36	460-00-4	
1,2-Dichloroethane-d4 (S)	118	%	70-130	1			06/23/12 13:36	17060-07-0	
Toluene-d8 (S)	103	%	70-130	1			06/23/12 13:36	2037-26-5	

ANALYTICAL RESULTS

Project: 41569181.10000 Essex-Hope

Pace Project No.: 3071297

Sample: RW-2S		Lab ID: 3071297002		Collected: 06/12/12 14:00		Received: 06/13/12 09:30		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND	ug/L	10.0	1		06/23/12 15:15	67-64-1		
Benzene	ND	ug/L	1.0	1		06/23/12 15:15	71-43-2		
Bromodichloromethane	ND	ug/L	5.0	1		06/23/12 15:15	75-27-4		
Bromoform	ND	ug/L	5.0	1		06/23/12 15:15	75-25-2		
Bromomethane	ND	ug/L	5.0	1		06/23/12 15:15	74-83-9		
2-Butanone (MEK)	ND	ug/L	10.0	1		06/23/12 15:15	78-93-3		
Carbon disulfide	ND	ug/L	5.0	1		06/23/12 15:15	75-15-0		
Carbon tetrachloride	ND	ug/L	5.0	1		06/23/12 15:15	56-23-5		
Chlorobenzene	ND	ug/L	5.0	1		06/23/12 15:15	108-90-7		
Chloroethane	ND	ug/L	5.0	1		06/23/12 15:15	75-00-3		
Chloroform	ND	ug/L	5.0	1		06/23/12 15:15	67-66-3		
Chloromethane	ND	ug/L	5.0	1		06/23/12 15:15	74-87-3		
Dibromochloromethane	ND	ug/L	5.0	1		06/23/12 15:15	124-48-1		
1,2-Dichlorobenzene	ND	ug/L	5.0	1		06/23/12 15:15	95-50-1		
1,3-Dichlorobenzene	ND	ug/L	5.0	1		06/23/12 15:15	541-73-1		
1,4-Dichlorobenzene	ND	ug/L	5.0	1		06/23/12 15:15	106-46-7		
1,1-Dichloroethane	ND	ug/L	5.0	1		06/23/12 15:15	75-34-3		
1,2-Dichloroethane	ND	ug/L	5.0	1		06/23/12 15:15	107-06-2		
1,1-Dichloroethene	ND	ug/L	5.0	1		06/23/12 15:15	75-35-4		
cis-1,2-Dichloroethene	42.0	ug/L	5.0	1		06/23/12 15:15	156-59-2		
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		06/23/12 15:15	156-60-5		
1,2-Dichloropropane	ND	ug/L	5.0	1		06/23/12 15:15	78-87-5		
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		06/23/12 15:15	10061-01-5		
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		06/23/12 15:15	10061-02-6		
Ethylbenzene	ND	ug/L	5.0	1		06/23/12 15:15	100-41-4		
2-Hexanone	ND	ug/L	10.0	1		06/23/12 15:15	591-78-6		
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		06/23/12 15:15	98-82-8		
Methylene Chloride	ND	ug/L	5.0	1		06/23/12 15:15	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		06/23/12 15:15	108-10-1		
Styrene	ND	ug/L	5.0	1		06/23/12 15:15	100-42-5		
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		06/23/12 15:15	79-34-5		
Tetrachloroethene	ND	ug/L	5.0	1		06/23/12 15:15	127-18-4		
Toluene	ND	ug/L	5.0	1		06/23/12 15:15	108-88-3		
1,1,1-Trichloroethane	ND	ug/L	5.0	1		06/23/12 15:15	71-55-6		
1,1,2-Trichloroethane	ND	ug/L	5.0	1		06/23/12 15:15	79-00-5		
Trichloroethene	10.8	ug/L	5.0	1		06/23/12 15:15	79-01-6		
Trichlorofluoromethane	ND	ug/L	5.0	1		06/23/12 15:15	75-69-4		
Vinyl chloride	ND	ug/L	1.0	1		06/23/12 15:15	75-01-4		
m&p-Xylene	ND	ug/L	5.0	1		06/23/12 15:15	179601-23-1		
o-Xylene	ND	ug/L	5.0	1		06/23/12 15:15	95-47-6		
Surrogates									
4-Bromofluorobenzene (S)	102	%	70-130	1		06/23/12 15:15	460-00-4		
1,2-Dichloroethane-d4 (S)	127	%	70-130	1		06/23/12 15:15	17060-07-0		
Toluene-d8 (S)	102	%	70-130	1		06/23/12 15:15	2037-26-5		

ANALYTICAL RESULTS

Project: 41569181.10000 Essex-Hope

Pace Project No.: 3071297

Sample: RW-3S		Lab ID: 3071297003		Collected: 06/12/12 14:05		Received: 06/13/12 09:30		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND	ug/L	10.0	1			06/23/12 13:12	67-64-1	
Benzene	1.1	ug/L	1.0	1			06/23/12 13:12	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1			06/23/12 13:12	75-27-4	
Bromoform	ND	ug/L	5.0	1			06/23/12 13:12	75-25-2	
Bromomethane	ND	ug/L	5.0	1			06/23/12 13:12	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1			06/23/12 13:12	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1			06/23/12 13:12	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1			06/23/12 13:12	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1			06/23/12 13:12	108-90-7	
Chloroethane	ND	ug/L	5.0	1			06/23/12 13:12	75-00-3	
Chloroform	ND	ug/L	5.0	1			06/23/12 13:12	67-66-3	
Chloromethane	ND	ug/L	5.0	1			06/23/12 13:12	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1			06/23/12 13:12	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1			06/23/12 13:12	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1			06/23/12 13:12	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1			06/23/12 13:12	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1			06/23/12 13:12	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1			06/23/12 13:12	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1			06/23/12 13:12	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1			06/23/12 13:12	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1			06/23/12 13:12	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1			06/23/12 13:12	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1			06/23/12 13:12	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1			06/23/12 13:12	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1			06/23/12 13:12	100-41-4	
2-Hexanone	ND	ug/L	10.0	1			06/23/12 13:12	591-78-6	
Isopropylbenzene (Cumene)	4.2	ug/L	1.0	1			06/23/12 13:12	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1			06/23/12 13:12	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1			06/23/12 13:12	108-10-1	
Styrene	ND	ug/L	5.0	1			06/23/12 13:12	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1			06/23/12 13:12	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1			06/23/12 13:12	127-18-4	
Toluene	ND	ug/L	5.0	1			06/23/12 13:12	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1			06/23/12 13:12	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1			06/23/12 13:12	79-00-5	
Trichloroethene	ND	ug/L	5.0	1			06/23/12 13:12	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1			06/23/12 13:12	75-69-4	
Vinyl chloride	ND	ug/L	1.0	1			06/23/12 13:12	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1			06/23/12 13:12	179601-23-1	
o-Xylene	ND	ug/L	5.0	1			06/23/12 13:12	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130	1			06/23/12 13:12	460-00-4	
1,2-Dichloroethane-d4 (S)	124	%	70-130	1			06/23/12 13:12	17060-07-0	
Toluene-d8 (S)	101	%	70-130	1			06/23/12 13:12	2037-26-5	

ANALYTICAL RESULTS

Project: 41569181.10000 Essex-Hope

Pace Project No.: 3071297

Sample: RW-1S		Lab ID: 3071297004		Collected: 06/12/12 14:10		Received: 06/13/12 09:30		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND	ug/L	10.0	1		06/23/12 14:26	67-64-1		
Benzene	ND	ug/L	1.0	1		06/23/12 14:26	71-43-2		
Bromodichloromethane	ND	ug/L	5.0	1		06/23/12 14:26	75-27-4		
Bromoform	ND	ug/L	5.0	1		06/23/12 14:26	75-25-2		
Bromomethane	ND	ug/L	5.0	1		06/23/12 14:26	74-83-9		
2-Butanone (MEK)	ND	ug/L	10.0	1		06/23/12 14:26	78-93-3		
Carbon disulfide	ND	ug/L	5.0	1		06/23/12 14:26	75-15-0		
Carbon tetrachloride	ND	ug/L	5.0	1		06/23/12 14:26	56-23-5		
Chlorobenzene	ND	ug/L	5.0	1		06/23/12 14:26	108-90-7		
Chloroethane	ND	ug/L	5.0	1		06/23/12 14:26	75-00-3		
Chloroform	ND	ug/L	5.0	1		06/23/12 14:26	67-66-3		
Chloromethane	ND	ug/L	5.0	1		06/23/12 14:26	74-87-3		
Dibromochloromethane	ND	ug/L	5.0	1		06/23/12 14:26	124-48-1		
1,2-Dichlorobenzene	ND	ug/L	5.0	1		06/23/12 14:26	95-50-1		
1,3-Dichlorobenzene	ND	ug/L	5.0	1		06/23/12 14:26	541-73-1		
1,4-Dichlorobenzene	ND	ug/L	5.0	1		06/23/12 14:26	106-46-7		
1,1-Dichloroethane	ND	ug/L	5.0	1		06/23/12 14:26	75-34-3		
1,2-Dichloroethane	ND	ug/L	5.0	1		06/23/12 14:26	107-06-2		
1,1-Dichloroethene	ND	ug/L	5.0	1		06/23/12 14:26	75-35-4		
cis-1,2-Dichloroethene	459	ug/L	50.0	10		06/23/12 14:50	156-59-2		
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		06/23/12 14:26	156-60-5		
1,2-Dichloropropane	ND	ug/L	5.0	1		06/23/12 14:26	78-87-5		
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		06/23/12 14:26	10061-01-5		
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		06/23/12 14:26	10061-02-6		
Ethylbenzene	ND	ug/L	5.0	1		06/23/12 14:26	100-41-4		
2-Hexanone	ND	ug/L	10.0	1		06/23/12 14:26	591-78-6		
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		06/23/12 14:26	98-82-8		
Methylene Chloride	ND	ug/L	5.0	1		06/23/12 14:26	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		06/23/12 14:26	108-10-1		
Styrene	ND	ug/L	5.0	1		06/23/12 14:26	100-42-5		
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		06/23/12 14:26	79-34-5		
Tetrachloroethene	ND	ug/L	5.0	1		06/23/12 14:26	127-18-4		
Toluene	ND	ug/L	5.0	1		06/23/12 14:26	108-88-3		
1,1,1-Trichloroethane	ND	ug/L	5.0	1		06/23/12 14:26	71-55-6		
1,1,2-Trichloroethane	ND	ug/L	5.0	1		06/23/12 14:26	79-00-5		
Trichloroethene	294	ug/L	5.0	1		06/23/12 14:26	79-01-6		
Trichlorofluoromethane	ND	ug/L	5.0	1		06/23/12 14:26	75-69-4		
Vinyl chloride	16.9	ug/L	1.0	1		06/23/12 14:26	75-01-4		
m&p-Xylene	ND	ug/L	5.0	1		06/23/12 14:26	179601-23-1		
o-Xylene	ND	ug/L	5.0	1		06/23/12 14:26	95-47-6		
Surrogates									
4-Bromofluorobenzene (S)	98	%	70-130	1		06/23/12 14:26	460-00-4		
1,2-Dichloroethane-d4 (S)	121	%	70-130	1		06/23/12 14:26	17060-07-0		
Toluene-d8 (S)	99	%	70-130	1		06/23/12 14:26	2037-26-5		

QUALITY CONTROL DATA

Project: 41569181.10000 Essex-Hope

Pace Project No.: 3071297

QC Batch: MSV/13075 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 3071297001, 3071297002, 3071297003, 3071297004

METHOD BLANK: 455358 Matrix: Water

Associated Lab Samples: 3071297001, 3071297002, 3071297003, 3071297004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	5.0	06/23/12 09:05	
1,1,2,2-Tetrachloroethane	ug/L	ND	5.0	06/23/12 09:05	
1,1,2-Trichloroethane	ug/L	ND	5.0	06/23/12 09:05	
1,1-Dichloroethane	ug/L	ND	5.0	06/23/12 09:05	
1,1-Dichloroethene	ug/L	ND	5.0	06/23/12 09:05	
1,2-Dichlorobenzene	ug/L	ND	5.0	06/23/12 09:05	
1,2-Dichloroethane	ug/L	ND	5.0	06/23/12 09:05	
1,2-Dichloropropane	ug/L	ND	5.0	06/23/12 09:05	
1,3-Dichlorobenzene	ug/L	ND	5.0	06/23/12 09:05	
1,4-Dichlorobenzene	ug/L	ND	5.0	06/23/12 09:05	
2-Butanone (MEK)	ug/L	ND	10.0	06/23/12 09:05	
2-Hexanone	ug/L	ND	10.0	06/23/12 09:05	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	06/23/12 09:05	
Acetone	ug/L	ND	10.0	06/23/12 09:05	
Benzene	ug/L	ND	1.0	06/23/12 09:05	
Bromodichloromethane	ug/L	ND	5.0	06/23/12 09:05	
Bromoform	ug/L	ND	5.0	06/23/12 09:05	
Bromomethane	ug/L	ND	5.0	06/23/12 09:05	
Carbon disulfide	ug/L	ND	5.0	06/23/12 09:05	
Carbon tetrachloride	ug/L	ND	5.0	06/23/12 09:05	
Chlorobenzene	ug/L	ND	5.0	06/23/12 09:05	
Chloroethane	ug/L	ND	5.0	06/23/12 09:05	
Chloroform	ug/L	ND	5.0	06/23/12 09:05	
Chloromethane	ug/L	ND	5.0	06/23/12 09:05	
cis-1,2-Dichloroethene	ug/L	ND	5.0	06/23/12 09:05	
cis-1,3-Dichloropropene	ug/L	ND	5.0	06/23/12 09:05	
Dibromochloromethane	ug/L	ND	5.0	06/23/12 09:05	
Ethylbenzene	ug/L	ND	5.0	06/23/12 09:05	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	06/23/12 09:05	
m&p-Xylene	ug/L	ND	5.0	06/23/12 09:05	
Methylene Chloride	ug/L	ND	5.0	06/23/12 09:05	
o-Xylene	ug/L	ND	5.0	06/23/12 09:05	
Styrene	ug/L	ND	5.0	06/23/12 09:05	
Tetrachloroethene	ug/L	ND	5.0	06/23/12 09:05	
Toluene	ug/L	ND	5.0	06/23/12 09:05	
trans-1,2-Dichloroethene	ug/L	ND	5.0	06/23/12 09:05	
trans-1,3-Dichloropropene	ug/L	ND	5.0	06/23/12 09:05	
Trichloroethene	ug/L	ND	5.0	06/23/12 09:05	
Trichlorofluoromethane	ug/L	ND	5.0	06/23/12 09:05	
Vinyl chloride	ug/L	ND	1.0	06/23/12 09:05	
1,2-Dichloroethane-d4 (S)	%	121	70-130	06/23/12 09:05	
4-Bromofluorobenzene (S)	%	100	70-130	06/23/12 09:05	
Toluene-d8 (S)	%	102	70-130	06/23/12 09:05	

Date: 06/27/2012 04:40 PM

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 41569181.10000 Essex-Hope

Pace Project No.: 3071297

LABORATORY CONTROL SAMPLE: 455359

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	20.4	102	64.3-127	
1,1,2,2-Tetrachloroethane	ug/L	20	17.8	89	64.6-121	
1,1,2-Trichloroethane	ug/L	20	18.8	94	75.6-120	
1,1-Dichloroethane	ug/L	20	23.2	116	68.5-122	
1,1-Dichloroethene	ug/L	20	23.4	117	57.1-120	
1,2-Dichlorobenzene	ug/L	20	18.7	94	69.6-120	
1,2-Dichloroethane	ug/L	20	21.4	107	60.5-133	
1,2-Dichloropropane	ug/L	20	21.6	108	71-120	
1,3-Dichlorobenzene	ug/L	20	18.7	94	68.4-121	
1,4-Dichlorobenzene	ug/L	20	18.2	91	68.5-123	
2-Butanone (MEK)	ug/L	20	25.5	127	55.7-138	
2-Hexanone	ug/L	20	24.7	124	67-133	
4-Methyl-2-pentanone (MIBK)	ug/L	20	25.2	126	64.5-121	L1
Acetone	ug/L	20	24.3	121	57.6-168	
Benzene	ug/L	20	20.5	103	69.8-120	
Bromodichloromethane	ug/L	20	19.9	99	66.5-120	
Bromoform	ug/L	20	17.6	88	61.1-120	
Bromomethane	ug/L	20	26.2	131	10.6-200	
Carbon disulfide	ug/L	20	25.9	130	60.2-122	L1
Carbon tetrachloride	ug/L	20	20.4	102	60.1-127	
Chlorobenzene	ug/L	20	19.2	96	72-120	
Chloroethane	ug/L	20	27.3	137	36.8-142	
Chloroform	ug/L	20	20.6	103	69-122	
Chloromethane	ug/L	20	28.2	141	37.2-129	CU,L3
cis-1,2-Dichloroethene	ug/L	20	23.0	115	69.5-123	
cis-1,3-Dichloropropene	ug/L	20	19.3	96	74.3-120	
Dibromochloromethane	ug/L	20	18.8	94	66.1-120	
Ethylbenzene	ug/L	20	19.1	95	70.9-124	
Isopropylbenzene (Cumene)	ug/L	20	22.7	113	68.3-129	
m&p-Xylene	ug/L	40	40.1	100	70.4-130	
Methylene Chloride	ug/L	20	19.4	97	61.5-125	
o-Xylene	ug/L	20	19.2	96	70.6-127	
Styrene	ug/L	20	20.0	100	69.9-120	
Tetrachloroethene	ug/L	20	17.0	85	63.4-121	
Toluene	ug/L	20	20.5	103	71.5-120	
trans-1,2-Dichloroethene	ug/L	20	21.7	109	64.1-120	
trans-1,3-Dichloropropene	ug/L	20	19.3	96	71-120	
Trichloroethene	ug/L	20	17.5	88	65.9-120	
Trichlorofluoromethane	ug/L	20	26.4	132	44.8-137	
Vinyl chloride	ug/L	20	24.1	120	51-127	
1,2-Dichloroethane-d4 (S)	%			114	70-130	
4-Bromofluorobenzene (S)	%			96	70-130	
Toluene-d8 (S)	%			102	70-130	

QUALITY CONTROL DATA

Project: 41569181.10000 Essex-Hope

Pace Project No.: 3071297

MATRIX SPIKE & MATRIX SPIKE DUPLICATE:			455360		455361							
Parameter	Units	3071348009		MS	MSD	MS	MSD	MS	MSD	% Rec	RPD	Qual
		Result	Conc.	Spike	Spike							
1,1,1-Trichloroethane	ug/L	ND	20	20	20	21.1	17.8	105	89	64.3-127	17	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	20	19.3	16.1	96	81	64.6-121	18	
1,1,2-Trichloroethane	ug/L	ND	20	20	20	19.7	17.1	99	86	75.6-120	14	
1,1-Dichloroethane	ug/L	ND	20	20	20	22.7	18.4	113	92	68.5-122	21	
1,1-Dichloroethene	ug/L	ND	20	20	20	21.0	18.4	105	92	57.1-120	13	
1,2-Dichlorobenzene	ug/L	ND	20	20	20	18.5	17.4	92	87	69.6-120	6	
1,2-Dichloroethane	ug/L	ND	20	20	20	19.8	16.6	99	83	60.5-133	18	
1,2-Dichloropropane	ug/L	ND	20	20	20	20.7	17.6	104	88	71-120	16	
1,3-Dichlorobenzene	ug/L	ND	20	20	20	17.6	16.9	88	85	68.4-121	4	
1,4-Dichlorobenzene	ug/L	ND	20	20	20	17.9	16.8	90	84	68.5-123	7	
2-Butanone (MEK)	ug/L	ND	20	20	20	24.5	19.8	122	99	55.7-138	21	
2-Hexanone	ug/L	ND	20	20	20	26.8	21.9	134	110	67-133	20	M0
4-Methyl-2-pentanone (MIBK)	ug/L	ND	20	20	20	26.7	21.9	133	109	64.5-121	20	M0
Acetone	ug/L	ND	20	20	20	24.0	22.7	110	104	57.6-168	6	
Benzene	ug/L	ND	20	20	20	21.8	18.4	108	91	69.8-120	17	
Bromodichloromethane	ug/L	ND	20	20	20	19.4	16.3	97	82	66.5-120	17	
Bromoform	ug/L	ND	20	20	20	16.3	14.7	81	73	61.1-120	11	
Bromomethane	ug/L	ND	20	20	20	22.0	20.3	110	102	10.6-200	8	
Carbon disulfide	ug/L	ND	20	20	20	27.1	26.1	135	130	60.2-122	4	M0
Carbon tetrachloride	ug/L	ND	20	20	20	19.6	17.1	98	86	60.1-127	13	
Chlorobenzene	ug/L	ND	20	20	20	19.3	17.8	96	89	72-120	8	
Chloroethane	ug/L	ND	20	20	20	27.3	27.1	137	136	36.8-142	.7	
Chloroform	ug/L	ND	20	20	20	20.6	17.2	103	86	69-122	18	
Chloromethane	ug/L	ND	20	20	20	25.9	28.0	129	140	37.2-129	8	M0
cis-1,2-Dichloroethene	ug/L	ND	20	20	20	21.5	18.1	108	91	69.5-123	17	
cis-1,3-Dichloropropene	ug/L	ND	20	20	20	19.3	16.5	96	83	74.3-120	15	
Dibromochloromethane	ug/L	ND	20	20	20	18.3	16.2	92	81	66.1-120	12	
Ethylbenzene	ug/L	ND	20	20	20	20.2	18.3	101	91	70.9-124	10	
Isopropylbenzene (Cumene)	ug/L	ND	20	20	20	21.0	19.8	105	99	68.3-129	6	
m&p-Xylene	ug/L	ND	40	40	40	39.7	36.9	99	92	70.4-130	7	
Methylene Chloride	ug/L	ND	20	20	20	18.3	14.9	92	75	61.5-125	20	
o-Xylene	ug/L	ND	20	20	20	20.1	18.6	100	93	70.6-127	8	
Styrene	ug/L	ND	20	20	20	19.2	18.3	96	91	69.9-120	5	
Tetrachloroethene	ug/L	ND	20	20	20	18.6	17.5	93	87	63.4-121	6	
Toluene	ug/L	ND	20	20	20	21.1	18.8	105	94	71.5-120	11	
trans-1,2-Dichloroethene	ug/L	ND	20	20	20	20.5	17.0	103	85	64.1-120	19	
trans-1,3-Dichloropropene	ug/L	ND	20	20	20	19.3	16.5	96	83	71-120	15	
Trichloroethene	ug/L	ND	20	20	20	19.5	17.5	98	88	65.9-120	11	
Trichlorofluoromethane	ug/L	ND	20	20	20	26.4	26.0	132	130	44.8-137	2	
Vinyl chloride	ug/L	ND	20	20	20	28.1	28.2	140	141	51-127	.7	M0
1,2-Dichloroethane-d4 (S)	%							99	95	70-130		
4-Bromofluorobenzene (S)	%							98	97	70-130		
Toluene-d8 (S)	%							101	101	70-130		

QUALIFIERS

Project: 41569181.10000 Essex-Hope

Pace Project No.: 3071297

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

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.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

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.

ANALYTE QUALIFIERS

CU	The continuing calibration for this compound is outside of Pace Analytical acceptance limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.
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.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 41569181.10000 Essex-Hope

Pace Project No.: 3071297

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
3071297001	RW-2D	EPA 8260	MSV/13075		
3071297002	RW-2S	EPA 8260	MSV/13075		
3071297003	RW-3S	EPA 8260	MSV/13075		
3071297004	RW-1S	EPA 8260	MSV/13075		

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information: Company: URS CORP Address: FOSTER PLAZA 4 501 HOLLYWOOD DR. STE 300 PITTSBURGH, PA 15220 Email To: _____ Phone: 412-503-4700 Fax: 412-503-4701 Requested Due Date/TAT: STANDARD		Section B Required Project Information: Report To: MARY DOWIAK Copy To: VALERIE SIBETO Purchase Order No.: 41529181 Project Name: ESSEX/HOPE DAMSDOWN Project Number: 41529181.1000		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: NY STATE: _____		Page: _____ of _____ 1492352	

ITEM #	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 CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives Unpreserved H ₂ SO ₄ HNO ₃ HCl NaOH Na ₂ S ₂ O ₃ Methanol Other	Analysis Test ↓ Analysis Test ↓	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
					COMPOSITE START	COMPOSITE END/GRAB							
1	RW-2D		NTG		DATE: 6/12/12 TIME: 1355			3					001
2	RW-2S				DATE: 6/12/12 TIME: 1400			3					002
3	RW-3S				DATE: 6/12/12 TIME: 1405			3					003
4	RW-1S				DATE: 6/12/12 TIME: 1410			3					004
5													
6													
7													
8													
9													
10													
11													
12													
ADDITIONAL COMMENTS: SEMI-ANNUAL RW SAMPLING - NOTE: RW-UD SAMPLED VI POST-1500 ROUND 3													
RELINQUISHED BY / AFFILIATION: URS DATE: 6-12-12 TIME: 1405 ACCEPTED BY / AFFILIATION: URS DATE: 6-12-12 TIME: 1405 SAMPLE CONDITIONS: Y N Y													

SAMPLER NAME AND SIGNATURE PRINT Name of SAMPLER: VALERIE SIBETO SIGNATURE of SAMPLER: <i>Valerie Sibeto</i>		DATE Signed (MM/DD/YY): 6-12-12
Temp in °C: _____ Received on: _____ Custody Sealed (Y/N): _____ Samples Intact (Y/N): _____		F-ALL-Q-020rev.07, 15-May-2007

*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.



Sample Condition Upon Receipt

Client Name: WDSProject # 3071297Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____Tracking #: 872640256919Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ noPacking Material: ☒ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____Thermometer Used (5) 6 7Type of Ice: Wet Blue None☒ Samples on ice, cooling process has begunCooler Temperature 4.3

Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Comments:

Date and Initials of person examining contents: VEL 6/13/12

Chain of Custody Present:	☒ Yes ☐ No ☐ N/A	1.
Chain of Custody Filled Out:	☒ Yes ☐ No ☐ N/A	2.
Chain of Custody Relinquished:	☒ Yes ☐ No ☐ N/A	3.
Sampler Name & Signature on COC:	☒ Yes ☐ No ☐ N/A	4.
Samples Arrived within Hold Time:	☒ Yes ☐ No ☐ N/A	5.
Short Hold Time Analysis (<72hr):	☐ Yes ☒ No ☐ N/A	6.
Rush Turn Around Time Requested:	☐ Yes ☒ No ☐ N/A	7.
Sufficient Volume:	☒ Yes ☐ No ☐ N/A	8.
Correct Containers Used:	☒ Yes ☐ No ☐ N/A	9.
-Pace Containers Used:	☒ Yes ☐ No ☐ N/A	
Containers Intact:	☒ Yes ☐ No ☐ N/A	10.
Filtered volume received for Dissolved tests	☐ Yes ☐ No ☒ N/A	11.
Sample Labels match COC:	☒ Yes ☐ No ☐ N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>WDS</u>		
All containers needing preservation have been checked.	☐ Yes ☐ No ☒ N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐ Yes ☐ No ☒ N/A	
exceptions: <u>VOA</u> coliform, TOC, O&G, WH-DRO (water)	☒ Yes ☐ No	initial when completed <u>VEL</u> Lot # of added preservative
Samples checked for dechlorination:	☐ Yes ☐ No ☒ N/A	14.
Headspace in VOA Vials (>6mm):	☐ Yes ☒ No ☐ N/A	15.
Trip Blank Present:	☐ Yes ☐ No ☒ N/A	16.
Trip Blank Custody Seals Present	☐ Yes ☐ No ☒ N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required?

Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: [Signature]Date: 6/14/12

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

3071297

Client Name: AD-3

[illegible]

ANALYTICAL RESULTS

Project: 41569123/Essex-Hope

Pace Project No.: 3071263

Sample: RW-6D		Lab ID: 3071263007	Collected: 06/12/12 13:30	Received: 06/13/12 09:30	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP		Analytical Method: EPA 6010B Preparation Method: EPA 3005						
Iron	11900	ug/L	70.0	1	06/14/12 15:49	06/15/12 13:31	7439-89-6	
8260 MSV		Analytical Method: EPA 8260						
Acetone	20600	ug/L	2000	200		06/18/12 16:50	67-64-1	
Benzene	23.9	ug/L	1.0	1		06/15/12 17:01	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		06/15/12 17:01	75-27-4	
Bromoform	ND	ug/L	5.0	1		06/15/12 17:01	75-25-2	
Bromomethane	ND	ug/L	5.0	1		06/15/12 17:01	74-83-9	
2-Butanone (MEK)	259	ug/L	10.0	1		06/15/12 17:01	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		06/15/12 17:01	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		06/15/12 17:01	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		06/15/12 17:01	108-90-7	
Chloroethane	ND	ug/L	5.0	1		06/15/12 17:01	75-00-3	
Chloroform	ND	ug/L	5.0	1		06/15/12 17:01	67-66-3	
Chloromethane	ND	ug/L	5.0	1		06/15/12 17:01	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		06/15/12 17:01	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		06/15/12 17:01	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		06/15/12 17:01	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		06/15/12 17:01	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		06/15/12 17:01	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		06/15/12 17:01	107-06-2	
1,1-Dichloroethene	28.9	ug/L	5.0	1		06/15/12 17:01	75-35-4	
cis-1,2-Dichloroethene	16700	ug/L	1000	200		06/18/12 16:50	156-59-2	
trans-1,2-Dichloroethene	181	ug/L	5.0	1		06/15/12 17:01	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		06/15/12 17:01	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		06/15/12 17:01	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		06/15/12 17:01	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		06/15/12 17:01	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		06/15/12 17:01	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		06/15/12 17:01	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		06/15/12 17:01	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		06/15/12 17:01	108-10-1	
Styrene	ND	ug/L	5.0	1		06/15/12 17:01	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		06/15/12 17:01	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		06/15/12 17:01	127-18-4	
Toluene	ND	ug/L	5.0	1		06/15/12 17:01	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		06/15/12 17:01	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		06/15/12 17:01	79-00-5	
Trichloroethene	3900	ug/L	1000	200		06/18/12 16:50	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		06/15/12 17:01	75-69-4	
Vinyl chloride	3390	ug/L	200	200		06/18/12 16:50	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		06/15/12 17:01	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		06/15/12 17:01	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	98	%	70-130	1		06/15/12 17:01	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	70-130	1		06/15/12 17:01	17060-07-0	
Toluene-d8 (S)	102	%	70-130	1		06/15/12 17:01	2037-26-5	

Date: 06/27/2012 04:43 PM

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 41569123/Essex-Hope

Pace Project No.: 3071263

Sample: RW-6D		Lab ID: 3071263007		Collected: 06/12/12 13:30		Received: 06/13/12 09:30		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
2320B Alkalinity	Analytical Method: SM 2320B								
Alkalinity, Total as CaCO3	477	mg/L	10.0	1		06/15/12 17:30			
Iron, Ferric (Calculation)	Analytical Method: SM 3500-Fe D#4								
Iron, Ferric	8.9	mg/L	0.10	1		06/27/12 14:50	7439-89-6	N2	
Iron, Ferrous	Analytical Method: SM 3500-Fe D#4								
Iron, Ferrous	2.9	mg/L	0.10	1		06/13/12 14:51		H1,H6	
4500S2F Sulfide, Iodometric	Analytical Method: SM 4500-S F (2000)								
Sulfide	ND	mg/L	1.0	1		06/14/12 21:02	18496-25-8		
ASTM D516-9002 Sulfate Water	Analytical Method: ASTM D516-90,02								
Sulfate	ND	mg/L	10.0	1		06/19/12 11:39	14808-79-8		

November 27, 2012

Mr. Mark Dowiak
URS Corporation
Foster Plaza 6
681 Andersen Drive, Suite 400
Pittsburgh, PA 15220

RE: Project: Essex/Hope Jamestown
Pace Project No.: 3082101

Dear Mr. Dowiak:

Enclosed are the analytical results for sample(s) received by the laboratory on November 16, 2012. 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.

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

Sincerely,



Timothy Reed

timothy.reed@pacelabs.com
Project Manager

Enclosures

cc: Ms. Valerie Sibeto, URS Corporation



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Essex/Hope Jamestown

Pace Project No.: 3082101

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4 Greensburg, PA 15601

ACCLASS DOD-ELAP Accreditation #: ADE-1544

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California/TNI Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683

Guam/PADEP Certification

Hawaii/PADEP Certification

Idaho Certification

Illinois/PADEP Certification

Indiana/PADEP Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana/TNI Certification #: LA080002

Louisiana/TNI Certification #: 4086

Maine Certification #: PA0091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nevada Certification

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188

Utah/TNI Certification #: ANTE

Virgin Island/PADEP Certification

Virginia Certification #: 00112

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia Certification #: 143

Wisconsin/PADEP Certification

Wyoming Certification #: 8TMS-Q

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Essex/Hope Jamestown

Pace Project No.: 3082101

Sample: RW-2D		Lab ID: 3082101001		Collected: 11/15/12 09:00		Received: 11/16/12 09:35		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND	ug/L	10.0	1			11/20/12 21:51	67-64-1	
Benzene	7.9	ug/L	1.0	1			11/20/12 21:51	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1			11/20/12 21:51	75-27-4	
Bromoform	ND	ug/L	5.0	1			11/20/12 21:51	75-25-2	
Bromomethane	ND	ug/L	5.0	1			11/20/12 21:51	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1			11/20/12 21:51	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1			11/20/12 21:51	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1			11/20/12 21:51	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1			11/20/12 21:51	108-90-7	
Chloroethane	ND	ug/L	5.0	1			11/20/12 21:51	75-00-3	
Chloroform	ND	ug/L	5.0	1			11/20/12 21:51	67-66-3	
Chloromethane	ND	ug/L	5.0	1			11/20/12 21:51	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1			11/20/12 21:51	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1			11/20/12 21:51	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1			11/20/12 21:51	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1			11/20/12 21:51	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1			11/20/12 21:51	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1			11/20/12 21:51	107-06-2	
1,1-Dichloroethene	17.6	ug/L	5.0	1			11/20/12 21:51	75-35-4	
cis-1,2-Dichloroethene	2770	ug/L	100	20			11/20/12 22:17	156-59-2	
trans-1,2-Dichloroethene	64.6	ug/L	5.0	1			11/20/12 21:51	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1			11/20/12 21:51	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1			11/20/12 21:51	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1			11/20/12 21:51	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1			11/20/12 21:51	100-41-4	
2-Hexanone	ND	ug/L	10.0	1			11/20/12 21:51	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1			11/20/12 21:51	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1			11/20/12 21:51	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1			11/20/12 21:51	108-10-1	
Styrene	ND	ug/L	5.0	1			11/20/12 21:51	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1			11/20/12 21:51	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1			11/20/12 21:51	127-18-4	
Toluene	ND	ug/L	5.0	1			11/20/12 21:51	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1			11/20/12 21:51	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1			11/20/12 21:51	79-00-5	
Trichloroethene	2170	ug/L	100	20			11/20/12 22:17	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1			11/20/12 21:51	75-69-4	
Vinyl chloride	335	ug/L	1.0	1			11/20/12 21:51	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1			11/20/12 21:51	179601-23-1	
o-Xylene	ND	ug/L	5.0	1			11/20/12 21:51	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	102	%	85-115	1			11/20/12 21:51	460-00-4	
1,2-Dichloroethane-d4 (S)	110	%	77-119	1			11/20/12 21:51	17060-07-0	
Toluene-d8 (S)	99	%	85-115	1			11/20/12 21:51	2037-26-5	

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown

Pace Project No.: 3082101

Sample: RW-2S		Lab ID: 3082101002	Collected: 11/15/12 09:15	Received: 11/16/12 09:35	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND	ug/L	10.0	1		11/20/12 20:09	67-64-1	
Benzene	ND	ug/L	1.0	1		11/20/12 20:09	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		11/20/12 20:09	75-27-4	
Bromoform	ND	ug/L	5.0	1		11/20/12 20:09	75-25-2	
Bromomethane	ND	ug/L	5.0	1		11/20/12 20:09	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		11/20/12 20:09	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		11/20/12 20:09	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		11/20/12 20:09	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		11/20/12 20:09	108-90-7	
Chloroethane	ND	ug/L	5.0	1		11/20/12 20:09	75-00-3	
Chloroform	ND	ug/L	5.0	1		11/20/12 20:09	67-66-3	
Chloromethane	ND	ug/L	5.0	1		11/20/12 20:09	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		11/20/12 20:09	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		11/20/12 20:09	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		11/20/12 20:09	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		11/20/12 20:09	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		11/20/12 20:09	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		11/20/12 20:09	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		11/20/12 20:09	75-35-4	
cis-1,2-Dichloroethene	12.5	ug/L	5.0	1		11/20/12 20:09	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		11/20/12 20:09	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		11/20/12 20:09	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		11/20/12 20:09	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		11/20/12 20:09	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		11/20/12 20:09	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		11/20/12 20:09	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		11/20/12 20:09	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		11/20/12 20:09	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		11/20/12 20:09	108-10-1	
Styrene	ND	ug/L	5.0	1		11/20/12 20:09	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		11/20/12 20:09	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		11/20/12 20:09	127-18-4	
Toluene	ND	ug/L	5.0	1		11/20/12 20:09	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		11/20/12 20:09	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		11/20/12 20:09	79-00-5	
Trichloroethene	10.1	ug/L	5.0	1		11/20/12 20:09	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		11/20/12 20:09	75-69-4	
Vinyl chloride	ND	ug/L	1.0	1		11/20/12 20:09	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		11/20/12 20:09	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		11/20/12 20:09	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	100	%	85-115	1		11/20/12 20:09	460-00-4	
1,2-Dichloroethane-d4 (S)	110	%	77-119	1		11/20/12 20:09	17060-07-0	
Toluene-d8 (S)	97	%	85-115	1		11/20/12 20:09	2037-26-5	

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown
Pace Project No.: 3082101

Sample: RW-1S		Lab ID: 3082101003	Collected: 11/15/12 09:35	Received: 11/16/12 09:35	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND	ug/L	10.0	1		11/20/12 21:00	67-64-1	
Benzene	ND	ug/L	1.0	1		11/20/12 21:00	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		11/20/12 21:00	75-27-4	
Bromoform	ND	ug/L	5.0	1		11/20/12 21:00	75-25-2	
Bromomethane	ND	ug/L	5.0	1		11/20/12 21:00	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		11/20/12 21:00	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		11/20/12 21:00	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		11/20/12 21:00	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		11/20/12 21:00	108-90-7	
Chloroethane	ND	ug/L	5.0	1		11/20/12 21:00	75-00-3	
Chloroform	ND	ug/L	5.0	1		11/20/12 21:00	67-66-3	
Chloromethane	ND	ug/L	5.0	1		11/20/12 21:00	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		11/20/12 21:00	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		11/20/12 21:00	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		11/20/12 21:00	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		11/20/12 21:00	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		11/20/12 21:00	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		11/20/12 21:00	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		11/20/12 21:00	75-35-4	
cis-1,2-Dichloroethene	528	ug/L	50.0	10		11/20/12 21:26	156-59-2	
trans-1,2-Dichloroethene	7.0	ug/L	5.0	1		11/20/12 21:00	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		11/20/12 21:00	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		11/20/12 21:00	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		11/20/12 21:00	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		11/20/12 21:00	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		11/20/12 21:00	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		11/20/12 21:00	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		11/20/12 21:00	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		11/20/12 21:00	108-10-1	
Styrene	ND	ug/L	5.0	1		11/20/12 21:00	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		11/20/12 21:00	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		11/20/12 21:00	127-18-4	
Toluene	ND	ug/L	5.0	1		11/20/12 21:00	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		11/20/12 21:00	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		11/20/12 21:00	79-00-5	
Trichloroethene	216	ug/L	5.0	1		11/20/12 21:00	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		11/20/12 21:00	75-69-4	
Vinyl chloride	16.9	ug/L	1.0	1		11/20/12 21:00	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		11/20/12 21:00	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		11/20/12 21:00	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	103	%	85-115	1		11/20/12 21:00	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	77-119	1		11/20/12 21:00	17060-07-0	
Toluene-d8 (S)	99	%	85-115	1		11/20/12 21:00	2037-26-5	

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown

Pace Project No.: 3082101

Sample: RW-3S		Lab ID: 3082101004	Collected: 11/15/12 09:50	Received: 11/16/12 09:35	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND	ug/L	10.0	1		11/20/12 20:34	67-64-1	
Benzene	18.0	ug/L	1.0	1		11/20/12 20:34	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		11/20/12 20:34	75-27-4	
Bromoform	ND	ug/L	5.0	1		11/20/12 20:34	75-25-2	
Bromomethane	ND	ug/L	5.0	1		11/20/12 20:34	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		11/20/12 20:34	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		11/20/12 20:34	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		11/20/12 20:34	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		11/20/12 20:34	108-90-7	
Chloroethane	ND	ug/L	5.0	1		11/20/12 20:34	75-00-3	
Chloroform	ND	ug/L	5.0	1		11/20/12 20:34	67-66-3	
Chloromethane	ND	ug/L	5.0	1		11/20/12 20:34	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		11/20/12 20:34	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		11/20/12 20:34	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		11/20/12 20:34	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		11/20/12 20:34	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		11/20/12 20:34	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		11/20/12 20:34	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		11/20/12 20:34	75-35-4	
cis-1,2-Dichloroethene	51.2	ug/L	5.0	1		11/20/12 20:34	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		11/20/12 20:34	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		11/20/12 20:34	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		11/20/12 20:34	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		11/20/12 20:34	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		11/20/12 20:34	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		11/20/12 20:34	591-78-6	
Isopropylbenzene (Cumene)	10.4	ug/L	1.0	1		11/20/12 20:34	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		11/20/12 20:34	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		11/20/12 20:34	108-10-1	
Styrene	ND	ug/L	5.0	1		11/20/12 20:34	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		11/20/12 20:34	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		11/20/12 20:34	127-18-4	
Toluene	ND	ug/L	5.0	1		11/20/12 20:34	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		11/20/12 20:34	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		11/20/12 20:34	79-00-5	
Trichloroethene	74.8	ug/L	5.0	1		11/20/12 20:34	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		11/20/12 20:34	75-69-4	
Vinyl chloride	26.6	ug/L	1.0	1		11/20/12 20:34	75-01-4	
m&p-Xylene	7.2	ug/L	5.0	1		11/20/12 20:34	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		11/20/12 20:34	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	101	%	85-115	1		11/20/12 20:34	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	77-119	1		11/20/12 20:34	17060-07-0	
Toluene-d8 (S)	98	%	85-115	1		11/20/12 20:34	2037-26-5	

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown

Pace Project No.: 3082101

Sample: TB-01		Lab ID: 3082101005	Collected: 11/15/12 00:01	Received: 11/16/12 09:35	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND	ug/L	10.0	1		11/20/12 19:43	67-64-1	
Benzene	ND	ug/L	1.0	1		11/20/12 19:43	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		11/20/12 19:43	75-27-4	
Bromoform	ND	ug/L	5.0	1		11/20/12 19:43	75-25-2	
Bromomethane	ND	ug/L	5.0	1		11/20/12 19:43	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		11/20/12 19:43	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		11/20/12 19:43	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		11/20/12 19:43	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		11/20/12 19:43	108-90-7	
Chloroethane	ND	ug/L	5.0	1		11/20/12 19:43	75-00-3	
Chloroform	ND	ug/L	5.0	1		11/20/12 19:43	67-66-3	
Chloromethane	ND	ug/L	5.0	1		11/20/12 19:43	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		11/20/12 19:43	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		11/20/12 19:43	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		11/20/12 19:43	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		11/20/12 19:43	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		11/20/12 19:43	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		11/20/12 19:43	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		11/20/12 19:43	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		11/20/12 19:43	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		11/20/12 19:43	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		11/20/12 19:43	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		11/20/12 19:43	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		11/20/12 19:43	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		11/20/12 19:43	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		11/20/12 19:43	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		11/20/12 19:43	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		11/20/12 19:43	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		11/20/12 19:43	108-10-1	
Styrene	ND	ug/L	5.0	1		11/20/12 19:43	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		11/20/12 19:43	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		11/20/12 19:43	127-18-4	
Toluene	ND	ug/L	5.0	1		11/20/12 19:43	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		11/20/12 19:43	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		11/20/12 19:43	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		11/20/12 19:43	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		11/20/12 19:43	75-69-4	
Vinyl chloride	ND	ug/L	1.0	1		11/20/12 19:43	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		11/20/12 19:43	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		11/20/12 19:43	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	96	%	85-115	1		11/20/12 19:43	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	77-119	1		11/20/12 19:43	17060-07-0	
Toluene-d8 (S)	98	%	85-115	1		11/20/12 19:43	2037-26-5	

QUALITY CONTROL DATA

Project: Essex/Hope Jamestown

Pace Project No.: 3082101

QC Batch: MSV/14616 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 3082101001, 3082101002, 3082101003, 3082101004, 3082101005

METHOD BLANK: 514554 Matrix: Water
Associated Lab Samples: 3082101001, 3082101002, 3082101003, 3082101004, 3082101005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	5.0	11/20/12 14:36	
1,1,2,2-Tetrachloroethane	ug/L	ND	5.0	11/20/12 14:36	
1,1,2-Trichloroethane	ug/L	ND	5.0	11/20/12 14:36	
1,1-Dichloroethane	ug/L	ND	5.0	11/20/12 14:36	
1,1-Dichloroethene	ug/L	ND	5.0	11/20/12 14:36	
1,2-Dichlorobenzene	ug/L	ND	5.0	11/20/12 14:36	
1,2-Dichloroethane	ug/L	ND	5.0	11/20/12 14:36	
1,2-Dichloropropane	ug/L	ND	5.0	11/20/12 14:36	
1,3-Dichlorobenzene	ug/L	ND	5.0	11/20/12 14:36	
1,4-Dichlorobenzene	ug/L	ND	5.0	11/20/12 14:36	
2-Butanone (MEK)	ug/L	ND	10.0	11/20/12 14:36	
2-Hexanone	ug/L	ND	10.0	11/20/12 14:36	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	11/20/12 14:36	
Acetone	ug/L	ND	10.0	11/20/12 14:36	
Benzene	ug/L	ND	1.0	11/20/12 14:36	
Bromodichloromethane	ug/L	ND	5.0	11/20/12 14:36	
Bromoform	ug/L	ND	5.0	11/20/12 14:36	
Bromomethane	ug/L	ND	5.0	11/20/12 14:36	
Carbon disulfide	ug/L	ND	5.0	11/20/12 14:36	
Carbon tetrachloride	ug/L	ND	5.0	11/20/12 14:36	
Chlorobenzene	ug/L	ND	5.0	11/20/12 14:36	
Chloroethane	ug/L	ND	5.0	11/20/12 14:36	
Chloroform	ug/L	ND	5.0	11/20/12 14:36	
Chloromethane	ug/L	ND	5.0	11/20/12 14:36	
cis-1,2-Dichloroethene	ug/L	ND	5.0	11/20/12 14:36	
cis-1,3-Dichloropropene	ug/L	ND	5.0	11/20/12 14:36	
Dibromochloromethane	ug/L	ND	5.0	11/20/12 14:36	
Ethylbenzene	ug/L	ND	5.0	11/20/12 14:36	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	11/20/12 14:36	
m&p-Xylene	ug/L	ND	5.0	11/20/12 14:36	
Methylene Chloride	ug/L	ND	5.0	11/20/12 14:36	
o-Xylene	ug/L	ND	5.0	11/20/12 14:36	
Styrene	ug/L	ND	5.0	11/20/12 14:36	
Tetrachloroethene	ug/L	ND	5.0	11/20/12 14:36	
Toluene	ug/L	ND	5.0	11/20/12 14:36	
trans-1,2-Dichloroethene	ug/L	ND	5.0	11/20/12 14:36	
trans-1,3-Dichloropropene	ug/L	ND	5.0	11/20/12 14:36	
Trichloroethene	ug/L	ND	5.0	11/20/12 14:36	
Trichlorofluoromethane	ug/L	ND	5.0	11/20/12 14:36	
Vinyl chloride	ug/L	ND	1.0	11/20/12 14:36	
1,2-Dichloroethane-d4 (S)	%	110	77-119	11/20/12 14:36	
4-Bromofluorobenzene (S)	%	103	85-115	11/20/12 14:36	
Toluene-d8 (S)	%	97	85-115	11/20/12 14:36	

Date: 11/27/2012 04:24 PM

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Essex/Hope Jamestown

Pace Project No.: 3082101

LABORATORY CONTROL SAMPLE: 514555

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	19.7	98	62-125	
1,1,2,2-Tetrachloroethane	ug/L	20	16.6	83	61-117	
1,1,2-Trichloroethane	ug/L	20	18.3	91	72-119	
1,1-Dichloroethane	ug/L	20	17.9	89	63-123	
1,1-Dichloroethene	ug/L	20	18.3	92	57-127	
1,2-Dichlorobenzene	ug/L	20	18.1	91	70-116	
1,2-Dichloroethane	ug/L	20	19.8	99	62-125	
1,2-Dichloropropane	ug/L	20	16.6	83	69-115	
1,3-Dichlorobenzene	ug/L	20	18.2	91	71-118	
1,4-Dichlorobenzene	ug/L	20	18.2	91	67-119	
2-Butanone (MEK)	ug/L	20	10.1	51	48-136	
2-Hexanone	ug/L	20	15.3	77	52-130	
4-Methyl-2-pentanone (MIBK)	ug/L	20	15.1	76	57-124	
Acetone	ug/L	20	14.2	71	49-138	
Benzene	ug/L	20	17.8	89	66-122	
Bromodichloromethane	ug/L	20	17.3	87	63-118	
Bromoform	ug/L	20	18.0	90	46-130	
Bromomethane	ug/L	20	11.8	59	10-175	
Carbon disulfide	ug/L	20	21.5	107	59-142	
Carbon tetrachloride	ug/L	20	18.7	93	55-126	
Chlorobenzene	ug/L	20	17.8	89	70-121	
Chloroethane	ug/L	20	22.2	111	24-161	
Chloroform	ug/L	20	18.9	95	62-126	
Chloromethane	ug/L	20	12.4	62	37-147	
cis-1,2-Dichloroethene	ug/L	20	17.9	90	64-121	
cis-1,3-Dichloropropene	ug/L	20	17.9	89	64-118	
Dibromochloromethane	ug/L	20	17.4	87	60-120	
Ethylbenzene	ug/L	20	18.0	90	69-119	
Isopropylbenzene (Cumene)	ug/L	20	19.7	98	68-126	
m&p-Xylene	ug/L	40	37.0	93	70-124	
Methylene Chloride	ug/L	20	18.0	90	59-128	
o-Xylene	ug/L	20	18.4	92	67-123	
Styrene	ug/L	20	18.7	94	67-146	
Tetrachloroethene	ug/L	20	18.3	91	62-125	
Toluene	ug/L	20	17.7	89	72-115	
trans-1,2-Dichloroethene	ug/L	20	17.4	87	59-122	
trans-1,3-Dichloropropene	ug/L	20	18.5	93	64-120	
Trichloroethene	ug/L	20	17.3	86	62-125	
Trichlorofluoromethane	ug/L	20	20.4	102	54-158	
Vinyl chloride	ug/L	20	17.1	86	52-145	
1,2-Dichloroethane-d4 (S)	%			111	77-119	
4-Bromofluorobenzene (S)	%			100	85-115	
Toluene-d8 (S)	%			99	85-115	

QUALITY CONTROL DATA

Project: Essex/Hope Jamestown

Pace Project No.: 3082101

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 514556 514557											
Parameter	Units	3082061003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	20	20	19.2	21.3	96	107	62-125	10	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	15.7	17.2	79	86	61-117	9	
1,1,2-Trichloroethane	ug/L	ND	20	20	16.9	17.8	84	89	72-119	5	
1,1-Dichloroethane	ug/L	ND	20	20	17.2	18.8	86	94	63-123	9	
1,1-Dichloroethene	ug/L	ND	20	20	18.5	20.2	92	101	57-127	9	
1,2-Dichlorobenzene	ug/L	ND	20	20	17.1	18.4	85	92	70-116	8	
1,2-Dichloroethane	ug/L	ND	20	20	18.9	21.2	94	106	62-125	11	
1,2-Dichloropropane	ug/L	ND	20	20	15.9	17.1	80	85	69-115	7	
1,3-Dichlorobenzene	ug/L	ND	20	20	16.8	18.5	84	93	71-118	10	
1,4-Dichlorobenzene	ug/L	ND	20	20	17.1	18.2	86	91	67-119	6	
2-Butanone (MEK)	ug/L	ND	20	20	12.0	12.7	60	64	48-136	6	
2-Hexanone	ug/L	ND	20	20	15.3	17.0	76	85	52-130	11	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	20	20	16.9	17.5	84	88	57-124	4	
Acetone	ug/L	ND	20	20	15.7	17.4	76	85	49-138	10	
Benzene	ug/L	ND	20	20	17.1	17.9	86	89	66-122	5	
Bromodichloromethane	ug/L	ND	20	20	16.0	17.3	80	87	63-118	8	
Bromoform	ug/L	ND	20	20	17.0	17.9	85	90	46-130	5	
Bromomethane	ug/L	ND	20	20	8.2	5.2	41	26	10-175	45	MO
Carbon disulfide	ug/L	ND	20	20	24.0	23.8	120	119	59-142	1	
Carbon tetrachloride	ug/L	ND	20	20	18.3	19.3	92	96	55-126	5	
Chlorobenzene	ug/L	ND	20	20	16.8	17.7	84	89	70-121	5	
Chloroethane	ug/L	ND	20	20	26.1	24.8	131	124	24-161	5	
Chloroform	ug/L	ND	20	20	17.7	19.7	89	99	62-126	11	
Chloromethane	ug/L	ND	20	20	13.2	11.9	66	59	37-147	10	
cis-1,2-Dichloroethene	ug/L	ND	20	20	17.9	19.2	90	96	64-121	7	
cis-1,3-Dichloropropene	ug/L	ND	20	20	16.7	17.1	83	86	64-118	3	
Dibromochloromethane	ug/L	ND	20	20	15.2	16.8	76	84	60-120	10	
Ethylbenzene	ug/L	ND	20	20	17.1	18.3	85	91	69-119	7	
Isopropylbenzene (Cumene)	ug/L	ND	20	20	19.5	20.9	97	105	68-126	7	
m&p-Xylene	ug/L		40	40	35.5	37.5	89	94	70-124	5	
Methylene Chloride	ug/L	ND	20	20	17.3	18.5	86	93	59-128	7	
o-Xylene	ug/L		20	20	17.5	18.5	88	93	67-123	6	
Styrene	ug/L	ND	20	20	17.0	18.5	85	92	67-146	9	
Tetrachloroethene	ug/L	ND	20	20	18.5	19.7	93	99	62-125	6	
Toluene	ug/L	ND	20	20	17.0	18.2	85	91	72-115	7	
trans-1,2-Dichloroethene	ug/L	ND	20	20	17.3	18.6	86	93	59-122	7	
trans-1,3-Dichloropropene	ug/L	ND	20	20	16.8	18.3	84	91	64-120	8	
Trichloroethene	ug/L	ND	20	20	16.8	18.1	84	91	62-125	8	
Trichlorofluoromethane	ug/L	ND	20	20	24.1	24.1	121	121	54-158	.01	
Vinyl chloride	ug/L	ND	20	20	20.6	18.3	103	91	52-145	12	
1,2-Dichloroethane-d4 (S)	%						108	110	77-119		
4-Bromofluorobenzene (S)	%						101	101	85-115		
Toluene-d8 (S)	%						97	95	85-115		

QUALIFIERS

Project: Essex/Hope Jamestown

Pace Project No.: 3082101

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

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.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

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.

ANALYTE QUALIFIERS

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Essex/Hope Jamestown

Pace Project No.: 3082101

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
3082101001	RW-2D	EPA 8260	MSV/14616		
3082101002	RW-2S	EPA 8260	MSV/14616		
3082101003	RW-1S	EPA 8260	MSV/14616		
3082101004	RW-3S	EPA 8260	MSV/14616		
3082101005	TB-01	EPA 8260	MSV/14616		

CHAIN-OF-CUSTODY / Analytical Request Document

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



Section A Required Client Information: Company: URS CORP Address: POSTER PLAZA 6 681 ANDERSON DR. STE. 400 PITTSBURGH, PA 15220 Email To: _____ Phone: 412-503-4700 Fax: 412-503-4701 Requested Due Date/TAT: STANDARD		Section B Required Project Information: Report To: MARK DOWIAK Copy To: VALERIE SIBETO Purchase Order No.: 41569181 Project Name: ESSEX/HOPE DAMESTOWN Project Number: 41569181.1000		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: NY STATE: _____		Page: 1 of 1 1614427	

ITEM #	Section D Required Client Information	Matrix Codes MATRIX / CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED			SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives	Analysis Test ↑	Y/N ↑	Requested Analysis Filtered (Y/N)											
				DATE	TIME	DATE	TIME	DATE	TIME														
1	RW-2D	Drinking Water				11.15.12	0900																
2	RW-2S	Waste Water					0915																
3	RW-1S	Product					0935																
4	RW-3S	Oil					0950																
5	TB-01	Wipe				11.15.12	—																
6		Air																					
7		Tissue																					
8		Other																					
9																							
10																							
11																							
12																							

ADDITIONAL COMMENTS SEMI-ANNUAL RW SAMPLING 4 th QTR 2012 - NOTE: RW-4D SAMPLED AS PART OF POST LSA MAINTENANCE		RELINQUISHED BY / AFFILIATION Valerie Sibeto / URS		DATE 11.15.12		TIME 1030		ACCEPTED BY / AFFILIATION Valerie Sibeto / URS		DATE 11.15.12		TIME 1030		SAMPLE CONDITIONS Received on Ice (Y/N) ☒ Custody Sealed Cooler (Y/N) ☒ Samples Intact (Y/N) ☒	
Temp in °C 2.4		Y		N		Y		N		Y		N		Y	

ORIGINAL

SAMPLER NAME AND SIGNATURE
 PRINT Name of SAMPLER: VALERIE SIBETO
 SIGNATURE of SAMPLER: *Valerie Sibeto*

DATE Signed (MM/DD/YY): 11.15.12

*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.



Sample Condition Upon Receipt

Client Name: URS CORP

Project # 3062101

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

Tracking #: 8739 8101 9519

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

Packing Material: ☒ Bubble Wrap ☐ Bubble Bags ☐ None ☒ Other Ziploc

Thermometer Used 5 6 ⑦

Type of Ice: Wet Blue None ☒ Samples on ice, cooling process has begun

Cooler Temperature 2.4

Biological Tissue is Frozen: Yes No

Comments:

Date and Initials of person examining contents: THW 11-16-12

Temp should be above freezing to 6°C

Chain of Custody Present:	☒ Yes ☐ No ☐ N/A	1.
Chain of Custody Filled Out:	☒ Yes ☐ No ☐ N/A	2.
Chain of Custody Relinquished:	☒ Yes ☐ No ☐ N/A	3.
Sampler Name & Signature on COC:	☒ Yes ☐ No ☐ N/A	4.
Samples Arrived within Hold Time:	☒ Yes ☐ No ☐ N/A	5.
Short Hold Time Analysis (<72hr):	☐ Yes ☒ No ☐ N/A	6.
Rush Turn Around Time Requested:	☐ Yes ☒ No ☐ N/A	7.
Sufficient Volume:	☒ Yes ☐ No ☐ N/A	8.
Correct Containers Used:	☒ Yes ☐ No ☐ N/A	9.
-Pace Containers Used:	☒ Yes ☐ No ☐ N/A	
Containers Intact:	☒ Yes ☐ No ☐ N/A	10.
Filtered volume received for Dissolved tests	☐ Yes ☐ No ☒ N/A	11.
Sample Labels match COC:	☒ Yes ☐ No ☐ N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>WTA THW 11-16-12</u>		
All containers needing preservation have been checked.	☐ Yes ☐ No ☒ N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐ Yes ☐ No ☒ N/A	
exceptions: <u>VOA</u> , coliform, TOC, O&G, WI-DRO (water)	☒ Yes ☐ No	Initial when completed <u>THW</u> Lot # of added preservative
Samples checked for dechlorination:	☐ Yes ☐ No ☒ N/A	14.
Headspace in VOA Vials (>6mm):	☐ Yes ☒ No ☐ N/A	15.
Trip Blank Present:	☒ Yes ☐ No ☐ N/A	16.
Trip Blank Custody Seals Present	☒ Yes ☐ No ☐ N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required?

Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____

Date: 11/19/12

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

Project Number: 3082101

Client Name: JKS Corp

[illegible]

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown 41569123

Pace Project No.: 3081968

Sample: RW-6D		Lab ID: 3081968007	Collected: 11/14/12 15:00	Received: 11/15/12 09:25	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP		Analytical Method: EPA 6010B Preparation Method: EPA 3005						
Iron	7400	ug/L	70.0	1	12/04/12 09:28	12/04/12 14:44	7439-89-6	B
8270 MSSV Semivolatile Organic		Analytical Method: EPA 8270 Preparation Method: EPA 3510						
Acenaphthene	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	83-32-9	N2
Acenaphthylene	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	208-96-8	
Anthracene	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	120-12-7	
Azobenzene	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	103-33-3	
Benzo(a)anthracene	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	56-55-3	
Benzo(a)pyrene	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	50-32-8	
Benzo(b)fluoranthene	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	205-99-2	
Benzo(g,h,i)perylene	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	191-24-2	
Benzo(k)fluoranthene	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	207-08-9	
Benzoic acid	ND	ug/L	104	1	11/19/12 09:00	11/20/12 20:45	65-85-0	
Benzyl alcohol	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	100-51-6	
4-Bromophenylphenyl ether	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	101-55-3	
Butylbenzylphthalate	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	85-68-7	
Carbazole	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	86-74-8	
4-Chloro-3-methylphenol	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	59-50-7	
4-Chloroaniline	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	106-47-8	
bis(2-Chloroethoxy)methane	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	111-91-1	
bis(2-Chloroethyl) ether	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	111-44-4	
bis(2-Chloroisopropyl) ether	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	108-60-1	
2-Chloronaphthalene	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	91-58-7	
2-Chlorophenol	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	95-57-8	
4-Chlorophenylphenyl ether	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	7005-72-3	
Chrysene	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	218-01-9	
Dibenz(a,h)anthracene	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	53-70-3	
Dibenzofuran	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	132-64-9	
1,2-Dichlorobenzene	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	106-46-7	
3,3'-Dichlorobenzidine	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	91-94-1	
2,4-Dichlorophenol	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	120-83-2	
Diethylphthalate	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	84-66-2	
2,4-Dimethylphenol	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	105-67-9	
Dimethylphthalate	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	131-11-3	
Di-n-butylphthalate	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	84-74-2	
4,6-Dinitro-2-methylphenol	ND	ug/L	2.6	1	11/19/12 09:00	11/20/12 20:45	534-52-1	
2,4-Dinitrophenol	ND	ug/L	2.6	1	11/19/12 09:00	11/20/12 20:45	51-28-5	
2,4-Dinitrotoluene	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	121-14-2	
2,6-Dinitrotoluene	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	606-20-2	
Di-n-octylphthalate	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	117-84-0	
bis(2-Ethylhexyl)phthalate	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	117-81-7	
Fluoranthene	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	206-44-0	
Fluorene	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	86-73-7	
Hexachloro-1,3-butadiene	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	87-68-3	
Hexachlorobenzene	ND	ug/L	1.0	1	11/19/12 09:00	11/20/12 20:45	118-74-1	

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ANALYTICAL RESULTS

Project: Essex/Hope Jamestown 41569123

Pace Project No.: 3081968

Sample: RW-6D		Lab ID: 3081968007	Collected: 11/14/12 15:00	Received: 11/15/12 09:25	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8270 MSSV Semivolatile Organic		Analytical Method: EPA 8270 Preparation Method: EPA 3510						
Hexachlorocyclopentadiene	ND ug/L		1.0	1	11/19/12 09:00	11/20/12 20:45	77-47-4	
Hexachloroethane	ND ug/L		1.0	1	11/19/12 09:00	11/20/12 20:45	67-72-1	
Indeno(1,2,3-cd)pyrene	ND ug/L		1.0	1	11/19/12 09:00	11/20/12 20:45	193-39-5	
Isophorone	ND ug/L		1.0	1	11/19/12 09:00	11/20/12 20:45	78-59-1	
1-Methylnaphthalene	ND ug/L		1.0	1	11/19/12 09:00	11/20/12 20:45	90-12-0	N2
2-Methylnaphthalene	ND ug/L		1.0	1	11/19/12 09:00	11/20/12 20:45	91-57-6	
2-Methylphenol(o-Cresol)	ND ug/L		1.0	1	11/19/12 09:00	11/20/12 20:45	95-48-7	
3&4-Methylphenol(m&p Cresol)	ND ug/L		2.1	1	11/19/12 09:00	11/20/12 20:45		
Naphthalene	ND ug/L		1.0	1	11/19/12 09:00	11/20/12 20:45	91-20-3	
2-Nitroaniline	ND ug/L		2.6	1	11/19/12 09:00	11/20/12 20:45	88-74-4	
3-Nitroaniline	ND ug/L		2.6	1	11/19/12 09:00	11/20/12 20:45	99-09-2	
4-Nitroaniline	ND ug/L		2.6	1	11/19/12 09:00	11/20/12 20:45	100-01-6	
Nitrobenzene	ND ug/L		1.0	1	11/19/12 09:00	11/20/12 20:45	98-95-3	
2-Nitrophenol	ND ug/L		1.0	1	11/19/12 09:00	11/20/12 20:45	88-75-5	
4-Nitrophenol	ND ug/L		1.0	1	11/19/12 09:00	11/20/12 20:45	100-02-7	
N-Nitrosodimethylamine	ND ug/L		1.0	1	11/19/12 09:00	11/20/12 20:45	62-75-9	
N-Nitroso-di-n-propylamine	ND ug/L		1.0	1	11/19/12 09:00	11/20/12 20:45	621-64-7	
N-Nitrosodiphenylamine	ND ug/L		1.0	1	11/19/12 09:00	11/20/12 20:45	86-30-6	
Pentachlorophenol	ND ug/L		2.6	1	11/19/12 09:00	11/20/12 20:45	87-86-5	
Phenanthrene	ND ug/L		1.0	1	11/19/12 09:00	11/20/12 20:45	85-01-8	
Phenol	ND ug/L		1.0	1	11/19/12 09:00	11/20/12 20:45	108-95-2	
Pyrene	ND ug/L		1.0	1	11/19/12 09:00	11/20/12 20:45	129-00-0	
1,2,4-Trichlorobenzene	ND ug/L		1.0	1	11/19/12 09:00	11/20/12 20:45	120-82-1	
2,4,5-Trichlorophenol	ND ug/L		2.6	1	11/19/12 09:00	11/20/12 20:45	95-95-4	
2,4,6-Trichlorophenol	ND ug/L		1.0	1	11/19/12 09:00	11/20/12 20:45	88-06-2	
Surrogates								
Nitrobenzene-d5 (S)	63 %		35-114	1	11/19/12 09:00	11/20/12 20:45	4165-60-0	
2-Fluorobiphenyl (S)	67 %		43-116	1	11/19/12 09:00	11/20/12 20:45	321-60-8	
Terphenyl-d14 (S)	115 %		33-141	1	11/19/12 09:00	11/20/12 20:45	1718-51-0	
Phenol-d6 (S)	24 %		10-110	1	11/19/12 09:00	11/20/12 20:45	13127-88-3	
2-Fluorophenol (S)	40 %		21-110	1	11/19/12 09:00	11/20/12 20:45	367-12-4	
2,4,6-Tribromophenol (S)	82 %		10-123	1	11/19/12 09:00	11/20/12 20:45	118-79-6	
8260 MSV		Analytical Method: EPA 8260						
Acetone	89600 ug/L		10000	1000		11/27/12 14:41	67-64-1	
Benzene	75.4 ug/L		1.0	1		11/22/12 07:43	71-43-2	
Bromodichloromethane	ND ug/L		5.0	1		11/22/12 07:43	75-27-4	
Bromoform	ND ug/L		5.0	1		11/22/12 07:43	75-25-2	
Bromomethane	ND ug/L		5.0	1		11/22/12 07:43	74-83-9	
2-Butanone (MEK)	351 ug/L		10.0	1		11/22/12 07:43	78-93-3	
Carbon disulfide	ND ug/L		5.0	1		11/22/12 07:43	75-15-0	
Carbon tetrachloride	ND ug/L		5.0	1		11/22/12 07:43	56-23-5	
Chlorobenzene	ND ug/L		5.0	1		11/22/12 07:43	108-90-7	
Chloroethane	ND ug/L		5.0	1		11/22/12 07:43	75-00-3	
Chloroform	ND ug/L		5.0	1		11/22/12 07:43	67-66-3	
Chloromethane	ND ug/L		5.0	1		11/22/12 07:43	74-87-3	
Dibromochloromethane	ND ug/L		5.0	1		11/22/12 07:43	124-48-1	

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ANALYTICAL RESULTS

Project: Essex/Hope Jamestown 41569123

Pace Project No.: 3081968

Sample: RW-6D		Lab ID: 3081968007	Collected: 11/14/12 15:00	Received: 11/15/12 09:25	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
1,2-Dichlorobenzene	ND	ug/L	5.0	1		11/22/12 07:43	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		11/22/12 07:43	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		11/22/12 07:43	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		11/22/12 07:43	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		11/22/12 07:43	107-06-2	
1,1-Dichloroethene	76.9	ug/L	5.0	1		11/22/12 07:43	75-35-4	
cis-1,2-Dichloroethene	17300	ug/L	500	100		11/26/12 17:08	156-59-2	
trans-1,2-Dichloroethene	648	ug/L	5.0	1		11/22/12 07:43	156-60-5	1c,E
1,2-Dichloropropane	ND	ug/L	5.0	1		11/22/12 07:43	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		11/22/12 07:43	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		11/22/12 07:43	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		11/22/12 07:43	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		11/22/12 07:43	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		11/22/12 07:43	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		11/22/12 07:43	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		11/22/12 07:43	108-10-1	
Styrene	ND	ug/L	5.0	1		11/22/12 07:43	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		11/22/12 07:43	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		11/22/12 07:43	127-18-4	
Toluene	ND	ug/L	5.0	1		11/22/12 07:43	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		11/22/12 07:43	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		11/22/12 07:43	79-00-5	
Trichloroethene	12700	ug/L	500	100		11/26/12 17:08	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		11/22/12 07:43	75-69-4	
Vinyl chloride	2270	ug/L	100	100		11/26/12 17:08	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		11/22/12 07:43	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		11/22/12 07:43	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	100	%	85-115	1		11/22/12 07:43	460-00-4	
1,2-Dichloroethane-d4 (S)	91	%	77-119	1		11/22/12 07:43	17060-07-0	
Toluene-d8 (S)	86	%	85-115	1		11/22/12 07:43	2037-26-5	
2320B Alkalinity		Analytical Method: SM 2320B						
Alkalinity, Total as CaCO3	420	mg/L	10.0	1		11/16/12 14:18		
Iron, Ferric (Calculation)		Analytical Method: SM 3500-Fe D#4						
Iron, Ferric	4.7	mg/L	0.10	1		12/05/12 08:36	7439-89-6	N2
Iron, Ferrous		Analytical Method: SM 3500-Fe D#4						
Iron, Ferrous	2.7	mg/L	1.0	10		11/15/12 16:07		H6
4500S2F Sulfide, Iodometric		Analytical Method: SM 4500-S F (2000)						
Sulfide	ND	mg/L	1.0	1		11/19/12 23:46	18496-25-8	
ASTM D516-9002 Sulfate Water		Analytical Method: ASTM D516-90,02						
Sulfate	450	mg/L	100	10		11/28/12 12:29	14808-79-8	

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APPENDIX B-2

2012 ANNUAL PMP MONITORING WELL DATA

October 09, 2012

Mr. Mark Dowiak
URS Corporation
Foster Plaza 6
681 Andersen Drive, Suite 400
Pittsburgh, PA 15220

RE: Project: 41569181 Essex-Hope
Pace Project No.: 3078215

Dear Mr. Dowiak:

Enclosed are the analytical results for sample(s) received by the laboratory on September 26, 2012. 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.

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

Sincerely,



Timothy Reed

timothy.reed@pacelabs.com
Project Manager

Enclosures

cc: Ms. Valerie Sibeto, URS Corporation



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 41569181 Essex-Hope

Pace Project No.: 3078215

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4 Greensburg, PA 15601

ACCLASS DOD-ELAP Accreditation #: ADE-1544

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California/TNI Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683

Guam/PADEP Certification

Hawaii/PADEP Certification

Idaho Certification

Illinois/PADEP Certification

Indiana/PADEP Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana/TNI Certification #: LA080002

Louisiana/TNI Certification #: 4086

Maine Certification #: PA0091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nevada Certification

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188

Utah/TNI Certification #: ANTE

Virgin Island/PADEP Certification

Virginia Certification #: 00112

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia Certification #: 143

Wisconsin/PADEP Certification

Wyoming Certification #: 8TMS-Q

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ANALYTICAL RESULTS

Project: 41569181 Essex-Hope

Pace Project No.: 3078215

Sample: MW-25S		Lab ID: 3078215001		Collected: 09/25/12 10:00		Received: 09/26/12 09:45		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND	ug/L	10.0	1		10/03/12 17:21	67-64-1		
Benzene	ND	ug/L	1.0	1		10/03/12 17:21	71-43-2		
Bromodichloromethane	ND	ug/L	5.0	1		10/03/12 17:21	75-27-4		
Bromoform	ND	ug/L	5.0	1		10/03/12 17:21	75-25-2		
Bromomethane	ND	ug/L	5.0	1		10/03/12 17:21	74-83-9		
2-Butanone (MEK)	ND	ug/L	10.0	1		10/03/12 17:21	78-93-3		
Carbon disulfide	ND	ug/L	5.0	1		10/03/12 17:21	75-15-0		
Carbon tetrachloride	ND	ug/L	5.0	1		10/03/12 17:21	56-23-5		
Chlorobenzene	ND	ug/L	5.0	1		10/03/12 17:21	108-90-7		
Chloroethane	ND	ug/L	5.0	1		10/03/12 17:21	75-00-3		
Chloroform	ND	ug/L	5.0	1		10/03/12 17:21	67-66-3		
Chloromethane	ND	ug/L	5.0	1		10/03/12 17:21	74-87-3		
Dibromochloromethane	ND	ug/L	5.0	1		10/03/12 17:21	124-48-1		
1,2-Dichlorobenzene	ND	ug/L	5.0	1		10/03/12 17:21	95-50-1		
1,3-Dichlorobenzene	ND	ug/L	5.0	1		10/03/12 17:21	541-73-1		
1,4-Dichlorobenzene	ND	ug/L	5.0	1		10/03/12 17:21	106-46-7		
1,1-Dichloroethane	ND	ug/L	5.0	1		10/03/12 17:21	75-34-3		
1,2-Dichloroethane	ND	ug/L	5.0	1		10/03/12 17:21	107-06-2		
1,1-Dichloroethene	ND	ug/L	5.0	1		10/03/12 17:21	75-35-4		
cis-1,2-Dichloroethene	31.0	ug/L	5.0	1		10/03/12 17:21	156-59-2		
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		10/03/12 17:21	156-60-5		
1,2-Dichloropropane	ND	ug/L	5.0	1		10/03/12 17:21	78-87-5		
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		10/03/12 17:21	10061-01-5		
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		10/03/12 17:21	10061-02-6		
Ethylbenzene	ND	ug/L	5.0	1		10/03/12 17:21	100-41-4		
2-Hexanone	ND	ug/L	10.0	1		10/03/12 17:21	591-78-6		
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		10/03/12 17:21	98-82-8		
Methylene Chloride	ND	ug/L	5.0	1		10/03/12 17:21	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		10/03/12 17:21	108-10-1		
Styrene	ND	ug/L	5.0	1		10/03/12 17:21	100-42-5		
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		10/03/12 17:21	79-34-5		
Tetrachloroethene	ND	ug/L	5.0	1		10/03/12 17:21	127-18-4		
Toluene	ND	ug/L	5.0	1		10/03/12 17:21	108-88-3		
1,1,1-Trichloroethane	ND	ug/L	5.0	1		10/03/12 17:21	71-55-6		
1,1,2-Trichloroethane	ND	ug/L	5.0	1		10/03/12 17:21	79-00-5		
Trichloroethene	239	ug/L	5.0	1		10/03/12 17:21	79-01-6		
Trichlorofluoromethane	ND	ug/L	5.0	1		10/03/12 17:21	75-69-4		
Vinyl chloride	ND	ug/L	1.0	1		10/03/12 17:21	75-01-4		
m&p-Xylene	ND	ug/L	5.0	1		10/03/12 17:21	179601-23-1		
o-Xylene	ND	ug/L	5.0	1		10/03/12 17:21	95-47-6		
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130	1		10/03/12 17:21	460-00-4		
1,2-Dichloroethane-d4 (S)	102	%	70-130	1		10/03/12 17:21	17060-07-0		
Toluene-d8 (S)	99	%	70-130	1		10/03/12 17:21	2037-26-5		

ANALYTICAL RESULTS

Project: 41569181 Essex-Hope

Pace Project No.: 3078215

Sample: MW-25D		Lab ID: 3078215002		Collected: 09/25/12 10:30		Received: 09/26/12 09:45		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND	ug/L	10.0	1		10/03/12 17:47	67-64-1		
Benzene	ND	ug/L	1.0	1		10/03/12 17:47	71-43-2		
Bromodichloromethane	ND	ug/L	5.0	1		10/03/12 17:47	75-27-4		
Bromoform	ND	ug/L	5.0	1		10/03/12 17:47	75-25-2		
Bromomethane	ND	ug/L	5.0	1		10/03/12 17:47	74-83-9		
2-Butanone (MEK)	ND	ug/L	10.0	1		10/03/12 17:47	78-93-3		
Carbon disulfide	ND	ug/L	5.0	1		10/03/12 17:47	75-15-0		
Carbon tetrachloride	ND	ug/L	5.0	1		10/03/12 17:47	56-23-5		
Chlorobenzene	ND	ug/L	5.0	1		10/03/12 17:47	108-90-7		
Chloroethane	ND	ug/L	5.0	1		10/03/12 17:47	75-00-3		
Chloroform	ND	ug/L	5.0	1		10/03/12 17:47	67-66-3		
Chloromethane	ND	ug/L	5.0	1		10/03/12 17:47	74-87-3		
Dibromochloromethane	ND	ug/L	5.0	1		10/03/12 17:47	124-48-1		
1,2-Dichlorobenzene	ND	ug/L	5.0	1		10/03/12 17:47	95-50-1		
1,3-Dichlorobenzene	ND	ug/L	5.0	1		10/03/12 17:47	541-73-1		
1,4-Dichlorobenzene	ND	ug/L	5.0	1		10/03/12 17:47	106-46-7		
1,1-Dichloroethane	ND	ug/L	5.0	1		10/03/12 17:47	75-34-3		
1,2-Dichloroethane	ND	ug/L	5.0	1		10/03/12 17:47	107-06-2		
1,1-Dichloroethene	ND	ug/L	5.0	1		10/03/12 17:47	75-35-4		
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		10/03/12 17:47	156-59-2		
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		10/03/12 17:47	156-60-5		
1,2-Dichloropropane	ND	ug/L	5.0	1		10/03/12 17:47	78-87-5		
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		10/03/12 17:47	10061-01-5		
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		10/03/12 17:47	10061-02-6		
Ethylbenzene	ND	ug/L	5.0	1		10/03/12 17:47	100-41-4		
2-Hexanone	ND	ug/L	10.0	1		10/03/12 17:47	591-78-6		
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		10/03/12 17:47	98-82-8		
Methylene Chloride	ND	ug/L	5.0	1		10/03/12 17:47	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		10/03/12 17:47	108-10-1		
Styrene	ND	ug/L	5.0	1		10/03/12 17:47	100-42-5		
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		10/03/12 17:47	79-34-5		
Tetrachloroethene	ND	ug/L	5.0	1		10/03/12 17:47	127-18-4		
Toluene	ND	ug/L	5.0	1		10/03/12 17:47	108-88-3		
1,1,1-Trichloroethane	ND	ug/L	5.0	1		10/03/12 17:47	71-55-6		
1,1,2-Trichloroethane	ND	ug/L	5.0	1		10/03/12 17:47	79-00-5		
Trichloroethene	ND	ug/L	5.0	1		10/03/12 17:47	79-01-6		
Trichlorofluoromethane	ND	ug/L	5.0	1		10/03/12 17:47	75-69-4		
Vinyl chloride	ND	ug/L	1.0	1		10/03/12 17:47	75-01-4		
m&p-Xylene	ND	ug/L	5.0	1		10/03/12 17:47	179601-23-1		
o-Xylene	ND	ug/L	5.0	1		10/03/12 17:47	95-47-6		
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130	1		10/03/12 17:47	460-00-4		
1,2-Dichloroethane-d4 (S)	101	%	70-130	1		10/03/12 17:47	17060-07-0		
Toluene-d8 (S)	98	%	70-130	1		10/03/12 17:47	2037-26-5		

ANALYTICAL RESULTS

Project: 41569181 Essex-Hope

Pace Project No.: 3078215

Sample: MW-16D		Lab ID: 3078215003		Collected: 09/25/12 11:00		Received: 09/26/12 09:45		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND ug/L	10.0	1			10/03/12 18:13	67-64-1		
Benzene	ND ug/L	1.0	1			10/03/12 18:13	71-43-2		
Bromodichloromethane	ND ug/L	5.0	1			10/03/12 18:13	75-27-4		
Bromoform	ND ug/L	5.0	1			10/03/12 18:13	75-25-2		
Bromomethane	ND ug/L	5.0	1			10/03/12 18:13	74-83-9		
2-Butanone (MEK)	ND ug/L	10.0	1			10/03/12 18:13	78-93-3		
Carbon disulfide	ND ug/L	5.0	1			10/03/12 18:13	75-15-0		
Carbon tetrachloride	ND ug/L	5.0	1			10/03/12 18:13	56-23-5		
Chlorobenzene	ND ug/L	5.0	1			10/03/12 18:13	108-90-7		
Chloroethane	ND ug/L	5.0	1			10/03/12 18:13	75-00-3		
Chloroform	ND ug/L	5.0	1			10/03/12 18:13	67-66-3		
Chloromethane	ND ug/L	5.0	1			10/03/12 18:13	74-87-3		
Dibromochloromethane	ND ug/L	5.0	1			10/03/12 18:13	124-48-1		
1,2-Dichlorobenzene	ND ug/L	5.0	1			10/03/12 18:13	95-50-1		
1,3-Dichlorobenzene	ND ug/L	5.0	1			10/03/12 18:13	541-73-1		
1,4-Dichlorobenzene	ND ug/L	5.0	1			10/03/12 18:13	106-46-7		
1,1-Dichloroethane	ND ug/L	5.0	1			10/03/12 18:13	75-34-3		
1,2-Dichloroethane	ND ug/L	5.0	1			10/03/12 18:13	107-06-2		
1,1-Dichloroethene	ND ug/L	5.0	1			10/03/12 18:13	75-35-4		
cis-1,2-Dichloroethene	ND ug/L	5.0	1			10/03/12 18:13	156-59-2		
trans-1,2-Dichloroethene	ND ug/L	5.0	1			10/03/12 18:13	156-60-5		
1,2-Dichloropropane	ND ug/L	5.0	1			10/03/12 18:13	78-87-5		
cis-1,3-Dichloropropene	ND ug/L	5.0	1			10/03/12 18:13	10061-01-5		
trans-1,3-Dichloropropene	ND ug/L	5.0	1			10/03/12 18:13	10061-02-6		
Ethylbenzene	ND ug/L	5.0	1			10/03/12 18:13	100-41-4		
2-Hexanone	ND ug/L	10.0	1			10/03/12 18:13	591-78-6		
Isopropylbenzene (Cumene)	ND ug/L	1.0	1			10/03/12 18:13	98-82-8		
Methylene Chloride	ND ug/L	5.0	1			10/03/12 18:13	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND ug/L	10.0	1			10/03/12 18:13	108-10-1		
Styrene	ND ug/L	5.0	1			10/03/12 18:13	100-42-5		
1,1,2,2-Tetrachloroethane	ND ug/L	5.0	1			10/03/12 18:13	79-34-5		
Tetrachloroethene	ND ug/L	5.0	1			10/03/12 18:13	127-18-4		
Toluene	ND ug/L	5.0	1			10/03/12 18:13	108-88-3		
1,1,1-Trichloroethane	ND ug/L	5.0	1			10/03/12 18:13	71-55-6		
1,1,2-Trichloroethane	ND ug/L	5.0	1			10/03/12 18:13	79-00-5		
Trichloroethene	ND ug/L	5.0	1			10/03/12 18:13	79-01-6		
Trichlorofluoromethane	ND ug/L	5.0	1			10/03/12 18:13	75-69-4		
Vinyl chloride	ND ug/L	1.0	1			10/03/12 18:13	75-01-4		
m&p-Xylene	ND ug/L	5.0	1			10/03/12 18:13	179601-23-1		
o-Xylene	ND ug/L	5.0	1			10/03/12 18:13	95-47-6		
Surrogates									
4-Bromofluorobenzene (S)	100 %	70-130	1			10/03/12 18:13	460-00-4		
1,2-Dichloroethane-d4 (S)	101 %	70-130	1			10/03/12 18:13	17060-07-0		
Toluene-d8 (S)	98 %	70-130	1			10/03/12 18:13	2037-26-5		

ANALYTICAL RESULTS

Project: 41569181 Essex-Hope

Pace Project No.: 3078215

Sample: MW-14S		Lab ID: 3078215004		Collected: 09/25/12 11:20		Received: 09/26/12 09:45		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND	ug/L	10.0	1			10/03/12 18:38	67-64-1	
Benzene	ND	ug/L	1.0	1			10/03/12 18:38	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1			10/03/12 18:38	75-27-4	
Bromoform	ND	ug/L	5.0	1			10/03/12 18:38	75-25-2	
Bromomethane	ND	ug/L	5.0	1			10/03/12 18:38	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1			10/03/12 18:38	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1			10/03/12 18:38	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1			10/03/12 18:38	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1			10/03/12 18:38	108-90-7	
Chloroethane	ND	ug/L	5.0	1			10/03/12 18:38	75-00-3	
Chloroform	ND	ug/L	5.0	1			10/03/12 18:38	67-66-3	
Chloromethane	ND	ug/L	5.0	1			10/03/12 18:38	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1			10/03/12 18:38	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1			10/03/12 18:38	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1			10/03/12 18:38	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1			10/03/12 18:38	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1			10/03/12 18:38	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1			10/03/12 18:38	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1			10/03/12 18:38	75-35-4	
cis-1,2-Dichloroethene	6.1	ug/L	5.0	1			10/03/12 18:38	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1			10/03/12 18:38	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1			10/03/12 18:38	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1			10/03/12 18:38	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1			10/03/12 18:38	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1			10/03/12 18:38	100-41-4	
2-Hexanone	ND	ug/L	10.0	1			10/03/12 18:38	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1			10/03/12 18:38	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1			10/03/12 18:38	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1			10/03/12 18:38	108-10-1	
Styrene	ND	ug/L	5.0	1			10/03/12 18:38	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1			10/03/12 18:38	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1			10/03/12 18:38	127-18-4	
Toluene	ND	ug/L	5.0	1			10/03/12 18:38	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1			10/03/12 18:38	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1			10/03/12 18:38	79-00-5	
Trichloroethene	27.5	ug/L	5.0	1			10/03/12 18:38	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1			10/03/12 18:38	75-69-4	
Vinyl chloride	ND	ug/L	1.0	1			10/03/12 18:38	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1			10/03/12 18:38	179601-23-1	
o-Xylene	ND	ug/L	5.0	1			10/03/12 18:38	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	101	%	70-130	1			10/03/12 18:38	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130	1			10/03/12 18:38	17060-07-0	
Toluene-d8 (S)	100	%	70-130	1			10/03/12 18:38	2037-26-5	

ANALYTICAL RESULTS

Project: 41569181 Essex-Hope

Pace Project No.: 3078215

Sample: MW-14D		Lab ID: 3078215005		Collected: 09/25/12 11:45		Received: 09/26/12 09:45		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND	ug/L	10.0	1			10/03/12 19:04	67-64-1	
Benzene	ND	ug/L	1.0	1			10/03/12 19:04	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1			10/03/12 19:04	75-27-4	
Bromoform	ND	ug/L	5.0	1			10/03/12 19:04	75-25-2	
Bromomethane	ND	ug/L	5.0	1			10/03/12 19:04	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1			10/03/12 19:04	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1			10/03/12 19:04	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1			10/03/12 19:04	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1			10/03/12 19:04	108-90-7	
Chloroethane	ND	ug/L	5.0	1			10/03/12 19:04	75-00-3	
Chloroform	ND	ug/L	5.0	1			10/03/12 19:04	67-66-3	
Chloromethane	ND	ug/L	5.0	1			10/03/12 19:04	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1			10/03/12 19:04	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1			10/03/12 19:04	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1			10/03/12 19:04	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1			10/03/12 19:04	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1			10/03/12 19:04	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1			10/03/12 19:04	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1			10/03/12 19:04	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1			10/03/12 19:04	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1			10/03/12 19:04	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1			10/03/12 19:04	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1			10/03/12 19:04	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1			10/03/12 19:04	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1			10/03/12 19:04	100-41-4	
2-Hexanone	ND	ug/L	10.0	1			10/03/12 19:04	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1			10/03/12 19:04	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1			10/03/12 19:04	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1			10/03/12 19:04	108-10-1	
Styrene	ND	ug/L	5.0	1			10/03/12 19:04	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1			10/03/12 19:04	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1			10/03/12 19:04	127-18-4	
Toluene	ND	ug/L	5.0	1			10/03/12 19:04	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1			10/03/12 19:04	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1			10/03/12 19:04	79-00-5	
Trichloroethene	ND	ug/L	5.0	1			10/03/12 19:04	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1			10/03/12 19:04	75-69-4	
Vinyl chloride	6.6	ug/L	1.0	1			10/03/12 19:04	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1			10/03/12 19:04	179601-23-1	
o-Xylene	ND	ug/L	5.0	1			10/03/12 19:04	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130	1			10/03/12 19:04	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130	1			10/03/12 19:04	17060-07-0	
Toluene-d8 (S)	98	%	70-130	1			10/03/12 19:04	2037-26-5	

ANALYTICAL RESULTS

Project: 41569181 Essex-Hope

Pace Project No.: 3078215

Sample: MW-15S		Lab ID: 3078215006		Collected: 09/25/12 12:10		Received: 09/26/12 09:45		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND	ug/L	10.0	1		10/03/12 19:30	67-64-1		
Benzene	ND	ug/L	1.0	1		10/03/12 19:30	71-43-2		
Bromodichloromethane	ND	ug/L	5.0	1		10/03/12 19:30	75-27-4		
Bromoform	ND	ug/L	5.0	1		10/03/12 19:30	75-25-2		
Bromomethane	ND	ug/L	5.0	1		10/03/12 19:30	74-83-9		
2-Butanone (MEK)	ND	ug/L	10.0	1		10/03/12 19:30	78-93-3		
Carbon disulfide	ND	ug/L	5.0	1		10/03/12 19:30	75-15-0		
Carbon tetrachloride	ND	ug/L	5.0	1		10/03/12 19:30	56-23-5		
Chlorobenzene	ND	ug/L	5.0	1		10/03/12 19:30	108-90-7		
Chloroethane	ND	ug/L	5.0	1		10/03/12 19:30	75-00-3		
Chloroform	ND	ug/L	5.0	1		10/03/12 19:30	67-66-3		
Chloromethane	ND	ug/L	5.0	1		10/03/12 19:30	74-87-3		
Dibromochloromethane	ND	ug/L	5.0	1		10/03/12 19:30	124-48-1		
1,2-Dichlorobenzene	ND	ug/L	5.0	1		10/03/12 19:30	95-50-1		
1,3-Dichlorobenzene	ND	ug/L	5.0	1		10/03/12 19:30	541-73-1		
1,4-Dichlorobenzene	ND	ug/L	5.0	1		10/03/12 19:30	106-46-7		
1,1-Dichloroethane	ND	ug/L	5.0	1		10/03/12 19:30	75-34-3		
1,2-Dichloroethane	ND	ug/L	5.0	1		10/03/12 19:30	107-06-2		
1,1-Dichloroethene	ND	ug/L	5.0	1		10/03/12 19:30	75-35-4		
cis-1,2-Dichloroethene	7.9	ug/L	5.0	1		10/03/12 19:30	156-59-2		
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		10/03/12 19:30	156-60-5		
1,2-Dichloropropane	ND	ug/L	5.0	1		10/03/12 19:30	78-87-5		
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		10/03/12 19:30	10061-01-5		
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		10/03/12 19:30	10061-02-6		
Ethylbenzene	ND	ug/L	5.0	1		10/03/12 19:30	100-41-4		
2-Hexanone	ND	ug/L	10.0	1		10/03/12 19:30	591-78-6		
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		10/03/12 19:30	98-82-8		
Methylene Chloride	ND	ug/L	5.0	1		10/03/12 19:30	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		10/03/12 19:30	108-10-1		
Styrene	ND	ug/L	5.0	1		10/03/12 19:30	100-42-5		
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		10/03/12 19:30	79-34-5		
Tetrachloroethene	ND	ug/L	5.0	1		10/03/12 19:30	127-18-4		
Toluene	ND	ug/L	5.0	1		10/03/12 19:30	108-88-3		
1,1,1-Trichloroethane	ND	ug/L	5.0	1		10/03/12 19:30	71-55-6		
1,1,2-Trichloroethane	ND	ug/L	5.0	1		10/03/12 19:30	79-00-5		
Trichloroethene	7.7	ug/L	5.0	1		10/03/12 19:30	79-01-6		
Trichlorofluoromethane	ND	ug/L	5.0	1		10/03/12 19:30	75-69-4		
Vinyl chloride	ND	ug/L	1.0	1		10/03/12 19:30	75-01-4		
m&p-Xylene	ND	ug/L	5.0	1		10/03/12 19:30	179601-23-1		
o-Xylene	ND	ug/L	5.0	1		10/03/12 19:30	95-47-6		
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130	1		10/03/12 19:30	460-00-4		
1,2-Dichloroethane-d4 (S)	102	%	70-130	1		10/03/12 19:30	17060-07-0		
Toluene-d8 (S)	100	%	70-130	1		10/03/12 19:30	2037-26-5		

ANALYTICAL RESULTS

Project: 41569181 Essex-Hope

Pace Project No.: 3078215

Sample: MW-15D		Lab ID: 3078215007		Collected: 09/25/12 12:45		Received: 09/26/12 09:45		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND	ug/L	10.0	1			10/03/12 19:55	67-64-1	
Benzene	2.2	ug/L	1.0	1			10/03/12 19:55	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1			10/03/12 19:55	75-27-4	
Bromoform	ND	ug/L	5.0	1			10/03/12 19:55	75-25-2	
Bromomethane	ND	ug/L	5.0	1			10/03/12 19:55	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1			10/03/12 19:55	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1			10/03/12 19:55	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1			10/03/12 19:55	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1			10/03/12 19:55	108-90-7	
Chloroethane	ND	ug/L	5.0	1			10/03/12 19:55	75-00-3	
Chloroform	ND	ug/L	5.0	1			10/03/12 19:55	67-66-3	
Chloromethane	ND	ug/L	5.0	1			10/03/12 19:55	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1			10/03/12 19:55	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1			10/03/12 19:55	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1			10/03/12 19:55	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1			10/03/12 19:55	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1			10/03/12 19:55	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1			10/03/12 19:55	107-06-2	
1,1-Dichloroethene	159	ug/L	5.0	1			10/03/12 19:55	75-35-4	
cis-1,2-Dichloroethene	21900	ug/L	1000	200			10/03/12 20:46	156-59-2	
trans-1,2-Dichloroethene	239	ug/L	5.0	1			10/03/12 19:55	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1			10/03/12 19:55	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1			10/03/12 19:55	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1			10/03/12 19:55	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1			10/03/12 19:55	100-41-4	
2-Hexanone	ND	ug/L	10.0	1			10/03/12 19:55	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1			10/03/12 19:55	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1			10/03/12 19:55	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1			10/03/12 19:55	108-10-1	
Styrene	ND	ug/L	5.0	1			10/03/12 19:55	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1			10/03/12 19:55	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1			10/03/12 19:55	127-18-4	
Toluene	ND	ug/L	5.0	1			10/03/12 19:55	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1			10/03/12 19:55	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1			10/03/12 19:55	79-00-5	
Trichloroethene	9510	ug/L	1000	200			10/03/12 20:46	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1			10/03/12 19:55	75-69-4	
Vinyl chloride	814	ug/L	10.0	10			10/03/12 20:21	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1			10/03/12 19:55	179601-23-1	
o-Xylene	ND	ug/L	5.0	1			10/03/12 19:55	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130	1			10/03/12 19:55	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130	1			10/03/12 19:55	17060-07-0	
Toluene-d8 (S)	101	%	70-130	1			10/03/12 19:55	2037-26-5	

ANALYTICAL RESULTS

Project: 41569181 Essex-Hope

Pace Project No.: 3078215

Sample: MW-6		Lab ID: 3078215008		Collected: 09/25/12 13:40		Received: 09/26/12 09:45		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND	ug/L	10.0	1		10/04/12 14:37	67-64-1		
Benzene	ND	ug/L	1.0	1		10/04/12 14:37	71-43-2		
Bromodichloromethane	ND	ug/L	5.0	1		10/04/12 14:37	75-27-4		
Bromoform	ND	ug/L	5.0	1		10/04/12 14:37	75-25-2		
Bromomethane	ND	ug/L	5.0	1		10/04/12 14:37	74-83-9		
2-Butanone (MEK)	ND	ug/L	10.0	1		10/04/12 14:37	78-93-3		
Carbon disulfide	ND	ug/L	5.0	1		10/04/12 14:37	75-15-0		
Carbon tetrachloride	ND	ug/L	5.0	1		10/04/12 14:37	56-23-5		
Chlorobenzene	ND	ug/L	5.0	1		10/04/12 14:37	108-90-7		
Chloroethane	ND	ug/L	5.0	1		10/04/12 14:37	75-00-3		
Chloroform	ND	ug/L	5.0	1		10/04/12 14:37	67-66-3		
Chloromethane	ND	ug/L	5.0	1		10/04/12 14:37	74-87-3		
Dibromochloromethane	ND	ug/L	5.0	1		10/04/12 14:37	124-48-1		
1,2-Dichlorobenzene	ND	ug/L	5.0	1		10/04/12 14:37	95-50-1		
1,3-Dichlorobenzene	ND	ug/L	5.0	1		10/04/12 14:37	541-73-1		
1,4-Dichlorobenzene	ND	ug/L	5.0	1		10/04/12 14:37	106-46-7		
1,1-Dichloroethane	ND	ug/L	5.0	1		10/04/12 14:37	75-34-3		
1,2-Dichloroethane	ND	ug/L	5.0	1		10/04/12 14:37	107-06-2		
1,1-Dichloroethene	ND	ug/L	5.0	1		10/04/12 14:37	75-35-4		
cis-1,2-Dichloroethene	10.5	ug/L	5.0	1		10/04/12 14:37	156-59-2		
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		10/04/12 14:37	156-60-5		
1,2-Dichloropropane	ND	ug/L	5.0	1		10/04/12 14:37	78-87-5		
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		10/04/12 14:37	10061-01-5		
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		10/04/12 14:37	10061-02-6		
Ethylbenzene	ND	ug/L	5.0	1		10/04/12 14:37	100-41-4		
2-Hexanone	ND	ug/L	10.0	1		10/04/12 14:37	591-78-6		
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		10/04/12 14:37	98-82-8		
Methylene Chloride	ND	ug/L	5.0	1		10/04/12 14:37	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		10/04/12 14:37	108-10-1		
Styrene	ND	ug/L	5.0	1		10/04/12 14:37	100-42-5		
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		10/04/12 14:37	79-34-5		
Tetrachloroethene	ND	ug/L	5.0	1		10/04/12 14:37	127-18-4		
Toluene	ND	ug/L	5.0	1		10/04/12 14:37	108-88-3		
1,1,1-Trichloroethane	ND	ug/L	5.0	1		10/04/12 14:37	71-55-6		
1,1,2-Trichloroethane	ND	ug/L	5.0	1		10/04/12 14:37	79-00-5		
Trichloroethene	10.5	ug/L	5.0	1		10/04/12 14:37	79-01-6		
Trichlorofluoromethane	ND	ug/L	5.0	1		10/04/12 14:37	75-69-4		
Vinyl chloride	ND	ug/L	1.0	1		10/04/12 14:37	75-01-4		
m&p-Xylene	ND	ug/L	5.0	1		10/04/12 14:37	179601-23-1		
o-Xylene	ND	ug/L	5.0	1		10/04/12 14:37	95-47-6		
Surrogates									
4-Bromofluorobenzene (S)	103	%	70-130	1		10/04/12 14:37	460-00-4		
1,2-Dichloroethane-d4 (S)	96	%	70-130	1		10/04/12 14:37	17060-07-0		
Toluene-d8 (S)	99	%	70-130	1		10/04/12 14:37	2037-26-5		

ANALYTICAL RESULTS

Project: 41569181 Essex-Hope

Pace Project No.: 3078215

Sample: MW-8		Lab ID: 3078215009		Collected: 09/25/12 14:05		Received: 09/26/12 09:45		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND	ug/L	10.0	1		10/04/12 15:03	67-64-1		
Benzene	ND	ug/L	1.0	1		10/04/12 15:03	71-43-2		
Bromodichloromethane	ND	ug/L	5.0	1		10/04/12 15:03	75-27-4		
Bromoform	ND	ug/L	5.0	1		10/04/12 15:03	75-25-2		
Bromomethane	ND	ug/L	5.0	1		10/04/12 15:03	74-83-9		
2-Butanone (MEK)	ND	ug/L	10.0	1		10/04/12 15:03	78-93-3		
Carbon disulfide	ND	ug/L	5.0	1		10/04/12 15:03	75-15-0		
Carbon tetrachloride	ND	ug/L	5.0	1		10/04/12 15:03	56-23-5		
Chlorobenzene	ND	ug/L	5.0	1		10/04/12 15:03	108-90-7		
Chloroethane	ND	ug/L	5.0	1		10/04/12 15:03	75-00-3		
Chloroform	ND	ug/L	5.0	1		10/04/12 15:03	67-66-3		
Chloromethane	ND	ug/L	5.0	1		10/04/12 15:03	74-87-3		
Dibromochloromethane	ND	ug/L	5.0	1		10/04/12 15:03	124-48-1		
1,2-Dichlorobenzene	ND	ug/L	5.0	1		10/04/12 15:03	95-50-1		
1,3-Dichlorobenzene	ND	ug/L	5.0	1		10/04/12 15:03	541-73-1		
1,4-Dichlorobenzene	ND	ug/L	5.0	1		10/04/12 15:03	106-46-7		
1,1-Dichloroethane	ND	ug/L	5.0	1		10/04/12 15:03	75-34-3		
1,2-Dichloroethane	ND	ug/L	5.0	1		10/04/12 15:03	107-06-2		
1,1-Dichloroethene	ND	ug/L	5.0	1		10/04/12 15:03	75-35-4		
cis-1,2-Dichloroethene	104	ug/L	5.0	1		10/04/12 15:03	156-59-2		
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		10/04/12 15:03	156-60-5		
1,2-Dichloropropane	ND	ug/L	5.0	1		10/04/12 15:03	78-87-5		
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		10/04/12 15:03	10061-01-5		
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		10/04/12 15:03	10061-02-6		
Ethylbenzene	ND	ug/L	5.0	1		10/04/12 15:03	100-41-4		
2-Hexanone	ND	ug/L	10.0	1		10/04/12 15:03	591-78-6		
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		10/04/12 15:03	98-82-8		
Methylene Chloride	ND	ug/L	5.0	1		10/04/12 15:03	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		10/04/12 15:03	108-10-1		
Styrene	ND	ug/L	5.0	1		10/04/12 15:03	100-42-5		
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		10/04/12 15:03	79-34-5		
Tetrachloroethene	ND	ug/L	5.0	1		10/04/12 15:03	127-18-4		
Toluene	ND	ug/L	5.0	1		10/04/12 15:03	108-88-3		
1,1,1-Trichloroethane	ND	ug/L	5.0	1		10/04/12 15:03	71-55-6		
1,1,2-Trichloroethane	ND	ug/L	5.0	1		10/04/12 15:03	79-00-5		
Trichloroethene	ND	ug/L	5.0	1		10/04/12 15:03	79-01-6		
Trichlorofluoromethane	ND	ug/L	5.0	1		10/04/12 15:03	75-69-4		
Vinyl chloride	14.8	ug/L	1.0	1		10/04/12 15:03	75-01-4		
m&p-Xylene	ND	ug/L	5.0	1		10/04/12 15:03	179601-23-1		
o-Xylene	ND	ug/L	5.0	1		10/04/12 15:03	95-47-6		
Surrogates									
4-Bromofluorobenzene (S)	101	%	70-130	1		10/04/12 15:03	460-00-4		
1,2-Dichloroethane-d4 (S)	94	%	70-130	1		10/04/12 15:03	17060-07-0		
Toluene-d8 (S)	98	%	70-130	1		10/04/12 15:03	2037-26-5		

ANALYTICAL RESULTS

Project: 41569181 Essex-Hope

Pace Project No.: 3078215

Sample: MW-7S		Lab ID: 3078215010		Collected: 09/25/12 14:35		Received: 09/26/12 09:45		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND	ug/L	10.0	1		10/04/12 15:30	67-64-1		
Benzene	ND	ug/L	1.0	1		10/04/12 15:30	71-43-2		
Bromodichloromethane	ND	ug/L	5.0	1		10/04/12 15:30	75-27-4		
Bromoform	ND	ug/L	5.0	1		10/04/12 15:30	75-25-2		
Bromomethane	ND	ug/L	5.0	1		10/04/12 15:30	74-83-9		
2-Butanone (MEK)	ND	ug/L	10.0	1		10/04/12 15:30	78-93-3		
Carbon disulfide	ND	ug/L	5.0	1		10/04/12 15:30	75-15-0		
Carbon tetrachloride	ND	ug/L	5.0	1		10/04/12 15:30	56-23-5		
Chlorobenzene	ND	ug/L	5.0	1		10/04/12 15:30	108-90-7		
Chloroethane	ND	ug/L	5.0	1		10/04/12 15:30	75-00-3		
Chloroform	ND	ug/L	5.0	1		10/04/12 15:30	67-66-3		
Chloromethane	ND	ug/L	5.0	1		10/04/12 15:30	74-87-3		
Dibromochloromethane	ND	ug/L	5.0	1		10/04/12 15:30	124-48-1		
1,2-Dichlorobenzene	ND	ug/L	5.0	1		10/04/12 15:30	95-50-1		
1,3-Dichlorobenzene	ND	ug/L	5.0	1		10/04/12 15:30	541-73-1		
1,4-Dichlorobenzene	ND	ug/L	5.0	1		10/04/12 15:30	106-46-7		
1,1-Dichloroethane	ND	ug/L	5.0	1		10/04/12 15:30	75-34-3		
1,2-Dichloroethane	ND	ug/L	5.0	1		10/04/12 15:30	107-06-2		
1,1-Dichloroethene	ND	ug/L	5.0	1		10/04/12 15:30	75-35-4		
cis-1,2-Dichloroethene	9.8	ug/L	5.0	1		10/04/12 15:30	156-59-2		
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		10/04/12 15:30	156-60-5		
1,2-Dichloropropane	ND	ug/L	5.0	1		10/04/12 15:30	78-87-5		
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		10/04/12 15:30	10061-01-5		
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		10/04/12 15:30	10061-02-6		
Ethylbenzene	ND	ug/L	5.0	1		10/04/12 15:30	100-41-4		
2-Hexanone	ND	ug/L	10.0	1		10/04/12 15:30	591-78-6		
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		10/04/12 15:30	98-82-8		
Methylene Chloride	ND	ug/L	5.0	1		10/04/12 15:30	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		10/04/12 15:30	108-10-1		
Styrene	ND	ug/L	5.0	1		10/04/12 15:30	100-42-5		
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		10/04/12 15:30	79-34-5		
Tetrachloroethene	ND	ug/L	5.0	1		10/04/12 15:30	127-18-4		
Toluene	ND	ug/L	5.0	1		10/04/12 15:30	108-88-3		
1,1,1-Trichloroethane	ND	ug/L	5.0	1		10/04/12 15:30	71-55-6		
1,1,2-Trichloroethane	ND	ug/L	5.0	1		10/04/12 15:30	79-00-5		
Trichloroethene	11.4	ug/L	5.0	1		10/04/12 15:30	79-01-6		
Trichlorofluoromethane	ND	ug/L	5.0	1		10/04/12 15:30	75-69-4		
Vinyl chloride	ND	ug/L	1.0	1		10/04/12 15:30	75-01-4		
m&p-Xylene	ND	ug/L	5.0	1		10/04/12 15:30	179601-23-1		
o-Xylene	ND	ug/L	5.0	1		10/04/12 15:30	95-47-6		
Surrogates									
4-Bromofluorobenzene (S)	107	%	70-130	1		10/04/12 15:30	460-00-4		
1,2-Dichloroethane-d4 (S)	97	%	70-130	1		10/04/12 15:30	17060-07-0		
Toluene-d8 (S)	98	%	70-130	1		10/04/12 15:30	2037-26-5		

ANALYTICAL RESULTS

Project: 41569181 Essex-Hope

Pace Project No.: 3078215

Sample: MW-7D		Lab ID: 3078215011	Collected: 09/25/12 14:55	Received: 09/26/12 09:45	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND	ug/L	10.0	1		10/04/12 15:56	67-64-1	
Benzene	9.3	ug/L	1.0	1		10/04/12 15:56	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		10/04/12 15:56	75-27-4	
Bromoform	ND	ug/L	5.0	1		10/04/12 15:56	75-25-2	
Bromomethane	ND	ug/L	5.0	1		10/04/12 15:56	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		10/04/12 15:56	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		10/04/12 15:56	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		10/04/12 15:56	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		10/04/12 15:56	108-90-7	
Chloroethane	ND	ug/L	5.0	1		10/04/12 15:56	75-00-3	
Chloroform	ND	ug/L	5.0	1		10/04/12 15:56	67-66-3	
Chloromethane	ND	ug/L	5.0	1		10/04/12 15:56	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		10/04/12 15:56	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		10/04/12 15:56	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		10/04/12 15:56	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		10/04/12 15:56	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		10/04/12 15:56	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		10/04/12 15:56	107-06-2	
1,1-Dichloroethene	13.6	ug/L	5.0	1		10/04/12 15:56	75-35-4	
cis-1,2-Dichloroethene	1750	ug/L	250	50		10/05/12 12:53	156-59-2	
trans-1,2-Dichloroethene	34.2	ug/L	5.0	1		10/04/12 15:56	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		10/04/12 15:56	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		10/04/12 15:56	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		10/04/12 15:56	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		10/04/12 15:56	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		10/04/12 15:56	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		10/04/12 15:56	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		10/04/12 15:56	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		10/04/12 15:56	108-10-1	
Styrene	ND	ug/L	5.0	1		10/04/12 15:56	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		10/04/12 15:56	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		10/04/12 15:56	127-18-4	
Toluene	ND	ug/L	5.0	1		10/04/12 15:56	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		10/04/12 15:56	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		10/04/12 15:56	79-00-5	
Trichloroethene	348	ug/L	5.0	1		10/04/12 15:56	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		10/04/12 15:56	75-69-4	
Vinyl chloride	242	ug/L	50.0	50		10/05/12 12:53	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		10/04/12 15:56	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		10/04/12 15:56	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	105	%	70-130	1		10/04/12 15:56	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	70-130	1		10/04/12 15:56	17060-07-0	
Toluene-d8 (S)	100	%	70-130	1		10/04/12 15:56	2037-26-5	

ANALYTICAL RESULTS

Project: 41569181 Essex-Hope

Pace Project No.: 3078215

Sample: TB-01		Lab ID: 3078215012		Collected: 09/25/12 00:01		Received: 09/26/12 09:45		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND ug/L	10.0	1			10/04/12 16:23	67-64-1		
Benzene	ND ug/L	1.0	1			10/04/12 16:23	71-43-2		
Bromodichloromethane	ND ug/L	5.0	1			10/04/12 16:23	75-27-4		
Bromoform	ND ug/L	5.0	1			10/04/12 16:23	75-25-2		
Bromomethane	ND ug/L	5.0	1			10/04/12 16:23	74-83-9		
2-Butanone (MEK)	ND ug/L	10.0	1			10/04/12 16:23	78-93-3		
Carbon disulfide	ND ug/L	5.0	1			10/04/12 16:23	75-15-0		
Carbon tetrachloride	ND ug/L	5.0	1			10/04/12 16:23	56-23-5		
Chlorobenzene	ND ug/L	5.0	1			10/04/12 16:23	108-90-7		
Chloroethane	ND ug/L	5.0	1			10/04/12 16:23	75-00-3		
Chloroform	ND ug/L	5.0	1			10/04/12 16:23	67-66-3		
Chloromethane	ND ug/L	5.0	1			10/04/12 16:23	74-87-3		
Dibromochloromethane	ND ug/L	5.0	1			10/04/12 16:23	124-48-1		
1,2-Dichlorobenzene	ND ug/L	5.0	1			10/04/12 16:23	95-50-1		
1,3-Dichlorobenzene	ND ug/L	5.0	1			10/04/12 16:23	541-73-1		
1,4-Dichlorobenzene	ND ug/L	5.0	1			10/04/12 16:23	106-46-7		
1,1-Dichloroethane	ND ug/L	5.0	1			10/04/12 16:23	75-34-3		
1,2-Dichloroethane	ND ug/L	5.0	1			10/04/12 16:23	107-06-2		
1,1-Dichloroethene	ND ug/L	5.0	1			10/04/12 16:23	75-35-4		
cis-1,2-Dichloroethene	ND ug/L	5.0	1			10/04/12 16:23	156-59-2		
trans-1,2-Dichloroethene	ND ug/L	5.0	1			10/04/12 16:23	156-60-5		
1,2-Dichloropropane	ND ug/L	5.0	1			10/04/12 16:23	78-87-5		
cis-1,3-Dichloropropene	ND ug/L	5.0	1			10/04/12 16:23	10061-01-5		
trans-1,3-Dichloropropene	ND ug/L	5.0	1			10/04/12 16:23	10061-02-6		
Ethylbenzene	ND ug/L	5.0	1			10/04/12 16:23	100-41-4		
2-Hexanone	ND ug/L	10.0	1			10/04/12 16:23	591-78-6		
Isopropylbenzene (Cumene)	ND ug/L	1.0	1			10/04/12 16:23	98-82-8		
Methylene Chloride	ND ug/L	5.0	1			10/04/12 16:23	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND ug/L	10.0	1			10/04/12 16:23	108-10-1		
Styrene	ND ug/L	5.0	1			10/04/12 16:23	100-42-5		
1,1,2,2-Tetrachloroethane	ND ug/L	5.0	1			10/04/12 16:23	79-34-5		
Tetrachloroethene	ND ug/L	5.0	1			10/04/12 16:23	127-18-4		
Toluene	ND ug/L	5.0	1			10/04/12 16:23	108-88-3		
1,1,1-Trichloroethane	ND ug/L	5.0	1			10/04/12 16:23	71-55-6		
1,1,2-Trichloroethane	ND ug/L	5.0	1			10/04/12 16:23	79-00-5		
Trichloroethene	ND ug/L	5.0	1			10/04/12 16:23	79-01-6		
Trichlorofluoromethane	ND ug/L	5.0	1			10/04/12 16:23	75-69-4		
Vinyl chloride	ND ug/L	1.0	1			10/04/12 16:23	75-01-4		
m&p-Xylene	ND ug/L	5.0	1			10/04/12 16:23	179601-23-1		
o-Xylene	ND ug/L	5.0	1			10/04/12 16:23	95-47-6		
Surrogates									
4-Bromofluorobenzene (S)	104 %	70-130	1			10/04/12 16:23	460-00-4		
1,2-Dichloroethane-d4 (S)	101 %	70-130	1			10/04/12 16:23	17060-07-0		
Toluene-d8 (S)	86 %	70-130	1			10/04/12 16:23	2037-26-5		

QUALITY CONTROL DATA

Project: 41569181 Essex-Hope

Pace Project No.: 3078215

QC Batch:	MSV/14147	Analysis Method:	EPA 8260
QC Batch Method:	EPA 8260	Analysis Description:	8260 MSV
Associated Lab Samples:	3078215001, 3078215002, 3078215003, 3078215004, 3078215005, 3078215006, 3078215007		

METHOD BLANK:	494857	Matrix:	Water
Associated Lab Samples:	3078215001, 3078215002, 3078215003, 3078215004, 3078215005, 3078215006, 3078215007		

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	5.0	10/03/12 11:48	
1,1,2,2-Tetrachloroethane	ug/L	ND	5.0	10/03/12 11:48	
1,1,2-Trichloroethane	ug/L	ND	5.0	10/03/12 11:48	
1,1-Dichloroethane	ug/L	ND	5.0	10/03/12 11:48	
1,1-Dichloroethene	ug/L	ND	5.0	10/03/12 11:48	
1,2-Dichlorobenzene	ug/L	ND	5.0	10/03/12 11:48	
1,2-Dichloroethane	ug/L	ND	5.0	10/03/12 11:48	
1,2-Dichloropropane	ug/L	ND	5.0	10/03/12 11:48	
1,3-Dichlorobenzene	ug/L	ND	5.0	10/03/12 11:48	
1,4-Dichlorobenzene	ug/L	ND	5.0	10/03/12 11:48	
2-Butanone (MEK)	ug/L	ND	10.0	10/03/12 11:48	
2-Hexanone	ug/L	ND	10.0	10/03/12 11:48	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	10/03/12 11:48	
Acetone	ug/L	ND	10.0	10/03/12 11:48	
Benzene	ug/L	ND	1.0	10/03/12 11:48	
Bromodichloromethane	ug/L	ND	5.0	10/03/12 11:48	
Bromoform	ug/L	ND	5.0	10/03/12 11:48	
Bromomethane	ug/L	ND	5.0	10/03/12 11:48	
Carbon disulfide	ug/L	ND	5.0	10/03/12 11:48	
Carbon tetrachloride	ug/L	ND	5.0	10/03/12 11:48	
Chlorobenzene	ug/L	ND	5.0	10/03/12 11:48	
Chloroethane	ug/L	ND	5.0	10/03/12 11:48	
Chloroform	ug/L	ND	5.0	10/03/12 11:48	
Chloromethane	ug/L	ND	5.0	10/03/12 11:48	
cis-1,2-Dichloroethene	ug/L	ND	5.0	10/03/12 11:48	
cis-1,3-Dichloropropene	ug/L	ND	5.0	10/03/12 11:48	
Dibromochloromethane	ug/L	ND	5.0	10/03/12 11:48	
Ethylbenzene	ug/L	ND	5.0	10/03/12 11:48	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	10/03/12 11:48	
m&p-Xylene	ug/L	ND	5.0	10/03/12 11:48	
Methylene Chloride	ug/L	ND	5.0	10/03/12 11:48	
o-Xylene	ug/L	ND	5.0	10/03/12 11:48	
Styrene	ug/L	ND	5.0	10/03/12 11:48	
Tetrachloroethene	ug/L	ND	5.0	10/03/12 11:48	
Toluene	ug/L	ND	5.0	10/03/12 11:48	
trans-1,2-Dichloroethene	ug/L	ND	5.0	10/03/12 11:48	
trans-1,3-Dichloropropene	ug/L	ND	5.0	10/03/12 11:48	
Trichloroethene	ug/L	ND	5.0	10/03/12 11:48	
Trichlorofluoromethane	ug/L	ND	5.0	10/03/12 11:48	
Vinyl chloride	ug/L	ND	1.0	10/03/12 11:48	
1,2-Dichloroethane-d4 (S)	%	102	70-130	10/03/12 11:48	
4-Bromofluorobenzene (S)	%	99	70-130	10/03/12 11:48	
Toluene-d8 (S)	%	99	70-130	10/03/12 11:48	

Date: 10/09/2012 03:34 PM

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 41569181 Essex-Hope

Pace Project No.: 3078215

LABORATORY CONTROL SAMPLE: 494858

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	19.9	100	64.3-127	
1,1,2,2-Tetrachloroethane	ug/L	20	19.1	95	64.6-121	
1,1,2-Trichloroethane	ug/L	20	19.7	98	75.6-120	
1,1-Dichloroethane	ug/L	20	19.7	98	68.5-122	
1,1-Dichloroethene	ug/L	20	20.3	101	57.1-120	
1,2-Dichlorobenzene	ug/L	20	20.0	100	69.6-120	
1,2-Dichloroethane	ug/L	20	19.3	96	60.5-133	
1,2-Dichloropropane	ug/L	20	19.7	98	71-120	
1,3-Dichlorobenzene	ug/L	20	20.1	101	68.4-121	
1,4-Dichlorobenzene	ug/L	20	20.7	103	68.5-123	
2-Butanone (MEK)	ug/L	20	20.5	103	55.7-138	
2-Hexanone	ug/L	20	18.7	94	67-133	
4-Methyl-2-pentanone (MIBK)	ug/L	20	19.2	96	64.5-121	
Acetone	ug/L	20	18.3	92	57.6-168	
Benzene	ug/L	20	19.7	98	69.8-120	
Bromodichloromethane	ug/L	20	18.0	90	66.5-120	
Bromoform	ug/L	20	19.0	95	61.1-120	
Bromomethane	ug/L	20	26.5	133	10.6-200	
Carbon disulfide	ug/L	20	22.6	113	60.2-122	
Carbon tetrachloride	ug/L	20	17.6	88	60.1-127	
Chlorobenzene	ug/L	20	19.7	98	72-120	
Chloroethane	ug/L	20	19.4	97	36.8-142	
Chloroform	ug/L	20	18.9	95	69-122	
Chloromethane	ug/L	20	15.7	78	37.2-129	
cis-1,2-Dichloroethene	ug/L	20	19.9	100	69.5-123	
cis-1,3-Dichloropropene	ug/L	20	20.0	100	74.3-120	
Dibromochloromethane	ug/L	20	18.0	90	66.1-120	
Ethylbenzene	ug/L	20	20.2	101	70.9-124	
Isopropylbenzene (Cumene)	ug/L	20	22.2	111	68.3-129	
m&p-Xylene	ug/L	40	40.8	102	70.4-130	
Methylene Chloride	ug/L	20	20.2	101	61.5-125	
o-Xylene	ug/L	20	19.7	98	70.6-127	
Styrene	ug/L	20	24.7	124	69.9-120	L3
Tetrachloroethene	ug/L	20	20.8	104	63.4-121	
Toluene	ug/L	20	19.8	99	71.5-120	
trans-1,2-Dichloroethene	ug/L	20	19.6	98	64.1-120	
trans-1,3-Dichloropropene	ug/L	20	20.5	103	71-120	
Trichloroethene	ug/L	20	19.8	99	65.9-120	
Trichlorofluoromethane	ug/L	20	18.7	94	44.8-137	
Vinyl chloride	ug/L	20	18.9	95	51-127	
1,2-Dichloroethane-d4 (S)	%			104	70-130	
4-Bromofluorobenzene (S)	%			99	70-130	
Toluene-d8 (S)	%			97	70-130	

QUALITY CONTROL DATA

Project: 41569181 Essex-Hope

Pace Project No.: 3078215

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 494859 494860											
Parameter	Units	3078210011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	20	20	17.8	19.8	89	99	64.3-127	10	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	16.6	17.1	83	85	64.6-121	3	
1,1,2-Trichloroethane	ug/L	ND	20	20	17.7	18.9	88	94	75.6-120	7	
1,1-Dichloroethane	ug/L	ND	20	20	18.1	19.1	91	96	68.5-122	5	
1,1-Dichloroethene	ug/L	ND	20	20	18.5	20.2	93	101	57.1-120	9	
1,2-Dichlorobenzene	ug/L	ND	20	20	17.6	18.9	88	95	69.6-120	7	
1,2-Dichloroethane	ug/L	ND	20	20	17.7	18.5	88	92	60.5-133	4	
1,2-Dichloropropane	ug/L	ND	20	20	17.4	19.4	87	97	71-120	11	
1,3-Dichlorobenzene	ug/L	ND	20	20	17.9	19.6	90	98	68.4-121	9	
1,4-Dichlorobenzene	ug/L	ND	20	20	17.7	19.1	89	96	68.5-123	8	
2-Butanone (MEK)	ug/L	ND	20	20	19.6	19.0	98	95	55.7-138	3	
2-Hexanone	ug/L	ND	20	20	17.8	17.5	89	87	67-133	2	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	20	20	17.6	17.8	88	89	64.5-121	1	
Acetone	ug/L	ND	20	20	18.5	17.9	92	90	57.6-168	3	
Benzene	ug/L	ND	20	20	18.4	20.0	92	100	69.8-120	8	
Bromodichloromethane	ug/L	ND	20	20	15.5	17.2	77	86	66.5-120	10	
Bromoform	ug/L	ND	20	20	16.2	16.8	81	84	61.1-120	4	
Bromomethane	ug/L	ND	20	20	19.2	20.4	96	102	10.6-200	6	
Carbon disulfide	ug/L	ND	20	20	22.0	22.0	110	110	60.2-122	.1	
Carbon tetrachloride	ug/L	ND	20	20	15.4	17.1	77	86	60.1-127	11	
Chlorobenzene	ug/L	ND	20	20	17.9	19.9	90	99	72-120	10	
Chloroethane	ug/L	ND	20	20	18.1	20.9	90	105	36.8-142	15	
Chloroform	ug/L	ND	20	20	16.8	18.4	84	92	69-122	9	
Chloromethane	ug/L	ND	20	20	16.7	18.3	83	91	37.2-129	9	
cis-1,2-Dichloroethene	ug/L	ND	20	20	19.0	20.1	95	101	69.5-123	6	
cis-1,3-Dichloropropene	ug/L	ND	20	20	17.1	18.8	85	94	74.3-120	9	
Dibromochloromethane	ug/L	ND	20	20	15.1	16.3	76	82	66.1-120	8	
Ethylbenzene	ug/L	ND	20	20	18.4	20.2	92	101	70.9-124	10	
Isopropylbenzene (Cumene)	ug/L	ND	20	20	19.4	21.6	97	108	68.3-129	11	
m&p-Xylene	ug/L	ND	40	40	36.9	40.6	92	101	70.4-130	9	
Methylene Chloride	ug/L	ND	20	20	18.2	19.7	91	98	61.5-125	8	
o-Xylene	ug/L	ND	20	20	17.5	19.1	88	96	70.6-127	9	
Styrene	ug/L	ND	20	20	21.7	24.0	109	120	69.9-120	10	
Tetrachloroethene	ug/L	ND	20	20	18.5	20.6	93	103	63.4-121	11	
Toluene	ug/L	ND	20	20	18.1	19.8	90	99	71.5-120	9	
trans-1,2-Dichloroethene	ug/L	ND	20	20	17.7	20.1	88	100	64.1-120	13	
trans-1,3-Dichloropropene	ug/L	ND	20	20	17.3	18.6	87	93	71-120	7	
Trichloroethene	ug/L	ND	20	20	18.5	20.5	93	102	65.9-120	10	
Trichlorofluoromethane	ug/L	ND	20	20	18.4	20.8	92	104	44.8-137	12	
Vinyl chloride	ug/L	ND	20	20	18.9	20.6	95	103	51-127	9	
1,2-Dichloroethane-d4 (S)	%						102	102	70-130		
4-Bromofluorobenzene (S)	%						97	97	70-130		
Toluene-d8 (S)	%						98	98	70-130		

QUALITY CONTROL DATA

Project: 41569181 Essex-Hope

Pace Project No.: 3078215

QC Batch: MSV/14157 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 3078215008, 3078215009, 3078215010, 3078215011, 3078215012

METHOD BLANK: 495274 Matrix: Water
Associated Lab Samples: 3078215008, 3078215009, 3078215010, 3078215011, 3078215012

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	5.0	10/04/12 11:59	
1,1,2,2-Tetrachloroethane	ug/L	ND	5.0	10/04/12 11:59	
1,1,2-Trichloroethane	ug/L	ND	5.0	10/04/12 11:59	
1,1-Dichloroethane	ug/L	ND	5.0	10/04/12 11:59	
1,1-Dichloroethene	ug/L	ND	5.0	10/04/12 11:59	
1,2-Dichlorobenzene	ug/L	ND	5.0	10/04/12 11:59	
1,2-Dichloroethane	ug/L	ND	5.0	10/04/12 11:59	
1,2-Dichloropropane	ug/L	ND	5.0	10/04/12 11:59	
1,3-Dichlorobenzene	ug/L	ND	5.0	10/04/12 11:59	
1,4-Dichlorobenzene	ug/L	ND	5.0	10/04/12 11:59	
2-Butanone (MEK)	ug/L	ND	10.0	10/04/12 11:59	
2-Hexanone	ug/L	ND	10.0	10/04/12 11:59	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	10/04/12 11:59	
Acetone	ug/L	ND	10.0	10/04/12 11:59	
Benzene	ug/L	ND	1.0	10/04/12 11:59	
Bromodichloromethane	ug/L	ND	5.0	10/04/12 11:59	
Bromoform	ug/L	ND	5.0	10/04/12 11:59	
Bromomethane	ug/L	ND	5.0	10/04/12 11:59	
Carbon disulfide	ug/L	ND	5.0	10/04/12 11:59	
Carbon tetrachloride	ug/L	ND	5.0	10/04/12 11:59	
Chlorobenzene	ug/L	ND	5.0	10/04/12 11:59	
Chloroethane	ug/L	ND	5.0	10/04/12 11:59	
Chloroform	ug/L	ND	5.0	10/04/12 11:59	
Chloromethane	ug/L	ND	5.0	10/04/12 11:59	
cis-1,2-Dichloroethene	ug/L	ND	5.0	10/04/12 11:59	
cis-1,3-Dichloropropene	ug/L	ND	5.0	10/04/12 11:59	
Dibromochloromethane	ug/L	ND	5.0	10/04/12 11:59	
Ethylbenzene	ug/L	ND	5.0	10/04/12 11:59	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	10/04/12 11:59	
m&p-Xylene	ug/L	ND	5.0	10/04/12 11:59	
Methylene Chloride	ug/L	ND	5.0	10/04/12 11:59	
o-Xylene	ug/L	ND	5.0	10/04/12 11:59	
Styrene	ug/L	ND	5.0	10/04/12 11:59	
Tetrachloroethene	ug/L	ND	5.0	10/04/12 11:59	
Toluene	ug/L	ND	5.0	10/04/12 11:59	
trans-1,2-Dichloroethene	ug/L	ND	5.0	10/04/12 11:59	
trans-1,3-Dichloropropene	ug/L	ND	5.0	10/04/12 11:59	
Trichloroethene	ug/L	ND	5.0	10/04/12 11:59	
Trichlorofluoromethane	ug/L	ND	5.0	10/04/12 11:59	
Vinyl chloride	ug/L	ND	1.0	10/04/12 11:59	
1,2-Dichloroethane-d4 (S)	%	92	70-130	10/04/12 11:59	
4-Bromofluorobenzene (S)	%	108	70-130	10/04/12 11:59	
Toluene-d8 (S)	%	98	70-130	10/04/12 11:59	

Date: 10/09/2012 03:34 PM

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 41569181 Essex-Hope

Pace Project No.: 3078215

LABORATORY CONTROL SAMPLE: 495275

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	16.8	84	64.3-127	
1,1,2,2-Tetrachloroethane	ug/L	20	17.4	87	64.6-121	
1,1,2-Trichloroethane	ug/L	20	18.7	93	75.6-120	
1,1-Dichloroethane	ug/L	20	17.8	89	68.5-122	
1,1-Dichloroethene	ug/L	20	17.4	87	57.1-120	
1,2-Dichlorobenzene	ug/L	20	18.6	93	69.6-120	
1,2-Dichloroethane	ug/L	20	15.6	78	60.5-133	
1,2-Dichloropropane	ug/L	20	18.1	91	71-120	
1,3-Dichlorobenzene	ug/L	20	18.6	93	68.4-121	
1,4-Dichlorobenzene	ug/L	20	19.0	95	68.5-123	
2-Butanone (MEK)	ug/L	20	17.3	87	55.7-138	
2-Hexanone	ug/L	20	19.1	96	67-133	
4-Methyl-2-pentanone (MIBK)	ug/L	20	17.8	89	64.5-121	
Acetone	ug/L	20	19.2	96	57.6-168	
Benzene	ug/L	20	18.3	92	69.8-120	
Bromodichloromethane	ug/L	20	16.2	81	66.5-120	
Bromoform	ug/L	20	15.9	80	61.1-120	
Bromomethane	ug/L	20	19.1	96	10.6-200	
Carbon disulfide	ug/L	20	18.8	94	60.2-122	
Carbon tetrachloride	ug/L	20	15.7	79	60.1-127	
Chlorobenzene	ug/L	20	18.2	91	72-120	
Chloroethane	ug/L	20	18.4	92	36.8-142	
Chloroform	ug/L	20	16.9	84	69-122	
Chloromethane	ug/L	20	17.6	88	37.2-129	
cis-1,2-Dichloroethene	ug/L	20	18.1	91	69.5-123	
cis-1,3-Dichloropropene	ug/L	20	16.3	81	74.3-120	
Dibromochloromethane	ug/L	20	16.7	84	66.1-120	
Ethylbenzene	ug/L	20	18.0	90	70.9-124	
Isopropylbenzene (Cumene)	ug/L	20	22.3	111	68.3-129	
m&p-Xylene	ug/L	40	38.6	96	70.4-130	
Methylene Chloride	ug/L	20	16.8	84	61.5-125	
o-Xylene	ug/L	20	19.0	95	70.6-127	
Styrene	ug/L	20	21.8	109	69.9-120	
Tetrachloroethene	ug/L	20	17.2	86	63.4-121	
Toluene	ug/L	20	18.3	92	71.5-120	
trans-1,2-Dichloroethene	ug/L	20	17.6	88	64.1-120	
trans-1,3-Dichloropropene	ug/L	20	17.1	85	71-120	
Trichloroethene	ug/L	20	16.6	83	65.9-120	
Trichlorofluoromethane	ug/L	20	16.8	84	44.8-137	
Vinyl chloride	ug/L	20	18.1	90	51-127	
1,2-Dichloroethane-d4 (S)	%			87	70-130	
4-Bromofluorobenzene (S)	%			105	70-130	
Toluene-d8 (S)	%			95	70-130	

QUALITY CONTROL DATA

Project: 41569181 Essex-Hope

Pace Project No.: 3078215

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 495276 495277											
Parameter	Units	3078733003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	20	20	19.7	19.6	98	98	64.3-127	.4	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	18.4	18.1	92	90	64.6-121	2	
1,1,2-Trichloroethane	ug/L	ND	20	20	20.6	19.5	103	97	75.6-120	6	
1,1-Dichloroethane	ug/L	ND	20	20	20.2	19.5	101	98	68.5-122	3	
1,1-Dichloroethene	ug/L	ND	20	20	20.6	19.8	103	99	57.1-120	4	
1,2-Dichlorobenzene	ug/L	ND	20	20	19.5	20.0	97	100	69.6-120	3	
1,2-Dichloroethane	ug/L	ND	20	20	18.6	17.9	93	90	60.5-133	4	
1,2-Dichloropropane	ug/L	ND	20	20	20.2	19.6	101	98	71-120	3	
1,3-Dichlorobenzene	ug/L	ND	20	20	18.9	19.5	95	98	68.4-121	3	
1,4-Dichlorobenzene	ug/L	ND	20	20	19.1	20.4	95	102	68.5-123	7	
2-Butanone (MEK)	ug/L	ND	20	20	19.0	17.6	95	88	55.7-138	8	
2-Hexanone	ug/L	ND	20	20	20.3	20.0	102	100	67-133	2	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	20	20	19.3	18.5	97	92	64.5-121	4	
Acetone	ug/L	ND	20	20	20.9	18.3	105	91	57.6-168	13	
Benzene	ug/L	ND	20	20	20.8	20.4	104	102	69.8-120	2	
Bromodichloromethane	ug/L	ND	20	20	19.0	17.5	95	87	66.5-120	8	
Bromoform	ug/L	ND	20	20	16.8	16.9	84	85	61.1-120	.6	
Bromomethane	ug/L	ND	20	20	13.2	14.9	66	75	10.6-200	12	
Carbon disulfide	ug/L	ND	20	20	18.3	20.2	92	101	60.2-122	10	
Carbon tetrachloride	ug/L	ND	20	20	18.4	18.4	92	92	60.1-127	.1	
Chlorobenzene	ug/L	ND	20	20	20.1	20.2	100	101	72-120	.9	
Chloroethane	ug/L	ND	20	20	20.4	20.0	102	100	36.8-142	2	
Chloroform	ug/L	ND	20	20	19.3	18.6	97	93	69-122	4	
Chloromethane	ug/L	ND	20	20	17.1	18.8	86	94	37.2-129	9	
cis-1,2-Dichloroethene	ug/L	ND	20	20	20.0	19.4	100	97	69.5-123	3	
cis-1,3-Dichloropropene	ug/L	ND	20	20	19.0	18.2	95	91	74.3-120	5	
Dibromochloromethane	ug/L	ND	20	20	18.3	17.3	92	86	66.1-120	6	
Ethylbenzene	ug/L	ND	20	20	20.1	20.2	100	101	70.9-124	.4	
Isopropylbenzene (Cumene)	ug/L	ND	20	20	23.6	24.8	118	124	68.3-129	5	
m&p-Xylene	ug/L	ND	40	40	42.9	41.8	107	105	70.4-130	3	
Methylene Chloride	ug/L	ND	20	20	18.2	18.0	91	90	61.5-125	1	
o-Xylene	ug/L	ND	20	20	20.1	20.3	100	102	70.6-127	1	
Styrene	ug/L	ND	20	20	23.0	23.1	115	115	69.9-120	.4	
Tetrachloroethene	ug/L	ND	20	20	20.0	20.0	100	100	63.4-121	.3	
Toluene	ug/L	ND	20	20	20.3	20.1	101	100	71.5-120	.9	
trans-1,2-Dichloroethene	ug/L	ND	20	20	19.5	19.2	97	96	64.1-120	1	
trans-1,3-Dichloropropene	ug/L	ND	20	20	19.2	18.8	96	94	71-120	2	
Trichloroethene	ug/L	ND	20	20	20.2	18.8	101	94	65.9-120	7	
Trichlorofluoromethane	ug/L	ND	20	20	21.4	21.8	107	109	44.8-137	2	
Vinyl chloride	ug/L	ND	20	20	18.7	19.2	94	96	51-127	3	
1,2-Dichloroethane-d4 (S)	%						94	92	70-130		
4-Bromofluorobenzene (S)	%						103	108	70-130		
Toluene-d8 (S)	%						95	94	70-130		

QUALIFIERS

Project: 41569181 Essex-Hope

Pace Project No.: 3078215

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

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.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

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.

ANALYTE QUALIFIERS

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.

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 41569181 Essex-Hope

Pace Project No.: 3078215

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
3078215001	MW-25S	EPA 8260	MSV/14147		
3078215002	MW-25D	EPA 8260	MSV/14147		
3078215003	MW-16D	EPA 8260	MSV/14147		
3078215004	MW-14S	EPA 8260	MSV/14147		
3078215005	MW-14D	EPA 8260	MSV/14147		
3078215006	MW-15S	EPA 8260	MSV/14147		
3078215007	MW-15D	EPA 8260	MSV/14147		
3078215008	MW-6	EPA 8260	MSV/14157		
3078215009	MW-8	EPA 8260	MSV/14157		
3078215010	MW-7S	EPA 8260	MSV/14157		
3078215011	MW-7D	EPA 8260	MSV/14157		
3078215012	TB-01	EPA 8260	MSV/14157		

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company: URS CORP	Report To: MARK DONIAK	Attention:	Company Name:	Page: 1 of 1	Invoice Number: 1572354
Address: FOSTER PLAZA 6	Copy To: VALERIE SIBERT	Company Address:	Address:	REGULATORY AGENCY	
601 ANDERSON DR. STG. 400				☐ NPDES	☐ GROUND WATER
PITTSBURGH, PA 15220				☐ UST	☐ RCRA
Email To:	Purchase Order No.: 41569181	Pace Quote Reference:	Pace Project Manager:	☐ OTHER	
Phone: 412-503-4700	Project Name: ESSEX/HOPE JAMESTOWN			Site Location	STATE: NY
Requested Due Date/TAT: STANDARD	Project Number: 41569181.40000				

ITEM #	Section D Required Client Information	Matrix Codes MATRIX / CODE Drinking Water Water Waste Water Product Soil/Solid Oil Wipe Air Tissue Other	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives		Y/N	Analysis Test ↓	VOCs 8260	Pace Project No./ Lab I.D.
					COMPOSITE START	COMPOSITE END/GRAB			Unpreserved H ₂ SO ₄ HNO ₃ HCl NaOH Na ₂ S ₂ O ₃ Methanol Other	Y/N				
1	MW-25S					9-25-12 1000		3						001
2	MW-25D					1030								002
3	MW-16D					1100								003
4	MW-14S					1120								004
5	MW-14D					1145								005
6	MW-15S					1210								006
7	MW-15D					1245								007
8	MW-6					1340								008
9	MW-8					1405								009
10	MW-7S					1435								010
11	MW-7D					1455								011
12	TB-01					9-25-12								012
ADDITIONAL COMMENTS														
RELINQUISHED BY / AFFILIATION														
DATE														
TIME														
ACCEPTED BY / AFFILIATION														
DATE														
TIME														
SAMPLE CONDITIONS														
ANNUAL PMP GW														
SAMPLING-2012														
9/26/12 0945 3-4 Y N Y														
Jed Ex Grw 9-25-12 ~1700														
Jed Ex Grw 9-25-12 ~1700														

Sample Condition Upon Receipt



Client Name: URS

Project # 3078215

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

Tracking #: 872640756963

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

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

Thermometer Used 5 6 7

Type of Ice: wet Blue None

☒ Samples on ice, cooling process has begun

Cooler Temperature 3.4

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: W 9/26/12

Temp should be above freezing to 6°C

Comments:

Chain of Custody Present:	☐ Yes ☐ No ☐ N/A	1.
Chain of Custody Filled Out:	☒ Yes ☐ No ☐ N/A	2.
Chain of Custody Relinquished:	☒ Yes ☐ No ☐ N/A	3.
Sampler Name & Signature on COC:	☐ Yes ☐ No ☐ N/A	4.
Samples Arrived within Hold Time:	☒ Yes ☐ No ☐ N/A	5.
Short Hold Time Analysis (<72hr):	☐ Yes ☒ No ☐ N/A	6.
Rush Turn Around Time Requested:	☐ Yes ☐ No ☐ N/A	7.
Sufficient Volume:	☒ Yes ☐ No ☐ N/A	8.
Correct Containers Used:	☒ Yes ☐ No ☐ N/A	9.
-Pace Containers Used:	☒ Yes ☐ No ☐ N/A	
Containers Intact:	☒ Yes ☐ No ☐ N/A	10.
Filtered volume received for Dissolved tests	☐ Yes ☐ No ☐ N/A	11.
Sample Labels match COC:	☒ Yes ☐ No ☐ N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>WA</u>		
All containers needing preservation have been checked.	☐ Yes ☐ No ☒ N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐ Yes ☐ No ☒ N/A	
exceptions: <u>VOA</u> , coliform, TOC, O&G, WI-DRO (water)	☒ Yes ☐ No	Initial when completed <u>WV</u> Lot # of added preservative
Samples checked for dechlorination:	☐ Yes ☐ No ☒ N/A	14.
Headspace in VOA Vials (>6mm):	☐ Yes ☒ No ☐ N/A	15.
Trip Blank Present:	☒ Yes ☐ No ☐ N/A	16.
Trip Blank Custody Seals Present	☒ Yes ☐ No ☐ N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required?

Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____

Date: 9/27/12

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

Project Number: 3078215
Client Name: URS

[illegible]

October 11, 2012

Mr. Mark Dowiak
URS Corporation
Foster Plaza 6
681 Andersen Drive, Suite 400
Pittsburgh, PA 15220

RE: Project: Essex/Hope Jamestown
Pace Project No.: 3078346

Dear Mr. Dowiak:

Enclosed are the analytical results for sample(s) received by the laboratory on September 27, 2012. 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.

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

Sincerely,



Timothy Reed

timothy.reed@pacelabs.com
Project Manager

Enclosures

cc: Ms. Valerie Sibeto, URS Corporation



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Essex/Hope Jamestown

Pace Project No.: 3078346

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4 Greensburg, PA 15601

ACCLASS DOD-ELAP Accreditation #: ADE-1544

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California/TNI Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683

Guam/PADEP Certification

Hawaii/PADEP Certification

Idaho Certification

Illinois/PADEP Certification

Indiana/PADEP Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana/TNI Certification #: LA080002

Louisiana/TNI Certification #: 4086

Maine Certification #: PA0091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nevada Certification

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188

Utah/TNI Certification #: ANTE

Virgin Island/PADEP Certification

Virginia Certification #: 00112

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia Certification #: 143

Wisconsin/PADEP Certification

Wyoming Certification #: 8TMS-Q

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Essex/Hope Jamestown

Pace Project No.: 3078346

Sample: MW-2		Lab ID: 3078346001		Collected: 09/26/12 09:05		Received: 09/27/12 09:20		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND	ug/L	10.0	1			10/05/12 17:50	67-64-1	
Benzene	ND	ug/L	1.0	1			10/05/12 17:50	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1			10/05/12 17:50	75-27-4	
Bromoform	ND	ug/L	5.0	1			10/05/12 17:50	75-25-2	
Bromomethane	ND	ug/L	5.0	1			10/05/12 17:50	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1			10/05/12 17:50	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1			10/05/12 17:50	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1			10/05/12 17:50	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1			10/05/12 17:50	108-90-7	
Chloroethane	ND	ug/L	5.0	1			10/05/12 17:50	75-00-3	
Chloroform	ND	ug/L	5.0	1			10/05/12 17:50	67-66-3	
Chloromethane	ND	ug/L	5.0	1			10/05/12 17:50	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1			10/05/12 17:50	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1			10/05/12 17:50	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1			10/05/12 17:50	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1			10/05/12 17:50	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1			10/05/12 17:50	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1			10/05/12 17:50	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1			10/05/12 17:50	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1			10/05/12 17:50	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1			10/05/12 17:50	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1			10/05/12 17:50	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1			10/05/12 17:50	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1			10/05/12 17:50	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1			10/05/12 17:50	100-41-4	
2-Hexanone	ND	ug/L	10.0	1			10/05/12 17:50	591-78-6	
Isopropylbenzene (Cumene)	15.6	ug/L	1.0	1			10/05/12 17:50	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1			10/05/12 17:50	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1			10/05/12 17:50	108-10-1	
Styrene	ND	ug/L	5.0	1			10/05/12 17:50	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1			10/05/12 17:50	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1			10/05/12 17:50	127-18-4	
Toluene	ND	ug/L	5.0	1			10/05/12 17:50	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1			10/05/12 17:50	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1			10/05/12 17:50	79-00-5	
Trichloroethene	ND	ug/L	5.0	1			10/05/12 17:50	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1			10/05/12 17:50	75-69-4	
Vinyl chloride	ND	ug/L	1.0	1			10/05/12 17:50	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1			10/05/12 17:50	179601-23-1	
o-Xylene	ND	ug/L	5.0	1			10/05/12 17:50	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	102	%	70-130	1			10/05/12 17:50	460-00-4	
1,2-Dichloroethane-d4 (S)	137	%	70-130	1			10/05/12 17:50	17060-07-0	S6
Toluene-d8 (S)	86	%	70-130	1			10/05/12 17:50	2037-26-5	

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown
Pace Project No.: 3078346

Sample: VP-6D		Lab ID: 3078346002		Collected: 09/26/12 09:55		Received: 09/27/12 09:20		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND	ug/L	10.0	1			10/05/12 18:14	67-64-1	
Benzene	ND	ug/L	1.0	1			10/05/12 18:14	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1			10/05/12 18:14	75-27-4	
Bromoform	ND	ug/L	5.0	1			10/05/12 18:14	75-25-2	
Bromomethane	ND	ug/L	5.0	1			10/05/12 18:14	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1			10/05/12 18:14	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1			10/05/12 18:14	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1			10/05/12 18:14	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1			10/05/12 18:14	108-90-7	
Chloroethane	ND	ug/L	5.0	1			10/05/12 18:14	75-00-3	
Chloroform	ND	ug/L	5.0	1			10/05/12 18:14	67-66-3	
Chloromethane	ND	ug/L	5.0	1			10/05/12 18:14	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1			10/05/12 18:14	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1			10/05/12 18:14	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1			10/05/12 18:14	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1			10/05/12 18:14	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1			10/05/12 18:14	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1			10/05/12 18:14	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1			10/05/12 18:14	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1			10/05/12 18:14	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1			10/05/12 18:14	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1			10/05/12 18:14	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1			10/05/12 18:14	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1			10/05/12 18:14	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1			10/05/12 18:14	100-41-4	
2-Hexanone	ND	ug/L	10.0	1			10/05/12 18:14	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1			10/05/12 18:14	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1			10/05/12 18:14	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1			10/05/12 18:14	108-10-1	
Styrene	ND	ug/L	5.0	1			10/05/12 18:14	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1			10/05/12 18:14	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1			10/05/12 18:14	127-18-4	
Toluene	ND	ug/L	5.0	1			10/05/12 18:14	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1			10/05/12 18:14	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1			10/05/12 18:14	79-00-5	
Trichloroethene	ND	ug/L	5.0	1			10/05/12 18:14	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1			10/05/12 18:14	75-69-4	
Vinyl chloride	ND	ug/L	1.0	1			10/05/12 18:14	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1			10/05/12 18:14	179601-23-1	
o-Xylene	ND	ug/L	5.0	1			10/05/12 18:14	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	93	%	70-130	1			10/05/12 18:14	460-00-4	
1,2-Dichloroethane-d4 (S)	143	%	70-130	1			10/05/12 18:14	17060-07-0	S3
Toluene-d8 (S)	84	%	70-130	1			10/05/12 18:14	2037-26-5	

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown

Pace Project No.: 3078346

Sample: MW-22D		Lab ID: 3078346003		Collected: 09/26/12 10:05		Received: 09/27/12 09:20		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND	ug/L	10.0	1			10/05/12 19:53	67-64-1	
Benzene	ND	ug/L	1.0	1			10/05/12 19:53	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1			10/05/12 19:53	75-27-4	
Bromoform	ND	ug/L	5.0	1			10/05/12 19:53	75-25-2	
Bromomethane	ND	ug/L	5.0	1			10/05/12 19:53	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1			10/05/12 19:53	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1			10/05/12 19:53	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1			10/05/12 19:53	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1			10/05/12 19:53	108-90-7	
Chloroethane	ND	ug/L	5.0	1			10/05/12 19:53	75-00-3	
Chloroform	ND	ug/L	5.0	1			10/05/12 19:53	67-66-3	
Chloromethane	ND	ug/L	5.0	1			10/05/12 19:53	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1			10/05/12 19:53	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1			10/05/12 19:53	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1			10/05/12 19:53	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1			10/05/12 19:53	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1			10/05/12 19:53	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1			10/05/12 19:53	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1			10/05/12 19:53	75-35-4	
cis-1,2-Dichloroethene	246	ug/L	5.0	1			10/05/12 19:53	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1			10/05/12 19:53	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1			10/05/12 19:53	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1			10/05/12 19:53	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1			10/05/12 19:53	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1			10/05/12 19:53	100-41-4	
2-Hexanone	ND	ug/L	10.0	1			10/05/12 19:53	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1			10/05/12 19:53	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1			10/05/12 19:53	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1			10/05/12 19:53	108-10-1	
Styrene	ND	ug/L	5.0	1			10/05/12 19:53	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1			10/05/12 19:53	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1			10/05/12 19:53	127-18-4	
Toluene	ND	ug/L	5.0	1			10/05/12 19:53	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1			10/05/12 19:53	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1			10/05/12 19:53	79-00-5	
Trichloroethene	1780	ug/L	500	100			10/05/12 20:18	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1			10/05/12 19:53	75-69-4	
Vinyl chloride	4.5	ug/L	1.0	1			10/05/12 19:53	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1			10/05/12 19:53	179601-23-1	
o-Xylene	ND	ug/L	5.0	1			10/05/12 19:53	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	110	%	70-130	1			10/05/12 19:53	460-00-4	
1,2-Dichloroethane-d4 (S)	121	%	70-130	1			10/05/12 19:53	17060-07-0	
Toluene-d8 (S)	94	%	70-130	1			10/05/12 19:53	2037-26-5	

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown

Pace Project No.: 3078346

Sample: MW-19D		Lab ID: 3078346004		Collected: 09/26/12 10:55		Received: 09/27/12 09:20		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND	ug/L	10.0	1			10/08/12 15:36	67-64-1	
Benzene	ND	ug/L	1.0	1			10/08/12 15:36	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1			10/08/12 15:36	75-27-4	
Bromoform	ND	ug/L	5.0	1			10/08/12 15:36	75-25-2	
Bromomethane	ND	ug/L	5.0	1			10/08/12 15:36	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1			10/08/12 15:36	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1			10/08/12 15:36	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1			10/08/12 15:36	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1			10/08/12 15:36	108-90-7	
Chloroethane	ND	ug/L	5.0	1			10/08/12 15:36	75-00-3	
Chloroform	ND	ug/L	5.0	1			10/08/12 15:36	67-66-3	
Chloromethane	ND	ug/L	5.0	1			10/08/12 15:36	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1			10/08/12 15:36	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1			10/08/12 15:36	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1			10/08/12 15:36	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1			10/08/12 15:36	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1			10/08/12 15:36	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1			10/08/12 15:36	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1			10/08/12 15:36	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1			10/08/12 15:36	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1			10/08/12 15:36	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1			10/08/12 15:36	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1			10/08/12 15:36	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1			10/08/12 15:36	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1			10/08/12 15:36	100-41-4	
2-Hexanone	ND	ug/L	10.0	1			10/08/12 15:36	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1			10/08/12 15:36	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1			10/08/12 15:36	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1			10/08/12 15:36	108-10-1	
Styrene	ND	ug/L	5.0	1			10/08/12 15:36	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1			10/08/12 15:36	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1			10/08/12 15:36	127-18-4	
Toluene	ND	ug/L	5.0	1			10/08/12 15:36	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1			10/08/12 15:36	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1			10/08/12 15:36	79-00-5	
Trichloroethene	ND	ug/L	5.0	1			10/08/12 15:36	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1			10/08/12 15:36	75-69-4	
Vinyl chloride	25.3	ug/L	1.0	1			10/08/12 15:36	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1			10/08/12 15:36	179601-23-1	
o-Xylene	ND	ug/L	5.0	1			10/08/12 15:36	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	101	%	70-130	1			10/08/12 15:36	460-00-4	
1,2-Dichloroethane-d4 (S)	95	%	70-130	1			10/08/12 15:36	17060-07-0	
Toluene-d8 (S)	101	%	70-130	1			10/08/12 15:36	2037-26-5	

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown

Pace Project No.: 3078346

Sample: MW-21D		Lab ID: 3078346005		Collected: 09/26/12 11:35		Received: 09/27/12 09:20		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
8260 MSV		Analytical Method: EPA 8260							
Acetone	650000	ug/L	20000	2000		10/05/12 21:32	67-64-1		
Benzene	105	ug/L	1.0	1		10/05/12 20:42	71-43-2		
Bromodichloromethane	ND	ug/L	5.0	1		10/05/12 20:42	75-27-4		
Bromoform	ND	ug/L	5.0	1		10/05/12 20:42	75-25-2		
Bromomethane	ND	ug/L	5.0	1		10/05/12 20:42	74-83-9		
2-Butanone (MEK)	2050	ug/L	1000	100		10/05/12 21:07	78-93-3		
Carbon disulfide	ND	ug/L	5.0	1		10/05/12 20:42	75-15-0		
Carbon tetrachloride	ND	ug/L	5.0	1		10/05/12 20:42	56-23-5		
Chlorobenzene	ND	ug/L	5.0	1		10/05/12 20:42	108-90-7		
Chloroethane	ND	ug/L	5.0	1		10/05/12 20:42	75-00-3		
Chloroform	ND	ug/L	5.0	1		10/05/12 20:42	67-66-3		
Chloromethane	ND	ug/L	5.0	1		10/05/12 20:42	74-87-3		
Dibromochloromethane	ND	ug/L	5.0	1		10/05/12 20:42	124-48-1		
1,2-Dichlorobenzene	ND	ug/L	5.0	1		10/05/12 20:42	95-50-1		
1,3-Dichlorobenzene	ND	ug/L	5.0	1		10/05/12 20:42	541-73-1		
1,4-Dichlorobenzene	ND	ug/L	5.0	1		10/05/12 20:42	106-46-7		
1,1-Dichloroethane	ND	ug/L	5.0	1		10/05/12 20:42	75-34-3		
1,2-Dichloroethane	ND	ug/L	5.0	1		10/05/12 20:42	107-06-2		
1,1-Dichloroethene	140	ug/L	5.0	1		10/05/12 20:42	75-35-4		
cis-1,2-Dichloroethene	138000	ug/L	10000	2000		10/05/12 21:32	156-59-2		
trans-1,2-Dichloroethene	631	ug/L	500	100		10/05/12 21:07	156-60-5		
1,2-Dichloropropane	ND	ug/L	5.0	1		10/05/12 20:42	78-87-5		
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		10/05/12 20:42	10061-01-5		
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		10/05/12 20:42	10061-02-6		
Ethylbenzene	ND	ug/L	5.0	1		10/05/12 20:42	100-41-4		
2-Hexanone	ND	ug/L	10.0	1		10/05/12 20:42	591-78-6		
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		10/05/12 20:42	98-82-8		
Methylene Chloride	ND	ug/L	5.0	1		10/05/12 20:42	75-09-2		
4-Methyl-2-pentanone (MIBK)	12.5	ug/L	10.0	1		10/05/12 20:42	108-10-1		
Styrene	ND	ug/L	5.0	1		10/05/12 20:42	100-42-5		
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		10/05/12 20:42	79-34-5		
Tetrachloroethene	ND	ug/L	5.0	1		10/05/12 20:42	127-18-4		
Toluene	ND	ug/L	5.0	1		10/05/12 20:42	108-88-3		
1,1,1-Trichloroethane	ND	ug/L	5.0	1		10/05/12 20:42	71-55-6		
1,1,2-Trichloroethane	ND	ug/L	5.0	1		10/05/12 20:42	79-00-5		
Trichloroethene	180	ug/L	5.0	1		10/05/12 20:42	79-01-6		
Trichlorofluoromethane	ND	ug/L	5.0	1		10/05/12 20:42	75-69-4		
Vinyl chloride	57700	ug/L	2000	2000		10/05/12 21:32	75-01-4		
m&p-Xylene	ND	ug/L	5.0	1		10/05/12 20:42	179601-23-1		
o-Xylene	ND	ug/L	5.0	1		10/05/12 20:42	95-47-6		
Surrogates									
4-Bromofluorobenzene (S)	127	%	70-130	1		10/05/12 20:42	460-00-4		
1,2-Dichloroethane-d4 (S)	115	%	70-130	1		10/05/12 20:42	17060-07-0		
Toluene-d8 (S)	106	%	70-130	1		10/05/12 20:42	2037-26-5		

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown
Pace Project No.: 3078346

Sample: PZ-7D		Lab ID: 3078346006		Collected: 09/26/12 12:45		Received: 09/27/12 09:20		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND	ug/L	10.0	1			10/05/12 18:39	67-64-1	
Benzene	ND	ug/L	1.0	1			10/05/12 18:39	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1			10/05/12 18:39	75-27-4	
Bromoform	ND	ug/L	5.0	1			10/05/12 18:39	75-25-2	
Bromomethane	ND	ug/L	5.0	1			10/05/12 18:39	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1			10/05/12 18:39	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1			10/05/12 18:39	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1			10/05/12 18:39	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1			10/05/12 18:39	108-90-7	
Chloroethane	ND	ug/L	5.0	1			10/05/12 18:39	75-00-3	
Chloroform	ND	ug/L	5.0	1			10/05/12 18:39	67-66-3	
Chloromethane	ND	ug/L	5.0	1			10/05/12 18:39	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1			10/05/12 18:39	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1			10/05/12 18:39	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1			10/05/12 18:39	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1			10/05/12 18:39	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1			10/05/12 18:39	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1			10/05/12 18:39	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1			10/05/12 18:39	75-35-4	
cis-1,2-Dichloroethene	108	ug/L	5.0	1			10/05/12 18:39	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1			10/05/12 18:39	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1			10/05/12 18:39	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1			10/05/12 18:39	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1			10/05/12 18:39	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1			10/05/12 18:39	100-41-4	
2-Hexanone	ND	ug/L	10.0	1			10/05/12 18:39	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1			10/05/12 18:39	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1			10/05/12 18:39	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1			10/05/12 18:39	108-10-1	
Styrene	ND	ug/L	5.0	1			10/05/12 18:39	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1			10/05/12 18:39	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1			10/05/12 18:39	127-18-4	
Toluene	ND	ug/L	5.0	1			10/05/12 18:39	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1			10/05/12 18:39	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1			10/05/12 18:39	79-00-5	
Trichloroethene	160	ug/L	5.0	1			10/05/12 18:39	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1			10/05/12 18:39	75-69-4	
Vinyl chloride	41.1	ug/L	1.0	1			10/05/12 18:39	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1			10/05/12 18:39	179601-23-1	
o-Xylene	ND	ug/L	5.0	1			10/05/12 18:39	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130	1			10/05/12 18:39	460-00-4	
1,2-Dichloroethane-d4 (S)	125	%	70-130	1			10/05/12 18:39	17060-07-0	
Toluene-d8 (S)	97	%	70-130	1			10/05/12 18:39	2037-26-5	

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown

Pace Project No.: 3078346

Sample: MW-20		Lab ID: 3078346007		Collected: 09/26/12 13:20		Received: 09/27/12 09:20		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND	ug/L	10.0	1			10/08/12 16:00	67-64-1	
Benzene	ND	ug/L	1.0	1			10/08/12 16:00	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1			10/08/12 16:00	75-27-4	
Bromoform	ND	ug/L	5.0	1			10/08/12 16:00	75-25-2	
Bromomethane	ND	ug/L	5.0	1			10/08/12 16:00	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1			10/08/12 16:00	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1			10/08/12 16:00	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1			10/08/12 16:00	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1			10/08/12 16:00	108-90-7	
Chloroethane	ND	ug/L	5.0	1			10/08/12 16:00	75-00-3	
Chloroform	ND	ug/L	5.0	1			10/08/12 16:00	67-66-3	
Chloromethane	ND	ug/L	5.0	1			10/08/12 16:00	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1			10/08/12 16:00	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1			10/08/12 16:00	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1			10/08/12 16:00	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1			10/08/12 16:00	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1			10/08/12 16:00	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1			10/08/12 16:00	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1			10/08/12 16:00	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1			10/08/12 16:00	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1			10/08/12 16:00	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1			10/08/12 16:00	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1			10/08/12 16:00	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1			10/08/12 16:00	10061-02-6	
Ethylbenzene	341	ug/L	50.0	10			10/08/12 16:25	100-41-4	
2-Hexanone	ND	ug/L	10.0	1			10/08/12 16:00	591-78-6	
Isopropylbenzene (Cumene)	54.8	ug/L	1.0	1			10/08/12 16:00	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1			10/08/12 16:00	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1			10/08/12 16:00	108-10-1	
Styrene	ND	ug/L	5.0	1			10/08/12 16:00	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1			10/08/12 16:00	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1			10/08/12 16:00	127-18-4	
Toluene	5.3	ug/L	5.0	1			10/08/12 16:00	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1			10/08/12 16:00	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1			10/08/12 16:00	79-00-5	
Trichloroethene	ND	ug/L	5.0	1			10/08/12 16:00	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1			10/08/12 16:00	75-69-4	
Vinyl chloride	ND	ug/L	1.0	1			10/08/12 16:00	75-01-4	
m&p-Xylene	1670	ug/L	50.0	10			10/08/12 16:25	179601-23-1	
o-Xylene	89.6	ug/L	5.0	1			10/08/12 16:00	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	90	%	70-130	1			10/08/12 16:00	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	70-130	1			10/08/12 16:00	17060-07-0	
Toluene-d8 (S)	110	%	70-130	1			10/08/12 16:00	2037-26-5	

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown
Pace Project No.: 3078346

Sample: DUP-01		Lab ID: 3078346008	Collected: 09/26/12 00:01	Received: 09/27/12 09:20	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	678000	ug/L	20000	2000		10/05/12 22:46	67-64-1	
Benzene	89.8	ug/L	1.0	1		10/05/12 21:56	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		10/05/12 21:56	75-27-4	
Bromoform	ND	ug/L	5.0	1		10/05/12 21:56	75-25-2	
Bromomethane	ND	ug/L	5.0	1		10/05/12 21:56	74-83-9	
2-Butanone (MEK)	2500	ug/L	1000	100		10/05/12 22:21	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		10/05/12 21:56	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		10/05/12 21:56	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		10/05/12 21:56	108-90-7	
Chloroethane	ND	ug/L	5.0	1		10/05/12 21:56	75-00-3	
Chloroform	ND	ug/L	5.0	1		10/05/12 21:56	67-66-3	
Chloromethane	ND	ug/L	5.0	1		10/05/12 21:56	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		10/05/12 21:56	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		10/05/12 21:56	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		10/05/12 21:56	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		10/05/12 21:56	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		10/05/12 21:56	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		10/05/12 21:56	107-06-2	
1,1-Dichloroethene	123	ug/L	5.0	1		10/05/12 21:56	75-35-4	
cis-1,2-Dichloroethene	130000	ug/L	10000	2000		10/05/12 22:46	156-59-2	
trans-1,2-Dichloroethene	397	ug/L	5.0	1		10/05/12 21:56	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		10/05/12 21:56	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		10/05/12 21:56	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		10/05/12 21:56	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		10/05/12 21:56	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		10/05/12 21:56	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		10/05/12 21:56	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		10/05/12 21:56	75-09-2	
4-Methyl-2-pentanone (MIBK)	13.6	ug/L	10.0	1		10/05/12 21:56	108-10-1	
Styrene	ND	ug/L	5.0	1		10/05/12 21:56	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		10/05/12 21:56	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		10/05/12 21:56	127-18-4	
Toluene	ND	ug/L	5.0	1		10/05/12 21:56	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		10/05/12 21:56	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		10/05/12 21:56	79-00-5	
Trichloroethene	118	ug/L	5.0	1		10/05/12 21:56	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		10/05/12 21:56	75-69-4	
Vinyl chloride	63400	ug/L	2000	2000		10/05/12 22:46	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		10/05/12 21:56	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		10/05/12 21:56	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	115	%	70-130	1		10/05/12 21:56	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	70-130	1		10/05/12 21:56	17060-07-0	
Toluene-d8 (S)	99	%	70-130	1		10/05/12 21:56	2037-26-5	

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown
Pace Project No.: 3078346

Sample: TB-01		Lab ID: 3078346009	Collected: 09/26/12 00:01	Received: 09/27/12 09:20	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND ug/L		10.0	1		10/05/12 15:21	67-64-1	
Benzene	ND ug/L		1.0	1		10/05/12 15:21	71-43-2	
Bromodichloromethane	ND ug/L		5.0	1		10/05/12 15:21	75-27-4	
Bromoform	ND ug/L		5.0	1		10/05/12 15:21	75-25-2	
Bromomethane	ND ug/L		5.0	1		10/05/12 15:21	74-83-9	
2-Butanone (MEK)	ND ug/L		10.0	1		10/05/12 15:21	78-93-3	
Carbon disulfide	ND ug/L		5.0	1		10/05/12 15:21	75-15-0	
Carbon tetrachloride	ND ug/L		5.0	1		10/05/12 15:21	56-23-5	
Chlorobenzene	ND ug/L		5.0	1		10/05/12 15:21	108-90-7	
Chloroethane	ND ug/L		5.0	1		10/05/12 15:21	75-00-3	
Chloroform	ND ug/L		5.0	1		10/05/12 15:21	67-66-3	
Chloromethane	ND ug/L		5.0	1		10/05/12 15:21	74-87-3	
Dibromochloromethane	ND ug/L		5.0	1		10/05/12 15:21	124-48-1	
1,2-Dichlorobenzene	ND ug/L		5.0	1		10/05/12 15:21	95-50-1	
1,3-Dichlorobenzene	ND ug/L		5.0	1		10/05/12 15:21	541-73-1	
1,4-Dichlorobenzene	ND ug/L		5.0	1		10/05/12 15:21	106-46-7	
1,1-Dichloroethane	ND ug/L		5.0	1		10/05/12 15:21	75-34-3	
1,2-Dichloroethane	ND ug/L		5.0	1		10/05/12 15:21	107-06-2	
1,1-Dichloroethene	ND ug/L		5.0	1		10/05/12 15:21	75-35-4	
cis-1,2-Dichloroethene	ND ug/L		5.0	1		10/05/12 15:21	156-59-2	
trans-1,2-Dichloroethene	ND ug/L		5.0	1		10/05/12 15:21	156-60-5	
1,2-Dichloropropane	ND ug/L		5.0	1		10/05/12 15:21	78-87-5	
cis-1,3-Dichloropropene	ND ug/L		5.0	1		10/05/12 15:21	10061-01-5	
trans-1,3-Dichloropropene	ND ug/L		5.0	1		10/05/12 15:21	10061-02-6	
Ethylbenzene	ND ug/L		5.0	1		10/05/12 15:21	100-41-4	
2-Hexanone	ND ug/L		10.0	1		10/05/12 15:21	591-78-6	
Isopropylbenzene (Cumene)	ND ug/L		1.0	1		10/05/12 15:21	98-82-8	
Methylene Chloride	ND ug/L		5.0	1		10/05/12 15:21	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/L		10.0	1		10/05/12 15:21	108-10-1	
Styrene	ND ug/L		5.0	1		10/05/12 15:21	100-42-5	
1,1,2,2-Tetrachloroethane	ND ug/L		5.0	1		10/05/12 15:21	79-34-5	
Tetrachloroethene	ND ug/L		5.0	1		10/05/12 15:21	127-18-4	
Toluene	ND ug/L		5.0	1		10/05/12 15:21	108-88-3	
1,1,1-Trichloroethane	ND ug/L		5.0	1		10/05/12 15:21	71-55-6	
1,1,2-Trichloroethane	ND ug/L		5.0	1		10/05/12 15:21	79-00-5	
Trichloroethene	ND ug/L		5.0	1		10/05/12 15:21	79-01-6	
Trichlorofluoromethane	ND ug/L		5.0	1		10/05/12 15:21	75-69-4	
Vinyl chloride	ND ug/L		1.0	1		10/05/12 15:21	75-01-4	
m&p-Xylene	ND ug/L		5.0	1		10/05/12 15:21	179601-23-1	
o-Xylene	ND ug/L		5.0	1		10/05/12 15:21	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	108 %		70-130	1		10/05/12 15:21	460-00-4	
1,2-Dichloroethane-d4 (S)	132 %		70-130	1		10/05/12 15:21	17060-07-0	S3
Toluene-d8 (S)	93 %		70-130	1		10/05/12 15:21	2037-26-5	

QUALITY CONTROL DATA

Project: Essex/Hope Jamestown
Pace Project No.: 3078346

QC Batch: MSV/14174 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 3078346001, 3078346002, 3078346003, 3078346005, 3078346006, 3078346008, 3078346009

METHOD BLANK: 496041 Matrix: Water
Associated Lab Samples: 3078346001, 3078346002, 3078346003, 3078346005, 3078346006, 3078346008, 3078346009

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	5.0	10/05/12 12:03	
1,1,2,2-Tetrachloroethane	ug/L	ND	5.0	10/05/12 12:03	
1,1,2-Trichloroethane	ug/L	ND	5.0	10/05/12 12:03	
1,1-Dichloroethane	ug/L	ND	5.0	10/05/12 12:03	
1,1-Dichloroethene	ug/L	ND	5.0	10/05/12 12:03	
1,2-Dichlorobenzene	ug/L	ND	5.0	10/05/12 12:03	
1,2-Dichloroethane	ug/L	ND	5.0	10/05/12 12:03	
1,2-Dichloropropane	ug/L	ND	5.0	10/05/12 12:03	
1,3-Dichlorobenzene	ug/L	ND	5.0	10/05/12 12:03	
1,4-Dichlorobenzene	ug/L	ND	5.0	10/05/12 12:03	
2-Butanone (MEK)	ug/L	ND	10.0	10/05/12 12:03	
2-Hexanone	ug/L	ND	10.0	10/05/12 12:03	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	10/05/12 12:03	
Acetone	ug/L	ND	10.0	10/05/12 12:03	
Benzene	ug/L	ND	1.0	10/05/12 12:03	
Bromodichloromethane	ug/L	ND	5.0	10/05/12 12:03	
Bromoform	ug/L	ND	5.0	10/05/12 12:03	
Bromomethane	ug/L	ND	5.0	10/05/12 12:03	
Carbon disulfide	ug/L	ND	5.0	10/05/12 12:03	
Carbon tetrachloride	ug/L	ND	5.0	10/05/12 12:03	
Chlorobenzene	ug/L	ND	5.0	10/05/12 12:03	
Chloroethane	ug/L	ND	5.0	10/05/12 12:03	
Chloroform	ug/L	ND	5.0	10/05/12 12:03	
Chloromethane	ug/L	ND	5.0	10/05/12 12:03	
cis-1,2-Dichloroethene	ug/L	ND	5.0	10/05/12 12:03	
cis-1,3-Dichloropropene	ug/L	ND	5.0	10/05/12 12:03	
Dibromochloromethane	ug/L	ND	5.0	10/05/12 12:03	
Ethylbenzene	ug/L	ND	5.0	10/05/12 12:03	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	10/05/12 12:03	
m&p-Xylene	ug/L	ND	5.0	10/05/12 12:03	
Methylene Chloride	ug/L	ND	5.0	10/05/12 12:03	
o-Xylene	ug/L	ND	5.0	10/05/12 12:03	
Styrene	ug/L	ND	5.0	10/05/12 12:03	
Tetrachloroethene	ug/L	ND	5.0	10/05/12 12:03	
Toluene	ug/L	ND	5.0	10/05/12 12:03	
trans-1,2-Dichloroethene	ug/L	ND	5.0	10/05/12 12:03	
trans-1,3-Dichloropropene	ug/L	ND	5.0	10/05/12 12:03	
Trichloroethene	ug/L	ND	5.0	10/05/12 12:03	
Trichlorofluoromethane	ug/L	ND	5.0	10/05/12 12:03	
Vinyl chloride	ug/L	ND	1.0	10/05/12 12:03	
1,2-Dichloroethane-d4 (S)	%	121	70-130	10/05/12 12:03	
4-Bromofluorobenzene (S)	%	97	70-130	10/05/12 12:03	
Toluene-d8 (S)	%	90	70-130	10/05/12 12:03	

Date: 10/11/2012 03:44 PM

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Essex/Hope Jamestown

Pace Project No.: 3078346

LABORATORY CONTROL SAMPLE: 496042

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	20.5	103	64.3-127	
1,1,2,2-Tetrachloroethane	ug/L	20	17.7	89	64.6-121	
1,1,2-Trichloroethane	ug/L	20	21.1	106	75.6-120	
1,1-Dichloroethane	ug/L	20	19.9	99	68.5-122	
1,1-Dichloroethene	ug/L	20	19.9	99	57.1-120	
1,2-Dichlorobenzene	ug/L	20	19.1	95	69.6-120	
1,2-Dichloroethane	ug/L	20	21.0	105	60.5-133	
1,2-Dichloropropane	ug/L	20	19.8	99	71-120	
1,3-Dichlorobenzene	ug/L	20	19.1	95	68.4-121	
1,4-Dichlorobenzene	ug/L	20	19.8	99	68.5-123	
2-Butanone (MEK)	ug/L	20	17.6	88	55.7-138	
2-Hexanone	ug/L	20	19.3	96	67-133	
4-Methyl-2-pentanone (MIBK)	ug/L	20	18.1	90	64.5-121	
Acetone	ug/L	20	17.1	85	57.6-168	
Benzene	ug/L	20	20.1	100	69.8-120	
Bromodichloromethane	ug/L	20	20.9	105	66.5-120	
Bromoform	ug/L	20	20.3	101	61.1-120	
Bromomethane	ug/L	20	20.6	103	10.6-200	
Carbon disulfide	ug/L	20	20.9	105	60.2-122	
Carbon tetrachloride	ug/L	20	20.8	104	60.1-127	
Chlorobenzene	ug/L	20	20.4	102	72-120	
Chloroethane	ug/L	20	19.5	98	36.8-142	
Chloroform	ug/L	20	20.2	101	69-122	
Chloromethane	ug/L	20	19.0	95	37.2-129	
cis-1,2-Dichloroethene	ug/L	20	19.9	99	69.5-123	
cis-1,3-Dichloropropene	ug/L	20	19.8	99	74.3-120	
Dibromochloromethane	ug/L	20	20.2	101	66.1-120	
Ethylbenzene	ug/L	20	19.7	99	70.9-124	
Isopropylbenzene (Cumene)	ug/L	20	21.1	106	68.3-129	
m&p-Xylene	ug/L	40	42.9	107	70.4-130	
Methylene Chloride	ug/L	20	18.2	91	61.5-125	
o-Xylene	ug/L	20	19.8	99	70.6-127	
Styrene	ug/L	20	23.5	117	69.9-120	
Tetrachloroethene	ug/L	20	20.4	102	63.4-121	
Toluene	ug/L	20	20.0	100	71.5-120	
trans-1,2-Dichloroethene	ug/L	20	19.3	96	64.1-120	
trans-1,3-Dichloropropene	ug/L	20	22.2	111	71-120	
Trichloroethene	ug/L	20	20.1	101	65.9-120	
Trichlorofluoromethane	ug/L	20	22.0	110	44.8-137	
Vinyl chloride	ug/L	20	17.7	88	51-127	
1,2-Dichloroethane-d4 (S)	%			108	70-130	
4-Bromofluorobenzene (S)	%			101	70-130	
Toluene-d8 (S)	%			100	70-130	

QUALITY CONTROL DATA

Project: Essex/Hope Jamestown

Pace Project No.: 3078346

QC Batch: MSV/14182

Analysis Method: EPA 8260

QC Batch Method: EPA 8260

Analysis Description: 8260 MSV

Associated Lab Samples: 3078346004, 3078346007

METHOD BLANK: 496794

Matrix: Water

Associated Lab Samples: 3078346004, 3078346007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	5.0	10/08/12 09:54	
1,1,2,2-Tetrachloroethane	ug/L	ND	5.0	10/08/12 09:54	
1,1,2-Trichloroethane	ug/L	ND	5.0	10/08/12 09:54	
1,1-Dichloroethane	ug/L	ND	5.0	10/08/12 09:54	
1,1-Dichloroethene	ug/L	ND	5.0	10/08/12 09:54	
1,2-Dichlorobenzene	ug/L	ND	5.0	10/08/12 09:54	
1,2-Dichloroethane	ug/L	ND	5.0	10/08/12 09:54	
1,2-Dichloropropane	ug/L	ND	5.0	10/08/12 09:54	
1,3-Dichlorobenzene	ug/L	ND	5.0	10/08/12 09:54	
1,4-Dichlorobenzene	ug/L	ND	5.0	10/08/12 09:54	
2-Butanone (MEK)	ug/L	ND	10.0	10/08/12 09:54	
2-Hexanone	ug/L	ND	10.0	10/08/12 09:54	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	10/08/12 09:54	
Acetone	ug/L	ND	10.0	10/08/12 09:54	
Benzene	ug/L	ND	1.0	10/08/12 09:54	
Bromodichloromethane	ug/L	ND	5.0	10/08/12 09:54	
Bromoform	ug/L	ND	5.0	10/08/12 09:54	
Bromomethane	ug/L	ND	5.0	10/08/12 09:54	
Carbon disulfide	ug/L	ND	5.0	10/08/12 09:54	
Carbon tetrachloride	ug/L	ND	5.0	10/08/12 09:54	
Chlorobenzene	ug/L	ND	5.0	10/08/12 09:54	
Chloroethane	ug/L	ND	5.0	10/08/12 09:54	
Chloroform	ug/L	ND	5.0	10/08/12 09:54	
Chloromethane	ug/L	ND	5.0	10/08/12 09:54	
cis-1,2-Dichloroethene	ug/L	ND	5.0	10/08/12 09:54	
cis-1,3-Dichloropropene	ug/L	ND	5.0	10/08/12 09:54	
Dibromochloromethane	ug/L	ND	5.0	10/08/12 09:54	
Ethylbenzene	ug/L	ND	5.0	10/08/12 09:54	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	10/08/12 09:54	
m&p-Xylene	ug/L	ND	5.0	10/08/12 09:54	
Methylene Chloride	ug/L	ND	5.0	10/08/12 09:54	
o-Xylene	ug/L	ND	5.0	10/08/12 09:54	
Styrene	ug/L	ND	5.0	10/08/12 09:54	
Tetrachloroethene	ug/L	ND	5.0	10/08/12 09:54	
Toluene	ug/L	ND	5.0	10/08/12 09:54	
trans-1,2-Dichloroethene	ug/L	ND	5.0	10/08/12 09:54	
trans-1,3-Dichloropropene	ug/L	ND	5.0	10/08/12 09:54	
Trichloroethene	ug/L	ND	5.0	10/08/12 09:54	
Trichlorofluoromethane	ug/L	ND	5.0	10/08/12 09:54	
Vinyl chloride	ug/L	ND	1.0	10/08/12 09:54	
1,2-Dichloroethane-d4 (S)	%	92	70-130	10/08/12 09:54	
4-Bromofluorobenzene (S)	%	104	70-130	10/08/12 09:54	
Toluene-d8 (S)	%	104	70-130	10/08/12 09:54	

Date: 10/11/2012 03:44 PM

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Essex/Hope Jamestown

Pace Project No.: 3078346

LABORATORY CONTROL SAMPLE: 496795

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	16.5	82	64.3-127	
1,1,2,2-Tetrachloroethane	ug/L	20	19.9	99	64.6-121	
1,1,2-Trichloroethane	ug/L	20	18.5	93	75.6-120	
1,1-Dichloroethane	ug/L	20	18.3	92	68.5-122	
1,1-Dichloroethene	ug/L	20	18.4	92	57.1-120	
1,2-Dichlorobenzene	ug/L	20	19.4	97	69.6-120	
1,2-Dichloroethane	ug/L	20	16.3	82	60.5-133	
1,2-Dichloropropane	ug/L	20	19.0	95	71-120	
1,3-Dichlorobenzene	ug/L	20	19.3	96	68.4-121	
1,4-Dichlorobenzene	ug/L	20	19.3	97	68.5-123	
2-Butanone (MEK)	ug/L	20	16.9	85	55.7-138	
2-Hexanone	ug/L	20	19.0	95	67-133	
4-Methyl-2-pentanone (MIBK)	ug/L	20	18.4	92	64.5-121	
Acetone	ug/L	20	16.6	83	57.6-168	
Benzene	ug/L	20	19.4	97	69.8-120	
Bromodichloromethane	ug/L	20	18.4	92	66.5-120	
Bromoform	ug/L	20	16.6	83	61.1-120	
Bromomethane	ug/L	20	16.8	84	10.6-200	
Carbon disulfide	ug/L	20	18.9	95	60.2-122	
Carbon tetrachloride	ug/L	20	17.7	88	60.1-127	
Chlorobenzene	ug/L	20	18.4	92	72-120	
Chloroethane	ug/L	20	16.3	81	36.8-142	
Chloroform	ug/L	20	16.8	84	69-122	
Chloromethane	ug/L	20	15.6	78	37.2-129	
cis-1,2-Dichloroethene	ug/L	20	17.0	85	69.5-123	
cis-1,3-Dichloropropene	ug/L	20	19.7	98	74.3-120	
Dibromochloromethane	ug/L	20	19.0	95	66.1-120	
Ethylbenzene	ug/L	20	18.3	91	70.9-124	
Isopropylbenzene (Cumene)	ug/L	20	21.3	106	68.3-129	
m&p-Xylene	ug/L	40	36.2	90	70.4-130	
Methylene Chloride	ug/L	20	15.8	79	61.5-125	
o-Xylene	ug/L	20	18.6	93	70.6-127	
Styrene	ug/L	20	24.0	120	69.9-120	
Tetrachloroethene	ug/L	20	19.7	98	63.4-121	
Toluene	ug/L	20	18.8	94	71.5-120	
trans-1,2-Dichloroethene	ug/L	20	17.8	89	64.1-120	
trans-1,3-Dichloropropene	ug/L	20	19.4	97	71-120	
Trichloroethene	ug/L	20	18.6	93	65.9-120	
Trichlorofluoromethane	ug/L	20	18.6	93	44.8-137	
Vinyl chloride	ug/L	20	17.8	89	51-127	
1,2-Dichloroethane-d4 (S)	%			92	70-130	
4-Bromofluorobenzene (S)	%			98	70-130	
Toluene-d8 (S)	%			107	70-130	

QUALITY CONTROL DATA

Project: Essex/Hope Jamestown

Pace Project No.: 3078346

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 496796 496797											
Parameter	Units	3078458006 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	20	20	17.5	19.0	87	95	64.3-127	8	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	17.1	17.8	85	89	64.6-121	4	
1,1,2-Trichloroethane	ug/L	ND	20	20	17.1	18.3	86	91	75.6-120	7	
1,1-Dichloroethane	ug/L	ND	20	20	18.5	19.2	92	96	68.5-122	4	
1,1-Dichloroethene	ug/L	ND	20	20	20.2	21.0	101	105	57.1-120	4	
1,2-Dichlorobenzene	ug/L	ND	20	20	17.9	18.7	90	93	69.6-120	4	
1,2-Dichloroethane	ug/L	ND	20	20	16.9	17.7	85	88	60.5-133	4	
1,2-Dichloropropane	ug/L	ND	20	20	17.6	17.6	88	88	71-120	.3	
1,3-Dichlorobenzene	ug/L	ND	20	20	17.8	18.6	89	93	68.4-121	4	
1,4-Dichlorobenzene	ug/L	ND	20	20	17.4	18.4	87	92	68.5-123	5	
2-Butanone (MEK)	ug/L	ND	20	20	17.2	15.2	86	76	55.7-138	12	
2-Hexanone	ug/L	ND	20	20	18.6	17.7	93	89	67-133	5	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	20	20	17.1	16.9	86	84	64.5-121	2	
Acetone	ug/L	ND	20	20	19.9	19.7	100	98	57.6-168	1	
Benzene	ug/L	ND	20	20	17.9	18.6	89	93	69.8-120	4	
Bromodichloromethane	ug/L	ND	20	20	16.6	17.9	83	90	66.5-120	8	
Bromoform	ug/L	ND	20	20	14.0	15.6	70	78	61.1-120	11	
Bromomethane	ug/L	ND	20	20	12.6	13.7	63	69	10.6-200	8	
Carbon disulfide	ug/L	ND	20	20	22.1	20.8	110	104	60.2-122	6	
Carbon tetrachloride	ug/L	ND	20	20	17.4	18.6	87	93	60.1-127	7	
Chlorobenzene	ug/L	ND	20	20	16.6	17.7	83	89	72-120	7	
Chloroethane	ug/L	ND	20	20	18.7	16.5	94	82	36.8-142	13	
Chloroform	ug/L	ND	20	20	17.6	18.6	88	93	69-122	5	
Chloromethane	ug/L	ND	20	20	18.8	16.9	94	85	37.2-129	10	
cis-1,2-Dichloroethene	ug/L	ND	20	20	17.7	18.1	88	91	69.5-123	3	
cis-1,3-Dichloropropene	ug/L	ND	20	20	17.0	18.3	85	91	74.3-120	7	
Dibromochloromethane	ug/L	ND	20	20	17.1	18.5	86	92	66.1-120	8	
Ethylbenzene	ug/L	ND	20	20	17.0	18.5	85	93	70.9-124	8	
Isopropylbenzene (Cumene)	ug/L	ND	20	20	19.3	20.2	97	101	68.3-129	4	
m&p-Xylene	ug/L	ND	40	40	32.1	34.8	80	87	70.4-130	8	
Methylene Chloride	ug/L	ND	20	20	16.0	17.0	80	85	61.5-125	6	
o-Xylene	ug/L	ND	20	20	17.0	18.0	85	90	70.6-127	6	
Styrene	ug/L	ND	20	20	20.8	22.7	104	114	69.9-120	9	
Tetrachloroethene	ug/L	ND	20	20	18.9	19.5	94	98	63.4-121	3	
Toluene	ug/L	ND	20	20	17.1	18.3	85	92	71.5-120	7	
trans-1,2-Dichloroethene	ug/L	ND	20	20	18.0	18.9	90	94	64.1-120	4	
trans-1,3-Dichloropropene	ug/L	ND	20	20	17.1	17.8	85	89	71-120	4	
Trichloroethene	ug/L	ND	20	20	17.5	18.9	87	94	65.9-120	8	
Trichlorofluoromethane	ug/L	ND	20	20	23.1	23.2	116	116	44.8-137	.5	
Vinyl chloride	ug/L	ND	20	20	22.5	20.9	112	105	51-127	7	
1,2-Dichloroethane-d4 (S)	%						102	99	70-130		
4-Bromofluorobenzene (S)	%						100	100	70-130		
Toluene-d8 (S)	%						102	101	70-130		

QUALIFIERS

Project: Essex/Hope Jamestown

Pace Project No.: 3078346

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

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.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

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.

BATCH QUALIFIERS

Batch: MSV/14174

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

S3 Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.

S6 Surrogate recovery outside control limits. Data accepted based on valid recovery of applicable surrogates (no analytes associated with this surrogate)

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Essex/Hope Jamestown

Pace Project No.: 3078346

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
3078346001	MW-2	EPA 8260	MSV/14174		
3078346002	VP-6D	EPA 8260	MSV/14174		
3078346003	MW-22D	EPA 8260	MSV/14174		
3078346004	MW-19D	EPA 8260	MSV/14182		
3078346005	MW-21D	EPA 8260	MSV/14174		
3078346006	PZ-7D	EPA 8260	MSV/14174		
3078346007	MW-20	EPA 8260	MSV/14182		
3078346008	DUP-01	EPA 8260	MSV/14174		
3078346009	TB-01	EPA 8260	MSV/14174		

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information: Company: URS CORP Address: POSTER DRIVE 6 601 ANDERSON DR. STE. 400 PITTSBURGH, PA 15220 Email To:		Section B Required Project Information: Report To: MARK DOWNEY Copy To: VALERIE SIBETO Purchase Order No.: 41569181 Project Name: ELSEX/HORSE STATION Project Number: 41569181		Section C Invoice Information: Attention: Company Name: Address: Pace Quote Reference: Pace Project Manager: Pace Profile #:	
Page: 1 of 1 1572355		REGULATORY AGENCY ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☐ OTHER		Site Location STATE: NY	

ITEM #	Section D Required Client Information	Matrix Codes MATRIX / CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives	Analysis Test ↑	Y/N ↑	Requested Analysis Filtered (Y/N)				Residual Chlorine (Y/N)	Pace Project No. / Lab I.D.
				COMPOSITE START	COMPOSITE END/GRAB			Unpreserved	H ₂ SO ₄	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other		
1	MW-Z	DW	WTG	DATE	TIME	DATE	TIME									3078346
2	VP-6D	WT		9/26/12	0905											001
3	MW-22D	WW			0955											002
4	MW-19D	P			1005											003
5	MW-21D	SL			1055											004
6	PZ-7D	OL			1135											005
7	MW-20	WP			1245											006
8	DUP-01	AR			1320											007
9	TB-01	TS														008
10		OT														
11																
12																

ADDITIONAL COMMENTS ANNUAL PMP RW SAMPLING - 2012		RELINQUISHED BY / AFFILIATION VALERIE SIBETO	DATE 9/26/12	TIME 0600	ACCEPTED BY / AFFILIATION VALERIE SIBETO	DATE 9/26/12	TIME 1430	SAMPLE CONDITIONS Y N Y



Sample Condition Upon Receipt

Client Name: URS

Project # 3578346

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

Tracking #: 872645756974

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

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

Thermometer Used (5) 6 7

Type of Ice: Wet Blue None

☒ Samples on ice, cooling process has begun

Cooler Temperature 4.3

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: VE 9/27/12

Temp should be above freezing to 6°C

Comments:

Chain of Custody Present:	☒ Yes ☐ No ☐ N/A	1.
Chain of Custody Filled Out:	☒ Yes ☐ No ☐ N/A	2.
Chain of Custody Relinquished:	☒ Yes ☐ No ☐ N/A	3.
Sampler Name & Signature on COC:	☒ Yes ☐ No ☐ N/A	4.
Samples Arrived within Hold Time:	☒ Yes ☐ No ☐ N/A	5.
Short Hold Time Analysis (<72hr):	☐ Yes ☒ No ☐ N/A	6.
Rush Turn Around Time Requested:	☐ Yes ☒ No ☐ N/A	7.
Sufficient Volume:	☒ Yes ☐ No ☐ N/A	8.
Correct Containers Used:	☒ Yes ☐ No ☐ N/A	9.
-Pace Containers Used:	☒ Yes ☐ No ☐ N/A	
Containers Intact:	☒ Yes ☐ No ☐ N/A	10.
Filtered volume received for Dissolved tests	☐ Yes ☐ No ☒ N/A	11.
Sample Labels match COC:	☒ Yes ☐ No ☐ N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>WR</u>		
All containers needing preservation have been checked.	☐ Yes ☐ No ☒ N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐ Yes ☐ No ☒ N/A	
exceptions: <u>CO₂</u> , collform, TOC, O&G, WI-DRO (water)	☒ Yes ☐ No	Initial when completed <u>VE</u> Lot # of added preservative
Samples checked for dechlorination:	☐ Yes ☐ No ☒ N/A	14.
Headspace in VOA Vials (>6mm):	☐ Yes ☒ No ☐ N/A	15.
Trip Blank Present:	☒ Yes ☐ No ☐ N/A	16.
Trip Blank Custody Seals Present	☒ Yes ☐ No ☐ N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required?

Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____

Date: 9/28/12

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

Client Name: WPS

[illegible]

APPENDIX B-3

2012 MONTHLY POTW INFLUENT/EFFLUENT SAMPLE DATA

January 23, 2012

Mr. Mark Dowiak
URS Corporation
Foster Plaza 4
501 Holiday Drive, Suite 300
Pittsburgh, PA 15220

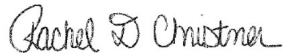
RE: Project: 41569181.100000 Essex/Hope
Pace Project No.: 3061307

Dear Mr. Dowiak:

Enclosed are the analytical results for sample(s) received by the laboratory on January 18, 2012. 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.

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

Sincerely,



Rachel Christner

rachel.christner@pacelabs.com
Project Manager

Enclosures

cc: Ms. Valerie Sibeto, URS Corporation



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 41569181.100000 Essex/Hope

Pace Project No.: 3061307

Pennsylvania Certification IDs

1638 Roseytown Road Suites 2,3&4, Greensburg, PA 15601

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California/NELAC Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH 0694

Delaware Certification

Florida/NELAC Certification #: E87683

Guam/PADEP Certification

Hawaii/PADEP Certification

Idaho Certification

Illinois/PADEP Certification

Indiana/PADEP Certification

Iowa Certification #: 391

Kansas/NELAC Certification #: E-10358

Kentucky Certification #: 90133

Louisiana/NELAC Certification #: LA080002

Louisiana/NELAC Certification #: 4086

Maine Certification #: PA0091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nevada Certification

New Hampshire/NELAC Certification #: 2976

New Jersey/NELAC Certification #: PA 051

New Mexico Certification

New York/NELAC Certification #: 10888

North Carolina Certification #: 42706

Oregon/NELAC Certification #: PA200002

Pennsylvania/NELAC Certification #: 65-00282

Puerto Rico Certification #: PA01457

South Dakota Certification

Tennessee Certification #: TN2867

Texas/NELAC Certification #: T104704188-09 TX

Utah/NELAC Certification #: ANTE

Virgin Island/PADEP Certification

Virginia Certification #: 00112

Virginia VELAP (Cert # 460198)

Washington Certification #: C1941

West Virginia Certification #: 143

Wisconsin/PADEP Certification

Wyoming Certification #: 8TMS-Q

REPORT OF LABORATORY ANALYSIS

ANALYTICAL RESULTS

Project: 41569181.100000 Essex/Hope

Pace Project No.: 3061307

Sample: PRE-CARB		Lab ID: 3061307001	Collected: 01/17/12 11:20	Received: 01/18/12 09:45	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND	ug/L	10.0	1		01/20/12 15:19	67-64-1	
Benzene	4.0	ug/L	1.0	1		01/20/12 15:19	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		01/20/12 15:19	75-27-4	
Bromoform	ND	ug/L	5.0	1		01/20/12 15:19	75-25-2	
Bromomethane	ND	ug/L	5.0	1		01/20/12 15:19	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		01/20/12 15:19	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		01/20/12 15:19	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		01/20/12 15:19	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		01/20/12 15:19	108-90-7	
Chloroethane	ND	ug/L	5.0	1		01/20/12 15:19	75-00-3	
Chloroform	ND	ug/L	5.0	1		01/20/12 15:19	67-66-3	
Chloromethane	ND	ug/L	5.0	1		01/20/12 15:19	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		01/20/12 15:19	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		01/20/12 15:19	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		01/20/12 15:19	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		01/20/12 15:19	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		01/20/12 15:19	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		01/20/12 15:19	107-06-2	
1,1-Dichloroethene	10.9	ug/L	5.0	1		01/20/12 15:19	75-35-4	
cis-1,2-Dichloroethene	2800	ug/L	100	20		01/20/12 15:43	156-59-2	
trans-1,2-Dichloroethene	56.2	ug/L	5.0	1		01/20/12 15:19	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		01/20/12 15:19	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		01/20/12 15:19	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		01/20/12 15:19	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		01/20/12 15:19	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		01/20/12 15:19	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		01/20/12 15:19	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		01/20/12 15:19	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		01/20/12 15:19	108-10-1	
Styrene	ND	ug/L	5.0	1		01/20/12 15:19	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		01/20/12 15:19	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		01/20/12 15:19	127-18-4	
Toluene	ND	ug/L	5.0	1		01/20/12 15:19	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		01/20/12 15:19	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		01/20/12 15:19	79-00-5	
Trichloroethene	476	ug/L	100	20		01/20/12 15:43	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		01/20/12 15:19	75-69-4	
Vinyl chloride	346	ug/L	1.0	1		01/20/12 15:19	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		01/20/12 15:19	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		01/20/12 15:19	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	105	%	70-130	1		01/20/12 15:19	460-00-4	
1,2-Dichloroethane-d4 (S)	97	%	70-130	1		01/20/12 15:19	17060-07-0	
Toluene-d8 (S)	92	%	70-130	1		01/20/12 15:19	2037-26-5	

ANALYTICAL RESULTS

Project: 41569181.100000 Essex/Hope

Pace Project No.: 3061307

Sample: PRIMARY-EFF		Lab ID: 3061307002	Collected: 01/17/12 11:25	Received: 01/18/12 09:45	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND	ug/L	10.0	1		01/20/12 16:07	67-64-1	
Benzene	ND	ug/L	1.0	1		01/20/12 16:07	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		01/20/12 16:07	75-27-4	
Bromoform	ND	ug/L	5.0	1		01/20/12 16:07	75-25-2	
Bromomethane	ND	ug/L	5.0	1		01/20/12 16:07	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		01/20/12 16:07	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		01/20/12 16:07	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		01/20/12 16:07	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		01/20/12 16:07	108-90-7	
Chloroethane	ND	ug/L	5.0	1		01/20/12 16:07	75-00-3	
Chloroform	ND	ug/L	5.0	1		01/20/12 16:07	67-66-3	
Chloromethane	ND	ug/L	5.0	1		01/20/12 16:07	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		01/20/12 16:07	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		01/20/12 16:07	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		01/20/12 16:07	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		01/20/12 16:07	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		01/20/12 16:07	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		01/20/12 16:07	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		01/20/12 16:07	75-35-4	
cis-1,2-Dichloroethene	12.5	ug/L	5.0	1		01/20/12 16:07	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		01/20/12 16:07	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		01/20/12 16:07	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		01/20/12 16:07	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		01/20/12 16:07	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		01/20/12 16:07	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		01/20/12 16:07	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		01/20/12 16:07	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		01/20/12 16:07	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		01/20/12 16:07	108-10-1	
Styrene	ND	ug/L	5.0	1		01/20/12 16:07	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		01/20/12 16:07	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		01/20/12 16:07	127-18-4	
Toluene	ND	ug/L	5.0	1		01/20/12 16:07	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		01/20/12 16:07	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		01/20/12 16:07	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		01/20/12 16:07	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		01/20/12 16:07	75-69-4	
Vinyl chloride	564	ug/L	20.0	20		01/20/12 16:31	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		01/20/12 16:07	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		01/20/12 16:07	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	107	%	70-130	1		01/20/12 16:07	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	70-130	1		01/20/12 16:07	17060-07-0	
Toluene-d8 (S)	93	%	70-130	1		01/20/12 16:07	2037-26-5	

ANALYTICAL RESULTS

Project: 41569181.100000 Essex/Hope

Pace Project No.: 3061307

Sample: POST-CARB **Lab ID: 3061307003** Collected: 01/17/12 13:00 Received: 01/18/12 09:45 Matrix: Water

Comments: • Grab samples taken at 11:30, 12:00, 12:30, and 13:00. Compositing in laboratory prior to analysis.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND	ug/L	10.0	1		01/20/12 16:56	67-64-1	
Benzene	ND	ug/L	1.0	1		01/20/12 16:56	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		01/20/12 16:56	75-27-4	
Bromoform	ND	ug/L	5.0	1		01/20/12 16:56	75-25-2	
Bromomethane	ND	ug/L	5.0	1		01/20/12 16:56	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		01/20/12 16:56	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		01/20/12 16:56	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		01/20/12 16:56	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		01/20/12 16:56	108-90-7	
Chloroethane	ND	ug/L	5.0	1		01/20/12 16:56	75-00-3	
Chloroform	ND	ug/L	5.0	1		01/20/12 16:56	67-66-3	
Chloromethane	ND	ug/L	5.0	1		01/20/12 16:56	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		01/20/12 16:56	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		01/20/12 16:56	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		01/20/12 16:56	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		01/20/12 16:56	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		01/20/12 16:56	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		01/20/12 16:56	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		01/20/12 16:56	75-35-4	
cis-1,2-Dichloroethene	255	ug/L	5.0	1		01/20/12 16:56	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		01/20/12 16:56	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		01/20/12 16:56	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		01/20/12 16:56	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		01/20/12 16:56	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		01/20/12 16:56	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		01/20/12 16:56	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		01/20/12 16:56	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		01/20/12 16:56	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		01/20/12 16:56	108-10-1	
Styrene	ND	ug/L	5.0	1		01/20/12 16:56	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		01/20/12 16:56	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		01/20/12 16:56	127-18-4	
Toluene	ND	ug/L	5.0	1		01/20/12 16:56	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		01/20/12 16:56	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		01/20/12 16:56	79-00-5	
Trichloroethene	7.2	ug/L	5.0	1		01/20/12 16:56	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		01/20/12 16:56	75-69-4	
Vinyl chloride	119	ug/L	1.0	1		01/20/12 16:56	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		01/20/12 16:56	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		01/20/12 16:56	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	108	%	70-130	1		01/20/12 16:56	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	70-130	1		01/20/12 16:56	17060-07-0	
Toluene-d8 (S)	91	%	70-130	1		01/20/12 16:56	2037-26-5	

ANALYTICAL RESULTS

Project: 41569181.100000 Essex/Hope

Pace Project No.: 3061307

Sample: TB-01		Lab ID: 3061307004	Collected: 01/17/12 00:01	Received: 01/18/12 09:45	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND	ug/L	10.0	1		01/20/12 12:53	67-64-1	
Benzene	ND	ug/L	1.0	1		01/20/12 12:53	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		01/20/12 12:53	75-27-4	
Bromoform	ND	ug/L	5.0	1		01/20/12 12:53	75-25-2	
Bromomethane	ND	ug/L	5.0	1		01/20/12 12:53	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		01/20/12 12:53	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		01/20/12 12:53	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		01/20/12 12:53	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		01/20/12 12:53	108-90-7	
Chloroethane	ND	ug/L	5.0	1		01/20/12 12:53	75-00-3	
Chloroform	ND	ug/L	5.0	1		01/20/12 12:53	67-66-3	
Chloromethane	ND	ug/L	5.0	1		01/20/12 12:53	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		01/20/12 12:53	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		01/20/12 12:53	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		01/20/12 12:53	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		01/20/12 12:53	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		01/20/12 12:53	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		01/20/12 12:53	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		01/20/12 12:53	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		01/20/12 12:53	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		01/20/12 12:53	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		01/20/12 12:53	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		01/20/12 12:53	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		01/20/12 12:53	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		01/20/12 12:53	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		01/20/12 12:53	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		01/20/12 12:53	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		01/20/12 12:53	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		01/20/12 12:53	108-10-1	
Styrene	ND	ug/L	5.0	1		01/20/12 12:53	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		01/20/12 12:53	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		01/20/12 12:53	127-18-4	
Toluene	ND	ug/L	5.0	1		01/20/12 12:53	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		01/20/12 12:53	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		01/20/12 12:53	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		01/20/12 12:53	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		01/20/12 12:53	75-69-4	
Vinyl chloride	ND	ug/L	1.0	1		01/20/12 12:53	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		01/20/12 12:53	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		01/20/12 12:53	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	110	%	70-130	1		01/20/12 12:53	460-00-4	
1,2-Dichloroethane-d4 (S)	96	%	70-130	1		01/20/12 12:53	17060-07-0	
Toluene-d8 (S)	92	%	70-130	1		01/20/12 12:53	2037-26-5	

QUALITY CONTROL DATA

Project: 41569181.100000 Essex/Hope

Pace Project No.: 3061307

QC Batch: MSV/11731 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 3061307001, 3061307002, 3061307003, 3061307004

METHOD BLANK: 394067 Matrix: Water

Associated Lab Samples: 3061307001, 3061307002, 3061307003, 3061307004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	5.0	01/20/12 12:05	
1,1,2,2-Tetrachloroethane	ug/L	ND	5.0	01/20/12 12:05	
1,1,2-Trichloroethane	ug/L	ND	5.0	01/20/12 12:05	
1,1-Dichloroethane	ug/L	ND	5.0	01/20/12 12:05	
1,1-Dichloroethene	ug/L	ND	5.0	01/20/12 12:05	
1,2-Dichlorobenzene	ug/L	ND	5.0	01/20/12 12:05	
1,2-Dichloroethane	ug/L	ND	5.0	01/20/12 12:05	
1,2-Dichloropropane	ug/L	ND	5.0	01/20/12 12:05	
1,3-Dichlorobenzene	ug/L	ND	5.0	01/20/12 12:05	
1,4-Dichlorobenzene	ug/L	ND	5.0	01/20/12 12:05	
2-Butanone (MEK)	ug/L	ND	10.0	01/20/12 12:05	
2-Hexanone	ug/L	ND	10.0	01/20/12 12:05	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	01/20/12 12:05	
Acetone	ug/L	ND	10.0	01/20/12 12:05	
Benzene	ug/L	ND	1.0	01/20/12 12:05	
Bromodichloromethane	ug/L	ND	5.0	01/20/12 12:05	
Bromoform	ug/L	ND	5.0	01/20/12 12:05	
Bromomethane	ug/L	ND	5.0	01/20/12 12:05	
Carbon disulfide	ug/L	ND	5.0	01/20/12 12:05	
Carbon tetrachloride	ug/L	ND	5.0	01/20/12 12:05	
Chlorobenzene	ug/L	ND	5.0	01/20/12 12:05	
Chloroethane	ug/L	ND	5.0	01/20/12 12:05	
Chloroform	ug/L	ND	5.0	01/20/12 12:05	
Chloromethane	ug/L	ND	5.0	01/20/12 12:05	
cis-1,2-Dichloroethene	ug/L	ND	5.0	01/20/12 12:05	
cis-1,3-Dichloropropene	ug/L	ND	5.0	01/20/12 12:05	
Dibromochloromethane	ug/L	ND	5.0	01/20/12 12:05	
Ethylbenzene	ug/L	ND	5.0	01/20/12 12:05	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	01/20/12 12:05	
m&p-Xylene	ug/L	ND	5.0	01/20/12 12:05	
Methylene Chloride	ug/L	ND	5.0	01/20/12 12:05	
o-Xylene	ug/L	ND	5.0	01/20/12 12:05	
Styrene	ug/L	ND	5.0	01/20/12 12:05	
Tetrachloroethene	ug/L	ND	5.0	01/20/12 12:05	
Toluene	ug/L	ND	5.0	01/20/12 12:05	
trans-1,2-Dichloroethene	ug/L	ND	5.0	01/20/12 12:05	
trans-1,3-Dichloropropene	ug/L	ND	5.0	01/20/12 12:05	
Trichloroethene	ug/L	ND	5.0	01/20/12 12:05	
Trichlorofluoromethane	ug/L	ND	5.0	01/20/12 12:05	
Vinyl chloride	ug/L	ND	1.0	01/20/12 12:05	
1,2-Dichloroethane-d4 (S)	%	96	70-130	01/20/12 12:05	
4-Bromofluorobenzene (S)	%	108	70-130	01/20/12 12:05	
Toluene-d8 (S)	%	91	70-130	01/20/12 12:05	

Date: 01/23/2012 01:58 PM

REPORT OF LABORATORY ANALYSIS

Page 7 of 11

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QUALITY CONTROL DATA

Project: 41569181.100000 Essex/Hope

Pace Project No.: 3061307

LABORATORY CONTROL SAMPLE: 394068

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	20.2	101	64.3-127	
1,1,2,2-Tetrachloroethane	ug/L	20	17.6	88	64.6-121	
1,1,2-Trichloroethane	ug/L	20	18.5	92	75.6-120	
1,1-Dichloroethane	ug/L	20	19.7	98	68.5-122	
1,1-Dichloroethene	ug/L	20	18.9	95	57.1-120	
1,2-Dichlorobenzene	ug/L	20	19.3	96	69.6-120	
1,2-Dichloroethane	ug/L	20	18.8	94	60.5-133	
1,2-Dichloropropane	ug/L	20	17.5	88	71-120	
1,3-Dichlorobenzene	ug/L	20	19.1	96	68.4-121	
1,4-Dichlorobenzene	ug/L	20	19.1	96	68.5-123	
2-Butanone (MEK)	ug/L	20	20.3	102	55.7-138	
2-Hexanone	ug/L	20	17.8	89	67-133	
4-Methyl-2-pentanone (MIBK)	ug/L	20	18.7	94	64.5-121	
Acetone	ug/L	20	22.0	110	57.6-168	
Benzene	ug/L	20	18.2	91	69.8-120	
Bromodichloromethane	ug/L	20	16.5	83	66.5-120	
Bromoform	ug/L	20	15.5	78	61.1-120	
Bromomethane	ug/L	20	28.6	143	10.6-200	
Carbon disulfide	ug/L	20	20.8	104	60.2-122	
Carbon tetrachloride	ug/L	20	18.1	91	60.1-127	
Chlorobenzene	ug/L	20	19.9	99	72-120	
Chloroethane	ug/L	20	17.8	89	36.8-142	
Chloroform	ug/L	20	19.6	98	69-122	
Chloromethane	ug/L	20	12.9	65	37.2-129	
cis-1,2-Dichloroethene	ug/L	20	19.5	97	69.5-123	
cis-1,3-Dichloropropene	ug/L	20	16.7	84	74.3-120	
Dibromochloromethane	ug/L	20	16.8	84	66.1-120	
Ethylbenzene	ug/L	20	20.2	101	70.9-124	
Isopropylbenzene (Cumene)	ug/L	20	19.7	99	68.3-129	
m&p-Xylene	ug/L	40	41.5	104	70.4-130	
Methylene Chloride	ug/L	20	16.8	84	61.5-125	
o-Xylene	ug/L	20	19.5	98	70.6-127	
Styrene	ug/L	20	18.7	94	69.9-120	
Tetrachloroethene	ug/L	20	19.9	100	63.4-121	
Toluene	ug/L	20	19.3	96	71.5-120	
trans-1,2-Dichloroethene	ug/L	20	18.8	94	64.1-120	
trans-1,3-Dichloropropene	ug/L	20	16.7	84	71-120	
Trichloroethene	ug/L	20	18.8	94	65.9-120	
Trichlorofluoromethane	ug/L	20	19.1	95	44.8-137	
Vinyl chloride	ug/L	20	16.4	82	51-127	
1,2-Dichloroethane-d4 (S)	%			98	70-130	
4-Bromofluorobenzene (S)	%			98	70-130	
Toluene-d8 (S)	%			95	70-130	

QUALITY CONTROL DATA

Project: 41569181.100000 Essex/Hope

Pace Project No.: 3061307

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 394143 394144											
Parameter	Units	3061025002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	20	20	24.3	21.0	122	105	64.3-127	15	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	19.5	16.8	97	84	64.6-121	14	
1,1,2-Trichloroethane	ug/L	ND	20	20	20.5	17.9	102	89	75.6-120	14	
1,1-Dichloroethane	ug/L	ND	20	20	23.1	19.7	116	98	68.5-122	16	
1,1-Dichloroethene	ug/L	ND	20	20	23.5	19.7	118	98	57.1-120	18	
1,2-Dichlorobenzene	ug/L	ND	20	20	21.5	18.4	107	92	69.6-120	15	
1,2-Dichloroethane	ug/L	ND	20	20	21.6	18.7	108	94	60.5-133	14	
1,2-Dichloropropane	ug/L	ND	20	20	19.6	16.5	98	83	71-120	17	
1,3-Dichlorobenzene	ug/L	ND	20	20	21.3	18.4	107	92	68.4-121	15	
1,4-Dichlorobenzene	ug/L	ND	20	20	21.4	18.2	107	91	68.5-123	16	
2-Butanone (MEK)	ug/L	ND	20	20	21.0	22.2	102	108	55.7-138	6	
2-Hexanone	ug/L	ND	20	20	17.6	18.5	88	92	67-133	5	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	20	20	19.6	20.2	98	101	64.5-121	3	
Acetone	ug/L	ND	20	20	21.6	22.2	94	97	57.6-168	3	
Benzene	ug/L	ND	20	20	20.7	17.7	103	88	69.8-120	16	
Bromodichloromethane	ug/L	ND	20	20	18.3	15.8	91	79	66.5-120	15	
Bromoform	ug/L	ND	20	20	17.4	15.7	87	79	61.1-120	10	
Bromomethane	ug/L	ND	20	20	25.7	27.9	128	139	10.6-200	8	
Carbon disulfide	ug/L	ND	20	20	21.6	22.9	108	115	60.2-122	6	
Carbon tetrachloride	ug/L	ND	20	20	20.3	18.5	102	93	60.1-127	9	
Chlorobenzene	ug/L	ND	20	20	22.2	19.4	111	97	72-120	13	
Chloroethane	ug/L	ND	20	20	20.2	21.3	101	106	36.8-142	5	
Chloroform	ug/L	ND	20	20	23.0	20.0	115	100	69-122	14	
Chloromethane	ug/L	ND	20	20	14.5	15.8	72	79	37.2-129	9	
cis-1,2-Dichloroethene	ug/L	ND	20	20	22.8	19.5	114	98	69.5-123	16	
cis-1,3-Dichloropropene	ug/L	ND	20	20	18.5	16.0	93	80	74.3-120	15	
Dibromochloromethane	ug/L	ND	20	20	18.7	16.4	94	82	66.1-120	13	
Ethylbenzene	ug/L	ND	20	20	22.3	19.7	112	99	70.9-124	12	
Isopropylbenzene (Cumene)	ug/L	ND	20	20	22.3	19.5	112	97	68.3-129	14	
m&p-Xylene	ug/L	ND	40	40	46.5	41.2	116	103	70.4-130	12	
Methylene Chloride	ug/L	ND	20	20	19.2	16.3	96	81	61.5-125	16	
o-Xylene	ug/L	ND	20	20	21.8	19.1	109	96	70.6-127	13	
Styrene	ug/L	ND	20	20	20.2	18.2	101	91	69.9-120	11	
Tetrachloroethene	ug/L	ND	20	20	23.1	20.2	115	101	63.4-121	13	
Toluene	ug/L	ND	20	20	22.0	19.0	110	95	71.5-120	15	
trans-1,2-Dichloroethene	ug/L	ND	20	20	21.9	19.1	109	95	64.1-120	14	
trans-1,3-Dichloropropene	ug/L	ND	20	20	18.5	16.0	93	80	71-120	15	
Trichloroethene	ug/L	ND	20	20	21.4	18.6	107	93	65.9-120	14	
Trichlorofluoromethane	ug/L	ND	20	20	21.9	24.0	110	120	44.8-137	9	
Vinyl chloride	ug/L	ND	20	20	18.3	20.3	91	101	51-127	10	
1,2-Dichloroethane-d4 (S)	%						99	101	70-130		
4-Bromofluorobenzene (S)	%						98	99	70-130		
Toluene-d8 (S)	%						93	92	70-130		

QUALIFIERS

Project: 41569181.100000 Essex/Hope

Pace Project No.: 3061307

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

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.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

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.

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 41569181.100000 Essex/Hope

Pace Project No.: 3061307

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
3061307001	PRE-CARB	EPA 8260	MSV/11731		
3061307002	PRIMARY-EFF	EPA 8260	MSV/11731		
3061307003	POST-CARB	EPA 8260	MSV/11731		
3061307004	TB-01	EPA 8260	MSV/11731		

CHAIN-OF-CUSTODY / Analytical Request Document

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



Section A

Required Client Information:

Company: **URS CORP**
 Address: **POSTER PLAZA 4, STE. 200**
501 HOLIDAY DR. PITTSBURGH, PA 15220
 Email To: **URS CORP**
 Project Name: **412-5034900**
 Project Number: **4125034701**
 Requested Due Date/TAT: **5/1/2008**

Section B

Required Project Information:

Report To: **MARK DOWIAK**
 Copy To: **VALERIE SIBETO**
 Purchase Order No.: **41569181**
 Project Manager: **ESSEY/HOPE JAYESTOWN**
 Project Number: **41869181/10000**

Section C

Invoice Information:

Attention: **MARK DOWIAK**
 Company Name: **VALERIE SIBETO**
 Address: **VALERIE SIBETO**
 Pace Quote Reference: **41569181**
 Pace Project Manager: **ESSEY/HOPE JAYESTOWN**
 Pace Profile #: **41869181/10000**

Section D

Required Analysis Filtered (Y/N)

REGULATORY AGENCY: **NY**
 NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐
 UST ☐ RCRA ☐ OTHER ☐
 Site Location: **NY**
 STATE: **NY**

Requested Analysis Filtered (Y/N)

Analysis Test ↓

Preservatives

Unpreserved

H₂SO₄

HNO₃

HCl

NaOH

Na₂S₂O₃

Methanol

Other

OF CONTAINERS

SAMPLE TEMP AT COLLECTION

COMPOSITE START

COMPOSITE END/GRAB

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MATRIX CODE

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SAMPLE TYPE (G=GRAB C=COMP)

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COMPOSITE START

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Sample Condition Upon Receipt

JMS

Client Name: URS

Project # 3061307

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

Tracking #: 872640756816

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

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

Thermometer Used 3 5 6

Type of Ice: Wet Blue None ☒ Samples on ice, cooling process has begun

Cooler Temperature 0.6

Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Comments:

Date and Initials of person examining contents: 1-18-12

Chain of Custody Present:	☒ Yes ☐ No ☐ N/A	1.
Chain of Custody Filled Out:	☒ Yes ☐ No ☐ N/A	2.
Chain of Custody Relinquished:	☒ Yes ☐ No ☐ N/A	3.
Sampler Name & Signature on COC:	☒ Yes ☐ No ☐ N/A	4.
Samples Arrived within Hold Time:	☒ Yes ☐ No ☐ N/A	5.
Short Hold Time Analysis (<72hr):	☐ Yes ☒ No ☐ N/A	6.
Rush Turn Around Time Requested:	☐ Yes ☒ No ☐ N/A	7.
Sufficient Volume:	☒ Yes ☐ No ☐ N/A	8.
Correct Containers Used:	☒ Yes ☐ No ☐ N/A	9.
-Pace Containers Used:	☒ Yes ☐ No ☐ N/A	
Containers Intact:	☒ Yes ☐ No ☐ N/A	10.
Filtered volume received for Dissolved tests	☐ Yes ☐ No ☒ N/A	11.
Sample Labels match COC:	☒ Yes ☐ No ☐ N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>WT</u>		
All containers needing preservation have been checked.	☐ Yes ☐ No ☒ N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐ Yes ☐ No ☒ N/A	
exceptions: <u>VOA</u> , coliform, TOC, O&G, WI-DRO (water)	☒ Yes ☐ No	Initial when completed <u>OK</u> Lot # of added preservative
Samples checked for dechlorination:	☐ Yes ☐ No ☒ N/A	14.
Headspace in VOA Vials (>6mm):	☐ Yes ☒ No ☐ N/A	15.
Trip Blank Present:	☒ Yes ☐ No ☐ N/A	16.
Trip Blank Custody Seals Present	☒ Yes ☐ No ☐ N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: [Signature]

Date: 1/18/12

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

February 23, 2012

Mr. Mark Dowiak
URS Corporation
Foster Plaza 4
501 Holiday Drive, Suite 300
Pittsburgh, PA 15220

RE: Project: Essex/Hope Jamestown
Pace Project No.: 3063297

Dear Mr. Dowiak:

Enclosed are the analytical results for sample(s) received by the laboratory on February 16, 2012. 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.

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

Sincerely,



Rachel Christner

rachel.christner@pacelabs.com
Project Manager

Enclosures

cc: Ms. Valerie Sibeto, URS Corporation



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Essex/Hope Jamestown
Pace Project No.: 3063297

Pennsylvania Certification IDs

1638 Roseytown Road Suites 2,3&4, Greensburg, PA 15601

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California/NELAC Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH 0694

Delaware Certification

Florida/NELAC Certification #: E87683

Guam/PADEP Certification

Hawaii/PADEP Certification

Idaho Certification

Illinois/PADEP Certification

Indiana/PADEP Certification

Iowa Certification #: 391

Kansas/NELAC Certification #: E-10358

Kentucky Certification #: 90133

Louisiana/NELAC Certification #: LA080002

Louisiana/NELAC Certification #: 4086

Maine Certification #: PA0091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nevada Certification

New Hampshire/NELAC Certification #: 2976

New Jersey/NELAC Certification #: PA 051

New Mexico Certification

New York/NELAC Certification #: 10888

North Carolina Certification #: 42706

Oregon/NELAC Certification #: PA200002

Pennsylvania/NELAC Certification #: 65-00282

Puerto Rico Certification #: PA01457

South Dakota Certification

Tennessee Certification #: TN2867

Texas/NELAC Certification #: T104704188-09 TX

Utah/NELAC Certification #: ANTE

Virgin Island/PADEP Certification

Virginia Certification #: 00112

Virginia VELAP (Cert # 460198)

Washington Certification #: C1941

West Virginia Certification #: 143

Wisconsin/PADEP Certification

Wyoming Certification #: 8TMS-Q

REPORT OF LABORATORY ANALYSIS

Page 2 of 11

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ANALYTICAL RESULTS

Project: Essex/Hope Jamestown

Pace Project No.: 3063297

Sample: PRE-CARB		Lab ID: 3063297001	Collected: 02/15/12 11:50	Received: 02/16/12 09:30	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND	ug/L	10.0	1		02/21/12 21:16	67-64-1	
Benzene	8.3	ug/L	1.0	1		02/21/12 21:16	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		02/21/12 21:16	75-27-4	
Bromoform	ND	ug/L	5.0	1		02/21/12 21:16	75-25-2	
Bromomethane	ND	ug/L	5.0	1		02/21/12 21:16	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		02/21/12 21:16	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		02/21/12 21:16	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		02/21/12 21:16	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		02/21/12 21:16	108-90-7	
Chloroethane	ND	ug/L	5.0	1		02/21/12 21:16	75-00-3	
Chloroform	ND	ug/L	5.0	1		02/21/12 21:16	67-66-3	
Chloromethane	ND	ug/L	5.0	1		02/21/12 21:16	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		02/21/12 21:16	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		02/21/12 21:16	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		02/21/12 21:16	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		02/21/12 21:16	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		02/21/12 21:16	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		02/21/12 21:16	107-06-2	
1,1-Dichloroethene	23.0	ug/L	5.0	1		02/21/12 21:16	75-35-4	
cis-1,2-Dichloroethene	5650	ug/L	100	20		02/21/12 21:42	156-59-2	
trans-1,2-Dichloroethene	87.5	ug/L	5.0	1		02/21/12 21:16	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		02/21/12 21:16	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		02/21/12 21:16	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		02/21/12 21:16	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		02/21/12 21:16	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		02/21/12 21:16	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		02/21/12 21:16	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		02/21/12 21:16	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		02/21/12 21:16	108-10-1	
Styrene	ND	ug/L	5.0	1		02/21/12 21:16	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		02/21/12 21:16	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		02/21/12 21:16	127-18-4	
Toluene	ND	ug/L	5.0	1		02/21/12 21:16	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		02/21/12 21:16	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		02/21/12 21:16	79-00-5	
Trichloroethene	649	ug/L	100	20		02/21/12 21:42	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		02/21/12 21:16	75-69-4	
Vinyl chloride	630	ug/L	20.0	20		02/21/12 21:42	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		02/21/12 21:16	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		02/21/12 21:16	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	99	%	70-130	1		02/21/12 21:16	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	70-130	1		02/21/12 21:16	17060-07-0	
Toluene-d8 (S)	93	%	70-130	1		02/21/12 21:16	2037-26-5	

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown

Pace Project No.: 3063297

Sample: PRIMARY-EFF		Lab ID: 3063297002	Collected: 02/15/12 11:55	Received: 02/16/12 09:30	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND	ug/L	10.0	1		02/21/12 20:23	67-64-1	
Benzene	ND	ug/L	1.0	1		02/21/12 20:23	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		02/21/12 20:23	75-27-4	
Bromoform	ND	ug/L	5.0	1		02/21/12 20:23	75-25-2	
Bromomethane	ND	ug/L	5.0	1		02/21/12 20:23	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		02/21/12 20:23	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		02/21/12 20:23	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		02/21/12 20:23	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		02/21/12 20:23	108-90-7	
Chloroethane	ND	ug/L	5.0	1		02/21/12 20:23	75-00-3	
Chloroform	ND	ug/L	5.0	1		02/21/12 20:23	67-66-3	
Chloromethane	ND	ug/L	5.0	1		02/21/12 20:23	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		02/21/12 20:23	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		02/21/12 20:23	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		02/21/12 20:23	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		02/21/12 20:23	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		02/21/12 20:23	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		02/21/12 20:23	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		02/21/12 20:23	75-35-4	
cis-1,2-Dichloroethene	15.1	ug/L	5.0	1		02/21/12 20:23	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		02/21/12 20:23	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		02/21/12 20:23	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		02/21/12 20:23	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		02/21/12 20:23	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		02/21/12 20:23	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		02/21/12 20:23	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		02/21/12 20:23	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		02/21/12 20:23	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		02/21/12 20:23	108-10-1	
Styrene	ND	ug/L	5.0	1		02/21/12 20:23	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		02/21/12 20:23	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		02/21/12 20:23	127-18-4	
Toluene	ND	ug/L	5.0	1		02/21/12 20:23	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		02/21/12 20:23	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		02/21/12 20:23	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		02/21/12 20:23	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		02/21/12 20:23	75-69-4	
Vinyl chloride	637	ug/L	20.0	20		02/21/12 20:50	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		02/21/12 20:23	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		02/21/12 20:23	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	96	%	70-130	1		02/21/12 20:23	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	70-130	1		02/21/12 20:23	17060-07-0	
Toluene-d8 (S)	96	%	70-130	1		02/21/12 20:23	2037-26-5	

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown

Pace Project No.: 3063297

Sample: POST-CARB **Lab ID: 3063297003** Collected: 02/15/12 13:30 Received: 02/16/12 09:30 Matrix: Water

Comments: • Post-Carb grabs for composite collected at 12:00, 12:30, 13:00, and 13:30

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND	ug/L	10.0	1		02/21/12 19:57	67-64-1	
Benzene	ND	ug/L	1.0	1		02/21/12 19:57	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		02/21/12 19:57	75-27-4	
Bromoform	ND	ug/L	5.0	1		02/21/12 19:57	75-25-2	
Bromomethane	ND	ug/L	5.0	1		02/21/12 19:57	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		02/21/12 19:57	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		02/21/12 19:57	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		02/21/12 19:57	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		02/21/12 19:57	108-90-7	
Chloroethane	ND	ug/L	5.0	1		02/21/12 19:57	75-00-3	
Chloroform	ND	ug/L	5.0	1		02/21/12 19:57	67-66-3	
Chloromethane	ND	ug/L	5.0	1		02/21/12 19:57	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		02/21/12 19:57	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		02/21/12 19:57	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		02/21/12 19:57	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		02/21/12 19:57	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		02/21/12 19:57	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		02/21/12 19:57	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		02/21/12 19:57	75-35-4	
cis-1,2-Dichloroethene	268	ug/L	5.0	1		02/21/12 19:57	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		02/21/12 19:57	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		02/21/12 19:57	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		02/21/12 19:57	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		02/21/12 19:57	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		02/21/12 19:57	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		02/21/12 19:57	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		02/21/12 19:57	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		02/21/12 19:57	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		02/21/12 19:57	108-10-1	
Styrene	ND	ug/L	5.0	1		02/21/12 19:57	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		02/21/12 19:57	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		02/21/12 19:57	127-18-4	
Toluene	ND	ug/L	5.0	1		02/21/12 19:57	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		02/21/12 19:57	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		02/21/12 19:57	79-00-5	
Trichloroethene	9.5	ug/L	5.0	1		02/21/12 19:57	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		02/21/12 19:57	75-69-4	
Vinyl chloride	495	ug/L	10.0	10		02/22/12 16:26	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		02/21/12 19:57	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		02/21/12 19:57	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	101	%	70-130	1		02/21/12 19:57	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	70-130	1		02/21/12 19:57	17060-07-0	
Toluene-d8 (S)	110	%	70-130	1		02/21/12 19:57	2037-26-5	

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown

Pace Project No.: 3063297

Sample: TB-01		Lab ID: 3063297004		Collected: 02/15/12 00:01		Received: 02/16/12 09:30		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND ug/L	10.0	1			02/21/12 14:14	67-64-1		
Benzene	ND ug/L	1.0	1			02/21/12 14:14	71-43-2		
Bromodichloromethane	ND ug/L	5.0	1			02/21/12 14:14	75-27-4		
Bromoform	ND ug/L	5.0	1			02/21/12 14:14	75-25-2		
Bromomethane	ND ug/L	5.0	1			02/21/12 14:14	74-83-9		
2-Butanone (MEK)	ND ug/L	10.0	1			02/21/12 14:14	78-93-3		
Carbon disulfide	ND ug/L	5.0	1			02/21/12 14:14	75-15-0		
Carbon tetrachloride	ND ug/L	5.0	1			02/21/12 14:14	56-23-5		
Chlorobenzene	ND ug/L	5.0	1			02/21/12 14:14	108-90-7		
Chloroethane	ND ug/L	5.0	1			02/21/12 14:14	75-00-3		
Chloroform	ND ug/L	5.0	1			02/21/12 14:14	67-66-3		
Chloromethane	ND ug/L	5.0	1			02/21/12 14:14	74-87-3		
Dibromochloromethane	ND ug/L	5.0	1			02/21/12 14:14	124-48-1		
1,2-Dichlorobenzene	ND ug/L	5.0	1			02/21/12 14:14	95-50-1		
1,3-Dichlorobenzene	ND ug/L	5.0	1			02/21/12 14:14	541-73-1		
1,4-Dichlorobenzene	ND ug/L	5.0	1			02/21/12 14:14	106-46-7		
1,1-Dichloroethane	ND ug/L	5.0	1			02/21/12 14:14	75-34-3		
1,2-Dichloroethane	ND ug/L	5.0	1			02/21/12 14:14	107-06-2		
1,1-Dichloroethene	ND ug/L	5.0	1			02/21/12 14:14	75-35-4		
cis-1,2-Dichloroethene	ND ug/L	5.0	1			02/21/12 14:14	156-59-2		
trans-1,2-Dichloroethene	ND ug/L	5.0	1			02/21/12 14:14	156-60-5		
1,2-Dichloropropane	ND ug/L	5.0	1			02/21/12 14:14	78-87-5		
cis-1,3-Dichloropropene	ND ug/L	5.0	1			02/21/12 14:14	10061-01-5		
trans-1,3-Dichloropropene	ND ug/L	5.0	1			02/21/12 14:14	10061-02-6		
Ethylbenzene	ND ug/L	5.0	1			02/21/12 14:14	100-41-4		
2-Hexanone	ND ug/L	10.0	1			02/21/12 14:14	591-78-6		
Isopropylbenzene (Cumene)	ND ug/L	1.0	1			02/21/12 14:14	98-82-8		
Methylene Chloride	ND ug/L	5.0	1			02/21/12 14:14	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND ug/L	10.0	1			02/21/12 14:14	108-10-1		
Styrene	ND ug/L	5.0	1			02/21/12 14:14	100-42-5		
1,1,2,2-Tetrachloroethane	ND ug/L	5.0	1			02/21/12 14:14	79-34-5		
Tetrachloroethene	ND ug/L	5.0	1			02/21/12 14:14	127-18-4		
Toluene	ND ug/L	5.0	1			02/21/12 14:14	108-88-3		
1,1,1-Trichloroethane	ND ug/L	5.0	1			02/21/12 14:14	71-55-6		
1,1,2-Trichloroethane	ND ug/L	5.0	1			02/21/12 14:14	79-00-5		
Trichloroethene	ND ug/L	5.0	1			02/21/12 14:14	79-01-6		
Trichlorofluoromethane	ND ug/L	5.0	1			02/21/12 14:14	75-69-4		
Vinyl chloride	ND ug/L	1.0	1			02/21/12 14:14	75-01-4		
m&p-Xylene	ND ug/L	5.0	1			02/21/12 14:14	179601-23-1		
o-Xylene	ND ug/L	5.0	1			02/21/12 14:14	95-47-6		
Surrogates									
4-Bromofluorobenzene (S)	97 %	70-130	1			02/21/12 14:14	460-00-4		
1,2-Dichloroethane-d4 (S)	98 %	70-130	1			02/21/12 14:14	17060-07-0		
Toluene-d8 (S)	101 %	70-130	1			02/21/12 14:14	2037-26-5		

QUALITY CONTROL DATA

Project: Essex/Hope Jamestown

Pace Project No.: 3063297

QC Batch: MSV/11992 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 3063297001, 3063297002, 3063297003, 3063297004

METHOD BLANK: 407095 Matrix: Water

Associated Lab Samples: 3063297001, 3063297002, 3063297003, 3063297004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	5.0	02/21/12 12:03	
1,1,2,2-Tetrachloroethane	ug/L	ND	5.0	02/21/12 12:03	
1,1,2-Trichloroethane	ug/L	ND	5.0	02/21/12 12:03	
1,1-Dichloroethane	ug/L	ND	5.0	02/21/12 12:03	
1,1-Dichloroethene	ug/L	ND	5.0	02/21/12 12:03	
1,2-Dichlorobenzene	ug/L	ND	5.0	02/21/12 12:03	
1,2-Dichloroethane	ug/L	ND	5.0	02/21/12 12:03	
1,2-Dichloropropane	ug/L	ND	5.0	02/21/12 12:03	
1,3-Dichlorobenzene	ug/L	ND	5.0	02/21/12 12:03	
1,4-Dichlorobenzene	ug/L	ND	5.0	02/21/12 12:03	
2-Butanone (MEK)	ug/L	ND	10.0	02/21/12 12:03	
2-Hexanone	ug/L	ND	10.0	02/21/12 12:03	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	02/21/12 12:03	
Acetone	ug/L	ND	10.0	02/21/12 12:03	
Benzene	ug/L	ND	1.0	02/21/12 12:03	
Bromodichloromethane	ug/L	ND	5.0	02/21/12 12:03	
Bromoform	ug/L	ND	5.0	02/21/12 12:03	
Bromomethane	ug/L	ND	5.0	02/21/12 12:03	
Carbon disulfide	ug/L	ND	5.0	02/21/12 12:03	
Carbon tetrachloride	ug/L	ND	5.0	02/21/12 12:03	
Chlorobenzene	ug/L	ND	5.0	02/21/12 12:03	
Chloroethane	ug/L	ND	5.0	02/21/12 12:03	
Chloroform	ug/L	ND	5.0	02/21/12 12:03	
Chloromethane	ug/L	ND	5.0	02/21/12 12:03	
cis-1,2-Dichloroethene	ug/L	ND	5.0	02/21/12 12:03	
cis-1,3-Dichloropropene	ug/L	ND	5.0	02/21/12 12:03	
Dibromochloromethane	ug/L	ND	5.0	02/21/12 12:03	
Ethylbenzene	ug/L	ND	5.0	02/21/12 12:03	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	02/21/12 12:03	
m&p-Xylene	ug/L	ND	5.0	02/21/12 12:03	
Methylene Chloride	ug/L	ND	5.0	02/21/12 12:03	
o-Xylene	ug/L	ND	5.0	02/21/12 12:03	
Styrene	ug/L	ND	5.0	02/21/12 12:03	
Tetrachloroethene	ug/L	ND	5.0	02/21/12 12:03	
Toluene	ug/L	ND	5.0	02/21/12 12:03	
trans-1,2-Dichloroethene	ug/L	ND	5.0	02/21/12 12:03	
trans-1,3-Dichloropropene	ug/L	ND	5.0	02/21/12 12:03	
Trichloroethene	ug/L	ND	5.0	02/21/12 12:03	
Trichlorofluoromethane	ug/L	ND	5.0	02/21/12 12:03	
Vinyl chloride	ug/L	ND	1.0	02/21/12 12:03	
1,2-Dichloroethane-d4 (S)	%	100	70-130	02/21/12 12:03	
4-Bromofluorobenzene (S)	%	100	70-130	02/21/12 12:03	
Toluene-d8 (S)	%	99	70-130	02/21/12 12:03	

Date: 02/23/2012 05:13 PM

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Essex/Hope Jamestown

Pace Project No.: 3063297

LABORATORY CONTROL SAMPLE: 407096

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	24.4	122	64.3-127	
1,1,2,2-Tetrachloroethane	ug/L	20	20.0	100	64.6-121	
1,1,2-Trichloroethane	ug/L	20	22.2	111	75.6-120	
1,1-Dichloroethane	ug/L	20	21.3	107	68.5-122	
1,1-Dichloroethene	ug/L	20	22.5	112	57.1-120	
1,2-Dichlorobenzene	ug/L	20	20.7	103	69.6-120	
1,2-Dichloroethane	ug/L	20	21.4	107	60.5-133	
1,2-Dichloropropane	ug/L	20	19.6	98	71-120	
1,3-Dichlorobenzene	ug/L	20	21.7	108	68.4-121	
1,4-Dichlorobenzene	ug/L	20	21.4	107	68.5-123	
2-Butanone (MEK)	ug/L	20	24.0	120	55.7-138	
2-Hexanone	ug/L	20	17.4	87	67-133	
4-Methyl-2-pentanone (MIBK)	ug/L	20	23.3	117	64.5-121	
Acetone	ug/L	20	28.6	143	57.6-168	
Benzene	ug/L	20	21.2	106	69.8-120	
Bromodichloromethane	ug/L	20	19.6	98	66.5-120	
Bromoform	ug/L	20	19.1	95	61.1-120	
Bromomethane	ug/L	20	26.0	130	10.6-200	
Carbon disulfide	ug/L	20	35.7	179	60.2-122	L3
Carbon tetrachloride	ug/L	20	23.2	116	60.1-127	
Chlorobenzene	ug/L	20	22.2	111	72-120	
Chloroethane	ug/L	20	16.9	85	36.8-142	
Chloroform	ug/L	20	21.5	107	69-122	
Chloromethane	ug/L	20	21.6	108	37.2-129	
cis-1,2-Dichloroethene	ug/L	20	22.1	111	69.5-123	
cis-1,3-Dichloropropene	ug/L	20	23.5	118	74.3-120	
Dibromochloromethane	ug/L	20	22.0	110	66.1-120	
Ethylbenzene	ug/L	20	22.2	111	70.9-124	
Isopropylbenzene (Cumene)	ug/L	20	20.7	104	68.3-129	
m&p-Xylene	ug/L	40	45.4	113	70.4-130	
Methylene Chloride	ug/L	20	22.0	110	61.5-125	
o-Xylene	ug/L	20	22.0	110	70.6-127	
Styrene	ug/L	20	20.4	102	69.9-120	
Tetrachloroethene	ug/L	20	24.5	122	63.4-121	L1
Toluene	ug/L	20	24.3	122	71.5-120	L1
trans-1,2-Dichloroethene	ug/L	20	22.2	111	64.1-120	
trans-1,3-Dichloropropene	ug/L	20	22.7	113	71-120	
Trichloroethene	ug/L	20	20.4	102	65.9-120	
Trichlorofluoromethane	ug/L	20	22.7	113	44.8-137	
Vinyl chloride	ug/L	20	23.5	118	51-127	
1,2-Dichloroethane-d4 (S)	%			108	70-130	
4-Bromofluorobenzene (S)	%			88	70-130	
Toluene-d8 (S)	%			110	70-130	

QUALITY CONTROL DATA

Project: Essex/Hope Jamestown
Pace Project No.: 3063297

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 407683 407684											
Parameter	Units	3062883001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	20	20	26.8	24.5	134	123	64.3-127	9	M0
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	22.6	21.7	113	108	64.6-121	4	
1,1,2-Trichloroethane	ug/L	ND	20	20	22.6	21.3	113	106	75.6-120	6	
1,1-Dichloroethane	ug/L	ND	20	20	23.7	22.0	118	110	68.5-122	7	
1,1-Dichloroethene	ug/L	ND	20	20	24.8	23.3	124	116	57.1-120	6	M0
1,2-Dichlorobenzene	ug/L	ND	20	20	22.5	20.2	112	101	69.6-120	11	
1,2-Dichloroethane	ug/L	ND	20	20	23.8	23.2	119	116	60.5-133	3	
1,2-Dichloropropane	ug/L	ND	20	20	22.9	22.0	114	110	71-120	4	
1,3-Dichlorobenzene	ug/L	ND	20	20	22.3	20.6	111	103	68.4-121	8	
1,4-Dichlorobenzene	ug/L	ND	20	20	22.5	20.9	112	104	68.5-123	7	
2-Butanone (MEK)	ug/L	ND	20	20	26.5	28.7	133	144	55.7-138	8	M0
2-Hexanone	ug/L	ND	20	20	22.4	21.0	112	105	67-133	7	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	20	20	25.0	23.5	125	117	64.5-121	6	M0
Acetone	ug/L	ND	20	20	30.4	28.8	152	144	57.6-168	5	
Benzene	ug/L	ND	20	20	23.5	22.5	117	112	69.8-120	4	
Bromodichloromethane	ug/L	ND	20	20	21.6	21.0	108	105	66.5-120	3	
Bromoform	ug/L	ND	20	20	18.4	17.1	92	86	61.1-120	7	
Bromomethane	ug/L	ND	20	20	19.2	21.4	96	107	10.6-200	11	
Carbon disulfide	ug/L	ND	20	20	30.1	28.6	150	143	60.2-122	5	M0
Carbon tetrachloride	ug/L	ND	20	20	24.3	22.4	122	112	60.1-127	8	
Chlorobenzene	ug/L	ND	20	20	22.8	22.0	114	110	72-120	4	
Chloroethane	ug/L	ND	20	20	23.5	23.8	118	119	36.8-142	1	
Chloroform	ug/L	ND	20	20	23.8	22.6	119	113	69-122	5	
Chloromethane	ug/L	ND	20	20	23.1	24.6	115	123	37.2-129	6	
cis-1,2-Dichloroethene	ug/L	ND	20	20	24.7	23.2	124	116	69.5-123	6	M0
cis-1,3-Dichloropropene	ug/L	ND	20	20	22.3	22.1	112	111	74.3-120	.8	
Dibromochloromethane	ug/L	ND	20	20	20.2	18.8	101	94	66.1-120	7	
Ethylbenzene	ug/L	ND	20	20	24.0	22.3	120	111	70.9-124	8	
Isopropylbenzene (Cumene)	ug/L				23.8	22.1				7	
m&p-Xylene	ug/L	ND	40	40	47.8	45.1	120	113	70.4-130	6	
Methylene Chloride	ug/L	ND	20	20	22.3	22.0	112	110	61.5-125	1	
o-Xylene	ug/L	ND	20	20	23.4	21.8	117	109	70.6-127	7	
Styrene	ug/L	ND	20	20	21.1	19.7	106	99	69.9-120	7	
Tetrachloroethene	ug/L	ND	20	20	24.0	22.3	120	112	63.4-121	7	
Toluene	ug/L	ND	20	20	23.6	22.0	118	110	71.5-120	7	
trans-1,2-Dichloroethene	ug/L	ND	20	20	23.6	23.0	118	115	64.1-120	2	
trans-1,3-Dichloropropene	ug/L	ND	20	20	23.4	21.8	117	109	71-120	7	
Trichloroethene	ug/L	ND	20	20	21.6	20.8	107	103	65.9-120	4	
Trichlorofluoromethane	ug/L				25.8	25.0				3	
Vinyl chloride	ug/L	ND	20	20	28.3	29.3	141	147	51-127	4	M0
1,2-Dichloroethane-d4 (S)	%						112	117	70-130		
4-Bromofluorobenzene (S)	%						96	95	70-130		
Toluene-d8 (S)	%						99	102	70-130		

QUALIFIERS

Project: Essex/Hope Jamestown
Pace Project No.: 3063297

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

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.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

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.

ANALYTE QUALIFIERS

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.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Essex/Hope Jamestown

Pace Project No.: 3063297

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
3063297001	PRE-CARB	EPA 8260	MSV/11992		
3063297002	PRIMARY-EFF	EPA 8260	MSV/11992		
3063297003	POST-CARB	EPA 8260	MSV/11992		
3063297004	TB-01	EPA 8260	MSV/11992		

[illegible]

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Sample Condition Upon Receipt



Client Name:

URS

Project #

3063297

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

Tracking #: 872640756827

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

Optional
Proj. Due Date:
Proj. Name:

Packing Material: ☒ Bubble Wrap ☐ Bubble Bags ☐ None ☒ Other

Thermometer Used 3 5 6

Type of Ice: ☒ Wet ☐ Blue ☐ None

☐ Samples on ice, cooling process has begun

Cooler Temperature 3.4

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: JMS 2/10/12

Temp should be above freezing to 6°C

Comments:

Chain of Custody Present:	☒ Yes ☐ No ☐ N/A	1.
Chain of Custody Filled Out:	☒ Yes ☐ No ☐ N/A	2.
Chain of Custody Relinquished:	☒ Yes ☐ No ☐ N/A	3.
Sampler Name & Signature on COC:	☒ Yes ☐ No ☐ N/A	4.
Samples Arrived within Hold Time:	☒ Yes ☐ No ☐ N/A	5.
Short Hold Time Analysis (<72hr):	☐ Yes ☒ No ☐ N/A	6.
Rush Turn Around Time Requested:	☐ Yes ☒ No ☐ N/A	7.
Sufficient Volume:	☒ Yes ☐ No ☐ N/A	8.
Correct Containers Used:	☒ Yes ☐ No ☐ N/A	9.
-Pace Containers Used:	☒ Yes ☐ No ☐ N/A	
Containers Intact:	☒ Yes ☐ No ☐ N/A	10.
Filtered volume received for Dissolved tests	☐ Yes ☐ No ☒ N/A	11.
Sample Labels match COC:	☒ Yes ☐ No ☐ N/A	12.
-Includes date/time/ID/Analysis Matrix:	WT	
All containers needing preservation have been checked.	☐ Yes ☐ No ☒ N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐ Yes ☐ No ☒ N/A	
exceptions: ☒ VOA, coliform, TOC, O&G, WI-DRO (water)	☒ Yes ☐ No	Initial when completed JMS Lot # of added preservative
Samples checked for dechlorination:	☐ Yes ☐ No ☒ N/A	14.
Headspace in VOA Vials (>6mm):	☒ Yes ☐ No ☐ N/A	15. TB-01(1)
Trip Blank Present:	☒ Yes ☐ No ☐ N/A	16.
Trip Blank Custody Seals Present	☒ Yes ☐ No ☐ N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review:

[Signature]

Date:

2/10/12

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

April 04, 2012

Mr. Mark Dowiak
URS Corporation
Foster Plaza 4
501 Holiday Drive, Suite 300
Pittsburgh, PA 15220

RE: Project: ESSEX/HOPE JAMESTOWN
Pace Project No.: 3065542

Dear Mr. Dowiak:

Enclosed are the analytical results for sample(s) received by the laboratory on March 21, 2012. 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.

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

Sincerely,



Timothy Reed for
Rachel Christner
rachel.christner@pacelabs.com
Project Manager

Enclosures

cc: Ms. Valerie Sibeto, URS Corporation



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 3065542

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4 Greensburg, PA 15601

ACCLASS DOD-ELAP Accreditation #: ADE-1544

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California/TNI Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH 0694

Delaware Certification

Florida/TNI Certification #: E87683

Guam/PADEP Certification

Hawaii/PADEP Certification

Idaho Certification

Illinois/PADEP Certification

Indiana/PADEP Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana/TNI Certification #: LA080002

Louisiana/TNI Certification #: 4086

Maine Certification #: PA0091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nevada Certification

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188

Utah/TNI Certification #: ANTE

Virgin Island/PADEP Certification

Virginia Certification #: 00112

Virginia VELAP (Cert # 460198)

Washington Certification #: C868

West Virginia Certification #: 143

Wisconsin/PADEP Certification

Wyoming Certification #: 8TMS-Q

REPORT OF LABORATORY ANALYSIS

Page 2 of 10

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ANALYTICAL RESULTS

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 3065542

Sample: PRE-CARB		Lab ID: 3065542001	Collected: 03/20/12 10:40	Received: 03/21/12 10:00	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND	ug/L	10.0	1		03/31/12 21:05	67-64-1	
Benzene	7.3	ug/L	1.0	1		03/31/12 21:05	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		03/31/12 21:05	75-27-4	
Bromoform	ND	ug/L	5.0	1		03/31/12 21:05	75-25-2	
Bromomethane	ND	ug/L	5.0	1		03/31/12 21:05	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		03/31/12 21:05	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		03/31/12 21:05	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		03/31/12 21:05	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		03/31/12 21:05	108-90-7	
Chloroethane	ND	ug/L	5.0	1		03/31/12 21:05	75-00-3	
Chloroform	ND	ug/L	5.0	1		03/31/12 21:05	67-66-3	
Chloromethane	ND	ug/L	5.0	1		03/31/12 21:05	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		03/31/12 21:05	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		03/31/12 21:05	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		03/31/12 21:05	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		03/31/12 21:05	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		03/31/12 21:05	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		03/31/12 21:05	107-06-2	
1,1-Dichloroethene	17.6	ug/L	5.0	1		03/31/12 21:05	75-35-4	
cis-1,2-Dichloroethene	5210	ug/L	500	100		04/02/12 17:01	156-59-2	
trans-1,2-Dichloroethene	67.8	ug/L	5.0	1		03/31/12 21:05	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		03/31/12 21:05	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		03/31/12 21:05	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		03/31/12 21:05	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		03/31/12 21:05	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		03/31/12 21:05	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		03/31/12 21:05	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		03/31/12 21:05	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		03/31/12 21:05	108-10-1	
Styrene	ND	ug/L	5.0	1		03/31/12 21:05	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		03/31/12 21:05	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		03/31/12 21:05	127-18-4	
Toluene	ND	ug/L	5.0	1		03/31/12 21:05	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		03/31/12 21:05	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		03/31/12 21:05	79-00-5	
Trichloroethene	611	ug/L	500	100		04/02/12 17:01	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		03/31/12 21:05	75-69-4	
Vinyl chloride	427	ug/L	100	100		04/02/12 17:01	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		03/31/12 21:05	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		03/31/12 21:05	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	102	%	70-130	1		03/31/12 21:05	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	70-130	1		03/31/12 21:05	17060-07-0	
Toluene-d8 (S)	104	%	70-130	1		03/31/12 21:05	2037-26-5	

ANALYTICAL RESULTS

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 3065542

Sample: PRIMARY-EFF		Lab ID: 3065542002	Collected: 03/20/12 10:45	Received: 03/21/12 10:00	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND	ug/L	10.0	1		03/31/12 21:31	67-64-1	
Benzene	ND	ug/L	1.0	1		03/31/12 21:31	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		03/31/12 21:31	75-27-4	
Bromoform	ND	ug/L	5.0	1		03/31/12 21:31	75-25-2	
Bromomethane	ND	ug/L	5.0	1		03/31/12 21:31	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		03/31/12 21:31	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		03/31/12 21:31	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		03/31/12 21:31	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		03/31/12 21:31	108-90-7	
Chloroethane	ND	ug/L	5.0	1		03/31/12 21:31	75-00-3	
Chloroform	ND	ug/L	5.0	1		03/31/12 21:31	67-66-3	
Chloromethane	ND	ug/L	5.0	1		03/31/12 21:31	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		03/31/12 21:31	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		03/31/12 21:31	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		03/31/12 21:31	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		03/31/12 21:31	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		03/31/12 21:31	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		03/31/12 21:31	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		03/31/12 21:31	75-35-4	
cis-1,2-Dichloroethene	1730	ug/L	250	50		04/02/12 17:28	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		03/31/12 21:31	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		03/31/12 21:31	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		03/31/12 21:31	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		03/31/12 21:31	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		03/31/12 21:31	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		03/31/12 21:31	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		03/31/12 21:31	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		03/31/12 21:31	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		03/31/12 21:31	108-10-1	
Styrene	ND	ug/L	5.0	1		03/31/12 21:31	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		03/31/12 21:31	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		03/31/12 21:31	127-18-4	
Toluene	ND	ug/L	5.0	1		03/31/12 21:31	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		03/31/12 21:31	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		03/31/12 21:31	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		03/31/12 21:31	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		03/31/12 21:31	75-69-4	
Vinyl chloride	767	ug/L	50.0	50		04/02/12 17:28	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		03/31/12 21:31	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		03/31/12 21:31	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	101	%	70-130	1		03/31/12 21:31	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	70-130	1		03/31/12 21:31	17060-07-0	
Toluene-d8 (S)	102	%	70-130	1		03/31/12 21:31	2037-26-5	

ANALYTICAL RESULTS

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 3065542

Sample: POST-CARB **Lab ID: 3065542003** Collected: 03/20/12 12:20 Received: 03/21/12 10:00 Matrix: Water

Comments: • Sample Collection times 3/20/12 10:50, 11:20, 11:50, and 12:20
• This sample composited from four vials prior to analysis for 8260B VOA.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND	ug/L	10.0	1		03/31/12 21:57	67-64-1	
Benzene	ND	ug/L	1.0	1		03/31/12 21:57	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		03/31/12 21:57	75-27-4	
Bromoform	ND	ug/L	5.0	1		03/31/12 21:57	75-25-2	
Bromomethane	ND	ug/L	5.0	1		03/31/12 21:57	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		03/31/12 21:57	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		03/31/12 21:57	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		03/31/12 21:57	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		03/31/12 21:57	108-90-7	
Chloroethane	ND	ug/L	5.0	1		03/31/12 21:57	75-00-3	
Chloroform	ND	ug/L	5.0	1		03/31/12 21:57	67-66-3	
Chloromethane	ND	ug/L	5.0	1		03/31/12 21:57	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		03/31/12 21:57	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		03/31/12 21:57	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		03/31/12 21:57	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		03/31/12 21:57	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		03/31/12 21:57	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		03/31/12 21:57	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		03/31/12 21:57	75-35-4	
cis-1,2-Dichloroethene	206	ug/L	5.0	1		03/31/12 21:57	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		03/31/12 21:57	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		03/31/12 21:57	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		03/31/12 21:57	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		03/31/12 21:57	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		03/31/12 21:57	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		03/31/12 21:57	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		03/31/12 21:57	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		03/31/12 21:57	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		03/31/12 21:57	108-10-1	
Styrene	ND	ug/L	5.0	1		03/31/12 21:57	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		03/31/12 21:57	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		03/31/12 21:57	127-18-4	
Toluene	ND	ug/L	5.0	1		03/31/12 21:57	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		03/31/12 21:57	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		03/31/12 21:57	79-00-5	
Trichloroethene	6.2	ug/L	5.0	1		03/31/12 21:57	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		03/31/12 21:57	75-69-4	
Vinyl chloride	655	ug/L	10.0	10		04/02/12 17:54	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		03/31/12 21:57	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		03/31/12 21:57	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	102	%	70-130	1		03/31/12 21:57	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	70-130	1		03/31/12 21:57	17060-07-0	
Toluene-d8 (S)	101	%	70-130	1		03/31/12 21:57	2037-26-5	

ANALYTICAL RESULTS

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 3065542

Sample: TB-01		Lab ID: 3065542007	Collected: 03/20/12 00:01	Received: 03/21/12 10:00	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND ug/L		10.0	1		03/31/12 18:01	67-64-1	
Benzene	ND ug/L		1.0	1		03/31/12 18:01	71-43-2	
Bromodichloromethane	ND ug/L		5.0	1		03/31/12 18:01	75-27-4	
Bromoform	ND ug/L		5.0	1		03/31/12 18:01	75-25-2	
Bromomethane	ND ug/L		5.0	1		03/31/12 18:01	74-83-9	
2-Butanone (MEK)	ND ug/L		10.0	1		03/31/12 18:01	78-93-3	
Carbon disulfide	ND ug/L		5.0	1		03/31/12 18:01	75-15-0	
Carbon tetrachloride	ND ug/L		5.0	1		03/31/12 18:01	56-23-5	
Chlorobenzene	ND ug/L		5.0	1		03/31/12 18:01	108-90-7	
Chloroethane	ND ug/L		5.0	1		03/31/12 18:01	75-00-3	
Chloroform	ND ug/L		5.0	1		03/31/12 18:01	67-66-3	
Chloromethane	ND ug/L		5.0	1		03/31/12 18:01	74-87-3	
Dibromochloromethane	ND ug/L		5.0	1		03/31/12 18:01	124-48-1	
1,2-Dichlorobenzene	ND ug/L		5.0	1		03/31/12 18:01	95-50-1	
1,3-Dichlorobenzene	ND ug/L		5.0	1		03/31/12 18:01	541-73-1	
1,4-Dichlorobenzene	ND ug/L		5.0	1		03/31/12 18:01	106-46-7	
1,1-Dichloroethane	ND ug/L		5.0	1		03/31/12 18:01	75-34-3	
1,2-Dichloroethane	ND ug/L		5.0	1		03/31/12 18:01	107-06-2	
1,1-Dichloroethene	ND ug/L		5.0	1		03/31/12 18:01	75-35-4	
cis-1,2-Dichloroethene	ND ug/L		5.0	1		03/31/12 18:01	156-59-2	
trans-1,2-Dichloroethene	ND ug/L		5.0	1		03/31/12 18:01	156-60-5	
1,2-Dichloropropane	ND ug/L		5.0	1		03/31/12 18:01	78-87-5	
cis-1,3-Dichloropropene	ND ug/L		5.0	1		03/31/12 18:01	10061-01-5	
trans-1,3-Dichloropropene	ND ug/L		5.0	1		03/31/12 18:01	10061-02-6	
Ethylbenzene	ND ug/L		5.0	1		03/31/12 18:01	100-41-4	
2-Hexanone	ND ug/L		10.0	1		03/31/12 18:01	591-78-6	
Isopropylbenzene (Cumene)	ND ug/L		1.0	1		03/31/12 18:01	98-82-8	
Methylene Chloride	ND ug/L		5.0	1		03/31/12 18:01	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/L		10.0	1		03/31/12 18:01	108-10-1	
Styrene	ND ug/L		5.0	1		03/31/12 18:01	100-42-5	
1,1,2,2-Tetrachloroethane	ND ug/L		5.0	1		03/31/12 18:01	79-34-5	
Tetrachloroethene	ND ug/L		5.0	1		03/31/12 18:01	127-18-4	
Toluene	ND ug/L		5.0	1		03/31/12 18:01	108-88-3	
1,1,1-Trichloroethane	ND ug/L		5.0	1		03/31/12 18:01	71-55-6	
1,1,2-Trichloroethane	ND ug/L		5.0	1		03/31/12 18:01	79-00-5	
Trichloroethene	ND ug/L		5.0	1		03/31/12 18:01	79-01-6	
Trichlorofluoromethane	ND ug/L		5.0	1		03/31/12 18:01	75-69-4	
Vinyl chloride	ND ug/L		1.0	1		03/31/12 18:01	75-01-4	
m&p-Xylene	ND ug/L		5.0	1		03/31/12 18:01	179601-23-1	
o-Xylene	ND ug/L		5.0	1		03/31/12 18:01	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	105 %		70-130	1		03/31/12 18:01	460-00-4	
1,2-Dichloroethane-d4 (S)	104 %		70-130	1		03/31/12 18:01	17060-07-0	
Toluene-d8 (S)	101 %		70-130	1		03/31/12 18:01	2037-26-5	

QUALITY CONTROL DATA

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 3065542

QC Batch: MSV/12348 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 3065542001, 3065542002, 3065542003, 3065542007

METHOD BLANK: 424271 Matrix: Water

Associated Lab Samples: 3065542001, 3065542002, 3065542003, 3065542007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	5.0	03/31/12 17:35	
1,1,2,2-Tetrachloroethane	ug/L	ND	5.0	03/31/12 17:35	
1,1,2-Trichloroethane	ug/L	ND	5.0	03/31/12 17:35	
1,1-Dichloroethane	ug/L	ND	5.0	03/31/12 17:35	
1,1-Dichloroethene	ug/L	ND	5.0	03/31/12 17:35	
1,2-Dichlorobenzene	ug/L	ND	5.0	03/31/12 17:35	
1,2-Dichloroethane	ug/L	ND	5.0	03/31/12 17:35	
1,2-Dichloropropane	ug/L	ND	5.0	03/31/12 17:35	
1,3-Dichlorobenzene	ug/L	ND	5.0	03/31/12 17:35	
1,4-Dichlorobenzene	ug/L	ND	5.0	03/31/12 17:35	
2-Butanone (MEK)	ug/L	ND	10.0	03/31/12 17:35	
2-Hexanone	ug/L	ND	10.0	03/31/12 17:35	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	03/31/12 17:35	
Acetone	ug/L	ND	10.0	03/31/12 17:35	
Benzene	ug/L	ND	1.0	03/31/12 17:35	
Bromodichloromethane	ug/L	ND	5.0	03/31/12 17:35	
Bromoform	ug/L	ND	5.0	03/31/12 17:35	
Bromomethane	ug/L	ND	5.0	03/31/12 17:35	
Carbon disulfide	ug/L	ND	5.0	03/31/12 17:35	
Carbon tetrachloride	ug/L	ND	5.0	03/31/12 17:35	
Chlorobenzene	ug/L	ND	5.0	03/31/12 17:35	
Chloroethane	ug/L	ND	5.0	03/31/12 17:35	
Chloroform	ug/L	ND	5.0	03/31/12 17:35	
Chloromethane	ug/L	ND	5.0	03/31/12 17:35	
cis-1,2-Dichloroethene	ug/L	ND	5.0	03/31/12 17:35	
cis-1,3-Dichloropropene	ug/L	ND	5.0	03/31/12 17:35	
Dibromochloromethane	ug/L	ND	5.0	03/31/12 17:35	
Ethylbenzene	ug/L	ND	5.0	03/31/12 17:35	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	03/31/12 17:35	
m&p-Xylene	ug/L	ND	5.0	03/31/12 17:35	
Methylene Chloride	ug/L	ND	5.0	03/31/12 17:35	
o-Xylene	ug/L	ND	5.0	03/31/12 17:35	
Styrene	ug/L	ND	5.0	03/31/12 17:35	
Tetrachloroethene	ug/L	ND	5.0	03/31/12 17:35	
Toluene	ug/L	ND	5.0	03/31/12 17:35	
trans-1,2-Dichloroethene	ug/L	ND	5.0	03/31/12 17:35	
trans-1,3-Dichloropropene	ug/L	ND	5.0	03/31/12 17:35	
Trichloroethene	ug/L	ND	5.0	03/31/12 17:35	
Trichlorofluoromethane	ug/L	ND	5.0	03/31/12 17:35	
Vinyl chloride	ug/L	ND	1.0	03/31/12 17:35	
1,2-Dichloroethane-d4 (S)	%	102	70-130	03/31/12 17:35	
4-Bromofluorobenzene (S)	%	104	70-130	03/31/12 17:35	
Toluene-d8 (S)	%	102	70-130	03/31/12 17:35	

Date: 04/04/2012 02:04 PM

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 3065542

LABORATORY CONTROL SAMPLE: 424272

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	20.7	104	64.3-127	
1,1,2,2-Tetrachloroethane	ug/L	20	20.3	101	64.6-121	
1,1,2-Trichloroethane	ug/L	20	21.2	106	75.6-120	
1,1-Dichloroethane	ug/L	20	20.1	100	68.5-122	
1,1-Dichloroethene	ug/L	20	19.3	97	57.1-120	
1,2-Dichlorobenzene	ug/L	20	19.8	99	69.6-120	
1,2-Dichloroethane	ug/L	20	19.7	99	60.5-133	
1,2-Dichloropropane	ug/L	20	22.3	112	71-120	
1,3-Dichlorobenzene	ug/L	20	19.8	99	68.4-121	
1,4-Dichlorobenzene	ug/L	20	20.0	100	68.5-123	
2-Butanone (MEK)	ug/L	20	20.5	102	55.7-138	
2-Hexanone	ug/L	20	19.0	95	67-133	
4-Methyl-2-pentanone (MIBK)	ug/L	20	19.4	97	64.5-121	
Acetone	ug/L	20	15.5	78	57.6-168	
Benzene	ug/L	20	21.7	109	69.8-120	
Bromodichloromethane	ug/L	20	19.9	100	66.5-120	
Bromoform	ug/L	20	19.8	99	61.1-120	
Bromomethane	ug/L	20	19.9	99	10.6-200	
Carbon disulfide	ug/L	20	14.1	70	60.2-122	
Carbon tetrachloride	ug/L	20	20.2	101	60.1-127	
Chlorobenzene	ug/L	20	20.5	102	72-120	
Chloroethane	ug/L	20	14.1	71	36.8-142	
Chloroform	ug/L	20	19.8	99	69-122	
Chloromethane	ug/L	20	17.0	85	37.2-129	
cis-1,2-Dichloroethene	ug/L	20	20.4	102	69.5-123	
cis-1,3-Dichloropropene	ug/L	20	20.9	105	74.3-120	
Dibromochloromethane	ug/L	20	19.9	100	66.1-120	
Ethylbenzene	ug/L	20	20.5	103	70.9-124	
Isopropylbenzene (Cumene)	ug/L	20	23.4	117	68.3-129	
m&p-Xylene	ug/L	40	41.9	105	70.4-130	
Methylene Chloride	ug/L	20	20.8	104	61.5-125	
o-Xylene	ug/L	20	21.0	105	70.6-127	
Styrene	ug/L	20	20.5	103	69.9-120	
Tetrachloroethene	ug/L	20	20.3	101	63.4-121	
Toluene	ug/L	20	21.5	107	71.5-120	
trans-1,2-Dichloroethene	ug/L	20	19.9	100	64.1-120	
trans-1,3-Dichloropropene	ug/L	20	19.1	95	71-120	
Trichloroethene	ug/L	20	20.1	101	65.9-120	
Trichlorofluoromethane	ug/L	20	15.9	79	44.8-137	
Vinyl chloride	ug/L	20	16.3	81	51-127	
1,2-Dichloroethane-d4 (S)	%			100	70-130	
4-Bromofluorobenzene (S)	%			100	70-130	
Toluene-d8 (S)	%			104	70-130	

QUALIFIERS

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 3065542

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

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.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

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.

BATCH QUALIFIERS

Batch: MSV/12348

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 3065542

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
3065542001	PRE-CARB	EPA 8260	MSV/12348		
3065542002	PRIMARY-EFF	EPA 8260	MSV/12348		
3065542003	POST-CARB	EPA 8260	MSV/12348		
3065542007	TB-01	EPA 8260	MSV/12348		



CHAIN-OF-CUSTODY / Analytical Request Document

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

www.paceanals.com

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company: URS CORP	Report To: MARK DOWIAK	Attention: MARK DOWIAK		Page: 1 of 1	
Address: POSTER PLAZA 4	Copy To: VALERIE SIBETO	Company Name: MARK DOWIAK		Invoice Number: 1492350	
501 HOLIDAY DR STE 300		Address: VALERIE SIBETO		REGULATORY AGENCY: NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☐ OTHER ☐	
PITTSBURGH, PA 15222	Purchase Order No: 41569181	Pace Quote Reference: ESSEX/HOPE JAMESTOWN		Site Location: NY	
Email To: 412-503-4741	Project Name: ESSEX/HOPE JAMESTOWN	Pace Project Manager: ESSEX/HOPE JAMESTOWN		STATE: NY	
Requested Due Date/TAT: STANDARD	Project Number: 41569181.10000	Pace Profile #:			

ITEM #	Section D Required Client Information	Matrix Codes MATRIX / CODE	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives										Analysis Test 1	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
			COMPOSITE START	COMPOSITE END/GRAB			DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME	DATE	TIME			
1	PRE-CARB	DW			3/20/12	1040											001		
2	PRIMARY-EFF	WT			3/20/12	1045											002		
3	POST-CARB	WW			3/20/12	1050											003		
4	POST-CARB	P			3/20/12	1120											004		
5	POST-CARB	SL/Solid			3/20/12	1150											005		
6	POST-CARB	Oil			3/20/12	1220											006		
7	TB-DI	Wipe			3/20/12												007		
8		Air																	
9		Tissue																	
10		Other																	
11																			
12																			

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION		DATE		TIME		ACCEPTED BY / AFFILIATION		DATE		TIME		SAMPLE CONDITIONS				
													Temp in °C	Received on	Sealed Cooler	Custody	Samples Intact
COMPOSITE FOUR (4)	Pace Analytical		3/20/12		1500		Pace Analytical		3/20/12		1500		1.4	Y	Y	N	Y
POST-CARB SAMPLES																	
IN LAB AND REPORT																	
AS POST-CARB COMPOSITE																	

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: **VALERIE SIBETO**
SIGNATURE of SAMPLER: *Valerie Sibeto*
DATE Signed (MM/DD/YY): **3.20.12**

*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.



Sample Condition Upon Receipt

Client Name: URS CORP

Project # 3065542

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

Tracking #: 8126 4075 6860

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

Optional

Proj. Due Date:

Proj. Name:

Packing Material: ☒ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other Bags

Thermometer Used 3 5 6

Type of Ice: Wet Blue None

☒ Samples on ice, cooling process has begun

Cooler Temperature 1.4

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: AD 3/21/12

Temp should be above freezing to 6°C

Comments:

Chain of Custody Present:	☒ Yes ☐ No ☐ N/A	1.
Chain of Custody Filled Out:	☒ Yes ☐ No ☐ N/A	2.
Chain of Custody Relinquished:	☒ Yes ☐ No ☐ N/A	3.
Sampler Name & Signature on COC:	☒ Yes ☐ No ☐ N/A	4.
Samples Arrived within Hold Time:	☒ Yes ☐ No ☐ N/A	5.
Short Hold Time Analysis (<72hr):	☐ Yes ☒ No ☐ N/A	6.
Rush Turn Around Time Requested:	☐ Yes ☒ No ☐ N/A	7.
Sufficient Volume:	☒ Yes ☐ No ☐ N/A	8.
Correct Containers Used:	☒ Yes ☐ No ☐ N/A	9.
-Pace Containers Used:	☒ Yes ☐ No ☐ N/A	
Containers Intact:	☒ Yes ☐ No ☐ N/A	10.
Filtered volume received for Dissolved tests	☐ Yes ☐ No ☒ N/A	11.
Sample Labels match COC:	☒ Yes ☐ No ☐ N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>WT</u>		
All containers needing preservation have been checked.	☐ Yes ☐ No ☒ N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐ Yes ☐ No ☒ N/A	
exceptions <u>VOA</u> coliform, TOC, O&G, WI-DRO (water)	☒ Yes ☐ No	Initial when completed <u>AD</u> Lot # of added preservative
Samples checked for dechlorination:	☐ Yes ☐ No ☒ N/A	14.
Headspace in VOA Vials (>6mm):	☐ Yes ☒ No ☐ N/A	15.
Trip Blank Present:	☒ Yes ☐ No ☐ N/A	16.
Trip Blank Custody Seals Present	☒ Yes ☐ No ☐ N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: Chanelle D. Chismore

Date: 3/27/12

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

April 30, 2012

Mr. Mark Dowiak
URS Corporation
Foster Plaza 4
501 Holiday Drive, Suite 300
Pittsburgh, PA 15220

RE: Project: 41569181.10000/Essex-Hope
Pace Project No.: 3067863

Dear Mr. Dowiak:

Enclosed are the analytical results for sample(s) received by the laboratory on April 20, 2012. 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.

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

Sincerely,



Timothy Reed

timothy.reed@pacelabs.com
Project Manager

Enclosures

cc: Ms. Valerie Sibeto, URS Corporation



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 41569181.10000/Essex-Hope

Pace Project No.: 3067863

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4 Greensburg, PA 15601

ACCLASS DOD-ELAP Accreditation #: ADE-1544

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California/TNI Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH 0694

Delaware Certification

Florida/TNI Certification #: E87683

Guam/PADEP Certification

Hawaii/PADEP Certification

Idaho Certification

Illinois/PADEP Certification

Indiana/PADEP Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana/TNI Certification #: LA080002

Louisiana/TNI Certification #: 4086

Maine Certification #: PA0091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nevada Certification

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188

Utah/TNI Certification #: ANTE

Virgin Island/PADEP Certification

Virginia Certification #: 00112

Virginia VELAP (Cert # 460198)

Washington Certification #: C868

West Virginia Certification #: 143

Wisconsin/PADEP Certification

Wyoming Certification #: 8TMS-Q

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 41569181.10000/Essex-Hope

Pace Project No.: 3067863

Sample: PRE-CARB		Lab ID: 3067863001	Collected: 04/19/12 11:05		Received: 04/20/12 10:15		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND	ug/L	10.0	1		04/25/12 20:14	67-64-1	
Benzene	6.2	ug/L	1.0	1		04/25/12 20:14	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		04/25/12 20:14	75-27-4	
Bromoform	ND	ug/L	5.0	1		04/25/12 20:14	75-25-2	
Bromomethane	ND	ug/L	5.0	1		04/25/12 20:14	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		04/25/12 20:14	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		04/25/12 20:14	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		04/25/12 20:14	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		04/25/12 20:14	108-90-7	
Chloroethane	ND	ug/L	5.0	1		04/25/12 20:14	75-00-3	
Chloroform	ND	ug/L	5.0	1		04/25/12 20:14	67-66-3	
Chloromethane	ND	ug/L	5.0	1		04/25/12 20:14	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		04/25/12 20:14	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		04/25/12 20:14	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		04/25/12 20:14	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		04/25/12 20:14	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		04/25/12 20:14	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		04/25/12 20:14	107-06-2	
1,1-Dichloroethene	14.9	ug/L	5.0	1		04/25/12 20:14	75-35-4	
cis-1,2-Dichloroethene	4840	ug/L	125	25		04/27/12 01:59	156-59-2	
trans-1,2-Dichloroethene	107	ug/L	5.0	1		04/25/12 20:14	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		04/25/12 20:14	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		04/25/12 20:14	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		04/25/12 20:14	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		04/25/12 20:14	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		04/25/12 20:14	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		04/25/12 20:14	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		04/25/12 20:14	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		04/25/12 20:14	108-10-1	
Styrene	ND	ug/L	5.0	1		04/25/12 20:14	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		04/25/12 20:14	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		04/25/12 20:14	127-18-4	
Toluene	ND	ug/L	5.0	1		04/25/12 20:14	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		04/25/12 20:14	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		04/25/12 20:14	79-00-5	
Trichloroethene	469	ug/L	125	25		04/27/12 01:59	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		04/25/12 20:14	75-69-4	
Vinyl chloride	368	ug/L	25.0	25		04/27/12 01:59	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		04/25/12 20:14	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		04/25/12 20:14	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	102	%	70-130	1		04/25/12 20:14	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	70-130	1		04/25/12 20:14	17060-07-0	
Toluene-d8 (S)	95	%	70-130	1		04/25/12 20:14	2037-26-5	

ANALYTICAL RESULTS

Project: 41569181.10000/Essex-Hope

Pace Project No.: 3067863

Sample: PRIMARY-EFF		Lab ID: 3067863002		Collected: 04/19/12 11:10		Received: 04/20/12 10:15		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND	ug/L	10.0	1		04/25/12 20:41	67-64-1		
Benzene	ND	ug/L	1.0	1		04/25/12 20:41	71-43-2		
Bromodichloromethane	ND	ug/L	5.0	1		04/25/12 20:41	75-27-4		
Bromoform	ND	ug/L	5.0	1		04/25/12 20:41	75-25-2		
Bromomethane	ND	ug/L	5.0	1		04/25/12 20:41	74-83-9		
2-Butanone (MEK)	ND	ug/L	10.0	1		04/25/12 20:41	78-93-3		
Carbon disulfide	ND	ug/L	5.0	1		04/25/12 20:41	75-15-0		
Carbon tetrachloride	ND	ug/L	5.0	1		04/25/12 20:41	56-23-5		
Chlorobenzene	ND	ug/L	5.0	1		04/25/12 20:41	108-90-7		
Chloroethane	ND	ug/L	5.0	1		04/25/12 20:41	75-00-3		
Chloroform	ND	ug/L	5.0	1		04/25/12 20:41	67-66-3		
Chloromethane	ND	ug/L	5.0	1		04/25/12 20:41	74-87-3		
Dibromochloromethane	ND	ug/L	5.0	1		04/25/12 20:41	124-48-1		
1,2-Dichlorobenzene	ND	ug/L	5.0	1		04/25/12 20:41	95-50-1		
1,3-Dichlorobenzene	ND	ug/L	5.0	1		04/25/12 20:41	541-73-1		
1,4-Dichlorobenzene	ND	ug/L	5.0	1		04/25/12 20:41	106-46-7		
1,1-Dichloroethane	ND	ug/L	5.0	1		04/25/12 20:41	75-34-3		
1,2-Dichloroethane	ND	ug/L	5.0	1		04/25/12 20:41	107-06-2		
1,1-Dichloroethene	5.5	ug/L	5.0	1		04/25/12 20:41	75-35-4		
cis-1,2-Dichloroethene	3450	ug/L	125	25		04/27/12 02:23	156-59-2		
trans-1,2-Dichloroethene	27.8	ug/L	5.0	1		04/25/12 20:41	156-60-5		
1,2-Dichloropropane	ND	ug/L	5.0	1		04/25/12 20:41	78-87-5		
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		04/25/12 20:41	10061-01-5		
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		04/25/12 20:41	10061-02-6		
Ethylbenzene	ND	ug/L	5.0	1		04/25/12 20:41	100-41-4		
2-Hexanone	ND	ug/L	10.0	1		04/25/12 20:41	591-78-6		
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		04/25/12 20:41	98-82-8		
Methylene Chloride	ND	ug/L	5.0	1		04/25/12 20:41	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		04/25/12 20:41	108-10-1		
Styrene	ND	ug/L	5.0	1		04/25/12 20:41	100-42-5		
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		04/25/12 20:41	79-34-5		
Tetrachloroethene	ND	ug/L	5.0	1		04/25/12 20:41	127-18-4		
Toluene	ND	ug/L	5.0	1		04/25/12 20:41	108-88-3		
1,1,1-Trichloroethane	ND	ug/L	5.0	1		04/25/12 20:41	71-55-6		
1,1,2-Trichloroethane	ND	ug/L	5.0	1		04/25/12 20:41	79-00-5		
Trichloroethene	7.7	ug/L	5.0	1		04/25/12 20:41	79-01-6		
Trichlorofluoromethane	ND	ug/L	5.0	1		04/25/12 20:41	75-69-4		
Vinyl chloride	488	ug/L	25.0	25		04/27/12 02:23	75-01-4		
m&p-Xylene	ND	ug/L	5.0	1		04/25/12 20:41	179601-23-1		
o-Xylene	ND	ug/L	5.0	1		04/25/12 20:41	95-47-6		
Surrogates									
4-Bromofluorobenzene (S)	102	%	70-130	1		04/25/12 20:41	460-00-4		
1,2-Dichloroethane-d4 (S)	106	%	70-130	1		04/25/12 20:41	17060-07-0		
Toluene-d8 (S)	94	%	70-130	1		04/25/12 20:41	2037-26-5		

ANALYTICAL RESULTS

Project: 41569181.10000/Essex-Hope

Pace Project No.: 3067863

Sample: POST-CARB **Lab ID: 3067863003** Collected: 04/19/12 12:45 Received: 04/20/12 10:15 Matrix: Water

Comments: • This sample composted from four vial prior to 8260B VOA analysis.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND	ug/L	10.0	1		04/25/12 21:07	67-64-1	
Benzene	ND	ug/L	1.0	1		04/25/12 21:07	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		04/25/12 21:07	75-27-4	
Bromoform	ND	ug/L	5.0	1		04/25/12 21:07	75-25-2	
Bromomethane	ND	ug/L	5.0	1		04/25/12 21:07	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		04/25/12 21:07	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		04/25/12 21:07	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		04/25/12 21:07	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		04/25/12 21:07	108-90-7	
Chloroethane	ND	ug/L	5.0	1		04/25/12 21:07	75-00-3	
Chloroform	ND	ug/L	5.0	1		04/25/12 21:07	67-66-3	
Chloromethane	ND	ug/L	5.0	1		04/25/12 21:07	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		04/25/12 21:07	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		04/25/12 21:07	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		04/25/12 21:07	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		04/25/12 21:07	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		04/25/12 21:07	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		04/25/12 21:07	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		04/25/12 21:07	75-35-4	
cis-1,2-Dichloroethene	169	ug/L	5.0	1		04/25/12 21:07	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		04/25/12 21:07	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		04/25/12 21:07	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		04/25/12 21:07	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		04/25/12 21:07	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		04/25/12 21:07	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		04/25/12 21:07	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		04/25/12 21:07	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		04/25/12 21:07	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		04/25/12 21:07	108-10-1	
Styrene	ND	ug/L	5.0	1		04/25/12 21:07	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		04/25/12 21:07	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		04/25/12 21:07	127-18-4	
Toluene	ND	ug/L	5.0	1		04/25/12 21:07	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		04/25/12 21:07	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		04/25/12 21:07	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		04/25/12 21:07	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		04/25/12 21:07	75-69-4	
Vinyl chloride	833	ug/L	10.0	10		04/27/12 02:48	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		04/25/12 21:07	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		04/25/12 21:07	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	106	%	70-130	1		04/25/12 21:07	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	70-130	1		04/25/12 21:07	17060-07-0	
Toluene-d8 (S)	92	%	70-130	1		04/25/12 21:07	2037-26-5	

ANALYTICAL RESULTS

Project: 41569181.10000/Essex-Hope

Pace Project No.: 3067863

Sample: TB-01		Lab ID: 3067863004		Collected: 04/19/12 00:01		Received: 04/20/12 10:15		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND ug/L	10.0	1			04/25/12 13:14	67-64-1		
Benzene	ND ug/L	1.0	1			04/25/12 13:14	71-43-2		
Bromodichloromethane	ND ug/L	5.0	1			04/25/12 13:14	75-27-4		
Bromoform	ND ug/L	5.0	1			04/25/12 13:14	75-25-2		
Bromomethane	ND ug/L	5.0	1			04/25/12 13:14	74-83-9		
2-Butanone (MEK)	ND ug/L	10.0	1			04/25/12 13:14	78-93-3		
Carbon disulfide	ND ug/L	5.0	1			04/25/12 13:14	75-15-0		
Carbon tetrachloride	ND ug/L	5.0	1			04/25/12 13:14	56-23-5		
Chlorobenzene	ND ug/L	5.0	1			04/25/12 13:14	108-90-7		
Chloroethane	ND ug/L	5.0	1			04/25/12 13:14	75-00-3		
Chloroform	ND ug/L	5.0	1			04/25/12 13:14	67-66-3		
Chloromethane	ND ug/L	5.0	1			04/25/12 13:14	74-87-3		
Dibromochloromethane	ND ug/L	5.0	1			04/25/12 13:14	124-48-1		
1,2-Dichlorobenzene	ND ug/L	5.0	1			04/25/12 13:14	95-50-1		
1,3-Dichlorobenzene	ND ug/L	5.0	1			04/25/12 13:14	541-73-1		
1,4-Dichlorobenzene	ND ug/L	5.0	1			04/25/12 13:14	106-46-7		
1,1-Dichloroethane	ND ug/L	5.0	1			04/25/12 13:14	75-34-3		
1,2-Dichloroethane	ND ug/L	5.0	1			04/25/12 13:14	107-06-2		
1,1-Dichloroethene	ND ug/L	5.0	1			04/25/12 13:14	75-35-4		
cis-1,2-Dichloroethene	ND ug/L	5.0	1			04/25/12 13:14	156-59-2		
trans-1,2-Dichloroethene	ND ug/L	5.0	1			04/25/12 13:14	156-60-5		
1,2-Dichloropropane	ND ug/L	5.0	1			04/25/12 13:14	78-87-5		
cis-1,3-Dichloropropene	ND ug/L	5.0	1			04/25/12 13:14	10061-01-5		
trans-1,3-Dichloropropene	ND ug/L	5.0	1			04/25/12 13:14	10061-02-6		
Ethylbenzene	ND ug/L	5.0	1			04/25/12 13:14	100-41-4		
2-Hexanone	ND ug/L	10.0	1			04/25/12 13:14	591-78-6		
Isopropylbenzene (Cumene)	ND ug/L	1.0	1			04/25/12 13:14	98-82-8		
Methylene Chloride	ND ug/L	5.0	1			04/25/12 13:14	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND ug/L	10.0	1			04/25/12 13:14	108-10-1		
Styrene	ND ug/L	5.0	1			04/25/12 13:14	100-42-5		
1,1,2,2-Tetrachloroethane	ND ug/L	5.0	1			04/25/12 13:14	79-34-5		
Tetrachloroethene	ND ug/L	5.0	1			04/25/12 13:14	127-18-4		
Toluene	ND ug/L	5.0	1			04/25/12 13:14	108-88-3		
1,1,1-Trichloroethane	ND ug/L	5.0	1			04/25/12 13:14	71-55-6		
1,1,2-Trichloroethane	ND ug/L	5.0	1			04/25/12 13:14	79-00-5		
Trichloroethene	ND ug/L	5.0	1			04/25/12 13:14	79-01-6		
Trichlorofluoromethane	ND ug/L	5.0	1			04/25/12 13:14	75-69-4		
Vinyl chloride	ND ug/L	1.0	1			04/25/12 13:14	75-01-4		
m&p-Xylene	ND ug/L	5.0	1			04/25/12 13:14	179601-23-1		
o-Xylene	ND ug/L	5.0	1			04/25/12 13:14	95-47-6		
Surrogates									
4-Bromofluorobenzene (S)	102 %	70-130	1			04/25/12 13:14	460-00-4		
1,2-Dichloroethane-d4 (S)	111 %	70-130	1			04/25/12 13:14	17060-07-0		
Toluene-d8 (S)	93 %	70-130	1			04/25/12 13:14	2037-26-5		

QUALITY CONTROL DATA

Project: 41569181.10000/Essex-Hope

Pace Project No.: 3067863

QC Batch:	MSV/12566	Analysis Method:	EPA 8260
QC Batch Method:	EPA 8260	Analysis Description:	8260 MSV
Associated Lab Samples: 3067863001, 3067863002, 3067863003, 3067863004			

METHOD BLANK:	433104	Matrix:	Water

Associated Lab Samples: 3067863001, 3067863002, 3067863003, 3067863004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	5.0	04/25/12 12:47	
1,1,2,2-Tetrachloroethane	ug/L	ND	5.0	04/25/12 12:47	
1,1,2-Trichloroethane	ug/L	ND	5.0	04/25/12 12:47	
1,1-Dichloroethane	ug/L	ND	5.0	04/25/12 12:47	
1,1-Dichloroethene	ug/L	ND	5.0	04/25/12 12:47	
1,2-Dichlorobenzene	ug/L	ND	5.0	04/25/12 12:47	
1,2-Dichloroethane	ug/L	ND	5.0	04/25/12 12:47	
1,2-Dichloropropane	ug/L	ND	5.0	04/25/12 12:47	
1,3-Dichlorobenzene	ug/L	ND	5.0	04/25/12 12:47	
1,4-Dichlorobenzene	ug/L	ND	5.0	04/25/12 12:47	
2-Butanone (MEK)	ug/L	ND	10.0	04/25/12 12:47	
2-Hexanone	ug/L	ND	10.0	04/25/12 12:47	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	04/25/12 12:47	
Acetone	ug/L	ND	10.0	04/25/12 12:47	
Benzene	ug/L	ND	1.0	04/25/12 12:47	
Bromodichloromethane	ug/L	ND	5.0	04/25/12 12:47	
Bromoform	ug/L	ND	5.0	04/25/12 12:47	
Bromomethane	ug/L	ND	5.0	04/25/12 12:47	
Carbon disulfide	ug/L	ND	5.0	04/25/12 12:47	
Carbon tetrachloride	ug/L	ND	5.0	04/25/12 12:47	
Chlorobenzene	ug/L	ND	5.0	04/25/12 12:47	
Chloroethane	ug/L	ND	5.0	04/25/12 12:47	
Chloroform	ug/L	ND	5.0	04/25/12 12:47	
Chloromethane	ug/L	ND	5.0	04/25/12 12:47	
cis-1,2-Dichloroethene	ug/L	ND	5.0	04/25/12 12:47	
cis-1,3-Dichloropropene	ug/L	ND	5.0	04/25/12 12:47	
Dibromochloromethane	ug/L	ND	5.0	04/25/12 12:47	
Ethylbenzene	ug/L	ND	5.0	04/25/12 12:47	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	04/25/12 12:47	
m&p-Xylene	ug/L	ND	5.0	04/25/12 12:47	
Methylene Chloride	ug/L	ND	5.0	04/25/12 12:47	B,C9
o-Xylene	ug/L	ND	5.0	04/25/12 12:47	
Styrene	ug/L	ND	5.0	04/25/12 12:47	
Tetrachloroethene	ug/L	ND	5.0	04/25/12 12:47	
Toluene	ug/L	ND	5.0	04/25/12 12:47	
trans-1,2-Dichloroethene	ug/L	ND	5.0	04/25/12 12:47	
trans-1,3-Dichloropropene	ug/L	ND	5.0	04/25/12 12:47	
Trichloroethene	ug/L	ND	5.0	04/25/12 12:47	
Trichlorofluoromethane	ug/L	ND	5.0	04/25/12 12:47	
Vinyl chloride	ug/L	ND	1.0	04/25/12 12:47	
1,2-Dichloroethane-d4 (S)	%	111	70-130	04/25/12 12:47	
4-Bromofluorobenzene (S)	%	101	70-130	04/25/12 12:47	
Toluene-d8 (S)	%	93	70-130	04/25/12 12:47	

Date: 04/30/2012 04:31 PM

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 41569181.10000/Essex-Hope

Pace Project No.: 3067863

LABORATORY CONTROL SAMPLE: 433105

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	18.7	94	64.3-127	
1,1,2,2-Tetrachloroethane	ug/L	20	16.5	83	64.6-121	
1,1,2-Trichloroethane	ug/L	20	16.4	82	75.6-120	
1,1-Dichloroethane	ug/L	20	17.8	89	68.5-122	
1,1-Dichloroethene	ug/L	20	16.9	84	57.1-120	
1,2-Dichlorobenzene	ug/L	20	16.6	83	69.6-120	
1,2-Dichloroethane	ug/L	20	17.6	88	60.5-133	
1,2-Dichloropropane	ug/L	20	15.7	78	71-120	
1,3-Dichlorobenzene	ug/L	20	16.2	81	68.4-121	
1,4-Dichlorobenzene	ug/L	20	16.7	83	68.5-123	
2-Butanone (MEK)	ug/L	20	23.0	115	55.7-138	
2-Hexanone	ug/L	20	21.4	107	67-133	
4-Methyl-2-pentanone (MIBK)	ug/L	20	19.0	95	64.5-121	
Acetone	ug/L	20	24.7	123	57.6-168	
Benzene	ug/L	20	16.2	81	69.8-120	
Bromodichloromethane	ug/L	20	15.2	76	66.5-120	
Bromoform	ug/L	20	15.8	79	61.1-120	
Bromomethane	ug/L	20	32.6	163	10.6-200	
Carbon disulfide	ug/L	20	20.5	103	60.2-122	
Carbon tetrachloride	ug/L	20	17.6	88	60.1-127	
Chlorobenzene	ug/L	20	16.0	80	72-120	
Chloroethane	ug/L	20	18.6	93	36.8-142	
Chloroform	ug/L	20	17.9	89	69-122	
Chloromethane	ug/L	20	16.9	85	37.2-129	
cis-1,2-Dichloroethene	ug/L	20	17.4	87	69.5-123	
cis-1,3-Dichloropropene	ug/L	20	15.7	78	74.3-120	
Dibromochloromethane	ug/L	20	17.0	85	66.1-120	
Ethylbenzene	ug/L	20	16.3	82	70.9-124	
Isopropylbenzene (Cumene)	ug/L	20	17.7	88	68.3-129	
m&p-Xylene	ug/L	40	33.0	82	70.4-130	
Methylene Chloride	ug/L	20	19.3	96	61.5-125	
o-Xylene	ug/L	20	15.9	79	70.6-127	
Styrene	ug/L	20	15.9	79	69.9-120	
Tetrachloroethene	ug/L	20	16.2	81	63.4-121	
Toluene	ug/L	20	16.0	80	71.5-120	
trans-1,2-Dichloroethene	ug/L	20	17.4	87	64.1-120	
trans-1,3-Dichloropropene	ug/L	20	16.1	80	71-120	
Trichloroethene	ug/L	20	15.8	79	65.9-120	
Trichlorofluoromethane	ug/L	20	19.9	99	44.8-137	
Vinyl chloride	ug/L	20	17.4	87	51-127	
1,2-Dichloroethane-d4 (S)	%			97	70-130	
4-Bromofluorobenzene (S)	%			98	70-130	
Toluene-d8 (S)	%			93	70-130	

QUALITY CONTROL DATA

Project: 41569181.10000/Essex-Hope

Pace Project No.: 3067863

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 433106 433107											
Parameter	Units	3067783004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	20	20	20.4	19.8	102	99	64.3-127	3	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	16.2	15.8	81	79	64.6-121	2	
1,1,2-Trichloroethane	ug/L	ND	20	20	17.0	16.1	85	80	75.6-120	6	
1,1-Dichloroethane	ug/L	ND	20	20	19.9	18.8	99	94	68.5-122	5	
1,1-Dichloroethene	ug/L	ND	20	20	19.9	19.3	99	96	57.1-120	3	
1,2-Dichlorobenzene	ug/L	ND	20	20	16.3	16.1	81	81	69.6-120	1	
1,2-Dichloroethane	ug/L	ND	20	20	19.0	18.0	95	90	60.5-133	5	
1,2-Dichloropropane	ug/L	ND	20	20	17.8	16.6	89	83	71-120	7	
1,3-Dichlorobenzene	ug/L	ND	20	20	16.8	16.5	84	82	68.4-121	2	
1,4-Dichlorobenzene	ug/L	ND	20	20	16.3	15.8	81	79	68.5-123	3	
2-Butanone (MEK)	ug/L	ND	20	20	19.9	20.6	99	103	55.7-138	3	
2-Hexanone	ug/L	ND	20	20	19.7	20.2	98	101	67-133	3	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	20	20	17.9	18.2	89	91	64.5-121	2	
Acetone	ug/L	ND	20	20	10.9	14.1	55	70	57.6-168	25	M0
Benzene	ug/L	ND	20	20	18.0	17.1	90	85	69.8-120	5	
Bromodichloromethane	ug/L	ND	20	20	15.7	15.2	79	76	66.5-120	3	
Bromoform	ug/L	ND	20	20	13.6	14.0	68	70	61.1-120	3	
Bromomethane	ug/L	ND	20	20	23.5	24.1	118	121	10.6-200	2	
Carbon disulfide	ug/L	ND	20	20	15.1	15.0	75	75	60.2-122	.8	
Carbon tetrachloride	ug/L	ND	20	20	18.2	17.8	91	89	60.1-127	2	
Chlorobenzene	ug/L	ND	20	20	17.3	16.5	86	83	72-120	4	
Chloroethane	ug/L	ND	20	20	19.2	19.3	96	96	36.8-142	.3	
Chloroform	ug/L	ND	20	20	19.2	18.4	96	92	69-122	4	
Chloromethane	ug/L	ND	20	20	19.9	19.6	99	98	37.2-129	1	
cis-1,2-Dichloroethene	ug/L	ND	20	20	19.7	18.6	99	93	69.5-123	6	
cis-1,3-Dichloropropene	ug/L	ND	20	20	16.0	15.8	80	79	74.3-120	1	
Dibromochloromethane	ug/L	ND	20	20	16.7	16.2	84	81	66.1-120	3	
Ethylbenzene	ug/L	ND	20	20	17.7	17.4	89	87	70.9-124	2	
Isopropylbenzene (Cumene)	ug/L	ND	20	20	19.4	18.5	97	93	68.3-129	4	
m&p-Xylene	ug/L	ND	40	40	35.3	34.3	88	86	70.4-130	3	
Methylene Chloride	ug/L	ND	20	20	19.4	18.7	97	94	61.5-125	4	
o-Xylene	ug/L	ND	20	20	17.5	17.2	87	86	70.6-127	2	
Styrene	ug/L	ND	20	20	16.8	16.2	84	81	69.9-120	4	
Tetrachloroethene	ug/L	ND	20	20	17.6	16.8	88	84	63.4-121	5	
Toluene	ug/L	ND	20	20	18.1	17.2	90	86	71.5-120	5	
trans-1,2-Dichloroethene	ug/L	ND	20	20	19.9	19.0	100	95	64.1-120	5	
trans-1,3-Dichloropropene	ug/L	ND	20	20	15.9	15.5	79	77	71-120	3	
Trichloroethene	ug/L	ND	20	20	17.4	16.6	87	83	65.9-120	5	
Trichlorofluoromethane	ug/L	ND	20	20	22.7	22.6	113	113	44.8-137	.3	
Vinyl chloride	ug/L	ND	20	20	19.5	19.4	97	97	51-127	.3	
1,2-Dichloroethane-d4 (S)	%						94	93	70-130		
4-Bromofluorobenzene (S)	%						99	100	70-130		
Toluene-d8 (S)	%						94	93	70-130		

QUALIFIERS

Project: 41569181.10000/Essex-Hope

Pace Project No.: 3067863

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

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.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

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.

ANALYTE QUALIFIERS

B Analyte was detected in the associated method blank.

C9 Common Laboratory Contaminant.

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 41569181.10000/Essex-Hope

Pace Project No.: 3067863

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
3067863001	PRE-CARB	EPA 8260	MSV/12566		
3067863002	PRIMARY-EFF	EPA 8260	MSV/12566		
3067863003	POST-CARB	EPA 8260	MSV/12566		
3067863004	TB-01	EPA 8260	MSV/12566		

CHAIN-OF-CUSTODY / Analytical Request Document

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



Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	URS CORP	Report To:	MARK DOWIAK	Attention:	
Address:	FOSTER PLAZA 4 501 HOLIDAY DR, STE. 300 PITTSBURGH, PA 15220	Copy To:	VALERIE SIBERT	Company Name:	
Email To:		Purchase Order No.:	41569181	Address:	
Phone:	412-503-4400	Project Name:	ESSEX/HOPE TOWN	Pace Quote Reference:	
Fax:	412-503-4470	Project Number:	41569181, 10000	Pace Project Manager:	
Requested Due Date/TIME:	STANDARD			Pace Profile #:	

Section D Required Client Information		Section E Requested Analysis Filtered (Y/N)	
SAMPLE ID (A-Z, 0-9 / -)	MATRIX / CODE	DATE	TIME
Drinking Water	DW		
Waste Water	WW		
Product	P		
Soil/Solid	SL		
Oil	OL		
Wipe	WP		
Air	AR		
Tissue	TS		
Other	OT		
SAMPLE ID		SAMPLE TEMP AT COLLECTION	
Matrix Codes		# OF CONTAINERS	
SAMPLE TYPE (G=GRAB C=COMP)		PRESERVATIVES	
MATRIX CODE (see valid codes to left)		Unpreserved	
SAMPLE TYPE (G=GRAB C=COMP)		H ₂ SO ₄	
DATE		HCl	
TIME		NaOH	
DATE		Na ₂ S ₂ O ₃	
TIME		Methanol	
DATE		Other	
TIME		Analysis Test ↑	
DATE		Y/N ↓	
TIME		Residual Chlorine (Y/N)	

Section F Additional Comments		Section G Relinquished By / Affiliation		Section H Date		Section I Time		Section J Accepted By / Affiliation		Section K Date		Section L Time		Section M Temp in °C		Section N Received on		Section O Sealed Cooler		Section P Custody		Section Q Samples Intact	
COMPOSITE FOUR (4)		Valerie Sibert / URS		4.19.12		1330		Fed Ex		4.19.12		1330		1.8		Y		Y		Y		Y	
POST-CARB SAMPLES IN																							
LAB AND REPORT AS																							
POST-CARB COMPOSITE																							



Sample Condition Upon Receipt

Client Name: URS

Project # 306 7863

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

Tracking #: 872640756882

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

Optional
Proj. Due Date:
Proj. Name:

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

Thermometer Used 5 (6) 7

Type of Ice: Wet Blue None

☒ Samples on ice, cooling process has begun

Cooler Temperature 1.8

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: WJ 4/20/12

Temp should be above freezing to 6°C

Comments:

Chain of Custody Present:	☒ Yes ☐ No ☐ N/A	1.
Chain of Custody Filled Out:	☒ Yes ☐ No ☐ N/A	2.
Chain of Custody Relinquished:	☒ Yes ☐ No ☐ N/A	3.
Sampler Name & Signature on COC:	☒ Yes ☐ No ☐ N/A	4.
Samples Arrived within Hold Time:	☒ Yes ☐ No ☐ N/A	5.
Short Hold Time Analysis (<72hr):	☐ Yes ☒ No ☐ N/A	6.
Rush Turn Around Time Requested:	☐ Yes ☒ No ☐ N/A	7.
Sufficient Volume:	☒ Yes ☐ No ☐ N/A	8.
Correct Containers Used:	☒ Yes ☐ No ☐ N/A	9.
-Pace Containers Used:	☒ Yes ☐ No ☐ N/A	
Containers Intact:	☒ Yes ☐ No ☐ N/A	10.
Filtered volume received for Dissolved tests	☐ Yes ☐ No ☒ N/A	11.
Sample Labels match COC:	☒ Yes ☐ No ☐ N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>WA</u>		
All containers needing preservation have been checked.	☐ Yes ☐ No ☒ N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐ Yes ☐ No ☒ N/A	
exceptions: <u>VOA</u> , coliform, TOC, O&G, W-DRO (water)	☐ Yes ☒ No	Initial when completed
		Lot # of added preservative
Samples checked for dechlorination:	☐ Yes ☐ No ☒ N/A	14.
Headspace in VOA Vials (>6mm):	☒ Yes ☐ No ☐ N/A	15. <u>TB</u>
Trip Blank Present:	☒ Yes ☐ No ☐ N/A	16.
Trip Blank Custody Seals Present	☒ Yes ☐ No ☐ N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____

Date: 4-20-12

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

May 29, 2012

Mr. Mark Dowiak
URS Corporation
Foster Plaza 4
501 Holiday Drive, Suite 300
Pittsburgh, PA 15220

RE: Project: Essex-Hope Jamestown 41569181
Pace Project No.: 3069925

Dear Mr. Dowiak:

Enclosed are the analytical results for sample(s) received by the laboratory on May 19, 2012. 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.

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

Sincerely,



Timothy Reed

timothy.reed@pacelabs.com
Project Manager

Enclosures

cc: Ms. Valerie Sibeto, URS Corporation



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Essex-Hope Jamestown 41569181

Pace Project No.: 3069925

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4 Greensburg, PA 15601

ACCLASS DOD-ELAP Accreditation #: ADE-1544

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California/TNI Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH 0694

Delaware Certification

Florida/TNI Certification #: E87683

Guam/PADEP Certification

Hawaii/PADEP Certification

Idaho Certification

Illinois/PADEP Certification

Indiana/PADEP Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana/TNI Certification #: LA080002

Louisiana/TNI Certification #: 4086

Maine Certification #: PA0091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nevada Certification

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188

Utah/TNI Certification #: ANTE

Virgin Island/PADEP Certification

Virginia Certification #: 00112

Virginia VELAP (Cert # 460198)

Washington Certification #: C868

West Virginia Certification #: 143

Wisconsin/PADEP Certification

Wyoming Certification #: 8TMS-Q

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Essex-Hope Jamestown 41569181

Pace Project No.: 3069925

Sample: PRE-CARB		Lab ID: 3069925001	Collected: 05/18/12 10:40	Received: 05/19/12 11:30	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND	ug/L	10.0	1		05/21/12 15:51	67-64-1	
Benzene	7.7	ug/L	1.0	1		05/21/12 15:51	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		05/21/12 15:51	75-27-4	
Bromoform	ND	ug/L	5.0	1		05/21/12 15:51	75-25-2	
Bromomethane	ND	ug/L	5.0	1		05/21/12 15:51	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		05/21/12 15:51	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		05/21/12 15:51	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		05/21/12 15:51	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		05/21/12 15:51	108-90-7	
Chloroethane	ND	ug/L	5.0	1		05/21/12 15:51	75-00-3	
Chloroform	ND	ug/L	5.0	1		05/21/12 15:51	67-66-3	
Chloromethane	ND	ug/L	5.0	1		05/21/12 15:51	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		05/21/12 15:51	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		05/21/12 15:51	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		05/21/12 15:51	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		05/21/12 15:51	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		05/21/12 15:51	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		05/21/12 15:51	107-06-2	
1,1-Dichloroethene	17.9	ug/L	5.0	1		05/21/12 15:51	75-35-4	
cis-1,2-Dichloroethene	4650	ug/L	125	25		05/21/12 16:16	156-59-2	
trans-1,2-Dichloroethene	84.1	ug/L	5.0	1		05/21/12 15:51	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		05/21/12 15:51	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		05/21/12 15:51	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		05/21/12 15:51	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		05/21/12 15:51	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		05/21/12 15:51	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		05/21/12 15:51	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		05/21/12 15:51	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		05/21/12 15:51	108-10-1	
Styrene	ND	ug/L	5.0	1		05/21/12 15:51	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		05/21/12 15:51	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		05/21/12 15:51	127-18-4	
Toluene	ND	ug/L	5.0	1		05/21/12 15:51	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		05/21/12 15:51	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		05/21/12 15:51	79-00-5	
Trichloroethene	839	ug/L	125	25		05/21/12 16:16	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		05/21/12 15:51	75-69-4	
Vinyl chloride	394	ug/L	25.0	25		05/21/12 16:16	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		05/21/12 15:51	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		05/21/12 15:51	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	104	%	70-130	1		05/21/12 15:51	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	70-130	1		05/21/12 15:51	17060-07-0	
Toluene-d8 (S)	101	%	70-130	1		05/21/12 15:51	2037-26-5	

ANALYTICAL RESULTS

Project: Essex-Hope Jamestown 41569181

Pace Project No.: 3069925

Sample: PRIMARY-EFF		Lab ID: 3069925002	Collected: 05/18/12 10:45	Received: 05/19/12 11:30	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND	ug/L	10.0	1		05/21/12 16:41	67-64-1	
Benzene	ND	ug/L	1.0	1		05/21/12 16:41	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		05/21/12 16:41	75-27-4	
Bromoform	ND	ug/L	5.0	1		05/21/12 16:41	75-25-2	
Bromomethane	ND	ug/L	5.0	1		05/21/12 16:41	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		05/21/12 16:41	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		05/21/12 16:41	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		05/21/12 16:41	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		05/21/12 16:41	108-90-7	
Chloroethane	ND	ug/L	5.0	1		05/21/12 16:41	75-00-3	
Chloroform	ND	ug/L	5.0	1		05/21/12 16:41	67-66-3	
Chloromethane	ND	ug/L	5.0	1		05/21/12 16:41	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		05/21/12 16:41	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		05/21/12 16:41	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		05/21/12 16:41	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		05/21/12 16:41	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		05/21/12 16:41	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		05/21/12 16:41	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		05/21/12 16:41	75-35-4	
cis-1,2-Dichloroethene	11.0	ug/L	5.0	1		05/21/12 16:41	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		05/21/12 16:41	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		05/21/12 16:41	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		05/21/12 16:41	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		05/21/12 16:41	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		05/21/12 16:41	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		05/21/12 16:41	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		05/21/12 16:41	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		05/21/12 16:41	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		05/21/12 16:41	108-10-1	
Styrene	ND	ug/L	5.0	1		05/21/12 16:41	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		05/21/12 16:41	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		05/21/12 16:41	127-18-4	
Toluene	ND	ug/L	5.0	1		05/21/12 16:41	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		05/21/12 16:41	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		05/21/12 16:41	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		05/21/12 16:41	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		05/21/12 16:41	75-69-4	
Vinyl chloride	4.5	ug/L	1.0	1		05/21/12 16:41	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		05/21/12 16:41	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		05/21/12 16:41	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	105	%	70-130	1		05/21/12 16:41	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	70-130	1		05/21/12 16:41	17060-07-0	
Toluene-d8 (S)	97	%	70-130	1		05/21/12 16:41	2037-26-5	

ANALYTICAL RESULTS

Project: Essex-Hope Jamestown 41569181

Pace Project No.: 3069925

Sample: POST-CARB		Lab ID: 3069925003	Collected: 05/18/12 12:20	Received: 05/19/12 11:30	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND	ug/L	10.0	1		05/21/12 17:30	67-64-1	
Benzene	ND	ug/L	1.0	1		05/21/12 17:30	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		05/21/12 17:30	75-27-4	
Bromoform	ND	ug/L	5.0	1		05/21/12 17:30	75-25-2	
Bromomethane	ND	ug/L	5.0	1		05/21/12 17:30	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		05/21/12 17:30	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		05/21/12 17:30	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		05/21/12 17:30	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		05/21/12 17:30	108-90-7	
Chloroethane	ND	ug/L	5.0	1		05/21/12 17:30	75-00-3	
Chloroform	ND	ug/L	5.0	1		05/21/12 17:30	67-66-3	
Chloromethane	ND	ug/L	5.0	1		05/21/12 17:30	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		05/21/12 17:30	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		05/21/12 17:30	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		05/21/12 17:30	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		05/21/12 17:30	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		05/21/12 17:30	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		05/21/12 17:30	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		05/21/12 17:30	75-35-4	
cis-1,2-Dichloroethene	49.5	ug/L	5.0	1		05/21/12 17:30	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		05/21/12 17:30	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		05/21/12 17:30	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		05/21/12 17:30	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		05/21/12 17:30	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		05/21/12 17:30	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		05/21/12 17:30	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		05/21/12 17:30	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		05/21/12 17:30	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		05/21/12 17:30	108-10-1	
Styrene	ND	ug/L	5.0	1		05/21/12 17:30	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		05/21/12 17:30	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		05/21/12 17:30	127-18-4	
Toluene	ND	ug/L	5.0	1		05/21/12 17:30	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		05/21/12 17:30	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		05/21/12 17:30	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		05/21/12 17:30	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		05/21/12 17:30	75-69-4	
Vinyl chloride	1.8	ug/L	1.0	1		05/21/12 17:30	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		05/21/12 17:30	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		05/21/12 17:30	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	105	%	70-130	1		05/21/12 17:30	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	70-130	1		05/21/12 17:30	17060-07-0	
Toluene-d8 (S)	94	%	70-130	1		05/21/12 17:30	2037-26-5	

ANALYTICAL RESULTS

Project: Essex-Hope Jamestown 41569181

Pace Project No.: 3069925

Sample: TB-O1		Lab ID: 3069925004		Collected: 05/18/12 00:01		Received: 05/19/12 11:30		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND ug/L	10.0	1			05/21/12 13:24	67-64-1		
Benzene	ND ug/L	1.0	1			05/21/12 13:24	71-43-2		
Bromodichloromethane	ND ug/L	5.0	1			05/21/12 13:24	75-27-4		
Bromoform	ND ug/L	5.0	1			05/21/12 13:24	75-25-2		
Bromomethane	ND ug/L	5.0	1			05/21/12 13:24	74-83-9		
2-Butanone (MEK)	ND ug/L	10.0	1			05/21/12 13:24	78-93-3		
Carbon disulfide	ND ug/L	5.0	1			05/21/12 13:24	75-15-0		
Carbon tetrachloride	ND ug/L	5.0	1			05/21/12 13:24	56-23-5		
Chlorobenzene	ND ug/L	5.0	1			05/21/12 13:24	108-90-7		
Chloroethane	ND ug/L	5.0	1			05/21/12 13:24	75-00-3		
Chloroform	ND ug/L	5.0	1			05/21/12 13:24	67-66-3		
Chloromethane	ND ug/L	5.0	1			05/21/12 13:24	74-87-3		
Dibromochloromethane	ND ug/L	5.0	1			05/21/12 13:24	124-48-1		
1,2-Dichlorobenzene	ND ug/L	5.0	1			05/21/12 13:24	95-50-1		
1,3-Dichlorobenzene	ND ug/L	5.0	1			05/21/12 13:24	541-73-1		
1,4-Dichlorobenzene	ND ug/L	5.0	1			05/21/12 13:24	106-46-7		
1,1-Dichloroethane	ND ug/L	5.0	1			05/21/12 13:24	75-34-3		
1,2-Dichloroethane	ND ug/L	5.0	1			05/21/12 13:24	107-06-2		
1,1-Dichloroethene	ND ug/L	5.0	1			05/21/12 13:24	75-35-4		
cis-1,2-Dichloroethene	ND ug/L	5.0	1			05/21/12 13:24	156-59-2		
trans-1,2-Dichloroethene	ND ug/L	5.0	1			05/21/12 13:24	156-60-5		
1,2-Dichloropropane	ND ug/L	5.0	1			05/21/12 13:24	78-87-5		
cis-1,3-Dichloropropene	ND ug/L	5.0	1			05/21/12 13:24	10061-01-5		
trans-1,3-Dichloropropene	ND ug/L	5.0	1			05/21/12 13:24	10061-02-6		
Ethylbenzene	ND ug/L	5.0	1			05/21/12 13:24	100-41-4		
2-Hexanone	ND ug/L	10.0	1			05/21/12 13:24	591-78-6		
Isopropylbenzene (Cumene)	ND ug/L	1.0	1			05/21/12 13:24	98-82-8		
Methylene Chloride	ND ug/L	5.0	1			05/21/12 13:24	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND ug/L	10.0	1			05/21/12 13:24	108-10-1		
Styrene	ND ug/L	5.0	1			05/21/12 13:24	100-42-5		
1,1,2,2-Tetrachloroethane	ND ug/L	5.0	1			05/21/12 13:24	79-34-5		
Tetrachloroethene	ND ug/L	5.0	1			05/21/12 13:24	127-18-4		
Toluene	ND ug/L	5.0	1			05/21/12 13:24	108-88-3		
1,1,1-Trichloroethane	ND ug/L	5.0	1			05/21/12 13:24	71-55-6		
1,1,2-Trichloroethane	ND ug/L	5.0	1			05/21/12 13:24	79-00-5		
Trichloroethene	ND ug/L	5.0	1			05/21/12 13:24	79-01-6		
Trichlorofluoromethane	ND ug/L	5.0	1			05/21/12 13:24	75-69-4		
Vinyl chloride	ND ug/L	1.0	1			05/21/12 13:24	75-01-4		
m&p-Xylene	ND ug/L	5.0	1			05/21/12 13:24	179601-23-1		
o-Xylene	ND ug/L	5.0	1			05/21/12 13:24	95-47-6		
Surrogates									
4-Bromofluorobenzene (S)	100 %	70-130	1			05/21/12 13:24	460-00-4		
1,2-Dichloroethane-d4 (S)	104 %	70-130	1			05/21/12 13:24	17060-07-0		
Toluene-d8 (S)	96 %	70-130	1			05/21/12 13:24	2037-26-5		

QUALITY CONTROL DATA

Project: Essex-Hope Jamestown 41569181

Pace Project No.: 3069925

QC Batch: MSV/12793 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 3069925001, 3069925002, 3069925003, 3069925004

METHOD BLANK: 443535 Matrix: Water

Associated Lab Samples: 3069925001, 3069925002, 3069925003, 3069925004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	5.0	05/21/12 12:34	
1,1,2,2-Tetrachloroethane	ug/L	ND	5.0	05/21/12 12:34	
1,1,2-Trichloroethane	ug/L	ND	5.0	05/21/12 12:34	
1,1-Dichloroethane	ug/L	ND	5.0	05/21/12 12:34	
1,1-Dichloroethene	ug/L	ND	5.0	05/21/12 12:34	
1,2-Dichlorobenzene	ug/L	ND	5.0	05/21/12 12:34	
1,2-Dichloroethane	ug/L	ND	5.0	05/21/12 12:34	
1,2-Dichloropropane	ug/L	ND	5.0	05/21/12 12:34	
1,3-Dichlorobenzene	ug/L	ND	5.0	05/21/12 12:34	
1,4-Dichlorobenzene	ug/L	ND	5.0	05/21/12 12:34	
2-Butanone (MEK)	ug/L	ND	10.0	05/21/12 12:34	
2-Hexanone	ug/L	ND	10.0	05/21/12 12:34	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	05/21/12 12:34	
Acetone	ug/L	ND	10.0	05/21/12 12:34	
Benzene	ug/L	ND	1.0	05/21/12 12:34	
Bromodichloromethane	ug/L	ND	5.0	05/21/12 12:34	
Bromoform	ug/L	ND	5.0	05/21/12 12:34	
Bromomethane	ug/L	ND	5.0	05/21/12 12:34	
Carbon disulfide	ug/L	ND	5.0	05/21/12 12:34	
Carbon tetrachloride	ug/L	ND	5.0	05/21/12 12:34	
Chlorobenzene	ug/L	ND	5.0	05/21/12 12:34	
Chloroethane	ug/L	ND	5.0	05/21/12 12:34	
Chloroform	ug/L	ND	5.0	05/21/12 12:34	
Chloromethane	ug/L	ND	5.0	05/21/12 12:34	
cis-1,2-Dichloroethene	ug/L	ND	5.0	05/21/12 12:34	
cis-1,3-Dichloropropene	ug/L	ND	5.0	05/21/12 12:34	
Dibromochloromethane	ug/L	ND	5.0	05/21/12 12:34	
Ethylbenzene	ug/L	ND	5.0	05/21/12 12:34	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	05/21/12 12:34	
m&p-Xylene	ug/L	ND	5.0	05/21/12 12:34	
Methylene Chloride	ug/L	ND	5.0	05/21/12 12:34	
o-Xylene	ug/L	ND	5.0	05/21/12 12:34	
Styrene	ug/L	ND	5.0	05/21/12 12:34	
Tetrachloroethene	ug/L	ND	5.0	05/21/12 12:34	
Toluene	ug/L	ND	5.0	05/21/12 12:34	
trans-1,2-Dichloroethene	ug/L	ND	5.0	05/21/12 12:34	
trans-1,3-Dichloropropene	ug/L	ND	5.0	05/21/12 12:34	
Trichloroethene	ug/L	ND	5.0	05/21/12 12:34	
Trichlorofluoromethane	ug/L	ND	5.0	05/21/12 12:34	
Vinyl chloride	ug/L	ND	1.0	05/21/12 12:34	
1,2-Dichloroethane-d4 (S)	%	102	70-130	05/21/12 12:34	
4-Bromofluorobenzene (S)	%	96	70-130	05/21/12 12:34	
Toluene-d8 (S)	%	100	70-130	05/21/12 12:34	

Date: 05/29/2012 03:54 PM

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Essex-Hope Jamestown 41569181

Pace Project No.: 3069925

LABORATORY CONTROL SAMPLE: 443536

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	23.3	117	64.3-127	
1,1,2,2-Tetrachloroethane	ug/L	20	21.0	105	64.6-121	
1,1,2-Trichloroethane	ug/L	20	21.7	108	75.6-120	
1,1-Dichloroethane	ug/L	20	23.0	115	68.5-122	
1,1-Dichloroethene	ug/L	20	22.4	112	57.1-120	
1,2-Dichlorobenzene	ug/L	20	22.4	112	69.6-120	
1,2-Dichloroethane	ug/L	20	22.8	114	60.5-133	
1,2-Dichloropropane	ug/L	20	20.7	104	71-120	
1,3-Dichlorobenzene	ug/L	20	21.9	110	68.4-121	
1,4-Dichlorobenzene	ug/L	20	21.8	109	68.5-123	
2-Butanone (MEK)	ug/L	20	26.5	132	55.7-138	
2-Hexanone	ug/L	20	20.4	102	67-133	
4-Methyl-2-pentanone (MIBK)	ug/L	20	20.5	102	64.5-121	
Acetone	ug/L	20	20.1	100	57.6-168	
Benzene	ug/L	20	21.4	107	69.8-120	
Bromodichloromethane	ug/L	20	21.0	105	66.5-120	
Bromoform	ug/L	20	18.6	93	61.1-120	
Bromomethane	ug/L	20	24.0	120	10.6-200	
Carbon disulfide	ug/L	20	25.1	126	60.2-122	L3
Carbon tetrachloride	ug/L	20	22.6	113	60.1-127	
Chlorobenzene	ug/L	20	20.3	102	72-120	
Chloroethane	ug/L	20	24.4	122	36.8-142	
Chloroform	ug/L	20	22.3	112	69-122	
Chloromethane	ug/L	20	21.9	110	37.2-129	
cis-1,2-Dichloroethene	ug/L	20	22.5	113	69.5-123	
cis-1,3-Dichloropropene	ug/L	20	21.4	107	74.3-120	
Dibromochloromethane	ug/L	20	19.3	96	66.1-120	
Ethylbenzene	ug/L	20	20.7	104	70.9-124	
Isopropylbenzene (Cumene)	ug/L	20	24.4	122	68.3-129	
m&p-Xylene	ug/L	40	41.1	103	70.4-130	
Methylene Chloride	ug/L	20	24.2	121	61.5-125	
o-Xylene	ug/L	20	21.0	105	70.6-127	
Styrene	ug/L	20	20.1	101	69.9-120	
Tetrachloroethene	ug/L	20	20.9	105	63.4-121	
Toluene	ug/L	20	21.2	106	71.5-120	
trans-1,2-Dichloroethene	ug/L	20	22.1	111	64.1-120	
trans-1,3-Dichloropropene	ug/L	20	20.1	101	71-120	
Trichloroethene	ug/L	20	20.5	102	65.9-120	
Trichlorofluoromethane	ug/L	20	23.4	117	44.8-137	
Vinyl chloride	ug/L	20	23.2	116	51-127	
1,2-Dichloroethane-d4 (S)	%			105	70-130	
4-Bromofluorobenzene (S)	%			101	70-130	
Toluene-d8 (S)	%			96	70-130	

QUALIFIERS

Project: Essex-Hope Jamestown 41569181

Pace Project No.: 3069925

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

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.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

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.

BATCH QUALIFIERS

Batch: MSV/12793

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

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.

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Essex-Hope Jamestown 41569181

Pace Project No.: 3069925

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
3069925001	PRE-CARB	EPA 8260	MSV/12793		
3069925002	PRIMARY-EFF	EPA 8260	MSV/12793		
3069925003	POST-CARB	EPA 8260	MSV/12793		
3069925004	TB-O1	EPA 8260	MSV/12793		

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	URS CORP	Report To:	MARK DOWIAK	Attention:	
Address:	FOSTER PLAZA 4, 501 HOLIDAY DR, STE 300 PITTSBURGH, PA 15220	Copy To:	VALERIE SIMBLETS	Company Name:	
Email To:				Address:	
Phone:	412-503-4700	Purchase Order No.:	41569181	Pace Quote Reference:	
Requested Due Date/TAT:	STANDARD	Project Name:	ESSEX/HOPE JAMIESON/A	Pace Project Manager:	
		Project Number:	41569181	Pace Profile #:	
				Regulatory Agency	
				NPDES	GROUND WATER
				UST	RCRA
					DRINKING WATER
					OTHER
				Site Location	
				STATE:	
				Page: 1 of 1	
				1522000	

[illegible]

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS				Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
COMPOSITE FOUR (4)	Valerie S. Jones	5.18.12	1300	Val S	5.18.12	1300								
POST-CARB SAMPLES IN				Val S	5.18	130								
LAB AND REPORT AS														
POST-CARB COMPOSITE														

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: **VALERIE S JONES**

SIGNATURE of SAMPLER: *Valerie S Jones*

DATE Signed (MM/DD/YY): **5.18.12**

*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

Sample Condition Upon Receipt



Client Name: URS

Project # 3069925

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

Tracking #: 87264076893

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

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

Thermometer Used 5 6 7

Type of Ice: Wet Blue None

☐ Samples on ice, cooling process has begun

Cooler Temperature 3.9

Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Comments:

Date and Initials of person examining contents: ML 5/19

Chain of Custody Present:	☒ Yes ☐ No ☐ N/A	1.
Chain of Custody Filled Out:	☒ Yes ☐ No ☐ N/A	2.
Chain of Custody Relinquished:	☒ Yes ☐ No ☐ N/A	3.
Sampler Name & Signature on COC:	☒ Yes ☐ No ☐ N/A	4.
Samples Arrived within Hold Time:	☒ Yes ☐ No ☐ N/A	5.
Short Hold Time Analysis (<72hr):	☐ Yes ☒ No ☐ N/A	6.
Rush Turn Around Time Requested:	☐ Yes ☒ No ☐ N/A	7.
Sufficient Volume:	☒ Yes ☐ No ☐ N/A	8.
Correct Containers Used:	☒ Yes ☐ No ☐ N/A	9.
-Pace Containers Used:	☒ Yes ☐ No ☐ N/A	
Containers Intact:	☒ Yes ☐ No ☐ N/A	10.
Filtered volume received for Dissolved tests	☐ Yes ☐ No ☒ N/A	11.
Sample Labels match COC:	☒ Yes ☐ No ☐ N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>WT</u>		
All containers needing preservation have been checked.	☐ Yes ☐ No ☒ N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐ Yes ☐ No ☒ N/A	
exceptions: <u>VOA</u> , coliform, TOC, O&G, Wt-DRO (water)	☒ Yes ☐ No	Initial when completed <u>ML</u> Lot # of added preservative
Samples checked for dechlorination:	☐ Yes ☐ No ☒ N/A	14.
Headspace in VOA Vials (>6mm):	☐ Yes ☒ No ☐ N/A	15.
Trip Blank Present:	☒ Yes ☐ No ☐ N/A	16.
Trip Blank Custody Seals Present	☒ Yes ☐ No ☐ N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required?

Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____

Date:

5-21-11

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

3069925
URS

Client Name: _____

[illegible]

June 26, 2012

Mr. Mark Dowiak
URS Corporation
Foster Plaza 4
501 Holiday Drive, Suite 300
Pittsburgh, PA 15220

RE: Project: 41569181.10000 Essex/Hope
Pace Project No.: 3071251

Dear Mr. Dowiak:

Enclosed are the analytical results for sample(s) received by the laboratory on June 12, 2012. 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.

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

Sincerely,



David A. Pichette for
Timothy Reed
timothy.reed@pacelabs.com
Project Manager

Enclosures

cc: Ms. Valerie Sibeto, URS Corporation



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 41569181.10000 Essex/Hope

Pace Project No.: 3071251

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4 Greensburg, PA 15601

ACCLASS DOD-ELAP Accreditation #: ADE-1544

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California/TNI Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH 0694

Delaware Certification

Florida/TNI Certification #: E87683

Guam/PADEP Certification

Hawaii/PADEP Certification

Idaho Certification

Illinois/PADEP Certification

Indiana/PADEP Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana/TNI Certification #: LA080002

Louisiana/TNI Certification #: 4086

Maine Certification #: PA0091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nevada Certification

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188

Utah/TNI Certification #: ANTE

Virgin Island/PADEP Certification

Virginia Certification #: 00112

Virginia VELAP (Cert # 460198)

Washington Certification #: C868

West Virginia Certification #: 143

Wisconsin/PADEP Certification

Wyoming Certification #: 8TMS-Q

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 41569181.10000 Essex/Hope

Pace Project No.: 3071251

Sample: PRE-CARB		Lab ID: 3071251001	Collected: 06/11/12 14:00	Received: 06/12/12 16:50	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND	ug/L	10.0	1		06/15/12 23:33	67-64-1	
Benzene	8.2	ug/L	1.0	1		06/15/12 23:33	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		06/15/12 23:33	75-27-4	
Bromoform	ND	ug/L	5.0	1		06/15/12 23:33	75-25-2	
Bromomethane	ND	ug/L	5.0	1		06/15/12 23:33	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		06/15/12 23:33	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		06/15/12 23:33	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		06/15/12 23:33	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		06/15/12 23:33	108-90-7	
Chloroethane	ND	ug/L	5.0	1		06/15/12 23:33	75-00-3	
Chloroform	ND	ug/L	5.0	1		06/15/12 23:33	67-66-3	
Chloromethane	ND	ug/L	5.0	1		06/15/12 23:33	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		06/15/12 23:33	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		06/15/12 23:33	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		06/15/12 23:33	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		06/15/12 23:33	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		06/15/12 23:33	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		06/15/12 23:33	107-06-2	
1,1-Dichloroethene	18.5	ug/L	5.0	1		06/15/12 23:33	75-35-4	
cis-1,2-Dichloroethene	5380	ug/L	125	25		06/15/12 23:59	156-59-2	
trans-1,2-Dichloroethene	99.3	ug/L	5.0	1		06/15/12 23:33	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		06/15/12 23:33	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		06/15/12 23:33	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		06/15/12 23:33	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		06/15/12 23:33	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		06/15/12 23:33	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		06/15/12 23:33	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		06/15/12 23:33	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		06/15/12 23:33	108-10-1	
Styrene	ND	ug/L	5.0	1		06/15/12 23:33	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		06/15/12 23:33	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		06/15/12 23:33	127-18-4	
Toluene	ND	ug/L	5.0	1		06/15/12 23:33	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		06/15/12 23:33	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		06/15/12 23:33	79-00-5	
Trichloroethene	817	ug/L	125	25		06/15/12 23:59	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		06/15/12 23:33	75-69-4	
Vinyl chloride	426	ug/L	25.0	25		06/15/12 23:59	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		06/15/12 23:33	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		06/15/12 23:33	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	100	%	70-130	1		06/15/12 23:33	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	70-130	1		06/15/12 23:33	17060-07-0	
Toluene-d8 (S)	101	%	70-130	1		06/15/12 23:33	2037-26-5	

ANALYTICAL RESULTS

Project: 41569181.10000 Essex/Hope

Pace Project No.: 3071251

Sample: PRIMARY-EFF		Lab ID: 3071251002	Collected: 06/11/12 14:05	Received: 06/12/12 16:50	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND	ug/L	10.0	1		06/15/12 22:15	67-64-1	
Benzene	ND	ug/L	1.0	1		06/15/12 22:15	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		06/15/12 22:15	75-27-4	
Bromoform	ND	ug/L	5.0	1		06/15/12 22:15	75-25-2	
Bromomethane	ND	ug/L	5.0	1		06/15/12 22:15	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		06/15/12 22:15	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		06/15/12 22:15	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		06/15/12 22:15	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		06/15/12 22:15	108-90-7	
Chloroethane	ND	ug/L	5.0	1		06/15/12 22:15	75-00-3	
Chloroform	ND	ug/L	5.0	1		06/15/12 22:15	67-66-3	
Chloromethane	ND	ug/L	5.0	1		06/15/12 22:15	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		06/15/12 22:15	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		06/15/12 22:15	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		06/15/12 22:15	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		06/15/12 22:15	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		06/15/12 22:15	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		06/15/12 22:15	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		06/15/12 22:15	75-35-4	
cis-1,2-Dichloroethene	11.4	ug/L	5.0	1		06/15/12 22:15	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		06/15/12 22:15	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		06/15/12 22:15	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		06/15/12 22:15	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		06/15/12 22:15	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		06/15/12 22:15	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		06/15/12 22:15	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		06/15/12 22:15	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		06/15/12 22:15	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		06/15/12 22:15	108-10-1	
Styrene	ND	ug/L	5.0	1		06/15/12 22:15	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		06/15/12 22:15	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		06/15/12 22:15	127-18-4	
Toluene	ND	ug/L	5.0	1		06/15/12 22:15	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		06/15/12 22:15	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		06/15/12 22:15	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		06/15/12 22:15	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		06/15/12 22:15	75-69-4	
Vinyl chloride	6.2	ug/L	1.0	1		06/15/12 22:15	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		06/15/12 22:15	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		06/15/12 22:15	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	95	%	70-130	1		06/15/12 22:15	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	70-130	1		06/15/12 22:15	17060-07-0	
Toluene-d8 (S)	97	%	70-130	1		06/15/12 22:15	2037-26-5	

ANALYTICAL RESULTS

Project: 41569181.10000 Essex/Hope

Pace Project No.: 3071251

Sample: POST-CARB **Lab ID: 3071251003** Collected: 06/11/12 15:40 Received: 06/12/12 16:50 Matrix: Water

Comments: • Post Carbon Samples collected at 14:10, 14:40, 15:10, and 15:40.
• 8260B VOA: The sample was composited from four vials prior to 8260 VOA analysis.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND	ug/L	10.0	1		06/15/12 23:07	67-64-1	
Benzene	ND	ug/L	1.0	1		06/15/12 23:07	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		06/15/12 23:07	75-27-4	
Bromoform	ND	ug/L	5.0	1		06/15/12 23:07	75-25-2	
Bromomethane	ND	ug/L	5.0	1		06/15/12 23:07	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		06/15/12 23:07	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		06/15/12 23:07	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		06/15/12 23:07	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		06/15/12 23:07	108-90-7	
Chloroethane	ND	ug/L	5.0	1		06/15/12 23:07	75-00-3	
Chloroform	ND	ug/L	5.0	1		06/15/12 23:07	67-66-3	
Chloromethane	ND	ug/L	5.0	1		06/15/12 23:07	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		06/15/12 23:07	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		06/15/12 23:07	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		06/15/12 23:07	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		06/15/12 23:07	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		06/15/12 23:07	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		06/15/12 23:07	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		06/15/12 23:07	75-35-4	
cis-1,2-Dichloroethene	34.0	ug/L	5.0	1		06/15/12 23:07	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		06/15/12 23:07	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		06/15/12 23:07	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		06/15/12 23:07	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		06/15/12 23:07	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		06/15/12 23:07	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		06/15/12 23:07	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		06/15/12 23:07	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		06/15/12 23:07	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		06/15/12 23:07	108-10-1	
Styrene	ND	ug/L	5.0	1		06/15/12 23:07	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		06/15/12 23:07	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		06/15/12 23:07	127-18-4	
Toluene	ND	ug/L	5.0	1		06/15/12 23:07	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		06/15/12 23:07	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		06/15/12 23:07	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		06/15/12 23:07	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		06/15/12 23:07	75-69-4	
Vinyl chloride	1.3	ug/L	1.0	1		06/15/12 23:07	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		06/15/12 23:07	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		06/15/12 23:07	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	98	%	70-130	1		06/15/12 23:07	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	70-130	1		06/15/12 23:07	17060-07-0	
Toluene-d8 (S)	97	%	70-130	1		06/15/12 23:07	2037-26-5	

ANALYTICAL RESULTS

Project: 41569181.10000 Essex/Hope

Pace Project No.: 3071251

Sample: TB-01		Lab ID: 3071251004	Collected: 06/11/12 00:01	Received: 06/12/12 16:50	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND	ug/L	10.0	1		06/15/12 14:50	67-64-1	
Benzene	ND	ug/L	1.0	1		06/15/12 14:50	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		06/15/12 14:50	75-27-4	
Bromoform	ND	ug/L	5.0	1		06/15/12 14:50	75-25-2	
Bromomethane	ND	ug/L	5.0	1		06/15/12 14:50	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		06/15/12 14:50	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		06/15/12 14:50	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		06/15/12 14:50	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		06/15/12 14:50	108-90-7	
Chloroethane	ND	ug/L	5.0	1		06/15/12 14:50	75-00-3	
Chloroform	ND	ug/L	5.0	1		06/15/12 14:50	67-66-3	
Chloromethane	ND	ug/L	5.0	1		06/15/12 14:50	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		06/15/12 14:50	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		06/15/12 14:50	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		06/15/12 14:50	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		06/15/12 14:50	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		06/15/12 14:50	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		06/15/12 14:50	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		06/15/12 14:50	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		06/15/12 14:50	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		06/15/12 14:50	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		06/15/12 14:50	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		06/15/12 14:50	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		06/15/12 14:50	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		06/15/12 14:50	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		06/15/12 14:50	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		06/15/12 14:50	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		06/15/12 14:50	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		06/15/12 14:50	108-10-1	
Styrene	ND	ug/L	5.0	1		06/15/12 14:50	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		06/15/12 14:50	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		06/15/12 14:50	127-18-4	
Toluene	ND	ug/L	5.0	1		06/15/12 14:50	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		06/15/12 14:50	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		06/15/12 14:50	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		06/15/12 14:50	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		06/15/12 14:50	75-69-4	
Vinyl chloride	ND	ug/L	1.0	1		06/15/12 14:50	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		06/15/12 14:50	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		06/15/12 14:50	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	95	%	70-130	1		06/15/12 14:50	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	70-130	1		06/15/12 14:50	17060-07-0	
Toluene-d8 (S)	102	%	70-130	1		06/15/12 14:50	2037-26-5	

QUALITY CONTROL DATA

Project: 41569181.10000 Essex/Hope

Pace Project No.: 3071251

QC Batch:	MSV/13018	Analysis Method:	EPA 8260
QC Batch Method:	EPA 8260	Analysis Description:	8260 MSV
Associated Lab Samples: 3071251001, 3071251002, 3071251003, 3071251004			

METHOD BLANK:	452606	Matrix:	Water

Associated Lab Samples: 3071251001, 3071251002, 3071251003, 3071251004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	5.0	06/15/12 14:24	
1,1,2,2-Tetrachloroethane	ug/L	ND	5.0	06/15/12 14:24	
1,1,2-Trichloroethane	ug/L	ND	5.0	06/15/12 14:24	
1,1-Dichloroethane	ug/L	ND	5.0	06/15/12 14:24	
1,1-Dichloroethene	ug/L	ND	5.0	06/15/12 14:24	
1,2-Dichlorobenzene	ug/L	ND	5.0	06/15/12 14:24	
1,2-Dichloroethane	ug/L	ND	5.0	06/15/12 14:24	
1,2-Dichloropropane	ug/L	ND	5.0	06/15/12 14:24	
1,3-Dichlorobenzene	ug/L	ND	5.0	06/15/12 14:24	
1,4-Dichlorobenzene	ug/L	ND	5.0	06/15/12 14:24	
2-Butanone (MEK)	ug/L	ND	10.0	06/15/12 14:24	
2-Hexanone	ug/L	ND	10.0	06/15/12 14:24	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	06/15/12 14:24	
Acetone	ug/L	ND	10.0	06/15/12 14:24	
Benzene	ug/L	ND	1.0	06/15/12 14:24	
Bromodichloromethane	ug/L	ND	5.0	06/15/12 14:24	
Bromoform	ug/L	ND	5.0	06/15/12 14:24	
Bromomethane	ug/L	ND	5.0	06/15/12 14:24	
Carbon disulfide	ug/L	ND	5.0	06/15/12 14:24	
Carbon tetrachloride	ug/L	ND	5.0	06/15/12 14:24	
Chlorobenzene	ug/L	ND	5.0	06/15/12 14:24	
Chloroethane	ug/L	ND	5.0	06/15/12 14:24	
Chloroform	ug/L	ND	5.0	06/15/12 14:24	
Chloromethane	ug/L	ND	5.0	06/15/12 14:24	
cis-1,2-Dichloroethene	ug/L	ND	5.0	06/15/12 14:24	
cis-1,3-Dichloropropene	ug/L	ND	5.0	06/15/12 14:24	
Dibromochloromethane	ug/L	ND	5.0	06/15/12 14:24	
Ethylbenzene	ug/L	ND	5.0	06/15/12 14:24	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	06/15/12 14:24	
m&p-Xylene	ug/L	ND	5.0	06/15/12 14:24	
Methylene Chloride	ug/L	ND	5.0	06/15/12 14:24	B,C9
o-Xylene	ug/L	ND	5.0	06/15/12 14:24	
Styrene	ug/L	ND	5.0	06/15/12 14:24	
Tetrachloroethene	ug/L	ND	5.0	06/15/12 14:24	
Toluene	ug/L	ND	5.0	06/15/12 14:24	
trans-1,2-Dichloroethene	ug/L	ND	5.0	06/15/12 14:24	
trans-1,3-Dichloropropene	ug/L	ND	5.0	06/15/12 14:24	
Trichloroethene	ug/L	ND	5.0	06/15/12 14:24	
Trichlorofluoromethane	ug/L	ND	5.0	06/15/12 14:24	
Vinyl chloride	ug/L	ND	1.0	06/15/12 14:24	
1,2-Dichloroethane-d4 (S)	%	106	70-130	06/15/12 14:24	
4-Bromofluorobenzene (S)	%	95	70-130	06/15/12 14:24	
Toluene-d8 (S)	%	98	70-130	06/15/12 14:24	

Date: 06/26/2012 02:37 PM

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 41569181.10000 Essex/Hope

Pace Project No.: 3071251

LABORATORY CONTROL SAMPLE: 452607

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	19.1	96	64.3-127	
1,1,2,2-Tetrachloroethane	ug/L	20	18.3	91	64.6-121	
1,1,2-Trichloroethane	ug/L	20	19.3	96	75.6-120	
1,1-Dichloroethane	ug/L	20	19.0	95	68.5-122	
1,1-Dichloroethene	ug/L	20	18.5	93	57.1-120	
1,2-Dichlorobenzene	ug/L	20	18.2	91	69.6-120	
1,2-Dichloroethane	ug/L	20	19.2	96	60.5-133	
1,2-Dichloropropane	ug/L	20	19.3	96	71-120	
1,3-Dichlorobenzene	ug/L	20	18.1	91	68.4-121	
1,4-Dichlorobenzene	ug/L	20	18.1	91	68.5-123	
2-Butanone (MEK)	ug/L	20	21.1	105	55.7-138	
2-Hexanone	ug/L	20	21.0	105	67-133	
4-Methyl-2-pentanone (MIBK)	ug/L	20	19.7	99	64.5-121	
Acetone	ug/L	20	23.9	120	57.6-168	
Benzene	ug/L	20	19.2	96	69.8-120	
Bromodichloromethane	ug/L	20	19.3	96	66.5-120	
Bromoform	ug/L	20	18.3	92	61.1-120	
Bromomethane	ug/L	20	17.1	86	10.6-200	
Carbon disulfide	ug/L	20	21.7	109	60.2-122	
Carbon tetrachloride	ug/L	20	18.6	93	60.1-127	
Chlorobenzene	ug/L	20	18.4	92	72-120	
Chloroethane	ug/L	20	18.7	93	36.8-142	
Chloroform	ug/L	20	18.1	91	69-122	
Chloromethane	ug/L	20	20.1	101	37.2-129	
cis-1,2-Dichloroethene	ug/L	20	19.2	96	69.5-123	
cis-1,3-Dichloropropene	ug/L	20	19.7	98	74.3-120	
Dibromochloromethane	ug/L	20	18.2	91	66.1-120	
Ethylbenzene	ug/L	20	17.8	89	70.9-124	
Isopropylbenzene (Cumene)	ug/L	20	19.7	99	68.3-129	
m&p-Xylene	ug/L	40	36.7	92	70.4-130	
Methylene Chloride	ug/L	20	21.1	105	61.5-125	
o-Xylene	ug/L	20	18.5	92	70.6-127	
Styrene	ug/L	20	19.1	95	69.9-120	
Tetrachloroethene	ug/L	20	17.7	89	63.4-121	
Toluene	ug/L	20	18.7	93	71.5-120	
trans-1,2-Dichloroethene	ug/L	20	18.9	94	64.1-120	
trans-1,3-Dichloropropene	ug/L	20	19.4	97	71-120	
Trichloroethene	ug/L	20	18.2	91	65.9-120	
Trichlorofluoromethane	ug/L	20	20.0	100	44.8-137	
Vinyl chloride	ug/L	20	19.2	96	51-127	
1,2-Dichloroethane-d4 (S)	%			107	70-130	
4-Bromofluorobenzene (S)	%			96	70-130	
Toluene-d8 (S)	%			100	70-130	

QUALITY CONTROL DATA

Project: 41569181.10000 Essex/Hope

Pace Project No.: 3071251

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 452608 452609											
Parameter	Units	3071251002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	20	20	18.0	19.4	90	97	64.3-127	7	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	16.7	17.6	83	88	64.6-121	5	
1,1,2-Trichloroethane	ug/L	ND	20	20	17.7	18.6	89	93	75.6-120	5	
1,1-Dichloroethane	ug/L	ND	20	20	18.2	19.3	91	96	68.5-122	6	
1,1-Dichloroethene	ug/L	ND	20	20	19.1	19.6	95	98	57.1-120	3	
1,2-Dichlorobenzene	ug/L	ND	20	20	15.8	16.9	79	84	69.6-120	7	
1,2-Dichloroethane	ug/L	ND	20	20	18.7	19.8	93	99	60.5-133	6	
1,2-Dichloropropane	ug/L	ND	20	20	18.4	18.9	92	94	71-120	2	
1,3-Dichlorobenzene	ug/L	ND	20	20	16.3	16.8	81	84	68.4-121	3	
1,4-Dichlorobenzene	ug/L	ND	20	20	16.5	16.9	82	84	68.5-123	2	
2-Butanone (MEK)	ug/L	ND	20	20	19.8	22.6	99	113	55.7-138	13	
2-Hexanone	ug/L	ND	20	20	17.9	20.8	90	104	67-133	15	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	20	20	18.3	20.2	91	101	64.5-121	10	
Acetone	ug/L	ND	20	20	18.7	22.9	74	94	57.6-168	20	
Benzene	ug/L	ND	20	20	18.4	19.1	92	96	69.8-120	4	
Bromodichloromethane	ug/L	ND	20	20	17.7	17.9	89	89	66.5-120	1	
Bromoform	ug/L	ND	20	20	15.4	15.7	77	78	61.1-120	2	
Bromomethane	ug/L	ND	20	20	5.4	7.4	27	37	10.6-200	30	
Carbon disulfide	ug/L	ND	20	20	20.3	17.8	102	89	60.2-122	14	
Carbon tetrachloride	ug/L	ND	20	20	17.7	18.1	88	90	60.1-127	2	
Chlorobenzene	ug/L	ND	20	20	16.9	18.0	85	90	72-120	6	
Chloroethane	ug/L	ND	20	20	21.1	23.1	105	116	36.8-142	9	
Chloroform	ug/L	ND	20	20	17.1	17.8	86	89	69-122	4	
Chloromethane	ug/L	ND	20	20	20.1	22.5	100	112	37.2-129	11	
cis-1,2-Dichloroethene	ug/L	11.4	20	20	29.7	31.3	91	99	69.5-123	5	
cis-1,3-Dichloropropene	ug/L	ND	20	20	16.5	17.5	83	87	74.3-120	6	
Dibromochloromethane	ug/L	ND	20	20	15.8	15.8	79	79	66.1-120	.1	
Ethylbenzene	ug/L	ND	20	20	17.2	17.6	86	88	70.9-124	2	
Isopropylbenzene (Cumene)	ug/L	ND	20	20	18.4	18.9	92	95	68.3-129	3	
m&p-Xylene	ug/L	ND	40	40	34.7	36.5	84	89	70.4-130	5	
Methylene Chloride	ug/L	ND	20	20	18.7	19.9	94	100	61.5-125	6	
o-Xylene	ug/L	ND	20	20	16.9	17.3	85	87	70.6-127	2	
Styrene	ug/L	ND	20	20	17.0	17.7	85	89	69.9-120	4	
Tetrachloroethene	ug/L	ND	20	20	17.4	17.8	87	89	63.4-121	2	
Toluene	ug/L	ND	20	20	17.4	18.3	87	92	71.5-120	5	
trans-1,2-Dichloroethene	ug/L	ND	20	20	18.6	19.3	93	96	64.1-120	3	
trans-1,3-Dichloropropene	ug/L	ND	20	20	16.9	17.8	85	89	71-120	5	
Trichloroethene	ug/L	ND	20	20	17.6	17.6	88	88	65.9-120	.02	
Trichlorofluoromethane	ug/L	ND	20	20	24.5	25.7	123	128	44.8-137	5	
Vinyl chloride	ug/L	6.2	20	20	28.3	29.6	111	117	51-127	4	
1,2-Dichloroethane-d4 (S)	%						113	115	70-130		
4-Bromofluorobenzene (S)	%						97	98	70-130		
Toluene-d8 (S)	%						101	101	70-130		

QUALIFIERS

Project: 41569181.10000 Essex/Hope

Pace Project No.: 3071251

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

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.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

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.

ANALYTE QUALIFIERS

B Analyte was detected in the associated method blank.

C9 Common Laboratory Contaminant.

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 41569181.10000 Essex/Hope

Pace Project No.: 3071251

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
3071251001	PRE-CARB	EPA 8260	MSV/13018		
3071251002	PRIMARY-EFF	EPA 8260	MSV/13018		
3071251003	POST-CARB	EPA 8260	MSV/13018		
3071251004	TB-01	EPA 8260	MSV/13018		

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	MRS CORP	Report To:	MARK DOWIAK	Attention:	
Address:	501 HOLIDAY PL STE 1300	Copy To:	VALERIE SIBETO	Company Name:	
	FOSTER PLAZA 4			Address:	
	501 SAUCER PL 15720			Pace Quote Reference:	
Email To:		Purchase Order No.:	41569181		
Phone:	412-503-4700	Project Name:	ESSEX/HOPE JAMESTOWN	Pace Project Manager:	
Requested Due Date (A/T):	STANDARD	Project Number:	41579181.0000	Pace Profile #:	

Page: 1 of 1
 1515758

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

Site Location
 STATE: NY

www.paceraids.com

[illegible]



Sample Condition Upon Receipt

Client Name: WRSProject # 3571251Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____Tracking #: 5726410756908Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

Optional
Proj. Due Date:
Proj. Name:

Packing Material: ☒ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____Thermometer Used 5 6 7Type of Ice: ☒ Wet ☐ Blue ☐ None☒ Samples on ice, cooling process has begunCooler Temperature 4.1

Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Comments:

Date and Initials of person examining contents: WRS 6/12/12

Chain of Custody Present:	☒ Yes ☐ No ☐ N/A	1.
Chain of Custody Filled Out:	☒ Yes ☐ No ☐ N/A	2.
Chain of Custody Relinquished:	☒ Yes ☐ No ☐ N/A	3.
Sampler Name & Signature on COC:	☒ Yes ☐ No ☐ N/A	4.
Samples Arrived within Hold Time:	☒ Yes ☐ No ☐ N/A	5.
Short Hold Time Analysis (<72hr):	☐ Yes ☒ No ☐ N/A	6.
Rush Turn Around Time Requested:	☐ Yes ☒ No ☐ N/A	7.
Sufficient Volume:	☒ Yes ☐ No ☐ N/A	8.
Correct Containers Used:	☒ Yes ☐ No ☐ N/A	9.
-Pace Containers Used:	☒ Yes ☐ No ☐ N/A	
Containers Intact:	☒ Yes ☐ No ☐ N/A	10.
Filtered volume received for Dissolved tests	☐ Yes ☐ No ☒ N/A	11.
Sample Labels match COC:	☒ Yes ☐ No ☐ N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>WRS</u>		
All containers needing preservation have been checked.	☐ Yes ☐ No ☒ N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐ Yes ☐ No ☒ N/A	
exceptions: VOA, coliform, TOC, O&G, WDRO (water)	☒ Yes ☐ No	Initial when completed <u>WRS</u> Lot # of added preservative
Samples checked for dechlorination:	☐ Yes ☐ No ☒ N/A	14.
Headspace in VOA Vials (>6mm):	☐ Yes ☒ No ☐ N/A	15.
Trip Blank Present:	☒ Yes ☒ No ☐ N/A	16.
Trip Blank Custody Seals Present	☒ Yes ☐ No ☐ N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: [Signature]Date: 6/13/12

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)



Project Number: 3011251

Client Name: WPS

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y	O & G (1L)	TFH (1L)	VOA (40 ml 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other
100	WPS																							
101	WPS																							
102	WPS																							
103	WPS																							
104	WPS																							
105	WPS																							
106	WPS																							
107	WPS																							
108	WPS																							
109	WPS																							
110	WPS																							
111	WPS																							
112	WPS																							
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146	WPS																							
147	WPS																							
148	WPS																							
149	WPS																							
150	WPS																							

August 13, 2012

Mr. Mark Dowiak
URS Corporation
Foster Plaza 4
501 Holiday Drive, Suite 300
Pittsburgh, PA 15220

RE: Project: ESSEX/HOPE JAMESTOWN
Pace Project No.: 3074334

Dear Mr. Dowiak:

Enclosed are the analytical results for sample(s) received by the laboratory on July 28, 2012. 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.

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

Sincerely,



Timothy Reed

timothy.reed@pacelabs.com
Project Manager

Enclosures

cc: Ms. Valerie Sibeto, URS Corporation



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 3074334

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4 Greensburg, PA 15601

ACCLASS DOD-ELAP Accreditation #: ADE-1544

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California/TNI Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH 0694

Delaware Certification

Florida/TNI Certification #: E87683

Guam/PADEP Certification

Hawaii/PADEP Certification

Idaho Certification

Illinois/PADEP Certification

Indiana/PADEP Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana/TNI Certification #: LA080002

Louisiana/TNI Certification #: 4086

Maine Certification #: PA0091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nevada Certification

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188

Utah/TNI Certification #: ANTE

Virgin Island/PADEP Certification

Virginia Certification #: 00112

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia Certification #: 143

Wisconsin/PADEP Certification

Wyoming Certification #: 8TMS-Q

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 3074334

Sample: PRE CARB		Lab ID: 3074334001	Collected: 07/27/12 10:40	Received: 07/28/12 11:00	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	4470	ug/L	2000	200		08/03/12 21:55	67-64-1	
Benzene	7.7	ug/L	1.0	1		08/01/12 23:11	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		08/01/12 23:11	75-27-4	
Bromoform	ND	ug/L	5.0	1		08/01/12 23:11	75-25-2	
Bromomethane	ND	ug/L	5.0	1		08/01/12 23:11	74-83-9	
2-Butanone (MEK)	17.7	ug/L	10.0	1		08/01/12 23:11	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		08/01/12 23:11	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		08/01/12 23:11	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		08/01/12 23:11	108-90-7	
Chloroethane	ND	ug/L	5.0	1		08/01/12 23:11	75-00-3	
Chloroform	ND	ug/L	5.0	1		08/01/12 23:11	67-66-3	
Chloromethane	ND	ug/L	5.0	1		08/01/12 23:11	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		08/01/12 23:11	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		08/01/12 23:11	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		08/01/12 23:11	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		08/01/12 23:11	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		08/01/12 23:11	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		08/01/12 23:11	107-06-2	
1,1-Dichloroethene	10.3	ug/L	5.0	1		08/01/12 23:11	75-35-4	
cis-1,2-Dichloroethene	3840	ug/L	1000	200		08/03/12 21:55	156-59-2	
trans-1,2-Dichloroethene	58.2	ug/L	5.0	1		08/01/12 23:11	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		08/01/12 23:11	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		08/01/12 23:11	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		08/01/12 23:11	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		08/01/12 23:11	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		08/01/12 23:11	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		08/01/12 23:11	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		08/01/12 23:11	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		08/01/12 23:11	108-10-1	
Styrene	ND	ug/L	5.0	1		08/01/12 23:11	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		08/01/12 23:11	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		08/01/12 23:11	127-18-4	
Toluene	ND	ug/L	5.0	1		08/01/12 23:11	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/01/12 23:11	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		08/01/12 23:11	79-00-5	
Trichloroethene	ND	ug/L	1000	200		08/03/12 21:55	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		08/01/12 23:11	75-69-4	
Vinyl chloride	326	ug/L	1.0	1		08/01/12 23:11	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		08/01/12 23:11	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		08/01/12 23:11	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	93	%	70-130	1		08/01/12 23:11	460-00-4	
1,2-Dichloroethane-d4 (S)	98	%	70-130	1		08/01/12 23:11	17060-07-0	
Toluene-d8 (S)	98	%	70-130	1		08/01/12 23:11	2037-26-5	

ANALYTICAL RESULTS

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 3074334

Sample: PRIMARY-EFF		Lab ID: 3074334002	Collected: 07/27/12 10:45	Received: 07/28/12 11:00	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	394	ug/L	10.0	1		08/01/12 23:37	67-64-1	
Benzene	ND	ug/L	1.0	1		08/01/12 23:37	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		08/01/12 23:37	75-27-4	
Bromoform	ND	ug/L	5.0	1		08/01/12 23:37	75-25-2	
Bromomethane	ND	ug/L	5.0	1		08/01/12 23:37	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		08/01/12 23:37	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		08/01/12 23:37	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		08/01/12 23:37	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		08/01/12 23:37	108-90-7	
Chloroethane	ND	ug/L	5.0	1		08/01/12 23:37	75-00-3	
Chloroform	ND	ug/L	5.0	1		08/01/12 23:37	67-66-3	
Chloromethane	ND	ug/L	5.0	1		08/01/12 23:37	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		08/01/12 23:37	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		08/01/12 23:37	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		08/01/12 23:37	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		08/01/12 23:37	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		08/01/12 23:37	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		08/01/12 23:37	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		08/01/12 23:37	75-35-4	
cis-1,2-Dichloroethene	17.1	ug/L	5.0	1		08/01/12 23:37	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		08/01/12 23:37	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		08/01/12 23:37	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		08/01/12 23:37	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		08/01/12 23:37	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		08/01/12 23:37	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		08/01/12 23:37	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		08/01/12 23:37	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		08/01/12 23:37	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		08/01/12 23:37	108-10-1	
Styrene	ND	ug/L	5.0	1		08/01/12 23:37	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		08/01/12 23:37	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		08/01/12 23:37	127-18-4	
Toluene	ND	ug/L	5.0	1		08/01/12 23:37	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/01/12 23:37	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		08/01/12 23:37	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		08/01/12 23:37	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		08/01/12 23:37	75-69-4	
Vinyl chloride	ND	ug/L	1.0	1		08/01/12 23:37	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		08/01/12 23:37	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		08/01/12 23:37	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	90	%	70-130	1		08/01/12 23:37	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	70-130	1		08/01/12 23:37	17060-07-0	
Toluene-d8 (S)	79	%	70-130	1		08/01/12 23:37	2037-26-5	

ANALYTICAL RESULTS

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 3074334

Sample: POST-CARB		Lab ID: 3074334003	Collected: 07/27/12 10:50	Received: 07/28/12 11:00	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND	ug/L	10.0	1		08/02/12 00:03	67-64-1	
Benzene	ND	ug/L	1.0	1		08/02/12 00:03	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		08/02/12 00:03	75-27-4	
Bromoform	ND	ug/L	5.0	1		08/02/12 00:03	75-25-2	
Bromomethane	ND	ug/L	5.0	1		08/02/12 00:03	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		08/02/12 00:03	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		08/02/12 00:03	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		08/02/12 00:03	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		08/02/12 00:03	108-90-7	
Chloroethane	ND	ug/L	5.0	1		08/02/12 00:03	75-00-3	
Chloroform	ND	ug/L	5.0	1		08/02/12 00:03	67-66-3	
Chloromethane	ND	ug/L	5.0	1		08/02/12 00:03	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		08/02/12 00:03	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		08/02/12 00:03	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		08/02/12 00:03	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		08/02/12 00:03	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		08/02/12 00:03	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		08/02/12 00:03	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		08/02/12 00:03	75-35-4	
cis-1,2-Dichloroethene	25.5	ug/L	5.0	1		08/02/12 00:03	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		08/02/12 00:03	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		08/02/12 00:03	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		08/02/12 00:03	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		08/02/12 00:03	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		08/02/12 00:03	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		08/02/12 00:03	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		08/02/12 00:03	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		08/02/12 00:03	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		08/02/12 00:03	108-10-1	
Styrene	ND	ug/L	5.0	1		08/02/12 00:03	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		08/02/12 00:03	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		08/02/12 00:03	127-18-4	
Toluene	ND	ug/L	5.0	1		08/02/12 00:03	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/02/12 00:03	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		08/02/12 00:03	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		08/02/12 00:03	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		08/02/12 00:03	75-69-4	
Vinyl chloride	1.6	ug/L	1.0	1		08/02/12 00:03	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		08/02/12 00:03	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		08/02/12 00:03	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	98	%	70-130	1		08/02/12 00:03	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	70-130	1		08/02/12 00:03	17060-07-0	
Toluene-d8 (S)	88	%	70-130	1		08/02/12 00:03	2037-26-5	

ANALYTICAL RESULTS

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 3074334

Sample: TB-01		Lab ID: 3074334007		Collected: 07/27/12 00:01		Received: 07/28/12 11:00		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND ug/L	10.0	1			08/02/12 00:30	67-64-1		
Benzene	ND ug/L	1.0	1			08/02/12 00:30	71-43-2		
Bromodichloromethane	ND ug/L	5.0	1			08/02/12 00:30	75-27-4		
Bromoform	ND ug/L	5.0	1			08/02/12 00:30	75-25-2		
Bromomethane	ND ug/L	5.0	1			08/02/12 00:30	74-83-9		
2-Butanone (MEK)	ND ug/L	10.0	1			08/02/12 00:30	78-93-3		
Carbon disulfide	ND ug/L	5.0	1			08/02/12 00:30	75-15-0		
Carbon tetrachloride	ND ug/L	5.0	1			08/02/12 00:30	56-23-5		
Chlorobenzene	ND ug/L	5.0	1			08/02/12 00:30	108-90-7		
Chloroethane	ND ug/L	5.0	1			08/02/12 00:30	75-00-3		
Chloroform	ND ug/L	5.0	1			08/02/12 00:30	67-66-3		
Chloromethane	ND ug/L	5.0	1			08/02/12 00:30	74-87-3		
Dibromochloromethane	ND ug/L	5.0	1			08/02/12 00:30	124-48-1		
1,2-Dichlorobenzene	ND ug/L	5.0	1			08/02/12 00:30	95-50-1		
1,3-Dichlorobenzene	ND ug/L	5.0	1			08/02/12 00:30	541-73-1		
1,4-Dichlorobenzene	ND ug/L	5.0	1			08/02/12 00:30	106-46-7		
1,1-Dichloroethane	ND ug/L	5.0	1			08/02/12 00:30	75-34-3		
1,2-Dichloroethane	ND ug/L	5.0	1			08/02/12 00:30	107-06-2		
1,1-Dichloroethene	ND ug/L	5.0	1			08/02/12 00:30	75-35-4		
cis-1,2-Dichloroethene	ND ug/L	5.0	1			08/02/12 00:30	156-59-2		
trans-1,2-Dichloroethene	ND ug/L	5.0	1			08/02/12 00:30	156-60-5		
1,2-Dichloropropane	ND ug/L	5.0	1			08/02/12 00:30	78-87-5		
cis-1,3-Dichloropropene	ND ug/L	5.0	1			08/02/12 00:30	10061-01-5		
trans-1,3-Dichloropropene	ND ug/L	5.0	1			08/02/12 00:30	10061-02-6		
Ethylbenzene	ND ug/L	5.0	1			08/02/12 00:30	100-41-4		
2-Hexanone	ND ug/L	10.0	1			08/02/12 00:30	591-78-6		
Isopropylbenzene (Cumene)	ND ug/L	1.0	1			08/02/12 00:30	98-82-8		
Methylene Chloride	ND ug/L	5.0	1			08/02/12 00:30	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND ug/L	10.0	1			08/02/12 00:30	108-10-1		
Styrene	ND ug/L	5.0	1			08/02/12 00:30	100-42-5		
1,1,2,2-Tetrachloroethane	ND ug/L	5.0	1			08/02/12 00:30	79-34-5		
Tetrachloroethene	ND ug/L	5.0	1			08/02/12 00:30	127-18-4		
Toluene	ND ug/L	5.0	1			08/02/12 00:30	108-88-3		
1,1,1-Trichloroethane	ND ug/L	5.0	1			08/02/12 00:30	71-55-6		
1,1,2-Trichloroethane	ND ug/L	5.0	1			08/02/12 00:30	79-00-5		
Trichloroethene	ND ug/L	5.0	1			08/02/12 00:30	79-01-6		
Trichlorofluoromethane	ND ug/L	5.0	1			08/02/12 00:30	75-69-4		
Vinyl chloride	ND ug/L	1.0	1			08/02/12 00:30	75-01-4		
m&p-Xylene	ND ug/L	5.0	1			08/02/12 00:30	179601-23-1		
o-Xylene	ND ug/L	5.0	1			08/02/12 00:30	95-47-6		
Surrogates									
4-Bromofluorobenzene (S)	102 %	70-130	1			08/02/12 00:30	460-00-4		
1,2-Dichloroethane-d4 (S)	114 %	70-130	1			08/02/12 00:30	17060-07-0		
Toluene-d8 (S)	104 %	70-130	1			08/02/12 00:30	2037-26-5		

QUALITY CONTROL DATA

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 3074334

QC Batch: MSV/13465 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 3074334001, 3074334002, 3074334003, 3074334007

METHOD BLANK: 471658 Matrix: Water

Associated Lab Samples: 3074334001, 3074334002, 3074334003, 3074334007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	5.0	08/01/12 16:23	
1,1,2,2-Tetrachloroethane	ug/L	ND	5.0	08/01/12 16:23	
1,1,2-Trichloroethane	ug/L	ND	5.0	08/01/12 16:23	
1,1-Dichloroethane	ug/L	ND	5.0	08/01/12 16:23	
1,1-Dichloroethene	ug/L	ND	5.0	08/01/12 16:23	
1,2-Dichlorobenzene	ug/L	ND	5.0	08/01/12 16:23	
1,2-Dichloroethane	ug/L	ND	5.0	08/01/12 16:23	
1,2-Dichloropropane	ug/L	ND	5.0	08/01/12 16:23	
1,3-Dichlorobenzene	ug/L	ND	5.0	08/01/12 16:23	
1,4-Dichlorobenzene	ug/L	ND	5.0	08/01/12 16:23	
2-Butanone (MEK)	ug/L	ND	10.0	08/01/12 16:23	
2-Hexanone	ug/L	ND	10.0	08/01/12 16:23	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	08/01/12 16:23	
Acetone	ug/L	ND	10.0	08/01/12 16:23	
Benzene	ug/L	ND	1.0	08/01/12 16:23	
Bromodichloromethane	ug/L	ND	5.0	08/01/12 16:23	
Bromoform	ug/L	ND	5.0	08/01/12 16:23	
Bromomethane	ug/L	ND	5.0	08/01/12 16:23	
Carbon disulfide	ug/L	ND	5.0	08/01/12 16:23	
Carbon tetrachloride	ug/L	ND	5.0	08/01/12 16:23	
Chlorobenzene	ug/L	ND	5.0	08/01/12 16:23	
Chloroethane	ug/L	ND	5.0	08/01/12 16:23	
Chloroform	ug/L	ND	5.0	08/01/12 16:23	
Chloromethane	ug/L	ND	5.0	08/01/12 16:23	
cis-1,2-Dichloroethene	ug/L	ND	5.0	08/01/12 16:23	
cis-1,3-Dichloropropene	ug/L	ND	5.0	08/01/12 16:23	
Dibromochloromethane	ug/L	ND	5.0	08/01/12 16:23	
Ethylbenzene	ug/L	ND	5.0	08/01/12 16:23	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	08/01/12 16:23	
m&p-Xylene	ug/L	ND	5.0	08/01/12 16:23	
Methylene Chloride	ug/L	ND	5.0	08/01/12 16:23	
o-Xylene	ug/L	ND	5.0	08/01/12 16:23	
Styrene	ug/L	ND	5.0	08/01/12 16:23	
Tetrachloroethene	ug/L	ND	5.0	08/01/12 16:23	
Toluene	ug/L	ND	5.0	08/01/12 16:23	
trans-1,2-Dichloroethene	ug/L	ND	5.0	08/01/12 16:23	
trans-1,3-Dichloropropene	ug/L	ND	5.0	08/01/12 16:23	
Trichloroethene	ug/L	ND	5.0	08/01/12 16:23	
Trichlorofluoromethane	ug/L	ND	5.0	08/01/12 16:23	
Vinyl chloride	ug/L	ND	1.0	08/01/12 16:23	
1,2-Dichloroethane-d4 (S)	%	103	70-130	08/01/12 16:23	
4-Bromofluorobenzene (S)	%	98	70-130	08/01/12 16:23	
Toluene-d8 (S)	%	97	70-130	08/01/12 16:23	

Date: 08/13/2012 04:42 PM

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 3074334

LABORATORY CONTROL SAMPLE: 471659

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	19.5	98	64.3-127	
1,1,2,2-Tetrachloroethane	ug/L	20	20.3	102	64.6-121	
1,1,2-Trichloroethane	ug/L	20	20.1	101	75.6-120	
1,1-Dichloroethane	ug/L	20	20.9	105	68.5-122	
1,1-Dichloroethene	ug/L	20	19.3	97	57.1-120	
1,2-Dichlorobenzene	ug/L	20	19.7	99	69.6-120	
1,2-Dichloroethane	ug/L	20	18.4	92	60.5-133	
1,2-Dichloropropane	ug/L	20	18.3	91	71-120	
1,3-Dichlorobenzene	ug/L	20	20.2	101	68.4-121	
1,4-Dichlorobenzene	ug/L	20	19.1	96	68.5-123	
2-Butanone (MEK)	ug/L	20	20.3	101	55.7-138	
2-Hexanone	ug/L	20	18.8	94	67-133	
4-Methyl-2-pentanone (MIBK)	ug/L	20	19.1	95	64.5-121	
Acetone	ug/L	20	20.5	102	57.6-168	
Benzene	ug/L	20	18.6	93	69.8-120	
Bromodichloromethane	ug/L	20	18.4	92	66.5-120	
Bromoform	ug/L	20	19.3	96	61.1-120	
Bromomethane	ug/L	20	24.1	120	10.6-200	
Carbon disulfide	ug/L	20	20.0	100	60.2-122	
Carbon tetrachloride	ug/L	20	18.4	92	60.1-127	
Chlorobenzene	ug/L	20	19.1	95	72-120	
Chloroethane	ug/L	20	18.7	93	36.8-142	
Chloroform	ug/L	20	19.8	99	69-122	
Chloromethane	ug/L	20	20.5	102	37.2-129	
cis-1,2-Dichloroethene	ug/L	20	21.6	108	69.5-123	
cis-1,3-Dichloropropene	ug/L	20	19.3	97	74.3-120	
Dibromochloromethane	ug/L	20	17.0	85	66.1-120	
Ethylbenzene	ug/L	20	20.8	104	70.9-124	
Isopropylbenzene (Cumene)	ug/L	20	23.3	116	68.3-129	
m&p-Xylene	ug/L	40	41.0	103	70.4-130	
Methylene Chloride	ug/L	20	19.9	100	61.5-125	
o-Xylene	ug/L	20	20.2	101	70.6-127	
Styrene	ug/L	20	21.5	108	69.9-120	
Tetrachloroethene	ug/L	20	18.5	93	63.4-121	
Toluene	ug/L	20	19.3	97	71.5-120	
trans-1,2-Dichloroethene	ug/L	20	20.6	103	64.1-120	
trans-1,3-Dichloropropene	ug/L	20	18.7	93	71-120	
Trichloroethene	ug/L	20	18.4	92	65.9-120	
Trichlorofluoromethane	ug/L	20	20.1	100	44.8-137	
Vinyl chloride	ug/L	20	21.1	105	51-127	
1,2-Dichloroethane-d4 (S)	%			94	70-130	
4-Bromofluorobenzene (S)	%			100	70-130	
Toluene-d8 (S)	%			96	70-130	

QUALITY CONTROL DATA

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 3074334

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 471660 471661											
Parameter	Units	3074245008 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	20	20	18.5	22.3	92	112	64.3-127	19	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	20.2	23.6	101	118	64.6-121	16	
1,1,2-Trichloroethane	ug/L	ND	20	20	18.4	19.8	92	99	75.6-120	7	
1,1-Dichloroethane	ug/L	ND	20	20	17.4	20.8	87	104	68.5-122	18	
1,1-Dichloroethene	ug/L	ND	20	20	16.6	18.2	83	91	57.1-120	9	
1,2-Dichlorobenzene	ug/L	2.2	20	20	21.1	22.5	94	101	69.6-120	7	
1,2-Dichloroethane	ug/L	ND	20	20	17.4	19.4	87	97	60.5-133	11	
1,2-Dichloropropane	ug/L	ND	20	20	18.0	20.5	90	103	71-120	13	
1,3-Dichlorobenzene	ug/L	ND	20	20	18.9	21.8	92	107	68.4-121	15	
1,4-Dichlorobenzene	ug/L	5.8	20	20	22.8	25.6	85	99	68.5-123	12	
2-Butanone (MEK)	ug/L	ND	20	20	23.4	23.7	117	118	55.7-138	1	
2-Hexanone	ug/L	ND	20	20	19.6	20.1	98	101	67-133	3	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	20	20	26.4	27.3	132	137	64.5-121	3	M0
Acetone	ug/L	ND	20	20	19.3	16.3	97	81	57.6-168	17	
Benzene	ug/L	173	20	20	179	197	32	119	69.8-120	9	M0
Bromodichloromethane	ug/L	1.1	20	20	17.2	20.3	81	96	66.5-120	16	
Bromoform	ug/L	ND	20	20	18.5	21.0	92	105	61.1-120	13	
Bromomethane	ug/L	ND	20	20	10.9	15.1	55	76	10.6-200	32	R1
Carbon disulfide	ug/L	ND	20	20	15.3	17.6	77	88	60.2-122	14	
Carbon tetrachloride	ug/L	ND	20	20	17.3	20.3	87	102	60.1-127	16	
Chlorobenzene	ug/L	320	20	20	312	323	-41	18	72-120	4	M0
Chloroethane	ug/L	ND	20	20	19.6	17.8	98	89	36.8-142	10	
Chloroform	ug/L	ND	20	20	17.7	21.4	89	107	69-122	19	
Chloromethane	ug/L	ND	20	20	21.4	14.8	107	74	37.2-129	36	R1
cis-1,2-Dichloroethene	ug/L	ND	20	20	18.5	23.8	93	119	69.5-123	25	
cis-1,3-Dichloropropene	ug/L	ND	20	20	17.5	20.3	88	101	74.3-120	15	
Dibromochloromethane	ug/L	ND	20	20	15.7	16.5	78	83	66.1-120	5	
Ethylbenzene	ug/L	7.2	20	20	24.6	27.7	87	103	70.9-124	12	
Isopropylbenzene (Cumene)	ug/L	ND	20	20	23.6	27.7	118	139	68.3-129	16	M0
m&p-Xylene	ug/L		40	40	40.7	48.4	93	112	70.4-130	17	
Methylene Chloride	ug/L	ND	20	20	15.4	16.2	77	81	61.5-125	5	
o-Xylene	ug/L		20	20	23.9	26.8	91	106	70.6-127	11	
Styrene	ug/L	ND	20	20	19.9	23.6	100	118	69.9-120	17	
Tetrachloroethene	ug/L	ND	20	20	17.3	18.6	87	93	63.4-121	7	
Toluene	ug/L	2.1	20	20	19.6	21.7	88	98	71.5-120	10	
trans-1,2-Dichloroethene	ug/L	ND	20	20	16.7	18.8	83	94	64.1-120	12	
trans-1,3-Dichloropropene	ug/L	2.6	20	20	18.4	21.0	79	92	71-120	13	
Trichloroethene	ug/L	ND	20	20	17.4	19.5	85	96	65.9-120	11	
Trichlorofluoromethane	ug/L	ND	20	20	21.4	19.2	107	96	44.8-137	10	
Vinyl chloride	ug/L	ND	20	20	21.7	20.6	108	103	51-127	5	
1,2-Dichloroethane-d4 (S)	%						93	90	70-130		
4-Bromofluorobenzene (S)	%						105	106	70-130		
Toluene-d8 (S)	%						95	93	70-130		

QUALIFIERS

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 3074334

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

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.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

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.

ANALYTE QUALIFIERS

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

R1 RPD value was outside control limits.

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 3074334

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
3074334001	PRE CARB	EPA 8260	MSV/13465		
3074334002	PRIMARY-EFF	EPA 8260	MSV/13465		
3074334003	POST-CARB	EPA 8260	MSV/13465		
3074334007	TB-01	EPA 8260	MSV/13465		

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company: URS CORP	Report To: MARK DOWIAK	Company Name:	Attention:	Page: 1 of 1	
Address: FOSTER PLAZA 4 501 HOLLAND ST, STE. 300 PITTSBURGH, PA 15220	Copy To: VALERIE SIBETO	Address:		1231551	
Email To:	Purchase Order No.: 41569181	Pace Quote Reference:		REGULATORY AGENCY	
	Project Name: ESSEX HOPE JAMESTOWN	Pace Project Manager:		☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER	
Requested Due Date/TAT: STANDARD	Project Number: 41569181.10000	Pace Profile #:		☐ UST ☐ RCRA ☐ OTHER	
				Site Location: NY	
				STATE:	

ITEM #	Section D Required Client Information	Matrix Codes MATRIX L CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives	Analysis Test	Y/N	Requested Analysis Filtered (Y/N)	Pace Project No./ Lab I.D.
				COMPOSITE START	COMPOSITE END/GRAB							
1	PRE-CARB	DW	MIG	DATE	TIME	DATE	TIME	Unpreserved	Analysis Test			001
2	PRIMARY-EFF	WT		7/27/12	1040			HCl	XXXXX			002
3	POST-CARB	WW			1045			NaOH	XXXXX			003
4	POST-CARB	P			1050			HNO ₃	XXXXX			004
5	POST-CARB	SL/Solid			1120			H ₂ SO ₄	XXXXX			005
6	POST-CARB	Oil			1150			Unpreserved	XXXXX			006
7	TB-01	Wipe			1220			Other	XXXXX			007
8		Air						Methanol				
9		Tissue						Na ₂ S ₂ O ₃				
10		Other										
11												
12												

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
COMPOSITE FOUR (4)	Valerie Sibeto / URS	7/27/12	~1300	Red	7/29/12	~1300	
POST-CARB SAMPLES IN LAB AND REPORT AS POST-CARB COMPOSITE					7/28/12	1100	Y N Y

SAMPLER NAME AND SIGNATURE		Temp in °C	Received on	Custody	Sealed Cooler	Samples Intact
PRINT Name of SAMPLER: VALERIE SIBETO						
SIGNATURE of SAMPLER: <i>[Signature]</i>						
DATE Signed (MM/DD/YY): 7/27/12						



Sample Condition Upon Receipt

Client Name: URS

Project # 3074334

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

Tracking #: 872640756930

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

Optional:
Proj. Due Date:
Proj. Name:

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

Thermometer Used 5 6

Type of Ice: Wet Blue None ☒ Samples on ice, cooling process has begun

Cooler Temperature 0.3

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 7-28-07

Temp should be above freezing to 6°C

Comments:

Chain of Custody Present:	☒ Yes ☐ No ☐ N/A	1.
Chain of Custody Filled Out:	☒ Yes ☐ No ☐ N/A	2.
Chain of Custody Relinquished:	☒ Yes ☐ No ☐ N/A	3.
Sampler Name & Signature on COC:	☒ Yes ☐ No ☐ N/A	4.
Samples Arrived within Hold Time:	☒ Yes ☐ No ☐ N/A	5.
Short Hold Time Analysis (<72hr):	☐ Yes ☒ No ☐ N/A	6.
Rush Turn Around Time Requested:	☐ Yes ☒ No ☐ N/A	7.
Sufficient Volume:	☒ Yes ☐ No ☐ N/A	8.
Correct Containers Used:	☒ Yes ☐ No ☐ N/A	9.
-Pace Containers Used:	☒ Yes ☐ No ☐ N/A	
Containers Intact:	☒ Yes ☐ No ☐ N/A	10.
Filtered volume received for Dissolved tests	☐ Yes ☐ No ☒ N/A	11.
Sample Labels match COC:	☒ Yes ☐ No ☐ N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>Wet</u>		
All containers needing preservation have been checked.	☐ Yes ☐ No ☒ N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐ Yes ☐ No ☒ N/A	
exceptions: <u>VOA, coliform, TOC, O&G, WH-DRO (water)</u>	☒ Yes ☐ No	Initial when completed: <u>SA</u> Lot # of added preservative:
Samples checked for dechlorination:	☐ Yes ☐ No ☒ N/A	14.
Headspace in VOA Vials (>6mm):	☐ Yes ☒ No ☐ N/A	15.
Trip Blank Present:	☒ Yes ☐ No ☐ N/A	16.
Trip Blank Custody Seals Present	☒ Yes ☐ No ☐ N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required?

Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____

Date: 7/30/11

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

30721334

URS

[illegible]

August 30, 2012

Mr. Mark Dowiak
URS Corporation
Foster Plaza 4
501 Holiday Drive, Suite 300
Pittsburgh, PA 15220

RE: Project: ESSEX/HOPE JAMESTOWN
Pace Project No.: 3075795

Dear Mr. Dowiak:

Enclosed are the analytical results for sample(s) received by the laboratory on August 21, 2012. 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.

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

Sincerely,



Timothy Reed

timothy.reed@pacelabs.com
Project Manager

Enclosures

cc: Ms. Valerie Sibeto, URS Corporation



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 3075795

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4 Greensburg, PA 15601

ACCLASS DOD-ELAP Accreditation #: ADE-1544

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California/TNI Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH 0694

Delaware Certification

Florida/TNI Certification #: E87683

Guam/PADEP Certification

Hawaii/PADEP Certification

Idaho Certification

Illinois/PADEP Certification

Indiana/PADEP Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana/TNI Certification #: LA080002

Louisiana/TNI Certification #: 4086

Maine Certification #: PA0091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nevada Certification

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188

Utah/TNI Certification #: ANTE

Virgin Island/PADEP Certification

Virginia Certification #: 00112

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia Certification #: 143

Wisconsin/PADEP Certification

Wyoming Certification #: 8TMS-Q

REPORT OF LABORATORY ANALYSIS

Page 2 of 10

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ANALYTICAL RESULTS

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 3075795

Sample: PRE-CARB		Lab ID: 3075795001	Collected: 08/20/12 12:30	Received: 08/21/12 09:50	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	4900	ug/L	1000	100		08/24/12 16:52	67-64-1	
Benzene	6.5	ug/L	1.0	1		08/22/12 18:43	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		08/22/12 18:43	75-27-4	
Bromoform	ND	ug/L	5.0	1		08/22/12 18:43	75-25-2	
Bromomethane	ND	ug/L	5.0	1		08/22/12 18:43	74-83-9	
2-Butanone (MEK)	18.4	ug/L	10.0	1		08/22/12 18:43	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		08/22/12 18:43	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		08/22/12 18:43	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		08/22/12 18:43	108-90-7	
Chloroethane	ND	ug/L	5.0	1		08/22/12 18:43	75-00-3	
Chloroform	ND	ug/L	5.0	1		08/22/12 18:43	67-66-3	
Chloromethane	ND	ug/L	5.0	1		08/22/12 18:43	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		08/22/12 18:43	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		08/22/12 18:43	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		08/22/12 18:43	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		08/22/12 18:43	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		08/22/12 18:43	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		08/22/12 18:43	107-06-2	
1,1-Dichloroethene	7.2	ug/L	5.0	1		08/22/12 18:43	75-35-4	
cis-1,2-Dichloroethene	1780	ug/L	500	100		08/24/12 16:52	156-59-2	
trans-1,2-Dichloroethene	15.1	ug/L	5.0	1		08/22/12 18:43	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		08/22/12 18:43	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		08/22/12 18:43	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		08/22/12 18:43	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		08/22/12 18:43	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		08/22/12 18:43	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		08/22/12 18:43	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		08/22/12 18:43	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		08/22/12 18:43	108-10-1	
Styrene	ND	ug/L	5.0	1		08/22/12 18:43	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		08/22/12 18:43	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		08/22/12 18:43	127-18-4	
Toluene	ND	ug/L	5.0	1		08/22/12 18:43	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/22/12 18:43	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		08/22/12 18:43	79-00-5	
Trichloroethene	812	ug/L	500	100		08/24/12 16:52	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		08/22/12 18:43	75-69-4	
Vinyl chloride	333	ug/L	1.0	1		08/22/12 18:43	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		08/22/12 18:43	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		08/22/12 18:43	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	99	%	70-130	1		08/22/12 18:43	460-00-4	
1,2-Dichloroethane-d4 (S)	109	%	70-130	1		08/22/12 18:43	17060-07-0	
Toluene-d8 (S)	99	%	70-130	1		08/22/12 18:43	2037-26-5	

ANALYTICAL RESULTS

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 3075795

Sample: PRIMARY-EFF		Lab ID: 3075795002		Collected: 08/20/12 12:35		Received: 08/21/12 09:50		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	19.0	ug/L	10.0	1			08/22/12 19:09	67-64-1	
Benzene	ND	ug/L	1.0	1			08/22/12 19:09	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1			08/22/12 19:09	75-27-4	
Bromoform	ND	ug/L	5.0	1			08/22/12 19:09	75-25-2	
Bromomethane	ND	ug/L	5.0	1			08/22/12 19:09	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1			08/22/12 19:09	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1			08/22/12 19:09	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1			08/22/12 19:09	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1			08/22/12 19:09	108-90-7	
Chloroethane	ND	ug/L	5.0	1			08/22/12 19:09	75-00-3	
Chloroform	ND	ug/L	5.0	1			08/22/12 19:09	67-66-3	
Chloromethane	ND	ug/L	5.0	1			08/22/12 19:09	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1			08/22/12 19:09	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1			08/22/12 19:09	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1			08/22/12 19:09	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1			08/22/12 19:09	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1			08/22/12 19:09	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1			08/22/12 19:09	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1			08/22/12 19:09	75-35-4	
cis-1,2-Dichloroethene	27.7	ug/L	5.0	1			08/22/12 19:09	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1			08/22/12 19:09	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1			08/22/12 19:09	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1			08/22/12 19:09	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1			08/22/12 19:09	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1			08/22/12 19:09	100-41-4	
2-Hexanone	ND	ug/L	10.0	1			08/22/12 19:09	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1			08/22/12 19:09	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1			08/22/12 19:09	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1			08/22/12 19:09	108-10-1	
Styrene	ND	ug/L	5.0	1			08/22/12 19:09	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1			08/22/12 19:09	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1			08/22/12 19:09	127-18-4	
Toluene	ND	ug/L	5.0	1			08/22/12 19:09	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1			08/22/12 19:09	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1			08/22/12 19:09	79-00-5	
Trichloroethene	ND	ug/L	5.0	1			08/22/12 19:09	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1			08/22/12 19:09	75-69-4	
Vinyl chloride	896	ug/L	50.0	50			08/24/12 17:19	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1			08/22/12 19:09	179601-23-1	
o-Xylene	ND	ug/L	5.0	1			08/22/12 19:09	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	97	%	70-130	1			08/22/12 19:09	460-00-4	
1,2-Dichloroethane-d4 (S)	116	%	70-130	1			08/22/12 19:09	17060-07-0	
Toluene-d8 (S)	97	%	70-130	1			08/22/12 19:09	2037-26-5	

ANALYTICAL RESULTS

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 3075795

Sample: POST-CARB		Lab ID: 3075795003	Collected: 08/20/12 12:40	Received: 08/21/12 09:50	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND	ug/L	10.0	1		08/22/12 19:36	67-64-1	
Benzene	ND	ug/L	1.0	1		08/22/12 19:36	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		08/22/12 19:36	75-27-4	
Bromoform	ND	ug/L	5.0	1		08/22/12 19:36	75-25-2	
Bromomethane	ND	ug/L	5.0	1		08/22/12 19:36	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		08/22/12 19:36	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		08/22/12 19:36	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		08/22/12 19:36	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		08/22/12 19:36	108-90-7	
Chloroethane	ND	ug/L	5.0	1		08/22/12 19:36	75-00-3	
Chloroform	ND	ug/L	5.0	1		08/22/12 19:36	67-66-3	
Chloromethane	ND	ug/L	5.0	1		08/22/12 19:36	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		08/22/12 19:36	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		08/22/12 19:36	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		08/22/12 19:36	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		08/22/12 19:36	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		08/22/12 19:36	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		08/22/12 19:36	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		08/22/12 19:36	75-35-4	
cis-1,2-Dichloroethene	21.8	ug/L	5.0	1		08/22/12 19:36	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		08/22/12 19:36	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		08/22/12 19:36	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		08/22/12 19:36	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		08/22/12 19:36	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		08/22/12 19:36	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		08/22/12 19:36	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		08/22/12 19:36	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		08/22/12 19:36	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		08/22/12 19:36	108-10-1	
Styrene	ND	ug/L	5.0	1		08/22/12 19:36	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		08/22/12 19:36	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		08/22/12 19:36	127-18-4	
Toluene	ND	ug/L	5.0	1		08/22/12 19:36	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		08/22/12 19:36	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		08/22/12 19:36	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		08/22/12 19:36	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		08/22/12 19:36	75-69-4	
Vinyl chloride	9.5	ug/L	1.0	1		08/22/12 19:36	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		08/22/12 19:36	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		08/22/12 19:36	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	96	%	70-130	1		08/22/12 19:36	460-00-4	
1,2-Dichloroethane-d4 (S)	119	%	70-130	1		08/22/12 19:36	17060-07-0	
Toluene-d8 (S)	95	%	70-130	1		08/22/12 19:36	2037-26-5	

ANALYTICAL RESULTS

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 3075795

Sample: TB-01		Lab ID: 3075795007		Collected: 08/20/12 00:01		Received: 08/21/12 09:50		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND ug/L	10.0	1			08/22/12 18:17	67-64-1		
Benzene	ND ug/L	1.0	1			08/22/12 18:17	71-43-2		
Bromodichloromethane	ND ug/L	5.0	1			08/22/12 18:17	75-27-4		
Bromoform	ND ug/L	5.0	1			08/22/12 18:17	75-25-2		
Bromomethane	ND ug/L	5.0	1			08/22/12 18:17	74-83-9		
2-Butanone (MEK)	ND ug/L	10.0	1			08/22/12 18:17	78-93-3		
Carbon disulfide	ND ug/L	5.0	1			08/22/12 18:17	75-15-0		
Carbon tetrachloride	ND ug/L	5.0	1			08/22/12 18:17	56-23-5		
Chlorobenzene	ND ug/L	5.0	1			08/22/12 18:17	108-90-7		
Chloroethane	ND ug/L	5.0	1			08/22/12 18:17	75-00-3		
Chloroform	ND ug/L	5.0	1			08/22/12 18:17	67-66-3		
Chloromethane	ND ug/L	5.0	1			08/22/12 18:17	74-87-3		
Dibromochloromethane	ND ug/L	5.0	1			08/22/12 18:17	124-48-1		
1,2-Dichlorobenzene	ND ug/L	5.0	1			08/22/12 18:17	95-50-1		
1,3-Dichlorobenzene	ND ug/L	5.0	1			08/22/12 18:17	541-73-1		
1,4-Dichlorobenzene	ND ug/L	5.0	1			08/22/12 18:17	106-46-7		
1,1-Dichloroethane	ND ug/L	5.0	1			08/22/12 18:17	75-34-3		
1,2-Dichloroethane	ND ug/L	5.0	1			08/22/12 18:17	107-06-2		
1,1-Dichloroethene	ND ug/L	5.0	1			08/22/12 18:17	75-35-4		
cis-1,2-Dichloroethene	ND ug/L	5.0	1			08/22/12 18:17	156-59-2		
trans-1,2-Dichloroethene	ND ug/L	5.0	1			08/22/12 18:17	156-60-5		
1,2-Dichloropropane	ND ug/L	5.0	1			08/22/12 18:17	78-87-5		
cis-1,3-Dichloropropene	ND ug/L	5.0	1			08/22/12 18:17	10061-01-5		
trans-1,3-Dichloropropene	ND ug/L	5.0	1			08/22/12 18:17	10061-02-6		
Ethylbenzene	ND ug/L	5.0	1			08/22/12 18:17	100-41-4		
2-Hexanone	ND ug/L	10.0	1			08/22/12 18:17	591-78-6		
Isopropylbenzene (Cumene)	ND ug/L	1.0	1			08/22/12 18:17	98-82-8		
Methylene Chloride	ND ug/L	5.0	1			08/22/12 18:17	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND ug/L	10.0	1			08/22/12 18:17	108-10-1		
Styrene	ND ug/L	5.0	1			08/22/12 18:17	100-42-5		
1,1,2,2-Tetrachloroethane	ND ug/L	5.0	1			08/22/12 18:17	79-34-5		
Tetrachloroethene	ND ug/L	5.0	1			08/22/12 18:17	127-18-4		
Toluene	ND ug/L	5.0	1			08/22/12 18:17	108-88-3		
1,1,1-Trichloroethane	ND ug/L	5.0	1			08/22/12 18:17	71-55-6		
1,1,2-Trichloroethane	ND ug/L	5.0	1			08/22/12 18:17	79-00-5		
Trichloroethene	ND ug/L	5.0	1			08/22/12 18:17	79-01-6		
Trichlorofluoromethane	ND ug/L	5.0	1			08/22/12 18:17	75-69-4		
Vinyl chloride	ND ug/L	1.0	1			08/22/12 18:17	75-01-4		
m&p-Xylene	ND ug/L	5.0	1			08/22/12 18:17	179601-23-1		
o-Xylene	ND ug/L	5.0	1			08/22/12 18:17	95-47-6		
Surrogates									
4-Bromofluorobenzene (S)	101 %	70-130	1			08/22/12 18:17	460-00-4		
1,2-Dichloroethane-d4 (S)	118 %	70-130	1			08/22/12 18:17	17060-07-0		
Toluene-d8 (S)	95 %	70-130	1			08/22/12 18:17	2037-26-5		

QUALITY CONTROL DATA

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 3075795

QC Batch: MSV/13702 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 3075795001, 3075795002, 3075795003, 3075795007

METHOD BLANK: 479033 Matrix: Water

Associated Lab Samples: 3075795001, 3075795002, 3075795003, 3075795007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2-Dichloroethane	ug/L	ND	5.0	08/22/12 10:49	
Benzene	ug/L	ND	1.0	08/22/12 10:49	
Ethylbenzene	ug/L	ND	5.0	08/22/12 10:49	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	08/22/12 10:49	
m&p-Xylene	ug/L	ND	5.0	08/22/12 10:49	
o-Xylene	ug/L	ND	5.0	08/22/12 10:49	
Toluene	ug/L	ND	5.0	08/22/12 10:49	
1,2-Dichloroethane-d4 (S)	%	115	70-130	08/22/12 10:49	
4-Bromofluorobenzene (S)	%	95	70-130	08/22/12 10:49	
Toluene-d8 (S)	%	95	70-130	08/22/12 10:49	

LABORATORY CONTROL SAMPLE: 479034

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichloroethane	ug/L	20	21.4	107	60.5-133	
Benzene	ug/L	20	20.7	104	69.8-120	
Ethylbenzene	ug/L	20	20.5	102	70.9-124	
Isopropylbenzene (Cumene)	ug/L	20	23.8	119	68.3-129	
m&p-Xylene	ug/L	40	38.5	96	70.4-130	
o-Xylene	ug/L	20	20.2	101	70.6-127	
Toluene	ug/L	20	20.1	101	71.5-120	
1,2-Dichloroethane-d4 (S)	%			107	70-130	
4-Bromofluorobenzene (S)	%			100	70-130	
Toluene-d8 (S)	%			92	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 479118 479119

Parameter	Units	3075495001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,1,1-Trichloroethane	ug/L	0.19U	20	20	22.7	22.1	113	110	64.3-127	3	
1,1,2,2-Tetrachloroethane	ug/L	0.22U	20	20	19.6	19.9	98	99	64.6-121	1	
1,1,2-Trichloroethane	ug/L	0.23U	20	20	21.7	21.9	108	110	75.6-120	1	
1,1-Dichloroethane	ug/L	0.16U	20	20	22.3	21.9	112	110	68.5-122	2	
1,1-Dichloroethene	ug/L	0.14U	20	20	22.8	22.1	114	111	57.1-120	3	
1,2-Dichlorobenzene	ug/L	0.23U	20	20	20.2	20.9	101	104	69.6-120	3	
1,2-Dichloroethane	ug/L	0.14U	20	20	21.6	20.9	108	105	60.5-133	3	
1,2-Dichloropropane	ug/L	0.23U	20	20	21.3	22.0	107	110	71-120	3	
1,3-Dichlorobenzene	ug/L	0.26U	20	20	21.2	20.8	106	104	68.4-121	2	
1,4-Dichlorobenzene	ug/L	0.17U	20	20	21.5	21.4	107	107	68.5-123	.4	
2-Butanone (MEK)	ug/L	1.1U	20	20	18.2	18.0	91	90	55.7-138	1	

Date: 08/30/2012 03:42 PM

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 3075795

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 479118 479119											
Parameter	Units	3075495001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
2-Hexanone	ug/L	0.34U	20	20	17.5	17.4	88	87	67-133	.6	
4-Methyl-2-pentanone (MIBK)	ug/L	0.29U	20	20	18.8	18.3	94	91	64.5-121	3	
Acetone	ug/L	2.6U	20	20	21.2	19.4	106	97	57.6-168	9	
Benzene	ug/L	0.065U	20	20	22.5	23.0	113	115	69.8-120	2	
Bromodichloromethane	ug/L	0.15U	20	20	21.4	22.0	107	110	66.5-120	3	
Bromoform	ug/L	0.25U	20	20	19.6	20.4	98	102	61.1-120	4	
Bromomethane	ug/L	0.37U	20	20	9.1	9.6	45	48	10.6-200	6	
Carbon disulfide	ug/L	0.18U	20	20	21.5	20.7	107	104	60.2-122	3	
Carbon tetrachloride	ug/L	0.24U	20	20	22.7	21.7	113	109	60.1-127	4	
Chlorobenzene	ug/L	0.12U	20	20	21.4	21.8	107	109	72-120	2	
Chloroethane	ug/L	0.48U	20	20	18.9	17.1	94	85	36.8-142	10	
Chloroform	ug/L	0.16U	20	20	21.1	20.9	105	105	69-122	.8	
Chloromethane	ug/L	0.21U	20	20	17.6	16.6	88	83	37.2-129	6	
cis-1,2-Dichloroethene	ug/L	0.20U	20	20	21.7	21.3	109	107	69.5-123	2	
cis-1,3-Dichloropropene	ug/L	0.19U	20	20	21.0	21.7	105	108	74.3-120	3	
Dibromochloromethane	ug/L	0.22U	20	20	20.1	21.0	100	105	66.1-120	4	
Ethylbenzene	ug/L	0.12U	20	20	22.3	22.2	112	111	70.9-124	.7	
Isopropylbenzene (Cumene)	ug/L	0.12U	20	20	23.4	23.6	117	118	68.3-129	.8	
m&p-Xylene	ug/L		40	40	41.7	41.6	104	104	70.4-130	.3	
Methylene Chloride	ug/L	0.23U	20	20	21.7	20.5	108	102	61.5-125	6	
o-Xylene	ug/L		20	20	20.7	21.0	104	105	70.6-127	1	
Styrene	ug/L	0.18U	20	20	23.4	23.8	117	119	69.9-120	2	
Tetrachloroethene	ug/L	0.12U	20	20	22.7	23.4	114	117	63.4-121	3	
Toluene	ug/L	0.11U	20	20	21.4	22.3	107	111	71.5-120	4	
trans-1,2-Dichloroethene	ug/L	0.18U	20	20	22.1	22.0	111	110	64.1-120	.7	
trans-1,3-Dichloropropene	ug/L	0.23U	20	20	21.5	22.4	107	112	71-120	4	
Trichloroethene	ug/L	0.15U	20	20	21.9	22.7	110	113	65.9-120	3	M0
Trichlorofluoromethane	ug/L	0.19U	20	20	24.4	23.6	122	118	44.8-137	3	
Vinyl chloride	ug/L	0.13U	20	20	21.2	20.2	106	101	51-127	5	
1,2-Dichloroethane-d4 (S)	%						106	106	70-130		
4-Bromofluorobenzene (S)	%						97	100	70-130		
Toluene-d8 (S)	%						94	101	70-130		

QUALIFIERS

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 3075795

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

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.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

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.

ANALYTE QUALIFIERS

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 3075795

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
3075795001	PRE-CARB	EPA 8260	MSV/13702		
3075795002	PRIMARY-EFF	EPA 8260	MSV/13702		
3075795003	POST-CARB	EPA 8260	MSV/13702		
3075795007	TB-01	EPA 8260	MSV/13702		

CHAIN-OF-CUSTODY / Analytical Request Document

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



www.paceanalytical.com

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	URS CORP	Report To:	MAX DOWMAN	Attention:	
Address:	FOSTER PLAZA 6, 601 ANDERSON DR STE 400 PITTSBURGH, PA 15220	Copy To:	VALERIE SIBETO	Company Name:	
Phone:	412-503-4700	Purchase Order No.:	41569181	Address:	
Fax:	412-503-4701	Project Name:	ESSEX/HOPE JAMESTOWN	Pace Quote Reference:	
Requested Due Date/TAT:	STANDARD	Project Number:	41569181.10000	Pace Project Manager:	
				Pace Profile #:	

Section D Required Client Information		Section E Requested Analysis Filtered (Y/N)	
Matrix Codes MATRIX / CODE	Matrix Codes DW WT WW P SL OL WP AR TS OT	Preservatives	Analysis Test
Drinking Water	DW	Unpreserved	H ₂ SO ₄
Waste Water	WT	HNO ₃	HCl
Product	P	NaOH	Na ₂ S ₂ O ₃
Soil/Solid	SL	Other	Methanol
Oil	OL		
Wipe	WP		
Air	AR		
Tissue	TS		
Other	OT		

Item #	Sample ID (A-Z, 0-9 / -)	Matrix Code (see valid codes to left)	Sample Type (G=GRAB C=COMP)	Collected COMPOSITE START COMPOSITE END/GRAB	Sample Temp at Collection	# of Containers	Relinquished By / Affiliation	Date	Time	Accepted By / Affiliation	Date	Time	Sample Conditions
1	PRE-CARB	WTG	WTG	8:20:12 1230	1235	3	Red 9000	8/20/12	1500	Amanda Shirey	8/21/12	0930	Y
2	PRIMARY-EFF	WTG	WTG	1240	1240	3							N
3	POST-CARB	WTG	WTG	1310	1340	3							Y
4	POST-CARB	WTG	WTG	1410	1410	3							Y
5	POST-CARB	WTG	WTG	8:20:12	8:20:12	3							Y
6	POST-CARB	WTG	WTG										
7	TTB-01												
8													
9													
10													
11													
12													

SAMPLER NAME AND SIGNATURE		DATE SIGNED (MM/DD/YY)	
PRINT Name of SAMPLER: VALERIE SIBETO		8/20/12	
SIGNATURE OF SAMPLER: [Signature]			

*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.



Sample Condition Upon Receipt

Client Name: URS

Project # 3075795

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

Tracking #: 8726 4075 10952

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

Optional
Proj. Due Date:
Proj. Name:

Packing Material: ☒ Bubble Wrap ☐ Bubble Bags ☐ None ☒ Other Ziploc

Thermometer Used 5 6 7

Type of Ice: Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature 0.8

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 8/21/12

Temp should be above freezing to 6°C

Comments:

Chain of Custody Present:	☒ Yes ☐ No ☐ N/A	1.
Chain of Custody Filled Out:	☒ Yes ☐ No ☐ N/A	2.
Chain of Custody Relinquished:	☒ Yes ☐ No ☐ N/A	3.
Sampler Name & Signature on COC:	☒ Yes ☐ No ☐ N/A	4.
Samples Arrived within Hold Time:	☒ Yes ☐ No ☐ N/A	5.
Short Hold Time Analysis (<72hr):	☐ Yes ☐ No ☒ N/A	6.
Rush Turn Around Time Requested:	☐ Yes ☐ No ☐ N/A	7.
Sufficient Volume:	☒ Yes ☐ No ☐ N/A	8.
Correct Containers Used:	☒ Yes ☐ No ☐ N/A	9.
-Pace Containers Used:	☒ Yes ☐ No ☐ N/A	
Containers Intact:	☒ Yes ☐ No ☐ N/A	10.
Filtered volume received for Dissolved tests	☐ Yes ☐ No ☒ N/A	11.
Sample Labels match COC:	☒ Yes ☐ No ☐ N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>WT</u>		
All containers needing preservation have been checked.	☐ Yes ☐ No ☒ N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐ Yes ☐ No ☒ N/A	
exceptions: <u>VOA</u> coliform, TOC, O&G, WI-DRO (water)	☒ Yes ☐ No	Initial when completed <u>ADD</u> Lot # of added preservative
Samples checked for dechlorination:	☐ Yes ☐ No ☒ N/A	14.
Headspace in VOA Vials (>6mm):	☐ Yes ☒ No ☐ N/A	15.
Trip Blank Present:	☒ Yes ☐ No ☐ N/A	16.
Trip Blank Custody Seals Present	☒ Yes ☐ No ☐ N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required?

Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____

Date: 8/21/12

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

Project Number: 3075795
Client Name: WRS

[illegible]

October 11, 2012

Mr. Mark Dowiak
URS Corporation
Foster Plaza 6
681 Andersen Drive, Suite 400
Pittsburgh, PA 15220

RE: Project: Essex/Hope Jamestown
Pace Project No.: 3078348

Dear Mr. Dowiak:

Enclosed are the analytical results for sample(s) received by the laboratory on September 27, 2012. 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.

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

Sincerely,



Timothy Reed

timothy.reed@pacelabs.com
Project Manager

Enclosures

cc: Ms. Valerie Sibeto, URS Corporation



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Essex/Hope Jamestown

Pace Project No.: 3078348

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4 Greensburg, PA 15601

ACCLASS DOD-ELAP Accreditation #: ADE-1544

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California/TNI Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683

Guam/PADEP Certification

Hawaii/PADEP Certification

Idaho Certification

Illinois/PADEP Certification

Indiana/PADEP Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana/TNI Certification #: LA080002

Louisiana/TNI Certification #: 4086

Maine Certification #: PA0091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nevada Certification

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188

Utah/TNI Certification #: ANTE

Virgin Island/PADEP Certification

Virginia Certification #: 00112

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia Certification #: 143

Wisconsin/PADEP Certification

Wyoming Certification #: 8TMS-Q

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Essex/Hope Jamestown

Pace Project No.: 3078348

Sample: PRE-CARB		Lab ID: 3078348001	Collected: 09/25/12 13:30	Received: 09/27/12 09:20	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	75400	ug/L	2000	200		10/04/12 23:59	67-64-1	
Benzene	18.4	ug/L	1.0	1		10/04/12 23:35	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		10/04/12 23:35	75-27-4	
Bromoform	ND	ug/L	5.0	1		10/04/12 23:35	75-25-2	
Bromomethane	ND	ug/L	5.0	1		10/04/12 23:35	74-83-9	
2-Butanone (MEK)	171	ug/L	10.0	1		10/04/12 23:35	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		10/04/12 23:35	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		10/04/12 23:35	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		10/04/12 23:35	108-90-7	
Chloroethane	ND	ug/L	5.0	1		10/04/12 23:35	75-00-3	
Chloroform	ND	ug/L	5.0	1		10/04/12 23:35	67-66-3	
Chloromethane	ND	ug/L	5.0	1		10/04/12 23:35	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		10/04/12 23:35	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		10/04/12 23:35	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		10/04/12 23:35	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		10/04/12 23:35	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		10/04/12 23:35	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		10/04/12 23:35	107-06-2	
1,1-Dichloroethene	23.0	ug/L	5.0	1		10/04/12 23:35	75-35-4	
cis-1,2-Dichloroethene	9130	ug/L	1000	200		10/04/12 23:59	156-59-2	
trans-1,2-Dichloroethene	156	ug/L	5.0	1		10/04/12 23:35	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		10/04/12 23:35	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		10/04/12 23:35	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		10/04/12 23:35	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		10/04/12 23:35	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		10/04/12 23:35	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		10/04/12 23:35	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		10/04/12 23:35	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		10/04/12 23:35	108-10-1	
Styrene	ND	ug/L	5.0	1		10/04/12 23:35	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		10/04/12 23:35	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		10/04/12 23:35	127-18-4	
Toluene	ND	ug/L	5.0	1		10/04/12 23:35	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		10/04/12 23:35	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		10/04/12 23:35	79-00-5	
Trichloroethene	1730	ug/L	1000	200		10/04/12 23:59	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		10/04/12 23:35	75-69-4	
Vinyl chloride	1660	ug/L	200	200		10/04/12 23:59	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		10/04/12 23:35	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		10/04/12 23:35	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	101	%	70-130	1		10/04/12 23:35	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	70-130	1		10/04/12 23:35	17060-07-0	
Toluene-d8 (S)	84	%	70-130	1		10/04/12 23:35	2037-26-5	

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown

Pace Project No.: 3078348

Sample: PRIMARY-EFF		Lab ID: 3078348002	Collected: 09/25/12 13:35	Received: 09/27/12 09:20	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	3960	ug/L	100	10		10/04/12 22:22	67-64-1	
Benzene	ND	ug/L	1.0	1		10/04/12 21:57	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		10/04/12 21:57	75-27-4	
Bromoform	ND	ug/L	5.0	1		10/04/12 21:57	75-25-2	
Bromomethane	ND	ug/L	5.0	1		10/04/12 21:57	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		10/04/12 21:57	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		10/04/12 21:57	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		10/04/12 21:57	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		10/04/12 21:57	108-90-7	
Chloroethane	ND	ug/L	5.0	1		10/04/12 21:57	75-00-3	
Chloroform	ND	ug/L	5.0	1		10/04/12 21:57	67-66-3	
Chloromethane	ND	ug/L	5.0	1		10/04/12 21:57	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		10/04/12 21:57	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		10/04/12 21:57	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		10/04/12 21:57	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		10/04/12 21:57	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		10/04/12 21:57	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		10/04/12 21:57	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		10/04/12 21:57	75-35-4	
cis-1,2-Dichloroethene	53.1	ug/L	5.0	1		10/04/12 21:57	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		10/04/12 21:57	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		10/04/12 21:57	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		10/04/12 21:57	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		10/04/12 21:57	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		10/04/12 21:57	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		10/04/12 21:57	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		10/04/12 21:57	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		10/04/12 21:57	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		10/04/12 21:57	108-10-1	
Styrene	ND	ug/L	5.0	1		10/04/12 21:57	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		10/04/12 21:57	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		10/04/12 21:57	127-18-4	
Toluene	ND	ug/L	5.0	1		10/04/12 21:57	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		10/04/12 21:57	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		10/04/12 21:57	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		10/04/12 21:57	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		10/04/12 21:57	75-69-4	
Vinyl chloride	1030	ug/L	10.0	10		10/04/12 22:22	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		10/04/12 21:57	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		10/04/12 21:57	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	103	%	70-130	1		10/04/12 21:57	460-00-4	
1,2-Dichloroethane-d4 (S)	108	%	70-130	1		10/04/12 21:57	17060-07-0	
Toluene-d8 (S)	88	%	70-130	1		10/04/12 21:57	2037-26-5	

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown

Pace Project No.: 3078348

Sample: POST-CARB **Lab ID: 3078348003** Collected: 09/25/12 15:10 Received: 09/27/12 09:20 Matrix: Water

Comments: • VOA 8260: This sample was composited from four vials prior to analysis.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	21.2	ug/L	10.0	1		10/04/12 21:33	67-64-1	
Benzene	ND	ug/L	1.0	1		10/04/12 21:33	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		10/04/12 21:33	75-27-4	
Bromoform	ND	ug/L	5.0	1		10/04/12 21:33	75-25-2	
Bromomethane	ND	ug/L	5.0	1		10/04/12 21:33	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		10/04/12 21:33	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		10/04/12 21:33	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		10/04/12 21:33	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		10/04/12 21:33	108-90-7	
Chloroethane	ND	ug/L	5.0	1		10/04/12 21:33	75-00-3	
Chloroform	ND	ug/L	5.0	1		10/04/12 21:33	67-66-3	
Chloromethane	ND	ug/L	5.0	1		10/04/12 21:33	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		10/04/12 21:33	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		10/04/12 21:33	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		10/04/12 21:33	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		10/04/12 21:33	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		10/04/12 21:33	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		10/04/12 21:33	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		10/04/12 21:33	75-35-4	
cis-1,2-Dichloroethene	18.8	ug/L	5.0	1		10/04/12 21:33	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		10/04/12 21:33	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		10/04/12 21:33	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		10/04/12 21:33	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		10/04/12 21:33	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		10/04/12 21:33	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		10/04/12 21:33	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		10/04/12 21:33	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		10/04/12 21:33	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		10/04/12 21:33	108-10-1	
Styrene	ND	ug/L	5.0	1		10/04/12 21:33	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		10/04/12 21:33	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		10/04/12 21:33	127-18-4	
Toluene	ND	ug/L	5.0	1		10/04/12 21:33	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		10/04/12 21:33	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		10/04/12 21:33	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		10/04/12 21:33	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		10/04/12 21:33	75-69-4	
Vinyl chloride	19.6	ug/L	1.0	1		10/04/12 21:33	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		10/04/12 21:33	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		10/04/12 21:33	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	102	%	70-130	1		10/04/12 21:33	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	70-130	1		10/04/12 21:33	17060-07-0	
Toluene-d8 (S)	86	%	70-130	1		10/04/12 21:33	2037-26-5	

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown
Pace Project No.: 3078348

Sample: TB-01		Lab ID: 3078348004		Collected: 09/25/12 00:01		Received: 09/27/12 09:20		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Acetone	ND	ug/L	10.0	1		10/04/12 21:09	67-64-1		
Benzene	ND	ug/L	1.0	1		10/04/12 21:09	71-43-2		
Bromodichloromethane	ND	ug/L	5.0	1		10/04/12 21:09	75-27-4		
Bromoform	ND	ug/L	5.0	1		10/04/12 21:09	75-25-2		
Bromomethane	ND	ug/L	5.0	1		10/04/12 21:09	74-83-9		
2-Butanone (MEK)	ND	ug/L	10.0	1		10/04/12 21:09	78-93-3		
Carbon disulfide	ND	ug/L	5.0	1		10/04/12 21:09	75-15-0		
Carbon tetrachloride	ND	ug/L	5.0	1		10/04/12 21:09	56-23-5		
Chlorobenzene	ND	ug/L	5.0	1		10/04/12 21:09	108-90-7		
Chloroethane	ND	ug/L	5.0	1		10/04/12 21:09	75-00-3		
Chloroform	ND	ug/L	5.0	1		10/04/12 21:09	67-66-3		
Chloromethane	ND	ug/L	5.0	1		10/04/12 21:09	74-87-3		
Dibromochloromethane	ND	ug/L	5.0	1		10/04/12 21:09	124-48-1		
1,2-Dichlorobenzene	ND	ug/L	5.0	1		10/04/12 21:09	95-50-1		
1,3-Dichlorobenzene	ND	ug/L	5.0	1		10/04/12 21:09	541-73-1		
1,4-Dichlorobenzene	ND	ug/L	5.0	1		10/04/12 21:09	106-46-7		
1,1-Dichloroethane	ND	ug/L	5.0	1		10/04/12 21:09	75-34-3		
1,2-Dichloroethane	ND	ug/L	5.0	1		10/04/12 21:09	107-06-2		
1,1-Dichloroethene	ND	ug/L	5.0	1		10/04/12 21:09	75-35-4		
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		10/04/12 21:09	156-59-2		
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		10/04/12 21:09	156-60-5		
1,2-Dichloropropane	ND	ug/L	5.0	1		10/04/12 21:09	78-87-5		
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		10/04/12 21:09	10061-01-5		
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		10/04/12 21:09	10061-02-6		
Ethylbenzene	ND	ug/L	5.0	1		10/04/12 21:09	100-41-4		
2-Hexanone	ND	ug/L	10.0	1		10/04/12 21:09	591-78-6		
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		10/04/12 21:09	98-82-8		
Methylene Chloride	ND	ug/L	5.0	1		10/04/12 21:09	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		10/04/12 21:09	108-10-1		
Styrene	ND	ug/L	5.0	1		10/04/12 21:09	100-42-5		
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		10/04/12 21:09	79-34-5		
Tetrachloroethene	ND	ug/L	5.0	1		10/04/12 21:09	127-18-4		
Toluene	ND	ug/L	5.0	1		10/04/12 21:09	108-88-3		
1,1,1-Trichloroethane	ND	ug/L	5.0	1		10/04/12 21:09	71-55-6		
1,1,2-Trichloroethane	ND	ug/L	5.0	1		10/04/12 21:09	79-00-5		
Trichloroethene	ND	ug/L	5.0	1		10/04/12 21:09	79-01-6		
Trichlorofluoromethane	ND	ug/L	5.0	1		10/04/12 21:09	75-69-4		
Vinyl chloride	ND	ug/L	1.0	1		10/04/12 21:09	75-01-4		
m&p-Xylene	ND	ug/L	5.0	1		10/04/12 21:09	179601-23-1		
o-Xylene	ND	ug/L	5.0	1		10/04/12 21:09	95-47-6		
Surrogates									
4-Bromofluorobenzene (S)	104	%	70-130	1		10/04/12 21:09	460-00-4		
1,2-Dichloroethane-d4 (S)	104	%	70-130	1		10/04/12 21:09	17060-07-0		
Toluene-d8 (S)	83	%	70-130	1		10/04/12 21:09	2037-26-5		

QUALITY CONTROL DATA

Project: Essex/Hope Jamestown

Pace Project No.: 3078348

QC Batch:	MSV/14161	Analysis Method:	EPA 8260
QC Batch Method:	EPA 8260	Analysis Description:	8260 MSV
Associated Lab Samples: 3078348001, 3078348002, 3078348003, 3078348004			

METHOD BLANK:	495444	Matrix:	Water

Associated Lab Samples: 3078348001, 3078348002, 3078348003, 3078348004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	5.0	10/04/12 14:38	
1,1,2,2-Tetrachloroethane	ug/L	ND	5.0	10/04/12 14:38	
1,1,2-Trichloroethane	ug/L	ND	5.0	10/04/12 14:38	
1,1-Dichloroethane	ug/L	ND	5.0	10/04/12 14:38	
1,1-Dichloroethene	ug/L	ND	5.0	10/04/12 14:38	
1,2-Dichlorobenzene	ug/L	ND	5.0	10/04/12 14:38	
1,2-Dichloroethane	ug/L	ND	5.0	10/04/12 14:38	
1,2-Dichloropropane	ug/L	ND	5.0	10/04/12 14:38	
1,3-Dichlorobenzene	ug/L	ND	5.0	10/04/12 14:38	
1,4-Dichlorobenzene	ug/L	ND	5.0	10/04/12 14:38	
2-Butanone (MEK)	ug/L	ND	10.0	10/04/12 14:38	
2-Hexanone	ug/L	ND	10.0	10/04/12 14:38	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	10/04/12 14:38	
Acetone	ug/L	ND	10.0	10/04/12 14:38	
Benzene	ug/L	ND	1.0	10/04/12 14:38	
Bromodichloromethane	ug/L	ND	5.0	10/04/12 14:38	
Bromoform	ug/L	ND	5.0	10/04/12 14:38	
Bromomethane	ug/L	ND	5.0	10/04/12 14:38	
Carbon disulfide	ug/L	ND	5.0	10/04/12 14:38	
Carbon tetrachloride	ug/L	ND	5.0	10/04/12 14:38	
Chlorobenzene	ug/L	ND	5.0	10/04/12 14:38	
Chloroethane	ug/L	ND	5.0	10/04/12 14:38	
Chloroform	ug/L	ND	5.0	10/04/12 14:38	
Chloromethane	ug/L	ND	5.0	10/04/12 14:38	
cis-1,2-Dichloroethene	ug/L	ND	5.0	10/04/12 14:38	
cis-1,3-Dichloropropene	ug/L	ND	5.0	10/04/12 14:38	
Dibromochloromethane	ug/L	ND	5.0	10/04/12 14:38	
Ethylbenzene	ug/L	ND	5.0	10/04/12 14:38	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	10/04/12 14:38	
m&p-Xylene	ug/L	ND	5.0	10/04/12 14:38	
Methylene Chloride	ug/L	ND	5.0	10/04/12 14:38	
o-Xylene	ug/L	ND	5.0	10/04/12 14:38	
Styrene	ug/L	ND	5.0	10/04/12 14:38	
Tetrachloroethene	ug/L	ND	5.0	10/04/12 14:38	
Toluene	ug/L	ND	5.0	10/04/12 14:38	
trans-1,2-Dichloroethene	ug/L	ND	5.0	10/04/12 14:38	
trans-1,3-Dichloropropene	ug/L	ND	5.0	10/04/12 14:38	
Trichloroethene	ug/L	ND	5.0	10/04/12 14:38	
Trichlorofluoromethane	ug/L	ND	5.0	10/04/12 14:38	
Vinyl chloride	ug/L	ND	1.0	10/04/12 14:38	
1,2-Dichloroethane-d4 (S)	%	107	70-130	10/04/12 14:38	
4-Bromofluorobenzene (S)	%	103	70-130	10/04/12 14:38	
Toluene-d8 (S)	%	87	70-130	10/04/12 14:38	

Date: 10/11/2012 03:43 PM

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Essex/Hope Jamestown

Pace Project No.: 3078348

LABORATORY CONTROL SAMPLE: 495445

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	23.4	117	64.3-127	
1,1,2,2-Tetrachloroethane	ug/L	20	15.4	77	64.6-121	
1,1,2-Trichloroethane	ug/L	20	17.1	86	75.6-120	
1,1-Dichloroethane	ug/L	20	23.1	116	68.5-122	
1,1-Dichloroethene	ug/L	20	23.2	116	57.1-120	
1,2-Dichlorobenzene	ug/L	20	17.2	86	69.6-120	
1,2-Dichloroethane	ug/L	20	21.8	109	60.5-133	
1,2-Dichloropropane	ug/L	20	16.2	81	71-120	
1,3-Dichlorobenzene	ug/L	20	16.7	84	68.4-121	
1,4-Dichlorobenzene	ug/L	20	17.1	85	68.5-123	
2-Butanone (MEK)	ug/L	20	21.5	108	55.7-138	
2-Hexanone	ug/L	20	16.7	84	67-133	
4-Methyl-2-pentanone (MIBK)	ug/L	20	15.0	75	64.5-121	
Acetone	ug/L	20	22.7	114	57.6-168	
Benzene	ug/L	20	17.2	86	69.8-120	
Bromodichloromethane	ug/L	20	16.9	84	66.5-120	
Bromoform	ug/L	20	15.7	79	61.1-120	
Bromomethane	ug/L	20	17.4	87	10.6-200	
Carbon disulfide	ug/L	20	24.1	121	60.2-122	
Carbon tetrachloride	ug/L	20	17.2	86	60.1-127	
Chlorobenzene	ug/L	20	16.9	84	72-120	
Chloroethane	ug/L	20	20.6	103	36.8-142	
Chloroform	ug/L	20	22.4	112	69-122	
Chloromethane	ug/L	20	18.8	94	37.2-129	
cis-1,2-Dichloroethene	ug/L	20	22.5	112	69.5-123	
cis-1,3-Dichloropropene	ug/L	20	16.8	84	74.3-120	
Dibromochloromethane	ug/L	20	18.0	90	66.1-120	
Ethylbenzene	ug/L	20	16.9	85	70.9-124	
Isopropylbenzene (Cumene)	ug/L	20	17.5	88	68.3-129	
m&p-Xylene	ug/L	40	32.5	81	70.4-130	
Methylene Chloride	ug/L	20	19.0	95	61.5-125	
o-Xylene	ug/L	20	16.9	85	70.6-127	
Styrene	ug/L	20	21.3	107	69.9-120	
Tetrachloroethene	ug/L	20	17.3	86	63.4-121	
Toluene	ug/L	20	16.8	84	71.5-120	
trans-1,2-Dichloroethene	ug/L	20	21.7	109	64.1-120	
trans-1,3-Dichloropropene	ug/L	20	16.7	84	71-120	
Trichloroethene	ug/L	20	17.6	88	65.9-120	
Trichlorofluoromethane	ug/L	20	25.5	128	44.8-137	
Vinyl chloride	ug/L	20	21.6	108	51-127	
1,2-Dichloroethane-d4 (S)	%			98	70-130	
4-Bromofluorobenzene (S)	%			98	70-130	
Toluene-d8 (S)	%			88	70-130	

QUALITY CONTROL DATA

Project: Essex/Hope Jamestown

Pace Project No.: 3078348

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 495446 495447											
Parameter	Units	3078325003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	20	20	21.8	25.0	109	125	64.3-127	14	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	12.2	15.5	61	78	64.6-121	24	M0
1,1,2-Trichloroethane	ug/L	ND	20	20	14.4	16.6	72	83	75.6-120	14	M0
1,1-Dichloroethane	ug/L	ND	20	20	20.2	24.0	101	120	68.5-122	17	
1,1-Dichloroethene	ug/L	ND	20	20	22.4	26.0	112	130	57.1-120	15	M0
1,2-Dichlorobenzene	ug/L	ND	20	20	13.6	15.9	68	79	69.6-120	15	M0
1,2-Dichloroethane	ug/L	ND	20	20	19.3	23.9	97	119	60.5-133	21	
1,2-Dichloropropane	ug/L	ND	20	20	13.5	16.5	67	82	71-120	20	M0
1,3-Dichlorobenzene	ug/L	ND	20	20	13.3	15.5	67	78	68.4-121	15	M0
1,4-Dichlorobenzene	ug/L	ND	20	20	13.4	15.9	67	80	68.5-123	17	M0
2-Butanone (MEK)	ug/L	ND	20	20	17.8	24.6	89	123	55.7-138	32	R1
2-Hexanone	ug/L	ND	20	20	13.9	18.4	70	92	67-133	28	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	20	20	13.4	17.3	67	87	64.5-121	25	
Acetone	ug/L	ND	20	20	28.5	32.7	142	163	57.6-168	14	
Benzene	ug/L	ND	20	20	14.2	17.1	71	86	69.8-120	18	
Bromodichloromethane	ug/L	ND	20	20	14.4	17.3	72	87	66.5-120	19	
Bromoform	ug/L	ND	20	20	12.5	14.8	63	74	61.1-120	17	
Bromomethane	ug/L	ND	20	20	13.7	18.0	69	90	10.6-200	27	
Carbon disulfide	ug/L	ND	20	20	20.1	26.5	100	133	60.2-122	28	M0
Carbon tetrachloride	ug/L	ND	20	20	15.7	17.8	78	89	60.1-127	13	
Chlorobenzene	ug/L	ND	20	20	14.1	16.5	71	83	72-120	16	M0
Chloroethane	ug/L	ND	20	20	23.1	21.7	115	108	36.8-142	6	
Chloroform	ug/L	ND	20	20	20.3	23.8	102	119	69-122	16	
Chloromethane	ug/L	ND	20	20	18.7	20.3	93	101	37.2-129	8	
cis-1,2-Dichloroethene	ug/L	ND	20	20	20.6	24.1	103	121	69.5-123	16	
cis-1,3-Dichloropropene	ug/L	ND	20	20	13.5	16.7	68	83	74.3-120	21	M0
Dibromochloromethane	ug/L	ND	20	20	14.7	17.4	73	87	66.1-120	17	
Ethylbenzene	ug/L	ND	20	20	14.3	16.4	72	82	70.9-124	14	
Isopropylbenzene (Cumene)	ug/L	ND	20	20	14.5	17.8	72	89	68.3-129	21	
m&p-Xylene	ug/L	ND	40	40	27.8	32.3	69	81	70.4-130	15	M0
Methylene Chloride	ug/L	ND	20	20	17.4	20.7	87	104	61.5-125	18	
o-Xylene	ug/L	ND	20	20	14.6	16.7	73	83	70.6-127	13	
Styrene	ug/L	ND	20	20	18.5	20.4	93	102	69.9-120	10	
Tetrachloroethene	ug/L	ND	20	20	14.8	17.0	74	85	63.4-121	14	
Toluene	ug/L	ND	20	20	14.3	16.9	72	85	71.5-120	17	
trans-1,2-Dichloroethene	ug/L	ND	20	20	20.2	23.9	101	119	64.1-120	17	
trans-1,3-Dichloropropene	ug/L	ND	20	20	13.5	16.9	68	84	71-120	22	M0
Trichloroethene	ug/L	ND	20	20	15.5	17.7	77	89	65.9-120	13	
Trichlorofluoromethane	ug/L	ND	20	20	31.0	28.9	155	145	44.8-137	7	M0
Vinyl chloride	ug/L	ND	20	20	24.9	25.0	125	125	51-127	.08	
1,2-Dichloroethane-d4 (S)	%						109	106	70-130		
4-Bromofluorobenzene (S)	%						98	99	70-130		
Toluene-d8 (S)	%						86	87	70-130		

QUALIFIERS

Project: Essex/Hope Jamestown
Pace Project No.: 3078348

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

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.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

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.

ANALYTE QUALIFIERS

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

R1 RPD value was outside control limits.

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Essex/Hope Jamestown

Pace Project No.: 3078348

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
3078348001	PRE-CARB	EPA 8260	MSV/14161		
3078348002	PRIMARY-EFF	EPA 8260	MSV/14161		
3078348003	POST-CARB	EPA 8260	MSV/14161		
3078348004	TB-01	EPA 8260	MSV/14161		

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	URS CORP	Report To:	MARK DOWIAK	Attention:	
Address:	FOSTER PLAZA 6 601 ANDERSEN DR. STE. 400 PITTSBURGH, PA 15220	Copy To:	VALERIE SIBETO	Company Name:	
Email To:				Address:	
Phone:	412-503-4700	Purchase Order No.:	415269181	Pace Quote Reference:	
Requested Due Date/TAT:	STANDARD	Project Name:	ESSEX/HOPE JAMESTOWN	Pace Project Manager:	
		Project Number:	4152691810000	Pace Profile #:	
				REGULATORY AGENCY	
				NPDES	GROUND WATER
				UST	RCRA
					OTHER
				Site Location	
				STATE:	NY
				1567966	
				Page: 1 of 1	

[illegible]

SAMPLER NAME AND SIGNATURE _____	PRINT NAME of SAMPLER: VALERIE SIBETO	DATE Signed (MM/DD/YY): 9.26.12	Temp in °C Received on Ice (Y/N) Custody Sealed Cooler (Y/N) Samples Intact (Y/N)
	SIGNATURE of SAMPLER: <i>[Signature]</i>		

ADD

Sample Condition Upon Receipt



Client Name: URS

Project # 358348

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

Tracking #: 705766545700

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

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

Thermometer Used (5) 6 7

Type of Ice: Wet Blue None ☒ Samples on ice, cooling process has begun

Cooler Temperature 2.2

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 12/9/27/12

Temp should be above freezing to 6°C

Comments:

Chain of Custody Present:	☒ Yes ☐ No ☐ N/A	1.
Chain of Custody Filled Out:	☒ Yes ☐ No ☐ N/A	2.
Chain of Custody Relinquished:	☒ Yes ☐ No ☐ N/A	3.
Sampler Name & Signature on COC:	☒ Yes ☐ No ☐ N/A	4.
Samples Arrived within Hold Time:	☒ Yes ☐ No ☐ N/A	5.
Short Hold Time Analysis (<72hr):	☐ Yes ☒ No ☐ N/A	6.
Rush Turn Around Time Requested:	☐ Yes ☒ No ☐ N/A	7.
Sufficient Volume:	☒ Yes ☐ No ☐ N/A	8.
Correct Containers Used:	☒ Yes ☐ No ☐ N/A	9.
-Pace Containers Used:	☒ Yes ☐ No ☐ N/A	
Containers Intact:	☒ Yes ☐ No ☐ N/A	10.
Filtered volume received for Dissolved tests	☐ Yes ☐ No ☒ N/A	11.
Sample Labels match COC:	☒ Yes ☐ No ☐ N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>WA</u>		
All containers needing preservation have been checked.	☐ Yes ☐ No ☒ N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐ Yes ☐ No ☒ N/A	
exceptions: <u>VOA</u> , conform, TOC, O&G, WI-DRO (water)	☒ Yes ☐ No	Initial when completed <u>WV</u> Lot # of added preservative
Samples checked for dechlorination:	☐ Yes ☐ No ☒ N/A	14.
Headspace in VOA Vials (>6mm):	☐ Yes ☐ No ☒ N/A	15.
Trip Blank Present:	☒ Yes ☐ No ☐ N/A	16.
Trip Blank Custody Seals Present	☒ Yes ☐ No ☐ N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____

Date: 9/27/12

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

Client Name: VR5

[illegible]

November 09, 2012

Mr. Mark Dowiak
URS Corporation
Foster Plaza 6
681 Andersen Drive, Suite 400
Pittsburgh, PA 15220

RE: Project: 41569181/Essex-Hope
Pace Project No.: 3080965

Dear Mr. Dowiak:

Enclosed are the analytical results for sample(s) received by the laboratory on November 01, 2012. 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.

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

Sincerely,



Timothy Reed

timothy.reed@pacelabs.com
Project Manager

Enclosures

cc: Ms. Valerie Sibeto, URS Corporation



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc..

CERTIFICATIONS

Project: 41569181/Essex-Hope

Pace Project No.: 3080965

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4 Greensburg, PA 15601

ACCLASS DOD-ELAP Accreditation #: ADE-1544

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California/TNI Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683

Guam/PADEP Certification

Hawaii/PADEP Certification

Idaho Certification

Illinois/PADEP Certification

Indiana/PADEP Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana/TNI Certification #: LA080002

Louisiana/TNI Certification #: 4086

Maine Certification #: PA0091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nevada Certification

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188

Utah/TNI Certification #: ANTE

Virgin Island/PADEP Certification

Virginia Certification #: 00112

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia Certification #: 143

Wisconsin/PADEP Certification

Wyoming Certification #: 8TMS-Q

REPORT OF LABORATORY ANALYSIS

Page 2 of 10

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ANALYTICAL RESULTS

Project: 41569181/Essex-Hope

Pace Project No.: 3080965

Sample: PRE-CARB		Lab ID: 3080965001	Collected: 10/31/12 10:45	Received: 11/01/12 10:10	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	47100	ug/L	4000	400		11/09/12 10:17	67-64-1	
Benzene	56.3	ug/L	1.0	1		11/07/12 21:23	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		11/07/12 21:23	75-27-4	
Bromoform	ND	ug/L	5.0	1		11/07/12 21:23	75-25-2	
Bromomethane	ND	ug/L	5.0	1		11/07/12 21:23	74-83-9	
2-Butanone (MEK)	227	ug/L	10.0	1		11/07/12 21:23	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		11/07/12 21:23	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		11/07/12 21:23	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		11/07/12 21:23	108-90-7	
Chloroethane	ND	ug/L	5.0	1		11/07/12 21:23	75-00-3	
Chloroform	ND	ug/L	5.0	1		11/07/12 21:23	67-66-3	
Chloromethane	ND	ug/L	5.0	1		11/07/12 21:23	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		11/07/12 21:23	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		11/07/12 21:23	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		11/07/12 21:23	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		11/07/12 21:23	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		11/07/12 21:23	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		11/07/12 21:23	107-06-2	
1,1-Dichloroethene	30.4	ug/L	5.0	1		11/07/12 21:23	75-35-4	
cis-1,2-Dichloroethene	9970	ug/L	250	50		11/07/12 21:48	156-59-2	
trans-1,2-Dichloroethene	41.9	ug/L	5.0	1		11/07/12 21:23	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		11/07/12 21:23	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		11/07/12 21:23	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		11/07/12 21:23	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		11/07/12 21:23	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		11/07/12 21:23	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		11/07/12 21:23	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		11/07/12 21:23	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		11/07/12 21:23	108-10-1	
Styrene	ND	ug/L	5.0	1		11/07/12 21:23	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		11/07/12 21:23	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		11/07/12 21:23	127-18-4	
Toluene	ND	ug/L	5.0	1		11/07/12 21:23	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		11/07/12 21:23	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		11/07/12 21:23	79-00-5	
Trichloroethene	7360	ug/L	250	50		11/07/12 21:48	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		11/07/12 21:23	75-69-4	
Vinyl chloride	1050	ug/L	50.0	50		11/07/12 21:48	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		11/07/12 21:23	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		11/07/12 21:23	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	98	%	85-115	1		11/07/12 21:23	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	77-119	1		11/07/12 21:23	17060-07-0	
Toluene-d8 (S)	98	%	85-115	1		11/07/12 21:23	2037-26-5	

ANALYTICAL RESULTS

Project: 41569181/Essex-Hope

Pace Project No.: 3080965

Sample: PRIMARY EFF		Lab ID: 3080965002		Collected: 10/31/12 10:50		Received: 11/01/12 10:10		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
8260 MSV		Analytical Method: EPA 8260							
Acetone	24200	ug/L	4000	400		11/09/12 09:53	67-64-1		
Benzene	ND	ug/L	1.0	1		11/07/12 14:25	71-43-2		
Bromodichloromethane	ND	ug/L	5.0	1		11/07/12 14:25	75-27-4		
Bromoform	ND	ug/L	5.0	1		11/07/12 14:25	75-25-2		
Bromomethane	ND	ug/L	5.0	1		11/07/12 14:25	74-83-9		
2-Butanone (MEK)	ND	ug/L	10.0	1		11/07/12 14:25	78-93-3		
Carbon disulfide	ND	ug/L	5.0	1		11/07/12 14:25	75-15-0		
Carbon tetrachloride	ND	ug/L	5.0	1		11/07/12 14:25	56-23-5		
Chlorobenzene	ND	ug/L	5.0	1		11/07/12 14:25	108-90-7		
Chloroethane	ND	ug/L	5.0	1		11/07/12 14:25	75-00-3		
Chloroform	ND	ug/L	5.0	1		11/07/12 14:25	67-66-3		
Chloromethane	ND	ug/L	5.0	1		11/07/12 14:25	74-87-3		
Dibromochloromethane	ND	ug/L	5.0	1		11/07/12 14:25	124-48-1		
1,2-Dichlorobenzene	ND	ug/L	5.0	1		11/07/12 14:25	95-50-1		
1,3-Dichlorobenzene	ND	ug/L	5.0	1		11/07/12 14:25	541-73-1		
1,4-Dichlorobenzene	ND	ug/L	5.0	1		11/07/12 14:25	106-46-7		
1,1-Dichloroethane	ND	ug/L	5.0	1		11/07/12 14:25	75-34-3		
1,2-Dichloroethane	ND	ug/L	5.0	1		11/07/12 14:25	107-06-2		
1,1-Dichloroethene	ND	ug/L	5.0	1		11/07/12 14:25	75-35-4		
cis-1,2-Dichloroethene	29.6	ug/L	5.0	1		11/07/12 14:25	156-59-2		
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		11/07/12 14:25	156-60-5		
1,2-Dichloropropane	ND	ug/L	5.0	1		11/07/12 14:25	78-87-5		
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		11/07/12 14:25	10061-01-5		
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		11/07/12 14:25	10061-02-6		
Ethylbenzene	ND	ug/L	5.0	1		11/07/12 14:25	100-41-4		
2-Hexanone	ND	ug/L	10.0	1		11/07/12 14:25	591-78-6		
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		11/07/12 14:25	98-82-8		
Methylene Chloride	ND	ug/L	5.0	1		11/07/12 14:25	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		11/07/12 14:25	108-10-1		
Styrene	ND	ug/L	5.0	1		11/07/12 14:25	100-42-5		
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		11/07/12 14:25	79-34-5		
Tetrachloroethene	ND	ug/L	5.0	1		11/07/12 14:25	127-18-4		
Toluene	ND	ug/L	5.0	1		11/07/12 14:25	108-88-3		
1,1,1-Trichloroethane	ND	ug/L	5.0	1		11/07/12 14:25	71-55-6		
1,1,2-Trichloroethane	ND	ug/L	5.0	1		11/07/12 14:25	79-00-5		
Trichloroethene	ND	ug/L	5.0	1		11/07/12 14:25	79-01-6		
Trichlorofluoromethane	ND	ug/L	5.0	1		11/07/12 14:25	75-69-4		
Vinyl chloride	1060	ug/L	200	200		11/07/12 20:58	75-01-4		
m&p-Xylene	ND	ug/L	5.0	1		11/07/12 14:25	179601-23-1		
o-Xylene	ND	ug/L	5.0	1		11/07/12 14:25	95-47-6		
Surrogates									
4-Bromofluorobenzene (S)	97	%	85-115	1		11/07/12 14:25	460-00-4		
1,2-Dichloroethane-d4 (S)	102	%	77-119	1		11/07/12 14:25	17060-07-0		
Toluene-d8 (S)	97	%	85-115	1		11/07/12 14:25	2037-26-5		

ANALYTICAL RESULTS

Project: 41569181/Essex-Hope

Pace Project No.: 3080965

Sample: POST CARB **Lab ID: 3080965003** Collected: 10/31/12 12:25 Received: 11/01/12 10:10 Matrix: Water

Comments: • VOA 8260: This sample was composited from four vials prior to analysis for 8260.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	20100	ug/L	4000	400		11/09/12 09:28	67-64-1	
Benzene	ND	ug/L	1.0	1		11/07/12 20:34	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		11/07/12 20:34	75-27-4	
Bromoform	ND	ug/L	5.0	1		11/07/12 20:34	75-25-2	
Bromomethane	ND	ug/L	5.0	1		11/07/12 20:34	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		11/07/12 20:34	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		11/07/12 20:34	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		11/07/12 20:34	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		11/07/12 20:34	108-90-7	
Chloroethane	ND	ug/L	5.0	1		11/07/12 20:34	75-00-3	
Chloroform	ND	ug/L	5.0	1		11/07/12 20:34	67-66-3	
Chloromethane	ND	ug/L	5.0	1		11/07/12 20:34	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		11/07/12 20:34	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		11/07/12 20:34	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		11/07/12 20:34	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		11/07/12 20:34	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		11/07/12 20:34	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		11/07/12 20:34	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		11/07/12 20:34	75-35-4	
cis-1,2-Dichloroethene	54.2	ug/L	5.0	1		11/07/12 20:34	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		11/07/12 20:34	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		11/07/12 20:34	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		11/07/12 20:34	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		11/07/12 20:34	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		11/07/12 20:34	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		11/07/12 20:34	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		11/07/12 20:34	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		11/07/12 20:34	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		11/07/12 20:34	108-10-1	
Styrene	ND	ug/L	5.0	1		11/07/12 20:34	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		11/07/12 20:34	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		11/07/12 20:34	127-18-4	
Toluene	ND	ug/L	5.0	1		11/07/12 20:34	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		11/07/12 20:34	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		11/07/12 20:34	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		11/07/12 20:34	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		11/07/12 20:34	75-69-4	
Vinyl chloride	11.0	ug/L	1.0	1		11/07/12 20:34	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		11/07/12 20:34	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		11/07/12 20:34	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	98	%	85-115	1		11/07/12 20:34	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	77-119	1		11/07/12 20:34	17060-07-0	
Toluene-d8 (S)	97	%	85-115	1		11/07/12 20:34	2037-26-5	

ANALYTICAL RESULTS

Project: 41569181/Essex-Hope

Pace Project No.: 3080965

Sample: TB-01		Lab ID: 3080965004	Collected: 10/31/12 00:01	Received: 11/01/12 10:10	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	18.5 ug/L		10.0	1		11/07/12 20:09	67-64-1	
Benzene	ND ug/L		1.0	1		11/07/12 20:09	71-43-2	
Bromodichloromethane	ND ug/L		5.0	1		11/07/12 20:09	75-27-4	
Bromoform	ND ug/L		5.0	1		11/07/12 20:09	75-25-2	
Bromomethane	ND ug/L		5.0	1		11/07/12 20:09	74-83-9	
2-Butanone (MEK)	ND ug/L		10.0	1		11/07/12 20:09	78-93-3	
Carbon disulfide	ND ug/L		5.0	1		11/07/12 20:09	75-15-0	
Carbon tetrachloride	ND ug/L		5.0	1		11/07/12 20:09	56-23-5	
Chlorobenzene	ND ug/L		5.0	1		11/07/12 20:09	108-90-7	
Chloroethane	ND ug/L		5.0	1		11/07/12 20:09	75-00-3	
Chloroform	ND ug/L		5.0	1		11/07/12 20:09	67-66-3	
Chloromethane	ND ug/L		5.0	1		11/07/12 20:09	74-87-3	
Dibromochloromethane	ND ug/L		5.0	1		11/07/12 20:09	124-48-1	
1,2-Dichlorobenzene	ND ug/L		5.0	1		11/07/12 20:09	95-50-1	
1,3-Dichlorobenzene	ND ug/L		5.0	1		11/07/12 20:09	541-73-1	
1,4-Dichlorobenzene	ND ug/L		5.0	1		11/07/12 20:09	106-46-7	
1,1-Dichloroethane	ND ug/L		5.0	1		11/07/12 20:09	75-34-3	
1,2-Dichloroethane	ND ug/L		5.0	1		11/07/12 20:09	107-06-2	
1,1-Dichloroethene	ND ug/L		5.0	1		11/07/12 20:09	75-35-4	
cis-1,2-Dichloroethene	ND ug/L		5.0	1		11/07/12 20:09	156-59-2	
trans-1,2-Dichloroethene	ND ug/L		5.0	1		11/07/12 20:09	156-60-5	
1,2-Dichloropropane	ND ug/L		5.0	1		11/07/12 20:09	78-87-5	
cis-1,3-Dichloropropene	ND ug/L		5.0	1		11/07/12 20:09	10061-01-5	
trans-1,3-Dichloropropene	ND ug/L		5.0	1		11/07/12 20:09	10061-02-6	
Ethylbenzene	ND ug/L		5.0	1		11/07/12 20:09	100-41-4	
2-Hexanone	ND ug/L		10.0	1		11/07/12 20:09	591-78-6	
Isopropylbenzene (Cumene)	ND ug/L		1.0	1		11/07/12 20:09	98-82-8	
Methylene Chloride	ND ug/L		5.0	1		11/07/12 20:09	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/L		10.0	1		11/07/12 20:09	108-10-1	
Styrene	ND ug/L		5.0	1		11/07/12 20:09	100-42-5	
1,1,2,2-Tetrachloroethane	ND ug/L		5.0	1		11/07/12 20:09	79-34-5	
Tetrachloroethene	ND ug/L		5.0	1		11/07/12 20:09	127-18-4	
Toluene	ND ug/L		5.0	1		11/07/12 20:09	108-88-3	
1,1,1-Trichloroethane	ND ug/L		5.0	1		11/07/12 20:09	71-55-6	
1,1,2-Trichloroethane	ND ug/L		5.0	1		11/07/12 20:09	79-00-5	
Trichloroethene	ND ug/L		5.0	1		11/07/12 20:09	79-01-6	
Trichlorofluoromethane	ND ug/L		5.0	1		11/07/12 20:09	75-69-4	
Vinyl chloride	ND ug/L		1.0	1		11/07/12 20:09	75-01-4	
m&p-Xylene	ND ug/L		5.0	1		11/07/12 20:09	179601-23-1	
o-Xylene	ND ug/L		5.0	1		11/07/12 20:09	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	95 %		85-115	1		11/07/12 20:09	460-00-4	
1,2-Dichloroethane-d4 (S)	105 %		77-119	1		11/07/12 20:09	17060-07-0	
Toluene-d8 (S)	96 %		85-115	1		11/07/12 20:09	2037-26-5	

QUALITY CONTROL DATA

Project: 41569181/Essex-Hope

Pace Project No.: 3080965

QC Batch: MSV/14493 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 3080965001, 3080965002, 3080965003, 3080965004

METHOD BLANK: 509296 Matrix: Water

Associated Lab Samples: 3080965001, 3080965002, 3080965003, 3080965004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	5.0	11/07/12 12:46	
1,1,2,2-Tetrachloroethane	ug/L	ND	5.0	11/07/12 12:46	
1,1,2-Trichloroethane	ug/L	ND	5.0	11/07/12 12:46	
1,1-Dichloroethane	ug/L	ND	5.0	11/07/12 12:46	
1,1-Dichloroethene	ug/L	ND	5.0	11/07/12 12:46	
1,2-Dichlorobenzene	ug/L	ND	5.0	11/07/12 12:46	
1,2-Dichloroethane	ug/L	ND	5.0	11/07/12 12:46	
1,2-Dichloropropane	ug/L	ND	5.0	11/07/12 12:46	
1,3-Dichlorobenzene	ug/L	ND	5.0	11/07/12 12:46	
1,4-Dichlorobenzene	ug/L	ND	5.0	11/07/12 12:46	
2-Butanone (MEK)	ug/L	ND	10.0	11/07/12 12:46	
2-Hexanone	ug/L	ND	10.0	11/07/12 12:46	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	11/07/12 12:46	
Acetone	ug/L	ND	10.0	11/07/12 12:46	
Benzene	ug/L	ND	1.0	11/07/12 12:46	
Bromodichloromethane	ug/L	ND	5.0	11/07/12 12:46	
Bromoform	ug/L	ND	5.0	11/07/12 12:46	
Bromomethane	ug/L	ND	5.0	11/07/12 12:46	
Carbon disulfide	ug/L	ND	5.0	11/07/12 12:46	
Carbon tetrachloride	ug/L	ND	5.0	11/07/12 12:46	
Chlorobenzene	ug/L	ND	5.0	11/07/12 12:46	
Chloroethane	ug/L	ND	5.0	11/07/12 12:46	
Chloroform	ug/L	ND	5.0	11/07/12 12:46	
Chloromethane	ug/L	ND	5.0	11/07/12 12:46	
cis-1,2-Dichloroethene	ug/L	ND	5.0	11/07/12 12:46	
cis-1,3-Dichloropropene	ug/L	ND	5.0	11/07/12 12:46	
Dibromochloromethane	ug/L	ND	5.0	11/07/12 12:46	
Ethylbenzene	ug/L	ND	5.0	11/07/12 12:46	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	11/07/12 12:46	
m&p-Xylene	ug/L	ND	5.0	11/07/12 12:46	
Methylene Chloride	ug/L	ND	5.0	11/07/12 12:46	
o-Xylene	ug/L	ND	5.0	11/07/12 12:46	
Styrene	ug/L	ND	5.0	11/07/12 12:46	
Tetrachloroethene	ug/L	ND	5.0	11/07/12 12:46	
Toluene	ug/L	ND	5.0	11/07/12 12:46	
trans-1,2-Dichloroethene	ug/L	ND	5.0	11/07/12 12:46	
trans-1,3-Dichloropropene	ug/L	ND	5.0	11/07/12 12:46	
Trichloroethene	ug/L	ND	5.0	11/07/12 12:46	
Trichlorofluoromethane	ug/L	ND	5.0	11/07/12 12:46	
Vinyl chloride	ug/L	ND	1.0	11/07/12 12:46	
1,2-Dichloroethane-d4 (S)	%	102	77-119	11/07/12 12:46	
4-Bromofluorobenzene (S)	%	95	85-115	11/07/12 12:46	
Toluene-d8 (S)	%	98	85-115	11/07/12 12:46	

Date: 11/09/2012 01:21 PM

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 41569181/Essex-Hope

Pace Project No.: 3080965

LABORATORY CONTROL SAMPLE: 509297

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	19.7	98	62-125	
1,1,2,2-Tetrachloroethane	ug/L	20	17.4	87	61-117	
1,1,2-Trichloroethane	ug/L	20	18.9	95	72-119	
1,1-Dichloroethane	ug/L	20	20.7	104	63-123	
1,1-Dichloroethene	ug/L	20	19.5	98	57-127	
1,2-Dichlorobenzene	ug/L	20	20.2	101	70-116	
1,2-Dichloroethane	ug/L	20	19.6	98	62-125	
1,2-Dichloropropane	ug/L	20	18.9	95	69-115	
1,3-Dichlorobenzene	ug/L	20	19.3	97	71-118	
1,4-Dichlorobenzene	ug/L	20	19.6	98	67-119	
2-Butanone (MEK)	ug/L	20	17.0	85	48-136	
2-Hexanone	ug/L	20	16.5	83	52-130	
4-Methyl-2-pentanone (MIBK)	ug/L	20	15.3	77	57-124	
Acetone	ug/L	20	18.3	92	49-138	
Benzene	ug/L	20	19.4	97	66-122	
Bromodichloromethane	ug/L	20	19.0	95	63-118	
Bromoform	ug/L	20	15.2	76	46-130	
Bromomethane	ug/L	20	13.6	68	10-175	
Carbon disulfide	ug/L	20	20.6	103	59-142	
Carbon tetrachloride	ug/L	20	19.9	100	55-126	
Chlorobenzene	ug/L	20	19.3	97	70-121	
Chloroethane	ug/L	20	19.0	95	24-161	
Chloroform	ug/L	20	20.0	100	62-126	
Chloromethane	ug/L	20	17.9	90	37-147	
cis-1,2-Dichloroethene	ug/L	20	20.2	101	64-121	
cis-1,3-Dichloropropene	ug/L	20	19.1	96	64-118	
Dibromochloromethane	ug/L	20	17.7	89	60-120	
Ethylbenzene	ug/L	20	20.2	101	69-119	
Isopropylbenzene (Cumene)	ug/L	20	21.6	108	68-126	
m&p-Xylene	ug/L	40	41.5	104	70-124	
Methylene Chloride	ug/L	20	19.6	98	59-128	
o-Xylene	ug/L	20	20.5	102	67-123	
Styrene	ug/L	20	20.7	103	67-146	
Tetrachloroethene	ug/L	20	18.8	94	62-125	
Toluene	ug/L	20	19.2	96	72-115	
trans-1,2-Dichloroethene	ug/L	20	19.5	97	59-122	
trans-1,3-Dichloropropene	ug/L	20	18.9	94	64-120	
Trichloroethene	ug/L	20	19.5	97	62-125	
Trichlorofluoromethane	ug/L	20	20.3	102	54-158	
Vinyl chloride	ug/L	20	18.2	91	52-145	
1,2-Dichloroethane-d4 (S)	%			99	77-119	
4-Bromofluorobenzene (S)	%			96	85-115	
Toluene-d8 (S)	%			97	85-115	

QUALIFIERS

Project: 41569181/Essex-Hope

Pace Project No.: 3080965

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

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.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

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.

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 41569181/Essex-Hope

Pace Project No.: 3080965

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
3080965001	PRE-CARB	EPA 8260	MSV/14493		
3080965002	PRIMARY EFF	EPA 8260	MSV/14493		
3080965003	POST CARB	EPA 8260	MSV/14493		
3080965004	TB-01	EPA 8260	MSV/14493		

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

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	URS CORP	Report To:	MARK DONIAK	Attention:	
Address:	FOSTER PLAZA 6 681 ANDERSEN DR STE 400 PITTSBURGH, PA 15220	Copy To:	VALERIE SIBETO	Company Name:	
Email To:		Purchase Order No.:	41569181	Address:	
Phone:	412-503-4700	Project Name:	ESSEX/HOPE JAMESTOWN	Pace Quote Reference:	
Requested Due Date/TAT:	STANDARD	Project Number:	41569181.1000	Pace Project Manager:	
				Pace Profile #:	
				REGULATORY AGENCY ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☐ OTHER _____	
				Site Location STATE: NY	
				Page: 1 of 1 1627822	

[illegible]



Sample Condition Upon Receipt

Client Name: URS

Project # 30809165

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

Tracking #: 872640256985

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

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

Thermometer Used 5 6 7

Type of Ice: Wet Blue None ☒ Samples on ice, cooling process has begun

Cooler Temperature 3.6

Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Comments:

Date and Initials of person examining contents: LEL 11/1/12

Chain of Custody Present:	☒ Yes ☐ No ☐ N/A	1.
Chain of Custody Filled Out:	☒ Yes ☐ No ☐ N/A	2.
Chain of Custody Relinquished:	☒ Yes ☐ No ☐ N/A	3.
Sampler Name & Signature on COC:	☒ Yes ☐ No ☐ N/A	4.
Samples Arrived within Hold Time:	☒ Yes ☐ No ☐ N/A	5.
Short Hold Time Analysis (<72hr):	☐ Yes ☒ No ☐ N/A	6.
Rush Turn Around Time Requested:	☐ Yes ☒ No ☐ N/A	7.
Sufficient Volume:	☒ Yes ☐ No ☐ N/A	8.
Correct Containers Used:	☒ Yes ☐ No ☐ N/A	9.
-Pace Containers Used:	☒ Yes ☐ No ☐ N/A	
Containers Intact:	☒ Yes ☐ No ☐ N/A	10.
Filtered volume received for Dissolved tests	☐ Yes ☐ No ☒ N/A	11.
Sample Labels match COC:	☒ Yes ☐ No ☐ N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>NA</u>		
All containers needing preservation have been checked.	☐ Yes ☐ No ☒ N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐ Yes ☐ No ☒ N/A	
exceptions: <u>VOA</u> , coliform, TOC, O&G, WI-DRO (water)	☒ Yes ☐ No	Initial when completed <u>LEL</u> Lot # of added preservative
Samples checked for dechlorination:	☐ Yes ☐ No ☒ N/A	14.
Headspace in VOA Vials (>6mm):	☐ Yes ☒ No ☐ N/A	15.
Trip Blank Present:	☒ Yes ☐ No ☐ N/A	16.
Trip Blank Custody Seals Present	☒ Yes ☐ No ☐ N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____

Date: 11/1/12

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)



Project Number: 3080965

Client Name: URS

Item No.	Matrix Code	Glass Jar (120 / 250 / 500 / 1L)	Soil kit (2 SB, 1M, soil jar)	Chemistry (250 / 500 / 1L)	Organics (1L)	Nutrient (250 / 500)	Phenolics (250 ml)	TOC (40 ml / 250 ml)	TOX (250 ml)	Total Metals	Dissolved Metals preserved Y	O & G (1L)	TPH (1L)	VOA (40 ml 30 ml)	Cyanide (250 ml)	Sulfide (500 ml)	Bacteria (120 ml)	Wipes / swipe/ smear/ filter	Radchem Nalgene (125 / 250 / 500 / 1L)	Radchem Nalgene (1/2 gal. / 1 gal.L)	Cubitainer (500 ml / 4L)	Ziploc	Other	Other
100	4																							
101	4																							
102	4																							
103	4																							
104	4																							
105	4																							
106	4																							
107	4																							
108	4																							
109	4																							
110	4																							
111	4																							
112	4																							
113	4																							
114	4																							
115	4																							
116	4																							
117	4																							
118	4																							
119	4																							
120	4																							

November 30, 2012

Mr. Mark Dowiak
URS Corporation
Foster Plaza 6
681 Andersen Drive, Suite 400
Pittsburgh, PA 15220

RE: Project: Essex/Hope Jamestown
Pace Project No.: 3082412

Dear Mr. Dowiak:

Enclosed are the analytical results for sample(s) received by the laboratory on November 21, 2012. 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.

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

Sincerely,



Timothy Reed

timothy.reed@pacelabs.com
Project Manager

Enclosures

cc: Ms. Valerie Sibeto, URS Corporation



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Essex/Hope Jamestown

Pace Project No.: 3082412

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4 Greensburg, PA 15601

ACCLASS DOD-ELAP Accreditation #: ADE-1544

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California/TNI Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683

Guam/PADEP Certification

Hawaii/PADEP Certification

Idaho Certification

Illinois/PADEP Certification

Indiana/PADEP Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana/TNI Certification #: LA080002

Louisiana/TNI Certification #: 4086

Maine Certification #: PA0091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nevada Certification

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188

Utah/TNI Certification #: ANTE

Virgin Island/PADEP Certification

Virginia Certification #: 00112

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia Certification #: 143

Wisconsin/PADEP Certification

Wyoming Certification #: 8TMS-Q

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Essex/Hope Jamestown

Pace Project No.: 3082412

Sample: PRE-CARB		Lab ID: 3082412001	Collected: 11/20/12 10:00	Received: 11/21/12 10:00	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	23200	ug/L	1000	100		11/27/12 17:34	67-64-1	
Benzene	29.7	ug/L	1.0	1		11/26/12 17:22	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		11/26/12 17:22	75-27-4	
Bromoform	ND	ug/L	5.0	1		11/26/12 17:22	75-25-2	
Bromomethane	ND	ug/L	5.0	1		11/26/12 17:22	74-83-9	
2-Butanone (MEK)	125	ug/L	10.0	1		11/26/12 17:22	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		11/26/12 17:22	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		11/26/12 17:22	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		11/26/12 17:22	108-90-7	
Chloroethane	ND	ug/L	5.0	1		11/26/12 17:22	75-00-3	
Chloroform	ND	ug/L	5.0	1		11/26/12 17:22	67-66-3	
Chloromethane	ND	ug/L	5.0	1		11/26/12 17:22	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		11/26/12 17:22	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		11/26/12 17:22	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		11/26/12 17:22	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		11/26/12 17:22	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		11/26/12 17:22	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		11/26/12 17:22	107-06-2	
1,1-Dichloroethene	31.7	ug/L	5.0	1		11/26/12 17:22	75-35-4	
cis-1,2-Dichloroethene	8270	ug/L	250	50		11/27/12 12:38	156-59-2	
trans-1,2-Dichloroethene	238	ug/L	5.0	1		11/26/12 17:22	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		11/26/12 17:22	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		11/26/12 17:22	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		11/26/12 17:22	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		11/26/12 17:22	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		11/26/12 17:22	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		11/26/12 17:22	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		11/26/12 17:22	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		11/26/12 17:22	108-10-1	
Styrene	ND	ug/L	5.0	1		11/26/12 17:22	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		11/26/12 17:22	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		11/26/12 17:22	127-18-4	
Toluene	ND	ug/L	5.0	1		11/26/12 17:22	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		11/26/12 17:22	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		11/26/12 17:22	79-00-5	
Trichloroethene	4640	ug/L	250	50		11/27/12 12:38	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		11/26/12 17:22	75-69-4	
Vinyl chloride	925	ug/L	50.0	50		11/27/12 12:38	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		11/26/12 17:22	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		11/26/12 17:22	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	103	%	85-115	1		11/26/12 17:22	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	77-119	1		11/26/12 17:22	17060-07-0	
Toluene-d8 (S)	87	%	85-115	1		11/26/12 17:22	2037-26-5	

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown

Pace Project No.: 3082412

Sample: PRIMARY-EFF		Lab ID: 3082412002	Collected: 11/20/12 10:05	Received: 11/21/12 10:00	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	18200 ug/L		1000	100		11/27/12 18:01	67-64-1	
Benzene	ND ug/L		1.0	1		11/26/12 18:44	71-43-2	
Bromodichloromethane	ND ug/L		5.0	1		11/26/12 18:44	75-27-4	
Bromoform	ND ug/L		5.0	1		11/26/12 18:44	75-25-2	
Bromomethane	ND ug/L		5.0	1		11/26/12 18:44	74-83-9	
2-Butanone (MEK)	16.4 ug/L		10.0	1		11/26/12 18:44	78-93-3	
Carbon disulfide	ND ug/L		5.0	1		11/26/12 18:44	75-15-0	
Carbon tetrachloride	ND ug/L		5.0	1		11/26/12 18:44	56-23-5	
Chlorobenzene	ND ug/L		5.0	1		11/26/12 18:44	108-90-7	
Chloroethane	ND ug/L		5.0	1		11/26/12 18:44	75-00-3	
Chloroform	ND ug/L		5.0	1		11/26/12 18:44	67-66-3	
Chloromethane	ND ug/L		5.0	1		11/26/12 18:44	74-87-3	
Dibromochloromethane	ND ug/L		5.0	1		11/26/12 18:44	124-48-1	
1,2-Dichlorobenzene	ND ug/L		5.0	1		11/26/12 18:44	95-50-1	
1,3-Dichlorobenzene	ND ug/L		5.0	1		11/26/12 18:44	541-73-1	
1,4-Dichlorobenzene	ND ug/L		5.0	1		11/26/12 18:44	106-46-7	
1,1-Dichloroethane	ND ug/L		5.0	1		11/26/12 18:44	75-34-3	
1,2-Dichloroethane	ND ug/L		5.0	1		11/26/12 18:44	107-06-2	
1,1-Dichloroethene	ND ug/L		5.0	1		11/26/12 18:44	75-35-4	
cis-1,2-Dichloroethene	36.8 ug/L		5.0	1		11/26/12 18:44	156-59-2	
trans-1,2-Dichloroethene	ND ug/L		5.0	1		11/26/12 18:44	156-60-5	
1,2-Dichloropropane	ND ug/L		5.0	1		11/26/12 18:44	78-87-5	
cis-1,3-Dichloropropene	ND ug/L		5.0	1		11/26/12 18:44	10061-01-5	
trans-1,3-Dichloropropene	ND ug/L		5.0	1		11/26/12 18:44	10061-02-6	
Ethylbenzene	ND ug/L		5.0	1		11/26/12 18:44	100-41-4	
2-Hexanone	ND ug/L		10.0	1		11/26/12 18:44	591-78-6	
Isopropylbenzene (Cumene)	ND ug/L		1.0	1		11/26/12 18:44	98-82-8	
Methylene Chloride	ND ug/L		5.0	1		11/26/12 18:44	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/L		10.0	1		11/26/12 18:44	108-10-1	
Styrene	ND ug/L		5.0	1		11/26/12 18:44	100-42-5	
1,1,2,2-Tetrachloroethane	ND ug/L		5.0	1		11/26/12 18:44	79-34-5	
Tetrachloroethene	ND ug/L		5.0	1		11/26/12 18:44	127-18-4	
Toluene	ND ug/L		5.0	1		11/26/12 18:44	108-88-3	
1,1,1-Trichloroethane	ND ug/L		5.0	1		11/26/12 18:44	71-55-6	
1,1,2-Trichloroethane	ND ug/L		5.0	1		11/26/12 18:44	79-00-5	
Trichloroethene	ND ug/L		5.0	1		11/26/12 18:44	79-01-6	
Trichlorofluoromethane	ND ug/L		5.0	1		11/26/12 18:44	75-69-4	
Vinyl chloride	850 ug/L		50.0	50		11/27/12 13:06	75-01-4	
m&p-Xylene	ND ug/L		5.0	1		11/26/12 18:44	179601-23-1	
o-Xylene	ND ug/L		5.0	1		11/26/12 18:44	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	101 %		85-115	1		11/26/12 18:44	460-00-4	
1,2-Dichloroethane-d4 (S)	106 %		77-119	1		11/26/12 18:44	17060-07-0	
Toluene-d8 (S)	86 %		85-115	1		11/26/12 18:44	2037-26-5	

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown

Pace Project No.: 3082412

Sample: POST-CARB		Lab ID: 3082412003	Collected: 11/20/12 11:40	Received: 11/21/12 10:00	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	17000	ug/L	500	50		11/27/12 14:28	67-64-1	
Benzene	ND	ug/L	1.0	1		11/26/12 17:50	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		11/26/12 17:50	75-27-4	
Bromoform	ND	ug/L	5.0	1		11/26/12 17:50	75-25-2	
Bromomethane	ND	ug/L	5.0	1		11/26/12 17:50	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		11/26/12 17:50	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		11/26/12 17:50	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		11/26/12 17:50	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		11/26/12 17:50	108-90-7	
Chloroethane	ND	ug/L	5.0	1		11/26/12 17:50	75-00-3	
Chloroform	ND	ug/L	5.0	1		11/26/12 17:50	67-66-3	
Chloromethane	ND	ug/L	5.0	1		11/26/12 17:50	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		11/26/12 17:50	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		11/26/12 17:50	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		11/26/12 17:50	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		11/26/12 17:50	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		11/26/12 17:50	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		11/26/12 17:50	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		11/26/12 17:50	75-35-4	
cis-1,2-Dichloroethene	53.3	ug/L	5.0	1		11/26/12 17:50	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		11/26/12 17:50	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		11/26/12 17:50	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		11/26/12 17:50	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		11/26/12 17:50	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		11/26/12 17:50	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		11/26/12 17:50	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		11/26/12 17:50	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		11/26/12 17:50	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		11/26/12 17:50	108-10-1	
Styrene	ND	ug/L	5.0	1		11/26/12 17:50	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		11/26/12 17:50	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		11/26/12 17:50	127-18-4	
Toluene	ND	ug/L	5.0	1		11/26/12 17:50	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		11/26/12 17:50	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		11/26/12 17:50	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		11/26/12 17:50	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		11/26/12 17:50	75-69-4	
Vinyl chloride	810	ug/L	50.0	50		11/27/12 14:28	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		11/26/12 17:50	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		11/26/12 17:50	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	101	%	85-115	1		11/26/12 17:50	460-00-4	
1,2-Dichloroethane-d4 (S)	107	%	77-119	1		11/26/12 17:50	17060-07-0	
Toluene-d8 (S)	88	%	85-115	1		11/26/12 17:50	2037-26-5	

ANALYTICAL RESULTS

Project: Essex/Hope Jamestown

Pace Project No.: 3082412

Sample: TB-01		Lab ID: 3082412004	Collected: 11/20/12 00:01	Received: 11/21/12 10:00	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	11.3 ug/L		10.0	1		11/27/12 12:10	67-64-1	
Benzene	ND ug/L		1.0	1		11/27/12 12:10	71-43-2	
Bromodichloromethane	ND ug/L		5.0	1		11/27/12 12:10	75-27-4	
Bromoform	ND ug/L		5.0	1		11/27/12 12:10	75-25-2	
Bromomethane	ND ug/L		5.0	1		11/27/12 12:10	74-83-9	
2-Butanone (MEK)	ND ug/L		10.0	1		11/27/12 12:10	78-93-3	
Carbon disulfide	ND ug/L		5.0	1		11/27/12 12:10	75-15-0	
Carbon tetrachloride	ND ug/L		5.0	1		11/27/12 12:10	56-23-5	
Chlorobenzene	ND ug/L		5.0	1		11/27/12 12:10	108-90-7	
Chloroethane	ND ug/L		5.0	1		11/27/12 12:10	75-00-3	
Chloroform	ND ug/L		5.0	1		11/27/12 12:10	67-66-3	
Chloromethane	ND ug/L		5.0	1		11/27/12 12:10	74-87-3	
Dibromochloromethane	ND ug/L		5.0	1		11/27/12 12:10	124-48-1	
1,2-Dichlorobenzene	ND ug/L		5.0	1		11/27/12 12:10	95-50-1	
1,3-Dichlorobenzene	ND ug/L		5.0	1		11/27/12 12:10	541-73-1	
1,4-Dichlorobenzene	ND ug/L		5.0	1		11/27/12 12:10	106-46-7	
1,1-Dichloroethane	ND ug/L		5.0	1		11/27/12 12:10	75-34-3	
1,2-Dichloroethane	ND ug/L		5.0	1		11/27/12 12:10	107-06-2	
1,1-Dichloroethene	ND ug/L		5.0	1		11/27/12 12:10	75-35-4	
cis-1,2-Dichloroethene	ND ug/L		5.0	1		11/27/12 12:10	156-59-2	
trans-1,2-Dichloroethene	ND ug/L		5.0	1		11/27/12 12:10	156-60-5	
1,2-Dichloropropane	ND ug/L		5.0	1		11/27/12 12:10	78-87-5	
cis-1,3-Dichloropropene	ND ug/L		5.0	1		11/27/12 12:10	10061-01-5	
trans-1,3-Dichloropropene	ND ug/L		5.0	1		11/27/12 12:10	10061-02-6	
Ethylbenzene	ND ug/L		5.0	1		11/27/12 12:10	100-41-4	
2-Hexanone	ND ug/L		10.0	1		11/27/12 12:10	591-78-6	
Isopropylbenzene (Cumene)	ND ug/L		1.0	1		11/27/12 12:10	98-82-8	
Methylene Chloride	ND ug/L		5.0	1		11/27/12 12:10	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND ug/L		10.0	1		11/27/12 12:10	108-10-1	
Styrene	ND ug/L		5.0	1		11/27/12 12:10	100-42-5	
1,1,2,2-Tetrachloroethane	ND ug/L		5.0	1		11/27/12 12:10	79-34-5	
Tetrachloroethene	ND ug/L		5.0	1		11/27/12 12:10	127-18-4	
Toluene	ND ug/L		5.0	1		11/27/12 12:10	108-88-3	
1,1,1-Trichloroethane	ND ug/L		5.0	1		11/27/12 12:10	71-55-6	
1,1,2-Trichloroethane	ND ug/L		5.0	1		11/27/12 12:10	79-00-5	
Trichloroethene	ND ug/L		5.0	1		11/27/12 12:10	79-01-6	
Trichlorofluoromethane	ND ug/L		5.0	1		11/27/12 12:10	75-69-4	
Vinyl chloride	ND ug/L		1.0	1		11/27/12 12:10	75-01-4	
m&p-Xylene	ND ug/L		5.0	1		11/27/12 12:10	179601-23-1	
o-Xylene	ND ug/L		5.0	1		11/27/12 12:10	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	98 %		85-115	1		11/27/12 12:10	460-00-4	
1,2-Dichloroethane-d4 (S)	108 %		77-119	1		11/27/12 12:10	17060-07-0	
Toluene-d8 (S)	85 %		85-115	1		11/27/12 12:10	2037-26-5	

QUALITY CONTROL DATA

Project: Essex/Hope Jamestown

Pace Project No.: 3082412

QC Batch: MSV/14650 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 3082412001, 3082412002, 3082412003, 3082412004

METHOD BLANK: 515946 Matrix: Water
Associated Lab Samples: 3082412001, 3082412002, 3082412003, 3082412004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	5.0	11/26/12 14:11	
1,1,2,2-Tetrachloroethane	ug/L	ND	5.0	11/26/12 14:11	
1,1,2-Trichloroethane	ug/L	ND	5.0	11/26/12 14:11	
1,1-Dichloroethane	ug/L	ND	5.0	11/26/12 14:11	
1,1-Dichloroethene	ug/L	ND	5.0	11/26/12 14:11	
1,2-Dichlorobenzene	ug/L	ND	5.0	11/26/12 14:11	
1,2-Dichloroethane	ug/L	ND	5.0	11/26/12 14:11	
1,2-Dichloropropane	ug/L	ND	5.0	11/26/12 14:11	
1,3-Dichlorobenzene	ug/L	ND	5.0	11/26/12 14:11	
1,4-Dichlorobenzene	ug/L	ND	5.0	11/26/12 14:11	
2-Butanone (MEK)	ug/L	ND	10.0	11/26/12 14:11	
2-Hexanone	ug/L	ND	10.0	11/26/12 14:11	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	11/26/12 14:11	
Acetone	ug/L	ND	10.0	11/26/12 14:11	
Benzene	ug/L	ND	1.0	11/26/12 14:11	
Bromodichloromethane	ug/L	ND	5.0	11/26/12 14:11	
Bromoform	ug/L	ND	5.0	11/26/12 14:11	
Bromomethane	ug/L	ND	5.0	11/26/12 14:11	
Carbon disulfide	ug/L	ND	5.0	11/26/12 14:11	
Carbon tetrachloride	ug/L	ND	5.0	11/26/12 14:11	
Chlorobenzene	ug/L	ND	5.0	11/26/12 14:11	
Chloroethane	ug/L	ND	5.0	11/26/12 14:11	
Chloroform	ug/L	ND	5.0	11/26/12 14:11	
Chloromethane	ug/L	ND	5.0	11/26/12 14:11	
cis-1,2-Dichloroethene	ug/L	ND	5.0	11/26/12 14:11	
cis-1,3-Dichloropropene	ug/L	ND	5.0	11/26/12 14:11	
Dibromochloromethane	ug/L	ND	5.0	11/26/12 14:11	
Ethylbenzene	ug/L	ND	5.0	11/26/12 14:11	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	11/26/12 14:11	
m&p-Xylene	ug/L	ND	5.0	11/26/12 14:11	
Methylene Chloride	ug/L	ND	5.0	11/26/12 14:11	
o-Xylene	ug/L	ND	5.0	11/26/12 14:11	
Styrene	ug/L	ND	5.0	11/26/12 14:11	
Tetrachloroethene	ug/L	ND	5.0	11/26/12 14:11	
Toluene	ug/L	ND	5.0	11/26/12 14:11	
trans-1,2-Dichloroethene	ug/L	ND	5.0	11/26/12 14:11	
trans-1,3-Dichloropropene	ug/L	ND	5.0	11/26/12 14:11	
Trichloroethene	ug/L	ND	5.0	11/26/12 14:11	
Trichlorofluoromethane	ug/L	ND	5.0	11/26/12 14:11	
Vinyl chloride	ug/L	ND	1.0	11/26/12 14:11	
1,2-Dichloroethane-d4 (S)	%	104	77-119	11/26/12 14:11	
4-Bromofluorobenzene (S)	%	99	85-115	11/26/12 14:11	
Toluene-d8 (S)	%	94	85-115	11/26/12 14:11	

Date: 11/30/2012 03:07 PM

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Essex/Hope Jamestown

Pace Project No.: 3082412

LABORATORY CONTROL SAMPLE: 515947

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	19.7	98	62-125	
1,1,2,2-Tetrachloroethane	ug/L	20	16.6	83	61-117	
1,1,2-Trichloroethane	ug/L	20	18.5	92	72-119	
1,1-Dichloroethane	ug/L	20	19.7	98	63-123	
1,1-Dichloroethene	ug/L	20	18.5	92	57-127	
1,2-Dichlorobenzene	ug/L	20	17.7	89	70-116	
1,2-Dichloroethane	ug/L	20	18.6	93	62-125	
1,2-Dichloropropane	ug/L	20	17.6	88	69-115	
1,3-Dichlorobenzene	ug/L	20	17.0	85	71-118	
1,4-Dichlorobenzene	ug/L	20	17.2	86	67-119	
2-Butanone (MEK)	ug/L	20	21.2	106	48-136	
2-Hexanone	ug/L	20	18.9	95	52-130	
4-Methyl-2-pentanone (MIBK)	ug/L	20	16.3	82	57-124	
Acetone	ug/L	20	18.6	93	49-138	
Benzene	ug/L	20	18.0	90	66-122	
Bromodichloromethane	ug/L	20	17.3	86	63-118	
Bromoform	ug/L	20	17.7	89	46-130	
Bromomethane	ug/L	20	14.3	71	10-175	
Carbon disulfide	ug/L	20	23.8	119	59-142	
Carbon tetrachloride	ug/L	20	18.7	94	55-126	
Chlorobenzene	ug/L	20	17.7	89	70-121	
Chloroethane	ug/L	20	17.9	90	24-161	
Chloroform	ug/L	20	19.2	96	62-126	
Chloromethane	ug/L	20	16.7	84	37-147	
cis-1,2-Dichloroethene	ug/L	20	19.7	99	64-121	
cis-1,3-Dichloropropene	ug/L	20	17.8	89	64-118	
Dibromochloromethane	ug/L	20	17.4	87	60-120	
Ethylbenzene	ug/L	20	17.7	88	69-119	
Isopropylbenzene (Cumene)	ug/L	20	19.1	96	68-126	
m&p-Xylene	ug/L	40	36.5	91	70-124	
Methylene Chloride	ug/L	20	18.5	92	59-128	
o-Xylene	ug/L	20	18.5	92	67-123	
Styrene	ug/L	20	19.7	99	67-146	
Tetrachloroethene	ug/L	20	18.1	91	62-125	
Toluene	ug/L	20	18.0	90	72-115	
trans-1,2-Dichloroethene	ug/L	20	18.7	94	59-122	
trans-1,3-Dichloropropene	ug/L	20	17.8	89	64-120	
Trichloroethene	ug/L	20	17.3	86	62-125	
Trichlorofluoromethane	ug/L	20	20.4	102	54-158	
Vinyl chloride	ug/L	20	17.7	89	52-145	
1,2-Dichloroethane-d4 (S)	%			100	77-119	
4-Bromofluorobenzene (S)	%			99	85-115	
Toluene-d8 (S)	%			96	85-115	

QUALITY CONTROL DATA

Project: Essex/Hope Jamestown

Pace Project No.: 3082412

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 515948 515949											
Parameter	Units	3082412002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	20	20	18.8	20.3	94	102	62-125	8	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	15.9	15.5	80	77	61-117	3	
1,1,2-Trichloroethane	ug/L	ND	20	20	17.1	16.5	86	83	72-119	4	
1,1-Dichloroethane	ug/L	ND	20	20	19.3	19.9	97	99	63-123	3	
1,1-Dichloroethene	ug/L	ND	20	20	18.0	19.3	90	97	57-127	7	
1,2-Dichlorobenzene	ug/L	ND	20	20	15.9	15.9	80	80	70-116	.2	
1,2-Dichloroethane	ug/L	ND	20	20	19.6	19.5	98	98	62-125	.5	
1,2-Dichloropropane	ug/L	ND	20	20	15.6	15.8	78	79	69-115	1	
1,3-Dichlorobenzene	ug/L	ND	20	20	15.2	15.8	76	79	71-118	4	
1,4-Dichlorobenzene	ug/L	ND	20	20	14.6	15.5	73	77	67-119	6	
2-Butanone (MEK)	ug/L	16.4	20	20	39.6	39.4	116	115	48-136	.5	
2-Hexanone	ug/L	ND	20	20	19.0	18.3	95	91	52-130	4	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	20	20	15.5	14.8	77	74	57-124	4	
Acetone	ug/L	18200	2000	1000	18700	19300	23	105	49-138	3	M0
Benzene	ug/L	ND	20	20	15.9	16.7	80	83	66-122	5	
Bromodichloromethane	ug/L	ND	20	20	15.6	15.5	78	78	63-118	.7	
Bromoform	ug/L	ND	20	20	16.5	15.5	82	78	46-130	6	
Bromomethane	ug/L	ND	20	20	7.3	7.7	37	39	10-175	5	
Carbon disulfide	ug/L	ND	20	20	23.1	20.5	115	102	59-142	12	
Carbon tetrachloride	ug/L	ND	20	20	18.2	19.5	91	97	55-126	7	
Chlorobenzene	ug/L	ND	20	20	15.4	16.2	77	81	70-121	5	
Chloroethane	ug/L	ND	20	20	26.1	24.9	130	125	24-161	5	
Chloroform	ug/L	ND	20	20	19.0	19.5	95	97	62-126	3	
Chloromethane	ug/L	ND	20	20	18.9	18.2	94	91	37-147	3	
cis-1,2-Dichloroethene	ug/L	36.8	20	20	57.7	57.6	104	104	64-121	.1	
cis-1,3-Dichloropropene	ug/L	ND	20	20	15.2	15.1	76	76	64-118	.5	
Dibromochloromethane	ug/L	ND	20	20	15.4	15.6	77	78	60-120	1	
Ethylbenzene	ug/L	ND	20	20	15.7	16.2	79	81	69-119	3	
Isopropylbenzene (Cumene)	ug/L	ND	20	20	16.6	17.7	83	88	68-126	7	
m&p-Xylene	ug/L	ND	40	40	31.3	33.0	78	83	70-124	5	
Methylene Chloride	ug/L	ND	20	20	19.3	19.3	97	97	59-128	.02	
o-Xylene	ug/L	ND	20	20	16.4	17.0	82	85	67-123	3	
Styrene	ug/L	ND	20	20	17.0	17.7	85	89	67-146	4	
Tetrachloroethene	ug/L	ND	20	20	15.5	16.6	77	83	62-125	7	
Toluene	ug/L	ND	20	20	15.6	16.7	78	84	72-115	7	
trans-1,2-Dichloroethene	ug/L	ND	20	20	18.4	19.8	92	99	59-122	7	
trans-1,3-Dichloropropene	ug/L	ND	20	20	15.2	15.1	76	76	64-120	.5	
Trichloroethene	ug/L	ND	20	20	15.3	16.6	76	83	62-125	8	
Trichlorofluoromethane	ug/L	ND	20	20	26.7	24.5	134	122	54-158	9	
Vinyl chloride	ug/L	850	1000	1000	1880	1990	103	114	52-145	6	
1,2-Dichloroethane-d4 (S)	%						99	98	77-119		
4-Bromofluorobenzene (S)	%						102	102	85-115		
Toluene-d8 (S)	%						91	90	85-115		

QUALIFIERS

Project: Essex/Hope Jamestown

Pace Project No.: 3082412

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

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.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

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.

ANALYTE QUALIFIERS

M0 Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Essex/Hope Jamestown

Pace Project No.: 3082412

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
3082412001	PRE-CARB	EPA 8260	MSV/14650		
3082412002	PRIMARY-EFF	EPA 8260	MSV/14650		
3082412003	POST-CARB	EPA 8260	MSV/14650		
3082412004	TB-01	EPA 8260	MSV/14650		

CHAIN-OF-CUSTODY / Analytical Request Document

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



Section A Required Client Information: Company: URS CORP Address: 601 ANDERSEN DR, STE 400, PETERSBURG, PA 15720 Email To: _____		Section B Required Project Information: Report To: MARK DOWIAK Copy To: VALERIE SIBETO Purchase Order No.: 4152691B1 Project Name: ESSEX/HOPE JAMES TOWN Project Number: 418291B1, 10000		Section C Invoice Information: Attention: _____ Company Name: _____ Address: _____ Pace Quote References: _____ Pace Project Manager: _____ Pace Profile #: _____	
Site Location: NY STATE: _____		REGULATORY AGENCY: ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☐ UST ☐ RCRA ☐ OTHER _____		Page: 1 of 1 1494582	

ITEM #	Section D Required Client Information	Matrix Codes MATRIX / CODE Drinking Water Waste Water Product Soil/Solid Oil Wipe Air Tissue Other	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED				SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives								Analysis Test ↑	Y/N ↓	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
				COMPOSITE START	COMPOSITE END/GRAB	DATE	TIME			DATE	TIME	Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃					Methanol	Other																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													
1	PRE-CARB		MTG			11-20-12	1000		2																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											

ADDITIONAL COMMENTS COMPOSITE FOURS (4) POST-CARB SAMPLES IN LAB AND REPORT AS POST-CARB COMPOSITE		RELINQUISHED BY / AFFILIATION [Signature] URS	DATE 11.20.12	TIME ~1300	ACCEPTED BY / AFFILIATION [Signature] Ryan Lator	DATE 11.20.12	TIME 1300	SAMPLE CONDITIONS Received on Ice (Y/N) ☐ N Sealed Cooler (Y/N) ☐ Y Custody (Y/N) ☐ N Samples Intact (Y/N) ☐ Y

ORIGINAL

SAMPLER NAME AND SIGNATURE
 PRINT Name of SAMPLER: **VALERIE SIBETO**
 SIGNATURE of SAMPLER: [Signature]
 DATE Signed (MM/DD/YY): **11.20.12**

*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.



Sample Condition Upon Receipt

Client Name: URS

Project # 3082412

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

Tracking #: 8739 8101 9520

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

Optional

Proj. Due Date:

Proj. Name:

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

Thermometer Used 5 6 7

Type of Ice: Wet Blue None

☒ Samples on ice, cooling process has begun

Cooler Temperature

1.5

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: RTL 11-21-12

Temp should be above freezing to 6°C

Comments:

Chain of Custody Present:	☒ Yes ☐ No ☐ N/A	1.
Chain of Custody Filled Out:	☒ Yes ☐ No ☐ N/A	2.
Chain of Custody Relinquished:	☒ Yes ☐ No ☐ N/A	3.
Sampler Name & Signature on COC:	☒ Yes ☐ No ☐ N/A	4.
Samples Arrived within Hold Time:	☒ Yes ☐ No ☐ N/A	5.
Short Hold Time Analysis (<72hr):	☐ Yes ☒ No ☐ N/A	6.
Rush Turn Around Time Requested:	☐ Yes ☒ No ☐ N/A	7.
Sufficient Volume:	☒ Yes ☐ No ☐ N/A	8.
Correct Containers Used:	☒ Yes ☐ No ☐ N/A	9.
-Pace Containers Used:	☒ Yes ☐ No ☐ N/A	
Containers Intact:	☒ Yes ☐ No ☐ N/A	10.
Filtered volume received for Dissolved tests	☐ Yes ☐ No ☒ N/A	11.
Sample Labels match COC:	☒ Yes ☐ No ☐ N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>WT</u>		
All containers needing preservation have been checked.	☐ Yes ☐ No ☒ N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐ Yes ☐ No ☒ N/A	
exceptions: <u>VOA</u> , coliform, TOC, O&G, WI-DRO (water)	☒ Yes ☐ No	Initial when completed <u>RTL</u> Lot # of added preservative
Samples checked for dechlorination:	☐ Yes ☐ No ☒ N/A	14.
Headspace in VOA Vials (>6mm):	☐ Yes ☒ No ☐ N/A	15.
Trip Blank Present:	☒ Yes ☐ No ☐ N/A	16.
Trip Blank Custody Seals Present	☒ Yes ☐ No ☐ N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required?

Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____

Date: 11/21/12

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

308412
URS

URS

[illegible]

January 16, 2013

Mr. Mark Dowiak
URS Corporation
Foster Plaza 6
681 Andersen Drive, Suite 400
Pittsburgh, PA 15220

RE: Project: 41569181/Essex-Hope
Pace Project No.: 3084918

Dear Mr. Dowiak:

Enclosed are the analytical results for sample(s) received by the laboratory on January 04, 2013. 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.

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

Sincerely,



Timothy Reed

timothy.reed@pacelabs.com
Project Manager

Enclosures

cc: Ms. Valerie Sibeto, URS Corporation



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 41569181/Essex-Hope

Pace Project No.: 3084918

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4 Greensburg, PA 15601

ACCLASS DOD-ELAP Accreditation #: ADE-1544

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California/TNI Certification #: 04222CA

Colorado Certification

Connecticut Certification #: PH-0694

Delaware Certification

Florida/TNI Certification #: E87683

Guam/PADEP Certification

Hawaii/PADEP Certification

Idaho Certification

Illinois/PADEP Certification

Indiana/PADEP Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: 90133

Louisiana/TNI Certification #: LA080002

Louisiana/TNI Certification #: 4086

Maine Certification #: PA0091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nevada Certification

New Hampshire/TNI Certification #: 2976

New Jersey/TNI Certification #: PA 051

New Mexico Certification

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

Oregon/TNI Certification #: PA200002

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

South Dakota Certification

Tennessee Certification #: TN2867

Texas/TNI Certification #: T104704188

Utah/TNI Certification #: ANTE

Virgin Island/PADEP Certification

Virginia Certification #: 00112

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia Certification #: 143

Wisconsin/PADEP Certification

Wyoming Certification #: 8TMS-Q

REPORT OF LABORATORY ANALYSIS

Page 2 of 14

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ANALYTICAL RESULTS

Project: 41569181/Essex-Hope

Pace Project No.: 3084918

Sample: PRE-CARB		Lab ID: 3084918001	Collected: 01/03/13 10:50	Received: 01/04/13 09:50	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	18500	ug/L	4000	400		01/10/13 20:19	67-64-1	
Benzene	20.6	ug/L	1.0	1		01/10/13 18:40	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		01/10/13 18:40	75-27-4	
Bromoform	ND	ug/L	5.0	1		01/10/13 18:40	75-25-2	
Bromomethane	ND	ug/L	5.0	1		01/10/13 18:40	74-83-9	
2-Butanone (MEK)	69.5	ug/L	10.0	1		01/10/13 18:40	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		01/10/13 18:40	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		01/10/13 18:40	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		01/10/13 18:40	108-90-7	
Chloroethane	ND	ug/L	5.0	1		01/10/13 18:40	75-00-3	
Chloroform	ND	ug/L	5.0	1		01/10/13 18:40	67-66-3	
Chloromethane	ND	ug/L	5.0	1		01/10/13 18:40	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		01/10/13 18:40	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		01/10/13 18:40	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		01/10/13 18:40	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		01/10/13 18:40	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		01/10/13 18:40	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		01/10/13 18:40	107-06-2	
1,1-Dichloroethene	19.1	ug/L	5.0	1		01/10/13 18:40	75-35-4	
cis-1,2-Dichloroethene	6510	ug/L	250	50		01/10/13 19:05	156-59-2	
trans-1,2-Dichloroethene	130	ug/L	5.0	1		01/10/13 18:40	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		01/10/13 18:40	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		01/10/13 18:40	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		01/10/13 18:40	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		01/10/13 18:40	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		01/10/13 18:40	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		01/10/13 18:40	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		01/10/13 18:40	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		01/10/13 18:40	108-10-1	
Styrene	ND	ug/L	5.0	1		01/10/13 18:40	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		01/10/13 18:40	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		01/10/13 18:40	127-18-4	
Toluene	ND	ug/L	5.0	1		01/10/13 18:40	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		01/10/13 18:40	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		01/10/13 18:40	79-00-5	
Trichloroethene	4230	ug/L	250	50		01/10/13 19:05	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		01/10/13 18:40	75-69-4	
Vinyl chloride	727	ug/L	50.0	50		01/10/13 19:05	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		01/10/13 18:40	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		01/10/13 18:40	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	98	%	85-115	1		01/10/13 18:40	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	77-119	1		01/10/13 18:40	17060-07-0	
Toluene-d8 (S)	95	%	85-115	1		01/10/13 18:40	2037-26-5	

ANALYTICAL RESULTS

Project: 41569181/Essex-Hope

Pace Project No.: 3084918

Sample: PRIMARY-EFF		Lab ID: 3084918002		Collected: 01/03/13 10:55		Received: 01/04/13 09:50		Matrix: Water	
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual	
8260 MSV		Analytical Method: EPA 8260							
Acetone	22200	ug/L	4000	400		01/10/13 20:43	67-64-1		
Benzene	ND	ug/L	1.0	1		01/10/13 17:51	71-43-2		
Bromodichloromethane	ND	ug/L	5.0	1		01/10/13 17:51	75-27-4		
Bromoform	ND	ug/L	5.0	1		01/10/13 17:51	75-25-2		
Bromomethane	ND	ug/L	5.0	1		01/10/13 17:51	74-83-9		
2-Butanone (MEK)	65.5	ug/L	10.0	1		01/10/13 17:51	78-93-3		
Carbon disulfide	ND	ug/L	5.0	1		01/10/13 17:51	75-15-0		
Carbon tetrachloride	ND	ug/L	5.0	1		01/10/13 17:51	56-23-5		
Chlorobenzene	ND	ug/L	5.0	1		01/10/13 17:51	108-90-7		
Chloroethane	ND	ug/L	5.0	1		01/10/13 17:51	75-00-3		
Chloroform	ND	ug/L	5.0	1		01/10/13 17:51	67-66-3		
Chloromethane	ND	ug/L	5.0	1		01/10/13 17:51	74-87-3		
Dibromochloromethane	ND	ug/L	5.0	1		01/10/13 17:51	124-48-1		
1,2-Dichlorobenzene	ND	ug/L	5.0	1		01/10/13 17:51	95-50-1		
1,3-Dichlorobenzene	ND	ug/L	5.0	1		01/10/13 17:51	541-73-1		
1,4-Dichlorobenzene	ND	ug/L	5.0	1		01/10/13 17:51	106-46-7		
1,1-Dichloroethane	ND	ug/L	5.0	1		01/10/13 17:51	75-34-3		
1,2-Dichloroethane	ND	ug/L	5.0	1		01/10/13 17:51	107-06-2		
1,1-Dichloroethene	ND	ug/L	5.0	1		01/10/13 17:51	75-35-4		
cis-1,2-Dichloroethene	464	ug/L	250	50		01/10/13 18:16	156-59-2		
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		01/10/13 17:51	156-60-5		
1,2-Dichloropropane	ND	ug/L	5.0	1		01/10/13 17:51	78-87-5		
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		01/10/13 17:51	10061-01-5		
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		01/10/13 17:51	10061-02-6		
Ethylbenzene	ND	ug/L	5.0	1		01/10/13 17:51	100-41-4		
2-Hexanone	ND	ug/L	10.0	1		01/10/13 17:51	591-78-6		
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		01/10/13 17:51	98-82-8		
Methylene Chloride	ND	ug/L	5.0	1		01/10/13 17:51	75-09-2		
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		01/10/13 17:51	108-10-1		
Styrene	ND	ug/L	5.0	1		01/10/13 17:51	100-42-5		
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		01/10/13 17:51	79-34-5		
Tetrachloroethene	ND	ug/L	5.0	1		01/10/13 17:51	127-18-4		
Toluene	ND	ug/L	5.0	1		01/10/13 17:51	108-88-3		
1,1,1-Trichloroethane	ND	ug/L	5.0	1		01/10/13 17:51	71-55-6		
1,1,2-Trichloroethane	ND	ug/L	5.0	1		01/10/13 17:51	79-00-5		
Trichloroethene	ND	ug/L	5.0	1		01/10/13 17:51	79-01-6		
Trichlorofluoromethane	ND	ug/L	5.0	1		01/10/13 17:51	75-69-4		
Vinyl chloride	959	ug/L	50.0	50		01/10/13 18:16	75-01-4		
m&p-Xylene	ND	ug/L	5.0	1		01/10/13 17:51	179601-23-1		
o-Xylene	ND	ug/L	5.0	1		01/10/13 17:51	95-47-6		
Surrogates									
4-Bromofluorobenzene (S)	99	%	85-115	1		01/10/13 17:51	460-00-4		
1,2-Dichloroethane-d4 (S)	98	%	77-119	1		01/10/13 17:51	17060-07-0		
Toluene-d8 (S)	96	%	85-115	1		01/10/13 17:51	2037-26-5		

ANALYTICAL RESULTS

Project: 41569181/Essex-Hope

Pace Project No.: 3084918

Sample: POST-CARB **Lab ID: 3084918003** Collected: 01/03/13 11:00 Received: 01/04/13 09:50 Matrix: Water

Comments: • VOA 8260: The sample was composited from four vials prior to VOA analysis.

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	22300	ug/L	4000	400		01/10/13 21:08	67-64-1	
Benzene	ND	ug/L	1.0	1		01/10/13 17:27	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		01/10/13 17:27	75-27-4	
Bromoform	ND	ug/L	5.0	1		01/10/13 17:27	75-25-2	
Bromomethane	ND	ug/L	5.0	1		01/10/13 17:27	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		01/10/13 17:27	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		01/10/13 17:27	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		01/10/13 17:27	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		01/10/13 17:27	108-90-7	
Chloroethane	ND	ug/L	5.0	1		01/10/13 17:27	75-00-3	
Chloroform	ND	ug/L	5.0	1		01/10/13 17:27	67-66-3	
Chloromethane	ND	ug/L	5.0	1		01/10/13 17:27	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		01/10/13 17:27	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		01/10/13 17:27	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		01/10/13 17:27	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		01/10/13 17:27	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		01/10/13 17:27	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		01/10/13 17:27	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		01/10/13 17:27	75-35-4	
cis-1,2-Dichloroethene	31.0	ug/L	5.0	1		01/10/13 17:27	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		01/10/13 17:27	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		01/10/13 17:27	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		01/10/13 17:27	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		01/10/13 17:27	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		01/10/13 17:27	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		01/10/13 17:27	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		01/10/13 17:27	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		01/10/13 17:27	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		01/10/13 17:27	108-10-1	
Styrene	ND	ug/L	5.0	1		01/10/13 17:27	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		01/10/13 17:27	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		01/10/13 17:27	127-18-4	
Toluene	ND	ug/L	5.0	1		01/10/13 17:27	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		01/10/13 17:27	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		01/10/13 17:27	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		01/10/13 17:27	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		01/10/13 17:27	75-69-4	
Vinyl chloride	805	ug/L	400	400		01/10/13 21:08	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		01/10/13 17:27	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		01/10/13 17:27	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	99	%	85-115	1		01/10/13 17:27	460-00-4	
1,2-Dichloroethane-d4 (S)	100	%	77-119	1		01/10/13 17:27	17060-07-0	
Toluene-d8 (S)	96	%	85-115	1		01/10/13 17:27	2037-26-5	

ANALYTICAL RESULTS

Project: 41569181/Essex-Hope

Pace Project No.: 3084918

Sample: TB-01		Lab ID: 3084918004	Collected: 01/03/13 00:01	Received: 01/04/13 09:50	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260						
Acetone	ND	ug/L	10.0	1		01/07/13 12:07	67-64-1	
Benzene	ND	ug/L	1.0	1		01/07/13 12:07	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		01/07/13 12:07	75-27-4	
Bromoform	ND	ug/L	5.0	1		01/07/13 12:07	75-25-2	
Bromomethane	ND	ug/L	5.0	1		01/07/13 12:07	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		01/07/13 12:07	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		01/07/13 12:07	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		01/07/13 12:07	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		01/07/13 12:07	108-90-7	
Chloroethane	ND	ug/L	5.0	1		01/07/13 12:07	75-00-3	
Chloroform	19.7	ug/L	5.0	1		01/07/13 12:07	67-66-3	
Chloromethane	ND	ug/L	5.0	1		01/07/13 12:07	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		01/07/13 12:07	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		01/07/13 12:07	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		01/07/13 12:07	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		01/07/13 12:07	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		01/07/13 12:07	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		01/07/13 12:07	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		01/07/13 12:07	75-35-4	
cis-1,2-Dichloroethene	ND	ug/L	5.0	1		01/07/13 12:07	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		01/07/13 12:07	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		01/07/13 12:07	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		01/07/13 12:07	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		01/07/13 12:07	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		01/07/13 12:07	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		01/07/13 12:07	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		01/07/13 12:07	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		01/07/13 12:07	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		01/07/13 12:07	108-10-1	
Styrene	ND	ug/L	5.0	1		01/07/13 12:07	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		01/07/13 12:07	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		01/07/13 12:07	127-18-4	
Toluene	ND	ug/L	5.0	1		01/07/13 12:07	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		01/07/13 12:07	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		01/07/13 12:07	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		01/07/13 12:07	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		01/07/13 12:07	75-69-4	
Vinyl chloride	ND	ug/L	1.0	1		01/07/13 12:07	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		01/07/13 12:07	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		01/07/13 12:07	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	98	%	85-115	1		01/07/13 12:07	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	77-119	1		01/07/13 12:07	17060-07-0	
Toluene-d8 (S)	94	%	85-115	1		01/07/13 12:07	2037-26-5	

QUALITY CONTROL DATA

Project: 41569181/Essex-Hope

Pace Project No.: 3084918

QC Batch:	MSV/15071	Analysis Method:	EPA 8260
QC Batch Method:	EPA 8260	Analysis Description:	8260 MSV
Associated Lab Samples:	3084918004		

METHOD BLANK: 530747 Matrix: Water

Associated Lab Samples: 3084918004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	5.0	01/07/13 11:18	
1,1,2,2-Tetrachloroethane	ug/L	ND	5.0	01/07/13 11:18	
1,1,2-Trichloroethane	ug/L	ND	5.0	01/07/13 11:18	
1,1-Dichloroethane	ug/L	ND	5.0	01/07/13 11:18	
1,1-Dichloroethene	ug/L	ND	5.0	01/07/13 11:18	
1,2-Dichlorobenzene	ug/L	ND	5.0	01/07/13 11:18	
1,2-Dichloroethane	ug/L	ND	5.0	01/07/13 11:18	
1,2-Dichloropropane	ug/L	ND	5.0	01/07/13 11:18	
1,3-Dichlorobenzene	ug/L	ND	5.0	01/07/13 11:18	
1,4-Dichlorobenzene	ug/L	ND	5.0	01/07/13 11:18	
2-Butanone (MEK)	ug/L	ND	10.0	01/07/13 11:18	
2-Hexanone	ug/L	ND	10.0	01/07/13 11:18	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	01/07/13 11:18	
Acetone	ug/L	ND	10.0	01/07/13 11:18	
Benzene	ug/L	ND	1.0	01/07/13 11:18	
Bromodichloromethane	ug/L	ND	5.0	01/07/13 11:18	
Bromoform	ug/L	ND	5.0	01/07/13 11:18	
Bromomethane	ug/L	ND	5.0	01/07/13 11:18	
Carbon disulfide	ug/L	ND	5.0	01/07/13 11:18	
Carbon tetrachloride	ug/L	ND	5.0	01/07/13 11:18	
Chlorobenzene	ug/L	ND	5.0	01/07/13 11:18	
Chloroethane	ug/L	ND	5.0	01/07/13 11:18	
Chloroform	ug/L	ND	5.0	01/07/13 11:18	
Chloromethane	ug/L	ND	5.0	01/07/13 11:18	
cis-1,2-Dichloroethene	ug/L	ND	5.0	01/07/13 11:18	
cis-1,3-Dichloropropene	ug/L	ND	5.0	01/07/13 11:18	
Dibromochloromethane	ug/L	ND	5.0	01/07/13 11:18	
Ethylbenzene	ug/L	ND	5.0	01/07/13 11:18	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	01/07/13 11:18	
m&p-Xylene	ug/L	ND	5.0	01/07/13 11:18	
Methylene Chloride	ug/L	ND	5.0	01/07/13 11:18	
o-Xylene	ug/L	ND	5.0	01/07/13 11:18	
Styrene	ug/L	ND	5.0	01/07/13 11:18	
Tetrachloroethene	ug/L	ND	5.0	01/07/13 11:18	
Toluene	ug/L	ND	5.0	01/07/13 11:18	
trans-1,2-Dichloroethene	ug/L	ND	5.0	01/07/13 11:18	
trans-1,3-Dichloropropene	ug/L	ND	5.0	01/07/13 11:18	
Trichloroethene	ug/L	ND	5.0	01/07/13 11:18	
Trichlorofluoromethane	ug/L	ND	5.0	01/07/13 11:18	
Vinyl chloride	ug/L	ND	1.0	01/07/13 11:18	
1,2-Dichloroethane-d4 (S)	%	104	77-119	01/07/13 11:18	
4-Bromofluorobenzene (S)	%	98	85-115	01/07/13 11:18	
Toluene-d8 (S)	%	95	85-115	01/07/13 11:18	

Date: 01/16/2013 03:33 PM

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 41569181/Essex-Hope

Pace Project No.: 3084918

LABORATORY CONTROL SAMPLE: 530748

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	18.3	91	62-125	
1,1,2,2-Tetrachloroethane	ug/L	20	16.5	82	61-117	
1,1,2-Trichloroethane	ug/L	20	17.8	89	72-119	
1,1-Dichloroethane	ug/L	20	18.5	92	63-123	
1,1-Dichloroethene	ug/L	20	21.3	107	57-127	
1,2-Dichlorobenzene	ug/L	20	17.5	87	70-116	
1,2-Dichloroethane	ug/L	20	17.7	88	62-125	
1,2-Dichloropropane	ug/L	20	16.9	84	69-115	
1,3-Dichlorobenzene	ug/L	20	17.7	89	71-118	
1,4-Dichlorobenzene	ug/L	20	17.9	90	67-119	
2-Butanone (MEK)	ug/L	20	19.4	97	48-136	
2-Hexanone	ug/L	20	20.5	102	52-130	
4-Methyl-2-pentanone (MIBK)	ug/L	20	21.0	105	57-124	
Acetone	ug/L	20	18.1	91	49-138	
Benzene	ug/L	20	18.0	90	66-122	
Bromodichloromethane	ug/L	20	17.0	85	63-118	
Bromoform	ug/L	20	17.2	86	46-130	
Bromomethane	ug/L	20	60.1	300	10-175	CU,L1
Carbon disulfide	ug/L	20	18.0	90	59-142	
Carbon tetrachloride	ug/L	20	17.8	89	55-126	
Chlorobenzene	ug/L	20	17.7	88	70-121	
Chloroethane	ug/L	20	22.0	110	24-161	
Chloroform	ug/L	20	16.9	84	62-126	
Chloromethane	ug/L	20	24.6	123	37-147	
cis-1,2-Dichloroethene	ug/L	20	18.0	90	64-121	
cis-1,3-Dichloropropene	ug/L	20	18.3	92	64-118	
Dibromochloromethane	ug/L	20	17.6	88	60-120	
Ethylbenzene	ug/L	20	18.3	91	69-119	
Isopropylbenzene (Cumene)	ug/L	20	19.5	97	68-126	
m&p-Xylene	ug/L	40	37.4	94	70-124	
Methylene Chloride	ug/L	20	18.8	94	59-128	
o-Xylene	ug/L	20	17.9	90	67-123	
Styrene	ug/L	20	19.4	97	67-146	
Tetrachloroethene	ug/L	20	18.0	90	62-125	
Toluene	ug/L	20	17.7	88	72-115	
trans-1,2-Dichloroethene	ug/L	20	18.7	93	59-122	
trans-1,3-Dichloropropene	ug/L	20	17.0	85	64-120	
Trichloroethene	ug/L	20	17.2	86	62-125	
Trichlorofluoromethane	ug/L	20	22.0	110	54-158	
Vinyl chloride	ug/L	20	23.6	118	52-145	
1,2-Dichloroethane-d4 (S)	%			101	77-119	
4-Bromofluorobenzene (S)	%			95	85-115	
Toluene-d8 (S)	%			98	85-115	

QUALITY CONTROL DATA

Project: 41569181/Essex-Hope

Pace Project No.: 3084918

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 530749 530750											
Parameter	Units	3084906002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,1,1-Trichloroethane	ug/L	ND	20	20	19.1	21.5	95	108	62-125	12	
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	14.0	16.0	70	80	61-117	13	
1,1,2-Trichloroethane	ug/L	ND	20	20	14.5	16.5	73	82	72-119	13	
1,1-Dichloroethane	ug/L	ND	20	20	18.4	21.4	91	105	63-123	15	
1,1-Dichloroethene	ug/L	ND	20	20	23.2	26.3	116	131	57-127	13	M0
1,2-Dichlorobenzene	ug/L	ND	20	20	13.6	15.4	68	77	70-116	12	M0
1,2-Dichloroethane	ug/L	ND	20	20	17.8	20.0	89	100	62-125	11	
1,2-Dichloropropane	ug/L	ND	20	20	13.4	15.1	67	76	69-115	12	M0
1,3-Dichlorobenzene	ug/L	ND	20	20	13.6	15.6	68	78	71-118	14	M0
1,4-Dichlorobenzene	ug/L	ND	20	20	13.9	15.7	70	79	67-119	12	
2-Butanone (MEK)	ug/L	ND	20	20	25.5	19.3	128	96	48-136	28	
2-Hexanone	ug/L	ND	20	20	27.2	18.1	136	91	52-130	40	M0,R1
4-Methyl-2-pentanone (MIBK)	ug/L	ND	20	20	25.9	18.6	130	93	57-124	33	M0,R1
Acetone	ug/L	ND	20	20	22.2	19.6	111	98	49-138	13	
Benzene	ug/L	57.9	20	20	70.8	74.1	65	81	66-122	5	M0
Bromodichloromethane	ug/L	ND	20	20	13.5	15.3	68	76	63-118	12	
Bromoform	ug/L	ND	20	20	12.7	14.5	63	72	46-130	13	
Bromomethane	ug/L	ND	20	20	13.5	16.1	67	81	10-175	18	
Carbon disulfide	ug/L	ND	20	20	24.8	26.0	124	130	59-142	5	
Carbon tetrachloride	ug/L	ND	20	20	15.6	17.2	78	86	55-126	10	
Chlorobenzene	ug/L	2.4	20	20	16.7	18.5	71	81	70-121	10	
Chloroethane	ug/L	ND	20	20	27.8	28.3	139	141	24-161	2	
Chloroform	ug/L	ND	20	20	17.1	19.2	86	96	62-126	11	
Chloromethane	ug/L	ND	20	20	36.2	37.6	181	188	37-147	4	M0
cis-1,2-Dichloroethene	ug/L	ND	20	20	18.8	21.2	90	102	64-121	12	
cis-1,3-Dichloropropene	ug/L	ND	20	20	14.2	16.2	71	81	64-118	13	
Dibromochloromethane	ug/L	ND	20	20	13.7	15.3	69	77	60-120	11	
Ethylbenzene	ug/L	ND	20	20	15.3	17.1	76	86	69-119	11	
Isopropylbenzene (Cumene)	ug/L	ND	20	20	15.6	17.2	78	86	68-126	10	
m&p-Xylene	ug/L	ND	40	40	30.2	33.8	76	84	70-124	11	
Methylene Chloride	ug/L	ND	20	20	18.8	21.2	94	106	59-128	12	
o-Xylene	ug/L	ND	20	20	14.5	16.3	72	81	67-123	12	
Styrene	ug/L	ND	20	20	15.3	16.6	76	83	67-146	9	
Tetrachloroethene	ug/L	ND	20	20	15.1	16.8	75	84	62-125	11	
Toluene	ug/L	ND	20	20	14.7	16.5	69	78	72-115	11	M0
trans-1,2-Dichloroethene	ug/L	ND	20	20	18.8	21.4	93	106	59-122	13	
trans-1,3-Dichloropropene	ug/L	ND	20	20	13.0	14.7	65	74	64-120	12	
Trichloroethene	ug/L	ND	20	20	14.4	16.5	71	82	62-125	14	
Trichlorofluoromethane	ug/L	ND	20	20	26.3	27.4	131	137	54-158	4	
Vinyl chloride	ug/L	ND	20	20	27.4	28.2	134	138	52-145	3	
1,2-Dichloroethane-d4 (S)	%						105	106	77-119		
4-Bromofluorobenzene (S)	%						95	95	85-115		
Toluene-d8 (S)	%						86	87	85-115		

QUALITY CONTROL DATA

Project: 41569181/Essex-Hope

Pace Project No.: 3084918

QC Batch: MSV/15100 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 3084918001, 3084918002, 3084918003

METHOD BLANK: 532116 Matrix: Water

Associated Lab Samples: 3084918001, 3084918002, 3084918003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	5.0	01/10/13 13:05	
1,1,2,2-Tetrachloroethane	ug/L	ND	5.0	01/10/13 13:05	
1,1,2-Trichloroethane	ug/L	ND	5.0	01/10/13 13:05	
1,1-Dichloroethane	ug/L	ND	5.0	01/10/13 13:05	
1,1-Dichloroethene	ug/L	ND	5.0	01/10/13 13:05	
1,2-Dichlorobenzene	ug/L	ND	5.0	01/10/13 13:05	
1,2-Dichloroethane	ug/L	ND	5.0	01/10/13 13:05	
1,2-Dichloropropane	ug/L	ND	5.0	01/10/13 13:05	
1,3-Dichlorobenzene	ug/L	ND	5.0	01/10/13 13:05	
1,4-Dichlorobenzene	ug/L	ND	5.0	01/10/13 13:05	
2-Butanone (MEK)	ug/L	ND	10.0	01/10/13 13:05	
2-Hexanone	ug/L	ND	10.0	01/10/13 13:05	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	01/10/13 13:05	
Acetone	ug/L	ND	10.0	01/10/13 13:05	
Benzene	ug/L	ND	1.0	01/10/13 13:05	
Bromodichloromethane	ug/L	ND	5.0	01/10/13 13:05	
Bromoform	ug/L	ND	5.0	01/10/13 13:05	
Bromomethane	ug/L	ND	5.0	01/10/13 13:05	
Carbon disulfide	ug/L	ND	5.0	01/10/13 13:05	
Carbon tetrachloride	ug/L	ND	5.0	01/10/13 13:05	
Chlorobenzene	ug/L	ND	5.0	01/10/13 13:05	
Chloroethane	ug/L	ND	5.0	01/10/13 13:05	
Chloroform	ug/L	ND	5.0	01/10/13 13:05	
Chloromethane	ug/L	ND	5.0	01/10/13 13:05	
cis-1,2-Dichloroethene	ug/L	ND	5.0	01/10/13 13:05	
cis-1,3-Dichloropropene	ug/L	ND	5.0	01/10/13 13:05	
Dibromochloromethane	ug/L	ND	5.0	01/10/13 13:05	
Ethylbenzene	ug/L	ND	5.0	01/10/13 13:05	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	01/10/13 13:05	
m&p-Xylene	ug/L	ND	5.0	01/10/13 13:05	
Methylene Chloride	ug/L	ND	5.0	01/10/13 13:05	
o-Xylene	ug/L	ND	5.0	01/10/13 13:05	
Styrene	ug/L	ND	5.0	01/10/13 13:05	
Tetrachloroethene	ug/L	ND	5.0	01/10/13 13:05	
Toluene	ug/L	ND	5.0	01/10/13 13:05	
trans-1,2-Dichloroethene	ug/L	ND	5.0	01/10/13 13:05	
trans-1,3-Dichloropropene	ug/L	ND	5.0	01/10/13 13:05	
Trichloroethene	ug/L	ND	5.0	01/10/13 13:05	
Trichlorofluoromethane	ug/L	ND	5.0	01/10/13 13:05	
Vinyl chloride	ug/L	ND	1.0	01/10/13 13:05	
1,2-Dichloroethane-d4 (S)	%	96	77-119	01/10/13 13:05	
4-Bromofluorobenzene (S)	%	99	85-115	01/10/13 13:05	
Toluene-d8 (S)	%	95	85-115	01/10/13 13:05	

Date: 01/16/2013 03:33 PM

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 41569181/Essex-Hope

Pace Project No.: 3084918

LABORATORY CONTROL SAMPLE: 532117

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	19.7	99	62-125	
1,1,2,2-Tetrachloroethane	ug/L	20	18.7	94	61-117	
1,1,2-Trichloroethane	ug/L	20	19.7	99	72-119	
1,1-Dichloroethane	ug/L	20	20.4	102	63-123	
1,1-Dichloroethene	ug/L	20	24.7	123	57-127	
1,2-Dichlorobenzene	ug/L	20	19.7	98	70-116	
1,2-Dichloroethane	ug/L	20	19.4	97	62-125	
1,2-Dichloropropane	ug/L	20	18.2	91	69-115	
1,3-Dichlorobenzene	ug/L	20	19.8	99	71-118	
1,4-Dichlorobenzene	ug/L	20	20.2	101	67-119	
2-Butanone (MEK)	ug/L	20	15.8	79	48-136	
2-Hexanone	ug/L	20	18.0	90	52-130	
4-Methyl-2-pentanone (MIBK)	ug/L	20	17.9	89	57-124	
Acetone	ug/L	20	16.3	82	49-138	
Benzene	ug/L	20	19.9	100	66-122	
Bromodichloromethane	ug/L	20	17.4	87	63-118	
Bromoform	ug/L	20	15.4	77	46-130	
Bromomethane	ug/L	20	40.0	200	10-175	CU,L3
Carbon disulfide	ug/L	20	14.8	74	59-142	
Carbon tetrachloride	ug/L	20	16.8	84	55-126	
Chlorobenzene	ug/L	20	19.7	99	70-121	
Chloroethane	ug/L	20	20.9	104	24-161	
Chloroform	ug/L	20	18.5	93	62-126	
Chloromethane	ug/L	20	23.6	118	37-147	CU
cis-1,2-Dichloroethene	ug/L	20	19.8	99	64-121	
cis-1,3-Dichloropropene	ug/L	20	19.7	98	64-118	
Dibromochloromethane	ug/L	20	17.3	86	60-120	
Ethylbenzene	ug/L	20	22.2	111	69-119	
Isopropylbenzene (Cumene)	ug/L	20	21.4	107	68-126	
m&p-Xylene	ug/L	40	41.9	105	70-124	
Methylene Chloride	ug/L	20	21.0	105	59-128	
o-Xylene	ug/L	20	20.2	101	67-123	
Styrene	ug/L	20	21.8	109	67-146	
Tetrachloroethene	ug/L	20	20.8	104	62-125	
Toluene	ug/L	20	31.2	156	72-115	L1
trans-1,2-Dichloroethene	ug/L	20	21.0	105	59-122	
trans-1,3-Dichloropropene	ug/L	20	17.6	88	64-120	
Trichloroethene	ug/L	20	19.1	95	62-125	
Trichlorofluoromethane	ug/L	20	20.6	103	54-158	
Vinyl chloride	ug/L	20	18.6	93	52-145	
1,2-Dichloroethane-d4 (S)	%			96	77-119	
4-Bromofluorobenzene (S)	%			94	85-115	
Toluene-d8 (S)	%			95	85-115	

QUALITY CONTROL DATA

Project: 41569181/Essex-Hope

Pace Project No.: 3084918

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 532118 532119											
Parameter	Units	3085091002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
1,1,1-Trichloroethane	ug/L	0.19U	20	20	20.4	21.3	102	106	62-125	4	
1,1,2,2-Tetrachloroethane	ug/L	0.22U	20	20	17.8	18.8	89	94	61-117	6	
1,1,2-Trichloroethane	ug/L	0.23U	20	20	19.0	20.4	95	102	72-119	7	
1,1-Dichloroethane	ug/L	0.16U	20	20	20.6	21.0	103	105	63-123	2	
1,1-Dichloroethene	ug/L	0.14U	20	20	29.3	25.6	146	128	57-127	14	M0
1,2-Dichlorobenzene	ug/L	0.23U	20	20	19.2	20.2	96	101	70-116	5	
1,2-Dichloroethane	ug/L	0.14U	20	20	19.1	19.7	96	98	62-125	3	
1,2-Dichloropropane	ug/L	0.23U	20	20	18.1	18.6	91	93	69-115	3	
1,3-Dichlorobenzene	ug/L	0.26U	20	20	19.3	20.3	96	101	71-118	5	
1,4-Dichlorobenzene	ug/L	0.17U	20	20	19.9	20.1	99	101	67-119	1	
2-Butanone (MEK)	ug/L	1.1U	20	20	16.2	16.2	81	81	48-136	.2	
2-Hexanone	ug/L	0.34U	20	20	17.3	18.8	87	94	52-130	8	
4-Methyl-2-pentanone (MIBK)	ug/L	0.29U	20	20	18.2	19.5	91	98	57-124	7	
Acetone	ug/L	2.6U	20	20	16.2	16.6	81	83	49-138	3	
Benzene	ug/L	0.065U	20	20	20.3	20.5	101	102	66-122	.9	
Bromodichloromethane	ug/L	0.15U	20	20	16.9	17.4	85	87	63-118	3	
Bromoform	ug/L	0.25U	20	20	13.7	15.5	68	77	46-130	12	
Bromomethane	ug/L	0.37U	20	20	16.3	24.5	82	123	10-175	40	R1
Carbon disulfide	ug/L	0.18U	20	20	20.5	17.4	102	87	59-142	16	
Carbon tetrachloride	ug/L	0.24U	20	20	17.0	17.7	85	89	55-126	4	
Chlorobenzene	ug/L	0.12U	20	20	19.7	20.2	98	101	70-121	3	
Chloroethane	ug/L	0.48U	20	20	20.0	20.2	100	101	24-161	1	
Chloroform	ug/L	0.16U	20	20	18.7	19.3	93	96	62-126	3	
Chloromethane	ug/L	0.21U	20	20	21.4	22.2	107	111	37-147	4	
cis-1,2-Dichloroethene	ug/L	0.20U	20	20	19.9	20.2	100	101	64-121	1	
cis-1,3-Dichloropropene	ug/L	0.19U	20	20	18.2	18.9	91	94	64-118	3	
Dibromochloromethane	ug/L	0.22U	20	20	16.1	17.3	81	86	60-120	7	
Ethylbenzene	ug/L	0.12U	20	20	20.4	21.4	102	107	69-119	5	
Isopropylbenzene (Cumene)	ug/L	0.12U	20	20	21.8	22.4	109	112	68-126	3	
m&p-Xylene	ug/L	0.21U	40	40	40.7	42.8	102	107	70-124	5	
Methylene Chloride	ug/L	0.23U	20	20	20.5	20.7	103	103	59-128	.7	
o-Xylene	ug/L	0.10U	20	20	19.7	20.6	98	103	67-123	5	
Styrene	ug/L	0.18U	20	20	20.0	21.8	100	109	67-146	9	
Tetrachloroethene	ug/L	0.12U	20	20	20.9	21.7	105	108	62-125	3	
Toluene	ug/L	0.24J	20	20	20.0	20.4	99	101	72-115	2	
trans-1,2-Dichloroethene	ug/L	0.18U	20	20	21.5	21.7	107	109	59-122	1	
trans-1,3-Dichloropropene	ug/L	0.23U	20	20	16.4	17.5	82	87	64-120	6	
Trichloroethene	ug/L	0.15U	20	20	19.2	19.9	96	100	62-125	4	
Trichlorofluoromethane	ug/L	0.19U	20	20	21.6	22.7	108	114	54-158	5	
Vinyl chloride	ug/L	0.13U	20	20	19.0	20.3	95	102	52-145	7	
1,2-Dichloroethane-d4 (S)	%						99	102	77-119		
4-Bromofluorobenzene (S)	%						96	96	85-115		
Toluene-d8 (S)	%						96	96	85-115		

QUALIFIERS

Project: 41569181/Essex-Hope

Pace Project No.: 3084918

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

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.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

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.

ANALYTE QUALIFIERS

CU	The continuing calibration for this compound is outside of Pace Analytical acceptance limits. Analyte presence below reporting limits in associated samples. Results unaffected by high bias.
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.
M0	Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits.
R1	RPD value was outside control limits.

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 41569181/Essex-Hope

Pace Project No.: 3084918

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
3084918001	PRE-CARB	EPA 8260	MSV/15100		
3084918002	PRIMARY-EFF	EPA 8260	MSV/15100		
3084918003	POST-CARB	EPA 8260	MSV/15100		
3084918004	TB-01	EPA 8260	MSV/15071		

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company: URS CORP	Report To: MARK DOWIAK	Attention:		Page: 1 of 1	1254132
Address: FOSTER PLAZA 601, 400 BOHANNAN DR. STE. 400 PITTSBURGH, PA 15220	Copy To: VALERIE SIBETO	Company Name:		REGULATORY AGENCY	
Email To:	Purchase Order No.: 41509181	Address:		☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER	
Phone: 412-503-4700	Project Name: ESSEX/HURE JAMESTOWN	Pace Quote Reference:		☐ UST ☐ RCRA ☐ OTHER	
Requested Due Date/TAT: STANDARD	Project Number: 41509181, 10000	Pace Project Manager:		Site Location STATE: NY	

ITEM #	Section D Required Client Information	Matrix Codes MATRIX / CODE	Matrix Code (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives	Analysis Test ↑	Y/N ↑	Requested Analysis Filtered (Y/N)												Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
					COMPOSITE START	COMPOSITE END/GRAB																			
1	PRE-CARB	DW	NTG	NTG			13-13 1050	3	Unpreserved	Analysis Test ↑															001
2	PRIMARY-EFF	WT					1055	3	H ₂ SO ₄	XXXXX															002
3	POST-CARB	WW					1100	3	HCl	XXXXX															003
4	POST-CARB	P					1130	3	NaOH	XXXXX															004
5	POST-CARB	SL					1200	3	HNO ₃	XXXXX															005
6	POST-CARB	Oil/Solid					1230	3	Other																006
7	TB-OI	Wipe					13-13	2																	
8		Air																							
9		Tissue																							
10		Other																							
11																									
12																									

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
COMPOSITE FOUR (4)	Valerie Sibeto	13-13	~300	Valerie Sibeto	13-13	~1300	
POST-CARB SAMPLES IN LAB AND					1/14/13	09:50	Y N Y
BEDET AS POST-CARB							
COMPOSITE							
NOTE: DEC 2012	SAMPLER NAME AND SIGNATURE			Temp in °C		Received on	
POTW SAMPLING	PRINT Name of SAMPLER: VALERIE SIBETO			Sealed Cooler (Y/N)		Custody (Y/N)	
	SIGNATURE of SAMPLER: <i>Valerie Sibeto</i>			Ice (Y/N)		Samples Intact (Y/N)	
	DATE Signed (MM/DD/YYYY): 1.3.13			F-ALL-Q-020rev.07, 15-May-2007			



Sample Condition Upon Receipt

THL

Client Name: URS

Project # 3084918

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

Tracking #: 873981019530

Optional
Proj. Due Date:
Proj. Name:

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

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

Thermometer Used 5 (6) 7

Type of Ice: Wet Blue None ☒ Samples on ice, cooling process has begun

Cooler Temperature 0.8

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: WEL 1/4/13

Temp should be above freezing to 6°C

Comments:

Chain of Custody Present:	☒ Yes ☐ No ☐ N/A	1.
Chain of Custody Filled Out:	☒ Yes ☐ No ☐ N/A	2.
Chain of Custody Relinquished:	☒ Yes ☐ No ☐ N/A	3.
Sampler Name & Signature on COC:	☒ Yes ☐ No ☐ N/A	4.
Samples Arrived within Hold Time:	☒ Yes ☐ No ☐ N/A	5.
Short Hold Time Analysis (<72hr):	☐ Yes ☒ No ☐ N/A	6.
Rush Turn Around Time Requested:	☐ Yes ☒ No ☐ N/A	7.
Sufficient Volume:	☒ Yes ☐ No ☐ N/A	8.
Correct Containers Used:	☒ Yes ☐ No ☐ N/A	9.
-Pace Containers Used:	☒ Yes ☐ No ☐ N/A	
Containers Intact:	☒ Yes ☐ No ☐ N/A	10.
Filtered volume received for Dissolved tests	☐ Yes ☐ No ☒ N/A	11.
Sample Labels match COC:	☒ Yes ☐ No ☐ N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>WA</u>		
All containers needing preservation have been checked.	☐ Yes ☐ No ☒ N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐ Yes ☐ No ☒ N/A	
exceptions: <u>VOA</u> , coliform, TOC, O&G, WI-DRO (water)	☒ Yes ☐ No	Initial when completed <u>WEL</u> Lot # of added preservative
Samples checked for dechlorination:	☐ Yes ☐ No ☒ N/A	14.
Headspace in VOA Vials (>6mm):	☐ Yes ☒ No ☐ N/A	15.
Trip Blank Present:	☒ Yes ☐ No ☐ N/A	16.
Trip Blank Custody Seals Present	☒ Yes ☐ No ☐ N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution:

Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: [Signature]

Date: 1/7/13

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

3084918

URS

[illegible]