



August 20, 2014

Mr. Michael V. Saar, P.E.
Water Resources Manager
Division of Wastewater/Solid Waste
Jamestown Board of Public Utilities
P.O. Box 700
Jamestown, NY 14702-0700

**Subject: Essex/Hope Site
Semi-Annual Self Monitoring Report
January through June 2014
BPU Permit No. 26
URS Project No. 41569831**

Dear Mr. Saar:

This submittal represents the January through June 2014 monitoring report in accordance with the City of Jamestown Board of Public Utilities Industrial Wastewater Discharge Permit Number 26 for the Essex Specialty Products, Inc facility referenced above. For reporting purposes, Essex Specialty Products, Inc., is classified as a Significant Industrial User subject to Categorical Pretreatment Standards. As such, this report has been developed in accordance with the requirements of 40 CFR 403.12(e).

Specific requirements included in this report as shown on Table 1 are as follows:

- Concentrations of Total Toxic Organics (TTOs) in discharge to POTW as measured monthly. Note: The Baseline Monitoring conducted for the discharge identified volatile organic compounds (VOCs) as approximately 98% of the influent TTO component. Non-volatile components historically were not a major component of chemical usage at the site. Based on these conditions, the permit requires sampling of VOCs to measure TTO concentration.
- pH of discharge to POTW as measured monthly.
- Flow rate of discharge to POTW as measured monthly.
- Estimated daily average and maximum flow rates.

This Semi-Annual Report contains system influent and effluent data for January through June 2014. No noncompliance events occurred during this reporting period. The groundwater treatment system remained shut down for most of the first half of 2014 due to major operations and maintenance activities including groundwater treatment system transfer pump repair, water line repairs, plant heating system repairs, and a broken carbon vessel. Table 1 summarizes the monthly discharge rates, and the total TTOs and constituents detected in the discharge to the POTW for each month. In addition to the permit requirements, Table 1 includes the total mass of Acetone discharged to the POTW during the reporting period. Discharge flow rates for the reporting period were 169,486 to 151,415 gallons for March and June, respectively. The daily average flow rates shown on Table 1 were estimated based upon the total volume of water discharged per month. Daily maximum flow rates were estimated to be 20 percent greater than daily averages. The supporting Laboratory Certificates of Analysis for the reported concentrations of VOCs are also attached.

We trust that this submittal satisfies our reporting obligation pursuant to 40 CFR 403.12. If you have any questions or require additional information, please contact me at (412) 503-4672.

Sincerely,
URS

Handwritten signature of Mark Dowiak in black ink, appearing as 'Mark Dowiak / us'.

Mark Dowiak, P.E.
Project Manager

Attachment

cc: Tim King (Dow)
Maurice Moore (NYSDEC)
Valerie Sibeto (URS)

Table 1

**January - June 2014
Post Carbon (Effluent) Monitoring Data
Essex/Hope Site
Jamestown, NY**

Reporting Requirements for Pre-Treated Discharge (System Effluent to POTW)	Industrial Wastewater Discharge Permit #26 Limits	January	February	March	April	May	June
POTW Discharge Analytical Data							
Total TTOs (µg/L)	2,130 µg/L (TTO)			NS			195
Detected TTO Compounds	Report			NS			cis-1,2-DCE and Vinyl Chloride
pH (Standard Units)	5.5 to 10			NS			7.01
				NS			7.01
				NS			7.00
				NS			7.00
Acetone Discharged (lbs)	Not applicable/No limits			0.0			0.0
POTW Discharge Flow Data							
Monthly Total Flow (gallons)	Report			169,486			151,415
Average Daily Flow (gallons)	Report			6,053			4,884
Maximum Daily Flow (gallons)	Report			7,264			5,861

Notes:

Jamestown BPU Industrial Wastewater Discharge Permit #26 effective 11/4/12 through 11/3/17.

Maximum Daily Flow is estimated to be 20% greater than Average Daily Flow.

VOCs sample is a laboratory prepared composite of 4 grab samples collected from the pre-treatment system discharge to the POTW at 30 minute intervals.

pH measurements recorded are concurrent with the time of each grab sample. Italicized measurements are approximate.

TTO = Total Toxic Organics

The system was shut down much of the first half for major O&M activities including transfer pump repairs, water line repairs, plant heating system repairs, and a broken carbon vessel.

The return to normal operations of the system commenced on June 5, 2014 and RW-6D commenced operations on June 27, 2014.

March sample was to be collected in the beginning of April, however, the system required a shut down due to a damaged carbon vessel therefore, no sample was collected.

NS = Not Sampled

July 22, 2014

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

RE: Project: ESSEX/HOPE JAMESTOWN
Pace Project No.: 30123816

Dear Mr. Dowiak:

Enclosed are the analytical results for sample(s) received by the laboratory on June 28, 2014. 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.

Report reissued 7/22/14 to include the results that were not appearing in the initial report.

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

Sincerely,



Jacquelyn Collins for
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: ESSEX/HOPE JAMESTOWN

Pace Project No.: 30123816

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 DHH/TNI Certification #: LA140008

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: PA00091

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification

Missouri Certification #: 235

Montana Certification #: Cert 0082

Nebraska Certification #: NE-05-29-14

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

North Dakota Certification #: R-190

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 #: PA014572014-4

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin/PADEP Certification

Wyoming Certification #: 8TMS-Q

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 30123816

Sample: PRE-CARB		Lab ID: 30123816001	Collected: 06/27/14 09:50	Received: 06/28/14 10:20	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260B						
Acetone	ND	ug/L	10.0	1		07/10/14 17:43	67-64-1	
Benzene	4.2	ug/L	1.0	1		07/10/14 17:43	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		07/10/14 17:43	75-27-4	
Bromoform	ND	ug/L	5.0	1		07/10/14 17:43	75-25-2	
Bromomethane	ND	ug/L	5.0	1		07/10/14 17:43	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		07/10/14 17:43	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		07/10/14 17:43	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		07/10/14 17:43	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		07/10/14 17:43	108-90-7	
Chloroethane	ND	ug/L	5.0	1		07/10/14 17:43	75-00-3	
Chloroform	ND	ug/L	5.0	1		07/10/14 17:43	67-66-3	
Chloromethane	ND	ug/L	5.0	1		07/10/14 17:43	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		07/10/14 17:43	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		07/10/14 17:43	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		07/10/14 17:43	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		07/10/14 17:43	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		07/10/14 17:43	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		07/10/14 17:43	107-06-2	
1,1-Dichloroethene	9.0	ug/L	5.0	1		07/10/14 17:43	75-35-4	
cis-1,2-Dichloroethene	1680	ug/L	250	50		07/10/14 18:07	156-59-2	
trans-1,2-Dichloroethene	15.0	ug/L	5.0	1		07/10/14 17:43	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		07/10/14 17:43	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		07/10/14 17:43	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		07/10/14 17:43	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		07/10/14 17:43	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		07/10/14 17:43	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		07/10/14 17:43	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		07/10/14 17:43	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		07/10/14 17:43	108-10-1	
Styrene	ND	ug/L	5.0	1		07/10/14 17:43	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		07/10/14 17:43	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		07/10/14 17:43	127-18-4	
Toluene	ND	ug/L	5.0	1		07/10/14 17:43	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		07/10/14 17:43	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		07/10/14 17:43	79-00-5	
Trichloroethene	1120	ug/L	250	50		07/10/14 18:07	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		07/10/14 17:43	75-69-4	
Vinyl chloride	292	ug/L	1.0	1		07/10/14 17:43	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		07/10/14 17:43	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		07/10/14 17:43	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	98	%	85-115	1		07/10/14 17:43	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	77-119	1		07/10/14 17:43	17060-07-0	
Toluene-d8 (S)	97	%	85-115	1		07/10/14 17:43	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 30123816

Sample: PRIMARY-EFF		Lab ID: 30123816002	Collected: 06/27/14 09:55	Received: 06/28/14 10:20	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260B						
Acetone	ND	ug/L	10.0	1		07/10/14 18:31	67-64-1	
Benzene	ND	ug/L	1.0	1		07/10/14 18:31	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		07/10/14 18:31	75-27-4	
Bromoform	ND	ug/L	5.0	1		07/10/14 18:31	75-25-2	
Bromomethane	ND	ug/L	5.0	1		07/10/14 18:31	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		07/10/14 18:31	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		07/10/14 18:31	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		07/10/14 18:31	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		07/10/14 18:31	108-90-7	
Chloroethane	ND	ug/L	5.0	1		07/10/14 18:31	75-00-3	
Chloroform	ND	ug/L	5.0	1		07/10/14 18:31	67-66-3	
Chloromethane	ND	ug/L	5.0	1		07/10/14 18:31	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		07/10/14 18:31	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		07/10/14 18:31	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		07/10/14 18:31	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		07/10/14 18:31	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		07/10/14 18:31	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		07/10/14 18:31	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		07/10/14 18:31	75-35-4	
cis-1,2-Dichloroethene	471	ug/L	250	50		07/10/14 18:56	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		07/10/14 18:31	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		07/10/14 18:31	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		07/10/14 18:31	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		07/10/14 18:31	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		07/10/14 18:31	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		07/10/14 18:31	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		07/10/14 18:31	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		07/10/14 18:31	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		07/10/14 18:31	108-10-1	
Styrene	ND	ug/L	5.0	1		07/10/14 18:31	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		07/10/14 18:31	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		07/10/14 18:31	127-18-4	
Toluene	ND	ug/L	5.0	1		07/10/14 18:31	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		07/10/14 18:31	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		07/10/14 18:31	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		07/10/14 18:31	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		07/10/14 18:31	75-69-4	
Vinyl chloride	226	ug/L	1.0	1		07/10/14 18:31	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		07/10/14 18:31	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		07/10/14 18:31	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	101	%	85-115	1		07/10/14 18:31	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	77-119	1		07/10/14 18:31	17060-07-0	
Toluene-d8 (S)	92	%	85-115	1		07/10/14 18:31	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 30123816

Sample: POST-CARB		Lab ID: 30123816003	Collected: 06/27/14 10:00	Received: 06/28/14 10:20	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260B						
Acetone	ND	ug/L	10.0	1		07/10/14 19:20	67-64-1	
Benzene	ND	ug/L	1.0	1		07/10/14 19:20	71-43-2	
Bromodichloromethane	ND	ug/L	5.0	1		07/10/14 19:20	75-27-4	
Bromoform	ND	ug/L	5.0	1		07/10/14 19:20	75-25-2	
Bromomethane	ND	ug/L	5.0	1		07/10/14 19:20	74-83-9	
2-Butanone (MEK)	ND	ug/L	10.0	1		07/10/14 19:20	78-93-3	
Carbon disulfide	ND	ug/L	5.0	1		07/10/14 19:20	75-15-0	
Carbon tetrachloride	ND	ug/L	5.0	1		07/10/14 19:20	56-23-5	
Chlorobenzene	ND	ug/L	5.0	1		07/10/14 19:20	108-90-7	
Chloroethane	ND	ug/L	5.0	1		07/10/14 19:20	75-00-3	
Chloroform	ND	ug/L	5.0	1		07/10/14 19:20	67-66-3	
Chloromethane	ND	ug/L	5.0	1		07/10/14 19:20	74-87-3	
Dibromochloromethane	ND	ug/L	5.0	1		07/10/14 19:20	124-48-1	
1,2-Dichlorobenzene	ND	ug/L	5.0	1		07/10/14 19:20	95-50-1	
1,3-Dichlorobenzene	ND	ug/L	5.0	1		07/10/14 19:20	541-73-1	
1,4-Dichlorobenzene	ND	ug/L	5.0	1		07/10/14 19:20	106-46-7	
1,1-Dichloroethane	ND	ug/L	5.0	1		07/10/14 19:20	75-34-3	
1,2-Dichloroethane	ND	ug/L	5.0	1		07/10/14 19:20	107-06-2	
1,1-Dichloroethene	ND	ug/L	5.0	1		07/10/14 19:20	75-35-4	
cis-1,2-Dichloroethene	9.0	ug/L	5.0	1		07/10/14 19:20	156-59-2	
trans-1,2-Dichloroethene	ND	ug/L	5.0	1		07/10/14 19:20	156-60-5	
1,2-Dichloropropane	ND	ug/L	5.0	1		07/10/14 19:20	78-87-5	
cis-1,3-Dichloropropene	ND	ug/L	5.0	1		07/10/14 19:20	10061-01-5	
trans-1,3-Dichloropropene	ND	ug/L	5.0	1		07/10/14 19:20	10061-02-6	
Ethylbenzene	ND	ug/L	5.0	1		07/10/14 19:20	100-41-4	
2-Hexanone	ND	ug/L	10.0	1		07/10/14 19:20	591-78-6	
Isopropylbenzene (Cumene)	ND	ug/L	1.0	1		07/10/14 19:20	98-82-8	
Methylene Chloride	ND	ug/L	5.0	1		07/10/14 19:20	75-09-2	
4-Methyl-2-pentanone (MIBK)	ND	ug/L	10.0	1		07/10/14 19:20	108-10-1	
Styrene	ND	ug/L	5.0	1		07/10/14 19:20	100-42-5	
1,1,2,2-Tetrachloroethane	ND	ug/L	5.0	1		07/10/14 19:20	79-34-5	
Tetrachloroethene	ND	ug/L	5.0	1		07/10/14 19:20	127-18-4	
Toluene	ND	ug/L	5.0	1		07/10/14 19:20	108-88-3	
1,1,1-Trichloroethane	ND	ug/L	5.0	1		07/10/14 19:20	71-55-6	
1,1,2-Trichloroethane	ND	ug/L	5.0	1		07/10/14 19:20	79-00-5	
Trichloroethene	ND	ug/L	5.0	1		07/10/14 19:20	79-01-6	
Trichlorofluoromethane	ND	ug/L	5.0	1		07/10/14 19:20	75-69-4	
Vinyl chloride	186	ug/L	1.0	1		07/10/14 19:20	75-01-4	
m&p-Xylene	ND	ug/L	5.0	1		07/10/14 19:20	179601-23-1	
o-Xylene	ND	ug/L	5.0	1		07/10/14 19:20	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	100	%	85-115	1		07/10/14 19:20	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	77-119	1		07/10/14 19:20	17060-07-0	
Toluene-d8 (S)	98	%	85-115	1		07/10/14 19:20	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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

ANALYTICAL RESULTS

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 30123816

Sample: TB-01		Lab ID: 30123816007	Collected: 06/27/14 00:01	Received: 06/28/14 10:20	Matrix: Water			
Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260B						
Acetone	ND ug/L		10.0	1		07/10/14 12:02	67-64-1	
Benzene	ND ug/L		1.0	1		07/10/14 12:02	71-43-2	
Bromodichloromethane	ND ug/L		5.0	1		07/10/14 12:02	75-27-4	
Bromoform	ND ug/L		5.0	1		07/10/14 12:02	75-25-2	
Bromomethane	ND ug/L		5.0	1		07/10/14 12:02	74-83-9	
2-Butanone (MEK)	ND ug/L		10.0	1		07/10/14 12:02	78-93-3	
Carbon disulfide	ND ug/L		5.0	1		07/10/14 12:02	75-15-0	
Carbon tetrachloride	ND ug/L		5.0	1		07/10/14 12:02	56-23-5	
Chlorobenzene	ND ug/L		5.0	1		07/10/14 12:02	108-90-7	
Chloroethane	ND ug/L		5.0	1		07/10/14 12:02	75-00-3	
Chloroform	ND ug/L		5.0	1		07/10/14 12:02	67-66-3	
Chloromethane	ND ug/L		5.0	1		07/10/14 12:02	74-87-3	
Dibromochloromethane	ND ug/L		5.0	1		07/10/14 12:02	124-48-1	
1,2-Dichlorobenzene	ND ug/L		5.0	1		07/10/14 12:02	95-50-1	
1,3-Dichlorobenzene	ND ug/L		5.0	1		07/10/14 12:02	541-73-1	
1,4-Dichlorobenzene	ND ug/L		5.0	1		07/10/14 12:02	106-46-7	
1,1-Dichloroethane	ND ug/L		5.0	1		07/10/14 12:02	75-34-3	
1,2-Dichloroethane	ND ug/L		5.0	1		07/10/14 12:02	107-06-2	
1,1-Dichloroethene	ND ug/L		5.0	1		07/10/14 12:02	75-35-4	
cis-1,2-Dichloroethene	ND ug/L		5.0	1		07/10/14 12:02	156-59-2	
trans-1,2-Dichloroethene	ND ug/L		5.0	1		07/10/14 12:02	156-60-5	
1,2-Dichloropropane	ND ug/L		5.0	1		07/10/14 12:02	78-87-5	
cis-1,3-Dichloropropene	ND ug/L		5.0	1		07/10/14 12:02	10061-01-5	
trans-1,3-Dichloropropene	ND ug/L		5.0	1		07/10/14 12:02	10061-02-6	
Ethylbenzene	ND ug/L		5.0	1		07/10/14 12:02	100-41-4	
2-Hexanone	ND ug/L		10.0	1		07/10/14 12:02	591-78-6	
Isopropylbenzene (Cumene)	ND ug/L		1.0	1		07/10/14 12:02	98-82-8	
Methylene Chloride	ND ug/L		5.0	1		07/10/14 12:02	75-09-2	B
4-Methyl-2-pentanone (MIBK)	ND ug/L		10.0	1		07/10/14 12:02	108-10-1	
Styrene	ND ug/L		5.0	1		07/10/14 12:02	100-42-5	
1,1,2,2-Tetrachloroethane	ND ug/L		5.0	1		07/10/14 12:02	79-34-5	
Tetrachloroethene	ND ug/L		5.0	1		07/10/14 12:02	127-18-4	
Toluene	ND ug/L		5.0	1		07/10/14 12:02	108-88-3	
1,1,1-Trichloroethane	ND ug/L		5.0	1		07/10/14 12:02	71-55-6	
1,1,2-Trichloroethane	ND ug/L		5.0	1		07/10/14 12:02	79-00-5	
Trichloroethene	ND ug/L		5.0	1		07/10/14 12:02	79-01-6	
Trichlorofluoromethane	ND ug/L		5.0	1		07/10/14 12:02	75-69-4	
Vinyl chloride	ND ug/L		1.0	1		07/10/14 12:02	75-01-4	
m&p-Xylene	ND ug/L		5.0	1		07/10/14 12:02	179601-23-1	
o-Xylene	ND ug/L		5.0	1		07/10/14 12:02	95-47-6	
Surrogates								
4-Bromofluorobenzene (S)	98 %		85-115	1		07/10/14 12:02	460-00-4	
1,2-Dichloroethane-d4 (S)	106 %		77-119	1		07/10/14 12:02	17060-07-0	
Toluene-d8 (S)	97 %		85-115	1		07/10/14 12:02	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 30123816

QC Batch: MSV/20249 Analysis Method: EPA 8260B

QC Batch Method: EPA 8260B Analysis Description: 8260 MSV

Associated Lab Samples: 30123816001, 30123816002, 30123816003, 30123816007

METHOD BLANK: 755876

Matrix: Water

Associated Lab Samples: 30123816001, 30123816002, 30123816003, 30123816007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	ND	1.0	07/10/14 10:24	
1,1,2,2-Tetrachloroethane	ug/L	ND	1.0	07/10/14 10:24	
1,1,2-Trichloroethane	ug/L	ND	1.0	07/10/14 10:24	
1,1-Dichloroethane	ug/L	ND	1.0	07/10/14 10:24	
1,1-Dichloroethene	ug/L	ND	1.0	07/10/14 10:24	
1,2-Dichlorobenzene	ug/L	ND	1.0	07/10/14 10:24	
1,2-Dichloroethane	ug/L	ND	1.0	07/10/14 10:24	
1,2-Dichloropropane	ug/L	ND	1.0	07/10/14 10:24	
1,3-Dichlorobenzene	ug/L	ND	1.0	07/10/14 10:24	
1,4-Dichlorobenzene	ug/L	ND	1.0	07/10/14 10:24	
2-Butanone (MEK)	ug/L	ND	10.0	07/10/14 10:24	
2-Hexanone	ug/L	ND	10.0	07/10/14 10:24	
4-Methyl-2-pentanone (MIBK)	ug/L	ND	10.0	07/10/14 10:24	
Acetone	ug/L	ND	10.0	07/10/14 10:24	
Benzene	ug/L	ND	1.0	07/10/14 10:24	
Bromodichloromethane	ug/L	ND	1.0	07/10/14 10:24	
Bromoform	ug/L	ND	1.0	07/10/14 10:24	
Bromomethane	ug/L	ND	1.0	07/10/14 10:24	
Carbon disulfide	ug/L	ND	1.0	07/10/14 10:24	
Carbon tetrachloride	ug/L	ND	1.0	07/10/14 10:24	
Chlorobenzene	ug/L	ND	1.0	07/10/14 10:24	
Chloroethane	ug/L	ND	1.0	07/10/14 10:24	
Chloroform	ug/L	ND	1.0	07/10/14 10:24	
Chloromethane	ug/L	ND	1.0	07/10/14 10:24	
cis-1,2-Dichloroethene	ug/L	ND	1.0	07/10/14 10:24	
cis-1,3-Dichloropropene	ug/L	ND	1.0	07/10/14 10:24	
Dibromochloromethane	ug/L	ND	1.0	07/10/14 10:24	
Ethylbenzene	ug/L	ND	1.0	07/10/14 10:24	
Isopropylbenzene (Cumene)	ug/L	ND	1.0	07/10/14 10:24	
m&p-Xylene	ug/L	ND	2.0	07/10/14 10:24	
Methylene Chloride	ug/L	1.2	1.0	07/10/14 10:24	B,C9
o-Xylene	ug/L	ND	1.0	07/10/14 10:24	
Styrene	ug/L	ND	1.0	07/10/14 10:24	
Tetrachloroethene	ug/L	ND	1.0	07/10/14 10:24	
Toluene	ug/L	ND	1.0	07/10/14 10:24	
trans-1,2-Dichloroethene	ug/L	ND	1.0	07/10/14 10:24	
trans-1,3-Dichloropropene	ug/L	ND	1.0	07/10/14 10:24	
Trichloroethene	ug/L	ND	1.0	07/10/14 10:24	
Trichlorofluoromethane	ug/L	ND	1.0	07/10/14 10:24	
Vinyl chloride	ug/L	ND	1.0	07/10/14 10:24	
1,2-Dichloroethane-d4 (S)	%	106	77-119	07/10/14 10:24	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 30123816

METHOD BLANK: 755876

Matrix: Water

Associated Lab Samples: 30123816001, 30123816002, 30123816003, 30123816007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
4-Bromofluorobenzene (S)	%	99	85-115	07/10/14 10:24	
Toluene-d8 (S)	%	100	85-115	07/10/14 10:24	

LABORATORY CONTROL SAMPLE: 755877

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	19.2	96	62-125	
1,1,2,2-Tetrachloroethane	ug/L	20	16.5	83	61-117	
1,1,2-Trichloroethane	ug/L	20	19.8	99	72-119	
1,1-Dichloroethane	ug/L	20	17.8	89	63-123	
1,1-Dichloroethene	ug/L	20	16.6	83	57-127	
1,2-Dichlorobenzene	ug/L	20	17.2	86	70-116	
1,2-Dichloroethane	ug/L	20	18.1	90	62-125	
1,2-Dichloropropane	ug/L	20	16.9	85	69-115	
1,3-Dichlorobenzene	ug/L	20	16.6	83	71-118	
1,4-Dichlorobenzene	ug/L	20	17.7	89	67-119	
2-Butanone (MEK)	ug/L	20	21.7	109	48-136	
2-Hexanone	ug/L	20	17.8	89	52-130	
4-Methyl-2-pentanone (MIBK)	ug/L	20	19.9	99	57-124	
Acetone	ug/L	20	23.5	118	49-138	
Benzene	ug/L	20	16.6	83	66-122	
Bromodichloromethane	ug/L	20	17.2	86	63-118	
Bromoform	ug/L	20	20.9	104	46-130	
Bromomethane	ug/L	20	13.8	69	10-175	
Carbon disulfide	ug/L	20	27.5	137	59-142	
Carbon tetrachloride	ug/L	20	19.2	96	55-126	
Chlorobenzene	ug/L	20	19.0	95	70-121	
Chloroethane	ug/L	20	21.4	107	24-161	
Chloroform	ug/L	20	17.7	89	62-126	
Chloromethane	ug/L	20	20.1	101	37-147	
cis-1,2-Dichloroethene	ug/L	20	17.5	87	64-121	
cis-1,3-Dichloropropene	ug/L	20	15.7	79	64-118	
Dibromochloromethane	ug/L	20	20.1	101	60-120	
Ethylbenzene	ug/L	20	18.6	93	69-119	
Isopropylbenzene (Cumene)	ug/L	20	16.9	84	68-126	
m&p-Xylene	ug/L	40	36.0	90	70-124	
Methylene Chloride	ug/L	20	18.1	90	59-128	
o-Xylene	ug/L	20	18.1	91	67-123	
Styrene	ug/L	20	18.7	93	67-146	
Tetrachloroethene	ug/L	20	18.7	94	62-125	
Toluene	ug/L	20	18.1	91	72-115	
trans-1,2-Dichloroethene	ug/L	20	17.2	86	59-122	
trans-1,3-Dichloropropene	ug/L	20	16.1	80	64-120	
Trichloroethene	ug/L	20	19.5	97	62-125	

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 30123816

LABORATORY CONTROL SAMPLE: 755877

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Trichlorofluoromethane	ug/L	20	23.2	116	54-158	
Vinyl chloride	ug/L	20	20.9	104	52-145	
1,2-Dichloroethane-d4 (S)	%			102	77-119	
4-Bromofluorobenzene (S)	%			101	85-115	
Toluene-d8 (S)	%			102	85-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 756092

756093

Parameter	Units	30123743001		MS		MSD		MS		MSD		% Rec		RPD	Qual
		Result	Conc.	Spike Conc.	Result	Spike Conc.	Result	% Rec	Result	% Rec	Result	Limits	Limits		
1,1,1-Trichloroethane	ug/L	ND	20	20	25.8	25.6	129	128	62-125	1	M0				
1,1,2,2-Tetrachloroethane	ug/L	ND	20	20	16.7	16.7	83	84	61-117	0					
1,1,2-Trichloroethane	ug/L	ND	20	20	20.9	20.0	105	100	72-119	4					
1,1-Dichloroethane	ug/L	ND	20	20	23.8	23.5	119	118	63-123	1					
1,1-Dichloroethene	ug/L	ND	20	20	24.2	24.3	121	121	57-127	0					
1,2-Dichlorobenzene	ug/L	ND	20	20	18.0	18.1	90	91	70-116	1					
1,2-Dichloroethane	ug/L	ND	20	20	22.9	22.7	115	114	62-125	1					
1,2-Dichloropropane	ug/L	ND	20	20	20.3	19.5	102	98	69-115	4					
1,3-Dichlorobenzene	ug/L	ND	20	20	17.5	17.2	88	86	71-118	2					
1,4-Dichlorobenzene	ug/L	ND	20	20	18.7	18.3	93	91	67-119	2					
2-Butanone (MEK)	ug/L	ND	20	20	20.8	20.8	104	104	48-136	0					
2-Hexanone	ug/L	ND	20	20	14.8	14.8	74	74	52-130	0					
4-Methyl-2-pentanone (MIBK)	ug/L	ND	20	20	16.8	17.8	84	89	57-124	6					
Acetone	ug/L	ND	20	20	21.4	22.4	107	112	49-138	5					
Benzene	ug/L	ND	20	20	20.7	20.4	104	102	66-122	1					
Bromodichloromethane	ug/L	ND	20	20	19.4	19.6	97	98	63-118	1					
Bromoform	ug/L	ND	20	20	20.8	20.6	104	103	46-130	1					
Bromomethane	ug/L	ND	20	20	13.0	15.0	65	75	10-175	14					
Carbon disulfide	ug/L	ND	20	20	25.2	27.8	126	139	59-142	10					
Carbon tetrachloride	ug/L	ND	20	20	26.5	26.0	132	130	55-126	2	M0				
Chlorobenzene	ug/L	ND	20	20	21.4	21.2	107	106	70-121	1					
Chloroethane	ug/L	ND	20	20	25.7	25.7	128	128	24-161	0					
Chloroform	ug/L	74.4	20	20	97.9	98.5	117	120	62-126	1					
Chloromethane	ug/L	ND	20	20	22.7	23.1	114	116	37-147	2					
cis-1,2-Dichloroethene	ug/L	ND	20	20	23.3	22.9	116	114	64-121	2					
cis-1,3-Dichloropropene	ug/L	ND	20	20	19.2	18.6	96	93	64-118	3					
Dibromochloromethane	ug/L	ND	20	20	21.5	21.3	107	107	60-120	1					
Ethylbenzene	ug/L	ND	20	20	20.7	21.0	103	105	69-119	1					
Isopropylbenzene (Cumene)	ug/L	ND	20	20	19.1	19.3	96	96	68-126	1					
m&p-Xylene	ug/L	ND	40	40	41.8	40.7	104	102	70-124	3					
Methylene Chloride	ug/L	ND	20	20	22.0	21.9	110	110	59-128	0					
o-Xylene	ug/L	ND	20	20	20.1	19.6	100	98	67-123	2					
Styrene	ug/L	ND	20	20	20.7	19.8	103	99	67-146	5					
Tetrachloroethene	ug/L	ND	20	20	23.5	23.3	117	117	62-125	1					
Toluene	ug/L	ND	20	20	20.5	20.9	103	105	72-115	2					

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 30123816

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 756092 756093											
Parameter	Units	30123743001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
trans-1,2-Dichloroethene	ug/L	ND	20	20	23.7	23.8	119	119	59-122	0	
trans-1,3-Dichloropropene	ug/L	ND	20	20	18.7	18.7	93	93	64-120	0	
Trichloroethene	ug/L	ND	20	20	22.5	22.7	112	114	62-125	1	
Trichlorofluoromethane	ug/L	ND	20	20	30.5	32.1	152	160	54-158	5	M0
Vinyl chloride	ug/L	ND	20	20	24.6	25.5	123	128	52-145	4	
1,2-Dichloroethane-d4 (S)	%						97	103	77-119		
4-Bromofluorobenzene (S)	%						97	96	85-115		
Toluene-d8 (S)	%						95	95	85-115		

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

REPORT OF LABORATORY ANALYSIS

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

QUALIFIERS

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 30123816

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.

PQL - Practical Quantitation 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.

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

REPORT OF LABORATORY ANALYSIS

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

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: ESSEX/HOPE JAMESTOWN

Pace Project No.: 30123816

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30123816001	PRE-CARB	EPA 8260B	MSV/20249		
30123816002	PRIMARY-EFF	EPA 8260B	MSV/20249		
30123816003	POST-CARB	EPA 8260B	MSV/20249		
30123816007	TB-01	EPA 8260B	MSV/20249		

REPORT OF LABORATORY ANALYSIS

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

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 B, STE 400 601 ANDERSEN DR PITTSBURGH PA 15220	Copy To:	VALEKIE SIBETO	Company Name:	
Email To:		Purchase Order No.:	41569831	Address:	
Phone:	412-503-4300	Project Name:	ESSEX/HOPE JAMES STANN	Pace Quote Reference:	
Requested Due Date/TAT:	STANDARD	Project Number:	41569831.10000	Pace Project Manager:	
				Pace Profile #:	

ITEM #	Section D Required Client Information	Matrix Codes MATRIX / CODE	COLLECTED		SAMPLE TYPE (G=GRAB C=COMP)	MATRIX CODE (see valid codes to left)	# OF CONTAINERS	Preservatives						Analysis Test ↑	Y/N ↓	Requested Analysis Filtered (Y/N)	Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
			COMPOSITE START	COMPOSITE END/GRAB				Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃							
1	PRE-CARB	Drinking Water DW	DATE	TIME	DATE	TIME														
2	PRIMARY-EFF	Water WT	6/27/14	0950																
3	POST-CARB	Waste Water WW		0955																
4	POST-CARB	Product P		1000																
5	POST-CARB	Soil/Solid SL		1030																
6	POST-CARB	Oil OL		1100																
7	TB-01	Wipe WP		1130																
8		Air AR																		
9		Tissue TS																		
10		Other OT																		
11																				
12																				
ADDITIONAL COMMENTS		RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS										
COMPOSITE FOUR (4)		Valerie Sibeto		6/27/14	1600	Valerie Sibeto		6/27/14	1600	Y N Y										
POST-CARB SAMPLES																				
IN LAB AND REPORT																				
AS POST-CARB COMPOSITE																				
AS																				

ORIGINAL



Sample Condition Upon Receipt

30123816

Client Name: URS

Project # _____

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

Tracking #: 80239326593

Custody Seal on Cooler/Box Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no Biological Tissue is Frozen: Yes No

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

Thermometer Used 6 Type of Ice: ☒ Wet ☐ Blue ☐ None ☒ Samples on ice, cooling process has begun

Cooler Temp.: Observed Temp.: 2.7 °C Correction Factor: -0.1 °C Final Temp: 2.6 °C

Date and Initials of person

examining contents: ARM 6/28/14

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>ARM</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: 6/28/14

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:

Client Name: _____

[illegible]