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November 4, 2004

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Mr. Maurice Moore  
Division of Hazardous Waste Remediation  
NYSDEC  
270 Michigan Ave.  
Buffalo, NY 14203-2999

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NYSDEC REG 9  
FOIL  
 REL  UNREL

Re: June 2004 Semi-Annual Performance Monitoring Report  
Essex/Hope Site, Jamestown, New York  
URS Project No. 41567320

Dear Mr. Moore:

This letter report is a summary of the January through July 2004 operation performance for the remedial system at the above-referenced site. This report is submitted in accordance with the revised Performance Monitoring Plan (PMP) prepared by URS Corporation (URS) dated October 2003. During the period approximately 637,450 gallons of water were treated and discharged to the City of Jamestown POTW. The following sections discuss the data on groundwater quality sampling and groundwater flow. Soil sampling was not conducted during this reporting period.

#### GROUNDWATER FLOW EVALUATION

Water level measurements were taken on February 20, 2004 and May 14, 2004. Water level data is provided in Appendix A of this report. Groundwater contour maps illustrating pumping conditions during the reporting period are provided as Figures 1 and 2. The following discussions review the flow conditions of the Shallow (water table) and Lower Fine Sand (deep) water-bearing zones.

##### Shallow Water-Bearing Zone (SWBZ)

A water table contour map representing pumping conditions in the Shallow Water-Bearing Zone on May 14, 2004 is provided as Figure 1. The drawdown conditions are consistent with those documented during the same period in 2003. Shallow groundwater was extracted at an average rate of 1 gallon per minute (gpm) from the NPL Area, 0.07 gpm from the AST/UST Area.

Recovery wells RW-4S and RW-5S were rendered inoperable after November 2, 2002 because of demolition of the electrical and groundwater discharge lines during the UST Area tank removal.

The UST Area is currently being investigated for the extent of residual VOCs in soil and groundwater. Potential further remedial actions in the UST Area will be assessed after review of the investigation results.

### **Lower Fine Sand Water-Bearing Zone**

Deep zone groundwater extraction is conducted from Recovery Well RW-2D in the NPL Area. No groundwater is pumped from RW-1D, which was shut down in June of 1999 with the approval of the NYSDEC. Potentiometric surface contour maps representing pumping conditions on May 14, 2003 are provided as Figure 2. The aerial influence of pumping from RW-2D decreased over the reporting period due to increasing accumulation of precipitates around and within the well. Groundwater was extracted from the deep zone at an average rate of 2 gpm during the first quarter of 2004, with a gradual decrease down to approximately 1.5 gpm by the end of the second quarter. Cleaning and re-development was completed in July 2004 to restore the groundwater yield from the well.

### **WATER QUALITY RESULTS**

Performance monitoring included semi-annual sampling of the recovery wells during the 2<sup>nd</sup> Quarter of 2004 and monthly influent and effluent sampling of the treatment system. The first of the semi-annual sampling events for the recovery wells was on May 27, 2004. The monthly influent/effluent samples were collected on January 31, 2004, February 27, 2004, March 30, 2004, April 30, 2004, May 27, 2004 and June 25, 2004. Pace Analytical of Export, Pennsylvania analyzed the samples for volatile organic compounds (VOC's) by US EPA Method 8260B. The recovery well analytical results are summarized in Table 1; and historical results for each recovery well is summarized in Tables 2 through 6. Tables 7 through 9 summarize the monthly influent and effluent sample results. Copies of the laboratory data packages are provided in Appendix B. The following sections discuss the analytical data from each remedial area.

#### **NPL Area – Shallow Zone**

VOC's detected in RW-1S (Table 2) during the May sampling round included: TCE (4,800 ug/L), vinyl chloride (38 ug/L), 1,1 DCE (11 ug/L) and cis-1,2-DCE (170 ug/L) - all other VOC's were non-detect. TCE increased from 280 ug/L in the 4<sup>th</sup> quarter of 2003, but previous data indicates that concentrations have been variable at this location over time. Vinyl chloride decreased from 1,900 ug/L detected during the last round in the 4<sup>th</sup> quarter of 2003, and similarly to TCE – results have been variable over time. 1,1-DCE and cis-1,2-DCE have remained at levels comparable to previous data.

VOC's detected at RW-2S (Table 3) included TCE (450 ug/L), cis-1,2-DCE (88 ug/L) and 1,1-DCE (4.7 ug/L) – all other VOCs were below detection limits. The detected compounds also demonstrated fluctuations in concentrations relative to previous and historic data, especially for TCE.

#### **NPL Area – Lower Fine Sand Water Bearing Zone**

VOC's detected at RW-1D (Table 5) during the 2<sup>nd</sup> Quarter included cis-1,2-DCE (370 ug/L), vinyl chloride (14 ug/L), acetone (11 ug/L), TCE (8.5 ug/L), 1,1-DCE (8.3 ug/L), trans-1,2-DCE (8.1 ug/L), and benzene (1.5 ug/L) - all other VOC's were non-detect. Cis-1,2-DCE has decreased over the last two sampling rounds from an average range of 1,300 to 3,000 ug/L during prior sampling rounds. TCE and trans-1,2-DCE show a slight decrease compared to

previous data. Acetone, benzene and vinyl chloride, occasionally detected at this location, show similar concentrations compared to previous data.

Compounds detected at RW-2D (Table 6) included: cis-1,2-DCE (6,400 ug/L), vinyl chloride (1,600 ug/L), TCE (760 ug/L), 1,1-DCE (34 ug/L), trans-1,2-DCE (32 ug/L), and benzene (11 ug/L). Cis-1,2-DCE increased as compared to the last three sampling rounds between the 2<sup>nd</sup> and 4<sup>th</sup> quarter of 2003 where levels ranged from 3,900 to 5,000 ug/l. Vinyl chloride has shown an increasing trend over this same time period. TCE and 1,1-DCE are slightly higher than previous rounds, and trans-1,2-DCE and benzene remain at similar levels compared to previous levels.

#### **AST/UST Area**

VOC's detected at RW-3S (Table 4) included: xylenes (75 ug/L), ethelbenzene (43 ug/L), isopropylbenzene (7.4 ug/L), vinyl chloride (4.8 ug/L) and benzene (1.8 ug/L) – all other VOCs were non-detect. Xylenes concentrations slightly decreased from the 4<sup>th</sup> Quarter 2004 level of 97 ug/L. Concentrations have been typically irregular for this compound over time. Ethylbenzene and isopropylbenzene remained at comparable concentrations over the last year. Benzene has shown a decrease to less than or just above the detection limit of 1 ug/L over the last two sampling rounds. Low concentrations of vinyl chloride have been detected sporadically at this location.

#### **Treatment Plant Influent/Effluent**

The treatment plant influent and effluent concentrations for the first half of 2004 are shown on Tables 7-9. Pre-Carbon data (Table 7) reflects the influent composite from all the groundwater extraction wells prior to onsite treatment. Primary Carbon Effluent data (Table 8) represents the effluent from the first carbon treatment vessel prior to the second treatment vessel. Secondary Carbon Effluent data (Table 9) represents the pre-treated effluent water prior to discharge to the City of Jamestown Publicly Owned Treatment Works (POTW). System influent and effluent concentrations are summarized below.

VOC's detected in the influent during the reporting period included: cis-1,2-DCE (<5 to 4,100 ug/L), vinyl chloride (440 to 1,000 ug/L), TCE (390 to 770 ug/L), xylenes (<5 to 78.1 ug/L), acetone (<10 to 31 ug/L), 1,1-DCE (<5 to 25 ug/L), trans-1,2-DCE (10 to 19 ug/L), benzene (5.3 to 8.7 ug/L) and ethylbenzene (<5 to 6.3 ug/L). Influent data for each month of the reporting period is provided on Table 7.

VOC's detected in the secondary carbon effluent (discharge to the POTW) during the reporting period included: vinyl chloride (<2 to 1,700 ug/L), cis-1,2-DCE (27 to 1,200 ug/L) and TCE (<5 to 23 ug/L). Discharge concentrations remained below the POTW discharge limit of 2,130 ug/L total VOCs established for the site. Effluent data for each month is provided on Table 9.

Based upon increasing concentration trends in the primary carbon vessel and system effluent, the primary carbon vessel was taken offline on June 18, 2004 and the secondary carbon unit moved to the primary position. A fresh carbon vessel was placed online in the secondary position. The two spent carbon units were recharged with re-activated carbon by Envirotrol Inc. the week of July 19, 2004; the spent carbon was shipped to Envirotrol's Darlington, PA

facility for re-activation. At this time, the fresh unit placed in the secondary position on June 18, 2004 was moved to the primary position, and a newly recharged carbon unit was placed in the secondary position.

## CLOSING

This letter report has been prepared to satisfy the reporting requirements stipulated in the Performance Monitoring Plan and to evaluate remediation effectiveness on a semi-annual basis. If you have any questions or desire additional information, please do not hesitate to call me at (412) 503-4672.

Sincerely,

URS



Mark J. Dowiak  
Project Manager

MD/KD  
Enclosure

cc: Tim King – The Dow Chemical Company  
Keith Dodrill – URS  
John Ross – URS  
Cameron O'Conner – NY State Dept. of Health  
G. Gerald Rider – NYDEC Div. of Environmental Remediation  
Carlo J. Montisano – Custom Production Manufacturing, Inc.

## TABLES

**Table 1**  
**2nd Quarter Sampling**  
**Recovery Well Analytical Results**  
**May 27, 2003** *DPAE*

Volatile Compounds (Method 8260A)	Site GW RAOs (ug/L)	RW-1S (ug/L)	RW-1D (ug/L)	RW-2S (ug/L)	RW-2D (ug/L)	RW-3S (ug/L)	Trip Blank (ug/L)
Acetone	-	<10	11	<10	<10	<10	<10
Benzene	-	<1.0	1.5	<1.0	11	1.8	<1.0
2-Butanone	-	<10	<10	<10	<10	<10	<10
Chloroform	-	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Isopropylbenzene (Cumene)	-	<5.0	<5.0	<5.0	<5.0	7.4	<5.0
1,1-Dichloroethane	-	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene	-	11	8.3	<5.0	34	<5.0	<5.0
cis-1,2-Dichloroethene	-	740	370	88	6,400	<5.0	<5.0
trans-1,2-Dichloroethene	5	<5.0	8.1	<5.0	32	<5.0	<5.0
Ethylbenzene	5	<5.0	<5.0	<5.0	<5.0	43	<5.0
4-Methyl-2-pentanone	-	<10	<10	<10	<10	<10	<10
Methylene Chloride	-	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Tetrachloroethene	-	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Toluene	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Trichloroethene	5	4,800	8.5	450	760	<5.0	<5.0
Vinyl Chloride	5	38	14	4.7	1,600	4.8	<2.0
Total Xylenes	5	<5.0	<5.0	<5.0	<5.0	75	<5.0

**Notes:**

Site GW RAOs = Site Groundwater Remedial Action Objectives as defined by Table 2 of the March 1994 Record of Decision

**Table 3**  
**RW-2S**  
**Quarterly Sample Results**

Volatile Compounds (Method 8260B)	Site GW RAOs (ug/L)	Aug-95 (ug/L)**	Jul-97 (ug/L)*	Oct-97 (ug/L)	Dec-97 (ug/L)	Mar-98 (ug/L)*	Jun-98 (ug/L)*	Sept-98 (ug/L)*	Nov-98 (ug/L)*	Feb-99 (ug/L)	May-99 (ug/L)	Aug-99 (ug/L)	Nov-99 (ug/L)	Feb-00 (ug/L)	Apr-00 (ug/L)	Aug-00 (ug/L)	Nov-00 (ug/L)	Mar-01 (ug/L)	Jul-02-01 (ug/L)	Sept-01 (ug/L)	Jan-06-02 (ug/L)	Mar-02 (ug/L)	Jul-05-02 (ug/L)	Sept-02 (ug/L)	Dec-02 (ug/L)	Feb-03 (ug/L)	May-03 (ug/L)	Aug-03 (ug/L)	Dec-03 (ug/L)	May-04 (ug/L)
Acetone	-	<10/<10	< 10	< 500	< 10	<50	<5	<10	< 10	<5	<50	<5	<10	<5	<5	65 <sup>B</sup>	<5	<5	<5	<10	<10	<10	<10	<10	<10	<10	<10	12 <sup>B</sup>	<10	
Benzene	-	NA	< 5	< 250	< 5	<25	<1	<5	< 5	<1	<10	<1	<1	<5	<1	<2	<1	<1	<1	<5	<1	<1	<1	<1	<1	<1	<1	<1	<1	
2-Butanone	-	NA	< 10	< 500	< 10	<50	<5	<10	< 10	<5	<50	<5	<10	<5	<5	21	<5	<5	<5	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
Chloroform	-	NA	< 5	< 250	< 5	<25	<1	<5	< 5	<1	<10	<1	<1	<5	<1	<2	<1	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
Isopropylbenzene	-	NA	NA	< 250	< 5	<25	<1	<5	< 5	<1	<10	<1	<1	<5	<1	2	1.54	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
1,1-Dichloroethene	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	32	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
cis-1,2-Dichloroethene	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	620	400	500	110	99	6.6	210	8.9	120	32	140	17	88	
trans-1,2-Dichloroethene	5	2,200/2,600	130	< 250	< 5	<25	<1	17	< 5	<1	<10	<1	<1	<5	<1	92	56	6.7	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Ethylbenzene	5	NA	< 5	< 250	< 5	<25	<1	<5	< 5	<1	<10	3	<1	<5	<1	2	1.34	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
Methylene Chloride	-	<10/<10	< 13 <sup>B</sup>	880	< 5	30	<1	2 J	< 5	<1	36 <sup>B</sup>	<1	5 <sup>B</sup>	<5	4 <sup>B</sup>	48 <sup>B</sup>	4.23 <sup>B</sup>	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
Tetrachloroethene	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.93	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
Toluene	5	NA	< 5	< 250	< 5	<25	<1	<5	< 5	<1	<10	<1	<1	<5	<1	<2	2.01	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
1,1,2-Trichloroethane	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.05	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	NA	
Trichloroethene	5	7,700/10,000	410 D	3,700	750 D	380	120	970 E	1,100	1,900 D	2,700	1,500 D	17	46	490 D	43	6,400 D	1,500	2,200	2,900	22	7.7	200	630	7.2	340	69	390	15	450
Vinyl Chloride	5	100/81	< 5	< 250	< 5	<25	<1	<5	6	4	<10	2	<1	<5	<1	180	470 D	120	38	<2	15	5.6	<2	7.4	<2	6.4	<2	2.8	<2	4.7
Total Xylenes	5	<10/10	< 5	< 250	< 5	<25	<1	<5	< 5	<1	<10	20	2	<5	<3	17	13	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	

Polychlorinated Biphenyls (PCBs) (Method 8080)	Site GW RAOs (ug/L)	Aug-95 (ug/L)**	Jul-97 (ug/L)*	Oct-97 (ug/L)	Dec-97 (ug/L)	Mar-98 (ug/L)*	Jun-98 (ug/L)*	Sept-98 (ug/L)*	Nov-98 (ug/L)*	Feb-99 (ug/L)	May-99 (ug/L)	Aug-99 (ug/L)	Nov-99 (ug/L)	Feb-00 (ug/L)
Aroclor-1016	0.1	NA	< 0.10	NA	< 0.3	< 0.3	<0.1	<0.1	< 0.1	< 0.1	<0.10	<0.10	<0.10	<0.10
Aroclor-1221	0.1	NA	< 0.20	NA	< 0.3	< 0.3	<0.1	<0.2	< 0.2	< 0.2	<0.20	<0.20	<0.10	<0.20
Aroclor-1232	0.1	NA	< 0.10	NA	< 0.3	< 0.3	<0.1	<0.1	< 0.1	< 0.1	<0.10	<0.10	<0.10	<0.10
Aroclor-1242	0.1	NA	< 0.10	NA	< 0.3	< 0.3	<0.1	<0.1	< 0.1	< 0.1	<0.10	<0.10	<0.10	<0.10
Aroclor-1248	0.1	NA	< 0.10	NA	< 0.3	< 0.3	<0.1	<0.1	< 0.1	< 0.1	<0.10	<0.10	<0.10	<0.10
Aroclor-1254	0.1	<1/<1	< 0.10	NA	< 0.3	< 0.3	<0.1	<0.1	< 0.1	< 0.1	<0.10	<0.10	<0.10	<0.10
Aroclor-1260	0.1	NA	< 0.10	NA	< 0.3	< 0.3	<0.1	<0.1	< 0.1	< 0.1	<0.10	<0.10	<0.10	<0.10

**Notes:**

Site GW RAOs = Site Groundwater Remedial Action Objectives as defined by Table 2 of the March 1994 Record of Decision

B = Qualified as non-detect due to blank contamination

D.\* = Analyzed with dilution. See laboratory reports for dilution factors.

\*\* Sample results reported represent the highest values obtained from the 5.5 hr and 29 hr samples.

E = Concentration exceeded calibration range of instrument.

J = Estimated Concentration

NA = Not Analyzed

**Table 4**  
**RW-3S**  
**Quarterly Sample Results**

Volatile Compounds (Method 8260B)	Site GW RAOs (ug/L)	Jul-97 (ug/L)*	Oct-97 (ug/L)	Dec-97 (ug/L)	Mar-98 (ug/L)*	Jun-98 (ug/L)*	Sept-98 (ug/L)*	Nov-98 (ug/L)*	Feb-99 (ug/L)	May-99 (ug/L)	Aug-99 (ug/L)	Nov-99 (ug/L)	Feb-00 (ug/L)	Apr-00 (ug/L)	Aug-00 (ug/L)	Nov-00 (ug/L)	Mar-01 (ug/L)	Jul-02-01 (ug/L)	Sept-01 (ug/L)	Jan-05-02 (ug/L)	Mar-02 (ug/L)	Jul-05-02 (ug/L)	Sept-02 (ug/L)	Dec-02 (ug/L)	Feb-03 (ug/L)	May-03 (ug/L)	Aug-03 (ug/L)	Dec-03 (ug/L)	May-04 (ug/L)
Acetone	-	< 2000	< 1000	14	<500	<50	<100	< 10	<5	15	<5	<10	10	18 <sup>B</sup>	<5	<10	<5	<5	<10	<5	<10	<10	<10	<10	<10	<10	<10	<10	<10
Benzene	-	< 1000	< 500	21	<250	15	16 J	9	17	<2	7	11	<5	12	18	11	7.7	35	21	52	1.3	<1	1.6	16	40	10	17	<1	1.8
2-Butanone	-	< 2000	< 1000	< 10	<500	<50	<100	< 10	<5	<10	<5	<10	<10	<10	<5	<10	<5	<5	<5	<10	<5	<10	<10	<10	<10	<10	<10	<10	
Chloroform	-	< 1000	< 500	< 5	<250	<10	<50	< 5	<1	<2	<1	<2	<5	<2	<1	<2	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5.0	
Isopropylbenzene	-	NA	< 500	160	<250	71	110	24	83	3	34	39	13	47	50	24	17	38	56	<5	15	<5	13	25	6.8	13	<5	7.4	
1,1-Dichloroethane	-	<1000	<500	<5	<250	<50	<50	<5	2	<2	<1	<2	<5	<2	<1	<2	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5.0	
cis-1,2-Dichloroethene	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5	<5	<5	6.3	<5	<5	<5	<5	<5	<5	<5	<5	<5.0
trans-1,2-Dichloroethene	5	< 1000	< 500	< 5	<250	<10	<50	< 5	<1	<2	<1	<2	<5	<2	<1	<2	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5.0	
Ethylbenzene	5	1,800	740	1,100 D	940	510	600	780	490 D	12	140	190	81	180	210 D	120	96	190	95	310	11	97	9.1	<5	150	42	33	<5	43
Methylene Chloride	-	< 1000	< 500	< 5	360	<10	<50	< 5	<1	12 <sup>B</sup>	<1	2 <sup>B</sup>	<5	57 <sup>B</sup>	<1	12	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5.0	
Toluene	5	7,700	4,800	3,700 D	1,700	430	180	<250	83	3	15	8	6	6	2	<2	<5	<5	<5	<5	140	<5	<5	<5	<5	<5	<5	<5	<5.0
Trichloroethene	5	< 1000	< 500	< 5	<250	<10	<50	< 5	87 D	<2	<1	2	<10	<2	2	2.66	<5	<5	<5	<5	<5	8.2	<5	<5	<5	<5	<5	<5	<5.0
Vinyl Chloride	5	< 1000	< 500	11	<250	<10	<50	< 5	11	<2	<1	<2	<5	<2	2	<2	<2	<2	<2	17	<2	<2	<2	<2	<2	<2	<2	4.8	
Total Xylenes	5	22,000	11,000	13,000 D	13,000	5,100	4,200 E	20,000	3,100 D	370	700 D	640	370 D	440	150	93	184	279	99	590	55	95	63.4	<5	152	125	15	97	75

Polychlorinated Biphenyls (PCBs) (Method 8080)	Site GW RAOs (ug/L)	Jul-97 (ug/L)*	Oct-97 (ug/L)	Dec-97 (ug/L)	Mar-98 (ug/L)*	Jun-98 (ug/L)*	Sept-98 (ug/L)*	Nov-98 (ug/L)*	Feb-99 (ug/L)	May-99 (ug/L)	Aug-99 (ug/L)	Nov-99 (ug/L)	Feb-00 (ug/L)
Aroclor-1016	0.1	< 0.10	NA	< 0.3	< 0.3	<0.1	<0.1	< 0.1	< 0.1	<0.10	<0.10	<0.10	<0.10
Aroclor-1221	0.1	< 0.20	NA	< 0.3	< 0.3	<0.1	<0.2	< 0.2	< 0.2	<0.20	<0.20	<0.10	<0.20
Aroclor-1232	0.1	< 0.10	NA	< 0.3	< 0.3	<0.1	<0.1	< 0.1	< 0.1	<0.10	<0.10	<0.10	<0.10
Aroclor-1242	0.1	< 0.10	NA	< 0.3	< 0.3	<0.1	<0.1	< 0.1	< 0.1	<0.10	<0.10	<0.10	<0.10
Aroclor-1248	0.1	< 0.10	NA	< 0.3	< 0.3	<0.1	<0.1	< 0.1	< 0.1	<0.10	<0.10	<0.10	<0.10
Aroclor-1254	0.1	< 0.10	NA	< 0.3	< 0.3	<0.1	<0.1	< 0.1	< 0.1	<0.10	<0.10	<0.10	<0.10
Aroclor-1260	0.1	< 0.10	NA	< 0.3	< 0.3	<0.1	<0.1	< 0.1	< 0.1	<0.10	<0.10	<0.10	<0.10

**Notes:**

Site GW RAOs = Site Groundwater Remedial Action Objectives as defined by Table 2 of the March 1994 Record of Decision

B = Qualified as non-detect due to blank contamination

D.\* = Analyzed with dilution. See laboratory reports for dilution factors.

E = Concentration exceeded calibration range of instrument.

J = Estimated Concentration

NA = Not Analyzed

**Table 5**  
**RW-1D**  
**Quarterly Sample Results**

Volatile Compounds (Method 8260B)	Site GW RAOs (ug/L)	Jul-97 (ug/L)*	Oct-97 (ug/L)	Dec-97 (ug/L)	Mar-98 (ug/L)*	Jun-98 (ug/L)*	Sept-98 (ug/L)*	Nov-98 (ug/L)*	Feb-99 (ug/L)	May-99 (ug/L)	Aug-99 (ug/L)	Nov-99 (ug/L)	Apr-8-00 (ug/L)	Aug-00 (ug/L)	Nov-00 (ug/L)	Apr-05-01 (ug/L)	Jul-02-01 (ug/L)	Sept-01 (ug/L)	Jan-06-02 (ug/L)	Mar-02 (ug/L)	Jul-05-02 (ug/L)	Sept-02 (ug/L)	Dec-02 (ug/L)	Feb-03 (ug/L)	May-03 (ug/L)	Aug-03 (ug/L)	Dec-03 (ug/L)	May-04 (ug/L)	
Acetone	-	< 19 <sup>B</sup>	< 10	< 10	37	< 5	< 10	< 10	< 5	< 5	< 10	< 10	14 <sup>B</sup>	< 25	4 J <sup>B</sup>	< 5	< 5	< 5	12	< 5	< 10	< 10	< 10	< 10	< 10	< 10	< 10	11	
Benzene	-	< 5	< 5	< 5	< 5	< 1	< 5	< 5	2	2	< 2	6	23	17	4	14	3.7	6.0	3.6	< 5	9.7	6.6	3.6	5.6	4.8	7.6	< 1	< 1	1.5
2-Butanone	-	< 10	< 10	< 10	< 10	< 5	< 10	< 10	< 5	< 5	< 10	< 10	< 5	< 25	< 5	< 5	< 5	< 5	< 10	< 5	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	
Chloroform	-	< 5	< 5	< 5	< 5	< 1	< 5	< 5	< 1	< 1	< 2	< 2	1	< 5	< 1	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5.0	
Chloromethane	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4	< 2	< 1	< 5	< 1	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	NA	
Isopropylbenzene	-	NA	< 5	< 5	< 5	< 1	< 5	< 5	< 1	< 1	< 2	< 2	< 1	< 5	< 1	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5.0		
1,1-Dichloroethene	-	< 5	< 5	< 5	< 5	< 1	< 5	< 5	3	4	2	54	85	53	11	41	10	12	12	< 5	25	15	11	14	19	11	13	8.3	
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1,500	1,700	1,400	180	3,000	2,300	1,400	1,300	1,700	2,200	1,600	40	370	
trans-1,2-Dichloroethene	5	26	< 5	< 5	< 5	2	2 J	< 5	4	4	16	43	110	84	17	52	14	12	17	< 5	41	9.4	6.8	13	15	22	19	15	8.1
Ethylenbenzene	5	< 5	< 5	< 5	< 5	< 1	< 5	< 5	< 1	< 1	< 2	< 2	< 1	< 5	< 1	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5.0		
Methylene Chloride	-	< 8 <sup>B</sup>	14	< 5	< 5	3	2 J	< 5	< 1	1 <sup>B</sup>	3	24 <sup>B</sup>	11 <sup>B</sup>	27 <sup>B</sup>	< 1	< 1	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5.0		
Toluene	5	< 5	< 5	< 5	< 5	< 1	< 5	< 5	< 1	< 1	< 2	< 2	< 1	< 5	< 1	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5.0			
Trichloroethene	5	< 5	< 5	< 5	< 5	< 1	3 J	6	< 10 <sup>B</sup>	19	< 2	38	8	25	16	150	< 5	14	73	< 5	62	8.1	39	14	34	46	37	39	8.5
Vinyl Chloride	5	23	29	93	200	200	130	130	140 D	210	120	830 D	450 D	530	25	910 D	< 2	110	130	360	52	< 100	26	< 2	11	< 2	< 2	< 2	14
Total Xylenes	5	< 5	< 5	< 5	< 5	< 1	< 5	< 5	< 1	< 1	< 2	< 2	< 3	< 15	< 3	< 1	< 5	< 5	< 5	< 5	15	< 5	< 5	< 5	< 5	< 5	< 5	< 5.0	

Polychlorinated Biphenyls (PCBs) (Method 8080)	Site GW RAOs (ug/L)	Jul-97 (ug/L)*	Oct-97 (ug/L)	Dec-97 (ug/L)	Mar-98 (ug/L)*	Jun-98 (ug/L)*	Sept-98 (ug/L)*	Nov-98 (ug/L)*	Feb-99 (ug/L)	May-99 (ug/L)	Aug-99 (ug/L)	Nov-99 (ug/L)	Feb-00 (ug/L)
Aroclor-1016	0.1	< 0.10	NA	< 0.3	< 0.3	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.10
Aroclor-1221	0.1	< 0.20	NA	< 0.3	< 0.3	< 0.1	< 0.2	< 0.2	< 0.2	< 0.20	< 0.20	< 0.10	< 0.20
Aroclor-1232	0.1	< 0.10	NA	< 0.3	< 0.3	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.10
Aroclor-1242	0.1	< 0.10	NA	< 0.3	< 0.3	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.10
Aroclor-1248	0.1	< 0.10	NA	< 0.3	< 0.3	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.10
Aroclor-1254	0.1	< 0.10	NA	< 0.3	< 0.3	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.10
Aroclor-1260	0.1	< 0.10	NA	< 0.3	< 0.3	< 0.1	< 0.1	< 0.1	< 0.1	< 0.10	< 0.10	< 0.10	< 0.10

**Notes:**

Site GW RAOs = Site Groundwater Remedial Action Objectives as defined by Table 2 of the March 1994 Record of Decision

B = Qualified as non-detect due to blank contamination

D\* = Analyzed with dilution. See laboratory reports for dilution factors.

J = Estimated Concentration

NA = Not Analyzed

**Table 6**  
**RW-2D**  
**Quarterly Sample Results**

Volatile Compounds (Method 8260B)	Site GW RAOs (ug/L)	Aug-95 (ug/L)**	Jul-97 (ug/L)*	Oct-97 (ug/L)	Dec-97 (ug/L)	Mar-98 (ug/L)*	Jun-98 (ug/L)*	Sept-98 (ug/L)*	Nov-98 (ug/L)*	Feb-99 (ug/L)	May-99 (ug/L)	Aug-99 (ug/L)	Nov-99 (ug/L)	Feb-00 (ug/L)	Apr-00 (ug/L)	Aug-00 (ug/L)	Nov-00 (ug/L)	Mar-01 (ug/L)	Jul-02-01 (ug/L)	Sept-01 (ug/L)	Jan-06-02 (ug/L)	Mar-02 (ug/L)	Jul-05-02 (ug/L)	Sept-02 (ug/L)	Dec-02 (ug/L)	Feb-03 (ug/L)	May-03 (ug/L)	Aug-03 (ug/L)	Dec-03 (ug/L)	May-04 (ug/L)
Acetone	-	<10	< 90 <sup>b</sup>	< 100	< 10	<500	<130/<130	<250	< 10	<5	<5	<5	<100	<10	120 <sup>b</sup>	<5	<5	<5	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
Benzene	-	NA	< 5	< 50	< 5	<250	<25/<25	<120	< 5	<1	<1	2	<20	<5	<10	3	4.7	6.5	7.2	7.6	8.2	9.9	9.1	9.6	9.7	11	9.2	8.3	11	
2-Butanone	-	NA	130	270	< 10	<500	<25/<25	<250	< 10	<5	<5	<5	<100	<10	<50	16	<5	<5	<5	<10	<5	28	<10	<10	<10	<10	<10	<10		
Chloroform	-	NA	< 5	< 50	< 5	<250	<25/<25	<120	< 5	<1	<1	<1	<20	<5	<10	<1	<1	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5.0		
Isopropylbenzene	-	NA	NA	< 50	< 5	<250	<25/<25	<120	< 5	<1	<1	<1	<20	<5	<10	<1	<1	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5.0		
1,1-Dichloroethene	-	NA	< 5	<50	< 5	<250	<25	>120	<5	6	6	<1	65	6	<10	12	25	17	16	25	33	<5	32	22	26	23	22	19	34	
cis-1,2-Dichloroethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5,200	4,200	7,900	7,800	12,000	50	7,900	4,300	6,000	5,000	4,500	3,900	6,400
trans-1,2-Dichloroethene	5	200	320 D	< 50	< 5	<250	<25/<25	<120	< 5	5	5	5	94	7	<10	11	19	27	27	32	41	29	7.8	26	18	26	21	29	28	32
Ethylbenzene	5	NA	< 5	< 50	< 5	<250	<25/<25	<120	< 5	<1	<1	2	<20	7	<10	<1	<1	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5.0	
Methylene Chloride	-	< 10	< 12 <sup>b</sup>	340	< 5	<250	<25/<25	80 J	< 5	<1	1 <sup>b</sup>	<1	260 <sup>b</sup>	<5	410 <sup>b</sup>	<1	3.06 <sup>b</sup>	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5.0	
Tetrachloroethene	-	NA	< 5	<50	< 5	<250	<25	<120	<5	1	1	1	<20	<5	<10	<1	1.04	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5.0		
Toluene	5	NA	< 5	< 50	< 5	<250	<25/<25	<120	< 5	<1	<1	<1	<20	<5	<10	<1	<1	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5.0			
Trichloroethene	5	5,600	2,200 D	1,900 D	4,500 D	4,900	2,200/2,600	3,200	4,700	4,500 D	4,000	2,800 D	18,000 D	1,900 D	3,100	3,000 D	4,400 D	1,100	270	330	310	150	<5	210	110	490	840	600	400	760
Vinyl Chloride	5	32	32	< 50	71	<250	83/<25	110 J	150	190	280	190 D	<20	210	150	160 D	120 D	530	610	1,300	1,100	1,700	55	1,300	1,600	1,100	960	1,000	1,300	1,600
Total Xylenes	5	<10	< 5	< 50	< 5	<250	<25/<25	<120	< 5	<2 <sup>b</sup>	2	13	<20	38	<30	<3	1.49	<5	<5	<5	8.9	<5	12	<5	<5	<5	<5	<5	<5.0	

Polychlorinated Biphenyls (PCBs) (Method 8080)	Site GW RAOs (ug/L)	Aug-95 (ug/L)**	Jul-97 (ug/L)*	Oct-97 (ug/L)	Dec-97 (ug/L)	Mar-98 (ug/L)*	Jun-98 (ug/L)*	Sept-98 (ug/L)*	Nov-98 (ug/L)*	Feb-99 (ug/L)	May-99 (ug/L)	Aug-99 (ug/L)	Nov-99 (ug/L)	Feb-00 (ug/L)
Aroclor-1016	0.1	NA	< 0.10	NA	< 0.3	< 0.3	<0.1/<0.1	<0.1	< 0.1	< 0.1	<0.10	<0.10	<0.10	<0.10
Aroclor-1221	0.1	NA	< 0.20	NA	< 0.3	< 0.3	<0.1/<0.1	<0.2	< 0.2	< 0.2	<0.20	<0.20	<0.10	<0.20
Aroclor-1232	0.1	NA	< 0.10	NA	< 0.3	< 0.3	<0.1/<0.1	<0.1	< 0.1	< 0.1	<0.10	<0.10	<0.10	<0.10
Aroclor-1242	0.1	NA	< 0.10	NA	< 0.3	< 0.3	<0.1/<0.1	<0.1	< 0.1	< 0.1	<0.10	<0.10	<0.10	<0.10
Aroclor-1248	0.1	NA	< 0.10	NA	< 0.3	< 0.3	<0.1/<0.1	<0.1	< 0.1	< 0.1	<0.10	<0.10	<0.10	<0.10
Aroclor-1254	0.1	<1	< 0.10	NA	< 0.3	< 0.3	<0.1/<0.1	<0.1	< 0.1	< 0.1	<0.10	<0.10	<0.10	<0.10
Aroclor-1260	0.1	NA	< 0.10	NA	< 0.3	< 0.3	<0.1/<0.1	<0.1	< 0.1	< 0.1	<0.10	<0.10	<0.10	<0.10

**Notes:**

Site GW RAOs = Site Groundwater Remedial Action Objectives as defined by Table 2 of the March 1994 Record of Decision

B = Qualified as non-detect due to blank contamination

D \* = Analyzed with dilution. See laboratory reports for dilution factors.

\*\* Sample results reported represent the highest values obtained from the 5.5 hr and 29 hr samples.

J = Estimated Concentration

NA = Not analyzed

Table 7

**Pre-Carbon Analytical Results  
POTW Monthly Monitoring Summary**

Compound	Jan-31-04 (ug/L)	Feb-27-04 (ug/L)	Mar-30-04 (ug/L)	Apr-30-04 (ug/L)	May-27-04 (ug/L)	June-25-04 (ug/L)	Jul-04 (ug/L)	Aug-04 (ug/L)	Sept-04 (ug/L)	Oct-04 (ug/L)	Nov-04 (ug/L)	Dec-04 (ug/L)
Acetone	31	<10	<10	<10	<10	<10						
Benzene	6.4	8.7	5.3	5.6	4.7	5.7						
2-Butanone	<10	<10	<10	<10	<10	<10						
Chloroform	<5	<5	<5	<5	<5	<5						
Chloromethane	<5	<5	<5	<5	<5	<5						
Isopropylbenzene (Cumene)	<5	<5	<5	<5	<5	<5						
1,1-Dichloroethene	15	25	10	12	14	<5						
cis-1,2-Dichloroethene	<5	4100	2500	3,000	2600	3,200						
trans-1,2-Dichloroethene	14	19	10	16	13	17						
Ethylbenzene	<5	5.3	6.3	<5	<5	<5						
Methylene Chloride	<5	<5	<5	<5	<5	<5						
Toluene	<5	<5	<5	<5	<5	<5						
Trichloroethene	390	770	420	620	680	690						
Vinyl Chloride	620	1000	440	530	530	590						
Total Xylenes	<5	38	78.1	6	<5	<5						
Pre-Carb TOTAL VOCs	1,076.4	5,966.0	3,469.7	4,189.6	3,841.7	4,502.7	0.00	0.00	0.00	0.00	0.00	0.00

**Notes:**

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

Primary Carbon Unit taken offline on June 18, 2004.

Secondary Carbon Unit moved to Primary position, and fresh unit placed in Secondary position on June 18, 2004.

Primary Carbon and spent carbon unit recharged with re-activated carbon on July 19, 2004.

Secondary Carbon was moved to the Primary position and a recharged carbon unit was placed in the Secondary Position on July 19, 2004.

Pre-Carbon sample results represent system influent.

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

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.

NS = Not Sampled

NA= Not Analyzed

Table 8

**Primary Carbon Effluent  
POTW Monthly Monitoring Summary**

Compound	Jan-31-04 (ug/L)	Feb-27-04 (ug/L)	Mar-30-04 (ug/L)	Apr-30-04 (ug/L)	May-27-04 (ug/L)	June-25-04 (ug/L)	Jul-04 (ug/L)	Aug-04 (ug/L)	Sept-04 (ug/L)	Oct-04 (ug/L)	Nov-04 (ug/L)	Dec-04 (ug/L)
Acetone	<10	<10	<10	<10	<10	<10						
Benzene	<1	<1	<1	<1	<1	<1						
2-Butanone	<10	<10	<10	<10	<10	<10						
Chloroform	<5	<5	<5	<5	<5	<5						
Chloromethane	<5	<5	<5	<5	<5	<5						
Isopropylbenzene (Cumene)	<5	<5	<5	<5	<5	<5						
1,1-Dichloroethene	<5	<5	<5	<5	5.2	<5						
cis-1,2-Dichloroethene	130	460	690	1200	2100	37						
trans-1,2-Dichloroethene	<5	<5	<5	<5	<5	<5						
Ethylbenzene	<5	<5	<5	<5	<5	<5						
Methylene Chloride	<5	<5	<5	<10	<5	<5						
Toluene	<5	<5	<5	<5	<5	<5						
Trichloroethene	<5	23	<5	9.9	14	<5						
Vinyl Chloride	1300	1600	920	860	870	1300						
Total Xylenes	<5	<5	<5	<5	<5	<5						
Primary-Carb TOTAL VOCs	1,430.0	2,083.0	1,610.0	2,069.9	2,989.2	1,337.0	0.00	0.00	0.00	0.00	0.00	0.00

**Notes:**

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

Primary Carbon Unit taken offline on June 18, 2004.

Secondary Carbon Unit moved to Primary position, and fresh unit placed in Secondary position on June 18, 2004.

Primary Carbon and spent carbon unit recharged with re-activated carbon on July 19, 2004.

Secondary Carbon was moved to the Primary position and a recharged carbon unit was placed in the Secondary Position on July 19, 2004.

Pre-Carbon sample results represent system influent

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

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.

NS = Not Sampled

NA= Not Analyzed

Table 9

**Secondary Carbon Effluent  
POTW Monthly Monitoring Summary**

Compound	Jan-31-04 Post Carb (ug/L)	Feb-27-04 Post Carb (ug/L)	Mar-30-04 Post Carb (ug/L)	Apr-30-04 Post Carb (ug/L)	May-27-04 Post Carb (ug/L)	June-25-04 Post Carb (ug/L)	Jul-04 Post Carb (ug/L)	Aug-04 Post Carb (ug/L)	Sept-04 Post Carb (ug/L)	Oct-04 Post Carb (ug/L)	Nov-04 Post Carb (ug/L)	Dec-04 Post Carb (ug/L)
Acetone	<10	<10	<10	<10	<10	<10						
Benzene	<1	<1	<1	<1	<1	<1						
2-Butanone	<10	<10	<10	<10	<10	<10						
Chloroform	<5	<5	<5	<5	<5	<5						
Chloromethane	<5	<5	<5	<5	<5	<5						
Isopropylbenzene (Cumene)	<5	<5	<5	<5	<5	<5						
1,1-Dichloroethene	<5	<5	<5	<5	<5	<5						
cis-1,2-Dichloroethene	130	460	690	1200	27	280						
trans-1,2-Dichloroethene	<5	<5	<5	<5	<5	<5						
Ethylbenzene	<5	<5	<5	<5	<5	<5						
Methylene Chloride	<5	<5	<5	<10	<5	<5						
Toluene	<5	<5	<5	<5	<5	<5						
Trichloroethene	<5	23	<5	9.9	<5	<5						
Vinyl Chloride	1300	1600	920	860	1700	<2						
Total Xylenes	<5	<5	<5	<5	<5	<5						
<b>Secondary TOTAL VOCs</b>	<b>1,430.0</b>	<b>2,083.0</b>	<b>1,610.0</b>	<b>2,069.9</b>	<b>1,727.0</b>	<b>280.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>

**Notes:**

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

Primary Carbon Unit taken offline on June 18, 2004.

Secondary Carbon Unit moved to Primary position, and fresh unit placed in Secondary position on June 18, 2004.

Primary Carbon and spent carbon unit recharged with re-activated carbon on July 19, 2004.

Secondary Carbon was moved to the Primary position and a recharged carbon unit was placed in the Secondary Position on July 19, 2004.

Pre-Carbon sample results represent system influent.

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

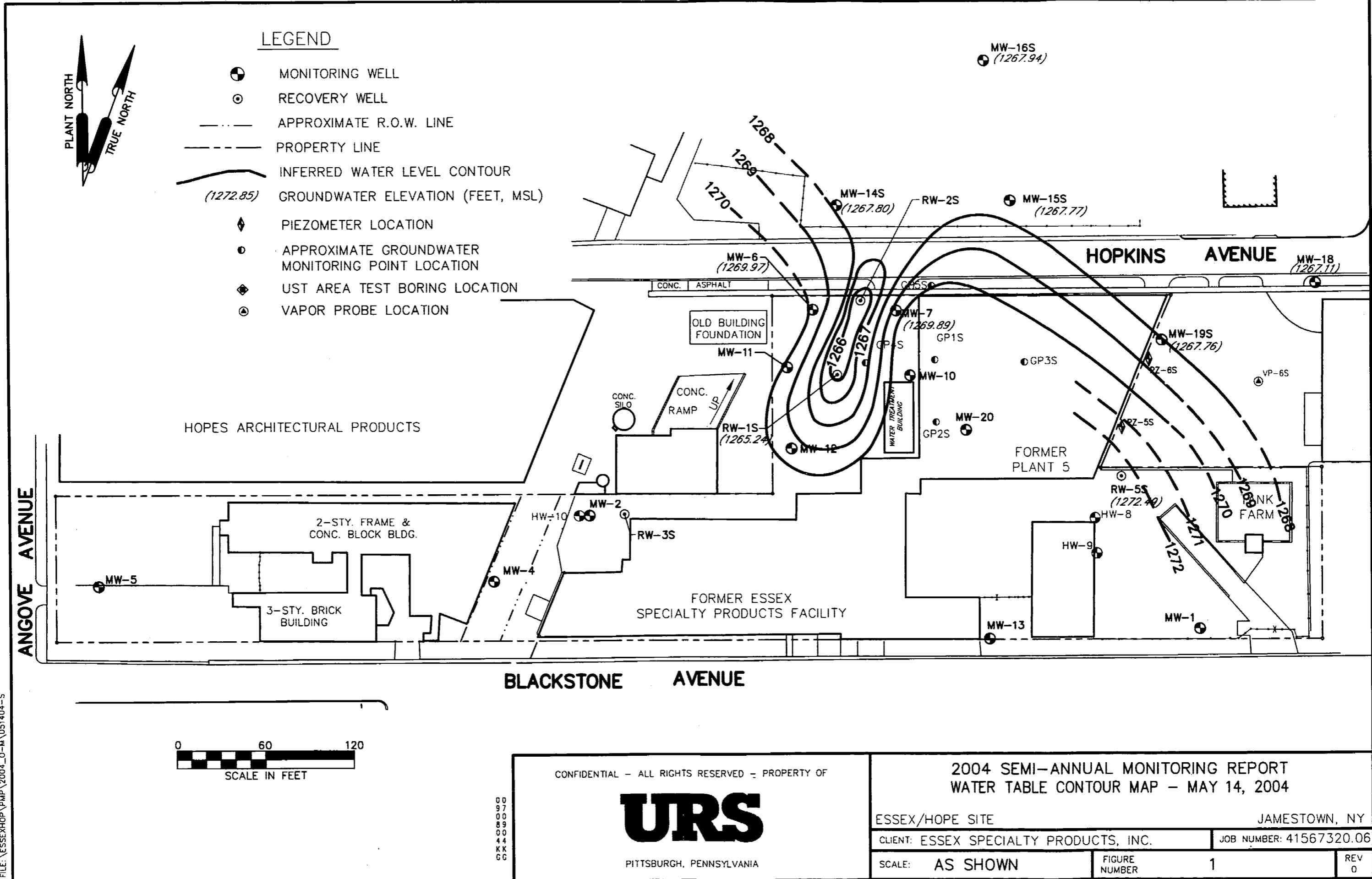
Post-Carbon sample results represent system effluent from the secondary carbon vessel (or the third carbon vessel if used) to the POTW.

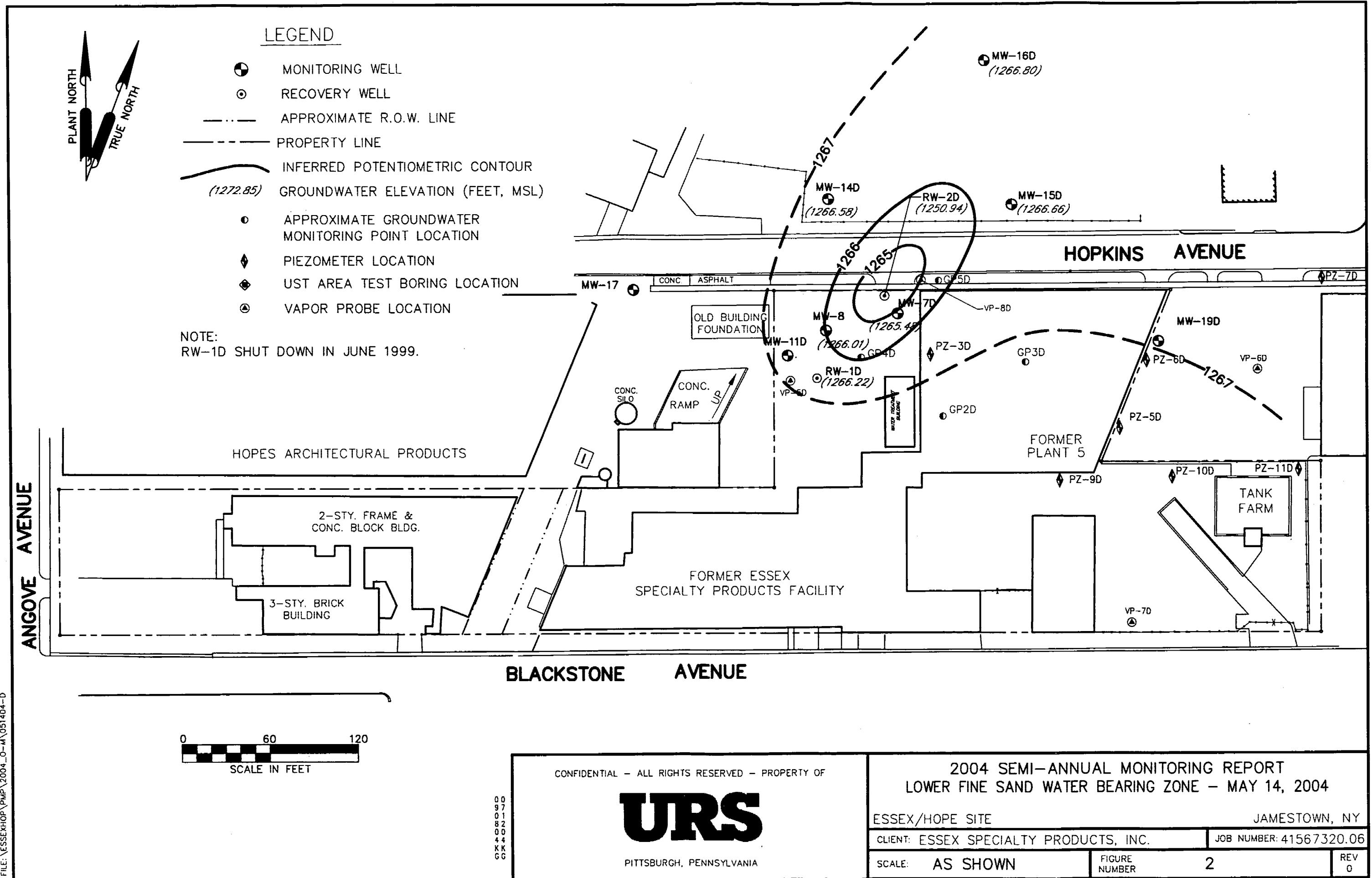
Post-Carbon sample is a laboratory prepared composite of four (4) grab samples (taken at 30-minute intervals).

NS = Not Sampled

NA= Not Analyzed

## FIGURES





## **APPENDIX A**

**APPENDIX A**

**Water Level Measurement Data**

**Groundwater Extraction System Monitoring Data**  
**2004 Water Levels**

**Essex/Hope Site Remedial Action**  
**Jamestown, New York**  
**URS Project No. 41567320**

Well No.	Northing	Easting	Reference Elevation (ft msl)	Screened Zone	February 20, 2004		May 14, 2004	
					Depth to Water	Groundwater Elevation (ft msl)	Depth to Water	Groundwater Elevation (ft msl)
MW-1	9758.7151	10383.6499	1280.48	Shallow WBZ	NA	NA	NM	NA
MW-2	9837.1531	9959.6857	1279.87	Shallow WBZ	No Access	NA	Dry	NA
MW-4	9792.3277	9900.7831	1281.02	Shallow WBZ	No Access	NA	NM	NA
MW-5	9789.6222	9831.761	1280.82	Shallow WBZ	No Access	NA	NM	NA
MW-6*	9977.1197	10118.8762	1277.98	Shallow WBZ		8.27	1269.71	8.01
MW-7*	9978.8467	10175.6797	1277.73	Shallow WBZ		8.90	1268.83	7.84
MW-7D*	9973.2593	10174.8524	1277.8	Lower Fine Sand WBZ		14.35	1263.45	12.32
MW-7D*	9970.8547	10176.2698	1277.74	Glacial Till		1.88	1275.86	NM
MW-8	9959.6089	10127.6898	1277.97	Lower Fine Sand WBZ		13.99	1263.98	11.96
MW-10	9932.4702	10185.7078	1277.94	Shallow WBZ	No Access	NA	NM	NA
MW-11*	9937.9912	10101.7016	1277.75	Shallow WBZ		10.42	1267.33	NM
MW-11D	9942.3792	10101.1482	1277.85	Lower Fine Sand WBZ		13.30	1264.55	NM
MW-12	9883.0874	10104.9278	1278.18	Shallow WBZ	No Access	NA	NM	NA
MW-13	9752.0619	10240.2934	1278.12	Shallow WBZ	No Access	NA	NM	NA
MW-14S	10048.7753	10135.5198	1280.25	Shallow WBZ		13.80	1266.45	12.45
MW-14D	10048.5051	10129.1897	1280.01	Lower Fine Sand WBZ		15.12	1264.89	13.43
MW-15S	10051.8272	10254.4862	1278.55	Shallow WBZ		13.66	1265.89	11.78
MW-15D	10045.5611	10255.205	1279.48	Lower Fine Sand WBZ		14.50	1264.96	12.8
MW-16S	10148.7788	10236.8582	1279.32	Shallow WBZ		12.97	1266.35	11.38
MW-16D	10143.9497	10236.6005	1279.05	Lower Fine Sand WBZ		13.62	1265.23	12.25
MW-17	9987.6315	9985.5207	1278.7	Lower Fine Sand WBZ	Submerged	NA	NM	NA
MW-18	9994	10465	1275.59	Shallow WBZ	No Access	NA		8.48
MW-19S	9956.1454	10358.207	1276.82	Shallow WBZ	No Access	NA		9.06
MW-19D	9951.569	10355.9748	1278.21	Lower Fine Sand WBZ	No Access	NA		9.6
MW-20	9895.0082	10224.2128	1278.54	Shallow WBZ	No Access	NA	NM	NA
MW-21D	NA	NA	NA	Lower Fine Sand WBZ		10.55	NA	9.28
MW-22D	NA	NA	NA	Lower Fine Sand WBZ		10.56	NA	9.05
MW-23S	NA	NA	NA	Shallow WBZ	Submerged	NA		5.13
MW-23D	NA	NA	NA	Lower Fine Sand WBZ	Submerged	NA		10.81
MW-24S	NA	NA	NA	Shallow WBZ	No Access	NA		8.71
MW-24D	NA	NA	NA	Lower Fine Sand WBZ	No Access	NA		NA
HW-8	9834.664	10312.0885	1277.81	Shallow WBZ	No Access	NA	NM	NA
HW-9	9810.5264	10313.3873	1280.78	Shallow WBZ	No Access	NA	NM	NA
HW-10	9837.2876	9966.7406	1279.55	Shallow WBZ	NA	NA	NM	NA
RW-1S	9932.8951	10135.8706	1276.06	Shallow WBZ		11.31	1264.75	10.82
RW-1D	9926.5997	10121.3968	1278.64	Lower Fine Sand WBZ		12.36	1264.28	10.42
RW-2S*	9983.3801	10151.6403	1278.59	Shallow WBZ		7.55	1269.04	2.99
RW-2D	9983.0619	10167.3168	1278.48	Lower Fine Sand WBZ		29.05	1247.41	25.52
RW-3S	9838.0594	9990.4502	1278.29	Shallow WBZ	No Access	NA	Dry	NA
RW-5S	9863.2271	10330.2425	1277.43	Shallow WBZ	No Access	NA		4.84
GP-1S	9954.39*	10203.02*	1278.98	Shallow WBZ	NA	NA	NM	NA
GP-2S	9914.89*	10201.04*	1278.63	Shallow WBZ	NA	NA	NM	NA
GP-2D	9914.91*	10207.84*	1278.7	Lower Fine Sand WBZ	NA	NA	NM	NA
GP-3S	9941.13*	10264.03*	1278.87	Shallow WBZ	NA	NA	NM	NA
GP-3D	9937.38*	10264.53*	1278.77	Lower Fine Sand WBZ	NA	NA	NM	NA
GP-4S	9940.86*	10154.97*	1278.06	Shallow WBZ	NA	NA	NM	NA
GP-4D	9940.85*	10151.57*	1278.08	Lower Fine Sand WBZ	NA	NA	NM	NA
GP-5S	9993.54*	10200.34*	1277.44	Shallow WBZ	NA	NA	NM	NA
GP-5D	9993.55*	10290.21*	1277.37	Lower Fine Sand WBZ	NA	NA	NM	NA
PZ-1S	NA	NA	1277.97	Shallow WBZ	NA	NA		NA
PZ-1D	NA	NA	1277.75	Lower Fine Sand WBZ	NA	NA		NA
PZ-2D	NA	NA	1277.88	Lower Fine Sand WBZ	NA	NA		NA
PZ-3D	NA	NA	1279.02	Lower Fine Sand WBZ	NA	NA	NM	NA
PZ-4D	NA	NA	1278.94	Lower Fine Sand WBZ	NA	NA		NA
PZ-5S	NA	NA	1276.58	Shallow WBZ	No Access	NA	NM	NA
PZ-5D	NA	NA	1276.52	Lower Fine Sand WBZ	No Access	NA	NM	NA
PZ-6S	NA	NA	1278.77	Shallow WBZ	No Access	NA	NM	NA
PZ-6D	NA	NA	1278.57	Lower Fine Sand WBZ	No Access	NA	NM	NA
PZ-7D	NA	NA	1275.83	Lower Fine Sand WBZ	No Access	NA	NM	NA
PZ-8D	NA	NA	1278.83	Lower Fine Sand WBZ		12.18	1266.45	NM
PZ-9D	NA	NA	1278.04	Lower Fine Sand WBZ		10.76	1267.28	NM
PZ-10D	NA	NA	1277.58	Lower Fine Sand WBZ	No Access	NA	NM	NA
PZ-11D	NA	NA	1278.7	Lower Fine Sand WBZ	No Access	NA	NM	NA
VP-5D	NA	NA	1278.2	Lower Fine Sand WBZ	No Access	NA	NM	NA
VP-6S	NA	NA	1278.82	Upper Gravel of LFSWBZ	Submerged	NA	NM	NA
VP-6D	NA	NA	1278.71	Lower Fine Sand WBZ	Submerged	NA	NM	NA
VP-7D	NA	NA	1278.87	Lower Fine Sand WBZ	No Access	NA	NM	NA
VP-8D	NA	NA	1277.37	Lower Fine Sand WBZ	No Access	NA		NA
Comments					2307 Days of System Operation		2391 Days of System Operation	
WBZ - Water Bearing Zone					Majority of wells at site not accessible due to stockpiled snow or ice buildup.			
* = Estimated Coordinate								
MW-5 TOC elev. altered from 1280.91 ft msl to 1280.82 ft msl on May 5, 2000								
* Wells resurveyed on 10/11/00 due to uplift of concrete from injection work.								
RW-4S and RW-5S taken offline in October 2002 for UST Removal.								
Wells RW-4S, TW-01 and HW-7 destroyed during UST removal operations.								

## **APPENDIX B**

**Appendix B**  
**Laboratory Certificates of Analysis**

February 17, 2004

Mr. Keith Dodrill  
•URS Corporation  
Construction Services Division  
Twin Towers, Suite 250  
4955 Steubenville Pike  
Pittsburgh, PA 15205

Dear Mr. Dodrill:

Enclosed are analytical results for samples submitted to Pace Analytical by URS Corporation. The samples were received on February 3, 2004. Please reference Pace project number 04-0454 when inquiring about this report.

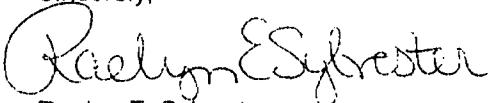
Client Site: Essex-Hope  
Client Ref.: 801419.2030

Pace Sample Identification	Client Sample Identification
0402-0389	Pre-Carb
0402-0390	Primary Effluent
0402-0391	Post-Carb
0402-0395	Trip Blank

**General Comments:** Cooler temperature 5 ° C upon receipt. Ice was present.

Please call me if you have any questions regarding the information contained within this report.

Sincerely,



Raelyn E. Sylvester  
Project Manager

REC: jld

Enclosures

## **REPORT OF LABORATORY ANALYSIS**

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Mr. Keith Dodrill  
 URS Corporation  
 Construction Services Division  
 Twin Towers, Suite 250  
 4955 Steubenville Pike  
 Pittsburgh, PA 15205

Client Site: Essex-Hope  
 Client Ref.: 801419.2030

**Pace Analytical Services, Inc.**  
 5203 Triangle Lane  
 Export, PA 15632  
 Phone: 724.733.1161  
 Fax: 724.327.7793

Lab Project ID: 04-0454  
 Lab Sample ID: 0402-0389  
 Client Sample ID: Pre-Carb  
 Sample Matrix: Aqueous  
 Date Sampled: 01/31/2004  
 Date Received: 02/03/2004

### Volatiles

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
<b>Volatile Organic Compounds, MS</b>								
Acetone	8260B <sup>(1)</sup>	31	10	ug/l	JEC	02/09/2004	0027805-1	<10
Benzene	8260B <sup>(1)</sup>	6.4	1.0	ug/l	JEC	02/09/2004	0027805-1	<1.0
Bromodichloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Bromoform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Bromomethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
2-Butanone	8260B <sup>(1)</sup>	<10	10	ug/l	JEC	02/09/2004	0027805-1	<10
Carbon Disulfide	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Carbon Tetrachloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Chlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Chloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Chloroform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Chloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Cumene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Dibromochloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
1,2-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
1,3-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
1,4-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
1,1-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
1,2-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
1,1-Dichloroethene	8260B <sup>(1)</sup>	15	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
cis-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
trans-1,2-Dichloroethene	8260B <sup>(1)</sup>	14	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
1,2-Dichloropropane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
cis-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
trans-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Ethylbenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
2-Hexanone	8260B <sup>(1)</sup>	<10	10	ug/l	JEC	02/09/2004	0027805-1	<10
4-Methyl-2-pentanone	8260B <sup>(1)</sup>	<10	10	ug/l	JEC	02/09/2004	0027805-1	<10
Methylene chloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0

(Continued)

### REPORT OF LABORATORY ANALYSIS

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Lab Sample ID: 0402-0389

Client Sample ID: Pre-Carb

**Volatiles (Cont.)**

Styrene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
1,1,2,2-Tetrachloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Tetrachloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Toluene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
1,1,1-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
1,1,2-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Trichloroethene	8260B <sup>(1)</sup>	390	10	ug/l	JEC	02/09/2004	0027805-1	<5.0
Trichlorofluoromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Vinyl chloride	8260B <sup>(1)</sup>	620	20	ug/l	JEC	02/09/2004	0027805-1	<2.0
m,p-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
o-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0

<sup>(1)</sup> U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis.

## REPORT OF LABORATORY ANALYSIS

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Mr. Keith Dodrill  
 URS Corporation  
 Construction Services Division  
 Twin Towers, Suite 250  
 4955 Steubenville Pike  
 Pittsburgh, PA 15205

Client Site: Essex-Hope  
 Client Ref.: 801419.2030

**Lab Project ID:** 04-0454  
**Lab Sample ID:** 0402-0390  
**Client Sample ID:** Primary Effluent  
**Sample Matrix:** Aqueous  
**Date Sampled:** 01/31/2004  
**Date Received:** 02/03/2004

### Volatiles

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
<b>Volatile Organic Compounds, MS</b>								
Acetone	8260B <sup>(1)</sup>	<10	10	ug/l	JEC	02/09/2004	0027805-1	<10
Benzene	8260B <sup>(1)</sup>	<1.0	1.0	ug/l	JEC	02/09/2004	0027805-1	<1.0
Bromodichloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Bromoform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Bromomethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
2-Butanone	8260B <sup>(1)</sup>	<10	10	ug/l	JEC	02/09/2004	0027805-1	<10
Carbon Disulfide	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Carbon Tetrachloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Chlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Chloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Chloroform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Chloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Cumene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Dibromochloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
1,2-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
1,3-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
1,4-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
1,1-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
1,2-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
1,1-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
cis-1,2-Dichloroethene	8260B <sup>(1)</sup>	130	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
trans-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
1,2-Dichloropropane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
cis-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
trans-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Ethylbenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
2-Hexanone	8260B <sup>(1)</sup>	<10	10	ug/l	JEC	02/09/2004	0027805-1	<10
4-Methyl-2-pentanone	8260B <sup>(1)</sup>	<10	10	ug/l	JEC	02/09/2004	0027805-1	<10
Methylene chloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0

(Continued)

### REPORT OF LABORATORY ANALYSIS

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Lab Sample ID: 0402-0390  
 Client Sample ID: Primary Effluent

**Volatiles (Cont.)**

Styrene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
1,1,2,2-Tetrachloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Tetrachloroethylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Toluene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
1,1,1-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
1,1,2-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Trichloroethylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Trichlorofluoromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Vinyl chloride	8260B <sup>(1)</sup>	1300	100	ug/l	JEC	02/09/2004	0027805-1	<2.0
m,p-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
o-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0

<sup>(1)</sup> U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis.

## REPORT OF LABORATORY ANALYSIS

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Mr. Keith Dodrill  
 URS Corporation  
 Construction Services Division  
 Twin Towers, Suite 250  
 4955 Steubenville Pike  
 Pittsburgh, PA 15205

Client Site: Essex-Hope  
 Client Ref.: 801419.2030

**Pace Analytical Services, Inc.**  
 5203 Triangle Lane  
 Export, PA 15632  
 Phone: 724.733.1161  
 Fax: 724.327.7793

<b>Lab Project ID:</b>	<b>04-0454</b>
<b>Lab Sample ID:</b>	<b>0402-0391</b>
<b>Client Sample ID:</b>	Post-Carb
<b>Sample Matrix:</b>	Aqueous
<b>Date Sampled:</b>	01/31/2004
<b>Date Received:</b>	02/03/2004

### Volatiles

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
<b>Volatile Organic Compounds, MS</b>								
Acetone	8260B <sup>(1)</sup>	<10	10	ug/l	JEC	02/09/2004	0027805-1	<10
Benzene	8260B <sup>(1)</sup>	<1.0	1.0	ug/l	JEC	02/09/2004	0027805-1	<1.0
Bromodichloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Bromoform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Bromomethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
2-Butanone	8260B <sup>(1)</sup>	<10	10	ug/l	JEC	02/09/2004	0027805-1	<10
Carbon Disulfide	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Carbon Tetrachloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Chlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Chloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Chloroform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Chloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Cumene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Dibromochloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
1,2-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
1,3-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
1,4-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
1,1-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
1,2-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
1,1-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
cis-1,2-Dichloroethene	8260B <sup>(1)</sup>	32	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
trans-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
1,2-Dichloropropane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
cis-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
trans-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Ethybenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
2-Hexanone	8260B <sup>(1)</sup>	<10	10	ug/l	JEC	02/09/2004	0027805-1	<10
4-Methyl-2-pentanone	8260B <sup>(1)</sup>	<10	10	ug/l	JEC	02/09/2004	0027805-1	<10
Methylene chloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0

(Continued)

### REPORT OF LABORATORY ANALYSIS

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Lab Sample ID: 0402-0391  
 Client Sample ID: Post-Carb

**Volatiles (Cont.)**

Styrene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
1,1,2,2-Tetrachloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Tetrachloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Toluene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
1,1,1-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
1,1,2-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Trichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Trichlorofluoromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Vinyl chloride	8260B <sup>(1)</sup>	29	2.0	ug/l	JEC	02/09/2004	0027805-1	<2.0
m,p-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
o-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0

<sup>(1)</sup> U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis. Sample 0402-0391 was composited from 4 samples prior to analysis.

## REPORT OF LABORATORY ANALYSIS

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Mr. Keith Dodrill  
 URS Corporation  
 Construction Services Division  
 Twin Towers, Suite 250  
 4955 Steubenville Pike  
 Pittsburgh, PA 15205

Client Site: Essex-Hope  
 Client Ref.: 801419.2030

**Pace Analytical Services, Inc.**

5203 Triangle Lane

Export, PA 15632

Phone: 724.733.1161

Fax: 724.327.7793

**Lab Project ID:** 04-0454  
**Lab Sample ID:** 0402-0395  
**Client Sample ID:** Trip Blank  
**Sample Matrix:** Aqueous  
**Date Sampled:** 01/31/2004  
**Date Received:** 02/03/2004

### Volatiles

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
<b>Volatile Organic Compounds, MS</b>								
Acetone	8260B <sup>(1)</sup>	<10	10	ug/l	JEC	02/09/2004	0027805-1	<10
Benzene	8260B <sup>(1)</sup>	<1.0	1.0	ug/l	JEC	02/09/2004	0027805-1	<1.0
Bromodichloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Bromoform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Bromomethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
2-Butanone	8260B <sup>(1)</sup>	<10	10	ug/l	JEC	02/09/2004	0027805-1	<10
Carbon Disulfide	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Carbon Tetrachloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Chlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Chloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Chloroform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Chloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Cumene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Dibromochloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
1,2-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
1,3-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
1,4-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
1,1-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
1,2-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
1,1-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
cis-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
trans-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
1,2-Dichloropropane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
cis-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
trans-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Ethylbenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
2-Hexanone	8260B <sup>(1)</sup>	<10	10	ug/l	JEC	02/09/2004	0027805-1	<10
4-Methyl-2-pentanone	8260B <sup>(1)</sup>	<10	10	ug/l	JEC	02/09/2004	0027805-1	<10
Methylene chloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0

(Continued)

## REPORT OF LABORATORY ANALYSIS

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Lab Sample ID: 0402-0395  
 Client Sample ID: Trip Blank

**Volatiles (Cont.)**

Styrene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
1,1,2,2-Tetrachloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Tetrachloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Toluene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
1,1,1-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
1,1,2-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Trichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Trichlorofluoromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
Vinyl chloride	8260B <sup>(1)</sup>	<2.0	2.0	ug/l	JEC	02/09/2004	0027805-1	<2.0
m,p-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0
o-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	JEC	02/09/2004	0027805-1	<5.0

<sup>(1)</sup> U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis.

## REPORT OF LABORATORY ANALYSIS

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729806

## Section A

## Required Client Information: Section B

## Required Client Information:

Company  
URS CorpAddress  
4955 Steinberville Pike

Town Tourist Suite 250

Pittsburgh PA 15205

Phone 412-788-2717 Fax 412-788-1316

Report To:  
Keith Dadrill

Copy To:

Invoice To:

P.O.:

Project Name:  
Essex-HopeProject Number:  
801419.2030

Page: of

To Be Completed by Pace Analytical and Client

## Section C

Quote Reference:

Project Manager:

Project #:

Profile #:

Requested Analysis:

## Section D Required Client Information:

## SAMPLE ID

One character per box.  
(A-Z, 0-9 / -)

Sample IDs MUST BE UNIQUE

Valid Matrix Codes

MATRIX	CODE
WATER	WT
SOIL	SL
OIL	CL
WIPE	WP
AIR	AR
TISSUE	TS
OTHER	OT

MATRIX CODE

ITEM #	DATE COLLECTED	TIME COLLECTED	# Containers	Preservatives						Remarks / Lab ID	
				Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	NaOH	Na <sub>2</sub> SO <sub>3</sub>		
1	WT	1-31-04	1030	2	X						0102 0319
2			1030								0330
3			1030								0340
4			1100								0342
5			1130								0343
6			1200								0344
7			3								0345
8											
9											
10											
11											
12											

SHIPMENT METHOD AIRBILL NO. SHIPPING DATE NO. OF COOLERS

FED-EXPRESS

841673043761

2-2-04

1

ITEM NUMBER	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
1	Jahnd.Ross URS	2-2-04	1500	Fed Express		
	Fed Ex			James Ross	2-3	10:17

## SAMPLE CONDITION

## SAMPLE NOTES

Temp in °C

5

Received on Ice

Y/N

Sealed Cooler

Y/N

Samples Intact

Y/N

Combine 4 Post-Carb

Samples into 1 for

Analysis

Additional Comments:

## SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER

John Ross

SIGNATURE of SAMPLER

Jahnd.Ross

DATE Signed: (MM / DD / YY)

1-31-04

March 16, 2004

Mr. Keith Dodrill  
URS Corporation  
Construction Services Division  
Twin Towers, Suite 250  
4955 Steubenville Pike  
Pittsburgh, PA 15205

Dear Mr. Dodrill:

Enclosed are analytical results for samples submitted to Pace Analytical by URS Corporation. The samples were received on March 2, 2004. Please reference Pace project number 04-0963 when inquiring about this report.

Client Site: Essex-Hope  
Client Ref.: 801419.2030

Pace Sample Identification	Client Sample Identification
0403-0526	Pre-Carb
0403-0527	Primary Effluent
0403-0528	Post-Carb
0403-0531	Trip Blank

**General Comments:** Cooler temperature 5 ° C upon receipt. Ice was present. Sample 0403-0528 was composited from 3 samples prior to analysis.

Please call me if you have any questions regarding the information contained within this report.

Sincerely,



Raelyn E. Sylvester  
Project Manager

REC: jld

Enclosures

## REPORT OF LABORATORY ANALYSIS

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Mr. Keith Dodrill  
 URS Corporation  
 Construction Services Division  
 Twin Towers, Suite 250  
 4955 Steubenville Pike  
 Pittsburgh, PA 15205

Client Site: Essex-Hope  
 Client Ref.: 801419.2030

**Pace Analytical Services, Inc.**  
 5203 Triangle Lane  
 Export, PA 15632  
 Phone: 724.733.1161  
 Fax: 724.327.7793

Lab Project ID: 04-0963  
 Lab Sample ID: 0403-0526  
 Client Sample ID: Pre-Carb  
 Sample Matrix: Aqueous  
 Date Sampled: 02/27/2004  
 Date Received: 03/02/2004

### Volatiles

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
<b>Volatile Organic Compounds, MS</b>								
Acetone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	03/07/2004	0028465-1	<10
Benzene	8260B <sup>(1)</sup>	8.7	1.0	ug/l	MAK	03/07/2004	0028465-1	<1.0
Bromodichloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
Bromoform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
Bromomethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
2-Butanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	03/07/2004	0028465-1	<10
Carbon Disulfide	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
Carbon Tetrachloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
Chlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
Chloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
Chloroform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
Chloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
Cumene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
Dibromochloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
1,2-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
1,3-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
1,4-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
1,1-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
1,2-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
1,1-Dichloroethene	8260B <sup>(1)</sup>	25	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
cis-1,2-Dichloroethene	8260B <sup>(1)</sup>	4100	50	ug/l	MAK	03/08/2004	0028486-1	<5.0
trans-1,2-Dichloroethene	8260B <sup>(1)</sup>	19	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
1,2-Dichloropropane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
cis-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
trans-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
Ethylbenzene	8260B <sup>(1)</sup>	5.3	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
2-Hexanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	03/07/2004	0028465-1	<10
4-Methyl-2-pentanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	03/07/2004	0028465-1	<10
Methylene chloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0

(Continued)

### REPORT OF LABORATORY ANALYSIS

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Lab Sample ID: 0403-0526  
 Client Sample ID: Pre-Carb

**Volatiles (Cont.)**

Styrene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
1,1,2,2-Tetrachloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
Tetrachloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
Toluene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
1,1,1-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
1,1,2-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
Trichloroethene	8260B <sup>(1)</sup>	770	10	ug/l	MAK	03/07/2004	0028465-1	<5.0
Trichlorofluoromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
Vinyl chloride	8260B <sup>(1)</sup>	1000	20	ug/l	MAK	03/07/2004	0028465-1	<2.0
m,p-Xylene	8260B <sup>(1)</sup>	38	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
o-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0

<sup>(1)</sup> U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis.

## REPORT OF LABORATORY ANALYSIS

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Mr. Keith Dodrill  
 URS Corporation  
 Construction Services Division  
 Twin Towers, Suite 250  
 4955 Steubenville Pike  
 Pittsburgh, PA 15205

Client Site: Essex-Hope  
 Client Ref.: 801419.2030

**Pace Analytical Services, Inc.**

5203 Triangle Lane

Export, PA 15632

Phone: 724.733.1161

Fax: 724.327.7793

Lab Project ID: 04-0963  
 Lab Sample ID: 0403-0527  
 Client Sample ID: Primary Effluent  
 Sample Matrix: Aqueous  
 Date Sampled: 02/27/2004  
 Date Received: 03/02/2004

### Volatiles

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
<b>Volatile Organic Compounds, MS</b>								
Acetone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	03/07/2004	0028465-1	<10
Benzene	8260B <sup>(1)</sup>	<1.0	1.0	ug/l	MAK	03/07/2004	0028465-1	<1.0
Bromodichloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
Bromoform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
Bromomethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
2-Butanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	03/07/2004	0028465-1	<10
Carbon Disulfide	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
Carbon Tetrachloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
Chlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
Chloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
Chloroform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
Chloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
Cumene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
Dibromochloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
1,2-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
1,3-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
1,4-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
1,1-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
1,2-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
1,1-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
cis-1,2-Dichloroethene	8260B <sup>(1)</sup>	460	10	ug/l	MAK	03/07/2004	0028465-1	<5.0
trans-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
1,2-Dichloropropane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
cis-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
trans-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
Ethylbenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
2-Hexanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	03/07/2004	0028465-1	<10
4-Methyl-2-pentanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	03/07/2004	0028465-1	<10
Methylene chloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0

(Continued)

## REPORT OF LABORATORY ANALYSIS

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Lab Sample ID: 0403-0527  
 Client Sample ID: Primary Effluent

**Volatiles (Cont.)**

Styrene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
1,1,2,2-Tetrachloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
Tetrachloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
Toluene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
1,1,1-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
1,1,2-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
Trichloroethene	8260B <sup>(1)</sup>	23	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
Trichlorofluoromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
Vinyl chloride	8260B <sup>(1)</sup>	1600	20	ug/l	MAK	03/07/2004	0028465-1	<2.0
m,p-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
o-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0

<sup>(1)</sup> U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis.

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# Pace Analytical®

[www.pacelabs.com](http://www.pacelabs.com)

Mr. Keith Dodrill  
URS Corporation  
Construction Services Division  
Twin Towers, Suite 250  
4955 Steubenville Pike  
Pittsburgh, PA 15205

Client Site: Essex-Hope  
Client Ref.: 801419.2030

Pace Analytical Services, Inc.

5203 Triangle Lane

Export, PA 15632

Phone: 724.733.1161

Fax: 724.327.7793

Lab Project ID: 04-0963  
Lab Sample ID: 0403-0528  
Client Sample ID: Post-Carb  
Sample Matrix: Aqueous  
Date Sampled: 02/27/2004  
Date Received: 03/02/2004

## Volatiles

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
<b>Volatile Organic Compounds, MS</b>								
Acetone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	03/07/2004	0028465-1	<10
Benzene	8260B <sup>(1)</sup>	<1.0	1.0	ug/l	MAK	03/07/2004	0028465-1	<1.0
Bromodichloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
Bromoform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
Bromomethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
2-Butanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	03/07/2004	0028465-1	<10
Carbon Disulfide	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
Carbon Tetrachloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
Chlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
Chloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
Chloroform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
Chloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
Cumene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
Dibromochloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
1,2-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
1,3-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
1,4-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
1,1-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
1,2-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
1,1-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
cis-1,2-Dichloroethene	8260B <sup>(1)</sup>	28	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
trans-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
1,2-Dichloropropane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
cis-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
trans-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
Ethylbenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
2-Hexanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	03/07/2004	0028465-1	<10
4-Methyl-2-pentanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	03/07/2004	0028465-1	<10
Methylene chloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0

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## REPORT OF LABORATORY ANALYSIS

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Lab Sample ID: **0403-0528**  
 Client Sample ID: Post-Carb

**Volatiles (Cont.)**

Styrene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
1,1,2,2-Tetrachloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
Tetrachloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
Toluene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
1,1,1-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
1,1,2-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
Trichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
Trichlorofluoromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
Vinyl chloride	8260B <sup>(1)</sup>	190	2.0	ug/l	MAK	03/07/2004	0028465-1	<2.0
m,p-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0
o-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/07/2004	0028465-1	<5.0

<sup>(1)</sup> U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis.

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Mr. Keith Dodrill  
 URS Corporation  
 Construction Services Division  
 Twin Towers, Suite 250  
 4955 Steubenville Pike  
 Pittsburgh, PA 15205

Lab Project ID: 04-0963  
 Lab Sample ID: 0403-0531  
 Client Sample ID: Trip Blank  
 Sample Matrix: Aqueous  
 Date Sampled: 02/27/2004  
 Date Received: 03/02/2004

Client Site: Essex-Hope  
 Client Ref.: 801419.2030

### Volatiles

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
<b>Volatile Organic Compounds, MS</b>								
Acetone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	03/08/2004	0028486-1	<10
Benzene	8260B <sup>(1)</sup>	<1.0	1.0	ug/l	MAK	03/08/2004	0028486-1	<1.0
Bromodichloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/08/2004	0028486-1	<5.0
Bromoform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/08/2004	0028486-1	<5.0
Bromomethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/08/2004	0028486-1	<5.0
2-Butanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	03/08/2004	0028486-1	<10
Carbon Disulfide	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/08/2004	0028486-1	<5.0
Carbon Tetrachloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/08/2004	0028486-1	<5.0
Chlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/08/2004	0028486-1	<5.0
Chloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/08/2004	0028486-1	<5.0
Chloroform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/08/2004	0028486-1	<5.0
Chloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/08/2004	0028486-1	<5.0
Cumene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/08/2004	0028486-1	<5.0
Dibromochloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/08/2004	0028486-1	<5.0
1,2-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/08/2004	0028486-1	<5.0
1,3-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/08/2004	0028486-1	<5.0
1,4-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/08/2004	0028486-1	<5.0
1,1-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/08/2004	0028486-1	<5.0
1,2-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/08/2004	0028486-1	<5.0
1,1-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/08/2004	0028486-1	<5.0
cis-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/08/2004	0028486-1	<5.0
trans-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/08/2004	0028486-1	<5.0
1,2-Dichloropropane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/08/2004	0028486-1	<5.0
cis-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/08/2004	0028486-1	<5.0
trans-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/08/2004	0028486-1	<5.0
Ethylbenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/08/2004	0028486-1	<5.0
2-Hexanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	03/08/2004	0028486-1	<10
4-Methyl-2-pentanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	03/08/2004	0028486-1	<10
Methylene chloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/08/2004	0028486-1	<5.0

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Lab Sample ID: **0403-0531**  
 Client Sample ID: Trip Blank

**Volatiles (Cont.)**

Styrene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/08/2004	0028486-1	<5.0
1,1,2,2-Tetrachloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/08/2004	0028486-1	<5.0
Tetrachloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/08/2004	0028486-1	<5.0
Toluene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/08/2004	0028486-1	<5.0
1,1,1-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/08/2004	0028486-1	<5.0
1,1,2-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/08/2004	0028486-1	<5.0
Trichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/08/2004	0028486-1	<5.0
Trichlorofluoromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/08/2004	0028486-1	<5.0
Vinyl chloride	8260B <sup>(1)</sup>	<2.0	2.0	ug/l	MAK	03/08/2004	0028486-1	<2.0
m,p-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/08/2004	0028486-1	<5.0
o-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	03/08/2004	0028486-1	<5.0

<sup>(1)</sup> U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis.

## REPORT OF LABORATORY ANALYSIS

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729899

Required Client Information: **Section B**Report To: *Keith Rodrill*

Page: of

To Be Completed by Pace Analytical and Client **Section C**

Quote Reference:

Project Manager:

Project #: *04-0963*

Profile #:

Requested Analysis:

*S260 1065*Required Client Information: **Section A**

Company: *URS Corp*  
 Address: *4955 Steubenville Pike  
Twin Tower Suite 250  
Pittsburgh, PA 15205*  
 Phone: *412-758-2717* Fax: *801419.2030*

Copy To: *Keith Rodrill*

Invoice To:

P.O.:

Project Name: *Essex-Hope*

Client Information (Check quote/contract):

Requested Due Date: *TAT:*

- Turn around times less than 14 days subject to laboratory and contractual obligations and may result in a Rush Turnaround Surcharge.

Turn Around Time (TAT) in calendar days.

ITEM #	Section D Required Client Information:	SAMPLE ID	One character per box. (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE	Valid Matrix Codes ←		MATRIX CODE	DATE COLLECTED	TIME COLLECTED	Preservatives							Remarks / Lab ID	
				MATRIX	CODE				# Containers	Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	NaOH	Na <sub>2</sub> SO <sub>3</sub>	Methanol	
1	PREF	CARB		WT		WT	2-27-04	1700	2	X							0403 0526
2	PRIMARY EFFLUENT			WT		WT	-	1700	1								0527
3	POST CARB			WT		WT	-	1700	1								0528
4	POST CARB			WT		WT	-	1730	1								0529
5	POST CARB			WT		WT	-	1800	1								0530
6	POST CARB			WT		WT	-	1830	1								0531
7	TRIP BLANK			WT		WT	-	3									0531
8																	
9																	
10																	
11																	
12																	
	SHIPMENT METHOD	AIRBILL NO.	SHIPPING DATE	NO. OF COOLERS	ITEM NUMBER	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME						
	FED-EX	841673043750	3-1-04	1	1	Jeh-J. Ross / URS	3-1-04	1700	FED-EX	3-1-04	1700						
	SAMPLE CONDITION	SAMPLE NOTES				Jeh-J. Ross / URS	3-1-04	1700	FED-EX	3-1-04	1700						
Temp in °C		Combine 4 Post-Carb Samples into 1 for Analysis				Jeh-J. Ross / URS	3-1-04	1700	FED-EX	3-1-04	1700						
Received on Ice	Y/N					Jeh-J. Ross / URS	3-1-04	1700	FED-EX	3-1-04	1700						
Sealed Cooler	Y/N					Jeh-J. Ross / URS	3-1-04	1700	FED-EX	3-1-04	1700						
Samples Intact	Y/N					Jeh-J. Ross / URS	3-1-04	1700	FED-EX	3-1-04	1700						
Additional Comments:																	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

*John Ross*

SIGNATURE of SAMPLER:

*John Ross*

DATE Signed (MM / DD / YY)

2-27-04

3-1-04

Form C0001 Rev 0402

April 12, 2004

Mr. Keith Dodrill  
URS Corporation  
Construction Services Division  
Twin Towers, Suite 250  
4955 Steubenville Pike  
Pittsburgh, PA 15205

Dear Mr. Dodrill:

Enclosed are analytical results for samples submitted to Pace Analytical by URS Corporation. The samples were received on April 1, 2004. Please reference Pace project number 04-1477 when inquiring about this report.

Client Site: Essex-Hope  
Client Ref.: 81157118.04

Pace Sample Identification	Client Sample Identification
0404-0421	Pre-Carb
0404-0422	Primary Effluent
0404-0423	Post-Carb
0404-0428	Trip Blank

**General Comments:** Cooler temperature 6 ° C upon receipt. Ice was present.

Please call me if you have any questions regarding the information contained within this report.

Sincerely,



Raelyn E. Sylvester  
Project Manager

REC: jld

Enclosures

## **REPORT OF LABORATORY ANALYSIS**

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without the written consent of Pace Analytical Services, Inc.



Mr. Keith Dodrill  
 URS Corporation  
 Construction Services Division  
 Twin Towers, Suite 250  
 4955 Steubenville Pike  
 Pittsburgh, PA 15205

Client Site: Essex-Hope  
 Client Ref.: 81157118.04

**Pace Analytical Services, Inc.**

5203 Triangle Lane

Export, PA 15632

Phone: 724.733.1161

Fax: 724.327.7793

Lab Project ID: 04-1477  
 Lab Sample ID: 0404-0421  
 Client Sample ID: Pre-Carb  
 Sample Matrix: Aqueous  
 Date Sampled: 03/30/2004  
 Date Received: 04/01/2004

### Volatiles

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
<b>Volatile Organic Compounds, MS</b>								
Acetone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	04/05/2004	0029165-1	<10
Benzene	8260B <sup>(1)</sup>	5.3	1.0	ug/l	MAK	04/05/2004	0029165-1	<1.0
Bromodichloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Bromoform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Bromomethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
2-Butanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	04/05/2004	0029165-1	<10
Carbon Disulfide	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Carbon Tetrachloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Chlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Chloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Chloroform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Chloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Cumene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Dibromochloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,2-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,3-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,4-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,1-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,2-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,1-Dichloroethene	8260B <sup>(1)</sup>	10	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
cis-1,2-Dichloroethene	8260B <sup>(1)</sup>	2500	10	ug/l	MAK	04/05/2004	0029165-1	<5.0
trans-1,2-Dichloroethene	8260B <sup>(1)</sup>	10	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,2-Dichloropropane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
cis-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
trans-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Ethylbenzene	8260B <sup>(1)</sup>	6.3	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
2-Hexanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	04/05/2004	0029165-1	<10
4-Methyl-2-pentanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	04/05/2004	0029165-1	<10
Methylene chloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0

(Continued)

### REPORT OF LABORATORY ANALYSIS

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Lab Sample ID: 0404-0421  
 Client Sample ID: Pre-Carb

**Volatiles (Cont.)**

Styrene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,1,2,2-Tetrachloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Tetrachloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Toluene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,1,1-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,1,2-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Trichloroethene	8260B <sup>(1)</sup>	420	10	ug/l	MAK	04/05/2004	0029165-1	<5.0
Trichlorofluoromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Vinyl chloride	8260B <sup>(1)</sup>	440	20	ug/l	MAK	04/05/2004	0029165-1	<2.0
m,p-Xylene	8260B <sup>(1)</sup>	70	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
o-Xylene	8260B <sup>(1)</sup>	8.1	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0

<sup>(1)</sup> U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis.

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Mr. Keith Dodrill  
 URS Corporation  
 Construction Services Division  
 Twin Towers, Suite 250  
 4955 Steubenville Pike  
 Pittsburgh, PA 15205

Client Site: Essex-Hope  
 Client Ref.: 81157118.04

**Pace Analytical Services, Inc.**  
 5203 Triangle Lane  
 Export, PA 15632  
 Phone: 724.733.1161  
 Fax: 724.327.7793

Lab Project ID: 04-1477  
 Lab Sample ID: 0404-0422  
 Client Sample ID: Primary Effluent  
 Sample Matrix: Aqueous  
 Date Sampled: 03/30/2004  
 Date Received: 04/01/2004

### Volatiles

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
<b>Volatile Organic Compounds, MS</b>								
Acetone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	04/05/2004	0029165-1	<10
Benzene	8260B <sup>(1)</sup>	<1.0	1.0	ug/l	MAK	04/05/2004	0029165-1	<1.0
Bromodichloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Bromoform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Bromomethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
2-Butanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	04/05/2004	0029165-1	<10
Carbon Disulfide	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Carbon Tetrachloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Chlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Chloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Chloroform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Chloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Cumene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Dibromochloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,2-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,3-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,4-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,1-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,2-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,1-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
cis-1,2-Dichloroethene	8260B <sup>(1)</sup>	690	10	ug/l	MAK	04/05/2004	0029165-1	<5.0
trans-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,2-Dichloropropane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
cis-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
trans-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Ethylbenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
2-Hexanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	04/05/2004	0029165-1	<10
4-Methyl-2-pentanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	04/05/2004	0029165-1	<10
Methylene chloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0

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April 12, 2004

Mr. Keith Dodrill  
URS Corporation  
Construction Services Division  
Twin Towers, Suite 250  
4955 Steubenville Pike  
Pittsburgh, PA 15205

Dear Mr. Dodrill:

Enclosed are analytical results for samples submitted to Pace Analytical by URS Corporation. The samples were received on April 1, 2004. Please reference Pace project number 04-1477 when inquiring about this report.

Client Site: Essex-Hope  
Client Ref.: 81157118.04

Pace Sample Identification	Client Sample Identification
0404-0421	Pre-Carb
0404-0422	Primary Effluent
0404-0423	Post-Carb
0404-0428	Trip Blank

**General Comments:** Cooler temperature 6 ° C upon receipt. Ice was present.

Please call me if you have any questions regarding the information contained within this report.

Sincerely,



Raelyn E. Sylvester  
Project Manager

REC: jld

Enclosures

## **REPORT OF LABORATORY ANALYSIS**

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 URS Corporation  
 Construction Services Division  
 Twin Towers, Suite 250  
 4955 Steubenville Pike  
 Pittsburgh, PA 15205

Client Site: Essex-Hope  
 Client Ref.: 81157118.04

Lab Project ID: 04-1477  
 Lab Sample ID: 0404-0421  
 Client Sample ID: Pre-Carb  
 Sample Matrix: Aqueous  
 Date Sampled: 03/30/2004  
 Date Received: 04/01/2004

### Volatiles

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
<b>Volatile Organic Compounds, MS</b>								
Acetone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	04/05/2004	0029165-1	<10
Benzene	8260B <sup>(1)</sup>	5.3	1.0	ug/l	MAK	04/05/2004	0029165-1	<1.0
Bromodichloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Bromoform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Bromomethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
2-Butanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	04/05/2004	0029165-1	<10
Carbon Disulfide	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Carbon Tetrachloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Chlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Chloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Chloroform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Chloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Cumene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Dibromochloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,2-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,3-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,4-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,1-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,2-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,1-Dichloroethene	8260B <sup>(1)</sup>	10	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
cis-1,2-Dichloroethene	8260B <sup>(1)</sup>	2500	10	ug/l	MAK	04/05/2004	0029165-1	<5.0
trans-1,2-Dichloroethene	8260B <sup>(1)</sup>	10	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,2-Dichloropropane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
cis-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
trans-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Ethylbenzene	8260B <sup>(1)</sup>	6.3	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
2-Hexanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	04/05/2004	0029165-1	<10
4-Methyl-2-pentanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	04/05/2004	0029165-1	<10
Methylene chloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0

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### REPORT OF LABORATORY ANALYSIS

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Lab Sample ID: 0404-0421  
 Client Sample ID: Pre-Carb

**Volatiles (Cont.)**

Styrene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,1,2,2-Tetrachloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Tetrachloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Toluene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,1,1-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,1,2-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Trichloroethene	8260B <sup>(1)</sup>	420	10	ug/l	MAK	04/05/2004	0029165-1	<5.0
Trichlorofluoromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Vinyl chloride	8260B <sup>(1)</sup>	440	20	ug/l	MAK	04/05/2004	0029165-1	<2.0
m,p-Xylene	8260B <sup>(1)</sup>	70	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
o-Xylene	8260B <sup>(1)</sup>	8.1	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0

<sup>(1)</sup> U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis.

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Mr. Keith Dodrill  
 URS Corporation  
 Construction Services Division  
 Twin Towers, Suite 250  
 4955 Steubenville Pike  
 Pittsburgh, PA 15205

Lab Project ID: 04-1477  
 Lab Sample ID: 0404-0422  
 Client Sample ID: Primary Effluent  
 Sample Matrix: Aqueous

Date Sampled: 03/30/2004  
 Date Received: 04/01/2004

Client Site: Essex-Hope  
 Client Ref.: 81157118.04

### Volatiles

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
<b>Volatile Organic Compounds, MS</b>								
Acetone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	04/05/2004	0029165-1	<10
Benzene	8260B <sup>(1)</sup>	<1.0	1.0	ug/l	MAK	04/05/2004	0029165-1	<1.0
Bromodichloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Bromoform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Bromomethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
2-Butanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	04/05/2004	0029165-1	<10
Carbon Disulfide	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Carbon Tetrachloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Chlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Chloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Chloroform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Chloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Cumene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Dibromochloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,2-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,3-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,4-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,1-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,2-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,1-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
cis-1,2-Dichloroethene	8260B <sup>(1)</sup>	690	10	ug/l	MAK	04/05/2004	0029165-1	<5.0
trans-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,2-Dichloropropane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
cis-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
trans-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Ethylbenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
2-Hexanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	04/05/2004	0029165-1	<10
4-Methyl-2-pentanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	04/05/2004	0029165-1	<10
Methylene chloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0

(Continued)

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Lab Sample ID: 0404-0422  
 Client Sample ID: Primary Effluent

**Volatiles (Cont.)**

Styrene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,1,2,2-Tetrachloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Tetrachloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Toluene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,1,1-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,1,2-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Trichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Trichlorofluoromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Vinyl chloride	8260B <sup>(1)</sup>	920	20	ug/l	MAK	04/05/2004	0029165-1	<2.0
m,p-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
o-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0

<sup>(1)</sup> U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis.

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Mr. Keith Dodrill  
 URS Corporation  
 Construction Services Division  
 Twin Towers, Suite 250  
 4955 Steubenville Pike  
 Pittsburgh, PA 15205

Client Site: Essex-Hope  
 Client Ref.: 81157118.04

**Pace Analytical Services, Inc.**

5203 Triangle Lane

Export, PA 15632

Phone: 724.733.1161

Fax: 724.327.7793

Lab Project ID: 04-1477  
 Lab Sample ID: 0404-0423  
 Client Sample ID: Post-Carb  
 Sample Matrix: Aqueous  
 Date Sampled: 03/30/2004  
 Date Received: 04/01/2004

### Volatiles

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
<b>Volatile Organic Compounds, MS</b>								
Acetone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	04/05/2004	0029165-1	<10
Benzene	8260B <sup>(1)</sup>	<1.0	1.0	ug/l	MAK	04/05/2004	0029165-1	<1.0
Bromodichloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Bromoform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Bromomethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
2-Butanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	04/05/2004	0029165-1	<10
Carbon Disulfide	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Carbon Tetrachloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Chlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Chloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Chloroform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Chloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Cumene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Dibromochloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,2-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,3-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,4-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,1-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,2-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,1-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
cis-1,2-Dichloroethene	8260B <sup>(1)</sup>	28	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
trans-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,2-Dichloropropane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
cis-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
trans-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Ethylbenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
2-Hexanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	04/05/2004	0029165-1	<10
4-Methyl-2-pentanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	04/05/2004	0029165-1	<10
Methylene chloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0

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Lab Sample ID: 0404-0423  
 Client Sample ID: Post-Carb

**Volatiles (Cont.)**

Styrene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,1,2,2-Tetrachloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Tetrachloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Toluene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,1,1-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,1,2-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Trichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Trichlorofluoromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Vinyl chloride	8260B <sup>(1)</sup>	350	2.0	ug/l	MAK	04/05/2004	0029165-1	<2.0
m,p-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
o-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0

<sup>(1)</sup> U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis. This sample was composited from four grab samples prior to analysis as requested.

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Mr. Keith Dodrill  
 URS Corporation  
 Construction Services Division  
 Twin Towers, Suite 250  
 4955 Steubenville Pike  
 Pittsburgh, PA 15205

Lab Project ID: 04-1477  
 Lab Sample ID: 0404-0428  
 Client Sample ID: Trip Blank  
 Sample Matrix: Aqueous  
 Date Sampled: 03/30/2004  
 Date Received: 04/01/2004

Client Site: Essex-Hope  
 Client Ref.: 81157118.04

### Volatiles

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
<b>Volatile Organic Compounds, MS</b>								
Acetone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	04/05/2004	0029165-1	<10
Benzene	8260B <sup>(1)</sup>	<1.0	1.0	ug/l	MAK	04/05/2004	0029165-1	<1.0
Bromodichloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Bromoform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Bromomethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
2-Butanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	04/05/2004	0029165-1	<10
Carbon Disulfide	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Carbon Tetrachloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Chlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Chloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Chloroform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Chloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Cumene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Dibromochloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,2-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,3-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,4-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,1-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,2-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,1-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
cis-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
trans-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,2-Dichloropropane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
cis-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
trans-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Ethylbenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
2-Hexanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	04/05/2004	0029165-1	<10
4-Methyl-2-pentanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	04/05/2004	0029165-1	<10
Methylene chloride	8260B <sup>(1)</sup>	7.7	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0

(Continued)

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Lab Sample ID: 0404-0428  
 Client Sample ID: Trip Blank

**Volatiles (Cont.)**

Styrene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,1,2,2-Tetrachloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Tetrachloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Toluene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,1,1-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
1,1,2-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Trichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Trichlorofluoromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
Vinyl chloride	8260B <sup>(1)</sup>	<2.0	2.0	ug/l	MAK	04/05/2004	0029165-1	<2.0
m,p-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0
o-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	04/05/2004	0029165-1	<5.0

<sup>(1)</sup> U.S. Environmental Protection Agency, 1996. Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis.

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<b>Section A</b>		<b>Section B</b>		<b>Section C</b>																																																																																																																																																																																																																																																			
Required Client Information: Company: URS Corp Address: 4955 Steinenville Pike Town: Twpers Suite 250 Pittsburgh, PA 15205 Phone: 412-788-2717 Fax:		Required Client Information: Report To: Keith Dohill Copy To: Invoice To: P.O. Project Name: Essex-Hope Project Number: 81157118.04		Page: of Client Information (Check quote/contract): Requested Due Date: *TAT: Turn around times less than 14 days subject to laboratory and contractual obligations and may result in a Rush Turnaround Surcharge. Turn Around Time (TAT) in calendar days. To Be Completed by Pace Analytical and Client Quote Reference: Project Manager: Project #: 04-1477 Profile #: Requested Analysis: <i>Feb 21, 2004</i>																																																																																																																																																																																																																																																			
<b>ITEM #</b>	<b>Section D</b> Required Client Information: <b>SAMPLE ID</b> One character per box. (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE		Valid Matrix Codes MATRIX WATER SOIL OIL WIPE AIR TISSUE OTHER	CODE WT SL OL WP AR TS OT	MATRIX CODE	<table border="1"> <thead> <tr> <th rowspan="2">DATE COLLECTED mm / dd / yy</th> <th rowspan="2">TIME COLLECTED hh:mm a/p</th> <th colspan="7">Preservatives</th> <th rowspan="2">Remarks / Lab ID</th> </tr> <tr> <th># Containers</th> <th>Unpreserved</th> <th>H<sub>2</sub>SO<sub>4</sub></th> <th>HNO<sub>3</sub></th> <th>HCl</th> <th>NaOH</th> <th>Na<sub>2</sub>SO<sub>3</sub></th> <th>Methanol</th> </tr> </thead> <tbody> <tr> <td>WT</td> <td>3-30-04 1800</td> <td>2</td> <td></td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td>X</td> <td>04/00</td> <td>04/21</td> <td>04-1477-3833</td> </tr> <tr> <td>PR</td> <td>1800</td> <td></td> <td>04-22</td> <td>04-34</td> </tr> <tr> <td>MA</td> <td>1800</td> <td></td> <td>04-33</td> </tr> <tr> <td>RY</td> <td>1800</td> <td></td> <td>04-35</td> </tr> <tr> <td>E</td> <td>1800</td> <td></td> <td>04-36</td> </tr> <tr> <td>F</td> <td>1800</td> <td></td> <td>04-37</td> </tr> <tr> <td>L</td> <td>1800</td> <td></td> <td>04-38</td> </tr> <tr> <td>U</td> <td>1800</td> <td></td> <td>04-39</td> </tr> <tr> <td>N</td> <td>1800</td> <td></td> <td>04-40</td> </tr> <tr> <td>W</td> <td>1800</td> <td></td> <td>04-41</td> </tr> <tr> <td>T</td> <td>1800</td> <td></td> <td>04-42</td> </tr> <tr> <td>R</td> <td>1800</td> <td></td> <td>04-43</td> </tr> <tr> <td>I</td> <td>1800</td> <td></td> <td>04-44</td> </tr> <tr> <td>B</td> <td>1800</td> <td></td> <td>04-45</td> </tr> <tr> <td>A</td> <td>1800</td> <td></td> <td>04-46</td> </tr> <tr> <td>K</td> <td>1800</td> <td></td> <td>04-47</td> </tr> </tbody> </table>	DATE COLLECTED mm / dd / yy	TIME COLLECTED hh:mm a/p	Preservatives							Remarks / Lab ID	# Containers	Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	NaOH	Na <sub>2</sub> SO <sub>3</sub>	Methanol	WT	3-30-04 1800	2		X					X	04/00	04/21	04-1477-3833	PR	1800											04-22	04-34	MA	1800												04-33	RY	1800												04-35	E	1800												04-36	F	1800												04-37	L	1800												04-38	U	1800												04-39	N	1800												04-40	W	1800												04-41	T	1800												04-42	R	1800												04-43	I	1800												04-44	B	1800												04-45	A	1800												04-46	K	1800												04-47
	DATE COLLECTED mm / dd / yy	TIME COLLECTED hh:mm a/p	Preservatives							Remarks / Lab ID																																																																																																																																																																																																																																													
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<input type="checkbox"/> NC	<input type="checkbox"/> SC	<input type="checkbox"/> GA	<input type="checkbox"/> NPDES	<input type="checkbox"/> GROUND WATER	<input type="checkbox"/> DRINKING WATER	John Ross / URS Corp		3-31-04 / 700	Fell. Ex	3-31-04 / 700																																																																																																																																																																																																																																													
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Additional Comments: <i>analysis</i>																																																																																																																																																																																																																																																							

**SAMPLER NAME AND SIGNATURE**  
PRINT Name of SAMPLER: John Ross  
SIGNATURE of SAMPLER: John Ross  
DATE Signed: (MM / DD / YY) 3-30-04

**SEE REVERSE SIDE FOR INSTRUCTIONS**

May 18, 2004

Mr. Keith Dodrill  
URS Corporation  
Construction Services Division  
Twin Towers, Suite 250  
4955 Steubenville Pike  
Pittsburgh, PA 15205

Dear Mr. Dodrill:

Enclosed are analytical results for samples submitted to Pace Analytical by URS Corporation. The samples were received on May 4, 2004. Please reference Pace project number 04-2011 when inquiring about this report.

Client Site: Essex-Hope  
Client Ref.: 81157118.04

Pace Sample Identification	Client Sample Identification
0405-0484	Pre-Carb
0405-0485	Primary Effluent
0405-0486	Post-Carb
0405-0487	Trip Blank

**General Comments:** Cooler temperature 7 ° C upon receipt. Ice was present.

Please call me if you have any questions regarding the information contained within this report.

Sincerely,



Raelyn E. Sylvester  
Project Manager

REC: jld

Enclosures

## **REPORT OF LABORATORY ANALYSIS**

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Mr. Keith Dodrill  
 URS Corporation  
 Construction Services Division  
 Twin Towers, Suite 250  
 4955 Steubenville Pike  
 Pittsburgh, PA 15205

Lab Project ID: 04-2011  
 Lab Sample ID: 0405-0484  
 Client Sample ID: Pre-Carb  
 Sample Matrix: Aqueous  
 Date Sampled: 04/30/2004  
 Date Received: 05/04/2004

Client Site: Essex-Hope  
 Client Ref.: 81157118.04

### Volatiles

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
<b>Volatile Organic Compounds, MS</b>								
Acetone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	05/10/2004	0030120-1	<10
Benzene	8260B <sup>(1)</sup>	5.6	1.0	ug/l	MAK	05/10/2004	0030120-1	<1.0
Bromodichloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Bromoform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Bromomethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
2-Butanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	05/10/2004	0030120-1	<10
Carbon Disulfide	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Carbon Tetrachloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Chlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Chloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Chloroform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Chloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Cumene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Dibromochloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
1,2-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
1,3-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
1,4-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
1,1-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
1,2-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
1,1-Dichloroethene	8260B <sup>(1)</sup>	12	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
cis-1,2-Dichloroethene	8260B <sup>(1)</sup>	3000	50	ug/l	MAK	05/10/2004	0030120-1	<5.0
trans-1,2-Dichloroethene	8260B <sup>(1)</sup>	16	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
1,2-Dichloropropane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
cis-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
trans-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Ethylbenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
2-Hexanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	05/10/2004	0030120-1	<10
4-Methyl-2-pentanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	05/10/2004	0030120-1	<10
Methylene chloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0

(Continued)

### REPORT OF LABORATORY ANALYSIS

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Lab Sample ID: 0405-0484  
 Client Sample ID: Pre-Carb

**Volatiles (Cont.)**

Styrene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
1,1,2,2-Tetrachloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Tetrachloroethylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Toluene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
1,1,1-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
1,1,2-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Trichloroethylene	8260B <sup>(1)</sup>	620	50	ug/l	MAK	05/10/2004	0030120-1	<5.0
Trichlorofluoromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Vinyl chloride	8260B <sup>(1)</sup>	530	100	ug/l	MAK	05/10/2004	0030120-1	<2.0
m,p-Xylene	8260B <sup>(1)</sup>	6.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
o-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0

<sup>(1)</sup> U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis.

## REPORT OF LABORATORY ANALYSIS

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Mr. Keith Dodrill  
 URS Corporation  
 Construction Services Division  
 Twin Towers, Suite 250  
 4955 Steubenville Pike  
 Pittsburgh, PA 15205

Client Site: Essex-Hope  
 Client Ref.: 81157118.04

**Pace Analytical Services, Inc.**  
 5203 Triangle Lane  
 Export, PA 15632  
 Phone: 724.733.1161  
 Fax: 724.327.7793

Lab Project ID: 04-2011  
 Lab Sample ID: 0405-0485  
 Client Sample ID: Primary Effluent  
 Sample Matrix: Aqueous  
 Date Sampled: 04/30/2004  
 Date Received: 05/04/2004

### Volatiles

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
<b>Volatile Organic Compounds, MS</b>								
Acetone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	05/10/2004	0030120-1	<10
Benzene	8260B <sup>(1)</sup>	<1.0	1.0	ug/l	MAK	05/10/2004	0030120-1	<1.0
Bromodichloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Bromoform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Bromomethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
2-Butanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	05/10/2004	0030120-1	<10
Carbon Disulfide	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Carbon Tetrachloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Chlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Chloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Chloroform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Chloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Cumene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Dibromochloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
1,2-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
1,3-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
1,4-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
1,1-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
1,2-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
1,1-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
cis-1,2-Dichloroethene	8260B <sup>(1)</sup>	1200	50	ug/l	MAK	05/10/2004	0030120-1	<5.0
trans-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
1,2-Dichloropropane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
cis-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
trans-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Ethylbenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
2-Hexanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	05/10/2004	0030120-1	<10
4-Methyl-2-pentanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	05/10/2004	0030120-1	<10
Methylene chloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0

(Continued)

## REPORT OF LABORATORY ANALYSIS

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Lab Sample ID: 0405-0485  
 Client Sample ID: Primary Effluent

**Volatiles (Cont.)**

Styrene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
1,1,2,2-Tetrachloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Tetrachloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Toluene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
1,1,1-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
1,1,2-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Trichloroethene	8260B <sup>(1)</sup>	9.9	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Trichlorofluoromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Vinyl chloride	8260B <sup>(1)</sup>	860	100	ug/l	MAK	05/10/2004	0030120-1	<2.0
m,p-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
o-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0

<sup>(1)</sup> U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis.

## REPORT OF LABORATORY ANALYSIS

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Mr. Keith Dodrill  
 URS Corporation  
 Construction Services Division  
 Twin Towers, Suite 250  
 4955 Steubenville Pike  
 Pittsburgh, PA 15205

Client Site: Essex-Hope  
 Client Ref.: 81157118.04

**Pace Analytical Services, Inc.**

5203 Triangle Lane

Export, PA 15632

Phone: 724.733.1161

Fax: 724.327.7793

**Lab Project ID:** 04-2011  
**Lab Sample ID:** 0405-0486  
**Client Sample ID:** Post-Carb  
**Sample Matrix:** Aqueous  
**Date Sampled:** 04/30/2004  
**Date Received:** 05/04/2004

### Volatiles

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
<b>Volatile Organic Compounds, MS</b>								
Acetone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	05/10/2004	0030120-1	<10
Benzene	8260B <sup>(1)</sup>	<1.0	1.0	ug/l	MAK	05/10/2004	0030120-1	<1.0
Bromodichloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Bromoform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Bromomethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
2-Butanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	05/10/2004	0030120-1	<10
Carbon Disulfide	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Carbon Tetrachloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Chlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Chloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Chloroform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Chloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Cumene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Dibromochloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
1,2-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
1,3-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
1,4-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
1,1-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
1,2-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
1,1-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
cis-1,2-Dichloroethene	8260B <sup>(1)</sup>	30	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
trans-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
1,2-Dichloropropane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
cis-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
trans-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Ethylbenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
2-Hexanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	05/10/2004	0030120-1	<10
4-Methyl-2-pentanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	05/10/2004	0030120-1	<10
Methylene chloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0

(Continued)

## REPORT OF LABORATORY ANALYSIS

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Lab Sample ID: 0405-0486  
 Client Sample ID: Post-Carb

**Volatiles (Cont.)**

Styrene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
1,1,2,2-Tetrachloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Tetrachloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Toluene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
1,1,1-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
1,1,2-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Trichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Trichlorofluoromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Vinyl chloride	8260B <sup>(1)</sup>	430	20	ug/l	MAK	05/10/2004	0030120-1	<2.0
m,p-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
o-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0

<sup>(1)</sup> U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis. Sample 0405-0487 was composited from 4 samples prior to analysis.

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Mr. Keith Dodrill  
 URS Corporation  
 Construction Services Division  
 Twin Towers, Suite 250  
 4955 Steubenville Pike  
 Pittsburgh, PA 15205

Lab Project ID: 04-2011  
 Lab Sample ID: 0405-0487  
 Client Sample ID: Trip Blank  
 Sample Matrix: Aqueous  
 Date Sampled: 04/30/2004  
 Date Received: 05/04/2004

Client Site: Essex-Hope  
 Client Ref.: 81157118.04

### Volatiles

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
<b>Volatile Organic Compounds, MS</b>								
Acetone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	05/10/2004	0030120-1	<10
Benzene	8260B <sup>(1)</sup>	<1.0	1.0	ug/l	MAK	05/10/2004	0030120-1	<1.0
Bromodichloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Bromoform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Bromomethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
2-Butanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	05/10/2004	0030120-1	<10
Carbon Disulfide	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Carbon Tetrachloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Chlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Chloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Chloroform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Chloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Cumene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Dibromochloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
1,2-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
1,3-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
1,4-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
1,1-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
1,2-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
1,1-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
cis-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
trans-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
1,2-Dichloropropane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
cis-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
trans-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Ethylbenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
2-Hexanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	05/10/2004	0030120-1	<10
4-Methyl-2-pentanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	05/10/2004	0030120-1	<10
Methylene chloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0

(Continued)

## REPORT OF LABORATORY ANALYSIS

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Lab Sample ID: 0405-0487  
 Client Sample ID: Trip Blank

**Volatiles (Cont.)**

Styrene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
1,1,2,2-Tetrachloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Tetrachloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Toluene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
1,1,1-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
1,1,2-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Trichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Trichlorofluoromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
Vinyl chloride	8260B <sup>(1)</sup>	<2.0	2.0	ug/l	MAK	05/10/2004	0030120-1	<2.0
m,p-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0
o-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	05/10/2004	0030120-1	<5.0

<sup>(1)</sup> U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis.

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800586

## Section C

To Be Completed by Pace Analytical and Client

Quote Reference:

Project Manager:

Project #: 04-2011

Profile #: 04-2011

Requested Analysis:

Remarks / Lab ID

## Required Client Information: Section A

## Required Client Information: Section B

Page: of

Client Information (Check quote/contract):

Requested Due Date: \*TAT:

- Turn around times less than 14 days subject to laboratory and contractual obligations and may result in a Rush Turnaround Surcharge.

Turn Around Time (TAT) in calendar days.

Company: URS, Corp

Address: 4955 Ste. Bonnville Pike

Twin Tower Suite 250

Pittsburgh, PA 15205

Phone: 412-788-2217 Fax:

Copy To: Keith Dodrill

Invoice To:

P.O.:

Project Name: Essex-Hope

Project Number: 81157118.04

## Section D Required Client Information:

## SAMPLE ID

One character per box.  
(A-Z, 0-9 / -)  
Sample IDs MUST BE UNIQUE

Valid Matrix Codes									
MATRIX	CODE	Preservatives							
WATER	WT	Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	NaOH	Na <sub>2</sub> SO <sub>3</sub>	Methanol	Other
SOIL	SL								
OIL	OL								
WIPE	WP								
AIR	AR								
TISSUE	TS								
OTHER	OT								

ITEM #	DATE COLLECTED	TIME COLLECTED	# Containers	Preservatives										Remarks / Lab ID
				Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	NaOH	Na <sub>2</sub> SO <sub>3</sub>	Methanol	Other			
1	WT 4-30-04	1800	2		X									04-04-84
2	1800													04-04-84
3	1800													
4	1830													64-04-84
5	1900													
6	1930													
7	3													04-04-84
8														
9														
10														
11														
12														

## SITE LOCATION

## REGULATORY AGENCY

NC  SC  GA  
 Other \_\_\_\_\_

NPDES  GROUND WATER  DRINKING WATER  
 UST  RCRA  Other \_\_\_\_\_

## RELINQUISHED BY / AFFILIATION

## DATE

## TIME

## ACCEPTED BY / AFFILIATION

## DATE

## TIME

John S. Ross URS	5-3-04	1700	Fed. Express	5-3-04	1700
FED EX	5-4	9:30	James Hart	5-4	9:30

## SAMPLE CONDITION

## SAMPLE NOTES

Temp in °C 7

Received on Ice Y/N

Sealed Cooler Y/N

Samples Intact Y/N

Additional Comments:

Combine 4 Post-Carb Samples  
into 1 for Analysis

## SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

John S. Ross

SIGNATURE OF SAMPLER:

John S. Ross

DATE Signed: (MM / DD / YY)

5-3-04 1630

June 15, 2004

Mr. Keith Dodrill  
 URS Corporation  
 Construction Services Division  
 Twin Towers, Suite 250  
 4955 Steubenville Pike  
 Pittsburgh, PA 15205

Dear Mr. Dodrill:

Enclosed are analytical results for samples submitted to Pace Analytical by URS Corporation. The samples were received on June 1, 2004. The results reported in this project meet the requirements as specified in Chapter 5 of the NELAC Standards. Any deviations or discrepancies from the NELAC standards are documented in the case narrative(s) of this report. Please reference Pace project number 04-2515 when inquiring about this report.

Client Site: Essex-Hope  
 Client Ref.: 41567320

Pace Sample Identification	Client Sample Identification
0406-0438	Pre-Carb
0406-0439	Primary Effluent
0406-0440	Post-Carb
0406-0441	RW-1S
0406-0442	RW-1D

Pace Sample Identification	Client Sample Identification
0406-0443	RW-2S
0406-0444	RW-2D
0406-0445	RW-3S
0406-0446	Trip Blank

**General Comments:** Cooler temperature 6 ° C upon receipt. Ice was present.

Please call me if you have any questions regarding the information contained within this report.

Sincerely,



Raelyn E. Sylvester  
 Project Manager

REC: jld

Enclosures

Page 1 of 20

## REPORT OF LABORATORY ANALYSIS

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Mr. Keith Dodrill  
 URS Corporation  
 Construction Services Division  
 Twin Towers, Suite 250  
 4955 Steubenville Pike  
 Pittsburgh, PA 15205

Client Site: Essex-Hope  
 Client Ref.: 41567320

Lab Project ID: 04-2515  
 Lab Sample ID: 0406-0438  
 Client Sample ID: Pre-Carb  
 Sample Matrix: Aqueous  
 Date Sampled: 05/27/2004  
 Date Received: 06/01/2004

### Volatiles

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
<b>Volatile Organic Compounds, MS</b>								
Acetone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	06/09/2004	0030828-1	<10
Benzene	8260B <sup>(1)</sup>	4.7	1.0	ug/l	MAK	06/09/2004	0030828-1	<1.0
Bromodichloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Bromoform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Bromomethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
2-Butanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	06/09/2004	0030828-1	<10
Carbon Disulfide	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Carbon Tetrachloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Chlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Chloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Chloroform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Chloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Cumene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Dibromochloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,2-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,3-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,4-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,1-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,2-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,1-Dichloroethene	8260B <sup>(1)</sup>	14	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
cis-1,2-Dichloroethene	8260B <sup>(1)</sup>	2600	50	ug/l	MAK	06/09/2004	0030828-1	<5.0
trans-1,2-Dichloroethene	8260B <sup>(1)</sup>	13	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,2-Dichloropropane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
cis-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
trans-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Ethylbenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
2-Hexanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	06/09/2004	0030828-1	<10
4-Methyl-2-pentanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	06/09/2004	0030828-1	<10
Methylene chloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0

(Continued)

### REPORT OF LABORATORY ANALYSIS

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Lab Sample ID: 0406-0438  
 Client Sample ID: Pre-Carb

**Volatiles (Cont.)**

Styrene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,1,2,2-Tetrachloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Tetrachloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Toluene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,1,1-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,1,2-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Trichloroethene	8260B <sup>(1)</sup>	680	50	ug/l	MAK	06/09/2004	0030828-1	<5.0
Trichlorofluoromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Vinyl chloride	8260B <sup>(1)</sup>	530	100	ug/l	MAK	06/09/2004	0030828-1	<2.0
m,p-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
o-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0

<sup>(1)</sup> U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed.. Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis.

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# Pace Analytical®

[www.pacelabs.com](http://www.pacelabs.com)

Mr. Keith Dodrill  
URS Corporation  
Construction Services Division  
Twin Towers, Suite 250  
4955 Steubenville Pike  
Pittsburgh, PA 15205

Client Site: Essex-Hope  
Client Ref.: 41567320

Pace Analytical Services, Inc.

5203 Triangle Lane

Export, PA 15632

Phone: 724.733.1161

Fax: 724.327.7793

Lab Project ID: 04-2515  
Lab Sample ID: 0406-0439  
Client Sample ID: Primary Effluent  
Sample Matrix: Aqueous

Date Sampled: 05/27/2004  
Date Received: 06/01/2004

## Volatiles

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
<b>Volatile Organic Compounds, MS</b>								
Acetone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	06/09/2004	0030828-1	<10
Benzene	8260B <sup>(1)</sup>	<1.0	1.0	ug/l	MAK	06/09/2004	0030828-1	<1.0
Bromodichloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Bromoform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Bromomethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
2-Butanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	06/09/2004	0030828-1	<10
Carbon Disulfide	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Carbon Tetrachloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Chlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Chloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Chloroform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Chloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Cumene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Dibromochloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,2-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,3-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,4-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,1-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,2-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,1-Dichloroethene	8260B <sup>(1)</sup>	5.2	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
cis-1,2-Dichloroethene	8260B <sup>(1)</sup>	2100	10	ug/l	MAK	06/09/2004	0030828-1	<5.0
trans-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,2-Dichloropropane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
cis-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
trans-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Ethylbenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
2-Hexanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	06/09/2004	0030828-1	<10
4-Methyl-2-pentanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	06/09/2004	0030828-1	<10
Methylene chloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0

(Continued)

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Lab Sample ID: **0406-0439**  
 Client Sample ID: Primary Effluent

**Volatiles (Cont.)**

Styrene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,1,2,2-Tetrachloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Tetrachloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Toluene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,1,1-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,1,2-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Trichloroethene	8260B <sup>(1)</sup>	14	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Trichlorofluoromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Vinyl chloride	8260B <sup>(1)</sup>	870	20	ug/l	MAK	06/09/2004	0030828-1	<2.0
m,p-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
o-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0

<sup>(1)</sup> U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis.

## REPORT OF LABORATORY ANALYSIS

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Mr. Keith Dodrill  
 URS Corporation  
 Construction Services Division  
 Twin Towers, Suite 250  
 4955 Steubenville Pike  
 Pittsburgh, PA 15205

Lab Project ID: 04-2515  
 Lab Sample ID: 0406-0440  
 Client Sample ID: Post-Carb  
 Sample Matrix: Aqueous

Date Sampled: 05/27/2004  
 Date Received: 06/01/2004

Client Site: Essex-Hope  
 Client Ref.: 41567320

### Volatiles

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
<b>Volatile Organic Compounds, MS</b>								
Acetone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	06/09/2004	0030828-1	<10
Benzene	8260B <sup>(1)</sup>	<1.0	1.0	ug/l	MAK	06/09/2004	0030828-1	<1.0
Bromodichloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Bromoform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Bromomethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
2-Butanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	06/09/2004	0030828-1	<10
Carbon Disulfide	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Carbon Tetrachloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Chlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Chloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Chloroform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Chloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Cumene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Dibromochloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,2-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,3-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,4-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,1-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,2-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,1-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
cis-1,2-Dichloroethene	8260B <sup>(1)</sup>	27	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
trans-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,2-Dichloropropane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
cis-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
trans-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Ethylbenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
2-Hexanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	06/09/2004	0030828-1	<10
4-Methyl-2-pentanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	06/09/2004	0030828-1	<10
Methylene chloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0

(Continued)

### REPORT OF LABORATORY ANALYSIS

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Lab Sample ID: 0406-0440  
 Client Sample ID: Post-Carb

**Volatiles (Cont.)**

Styrene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,1,2,2-Tetrachloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Tetrachloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Toluene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,1,1-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,1,2-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Trichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Trichlorofluoromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Vinyl chloride	8260B <sup>(1)</sup>	1700	20	ug/l	MAK	06/09/2004	0030828-1	<2.0
m,p-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
o-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0

<sup>(1)</sup> U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis. As requested, sample 0406-0440 was composited from the 4 samples prior to analysis.

## REPORT OF LABORATORY ANALYSIS

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Mr. Keith Dodrill  
 URS Corporation  
 Construction Services Division  
 Twin Towers, Suite 250  
 4955 Steubenville Pike  
 Pittsburgh, PA 15205

Client Site: Essex-Hope  
 Client Ref.: 41567320

**Lab Project ID:** 04-2515  
**Lab Sample ID:** 0406-0446  
**Client Sample ID:** Trip Blank  
**Sample Matrix:** Aqueous  
**Date Sampled:** 05/27/2004  
**Date Received:** 06/01/2004

### Volatiles

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
<b>Volatile Organic Compounds, MS</b>								
Acetone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	06/09/2004	0030828-1	<10
Benzene	8260B <sup>(1)</sup>	<1.0	1.0	ug/l	MAK	06/09/2004	0030828-1	<1.0
Bromodichloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Bromoform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Bromomethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
2-Butanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	06/09/2004	0030828-1	<10
Carbon Disulfide	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Carbon Tetrachloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Chlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Chloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Chloroform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Chloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Cumene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Dibromochloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,2-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,3-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,4-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,1-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,2-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,1-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
cis-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
trans-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,2-Dichloropropane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
cis-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
trans-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Ethylbenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
2-Hexanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	06/09/2004	0030828-1	<10
4-Methyl-2-pentanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	06/09/2004	0030828-1	<10
Methylene chloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0

(Continued)

### REPORT OF LABORATORY ANALYSIS

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Lab Sample ID: 0406-0446  
 Client Sample ID: Trip Blank

**Volatiles (Cont.)**

Styrene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,1,2,2-Tetrachloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Tetrachloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Toluene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,1,1-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,1,2-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Trichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Trichlorofluoromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Vinyl chloride	8260B <sup>(1)</sup>	<2.0	2.0	ug/l	MAK	06/09/2004	0030828-1	<2.0
m,p-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
o-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0

<sup>(1)</sup> U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis.

## REPORT OF LABORATORY ANALYSIS

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729836

Required Client Information:		Section A		Section B		Page: of		Section C									
Report To: <i>Keith Dodrill</i>		Copy To:		Client Information (Check quote/contract)		To Be Completed by Pace Analytical and Client											
Company URS		Address 4955 Steinbenville Pike Twin Towers Suite 250 Pittsburgh, PA 15205		Invoice To: P.O. Project Name: ESSEX-Hope		Requested Due Date: TAT:		Quote Reference:									
Phone		Fax		Project Number: 41567320		Turn around times less than 14 days subject to laboratory and contractual obligations and may result in a Rush Turnaround Surcharge. Turn Around Time (TAT) in calendar days.		Project Manager: 04-25-15									
ITEM #	Section D Required Client Information:		Valid Matrix Codes		Preservatives												
	SAMPLE ID		MATRIX WATER SOIL OIL WIPE AIR TISSUE OTHER	CODE WT SL OL WP AR TS OT	MATRIX CODE	DATE COLLECTED mm / dd / yy	TIME COLLECTED hh:mm a/p	# Containers	Unpreserved	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	NaOH	Na <sub>2</sub> SO <sub>4</sub>	Methanol	Other	Remarks / Lab ID
	1	P R E - C A R B			WT	5-27-04	1600	7									16 0438
	2	P R I M A R Y - E F F L U E N T					1600										0438
	3	P O S T - C A R B					1600										3
	4	P O S T - C A R B					1630										0440
	5	P O S T - C A R B					1700										
	6	P O S T - C A R B					1730										
	7	R W - 1 S					1800										0441
	8	R W - 1 D					1815										0442
	9	R W - 2 S					1830										0443
	10	R W - 2 D					1845										0444
11	R W - 3 S					1900										0445	
12	T R I P - B L A N K							3								0446	
SHIPMENT METHOD		AIRBILL NO.	SHIPPING DATE	NO. OF COOLERS	ITEM NUMBER	RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME				
Fed Express		841673043728	5-28-04	1		John S. Ross URS		5-28-04	1700	Fed Express		5-28-04	1700				
SAMPLE CONDITION		SAMPLE NOTES															
Temp in °C	10																
Received on Ice	Y/N																
Sealed Cooler	Y/N																
Samples Intact	Y/N																
Additional Comments: Combine 4 Post-Carb samples into 1 for Analysis														SAMPLER NAME AND SIGNATURE			
														PRINT NAME of SAMPLER: <i>John S. Ross</i>			
														SIGNATURE of SAMPLER: <i>John S. Ross</i>			
														DATE Signed: (MM / DD / YY) 5-27-04			

July 13, 2004

Mr. Keith Dodrill  
URS Corporation  
Construction Services Division  
Twin Towers, Suite 250  
4955 Steubenville Pike  
Pittsburgh, PA 15205

Dear Mr. Dodrill:

Enclosed are analytical results for samples submitted to Pace Analytical by URS Corporation. The samples were received on June 28, 2004. The results reported in this project meet the requirements as specified in Chapter 5 of the NELAC Standards. Any deviations or discrepancies from the NELAC standards are documented in the case narrative(s) of this report. Please reference Pace project number 04-3031 when inquiring about this report.

Client Site: Essex-Hope  
Client Ref.: 41567320

Pace Sample Identification	Client Sample Identification
0406-2714	Pre-Carb
0406-2715	Primary Effluent
0406-2716	Post-Carb
0406-2717	Trip Blank

**General Comments:** Cooler temperature 8 ° C upon receipt. Ice was present.

Please call me if you have any questions regarding the information contained within this report.

Sincerely,

*Raelyn E. Sylvester*

Raelyn E. Sylvester  
Project Manager

REC: jld

Enclosures

Page 1 of 10

## REPORT OF LABORATORY ANALYSIS

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Mr. Keith Dodrill  
 URS Corporation  
 Construction Services Division  
 Twin Towers, Suite 250  
 4955 Steubenville Pike  
 Pittsburgh, PA 15205

Client Site: Essex-Hope  
 Client Ref.: 41567320

**Pace Analytical Services, Inc.**

5203 Triangle Lane

Export, PA 15632

Phone: 724.733.1161

Fax: 724.327.7793

Lab Project ID: 04-3031  
 Lab Sample ID: 0406-2714  
 Client Sample ID: Pre-Carb  
 Sample Matrix: Aqueous  
 Date Sampled: 06/25/2004  
 Date Received: 06/28/2004

### Volatiles

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
<b>Volatile Organic Compounds, MS</b>								
Acetone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	07/08/2004	0031624-1	<10
Benzene	8260B <sup>(1)</sup>	5.7	1.0	ug/l	MAK	07/08/2004	0031624-1	<1.0
Bromodichloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Bromoform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Bromomethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
2-Butanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	07/08/2004	0031624-1	<10
Carbon Disulfide	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Carbon Tetrachloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Chlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Chloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Chloroform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Chloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Cumene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Dibromochloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
1,2-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
1,3-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
1,4-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
1,1-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
1,2-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
1,1-Dichloroethene	8260B <sup>(1)</sup>	14	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
cis-1,2-Dichloroethene	8260B <sup>(1)</sup>	3200	50	ug/l	MAK	07/08/2004	0031624-1	<5.0
trans-1,2-Dichloroethene	8260B <sup>(1)</sup>	17	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
1,2-Dichloropropane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
cis-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
trans-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Ethylbenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
2-Hexanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	07/08/2004	0031624-1	<10
4-Methyl-2-pentanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	07/08/2004	0031624-1	<10
Methylene chloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0

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Lab Sample ID: 0406-2714  
 Client Sample ID: Pre-Carb

**Volatiles (Cont.)**

Styrene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
1,1,2,2-Tetrachloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Tetrachloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Toluene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
1,1,1-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
1,1,2-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Trichloroethene	8260B <sup>(1)</sup>	690	50	ug/l	MAK	07/08/2004	0031624-1	<5.0
Trichlorofluoromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Vinyl chloride	8260B <sup>(1)</sup>	590	100	ug/l	MAK	07/08/2004	0031624-1	<2.0
m,p-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
o-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0

<sup>(1)</sup> U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis.

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# Pace Analytical®

[www.pacelabs.com](http://www.pacelabs.com)

Mr. Keith Dodrill  
 URS Corporation  
 Construction Services Division  
 Twin Towers, Suite 250  
 4955 Steubenville Pike  
 Pittsburgh, PA 15205

Client Site: Essex-Hope  
 Client Ref.: 41567320

Pace Analytical Services, Inc.

5203 Triangle Lane

Export, PA 15632

Phone: 724.733.1161

Fax: 724.327.7793

Lab Project ID: 04-3031  
 Lab Sample ID: 0406-2715  
 Client Sample ID: Primary Effluent  
 Sample Matrix: Aqueous

Date Sampled: 06/25/2004  
 Date Received: 06/28/2004

## Volatiles

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
<b>Volatile Organic Compounds, MS</b>								
Acetone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	07/08/2004	0031624-1	<10
Benzene	8260B <sup>(1)</sup>	<1.0	1.0	ug/l	MAK	07/08/2004	0031624-1	<1.0
Bromodichloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Bromoform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Bromomethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
2-Butanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	07/08/2004	0031624-1	<10
Carbon Disulfide	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Carbon Tetrachloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Chlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Chloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Chloroform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Chloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Cumene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Dibromochloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
1,2-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
1,3-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
1,4-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
1,1-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
1,2-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
1,1-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
cis-1,2-Dichloroethene	8260B <sup>(1)</sup>	37	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
trans-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
1,2-Dichloropropane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
cis-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
trans-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Ethylbenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
2-Hexanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	07/08/2004	0031624-1	<10
4-Methyl-2-pentanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	07/08/2004	0031624-1	<10
Methylene chloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0

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Lab Sample ID: 0406-2715  
 Client Sample ID: Primary Effluent

**Volatiles (Cont.)**

Styrene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
1,1,2,2-Tetrachloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Tetrachloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Toluene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
1,1,1-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
1,1,2-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Trichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Trichlorofluoromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Vinyl chloride	8260B <sup>(1)</sup>	1300	20	ug/l	MAK	07/08/2004	0031624-1	<2.0
m,p-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
o-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0

<sup>(1)</sup> U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis.

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Mr. Keith Dodrill  
 URS Corporation  
 Construction Services Division  
 Twin Towers, Suite 250  
 4955 Steubenville Pike  
 Pittsburgh, PA 15205

Client Site: Essex-Hope  
 Client Ref.: 41567320

**Pace Analytical Services, Inc.**  
 5203 Triangle Lane  
 Export, PA 15632  
 Phone: 724.733.1161  
 Fax: 724.327.7793

Lab Project ID: 04-3031  
 Lab Sample ID: 0406-2716  
 Client Sample ID: Post-Carb  
 Sample Matrix: Aqueous  
 Date Sampled: 06/25/2004  
 Date Received: 06/28/2004

### Volatiles

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
<b>Volatile Organic Compounds, MS</b>								
Acetone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	07/08/2004	0031624-1	<10
Benzene	8260B <sup>(1)</sup>	<1.0	1.0	ug/l	MAK	07/08/2004	0031624-1	<1.0
Bromodichloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Bromoform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Bromomethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
2-Butanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	07/08/2004	0031624-1	<10
Carbon Disulfide	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Carbon Tetrachloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Chlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Chloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Chloroform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Chloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Cumene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Dibromochloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
1,2-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
1,3-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
1,4-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
1,1-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
1,2-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
1,1-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
cis-1,2-Dichloroethene	8260B <sup>(1)</sup>	280	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
trans-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
1,2-Dichloropropane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
cis-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
trans-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Ethylbenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
2-Hexanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	07/08/2004	0031624-1	<10
4-Methyl-2-pentanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	07/08/2004	0031624-1	<10
Methylene chloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0

(Continued)

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Lab Sample ID: 0406-2716  
 Client Sample ID: Post-Carb

**Volatiles (Cont.)**

Styrene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
1,1,2,2-Tetrachloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Tetrachloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Toluene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
1,1,1-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
1,1,2-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Trichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Trichlorofluoromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Vinyl chloride	8260B <sup>(1)</sup>	<2.0	2.0	ug/l	MAK	07/08/2004	0031624-1	<2.0
m,p-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
o-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0

<sup>(1)</sup> U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis. Sample 0406-2716 was composited from 4 samples prior to analysis.

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Mr. Keith Dodrill  
 URS Corporation  
 Construction Services Division  
 Twin Towers, Suite 250  
 4955 Steubenville Pike  
 Pittsburgh, PA 15205

**Lab Project ID:** 04-3031  
**Lab Sample ID:** 0406-2717  
**Client Sample ID:** Trip Blank  
**Sample Matrix:** Aqueous  
**Date Sampled:** 06/25/2004  
**Date Received:** 06/28/2004

Client Site: Essex-Hope  
 Client Ref.: 41567320

### Volatiles

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
<b>Volatile Organic Compounds, MS</b>								
Acetone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	07/08/2004	0031624-1	<10
Benzene	8260B <sup>(1)</sup>	<1.0	1.0	ug/l	MAK	07/08/2004	0031624-1	<1.0
Bromodichloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Bromoform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Bromomethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
2-Butanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	07/08/2004	0031624-1	<10
Carbon Disulfide	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Carbon Tetrachloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Chlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Chloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Chloroform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Chloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Cumene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Dibromochloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
1,2-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
1,3-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
1,4-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
1,1-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
1,2-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
1,1-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
cis-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
trans-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
1,2-Dichloropropane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
cis-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
trans-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Ethylbenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
2-Hexanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	07/08/2004	0031624-1	<10
4-Methyl-2-pentanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	07/08/2004	0031624-1	<10
Methylene chloride	8260B <sup>(1)</sup>	93	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0

(Continued)

## REPORT OF LABORATORY ANALYSIS

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Lab Sample ID: 0406-2717  
 Client Sample ID: Trip Blank

**Volatiles (Cont.)**

Styrene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
1,1,2,2-Tetrachloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Tetrachloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Toluene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
1,1,1-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
1,1,2-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Trichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Trichlorofluoromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
Vinyl chloride	8260B <sup>(1)</sup>	<2.0	2.0	ug/l	MAK	07/08/2004	0031624-1	<2.0
m,p-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0
o-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	07/08/2004	0031624-1	<5.0

<sup>(1)</sup> U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis.

## REPORT OF LABORATORY ANALYSIS

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Required Client Information:		Section A		Section B		Page: of		Section C								
Report To: Keith Dotrill		Copy To:		Client Information (Check quote/contract):		To Be Completed by Pace Analytical and Client										
Company: URS. Corp		Address: 14955 Staubenville Pike Twin Towers Suite 250 Pittsburgh, PA 15205		Invoice To: P.O.: Project Name: Essex-Hope		Requested Due Date: *TAT:		Project Manager:								
Phone: 412-788-2717 Fax:		Project Number: 41567320		* Turn around times less than 14 days subject to laboratory and contractual obligations and may result in a Rush Turnaround Surcharge. Turn Around Time (TAT) in calendar days.		Project #: 03-3031		Profile #:								
ITEM #	Section D Required Client Information:		Valid Matrix Codes MATRIX CODE WATER WT SOIL SL OIL OL WIPE WP AIR AR TISSUE TS OTHER OT		MATRIX CODE	DATE COLLECTED mm / dd / yy	TIME COLLECTED hh:mm a/p	Preservatives						Remarks / Lab ID		
	SAMPLE ID		# Containers	Unpreserved				H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	HCl	NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>8</sub>	Methanol		Other	
	1	P R E - C A R B	6/25/04	0630		2										06-2714
	2	P R I M A R Y - E E F L U E N T		0630												2715
	3	P O S T - C A R B		0630												2716
	4	P O S T - C A R B		0700												
	5	P O S T - C A R B		0730												
	6	P O S T - C A R B		0800												
	7	T R I P - B L A N K		3												2717
	8															
	9															
	10															
11																
12																
SITE LOCATION		REGULATORY AGENCY		RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME					
<input type="checkbox"/> NC	<input type="checkbox"/> SC	<input type="checkbox"/> GA	<input type="checkbox"/> NPDES	<input type="checkbox"/> GROUND WATER	<input type="checkbox"/> DRINKING WATER	John Ross		6-26-04	1100	Fed-Express		6-26-04	1700			
<input type="checkbox"/> Other		<input type="checkbox"/> UST		<input type="checkbox"/> RCRA	<input type="checkbox"/> Other	John Ross		6-26-04	1100	John Ross		6-26-04	1315			
SAMPLE CONDITION		SAMPLE NOTES		SAMPLER NAME AND SIGNATURE												
Temp in °C 8		Combine 4 Post-Carb Samples into 1 for Analysis		PRINT Name of SAMPLER: John Ross												
Received on Ice Y/N				SIGNATURE of SAMPLER: John Ross												
Sealed Cooler Y/N																
Samples Intact Y/N																
Additional Comments: Type																
DATE Signed: (MM / DD / YY) 6-25-04																

COPY

SEE POTH  
 ANALYSIS FOR  
 ORIGINAL

June 15, 2004

Mr. Keith Dodrill  
 URS Corporation  
 Construction Services Division  
 Twin Towers, Suite 250  
 4955 Steubenville Pike  
 Pittsburgh, PA 15205

Dear Mr. Dodrill:

Enclosed are analytical results for samples submitted to Pace Analytical by URS Corporation. The samples were received on June 1, 2004. The results reported in this project meet the requirements as specified in Chapter 5 of the NELAC Standards. Any deviations or discrepancies from the NELAC standards are documented in the case narrative(s) of this report. Please reference Pace project number 04-2515 when inquiring about this report.

Client Site: Essex-Hope  
 Client Ref.: 41567320

Pace Sample Identification	Client Sample Identification
0406-0438	Pre-Carb
0406-0439	Primary Effluent
0406-0440	Post-Carb
0406-0441	RW-1S
0406-0442	RW-1D

Pace Sample Identification	Client Sample Identification
0406-0443	RW-2S
0406-0444	RW-2D
0406-0445	RW-3S
0406-0446	Trip Blank

**General Comments:** Cooler temperature 6 ° C upon receipt. Ice was present.

Please call me if you have any questions regarding the information contained within this report.

Sincerely,



Raelyn E. Sylvester  
 Project Manager

REC: jld

Enclosures

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## REPORT OF LABORATORY ANALYSIS

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Mr. Keith Dodrill  
URS Corporation  
Construction Services Division  
Twin Towers, Suite 250  
4955 Steubenville Pike  
Pittsburgh, PA 15205

Client Site: Essex-Hope  
Client Ref.: 41567320

Pace Analytical Services, Inc.

5203 Triangle Lane

Export, PA 15632

Phone: 724.733.1161

Fax: 724.327.7793

Lab Project ID: 04-2515  
Lab Sample ID: 0406-0441  
Client Sample ID: RW-1S  
Sample Matrix: Aqueous  
Date Sampled: 05/27/2004  
Date Received: 06/01/2004

## Volatiles

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
<b>Volatile Organic Compounds, MS</b>								
Acetone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	06/09/2004	0030828-1	<10
Benzene	8260B <sup>(1)</sup>	<1.0	1.0	ug/l	MAK	06/09/2004	0030828-1	<1.0
Bromodichloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Bromoform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Bromomethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
2-Butanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	06/09/2004	0030828-1	<10
Carbon Disulfide	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Carbon Tetrachloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Chlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Chloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Chloroform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Chloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Cumene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Dibromochloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,2-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,3-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,4-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,1-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,2-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,1-Dichloroethene	8260B <sup>(1)</sup>	11	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
cis-1,2-Dichloroethene	8260B <sup>(1)</sup>	740	50	ug/l	MAK	06/09/2004	0030828-1	<5.0
trans-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,2-Dichloropropane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
cis-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
trans-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Ethylbenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
2-Hexanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	06/09/2004	0030828-1	<10
4-Methyl-2-pentanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	06/09/2004	0030828-1	<10
Methylene chloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0

(Continued)

## REPORT OF LABORATORY ANALYSIS

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Lab Sample ID: 0406-0441  
 Client Sample ID: RW-1S

**Volatiles (Cont.)**

Styrene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,1,2,2-Tetrachloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Tetrachloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Toluene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,1,1-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,1,2-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Trichloroethene	8260B <sup>(1)</sup>	4800	50	ug/l	MAK	06/09/2004	0030828-1	<5.0
Trichlorofluoromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Vinyl chloride	8260B <sup>(1)</sup>	38	2.0	ug/l	MAK	06/09/2004	0030828-1	<2.0
m,p-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
o-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0

<sup>(1)</sup> U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis.

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Mr. Keith Dodrill  
 URS Corporation  
 Construction Services Division  
 Twin Towers, Suite 250  
 4955 Steubenville Pike  
 Pittsburgh, PA 15205

Client Site: Essex-Hope  
 Client Ref.: 41567320

**Pace Analytical Services, Inc.**  
 5203 Triangle Lane  
 Export, PA 15632  
 Phone: 724.733.1161  
 Fax: 724.327.7793

Lab Project ID: 04-2515  
 Lab Sample ID: 0406-0442  
 Client Sample ID: RW-1D  
 Sample Matrix: Aqueous  
 Date Sampled: 05/27/2004  
 Date Received: 06/01/2004

### Volatiles

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
<b>Volatile Organic Compounds, MS</b>								
Acetone	8260B <sup>(1)</sup>	11	10	ug/l	MAK	06/09/2004	0030828-1	<10
Benzene	8260B <sup>(1)</sup>	1.5	1.0	ug/l	MAK	06/09/2004	0030828-1	<1.0
Bromodichloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Bromoform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Bromomethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
2-Butanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	06/09/2004	0030828-1	<10
Carbon Disulfide	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Carbon Tetrachloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Chlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Chloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Chloroform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Chloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Cumene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Dibromochloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,2-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,3-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,4-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,1-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,2-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,1-Dichloroethene	8260B <sup>(1)</sup>	8.3	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
cis-1,2-Dichloroethene	8260B <sup>(1)</sup>	370	50	ug/l	MAK	06/09/2004	0030828-1	<5.0
trans-1,2-Dichloroethene	8260B <sup>(1)</sup>	8.1	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,2-Dichloropropane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
cis-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
trans-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Ethylbenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
2-Hexanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	06/09/2004	0030828-1	<10
4-Methyl-2-pentanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	06/09/2004	0030828-1	<10
Methylene chloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0

(Continued)

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Lab Sample ID: 0406-0442  
 Client Sample ID: RW-1D

**Volatiles (Cont.)**

Styrene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,1,2,2-Tetrachloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Tetrachloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Toluene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,1,1-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,1,2-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Trichloroethene	8260B <sup>(1)</sup>	8.5	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Trichlorofluoromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Vinyl chloride	8260B <sup>(1)</sup>	14	2.0	ug/l	MAK	06/09/2004	0030828-1	<2.0
m,p-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
o-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0

<sup>(1)</sup> U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis.

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Mr. Keith Dodrill  
URS Corporation  
Construction Services Division  
Twin Towers, Suite 250  
4955 Steubenville Pike  
Pittsburgh, PA 15205

Client Site: Essex-Hope  
Client Ref.: 41567320

Pace Analytical Services, Inc.

5203 Triangle Lane

Export, PA 15632

Phone: 724.733.1161

Fax: 724.327.7793

Lab Project ID: 04-2515  
Lab Sample ID: 0406-0443  
Client Sample ID: RW-2S  
Sample Matrix: Aqueous

Date Sampled: 05/27/2004  
Date Received: 06/01/2004

## Volatiles

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
<b>Volatile Organic Compounds, MS</b>								
Acetone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	06/09/2004	0030828-1	<10
Benzene	8260B <sup>(1)</sup>	<1.0	1.0	ug/l	MAK	06/09/2004	0030828-1	<1.0
Bromodichloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Bromoform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Bromomethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
2-Butanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	06/09/2004	0030828-1	<10
Carbon Disulfide	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Carbon Tetrachloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Chlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Chloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Chloroform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Chloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Cumene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Dibromochloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,2-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,3-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,4-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,1-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,2-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,1-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
cis-1,2-Dichloroethene	8260B <sup>(1)</sup>	88	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
trans-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,2-Dichloropropane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
cis-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
trans-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Ethylbenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
2-Hexanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	06/09/2004	0030828-1	<10
4-Methyl-2-pentanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	06/09/2004	0030828-1	<10
Methylene chloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0

(Continued)

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Lab Sample ID: 0406-0443  
 Client Sample ID: RW-2S

**Volatiles (Cont.)**

Styrene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,1,2,2-Tetrachloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Tetrachloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Toluene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,1,1-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,1,2-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Trichloroethene	8260B <sup>(1)</sup>	450	10	ug/l	MAK	06/09/2004	0030828-1	<5.0
Trichlorofluoromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Vinyl chloride	8260B <sup>(1)</sup>	4.7	2.0	ug/l	MAK	06/09/2004	0030828-1	<2.0
m,p-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
o-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0

<sup>(1)</sup> U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis.

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[www.pacelabs.com](http://www.pacelabs.com)

Mr. Keith Dodrill  
 URS Corporation  
 Construction Services Division  
 Twin Towers, Suite 250  
 4955 Steubenville Pike  
 Pittsburgh, PA 15205

Client Site: Essex-Hope  
 Client Ref.: 41567320

Pace Analytical Services, Inc.

5203 Triangle Lane

Export, PA 15632

Phone: 724.733.1161

Fax: 724.327.7793

Lab Project ID: 04-2515  
 Lab Sample ID: 0406-0444  
 Client Sample ID: RW-2D  
 Sample Matrix: Aqueous  
 Date Sampled: 05/27/2004  
 Date Received: 06/01/2004

## Volatiles

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
<b>Volatile Organic Compounds, MS</b>								
Acetone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	06/09/2004	0030828-1	<10
Benzene	8260B <sup>(1)</sup>	11	1.0	ug/l	MAK	06/09/2004	0030828-1	<1.0
Bromodichloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Bromoform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Bromomethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
2-Butanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	06/09/2004	0030828-1	<10
Carbon Disulfide	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Carbon Tetrachloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Chlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Chloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Chloroform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Chloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Cumene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Dibromochloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,2-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,3-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,4-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,1-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,2-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,1-Dichloroethene	8260B <sup>(1)</sup>	34	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
cis-1,2-Dichloroethene	8260B <sup>(1)</sup>	6400	50	ug/l	MAK	06/09/2004	0030828-1	<5.0
trans-1,2-Dichloroethene	8260B <sup>(1)</sup>	32	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,2-Dichloropropane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
cis-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
trans-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Ethylbenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
2-Hexanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	06/09/2004	0030828-1	<10
4-Methyl-2-pentanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	06/09/2004	0030828-1	<10
Methylene chloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0

(Continued)

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Lab Sample ID: 0406-0444  
 Client Sample ID: RW-2D

**Volatiles (Cont.)**

Styrene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,1,2,2-Tetrachloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Tetrachloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Toluene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,1,1-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,1,2-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Trichloroethene	8260B <sup>(1)</sup>	760	50	ug/l	MAK	06/09/2004	0030828-1	<5.0
Trichlorofluoromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Vinyl chloride	8260B <sup>(1)</sup>	1600	100	ug/l	MAK	06/09/2004	0030828-1	<2.0
m,p-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
o-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0

<sup>(1)</sup> U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis. One surrogate was biased low in the neat analysis of this sample. Surrogate recoveries were acceptable in dilution, therefore matrix interference is suspected.

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Mr. Keith Dodrill  
 URS Corporation  
 Construction Services Division  
 Twin Towers, Suite 250  
 4955 Steubenville Pike  
 Pittsburgh, PA 15205

Client Site: Essex-Hope  
 Client Ref.: 41567320

Lab Project ID: 04-2515  
 Lab Sample ID: 0406-0445  
 Client Sample ID: RW-3S  
 Sample Matrix: Aqueous

Date Sampled: 05/27/2004  
 Date Received: 06/01/2004

### Volatiles

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
<b>Volatile Organic Compounds, MS</b>								
Acetone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	06/09/2004	0030828-1	<10
Benzene	8260B <sup>(1)</sup>	1.8	1.0	ug/l	MAK	06/09/2004	0030828-1	<1.0
Bromodichloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Bromoform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Bromomethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
2-Butanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	06/09/2004	0030828-1	<10
Carbon Disulfide	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Carbon Tetrachloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Chlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Chloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Chloroform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Chloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Cumene	8260B <sup>(1)</sup>	7.4	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Dibromochloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,2-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,3-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,4-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,1-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,2-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,1-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
cis-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
trans-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,2-Dichloropropane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
cis-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
trans-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Ethylbenzene	8260B <sup>(1)</sup>	43	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
2-Hexanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	06/09/2004	0030828-1	<10
4-Methyl-2-pentanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	06/09/2004	0030828-1	<10
Methylene chloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0

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Lab Sample ID: **0406-0445**  
 Client Sample ID: **RW-3S**

**Volatiles (Cont.)**

Styrene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,1,2,2-Tetrachloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Tetrachloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Toluene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,1,1-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,1,2-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Trichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Trichlorofluoromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Vinyl chloride	8260B <sup>(1)</sup>	4.8	2.0	ug/l	MAK	06/09/2004	0030828-1	<2.0
m,p-Xylene	8260B <sup>(1)</sup>	59	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
o-Xylene	8260B <sup>(1)</sup>	16	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0

<sup>(1)</sup> U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis.

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Mr. Keith Dodrill  
 URS Corporation  
 Construction Services Division  
 Twin Towers, Suite 250  
 4955 Steubenville Pike  
 Pittsburgh, PA 15205

Client Site: Essex-Hope  
 Client Ref.: 41567320

COP 4  
 SEE POTS  
 ANALYSIS FOR  
 ORIGINAL

**Pace Analytical Services, Inc.**  
 5203 Triangle Lane  
 Export, PA 15632  
 Phone: 724.733.1161  
 Fax: 724.327.7793

Lab Project ID: 04-2515  
 Lab Sample ID: 0406-0446  
 Client Sample ID: Trip Blank  
 Sample Matrix: Aqueous  
 Date Sampled: 05/27/2004  
 Date Received: 06/01/2004

### Volatiles

Test	Method	Result	Reporting Limit	Units	Analyst	Analysis Date	Method Blank ID	Blank Result
<b>Volatile Organic Compounds, MS</b>								
Acetone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	06/09/2004	0030828-1	<10
Benzene	8260B <sup>(1)</sup>	<1.0	1.0	ug/l	MAK	06/09/2004	0030828-1	<1.0
Bromodichloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Bromoform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Bromomethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
2-Butanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	06/09/2004	0030828-1	<10
Carbon Disulfide	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Carbon Tetrachloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Chlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Chloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Chloroform	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Chloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Cumene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Dibromochloromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,2-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,3-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,4-Dichlorobenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,1-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,2-Dichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,1-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
cis-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
trans-1,2-Dichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,2-Dichloropropane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
cis-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
trans-1,3-Dichloropropene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Ethylbenzene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
2-Hexanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	06/09/2004	0030828-1	<10
4-Methyl-2-pentanone	8260B <sup>(1)</sup>	<10	10	ug/l	MAK	06/09/2004	0030828-1	<10
Methylene chloride	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0

(Continued)

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 ORIGINAL

Pace Analytical Services, Inc.  
 5203 Triangle Lane  
 Export, PA 15632  
 Phone: 724.733.1161  
 Fax: 724.327.7793

Lab Sample ID: 0406-0446  
 Client Sample ID: Trip Blank

**Volatiles (Cont.)**

Styrene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,1,2,2-Tetrachloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Tetrachloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Toluene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,1,1-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
1,1,2-Trichloroethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Trichloroethene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Trichlorofluoromethane	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
Vinyl chloride	8260B <sup>(1)</sup>	<2.0	2.0	ug/l	MAK	06/09/2004	0030828-1	<2.0
m,p-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0
o-Xylene	8260B <sup>(1)</sup>	<5.0	5.0	ug/l	MAK	06/09/2004	0030828-1	<5.0

<sup>(1)</sup> U.S. Environmental Protection Agency, 1996, Test Methods for Evaluating Solid Waste, SW-846, 3rd ed., Office of Solid Waste and Emergency Response, Washington, DC.

**Sample Comments:** Results reported on an as received basis.

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Required Client Information:		Section A		Required Client Information:		Section B		Page: of		To Be Completed by Pace Analytical and Client		Section C	
Report To:		Keith Docrill		Client Information (Check quote/contract):						Quote Reference:			
Company: URS		Copy To:		Requested Due Date:		TAT:				Project Manager:			
Address: 4955 Steubenville Pike Three Towers Site 250 Pittsburgh, PA 15205		Invoice To: PO		Turn around times less than 14 days subject to laboratory and contractual obligations and may result in a Rush Turnaround Surcharge.		Turn Around Time (TAT) in calendar days.				Project #: 04-2515			
Phone: Project Name: ESSEX-Hope		Fax: Project Number: 41567320								Profile #:			
ITEM #	Section D Required Client Information:		SAMPLE ID		Valid Matrix Codes		Preservatives		Requested Analysis:		Remarks / Lab ID		
	One character per box. (A-Z, 0-9 / -)		Sample IDs MUST BE UNIQUE		MATRIX WATER SOIL OIL WIPE AIR TISSUE OTHER	CODE WT SL OL WP AR TS OT	MATRIX CODE	DATE COLLECTED mm / dd / yy	TIME COLLECTED hh:mm a/p	# Containers	Unpreserved H <sub>2</sub> SO <sub>4</sub> HNO <sub>3</sub> HCl NaOH Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> Methanol Other		
1	PRE-CARB						WT 5-27-04	1600	2	X			04-2515
2	PRIMARY-EFFLUENT							1600					04-2515
3	POST-CARB							1600					
4	POST-CARB							1630					04-2515
5	POST-CARB							1700					
6	POST-CARB							1730					
7	RW-1S							1800					04-2515
8	RW-1D							1815					04-2515
9	RW-2S							1830					04-2515
10	RW-2D							1845					04-2515
11	RW-3S							1900					04-2515
12	TRIP-BLANK								3				04-2515
SHIPMENT METHOD		AIRBILL NO.	SHIPPING DATE	NO. OF COOLERS	ITEM NUMBER	RELINQUISHED BY / AFFILIATION		DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME
Fed Express		841673043728	5-28-04	1		John S. Ross URS		5-28-04/1700		Fed Express		5-28-04/1700	
SAMPLE CONDITION		SAMPLE NOTES											
Temp in °C <input checked="" type="checkbox"/>													
Received on Ice <input checked="" type="checkbox"/>													
Sealed Cooler <input checked="" type="checkbox"/>													
Samples Intact <input checked="" type="checkbox"/>													
Additional Comments: Combine 4 Post-Carb samples into 1 for analysis													
SAMPLER NAME AND SIGNATURE													
PRINT Name of SAMPLER: John S. Ross													
SIGNATURE of SAMPLER: John S. Ross													
DATE Signed: (MM / DD / YY) 5-27-04													