AECOM Environment

Prepared for:
City of Kenosha
Kenosha, WI

Prepared by:
AECOM
Milwaukee, WI
60485212
September 2017

Semi-Annual Operation and Monitoring Report, July-December 2016

Former Kenosha Engine Plant, Kenosha, Wisconsin

WDNR FID 230004500, BRRTS# 02-30-000327

AECOM
1555 N RiverCenter Drive, Suite 214
Milwaukee, WI 53212

414.944.6080 tel
414.944.6081 fax

September 14, 2017

Mr. Dave Volkert
Wisconsin Department of Natural Resources
Remediation and Redevelopment Program
141 NW Barstow St., Room 180
Waukesha, WI 53188

Subject: Semi-Annual Operation and Monitoring Report, July-December 2016
Former Kenosha Engine Plant, Kenosha, Wisconsin
WDNR FID 230004500, BRRTS# 02-30-000327

Dear Mr. Volkert,

AECOM is transmitting the attached Semi-Annual Remediation Site Progress and Operation, Maintenance, Monitoring and Optimization Report (Form 4400-194) for the former Kenosha Engine Plant (KEP) for the time period July 2016 through December 2016 on behalf of the City of Kenosha.

AECOM continues operation, maintenance, and monitoring (OM&M) of three groundwater remediation systems at the KEP.

The three systems are:

- In CS7 Sump 6
- In CS4 Sumps 18 & 23
- In CS10 Sumps 7, 15, & 17R

Figure 1 depicts the sump locations. Treated groundwater is discharged to the Kenosha Water Utility sanitary system at three different locations near the boundary of the KEP. During this operational period remedial systems have been maintained for continued operation. A review of the current conditions of each of the systems and the measures taken during the reporting period to restore/improve operations are provided below.

System Description and Operational Status

AECOM maintained the operational status of each of the three operating systems located at the KEP during the period from July through December 2016.The system component(s) encountered the following operational breakdowns during the period and have been restored back into working order:

- Southern System – The system has been functioning normally except for the following intermittent interruptions;
    - Pump overload alarms were recorded from the groundwater extraction pump installed in sump 17R on July 8th, July 27th, and August 25th Operation to the pump was restored by resetting the breaker connected to pump 17R in the control panel. On August 3rd the sensitivity was adjusted on the coyote controller to increase flow and the intake screen cleaned to resolved repeated alarms generated from pump 17R.

- Central System –The system has been fully functional since this repair work was completed.
  - On August 3, 2016, during monthly routine maintenance, flow was not accumulating on the flow meter. The flow meter was disassembled, cleaned and reassembled to restore operation to the groundwater treatment system and accumulation of flow through the flow meter.
  - From October 4th through October 25th the Central Remediation System did not deliver air from the compressor due to a temporary site wide power loss. Operation to the compressor was restored on October 25th by restarting the compressor.
  - Low Pressure alarms were recorded from the groundwater treatment aerator trays on November 14th.
  - On November 23rd the soil remediation excavation contractor struck the discharge sewer line from the central remediation system. The system remained off until the excavation contractor repaired the discharge sewer line on November 30th.

- Sump 6 – The system has been functioning normally except for the following intermittent interruptions;
  - On August 23rd and December 14th new pumps replaced the failed pumps in sump 6. Biofouling reduction and more frequent system cleaning may reduce pump failures and is being evaluated for implementation in early 2017.

The conditions of the system components were reviewed on November 30, 2016 and are summarized here:

North Systems

Sump 6

- New pump was installed in August due to the pump motor reaching the end of usable service life.
- The flow meter was changed from ¾" to 1 ½" to prevent biofouling from reducing flow.
- A second warranty pump was installed in December follow cleaning of the flow meter.
- Pump failures have occurred following observed increased biofouling on the pump inlet screen. Evaluations to reduce biofouling on the pump inlet screen are ongoing.
- Pump – Depth to water and depth to bottom were adequate for continued groundwater removal.
- System is operating. Air stripper was cleaned twice during the semi-annual period.

Central System, Sumps 18 & 23

- System has been operating, as designed, with replacements parts having been made on an as needed basis.
- Pump – Depth to water and depth to bottom were adequate for continued groundwater removal.
- System is operating.

South System, Sumps 7, 15 and 17R

- Sump 17R coyote controller was replaced with a coyote controller from North 2 System. The coyote controller allows the pump to shut down when water in the sump has been drawn down below the pump inlet preventing the pump from failing.
- Pumps – Depth to water and depth to bottom were adequate for continued groundwater removal.
- System is operating.

Evaluation of Current Monitoring Data

A water table contour map (Figure 1) prepared for the perimeter wells for December 2016 is attached. Due to soil remediation and concrete removal activities the interior wells have been abandoned (except

those used for the groundwater treatment pilot tests). Capture zones for the Southern (Sumps 7, 15 & 17R) systems are illustrated by concentric contours around the sumps on the water table contour map. The capture zone for Sump 6 is illustrated by the 615 foot contour.

Influent (pre-treatment) groundwater samples are collected from each individual sump and effluent (post-treatment) samples are collected from each treatment system. The samples are analyzed for volatile organic compounds (VOCs), diesel range organics (DRO) and gasoline range organics (GRO) in conformance with the Kenosha Water Utility discharge permit. Tables 1 and 2 provide a summary of influent and effluent samples (detected VOCs, DRO and GRO) collected, with the most recent results from September 2016 shown for four operating sumps (Sumps 6, 18, 7, and 17R). Influent samples were not collected in September 2016 at Sumps 15 because the pump was not operating at the time of sample collection.

After reviewing the influent concentrations for each sump, generally one contaminant was dominant (as evidenced by its exceedance of the NR 140 Wisconsin Administrative Code groundwater quality Enforcement Standard [ES]) in its concentration over time. The individual contaminants and their trends by sump are:

North Systems

- Sump 6 – Trichloroethene
  The TCE concentrations exceed the ES and decreased slightly since the previous March 2016 sampling. Cis-1,2-dichloroethene and vinyl chloride are also present above their respective ES with increasing trends. Daughter products, cis-1,2-dichloroethene and vinyl chloride have higher concentrations suggesting breakdown of parent product TCE. Soil remediation (source soil excavation) during the fall and winter of 2016 will like address these impacts.

Central Systems

- Sump 18 – Benzene
  Benzene concentrations exceed the ES and have decreased from the March 2016 influent groundwater results. Cis-1,2-dichloroethene and vinyl chloride also exceed the ES, but the parent product, TCE, was not detected above the PAL in the September 2016 sampling event. Cis-1,2-dichloroethene and vinyl chloride concentrations have decreased from the March 2016 sampling event. Results from Sump 18 are variable but will continue to be evaluated for future trends.

South Systems

- Sump 7 – Cis-1,2-Dichloroethene
  Cis-1,2-dichloroethene concentrations are slightly above the PAL without an observable trend. Only vinyl chloride exceeds the ES and is showing an increasing trend during the last three sampling events (September 2015, March 2016, and current September 2016).
- Sump 17R – Trichloroethene
  The TCE concentration is above the ES for the September 2016 sampling event and the concentration indicate a decreasing trend. Cis-1,2-dichloroethene and vinyl chloride also exceed the ES at concentrations, but also have stable or decreasing trends. Trend analysis will continue during future sampling events.

Table 3 presents a summary of the operational data collected for July through December of 2016. The treatment systems reduce influent concentrations to below the effluent concentration permit limits established by the Kenosha Water Utility. Thus, the systems are operating in compliance with discharge requirements.

Plan for Repair, Replacement and Optimization

Northern System 1– Sump 6 groundwater extraction pump was replaced in twice during the operational period and groundwater piping inside the remediation building was increased to 1 ½" diameter PVC to reduce downtime caused from biofouling. Biofouling reduction on the pump inlet screen and flow meter are planned during the next operational period to extend the life of the pump and ensure treatment flow is recorded.

Southern System – Minor system components have been replaced to include pump replacement in October 2016. The Sump 17R coyote controller was replaced with the coyote controller from Sump 15, which is not currently being used.

Central System – Minor system components have been replaced. The compressor's oil and oil filter are scheduled to replacement in 2017. The capture zone from Sump 18 appears to be sufficient at the current time. If the capture zone needs to be increased adjustments to the pumping rate in Sump 23 will take place. Biofouling reduction on the pump inlet screen and flow meter are planned during the next operational period to ensure treatment flow is recorded.

Optimization of the three operating groundwater recovery systems will continue in 2017 with regular monitoring of flow and evaluation of nearby groundwater elevations for the control of the hydraulic gradient with the least amount of pumping required.

Closing

WDNR form 4400-194 Remediation Site Progress, and Operation, Maintenance, Monitoring & Optimization Report is attached as well as supporting tables and figures as required.

Yours sincerely,

AECOM Technical Services, Inc.

Tory A .Schultz
Geologist
Tory.schultz@aecom.com

Lanette L. Altenbach, P.G., C.P.G.
Senior Hydrogeologist
Lanette.altenbach@aecom.com

Attachments

WDNR form 4400-194 Remediation site Progress, and Operation, Maintenance, Monitoring & Optimization Report
Table 1 – Influent Summary (Detected VOCs, DRO and GRO)
Table 2 – Effluent Summary
Table 3 – Operational Summary
Figure 1 – December 2016 Groundwater Flow, Perimeter Monitoring Wells, Kenosha Engine Plant
Pace Analytical – Laboratory Report Influent and effluent samples

Cc: Shelly Billingsley MBA, PE, Director of Public Works, City of Kenosha
Katie Karow, Director of Wastewater Treatment, Kenosha Water Utility

Attachment 1

WDNR form 4400-194 Remediation site Progress, and

Operation, Maintenance, Monitoring & Optimization Report

State of Wisconsin
Department of Natural Resources
PO Box 7921, Madison WI 53707-7921
dnr.wi.gov

Remediation Site Progress and Operation, Maintenance, Monitoring & Optimization Report

Form 4400-194 (R 1/14)

Notice: Pursuant to ss. NR 700.11(1) and 724.13(3), Wis. Adm. Code, this form is required to be completed or a narrative report or letter containing the equivalent information required in this form may be submitted in lieu of the actual form. Failure to submit this form as required is a violation and is subject to the penalties as stated in s. 292.99, Wis. Stats. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records Law (ss. 19.31-19.39, Wis. Stats.). *Unless otherwise noted, all citations refer to Wisconsin Administrative Code.*

GENERAL INSTRUCTIONS, PURPOSE AND APPLICABILITY OF THIS FORM: Completion of this form is required under s. NR 700.11(1) and s. NR 724.13(3), Wis. Adm. Code. A narrative report or letter containing the equivalent information required in this form may be submitted in lieu of the actual form. Failure to submit this form as required is a violation of s. NR 700.11(1) and s. NR 724.13(3), Wis. Adm. Code, and is subject to the penalties in s. 292.99, Wis. Stats. This form must be submitted every six months for remediation projects that are regulated under the NR 700 series of Wis. Adm. Code. Specifically, for sites meeting any of the following criteria:

- Any site where a discharge has occurred that report progress in accordance with s. NR 700.11(1), Wis. Adm. Code until site closure is granted. This includes sites where no response activities occurred during the six month reporting period. **Attach, if applicable, a separate brief summary of the work completed during the reporting period and the anticipated future work.**
- Soil or groundwater remediation projects that report operation and maintenance progress in accordance with s. NR 724.13(3), Wis. Adm. Code.

Note: Long-term monitoring results submitted in accordance with s. NR 724.17(3), Wis. Adm. Code are required to be submitted within 10 business days of receiving sampling results and are not required to be submitted using this form. However, portions of this form require monitoring data summary information that may be based on information previously submitted in accordance with s. NR 724.17(3), Wis. Adm. Code.

Note: Responsible parties should check with the State Project Manager assigned to the site to determine if this form is required to be submitted at sites responded to under the Federal Comprehensive Environmental Response and Compensation Act (commonly known as Superfund) or an equivalent State lead Superfund response.

Note: Responsible parties should check with the State Project Manager assigned to the site to determine if any of the information required in this form may be omitted or changed and obtain prior written approval for any omissions or changes.

Submittal of this form is not a substitute for reporting required by Department programs such as Waste Water or Air Management. Personally identifiable information on this form is not intended to be used for any other purpose than tracking progress of the remediation by the Bureau for Remediation and Redevelopment.

Only complete and submit all of page GI-1 and Section E on pages 3 and 4 for sites where a discharge has been reported but no response, monitoring or remediation has begun or occurred during the six month reporting period that are required to report only under s. NR 700.11(1), Wis. Adm. Code and attach, if applicable, a summary of the anticipated future work.

Section GI - General Site Information

A. General Information

1. Site name

Kenosha Engine Plant

2. Reporting period from:	To:	Days in period:
07/01/2016	12/31/2016	184

3. Regulatory agency (enter DNR, DCOM, DATCP and/or other)	4. BRRTS ID No. (2 digit program-2 digit county-6 digit site specific)
DNR	02-03-000327

5. Site location

Region	County	Address
Southeast Region	Kenosha	5555 30th Avenue

Municipality name	Township	Range	Section	¼	¼ ¼
◉ City ○ Town ○ Village	N	○E ○W			

6. Responsible party	7. Consultant		
Name	☐ Select if the following information has changed since the last submittal		
City of Kenosha			
Mailing address	Company name		
625 52nd Street, Kenosha, WI 53140	AECOM		
Phone number	Mailing address	Phone number	
(262) 653-4000	1555 N. RiverCenter Dr, Ste 214, 53212	(414) 944-6080	

8. Contaminants

VOCs

9. Soil types (USCS or USDA)
Fill, Sand, Silty Sand, Silt, Clay

10. Hydraulic conductivity(cm/sec):	11. Average linear velocity of groundwater (ft/yr)
10-2 to 10-4	1.3 - 1700

12. If soil is treated ex situ, is the treatment location off site? ◯ Yes ◯ No

If yes, give location: Region	County

Municipality name ◯ City ◯ Town ◯ Village	Township	Range ◯E ◯W	Section	¼	¼ ¼
	N				

B. Remediation Method

Only submit sections that apply to an individual site. Check all that apply:

- ☒ Groundwater extraction (submit a completed Section GW-1).
- ☐ Free product recovery (submit a completed Section GW-1).
- ☐ In situ air sparging (submit a completed Section GW-2).
- ☐ Groundwater natural attenuation (submit a completed Section GW-3).
- ☐ Other groundwater remediation method (submit a completed Section GW-4).
- ☐ Soil venting (including soil vapor extraction building venting and bioventing submit a completed Section IS-1).
- ☐ Soil natural attenuation (submit a completed Section IS-2).
- ☐ Other in situ soil remediation method (submit a completed Section IS-3).
- ☐ Biopiles (submit a completed Section ES-1).
- ☐ Landspreading/thinspreading of petroleum contaminated soil (submit a completed Section ES-2).
- ☐ Other ex situ remediation method (submit a completed Section ES-3).
- ☐ Site is a landfill (submit a completed Section LF-1).

C. General Effectiveness Evaluation for All Active Systems

If the remediation is active (not natural attentuation), complete this subsection.

1. is the system operating at design rates and specifications? ◯ Yes ◉ No

If the answer is no, explain whether or not modifications are necessary to achieve the goal that was previously established in design.
Northern Systems Sumps 4, 5, 9 and 9A operations ceased in 2015 with WDNR approval. Northern Systems Sumps 4, 5, 9 and 9A were abandoned in the fall of 2016 and buildings raised during soil remediation activities in fall and winter 2016.

2. Are modifications to the system warranted to improve effectiveness ◯ Yes ◉ No

If yes, explain:

3. Is natural attenuation an effective low cost option at this time? ◯ Yes ◉ No

4. Is closure sampling warranted at this time? ◯ Yes ◉ No

5. Are there any modifications that can be made to the remediation to improve cost effectiveness? ◉ Yes ◯ No

If yes, explain:
The pumping rates of the systems are modified seasonally to achieve optimal groundwater capture without excessive wear on the groundwater extraction systems.

D. Economic and Cost Data to Date

1. Total investigation cost: _____
2. Implementation costs (design, capital and installation costs, excluding investigation costs: _____
3. Total costs during the previous reporting period: _____
4. Total costs during this reporting period: _____
5. Total anticipated costs for the next reporting period: _____
6. Are any unusual or one-time costs listed in the reporting periods covered by D.3., D.4. or D.5. above? (●) Yes ( ) No

If yes, explain:
Purchase of replacement flow meter $233.63 in Sump 6 (up-sized from 3/4" to 1 1/2" diameter) due to biofouling. Purchased additional parts/supplies for modification to up-size flow meter in Sump 6. New pump in Sump 6 approximately $315.26 (up-sized to 3/4HP). New pump in Sump 6 approximately $284.84 (back to 1/2HP).

7. If closure is anticipated within 12 months, estimated costs for project closeout: _____

E. Name(s), Signature(s) and Date of Person(s) Submitting Form

Legibly print name, date and sign. Only persons qualified to submit reports under ch. NR 712 Wis. Adm. Code are to sign this form for sites with any ongoing active remediation, monitoring or an investigation. Other persons may sign this form for sites with no response activities during the six month reporting period.

Registered Professional Engineers:

I hereby certify that I am a registered professional engineer in the State of Wisconsin, registered in accordance with the requirements of ch. A-E 4, Wis. Adm. Code; that this document has been prepared in accordance with the rules of Professional Conduct in ch. A-E 8, Wis. Adm. Code; and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.

Print name	Title
Kevin Brehm	Associate Vice President
Signature: Kevin L. Brehm	Date: 5/18/18

Hydrogeologists:

I hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03(1), Wis. Adm. Code, and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.

Print name	Title
Lanette Altenbach	Senior Hydrogeologist
Signature: Lanette Altenbach	Date: 5/18/18

Scientists:

I hereby certify that I am a scientist as that term is defined in s. NR 712.03(3), Wis. Adm. Code, and that, to the best of my knowledge, all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.

Print name	Title
Signature	Date

Other Persons:

Print name	Title
Signature	Date

Site name: Kenosha Engine Plant

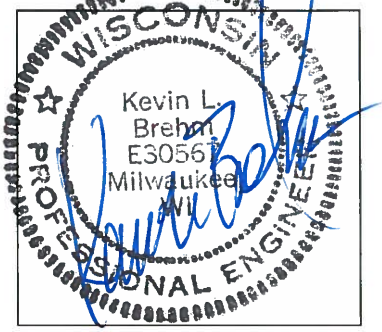
Reporting period from: 07/01/2016 To: 12/31/2016

Days in period: 184

Remediation Site Progress and Operation, Maintenance, Monitoring & Optimization Report

Form 4400-194 (R 1/14)

Professional Seal(s), if applicable:



Section GW-1, Groundwater Pump and Treat Systems and Free Product Recovery Systems

A. Groundwater Extraction System Operation:

1. Total number of groundwater extraction wells or trenches available: 10 and the number in use during period: 4

2. Number of days of operation (only list the number of days the system actually operated, if unknown explain:
Sump 6 - 174 days (off 8/20 to 8/23, 12/7 to 12/14)
Southern System (Sumps 7, 15, 17R) - 177 days (Sump 17R off 7/8 to 7/25, 7/27 to 8/25 to 8/30) and (Sump 7 off 9/28 to 10/4, system off 11/16 to 11/23.
Central System (Sumps 18 & 23) - 151 days (Sump 23 no pump and Sump 18 off 10/4 to 10/25, 11/23 to 11/30, 12/24 to 12/30)

3. System utilization in percent (days of operation divided by reporting time period multiplied by 100). If < 80%, explain:
Sump 6 - 94.5% Operational - 8/20 to /823 (pump) and 12/7 to 12/14 (pump)
Southern System (Sumps 7, 15, 17R) - 96.2% 11/16 to 11/23 (Subcontractor contacted power to system)
Central System 84.7% Operational - 10/4 to 10/25 (compressor release valve failed, 11/23 to 11/30 subcontractor damage to discharge line, 12/24 to 12/30 compressor restarted)

4. Quantity of groundwater extracted during this time period: 2,186,072 gallons

5. Average groundwater extraction rate: 8 gpm

6. Quantity of dissolved phase contaminants removed during this time period in pounds: _____ lbs

B. Free Product Recovery System Operation

1. Is free product (nonaqueous phase liquid) being recovered at this site? ◯ Yes ◉ No

If yes, explain:

2. Quantity of free product extracted during this time period (enter none if none): 0 gallons

3. Average free product extraction rate: 0 gpm

C. System Effectiveness Evaluation

1. Is a contaminated groundwater plume fully contained in the capture zone? ◉ Yes ◯ No

If no, explain:

2. If free product is present, is the free product fully contained in capture zone? ◉ Yes ◯ No

If no, explain:

3. If free product is present in any wells at the site, but free product was not recovered during reporting period, explain:
Free product is trapped in the saturated zone and although each treatment train has an oil/water separator, little to no free product is recovered.

4. If free product is not present, determine the single contaminant that requires the greatest percent reduction to achieve ch. NR 140 ES and PAL. Perform this calculation for all contaminants that were present at the site that have ch. NR 140 standards. Use the highest contaminant concentration measured in any sampling points during reporting period. If free product is present, write "FREE PRODUCT" in C.4.a.

a. Contaminant: Petroleum and chlorinated VOC's

b. Percent reduction necessary to reach ch. NR 140 ES and PAL: 100 %

c. Maximum contaminant concentration level in any monitoring well of that contaminant: _____ µg/L

d. Maximum contaminant concentration level in any extraction well of that contaminant: _____ µg/L

e. If the maximum concentration in a monitoring well is more that one order of magnitude above the concentration measured in an extraction well, explain why the extracted groundwater contamination levels are significantly less than the levels at other locations within the aquifer.

1.) Dilution effects. 2.) Multiple source areas and remedial systems were not designed to address all areas but only 5 specific identified releases. 3.) New wells have higher concentrations in areas not within remedial capture zone. *Only perimeter wells were sampled during this operational period.

D. Additional Attachments

Attach the following to this form:

- Most recent report to the DNR Wastewater Program, if applicable.
- Groundwater contour map with capture zone indicated.
- Groundwater contaminant distribution map (may be combined with contour map).
- Graph of cumulative contaminant removal, if both free product recovery and ground water extraction are used, provide separate graphs.
- Time versus groundwater contaminant concentration graphs for the contaminant listed in C.4.a. (above), as follows:
  - -- Graph of contaminant concentrations versus time for each extraction well in use during the period.
  - -- Graph of contaminant concentrations versus time for the monitoring well with the greatest level of contamination.
- Groundwater contaminant chemistry table.
- Groundwater elevations table.
- System operational data table.

Tables

Table 1
Influent Summary
KEP Groundwater Remediation Systems
Kenosha, Wisconsin

Well Location	Sample Date	Benzene (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloro-ethane (ug/L)	1,2-Dichloro-ethane (ug/L)	1,1-Dichloro-ethene (ug/L)	1,1,1-Trichloro-ethane (ug/L)	cis-1,2-Dichloro-ethene (ug/L)	trans-1,2-Dichloro-ethene (ug/L)	Ethyl-benzene (ug/L)	Methylene Chloride (ug/L)	Naphthalene (ug/L)	n-Propyl-benzene (ug/L)	Tetra-chloro-ethene (ug/L)	Toluene (ug/L)	Trichloro-ethene (ug/L)	1,2,4-Trimethyl benzene (ug/L)	1,3,5-Trimethyl benzene (ug/L)	Vinyl chloride (ug/L)	Xylene Totals (ug/L)	Gasoline Range Organics (ug/L)	Diesel Range Organics (mg/L)
Northern System																						
Sump 6	1/18/11	<2.2	5.4	ND	<3.7	<3.2	ND	**600**	*39*	ND	ND	<4	<2.3	<4.8	<2.2	**540**	<2	<1.6	**26**	<4	330	0.35
	3/24/11	<29	<29	ND	<29	<29	ND	**410**	*36*	ND	ND	<29	<29	<29	<29	**830**	<29	<29	**19**	<57	410	0.37
	6/13/11	<1	3.3	ND	<2.5	<2.5	ND	**280**	17	ND	ND	<1.3	<2.5	<2.5	<2.5	**370**	<1	<1	**6.7**	<2.5	190	0.47
	9/19/11	<1	6.1	ND	<2.5	*2.8*	ND	**680**	*46*	ND	ND	<1.3	<2.5	<2.5	<2.5	**330**	<1	<1	**31**	<2.5	180	0.23
	1/15/12	<0.2	13	ND	<0.5	*3.1*	ND	**410**	*47*	ND	ND	0.52	<0.5	<0.5	<0.5	**750**	0.39	<0.2	**66**	0.58	410	1.2
	3/15/12	<1	8.2	ND	<2.5	*3.7*	ND	**620**	*49*	ND	ND	<1.3	<2.5	<2.5	<2.5	**890**	<1	<1	**23**	<2.5	470	0.39
	6/21/12	<0.074	8.3	ND	<0.28	*3.8*	ND	**610**	*51*	ND	ND	<0.16	<0.13	<0.17	<0.11	**770**	<0.14	<0.18	**32**	<0.068	420	0.22
	9/17/12	<0.15	9.6	ND	<0.56	*4.3*	ND	**700**	*53*	ND	ND	<0.32	<0.26	<0.34	<0.22	**780**	<0.28	<0.36	**49**	<0.14	490	0.24
	12/21/12	<0.074	15	ND	<0.28	0.64	ND	**160**	6.8	ND	ND	<0.16	<0.13	<0.17	<0.11	**60**	<0.14	<0.18	**36**	<0.068	79	0.51
	3/26/13	<0.074	6.1	ND	<0.28	*3*	ND	**420**	*47*	ND	ND	<0.16	<0.13	<0.17	<0.11	**1,000**	<0.14	<0.18	**12**	<0.068	490	0.7
	6/11/13	<0.074	7.5	ND	<0.28	*4*	ND	**590**	*59*	ND	ND	<0.16	<0.13	<0.17	<0.11	**540**	<0.14	<0.18	**30**	<0.068	380	0.25
	9/24/13	<0.37	<0.95	ND	<1.4	<1.6	ND	**580**	*54*	ND	ND	<0.8	<0.65	<0.85	<0.55	**1,600**	<0.7	<0.9	**31**	<0.34	630	0.43
	12/20/13	<0.074	4.1	ND	<0.28	*2*	ND	**330**	*26*	ND	ND	<0.16	<0.13	<0.17	<0.11	**220**	<0.14	<0.18	**38**	<0.068	190	0.17
	1/6/15	<2.5	6.8	ND	<0.84	*3.5*	ND	**568**	*58.2*	ND	ND	<12.5	<2.5	<2.5	<2.5	**712**	<2.5	<2.5	**25**	<7.5	388	0.15
	3/6/15	<5.0	5.4 J	ND	<1.7	<4.1	ND	**363**	35.4	<5.0	ND	<25.0	<5.0	<5.0	<5.0	**930**	<5.0	<5.0	**17**	<15.0	342	0.35
	9/24/15	Discharge line blocked - not operating at the time of sample collection																				
	3/9/16	<5.0	3.2 J	ND	<1.7	<4.1	ND	**439**	43.5	<5.0	ND	<25.0	<5.0	<5.0	<5.0	**1010**	<5.0	<5.0	**17.3**	<15.0	413	0.22
	9/7/16	<5.0	5.0 J	<3.7	<1.7	<4.1	<5.0	**733**	57.6	<5.0	<2.3	<25.0	<5.0	<5.0	<5.0	**931**	<5.0	<5.0	**38.1**	<15.0	539	0.047J
Central System																						
Sump 18	3/28/11	**22**	39	ND	ND	*2*	ND	**240**	<6.7	4.6	ND	6.2	3	<6.7	<6.7	<6.7	11	8	**23**	44	390	1.1
	6/14/11	**510**	*620*	ND	ND	<25	ND	**4,800**	*31*	84	ND	*28*	<25	<25	*450*	<10	86	27	**1,100**	350	4300	1.9
	9/23/11	**74**	80	ND	ND	<1	ND	**160**	4	35	ND	*17*	5.8	*1.2*	110	*1.6*	69	22	**120**	150	910	130
	1/24/12	**330**	*620*	ND	ND	*5*	ND	**3,300**	*22*	55	ND	*21*	4.9	<2	*270*	*1.2*	80	28	**1,000**	310	3200	1.8
	3/21/12	**910**	**1500**	ND	ND	<25	ND	**9,300**	*64*	110	ND	*35*	<25	<25	*660*	<10	130	40	**940**	*530*	8600	2.1
	6/21/12	**270**	*780*	ND	ND	**13**	ND	**5,600**	*41*	19	ND	*13*	<1.3	<1.7	140	**5**	24	24	**3,000**	170	3100	2.6
	9/17/12	**150**	**900**	ND	ND	<6.2	ND	**5,000**	*32*	<2.6	ND	<3.2	<2.6	<3.4	7.2	**5.5**	<2.8	31	**1,100**	77	3100	4.1
	12/27/12	**11**	45	ND	ND	<0.31	ND	**120**	<0.25	8.2	ND	6.2	2	*0.71*	18	0.48	28	11	**11**	49	760	110
	3/25/13	*0.7*	1.7	ND	ND	<0.31	ND	1	<0.25	6	ND	5.4	2.9	<0.17	4.2	<0.19	33	8.3	<0.1	19	380	23
	6/10/13	**150**	*350*	ND	ND	*3.9*	ND	**2,300**	14	13	ND	5.2	<0.65	<0.85	79	<0.95	15	5.9	**260**	62	1600	1
	9/24/13	**570**	**970**	ND	ND	**18**	ND	**5,500**	*43*	79	ND	*29*	<1.3	<1.7	*370*	**7.1**	73	17	**1,600**	310	4600	3
	12/20/13	**270**	*720*	ND	ND	**9.1**	ND	**3,200**	*24*	41	ND	*16*	3.4	*0.52*	*170*	*1.1*	43	11	**820**	180	3	1
	9/11/15	0.56 J	4.2	ND	<0.17	<0.41	ND	5	<0.26	<0.5	ND	<2.5	<0.50	<0.50	<0.50	0.36 J	<0.50	<0.50	**0.81 J**	<1.5	37.5 J	<0.081
	3/9/16	**357**	*735*	ND	<4.2	<10.3	ND	**3,180**	*44*	78	ND	<62.5	<12.5	<12.5	*287*	<8.3	45.3	12.6 J	**2,720**	342	3240	2.2
	9/7/16	**277**	*738*	37.1	<4.2	<10.3	137	**2,110**	*40.1*	45.9	37.5	<62.5	<12.5	<12.5	134	23.0 J	24.2 J	<12.5	**1,950**	201	2530	1.4
Sump 23	1/19/11	**420**	<5	ND	ND	<6.3	ND	**930**	<6.3	36	ND	<4.7	<4.7	ND	5.9	NPD	16 B	<3.2	**500**	<12.7	NT	NT
	3/28/11	**22**	0.41	ND	ND	<1	ND	6.5	<1	1.9	ND	1	0.47	ND	0.19	NPD	0.97	0.56	**2.4**	2.6	94	0.91
	7/20/11	**170**	<1	ND	ND	<1	ND	*9.2*	<1	1.8	ND	1.1	<1	ND	1.5	NPD	3.2	1.2	**57**	3.8	360	0.63
	9/26/11	**23**	<0.5	ND	ND	<0.5	ND	1.7	<0.5	<0.5	ND	0.32	<0.5	ND	<0.5	0.42	0.44	<0.2	**0.61**	<0.5	31	0.28
	1/24/12	**480**	<2	ND	ND	<2	ND	**930**	3.6	32	ND	7.2	2.5	ND	6.9	<0.8	9.2	2.2	**530**	34	1700	0.78
	3/21/12	**470**	1.4	ND	ND	*1.4*	ND	**580**	3	69	ND	*11*	6.9	ND	9.5	<0.2	18	1.6	**470**	51	1700	1.1
	6/21/12	**42**	1.5	ND	ND	*1.6*	ND	**78**	2.6	61	ND	8.6	3.7	ND	7	<0.19	6.5	1.1	**68**	52	1100	1.2
	9/17/12	**180**	<0.19	ND	ND	*1.1*	ND	**670**	2.4	9.6	ND	3.2	<0.13	ND	2.6	<0.19	1.7	0.64	**440**	26	760	1.1
	12/27/12	**160**	2.3	ND	ND	<0.31	ND	**530**	1.5	21	ND	5.2	1.9	ND	2.7	<0.19	3.1	<0.18	**170**	20	580	0.78
	3/25/13	**26**	<0.19	ND	ND	<0.31	ND	**94**	<0.25	2.9	ND	2.1	<0.13	ND	0.47	<0.19	<0.14	<0.18	**23**	2.3	97	0.083
	6/10/13	**390**	<0.38	ND	ND	<0.62	ND	**820**	2.8	47	ND	7.9	4	ND	6.7	<0.38	2.8	<0.36	**440**	30	1100	0.79
	9/24/13	**140**	<0.19	ND	ND	*1*	ND	**660**	2.4	16	ND	7.6	1.6	ND	2.7	<0.19	2	<0.18	**320**	18	670	1.7
	12/20/13	*1.1*	1	ND	ND	<0.31	ND	*9.4*	<0.25	<0.13	ND	<0.16	<0.13	ND	0.33	<0.19	<0.14	<0.18	**1**	<0.068	10	1.1
		Pump inoperable and not replaced because groundwater capture from Sump 18 is sufficient. This sump was located close to the former UST area remediated in 2012.																				
PAL[A]		0.5	85		0.5	0.7		7	20	140		10	NE	0.5	160	0.5	96*	96*	0.02	400	NE	NE
ES[B]		5	850		5	7		70	100	700		100	NE	5	800	5	480*	480*	0.2	2,000	NE	NE

Table 1
Influent Summary
KEP Groundwater Remediation Systems
Kenosha, Wisconsin

Well Location	Sample Date	Benzene (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloro-ethane (ug/L)	1,2-Dichloro-ethane (ug/L)	1,1-Dichloro-ethene (ug/L)	1,1,1-Trichloro-ethane (ug/L)	cis-1,2-Dichloro-ethene (ug/L)	trans-1,2-Dichloro-ethene (ug/L)	Ethyl-benzene (ug/L)	Methylene Chloride (ug/L)	Naphthalene (ug/L)	n-Propyl-benzene (ug/L)	Tetra-chloro-ethene (ug/L)	Toluene (ug/L)	Trichloro-ethene (ug/L)	1,2,4-Trimethyl benzene (ug/L)	1,3,5-Trimethyl benzene (ug/L)	Vinyl chloride (ug/L)	Xylene Totals (ug/L)	Gasoline Range Organics (ug/L)	Diesel Range Organics (mg/L)
Southern System																						
Sump 7	1/19/11	<0.13	<0.15	ND	ND	<0.19	ND	*9.1*	0.4	<0.17	ND	ND	ND	ND	<0.13	0.29	<0.12	<0.096	**3.1**	<0.14	NT	NT
	3/24/11	<1	<1	ND	ND	<1	ND	6.2	0.39	<1	ND	ND	ND	ND	<1	0.43	<1	<1	**2.8**	<2	ND	3.3
	6/13/11	<0.2	<0.5	ND	ND	<0.5	ND	*16*	1.2	<0.5	ND	ND	ND	ND	<0.5	*2.6*	<0.2	<0.2	**2.6**	<0.5	ND	3.3
	9/19/11	<0.2	<0.5	ND	ND	<0.5	ND	*17*	1.2	<0.5	ND	ND	ND	ND	<0.5	*2*	<0.2	<0.2	**2.8**	<0.5	ND	14
	1/5/12	<0.20	<0.50	ND	ND	<0.50	ND	*12*	1.1	<0.50	ND	ND	ND	ND	<0.50	0.35 J	0.20 J	<0.20	**3.3**	<0.50	24	2.5
	3/20/12	<0.2	<0.5	ND	ND	<0.5	ND	*8.8*	1.1	<0.5	ND	ND	ND	ND	<0.5	<0.2	<0.2	<0.2	**2.6**	<0.5	11	2.1
	6/22/12	<0.074	<0.19	ND	ND	<0.31	ND	*8.3*	0.96	<0.13	ND	ND	ND	ND	<0.11	<0.19	<0.14	<0.18	**2.7**	<0.068	<6.9	1.7
	9/18/12	<0.074	<0.19	ND	ND	<0.31	ND	*7*	0.93	<0.13	ND	ND	ND	ND	<11	<0.19	<0.14	<0.18	**2**	<0.068	16	2.3
	12/27/12	<0.074	<0.19	ND	ND	<0.31	ND	6.7	0.87	<0.13	ND	ND	ND	ND	<0.11	<0.19	<0.14	<0.18	**1.3**	<0.068	<8.8	4
	3/26/13	<0.074	<0.19	ND	ND	<0.31	ND	4.4	<0.25	<0.13	ND	ND	ND	ND	<0.11	0.43	<0.14	<0.18	<0.1	<0.068	13	5
	6/11/13	<0.074	<0.19	ND	ND	<0.31	ND	*12*	2	<0.13	ND	ND	ND	ND	<0.11	<0.19	<0.14	<0.18	**2.9**	<0.068	16	2.4
	9/23/13	<0.074	<0.19	ND	ND	<0.31	ND	*8.7*	1.5	<0.13	ND	ND	ND	ND	<0.11	0.3	<0.14	<0.18	**1.5**	<0.068	24	9.2
	12/20/13	<0.074	<0.19	ND	ND	<0.31	ND	*7.9*	1.2	<0.13	ND	ND	ND	ND	<0.11	0.42	<0.14	<0.18	**1.3**	<0.068	<8.8	2
	6/19/14	<0.50	<0.24	ND	<0.17	<0.41	ND	6.3	1.1	<0.50	ND	<2.5	<0.50	<0.50	<0.50	0.45 J	<0.50	<0.50	<0.18	<1.5	NT	NT
	9/5/14	<0.50	<0.24	ND	<0.17	<0.41	ND	*10.1*	2.2	<0.50	ND	<2.5	<0.50	<0.50	<0.50	<0.33	<0.50	<0.50	**1.5**	<1.5	<29.6	3.1
	12/3/14	<0.50	0.32 J	ND	<0.17	<0.41	ND	*8.9*	1.9	<0.50	ND	<2.5	<0.50	<0.50	<0.50	*0.71 J*	<0.50	<0.50	**1.6**	<1.5	<29.6	2.6
	9/9/15	<0.50	<0.24	ND	<0.17	<0.41	ND	*9*	2.2	<0.50	ND	<2.5	<0.50	<0.50	<0.50	<0.33	<0.50	<0.50	**1.2**	<1.5	29.9 J	0.36
	3/9/16	<0.50	0.31 J	ND	<0.17	<0.41	ND	*10.4*	2.6	<0.50	ND	<2.5	<0.50	<0.50	<0.50	<0.33	<0.50	<0.50	**2.3**	<1.5	<29.6	1.1
	9/7/16	<0.50	<0.24	<0.50	<0.17	<0.41	<0.50	*9*	2.1	<0.50	<0.23	<2.5	<0.50	<0.50	<0.50	<0.33	<0.50	<0.50	**3.8**	<1.5	<29.6	5.4
Sump 15	1/19/11	<0.13	<0.15	ND	ND	<0.19	ND	<0.17	<0.19	ND	ND	ND	ND	ND	<0.13	<0.17	<0.12	ND	<0.22	ND	NT	NT
	3/24/11	<1	<1	ND	ND	<1	ND	<1	<1	ND	ND	ND	ND	ND	<1	<1	<1	ND	<1	ND	<100	3.3
	6/13/11	<0.2	<0.5	ND	ND	<0.5	ND	<0.5	<0.5	ND	ND	ND	ND	ND	<0.5	<0.2	<0.2	ND	<0.2	ND	<10	3.6
	9/19/11	<0.2	<0.5	ND	ND	<0.5	ND	<0.5	<0.5	ND	ND	ND	ND	ND	<0.5	<0.2	<0.2	ND	<0.2	ND	<10	5.7
	1/5/12	<0.20	<0.50	ND	ND	<0.50	ND	<0.50	<0.50	ND	ND	ND	ND	ND	<0.50	<0.20	<0.20	ND	<0.20	ND	18J	5.9
	3/20/12	<0.2	<0.5	ND	ND	<0.5	ND	<0.5	<0.5	ND	ND	ND	ND	ND	<0.5	<0.2	<0.2	ND	<0.2	ND	<10	3.1
	6/22/12	<0.074	<0.19	ND	ND	<0.31	ND	0.8	<0.25	ND	ND	ND	ND	ND	<0.11	*1.2*	<0.14	ND	<0.10	ND	<6.9	4.2
	9/18/12	<0.074	<0.19	ND	ND	<0.31	ND	<0.12	<0.25	ND	ND	ND	ND	ND	<0.11	0.47	<0.14	ND	<0.1	ND	<6.9	3.7
	12/27/12	<0.074	<0.19	ND	ND	<0.31	ND	<0.12	<0.25	ND	ND	ND	ND	ND	<0.11	*0.62*	<0.14	ND	<0.1	ND	<8.8	2.8
	3/26/13	<0.074	<0.19	ND	ND	<0.31	ND	<0.12	<0.25	ND	ND	ND	ND	ND	<0.11	<0.19	<0.14	ND	<0.1	ND	11	2
	6/11/13	<0.074	<0.19	ND	ND	<0.31	ND	<0.12	<0.25	ND	ND	ND	ND	ND	<0.11	*1.3*	<0.14	ND	<0.1	ND	14	2.1
	9/23/13	<0.074	<0.19	ND	ND	<0.31	ND	<0.12	<0.25	ND	ND	ND	ND	ND	<0.11	*2.8*	<0.14	ND	<0.1	ND	43	9.2
	12/20/13	<0.074	<0.19	ND	ND	<0.31	ND	6.8	<0.25	ND	ND	ND	ND	ND	<0.11	0.26	<0.14	ND	**1.1**	ND	<8.8	2.9
	6/19/14	<0.50	<0.24	ND	<0.17	<0.41	ND	<0.26	<0.26	<0.50	ND	<2.5	<0.50	<0.50	<0.50	*2*	<0.50	<0.50	<0.18	<1.5	NT	NT
	9/5/14	*0.62 J*	<0.24	ND	<0.17	<0.41	ND	<0.26	<0.26	<0.50	ND	<2.5	<0.50	<0.50	<0.50	<0.33	<0.50	<0.50	<0.18	<1.5	<29.6	6
	12/3/14	<0.50	<0.24	ND	<0.17	<0.41	ND	<0.26	<0.26	<0.50	ND	<2.5	<0.50	<0.50	<0.50	<0.33	<0.50	<0.50	<0.18	<1.5	<29.6	2.6
	9/9/15	<0.50	<0.24	ND	<0.17	<0.41	ND	<0.26	<0.26	<0.50	ND	<2.5	<0.50	<0.50	<0.50	<0.33	<0.50	<0.50	<0.18	<1.5	<29.6	1.3
	3/9/16	Pump inoperable and not sampled.																				
PAL[A]		0.5	85		0.5	0.7		7	20	140		10	NE	0.5	160	0.5	96*	96*	0.02	400	NE	NE
ES[B]		**5**	850		5	7		70	100	700		100	NE	5	800	5	480*	480*	0.2	2,000	NE	NE

Table 1
Influent Summary
KEP Groundwater Remediation Systems
Kenosha, Wisconsin

Well Location	Sample Date	Benzene (ug/L)	1,1-Dichloro-ethane (ug/L)	Chloro-ethane (ug/L)	1,2-Dichloro-ethane (ug/L)	1,1-Dichloro-ethene (ug/L)	1,1,1-Trichloro-ethane (ug/L)	cis-1,2-Dichloro-ethene (ug/L)	trans-1,2-Dichloro-ethene (ug/L)	Ethyl-benzene (ug/L)	Methylene Chloride (ug/L)	Naphthalene (ug/L)	n-Propyl-benzene (ug/L)	Tetra-chloro-ethene (ug/L)	Toluene (ug/L)	Trichloro-ethene (ug/L)	1,2,4-Trimethyl benzene (ug/L)	1,3,5-Trimethyl benzene (ug/L)	Vinyl chloride (ug/L)	Xylene Totals (ug/L)	Gasoline Range Organics (ug/L)	Diesel Range Organics (mg/L)
Southern System																						
Sump 17R	1/19/11	ND	<6	ND	ND	<7.6	ND	**1100**	*98*	ND	ND	<9.6	ND	ND	<5.2	**340**	<4.8	ND	**24**	ND	NT	NT
	3/24/11	ND	<18	ND	ND	<18	ND	**300**	*35*	ND	ND	<18	ND	ND	<18	**70**	<18	ND	<18	ND	150	0.62
	6/13/11	ND	5.4	ND	ND	<2.5	ND	**370**	*34*	ND	ND	<1.3	ND	ND	<2.5	**160**	<1	ND	**1.3**	ND	80	1.2
	9/19/11	ND	3.1	ND	ND	<1	ND	**190**	14	ND	ND	<0.5	ND	ND	<1	**25**	<0.4	ND	**13**	ND	66	2
	1/5/12	ND	5.6	ND	ND	0.59	ND	**270**	*30*	ND	ND	<0.25	ND	ND	<0.50	**110**	<0.20	ND	**1.2**	ND	130	1.6
	3/20/12	ND	7.1	ND	ND	<1	ND	**500**	*39*	ND	ND	<0.5	ND	ND	<1	**150**	<0.4	ND	**1.8**	ND	260	1.1
	6/22/12	ND	6.3	ND	ND	*1.2*	ND	**700**	*38*	ND	ND	<0.16	ND	ND	<0.11	**180**	<0.14	ND	**2.9**	ND	270	1.8
	9/18/12	ND	3.8	ND	ND	<0.31	ND	**180**	*20*	ND	ND	<0.16	ND	ND	<0.11	**35**	<0.14	ND	**17**	ND	79	1.7
	12/27/12	ND	6.4	ND	ND	*1.2*	ND	**400**	*59*	ND	ND	<0.16	ND	ND	<0.11	**45**	<0.14	ND	**55**	ND	170	2.3
	3/26/13	ND	2	ND	ND	<0.31	ND	**190**	15	ND	ND	<0.16	ND	ND	<0.11	**69**	<0.14	ND	**3.5**	ND	100	1.5
	6/11/13	ND	5.3	ND	ND	*0.91*	ND	**380**	*33*	ND	ND	<0.16	ND	ND	<0.11	**120**	<0.14	ND	**6.6**	ND	220	0.88
	9/23/13	ND	5.4	ND	ND	*1.8*	ND	**620**	*37*	ND	ND	<0.16	ND	ND	<0.11	**38**	<0.14	ND	**36**	ND	290	1.9
	12/20/13	ND	8.6	ND	ND	*1.9*	ND	**970**	*79*	ND	ND	<0.16	ND	ND	<0.11	**91**	<0.14	ND	**200**	ND	360	2.4
	6/19/14	<2.5	5.7	ND	<0.84	2.2 J	ND	**702**	*38.1*	<2.5	ND	<12.5	<2.5	<2.5	<2.5	**103**	<2.5	<2.5	<0.88	<7.5	NT	NT
	9/5/14	<1.2	5.4	ND	<0.42	<1	ND	**331**	*20*	<1.2	ND	<6.2	<1.2	<1.2	<1.2	**45.4**	<1.2	<1.2	**38**	<3.8	137	2.1
	12/3/14	<2.5	4.6 J	ND	<0.84	<2.1	ND	**236**	*22.9*	<2.5	ND	<12.5	<2.5	<2.5	<2.5	**57.7**	<2.5	<2.5	**17.6**	<7.5	132	0.78
	9/9/15	<2.5	<0.24	ND	<0.84	<2.1	ND	4.8	1.2	<2.5	ND	<12.5	<2.5	<2.5	<2.5	*0.53 J*	<2.5	<2.5	**0.71 J**	<7.5	34.2 J	67
	3/9/16	<5.0	6 J	ND	<1.7	<4.1	ND	**982**	72.3	<5.0	ND	<25.0	<5.0	<5.0	<5.0	**80.3**	<5.0	<5.0	**148**	<15.0	373	0.87
	9/7/16	<1.2	5.5	<0.94	<0.42	<1.0	<1.2	**370**	24	<1.2	<0.58	<6.2	<1.2	<1.2	<1.2	**35.1**	<1.2	<1.2	**143**	<3.8	143	2.2
PAL[A]		0.5	85		0.5	0.7		7	20	140		10	NE	0.5	160	0.5	96*	96*	0.02	400	NE	NE
ES[B]		5	850		5	7		70	100	700		100	NE	5	800	5	480*	480*	0.2	2,000	NE	NE

Notes:

ug/L = micrograms per liter *PAL & ES are for combined isomers <2.5 - not detected at the detection limit shown NT=Not Tested

PAL - Preventive Action Limit, Wisconsin Administrative Code NR 140.10 Table 1, February 2004 exc ES - Enforcement Standard, Wisconsin Administrative Code NR 140.10 Table 1, February 2004, exceedances are **bold**.

Table 2
Effluent Summary
KEP Groundwater Remediation Systems
Kenosha, Wisconsin

Well Location	Sample Date	1,1-Dichloroethene (ug/L)	1,1-Dichloroethane (ug/L)	trans-1,2-Dichloroethene (ug/L)	1,2,4-Trimethylbenzene (ug/L)	1,1,1-Trichloroethane (ug/L)	Benzene (ug/L)	cis-1,2-Dichloroethene (ug/L)	Ethylbenzene (ug/L)	Methyl tert-butyl ether (ug/L)	Methylene Chloride	Isopropylbenzene (ug/L)	Naphthalene (ug/L)	N-Propylbenzene (ug/L)	Toluene (ug/L)	Trichloroethene (ug/L)	Vinyl chloride (ug/L)	Xylenes, Total (ug/L)	Gasoline Range Organics (ug/L)	Diesel Range Organics (mg/L)
Sump 6	9/28/2011	ND	ND	1.9 J	ND	ND	ND	42	ND	ND	ND	ND	ND	ND	ND	18	0.81 J	ND	<10	0.22 B
	3/26/2012	1.5 J	4.6	24	ND	ND	ND	320	ND	ND	ND	ND	ND	ND	ND	430	8.5	ND	240	0.35
	7/9/2012	ND	1.7	7.8	ND	ND	ND	140	ND	ND	ND	ND	ND	ND	ND	160	3.4	ND	95	0.18
	10/2/2012	ND	2.8	13	ND	ND	ND	290	ND	ND	ND	ND	ND	ND	ND	280	8.8	ND	170	0.23
	4/4/2013	ND	1.6	9.3	ND	ND	ND	130	ND	ND	ND	ND	ND	ND	ND	230	1.5	ND	110	0.25
	6/25/2013	ND	ND	1.1	ND	ND	ND	19	ND	ND	ND	ND	ND	ND	ND	13	ND	ND	14 J	0.23
	10/10/2013	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	8.8	ND	ND	<8.8	0.36
	1/8/2014	0.54 J	1.9	9.8	ND	ND	ND	200	ND	ND	ND	ND	ND	ND	ND	110	8.9	ND	96	0.16
	3/6/2015	<0.41	<0.24	<0.26	<0.50	ND	<0.50	0.53 J	<0.50	<0.17	ND	<0.14	<2.5	<0.50	<0.50	1.2	<0.18	<1.5	<29.6	0.3
	3/9/2016	<0.41	<0.24	2.0	<0.50	ND	<0.50	29.3	<0.50	<0.17	ND	<0.14	<2.5	<0.50	<0.50	56.5	0.55 J	<1.5	<29.6	0.17
	9/7/2016	<0.41	<0.24	1.5	<0.50	<0.50	<0.50	43.2	<0.50	0.48J	<0.23	<0.14	<2.5	<0.50	<0.50	27.8	<0.18	<1.5	<29.6	0.17
Sump 18/23	3/30/2012	ND	ND	ND	ND	ND	0.62 J	5.8	ND	ND	ND	ND	0.56 J	ND	ND	ND	0.30 J	ND	26 J	2.5
	7/9/2012	ND	ND	ND	ND	ND	0.28 J	4.1	ND	ND	ND	ND	ND	ND	ND	ND	0.56	ND	<6.9	1.6
	10/2/2012	ND	ND	ND	ND	ND	ND	2.8	ND	ND	ND	ND	ND	ND	ND	ND	0.34 J	ND	<6.9	2.3
	4/4/2013	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<8.8	0.85
	6/24/2013	ND	ND	ND	ND	ND	1.1	5.5	ND	ND	ND	ND	ND	ND	ND	ND	0.89	ND	<8.8	0.87
	10/10/2013	ND	1.1	ND	ND	ND	0.75	ND	ND	ND	ND	ND	ND	ND	0.26 J	ND	0.76	ND	<8.8	1.4
	1/8/2014	ND	2	ND	ND	ND	0.76	12	ND	ND	ND	ND	ND	ND	0.36 J	ND	0.61	0.32 J	10 J	0.92
	9/11/2015	<0.41	<0.24	<0.26	<0.50	ND	<0.50	0.59 J	<0.50	<0.17	ND	<0.14	<2.5	<0.50	<0.50	<0.33	<0.18	<1.50	<29.6	0.14 J
	3/9/2016	<0.41	25.9	0.97 J	1.6	ND	8.9	134	1.7	<0.17	ND	<0.14	3.1 J	<0.50	7.1	<0.33	22.7	10.3	123	1.3
	9/7/2016	<0.41	15.1	<0.26	<0.50	1.1	2.6	53.9	<0.50	<0.17	1.2	<0.14	<2.5	<0.50	0.73 J	<0.33	6.2	<1.5	29.9 J	1.2
Sump 7/15/17R	9/28/2011	ND	ND	ND	ND	ND	ND	0.82 J	ND	ND	ND	ND	ND	ND	ND	ND	0.21 J	ND	47 J	1.5 B
	3/30/2012	ND	ND	ND	ND	ND	ND	2.3	ND	ND	ND	ND	ND	ND	ND	0.62 J	ND	ND	<10	1.2
	7/11/2012	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<6.9	2.2
	9/28/2012	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<6.9	1.7
	4/4/2013	ND	ND	ND	ND	ND	ND	1.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<8.8	0.71
	6/25/2013	ND	ND	ND	ND	ND	ND	2.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<8.8	2.3
	10/10/2013	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<8.8	3.5
	1/8/2014	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	<8.8	1.2
	6/19/2014	<0.41	0.91 J	0.83 J	<0.50	ND	<0.50	22.7	<0.50	<0.17	ND	<0.14	<2.5	<0.50	<0.50	0.94 J	1.7	<1.5	<29.6	3.1
	9/5/2014	<0.41	0.35 J	2	<0.50	ND	<0.50	28.4	<0.50	<0.17	ND	<0.14	<2.5	<0.50	<0.50	2.0	0.69 J	<1.5	31.8 J	1.3
	12/3/2014	<0.41	<0.24	<0.26	<0.50	ND	<0.50	<0.26	<0.50	<0.17	ND	<0.14	<2.5	<0.50	<0.50	<0.33	<0.18	<1.5	<29.6	1.4
	9/9/2015	<0.41	<0.24	<0.26	<0.50	ND	<0.50	<0.26	<0.50	<0.17	ND	<0.14	<2.5	<0.50	<0.50	<0.33	<0.18	<1.5	<29.6	0.32
	3/9/2016	<0.41	<0.24	<0.26	<0.50	ND	<0.50	<0.26	<0.50	<0.17	ND	<0.14	<2.5	<0.50	<0.50	<0.33	<0.18	<1.5	<29.6	1.8
	9/7/2016	<0.41	<0.24	<0.26	<0.50	0.5	<0.50	<0.26	<0.50	<0.17	<0.23	<0.14	<2.5	<0.50	<0.50	<0.33	<0.18	<1.5	<29.6	0.54

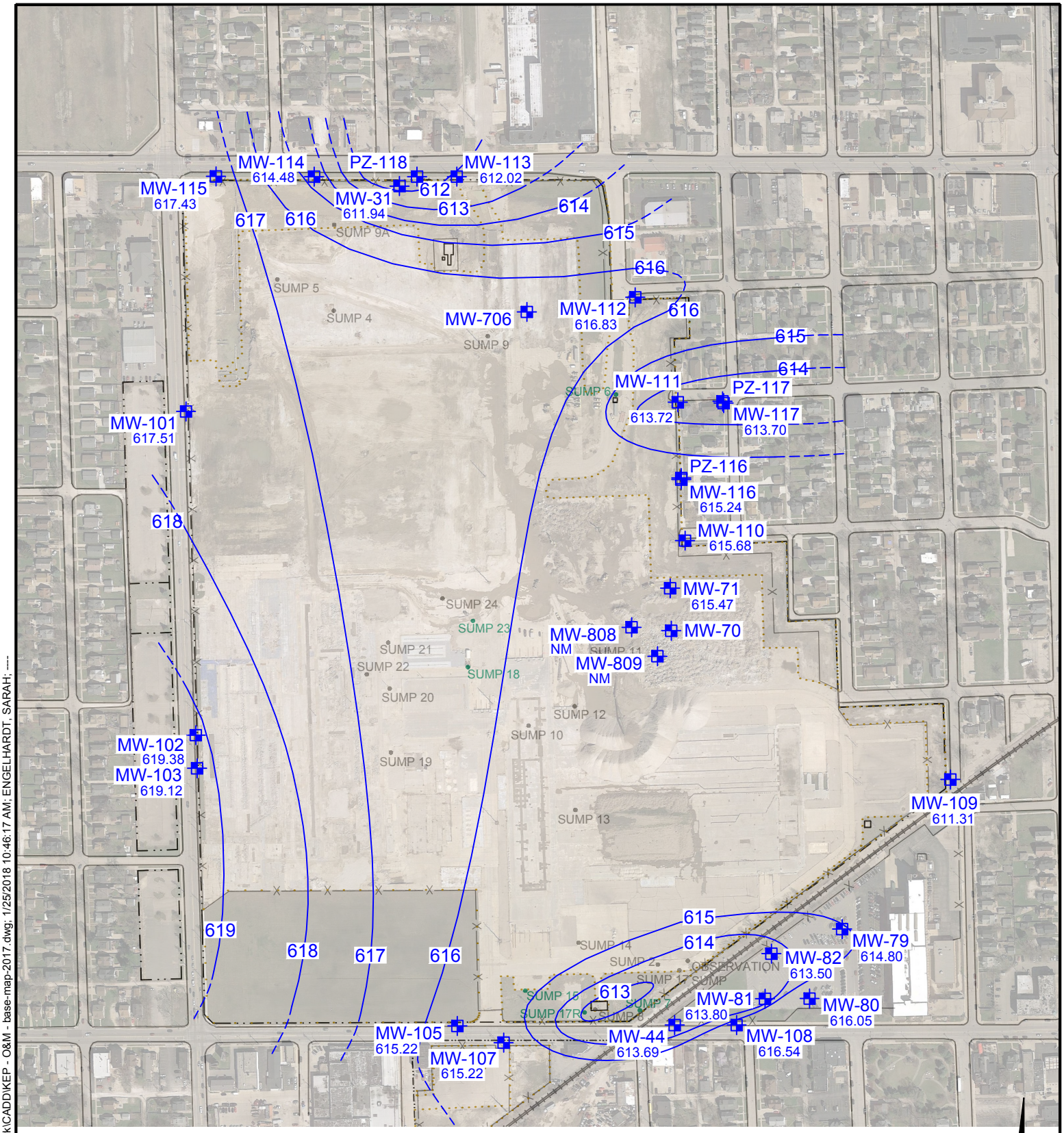
Notes:
<0.50 = not detected at the concentration shown after the less-than (<) sign.

Table 3
Remedial Systems Operational Data
Kenosha Engine Plant
5555 30th Ave Kenosha, Wisconsin

Sump	Date	Flow Meter Reading	Total Flow	Permits Limit Achieved by Effluent?		
				GRO	DRO	VOC's
6	8/3/2016	1,398,332.95	381,114.40	Yes	Yes	Yes
	8/29/2016	1,443,447.67	45,114.72			
	9/28/2016	29,601.90	389,601.90			
	11/3/2016	458,617.50	429,015.60			
	11/30/2016	953,650.50	495,033.00			
	1/6/2017	1,123,803.50	170,153.00			
18	8/3/2016	3,015,177.80	94,914.10	Yes	Yes	Yes
	8/29/2016	3,082,256.50	67,078.70			
	9/28/2016	3,177,574.60	95,318.10			
	11/3/2016	3,220,011.50	42,436.90			
	11/30/2016	3,276,089.50	56,078.00			
	1/6/2017	3,356,030.25	79,940.75			
23	8/3/2016	4,238,580.10	0.00	Pump not in operation during semi-annual period No effluent sample		
	8/29/2016	4,238,580.10	0.00			
	9/28/2016	4,238,580.10	0.00			
	11/3/2016	4,238,580.10	0.00			
	11/30/2016	4,238,580.10	0.00			
	1/6/2017	4,238,580.10	0.00			
7	8/3/2016	46,908.71	18,557.60	Yes	Yes	Yes
	8/29/2016	54,537.62	7,628.9			
	9/28/2016	62,293.83	7,756.2			
	11/3/2016	69,537.76	7,243.9			
	11/30/2016	76,415.46	6,877.7			
	1/6/2017	87,241.45	10,826.0			
15	8/3/2016	39,702.13	0.60	Pump not in operation during semi-annual period No effluent sample		
	8/29/2016	39,702.13	0.00			
	9/28/2016	39,702.13	0.00			
	11/3/2016	39,702.13	0.00			
	11/30/2016	39,702.13	0.00			
	1/6/2017	39,702.13	0.00			
17R	8/3/2016	47,191.43	47,191.43	Yes	Yes	Yes
	8/29/2016	97,434.58	50,243.2			
	9/28/2016	125,591.39	28,156.8			
	11/3/2016	148,112.51	22,521.1			
	11/30/2016	168,524.32	20,411.8			
	1/6/2017	179,580.62	11,056.3			

Notes:
1) Total flow is difference of current month flow reading minus prior month flow reading, unless otherwise noted.
2) No meter on effluent discharge at any of the systems
3) Total flow covers the time period from 6/29/2016 to 1/6/2017.

Figure



LEGEND:

MONITORING WELLS SAMPLED

ELEVATIONS IN MEAN SEA LEVEL (NGVD 1929)

0 400

1" = 400'

AECOM

1555 RiverCenter Dr
Milwaukee, WI 53212
414.944.6080
www.aecom.com

DECEMBER 2016 GROUNDWATER FLOW
PERIMETER MONITORING WELLS
KENOSHA ENGINE PLANT
CITY OF KENOSHA
KENOSHA, WISCONSIN

Drawn :	SAE	1/25/2018
Checked:	LLA	1/25/2018
Approved:	KWB	1/25/2018
PROJECT NUMBER	60485212	
FIGURE NUMBER	1	

Attachment

Laboratory Analytical Report

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

March 22, 2016

Lanette Altenbach
AECOM, Inc.- MILWAUKEE
1555 N River Center Drive
Suite 214
Milwaukee, WI 53212

RE: Project: 60485212 KEP-SEMI ANNUAL SYS
Pace Project No.: 40129253

Dear Lanette Altenbach:
Enclosed are the analytical results for sample(s) received by the laboratory on March 10, 2016. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Christopher Hyska

Christopher Hyska
christopher.hyska@pacelabs.com
Project Manager

Enclosures

cc: Ken Brown, AECOM, Inc. - MILWAUKEE
Sarah Engelhardt, AECOM, Inc. - MILWAUKEE

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

CERTIFICATIONS

Project: 60485212 KEP-SEMI ANNUAL SYS
Pace Project No.: 40129253

Green Bay Certification IDs
1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
Virginia VELAP ID: 460263
North Dakota Certification #: R-150
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
US Dept of Agriculture #: S-76505
Virginia VELAP Certification ID: 460263
Virginia VELAP ID: 460263
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE SUMMARY

Project: 60485212 KEP-SEMI ANNUAL SYS
Pace Project No.: 40129253

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40129253001	**SUMP 6 IN**	Water	03/09/16 09:40	03/10/16 15:20
40129253002	**SUMP 6 EFF**	Water	03/09/16 09:50	03/10/16 15:20
40129253003	**SUMP 7 IN**	Water	03/09/16 11:40	03/10/16 15:20
40129253004	**SUMP 17R IN**	Water	03/09/16 11:50	03/10/16 15:20
40129253005	**SUMP 7/17R EFF**	Water	03/09/16 12:00	03/10/16 15:20
40129253006	**SUMP 18 IN**	Water	03/09/16 14:30	03/10/16 15:20
40129253007	**SUMP 18 EFF**	Water	03/09/16 14:40	03/10/16 15:20
40129253008	**TRIP BLANK**	Water	03/09/16 09:00	03/10/16 15:20

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

SAMPLE ANALYTE COUNT

Project: 60485212 KEP-SEMI ANNUAL SYS
Pace Project No.: 40129253

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40129253001	**SUMP 6 IN**	WI MOD DRO	CAH	1	PASI-G
		WI MOD GRO	PMS	1	PASI-G
		EPA 8260	HNW	63	PASI-G
40129253002	**SUMP 6 EFF**	WI MOD DRO	CAH	1	PASI-G
		WI MOD GRO	PMS	1	PASI-G
		EPA 8260	HNW	63	PASI-G
40129253003	**SUMP 7 IN**	WI MOD DRO	CAH	1	PASI-G
		WI MOD GRO	PMS	1	PASI-G
		EPA 8260	HNW	63	PASI-G
40129253004	**SUMP 17R IN**	WI MOD DRO	CAH	1	PASI-G
		WI MOD GRO	PMS	1	PASI-G
		EPA 8260	HNW	63	PASI-G
40129253005	**SUMP 7/17R EFF**	WI MOD DRO	CAH	1	PASI-G
		WI MOD GRO	PMS	1	PASI-G
		EPA 8260	HNW	63	PASI-G
40129253006	**SUMP 18 IN**	WI MOD DRO	CAH	1	PASI-G
		WI MOD GRO	PMS	1	PASI-G
		EPA 8260	HNW	63	PASI-G
40129253007	**SUMP 18 EFF**	WI MOD DRO	CAH	1	PASI-G
		WI MOD GRO	PMS	1	PASI-G
		EPA 8260	HNW	63	PASI-G
40129253008	**TRIP BLANK**	WI MOD GRO	PMS	1	PASI-G
		EPA 8260	HNW	63	PASI-G

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 60485212 KEP-SEMI ANNUAL SYS
Pace Project No.: 40129253

Sample: SUMP 6 IN **Lab ID: 40129253001** Collected: 03/09/16 09:40 Received: 03/10/16 15:20 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIDRO GCS	Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO								
Diesel Range Organics	**0.22**	mg/L	0.048	0.020	1	03/16/16 13:45	03/21/16 08:22		T4
WIGRO GCV	Analytical Method: WI MOD GRO								
Gasoline Range Organics	**413**	ug/L	50.0	29.6	1		03/14/16 12:35		G-
8260 MSV	Analytical Method: EPA 8260								
Benzene	**<5.0**	ug/L	10.0	5.0	10		03/21/16 08:38	71-43-2	
Bromobenzene	**<2.3**	ug/L	10.0	2.3	10		03/21/16 08:38	108-86-1	
Bromochloromethane	**<3.4**	ug/L	10.0	3.4	10		03/21/16 08:38	74-97-5	
Bromodichloromethane	**<5.0**	ug/L	10.0	5.0	10		03/21/16 08:38	75-27-4	
Bromoform	**<5.0**	ug/L	10.0	5.0	10		03/21/16 08:38	75-25-2	
Bromomethane	**<24.3**	ug/L	50.0	24.3	10		03/21/16 08:38	74-83-9	
n-Butylbenzene	**<5.0**	ug/L	10.0	5.0	10		03/21/16 08:38	104-51-8	
sec-Butylbenzene	**<21.9**	ug/L	50.0	21.9	10		03/21/16 08:38	135-98-8	
tert-Butylbenzene	**<1.8**	ug/L	10.0	1.8	10		03/21/16 08:38	98-06-6	
Carbon tetrachloride	**<5.0**	ug/L	10.0	5.0	10		03/21/16 08:38	56-23-5	
Chlorobenzene	**<5.0**	ug/L	10.0	5.0	10		03/21/16 08:38	108-90-7	
Chloroethane	**<3.7**	ug/L	10.0	3.7	10		03/21/16 08:38	75-00-3	
Chloroform	**<25.0**	ug/L	50.0	25.0	10		03/21/16 08:38	67-66-3	
Chloromethane	**<5.0**	ug/L	10.0	5.0	10		03/21/16 08:38	74-87-3	
2-Chlorotoluene	**<5.0**	ug/L	10.0	5.0	10		03/21/16 08:38	95-49-8	
4-Chlorotoluene	**<2.1**	ug/L	10.0	2.1	10		03/21/16 08:38	106-43-4	
1,2-Dibromo-3-chloropropane	**<21.6**	ug/L	50.0	21.6	10		03/21/16 08:38	96-12-8	
Dibromochloromethane	**<5.0**	ug/L	10.0	5.0	10		03/21/16 08:38	124-48-1	
1,2-Dibromoethane (EDB)	**<1.8**	ug/L	10.0	1.8	10		03/21/16 08:38	106-93-4	
Dibromomethane	**<4.3**	ug/L	10.0	4.3	10		03/21/16 08:38	74-95-3	
1,2-Dichlorobenzene	**<5.0**	ug/L	10.0	5.0	10		03/21/16 08:38	95-50-1	
1,3-Dichlorobenzene	**<5.0**	ug/L	10.0	5.0	10		03/21/16 08:38	541-73-1	
1,4-Dichlorobenzene	**<5.0**	ug/L	10.0	5.0	10		03/21/16 08:38	106-46-7	
Dichlorodifluoromethane	**<2.2**	ug/L	10.0	2.2	10		03/21/16 08:38	75-71-8	
1,1-Dichloroethane	**3.2J**	ug/L	10.0	2.4	10		03/21/16 08:38	75-34-3	
1,2-Dichloroethane	**<1.7**	ug/L	10.0	1.7	10		03/21/16 08:38	107-06-2	
1,1-Dichloroethene	**<4.1**	ug/L	10.0	4.1	10		03/21/16 08:38	75-35-4	
cis-1,2-Dichloroethene	**439**	ug/L	10.0	2.6	10		03/21/16 08:38	156-59-2	
trans-1,2-Dichloroethene	**43.5**	ug/L	10.0	2.6	10		03/21/16 08:38	156-60-5	
1,2-Dichloropropane	**<2.3**	ug/L	10.0	2.3	10		03/21/16 08:38	78-87-5	
1,3-Dichloropropane	**<5.0**	ug/L	10.0	5.0	10		03/21/16 08:38	142-28-9	
2,2-Dichloropropane	**<4.8**	ug/L	10.0	4.8	10		03/21/16 08:38	594-20-7	
1,1-Dichloropropene	**<4.4**	ug/L	10.0	4.4	10		03/21/16 08:38	563-58-6	
cis-1,3-Dichloropropene	**<5.0**	ug/L	10.0	5.0	10		03/21/16 08:38	10061-01-5	
trans-1,3-Dichloropropene	**<2.3**	ug/L	10.0	2.3	10		03/21/16 08:38	10061-02-6	
Diisopropyl ether	**<5.0**	ug/L	10.0	5.0	10		03/21/16 08:38	108-20-3	
Ethylbenzene	**<5.0**	ug/L	10.0	5.0	10		03/21/16 08:38	100-41-4	
Hexachloro-1,3-butadiene	**<21.1**	ug/L	50.0	21.1	10		03/21/16 08:38	87-68-3	
Isopropylbenzene (Cumene)	**<1.4**	ug/L	10.0	1.4	10		03/21/16 08:38	98-82-8	
p-Isopropyltoluene	**<5.0**	ug/L	10.0	5.0	10		03/21/16 08:38	99-87-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 60485212 KEP-SEMI ANNUAL SYS
Pace Project No.: 40129253

Sample: SUMP 6 IN **Lab ID: 40129253001** Collected: 03/09/16 09:40 Received: 03/10/16 15:20 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Methylene Chloride	**<2.3**	ug/L	10.0	2.3	10		03/21/16 08:38	75-09-2	
Methyl-tert-butyl ether	**<1.7**	ug/L	10.0	1.7	10		03/21/16 08:38	1634-04-4	
Naphthalene	**<25.0**	ug/L	50.0	25.0	10		03/21/16 08:38	91-20-3	
n-Propylbenzene	**<5.0**	ug/L	10.0	5.0	10		03/21/16 08:38	103-65-1	
Styrene	**<5.0**	ug/L	10.0	5.0	10		03/21/16 08:38	100-42-5	
1,1,1,2-Tetrachloroethane	**<1.8**	ug/L	10.0	1.8	10		03/21/16 08:38	630-20-6	
1,1,2,2-Tetrachloroethane	**<2.5**	ug/L	10.0	2.5	10		03/21/16 08:38	79-34-5	
Tetrachloroethene	**<5.0**	ug/L	10.0	5.0	10		03/21/16 08:38	127-18-4	
Toluene	**<5.0**	ug/L	10.0	5.0	10		03/21/16 08:38	108-88-3	
1,2,3-Trichlorobenzene	**<21.3**	ug/L	50.0	21.3	10		03/21/16 08:38	87-61-6	
1,2,4-Trichlorobenzene	**<22.1**	ug/L	50.0	22.1	10		03/21/16 08:38	120-82-1	
1,1,1-Trichloroethane	**<5.0**	ug/L	10.0	5.0	10		03/21/16 08:38	71-55-6	
1,1,2-Trichloroethane	**<2.0**	ug/L	10.0	2.0	10		03/21/16 08:38	79-00-5	
Trichloroethene	**1010**	ug/L	10.0	3.3	10		03/21/16 08:38	79-01-6	
Trichlorofluoromethane	**<1.8**	ug/L	10.0	1.8	10		03/21/16 08:38	75-69-4	
1,2,3-Trichloropropane	**<5.0**	ug/L	10.0	5.0	10		03/21/16 08:38	96-18-4	
1,2,4-Trimethylbenzene	**<5.0**	ug/L	10.0	5.0	10		03/21/16 08:38	95-63-6	
1,3,5-Trimethylbenzene	**<5.0**	ug/L	10.0	5.0	10		03/21/16 08:38	108-67-8	
Vinyl chloride	**17.3**	ug/L	10.0	1.8	10		03/21/16 08:38	75-01-4	
Xylene (Total)	**<15.0**	ug/L	30.0	15.0	10		03/21/16 08:38	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		10		03/21/16 08:38	460-00-4	
Dibromofluoromethane (S)	104	%	70-130		10		03/21/16 08:38	1868-53-7	
Toluene-d8 (S)	100	%	70-130		10		03/21/16 08:38	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 60485212 KEP-SEMI ANNUAL SYS
Pace Project No.: 40129253

Sample: SUMP 6 EFF **Lab ID: 40129253002** Collected: 03/09/16 09:50 Received: 03/10/16 15:20 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIDRO GCS	Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO								
Diesel Range Organics	**0.17**	mg/L	0.048	0.020	1	03/16/16 13:45	03/21/16 08:31		T4
WIGRO GCV	Analytical Method: WI MOD GRO								
Gasoline Range Organics	**<29.6**	ug/L	50.0	29.6	1		03/14/16 13:01		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 11:37	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		03/21/16 11:37	108-86-1	
Bromochloromethane	**<0.34**	ug/L	1.0	0.34	1		03/21/16 11:37	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		03/21/16 11:37	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		03/21/16 11:37	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		03/21/16 11:37	74-83-9	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 11:37	104-51-8	
sec-Butylbenzene	**<2.2**	ug/L	5.0	2.2	1		03/21/16 11:37	135-98-8	
tert-Butylbenzene	**<0.18**	ug/L	1.0	0.18	1		03/21/16 11:37	98-06-6	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		03/21/16 11:37	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 11:37	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		03/21/16 11:37	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		03/21/16 11:37	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		03/21/16 11:37	74-87-3	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 11:37	95-49-8	
4-Chlorotoluene	**<0.21**	ug/L	1.0	0.21	1		03/21/16 11:37	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		03/21/16 11:37	96-12-8	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		03/21/16 11:37	124-48-1	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		03/21/16 11:37	106-93-4	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		03/21/16 11:37	74-95-3	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 11:37	95-50-1	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 11:37	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 11:37	106-46-7	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		03/21/16 11:37	75-71-8	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		03/21/16 11:37	75-34-3	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		03/21/16 11:37	107-06-2	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		03/21/16 11:37	75-35-4	
cis-1,2-Dichloroethene	**29.3**	ug/L	1.0	0.26	1		03/21/16 11:37	156-59-2	
trans-1,2-Dichloroethene	**2.0**	ug/L	1.0	0.26	1		03/21/16 11:37	156-60-5	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		03/21/16 11:37	78-87-5	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		03/21/16 11:37	142-28-9	
2,2-Dichloropropane	**<0.48**	ug/L	1.0	0.48	1		03/21/16 11:37	594-20-7	
1,1-Dichloropropene	**<0.44**	ug/L	1.0	0.44	1		03/21/16 11:37	563-58-6	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 11:37	10061-01-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		03/21/16 11:37	10061-02-6	
Diisopropyl ether	**<0.50**	ug/L	1.0	0.50	1		03/21/16 11:37	108-20-3	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 11:37	100-41-4	
Hexachloro-1,3-butadiene	**<2.1**	ug/L	5.0	2.1	1		03/21/16 11:37	87-68-3	
Isopropylbenzene (Cumene)	**<0.14**	ug/L	1.0	0.14	1		03/21/16 11:37	98-82-8	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 11:37	99-87-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 60485212 KEP-SEMI ANNUAL SYS
Pace Project No.: 40129253

Sample: SUMP 6 EFF **Lab ID: 40129253002** Collected: 03/09/16 09:50 Received: 03/10/16 15:20 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		03/21/16 11:37	75-09-2	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		03/21/16 11:37	1634-04-4	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		03/21/16 11:37	91-20-3	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 11:37	103-65-1	
Styrene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 11:37	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.18**	ug/L	1.0	0.18	1		03/21/16 11:37	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.25**	ug/L	1.0	0.25	1		03/21/16 11:37	79-34-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 11:37	127-18-4	
Toluene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 11:37	108-88-3	
1,2,3-Trichlorobenzene	**<2.1**	ug/L	5.0	2.1	1		03/21/16 11:37	87-61-6	
1,2,4-Trichlorobenzene	**<2.2**	ug/L	5.0	2.2	1		03/21/16 11:37	120-82-1	
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		03/21/16 11:37	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		03/21/16 11:37	79-00-5	
Trichloroethene	**56.5**	ug/L	1.0	0.33	1		03/21/16 11:37	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		03/21/16 11:37	75-69-4	
1,2,3-Trichloropropane	**<0.50**	ug/L	1.0	0.50	1		03/21/16 11:37	96-18-4	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 11:37	95-63-6	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 11:37	108-67-8	
Vinyl chloride	**0.55J**	ug/L	1.0	0.18	1		03/21/16 11:37	75-01-4	
Xylene (Total)	**<1.5**	ug/L	3.0	1.5	1		03/21/16 11:37	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		03/21/16 11:37	460-00-4	
Dibromofluoromethane (S)	104	%	70-130		1		03/21/16 11:37	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		03/21/16 11:37	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 60485212 KEP-SEMI ANNUAL SYS
Pace Project No.: 40129253

Sample: SUMP 7 IN **Lab ID: 40129253003** Collected: 03/09/16 11:40 Received: 03/10/16 15:20 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIDRO GCS	Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO								
Diesel Range Organics	**1.1**	mg/L	0.047	0.019	1	03/16/16 13:45	03/21/16 08:40		T4
WIGRO GCV	Analytical Method: WI MOD GRO								
Gasoline Range Organics	**<29.6**	ug/L	50.0	29.6	1		03/14/16 19:01		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:00	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		03/21/16 12:00	108-86-1	
Bromochloromethane	**<0.34**	ug/L	1.0	0.34	1		03/21/16 12:00	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:00	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:00	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		03/21/16 12:00	74-83-9	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:00	104-51-8	
sec-Butylbenzene	**<2.2**	ug/L	5.0	2.2	1		03/21/16 12:00	135-98-8	
tert-Butylbenzene	**<0.18**	ug/L	1.0	0.18	1		03/21/16 12:00	98-06-6	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:00	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:00	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		03/21/16 12:00	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		03/21/16 12:00	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:00	74-87-3	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:00	95-49-8	
4-Chlorotoluene	**<0.21**	ug/L	1.0	0.21	1		03/21/16 12:00	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		03/21/16 12:00	96-12-8	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:00	124-48-1	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		03/21/16 12:00	106-93-4	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		03/21/16 12:00	74-95-3	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:00	95-50-1	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:00	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:00	106-46-7	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		03/21/16 12:00	75-71-8	
1,1-Dichloroethane	**0.31J**	ug/L	1.0	0.24	1		03/21/16 12:00	75-34-3	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		03/21/16 12:00	107-06-2	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		03/21/16 12:00	75-35-4	
cis-1,2-Dichloroethene	**10.4**	ug/L	1.0	0.26	1		03/21/16 12:00	156-59-2	
trans-1,2-Dichloroethene	**2.6**	ug/L	1.0	0.26	1		03/21/16 12:00	156-60-5	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		03/21/16 12:00	78-87-5	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:00	142-28-9	
2,2-Dichloropropane	**<0.48**	ug/L	1.0	0.48	1		03/21/16 12:00	594-20-7	
1,1-Dichloropropene	**<0.44**	ug/L	1.0	0.44	1		03/21/16 12:00	563-58-6	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:00	10061-01-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		03/21/16 12:00	10061-02-6	
Diisopropyl ether	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:00	108-20-3	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:00	100-41-4	
Hexachloro-1,3-butadiene	**<2.1**	ug/L	5.0	2.1	1		03/21/16 12:00	87-68-3	
Isopropylbenzene (Cumene)	**<0.14**	ug/L	1.0	0.14	1		03/21/16 12:00	98-82-8	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:00	99-87-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 60485212 KEP-SEMI ANNUAL SYS
Pace Project No.: 40129253

Sample: SUMP 7 IN **Lab ID: 40129253003** Collected: 03/09/16 11:40 Received: 03/10/16 15:20 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		03/21/16 12:00	75-09-2	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		03/21/16 12:00	1634-04-4	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		03/21/16 12:00	91-20-3	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:00	103-65-1	
Styrene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:00	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.18**	ug/L	1.0	0.18	1		03/21/16 12:00	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.25**	ug/L	1.0	0.25	1		03/21/16 12:00	79-34-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:00	127-18-4	
Toluene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:00	108-88-3	
1,2,3-Trichlorobenzene	**<2.1**	ug/L	5.0	2.1	1		03/21/16 12:00	87-61-6	
1,2,4-Trichlorobenzene	**<2.2**	ug/L	5.0	2.2	1		03/21/16 12:00	120-82-1	
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:00	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		03/21/16 12:00	79-00-5	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		03/21/16 12:00	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		03/21/16 12:00	75-69-4	
1,2,3-Trichloropropane	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:00	96-18-4	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:00	95-63-6	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:00	108-67-8	
Vinyl chloride	**2.3**	ug/L	1.0	0.18	1		03/21/16 12:00	75-01-4	
Xylene (Total)	**<1.5**	ug/L	3.0	1.5	1		03/21/16 12:00	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		03/21/16 12:00	460-00-4	
Dibromofluoromethane (S)	101	%	70-130		1		03/21/16 12:00	1868-53-7	
Toluene-d8 (S)	98	%	70-130		1		03/21/16 12:00	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 60485212 KEP-SEMI ANNUAL SYS
Pace Project No.: 40129253

Sample: SUMP 17R IN **Lab ID: 40129253004** Collected: 03/09/16 11:50 Received: 03/10/16 15:20 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIDRO GCS	Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO								
Diesel Range Organics	**0.87**	mg/L	0.048	0.019	1	03/16/16 13:45	03/21/16 08:49		T4
WIGRO GCV	Analytical Method: WI MOD GRO								
Gasoline Range Organics	**373**	ug/L	50.0	29.6	1		03/14/16 15:35		G-
8260 MSV	Analytical Method: EPA 8260								
Benzene	**<5.0**	ug/L	10.0	5.0	10		03/21/16 10:30	71-43-2	
Bromobenzene	**<2.3**	ug/L	10.0	2.3	10		03/21/16 10:30	108-86-1	
Bromochloromethane	**<3.4**	ug/L	10.0	3.4	10		03/21/16 10:30	74-97-5	
Bromodichloromethane	**<5.0**	ug/L	10.0	5.0	10		03/21/16 10:30	75-27-4	
Bromoform	**<5.0**	ug/L	10.0	5.0	10		03/21/16 10:30	75-25-2	
Bromomethane	**<24.3**	ug/L	50.0	24.3	10		03/21/16 10:30	74-83-9	
n-Butylbenzene	**<5.0**	ug/L	10.0	5.0	10		03/21/16 10:30	104-51-8	
sec-Butylbenzene	**<21.9**	ug/L	50.0	21.9	10		03/21/16 10:30	135-98-8	
tert-Butylbenzene	**<1.8**	ug/L	10.0	1.8	10		03/21/16 10:30	98-06-6	
Carbon tetrachloride	**<5.0**	ug/L	10.0	5.0	10		03/21/16 10:30	56-23-5	
Chlorobenzene	**<5.0**	ug/L	10.0	5.0	10		03/21/16 10:30	108-90-7	
Chloroethane	**<3.7**	ug/L	10.0	3.7	10		03/21/16 10:30	75-00-3	
Chloroform	**<25.0**	ug/L	50.0	25.0	10		03/21/16 10:30	67-66-3	
Chloromethane	**<5.0**	ug/L	10.0	5.0	10		03/21/16 10:30	74-87-3	
2-Chlorotoluene	**<5.0**	ug/L	10.0	5.0	10		03/21/16 10:30	95-49-8	
4-Chlorotoluene	**<2.1**	ug/L	10.0	2.1	10		03/21/16 10:30	106-43-4	
1,2-Dibromo-3-chloropropane	**<21.6**	ug/L	50.0	21.6	10		03/21/16 10:30	96-12-8	
Dibromochloromethane	**<5.0**	ug/L	10.0	5.0	10		03/21/16 10:30	124-48-1	
1,2-Dibromoethane (EDB)	**<1.8**	ug/L	10.0	1.8	10		03/21/16 10:30	106-93-4	
Dibromomethane	**<4.3**	ug/L	10.0	4.3	10		03/21/16 10:30	74-95-3	
1,2-Dichlorobenzene	**<5.0**	ug/L	10.0	5.0	10		03/21/16 10:30	95-50-1	
1,3-Dichlorobenzene	**<5.0**	ug/L	10.0	5.0	10		03/21/16 10:30	541-73-1	
1,4-Dichlorobenzene	**<5.0**	ug/L	10.0	5.0	10		03/21/16 10:30	106-46-7	
Dichlorodifluoromethane	**<2.2**	ug/L	10.0	2.2	10		03/21/16 10:30	75-71-8	
1,1-Dichloroethane	**6.0J**	ug/L	10.0	2.4	10		03/21/16 10:30	75-34-3	
1,2-Dichloroethane	**<1.7**	ug/L	10.0	1.7	10		03/21/16 10:30	107-06-2	
1,1-Dichloroethene	**<4.1**	ug/L	10.0	4.1	10		03/21/16 10:30	75-35-4	
cis-1,2-Dichloroethene	**982**	ug/L	10.0	2.6	10		03/21/16 10:30	156-59-2	
trans-1,2-Dichloroethene	**72.3**	ug/L	10.0	2.6	10		03/21/16 10:30	156-60-5	
1,2-Dichloropropane	**<2.3**	ug/L	10.0	2.3	10		03/21/16 10:30	78-87-5	
1,3-Dichloropropane	**<5.0**	ug/L	10.0	5.0	10		03/21/16 10:30	142-28-9	
2,2-Dichloropropane	**<4.8**	ug/L	10.0	4.8	10		03/21/16 10:30	594-20-7	
1,1-Dichloropropene	**<4.4**	ug/L	10.0	4.4	10		03/21/16 10:30	563-58-6	
cis-1,3-Dichloropropene	**<5.0**	ug/L	10.0	5.0	10		03/21/16 10:30	10061-01-5	
trans-1,3-Dichloropropene	**<2.3**	ug/L	10.0	2.3	10		03/21/16 10:30	10061-02-6	
Diisopropyl ether	**<5.0**	ug/L	10.0	5.0	10		03/21/16 10:30	108-20-3	
Ethylbenzene	**<5.0**	ug/L	10.0	5.0	10		03/21/16 10:30	100-41-4	
Hexachloro-1,3-butadiene	**<21.1**	ug/L	50.0	21.1	10		03/21/16 10:30	87-68-3	
Isopropylbenzene (Cumene)	**<1.4**	ug/L	10.0	1.4	10		03/21/16 10:30	98-82-8	
p-Isopropyltoluene	**<5.0**	ug/L	10.0	5.0	10		03/21/16 10:30	99-87-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 60485212 KEP-SEMI ANNUAL SYS
Pace Project No.: 40129253

Sample: SUMP 17R IN **Lab ID: 40129253004** Collected: 03/09/16 11:50 Received: 03/10/16 15:20 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Methylene Chloride	**<2.3**	ug/L	10.0	2.3	10		03/21/16 10:30	75-09-2	
Methyl-tert-butyl ether	**<1.7**	ug/L	10.0	1.7	10		03/21/16 10:30	1634-04-4	
Naphthalene	**<25.0**	ug/L	50.0	25.0	10		03/21/16 10:30	91-20-3	
n-Propylbenzene	**<5.0**	ug/L	10.0	5.0	10		03/21/16 10:30	103-65-1	
Styrene	**<5.0**	ug/L	10.0	5.0	10		03/21/16 10:30	100-42-5	
1,1,1,2-Tetrachloroethane	**<1.8**	ug/L	10.0	1.8	10		03/21/16 10:30	630-20-6	
1,1,2,2-Tetrachloroethane	**<2.5**	ug/L	10.0	2.5	10		03/21/16 10:30	79-34-5	
Tetrachloroethene	**<5.0**	ug/L	10.0	5.0	10		03/21/16 10:30	127-18-4	
Toluene	**<5.0**	ug/L	10.0	5.0	10		03/21/16 10:30	108-88-3	
1,2,3-Trichlorobenzene	**<21.3**	ug/L	50.0	21.3	10		03/21/16 10:30	87-61-6	
1,2,4-Trichlorobenzene	**<22.1**	ug/L	50.0	22.1	10		03/21/16 10:30	120-82-1	
1,1,1-Trichloroethane	**<5.0**	ug/L	10.0	5.0	10		03/21/16 10:30	71-55-6	
1,1,2-Trichloroethane	**<2.0**	ug/L	10.0	2.0	10		03/21/16 10:30	79-00-5	
Trichloroethene	**80.3**	ug/L	10.0	3.3	10		03/21/16 10:30	79-01-6	
Trichlorofluoromethane	**<1.8**	ug/L	10.0	1.8	10		03/21/16 10:30	75-69-4	
1,2,3-Trichloropropane	**<5.0**	ug/L	10.0	5.0	10		03/21/16 10:30	96-18-4	
1,2,4-Trimethylbenzene	**<5.0**	ug/L	10.0	5.0	10		03/21/16 10:30	95-63-6	
1,3,5-Trimethylbenzene	**<5.0**	ug/L	10.0	5.0	10		03/21/16 10:30	108-67-8	
Vinyl chloride	**148**	ug/L	10.0	1.8	10		03/21/16 10:30	75-01-4	
Xylene (Total)	**<15.0**	ug/L	30.0	15.0	10		03/21/16 10:30	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		10		03/21/16 10:30	460-00-4	
Dibromofluoromethane (S)	104	%	70-130		10		03/21/16 10:30	1868-53-7	
Toluene-d8 (S)	99	%	70-130		10		03/21/16 10:30	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 60485212 KEP-SEMI ANNUAL SYS
Pace Project No.: 40129253

Sample: SUMP 7/17R EFF **Lab ID: 40129253005** Collected: 03/09/16 12:00 Received: 03/10/16 15:20 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIDRO GCS	Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO								
Diesel Range Organics	**1.8**	mg/L	0.048	0.020	1	03/16/16 13:45	03/21/16 08:58		T4
WIGRO GCV	Analytical Method: WI MOD GRO								
Gasoline Range Organics	**<29.6**	ug/L	50.0	29.6	1		03/14/16 21:09		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:22	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		03/21/16 12:22	108-86-1	
Bromochloromethane	**<0.34**	ug/L	1.0	0.34	1		03/21/16 12:22	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:22	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:22	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		03/21/16 12:22	74-83-9	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:22	104-51-8	
sec-Butylbenzene	**<2.2**	ug/L	5.0	2.2	1		03/21/16 12:22	135-98-8	
tert-Butylbenzene	**<0.18**	ug/L	1.0	0.18	1		03/21/16 12:22	98-06-6	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:22	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:22	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		03/21/16 12:22	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		03/21/16 12:22	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:22	74-87-3	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:22	95-49-8	
4-Chlorotoluene	**<0.21**	ug/L	1.0	0.21	1		03/21/16 12:22	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		03/21/16 12:22	96-12-8	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:22	124-48-1	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		03/21/16 12:22	106-93-4	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		03/21/16 12:22	74-95-3	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:22	95-50-1	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:22	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:22	106-46-7	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		03/21/16 12:22	75-71-8	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		03/21/16 12:22	75-34-3	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		03/21/16 12:22	107-06-2	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		03/21/16 12:22	75-35-4	
cis-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		03/21/16 12:22	156-59-2	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		03/21/16 12:22	156-60-5	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		03/21/16 12:22	78-87-5	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:22	142-28-9	
2,2-Dichloropropane	**<0.48**	ug/L	1.0	0.48	1		03/21/16 12:22	594-20-7	
1,1-Dichloropropene	**<0.44**	ug/L	1.0	0.44	1		03/21/16 12:22	563-58-6	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:22	10061-01-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		03/21/16 12:22	10061-02-6	
Diisopropyl ether	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:22	108-20-3	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:22	100-41-4	
Hexachloro-1,3-butadiene	**<2.1**	ug/L	5.0	2.1	1		03/21/16 12:22	87-68-3	
Isopropylbenzene (Cumene)	**<0.14**	ug/L	1.0	0.14	1		03/21/16 12:22	98-82-8	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:22	99-87-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 60485212 KEP-SEMI ANNUAL SYS
Pace Project No.: 40129253

Sample: SUMP 7/17R EFF **Lab ID: 40129253005** Collected: 03/09/16 12:00 Received: 03/10/16 15:20 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Methylene Chloride	**<0.23**	ug/L	1.0	0.23	1		03/21/16 12:22	75-09-2	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		03/21/16 12:22	1634-04-4	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		03/21/16 12:22	91-20-3	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:22	103-65-1	
Styrene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:22	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.18**	ug/L	1.0	0.18	1		03/21/16 12:22	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.25**	ug/L	1.0	0.25	1		03/21/16 12:22	79-34-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:22	127-18-4	
Toluene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:22	108-88-3	
1,2,3-Trichlorobenzene	**<2.1**	ug/L	5.0	2.1	1		03/21/16 12:22	87-61-6	
1,2,4-Trichlorobenzene	**<2.2**	ug/L	5.0	2.2	1		03/21/16 12:22	120-82-1	
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:22	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		03/21/16 12:22	79-00-5	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		03/21/16 12:22	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		03/21/16 12:22	75-69-4	
1,2,3-Trichloropropane	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:22	96-18-4	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:22	95-63-6	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:22	108-67-8	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		03/21/16 12:22	75-01-4	
Xylene (Total)	**<1.5**	ug/L	3.0	1.5	1		03/21/16 12:22	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	101	%	70-130		1		03/21/16 12:22	460-00-4	
Dibromofluoromethane (S)	104	%	70-130		1		03/21/16 12:22	1868-53-7	
Toluene-d8 (S)	98	%	70-130		1		03/21/16 12:22	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 60485212 KEP-SEMI ANNUAL SYS
Pace Project No.: 40129253

Sample: SUMP 18 IN **Lab ID: 40129253006** Collected: 03/09/16 14:30 Received: 03/10/16 15:20 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIDRO GCS	Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO								
Diesel Range Organics	**2.2**	mg/L	0.096	0.039	2	03/16/16 13:45	03/21/16 09:53		T4
WIGRO GCV	Analytical Method: WI MOD GRO								
Gasoline Range Organics	**3240**	ug/L	50.0	29.6	1		03/14/16 17:18		G-
8260 MSV	Analytical Method: EPA 8260								
Benzene	**357**	ug/L	25.0	12.5	25		03/21/16 10:53	71-43-2	
Bromobenzene	**<5.8**	ug/L	25.0	5.8	25		03/21/16 10:53	108-86-1	
Bromochloromethane	**<8.5**	ug/L	25.0	8.5	25		03/21/16 10:53	74-97-5	
Bromodichloromethane	**<12.5**	ug/L	25.0	12.5	25		03/21/16 10:53	75-27-4	
Bromoform	**<12.5**	ug/L	25.0	12.5	25		03/21/16 10:53	75-25-2	
Bromomethane	**<60.9**	ug/L	125	60.9	25		03/21/16 10:53	74-83-9	
n-Butylbenzene	**<12.5**	ug/L	25.0	12.5	25		03/21/16 10:53	104-51-8	
sec-Butylbenzene	**<54.7**	ug/L	125	54.7	25		03/21/16 10:53	135-98-8	
tert-Butylbenzene	**<4.5**	ug/L	25.0	4.5	25		03/21/16 10:53	98-06-6	
Carbon tetrachloride	**<12.5**	ug/L	25.0	12.5	25		03/21/16 10:53	56-23-5	
Chlorobenzene	**<12.5**	ug/L	25.0	12.5	25		03/21/16 10:53	108-90-7	
Chloroethane	**30.9**	ug/L	25.0	9.4	25		03/21/16 10:53	75-00-3	
Chloroform	**<62.5**	ug/L	125	62.5	25		03/21/16 10:53	67-66-3	
Chloromethane	**<12.5**	ug/L	25.0	12.5	25		03/21/16 10:53	74-87-3	
2-Chlorotoluene	**<12.5**	ug/L	25.0	12.5	25		03/21/16 10:53	95-49-8	
4-Chlorotoluene	**<5.3**	ug/L	25.0	5.3	25		03/21/16 10:53	106-43-4	
1,2-Dibromo-3-chloropropane	**<54.1**	ug/L	125	54.1	25		03/21/16 10:53	96-12-8	
Dibromochloromethane	**<12.5**	ug/L	25.0	12.5	25		03/21/16 10:53	124-48-1	
1,2-Dibromoethane (EDB)	**<4.4**	ug/L	25.0	4.4	25		03/21/16 10:53	106-93-4	
Dibromomethane	**<10.7**	ug/L	25.0	10.7	25		03/21/16 10:53	74-95-3	
1,2-Dichlorobenzene	**<12.5**	ug/L	25.0	12.5	25		03/21/16 10:53	95-50-1	
1,3-Dichlorobenzene	**<12.5**	ug/L	25.0	12.5	25		03/21/16 10:53	541-73-1	
1,4-Dichlorobenzene	**<12.5**	ug/L	25.0	12.5	25		03/21/16 10:53	106-46-7	
Dichlorodifluoromethane	**<5.6**	ug/L	25.0	5.6	25		03/21/16 10:53	75-71-8	
1,1-Dichloroethane	**735**	ug/L	25.0	6.0	25		03/21/16 10:53	75-34-3	
1,2-Dichloroethane	**<4.2**	ug/L	25.0	4.2	25		03/21/16 10:53	107-06-2	
1,1-Dichloroethene	**<10.3**	ug/L	25.0	10.3	25		03/21/16 10:53	75-35-4	
cis-1,2-Dichloroethene	**3180**	ug/L	25.0	6.4	25		03/21/16 10:53	156-59-2	
trans-1,2-Dichloroethene	**44.0**	ug/L	25.0	6.4	25		03/21/16 10:53	156-60-5	
1,2-Dichloropropane	**<5.8**	ug/L	25.0	5.8	25		03/21/16 10:53	78-87-5	
1,3-Dichloropropane	**<12.5**	ug/L	25.0	12.5	25		03/21/16 10:53	142-28-9	
2,2-Dichloropropane	**<12.1**	ug/L	25.0	12.1	25		03/21/16 10:53	594-20-7	
1,1-Dichloropropene	**<11.0**	ug/L	25.0	11.0	25		03/21/16 10:53	563-58-6	
cis-1,3-Dichloropropene	**<12.5**	ug/L	25.0	12.5	25		03/21/16 10:53	10061-01-5	
trans-1,3-Dichloropropene	**<5.7**	ug/L	25.0	5.7	25		03/21/16 10:53	10061-02-6	
Diisopropyl ether	**<12.5**	ug/L	25.0	12.5	25		03/21/16 10:53	108-20-3	
Ethylbenzene	**78.0**	ug/L	25.0	12.5	25		03/21/16 10:53	100-41-4	
Hexachloro-1,3-butadiene	**<52.6**	ug/L	125	52.6	25		03/21/16 10:53	87-68-3	
Isopropylbenzene (Cumene)	**<3.6**	ug/L	25.0	3.6	25		03/21/16 10:53	98-82-8	
p-Isopropyltoluene	**<12.5**	ug/L	25.0	12.5	25		03/21/16 10:53	99-87-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 60485212 KEP-SEMI ANNUAL SYS
Pace Project No.: 40129253

Sample: SUMP 18 IN **Lab ID: 40129253006** Collected: 03/09/16 14:30 Received: 03/10/16 15:20 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Methylene Chloride	**28.7**	ug/L	25.0	5.8	25		03/21/16 10:53	75-09-2	
Methyl-tert-butyl ether	**<4.4**	ug/L	25.0	4.4	25		03/21/16 10:53	1634-04-4	
Naphthalene	**<62.5**	ug/L	125	62.5	25		03/21/16 10:53	91-20-3	
n-Propylbenzene	**<12.5**	ug/L	25.0	12.5	25		03/21/16 10:53	103-65-1	
Styrene	**<12.5**	ug/L	25.0	12.5	25		03/21/16 10:53	100-42-5	
1,1,1,2-Tetrachloroethane	**<4.5**	ug/L	25.0	4.5	25		03/21/16 10:53	630-20-6	
1,1,2,2-Tetrachloroethane	**<6.2**	ug/L	25.0	6.2	25		03/21/16 10:53	79-34-5	
Tetrachloroethene	**<12.5**	ug/L	25.0	12.5	25		03/21/16 10:53	127-18-4	
Toluene	**287**	ug/L	25.0	12.5	25		03/21/16 10:53	108-88-3	
1,2,3-Trichlorobenzene	**<53.3**	ug/L	125	53.3	25		03/21/16 10:53	87-61-6	
1,2,4-Trichlorobenzene	**<55.2**	ug/L	125	55.2	25		03/21/16 10:53	120-82-1	
1,1,1-Trichloroethane	**274**	ug/L	25.0	12.5	25		03/21/16 10:53	71-55-6	
1,1,2-Trichloroethane	**<4.9**	ug/L	25.0	4.9	25		03/21/16 10:53	79-00-5	
Trichloroethene	**<8.3**	ug/L	25.0	8.3	25		03/21/16 10:53	79-01-6	
Trichlorofluoromethane	**<4.6**	ug/L	25.0	4.6	25		03/21/16 10:53	75-69-4	
1,2,3-Trichloropropane	**<12.5**	ug/L	25.0	12.5	25		03/21/16 10:53	96-18-4	
1,2,4-Trimethylbenzene	**45.3**	ug/L	25.0	12.5	25		03/21/16 10:53	95-63-6	
1,3,5-Trimethylbenzene	**12.6J**	ug/L	25.0	12.5	25		03/21/16 10:53	108-67-8	
Vinyl chloride	**2720**	ug/L	25.0	4.4	25		03/21/16 10:53	75-01-4	
Xylene (Total)	**342**	ug/L	75.0	37.5	25		03/21/16 10:53	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		25		03/21/16 10:53	460-00-4	
Dibromofluoromethane (S)	105	%	70-130		25		03/21/16 10:53	1868-53-7	
Toluene-d8 (S)	99	%	70-130		25		03/21/16 10:53	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 60485212 KEP-SEMI ANNUAL SYS
Pace Project No.: 40129253

Sample: SUMP 18 EFF **Lab ID: 40129253007** Collected: 03/09/16 14:40 Received: 03/10/16 15:20 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIDRO GCS	Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO								
Diesel Range Organics	**1.3**	mg/L	0.048	0.020	1	03/16/16 13:45	03/21/16 09:17		T4
WIGRO GCV	Analytical Method: WI MOD GRO								
Gasoline Range Organics	**123**	ug/L	50.0	29.6	1		03/14/16 21:35		G-
8260 MSV	Analytical Method: EPA 8260								
Benzene	**8.9**	ug/L	1.0	0.50	1		03/21/16 12:45	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		03/21/16 12:45	108-86-1	
Bromochloromethane	**<0.34**	ug/L	1.0	0.34	1		03/21/16 12:45	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:45	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:45	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		03/21/16 12:45	74-83-9	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:45	104-51-8	
sec-Butylbenzene	**<2.2**	ug/L	5.0	2.2	1		03/21/16 12:45	135-98-8	
tert-Butylbenzene	**<0.18**	ug/L	1.0	0.18	1		03/21/16 12:45	98-06-6	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:45	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:45	108-90-7	
Chloroethane	**0.51J**	ug/L	1.0	0.37	1		03/21/16 12:45	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		03/21/16 12:45	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:45	74-87-3	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:45	95-49-8	
4-Chlorotoluene	**<0.21**	ug/L	1.0	0.21	1		03/21/16 12:45	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		03/21/16 12:45	96-12-8	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:45	124-48-1	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		03/21/16 12:45	106-93-4	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		03/21/16 12:45	74-95-3	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:45	95-50-1	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:45	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:45	106-46-7	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		03/21/16 12:45	75-71-8	
1,1-Dichloroethane	**25.9**	ug/L	1.0	0.24	1		03/21/16 12:45	75-34-3	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		03/21/16 12:45	107-06-2	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		03/21/16 12:45	75-35-4	
cis-1,2-Dichloroethene	**134**	ug/L	1.0	0.26	1		03/21/16 12:45	156-59-2	
trans-1,2-Dichloroethene	**0.97J**	ug/L	1.0	0.26	1		03/21/16 12:45	156-60-5	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		03/21/16 12:45	78-87-5	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:45	142-28-9	
2,2-Dichloropropane	**<0.48**	ug/L	1.0	0.48	1		03/21/16 12:45	594-20-7	
1,1-Dichloropropene	**<0.44**	ug/L	1.0	0.44	1		03/21/16 12:45	563-58-6	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:45	10061-01-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		03/21/16 12:45	10061-02-6	
Diisopropyl ether	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:45	108-20-3	
Ethylbenzene	**1.7**	ug/L	1.0	0.50	1		03/21/16 12:45	100-41-4	
Hexachloro-1,3-butadiene	**<2.1**	ug/L	5.0	2.1	1		03/21/16 12:45	87-68-3	
Isopropylbenzene (Cumene)	**<0.14**	ug/L	1.0	0.14	1		03/21/16 12:45	98-82-8	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:45	99-87-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 60485212 KEP-SEMI ANNUAL SYS
Pace Project No.: 40129253

Sample: SUMP 18 EFF **Lab ID: 40129253007** Collected: 03/09/16 14:40 Received: 03/10/16 15:20 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
Methylene Chloride	**1.7**	ug/L	1.0	0.23	1		03/21/16 12:45	75-09-2	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		03/21/16 12:45	1634-04-4	
Naphthalene	**3.1J**	ug/L	5.0	2.5	1		03/21/16 12:45	91-20-3	
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:45	103-65-1	
Styrene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:45	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.18**	ug/L	1.0	0.18	1		03/21/16 12:45	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.25**	ug/L	1.0	0.25	1		03/21/16 12:45	79-34-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:45	127-18-4	
Toluene	**7.1**	ug/L	1.0	0.50	1		03/21/16 12:45	108-88-3	
1,2,3-Trichlorobenzene	**<2.1**	ug/L	5.0	2.1	1		03/21/16 12:45	87-61-6	
1,2,4-Trichlorobenzene	**<2.2**	ug/L	5.0	2.2	1		03/21/16 12:45	120-82-1	
1,1,1-Trichloroethane	**5.0**	ug/L	1.0	0.50	1		03/21/16 12:45	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		03/21/16 12:45	79-00-5	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		03/21/16 12:45	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		03/21/16 12:45	75-69-4	
1,2,3-Trichloropropane	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:45	96-18-4	
1,2,4-Trimethylbenzene	**1.6**	ug/L	1.0	0.50	1		03/21/16 12:45	95-63-6	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 12:45	108-67-8	
Vinyl chloride	**22.7**	ug/L	1.0	0.18	1		03/21/16 12:45	75-01-4	
Xylene (Total)	**10.3**	ug/L	3.0	1.5	1		03/21/16 12:45	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	100	%	70-130		1		03/21/16 12:45	460-00-4	
Dibromofluoromethane (S)	101	%	70-130		1		03/21/16 12:45	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		03/21/16 12:45	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 60485212 KEP-SEMI ANNUAL SYS
Pace Project No.: 40129253

Sample: TRIP BLANK **Lab ID: 40129253008** Collected: 03/09/16 09:00 Received: 03/10/16 15:20 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIGRO GCV	Analytical Method: WI MOD GRO								
Gasoline Range Organics	**<29.6**	ug/L	50.0	29.6	1		03/14/16 16:27		
8260 MSV	Analytical Method: EPA 8260								
Benzene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 13:52	71-43-2	
Bromobenzene	**<0.23**	ug/L	1.0	0.23	1		03/21/16 13:52	108-86-1	
Bromochloromethane	**<0.34**	ug/L	1.0	0.34	1		03/21/16 13:52	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	1.0	0.50	1		03/21/16 13:52	75-27-4	
Bromoform	**<0.50**	ug/L	1.0	0.50	1		03/21/16 13:52	75-25-2	
Bromomethane	**<2.4**	ug/L	5.0	2.4	1		03/21/16 13:52	74-83-9	
n-Butylbenzene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 13:52	104-51-8	
sec-Butylbenzene	**<2.2**	ug/L	5.0	2.2	1		03/21/16 13:52	135-98-8	
tert-Butylbenzene	**<0.18**	ug/L	1.0	0.18	1		03/21/16 13:52	98-06-6	
Carbon tetrachloride	**<0.50**	ug/L	1.0	0.50	1		03/21/16 13:52	56-23-5	
Chlorobenzene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 13:52	108-90-7	
Chloroethane	**<0.37**	ug/L	1.0	0.37	1		03/21/16 13:52	75-00-3	
Chloroform	**<2.5**	ug/L	5.0	2.5	1		03/21/16 13:52	67-66-3	
Chloromethane	**<0.50**	ug/L	1.0	0.50	1		03/21/16 13:52	74-87-3	
2-Chlorotoluene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 13:52	95-49-8	
4-Chlorotoluene	**<0.21**	ug/L	1.0	0.21	1		03/21/16 13:52	106-43-4	
1,2-Dibromo-3-chloropropane	**<2.2**	ug/L	5.0	2.2	1		03/21/16 13:52	96-12-8	
Dibromochloromethane	**<0.50**	ug/L	1.0	0.50	1		03/21/16 13:52	124-48-1	
1,2-Dibromoethane (EDB)	**<0.18**	ug/L	1.0	0.18	1		03/21/16 13:52	106-93-4	
Dibromomethane	**<0.43**	ug/L	1.0	0.43	1		03/21/16 13:52	74-95-3	
1,2-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 13:52	95-50-1	
1,3-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 13:52	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 13:52	106-46-7	
Dichlorodifluoromethane	**<0.22**	ug/L	1.0	0.22	1		03/21/16 13:52	75-71-8	
1,1-Dichloroethane	**<0.24**	ug/L	1.0	0.24	1		03/21/16 13:52	75-34-3	
1,2-Dichloroethane	**<0.17**	ug/L	1.0	0.17	1		03/21/16 13:52	107-06-2	
1,1-Dichloroethene	**<0.41**	ug/L	1.0	0.41	1		03/21/16 13:52	75-35-4	
cis-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		03/21/16 13:52	156-59-2	
trans-1,2-Dichloroethene	**<0.26**	ug/L	1.0	0.26	1		03/21/16 13:52	156-60-5	
1,2-Dichloropropane	**<0.23**	ug/L	1.0	0.23	1		03/21/16 13:52	78-87-5	
1,3-Dichloropropane	**<0.50**	ug/L	1.0	0.50	1		03/21/16 13:52	142-28-9	
2,2-Dichloropropane	**<0.48**	ug/L	1.0	0.48	1		03/21/16 13:52	594-20-7	
1,1-Dichloropropene	**<0.44**	ug/L	1.0	0.44	1		03/21/16 13:52	563-58-6	
cis-1,3-Dichloropropene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 13:52	10061-01-5	
trans-1,3-Dichloropropene	**<0.23**	ug/L	1.0	0.23	1		03/21/16 13:52	10061-02-6	
Diisopropyl ether	**<0.50**	ug/L	1.0	0.50	1		03/21/16 13:52	108-20-3	
Ethylbenzene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 13:52	100-41-4	
Hexachloro-1,3-butadiene	**<2.1**	ug/L	5.0	2.1	1		03/21/16 13:52	87-68-3	
Isopropylbenzene (Cumene)	**<0.14**	ug/L	1.0	0.14	1		03/21/16 13:52	98-82-8	
p-Isopropyltoluene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 13:52	99-87-6	
Methylene Chloride	**0.80J**	ug/L	1.0	0.23	1		03/21/16 13:52	75-09-2	
Methyl-tert-butyl ether	**<0.17**	ug/L	1.0	0.17	1		03/21/16 13:52	1634-04-4	
Naphthalene	**<2.5**	ug/L	5.0	2.5	1		03/21/16 13:52	91-20-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

ANALYTICAL RESULTS

Project: 60485212 KEP-SEMI ANNUAL SYS
Pace Project No.: 40129253

Sample: TRIP BLANK **Lab ID: 40129253008** Collected: 03/09/16 09:00 Received: 03/10/16 15:20 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV	Analytical Method: EPA 8260								
n-Propylbenzene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 13:52	103-65-1	
Styrene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 13:52	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.18**	ug/L	1.0	0.18	1		03/21/16 13:52	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.25**	ug/L	1.0	0.25	1		03/21/16 13:52	79-34-5	
Tetrachloroethene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 13:52	127-18-4	
Toluene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 13:52	108-88-3	
1,2,3-Trichlorobenzene	**<2.1**	ug/L	5.0	2.1	1		03/21/16 13:52	87-61-6	
1,2,4-Trichlorobenzene	**<2.2**	ug/L	5.0	2.2	1		03/21/16 13:52	120-82-1	
1,1,1-Trichloroethane	**<0.50**	ug/L	1.0	0.50	1		03/21/16 13:52	71-55-6	
1,1,2-Trichloroethane	**<0.20**	ug/L	1.0	0.20	1		03/21/16 13:52	79-00-5	
Trichloroethene	**<0.33**	ug/L	1.0	0.33	1		03/21/16 13:52	79-01-6	
Trichlorofluoromethane	**<0.18**	ug/L	1.0	0.18	1		03/21/16 13:52	75-69-4	
1,2,3-Trichloropropane	**<0.50**	ug/L	1.0	0.50	1		03/21/16 13:52	96-18-4	
1,2,4-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 13:52	95-63-6	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	1.0	0.50	1		03/21/16 13:52	108-67-8	
Vinyl chloride	**<0.18**	ug/L	1.0	0.18	1		03/21/16 13:52	75-01-4	
Xylene (Total)	**<1.5**	ug/L	3.0	1.5	1		03/21/16 13:52	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	99	%	70-130		1		03/21/16 13:52	460-00-4	
Dibromofluoromethane (S)	103	%	70-130		1		03/21/16 13:52	1868-53-7	
Toluene-d8 (S)	97	%	70-130		1		03/21/16 13:52	2037-26-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 60485212 KEP-SEMI ANNUAL SYS
Pace Project No.: 40129253

QC Batch: GCV/15796 Analysis Method: WI MOD GRO
QC Batch Method: WI MOD GRO Analysis Description: WIGRO GCV Water
Associated Lab Samples: 40129253001, 40129253002, 40129253003, 40129253004, 40129253005, 40129253006, 40129253007, 40129253008

METHOD BLANK: 1305889 Matrix: Water
Associated Lab Samples: 40129253001, 40129253002, 40129253003, 40129253004, 40129253005, 40129253006, 40129253007, 40129253008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Gasoline Range Organics	ug/L	<29.6	50.0	03/14/16 11:18	
a,a,a-Trifluorotoluene (S)	%	104	80-120	03/14/16 11:18	

LABORATORY CONTROL SAMPLE & LCSD: 1305890 1305891

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Gasoline Range Organics	ug/L	200	211	205	106	103	80-120	3	20	
a,a,a-Trifluorotoluene (S)	%				102	101	80-120			

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1306186 1306187

Parameter	Units	40129265002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
a,a,a-Trifluorotoluene (S)	%						104	106	80-120			

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 60485212 KEP-SEMI ANNUAL SYS
Pace Project No.: 40129253

QC Batch: MSV/32533 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 40129253001, 40129253002, 40129253003, 40129253004, 40129253005, 40129253006, 40129253007, 40129253008

METHOD BLANK: 1305915 Matrix: Water
Associated Lab Samples: 40129253001, 40129253002, 40129253003, 40129253004, 40129253005, 40129253006, 40129253007, 40129253008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.18	1.0	03/21/16 06:24	
1,1,1-Trichloroethane	ug/L	<0.50	1.0	03/21/16 06:24	
1,1,2,2-Tetrachloroethane	ug/L	<0.25	1.0	03/21/16 06:24	
1,1,2-Trichloroethane	ug/L	<0.20	1.0	03/21/16 06:24	
1,1-Dichloroethane	ug/L	<0.24	1.0	03/21/16 06:24	
1,1-Dichloroethene	ug/L	<0.41	1.0	03/21/16 06:24	
1,1-Dichloropropene	ug/L	<0.44	1.0	03/21/16 06:24	
1,2,3-Trichlorobenzene	ug/L	<2.1	5.0	03/21/16 06:24	
1,2,3-Trichloropropane	ug/L	<0.50	1.0	03/21/16 06:24	
1,2,4-Trichlorobenzene	ug/L	<2.2	5.0	03/21/16 06:24	
1,2,4-Trimethylbenzene	ug/L	<0.50	1.0	03/21/16 06:24	
1,2-Dibromo-3-chloropropane	ug/L	<2.2	5.0	03/21/16 06:24	
1,2-Dibromoethane (EDB)	ug/L	<0.18	1.0	03/21/16 06:24	
1,2-Dichlorobenzene	ug/L	<0.50	1.0	03/21/16 06:24	
1,2-Dichloroethane	ug/L	<0.17	1.0	03/21/16 06:24	
1,2-Dichloropropane	ug/L	<0.23	1.0	03/21/16 06:24	
1,3,5-Trimethylbenzene	ug/L	<0.50	1.0	03/21/16 06:24	
1,3-Dichlorobenzene	ug/L	<0.50	1.0	03/21/16 06:24	
1,3-Dichloropropane	ug/L	<0.50	1.0	03/21/16 06:24	
1,4-Dichlorobenzene	ug/L	<0.50	1.0	03/21/16 06:24	
2,2-Dichloropropane	ug/L	<0.48	1.0	03/21/16 06:24	
2-Chlorotoluene	ug/L	<0.50	1.0	03/21/16 06:24	
4-Chlorotoluene	ug/L	<0.21	1.0	03/21/16 06:24	
Benzene	ug/L	<0.50	1.0	03/21/16 06:24	
Bromobenzene	ug/L	<0.23	1.0	03/21/16 06:24	
Bromochloromethane	ug/L	<0.34	1.0	03/21/16 06:24	
Bromodichloromethane	ug/L	<0.50	1.0	03/21/16 06:24	
Bromoform	ug/L	<0.50	1.0	03/21/16 06:24	
Bromomethane	ug/L	<2.4	5.0	03/21/16 06:24	
Carbon tetrachloride	ug/L	<0.50	1.0	03/21/16 06:24	
Chlorobenzene	ug/L	<0.50	1.0	03/21/16 06:24	
Chloroethane	ug/L	<0.37	1.0	03/21/16 06:24	
Chloroform	ug/L	<2.5	5.0	03/21/16 06:24	
Chloromethane	ug/L	<0.50	1.0	03/21/16 06:24	
cis-1,2-Dichloroethene	ug/L	<0.26	1.0	03/21/16 06:24	
cis-1,3-Dichloropropene	ug/L	<0.50	1.0	03/21/16 06:24	
Dibromochloromethane	ug/L	<0.50	1.0	03/21/16 06:24	
Dibromomethane	ug/L	<0.43	1.0	03/21/16 06:24	
Dichlorodifluoromethane	ug/L	<0.22	1.0	03/21/16 06:24	
Diisopropyl ether	ug/L	<0.50	1.0	03/21/16 06:24	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 60485212 KEP-SEMI ANNUAL SYS
Pace Project No.: 40129253

METHOD BLANK: 1305915 Matrix: Water
Associated Lab Samples: 40129253001, 40129253002, 40129253003, 40129253004, 40129253005, 40129253006, 40129253007, 40129253008

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Ethylbenzene	ug/L	<0.50	1.0	03/21/16 06:24	
Hexachloro-1,3-butadiene	ug/L	<2.1	5.0	03/21/16 06:24	
Isopropylbenzene (Cumene)	ug/L	<0.14	1.0	03/21/16 06:24	
Methyl-tert-butyl ether	ug/L	<0.17	1.0	03/21/16 06:24	
Methylene Chloride	ug/L	<0.23	1.0	03/21/16 06:24	
n-Butylbenzene	ug/L	<0.50	1.0	03/21/16 06:24	
n-Propylbenzene	ug/L	<0.50	1.0	03/21/16 06:24	
Naphthalene	ug/L	<2.5	5.0	03/21/16 06:24	
p-Isopropyltoluene	ug/L	<0.50	1.0	03/21/16 06:24	
sec-Butylbenzene	ug/L	<2.2	5.0	03/21/16 06:24	
Styrene	ug/L	<0.50	1.0	03/21/16 06:24	
tert-Butylbenzene	ug/L	<0.18	1.0	03/21/16 06:24	
Tetrachloroethene	ug/L	<0.50	1.0	03/21/16 06:24	
Toluene	ug/L	<0.50	1.0	03/21/16 06:24	
trans-1,2-Dichloroethene	ug/L	<0.26	1.0	03/21/16 06:24	
trans-1,3-Dichloropropene	ug/L	<0.23	1.0	03/21/16 06:24	
Trichloroethene	ug/L	<0.33	1.0	03/21/16 06:24	
Trichlorofluoromethane	ug/L	<0.18	1.0	03/21/16 06:24	
Vinyl chloride	ug/L	<0.18	1.0	03/21/16 06:24	
Xylene (Total)	ug/L	<1.5	3.0	03/21/16 06:24	
4-Bromofluorobenzene (S)	%	100	70-130	03/21/16 06:24	
Dibromofluoromethane (S)	%	102	70-130	03/21/16 06:24	
Toluene-d8 (S)	%	100	70-130	03/21/16 06:24	

LABORATORY CONTROL SAMPLE: 1305916

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	50.3	101	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	49.9	100	70-130	
1,1,2-Trichloroethane	ug/L	50	51.8	104	70-130	
1,1-Dichloroethane	ug/L	50	51.2	102	70-130	
1,1-Dichloroethene	ug/L	50	51.9	104	70-130	
1,2,4-Trichlorobenzene	ug/L	50	50.5	101	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	44.4	89	50-150	
1,2-Dibromoethane (EDB)	ug/L	50	51.4	103	70-130	
1,2-Dichlorobenzene	ug/L	50	51.9	104	70-130	
1,2-Dichloroethane	ug/L	50	49.1	98	70-131	
1,2-Dichloropropane	ug/L	50	52.3	105	70-130	
1,3-Dichlorobenzene	ug/L	50	52.5	105	70-130	
1,4-Dichlorobenzene	ug/L	50	51.6	103	70-130	
Benzene	ug/L	50	51.0	102	70-130	
Bromodichloromethane	ug/L	50	50.9	102	70-130	
Bromoform	ug/L	50	43.3	87	68-130	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 60485212 KEP-SEMI ANNUAL SYS
Pace Project No.: 40129253

LABORATORY CONTROL SAMPLE: 1305916

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Bromomethane	ug/L	50	43.5	87	38-137	
Carbon tetrachloride	ug/L	50	47.6	95	70-130	
Chlorobenzene	ug/L	50	52.7	105	70-130	
Chloroethane	ug/L	50	48.7	97	70-136	
Chloroform	ug/L	50	49.6	99	70-130	
Chloromethane	ug/L	50	51.0	102	48-144	
cis-1,2-Dichloroethene	ug/L	50	50.1	100	70-130	
cis-1,3-Dichloropropene	ug/L	50	52.0	104	70-130	
Dibromochloromethane	ug/L	50	46.0	92	70-130	
Dichlorodifluoromethane	ug/L	50	48.5	97	33-157	
Ethylbenzene	ug/L	50	53.5	107	70-132	
Isopropylbenzene (Cumene)	ug/L	50	54.2	108	70-130	
Methyl-tert-butyl ether	ug/L	50	49.0	98	48-141	
Methylene Chloride	ug/L	50	50.5	101	70-130	
Styrene	ug/L	50	54.6	109	70-130	
Tetrachloroethene	ug/L	50	53.0	106	70-130	
Toluene	ug/L	50	54.0	108	70-130	
trans-1,2-Dichloroethene	ug/L	50	51.4	103	70-130	
trans-1,3-Dichloropropene	ug/L	50	45.8	92	70-130	
Trichloroethene	ug/L	50	54.4	109	70-130	
Trichlorofluoromethane	ug/L	50	53.7	107	50-150	
Vinyl chloride	ug/L	50	53.7	107	65-142	
Xylene (Total)	ug/L	150	160	107	70-132	
4-Bromofluorobenzene (S)	%			100	70-130	
Dibromofluoromethane (S)	%			95	70-130	
Toluene-d8 (S)	%			100	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1305917 1305918

Parameter	Units	40129280020 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	<0.50	50	50	48.4	54.6	97	109	70-130	12	20	
1,1,2,2-Tetrachloroethane	ug/L	<0.25	50	50	47.4	49.9	95	100	70-130	5	20	
1,1,2-Trichloroethane	ug/L	<0.20	50	50	48.2	50.7	96	101	70-130	5	20	
1,1-Dichloroethane	ug/L	<0.24	50	50	48.3	54.5	97	109	70-134	12	20	
1,1-Dichloroethene	ug/L	<0.41	50	50	49.4	55.5	99	111	70-139	11	20	
1,2,4-Trichlorobenzene	ug/L	<2.2	50	50	47.7	50.1	94	98	70-130	5	20	
1,2-Dibromo-3-chloropropane	ug/L	<2.2	50	50	42.9	43.6	86	87	50-150	2	20	
1,2-Dibromoethane (EDB)	ug/L	<0.18	50	50	48.3	50.5	97	101	70-130	4	20	
1,2-Dichlorobenzene	ug/L	<0.50	50	50	49.4	50.8	98	101	70-130	3	20	
1,2-Dichloroethane	ug/L	<0.17	50	50	45.8	50.9	92	102	70-132	10	20	
1,2-Dichloropropane	ug/L	<0.23	50	50	47.5	51.7	95	103	70-130	8	20	
1,3-Dichlorobenzene	ug/L	<0.50	50	50	49.3	51.6	98	103	70-130	5	20	
1,4-Dichlorobenzene	ug/L	<0.50	50	50	49.2	50.4	98	100	70-130	2	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 60485212 KEP-SEMI ANNUAL SYS
Pace Project No.: 40129253

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1305917 1305918

Parameter	Units	40129280020 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Benzene	ug/L	<0.50	50	50	48.6	54.9	97	110	70-130	12	20	
Bromodichloromethane	ug/L	<0.50	50	50	46.8	49.5	94	99	70-132	6	20	
Bromoform	ug/L	<0.50	50	50	40.6	43.2	81	86	68-130	6	20	
Bromomethane	ug/L	<2.4	50	50	43.4	49.7	86	99	38-141	14	20	
Carbon tetrachloride	ug/L	<0.50	50	50	45.7	51.8	91	104	70-130	12	20	
Chlorobenzene	ug/L	<0.50	50	50	49.3	51.6	99	103	70-130	4	20	
Chloroethane	ug/L	<0.37	50	50	46.4	52.2	93	104	66-152	12	20	
Chloroform	ug/L	<2.5	50	50	47.5	53.3	95	107	70-130	11	20	
Chloromethane	ug/L	<0.50	50	50	47.8	54.8	95	109	44-151	14	20	
cis-1,2-Dichloroethene	ug/L	<0.26	50	50	47.3	53.6	95	107	70-130	12	20	
cis-1,3-Dichloropropene	ug/L	<0.50	50	50	47.8	50.3	96	101	70-130	5	20	
Dibromochloromethane	ug/L	<0.50	50	50	43.4	45.0	87	90	70-130	3	20	
Dichlorodifluoromethane	ug/L	<0.22	50	50	45.4	50.8	91	102	29-160	11	20	
Ethylbenzene	ug/L	<0.50	50	50	50.1	52.4	100	105	70-132	4	20	
Isopropylbenzene (Cumene)	ug/L	<0.14	50	50	50.6	53.0	101	106	70-130	5	20	
Methyl-tert-butyl ether	ug/L	<0.17	50	50	46.7	52.7	93	105	48-143	12	20	
Methylene Chloride	ug/L	<0.23	50	50	47.5	54.1	95	108	70-130	13	20	
Styrene	ug/L	<0.50	50	50	51.2	53.5	102	107	70-130	4	20	
Tetrachloroethene	ug/L	<0.50	50	50	49.9	51.9	100	104	70-130	4	20	
Toluene	ug/L	<0.50	50	50	50.6	52.6	101	105	70-130	4	20	
trans-1,2-Dichloroethene	ug/L	<0.26	50	50	49.2	55.8	98	111	70-132	13	20	
trans-1,3-Dichloropropene	ug/L	<0.23	50	50	43.1	45.0	86	90	70-130	4	20	
Trichloroethene	ug/L	<0.33	50	50	49.8	52.9	100	106	70-130	6	20	
Trichlorofluoromethane	ug/L	<0.18	50	50	50.7	57.5	101	115	50-153	13	20	
Vinyl chloride	ug/L	<0.18	50	50	50.8	57.8	102	116	60-155	13	20	
Xylene (Total)	ug/L	<1.5	150	150	150	156	100	104	70-132	4	20	
4-Bromofluorobenzene (S)	%						98	100	70-130			
Dibromofluoromethane (S)	%						97	105	70-130			
Toluene-d8 (S)	%						100	100	70-130			

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA

Project: 60485212 KEP-SEMI ANNUAL SYS
Pace Project No.: 40129253

QC Batch: OEXT/29923 Analysis Method: WI MOD DRO
QC Batch Method: WI MOD DRO Analysis Description: WIDRO GCS
Associated Lab Samples: 40129253001, 40129253002, 40129253003, 40129253004, 40129253005, 40129253006, 40129253007

METHOD BLANK: 1307002 Matrix: Water
Associated Lab Samples: 40129253001, 40129253002, 40129253003, 40129253004, 40129253005, 40129253006, 40129253007

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diesel Range Organics	mg/L	<0.020	0.050	03/21/16 08:04	

LABORATORY CONTROL SAMPLE & LCSD: 1307003 1307004

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Diesel Range Organics	mg/L	1	0.93	0.90	93	90	75-115	4	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALIFIERS

Project: 60485212 KEP-SEMI ANNUAL SYS
Pace Project No.: 40129253

DEFINITIONS

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

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor and percent moisture.

LOQ - Limit of Quantitation adjusted for dilution factor and percent moisture.

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-G	Pace Analytical Services - Green Bay

ANALYTE QUALIFIERS

G-	Early peaks present outside the GRO window.
T4	Result reported for hydrocarbons within the method-specific range that do not match pattern of laboratory standard.

Pace Analytical Services, Inc.
1241 Bellevue Street - Suite 9
Green Bay, WI 54302
(920)469-2436

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 60485212 KEP-SEMI ANNUAL SYS
Pace Project No.: 40129253

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40129253001	**SUMP 6 IN**	WI MOD DRO	OEXT/29923	WI MOD DRO	GCSV/14183
40129253002	**SUMP 6 EFF**	WI MOD DRO	OEXT/29923	WI MOD DRO	GCSV/14183
40129253003	**SUMP 7 IN**	WI MOD DRO	OEXT/29923	WI MOD DRO	GCSV/14183
40129253004	**SUMP 17R IN**	WI MOD DRO	OEXT/29923	WI MOD DRO	GCSV/14183
40129253005	**SUMP 7/17R EFF**	WI MOD DRO	OEXT/29923	WI MOD DRO	GCSV/14183
40129253006	**SUMP 18 IN**	WI MOD DRO	OEXT/29923	WI MOD DRO	GCSV/14183
40129253007	**SUMP 18 EFF**	WI MOD DRO	OEXT/29923	WI MOD DRO	GCSV/14183
40129253001	**SUMP 6 IN**	WI MOD GRO	GCV/15796		
40129253002	**SUMP 6 EFF**	WI MOD GRO	GCV/15796		
40129253003	**SUMP 7 IN**	WI MOD GRO	GCV/15796		
40129253004	**SUMP 17R IN**	WI MOD GRO	GCV/15796		
40129253005	**SUMP 7/17R EFF**	WI MOD GRO	GCV/15796		
40129253006	**SUMP 18 IN**	WI MOD GRO	GCV/15796		
40129253007	**SUMP 18 EFF**	WI MOD GRO	GCV/15796		
40129253008	**TRIP BLANK**	WI MOD GRO	GCV/15796		
40129253001	**SUMP 6 IN**	EPA 8260	MSV/32533		
40129253002	**SUMP 6 EFF**	EPA 8260	MSV/32533		
40129253003	**SUMP 7 IN**	EPA 8260	MSV/32533		
40129253004	**SUMP 17R IN**	EPA 8260	MSV/32533		
40129253005	**SUMP 7/17R EFF**	EPA 8260	MSV/32533		
40129253006	**SUMP 18 IN**	EPA 8260	MSV/32533		
40129253007	**SUMP 18 EFF**	EPA 8260	MSV/32533		
40129253008	**TRIP BLANK**	EPA 8260	MSV/32533		

UPPER MIDWEST REGION
MN: 612-607-1700 WI: 920-469-2436

40129253

Pace Analytical®
www.pacelabs.com

CHAIN OF CUSTODY

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

(Please Print Clearly)	
Company Name:	AECOM
Branch/Location:	Milwaukee, WI
Project Contact:	Lanette Altenbach
Phone:	414-944-6186
Project Number:	60485212
Project Name:	KEP Semi-Annual Sys Sampling
Project State:	Wisconsin
Sampled By (Print):	Andrew Schamber
Sampled By (Sign):	A. [signature]
PO #:	Regulatory Program:

Quote #:	
Mail To Contact:	Lanette Altenbach
Mail To Company:	AECOM
Mail To Address:	1555 N. Rivercenter Dr Milwaukee, WI 53212
Invoice To Contact:	Accounts Payable (Finance Dept
Invoice To Company:	City of Kenosha
Invoice To Address:	625 52nd St Kenosha, WI
Invoice To Phone:	

Data Package Options (billable)
☐ EPA Level III
☐ EPA Level IV

MS/MSD
☐ On your sample (billable)
☐ NOT needed on your sample

Matrix Codes
A = Air, B = Biota, C = Charcoal, O = Oil, S = Soil, SL = Sludge, W = Water, DW = Drinking Water, GW = Ground Water, SW = Surface Water, WW = Waste Water, WP = Wipe

PACE LAB #	CLIENT FIELD ID	COLLECTION DATE	COLLECTION TIME	MATRIX	FILTERED? (YES/NO)	PRESERVATION (CODE)*	Analyses Requested: VOC	GRO	DRO	CLIENT COMMENTS	LAB COMMENTS (Lab Use Only)	Profile #
					Y/N	Pick Letter	N	N	N			
							B	B	B			
001	Sump 6 IN	3/9/16	0940	GW			3	1	1		6-40mlVB 1-LagB	
002	Sump 6 EFF		0950									
003	Sump 7 IN		1140									
004	Sump 17R IN		1150									
005	~~Sump~~ Sump 7/17R EFF		1200									
006	Sump 18 IN		1430									
007	Sump 18 EFF	↓	1440	↓			↓	↓	↓			
008	Trip Blank	3/9/16	0900								2-40mlVB	

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):
Email #1:
Email #2:
Telephone:
Fax:

Samples on HOLD are subject to special pricing and release of liability

Relinquished By:	Date/Time:	Received By:	Date/Time:
A. [signature] AECOM	3/10/16 11:55	Mary Jamin	3/10/16 11:55
Mary Jamin	3/10/16 1320	[signature] Pace	3/10/16 1320
[signature] Pace	3/10/16 1520	Susan K Ulfig Pace	3-10-16 1520

PACE Project No.: 40129253
Receipt Temp = 2.0 °C
Sample Receipt pH OK / Adjusted
Cooler Custody Seal: Present / Not Present; Intact / Not Intact 3/10/16

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

Sample Condition Upon Receipt

Pace Analytical Services, Inc.
1241 Bellevue Street, Suite 9
Green Bay, WI 54302

Pace Analytical™

Project # **WO#: 40129253**

40129253

Client Name: AECOM

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

Tracking #: _____

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

Custody Seal on Samples Present: ☐ yes ☒ no Seals intact: ☐ yes ☐ no

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

Thermometer Used N/A **Type of Ice:** (Wet) Blue Dry None ☒ Samples on ice, cooling process has begun

Cooler Temperature Uncorr: ROT Corr: _____ **Biological Tissue is Frozen:** ☐ yes ☐ no

Temp Blank Present: ☐ yes ☒ no

Person examining contents:
Date: 3-11-16 SCW
Initials: _____

Temp should be above freezing to 6°C for all sample except Biota.
Frozen Biota Samples should be received ≤ 0°C.

		Comments:
Chain of Custody Present:	☒Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☒Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☒Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☒Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☒Yes ☐No ☐N/A	5.
- VOA Samples frozen upon receipt	☐Yes ☐No	Date/Time:
Short Hold Time Analysis (<72hr):	☒Yes ☐No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☒No ☐N/A	7.
Sufficient Volume:	☒Yes ☐No ☐N/A	8.
Correct Containers Used:	☒Yes ☐No ☐N/A	9.
-Pace Containers Used:	☒Yes ☐No ☐N/A	
-Pace IR Containers Used:	☐Yes ☐No ☒N/A	
Containers Intact:	☒Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☒N/A	11.
Sample Labels match COC:	☒Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: W		
All containers needing preservation have been checked. (Non-Compliance noted in 13.)	☐Yes ☐No ☒N/A	13. ☐ HNO3 ☐ H2SO4 ☐ NaOH ☐ NaOH +ZnAct
All containers needing preservation are found to be in compliance with EPA recommendation. (HNO3, H2SO4 ≤2; NaOH+ZnAct ≥9, NaOH ≥12)	☐Yes ☐No ☒N/A	
exceptions: VOA, Coliform, TOC, TOX, TOH, O&G, WIDRO, Phenolics, OTHER:	☒Yes ☐No	Initial when completed / Lab Std #ID of preservative / Date/ Time:
Headspace in VOA Vials (>6mm):	☐Yes (☒No) ☐N/A	14. 3-11-16 SCW
Trip Blank Present:	☒Yes ☐No ☐N/A	15.
Trip Blank Custody Seals Present	☒Yes ☐No ☐N/A	
Pace Trip Blank Lot # (if purchased): covered 3-11-16 SCW		

Client Notification/ Resolution: If checked, see attached form for additional comments ☐

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ **Date:** 3-11-16