

Semi-Annual Operation, Maintenance and Monitoring Report, July - December 2019

Former Kenosha Engine Plant, Kenosha, Wisconsin
WDNR FID 230004500, BRRTS# 02-30-000327

July 16, 2020

Mr. Paul Grittner
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 2019
Former Kenosha Engine Plant, Kenosha, Wisconsin
WDNR FID 230004500, BRRTS# 02-30-000327**

Dear Mr. Grittner,

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 through December 2019 on behalf of the City of Kenosha.

AECOM continues operation, maintenance, and monitoring (OM&M) of three groundwater remediation systems at the KEP. The system locations are depicted on Figure 1. The three systems are:

- Northern System: Sump 6
- Central System: Sump 18 and 23
- Southern System: Sumps 7 & 17R

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 two of the three remedial systems have undergone maintenance 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 groundwater remediation systems located at the KEP during the period from July through December 2019. The system component(s) encountered the following operational breakdowns between July 1 and December 31, 2019 and which were restored back into working order during this reporting period:

- Northern System: This system functioned normally except for the following intermittent interruption:
 - On July 3rd it was observed that the aerator trays were dripping water through seals. The seals were adjusted.
- Central System: This system has been functioning normally but currently shut down.
 - On July 16th the system would not drain treated groundwater through the sanitary conveyance pipe. It is assumed that a blockage exists in the downstream sanitary sewer. The City of Kenosha and a vendor offering to demonstrate their sewer video equipment at the KEP will evaluate the sanitary discharge line.
- Southern System: This system has been operating normally.

The conditions of the system components were reviewed and are summarized here:

Northern System, Sump 6

- Pump – Depth to water and depth to bottom were adequate for continued groundwater removal.
- System is operating.

Central System, Sump 18

- Pump – Depth to water and depth to bottom were adequate for continued groundwater removal.
- System is temporarily shut down awaiting investigation of the sanitary conveyance pipe blockage.

Southern System, Sumps 7 and 17R

- 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 2) and a potentiometric map of the deeper groundwater (Figure 3, as measured by KEP piezometers at a depth of approximately 25 feet bgs) for October 2019 are attached. Capture zones for the Southern System (Sumps 7 and 17R) are illustrated by the 613-foot contour located adjacent to the system building. The capture zone for Central System (Sump 18) is illustrated by the 618-foot contour located around the system building. The capture zone for Northern System (Sump 6) is illustrated by the 615-foot contour located around the system building.

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 October 2019 shown for the three operating sumps (Sumps 6, 7, and 17R). Influent samples were not collected in October 2019 at Sump 18 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 identified below by sump are:

Northern System

Sump 6:

- The concentrations of cis-1,2-dichloroethene, trichloroethene, and vinyl chloride exceeded the ES during the October 2019 sampling event.
- The concentrations of 1,1-dichloroethane, 1,1-dichloroethene, and trans-1,2-dichloroethene exceeded the PAL during the October 2019 sampling event.
- No discernable trends were observed.

Central System

- Sump 18: Influent samples were not collected in October 2019 at Sump 18 because the pump was not operating at the time of sample collection.

Southern System

Sump 7:

- The concentration of vinyl chloride exceeded the ES during the October 2019 sampling event.
- Generally decreasing trends were observed.

Sump 17R:

- Cis-1,2-dichloroethene, trichloroethene, and vinyl chloride exceeded the ES during the October 2019 sampling event.
- 1,1-dichloroethene and trans-1,2-dichloroethene exceeded the PAL during the October 2019 sampling event.
- No discernable trends were observed.

Table 3 presents a summary of the operational data collected for July through December 2019. 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 – Biofouling reduction on the pump inlet screen and flow meter will continue during the next operational period to ensure treatment flow is recorded.

Central System – Investigation of the blockage will be scheduled in coordination with the City of Kenosha.

Southern System – 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 for the beginning of 2020 with regular monitoring of flow and evaluation of nearby groundwater elevations with the goal of controlling 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. The Kenosha Engine Plant groundwater remediation system effectively reduces contaminant concentration in compliance with the wastewater discharge permits.

Yours sincerely,

AECOM Technical Services, Inc.



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Geologist

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Senior Hydrogeologist

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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 – Monitoring Well Location Map

Figure 2 – Potentiometric Surface in Water Table Wells (October 2019)

Figure 3 – Potentiometric Surface in Piezometers (October 2019)

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

GENERAL INSTRUCTIONS, PURPOSE AND APPLICABILITY OF THIS FORM:

Completion of the applicable portions of this form is required under Wis. Admin. Code § NR 724.13(3). Failure to submit this form as required is a violation of that rule section and is subject to the penalties in Wis. Stats. § 292.99. This form must be submitted every six months for remediation projects that report operation and maintenance progress, in accordance with Wis. Admin. Code §. NR 724.13(3). A narrative report or letter containing the equivalent information required in this form may be submitted in lieu of the actual form. Submittal of this form is not a substitute for reporting required by department programs such as Waste Water or Air Management.

Notes:

1. Long-term monitoring results submitted in accordance with Wis. Admin. Code § NR 724.17(3) 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 that section of code.
2. Responsible parties should check with the department 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 response.
3. Responsible parties should check with the department Project Manager assigned to the site to determine if any of the information required in this form may be omitted or changed and should obtain prior written approval for any omissions or changes.
4. Responsible parties are required to report separately on a semi-annual basis under Wis. Admin. Code § NR 700.11(1). Reporting under that provision is through an internet-based form. More information can be found at: <http://dnr.wi.gov/topic/Brownfields/documents/regs/NR700progreport.pdf>.
5. Personally identifiable information on this form is not intended to be used for any other purpose than tracking progress of the remediation by Remediation and Redevelopment Program. 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 (Wis. Stats. §§ 19.31–19.39).

Section GI - General Site Information

A. General Information

1. Site name

Kenosha Engine Plant

2. Reporting period from: 07/01/2019 To: 12/31/2019 Days in period: 181

3. Regulatory agency (enter DNR, 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	<input checked="" type="radio"/> City <input type="radio"/> Town <input type="radio"/> Village		Township	Range	<input type="radio"/> E	Section
City of Kenosha			N		<input type="radio"/> W	¼ ¼

6. Responsible party	7. Consultant		
Name	<input type="checkbox"/> Select if the following information has changed since the last submittal		
City of Kenosha	Company name		
Mailing address	AECOM		
625 52nd Street	Mailing address		Phone number
Phone number	1555 N. RiverCenter Dr, Ste 214, 53212		
(262) 653-4000			

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

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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

Section

1/4

1/4

1/4

N

W

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 attenuation), 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. Central system (sump 18) has had a blocked discharge pipe since 07/16/19. This blockage needs to be investigated and remedied in coordination with the City of Kenosha in order to achieve operation at design rates and specifications.

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

If yes, explain:

The blockage in the discharge pipe at the central system will be evaluated by the City of Kenosha water utility with a camera to identify the blockage and perhaps repair the pipe so that the system may be restarted.

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.

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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:


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 	Date 7-16-2020

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/Project Manager II
Signature 	Date 7-16-2020

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

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Professional Seal(s), if applicable:



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

A. Groundwater Extraction System Operation:

- Total number of groundwater extraction wells or trenches available: 5 and the number in use during period: 3
- Number of days of operation (only list the number of days the system actually operated, if unknown explain:
Northern System (Sump 6) - 179 days
Central System (Sumps 18) - 16 days (Sump 23 is a backup sump not in regular use)
Southern System (Sumps 7 and 17R) - 179 days
- System utilization in percent (days of operation divided by reporting time period multiplied by 100). If < 80%, explain:
Northern System (Sump 6) - 98% Operational (2% accounted for system shut-down during cleaning events)
Central System (Sump 18) - 9% Operational (2% accounted for system shut-down during cleaning events, 89% accounted for system shut-down due to sanitary conveyance pipe blockage)
Southern System (Sumps 7 and 17R) - 98% Operational (2% accounted for system shut-down during cleaning events)
- Quantity of groundwater extracted during this time period: 1,806,376.6 gallons
- Average groundwater extraction rate: 6.8 gpm
- Quantity of dissolved phase contaminants removed during this time period in pounds: 15.3 lbs

B. Free Product Recovery System Operation

- Is free product (nonaqueous phase liquid) being recovered at this site? Yes No
If yes, explain:

- Quantity of free product extracted during this time period (enter none if none): _____ gallons
- Average free product extraction rate: _____ gpm

C. System Effectiveness Evaluation

- Is a contaminated groundwater plume fully contained in the capture zone? Yes No
If no, explain:
- If free product is present, is the free product fully contained in capture zone? Yes No
If no, explain:
- 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 within the saturated zone at concentrations not recoverable as evidenced by little to no free product recovery in the oil/water separators associated with each treatment unit.
- 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.
 - Contaminant: _____
 - Percent reduction necessary to reach ch. NR 140 ES and PAL: _____ %
 - Maximum contaminant concentration level in any monitoring well of that contaminant: _____ µg/L
 - Maximum contaminant concentration level in any extraction well of that contaminant: _____ µg/L

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- e. If the maximum concentration in a monitoring well is more than 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.

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.

Table 2
Effluent Summary
KEP Groundwater Remediation Systems
Kenosha, Wisconsin

Well Location	Sample Date	1,1-Dichloro ethene (ug/L)	1,1-Dichloro ethane (ug/L)	trans-1,2-Dichloro ethene (ug/L)	1,2,4-Trimethyl benzene (ug/L)	1,1,1-Trichloro-ethane (ug/L)	Benzene (ug/L)	cis-1,2-Dichloro ethene (ug/L)	Ethyl benzene (ug/L)	Methyl tert-butyl ether (ug/L)	Methylene Chloride	Isopropyl benzene (ug/L)	Naphthalene (ug/L)	N-Propyl benzene (ug/L)	Toluene (ug/L)	Trichloro ethene (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	<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	<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	0.48 J	<0.23	<0.14	<2.5	<0.50	<0.50	<0.50	27.8	<0.18	<1.5	<29.6	0.17
	3/7/2017	<0.41	0.94J	8.7	<0.50	<0.50	<0.50	138	<0.50	0.71 J	<0.23	<0.14	<2.5	<0.50	<0.50	<0.50	175	2.4	<1.5	85	0.26
	10/5/2017	0.47 J	1.8	12.5	<0.50	<0.50	<0.50	234	<0.50	1.0	<0.23	<0.14	<2.5	<0.50	<0.50	<0.50	296	4.2	<1.5	120	0.037 J
	3/9/2018	<0.41	<0.24	<0.26	<0.50	<0.50	<0.50	1.1	<0.50	<0.17	<0.23	<0.14	<2.5	<0.50	<0.50	<0.50	1.2	<0.18	<1.5	<30	0.16
	10/5/2018	<0.24	<0.27	<1.1	<0.84	<0.24	<0.25	2.1	<0.22	<1.2	<0.58	<0.39	<1.2	<0.81	<0.17	1.8	<0.17	<1.5	<36	0.70	
	3/5/2019	<0.24	<0.27	<1.1	<0.84	<0.24	<0.25	20.6	<0.22	10.0	<0.58	<0.39	<1.2	<0.81	<0.17	8.6	1.1	<1.5	<36	0.14	
10/18/2019	0.46 J	1.9	13.1	<0.84	0.27 J	<0.25	187	<0.22	1.9 J	<0.58	0.74 J	<1.2	<0.81	<0.17	120	3.5	<1.5	114	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	
	3/7/2017	<0.41	17.1	0.76 J	1.1	3.2	5	77	1	<0.17	1.7	<0.14	<2.5	<0.50	3.9	0.48 J	15.1	6.5	75	1.3	
	10/5/2017	System off per localized groundwater treatment study, no sample collected.																			
	3/9/2018	System off per localized groundwater treatment study, no sample collected.																			
	10/5/2018	<0.24	21.2	<1.1	<0.84	2.9	2.8	20.2	0.39 J	<1.2	<0.58	<0.39	2.2 J	<0.81	2.9 J	<0.26	1.4	4.5	37 J	0.26	
3/5/2019	<0.24	1.2	<1.1	<0.84	2.4	<0.25	1.4	<0.22	<1.2	<0.58	<0.39	<1.2	<0.81	<0.17	<0.26	<0.17	<1.5	<36	0.19		
10/18/2019	System temporarily off awaiting removal of blockage from conveyance pipe; no sample collected.																				

Table 2
Effluent Summary
KEP Groundwater Remediation Systems
Kenosha, Wisconsin

Well Location	Sample Date	1,1-Dichloro ethene (ug/L)	1,1-Dichloro ethane (ug/L)	trans-1,2-Dichloro ethene (ug/L)	1,2,4-Trimethyl benzene (ug/L)	1,1,1-Trichloro-ethane (ug/L)	Benzene (ug/L)	cis-1,2-Dichloro ethene (ug/L)	Ethyl benzene (ug/L)	Methyl tert-butyl ether (ug/L)	Methylene Chloride	Isopropyl benzene (ug/L)	Naphthalene (ug/L)	N-Propyl benzene (ug/L)	Toluene (ug/L)	Trichloro ethene (ug/L)	Vinyl chloride (ug/L)	Xylenes, Total (ug/L)	Gasoline Range Organics (ug/L)	Diesel Range Organics (mg/L)
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
	3/7/2017	<0.41	<0.24	<0.26	<0.50	<0.50	<0.50	<0.26	<0.50	<0.17	<0.23	<0.14	<2.5	<0.50	<0.50	<0.33	<0.18	<1.5	<30	0.68
	10/5/2017	<0.41	<0.24	<0.26	<0.50	<0.50	<0.50	5.1	<0.50	<0.17	<0.23	<0.14	<2.5	<0.50	<0.50	0.40 J	<0.18	<1.5	<30	0.97
	3/9/2018	<0.41	<0.24	0.45J	<0.50	<0.50	<0.50	6.6	<0.50	<0.17	<0.23	<0.14	<2.5	<0.50	<0.50	0.42 J	0.91 J	<1.5	<30	1.1
10/5/2018	<0.24	<0.27	<1.1	<0.84	<0.24	<0.25	1.4	<0.22	<1.2	<0.58	<0.39	<1.2	<0.81	<0.17	<0.26	0.20 J	<1.5	<36	1.5	
3/5/2019	<0.24	<0.27	<1.1	<0.84	<0.24	<0.25	12.6	<0.22	<1.2	<0.58	<0.39	<1.2	<0.81	<0.17	1.5	0.21 J	<1.5	<36	0.98	
10/18/2019	<0.24	.036 J	1.3 J	<0.84	<0.24	<0.25	16.7	<0.22	<1.2	<0.58	<0.39	<1.2	<0.81	<0.17	2	1.6	<1.5	<30.5	3.8	

ug/L = micrograms per liter mg/L = milligram per liter

ND - Not Detected, lab data not provided by prior consultant

<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	7/8/2019	6,111,732.40	337,934.10	Yes	Yes	Yes
	7/31/2019	6,205,693.10	93,960.70			
	8/14/2019	6,253,516.40	47,823.30			
	9/20/2019	6,394,580.20	141,063.80			
	10/20/2019	6,550,682.30	156,102.10			
	11/25/2019	6,711,337.49	160,655.19			
	12/7/2019	6,790,921.43	79,583.94			
	1/9/2020*	6,935,710.90	144,789.47			
18	7/8/2019	4,081,238.40	101,329.25	Yes	Yes	Yes
	7/31/2019	4,098,791.60	17,553.20			
	8/14/2019	4,098,791.60	0	Pump not in operation during as of July 16, 2019 due to conveyance pipe blockage. No effluent sample.		
	9/20/2019	4,098,791.60	0			
	10/20/2019	4,098,791.60	0			
	11/25/2019	4,098,791.60	0			
	12/7/2019	4,098,791.60	0			
	1/9/2020*	4,098,791.60	0			
23	7/8/2019	4,238,580.10	0	Pump not in operation during semi-annual period. No effluent sample.		
	7/31/2019	4,238,580.10	0			
	8/14/2019	4,238,580.10	0			
	9/20/2019	4,238,580.10	0			
	10/20/2019	4,238,580.10	0			
	11/25/2019	4,238,580.10	0			
	12/7/2019	4,238,580.10	0			
	1/9/2020*	4,238,580.10	0			
7	7/8/2019	624,552.70	70,605.71	Yes	Yes	Yes
	7/31/2019	659,737.88	35,185.18			
	8/14/2019	679,937.94	20,200.06			
	9/20/2019	753,876.05	73,938.11			
	10/20/2019	835,645.04	81,768.99			
	11/25/2019	898,104.75	62,459.71			
	12/7/2019	900,540.72	2,435.97			
	1/9/2020*	901,990.52	1,449.80			
17R	7/8/2019	1,985,951.90	97,777.11	Yes	Yes	Yes
	7/31/2019	1,997,762.77	11,810.87			
	8/14/2019	2,004,486.75	6,723.98			
	9/20/2019	2,025,985.87	21,499.12			
	10/20/2019	2,047,678.12	21,692.25			
	11/25/2019	2,064,779.19	17,101.07			
	12/7/2019	2,065,118.82	339.63			
	1/9/2020*	2,065,712.79	593.97			

Notes:

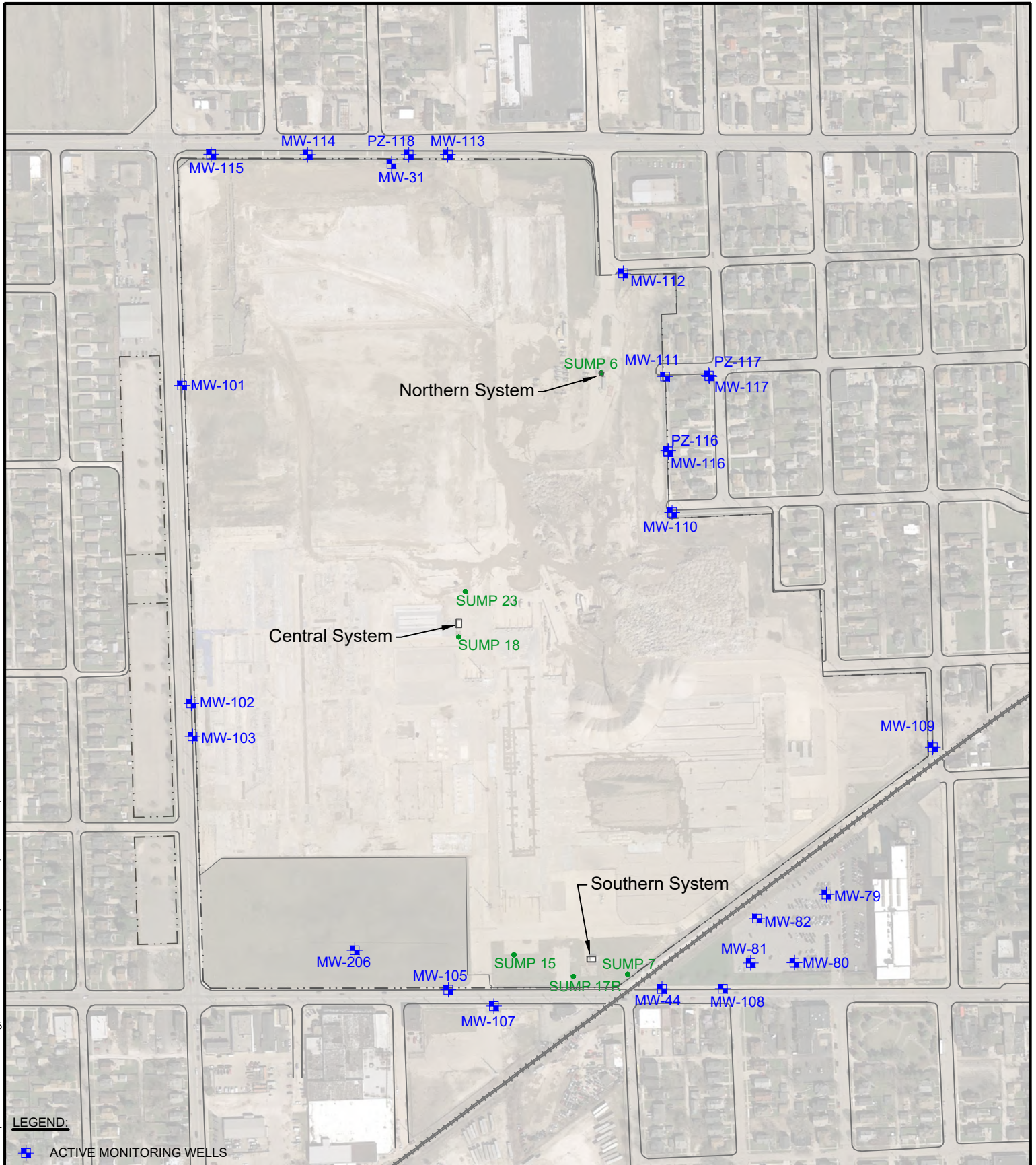
GRO - Gasoline Range Organics, DRO - Diesel Range Organics, VOC - Total Volatile Organic Compounds

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

* Date of flow meter readings collected during next semi-annual reporting period (January through June 2020).

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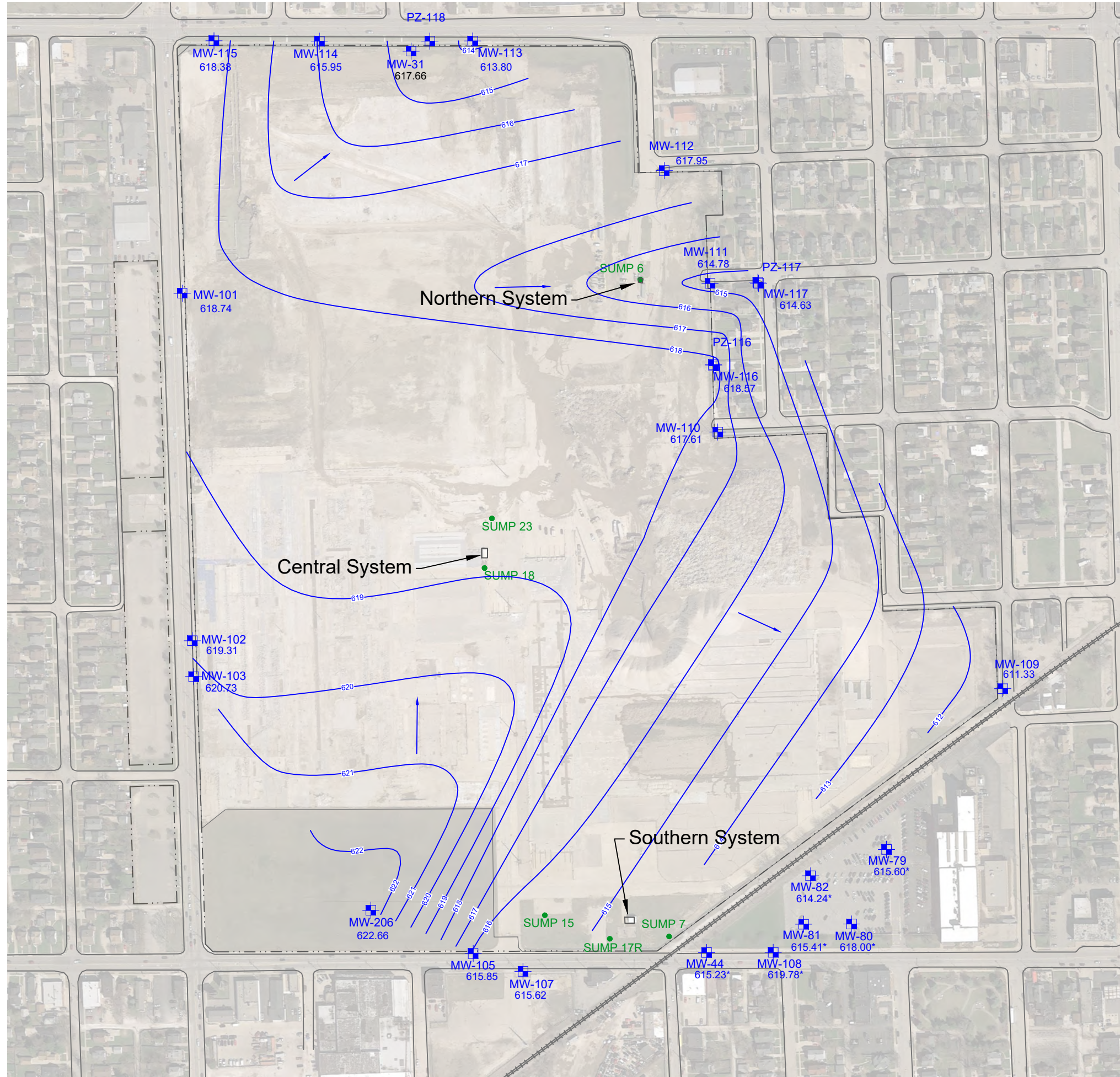


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MONITORING WELL LOCATION MAP
 KENOSHA ENGINE PLANT
 CITY OF KENOSHA
 KENOSHA, WISCONSIN

Drawn :	JSM	6/23/2020
Checked:	LLA	6/23/2020
Approved:	LLA	6/23/2020
PROJECT NUMBER	60605022	
FIGURE NUMBER	1	

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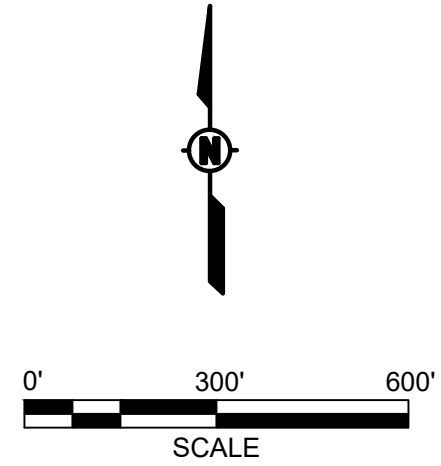


LEGEND

- APPROXIMATE SITE BOUNDARY
- RAILROAD
- X --- EXISTING FENCE
- PERIMETER MONITORING WELL LOCATIONS
- 617 — WATER TABLE CONTOURS
- *

WELLS LOCATED SOUTHEAST OF THE RAILROAD TRACKS (SOUTHEAST OF KEP) ARE UNDER THE INFLUENCE OF THE SOUTHERN GROUNDWATER RECOVERY SYSTEM AND ARE NOT INCLUDED IN THE CONTOURS BECAUSE WATER LEVELS ADJACENT TO THE RECOVERY SYSTEM WERE NOT MEASURED.

- NOTES**
1. AERIAL PHOTOGRAPH FROM GOOGLE EARTH PRO, IMAGE DATED 4/6/2017; DOWNLOADED ON 6/5/2017.
 2. MW-31 NOT USED FOR CONTOUR MAP

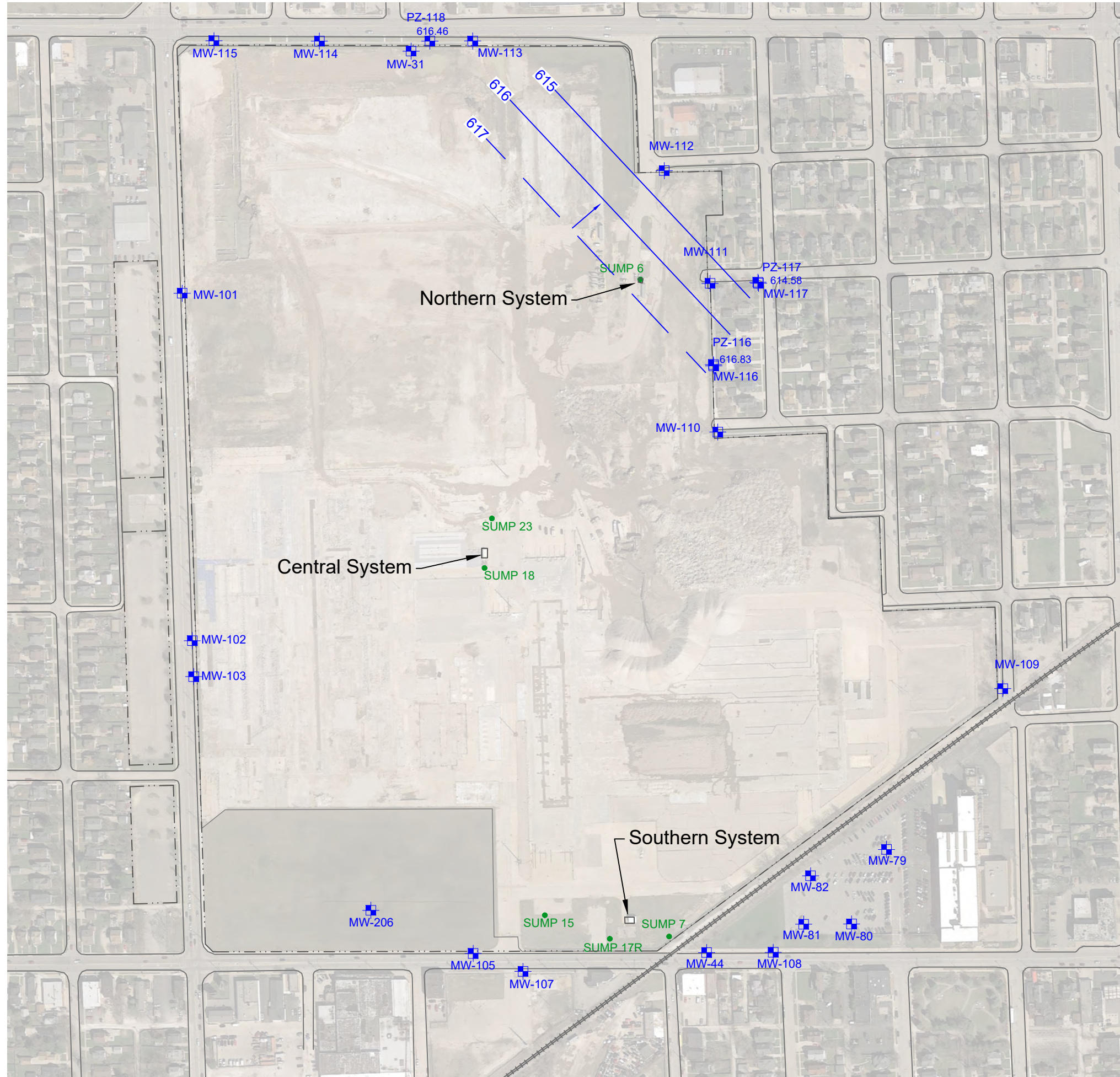


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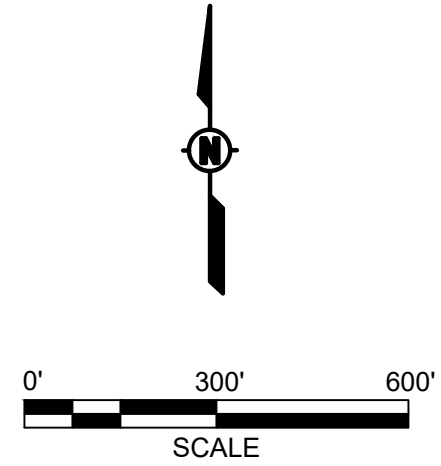
**POTENTIOMETRIC SURFACE
PERIMETER WATER TABLE MONITORING WELLS - OCTOBER 2019
KENOSHA ENGINE PLANT
CITY OF KENOSHA
KENOSHA, WISCONSIN**

Drawn :	JSM 6/23/2020
Checked:	LLA 6/23/2020
Approved:	LLA 6/23/2020
PROJECT NUMBER	60605022
FIGURE NUMBER	2

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- LEGEND**
- APPROXIMATE SITE BOUNDARY
 - RAILROAD
 - X --- EXISTING FENCE
 - PERIMETER PIEZOMETER LOCATIONS
 - 617 — WATER TABLE CONTOURS
- NOTES**
1. AERIAL PHOTOGRAPH FROM GOOGLE EARTH PRO, IMAGE DATED 4/6/2017; DOWNLOADED ON 6/5/2017.



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POTENTIOMETRIC SURFACE
 PERIMETER PIEZOMETERS - OCTOBER 2019
 KENOSHA ENGINE PLANT
 CITY OF KENOSHA
 KENOSHA, WISCONSIN

Drawn :	JSM 6/23/2020
Checked:	LLA 6/23/2020
Approved:	LLA 6/23/2020
PROJECT NUMBER	60605022
FIGURE NUMBER	3

October 24, 2019

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

RE: Project: 60605022 KEP O&M ACTIVITIES
Pace Project No.: 40197618

Dear Lanette Altenbach:

Enclosed are the analytical results for sample(s) received by the laboratory on October 19, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC 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@pacelabs.com
(920)469-2436
Project Manager

Enclosures

cc: Joel Mackinney, AECOM



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 60605022 KEP O&M ACTIVITIES
Pace Project No.: 40197618

Green Bay Certification IDs

1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky UST Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 12064
North Dakota Certification #: R-150

Virginia VELAP ID: 460263
South Carolina Certification #: 83006001
Texas Certification #: T104704529-14-1
Wisconsin Certification #: 405132750
Wisconsin DATCP Certification #: 105-444
USDA Soil Permit #: P330-16-00157
Federal Fish & Wildlife Permit #: LE51774A-0

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: 60605022 KEP O&M ACTIVITIES

Pace Project No.: 40197618

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40197618001	SUMP 6 IN	Water	10/18/19 14:00	10/19/19 10:10
40197618002	SUMP 6 EFF	Water	10/18/19 14:10	10/19/19 10:10
40197618003	SUMP 7 IN	Water	10/18/19 15:00	10/19/19 10:10
40197618004	SUMP 17R IN	Water	10/18/19 15:10	10/19/19 10:10
40197618005	SUMP 7/17R EFF	Water	10/18/19 15:30	10/19/19 10:10
40197618006	TRIP BLANK	Water	10/18/19 13:30	10/19/19 10:10

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 60605022 KEP O&M ACTIVITIES

Pace Project No.: 40197618

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40197618001	SUMP 6 IN	WI MOD DRO	MRN	1	PASI-G
		WI MOD GRO	ALD	1	PASI-G
		EPA 8260	HNW	63	PASI-G
40197618002	SUMP 6 EFF	WI MOD DRO	MRN	1	PASI-G
		WI MOD GRO	ALD	1	PASI-G
		EPA 8260	HNW	63	PASI-G
40197618003	SUMP 7 IN	WI MOD DRO	MRN	1	PASI-G
		WI MOD GRO	ALD	1	PASI-G
		EPA 8260	HNW	63	PASI-G
40197618004	SUMP 17R IN	WI MOD DRO	MRN	1	PASI-G
		WI MOD GRO	ALD	1	PASI-G
		EPA 8260	HNW	63	PASI-G
40197618005	SUMP 7/17R EFF	WI MOD DRO	MRN	1	PASI-G
		WI MOD GRO	ALD	1	PASI-G
		EPA 8260	HNW	63	PASI-G
40197618006	TRIP BLANK	EPA 8260	HNW	63	PASI-G

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: 60605022 KEP O&M ACTIVITIES

Pace Project No.: 40197618

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40197618001	SUMP 6 IN					
WI MOD DRO	Diesel Range Organics	0.076	mg/L	0.049	10/24/19 07:53	DC
WI MOD GRO	Gasoline Range Organics	474	ug/L	100	10/21/19 17:52	G-
EPA 8260	1,1-Dichloroethane	6.9	ug/L	1.0	10/22/19 23:49	
EPA 8260	1,1-Dichloroethene	4.1	ug/L	1.0	10/22/19 23:49	
EPA 8260	cis-1,2-Dichloroethene	624	ug/L	10.0	10/23/19 08:38	
EPA 8260	trans-1,2-Dichloroethene	79.0	ug/L	3.6	10/22/19 23:49	
EPA 8260	Methyl-tert-butyl ether	1.8J	ug/L	4.2	10/22/19 23:49	
EPA 8260	1,1,1-Trichloroethane	1.3	ug/L	1.0	10/22/19 23:49	
EPA 8260	Trichloroethene	605	ug/L	10.0	10/23/19 08:38	
EPA 8260	Vinyl chloride	36.2	ug/L	1.0	10/22/19 23:49	
40197618002	SUMP 6 EFF					
WI MOD DRO	Diesel Range Organics	0.17	mg/L	0.050	10/24/19 08:03	DC
WI MOD GRO	Gasoline Range Organics	114	ug/L	100	10/21/19 13:09	GO
EPA 8260	1,1-Dichloroethane	1.9	ug/L	1.0	10/22/19 22:23	
EPA 8260	1,1-Dichloroethene	0.46J	ug/L	1.0	10/22/19 22:23	
EPA 8260	cis-1,2-Dichloroethene	187	ug/L	1.0	10/22/19 22:23	
EPA 8260	trans-1,2-Dichloroethene	13.1	ug/L	3.6	10/22/19 22:23	
EPA 8260	Isopropylbenzene (Cumene)	0.74J	ug/L	5.0	10/22/19 22:23	
EPA 8260	Methyl-tert-butyl ether	1.9J	ug/L	4.2	10/22/19 22:23	
EPA 8260	1,1,1-Trichloroethane	0.27J	ug/L	1.0	10/22/19 22:23	
EPA 8260	Trichloroethene	120	ug/L	1.0	10/22/19 22:23	
EPA 8260	Vinyl chloride	3.5	ug/L	1.0	10/22/19 22:23	
40197618003	SUMP 7 IN					
WI MOD DRO	Diesel Range Organics	91.5	mg/L	3.4	10/24/19 08:12	DC
WI MOD GRO	Gasoline Range Organics	151	ug/L	100	10/21/19 12:43	GO
EPA 8260	1,1-Dichloroethane	0.53J	ug/L	1.0	10/22/19 22:45	
EPA 8260	cis-1,2-Dichloroethene	6.8	ug/L	1.0	10/22/19 22:45	
EPA 8260	trans-1,2-Dichloroethene	1.3J	ug/L	3.6	10/22/19 22:45	
EPA 8260	Isopropylbenzene (Cumene)	0.92J	ug/L	5.0	10/22/19 22:45	
EPA 8260	Naphthalene	1.2J	ug/L	5.0	10/22/19 22:45	
EPA 8260	Trichloroethene	0.28J	ug/L	1.0	10/22/19 22:45	
EPA 8260	1,2,4-Trimethylbenzene	3.3	ug/L	2.8	10/22/19 22:45	
EPA 8260	Vinyl chloride	1.4	ug/L	1.0	10/22/19 22:45	
40197618004	SUMP 17R IN					
WI MOD DRO	Diesel Range Organics	1.9	mg/L	0.049	10/24/19 08:21	DC
WI MOD GRO	Gasoline Range Organics	211	ug/L	100	10/21/19 13:35	G-
EPA 8260	1,1-Dichloroethane	7.8	ug/L	1.0	10/22/19 23:06	
EPA 8260	1,1-Dichloroethene	1.0	ug/L	1.0	10/22/19 23:06	
EPA 8260	cis-1,2-Dichloroethene	405	ug/L	10.0	10/23/19 08:16	
EPA 8260	trans-1,2-Dichloroethene	39.2	ug/L	3.6	10/22/19 23:06	
EPA 8260	Trichloroethene	66.4	ug/L	1.0	10/22/19 23:06	
EPA 8260	Vinyl chloride	71.8	ug/L	1.0	10/22/19 23:06	
40197618005	SUMP 7/17R EFF					
WI MOD DRO	Diesel Range Organics	3.8	mg/L	0.098	10/24/19 08:30	DC
EPA 8260	1,1-Dichloroethane	0.36J	ug/L	1.0	10/22/19 23:28	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: 60605022 KEP O&M ACTIVITIES

Pace Project No.: 40197618

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40197618005	SUMP 7/17R EFF					
EPA 8260	cis-1,2-Dichloroethene	16.7	ug/L	1.0	10/22/19 23:28	
EPA 8260	trans-1,2-Dichloroethene	1.3J	ug/L	3.6	10/22/19 23:28	
EPA 8260	Trichloroethene	2.0	ug/L	1.0	10/22/19 23:28	
EPA 8260	Vinyl chloride	1.6	ug/L	1.0	10/22/19 23:28	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 60605022 KEP O&M ACTIVITIES

Pace Project No.: 40197618

Sample: **SUMP 6 IN** Lab ID: **40197618001** Collected: 10/18/19 14:00 Received: 10/19/19 10:10 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	0.076	mg/L	0.049	0.015	1	10/23/19 14:21	10/24/19 07:53		DC
WIGRO GCV		Analytical Method: WI MOD GRO							
Gasoline Range Organics	474	ug/L	100	30.5	1		10/21/19 17:52		G-
8260 MSV		Analytical Method: EPA 8260							
Benzene	<0.25	ug/L	1.0	0.25	1		10/22/19 23:49	71-43-2	
Bromobenzene	<0.24	ug/L	1.0	0.24	1		10/22/19 23:49	108-86-1	
Bromochloromethane	<0.36	ug/L	5.0	0.36	1		10/22/19 23:49	74-97-5	
Bromodichloromethane	<0.36	ug/L	1.2	0.36	1		10/22/19 23:49	75-27-4	
Bromoform	<4.0	ug/L	13.2	4.0	1		10/22/19 23:49	75-25-2	
Bromomethane	<0.97	ug/L	5.0	0.97	1		10/22/19 23:49	74-83-9	
n-Butylbenzene	<0.71	ug/L	2.4	0.71	1		10/22/19 23:49	104-51-8	
sec-Butylbenzene	<0.85	ug/L	5.0	0.85	1		10/22/19 23:49	135-98-8	
tert-Butylbenzene	<0.30	ug/L	1.0	0.30	1		10/22/19 23:49	98-06-6	
Carbon tetrachloride	<0.17	ug/L	1.0	0.17	1		10/22/19 23:49	56-23-5	
Chlorobenzene	<0.71	ug/L	2.4	0.71	1		10/22/19 23:49	108-90-7	
Chloroethane	<1.3	ug/L	5.0	1.3	1		10/22/19 23:49	75-00-3	
Chloroform	<1.3	ug/L	5.0	1.3	1		10/22/19 23:49	67-66-3	
Chloromethane	<2.2	ug/L	7.3	2.2	1		10/22/19 23:49	74-87-3	
2-Chlorotoluene	<0.93	ug/L	5.0	0.93	1		10/22/19 23:49	95-49-8	
4-Chlorotoluene	<0.76	ug/L	2.5	0.76	1		10/22/19 23:49	106-43-4	
1,2-Dibromo-3-chloropropane	<1.8	ug/L	5.9	1.8	1		10/22/19 23:49	96-12-8	
Dibromochloromethane	<2.6	ug/L	8.7	2.6	1		10/22/19 23:49	124-48-1	
1,2-Dibromoethane (EDB)	<0.83	ug/L	2.8	0.83	1		10/22/19 23:49	106-93-4	
Dibromomethane	<0.94	ug/L	3.1	0.94	1		10/22/19 23:49	74-95-3	
1,2-Dichlorobenzene	<0.71	ug/L	2.4	0.71	1		10/22/19 23:49	95-50-1	
1,3-Dichlorobenzene	<0.63	ug/L	2.1	0.63	1		10/22/19 23:49	541-73-1	
1,4-Dichlorobenzene	<0.94	ug/L	3.1	0.94	1		10/22/19 23:49	106-46-7	
Dichlorodifluoromethane	<0.50	ug/L	5.0	0.50	1		10/22/19 23:49	75-71-8	
1,1-Dichloroethane	6.9	ug/L	1.0	0.27	1		10/22/19 23:49	75-34-3	
1,2-Dichloroethane	<0.28	ug/L	1.0	0.28	1		10/22/19 23:49	107-06-2	
1,1-Dichloroethene	4.1	ug/L	1.0	0.24	1		10/22/19 23:49	75-35-4	
cis-1,2-Dichloroethene	624	ug/L	10.0	2.7	10		10/23/19 08:38	156-59-2	
trans-1,2-Dichloroethene	79.0	ug/L	3.6	1.1	1		10/22/19 23:49	156-60-5	
1,2-Dichloropropane	<0.28	ug/L	1.0	0.28	1		10/22/19 23:49	78-87-5	
1,3-Dichloropropane	<0.83	ug/L	2.8	0.83	1		10/22/19 23:49	142-28-9	
2,2-Dichloropropane	<2.3	ug/L	7.6	2.3	1		10/22/19 23:49	594-20-7	
1,1-Dichloropropene	<0.54	ug/L	1.8	0.54	1		10/22/19 23:49	563-58-6	
cis-1,3-Dichloropropene	<3.6	ug/L	12.1	3.6	1		10/22/19 23:49	10061-01-5	
trans-1,3-Dichloropropene	<4.4	ug/L	14.6	4.4	1		10/22/19 23:49	10061-02-6	
Diisopropyl ether	<1.9	ug/L	6.3	1.9	1		10/22/19 23:49	108-20-3	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		10/22/19 23:49	100-41-4	
Hexachloro-1,3-butadiene	<1.2	ug/L	5.0	1.2	1		10/22/19 23:49	87-68-3	
Isopropylbenzene (Cumene)	<0.39	ug/L	5.0	0.39	1		10/22/19 23:49	98-82-8	
p-Isopropyltoluene	<0.80	ug/L	2.7	0.80	1		10/22/19 23:49	99-87-6	

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ANALYTICAL RESULTS

Project: 60605022 KEP O&M ACTIVITIES

Pace Project No.: 40197618

Sample: SUMP 6 IN **Lab ID: 40197618001** Collected: 10/18/19 14:00 Received: 10/19/19 10:10 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 8260									
Methylene Chloride	<0.58	ug/L	5.0	0.58	1		10/22/19 23:49	75-09-2	
Methyl-tert-butyl ether	1.8J	ug/L	4.2	1.2	1		10/22/19 23:49	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		10/22/19 23:49	91-20-3	
n-Propylbenzene	<0.81	ug/L	5.0	0.81	1		10/22/19 23:49	103-65-1	
Styrene	<0.47	ug/L	1.6	0.47	1		10/22/19 23:49	100-42-5	
1,1,1,2-Tetrachloroethane	<0.27	ug/L	1.0	0.27	1		10/22/19 23:49	630-20-6	
1,1,2,2-Tetrachloroethane	<0.28	ug/L	1.0	0.28	1		10/22/19 23:49	79-34-5	
Tetrachloroethene	<0.33	ug/L	1.1	0.33	1		10/22/19 23:49	127-18-4	
Toluene	<0.17	ug/L	5.0	0.17	1		10/22/19 23:49	108-88-3	
1,2,3-Trichlorobenzene	<0.63	ug/L	5.0	0.63	1		10/22/19 23:49	87-61-6	
1,2,4-Trichlorobenzene	<0.95	ug/L	5.0	0.95	1		10/22/19 23:49	120-82-1	
1,1,1-Trichloroethane	1.3	ug/L	1.0	0.24	1		10/22/19 23:49	71-55-6	
1,1,2-Trichloroethane	<0.55	ug/L	5.0	0.55	1		10/22/19 23:49	79-00-5	
Trichloroethene	605	ug/L	10.0	2.6	10		10/23/19 08:38	79-01-6	
Trichlorofluoromethane	<0.21	ug/L	1.0	0.21	1		10/22/19 23:49	75-69-4	
1,2,3-Trichloropropane	<0.59	ug/L	5.0	0.59	1		10/22/19 23:49	96-18-4	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		10/22/19 23:49	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		10/22/19 23:49	108-67-8	
Vinyl chloride	36.2	ug/L	1.0	0.17	1		10/22/19 23:49	75-01-4	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		10/22/19 23:49	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	95	%	70-130		1		10/22/19 23:49	460-00-4	
Dibromofluoromethane (S)	100	%	70-130		1		10/22/19 23:49	1868-53-7	
Toluene-d8 (S)	101	%	70-130		1		10/22/19 23:49	2037-26-5	

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ANALYTICAL RESULTS

Project: 60605022 KEP O&M ACTIVITIES

Pace Project No.: 40197618

Sample: **SUMP 6 EFF** Lab ID: **40197618002** Collected: 10/18/19 14:10 Received: 10/19/19 10:10 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	0.050	0.015	1	10/23/19 14:21	10/24/19 08:03		DC
WIGRO GCV		Analytical Method: WI MOD GRO							
Gasoline Range Organics	114	ug/L	100	30.5	1		10/21/19 13:09		GO
8260 MSV		Analytical Method: EPA 8260							
Benzene	<0.25	ug/L	1.0	0.25	1		10/22/19 22:23	71-43-2	
Bromobenzene	<0.24	ug/L	1.0	0.24	1		10/22/19 22:23	108-86-1	
Bromochloromethane	<0.36	ug/L	5.0	0.36	1		10/22/19 22:23	74-97-5	
Bromodichloromethane	<0.36	ug/L	1.2	0.36	1		10/22/19 22:23	75-27-4	
Bromoform	<4.0	ug/L	13.2	4.0	1		10/22/19 22:23	75-25-2	
Bromomethane	<0.97	ug/L	5.0	0.97	1		10/22/19 22:23	74-83-9	
n-Butylbenzene	<0.71	ug/L	2.4	0.71	1		10/22/19 22:23	104-51-8	
sec-Butylbenzene	<0.85	ug/L	5.0	0.85	1		10/22/19 22:23	135-98-8	
tert-Butylbenzene	<0.30	ug/L	1.0	0.30	1		10/22/19 22:23	98-06-6	
Carbon tetrachloride	<0.17	ug/L	1.0	0.17	1		10/22/19 22:23	56-23-5	
Chlorobenzene	<0.71	ug/L	2.4	0.71	1		10/22/19 22:23	108-90-7	
Chloroethane	<1.3	ug/L	5.0	1.3	1		10/22/19 22:23	75-00-3	
Chloroform	<1.3	ug/L	5.0	1.3	1		10/22/19 22:23	67-66-3	
Chloromethane	<2.2	ug/L	7.3	2.2	1		10/22/19 22:23	74-87-3	
2-Chlorotoluene	<0.93	ug/L	5.0	0.93	1		10/22/19 22:23	95-49-8	
4-Chlorotoluene	<0.76	ug/L	2.5	0.76	1		10/22/19 22:23	106-43-4	
1,2-Dibromo-3-chloropropane	<1.8	ug/L	5.9	1.8	1		10/22/19 22:23	96-12-8	
Dibromochloromethane	<2.6	ug/L	8.7	2.6	1		10/22/19 22:23	124-48-1	
1,2-Dibromoethane (EDB)	<0.83	ug/L	2.8	0.83	1		10/22/19 22:23	106-93-4	
Dibromomethane	<0.94	ug/L	3.1	0.94	1		10/22/19 22:23	74-95-3	
1,2-Dichlorobenzene	<0.71	ug/L	2.4	0.71	1		10/22/19 22:23	95-50-1	
1,3-Dichlorobenzene	<0.63	ug/L	2.1	0.63	1		10/22/19 22:23	541-73-1	
1,4-Dichlorobenzene	<0.94	ug/L	3.1	0.94	1		10/22/19 22:23	106-46-7	
Dichlorodifluoromethane	<0.50	ug/L	5.0	0.50	1		10/22/19 22:23	75-71-8	
1,1-Dichloroethane	1.9	ug/L	1.0	0.27	1		10/22/19 22:23	75-34-3	
1,2-Dichloroethane	<0.28	ug/L	1.0	0.28	1		10/22/19 22:23	107-06-2	
1,1-Dichloroethene	0.46J	ug/L	1.0	0.24	1		10/22/19 22:23	75-35-4	
cis-1,2-Dichloroethene	187	ug/L	1.0	0.27	1		10/22/19 22:23	156-59-2	
trans-1,2-Dichloroethene	13.1	ug/L	3.6	1.1	1		10/22/19 22:23	156-60-5	
1,2-Dichloropropane	<0.28	ug/L	1.0	0.28	1		10/22/19 22:23	78-87-5	
1,3-Dichloropropane	<0.83	ug/L	2.8	0.83	1		10/22/19 22:23	142-28-9	
2,2-Dichloropropane	<2.3	ug/L	7.6	2.3	1		10/22/19 22:23	594-20-7	
1,1-Dichloropropene	<0.54	ug/L	1.8	0.54	1		10/22/19 22:23	563-58-6	
cis-1,3-Dichloropropene	<3.6	ug/L	12.1	3.6	1		10/22/19 22:23	10061-01-5	
trans-1,3-Dichloropropene	<4.4	ug/L	14.6	4.4	1		10/22/19 22:23	10061-02-6	
Diisopropyl ether	<1.9	ug/L	6.3	1.9	1		10/22/19 22:23	108-20-3	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		10/22/19 22:23	100-41-4	
Hexachloro-1,3-butadiene	<1.2	ug/L	5.0	1.2	1		10/22/19 22:23	87-68-3	
Isopropylbenzene (Cumene)	0.74J	ug/L	5.0	0.39	1		10/22/19 22:23	98-82-8	
p-Isopropyltoluene	<0.80	ug/L	2.7	0.80	1		10/22/19 22:23	99-87-6	

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ANALYTICAL RESULTS

Project: 60605022 KEP O&M ACTIVITIES

Pace Project No.: 40197618

Sample: SUMP 6 EFF **Lab ID: 40197618002** Collected: 10/18/19 14:10 Received: 10/19/19 10:10 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
Methylene Chloride	<0.58	ug/L	5.0	0.58	1		10/22/19 22:23	75-09-2	
Methyl-tert-butyl ether	1.9J	ug/L	4.2	1.2	1		10/22/19 22:23	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		10/22/19 22:23	91-20-3	
n-Propylbenzene	<0.81	ug/L	5.0	0.81	1		10/22/19 22:23	103-65-1	
Styrene	<0.47	ug/L	1.6	0.47	1		10/22/19 22:23	100-42-5	
1,1,1,2-Tetrachloroethane	<0.27	ug/L	1.0	0.27	1		10/22/19 22:23	630-20-6	
1,1,2,2-Tetrachloroethane	<0.28	ug/L	1.0	0.28	1		10/22/19 22:23	79-34-5	
Tetrachloroethene	<0.33	ug/L	1.1	0.33	1		10/22/19 22:23	127-18-4	
Toluene	<0.17	ug/L	5.0	0.17	1		10/22/19 22:23	108-88-3	
1,2,3-Trichlorobenzene	<0.63	ug/L	5.0	0.63	1		10/22/19 22:23	87-61-6	
1,2,4-Trichlorobenzene	<0.95	ug/L	5.0	0.95	1		10/22/19 22:23	120-82-1	
1,1,1-Trichloroethane	0.27J	ug/L	1.0	0.24	1		10/22/19 22:23	71-55-6	
1,1,2-Trichloroethane	<0.55	ug/L	5.0	0.55	1		10/22/19 22:23	79-00-5	
Trichloroethene	120	ug/L	1.0	0.26	1		10/22/19 22:23	79-01-6	
Trichlorofluoromethane	<0.21	ug/L	1.0	0.21	1		10/22/19 22:23	75-69-4	
1,2,3-Trichloropropane	<0.59	ug/L	5.0	0.59	1		10/22/19 22:23	96-18-4	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		10/22/19 22:23	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		10/22/19 22:23	108-67-8	
Vinyl chloride	3.5	ug/L	1.0	0.17	1		10/22/19 22:23	75-01-4	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		10/22/19 22:23	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	96	%	70-130		1		10/22/19 22:23	460-00-4	
Dibromofluoromethane (S)	103	%	70-130		1		10/22/19 22:23	1868-53-7	
Toluene-d8 (S)	99	%	70-130		1		10/22/19 22:23	2037-26-5	

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ANALYTICAL RESULTS

Project: 60605022 KEP O&M ACTIVITIES

Pace Project No.: 40197618

Sample: SUMP 7 IN **Lab ID: 40197618003** Collected: 10/18/19 15:00 Received: 10/19/19 10:10 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	91.5	mg/L	3.4	1.0	70	10/23/19 14:21	10/24/19 08:12		DC
WIGRO GCV		Analytical Method: WI MOD GRO							
Gasoline Range Organics	151	ug/L	100	30.5	1		10/21/19 12:43		GO
8260 MSV		Analytical Method: EPA 8260							
Benzene	<0.25	ug/L	1.0	0.25	1		10/22/19 22:45	71-43-2	
Bromobenzene	<0.24	ug/L	1.0	0.24	1		10/22/19 22:45	108-86-1	
Bromochloromethane	<0.36	ug/L	5.0	0.36	1		10/22/19 22:45	74-97-5	
Bromodichloromethane	<0.36	ug/L	1.2	0.36	1		10/22/19 22:45	75-27-4	
Bromoform	<4.0	ug/L	13.2	4.0	1		10/22/19 22:45	75-25-2	
Bromomethane	<0.97	ug/L	5.0	0.97	1		10/22/19 22:45	74-83-9	
n-Butylbenzene	<0.71	ug/L	2.4	0.71	1		10/22/19 22:45	104-51-8	
sec-Butylbenzene	<0.85	ug/L	5.0	0.85	1		10/22/19 22:45	135-98-8	
tert-Butylbenzene	<0.30	ug/L	1.0	0.30	1		10/22/19 22:45	98-06-6	
Carbon tetrachloride	<0.17	ug/L	1.0	0.17	1		10/22/19 22:45	56-23-5	
Chlorobenzene	<0.71	ug/L	2.4	0.71	1		10/22/19 22:45	108-90-7	
Chloroethane	<1.3	ug/L	5.0	1.3	1		10/22/19 22:45	75-00-3	
Chloroform	<1.3	ug/L	5.0	1.3	1		10/22/19 22:45	67-66-3	
Chloromethane	<2.2	ug/L	7.3	2.2	1		10/22/19 22:45	74-87-3	
2-Chlorotoluene	<0.93	ug/L	5.0	0.93	1		10/22/19 22:45	95-49-8	
4-Chlorotoluene	<0.76	ug/L	2.5	0.76	1		10/22/19 22:45	106-43-4	
1,2-Dibromo-3-chloropropane	<1.8	ug/L	5.9	1.8	1		10/22/19 22:45	96-12-8	
Dibromochloromethane	<2.6	ug/L	8.7	2.6	1		10/22/19 22:45	124-48-1	
1,2-Dibromoethane (EDB)	<0.83	ug/L	2.8	0.83	1		10/22/19 22:45	106-93-4	
Dibromomethane	<0.94	ug/L	3.1	0.94	1		10/22/19 22:45	74-95-3	
1,2-Dichlorobenzene	<0.71	ug/L	2.4	0.71	1		10/22/19 22:45	95-50-1	
1,3-Dichlorobenzene	<0.63	ug/L	2.1	0.63	1		10/22/19 22:45	541-73-1	
1,4-Dichlorobenzene	<0.94	ug/L	3.1	0.94	1		10/22/19 22:45	106-46-7	
Dichlorodifluoromethane	<0.50	ug/L	5.0	0.50	1		10/22/19 22:45	75-71-8	
1,1-Dichloroethane	0.53J	ug/L	1.0	0.27	1		10/22/19 22:45	75-34-3	
1,2-Dichloroethane	<0.28	ug/L	1.0	0.28	1		10/22/19 22:45	107-06-2	
1,1-Dichloroethene	<0.24	ug/L	1.0	0.24	1		10/22/19 22:45	75-35-4	
cis-1,2-Dichloroethene	6.8	ug/L	1.0	0.27	1		10/22/19 22:45	156-59-2	
trans-1,2-Dichloroethene	1.3J	ug/L	3.6	1.1	1		10/22/19 22:45	156-60-5	
1,2-Dichloropropane	<0.28	ug/L	1.0	0.28	1		10/22/19 22:45	78-87-5	
1,3-Dichloropropane	<0.83	ug/L	2.8	0.83	1		10/22/19 22:45	142-28-9	
2,2-Dichloropropane	<2.3	ug/L	7.6	2.3	1		10/22/19 22:45	594-20-7	
1,1-Dichloropropene	<0.54	ug/L	1.8	0.54	1		10/22/19 22:45	563-58-6	
cis-1,3-Dichloropropene	<3.6	ug/L	12.1	3.6	1		10/22/19 22:45	10061-01-5	
trans-1,3-Dichloropropene	<4.4	ug/L	14.6	4.4	1		10/22/19 22:45	10061-02-6	
Diisopropyl ether	<1.9	ug/L	6.3	1.9	1		10/22/19 22:45	108-20-3	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		10/22/19 22:45	100-41-4	
Hexachloro-1,3-butadiene	<1.2	ug/L	5.0	1.2	1		10/22/19 22:45	87-68-3	
Isopropylbenzene (Cumene)	0.92J	ug/L	5.0	0.39	1		10/22/19 22:45	98-82-8	
p-Isopropyltoluene	<0.80	ug/L	2.7	0.80	1		10/22/19 22:45	99-87-6	

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ANALYTICAL RESULTS

Project: 60605022 KEP O&M ACTIVITIES

Pace Project No.: 40197618

Sample: SUMP 7 IN **Lab ID: 40197618003** Collected: 10/18/19 15:00 Received: 10/19/19 10:10 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 8260									
Methylene Chloride	<0.58	ug/L	5.0	0.58	1		10/22/19 22:45	75-09-2	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		10/22/19 22:45	1634-04-4	
Naphthalene	1.2J	ug/L	5.0	1.2	1		10/22/19 22:45	91-20-3	
n-Propylbenzene	<0.81	ug/L	5.0	0.81	1		10/22/19 22:45	103-65-1	
Styrene	<0.47	ug/L	1.6	0.47	1		10/22/19 22:45	100-42-5	
1,1,1,2-Tetrachloroethane	<0.27	ug/L	1.0	0.27	1		10/22/19 22:45	630-20-6	
1,1,2,2-Tetrachloroethane	<0.28	ug/L	1.0	0.28	1		10/22/19 22:45	79-34-5	
Tetrachloroethene	<0.33	ug/L	1.1	0.33	1		10/22/19 22:45	127-18-4	
Toluene	<0.17	ug/L	5.0	0.17	1		10/22/19 22:45	108-88-3	
1,2,3-Trichlorobenzene	<0.63	ug/L	5.0	0.63	1		10/22/19 22:45	87-61-6	
1,2,4-Trichlorobenzene	<0.95	ug/L	5.0	0.95	1		10/22/19 22:45	120-82-1	
1,1,1-Trichloroethane	<0.24	ug/L	1.0	0.24	1		10/22/19 22:45	71-55-6	
1,1,2-Trichloroethane	<0.55	ug/L	5.0	0.55	1		10/22/19 22:45	79-00-5	
Trichloroethene	0.28J	ug/L	1.0	0.26	1		10/22/19 22:45	79-01-6	
Trichlorofluoromethane	<0.21	ug/L	1.0	0.21	1		10/22/19 22:45	75-69-4	
1,2,3-Trichloropropane	<0.59	ug/L	5.0	0.59	1		10/22/19 22:45	96-18-4	
1,2,4-Trimethylbenzene	3.3	ug/L	2.8	0.84	1		10/22/19 22:45	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		10/22/19 22:45	108-67-8	
Vinyl chloride	1.4	ug/L	1.0	0.17	1		10/22/19 22:45	75-01-4	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		10/22/19 22:45	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	98	%	70-130		1		10/22/19 22:45	460-00-4	
Dibromofluoromethane (S)	102	%	70-130		1		10/22/19 22:45	1868-53-7	
Toluene-d8 (S)	101	%	70-130		1		10/22/19 22:45	2037-26-5	

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ANALYTICAL RESULTS

Project: 60605022 KEP O&M ACTIVITIES

Pace Project No.: 40197618

Sample: SUMP 17R IN **Lab ID: 40197618004** Collected: 10/18/19 15:10 Received: 10/19/19 10:10 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	1.9	mg/L	0.049	0.015	1	10/23/19 14:21	10/24/19 08:21		DC
WIGRO GCV		Analytical Method: WI MOD GRO							
Gasoline Range Organics	211	ug/L	100	30.5	1		10/21/19 13:35		G-
8260 MSV		Analytical Method: EPA 8260							
Benzene	<0.25	ug/L	1.0	0.25	1		10/22/19 23:06	71-43-2	
Bromobenzene	<0.24	ug/L	1.0	0.24	1		10/22/19 23:06	108-86-1	
Bromochloromethane	<0.36	ug/L	5.0	0.36	1		10/22/19 23:06	74-97-5	
Bromodichloromethane	<0.36	ug/L	1.2	0.36	1		10/22/19 23:06	75-27-4	
Bromoform	<4.0	ug/L	13.2	4.0	1		10/22/19 23:06	75-25-2	
Bromomethane	<0.97	ug/L	5.0	0.97	1		10/22/19 23:06	74-83-9	
n-Butylbenzene	<0.71	ug/L	2.4	0.71	1		10/22/19 23:06	104-51-8	
sec-Butylbenzene	<0.85	ug/L	5.0	0.85	1		10/22/19 23:06	135-98-8	
tert-Butylbenzene	<0.30	ug/L	1.0	0.30	1		10/22/19 23:06	98-06-6	
Carbon tetrachloride	<0.17	ug/L	1.0	0.17	1		10/22/19 23:06	56-23-5	
Chlorobenzene	<0.71	ug/L	2.4	0.71	1		10/22/19 23:06	108-90-7	
Chloroethane	<1.3	ug/L	5.0	1.3	1		10/22/19 23:06	75-00-3	
Chloroform	<1.3	ug/L	5.0	1.3	1		10/22/19 23:06	67-66-3	
Chloromethane	<2.2	ug/L	7.3	2.2	1		10/22/19 23:06	74-87-3	
2-Chlorotoluene	<0.93	ug/L	5.0	0.93	1		10/22/19 23:06	95-49-8	
4-Chlorotoluene	<0.76	ug/L	2.5	0.76	1		10/22/19 23:06	106-43-4	
1,2-Dibromo-3-chloropropane	<1.8	ug/L	5.9	1.8	1		10/22/19 23:06	96-12-8	
Dibromochloromethane	<2.6	ug/L	8.7	2.6	1		10/22/19 23:06	124-48-1	
1,2-Dibromoethane (EDB)	<0.83	ug/L	2.8	0.83	1		10/22/19 23:06	106-93-4	
Dibromomethane	<0.94	ug/L	3.1	0.94	1		10/22/19 23:06	74-95-3	
1,2-Dichlorobenzene	<0.71	ug/L	2.4	0.71	1		10/22/19 23:06	95-50-1	
1,3-Dichlorobenzene	<0.63	ug/L	2.1	0.63	1		10/22/19 23:06	541-73-1	
1,4-Dichlorobenzene	<0.94	ug/L	3.1	0.94	1		10/22/19 23:06	106-46-7	
Dichlorodifluoromethane	<0.50	ug/L	5.0	0.50	1		10/22/19 23:06	75-71-8	
1,1-Dichloroethane	7.8	ug/L	1.0	0.27	1		10/22/19 23:06	75-34-3	
1,2-Dichloroethane	<0.28	ug/L	1.0	0.28	1		10/22/19 23:06	107-06-2	
1,1-Dichloroethene	1.0	ug/L	1.0	0.24	1		10/22/19 23:06	75-35-4	
cis-1,2-Dichloroethene	405	ug/L	10.0	2.7	10		10/23/19 08:16	156-59-2	
trans-1,2-Dichloroethene	39.2	ug/L	3.6	1.1	1		10/22/19 23:06	156-60-5	
1,2-Dichloropropane	<0.28	ug/L	1.0	0.28	1		10/22/19 23:06	78-87-5	
1,3-Dichloropropane	<0.83	ug/L	2.8	0.83	1		10/22/19 23:06	142-28-9	
2,2-Dichloropropane	<2.3	ug/L	7.6	2.3	1		10/22/19 23:06	594-20-7	
1,1-Dichloropropene	<0.54	ug/L	1.8	0.54	1		10/22/19 23:06	563-58-6	
cis-1,3-Dichloropropene	<3.6	ug/L	12.1	3.6	1		10/22/19 23:06	10061-01-5	
trans-1,3-Dichloropropene	<4.4	ug/L	14.6	4.4	1		10/22/19 23:06	10061-02-6	
Diisopropyl ether	<1.9	ug/L	6.3	1.9	1		10/22/19 23:06	108-20-3	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		10/22/19 23:06	100-41-4	
Hexachloro-1,3-butadiene	<1.2	ug/L	5.0	1.2	1		10/22/19 23:06	87-68-3	
Isopropylbenzene (Cumene)	<0.39	ug/L	5.0	0.39	1		10/22/19 23:06	98-82-8	
p-Isopropyltoluene	<0.80	ug/L	2.7	0.80	1		10/22/19 23:06	99-87-6	

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ANALYTICAL RESULTS

Project: 60605022 KEP O&M ACTIVITIES

Pace Project No.: 40197618

Sample: SUMP 17R IN **Lab ID: 40197618004** Collected: 10/18/19 15:10 Received: 10/19/19 10:10 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 8260									
Methylene Chloride	<0.58	ug/L	5.0	0.58	1		10/22/19 23:06	75-09-2	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		10/22/19 23:06	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		10/22/19 23:06	91-20-3	
n-Propylbenzene	<0.81	ug/L	5.0	0.81	1		10/22/19 23:06	103-65-1	
Styrene	<0.47	ug/L	1.6	0.47	1		10/22/19 23:06	100-42-5	
1,1,1,2-Tetrachloroethane	<0.27	ug/L	1.0	0.27	1		10/22/19 23:06	630-20-6	
1,1,2,2-Tetrachloroethane	<0.28	ug/L	1.0	0.28	1		10/22/19 23:06	79-34-5	
Tetrachloroethene	<0.33	ug/L	1.1	0.33	1		10/22/19 23:06	127-18-4	
Toluene	<0.17	ug/L	5.0	0.17	1		10/22/19 23:06	108-88-3	
1,2,3-Trichlorobenzene	<0.63	ug/L	5.0	0.63	1		10/22/19 23:06	87-61-6	
1,2,4-Trichlorobenzene	<0.95	ug/L	5.0	0.95	1		10/22/19 23:06	120-82-1	
1,1,1-Trichloroethane	<0.24	ug/L	1.0	0.24	1		10/22/19 23:06	71-55-6	
1,1,2-Trichloroethane	<0.55	ug/L	5.0	0.55	1		10/22/19 23:06	79-00-5	
Trichloroethene	66.4	ug/L	1.0	0.26	1		10/22/19 23:06	79-01-6	
Trichlorofluoromethane	<0.21	ug/L	1.0	0.21	1		10/22/19 23:06	75-69-4	
1,2,3-Trichloropropane	<0.59	ug/L	5.0	0.59	1		10/22/19 23:06	96-18-4	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		10/22/19 23:06	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		10/22/19 23:06	108-67-8	
Vinyl chloride	71.8	ug/L	1.0	0.17	1		10/22/19 23:06	75-01-4	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		10/22/19 23:06	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	98	%	70-130		1		10/22/19 23:06	460-00-4	
Dibromofluoromethane (S)	101	%	70-130		1		10/22/19 23:06	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		10/22/19 23:06	2037-26-5	

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ANALYTICAL RESULTS

Project: 60605022 KEP O&M ACTIVITIES

Pace Project No.: 40197618

Sample: **SUMP 7/17R EFF** Lab ID: **40197618005** Collected: 10/18/19 15:30 Received: 10/19/19 10:10 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	3.8	mg/L	0.098	0.029	2	10/23/19 14:21	10/24/19 08:30		DC
WIGRO GCV Analytical Method: WI MOD GRO									
Gasoline Range Organics	<30.5	ug/L	100	30.5	1		10/21/19 14:01		
8260 MSV Analytical Method: EPA 8260									
Benzene	<0.25	ug/L	1.0	0.25	1		10/22/19 23:28	71-43-2	
Bromobenzene	<0.24	ug/L	1.0	0.24	1		10/22/19 23:28	108-86-1	
Bromochloromethane	<0.36	ug/L	5.0	0.36	1		10/22/19 23:28	74-97-5	
Bromodichloromethane	<0.36	ug/L	1.2	0.36	1		10/22/19 23:28	75-27-4	
Bromoform	<4.0	ug/L	13.2	4.0	1		10/22/19 23:28	75-25-2	
Bromomethane	<0.97	ug/L	5.0	0.97	1		10/22/19 23:28	74-83-9	
n-Butylbenzene	<0.71	ug/L	2.4	0.71	1		10/22/19 23:28	104-51-8	
sec-Butylbenzene	<0.85	ug/L	5.0	0.85	1		10/22/19 23:28	135-98-8	
tert-Butylbenzene	<0.30	ug/L	1.0	0.30	1		10/22/19 23:28	98-06-6	
Carbon tetrachloride	<0.17	ug/L	1.0	0.17	1		10/22/19 23:28	56-23-5	
Chlorobenzene	<0.71	ug/L	2.4	0.71	1		10/22/19 23:28	108-90-7	
Chloroethane	<1.3	ug/L	5.0	1.3	1		10/22/19 23:28	75-00-3	
Chloroform	<1.3	ug/L	5.0	1.3	1		10/22/19 23:28	67-66-3	
Chloromethane	<2.2	ug/L	7.3	2.2	1		10/22/19 23:28	74-87-3	
2-Chlorotoluene	<0.93	ug/L	5.0	0.93	1		10/22/19 23:28	95-49-8	
4-Chlorotoluene	<0.76	ug/L	2.5	0.76	1		10/22/19 23:28	106-43-4	
1,2-Dibromo-3-chloropropane	<1.8	ug/L	5.9	1.8	1		10/22/19 23:28	96-12-8	
Dibromochloromethane	<2.6	ug/L	8.7	2.6	1		10/22/19 23:28	124-48-1	
1,2-Dibromoethane (EDB)	<0.83	ug/L	2.8	0.83	1		10/22/19 23:28	106-93-4	
Dibromomethane	<0.94	ug/L	3.1	0.94	1		10/22/19 23:28	74-95-3	
1,2-Dichlorobenzene	<0.71	ug/L	2.4	0.71	1		10/22/19 23:28	95-50-1	
1,3-Dichlorobenzene	<0.63	ug/L	2.1	0.63	1		10/22/19 23:28	541-73-1	
1,4-Dichlorobenzene	<0.94	ug/L	3.1	0.94	1		10/22/19 23:28	106-46-7	
Dichlorodifluoromethane	<0.50	ug/L	5.0	0.50	1		10/22/19 23:28	75-71-8	
1,1-Dichloroethane	0.36J	ug/L	1.0	0.27	1		10/22/19 23:28	75-34-3	
1,2-Dichloroethane	<0.28	ug/L	1.0	0.28	1		10/22/19 23:28	107-06-2	
1,1-Dichloroethene	<0.24	ug/L	1.0	0.24	1		10/22/19 23:28	75-35-4	
cis-1,2-Dichloroethene	16.7	ug/L	1.0	0.27	1		10/22/19 23:28	156-59-2	
trans-1,2-Dichloroethene	1.3J	ug/L	3.6	1.1	1		10/22/19 23:28	156-60-5	
1,2-Dichloropropane	<0.28	ug/L	1.0	0.28	1		10/22/19 23:28	78-87-5	
1,3-Dichloropropane	<0.83	ug/L	2.8	0.83	1		10/22/19 23:28	142-28-9	
2,2-Dichloropropane	<2.3	ug/L	7.6	2.3	1		10/22/19 23:28	594-20-7	
1,1-Dichloropropene	<0.54	ug/L	1.8	0.54	1		10/22/19 23:28	563-58-6	
cis-1,3-Dichloropropene	<3.6	ug/L	12.1	3.6	1		10/22/19 23:28	10061-01-5	
trans-1,3-Dichloropropene	<4.4	ug/L	14.6	4.4	1		10/22/19 23:28	10061-02-6	
Diisopropyl ether	<1.9	ug/L	6.3	1.9	1		10/22/19 23:28	108-20-3	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		10/22/19 23:28	100-41-4	
Hexachloro-1,3-butadiene	<1.2	ug/L	5.0	1.2	1		10/22/19 23:28	87-68-3	
Isopropylbenzene (Cumene)	<0.39	ug/L	5.0	0.39	1		10/22/19 23:28	98-82-8	
p-Isopropyltoluene	<0.80	ug/L	2.7	0.80	1		10/22/19 23:28	99-87-6	

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ANALYTICAL RESULTS

Project: 60605022 KEP O&M ACTIVITIES

Pace Project No.: 40197618

Sample: SUMP 7/17R EFF **Lab ID: 40197618005** Collected: 10/18/19 15:30 Received: 10/19/19 10:10 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 8260									
Methylene Chloride	<0.58	ug/L	5.0	0.58	1		10/22/19 23:28	75-09-2	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		10/22/19 23:28	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		10/22/19 23:28	91-20-3	
n-Propylbenzene	<0.81	ug/L	5.0	0.81	1		10/22/19 23:28	103-65-1	
Styrene	<0.47	ug/L	1.6	0.47	1		10/22/19 23:28	100-42-5	
1,1,1,2-Tetrachloroethane	<0.27	ug/L	1.0	0.27	1		10/22/19 23:28	630-20-6	
1,1,2,2-Tetrachloroethane	<0.28	ug/L	1.0	0.28	1		10/22/19 23:28	79-34-5	
Tetrachloroethene	<0.33	ug/L	1.1	0.33	1		10/22/19 23:28	127-18-4	
Toluene	<0.17	ug/L	5.0	0.17	1		10/22/19 23:28	108-88-3	
1,2,3-Trichlorobenzene	<0.63	ug/L	5.0	0.63	1		10/22/19 23:28	87-61-6	
1,2,4-Trichlorobenzene	<0.95	ug/L	5.0	0.95	1		10/22/19 23:28	120-82-1	
1,1,1-Trichloroethane	<0.24	ug/L	1.0	0.24	1		10/22/19 23:28	71-55-6	
1,1,2-Trichloroethane	<0.55	ug/L	5.0	0.55	1		10/22/19 23:28	79-00-5	
Trichloroethene	2.0	ug/L	1.0	0.26	1		10/22/19 23:28	79-01-6	
Trichlorofluoromethane	<0.21	ug/L	1.0	0.21	1		10/22/19 23:28	75-69-4	
1,2,3-Trichloropropane	<0.59	ug/L	5.0	0.59	1		10/22/19 23:28	96-18-4	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		10/22/19 23:28	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		10/22/19 23:28	108-67-8	
Vinyl chloride	1.6	ug/L	1.0	0.17	1		10/22/19 23:28	75-01-4	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		10/22/19 23:28	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	93	%	70-130		1		10/22/19 23:28	460-00-4	
Dibromofluoromethane (S)	100	%	70-130		1		10/22/19 23:28	1868-53-7	
Toluene-d8 (S)	98	%	70-130		1		10/22/19 23:28	2037-26-5	

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ANALYTICAL RESULTS

Project: 60605022 KEP O&M ACTIVITIES

Pace Project No.: 40197618

Sample: TRIP BLANK **Lab ID: 40197618006** Collected: 10/18/19 13:30 Received: 10/19/19 10:10 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Analytical Method: EPA 8260									
Benzene	<0.25	ug/L	1.0	0.25	1		10/22/19 20:36	71-43-2	
Bromobenzene	<0.24	ug/L	1.0	0.24	1		10/22/19 20:36	108-86-1	
Bromochloromethane	<0.36	ug/L	5.0	0.36	1		10/22/19 20:36	74-97-5	
Bromodichloromethane	<0.36	ug/L	1.2	0.36	1		10/22/19 20:36	75-27-4	
Bromoform	<4.0	ug/L	13.2	4.0	1		10/22/19 20:36	75-25-2	
Bromomethane	<0.97	ug/L	5.0	0.97	1		10/22/19 20:36	74-83-9	
n-Butylbenzene	<0.71	ug/L	2.4	0.71	1		10/22/19 20:36	104-51-8	
sec-Butylbenzene	<0.85	ug/L	5.0	0.85	1		10/22/19 20:36	135-98-8	
tert-Butylbenzene	<0.30	ug/L	1.0	0.30	1		10/22/19 20:36	98-06-6	
Carbon tetrachloride	<0.17	ug/L	1.0	0.17	1		10/22/19 20:36	56-23-5	
Chlorobenzene	<0.71	ug/L	2.4	0.71	1		10/22/19 20:36	108-90-7	
Chloroethane	<1.3	ug/L	5.0	1.3	1		10/22/19 20:36	75-00-3	
Chloroform	<1.3	ug/L	5.0	1.3	1		10/22/19 20:36	67-66-3	
Chloromethane	<2.2	ug/L	7.3	2.2	1		10/22/19 20:36	74-87-3	
2-Chlorotoluene	<0.93	ug/L	5.0	0.93	1		10/22/19 20:36	95-49-8	
4-Chlorotoluene	<0.76	ug/L	2.5	0.76	1		10/22/19 20:36	106-43-4	
1,2-Dibromo-3-chloropropane	<1.8	ug/L	5.9	1.8	1		10/22/19 20:36	96-12-8	
Dibromochloromethane	<2.6	ug/L	8.7	2.6	1		10/22/19 20:36	124-48-1	
1,2-Dibromoethane (EDB)	<0.83	ug/L	2.8	0.83	1		10/22/19 20:36	106-93-4	
Dibromomethane	<0.94	ug/L	3.1	0.94	1		10/22/19 20:36	74-95-3	
1,2-Dichlorobenzene	<0.71	ug/L	2.4	0.71	1		10/22/19 20:36	95-50-1	
1,3-Dichlorobenzene	<0.63	ug/L	2.1	0.63	1		10/22/19 20:36	541-73-1	
1,4-Dichlorobenzene	<0.94	ug/L	3.1	0.94	1		10/22/19 20:36	106-46-7	
Dichlorodifluoromethane	<0.50	ug/L	5.0	0.50	1		10/22/19 20:36	75-71-8	
1,1-Dichloroethane	<0.27	ug/L	1.0	0.27	1		10/22/19 20:36	75-34-3	
1,2-Dichloroethane	<0.28	ug/L	1.0	0.28	1		10/22/19 20:36	107-06-2	
1,1-Dichloroethene	<0.24	ug/L	1.0	0.24	1		10/22/19 20:36	75-35-4	
cis-1,2-Dichloroethene	<0.27	ug/L	1.0	0.27	1		10/22/19 20:36	156-59-2	
trans-1,2-Dichloroethene	<1.1	ug/L	3.6	1.1	1		10/22/19 20:36	156-60-5	
1,2-Dichloropropane	<0.28	ug/L	1.0	0.28	1		10/22/19 20:36	78-87-5	
1,3-Dichloropropane	<0.83	ug/L	2.8	0.83	1		10/22/19 20:36	142-28-9	
2,2-Dichloropropane	<2.3	ug/L	7.6	2.3	1		10/22/19 20:36	594-20-7	
1,1-Dichloropropene	<0.54	ug/L	1.8	0.54	1		10/22/19 20:36	563-58-6	
cis-1,3-Dichloropropene	<3.6	ug/L	12.1	3.6	1		10/22/19 20:36	10061-01-5	
trans-1,3-Dichloropropene	<4.4	ug/L	14.6	4.4	1		10/22/19 20:36	10061-02-6	
Diisopropyl ether	<1.9	ug/L	6.3	1.9	1		10/22/19 20:36	108-20-3	
Ethylbenzene	<0.22	ug/L	1.0	0.22	1		10/22/19 20:36	100-41-4	
Hexachloro-1,3-butadiene	<1.2	ug/L	5.0	1.2	1		10/22/19 20:36	87-68-3	
Isopropylbenzene (Cumene)	<0.39	ug/L	5.0	0.39	1		10/22/19 20:36	98-82-8	
p-Isopropyltoluene	<0.80	ug/L	2.7	0.80	1		10/22/19 20:36	99-87-6	
Methylene Chloride	<0.58	ug/L	5.0	0.58	1		10/22/19 20:36	75-09-2	
Methyl-tert-butyl ether	<1.2	ug/L	4.2	1.2	1		10/22/19 20:36	1634-04-4	
Naphthalene	<1.2	ug/L	5.0	1.2	1		10/22/19 20:36	91-20-3	
n-Propylbenzene	<0.81	ug/L	5.0	0.81	1		10/22/19 20:36	103-65-1	
Styrene	<0.47	ug/L	1.6	0.47	1		10/22/19 20:36	100-42-5	
1,1,1,2-Tetrachloroethane	<0.27	ug/L	1.0	0.27	1		10/22/19 20:36	630-20-6	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: 60605022 KEP O&M ACTIVITIES

Pace Project No.: 40197618

Sample: TRIP BLANK **Lab ID: 40197618006** Collected: 10/18/19 13:30 Received: 10/19/19 10:10 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV									
Analytical Method: EPA 8260									
1,1,2,2-Tetrachloroethane	<0.28	ug/L	1.0	0.28	1		10/22/19 20:36	79-34-5	
Tetrachloroethene	<0.33	ug/L	1.1	0.33	1		10/22/19 20:36	127-18-4	
Toluene	<0.17	ug/L	5.0	0.17	1		10/22/19 20:36	108-88-3	
1,2,3-Trichlorobenzene	<0.63	ug/L	5.0	0.63	1		10/22/19 20:36	87-61-6	
1,2,4-Trichlorobenzene	<0.95	ug/L	5.0	0.95	1		10/22/19 20:36	120-82-1	
1,1,1-Trichloroethane	<0.24	ug/L	1.0	0.24	1		10/22/19 20:36	71-55-6	
1,1,2-Trichloroethane	<0.55	ug/L	5.0	0.55	1		10/22/19 20:36	79-00-5	
Trichloroethene	<0.26	ug/L	1.0	0.26	1		10/22/19 20:36	79-01-6	
Trichlorofluoromethane	<0.21	ug/L	1.0	0.21	1		10/22/19 20:36	75-69-4	
1,2,3-Trichloropropane	<0.59	ug/L	5.0	0.59	1		10/22/19 20:36	96-18-4	
1,2,4-Trimethylbenzene	<0.84	ug/L	2.8	0.84	1		10/22/19 20:36	95-63-6	
1,3,5-Trimethylbenzene	<0.87	ug/L	2.9	0.87	1		10/22/19 20:36	108-67-8	
Vinyl chloride	<0.17	ug/L	1.0	0.17	1		10/22/19 20:36	75-01-4	
Xylene (Total)	<1.5	ug/L	3.0	1.5	1		10/22/19 20:36	1330-20-7	
Surrogates									
4-Bromofluorobenzene (S)	94	%	70-130		1		10/22/19 20:36	460-00-4	
Dibromofluoromethane (S)	102	%	70-130		1		10/22/19 20:36	1868-53-7	
Toluene-d8 (S)	100	%	70-130		1		10/22/19 20:36	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 60605022 KEP O&M ACTIVITIES

Pace Project No.: 40197618

QC Batch: 338107 Analysis Method: WI MOD GRO
 QC Batch Method: WI MOD GRO Analysis Description: WIGRO GCV Water
 Associated Lab Samples: 40197618001, 40197618002, 40197618003, 40197618004, 40197618005

METHOD BLANK: 1964116 Matrix: Water
 Associated Lab Samples: 40197618001, 40197618002, 40197618003, 40197618004, 40197618005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Gasoline Range Organics	ug/L	<30.5	100	10/21/19 11:26	

LABORATORY CONTROL SAMPLE & LCSD: 1964117 1964118

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Gasoline Range Organics	ug/L	200	186	187	93	93	80-120	0	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1964618 1964619

Parameter	Units	10495774002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Gasoline Range Organics	ug/L	<100	200	200	207	210	103	105	80-120	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 60605022 KEP O&M ACTIVITIES

Pace Project No.: 40197618

QC Batch: 338116 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 40197618001, 40197618002, 40197618003, 40197618004, 40197618005, 40197618006

METHOD BLANK: 1964128 Matrix: Water
Associated Lab Samples: 40197618001, 40197618002, 40197618003, 40197618004, 40197618005, 40197618006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.27	1.0	10/22/19 17:01	
1,1,1-Trichloroethane	ug/L	<0.24	1.0	10/22/19 17:01	
1,1,2,2-Tetrachloroethane	ug/L	<0.28	1.0	10/22/19 17:01	
1,1,2-Trichloroethane	ug/L	<0.55	5.0	10/22/19 17:01	
1,1-Dichloroethane	ug/L	<0.27	1.0	10/22/19 17:01	
1,1-Dichloroethene	ug/L	<0.24	1.0	10/22/19 17:01	
1,1-Dichloropropene	ug/L	<0.54	1.8	10/22/19 17:01	
1,2,3-Trichlorobenzene	ug/L	<0.63	5.0	10/22/19 17:01	
1,2,3-Trichloropropane	ug/L	<0.59	5.0	10/22/19 17:01	
1,2,4-Trichlorobenzene	ug/L	<0.95	5.0	10/22/19 17:01	
1,2,4-Trimethylbenzene	ug/L	<0.84	2.8	10/22/19 17:01	
1,2-Dibromo-3-chloropropane	ug/L	<1.8	5.9	10/22/19 17:01	
1,2-Dibromoethane (EDB)	ug/L	<0.83	2.8	10/22/19 17:01	
1,2-Dichlorobenzene	ug/L	<0.71	2.4	10/22/19 17:01	
1,2-Dichloroethane	ug/L	<0.28	1.0	10/22/19 17:01	
1,2-Dichloropropane	ug/L	<0.28	1.0	10/22/19 17:01	
1,3,5-Trimethylbenzene	ug/L	<0.87	2.9	10/22/19 17:01	
1,3-Dichlorobenzene	ug/L	<0.63	2.1	10/22/19 17:01	
1,3-Dichloropropane	ug/L	<0.83	2.8	10/22/19 17:01	
1,4-Dichlorobenzene	ug/L	<0.94	3.1	10/22/19 17:01	
2,2-Dichloropropane	ug/L	<2.3	7.6	10/22/19 17:01	
2-Chlorotoluene	ug/L	<0.93	5.0	10/22/19 17:01	
4-Chlorotoluene	ug/L	<0.76	2.5	10/22/19 17:01	
Benzene	ug/L	<0.25	1.0	10/22/19 17:01	
Bromobenzene	ug/L	<0.24	1.0	10/22/19 17:01	
Bromochloromethane	ug/L	<0.36	5.0	10/22/19 17:01	
Bromodichloromethane	ug/L	<0.36	1.2	10/22/19 17:01	
Bromoform	ug/L	<4.0	13.2	10/22/19 17:01	
Bromomethane	ug/L	<0.97	5.0	10/22/19 17:01	
Carbon tetrachloride	ug/L	<0.17	1.0	10/22/19 17:01	
Chlorobenzene	ug/L	<0.71	2.4	10/22/19 17:01	
Chloroethane	ug/L	<1.3	5.0	10/22/19 17:01	
Chloroform	ug/L	<1.3	5.0	10/22/19 17:01	
Chloromethane	ug/L	<2.2	7.3	10/22/19 17:01	
cis-1,2-Dichloroethene	ug/L	<0.27	1.0	10/22/19 17:01	
cis-1,3-Dichloropropene	ug/L	<3.6	12.1	10/22/19 17:01	
Dibromochloromethane	ug/L	<2.6	8.7	10/22/19 17:01	
Dibromomethane	ug/L	<0.94	3.1	10/22/19 17:01	
Dichlorodifluoromethane	ug/L	<0.50	5.0	10/22/19 17:01	
Diisopropyl ether	ug/L	<1.9	6.3	10/22/19 17:01	
Ethylbenzene	ug/L	<0.22	1.0	10/22/19 17:01	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 60605022 KEP O&M ACTIVITIES

Pace Project No.: 40197618

METHOD BLANK: 1964128

Matrix: Water

Associated Lab Samples: 40197618001, 40197618002, 40197618003, 40197618004, 40197618005, 40197618006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachloro-1,3-butadiene	ug/L	<1.2	5.0	10/22/19 17:01	
Isopropylbenzene (Cumene)	ug/L	<0.39	5.0	10/22/19 17:01	
Methyl-tert-butyl ether	ug/L	<1.2	4.2	10/22/19 17:01	
Methylene Chloride	ug/L	<0.58	5.0	10/22/19 17:01	
n-Butylbenzene	ug/L	<0.71	2.4	10/22/19 17:01	
n-Propylbenzene	ug/L	<0.81	5.0	10/22/19 17:01	
Naphthalene	ug/L	<1.2	5.0	10/22/19 17:01	
p-Isopropyltoluene	ug/L	<0.80	2.7	10/22/19 17:01	
sec-Butylbenzene	ug/L	<0.85	5.0	10/22/19 17:01	
Styrene	ug/L	<0.47	1.6	10/22/19 17:01	
tert-Butylbenzene	ug/L	<0.30	1.0	10/22/19 17:01	
Tetrachloroethene	ug/L	<0.33	1.1	10/22/19 17:01	
Toluene	ug/L	<0.17	5.0	10/22/19 17:01	
trans-1,2-Dichloroethene	ug/L	<1.1	3.6	10/22/19 17:01	
trans-1,3-Dichloropropene	ug/L	<4.4	14.6	10/22/19 17:01	
Trichloroethene	ug/L	<0.26	1.0	10/22/19 17:01	
Trichlorofluoromethane	ug/L	<0.21	1.0	10/22/19 17:01	
Vinyl chloride	ug/L	<0.17	1.0	10/22/19 17:01	
Xylene (Total)	ug/L	<1.5	3.0	10/22/19 17:01	
4-Bromofluorobenzene (S)	%	94	70-130	10/22/19 17:01	
Dibromofluoromethane (S)	%	101	70-130	10/22/19 17:01	
Toluene-d8 (S)	%	100	70-130	10/22/19 17:01	

LABORATORY CONTROL SAMPLE: 1964129

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	50	56.7	113	70-130	
1,1,2,2-Tetrachloroethane	ug/L	50	49.9	100	70-130	
1,1,2-Trichloroethane	ug/L	50	50.9	102	70-130	
1,1-Dichloroethane	ug/L	50	56.6	113	73-150	
1,1-Dichloroethene	ug/L	50	56.9	114	73-138	
1,2,4-Trichlorobenzene	ug/L	50	49.1	98	70-130	
1,2-Dibromo-3-chloropropane	ug/L	50	47.7	95	64-129	
1,2-Dibromoethane (EDB)	ug/L	50	50.6	101	70-130	
1,2-Dichlorobenzene	ug/L	50	50.0	100	70-130	
1,2-Dichloroethane	ug/L	50	54.2	108	75-140	
1,2-Dichloropropane	ug/L	50	49.1	98	73-135	
1,3-Dichlorobenzene	ug/L	50	50.1	100	70-130	
1,4-Dichlorobenzene	ug/L	50	48.4	97	70-130	
Benzene	ug/L	50	53.7	107	70-130	
Bromodichloromethane	ug/L	50	50.1	100	70-130	
Bromoform	ug/L	50	45.2	90	68-129	
Bromomethane	ug/L	50	37.0	74	18-159	
Carbon tetrachloride	ug/L	50	53.9	108	70-130	

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QUALITY CONTROL DATA

Project: 60605022 KEP O&M ACTIVITIES

Pace Project No.: 40197618

LABORATORY CONTROL SAMPLE: 1964129

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chlorobenzene	ug/L	50	50.7	101	70-130	
Chloroethane	ug/L	50	55.3	111	53-147	
Chloroform	ug/L	50	50.8	102	74-136	
Chloromethane	ug/L	50	53.4	107	29-115	
cis-1,2-Dichloroethene	ug/L	50	51.9	104	70-130	
cis-1,3-Dichloropropene	ug/L	50	49.7	99	70-130	
Dibromochloromethane	ug/L	50	51.0	102	70-130	
Dichlorodifluoromethane	ug/L	50	57.6	115	10-130	
Ethylbenzene	ug/L	50	54.0	108	80-124	
Isopropylbenzene (Cumene)	ug/L	50	50.0	100	70-130	
Methyl-tert-butyl ether	ug/L	50	51.8	104	54-137	
Methylene Chloride	ug/L	50	52.9	106	73-138	
Styrene	ug/L	50	49.6	99	70-130	
Tetrachloroethene	ug/L	50	47.2	94	70-130	
Toluene	ug/L	50	52.2	104	80-126	
trans-1,2-Dichloroethene	ug/L	50	57.5	115	73-145	
trans-1,3-Dichloropropene	ug/L	50	46.3	93	70-130	
Trichloroethene	ug/L	50	52.6	105	70-130	
Trichlorofluoromethane	ug/L	50	58.1	116	76-147	
Vinyl chloride	ug/L	50	59.2	118	51-120	
Xylene (Total)	ug/L	150	163	109	70-130	
4-Bromofluorobenzene (S)	%			100	70-130	
Dibromofluoromethane (S)	%			101	70-130	
Toluene-d8 (S)	%			98	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1964555 1964556

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		40197555004	Spike Conc.	Spike Conc.	Conc.								
1,1,1-Trichloroethane	ug/L	<0.24	50	50	56.4	56.1	113	112	70-130	1	20		
1,1,2,2-Tetrachloroethane	ug/L	<0.28	50	50	50.8	50.7	102	101	70-130	0	20		
1,1,2-Trichloroethane	ug/L	<0.55	50	50	51.5	49.5	103	99	70-137	4	20		
1,1-Dichloroethane	ug/L	<0.27	50	50	56.7	53.7	113	107	73-153	5	20		
1,1-Dichloroethene	ug/L	<0.24	50	50	55.6	53.3	111	107	73-138	4	20		
1,2,4-Trichlorobenzene	ug/L	<0.95	50	50	55.0	55.4	110	111	70-130	1	20		
1,2-Dibromo-3-chloropropane	ug/L	<1.8	50	50	54.6	54.4	109	109	58-129	0	20		
1,2-Dibromoethane (EDB)	ug/L	<0.83	50	50	53.4	50.7	107	101	70-130	5	20		
1,2-Dichlorobenzene	ug/L	<0.71	50	50	52.9	52.9	106	106	70-130	0	20		
1,2-Dichloroethane	ug/L	<0.28	50	50	55.0	52.6	110	105	75-140	4	20		
1,2-Dichloropropane	ug/L	<0.28	50	50	49.8	50.2	100	100	71-138	1	20		
1,3-Dichlorobenzene	ug/L	<0.63	50	50	52.2	52.0	104	104	70-130	0	20		
1,4-Dichlorobenzene	ug/L	<0.94	50	50	50.7	50.8	101	102	70-130	0	20		
Benzene	ug/L	<0.25	50	50	53.6	52.6	107	105	70-130	2	20		
Bromodichloromethane	ug/L	<0.36	50	50	51.1	49.8	102	100	70-130	2	20		

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QUALITY CONTROL DATA

Project: 60605022 KEP O&M ACTIVITIES
Pace Project No.: 40197618

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1964555		1964556		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		40197555004 Result	MS Spike Conc.	MSD Spike Conc.									
Bromoform	ug/L	<4.0	50	50	47.3	46.2	95	92	68-129	2	20		
Bromomethane	ug/L	<0.97	50	50	39.1	40.2	78	80	15-170	3	20		
Carbon tetrachloride	ug/L	<0.17	50	50	55.3	54.2	111	108	70-130	2	20		
Chlorobenzene	ug/L	<0.71	50	50	52.2	50.7	104	101	70-130	3	20		
Chloroethane	ug/L	<1.3	50	50	53.5	51.2	107	102	51-148	4	20		
Chloroform	ug/L	<1.3	50	50	50.5	49.6	101	99	74-136	2	20		
Chloromethane	ug/L	<2.2	50	50	52.4	51.8	104	103	23-115	1	20		
cis-1,2-Dichloroethene	ug/L	<0.27	50	50	52.2	50.1	104	100	70-131	4	20		
cis-1,3-Dichloropropene	ug/L	<3.6	50	50	52.3	50.1	105	100	70-130	4	20		
Dibromochloromethane	ug/L	<2.6	50	50	52.1	50.6	104	101	70-130	3	20		
Dichlorodifluoromethane	ug/L	<0.50	50	50	52.9	55.4	106	111	10-132	5	20		
Ethylbenzene	ug/L	<0.22	50	50	55.8	54.7	111	109	80-125	2	20		
Isopropylbenzene (Cumene)	ug/L	2.7J	50	50	55.5	54.0	105	103	70-130	3	20		
Methyl-tert-butyl ether	ug/L	<1.2	50	50	52.2	50.3	104	101	51-145	4	20		
Methylene Chloride	ug/L	<0.58	50	50	52.4	50.4	105	101	73-140	4	20		
Styrene	ug/L	<0.47	50	50	50.4	49.6	101	99	70-130	2	20		
Tetrachloroethene	ug/L	<0.33	50	50	49.0	48.8	98	98	70-130	1	20		
Toluene	ug/L	<0.17	50	50	53.3	52.1	107	104	80-131	2	20		
trans-1,2-Dichloroethene	ug/L	<1.1	50	50	58.4	56.3	117	113	73-148	4	20		
trans-1,3-Dichloropropene	ug/L	<4.4	50	50	48.1	47.4	96	95	70-130	1	20		
Trichloroethene	ug/L	<0.26	50	50	53.4	52.8	107	106	70-130	1	20		
Trichlorofluoromethane	ug/L	<0.21	50	50	57.2	57.3	114	115	74-147	0	20		
Vinyl chloride	ug/L	<0.17	50	50	57.7	57.3	115	115	41-129	1	20		
Xylene (Total)	ug/L	<1.5	150	150	172	168	114	111	70-130	2	20		
4-Bromofluorobenzene (S)	%						100	100	70-130				
Dibromofluoromethane (S)	%						99	97	70-130				
Toluene-d8 (S)	%						99	98	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

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QUALITY CONTROL DATA

Project: 60605022 KEP O&M ACTIVITIES
Pace Project No.: 40197618

QC Batch: 338495 Analysis Method: WI MOD DRO
QC Batch Method: WI MOD DRO Analysis Description: WIDRO GCS
Associated Lab Samples: 40197618001, 40197618002, 40197618003, 40197618004, 40197618005

METHOD BLANK: 1965711 Matrix: Water
Associated Lab Samples: 40197618001, 40197618002, 40197618003, 40197618004, 40197618005

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diesel Range Organics	mg/L	<0.015	0.052	10/24/19 07:44	

LABORATORY CONTROL SAMPLE & LCSD: 1965712 1965713

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Diesel Range Organics	mg/L	1	0.91	0.97	91	97	75-115	6	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

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QUALIFIERS

Project: 60605022 KEP O&M ACTIVITIES
Pace Project No.: 40197618

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, percent moisture, initial weight and final volume.

LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.

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

DC Chromatographic pattern inconsistent with typical Diesel Fuel.

G- Early peaks present outside the GRO window.

GO Early and late peaks present outside the GRO window.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 60605022 KEP O&M ACTIVITIES

Pace Project No.: 40197618

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40197618001	SUMP 6 IN	WI MOD DRO	338495	WI MOD DRO	338543
40197618002	SUMP 6 EFF	WI MOD DRO	338495	WI MOD DRO	338543
40197618003	SUMP 7 IN	WI MOD DRO	338495	WI MOD DRO	338543
40197618004	SUMP 17R IN	WI MOD DRO	338495	WI MOD DRO	338543
40197618005	SUMP 7/17R EFF	WI MOD DRO	338495	WI MOD DRO	338543
40197618001	SUMP 6 IN	WI MOD GRO	338107		
40197618002	SUMP 6 EFF	WI MOD GRO	338107		
40197618003	SUMP 7 IN	WI MOD GRO	338107		
40197618004	SUMP 17R IN	WI MOD GRO	338107		
40197618005	SUMP 7/17R EFF	WI MOD GRO	338107		
40197618001	SUMP 6 IN	EPA 8260	338116		
40197618002	SUMP 6 EFF	EPA 8260	338116		
40197618003	SUMP 7 IN	EPA 8260	338116		
40197618004	SUMP 17R IN	EPA 8260	338116		
40197618005	SUMP 7/17R EFF	EPA 8260	338116		
40197618006	TRIP BLANK	EPA 8260	338116		

REPORT OF LABORATORY ANALYSIS

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CHAIN-OF-CUSTODY / Analytical Request Document

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

40197618

Page: 1 of 1

Section A

Required Client Information:
 Company: AECOM - Milw
 Address: 1555 N. River Center Dr., Suite 214
 Milwaukee, WI 53212
 Email To: Lanette.Altenbach@aecom.com
 Phone: 414-577-1363 Fax:
 Requested Due Date/TAT: Standard

Section B

Required Project Information:
 Report To: Lanette Altenbach
 Copy To:
 Purchase Order No.:
 Project Name: KEP O&M Activities
 Project Number: 60605022

Section C

Invoice Information:
 Attention: Accounts Payable/Finance Department
 Company Name: City of Kenosha
 Address: 652 52nd St., Kenosha, WI 53140
 Pace Quote Reference:
 Pace Project Manager: Chris Hyska
 Pace Profile #: (2430) Kenosha work

REGULATORY AGENCY
 NPDES GROUND WATER DRINKING WATER
 UST RCRA OTHER

SITE LOCATION
 GA IL IN MI NC
 OH SC WI OTHER

ITEM #

Section D Required Client Information
SAMPLE ID
 One Character per box.
 (A-Z, 0-9 / , -)
 Samples IDs MUST BE UNIQUE

MATRIX	CODE
DRINKING WATER	DW
WATER	WT
WASTE WATER	WW
PRODUCT	P
SOIL/SOLID	SL
OIL	OL
WIPE	WP
AIR	AT
OTHER	OT
TISSUE	TS

COLLECTED	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives											
			Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other				
			DATE	TIME	DATE	TIME								
COMPOSITE START SAMPLE														
COMPOSITE END/SAB														

Filtered (Y/N) N N N
 Requested Analytes:
 VOCs B260
 GRO by MWRO
 DRO by MWRO
 Residual Chlorine (Y/N)
 Pace Project Number Lab I.D.

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE	COLLECTED DATE	COLLECTED TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH	Na ₂ S ₂ O ₃	Methanol	Other	VOCs B260	GRO by MWRO	DRO by MWRO	Residual Chlorine (Y/N)	Pace Project Number Lab I.D.
1	SUMP 6 IN	WT	G	10.18.19	1400	/	8				8					X	X	X		001
2	SUMP 6 EFF	WT	G	10.18.19	1410	/	8				8					X	X	X		002
3	SUMP 7 IN	WT	G	10.18.19	1500	/	8				8					X	X	X		003
4	SUMP 17R IN	WT	G	10.18.19	1510	/	8				8					X	X	X		004
5	SUMP 7/17R EFF	WT	G	10.18.19	1530	/	8				8					X	X	X		005
6	Trip Blank	WT	G	10.18.19	1330	/	2				2					X				006
7																				
8																				
9																				
10																				
11																				
12																				

PR

Additional Comments:

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
Keith Nielsen / AECOM	10/18/19	1515				Y/N Y/N Y/N
Fred Ex	10/19/19	1010	Alan Pace	10/19/19	1010	205 Y/N Y/N Y/N
						Y/N Y/N Y/N
						Y/N Y/N Y/N

SAMPLER NAME AND SIGNATURE
 PRINT Name of SAMPLER: Keith Nielsen
 SIGNATURE of SAMPLER: *Keith Nielsen*
 DATE Signed (MM/DD/YY): 10.18.19
 Temp in °C:
 Received on Ice:
 Custody Sealed Cooler:
 Samples Intact:
 Y/N

Sample Preservation Receipt Form

Client Name: Accom

Project # 40197618

Pace Analytical Services, LLC
1241 Bellevue Street, Suite 901
Green Bay, WI 54302-2829

Page 28 of 29

All containers needing preservation have been checked and noted below: Yes No N/A

Lab Lot# of pH paper:

Lab Std #ID of preservation (if pH adjusted):

Initial when completed:


Date/Time:

Pace Lab #	Glass						Plastic						Vials					Jars			General			VOA Vials (>6mm) *	H2SO4 pH ≤	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤	pH after adjusted	Volume (mL)						
	AG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP2N	BP2Z	BP3U	BP3B	BP3N	BP3S	DG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	WGFU	WPFU								SP5T	ZPLC	GN			
001	2																																			2.5 / 5 / 10
002	2																																			2.5 / 5 / 10
003	2																																			2.5 / 5 / 10
004	2																																			2.5 / 5 / 10
005	2																																			2.5 / 5 / 10
006																																				2.5 / 5 / 10
007																																				2.5 / 5 / 10
008																																				2.5 / 5 / 10
009																																				2.5 / 5 / 10
010																																				2.5 / 5 / 10
011																																				2.5 / 5 / 10
012																																				2.5 / 5 / 10
013																																				2.5 / 5 / 10
014																																				2.5 / 5 / 10
015																																				2.5 / 5 / 10
016																																				2.5 / 5 / 10
017																																				2.5 / 5 / 10
018																																				2.5 / 5 / 10
019																																				2.5 / 5 / 10
020																																				2.5 / 5 / 10

10/19/14
AS

Exceptions to preservation check: VOA, Coliform, TOC, TOX, TOH, O&G, WIDRO, Phenolics, Other: _____ Headspace in VOA Vials (>6mm) : Yes No N/A *If yes look in headspace column

AG1U 1 liter amber glass	BP1U 1 liter plastic unpres	DG9A 40 mL amber ascorbic	JGFU 4 oz amber jar unpres
AG1H 1 liter amber glass HCL	BP2N 500 mL plastic HNO3	DG9T 40 mL amber Na Thio	WGFU 4 oz clear jar unpres
AG4S 125 mL amber glass H2SO4	BP2Z 500 mL plastic NaOH, Znact	VG9U 40 mL clear vial unpres	WPFU 4 oz plastic jar unpres
AG4U 120 mL amber glass unpres	BP3U 250 mL plastic unpres	VG9H 40 mL clear vial HCL	
AG5U 100 mL amber glass unpres	BP3B 250 mL plastic NaOH	VG9M 40 mL clear vial MeOH	SP5T 120 mL plastic Na Thiosulfate
AG2S 500 mL amber glass H2SO4	BP3N 250 mL plastic HNO3	VG9D 40 mL clear vial DI	ZPLC ziploc bag
BG3U 250 mL clear glass unpres	BP3S 250 mL plastic H2SO4		GN:

 1241 Bellevue Street, Green Bay, WI 54302	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: 25Apr2018
	Document No.: F-GB-C-031-Rev.07	Issuing Authority: Pace Green Bay Quality Office

Sample Condition Upon Receipt Form (SCUR)

Client Name: Aecum
Courier: CS Logistics Fed Ex Speedee UPS Waltco
 Client Pace Other: _____

Project #: _____
WO#: 40197618

 40197618

Tracking #: 780360821331
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: SR-40 **Type of Ice:** Wet Blue Dry None
Cooler Temperature: Uncorr: 2 ICorr: 7.5 Samples on ice, cooling process has begun

Temp Blank Present: yes no **Biological Tissue is Frozen:** yes no

Person examining contents:
 Date: 10/19/19
 Initials: PS

Temp should be above freezing to 6°C.
 Biota Samples may be received at ≤ 0°C.

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time: _____
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume:		8.
For Analysis: <input type="checkbox"/> Yes <input type="checkbox"/> No MS/MSD: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A		
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>W</u>		
Trip Blank Present:	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
Trip Blank Custody Seals Present	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased): <u>433</u>		

Client Notification/ Resolution: _____ If checked, see attached form for additional comments
 Person Contacted: _____ Date/Time: _____
 Comments/ Resolution: _____

Project Manager Review: [Signature] **Date:** 10/21/19