

September 26, 2022

Ms. Jennifer Dorman
Remediation and Redevelopment Program
Wisconsin Department of Natural Resources
1027 W. St. Paul Avenue
Milwaukee, WI 53233

Project # 40441

Subject: **Fourth Groundwater Monitoring Event & Additional Site Investigation
Community Within the Corridor – East Block
2748 N. 32nd Street, Milwaukee, WI 53210
BRRTS #: 02-41-263675; FID #: 241025400**

Dear Ms. Dorman:

On behalf of the Community Within the Corridor Limited Partnership (CWC), K. Singh & Associates, Inc. (KSingh) is pleased to submit the results of a fourth round of groundwater results of the above referenced site. A site location map is on Figure 1 and the monitoring well locations are presented on Figure 2.

Additional Site Investigation

The additional site investigation activities included the following:

- Reinstalling a flush-mount cover on EB-MW-2.
- Converting EB-MW-3 from a stick-up pipe to a flush-mount well.
- Installing a deeper well adjacent to EB-MW-3, named EB-MW-3R.
- Abandoning MW-4R which was damaged during construction and reinstalling a new well named EB-MW-4RR. This well was damaged when the eastern exterior area was being redeveloped which broke off the stick-up protective pipe and cracked the PVC pipe.
- Driller is awaiting a City of Milwaukee permit to drill within the Right-of-Way (ROW) of N. 32nd St. (within the sidewalk area downgradient from Building 1A).

The environmental drilling was performed by Soils & Engineering Services, Inc. located in Madison, Wisconsin utilizing a Geoprobe 7822 DT rig. A survey of the elevations of the modification to well EB-MW-3 deeper well EB-MW-3R and replacement well EB-MW-4RR were performed by KSingh. Survey information is presented in Tables 1A and 1B.

Monitoring well, EB-MW-4R was damaged during construction. EB-MW-4R was abandoned in accordance with NR 141 of the Wisconsin Administrative Code (WAC). The soil boring logs and the monitoring well abandonment form is presented in Attachment A and the monitoring well construction and development forms are presented as Attachment B.

Groundwater Sampling & Results

Groundwater sampling was conducted for four (4) of the seven (7) monitoring wells on August 4, 2022 (MW-2, MW-4RR, MW-5 and MW-6). MW-1 has been dry since its installation back on May 5, 2021; MW-3, and MW-3R were also dry during this sampling event. These wells were sampled for the following parameters.

Well ID	VOCs	SVOCs	PAHs	PCBs	Metals	PFAs	Pesticides and Herbicides
MW-2	X		X	X			
MW-4RR	X	X		X			1
MW-5	X		X	X			
MW-6	X		X	X			

Note: X – sampled and, 1 - not enough water to sample. MW-2 and MW-4RR were also sampled for 1,4-Dioxane.

Prior to groundwater sampling, depth to water was measured in each monitoring well using a water level indicator and measuring from top of PVC casing. Groundwater Elevation Data is summarized in Table 1A and 1B. Groundwater flow is to the south southeast as shown on Figure 3; however, there are anomalies within the groundwater data.

Groundwater samples were collected in accordance with the WDNR's Groundwater Field Sampling Manual following purging and preserved on ice. The groundwater samples were submitted to Eurofins - Test America, Inc., University Park, Illinois using proper chain-of-custody procedures. Chain of Custody records and laboratory groundwater quality analytical results are included in Attachment C. Groundwater quality test results are summarized in Table 2.

On the August 4, 2022, sampling event, there were detections of VOCs in EB-MW-2 that were above both the NR 140 PAL and ES concentrations. At EB-MW-2 benzene at 30 ug/l, trichloroethene at 8.4 ug/l and vinyl chloride at 7.2 ug/l were detected above the NR 140 ES standards of 5 ug/l, 5 ug/l and 0.2 ug/l, respectively. In addition, 1,2,4-trimethylbenzene at 200 B (compound was found in the blank and sample) ug/l, chloromethane at 11 ug/l and naphthalene at 22 B ug/l were above their NR 140 PAL values of 96 ug/l, 3 ug/l, and 10 ug/l, respectively at EB-MW-2.

Generally, PVOCs were detected at very low levels and were not exceeding NR 140 PALs in wells EB-MW-4RR, EB-MW-5 and EB-MW-6. In addition, they were J (Result is less than the Reporting Limit {RL} but greater than or equal to the Method Detection Limit {MDL} and the concentration is an approximate value) and typically B flagged. The PVOC compounds that were detected included trimethylbenzenes (TMB), naphthalene, n-butylbenzene, and n-propylbenzene. The significance of this is that the laboratory's blank sample did contribute contamination to our groundwater samples.

Of the SVOCs, benzo(a)pyrene at 0.17 ug/l, benzo(b)fluoranthene at 0.19 ug/l and biz(2-ethylhexyl)phthalate (a plasticizer, used in vacuum pumps) 3.8 ug/l were above the NR 140 PAL of 0.02 ug/l, 0.02 ug/l and 0.6 ug/l respectively on the August 4, 2022, sampling event in MW-4RR.

Of the PAHs, benzo(a) pyrene at 0.49 ug/l, benzo(b) fluoranthene at 0.56 ug/l and chrysene at 0.77 ug/l were above the NR 140 ES of 0.2 ug/l in MW-2. In addition, naphthalene at 12 ug/l was above the NR 140 PAL of 10 ug/l in ES-MW-2. There were no exceedances of PAHs in EB-MW-5 and EB-MW-6 above the laboratory's method detection limits.

Of the PCBs, PCB-1248 was detected at 4.3 ug/l which was above the NR 140 ES of 0.003 ug/l at MW-2. There were no PCB detected in MW-4RR, MW-5 and MW-6.

1,4-Dioxane was detected at 31.0 E (E - Result exceeded calibration range) ug/l in MW-2 which was above the NR 140 ES of 0.3 ug/l. In MW-4RR, 1,4-Dioxane was not detected above the laboratory's method detection limit.

Conclusions

In summary, based on one to four groundwater sampling events, KSingh has made the following conclusions and recommendations:

- MW-2 has been impacted with PVOCs, CVOCs, and PAHs which are residual groundwater contamination from the previous BRRTS files.
 - 03-41-000793 (Jonas Construction – Closed LUST), this case was opened on June 8, 1990, and was closed on February 14, 2007, with continuing obligations, and
 - 02-41-263675 (Formerly Wisconsin Industries Pension & Trust) in which this case was opened on January 11, 2001, and was closed on August 26, 2008, with continuing obligations.
 - PCB-1248 (March 30, 2022) and -1254 (August 4, 2022) were new detects in this well above the NR 140 NR ES as that area had several electrical transformers within the past.
 - Also, 1,4 - Dioxane was detected in this well a second time. One use of 1,4-Dioxane is a stabilizer for CVOCs which are present in MW-2.
- MW-3 and MW-3R were dry during this sampling event.
- MW-4RR detected benzo(a)pyrene, benzo(b)fluoranthene, and bis(2-ethylhexyl)phthalate which were above the NR 140 PAL, but below the NR 140 ES.
- There were no chemicals of concern with both MW-5 and MW-6 for the August 4, 2022, sampling event.
- The PFAs sample of MW-6 were all below the laboratory's method detection limits on the March 10, 2022 sampling event.
- The CVOC groundwater impacts remain confined to the northern one-third of the subject property and the southern two-thirds of the subject property have been free of CVOC which is consistent with the SIR groundwater data. CVOCs are related to BRRTS file # 02-41-263675 (Formerly Wisconsin Industries Pension & Trust).
- No NR 140 ES exceedances have been detected that are related to former industrial operations on the southern two-thirds of the site with the exception of benzo(a)pyrene which was just barely above the NR 140 ES on the March 10, 2022, groundwater sampling event.
- KSingh recommends an additional groundwater sampling event for this project, due to the NR 140 ES exceedances.

Please contact us if you have any questions.

Sincerely,

K. SINGH & ASSOCIATES, INC.



Daniel K. Pelczar, CPG, P.G.
Senior Geologist



Robert T. Reineke, P.E.
Project Manager



Pratap N. Singh, Ph.D., P.E.
Principal Engineer

cc: Shane LaFave / Roers Companies
Que El-Amin / Scott Crawford, Inc.

Attachments:

- | | |
|--------------|--|
| Figure 1 | Site Location Map |
| Figure 2 | Locations of Soil Probes, Monitoring Wells, Sub-Slab Vapor and Sub-Slab Soil Samples |
| Figure 3 | Groundwater Flow Map (August 4, 2022) |
| Table 1 | Groundwater Elevation Data |
| Table 2 | Groundwater Quality Test Results |
| Attachment A | Soil Bring Logs and the Abandonment Form |
| Attachment B | Monitoring Well Construction and Development Forms |
| Attachment C | Groundwater Analytical Results |

FIGURES

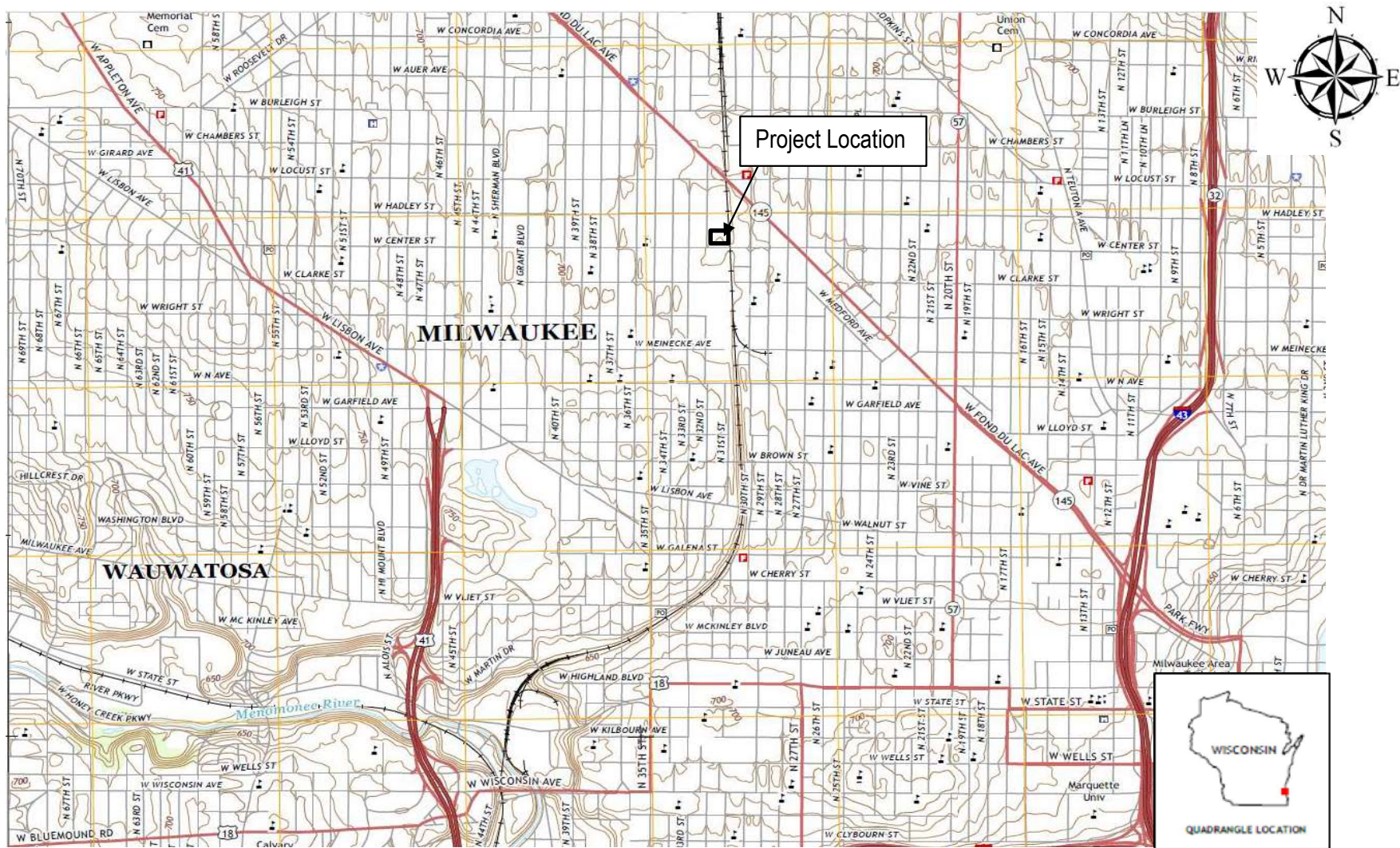
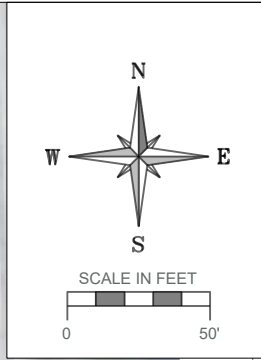
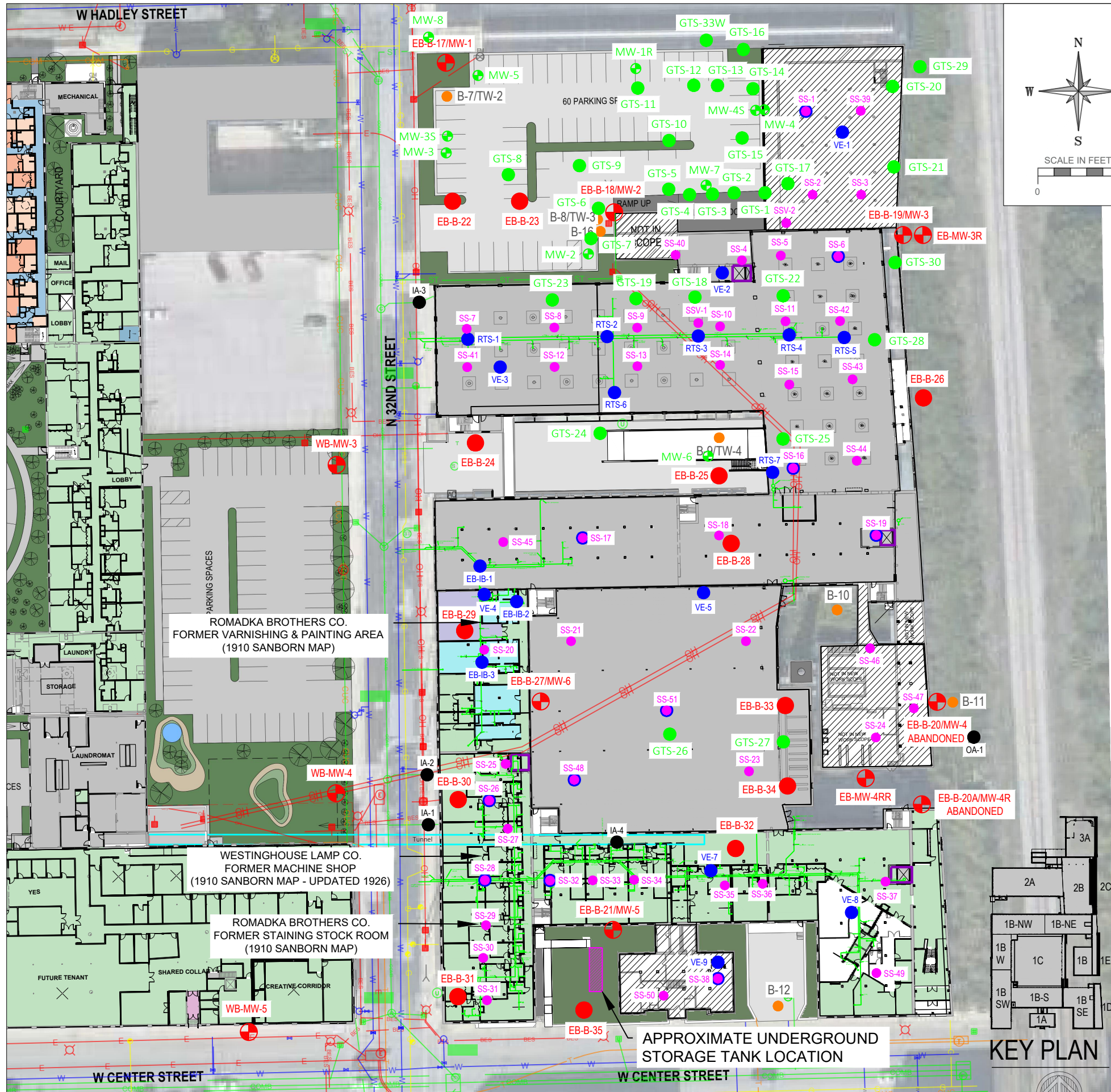


Figure 1. Topographic Map of Project Location from 2016 Milwaukee, WI 7.5-Minute Series Map Scale 1: 24,000



FLOOR FINISH LEGEND

ATH-1	ATHLETIC FLOORING - FLEXIBLE / NON-ADHERED
CPT-1	BROADLOOM CARPET (UNIT BEDROOMS)
CT-1	CERAMIC TILE (UNIT BATHROOMS W/ ROLL-IN SHOWERS ONLY)
ERF-1	EPOXY RESINOUS FLOORING
EXTG-WD	EXISTING WOOD FLOORING TO REMAIN IN PLACE & BE REFINISHED
EXTG-WS	EXISTING CONCRETE SLAB WITH WEATHER SEAL
LVT-1	LUXURY VINYL TILE (UNIT BATHROOMS)
PC-1	POLISHED CONCRETE
RF-1	RUBBER FLOORING
SC-1	SEALED CONCRETE
WD-SV	SALVAGED WOOD - REMOVED, REINSTALLED AND REFINISHED (SALVAGED WOOD WILL BE REINSTALLED IN CORRIDORS FIRST THEN CONTINUE INTO UNITS - IF THERE IS NOT ENOUGH QUANTITY - INSTALL NEW WOOD FLOORING TO MATCH HISTORIC SIZE)

- LEGEND**
- Planned Underground Plumbing
 - Underground Tunnel
 - Historic Well Locations (10)
 - Historic Soil Probe and Temporary Well Locations (31)
 - Previous Soil Probe, Hand Auger, and Temp. Well Locations (9)
 - Monitoring Well Locations (6)
 - Soil Probe Locations (13)
 - Sub-Slab Soil Sampling Locations (28)
 - Sub-Slab Vapor Sampling Locations (51)
 - Air Sampling Locations (5)
 - Approximate Underground Storage Tank Location

NOTE:

- COMBINATION OF EXISTING AND PROPOSED PLUMBING

AC EX. AIR CONDITIONER	— EX. UG. GAS
● EX. GAS VALVE	— EX. UG. ELECTRIC
⊙ EX. GAS METER	— EX. OVERHEAD WIRES
⊙ EX. ELECTRIC METER	— EX. BUREAU OF ELEC. SERV.
⊙ EX. ELECTRIC PEDESTAL	— EX. UG. COMBINED SEWER
⊙ EX. ELECTRIC MANHOLE	— EX. CITY UG. CONDUIT/COMM
⊙ EX. ELECTRIC TRANSFORMER	— EX. SANITARY SEWER (SAN)
⊙ EX. POWER / TELEPHONE POLE	— EX. STORM SEWER (STO)
⊙ EX. LIGHT POLE	— EX. UG. COMMUNICATIONS
⊙ EX. TELEPHONE PEDESTAL	— EX. UG. TELEPHONE
⊙ EX. STORM MANHOLE	— EX. UG. FIBER OPTICS
⊙ EX. CATCH BASIN SQUARE	— EX. UG. CABLE TELEVISION
⊙ EX. CLEANOUT	— EX. WATER MAIN
⊙ EX. SANITARY MANHOLE	
⊙ EX. UNKNOWN MANHOLE	
⊙ EX. COMBINED SEWER MANHOLE	
⊙ EX. TELEPHONE MANHOLE	
⊙ EX. WATER VALVE	
⊙ EX. HYDRANT	

- SAMPLE ID CODES:**
- EB = EAST BLOCK
 - B = BORING
 - TW = TEMPORARY WELL
 - MW = MONITORING WELL
 - SS = SUB-SLAB
 - VE = VAPOR EXTRACTION POINT
 - IB = INTERIOR BORING
 - RTS = REPRESENTATIVE TRENCH SAMPLE
 - IA = INDOOR AIR
 - OA = OUTDOOR AIR

CONSULTANT

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PROJECT TITLE: SITE INVESTIGATION REPORT
COMMUNITY WITHIN THE CORRIDOR
2748 N. 32nd Street
MILWAUKEE, WI 53210
PROJECT NUMBER: 40449

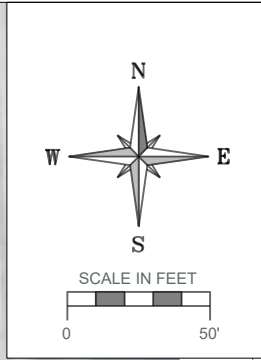
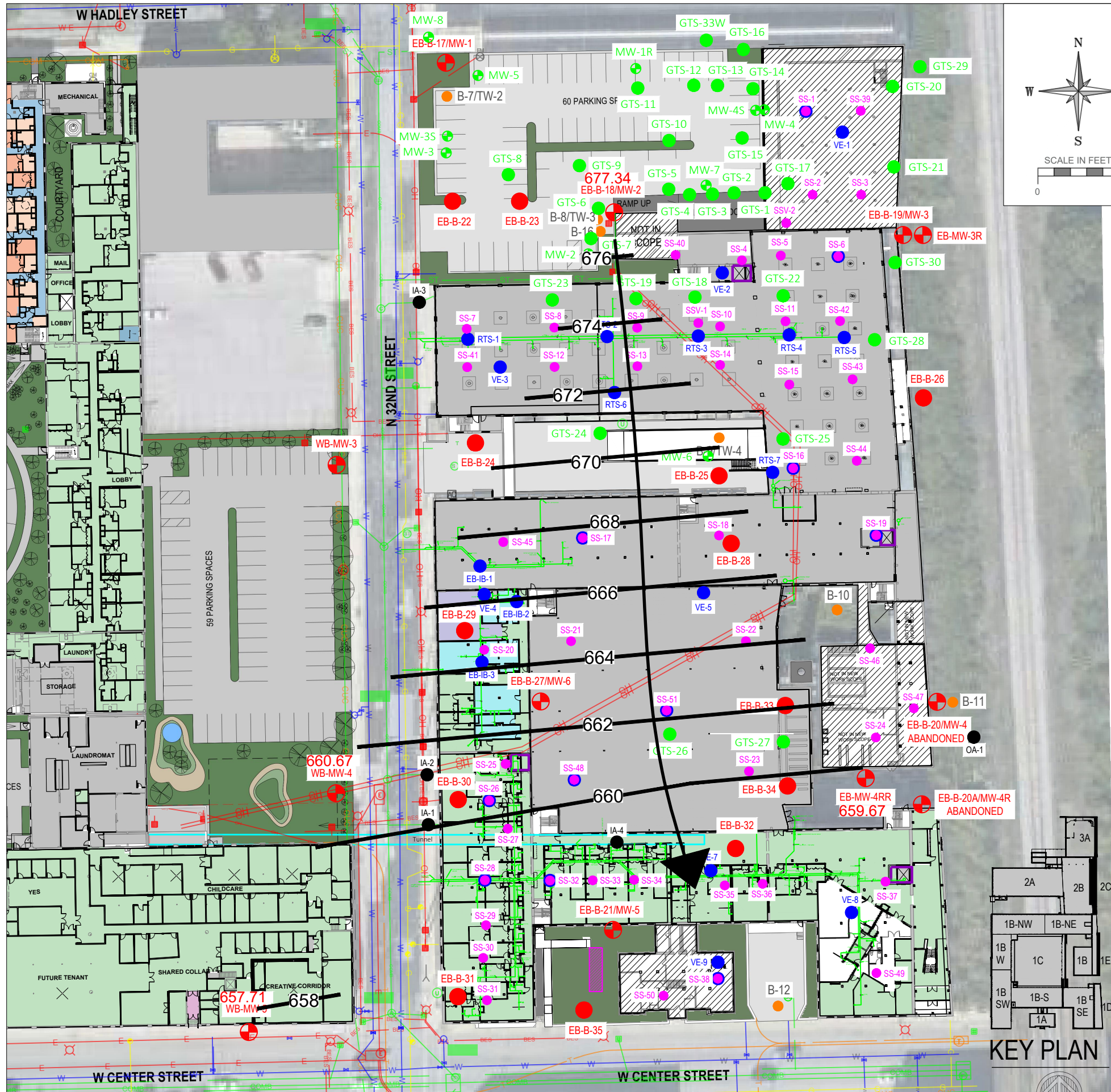
CLIENT: COMMUNITY WITHIN THE CORRIDOR LIMITED PARTNERSHIP

REVISIONS	DATE	DESCRIPTION

DRAWN BY: JDS DATE: 09/01/22
CHECKED BY: RR DATE: 09/01/22

FIGURE 2

LOCATIONS OF SOIL PROBES,
MONITORING WELLS, SUB-SLAB
VAPOR AND SUB-SLAB SOIL SAMPLES



FLOOR FINISH LEGEND

ATH-1	ATHLETIC FLOORING - FLEXIBLE / NON-ADHERED
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 - Air Sampling Locations (5)
 - Approximate Underground Storage Tank Location

NOTE:

- COMBINATION OF EXISTING AND PROPOSED PLUMBING
- GROUNDWATER FLOW DIRECTION
- CONTOUR LINE

EX. AIR CONDITIONER	EX. UG. GAS
EX. GAS VALVE	EX. UG. ELECTRIC
EX. GAS METER	EX. OVERHEAD WIRES
EX. ELECTRIC METER	EX. BUREAU OF ELEC. SERV.
EX. ELECTRIC PEDESTAL	EX. UG. COMBINED SEWER
EX. ELECTRIC MANHOLE	EX. CITY UG. CONDUIT/COMM
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EX. TELEPHONE MANHOLE	
EX. WATER VALVE	
EX. HYDRANT	

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3636 North 124th Street
Wauwatosa, WI 53222
262-821-1171

CONSULTANT

CONSULTANT

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**PROJECT TITLE: SITE INVESTIGATION REPORT
COMMUNITY WITHIN THE CORRIDOR
2748 N. 32nd Street
MILWAUKEE, WI 53210
PROJECT NUMBER: 40449**

**CLIENT:
COMMUNITY WITHIN THE CORRIDOR LIMITED
PARTNERSHIP**

REVISIONS	DATE	DESCRIPTION

DRAWN BY: JDS DATE: 09/26/22
CHECKED BY: DP DATE: 09/26/22

SHEET TITLE: GROUNDWATER FLOW MAP (AUGUST 4, 2022)

FIGURE 3

TABLES

TABLE 1
GROUNDWATER ELEVATION DATA
COMMUNITY WITHIN THE CORRIDOR - EAST BLOCK
MILWAUKEE, WI
PROJECT NUMBER: 40441

Well ID	Units	EB-MW-1	EB-MW-2	EB-MW-3	EB-MW3*	EB-MW-3R	EB-MW-4	EB-MW-4R	EB-MW-4RR	EB-MW-5	EB-MW-6										
Date Installed	---	5/5/2021	6/3/2021	7/21/2021	7/21/2021	7/19/2022	7/21/2021	11/29/2021	7/19/2022	6/3/2021	7/20/2021										
Ground Elevation	Feet	686.592	685.932	684.66	683.822	683.773	685.1	684.35	680.714	680.026	676.102										
TOC Elevation	Feet	689.625	685.512	687.727	683.748	682.285	688.074	686.60	680.114	682.848	675.713										
TOS Elevation	Feet	677.662	681.01	674.66	673.82	664.04	671.6	674.35	673.51	673.946	664.602										
BOS Elevation	Feet	662.662	666.01	664.66	664.66	649.04	656.60	659.35	658.51	663.94	649.60										
Screen Height	Feet	15	10	15	15	15	15	15	15	10	15										
DATE	DTW (TOC)	GROUNDWATER ELEVATION	DTW	GROUNDWATER ELEVATION	DTW	GROUNDWATER ELEVATION	DTW	GROUNDWATER ELEVATION	DTW	GROUNDWATER ELEVATION	DTW	GROUNDWATER ELEVATION	DTW	GROUNDWATER ELEVATION	DTW	GROUNDWATER ELEVATION	DTW	GROUNDWATER ELEVATION	DTW	GROUNDWATER ELEVATION	
5/18/2021	DRY	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
6/10/2021	DRY	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
6/22/2021	DRY	---	7.97	677.54	---	---	---	---	---	---	---	---	---	---	---	12.51	670.34	---	---	---	
6/30/2021	DRY	---	7.75	677.76	---	---	---	---	---	---	---	---	---	---	---	12.54	670.31	---	---	---	
7/20/2021	DRY	---	7.99	677.52	---	---	---	---	---	---	---	---	---	---	---	12.74	670.11	---	---	---	
7/29/2021	DRY	---	8.12	677.39	DRY	---	---	---	---	---	---	---	---	---	---	12.87	669.98	24.89	650.82	---	
8/19/2021	DRY	---	7.85	677.66	22.44	665.29	---	---	---	---	---	---	---	---	---	11.50	671.35	23.80	651.91	---	
8/25/2021	DRY	---	---	---	22.44	665.29	---	---	---	---	---	---	---	---	---	---	---	23.71	652.00	---	
11/12/2021	DRY	---	Broken/Damaged		22.69	665.04	---	---	---	---	---	---	---	---	---	12.43	670.42	21.51	654.20	---	
11/29/2021	DRY	---	Broken/Damaged		22.69	665.04	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
12/13/2021	DRY	---	Broken/Damaged		DRY	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
3/10/2022	DRY	---	Broken/Damaged		DRY	---	---	---	---	---	---	---	---	---	---	13.55	669.30	21.21	654.50	---	
3/30/2022	DRY	---	7.97	677.54	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
8/4/2022	DRY	---	8.17	677.34	---	---	DRY	---	DRY	---	---	---	---	---	---	20.44	659.67	11.93	670.92	19.40	656.31

Notes:

* = Converted from a stickup pipe to a flushmount cover.

ATTACHMENTS

ATTACHMENT A

Soil Bring Logs and the Abandonment Form

SOIL BORING LOG

PROJECT NAME: East Block - CWC	GROUND SURFACE ELEVATION: 682.773	DATE BEGAN: 7/19/2022
DRILL EQUIP: Geoprobe 7822DT	NORTH: 396441.582	DATE FINISHED: 7/19/2022
DRILLER: Scott Klumb	EAST: 2547029.908	PROJECT NO: 40441
DRILLING METHOD: HSA	CHECKED BY: Daniel Pelczar, CPG, PG	BORING NO: EB-MW-3R
CONTRACTOR: Soil & Engineering Services, Inc.	FIELD ENGINEER: Alexander Huebner	

Elevation (FT)	Depth (FT)	Description	Graphic Profile	Graphic Well Profile	USCS	SPT Blows Per 6"	N-Value	Sample Number	Recovered (Inches)	Moisture Content %	Liquid Limit (LL)	Plastic Limit (PL)	Percent Passing Sieve 200	Remarks/ PID	Qp (penetrometer, tsf)
680.0	0.0	See EB-B-19/MW-3 boring log for soil descriptions (0' to 25'). Blind Drilled.													
675.0	5.0														
670.0	10.0														
665.0	15.0														
660.0	20.0														
655.0	25.0	SILTY SAND (SM) - Very dense, brown, moist, fine grained, some gravel			SM	9-37-96	100+	1-SS	18/18					0.1	NA
650.0	30.0	Trace gravel			SM	10-33-81	100+	2-SS	13/18					0.1	NA
645.0	35.0	Converted into monitoring well EB-MW-3R				9-100/5	100+	3-SS	11/18					0.1	NA

Well / Drillhole / Borehole Filling & Sealing Report

Form 3300-005 (R 4/2015)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

Route to DNR Bureau:

Verification Only of Fill and Seal

- Drinking Water Watershed/Wastewater Remediation/Redevelopment
 Waste Management Other: _____

1. Well Location Information **2. Facility / Owner Information**

County		WI Unique Well # of Removed Well		Hicap #	
Latitude / Longitude (see instructions)		Format Code		Method Code	
_____ N		<input type="checkbox"/> DD		<input type="checkbox"/> GPS008	
_____ W		<input type="checkbox"/> DDM		<input type="checkbox"/> SCR002	
_____ E		<input type="checkbox"/> OTH001			
_____ W					
1/4 / 1/4	1/4	Section	Township	Range	<input type="checkbox"/> E
or Gov't Lot #			N		<input type="checkbox"/> W
Well Street Address					
Well City, Village or Town					
Well ZIP Code					
Subdivision Name					
Lot #					

Facility Name		
Facility ID (FID or PWS)		
License/Permit/Monitoring #		
Original Well Owner		
Present Well Owner		
Mailing Address of Present Owner		
City of Present Owner		State
		ZIP Code

3. Filled & Sealed Well / Drillhole / Borehole Information

<input type="checkbox"/> Monitoring Well	Original Construction Date (mm/dd/yyyy)
<input type="checkbox"/> Water Well	
<input type="checkbox"/> Borehole / Drillhole	
If a Well Construction Report is available, please attach.	
Construction Type:	
<input type="checkbox"/> Drilled <input type="checkbox"/> Driven (Sandpoint) <input type="checkbox"/> Dug <input type="checkbox"/> Other (specify): _____	
Formation Type:	
<input type="checkbox"/> Unconsolidated Formation <input type="checkbox"/> Bedrock	
Total Well Depth From Ground Surface (ft.)	Casing Diameter (in.)
Lower Drillhole Diameter (in.)	Casing Depth (ft.)
Was well annular space grouted? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unknown	
If yes, to what depth (feet)?	Depth to Water (feet)

4. Pump, Liner, Screen, Casing & Sealing Material

Pump and piping removed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Liner(s) removed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Liner(s) perforated?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Screen removed?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Casing left in place?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Was casing cut off below surface?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Did sealing material rise to surface?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Did material settle after 24 hours?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
If yes, was hole retopped?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
If bentonite chips were used, were they hydrated with water from a known safe source?	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> N/A
Required Method of Placing Sealing Material			
<input type="checkbox"/> Conductor Pipe-Gravity <input type="checkbox"/> Conductor Pipe-Pumped <input type="checkbox"/> Screened & Poured (Bentonite Chips) <input type="checkbox"/> Other (Explain): _____			
Sealing Materials			
<input type="checkbox"/> Neat Cement Grout <input type="checkbox"/> Concrete <input type="checkbox"/> Sand-Cement (Concrete) Grout <input type="checkbox"/> Bentonite Chips			
For Monitoring Wells and Monitoring Well Boreholes Only:			
<input type="checkbox"/> Bentonite Chips <input type="checkbox"/> Bentonite - Cement Grout <input type="checkbox"/> Granular Bentonite <input type="checkbox"/> Bentonite - Sand Slurry			

5. Material Used to Fill Well / Drillhole

From (ft.)	To (ft.)	No. Yards, Sacks Sealant or Volume (circle one)	Mix Ratio or Mud Weight

6. Comments

7. Supervision of Work **DNR Use Only**

Name of Person or Firm Doing Filling & Sealing	License #	Date of Filling & Sealing or Verification (mm/dd/yyyy)	Date Received	Noted By
Street or Route		Telephone Number ()	Comments	
City	State	ZIP Code	Signature of Person Doing Work	Date Signed

SOIL BORING LOG

PROJECT NAME: East Block - CWC	GROUND SURFACE ELEVATION: 680.714	DATE BEGAN: 7/19/2022
DRILL EQUIP: Geoprobe 7822DT	NORTH: 396107.675	DATE FINISHED: 7/19/2022
DRILLER: Scott Klumb	EAST: 2546997.404	PROJECT NO: 40441
DRILLING METHOD: HSA	CHECKED BY: Daniel Pelczar, CPG, PG	BORING NO: EB-MW-4RR
CONTRACTOR: Soil & Engineering Services, Inc.	FIELD ENGINEER: Alexander Huebner	

Elevation (FT)	Depth (FT)	Description	Graphic Profile	Graphic Well Profile	USCS	SPT Blows Per 6"	N-Value	Sample Number	Recovered (Inches)	Moisture Content %	Liquid Limit (LL)	Plastic Limit (PL)	Percent Passing Sieve 200	Remarks/ PID	Qp (penetrometer, tsf)
680.0	0.0	CONCRETE (6") See EB-B-20/MW-4R boring log for soil descriptions (0' to 33'). Blind Drilled.	[Concrete Profile]	[Well Profile]	CRE TE										
675.0	5.0														
670.0	10.0														
665.0	15.0														
660.0	20.0														
655.0	25.0														
650.0	30.0														
645.0	35.0	SILTY CLAY (CL) - Very stiff, grey, moist, some gravel, trace sand Converted into monitoring well EB-MW-4RR	[Silty Clay Profile]	[Well Profile]	CL	20-29-31-35	66	1-SS	24/24					0.1	3.5

ATTACHMENT B

Monitoring Well Construction and Development Forms

Facility/Project Name 40443A CWX		Local Grid Location of Well ft. <input type="checkbox"/> N. <input type="checkbox"/> S. <input type="checkbox"/> E. <input type="checkbox"/> W.		Well Name EB-MW-3R	
Facility License, Permit or Monitoring No.		Local Grid Origin <input type="checkbox"/> (estimated: <input type="checkbox"/>) or Well Location <input type="checkbox"/>		Wis. Unique Well No. DNR Well ID No.	
Facility ID		St. Plane _____ ft. N, _____ ft. E. S/C/N		Date Well Installed 07/19/2000 m m d d y y y y	
Type of Well Well Code _____ / _____		Section Location of Waste/Source 1/4 of _____ 1/4 of Sec. _____, T. _____ N. R. _____ <input type="checkbox"/> E <input type="checkbox"/> W		Well Installed By: Name (first, last) and Firm Scott Klumb SES	
Distance from Waste/Source _____ ft.		Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known		Gov. Lot Number	

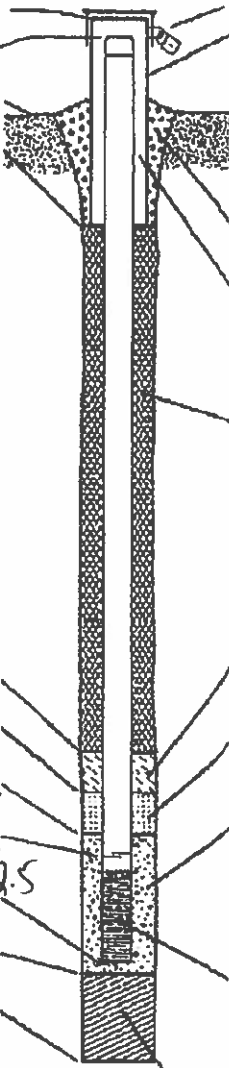
A. Protective pipe, top elevation _____ ft. MSL	1. Cap and lock? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
B. Well casing, top elevation _____ ft. MSL	2. Protective cover pipe: a. Inside diameter: 8.5 in. b. Length: 12 ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/>
C. Land surface elevation _____ ft. MSL	d. Additional protection? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, describe: Flushmoor
D. Surface seal, bottom _____ ft. MSL or _____ ft.	3. Surface seal: Red Flint 40 Bentonite <input checked="" type="checkbox"/> 30 Concrete <input type="checkbox"/> 01 Other <input type="checkbox"/>
12. USCS classification of soil near screen: GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/> SM <input checked="" type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock <input type="checkbox"/>	4. Material between well casing and protective pipe: Bentonite <input checked="" type="checkbox"/> 30 Other <input type="checkbox"/>
13. Sieve analysis performed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. Annular space seal: a. Granular/Chipped Bentonite <input checked="" type="checkbox"/> 33 b. _____ Lbs/gal mud weight . . . Bentonite-sand slurry <input type="checkbox"/> 35 c. _____ Lbs/gal mud weight Bentonite slurry <input type="checkbox"/> 31 d. _____ % Bentonite Bentonite-cement grout <input type="checkbox"/> 50 e. _____ Ft ³ volume added for any of the above f. How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input type="checkbox"/> 02 Gravity <input checked="" type="checkbox"/> 08
14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input checked="" type="checkbox"/> 41 Other <input type="checkbox"/>	6. Bentonite seal: a. Bentonite granules <input type="checkbox"/> 33 b. <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite chips <input checked="" type="checkbox"/> 32 c. _____ Other <input type="checkbox"/>
15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input checked="" type="checkbox"/> 99	7. Fine sand material: Manufacturer, product name & mesh size a. Red Flint 15 b. Volume added _____ ft ³
16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	8. Filter pack material: Manufacturer, product name & mesh size a. Red Flint 40 b. Volume added _____ ft ³
Describe _____	9. Well casing: Flush threaded PVC schedule 40 <input checked="" type="checkbox"/> 23 Flush threaded PVC schedule 80 <input type="checkbox"/> 24 Other <input type="checkbox"/>
17. Source of water (attach analysis, if required):	10. Screen material: PC a. Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/>
E. Bentonite seal, top _____ ft. MSL or 21 ft.	b. Manufacturer Hole Products c. Slot size: MONOFLEX 0.05 in. d. Slotted length: 15 ft.
F. Fine sand, top _____ ft. MSL or 16.5 ft.	11. Backfill material (below filter pack): Red Flint 40 None <input type="checkbox"/> 14 Other <input checked="" type="checkbox"/>
G. Filter pack, top _____ ft. MSL or 18.5 ft.	
H. Screen joint, top _____ ft. MSL or 20 ft.	
I. Well bottom _____ ft. MSL or 35 ft.	
J. Filter pack, bottom _____ ft. MSL or 36 ft.	
K. Borehole, bottom _____ ft. MSL or 37 ft.	
L. Borehole, diameter _____ in.	
M. O.D. well casing 2.36 in.	
N. I.D. well casing 2 in.	

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature **Scott Klumb** Firm **K. Smugh**

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

Facility/Project Name 40443A CWC		Local Grid Location of Well ft. <input type="checkbox"/> N. <input type="checkbox"/> S. <input type="checkbox"/> E. <input type="checkbox"/> W.		Well Name EB-MW-4RB	
Facility License, Permit or Monitoring No.		Local Grid Origin (estimated) or Well Location Lat. " Long. " or " or "		Wis. Unique Well No. DNR Well ID No.	
Facility ID		St. Plane ft. N. ft. E. S/C/N		Date Well Installed 07/19/2022 m m d d y y y y	
Type of Well		Section Location of Waste/Source 1/4 of 1/4 of Sec. T. N. R. <input type="checkbox"/> E <input type="checkbox"/> W		Well Installed By: Name (first, last) and Firm Scott Klumb SES	
Well Code /		Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known		Gov. Lot Number	
Distance from Waste/Source ft.		Enf. Stds. Apply <input type="checkbox"/>			

<p>A. Protective pipe, top elevation ----- ft. MSL</p> <p>B. Well casing, top elevation ----- ft. MSL</p> <p>C. Land surface elevation ----- ft. MSL</p> <p>D. Surface seal, bottom ----- ft. MSL or ----- ft.</p> <div style="border: 1px solid black; padding: 5px;"> <p>12. USCS classification of soil near screen: GP <input type="checkbox"/> GM <input type="checkbox"/> GC <input type="checkbox"/> GW <input type="checkbox"/> SW <input type="checkbox"/> SP <input type="checkbox"/> SM <input type="checkbox"/> SC <input type="checkbox"/> ML <input type="checkbox"/> MH <input type="checkbox"/> CL <input type="checkbox"/> CH <input type="checkbox"/> Bedrock <input type="checkbox"/></p> <p>13. Sieve analysis performed? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>14. Drilling method used: Rotary <input type="checkbox"/> 50 Hollow Stem Auger <input checked="" type="checkbox"/> 41 Other <input type="checkbox"/></p> <p>15. Drilling fluid used: Water <input type="checkbox"/> 02 Air <input type="checkbox"/> 01 Drilling Mud <input type="checkbox"/> 03 None <input checked="" type="checkbox"/> 99</p> <p>16. Drilling additives used? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>Describe _____</p> <p>17. Source of water (attach analysis, if required): _____</p> </div> <p>E. Bentonite seal, top ----- ft. MSL or 1'3" ft.</p> <p>F. Fine sand, top ----- ft. MSL or 6 ft.</p> <p>G. Filter pack, top ----- ft. MSL or 6.5 ft.</p> <p>H. Screen joint, top ----- ft. MSL or 7.5 ft.</p> <p>I. Well bottom ----- ft. MSL or 22.5 ft.</p> <p>J. Filter pack, bottom ----- ft. MSL or 35 ft.</p> <p>K. Borehole, bottom ----- ft. MSL or 35 ft.</p> <p>L. Borehole, diameter 8 in.</p> <p>M. O.D. well casing 2 3/8 in.</p> <p>N. I.D. well casing 2 in.</p>	 <p>1. Cap and lock? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p> <p>2. Protective cover pipe: a. Inside diameter: 8 in. b. Length: 1 ft. c. Material: Steel <input checked="" type="checkbox"/> 04 Other <input type="checkbox"/></p> <p>d. Additional protection? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, describe: Flushmount</p> <p>3. Surface seal: Bentonite <input type="checkbox"/> 30 Concrete <input type="checkbox"/> 01 Other <input type="checkbox"/></p> <p>4. Material between well casing and protective pipe: Bentonite <input type="checkbox"/> 30 Other <input type="checkbox"/></p> <p>5. Annular space seal: a. Granular/Chipped Bentonite <input checked="" type="checkbox"/> 33 b. _____ Lbs/gal mud weight... Bentonite-sand slurry <input type="checkbox"/> 35 c. _____ Lbs/gal mud weight... Bentonite slurry <input type="checkbox"/> 31 d. _____ % Bentonite... Bentonite-cement grout <input type="checkbox"/> 50 e. _____ Ft³ volume added for any of the above f. How installed: Tremie <input type="checkbox"/> 01 Tremie pumped <input type="checkbox"/> 02 Gravity <input checked="" type="checkbox"/> 08</p> <p>6. Bentonite seal: a. Bentonite granules <input type="checkbox"/> 33 b. <input type="checkbox"/> 1/4 in. <input checked="" type="checkbox"/> 3/8 in. <input type="checkbox"/> 1/2 in. Bentonite chips <input checked="" type="checkbox"/> 32 c. _____ Other <input type="checkbox"/></p> <p>7. Fine sand material: Manufacturer, product name & mesh size a. Red Flint # 15 b. Volume added _____ ft³</p> <p>8. Filter pack material: Manufacturer, product name & mesh size a. Red Flint # 40 b. Volume added _____ ft³</p> <p>9. Well casing: Flush threaded PVC schedule 40 <input checked="" type="checkbox"/> 23 Flush threaded PVC schedule 80 <input type="checkbox"/> 24 Other <input type="checkbox"/></p> <p>10. Screen material: PVC a. Screen type: Factory cut <input checked="" type="checkbox"/> 11 Continuous slot <input type="checkbox"/> 01 Other <input type="checkbox"/></p> <p>b. Manufacturer Hols Products c. Slot size: max flex 0.01 in. d. Slotted length: 15 ft.</p> <p>11. Backfill material (below filter pack): None <input type="checkbox"/> 14 Other <input checked="" type="checkbox"/></p>
--	---

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature *Scott Klumb* Firm *K Sough*

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

Route to: Watershed/Wastewater Waste Management
 Remediation/Redevelopment Other

Facility/Project Name <u>UWC-EB</u>	County Name	Well Name <u>EB-mw-4RR</u>
Facility License, Permit or Monitoring Number	County Code	Wis. Unique Well Number
		DNR Well ID Number

1. Can this well be purged dry? Yes No

2. Well development method
- 41 surged with bailer and bailed
 - 61 surged with bailer and pumped
 - 42 surged with block and bailed
 - 62 surged with block and pumped
 - 70 surged with block, bailed and pumped
 - 20 compressed air
 - 10 bailed only
 - 51 pumped only
 - 50 pumped slowly
 - Other _____

3. Time spent developing well 2 min.

4. Depth of well (from top of well casing) 22.2 ft.

5. Inside diameter of well 2 in.

6. Volume of water in filter pack and well casing _____ gal.

7. Volume of water removed from well 1 gal.

8. Volume of water added (if any) _____ gal.

9. Source of water added _____

10. Analysis performed on water added? Yes No
(If yes, attach results)

17. Additional comments on development:

11. Depth to Water (from top of well casing)

	Before Development	After Development
a.	<u>20.44</u> ft.	<u>22.2</u> ft.

Date b. 08,04,2022 08,04,2022
m m d d y y y y m m d d y y y y

Time c. 12:55 a.m. 1:00 a.m.
 p.m. p.m.

12. Sediment in well bottom 2 inches 0 inches

13. Water clarity Clear 10 Clear 20
Turbid 15 Turbid 25
(Describe) Dark Brown Dark Brown

Fill in if drilling fluids were used and well is at solid waste facility:

14. Total suspended solids _____ mg/l _____ mg/l

15. COD _____ mg/l _____ mg/l

16. Well developed by: Name (first, last) and Firm

First Name: Alex Last Name: Huebner

Firm: KSingh

Name and Address of Facility Contact/Owner/Responsible Party

First Name: Alex Last Name: Huebner

Facility/Firm: KSingh

Street: 3636 N 124th St

City/State/Zip: Wauwatosa, WI 53222

I hereby certify that the above information is true and correct to the best of my knowledge.

Signature: [Signature]
Print Name: Alexander Huebner
Firm: KSingh

NOTE: See instructions for more information including a list of county codes and well type codes.

APPENDIX C

Groundwater Analytical Results

ANALYTICAL REPORT

Eurofins Chicago
2417 Bond Street
University Park, IL 60484
Tel: (708)534-5200

Laboratory Job ID: 500-220496-1
Client Project/Site: East Block CWC - 40441

For:
K. Singh & Associates, Inc
3636 N. 124th Street
Wauwatosa, Wisconsin 53222

Attn: Mr. Robert Reineke



Authorized for release by:
8/22/2022 2:58:23 PM

Sandie Fredrick, Project Manager II
(920)261-1660
Sandra.Fredrick@et.eurofinsus.com

LINKS

Review your project
results through



Have a Question?



Visit us at:

www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: K. Singh & Associates, Inc
Project/Site: East Block CWC - 40441

Job ID: 500-220496-1

Job ID: 500-220496-1

Laboratory: Eurofins Chicago

Narrative

Job Narrative 500-220496-1

Comments

No additional comments.

Receipt

The samples were received on 8/6/2022 8:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 3.2° C and 3.6° C.

GC/MS VOA

Method 8260B: The following sample was diluted due to the abundance of non-target analytes: EB-MW-2 (500-220496-4). Elevated reporting limits (RLs) are provided.

Method 8260B: The following sample(s) was collected in a properly preserved vial; however, the pH was outside the required criteria when verified by the laboratory. The sample was analyzed within the 14-day holding time specified for preserved samples: EB-MW-6 (500-220496-7).

Method 8260B: The method blank for analytical batch 500-669702 contained several compounds above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.(MB 500-669702/6)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA

Method 8270D: The continuing calibration verification (CCV) analyzed in batch 500-669712 was outside the method criteria for the following analyte(s): 4-Nitroaniline, Benzoic acid, Bis(2-chloroethyl)ether, Di-n-octyl phthalate, Hexachlorocyclopentadiene, Pentachlorophenol and Phenol. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8270D SIM ID: The 1,4-Dioxane result reported for sample EB-MW-2 (500-220496-4) have an E flag qualifier indicating the results are over the calibration range on the raw data. The actual amounts are within the calibration range; however, the E flag is generated based upon the bias corrected concentration. The LIMS system calculates a bias correction based on the recovery of the 1,4-Dioxane-d8 isotope.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA

Method 8082A: Surrogate DCB Decachlorobiphenyl recovery for the following sample was outside control limits: EB-MW-4RR (500-220496-11). The other surrogate was within limits; therefore, re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: K. Singh & Associates, Inc
Project/Site: East Block CWC - 40441

Job ID: 500-220496-1

Client Sample ID: EB-MW-2

Lab Sample ID: 500-220496-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	3.7		2.0	0.76	ug/L	2		8260B	Total/NA
1,1-Dichloroethane	34		2.0	0.82	ug/L	2		8260B	Total/NA
1,2,4-Trimethylbenzene	200	B	2.0	0.72	ug/L	2		8260B	Total/NA
1,3,5-Trimethylbenzene	60	B	2.0	0.51	ug/L	2		8260B	Total/NA
Benzene	30		1.0	0.29	ug/L	2		8260B	Total/NA
Chloroethane	18		2.0	1.0	ug/L	2		8260B	Total/NA
cis-1,2-Dichloroethene	11		2.0	0.82	ug/L	2		8260B	Total/NA
Ethylbenzene	89		1.0	0.37	ug/L	2		8260B	Total/NA
Isopropylbenzene	18		2.0	0.77	ug/L	2		8260B	Total/NA
Naphthalene	22	B	2.0	0.67	ug/L	2		8260B	Total/NA
N-Propylbenzene	28	B	2.0	0.83	ug/L	2		8260B	Total/NA
p-Isopropyltoluene	13	B	2.0	0.72	ug/L	2		8260B	Total/NA
sec-Butylbenzene	16	B	2.0	0.80	ug/L	2		8260B	Total/NA
Toluene	7.0		1.0	0.30	ug/L	2		8260B	Total/NA
trans-1,2-Dichloroethene	1.6	J	2.0	0.70	ug/L	2		8260B	Total/NA
Trichloroethene	8.4		1.0	0.33	ug/L	2		8260B	Total/NA
Vinyl chloride	7.2		2.0	0.41	ug/L	2		8260B	Total/NA
Xylenes, Total	140		2.0	0.44	ug/L	2		8260B	Total/NA
1,4-Dioxane	31	E	0.20	0.10	ug/L	1		8270D SIM ID	Total/NA
1-Methylnaphthalene	2.2		1.5	0.22	ug/L	1		8270D	Total/NA
2-Methylnaphthalene	0.94	J	1.5	0.048	ug/L	1		8270D	Total/NA
Acenaphthene	0.47	J	0.74	0.23	ug/L	1		8270D	Total/NA
Anthracene	0.53	J	0.74	0.25	ug/L	1		8270D	Total/NA
Benzo[a]anthracene	0.56		0.15	0.042	ug/L	1		8270D	Total/NA
Benzo[a]pyrene	0.57		0.15	0.073	ug/L	1		8270D	Total/NA
Benzo[b]fluoranthene	0.79		0.15	0.060	ug/L	1		8270D	Total/NA
Benzo[k]fluoranthene	0.21		0.15	0.047	ug/L	1		8270D	Total/NA
Chrysene	0.77		0.15	0.050	ug/L	1		8270D	Total/NA
Dibenz(a,h)anthracene	0.11	J	0.22	0.038	ug/L	1		8270D	Total/NA
Fluoranthene	1.7		0.74	0.34	ug/L	1		8270D	Total/NA
Fluorene	0.54	J	0.74	0.18	ug/L	1		8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.26		0.15	0.055	ug/L	1		8270D	Total/NA
Naphthalene	12		0.74	0.23	ug/L	1		8270D	Total/NA
Phenanthrene	1.7		0.74	0.22	ug/L	1		8270D	Total/NA
Pyrene	1.9		0.74	0.32	ug/L	1		8270D	Total/NA
PCB-1248	4.3		0.77	0.38	ug/L	2		8082A	Total/NA

Client Sample ID: EB-MW-4RR

Lab Sample ID: 500-220496-5

No Detections.

Client Sample ID: EB-MW-6

Lab Sample ID: 500-220496-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	0.80	J B	1.0	0.36	ug/L	1		8260B	Total/NA
1,3,5-Trimethylbenzene	0.79	J B	1.0	0.25	ug/L	1		8260B	Total/NA
Naphthalene	0.70	J B	1.0	0.34	ug/L	1		8260B	Total/NA
n-Butylbenzene	0.64	J B	1.0	0.39	ug/L	1		8260B	Total/NA
N-Propylbenzene	0.60	J B	1.0	0.41	ug/L	1		8260B	Total/NA
Toluene	0.21	J	0.50	0.15	ug/L	1		8260B	Total/NA
Xylenes, Total	0.35	J	1.0	0.22	ug/L	1		8260B	Total/NA
Benzo[a]anthracene	0.050	J	0.15	0.042	ug/L	1		8270D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Chicago

Detection Summary

Client: K. Singh & Associates, Inc
Project/Site: East Block CWC - 40441

Job ID: 500-220496-1

Client Sample ID: EB-MW-5

Lab Sample ID: 500-220496-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	0.75	J B	1.0	0.36	ug/L	1		8260B	Total/NA
1,3,5-Trimethylbenzene	0.78	J B	1.0	0.25	ug/L	1		8260B	Total/NA
p-Isopropyltoluene	0.72	J B	1.0	0.36	ug/L	1		8260B	Total/NA
Benzo[a]anthracene	0.042	J	0.15	0.042	ug/L	1		8270D	Total/NA

Client Sample ID: EB-MW-4RR

Lab Sample ID: 500-220496-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	0.73	J B	1.0	0.36	ug/L	1		8260B	Total/NA
Xylenes, Total	0.31	J	1.0	0.22	ug/L	1		8260B	Total/NA
2-Methylnaphthalene	0.084	J	1.6	0.051	ug/L	1		8270D	Total/NA
Benzo[a]anthracene	0.12	J	0.16	0.044	ug/L	1		8270D	Total/NA
Benzo[a]pyrene	0.17		0.16	0.078	ug/L	1		8270D	Total/NA
Benzo[b]fluoranthene	0.19		0.16	0.063	ug/L	1		8270D	Total/NA
Bis(2-ethylhexyl) phthalate	3.8	J	7.8	1.3	ug/L	1		8270D	Total/NA
Chrysene	0.18		0.16	0.053	ug/L	1		8270D	Total/NA
Indeno[1,2,3-cd]pyrene	0.094	J	0.16	0.059	ug/L	1		8270D	Total/NA
Phenanthrene	0.31	J	0.78	0.24	ug/L	1		8270D	Total/NA
Pyrene	0.38	J	0.78	0.33	ug/L	1		8270D	Total/NA

Client Sample ID: DUPLICATE 2

Lab Sample ID: 500-220496-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	0.74	J B	1.0	0.36	ug/L	1		8260B	Total/NA
Styrene	0.83	J	1.0	0.39	ug/L	1		8260B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Chicago

Method Summary

Client: K. Singh & Associates, Inc
Project/Site: East Block CWC - 40441

Job ID: 500-220496-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	EET CHI
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	EET CHI
8270D SIM ID	Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)	SW846	EET BUF
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	EET CHI
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET BUF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	EET CHI
5030B	Purge and Trap	SW846	EET CHI

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

EET CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200



Sample Summary

Client: K. Singh & Associates, Inc
Project/Site: East Block CWC - 40441

Job ID: 500-220496-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-220496-4	EB-MW-2	Ground Water	08/04/22 13:45	08/06/22 08:00
500-220496-5	EB-MW-4RR	Ground Water	08/04/22 14:00	08/06/22 08:00
500-220496-7	EB-MW-6	Ground Water	08/05/22 09:30	08/06/22 08:00
500-220496-8	EB-MW-5	Ground Water	08/05/22 09:45	08/06/22 08:00
500-220496-11	EB-MW-4RR	Ground Water	08/05/22 12:00	08/06/22 08:00
500-220496-12	DUPLICATE 2	Ground Water	08/05/22 00:00	08/06/22 08:00

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Client Sample Results

Client: K. Singh & Associates, Inc
 Project/Site: East Block CWC - 40441

Job ID: 500-220496-1

Client Sample ID: EB-MW-2

Lab Sample ID: 500-220496-4

Date Collected: 08/04/22 13:45

Matrix: Ground Water

Date Received: 08/06/22 08:00

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.92		2.0	0.92	ug/L			08/12/22 16:34	2
1,1,1-Trichloroethane	3.7		2.0	0.76	ug/L			08/12/22 16:34	2
1,1,2,2-Tetrachloroethane	<0.80		2.0	0.80	ug/L			08/12/22 16:34	2
1,1,2-Trichloroethane	<0.70		2.0	0.70	ug/L			08/12/22 16:34	2
1,1-Dichloroethane	34		2.0	0.82	ug/L			08/12/22 16:34	2
1,1-Dichloroethene	<0.78		2.0	0.78	ug/L			08/12/22 16:34	2
1,1-Dichloropropene	<0.59		2.0	0.59	ug/L			08/12/22 16:34	2
1,2,3-Trichlorobenzene	<0.92		2.0	0.92	ug/L			08/12/22 16:34	2
1,2,3-Trichloropropane	<0.83		4.0	0.83	ug/L			08/12/22 16:34	2
1,2,4-Trichlorobenzene	<0.68		2.0	0.68	ug/L			08/12/22 16:34	2
1,2,4-Trimethylbenzene	200 B		2.0	0.72	ug/L			08/12/22 16:34	2
1,2-Dibromo-3-Chloropropane	<4.0		10	4.0	ug/L			08/12/22 16:34	2
1,2-Dibromoethane (EDB)	<0.77		2.0	0.77	ug/L			08/12/22 16:34	2
1,2-Dichlorobenzene	<0.67		2.0	0.67	ug/L			08/12/22 16:34	2
1,2-Dichloroethane	<0.78		2.0	0.78	ug/L			08/12/22 16:34	2
1,2-Dichloropropane	<0.86		2.0	0.86	ug/L			08/12/22 16:34	2
1,3,5-Trimethylbenzene	60 B		2.0	0.51	ug/L			08/12/22 16:34	2
1,3-Dichlorobenzene	<0.80		2.0	0.80	ug/L			08/12/22 16:34	2
1,3-Dichloropropane	<0.72		2.0	0.72	ug/L			08/12/22 16:34	2
1,4-Dichlorobenzene	<0.73		2.0	0.73	ug/L			08/12/22 16:34	2
2,2-Dichloropropane	<0.89		2.0	0.89	ug/L			08/12/22 16:34	2
2-Chlorotoluene	<0.63		2.0	0.63	ug/L			08/12/22 16:34	2
4-Chlorotoluene	<0.70		2.0	0.70	ug/L			08/12/22 16:34	2
Benzene	30		1.0	0.29	ug/L			08/12/22 16:34	2
Bromobenzene	<0.71		2.0	0.71	ug/L			08/12/22 16:34	2
Bromochloromethane	<0.86		2.0	0.86	ug/L			08/12/22 16:34	2
Dichlorobromomethane	<0.74		2.0	0.74	ug/L			08/12/22 16:34	2
Bromoform	<0.97		2.0	0.97	ug/L			08/12/22 16:34	2
Bromomethane	<1.6		6.0	1.6	ug/L			08/12/22 16:34	2
Carbon tetrachloride	<0.77		2.0	0.77	ug/L			08/12/22 16:34	2
Chlorobenzene	<0.77		2.0	0.77	ug/L			08/12/22 16:34	2
Chloroethane	18		2.0	1.0	ug/L			08/12/22 16:34	2
Chloroform	<0.74		4.0	0.74	ug/L			08/12/22 16:34	2
Chloromethane	<0.64		2.0	0.64	ug/L			08/12/22 16:34	2
cis-1,2-Dichloroethene	11		2.0	0.82	ug/L			08/12/22 16:34	2
cis-1,3-Dichloropropene	<0.83		2.0	0.83	ug/L			08/12/22 16:34	2
Dibromochloromethane	<0.98		2.0	0.98	ug/L			08/12/22 16:34	2
Dibromomethane	<0.54		2.0	0.54	ug/L			08/12/22 16:34	2
Dichlorodifluoromethane	<1.3		6.0	1.3	ug/L			08/12/22 16:34	2
Ethylbenzene	89		1.0	0.37	ug/L			08/12/22 16:34	2
Hexachlorobutadiene	<0.89		2.0	0.89	ug/L			08/12/22 16:34	2
Isopropyl ether	<0.55		2.0	0.55	ug/L			08/12/22 16:34	2
Isopropylbenzene	18		2.0	0.77	ug/L			08/12/22 16:34	2
Methyl tert-butyl ether	<0.79		2.0	0.79	ug/L			08/12/22 16:34	2
Methylene Chloride	<3.3		10	3.3	ug/L			08/12/22 16:34	2
Naphthalene	22 B		2.0	0.67	ug/L			08/12/22 16:34	2
n-Butylbenzene	<0.78		2.0	0.78	ug/L			08/12/22 16:34	2
N-Propylbenzene	28 B		2.0	0.83	ug/L			08/12/22 16:34	2
p-Isopropyltoluene	13 B		2.0	0.72	ug/L			08/12/22 16:34	2

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Client Sample Results

Client: K. Singh & Associates, Inc
Project/Site: East Block CWC - 40441

Job ID: 500-220496-1

Client Sample ID: EB-MW-2

Lab Sample ID: 500-220496-4

Date Collected: 08/04/22 13:45

Matrix: Ground Water

Date Received: 08/06/22 08:00

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	16	B	2.0	0.80	ug/L			08/12/22 16:34	2
Styrene	<0.77		2.0	0.77	ug/L			08/12/22 16:34	2
tert-Butylbenzene	<0.80		2.0	0.80	ug/L			08/12/22 16:34	2
Tetrachloroethene	<0.74		2.0	0.74	ug/L			08/12/22 16:34	2
Toluene	7.0		1.0	0.30	ug/L			08/12/22 16:34	2
trans-1,2-Dichloroethene	1.6	J	2.0	0.70	ug/L			08/12/22 16:34	2
trans-1,3-Dichloropropene	<0.72		2.0	0.72	ug/L			08/12/22 16:34	2
Trichloroethene	8.4		1.0	0.33	ug/L			08/12/22 16:34	2
Trichlorofluoromethane	<0.85		2.0	0.85	ug/L			08/12/22 16:34	2
Vinyl chloride	7.2		2.0	0.41	ug/L			08/12/22 16:34	2
Xylenes, Total	140		2.0	0.44	ug/L			08/12/22 16:34	2
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	87		75 - 126					08/12/22 16:34	2
4-Bromofluorobenzene (Surr)	90		72 - 124					08/12/22 16:34	2
Dibromofluoromethane (Surr)	94		75 - 120					08/12/22 16:34	2
Toluene-d8 (Surr)	92		75 - 120					08/12/22 16:34	2

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	31	E	0.20	0.10	ug/L		08/09/22 15:53	08/12/22 19:48	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	46		15 - 110				08/09/22 15:53	08/12/22 19:48	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	2.2		1.5	0.22	ug/L		08/10/22 07:53	08/12/22 12:22	1
2-Methylnaphthalene	0.94	J	1.5	0.048	ug/L		08/10/22 07:53	08/12/22 12:22	1
Acenaphthene	0.47	J	0.74	0.23	ug/L		08/10/22 07:53	08/12/22 12:22	1
Acenaphthylene	<0.20		0.74	0.20	ug/L		08/10/22 07:53	08/12/22 12:22	1
Anthracene	0.53	J	0.74	0.25	ug/L		08/10/22 07:53	08/12/22 12:22	1
Benzo[a]anthracene	0.56		0.15	0.042	ug/L		08/10/22 07:53	08/12/22 12:22	1
Benzo[a]pyrene	0.57		0.15	0.073	ug/L		08/10/22 07:53	08/12/22 12:22	1
Benzo[b]fluoranthene	0.79		0.15	0.060	ug/L		08/10/22 07:53	08/12/22 12:22	1
Benzo[g,h,i]perylene	<0.28		0.74	0.28	ug/L		08/10/22 07:53	08/12/22 12:22	1
Benzo[k]fluoranthene	0.21		0.15	0.047	ug/L		08/10/22 07:53	08/12/22 12:22	1
Chrysene	0.77		0.15	0.050	ug/L		08/10/22 07:53	08/12/22 12:22	1
Dibenz(a,h)anthracene	0.11	J	0.22	0.038	ug/L		08/10/22 07:53	08/12/22 12:22	1
Fluoranthene	1.7		0.74	0.34	ug/L		08/10/22 07:53	08/12/22 12:22	1
Fluorene	0.54	J	0.74	0.18	ug/L		08/10/22 07:53	08/12/22 12:22	1
Indeno[1,2,3-cd]pyrene	0.26		0.15	0.055	ug/L		08/10/22 07:53	08/12/22 12:22	1
Naphthalene	12		0.74	0.23	ug/L		08/10/22 07:53	08/12/22 12:22	1
Phenanthrene	1.7		0.74	0.22	ug/L		08/10/22 07:53	08/12/22 12:22	1
Pyrene	1.9		0.74	0.32	ug/L		08/10/22 07:53	08/12/22 12:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	57		34 - 110				08/10/22 07:53	08/12/22 12:22	1
Nitrobenzene-d5 (Surr)	54		36 - 120				08/10/22 07:53	08/12/22 12:22	1
Terphenyl-d14 (Surr)	69		40 - 145				08/10/22 07:53	08/12/22 12:22	1

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Client Sample Results

Client: K. Singh & Associates, Inc
 Project/Site: East Block CWC - 40441

Job ID: 500-220496-1

Client Sample ID: EB-MW-2

Lab Sample ID: 500-220496-4

Date Collected: 08/04/22 13:45

Matrix: Ground Water

Date Received: 08/06/22 08:00

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.13		0.77	0.13	ug/L		08/11/22 13:32	08/17/22 08:16	2
PCB-1221	<0.38		0.77	0.38	ug/L		08/11/22 13:32	08/17/22 08:16	2
PCB-1232	<0.38		0.77	0.38	ug/L		08/11/22 13:32	08/17/22 08:16	2
PCB-1242	<0.38		0.77	0.38	ug/L		08/11/22 13:32	08/17/22 08:16	2
PCB-1248	4.3		0.77	0.38	ug/L		08/11/22 13:32	08/17/22 08:16	2
PCB-1254	<0.38		0.77	0.38	ug/L		08/11/22 13:32	08/17/22 08:16	2
PCB-1260	<0.13		0.77	0.13	ug/L		08/11/22 13:32	08/17/22 08:16	2

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	69		30 - 120	08/11/22 13:32	08/17/22 08:16	2
DCB Decachlorobiphenyl	39		30 - 140	08/11/22 13:32	08/17/22 08:16	2



Client Sample Results

Client: K. Singh & Associates, Inc
Project/Site: East Block CWC - 40441

Job ID: 500-220496-1

Client Sample ID: EB-MW-4RR

Lab Sample ID: 500-220496-5

Date Collected: 08/04/22 14:00

Matrix: Ground Water

Date Received: 08/06/22 08:00

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	<0.10		0.20	0.10	ug/L		08/09/22 15:53	08/12/22 20:10	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	46		15 - 110				08/09/22 15:53	08/12/22 20:10	1

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Client Sample Results

Client: K. Singh & Associates, Inc
 Project/Site: East Block CWC - 40441

Job ID: 500-220496-1

Client Sample ID: EB-MW-6

Lab Sample ID: 500-220496-7

Date Collected: 08/05/22 09:30

Matrix: Ground Water

Date Received: 08/06/22 08:00

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			08/12/22 17:27	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			08/12/22 17:27	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			08/12/22 17:27	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			08/12/22 17:27	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			08/12/22 17:27	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			08/12/22 17:27	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			08/12/22 17:27	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			08/12/22 17:27	1
1,2,3-Trichloropropane	<0.41		2.0	0.41	ug/L			08/12/22 17:27	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			08/12/22 17:27	1
1,2,4-Trimethylbenzene	0.80	J B	1.0	0.36	ug/L			08/12/22 17:27	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			08/12/22 17:27	1
1,2-Dibromoethane (EDB)	<0.39		1.0	0.39	ug/L			08/12/22 17:27	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			08/12/22 17:27	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			08/12/22 17:27	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			08/12/22 17:27	1
1,3,5-Trimethylbenzene	0.79	J B	1.0	0.25	ug/L			08/12/22 17:27	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			08/12/22 17:27	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			08/12/22 17:27	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			08/12/22 17:27	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			08/12/22 17:27	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			08/12/22 17:27	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			08/12/22 17:27	1
Benzene	<0.15		0.50	0.15	ug/L			08/12/22 17:27	1
Bromobenzene	<0.36		1.0	0.36	ug/L			08/12/22 17:27	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			08/12/22 17:27	1
Dichlorobromomethane	<0.37		1.0	0.37	ug/L			08/12/22 17:27	1
Bromoform	<0.48		1.0	0.48	ug/L			08/12/22 17:27	1
Bromomethane	<0.80		3.0	0.80	ug/L			08/12/22 17:27	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			08/12/22 17:27	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			08/12/22 17:27	1
Chloroethane	<0.51		1.0	0.51	ug/L			08/12/22 17:27	1
Chloroform	<0.37		2.0	0.37	ug/L			08/12/22 17:27	1
Chloromethane	<0.32		1.0	0.32	ug/L			08/12/22 17:27	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			08/12/22 17:27	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			08/12/22 17:27	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			08/12/22 17:27	1
Dibromomethane	<0.27		1.0	0.27	ug/L			08/12/22 17:27	1
Dichlorodifluoromethane	<0.67		3.0	0.67	ug/L			08/12/22 17:27	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			08/12/22 17:27	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			08/12/22 17:27	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			08/12/22 17:27	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			08/12/22 17:27	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			08/12/22 17:27	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			08/12/22 17:27	1
Naphthalene	0.70	J B	1.0	0.34	ug/L			08/12/22 17:27	1
n-Butylbenzene	0.64	J B	1.0	0.39	ug/L			08/12/22 17:27	1
N-Propylbenzene	0.60	J B	1.0	0.41	ug/L			08/12/22 17:27	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			08/12/22 17:27	1

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Client Sample Results

Client: K. Singh & Associates, Inc
Project/Site: East Block CWC - 40441

Job ID: 500-220496-1

Client Sample ID: EB-MW-6

Lab Sample ID: 500-220496-7

Date Collected: 08/05/22 09:30

Matrix: Ground Water

Date Received: 08/06/22 08:00

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			08/12/22 17:27	1
Styrene	<0.39		1.0	0.39	ug/L			08/12/22 17:27	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			08/12/22 17:27	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			08/12/22 17:27	1
Toluene	0.21	J	0.50	0.15	ug/L			08/12/22 17:27	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			08/12/22 17:27	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			08/12/22 17:27	1
Trichloroethene	<0.16		0.50	0.16	ug/L			08/12/22 17:27	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			08/12/22 17:27	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			08/12/22 17:27	1
Xylenes, Total	0.35	J	1.0	0.22	ug/L			08/12/22 17:27	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		75 - 126					08/12/22 17:27	1
4-Bromofluorobenzene (Surr)	99		72 - 124					08/12/22 17:27	1
Dibromofluoromethane (Surr)	103		75 - 120					08/12/22 17:27	1
Toluene-d8 (Surr)	92		75 - 120					08/12/22 17:27	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.22		1.5	0.22	ug/L		08/10/22 07:53	08/12/22 12:46	1
2-Methylnaphthalene	<0.048		1.5	0.048	ug/L		08/10/22 07:53	08/12/22 12:46	1
Acenaphthene	<0.23		0.74	0.23	ug/L		08/10/22 07:53	08/12/22 12:46	1
Acenaphthylene	<0.20		0.74	0.20	ug/L		08/10/22 07:53	08/12/22 12:46	1
Anthracene	<0.25		0.74	0.25	ug/L		08/10/22 07:53	08/12/22 12:46	1
Benzo[a]anthracene	0.050	J	0.15	0.042	ug/L		08/10/22 07:53	08/12/22 12:46	1
Benzo[a]pyrene	<0.073		0.15	0.073	ug/L		08/10/22 07:53	08/12/22 12:46	1
Benzo[b]fluoranthene	<0.060		0.15	0.060	ug/L		08/10/22 07:53	08/12/22 12:46	1
Benzo[g,h,i]perylene	<0.28		0.74	0.28	ug/L		08/10/22 07:53	08/12/22 12:46	1
Benzo[k]fluoranthene	<0.047		0.15	0.047	ug/L		08/10/22 07:53	08/12/22 12:46	1
Chrysene	<0.051		0.15	0.051	ug/L		08/10/22 07:53	08/12/22 12:46	1
Dibenz(a,h)anthracene	<0.038		0.22	0.038	ug/L		08/10/22 07:53	08/12/22 12:46	1
Fluoranthene	<0.34		0.74	0.34	ug/L		08/10/22 07:53	08/12/22 12:46	1
Fluorene	<0.18		0.74	0.18	ug/L		08/10/22 07:53	08/12/22 12:46	1
Indeno[1,2,3-cd]pyrene	<0.055		0.15	0.055	ug/L		08/10/22 07:53	08/12/22 12:46	1
Naphthalene	<0.23		0.74	0.23	ug/L		08/10/22 07:53	08/12/22 12:46	1
Phenanthrene	<0.22		0.74	0.22	ug/L		08/10/22 07:53	08/12/22 12:46	1
Pyrene	<0.32		0.74	0.32	ug/L		08/10/22 07:53	08/12/22 12:46	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	77		34 - 110				08/10/22 07:53	08/12/22 12:46	1
Nitrobenzene-d5 (Surr)	64		36 - 120				08/10/22 07:53	08/12/22 12:46	1
Terphenyl-d14 (Surr)	105		40 - 145				08/10/22 07:53	08/12/22 12:46	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.062		0.37	0.062	ug/L		08/18/22 08:52	08/18/22 17:13	1
PCB-1221	<0.19		0.37	0.19	ug/L		08/18/22 08:52	08/18/22 17:13	1
PCB-1232	<0.19		0.37	0.19	ug/L		08/18/22 08:52	08/18/22 17:13	1
PCB-1242	<0.19		0.37	0.19	ug/L		08/18/22 08:52	08/18/22 17:13	1

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Client Sample Results

Client: K. Singh & Associates, Inc
 Project/Site: East Block CWC - 40441

Job ID: 500-220496-1

Client Sample ID: EB-MW-6

Lab Sample ID: 500-220496-7

Date Collected: 08/05/22 09:30

Matrix: Ground Water

Date Received: 08/06/22 08:00

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1248	<0.19		0.37	0.19	ug/L		08/18/22 08:52	08/18/22 17:13	1
PCB-1254	<0.19		0.37	0.19	ug/L		08/18/22 08:52	08/18/22 17:13	1
PCB-1260	<0.065		0.37	0.065	ug/L		08/18/22 08:52	08/18/22 17:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>Tetrachloro-m-xylene</i>	47		30 - 120				08/18/22 08:52	08/18/22 17:13	1
<i>DCB Decachlorobiphenyl</i>	58		30 - 140				08/18/22 08:52	08/18/22 17:13	1



Client Sample Results

Client: K. Singh & Associates, Inc
Project/Site: East Block CWC - 40441

Job ID: 500-220496-1

Client Sample ID: EB-MW-5

Lab Sample ID: 500-220496-8

Date Collected: 08/05/22 09:45

Matrix: Ground Water

Date Received: 08/06/22 08:00

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			08/12/22 17:54	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			08/12/22 17:54	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			08/12/22 17:54	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			08/12/22 17:54	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			08/12/22 17:54	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			08/12/22 17:54	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			08/12/22 17:54	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			08/12/22 17:54	1
1,2,3-Trichloropropane	<0.41		2.0	0.41	ug/L			08/12/22 17:54	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			08/12/22 17:54	1
1,2,4-Trimethylbenzene	0.75	J B	1.0	0.36	ug/L			08/12/22 17:54	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			08/12/22 17:54	1
1,2-Dibromoethane (EDB)	<0.39		1.0	0.39	ug/L			08/12/22 17:54	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			08/12/22 17:54	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			08/12/22 17:54	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			08/12/22 17:54	1
1,3,5-Trimethylbenzene	0.78	J B	1.0	0.25	ug/L			08/12/22 17:54	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			08/12/22 17:54	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			08/12/22 17:54	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			08/12/22 17:54	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			08/12/22 17:54	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			08/12/22 17:54	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			08/12/22 17:54	1
Benzene	<0.15		0.50	0.15	ug/L			08/12/22 17:54	1
Bromobenzene	<0.36		1.0	0.36	ug/L			08/12/22 17:54	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			08/12/22 17:54	1
Dichlorobromomethane	<0.37		1.0	0.37	ug/L			08/12/22 17:54	1
Bromoform	<0.48		1.0	0.48	ug/L			08/12/22 17:54	1
Bromomethane	<0.80		3.0	0.80	ug/L			08/12/22 17:54	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			08/12/22 17:54	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			08/12/22 17:54	1
Chloroethane	<0.51		1.0	0.51	ug/L			08/12/22 17:54	1
Chloroform	<0.37		2.0	0.37	ug/L			08/12/22 17:54	1
Chloromethane	<0.32		1.0	0.32	ug/L			08/12/22 17:54	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			08/12/22 17:54	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			08/12/22 17:54	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			08/12/22 17:54	1
Dibromomethane	<0.27		1.0	0.27	ug/L			08/12/22 17:54	1
Dichlorodifluoromethane	<0.67		3.0	0.67	ug/L			08/12/22 17:54	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			08/12/22 17:54	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			08/12/22 17:54	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			08/12/22 17:54	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			08/12/22 17:54	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			08/12/22 17:54	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			08/12/22 17:54	1
Naphthalene	<0.34		1.0	0.34	ug/L			08/12/22 17:54	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			08/12/22 17:54	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			08/12/22 17:54	1
p-Isopropyltoluene	0.72	J B	1.0	0.36	ug/L			08/12/22 17:54	1

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Client Sample Results

Client: K. Singh & Associates, Inc
Project/Site: East Block CWC - 40441

Job ID: 500-220496-1

Client Sample ID: EB-MW-5

Lab Sample ID: 500-220496-8

Date Collected: 08/05/22 09:45

Matrix: Ground Water

Date Received: 08/06/22 08:00

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			08/12/22 17:54	1
Styrene	<0.39		1.0	0.39	ug/L			08/12/22 17:54	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			08/12/22 17:54	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			08/12/22 17:54	1
Toluene	<0.15		0.50	0.15	ug/L			08/12/22 17:54	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			08/12/22 17:54	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			08/12/22 17:54	1
Trichloroethene	<0.16		0.50	0.16	ug/L			08/12/22 17:54	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			08/12/22 17:54	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			08/12/22 17:54	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			08/12/22 17:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		75 - 126		08/12/22 17:54	1
4-Bromofluorobenzene (Surr)	98		72 - 124		08/12/22 17:54	1
Dibromofluoromethane (Surr)	104		75 - 120		08/12/22 17:54	1
Toluene-d8 (Surr)	91		75 - 120		08/12/22 17:54	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1-Methylnaphthalene	<0.22		1.5	0.22	ug/L		08/10/22 07:53	08/12/22 13:10	1
2-Methylnaphthalene	<0.049		1.5	0.049	ug/L		08/10/22 07:53	08/12/22 13:10	1
Acenaphthene	<0.23		0.75	0.23	ug/L		08/10/22 07:53	08/12/22 13:10	1
Acenaphthylene	<0.20		0.75	0.20	ug/L		08/10/22 07:53	08/12/22 13:10	1
Anthracene	<0.25		0.75	0.25	ug/L		08/10/22 07:53	08/12/22 13:10	1
Benzo[a]anthracene	0.042	J	0.15	0.042	ug/L		08/10/22 07:53	08/12/22 13:10	1
Benzo[a]pyrene	<0.074		0.15	0.074	ug/L		08/10/22 07:53	08/12/22 13:10	1
Benzo[b]fluoranthene	<0.060		0.15	0.060	ug/L		08/10/22 07:53	08/12/22 13:10	1
Benzo[g,h,i]perylene	<0.28		0.75	0.28	ug/L		08/10/22 07:53	08/12/22 13:10	1
Benzo[k]fluoranthene	<0.048		0.15	0.048	ug/L		08/10/22 07:53	08/12/22 13:10	1
Chrysene	<0.051		0.15	0.051	ug/L		08/10/22 07:53	08/12/22 13:10	1
Dibenz(a,h)anthracene	<0.038		0.22	0.038	ug/L		08/10/22 07:53	08/12/22 13:10	1
Fluoranthene	<0.34		0.75	0.34	ug/L		08/10/22 07:53	08/12/22 13:10	1
Fluorene	<0.18		0.75	0.18	ug/L		08/10/22 07:53	08/12/22 13:10	1
Indeno[1,2,3-cd]pyrene	<0.056		0.15	0.056	ug/L		08/10/22 07:53	08/12/22 13:10	1
Naphthalene	<0.23		0.75	0.23	ug/L		08/10/22 07:53	08/12/22 13:10	1
Phenanthrene	<0.22		0.75	0.22	ug/L		08/10/22 07:53	08/12/22 13:10	1
Pyrene	<0.32		0.75	0.32	ug/L		08/10/22 07:53	08/12/22 13:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl (Surr)	74		34 - 110	08/10/22 07:53	08/12/22 13:10	1
Nitrobenzene-d5 (Surr)	61		36 - 120	08/10/22 07:53	08/12/22 13:10	1
Terphenyl-d14 (Surr)	80		40 - 145	08/10/22 07:53	08/12/22 13:10	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.062		0.37	0.062	ug/L		08/11/22 13:32	08/16/22 12:01	1
PCB-1221	<0.19		0.37	0.19	ug/L		08/11/22 13:32	08/16/22 12:01	1
PCB-1232	<0.19		0.37	0.19	ug/L		08/11/22 13:32	08/16/22 12:01	1
PCB-1242	<0.19		0.37	0.19	ug/L		08/11/22 13:32	08/16/22 12:01	1

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Client Sample Results

Client: K. Singh & Associates, Inc
 Project/Site: East Block CWC - 40441

Job ID: 500-220496-1

Client Sample ID: EB-MW-5

Lab Sample ID: 500-220496-8

Date Collected: 08/05/22 09:45

Matrix: Ground Water

Date Received: 08/06/22 08:00

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1248	<0.19		0.37	0.19	ug/L		08/11/22 13:32	08/16/22 12:01	1
PCB-1254	<0.19		0.37	0.19	ug/L		08/11/22 13:32	08/16/22 12:01	1
PCB-1260	<0.065		0.37	0.065	ug/L		08/11/22 13:32	08/16/22 12:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>Tetrachloro-m-xylene</i>	63		30 - 120	08/11/22 13:32	08/16/22 12:01	1
<i>DCB Decachlorobiphenyl</i>	40		30 - 140	08/11/22 13:32	08/16/22 12:01	1



Client Sample Results

Client: K. Singh & Associates, Inc
 Project/Site: East Block CWC - 40441

Job ID: 500-220496-1

Client Sample ID: EB-MW-4RR

Lab Sample ID: 500-220496-11

Date Collected: 08/05/22 12:00

Matrix: Ground Water

Date Received: 08/06/22 08:00

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			08/12/22 19:14	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			08/12/22 19:14	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			08/12/22 19:14	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			08/12/22 19:14	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			08/12/22 19:14	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			08/12/22 19:14	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			08/12/22 19:14	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			08/12/22 19:14	1
1,2,3-Trichloropropane	<0.41		2.0	0.41	ug/L			08/12/22 19:14	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			08/12/22 19:14	1
1,2,4-Trimethylbenzene	0.73	J B	1.0	0.36	ug/L			08/12/22 19:14	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			08/12/22 19:14	1
1,2-Dibromoethane (EDB)	<0.39		1.0	0.39	ug/L			08/12/22 19:14	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			08/12/22 19:14	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			08/12/22 19:14	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			08/12/22 19:14	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			08/12/22 19:14	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			08/12/22 19:14	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			08/12/22 19:14	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			08/12/22 19:14	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			08/12/22 19:14	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			08/12/22 19:14	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			08/12/22 19:14	1
Benzene	<0.15		0.50	0.15	ug/L			08/12/22 19:14	1
Bromobenzene	<0.36		1.0	0.36	ug/L			08/12/22 19:14	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			08/12/22 19:14	1
Dichlorobromomethane	<0.37		1.0	0.37	ug/L			08/12/22 19:14	1
Bromoform	<0.48		1.0	0.48	ug/L			08/12/22 19:14	1
Bromomethane	<0.80		3.0	0.80	ug/L			08/12/22 19:14	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			08/12/22 19:14	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			08/12/22 19:14	1
Chloroethane	<0.51		1.0	0.51	ug/L			08/12/22 19:14	1
Chloroform	<0.37		2.0	0.37	ug/L			08/12/22 19:14	1
Chloromethane	<0.32		1.0	0.32	ug/L			08/12/22 19:14	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			08/12/22 19:14	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			08/12/22 19:14	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			08/12/22 19:14	1
Dibromomethane	<0.27		1.0	0.27	ug/L			08/12/22 19:14	1
Dichlorodifluoromethane	<0.67		3.0	0.67	ug/L			08/12/22 19:14	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			08/12/22 19:14	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			08/12/22 19:14	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			08/12/22 19:14	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			08/12/22 19:14	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			08/12/22 19:14	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			08/12/22 19:14	1
Naphthalene	<0.34		1.0	0.34	ug/L			08/12/22 19:14	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			08/12/22 19:14	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			08/12/22 19:14	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			08/12/22 19:14	1

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Client Sample Results

Client: K. Singh & Associates, Inc
Project/Site: East Block CWC - 40441

Job ID: 500-220496-1

Client Sample ID: EB-MW-4RR

Lab Sample ID: 500-220496-11

Date Collected: 08/05/22 12:00

Matrix: Ground Water

Date Received: 08/06/22 08:00

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			08/12/22 19:14	1
Styrene	<0.39		1.0	0.39	ug/L			08/12/22 19:14	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			08/12/22 19:14	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			08/12/22 19:14	1
Toluene	<0.15		0.50	0.15	ug/L			08/12/22 19:14	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			08/12/22 19:14	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			08/12/22 19:14	1
Trichloroethene	<0.16		0.50	0.16	ug/L			08/12/22 19:14	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			08/12/22 19:14	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			08/12/22 19:14	1
Xylenes, Total	0.31	J	1.0	0.22	ug/L			08/12/22 19:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		75 - 126		08/12/22 19:14	1
4-Bromofluorobenzene (Surr)	99		72 - 124		08/12/22 19:14	1
Dibromofluoromethane (Surr)	106		75 - 120		08/12/22 19:14	1
Toluene-d8 (Surr)	91		75 - 120		08/12/22 19:14	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	<0.19		1.6	0.19	ug/L		08/10/22 07:53	08/12/22 16:14	1
1,2-Dichlorobenzene	<0.19		1.6	0.19	ug/L		08/10/22 07:53	08/12/22 16:14	1
1,3-Dichlorobenzene	<0.16		1.6	0.16	ug/L		08/10/22 07:53	08/12/22 16:14	1
1,4-Dichlorobenzene	<0.16		1.6	0.16	ug/L		08/10/22 07:53	08/12/22 16:14	1
1-Methylnaphthalene	<0.24		1.6	0.24	ug/L		08/10/22 07:53	08/12/22 16:14	1
2,2'-oxybis[1-chloropropane]	<0.30		1.6	0.30	ug/L		08/10/22 07:53	08/12/22 16:14	1
2,4,5-Trichlorophenol	<2.0		7.8	2.0	ug/L		08/10/22 07:53	08/12/22 16:14	1
2,4,6-Trichlorophenol	<0.56		3.9	0.56	ug/L		08/10/22 07:53	08/12/22 16:14	1
2,4-Dichlorophenol	<2.0		7.8	2.0	ug/L		08/10/22 07:53	08/12/22 16:14	1
2,4-Dimethylphenol	<1.4		7.8	1.4	ug/L		08/10/22 07:53	08/12/22 16:14	1
2,4-Dinitrophenol	<6.7		16	6.7	ug/L		08/10/22 07:53	08/12/22 16:14	1
2,4-Dinitrotoluene	<0.19		0.78	0.19	ug/L		08/10/22 07:53	08/12/22 16:14	1
2,6-Dinitrotoluene	<0.058		0.78	0.058	ug/L		08/10/22 07:53	08/12/22 16:14	1
2-Chloronaphthalene	<0.18		1.6	0.18	ug/L		08/10/22 07:53	08/12/22 16:14	1
2-Chlorophenol	<0.44		3.9	0.44	ug/L		08/10/22 07:53	08/12/22 16:14	1
2-Methylnaphthalene	0.084	J	1.6	0.051	ug/L		08/10/22 07:53	08/12/22 16:14	1
2-Methylphenol	<0.24		1.6	0.24	ug/L		08/10/22 07:53	08/12/22 16:14	1
2-Nitroaniline	<1.0		3.9	1.0	ug/L		08/10/22 07:53	08/12/22 16:14	1
2-Nitrophenol	<2.0		7.8	2.0	ug/L		08/10/22 07:53	08/12/22 16:14	1
3 & 4 Methylphenol	<0.35		1.6	0.35	ug/L		08/10/22 07:53	08/12/22 16:14	1
3,3'-Dichlorobenzidine	<1.3		3.9	1.3	ug/L		08/10/22 07:53	08/12/22 16:14	1
3-Nitroaniline	<1.4		7.8	1.4	ug/L		08/10/22 07:53	08/12/22 16:14	1
4,6-Dinitro-2-methylphenol	<4.6		16	4.6	ug/L		08/10/22 07:53	08/12/22 16:14	1
4-Bromophenyl phenyl ether	<0.42		3.9	0.42	ug/L		08/10/22 07:53	08/12/22 16:14	1
4-Chloro-3-methylphenol	<1.8		7.8	1.8	ug/L		08/10/22 07:53	08/12/22 16:14	1
4-Chloroaniline	<1.6		7.8	1.6	ug/L		08/10/22 07:53	08/12/22 16:14	1
4-Chlorophenyl phenyl ether	<0.50		3.9	0.50	ug/L		08/10/22 07:53	08/12/22 16:14	1
4-Nitroaniline	<1.3		7.8	1.3	ug/L		08/10/22 07:53	08/12/22 16:14	1
4-Nitrophenol	<5.8		16	5.8	ug/L		08/10/22 07:53	08/12/22 16:14	1
Acenaphthene	<0.24		0.78	0.24	ug/L		08/10/22 07:53	08/12/22 16:14	1

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Client Sample Results

Client: K. Singh & Associates, Inc
Project/Site: East Block CWC - 40441

Job ID: 500-220496-1

Client Sample ID: EB-MW-4RR

Lab Sample ID: 500-220496-11

Date Collected: 08/05/22 12:00

Matrix: Ground Water

Date Received: 08/06/22 08:00

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthylene	<0.21		0.78	0.21	ug/L		08/10/22 07:53	08/12/22 16:14	1
Anthracene	<0.26		0.78	0.26	ug/L		08/10/22 07:53	08/12/22 16:14	1
Benzo[a]anthracene	0.12	J	0.16	0.044	ug/L		08/10/22 07:53	08/12/22 16:14	1
Benzo[a]pyrene	0.17		0.16	0.078	ug/L		08/10/22 07:53	08/12/22 16:14	1
Benzo[b]fluoranthene	0.19		0.16	0.063	ug/L		08/10/22 07:53	08/12/22 16:14	1
Benzo[g,h,i]perylene	<0.29		0.78	0.29	ug/L		08/10/22 07:53	08/12/22 16:14	1
Benzo[k]fluoranthene	<0.050		0.16	0.050	ug/L		08/10/22 07:53	08/12/22 16:14	1
Benzoic acid	<4.5		16	4.5	ug/L		08/10/22 07:53	08/12/22 16:14	1
Benzyl alcohol	<4.7		16	4.7	ug/L		08/10/22 07:53	08/12/22 16:14	1
Bis(2-chloroethoxy)methane	<0.22		1.6	0.22	ug/L		08/10/22 07:53	08/12/22 16:14	1
Bis(2-chloroethyl)ether	<0.23		1.6	0.23	ug/L		08/10/22 07:53	08/12/22 16:14	1
Bis(2-ethylhexyl) phthalate	3.8	J	7.8	1.3	ug/L		08/10/22 07:53	08/12/22 16:14	1
Butyl benzyl phthalate	<0.38		1.6	0.38	ug/L		08/10/22 07:53	08/12/22 16:14	1
Carbazole	<0.28		3.9	0.28	ug/L		08/10/22 07:53	08/12/22 16:14	1
Chrysene	0.18		0.16	0.053	ug/L		08/10/22 07:53	08/12/22 16:14	1
Dibenz(a,h)anthracene	<0.040		0.24	0.040	ug/L		08/10/22 07:53	08/12/22 16:14	1
Dibenzofuran	<0.21		1.6	0.21	ug/L		08/10/22 07:53	08/12/22 16:14	1
Diethyl phthalate	<0.28		3.9	0.28	ug/L		08/10/22 07:53	08/12/22 16:14	1
Dimethyl phthalate	<0.25		3.9	0.25	ug/L		08/10/22 07:53	08/12/22 16:14	1
Di-n-butyl phthalate	<0.57		3.9	0.57	ug/L		08/10/22 07:53	08/12/22 16:14	1
Di-n-octyl phthalate	<0.82		7.8	0.82	ug/L		08/10/22 07:53	08/12/22 16:14	1
Fluoranthene	<0.36		0.78	0.36	ug/L		08/10/22 07:53	08/12/22 16:14	1
Fluorene	<0.19		0.78	0.19	ug/L		08/10/22 07:53	08/12/22 16:14	1
Hexachlorobenzene	<0.062		0.39	0.062	ug/L		08/10/22 07:53	08/12/22 16:14	1
Hexachlorobutadiene	<0.40		3.9	0.40	ug/L		08/10/22 07:53	08/12/22 16:14	1
Hexachlorocyclopentadiene	<5.0		16	5.0	ug/L		08/10/22 07:53	08/12/22 16:14	1
Hexachloroethane	<0.47		3.9	0.47	ug/L		08/10/22 07:53	08/12/22 16:14	1
Indeno[1,2,3-cd]pyrene	0.094	J	0.16	0.059	ug/L		08/10/22 07:53	08/12/22 16:14	1
Isophorone	<0.29		1.6	0.29	ug/L		08/10/22 07:53	08/12/22 16:14	1
Naphthalene	<0.24		0.78	0.24	ug/L		08/10/22 07:53	08/12/22 16:14	1
Nitrobenzene	<0.35		0.78	0.35	ug/L		08/10/22 07:53	08/12/22 16:14	1
N-Nitrosodi-n-propylamine	<0.12		0.39	0.12	ug/L		08/10/22 07:53	08/12/22 16:14	1
N-Nitrosodiphenylamine	<0.29		1.6	0.29	ug/L		08/10/22 07:53	08/12/22 16:14	1
Pentachlorophenol	<3.1		16	3.1	ug/L		08/10/22 07:53	08/12/22 16:14	1
Phenanthrene	0.31	J	0.78	0.24	ug/L		08/10/22 07:53	08/12/22 16:14	1
Phenol	<0.53		3.9	0.53	ug/L		08/10/22 07:53	08/12/22 16:14	1
Pyrene	0.38	J	0.78	0.33	ug/L		08/10/22 07:53	08/12/22 16:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	50		40 - 145	08/10/22 07:53	08/12/22 16:14	1
2-Fluorobiphenyl (Surr)	54		34 - 110	08/10/22 07:53	08/12/22 16:14	1
2-Fluorophenol (Surr)	47		27 - 110	08/10/22 07:53	08/12/22 16:14	1
Nitrobenzene-d5 (Surr)	45		36 - 120	08/10/22 07:53	08/12/22 16:14	1
Phenol-d5 (Surr)	33		20 - 110	08/10/22 07:53	08/12/22 16:14	1
Terphenyl-d14 (Surr)	71		40 - 145	08/10/22 07:53	08/12/22 16:14	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.065		0.39	0.065	ug/L		08/11/22 13:32	08/16/22 12:49	1
PCB-1221	<0.19		0.39	0.19	ug/L		08/11/22 13:32	08/16/22 12:49	1

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Client Sample Results

Client: K. Singh & Associates, Inc
 Project/Site: East Block CWC - 40441

Job ID: 500-220496-1

Client Sample ID: EB-MW-4RR
Date Collected: 08/05/22 12:00
Date Received: 08/06/22 08:00

Lab Sample ID: 500-220496-11
Matrix: Ground Water

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1232	<0.19		0.39	0.19	ug/L		08/11/22 13:32	08/16/22 12:49	1
PCB-1242	<0.19		0.39	0.19	ug/L		08/11/22 13:32	08/16/22 12:49	1
PCB-1248	<0.19		0.39	0.19	ug/L		08/11/22 13:32	08/16/22 12:49	1
PCB-1254	<0.19		0.39	0.19	ug/L		08/11/22 13:32	08/16/22 12:49	1
PCB-1260	<0.068		0.39	0.068	ug/L		08/11/22 13:32	08/16/22 12:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	40		30 - 120	08/11/22 13:32	08/16/22 12:49	1
DCB Decachlorobiphenyl	27	S1-	30 - 140	08/11/22 13:32	08/16/22 12:49	1

Client Sample Results

Client: K. Singh & Associates, Inc
 Project/Site: East Block CWC - 40441

Job ID: 500-220496-1

Client Sample ID: DUPLICATE 2

Lab Sample ID: 500-220496-12

Date Collected: 08/05/22 00:00

Matrix: Ground Water

Date Received: 08/06/22 08:00

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			08/12/22 19:41	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			08/12/22 19:41	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			08/12/22 19:41	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			08/12/22 19:41	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			08/12/22 19:41	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			08/12/22 19:41	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			08/12/22 19:41	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			08/12/22 19:41	1
1,2,3-Trichloropropane	<0.41		2.0	0.41	ug/L			08/12/22 19:41	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			08/12/22 19:41	1
1,2,4-Trimethylbenzene	0.74	J B	1.0	0.36	ug/L			08/12/22 19:41	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			08/12/22 19:41	1
1,2-Dibromoethane (EDB)	<0.39		1.0	0.39	ug/L			08/12/22 19:41	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			08/12/22 19:41	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			08/12/22 19:41	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			08/12/22 19:41	1
1,3,5-Trimethylbenzene	<0.25		1.0	0.25	ug/L			08/12/22 19:41	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			08/12/22 19:41	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			08/12/22 19:41	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			08/12/22 19:41	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			08/12/22 19:41	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			08/12/22 19:41	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			08/12/22 19:41	1
Benzene	<0.15		0.50	0.15	ug/L			08/12/22 19:41	1
Bromobenzene	<0.36		1.0	0.36	ug/L			08/12/22 19:41	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			08/12/22 19:41	1
Dichlorobromomethane	<0.37		1.0	0.37	ug/L			08/12/22 19:41	1
Bromoform	<0.48		1.0	0.48	ug/L			08/12/22 19:41	1
Bromomethane	<0.80		3.0	0.80	ug/L			08/12/22 19:41	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			08/12/22 19:41	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			08/12/22 19:41	1
Chloroethane	<0.51		1.0	0.51	ug/L			08/12/22 19:41	1
Chloroform	<0.37		2.0	0.37	ug/L			08/12/22 19:41	1
Chloromethane	<0.32		1.0	0.32	ug/L			08/12/22 19:41	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			08/12/22 19:41	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			08/12/22 19:41	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			08/12/22 19:41	1
Dibromomethane	<0.27		1.0	0.27	ug/L			08/12/22 19:41	1
Dichlorodifluoromethane	<0.67		3.0	0.67	ug/L			08/12/22 19:41	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			08/12/22 19:41	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			08/12/22 19:41	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			08/12/22 19:41	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			08/12/22 19:41	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			08/12/22 19:41	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			08/12/22 19:41	1
Naphthalene	<0.34		1.0	0.34	ug/L			08/12/22 19:41	1
n-Butylbenzene	<0.39		1.0	0.39	ug/L			08/12/22 19:41	1
N-Propylbenzene	<0.41		1.0	0.41	ug/L			08/12/22 19:41	1
p-Isopropyltoluene	<0.36		1.0	0.36	ug/L			08/12/22 19:41	1

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Client Sample Results

Client: K. Singh & Associates, Inc
 Project/Site: East Block CWC - 40441

Job ID: 500-220496-1

Client Sample ID: DUPLICATE 2

Lab Sample ID: 500-220496-12

Date Collected: 08/05/22 00:00

Matrix: Ground Water

Date Received: 08/06/22 08:00

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	<0.40		1.0	0.40	ug/L			08/12/22 19:41	1
Styrene	0.83	J	1.0	0.39	ug/L			08/12/22 19:41	1
tert-Butylbenzene	<0.40		1.0	0.40	ug/L			08/12/22 19:41	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			08/12/22 19:41	1
Toluene	<0.15		0.50	0.15	ug/L			08/12/22 19:41	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			08/12/22 19:41	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			08/12/22 19:41	1
Trichloroethene	<0.16		0.50	0.16	ug/L			08/12/22 19:41	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			08/12/22 19:41	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			08/12/22 19:41	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			08/12/22 19:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		75 - 126		08/12/22 19:41	1
4-Bromofluorobenzene (Surr)	96		72 - 124		08/12/22 19:41	1
Dibromofluoromethane (Surr)	107		75 - 120		08/12/22 19:41	1
Toluene-d8 (Surr)	90		75 - 120		08/12/22 19:41	1

Definitions/Glossary

Client: K. Singh & Associates, Inc
Project/Site: East Block CWC - 40441

Job ID: 500-220496-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
E	Result exceeded calibration range.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC Semi VOA

Qualifier	Qualifier Description
S1-	Surrogate recovery exceeds control limits, low biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: K. Singh & Associates, Inc
 Project/Site: East Block CWC - 40441

Job ID: 500-220496-1

GC/MS VOA

Analysis Batch: 669702

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-220496-4	EB-MW-2	Total/NA	Ground Water	8260B	
500-220496-7	EB-MW-6	Total/NA	Ground Water	8260B	
500-220496-8	EB-MW-5	Total/NA	Ground Water	8260B	
500-220496-11	EB-MW-4RR	Total/NA	Ground Water	8260B	
500-220496-12	DUPLICATE 2	Total/NA	Ground Water	8260B	
MB 500-669702/6	Method Blank	Total/NA	Water	8260B	
LCS 500-669702/4	Lab Control Sample	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 636742

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-220496-4	EB-MW-2	Total/NA	Ground Water	3510C	
500-220496-5	EB-MW-4RR	Total/NA	Ground Water	3510C	
MB 480-636742/1-A	Method Blank	Total/NA	Water	3510C	
LCS 480-636742/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 480-636742/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 637259

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-220496-4	EB-MW-2	Total/NA	Ground Water	8270D SIM ID	636742
500-220496-5	EB-MW-4RR	Total/NA	Ground Water	8270D SIM ID	636742
MB 480-636742/1-A	Method Blank	Total/NA	Water	8270D SIM ID	636742
LCS 480-636742/2-A	Lab Control Sample	Total/NA	Water	8270D SIM ID	636742
LCSD 480-636742/3-A	Lab Control Sample Dup	Total/NA	Water	8270D SIM ID	636742

Prep Batch: 669248

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-220496-4	EB-MW-2	Total/NA	Ground Water	3510C	
500-220496-7	EB-MW-6	Total/NA	Ground Water	3510C	
500-220496-8	EB-MW-5	Total/NA	Ground Water	3510C	
500-220496-11	EB-MW-4RR	Total/NA	Ground Water	3510C	
MB 500-669248/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-669248/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 500-669248/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 669712

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-220496-4	EB-MW-2	Total/NA	Ground Water	8270D	669248
500-220496-7	EB-MW-6	Total/NA	Ground Water	8270D	669248
500-220496-8	EB-MW-5	Total/NA	Ground Water	8270D	669248
500-220496-11	EB-MW-4RR	Total/NA	Ground Water	8270D	669248
MB 500-669248/1-A	Method Blank	Total/NA	Water	8270D	669248
LCS 500-669248/2-A	Lab Control Sample	Total/NA	Water	8270D	669248
LCSD 500-669248/3-A	Lab Control Sample Dup	Total/NA	Water	8270D	669248

GC Semi VOA

Prep Batch: 669586

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-220496-4	EB-MW-2	Total/NA	Ground Water	3510C	
500-220496-8	EB-MW-5	Total/NA	Ground Water	3510C	

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QC Association Summary

Client: K. Singh & Associates, Inc
 Project/Site: East Block CWC - 40441

Job ID: 500-220496-1

GC Semi VOA (Continued)

Prep Batch: 669586 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-220496-11	EB-MW-4RR	Total/NA	Ground Water	3510C	
MB 500-669586/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-669586/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 500-669586/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 670133

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-220496-8	EB-MW-5	Total/NA	Ground Water	8082A	669586
500-220496-11	EB-MW-4RR	Total/NA	Ground Water	8082A	669586
MB 500-669586/1-A	Method Blank	Total/NA	Water	8082A	669586
LCS 500-669586/2-A	Lab Control Sample	Total/NA	Water	8082A	669586
LCSD 500-669586/3-A	Lab Control Sample Dup	Total/NA	Water	8082A	669586

Analysis Batch: 670358

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-220496-4	EB-MW-2	Total/NA	Ground Water	8082A	669586

Prep Batch: 670637

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-220496-7	EB-MW-6	Total/NA	Ground Water	3510C	
MB 500-670637/1-A	Method Blank	Total/NA	Water	3510C	
LCS 500-670637/4-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 500-670637/5-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 670742

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-220496-7	EB-MW-6	Total/NA	Ground Water	8082A	670637
MB 500-670637/1-A	Method Blank	Total/NA	Water	8082A	670637
LCS 500-670637/4-A	Lab Control Sample	Total/NA	Water	8082A	670637
LCSD 500-670637/5-A	Lab Control Sample Dup	Total/NA	Water	8082A	670637

Surrogate Summary

Client: K. Singh & Associates, Inc
 Project/Site: East Block CWC - 40441

Job ID: 500-220496-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Ground Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (75-126)	BFB (72-124)	DBFM (75-120)	TOL (75-120)
500-220496-4	EB-MW-2	87	90	94	92
500-220496-7	EB-MW-6	94	99	103	92
500-220496-8	EB-MW-5	97	98	104	91
500-220496-11	EB-MW-4RR	98	99	106	91
500-220496-12	DUPLICATE 2	100	96	107	90

Surrogate Legend
 DCA = 1,2-Dichloroethane-d4 (Surr)
 BFB = 4-Bromofluorobenzene (Surr)
 DBFM = Dibromofluoromethane (Surr)
 TOL = Toluene-d8 (Surr)

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (75-126)	BFB (72-124)	DBFM (75-120)	TOL (75-120)
LCS 500-669702/4	Lab Control Sample	84	97	93	94
MB 500-669702/6	Method Blank	94	98	103	92

Surrogate Legend
 DCA = 1,2-Dichloroethane-d4 (Surr)
 BFB = 4-Bromofluorobenzene (Surr)
 DBFM = Dibromofluoromethane (Surr)
 TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Ground Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (40-145)	FBP (34-110)	2FP (27-110)	NBZ (36-120)	PHL (20-110)	TPHL (40-145)
500-220496-4	EB-MW-2		57		54		69
500-220496-7	EB-MW-6		77		64		105
500-220496-8	EB-MW-5		74		61		80
500-220496-11	EB-MW-4RR	50	54	47	45	33	71

Surrogate Legend
 TBP = 2,4,6-Tribromophenol (Surr)
 FBP = 2-Fluorobiphenyl (Surr)
 2FP = 2-Fluorophenol (Surr)
 NBZ = Nitrobenzene-d5 (Surr)
 PHL = Phenol-d5 (Surr)
 TPHL = Terphenyl-d14 (Surr)

Surrogate Summary

Client: K. Singh & Associates, Inc
 Project/Site: East Block CWC - 40441

Job ID: 500-220496-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (40-145)	FBP (34-110)	2FP (27-110)	NBZ (36-120)	PHL (20-110)	TPHL (40-145)
LCS 500-669248/2-A	Lab Control Sample	79	83	76	73	56	106
LCSD 500-669248/3-A	Lab Control Sample Dup	83	89	79	78	57	109
MB 500-669248/1-A	Method Blank	81	96	84	79	45	128

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
 FBP = 2-Fluorobiphenyl (Surr)
 2FP = 2-Fluorophenol (Surr)
 NBZ = Nitrobenzene-d5 (Surr)
 PHL = Phenol-d5 (Surr)
 TPHL = Terphenyl-d14 (Surr)

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Ground Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		TCX2 (30-120)	DCBP2 (30-140)
500-220496-4	EB-MW-2	69	39
500-220496-7	EB-MW-6	47	58
500-220496-8	EB-MW-5	63	40
500-220496-11	EB-MW-4RR	40	27 S1-

Surrogate Legend

TCX = Tetrachloro-m-xylene
 DCBP = DCB Decachlorobiphenyl

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		TCX2 (30-120)	DCBP2 (30-140)
LCS 500-669586/2-A	Lab Control Sample	58	93
LCS 500-670637/4-A	Lab Control Sample	69	93
LCSD 500-669586/3-A	Lab Control Sample Dup	65	106
LCSD 500-670637/5-A	Lab Control Sample Dup	71	90
MB 500-669586/1-A	Method Blank	77	102
MB 500-670637/1-A	Method Blank	65	90

Surrogate Legend

TCX = Tetrachloro-m-xylene
 DCBP = DCB Decachlorobiphenyl

QC Sample Results

Client: K. Singh & Associates, Inc
 Project/Site: East Block CWC - 40441

Job ID: 500-220496-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 500-669702/6
Matrix: Water
Analysis Batch: 669702

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1,2-Tetrachloroethane	<0.46		1.0	0.46	ug/L			08/12/22 10:35	1
1,1,1-Trichloroethane	<0.38		1.0	0.38	ug/L			08/12/22 10:35	1
1,1,2,2-Tetrachloroethane	<0.40		1.0	0.40	ug/L			08/12/22 10:35	1
1,1,2-Trichloroethane	<0.35		1.0	0.35	ug/L			08/12/22 10:35	1
1,1-Dichloroethane	<0.41		1.0	0.41	ug/L			08/12/22 10:35	1
1,1-Dichloroethene	<0.39		1.0	0.39	ug/L			08/12/22 10:35	1
1,1-Dichloropropene	<0.30		1.0	0.30	ug/L			08/12/22 10:35	1
1,2,3-Trichlorobenzene	<0.46		1.0	0.46	ug/L			08/12/22 10:35	1
1,2,3-Trichloropropane	<0.41		2.0	0.41	ug/L			08/12/22 10:35	1
1,2,4-Trichlorobenzene	<0.34		1.0	0.34	ug/L			08/12/22 10:35	1
1,2,4-Trimethylbenzene	0.752	J	1.0	0.36	ug/L			08/12/22 10:35	1
1,2-Dibromo-3-Chloropropane	<2.0		5.0	2.0	ug/L			08/12/22 10:35	1
1,2-Dibromoethane (EDB)	<0.39		1.0	0.39	ug/L			08/12/22 10:35	1
1,2-Dichlorobenzene	<0.33		1.0	0.33	ug/L			08/12/22 10:35	1
1,2-Dichloroethane	<0.39		1.0	0.39	ug/L			08/12/22 10:35	1
1,2-Dichloropropane	<0.43		1.0	0.43	ug/L			08/12/22 10:35	1
1,3,5-Trimethylbenzene	0.791	J	1.0	0.25	ug/L			08/12/22 10:35	1
1,3-Dichlorobenzene	<0.40		1.0	0.40	ug/L			08/12/22 10:35	1
1,3-Dichloropropane	<0.36		1.0	0.36	ug/L			08/12/22 10:35	1
1,4-Dichlorobenzene	<0.36		1.0	0.36	ug/L			08/12/22 10:35	1
2,2-Dichloropropane	<0.44		1.0	0.44	ug/L			08/12/22 10:35	1
2-Chlorotoluene	<0.31		1.0	0.31	ug/L			08/12/22 10:35	1
4-Chlorotoluene	<0.35		1.0	0.35	ug/L			08/12/22 10:35	1
Benzene	<0.15		0.50	0.15	ug/L			08/12/22 10:35	1
Bromobenzene	<0.36		1.0	0.36	ug/L			08/12/22 10:35	1
Bromochloromethane	<0.43		1.0	0.43	ug/L			08/12/22 10:35	1
Dichlorobromomethane	<0.37		1.0	0.37	ug/L			08/12/22 10:35	1
Bromoform	<0.48		1.0	0.48	ug/L			08/12/22 10:35	1
Bromomethane	<0.80		3.0	0.80	ug/L			08/12/22 10:35	1
Carbon tetrachloride	<0.38		1.0	0.38	ug/L			08/12/22 10:35	1
Chlorobenzene	<0.39		1.0	0.39	ug/L			08/12/22 10:35	1
Chloroethane	<0.51		1.0	0.51	ug/L			08/12/22 10:35	1
Chloroform	<0.37		2.0	0.37	ug/L			08/12/22 10:35	1
Chloromethane	<0.32		1.0	0.32	ug/L			08/12/22 10:35	1
cis-1,2-Dichloroethene	<0.41		1.0	0.41	ug/L			08/12/22 10:35	1
cis-1,3-Dichloropropene	<0.42		1.0	0.42	ug/L			08/12/22 10:35	1
Dibromochloromethane	<0.49		1.0	0.49	ug/L			08/12/22 10:35	1
Dibromomethane	<0.27		1.0	0.27	ug/L			08/12/22 10:35	1
Dichlorodifluoromethane	<0.67		3.0	0.67	ug/L			08/12/22 10:35	1
Ethylbenzene	<0.18		0.50	0.18	ug/L			08/12/22 10:35	1
Hexachlorobutadiene	<0.45		1.0	0.45	ug/L			08/12/22 10:35	1
Isopropyl ether	<0.28		1.0	0.28	ug/L			08/12/22 10:35	1
Isopropylbenzene	<0.39		1.0	0.39	ug/L			08/12/22 10:35	1
Methyl tert-butyl ether	<0.39		1.0	0.39	ug/L			08/12/22 10:35	1
Methylene Chloride	<1.6		5.0	1.6	ug/L			08/12/22 10:35	1
Naphthalene	0.854	J	1.0	0.34	ug/L			08/12/22 10:35	1
n-Butylbenzene	0.657	J	1.0	0.39	ug/L			08/12/22 10:35	1
N-Propylbenzene	0.632	J	1.0	0.41	ug/L			08/12/22 10:35	1

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QC Sample Results

Client: K. Singh & Associates, Inc
 Project/Site: East Block CWC - 40441

Job ID: 500-220496-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-669702/6
Matrix: Water
Analysis Batch: 669702

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
p-Isopropyltoluene	0.753	J	1.0	0.36	ug/L			08/12/22 10:35	1
sec-Butylbenzene	0.655	J	1.0	0.40	ug/L			08/12/22 10:35	1
Styrene	<0.39		1.0	0.39	ug/L			08/12/22 10:35	1
tert-Butylbenzene	0.663	J	1.0	0.40	ug/L			08/12/22 10:35	1
Tetrachloroethene	<0.37		1.0	0.37	ug/L			08/12/22 10:35	1
Toluene	<0.15		0.50	0.15	ug/L			08/12/22 10:35	1
trans-1,2-Dichloroethene	<0.35		1.0	0.35	ug/L			08/12/22 10:35	1
trans-1,3-Dichloropropene	<0.36		1.0	0.36	ug/L			08/12/22 10:35	1
Trichloroethene	<0.16		0.50	0.16	ug/L			08/12/22 10:35	1
Trichlorofluoromethane	<0.43		1.0	0.43	ug/L			08/12/22 10:35	1
Vinyl chloride	<0.20		1.0	0.20	ug/L			08/12/22 10:35	1
Xylenes, Total	<0.22		1.0	0.22	ug/L			08/12/22 10:35	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	94		75 - 126		08/12/22 10:35	1
4-Bromofluorobenzene (Surr)	98		72 - 124		08/12/22 10:35	1
Dibromofluoromethane (Surr)	103		75 - 120		08/12/22 10:35	1
Toluene-d8 (Surr)	92		75 - 120		08/12/22 10:35	1

Lab Sample ID: LCS 500-669702/4
Matrix: Water
Analysis Batch: 669702

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
1,1,1,2-Tetrachloroethane	40.0	43.1		ug/L		108	70 - 125
1,1,1-Trichloroethane	40.0	41.6		ug/L		104	70 - 125
1,1,1,2,2-Tetrachloroethane	40.0	36.6		ug/L		91	62 - 140
1,1,2-Trichloroethane	40.0	39.1		ug/L		98	71 - 130
1,1-Dichloroethane	40.0	40.1		ug/L		100	70 - 125
1,1-Dichloroethene	40.0	41.0		ug/L		102	67 - 122
1,1-Dichloropropene	40.0	41.7		ug/L		104	70 - 121
1,2,3-Trichlorobenzene	40.0	46.6		ug/L		116	51 - 145
1,2,3-Trichloropropane	40.0	37.1		ug/L		93	50 - 133
1,2,4-Trichlorobenzene	40.0	47.5		ug/L		119	57 - 137
1,2,4-Trimethylbenzene	40.0	41.2		ug/L		103	70 - 123
1,2-Dibromo-3-Chloropropane	40.0	34.1		ug/L		85	56 - 123
1,2-Dibromoethane (EDB)	40.0	37.4		ug/L		94	70 - 125
1,2-Dichlorobenzene	40.0	46.6		ug/L		116	70 - 125
1,2-Dichloroethane	40.0	39.2		ug/L		98	68 - 127
1,2-Dichloropropane	40.0	41.1		ug/L		103	67 - 130
1,3,5-Trimethylbenzene	40.0	41.0		ug/L		102	70 - 123
1,3-Dichlorobenzene	40.0	47.6		ug/L		119	70 - 125
1,3-Dichloropropane	40.0	38.1		ug/L		95	62 - 136
1,4-Dichlorobenzene	40.0	44.9		ug/L		112	70 - 120
2,2-Dichloropropane	40.0	41.3		ug/L		103	58 - 139
2-Chlorotoluene	40.0	44.2		ug/L		111	70 - 125
4-Chlorotoluene	40.0	44.7		ug/L		112	68 - 124
Benzene	40.0	40.2		ug/L		100	70 - 120

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QC Sample Results

Client: K. Singh & Associates, Inc
 Project/Site: East Block CWC - 40441

Job ID: 500-220496-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-669702/4
Matrix: Water
Analysis Batch: 669702

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Bromobenzene	40.0	48.2		ug/L		120	70 - 122
Bromochloromethane	40.0	41.4		ug/L		103	65 - 122
Dichlorobromomethane	40.0	41.0		ug/L		103	69 - 120
Bromoform	40.0	43.3		ug/L		108	56 - 132
Bromomethane	40.0	41.7		ug/L		104	40 - 152
Carbon tetrachloride	40.0	40.4		ug/L		101	59 - 133
Chlorobenzene	40.0	43.4		ug/L		108	70 - 120
Chloroethane	40.0	44.8		ug/L		112	48 - 136
Chloroform	40.0	38.6		ug/L		97	70 - 120
Chloromethane	40.0	44.1		ug/L		110	56 - 152
cis-1,2-Dichloroethene	40.0	41.6		ug/L		104	70 - 125
cis-1,3-Dichloropropene	40.0	34.6		ug/L		87	64 - 127
Dibromochloromethane	40.0	41.5		ug/L		104	68 - 125
Dibromomethane	40.0	38.3		ug/L		96	70 - 120
Dichlorodifluoromethane	40.0	39.3		ug/L		98	40 - 159
Ethylbenzene	40.0	45.1		ug/L		113	70 - 123
Hexachlorobutadiene	40.0	56.2		ug/L		141	51 - 150
Isopropylbenzene	40.0	40.1		ug/L		100	70 - 126
Methyl tert-butyl ether	40.0	31.9		ug/L		80	55 - 123
Methylene Chloride	40.0	37.9		ug/L		95	69 - 125
Naphthalene	40.0	36.0		ug/L		90	53 - 144
n-Butylbenzene	40.0	39.7		ug/L		99	68 - 125
N-Propylbenzene	40.0	40.2		ug/L		100	69 - 127
p-Isopropyltoluene	40.0	41.7		ug/L		104	70 - 125
sec-Butylbenzene	40.0	40.8		ug/L		102	70 - 123
Styrene	40.0	40.4		ug/L		101	70 - 120
tert-Butylbenzene	40.0	41.4		ug/L		103	70 - 121
Tetrachloroethene	40.0	48.4		ug/L		121	70 - 128
Toluene	40.0	43.4		ug/L		108	70 - 125
trans-1,2-Dichloroethene	40.0	41.6		ug/L		104	70 - 125
trans-1,3-Dichloropropene	40.0	34.4		ug/L		86	62 - 128
Trichloroethene	40.0	45.3		ug/L		113	70 - 125
Trichlorofluoromethane	40.0	41.2		ug/L		103	55 - 128
Vinyl chloride	40.0	43.5		ug/L		109	64 - 126
Xylenes, Total	80.0	82.3		ug/L		103	70 - 125

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
1,2-Dichloroethane-d4 (Surr)	84		75 - 126
4-Bromofluorobenzene (Surr)	97		72 - 124
Dibromofluoromethane (Surr)	93		75 - 120
Toluene-d8 (Surr)	94		75 - 120

QC Sample Results

Client: K. Singh & Associates, Inc
 Project/Site: East Block CWC - 40441

Job ID: 500-220496-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 500-669248/1-A
Matrix: Water
Analysis Batch: 669712

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 669248

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,2,4-Trichlorobenzene	<0.19		1.6	0.19	ug/L		08/10/22 07:53	08/12/22 11:11	1
1,2-Dichlorobenzene	<0.20		1.6	0.20	ug/L		08/10/22 07:53	08/12/22 11:11	1
1,3-Dichlorobenzene	<0.17		1.6	0.17	ug/L		08/10/22 07:53	08/12/22 11:11	1
1,4-Dichlorobenzene	<0.17		1.6	0.17	ug/L		08/10/22 07:53	08/12/22 11:11	1
1-Methylnaphthalene	<0.24		1.6	0.24	ug/L		08/10/22 07:53	08/12/22 11:11	1
2,2'-oxybis[1-chloropropane]	<0.30		1.6	0.30	ug/L		08/10/22 07:53	08/12/22 11:11	1
2,4,5-Trichlorophenol	<2.1		8.0	2.1	ug/L		08/10/22 07:53	08/12/22 11:11	1
2,4,6-Trichlorophenol	<0.57		4.0	0.57	ug/L		08/10/22 07:53	08/12/22 11:11	1
2,4-Dichlorophenol	<2.1		8.0	2.1	ug/L		08/10/22 07:53	08/12/22 11:11	1
2,4-Dimethylphenol	<1.4		8.0	1.4	ug/L		08/10/22 07:53	08/12/22 11:11	1
2,4-Dinitrophenol	<6.9		16	6.9	ug/L		08/10/22 07:53	08/12/22 11:11	1
2,4-Dinitrotoluene	<0.20		0.80	0.20	ug/L		08/10/22 07:53	08/12/22 11:11	1
2,6-Dinitrotoluene	<0.059		0.80	0.059	ug/L		08/10/22 07:53	08/12/22 11:11	1
2-Chloronaphthalene	<0.19		1.6	0.19	ug/L		08/10/22 07:53	08/12/22 11:11	1
2-Chlorophenol	<0.45		4.0	0.45	ug/L		08/10/22 07:53	08/12/22 11:11	1
2-Methylnaphthalene	<0.052		1.6	0.052	ug/L		08/10/22 07:53	08/12/22 11:11	1
2-Methylphenol	<0.24		1.6	0.24	ug/L		08/10/22 07:53	08/12/22 11:11	1
2-Nitroaniline	<1.0		4.0	1.0	ug/L		08/10/22 07:53	08/12/22 11:11	1
2-Nitrophenol	<2.0		8.0	2.0	ug/L		08/10/22 07:53	08/12/22 11:11	1
3 & 4 Methylphenol	<0.36		1.6	0.36	ug/L		08/10/22 07:53	08/12/22 11:11	1
3,3'-Dichlorobenzidine	<1.4		4.0	1.4	ug/L		08/10/22 07:53	08/12/22 11:11	1
3-Nitroaniline	<1.4		8.0	1.4	ug/L		08/10/22 07:53	08/12/22 11:11	1
4,6-Dinitro-2-methylphenol	<4.7		16	4.7	ug/L		08/10/22 07:53	08/12/22 11:11	1
4-Bromophenyl phenyl ether	<0.43		4.0	0.43	ug/L		08/10/22 07:53	08/12/22 11:11	1
4-Chloro-3-methylphenol	<1.8		8.0	1.8	ug/L		08/10/22 07:53	08/12/22 11:11	1
4-Chloroaniline	<1.6		8.0	1.6	ug/L		08/10/22 07:53	08/12/22 11:11	1
4-Chlorophenyl phenyl ether	<0.51		4.0	0.51	ug/L		08/10/22 07:53	08/12/22 11:11	1
4-Nitroaniline	<1.3		8.0	1.3	ug/L		08/10/22 07:53	08/12/22 11:11	1
4-Nitrophenol	<5.9		16	5.9	ug/L		08/10/22 07:53	08/12/22 11:11	1
Acenaphthene	<0.25		0.80	0.25	ug/L		08/10/22 07:53	08/12/22 11:11	1
Acenaphthylene	<0.21		0.80	0.21	ug/L		08/10/22 07:53	08/12/22 11:11	1
Anthracene	<0.27		0.80	0.27	ug/L		08/10/22 07:53	08/12/22 11:11	1
Benzo[a]anthracene	<0.045		0.16	0.045	ug/L		08/10/22 07:53	08/12/22 11:11	1
Benzo[a]pyrene	<0.079		0.16	0.079	ug/L		08/10/22 07:53	08/12/22 11:11	1
Benzo[b]fluoranthene	<0.065		0.16	0.065	ug/L		08/10/22 07:53	08/12/22 11:11	1
Benzo[g,h,i]perylene	<0.30		0.80	0.30	ug/L		08/10/22 07:53	08/12/22 11:11	1
Benzo[k]fluoranthene	<0.051		0.16	0.051	ug/L		08/10/22 07:53	08/12/22 11:11	1
Benzoic acid	<4.6		16	4.6	ug/L		08/10/22 07:53	08/12/22 11:11	1
Benzyl alcohol	<4.8		16	4.8	ug/L		08/10/22 07:53	08/12/22 11:11	1
Bis(2-chloroethoxy)methane	<0.23		1.6	0.23	ug/L		08/10/22 07:53	08/12/22 11:11	1
Bis(2-chloroethyl)ether	<0.23		1.6	0.23	ug/L		08/10/22 07:53	08/12/22 11:11	1
Bis(2-ethylhexyl) phthalate	<1.4		8.0	1.4	ug/L		08/10/22 07:53	08/12/22 11:11	1
Butyl benzyl phthalate	<0.38		1.6	0.38	ug/L		08/10/22 07:53	08/12/22 11:11	1
Carbazole	<0.28		4.0	0.28	ug/L		08/10/22 07:53	08/12/22 11:11	1
Chrysene	<0.055		0.16	0.055	ug/L		08/10/22 07:53	08/12/22 11:11	1
Dibenz(a,h)anthracene	<0.041		0.24	0.041	ug/L		08/10/22 07:53	08/12/22 11:11	1
Dibenzofuran	<0.21		1.6	0.21	ug/L		08/10/22 07:53	08/12/22 11:11	1
Diethyl phthalate	<0.29		4.0	0.29	ug/L		08/10/22 07:53	08/12/22 11:11	1

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QC Sample Results

Client: K. Singh & Associates, Inc
 Project/Site: East Block CWC - 40441

Job ID: 500-220496-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 500-669248/1-A
Matrix: Water
Analysis Batch: 669712

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 669248

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Dimethyl phthalate	<0.25		4.0	0.25	ug/L		08/10/22 07:53	08/12/22 11:11	1
Di-n-butyl phthalate	<0.58		4.0	0.58	ug/L		08/10/22 07:53	08/12/22 11:11	1
Di-n-octyl phthalate	<0.84		8.0	0.84	ug/L		08/10/22 07:53	08/12/22 11:11	1
Fluoranthene	<0.36		0.80	0.36	ug/L		08/10/22 07:53	08/12/22 11:11	1
Fluorene	<0.20		0.80	0.20	ug/L		08/10/22 07:53	08/12/22 11:11	1
Hexachlorobenzene	<0.064		0.40	0.064	ug/L		08/10/22 07:53	08/12/22 11:11	1
Hexachlorobutadiene	<0.41		4.0	0.41	ug/L		08/10/22 07:53	08/12/22 11:11	1
Hexachlorocyclopentadiene	<5.1		16	5.1	ug/L		08/10/22 07:53	08/12/22 11:11	1
Hexachloroethane	<0.48		4.0	0.48	ug/L		08/10/22 07:53	08/12/22 11:11	1
Indeno[1,2,3-cd]pyrene	<0.060		0.16	0.060	ug/L		08/10/22 07:53	08/12/22 11:11	1
Isophorone	<0.30		1.6	0.30	ug/L		08/10/22 07:53	08/12/22 11:11	1
Naphthalene	<0.25		0.80	0.25	ug/L		08/10/22 07:53	08/12/22 11:11	1
Nitrobenzene	<0.36		0.80	0.36	ug/L		08/10/22 07:53	08/12/22 11:11	1
N-Nitrosodi-n-propylamine	<0.12		0.40	0.12	ug/L		08/10/22 07:53	08/12/22 11:11	1
N-Nitrosodiphenylamine	<0.30		1.6	0.30	ug/L		08/10/22 07:53	08/12/22 11:11	1
Pentachlorophenol	<3.2		16	3.2	ug/L		08/10/22 07:53	08/12/22 11:11	1
Phenanthrene	<0.24		0.80	0.24	ug/L		08/10/22 07:53	08/12/22 11:11	1
Phenol	<0.54		4.0	0.54	ug/L		08/10/22 07:53	08/12/22 11:11	1
Pyrene	<0.34		0.80	0.34	ug/L		08/10/22 07:53	08/12/22 11:11	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
2,4,6-Tribromophenol (Surr)	81		40 - 145	08/10/22 07:53	08/12/22 11:11	1
2-Fluorobiphenyl (Surr)	96		34 - 110	08/10/22 07:53	08/12/22 11:11	1
2-Fluorophenol (Surr)	84		27 - 110	08/10/22 07:53	08/12/22 11:11	1
Nitrobenzene-d5 (Surr)	79		36 - 120	08/10/22 07:53	08/12/22 11:11	1
Phenol-d5 (Surr)	45		20 - 110	08/10/22 07:53	08/12/22 11:11	1
Terphenyl-d14 (Surr)	128		40 - 145	08/10/22 07:53	08/12/22 11:11	1

Lab Sample ID: LCS 500-669248/2-A
Matrix: Water
Analysis Batch: 669712

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 669248

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,2-Dichlorobenzene	32.0	19.4		ug/L		61	26 - 110
1,3-Dichlorobenzene	32.0	19.0		ug/L		60	22 - 110
1,4-Dichlorobenzene	32.0	19.0		ug/L		59	23 - 110
1-Methylnaphthalene	32.0	22.9		ug/L		72	38 - 110
2,2'-oxybis[1-chloropropane]	32.0	23.5		ug/L		73	38 - 140
2,4,5-Trichlorophenol	32.0	27.3		ug/L		85	63 - 124
2,4,6-Trichlorophenol	32.0	26.3		ug/L		82	62 - 121
2,4-Dichlorophenol	32.0	22.9		ug/L		72	58 - 120
2,4-Dimethylphenol	32.0	25.3		ug/L		79	51 - 115
2,4-Dinitrophenol	64.0	46.2		ug/L		72	37 - 130
2,4-Dinitrotoluene	32.0	27.3		ug/L		85	63 - 129
2,6-Dinitrotoluene	32.0	27.4		ug/L		86	63 - 129
2-Chloronaphthalene	32.0	23.6		ug/L		74	39 - 110
2-Chlorophenol	32.0	26.5		ug/L		83	59 - 110

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QC Sample Results

Client: K. Singh & Associates, Inc
 Project/Site: East Block CWC - 40441

Job ID: 500-220496-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-669248/2-A
Matrix: Water
Analysis Batch: 669712

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 669248

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Methylnaphthalene	32.0	22.7		ug/L		71	34 - 110
2-Methylphenol	32.0	24.3		ug/L		76	53 - 115
2-Nitroaniline	32.0	29.1		ug/L		91	59 - 138
2-Nitrophenol	32.0	25.0		ug/L		78	59 - 115
3 & 4 Methylphenol	32.0	24.4		ug/L		76	50 - 116
3,3'-Dichlorobenzidine	32.0	26.1		ug/L		81	60 - 132
3-Nitroaniline	32.0	24.2		ug/L		76	47 - 123
4,6-Dinitro-2-methylphenol	64.0	50.3		ug/L		79	50 - 129
4-Bromophenyl phenyl ether	32.0	24.6		ug/L		77	58 - 120
4-Chloro-3-methylphenol	32.0	28.4		ug/L		89	64 - 128
4-Chloroaniline	32.0	21.8		ug/L		68	35 - 128
4-Chlorophenyl phenyl ether	32.0	25.0		ug/L		78	48 - 116
4-Nitroaniline	32.0	19.8		ug/L		62	35 - 110
4-Nitrophenol	64.0	33.1		ug/L		52	20 - 110
Acenaphthene	32.0	27.7		ug/L		87	46 - 110
Acenaphthylene	32.0	28.4		ug/L		89	47 - 113
Anthracene	32.0	31.2		ug/L		97	67 - 118
Benzo[a]anthracene	32.0	31.4		ug/L		98	70 - 126
Benzo[a]pyrene	32.0	30.6		ug/L		96	70 - 135
Benzo[b]fluoranthene	32.0	30.2		ug/L		94	69 - 136
Benzo[g,h,i]perylene	32.0	35.6		ug/L		111	70 - 135
Benzo[k]fluoranthene	32.0	33.0		ug/L		103	70 - 133
Benzoic acid	64.0	31.3		ug/L		49	10 - 112
Benzyl alcohol	32.0	24.5		ug/L		76	46 - 132
Bis(2-chloroethoxy)methane	32.0	26.2		ug/L		82	59 - 118
Bis(2-chloroethyl)ether	32.0	28.2		ug/L		88	54 - 112
Bis(2-ethylhexyl) phthalate	32.0	34.3		ug/L		107	69 - 136
Butyl benzyl phthalate	32.0	34.8		ug/L		109	68 - 135
Carbazole	32.0	34.1		ug/L		106	61 - 145
Chrysene	32.0	31.7		ug/L		99	68 - 129
Dibenz(a,h)anthracene	32.0	31.9		ug/L		100	70 - 134
Dibenzofuran	32.0	28.0		ug/L		87	51 - 110
Diethyl phthalate	32.0	31.4		ug/L		98	62 - 123
Dimethyl phthalate	32.0	30.2		ug/L		94	63 - 122
Di-n-butyl phthalate	32.0	34.1		ug/L		107	69 - 129
Di-n-octyl phthalate	32.0	35.5		ug/L		111	68 - 137
Fluoranthene	32.0	32.6		ug/L		102	68 - 126
Fluorene	32.0	27.7		ug/L		87	53 - 120
Hexachlorobenzene	32.0	27.3		ug/L		85	61 - 126
Hexachlorobutadiene	32.0	15.9		ug/L		50	20 - 100
Hexachlorocyclopentadiene	32.0	8.50	J	ug/L		27	10 - 105
Hexachloroethane	32.0	17.6		ug/L		55	20 - 100
Indeno[1,2,3-cd]pyrene	32.0	32.5		ug/L		101	65 - 133
Isophorone	32.0	26.7		ug/L		83	54 - 127
Naphthalene	32.0	22.9		ug/L		72	36 - 110
Nitrobenzene	32.0	24.4		ug/L		76	54 - 121
N-Nitrosodi-n-propylamine	32.0	25.6		ug/L		80	47 - 131
N-Nitrosodiphenylamine	32.0	31.0		ug/L		97	66 - 120
Pentachlorophenol	64.0	35.9		ug/L		56	42 - 148

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QC Sample Results

Client: K. Singh & Associates, Inc
 Project/Site: East Block CWC - 40441

Job ID: 500-220496-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 500-669248/2-A
Matrix: Water
Analysis Batch: 669712

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 669248

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Phenanthrene	32.0	29.7		ug/L		93	65 - 120
Phenol	32.0	21.6		ug/L		68	33 - 100
Pyrene	32.0	34.4		ug/L		108	70 - 126

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol (Surr)	79		40 - 145
2-Fluorobiphenyl (Surr)	83		34 - 110
2-Fluorophenol (Surr)	76		27 - 110
Nitrobenzene-d5 (Surr)	73		36 - 120
Phenol-d5 (Surr)	56		20 - 110
Terphenyl-d14 (Surr)	106		40 - 145

Lab Sample ID: LCSD 500-669248/3-A
Matrix: Water
Analysis Batch: 669712

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 669248

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
1,2,4-Trichlorobenzene	32.0	20.9		ug/L		65	26 - 110	11	20
1,2-Dichlorobenzene	32.0	22.1		ug/L		69	26 - 110	13	20
1,3-Dichlorobenzene	32.0	21.6		ug/L		67	22 - 110	12	20
1,4-Dichlorobenzene	32.0	21.8		ug/L		68	23 - 110	14	20
1-Methylnaphthalene	32.0	25.2		ug/L		79	38 - 110	10	20
2,2'-oxybis[1-chloropropane]	32.0	26.0		ug/L		81	38 - 140	10	20
2,4,5-Trichlorophenol	32.0	29.7		ug/L		93	63 - 124	8	20
2,4,6-Trichlorophenol	32.0	28.9		ug/L		90	62 - 121	9	20
2,4-Dichlorophenol	32.0	25.8		ug/L		81	58 - 120	12	20
2,4-Dimethylphenol	32.0	27.0		ug/L		84	51 - 115	7	20
2,4-Dinitrophenol	64.0	52.4		ug/L		82	37 - 130	13	20
2,4-Dinitrotoluene	32.0	30.3		ug/L		95	63 - 129	10	20
2,6-Dinitrotoluene	32.0	30.2		ug/L		94	63 - 129	10	20
2-Chloronaphthalene	32.0	26.7		ug/L		84	39 - 110	13	20
2-Chlorophenol	32.0	29.5		ug/L		92	59 - 110	11	20
2-Methylnaphthalene	32.0	25.2		ug/L		79	34 - 110	10	20
2-Methylphenol	32.0	26.1		ug/L		82	53 - 115	7	20
2-Nitroaniline	32.0	32.6		ug/L		102	59 - 138	11	20
2-Nitrophenol	32.0	27.7		ug/L		87	59 - 115	10	20
3 & 4 Methylphenol	32.0	26.8		ug/L		84	50 - 116	9	20
3,3'-Dichlorobenzidine	32.0	27.8		ug/L		87	60 - 132	6	20
3-Nitroaniline	32.0	26.4		ug/L		83	47 - 123	9	20
4,6-Dinitro-2-methylphenol	64.0	56.1		ug/L		88	50 - 129	11	20
4-Bromophenyl phenyl ether	32.0	26.9		ug/L		84	58 - 120	9	20
4-Chloro-3-methylphenol	32.0	30.8		ug/L		96	64 - 128	8	20
4-Chloroaniline	32.0	24.4		ug/L		76	35 - 128	11	20
4-Chlorophenyl phenyl ether	32.0	28.1		ug/L		88	48 - 116	11	20
4-Nitroaniline	32.0	20.8		ug/L		65	35 - 110	5	20
4-Nitrophenol	64.0	36.7		ug/L		57	20 - 110	10	20
Acenaphthene	32.0	30.5		ug/L		95	46 - 110	10	20
Acenaphthylene	32.0	31.4		ug/L		98	47 - 113	10	20

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QC Sample Results

Client: K. Singh & Associates, Inc
 Project/Site: East Block CWC - 40441

Job ID: 500-220496-1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 500-669248/3-A
Matrix: Water
Analysis Batch: 669712

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 669248

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Anthracene	32.0	33.8		ug/L		106	67 - 118	8	20
Benzo[a]anthracene	32.0	34.2		ug/L		107	70 - 126	8	20
Benzo[a]pyrene	32.0	33.4		ug/L		104	70 - 135	9	20
Benzo[b]fluoranthene	32.0	32.8		ug/L		102	69 - 136	8	20
Benzo[g,h,i]perylene	32.0	38.8		ug/L		121	70 - 135	8	20
Benzo[k]fluoranthene	32.0	36.9		ug/L		115	70 - 133	11	20
Benzoic acid	64.0	32.6		ug/L		51	10 - 112	4	20
Benzyl alcohol	32.0	27.5		ug/L		86	46 - 132	12	20
Bis(2-chloroethoxy)methane	32.0	29.1		ug/L		91	59 - 118	10	20
Bis(2-chloroethyl)ether	32.0	30.2		ug/L		94	54 - 112	7	20
Bis(2-ethylhexyl) phthalate	32.0	37.2		ug/L		116	69 - 136	8	20
Butyl benzyl phthalate	32.0	38.2		ug/L		119	68 - 135	9	20
Carbazole	32.0	37.8		ug/L		118	61 - 145	10	20
Chrysene	32.0	34.6		ug/L		108	68 - 129	9	20
Dibenz(a,h)anthracene	32.0	34.8		ug/L		109	70 - 134	9	20
Dibenzofuran	32.0	30.7		ug/L		96	51 - 110	9	20
Diethyl phthalate	32.0	34.5		ug/L		108	62 - 123	9	20
Dimethyl phthalate	32.0	33.5		ug/L		105	63 - 122	10	20
Di-n-butyl phthalate	32.0	37.0		ug/L		116	69 - 129	8	20
Di-n-octyl phthalate	32.0	39.7		ug/L		124	68 - 137	11	20
Fluoranthene	32.0	36.8		ug/L		115	68 - 126	12	20
Fluorene	32.0	30.6		ug/L		95	53 - 120	10	20
Hexachlorobenzene	32.0	30.0		ug/L		94	61 - 126	9	20
Hexachlorobutadiene	32.0	17.7		ug/L		55	20 - 100	11	20
Hexachlorocyclopentadiene	32.0	9.78	J	ug/L		31	10 - 105	14	20
Hexachloroethane	32.0	19.6		ug/L		61	20 - 100	10	20
Indeno[1,2,3-cd]pyrene	32.0	35.1		ug/L		110	65 - 133	8	20
Isophorone	32.0	29.5		ug/L		92	54 - 127	10	20
Naphthalene	32.0	25.8		ug/L		81	36 - 110	12	20
Nitrobenzene	32.0	27.3		ug/L		85	54 - 121	12	20
N-Nitrosodi-n-propylamine	32.0	27.9		ug/L		87	47 - 131	9	20
N-Nitrosodiphenylamine	32.0	34.3		ug/L		107	66 - 120	10	20
Pentachlorophenol	64.0	39.9		ug/L		62	42 - 148	11	20
Phenanthrene	32.0	33.6		ug/L		105	65 - 120	13	20
Phenol	32.0	23.2		ug/L		73	33 - 100	7	20
Pyrene	32.0	37.0		ug/L		116	70 - 126	7	20

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol (Surr)	83		40 - 145
2-Fluorobiphenyl (Surr)	89		34 - 110
2-Fluorophenol (Surr)	79		27 - 110
Nitrobenzene-d5 (Surr)	78		36 - 120
Phenol-d5 (Surr)	57		20 - 110
Terphenyl-d14 (Surr)	109		40 - 145

QC Sample Results

Client: K. Singh & Associates, Inc
Project/Site: East Block CWC - 40441

Job ID: 500-220496-1

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Lab Sample ID: MB 480-636742/1-A
Matrix: Water
Analysis Batch: 637259

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 636742

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	<0.10		0.20	0.10	ug/L		08/09/22 15:53	08/12/22 15:06	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,4-Dioxane-d8	33		15 - 110				08/09/22 15:53	08/12/22 15:06	1

Lab Sample ID: LCS 480-636742/2-A
Matrix: Water
Analysis Batch: 637259

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 636742

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,4-Dioxane	2.00	2.55		ug/L		127	40 - 140
Isotope Dilution	%Recovery	Qualifier	Limits				
1,4-Dioxane-d8	49		15 - 110				

Lab Sample ID: LCSD 480-636742/3-A
Matrix: Water
Analysis Batch: 637259

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 636742

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,4-Dioxane	2.00	2.56		ug/L		128	40 - 140	0	20
Isotope Dilution	%Recovery	Qualifier	Limits						
1,4-Dioxane-d8	44		15 - 110						

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 500-669586/1-A
Matrix: Water
Analysis Batch: 670133

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 669586

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.067		0.40	0.067	ug/L		08/11/22 13:32	08/16/22 09:36	1
PCB-1221	<0.20		0.40	0.20	ug/L		08/11/22 13:32	08/16/22 09:36	1
PCB-1232	<0.20		0.40	0.20	ug/L		08/11/22 13:32	08/16/22 09:36	1
PCB-1242	<0.20		0.40	0.20	ug/L		08/11/22 13:32	08/16/22 09:36	1
PCB-1248	<0.20		0.40	0.20	ug/L		08/11/22 13:32	08/16/22 09:36	1
PCB-1254	<0.20		0.40	0.20	ug/L		08/11/22 13:32	08/16/22 09:36	1
PCB-1260	<0.070		0.40	0.070	ug/L		08/11/22 13:32	08/16/22 09:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	77		30 - 120				08/11/22 13:32	08/16/22 09:36	1
DCB Decachlorobiphenyl	102		30 - 140				08/11/22 13:32	08/16/22 09:36	1

QC Sample Results

Client: K. Singh & Associates, Inc
 Project/Site: East Block CWC - 40441

Job ID: 500-220496-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 500-669586/2-A
Matrix: Water
Analysis Batch: 670133

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 669586

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
PCB-1016	4.00	2.65		ug/L		66	56 - 120
PCB-1260	4.00	3.32		ug/L		83	53 - 137

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	58		30 - 120
DCB Decachlorobiphenyl	93		30 - 140

Lab Sample ID: LCSD 500-669586/3-A
Matrix: Water
Analysis Batch: 670133

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 669586

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
PCB-1016	4.00	2.95		ug/L		74	56 - 120	10	20
PCB-1260	4.00	3.60		ug/L		90	53 - 137	8	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Tetrachloro-m-xylene	65		30 - 120
DCB Decachlorobiphenyl	106		30 - 140

Lab Sample ID: MB 500-670637/1-A
Matrix: Water
Analysis Batch: 670742

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 670637

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.067		0.40	0.067	ug/L		08/18/22 08:52	08/18/22 16:08	1
PCB-1221	<0.20		0.40	0.20	ug/L		08/18/22 08:52	08/18/22 16:08	1
PCB-1232	<0.20		0.40	0.20	ug/L		08/18/22 08:52	08/18/22 16:08	1
PCB-1242	<0.20		0.40	0.20	ug/L		08/18/22 08:52	08/18/22 16:08	1
PCB-1248	<0.20		0.40	0.20	ug/L		08/18/22 08:52	08/18/22 16:08	1
PCB-1254	<0.20		0.40	0.20	ug/L		08/18/22 08:52	08/18/22 16:08	1
PCB-1260	<0.070		0.40	0.070	ug/L		08/18/22 08:52	08/18/22 16:08	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	65		30 - 120	08/18/22 08:52	08/18/22 16:08	1
DCB Decachlorobiphenyl	90		30 - 140	08/18/22 08:52	08/18/22 16:08	1

Lab Sample ID: LCS 500-670637/4-A
Matrix: Water
Analysis Batch: 670742

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 670637

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
PCB-1016	4.00	2.75		ug/L		69	56 - 120
PCB-1260	4.00	3.08		ug/L		77	53 - 137

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	69		30 - 120
DCB Decachlorobiphenyl	93		30 - 140

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QC Sample Results

Client: K. Singh & Associates, Inc
 Project/Site: East Block CWC - 40441

Job ID: 500-220496-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCSD 500-670637/5-A
Matrix: Water
Analysis Batch: 670742

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 670637

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
PCB-1016	4.00	2.66		ug/L		67	56 - 120	3	20
PCB-1260	4.00	3.10		ug/L		78	53 - 137	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Tetrachloro-m-xylene	71		30 - 120
DCB Decachlorobiphenyl	90		30 - 140



Lab Chronicle

Client: K. Singh & Associates, Inc
 Project/Site: East Block CWC - 40441

Job ID: 500-220496-1

Client Sample ID: EB-MW-2

Lab Sample ID: 500-220496-4

Date Collected: 08/04/22 13:45

Matrix: Ground Water

Date Received: 08/06/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		2	669702	W1T	EET CHI	08/12/22 16:34
Total/NA	Prep	3510C			669248	FRG	EET CHI	08/10/22 07:53
Total/NA	Analysis	8270D		1	669712	JSB	EET CHI	08/12/22 12:22
Total/NA	Prep	3510C			636742	CMC	EET BUF	08/09/22 15:53
Total/NA	Analysis	8270D SIM ID		1	637259	PJQ	EET BUF	08/12/22 19:48
Total/NA	Prep	3510C			669586	FRG	EET CHI	08/11/22 13:32
Total/NA	Analysis	8082A		2	670358	NB	EET CHI	08/17/22 08:16

Client Sample ID: EB-MW-4RR

Lab Sample ID: 500-220496-5

Date Collected: 08/04/22 14:00

Matrix: Ground Water

Date Received: 08/06/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3510C			636742	CMC	EET BUF	08/09/22 15:53
Total/NA	Analysis	8270D SIM ID		1	637259	PJQ	EET BUF	08/12/22 20:10

Client Sample ID: EB-MW-6

Lab Sample ID: 500-220496-7

Date Collected: 08/05/22 09:30

Matrix: Ground Water

Date Received: 08/06/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	669702	W1T	EET CHI	08/12/22 17:27
Total/NA	Prep	3510C			669248	FRG	EET CHI	08/10/22 07:53
Total/NA	Analysis	8270D		1	669712	JSB	EET CHI	08/12/22 12:46
Total/NA	Prep	3510C			670637	FRG	EET CHI	08/18/22 08:52
Total/NA	Analysis	8082A		1	670742	SS	EET CHI	08/18/22 17:13

Client Sample ID: EB-MW-5

Lab Sample ID: 500-220496-8

Date Collected: 08/05/22 09:45

Matrix: Ground Water

Date Received: 08/06/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	669702	W1T	EET CHI	08/12/22 17:54
Total/NA	Prep	3510C			669248	FRG	EET CHI	08/10/22 07:53
Total/NA	Analysis	8270D		1	669712	JSB	EET CHI	08/12/22 13:10
Total/NA	Prep	3510C			669586	FRG	EET CHI	08/11/22 13:32
Total/NA	Analysis	8082A		1	670133	SS	EET CHI	08/16/22 12:01

Client Sample ID: EB-MW-4RR

Lab Sample ID: 500-220496-11

Date Collected: 08/05/22 12:00

Matrix: Ground Water

Date Received: 08/06/22 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Batch Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260B		1	669702	W1T	EET CHI	08/12/22 19:14

Lab Chronicle

Client: K. Singh & Associates, Inc
Project/Site: East Block CWC - 40441

Job ID: 500-220496-1

Client Sample ID: EB-MW-4RR

Date Collected: 08/05/22 12:00

Date Received: 08/06/22 08:00

Lab Sample ID: 500-220496-11

Matrix: Ground Water

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Analyst</u>	<u>Lab</u>	<u>Prepared or Analyzed</u>
Total/NA	Prep	3510C			669248	FRG	EET CHI	08/10/22 07:53
Total/NA	Analysis	8270D		1	669712	JSB	EET CHI	08/12/22 16:14
Total/NA	Prep	3510C			669586	FRG	EET CHI	08/11/22 13:32
Total/NA	Analysis	8082A		1	670133	SS	EET CHI	08/16/22 12:49

Client Sample ID: DUPLICATE 2

Date Collected: 08/05/22 00:00

Date Received: 08/06/22 08:00

Lab Sample ID: 500-220496-12

Matrix: Ground Water

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Analyst</u>	<u>Lab</u>	<u>Prepared or Analyzed</u>
Total/NA	Analysis	8260B		1	669702	W1T	EET CHI	08/12/22 19:41

Laboratory References:

EET BUF = Eurofins Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

EET CHI = Eurofins Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Accreditation/Certification Summary

Client: K. Singh & Associates, Inc
 Project/Site: East Block CWC - 40441

Job ID: 500-220496-1

Laboratory: Eurofins Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Wisconsin	State	999580010	08-31-22

Laboratory: Eurofins Buffalo

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-0686	07-06-22 *
Connecticut	State	PH-0568	03-31-24
Florida	NELAP	E87672	06-30-23
Georgia	State	10026 (NY)	04-01-23
Georgia	State Program	N/A	03-31-09 *
Georgia (DW)	State	956	03-31-23
Illinois	NELAP	200003	09-30-22
Illinois	NELAP	200003	09-30-22
Iowa	State	374	03-01-23
Iowa	State Program	374	03-01-09 *
Kansas	NELAP	E-10187	01-31-23
Kentucky (DW)	State	90029	12-31-22
Kentucky (UST)	State	30	04-01-23
Kentucky (WW)	State	KY90029	12-31-22
Louisiana	NELAP	02031	06-30-23
Louisiana (All)	NELAP	02031	06-30-23
Maine	State	NY00044	12-04-22
Maryland	State	294	03-31-23
Massachusetts	State	M-NY044	06-30-23
Michigan	State	9937	03-31-23
Michigan	State Program	9937	04-01-09 *
New Hampshire	NELAP	2973	09-11-19 *
New Hampshire	NELAP	2337	11-17-22
New Jersey	NELAP	NY455	06-30-23
New York	NELAP	10026	03-31-23
Pennsylvania	NELAP	68-00281	07-31-23
Rhode Island	State	LAO00328	12-30-22
Tennessee	State	02970	04-01-23
Texas	NELAP	T104704412-18-10	07-31-23
USDA	US Federal Programs	P330-18-00039	03-25-24
Virginia	NELAP	460185	09-14-22
Washington	State	C784	02-10-23
Wisconsin	State	998310390	08-31-22

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Chicago

2417 Bond Street
 University Park, IL 60484
 Phone: 708-534-5200 Fax: 708-534-5211

Chain of Custody Record



Client Information (Sub Contract Lab)			Sampler:	Lab PM: Fredrick, Sandie	Carrier Tracking No(s):	COC No: 500-163989.1			
Client Contact: Shipping/Receiving			Phone:	E-Mail: Sandra.Fredrick@et.eurofinsus.com	State of Origin: Wisconsin	Page: Page 1 of 1			
Company: Eurofins Environment Testing Northeast,			Accreditations Required (See note): State Program - Wisconsin			Job #: 500-220496-1			
Address: 10 Hazelwood Drive,		Due Date Requested: 8/22/2022		Analysis Requested					
City: Amherst		TAT Requested (days):							
State, Zip: NY, 14228-2298		PO #:		Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Y - Trizma Z - other (specify)					
Phone: 716-691-2600(Tel) 716-691-7991(Fax)		WO #:							
Email:		Project #: 50006762		Other:					
Project Name: CWC - 40443A		SSOW#:							
Site:		Project #: 50006762		Special Instructions/Note:					
Site:		SSOW#:							
Sample Identification - Client ID (Lab ID)		Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8270D_SIM_MS_ID/3510C_LVI_1,4-Dioxane	Total Number of containers
				Preservation Code:		X	X		
EB-MW-2 (500-220496-4)		8/4/22	13:45 Central	Water	Water		X		2
EB-MW-4RR (500-220496-5)		8/4/22	14:00 Central	Water	Water		X		2

Note: Since laboratory accreditations are subject to change, Eurofins Chicago places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins Chicago laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Chicago attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Chicago.

Possible Hazard Identification				Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)			
Unconfirmed				<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
Deliverable Requested: I, II, III, IV, Other (specify)		Primary Deliverable Rank: 2		Special Instructions/QC Requirements:			
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:	
Relinquished by: <i>[Signature]</i>		Date/Time: 8/22/22 1600		Company: JETA		Received by: <i>[Signature]</i>	
Relinquished by:		Date/Time:		Company:		Received by:	
Relinquished by:		Date/Time:		Company:		Received by:	
Custody Seals Intact: Δ Yes Δ No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 3.5 ICE			



Login Sample Receipt Checklist

Client: K. Singh & Associates, Inc

Job Number: 500-220496-1

Login Number: 220496

List Number: 1

Creator: James, Jeff A

List Source: Eurofins Chicago

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.2,3.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: K. Singh & Associates, Inc

Job Number: 500-220496-1

Login Number: 220496

List Number: 2

Creator: Yeager, Brian A

List Source: Eurofins Buffalo

List Creation: 08/09/22 12:55 PM

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.3 ICE
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time (Excluding tests with immediate HTs)..	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	True	

Isotope Dilution Summary

Client: K. Singh & Associates, Inc
Project/Site: East Block CWC - 40441

Job ID: 500-220496-1

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Matrix: Ground Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DXE (15-110)
500-220496-4	EB-MW-2	46
500-220496-5	EB-MW-4RR	46

Surrogate Legend

DXE = 1,4-Dioxane-d8

Method: 8270D SIM ID - Semivolatile Organic Compounds (GC/MS SIM / Isotope Dilution)

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	DXE (15-110)
LCS 480-636742/2-A	Lab Control Sample	49
LCSD 480-636742/3-A	Lab Control Sample Dup	44
MB 480-636742/1-A	Method Blank	33

Surrogate Legend

DXE = 1,4-Dioxane-d8