



VIA EMAIL

November 7, 2023

Mr. James Curry
EPA Region VII, Superfund Division
11201 Renner Boulevard
Lenexa, Kansas 66219

Re: Semi-Annual Testing of Monitoring Wells MW-C13, -C15, and -C17
Operable Unit 3 – Hayford Bridge Road Groundwater Site
St. Charles, Missouri
Geotechnology Project No. J006295.11

Dear Mr. Curry:

In accordance with United States Environmental Protection Agency (USEPA) approval for the subject site in November 2019, we are providing the semi-annual groundwater testing results for Monitoring Wells MW-C13, -C15, and -C17. Groundwater sampling and testing of the entire Operable Unit 3 (OU3) Monitored Natural Attenuation System (MNAS) will be completed in November 2023 and will continue on an annual basis per USEPA approval.

Groundwater samples were collected from the three monitoring wells on September 6 and 7, 2023 using a low flow pump in accordance with the current USEPA-approved Quality Assurance Project Plan¹ for the site. Purge water was monitored using a flow through cell. Parameters monitored during purging included pH, temperature, oxidation-reduction potential, conductivity, dissolved oxygen, and turbidity. Low flow purging was conducted until field parameters stabilized after removal of a minimum of one well volume. After low flow purging, groundwater samples were collected into laboratory provided sample containers, placed on ice in a cooler, and submitted to Teklab, Inc. for analysis of the following parameters: total (full list) volatile organic compounds (VOCs) including 1,4-dioxane, nitrate, sulfate, ferrous iron, dissolved organic carbon, chloride, carbon dioxide, methane, ethane, and ethene.

¹ *Quality Assurance Project Plan for OU3 – Hayford Bridge Road Groundwater Site, St. Charles, Missouri*; prepared for USEPA Region VII; prepared by Geotechnology, LLC on behalf of The HBR OU3 Group; Version 3, dated July 20, 2023.



VOCs that were detected in groundwater samples collected from the three monitoring wells are shown in Table 1. Geochemical indicators are summarized in Table 2. The laboratory testing report is in Attachment 1. VOC concentrations shown on Figure 1 that were detected at or above the Maximum Contaminant Levels (MCLs) are listed below:

vinyl chloride (VC) – Monitoring Wells MW-C13, -C15 and MW-C17
benzene - Monitoring Well MW-C13 and -C15

1,4-dioxane concentrations detected in the groundwater samples collected from the three monitoring wells are indicated below:

MW-C13 8.67 parts per billion (ppb)
MW-C15 8.05 ppb

In cooperation with the City of St. Charles (City) and their consultant, 212 Environmental, LLC (212), on September 26, 2023, additional groundwater sampling was performed with the collection of split groundwater samples at Monitoring Wells MW-C16 through MW-C19 using a portable electric pump (non-QAPP approved procedure) operated by 212 field staff. Concentrations of groundwater samples collected at Monitoring Wells MW-C18 and MW-C19 were below laboratory detection limits. VC was detected in samples collected from Monitoring Wells MW-C16 and MW-C17 at 7.6 ug/L and 5.0 ug/L, respectively. The split groundwater sample test results are shown in Table 1 and the laboratory testing report is in Attachment 2.

In cooperation with USEPA and the City, additional groundwater sampling and testing of City Well W-8 and OU3 Monitoring Well MW-C17 began in October 2023 in accordance with the schedule in USEPA's letter to the City dated September 28, 2023. Results of the additional groundwater sampling and testing are being provided separately to USEPA.

Monitored Natural Attenuation (MNA) at OU3 is a dynamic process as documented in previous OU3 MNA Evaluation reports². Groundwater concentrations will fluctuate over time and the remedy assumptions include the wellfield being operated normally with staggered maintenance schedules and the OU1 GETS system pumping consistently. Regardless, the OU3 plume is highly dilute and 15 years of monitoring during normal wellfield operations support the effectiveness of the remedy.

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² *Monitored Natural Attenuation Evaluation, Operable Unit 3, Hayford Bridge Road Groundwater Site, St. Charles, Missouri*; prepared for USEPA on behalf of the HBR OU3 Group; prepared by Geotechnology, Inc.; Reports dated December 10, 2019 and November 19, 2014.



The following information completes this report:

Table 1 – VOC Detection Summary

Table 2 – Geochemical Indicator Parameters Summary

Figure 1 – Groundwater Concentrations September 2023

Attachment 1 – Laboratory Testing Report – September 6 and 7, 2023

Attachment 2 – Laboratory Testing Report – September 26, 2023 (212/City split)

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Please contact me if you have questions or more information is needed.

Very truly yours,

GEOTECHNOLOGY, LLC

Kenny J. Hemmen, R.G., CGWP
Senior Project Manager

KJH/MSR:kjh/jsj



cc: Ms. Feyi Ilesanmi; MDNR, Environmental Remediation Program
1730 East Elm, Jefferson City, Missouri 65101
The HBR OU3 Group Technical Committee

TABLE 1
VOC DETECTION SUMMARY
OU3 - HAYFORD BRIDGE ROAD GROUNDWATER SITE
ST. CHARLES, MISSOURI

J006295.11

Monitoring Well	Date (mo/yr)	Vinyl Chloride MCL=2 ppb	Cis-1,2-Dichloroethene MCL=70 ppb	Benzene MCL=5 ppb	1,1-Dichloroethane PRG=810 ppb	Toluene MCL=1,000 ppb	Trans-1,2-Dichloroethene MCL=100 ppb	1,4-dioxane MCL not established	
OU3 Monitoring Wells									
MW-C1	8/18/04							NT	
	9/9/04								
	8/08								
	10/08								
	3/09								
	6/09								
	8/09								
	11/09								
	3/10								
	6/10								
	9/10								
	11/10								
	03/11								
	6/11								
	9/11								
	12/11								
	3/12								
	6/12								
	9/12								
	12/12								
	3/13								
	6/13	Not Sampled Due To Flooding							
	9/13								
	12/13								
	4/14								
	10/14								
	5/15								
	12/15								
	6/16								
	12/16								
6/17									
11/17									
6/18		0.2 J							
12/18									
8/19					0.2 J				
12/19									
12/20									
11/21									
11/22					0.7 J				
						0.75 J			

TABLE 1
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ST. CHARLES, MISSOURI

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Monitoring Well	Date (mo/yr)	Vinyl Chloride MCL=2 ppb	Cis-1,2-Dichloroethene MCL=70 ppb	Benzene MCL=5 ppb	1,1-Dichloroethane PRG=810 ppb	Toluene MCL=1,000 ppb	Trans-1,2-Dichloroethene MCL=100 ppb	1,4-dioxane MCL not established		
MW-C2	8/18/04							NT		
	9/9/04									
	8/08									
	10/08									
	3/09									
	6/09									
	8/09									
	11/09									
	3/10									
	6/10									
	9/10									
	11/10									
	03/11									
	6/11									
	9/11									
	12/11									
	3/12									
	6/12									
	9/12									
	12/12									
	3/13									
	6/13	Not Sampled Due To Flooding								
	9/13									
	12/13									
	4/14									
	10/14									
	5/15									
	12/15									
	6/16									
	12/16									
	6/17									
	11/17									
6/18										
12/18										
8/19										
12/19										
12/20										
11/21										
11/22						0.3 J				

TABLE 1
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ST. CHARLES, MISSOURI

J006295.11

Monitoring Well	Date (mo/yr)	Vinyl Chloride MCL=2 ppb	Cis-1,2-Dichloroethene MCL=70 ppb	Benzene MCL=5 ppb	1,1-Dichloroethane PRG=810 ppb	Toluene MCL=1,000 ppb	Trans-1,2-Dichloroethene MCL=100 ppb	1,4-dioxane MCL not established
MW-C3	8/18/04							NT
	9/9/04							
	08/08					3,140		
	10/08					87.4		
	11/08					13.3		
	3/09							
	6/09	4.4						
	8/09	5.2 (resample 2Q)						
	8/09	5.5 (3Q)						
	11/09	7.4						
	3/10	4.1						
	6/10	3.6 / 4.9						
	9/10	2.9 / 2.9						
	11/10	2.6						
	03/11	2.4/2.1						
	6/11	2.2						
	9/11	4.1						
	12/11	4.4						
	3/12	4.0						
	6/12	3.6						
	9/12	3.8						
	12/12	3.3						
	3/13	3.6						
	6/13	3.6						
	9/13	4.6						
	12/13							
	4/14	3.6						
	10/14							
	5/15	3.4						
	12/15	5.2						
	6/16	5.2						0.54J
	12/16	1.8J						
	6/17	3.5						
	11/17	3.5						0.70 J
	6/18	2.1						0.61 J
	12/18	0.6 J						0.96 J
	8/19	3.9				21.7		0.63 J
	12/19	2.0 J						
	12/20	1.6 J	0.4 J					0.31 J
	11/21	1.2 J	0.6 J					
	11/22	0.6 J	0.9 J					

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MW-C4	8/18/04							NT
	9/9/04							
	08/08					2,870		
	10/08					534		
	11/08					20.1		
	3/09							
	6/09							
	8/09							
	11/09							
	3/10							
	6/10							
	9/10							
	11/10							
	03/11							
	6/11							
	9/11							
	12/11							
	3/12							
	6/12					21.2		
	9/12							
	12/12							
	3/13							
	6/13							
	9/13							
	12/13							
	4/14							
	10/14							
	5/15							
	12/15							
	6/16							
	12/16							
	6/17							
	11/17							
	6/18							1.02
	12/18							0.40 J
	8/19					121		1.37
	12/19							0.78 J
	12/20							
	11/21							
	11/22							0.71 J

TABLE 1
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Monitoring Well	Date (mo/yr)	Vinyl Chloride MCL=2 ppb	Cis-1,2-Dichloroethene MCL=70 ppb	Benzene MCL=5 ppb	1,1-Dichloroethane PRG=810 ppb	Toluene MCL=1,000 ppb	Trans-1,2-Dichloroethene MCL=100 ppb	1,4-dioxane MCL not established
MW-C5	8/18/04							NT
	9/9/04							
	08/08							
	10/08							
	3/09							
	6/09							
	8/09							
	11/09							
	3/10							
	6/10							
	9/10							
	11/10							
	03/11							
	6/11							
	9/11							
	12/11							
	3/12							
	6/12							
	9/12							
	12/12							
	3/13							
	6/12							
	9/13							
	12/13							
	4/30							
	10/14							
	5/15							
	12/15							
	6/16							
	12/16							
	6/17	1.0J						
	11/17							
	6/18							
	12/18							
	8/19							
	12/19							
	12/20							
	11/21							
	11/22							

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Monitoring Well	Date (mo/yr)	Vinyl Chloride MCL=2 ppb	Cis-1,2-Dichloroethene MCL=70 ppb	Benzene MCL=5 ppb	1,1-Dichloroethane PRG=810 ppb	Toluene MCL=1,000 ppb	Trans-1,2-Dichloroethene MCL=100 ppb	1,4-dioxane MCL not established
MW-C6	8/18/04							NT
	9/9/04							
	08/08					2,590		
	10/08					2.9J		
	11/08					2.5J		
	3/09							
	6/09							
	8/09							
	11/09							
	3/10							
	6/10							
	9/10							
	11/10							
	03/11							
	6/11							
	9/11							
	12/11							
	3/12							
	6/12							
	9/12							
	12/12							
	3/13							
	6/13							
	9/13							
	12/13							
	4/14							
	10/14							
	5/15							
	12/15	0.9J						
	6/16	1.0J						
	12/16							
	6/17							
	11/17							
	6/18							
	12/18							
	8/19	0.5 J				198		
	12/19							
	12/20	0.3 J						
	11/21							
	11/22							

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ST. CHARLES, MISSOURI

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Monitoring Well	Date (mo/yr)	Vinyl Chloride MCL=2 ppb	Cis-1,2-Dichloroethene MCL=70 ppb	Benzene MCL=5 ppb	1,1-Dichloroethane PRG=810 ppb	Toluene MCL=1,000 ppb	Trans-1,2-Dichloroethene MCL=100 ppb	1,4-dioxane MCL not established
MW-C7	8/18/04							NT
	9/9/04							
	08/08							
	10/08							
	3/09							
	6/09							
	8/09							
	11/09							
	3/10							
	6/10							
	9/10							
	11/10							
	03/11							
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	10/14							
	5/15							
	12/15							
	6/16							
	12/16							
	6/17							
	11/17							
	6/18							
	12/18							
	8/19	0.6 J	0.5 J					
	12/19							
	11/20							
	11/21							
	11/22							

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ST. CHARLES, MISSOURI

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Monitoring Well	Date (mo/yr)	Vinyl Chloride MCL=2 ppb	Cis-1,2-Dichloroethene MCL=70 ppb	Benzene MCL=5 ppb	1,1-Dichloroethane PRG=810 ppb	Toluene MCL=1,000 ppb	Trans-1,2-Dichloroethene MCL=100 ppb	1,4-dioxane MCL not established
MW-C8	8/18/04							NT
	9/9/04							
	08/08	1.1J						
	10/08	0.9J	1.1J					
	3/09							
	6/09	1.4J	1.3J					
	8/09	2.3	2.0J					
	11/09	2.2	1.2J					
	3/10	2.5	1.2J					
	6/10	3.3	1.6J					
	9/10	3.8 / 3.8						
	11/10	2.5						
	03/11	7.2						
	6/11	5.6						
	9/11	7.9/8.6						
	12/11	4.2/4.6						
	3/12	2.6						
	6/12	5.2						
	9/12	4.5						
	12/12	7.0						
	3/13	2.5						
	6/13	3.5 / 3.6						
	9/13							
	12/13	2.5						
	4/14	4.9	6.2					
	10/14	5.4						
	5/15	5.1						
	12/15		3.3J					1.02
	6/16	0.7J	2.6J					0.72J
	12/16		1.9J					
	6/17		2.9J					0.76J
	11/17	32.2	11.6		2.8J			3.68
	6/18							
	12/18	2.8	2.7		0.5 J			0.66 J
	8/19	7.3	4.9	0.1 J	0.6 J	0.2 J		1.0
	12/19	6.6	2.3					0.38 J
	11/20	3.4	3.6		0.4 J			1.61
	11/21		0.3 J					
	11/22	0.5 J	2.1					0.87 J

TABLE 1
VOC DETECTION SUMMARY
OU3 - HAYFORD BRIDGE ROAD GROUNDWATER SITE
ST. CHARLES, MISSOURI

J006295.11

Monitoring Well	Date (mo/yr)	Vinyl Chloride MCL=2 ppb	Cis-1,2-Dichloroethene MCL=70 ppb	Benzene MCL=5 ppb	1,1-Dichloroethane PRG=810 ppb	Toluene MCL=1,000 ppb	Trans-1,2-Dichloroethene MCL=100 ppb	1,4-dioxane MCL not established
MW-C9	8/18/04							NT
	9/9/04							
	08/08							
	10/08							
	3/09							
	6/09							
	8/09							
	11/09							
	3/10							
	6/10							
	9/10							
	11/10							
	03/11							
	6/11							
	9/11							
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	11/17							
	6/18							
	12/18							
	8/19							
	12/19							
	11/20							
	11/21							
	11/22							

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VOC DETECTION SUMMARY
OU3 - HAYFORD BRIDGE ROAD GROUNDWATER SITE
ST. CHARLES, MISSOURI

J006295.11

Monitoring Well	Date (mo/yr)	Vinyl Chloride MCL=2 ppb	Cis-1,2-Dichloroethene MCL=70 ppb	Benzene MCL=5 ppb	1,1-Dichloroethane PRG=810 ppb	Toluene MCL=1,000 ppb	Trans-1,2-Dichloroethene MCL=100 ppb	1,4-dioxane MCL not established
MW-C10	8/18/04							NT
	9/9/04							
	08/08							
	10/08							
	3/09							
	6/09							
	8/09							
	11/09							
	3/10							
	6/10							
	9/10							
	11/10							
	03/11							
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	5/15							
	12/15							
	6/16							
	12/16							
	6/17							
	11/17							
	6/18							
	12/18							
	8/19							
	12/19							
	11/20							
	11/21						0.2 J	
	11/22							

TABLE 1
VOC DETECTION SUMMARY
OU3 - HAYFORD BRIDGE ROAD GROUNDWATER SITE
ST. CHARLES, MISSOURI

J006295.11

Monitoring Well	Date (mo/yr)	Vinyl Chloride MCL=2 ppb	Cis-1,2-Dichloroethene MCL=70 ppb	Benzene MCL=5 ppb	1,1-Dichloroethane PRG=810 ppb	Toluene MCL=1,000 ppb	Trans-1,2-Dichloroethene MCL=100 ppb	1,4-dioxane MCL not established
MW-C11	8/18/04	10/27	69/71		9.7/9.3			NT
	9/9/04	25/24	25/58		6.8/6.7			
	08/08	433	402	7.6J	85.7			
	10/08	159	185	2.9	36.5		3.3J	
	3/09	218/211	196/190	3.3/3.1	39.4/39.0		5.3/5.1	
	6/09	151/158	178/189	2.7/2.8	30.4/32.3			
	8/09	41.3	61.4	0.7J	8.3			
	11/09	90.8	119	1.8J	16.1			
	3/10	39.4	60.3	1.0J	7.8		1.5J	
	6/10	26	50.3	1.0J	6.4			
	9/10	21.7	36.4					
	11/10	20.4	43.5		5.3			
	03/11	21.7	49.2		6			
	6/11	17.1	39.9					
	9/11	21.4	34.3					
	12/11	14.6	29.4					
	3/12	19.6	36.7					
	6/12	18.4	33.3					
	9/12	13.5	33.2					
	12/12	16.1	56.6		5.8			
	3/13	21.5	46.9		5.2			
	6/13	25.7	41.9		6.2			
	9/13	11.2	25.9					
	12/13	12.5	28.5					
	5/14	22.1	30.8					
	10/14	20.3 / 20.6	30.1 / 30.2					
	5/15	19.1	28.2					
	12/15	5.3	14	0.5J	1.9J			
	6/16	3.5	9.5		1.3J			
	12/16	4.1	10.5		1.3J			
	6/17	2.4	8.6					
	11/17	8.8	18.7		2.2J			
	6/18	10.4	22.9	0.3 J	2.6			
	12/18	6.0	22.9		2.2			
	8/19	3.0	6.9	0.2 J	1.0 J	14.6		
	12/19	3.8	12	0.2 J	1.2 J	4.4		
	12/20	5.5	13.8	0.1 J	1.4 J			
	11/21	5.9	16.5	0.2 J	1.6 J			
	11/22	2.3	13.3		1.1 J			

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Monitoring Well	Date (mo/yr)	Vinyl Chloride MCL=2 ppb	Cis-1,2-Dichloroethene MCL=70 ppb	Benzene MCL=5 ppb	1,1-Dichloroethane PRG=810 ppb	Toluene MCL=1,000 ppb	Trans-1,2-Dichloroethene MCL=100 ppb	1,4-dioxane MCL not established
MW-C12	08/08	6.4	31.1	88.9	4.2J			NT
	10/08	6.0	33.9	88.1	4.3J			
	3/09	5.6	31.7	64.2	3.8J			
	6/09	7.9/7.7	39.5/40.1	68.0/68.1	4.0J/4.2J			
	8/09	5.6	35.6	57.9	3.4J			
	11/09	8.6	42.5	55	3.7J			
	3/10	5.4	31.5	33.2	2.8J			
	6/10	6.4	39.1	36.6	3.0J			
	9/10	2.6	24.2	36.5				
	11/10	3.2	33.6	34.0				
	03/11	3.2	28	22.3				
	6/11	4.3	34.7	28.4				
	9/11	4.1	29.7	25.8				
	12/11	2.7/2.5	25.8/26.5	32.7/32.0				
	3/12		15.5/13.8	24.5/20.1				
	6/12	2.5	25.1	25.2				
	9/12	3.2	22.8	35.6				
	12/12	5.1	19.9	31.8				
	3/13	3.8	19.7	43.0				
	6/13	3.1	24.5	14.1				
	9/13		20.1	15.5				
	12/13	3.4	20.2	22.7				
	5/14	3.5 / 3.8	13.3 / 14.4	8.8 / 9.3				
	10/14		13.6	4.6				
	5/15	2.4/2.4	21.4/21.6	8.8/8.9				
	12/15	2.9	26.2	8.3	2.3J			
	6/16	3.1	24.6	5.3	2.2J			
	12/16	3.5	30.7	8.4	2.7J			
	6/17	2.2	26.2	5.5				
	11/17	2.7	25.6	5.3	2.4J			
	6/18	0.8 J / 0.8 J	9.3 / 9.7	1.8 / 1.8	0.9 J / 1.0 J		0.1 J	
	12/18	0.8 J	12.9	2.4	0.9 J			
	8/19	1.3 J	16.5	2.8	0.8 J			
	12/19	1.3 J	16.5	4.0	0.9 J			
	12/20	1.1 J	11.6	1.9	0.6 J			
	11/21	0.8 J	13.2	1.7	0.5 J			
	11/22	0.8 J	13.1	2.1	0.5 J			

TABLE 1
VOC DETECTION SUMMARY
OU3 - HAYFORD BRIDGE ROAD GROUNDWATER SITE
ST. CHARLES, MISSOURI

J006295.11

Monitoring Well	Date (mo/yr)	Vinyl Chloride MCL=2 ppb	Cis-1,2-Dichloroethene MCL=70 ppb	Benzene MCL=5 ppb	1,1-Dichloroethane PRG=810 ppb	Toluene MCL=1,000 ppb	Trans-1,2-Dichloroethene MCL=100 ppb	1,4-dioxane MCL not established
MW-C13	08/08	9.7	37.7	101	5.1			NT
	10/08	7.0	40.6	93.2	4.9J			
	3/09	11.5	54.9	66.9	5.1		1.7J	
	6/09	22.7	90.8	62.9	6.3			
	8/09	16.0/16.4	79.2/79.6	56.7/56.1	5.5/5.6			
	11/09	10.5	50	51.8	3.9J			
	3/10	12.9	52	40.8	4.0J			
	6/10	19.5 / 20.1	67.5 / 71.6	38.4 / 39.1	4.8J / 5.2		1.5J	
	9/10	15.7	66.8	36.5				
	11/10	10.6	63.5	35.4				
	03/11	18.2	81.2	32.2				
	6/11	20.3	80.1	29.2				
	9/11	36.4	128	27.6	7.3			
	12/11	8.9	91.1		10.0			
	3/12	38.6	170	42.3	10.0			
	6/12	36.9	143	22.3	8.2			
	9/12	56.8	173	35.8	12.3			
	12/12	53.8	226	34.1				
	3/13	39.4	163	38.0	10.0			
	6/13	57.3 / 57.3	195 / 188	20.4 / 21.2	14.2 / 13.6			
	9/13	39.6	158	20.7	10.0			
	12/13	53.7	179	26.0	12.9			
	5/14	64.2	152	16.7	11.1			
	10/14	25.7 / 24.9	214 / 219	7.3 / 7.5	23 / 23			
	5/15	54.9	202	25.0	14.8			
	12/15	41.9	188	24.9	13.4			9.4
	6/16	41.4	216	26.0	14J			5.94
	12/16	51.2	196	33.7	16			2.17
	6/17	39.4	180	24.4	12			7.94
	11/17	42.3	134	21.4	10.8			18.5
	6/18	25.9	115	22.6	8.4		0.3 J	15.4
	12/18	67.0	190	46.4	14.1		0.5 J	8.32
	8/19	18.9	16.6	15.2	3.2	183		8.42
	12/19	8.3	13.7	13.5	1.3 J	2.0 J		4.43
	6/20	23.1	27.2	27.8	4.5	0.2 J	0.2 J	12.8
	12/20	34.4	35.4	45.3	6.0	0.2 J	0.2 J	10.4
	5/21	16.1	26.8	82.9	6.1	0.5 J	0.2 J	10.5
	11/21	8.6	19.2	21.1	1.8 J	0.1 J	0.1 J	
	6/22	21.5	28.7	106	8.0			10.9
	11/22	4.6	22.9	12.3	1.7 J		0.1 J	1.07
	9/23	41.8	55.3	84.1	7.5			8.67

TABLE 1
VOC DETECTION SUMMARY
OU3 - HAYFORD BRIDGE ROAD GROUNDWATER SITE
ST. CHARLES, MISSOURI

J006295.11

Monitoring Well	Date (mo/yr)	Vinyl Chloride MCL=2 ppb	Cis-1,2-Dichloroethene MCL=70 ppb	Benzene MCL=5 ppb	1,1-Dichloroethane PRG=810 ppb	Toluene MCL=1,000 ppb	Trans-1,2-Dichloroethene MCL=100 ppb	1,4-dioxane MCL not established
MW-C14	08/08	0.8J						NT
	10/08	1.2J	1.1J					
	3/09	3.9	1.5J					
	6/09	1.6J	1.1J					
	8/09	0.6J						
	11/09	1.1J/1.0J						
	3/10							
	6/10							
	9/10							
	11/10							
	03/11							
	6/11							
	9/11							
	12/11							
	3/12							
	6/12							
	9/12							
	12/12							
	3/13							
	6/13							
	9/13							
	12/13							
	5/14							
	10/14							
	5/15							
	12/15							
	6/16							
	12/16							
	6/17							
	11/17							
	6/18		0.6 J	0.2 J				
	12/18							
	8/19					0.2 J		
	12/19							
	12/20							
	11/21							
	11/22							

TABLE 1
VOC DETECTION SUMMARY
OU3 - HAYFORD BRIDGE ROAD GROUNDWATER SITE
ST. CHARLES, MISSOURI

J006295.11

Monitoring Well	Date (mo/yr)	Vinyl Chloride MCL=2 ppb	Cis-1,2-Dichloroethene MCL=70 ppb	Benzene MCL=5 ppb	1,1-Dichloroethane PRG=810 ppb	Toluene MCL=1,000 ppb	Trans-1,2-Dichloroethene MCL=100 ppb	1,4-dioxane MCL not established
MW-C15	08/08	2.0	2.2J	0.7J				NT
	10/08	0.8J						
	3/09							
	6/09	0.8J						
	8/09	0.9J						
	11/09	1.9J	1.8J	0.6J				
	3/10	3.4	4.3J	1.2J				
	6/10	3.1	4.2J	1.1J				
	9/10							
	11/10	2.5	6.5					
	03/11							
	6/11	2.9						
	9/11	2.7						
	12/11	2.1						
	3/12							
	6/12							
	9/12	2.7						
	12/12							
	3/13	2.2						
	6/13							
	9/13							
	12/13							
	5/14	22.5 / 23.2						
	10/14	12.4						
	5/15							
	12/15	1.8J						2.37
	6/16	1.6J						2.0
	12/16	0.6J						0.99J
	6/17							2.25
	11/17	40.8	12.9	5.2	2.5J			11.8
	6/18	122	59.5	26.2	8.6		0.1 J	19.9
	12/18	67.5	66.9	18.5	8.1			11.6
	8/19	45.9	37.8	10.9	4.8	16.6		9.57
	12/19	12.5	12.8	4.2				2.36
	6/20	47.3	27.2	7.1	4.4			4.08
	12/20	73.7		20.1	7.1			5.61
	5/21	45.8	78.8	19.8	5.0		0.1 J	4.61
	11/21		0.4 J		0.2 J			
	6/22	8.2	11.8	6.2				1.96
	11/22	22.3		7.1	2.9			4.89
	9/23	71.6	49.2	19.7	7.7			8.05

TABLE 1
VOC DETECTION SUMMARY
OU3 - HAYFORD BRIDGE ROAD GROUNDWATER SITE
ST. CHARLES, MISSOURI

J006295.11

Monitoring Well	Date (mo/yr)	Vinyl Chloride MCL=2 ppb	Cis-1,2-Dichloroethene MCL=70 ppb	Benzene MCL=5 ppb	1,1-Dichloroethane PRG=810 ppb	Toluene MCL=1,000 ppb	Trans-1,2-Dichloroethene MCL=100 ppb	1,4-dioxane MCL not established
MW-C16	08/08							NT
	10/08							
	3/09							
	6/09							
	8/09							
	11/09							
	3/10	1.7 J	1.4 J					
	6/10	2.3						
	9/10							
	11/10							
	03/11							
	6/11							
	9/11							
	12/11							
	3/12							
	6/12							
	9/12							
	12/12							
	3/13							
	6/13							
	9/13							
	12/13							
	4/14							
	10/14							
	5/15							
	12/15							
	6/16							
	12/16							
	6/17							
	11/17	1.1 J						
	6/18							
	12/18							
	8/19	3.2	1.7 J		0.5 J	2.2		0.86 J
	12/19	0.6 J	0.5 J			0.9 J		
	12/20	2.4	1.0 J		0.4 J			0.4 J
	11/21							
	11/22	0.3 J						
	6/23	0.6 J / 0.6 J	0.6 J / 0.6 J		0.2 J / 0.2 J			NT
	9/26/23	7.6	1.7 J		0.9 J			NT

TABLE 1
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OU3 - HAYFORD BRIDGE ROAD GROUNDWATER SITE
ST. CHARLES, MISSOURI

J006295.11

Monitoring Well	Date (mo/yr)	Vinyl Chloride MCL=2 ppb	Cis-1,2-Dichloroethene MCL=70 ppb	Benzene MCL=5 ppb	1,1-Dichloroethane PRG=810 ppb	Toluene MCL=1,000 ppb	Trans-1,2-Dichloroethene MCL=100 ppb	1,4-dioxane MCL not established
MW-C17	08/08							NT
	10/08							
	3/09							
	6/09							
	8/09							
	11/09							
	3/10							
	6/10	4.2						
	9/10	4.3						
	11/10							
	03/11							
	6/11							
	9/11							
	12/11							
	3/12							
	6/12							
	9/12							
	12/12							
	3/13							
	6/13							
	9/13					5.2		
	12/13							
	4/14	4.8						
	10/14	7.8						
	5/15							
	12/15							
	6/16							
	12/16							
	6/17							
	11/17	2.9						
	6/18							
	12/18	3.5	2.1		0.6 J			3.52
	8/19	2.6	0.9 J			14.2		1.47
	12/19	1.1 J	0.5 J					0.86 J
	6/20	1.5 J	0.7 J					1.8
	11/20	3.2	1.0 J		0.4 J			1.81
	5/21	3.0	1.6 J		0.5 J	0.5 J		0.89 J
	11/21	1.6 J	1.7 J		0.4 J			
	6/22	4.2	3.0					
	11/22	5.4	3.5		0.9 J			
	6/23	7.9 / 6.7	4.6 / 4.6		1.4 J / 1.4J			NT
	9/6/23	9.2	4.2		1.3 J			
	9/26/23	5.0	4.2		1.1 J			NT

TABLE 1
VOC DETECTION SUMMARY
OU3 - HAYFORD BRIDGE ROAD GROUNDWATER SITE
ST. CHARLES, MISSOURI

J006295.11

Monitoring Well	Date (mo/yr)	Vinyl Chloride MCL=2 ppb	Cis-1,2-Dichloroethene MCL=70 ppb	Benzene MCL=5 ppb	1,1-Dichloroethane PRG=810 ppb	Toluene MCL=1,000 ppb	Trans-1,2-Dichloroethene MCL=100 ppb	1,4-dioxane MCL not established
MW-C18	12/15							
	6/16							0.6J
	12/16							
	6/17							
	11/17							
	6/18							
	12/18							
	8/19	not sampled due to flooding						
	12/19	not sampled due to flooding						
	12/20	not sampled due to flooding						
	11/21							
	9/26/23							NT
MW-C19	12/15							
	6/16							0.6J
	12/16							
	6/17							
	11/17							
	6/18							
	12/18							
	8/19	not sampled due to flooding						
	12/19	not sampled due to flooding						
	12/20	not sampled due to flooding						
	11/21							
	9/26/23							NT
City Wells								
W-4	6/18							
	12/18							
	8/19	NS						
	12/19	NS						
	12/20	NS						
	11/21	NS						
W-5	6/18							
	12/18							
	8/19	NS						
	12/19	NS						
	12/20	NS						
	11/21	NS						
W-6	6/18							
	12/18							
	8/19	NS						
	12/19	NS						
	12/20	NS						
	11/21		0.5 J					

TABLE 1
VOC DETECTION SUMMARY
OU3 - HAYFORD BRIDGE ROAD GROUNDWATER SITE
ST. CHARLES, MISSOURI

J006295.11

Monitoring Well	Date (mo/yr)	Vinyl Chloride MCL=2 ppb	Cis-1,2-Dichloroethene MCL=70 ppb	Benzene MCL=5 ppb	1,1-Dichloroethane PRG=810 ppb	Toluene MCL=1,000 ppb	Trans-1,2-Dichloroethene MCL=100 ppb	1,4-dioxane MCL not established
W-7	6/18	NS						
	12/18	NS						
	8/19	NS						
	12/19							
	12/20	NS						
	11/21							
W-8	6/18	NS						
	12/18	NS						
	8/19	0.4 J	0.4 J					
	12/19	0.3 J	0.4 J					
	4/20							
	9/20							
	12/20							
	3/21							
	11/21		0.3 J					
Radial Well (W-9)	6/18							
	12/18							
	8/19							
	12/19							
	12/20							
	11/21							
W-10	6/18							
	12/18					0.2 J / 0.1 J		
	8/19							1.26
	12/19							
	12/20							
	11/21							
Effluent	6/18							
	12/18							
	8/19							
	12/19							
	12/20							
	11/21							
	11/22							
Influent	12/20							
	11/21							
	11/22							

Notes:

J = Estimated value below the reporting limit.

NT = Not tested

NS = Not sampled

Blank indicates parameter not detected.

Acetone and methylene chloride detections in various samples in the low part per billion range are due to laboratory effects.

PRG = Preliminary Remediation Goal, USEPA Region 9

Shading indicates the concentration exceeds the MCL.

Historic detections at City Wells W-4, W-5, and W-6 are from the North Plume which has a source located at the Ameren Huster Road Substation. Table 3 also contains City Well information. City Well data added to Table 2 starting with the June 2018 sampling event.

June 2023 results at Monitoring Wells MW-C16 and -C17 include samples split with 212/City (listed first in table) using an electric pump on 6/13/23 (non-QAPP approved samples) and samples collected using a peristaltic pump on 6/14/23 (QAPP-approved samples).

September 26, 2023 results are split samples with 212/City using an electric pump (non-QAPP approved samples).

TABLE 2
GEOCHEMICAL INDICATOR PARAMETER SUMMARY
OU3 - HAYFORD BRIDGE ROAD GROUNDWATER SITE
ST. CHARLES, MISSOURI

J006295.11

Monitoring Well	Date (mo/yr)	Dissolved Oxygen (mg/l)	ORP (mV)	Nitrate (mg/l)	Sulfate (mg/l)	Ferrous Iron (mg/l)	Chloride (mg/l)	Carbon Dioxide (mg/l)	Dissolved Organic Carbon (mg/l)	Ethane (µg/l)	Ethene (µg/l)	Methane (µg/l)
MW-C1	5/15	0.01	-75.22	<0.05	76	6.4	76	78.8	1.6	<4.0	<6.0	4.4
	12/15	<0.1	-115	<0.05	22	7.3	20	39.6	2.1	<4.0	<6.0	33.3
	6/16	<0.1	-65	0.076	61	5.7	70	34.4	2.1	<4.0	<6.0	10
	12/16	<0.1	-68.16	0.021 J	60	5.8	85	81.4	1.6	<4.0	<6.0	15.4
	6/17	0.05	-65.54	<0.050	55	5.6	100	52.5	1.8	<4.0	<6.0	21.5
	11/17	<0.1	-59.86	0.041 J	94	3.5	62	43.4	2.1	<4.0	<6.0	11.7
	6/18	<0.1	-40.25	0.020 J	49	5.5	55	53.6	3.0	<7.0	<10.0	12.9
	12/18	<0.1	-145.29	<0.050	47	3.4	78	33.8	2.0	<7.0	<10.0	9.0
	8/19	1.17	155.7	0.034 J	59	6.6	84	27.8	2.1	<7.0	<10.0	31.8
	12/19	<0.1	-208	0.026 J	60	5.1	77	61.3	5.2	<7.0	<10.0	91.2
	12/20	<0.1	197	<0.1	62	5.5	78	37.2	1.6	<7.0	<10.0	8.2
MW-C2	11/21	0.48	-118.5	<0.050	71	5.5	89	49.1	1.3	<7.0	<10.0	8.0
	11/22	0.35	-68.2	<0.050 H	50	6.1	100	34.4	1.3	<7.0	<10.0	16.5
	5/15	0.04	-99.39	<0.05	28	7.4	31	65.9	1.8	<4.0	<6.0	80.5
	12/15	<0.1	-80	<0.05	51	6.2	70	55.5	2.1	<4.0	<6.0	22.4
	6/16	<0.1	-73	0.012 J	37	4.2	49	54.6	2.2	<4.0	<6.0	20.5
	12/16	<0.1	-86.56	0.013 J	34	7.7	48	61.6	2.0	<4.0	<6.0	32.4
	6/17	<0.1	-96.73	<0.050	34	7.5	43	70.9	2.0	<4.0	<6.0	4.8
	11/17	<0.1	-39.80	<0.05	26	6.4	32	76.0	1.8	<4.0	<6.0	29.0
	6/18	<0.1	-86.50	0.026 J	32	7.7	23	43.7	2.2	<7.0	<10.0	26.3
	12/18	<0.1	-11.19	<0.050	27	7.1	31	38.6	2.1	<7.0	<10.0	22.9
	8/19	<0.1	-18.50	0.041 J	24	7.4	19	24.4	1.9	<7.0	<10.0	19.2
MW-C3	12/19	<0.1	-81	0.152	33	7.6	32	49.4	2.0	<7.0	<10.0	31.6
	12/20	<0.1	119	0.014 J	34	7.5	28	29.2	1.9	<7.0	<10.0	17.1
	11/21	0.29	-125.2	<0.050	40	8.1	43	59.1	1.7	<7.0	<10.0	11.7
	11/22	0.37	-68.9	<0.050 H	45	7.0	61	31.6	1.7	<7.0	<10.0	17.9
	5/15	0.03	-74.36	<0.050	32	4.4	27	47.7	1.7	<4.0	<6.0	33.9
	12/15	<0.1	-113	<0.050	59	6.0	23	31.8	1.6	<4.0	<6.0	26.5
	6/16	<0.1	-82	0.012 J	60	3.8	30	47.5	1.5	<4.0	<6.0	18.6
	12/16	<0.1	-110.17	0.011 J	82	7.7	45	41.3	1.1	<4.0	<6.0	35.2
	6/17	<0.1	-77.96	0.011 J	62	4.3	32	50.8	1.4	<4.0	<6.0	9.4
	11/17	<0.1	-103.85	0.017 J	53	6.9	26	32.7	1.2	<4.0	<6.0	20
	6/18	0.08	-67.58	0.032	49	5.3	25	32.2	1.5	<7.0	<10.0	26.3
MW-C4	12/18	<0.1	-26.10	0.019	48	7.7	24	48.6	1.7	<7.0	<10.0	24.3
	8/19	<0.1	-9.30	0.048 J	43S	14	28	16.2	2.4	<7.0	<10.0	1000
	12/19	<0.1	-116	0.014 J	27	11	34	36.5	2.7	<7.0	<10.0	965
	12/20	0.30	197	<0.100	30	2.1	40	22.3	2.0	<7.0	<10.0	218
	11/21	0.38	-115.1	<0.050	32	1.7	49	37.1	1.6	<7.0	<10.0	28.8
	11/22	0.40	5.1	<0.050	33	1.9	55	22.0	1.4	<7.0	<10.0	46.6
	5/15	0.01	-89.9	<0.05	24	6.2	9	55	1.7	<4.0	<6.0	29.0
	12/15	<0.1	-107	0.01	18	5.8	8	46.4	2.0	<4.0	<6.0	26.6
	6/16	<0.1	-96	0.018 J	18	5.8	10	65.9	1.8	<4.0	<6.0	29.2
	12/16	<0.1	-37.49	0.074	17	6	10	61.8	1.9	<4.0	<6.0	53.6
	6/17	<0.1	-98.24	<0.050	15	7.2	10	71.5	1.8	<4.0	<6.0	33.0
MW-C4	11/17	<0.1	-108.08	0.01 J	21	6.9	10	58.7	1.6	<4.0	<6.0	27.9
	6/18	0.04	-91.99	0.022 J	22	7.2	12	48.2	1.8	<7.0	<10.0	23.0
	12/18	<0.1	-43.62	0.018 J	18 S	6.9	11	49.2	1.7	<7.0	<10.0	23.6
	8/19	<0.1	18.2	0.042 J	24	7.9	18	19.9	3.0	<7.0	<10.0	1070
	12/19	<0.1	-91	0.018 J	15	5.6	18	62.3	3.2	<7.0	<10.0	1690
	12/20	0.31	111	<0.100	14	3.9	15	27.3	2.2	<7.0	<10.0	855
	11/21	0.72	-99.9	<0.050	17	3.2	19	47.8	2.2	<7.0	<10.0	322
	11/22	0.79	-17.5	<0.050	16	3.5	17	31.7	2.0	<7.0	<10.0	334

TABLE 2
GEOCHEMICAL INDICATOR PARAMETER SUMMARY
OU3 - HAYFORD BRIDGE ROAD GROUNDWATER SITE
ST. CHARLES, MISSOURI

J006295.11

Monitoring Well	Date (mo/yr)	Dissolved Oxygen (mg/l)	ORP (mV)	Nitrate (mg/l)	Sulfate (mg/l)	Ferrous Iron (mg/l)	Chloride (mg/l)	Carbon Dioxide (mg/l)	Dissolved Organic Carbon (mg/l)	Ethane (µg/l)	Ethene (µg/l)	Methane (µg/l)
MW-C5	5/15	0.41	-27.15	<0.050	38	1.2	16	35.0	<1.0	<4.0	<6.0	2.6
	12/15	<0.1	-94	0.027 J	44	4.6	14	63	0.9	<4.0	<6.0	3.3
	6/16	<0.1	-43	0.026 J	41	2.1	14	37	0.9 J	<4.0	<6.0	2.2
	11/16	<0.1	-70.5	0.016 J	46	5.2 S	15	32.5	0.9 J	<4.0	<6.0	3.2
	6/17	<0.1	-47.19	0.041 J	41	3.4	15	40.0	0.8 J	<4.0	<6.0	5.7
	11/17	<0.1	-48.51	0.043 J	42	4.9	14	44.8	0.9 J	<4.0	<6.0	5.2
	6/18	0.12	168.41	0.025 J	40	4.4	15	26.6	0.9 J	<7.0	<10.0	4.5
	12/18	<0.1	39.07	0.012 J	42	4.8	16	30.1	0.8 J	<7.0	<10.0	5.3
	8/19	<0.1	204.1	0.028 J	34	4.9	16	14.8	0.9 J	<7.0	<10.0	4.6
	12/19	0.2	286	0.015 J	38	6.2	18	34.8	0.9 J	<7.0	<10.0	5.8
	12/20	0.38	249	<0.050	38	5.2	19	24.4	1.1	<7.0	<10.0	5.6
MW-C6	11/21	0.24	-118.4	<0.050	43	7.8	16	37.2	0.8 J	<7.0	<10.0	5.9
	11/22	0.37	-39.5	<0.050	39	5.5	20	23.0	0.9 J	<7.0	<10.0	<4.0
	5/15	0.02	-92.22	<0.05	42	4.9	13	41.5	<1.0	<4.0	<6.0	5.4
	12/15	<0.1	-114	<0.05	45	5.4	20	82.3	1.0	<4.0	<6.0	15.0
	6/16	<0.1	-75	0.010 J	39	4.6	14	42.3	1.2	<4.0	<6.0	22.8
	11/16	0.68	-78	0.017 J	46	4.9	13	34.1	0.9 J	<4.0	<6.0	5.3
	6/17	<0.1	-72.95	0.029 J	46	5.2	16	40.7	0.8 J	<4.0	<6.0	6.7
	11/17	<0.1	-56.41	0.022 J	43	4.0	14	45.8	0.9 J	<4.0	<6.0	4.9
	6/18	0.12	130.84	<0.050	42	4.7	16	33.3	0.9 J	<7.0	<10.0	5.0
	12/18	0.16	22.21	0.026 J	40	5.1	16	36.9	0.9 J	<7.0	<10.0	7.4
	8/19	<0.1	-116.6	0.055	30	24	20	35.5	4.0	<7.0	<10.0	1050
MW-C7	12/19	<0.1	513	0.020 J	28	5.5	19	33.6	1.2	<7.0	<10.0	441
	12/20	<0.1	168	<0.050	23	1.7	21	28.7	1.3	<7.0	<10.0	138
	11/21	0.28	-101.4	<0.050	33	2.7	18	24.3	0.9 J	<7.0	<10.0	25.7
	11/22	0.68	-37.9	<0.050	32	2.7	21	21.3	1.0 J	<7.0	<10.0	17.0
	5/15	0.13	-7.92	<0.050	29	2.2	37	47.5	1.0	<4.0	<6.0	15.7
	12/15	0.5	-84	<0.050	29	3.1	47	48.7	1.2	<4.0	<6.0	17.9
	6/16	<0.1	-9.2	0.011 J	32	2.2	38	57.1	1.4	<4.0	<6.0	15.0
	11/16	<0.1	-21.12	0.011 J	28	3.2	43	49.8	1.0	<4.0	<6.0	29.6
	6/17	1.21	114.29	0.029 J	28	0.38	44	54.6	0.8 J	<4.0	<6.0	11.6
	11/17	<0.1	71.42	<0.05	27	2.7	48	67.5	1.0	<4.0	<6.0	27.7
	6/18	0.22	25.57	0.011 J	30	8.0	50	48.5	0.9 J	<7.0	<10.0	17.5
MW-C8	12/18	<0.1	11.56	0.013 J	35	4.1	50	54.0	0.9 J	<7.0	<10.0	11.5
	8/19	<0.1	214.1	0.033 J	37	4.0	45	36.8	1.0	<7.0	<10.0	13.5
	12/19	<0.1	11.7	<0.050	35	3.0	49	53.3	1.0	<7.0	<10.0	12.6
	11/20	<0.1	194	<0.050	35	5.5	46	38.3	1.2	<7.0	<10.0	13.1
	11/21	0.28	-65.8	<0.050	42	3.9	45	46.4	1.0 J	<7.0	<10.0	6.8
	11/22	0.46	-31.6	<0.050 H	38	3.4	44	24.6	1.0	<7.0	<10.0	8.4
	5/15	0.14	-95.82	<0.050	86	6.4	15	36.2	1.2	7.8	<6.0	116
	12/15	<0.1	-142	<0.050	138	6.5	17	25.2	1.3	<4.0	<6.0	72.4
	6/16	<0.1	-99	0.022 J	100	6.0	20	37.8	1.3	<4.0	<6.0	49.6
	11/16	<0.1	-71.12	0.04 J	107	5.8 S	18	34	1.1	<4.0	<6.0	72
	6/17	<0.1	-80.49	<0.050	105	6.6	20	47.3	0.9 J	<4.0	<6.0	63.9
MW-C8	11/17	<0.1	78.91	<0.050	47	11	34	55.9	1.6	<4.0	69.7	885
	6/18	5.53	259.36	0.142	56	6.1	27	34.3	1.1	<7.0	<10.0	<4.0
	12/18	<0.1	-6.71	0.017 J	87	6.8	16	35.0	0.9 J	<7.0	<10.0	25.5
	8/19	<0.1	60.00	0.032 J	82	7.2	16	23.7	1.0	<7.0	11.6	111
	12/19	<0.1	-102	0.011 J	70	7.6	20	32.6	1.0	<7.0	<10.0	29.9
	11/20	0.10	215	<0.050	49	6.9	21	40.7	1.6	8.6	<10.0	33.7
	11/21	7.04	108.3	0.180	42	0.21	46	21.4	1.0 J	<7.0	<10.0	6.9
	11/22	0.38	-74.6	<0.050 H	79	6.5	22	22.6	1.1	<7.0	<10.0	19.9

TABLE 2
GEOCHEMICAL INDICATOR PARAMETER SUMMARY
OU3 - HAYFORD BRIDGE ROAD GROUNDWATER SITE
ST. CHARLES, MISSOURI

J006295.11

Monitoring Well	Date (mo/yr)	Dissolved Oxygen (mg/l)	ORP (mV)	Nitrate (mg/l)	Sulfate (mg/l)	Ferrous Iron (mg/l)	Chloride (mg/l)	Carbon Dioxide (mg/l)	Dissolved Organic Carbon (mg/l)	Ethane (µg/l)	Ethene (µg/l)	Methane (µg/l)
MW-C9	5/15	0.04	-6.23	1.37	165	0.36	43	23	<1.0	<4.0	<6.0	<2.0
	12/15	<0.1	-42	1.15	156	0.45	47	39	1.0	<4.0	<6.0	<2.0
	6/16	<0.1	-3.0	2.15	160	0.17	47	25.2	0.93	<4.0	<6.0	<2.0
	11/16	<0.1	-6.83	1.55	167	0.4	52	27.8	0.9 J	<4.0	<6.0	<2.0
	6/17	<0.1	137.18	2.32	155	0.086	52	46.6	0.8 J	<4.0	<6.0	<2.0
	11/17	<0.1	50.88	2.75	149	0.1	50	32.4	0.7 J	<4.0	<6.0	<2.0
	6/18	<0.1	125.26	5.80	146	0.10	51	21.8	1.0	<7.0	<10.0	<4.0
	12/18	<0.1	119.74	0.31	160	0.29	49	18.0	0.8 J	<7.0	<10.0	<4.0
	8/19	<0.1	458.4	3.13	136	0.04	48	14.5	1.0	<7.0	<10.0	<4.0
	12/19	<0.1	5.30	3.22	145	0.24	53	33.6	0.9 J	<7.0	<10.0	<4.0
	11/20	<0.1	226.0	3.68	151	0.15	60	21.6	1.1	<7.0	<10.0	<4.0
	11/21	0.35	114.2	13.0	142	0.009 J	56	30.4	1.0 J	<7.0	<10.0	<4.0
MW-C10	11/22	0.32	14.4	5.47 H	177	0.034	58	19.3	0.9 J	<7.0	<10.0	<4.0
	5/15	0.52	-95.16	<0.050	156	8.4	18	37.1	<1.0	<4.0	<6.0	2.6
	12/15	<0.1	-114	0.068	141	8.7	24	69	1.0	<4.0	<6.0	1.9 J
	6/16	<0.1	-106	0.024 J	144	8.4	29	42.6	1.0 J	<4.0	<6.0	2.1
	11/16	0.99	115.41	0.31	147	0.34	22	37	0.9 J	<4.0	<6.0	<2.0
	6/17	0.03	-87.20	<0.050	132	9.5	24	59.6	0.8 J	<4.0	<6.0	4.9
	11/17	<0.1	-59.18	<0.050	129	9.8	23	45.2	1.1	<4.0	<6.0	4.6
	6/18	0.09	-80.90	0.010 J	131	9.2	25	35.9	0.9 J	<7.0	<10.0	<4.0
	12/18	<0.1	-46.66	0.016 J	131	9.4	24	38.9	0.9 J	<7.0	<10.0	4.8
	8/19	<0.1	88.50	0.021 J	134	10	25	20.3	1.0 J	<7.0	<10.0	4.1
	12/19	<0.1	-77	0.022 J	125	9.5	27	44.9	0.9 J	<7.0	<10.0	4.0
	11/20	0.49	180	0.012 J	136	9.7	36	31.0	1.1	<7.0	<10.0	4.4
MW-C11	11/21	1.53	-118.1	0.064	150	7.3	37	20.3	0.7 J	<7.0	<10.0	<4.0
	11/22	0.35	-101.9	0.012 JH	160	9.9	35	23.7	0.9 J	<7.0	<10.0	<4.0
	5/15	0.02	-85.8	<0.05	111	4.6	45	30.6	<1.0	<4.0	6.4	13.5
	12/15	<0.1	-98	<0.05	114	4.6	48	32.3	1.2	<4.0	<6.0	5.7
	6/16	<0.1	-96	0.012 J	122	4.2	51	39.8	0.9 J	<4.0	<6.0	3.6
	12/16	<0.1	-80.25	0.015 J	119	5.0	53	41.4	0.8 J	<4.0	<6.0	3.4
	6/17	<0.1	-42.12	0.013 J	103	4.7	57	55.0	0.7 J	<4.0	<6.0	5.1
	11/17	<0.1	-31.31	0.02 J	78	6.1	39	43.3	0.9 J	<4.0	<6.0	9.2
	6/18	0.54	-21.98	0.075	77	6.3	34	29.6	1 J	<7.0	<10.0	9.8
	12/18	<0.1	34.5	<0.050	74	6.9	38	34.3	1.1	<7.0	<10.0	6.2
	8/19	<0.1	158.7	<0.050	99	6.1	42	14.0	1.9	<7.0	<10.0	148
	12/19	<0.1	-58.6	0.015 J	68	6.7	40	32.0	2.1	<7.0	<10.0	135
	12/20	<0.1	128	0.017 J	73	9.6	41	23.9	1.2	<7.0	<10.0	9.1
MW-C12	11/21	0.21	-132.9	0.027 J	83	8.8	42	34.7	0.8 J	<7.0	<10.0	8.3
	11/22	0.40	16.1	0.042 J	104	6.8	46	23.7	1.0	<7.0	<10.0	11.2
	5/15	1.50	-77.1	0.127	144	7.3	68	50.3	<1.0	6.1	<6.0	11.6
	12/15	<0.1	98	0.074	136	8.0	59	29.8	1.2	4.9	<6.0	9.7
	6/16	<0.1	-78	0.189	133	7.4	68	58.2	1.1	3.4 J	<6.0	6.7
	12/16	0.26	-73.52	0.043 J	144	8.4	88	61.8	0.9 J	5.5	<6.0	9.7
	6/17	<0.1	-88.26	0.043 J	133	8.8	98	57.8	0.8 J	8.5	<6.0	7.4
	11/17	<0.1	-97.33	0.14	120	5.4	116	46.4	0.6 J	9.4	<6.0	8.2
	6/18	0.76	-64.84	0.606	112 S	4.7	146	25.4	0.8 J	<7.0	<10.0	4.2
	12/18	1.25	-26.09	0.289	108	7.0	162	42.4	0.5 J	<7.0	<10.0	4.3
	8/19	<0.1	212.3	0.013 J	109	11	134	27.6	0.8 J	<7.0	<10.0	6.7
	12/19	<0.1	-94	0.014 J	109	10	134	49.1	0.8 J	<7.0	<10.0	16.4
	12/20	<0.1	171	0.143	120	9.7	199	45.6	0.6 J	<7.0	<10.0	6.5
MW-C12	11/21	0.18	-129.7	0.011 J	121	11	250	41.6	<1.0	<7.0	<10.0	7.8
	11/22	0.36	-31.1	<0.050	122	12	203	41.4	<1.0	<7.0	<10.0	5.5

TABLE 2
GEOCHEMICAL INDICATOR PARAMETER SUMMARY
OU3 - HAYFORD BRIDGE ROAD GROUNDWATER SITE
ST. CHARLES, MISSOURI

J006295.11

Monitoring Well	Date (mo/yr)	Dissolved Oxygen (mg/l)	ORP (mV)	Nitrate (mg/l)	Sulfate (mg/l)	Ferrous Iron (mg/l)	Chloride (mg/l)	Carbon Dioxide (mg/l)	Dissolved Organic Carbon (mg/l)	Ethane (µg/l)	Ethene (µg/l)	Methane (µg/l)
MW-C13	5/15	0.01	-102.57	<0.050	137	9.4	70	47.1	1.0	63.9	35.6	114.0
	12/15	<0.1	-114	0.010	109	9.8	57	36.7	1.7	62.7	29.1	179
	6/16	<0.1	-95	0.020 J	109	18	70	65.3	1.5	61.1	51.7	152
	12/16	<0.1	-80.57	0.076	135	11	77	54.7	1.1	56.2	28	76.4
	6/17	<0.1	-91	0.068	73	11	80	76.7	1.6	56.0	24.9	142
	11/17	<0.1	-68.56	0.013 J	55	11	67	59	1.5	142	40.6	294
	6/18	<0.1	-82.89	0.071	56	11	84	47.6	1.6	125	25.3	259
	12/18	<0.1	-62.63	<0.050	99	10	105	50.0	1.0	120	39.4	161
	8/19	<0.1	50.90	0.061	40S	9.7	77	38.2	3.8	427	<10.0	1020
	12/19	0.21	-118	0.022 J	44	5.5	108	61.8	2.2	<7.0	24.6	1670
	6/20	<0.1	-37	0.020	34	5.5	69	27.5	2.6	138	22.8	346
	12/20	<0.1	106	<0.050	35	6.3	71	55.2	1.9	70.3	14.3	658
	5/21	NT	NT	<0.050	35	4.9	95	59.2	1.9	48.8	16.9	1100
	11/21	0.28	-120.3	<0.050	111	10	263	40.2	<1.0	15.7	<10.0	21.5
	6/22	0.22	-141	<0.050	32 S	3.8	112	24.7	1.4	<350	18.6	494 B
MW-C14	11/22	0.40	6.1	0.948	124	2.3	195	27.0	0.5 J	15.4	<10.0	29.4
	9/23	NT	NT	0.365	79	8.6	94	35.4	1	80	17.2	99.9
	5/15	0.04	-15.75	1.14	177	1.4	31	33.7	<1.0	<4.0	<6.0	<2.0
	12/15	<0.1	-22	1.29	169	1.1	29	24.6	1.2	<4.0	<6.0	1.6 J
	6/16	<0.1	45	4.49	151	0.34	32	37.9	0.9 J	<4.0	<6.0	1.6 J
	12/16	0.22	53.76	13	161	0.23	31	43.5	0.8 J	<4.0	<6.0	<2.0
	6/17	<0.1	281.44	3.29	168	0.074	34	42.5	0.8 J	<4.0	<6.0	<2.0
	11/17	<0.1	80.52	10.1	134	0.11	31	44.2	1 J	<4.0	<6.0	4.7
	6/18	0.05	138.97	3.10	151	0.042	32	23.4	1.0	<7.0	<10.0	4.2
	12/18	0.1	94.58	3.43	160	<0.40	31	24.5	0.9 J	<7.0	<10.0	<5.5
	8/19	<0.1	490.9	2.72	139	2.9	30	15.3	1.2	<7.0	<10.0	<4.0
	12/19	0.52	902.2	13.7	112	0.02J	30	29.2	0.9 J	<7.0	<10.0	5.1
	12/20	0.30	242	13.1	125	<0.02	29	21.1	0.8 J	<7.0	<10.0	4.3
	11/21	0.26	184.2	14.4	133	3.1	27	14.1	0.7 J	<7.0	<10.0	<4.0
	11/22	0.35	83.1	6.83	158	<0.020	25	20.4	1.0 J	<7.0	<10.0	<4.0
MW-C15	5/15	0.11	-107.36	<0.050	106	11	25	62.4	1.2	<4.0	<6.0	465
	12/15	<0.1	-124	<0.050	44	9.9	20	41.7	2.4	<4.0	15.2	850
	6/16	<0.1	-111	0.027 J	42	20	18	62.0	2.0	<4.0	11.5	742
	12/16	<0.1	-27.53	0.051	57	11	19	63.8	2.0	<4.0	8.7	875
	6/17	<0.1	-108.67	0.012 J	49	11	24	68.8	1.8	<4.0	<6.0	685
	11/17	<0.1	-77.41	<0.050	47	11	34	55.9	1.6	<4.0	69.7	885
	6/18	<0.1	-100.62	0.026 J	47	10	45	43.2	1.6	63.7	77.5	650
	12/18	<0.1	-59.64	<0.050	34	11	37	52.1	1.8	225	57.7	342
	8/19	<0.1	28.5	0.046 J	37	18	29	24.2	2.9	270	45.5	748
	12/19	<0.1	116.4	<0.050	94	12	30	48.4	1.4	<7.0	17.9	164
	6/20	0.38	-16	0.018	92	9.3	31	21.5	2.0	38.8	36.3	191
	12/20	<0.1	135	0.011 J	75	11	37	22.5	1.4	57.1	35.0	555
	5/21	NT	NT	<0.050	97	13	31	65.5	1.3	30.7	22.4	560
	11/21	6.52	28.3	0.288	180	0.072	32	23.2	1.3	<7.0	<10.0	10.4
	6/22	0.4	-83.1	0.146	130	8.6	34	26.7	1.5	27.0	14.5	314 B
	11/22	0.39	-46.2	0.009 J	115	11	39	30.3	1.4	35.3	19.9	256
	9/23	NT	NT	0.074	92	3.2	34	36.6	0.8	57.1	56.1	129

TABLE 2
GEOCHEMICAL INDICATOR PARAMETER SUMMARY
OU3 - HAYFORD BRIDGE ROAD GROUNDWATER SITE
ST. CHARLES, MISSOURI

J006295.11

Monitoring Well	Date (mo/yr)	Dissolved Oxygen (mg/l)	ORP (mV)	Nitrate (mg/l)	Sulfate (mg/l)	Ferrous Iron (mg/l)	Chloride (mg/l)	Carbon Dioxide (mg/l)	Dissolved Organic Carbon (mg/l)	Ethane (µg/l)	Ethene (µg/l)	Methane (µg/l)
MW-C16	5/15	2.68	-92.44	<0.050	32	5.5	10	83.1	1.8	<4.0	<6.0	129
	12/15	<0.1	-145	<0.050	28	6.1	12	40.5	1.9	<4.0	<6.0	65.4
	6/16	<0.1	-120	0.015 J	80	6.5	13	55.5	1.4	<4.0	<6.0	11.2
	11/16	0.11	-87.05	0.011 J	43	5.8	13	52.2	1.4	<4.0	<6.0	28.9
	6/17	0.02	-69.29	0.030 J	27	6.1	24	63.4	1.5	<4.0	<6.0	62.1
	11/17	<0.1	-72.37	0.023 J	54	6.4	19	49.8	1.1	<4.0	<6.0	31.2
	6/18	0.17	40.85	0.125	40	0.075	63	31.0	2.6	<7.0	<10.0	29.5
	12/18	<0.1	80.09	<0.050	42	0.40	50	27.8	1.3	<7.0	<10.0	19.7
	8/19	<0.1	-82.60	0.043 J	58	4.20	21	21.9	1.2	<7.0	<10.0	169
	12/19	<0.1	114	0.027 J	85S	1.0	66	44.6	1.4	<7.0	<10.0	86.5
	12/20	3.70	317	0.011 J	102	1.5	63	32.1	1.5	<7.0	<10.0	97.9
	11/21	2.61	72.4	0.114	243	0.024	105	39.2	0.9 J	<7.0	<10.0	6.8
	11/22	2.71	179.3	0.031 J	125	0.034	77	34.0	1.2	<7.0	<10.0	11.7
MW-C17	5/15	5.02	31.56	<0.050	99	6.3	14	68.8	1.2	<4.0	<6.0	19.8
	12/15	0.13	-158	0.01 J	112	6.9	24	38.5	1.4	<4.0	<6.0	9.0
	6/16	<0.1	-105	0.026 J	91	6.4	16	48.0	1.5	<4.0	<6.0	20.6
	11/16	0.96	63.18	1.02	64	0.13	22	27.6	1.8	<4.0	<6.0	<2
	6/17	0.04	-67.28	0.012 J	73	6.6	17	59.2	1.2	<4.0	<6.0	27.9
	11/17	<0.1	30.59	0.011 J	15	7.0	10	43.9	2.2	<4.0	<6.0	690
	6/18	NT	NT	1.60	56	0.064	35	10.7	1.8	<7.0	<10.0	<4.0
	12/18	<0.1	-7.43	<0.050	23	7.0	18	48.3	2.0	<7.0	<10.0	199
	8/19	<0.1	-72.50	0.38 J	<10	7.8	15	35.7	2.0	<7.0	<10.0	201
	12/19	<0.1	-5.20	0.023 J	12	7.4	18	54.2	1.9	<7.0	<10.0	113
	6/20	<0.1	-38.00	0.010	11	7.5	14	25	2.2	<7.0	<10.0	130
	11/20	0.11	212	<0.050	45	6.3	27	40.9	2.4	9.6	<10.0	99.6
	5/21	NT	NT	0.039	17	8.7	16	48.6	2.1	<7.0	<10.0	550
	11/21	0.29	26.1	0.017 J	151	3.4	52	32.8	1.9	<7.0	<10.0	307
	6/22	0.39	-108	<0.050	22	6.4	10	12.4	2.5	<7.0	<10.0	885 B
	11/22	0.3	-94.3	<0.050	105	5.5	33	36.5	2.1	<70.0	<100	519 B
	9/23	NT	NT	<0.05	25	1.3	13	22.4	1.5	<7.0	10.4	700
MW-C18	12/15	<0.1	-100	0.032 J	75	6.7	28	69.0	1.2	<4.0	<6.0	26.9
	6/16	<0.1	87	0.023 J	69	5.8	27	41.0	1.2	<4.0	<6.0	26.3
	11/16	<0.1	-81.3	<0.050	72	7.9S	23	34.9	1.0	<4.0	<6.0	34.8
	6/17	<0.1	-82.77	0.012 J	71	6.0	24	43.2	0.8 J	<4.0	<6.0	25.4
	11/17	<0.1	-74.72	<0.050	68	8.5	28	43.7	1.0	<4.0	<6.0	21.7
	6/18	0.04	-64.44	<0.050	52	4.6	18	36.9	1.0	<7.0	<10.0	18.9
	12/18	<0.1	-3.95	<0.050	55	7.5	33	42.3	1.3	<7.0	<10.0	18.3
	8/19	Not Sampled Due To Flooding										
	12/19	Not Sampled Due To Flooding										
	12/20	Not Sampled Due To Flooding										
	11/21	0.27	80.4	<0.050	47	8.4	285	37.2	<1.0	<7.0	<10.0	17.6
	11/22	Not Sampled Due To Flooding										

TABLE 2
GEOCHEMICAL INDICATOR PARAMETER SUMMARY
OU3 - HAYFORD BRIDGE ROAD GROUNDWATER SITE
ST. CHARLES, MISSOURI

J006295.11

Monitoring Well	Date (mo/yr)	Dissolved Oxygen (mg/l)	ORP (mV)	Nitrate (mg/l)	Sulfate (mg/l)	Ferrous Iron (mg/l)	Chloride (mg/l)	Carbon Dioxide (mg/l)	Dissolved Organic Carbon (mg/l)	Ethane (µg/l)	Ethene (µg/l)	Methane (µg/l)
MW-C19	12/15	<0.1	-103	<0.050	10	6.1	8	74.9	1.6	<4.0	<6.0	70.4
	6/16	<0.1	-100	0.010 J	10	7.6	10	64.4	1.7	<4.0	<6.0	88.2
	11/16	0.16	-88.83	0.066	10 S	8.8 S	9	31.0	1.5	<4.0	4.3 J	132
	6/17	<0.1	-68.65	0.013 J	10 J	8.1	12	72.6	1.3	<4.0	<6.0	84.0
	11/17	<0.1	-79.26	0.010 J	13	7.2	8	62.9	1.7	<4.0	<6.0	48.4
	6/18	0.05	-60.75	0.016 J	9 JS	2.3	8	59.5	1.5	<7.0	<10.0	30.9
	12/18	0.37	88.92	0.194	15	0.7	19	40.6	1.7	<7.0	<10.0	21.6
	8/19	Not Sampled Due To Flooding										
	12/19	Not Sampled Due To Flooding										
	12/20	Not Sampled Due To Flooding										
	11/21	0.30	-69.3	0.010 J	6 J	0.095	22	34.4	1.4	<7.0	<10.0	28.3
	11/22	Not Sampled Due To Flooding										

Notes:

Data from the last eight years is included in the table.

J = Estimated value below the reporting limit.

NT = Not tested or anomalous results due to equipment problems in the field.

H = Holding times exceeded.

S = Spike Recovery outside recovery limits.

B = Analyte detected in associated Method Blank.



NOTES

1. Plan adapted from "2015 Aerial Imagery for the St. Louis Region" supplied by East-West Gateway Council of Governments.

LEGEND:

- Well of Elm Point Well Field
- Radial Well - Elm Point Well Field
- OU3 Monitoring Well Location (Existing)
- OU1 Monitoring Well Location (Existing)

Chemical Concentration Legend:

- VC Vinyl Chloride
- cis-1,2-DCE Cis-1,2-Dichloroethene
- Benzene Benzene
- 1,1-DCA 1,1-Dichloroethane
- Toluene Toluene
- Trans-1,2-DCE Trans-1,2-Dichloroethene
- 1,4-Dioxane 1,4-Dioxane
- J Detected Below Reporting Limit

Scale:

0 500 1000

APPROXIMATE SCALE IN FEET

North Arrow:

Geotechnology
A UES Company

Operable Unit 3
Hayford Bridge Road Groundwater Site
St. Charles, Missouri

GROUNDWATER CONCENTRATIONS
SEPTEMBER 2023

Drawn By: WAH	CK'd By: KJH	App'vd By: KJH
Date: 9-28-23	Date: 10-2-23	Date: 10-2-23
Project Number J006295.11		FIGURE 1



ATTACHMENT 1

LABORATORY TESTING REPORT – SEPTEMBER 6 AND 7, 2023

September 18, 2023

Kenny Hemmen
Geotechnology, Inc.
11816 Lackland Road
St. Louis, MO 63146
TEL: (314) 997-7440
FAX: (314) 997-2067



Illinois	100226
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: Hayford Bridge J006295.07

WorkOrder: 23090540

Dear Kenny Hemmen:

TEKLAB, INC received 4 samples on 9/8/2023 1:53:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,



Patrick Riley
Project Manager
(618)344-1004 ex 44
patrickriley@teklabinc.com



Report Contents

<http://www.teklabinc.com/>

Client: Geotechnology, Inc.

Work Order: 23090540

Client Project: Hayford Bridge J006295.07

Report Date: 18-Sep-23

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Sample Summary	19
Dates Report	20
Quality Control Results	22
Receiving Check List	38
Chain of Custody	Appended

Client: Geotechnology, Inc.**Work Order:** 23090540**Client Project:** Hayford Bridge J006295.07**Report Date:** 18-Sep-23**Abbr Definition**

* Analytes on report marked with an asterisk are not NELAP accredited

CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.

CRQL A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.

DF Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.

DNI Did not ignite

DUP Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.

ICV Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.

IDPH IL Dept. of Public Health

LCS Laboratory control sample is a sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.

LCSD Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MBLK Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.

MDL "The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."

MS Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).

MSD Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MW Molecular weight

NC Data is not acceptable for compliance purposes

ND Not Detected at the Reporting Limit

NELAP NELAP Accredited

PQL Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.

RL The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.

RPD Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).

SPK The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.

Surr Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.

TIC Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"

TNTC Too numerous to count (> 200 CFU)

Client: Geotechnology, Inc.

Work Order: 23090540

Client Project: Hayford Bridge J006295.07

Report Date: 18-Sep-23

Qualifiers

- | | |
|---|--|
| # - Unknown hydrocarbon | B - Analyte detected in associated Method Blank |
| C - RL shown is a Client Requested Quantitation Limit | E - Value above quantitation range |
| H - Holding times exceeded | I - Associated internal standard was outside method criteria |
| J - Analyte detected below quantitation limits | M - Manual Integration used to determine area response |
| ND - Not Detected at the Reporting Limit | R - RPD outside accepted recovery limits |
| S - Spike Recovery outside recovery limits | T - TIC(Tentatively identified compound) |
| X - Value exceeds Maximum Contaminant Level | |



Case Narrative

<http://www.teklabinc.com/>

Client: Geotechnology, Inc.

Work Order: 23090540

Client Project: Hayford Bridge J006295.07

Report Date: 18-Sep-23

Cooler Receipt Temp: 1.6 °C

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email EHurley@teklabinc.com

Springfield

Address 3920 Pintail Dr
Springfield, IL 62711-9415
Phone (217) 698-1004
Fax (217) 698-1005
Email KKlostermann@teklabinc.com

Chicago

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Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
Email jhriley@teklabinc.com

Client: Geotechnology, Inc.**Work Order:** 23090540**Client Project:** Hayford Bridge J006295.07**Report Date:** 18-Sep-23

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2024	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2024	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2024	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2024	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2023	Collinsville
Arkansas	ADEQ	88-0966		3/14/2024	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2024	Collinsville
Kentucky	UST	0073		1/31/2024	Collinsville
Missouri	MDNR	00930		5/31/2023	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville



Laboratory Results

<http://www.teklabinc.com/>

Client: Geotechnology, Inc.
Client Project: Hayford Bridge J006295.07
Lab ID: 23090540-001
Matrix: GROUNDWATER

Work Order: 23090540
Report Date: 18-Sep-23
Client Sample ID: MW-C17
Collection Date: 09/06/2023 14:00

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 600 353.2 R2.0 (TOTAL)								
Nitrogen, Nitrate (as N)	NELAP	0.050	H	< 0.050	mg/L	1	09/11/2023 11:22	R336219
Sample analysis did not meet hold time requirements.								
EPA 600 375.2 REV 2.0 1993 (TOTAL)								
Sulfate	NELAP	10	S	25	mg/L	1	09/13/2023 17:24	R336315
Matrix spike did not recover within control limits. Results verified by dilution.								
SM-3500-FE D, LABORATORY ANALYZED								
Lab Ferrous Iron	*	0.40		1.3	mg/L	20	09/15/2023 12:32	R336399
STANDARD METHOD 4500-H B 2000, 2011, LABORATORY ANALYZED								
Lab pH	NELAP	1.00	H	7.56		1	09/13/2023 13:33	R336249
STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011								
Chloride	NELAP	4		13	mg/L	1	09/13/2023 17:25	R336346
STANDARD METHODS 4500-CO2 C, LABORATORY ANALYZED								
Lab Free Carbon Dioxide as CO2	*	0		22.4	mg/L	1	09/13/2023 12:22	R336271
STANDARD METHODS 5310 C 2000, 2011, ORGANIC CARBON								
Dissolved Organic Carbon	NELAP	1.0		1.5	mg/L	1	09/14/2023 17:35	R336370
PERMANENT GASES (RSKSOP-175)								
Ethane	*	7.0		ND	µg/L	1	09/13/2023 10:31	R336305
Ethene	*	10.0		10.4	µg/L	1	09/13/2023 10:31	R336305
Methane	*	200		700	µg/L	50	09/13/2023 11:12	R336305
SW-846 3510C,8270C, SEMI-VOLATILE ORGANIC COMPOUNDS								
1,4-Dioxane	*	0.00100		ND	mg/L	1	09/13/2023 18:22	211937
Surr: 2-Fluorobiphenyl	*	21.4-142		60.0	%REC	1	09/13/2023 18:22	211937
Surr: Nitrobenzene-d5	*	15-163		59.4	%REC	1	09/13/2023 18:22	211937
Surr: p-Terphenyl-d14	*	10-173		77.5	%REC	1	09/13/2023 18:22	211937
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,1,1,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	09/11/2023 9:34	211857
1,1,1-Trichloroethane	NELAP	2.0		ND	µg/L	1	09/11/2023 9:34	211857
1,1,2,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	09/11/2023 9:34	211857
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		ND	µg/L	1	09/11/2023 9:34	211857
1,1,2-Trichloroethane	NELAP	0.5		ND	µg/L	1	09/11/2023 9:34	211857
1,1-Dichloro-2-propanone	*	30.0		ND	µg/L	1	09/11/2023 9:34	211857
1,1-Dichloroethane	NELAP	2.0	J	1.3	µg/L	1	09/11/2023 9:34	211857
1,1-Dichloroethene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:34	211857
1,1-Dichloropropene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:34	211857
1,2,3-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:34	211857
1,2,3-Trichloropropane	NELAP	2.0		ND	µg/L	1	09/11/2023 9:34	211857
1,2,3-Trimethylbenzene	*	2.0		ND	µg/L	1	09/11/2023 9:34	211857
1,2,4-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:34	211857
1,2,4-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:34	211857
1,2-Dibromo-3-chloropropane	NELAP	2.0		ND	µg/L	1	09/11/2023 9:34	211857
1,2-Dibromoethane	NELAP	2.0		ND	µg/L	1	09/11/2023 9:34	211857
1,2-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:34	211857
1,2-Dichloroethane	NELAP	2.0		ND	µg/L	1	09/11/2023 9:34	211857
1,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	09/11/2023 9:34	211857
1,3,5-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:34	211857
1,3-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:34	211857

Client: Geotechnology, Inc.
 Client Project: Hayford Bridge J006295.07
 Lab ID: 23090540-001
 Matrix: GROUNDWATER

Work Order: 23090540
 Report Date: 18-Sep-23
 Client Sample ID: MW-C17
 Collection Date: 09/06/2023 14:00

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,3-Dichloropropane	NELAP	2.0		ND	µg/L	1	09/11/2023 9:34	211857
1,4-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:34	211857
1-Chlorobutane	NELAP	5.0		ND	µg/L	1	09/11/2023 9:34	211857
2,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	09/11/2023 9:34	211857
2-Butanone	NELAP	10.0		ND	µg/L	1	09/11/2023 9:34	211857
2-Chloroethyl vinyl ether	NELAP	5.0		ND	µg/L	1	09/11/2023 9:34	211857
2-Chlorotoluene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:34	211857
2-Hexanone	NELAP	10.0		ND	µg/L	1	09/11/2023 9:34	211857
2-Nitropropane	NELAP	10.0		ND	µg/L	1	09/11/2023 9:34	211857
4-Chlorotoluene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:34	211857
4-Methyl-2-pentanone	NELAP	10.0		ND	µg/L	1	09/11/2023 9:34	211857
Acetone	NELAP	10	BJ	8.6	µg/L	1	09/11/2023 9:34	211857
Acetonitrile	NELAP	10.0		ND	µg/L	1	09/11/2023 9:34	211857
Acrolein	NELAP	20.0		ND	µg/L	1	09/11/2023 9:34	211857
Acrylonitrile	NELAP	5.0		ND	µg/L	1	09/11/2023 9:34	211857
Allyl chloride	NELAP	5.0		ND	µg/L	1	09/11/2023 9:34	211857
Benzene	NELAP	0.5		ND	µg/L	1	09/11/2023 9:34	211857
Bromobenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:34	211857
Bromochloromethane	NELAP	2.0		ND	µg/L	1	09/11/2023 9:34	211857
Bromodichloromethane	NELAP	2.0		ND	µg/L	1	09/11/2023 9:34	211857
Bromoform	NELAP	2.0		ND	µg/L	1	09/11/2023 9:34	211857
Bromomethane	NELAP	5.0		ND	µg/L	1	09/11/2023 9:34	211857
Carbon disulfide	NELAP	2.0		ND	µg/L	1	09/11/2023 9:34	211857
Carbon tetrachloride	NELAP	2.0		ND	µg/L	1	09/11/2023 9:34	211857
Chlorobenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:34	211857
Chloroethane	NELAP	2.0		ND	µg/L	1	09/11/2023 9:34	211857
Chloroform	NELAP	2.0		ND	µg/L	1	09/11/2023 9:34	211857
Chloromethane	NELAP	5.0		ND	µg/L	1	09/11/2023 9:34	211857
Chloroprene	NELAP	5.0		ND	µg/L	1	09/11/2023 9:34	211857
cis-1,2-Dichloroethene	NELAP	2.0		4.2	µg/L	1	09/11/2023 9:34	211857
cis-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:34	211857
cis-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:34	211857
Cyclohexanone	*	20.0		ND	µg/L	1	09/11/2023 9:34	211857
Dibromochloromethane	NELAP	2.0		ND	µg/L	1	09/11/2023 9:34	211857
Dibromomethane	NELAP	2.0		ND	µg/L	1	09/11/2023 9:34	211857
Dichlorodifluoromethane	NELAP	2.0		ND	µg/L	1	09/11/2023 9:34	211857
Ethyl acetate	NELAP	10.0		ND	µg/L	1	09/11/2023 9:34	211857
Ethyl ether	NELAP	5.0		ND	µg/L	1	09/11/2023 9:34	211857
Ethyl methacrylate	NELAP	5.0		ND	µg/L	1	09/11/2023 9:34	211857
Ethylbenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:34	211857
Hexachlorobutadiene	NELAP	5.0		ND	µg/L	1	09/11/2023 9:34	211857
Hexachloroethane	NELAP	5.0		ND	µg/L	1	09/11/2023 9:34	211857
Iodomethane	NELAP	5.0		ND	µg/L	1	09/11/2023 9:34	211857
Isopropylbenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:34	211857
m,p-Xylenes	NELAP	2.0		ND	µg/L	1	09/11/2023 9:34	211857
Methacrylonitrile	NELAP	5.0		ND	µg/L	1	09/11/2023 9:34	211857
Methyl Methacrylate	NELAP	5.0		ND	µg/L	1	09/11/2023 9:34	211857

Client: Geotechnology, Inc.
 Client Project: Hayford Bridge J006295.07
 Lab ID: 23090540-001
 Matrix: GROUNDWATER

Work Order: 23090540
 Report Date: 18-Sep-23
 Client Sample ID: MW-C17
 Collection Date: 09/06/2023 14:00

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Methyl tert-butyl ether	NELAP	2.0		ND	µg/L	1	09/11/2023 9:34	211857
Methylacrylate	NELAP	5.0		ND	µg/L	1	09/11/2023 9:34	211857
Methylene chloride	NELAP	2.0		ND	µg/L	1	09/11/2023 9:34	211857
Naphthalene	NELAP	5.0		ND	µg/L	1	09/11/2023 9:34	211857
n-Butyl acetate	*	2.0		ND	µg/L	1	09/11/2023 9:34	211857
n-Butylbenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:34	211857
n-Heptane	*	5.0		ND	µg/L	1	09/11/2023 9:34	211857
n-Hexane	*	5.0		ND	µg/L	1	09/11/2023 9:34	211857
Nitrobenzene	NELAP	50.0		ND	µg/L	1	09/11/2023 9:34	211857
n-Propylbenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:34	211857
o-Xylene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:34	211857
Pentachloroethane	NELAP	5.0		ND	µg/L	1	09/11/2023 9:34	211857
p-Isopropyltoluene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:34	211857
Propionitrile	NELAP	10.0		ND	µg/L	1	09/11/2023 9:34	211857
sec-Butylbenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:34	211857
Styrene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:34	211857
tert-Butylbenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:34	211857
Tetrachloroethene	NELAP	0.5		ND	µg/L	1	09/11/2023 9:34	211857
Tetrahydrofuran	NELAP	5.0		ND	µg/L	1	09/11/2023 9:34	211857
Toluene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:34	211857
trans-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:34	211857
trans-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:34	211857
trans-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:34	211857
Trichloroethene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:34	211857
Trichlorofluoromethane	NELAP	5.0		ND	µg/L	1	09/11/2023 9:34	211857
Vinyl acetate	NELAP	5.0		ND	µg/L	1	09/11/2023 9:34	211857
Vinyl chloride	NELAP	2.0		9.2	µg/L	1	09/11/2023 9:34	211857
Surr: 1,2-Dichloroethane-d4	*	80-120		101.6	%REC	1	09/11/2023 9:34	211857
Surr: 4-Bromofluorobenzene	*	80-120		102.2	%REC	1	09/11/2023 9:34	211857
Surr: Dibromofluoromethane	*	80-120		103.4	%REC	1	09/11/2023 9:34	211857
Surr: Toluene-d8	*	80-120		99.6	%REC	1	09/11/2023 9:34	211857

Acetone was detected in the MBLK at a level between the MDL and the RL. Sample result is less than the RL. Data is reportable.

Client: Geotechnology, Inc.
 Client Project: Hayford Bridge J006295.07
 Lab ID: 23090540-002
 Matrix: GROUNDWATER

Work Order: 23090540
 Report Date: 18-Sep-23
 Client Sample ID: MW-C15
 Collection Date: 09/07/2023 11:40

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 600 353.2 R2.0 (TOTAL)								
Nitrogen, Nitrate (as N)	NELAP	0.050	H	0.074	mg/L	1	09/11/2023 11:31	R336219
Sample analysis did not meet hold time requirements.								
EPA 600 375.2 REV 2.0 1993 (TOTAL)								
Sulfate	NELAP	50		92	mg/L	5	09/13/2023 17:46	R336315
SM-3500-FE D, LABORATORY ANALYZED								
Lab Ferrous Iron	*	0.40		3.2	mg/L	20	09/15/2023 12:34	R336399
STANDARD METHOD 4500-H B 2000, 2011, LABORATORY ANALYZED								
Lab pH	NELAP	1.00	H	7.24		1	09/13/2023 13:35	R336249
STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011								
Chloride	NELAP	20		34	mg/L	5	09/13/2023 17:46	R336346
STANDARD METHODS 4500-CO2 C, LABORATORY ANALYZED								
Lab Free Carbon Dioxide as CO2	*	0		36.6	mg/L	1	09/13/2023 12:29	R336271
STANDARD METHODS 5310 C 2000, 2011, ORGANIC CARBON								
Dissolved Organic Carbon	NELAP	1.0	J	0.8	mg/L	1	09/14/2023 18:53	R336370
PERMANENT GASES (RSKSOP-175)								
Ethane	*	7.0		57.1	µg/L	1	09/13/2023 10:42	R336305
Ethene	*	10.0		56.1	µg/L	1	09/13/2023 10:42	R336305
Methane	*	40.0		129	µg/L	10	09/13/2023 11:24	R336305
SW-846 3510C,8270C, SEMI-VOLATILE ORGANIC COMPOUNDS								
1,4-Dioxane	*	0.00500		0.00805	mg/L	5	09/14/2023 14:23	211937
Surr: 2-Fluorobiphenyl	*	21.4-142		130.0	%REC	1	09/13/2023 19:00	211937
Surr: Nitrobenzene-d5	*	15-163		132.3	%REC	1	09/13/2023 19:00	211937
Surr: p-Terphenyl-d14	*	10-173		144.7	%REC	1	09/13/2023 19:00	211937
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,1,1,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	09/11/2023 10:24	211857
1,1,1-Trichloroethane	NELAP	2.0		ND	µg/L	1	09/11/2023 10:24	211857
1,1,2,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	09/11/2023 10:24	211857
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		ND	µg/L	1	09/11/2023 10:24	211857
1,1,2-Trichloroethane	NELAP	0.5		ND	µg/L	1	09/11/2023 10:24	211857
1,1-Dichloro-2-propanone	*	30.0		ND	µg/L	1	09/11/2023 10:24	211857
1,1-Dichloroethane	NELAP	2.0		7.7	µg/L	1	09/11/2023 10:24	211857
1,1-Dichloroethene	NELAP	2.0	J	0.2	µg/L	1	09/11/2023 10:24	211857
1,1-Dichloropropene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:24	211857
1,2,3-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:24	211857
1,2,3-Trichloropropane	NELAP	2.0		ND	µg/L	1	09/11/2023 10:24	211857
1,2,3-Trimethylbenzene	*	2.0		ND	µg/L	1	09/11/2023 10:24	211857
1,2,4-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:24	211857
1,2,4-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:24	211857
1,2-Dibromo-3-chloropropane	NELAP	2.0		ND	µg/L	1	09/11/2023 10:24	211857
1,2-Dibromoethane	NELAP	2.0		ND	µg/L	1	09/11/2023 10:24	211857
1,2-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:24	211857
1,2-Dichloroethane	NELAP	2.0		ND	µg/L	1	09/11/2023 10:24	211857
1,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	09/11/2023 10:24	211857
1,3,5-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:24	211857
1,3-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:24	211857
1,3-Dichloropropane	NELAP	2.0		ND	µg/L	1	09/11/2023 10:24	211857

Client: Geotechnology, Inc.
 Client Project: Hayford Bridge J006295.07
 Lab ID: 23090540-002
 Matrix: GROUNDWATER

Work Order: 23090540
 Report Date: 18-Sep-23
 Client Sample ID: MW-C15
 Collection Date: 09/07/2023 11:40

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,4-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:24	211857
1-Chlorobutane	NELAP	5.0		ND	µg/L	1	09/11/2023 10:24	211857
2,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	09/11/2023 10:24	211857
2-Butanone	NELAP	10.0		ND	µg/L	1	09/11/2023 10:24	211857
2-Chloroethyl vinyl ether	NELAP	5.0		ND	µg/L	1	09/11/2023 10:24	211857
2-Chlorotoluene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:24	211857
2-Hexanone	NELAP	10.0		ND	µg/L	1	09/11/2023 10:24	211857
2-Nitropropane	NELAP	10.0		ND	µg/L	1	09/11/2023 10:24	211857
4-Chlorotoluene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:24	211857
4-Methyl-2-pentanone	NELAP	10.0		ND	µg/L	1	09/11/2023 10:24	211857
Acetone	NELAP	10.0	B	ND	µg/L	1	09/11/2023 10:24	211857
Acetonitrile	NELAP	10.0		ND	µg/L	1	09/11/2023 10:24	211857
Acrolein	NELAP	20.0		ND	µg/L	1	09/11/2023 10:24	211857
Acrylonitrile	NELAP	5.0		ND	µg/L	1	09/11/2023 10:24	211857
Allyl chloride	NELAP	5.0		ND	µg/L	1	09/11/2023 10:24	211857
Benzene	NELAP	0.5		19.7	µg/L	1	09/11/2023 10:24	211857
Bromobenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:24	211857
Bromochloromethane	NELAP	2.0		ND	µg/L	1	09/11/2023 10:24	211857
Bromodichloromethane	NELAP	2.0		ND	µg/L	1	09/11/2023 10:24	211857
Bromoform	NELAP	2.0		ND	µg/L	1	09/11/2023 10:24	211857
Bromomethane	NELAP	5.0		ND	µg/L	1	09/11/2023 10:24	211857
Carbon disulfide	NELAP	2.0		ND	µg/L	1	09/11/2023 10:24	211857
Carbon tetrachloride	NELAP	2.0		ND	µg/L	1	09/11/2023 10:24	211857
Chlorobenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:24	211857
Chloroethane	NELAP	2.0		ND	µg/L	1	09/11/2023 10:24	211857
Chloroform	NELAP	2.0		ND	µg/L	1	09/11/2023 10:24	211857
Chloromethane	NELAP	5.0		ND	µg/L	1	09/11/2023 10:24	211857
Chloroprene	NELAP	5.0		ND	µg/L	1	09/11/2023 10:24	211857
cis-1,2-Dichloroethene	NELAP	2.0		49.2	µg/L	1	09/11/2023 10:24	211857
cis-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:24	211857
cis-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:24	211857
Cyclohexanone	*	20.0		ND	µg/L	1	09/11/2023 10:24	211857
Dibromochloromethane	NELAP	2.0		ND	µg/L	1	09/11/2023 10:24	211857
Dibromomethane	NELAP	2.0		ND	µg/L	1	09/11/2023 10:24	211857
Dichlorodifluoromethane	NELAP	2.0		ND	µg/L	1	09/11/2023 10:24	211857
Ethyl acetate	NELAP	10.0		ND	µg/L	1	09/11/2023 10:24	211857
Ethyl ether	NELAP	5.0		ND	µg/L	1	09/11/2023 10:24	211857
Ethyl methacrylate	NELAP	5.0		ND	µg/L	1	09/11/2023 10:24	211857
Ethylbenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:24	211857
Hexachlorobutadiene	NELAP	5.0		ND	µg/L	1	09/11/2023 10:24	211857
Hexachloroethane	NELAP	5.0		ND	µg/L	1	09/11/2023 10:24	211857
Iodomethane	NELAP	5.0		ND	µg/L	1	09/11/2023 10:24	211857
Isopropylbenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:24	211857
m,p-Xylenes	NELAP	2.0		ND	µg/L	1	09/11/2023 10:24	211857
Methacrylonitrile	NELAP	5.0		ND	µg/L	1	09/11/2023 10:24	211857
Methyl Methacrylate	NELAP	5.0		ND	µg/L	1	09/11/2023 10:24	211857
Methyl tert-butyl ether	NELAP	2.0		ND	µg/L	1	09/11/2023 10:24	211857

Client: Geotechnology, Inc.
 Client Project: Hayford Bridge J006295.07
 Lab ID: 23090540-002
 Matrix: GROUNDWATER

Work Order: 23090540
 Report Date: 18-Sep-23
 Client Sample ID: MW-C15
 Collection Date: 09/07/2023 11:40

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Methylacrylate	NELAP	5.0		ND	µg/L	1	09/11/2023 10:24	211857
Methylene chloride	NELAP	2.0		ND	µg/L	1	09/11/2023 10:24	211857
Naphthalene	NELAP	5.0		ND	µg/L	1	09/11/2023 10:24	211857
n-Butyl acetate	*	2.0		ND	µg/L	1	09/11/2023 10:24	211857
n-Butylbenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:24	211857
n-Heptane	*	5.0		ND	µg/L	1	09/11/2023 10:24	211857
n-Hexane	*	5.0		ND	µg/L	1	09/11/2023 10:24	211857
Nitrobenzene	NELAP	50.0		ND	µg/L	1	09/11/2023 10:24	211857
n-Propylbenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:24	211857
o-Xylene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:24	211857
Pentachloroethane	NELAP	5.0		ND	µg/L	1	09/11/2023 10:24	211857
p-Isopropyltoluene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:24	211857
Propionitrile	NELAP	10.0		ND	µg/L	1	09/11/2023 10:24	211857
sec-Butylbenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:24	211857
Styrene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:24	211857
tert-Butylbenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:24	211857
Tetrachloroethene	NELAP	0.5		ND	µg/L	1	09/11/2023 10:24	211857
Tetrahydrofuran	NELAP	5.0		ND	µg/L	1	09/11/2023 10:24	211857
Toluene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:24	211857
trans-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:24	211857
trans-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:24	211857
trans-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:24	211857
Trichloroethene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:24	211857
Trichlorofluoromethane	NELAP	5.0		ND	µg/L	1	09/11/2023 10:24	211857
Vinyl acetate	NELAP	5.0		ND	µg/L	1	09/11/2023 10:24	211857
Vinyl chloride	NELAP	2.0		71.6	µg/L	1	09/11/2023 10:24	211857
Surr: 1,2-Dichloroethane-d4	*	80-120		103.3	%REC	1	09/11/2023 10:24	211857
Surr: 4-Bromofluorobenzene	*	80-120		101.3	%REC	1	09/11/2023 10:24	211857
Surr: Dibromofluoromethane	*	80-120		103.5	%REC	1	09/11/2023 10:24	211857
Surr: Toluene-d8	*	80-120		98.3	%REC	1	09/11/2023 10:24	211857

Acetone was detected in the MBLK at a level between the MDL and the RL. Sample result is less than the RL. Data is reportable.

Client: Geotechnology, Inc.
 Client Project: Hayford Bridge J006295.07
 Lab ID: 23090540-003
 Matrix: GROUNDWATER

Work Order: 23090540
 Report Date: 18-Sep-23
 Client Sample ID: MW-C13
 Collection Date: 09/07/2023 14:30

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
EPA 600 353.2 R2.0 (TOTAL)								
Nitrogen, Nitrate (as N)	NELAP	0.050	H	0.365	mg/L	1	09/11/2023 11:34	R336219
Sample analysis did not meet hold time requirements.								
EPA 600 375.2 REV 2.0 1993 (TOTAL)								
Sulfate	NELAP	50		79	mg/L	5	09/15/2023 16:20	R336442
SM-3500-FE D, LABORATORY ANALYZED								
Lab Ferrous Iron	*	0.40		8.6	mg/L	20	09/15/2023 12:36	R336399
STANDARD METHOD 4500-H B 2000, 2011, LABORATORY ANALYZED								
Lab pH	NELAP	1.00	H	7.32		1	09/13/2023 13:37	R336249
STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011								
Chloride	NELAP	40		94	mg/L	10	09/13/2023 18:05	R336346
STANDARD METHODS 4500-CO2 C, LABORATORY ANALYZED								
Lab Free Carbon Dioxide as CO2	*	0		35.4	mg/L	1	09/13/2023 12:32	R336271
STANDARD METHODS 5310 C 2000, 2011, ORGANIC CARBON								
Dissolved Organic Carbon	NELAP	1.0		1.0	mg/L	1	09/14/2023 19:05	R336370
PERMANENT GASES (RSKSOP-175)								
Ethane	*	70.0		80.0	µg/L	10	09/13/2023 11:37	R336305
Ethene	*	10.0		17.2	µg/L	1	09/13/2023 10:57	R336305
Methane	*	40.0		99.9	µg/L	10	09/13/2023 11:37	R336305
SW-846 3510C,8270C, SEMI-VOLATILE ORGANIC COMPOUNDS								
1,4-Dioxane	*	0.00500		0.00867	mg/L	5	09/14/2023 15:01	211937
Surr: 2-Fluorobiphenyl	*	21.4-142		61.2	%REC	1	09/13/2023 19:39	211937
Surr: Nitrobenzene-d5	*	15-163		60.2	%REC	1	09/13/2023 19:39	211937
Surr: p-Terphenyl-d14	*	10-173		74.6	%REC	1	09/13/2023 19:39	211937
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,1,1,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	09/11/2023 10:49	211857
1,1,1-Trichloroethane	NELAP	2.0		ND	µg/L	1	09/11/2023 10:49	211857
1,1,2,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	09/11/2023 10:49	211857
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		ND	µg/L	1	09/11/2023 10:49	211857
1,1,2-Trichloroethane	NELAP	0.5		ND	µg/L	1	09/11/2023 10:49	211857
1,1-Dichloro-2-propanone	*	30.0		ND	µg/L	1	09/11/2023 10:49	211857
1,1-Dichloroethane	NELAP	2.0		7.5	µg/L	1	09/11/2023 10:49	211857
1,1-Dichloroethene	NELAP	2.0	J	0.2	µg/L	1	09/11/2023 10:49	211857
1,1-Dichloropropene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:49	211857
1,2,3-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:49	211857
1,2,3-Trichloropropane	NELAP	2.0		ND	µg/L	1	09/11/2023 10:49	211857
1,2,3-Trimethylbenzene	*	2.0		ND	µg/L	1	09/11/2023 10:49	211857
1,2,4-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:49	211857
1,2,4-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:49	211857
1,2-Dibromo-3-chloropropane	NELAP	2.0		ND	µg/L	1	09/11/2023 10:49	211857
1,2-Dibromoethane	NELAP	2.0		ND	µg/L	1	09/11/2023 10:49	211857
1,2-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:49	211857
1,2-Dichloroethane	NELAP	2.0		ND	µg/L	1	09/11/2023 10:49	211857
1,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	09/11/2023 10:49	211857
1,3,5-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:49	211857
1,3-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:49	211857
1,3-Dichloropropane	NELAP	2.0		ND	µg/L	1	09/11/2023 10:49	211857

Client: Geotechnology, Inc.
 Client Project: Hayford Bridge J006295.07
 Lab ID: 23090540-003
 Matrix: GROUNDWATER

Work Order: 23090540
 Report Date: 18-Sep-23
 Client Sample ID: MW-C13
 Collection Date: 09/07/2023 14:30

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,4-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:49	211857
1-Chlorobutane	NELAP	5.0		ND	µg/L	1	09/11/2023 10:49	211857
2,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	09/11/2023 10:49	211857
2-Butanone	NELAP	10	J	0.6	µg/L	1	09/11/2023 10:49	211857
2-Chloroethyl vinyl ether	NELAP	5.0		ND	µg/L	1	09/11/2023 10:49	211857
2-Chlorotoluene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:49	211857
2-Hexanone	NELAP	10.0		ND	µg/L	1	09/11/2023 10:49	211857
2-Nitropropane	NELAP	10.0		ND	µg/L	1	09/11/2023 10:49	211857
4-Chlorotoluene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:49	211857
4-Methyl-2-pentanone	NELAP	10.0		ND	µg/L	1	09/11/2023 10:49	211857
Acetone	NELAP	10	BJ	4.3	µg/L	1	09/11/2023 10:49	211857
Acetonitrile	NELAP	10.0		ND	µg/L	1	09/11/2023 10:49	211857
Acrolein	NELAP	20.0		ND	µg/L	1	09/11/2023 10:49	211857
Acrylonitrile	NELAP	5.0		ND	µg/L	1	09/11/2023 10:49	211857
Allyl chloride	NELAP	5.0		ND	µg/L	1	09/11/2023 10:49	211857
Benzene	NELAP	0.5		84.1	µg/L	1	09/11/2023 10:49	211857
Bromobenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:49	211857
Bromochloromethane	NELAP	2.0		ND	µg/L	1	09/11/2023 10:49	211857
Bromodichloromethane	NELAP	2.0		ND	µg/L	1	09/11/2023 10:49	211857
Bromoform	NELAP	2.0		ND	µg/L	1	09/11/2023 10:49	211857
Bromomethane	NELAP	5.0		ND	µg/L	1	09/11/2023 10:49	211857
Carbon disulfide	NELAP	2.0		ND	µg/L	1	09/11/2023 10:49	211857
Carbon tetrachloride	NELAP	2.0		ND	µg/L	1	09/11/2023 10:49	211857
Chlorobenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:49	211857
Chloroethane	NELAP	2.0		ND	µg/L	1	09/11/2023 10:49	211857
Chloroform	NELAP	2.0		ND	µg/L	1	09/11/2023 10:49	211857
Chloromethane	NELAP	5.0		ND	µg/L	1	09/11/2023 10:49	211857
Chloroprene	NELAP	5.0		ND	µg/L	1	09/11/2023 10:49	211857
cis-1,2-Dichloroethene	NELAP	2.0		55.3	µg/L	1	09/11/2023 10:49	211857
cis-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:49	211857
cis-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:49	211857
Cyclohexanone	*	20.0		ND	µg/L	1	09/11/2023 10:49	211857
Dibromochloromethane	NELAP	2.0		ND	µg/L	1	09/11/2023 10:49	211857
Dibromomethane	NELAP	2.0		ND	µg/L	1	09/11/2023 10:49	211857
Dichlorodifluoromethane	NELAP	2.0		ND	µg/L	1	09/11/2023 10:49	211857
Ethyl acetate	NELAP	10.0		ND	µg/L	1	09/11/2023 10:49	211857
Ethyl ether	NELAP	5.0		ND	µg/L	1	09/11/2023 10:49	211857
Ethyl methacrylate	NELAP	5.0		ND	µg/L	1	09/11/2023 10:49	211857
Ethylbenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:49	211857
Hexachlorobutadiene	NELAP	5.0		ND	µg/L	1	09/11/2023 10:49	211857
Hexachloroethane	NELAP	5.0		ND	µg/L	1	09/11/2023 10:49	211857
Iodomethane	NELAP	5.0		ND	µg/L	1	09/11/2023 10:49	211857
Isopropylbenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:49	211857
m,p-Xylenes	NELAP	2.0		ND	µg/L	1	09/11/2023 10:49	211857
Methacrylonitrile	NELAP	5.0		ND	µg/L	1	09/11/2023 10:49	211857
Methyl Methacrylate	NELAP	5.0		ND	µg/L	1	09/11/2023 10:49	211857
Methyl tert-butyl ether	NELAP	2.0		ND	µg/L	1	09/11/2023 10:49	211857

Client: Geotechnology, Inc.
 Client Project: Hayford Bridge J006295.07
 Lab ID: 23090540-003
 Matrix: GROUNDWATER

Work Order: 23090540
 Report Date: 18-Sep-23
 Client Sample ID: MW-C13
 Collection Date: 09/07/2023 14:30

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Methylacrylate	NELAP	5.0		ND	µg/L	1	09/11/2023 10:49	211857
Methylene chloride	NELAP	2.0		ND	µg/L	1	09/11/2023 10:49	211857
Naphthalene	NELAP	5.0		ND	µg/L	1	09/11/2023 10:49	211857
n-Butyl acetate	*	2.0		ND	µg/L	1	09/11/2023 10:49	211857
n-Butylbenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:49	211857
n-Heptane	*	5.0		ND	µg/L	1	09/11/2023 10:49	211857
n-Hexane	*	5.0		ND	µg/L	1	09/11/2023 10:49	211857
Nitrobenzene	NELAP	50.0		ND	µg/L	1	09/11/2023 10:49	211857
n-Propylbenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:49	211857
o-Xylene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:49	211857
Pentachloroethane	NELAP	5.0		ND	µg/L	1	09/11/2023 10:49	211857
p-Isopropyltoluene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:49	211857
Propionitrile	NELAP	10.0		ND	µg/L	1	09/11/2023 10:49	211857
sec-Butylbenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:49	211857
Styrene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:49	211857
tert-Butylbenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:49	211857
Tetrachloroethene	NELAP	0.5		ND	µg/L	1	09/11/2023 10:49	211857
Tetrahydrofuran	NELAP	5.0		ND	µg/L	1	09/11/2023 10:49	211857
Toluene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:49	211857
trans-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:49	211857
trans-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:49	211857
trans-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:49	211857
Trichloroethene	NELAP	2.0		ND	µg/L	1	09/11/2023 10:49	211857
Trichlorofluoromethane	NELAP	5.0		ND	µg/L	1	09/11/2023 10:49	211857
Vinyl acetate	NELAP	5.0		ND	µg/L	1	09/11/2023 10:49	211857
Vinyl chloride	NELAP	2.0		41.6	µg/L	1	09/11/2023 10:49	211857
Surr: 1,2-Dichloroethane-d4	*	80-120		104.6	%REC	1	09/11/2023 10:49	211857
Surr: 4-Bromofluorobenzene	*	80-120		101.7	%REC	1	09/11/2023 10:49	211857
Surr: Dibromofluoromethane	*	80-120		104.4	%REC	1	09/11/2023 10:49	211857
Surr: Toluene-d8	*	80-120		98.1	%REC	1	09/11/2023 10:49	211857

Acetone was detected in the MBLK at a level between the MDL and the RL. Sample result is less than the RL. Data is reportable.

Client: Geotechnology, Inc.
 Client Project: Hayford Bridge J006295.07
 Lab ID: 23090540-004
 Matrix: TRIP BLANK

Work Order: 23090540
 Report Date: 18-Sep-23
 Client Sample ID: Trip Blank
 Collection Date: 09/08/2023 13:53

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,1,1,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857
1,1,1-Trichloroethane	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857
1,1,2,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		ND	µg/L	1	09/11/2023 9:09	211857
1,1,2-Trichloroethane	NELAP	0.5		ND	µg/L	1	09/11/2023 9:09	211857
1,1-Dichloro-2-propanone	*	30.0		ND	µg/L	1	09/11/2023 9:09	211857
1,1-Dichloroethane	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857
1,1-Dichloroethene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857
1,1-Dichloropropene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857
1,2,3-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857
1,2,3-Trichloropropane	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857
1,2,3-Trimethylbenzene	*	2.0		ND	µg/L	1	09/11/2023 9:09	211857
1,2,4-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857
1,2,4-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857
1,2-Dibromo-3-chloropropane	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857
1,2-Dibromoethane	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857
1,2-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857
1,2-Dichloroethane	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857
1,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857
1,3,5-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857
1,3-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857
1,3-Dichloropropane	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857
1,4-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857
1-Chlorobutane	NELAP	5.0		ND	µg/L	1	09/11/2023 9:09	211857
2,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857
2-Butanone	NELAP	10.0		ND	µg/L	1	09/11/2023 9:09	211857
2-Chloroethyl vinyl ether	NELAP	5.0		ND	µg/L	1	09/11/2023 9:09	211857
2-Chlorotoluene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857
2-Hexanone	NELAP	10.0		ND	µg/L	1	09/11/2023 9:09	211857
2-Nitropropane	NELAP	10.0		ND	µg/L	1	09/11/2023 9:09	211857
4-Chlorotoluene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857
4-Methyl-2-pentanone	NELAP	10.0		ND	µg/L	1	09/11/2023 9:09	211857
Acetone	NELAP	10.0	B	ND	µg/L	1	09/11/2023 9:09	211857
Acetonitrile	NELAP	10.0		ND	µg/L	1	09/11/2023 9:09	211857
Acrolein	NELAP	20.0		ND	µg/L	1	09/11/2023 9:09	211857
Acrylonitrile	NELAP	5.0		ND	µg/L	1	09/11/2023 9:09	211857
Allyl chloride	NELAP	5.0		ND	µg/L	1	09/11/2023 9:09	211857
Benzene	NELAP	0.5		ND	µg/L	1	09/11/2023 9:09	211857
Bromobenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857
Bromochloromethane	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857
Bromodichloromethane	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857
Bromoform	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857
Bromomethane	NELAP	5.0		ND	µg/L	1	09/11/2023 9:09	211857
Carbon disulfide	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857
Carbon tetrachloride	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857
Chlorobenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857
Chloroethane	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857

Client: Geotechnology, Inc.
 Client Project: Hayford Bridge J006295.07
 Lab ID: 23090540-004
 Matrix: TRIP BLANK

Work Order: 23090540
 Report Date: 18-Sep-23
 Client Sample ID: Trip Blank
 Collection Date: 09/08/2023 13:53

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Chloroform	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857
Chloromethane	NELAP	5.0		ND	µg/L	1	09/11/2023 9:09	211857
Chloroprene	NELAP	5.0		ND	µg/L	1	09/11/2023 9:09	211857
cis-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857
cis-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857
cis-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857
Cyclohexanone	*	20.0		ND	µg/L	1	09/11/2023 9:09	211857
Dibromochloromethane	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857
Dibromomethane	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857
Dichlorodifluoromethane	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857
Ethyl acetate	NELAP	10.0		ND	µg/L	1	09/11/2023 9:09	211857
Ethyl ether	NELAP	5.0		ND	µg/L	1	09/11/2023 9:09	211857
Ethyl methacrylate	NELAP	5.0		ND	µg/L	1	09/11/2023 9:09	211857
Ethylbenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857
Hexachlorobutadiene	NELAP	5.0		ND	µg/L	1	09/11/2023 9:09	211857
Hexachloroethane	NELAP	5.0		ND	µg/L	1	09/11/2023 9:09	211857
Iodomethane	NELAP	5.0		ND	µg/L	1	09/11/2023 9:09	211857
Isopropylbenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857
m,p-Xylenes	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857
Methacrylonitrile	NELAP	5.0		ND	µg/L	1	09/11/2023 9:09	211857
Methyl Methacrylate	NELAP	5.0		ND	µg/L	1	09/11/2023 9:09	211857
Methyl tert-butyl ether	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857
Methylacrylate	NELAP	5.0		ND	µg/L	1	09/11/2023 9:09	211857
Methylene chloride	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857
Naphthalene	NELAP	5.0		ND	µg/L	1	09/11/2023 9:09	211857
n-Butyl acetate	*	2.0		ND	µg/L	1	09/11/2023 9:09	211857
n-Butylbenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857
n-Heptane	*	5.0		ND	µg/L	1	09/11/2023 9:09	211857
n-Hexane	*	5.0		ND	µg/L	1	09/11/2023 9:09	211857
Nitrobenzene	NELAP	50.0		ND	µg/L	1	09/11/2023 9:09	211857
n-Propylbenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857
o-Xylene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857
Pentachloroethane	NELAP	5.0		ND	µg/L	1	09/11/2023 9:09	211857
p-Isopropyltoluene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857
Propionitrile	NELAP	10.0		ND	µg/L	1	09/11/2023 9:09	211857
sec-Butylbenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857
Styrene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857
tert-Butylbenzene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857
Tetrachloroethene	NELAP	0.5		ND	µg/L	1	09/11/2023 9:09	211857
Tetrahydrofuran	NELAP	5.0		ND	µg/L	1	09/11/2023 9:09	211857
Toluene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857
trans-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857
trans-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857
trans-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857
Trichloroethene	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857
Trichlorofluoromethane	NELAP	5.0		ND	µg/L	1	09/11/2023 9:09	211857
Vinyl acetate	NELAP	5.0		ND	µg/L	1	09/11/2023 9:09	211857

Client: Geotechnology, Inc.
Client Project: Hayford Bridge J006295.07
Lab ID: 23090540-004
Matrix: TRIP BLANK

Work Order: 23090540
Report Date: 18-Sep-23
Client Sample ID: Trip Blank
Collection Date: 09/08/2023 13:53

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Vinyl chloride	NELAP	2.0		ND	µg/L	1	09/11/2023 9:09	211857
Surr: 1,2-Dichloroethane-d4	*	80-120		102.3	%REC	1	09/11/2023 9:09	211857
Surr: 4-Bromofluorobenzene	*	80-120		102.1	%REC	1	09/11/2023 9:09	211857
Surr: Dibromofluoromethane	*	80-120		102.6	%REC	1	09/11/2023 9:09	211857
Surr: Toluene-d8	*	80-120		100.4	%REC	1	09/11/2023 9:09	211857
<i>Acetone was detected in the MBLK at a level between the MDL and the RL. Sample result is less than the RL. Data is reportable.</i>								



Sample Summary

<http://www.teklabinc.com/>

Client: Geotechnology, Inc.

Work Order: 23090540

Client Project: Hayford Bridge J006295.07

Report Date: 18-Sep-23

Lab Sample ID	Client Sample ID	Matrix	Fractions	Collection Date
23090540-001	MW-C17	Groundwater	6	09/06/2023 14:00
23090540-002	MW-C15	Groundwater	6	09/07/2023 11:40
23090540-003	MW-C13	Groundwater	6	09/07/2023 14:30
23090540-004	Trip Blank	Trip Blank	1	09/08/2023 13:53

Client: Geotechnology, Inc.

Work Order: 23090540

Client Project: Hayford Bridge J006295.07

Report Date: 18-Sep-23

Sample ID	Client Sample ID	Collection Date	Received Date		
	Test Name			Prep Date/Time	Analysis Date/Time
23090540-001A	MW-C17	09/06/2023 14:00	09/08/2023 13:53		
	SW-846 3510C,8270C, Semi-Volatile Organic Compounds			09/12/2023 15:31	09/13/2023 18:22
23090540-001B	MW-C17	09/06/2023 14:00	09/08/2023 13:53		
	EPA 600 353.2 R2.0 (Total)				09/11/2023 11:22
	EPA 600 353.2 R2.0 (Total)				09/11/2023 11:22
	EPA 600 375.2 Rev 2.0 1993 (Total)				09/13/2023 17:24
	Standard Method 4500-H B 2000, 2011, Laboratory Analyzed				09/13/2023 13:33
	Standard Methods 4500-Cl E (Total) 1997, 2011				09/13/2023 17:25
	Standard Methods 4500-CO2 C, Laboratory Analyzed				09/13/2023 12:22
	Standard Methods 4500-NO2 B (Total) 2000, 2011				09/08/2023 20:12
23090540-001C	MW-C17	09/06/2023 14:00	09/08/2023 13:53		
	Standard Methods 5310 C 2000, 2011, Organic Carbon				09/14/2023 17:35
23090540-001D	MW-C17	09/06/2023 14:00	09/08/2023 13:53		
	SM-3500-Fe D, Laboratory Analyzed				09/15/2023 12:32
23090540-001E	MW-C17	09/06/2023 14:00	09/08/2023 13:53		
	Permanent Gases (RSKSOP-175)				09/13/2023 10:31
	Permanent Gases (RSKSOP-175)				09/13/2023 11:12
23090540-001F	MW-C17	09/06/2023 14:00	09/08/2023 13:53		
	SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS				09/11/2023 9:34
23090540-002A	MW-C15	09/07/2023 11:40	09/08/2023 13:53		
	SW-846 3510C,8270C, Semi-Volatile Organic Compounds			09/12/2023 15:31	09/13/2023 19:00
	SW-846 3510C,8270C, Semi-Volatile Organic Compounds			09/12/2023 15:31	09/14/2023 14:23
23090540-002B	MW-C15	09/07/2023 11:40	09/08/2023 13:53		
	EPA 600 353.2 R2.0 (Total)				09/11/2023 11:31
	EPA 600 353.2 R2.0 (Total)				09/11/2023 11:31
	EPA 600 375.2 Rev 2.0 1993 (Total)				09/13/2023 17:46
	Standard Method 4500-H B 2000, 2011, Laboratory Analyzed				09/13/2023 13:35
	Standard Methods 4500-Cl E (Total) 1997, 2011				09/13/2023 17:46
	Standard Methods 4500-CO2 C, Laboratory Analyzed				09/13/2023 12:29
	Standard Methods 4500-NO2 B (Total) 2000, 2011				09/08/2023 20:13
23090540-002C	MW-C15	09/07/2023 11:40	09/08/2023 13:53		
	Standard Methods 5310 C 2000, 2011, Organic Carbon				09/14/2023 18:53
23090540-002D	MW-C15	09/07/2023 11:40	09/08/2023 13:53		
	SM-3500-Fe D, Laboratory Analyzed				09/15/2023 12:34
23090540-002E	MW-C15	09/07/2023 11:40	09/08/2023 13:53		
	Permanent Gases (RSKSOP-175)				09/13/2023 10:42

Client: Geotechnology, Inc.

Work Order: 23090540

Client Project: Hayford Bridge J006295.07

Report Date: 18-Sep-23

Sample ID	Client Sample ID	Collection Date	Received Date	Prep Date/Time	Analysis Date/Time
	Test Name				
	Permanent Gases (RSKSOP-175)				09/13/2023 11:24
23090540-002F	MW-C15	09/07/2023 11:40	09/08/2023 13:53		
	SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS				09/11/2023 10:24
23090540-003A	MW-C13	09/07/2023 14:30	09/08/2023 13:53		
	SW-846 3510C,8270C, Semi-Volatile Organic Compounds			09/12/2023 15:31	09/13/2023 19:39
	SW-846 3510C,8270C, Semi-Volatile Organic Compounds			09/12/2023 15:31	09/14/2023 15:01
23090540-003B	MW-C13	09/07/2023 14:30	09/08/2023 13:53		
	EPA 600 353.2 R2.0 (Total)				09/11/2023 11:34
	EPA 600 353.2 R2.0 (Total)				09/11/2023 11:34
	EPA 600 375.2 Rev 2.0 1993 (Total)				09/15/2023 16:20
	Standard Method 4500-H B 2000, 2011, Laboratory Analyzed				09/13/2023 13:37
	Standard Methods 4500-Cl E (Total) 1997, 2011				09/13/2023 18:05
	Standard Methods 4500-CO2 C, Laboratory Analyzed				09/13/2023 12:32
	Standard Methods 4500-NO2 B (Total) 2000, 2011				09/08/2023 20:13
23090540-003C	MW-C13	09/07/2023 14:30	09/08/2023 13:53		
	Standard Methods 5310 C 2000, 2011, Organic Carbon				09/14/2023 19:05
23090540-003D	MW-C13	09/07/2023 14:30	09/08/2023 13:53		
	SM-3500-Fe D, Laboratory Analyzed				09/15/2023 12:36
23090540-003E	MW-C13	09/07/2023 14:30	09/08/2023 13:53		
	Permanent Gases (RSKSOP-175)				09/13/2023 10:57
	Permanent Gases (RSKSOP-175)				09/13/2023 11:37
23090540-003F	MW-C13	09/07/2023 14:30	09/08/2023 13:53		
	SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS				09/11/2023 10:49
23090540-004A	Trip Blank	09/08/2023 13:53	09/08/2023 13:53		
	SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS				09/11/2023 9:09



Quality Control Results

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Client: Geotechnology, Inc.

Work Order: 23090540

Client Project: Hayford Bridge J006295.07

Report Date: 18-Sep-23

EPA 600 353.2 R2.0 (TOTAL)

Batch R336219		SampType: MBLK		Units mg/L							
SampID: ICB/MBLK											
Analyses		Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Nitrogen, Nitrate (as N)			0.050		< 0.050						09/11/2023
Nitrogen, Nitrate-Nitrite (as N)			0.050		< 0.050	0.0090	0	0	-100	100	09/11/2023

Batch R336219		SampType: LCS		Units mg/L							
SampID: ICV/LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Nitrogen, Nitrate-Nitrite (as N)		0.050		0.512	0.5000	0	102.4	90	110	09/11/2023	

Batch R336219		SampType: MS		Units mg/L							Date Analyzed
SampID: 23090540-001BMS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Nitrogen, Nitrate-Nitrite (as N)		0.050	H	0.240	0.2500	0	96.0	90	110	09/11/2023	

Batch R336219		SampType: MSD		Units mg/L				RPD Limit 10			
SampID: 23090540-001BMSD											
Analyses		Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Nitrogen, Nitrate-Nitrite (as N)			0.050	H	0.239	0.2500	0	95.6	0.2400	0.42	09/11/2023

EPA 600 375.2 REV 2.0 1993 (TOTAL)

Batch R336315		SampType: MBLK		Units mg/L							
SampID: ICB/MBLK											Date Analyzed
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
Sulfate		10		< 10	6.140	0	0	-100	100	09/13/2023	

Batch R336315		SampType: MBLK		Units mg/L							
SampID: MBLK-211823											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate	*	10		< 10	6.140	0	0	-100	100	09/13/2023	

Batch R336315		SampType: LCS		Units mg/L							
SampID: ICV/LCS											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Sulfate		10		19	20.00	0	94.5	90	110	09/13/2023	



Quality Control Results

<http://www.teklabinc.com/>

Client: Geotechnology, Inc.

Work Order: 23090540

Client Project: Hayford Bridge J006295.07

Report Date: 18-Sep-23

EPA 600 375.2 REV 2.0 1993 (TOTAL)

Batch R336315 SampType: MS Units mg/L

SampID: 23090540-001BMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Sulfate		10	S	42	20.00	24.59	85.6	90	110	09/13/2023

Batch R336315 SampType: MSD Units mg/L

RPD Limit 10

SampID: 23090540-001BMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Sulfate		10	S	42	20.00	24.59	87.1	41.70	0.74	09/13/2023

Batch R336442 SampType: MBLK Units mg/L

SampID: ICB/MBLK

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Sulfate		10		< 10	6.140	0	0	-100	100	09/15/2023

Batch R336442 SampType: LCS Units mg/L

SampID: ICB/LCS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Sulfate		10		19	20.00	0	96.8	90	110	09/15/2023

SM-3500-FE D, LABORATORY ANALYZED

Batch R336399 SampType: MBLK Units mg/L

SampID: MBLK

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Lab Ferrous Iron	*	0.020		< 0.020	0.0080	0	0	-100	100	09/15/2023
Lab Ferrous Iron	*	0.020		< 0.020	0.0080	0	0	-100	100	09/15/2023

Batch R336399 SampType: LCS Units mg/L

SampID: LCS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Lab Ferrous Iron	*	0.020		0.52	0.5000	0	104.8	90	110	09/15/2023

Batch R336399 SampType: MS Units mg/L

SampID: 23090540-001DMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Lab Ferrous Iron	*	0.40		6.5	5.000	1.260	104.8	85	115	09/15/2023



Quality Control Results

<http://www.teklabinc.com/>

Client: Geotechnology, Inc.

Work Order: 23090540

Client Project: Hayford Bridge J006295.07

Report Date: 18-Sep-23

SM-3500-FE D, LABORATORY ANALYZED

Batch R336399		SampType: MSD		Units mg/L					RPD Limit 15		
SampID: 23090540-001DMSD											Date
Analyses		Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Analyzed
Lab Ferrous Iron		*	0.40		6.8	5.000	1.260	111.2	6.500	4.80	09/15/2023

STANDARD METHOD 4500-H B 2000, 2011, LABORATORY ANALYZED

Batch R336249		SampType: LCS		Units							
SampID: LCS										Date	
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed	
Lab pH		1.00		6.99	7.000	0	99.9	99.29	100.7	09/13/2023	

Batch R336249		SampType:	DUP	Units					RPD Limit 10			
SampID: 23090540-001BDUP												
Analyses			Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Lab pH				1.00	H	7.58				7.560	0.26	09/13/2023

Batch R336249		SampType:	DUP		Units				RPD Limit 10		
SampID: 23090540-002BDUP											
Analyses		Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Lab pH			1.00	H	7.26				7.240	0.28	09/13/2023

Batch R336249		SampType:	DUP		Units				RPD Limit 10		
SampID: 23090540-003BDUP											
Analyses		Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Lab pH			1.00	H	7.33				7.320	0.14	09/13/2023

STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011

Batch R336346		SampType: MBLK		Units mg/L							
SampID: ICB/MBLK											Date
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Analyzed	
Chloride		4		< 4	0.5000	0	0	-100	100	09/13/2023	

Batch R336346		SampType: MBLK		Units mg/L							
SampID: MBLK-211823											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Chloride	*	4		< 4	0.5000	0	0	-100	100	09/13/2023	



Quality Control Results

<http://www.teklabinc.com/>

Client: Geotechnology, Inc.

Work Order: 23090540

Client Project: Hayford Bridge J006295.07

Report Date: 18-Sep-23

STANDARD METHODS 4500-CL E (TOTAL) 1997, 2011

Batch R336346 SampType: LCS Units mg/L

SampID: ICV/LCS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride		4		19	20.00	0	95.5	90	110	09/13/2023

Batch R336346 SampType: MS Units mg/L

SampID: 23090540-001BMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride		4		30	20.00	13.09	85.0	85	115	09/13/2023

Batch R336346 SampType: MSD Units mg/L

SampID: 23090540-001BMSD

RPD Limit 15

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Chloride		4		30	20.00	13.09	85.4	30.10	0.23	09/13/2023

Batch R336475 SampType: MBLK Units mg/L

SampID: ICB/MBLK

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride		4		< 4	0.5000	0	0	-100	100	09/15/2023

Batch R336475 SampType: LCS Units mg/L

SampID: ICV/LCS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Chloride		4		19	20.00	0	96.9	90	110	09/15/2023

STANDARD METHODS 4500-NO2 B (TOTAL) 2000, 2011

Batch R336109 SampType: MBLK Units mg/L

SampID: MBLK

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Nitrogen, Nitrite (as N)		0.05		< 0.05	0.0250	0	0	-100	100	09/08/2023

Batch R336109 SampType: LCS Units mg/L

SampID: LCS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Nitrogen, Nitrite (as N)		0.25		1.31	1.250	0	104.8	90	110	09/08/2023



Quality Control Results

<http://www.teklabinc.com/>

Client: Geotechnology, Inc.

Work Order: 23090540

Client Project: Hayford Bridge J006295.07

Report Date: 18-Sep-23

STANDARD METHODS 4500-NO2 B (TOTAL) 2000, 2011

Batch R336109 SampType: MS Units mg/L

SampID: 23090540-002BMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Nitrogen, Nitrite (as N)		0.05		0.52	0.5000	0	105.0	85	115	09/08/2023

Batch R336109 SampType: MSD Units mg/L

RPD Limit 10

SampID: 23090540-002BMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Nitrogen, Nitrite (as N)		0.05		0.53	0.5000	0	105.4	0.5250	0.38	09/08/2023

STANDARD METHODS 5310 C 2000, 2011, ORGANIC CARBON

Batch R336370 SampType: MBLK Units mg/L

SampID: FILTER MBLK

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Dissolved Organic Carbon		1.0		< 1.0	0.4500	0	0	-100	100	09/14/2023

Batch R336370 SampType: MBLK Units mg/L

SampID: MB-R336370

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Dissolved Organic Carbon		1.0		< 1.0	0.4500	0	0	0	0	09/14/2023

Batch R336370 SampType: LCS Units mg/L

SampID: LCS-R336370

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Dissolved Organic Carbon		1.0		5.5	5.000	0	110.0	90	110	09/14/2023

Batch R336370 SampType: MS Units mg/L

SampID: 23090540-001CMS

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Dissolved Organic Carbon		1.0		6.7	5.000	1.480	103.8	85	115	09/14/2023

Batch R336370 SampType: MSD Units mg/L

RPD Limit 10

SampID: 23090540-001CMSD

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Dissolved Organic Carbon		1.0		6.7	5.000	1.480	104.0	6.670	0.15	09/14/2023

Client: Geotechnology, Inc.

Work Order: 23090540

Client Project: Hayford Bridge J006295.07

Report Date: 18-Sep-23

STANDARD METHODS 5310 C 2000, 2011, ORGANIC CARBON

Batch R336370		SampType: DUP		Units mg/L				RPD Limit 10			
SampID: 23090540-001CDUP											
Analyses		Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Dissolved Organic Carbon			1.0		1.5				1.480	1.34	09/14/2023

Batch R336370		SampType: DUP		Units mg/L				RPD Limit 10			
SampID: 23090540-002CDUP											
Analyses		Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Dissolved Organic Carbon			1.0	J	0.8				0.8000	0.00	09/14/2023

Batch R336370		SampType: DUP		Units mg/L				RPD Limit 10			
SampID: 23090540-003CDUP											
Analyses		Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Dissolved Organic Carbon			1.0	J	1.0				1.010	0.00	09/14/2023

PERMANENT GASES (RSKSOP-175)

Batch R336305		SampType: mblk		Units µg/L							
SampID: MBLK-091323											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Ethane	*	7.0		ND						09/13/2023	
Ethene	*	10.0		ND						09/13/2023	
Methane	*	4.0		ND						09/13/2023	

Batch R336305		SampType: LCS		Units µg/L						
SampID: LCS-091323										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Ethane	*	7.0		51.2	100.0	0	51.2	35.3	70.3	09/13/2023
Ethene	*	10.0		50.7	100.0	0	50.7	35.1	69.4	09/13/2023
Methane	*	4.0		50.8	100.0	0	50.8	35.4	69.2	09/13/2023

Batch R336305		SampType: LCSD		Units µg/L				RPD Limit 39.7		
SampID: LCSD-091323										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Ethane	*	7.0		58.5	100.0	0	58.5	51.20	13.39	09/13/2023
Ethene	*	10.0		58.0	100.0	0	58.0	50.72	13.40	09/13/2023
Methane	*	4.0		57.6	100.0	0	57.6	50.77	12.62	09/13/2023

Client: Geotechnology, Inc.

Work Order: 23090540

Client Project: Hayford Bridge J006295.07

Report Date: 18-Sep-23

SW-846 3510C,8270C, SEMI-VOLATILE ORGANIC COMPOUNDS

Batch 211937 **SampType:** MBLK Units mg/L

SampID: MBLK-211937

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
1,4-Dioxane	*	0.00100		ND						09/13/2023
Surr: 2-Fluorobiphenyl	*			0.000610	0.0010		61.0	37.3	109	09/13/2023
Surr: Nitrobenzene-d5	*			0.000607	0.0010		60.7	43.2	112	09/13/2023
Surr: p-Terphenyl-d14	*			0.000752	0.0010		75.2	49.3	140	09/13/2023

Batch 211937 **SampType:** LCS Units mg/L

SampID: LCS-211937

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
1,4-Dioxane	*	0.00100		0.00117	0.0020	0	58.4	28.8	111	09/13/2023
Surr: 2-Fluorobiphenyl	*			0.000737	0.0010		73.7	37.3	109	09/13/2023
Surr: Nitrobenzene-d5	*			0.000752	0.0010		75.2	43.2	112	09/13/2023
Surr: p-Terphenyl-d14	*			0.000841	0.0010		84.1	49.3	140	09/13/2023

Batch 211937 **SampType:** LCSD Units mg/L

RPD Limit 40

SampID: LCSD-211937

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
1,4-Dioxane	*	0.00100		0.00122	0.0020	0	61.2	0.001167	4.71	09/13/2023
Surr: 2-Fluorobiphenyl	*			0.000688	0.0010		68.8			09/13/2023
Surr: Nitrobenzene-d5	*			0.000702	0.0010		70.2			09/13/2023
Surr: p-Terphenyl-d14	*			0.000771	0.0010		77.1			09/13/2023

Client: Geotechnology, Inc.

Work Order: 23090540

Client Project: Hayford Bridge J006295.07

Report Date: 18-Sep-23

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 211857		SampType: MBLK		Units µg/L							
SampID: MBLK-AM230911A-1											
Analyses		Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
1,1,1,2-Tetrachloroethane		*	2.0		ND						09/11/2023
1,1,1-Trichloroethane		*	2.0		ND						09/11/2023
1,1,2,2-Tetrachloroethane		*	2.0		ND						09/11/2023
1,1,2-Trichloro-1,2,2-trifluoroethane		*	5.0		ND						09/11/2023
1,1,2-Trichloroethane		*	0.5		ND						09/11/2023
1,1-Dichloro-2-propanone		*	30.0		ND						09/11/2023
1,1-Dichloroethane		*	2.0		ND						09/11/2023
1,1-Dichloroethene		*	2.0		ND						09/11/2023
1,1-Dichloropropene		*	2.0		ND						09/11/2023
1,2,3-Trichlorobenzene		*	2.0		ND						09/11/2023
1,2,3-Trichloropropane		*	2.0		ND						09/11/2023
1,2,3-Trimethylbenzene		*	2.0		ND						09/11/2023
1,2,4-Trichlorobenzene		*	2.0		ND						09/11/2023
1,2,4-Trimethylbenzene		*	2.0		ND						09/11/2023
1,2-Dibromo-3-chloropropane		*	5.0		ND						09/11/2023
1,2-Dibromoethane		*	2.0		ND						09/11/2023
1,2-Dichlorobenzene		*	2.0		ND						09/11/2023
1,2-Dichloroethane		*	2.0		ND						09/11/2023
1,2-Dichloropropane		*	2.0		ND						09/11/2023
1,3,5-Trimethylbenzene		*	2.0		ND						09/11/2023
1,3-Dichlorobenzene		*	2.0		ND						09/11/2023
1,3-Dichloropropane		*	2.0		ND						09/11/2023
1,4-Dichlorobenzene		*	2.0		ND						09/11/2023
1-Chlorobutane		*	5.0		ND						09/11/2023
2,2-Dichloropropane		*	2.0		ND						09/11/2023
2-Butanone		*	10.0		ND						09/11/2023
2-Chloroethyl vinyl ether		*	5.0		ND						09/11/2023
2-Chlorotoluene		*	2.0		ND						09/11/2023
2-Hexanone		*	10.0		ND						09/11/2023
2-Nitropropane		*	10.0		ND						09/11/2023
4-Chlorotoluene		*	2.0		ND						09/11/2023
4-Methyl-2-pentanone		*	10.0		ND						09/11/2023
Acetone		*	10.0	J	6.2						09/11/2023
Acetonitrile		*	10.0		ND						09/11/2023
Acrolein		*	20.0		ND						09/11/2023
Acrylonitrile		*	5.0		ND						09/11/2023

Client: Geotechnology, Inc.

Work Order: 23090540

Client Project: Hayford Bridge J006295.07

Report Date: 18-Sep-23

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS
Batch 211857 **SampType:** MBLK **Units** µg/L

SampID: MBLK-AM230911A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Allyl chloride	*	5.0		ND						09/11/2023
Benzene	*	0.5		ND						09/11/2023
Bromobenzene	*	2.0		ND						09/11/2023
Bromochloromethane	*	2.0		ND						09/11/2023
Bromodichloromethane	*	2.0		ND						09/11/2023
Bromoform	*	2.0		ND						09/11/2023
Bromomethane	*	5.0		ND						09/11/2023
Carbon disulfide	*	2.0		ND						09/11/2023
Carbon tetrachloride	*	2.0		ND						09/11/2023
Chlorobenzene	*	2.0		ND						09/11/2023
Chloroethane	*	2.0		ND						09/11/2023
Chloroform	*	2.0		ND						09/11/2023
Chloromethane	*	5.0		ND						09/11/2023
Chloroprene	*	5.0		ND						09/11/2023
cis-1,2-Dichloroethene	*	2.0		ND						09/11/2023
cis-1,3-Dichloropropene	*	2.0		ND						09/11/2023
cis-1,4-Dichloro-2-butene	*	2.0		ND						09/11/2023
Cyclohexanone	*	20.0		ND						09/11/2023
Dibromochloromethane	*	2.0		ND						09/11/2023
Dibromomethane	*	2.0		ND						09/11/2023
Dichlorodifluoromethane	*	2.0		ND						09/11/2023
Ethyl acetate	*	10.0		ND						09/11/2023
Ethyl ether	*	5.0		ND						09/11/2023
Ethyl methacrylate	*	5.0		ND						09/11/2023
Ethylbenzene	*	2.0		ND						09/11/2023
Hexachlorobutadiene	*	5.0		ND						09/11/2023
Hexachloroethane	*	5.0		ND						09/11/2023
Iodomethane	*	5.0		ND						09/11/2023
Isopropylbenzene	*	2.0		ND						09/11/2023
m,p-Xylenes	*	2.0		ND						09/11/2023
Methacrylonitrile	*	5.0		ND						09/11/2023
Methyl Methacrylate	*	5.0		ND						09/11/2023
Methyl tert-butyl ether	*	2.0		ND						09/11/2023
Methylacrylate	*	5.0		ND						09/11/2023
Methylene chloride	*	2.0		ND						09/11/2023
Naphthalene	*	5.0		ND						09/11/2023



Quality Control Results

<http://www.teklabinc.com/>

Client: Geotechnology, Inc.

Work Order: 23090540

Client Project: Hayford Bridge J006295.07

Report Date: 18-Sep-23

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 211857		SampType: MBLK		Units µg/L							
SampID: MBLK-AM230911A-1											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
n-Butyl acetate	*	2.0		ND						09/11/2023	
n-Butylbenzene	*	2.0		ND						09/11/2023	
n-Heptane	*	5.0		ND						09/11/2023	
n-Hexane	*	5.0		ND						09/11/2023	
Nitrobenzene	*	50.0		ND						09/11/2023	
n-Propylbenzene	*	2.0		ND						09/11/2023	
o-Xylene	*	2.0		ND						09/11/2023	
Pentachloroethane	*	5.0		ND						09/11/2023	
p-Isopropyltoluene	*	2.0		ND						09/11/2023	
Propionitrile	*	10.0		ND						09/11/2023	
sec-Butylbenzene	*	2.0		ND						09/11/2023	
Styrene	*	2.0		ND						09/11/2023	
tert-Butylbenzene	*	2.0		ND						09/11/2023	
Tetrachloroethene	*	0.5		ND						09/11/2023	
Tetrahydrofuran	*	5.0		ND						09/11/2023	
Toluene	*	2.0		ND						09/11/2023	
trans-1,2-Dichloroethene	*	2.0		ND						09/11/2023	
trans-1,3-Dichloropropene	*	2.0		ND						09/11/2023	
trans-1,4-Dichloro-2-butene	*	2.0		ND						09/11/2023	
Trichloroethene	*	2.0		ND						09/11/2023	
Trichlorofluoromethane	*	5.0		ND						09/11/2023	
Vinyl acetate	*	5.0		ND						09/11/2023	
Vinyl chloride	*	2.0		ND						09/11/2023	
Surr: 1,2-Dichloroethane-d4	*			51.5	50.00		102.9	80	120	09/11/2023	
Surr: 4-Bromofluorobenzene	*			50.3	50.00		100.6	80	120	09/11/2023	
Surr: Dibromofluoromethane	*			51.0	50.00		102.1	80	120	09/11/2023	
Surr: Toluene-d8	*			49.6	50.00		99.1	80	120	09/11/2023	

Client: Geotechnology, Inc.

Work Order: 23090540

Client Project: Hayford Bridge J006295.07

Report Date: 18-Sep-23

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 211857	SampType: LCS	Units µg/L								
SampID: LCS-AM230911A-1										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
1,1,1,2-Tetrachloroethane	*	2.0		52.2	50.00	0	104.4	82	113	09/11/2023
1,1,1-Trichloroethane	*	2.0		56.0	50.00	0	112.0	76.9	128	09/11/2023
1,1,2,2-Tetrachloroethane	*	2.0		49.4	50.00	0	98.8	76.7	113	09/11/2023
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		50.2	50.00	0	100.5	69.5	127	09/11/2023
1,1,2-Trichloroethane	*	0.5		52.0	50.00	0	104.0	83.8	111	09/11/2023
1,1-Dichloro-2-propanone	*	30.0		139	125.0	0	111.1	74.9	117	09/11/2023
1,1-Dichloroethane	*	2.0		54.1	50.00	0	108.2	77	129	09/11/2023
1,1-Dichloroethene	*	2.0		52.4	50.00	0	104.9	69.4	127	09/11/2023
1,1-Dichloropropene	*	2.0		54.0	50.00	0	107.9	75.1	123	09/11/2023
1,2,3-Trichlorobenzene	*	2.0		53.9	50.00	0	107.8	77.3	121	09/11/2023
1,2,3-Trichloropropane	*	2.0		49.2	50.00	0	98.4	75.3	109	09/11/2023
1,2,3-Trimethylbenzene	*	2.0		51.4	50.00	0	102.9	77	115	09/11/2023
1,2,4-Trichlorobenzene	*	2.0		53.1	50.00	0	106.2	76.8	124	09/11/2023
1,2,4-Trimethylbenzene	*	2.0		52.4	50.00	0	104.9	75	115	09/11/2023
1,2-Dibromo-3-chloropropane	*	5.0		49.7	50.00	0	99.4	71.9	119	09/11/2023
1,2-Dibromoethane	*	2.0		50.7	50.00	0	101.4	83.6	110	09/11/2023
1,2-Dichlorobenzene	*	2.0		50.4	50.00	0	100.8	72.1	113	09/11/2023
1,2-Dichloroethane	*	2.0		53.6	50.00	0	107.3	72.3	117	09/11/2023
1,2-Dichloropropane	*	2.0		52.5	50.00	0	105.0	76.5	119	09/11/2023
1,3,5-Trimethylbenzene	*	2.0		53.2	50.00	0	106.3	75.2	117	09/11/2023
1,3-Dichlorobenzene	*	2.0		51.0	50.00	0	101.9	75.2	115	09/11/2023
1,3-Dichloropropane	*	2.0		51.2	50.00	0	102.5	80.9	110	09/11/2023
1,4-Dichlorobenzene	*	2.0		49.7	50.00	0	99.5	73.9	112	09/11/2023
1-Chlorobutane	*	5.0		55.2	50.00	0	110.4	74.9	130	09/11/2023
2,2-Dichloropropane	*	2.0		60.5	50.00	0	121.0	66.5	138	09/11/2023
2-Butanone	*	10.0		143	125.0	0	114.8	68.8	134	09/11/2023
2-Chloroethyl vinyl ether	*	5.0		53.1	50.00	0	106.2	17.8	163	09/11/2023
2-Chlorotoluene	*	2.0		51.4	50.00	0	102.7	74.9	115	09/11/2023
2-Hexanone	*	10.0		138	125.0	0	110.8	73.2	117	09/11/2023
2-Nitropropane	*	10.0		599	500.0	0	119.8	67.1	140	09/11/2023
4-Chlorotoluene	*	2.0		52.1	50.00	0	104.2	75.7	113	09/11/2023
4-Methyl-2-pentanone	*	10.0		128	125.0	0	102.1	77	113	09/11/2023
Acetone	*	10.0	B	133	125.0	0	106.4	61.4	130	09/11/2023
Acetonitrile	*	10.0		581	500.0	0	116.1	68.8	136	09/11/2023
Acrolein	*	20.0		426	500.0	0	85.3	28.4	168	09/11/2023
Acrylonitrile	*	5.0		56.4	50.00	0	112.9	77.9	124	09/11/2023

Client: Geotechnology, Inc.

Work Order: 23090540

Client Project: Hayford Bridge J006295.07

Report Date: 18-Sep-23

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 211857		SampType: LCS		Units µg/L						
SampID: LCS-AM230911A-1										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Allyl chloride	*	5.0		54.0	50.00	0	108.0	75.8	130	09/11/2023
Benzene	*	0.5		52.8	50.00	0	105.5	78.5	119	09/11/2023
Bromobenzene	*	2.0		49.7	50.00	0	99.4	77.5	113	09/11/2023
Bromochloromethane	*	2.0		51.3	50.00	0	102.6	71.5	123	09/11/2023
Bromodichloromethane	*	2.0		53.3	50.00	0	106.5	75.7	123	09/11/2023
Bromoform	*	2.0		51.0	50.00	0	101.9	78.9	121	09/11/2023
Bromomethane	*	5.0		57.7	50.00	0	115.3	30.5	192	09/11/2023
Carbon disulfide	*	2.0		53.9	50.00	0	107.8	77	129	09/11/2023
Carbon tetrachloride	*	2.0		53.8	50.00	0	107.6	70.9	127	09/11/2023
Chlorobenzene	*	2.0		51.8	50.00	0	103.6	80	111	09/11/2023
Chloroethane	*	2.0		52.4	50.00	0	104.7	69.6	135	09/11/2023
Chloroform	*	2.0		53.4	50.00	0	106.8	76.2	120	09/11/2023
Chloromethane	*	5.0		51.4	50.00	0	102.7	50.9	138	09/11/2023
Chloroprene	*	5.0		54.0	50.00	0	108.0	68.4	127	09/11/2023
cis-1,2-Dichloroethene	*	2.0		52.9	50.00	0	105.7	79.5	121	09/11/2023
cis-1,3-Dichloropropene	*	2.0		56.9	50.00	0	113.7	79.8	123	09/11/2023
cis-1,4-Dichloro-2-butene	*	2.0		52.4	50.00	0	104.8	64.6	130	09/11/2023
Cyclohexanone	*	20.0		507	500.0	0	101.4	70.5	114	09/11/2023
Dibromochloromethane	*	2.0		53.1	50.00	0	106.2	84.5	114	09/11/2023
Dibromomethane	*	2.0		54.7	50.00	0	109.4	76	119	09/11/2023
Dichlorodifluoromethane	*	2.0		48.0	50.00	0	95.9	46.6	142	09/11/2023
Ethyl acetate	*	10.0		50.9	50.00	0	101.8	70.3	115	09/11/2023
Ethyl ether	*	5.0		51.1	50.00	0	102.3	74.6	120	09/11/2023
Ethyl methacrylate	*	5.0		52.3	50.00	0	104.5	81.4	116	09/11/2023
Ethylbenzene	*	2.0		53.2	50.00	0	106.3	78.2	114	09/11/2023
Hexachlorobutadiene	*	5.0		50.3	50.00	0	100.6	73.9	129	09/11/2023
Hexachloroethane	*	5.0		54.9	50.00	0	109.9	78.3	123	09/11/2023
Iodomethane	*	5.0		50.2	50.00	0	100.4	50	151	09/11/2023
Isopropylbenzene	*	2.0		53.7	50.00	0	107.4	79.3	115	09/11/2023
m,p-Xylenes	*	2.0		107	100.0	0	107.5	77.2	116	09/11/2023
Methacrylonitrile	*	5.0		53.8	50.00	0	107.6	73.9	127	09/11/2023
Methyl Methacrylate	*	5.0		57.6	50.00	0	115.1	70.7	129	09/11/2023
Methyl tert-butyl ether	*	2.0		54.3	50.00	0	108.5	80.3	122	09/11/2023
Methylacrylate	*	5.0		52.9	50.00	0	105.7	75.2	124	09/11/2023
Methylene chloride	*	2.0		53.1	50.00	0	106.2	71.8	115	09/11/2023
Naphthalene	*	5.0		55.6	50.00	0	111.3	75.6	121	09/11/2023

Client: Geotechnology, Inc.

Work Order: 23090540

Client Project: Hayford Bridge J006295.07

Report Date: 18-Sep-23

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 211857		SampType: LCS		Units µg/L						
SampID: LCS-AM230911A-1										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
n-Butyl acetate	*	2.0		53.5	50.00	0	107.1	72.4	118	09/11/2023
n-Butylbenzene	*	2.0		51.3	50.00	0	102.6	70.8	118	09/11/2023
n-Heptane	*	5.0		48.6	50.00	0	97.3	50.4	143	09/11/2023
n-Hexane	*	5.0		44.4	50.00	0	88.8	60.6	139	09/11/2023
Nitrobenzene	*	50.0		523	500.0	0	104.7	49.4	129	09/11/2023
n-Propylbenzene	*	2.0		52.1	50.00	0	104.1	74	119	09/11/2023
o-Xylene	*	2.0		53.1	50.00	0	106.2	79.2	112	09/11/2023
Pentachloroethane	*	5.0		52.4	50.00	0	104.8	71.8	124	09/11/2023
p-Isopropyltoluene	*	2.0		53.6	50.00	0	107.1	74.4	119	09/11/2023
Propionitrile	*	10.0		566	500.0	0	113.3	76.2	127	09/11/2023
sec-Butylbenzene	*	2.0		54.4	50.00	0	108.8	74.4	119	09/11/2023
Styrene	*	2.0		53.5	50.00	0	107.0	80.4	117	09/11/2023
tert-Butylbenzene	*	2.0		53.2	50.00	0	106.3	74	115	09/11/2023
Tetrachloroethene	*	0.5		51.0	50.00	0	102.0	70.1	120	09/11/2023
Tetrahydrofuran	*	5.0		51.8	50.00	0	103.5	63.5	122	09/11/2023
Toluene	*	2.0		52.8	50.00	0	105.7	78.6	112	09/11/2023
trans-1,2-Dichloroethene	*	2.0		53.6	50.00	0	107.2	75.7	130	09/11/2023
trans-1,3-Dichloropropene	*	2.0		49.9	50.00	0	99.8	80.3	116	09/11/2023
trans-1,4-Dichloro-2-butene	*	2.0		49.7	50.00	0	99.3	65.5	124	09/11/2023
Trichloroethene	*	2.0		52.6	50.00	0	105.2	76.2	121	09/11/2023
Trichlorofluoromethane	*	5.0		51.7	50.00	0	103.4	71.1	131	09/11/2023
Vinyl acetate	*	5.0		55.1	50.00	0	110.2	79.8	129	09/11/2023
Vinyl chloride	*	2.0		53.8	50.00	0	107.6	58.6	141	09/11/2023
Surr: 1,2-Dichloroethane-d4	*			50.4	50.00		100.9	80	120	09/11/2023
Surr: 4-Bromofluorobenzene	*			49.2	50.00		98.4	80	120	09/11/2023
Surr: Dibromofluoromethane	*			51.3	50.00		102.5	80	120	09/11/2023
Surr: Toluene-d8	*			49.4	50.00		98.9	80	120	09/11/2023

Client: Geotechnology, Inc.

Work Order: 23090540

Client Project: Hayford Bridge J006295.07

Report Date: 18-Sep-23

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 211857		SampType: LCSD		Units µg/L				RPD Limit 15.4			Date Analyzed
SampID: LCSD-AM230911A-1											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD		
1,1,1,2-Tetrachloroethane	*	2.0		50.4	50.00	0	100.7	52.22	3.61	09/11/2023	
1,1,1-Trichloroethane	*	2.0		52.5	50.00	0	105.1	56.00	6.39	09/11/2023	
1,1,2,2-Tetrachloroethane	*	2.0		48.4	50.00	0	96.8	49.41	2.04	09/11/2023	
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		46.6	50.00	0	93.2	50.23	7.45	09/11/2023	
1,1,2-Trichloroethane	*	0.5		50.9	50.00	0	101.8	51.99	2.16	09/11/2023	
1,1-Dichloro-2-propanone	*	30.0		135	125.0	0	108.2	138.9	2.65	09/11/2023	
1,1-Dichloroethane	*	2.0		51.3	50.00	0	102.6	54.11	5.33	09/11/2023	
1,1-Dichloroethene	*	2.0		48.9	50.00	0	97.8	52.44	7.03	09/11/2023	
1,1-Dichloropropene	*	2.0		50.5	50.00	0	100.9	53.97	6.70	09/11/2023	
1,2,3-Trichlorobenzene	*	2.0		51.8	50.00	0	103.5	53.90	4.07	09/11/2023	
1,2,3-Trichloropropane	*	2.0		47.8	50.00	0	95.6	49.19	2.91	09/11/2023	
1,2,3-Trimethylbenzene	*	2.0		48.9	50.00	0	97.7	51.44	5.12	09/11/2023	
1,2,4-Trichlorobenzene	*	2.0		50.8	50.00	0	101.6	53.08	4.43	09/11/2023	
1,2,4-Trimethylbenzene	*	2.0		49.7	50.00	0	99.4	52.45	5.34	09/11/2023	
1,2-Dibromo-3-chloropropane	*	5.0		48.8	50.00	0	97.7	49.71	1.77	09/11/2023	
1,2-Dibromoethane	*	2.0		49.1	50.00	0	98.2	50.69	3.19	09/11/2023	
1,2-Dichlorobenzene	*	2.0		48.5	50.00	0	97.1	50.42	3.80	09/11/2023	
1,2-Dichloroethane	*	2.0		52.7	50.00	0	105.4	53.65	1.81	09/11/2023	
1,2-Dichloropropane	*	2.0		50.7	50.00	0	101.4	52.48	3.43	09/11/2023	
1,3,5-Trimethylbenzene	*	2.0		49.9	50.00	0	99.9	53.15	6.25	09/11/2023	
1,3-Dichlorobenzene	*	2.0		48.6	50.00	0	97.1	50.96	4.80	09/11/2023	
1,3-Dichloropropane	*	2.0		49.5	50.00	0	99.1	51.25	3.41	09/11/2023	
1,4-Dichlorobenzene	*	2.0		47.9	50.00	0	95.7	49.74	3.85	09/11/2023	
1-Chlorobutane	*	5.0		51.6	50.00	0	103.2	55.18	6.71	09/11/2023	
2,2-Dichloropropane	*	2.0		56.5	50.00	0	113.0	60.51	6.89	09/11/2023	
2-Butanone	*	10.0		139	125.0	0	111.1	143.5	3.26	09/11/2023	
2-Chloroethyl vinyl ether	*	5.0		53.0	50.00	0	105.9	53.12	0.30	09/11/2023	
2-Chlorotoluene	*	2.0		48.8	50.00	0	97.5	51.36	5.19	09/11/2023	
2-Hexanone	*	10.0		133	125.0	0	106.4	138.5	3.99	09/11/2023	
2-Nitropropane	*	10.0		581	500.0	0	116.3	599.2	3.01	09/11/2023	
4-Chlorotoluene	*	2.0		49.1	50.00	0	98.1	52.08	5.97	09/11/2023	
4-Methyl-2-pentanone	*	10.0		124	125.0	0	98.8	127.6	3.26	09/11/2023	
Acetone	*	10.0	B	129	125.0	0	103.2	133.0	3.07	09/11/2023	
Acetonitrile	*	10.0		555	500.0	0	110.9	580.6	4.59	09/11/2023	
Acrolein	*	20.0		438	500.0	0	87.6	426.4	2.66	09/11/2023	
Acrylonitrile	*	5.0		54.3	50.00	0	108.5	56.45	3.94	09/11/2023	

Client: Geotechnology, Inc.

Work Order: 23090540

Client Project: Hayford Bridge J006295.07

Report Date: 18-Sep-23

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 211857		SampType: LCSD		Units µg/L				RPD Limit 15.4		
SampID: LCSD-AM230911A-1										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Allyl chloride	*	5.0		52.4	50.00	0	104.9	54.02	2.97	09/11/2023
Benzene	*	0.5		50.3	50.00	0	100.6	52.77	4.83	09/11/2023
Bromobenzene	*	2.0		47.7	50.00	0	95.4	49.71	4.17	09/11/2023
Bromochloromethane	*	2.0		50.5	50.00	0	101.1	51.32	1.53	09/11/2023
Bromodichloromethane	*	2.0		52.0	50.00	0	104.1	53.27	2.34	09/11/2023
Bromoform	*	2.0		49.6	50.00	0	99.2	50.96	2.73	09/11/2023
Bromomethane	*	5.0		56.7	50.00	0	113.4	57.67	1.66	09/11/2023
Carbon disulfide	*	2.0		50.1	50.00	0	100.2	53.91	7.35	09/11/2023
Carbon tetrachloride	*	2.0		50.7	50.00	0	101.5	53.79	5.84	09/11/2023
Chlorobenzene	*	2.0		49.0	50.00	0	98.0	51.78	5.48	09/11/2023
Chloroethane	*	2.0		47.2	50.00	0	94.4	52.37	10.36	09/11/2023
Chloroform	*	2.0		51.0	50.00	0	102.1	53.42	4.56	09/11/2023
Chloromethane	*	5.0		49.0	50.00	0	98.0	51.36	4.66	09/11/2023
Chloroprene	*	5.0		50.6	50.00	0	101.1	53.98	6.54	09/11/2023
cis-1,2-Dichloroethene	*	2.0		50.8	50.00	0	101.6	52.86	3.95	09/11/2023
cis-1,3-Dichloropropene	*	2.0		55.3	50.00	0	110.5	56.87	2.87	09/11/2023
cis-1,4-Dichloro-2-butene	*	2.0		50.4	50.00	0	100.8	52.39	3.89	09/11/2023
Cyclohexanone	*	20.0		479	500.0	0	95.7	507.1	5.79	09/11/2023
Dibromochloromethane	*	2.0		51.6	50.00	0	103.2	53.08	2.79	09/11/2023
Dibromomethane	*	2.0		53.9	50.00	0	107.8	54.72	1.55	09/11/2023
Dichlorodifluoromethane	*	2.0		43.8	50.00	0	87.5	47.97	9.16	09/11/2023
Ethyl acetate	*	10.0		49.7	50.00	0	99.5	50.90	2.31	09/11/2023
Ethyl ether	*	5.0		50.5	50.00	0	101.0	51.14	1.28	09/11/2023
Ethyl methacrylate	*	5.0		51.2	50.00	0	102.3	52.26	2.15	09/11/2023
Ethylbenzene	*	2.0		49.9	50.00	0	99.8	53.17	6.35	09/11/2023
Hexachlorobutadiene	*	5.0		46.4	50.00	0	92.7	50.32	8.19	09/11/2023
Hexachloroethane	*	5.0		51.5	50.00	0	103.1	54.94	6.39	09/11/2023
Iodomethane	*	5.0		48.6	50.00	0	97.2	50.19	3.26	09/11/2023
Isopropylbenzene	*	2.0		49.6	50.00	0	99.1	53.69	7.98	09/11/2023
m,p-Xylenes	*	2.0		101	100.0	0	100.7	107.5	6.53	09/11/2023
Methacrylonitrile	*	5.0		52.9	50.00	0	105.8	53.82	1.71	09/11/2023
Methyl Methacrylate	*	5.0		57.1	50.00	0	114.1	57.57	0.89	09/11/2023
Methyl tert-butyl ether	*	2.0		53.9	50.00	0	107.8	54.27	0.67	09/11/2023
Methylacrylate	*	5.0		51.8	50.00	0	103.5	52.87	2.12	09/11/2023
Methylene chloride	*	2.0		50.8	50.00	0	101.7	53.11	4.35	09/11/2023
Naphthalene	*	5.0		54.5	50.00	0	108.9	55.65	2.14	09/11/2023

Client: Geotechnology, Inc.

Work Order: 23090540

Client Project: Hayford Bridge J006295.07

Report Date: 18-Sep-23

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 211857		SampType: LCSD		Units µg/L		RPD Limit 15.4				
SampID: LCSD-AM230911A-1										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
n-Butyl acetate	*	2.0		52.1	50.00	0	104.2	53.53	2.69	09/11/2023
n-Butylbenzene	*	2.0		47.7	50.00	0	95.4	51.28	7.28	09/11/2023
n-Heptane	*	5.0		43.2	50.00	0	86.5	48.64	11.73	09/11/2023
n-Hexane	*	5.0		40.6	50.00	0	81.3	44.39	8.80	09/11/2023
Nitrobenzene	*	50.0		503	500.0	0	100.6	523.4	3.93	09/11/2023
n-Propylbenzene	*	2.0		48.8	50.00	0	97.7	52.06	6.36	09/11/2023
o-Xylene	*	2.0		49.8	50.00	0	99.7	53.09	6.31	09/11/2023
Pentachloroethane	*	5.0		49.9	50.00	0	99.8	52.42	4.91	09/11/2023
p-Isopropyltoluene	*	2.0		50.2	50.00	0	100.4	53.55	6.48	09/11/2023
Propionitrile	*	10.0		550	500.0	0	110.0	566.4	2.91	09/11/2023
sec-Butylbenzene	*	2.0		51.1	50.00	0	102.1	54.38	6.28	09/11/2023
Styrene	*	2.0		51.2	50.00	0	102.4	53.51	4.43	09/11/2023
tert-Butylbenzene	*	2.0		49.0	50.00	0	98.1	53.17	8.08	09/11/2023
Tetrachloroethene	*	0.5		46.5	50.00	0	93.1	50.98	9.11	09/11/2023
Tetrahydrofuran	*	5.0		49.8	50.00	0	99.7	51.77	3.82	09/11/2023
Toluene	*	2.0		49.2	50.00	0	98.3	52.83	7.22	09/11/2023
trans-1,2-Dichloroethene	*	2.0		49.5	50.00	0	99.1	53.62	7.91	09/11/2023
trans-1,3-Dichloropropene	*	2.0		49.0	50.00	0	97.9	49.91	1.92	09/11/2023
trans-1,4-Dichloro-2-butene	*	2.0		48.0	50.00	0	95.9	49.66	3.48	09/11/2023
Trichloroethene	*	2.0		49.7	50.00	0	99.4	52.62	5.75	09/11/2023
Trichlorofluoromethane	*	5.0		47.1	50.00	0	94.1	51.70	9.40	09/11/2023
Vinyl acetate	*	5.0		55.5	50.00	0	111.0	55.10	0.74	09/11/2023
Vinyl chloride	*	2.0		51.0	50.00	0	102.0	53.80	5.38	09/11/2023
Surr: 1,2-Dichloroethane-d4	*			51.2	50.00		102.4			09/11/2023
Surr: 4-Bromofluorobenzene	*			49.0	50.00		98.0			09/11/2023
Surr: Dibromofluoromethane	*			51.4	50.00		102.8			09/11/2023
Surr: Toluene-d8	*			48.8	50.00		97.5			09/11/2023



Receiving Check List

<http://www.teklabinc.com/>

Client: Geotechnology, Inc.

Work Order: 23090540

Client Project: Hayford Bridge J006295.07

Report Date: 18-Sep-23

Carrier: Tyler Maddox

Received By: MBP

Completed by:

On:

08-Sep-23

Amber Dilallo

Reviewed by:

On:

08-Sep-23

Ellie Hopkins

Pages to follow:

Chain of custody

1

Extra pages included

0

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Present ☐

Temp °C

1.6

Type of thermal preservation?

None ☐

Ice ☒

Blue Ice ☐

Dry Ice

☐

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☐

No ☒

Reported field parameters measured:

Field ☐

Lab ☒

NA ☐

Sample analyses to be measured in the field and/or within 15 minutes of collection were analyzed in the lab as soon as practicable. These analyses include Chlorine (demand, free and/or residual), Carbon Dioxide, Dissolved Oxygen, Ferrous Iron, pH, and Sulfite.

Container/Temp Blank temperature in compliance?

Yes ☒

No ☐

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

Water – at least one vial per sample has zero headspace?

Yes ☒

No ☐

No VOA vials ☐

Water - TOX containers have zero headspace?

Yes ☐

No ☐

No TOX containers ☒

Water - pH acceptable upon receipt?

Yes ☒

No ☐

NA ☐

NPDES/CWA TCN interferences checked/treated in the field?

Yes ☐

No ☐

NA ☒

Any No responses must be detailed below or on the COC.

pH strip #90719. - amberdilallo - 9/8/2023 4:38:54 PM

Trip Blank collection date and time will be reported as the received date and time (end of trip). - amberdilallo - 9/8/2023 4:39:01 PM

Samples were filtered and preserved with Sulfuric Acid (90128) for the dissolved parameters upon arrival at the laboratory. - amberdilallo - 9/8/2023 4:39:08 PM

pg. 1 of 1 Work order # 23090540

TEKLAB, INC. 5445 Horseshoe Lake Road - Collinsville, IL 62234 - Phone: (618) 344-1004 - Fax: (618) 344-1005

Client:	Geotechnology, Inc.		
Address:	11816 Lackland Road		
City / State / Zip	St. Louis, MO 63146		
Contact:	Kenny Hemmen	Phone:	(314) 997-7440
E-Mail:	khemmen@geotechnology.com	Fax:	(314) 997-2067

Samples on: ☒ ICE ☐ BLUE ICE ☐ NO ICE 1.66 °C LTG# 1
Preserved in: ☐ LAB ☒ FIELD FOR LAB USE ONLY
Lab Notes C0719
OC 118
Omy 9/18/23

Are these samples known to be involved in litigation? If yes, a surcharge will apply ☐ Yes ☒ No

Are these samples known to be hazardous? If yes, include details of the hazard. ☐ Yes ☒ No

Are there any required reporting limits to be met on the requested analysis?. If yes, please provide limits in the comment section. ☐ Yes ☒ No

Client Comments:

Courier

Project Name/Number		Sample Collector's Name		MATRIX		INDICATE ANALYSIS REQUESTED																									
Results Requested		Billing Instructions		# and Type of Containers																											
☒ Standard ☐ 1-2 Day (100% Surcharge) ☐ Other ☐ 3 Day (50% Surcharge)																															
Lab Use Only	Sample Identification	Date/Time Sampled	UNPRES	HNO3	NaOH	H2SO4	HCL	MeOH	NaHSO4	OTHER	Aqueous	Drinking Water	Soil	Sludge	Special Waste	Groundwater	1,4-Dioxane	Chloride	CO2	thane Ethene Methan	Ferrous Iron	Nitrate	Sulfate	TOC (D)	VOC 8260						
20090540	MW-C17	9-6-23 14:00	3				6									X	X	X	X	X	X	X	X	X	X						
002	MW-C15	9-7-23 11:40	3				6									X	X	X	X	X	X	X	X	X	X						
003	MW-C13	9-7-23 14:30	3				6									X	X	X	X	X	X	X	X	X	X						
004	Trip Blank																														

Relinquished By	Date/Time	Received By	Date/Time
Wayne Hetz	9-7-23 3:30 pm	LM	9-8-23 12:12 pm
LM	9-8-23 1:53 PM	Wayne Hetz	9/8/23 1:53

The individual signing this agreement on behalf of the client, acknowledges that he/she has read and understands the terms and conditions of this agreement, and that he/she has the authority to sign on behalf of the client. See www.tekdiabinc.com for terms and conditions.

BottleOrder: 83173





ATTACHMENT 2

LABORATORY TESTING REPORT – SEPTEMBER 26, 2023 (212/CITY SPLIT)

October 02, 2023

Kenny Hemmen
Geotechnology, Inc.
11816 Lackland Road
St. Louis, MO 63146
TEL: (314) 997-7440
FAX: (314) 997-2067



Illinois	100226
Kansas	E-10374
Louisiana	05002
Louisiana	05003
Oklahoma	9978

RE: Hayford Bridge J006295.11

WorkOrder: 23091863

Dear Kenny Hemmen:

TEKLAB, INC received 4 samples on 9/26/2023 4:00:00 PM for the analysis presented in the following report.

Samples are analyzed on an as received basis unless otherwise requested and documented. The sample results contained in this report relate only to the requested analytes of interest as directed on the chain of custody. NELAP accredited fields of testing are indicated by the letters NELAP under the Certification column. Unless otherwise documented within this report, Teklab Inc. analyzes samples utilizing the most current methods in compliance with 40CFR. All tests are performed in the Collinsville, IL laboratory unless otherwise noted in the Case Narrative.

All quality control criteria applicable to the test methods employed for this project have been satisfactorily met and are in accordance with NELAP except where noted. The following report shall not be reproduced, except in full, without the written approval of Teklab, Inc.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,



Patrick Riley
Project Manager
(618)344-1004 ex 44
patrickriley@teklabinc.com

Client: Geotechnology, Inc.

Work Order: 23091863

Client Project: Hayford Bridge J006295.11

Report Date: 02-Oct-23

This reporting package includes the following:

Cover Letter	1
Report Contents	2
Definitions	3
Case Narrative	5
Accreditations	6
Laboratory Results	7
Sample Summary	19
Dates Report	20
Quality Control Results	21
Receiving Check List	30
Chain of Custody	Appended

Client: Geotechnology, Inc.**Work Order:** 23091863**Client Project:** Hayford Bridge J006295.11**Report Date:** 02-Oct-23**Abbr Definition**

* Analytes on report marked with an asterisk are not NELAP accredited

CCV Continuing calibration verification is a check of a standard to determine the state of calibration of an instrument between recalibration.

CRQL A Client Requested Quantitation Limit is a reporting limit that varies according to customer request. The CRQL may not be less than the MDL.

DF Dilution factor is the dilution performed during analysis only and does not take into account any dilutions made during sample preparation. The reported result is final and includes all dilution factors.

DNI Did not ignite

DUP Laboratory duplicate is a replicate aliquot prepared under the same laboratory conditions and independently analyzed to obtain a measure of precision.

ICV Initial calibration verification is a check of a standard to determine the state of calibration of an instrument before sample analysis is initiated.

IDPH IL Dept. of Public Health

LCS Laboratory control sample is a sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes and analyzed exactly like a sample to establish intra-laboratory or analyst specific precision and bias or to assess the performance of all or a portion of the measurement system.

LCSD Laboratory control sample duplicate is a replicate laboratory control sample that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MBLK Method blank is a sample of a matrix similar to the batch of associated sample (when available) that is free from the analytes of interest and is processed simultaneously with and under the same conditions as samples through all steps of the analytical procedures, and in which no target analytes or interferences should present at concentrations that impact the analytical results for sample analyses.

MDL "The method detection limit is defined as the minimum measured concentration of a substance that can be reported with 99% confidence that the measured concentration is distinguishable from method blank results."

MS Matrix spike is an aliquot of matrix fortified (spiked) with known quantities of specific analytes that is subjected to the entire analytical procedures in order to determine the effect of the matrix on an approved test method's recovery system. The acceptable recovery range is listed in the QC Package (provided upon request).

MSD Matrix spike duplicate means a replicate matrix spike that is prepared and analyzed in order to determine the precision of the approved test method. The acceptable recovery range is listed in the QC Package (provided upon request).

MW Molecular weight

NC Data is not acceptable for compliance purposes

ND Not Detected at the Reporting Limit

NELAP NELAP Accredited

PQL Practical quantitation limit means the lowest level that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operation conditions.

RL The reporting limit the lowest level that the data is displayed in the final report. The reporting limit may vary according to customer request or sample dilution. The reporting limit may not be less than the MDL.

RPD Relative percent difference is a calculated difference between two recoveries (ie. MS/MSD). The acceptable recovery limit is listed in the QC Package (provided upon request).

SPK The spike is a known mass of target analyte added to a blank sample or sub-sample; used to determine recovery deficiency or for other quality control purposes.

Surr Surrogates are compounds which are similar to the analytes of interest in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples.

TIC Tentatively identified compound: Analytes tentatively identified in the sample by using a library search. Only results not in the calibration standard will be reported as tentatively identified compounds. Results for tentatively identified compounds that are not present in the calibration standard, but are assigned a specific chemical name based upon the library search, are calculated using total peak areas from reconstructed ion chromatograms and a response factor of one. The nearest Internal Standard is used for the calculation. The results of any TICs must be considered estimated, and are flagged with a "T". If the estimated result is above the calibration range it is flagged "ET"

TNTC Too numerous to count (> 200 CFU)

Client: Geotechnology, Inc.

Work Order: 23091863

Client Project: Hayford Bridge J006295.11

Report Date: 02-Oct-23

Qualifiers

- | | |
|---|--|
| # - Unknown hydrocarbon | B - Analyte detected in associated Method Blank |
| C - RL shown is a Client Requested Quantitation Limit | E - Value above quantitation range |
| H - Holding times exceeded | I - Associated internal standard was outside method criteria |
| J - Analyte detected below quantitation limits | M - Manual Integration used to determine area response |
| ND - Not Detected at the Reporting Limit | R - RPD outside accepted recovery limits |
| S - Spike Recovery outside recovery limits | T - TIC(Tentatively identified compound) |
| X - Value exceeds Maximum Contaminant Level | |



Case Narrative

<http://www.teklabinc.com/>

Client: Geotechnology, Inc.

Work Order: 23091863

Client Project: Hayford Bridge J006295.11

Report Date: 02-Oct-23

Cooler Receipt Temp: 3.6 °C

Locations

Collinsville

Address 5445 Horseshoe Lake Road
Collinsville, IL 62234-7425
Phone (618) 344-1004
Fax (618) 344-1005
Email jhriley@teklabinc.com

Collinsville Air

Address 5445 Horseshoe Lake Road
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Springfield

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Springfield, IL 62711-9415
Phone (217) 698-1004
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Email KKlostermann@teklabinc.com

Chicago

Address 1319 Butterfield Rd.
Downers Grove, IL 60515
Phone (630) 324-6855
Fax
Email arenner@teklabinc.com

Kansas City

Address 8421 Nieman Road
Lenexa, KS 66214
Phone (913) 541-1998
Fax (913) 541-1998
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Client: Geotechnology, Inc.**Work Order:** 23091863**Client Project:** Hayford Bridge J006295.11**Report Date:** 02-Oct-23

State	Dept	Cert #	NELAP	Exp Date	Lab
Illinois	IEPA	100226	NELAP	1/31/2024	Collinsville
Kansas	KDHE	E-10374	NELAP	4/30/2024	Collinsville
Louisiana	LDEQ	05002	NELAP	6/30/2024	Collinsville
Louisiana	LDEQ	05003	NELAP	6/30/2024	Collinsville
Oklahoma	ODEQ	9978	NELAP	8/31/2024	Collinsville
Arkansas	ADEQ	88-0966		3/14/2024	Collinsville
Illinois	IDPH	17584		5/31/2025	Collinsville
Iowa	IDNR	430		6/1/2024	Collinsville
Kentucky	UST	0073		1/31/2024	Collinsville
Missouri	MDNR	00930		5/31/2023	Collinsville
Missouri	MDNR	930		1/31/2025	Collinsville

Client: Geotechnology, Inc.
 Client Project: Hayford Bridge J006295.11
 Lab ID: 23091863-001
 Matrix: GROUNDWATER

Work Order: 23091863
 Report Date: 02-Oct-23
 Client Sample ID: MW-C18 (Split)
 Collection Date: 09/26/2023 9:55

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,1,1,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517
1,1,1-Trichloroethane	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517
1,1,2,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		ND	µg/L	1	09/27/2023 13:02	212517
1,1,2-Trichloroethane	NELAP	0.5		ND	µg/L	1	09/27/2023 13:02	212517
1,1-Dichloro-2-propanone	*	30.0		ND	µg/L	1	09/27/2023 13:02	212517
1,1-Dichloroethane	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517
1,1-Dichloroethene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517
1,1-Dichloropropene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517
1,2,3-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517
1,2,3-Trichloropropane	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517
1,2,3-Trimethylbenzene	*	2.0		ND	µg/L	1	09/27/2023 13:02	212517
1,2,4-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517
1,2,4-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517
1,2-Dibromo-3-chloropropane	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517
1,2-Dibromoethane	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517
1,2-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517
1,2-Dichloroethane	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517
1,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517
1,3,5-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517
1,3-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517
1,3-Dichloropropane	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517
1,4-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517
1-Chlorobutane	NELAP	5.0		ND	µg/L	1	09/27/2023 13:02	212517
2,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517
2-Butanone	NELAP	10.0		ND	µg/L	1	09/27/2023 13:02	212517
2-Chloroethyl vinyl ether	NELAP	5.0		ND	µg/L	1	09/27/2023 13:02	212517
2-Chlorotoluene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517
2-Hexanone	NELAP	10.0		ND	µg/L	1	09/27/2023 13:02	212517
2-Nitropropane	NELAP	10.0		ND	µg/L	1	09/27/2023 13:02	212517
4-Chlorotoluene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517
4-Methyl-2-pentanone	NELAP	10.0		ND	µg/L	1	09/27/2023 13:02	212517
Acetone	NELAP	10.0		ND	µg/L	1	09/27/2023 13:02	212517
Acetonitrile	NELAP	10.0		ND	µg/L	1	09/27/2023 13:02	212517
Acrolein	NELAP	20.0		ND	µg/L	1	09/27/2023 13:02	212517
Acrylonitrile	NELAP	5.0		ND	µg/L	1	09/27/2023 13:02	212517
Allyl chloride	NELAP	5.0		ND	µg/L	1	09/27/2023 13:02	212517
Benzene	NELAP	0.5		ND	µg/L	1	09/27/2023 13:02	212517
Bromobenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517
Bromochloromethane	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517
Bromodichloromethane	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517
Bromoform	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517
Bromomethane	NELAP	5.0		ND	µg/L	1	09/27/2023 13:02	212517
Carbon disulfide	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517
Carbon tetrachloride	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517
Chlorobenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517
Chloroethane	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517

Client: Geotechnology, Inc.
 Client Project: Hayford Bridge J006295.11
 Lab ID: 23091863-001
 Matrix: GROUNDWATER

Work Order: 23091863
 Report Date: 02-Oct-23
 Client Sample ID: MW-C18 (Split)
 Collection Date: 09/26/2023 9:55

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Chloroform	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517
Chloromethane	NELAP	5.0		ND	µg/L	1	09/27/2023 13:02	212517
Chloroprene	NELAP	5.0		ND	µg/L	1	09/27/2023 13:02	212517
cis-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517
cis-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517
cis-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517
Cyclohexanone	*	20.0		ND	µg/L	1	09/27/2023 13:02	212517
Dibromochloromethane	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517
Dibromomethane	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517
Dichlorodifluoromethane	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517
Ethyl acetate	NELAP	10.0		ND	µg/L	1	09/27/2023 13:02	212517
Ethyl ether	NELAP	5.0		ND	µg/L	1	09/27/2023 13:02	212517
Ethyl methacrylate	NELAP	5.0		ND	µg/L	1	09/27/2023 13:02	212517
Ethylbenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517
Hexachlorobutadiene	NELAP	5.0		ND	µg/L	1	09/27/2023 13:02	212517
Hexachloroethane	NELAP	5.0		ND	µg/L	1	09/27/2023 13:02	212517
Iodomethane	NELAP	5.0		ND	µg/L	1	09/27/2023 13:02	212517
Isopropylbenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517
m,p-Xylenes	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517
Methacrylonitrile	NELAP	5.0		ND	µg/L	1	09/27/2023 13:02	212517
Methyl Methacrylate	NELAP	5.0		ND	µg/L	1	09/27/2023 13:02	212517
Methyl tert-butyl ether	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517
Methylacrylate	NELAP	5.0		ND	µg/L	1	09/27/2023 13:02	212517
Methylene chloride	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517
Naphthalene	NELAP	5.0		ND	µg/L	1	09/27/2023 13:02	212517
n-Butyl acetate	*	2.0		ND	µg/L	1	09/27/2023 13:02	212517
n-Butylbenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517
n-Heptane	*	5.0		ND	µg/L	1	09/27/2023 13:02	212517
n-Hexane	*	5.0		ND	µg/L	1	09/27/2023 13:02	212517
Nitrobenzene	NELAP	50.0		ND	µg/L	1	09/27/2023 13:02	212517
n-Propylbenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517
o-Xylene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517
Pentachloroethane	NELAP	5.0		ND	µg/L	1	09/27/2023 13:02	212517
p-Isopropyltoluene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517
Propionitrile	NELAP	10.0		ND	µg/L	1	09/27/2023 13:02	212517
sec-Butylbenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517
Styrene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517
tert-Butylbenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517
Tetrachloroethene	NELAP	0.5		ND	µg/L	1	09/27/2023 13:02	212517
Tetrahydrofuran	NELAP	5.0		ND	µg/L	1	09/27/2023 13:02	212517
Toluene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517
trans-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517
trans-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517
trans-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517
Trichloroethene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517
Trichlorofluoromethane	NELAP	5.0		ND	µg/L	1	09/27/2023 13:02	212517
Vinyl acetate	NELAP	5.0		ND	µg/L	1	09/27/2023 13:02	212517

Client: Geotechnology, Inc.
Client Project: Hayford Bridge J006295.11
Lab ID: 23091863-001
Matrix: GROUNDWATER

Work Order: 23091863
Report Date: 02-Oct-23
Client Sample ID: MW-C18 (Split)
Collection Date: 09/26/2023 9:55

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Vinyl chloride	NELAP	2.0		ND	µg/L	1	09/27/2023 13:02	212517
Surr: 1,2-Dichloroethane-d4	*	80-120		102.5	%REC	1	09/27/2023 13:02	212517
Surr: 4-Bromofluorobenzene	*	80-120		98.4	%REC	1	09/27/2023 13:02	212517
Surr: Dibromofluoromethane	*	80-120		99.7	%REC	1	09/27/2023 13:02	212517
Surr: Toluene-d8	*	80-120		101.0	%REC	1	09/27/2023 13:02	212517

Client: Geotechnology, Inc.
 Client Project: Hayford Bridge J006295.11
 Lab ID: 23091863-002
 Matrix: GROUNDWATER

Work Order: 23091863
 Report Date: 02-Oct-23
 Client Sample ID: MW-C16 (Split)
 Collection Date: 09/26/2023 10:10

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,1,1,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	09/27/2023 13:27	212517
1,1,1-Trichloroethane	NELAP	2.0		ND	µg/L	1	09/27/2023 13:27	212517
1,1,2,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	09/27/2023 13:27	212517
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		ND	µg/L	1	09/27/2023 13:27	212517
1,1,2-Trichloroethane	NELAP	0.5		ND	µg/L	1	09/27/2023 13:27	212517
1,1-Dichloro-2-propanone	*	30.0		ND	µg/L	1	09/27/2023 13:27	212517
1,1-Dichloroethane	NELAP	2.0	J	0.9	µg/L	1	09/27/2023 13:27	212517
1,1-Dichloroethene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:27	212517
1,1-Dichloropropene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:27	212517
1,2,3-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:27	212517
1,2,3-Trichloropropane	NELAP	2.0		ND	µg/L	1	09/27/2023 13:27	212517
1,2,3-Trimethylbenzene	*	2.0		ND	µg/L	1	09/27/2023 13:27	212517
1,2,4-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:27	212517
1,2,4-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:27	212517
1,2-Dibromo-3-chloropropane	NELAP	2.0		ND	µg/L	1	09/27/2023 13:27	212517
1,2-Dibromoethane	NELAP	2.0		ND	µg/L	1	09/27/2023 13:27	212517
1,2-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:27	212517
1,2-Dichloroethane	NELAP	2.0		ND	µg/L	1	09/27/2023 13:27	212517
1,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	09/27/2023 13:27	212517
1,3,5-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:27	212517
1,3-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:27	212517
1,3-Dichloropropane	NELAP	2.0		ND	µg/L	1	09/27/2023 13:27	212517
1,4-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:27	212517
1-Chlorobutane	NELAP	5.0		ND	µg/L	1	09/27/2023 13:27	212517
2,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	09/27/2023 13:27	212517
2-Butanone	NELAP	10.0		ND	µg/L	1	09/27/2023 13:27	212517
2-Chloroethyl vinyl ether	NELAP	5.0		ND	µg/L	1	09/27/2023 13:27	212517
2-Chlorotoluene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:27	212517
2-Hexanone	NELAP	10.0		ND	µg/L	1	09/27/2023 13:27	212517
2-Nitropropane	NELAP	10.0		ND	µg/L	1	09/27/2023 13:27	212517
4-Chlorotoluene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:27	212517
4-Methyl-2-pentanone	NELAP	10.0		ND	µg/L	1	09/27/2023 13:27	212517
Acetone	NELAP	10.0		ND	µg/L	1	09/27/2023 13:27	212517
Acetonitrile	NELAP	10.0		ND	µg/L	1	09/27/2023 13:27	212517
Acrolein	NELAP	20.0		ND	µg/L	1	09/27/2023 13:27	212517
Acrylonitrile	NELAP	5.0		ND	µg/L	1	09/27/2023 13:27	212517
Allyl chloride	NELAP	5.0		ND	µg/L	1	09/27/2023 13:27	212517
Benzene	NELAP	0.5		ND	µg/L	1	09/27/2023 13:27	212517
Bromobenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:27	212517
Bromochloromethane	NELAP	2.0		ND	µg/L	1	09/27/2023 13:27	212517
Bromodichloromethane	NELAP	2.0		ND	µg/L	1	09/27/2023 13:27	212517
Bromoform	NELAP	2.0		ND	µg/L	1	09/27/2023 13:27	212517
Bromomethane	NELAP	5.0		ND	µg/L	1	09/27/2023 13:27	212517
Carbon disulfide	NELAP	2.0		ND	µg/L	1	09/27/2023 13:27	212517
Carbon tetrachloride	NELAP	2.0		ND	µg/L	1	09/27/2023 13:27	212517
Chlorobenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:27	212517
Chloroethane	NELAP	2.0		ND	µg/L	1	09/27/2023 13:27	212517

Client: Geotechnology, Inc.
 Client Project: Hayford Bridge J006295.11
 Lab ID: 23091863-002
 Matrix: GROUNDWATER

Work Order: 23091863
 Report Date: 02-Oct-23
 Client Sample ID: MW-C16 (Split)
 Collection Date: 09/26/2023 10:10

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Chloroform	NELAP	2.0	J	ND	µg/L	1	09/27/2023 13:27	212517
Chloromethane	NELAP	5.0		ND	µg/L	1	09/27/2023 13:27	212517
Chloroprene	NELAP	5.0		ND	µg/L	1	09/27/2023 13:27	212517
cis-1,2-Dichloroethene	NELAP	2.0		1.7	µg/L	1	09/27/2023 13:27	212517
cis-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:27	212517
cis-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:27	212517
Cyclohexanone	*	20.0		ND	µg/L	1	09/27/2023 13:27	212517
Dibromochloromethane	NELAP	2.0		ND	µg/L	1	09/27/2023 13:27	212517
Dibromomethane	NELAP	2.0		ND	µg/L	1	09/27/2023 13:27	212517
Dichlorodifluoromethane	NELAP	2.0		ND	µg/L	1	09/27/2023 13:27	212517
Ethyl acetate	NELAP	10.0		ND	µg/L	1	09/27/2023 13:27	212517
Ethyl ether	NELAP	5.0		ND	µg/L	1	09/27/2023 13:27	212517
Ethyl methacrylate	NELAP	5.0		ND	µg/L	1	09/27/2023 13:27	212517
Ethylbenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:27	212517
Hexachlorobutadiene	NELAP	5.0		ND	µg/L	1	09/27/2023 13:27	212517
Hexachloroethane	NELAP	5.0		ND	µg/L	1	09/27/2023 13:27	212517
Iodomethane	NELAP	5.0		ND	µg/L	1	09/27/2023 13:27	212517
Isopropylbenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:27	212517
m,p-Xylenes	NELAP	2.0		ND	µg/L	1	09/27/2023 13:27	212517
Methacrylonitrile	NELAP	5.0		ND	µg/L	1	09/27/2023 13:27	212517
Methyl Methacrylate	NELAP	5.0		ND	µg/L	1	09/27/2023 13:27	212517
Methyl tert-butyl ether	NELAP	2.0		ND	µg/L	1	09/27/2023 13:27	212517
Methylacrylate	NELAP	5.0		ND	µg/L	1	09/27/2023 13:27	212517
Methylene chloride	NELAP	2.0		ND	µg/L	1	09/27/2023 13:27	212517
Naphthalene	NELAP	5.0		ND	µg/L	1	09/27/2023 13:27	212517
n-Butyl acetate	*	2.0		ND	µg/L	1	09/27/2023 13:27	212517
n-Butylbenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:27	212517
n-Heptane	*	5.0		ND	µg/L	1	09/27/2023 13:27	212517
n-Hexane	*	5.0		ND	µg/L	1	09/27/2023 13:27	212517
Nitrobenzene	NELAP	50.0		ND	µg/L	1	09/27/2023 13:27	212517
n-Propylbenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:27	212517
o-Xylene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:27	212517
Pentachloroethane	NELAP	5.0		ND	µg/L	1	09/27/2023 13:27	212517
p-Isopropyltoluene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:27	212517
Propionitrile	NELAP	10.0		ND	µg/L	1	09/27/2023 13:27	212517
sec-Butylbenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:27	212517
Styrene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:27	212517
tert-Butylbenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:27	212517
Tetrachloroethene	NELAP	0.5		ND	µg/L	1	09/27/2023 13:27	212517
Tetrahydrofuran	NELAP	5.0		ND	µg/L	1	09/27/2023 13:27	212517
Toluene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:27	212517
trans-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:27	212517
trans-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:27	212517
trans-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:27	212517
Trichloroethene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:27	212517
Trichlorofluoromethane	NELAP	5.0		ND	µg/L	1	09/27/2023 13:27	212517
Vinyl acetate	NELAP	5.0		ND	µg/L	1	09/27/2023 13:27	212517

Client: Geotechnology, Inc.**Work Order:** 23091863**Client Project:** Hayford Bridge J006295.11**Report Date:** 02-Oct-23**Lab ID:** 23091863-002**Client Sample ID:** MW-C16 (Split)**Matrix:** GROUNDWATER**Collection Date:** 09/26/2023 10:10

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Vinyl chloride	NELAP	2.0		7.6	µg/L	1	09/27/2023 13:27	212517
Surr: 1,2-Dichloroethane-d4	*	80-120		103.1	%REC	1	09/27/2023 13:27	212517
Surr: 4-Bromofluorobenzene	*	80-120		98.0	%REC	1	09/27/2023 13:27	212517
Surr: Dibromofluoromethane	*	80-120		99.4	%REC	1	09/27/2023 13:27	212517
Surr: Toluene-d8	*	80-120		101.4	%REC	1	09/27/2023 13:27	212517

Client: Geotechnology, Inc.
 Client Project: Hayford Bridge J006295.11
 Lab ID: 23091863-003
 Matrix: GROUNDWATER

Work Order: 23091863
 Report Date: 02-Oct-23
 Client Sample ID: MW-C17 (Split)
 Collection Date: 09/26/2023 11:15

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,1,1,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	09/27/2023 13:53	212517
1,1,1-Trichloroethane	NELAP	2.0		ND	µg/L	1	09/27/2023 13:53	212517
1,1,2,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	09/27/2023 13:53	212517
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		ND	µg/L	1	09/27/2023 13:53	212517
1,1,2-Trichloroethane	NELAP	0.5		ND	µg/L	1	09/27/2023 13:53	212517
1,1-Dichloro-2-propanone	*	30.0		ND	µg/L	1	09/27/2023 13:53	212517
1,1-Dichloroethane	NELAP	2.0	J	1.1	µg/L	1	09/27/2023 13:53	212517
1,1-Dichloroethene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:53	212517
1,1-Dichloropropene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:53	212517
1,2,3-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:53	212517
1,2,3-Trichloropropane	NELAP	2.0		ND	µg/L	1	09/27/2023 13:53	212517
1,2,3-Trimethylbenzene	*	2.0		ND	µg/L	1	09/27/2023 13:53	212517
1,2,4-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:53	212517
1,2,4-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:53	212517
1,2-Dibromo-3-chloropropane	NELAP	2.0		ND	µg/L	1	09/27/2023 13:53	212517
1,2-Dibromoethane	NELAP	2.0		ND	µg/L	1	09/27/2023 13:53	212517
1,2-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:53	212517
1,2-Dichloroethane	NELAP	2.0		ND	µg/L	1	09/27/2023 13:53	212517
1,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	09/27/2023 13:53	212517
1,3,5-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:53	212517
1,3-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:53	212517
1,3-Dichloropropane	NELAP	2.0		ND	µg/L	1	09/27/2023 13:53	212517
1,4-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:53	212517
1-Chlorobutane	NELAP	5.0		ND	µg/L	1	09/27/2023 13:53	212517
2,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	09/27/2023 13:53	212517
2-Butanone	NELAP	10.0		ND	µg/L	1	09/27/2023 13:53	212517
2-Chloroethyl vinyl ether	NELAP	5.0		ND	µg/L	1	09/27/2023 13:53	212517
2-Chlorotoluene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:53	212517
2-Hexanone	NELAP	10.0		ND	µg/L	1	09/27/2023 13:53	212517
2-Nitropropane	NELAP	10.0		ND	µg/L	1	09/27/2023 13:53	212517
4-Chlorotoluene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:53	212517
4-Methyl-2-pentanone	NELAP	10.0		ND	µg/L	1	09/27/2023 13:53	212517
Acetone	NELAP	10.0		ND	µg/L	1	09/27/2023 13:53	212517
Acetonitrile	NELAP	10.0		ND	µg/L	1	09/27/2023 13:53	212517
Acrolein	NELAP	20.0		ND	µg/L	1	09/27/2023 13:53	212517
Acrylonitrile	NELAP	5.0		ND	µg/L	1	09/27/2023 13:53	212517
Allyl chloride	NELAP	5.0		ND	µg/L	1	09/27/2023 13:53	212517
Benzene	NELAP	0.5		ND	µg/L	1	09/27/2023 13:53	212517
Bromobenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:53	212517
Bromochloromethane	NELAP	2.0		ND	µg/L	1	09/27/2023 13:53	212517
Bromodichloromethane	NELAP	2.0		ND	µg/L	1	09/27/2023 13:53	212517
Bromoform	NELAP	2.0		ND	µg/L	1	09/27/2023 13:53	212517
Bromomethane	NELAP	5.0		ND	µg/L	1	09/27/2023 13:53	212517
Carbon disulfide	NELAP	2.0		ND	µg/L	1	09/27/2023 13:53	212517
Carbon tetrachloride	NELAP	2.0		ND	µg/L	1	09/27/2023 13:53	212517
Chlorobenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:53	212517
Chloroethane	NELAP	2.0		ND	µg/L	1	09/27/2023 13:53	212517

Client: Geotechnology, Inc.
 Client Project: Hayford Bridge J006295.11
 Lab ID: 23091863-003
 Matrix: GROUNDWATER

Work Order: 23091863
 Report Date: 02-Oct-23
 Client Sample ID: MW-C17 (Split)
 Collection Date: 09/26/2023 11:15

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Chloroform	NELAP	2.0		ND	µg/L	1	09/27/2023 13:53	212517
Chloromethane	NELAP	5.0		ND	µg/L	1	09/27/2023 13:53	212517
Chloroprene	NELAP	5.0		ND	µg/L	1	09/27/2023 13:53	212517
cis-1,2-Dichloroethene	NELAP	2.0		4.2	µg/L	1	09/27/2023 13:53	212517
cis-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:53	212517
cis-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:53	212517
Cyclohexanone	*	20.0		ND	µg/L	1	09/27/2023 13:53	212517
Dibromochloromethane	NELAP	2.0		ND	µg/L	1	09/27/2023 13:53	212517
Dibromomethane	NELAP	2.0		ND	µg/L	1	09/27/2023 13:53	212517
Dichlorodifluoromethane	NELAP	2.0		ND	µg/L	1	09/27/2023 13:53	212517
Ethyl acetate	NELAP	10.0		ND	µg/L	1	09/27/2023 13:53	212517
Ethyl ether	NELAP	5.0		ND	µg/L	1	09/27/2023 13:53	212517
Ethyl methacrylate	NELAP	5.0		ND	µg/L	1	09/27/2023 13:53	212517
Ethylbenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:53	212517
Hexachlorobutadiene	NELAP	5.0		ND	µg/L	1	09/27/2023 13:53	212517
Hexachloroethane	NELAP	5.0		ND	µg/L	1	09/27/2023 13:53	212517
Iodomethane	NELAP	5.0		ND	µg/L	1	09/27/2023 13:53	212517
Isopropylbenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:53	212517
m,p-Xylenes	NELAP	2.0		ND	µg/L	1	09/27/2023 13:53	212517
Methacrylonitrile	NELAP	5.0		ND	µg/L	1	09/27/2023 13:53	212517
Methyl Methacrylate	NELAP	5.0		ND	µg/L	1	09/27/2023 13:53	212517
Methyl tert-butyl ether	NELAP	2.0		ND	µg/L	1	09/27/2023 13:53	212517
Methylacrylate	NELAP	5.0		ND	µg/L	1	09/27/2023 13:53	212517
Methylene chloride	NELAP	2.0		ND	µg/L	1	09/27/2023 13:53	212517
Naphthalene	NELAP	5.0		ND	µg/L	1	09/27/2023 13:53	212517
n-Butyl acetate	*	2.0		ND	µg/L	1	09/27/2023 13:53	212517
n-Butylbenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:53	212517
n-Heptane	*	5.0		ND	µg/L	1	09/27/2023 13:53	212517
n-Hexane	*	5.0		ND	µg/L	1	09/27/2023 13:53	212517
Nitrobenzene	NELAP	50.0		ND	µg/L	1	09/27/2023 13:53	212517
n-Propylbenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:53	212517
o-Xylene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:53	212517
Pentachloroethane	NELAP	5.0		ND	µg/L	1	09/27/2023 13:53	212517
p-Isopropyltoluene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:53	212517
Propionitrile	NELAP	10.0		ND	µg/L	1	09/27/2023 13:53	212517
sec-Butylbenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:53	212517
Styrene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:53	212517
tert-Butylbenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:53	212517
Tetrachloroethene	NELAP	0.5		ND	µg/L	1	09/27/2023 13:53	212517
Tetrahydrofuran	NELAP	5.0		ND	µg/L	1	09/27/2023 13:53	212517
Toluene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:53	212517
trans-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:53	212517
trans-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:53	212517
trans-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:53	212517
Trichloroethene	NELAP	2.0		ND	µg/L	1	09/27/2023 13:53	212517
Trichlorofluoromethane	NELAP	5.0		ND	µg/L	1	09/27/2023 13:53	212517
Vinyl acetate	NELAP	5.0		ND	µg/L	1	09/27/2023 13:53	212517

Client: Geotechnology, Inc.
Client Project: Hayford Bridge J006295.11
Lab ID: 23091863-003
Matrix: GROUNDWATER

Work Order: 23091863
Report Date: 02-Oct-23
Client Sample ID: MW-C17 (Split)
Collection Date: 09/26/2023 11:15

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Vinyl chloride	NELAP	2.0		5.0	µg/L	1	09/27/2023 13:53	212517
Surr: 1,2-Dichloroethane-d4	*	80-120		102.3	%REC	1	09/27/2023 13:53	212517
Surr: 4-Bromofluorobenzene	*	80-120		100.2	%REC	1	09/27/2023 13:53	212517
Surr: Dibromofluoromethane	*	80-120		99.1	%REC	1	09/27/2023 13:53	212517
Surr: Toluene-d8	*	80-120		100.5	%REC	1	09/27/2023 13:53	212517

Client: Geotechnology, Inc.
 Client Project: Hayford Bridge J006295.11
 Lab ID: 23091863-004
 Matrix: GROUNDWATER

Work Order: 23091863
 Report Date: 02-Oct-23
 Client Sample ID: MW-C19 (Split)
 Collection Date: 09/26/2023 11:25

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
1,1,1,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517
1,1,1-Trichloroethane	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517
1,1,2,2-Tetrachloroethane	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		ND	µg/L	1	09/27/2023 14:19	212517
1,1,2-Trichloroethane	NELAP	0.5		ND	µg/L	1	09/27/2023 14:19	212517
1,1-Dichloro-2-propanone	*	30.0		ND	µg/L	1	09/27/2023 14:19	212517
1,1-Dichloroethane	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517
1,1-Dichloroethene	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517
1,1-Dichloropropene	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517
1,2,3-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517
1,2,3-Trichloropropane	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517
1,2,3-Trimethylbenzene	*	2.0		ND	µg/L	1	09/27/2023 14:19	212517
1,2,4-Trichlorobenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517
1,2,4-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517
1,2-Dibromo-3-chloropropane	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517
1,2-Dibromoethane	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517
1,2-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517
1,2-Dichloroethane	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517
1,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517
1,3,5-Trimethylbenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517
1,3-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517
1,3-Dichloropropane	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517
1,4-Dichlorobenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517
1-Chlorobutane	NELAP	5.0		ND	µg/L	1	09/27/2023 14:19	212517
2,2-Dichloropropane	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517
2-Butanone	NELAP	10.0		ND	µg/L	1	09/27/2023 14:19	212517
2-Chloroethyl vinyl ether	NELAP	5.0		ND	µg/L	1	09/27/2023 14:19	212517
2-Chlorotoluene	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517
2-Hexanone	NELAP	10.0		ND	µg/L	1	09/27/2023 14:19	212517
2-Nitropropane	NELAP	10.0		ND	µg/L	1	09/27/2023 14:19	212517
4-Chlorotoluene	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517
4-Methyl-2-pentanone	NELAP	10.0		ND	µg/L	1	09/27/2023 14:19	212517
Acetone	NELAP	10.0		ND	µg/L	1	09/27/2023 14:19	212517
Acetonitrile	NELAP	10.0		ND	µg/L	1	09/27/2023 14:19	212517
Acrolein	NELAP	20.0		ND	µg/L	1	09/27/2023 14:19	212517
Acrylonitrile	NELAP	5.0		ND	µg/L	1	09/27/2023 14:19	212517
Allyl chloride	NELAP	5.0		ND	µg/L	1	09/27/2023 14:19	212517
Benzene	NELAP	0.5		ND	µg/L	1	09/27/2023 14:19	212517
Bromobenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517
Bromochloromethane	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517
Bromodichloromethane	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517
Bromoform	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517
Bromomethane	NELAP	5.0		ND	µg/L	1	09/27/2023 14:19	212517
Carbon disulfide	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517
Carbon tetrachloride	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517
Chlorobenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517
Chloroethane	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517

Client: Geotechnology, Inc.
 Client Project: Hayford Bridge J006295.11
 Lab ID: 23091863-004
 Matrix: GROUNDWATER

Work Order: 23091863
 Report Date: 02-Oct-23
 Client Sample ID: MW-C19 (Split)
 Collection Date: 09/26/2023 11:25

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Chloroform	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517
Chloromethane	NELAP	5.0		ND	µg/L	1	09/27/2023 14:19	212517
Chloroprene	NELAP	5.0		ND	µg/L	1	09/27/2023 14:19	212517
cis-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517
cis-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517
cis-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517
Cyclohexanone	*	20.0		ND	µg/L	1	09/27/2023 14:19	212517
Dibromochloromethane	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517
Dibromomethane	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517
Dichlorodifluoromethane	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517
Ethyl acetate	NELAP	10.0		ND	µg/L	1	09/27/2023 14:19	212517
Ethyl ether	NELAP	5.0		ND	µg/L	1	09/27/2023 14:19	212517
Ethyl methacrylate	NELAP	5.0		ND	µg/L	1	09/27/2023 14:19	212517
Ethylbenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517
Hexachlorobutadiene	NELAP	5.0		ND	µg/L	1	09/27/2023 14:19	212517
Hexachloroethane	NELAP	5.0		ND	µg/L	1	09/27/2023 14:19	212517
Iodomethane	NELAP	5.0		ND	µg/L	1	09/27/2023 14:19	212517
Isopropylbenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517
m,p-Xylenes	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517
Methacrylonitrile	NELAP	5.0		ND	µg/L	1	09/27/2023 14:19	212517
Methyl Methacrylate	NELAP	5.0		ND	µg/L	1	09/27/2023 14:19	212517
Methyl tert-butyl ether	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517
Methylacrylate	NELAP	5.0		ND	µg/L	1	09/27/2023 14:19	212517
Methylene chloride	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517
Naphthalene	NELAP	5.0		ND	µg/L	1	09/27/2023 14:19	212517
n-Butyl acetate	*	2.0		ND	µg/L	1	09/27/2023 14:19	212517
n-Butylbenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517
n-Heptane	*	5.0		ND	µg/L	1	09/27/2023 14:19	212517
n-Hexane	*	5.0		ND	µg/L	1	09/27/2023 14:19	212517
Nitrobenzene	NELAP	50.0		ND	µg/L	1	09/27/2023 14:19	212517
n-Propylbenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517
o-Xylene	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517
Pentachloroethane	NELAP	5.0		ND	µg/L	1	09/27/2023 14:19	212517
p-Isopropyltoluene	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517
Propionitrile	NELAP	10.0		ND	µg/L	1	09/27/2023 14:19	212517
sec-Butylbenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517
Styrene	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517
tert-Butylbenzene	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517
Tetrachloroethene	NELAP	0.5		ND	µg/L	1	09/27/2023 14:19	212517
Tetrahydrofuran	NELAP	5.0		ND	µg/L	1	09/27/2023 14:19	212517
Toluene	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517
trans-1,2-Dichloroethene	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517
trans-1,3-Dichloropropene	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517
trans-1,4-Dichloro-2-butene	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517
Trichloroethene	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517
Trichlorofluoromethane	NELAP	5.0		ND	µg/L	1	09/27/2023 14:19	212517
Vinyl acetate	NELAP	5.0		ND	µg/L	1	09/27/2023 14:19	212517

Client: Geotechnology, Inc.**Work Order:** 23091863**Client Project:** Hayford Bridge J006295.11**Report Date:** 02-Oct-23**Lab ID:** 23091863-004**Client Sample ID:** MW-C19 (Split)**Matrix:** GROUNDWATER**Collection Date:** 09/26/2023 11:25

Analyses	Certification	RL	Qual	Result	Units	DF	Date Analyzed	Batch
SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS								
Vinyl chloride	NELAP	2.0		ND	µg/L	1	09/27/2023 14:19	212517
Surr: 1,2-Dichloroethane-d4	*	80-120		103.6	%REC	1	09/27/2023 14:19	212517
Surr: 4-Bromofluorobenzene	*	80-120		99.4	%REC	1	09/27/2023 14:19	212517
Surr: Dibromofluoromethane	*	80-120		99.1	%REC	1	09/27/2023 14:19	212517
Surr: Toluene-d8	*	80-120		102.3	%REC	1	09/27/2023 14:19	212517



Sample Summary

<http://www.teklabinc.com/>

Client: Geotechnology, Inc.
Client Project: Hayford Bridge J006295.11

Work Order: 23091863
Report Date: 02-Oct-23

Lab Sample ID	Client Sample ID	Matrix	Fractions	Collection Date
23091863-001	MW-C18 (Split)	Groundwater	1	09/26/2023 9:55
23091863-002	MW-C16 (Split)	Groundwater	1	09/26/2023 10:10
23091863-003	MW-C17 (Split)	Groundwater	1	09/26/2023 11:15
23091863-004	MW-C19 (Split)	Groundwater	1	09/26/2023 11:25



Dates Report

<http://www.teklabinc.com/>

Client: Geotechnology, Inc.

Work Order: 23091863

Client Project: Hayford Bridge J006295.11

Report Date: 02-Oct-23

Sample ID	Client Sample ID	Collection Date	Received Date	Prep Date/Time	Analysis Date/Time
Test Name					
23091863-001A	MW-C18 (Split)	09/26/2023 9:55	09/26/2023 16:00		
	SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS				09/27/2023 13:02
23091863-002A	MW-C16 (Split)	09/26/2023 10:10	09/26/2023 16:00		
	SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS				09/27/2023 13:27
23091863-003A	MW-C17 (Split)	09/26/2023 11:15	09/26/2023 16:00		
	SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS				09/27/2023 13:53
23091863-004A	MW-C19 (Split)	09/26/2023 11:25	09/26/2023 16:00		
	SW-846 5030, 8260B, Volatile Organic Compounds by GC/MS				09/27/2023 14:19

Client: Geotechnology, Inc.

Work Order: 23091863

Client Project: Hayford Bridge J006295.11

Report Date: 02-Oct-23

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 212517		SampType: MBLK		Units µg/L							
SampID: MBLK-AE230927A-1											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
1,1,1,2-Tetrachloroethane	*	2.0		ND						09/27/2023	
1,1,1-Trichloroethane	*	2.0		ND						09/27/2023	
1,1,2,2-Tetrachloroethane	*	2.0		ND						09/27/2023	
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		ND						09/27/2023	
1,1,2-Trichloroethane	*	0.5		ND						09/27/2023	
1,1-Dichloro-2-propanone	*	30.0		ND						09/27/2023	
1,1-Dichloroethane	*	2.0		ND						09/27/2023	
1,1-Dichloroethene	*	2.0		ND						09/27/2023	
1,1-Dichloropropene	*	2.0		ND						09/27/2023	
1,2,3-Trichlorobenzene	*	2.0		ND						09/27/2023	
1,2,3-Trichloropropane	*	2.0		ND						09/27/2023	
1,2,3-Trimethylbenzene	*	2.0		ND						09/27/2023	
1,2,4-Trichlorobenzene	*	2.0		ND						09/27/2023	
1,2,4-Trimethylbenzene	*	2.0		ND						09/27/2023	
1,2-Dibromo-3-chloropropane	*	5.0		ND						09/27/2023	
1,2-Dibromoethane	*	2.0		ND						09/27/2023	
1,2-Dichlorobenzene	*	2.0		ND						09/27/2023	
1,2-Dichloroethane	*	2.0		ND						09/27/2023	
1,2-Dichloropropane	*	2.0		ND						09/27/2023	
1,3,5-Trimethylbenzene	*	2.0		ND						09/27/2023	
1,3-Dichlorobenzene	*	2.0		ND						09/27/2023	
1,3-Dichloropropane	*	2.0		ND						09/27/2023	
1,4-Dichlorobenzene	*	2.0		ND						09/27/2023	
1-Chlorobutane	*	5.0		ND						09/27/2023	
2,2-Dichloropropane	*	2.0		ND						09/27/2023	
2-Butanone	*	10.0		ND						09/27/2023	
2-Chloroethyl vinyl ether	*	5.0		ND						09/27/2023	
2-Chlorotoluene	*	2.0		ND						09/27/2023	
2-Hexanone	*	10.0		ND						09/27/2023	
2-Nitropropane	*	10.0		ND						09/27/2023	
4-Chlorotoluene	*	2.0		ND						09/27/2023	
4-Methyl-2-pentanone	*	10.0		ND						09/27/2023	
Acetone	*	10.0		ND						09/27/2023	
Acetonitrile	*	10.0		ND						09/27/2023	
Acrolein	*	20.0		ND						09/27/2023	
Acrylonitrile	*	5.0		ND						09/27/2023	

Client: Geotechnology, Inc.

Work Order: 23091863

Client Project: Hayford Bridge J006295.11

Report Date: 02-Oct-23

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 212517		SampType: MBLK		Units µg/L							
SampleID: MBLK-AE230927A-1											
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed	
Allyl chloride	*	5.0		ND						09/27/2023	
Benzene	*	0.5		ND						09/27/2023	
Bromobenzene	*	2.0		ND						09/27/2023	
Bromochloromethane	*	2.0		ND						09/27/2023	
Bromodichloromethane	*	2.0		ND						09/27/2023	
Bromoform	*	2.0		ND						09/27/2023	
Bromomethane	*	5.0		ND						09/27/2023	
Carbon disulfide	*	2.0		ND						09/27/2023	
Carbon tetrachloride	*	2.0		ND						09/27/2023	
Chlorobenzene	*	2.0		ND						09/27/2023	
Chloroethane	*	2.0		ND						09/27/2023	
Chloroform	*	2.0		ND						09/27/2023	
Chloromethane	*	5.0		ND						09/27/2023	
Chloroprene	*	5.0		ND						09/27/2023	
cis-1,2-Dichloroethene	*	2.0		ND						09/27/2023	
cis-1,3-Dichloropropene	*	2.0		ND						09/27/2023	
cis-1,4-Dichloro-2-butene	*	2.0		ND						09/27/2023	
Cyclohexanone	*	20.0		ND						09/27/2023	
Dibromochloromethane	*	2.0		ND						09/27/2023	
Dibromomethane	*	2.0		ND						09/27/2023	
Dichlorodifluoromethane	*	2.0		ND						09/27/2023	
Ethyl acetate	*	10.0		ND						09/27/2023	
Ethyl ether	*	5.0		ND						09/27/2023	
Ethyl methacrylate	*	5.0		ND						09/27/2023	
Ethylbenzene	*	2.0		ND						09/27/2023	
Hexachlorobutadiene	*	5.0		ND						09/27/2023	
Hexachloroethane	*	5.0		ND						09/27/2023	
Iodomethane	*	5.0		ND						09/27/2023	
Isopropylbenzene	*	2.0		ND						09/27/2023	
m,p-Xylenes	*	2.0		ND						09/27/2023	
Methacrylonitrile	*	5.0		ND						09/27/2023	
Methyl Methacrylate	*	5.0		ND						09/27/2023	
Methyl tert-butyl ether	*	2.0		ND						09/27/2023	
Methylacrylate	*	5.0		ND						09/27/2023	
Methylene chloride	*	2.0		ND						09/27/2023	
Naphthalene	*	5.0		ND						09/27/2023	



Quality Control Results

<http://www.teklabinc.com/>

Client: Geotechnology, Inc.

Work Order: 23091863

Client Project: Hayford Bridge J006295.11

Report Date: 02-Oct-23

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 212517 SampType: MBLK Units µg/L

SampleID: MBLK-AE230927A-1

Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
n-Butyl acetate	*	2.0		ND						09/27/2023
n-Butylbenzene	*	2.0		ND						09/27/2023
n-Heptane	*	5.0		ND						09/27/2023
n-Hexane	*	5.0		ND						09/27/2023
Nitrobenzene	*	50.0		ND						09/27/2023
n-Propylbenzene	*	2.0		ND						09/27/2023
o-Xylene	*	2.0		ND						09/27/2023
Pentachloroethane	*	5.0		ND						09/27/2023
p-Isopropyltoluene	*	2.0		ND						09/27/2023
Propionitrile	*	10.0		ND						09/27/2023
sec-Butylbenzene	*	2.0		ND						09/27/2023
Styrene	*	2.0		ND						09/27/2023
tert-Butylbenzene	*	2.0		ND						09/27/2023
Tetrachloroethene	*	0.5		ND						09/27/2023
Tetrahydrofuran	*	5.0		ND						09/27/2023
Toluene	*	2.0		ND						09/27/2023
trans-1,2-Dichloroethene	*	2.0		ND						09/27/2023
trans-1,3-Dichloropropene	*	2.0		ND						09/27/2023
trans-1,4-Dichloro-2-butene	*	2.0		ND						09/27/2023
Trichloroethene	*	2.0		ND						09/27/2023
Trichlorofluoromethane	*	5.0		ND						09/27/2023
Vinyl acetate	*	5.0		ND						09/27/2023
Vinyl chloride	*	2.0		ND						09/27/2023
Surr: 1,2-Dichloroethane-d4	*			50.5	50.00		100.9	80	120	09/27/2023
Surr: 4-Bromofluorobenzene	*			48.8	50.00		97.7	80	120	09/27/2023
Surr: Dibromofluoromethane	*			49.4	50.00		98.9	80	120	09/27/2023
Surr: Toluene-d8	*			50.7	50.00		101.5	80	120	09/27/2023

Client: Geotechnology, Inc.

Work Order: 23091863

Client Project: Hayford Bridge J006295.11

Report Date: 02-Oct-23

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 212517		SampType: LCS		Units µg/L							Date
SampleID: LCS-AE230927A-1											Analyzed
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit		
1,1,1,2-Tetrachloroethane	*	2.0		53.6	50.00	0	107.3	80	123	09/27/2023	
1,1,1-Trichloroethane	*	2.0		53.3	50.00	0	106.6	77.8	129	09/27/2023	
1,1,2,2-Tetrachloroethane	*	2.0		48.8	50.00	0	97.6	74.5	120	09/27/2023	
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		49.2	50.00	0	98.5	73.5	129	09/27/2023	
1,1,2-Trichloroethane	*	0.5		50.8	50.00	0	101.5	85	113	09/27/2023	
1,1-Dichloro-2-propanone	*	30.0		118	125.0	0	94.7	72.5	122	09/27/2023	
1,1-Dichloroethane	*	2.0		51.2	50.00	0	102.3	80.2	121	09/27/2023	
1,1-Dichloroethene	*	2.0		50.1	50.00	0	100.2	75.2	126	09/27/2023	
1,1-Dichloropropene	*	2.0		50.7	50.00	0	101.3	80.1	124	09/27/2023	
1,2,3-Trichlorobenzene	*	2.0		50.2	50.00	0	100.5	75.3	127	09/27/2023	
1,2,3-Trichloropropane	*	2.0		49.6	50.00	0	99.2	76.9	116	09/27/2023	
1,2,3-Trimethylbenzene	*	2.0		50.5	50.00	0	100.9	77.1	119	09/27/2023	
1,2,4-Trichlorobenzene	*	2.0		51.2	50.00	0	102.5	74	128	09/27/2023	
1,2,4-Trimethylbenzene	*	2.0		51.4	50.00	0	102.8	73.9	125	09/27/2023	
1,2-Dibromo-3-chloropropane	*	5.0		50.2	50.00	0	100.4	75.2	121	09/27/2023	
1,2-Dibromoethane	*	2.0		51.7	50.00	0	103.3	84.4	115	09/27/2023	
1,2-Dichlorobenzene	*	2.0		52.1	50.00	0	104.1	78.6	117	09/27/2023	
1,2-Dichloroethane	*	2.0		48.4	50.00	0	96.8	73.5	124	09/27/2023	
1,2-Dichloropropane	*	2.0		51.3	50.00	0	102.5	80.5	122	09/27/2023	
1,3,5-Trimethylbenzene	*	2.0		53.1	50.00	0	106.2	77.1	125	09/27/2023	
1,3-Dichlorobenzene	*	2.0		52.5	50.00	0	105.0	80.5	120	09/27/2023	
1,3-Dichloropropane	*	2.0		49.9	50.00	0	99.8	83.6	112	09/27/2023	
1,4-Dichlorobenzene	*	2.0		52.5	50.00	0	105.1	77.9	118	09/27/2023	
1-Chlorobutane	*	5.0		52.7	50.00	0	105.3	82	128	09/27/2023	
2,2-Dichloropropane	*	2.0		53.4	50.00	0	106.9	54	157	09/27/2023	
2-Butanone	*	10.0		126	125.0	0	100.4	70.3	132	09/27/2023	
2-Chloroethyl vinyl ether	*	5.0		41.7	50.00	0	83.3	66	136	09/27/2023	
2-Chlorotoluene	*	2.0		51.9	50.00	0	103.8	78.6	118	09/27/2023	
2-Hexanone	*	10.0		124	125.0	0	99.0	74.5	127	09/27/2023	
2-Nitropropane	*	10.0		506	500.0	0	101.2	76.2	143	09/27/2023	
4-Chlorotoluene	*	2.0		51.6	50.00	0	103.3	77.3	123	09/27/2023	
4-Methyl-2-pentanone	*	10.0		125	125.0	0	100.0	81.7	120	09/27/2023	
Acetone	*	10.0		123	125.0	0	98.5	58.6	147	09/27/2023	
Acetonitrile	*	10.0		534	500.0	0	106.9	72	142	09/27/2023	
Acrolein	*	20.0		373	500.0	0	74.7	43.3	156	09/27/2023	
Acrylonitrile	*	5.0		53.6	50.00	0	107.2	72.4	130	09/27/2023	

Client: Geotechnology, Inc.

Work Order: 23091863

Client Project: Hayford Bridge J006295.11

Report Date: 02-Oct-23

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 212517		SampType: LCS		Units µg/L						
SampID: LCS-AE230927A-1										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit	Date Analyzed
Allyl chloride	*	5.0		52.2	50.00	0	104.4	75.4	129	09/27/2023
Benzene	*	0.5		48.3	50.00	0	96.7	80	121	09/27/2023
Bromobenzene	*	2.0		52.1	50.00	0	104.3	80.3	118	09/27/2023
Bromochloromethane	*	2.0		53.3	50.00	0	106.5	73.4	125	09/27/2023
Bromodichloromethane	*	2.0		52.5	50.00	0	105.0	79.8	128	09/27/2023
Bromoform	*	2.0		51.9	50.00	0	103.9	71.6	129	09/27/2023
Bromomethane	*	5.0		48.9	50.00	0	97.9	-15.1	283	09/27/2023
Carbon disulfide	*	2.0		50.0	50.00	0	100.0	76.5	123	09/27/2023
Carbon tetrachloride	*	2.0		54.9	50.00	0	109.8	71.2	138	09/27/2023
Chlorobenzene	*	2.0		51.6	50.00	0	103.2	81.6	115	09/27/2023
Chloroethane	*	2.0		50.5	50.00	0	100.9	70.7	121	09/27/2023
Chloroform	*	2.0		52.6	50.00	0	105.2	78	126	09/27/2023
Chloromethane	*	5.0		48.6	50.00	0	97.2	53.8	128	09/27/2023
Chloroprene	*	5.0		51.8	50.00	0	103.6	78.5	128	09/27/2023
cis-1,2-Dichloroethene	*	2.0		51.4	50.00	0	102.8	78.3	126	09/27/2023
cis-1,3-Dichloropropene	*	2.0		51.8	50.00	0	103.7	83	128	09/27/2023
cis-1,4-Dichloro-2-butene	*	2.0		52.2	50.00	0	104.3	58.8	134	09/27/2023
Cyclohexanone	*	20.0		446	500.0	0	89.1	70.2	122	09/27/2023
Dibromochloromethane	*	2.0		54.0	50.00	0	107.9	82.1	120	09/27/2023
Dibromomethane	*	2.0		51.9	50.00	0	103.8	80.1	126	09/27/2023
Dichlorodifluoromethane	*	2.0		56.1	50.00	0	112.1	30.2	156	09/27/2023
Ethyl acetate	*	10.0		49.0	50.00	0	98.1	71.6	130	09/27/2023
Ethyl ether	*	5.0		50.3	50.00	0	100.6	78.9	120	09/27/2023
Ethyl methacrylate	*	5.0		52.3	50.00	0	104.7	83.2	124	09/27/2023
Ethylbenzene	*	2.0		51.5	50.00	0	102.9	83.1	116	09/27/2023
Hexachlorobutadiene	*	5.0		54.2	50.00	0	108.4	68.9	141	09/27/2023
Hexachloroethane	*	5.0		54.2	50.00	0	108.5	71	131	09/27/2023
Iodomethane	*	5.0		57.2	50.00	0	114.3	14.2	198	09/27/2023
Isopropylbenzene	*	2.0		51.4	50.00	0	102.7	78.3	122	09/27/2023
m,p-Xylenes	*	2.0		104	100.0	0	103.8	83.2	117	09/27/2023
Methacrylonitrile	*	5.0		48.8	50.00	0	97.7	80	123	09/27/2023
Methyl Methacrylate	*	5.0		50.0	50.00	0	100.0	78.1	126	09/27/2023
Methyl tert-butyl ether	*	2.0		51.4	50.00	0	102.9	79.9	126	09/27/2023
Methylacrylate	*	5.0		50.6	50.00	0	101.2	78.9	126	09/27/2023
Methylene chloride	*	2.0		49.4	50.00	0	98.9	71.4	124	09/27/2023
Naphthalene	*	5.0		48.5	50.00	0	96.9	71.6	124	09/27/2023

Client: Geotechnology, Inc.

Work Order: 23091863

Client Project: Hayford Bridge J006295.11

Report Date: 02-Oct-23

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 212517		SampType: LCS		Units µg/L							Date Analyzed	
SampleID: LCS-AE230927A-1												
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	Low Limit	High Limit			
n-Butyl acetate	*	2.0		48.8	50.00	0	97.6	74.3	126			
n-Butylbenzene	*	2.0		50.1	50.00	0	100.3	75.9	122			
n-Heptane	*	5.0		53.6	50.00	0	107.3	56.7	163			
n-Hexane	*	5.0		46.1	50.00	0	92.3	60.6	130			
Nitrobenzene	*	50.0		471	500.0	0	94.1	52.5	130			
n-Propylbenzene	*	2.0		52.2	50.00	0	104.3	78.6	122			
o-Xylene	*	2.0		52.1	50.00	0	104.1	82.3	115			
Pentachloroethane	*	5.0		50.8	50.00	0	101.6	19.7	198			
p-Isopropyltoluene	*	2.0		53.6	50.00	0	107.3	75.9	126			
Propionitrile	*	10.0		529	500.0	0	105.7	78.3	132			
sec-Butylbenzene	*	2.0		53.1	50.00	0	106.3	78	127			
Styrene	*	2.0		52.4	50.00	0	104.9	84.4	117			
tert-Butylbenzene	*	2.0		52.3	50.00	0	104.5	76.3	124			
Tetrachloroethene	*	0.5		54.2	50.00	0	108.4	66.7	125			
Tetrahydrofuran	*	5.0		48.9	50.00	0	97.8	68.4	132			
Toluene	*	2.0		50.8	50.00	0	101.5	82.4	112			
trans-1,2-Dichloroethene	*	2.0		52.2	50.00	0	104.3	80.8	126			
trans-1,3-Dichloropropene	*	2.0		53.3	50.00	0	106.7	80.7	123			
trans-1,4-Dichloro-2-butene	*	2.0		51.0	50.00	0	102.1	52.8	138			
Trichloroethene	*	2.0		51.8	50.00	0	103.7	78.2	128			
Trichlorofluoromethane	*	5.0		52.7	50.00	0	105.4	70.5	136			
Vinyl acetate	*	5.0		49.3	50.00	0	98.7	79.1	134			
Vinyl chloride	*	2.0		54.6	50.00	0	109.1	66.7	141			
Surr: 1,2-Dichloroethane-d4	*			51.2	50.00		102.3	80	120			
Surr: 4-Bromofluorobenzene	*			48.8	50.00		97.5	80	120			
Surr: Dibromofluoromethane	*			50.2	50.00		100.4	80	120			
Surr: Toluene-d8	*			49.7	50.00		99.4	80	120			

Client: Geotechnology, Inc.

Work Order: 23091863

Client Project: Hayford Bridge J006295.11

Report Date: 02-Oct-23

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 212517	SampType: LCSD	Units µg/L					RPD Limit 20			
SampleID: LCSD-AE230927A-1										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
1,1,1,2-Tetrachloroethane	*	2.0		52.2	50.00	0	104.5	53.65	2.64	09/27/2023
1,1,1-Trichloroethane	*	2.0		50.4	50.00	0	100.8	53.30	5.59	09/27/2023
1,1,2,2-Tetrachloroethane	*	2.0		49.4	50.00	0	98.7	48.82	1.08	09/27/2023
1,1,2-Trichloro-1,2,2-trifluoroethane	*	5.0		47.2	50.00	0	94.4	49.23	4.19	09/27/2023
1,1,2-Trichloroethane	*	0.5		51.0	50.00	0	102.0	50.76	0.47	09/27/2023
1,1-Dichloro-2-propanone	*	30.0		122	125.0	0	97.5	118.3	2.92	09/27/2023
1,1-Dichloroethane	*	2.0		49.0	50.00	0	98.0	51.16	4.29	09/27/2023
1,1-Dichloroethene	*	2.0		47.3	50.00	0	94.6	50.11	5.79	09/27/2023
1,1-Dichloropropene	*	2.0		48.1	50.00	0	96.1	50.67	5.27	09/27/2023
1,2,3-Trichlorobenzene	*	2.0		51.3	50.00	0	102.6	50.23	2.13	09/27/2023
1,2,3-Trichloropropane	*	2.0		50.5	50.00	0	101.1	49.58	1.92	09/27/2023
1,2,3-Trimethylbenzene	*	2.0		49.1	50.00	0	98.1	50.46	2.79	09/27/2023
1,2,4-Trichlorobenzene	*	2.0		50.9	50.00	0	101.9	51.24	0.61	09/27/2023
1,2,4-Trimethylbenzene	*	2.0		49.9	50.00	0	99.7	51.38	2.98	09/27/2023
1,2-Dibromo-3-chloropropane	*	5.0		52.2	50.00	0	104.4	50.18	3.95	09/27/2023
1,2-Dibromoethane	*	2.0		51.7	50.00	0	103.4	51.66	0.04	09/27/2023
1,2-Dichlorobenzene	*	2.0		51.6	50.00	0	103.2	52.07	0.89	09/27/2023
1,2-Dichloroethane	*	2.0		48.3	50.00	0	96.5	48.39	0.25	09/27/2023
1,2-Dichloropropane	*	2.0		49.3	50.00	0	98.6	51.26	3.92	09/27/2023
1,3,5-Trimethylbenzene	*	2.0		51.3	50.00	0	102.6	53.12	3.45	09/27/2023
1,3-Dichlorobenzene	*	2.0		51.0	50.00	0	102.0	52.50	2.88	09/27/2023
1,3-Dichloropropane	*	2.0		50.5	50.00	0	101.0	49.88	1.22	09/27/2023
1,4-Dichlorobenzene	*	2.0		51.6	50.00	0	103.2	52.53	1.77	09/27/2023
1-Chlorobutane	*	5.0		49.8	50.00	0	99.6	52.66	5.54	09/27/2023
2,2-Dichloropropane	*	2.0		50.6	50.00	0	101.2	53.45	5.44	09/27/2023
2-Butanone	*	10.0		129	125.0	0	103.5	125.5	3.07	09/27/2023
2-Chloroethyl vinyl ether	*	5.0		41.3	50.00	0	82.6	41.66	0.89	09/27/2023
2-Chlorotoluene	*	2.0		50.6	50.00	0	101.2	51.88	2.52	09/27/2023
2-Hexanone	*	10.0		127	125.0	0	101.9	123.8	2.85	09/27/2023
2-Nitropropane	*	10.0		516	500.0	0	103.3	505.9	2.03	09/27/2023
4-Chlorotoluene	*	2.0		49.9	50.00	0	99.9	51.64	3.35	09/27/2023
4-Methyl-2-pentanone	*	10.0		127	125.0	0	101.9	124.9	1.89	09/27/2023
Acetone	*	10.0		127	125.0	0	101.3	123.1	2.82	09/27/2023
Acetonitrile	*	10.0		551	500.0	0	110.3	534.4	3.11	09/27/2023
Acrolein	*	20.0		384	500.0	0	76.7	373.4	2.69	09/27/2023
Acrylonitrile	*	5.0		54.6	50.00	0	109.1	53.62	1.74	09/27/2023

Client: Geotechnology, Inc.

Work Order: 23091863

Client Project: Hayford Bridge J006295.11

Report Date: 02-Oct-23

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 212517		SampType: LCSD		Units µg/L				RPD Limit 20		
SampID: LCSD-AE230927A-1										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
Allyl chloride	*	5.0		49.8	50.00	0	99.6	52.18	4.69	09/27/2023
Benzene	*	0.5		46.4	50.00	0	92.8	48.34	4.05	09/27/2023
Bromobenzene	*	2.0		50.9	50.00	0	101.9	52.14	2.33	09/27/2023
Bromochloromethane	*	2.0		51.7	50.00	0	103.4	53.26	2.95	09/27/2023
Bromodichloromethane	*	2.0		51.5	50.00	0	103.0	52.49	1.88	09/27/2023
Bromoform	*	2.0		52.1	50.00	0	104.2	51.93	0.35	09/27/2023
Bromomethane	*	5.0		46.9	50.00	0	93.8	48.93	4.19	09/27/2023
Carbon disulfide	*	2.0		46.6	50.00	0	93.3	50.00	6.98	09/27/2023
Carbon tetrachloride	*	2.0		51.9	50.00	0	103.8	54.92	5.64	09/27/2023
Chlorobenzene	*	2.0		50.4	50.00	0	100.9	51.59	2.27	09/27/2023
Chloroethane	*	2.0		47.6	50.00	0	95.3	50.47	5.77	09/27/2023
Chloroform	*	2.0		50.1	50.00	0	100.2	52.60	4.91	09/27/2023
Chloromethane	*	5.0		46.1	50.00	0	92.2	48.60	5.30	09/27/2023
Chloroprene	*	5.0		48.9	50.00	0	97.8	51.78	5.68	09/27/2023
cis-1,2-Dichloroethene	*	2.0		50.0	50.00	0	99.9	51.39	2.84	09/27/2023
cis-1,3-Dichloropropene	*	2.0		51.6	50.00	0	103.2	51.84	0.46	09/27/2023
cis-1,4-Dichloro-2-butene	*	2.0		52.7	50.00	0	105.3	52.16	0.97	09/27/2023
Cyclohexanone	*	20.0		463	500.0	0	92.7	445.6	3.91	09/27/2023
Dibromochloromethane	*	2.0		53.4	50.00	0	106.8	53.95	1.06	09/27/2023
Dibromomethane	*	2.0		51.9	50.00	0	103.9	51.88	0.10	09/27/2023
Dichlorodifluoromethane	*	2.0		52.7	50.00	0	105.5	56.07	6.14	09/27/2023
Ethyl acetate	*	10.0		49.8	50.00	0	99.6	49.04	1.54	09/27/2023
Ethyl ether	*	5.0		50.5	50.00	0	101.0	50.29	0.40	09/27/2023
Ethyl methacrylate	*	5.0		52.1	50.00	0	104.3	52.34	0.40	09/27/2023
Ethylbenzene	*	2.0		49.5	50.00	0	99.0	51.46	3.90	09/27/2023
Hexachlorobutadiene	*	5.0		53.4	50.00	0	106.8	54.19	1.47	09/27/2023
Hexachloroethane	*	5.0		52.3	50.00	0	104.6	54.23	3.59	09/27/2023
Iodomethane	*	5.0		48.6	50.00	0	97.2	57.17	16.25	09/27/2023
Isopropylbenzene	*	2.0		49.2	50.00	0	98.4	51.37	4.27	09/27/2023
m,p-Xylenes	*	2.0		100	100.0	0	100.0	103.8	3.71	09/27/2023
Methacrylonitrile	*	5.0		49.8	50.00	0	99.5	48.85	1.87	09/27/2023
Methyl Methacrylate	*	5.0		51.0	50.00	0	102.0	50.01	2.00	09/27/2023
Methyl tert-butyl ether	*	2.0		50.9	50.00	0	101.9	51.43	0.98	09/27/2023
Methylacrylate	*	5.0		52.4	50.00	0	104.7	50.58	3.44	09/27/2023
Methylene chloride	*	2.0		47.9	50.00	0	95.8	49.45	3.23	09/27/2023
Naphthalene	*	5.0		49.9	50.00	0	99.8	48.47	2.91	09/27/2023

Client: Geotechnology, Inc.

Work Order: 23091863

Client Project: Hayford Bridge J006295.11

Report Date: 02-Oct-23

SW-846 5030, 8260B, VOLATILE ORGANIC COMPOUNDS BY GC/MS

Batch 212517		SampType: LCSD		Units µg/L		RPD Limit 20				
SampleID: LCSD-AE230927A-1										
Analyses	Cert	RL	Qual	Result	Spike	SPK Ref Val	%REC	RPD Ref Val	%RPD	Date Analyzed
n-Butyl acetate	*	2.0		49.9	50.00	0	99.8	48.78	2.25	09/27/2023
n-Butylbenzene	*	2.0		47.8	50.00	0	95.7	50.14	4.69	09/27/2023
n-Heptane	*	5.0		50.8	50.00	0	101.5	53.63	5.52	09/27/2023
n-Hexane	*	5.0		43.4	50.00	0	86.8	46.13	6.05	09/27/2023
Nitrobenzene	*	50.0		502	500.0	0	100.4	470.7	6.39	09/27/2023
n-Propylbenzene	*	2.0		50.0	50.00	0	100.1	52.17	4.19	09/27/2023
o-Xylene	*	2.0		50.0	50.00	0	100.1	52.07	3.98	09/27/2023
Pentachloroethane	*	5.0		50.3	50.00	0	100.5	50.78	1.01	09/27/2023
p-Isopropyltoluene	*	2.0		51.9	50.00	0	103.8	53.63	3.32	09/27/2023
Propionitrile	*	10.0		541	500.0	0	108.1	528.7	2.24	09/27/2023
sec-Butylbenzene	*	2.0		50.6	50.00	0	101.2	53.14	4.90	09/27/2023
Styrene	*	2.0		50.8	50.00	0	101.6	52.43	3.14	09/27/2023
tert-Butylbenzene	*	2.0		50.0	50.00	0	100.0	52.27	4.42	09/27/2023
Tetrachloroethene	*	0.5		52.0	50.00	0	104.1	54.18	4.03	09/27/2023
Tetrahydrofuran	*	5.0		49.8	50.00	0	99.7	48.91	1.90	09/27/2023
Toluene	*	2.0		48.6	50.00	0	97.3	50.77	4.29	09/27/2023
trans-1,2-Dichloroethene	*	2.0		49.1	50.00	0	98.3	52.16	5.96	09/27/2023
trans-1,3-Dichloropropene	*	2.0		53.1	50.00	0	106.2	53.33	0.41	09/27/2023
trans-1,4-Dichloro-2-butene	*	2.0		52.3	50.00	0	104.5	51.03	2.38	09/27/2023
Trichloroethene	*	2.0		49.4	50.00	0	98.8	51.84	4.80	09/27/2023
Trichlorofluoromethane	*	5.0		50.6	50.00	0	101.2	52.69	4.05	09/27/2023
Vinyl acetate	*	5.0		49.7	50.00	0	99.5	49.33	0.83	09/27/2023
Vinyl chloride	*	2.0		51.3	50.00	0	102.5	54.56	6.22	09/27/2023
Surr: 1,2-Dichloroethane-d4	*			50.5	50.00		101.0			09/27/2023
Surr: 4-Bromofluorobenzene	*			48.7	50.00		97.4			09/27/2023
Surr: Dibromofluoromethane	*			50.9	50.00		101.8			09/27/2023
Surr: Toluene-d8	*			50.0	50.00		100.1			09/27/2023

Client: Geotechnology, Inc.

Work Order: 23091863

Client Project: Hayford Bridge J006295.11

Report Date: 02-Oct-23

Carrier: Payton Yoch

Received By: MBP

Completed by:

On:

26-Sep-23

Amber Dilallo

Reviewed by:

On:

26-Sep-23

Elizabeth A. Hurley

Elizabeth A. Hurley

Pages to follow:

Chain of custody

1

Extra pages included

0

Shipping container/cooler in good condition?

Yes ☒

No ☐

Not Present ☐

Temp °C **3.6**

Type of thermal preservation?

None ☐

Ice ☒

Blue Ice ☐

Dry Ice ☐

Chain of custody present?

Yes ☒

No ☐

Chain of custody signed when relinquished and received?

Yes ☒

No ☐

Chain of custody agrees with sample labels?

Yes ☒

No ☐

Samples in proper container/bottle?

Yes ☒

No ☐

Sample containers intact?

Yes ☒

No ☐

Sufficient sample volume for indicated test?

Yes ☒

No ☐

All samples received within holding time?

Yes ☒

No ☐

Reported field parameters measured:

Field ☐

Lab ☐

NA ☒

Container/Temp Blank temperature in compliance?

Yes ☒

No ☐

When thermal preservation is required, samples are compliant with a temperature between 0.1°C - 6.0°C, or when samples are received on ice the same day as collected.

Water – at least one vial per sample has zero headspace?

Yes ☒

No ☐

No VOA vials ☐

Water - TOX containers have zero headspace?

Yes ☐

No ☐

No TOX containers ☒

Water - pH acceptable upon receipt?

Yes ☒

No ☐

NA ☐

NPDES/CWA TCN interferences checked/treated in the field?

Yes ☐

No ☐

NA ☒

Any No responses must be detailed below or on the COC.

23091863

TEKLAB, INC. 5445 Horseshoe Lake Road - Collinsville, IL 62234 - Phone: (618) 344-1004 - Fax: (618) 344-1005

[illegible]