

August 3, 2021
File No. 25221172.00

Ms. Cindy Koepke, PG, Hydrogeologist
Remediation & Redevelopment Program
Wisconsin Department of Natural Resources - South Central Region
3911 Fish Hatchery Road
Fitchburg, WI 53711

Subject: Groundwater Monitoring Update Report
Former Bob's Citgo, 602 W. Madison Avenue, Milton, Wisconsin
BRRTS #03-54-000193

Dear Cindy:

SCS Engineers (SCS) is submitting this report on behalf of Mr. Robert Richardson for the former Bob's Citgo and Badgerland Coop leaking underground storage tank (LUST) case at the above-referenced property. SCS monitored groundwater and resurveyed selected well on July 8, 2021. Following are the results of those activities.

BACKGROUND

This case was first opened by the Wisconsin Department of Natural Resources (WDNR) in 1983. Groundwater was first sampled in November 2010. Information on the WDNR website indicates that petroleum contamination has been identified in soil and groundwater at the site. Sampling of the subslab vapors below the station building in 2015 and 2016 did not identify any vapor intrusion concerns. Groundwater sampling data indicate groundwater impacts are present on site, free product has been present in the past, and groundwater impacts extend off site to the west and south. Soil impacts are present at depth, but most of the shallow impacted soil was excavated when the underground storage tanks (USTs) were removed from the site in October 2019.

The wells were last sampled in October 2017. Groundwater analytical results are summarized on **Table 1**. Groundwater flow has consistently been to the west/southwest, with an apparent significant groundwater mound present on-site implicating a component of flow to the southeast. Groundwater quality data however indicates that flow is primarily to the west/southwest as impacts have not been detected at monitoring well, MW10, located to the southeast of the site.

JULY 2021 SAMPLING EVENT

- SCS provided a brief work plan to the WDNR via email on July 2, 2021, outlining the planned sampling event.
- SCS located and inspected the monitoring wells, and collected groundwater samples from MW1, MW2, MW3, MW5, and MW6 (five wells), and measured water levels at all 10 wells. Groundwater levels and elevations are summarized on the attached **Table 2**.



- Top of casing elevations were resurveyed at seven wells (MW1, MW2, MW3, MW4, MW5, MW6, and MW10). The PVC casings on MW2, MW3, MW5, and MW10 were cut down 0.2 feet to accommodate well locks which were added to all the wells. Casing elevations are listed on **Table 2**.
- Groundwater samples were analyzed for petroleum volatile organic compounds (PVOCs) and naphthalene by Pace Analytical Services, LLC, Green Bay, Wisconsin. The analytical report is attached.
- Wells MW1 through MW3 purged dry at 5 or less gallons, the other wells were purged of 3 to 5 well volumes. Purge water was drummed for disposal at a wastewater treatment plant (WWTP). One drum is being temporarily stored on site pending receipt of recent laboratory results and WWTP discharge approval.
- SCS checked for free product at MW2 and MW3. MW2 had 0.19 feet of product present. No indication of product was observed at MW3. Product was collected and disposed on absorbent pads.

FINDINGS

Overall petroleum concentrations appear to be stable or decreasing. Benzene, methyl tert-butyl ether (MTBE) and toluene concentrations at MW1 have decreased significantly at MW1. At MW3 and MW4 the July 2021 PVOC concentration are about the same as in 2017. At MW6, PVOC concentrations have decreased with benzene at a concentration just over the ES being the only NR 140 exceedance. The July 2021 benzene concentration detected at MW5 exceeds the NR 140 enforcement standard (ES) whereas benzene had not been detected in the samples from MW5 in 2017. The 2021 benzene concentration is however, very low compared to the concentrations detected in 2013 to 2015.

During this sampling event MW2 had 0.19 feet of product present. Previously MW2 had free product present ranging from greater than 3 feet in 2011, to 0.10 feet measured at the most recent previous sampling event in 2017. A sheen was observed in the water collected from MW3 in 2013, through the last sampling event in 2017. On July 8, 2021, no indication of product was observed at MW3.

There are some small differences between the top of casing elevations used previously and the 2021 resurvey; however, they do not affect the configuration of the groundwater contours and the indicated groundwater flow pattern.

Groundwater levels are high compared to the levels recorded at site monitoring wells in the past (**Table 2**). However, the July 2021 groundwater flow direction is consistent with previous findings with flow to the west/southwest, and an apparent groundwater mound present on-site implicating a component of flow to the southeast. Also consistent with previous findings, groundwater quality data indicates that flow is primarily to the west/southwest as impacts have not been detected at monitoring well, MW10, located to the southeast of the site.

The former tank basin area has not been repaved following the removal of the tanks in October 2019. The tank basin could serve as a preferential recharge area, however the apparent mound was present prior to the tanks and pavement being removed.

CONCLUSIONS

Previously treatment by chemical injection was proposed as a potential remediation for soil impacts. The October 2019 UST removal and soil excavation, and time has resulted in some improvements to groundwater conditions, but some additional active remediation may be needed prior to evaluating the potential for closure of the case with use restrictions and inclusion of the site on the registry of impacted sites maintained by the WDNR.

The July 2021 groundwater monitoring event provides information about current groundwater quality conditions at the site. We would like to discuss next steps and possible paths to site closure.

Please contact Betty at 608-212-6664 if you have any questions or comments.

Sincerely,



Betty J. Socha, PhD, PG
Senior Project Manager
SCS Engineers



Tony Kollasch
Project Manager
SCS Engineers

BJS/AJR/TJK

CC: Mr. Robert Richardson

Encl. Table 1 – Groundwater Analytical Results Summary – VOCs
Table 2 – Water Level Summary
Figure 1 – Site Location Map
Figure 2 – Site Plan
Figure 3 – Groundwater Flow – 07/08/2021
Pace Analytical Report dated July 14, 2021

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Table 1. Groundwater Analytical Results Summary - VOCs
Bob's Citgo, Milton, Wisconsin / SCS Engineers Project #25221172.00
(Results are in µg/L)

Sample	Date	Lab Notes	Benzene	Ethylbenzene	MTBE	Toluene	TMBs	Xylenes	Naphthalene	Other VOCs
MW-1	11/4/2010	--	<u>6,950</u>	<u>2,380</u>	<u>912</u>	<u>17,000</u>	<u>1,564</u>	<u>11,140</u>	<u>426</u>	ND
	3/3/2011	--	<u>8,700</u>	<u>2,810</u>	<u>914</u>	<u>18,300</u>	<u>2,136</u>	<u>13,650</u>	<u>478</u>	Methylene Chloride 113 * n-Propylbenzene 208
	9/15/2011	--	<u>7,550</u>	<u>2,540</u>	<u>867</u>	<u>15,300</u>	<u>2,153</u>	<u>12,160</u>	<u>640</u>	NA
	8/15/2013	--	<u>6,600</u>	<u>2,630</u>	<u>302</u>	<u>15,600</u>	<u>2,226</u>	<u>11,890</u>	<u>663</u>	NA
	9/11/2013	--	<u>5,170</u>	<u>2,230</u>	<u>184</u>	<u>13,200</u>	<u>1,889</u>	<u>10,300</u>	<u>525</u>	Isopropylbenzene 73.6 n-Propylbenzene 185
	5/28/2015	--	<u>5,620</u>	<u>2,060</u>	<u>160</u>	<u>12,800</u>	<u>1,854</u>	<u>9,360</u>	<u>567</u>	NA
	6/24/2017	--	<u>6,970</u>	<u>2,980</u>	<u>390</u>	<u>17,100</u>	<u>2,224</u>	<u>12,880</u>	<u>734</u>	NA
	10/23/2017	--	<u>5,170</u>	<u>2,940</u>	<u>222</u>	<u>14,000</u>	<u>2,324</u>	<u>13,170</u>	<u>711</u>	NA
	7/8/2021	--	<u>2,420</u>	<u>2,890</u>	<11.3	<u>1,800</u>	<u>2,576</u>	<u>10,800</u>	<u>579</u>	NA
MW-2	3/11/2011	--	<u>5,260</u>	<u>3,270</u>	<u>284</u>	<u>11,100</u>	<u>2,887</u>	<u>15,270</u>	<u>529</u>	Isopropylbenzene 101 Methylene Chloride 66.5 * n-Propylbenzene 294
	9/15/2011	--	<u>4,760</u>	<u>3,720</u>	<u>280</u>	<u>10,900</u>	<u>3,238</u>	<u>16,550</u>	<u>891</u>	NA
	8/15/2013	--	NA	NA	NA	NA	NA	NA	NA	NA
	9/11/2013	--	<u>1,810</u>	<u>2,930</u>	<u>37.3</u>	<u>2,660</u>	<u>3,155</u>	<u>11,020</u>	<u>828</u>	Isopropylbenzene 150 n-Propylbenzene 406 p-Isopropyltoluene 11.3 sec-Butylbenzene 19.6 J*
	5/28/2015	--	<u>2,020</u>	<u>3,400</u>	<u>49.6</u>	<u>2,560</u>	<u>3,843</u>	<u>14,150</u>	<u>826</u>	NA
	6/24/2017	--	<u>2,310</u>	<u>3,300</u>	<u>60.6</u> J	<u>480</u>	<u>5,160</u>	<u>12,950</u>	<u>1,560</u>	NA
	10/23/2017	--	<u>1,080</u>	<u>2,310</u>	<24.2	<u>204</u>	<u>4,055</u>	<u>8,640</u>	<u>928</u>	NA
	7/8/2021	--	<u>335</u>	<u>2,000</u>	<45.2	57.1	<u>3,861</u>	<u>7,360</u>	<u>964</u>	NA

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Bob's Citgo, Milton, Wisconsin / SCS Engineers Project #25221172.00
(Results are in µg/L)

Sample	Date	Lab Notes	Benzene	Ethylbenzene	MTBE	Toluene	TMBs	Xylenes	Naphthalene	Other VOCs
MW-3	3/3/2011	--	<u>3,150</u>	<u>3,230</u>	<76.2	<u>10,500</u>	<u>2,888</u>	<u>14,130</u>	<u>589</u>	Isopropylbenzene 105 n-Propylbenzene 284 Methylene Chloride 65.6 *
	9/15/2011	--	<u>2,670</u>	<u>2,610</u>	<u>74.30</u>	<u>6,420</u>	<u>2,932</u>	<u>10,660</u>	<u>680</u>	NA
	8/15/2013	--	<u>2,290</u>	<u>3,760</u>	<u>562</u>	<u>1,750</u>	<u>3,411</u>	<u>15,650</u>	<u>926</u>	NA
	9/11/2013	--	<u>2,290</u>	<u>2,580</u>	<u>532</u>	<u>1,120</u>	<u>2,393</u>	<u>11,030</u>	<u>684</u>	Isopropylbenzene 93.3 n-Propylbenzene 230
	5/28/2015	--	<u>1,360</u>	<u>3,040</u>	<24.2	<u>719</u>	<u>3,342</u>	<u>12,610</u>	<u>831</u>	NA
	6/24/2017	--	<u>1,100</u>	<u>2,900</u>	<u>28.6</u> J	68.3	<u>3,063</u>	<u>9,208</u>	<u>743</u>	NA
	10/23/2017	--	<u>1,760</u>	<u>2,730</u>	<u>58.3</u> J	<u>163</u>	<u>3,515</u>	<u>9,630</u>	<u>884</u>	NA
	7/8/2021	--	<u>1,220</u>	<u>2,330</u>	<28.2	35.3	<u>4,227</u>	<u>4,170</u>	<u>813</u>	NA
MW-4	9/15/2011	--	<0.41	<0.54	<u>154</u>	<0.67	<1.80	<2.63	<0.89	1,2-Dichloroethane 2.3 Chloromethane 0.33
	8/15/2013	--	<0.34	<0.34	<u>210</u>	<0.34	<0.69	<1.03	<0.37	NA
	9/11/2013	--	<0.50	<0.50	<u>154</u>	<0.44	<1.00	<1.32	<2.5	1,2-Dichloroethane 1 Isopropylbenzene 1.4
	5/28/2015	--	<0.40	<0.39	<u>95.0</u>	<0.39	<0.84	<1.25	<0.42	NA
	6/24/2017	--	<0.40	<0.39	0.68 J	<0.39	<0.84	<1.25	<0.42	NA
	10/23/2017	--	<0.40	<0.39	<u>21.7</u>	<0.39	<0.84	<1.25	<0.42	NA
MW-5	9/15/2011	--	<u>623</u>	58.5	<u>776</u>	6.3	<9.0	271	<4.4	ND
	8/15/2013	--	<u>3,930</u>	<u>1,330</u>	<u>270</u>	<u>969</u>	<u>486</u>	<u>2,890</u>	<u>307</u>	NA
	9/11/2013	--	<u>3,220</u>	<u>1,080</u>	<u>216</u>	<u>737</u>	<u>338.8</u>	<u>2,152</u>	<u>209</u>	Isopropylbenzene 36.6 n-Propylbenzene 78.3
	5/28/2015	--	<u>2,170</u>	<u>917</u>	<u>105</u>	<u>1,690</u>	<u>900</u>	<u>3,920</u>	<u>275</u>	NA
	6/24/2017	--	<0.40	<0.39	<0.48	<0.39	<0.84	<1.25	<0.42	NA
	10/23/2017	--	<0.40	<0.39	<0.48	<0.39	<0.84	<1.25	2.6	NA
	7/8/2021	--	<u>16.6</u>	26.5	4.7 J1	2.1	23.1	63.8	6.9	NA

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 (Results are in µg/L)

Sample	Date	Lab Notes	Benzene	Ethylbenzene	MTBE	Toluene	TMBs	Xylenes	Naphthalene	Other VOCs
MW-6	9/15/2011	--	<u>289</u>	75.6	<u>53.8</u>	1.7	27.2	6.9	<u>19.2</u>	Isopropylbenzene 7.3 n-Propylbenzene 7.3
	8/15/2013	--	<u>4.1</u>	1.2	5.3	<0.34	<0.69	<1.03	<0.37	NA
	9/11/2013	--	<u>208</u>	121	3.2	11.3	35.0	162.1	<u>20.0</u>	Isopropylbenzene 6.5 n-Propylbenzene 13.1
	5/28/2015	--	<0.40	<0.39	<0.48	<0.39	<0.84	<1.25	<0.42	NA
	6/24/2017	--	<u>1,060</u>	<u>1,360</u>	<u>109</u>	<u>166</u>	<u>870</u>	<u>3,164</u>	<u>354</u>	NA
	10/23/2017	--	<u>103</u>	98.7	4.1	7.9	65.3	160	<u>22.2</u>	NA
	7/8/2021	--	<u>5.1</u>	4.1	<1.1	<0.29	0.60 J1	1.9 J1	<1.1	NA
MW-7	9/11/2013	--	<u>56.6</u>	<0.50	<u>125</u>	<0.44	<1.00	<1.32	<2.5	1,2-Dichloroethane 1.1
	5/28/2015	--	<u>18.8</u>	1.3	<u>126</u>	<0.39	<0.84	5.2	1.7	NA
	6/24/2017	(2)	<u>244</u>	8.2	<u>96.9</u>	3.2	<1.67	3.0	2.7	NA
	10/23/2017	--	<0.40	<0.39	<0.48	<0.39	<0.84	<1.25	<0.42	NA
MW-8	9/11/2013	--	<u>12.8</u>	<0.50	4.30	<0.44	<1.00	<1.32	<2.5	ND
	5/28/2015	--	<u>0.75</u> J	<0.39	10.30	<0.39	1.6	<1.25	0.67 J	NA
	6/24/2017	--	<u>2.1</u>	12.2	2.30	0.441	<0.84	3.0	<u>14.4</u>	NA
	10/23/2017	--	<0.40	<0.39	2.90	<0.39	<0.84	<1.25	<0.42	NA
MW-9	9/11/2013	--	<0.50	<0.50	1.1	<0.44	<1.00	<1.32	<2.5	ND
	5/28/2015	--	<0.40	<0.39	<0.48	<0.39	<0.84	<1.25	<0.42	NA
	6/24/2017	--	<0.40	<0.39	<0.48	<0.39	<0.84	<1.25	<0.42	NA
	10/23/2017	--	<0.40	<0.39	<0.48	<0.39	<0.84	<1.25	<0.42	NA
MW-10	9/11/2013	--	<0.50	<0.50	<0.49	<0.44	<1.00	<1.32	<2.5	ND
	5/28/2015	--	<0.40	<0.39	<0.48	<0.39	<0.84	<1.25	<0.42	NA
	6/24/2017	--	<0.40	<0.39	<0.48	<0.39	<0.84	<1.25	<0.42	NA
	10/23/2017	(1)(2)	<0.40	<0.39	<0.48	<0.39	<0.84	<1.25	<0.42	NA

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Bob's Citgo, Milton, Wisconsin / SCS Engineers Project #25221172.00
 (Results are in µg/L)

Sample	Date	Lab Notes	Benzene	Ethylbenzene	MTBE	Toluene	TMBs	Xylenes	Naphthalene	Other VOCs
Trip Blank	7/8/2021	--	<0.30	<0.33	<1.1	<0.29	<0.81	<1.0	<1.1	NA
NR 140 Enforcement Standards (ESs)			5	700	60	800	480	2,000	100	1,2-Dichloroethane 5 sec-Butylbenzene NE Isopropylbenzene NE n-Propylbenzene NE p-Isopropyltoluene NE Methylene Chloride 0.5 Chloromethane 30
NR 140 Preventive Action Limits (PALs)			0.5	140	12	160	96	400	10	1,2-Dichloroethane 0.5 sec-Butylbenzene NE Isopropylbenzene NE n-Propylbenzene NE p-Isopropyltoluene NE Methylene Chloride 5 Chloromethane 3

Abbreviations:

µg/L = micrograms per liter or parts per billion (ppb)

-- = Not Applicable

NA = Not Analyzed

NE = No Standard Established

MTBE = Methyl tert-butyl ether

VOCs = Volatile Organic Compounds

TMBs = 1,2,4- and 1,3,5-trimethylbenzenes

Notes:

NR 140 ESs - Wisconsin Administrative Code (WAC), Chapter NR 140.10 Table 1 - Public Health Groundwater Quality Standards from February 2021

NR 140 PALs - WAC, Chapter NR 140.10 Table 1 - Public Health Groundwater Quality Standards from February 2021

Bold+underlined values meet or exceed NR 140 ESs.

Italic+underlined values meet or exceed NR 140 PALs.

Laboratory Notes/Qualifiers:

* = May be laboratory contaminant

J = Estimated concentration below quantitation limit

J1 = Estimated concentration at or above the Limit of Detection (LOD) and below the Limit of Quantitation (LOQ).

(1) = Lab flagged sample for insufficient preservation pH

(2) = Lab flagged sample for headspace in sample

Created by:	<u>AJR</u>	Date:	<u>7/22/2021</u>
Last revision by:	<u>AJR</u>	Date:	<u>7/26/2021</u>
Checked by:	<u>BJS</u>	Date:	<u>7/31/2021</u>
Proj Mgr QA/QC:	<u>BJS</u>	Date:	<u>7/31/2021</u>

I:\25221172.00\Deliverables\2021-7 GWM Reprt\[Table 1_Groundwater VOCs_Bob's CITGO.xlsx]GW VOCs

Table 2. Water Level Summary
Bob's Citgo, Milton, Wisconsin / SCS Engineers Project #25221172.00

	Depth to Water in feet below top of well casing									
	MW1	MW2	MW3	MW4	MW5	MW6	MW7	MW8	MW9	MW10
Measurement Date										
11/4/2010	53.15									
3/3/2011	53.92	51.18	54.02							
9/15/2011	54.85	59.17	54.67	55.9	57.85	57.06				
8/15/2013	55.92	51.3	52.68	57.45	60.77	59.14				
9/11/2013	55.16	48.01	52.06	57.1	60.23	58.77	60.86	64.39	59.61	61.29
5/28/2015	57.51	50.25	55.51	58.95	62.76	60.84	63.54	67.17	61.91	64.56
6/24/2017	53.78	48.35	53.81	52.91	56.86	59.16	61.03	64.72	60.29	62.24
10/23/2017	54.65	46.36	51.78	56.2	58.59	57.49	59.08	62.75	58.05	59.57
7/8/2021	52.46	47.61	51.73	53.75	54.83	54.43	55.50	59.09	54.16	56.48

Ground Water Elevation in feet above mean sea level (amsl)										
Well Number	MW1	MW2	MW3	MW4	MW5	MW6	MW7	MW8	MW9	MW10
Top of Casing Elevation* (feet amsl)	874.49	873.75	874.81	874.59	875.04	874.85	875.26	878.45	874.57	876.37
Screen Length (ft)	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15.00	15
Total Depth (ft from top of casing)	62.40	61.90	62.80	63.30	63.70	64.30	69.50	73.60	65.60	69.1
Top of Well Screen Elevation (ft)	827.09	826.85	827.01	826.29	826.34	825.55	820.76	819.85	823.97	822.27
Measurement Date										
11/4/2010	821.34									
3/3/2011	820.57	822.78	821.03							
9/15/2011	819.64	814.79	820.38	818.7	817.35	817.74				
8/15/2013	818.57	822.66	822.37	817.15	814.43	815.66				
9/11/2013	819.33	826.12	822.99	817.5	814.97	816.03	814.4	814.06	814.96	815.39
5/28/2015	816.98	823.85	819.54	815.65	812.44	813.96	811.72	811.28	812.66	812.12
6/24/2017	820.71	825.76	821.24	821.69	818.34	815.64	814.23	813.73	814.28	814.44
10/23/2017	819.84	827.62	823.27	818.4	816.61	817.31	816.18	815.7	816.52	817.11
7/8/2021	822.03	826.14	823.08	820.84	820.21	820.42	819.76	819.36	820.41	819.89
Bottom of Well Elevation (ft)	812.09	811.85	812.01	811.29	811.34	810.55	805.76	804.85	808.97	807.27

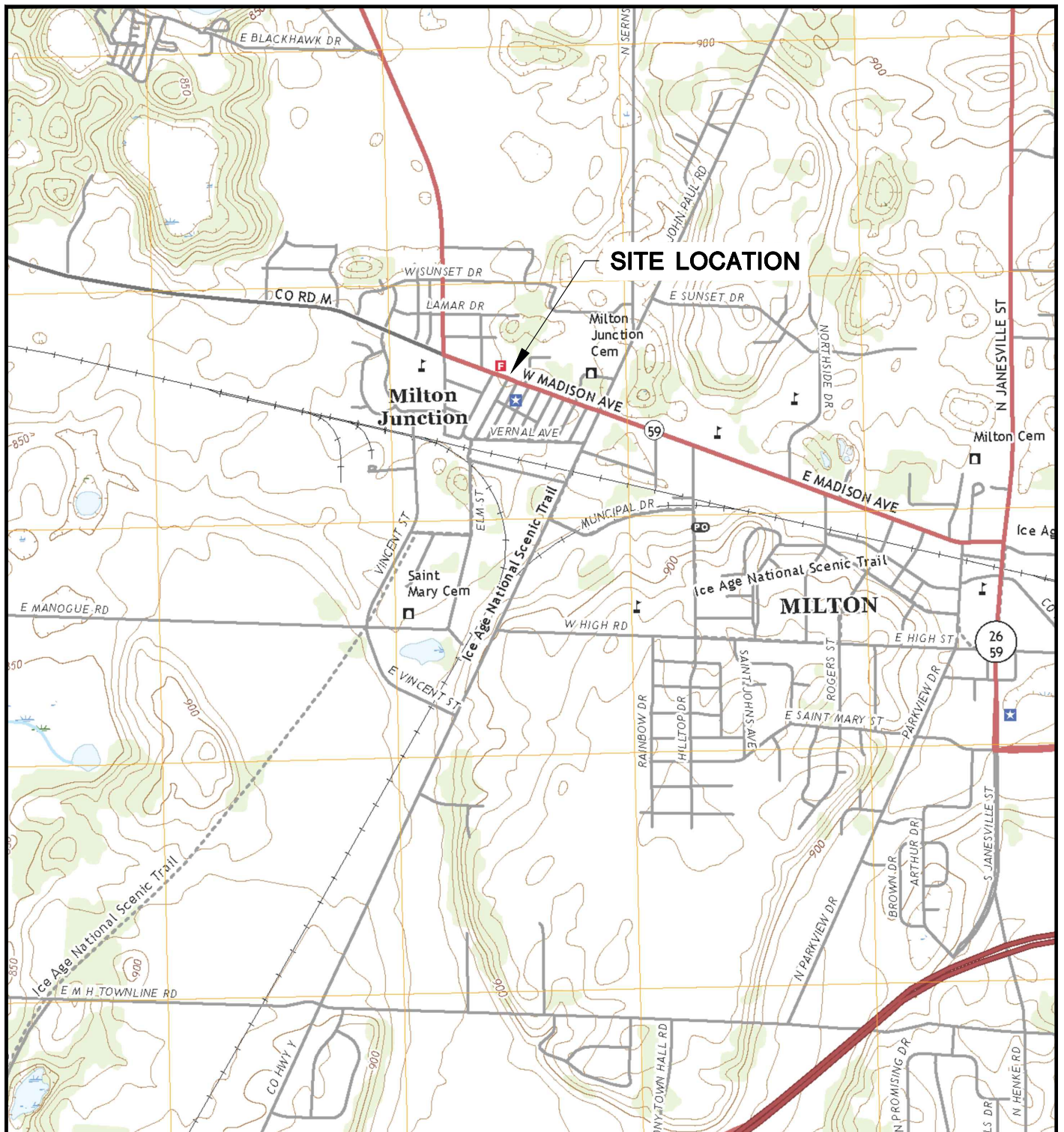
Notes:

*Wells MW1-MW6, & MW19 were resurveyed 7/8/2021. Wells MW2, MW3, MW5 & MW10 casings were cut down 0.2' on 7/8/2021.

Depth to water measurements and groundwater elevations prior to 7/8/2021 are from Seymour Environmental reports.

Red indicates free product present; elevation not corrected for product.

Created by:	<u>BJS</u>	Date:	<u>7/25/2021</u>
Last revision by:	<u>BJS</u>	Date:	<u>7/25/2021</u>
Checked by:	<u>BJS</u>	Date:	<u>7/25/2021</u>
Proj Mgr QA/QC:	<u>BJS</u>	Date:	<u>7/25/2021</u>



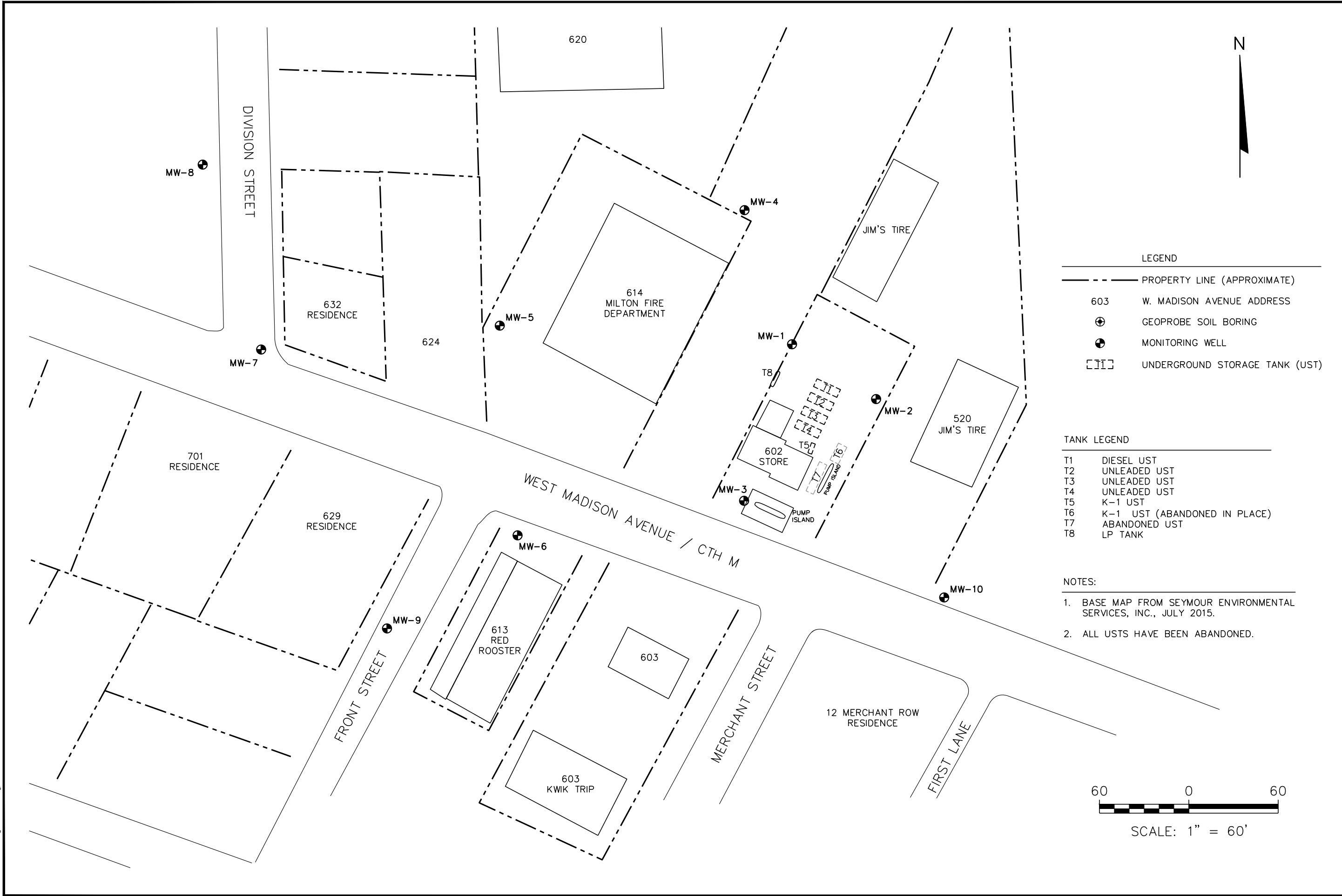
MILTON QUADRANGLE
WISCONSIN
7.5 MINUTE SERIES (TOPOGRAPHIC)
2018

1000 0 1000 2000
FEET



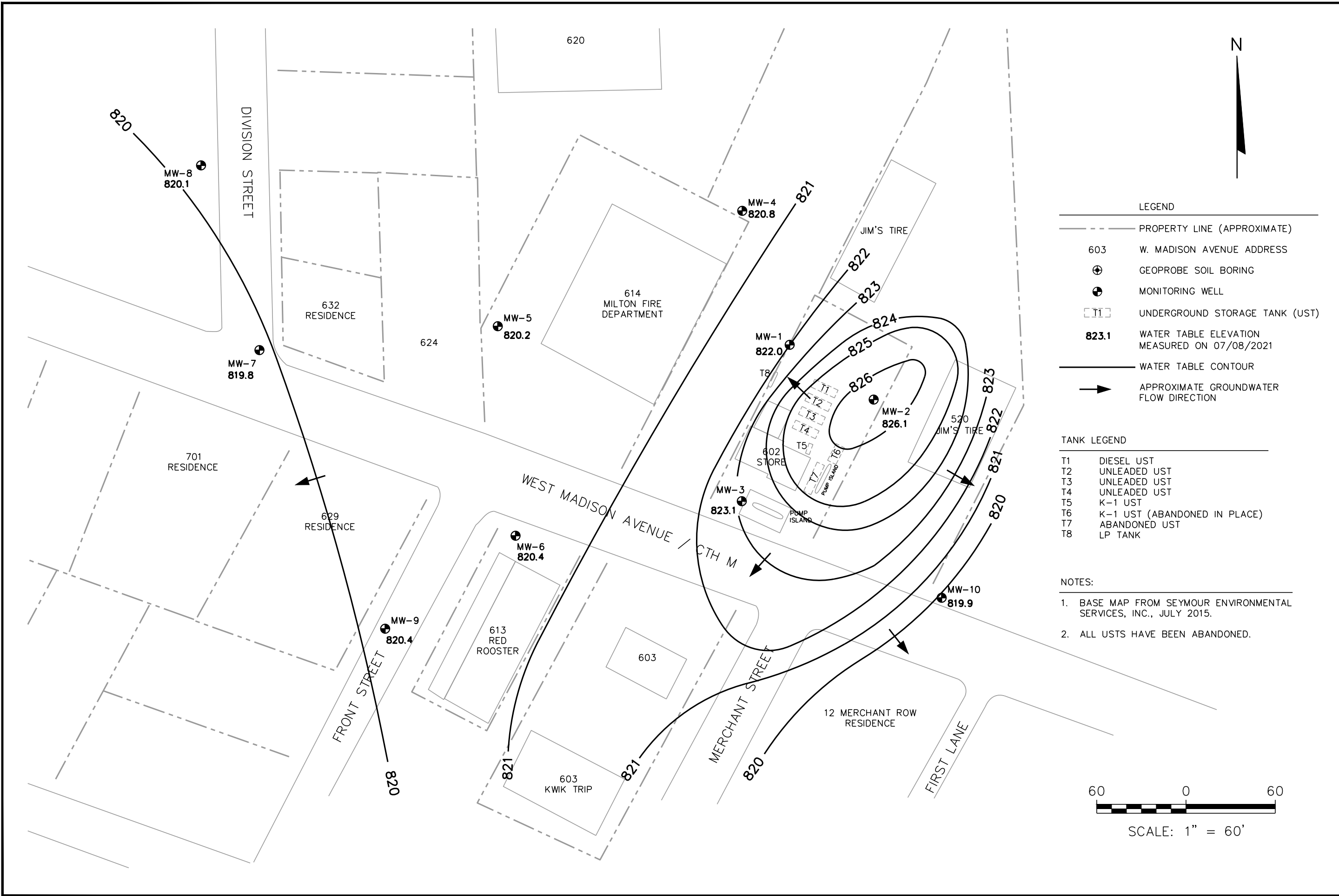
CLIENT MR. ROBERT RICHARDSON 507 CAMPUS STREET MILTON, WI 53563	SITE BOB'S CITGO 602 W. MADISON AVENUE MILTON, WISCONSIN	SITE LOCATION MAP	
PROJECT NO. 25221172.00	DRAWN BY: KP	SCS ENGINEERS 2830 DAIRY DRIVE MADISON, WI 53718-6751 PHONE: (608) 224-2830	FIGURE 1
DRAWN: 08/02/2021	CHECKED BY: BJS		
REVISED: 08/02/2021	APPROVED BY: BJS 08/03/2021		

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CLIENT	MR. ROBERT RICHARDSON 507 CAMPUS STREET MILTON, WI 53563		SITE		BOB'S CITGO 602 W. MADISON AVENUE MILTON, WISCONSIN		SITE PLAN	
	PROJECT NO.		25221172.00		DRAWN BY:		KP	
DRAWN:		08/02/2021		CHECKED BY:		BUS		ENGINEER
REVISED:		08/02/2021		APPROVED BY:		BUS 08/03/2021		
<div>SCS ENGINEERS</div> <div>2830 DAIRY DRIVE MADISON, WI 53718-6751 PHONE: (608) 224-2830</div>								
FIGURE								
2								

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CLIENT	MR. ROBERT RICHARDSON 507 CAMPUS STREET MILTON, WI 53563	SITE	BOB'S CITGO 602 W. MADISON AVENUE MILTON, WISCONSIN		GROUNDWATER FLOW 07/08/2021	
PROJECT NO.		25221172.00		ENGINEER		
DRAWN:		DRAWN BY:		KP		
		CHECKED BY:		BUS		
REVISED:		APPROVED BY:		BUS 08/03/2021		
				SCS ENGINEERS		
				2830 DAIRY DRIVE MADISON, WI 53718-6751		
				PHONE: (608) 224-2830		
				FIGURE		
				3		

July 14, 2021

Betty Socha
SCS ENGINEERS
2830 Dairy Drive
Madison, WI 53718

RE: Project: 25221172 BOB'S CITGO
Pace Project No.: 40229709

Dear Betty Socha:

Enclosed are the analytical results for sample(s) received by the laboratory on July 10, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Green Bay

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

Sincerely,



Dan Milewsky
dan.milewsky@pacelabs.com
(920)469-2436
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 25221172 BOB'S CITGO

Pace Project No.: 40229709

Pace Analytical Services Green Bay

1241 Bellevue Street, Green Bay, WI 54302

Florida/NELAP Certification #: E87948

Illinois Certification #: 200050

Kentucky UST Certification #: 82

Louisiana Certification #: 04168

Minnesota Certification #: 055-999-334

New York Certification #: 12064

North Dakota Certification #: R-150

Virginia VELAP ID: 460263

South Carolina Certification #: 83006001

Texas Certification #: T104704529-14-1

Wisconsin Certification #: 405132750

Wisconsin DATCP Certification #: 105-444

USDA Soil Permit #: P330-16-00157

Federal Fish & Wildlife Permit #: LE51774A-0

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: 25221172 BOB'S CITGO

Pace Project No.: 40229709

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40229709001	TRIP BLANK	Water	07/08/21 09:10	07/10/21 08:55
40229709002	MW 6	Water	07/08/21 12:30	07/10/21 08:55
40229709003	MW 5	Water	07/08/21 13:20	07/10/21 08:55
40229709004	MW 3	Water	07/08/21 15:20	07/10/21 08:55
40229709005	MW 2	Water	07/08/21 15:30	07/10/21 08:55
40229709006	MW 1	Water	07/08/21 16:00	07/10/21 08:55

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SAMPLE ANALYTE COUNT

Project: 25221172 BOB'S CITGO

Pace Project No.: 40229709

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40229709001	TRIP BLANK	EPA 8260	SMT	11	PASI-G
40229709002	MW 6	EPA 8260	LAP	11	PASI-G
40229709003	MW 5	EPA 8260	LAP	11	PASI-G
40229709004	MW 3	EPA 8260	LAP	11	PASI-G
40229709005	MW 2	EPA 8260	LAP	11	PASI-G
40229709006	MW 1	EPA 8260	LAP	11	PASI-G

PASI-G = Pace Analytical Services - Green Bay

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SUMMARY OF DETECTION

Project: 25221172 BOB'S CITGO

Pace Project No.: 40229709

Lab Sample ID	Client Sample ID					
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
40229709002	MW 6					
EPA 8260	Benzene	5.1	ug/L	1.0	07/13/21 18:56	
EPA 8260	Ethylbenzene	4.1	ug/L	1.0	07/13/21 18:56	
EPA 8260	1,2,4-Trimethylbenzene	0.60J	ug/L	1.0	07/13/21 18:56	
EPA 8260	Xylene (Total)	1.9J	ug/L	3.0	07/13/21 18:56	
40229709003	MW 5					
EPA 8260	Benzene	16.6	ug/L	1.0	07/13/21 19:15	
EPA 8260	Ethylbenzene	26.5	ug/L	1.0	07/13/21 19:15	
EPA 8260	Methyl-tert-butyl ether	4.7J	ug/L	5.0	07/13/21 19:15	
EPA 8260	Naphthalene	6.9	ug/L	5.0	07/13/21 19:15	
EPA 8260	Toluene	2.1	ug/L	1.0	07/13/21 19:15	
EPA 8260	1,2,4-Trimethylbenzene	17.6	ug/L	1.0	07/13/21 19:15	
EPA 8260	1,3,5-Trimethylbenzene	5.5	ug/L	1.0	07/13/21 19:15	
EPA 8260	Xylene (Total)	63.8	ug/L	3.0	07/13/21 19:15	
40229709004	MW 3					
EPA 8260	Benzene	1220	ug/L	25.0	07/13/21 20:11	
EPA 8260	Ethylbenzene	2330	ug/L	25.0	07/13/21 20:11	
EPA 8260	Naphthalene	813	ug/L	125	07/13/21 20:11	
EPA 8260	Toluene	35.3	ug/L	25.0	07/13/21 20:11	
EPA 8260	1,2,4-Trimethylbenzene	3530	ug/L	25.0	07/13/21 20:11	
EPA 8260	1,3,5-Trimethylbenzene	697	ug/L	25.0	07/13/21 20:11	
EPA 8260	Xylene (Total)	4170	ug/L	75.0	07/13/21 20:11	
40229709005	MW 2					
EPA 8260	Benzene	335	ug/L	40.0	07/13/21 19:52	
EPA 8260	Ethylbenzene	2000	ug/L	40.0	07/13/21 19:52	
EPA 8260	Naphthalene	964	ug/L	200	07/13/21 19:52	
EPA 8260	Toluene	57.1	ug/L	40.0	07/13/21 19:52	
EPA 8260	1,2,4-Trimethylbenzene	3230	ug/L	40.0	07/13/21 19:52	
EPA 8260	1,3,5-Trimethylbenzene	631	ug/L	40.0	07/13/21 19:52	
EPA 8260	Xylene (Total)	7360	ug/L	120	07/13/21 19:52	
40229709006	MW 1					
EPA 8260	Benzene	2420	ug/L	10.0	07/13/21 19:34	
EPA 8260	Ethylbenzene	2890	ug/L	10.0	07/13/21 19:34	
EPA 8260	Naphthalene	579	ug/L	50.0	07/13/21 19:34	
EPA 8260	Toluene	1800	ug/L	10.0	07/13/21 19:34	
EPA 8260	1,2,4-Trimethylbenzene	2120	ug/L	10.0	07/13/21 19:34	
EPA 8260	1,3,5-Trimethylbenzene	456	ug/L	10.0	07/13/21 19:34	
EPA 8260	Xylene (Total)	10800	ug/L	300	07/14/21 08:37	

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ANALYTICAL RESULTS

Project: 25221172 BOB'S CITGO

Pace Project No.: 40229709

Sample: TRIP BLANK		Lab ID: 40229709001		Collected: 07/08/21 09:10		Received: 07/10/21 08:55		Matrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST		Analytical Method: EPA 8260 Pace Analytical Services - Green Bay							
Benzene	<0.30	ug/L	1.0	0.30	1		07/13/21 12:07	71-43-2	
Ethylbenzene	<0.33	ug/L	1.0	0.33	1		07/13/21 12:07	100-41-4	
Methyl-tert-butyl ether	<1.1	ug/L	5.0	1.1	1		07/13/21 12:07	1634-04-4	
Naphthalene	<1.1	ug/L	5.0	1.1	1		07/13/21 12:07	91-20-3	
Toluene	<0.29	ug/L	1.0	0.29	1		07/13/21 12:07	108-88-3	
1,2,4-Trimethylbenzene	<0.45	ug/L	1.0	0.45	1		07/13/21 12:07	95-63-6	
1,3,5-Trimethylbenzene	<0.36	ug/L	1.0	0.36	1		07/13/21 12:07	108-67-8	
Xylene (Total)	<1.0	ug/L	3.0	1.0	1		07/13/21 12:07	1330-20-7	
Surrogates									
Toluene-d8 (S)	99	%	70-130		1		07/13/21 12:07	2037-26-5	
4-Bromofluorobenzene (S)	102	%	70-130		1		07/13/21 12:07	460-00-4	
1,2-Dichlorobenzene-d4 (S)	99	%	70-130		1		07/13/21 12:07	2199-69-1	

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ANALYTICAL RESULTS

Project: 25221172 BOB'S CITGO

Pace Project No.: 40229709

Sample: MW 6 **Lab ID: 40229709002** Collected: 07/08/21 12:30 Received: 07/10/21 08:55 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
Benzene	5.1	ug/L	1.0	0.30	1		07/13/21 18:56	71-43-2	
Ethylbenzene	4.1	ug/L	1.0	0.33	1		07/13/21 18:56	100-41-4	
Methyl-tert-butyl ether	<1.1	ug/L	5.0	1.1	1		07/13/21 18:56	1634-04-4	
Naphthalene	<1.1	ug/L	5.0	1.1	1		07/13/21 18:56	91-20-3	
Toluene	<0.29	ug/L	1.0	0.29	1		07/13/21 18:56	108-88-3	
1,2,4-Trimethylbenzene	0.60J	ug/L	1.0	0.45	1		07/13/21 18:56	95-63-6	
1,3,5-Trimethylbenzene	<0.36	ug/L	1.0	0.36	1		07/13/21 18:56	108-67-8	
Xylene (Total)	1.9J	ug/L	3.0	1.0	1		07/13/21 18:56	1330-20-7	
Surrogates									
Toluene-d8 (S)	106	%	70-130		1		07/13/21 18:56	2037-26-5	
4-Bromofluorobenzene (S)	109	%	70-130		1		07/13/21 18:56	460-00-4	
1,2-Dichlorobenzene-d4 (S)	105	%	70-130		1		07/13/21 18:56	2199-69-1	

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ANALYTICAL RESULTS

Project: 25221172 BOB'S CITGO

Pace Project No.: 40229709

Sample: MW 5 **Lab ID: 40229709003** Collected: 07/08/21 13:20 Received: 07/10/21 08:55 Matrix: Water

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST									
Analytical Method: EPA 8260									
Pace Analytical Services - Green Bay									
Benzene	16.6	ug/L	1.0	0.30	1		07/13/21 19:15	71-43-2	
Ethylbenzene	26.5	ug/L	1.0	0.33	1		07/13/21 19:15	100-41-4	
Methyl-tert-butyl ether	4.7J	ug/L	5.0	1.1	1		07/13/21 19:15	1634-04-4	
Naphthalene	6.9	ug/L	5.0	1.1	1		07/13/21 19:15	91-20-3	
Toluene	2.1	ug/L	1.0	0.29	1		07/13/21 19:15	108-88-3	
1,2,4-Trimethylbenzene	17.6	ug/L	1.0	0.45	1		07/13/21 19:15	95-63-6	
1,3,5-Trimethylbenzene	5.5	ug/L	1.0	0.36	1		07/13/21 19:15	108-67-8	
Xylene (Total)	63.8	ug/L	3.0	1.0	1		07/13/21 19:15	1330-20-7	
Surrogates									
Toluene-d8 (S)	106	%	70-130		1		07/13/21 19:15	2037-26-5	
4-Bromofluorobenzene (S)	108	%	70-130		1		07/13/21 19:15	460-00-4	
1,2-Dichlorobenzene-d4 (S)	105	%	70-130		1		07/13/21 19:15	2199-69-1	

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ANALYTICAL RESULTS

Project: 25221172 BOB'S CITGO

Pace Project No.: 40229709

Sample: MW 3		Lab ID: 40229709004		Collected: 07/08/21 15:20		Received: 07/10/21 08:55		Matrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST		Analytical Method: EPA 8260 Pace Analytical Services - Green Bay							
Benzene	1220	ug/L	25.0	7.4	25		07/13/21 20:11	71-43-2	
Ethylbenzene	2330	ug/L	25.0	8.1	25		07/13/21 20:11	100-41-4	
Methyl-tert-butyl ether	<28.2	ug/L	125	28.2	25		07/13/21 20:11	1634-04-4	
Naphthalene	813	ug/L	125	28.2	25		07/13/21 20:11	91-20-3	
Toluene	35.3	ug/L	25.0	7.2	25		07/13/21 20:11	108-88-3	
1,2,4-Trimethylbenzene	3530	ug/L	25.0	11.2	25		07/13/21 20:11	95-63-6	
1,3,5-Trimethylbenzene	697	ug/L	25.0	8.9	25		07/13/21 20:11	108-67-8	
Xylene (Total)	4170	ug/L	75.0	26.2	25		07/13/21 20:11	1330-20-7	
Surrogates									
Toluene-d8 (S)	106	%	70-130		25		07/13/21 20:11	2037-26-5	
4-Bromofluorobenzene (S)	106	%	70-130		25		07/13/21 20:11	460-00-4	
1,2-Dichlorobenzene-d4 (S)	106	%	70-130		25		07/13/21 20:11	2199-69-1	

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ANALYTICAL RESULTS

Project: 25221172 BOB'S CITGO

Pace Project No.: 40229709

Sample: MW 2		Lab ID: 40229709005		Collected: 07/08/21 15:30		Received: 07/10/21 08:55		Matrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST		Analytical Method: EPA 8260 Pace Analytical Services - Green Bay							
Benzene	335	ug/L	40.0	11.8	40		07/13/21 19:52	71-43-2	
Ethylbenzene	2000	ug/L	40.0	13.0	40		07/13/21 19:52	100-41-4	
Methyl-tert-butyl ether	<45.2	ug/L	200	45.2	40		07/13/21 19:52	1634-04-4	
Naphthalene	964	ug/L	200	45.2	40		07/13/21 19:52	91-20-3	
Toluene	57.1	ug/L	40.0	11.5	40		07/13/21 19:52	108-88-3	
1,2,4-Trimethylbenzene	3230	ug/L	40.0	17.9	40		07/13/21 19:52	95-63-6	
1,3,5-Trimethylbenzene	631	ug/L	40.0	14.3	40		07/13/21 19:52	108-67-8	
Xylene (Total)	7360	ug/L	120	41.9	40		07/13/21 19:52	1330-20-7	
Surrogates									
Toluene-d8 (S)	105	%	70-130		40		07/13/21 19:52	2037-26-5	
4-Bromofluorobenzene (S)	109	%	70-130		40		07/13/21 19:52	460-00-4	
1,2-Dichlorobenzene-d4 (S)	105	%	70-130		40		07/13/21 19:52	2199-69-1	

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ANALYTICAL RESULTS

Project: 25221172 BOB'S CITGO

Pace Project No.: 40229709

Sample: MW 1		Lab ID: 40229709006		Collected: 07/08/21 16:00		Received: 07/10/21 08:55		Matrix: Water	
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV UST		Analytical Method: EPA 8260 Pace Analytical Services - Green Bay							
Benzene	2420	ug/L	10.0	3.0	10		07/13/21 19:34	71-43-2	
Ethylbenzene	2890	ug/L	10.0	3.3	10		07/13/21 19:34	100-41-4	
Methyl-tert-butyl ether	<11.3	ug/L	50.0	11.3	10		07/13/21 19:34	1634-04-4	
Naphthalene	579	ug/L	50.0	11.3	10		07/13/21 19:34	91-20-3	
Toluene	1800	ug/L	10.0	2.9	10		07/13/21 19:34	108-88-3	
1,2,4-Trimethylbenzene	2120	ug/L	10.0	4.5	10		07/13/21 19:34	95-63-6	
1,3,5-Trimethylbenzene	456	ug/L	10.0	3.6	10		07/13/21 19:34	108-67-8	
Xylene (Total)	10800	ug/L	300	105	100		07/14/21 08:37	1330-20-7	
Surrogates									
Toluene-d8 (S)	105	%	70-130		10		07/13/21 19:34	2037-26-5	
4-Bromofluorobenzene (S)	105	%	70-130		10		07/13/21 19:34	460-00-4	
1,2-Dichlorobenzene-d4 (S)	105	%	70-130		10		07/13/21 19:34	2199-69-1	

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QUALITY CONTROL DATA

Project: 25221172 BOB'S CITGO
Pace Project No.: 40229709

QC Batch:	390161	Analysis Method:	EPA 8260
QC Batch Method:	EPA 8260	Analysis Description:	8260 MSV UST-WATER
		Laboratory:	Pace Analytical Services - Green Bay

Associated Lab Samples: 40229709001

METHOD BLANK: 2250010 Matrix: Water

Associated Lab Samples: 40229709001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/L	<0.45	1.0	07/13/21 08:14	
1,3,5-Trimethylbenzene	ug/L	<0.36	1.0	07/13/21 08:14	
Benzene	ug/L	<0.30	1.0	07/13/21 08:14	
Ethylbenzene	ug/L	<0.33	1.0	07/13/21 08:14	
Methyl-tert-butyl ether	ug/L	<1.1	5.0	07/13/21 08:14	
Naphthalene	ug/L	<1.1	5.0	07/13/21 08:14	
Toluene	ug/L	<0.29	1.0	07/13/21 08:14	
Xylene (Total)	ug/L	<1.0	3.0	07/13/21 08:14	
1,2-Dichlorobenzene-d4 (S)	%	99	70-130	07/13/21 08:14	
4-Bromofluorobenzene (S)	%	100	70-130	07/13/21 08:14	
Toluene-d8 (S)	%	99	70-130	07/13/21 08:14	

LABORATORY CONTROL SAMPLE: 2250011

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	50	56.2	112	70-132	
Ethylbenzene	ug/L	50	54.2	108	80-123	
Methyl-tert-butyl ether	ug/L	50	42.8	86	66-130	
Toluene	ug/L	50	53.9	108	80-121	
Xylene (Total)	ug/L	150	154	103	70-130	
1,2-Dichlorobenzene-d4 (S)	%			97	70-130	
4-Bromofluorobenzene (S)	%			107	70-130	
Toluene-d8 (S)	%			102	70-130	

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

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QUALITY CONTROL DATA

Project: 25221172 BOB'S CITGO
Pace Project No.: 40229709

QC Batch: 390195 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV UST-WATER
Laboratory: Pace Analytical Services - Green Bay
Associated Lab Samples: 40229709002, 40229709003, 40229709004, 40229709005, 40229709006

METHOD BLANK: 2250215 Matrix: Water
Associated Lab Samples: 40229709002, 40229709003, 40229709004, 40229709005, 40229709006

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/L	<0.45	1.0	07/13/21 13:02	
1,3,5-Trimethylbenzene	ug/L	<0.36	1.0	07/13/21 13:02	
Benzene	ug/L	<0.30	1.0	07/13/21 13:02	
Ethylbenzene	ug/L	<0.33	1.0	07/13/21 13:02	
Methyl-tert-butyl ether	ug/L	<1.1	5.0	07/13/21 13:02	
Naphthalene	ug/L	<1.1	5.0	07/13/21 13:02	
Toluene	ug/L	<0.29	1.0	07/13/21 13:02	
Xylene (Total)	ug/L	<1.0	3.0	07/13/21 13:02	
1,2-Dichlorobenzene-d4 (S)	%	106	70-130	07/13/21 13:02	
4-Bromofluorobenzene (S)	%	107	70-130	07/13/21 13:02	
Toluene-d8 (S)	%	104	70-130	07/13/21 13:02	

LABORATORY CONTROL SAMPLE: 2250216

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	50	54.4	109	70-132	
Ethylbenzene	ug/L	50	55.4	111	80-123	
Methyl-tert-butyl ether	ug/L	50	47.9	96	66-130	
Toluene	ug/L	50	53.8	108	80-121	
Xylene (Total)	ug/L	150	158	106	70-130	
1,2-Dichlorobenzene-d4 (S)	%			102	70-130	
4-Bromofluorobenzene (S)	%			111	70-130	
Toluene-d8 (S)	%			106	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2250818 2250819

Parameter	Units	40229732003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Benzene	ug/L	<0.30	50	50	53.3	54.7	107	109	70-132	2	20	
Ethylbenzene	ug/L	<0.33	50	50	56.8	56.7	114	113	80-123	0	20	
Methyl-tert-butyl ether	ug/L	<1.1	50	50	45.6	47.3	91	95	66-130	4	20	
Toluene	ug/L	<0.29	50	50	55.2	55.8	110	112	80-121	1	20	
Xylene (Total)	ug/L	<1.0	150	150	161	161	107	108	70-130	0	20	
1,2-Dichlorobenzene-d4 (S)	%						103	103	70-130			
4-Bromofluorobenzene (S)	%						114	109	70-130			
Toluene-d8 (S)	%						107	107	70-130			

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

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 25221172 BOB'S CITGO

Pace Project No.: 40229709

DEFINITIONS

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

ND - Not Detected at or above LOD.

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

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

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 25221172 BOB'S CITGO

Pace Project No.: 40229709

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40229709001	TRIP BLANK	EPA 8260	390161		
40229709002	MW 6	EPA 8260	390195		
40229709003	MW 5	EPA 8260	390195		
40229709004	MW 3	EPA 8260	390195		
40229709005	MW 2	EPA 8260	390195		
40229709006	MW 1	EPA 8260	390195		

REPORT OF LABORATORY ANALYSIS

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(Please Print Clearly)

Company Name: **S&S Engineers**
 Branch/Location: **Madison WI**
 Project Contact: **Betty Socha**
 Phone: **608/216-7331**
 Project Number: **25221172**
 Project Name: **Bob's Citgo**
 Project State: **WI**
 Sampled By (Print): **Paul A. Grover**
 Sampled By (Sign): **Paul A. Grover**
 PO #:
 Regulatory Program:

Data Package Options

(billable)

☐ EPA Level III☐ EPA Level IV**MS/MSD**☐ On your sample
(billable)☐ NOT needed on
your sample**Matrix Codes**A = Air
B = Biota
C = Charcoal
O = Oil
S = Soil
SI = SludgeW = Water
DW = Drinking Water
GW = Ground Water
SW = Surface Water
WW = Waste Water
WP = Wipe

PACE LAB #

CLIENT FIELD ID

COLLECTION

DATE

TIME

MATRIX

001	Trip Blank	7/8/21	9:10	DW
002	MW 6		12:30	GW
003	MW 5		13:20	
004	MW 3		15:20	
005	MW 2		15:30	
006	MW 1	✓	16:00	✓

FILTERED?
(YES/NO)PRESERVATION
(CODE)*

Y/N

Pick
Letter

Analyses Requested

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

CHAIN OF CUSTODY

UPPER MIDWEST REGION

MN: 612-607-1700 WI: 920-469-2436

Page 1 of

Quote #:

Mail To Contact:

Mail To Company:

Mail To Address:

Invoice To Contact:

Invoice To Company:

Invoice To Address:

Invoice To Phone:

CLIENT
COMMENTSLAB COMMENTS
(Lab Use Only)

Profile #

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

Transmit Prelim Rush Results by (complete what you want):

Email #1:

Email #2:

Telephone:

Fax:

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

Relinquished By:

Relinquished By:

Relinquished By:

Relinquished By:

Relinquished By:

Date/Time:

Date/Time:

Date/Time:

Date/Time:

Date/Time:

Received By:

Received By:

Received By:

Received By:

Received By:

Date/Time:

Date/Time:

Date/Time:

Date/Time:

Date/Time:

PACE Project No.

Receipt Temp = 3 °C

Sample Receipt pH
OK / AdjustedCooler Custody Seal
Present / Not Present
Intact / Not Intact

Version 6.0 06/14/06

ORIGINAL

Sample Preservation Receipt Form

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

Client Name: SCS engineers

Project # 40229709

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

Lab Lot# of pH paper:

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


Initial when completed:

Date/Time:


Pace Lab #	Glass							Plastic					Vials					Jars				General			VOA Vials (>6mm) *	H2SO4 pH ≤2	NaOH+Zn Act pH ≥9	NaOH pH ≥12	HNO3 pH ≤2	pH after adjusted	Volume (mL)	
	AG1U	BG1U	AG1H	AG4S	AG4U	AG5U	AG2S	BG3U	BP1U	BP3U	BP3B	BP3N	BP3S	VG9A	DG9T	VG9U	VG9H	VG9M	VG9D	JGFU	JG9U	WGFU	WPFU	SP5T	ZPLC	GN						
001																	2															2.5 / 5 / 10
002																	3															2.5 / 5 / 10
003																	3															2.5 / 5 / 10
004																	3															2.5 / 5 / 10
005																	3															2.5 / 5 / 10
006																	3															2.5 / 5 / 10
007																																2.5 / 5 / 10
008																																2.5 / 5 / 10
009																																2.5 / 5 / 10
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018																																2.5 / 5 / 10
019																																2.5 / 5 / 10
020																																2.5 / 5 / 10

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

AG1U	1 liter amber glass	BP1U	1 liter plastic unpres	VG9A	40 mL clear ascorbic	JGFU	4 oz amber jar unpres
BG1U	1 liter clear glass	BP3U	250 mL plastic unpres	DG9T	40 mL amber Na Thio	JG9U	9 oz amber jar unpres
AG1H	1 liter amber glass HCL	BP3B	250 mL plastic NaOH	VG9U	40 mL clear vial unpres	WGFU	4 oz clear jar unpres
AG4S	125 mL amber glass H2SO4	BP3N	250 mL plastic HNO3	VG9H	40 mL clear vial HCL	WPFU	4 oz plastic jar unpres
AG4U	120 mL amber glass unpres	BP3S	250 mL plastic H2SO4	VG9M	40 mL clear vial MeOH	SP5T	120 mL plastic Na Thiosulfate
AG5U	100 mL amber glass unpres			VG9D	40 mL clear vial DI	ZPLC	ziploc bag
AG2S	500 mL amber glass H2SO4					GN	
BG3U	250 mL clear glass unpres						

 1241 Bellevue Street, Green Bay, WI 54302	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: 26Mar2020
	Document No.: ENV-FRM-GBAY-0014-Rev.00	Author: Pace Green Bay Quality Office

Sample Condition Upon Receipt Form (SCUR)

Client Name: <u>SLS engineers</u> Courier: <input checked="" type="checkbox"/> CS Logistics <input type="checkbox"/> Fed Ex <input type="checkbox"/> Speedee <input type="checkbox"/> UPS <input type="checkbox"/> Waltco <input type="checkbox"/> Client <input type="checkbox"/> Pace Other: _____ Tracking #: _____ Custody Seal on Cooler/Box Present: <input type="checkbox"/> yes <input checked="" type="checkbox"/> no Seals intact: <input type="checkbox"/> yes <input type="checkbox"/> no Custody Seal on Samples Present: <input type="checkbox"/> yes <input checked="" type="checkbox"/> no Seals intact: <input type="checkbox"/> yes <input type="checkbox"/> no Packing Material: <input type="checkbox"/> Bubble Wrap <input type="checkbox"/> Bubble Bags <input checked="" type="checkbox"/> None <input type="checkbox"/> Other Thermometer Used <u>SR - 103</u> Type of Ice: <u>(Wet)</u> Blue Dry None Cooler Temperature <u>Uncorr: 2.5 / Corr: 3</u> Temp Blank Present: <input checked="" type="checkbox"/> yes <input type="checkbox"/> no Biological Tissue is Frozen: <input type="checkbox"/> yes <input type="checkbox"/> no Temp should be above freezing to 6°C. Biota Samples may be received at ≤ 0°C if shipped on Dry Ice.	Project #: _____ WO# : 40229709  40229709
--	---

<input checked="" type="checkbox"/> Samples on ice, cooling process has begun Person examining contents: Date: <u>7/10/21</u> Initials: <u>MP</u> Labeled By Initials: <u>EL</u>

Chain of Custody Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Chain of Custody Filled Out:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	2. <u>Invoice Info 7/10/21 MP</u>
Chain of Custody Relinquished:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	4.
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	5.
- VOA Samples frozen upon receipt	<input type="checkbox"/> Yes <input type="checkbox"/> No	Date/Time:
Short Hold Time Analysis (<72hr):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Rush Turn Around Time Requested:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	7.
Sufficient Volume:		8.
For Analysis: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No MS/MSD: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A		
Correct Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
-Pace Containers Used:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
-Pace IR Containers Used:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	
Containers Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	10.
Filtered volume received for Dissolved tests	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	11.
Sample Labels match COC:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	12.
-Includes date/time/ID/Analysis Matrix: <u>W</u>		
Trip Blank Present:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	13.
Trip Blank Custody Seals Present	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	
Pace Trip Blank Lot # (if purchased): <u>1496</u>		

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

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

PM Review is documented electronically in LIMs. By releasing the project, the PM acknowledges they have reviewed the sample logir