



ARM Group LLC

Engineers and Scientists

May 17, 2021

Ms. Susan Bull
Oil Control Program
Maryland Department of the Environment
1800 Washington Boulevard, Suite 620
Baltimore, MD 21230

Re: **Second Quarter 2021 Status Report**
Request for Case Closure
MDE Case No. 2013-0321-AA
SMO Fort Meade Shell, SMO-550
2631 Annapolis Road, Hanover, MD
ARM Project No. 190292M

Dear Ms. Bull,

This document has been prepared to provide your Department with an update to the groundwater quality monitoring and remediation efforts at the above site, and to reiterate our requests for case closure. This document includes new data and information collected into second quarter 2021. The monitoring wells were most recently sampled in February and April 2021. Hydrographs and concentration vs. time graphs are presented herein along with copies of the gauging and sampling database and laboratory report of analysis for the April 2021 sampling event.

A discontinuous, perched-water bearing zone exists beneath the site with groundwater currently about 26' below grade in MW1, MW4, MW7, MW12, MW14 and MW16. Regional groundwater is currently about 30' depth and is represented in MW2, MW8, MW9, MW10 and MW15. Water levels in MW8 and MW10 were historically consistent with the deeper/regional groundwater elevations. However, the levels have been increasing since early-2019 and appear to be caused by drainage from perched zones that are screened by the wells. Although screened through the perched groundwater zone and into the regional groundwater zone, water levels in MW14 appear to be similarly influence by perched groundwater drainage. As such, the water levels in MW8, MW10 and MW14 appear to be influenced by both perched water drainage and regional groundwater. Since early to mid-2020, water levels in MW15 began to increase independently from the deeper groundwater zone and approach levels consistent in the other perched zone wells, while water levels in MW9 have remained deeper. More often than not, when groundwater levels are lower, MW2 does not contain groundwater because the well was constructed above regional groundwater and does not appear to be affected by perched groundwater.

Immediately south of the site is a temporal drainage ditch that flows westerly and is a tributary to the southern-flowing Midway Branch that parallels Rockenbach Road located south of the site, and ultimately passes through Fort George G. Meade. The elevation of this drainage ditch is consistent with the elevation of the perched groundwater zone, and several feet higher than the deep groundwater zone. Flow of groundwater within the perched groundwater system beneath the site is to the west, consistent with the flow of the temporal stream.

For seven years, MW1, MW4 and MW12 have contained very low to no detectable VOC concentrations. MW1 is located in the upgradient, northeast portion of the site in the shallow water-bearing zone, MW4 is located hydraulically downgradient (west) from the tankfield within the shallow water-bearing zone; and MW12 is located in the downgradient (northwest) area of the shallow water-bearing zone. The August 2020 sample testing data for MW12 showed the presence of detectable VOCs, contrary to a long history of low to no VOC concentrations. It is believed that the August 2020 results for MW12 are erroneous and a result of sampling error of incomplete decontamination of sampling equipment between wells. The November 2020, February and April 2021 sample-testing data for MW12 are consistent with historical results showing concentrations are otherwise non-detect.

The other two wells constructed within the shallow water-bearing zone are MW7 and MW16, and to a lesser extent MW14. MW16 is located proximate to the location of where a Stage-II vapor return line was damaged on the east side of the dispenser islands by a road construction contractor during the widening of Annapolis Road. MW16 has not contained detectable Benzene concentrations since late-2015 (e.g., over 5½ years). During the past two years, the Total VOC concentration in MW16 has averaged about 6 µg/l, all of which is Methyl Ethyl Ketone (MEK).

Through early-2014, groundwater levels in MW7 were consistent with the deeper water-bearing zone. From that time, groundwater elevations quickly increased and more consistent with the shallow water-bearing zone, and have since remained steady with shallow water-bearing zone elevations. When MW7 groundwater levels were lower, it contained light non-aqueous phase liquid (e.g., LNAPL or floating petroleum) with accumulations up to 3'-thick and averaged over 1.5'-thick from late-2013 into early-2014. As groundwater levels became shallower in MW7, LNAPL disappeared. Part of the disappearance was a response of free-product abatement (FPA) by hand bailing and vacuum truck extraction removing over 315 gallons of LNAPL. A groundwater sample collected from MW7 in later-2013 contained about 33 mg/l VOC including 1 mg/l Benzene. During the past two years, MW7 groundwater samples contained an average Benzene concentration less than 5 µg/l and about 37 µg/l Total VOC (over 99.5% reduction in Benzene and VOC concentrations). Most of the VOC concentration in MW7 is composed of 1,2,4-Trimethylbenzene and 1,3,5-Trimethylbenzene (124-TMB and 135-TMB, respectively). Various state "acceptable" standards for TMBs range from 30 to 100 µg/l. The average TMBs in MW7 per previous testing are 55.8 µg/l 124-TMB and 6.5 µg/l 135-TMB. During the past three sampling events, MW7 has contained only Ethylbenzene at 1.1 to 3.3 µg/l (all other VOCs were below respective detection limits).

MW14 was originally constructed to about 30' depth. From December 2013 through February 2014, the well contained water at about 25½' depth (consistent with the shallow water-bearing zone) and LNAPL accumulations up to 3'-thick and averaging 1¾'-thick. Under the effects of vacuum truck enhanced fluid recovery (EFR) and hand bailing, LNAPL accumulations diminished quickly to non-measurable thicknesses by April 2014. Per the direction of the MDE, MW14 was replaced with a 44'-deep well in June 2014. After the well was reconstructed, water levels were consistent with the deeper water-bearing zone (e.g., water levels about 33¾' depth, compared to 25½' when the well was shallower). Beginning in Summer 2016, water levels in MW14 began to rise, and by March 2018 the water levels were consistent with the shallow water-bearing zone, and have remained so since. No LNAPL has been detected in MW14 since February 2015, over six years ago.



A groundwater sample collected from MW14 in September 2014 contained about 58.5 mg/l VOC. The highest Benzene concentration in MW14 samples was 320 µg/l in November 2015. Since that time, VOC concentrations have significantly decreased. For the past year, the average Benzene, Naphthalene and VOC concentrations were about 3.1 µg/l, 70.6 µg/l and 823 µg/l, respectively (e.g., over 98.5% reduction in concentrations). About half of the VOC concentrations in MW14 are TMBs with 630 µg/l 124-TMB and 150 µg/l 135-TMB per previous testing events. During the past two sampling events, MW14 has contained about 1.8 µg/l Benzene, 55.7 µg/l Naphthalene and 365 µg/l VOC (not including TMBs).

Per the above and presented herein, the perched groundwater zone continues to contain relatively low to no VOCs as displayed by concentrations in MW1, MW4, MW7, MW11, MW12, MW14 and MW16. LNAPL has not been measured or observed in these wells since April 2014 (MW7) and February 2015 (MW14), over six to seven years ago. The VOC concentrations in MW7 and MW14 groundwater samples are not indicative of any sustained LNAPL source (e.g., no “entrapped” LNAPL).

The deeper groundwater zone is represented by groundwater levels in MW2, MW8, MW9, MW10 and MW15. More often than not, MW2 (located near MW9 near the southeast edge of the property along Annapolis Road) does not contain enough groundwater for sampling and testing. MW2 was constructed before December 2012 and before the current monitoring activities began. Groundwater samples were collected from MW2 in June and September 2014 when groundwater elevations were higher (shallower), and showed that Benzene averaged about 210 µg/l, BTEX averaged 3450 µg/l and VOC averaged about 4400 µg/l. A groundwater sample was obtained from MW2 in September 2015 and showed the presence of 240 µg/l Benzene, about 720 µg/l BTEX and 1150 µg/l VOC. The most recent samples obtained from MW2 were in March and June 2019, and contained about 250 µg/l Benzene, 1000 µg/l BTEX and 1222 µg/l Total VOC. As such, concentrations in MW2’s “cap water” have remained relatively unchanged between 2015 and 2019.

Like MW14, MW8 was replaced with a deeper well in June 2014 per direction of MDE (from about 34’-deep to 43½’-deep). Before the well was re-drilled (e.g., when it was shallower), it contained only a few inches of groundwater with samples containing about 1400 µg/l Benzene and 13500 µg/l Total VOC. After the well replaced with a deeper constructed screen section, groundwater samples contained about 15 µg/l Benzene and 570 µg/l Total VOC. For the past year, the groundwater in MW8 contained on average about 3.4 µg/l Benzene and 475 µg/l Total VOC (not including TMBs). VOC concentrations have remained relatively stable in MW8 since late-2017. Slightly less than half of the VOC concentrations in MW8 are TMBs with an average of 660 µg/l 124-TMB and 56 µg/l 135-TMB per previous 2020 sampling events. Benzene concentrations in MW8 appear to be directly influenced by groundwater level fluctuations with higher concentrations occurring when groundwater is shallower, and lower concentrations occurring when groundwater is deeper.

Water levels in MW9 are consistent with the deeper groundwater zone, but have shown about 4’ rise from April 2018 to March 2019, a 3’ decline to March 2020, and have since been rising into February and April 2021. Note that the more recent increase in water levels observed in other deep-zone wells (MW8, MW10 and MW15) were much higher than the rise observed in MW9.



Consequently, the water levels in some of the “deeper” wells may be partly a function of perched groundwater draining downward within the screened interval of the wells, and affecting measured depths to groundwater.

Current groundwater levels are slightly higher (about $\frac{3}{4}$ ’) than previous times when MW9 contained LNAPL. LNAPL was observed in MW9 from the time it was constructed in April 2013 and through 2013 with accumulations up to about $1\frac{1}{2}$ ”-thick. As groundwater elevations increased, LNAPL disappeared and was not detected through mid-2016. LNAPL reappeared when groundwater levels were lower from July 2016 through March 2017 with accumulations up to about $1\frac{1}{2}$ ”-thick. Starting in March 2017, groundwater levels started to increase (become shallower) and LNAPL was no longer detected. Groundwater levels in MW9 approached historical lows by early-2018 without the reappearance of LNAPL, which was followed by relatively significant rising groundwater levels through mid-2019, a subsequent decline into March 2020, and have since been rising slowly - all without the reappearance of LNAPL.

In August 2013, a water sample from MW9 contained about 99.5 mg/l Total VOC including 6.5 mg/l Benzene. Concentrations decreased about two orders of magnitude by about early-2018, and have remained relatively stable with some fluctuations since that time. For the past year, the average concentrations are about 60 μ g/l Benzene and 466 μ g/l Total VOC. In early-2020, the VOC concentration contained an average of about 70 μ g/l 124-TMB and 14 μ g/l 135-TMB. During the past two sampling events, MW9 water samples have contained about 8 μ g/l Acetone, 7 μ g/l MEK, 4.4 μ g/l Tert-Amylmethyl Ether (TAME) and 90 μ g/l Tert-Butyl Alcohol (TBA).

The water level in MW10 significantly increased (i.e., about $7\frac{1}{2}$ ’) from fourth quarter 2018 into June 2019, and dropped $8\frac{1}{2}$ ’ into December 2019, rebounded about $9\frac{1}{2}$ ’ into November 2020 with a near 2’ drop into April 2021. MW10 had contained as much as 8.2 mg/l Total VOC and 710 μ g/l Benzene. During the past year, the average concentrations have been about 575 μ g/l Total VOC and 52 μ g/l Benzene. Per early-2020 sampling events, about half of the VOC concentration are TMBs with an average of 95 μ g/l 124-TMB and 48 μ g/l 135-TMB. Concentrations have shown a steady decline since October 2018. The February and April 2021 sampling results showed the presence of about 14 μ g/l Acetone, 7.5 μ g/l MEK, 4 μ g/l Tert-Amylmethyl Ether (TAME) and 15.5 μ g/l Tert-Butyl Alcohol (TBA).

The groundwater level in MW15, also a deep water-bearing zone well, steadily increased (i.e., over $5\frac{1}{2}$ ’) from early-2017 to early-2018, then dropped about 3’ through March 2020, and has since rebounded by 4’ into April 2021. Concentrations have not changed appreciably since mid-2017, other than a more recent decline in concentrations that began in December 2019. For the past four sampling events, samples from MW15 have contained about 360 μ g/l Benzene, 79 μ g/l Naphthalene and 2488 μ g/l VOC. The VOC concentrations in February and April 2021 included about 35 μ g/l Acetone, 12 μ g/l MEK, 4 μ g/l TAME and 27 μ g/l TBA.

In summary, for the past year, Benzene concentrations in the shallow groundwater zone average less than 2 μ g/l with the highest concentration in MW7 and MW14 at 22.3 and 5.9 μ g/l in mid-2020, respectively. Naphthalene concentrations ranged from non-detect (less than 2 μ g/l) to 107 μ g/l in MW14 in August 2020 (currently 51.2 μ g/l). Total VOC concentrations in the shallow



groundwater zone wells ranged from non-detect to 1615 µg/l in MW14 in August 2020 (820 µg/l not including TMBs, currently 365 µg/l not including TMBs for the past two sampling events).

For the past year, Benzene concentrations in the deeper groundwater zone ranged from less than 1 µg/l to 673 µg/l (MW15) and averaged about 142 µg/l; Naphthalene ranged from below detection (<2 µg/l) to 273 µg/l (MW15) and averaged about 88 µg/l; and Total VOC (not including TMBs) ranged from 130 µg/l to 6850 µg/l (MW15) and averaged about 1260 µg/l. About 10% to over 50% (averaging about 30%) of the Total VOC concentrations in the deeper groundwater monitoring wells are TMBs with about 25 to 795 µg/l 124-TMB (averaging about 390 µg/l) and 2 to 150 µg/l 135-TMB (averaging 60 µg/l). As noted previously, various state standards for TMBs range from 30 to 100 µg/l.

Noted above are the detections of Acetone and MEK in groundwater samples, along with TAME and TBA. The presence of both Acetone and MEK can be caused by laboratory artifact. However, review of the laboratory QA/QC shows these compounds were not identified out of standards in control samples. Studies have shown that Acetone and MEK can be produced biologically during the chemical breakdown of 2-butanone (*Acetone and 2-Butanone Creation Associated with Biological and Chemical Remediation of Environmental Contamination; Fowler, Thompson and Muller; Remediation; Wiley Periodicals; Winter 2011, p, 9-28*).

Vacuum truck EFR events were performed fifteen times between October 2013 and December 2014. Three additional EFR events were performed in June-August 2016, two more in February and July 2017 in response to LNAPL and/or elevated concentrations in MW9 and MW15, and three more events in October/November 2017 and January 2018. Approximately 13770-gallons of impacted groundwater and LNAPL were removed to date. The average extraction rate during the 2017-18 events was about 625-gallons of total fluids per event including the February 2017 event that netted only 100-gallons (because of relatively deeper groundwater elevations and inability to use vacuum-extraction beyond about 30'-depth). An estimated 269-gallons of LNAPL have been removed by EFR with an additional 47-gallons removed by hand bailing for a total of about 316-gallons of LNAPL removed through January 2018. Note that this value does not include the volume of petroleum removed by vacuum-induced bioremediation, which has not been quantified. The last recovery event was January 2018, and no measurable "active" recovery has occurred since then.

MDE issued a "Request for Continued Monitoring" correspondence dated August 28, 2019. In the letter, MDE directed the following. Response to specific directives are noted accordingly below.

1. Continue quarterly monitoring of the monitoring well network. All samples are to be analyzed for VOCs plus oxygenates, ethanol and naphthalene per EPA 8260, and GRO per EPA 8015.

During the past seven sampling events (since third quarter 2019), water samples from the monitoring well network were collected and tested per the above, as well as DRO by EPA 8015. A sample could not be obtained from MW2 because of insufficient water in the well. The following oxygenates were included in the tested analytes: tert-Amyl methyl ether (TAME), tert-Butyl Alcohol (TBA), Diethyl ethyl (Ethyl Ether), Ethyl-tert-butyl ether (ETBE), Methyl-tert-butyl ether (MTBE), and Ethanol. A summary of oxygenate testing results for the sampling events is presented below. Note that any detection of an oxygenate is reported herein as part of the Total VOC concentration.



As presented below, TAME and TBA are present in deeper groundwater zone wells MW9, MW10 and MW15 per the February and April 2021 sampling event. EE and ETBE were below reporting limits in all wells. DIPE has been detected in deeper wells MW9, MW10 and MW15, and at lower concentrations in MW7, MW8 and MW14. MTBE has routinely been included in historical sample testings, and had been detected up to 630 µg/l in the past (in MW9). Previous to the February 2021 sampling event, the last time MTBE was detected above 20 µg/l was in February 2017 with 27 µg/l (MW15). The February 2021 sampling event showed MW9 with 30.1 µg/l MTBE; April 2021 testing showed 7.5 µg/l for the same well. MTBE in shallow zone wells is usually only observed in MW7 with up to 2.7 µg/l during the past year. During the past year and within the deeper zone wells, MTBE has averaged about 5 µg/l. Per the September 2019 sampling event, Ethanol was detected in one sample (MW15) at a concentration below the reporting limit but above the method detection limit, and subsequent testing has not shown detections of Ethanol. 124-TMB and 135-TMB had not been included sample testing protocols previous to the March 2020 sampling event, but was included in the March, May and August 2020 sampling events.

2. Sample the station water supply well and car wash well for VOCs plus oxygenates, Ethanol and Naphthalene.

Contrary to older reports, there is only one water supply well at the station property; the station manager advised that the car wash is connected to municipal water service, and not a water supply well. Field verification in September 2019 revealed only one water supply well on the property. The single water supply well is marked with well tag AA930877, reported to be 402'-deep and constructed August 1995 with screen set at 387' to 402' depth and filter pack from 160' to 402' depth. However, the MDE well records database shows that this well was replaced in December 2000 with a 440'-deep well (well #AA945960) with screen set at 440' to 460' depth and filter pack from 340' to 465' depth. Why the existing supply well is incorrectly marked with an older well tag is not known; however, the 1995-well was reported to have been constructed about 15' from Annapolis Road, and the 2000-well is reported to be 30' from Annapolis Road (consistent with current conditions). Two older wells, which were successively replaced by the 1995-well and later by the 2000-well, were constructed September 1984 and December 1989 (well #AA813619 and #AA883691, respectively) as 347' and 394'-deep wells with screen sections at 340'-347' and 380'-387', respectively. The filter packs in these former wells extended from well completion depth to about 24' depth. The existing water supply is not used for potable water because of the very high sulfur smell (hard water), but is used for sanitary purposes (toilet and hand washing).

Testing of a sample collected from the station water well supply in September 2019 showed that it did not contain detectable VOCs. Re-testing of the well water supply in December 2019 from two locations (one from the bathroom sink and a second from an outside garden hose spigot) showed that the samples contained detectable Toluene concentrations (8.7 µg/l in the spigot sample and 10.7 µg/l in the bathroom sink sample), as well as Acetone (1.9 to 2.8 µg/l) and Methylene Chloride (0.85 to 1.1 µg/l). Methylene chloride (at 1.3 µg/l) was also detected in the pre-prepared QA/QC trip blank sample that accompanied the December 2019 samples during the sampling event, and the detection/reporting limits for Acetone in the trip blank was 5 times higher than the supply well samples. Re-testing of the two sampling locations in March 2020 showed the bathroom sample with 0.87 µg/l Acetone, and the spigot sample was non-



Well	Date	TAME	TBA	EE	ETBE	DIPE	MTBE	135-TMB	124-TMB	Ethanol	Well	Date	TAME	TBA	EE	ETBE	DIPE	MTBE	135-TMB	124-TMB	Ethanol	
		All Concentrations Expressed in Micrograms per Liter (µg/l) Units											All Concentrations Expressed in Micrograms per Liter (µg/l) Units									
MW1	09/12/19	<1	<5	<1	<1	<1	<1			<200	MW10	09/12/19	2.4	5.4	<1	<1	7.6	1.6			<200	
	12/10/19	<1	<5	<1	<1	<1	<1			na		12/10/19	2.4	7.4	<1	<1	<1	1.6			na	
	03/18/20	<1	<5	<1	<1	<1	<1	<1	<1	<200		03/18/20	2.3	13.8	<1	<1	13.3	1.9	22.5	114.0	<200	
	05/27/20	<1	<5	<1	<1	<1	<1	<1	1.1	<200		05/27/20	2.9	5.3	<1	<1	17.4	2.3	39.1	297.0	<200	
	08/27/20	<1	<5	<1	<1	na	<1	<1	1.1	na		08/27/20	3.6	10.1	<1	<1	na	3.5	82.0	513.0	na	
	11/24/20	<1	<5	<1	<1	na	<1	na	na	na		11/24/20	<1	<5	<1	<1	na	3.5	na	na	na	
	02/10/21	<1	<5	<1	<1	na	<1	na	na	na		02/10/21	3.1	21.1	<1	<1	na	4.0	na	na	na	
	04/28/21	<1	<5	<1	<1	na	<1	na	na	<200		04/28/21	5.0	10.0	<1	<1	na	4.4	na	na	<200	
MW4	09/12/19	<1	<5	<1	<1	<1	<1			<200	MW12	09/12/19	<1	<5	<1	<1	<1	<1			<200	
	12/10/19	<1	<5	<1	<1	<1	<1		na	12/10/19		<1	<5	<1	<1	<1	<1			na		
	03/18/20	<1	<5	<1	<1	<1	<1	<1	<1	<200		03/18/20	<1	<5	<1	<1	<1	<1	<1	<1	<200	
	05/27/20	<1	<5	<1	<1	<1	<1	<1	<1	<200		05/27/20	<1	<5	<1	<1	<1	<1	<1	<1	<1	<200
	08/27/20	<1	<5	<1	<1	na	<1	<1	1.1	na		08/27/20	<1	<5	<1	<1	na	<1	6.6	47.0	na	
	11/24/20	<1	<5	<1	<1	na	<1	na	na	na		11/24/20	<1	<5	<1	<1	na	<1	na	na	na	
	02/10/21	<1	<5	<1	<1	na	<1	na	na	na		02/10/21	<1	<5	<1	<1	na	<1	na	na	na	
	04/28/21	<1	<5	<1	<1	na	<1	na	na	<200		04/28/21	<1	<5	<1	<1	na	<1	na	na	<200	
MW7	09/12/19	<1	<5	<1	<1	1.5	0.66*			<200	MW14	09/12/19	<1	<5	<1	<1	<1	<1			<200	
	12/10/19	<1	<5	<1	<1	<1	0.29*		na	12/10/19		<1	6.3	<1	<1	<1	<1			na		
	03/18/20	<1	<5	<1	<1	0.34*	<1	9.9	67.4	<200		03/18/20	<1	7.7	<1	<1	0.98*	0.46*	30.4	124.0	<200	
	05/27/20	<1	<5	<1	<1	0.47*	<1	8.5	80.7	<200		05/27/20	0.35*	<5	<1	<1	2.0	0.47*	164.0	630.0	<200	
	08/27/20	2.2	13.8	<1	<1	na	2.7	1.0	19.2	na		08/27/20	<1	<5	<1	<1	na	<1	135.0	632.0	na	
	11/24/20	<1	<5	<1	<1	na	<1	na	na	na		11/24/20	<1	<5	<1	<1	na	<1	na	na	na	
	02/10/21	<1	<5	<1	<1	na	<1	na	na	na		02/10/21	<1	<5	<1	<1	na	<1	na	na	na	
	04/28/21	<1	<5	<1	<1	na	<1	na	na	<200		04/28/21	<1	<5	<1	<1	na	<1	na	na	<200	
MW8	09/12/19	<1	<5	<1	<1	1.0	<1			<200	MW15	09/12/19	9.0	43.2	<1	0.40*	10.0	7.7			92.8*	
	12/10/19	<1	<5	<1	<1	<1	<1		na	12/10/19		11.5	42.5	<1	<1	<1	8.6			na		
	03/18/20	<1	<5	<1	<1	0.78*	<1	44.3	210.0	<200		03/18/20	8.5	31.8	<1	<1	17.3	6.8	151.0	795.0	<200	
	05/27/20	<1	<5	<1	<1	1.1	<1	56.8	662.0	<200		05/27/20	9.1	30.0	<1	0.43*	26.4	8.2	69.3	679.0	<200	
	08/27/20	<1	<5	<1	<1	na	0.43*	56.6	664.0	na		08/27/20	7.6	34.0	<1	<1	na	5.5	77.9	518.0	na	
	11/24/20	<1	<5	<1	<1	na	0.35*	na	na	na		11/24/20	4.4	25.3	<1	<1	na	3.5	na	na	na	
	02/10/21	0.43*	<5	<1	<1	na	0.31*	na	na	na		02/10/21	3.6	32.5	<1	<1	na	3.0	na	na	na	
	04/28/21	<1	<5	<1	<1	na	<1	na	na	na		04/28/21	4.3	21.4	<1	<1	na	3.1	na	na	<200	
MW9	09/12/19	0.75*	60.5	<1	<1	2.4	4.1			<200	MW16	09/12/19	<1	<5	<1	<1	<1	<1			<200	
	12/10/19	4.9	82.9	<1	<1	<1	13.1		na	12/10/19		<1	<5	<1	<1	<1	<1			na		
	03/18/20	0.60*	195.0	<1	<1	2.2	8.3	2.0	25.8	<200		03/18/20	<1	<5	<1	<1	<1	<1	<1	<1	<200	
	05/27/20	2.7	106.0	<1	<1	14.9	10.6	26.3	53.0	<200		05/27/20	<1	<5	<1	<1	<1	<1	<1	0.66*	<200	
	08/27/20	7.4	66.4	<1	<1	na	16.0	86.5	131.0	na		08/27/20	<1	<5	<1	<1	na	<1	<1	<1	na	
	11/24/20	3.9	51.0	<1	<1	na	9.7	na	na	na		11/24/20	<1	<5	<1	<1	na	<1	<1	<1	na	
	02/10/21	8.4	125.0	<1	<1	na	30.1	na	na	na		02/10/21	<1	<5	<1	<1	na	<1	<1	<1	na	
	04/28/21	1.3	90.9	<1	<1	na	7.5	na	na	<200		04/28/21	<1	<5	<1	<1	na	<1	<1	<1	<200	

* - concentration below reporting limit, and is estimated above the method detection limit

- concentration suspected to be erroneous because of sampling error

detect for all VOCs. The laboratory control sample within the March 2020 testing showed elevated Acetone recovery, indicating that the Acetone measured in the bathroom sample was a probable laboratory artifact. The May 2020 sampling event showed that the Bathroom source water contained an estimated 1.3 µg/l Acetone, below the 2 µg/l reporting limit. The August 2020 sampling event showed that all VOCs were below detection limits. The November 2020 sampling of the station water well supply showed presence of Acetone (3 µg/l) and Methylene Chloride (0.98 µg/l). The trip blank contained 4.1 µg/l Acetone and 1.1 µg/l Methylene Chloride. Consequently, the November 2020 detections are presumed to be laboratory artifacts. The February and April 2021 samples from the bathroom sink did not contain any detectable VOC concentrations.

3. Collect (and analyze) samples from the water wells at KinderCare (8050 Rockenbach Road) and Ridgeview 1 and 2 (2633 Annapolis Road).

The KinderCare well has well tag AA814908 and was constructed in July 1985 to 362'-depth with a screen interval at 356' to 362'-depth and filter pack is reported to be set from 23' to 362'-depth. This is a relatively large filter pack interval, and may extend into the upper reaches of the water table aquifer. The current groundwater elevations of the shallow and deeper zone water at the subject site are about 219' and 211', respectively, above mean sea level. Based on topographic elevation of the KinderCare facility's well and the reported depth to water in the Maryland well database, the groundwater elevation in the KinderCare well is about 65' above mean sea level (at least 150' deeper than the subject site groundwater). A water treatment system is operated on the well water supply within the KinderCare facility including carbon filter, ion exchange and chlorinator. Per maintenance records at the facility, the water treatment system is professionally maintained several times per month. A sample of the water well supply (before treatment) was collected from the KinderCare well on September 25, 2019, and testing showed that it did not contain detectable VOC concentrations.

The two Ridgeview Plaza Shopping Center wells are tagged AA814854 (8"-diameter) and AA818514 (6"-diameter), and were constructed in July 1985 and September 1987, respectively. The 8"-well is 485'-deep with screen set at 444' to 485' and filter pack at 400' to 530'-depth. The 6"-well is 466'-deep with screen at 436' to 466'-depth and filter pack at 420' to 466'-depth. Response to repeated requests to sample the two wells at the Ridgeview Plaza Shopping Center have not been received as of this writing. No additional attempts to contact Ridgeview Plaza ownership will be made unless superseded by MDE.

4. Reports (are) to include scaled maps with dissolved phase concentration maps including BTEX and MTBE concentrations. To enhance OCP's review of the data, present (provide) calculated Mann-Kendall analysis for each well.

Historical status reports for this project have included a contoured groundwater elevation map and dissolved phase concentration map indicating the concentrations of Benzene, total BTEX and Total VOC measured at each well location.

Other than the February 2021 sampling event (MW9 with 30.1 µg/l MTBE), the last time that MTBE was detected at 20 µg/l or more was in February 2017 (MW15 with 27 µg/l). Retesting of MW9 in April 2021 showed the sample contained 7.5 µg/l. The only well yielding MTBE

above 10 µg/l during the past two years is MW9. The average MTBE concentration during the two-year period leading to April 2021 is 11.2 µg/l. Consequently, mapping of an MTBE plume at this site is otherwise not practical. Mapping presented herein includes individual enumeration of the BTEX, MTBE and Total VOC concentrations.

Historical reports for this project have included hydrographs and concentration vs. time graphs for selected wells, typically for wells that regularly contained detectable dissolved petroleum concentrations. Review of the concentration vs. time graphs provides a good method for assessing concentration trends and simultaneous review of dependency on groundwater elevation fluctuations. Per direction of the MDE, Mann-Kendall analyses were performed for each well normally containing more than non-detect concentrations. A copy of the Mann-Kendall analyses is attached, and a summary is presented below.

Per the above, and the attached Mann-Kendall database and graphs, Total VOC concentrations show a decreasing trend in MW4, MW7, MW9, MW10 and MW14. MW2, which has been sampled infrequently when groundwater is shallow, is listed as having a stable trend for Total VOC. MW8 and MW16 are listed as having no trend for Total VOC. Since monitoring began, VOC and Benzene concentrations in MW15 show no trends, but since December 2019 VOC and Benzene show decreasing trends. All wells, except for MW2, MW15 and MW16, are listed as having decreasing trends for Benzene. MW8 is listed as having “no trend” for Total VOC, but has a decreasing trend for Benzene. Benzene (and Total VOC) in MW2 has not changed appreciably since mid-2015. MW16’s “no trend” for Benzene is due to groundwater samples typically not containing detectable Benzene concentrations, and the highest Benzene to date has been 3 µg/l (November 2015).

Well	VOC Concentrations				Benzene Concentrations			
	Coefficient of Variation	Mann-Kendall Statistic	Confidence Factor	Concentration Trend	Coefficient of Variation	Mann-Kendall Statistic	Confidence Factor	Concentration Trend
MW2	0.72	-2	59.2%	STABLE	0.16	3	67.5%	NO TREND
MW4	4.95	-261	>99.9%	DECREASING	5.31	-210	99.8%	DECREASING
MW7	4.02	-342	>99.9%	DECREASING	2.72	-197	99.9%	DECREASING
MW8	2.36	-51	76.0%	NO TREND	3.24	-136	97.3%	DECREASING
MW9	2.78	-258	>99.9%	DECREASING	3.09	-184	99.7%	DECREASING
MW10	1.17	-198	99.9%	DECREASING	1.17	-196	99.9%	DECREASING
MW14	2.27	-317	>99.9%	DECREASING	1.36	-277	>99.9%	DECREASING
MW15 (06/2014 to Present)	0.88	44	73.7%	NO TREND	0.89	8	87.8%	NO TREND
MW15 (12/2019 to Present)	0.84	-26	97.5%	DECREASING	0.63	-26	98.9%	DECREASING
MW16	3.39	-33	68.9%	NO TREND	1.21	-65	83.8%	NO TREND

5. Include a well survey identifying all drinking water supply wells within a half-mile radius of the subject property, and plot on a US Geological Survey map or scaled street map. Annotate the map with 500', 1000' and ½-mile radii. Provide a summary table including property address, property owner name and address, and well construction details.



Included in the Third and Fourth Quarter 2019 Status Reports were scaled aerial photograph maps that depict 500', 1000' and ½-mile radii from the subject site. Plotted on the maps are water supply wells as determined by in-depth review of the Maryland Well Database. Many of the plotted supply wells are no longer in existence, as the respective properties have been connected to municipal water supply. A summary table of the well information was presented in the Third and Fourth Quarter 2019 Status Reports.

Other than the station water supply well, there are three other wells within a 500' radius of the site (Exxon and two at Ridgeview Plaza), and a fourth well about 750' from the site (KinderCare). The Exxon well is not equipped with a well ID tag, and based on review of historical aerial photographic maps, was replaced after the above 1984-well. The former 1984-well at the Exxon property was constructed with a filter pack that extended to 20' below grade (e.g., relatively shallow) although the well was screened from 137' to 145' depth. Review of the Maryland Well Database shows that several monitoring wells were constructed at the Exxon property in the past, indicative of a groundwater assessment (e.g., in response to petroleum release). Consequently, any petroleum that may be present in the Exxon water well supply is probably (and inherently) a result of Exxon-site activities.

The two Ridgeview Plaza wells are constructed to 466' and 485' depth with filter pack sections to no shallower than about 400' depth. The elevation of the groundwater in the two wells is estimated to be about 40' above mean sea level, compared to the 215' elevation of the groundwater in the subject site monitoring wells. Consequently, the Ridgeview Plaza wells are screened within a much deeper aquifer than the shallow water table aquifer, and are unlikely to be influenced by conditions at the site's water table aquifer. The KinderCare well is about 750' from the site to the southwest, and constructed with a screen section at 356' to 362' depth with a filter pack that extends to 23' depth. The bulk of dissolved petroleum at the subject site is found in the deeper groundwater zone wells with groundwater at about 34'-depth and flows to the southeast. The groundwater elevation in the KinderCare well is about 65' above mean sea level (compared to the 215' elevation of the monitoring wells at the subject site). As such, the groundwater used from the KinderCare well is obtained from a different aquifer than the deeper water table zone beneath the subject site.

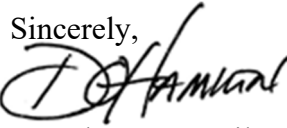
6. MDE stated that based on pending on a removal and upgrade schedule at the facility, they do not anticipate closing this case until a full UST closure assessment has been completed. Per email from The Wills Group (c/o Steve Stookey) to MDE on August 1, 2019, SMO anticipates UST upgrades possibly in 2021.

Because the exact timing for a future UST replacement at this site is unknown, and thereby precluding the possible closure of this case in light of continual and consistent data showing negligible risk for impact, at the minimum, we request MDE's approval to:

1. Decrease the monitoring well sampling frequency to twice per year (March and October), and
2. Some monitoring wells have consistently yielded very low to no VOCs for many years including MW1 (shallow zone), MW4 (shallow zone), MW12 (shallow zone), and MW16 (shallow zone). We request MDE's approval to cease groundwater sampling from these four monitoring wells. They will continue to be gauged during scheduled groundwater sampling events for presence of LNAPL and to monitor groundwater elevation.



If you have any questions concerning this submittal, please contact us below.

Sincerely,


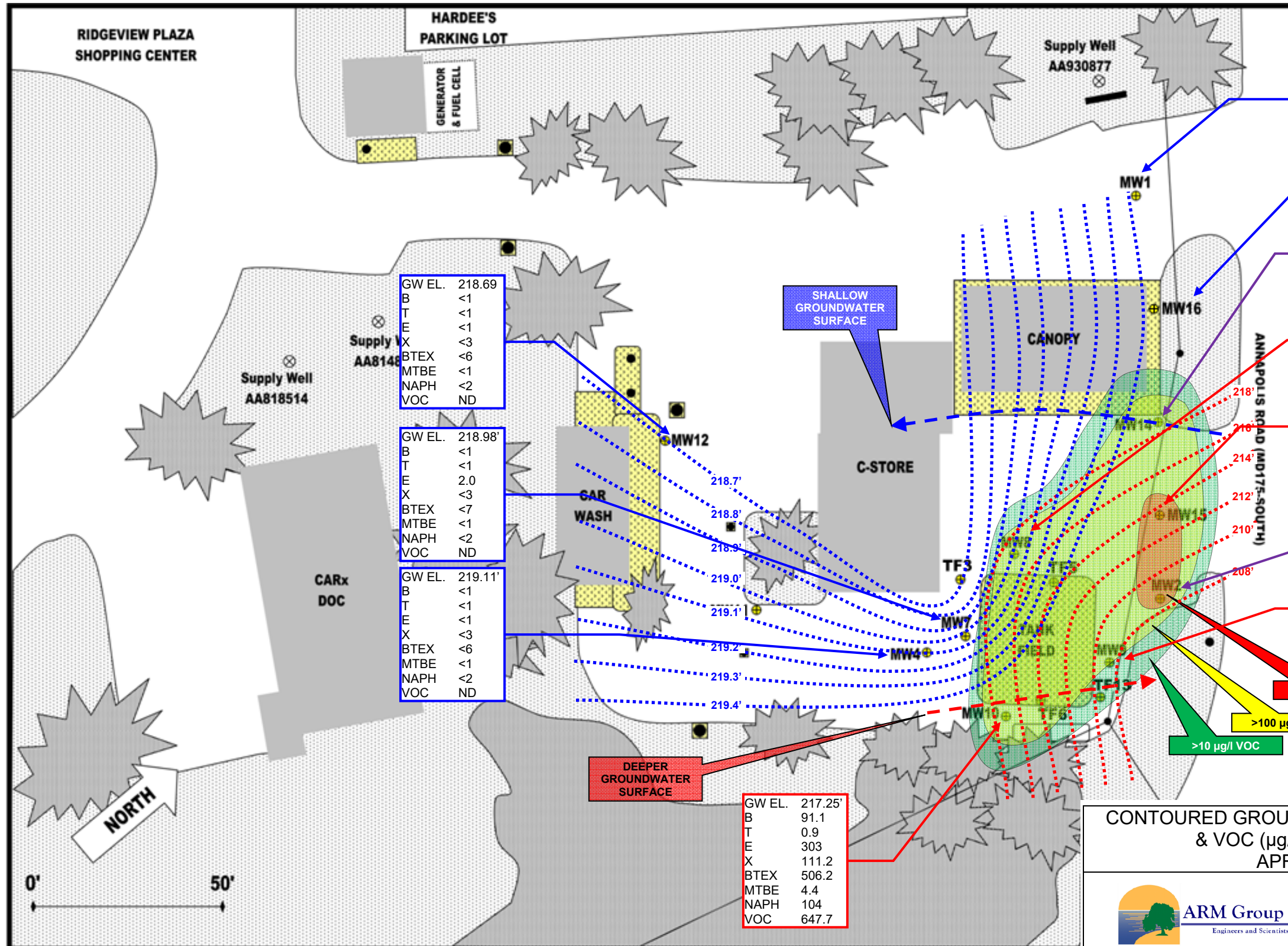
Douglas O. Hamilton
Senior Geologist/Project Manager
ARM Group LLC
9175 Guilford Road, Suite 310, Columbia, MD 21046
Office (410)290-7775, x2021; Cell (443)255-1633
Email DHamilton@armgroup.net

cc. Steve Stookey, Southern Maryland Oil c/o The Wills Group, 102 Centennial Street, LaPlata, MD 20646



CONTOURED GROUNDWATER ELEVATIONS & VOC, BTEX & BENZENE PLUME MAPS





GW EL.	218.69
B	<1
T	<1
E	<1
X	<3
BTEX	<6
MTBE	<1
NAPH	<2
VOC	ND

GW EL.	218.98'
B	<1
T	<1
E	2.0
X	<3
BTEX	<7
MTBE	<1
NAPH	<2
VOC	ND

GW EL.	219.11'
B	<1
T	<1
E	<1
X	<3
BTEX	<6
MTBE	<1
NAPH	<2
VOC	ND

GW EL.	217.25'
B	91.1
T	0.9
E	303
X	111.2
BTEX	506.2
MTBE	4.4
NAPH	104
VOC	647.7

GW EL.	219.48'
B	<1
T	<1
E	<1
X	<3
BTEX	<6
MTBE	<1
NAPH	<2
VOC	ND

GW EL.	218.80'
B	1.7
T	1.4
E	139
X	186.5
BTEX	328.6
MTBE	<1
NAPH	51.2
VOC	345.3

GW EL.	213.94'
B	481
T	519
E	798
X	834
BTEX	2632
MTBE	3.1
NAPH	73.5
VOC	2788.3

GW EL.	219.44'
B	<1
T	<1
E	<1
X	<3
BTEX	<6
MTBE	<1
NAPH	<2
VOC	ND

GW EL.	217.36'
B	2.5
T	0.49
E	93.1
X	111.7
BTEX	207.8
MTBE	<1
NAPH	90.5
VOC	307.9

GW EL.	208.43'
B	13.7
T	<1
E	17.3
X	34
BTEX	65
MTBE	7.5
NAPH	3.9
VOC	174.3

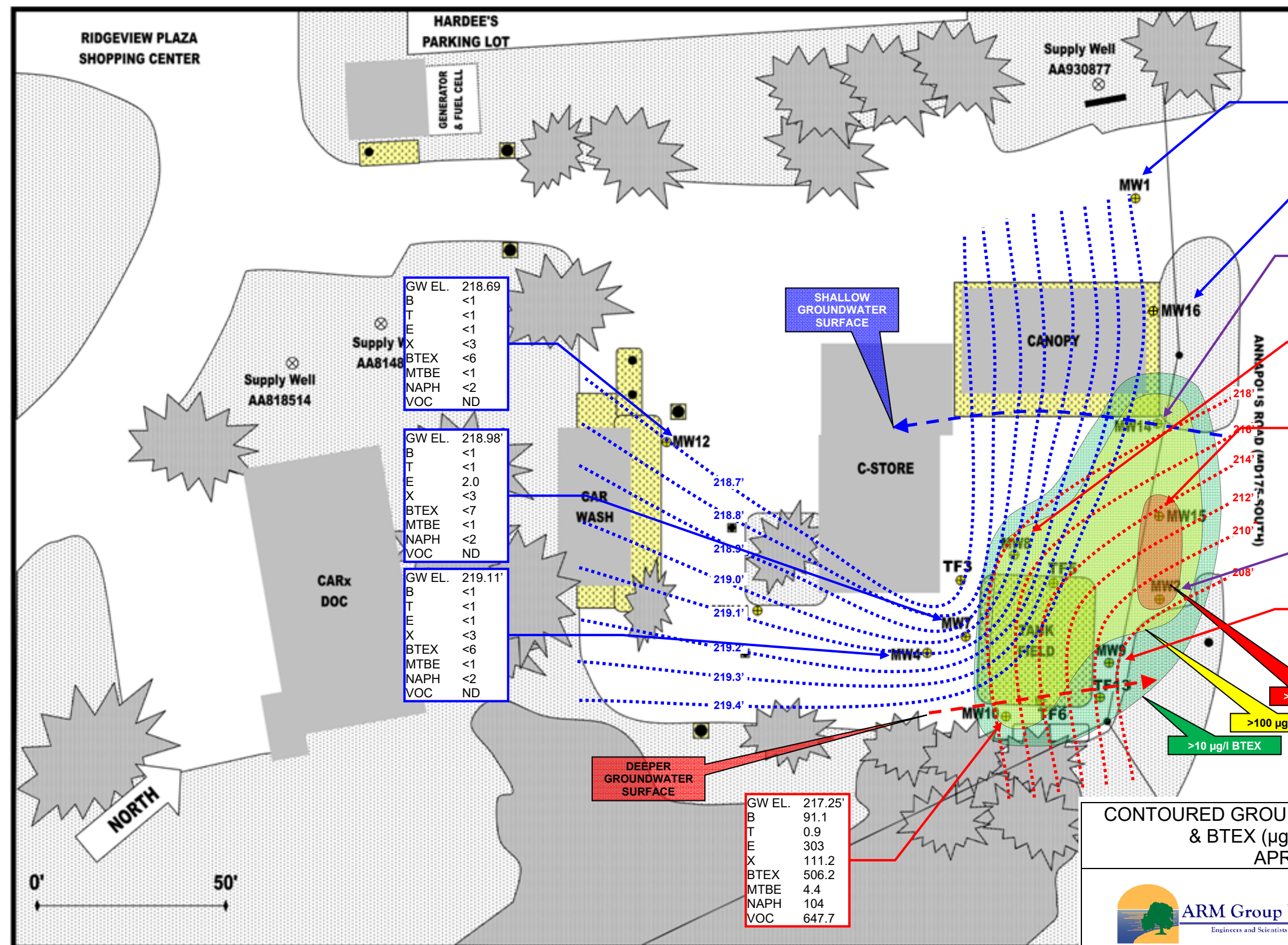
GW EL.	208.91'
Most Recent Data	
B	218
T	10.5
E	626
X	190
BTEX	1045
MTBE	3.9
NAPH	203
VOC	1273

CONTOURED GROUNDWATER ELEVATIONS & VOC (µg/l) PLUME MAP
APRIL 2021

FIGURE
A-21V



SMO FORT MEADE SHELL
SS-550
2631 ANNAPOLIS ROAD
HANOVER, MD
ARM NO. 190292M



GW EL.	219.48'
B	<1
T	<1
E	<1
X	<3
BTEX	<6
MTBE	<1
NAPH	<2
VOC	ND

GW EL.	219.44'
B	<1
T	<1
E	<1
X	<3
BTEX	<6
MTBE	<1
NAPH	<2
VOC	ND

GW EL.	218.80'
B	1.7
T	1.4
E	139
X	186.5
BTEX	328.6
MTBE	<1
NAPH	51.2
VOC	345.3

GW EL.	217.36'
B	2.5
T	0.49
E	93.1
X	111.7
BTEX	207.8
MTBE	<1
NAPH	90.5
VOC	307.9

GW EL.	213.94'
B	481
T	519
E	798
X	834
BTEX	2632
MTBE	3.1
NAPH	73.5
VOC	2788.3

GW EL.	208.91'
Most Recent Data	
B	218
T	10.5
E	626
X	190
BTEX	1045
MTBE	3.9
NAPH	203
VOC	1273

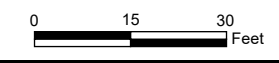
GW EL.	208.43'
B	13.7
T	<1
E	17.3
X	34
BTEX	65
MTBE	7.5
NAPH	3.9
VOC	174.3

GW EL.	217.25'
B	91.1
T	0.9
E	303
X	111.2
BTEX	506.2
MTBE	4.4
NAPH	104
VOC	647.7

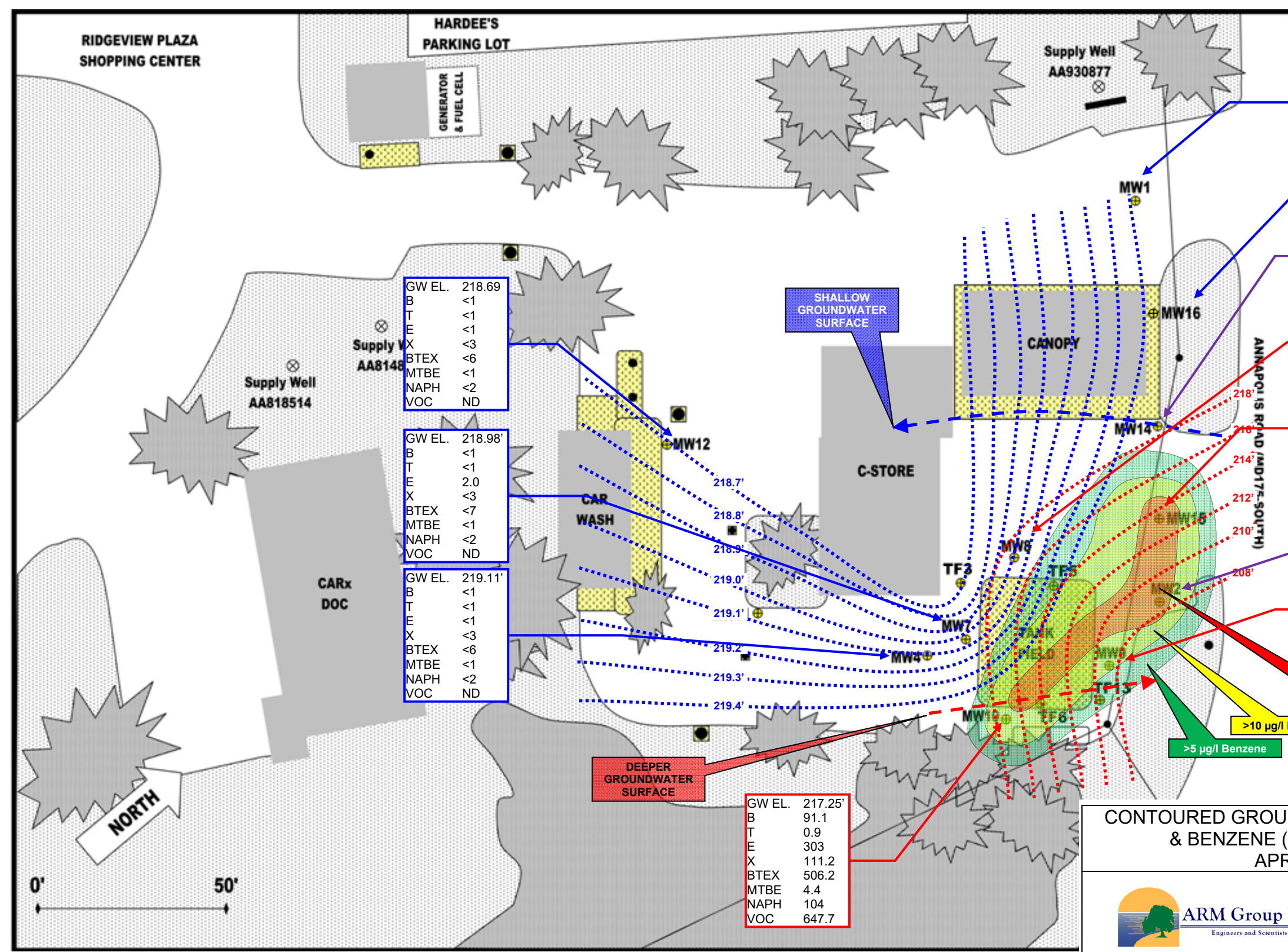


CONTOURED GROUNDWATER ELEVATIONS & BTEX (µg/l) PLUME MAP
APRIL 2021

FIGURE
A-21BTEX



SMO FORT MEADE SHELL
SS-550
2631 ANNAPOLIS ROAD
HANOVER, MD
ARM NO. 190292M



GW EL.	219.48'
B	<1
T	<1
E	<1
X	<3
BTEX	<6
MTBE	<1
NAPH	<2
VOC	ND

GW EL.	219.44'
B	<1
T	<1
E	<1
X	<3
BTEX	<6
MTBE	<1
NAPH	<2
VOC	ND

GW EL.	218.80'
B	1.7
T	1.4
E	139
X	186.5
BTEX	328.6
MTBE	<1
NAPH	51.2
VOC	345.3

GW EL.	217.36'
B	2.5
T	0.49
E	93.1
X	111.7
BTEX	207.8
MTBE	<1
NAPH	90.5
VOC	307.9

GW EL.	213.94'
B	481
T	519
E	798
X	834
BTEX	2632
MTBE	3.1
NAPH	73.5
VOC	2788.3

GW EL.	208.91'
Most Recent Data	
B	218
T	10.5
E	626
X	190
BTEX	1045
MTBE	3.9
NAPH	203
VOC	1273

GW EL.	208.43'
B	13.7
T	<1
E	17.3
X	34
BTEX	65
MTBE	7.5
NAPH	3.9
VOC	174.3

GW EL.	217.25'
B	91.1
T	0.9
E	303
X	111.2
BTEX	506.2
MTBE	4.4
NAPH	104
VOC	647.7

CONTOURED GROUNDWATER ELEVATIONS & BENZENE (µg/l) PLUME MAP
APRIL 2021

FIGURE
A-21B

ARM Group LLC
Engineers and Scientists

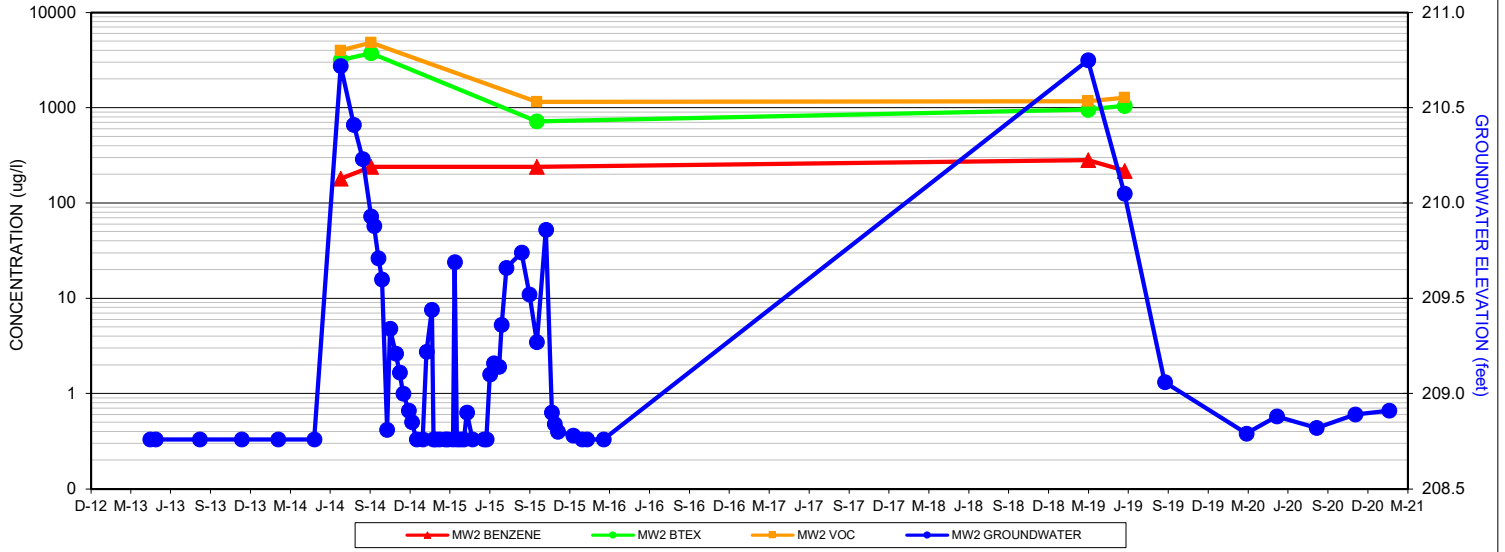
0 15 30 Feet

SMO FORT MEADE SHELL
SS-550
2631 ANNAPOLIS ROAD
HANOVER, MD
ARM NO. 190292M

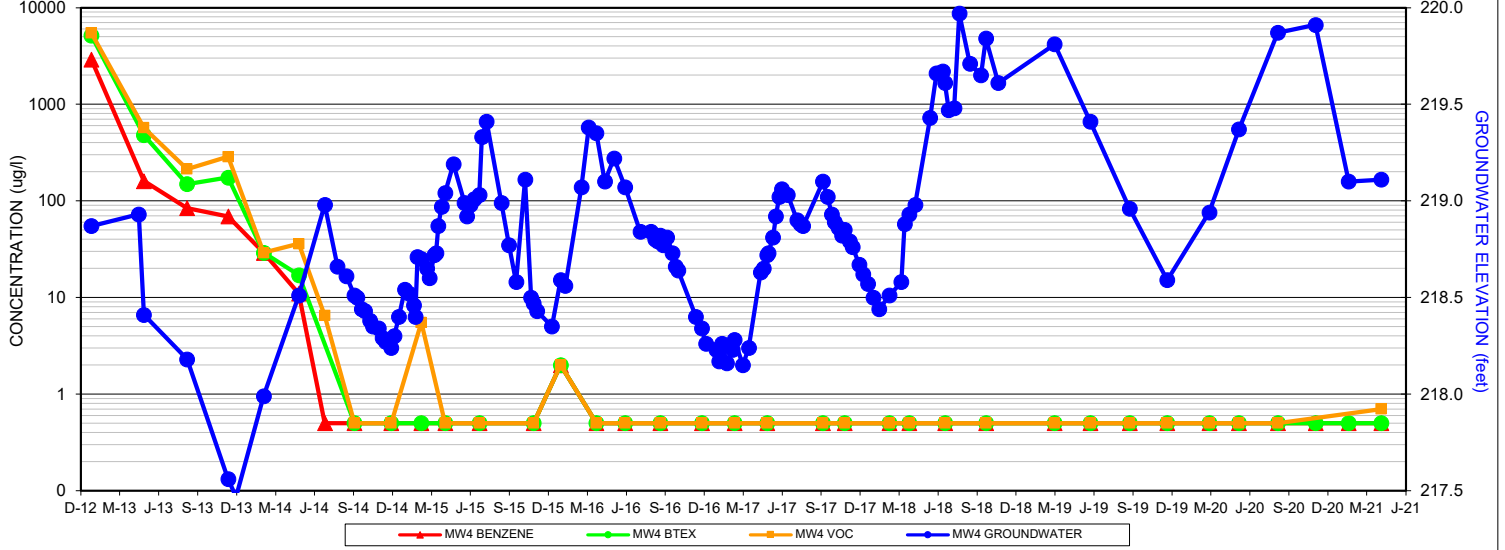
HYDROGRAPHS & GAUGING/SAMPLING DATABASE

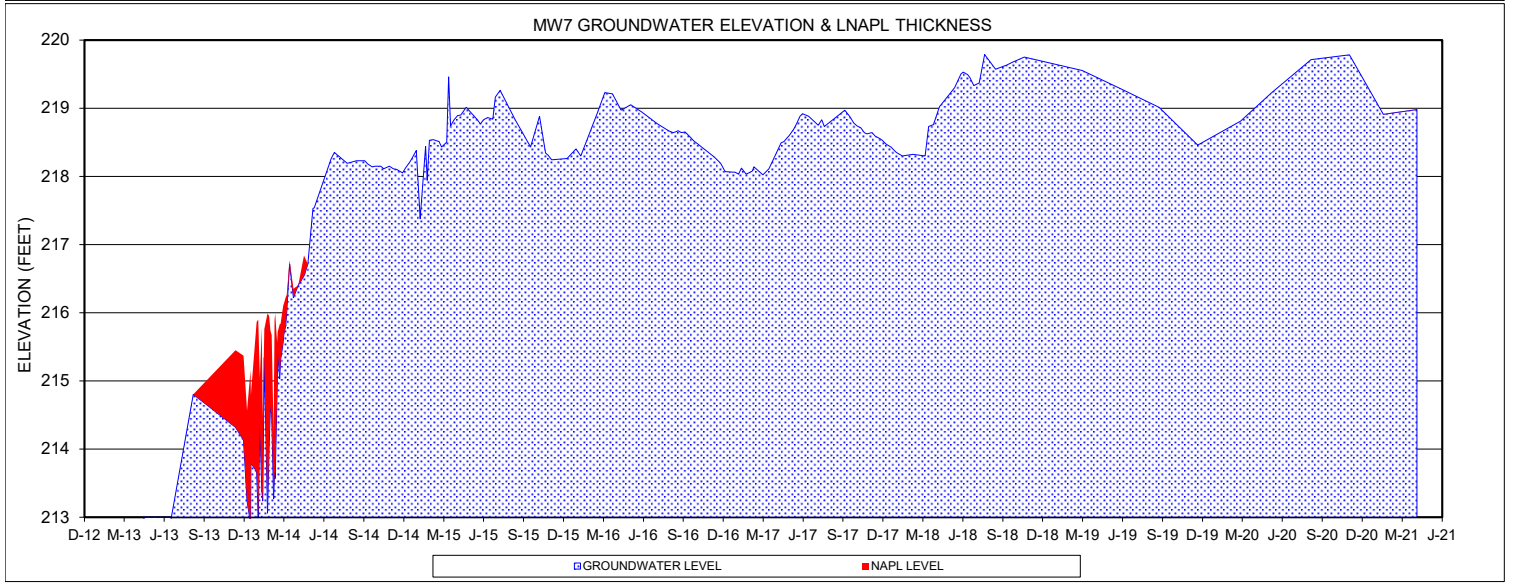
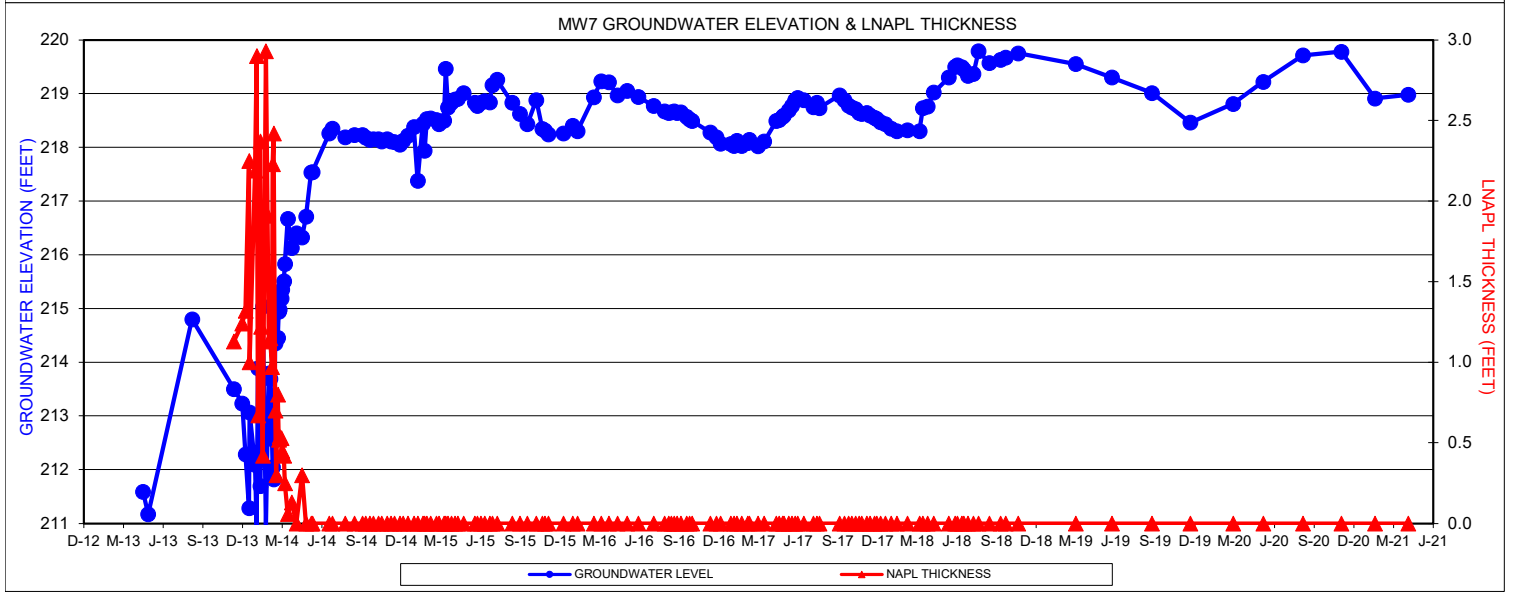
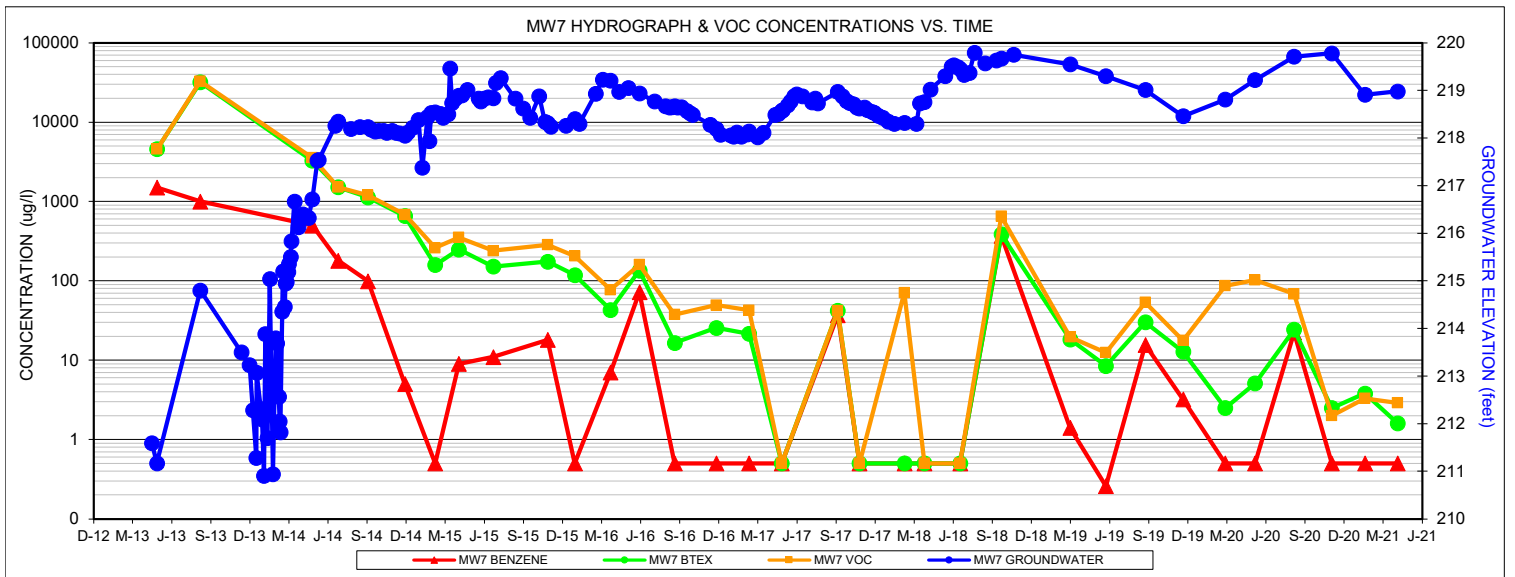


MW2 HYDROGRAPH & VOC CONCENTRATIONS VS. TIME

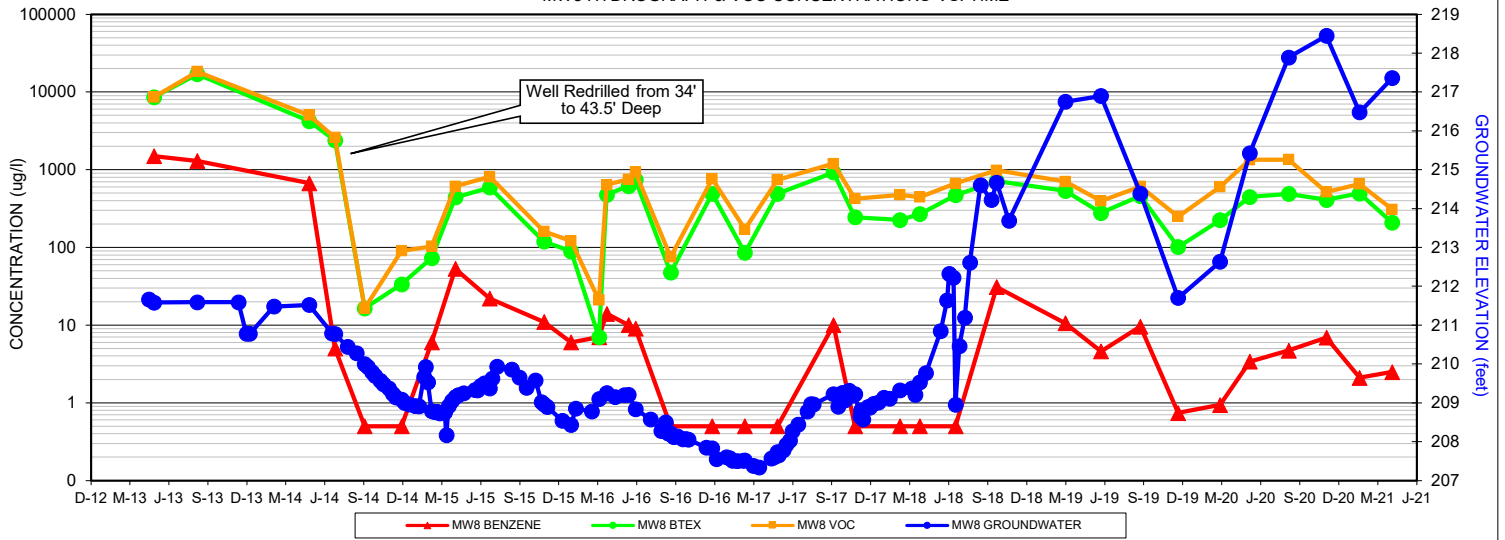


MW4 HYDROGRAPH & VOC CONCENTRATIONS VS. TIME

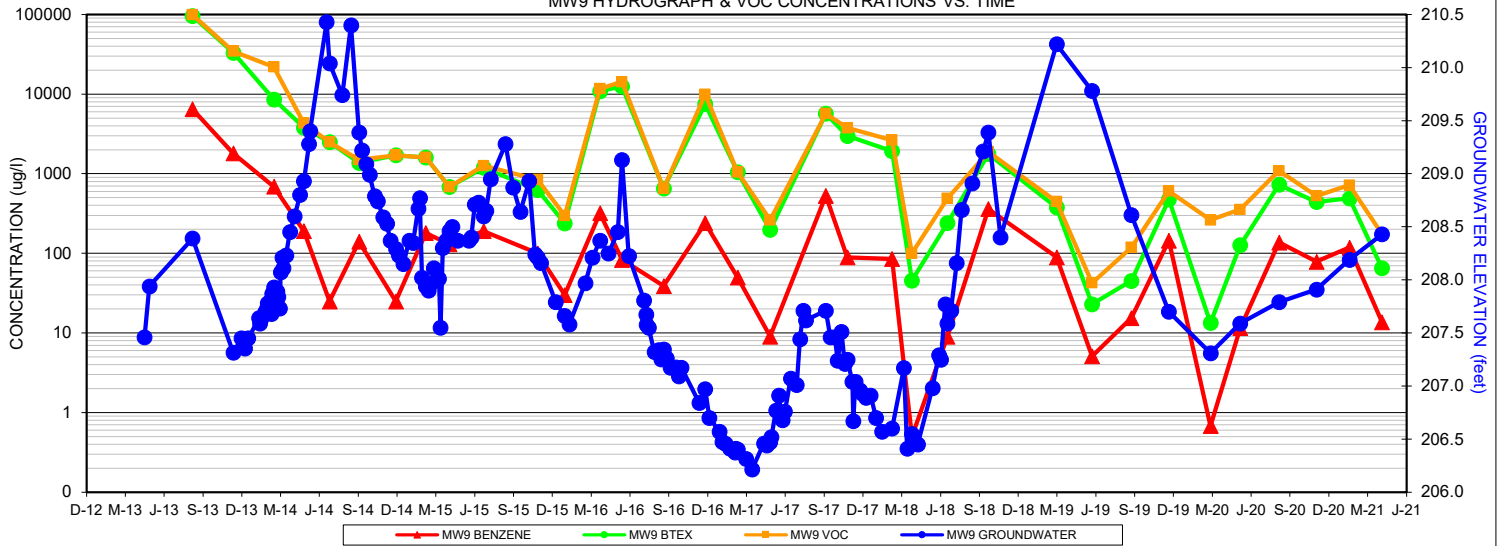




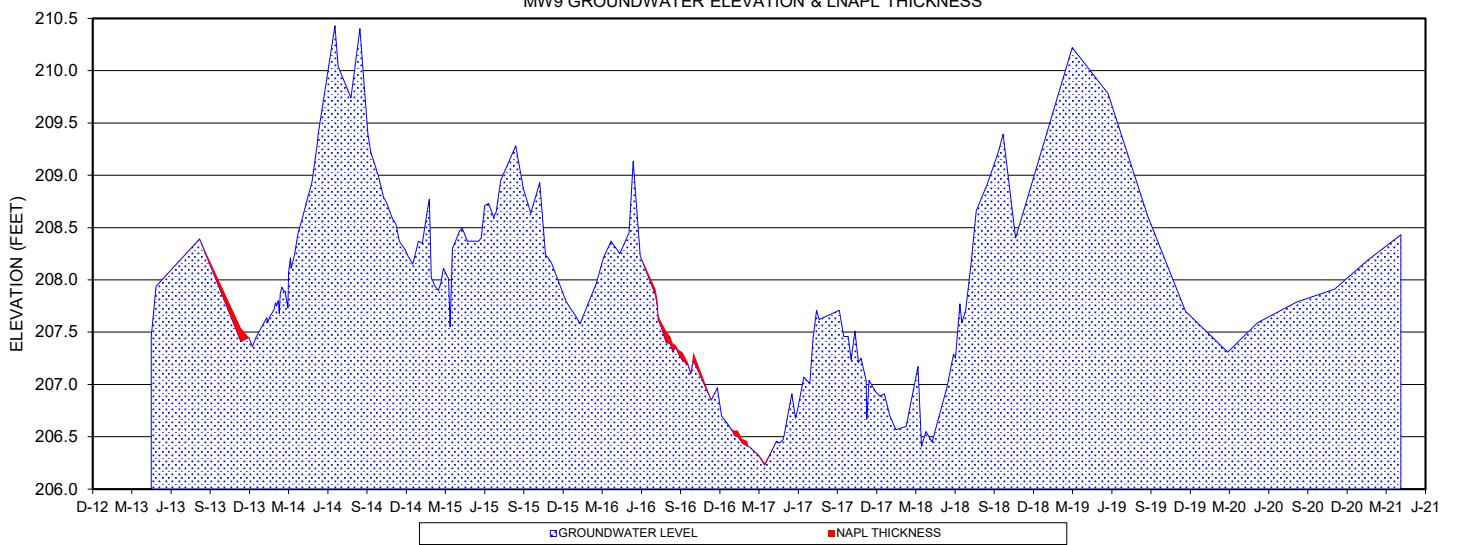
MW8 HYDROGRAPH & VOC CONCENTRATIONS VS. TIME

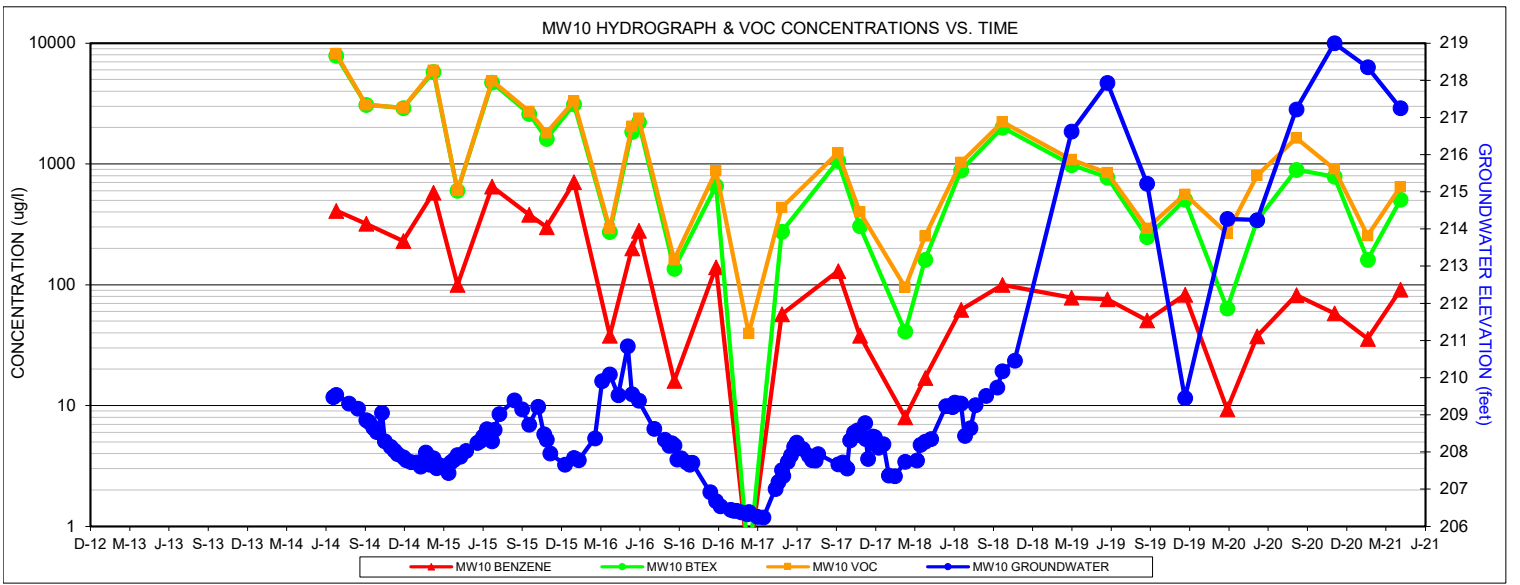


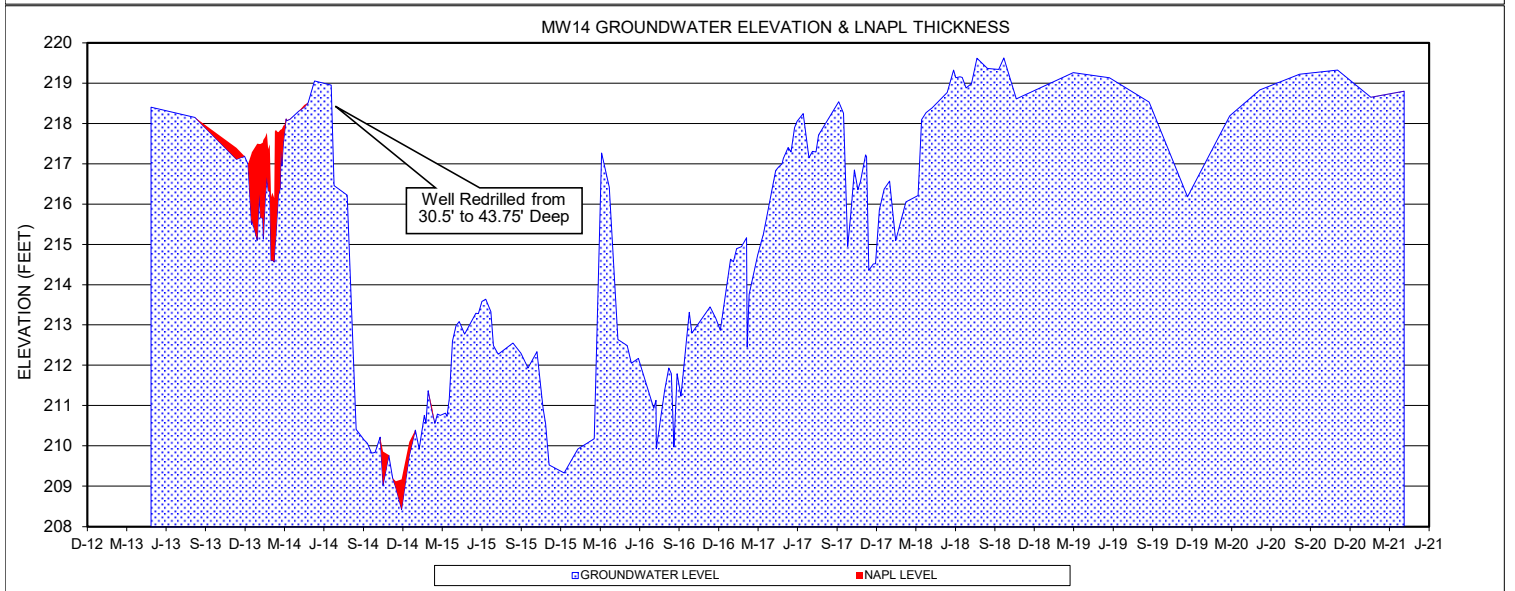
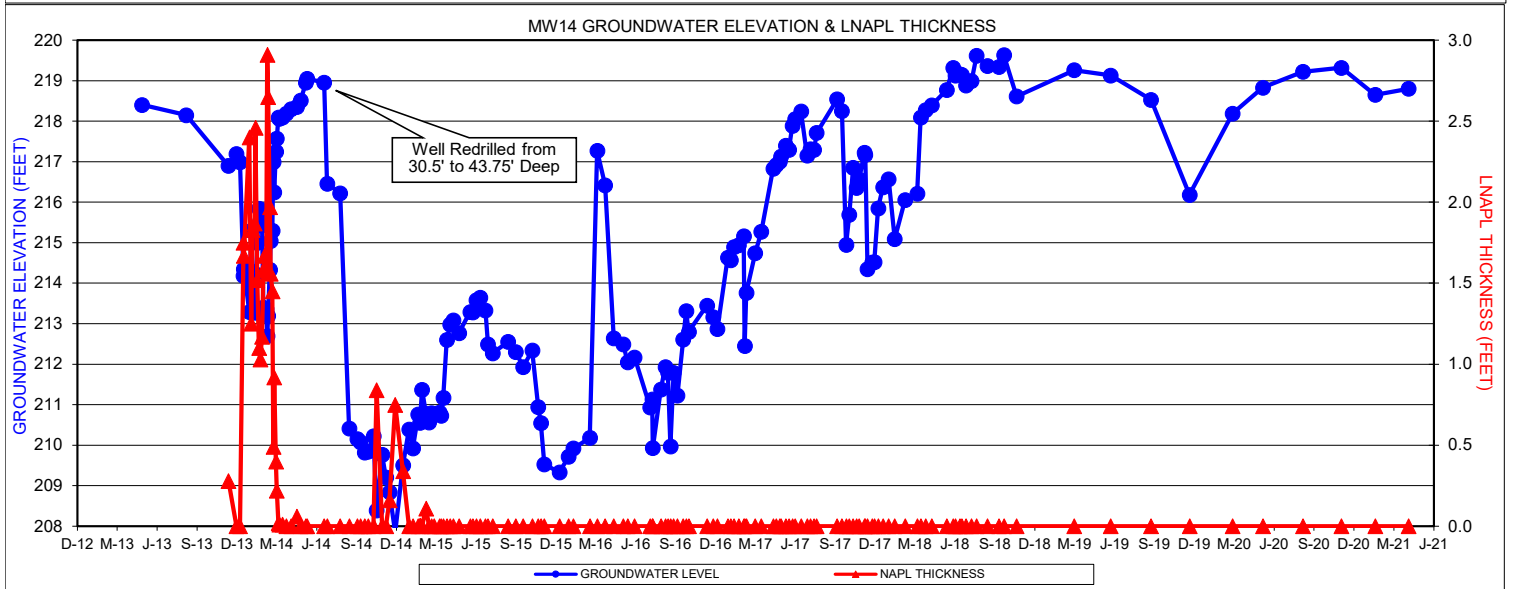
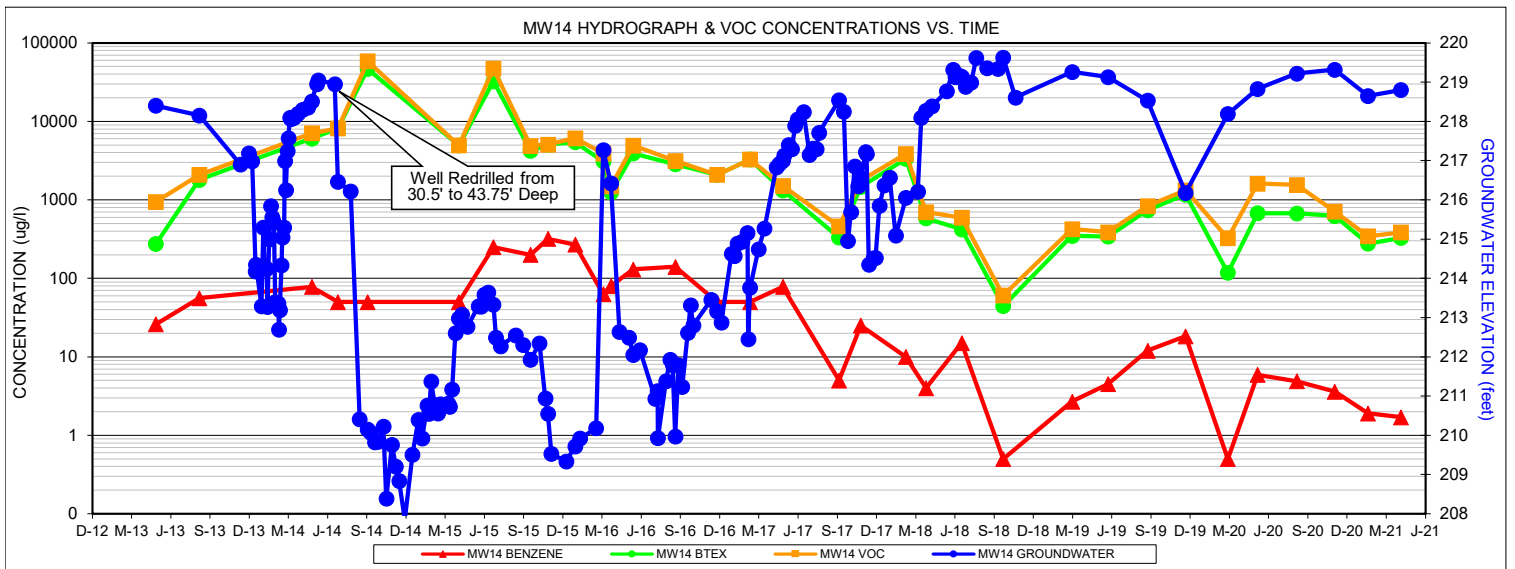
MW9 HYDROGRAPH & VOC CONCENTRATIONS VS. TIME



MW9 GROUNDWATER ELEVATION & LNAPL THICKNESS







Well	Date	Well Elev.	Well Depth	Depth to LNAPL	Depth to Water	LNAPL	Gallons Removed	Cumulative Removed	Corrected Water Elevation	Benzene	Toluene	Ethylbenzene	m+p-Xylenes	o-Xylenes	MTBE	Cyclohexane	Methylcyclohexane	Cumene	Naphthalene	VOC	GRO	DRO			
										Feet (ft)										Micrograms Per Liter (µg/l)					
MW1	11/20/17	245.00	34.75	Clear	26.23				218.77																
	11/27/17			Clear	26.32				218.68																
	12/08/17			Clear	26.30				218.70																
	12/13/17			Clear	26.32				218.68																
	12/22/17			Clear	26.43				218.57																
	01/02/18			Clear	26.46				218.54																
	01/15/18			Clear	26.35				218.65																
	01/29/18			Clear	26.63				218.37																
	02/22/18			Clear	26.62				218.38				<1	<1	<1	<5	<5	<5	<5	<5	<5	<10	0.0	<0.22	<0.2
	03/22/18			Clear	26.40				218.60																
	03/30/18			Clear	26.24				218.76																
	04/10/18			Clear	26.18				218.82				<1	<1	<1	<5	<5	<5	<5	<5	<5	<10	0.0	<0.2	<0.2
	04/24/18			Clear	26.11				218.89																
	05/29/18			Clear	25.76				219.24																
	06/13/18			Clear	25.40				219.60																
	06/18/18			Clear	25.36				219.64																
	06/28/18			Clear	25.28				219.72																
	07/03/18			Clear	25.40				219.60				<1	<1	<1	<5	<5	<5	<5	<5	<5	<10	0.0	<0.2	0.21
	07/12/18			Clear	25.45				219.55																
	07/25/18			Clear	25.46				219.54																
	08/06/18			Clear	24.89				220.11																
	08/31/18			Clear	25.14				219.86																
	09/26/18			Clear	25.18				219.82																
	10/08/18			Clear	25.12				219.88				<1	<1	<1	<5	<5	<5	<5	<5	<5	<10	0.0	<0.2	0.24
	11/06/18			Clear	25.78				219.22																
	03/19/19			Clear	25.20				219.80				<1	0.5	<1	1.4	0.5	<1				<2	2.4	<0.2	<0.098
	06/11/19			Clear	25.54				219.46				<1	<1	<1	<2	<1	<1				<2	0.5	<0.2	0.08
	09/12/19			Clear	26.01				218.99				<1	<1	<1	<2	<1	<1				<2	0.5	<0.2	0.06
	12/10/19			Clear	26.51				218.49				<1	<1	<1	<2	<1	<1				<2	0.5	<0.2	0.09
	03/18/20			Clear	26.17				218.83				<1	<1	<1	<2	<1	<1				<2	0.5	<0.2	0.09
	05/27/20			Clear	25.69				219.31				<1	<1	<1	<2	<1	<1				<2	1.1	<0.2	0.10
	08/27/20			Clear	25.33				219.67				<1	<1	<1	<2	<1	<1				<2	1.1	<0.2	0.08
11/24/20	Clear	25.20				219.80				<1	<1	<1	<2	<1	<1				<2	0.0	<0.2	0.10			
02/10/21	Clear	25.79				219.21				<1	<1	<1	<2	<1	<1				<2	0.0	<0.2	0.11			
04/28/21	Clear	25.52				219.48				<1	<1	<1	<2	<1	<1				<2	0.7	<0.2	<0.11			

Well	Date	Well Elev.	Well Depth	Depth to LNAPL	Depth to Water	LNAPL	Gallons Removed	Cumulative Removed	Corrected Water Elevation	Benzene	Toluene	Ethyl-benzene	m+p-Xylenes	o-Xylenes	MTBE	Cyclo-hexane	Methyl-cyclo-hexane	Cumene	Naphthalene	VOC	GRO	DRO		
										Micrograms Per Liter (µg/l)											Milligrams per Liter (mg/l)			
Feet (ft)																								
MW2	04/17/13	243.51	34.75	Dry	34.75				208.76															
	04/29/13			Dry	34.75				208.76															
	08/09/13			Dry	34.75				208.76															
	11/14/13			Dry	34.75				208.76															
	02/06/14			Dry	34.75				208.76															
	04/30/14			Dry	34.75				208.76															
	06/30/14			Clear	32.79				210.72			180.0	57.0	1000.0	1800.0	120.0	<50	<50	<50	72.0	760.0	3989.0	12.00	7.80
	07/30/14			Clear	33.10				210.41															
	08/20/14			Clear	33.28				210.23															
	09/08/14			Clear	33.58				209.93			240.0	<10	1600.0	1900.0	<50	<50	73.0	120.0	150.0	740.0	4823.0	34.00	20.00
	09/15/14			Clear	33.63				209.88															
	09/25/14			Clear	33.80				209.71															
	10/03/14			Clear	33.91				209.60															
	10/15/14			Clear	34.70				208.81															
	10/22/14			Clear	34.17				209.34															
	11/04/14			Clear	34.30				209.21															
	11/13/14			Clear	34.40				209.11															
	11/21/14			Clear	34.51				209.00															
	12/04/14			Clear	34.60				208.91															
	12/11/14			Clear	34.66				208.85															
	12/22/14			Dry	34.75				208.76															
	01/05/15			Dry	34.75				208.76															
	01/14/15			Clear	34.29				209.22															
	01/26/15			Clear	34.07				209.44															
	01/30/15			Dry	34.75				208.76															
	02/04/15			Dry	34.75				208.76															
	02/13/15			Dry	34.75				208.76															
	02/26/15			Dry	34.75				208.76															
	03/04/15			Dry	34.75				208.76															
	03/16/15			Dry	34.75				208.76															
	03/20/15			Clear	33.82				209.69															
	03/25/15			Dry	34.75				208.76															
	04/02/15			Dry	34.75				208.76															
	04/10/15			Dry	34.75				208.76															
	04/17/15			Clear	34.61				208.90															
	04/30/15			Dry	34.75				208.76															
	05/26/15			Dry	34.75				208.76															
	06/01/15			Dry	34.75				208.76															
	06/09/15			Clear	34.41				209.10															
	06/18/15			Clear	34.35				209.16															
	06/30/15			Clear	34.37				209.14															
	07/06/15			Clear	34.15				209.36															
	07/17/15			Clear	33.85				209.66															
08/21/15	Clear	33.77				209.74																		
09/08/15	Clear	33.99				209.52																		
09/25/15	Clear	34.24				209.27			240.0	18.0	300.0	160.0	<25	<25	49.0	65.0	49.0	270.0	1151.0	14.00	15.00			
10/16/15	Clear	33.65				209.86																		
10/30/15	Clear	34.61				208.90																		
11/05/15	Clear	34.67				208.84																		
11/13/15	Clear	34.71				208.80																		
12/18/15	Clear	34.73				208.78																		
01/08/16	Dry	34.75				208.76																		
01/19/16	Dry	34.75				208.76																		
02/26/16	Dry	34.75				208.76																		
03/19/19	Clear	32.76				210.75			282.0	12.7	535.0	116.0	9.4	9.8				156.0	1171.3	3.97	6.60			
06/11/19	Clear	33.46				210.05			218.0	10.5	626.0	184.0	6.1	3.9				203.0	1272.9	3.51	4.20			
09/12/19	Clear	34.45				209.06																		
03/18/20	Dry	34.72				208.79																		
05/27/20	Clear	34.63				208.88																		
08/27/20	Clear	34.69				208.82																		
11/24/20	Clear	34.62				208.89																		
02/10/21	Clear	34.60				208.91																		
TF3	04/17/13	244.62	12.96	na	Dry				na															
	02/26/15			na	Dry				na															

Well	Date	Well Elev.	Well Depth	Depth to LNAPL	Depth to Water	LNAPL	Gallons Removed	Cumulative Removed	Corrected Water Elevation	Benzene	Toluene	Ethyl-benzene	m+p-Xylenes	o-Xylenes	MTBE	Cyclohexane	Methylcyclohexane	Cumene	Naphthalene	VOC	GRO	DRO			
																							Feet (ft)		
MW4	01/15/18	245.21	34.10	Clear	26.71				218.50																
	01/29/18			Clear	26.77					218.44															
	02/22/18			Clear	26.70					218.51	0.5	<1	<1	<5	<5	<5	<5	<5	<5	<5	<10	0.5	<0.21	0.26	
	03/22/18			Clear	26.63					218.58															
	03/30/18			Clear	26.33					218.88															
	04/10/18			Clear	26.28					218.93	0.5	<1	<1	<5	<5	<5	<5	<5	<5	<5	<10	0.5	<0.2	0.46	
	04/24/18			Clear	26.23					218.98															
	05/29/18			Clear	25.78					219.43															
	06/13/18			Clear	25.55					219.66															
	06/18/18			Clear	25.55					219.66															
	06/28/18			Clear	25.54					219.67															
	07/03/18			Clear	25.60					219.61	0.5	<1	<1	<5	<5	<5	<5	<5	<5	<5	<5	<10	0.5	<0.2	0.41
	07/12/18			Clear	25.74					219.47															
	07/25/18			Clear	25.73					219.48															
	08/06/18			Clear	25.24					219.97															
	08/31/18			Clear	25.50					219.71															
	09/26/18			Clear	25.56					219.65															
	10/08/18			Clear	25.37					219.84	0.5	<1	<1	<5	<5	<5	<5	<5	<5	<5	<5	<10	0.5	<0.2	0.44
	11/06/18			Clear	25.60					219.61															
	03/19/19			Clear	25.40					219.81	0.5	<1	<1	<2	<1	<1						<2	0.5	<0.2	0.42
	06/11/19			Clear	25.80					219.41	0.5	<1	<1	<2	<1	<1						<2	0.5	<0.2	0.46
	09/12/19			Clear	26.25					218.96	0.5	<1	<1	<2	<1	<1						<2	0.5	<0.2	0.26
	12/10/19			Clear	26.62					218.59	0.5	<1	<1	<2	<1	<1						<2	0.5	<0.2	0.17
03/18/20	Clear	26.27					218.94	0.5	<1	<1	<2	<1	<1						<2	0.5	<0.2	0.28			
05/27/20	Clear	25.84					219.37	0.5	<1	<1	<2	<1	<1						<2	0.5	<0.2	0.24			
08/27/20	Clear	25.34					219.87	0.5	<1	<1	<2	<1	<1						<2	0.5	<0.2	0.23			
11/24/20	Clear	25.30					219.91	0.5	<1	<1	<2	<1	<1						<2	0.0	<0.2	0.31			
02/10/21	Clear	26.11					219.10	0.5	<1	<1	<2	<1	<1						<2	0.0	<0.2	0.24			
04/28/21	Clear	26.10					219.11	0.5	<1	<1	<2	<1	<1						<2	0.7	<0.2	<0.1			
TF5	04/17/13	244.21	11.70	na	Dry				na																
	02/26/15			na	Dry				na																
TF6	04/17/13	244.17	9.70	na	Dry				na																
	02/26/15			na	Dry				na																

Well	Date	Well Elev.	Well Depth	Depth to LNAPL	Depth to Water	LNAPL	Gallons Removed	Cumulative Removed	Corrected Water Elevation	Benzene	Toluene	Ethyl-benzene	m+p-Xylenes	o-Xylenes	MTBE	Cyclohexane	Methyl-cyclohexane	Cumene	Naphthalene	VOC	GRO	DRO			
										Feet (ft)										Micrograms Per Liter (µg/l)					
MW8	11/20/17	244.79	43.60	Clear	36.14				208.65																
	11/22/17			Clear	35.99					208.80															
	11/27/17			Clear	36.22					208.57															
	12/08/17			Clear	35.90					208.89															
	12/13/17			Clear	35.91					208.88															
	12/22/17			Clear	35.81					208.98															
	01/02/18			Clear	35.78					209.01															
	01/15/18			Clear	35.66					209.13															
	01/29/18			Clear	35.68					209.11															
	02/22/18			Clear	35.47					209.32	0.5	<1	15.0	210.0	<5	<5	12.0	17.0	<5	220.0	474.0	1.80	1.10		
	03/22/18			Clear	35.42					209.37															
	03/30/18			Clear	35.58					209.21															
	04/10/18			Clear	35.26					209.53	0.5	<1	38.0	230.0	<5	<5	7.0	9.0	<5	160.0	444.0	1.20	2.30		
	04/24/18			Clear	35.02					209.77															
	05/29/18			Clear	33.94					210.85															
	06/13/18			Clear	33.15					211.64															
	06/18/18			Clear	32.47					212.32															
	06/28/18			Clear	32.57					212.22															
	07/03/18			Clear	35.84					208.95	0.5	<1	180.0	290.0	<5	<5	15.0	14.0	17.0	150.0	666.0	5.00	1.60		
	07/12/18			Clear	34.33					210.46															
	07/25/18			Clear	33.60					211.19															
	08/06/18			Clear	32.18					212.61															
	08/31/18			Clear	30.19					214.60															
	09/26/18			Clear	30.57					214.22															
	10/08/18			Clear	30.12					214.67	31.0	3.0	300.0	380.0	<5	<5	29.0	37.0	31.0	170.0	981.0	3.90	3.40		
	11/06/18			Clear	31.10					213.69															
	03/19/19			Clear	28.04					216.75	10.6	2.5	246.0	272.0	2.7	0.4					157.0	702.4	3.34	2.60	
	06/11/19			Clear	27.89					216.90	4.6	0.8	135.0	137.0	<1	<1					120.0	397.4	1.61	2.60	
	09/12/19			Clear	30.40					214.39	9.6	0.7	295.0	154.0	0.8	<1					138.0	607.5	2.29	2.20	
	12/10/19			Clear	33.09					211.70	0.7	1.4	34.1	63.7	1.3	<1					147.0	248.9	0.68	1.30	
	03/18/20			Clear	32.16					212.63	0.9	1.2	62.3	159.0	1.1	<1				7.8	88.4	600.5	1.02	1.30	
	05/27/20			Clear	29.36					215.43	3.4	0.9	227.0	215.0	1.0	<1				27.7	145.0	1339.9	1.43	1.20	
08/27/20	Clear	26.90					217.89	4.7	0.6	205.0	276.0	1.1	0.4					137.0	1345.5	2.02	1.20				
11/24/20	Clear	26.34					218.45	6.9	1.1	163.0	236.0	3.2	0.4					106.0	517.2	1.20	1.20				
02/10/21	Clear	28.31					216.48	2.1	0.7	194.0	297.0	2.2	0.3					129.0	656.1	1.70	1.10				
04/28/21	Clear	27.43					217.36	2.5	0.5	93.1	111.0	0.7	<1					90.5	307.9	0.86	1.10				

Well	Date	Well Elev.	Well Depth	Depth to LNAPL	Depth to Water	LNAPL	Gallons Removed	Cumulative Removed	Corrected Water Elevation	Benzene	Toluene	Ethyl-benzene	m+p-Xylenes	o-Xylenes	MTBE	Cyclo-hexane	Methyl-cyclo-hexane	Cumene	Naphthalene	VOC	GRO	DRO		
																							Feet (ft)	
MW11	04/29/13	246.01	31.70	Clear	27.58				218.43	59.0	4.0	<1	18.0	<1	<1	72.0	54.0	<1	<10	207.0	2.60	0.42		
	08/09/13			Clear	27.84				218.17	17.0	1.0	<1	3.0	<1	<1	25.0	26.0	<1	<10	72.0	1.20	<0.2		
	11/14/13			Clear	28.44				217.57	7.0	<1	<1	<2	<1	<1	7.0	5.0	<1	<10	19.0	0.54	na		
	12/03/13			Clear	27.63				218.38															
	02/06/14			Clear	31.70				214.31															
	02/18/14			Clear	28.04				217.97	3.0	<1	<1	2.0	<1	<1	6.0	<5	<1	<10	11.0	0.74	1.80		
	04/30/14			Clear	27.30				218.71	INSUFFICIENT WATER IN WELL TO SAMPLE														
	06/30/14			Clear	26.98				219.03	<1	<1	<1	10.0	<5	<5	<5	<5	<5	<5	<10	10.0	0.29	0.50	
	07/30/14			Clear	27.31				218.70															
	08/20/14			Clear	27.36				218.65															
	09/08/14			Clear	27.48				218.53	<1	<1	13.0	39.0	10.0	<5	<5	7.0	<5	12.0	81.0	<0.2	<0.22		
	09/15/14			Clear	27.50				218.51															
	09/25/14			Clear	27.57				218.44															
	10/03/14			Clear	27.58				218.43															
	10/15/14			Clear	27.60				218.41															
	10/22/14			Clear	27.66				218.35															
	11/04/14			Clear	27.69				218.32															
	11/13/14			Clear	27.70				218.31															
	11/21/14			Clear	27.74				218.27															
	12/04/14			Clear	27.78				218.23	<1	<1	<1	<5	<5	<5	<5	<5	<5	<5	<10	0.0	<0.2	0.24	
	12/22/14			Clear	27.65				218.36															
	01/05/15			Clear	27.47				218.54															
	01/14/15			Clear	27.52				218.49															
	01/26/15			Clear	27.92				218.09															
	01/30/15			Clear	27.81				218.20															
	02/04/15			Clear	28.03				217.98															
	02/13/15			Clear	27.30				218.71	<1	<1	<1	<5	<5	<5	<5	<5	<5	<5	<5	15.0	15.0	0.37	0.65
	02/26/15			Clear	27.34				218.67															
	03/04/15			Clear	27.42				218.59															
	03/20/15			Clear	26.83				219.18															
	06/01/15			Clear	25.91				220.10															
	06/09/15			Clear	27.04				218.97															
	06/18/15			Clear	27.01				219.00															
	06/30/15			Clear	27.89				218.12	<1	<1	<1	<5	<5	<5	<5	<5	<5	<5	<5	<10	0.0	<0.2	0.38
07/06/15	Clear	26.70				219.31																		
07/17/15	Clear	26.58				219.43																		
08/21/15	Clear	27.02				218.99																		
09/08/15	Clear	27.24				218.77																		
09/25/15	Clear	27.42				218.59																		
10/16/15	Clear	27.04				218.97																		
10/30/15	Clear	27.53				218.48																		
11/05/15	Clear	27.52				218.49																		
11/13/15	Clear	27.58				218.43																		
12/18/15	Clear	27.65				218.36																		
02/26/16	Clear	26.85				219.16																		
06/16/16	Clear	26.85				219.16	<1	<1	<1	<5	<5	<5	<5	<5	<5	<5	<5	<10	0.0	<0.2	<0.2			
07/14/16	Clear	26.85				219.16																		

Well	Date	Well Elev.	Well Depth	Depth to LNAPL	Depth to Water	LNAPL	Gallons Removed	Cumulative Removed	Corrected Water Elevation	Benzene	Toluene	Ethyl-benzene	m+p-Xylenes	o-Xylenes	MTBE	Cyclohexane	Methyl-cyclohexane	Cumene	Naphthalene	VOC	GRO	DRO				
																							Feet (ft)			
MW12	02/22/18	245.23	34.70	Clear	27.13				218.10	<1	<1	<1	<5	<5	<5	<5	<5	<5	<10	0.0	0.40	<0.2				
	03/22/18			Clear	27.16				218.07																	
	03/30/18			Clear	26.73				218.50																	
	04/10/18			Clear	26.62				218.61	<1	<1	<1	<5	<5	<5	<5	<5	<5	<5	<10	0.0	<0.2	<0.2			
	04/24/18			Clear	26.65				218.58																	
	05/29/18			Clear	26.32				218.91																	
	06/13/18			Clear	26.00				219.23																	
	06/18/18			Clear	25.98				219.25																	
	06/28/18			Clear	25.96				219.27																	
	07/03/18			Clear	25.98				219.25	<1	<1	<1	<5	<5	<5	<5	<5	<5	<5	<5	<10	0.0	<0.2	<0.2		
	07/12/18			Clear	26.24				218.99																	
	07/25/18			Clear	26.20				219.03																	
	08/06/18			Clear	25.76				219.47																	
	08/31/18			Clear	25.93				219.30																	
	09/26/18			Clear	25.65				219.58																	
	10/08/18			Clear	25.90				219.33	<1	<1	3.0	<5	<5	<5	<5	<5	<5	<5	<5	<10	3.0	<0.2	<0.2		
	11/06/18			Clear	25.60				219.63																	
	03/19/19			Clear	26.02				219.21	<1	<1	0.5	<2	<1	<1						<2	0.5	<0.2	<0.099		
	06/11/19			Clear	26.24				218.99	<1	<1	<1	<2	<1	<1						<2	0.0	<0.2	0.06		
	09/12/19			Clear	26.68				218.55	<1	<1	<1	<2	<1	<1						<2	0.0	<0.2	0.10		
12/10/19	Clear	26.94				218.29	<1	<1	<1	<2	<1	<1						<2	0.0	<0.2	<0.1					
03/18/20	Clear	26.75				218.48	<1	<1	<1	<2	<1	<1						<2	0.0	<0.2	0.17					
05/27/20	Clear	26.28				218.95	<1	<1	<1	<2	<1	<1						<2	0.0	<0.2	0.09					
08/27/20	Clear	25.65				219.58	<1	<1	23.0	35.7	34.1	<1						9.5	155.9	0.17	0.12					
11/24/20	Clear	25.69				219.54	<1	<1	<1	<2	<1	<1						<2	0.0	<0.2	0.07					
02/10/21	Clear	26.68				218.55	<1	<1	<1	<2	<1	<1						<2	0.0	<0.2	0.08					
04/28/21	Clear	26.54				218.69	<1	<1	<1	<2	<1	<1						<2	0.0	<0.2	<0.11					
TF13	04/29/13	243.63	11.10	Clear	10.76				232.87	100.0	1300.0	210.0	880.0	490.0	<10	<50	<50	46.0	160.0	3186.0	13.00	na				
	07/30/14			Clear	11.02				232.61																	
	02/26/15			na	Dry					na																

Well	Date	Well Elev.	Well Depth	Depth to LNAPL	Depth to Water	LNAPL	Gallons Removed	Cumulative Removed	Corrected Water Elevation	Benzene	Toluene	Ethyl-benzene	m+p-Xylenes	o-Xylenes	MTBE	Cyclohexane	Methylcyclohexane	Cumene	Naphthalene	VOC	GRO	DRO			
						Feet (ft)										Micrograms Per Liter (µg/l)						Milligrams per Liter (mg/l)			
MW15	03/22/18	243.47	43.65	Clear	34.58				208.89																
	03/30/18			Clear	33.21						210.26														
	04/10/18			Clear	33.08						210.39	590.0	67.0	380.0	870.0	<50	<50	<50	<50	<50	300.0	2207.0	4.70	6.60	
	04/24/18			Clear	33.38						210.09														
	05/29/18			Clear	32.72						210.75														
	06/13/18			Clear	32.20						211.27														
	06/18/18			Clear	32.13						211.34														
	06/28/18			Clear	31.96						211.51														
	07/03/18			Clear	32.10						211.37	580.0	71.0	610.0	470.0	<25	<25	38.0	<25	<25	220.0	2429.0	10.00	4.80	
	07/12/18			Clear	32.35						211.12														
	07/25/18			Clear	32.67						210.80														
	08/06/18			Clear	30.72						212.75														
	08/31/18			Clear	32.45						211.02														
	09/26/18			Clear	32.38						211.09														
	10/08/18			Clear	31.96						211.51	510.0	290.0	690.0	430.0	79.0	<10	31.0	20.0	24.0	240.0	2574.0	5.40	3.80	
	11/06/18			Clear	30.90						212.57														
	03/19/19			Clear	30.61						212.86	572.0	1060.0	676.0	860.0	324.0	5.3					189.0	3760.3	10.70	6.20
	06/11/19			Clear	31.13						212.34	865.0	505.0	1230.0	961.0	203.0	8.4					193.0	4015.8	10.70	4.20
	09/12/19			Clear	31.56						211.91	581.0	78.5	1060.0	127.0	33.0	7.7					43.2	3230.5	6.20	8.50
	12/10/19			Clear	33.70						209.77	1140.0	3900.0	1910.0	4080.0	1450.0	8.6					378.0	12987.1	29.60	6.30
	03/18/20			Clear	33.63						209.84	673.0	2110.0	1100.0	1830.0	724.0	6.8				46.1	273.0	7795.4	16.60	6.30
	05/27/20			Clear	31.92						211.55	622.0	1080.0	554.0	962.0	615.0	8.2				18.7	184.0	4906.6	6.60	5.20
	08/27/20			Clear	31.82						211.65	564.0	1210.0	723.0	943.0	512.0	5.5					129.0	4762.0	8.35	5.90
	11/24/20			Clear	31.64						211.83	184.0	417.0	273.0	796.0	395.0	3.5					92.4	2285.6	4.96	3.10
	02/10/21			Clear	30.69						212.78	208.0	70.9	76.9	145.0	110.0	3.0					19.8	714.4	1.68	3.90
	04/28/21			Clear	29.53						213.94	481.0	519.0	798.0	553.0	281.0	3.1					73.5	2788.3	5.39	4.00

Well	Date	Well Elev.	Well Depth	Depth to LNAPL	Depth to Water	LNAPL	Gallons Removed	Cumulative Removed	Corrected Water Elevation	Benzene	Toluene	Ethyl-benzene	m+p-Xylenes	o-Xylenes	MTBE	Cyclohexane	Methyl-cyclohexane	Cumene	Naphthalene	VOC	GRO	DRO				
										Feet (ft)										Micrograms Per Liter (µg/l)						
MW16	05/29/18	244.38	34.10	Clear	25.09				219.29																	
	06/13/18			Clear	24.75					219.63																
	06/18/18			Clear	24.75					219.63																
	06/28/18			Clear	24.68					219.70																
	07/03/18			Clear	24.75					219.63	<1	<1	<1	<5	<5	<5	<5	<5	<5	<5	<10	0.0	1.30	0.37		
	07/12/18			Clear	24.82					219.56																
	07/25/18			Clear	24.90					219.48																
	08/06/18			Clear	24.30					220.08																
	08/31/18			Clear	24.53					219.85																
	09/26/18			Clear	24.68					219.70																
	10/08/18			Clear	24.50					219.88	<1	<1	3.0	<5	<5	<5	<5	<5	<5	<5	<10	3.0	<0.2	<0.2		
	11/06/18			Clear	24.59					219.79																
	03/19/19			Clear	24.60					219.78	<1	0.3	<1	1.3	<1	<1					1.6	3.2	1.41	0.39		
	06/11/19			Clear	24.93					219.45	<1	<1	<1	<2	<1	<1						<2	0.5	1.46	0.63	
	09/12/19			Clear	25.40					218.98	<1	<1	<1	<2	<1	<1						<2	6.4	0.94	1.30	
	12/10/19			Clear	25.88					218.50	<1	0.4	<1	<2	<1	<1						<2	2.6	1.40	0.43	
	03/18/20			Clear	25.49					218.89	<1	<1	<1	<2	<1	<1						<2	18.6	0.40	0.44	
	05/27/20			Clear	25.05					219.33	<1	<1	<1	<2	<1	<1						<2	0.7	0.68	0.41	
	08/27/20			Clear	24.65					219.73	<1	<1	<1	<2	<1	<1						<2	14.9	0.67	0.34	
	11/24/20			Clear	24.60					219.78	<1	<1	<1	<2	<1	<1						<2	0.5	0.55	0.41	
02/10/21	Clear	25.18					219.20	<1	<1	<1	<2	<1	<1						<2	15.3	0.92	0.22				
04/28/21	Clear	24.94					219.44	<1	<1	<1	<2	<1	<1						<2	0.0	0.51	0.45				
Station Supply Well	12/06/12	245.00	460.00		205.00				40.00	<0.5	<0.5	<0.5	<1	<0.5	<0.5	na	na	<0.5	<0.5	ND	na	na				
	04/29/13									<0.5	<0.5	<0.5	<1	<0.5	<0.5	na	na	<0.5	<0.5	ND	na	na				
	11/14/13									<0.5	<0.5	<0.5	<1	<0.5	<0.5	na	na	<0.5	<0.5	ND	na	na				
	02/06/14									<0.5	<0.5	<0.5	<1	<0.5	<0.5	na	na	<0.5	<0.5	ND	na	na				
	04/30/14									<0.5	<0.5	<0.5	<1	<0.5	<0.5	na	na	<0.5	<0.5	ND	na	na				
	09/08/14									<0.5	<0.5	<0.5	<1	<0.5	<0.5	na	na	<0.5	<0.5	ND	na	na				
	09/12/19									<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	na	na	<0.5	<0.5	ND	na	na				
	12/10/19									<0.5	10.7	<0.5	<0.5	<0.5	<0.5	na	na	<0.5	12.6	na	na					
	03/27/20									<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	na	na	<0.5	ND	na	na					
	05/27/20									<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	na	na	<0.5	1.3	na	na					
	08/27/20									<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	na	na	<0.5	ND	na	na					
	11/24/20									<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	na	na	<0.5	4.0	na	na					
	02/10/21									<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	na	na	<0.5	ND	na	na					
	04/28/21									<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	na	na	<0.5	0.8	na	na					
Station Spigot	12/10/19									8.7	<0.5	<0.5	<0.5	na	na	na	na	<0.5	11.5	na	na					
	03/27/20									<0.5	<0.5	<0.5	<0.5	na	na	na	na	<0.5	ND	na	na					
Station Car Wash	12/20/13	MUNICIPAL SUPPLY								<0.5	<0.5	<0.5	<1	<0.5	<0.5	na	na	<0.5	<0.5	ND	na	na				
	04/30/14									<0.5	<0.5	<0.5	<1	<0.5	<0.5	na	na	<0.5	<0.5	ND	na	na				
	09/08/14									<0.5	<0.5	<0.5	<1	<0.5	<0.5	na	na	<0.5	<0.5	ND	na	na				
KinderCare	06/05/13	255.00	362.00		190.00				65.00	<0.5	<0.5	<0.5	<1	<0.5	<0.5	na	na	<0.5	<0.5	ND	na	na				
	09/25/19									<0.5	<0.5	<0.5	<1	<0.5	<0.5	na	na	<0.5	<0.5	ND	na	na				
Ridgeview 1	01/14/14	241.00	485.00		200.00				41.00	<0.5	<0.5	<0.5	<1	<0.5	<0.5	na	na	<0.5	<0.5	ND	na	na				
Ridgeview 2	01/14/14	241.00	466.00		200.00				41.00	<0.5	<0.5	<0.5	<1	<0.5	<0.5	na	na	<0.5	<0.5	ND	na	na				

MANN-KENDALL ANALYSES & GRAPHS



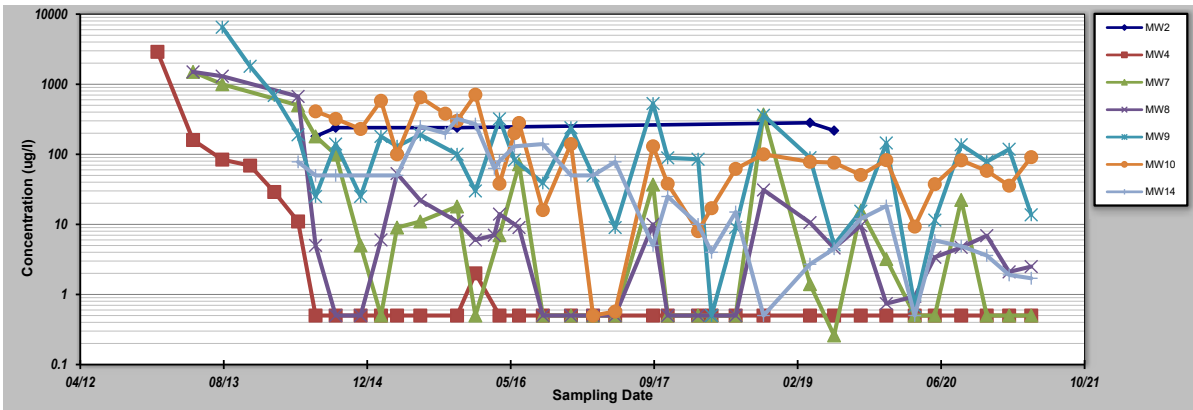
GSI MANN-KENDALL TOOLKIT for Constituent Trend Analysis

Evaluation Date: 27-May	Job ID: 190292M
Facility Name: SMO Hanover	Constituent: BENZENE
Conducted By: Doug Hamilton/ARM Group	Concentration Units: ug/l

Sampling Point ID:	MW2	MW4	MW7	MW8	MW9	MW10	MW14
--------------------	------------	------------	------------	------------	------------	-------------	-------------

Sampling Event	Sampling Date	BENZENE CONCENTRATION (ug/l)						
		MW2	MW4	MW7	MW8	MW9	MW10	MW14
1	26-Dec-12		2900					
2	29-Apr-13		160	1500	1500			
3	9-Aug-13		84	1000	1300	6500		
4	14-Nov-13		69			1800		
5	6-Feb-14		29			690		
6	30-Apr-14		11	500	670	190		78
7	30-Jun-14	180	0.5	180	5	25	410	50
8	8-Sep-14	240	0.5	99	0.5	140	320	50
9	4-Dec-14		0.5	5	0.5	25	230	
10	13-Feb-15		0.5	0.5	6	180	580	
11	10-Apr-15		0.5	9	53	130	100	50
12	30-Jun-15		0.5	11	22	190	650	250
13	25-Sep-15						380	200
14	5-Nov-15	240	0.5	18	11	100	300	320
15	8-Jan-16		2	0.5	6	30	710	270
16	14-Mar-16				7			63
17	1-Apr-16		0.5	7	14	320	38	80
18	23-May-16				10	83	200	130
19	8-Jun-16		0.5	72	9		280	
20	30-Aug-16		0.5	0.5	0.5	39	16	140
21	6-Dec-16		0.5	0.5	0.5	240	140	50
22	21-Feb-17		0.5	0.5	0.5	50	0.5	50
23	9-May-17		0.5	0.5	0.5	9	0.57	78
24	18-Sep-17		0.5	37	10	530	130	5
25	8-Nov-17		0.5	0.5	0.5	89	38	25
26	22-Feb-18		0.5	0.5	0.5	85	8	10
27	10-Apr-18		0.5	0.5	0.5	0.5	17	4
28	3-Jul-18		0.5	0.5	0.5	9	62	15
29	8-Oct-18		0.5	370	31	360	100	0.5
30	19-Mar-19	282	0.5	1.4	10.6	89.5	78.2	2.7
31	11-Jun-19	218	0.5	0.26	4.6	5.1	76	4.5
32	12-Sep-19		0.5	15.6	9.6	15.4	50.7	12
33	10-Dec-19		0.5	3.2	0.74	145	82.6	18.3
34	18-Mar-20		0.5	0.5	18	0.94	0.68	9.3
35	27-May-20		0.5	0.5	3.4	11.5	37.5	5.9
36	27-Aug-20		0.5	22.3	4.7	137	82.1	4.9
37	24-Nov-20		0.5	0.5	6.9	78.5	58.1	3.6
38	10-Feb-21		0.5	0.5	2.1	118	35.7	1.9
39	28-Apr-21		0.5	0.5	2.5	13.7	91.1	1.7
40								

Coefficient of Variation:	0.16	5.31	2.72	3.24	3.09	1.17	1.36
Mann-Kendall Statistic (S):	3	-210	-197	-136	-184	-196	-277
Confidence Factor:	67.5%	99.8%	99.9%	97.3%	99.7%	99.9%	>99.9%
Concentration Trend:	No Trend	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

DISCLAIMER: The GSI Mann-Kendall Toolkit is available "as is". Considerable care has been exercised in preparing this software product; however, no party, including without limitation GSI Environmental Inc., makes any representation or warranty regarding the accuracy, correctness, or completeness of the information contained herein, and no such party shall be liable for any direct, indirect, consequential, incidental or other damages resulting from the use of this product or the information contained herein. Information in this publication is subject to change without notice. GSI Environmental Inc., disclaims any responsibility or obligation to update the information contained herein.

GSI MANN-KENDALL TOOLKIT

for Constituent Trend Analysis

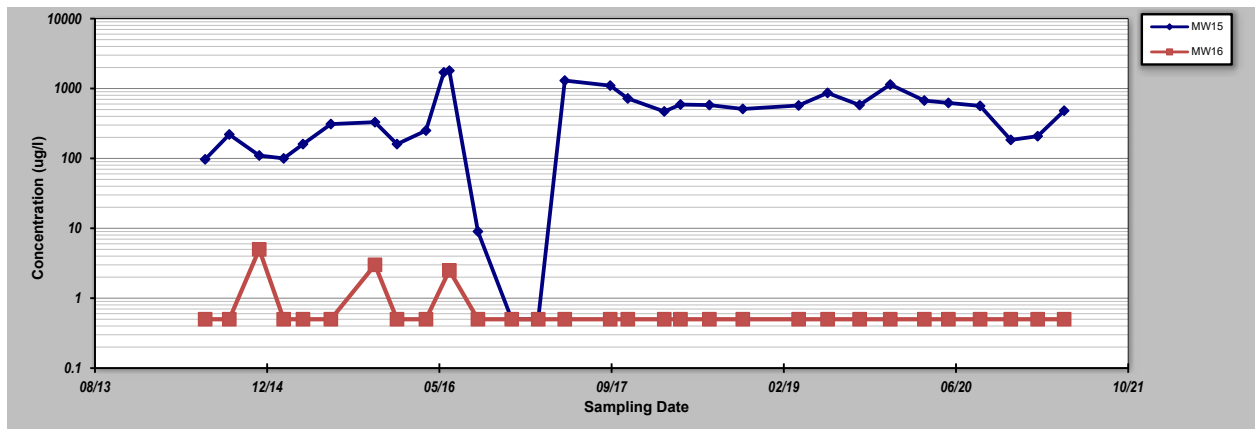
Evaluation Date:
 Facility Name: **SMO Hanover**
 Conducted By: **Doug Hamilton/ARM Group**

Job ID: **190292M**
 Constituent: **BENZENE**
 Concentration Units: **ug/l**

Sampling Point ID: **MW15** **MW16**

Sampling Event	Sampling Date	BENZENE CONCENTRATION (ug/l)	
		MW15	MW16
1	30-Jun-14	97	0.5
2	8-Sep-14	220	0.5
3	4-Dec-14	110	5
4	13-Feb-15	100	0.5
5	10-Apr-15	160	0.5
6	30-Jun-15	310	0.5
7	5-Nov-15	330	3
8	8-Jan-16	160	0.5
9	1-Apr-16	250	0.5
10	23-May-16	1700	
11	8-Jun-16	1800	2.5
12	30-Aug-16	9	0.5
13	6-Dec-16	0.5	0.5
14	21-Feb-17	0.5	0.5
15	9-May-17	1300	0.5
16	18-Sep-17	1100	0.5
17	8-Nov-17	720	0.5
18	22-Feb-18	470	0.5
19	10-Apr-18	590	0.5
20	3-Jul-18	580	0.5
21	8-Oct-18	510	0.5
22	19-Mar-19	572	0.5
23	11-Jun-19	865	0.5
24	12-Sep-19	581	0.5
25	10-Dec-19	1140	0.5
26	18-Mar-20	673	0.5
27	27-May-20	622	0.5
28	27-Aug-20	564	0.5
29	24-Nov-20	184	0.5
30	10-Feb-21	208	0.5
31	28-Apr-21	481	0.5
32			
33			
34			
35			

Coefficient of Variation:	0.89	1.21
Mann-Kendall Statistic (S):	80	-65
Confidence Factor:	87.8%	83.8%
Concentration Trend:	No Trend	No Trend



Notes:

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

DISCLAIMER: The GSI Mann-Kendall Toolkit is available "as is". Considerable care has been exercised in preparing this software product; however, no party, including without limitation GSI Environmental Inc., makes any representation or warranty regarding the accuracy, correctness, or completeness of the information contained herein, and no such party shall be liable for any direct, indirect, consequential, incidental or other damages resulting from the use of this product or the information contained herein. Information in this publication is subject to change without notice. GSI Environmental Inc., disclaims any responsibility or obligation to update the information contained herein.

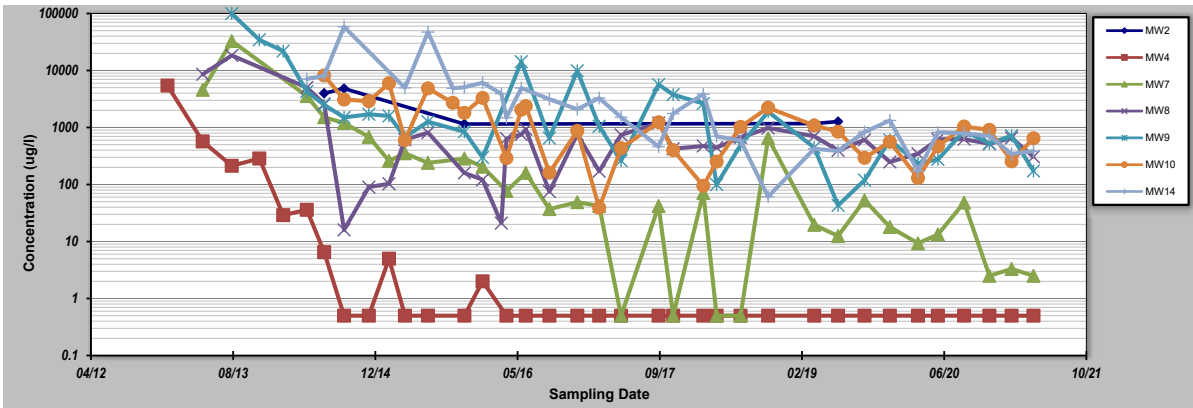
GSI MANN-KENDALL TOOLKIT for Constituent Trend Analysis

Evaluation Date:	Job ID: 190292M
Facility Name: SMO Hanover	Constituent: VOC
Conducted By: Doug Hamilton/ARM Group	Concentration Units: ug/l

Sampling Point ID:	MW2	MW4	MW7	MW8	MW9	MW10	MW14
--------------------	------------	------------	------------	------------	------------	-------------	-------------

Sampling Event	Sampling Date	VOC CONCENTRATION (ug/l)						
		MW2	MW4	MW7	MW8	MW9	MW10	MW14
1	26-Dec-12		5447					
2	29-Apr-13		570		4580		8590	
3	9-Aug-13		213		32860		18370	99480
4	14-Nov-13		286					34598
5	6-Feb-14		29					21894
6	30-Apr-14		36		3564		5026	4297
7	30-Jun-14	3989	6.5	1512	2595	2495	8190	8150
8	8-Sep-14	4823	0.5	1202	16	1500	3090	58500
9	4-Dec-14		0.5	684	90	1705	2900	
10	13-Feb-15		5	260	103	1596	5960	
11	10-Apr-15		0.5	353	611	681	600	4960
12	30-Jun-15		0.5	240	813	1265	4870	47190
13	25-Sep-15						2712	4872
14	5-Nov-15	1151	0.5	285	160	843	1807	5080
15	8-Jan-16		2	205	121	298	3310	6110
16	14-Mar-16				21			3902
17	1-Apr-16		0.5	77	641		290	1486
18	23-May-16				752	14283	2050	4930
19	8-Jun-16		0.5	160	930		2380	
20	30-Aug-16		0.5	37	75	652	161	3136
21	6-Dec-16		0.5	49	761	9900	875	2090
22	21-Feb-17		0.5	42	171	1050	39	3280
23	9-May-17		0.5	0.5	742	262	434	1513
24	18-Sep-17		0.5	42	1198	5670	1236	461
25	8-Nov-17		0.5	0.5	424	3769	401	1756
26	22-Feb-18		0.5	71	474	2633	95	3860
27	10-Apr-18		0.5	0.5	444	100	252	699
28	3-Jul-18		0.5	0.5	666	490	1026	593
29	8-Oct-18		0.5	651	981	1890	2228	61
30	19-Mar-19	1171	0.5	19.6	702	445	1084	424
31	11-Jun-19	1273	0.5	12.5	397	43	844	387
32	12-Sep-19		0.5	53	608	119	293	835
33	10-Dec-19		0.5	18	249	605	560	1326
34	18-Mar-20		0.5	9.3	346	234	130	171
35	27-May-20		0.5	13.3	621	276	468	821
36	27-Aug-20		0.5	48.2	625	871	1040	788
37	24-Nov-20		0.5	2.5	517	527	910	714
38	10-Feb-21		0.5	3.3	656	717	255	345
39	28-Apr-21		0.5	2.5	307	173	647	385
40								

Coefficient of Variation:	0.72	4.95	4.02	2.36	2.78	1.17	2.27
Mann-Kendall Statistic (S):	-2	-261	-342	-51	-258	-198	-317
Confidence Factor:	59.2%	>99.9%	>99.9%	76.0%	>99.9%	99.9%	>99.9%
Concentration Trend:	Stable	Decreasing	Decreasing	No Trend	Decreasing	Decreasing	Decreasing



- Notes:**
- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
 - Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
 - Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

DISCLAIMER: The GSI Mann-Kendall Toolkit is available "as is". Considerable care has been exercised in preparing this software product; however, no party, including without limitation GSI Environmental Inc., makes any representation or warranty regarding the accuracy, correctness, or completeness of the information contained herein, and no such party shall be liable for any direct, indirect, consequential, incidental or other damages resulting from the use of this product or the information contained herein. Information in this publication is subject to change without notice. GSI Environmental Inc., disclaims any responsibility or obligation to update the information contained herein.

GSI Environmental Inc., www.gsi-net.com

GSI MANN-KENDALL TOOLKIT

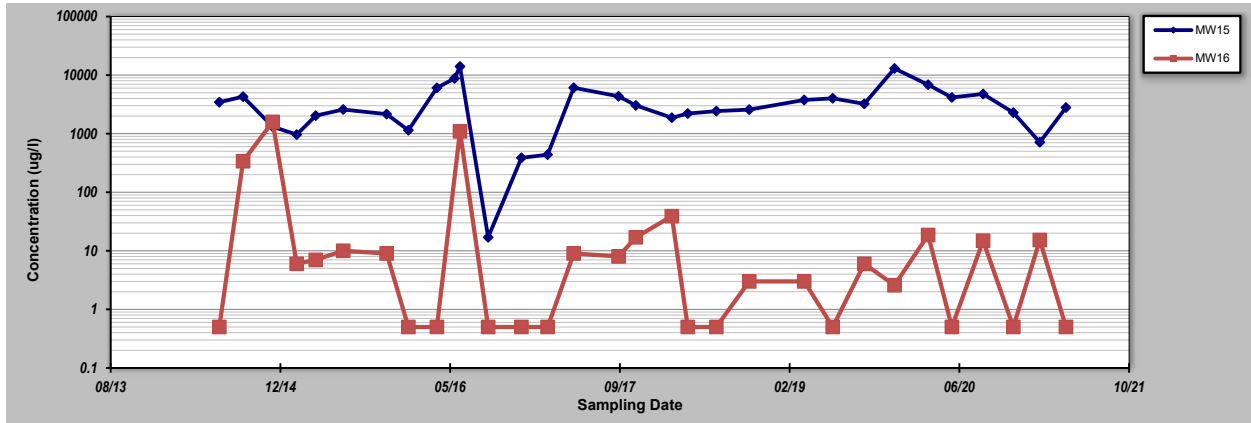
for Constituent Trend Analysis

Evaluation Date: <input type="text"/>	Job ID: 190292M
Facility Name: SMO Hanover	Constituent: VOC
Conducted By: Doug Hamilton/ARM Group	Concentration Units: ug/l

Sampling Point ID: MW15	MW16		
--------------------------------	-------------	--	--

Sampling Event	Sampling Date	VOC CONCENTRATION (ug/l)					
		MW15	MW16				
1	30-Jun-14	3447	0.5				
2	8-Sep-14	4283	338				
3	4-Dec-14	1318	1590				
4	13-Feb-15	964	6				
5	10-Apr-15	2031	7				
6	30-Jun-15	2586	10				
7	5-Nov-15	2158	9				
8	8-Jan-16	1144	0.5				
9	1-Apr-16	6053	0.5				
10	23-May-16	8792					
11	8-Jun-16	14023	1096				
12	30-Aug-16	17	0.5				
13	6-Dec-16	387	0.5				
14	21-Feb-17	438	0.5				
15	9-May-17	6079	9				
16	18-Sep-17	4350	8				
17	8-Nov-17	3039	17				
18	22-Feb-18	1871	39				
19	10-Apr-18	2207	0.5				
20	3-Jul-18	2429	0.5				
21	8-Oct-18	2574	3				
22	19-Mar-19	3760	3				
23	11-Jun-19	4015	0.5				
24	12-Sep-19	3230	6				
25	10-Dec-19	12987	2.58				
26	18-Mar-20	6849	18.6				
27	27-May-20	4158	0.5				
28	27-Aug-20	4762	14.9				
29	24-Nov-20	2285	0.5				
30	10-Feb-21	714	15.3				
31	28-Apr-21	2788	0.5				
32							
33							
34							
35							

Coefficient of Variation:	0.88	3.39				
Mann-Kendall Statistic (S):	44	-33				
Confidence Factor:	73.7%	68.9%				
Concentration Trend:	No Trend	No Trend				



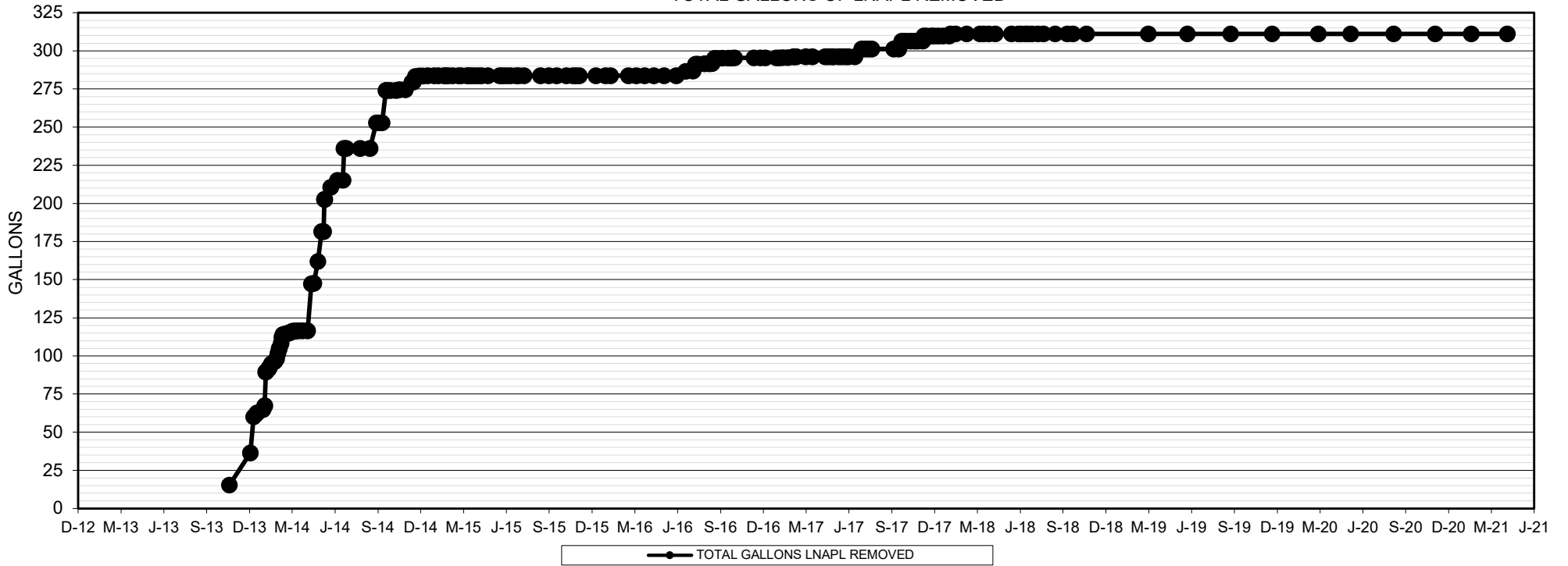
- Notes:**
- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
 - Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
 - Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

DISCLAIMER: The GSI Mann-Kendall Toolkit is available "as is". Considerable care has been exercised in preparing this software product; however, no party, including without limitation GSI Environmental Inc., makes any representation or warranty regarding the accuracy, correctness, or completeness of the information contained herein, and no such party shall be liable for any direct, indirect, consequential, incidental or other damages resulting from the use of this product or the information contained herein. Information in this publication is subject to change without notice. GSI Environmental Inc., disclaims any responsibility or obligation to update the information contained herein.
 GSI Environmental Inc., www.gsi-net.com

PETROLEUM RECOVERY GRAPH & DATABASE



TOTAL GALLONS OF LNAPL REMOVED



04/24/17	0.00																		0.0	0.0	0.00	4.77
05/01/17	0.00																		0.0	0.0	0.00	4.77
05/09/17	0.00																		0.0	0.0	0.00	4.77
05/12/17	0.00																		0.0	0.0	0.00	4.77
05/23/17	0.00																		0.0	0.0	0.00	4.77
05/30/17	0.00																		0.0	0.0	0.00	4.77
06/07/17	0.00																		0.0	0.0	0.00	4.77
06/13/17	0.00																		0.0	0.0	0.00	4.77
06/27/17	0.00																		0.0	0.0	0.00	4.77
07/11/17	0.00																		0.0	0.0	0.00	4.77
07/19/17	0.00																		0.0	0.0	0.00	4.77
07/27/17	0.00																		0.0	0.0	0.00	4.77
08/02/17	0.00																		0.0	0.0	0.00	4.77
09/18/17	0.00																		0.0	0.0	0.00	4.77
09/29/17	0.00																		0.0	0.0	0.00	4.77
10/09/17	0.00																		0.0	0.0	0.00	4.77
10/16/17	0.00																		0.0	0.0	0.00	4.77
10/25/17	0.00																		0.0	0.0	0.00	4.77
11/02/17	0.00																		0.0	0.0	0.00	4.77
11/08/17	0.00																		0.0	0.0	0.00	4.77
11/20/17	0.00																		0.0	0.0	0.00	4.77
11/22/17	0.00																		0.0	0.0	0.00	4.77
11/27/17	0.00																		0.0	0.0	0.00	4.77
12/08/17	0.00																		0.0	0.0	0.00	4.77
12/13/17	0.00																		0.0	0.0	0.00	4.77
12/22/17	0.00																		0.0	0.0	0.00	4.77
01/02/18	0.00																		0.0	0.0	0.00	4.77
01/15/18	0.00																		0.0	0.0	0.00	4.77
01/29/18	0.00																		0.0	0.0	0.00	4.77
02/22/18	0.00																		0.0	0.0	0.00	4.77
03/22/18	0.00																		0.0	0.0	0.00	4.77
03/30/18	0.00																		0.0	0.0	0.00	4.77
04/10/18	0.00																		0.0	0.0	0.00	4.77
04/24/18	0.00																		0.0	0.0	0.00	4.77
05/29/18	0.00																		0.0	0.0	0.00	4.77
06/13/18	0.00																		0.0	0.0	0.00	4.77
06/18/18	0.00																		0.0	0.0	0.00	4.77
06/28/18	0.00																		0.0	0.0	0.00	4.77
07/03/18	0.00																		0.0	0.0	0.00	4.77
07/12/18	0.00																		0.0	0.0	0.00	4.77
07/25/18	0.00																		0.0	0.0	0.00	4.77
08/06/18	0.00																		0.0	0.0	0.00	4.77
08/31/18	0.00																		0.0	0.0	0.00	4.77
09/26/18	0.00																		0.0	0.0	0.00	4.77
10/08/18	0.00																		0.0	0.0	0.00	4.77
11/06/18	0.00																		0.0	0.0	0.00	4.77
03/19/19	0.00																		0.0	0.0	0.00	4.77
06/11/19	0.00																		0.0	0.0	0.00	4.77
09/12/19	0.00																		0.0	0.0	0.00	4.77
12/10/19	0.00																		0.0	0.0	0.00	4.77
03/18/20	0.00																		0.0	0.0	0.00	4.77
05/27/20	0.00																		0.0	0.0	0.00	4.77
08/27/20	0.00																		0.0	0.0	0.00	4.77
11/24/20	0.00																		0.0	0.0	0.00	4.77
02/10/21	0.00																		0.0	0.0	0.00	4.77
04/28/21	0.00																		0.0	0.0	0.00	4.77
																				TOTAL GALLONS OF LNAPL REMOVED BY BAILING		4.77

**MONITORING WELL
LABORATORY REPORT OF ANALYSIS
APRIL 2021**





Pace Analytical Services, LLC
 1638 Roseytown Road - Suites 2,3,4
 Greensburg, PA 15601
 (724)850-5600

May 11, 2021

Mr. Eric S. Magdar
 ARM Group Inc.
 9175 Guilford Road
 Suite 310
 Columbia, MD 21046

RE: Project: SMO-HANOVER-190292M-1
 Pace Project No.: 30418246

Dear Mr. Magdar:

Enclosed are the analytical results for sample(s) received by the laboratory on April 29, 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 - Long Island
- Pace Analytical Services - Greensburg

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

Sincerely,

Samantha Bayura
 samantha.bayura@pacelabs.com
 (724)850-5622
 Project Manager

Enclosures

cc: Mr. Stewart Kabis, ARM Group Inc.



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, LLC.



Pace Analytical Services, LLC
 1638 Roseytown Road - Suites 2,3,4
 Greensburg, PA 15601
 (724)850-5600

CERTIFICATIONS

Project: SMO-HANOVER-190292M-1
 Pace Project No.: 30418246

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
 ANAB DOD-ELAP Rad Accreditation #: L2417
 Alabama Certification #: 41590
 Arizona Certification #: AZ0734
 Arkansas Certification
 California Certification #: 04222CA
 Colorado Certification #: PA01547
 Connecticut Certification #: PH-0694
 Delaware Certification
 EPA Region 4 DW Rad
 Florida/TNI Certification #: E87683
 Georgia Certification #: C040
 Florida: Cert E871149 SEKS WET
 Guam Certification
 Hawaii Certification
 Idaho Certification
 Illinois Certification
 Indiana Certification
 Iowa Certification #: 391
 Kansas/TNI Certification #: E-10358
 Kentucky Certification #: KY90133
 KY WW Permit #: KY0098221
 KY WW Permit #: KY0000221
 Louisiana DHH/TNI Certification #: LA180012
 Louisiana DEQ/TNI Certification #: 4086
 Maine Certification #: 2017020
 Maryland Certification #: 308
 Massachusetts Certification #: M-PA1457
 Michigan/PADEP Certification #: 9991

Missouri Certification #: 235
 Montana Certification #: Cert0082
 Nebraska Certification #: NE-OS-29-14
 Nevada Certification #: PA014572018-1
 New Hampshire/TNI Certification #: 297617
 New Jersey/TNI Certification #: PA051
 New Mexico Certification #: PA01457
 New York/TNI Certification #: 10888
 North Carolina Certification #: 42706
 North Dakota Certification #: R-190
 Ohio EPA Rad Approval: #41249
 Oregon/TNI Certification #: PA200002-010
 Pennsylvania/TNI Certification #: 65-00282
 Puerto Rico Certification #: PA01457
 Rhode Island Certification #: 65-00282
 South Dakota Certification
 Tennessee Certification #: 02867
 Texas/TNI Certification #: T104704188-17-3
 Utah/TNI Certification #: PA014572017-9
 USDA Soil Permit #: P330-17-00091
 Vermont Dept. of Health: ID# VT-0282
 Virgin Island/PADEP Certification
 Virginia/VELAP Certification #: 9526
 Washington Certification #: C868
 West Virginia DEP Certification #: 143
 West Virginia DHRH Certification #: 9964C
 Wisconsin Approve List for Rad
 Wyoming Certification #: 8TMS-L

Pace Analytical Services Long Island

Delaware Certification # NY10478
 Virginia Certification # 460302
 Delaware Certification # NY10478
 575 Broad Hollow Rd, Melville, NY 11747
 New York Certification #: 10478 Primary Accrediting Body
 New Jersey Certification #: NY158

Pennsylvania Certification #: 68-00350
 Connecticut Certification #: PH-0435
 Maryland Certification #: 208
 Rhode Island Certification #: LAO00340
 Massachusetts Certification #: M-NY026
 New Hampshire Certification #: 2987

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, LLC.



Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

SAMPLE SUMMARY

Project: SMO-HANOVER-190292M-1
Pace Project No.: 30418246

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30418246001	MW-1	Water	04/28/21 09:20	04/29/21 22:30
30418246002	MW-4	Water	04/28/21 10:08	04/29/21 22:30
30418246003	MW-7	Water	04/28/21 10:41	04/29/21 22:30
30418246004	MW-8	Water	04/28/21 13:42	04/29/21 22:30
30418246005	MW-9	Water	04/28/21 11:10	04/29/21 22:30
30418246006	MW-10	Water	04/28/21 14:20	04/29/21 22:30
30418246007	MW-12	Water	04/28/21 13:27	04/29/21 22:30
30418246008	MW-14	Water	04/28/21 13:58	04/29/21 22:30
30418246009	MW-15	Water	04/28/21 14:32	04/29/21 22:30
30418246010	MW-16	Water	04/28/21 09:50	04/29/21 22:30
30418246011	Outside Spigot	Drinking Water	04/28/21 12:45	04/29/21 22:30
30418246012	trip Blank	Water	04/28/21 12:45	04/29/21 22:30

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

SAMPLE ANALYTE COUNT

Project: SMO-HANOVER-190292M-1
Pace Project No.: 30418246

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30418246001	MW-1	EPA 8015D	SEL	2	PASI-PA
		EPA 5030/8015B	LEL	2	PASI-PA
30418246002	MW-4	EPA 8260B	LEL	54	PASI-PA
		EPA 8015D	SEL	2	PASI-PA
30418246003	MW-7	EPA 5030/8015B	LEL	2	PASI-PA
		EPA 8260B	LEL	54	PASI-PA
30418246004	MW-8	EPA 8015D	SEL	2	PASI-PA
		EPA 5030/8015B	LEL	2	PASI-PA
30418246005	MW-9	EPA 8260B	LEL	54	PASI-PA
		EPA 8015D	SEL	2	PASI-PA
30418246006	MW-10	EPA 5030/8015B	LEL	2	PASI-PA
		EPA 8260B	LEL	54	PASI-PA
30418246007	MW-12	EPA 8015D	SEL	2	PASI-PA
		EPA 5030/8015B	LEL	2	PASI-PA
30418246008	MW-14	EPA 8260B	LEL	54	PASI-PA
		EPA 8015D	SEL	2	PASI-PA
30418246009	MW-15	EPA 5030/8015B	LEL	2	PASI-PA
		EPA 8260B	LEL	54	PASI-PA
30418246010	MW-16	EPA 8015D	SEL	2	PASI-PA
		EPA 5030/8015B	LEL	2	PASI-PA
30418246011	Outside Spigot	EPA 524.2	KGG	62	PASI-MV
30418246012	trip Blank	EPA 8260B	LEL	54	PASI-PA

PASI-MV = Pace Analytical Services - Long Island
PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



Pace Analytical Services, LLC
 1638 Roseytown Road - Suites 2,3,4
 Greensburg, PA 15601
 (724)850-5600

PROJECT NARRATIVE

Project: SMO-HANOVER-190292M-1
 Pace Project No.: 30418246

Method: EPA 8015D
Description: 8015D TPH Reduced Volume
Client: ARM Group Inc.
Date: May 11, 2021

General Information:
 10 samples were analyzed for EPA 8015D by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
 The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
 The samples were prepared in accordance with EPA 3510C with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
 All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
 All criteria were within method requirements with any exceptions noted below.

Surrogates:
 All surrogates were within QC limits with any exceptions noted below.

Method Blank:
 All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
 All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
 All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, LLC.



Pace Analytical Services, LLC
 1638 Roseytown Road - Suites 2,3,4
 Greensburg, PA 15601
 (724)850-5600

PROJECT NARRATIVE

Project: SMO-HANOVER-190292M-1
 Pace Project No.: 30418246

Method: EPA 5030/8015B
Description: Gasoline Range Organics
Client: ARM Group Inc.
Date: May 11, 2021

General Information:
 10 samples were analyzed for EPA 5030/8015B by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
 The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
 All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
 All criteria were within method requirements with any exceptions noted below.

Surrogates:
 All surrogates were within QC limits with any exceptions noted below.

Method Blank:
 All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
 All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
 All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
 without the written consent of Pace Analytical Services, LLC.



Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: SMO-HANOVER-190292M-1
Pace Project No.: 30418246

Method: EPA 524.2
Description: 524.2 MSV
Client: ARM Group Inc.
Date: May 11, 2021

General Information:

1 sample was analyzed for EPA 524.2 by Pace Analytical Services Long Island. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

QC Batch: 206724

IH: This analyte exceeded secondary source verification criteria high for the initial calibration. The reported results should be considered an estimated value.

- LCS (Lab ID: 1025816)
- Methyl-tert-butyl ether

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: 206724

L1: Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.

- LCS (Lab ID: 1025816)
- Methyl-tert-butyl ether
- tert-Butyl Alcohol

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: SMO-HANOVER-190292M-1
Pace Project No.: 30418246

Method: EPA 524.2
Description: 524.2 MSV
Client: ARM Group Inc.
Date: May 11, 2021

Additional Comments:

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: SMO-HANOVER-190292M-1
Pace Project No.: 30418246

Method: EPA 8260B
Description: 8260B MSV
Client: ARM Group Inc.
Date: May 11, 2021

General Information:

11 samples were analyzed for EPA 8260B by Pace Analytical Services Greensburg. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: 446800

L1: Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.

- LCS (Lab ID: 2156096)
- 1,1,1-Trichloroethane

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch: 446800

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30418246010

MH: Matrix spike recovery and/or matrix spike duplicate recovery was above laboratory control limits. Result may be biased high.

- MS (Lab ID: 2156097)
- 1,1,2,2-Tetrachloroethane
- Ethyl-tert-butyl ether

R1: RPD value was outside control limits.

- MSD (Lab ID: 2156098)
- 2-Butanone (MEK)
- Bromomethane

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

PROJECT NARRATIVE

Project: SMO-HANOVER-190292M-1
Pace Project No.: 30418246

Method: EPA 8260B
Description: 8260B MSV
Client: ARM Group Inc.
Date: May 11, 2021

QC Batch: 446800

A matrix spike and/or matrix spike duplicate (MS/MSD) were performed on the following sample(s): 30418246010

R1: RPD value was outside control limits.

- Ethyl-tert-butyl ether

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.



Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: SMO-HANOVER-190292M-1
Pace Project No.: 30418246

Sample: MW-1 Lab ID: 30418246001 Collected: 04/28/21 09:20 Received: 04/29/21 22:30 Matrix: Water

Parameters	Results	Units	Report Limit		MDL	DF	Prepared	Analyzed	CAS No.	Qual
			Limit	MDL						
8015D TPH Reduced Volume										
Analytical Method: EPA 8015D Preparation Method: EPA 3510C Pace Analytical Services - Greensburg										
TPH (C10-C28)	0.11 U	mg/L	0.11	0.075		1	05/04/21 13:45	05/10/21 22:43		
Surrogates										
o-Terphenyl (S)	57	%	25-105			1	05/04/21 13:45	05/10/21 22:43	84-15-1	
Gasoline Range Organics										
Analytical Method: EPA 5030/8015B Pace Analytical Services - Greensburg										
TPH (C06-C10)	200 U	ug/L	200	98.0		1		05/06/21 10:17		
Surrogates										
4-Bromofluorobenzene (S)	93	%	70-130			1		05/06/21 10:17	460-00-4	
8260B MSV										
Analytical Method: EPA 8260B Pace Analytical Services - Greensburg										
Acetone	10.0 U	ug/L	10.0	5.6		1		05/06/21 17:35	67-64-1	
tert-Amylmethyl ether	1.0 U	ug/L	1.0	0.27		1		05/06/21 17:35	994-05-8	
Benzene	1.0 U	ug/L	1.0	0.34		1		05/06/21 17:35	71-43-2	
Bromochloromethane	1.0 U	ug/L	1.0	0.48		1		05/06/21 17:35	74-97-5	
Bromodichloromethane	1.0 U	ug/L	1.0	0.35		1		05/06/21 17:35	75-27-4	
Bromoform	1.0 U	ug/L	1.0	0.56		1		05/06/21 17:35	75-25-2	
Bromomethane	1.0 U	ug/L	1.0	0.73		1		05/06/21 17:35	74-83-9	
TOTAL BTEX	6.0 U	ug/L	6.0	2.4		1		05/06/21 17:35		
2-Butanone (MEK)	10.0 U	ug/L	10.0	1.5		1		05/06/21 17:35	78-93-3	
tert-Butyl Alcohol	5.0 U	ug/L	5.0	4.3		1		05/06/21 17:35	75-65-0	
Carbon disulfide	1.0 U	ug/L	1.0	0.32		1		05/06/21 17:35	75-15-0	
Carbon tetrachloride	1.0 U	ug/L	1.0	0.44		1		05/06/21 17:35	56-23-5	
Chlorobenzene	1.0 U	ug/L	1.0	0.26		1		05/06/21 17:35	108-90-7	
Chloroethane	1.0 U	ug/L	1.0	0.64		1		05/06/21 17:35	75-00-3	
Chloroform	1.0 U	ug/L	1.0	0.39		1		05/06/21 17:35	67-66-3	
Chloromethane	1.0 U	ug/L	1.0	0.40		1		05/06/21 17:35	74-87-3	
Dibromochloromethane	1.0 U	ug/L	1.0	0.43		1		05/06/21 17:35	124-48-1	
1,2-Dichlorobenzene	1.0 U	ug/L	1.0	0.38		1		05/06/21 17:35	95-50-1	
1,3-Dichlorobenzene	1.0 U	ug/L	1.0	0.45		1		05/06/21 17:35	541-73-1	
1,4-Dichlorobenzene	1.0 U	ug/L	1.0	0.48		1		05/06/21 17:35	106-46-7	
1,1-Dichloroethane	1.0 U	ug/L	1.0	0.24		1		05/06/21 17:35	75-34-3	
1,2-Dichloroethane	1.0 U	ug/L	1.0	0.33		1		05/06/21 17:35	107-06-2	
1,2-Dichloroethane (Total)	2.0 U	ug/L	2.0	0.66		1		05/06/21 17:35	540-59-0	
1,1-Dichloroethene	1.0 U	ug/L	1.0	0.24		1		05/06/21 17:35	75-35-4	
cis-1,2-Dichloroethene	1.0 U	ug/L	1.0	0.38		1		05/06/21 17:35	156-59-2	
trans-1,2-Dichloroethene	1.0 U	ug/L	1.0	0.28		1		05/06/21 17:35	156-60-5	
1,2-Dichloropropane	1.0 U	ug/L	1.0	0.28		1		05/06/21 17:35	78-87-5	
cis-1,3-Dichloropropene	1.0 U	ug/L	1.0	0.29		1		05/06/21 17:35	10061-01-5	
trans-1,3-Dichloropropene	1.0 U	ug/L	1.0	0.32		1		05/06/21 17:35	10061-02-6	
Diethyl ether (Ethyl ether)	1.0 U	ug/L	1.0	0.35		1		05/06/21 17:35	60-29-7	
Ethanol	200 U	ug/L	200	73.5		1		05/06/21 17:35	64-17-5	
Ethylbenzene	1.0 U	ug/L	1.0	0.40		1		05/06/21 17:35	100-41-4	
Ethyl-tert-butyl ether	1.0 U	ug/L	1.0	0.29		1		05/06/21 17:35	637-92-3	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.

Date: 05/11/2021 03:43 PM



Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: SMO-HANOVER-190292M-1
Pace Project No.: 30418246

Sample: MW-1 Lab ID: 30418246001 Collected: 04/28/21 09:20 Received: 04/29/21 22:30 Matrix: Water

Parameters	Results	Units	Report Limit		MDL	DF	Prepared	Analyzed	CAS No.	Qual
			Limit	MDL						
8260B MSV										
Analytical Method: EPA 8260B Pace Analytical Services - Greensburg										
2-Hexanone	10.0 U	ug/L	10.0	0.58		1		05/06/21 17:35	591-78-6	
Methylene Chloride	0.68J	ug/L	1.0	0.64		1		05/06/21 17:35	75-09-2	
4-Methyl-2-pentanone (MIBK)	10.0 U	ug/L	10.0	0.42		1		05/06/21 17:35	108-10-1	
Methyl-tert-butyl ether	1.0 U	ug/L	1.0	0.25		1		05/06/21 17:35	1634-04-4	
Naphthalene	2.0 U	ug/L	2.0	0.82		1		05/06/21 17:35	91-20-3	
Styrene	1.0 U	ug/L	1.0	0.33		1		05/06/21 17:35	100-42-5	
1,1,2,2-Tetrachloroethane	1.0 U	ug/L	1.0	0.47		1		05/06/21 17:35	79-34-5	
Tetrachloroethene	1.0 U	ug/L	1.0	0.39		1		05/06/21 17:35	127-18-4	
Toluene	1.0 U	ug/L	1.0	0.32		1		05/06/21 17:35	108-88-3	
1,2,4-Trichlorobenzene	1.0 U	ug/L	1.0	0.73		1		05/06/21 17:35	120-82-1	
1,1,1-Trichloroethane	1.0 U	ug/L	1.0	0.38		1		05/06/21 17:35	71-55-6	L1
1,1,2-Trichloroethane	1.0 U	ug/L	1.0	0.33		1		05/06/21 17:35	79-00-5	
Trichloroethene	1.0 U	ug/L	1.0	0.29		1		05/06/21 17:35	79-01-6	
Vinyl chloride	1.0 U	ug/L	1.0	0.29		1		05/06/21 17:35	75-01-4	
Xylene (Total)	3.0 U	ug/L	3.0	1.4		1		05/06/21 17:35	1330-20-7	
m&p-Xylene	2.0 U	ug/L	2.0	0.94		1		05/06/21 17:35	179601-23-1	
o-Xylene	1.0 U	ug/L	1.0	0.41		1		05/06/21 17:35	95-47-6	
Surrogates										
4-Bromofluorobenzene (S)	100	%	70-130			1		05/06/21 17:35	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	70-130			1		05/06/21 17:35	17060-07-0	
Toluene-d8 (S)	97	%	70-130			1		05/06/21 17:35	2037-26-5	
Dibromofluoromethane (S)	100	%	70-130			1		05/06/21 17:35	1868-53-7	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.

Date: 05/11/2021 03:43 PM



Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: SMO-HANOVER-190292M-1
Pace Project No.: 30418246

Sample: MW-4 Lab ID: 30418246002 Collected: 04/28/21 10:08 Received: 04/29/21 22:30 Matrix: Water

Parameters	Results	Units	Report Limit		MDL	DF	Prepared	Analyzed	CAS No.	Qual
			Limit	MDL						
8015D TPH Reduced Volume										
Analytical Method: EPA 8015D Preparation Method: EPA 3510C Pace Analytical Services - Greensburg										
TPH (C10-C28)	0.10 U	mg/L	0.10	0.072	1	05/04/21 13:45	05/10/21 23:06			
Surrogates										
o-Terphenyl (S)	54	%	25-105		1	05/04/21 13:45	05/10/21 23:06	84-15-1		
Gasoline Range Organics										
Analytical Method: EPA 5030/8015B Pace Analytical Services - Greensburg										
TPH (C06-C10)	200 U	ug/L	200	98.0	1		05/06/21 10:34			
Surrogates										
4-Bromofluorobenzene (S)	95	%	70-130		1		05/06/21 10:34	460-00-4		
8260B MSV										
Analytical Method: EPA 8260B Pace Analytical Services - Greensburg										
Acetone	1.0 U	ug/L	10.0	5.6	1		05/06/21 18:01	67-64-1		
tert-Amylmethyl ether	1.0 U	ug/L	1.0	0.27	1		05/06/21 18:01	994-05-8		
Benzene	1.0 U	ug/L	1.0	0.34	1		05/06/21 18:01	71-43-2		
Bromochloromethane	1.0 U	ug/L	1.0	0.48	1		05/06/21 18:01	74-97-5		
Bromodichloromethane	1.0 U	ug/L	1.0	0.35	1		05/06/21 18:01	75-27-4		
Bromoform	1.0 U	ug/L	1.0	0.56	1		05/06/21 18:01	75-25-2		
Bromomethane	1.0 U	ug/L	1.0	0.73	1		05/06/21 18:01	74-83-9		
TOTAL BTEX	6.0 U	ug/L	6.0	2.4	1		05/06/21 18:01			
2-Butanone (MEK)	10.0 U	ug/L	10.0	1.5	1		05/06/21 18:01	78-93-3		
tert-Butyl Alcohol	5.0 U	ug/L	5.0	4.3	1		05/06/21 18:01	75-65-0		
Carbon disulfide	1.0 U	ug/L	1.0	0.32	1		05/06/21 18:01	75-15-0		
Carbon tetrachloride	1.0 U	ug/L	1.0	0.44	1		05/06/21 18:01	56-23-5		
Chlorobenzene	1.0 U	ug/L	1.0	0.26	1		05/06/21 18:01	108-90-7		
Chloroethane	1.0 U	ug/L	1.0	0.64	1		05/06/21 18:01	75-00-3		
Chloroform	1.0 U	ug/L	1.0	0.39	1		05/06/21 18:01	67-66-3		
Chloromethane	1.0 U	ug/L	1.0	0.40	1		05/06/21 18:01	74-87-3		
Dibromochloromethane	1.0 U	ug/L	1.0	0.43	1		05/06/21 18:01	124-48-1		
1,2-Dichlorobenzene	1.0 U	ug/L	1.0	0.38	1		05/06/21 18:01	95-50-1		
1,3-Dichlorobenzene	1.0 U	ug/L	1.0	0.45	1		05/06/21 18:01	541-73-1		
1,4-Dichlorobenzene	1.0 U	ug/L	1.0	0.48	1		05/06/21 18:01	106-46-7		
1,1-Dichloroethane	1.0 U	ug/L	1.0	0.24	1		05/06/21 18:01	75-34-3		
1,2-Dichloroethane	1.0 U	ug/L	1.0	0.33	1		05/06/21 18:01	107-06-2		
1,2-Dichloroethane (Total)	2.0 U	ug/L	2.0	0.66	1		05/06/21 18:01	540-59-0		
1,1-Dichloroethene	1.0 U	ug/L	1.0	0.24	1		05/06/21 18:01	75-35-4		
cis-1,2-Dichloroethene	1.0 U	ug/L	1.0	0.38	1		05/06/21 18:01	156-59-2		
trans-1,2-Dichloroethene	1.0 U	ug/L	1.0	0.28	1		05/06/21 18:01	156-60-5		
1,2-Dichloropropane	1.0 U	ug/L	1.0	0.28	1		05/06/21 18:01	78-87-5		
cis-1,3-Dichloropropene	1.0 U	ug/L	1.0	0.29	1		05/06/21 18:01	10061-01-5		
trans-1,3-Dichloropropene	1.0 U	ug/L	1.0	0.32	1		05/06/21 18:01	10061-02-6		
Diethyl ether (Ethyl ether)	1.0 U	ug/L	1.0	0.35	1		05/06/21 18:01	60-29-7		
Ethanol	200 U	ug/L	200	73.5	1		05/06/21 18:01	64-17-5		
Ethylbenzene	1.0 U	ug/L	1.0	0.40	1		05/06/21 18:01	100-41-4		
Ethyl-tert-butyl ether	1.0 U	ug/L	1.0	0.29	1		05/06/21 18:01	637-92-3		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.

Date: 05/11/2021 03:43 PM

Page 13 of 53



Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: SMO-HANOVER-190292M-1
Pace Project No.: 30418246

Sample: MW-4 Lab ID: 30418246002 Collected: 04/28/21 10:08 Received: 04/29/21 22:30 Matrix: Water

Parameters	Results	Units	Report Limit		MDL	DF	Prepared	Analyzed	CAS No.	Qual
			Limit	MDL						
8260B MSV										
Analytical Method: EPA 8260B Pace Analytical Services - Greensburg										
2-Hexanone	10.0 U	ug/L	10.0	0.58	1		05/06/21 18:01	591-78-6		
Methylene Chloride	0.70J	ug/L	1.0	0.64	1		05/06/21 18:01	75-09-2		
4-Methyl-2-pentanone (MIBK)	10.0 U	ug/L	10.0	0.42	1		05/06/21 18:01	108-10-1		
Methyl-tert-butyl ether	1.0 U	ug/L	1.0	0.25	1		05/06/21 18:01	1634-04-4		
Naphthalene	2.0 U	ug/L	2.0	0.82	1		05/06/21 18:01	91-20-3		
Styrene	1.0 U	ug/L	1.0	0.33	1		05/06/21 18:01	100-42-5		
1,1,2,2-Tetrachloroethane	1.0 U	ug/L	1.0	0.47	1		05/06/21 18:01	79-34-5		
Tetrachloroethene	1.0 U	ug/L	1.0	0.39	1		05/06/21 18:01	127-18-4		
Toluene	1.0 U	ug/L	1.0	0.32	1		05/06/21 18:01	108-88-3		
1,2,4-Trichlorobenzene	1.0 U	ug/L	1.0	0.73	1		05/06/21 18:01	120-82-1		
1,1,1-Trichloroethane	1.0 U	ug/L	1.0	0.38	1		05/06/21 18:01	71-55-6		L1
1,1,2-Trichloroethane	1.0 U	ug/L	1.0	0.33	1		05/06/21 18:01	79-00-5		
Trichloroethene	1.0 U	ug/L	1.0	0.29	1		05/06/21 18:01	79-01-6		
Vinyl chloride	1.0 U	ug/L	1.0	0.29	1		05/06/21 18:01	75-01-4		
Xylene (Total)	3.0 U	ug/L	3.0	1.4	1		05/06/21 18:01	1330-20-7		
m&p-Xylene	2.0 U	ug/L	2.0	0.94	1		05/06/21 18:01	179601-23-1		
o-Xylene	1.0 U	ug/L	1.0	0.41	1		05/06/21 18:01	95-47-6		
Surrogates										
4-Bromofluorobenzene (S)	101	%	70-130		1		05/06/21 18:01	460-00-4		
1,2-Dichloroethane-d4 (S)	102	%	70-130		1		05/06/21 18:01	17060-07-0		
Toluene-d8 (S)	98	%	70-130		1		05/06/21 18:01	2037-26-5		
Dibromofluoromethane (S)	102	%	70-130		1		05/06/21 18:01	1868-53-7		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.

Date: 05/11/2021 03:43 PM

Page 14 of 53



Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: SMO-HANOVER-190292M-1
Pace Project No.: 30418246

Sample: MW-7 Lab ID: 30418246003 Collected: 04/28/21 10:41 Received: 04/29/21 22:30 Matrix: Water

Parameters	Results	Units	Report		MDL	DF	Prepared	Analyzed	CAS No.	Qual
			Limit	DF						
8015D TPH Reduced Volume										
Analytical Method: EPA 8015D Preparation Method: EPA 3510C										
Pace Analytical Services - Greensburg										
TPH (C10-C28)	0.76	mg/L	0.099	0.068	1	05/04/21 13:45	05/10/21 23:30			
Surrogates										
o-Terphenyl (S)	65	%	25-105		1	05/04/21 13:45	05/10/21 23:30	84-15-1		
Gasoline Range Organics										
Analytical Method: EPA 5030/8015B										
Pace Analytical Services - Greensburg										
TPH (C06-C10)	581	ug/L	200	98.0	1		05/06/21 10:52			
Surrogates										
4-Bromofluorobenzene (S)	91	%	70-130		1		05/06/21 10:52	460-00-4		
8260B MSV										
Analytical Method: EPA 8260B										
Pace Analytical Services - Greensburg										
Acetone	1.0 U	ug/L	10.0	5.6	1		05/06/21 19:17	67-64-1		
tert-Amylmethyl ether	1.0 U	ug/L	1.0	0.27	1		05/06/21 19:17	994-05-8		
Benzene	1.0 U	ug/L	1.0	0.34	1		05/06/21 19:17	71-43-2		
Bromochloromethane	1.0 U	ug/L	1.0	0.48	1		05/06/21 19:17	74-97-5		
Bromodichloromethane	1.0 U	ug/L	1.0	0.35	1		05/06/21 19:17	75-27-4		
Bromoform	1.0 U	ug/L	1.0	0.56	1		05/06/21 19:17	75-25-2		
Bromomethane	1.0 U	ug/L	1.0	0.73	1		05/06/21 19:17	74-83-9		
TOTAL BTEX	6.0 U	ug/L	6.0	2.4	1		05/06/21 19:17			
2-Butanone (MEK)	10.0 U	ug/L	10.0	1.5	1		05/06/21 19:17	78-93-3		
tert-Butyl Alcohol	5.0 U	ug/L	5.0	4.3	1		05/06/21 19:17	75-65-0		
Carbon disulfide	1.0 U	ug/L	1.0	0.32	1		05/06/21 19:17	75-15-0		
Carbon tetrachloride	1.0 U	ug/L	1.0	0.44	1		05/06/21 19:17	56-23-5		
Chlorobenzene	1.0 U	ug/L	1.0	0.26	1		05/06/21 19:17	108-90-7		
Chloroethane	1.0 U	ug/L	1.0	0.64	1		05/06/21 19:17	75-00-3		
Chloroform	1.0 U	ug/L	1.0	0.39	1		05/06/21 19:17	67-66-3		
Chloromethane	1.0 U	ug/L	1.0	0.40	1		05/06/21 19:17	74-87-3		
Dibromochloromethane	1.0 U	ug/L	1.0	0.43	1		05/06/21 19:17	124-48-1		
1,2-Dichlorobenzene	1.0 U	ug/L	1.0	0.38	1		05/06/21 19:17	95-50-1		
1,3-Dichlorobenzene	1.0 U	ug/L	1.0	0.45	1		05/06/21 19:17	541-73-1		
1,4-Dichlorobenzene	1.0 U	ug/L	1.0	0.48	1		05/06/21 19:17	106-46-7		
1,1-Dichloroethane	1.0 U	ug/L	1.0	0.24	1		05/06/21 19:17	75-34-3		
1,2-Dichloroethane	1.0 U	ug/L	1.0	0.33	1		05/06/21 19:17	107-06-2		
1,2-Dichloroethane (Total)	2.0 U	ug/L	2.0	0.66	1		05/06/21 19:17	540-59-0		
1,1-Dichloroethene	1.0 U	ug/L	1.0	0.24	1		05/06/21 19:17	75-35-4		
cis-1,2-Dichloroethene	1.0 U	ug/L	1.0	0.38	1		05/06/21 19:17	156-59-2		
trans-1,2-Dichloroethene	1.0 U	ug/L	1.0	0.28	1		05/06/21 19:17	156-60-5		
1,2-Dichloropropane	1.0 U	ug/L	1.0	0.28	1		05/06/21 19:17	78-87-5		
cis-1,3-Dichloropropene	1.0 U	ug/L	1.0	0.29	1		05/06/21 19:17	10061-01-5		
trans-1,3-Dichloropropene	1.0 U	ug/L	1.0	0.32	1		05/06/21 19:17	10061-02-6		
Diethyl ether (Ethyl ether)	1.0 U	ug/L	1.0	0.35	1		05/06/21 19:17	60-29-7		
Ethanol	200 U	ug/L	200	73.5	1		05/06/21 19:17	64-17-5		
Ethylbenzene	1.1	ug/L	1.0	0.40	1		05/06/21 19:17	100-41-4		
Ethyl-tert-butyl ether	1.0 U	ug/L	1.0	0.29	1		05/06/21 19:17	637-92-3		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.

Date: 05/11/2021 03:43 PM

Page 15 of 53



Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: SMO-HANOVER-190292M-1
Pace Project No.: 30418246

Sample: MW-7 Lab ID: 30418246003 Collected: 04/28/21 10:41 Received: 04/29/21 22:30 Matrix: Water

Parameters	Results	Units	Report		MDL	DF	Prepared	Analyzed	CAS No.	Qual
			Limit	DF						
8260B MSV										
Analytical Method: EPA 8260B										
Pace Analytical Services - Greensburg										
2-Hexanone	10.0 U	ug/L	10.0	0.58	1		05/06/21 19:17	591-78-6		
Methylene Chloride	1.0 U	ug/L	1.0	0.64	1		05/06/21 19:17	75-09-2		
4-Methyl-2-pentanone (MIBK)	10.0 U	ug/L	10.0	0.42	1		05/06/21 19:17	108-10-1		
Methyl-tert-butyl ether	1.0 U	ug/L	1.0	0.25	1		05/06/21 19:17	1634-04-4		
Naphthalene	1.8J	ug/L	2.0	0.82	1		05/06/21 19:17	91-20-3		
Styrene	1.0 U	ug/L	1.0	0.33	1		05/06/21 19:17	100-42-5		
1,1,2,2-Tetrachloroethane	1.0 U	ug/L	1.0	0.47	1		05/06/21 19:17	79-34-5		
Tetrachloroethene	1.0 U	ug/L	1.0	0.39	1		05/06/21 19:17	127-18-4		
Toluene	1.0 U	ug/L	1.0	0.32	1		05/06/21 19:17	108-88-3		
1,2,4-Trichlorobenzene	1.0 U	ug/L	1.0	0.73	1		05/06/21 19:17	120-82-1		
1,1,1-Trichloroethane	1.0 U	ug/L	1.0	0.38	1		05/06/21 19:17	71-55-6		L1
1,1,2-Trichloroethane	1.0 U	ug/L	1.0	0.33	1		05/06/21 19:17	79-00-5		
Trichloroethene	1.0 U	ug/L	1.0	0.29	1		05/06/21 19:17	79-01-6		
Vinyl chloride	1.0 U	ug/L	1.0	0.29	1		05/06/21 19:17	75-01-4		
Xylene (Total)	3.0 U	ug/L	3.0	1.4	1		05/06/21 19:17	1330-20-7		
m&p-Xylene	2.0 U	ug/L	2.0	0.94	1		05/06/21 19:17	179601-23-1		
o-Xylene	1.0 U	ug/L	1.0	0.41	1		05/06/21 19:17	95-47-6		
Surrogates										
4-Bromofluorobenzene (S)	98	%	70-130		1		05/06/21 19:17	460-00-4		
1,2-Dichloroethane-d4 (S)	103	%	70-130		1		05/06/21 19:17	17060-07-0		
Toluene-d8 (S)	101	%	70-130		1		05/06/21 19:17	2037-26-5		
Dibromofluoromethane (S)	99	%	70-130		1		05/06/21 19:17	1868-53-7		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.

Date: 05/11/2021 03:43 PM

Page 16 of 53



Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: SMO-HANOVER-190292M-1
Pace Project No.: 30418246

Sample: MW-8 Lab ID: 30418246004 Collected: 04/28/21 13:42 Received: 04/29/21 22:30 Matrix: Water

Parameters	Results	Units	Report		MDL	DF	Prepared	Analyzed	CAS No.	Qual
			Limit	DF						
8015D TPH Reduced Volume										
Analytical Method: EPA 8015D Preparation Method: EPA 3510C Pace Analytical Services - Greensburg										
TPH (C10-C28)	1.1	mg/L	0.099	0.068	1	05/04/21 13:45	05/11/21 00:17			
Surrogates										
o-Terphenyl (S)	69	%	25-105		1	05/04/21 13:45	05/11/21 00:17	84-15-1		
Gasoline Range Organics										
Analytical Method: EPA 5030/8015B Pace Analytical Services - Greensburg										
TPH (C06-C10)	855	ug/L	200	98.0	1		05/06/21 11:10			
Surrogates										
4-Bromofluorobenzene (S)	96	%	70-130		1		05/06/21 11:10	460-00-4		
8260B MSV										
Analytical Method: EPA 8260B Pace Analytical Services - Greensburg										
Acetone	9.6J	ug/L	10.0	5.6	1		05/06/21 20:58	67-64-1		
tert-Amylmethyl ether	1.0 U	ug/L	1.0	0.27	1		05/06/21 20:58	994-05-8		
Benzene	2.5	ug/L	1.0	0.34	1		05/06/21 20:58	71-43-2		
Bromochloromethane	1.0 U	ug/L	1.0	0.48	1		05/06/21 20:58	74-97-5		
Bromodichloromethane	1.0 U	ug/L	1.0	0.35	1		05/06/21 20:58	75-27-4		
Bromoform	1.0 U	ug/L	1.0	0.56	1		05/06/21 20:58	75-25-2		
Bromomethane	1.0 U	ug/L	1.0	0.73	1		05/06/21 20:58	74-83-9		
TOTAL BTEX	208	ug/L	6.0	2.4	1		05/06/21 20:58			
2-Butanone (MEK)	10.0 U	ug/L	10.0	1.5	1		05/06/21 20:58	78-93-3		
tert-Butyl Alcohol	5.0 U	ug/L	5.0	4.3	1		05/06/21 20:58	75-65-0		
Carbon disulfide	1.0 U	ug/L	1.0	0.32	1		05/06/21 20:58	75-15-0		
Carbon tetrachloride	1.0 U	ug/L	1.0	0.44	1		05/06/21 20:58	56-23-5		
Chlorobenzene	1.0 U	ug/L	1.0	0.26	1		05/06/21 20:58	108-90-7		
Chloroethane	1.0 U	ug/L	1.0	0.64	1		05/06/21 20:58	75-00-3		
Chloroform	1.0 U	ug/L	1.0	0.39	1		05/06/21 20:58	67-66-3		
Chloromethane	1.0 U	ug/L	1.0	0.40	1		05/06/21 20:58	74-87-3		
Dibromochloromethane	1.0 U	ug/L	1.0	0.43	1		05/06/21 20:58	124-48-1		
1,2-Dichlorobenzene	1.0 U	ug/L	1.0	0.38	1		05/06/21 20:58	95-50-1		
1,3-Dichlorobenzene	1.0 U	ug/L	1.0	0.45	1		05/06/21 20:58	541-73-1		
1,4-Dichlorobenzene	1.0 U	ug/L	1.0	0.48	1		05/06/21 20:58	106-46-7		
1,1-Dichloroethane	1.0 U	ug/L	1.0	0.24	1		05/06/21 20:58	75-34-3		
1,2-Dichloroethane	1.0 U	ug/L	1.0	0.33	1		05/06/21 20:58	107-06-2		
1,2-Dichloroethane (Total)	2.0 U	ug/L	2.0	0.66	1		05/06/21 20:58	540-59-0		
1,1-Dichloroethene	1.0 U	ug/L	1.0	0.24	1		05/06/21 20:58	75-35-4		
cis-1,2-Dichloroethene	1.0 U	ug/L	1.0	0.38	1		05/06/21 20:58	156-59-2		
trans-1,2-Dichloroethene	1.0 U	ug/L	1.0	0.28	1		05/06/21 20:58	156-60-5		
1,2-Dichloropropane	1.0 U	ug/L	1.0	0.28	1		05/06/21 20:58	78-87-5		
cis-1,3-Dichloropropene	1.0 U	ug/L	1.0	0.29	1		05/06/21 20:58	10061-01-5		
trans-1,3-Dichloropropene	1.0 U	ug/L	1.0	0.32	1		05/06/21 20:58	10061-02-6		
Diethyl ether (Ethyl ether)	1.0 U	ug/L	1.0	0.35	1		05/06/21 20:58	60-29-7		
Ethanol	200 U	ug/L	200	73.5	1		05/06/21 20:58	64-17-5		
Ethylbenzene	93.1	ug/L	1.0	0.40	1		05/06/21 20:58	100-41-4		
Ethyl-tert-butyl ether	1.0 U	ug/L	1.0	0.29	1		05/06/21 20:58	637-92-3		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Date: 05/11/2021 03:43 PM

Page 17 of 53



Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: SMO-HANOVER-190292M-1
Pace Project No.: 30418246

Sample: MW-8 Lab ID: 30418246004 Collected: 04/28/21 13:42 Received: 04/29/21 22:30 Matrix: Water

Parameters	Results	Units	Report		MDL	DF	Prepared	Analyzed	CAS No.	Qual
			Limit	DF						
8260B MSV										
Analytical Method: EPA 8260B Pace Analytical Services - Greensburg										
2-Hexanone	10.0 U	ug/L	10.0	0.58	1		05/06/21 20:58	591-78-6		
Methylene Chloride	1.0 U	ug/L	1.0	0.64	1		05/06/21 20:58	75-09-2		
4-Methyl-2-pentanone (MIBK)	10.0 U	ug/L	10.0	0.42	1		05/06/21 20:58	108-10-1		
Methyl-tert-butyl ether	1.0 U	ug/L	1.0	0.25	1		05/06/21 20:58	1634-04-4		
Naphthalene	90.5	ug/L	2.0	0.82	1		05/06/21 20:58	91-20-3		
Styrene	1.0 U	ug/L	1.0	0.33	1		05/06/21 20:58	100-42-5		
1,1,2,2-Tetrachloroethane	1.0 U	ug/L	1.0	0.47	1		05/06/21 20:58	79-34-5		
Tetrachloroethene	1.0 U	ug/L	1.0	0.39	1		05/06/21 20:58	127-18-4		
Toluene	0.49J	ug/L	1.0	0.32	1		05/06/21 20:58	108-88-3		
1,2,4-Trichlorobenzene	1.0 U	ug/L	1.0	0.73	1		05/06/21 20:58	120-82-1		
1,1,1-Trichloroethane	1.0 U	ug/L	1.0	0.38	1		05/06/21 20:58	71-55-6		L1
1,1,2-Trichloroethane	1.0 U	ug/L	1.0	0.33	1		05/06/21 20:58	79-00-5		
Trichloroethene	1.0 U	ug/L	1.0	0.29	1		05/06/21 20:58	79-01-6		
Vinyl chloride	1.0 U	ug/L	1.0	0.29	1		05/06/21 20:58	75-01-4		
Xylene (Total)	112	ug/L	3.0	1.4	1		05/06/21 20:58	1330-20-7		
m&p-Xylene	111	ug/L	2.0	0.94	1		05/06/21 20:58	179601-23-1		
o-Xylene	0.68J	ug/L	1.0	0.41	1		05/06/21 20:58	95-47-6		
Surrogates										
4-Bromofluorobenzene (S)	101	%	70-130		1		05/06/21 20:58	460-00-4		
1,2-Dichloroethane-d4 (S)	100	%	70-130		1		05/06/21 20:58	17060-07-0		
Toluene-d8 (S)	102	%	70-130		1		05/06/21 20:58	2037-26-5		
Dibromofluoromethane (S)	95	%	70-130		1		05/06/21 20:58	1868-53-7		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Date: 05/11/2021 03:43 PM

Page 18 of 53



Pace Analytical Services, LLC
1638 Rosetown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: SMO-HANOVER-190292M-1
Pace Project No.: 30418246

Sample: MW-9 Lab ID: 30418246005 Collected: 04/28/21 11:10 Received: 04/29/21 22:30 Matrix: Water

Parameters	Results	Units	Report		MDL	DF	Prepared	Analyzed	CAS No.	Qual
			Limit	DF						
8015D TPH Reduced Volume										
Analytical Method: EPA 8015D Preparation Method: EPA 3510C										
Pace Analytical Services - Greensburg										
TPH (C10-C28)	2.0	mg/L	0.099	0.068	1	05/04/21 13:45	05/11/21 00:40			
Surrogates										
o-Terphenyl (S)	82	%	25-105		1	05/04/21 13:45	05/11/21 00:40	84-15-1		
Gasoline Range Organics										
Analytical Method: EPA 5030/8015B										
Pace Analytical Services - Greensburg										
TPH (C06-C10)	986	ug/L	200	98.0	1		05/06/21 11:28			
Surrogates										
4-Bromofluorobenzene (S)	119	%	70-130		1		05/06/21 11:28	460-00-4		
8260B MSV										
Analytical Method: EPA 8260B										
Pace Analytical Services - Greensburg										
Acetone	10.0 U	ug/L	10.0	5.6	1		05/06/21 21:23	67-64-1		
tert-Amylmethyl ether	1.3	ug/L	1.0	0.27	1		05/06/21 21:23	994-05-8		
Benzene	13.7	ug/L	1.0	0.34	1		05/06/21 21:23	71-43-2		
Bromochloromethane	1.0 U	ug/L	1.0	0.48	1		05/06/21 21:23	74-97-5		
Bromodichloromethane	1.0 U	ug/L	1.0	0.35	1		05/06/21 21:23	75-27-4		
Bromoform	1.0 U	ug/L	1.0	0.56	1		05/06/21 21:23	75-25-2		
Bromomethane	1.0 U	ug/L	1.0	0.73	1		05/06/21 21:23	74-83-9		
TOTAL BTEX	65.1	ug/L	6.0	2.4	1		05/06/21 21:23			
2-Butanone (MEK)	10.0 U	ug/L	10.0	1.5	1		05/06/21 21:23	78-93-3		
tert-Butyl Alcohol	90.9	ug/L	5.0	4.3	1		05/06/21 21:23	75-65-0		
Carbon disulfide	1.0 U	ug/L	1.0	0.32	1		05/06/21 21:23	75-15-0		
Carbon tetrachloride	1.0 U	ug/L	1.0	0.44	1		05/06/21 21:23	56-23-5		
Chlorobenzene	1.0 U	ug/L	1.0	0.26	1		05/06/21 21:23	108-90-7		
Chloroethane	1.0 U	ug/L	1.0	0.64	1		05/06/21 21:23	75-00-3		
Chloroform	1.0 U	ug/L	1.0	0.39	1		05/06/21 21:23	67-66-3		
Chloromethane	1.0 U	ug/L	1.0	0.40	1		05/06/21 21:23	74-87-3		
Dibromochloromethane	1.0 U	ug/L	1.0	0.43	1		05/06/21 21:23	124-48-1		
1,2-Dichlorobenzene	1.0 U	ug/L	1.0	0.38	1		05/06/21 21:23	95-50-1		
1,3-Dichlorobenzene	1.0 U	ug/L	1.0	0.45	1		05/06/21 21:23	541-73-1		
1,4-Dichlorobenzene	1.0 U	ug/L	1.0	0.48	1		05/06/21 21:23	106-46-7		
1,1-Dichloroethane	1.0 U	ug/L	1.0	0.24	1		05/06/21 21:23	75-34-3		
1,2-Dichloroethane	1.0 U	ug/L	1.0	0.33	1		05/06/21 21:23	107-06-2		
1,2-Dichloroethane (Total)	2.0 U	ug/L	2.0	0.66	1		05/06/21 21:23	540-59-0		
1,1-Dichloroethene	1.0 U	ug/L	1.0	0.24	1		05/06/21 21:23	75-35-4		
cis-1,2-Dichloroethene	1.0 U	ug/L	1.0	0.38	1		05/06/21 21:23	156-59-2		
trans-1,2-Dichloroethene	1.0 U	ug/L	1.0	0.28	1		05/06/21 21:23	156-60-5		
1,2-Dichloropropane	1.0 U	ug/L	1.0	0.28	1		05/06/21 21:23	78-87-5		
cis-1,3-Dichloropropene	1.0 U	ug/L	1.0	0.29	1		05/06/21 21:23	10061-01-5		
trans-1,3-Dichloropropene	1.0 U	ug/L	1.0	0.32	1		05/06/21 21:23	10061-02-6		
Diethyl ether (Ethyl ether)	1.0 U	ug/L	1.0	0.35	1		05/06/21 21:23	60-29-7		
Ethanol	200 U	ug/L	200	73.5	1		05/06/21 21:23	64-17-5		
Ethylbenzene	17.3	ug/L	1.0	0.40	1		05/06/21 21:23	100-41-4		
Ethyl-tert-butyl ether	1.0 U	ug/L	1.0	0.29	1		05/06/21 21:23	637-92-3		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.

Date: 05/11/2021 03:43 PM



Pace Analytical Services, LLC
1638 Rosetown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: SMO-HANOVER-190292M-1
Pace Project No.: 30418246

Sample: MW-9 Lab ID: 30418246005 Collected: 04/28/21 11:10 Received: 04/29/21 22:30 Matrix: Water

Parameters	Results	Units	Report		MDL	DF	Prepared	Analyzed	CAS No.	Qual
			Limit	DF						
8260B MSV										
Analytical Method: EPA 8260B										
Pace Analytical Services - Greensburg										
2-Hexanone	0.64J	ug/L	10.0	0.58	1			05/06/21 21:23	591-78-6	
Methylene Chloride	1.0 U	ug/L	1.0	0.64	1			05/06/21 21:23	75-09-2	
4-Methyl-2-pentanone (MIBK)	5.1J	ug/L	10.0	0.42	1			05/06/21 21:23	108-10-1	
Methyl-tert-butyl ether	7.5	ug/L	1.0	0.25	1			05/06/21 21:23	1634-04-4	
Naphthalene	3.9	ug/L	2.0	0.82	1			05/06/21 21:23	91-20-3	
Styrene	1.0 U	ug/L	1.0	0.33	1			05/06/21 21:23	100-42-5	
1,1,2,2-Tetrachloroethane	1.0 U	ug/L	1.0	0.47	1			05/06/21 21:23	79-34-5	
Tetrachloroethene	1.0 U	ug/L	1.0	0.39	1			05/06/21 21:23	127-18-4	
Toluene	1.0 U	ug/L	1.0	0.32	1			05/06/21 21:23	108-88-3	
1,2,4-Trichlorobenzene	1.0 U	ug/L	1.0	0.73	1			05/06/21 21:23	120-82-1	
1,1,1-Trichloroethane	1.0 U	ug/L	1.0	0.38	1			05/06/21 21:23	71-55-6	L1
1,1,2-Trichloroethane	1.0 U	ug/L	1.0	0.33	1			05/06/21 21:23	79-00-5	
Trichloroethene	1.0 U	ug/L	1.0	0.29	1			05/06/21 21:23	79-01-6	
Vinyl chloride	1.0 U	ug/L	1.0	0.29	1			05/06/21 21:23	75-01-4	
Xylene (Total)	34.1	ug/L	3.0	1.4	1			05/06/21 21:23	1330-20-7	
m&p-Xylene	23.5	ug/L	2.0	0.94	1			05/06/21 21:23	179601-23-1	
o-Xylene	10.5	ug/L	1.0	0.41	1			05/06/21 21:23	95-47-6	
Surrogates										
4-Bromofluorobenzene (S)	101	%	70-130		1			05/06/21 21:23	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	70-130		1			05/06/21 21:23	17060-07-0	
Toluene-d8 (S)	98	%	70-130		1			05/06/21 21:23	2037-26-5	
Dibromofluoromethane (S)	98	%	70-130		1			05/06/21 21:23	1868-53-7	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.

Date: 05/11/2021 03:43 PM



Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: SMO-HANOVER-190292M-1
Pace Project No.: 30418246

Sample:	Lab ID:	Collected:	Received:	Matrix:					
MW-10	30418246006	04/28/21 14:20	04/29/21 22:30	Water					
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015D TPH Reduced Volume									
Analytical Method: EPA 8015D Preparation Method: EPA 3510C Pace Analytical Services - Greensburg									
TPH (C10-C28)	2.5	mg/L	0.22	0.15	2	05/04/21 13:45	05/11/21 01:04		
Surrogates									
o-Terphenyl (S)	78	%	25-105		2	05/04/21 13:45	05/11/21 01:04	84-15-1	
Gasoline Range Organics									
Analytical Method: EPA 5030/8015B Pace Analytical Services - Greensburg									
TPH (C06-C10)	1720	ug/L	200	98.0	1		05/06/21 11:46		
Surrogates									
4-Bromofluorobenzene (S)	97	%	70-130		1		05/06/21 11:46	460-00-4	
8260B MSV									
Analytical Method: EPA 8260B Pace Analytical Services - Greensburg									
Acetone	13.4	ug/L	10.0	5.6	1		05/06/21 19:42	67-64-1	
tert-Amylmethyl ether	5.0	ug/L	1.0	0.27	1		05/06/21 19:42	994-05-8	
Benzene	91.1	ug/L	1.0	0.34	1		05/06/21 19:42	71-43-2	
Bromochloromethane	1.0 U	ug/L	1.0	0.48	1		05/06/21 19:42	74-97-5	
Bromodichloromethane	1.0 U	ug/L	1.0	0.35	1		05/06/21 19:42	75-27-4	
Bromoform	1.0 U	ug/L	1.0	0.56	1		05/06/21 19:42	75-25-2	
Bromomethane	1.0 U	ug/L	1.0	0.73	1		05/06/21 19:42	74-83-9	
TOTAL BTEX	505	ug/L	6.0	2.4	1		05/06/21 19:42		
2-Butanone (MEK)	4.7J	ug/L	10.0	1.5	1		05/06/21 19:42	78-93-3	
tert-Butyl Alcohol	10.0	ug/L	5.0	4.3	1		05/06/21 19:42	75-65-0	
Carbon disulfide	1.0 U	ug/L	1.0	0.32	1		05/06/21 19:42	75-15-0	
Carbon tetrachloride	1.0 U	ug/L	1.0	0.44	1		05/06/21 19:42	56-23-5	
Chlorobenzene	1.0 U	ug/L	1.0	0.26	1		05/06/21 19:42	108-90-7	
Chloroethane	1.0 U	ug/L	1.0	0.64	1		05/06/21 19:42	75-00-3	
Chloroform	1.0 U	ug/L	1.0	0.39	1		05/06/21 19:42	67-66-3	
Chloromethane	1.0 U	ug/L	1.0	0.40	1		05/06/21 19:42	74-87-3	
Dibromochloromethane	1.0 U	ug/L	1.0	0.43	1		05/06/21 19:42	124-48-1	
1,2-Dichlorobenzene	1.0 U	ug/L	1.0	0.38	1		05/06/21 19:42	95-50-1	
1,3-Dichlorobenzene	1.0 U	ug/L	1.0	0.45	1		05/06/21 19:42	541-73-1	
1,4-Dichlorobenzene	1.0 U	ug/L	1.0	0.48	1		05/06/21 19:42	106-46-7	
1,1-Dichloroethane	1.0 U	ug/L	1.0	0.24	1		05/06/21 19:42	75-34-3	
1,2-Dichloroethane	1.0 U	ug/L	1.0	0.33	1		05/06/21 19:42	107-06-2	
1,2-Dichloroethane (Total)	2.0 U	ug/L	2.0	0.66	1		05/06/21 19:42	540-59-0	
1,1-Dichloroethene	1.0 U	ug/L	1.0	0.24	1		05/06/21 19:42	75-35-4	
cis-1,2-Dichloroethene	1.0 U	ug/L	1.0	0.38	1		05/06/21 19:42	156-59-2	
trans-1,2-Dichloroethene	1.0 U	ug/L	1.0	0.28	1		05/06/21 19:42	156-60-5	
1,2-Dichloropropane	1.0 U	ug/L	1.0	0.28	1		05/06/21 19:42	78-87-5	
cis-1,3-Dichloropropene	1.0 U	ug/L	1.0	0.29	1		05/06/21 19:42	10061-01-5	
trans-1,3-Dichloropropene	1.0 U	ug/L	1.0	0.32	1		05/06/21 19:42	10061-02-6	
Diethyl ether (Ethyl ether)	1.0 U	ug/L	1.0	0.35	1		05/06/21 19:42	60-29-7	
Ethanol	200	ug/L	200	73.5	1		05/06/21 19:42	64-17-5	
Ethylbenzene	303	ug/L	1.0	0.40	1		05/06/21 19:42	100-41-4	
Ethyl-tert-butyl ether	1.0 U	ug/L	1.0	0.29	1		05/06/21 19:42	637-92-3	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Date: 05/11/2021 03:43 PM

Page 21 of 53



Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: SMO-HANOVER-190292M-1
Pace Project No.: 30418246

Sample:	Lab ID:	Collected:	Received:	Matrix:					
MW-10	30418246006	04/28/21 14:20	04/29/21 22:30	Water					
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV									
Analytical Method: EPA 8260B Pace Analytical Services - Greensburg									
2-Hexanone	10.0 U	ug/L	10.0	0.58	1		05/06/21 19:42	591-78-6	
Methylene Chloride	1.0 U	ug/L	1.0	0.64	1		05/06/21 19:42	75-09-2	
4-Methyl-2-pentanone (MIBK)	10.0 U	ug/L	10.0	0.42	1		05/06/21 19:42	108-10-1	
Methyl-tert-butyl ether	4.4	ug/L	1.0	0.25	1		05/06/21 19:42	1634-04-4	
Naphthalene	104	ug/L	2.0	0.82	1		05/06/21 19:42	91-20-3	
Styrene	1.0 U	ug/L	1.0	0.33	1		05/06/21 19:42	100-42-5	
1,1,2,2-Tetrachloroethane	1.0 U	ug/L	1.0	0.47	1		05/06/21 19:42	79-34-5	
Tetrachloroethene	1.0 U	ug/L	1.0	0.39	1		05/06/21 19:42	127-18-4	
Toluene	0.90J	ug/L	1.0	0.32	1		05/06/21 19:42	108-88-3	
1,2,4-Trichlorobenzene	1.0 U	ug/L	1.0	0.73	1		05/06/21 19:42	120-82-1	
1,1,1-Trichloroethane	1.0 U	ug/L	1.0	0.38	1		05/06/21 19:42	71-55-6	L1
1,1,2-Trichloroethane	1.0 U	ug/L	1.0	0.33	1		05/06/21 19:42	79-00-5	
Trichloroethene	1.0 U	ug/L	1.0	0.29	1		05/06/21 19:42	79-01-6	
Vinyl chloride	1.0 U	ug/L	1.0	0.29	1		05/06/21 19:42	75-01-4	
Xylene (Total)	111	ug/L	3.0	1.4	1		05/06/21 19:42	1330-20-7	
m&p-Xylene	110	ug/L	2.0	0.94	1		05/06/21 19:42	179601-23-1	
o-Xylene	1.2	ug/L	1.0	0.41	1		05/06/21 19:42	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	96	%	70-130		1		05/06/21 19:42	460-00-4	
1,2-Dichloroethane-d4 (S)	103	%	70-130		1		05/06/21 19:42	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		05/06/21 19:42	2037-26-5	
Dibromofluoromethane (S)	99	%	70-130		1		05/06/21 19:42	1868-53-7	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Date: 05/11/2021 03:43 PM

Page 22 of 53



Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: SMO-HANOVER-190292M-1
Pace Project No.: 30418246

Sample: MW-12 Lab ID: 30418246007 Collected: 04/28/21 13:27 Received: 04/29/21 22:30 Matrix: Water

Parameters	Results	Units	Report		MDL	DF	Prepared	Analyzed	CAS No.	Qual
			Limit	DF						
8015D TPH Reduced Volume										
Analytical Method: EPA 8015D Preparation Method: EPA 3510C Pace Analytical Services - Greensburg										
TPH (C10-C28)	0.11 U	mg/L	0.11	0.075	1	05/04/21 13:45	05/11/21 01:51			
Surrogates										
o-Terphenyl (S)	60	%	25-105		1	05/04/21 13:45	05/11/21 01:51	84-15-1		
Gasoline Range Organics										
Analytical Method: EPA 5030/8015B Pace Analytical Services - Greensburg										
TPH (C06-C10)	200 U	ug/L	200	98.0	1		05/06/21 12:04			
Surrogates										
4-Bromofluorobenzene (S)	96	%	70-130		1		05/06/21 12:04	460-00-4		
8260B MSV										
Analytical Method: EPA 8260B Pace Analytical Services - Greensburg										
Acetone	10.0 U	ug/L	10.0	5.6	1		05/06/21 18:26	67-64-1		
tert-Amylmethyl ether	1.0 U	ug/L	1.0	0.27	1		05/06/21 18:26	994-05-8		
Benzene	1.0 U	ug/L	1.0	0.34	1		05/06/21 18:26	71-43-2		
Bromochloromethane	1.0 U	ug/L	1.0	0.48	1		05/06/21 18:26	74-97-5		
Bromodichloromethane	1.0 U	ug/L	1.0	0.35	1		05/06/21 18:26	75-27-4		
Bromoform	1.0 U	ug/L	1.0	0.56	1		05/06/21 18:26	75-25-2		
Bromomethane	1.0 U	ug/L	1.0	0.73	1		05/06/21 18:26	74-83-9		
TOTAL BTEX	6.0 U	ug/L	6.0	2.4	1		05/06/21 18:26			
2-Butanone (MEK)	10.0 U	ug/L	10.0	1.5	1		05/06/21 18:26	78-93-3		
tert-Butyl Alcohol	5.0 U	ug/L	5.0	4.3	1		05/06/21 18:26	75-65-0		
Carbon disulfide	1.0 U	ug/L	1.0	0.32	1		05/06/21 18:26	75-15-0		
Carbon tetrachloride	1.0 U	ug/L	1.0	0.44	1		05/06/21 18:26	56-23-5		
Chlorobenzene	1.0 U	ug/L	1.0	0.26	1		05/06/21 18:26	108-90-7		
Chloroethane	1.0 U	ug/L	1.0	0.64	1		05/06/21 18:26	75-00-3		
Chloroform	1.0 U	ug/L	1.0	0.39	1		05/06/21 18:26	67-66-3		
Chloromethane	1.0 U	ug/L	1.0	0.40	1		05/06/21 18:26	74-87-3		
Dibromochloromethane	1.0 U	ug/L	1.0	0.43	1		05/06/21 18:26	124-48-1		
1,2-Dichlorobenzene	1.0 U	ug/L	1.0	0.38	1		05/06/21 18:26	95-50-1		
1,3-Dichlorobenzene	1.0 U	ug/L	1.0	0.45	1		05/06/21 18:26	541-73-1		
1,4-Dichlorobenzene	1.0 U	ug/L	1.0	0.48	1		05/06/21 18:26	106-46-7		
1,1-Dichloroethane	1.0 U	ug/L	1.0	0.24	1		05/06/21 18:26	75-34-3		
1,2-Dichloroethane	1.0 U	ug/L	1.0	0.33	1		05/06/21 18:26	107-06-2		
1,2-Dichloroethane (Total)	2.0 U	ug/L	2.0	0.66	1		05/06/21 18:26	540-59-0		
1,1-Dichloroethene	1.0 U	ug/L	1.0	0.24	1		05/06/21 18:26	75-35-4		
cis-1,2-Dichloroethene	1.0 U	ug/L	1.0	0.38	1		05/06/21 18:26	156-59-2		
trans-1,2-Dichloroethene	1.0 U	ug/L	1.0	0.28	1		05/06/21 18:26	156-60-5		
1,2-Dichloropropane	1.0 U	ug/L	1.0	0.28	1		05/06/21 18:26	78-87-5		
cis-1,3-Dichloropropene	1.0 U	ug/L	1.0	0.29	1		05/06/21 18:26	10061-01-5		
trans-1,3-Dichloropropene	1.0 U	ug/L	1.0	0.32	1		05/06/21 18:26	10061-02-6		
Diethyl ether (Ethyl ether)	1.0 U	ug/L	1.0	0.35	1		05/06/21 18:26	60-29-7		
Ethanol	200 U	ug/L	200	73.5	1		05/06/21 18:26	64-17-5		
Ethylbenzene	1.0 U	ug/L	1.0	0.40	1		05/06/21 18:26	100-41-4		
Ethyl-tert-butyl ether	1.0 U	ug/L	1.0	0.29	1		05/06/21 18:26	637-92-3		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Date: 05/11/2021 03:43 PM

Page 23 of 53



Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: SMO-HANOVER-190292M-1
Pace Project No.: 30418246

Sample: MW-12 Lab ID: 30418246007 Collected: 04/28/21 13:27 Received: 04/29/21 22:30 Matrix: Water

Parameters	Results	Units	Report		MDL	DF	Prepared	Analyzed	CAS No.	Qual
			Limit	DF						
8260B MSV										
Analytical Method: EPA 8260B Pace Analytical Services - Greensburg										
2-Hexanone	10.0 U	ug/L	10.0	0.58	1		05/06/21 18:26	591-78-6		
Methylene Chloride	1.0 U	ug/L	1.0	0.64	1		05/06/21 18:26	75-09-2		
4-Methyl-2-pentanone (MIBK)	10.0 U	ug/L	10.0	0.42	1		05/06/21 18:26	108-10-1		
Methyl-tert-butyl ether	1.0 U	ug/L	1.0	0.25	1		05/06/21 18:26	1634-04-4		
Naphthalene	2.0 U	ug/L	2.0	0.82	1		05/06/21 18:26	91-20-3		
Styrene	1.0 U	ug/L	1.0	0.33	1		05/06/21 18:26	100-42-5		
1,1,2,2-Tetrachloroethane	1.0 U	ug/L	1.0	0.47	1		05/06/21 18:26	79-34-5		
Tetrachloroethene	1.0 U	ug/L	1.0	0.39	1		05/06/21 18:26	127-18-4		
Toluene	1.0 U	ug/L	1.0	0.32	1		05/06/21 18:26	108-88-3		
1,2,4-Trichlorobenzene	1.0 U	ug/L	1.0	0.73	1		05/06/21 18:26	120-82-1		
1,1,1-Trichloroethane	1.0 U	ug/L	1.0	0.38	1		05/06/21 18:26	71-55-6		L1
1,1,2-Trichloroethane	1.0 U	ug/L	1.0	0.33	1		05/06/21 18:26	79-00-5		
Trichloroethene	1.0 U	ug/L	1.0	0.29	1		05/06/21 18:26	79-01-6		
Vinyl chloride	1.0 U	ug/L	1.0	0.29	1		05/06/21 18:26	75-01-4		
Xylene (Total)	3.0 U	ug/L	3.0	1.4	1		05/06/21 18:26	1330-20-7		
m&p-Xylene	2.0 U	ug/L	2.0	0.94	1		05/06/21 18:26	179601-23-1		
o-Xylene	1.0 U	ug/L	1.0	0.41	1		05/06/21 18:26	95-47-6		
Surrogates										
4-Bromofluorobenzene (S)	99	%	70-130		1		05/06/21 18:26	460-00-4		
1,2-Dichloroethane-d4 (S)	101	%	70-130		1		05/06/21 18:26	17060-07-0		
Toluene-d8 (S)	98	%	70-130		1		05/06/21 18:26	2037-26-5		
Dibromofluoromethane (S)	101	%	70-130		1		05/06/21 18:26	1868-53-7		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Date: 05/11/2021 03:43 PM

Page 24 of 53



Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: SMO-HANOVER-190292M-1
Pace Project No.: 30418246

Sample: MW-14 Lab ID: 30418246008 Collected: 04/28/21 13:58 Received: 04/29/21 22:30 Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015D TPH Reduced Volume									
Analytical Method: EPA 8015D Preparation Method: EPA 3510C Pace Analytical Services - Greensburg									
TPH (C10-C28)	1.4	mg/L	0.11	0.075	1	05/04/21 13:45	05/11/21 02:14		
Surrogates									
o-Terphenyl (S)	74	%	25-105		1	05/04/21 13:45	05/11/21 02:14	84-15-1	
Gasoline Range Organics									
Analytical Method: EPA 5030/8015B Pace Analytical Services - Greensburg									
TPH (C06-C10)	1700	ug/L	200	98.0	1		05/06/21 12:22		
Surrogates									
4-Bromofluorobenzene (S)	95	%	70-130		1		05/06/21 12:22	460-00-4	
8260B MSV									
Analytical Method: EPA 8260B Pace Analytical Services - Greensburg									
Acetone	10.0 U	ug/L	10.0	5.6	1		05/06/21 20:32	67-64-1	
tert-Amylmethyl ether	1.0 U	ug/L	1.0	0.27	1		05/06/21 20:32	994-05-8	
Benzene	1.7	ug/L	1.0	0.34	1		05/06/21 20:32	71-43-2	
Bromochloromethane	1.0 U	ug/L	1.0	0.48	1		05/06/21 20:32	74-97-5	
Bromodichloromethane	1.0 U	ug/L	1.0	0.35	1		05/06/21 20:32	75-27-4	
Bromoform	1.0 U	ug/L	1.0	0.56	1		05/06/21 20:32	75-25-2	
Bromomethane	1.0 U	ug/L	1.0	0.73	1		05/06/21 20:32	74-83-9	
TOTAL BTEX	329	ug/L	6.0	2.4	1		05/06/21 20:32		
2-Butanone (MEK)	5.0J	ug/L	10.0	1.5	1		05/06/21 20:32	78-93-3	
tert-Butyl Alcohol	5.0 U	ug/L	5.0	4.3	1		05/06/21 20:32	75-65-0	
Carbon disulfide	1.0 U	ug/L	1.0	0.32	1		05/06/21 20:32	75-15-0	
Carbon tetrachloride	1.0 U	ug/L	1.0	0.44	1		05/06/21 20:32	56-23-5	
Chlorobenzene	1.0 U	ug/L	1.0	0.26	1		05/06/21 20:32	108-90-7	
Chloroethane	1.0 U	ug/L	1.0	0.64	1		05/06/21 20:32	75-00-3	
Chloroform	1.0 U	ug/L	1.0	0.39	1		05/06/21 20:32	67-66-3	
Chloromethane	1.0 U	ug/L	1.0	0.40	1		05/06/21 20:32	74-87-3	
Dibromochloromethane	1.0 U	ug/L	1.0	0.43	1		05/06/21 20:32	124-48-1	
1,2-Dichlorobenzene	1.0 U	ug/L	1.0	0.38	1		05/06/21 20:32	95-50-1	
1,3-Dichlorobenzene	1.0 U	ug/L	1.0	0.45	1		05/06/21 20:32	541-73-1	
1,4-Dichlorobenzene	1.0 U	ug/L	1.0	0.48	1		05/06/21 20:32	106-46-7	
1,1-Dichloroethane	1.0 U	ug/L	1.0	0.24	1		05/06/21 20:32	75-34-3	
1,2-Dichloroethane	1.0 U	ug/L	1.0	0.33	1		05/06/21 20:32	107-06-2	
1,2-Dichloroethane (Total)	2.0 U	ug/L	2.0	0.66	1		05/06/21 20:32	540-59-0	
1,1-Dichloroethene	1.0 U	ug/L	1.0	0.24	1		05/06/21 20:32	75-35-4	
cis-1,2-Dichloroethene	1.0 U	ug/L	1.0	0.38	1		05/06/21 20:32	156-59-2	
trans-1,2-Dichloroethene	1.0 U	ug/L	1.0	0.28	1		05/06/21 20:32	156-60-5	
1,2-Dichloropropane	1.0 U	ug/L	1.0	0.28	1		05/06/21 20:32	78-87-5	
cis-1,3-Dichloropropene	1.0 U	ug/L	1.0	0.29	1		05/06/21 20:32	10061-01-5	
trans-1,3-Dichloropropene	1.0 U	ug/L	1.0	0.32	1		05/06/21 20:32	10061-02-6	
Diethyl ether (Ethyl ether)	1.0 U	ug/L	1.0	0.35	1		05/06/21 20:32	60-29-7	
Ethanol	200 U	ug/L	200	73.5	1		05/06/21 20:32	64-17-5	
Ethylbenzene	139	ug/L	1.0	0.40	1		05/06/21 20:32	100-41-4	
Ethyl-tert-butyl ether	1.0 U	ug/L	1.0	0.29	1		05/06/21 20:32	637-92-3	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.

Date: 05/11/2021 03:43 PM

Page 25 of 53



Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: SMO-HANOVER-190292M-1
Pace Project No.: 30418246

Sample: MW-14 Lab ID: 30418246008 Collected: 04/28/21 13:58 Received: 04/29/21 22:30 Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV									
Analytical Method: EPA 8260B Pace Analytical Services - Greensburg									
2-Hexanone	0.81J	ug/L	10.0	0.58	1		05/06/21 20:32	591-78-6	
Methylene Chloride	1.0 U	ug/L	1.0	0.64	1		05/06/21 20:32	75-09-2	
4-Methyl-2-pentanone (MIBK)	10.0 U	ug/L	10.0	0.42	1		05/06/21 20:32	108-10-1	
Methyl-tert-butyl ether	1.0 U	ug/L	1.0	0.25	1		05/06/21 20:32	1634-04-4	
Naphthalene	51.2	ug/L	2.0	0.82	1		05/06/21 20:32	91-20-3	
Styrene	1.0 U	ug/L	1.0	0.33	1		05/06/21 20:32	100-42-5	
1,1,2,2-Tetrachloroethane	1.0 U	ug/L	1.0	0.47	1		05/06/21 20:32	79-34-5	
Tetrachloroethene	1.0 U	ug/L	1.0	0.39	1		05/06/21 20:32	127-18-4	
Toluene	1.4	ug/L	1.0	0.32	1		05/06/21 20:32	108-88-3	
1,2,4-Trichlorobenzene	1.0 U	ug/L	1.0	0.73	1		05/06/21 20:32	120-82-1	
1,1,1-Trichloroethane	1.0 U	ug/L	1.0	0.38	1		05/06/21 20:32	71-55-6	L1
1,1,2-Trichloroethane	1.0 U	ug/L	1.0	0.33	1		05/06/21 20:32	79-00-5	
Trichloroethene	1.0 U	ug/L	1.0	0.29	1		05/06/21 20:32	79-01-6	
Vinyl chloride	1.0 U	ug/L	1.0	0.29	1		05/06/21 20:32	75-01-4	
Xylene (Total)	186	ug/L	3.0	1.4	1		05/06/21 20:32	1330-20-7	
m&p-Xylene	183	ug/L	2.0	0.94	1		05/06/21 20:32	179601-23-1	
o-Xylene	3.5	ug/L	1.0	0.41	1		05/06/21 20:32	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	98	%	70-130		1		05/06/21 20:32	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	70-130		1		05/06/21 20:32	17060-07-0	
Toluene-d8 (S)	99	%	70-130		1		05/06/21 20:32	2037-26-5	
Dibromofluoromethane (S)	99	%	70-130		1		05/06/21 20:32	1868-53-7	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.

Date: 05/11/2021 03:43 PM

Page 26 of 53



Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: SMO-HANOVER-190292M-1

Pace Project No.: 30418246

Sample: MW-15 Lab ID: 30418246009 Collected: 04/28/21 14:32 Received: 04/29/21 22:30 Matrix: Water

Parameters	Results	Units	Report		MDL	DF	Prepared	Analyzed	CAS No.	Qual
			Limit							
8015D TPH Reduced Volume										
Analytical Method: EPA 8015D Preparation Method: EPA 3510C Pace Analytical Services - Greensburg										
TPH (C10-C28)	4.0	mg/L	0.99	0.68	10	05/04/21 13:45	05/11/21 02:38			
Surrogates										
o-Terphenyl (S)	66	%	25-105		10	05/04/21 13:45	05/11/21 02:38	84-15-1		
Gasoline Range Organics										
Analytical Method: EPA 5030/8015B Pace Analytical Services - Greensburg										
TPH (C06-C10)	5390	ug/L	2000	980	10		05/06/21 16:47			
Surrogates										
4-Bromofluorobenzene (S)	98	%	70-130		10		05/06/21 16:47	460-00-4		
8260B MSV										
Analytical Method: EPA 8260B Pace Analytical Services - Greensburg										
Acetone	37.4	ug/L	10.0	5.6	1		05/06/21 21:48	67-64-1		
tert-Amylmethyl ether	4.3	ug/L	1.0	0.27	1		05/06/21 21:48	994-05-8		
Benzene	481	ug/L	5.0	1.7	5		05/08/21 19:56	71-43-2		
Bromochloromethane	1.0 U	ug/L	1.0	0.48	1		05/06/21 21:48	74-97-5		
Bromodichloromethane	1.0 U	ug/L	1.0	0.35	1		05/06/21 21:48	75-27-4		
Bromoform	1.0 U	ug/L	1.0	0.56	1		05/06/21 21:48	75-25-2		
Bromomethane	1.0 U	ug/L	1.0	0.73	1		05/06/21 21:48	74-83-9		
TOTAL BTEX	2630	ug/L	30.0	12.0	5		05/08/21 19:56			
2-Butanone (MEK)	14.8	ug/L	10.0	1.5	1		05/06/21 21:48	78-93-3		
tert-Butyl Alcohol	21.4	ug/L	5.0	4.3	1		05/06/21 21:48	75-65-0		
Carbon disulfide	1.0 U	ug/L	1.0	0.32	1		05/06/21 21:48	75-15-0		
Carbon tetrachloride	1.0 U	ug/L	1.0	0.44	1		05/06/21 21:48	56-23-5		
Chlorobenzene	1.0 U	ug/L	1.0	0.26	1		05/06/21 21:48	108-90-7		
Chloroethane	1.0 U	ug/L	1.0	0.64	1		05/06/21 21:48	75-00-3		
Chloroform	1.0 U	ug/L	1.0	0.39	1		05/06/21 21:48	67-66-3		
Chloromethane	1.0 U	ug/L	1.0	0.40	1		05/06/21 21:48	74-87-3		
Dibromochloromethane	1.0 U	ug/L	1.0	0.43	1		05/06/21 21:48	124-48-1		
1,2-Dichlorobenzene	0.59J	ug/L	1.0	0.38	1		05/06/21 21:48	95-50-1		
1,3-Dichlorobenzene	1.0 U	ug/L	1.0	0.45	1		05/06/21 21:48	541-73-1		
1,4-Dichlorobenzene	1.0 U	ug/L	1.0	0.48	1		05/06/21 21:48	106-46-7		
1,1-Dichloroethane	1.0 U	ug/L	1.0	0.24	1		05/06/21 21:48	75-34-3		
1,2-Dichloroethane	1.0 U	ug/L	1.0	0.33	1		05/06/21 21:48	107-06-2		
1,2-Dichloroethane (Total)	2.0 U	ug/L	2.0	0.66	1		05/06/21 21:48	540-59-0		
1,1-Dichloroethene	1.0 U	ug/L	1.0	0.24	1		05/06/21 21:48	75-35-4		
cis-1,2-Dichloroethene	1.0 U	ug/L	1.0	0.38	1		05/06/21 21:48	156-59-2		
trans-1,2-Dichloroethene	1.0 U	ug/L	1.0	0.28	1		05/06/21 21:48	156-60-5		
1,2-Dichloropropane	1.0 U	ug/L	1.0	0.28	1		05/06/21 21:48	78-87-5		
cis-1,3-Dichloropropene	1.0 U	ug/L	1.0	0.29	1		05/06/21 21:48	10061-01-5		
trans-1,3-Dichloropropene	1.0 U	ug/L	1.0	0.32	1		05/06/21 21:48	10061-02-6		
Diethyl ether (Ethyl ether)	1.0 U	ug/L	1.0	0.35	1		05/06/21 21:48	60-29-7		
Ethanol	200 U	ug/L	200	73.5	1		05/06/21 21:48	64-17-5		
Ethylbenzene	798	ug/L	5.0	2.0	5		05/08/21 19:56	100-41-4		
Ethyl-tert-butyl ether	1.0 U	ug/L	1.0	0.29	1		05/06/21 21:48	637-92-3		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Date: 05/11/2021 03:43 PM

Page 27 of 53



Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: SMO-HANOVER-190292M-1

Pace Project No.: 30418246

Sample: MW-15 Lab ID: 30418246009 Collected: 04/28/21 14:32 Received: 04/29/21 22:30 Matrix: Water

Parameters	Results	Units	Report		MDL	DF	Prepared	Analyzed	CAS No.	Qual
			Limit							
8260B MSV										
Analytical Method: EPA 8260B Pace Analytical Services - Greensburg										
2-Hexanone	1.2J	ug/L	10.0	0.58	1		05/06/21 21:48	591-78-6		
Methylene Chloride	1.0 U	ug/L	1.0	0.64	1		05/06/21 21:48	75-09-2		
4-Methyl-2-pentanone (MIBK)	10.0 U	ug/L	10.0	0.42	1		05/06/21 21:48	108-10-1		
Methyl-tert-butyl ether	3.1	ug/L	1.0	0.25	1		05/06/21 21:48	1634-04-4		
Naphthalene	73.5	ug/L	2.0	0.82	1		05/06/21 21:48	91-20-3		
Styrene	8.0	ug/L	1.0	0.33	1		05/06/21 21:48	100-42-5		
1,1,2,2-Tetrachloroethane	1.0 U	ug/L	1.0	0.47	1		05/06/21 21:48	79-34-5		
Tetrachloroethene	1.0 U	ug/L	1.0	0.39	1		05/06/21 21:48	127-18-4		
Toluene	519	ug/L	5.0	1.6	5		05/08/21 19:56	108-88-3		
1,2,4-Trichlorobenzene	1.0 U	ug/L	1.0	0.73	1		05/06/21 21:48	120-82-1		
1,1,1-Trichloroethane	1.0 U	ug/L	1.0	0.38	1		05/06/21 21:48	71-55-6		L1
1,1,2-Trichloroethane	1.0 U	ug/L	1.0	0.33	1		05/06/21 21:48	79-00-5		
Trichloroethene	1.0 U	ug/L	1.0	0.29	1		05/06/21 21:48	79-01-6		
Vinyl chloride	1.0 U	ug/L	1.0	0.29	1		05/06/21 21:48	75-01-4		
Xylene (Total)	833	ug/L	3.0	1.4	1		05/06/21 21:48	1330-20-7		
m&p-Xylene	553	ug/L	2.0	0.94	1		05/06/21 21:48	179601-23-1		
o-Xylene	281	ug/L	1.0	0.41	1		05/06/21 21:48	95-47-6		
Surrogates										
4-Bromofluorobenzene (S)	101	%	70-130		1		05/06/21 21:48	460-00-4		
1,2-Dichloroethane-d4 (S)	100	%	70-130		1		05/06/21 21:48	17060-07-0		
Toluene-d8 (S)	101	%	70-130		1		05/06/21 21:48	2037-26-5		
Dibromofluoromethane (S)	99	%	70-130		1		05/06/21 21:48	1868-53-7		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Date: 05/11/2021 03:43 PM

Page 28 of 53



Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: SMO-HANOVER-190292M-1
Pace Project No.: 30418246

Sample:	Lab ID:	Collected:	Received:	Matrix:					
MW-16	30418246010	04/28/21 09:50	04/29/21 22:30	Water					
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8015D TPH Reduced Volume									
Analytical Method: EPA 8015D Preparation Method: EPA 3510C Pace Analytical Services - Greensburg									
TPH (C10-C28)	0.45	mg/L	0.099	0.068	1	05/04/21 13:45	05/10/21 19:11		
Surrogates									
o-Terphenyl (S)	87	%	25-105		1	05/04/21 13:45	05/10/21 19:11	84-15-1	
Gasoline Range Organics									
Analytical Method: EPA 5030/8015B Pace Analytical Services - Greensburg									
TPH (C06-C10)	511	ug/L	200	98.0	1		05/06/21 13:15		
Surrogates									
4-Bromofluorobenzene (S)	80	%	70-130		1		05/06/21 13:15	460-00-4	
8260B MSV									
Analytical Method: EPA 8260B Pace Analytical Services - Greensburg									
Acetone	10.0 U	ug/L	10.0	5.6	1		05/06/21 18:51	67-64-1	
tert-Amylmethyl ether	1.0 U	ug/L	1.0	0.27	1		05/06/21 18:51	994-05-8	
Benzene	1.0 U	ug/L	1.0	0.34	1		05/06/21 18:51	71-43-2	
Bromochloromethane	1.0 U	ug/L	1.0	0.48	1		05/06/21 18:51	74-97-5	
Bromodichloromethane	1.0 U	ug/L	1.0	0.35	1		05/06/21 18:51	75-27-4	
Bromoform	1.0 U	ug/L	1.0	0.56	1		05/06/21 18:51	75-25-2	
Bromomethane	1.0 U	ug/L	1.0	0.73	1		05/06/21 18:51	74-83-9	R1
TOTAL BTEX	6.0 U	ug/L	6.0	2.4	1		05/06/21 18:51		
2-Butanone (MEK)	10.0 U	ug/L	10.0	1.5	1		05/06/21 18:51	78-93-3	R1
tert-Butyl Alcohol	5.0 U	ug/L	5.0	4.3	1		05/06/21 18:51	75-65-0	
Carbon disulfide	1.0 U	ug/L	1.0	0.32	1		05/06/21 18:51	75-15-0	
Carbon tetrachloride	1.0 U	ug/L	1.0	0.44	1		05/06/21 18:51	56-23-5	
Chlorobenzene	1.0 U	ug/L	1.0	0.26	1		05/06/21 18:51	108-90-7	
Chloroethane	1.0 U	ug/L	1.0	0.64	1		05/06/21 18:51	75-00-3	
Chloroform	1.0 U	ug/L	1.0	0.39	1		05/06/21 18:51	67-66-3	
Chloromethane	1.0 U	ug/L	1.0	0.40	1		05/06/21 18:51	74-87-3	
Dibromochloromethane	1.0 U	ug/L	1.0	0.43	1		05/06/21 18:51	124-48-1	
1,2-Dichlorobenzene	1.0 U	ug/L	1.0	0.38	1		05/06/21 18:51	95-50-1	
1,3-Dichlorobenzene	1.0 U	ug/L	1.0	0.45	1		05/06/21 18:51	541-73-1	
1,4-Dichlorobenzene	1.0 U	ug/L	1.0	0.48	1		05/06/21 18:51	106-46-7	
1,1-Dichloroethane	1.0 U	ug/L	1.0	0.24	1		05/06/21 18:51	75-34-3	
1,2-Dichloroethane	1.0 U	ug/L	1.0	0.33	1		05/06/21 18:51	107-06-2	
1,2-Dichloroethane (Total)	2.0 U	ug/L	2.0	0.66	1		05/06/21 18:51	540-59-0	
1,1-Dichloroethene	1.0 U	ug/L	1.0	0.24	1		05/06/21 18:51	75-35-4	
cis-1,2-Dichloroethene	1.0 U	ug/L	1.0	0.38	1		05/06/21 18:51	156-59-2	
trans-1,2-Dichloroethene	1.0 U	ug/L	1.0	0.28	1		05/06/21 18:51	156-60-5	
1,2-Dichloropropane	1.0 U	ug/L	1.0	0.28	1		05/06/21 18:51	78-87-5	
cis-1,3-Dichloropropene	1.0 U	ug/L	1.0	0.29	1		05/06/21 18:51	10061-01-5	
trans-1,3-Dichloropropene	1.0 U	ug/L	1.0	0.32	1		05/06/21 18:51	10061-02-6	
Diethyl ether (Ethyl ether)	1.0 U	ug/L	1.0	0.35	1		05/06/21 18:51	60-29-7	
Ethanol	200 U	ug/L	200	73.5	1		05/06/21 18:51	64-17-5	
Ethylbenzene	1.0 U	ug/L	1.0	0.40	1		05/06/21 18:51	100-41-4	
Ethyl-tert-butyl ether	1.0 U	ug/L	1.0	0.29	1		05/06/21 18:51	637-92-3	MH,R1

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Date: 05/11/2021 03:43 PM

Page 29 of 53



Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: SMO-HANOVER-190292M-1
Pace Project No.: 30418246

Sample:	Lab ID:	Collected:	Received:	Matrix:					
MW-16	30418246010	04/28/21 09:50	04/29/21 22:30	Water					
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV									
Analytical Method: EPA 8260B Pace Analytical Services - Greensburg									
2-Hexanone	10.0 U	ug/L	10.0	0.58	1		05/06/21 18:51	591-78-6	
Methylene Chloride	1.0 U	ug/L	1.0	0.64	1		05/06/21 18:51	75-09-2	
4-Methyl-2-pentanone (MIBK)	10.0 U	ug/L	10.0	0.42	1		05/06/21 18:51	108-10-1	
Methyl-tert-butyl ether	1.0 U	ug/L	1.0	0.25	1		05/06/21 18:51	1634-04-4	
Naphthalene	2.0 U	ug/L	2.0	0.82	1		05/06/21 18:51	91-20-3	
Styrene	1.0 U	ug/L	1.0	0.33	1		05/06/21 18:51	100-42-5	
1,1,2,2-Tetrachloroethane	1.0 U	ug/L	1.0	0.47	1		05/06/21 18:51	79-34-5	MH
Tetrachloroethene	1.0 U	ug/L	1.0	0.39	1		05/06/21 18:51	127-18-4	
Toluene	1.0 U	ug/L	1.0	0.32	1		05/06/21 18:51	108-88-3	
1,2,4-Trichlorobenzene	1.0 U	ug/L	1.0	0.73	1		05/06/21 18:51	120-82-1	
1,1,1-Trichloroethane	1.0 U	ug/L	1.0	0.38	1		05/06/21 18:51	71-55-6	L1
1,1,2-Trichloroethane	1.0 U	ug/L	1.0	0.33	1		05/06/21 18:51	79-00-5	
Trichloroethene	1.0 U	ug/L	1.0	0.29	1		05/06/21 18:51	79-01-6	
Vinyl chloride	1.0 U	ug/L	1.0	0.29	1		05/06/21 18:51	75-01-4	
Xylene (Total)	3.0 U	ug/L	3.0	1.4	1		05/06/21 18:51	1330-20-7	
m&p-Xylene	2.0 U	ug/L	2.0	0.94	1		05/06/21 18:51	179601-23-1	
o-Xylene	1.0 U	ug/L	1.0	0.41	1		05/06/21 18:51	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	101	%	70-130		1		05/06/21 18:51	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	70-130		1		05/06/21 18:51	17060-07-0	
Toluene-d8 (S)	100	%	70-130		1		05/06/21 18:51	2037-26-5	
Dibromofluoromethane (S)	99	%	70-130		1		05/06/21 18:51	1868-53-7	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Date: 05/11/2021 03:43 PM

Page 30 of 53



Pace Analytical Services, LLC
1638 Rosetown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: SMO-HANOVER-190292M-1
Pace Project No.: 30418246

Sample:	trip Blank	Lab ID:	30418246012	Collected:	04/28/21 12:45	Received:	04/29/21 22:30	Matrix:	Water
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV									
Analytical Method: EPA 8260B									
Pace Analytical Services - Greensburg									
Acetone	10.0 U	ug/L	10.0	5.6	1		05/06/21 16:19	67-64-1	
tert-Amylmethyl ether	1.0 U	ug/L	1.0	0.27	1		05/06/21 16:19	994-05-8	
Benzene	1.0 U	ug/L	1.0	0.34	1		05/06/21 16:19	71-43-2	
Bromochloromethane	1.0 U	ug/L	1.0	0.48	1		05/06/21 16:19	74-97-5	
Bromodichloromethane	1.0 U	ug/L	1.0	0.35	1		05/06/21 16:19	75-27-4	
Bromoform	1.0 U	ug/L	1.0	0.56	1		05/06/21 16:19	75-25-2	
Bromomethane	1.0 U	ug/L	1.0	0.73	1		05/06/21 16:19	74-83-9	
TOTAL BTEX	6.0 U	ug/L	6.0	2.4	1		05/06/21 16:19		
2-Butanone (MEK)	10.0 U	ug/L	10.0	1.5	1		05/06/21 16:19	78-93-3	
tert-Butyl Alcohol	5.0 U	ug/L	5.0	4.3	1		05/06/21 16:19	75-65-0	
Carbon disulfide	1.0 U	ug/L	1.0	0.32	1		05/06/21 16:19	75-15-0	
Carbon tetrachloride	1.0 U	ug/L	1.0	0.44	1		05/06/21 16:19	56-23-5	
Chlorobenzene	1.0 U	ug/L	1.0	0.26	1		05/06/21 16:19	108-90-7	
Chloroethane	1.0 U	ug/L	1.0	0.64	1		05/06/21 16:19	75-00-3	
Chloroform	1.0 U	ug/L	1.0	0.39	1		05/06/21 16:19	67-66-3	
Chloromethane	1.0 U	ug/L	1.0	0.40	1		05/06/21 16:19	74-87-3	
Dibromochloromethane	1.0 U	ug/L	1.0	0.43	1		05/06/21 16:19	124-48-1	
1,2-Dichlorobenzene	1.0 U	ug/L	1.0	0.38	1		05/06/21 16:19	95-50-1	
1,3-Dichlorobenzene	1.0 U	ug/L	1.0	0.45	1		05/06/21 16:19	541-73-1	
1,4-Dichlorobenzene	1.0 U	ug/L	1.0	0.48	1		05/06/21 16:19	106-46-7	
1,1-Dichloroethane	1.0 U	ug/L	1.0	0.24	1		05/06/21 16:19	75-34-3	
1,2-Dichloroethane	1.0 U	ug/L	1.0	0.33	1		05/06/21 16:19	107-06-2	
1,2-Dichloroethene (Total)	2.0 U	ug/L	2.0	0.66	1		05/06/21 16:19	540-59-0	
1,1-Dichloroethene	1.0 U	ug/L	1.0	0.24	1		05/06/21 16:19	75-35-4	
cis-1,2-Dichloroethene	1.0 U	ug/L	1.0	0.38	1		05/06/21 16:19	156-59-2	
trans-1,2-Dichloroethene	1.0 U	ug/L	1.0	0.28	1		05/06/21 16:19	156-60-5	
1,2-Dichloropropane	1.0 U	ug/L	1.0	0.28	1		05/06/21 16:19	78-87-5	
cis-1,3-Dichloropropene	1.0 U	ug/L	1.0	0.29	1		05/06/21 16:19	10061-01-5	
trans-1,3-Dichloropropene	1.0 U	ug/L	1.0	0.32	1		05/06/21 16:19	10061-02-6	
Diethyl ether (Ethyl ether)	1.0 U	ug/L	1.0	0.35	1		05/06/21 16:19	60-29-7	
Ethanol	200 U	ug/L	200	73.5	1		05/06/21 16:19	64-17-5	
Ethylbenzene	1.0 U	ug/L	1.0	0.40	1		05/06/21 16:19	100-41-4	
Ethyl-tert-butyl ether	1.0 U	ug/L	1.0	0.29	1		05/06/21 16:19	637-92-3	
2-Hexanone	10.0 U	ug/L	10.0	0.58	1		05/06/21 16:19	591-78-6	
Methylene Chloride	1.4	ug/L	1.0	0.64	1		05/06/21 16:19	75-09-2	
4-Methyl-2-pentanone (MIBK)	10.0 U	ug/L	10.0	0.42	1		05/06/21 16:19	108-10-1	
Methyl-tert-butyl ether	1.0 U	ug/L	1.0	0.25	1		05/06/21 16:19	1634-04-4	
Naphthalene	2.0 U	ug/L	2.0	0.82	1		05/06/21 16:19	91-20-3	
Styrene	1.0 U	ug/L	1.0	0.33	1		05/06/21 16:19	100-42-5	
1,1,2,2-Tetrachloroethane	1.0 U	ug/L	1.0	0.47	1		05/06/21 16:19	79-34-5	
Tetrachloroethene	1.0 U	ug/L	1.0	0.39	1		05/06/21 16:19	127-18-4	
Toluene	1.0 U	ug/L	1.0	0.32	1		05/06/21 16:19	108-88-3	
1,2,4-Trichlorobenzene	1.0 U	ug/L	1.0	0.73	1		05/06/21 16:19	120-82-1	
1,1,1-Trichloroethane	1.0 U	ug/L	1.0	0.38	1		05/06/21 16:19	71-55-6	L1
1,1,2-Trichloroethane	1.0 U	ug/L	1.0	0.33	1		05/06/21 16:19	79-00-5	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.

Date: 05/11/2021 03:43 PM



Pace Analytical Services, LLC
1638 Rosetown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: SMO-HANOVER-190292M-1
Pace Project No.: 30418246

Sample:	trip Blank	Lab ID:	30418246012	Collected:	04/28/21 12:45	Received:	04/29/21 22:30	Matrix:	Water
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260B MSV									
Analytical Method: EPA 8260B									
Pace Analytical Services - Greensburg									
Trichloroethene	1.0 U	ug/L	1.0	0.29	1		05/06/21 16:19	79-01-6	
Vinyl chloride	1.0 U	ug/L	1.0	0.29	1		05/06/21 16:19	75-01-4	
Xylene (Total)	3.0 U	ug/L	3.0	1.4	1		05/06/21 16:19	1330-20-7	
m&p-Xylene	2.0 U	ug/L	2.0	0.94	1		05/06/21 16:19	179601-23-1	
o-Xylene	1.0 U	ug/L	1.0	0.41	1		05/06/21 16:19	95-47-6	
Surrogates									
4-Bromofluorobenzene (S)	107	%	70-130		1		05/06/21 16:19	460-00-4	
1,2-Dichloroethane-d4 (S)	102	%	70-130		1		05/06/21 16:19	17060-07-0	
Toluene-d8 (S)	99	%	70-130		1		05/06/21 16:19	2037-26-5	
Dibromofluoromethane (S)	100	%	70-130		1		05/06/21 16:19	1868-53-7	

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.

Date: 05/11/2021 03:43 PM



Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: SMO-HANOVER-190292M-1
Pace Project No.: 30418246

QC Batch: 446656 Analysis Method: EPA 5030/8015B
QC Batch Method: EPA 5030/8015B Analysis Description: Gasoline Range Organics
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 30418246001, 30418246002, 30418246003, 30418246004, 30418246005, 30418246006, 30418246007, 30418246008, 30418246009, 30418246010

METHOD BLANK: 2155666 Matrix: Water
Associated Lab Samples: 30418246001, 30418246002, 30418246003, 30418246004, 30418246005, 30418246006, 30418246007, 30418246008, 30418246009, 30418246010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
TPH (C06-C10)	ug/L	200 U	200	98.0	05/06/21 09:41	
4-Bromofluorobenzene (S)	%	92	70-130		05/06/21 09:41	

LABORATORY CONTROL SAMPLE: 2155667

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH (C06-C10)	ug/L	1000	840	84	55-125	
4-Bromofluorobenzene (S)	%			83	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2155670 2155671

Parameter	Units	30418246010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH (C06-C10)	ug/L	511	1000	1000	1160	1120	65	61	42-123	4	25	
4-Bromofluorobenzene (S)	%						77	83	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

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.

Date: 05/11/2021 03:43 PM

Page 35 of 53



Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: SMO-HANOVER-190292M-1
Pace Project No.: 30418246

QC Batch: 206724 Analysis Method: EPA 524.2
QC Batch Method: EPA 524.2 Analysis Description: 524.2 MSV
Laboratory: Pace Analytical Services - Long Island
Associated Lab Samples: 30418246011

METHOD BLANK: 1025815 Matrix: Water
Associated Lab Samples: 30418246011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	0.50 U	0.50	0.35	05/03/21 10:52	
1,1,1-Trichloroethane	ug/L	0.50 U	0.50	0.19	05/03/21 10:52	
1,1,2,2-Tetrachloroethane	ug/L	0.50 U	0.50	0.18	05/03/21 10:52	
1,1,2-Trichloroethane	ug/L	0.50 U	0.50	0.17	05/03/21 10:52	
1,1-Dichloroethane	ug/L	0.50 U	0.50	0.23	05/03/21 10:52	
1,1-Dichloroethene	ug/L	0.50 U	0.50	0.20	05/03/21 10:52	
1,1-Dichloropropene	ug/L	0.50 U	0.50	0.21	05/03/21 10:52	
1,2,3-Trichlorobenzene	ug/L	0.50 U	0.50	0.41	05/03/21 10:52	
1,2,3-Trichloropropane	ug/L	0.50 U	0.50	0.40	05/03/21 10:52	
1,2,4-Trichlorobenzene	ug/L	0.50 U	0.50	0.47	05/03/21 10:52	
1,2,4-Trimethylbenzene	ug/L	0.50 U	0.50	0.18	05/03/21 10:52	
1,2-Dichlorobenzene	ug/L	0.50 U	0.50	0.20	05/03/21 10:52	
1,2-Dichloroethane	ug/L	0.50 U	0.50	0.22	05/03/21 10:52	
1,2-Dichloropropane	ug/L	0.50 U	0.50	0.20	05/03/21 10:52	
1,3,5-Trimethylbenzene	ug/L	0.50 U	0.50	0.19	05/03/21 10:52	
1,3-Dichlorobenzene	ug/L	0.50 U	0.50	0.20	05/03/21 10:52	
1,3-Dichloropropane	ug/L	0.50 U	0.50	0.18	05/03/21 10:52	
1,4-Dichlorobenzene	ug/L	0.50 U	0.50	0.22	05/03/21 10:52	
2,2-Dichloropropane	ug/L	0.50 U	0.50	0.23	05/03/21 10:52	
2-Chlorotoluene	ug/L	0.50 U	0.50	0.21	05/03/21 10:52	
4-Chlorotoluene	ug/L	0.50 U	0.50	0.25	05/03/21 10:52	
Benzene	ug/L	0.50 U	0.50	0.22	05/03/21 10:52	
Bromobenzene	ug/L	0.50 U	0.50	0.18	05/03/21 10:52	
Bromochloromethane	ug/L	0.50 U	0.50	0.21	05/03/21 10:52	
Bromodichloromethane	ug/L	0.50 U	0.50	0.18	05/03/21 10:52	
Bromoform	ug/L	0.50 U	0.50	0.35	05/03/21 10:52	
Bromomethane	ug/L	0.50 U	0.50	0.48	05/03/21 10:52	
Carbon tetrachloride	ug/L	0.50 U	0.50	0.17	05/03/21 10:52	
Chlorobenzene	ug/L	0.50 U	0.50	0.19	05/03/21 10:52	
Chloroethane	ug/L	0.50 U	0.50	0.25	05/03/21 10:52	
Chloroform	ug/L	0.50 U	0.50	0.23	05/03/21 10:52	
Chloromethane	ug/L	0.50 U	0.50	0.49	05/03/21 10:52	
cis-1,2-Dichloroethene	ug/L	0.50 U	0.50	0.18	05/03/21 10:52	
cis-1,3-Dichloropropene	ug/L	0.50 U	0.50	0.17	05/03/21 10:52	
Dibromochloromethane	ug/L	0.50 U	0.50	0.15	05/03/21 10:52	
Dibromomethane	ug/L	0.50 U	0.50	0.42	05/03/21 10:52	
Dichlorodifluoromethane	ug/L	0.50 U	0.50	0.22	05/03/21 10:52	
Ethylbenzene	ug/L	0.50 U	0.50	0.22	05/03/21 10:52	
Hexachloro-1,3-butadiene	ug/L	0.50 U	0.50	0.16	05/03/21 10:52	
Isopropylbenzene (Cumene)	ug/L	0.50 U	0.50	0.19	05/03/21 10:52	

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

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.

Date: 05/11/2021 03:43 PM

Page 36 of 53



Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: SMO-HANOVER-190292M-1
Pace Project No.: 30418246

METHOD BLANK: 1025815 Matrix: Water
Associated Lab Samples: 30418246011

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
m&p-Xylene	ug/L	0.50 U	0.50	0.24	05/03/21 10:52	
Methyl-tert-butyl ether	ug/L	0.50 U	0.50	0.38	05/03/21 10:52	
Methylene Chloride	ug/L	0.50 U	0.50	0.21	05/03/21 10:52	
n-Butylbenzene	ug/L	0.50 U	0.50	0.17	05/03/21 10:52	
n-Propylbenzene	ug/L	0.50 U	0.50	0.18	05/03/21 10:52	
o-Xylene	ug/L	0.50 U	0.50	0.20	05/03/21 10:52	
p-Isopropyltoluene	ug/L	0.50 U	0.50	0.20	05/03/21 10:52	
sec-Butylbenzene	ug/L	0.50 U	0.50	0.18	05/03/21 10:52	
Styrene	ug/L	0.50 U	0.50	0.19	05/03/21 10:52	
tert-Butyl Alcohol	ug/L	10.0 U	10.0	6.5	05/03/21 10:52	
tert-Butylbenzene	ug/L	0.50 U	0.50	0.19	05/03/21 10:52	
Tetrachloroethene	ug/L	0.50 U	0.50	0.19	05/03/21 10:52	
Toluene	ug/L	0.50 U	0.50	0.22	05/03/21 10:52	
Total Trihalomethanes (Calc.)	ug/L	0.50 U	0.50	0.50	05/03/21 10:52	
trans-1,2-Dichloroethene	ug/L	0.50 U	0.50	0.24	05/03/21 10:52	
trans-1,3-Dichloropropene	ug/L	0.50 U	0.50	0.21	05/03/21 10:52	
Trichloroethene	ug/L	0.50 U	0.50	0.21	05/03/21 10:52	
Trichlorofluoromethane	ug/L	0.50 U	0.50	0.15	05/03/21 10:52	
Vinyl chloride	ug/L	0.50 U	0.50	0.23	05/03/21 10:52	
Xylene (Total)	ug/L	0.50 U	0.50	0.14	05/03/21 10:52	
1,2-Dichlorobenzene-d4 (S)	%	95	70-130		05/03/21 10:52	
4-Bromofluorobenzene (S)	%	97	70-130		05/03/21 10:52	

LABORATORY CONTROL SAMPLE: 1025816

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	10	10.4	104	70-130	
1,1,1-Trichloroethane	ug/L	10	9.8	98	70-130	
1,1,2,2-Tetrachloroethane	ug/L	10	11.9	119	70-130	
1,1,2-Trichloroethane	ug/L	10	11.2	112	70-130	
1,1-Dichloroethane	ug/L	10	9.6	96	70-130	
1,1-Dichloroethene	ug/L	10	9.1	91	70-130	
1,1-Dichloropropene	ug/L	10	10.4	104	70-130	
1,2,3-Trichlorobenzene	ug/L	10	11.2	112	70-130	
1,2,3-Trichloropropane	ug/L	10	12.3	123	70-130	
1,2,4-Trichlorobenzene	ug/L	10	11.1	111	70-130	
1,2,4-Trimethylbenzene	ug/L	10	11.0	110	70-130	
1,2-Dichlorobenzene	ug/L	10	10.2	102	70-130	
1,2-Dichloroethane	ug/L	10	10.5	105	70-130	
1,2-Dichloropropane	ug/L	10	10.1	101	70-130	
1,3,5-Trimethylbenzene	ug/L	10	10.1	101	70-130	
1,3-Dichlorobenzene	ug/L	10	10.5	105	70-130	
1,3-Dichloropropane	ug/L	10	10.7	107	70-130	
1,4-Dichlorobenzene	ug/L	10	10.7	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

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Date: 05/11/2021 03:43 PM

Page 37 of 53



Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: SMO-HANOVER-190292M-1
Pace Project No.: 30418246

LABORATORY CONTROL SAMPLE: 1025816

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
2,2-Dichloropropane	ug/L	10	9.6	96	70-130	
2-Chlorotoluene	ug/L	10	10.3	103	70-130	
4-Chlorotoluene	ug/L	10	10.5	105	70-130	
Benzene	ug/L	10	10.3	103	70-130	
Bromobenzene	ug/L	10	10.6	106	70-130	
Bromochloromethane	ug/L	10	10.3	103	70-130	
Bromodichloromethane	ug/L	10	10.0	100	70-130	
Bromoform	ug/L	10	11.6	116	70-130	
Bromomethane	ug/L	10	8.0	80	70-130	
Carbon tetrachloride	ug/L	10	10.1	101	70-130	
Chlorobenzene	ug/L	10	10.7	107	70-130	
Chloroethane	ug/L	10	8.8	88	70-130	
Chloroform	ug/L	10	10.5	105	70-130	
Chloromethane	ug/L	10	7.8	78	70-130	
cis-1,2-Dichloroethene	ug/L	10	9.9	99	70-130	
cis-1,3-Dichloropropene	ug/L	10	10.6	106	70-130	
Dibromochloromethane	ug/L	10	10.4	104	70-130	
Dibromomethane	ug/L	10	11.2	112	70-130	
Dichlorodifluoromethane	ug/L	10	7.3	73	70-130	
Ethylbenzene	ug/L	10	10.8	108	70-130	
Hexachloro-1,3-butadiene	ug/L	10	9.6	96	70-130	
Isopropylbenzene (Cumene)	ug/L	10	10.3	103	70-130	
m&p-Xylene	ug/L	20	21.7	109	70-130	
Methyl-tert-butyl ether	ug/L	10	14.5	145	70-130 IH,L1	
Methylene Chloride	ug/L	10	9.7	97	70-130	
n-Butylbenzene	ug/L	10	10.7	107	70-130	
n-Propylbenzene	ug/L	10	11.3	113	70-130	
o-Xylene	ug/L	10	10.3	103	70-130	
p-Isopropyltoluene	ug/L	10	10.7	107	70-130	
sec-Butylbenzene	ug/L	10	10.4	104	70-130	
Styrene	ug/L	10	10.9	109	70-130	
tert-Butyl Alcohol	ug/L	50	67.3	135	70-130 L1	
tert-Butylbenzene	ug/L	10	10.2	102	70-130	
Tetrachloroethene	ug/L	10	9.8	98	70-130	
Toluene	ug/L	10	10.6	106	70-130	
Total Trihalomethanes (Calc.)	ug/L		42.6			
trans-1,2-Dichloroethene	ug/L	10	9.7	97	70-130	
trans-1,3-Dichloropropene	ug/L	10	10.7	107	70-130	
Trichloroethene	ug/L	10	10.0	100	70-130	
Trichlorofluoromethane	ug/L	10	9.7	97	70-130	
Vinyl chloride	ug/L	10	9.3	93	70-130	
Xylene (Total)	ug/L	30	32.0	107	70-130	
1,2-Dichlorobenzene-d4 (S)	%			108	70-130	
4-Bromofluorobenzene (S)	%			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

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Date: 05/11/2021 03:43 PM

Page 38 of 53



Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: SMO-HANOVER-190292M-1
Pace Project No.: 30418246

SAMPLE DUPLICATE: 1027477

Parameter	Units	30418246011 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	0.50 U	0.50 U		20	
1,1,1-Trichloroethane	ug/L	0.50 U	0.50 U		20	
1,1,2,2-Tetrachloroethane	ug/L	0.50 U	0.50 U		20	
1,1,2-Trichloroethane	ug/L	0.50 U	0.50 U		20	
1,1-Dichloroethane	ug/L	0.50 U	0.50 U		20	
1,1-Dichloroethene	ug/L	0.50 U	0.50 U		20	
1,1-Dichloropropene	ug/L	0.50 U	0.50 U		20	
1,2,3-Trichlorobenzene	ug/L	0.50 U	0.50 U		20	
1,2,3-Trichloropropane	ug/L	0.50 U	0.50 U		20	
1,2,4-Trichlorobenzene	ug/L	0.50 U	0.50 U		20	
1,2,4-Trimethylbenzene	ug/L	0.50 U	0.50 U		20	
1,2-Dichlorobenzene	ug/L	0.50 U	0.50 U		20	
1,2-Dichloroethane	ug/L	0.50 U	0.50 U		20	
1,2-Dichloropropane	ug/L	0.50 U	0.50 U		20	
1,3,5-Trimethylbenzene	ug/L	0.50 U	0.50 U		20	
1,3-Dichlorobenzene	ug/L	0.50 U	0.50 U		20	
1,3-Dichloropropane	ug/L	0.50 U	0.50 U		20	
1,4-Dichlorobenzene	ug/L	0.50 U	0.50 U		20	
2,2-Dichloropropane	ug/L	0.50 U	0.50 U		20	
2-Chlorotoluene	ug/L	0.50 U	0.50 U		20	
4-Chlorotoluene	ug/L	0.50 U	0.50 U		20	
Benzene	ug/L	0.50 U	0.50 U		20	
Bromobenzene	ug/L	0.50 U	0.50 U		20	
Bromochloromethane	ug/L	0.50 U	0.50 U		20	
Bromodichloromethane	ug/L	0.50 U	0.50 U		20	
Bromoform	ug/L	0.50 U	0.50 U		20	
Bromomethane	ug/L	0.50 U	0.50 U		20	
Carbon tetrachloride	ug/L	0.50 U	0.50 U		20	
Chlorobenzene	ug/L	0.50 U	0.50 U		20	
Chloroethane	ug/L	0.50 U	0.50 U		20	
Chloroform	ug/L	0.50 U	0.50 U		20	
Chloromethane	ug/L	0.50 U	0.50 U		20	
cis-1,2-Dichloroethene	ug/L	0.50 U	0.50 U		20	
cis-1,3-Dichloropropene	ug/L	0.50 U	0.50 U		20	
Dibromochloromethane	ug/L	0.50 U	0.50 U		20	
Dibromomethane	ug/L	0.50 U	0.50 U		20	
Dichlorodifluoromethane	ug/L	0.50 U	0.50 U		20	
Ethylbenzene	ug/L	0.50 U	0.50 U		20	
Hexachloro-1,3-butadiene	ug/L	0.50 U	0.50 U		20	
Isopropylbenzene (Cumene)	ug/L	0.50 U	0.50 U		20	
m&p-Xylene	ug/L	0.50 U	0.50 U		20	
Methyl-tert-butyl ether	ug/L	0.50 U	0.50 U		20	
Methylene Chloride	ug/L	0.78	0.86	9	20	
n-Butylbenzene	ug/L	0.50 U	0.50 U		20	
n-Propylbenzene	ug/L	0.50 U	0.50 U		20	
o-Xylene	ug/L	0.50 U	0.50 U		20	
p-Isopropyltoluene	ug/L	0.50 U	0.50 U		20	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Date: 05/11/2021 03:43 PM

Page 39 of 53



Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: SMO-HANOVER-190292M-1
Pace Project No.: 30418246

SAMPLE DUPLICATE: 1027477

Parameter	Units	30418246011 Result	Dup Result	RPD	Max RPD	Qualifiers
sec-Butylbenzene	ug/L	0.50 U	0.50 U		20	
Styrene	ug/L	0.50 U	0.50 U		20	
tert-Butyl Alcohol	ug/L	10.0 U	10.0 U		20	
tert-Butylbenzene	ug/L	0.50 U	0.50 U		20	
Tetrachloroethene	ug/L	0.50 U	0.50 U		20	
Toluene	ug/L	0.50 U	0.50 U		20	
Total Trihalomethanes (Calc.)	ug/L	0.50 U	0.50 U		20	
trans-1,2-Dichloroethene	ug/L	0.50 U	0.50 U		20	
trans-1,3-Dichloropropene	ug/L	0.50 U	0.50 U		20	
Trichloroethene	ug/L	0.50 U	0.50 U		20	
Trichlorofluoromethane	ug/L	0.50 U	0.50 U		20	
Vinyl chloride	ug/L	0.50 U	0.50 U		20	
Xylene (Total)	ug/L	0.50 U	0.50 U		20	
1,2-Dichlorobenzene-d4 (S)	%	97	98		20	
4-Bromofluorobenzene (S)	%	96	107		20	

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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Date: 05/11/2021 03:43 PM

Page 40 of 53



QUALITY CONTROL DATA

Project: SMO-HANOVER-190292M-1
Pace Project No.: 30418246

QC Batch: 446800 Analysis Method: EPA 8260B
QC Batch Method: EPA 8260B Analysis Description: 8260B MSV
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 30418246001, 30418246002, 30418246003, 30418246004, 30418246005, 30418246006, 30418246007, 30418246008, 30418246009, 30418246010, 30418246012

METHOD BLANK: 2156095 Matrix: Water
Associated Lab Samples: 30418246001, 30418246002, 30418246003, 30418246004, 30418246005, 30418246006, 30418246007, 30418246008, 30418246009, 30418246010, 30418246012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1-Trichloroethane	ug/L	1.0 U	1.0	0.38	05/06/21 14:37	
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	1.0	0.47	05/06/21 14:37	
1,1,2-Trichloroethane	ug/L	1.0 U	1.0	0.33	05/06/21 14:37	
1,1-Dichloroethane	ug/L	1.0 U	1.0	0.24	05/06/21 14:37	
1,1-Dichloroethene	ug/L	1.0 U	1.0	0.24	05/06/21 14:37	
1,2,4-Trichlorobenzene	ug/L	1.0 U	1.0	0.73	05/06/21 14:37	
1,2-Dichlorobenzene	ug/L	1.0 U	1.0	0.38	05/06/21 14:37	
1,2-Dichloroethane	ug/L	1.0 U	1.0	0.33	05/06/21 14:37	
1,2-Dichloroethene (Total)	ug/L	2.0 U	2.0	0.66	05/06/21 14:37	
1,2-Dichloropropane	ug/L	1.0 U	1.0	0.28	05/06/21 14:37	
1,3-Dichlorobenzene	ug/L	1.0 U	1.0	0.45	05/06/21 14:37	
1,4-Dichlorobenzene	ug/L	1.0 U	1.0	0.48	05/06/21 14:37	
2-Butanone (MEK)	ug/L	10.0 U	10.0	1.5	05/06/21 14:37	
2-Hexanone	ug/L	10.0 U	10.0	0.58	05/06/21 14:37	
4-Methyl-2-pentanone (MIBK)	ug/L	10.0 U	10.0	0.42	05/06/21 14:37	
Acetone	ug/L	10.0 U	10.0	5.6	05/06/21 14:37	
Benzene	ug/L	1.0 U	1.0	0.34	05/06/21 14:37	
Bromochloromethane	ug/L	1.0 U	1.0	0.48	05/06/21 14:37	
Bromodichloromethane	ug/L	1.0 U	1.0	0.35	05/06/21 14:37	
Bromoform	ug/L	1.0 U	1.0	0.56	05/06/21 14:37	
Bromomethane	ug/L	1.0 U	1.0	0.73	05/06/21 14:37	
Carbon disulfide	ug/L	1.0 U	1.0	0.32	05/06/21 14:37	
Carbon tetrachloride	ug/L	1.0 U	1.0	0.44	05/06/21 14:37	
Chlorobenzene	ug/L	1.0 U	1.0	0.26	05/06/21 14:37	
Chloroethane	ug/L	1.0 U	1.0	0.64	05/06/21 14:37	
Chloroform	ug/L	1.0 U	1.0	0.39	05/06/21 14:37	
Chloromethane	ug/L	1.0 U	1.0	0.40	05/06/21 14:37	
cis-1,2-Dichloroethene	ug/L	1.0 U	1.0	0.38	05/06/21 14:37	
cis-1,3-Dichloropropene	ug/L	1.0 U	1.0	0.29	05/06/21 14:37	
Dibromochloromethane	ug/L	1.0 U	1.0	0.43	05/06/21 14:37	
Diethyl ether (Ethyl ether)	ug/L	1.0 U	1.0	0.35	05/06/21 14:37	
Ethanol	ug/L	200 U	200	73.5	05/06/21 14:37	
Ethyl-tert-butyl ether	ug/L	1.0 U	1.0	0.29	05/06/21 14:37	
Ethylbenzene	ug/L	1.0 U	1.0	0.40	05/06/21 14:37	
m&p-Xylene	ug/L	2.0 U	2.0	0.94	05/06/21 14:37	
Methyl-tert-butyl ether	ug/L	1.0 U	1.0	0.25	05/06/21 14:37	
Methylene Chloride	ug/L	1.0 U	1.0	0.64	05/06/21 14:37	
Naphthalene	ug/L	2.0 U	2.0	0.82	05/06/21 14:37	
o-Xylene	ug/L	1.0 U	1.0	0.41	05/06/21 14:37	

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

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.



QUALITY CONTROL DATA

Project: SMO-HANOVER-190292M-1
Pace Project No.: 30418246

METHOD BLANK: 2156095 Matrix: Water
Associated Lab Samples: 30418246001, 30418246002, 30418246003, 30418246004, 30418246005, 30418246006, 30418246007, 30418246008, 30418246009, 30418246010, 30418246012

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Styrene	ug/L	1.0 U	1.0	0.33	05/06/21 14:37	
tert-Amylmethyl ether	ug/L	1.0 U	1.0	0.27	05/06/21 14:37	
tert-Butyl Alcohol	ug/L	5.0 U	5.0	4.3	05/06/21 14:37	
Tetrachloroethene	ug/L	1.0 U	1.0	0.39	05/06/21 14:37	
Toluene	ug/L	1.0 U	1.0	0.32	05/06/21 14:37	
TOTAL BTEX	ug/L	6.0 U	6.0	2.4	05/06/21 14:37	
trans-1,2-Dichloroethene	ug/L	1.0 U	1.0	0.28	05/06/21 14:37	
trans-1,3-Dichloropropene	ug/L	1.0 U	1.0	0.32	05/06/21 14:37	
Trichloroethene	ug/L	1.0 U	1.0	0.29	05/06/21 14:37	
Vinyl chloride	ug/L	1.0 U	1.0	0.29	05/06/21 14:37	
Xylene (Total)	ug/L	3.0 U	3.0	1.4	05/06/21 14:37	
1,2-Dichloroethane-d4 (S)	%	100	70-130		05/06/21 14:37	
4-Bromofluorobenzene (S)	%	101	70-130		05/06/21 14:37	
Dibromofluoromethane (S)	%	99	70-130		05/06/21 14:37	
Toluene-d8 (S)	%	98	70-130		05/06/21 14:37	

LABORATORY CONTROL SAMPLE: 2156096

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1-Trichloroethane	ug/L	20	26.6	133	70-130	L1
1,1,2,2-Tetrachloroethane	ug/L	20	23.5	117	70-130	
1,1,2-Trichloroethane	ug/L	20	22.9	114	70-130	
1,1-Dichloroethane	ug/L	20	23.5	117	70-130	
1,1-Dichloroethene	ug/L	20	23.0	115	70-130	
1,2,4-Trichlorobenzene	ug/L	20	24.7	123	70-130	
1,2-Dichlorobenzene	ug/L	20	23.6	118	70-130	
1,2-Dichloroethane	ug/L	20	22.8	114	70-130	
1,2-Dichloroethene (Total)	ug/L	40	46.1	115	70-130	
1,2-Dichloropropane	ug/L	20	22.9	115	70-130	
1,3-Dichlorobenzene	ug/L	20	23.9	120	70-130	
1,4-Dichlorobenzene	ug/L	20	23.0	115	70-130	
2-Butanone (MEK)	ug/L	20	18.9	94	70-130	
2-Hexanone	ug/L	20	19.8	99	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	20	19.0	95	70-130	
Acetone	ug/L	20	20.7	104	67-173	
Benzene	ug/L	20	23.5	117	70-130	
Bromochloromethane	ug/L	20	22.8	114	70-130	
Bromodichloromethane	ug/L	20	24.0	120	70-130	
Bromoform	ug/L	20	23.0	115	63-119	
Bromomethane	ug/L	20	21.5	107	24-159	
Carbon disulfide	ug/L	20	20.6	103	57-132	
Carbon tetrachloride	ug/L	20	23.6	118	70-130	
Chlorobenzene	ug/L	20	23.7	119	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

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.



QUALITY CONTROL DATA

Project: SMO-HANOVER-190292M-1
Pace Project No.: 30418246

LABORATORY CONTROL SAMPLE: 2156096

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloroethane	ug/L	20	23.4	117	62-145	
Chloroform	ug/L	20	23.8	119	70-130	
Chloromethane	ug/L	20	21.8	109	66-140	
cis-1,2-Dichloroethene	ug/L	20	22.8	114	70-130	
cis-1,3-Dichloropropene	ug/L	20	23.3	117	70-130	
Dibromochloromethane	ug/L	20	22.7	114	70-130	
Diethyl ether (Ethyl ether)	ug/L	20	20.0	100	53-147	
Ethanol	ug/L	200	331	166	10-175	
Ethyl-tert-butyl ether	ug/L	20	20.3	101	69-123	
Ethylbenzene	ug/L	20	23.5	117	70-130	
m&p-Xylene	ug/L	40	47.7	119	70-130	
Methyl-tert-butyl ether	ug/L	20	20.3	102	70-130	
Methylene Chloride	ug/L	20	22.0	110	70-130	
Naphthalene	ug/L	20	23.5	118	55-160	
o-Xylene	ug/L	20	23.4	117	70-130	
Styrene	ug/L	20	24.5	122	70-130	
tert-Amylmethyl ether	ug/L	20	20.2	101	70-130	
tert-Butyl Alcohol	ug/L	100	107	107	44-175	
Tetrachloroethene	ug/L	20	24.5	122	70-130	
Toluene	ug/L	20	23.5	117	70-130	
TOTAL BTEX	ug/L	120	142	118	70-130	
trans-1,2-Dichloroethene	ug/L	20	23.3	116	70-130	
trans-1,3-Dichloropropene	ug/L	20	23.5	117	70-130	
Trichloroethene	ug/L	20	24.0	120	70-130	
Vinyl chloride	ug/L	20	22.6	113	70-130	
Xylene (Total)	ug/L	60	71.1	119	70-130	
1,2-Dichloroethane-d4 (S)	%				106	70-130
4-Bromofluorobenzene (S)	%				98	70-130
Dibromofluoromethane (S)	%				100	70-130
Toluene-d8 (S)	%				100	70-130

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2156097 2156098

Parameter	Units	30418246010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,1,1-Trichloroethane	ug/L	1.0 U	20	20	22.9	22.0	115	110	55-146	4	30	
1,1,2,2-Tetrachloroethane	ug/L	1.0 U	20	20	23.9	23.0	119	115	55-118	4	30	MH
1,1,2-Trichloroethane	ug/L	1.0 U	20	20	22.1	22.7	111	113	61-122	2	30	
1,1-Dichloroethane	ug/L	1.0 U	20	20	21.1	19.9	105	99	59-130	6	30	
1,1-Dichloroethene	ug/L	1.0 U	20	20	20.2	19.5	101	98	52-119	4	30	
1,2,4-Trichlorobenzene	ug/L	1.0 U	20	20	21.4	20.5	107	102	38-146	5	30	
1,2-Dichlorobenzene	ug/L	1.0 U	20	20	20.9	20.2	104	101	58-126	3	30	
1,2-Dichloroethane	ug/L	1.0 U	20	20	19.7	18.6	99	93	49-135	6	30	
1,2-Dichloroethene (Total)	ug/L	2.0 U	40	40	41.0	38.8	103	97	61-119	6	30	
1,2-Dichloropropane	ug/L	1.0 U	20	20	20.8	19.3	104	96	67-121	8	30	

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

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.



QUALITY CONTROL DATA

Project: SMO-HANOVER-190292M-1
Pace Project No.: 30418246

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2156097 2156098

Parameter	Units	30418246010 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1,3-Dichlorobenzene	ug/L	1.0 U	20	20	21.4	20.1	107	100	56-130	7	30	
1,4-Dichlorobenzene	ug/L	1.0 U	20	20	19.9	19.1	100	95	60-121	4	30	
2-Butanone (MEK)	ug/L	10.0 U	20	20	15.6	21.2	78	106	59-138	31	30	R1
2-Hexanone	ug/L	10.0 U	20	20	17.2	17.7	86	88	66-123	3	30	
4-Methyl-2-pentanone (MIBK)	ug/L	10.0 U	20	20	17.4	17.1	87	85	70-130	2	30	
Acetone	ug/L	10.0 U	20	20	26.8	21.8	125	100	57-140	20	30	
Benzene	ug/L	1.0 U	20	20	20.4	19.5	102	98	50-149	4	30	
Bromochloromethane	ug/L	1.0 U	20	20	21.2	19.7	106	98	63-120	7	30	
Bromodichloromethane	ug/L	1.0 U	20	20	22.9	20.4	114	102	46-131	12	30	
Bromoform	ug/L	1.0 U	20	20	20.0	18.4	100	92	30-119	8	30	
Bromomethane	ug/L	1.0 U	20	20	2.8	4.1	14	20	10-163	36	30	R1
Carbon disulfide	ug/L	1.0 U	20	20	17.6	17.7	88	88	41-116	0	30	
Carbon tetrachloride	ug/L	1.0 U	20	20	21.2	19.5	106	98	55-119	8	30	
Chlorobenzene	ug/L	1.0 U	20	20	20.5	20.1	103	100	66-124	2	30	
Chloroethane	ug/L	1.0 U	20	20	19.6	19.5	98	98	45-162	0	30	
Chloroform	ug/L	1.0 U	20	20	20.5	19.0	102	95	56-123	8	30	
Chloromethane	ug/L	1.0 U	20	20	16.9	16.9	85	85	49-150	0	30	
cis-1,2-Dichloroethene	ug/L	1.0 U	20	20	20.1	18.9	100	94	63-116	6	30	
cis-1,3-Dichloropropene	ug/L	1.0 U	20	20	20.4	18.6	102	93	46-119	9	30	
Dibromochloromethane	ug/L	1.0 U	20	20	19.3	18.3	96	92	42-120	5	30	
Diethyl ether (Ethyl ether)	ug/L	1.0 U	20	20	17.0	16.8	85	84	52-125	1	30	
Ethanol	ug/L	200 U	200	200	277	246	139	123	10-175	12	30	
Ethyl-tert-butyl ether	ug/L	1.0 U	20	20	24.4	17.2	122	86	64-108	34	30	MH,R1
Ethylbenzene	ug/L	1.0 U	20	20	20.9	20.1	103	100	63-135	4	30	
m&p-Xylene	ug/L	2.0 U	40	40	41.2	40.5	102	101	63-135	2	30	
Methyl-tert-butyl ether	ug/L	1.0 U	20	20	16.8	16.6	84	83	53-123	1	30	
Methylene Chloride	ug/L	1.0 U	20	20	19.4	18.3	95	90	57-132	6	30	
Naphthalene	ug/L	2.0 U	20	20	21.9	21.3	110	107	30-157	3	30	
o-Xylene	ug/L	1.0 U	20	20	20.2	19.8	101	99	57-133	2	30	
Styrene	ug/L	1.0 U	20	20	21.2	20.4	106	102	58-130	4	30	
tert-Amylmethyl ether	ug/L	1.0 U	20	20	17.1	16.9	85	84	62-112	1	30	
tert-Butyl Alcohol	ug/L	5.0 U	100	100	93.0	90.5	93	91	37-162	3	30	
Tetrachloroethene	ug/L	1.0 U	20	20	21.0	20.1	105	100	61-132	5	30	
Toluene	ug/L	1.0 U	20	20	20.5	19.9	102	99	59-139	3	30	
TOTAL BTEX	ug/L	6.0 U	120	120	123	120	103	100	50-149	3	30	
trans-1,2-Dichloroethene	ug/L	1.0 U	20	20	20.9	19.9	105	100	60-124	5	30	
trans-1,3-Dichloropropene	ug/L	1.0 U	20	20	20.3	19.2	101	96	48-121	5	30	
Trichloroethene	ug/L	1.0 U	20	20	20.0	19.5	100	98	63-128	3	30	
Vinyl chloride	ug/L	1.0 U	20	20	20.5	20.9	102	104	67-141	2	30	
Xylene (Total)	ug/L	3.0 U	60	60	61.4	60.3	102	100	63-135	2	30	
1,2-Dichloroethane-d4 (S)	%							105	104	70-130		
4-Bromofluorobenzene (S)	%							99	100	70-130		
Dibromofluoromethane (S)	%							99	96	70-130		
Toluene-d8 (S)	%							99	101	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

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.



Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA

Project: SMO-HANOVER-190292M-1
Pace Project No.: 30418246

QC Batch: 446253 Analysis Method: EPA 8015D
QC Batch Method: EPA 3510C Analysis Description: EPA 8015D TPH RV
Laboratory: Pace Analytical Services - Greensburg
Associated Lab Samples: 30418246001, 30418246002, 30418246003, 30418246004, 30418246005, 30418246006, 30418246007, 30418246008, 30418246009, 30418246010

METHOD BLANK: 2153679 Matrix: Water
Associated Lab Samples: 30418246001, 30418246002, 30418246003, 30418246004, 30418246005, 30418246006, 30418246007, 30418246008, 30418246009, 30418246010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
TPH (C10-C28)	mg/L	0.10 U	0.10	0.069	05/10/21 18:01	
o-Terphenyl (S)	%	63	25-105		05/10/21 18:01	

LABORATORY CONTROL SAMPLE: 2153680

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH (C10-C28)	mg/L	1	0.75	75	46-110	
o-Terphenyl (S)	%			67	25-105	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2153681 2153682

Parameter	Units	MS		MSD		MS		MSD		% Rec Limits	Max RPD	Qual
		Result	Spike Conc.	Result	Spike Conc.	Result	Result	% Rec	% Rec			
TPH (C10-C28)	mg/L	0.45	1.1	0.99	0.95	1.1		47	66	21-118	15	25
o-Terphenyl (S)	%							50	64	25-105		

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

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.

Date: 05/11/2021 03:43 PM

Page 45 of 53



Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALIFIERS

Project: SMO-HANOVER-190292M-1
Pace Project No.: 30418246

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 adjusted reporting limit.
TNTC - Too Numerous To Count
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.
MDL - Adjusted Method Detection Limit.
PQL - Practical Quantitation Limit.
RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.
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.
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.

ANALYTE QUALIFIERS

IH This analyte exceeded secondary source verification criteria high for the initial calibration. The reported results should be considered an estimated value.
L1 Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.
MH Matrix spike recovery and/or matrix spike duplicate recovery was above laboratory control limits. Result may be biased high.
R1 RPD value was outside control limits.

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.

Date: 05/11/2021 03:43 PM

Page 46 of 53



Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: SMO-HANOVER-190292M-1
Pace Project No.: 30418246

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30418246001	MW-1	EPA 3510C	446253	EPA 8015D	446393
30418246002	MW-4	EPA 3510C	446253	EPA 8015D	446393
30418246003	MW-7	EPA 3510C	446253	EPA 8015D	446393
30418246004	MW-8	EPA 3510C	446253	EPA 8015D	446393
30418246005	MW-9	EPA 3510C	446253	EPA 8015D	446393
30418246006	MW-10	EPA 3510C	446253	EPA 8015D	446393
30418246007	MW-12	EPA 3510C	446253	EPA 8015D	446393
30418246008	MW-14	EPA 3510C	446253	EPA 8015D	446393
30418246009	MW-15	EPA 3510C	446253	EPA 8015D	446393
30418246010	MW-16	EPA 3510C	446253	EPA 8015D	446393
30418246011	Outside Spigot	EPA 524.2	206724		
30418246001	MW-1	EPA 8260B	446800		
30418246002	MW-4	EPA 8260B	446800		
30418246003	MW-7	EPA 8260B	446800		
30418246004	MW-8	EPA 8260B	446800		
30418246005	MW-9	EPA 8260B	446800		
30418246006	MW-10	EPA 8260B	446800		
30418246007	MW-12	EPA 8260B	446800		
30418246008	MW-14	EPA 8260B	446800		
30418246009	MW-15	EPA 8260B	446800		
30418246010	MW-16	EPA 8260B	446800		
30418246012	trip Blank	EPA 8260B	446800		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, LLC.

Date: 05/11/2021 03:43 PM

Page 47 of 53

Chain-of-Custody Analytical Request Document
Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields.

Company: **ARM Group**
Address: **9175 GOLF RD**
Report To: **Eric MacDae**
Copy To: **Doug Hamilton**
Customer Project Name/Number: **SMO-HANOVER-190292M-1**
Site/Facility ID #: **MD-HANOVER/AA**
State: **MD** County/City: **HANOVER/AA** Time Zone Collected: **[] PT [] MT [] CT [] ET**
Phone: **410-271-1111** Email: **info@armgroup.com**
Collected By (print): **TOM PALANK** Purchase Order #: **STANARCH**
Collected By (Signature): *[Signature]* Quote #: **STANARCH**
Sample Disposal: **[] Same Day [] Next Day [] 3 Day [] 4 Day [] 5 Day [] 7 Day [] 10 Day [] 15 Day [] 30 Day [] 60 Day [] 90 Day [] Other (Specify Charges Apply)**
Analysis: **[] Yes [] No**
Field Filtered (if applicable): **[] Yes [] No**
Analysis: **[] Yes [] No**
Matrix Codes (insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

LAB USE
WO# : 30418246

LAB Sample Receipt Checklist:
Custody Seals Present/Intact: **[X] NA**
Custody Signatures Present: **[X] NA**
Collector Signatures Present: **[X] NA**
Correct Bottles: **[X] NA**
Sufficient Volume: **[X] NA**
Samples Received on Ice: **[X] NA**
VOC - Headspace Acceptable: **[X] NA**
Residual Chlorine Present: **[X] NA**
Samples in Holding Time: **[X] NA**
C.I. Strips: **[X] NA**
Sample per Analyte: **[X] NA**
Sulfide Present: **[X] NA**
Lead Acetate Strips: **[X] NA**
LAB USE ONLY: **[X] NA**
LAB Sample # / Comments: **MU1 MLC**

Customer Sample ID	Matrix *	Comp / Grnd	Collected for Composite Start	Time	Date	Composite End	Time	Date	Res Cts	# of Cts
MW-1	GW	6:04b	4/28/21	0970						8
MW-4			1008							
MW-7			1041							
MW-8			1342							
MW-9			1110							
MW-10			1420							
MW-12			1327							
MW-14			1358							
MW-15			1432							
MW-16			0950							

Customer Remarks / Special Conditions / Possible Hazards:

SHORT HOLDS PRESENT (-72 hours): Y N **NA**
Lab Tracking #: **2642472 NIV**
Samples received via: FEDEX UPS Client Courier **MTLLAB USE ONLY**
Date/Time: **4/28/21 1535** Date/Time: **4/28/21 1535**
Weight: **1.82** Weight: **1.82**
PIM: **419-201-223** PIM: **419-201-223**

Relinquished by/Company: (Signature) **ARM** Received by/Company: (Signature) **[Signature]**
Relinquished by/Company: (Signature) **[Signature]** Received by/Company: (Signature) **[Signature]**
Relinquished by/Company: (Signature) **[Signature]** Received by/Company: (Signature) **[Signature]**

CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

Company: ARM Group

Address:

Report To:

Copy To:

Customer Project Name/Number: SMO HANOVER-190292M-1

State: / **County/City:** / **Time Zone Collected:** [] PT [] MT [] CT [] ET

Phone: / **Site/Facility ID #:** / **Compliance Monitoring?** [] Yes [] No

Collected By (print): Tom Palank / **Purchase Order #:** / **DW PWS ID #:** / **DW Location Code:**

Collected By (signature): [Signature] / **Turnaround Date Required:** JANUARY / **Immediately Packed on Ice:** [X] Yes [] No

Sample Disposal: [] Dispose as appropriate [] Return [] Archive [] Hold [] [] 2 Day [] 3 Day [] 14 Day [] 30 Day (Expedite Charges Apply) / **Rush:** [] Same Day [] Next Day [] [] 2 Day [] 3 Day [] 14 Day [] 30 Day (Expedite Charges Apply) / **Field Filtered (if applicable):** [] Yes [] No

*** Matrix Codes (Insert in Matrix box below):** Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

LAB USE ONLY **WO# : 30418246**

PM: SMB **Due Date: 05/07/21**

CLIENT: ARM GROUP

Container Preservation: 33

**** Preservative Types:** (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other

Analyses:

Lab Profile/Line:

Lab Sample Receipt Checklist:

Custody Seals Present/Intact	Y	N	NA
Custody Signatures Present	Y	N	NA
Collector Signatures Present	Y	N	NA
Bottles Intact	Y	N	NA
Correct Bottles	Y	N	NA
Sufficient Volume	Y	N	NA
Samples Received on Ice	Y	N	NA
VOL - Headspace Acceptable	Y	N	NA
USDA Regulated Soils	Y	N	NA
Samples in Holding Time	Y	N	NA
Residual Chlorine Present	Y	N	NA
Cl Strips:			
Sample pH Acceptable	Y	N	NA
pH Strips:			
Sulfide Present	Y	N	NA
Lead Acetate Strips:			

LAB USE ONLY: Lab Sample # / Comments: Seepgi mlfacc

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start)		Composite End		Res Cl	# of Ctns	VOC by 524.2
			Date	Time	Date	Time			
Outside Spigot	DW	6:26	4/28/21	12:45				3	X
Tap Blank	CW	6:26		NA				2	X

Customer Remarks / Special Conditions / Possible Hazards: Type of Ice Used: Wet Blue Dry None
 Packing Material Used: Bubble wrap / Ziploc
 Radchem sample(s) screened (<500 cpm): Y N (N)

SHORT HOLDS PRESENT (<72 hours): Y N (NA)

Lab Tracking #: 2623295 N/A

Samples received via: FEDEX UPS Client Courier (Pace Courier)

Lab Sample Temperature Info: Temp Blank Received: Y (N) NA
 Therm ID#: 11
 Cooler 1 Temp Upon Receipt: 3.5 °C
 Cooler 1 Therm Corr. Factor: 0 °C
 Cooler 1 Corrected Temp: 3.5 °C
 Comments: mll 4-30-2021

Tap Blank Received: (N) NA
 (HCL) MeOH TSP Other

Non Conformance(s): Page: 2 of 2

Internal Transfer Chain of Custody



Samples Pre-Logged into eCOC.

State of Origin: MD
 Cert. Needed: Yes No
 Owner Received Date: 4/29/2021



Workorder: 30418246 **Workorder Name:** SMO-HANOVER-190292M-1 **Requested Analysis:**

Report To	Subcontract To
Samantha Bayura Pace Analytical Pittsburgh 1638 Roseytown Road Suites 2,3,4 Greensburg, PA 15601 Phone (724)850-5622	Pace Analytical Melville 575 Broad Hollow Road Melville, NY 11747 Phone (631)694-3040

WO# : 70171273

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	H.C.	Preserved Containers	LAB USE ONLY
1	Outside Spigot	PS	4/28/2021 12:45	30418246011	Drinking	1		X
2								
3								
4								
5								

Comments:

Transfers	Released By	Date/Time	Received By	Date/Time
1	[Signature]	4/30/21 11:20	[Signature]	5/1/21 10:20
2				
3				

Cooler Temperature on Receipt: 7.1 °C **Custody Seal:** Y or (N) **Received on Ice:** (Y) or N **Samples Intact:** Y or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document. This chain of custody is considered complete as is since this information is available in the owner laboratory.

CHAIN-OF-CUSTODY Analytical Request Document

Company: **ARM Group** Billing Information: **WO# : 30418246**
 Address: **9175 Guilford RD** **WO# : 70171273**
 Report To: **Eric MacPac** Email To: **PM: NML** Due Date: **05/05/21**
 Copy To: **Doug Hamilton** Site Collection Info/Address: **CLIENT: PACE-PA**

Customer Project Name/Number: **SMO HANOVER - 190292M-1** State: **MD** County/City: **HANOVER/AA** Time Zone Collected: **[] PT [] MT [] CT [] ET**

Phone: _____ Site/Facility ID #: _____ Compliance Monitoring? **[] Yes [] No**

Collected By (print): **TOM PALANK** Purchase Order #: _____ DW PWS ID #: _____
 Collected By (signature): _____ Quote #: _____ DW Location Code: _____

Sample Disposal: _____ Turnaround Date Required: **STANDARD** Immediately Packed on Ice: **[] Yes [] No**
 [] Dispose as appropriate [] Return [] Same Day [] Next Day
 [] Archive: [] 2 Day [] 3 Day [] 4 Day [] 5 Day
 [] Hold: (Expedite Charges Apply) Analysis: _____

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start)		Composite End		Res Cl	# of Ctns	Analyses	Lab Profile/Line:
			Date	Time	Date	Time				
MW-1	GW	Grab	4/27/21	0920			8	8	VOC 8260	Lab Sample Receipt Checklist: Custody Seals Present/Intact <input checked="" type="checkbox"/> Y <input type="checkbox"/> NA Custody Signatures Present <input checked="" type="checkbox"/> Y <input type="checkbox"/> NA Collector Signature Present <input checked="" type="checkbox"/> Y <input type="checkbox"/> NA Bottles Intact <input checked="" type="checkbox"/> Y <input type="checkbox"/> NA Correct Bottles <input checked="" type="checkbox"/> Y <input type="checkbox"/> NA Sufficient Volume <input checked="" type="checkbox"/> Y <input type="checkbox"/> NA Samples Received on Ice <input checked="" type="checkbox"/> Y <input type="checkbox"/> NA VOA - Headspace Acceptable <input checked="" type="checkbox"/> Y <input type="checkbox"/> NA USDA Regulated Soils <input checked="" type="checkbox"/> Y <input type="checkbox"/> NA Samples in Holding Time <input checked="" type="checkbox"/> Y <input type="checkbox"/> NA Residual Chlorine Present <input checked="" type="checkbox"/> Y <input type="checkbox"/> NA Cl Strips: <input checked="" type="checkbox"/> Y <input type="checkbox"/> NA Sample pH Acceptable <input checked="" type="checkbox"/> Y <input type="checkbox"/> NA pH Strips: 10.110 Sulfide Present <input checked="" type="checkbox"/> Y <input type="checkbox"/> NA Lead Acetate Strips: <input checked="" type="checkbox"/> Y <input type="checkbox"/> NA
MW-4				1008					GREO 8015	LAB USE ONLY: Lab Sample # / Comments: MCL MCL
MW-7				1041					DEO 8015	
MW-8				1342						
MW-9				1110						
MW-10				1420						
MW-12				1327						
MW-14				1358						
MW-15				1432						
MW-16				0950						

Customer Remarks / Special Conditions / Possible Hazards: Type of Ice Used: **Wet** Blue Dry None SHORT HOLDS PRESENT (<72 hours): Y N **NA**
 Packing Material Used: **Bubble wrap / Ziploc bags** Lab Tracking #: **2642472 N/A**
 Radchem sample(s) screened (<500 cpm): Y N **NA** Samples received via: FEDEX UPS Client Courier **Pace Courier**
 Relinquished by/Company: (Signature) **ARM** Date/Time: **1600/4/28/21** Received by/Company: (Signature) **Pace** Date/Time: **4/28/21 1535**
 Relinquished by/Company: (Signature) **RDS/ACE** Date/Time: **4/29/21** Received by/Company: (Signature) **RDS/ACE** Date/Time: **4/29/21 1920**
 Relinquished by/Company: (Signature) **RDS/ACE** Date/Time: **4/29/21 2030** Received by/Company: (Signature) **Manuel Wang** Date/Time: **4/29/21 2130**

CHAIN-OF-CUSTODY Analytical Request Document

Company: **ARM Group** Billing Information: **WO# : 30418246**
 Address: _____ **PM: SMB** Due Date: **05/07/21**
 Report To: _____ Email To: **CLIENT: ARM GROUP**

Customer Project Name/Number: **SMO HANOVER - 190292M-1** State: _____ County/City: _____ Time Zone Collected: **[] PT [] MT [] CT [] ET**

Phone: _____ Site/Facility ID #: _____ Compliance Monitoring? **[] Yes [] No**

Collected By (print): **TOM PALANK** Purchase Order #: _____ DW PWS ID #: _____
 Collected By (signature): _____ Quote #: _____ DW Location Code: _____

Sample Disposal: _____ Turnaround Date Required: **STANDARD** Immediately Packed on Ice: **[] Yes [] No**
 [] Dispose as appropriate [] Return [] Same Day [] Next Day
 [] Archive: [] 2 Day [] 3 Day [] 4 Day [] 5 Day
 [] Hold: (Expedite Charges Apply) Analysis: _____

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start)		Composite End		Res Cl	# of Ctns	Analyses	Lab Profile/Line:
			Date	Time	Date	Time				
Outside Spigot	DW	Grab	4/27/21	1245			3	3	VOL 524.2	Lab Sample Receipt Checklist: Custody Seals Present/Intact <input checked="" type="checkbox"/> Y <input type="checkbox"/> NA Custody Signatures Present <input checked="" type="checkbox"/> Y <input type="checkbox"/> NA Collector Signature Present <input checked="" type="checkbox"/> Y <input type="checkbox"/> NA Bottles Intact <input checked="" type="checkbox"/> Y <input type="checkbox"/> NA Correct Bottles <input checked="" type="checkbox"/> Y <input type="checkbox"/> NA Sufficient Volume <input checked="" type="checkbox"/> Y <input type="checkbox"/> NA Samples Received on Ice <input checked="" type="checkbox"/> Y <input type="checkbox"/> NA VOA - Headspace Acceptable <input checked="" type="checkbox"/> Y <input type="checkbox"/> NA USDA Regulated Soils <input checked="" type="checkbox"/> Y <input type="checkbox"/> NA Samples in Holding Time <input checked="" type="checkbox"/> Y <input type="checkbox"/> NA Residual Chlorine Present <input checked="" type="checkbox"/> Y <input type="checkbox"/> NA Cl Strips: <input checked="" type="checkbox"/> Y <input type="checkbox"/> NA Sample pH Acceptable <input checked="" type="checkbox"/> Y <input type="checkbox"/> NA pH Strips: _____ Sulfide Present <input checked="" type="checkbox"/> Y <input type="checkbox"/> NA Lead Acetate Strips: _____
Tap Blank	CW	Grab		NA			2	2	VOL 700	LAB USE ONLY: Lab Sample # / Comments: See pg 1 mfg/acc

Customer Remarks / Special Conditions / Possible Hazards: Type of Ice Used: **Wet** Blue Dry None SHORT HOLDS PRESENT (<72 hours): Y N **NA**
 Packing Material Used: **Bubble wrap / Ziploc** Lab Tracking #: **2623295 N/A**
 Radchem sample(s) screened (<500 cpm): Y N **NA** Samples received via: FEDEX UPS Client Courier **Pace Courier**
 Relinquished by/Company: (Signature) **ARM** Date/Time: **1600/4/28/21** Received by/Company: (Signature) **Pace** Date/Time: **4/27/21 1535**
 Relinquished by/Company: (Signature) **Pace** Date/Time: **4-29-21 1900** Received by/Company: (Signature) **RDS/ACE** Date/Time: **4/29/21 1920**
 Relinquished by/Company: (Signature) **RDS/ACE** Date/Time: **4/29/21 2030** Received by/Company: (Signature) **Manuel Wang** Date/Time: **4/29/21 2130**



Sample Condition Upon Receipt

WO#: 70171273

Client Name: Pace - PA

Project: PM: NML Due Date: 05/05/21 CLIENT: PACE-PA

Courier: [X] Fed Ex [] UPS [] USPS [] Client [] Commercial [] Pace [] Other
Tracking #: 9042 2961 7682
Custody Seal on Cooler/Box Present: [] Yes [X] No
Seals intact: [] Yes [X] No
Packing Material: [] Bubble Wrap [X] Bubble Bags [] Ziploc [] None [] Other
Thermometer Used: TH091 Correction Factor: +0.0
Cooler Temperature(°C): 2.1 Cooler Temperature Corrected(°C): 2.1

Temperature Blank Present: [] Yes [X] No
Type of Ice: [X] Wet [] Blue [] None
[] Samples on ice, cooling process has begun
Date/Time 5035A kits placed in freezer

Temp should be above freezing to 6.0°C
USDA Regulated Soil ([] N/A, water sample) Date and Initials of person examining contents: MJ 5/1/21

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA (check map)? [] Yes [X] No
Did samples originate from a foreign source including Hawaii and Puerto Rico)? [] Yes [X] No

If Yes to either question, fill out a Regulated Soil Checklist [F-LI-C-010] and include with SCUR/COC paperwork.

Table with 17 rows and 2 columns. Left column contains checklist items (Chain of Custody Present, Chain of Custody Filled Out, etc.). Right column contains 'COMMENTS:' and checkboxes for chemical tests (HNO3, H2SO4, NaOH, HCl). Includes a section for 'Sample #' with sub-columns for 'Initial when completed', 'Lot # of added preservative', and 'Date/Time preservative added'.

Client Notification/ Resolution: Field Data Required? Y / N
Person Contacted: Date/Time:
Comments/ Resolution:

* PM (Project Manager) review is documented electronically in LIMS.

**WATER SUPPLY WELL
LABORATORY REPORTS OF ANALYSIS
APRIL 2021**





Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: SMO-HANOVER-190292M-1
Pace Project No.: 30418246

Sample: Outside Spigot Lab ID: 30418246011 Collected: 04/28/21 12:45 Received: 04/29/21 22:30 Matrix: Drinking Water

Parameters	Results	Units	Report		MDL	DF	Prepared	Analyzed	CAS No.	Qual
			Limit	DF						
Analytical Method: EPA 524.2										
Pace Analytical Services - Long Island										
524.2 MSV	0.50 U	ug/L	0.50	0.22	1		05/03/21 16:24	71-43-2		
Benzene	0.50 U	ug/L	0.50	0.18	1		05/03/21 16:24	108-86-1		
Bromobenzene	0.50 U	ug/L	0.50	0.21	1		05/03/21 16:24	74-97-5		
Bromochloromethane	0.50 U	ug/L	0.50	0.18	1		05/03/21 16:24	75-27-4		
Bromodichloromethane	0.50 U	ug/L	0.50	0.35	1		05/03/21 16:24	75-25-2		
Bromoform	0.50 U	ug/L	0.50	0.48	1		05/03/21 16:24	74-83-9		
Bromomethane	10.0 U	ug/L	10.0	6.5	1		05/03/21 16:24	75-65-0		L1
tert-Butyl Alcohol	0.50 U	ug/L	0.50	0.17	1		05/03/21 16:24	104-51-8		
n-Butylbenzene	0.50 U	ug/L	0.50	0.18	1		05/03/21 16:24	135-98-8		
sec-Butylbenzene	0.50 U	ug/L	0.50	0.19	1		05/03/21 16:24	98-06-6		
tert-Butylbenzene	0.50 U	ug/L	0.50	0.17	1		05/03/21 16:24	56-23-5		
Carbon tetrachloride	0.50 U	ug/L	0.50	0.19	1		05/03/21 16:24	108-90-7		
Chlorobenzene	0.50 U	ug/L	0.50	0.25	1		05/03/21 16:24	75-00-3		
Chloroethane	0.50 U	ug/L	0.50	0.23	1		05/03/21 16:24	67-66-3		
Chloroform	0.50 U	ug/L	0.50	0.49	1		05/03/21 16:24	74-87-3		
Chloromethane	0.50 U	ug/L	0.50	0.21	1		05/03/21 16:24	95-49-8		
2-Chlorotoluene	0.50 U	ug/L	0.50	0.25	1		05/03/21 16:24	106-43-4		
4-Chlorotoluene	0.50 U	ug/L	0.50	0.15	1		05/03/21 16:24	124-48-1		
Dibromochloromethane	0.50 U	ug/L	0.50	0.42	1		05/03/21 16:24	74-95-3		
Dibromomethane	0.50 U	ug/L	0.50	0.20	1		05/03/21 16:24	95-50-1		
1,2-Dichlorobenzene	0.50 U	ug/L	0.50	0.20	1		05/03/21 16:24	541-73-1		
1,3-Dichlorobenzene	0.50 U	ug/L	0.50	0.22	1		05/03/21 16:24	106-46-7		
1,4-Dichlorobenzene	0.50 U	ug/L	0.50	0.22	1		05/03/21 16:24	75-71-8		
Dichlorodifluoromethane	0.50 U	ug/L	0.50	0.23	1		05/03/21 16:24	75-34-3		
1,1-Dichloroethane	0.50 U	ug/L	0.50	0.22	1		05/03/21 16:24	107-06-2		
1,2-Dichloroethane	0.50 U	ug/L	0.50	0.20	1		05/03/21 16:24	75-35-4		
1,1-Dichloroethene	0.50 U	ug/L	0.50	0.18	1		05/03/21 16:24	156-59-2		
cis-1,2-Dichloroethene	0.50 U	ug/L	0.50	0.24	1		05/03/21 16:24	156-60-5		
trans-1,2-Dichloroethene	0.50 U	ug/L	0.50	0.20	1		05/03/21 16:24	78-87-5		
1,2-Dichloropropane	0.50 U	ug/L	0.50	0.18	1		05/03/21 16:24	142-28-9		
1,3-Dichloropropane	0.50 U	ug/L	0.50	0.23	1		05/03/21 16:24	594-20-7		
2,2-Dichloropropane	0.50 U	ug/L	0.50	0.21	1		05/03/21 16:24	563-58-6		
1,1-Dichloropropene	0.50 U	ug/L	0.50	0.17	1		05/03/21 16:24	10061-01-5		
cis-1,3-Dichloropropene	0.50 U	ug/L	0.50	0.21	1		05/03/21 16:24	10061-02-6		
trans-1,3-Dichloropropene	0.50 U	ug/L	0.50	0.22	1		05/03/21 16:24	100-41-4		
Ethylbenzene	0.50 U	ug/L	0.50	0.16	1		05/03/21 16:24	87-68-3		
Hexachloro-1,3-butadiene	0.50 U	ug/L	0.50	0.19	1		05/03/21 16:24	98-82-8		
Isopropylbenzene (Cumene)	0.50 U	ug/L	0.50	0.20	1		05/03/21 16:24	99-87-6		
p-Isopropyltoluene	0.78	ug/L	0.50	0.21	1		05/03/21 16:24	75-09-2		
Methylene Chloride	0.50 U	ug/L	0.50	0.38	1		05/03/21 16:24	1634-04-4		L1
Methyl-tert-butyl ether	0.50 U	ug/L	0.50	0.18	1		05/03/21 16:24	103-65-1		
n-Propylbenzene	0.50 U	ug/L	0.50	0.19	1		05/03/21 16:24	100-42-5		
Styrene	0.50 U	ug/L	0.50	0.35	1		05/03/21 16:24	630-20-6		
1,1,1,2-Tetrachloroethane	0.50 U	ug/L	0.50	0.18	1		05/03/21 16:24	79-34-5		
1,1,2,2-Tetrachloroethane	0.50 U	ug/L	0.50	0.19	1		05/03/21 16:24	127-18-4		
Tetrachloroethene										

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Date: 05/11/2021 03:43 PM

Page 31 of 53



Pace Analytical Services, LLC
1638 Roseytown Road - Suites 2,3,4
Greensburg, PA 15601
(724)850-5600

ANALYTICAL RESULTS

Project: SMO-HANOVER-190292M-1
Pace Project No.: 30418246

Sample: Outside Spigot Lab ID: 30418246011 Collected: 04/28/21 12:45 Received: 04/29/21 22:30 Matrix: Drinking Water

Parameters	Results	Units	Report		MDL	DF	Prepared	Analyzed	CAS No.	Qual
			Limit	DF						
Analytical Method: EPA 524.2										
Pace Analytical Services - Long Island										
524.2 MSV	0.50 U	ug/L	0.50	0.22	1		05/03/21 16:24	108-88-3		
Toluene	0.50 U	ug/L	0.50	0.50	1		05/03/21 16:24			
Total Trihalomethanes (Calc.)	0.50 U	ug/L	0.50	0.41	1		05/03/21 16:24	87-61-6		
1,2,3-Trichlorobenzene	0.50 U	ug/L	0.50	0.47	1		05/03/21 16:24	120-82-1		
1,2,4-Trichlorobenzene	0.50 U	ug/L	0.50	0.19	1		05/03/21 16:24	71-55-6		
1,1,1-Trichloroethane	0.50 U	ug/L	0.50	0.17	1		05/03/21 16:24	79-00-5		
1,1,2-Trichloroethane	0.50 U	ug/L	0.50	0.21	1		05/03/21 16:24	79-01-6		
Trichloroethene	0.50 U	ug/L	0.50	0.15	1		05/03/21 16:24	75-69-4		
Trichlorofluoromethane	0.50 U	ug/L	0.50	0.40	1		05/03/21 16:24	96-18-4		
1,2,3-Trichloropropane	0.50 U	ug/L	0.50	0.18	1		05/03/21 16:24	95-63-6		
1,2,4-Trimethylbenzene	0.50 U	ug/L	0.50	0.19	1		05/03/21 16:24	108-67-8		
1,3,5-Trimethylbenzene	0.50 U	ug/L	0.50	0.23	1		05/03/21 16:24	75-01-4		
Vinyl chloride	0.50 U	ug/L	0.50	0.14	1		05/03/21 16:24	1330-20-7		
Xylene (Total)	0.50 U	ug/L	0.50	0.24	1		05/03/21 16:24	179601-23-1		
m&p-Xylene	0.50 U	ug/L	0.50	0.20	1		05/03/21 16:24	95-47-6		
o-Xylene										
Surrogates										
1,2-Dichlorobenzene-d4 (S)	97	%	70-130		1		05/03/21 16:24	2199-69-1		
4-Bromofluorobenzene (S)	96	%	70-130		1		05/03/21 16:24	460-00-4		

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

Date: 05/11/2021 03:43 PM

Page 32 of 53