RT Environmental Services, Inc.

May 2, 2022

Mr. Ijmal Ali
Finch Petroleum, Inc.
610 York Road
Warminster, PA 18974
Ph: 484-678-5693

cc: PADEP- Southeast Regional Office
Environmental Cleanup Group
2 East Main Street
Norristown, PA 19401

RE: REMEDIAL ACTION PROGRESS REPORT – MARCH 2022 MONITORING EVENT
GROUNDWATER MONITORING PROGRAM
SUNOCO STATION #0363-5430
FACILITY ID NO. 09-30778
610 YORK ROAD
WARMINSTER TOWNSHIP, PA 18974
RT PROJECT # 73057-02

Dear Mr. Ali:

RT Environmental Services, Inc. (RT) is pleased to present this progress report detailing the recent analytical results for the groundwater monitoring activities conducted at the site in March 2022. On September 12, 2018, a petroleum release was discovered at Sunoco Station #0363-5430 during the annual tank compliance testing. Tank 001 (Ultra gasoline unit) failed the EZY 3 Locator Plus test resulting in the submission of a "Notification of Reportable Release" to the Pennsylvania Department of Environmental Protection (PADEP) Bureau of Environmental Cleanup and Brownfields. Remedial activities consisted of the removal of three 12,000-gallon underground storage tanks (USTs) and the excavation of all petroleum impacted soil from the UST grave. Three new fiberglass tanks were installed in the excavation and quarry-supplied pea gravel was imported to the site to fill in the annular space around the tanks. The excavation was then capped with concrete. Following the excavation of the impacted soils, a groundwater investigation was initiated at the site. This groundwater investigation involved the installation of two additional monitoring wells, MW-11 and MW-12. Ten other monitoring wells were installed prior to this investigation. RT has been conducting quarterly groundwater monitoring activities at the site in order to obtain the appropriate groundwater quality data necessary to evaluate potential remedial alternatives for the site. A site location map is provided as **Figure 1** and a site aerial map is provided as **Figure 2**.

GROUNDWATER MONITORING

RT mobilized to the site on March 28 and 29, 2022 to conduct groundwater monitoring for the twelve monitoring wells.

Prior to well purging activities, each monitoring well was gauged with an oil-water interface probe and the depth to groundwater was measured in each well. At the time of this sampling event, petroleum product was found to be present in one of the twelve monitoring wells, monitoring well MW-11; therefore, a sample was not collected from monitoring well MW-11. The resulting groundwater elevations are presented in **Table 1**. Each well was purged using a bladder pump prior to collecting groundwater samples. Purge water from the monitoring wells was passed through a carbon filter and discharged onto the pavement. Sampling activities were conducted in accordance with the PADEP, *Appendix A - Groundwater Monitoring Guidance*. All samples were collected into laboratory supplied bottleware, placed on ice, and submitted to a PADEP certified laboratory for analysis of unleaded gasoline parameters, including: benzene, toluene, ethylbenzene, total xylenes, 1,2,4-trimethylbenzene (1,2,4-TMB), 1,3,5-trimethylbenzene (1,3,5-TMB), methyl tert butyl ether (MTBE), cumene, and naphthalene.

Depth to groundwater measurements were utilized to determine relative groundwater elevations and groundwater flow direction. The monitoring well network consists of wells which are screened across the groundwater table in the shallow aquifer (MW-1 through MW-6 and MW-10 through MW-12) and other wells which are screened at a deeper interval (MW-7 through MW-9). Elevation data collected during this monitoring event was utilized to develop groundwater contour maps for both the shallow and deep zones, and are provided as **Figures 3** and **4**, respectively.

GROUNDWATER ANALYTICAL RESULTS

A comprehensive table summarizing groundwater analytical results for the March 2022 monitoring event and the eight prior quarterly monitoring events is provided in **Table 2**. The laboratory analytical report for the most recent sampling event is provided in **Attachment 1**.

The following constituents of concern were detected in groundwater at concentrations exceeding PADEP non-residential Statewide Health Standards (SHS) during the March 2022 groundwater sampling event:

- Benzene was detected at elevated concentrations in groundwater samples collected from monitoring wells MW-3 (14 ug/L), MW-4 (190 ug/L), MW-5 (6.9 ug/L), MW-6 (6.6 ug/L), MW-10 (490 ug/L), and MW-12 (210 ug/L). The PADEP non-residential SHS for benzene is 5 ug/L.

- Ethylbenzene was detected at elevated concentrations in the groundwater sample collected from monitoring well MW-10 (1,000 ug/L). The PADEP non-residential SHS for ethylbenzene is 700 ug/L.

- Naphthalene concentrations in monitoring wells MW-4 (2,300 ug/L) and MW-10 (280 ug/L), were detected at concentrations exceeding the PADEP non-residential SHS of 100 ug/L.

- 1,2,4-Trimethylbenzene concentrations in monitoring wells MW-4 (1,300 ug/L) and MW-10 (1,100 ug/L) were detected above the PADEP non-residential SHS of 530 ug/L.

CONCLUSIONS AND RECOMMENDATIONS

In general, concentrations of gasoline constituents appear to have slightly decreased since the January 2022 groundwater monitoring event, with the exception of monitoring well MW-10 and the free floating petroleum product observed in monitoring well MW-11. According to the shallow flow map, these two monitoring wells are hydraulically located at the lowest point on the subject property; therefore, contaminant migration is directed to these two monitoring wells.

RT understands that additional site characterization activities are needed to fully determine the extent of subsurface impacts at the site. RT has consulted with the Underground Storage Tank

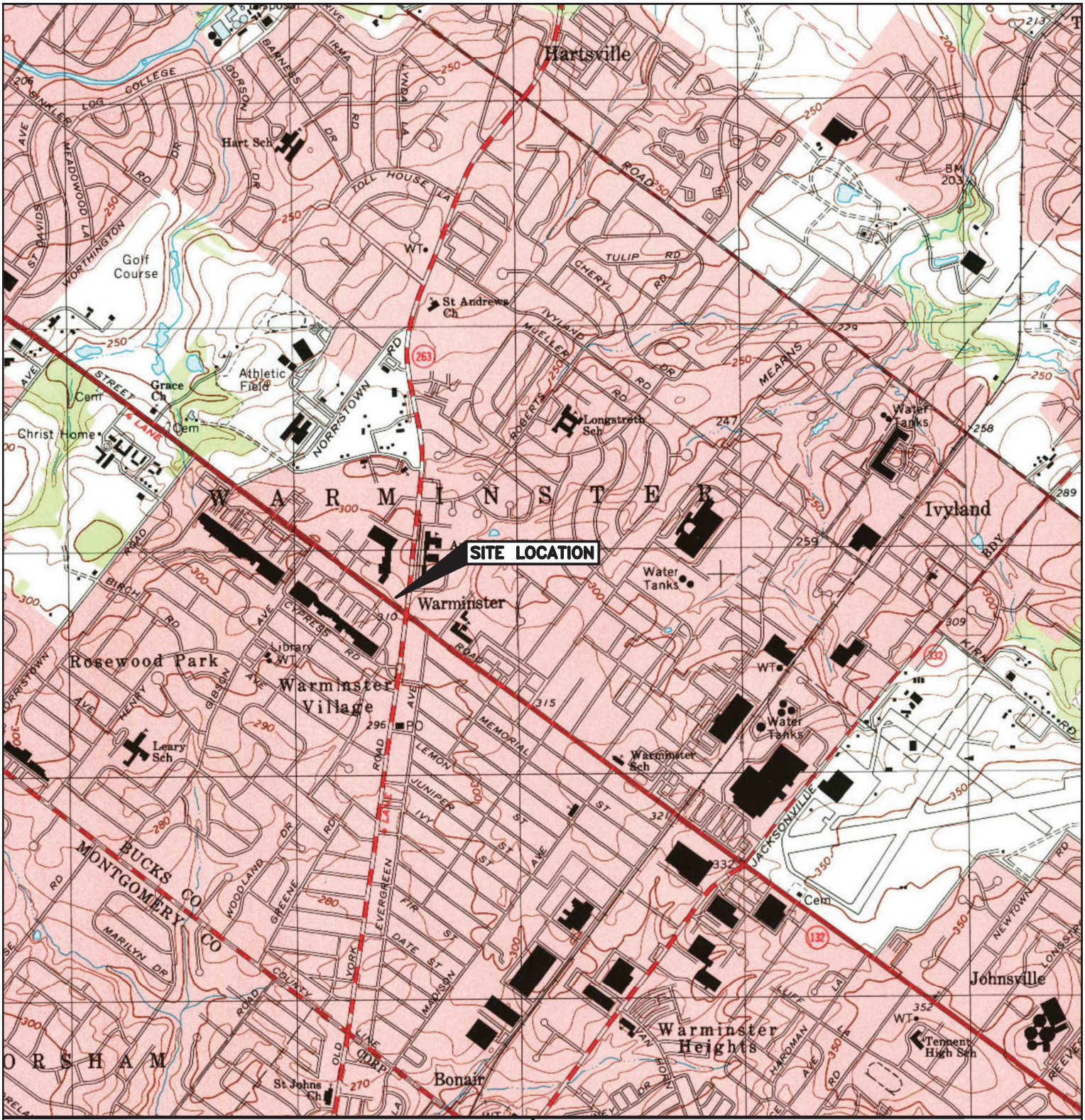
Indemnification Fund representatives and their third-party consultant who have informed RT that the additional site characterization activities required for the site are planned to be put out for public bid. Based on this information, RT will continue quarterly monitoring events at the subject property.

Respectfully,

RT ENVIRONMENTAL SERVICES, INC.

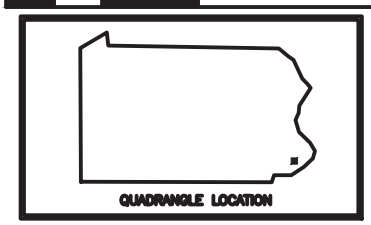
Justin Lauterbach, QEP
President

Attachments:
Figure 1: Site Location Map
Figure 2: Aerial Site Overview
Figure 3: Shallow Groundwater Contours
Figure 4: Deep Groundwater Contours
Table 1: Groundwater Elevation Table
Table 2: Groundwater Analytical Results
Attachment 1: Laboratory Analytical Results



SOURCE: USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE
HATBORO, PA
CONTOUR INTERVAL 10 FEET
SCALE (feet)

0 2000' 4000'



RT Environmental Services, Inc.
215 West Church Road
King of Prussia, PA 19406

FIGURE 1
Site Location Map
610 YORK ROAD
WARMINSTER, PA

Prepared For:
FINCH PETROLEUM
610 YORK ROAD
WARMINSTER, PA 18974

CHARGE	73057-02	AUTOCAD FILE	ENGINEER	DESIGNER	DRAFTSPERSON	AS
SCALE	1" = 2000'	DRAWING NUMBER			REVISION	
DATE	4/29/2022					

Legend

Property Boundary

0 30' 60'

RT Environmental Services, Inc.
215 West Church Road
King of Prussia, PA 19406

FIGURE 2
SITE AERIAL PHOTOGRAPH

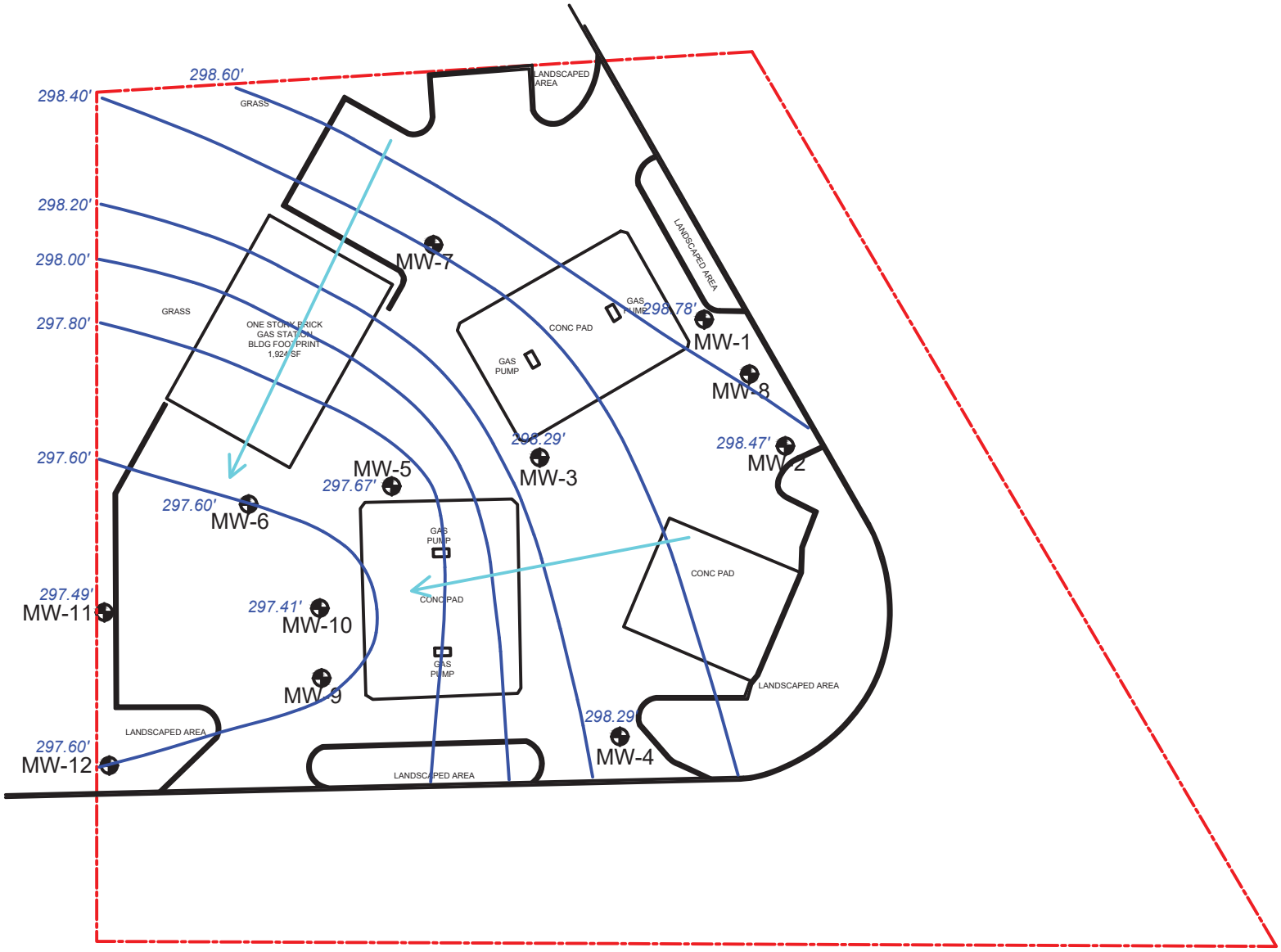
610 YORK ROAD
WARMINSTER, PA

Prepared For:
FINCH PETROLEUM
610 YORK ROAD
WARMINSTER, PA 18974

CHARGE	AUTOCAD FILE	ENGINEER	DESIGNER	DRAFTSPERSON
73057-03				NL

SCALE	DRAWING NUMBER	REVISION
1" = 30'		1

DATE 2/02/2022



LEGEND

- Monitoring Well
- Groundwater Contour
- Flow Direction
- Property Line

0 40' 80'

RT Environmental Services, Inc.
215 West Church Road
King of Prussia, PA 19406

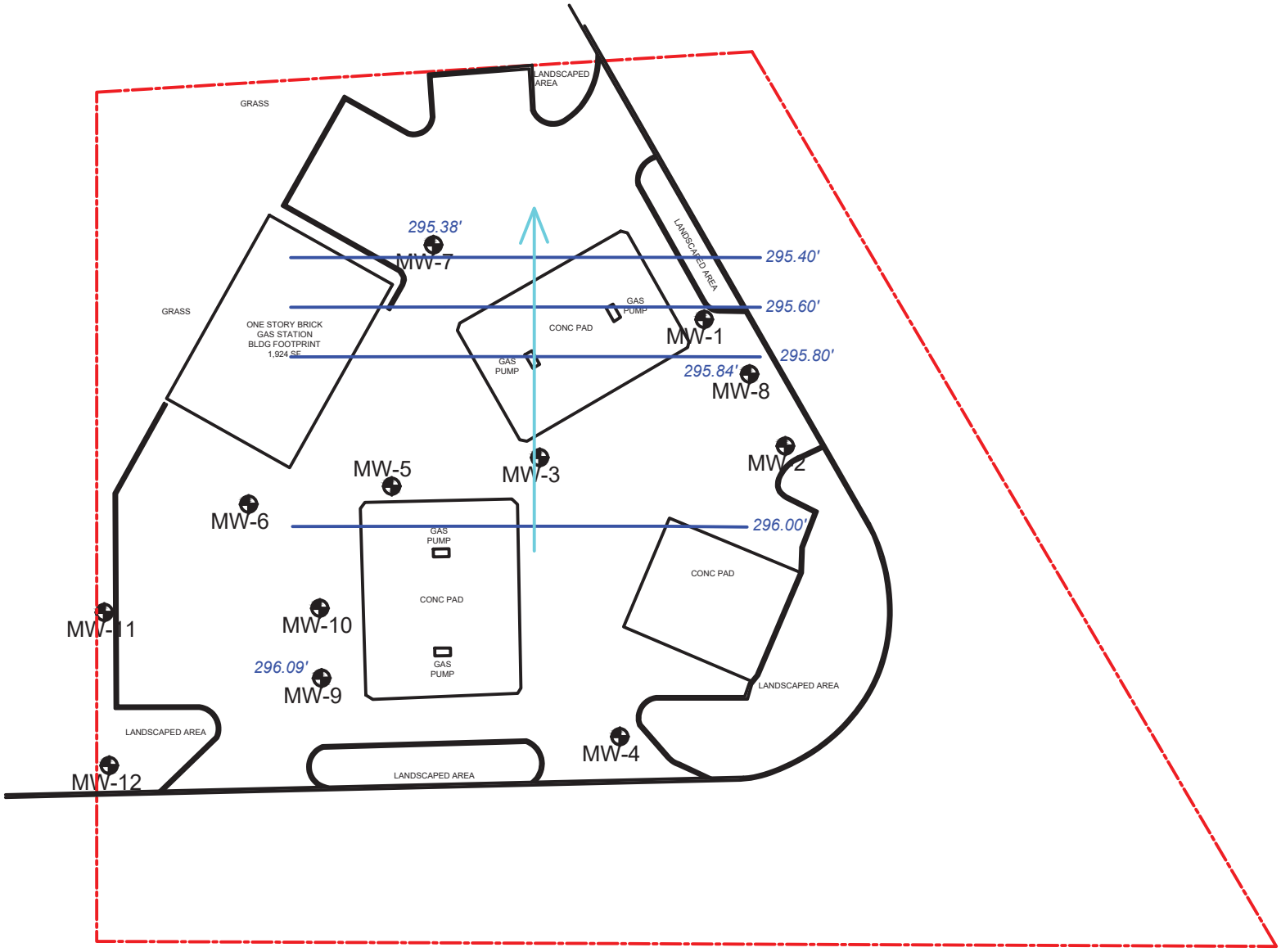
FIGURE 3
Shallow GW FLOW MAP
March 2022
610 YORK ROAD
WARMINSTER, PA

Prepared For:
FINCH PETROLEUM
610 YORK ROAD
WARMINSTER, PA 18974

CHARGE	AUTOCAD FILE	ENGINEER	DESIGNER	DRAFTSPERSON
73057-02				NL

SCALE	DRAWING NUMBER	REVISION
1" = 40'		1

DATE 4/29/2022



LEGEND

- Monitoring Well
- Groundwater Contour
- Flow Direction
- Property Line

0 40' 80'

RT Environmental Services, Inc.
215 West Church Road
King of Prussia, PA 19406

FIGURE 4
Deep GW FLOW MAP
March 2022
610 YORK ROAD
WARMINSTER, PA

Prepared For:
FINCH PETROLEUM
610 YORK ROAD
WARMINSTER, PA 18974

CHARGE	AUTOCAD FILE	ENGINEER	DESIGNER	DRAFTSPERSON
73057-02				NL

SCALE	DRAWING NUMBER	REVISION
1" = 40'		1

DATE 4/29/2022

RT Project #: 73057-02

Table 1
Groundwater Elevations

610 York Road
Warminster, Bucks County PA

Monitoring Well	Date	Top of Casing Elevation (feet)	Total Well Depth (feet)	Depth to Water (feet)	Groundwater Elevation (feet)*	NAPL (feet)
MW-1	10/4/2004	307.33	18.76	12.55	294.78	-
	8/29/2019			-	-	-
	1/15/2020			9.1	298.23	0.0
	4/3/2020			8.1	299.23	0.0
	4/16/2020			7.8	299.53	0.0
	5/12/2020			8.01	299.32	0.0
	5/28/2020			9.4	297.93	0.0
	6/18/2020			11	296.33	0.0
	9/24/2020			15.05	292.28	0.0
	10/5/2020			14.11	293.22	0.0
	4/21/2021			8.07	299.26	0.0
	6/15/2021			9.2	298.13	0.0
	10/18/2021			12.25	295.08	0.0
	3/28/2022			8.55	298.78	0.0
MW-2	10/4/2004	307.77	24.00	13.24	294.53	-
	8/29/2019			-	-	-
	1/15/2020			9.72	298.05	0.0
	4/3/2020			8.45	299.32	0.0
	4/16/2020			8.55	299.22	0.0
	5/12/2020			9.04	298.73	0.0
	5/28/2020			10.10	297.67	0.0
	6/18/2020			11.55	296.22	0.0
	9/24/2020			15.71	292.06	0.0
	10/5/2020			14.99	292.78	0.0
	4/21/2021			8.72	299.05	0.0
	6/15/2021			10.29	297.48	0.0
	10/18/2021			12.98	294.79	0.0
	3/28/2022			9.30	298.47	0.0

MW-3	10/4/2004	308.62	24.48	13.92	294.7	-
	8/29/2019			-	-	-
	1/15/2020			11.2	297.42	0.0
	3/4/2020			10.89	297.73	0.0
	4/3/2020			10.1	298.52	0.0
	4/16/2020			9.82	298.8	0.0
	5/12/2020			10.1	298.52	0.0
	5/28/2020			12.05	296.57	0.0
	6/18/2020			13	295.62	0.0
	9/24/2020			17.05	291.57	0.0
	10/5/2020			16.02	292.6	0.0
	4/21/2021			13.28	295.34	0.0
	6/15/2021			11.6	297.02	0.0
	10/18/2021			14.3	294.32	0.0
	3/28/2022			10.33	298.29	0.0
MW-4	10/4/2004	308.29	25.32	13.99	294.3	-
	8/29/2019			14.15	294.14	*
	1/15/2020			11.31	296.98	*
	3/4/2020			10.89	297.4	0.0
	4/3/2020			10.16	298.13	0.0
	4/16/2020			10.02	298.27	0.0
	5/12/2020			10.03	298.26	0.0
	5/28/2020			11.45	296.84	0.0
	6/18/2020			13.01	295.28	0.0
	9/24/2020			17.12	291.17	0.0
	10/5/2020			16.38	291.91	0.0
	4/21/2021			10.94	297.35	0.0
	6/15/2021			10.65	297.64	0.0
	10/19/2021			14.35	293.94	0.0
	3/28/2022			10.00	298.29	0.0
MW-5	7/8/2009	309.00	50.78	11.72	297.28	
	8/29/2019			14.9	294.10	*
	1/15/2020			12.11	296.88	0.12
	3/4/2020			11.64	297.36	0.0
	4/3/2020			10.81	298.19	0.0
	4/16/2020			10.6	298.40	0.0
	5/12/2020			10.9	298.10	0.0
	5/28/2020			11.41	297.59	0.0
	6/18/2020			13.61	295.39	0.01
	9/24/2020			17.57	291.43	0.0
	10/5/2020			16.65	292.34	0.03
	4/21/2021			10.8	298.20	0.00
	6/15/2021			12.15	296.85	0.00
	10/18/2021			14.92	294.08	0.00
	3/28/2022			11.33	297.67	0.00

MW-6	7/8/2009	309.20	45.25	11.93	297.27	-
	8/29/2019			14.3	294.90	0.0
	1/15/2020			12.05	297.15	0.0
	3/4/2020			11.68	297.52	0.0
	4/3/2020			11	298.20	0.0
	4/16/2020			10.75	298.45	0.0
	5/12/2020			11.05	298.15	0.0
	5/28/2020			11.34	297.86	0.0
	6/18/2020			13.71	295.49	0.0
	9/24/2020			17.7	291.50	0.0
	10/5/2020			16.7	292.50	0.21
	4/21/2021			10.92	298.28	0.0
	6/15/2021			12.31	296.89	0.0
	10/19/2021			15.01	294.19	0.0
	3/28/2022			11.6	297.60	0.0
MW-7	7/8/2009	308.83	100.00	15.99	292.84	
	8/29/2019			16.3	292.53	0.0
	1/15/2020			14.05	294.78	0.0
	4/3/2020			12.65	296.18	0.0
	4/16/2020			12.8	296.03	0.0
	5/12/2020			13.35	295.48	0.0
	5/28/2020			14.32	294.51	0.0
	6/18/2020			15.61	293.22	0.0
	9/24/2020			18.99	289.84	0.0
	10/5/2020			18.09	290.74	0.0
	4/21/2021			13.28	295.55	0.0
	6/15/2021			14.22	294.61	0.0
	10/18/2021			16.7	292.13	0.0
	3/28/2022			13.45	295.38	0.0
MW-8	7/8/2009	307.19	100.00	14.55	292.64	-
	8/29/2019			14.3	292.89	*
	1/15/2020			11.92	295.27	0.0
	4/3/2020			10.75	296.44	0.0
	4/16/2020			10.65	296.54	0.0
	5/12/2020			-	-	0.0
	5/28/2020			12.21	294.98	0.0
	6/18/2020			13.45	293.74	0.0
	9/24/2020			17.11	290.08	0.0
	10/5/2020			16.19	291.00	0.0
	4/21/2021			10.99	296.20	0.0
	6/15/2021			12.80	294.39	0.0
	10/18/2021			14.71	292.48	0.0
	3/28/2022			11.35	295.84	0.0

MW-9	7/8/2009	308.04	88.39	15.27	292.77	-
	8/29/2019			14.65	293.39	*
	1/15/2020			12.43	295.61	0.0
	4/3/2020			11.15	296.89	0.0
	4/16/2020			11.21	296.83	0.0
	5/12/2020			11.21	296.83	0.0
	5/28/2020			12.45	295.59	0.0
	6/18/2020			14.01	294.03	0.0
	9/24/2020			17.59	290.45	0.0
	10/5/2020			17.89	290.15	0.0
	4/21/2021			11.42	296.62	0.0
	6/16/2021			12.78	295.26	0.0
	10/19/2021			15.33	292.71	0.0
	3/28/2022			11.95	296.09	0.0
MW-10	7/8/2009	308.58	49.35	11.49	297.09	-
	8/29/2019			-	-	*
	1/15/2020			11.89	296.66	0.30
	3/4/2020			10.58	297.97	0.25
	4/3/2020			11.50	297.08	0.01
	4/16/2020			10.35	298.23	0.01
	5/12/2020			10.65	297.93	0.01
	5/28/2020			11.81	296.77	0.01
	6/18/2020			13.35	295.23	0.01
	9/24/2020			17.31	291.27	0.00
	10/5/2020			15.9628	292.58	0.40
	4/21/2021			10.46	298.12	0.0
	6/16/2021			11.88	296.70	0.0
	10/19/2021			16.61	291.97	0.0
	3/28/2022			11.17	297.41	0.0
MW-11	9/24/2020	309.73	25.00	18.19	291.54	0.0
	10/5/2020			16.65	293.03	0.49
	4/21/2021			11.41	298.32	0.0
	6/15/2021			12.78	296.95	0.0
	10/19/2021			15.31	294.42	0.0
	3/28/2022			12.22	297.49	0.17
MW-12	9/24/2020	307.50	25.00	16.11	291.39	0.0
	10/5/2020			15.03	292.47	0.0
	4/21/2021			9.21	298.29	0.0
	6/16/2021			10.72	296.78	0.0
	10/19/2021			13.34	294.16	0.0
	3/28/2022			9.9	297.6	0.0

Notes:

* - product detected in well

Corrected Depth to Water= Depth to Water- (Measured Product thickness*0.893 g/mL)

Denisty of No. 2 Fuel Oil=0.893 g/mL

Analyte[1]		Constituents[2]								
		Benzene	Ethylbenzene	Cumene	MTBE	Naphthalene	Toluene	1, 2, 4-Trimethylbenzene	1, 3, 5-Trimethylbenzene	Total Xylenes
PADEP NRSG MSC[3]		5	700	3,500	20	100	1,000	530	530	10,000
Vapor Intrusion Screening Values (SVss)[4]		2,000	6,300	220,000	61,000	460	2,800,000	34,000	34,000	56,000
Sample ID	Date Sampled									
MW-1	1/15/2020	<0.20	<0.30	<0.34	<0.47	<0.88	0.56	<0.37	<0.33	1.2
	4/16/2020	**260**	590	60	<2.3	**140**	94	**690**	130	1300
	6/18/2020	<0.20	<0.30	<0.34	<0.47	<0.88	<0.38	<0.37	<0.33	<0.65
	10/5/2020	2.4	2.9	9.7	<0.22	1.7	1.2	4.8	1.2	6.7
	4/21/2021	<0.20	<0.30	<0.34	<0.22	<0.88	<0.38	<0.37	<0.33	<0.65
	6/15/2021	<0.20	<0.30	<0.34	<0.22	<0.88	<0.38	<0.37	<0.33	<0.65
	10/18/2021	<0.20	<0.30	0.57	<0.22	<0.88	<0.38	<0.37	<0.33	<0.65
	1/12/2022	<0.20	<0.30	0.95	<0.22	<0.88	<0.38	<0.37	<0.33	<0.65
	3/28/2022	< 0.20	< 0.30	< 0.34	< 0.22	< 0.88	< 0.38	< 0.37	< 0.33	< 0.30
MW-2	1/15/2020	0.46	0.34	<0.34	<0.47	<0.88	0.51	<0.37	<0.33	1
	4/16/2020	**190**	340	33	<0.93	61	78.00	430	74	810
	6/18/2020	**13**	60	20	<0.47	5.5	70.00	58	9.1	190
	10/5/2020	3.0	0.54	4.0	<0.22	<0.88	<0.38	0.39	<0.33	2.0
	4/21/2021	<0.20	<0.30	<0.34	<0.22	<0.88	<0.38	<0.37	<0.33	<0.65
	6/15/2021	<0.20	<0.30	<0.34	<0.22	<0.88	<0.38	<0.37	<0.33	<0.65
	10/18/2021	<0.20	<0.30	<0.34	<0.22	<0.88	<0.38	<0.37	<0.33	<0.65
	1/12/2022	<0.20	<0.30	<0.34	<0.22	<0.88	<0.38	<0.37	<0.33	<0.65
	3/28/2022	< 0.20	< 0.30	< 0.34	< 0.22	< 0.88	< 0.38	< 0.37	< 0.33	< 0.30
MW-3	1/17/2020	**810**	**1,300**	79	<9.3	**290**	**1,800**	**1,100**	270	6,200
	4/16/2020	**370**	**890**	80	<2.3	**170**	110	**780**	160	1,600
	6/18/2020	**520**	**840**	72	3.0	**180**	140	**1,000**	73	1,300
	10/5/2020	**300**	**920**	80	<2.2	**170**	210	**920**	130	3,100
	4/21/2021	**87**	460	70	<0.43	26	1.9	**790**	3	270
	6/16/2021	**62**	260	52	0.23 J	10	5.3	480	0.88 J	110
	10/18/2021	**73**	180	75.00	0.78	10	5.20	480	0.98	29
	1/13/2022	**56**	140	43.00	<0.22	45	45.00	340	30.00	340
	3/28/2022	**14**	8.7	50	< 0.22	1.7	3.1	150	0.77 J	4.7
MW-4	1/17/2020	**LNAPL**								
	1/31/2020	**3,800**	**2,500**	110	<12	**360**	**2,400**	**1,700**	450	**16,000**
	4/16/2020	**260**	41	15	1.7	23	28	62	5.8	250
	6/18/2020	**1,600**	**1,500**	73	<9.3	**310**	430	**1,400**	350	8,100
	10/5/2020	**980**	**1,500**	91	<4.3	**300**	**1,100**	**1,300**	310	8,900
	4/21/2021	**470**	**1,900**	110	<2.2	**360**	11	**1,800**	350	3,200
	6/15/2021	**320**	**1,100**	63	<2.2	**270**	24	**1,100**	200	3,400
	10/19/2021	**210**	500	36	< 1.1	**120**	8.9	**1100**	**650**	120
	1/12/2022	**280**	**1000**	89	<1.1	**330**	35	**1300**	280	2500
	3/29/2022	**190**	270	130	< 2.2	**420**	< 3.8	**2300**	320	1100

MW-5	1/15/2020	LNAPL								
	1/31/2020	750	1,100	78	<9.3	220	1,400	1,000	250	5,500
	4/16/2020	<0.20	<0.30	<0.34	<0.47	<0.88	<0.38	<0.37	<0.33	0.66
	6/18/2020	370	620	54	<2.3	110	300	680	76	1,600
	10/5/2020	LNAPL								
	4/21/2021	69	240	54	1	5.9	2.6	390	3.2	150
	6/16/2021	2.3	8.5	3.0	<0.22	<0.88	0.40 J	21	0.33 J	6.6
	10/18/2021	20	9.2	9.9	0.43	2.4	1.5	26	65	1.4
	1/13/2022	33	80	42	<0.22	41	14	300	29	380
	3/28/2022	6.9	6.5	30	< 0.22	2.9	0.58 J	160	2.7	13
MW-6	1/17/2020	1,100	1,300	61	<9.3	210	1,800	920	230	6,800
	4/16/2020	25	<0.30	<0.34	2.3	<0.88	<0.38	<0.37	<0.33	0.92
	6/18/2020	440	960	52	<4.7	160	690	890	140	3,700
	10/5/2020	LNAPL								
	4/21/2021	170	620	55	<1.1	70	22	740	31	980
	6/15/2021	29	110	19	<0.22	14	11	240	14	300
	10/19/2021	120	170	22	0.52	29	16	510	360	53
	1/13/2022	120	600	55	<2.2	190	110	790	130	280
	3/29/2022	6.6	56	12	< 0.22	9.2	2.3	160	14	140
MW-7	1/15/2020	<0.20	<0.30	<0.34	2.8	<0.88	<0.38	<0.37	<0.33	<0.65
	4/16/2020	240	59	14	1.6	24	28	64	6.7	240
	6/18/2020	6.60	<0.30	<0.34	2.7	<0.88	<0.38	<0.37	<0.33	<0.65
	10/5/2020	1.3	<0.30	<0.34	2.3	<0.88	0.42	<0.37	<0.33	4.4
	4/21/2021	<0.20	<0.30	<0.34	2.2	<0.88	<0.38	<0.37	<0.33	<0.65
	6/15/2021	<0.20	<0.30	<0.34	1.7	<0.88	<0.38	<0.37	<0.33	<0.65
	10/18/2021	< 0.20	< 0.30	< 0.34	2.0	< 0.88	< 0.38	<0.37	<0.33	<0.65
	1/12/2022	<0.20	<0.30	<0.34	1.80	<0.88	<0.38	<0.37	<0.33	<0.65
	3/28/2022	< 0.20	< 0.30	< 0.34	1.6	< 0.88	< 0.38	< 0.37	< 0.33	< 0.30
MW-8	Well Casing Blocked									
	1/31/2020	150	4.6	7.7	2.6	2.4	2.9	0.5	<0.33	21
	4/16/2020	<0.20	<0.30	<0.34	<0.47	<0.88	<0.38	<0.37	<0.33	0.75
	6/18/2020	300	94	19	2.1	40	60	170	26	540
	10/5/2020	140	19	14	2.0	15	34	67	4.5	140
	4/21/2021	59	<0.30	5.7	2.0	2.5	1.5	1.2	<0.33	4.3
	6/15/2021	2.0	<0.30	<0.34	0.34 J	<0.88	<0.38	<0.37	<0.33	<0.65
	10/18/2021	< 0.20	< 0.30	< 0.34	< 0.22	< 0.88	< 0.38	< 0.65	< 0.37	< 0.33
	1/12/2022	<0.20	<0.30	<0.34	1.20	<0.88	<0.38	<0.65	<0.37	<0.65
	3/28/2022	< 0.20	< 0.30	< 0.34	1.2	< 0.88	0.42 J	< 0.37	< 0.33	< 0.30

MW-9	**1/17/2020**	**98**	9	5.3	2.0	6.2	8.9	13	2.6	31
	4/16/2020	**1,600**	**1,800**	85	<12	**740**	**2,500**	**1,100**	270	8,700
	6/18/2020	**270**	68	15	2.0	33	52	130	18	440
	10/5/2020	**140**	17	16	2.0	17	38	76	5	170
	4/21/2021	**50**	0.41	6.6	2.0	2.7	1.4	1.7	<0.33	3.3
	6/16/2021	**6.5**	0.53 J	0.78 J	0.58 J	<0.88	0.44 J	0.49 J	<0.33	1.8 J
	10/19/2021	< 0.20	< 0.30	< 0.34	< 0.22	< 0.88	< 0.38	< 0.65	< 0.37	< 0.33
	1/13/2022	<0.20	<0.30	<0.34	1.30	<0.88	<0.38	<.037	<0.33	<0.65
	3/28/2022	< 0.20	< 0.30	< 0.34	0.84 J	< 0.88	< 0.38	< 0.37	< 0.33	< 0.30
MW-10	**1/15/2020**	**LNAPL**								
	1/31/2020	**2,900**	**2,200**	89	<9.3	**340**	**7,100**	**1,300**	330	**13,000**
	4/16/2020	**2,300**	**2,000**	81	<9.3	**300**	620	**1,300**	330	**11,000**
	6/18/2020	**2,000**	**2,000**	83	<9.3	**280**	**3,200**	**1,400**	330	**11,000**
	10/5/2020	**LNAPL**								
	4/21/2021	**790**	**1,300**	78	<4.3	**260**	360	**1,100**	220	5,200
	6/16/2021	**340**	630	36	<2.2	**110**	230	480	100	2,800
	10/19/2021	**410**	570	34	< 2.2	100	130	**2600**	**570**	130
	1/13/2021	**510**	**1000**	69	<2.2	**240**	330	**930**	220	5000
	3/29/2022	**490**	**1000**	69	< 2.2	**280**	140	**1100**	240	4300
MW-11	**10/5/2020**	**LNAPL**								
	4/21/2021	**190**	**980**	70	<2.2	**210**	440	**960**	220	4,800
	6/15/2021	**69**	**660**	48	<2.2	**160**	320	**730**	160	3,600
	10/19/2021	**75**	**820**	65	< 2.2	**190**	280	**4300**	**1200**	260
	1/12/2022	**130**	**1,000**	71	<2.2	**280**	400	**1,100**	260	5,700
	3/29/2022	**LNAPL**								
MW-12	**10/5/2020**	**1,000**	600	53	<1.1	**120**	**1,400**	530	110	3,100
	4/21/2021	**44**	33	6.7	<0.22	5.0	15	48	3.7	82
	6/16/2021	**67**	57	23.0	<0.22	5.7	18	120	2.9	83
	10/19/2021	**190**	200	69	< 0.22	24	20	74	420	2.8
	1/13/2022	**230**	330	34.00	<1.1	**110**	160	460	95	1,400
	3/29/2022	**210**	240	46	< 0.22	55	30	380	13	340

LNAPL - Light Non Aqueous Phase Liquids (Free Product)

PADEP - Pennsylvania Department of Environmental Protection

(1) - Well samples were analyzed for the PADEP short list of required unleaded gasoline parameters.

(2) - All laboratory results reported in micrograms per liter (µg/L).

(3) - PADEP, Land Recycling and Environmental Remediation Standards Act, Non-Residential
Medium-Specific Concentrations for Substances in Groundwater (November 20, 2021).

(4) - Sub-Slab Soil Gas Non-Residential Statewide Health Standard Screenig Values (SV_{SS}) in $\mu g/m^3$ - Effective November 20, 2021.

J = Result is less than the reporting limit but greater than or equal to the method detection limit

< = Less than the method detection limit

Bold - Compound was reported above its Act 2 non-residential MSC.

RT Project # 73057-02

Table 2
Groundwater Quarterly Monitoring Analytical Results
Sunoco Station #3063-5430

610 York Road
Warminster, Buck County, PA

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins Edison
777 New Durham Road
Edison, NJ 08817
Tel: (732)549-3900

Laboratory Job ID: 460-255264-1
Client Project/Site: Sunoco Warminster

For:
RT Environmental Services, Inc.
2001 Waterdam Plaza Drive
Canonsburg, Pennsylvania 15317

Attn: Justin Lauterbach

Jill Miller

Authorized for release by:
4/5/2022 3:16:55 PM

Jill Miller, Senior Project Manager
(484)685-0871
Jill.Miller@et.eurofinsus.com

Table of Contents

Definitions/Glossary

Client: RT Environmental Services, Inc.
Project/Site: Sunoco Warminster

Job ID: 460-255264-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Glossary

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

Case Narrative

Client: RT Environmental Services, Inc.
Project/Site: Sunoco Warminster

Job ID: 460-255264-1

Job ID: 460-255264-1

Laboratory: Eurofins Edison

Narrative

Job Narrative
460-255264-1

Comments
No additional comments.

Receipt
The samples were received on 3/29/2022 7:00 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.1º C.

GC/MS VOA
Method 8260D: The following sample was diluted to bring the concentration of target analytes within the calibration range: MW-4 (460-255264-8). Elevated reporting limits (RLs) are provided.

Method 8260D: Internal standard (ISTD) response for TBA-d9 and 2-Butanone-d5 for the following sample 460-837032 was outside acceptance criteria: MW-9 (460-255264-7). These ISTDs do not correspond to any of the requested target compounds batch; therefore, the data have been reported.

Method 8260D: The following sample was diluted to bring the concentration of target analytes within the calibration range: MW-10 (460-255264-9). Elevated reporting limits (RLs) are provided.

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

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

Client Sample ID: MW-7

Lab Sample ID: 460-255264-1

Date Collected: 03/28/22 08:50

Matrix: Water

Date Received: 03/29/22 19:00

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.20	U	1.0	0.20	ug/L			04/03/22 10:23	1
Toluene	0.38	U	1.0	0.38	ug/L			04/03/22 10:23	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			04/03/22 10:23	1
Xylenes, Total	0.30	U	1.0	0.30	ug/L			04/03/22 10:23	1
Methyl tert-butyl ether	**1.6**		1.0	0.22	ug/L			04/03/22 10:23	1
Naphthalene	0.88	U	1.0	0.88	ug/L			04/03/22 10:23	1
1,2,4-Trimethylbenzene	0.37	U	1.0	0.37	ug/L			04/03/22 10:23	1
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			04/03/22 10:23	1
Isopropylbenzene	0.34	U	1.0	0.34	ug/L			04/03/22 10:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*75 - 123*		*04/03/22 10:23*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*04/03/22 10:23*	*1*
4-Bromofluorobenzene	*99*		*76 - 120*		*04/03/22 10:23*	*1*
Dibromofluoromethane (Surr)	*100*		*77 - 124*		*04/03/22 10:23*	*1*

Client Sample ID: MW-1

Lab Sample ID: 460-255264-2

Date Collected: 03/28/22 09:40

Matrix: Water

Date Received: 03/29/22 19:00

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.20	U	1.0	0.20	ug/L			04/02/22 12:36	1
Toluene	0.38	U	1.0	0.38	ug/L			04/02/22 12:36	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			04/02/22 12:36	1
Xylenes, Total	0.30	U	1.0	0.30	ug/L			04/02/22 12:36	1
Methyl tert-butyl ether	0.22	U	1.0	0.22	ug/L			04/02/22 12:36	1
Naphthalene	0.88	U	1.0	0.88	ug/L			04/02/22 12:36	1
1,2,4-Trimethylbenzene	0.37	U	1.0	0.37	ug/L			04/02/22 12:36	1
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			04/02/22 12:36	1
Isopropylbenzene	0.34	U	1.0	0.34	ug/L			04/02/22 12:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*75 - 123*		*04/02/22 12:36*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*04/02/22 12:36*	*1*
4-Bromofluorobenzene	*100*		*76 - 120*		*04/02/22 12:36*	*1*
Dibromofluoromethane (Surr)	*105*		*77 - 124*		*04/02/22 12:36*	*1*

Client Sample ID: MW-8

Lab Sample ID: 460-255264-3

Date Collected: 03/28/22 10:25

Matrix: Water

Date Received: 03/29/22 19:00

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.20	U	1.0	0.20	ug/L			04/02/22 13:01	1
Toluene	**0.42**	**J**	1.0	0.38	ug/L			04/02/22 13:01	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			04/02/22 13:01	1
Xylenes, Total	0.30	U	1.0	0.30	ug/L			04/02/22 13:01	1
Methyl tert-butyl ether	**1.2**		1.0	0.22	ug/L			04/02/22 13:01	1
Naphthalene	0.88	U	1.0	0.88	ug/L			04/02/22 13:01	1
1,2,4-Trimethylbenzene	0.37	U	1.0	0.37	ug/L			04/02/22 13:01	1

Client Sample ID: MW-8

Lab Sample ID: 460-255264-3

Date Collected: 03/28/22 10:25

Matrix: Water

Date Received: 03/29/22 19:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			04/02/22 13:01	1
Isopropylbenzene	0.34	U	1.0	0.34	ug/L			04/02/22 13:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*75 - 123*		*04/02/22 13:01*	*1*
Toluene-d8 (Surr)	*98*		*80 - 120*		*04/02/22 13:01*	*1*
4-Bromofluorobenzene	*97*		*76 - 120*		*04/02/22 13:01*	*1*
Dibromofluoromethane (Surr)	*102*		*77 - 124*		*04/02/22 13:01*	*1*

Client Sample ID: MW-2

Lab Sample ID: 460-255264-4

Date Collected: 03/28/22 11:20

Matrix: Water

Date Received: 03/29/22 19:00

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.20	U	1.0	0.20	ug/L			04/02/22 13:27	1
Toluene	0.38	U	1.0	0.38	ug/L			04/02/22 13:27	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			04/02/22 13:27	1
Xylenes, Total	0.30	U	1.0	0.30	ug/L			04/02/22 13:27	1
Methyl tert-butyl ether	0.22	U	1.0	0.22	ug/L			04/02/22 13:27	1
Naphthalene	0.88	U	1.0	0.88	ug/L			04/02/22 13:27	1
1,2,4-Trimethylbenzene	0.37	U	1.0	0.37	ug/L			04/02/22 13:27	1
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			04/02/22 13:27	1
Isopropylbenzene	0.34	U	1.0	0.34	ug/L			04/02/22 13:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*90*		*75 - 123*		*04/02/22 13:27*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*04/02/22 13:27*	*1*
4-Bromofluorobenzene	*99*		*76 - 120*		*04/02/22 13:27*	*1*
Dibromofluoromethane (Surr)	*97*		*77 - 124*		*04/02/22 13:27*	*1*

Client Sample ID: MW-3

Lab Sample ID: 460-255264-5

Date Collected: 03/28/22 12:15

Matrix: Water

Date Received: 03/29/22 19:00

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**14**		1.0	0.20	ug/L			04/03/22 11:14	1
Toluene	**3.1**		1.0	0.38	ug/L			04/03/22 11:14	1
Ethylbenzene	**8.7**		1.0	0.30	ug/L			04/03/22 11:14	1
Xylenes, Total	**4.7**		1.0	0.30	ug/L			04/03/22 11:14	1
Methyl tert-butyl ether	0.22	U	1.0	0.22	ug/L			04/03/22 11:14	1
Naphthalene	**1.7**		1.0	0.88	ug/L			04/03/22 11:14	1
1,2,4-Trimethylbenzene	**150**		1.0	0.37	ug/L			04/03/22 11:14	1
1,3,5-Trimethylbenzene	**0.77**	**J**	1.0	0.33	ug/L			04/03/22 11:14	1
Isopropylbenzene	**50**		1.0	0.34	ug/L			04/03/22 11:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*88*		*75 - 123*		*04/03/22 11:14*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*04/03/22 11:14*	*1*
4-Bromofluorobenzene	*97*		*76 - 120*		*04/03/22 11:14*	*1*

Client Sample ID: MW-3

Date Collected: 03/28/22 12:15
Date Received: 03/29/22 19:00

Lab Sample ID: 460-255264-5

Matrix: Water

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	*89*		*77 - 124*		*04/03/22 11:14*	*1*

Client Sample ID: MW-5

Date Collected: 03/28/22 13:10
Date Received: 03/29/22 19:00

Lab Sample ID: 460-255264-6

Matrix: Water

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	**6.9**		1.0	0.20	ug/L			04/02/22 13:53	1
Toluene	**0.58**	**J**	1.0	0.38	ug/L			04/02/22 13:53	1
Ethylbenzene	**6.5**		1.0	0.30	ug/L			04/02/22 13:53	1
Xylenes, Total	**13**		1.0	0.30	ug/L			04/02/22 13:53	1
Methyl tert-butyl ether	0.22	U	1.0	0.22	ug/L			04/02/22 13:53	1
Naphthalene	**2.9**		1.0	0.88	ug/L			04/02/22 13:53	1
1,2,4-Trimethylbenzene	**160**		1.0	0.37	ug/L			04/02/22 13:53	1
1,3,5-Trimethylbenzene	**2.7**		1.0	0.33	ug/L			04/02/22 13:53	1
Isopropylbenzene	**30**		1.0	0.34	ug/L			04/02/22 13:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*100*		*75 - 123*		*04/02/22 13:53*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*04/02/22 13:53*	*1*
4-Bromofluorobenzene	*99*		*76 - 120*		*04/02/22 13:53*	*1*
Dibromofluoromethane (Surr)	*95*		*77 - 124*		*04/02/22 13:53*	*1*

Client Sample ID: MW-9

Date Collected: 03/28/22 14:05
Date Received: 03/29/22 19:00

Lab Sample ID: 460-255264-7

Matrix: Water

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.20	U	1.0	0.20	ug/L			04/03/22 10:48	1
Toluene	0.38	U	1.0	0.38	ug/L			04/03/22 10:48	1
Ethylbenzene	0.30	U	1.0	0.30	ug/L			04/03/22 10:48	1
Xylenes, Total	0.30	U	1.0	0.30	ug/L			04/03/22 10:48	1
Methyl tert-butyl ether	**0.84**	**J**	1.0	0.22	ug/L			04/03/22 10:48	1
Naphthalene	0.88	U	1.0	0.88	ug/L			04/03/22 10:48	1
1,2,4-Trimethylbenzene	0.37	U	1.0	0.37	ug/L			04/03/22 10:48	1
1,3,5-Trimethylbenzene	0.33	U	1.0	0.33	ug/L			04/03/22 10:48	1
Isopropylbenzene	0.34	U	1.0	0.34	ug/L			04/03/22 10:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	*94*		*75 - 123*		*04/03/22 10:48*	*1*
Toluene-d8 (Surr)	*97*		*80 - 120*		*04/03/22 10:48*	*1*
4-Bromofluorobenzene	*108*		*76 - 120*		*04/03/22 10:48*	*1*
Dibromofluoromethane (Surr)	*106*		*77 - 124*		*04/03/22 10:48*	*1*

Client Sample ID: MW-4

Lab Sample ID: 460-255264-8

Date Collected: 03/29/22 09:05

Matrix: Water

Date Received: 03/29/22 19:00

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	190		10	2.0	ug/L			04/02/22 16:01	10
Toluene	3.8	U	10	3.8	ug/L			04/02/22 16:01	10
Ethylbenzene	270		10	3.0	ug/L			04/02/22 16:01	10
Xylenes, Total	1100		10	3.0	ug/L			04/02/22 16:01	10
Methyl tert-butyl ether	2.2	U	10	2.2	ug/L			04/02/22 16:01	10
Naphthalene	420		10	8.8	ug/L			04/02/22 16:01	10
1,2,4-Trimethylbenzene	2300		10	3.7	ug/L			04/02/22 16:01	10
1,3,5-Trimethylbenzene	320		10	3.3	ug/L			04/02/22 16:01	10
Isopropylbenzene	130		10	3.4	ug/L			04/02/22 16:01	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*75 - 123*		*04/02/22 16:01*	*10*
Toluene-d8 (Surr)	*100*		*80 - 120*		*04/02/22 16:01*	*10*
4-Bromofluorobenzene	*103*		*76 - 120*		*04/02/22 16:01*	*10*
Dibromofluoromethane (Surr)	*100*		*77 - 124*		*04/02/22 16:01*	*10*

Client Sample ID: MW-10

Lab Sample ID: 460-255264-9

Date Collected: 03/29/22 09:50

Matrix: Water

Date Received: 03/29/22 19:00

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	490		10	2.0	ug/L			04/03/22 23:30	10
Toluene	140		10	3.8	ug/L			04/03/22 23:30	10
Ethylbenzene	1000		10	3.0	ug/L			04/03/22 23:30	10
Xylenes, Total	4300		10	3.0	ug/L			04/03/22 23:30	10
Methyl tert-butyl ether	2.2	U	10	2.2	ug/L			04/03/22 23:30	10
Naphthalene	280		10	8.8	ug/L			04/03/22 23:30	10
1,2,4-Trimethylbenzene	1100		10	3.7	ug/L			04/03/22 23:30	10
1,3,5-Trimethylbenzene	240		10	3.3	ug/L			04/03/22 23:30	10
Isopropylbenzene	69		10	3.4	ug/L			04/03/22 23:30	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*75 - 123*		*04/03/22 23:30*	*10*
Toluene-d8 (Surr)	*101*		*80 - 120*		*04/03/22 23:30*	*10*
4-Bromofluorobenzene	*99*		*76 - 120*		*04/03/22 23:30*	*10*
Dibromofluoromethane (Surr)	*99*		*77 - 124*		*04/03/22 23:30*	*10*

Client Sample ID: MW-6

Lab Sample ID: 460-255264-10

Date Collected: 03/29/22 10:40

Matrix: Water

Date Received: 03/29/22 19:00

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	6.6		1.0	0.20	ug/L			04/03/22 23:04	1
Toluene	2.3		1.0	0.38	ug/L			04/03/22 23:04	1
Ethylbenzene	56		1.0	0.30	ug/L			04/03/22 23:04	1
Xylenes, Total	140		1.0	0.30	ug/L			04/03/22 23:04	1
Methyl tert-butyl ether	0.22	U	1.0	0.22	ug/L			04/03/22 23:04	1
Naphthalene	9.2		1.0	0.88	ug/L			04/03/22 23:04	1
1,2,4-Trimethylbenzene	160		1.0	0.37	ug/L			04/03/22 23:04	1

Client: RT Environmental Services, Inc.
Project/Site: Sunoco Warminster

Job ID: 460-255264-1

Client Sample ID: MW-6

Lab Sample ID: 460-255264-10

Date Collected: 03/29/22 10:40
Matrix: Water
Date Received: 03/29/22 19:00

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trimethylbenzene	14		1.0	0.33	ug/L			04/03/22 23:04	1
Isopropylbenzene	12		1.0	0.34	ug/L			04/03/22 23:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*75 - 123*		*04/03/22 23:04*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*04/03/22 23:04*	*1*
4-Bromofluorobenzene	*101*		*76 - 120*		*04/03/22 23:04*	*1*
Dibromofluoromethane (Surr)	*98*		*77 - 124*		*04/03/22 23:04*	*1*

Client Sample ID: MW-12

Lab Sample ID: 460-255264-11

Date Collected: 03/29/22 11:50
Matrix: Water
Date Received: 03/29/22 19:00

Method: 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	210		1.0	0.20	ug/L			04/02/22 14:44	1
Toluene	30		1.0	0.38	ug/L			04/02/22 14:44	1
Ethylbenzene	240		1.0	0.30	ug/L			04/02/22 14:44	1
Xylenes, Total	340		1.0	0.30	ug/L			04/02/22 14:44	1
Methyl tert-butyl ether	0.22	U	1.0	0.22	ug/L			04/02/22 14:44	1
Naphthalene	55		1.0	0.88	ug/L			04/02/22 14:44	1
1,2,4-Trimethylbenzene	380		1.0	0.37	ug/L			04/02/22 14:44	1
1,3,5-Trimethylbenzene	13		1.0	0.33	ug/L			04/02/22 14:44	1
Isopropylbenzene	46		1.0	0.34	ug/L			04/02/22 14:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*75 - 123*		*04/02/22 14:44*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*04/02/22 14:44*	*1*
4-Bromofluorobenzene	*101*		*76 - 120*		*04/02/22 14:44*	*1*
Dibromofluoromethane (Surr)	*92*		*77 - 124*		*04/02/22 14:44*	*1*

Lab Chronicle

Client: RT Environmental Services, Inc.
Project/Site: Sunoco Warminster

Job ID: 460-255264-1

Client Sample ID: MW-7
Date Collected: 03/28/22 08:50
Date Received: 03/29/22 19:00

Lab Sample ID: 460-255264-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	837032	04/03/22 10:23	AAT	TAL EDI

Client Sample ID: MW-1
Date Collected: 03/28/22 09:40
Date Received: 03/29/22 19:00

Lab Sample ID: 460-255264-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	836949	04/02/22 12:36	AAT	TAL EDI

Client Sample ID: MW-8
Date Collected: 03/28/22 10:25
Date Received: 03/29/22 19:00

Lab Sample ID: 460-255264-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	836949	04/02/22 13:01	AAT	TAL EDI

Client Sample ID: MW-2
Date Collected: 03/28/22 11:20
Date Received: 03/29/22 19:00

Lab Sample ID: 460-255264-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	836949	04/02/22 13:27	AAT	TAL EDI

Client Sample ID: MW-3
Date Collected: 03/28/22 12:15
Date Received: 03/29/22 19:00

Lab Sample ID: 460-255264-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	837032	04/03/22 11:14	AAT	TAL EDI

Client Sample ID: MW-5
Date Collected: 03/28/22 13:10
Date Received: 03/29/22 19:00

Lab Sample ID: 460-255264-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	836949	04/02/22 13:53	AAT	TAL EDI

Client Sample ID: MW-9
Date Collected: 03/28/22 14:05
Date Received: 03/29/22 19:00

Lab Sample ID: 460-255264-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	837032	04/03/22 10:48	AAT	TAL EDI

Lab Chronicle

Client: RT Environmental Services, Inc.
Project/Site: Sunoco Warminster

Job ID: 460-255264-1

Client Sample ID: MW-4
Lab Sample ID: 460-255264-8
Date Collected: 03/29/22 09:05
Matrix: Water
Date Received: 03/29/22 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		10	836949	04/02/22 16:01	AAT	TAL EDI

Client Sample ID: MW-10
Lab Sample ID: 460-255264-9
Date Collected: 03/29/22 09:50
Matrix: Water
Date Received: 03/29/22 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		10	837119	04/03/22 23:30	VBP	TAL EDI

Client Sample ID: MW-6
Lab Sample ID: 460-255264-10
Date Collected: 03/29/22 10:40
Matrix: Water
Date Received: 03/29/22 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	837119	04/03/22 23:04	VBP	TAL EDI

Client Sample ID: MW-12
Lab Sample ID: 460-255264-11
Date Collected: 03/29/22 11:50
Matrix: Water
Date Received: 03/29/22 19:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	836949	04/02/22 14:44	AAT	TAL EDI

Laboratory References:

TAL EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

Client: RT Environmental Services, Inc. Job ID: 460-255264-1
Project/Site: Sunoco Warminster

Laboratory: Eurofins Edison

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

Authority	Program	Identification Number	Expiration Date
Connecticut	State	PH-0200	09-30-22
DE Haz. Subst. Cleanup Act (HSCA)	State	N/A	01-01-23
Georgia	State	12028 (NJ)	06-30-22
Massachusetts	State	M-NJ312	06-30-22
New Jersey	NELAP	12028	06-30-22
Pennsylvania	NELAP	68-00522	02-28-23
Rhode Island	State	LAO00376	12-31-22
USDA	US Federal Programs	P330-20-00244	11-03-23

Method Summary

Client: RT Environmental Services, Inc.
Project/Site: Sunoco Warminster

Job ID: 460-255264-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	TAL EDI
5030C	Purge and Trap	SW846	TAL EDI

Protocol References:

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

Laboratory References:

TAL EDI = Eurofins Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Sample Summary

Client: RT Environmental Services, Inc.
Project/Site: Sunoco Warminster

Job ID: 460-255264-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
460-255264-1	MW-7	Water	03/28/22 08:50	03/29/22 19:00
460-255264-2	MW-1	Water	03/28/22 09:40	03/29/22 19:00
460-255264-3	MW-8	Water	03/28/22 10:25	03/29/22 19:00
460-255264-4	MW-2	Water	03/28/22 11:20	03/29/22 19:00
460-255264-5	MW-3	Water	03/28/22 12:15	03/29/22 19:00
460-255264-6	MW-5	Water	03/28/22 13:10	03/29/22 19:00
460-255264-7	MW-9	Water	03/28/22 14:05	03/29/22 19:00
460-255264-8	MW-4	Water	03/29/22 09:05	03/29/22 19:00
460-255264-9	MW-10	Water	03/29/22 09:50	03/29/22 19:00
460-255264-10	MW-6	Water	03/29/22 10:40	03/29/22 19:00
460-255264-11	MW-12	Water	03/29/22 11:50	03/29/22 19:00

Chain of Custody Record 402848

eurofins | Environment Testing TestAmerica

3.7 - KOP-2

Address: _____

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other: PADEP

TAL-8210

Client Contact	Project Manager: Justin Lauterbach	Site Contact:	Date:	COC No:
Company Name: RT Environmental	Tel/Email: Jlauterbach@rtenv.com	Lab Contact:	Carrier:	1 of 1 COCs
Address: 215 W. Church Rd St 301	Analysis Turnaround Time			Sampler:
City/State/Zip: King of Prussia PA 19406	☒ CALENDAR DAYS ☒ WORKING DAYS			For Lab Use Only:
Phone: 610 265 1510	TAT if different from Below _____			Walk-in Client:
Fax:	☐ 2 weeks			Lab Sampling:
Project Name: Sunoco Warminster	☒ 1 week			Job / SDG No.: 255264
Site: 610 York Road	☐ 2 days			
PO# 73057-02	☐ 1 day			

460-255264 Chain of Custody

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS/MSD (Y/N)	PADEP Unleaded Gasoline	Sample Specific Notes:
MW-7	3/28/22	08:50	G	GW	3			X	1
MW-1	3/28/22	09:40	G	GW	3			X	2
MW-8	3/28/22	10:25	G	GW	3			X	3
MW-2	3/28/22	11:20	G	GW	3			X	4
MW-3	3/28/22	12:15	G	GW	3			X	5
MW-5	3/28/22	13:10	G	GW	3			X	6
MW-9	3/28/22	14:05	G	GW	3			X	7
MW-4	3/29/22	09:05	G	GW	3			X	8
MW-10	3/29/22	09:50	G	GW	3			X	9
MW-6	3/29/22	1040	G	GW	3			X	10
MW-12	3/29/22	1150	G	GW	3			X	11
									12

5-Day RUSH

Preservation Used: 1= Ice, 2= HCl; 3= H_2SO_4; 4=HNO_3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☐ Disposal by Lab ☐ Archive for_____ Months

Special Instructions/QC Requirements & Comments: Please send results to: Jlauterbach@rtenv.com
CCharnoff@rtenv.com

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd:_____ Corr'd:_____ | Therm ID No.:_____

	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	RT ENV	3/29/22 1335		EETN-KOP	3/29/22 1335
Relinquished by: Sean Mahoney	EETN-KOP	3/29/22 1415		ETA	3/29/22
Relinquished by:	ETA	3/29/22 1900	Received in Laboratory by:		3/29/22 1900 Ice

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4/5/2022

TestAmerica Edison
Receipt Temperature and pH Log

Job Number: 255264

Number of Coolers: 1 IR Gun # HOP2

Cooler Temperatures

	RAW	CORRECTED		RAW	CORRECTED		RAW	CORRECTED
Cooler #1:	3.9 °C	4.1 °C	Cooler #4:	°C	°C	Cooler #7:	°C	°C
Cooler #2:	°C	°C	Cooler #5:	°C	°C	Cooler #8:	°C	°C
Cooler #3:	°C	°C	Cooler #6:	°C	°C	Cooler #9:	°C	°C

TALS Sample Number	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	Metals* (pH<2)	Hardness (pH<2)	Pest (pH 5-9)	EPH or QAM (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other	Other

If pH adjustments are required record the information below:

Sample No(s). adjusted: _____

Preservative Name/Conc.: _____ Volume of Preservative used (ml): _____

Lot # of Preservative(s): _____ Expiration Date: _____

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

** Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.*

Initials: _____ Date: 3/29/22

Login Sample Receipt Checklist

Client: RT Environmental Services, Inc.

Job Number: 460-255264-1

Login Number: 255264
List Number: 1
Creator: Casallas, Angela C

List Source: Eurofins Edison

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