



TABLES



Table 1-A: Liquid Level Gauging Data and Groundwater Sample Laboratory Analytical Results for MWs 10, 11, 14 and 15, March 2019-Present
 Cornwall Pump Station Site, 370 Horseshoe Pike, West Cornwall Township, Lebanon County, PA
 (Liquid level gauging and water table elevation data are in feet, dissolved analytical data are in ug/l)

MW 10		Casing Elevation: 556.793	Installation Date		Construction details: 4-inch diameter; original total depth = 100 feet; 58 feet solid riser; 42 feet PVC screen.										Ground Elevation: 555.95	
Date	DTW (feet)	Water Table Elevation	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead		
25-Mar-19	48.89	507.90	-	-	-	-	-	-	-	-	-	-	-	-		
28-Mar-19	49.55	507.24	<1	10	<1	<5	<1	<10	<5	<5	<5	<0.029	<5	<3		
17-Jun-19	51.65	505.14	-	-	-	-	-	-	-	-	-	-	-	-		
18-Jun-19	On 18 June 2019, a mixture of saturated mud with some rocks was encountered at approx. 52 feet below top of casing - not enough water to collect a sample															
23-Sep-19	53.63	503.16	-	-	-	-	-	-	-	-	-	-	-	-		
25-Sep-19	53.79	503.00	<1	<1	<1	<3	<1	<10	<5	<5	<5	<0.029	<5	<0.5		
09-Dec-19	not gauged	not gauged	-	-	-	-	-	-	-	-	-	-	-	-		
11-Dec-19	53.74	503.05	<1	<1	<1	<3	<1	<10	<5	<5	<5	<0.028	<5	<0.5		
17-Mar-20	53.54	503.25	-	-	-	-	-	-	-	-	-	-	-	-		
18-Mar-20	53.43	503.36	<1	<1	<1	<3	<1	<10	<5	<5	<5	-	-	-		

MW 10 might have been compromised/partially filled; total well depth as gauged on 23 September and 11 December 2019 and 17 March 2020 was 58.4 feet BTOC

MW 11		Casing Elevation: 564.359	Installation Date		Construction details: 4-inch diameter; total depth = 65 feet; 40 feet solid riser; 25 feet PVC screen.										Ground Elevation: 564.86	
Date	DTW (feet)	Water Table Elevation	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead		
25-Mar-19	56.23	508.13	-	-	-	-	-	-	-	-	-	-	-	-		
27-Mar-19	56.76	507.60	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.029	<5	<3		
17-Jun-19	59.16	505.20	-	-	-	-	-	-	-	-	-	-	-	-		
18-Jun-19	59.24	505.12	2	<1	4	6	<1	<10	<5	9	<5	<0.028	<5	<3		
23-Sep-19	60.73	503.63	<1	<1	<1	<3	<1	<10	<5	<5	<5	<0.028	<5	<0.5		
09-Dec-19	60.61	503.75	-	-	-	-	-	-	-	-	-	-	-	-		
11-Dec-19	61.55	502.81	<1	<1	<1	<3	<1	<10	<5	<5	<5	<0.028	<5	<0.5		
17-Mar-20	59.43	504.93	-	-	-	-	-	-	-	-	-	-	-	-		
18-Mar-20	60.42	503.94	<1	<1	<1	<3	<1	<10	<5	<5	<5	-	-	-		

On 17 March 2020, the TD was gauged at 65'

MW 14		Casing Elevation: 548.594 (new: 548.453)	Installation Date		Construction details: 4-inch diameter; original total depth = 57 feet; 12 feet solid riser; 45 feet PVC screen.										Ground Elevation: 549.14	
Date	DTW (feet)	Water Table Elevation	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead		
25-Mar-19	33.36	515.23	-	-	-	-	-	-	-	-	-	-	-	-		
27-Mar-19	33.25	515.34	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.029	<5	<3		
17-Jun-19	36.51	511.94	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.028	<5	<3		
23-Sep-19	41.06	507.39	-	-	-	-	-	-	-	-	-	-	-	-		
24-Sep-19	41.12	507.33	<1	<1	<1	<3	<1	<10	<5	<5	<5	<0.028	<5	<0.5		
09-Dec-19	42.14	506.31	-	-	-	-	-	-	-	-	-	-	-	-		
10-Dec-19	42.15	506.30	<1	<1	<1	<3	<1	<10	<5	<5	<5	<0.028	<5	<0.5		
17-Mar-20	40.40	508.05	<1	<1	<1	<3	<1	<10	<5	<5	<5	-	-	-		

In April 2019, the well head of MW 14 was repaired and MW 14 was resurveyed on 27 June 2019; the new TOC after April 2019 is 548.453

On 17 March 2020, TD was gauged at 47.50 feet

MW 15		Casing Elevation: 556.435	Installation Date		Construction details: unknown.										Ground Elevation: 556.84	
Date	DTW (feet)	Water Table Elevation	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead		
25-Mar-19	26.68	529.76	-	-	-	-	-	-	-	-	-	-	-	-		
28-Mar-19	26.44	530.00	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.029	<5	<3		
17-Jun-19	30.33	526.11	-	-	-	-	-	-	-	-	-	-	-	-		
18-Jun-19	30.40	526.04	<1	<1	<1	<5	2	<10	<5	<5	<5	<0.028	<5	<3		
18-Jun-19	**Sampled with Hydrasleeve, set to 50'															
23-Sep-19	31.02	525.42	-	-	-	-	-	-	-	-	-	-	-	-		
24-Sep-19	31.06	525.38	<1	<1	<1	<3	2	<10	<5	<5	<5	<0.029	<5	<0.5		
24-Sep-19	**Sampled with Hydrasleeve, set to 50'															
09-Dec-19	31.10	525.34	-	-	-	-	-	-	-	-	-	-	-	-		
11-Dec-19	31.13	525.31	<1	<1	<1	<3	2	<10	<5	<5	<5	<0.029	<5	<0.5		
11-Dec-19	Sampled with Hydrasleeve, set to 50'															
17-Mar-20	30.42	526.02	-	-	-	-	-	-	-	-	-	-	-	-		
18-Mar-20	30.66	525.78	<1	1	2	12	2	<10	<5	<5	<5	-	-	-		

The regular samples from MW 15 are collected after purging (pump intake at 50') and recharge, using a bailer; **initially, hydrasleeve samples were intended for a depth of 150', however, the well appears to have silted up

On 11 Dec 2019 and 29 January 2020, the total well depth was gauged at approximately 53'

All samples collected by bailer after purging/pumping and recharge, unless otherwise noted (such as duplicate samples collected while pumping through the tubing, or sampling with Hydrasleeve)

MTBE= Methyl tert. butyl ether; 1,2,4-TMB = 1,2,4-Trimethylbenzene; 1,3,5-TMB = 1,3,5-Trimethylbenzene; EDB = Ethylene dibromide; EDC = 1,2-Dichloroethane** = no data / not measured; data in bold exceed residential SHS MSCs

On 26 March 2019, location, casing and ground elevation of all groundwater monitoring wells were surveyed by a PA-licensed surveyor

PADEP residential used aquifer	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
Statewide health standards:	5	1,000	700	10,000	20	100	840	15	420	0.05	5	5
PADEP non-residential used aquifer	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
Statewide health standards:	5	1,000	700	10,000	20	100	3,500	62	1,200	0.05	5	5



Table 1-B: Liquid Level Gauging Data and Groundwater Sample Laboratory Analytical Results for MWs 16-19, March 2019-Present
 Cornwall Pump Station Site, 370 Horseshoe Pike, West Cornwall Township, Lebanon County, PA
 (Liquid level gauging and water table elevation data are in feet, dissolved analytical data are in ug/l)

MW 16		Casing Elevation: 528.394	Installation Date: 21-Apr-65										Ground Elevation: 527.94		
Date	DTW (feet)	Water Table Elevation	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead	
25-Mar-19	16.90	511.49	-	-	-	-	-	-	-	-	-	-	-	-	
25-Mar-19	Sampled with Hydrasleeve, set to 200'		180	3	4	12	22	<10	9	<5	<5	-	-	-	
26-Mar-19	175.00	353.39	110	5	1	6	25	-	-	-	-	-	-	-	
26-Mar-19	98.00	430.39	38	4	1	11	26	<10	<5	<5	<5	<0.029	<5	<3	
27-Mar-19	175.00	353.39	150	7	2	12	32	<10	8	<5	<5	-	-	-	
28-Mar-19	175.00	353.39	150	7	<5	<25	30	<50	<25	<25	<25	-	-	-	
29-Mar-19	175.00	353.39	140	8	<5	<25	30	-	-	-	-	-	-	-	
17-Jun-19	19.32	509.07	-	-	-	-	-	-	-	-	-	-	-	-	
18-Jun-19	Sampled with Hydrasleeve, set to 200'		180	9	8	26	25	<10	14	<5	<5	-	-	-	
18-Jun-19	Sampled through pump, intake set to 80'		180	10	8	24	23	<10	14	<5	<5	-	-	-	
18-Jun-19	19.40	508.99	190	10	9	27	21	<10	16	<5	<5	<0.029	<5	<3	
23-Sep-19	21.02	507.37	-	-	-	-	-	-	-	-	-	-	-	-	
25-Sep-19	21.10	507.29	200	6	7	5	19	<10	18	<5	<5	<0.028	<5	<0.5	
25-Sep-19	Sampled with Hydrasleeve, set to 200'		110	<5	7	<15	24	<50	<25	<25	<25	-	-	-	
09-Dec-19	21.13	507.26	-	-	-	-	-	-	-	-	-	-	-	-	
11-Dec-19	21.02	507.37	59	<1	4	<3	20	<10	11	<5	<5	<0.028	<5	<0.5	
11-Dec-19	Sampled with Hydrasleeve, set to 200'		47	<1	7	<3	28	<10	14	<5	<5	-	-	-	
11-Dec-19	Sampled with Hydrasleeve, set to 300'		45	<1	8	<3	30	<10	14	<5	<5	-	-	-	
17-Mar-20	20.65	507.74	-	-	-	-	-	-	-	-	-	-	-	-	
18-Mar-20	20.70	507.69	4	<1	<1	<3	<1	<10	<5	<5	<5	-	-	-	
18-Mar-20	Sampled with Hydrasleeve, set to 250'		4	<1	1	<3	18	<10	10	<5	<5	-	-	-	

26 March 2019: sampled by bailer during recharge; 26-29 March 2019: sampled through pump, with intake set to 175', during four-day pump test
 18-June 2019: sampled with hydrasleeve set to 200'; through pump while purging with pump intake set to 80'; and after purging and recharge using a bailer; On 25-Sept.-2019, the pump was set to 80' during purging

MW 17		Casing Elevation: 529.256	Installation Date: unknown										Ground Elev: 529.04		
Date	DTW (feet)	Water Table Elevation	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead	
25-Mar-19	11.55	517.71	-	-	-	-	-	-	-	-	-	-	-	-	
29-Mar-19	16.34	512.92	-	-	-	-	-	-	-	-	-	-	-	-	
29-Mar-19	Sampled with Hydrasleeve, set to 100'		<1	<1	<1	<5	<1	<10	<5	<5	<5	-	-	-	
29-Mar-19	Sampled through pump, intake set to 100'		<1	<1	<1	<5	<1	<10	<5	<5	<5	-	-	-	
29-Mar-19	Sampled by bailer during recharge		<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.029	<5	<3	
17-Jun-19	19.78	509.48	-	-	-	-	-	-	-	-	-	-	-	-	
18-Jun-19	Sampled with Hydrasleeve, set to 100'		2	<1	<1	<5	8	<10	<5	<5	<5	-	-	-	
18-Jun-19	20.15	509.11	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.028	<5	<3	
23-Sep-19	23.37	506.89	-	-	-	-	-	-	-	-	-	-	-	-	
25-Sep-19	Sampled with Hydrasleeve, set to 100'		<1	<1	<1	<3	<1	<10	<5	<5	<5	-	-	-	
25-Sep-19	23.45	505.81	<1	<1	<1	<3	<1	<10	<5	<5	<5	<0.028	<5	<0.5	
09-Dec-19	20.02	509.24	-	-	-	-	-	-	-	-	-	-	-	-	
11-Dec-19	Sampled with Hydrasleeve, set to 100'		<1	<1	<1	<3	5	<10	<5	<5	<5	-	-	-	
11-Dec-19	18.76	510.50	<1	<1	<1	<3	<1	<10	<5	<5	<5	<0.028	<5	<0.5	
17-Mar-20	19.45	509.81	-	-	-	-	-	-	-	-	-	-	-	-	
18-Mar-20	19.58	509.68	<1	<1	<1	<3	<1	<10	<5	<5	<5	-	-	-	

On 29 March 2019, one sample was collected using a Hydrasleeve set to 100', one sample during a 3-hour pump test through the pump, set to 100', and one sample was collected by bailer during recharge

MW 18		Casing Elevation: 531.665	Installation Date: 12-May-92										Ground Elev: 531.10		
Date	DTW (feet)	Water Table Elevation	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead	
25-Mar-19	26.01	505.66	-	-	-	-	-	-	-	-	-	-	-	-	
27-Mar-19	26.23	505.44	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.029	<5	<3	
17-Jun-19	27.34	504.33	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.029	<5	<3	
23-Sep-19	28.79	502.88	<1	<1	<1	<3	<1	<10	<5	<5	<5	<0.029	<5	<0.5	
09-Dec-19	28.89	502.78	-	-	-	-	-	-	-	-	-	-	-	-	
10-Dec-19	28.79	502.88	<1	<1	<1	<3	<1	<10	<5	<5	<5	<0.029	<5	<0.5	
17-Mar-20	28.65	503.02	<1	<1	<1	<3	<1	<10	<5	<5	<5	-	-	-	

On 17 March 2020, the total well depth was gauged at 48 feet

MW 19		Casing Elevation: 538.813	Installation Date: 12-May-92										Ground Elevation: 539.087		
Date	DTW (feet)	Water Table Elevation	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead	
25-Mar-19	32.26	506.55	-	-	-	-	-	-	-	-	-	-	-	-	
27-Mar-19	32.61	506.20	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.029	<5	<3	

On 1 April 2019, MW 19 was abandoned by a PA-certified drilling company to facilitate the construction of new chicken houses

All samples collected by bailer after purging/pumping and recharge, unless otherwise noted (such as duplicate samples collected while pumping through the tubing, or sampling with Hydrasleeve)
 MTBE= Methyl tert. butyl ether; 1,2,4-TMB = 1,2,4-Trimethylbenzene; 1,3,5-TMB = 1,3,5-Trimethylbenzene; EDB = Ethylene dibromide; EDC = 1,2-Dichloroethane** = no data / not measured; data in bold exceed residential SHS MSCS
 On 26 March 2019, location, casing and ground elevation of all groundwater monitoring wells were surveyed by a PA-licensed surveyor

PADEP residential used aquifer	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
Statewide health standards:	5	1,000	700	10,000	20	100	840	15	420	0.05	5	5
PADEP non-residential used aquifer	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
Statewide health standards:	5	1,000	700	10,000	20	100	3,500	62	1,200	0.05	5	5



Table 1-C: Liquid Level Gauging Data and Groundwater Sample Laboratory Analytical Results for MWs 20, 24, 25 and 26, March 2019-Present
 Cornwall Pump Station Site, 370 Horseshoe Pike, West Cornwall Township, Lebanon County, PA
 (Liquid level gauging and water table elevation data are in feet, dissolved analytical data are in ug/l)

MW 20		Casing Elevation: 556.019	Installation Date: 11-May-92	Construction details: 4-inch diameter; original total depth = 96 feet; 26 feet solid riser; 70 feet PVC screen.										Ground Elevation: 555.97	
Date	DTW (feet)	Water Table Elevation	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead	
25-Mar-19	23.61	532.41	-	-	-	-	-	-	-	-	-	-	-	-	
26-Mar-19	23.69	532.33	37	9	3	41	2	<10	23	<5	10	<0.029	<5	<3	
17-Jun-19	27.01	529.01	-	-	-	-	-	-	-	-	-	-	-	-	
18-Jun-19	27.18	528.84	35	10	4	50	1	<10	25	<5	17	<0.028	<5	<3	
23-Sep-19	28.55	527.47	-	-	-	-	-	-	-	-	-	-	-	-	
24-Sep-19	26.68	529.34	30	9	5	40	1	<10	21	<5	10	<0.028	<5	<0.5	
09-Dec-19	28.67	527.35	-	-	-	-	-	-	-	-	-	-	-	-	
11-Dec-19	28.85	527.17	27	9	6	43	ND (of 1)	ND (of 20)	21 J	5 J	11 J	ND (of 0.0094)	ND (of 10)	0.072 J	
17-Mar-20	28.06	527.96	-	-	-	-	-	-	-	-	-	-	-	-	
18-Mar-20	28.25	527.77	28	12	8	62	<1	<10	24	9	12	-	-	-	

On 29 January and 17 March 2020, the total well depth was gauged at 96.0 feet

MW 24		Casing Elevation: 535.460	Installation Date: 30-Sep-92	Construction details: 4-inch diameter; original total depth = 53 feet; 10 feet solid riser; 43 feet PVC screen.										Ground Elevation: 536.34	
Date	DTW (feet)	Water Table Elevation	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead	
25-Mar-19	38.63	496.83	-	-	-	-	-	-	-	-	-	-	-	-	
26-Mar-19	37.72	497.74	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.029	<5	<3	
17-Jun-19	34.63	500.83	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.028	<5	<3	
23-Sep-19	36.53	498.93	<1	<1	<1	<3	<1	<10	<5	<5	<5	<0.029	<5	<0.5	
09-Dec-19	36.43	499.03	<1	<1	<1	<3	<1	<10	<5	<5	<5	<0.029	<5	<0.5	
17-Mar-20	36.21	499.25	<1	<1	<1	<3	<1	<10	<5	<5	<5	-	-	-	

On 29 January and 17 March 2020, the total well depth was gauged at 47.7 feet

MW 25		Casing Elevation: 540.053	Installation Date: 30-Sep-92	Construction details: 4-inch diameter; original total depth = 42 feet; 10 feet solid riser; 32 feet PVC screen.										Ground Elevation: 538.27	
Date	DTW (feet)	Water Table Elevation	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead	
25-Mar-19	32.32	507.73	-	-	-	-	-	-	-	-	-	-	-	-	
26-Mar-19	32.46	507.59	23	2	2	5	5	<10	<5	15	<5	<0.029	<5	<3	
17-Jun-19	34.68	505.37	110	17	61	75	16	63	17	190	30	<0.028	<5	<3	
23-Sep-19	36.69	503.36	160	19	56	54	20	68	20	110	30	<0.029	<5	<0.5	
09-Dec-19	37.01	503.04	-	-	-	-	-	-	-	-	-	-	-	-	
10-Dec-19	36.94	503.11	98	8	9	10	20	23	9	16	<5	<0.028	<5	<0.5	
17-Mar-20	36.69	503.36	37	3	2	<3	10	<10	<5	<5	<5	-	-	-	

On 29 January and 17 March 2020, the total well depth was gauged at 42.0 feet

MW 26		Casing Elevation: 539.001	Installation Date: 24-Nov-92	Construction details: 4-inch diameter; original total depth = 62 feet; 10 feet solid riser; 52 feet PVC screen.										Ground Elevation: 538.26	
Date	DTW (feet)	Water Table Elevation	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead	
25-Mar-19	21.67	517.33	-	-	-	-	-	-	-	-	-	-	-	-	
26-Mar-19	21.95	517.05	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.029	<5	<3	
17-Jun-19	23.67	515.33	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.028	<5	<3	
23-Sep-19	22.71	516.29	<1	<1	<1	<3	<1	<10	<5	<5	<5	<0.028	<5	<0.5	
09-Dec-19	21.70	517.30	-	-	-	-	-	-	-	-	-	-	-	-	
10-Dec-19	23.86	515.14	<1	<1	<1	<3	<1	<10	<5	<5	<5	<0.029	<5	<0.5	
17-Mar-20	22.73	516.27	<1	<1	<1	<3	<1	<10	<5	<5	<5	-	-	-	

On 29 January and 17 March 2020, the total well depth was gauged at 62 feet

All samples collected by bailer after purging/pumping and recharge, unless otherwise noted (such as duplicate samples collected while pumping through the tubing, or sampling with Hydrasleeve)
 MTBE= Methyl tert. butyl ether; 1,2,4-TMB = 1,2,4-Trimethylbenzene; 1,3,5-TMB = 1,3,5-Trimethylbenzene; EDB = Ethylene dibromide; EDC = 1,2-Dichloroethane** = no data / not measured; data in bold exceed residential SHS MSCs
 ND (of "x") = non-detect (of detection limit); J-value indicates laboratory-estimated value between method detection limit and limit of quantitation

On 26 March 2019, location, casing and ground elevation of all groundwater monitoring wells were surveyed by a PA-licensed surveyor

PADEP residential used aquifer	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
Statewide health standards:	5	1,000	700	10,000	20	100	840	15	420	0.05	5	5
PADEP non-residential used aquifer	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
Statewide health standards:	5	1,000	700	10,000	20	100	3,500	62	1,200	0.05	5	5



Table 1-D: Liquid Level Gauging Data and Groundwater Sample Laboratory Analytical Results for MWs 27, 28, 31 and 33, March 2019-Present

Corwall Pump Station Site, 370 Horseshoe Pike, West Cornwall Township, Lebanon County, PA
(Liquid level gauging and water table elevation data are in feet, dissolved analytical data are in ug/l)

MW 27		Casing Elevation: 552.505	Installation Date unknown Construction details unknown; total depth = 37.3 feet										Ground Elevation: 552.95	
Date	DTW (feet)	Water Table Elevation	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
25-Mar-19	22.73	529.78	-	-	-	-	-	-	-	-	-	-	-	-
26-Mar-19	22.81	529.70	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.029	<5	<3
17-Jun-19	25.80	526.71	-	-	-	-	-	-	-	-	-	-	-	-
6/18/2019*	25.99	526.52	1	<1	2	5	<1	<10	<5	<5	<5	<0.028	<5	<3
23-Sep-19	30.87	521.64	-	-	-	-	-	-	-	-	-	-	-	-
24-Sep-19	-	-	2	<1	5	5	<1	<10	<5	14	<5	<0.028	<5	<0.5
09-Dec-19	31.00	521.51	-	-	-	-	-	-	-	-	-	-	-	-
10-Dec-19	30.97	521.54	<1	<1	2	<3	<1	<10	<5	6	<5	<0.028	<5	<0.5
17-Mar-20	28.34	524.17	-	-	-	-	-	-	-	-	-	-	-	-
18-Mar-20	28.45	524.06	<1	<1	<1	<3	<1	<10	<5	<5	<5	-	-	-

*MW 27 was purged on 18 June, but was not sampled until 19 June due to extremely slow recharge; DTW was 36.65 at time of sample collection on 19 June 2019; TD=37.3 feet as gauged on 29 January and 17 March 2020

MW 28		Casing Elevation: 567.716	Installation Date 9-Jun-95 Construction details: 4-inch diameter; original total depth = 71 feet; 31 feet solid riser; 40 feet PVC screen.										Ground Elev.: 568.60	
Date	DTW (feet)	Water Table Elevation	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
25-Mar-19	31.13	536.59	-	-	-	-	-	-	-	-	-	-	-	-
26-Mar-19	31.27	536.45	280	29	320	62	17	200	20 J	86	89	ND (of 0.0095)	ND (of 10)	<3
17-Jun-19	31.26	536.46	-	-	-	-	-	-	-	-	-	-	-	-
18-Jun-19	33.32	534.40	86	15	140	45	4	130	18	110	56	<0.028	<5	<3
23-Sep-19	36.59	531.13	-	-	-	-	-	-	-	-	-	-	-	-
25-Sep-19	36.73	530.99	23	9	69	42	2	90	15	66	34	<0.028	<5	1.6
09-Dec-19	36.93	530.79	-	-	-	-	-	-	-	-	-	-	-	-
10-Dec-19	36.97	530.75	19	10	20	31	<1	47	15	50	17	<0.028	<5	1.5
17-Mar-20	36.72	531.00	-	-	-	-	-	-	-	-	-	-	-	-
18-Mar-20	36.80	530.92	9	2	4	21	<1	51	18	69	19	-	-	-

On 29 January 2020, the total well depth was gauged at 68.6 feet

MW 31		Casing Elevation: 563.866	Installation Date 29-Sep-98 Construction details: 4-inch diameter; original total depth = 60 feet; 20 feet solid riser; 40 feet PVC screen.										Ground Elev.: 564.80	
Date	DTW (feet)	Water Table Elevation	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
25-Mar-19	27.52	536.35	-	-	-	-	-	-	-	-	-	-	-	-
26-Mar-19	27.57	536.30	2	<1	<1	<5	<1	<10	<5	<5	<5	<0.029	<5	<3
17-Jun-19	30.39	533.48	-	-	-	-	-	-	-	-	-	-	-	-
18-Jun-19	30.48	533.39	5	<1	<1	<5	<1	<10	<5	<5	<5	<0.028	<5	<3
23-Sep-19	34.23	529.64	-	-	-	-	-	-	-	-	-	-	-	-
25-Sep-19	34.49	529.38	8	<1	<1	<3	1	<10	6	<5	<5	<0.028	<5	1.1
09-Dec-19	35.00	528.87	-	-	-	-	-	-	-	-	-	-	-	-
10-Dec-19	35.10	528.77	9	1	4	<3	1	<10	7	<5	<5	<0.028	<5	1.3
17-Mar-20	34.49	529.38	-	-	-	-	-	-	-	-	-	-	-	-
18-Mar-20	34.53	529.34	5	<1	<1	<3	<1	<10	6	<5	<5	-	-	-

On 10 Dec 2019 and 29 Jan 2020, depth to bottom was gauged at 49'; on 17 March 2020, TD was gauged at 48' - well appears to have been silted up at the bottom when compared to original drilling depth

MW 33		Casing Elevation: 557.728	Installation Date 30-Sep-98 Construction details: 4-inch diameter; original total depth = 65 feet; 15 feet solid riser; 50 feet PVC screen.										Ground Elevation: 558.51	
Date	DTW (feet)	Water Table Elevation	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
25-Mar-19	28.49	529.24	-	-	-	-	-	-	-	-	-	-	-	-
26-Mar-19	28.49	529.24	25	4	62	31	2	28	<5	100	13	<0.029	<5	<3
17-Jun-19	33.80	523.93	-	-	-	-	-	-	-	-	-	-	-	-
18-Jun-19	33.96	523.77	12	2	24	22	<1	11	<5	54	6	<0.028	<5	<3
23-Sep-19	39.11	518.62	-	-	-	-	-	-	-	-	-	-	-	-
25-Sep-19	-	-	4 J	2 J	6	39	ND (of 1)	ND (of 20)	ND (of 2)	57	10 J	ND (of 0.0082)	ND (of 10)	-
09-Dec-19	dry at 42.78	<514.95	-	-	-	-	-	-	-	-	-	-	-	-
11-Dec-19	dry at 42.78	<514.95	-	-	-	-	-	-	-	-	-	-	-	-
17-Mar-20	37.59	520.14	-	-	-	-	-	-	-	-	-	-	-	-
18-Mar-20	37.71	520.02	1	<1	3	8	<1	<10	<5	17	<5	-	-	-

On 25 Sep. 2019, a sample bottle for dissolved lead analysis could not be filled due to insufficient water recharge; For the VOC analyses, the laboratory reported that the reporting limit had to be raised due to matrix interference MW 33 might have been compromised/partially filled, total well depth as gauged on 9 and 11 December 2019 and 29 January and 17 March 2020 was 42.7 feet BTOC; mud/bentonite was noted on probe on 29 January 2020

All samples collected by bailer after purging/pumping and recharge, unless otherwise noted (such as duplicate samples collected while pumping through the tubing, or sampling with Hydrasleeve)
MTBE= Methyl tert. butyl ether; 1,2,4-TMB = 1,2,4-Trimethylbenzene; 1,3,5-TMB = 1,3,5-Trimethylbenzene; EDB = Ethylene dibromide; EDC = 1,2-Dichloroethane*- = no data / not measured; data in bold exceed residential SHS MSCS

ND (of "x") = non-detect (of detection limit); J-value indicates laboratory-estimated value between method detection limit and limit of quantitation

On 26 March 2019, location, casing and ground elevation of all groundwater monitoring wells were surveyed by a PA-licensed surveyor

PADEP residential used aquifer Statewide health standards:	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
	5	1,000	700	10,000	20	100	840	15	420	0.05	5	5
PADEP non-residential used aquifer Statewide health standards:	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
	5	1,000	700	10,000	20	100	3,500	62	1,200	0.05	5	5



Table 1-E: Liquid Level Gauging Data and Groundwater Sample Laboratory Analytical Results for MWs 38, 41, 49, 50, December 2018/March 2019-Present
 Cornwall Pump Station Site, 370 Horseshoe Pike, West Cornwall Township, Lebanon County, PA
 (Liquid level gauging and water table elevation data are in feet, dissolved analytical data are in ug/l)

Installation Date
2-Oct-98

MW 38 Casing Elevation: 568.814 Construction details: 4-inch diameter; original total depth = 70 feet; 20 feet solid riser; 50 feet PVC screen. Ground Elevation: 569.50

Date	DTW (feet)	Water Table Elevation	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
25-Mar-19	32.33	536.48	-	-	-	-	-	-	-	-	-	-	-	-
26-Mar-19	32.42	536.39	17	<1	3	<5	4	<10	<5	<5	<5	<0.029	<5	<3
17-Jun-19	34.80	534.01	-	-	-	-	-	-	-	-	-	-	-	-
18-Jun-19	34.89	533.92	35	<1	<1	<5	5	<10	<5	<5	<5	<0.028	<5	<3
23-Sep-19	39.05	529.76	-	-	-	-	-	-	-	-	-	-	-	-
25-Sep-19	39.24	529.57	97	<5	13	52	20	<50	<25	<25	<25	<0.028	<25	0.75
09-Dec-19	39.85	528.96	-	-	-	-	-	-	-	-	-	-	-	-
10-Dec-19	39.85	528.96	34	6	17	30	4	<10	6	18	6	<0.028	<5	1.2
17-Mar-20	39.14	529.67	-	-	-	-	-	-	-	-	-	-	-	-
18-Mar-20	39.39	529.42	360	68	220	540	55	72	28	210	70	-	-	-

On 25 Sep. 2019, the reporting limit for EDC could not be attained - EDC was not detected in an undiluted sample that was subsequently analyzed outside holding time and from a previously opened vial with headspace
 On 29 January 2020, the total well depth was gauged at 62.9 feet

Installation Date
2-Jun-99

MW 41 Casing Elevation: 575.414 Construction details: 4-inch diameter; total depth = 45 feet; 20 feet solid riser; 25 feet PVC screen. Ground Elevation: 573.64

Date	DTW (feet)	Water Table Elevation	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
25-Mar-19	22.89	552.52	-	-	-	-	-	-	-	-	-	-	-	-
28-Mar-19	23.96	551.45	2	<1	2	<5	<1	<10	<5	<5	<5	<0.029	<5	<3
17-Jun-19	25.20	550.21	16	<1	5	<5	<1	<10	<5	<5	<5	<0.028	<5	<3
23-Sep-19	28.04	547.37	42	<1	10	<3	<1	<10	20	<5	<5	<0.028	<5	1.4
09-Dec-19	27.80	547.61	50	1	25	4	<1	<10	26	<5	<5	<0.028	<5	1.7
17-Mar-20	28.02	547.39	<1	<1	<1	<3	<1	<10	<5	<5	<5	-	-	-

On 17 March 2020, the total well depth was gauged at 43.2 feet

Installation Date
19-Jul-00

MW 49 Casing Elevation: 573.263 Construction details: 4-inch diam.; original total depth = 85 feet; 10 feet solid riser; 75 feet PVC screen; gravel Ground Elevation: 574.35

Date	DTW (feet)	Water Table Elevation	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
26-Mar-19	56.56	516.70	-	-	-	-	-	-	-	-	-	-	-	-
28-Mar-19	Sampled with Hydrasleeve, set to 75'		<1	<1	<1	<5	<1	<10	<5	<5	<5	-	-	-
28-Mar-19	57.25	516.01	ND (of 1)	20	230	1,500	ND (of 1)	130	41	810	400	0.016	ND (of 10)	ND (of 1.1)
17-Jun-19	65.47	507.79	-	-	-	-	-	-	-	-	-	-	-	-
18-Jun-19	65.58	507.68	120	700	800	4,800	ND (of 1)	320	47	1,000	340	0.043	ND (of 10)	ND (of 1.1)
23-Sep-19	68.80	504.46	-	-	-	-	-	-	-	-	-	-	-	-
25-Sep-19	69.00	504.26	11	380	760	4,000	ND (of 1)	330	49	1,200	370	ND (of 0.0094)	ND (of 10)	0.12 J
09-Dec-19	69.22	504.04	-	-	-	-	-	-	-	-	-	-	-	-
10-Dec-19	69.26	504.00	8	300	840	5,600	<5	400	44	1,400	340	<0.0028	<25	<0.5
17-Mar-20	68.10	505.16	-	-	-	-	-	-	-	-	-	-	-	-
18-Mar-20	68.11	505.15	12	550	870	6,000	<5	410	58	1,600	410	-	-	-

On 28 March 2019, MW 49 was sampled at 10:30 using a hydrasleeve, depth to water was gauged at 57.20' BTOC, and then gauged at 15:00 (57.25' BTOC), purged and sampled by bailer during recharge; Depth to well bottom gauged at 80'
 On 17 March 2020, the total well depth was gauged at 79 feet

Installation Date
5-Nov-18

MW 50 Casing Elevation: 547.773 Construction details: 4-inch diam.; total depth = 80 feet; 60 feet solid riser; 20 feet PVC screen. Ground Elevation: 548.38

Date	DTW (feet)	Water Table Elevation	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
19-Dec-18	35.10	512.67	1	<1	<1	<5	<1	<10	<5	<5	<5	-	-	-
25-Mar-19	35.69	512.08	-	-	-	-	-	-	-	-	-	-	-	-
27-Mar-19	35.68	512.09	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.029	<5	<3
27-Mar-19	Sampled with Hydrasleeve, set to 70'		<1	<1	<1	<5	<1	<10	<5	<5	<5	-	-	-
17-Jun-19	38.90	508.87	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.028	<5	<3
23-Sep-19	42.27	505.50	-	-	-	-	-	-	-	-	-	-	-	-
24-Sep-19	42.34	505.43	2	<1	<1	<3	<1	<10	<5	<5	<5	<0.028	<5	1.4
09-Dec-19	42.96	504.81	-	-	-	-	-	-	-	-	-	-	-	-
10-Dec-19	43.60	504.17	2	<1	<1	<3	<1	<10	<5	<5	<5	<0.028	<5	0.65
17-Mar-20	42.12	505.65	1	<1	<1	<3	<1	<10	<5	<5	<5	-	-	-

ND (of "x") = non-detect (of detection limit); J-value indicates laboratory-estimated value between method detection limit and limit of quantitation

All samples collected by bailer after purging/pumping and recharge, unless otherwise noted (such as duplicate samples collected while pumping through the tubing, or sampling with Hydrasleeve)

Hydrasleeve samples were collected after liquid level gauging but before purging the wells; regular samples were collected after purging and recharge

MTBE= Methyl tert. butyl ether; 1,2,4-TMB = 1,2,4-Trimethylbenzene; 1,3,5-TMB = 1,3,5-Trimethylbenzene; EDB = Ethylene dibromide; EDC = 1,2-Dichloroethane*- = no data / not measured; data in bold exceed residential SHS MSCS

On 26 March 2019, location, casing and ground elevation of all groundwater monitoring wells were surveyed by a PA-licensed surveyor

PADEP residential used aquifer	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
Statewide health standards:	5	1,000	700	10,000	20	100	840	15	420	0.05	5	5
PADEP non-residential used aquifer	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
Statewide health standards:	5	1,000	700	10,000	20	100	3,500	62	1,200	0.05	5	5



Table 1-F: Liquid Level Gauging Data and Groundwater Sample Laboratory Analytical Results for MWs 51, 52, 53A and 53B, December 2018/March 2019-Present
 Cornwall Pump Station Site, 370 Horseshoe Pike, West Cornwall Township, Lebanon County, PA
 (Liquid level gauging and water table elevation data are in feet, dissolved analytical data are in ug/l)

MW 51		Casing Elevation: 529.419	Installation Date 6-14-Nov-2018 Construction details: 6-inch diameter; total depth = 51 feet; 21 feet solid riser; 30 feet PVC screen.										Ground Elevation: 530.90	
Date	DTW (feet)	Water Table Elevation	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
19-Dec-18	25.40	504.02	<1	<1	<1	<5	<1	<10	6	<5	<5	-	-	-
05-Mar-19	25.94	503.48	-	-	-	-	-	-	-	-	-	-	-	-
05-Mar-19	Sampled through pump, intake set to 47'		<1	<1	<1	<5	<1	<10	<5	<5	<5	-	-	-
05-Mar-19	Sampled through pump, intake set to 47'		<1	<1	<1	<5	<1	<10	<5	<5	<5	-	-	-
05-Mar-19	Sampled by bailer during recharge		<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.029	<5	<3
25-Mar-19	25.16	504.26	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.029	<5	<3
17-Jun-19	29.56	499.86	<1	<1	<1	<5	<1	<10	5	<5	<5	<0.028	<5	<3
23-Sep-19	31.85	497.57	-	-	-	-	-	-	-	-	-	-	-	-
24-Sep-19	32.03	497.39	<1	<1	<1	<3	<1	<10	<5	<5	<5	<0.028	<5	0.54
09-Dec-19	32.51	496.91	-	-	-	-	-	-	-	-	-	-	-	-
10-Dec-19	32.06	497.36	<1	<1	<1	<3	<1	<10	<5	<5	<5	<0.029	<5	0.73
17-Mar-20	31.57	497.85	<1	<1	<1	<3	<1	<10	9	<5	<5	-	-	-

On 5 March 2019, a pump test was conducted on MW 51 for approx. 4 hours at an average flow rate of approx. 7-8 gpm; two samples were collected through the pump, set to 47'; one sample was collected by bailer during recharge

MW 52		Casing Elevation: 551.911	Installation Date 29-31-Oct-2018 Construction details: 6-inch diameter open rock well; TD = 324 feet; steel casing to 19 feet.										Ground Elev 552.83	
Date	DTW (feet)	Water Table Elevation	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
19-Dec-18	33.08	518.83	<1	<1	<1	<5	<1	<10	<5	<5	<5	-	-	-
25-Mar-19	31.01	520.90	-	-	-	-	-	-	-	-	-	-	-	-
28-Mar-19	31.62	520.29	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.029	<5	<3
28-Mar-19	Sampled through pump, intake set to 250'		<1	<1	<1	<5	<1	<10	<5	<5	<5	-	-	-
17-Jun-19	37.18	514.73	-	-	-	-	-	-	-	-	-	-	-	-
19-Jun-19	Sampled with Hydrasleeve, set to 250'		<1	<1	<1	<5	<1	<10	<5	<5	<5	-	-	-
19-Jun-19	37.40	514.51	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.028	<5	<3
23-Sep-19	44.88	507.03	-	-	-	-	-	-	-	-	-	-	-	-
24-Sep-19	Sampled with Hydrasleeve, set to 250'		<1	<1	<1	<3	<1	<10	<5	<5	<5	-	-	-
24-Sep-19	45.01	506.90	<1	<1	<1	<3	<1	<10	<5	<5	<5	<0.028	<5	<0.5
09-Dec-19	45.20	506.71	-	-	-	-	-	-	-	-	-	-	-	-
10-Dec-19	Sampled with Hydrasleeve, set to 250'		<1	<1	<1	<3	<1	<10	<5	<5	<5	-	-	-
10-Dec-19	45.14	506.77	<1	<1	<1	<3	<1	<10	<5	<5	<5	<0.028	<5	<0.5
17-Mar-20	42.14	509.77	<1	<1	<1	<3	<1	<10	<5	<5	<5	-	-	-

On 19 Dec. 2018, two samples were collected, one by bailer after purging and a second using a Hydrasleeve set to 300 feet BTOC; both samples were reported as not containing any of the COCs above the LOQ

MW 53A		Casing Elevation: 495.175	Installation Date 18-25-Feb-2019 Construction details: 6-inch diameter open rock well; TD = 72 feet; steel casing to 26 feet.										Ground Elev 494.94	
Date	DTW (feet)	Water Table Elevation	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
25-Mar-19	-2.50	497.68	-	-	-	-	-	-	-	-	-	-	-	-
29-Mar-19	-2.50	497.68	<1	<1	<1	<5	1	<10	<5	<5	<5	<0.029	<5	<3
17-Jun-19	0.06	495.12	<1	<1	<1	<5	1	<10	<5	<5	<5	<0.029	<5	<3
23-Sep-19	4.53	490.65	<1	<1	<1	<3	1	<10	<5	<5	<5	<0.028	<5	<0.5
09-Dec-19	4.59	490.59	<1	<1	<1	<3	1	<10	<5	<5	<5	<0.029	<5	<0.5
17-Mar-20	3.36	491.82	<1	<1	<1	<3	1	<10	<5	<5	<5	-	-	-

In March 2019, MW 53A was an artisan well; casing elevation was surveyed to top of sanitary seal; water level on 29 March 2019 based on 30 inches of water column measured with pressure gauge

MW 53B		Casing Elevation: 496.937	Installation Date 19-Feb-19 Construction details: 2-inch diameter; 10.5 feet total depth below grade; 1.5 feet solid riser; 9 feet screen.										Ground Elevation: 494.87	
Date	DTW (feet)	Water Table Elevation	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
25-Mar-19	3.04	493.90	-	-	-	-	-	-	-	-	-	-	-	-
28-Mar-19	3.12	493.82	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.030	<5	<3
17-Jun-19	3.71	493.23	-	-	-	-	-	-	-	-	-	-	-	-
18-Jun-19	3.68	493.26	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.029	<5	<3
23-Sep-19	6.52	490.42	<1	<1	<1	<3	<1	<10	<5	<5	<5	<0.029	<5	<0.5
09-Dec-19	6.35	490.59	<1	<1	<1	<3	<1	<10	<5	<5	<5	<0.028	<5	<0.5
17-Mar-20	5.29	491.65	<1	<1	<1	<3	<1	<10	<5	<5	<5	-	-	-

ND (of "x") = non-detect (of detection limit); J-value indicates laboratory-estimated value between method detection limit and limit of quantitation

All samples collected by bailer after purging/pumping and recharge, unless otherwise noted (such as duplicate samples collected while pumping through the tubing, or sampling with Hydrasleeve)

Hydrasleeve samples were collected after liquid level gauging but before purging the wells; regular samples were collected after purging and recharge

MTBE= Methyl tert. butyl ether; 1,2,4-TMB = 1,2,4-Trimethylbenzene; 1,3,5-TMB = 1,3,5-Trimethylbenzene; EDB = Ethylene dibromide; EDC = 1,2-Dichloroethane** = no data / not measured; data in bold exceed residential SHS MSCS

On 26 March 2019, location and ground elevation of all groundwater monitoring wells were surveyed by a PA-licensed surveyor

PADEP residential used aquifer Statewide health standards:	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
	5	1,000	700	10,000	20	100	840	15	420	0.05	5	5
PADEP non-residential used aquifer Statewide health standards:	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
	5	1,000	700	10,000	20	100	3,500	62	1,200	0.05	5	5



Table 1-G: Liquid Level Gauging Data and Groundwater Sample Laboratory Analytical Results for MWs 56-59, February/March 2019-Present

Cornwall Pump Station Site, 370 Horseshoe Pike, West Cornwall Township, Lebanon County, PA
(Liquid level gauging and water table elevation data are in feet, dissolved analytical data are in ug/l)

MW 56		Casing Elevation: 534.692	Installation Date 8-11-Feb-19 Construction details: 6-inch diameter open rock well; TD = 272 feet; steel casing to 19 feet.										Ground Elev 535.21		
Date	DTW (feet)	Water Table Elevation	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead	
25-Mar-19	20.45	514.24	-	-	-	-	-	-	-	-	-	-	-	-	
27-Mar-19	21.64	513.05	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.028	<5	<3	
27-Mar-19	Sampled through pump, intake set to 250'		<1	<1	<1	<5	<1	<10	<5	<5	<5	-	-	-	
17-Jun-19	23.32	511.37	-	-	-	-	-	-	-	-	-	-	-	-	
18-Jun-19	Sampled with Hydrasleeve, set to 250'		<1	<1	<1	<5	<1	<10	<5	<5	<5	-	-	-	
18-Jun-19	23.33	511.36	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.029	<5	<3	
23-Sep-19	28.80	505.89	-	-	-	-	-	-	-	-	-	-	-	-	
24-Sep-19	Sampled with Hydrasleeve, set to 250'		<1	<1	<1	<3	<1	<10	<5	<5	<5	-	-	-	
24-Sep-19	27.00	507.69	<1	<1	<1	<3	<1	<10	<5	<5	<5	<0.029	<5	<0.5	
09-Dec-19	26.40	508.29	-	-	-	-	-	-	-	-	-	-	-	-	
10-Dec-19	Sampled with Hydrasleeve, set to 250'		<1	<1	<1	<3	<1	<10	<5	<5	<5	-	-	-	
10-Dec-19	26.41	508.28	<1	<1	<1	<3	<1	<10	<5	<5	<5	<0.028	<5	<0.5	
17-Mar-20	27.01	507.68	<1	<1	<1	<3	<1	<10	<5	<5	<5	-	-	-	

MW 57		Casing Elevation: 503.571	Installation Date 15-Feb-19 Construction details: 2-inch diameter; 11 feet total depth below grade; 1 foot solid riser; 10 feet screen.										Ground Elevation: 501.48		
Date	DTW (feet)	Water Table Elevation	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead	
28-Feb-19	2.10	501.47	16	ND (of 1)	15	5 J	4 J	ND (of 20)	9 J	ND (of 2)	8 J	ND (of 0.0098)	ND (of 10)	ND (of 1.1)	
25-Mar-19	2.10	501.47	-	-	-	-	-	-	-	-	-	-	-	-	
27-Mar-19	2.07	501.50	5	<1	4	<5	3	<10	<5	<5	<5	<0.029	<5	<3	
17-Jun-19	2.32	501.25	-	-	-	-	-	-	-	-	-	-	-	-	
18-Jun-19	4.02	499.55	14	<1	2	<5	4	<10	<5	<5	<5	<0.029	<5	<3	
23-Sep-19	3.62	499.95	39	1	4	3	5	<10	11	<5	<5	<0.029	<5	0.70	
09-Dec-19	2.90	500.67	-	-	-	-	-	-	-	-	-	-	-	-	
10-Dec-19	-	-	39	<1	1	<3	4	<10	6	<5	<5	<0.029	<5	0.54	
17-Mar-20	3.30	500.27	25	<1	2	<3	3	<10	6	<5	<5	-	-	-	
17-Jun-20	2.69	500.88	18	<1.0	<1.0	<6.0	2.7	<5.0	<5.0	<5.0	<5.0	-	-	-	

MW 58		Casing Elevation: 504.224	Installation Date 13-Feb-19 Construction details: 2-inch diameter; 9.7 feet total depth below grade; 8.7 feet solid riser; 1 feet screen (deep-screened)										Ground Elev 502.15		
Date	DTW (feet)	Water Table Elevation	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead	
28-Feb-19	2.62	501.60	16	<1	6	<5	4	<10	9	<5	7	<0.030	<5	<3	
25-Mar-19	2.12	502.10	-	-	-	-	-	-	-	-	-	-	-	-	
27-Mar-19	2.20	502.02	5	<1	4	<5	3	<10	7	<5	6	<0.029	<5	<3	
17-Jun-19	2.77	501.45	-	-	-	-	-	-	-	-	-	-	-	-	
18-Jun-19	4.50	499.72	10	<1	2	<5	4	<10	6	<5	<5	<0.029	<5	<3	
23-Sep-19	4.20	500.02	37	<1	3	<3	6	<10	10	<5	<5	<0.028	<5	0.72	
09-Dec-19	3.50	500.72	-	-	-	-	-	-	-	-	-	-	-	-	
10-Dec-19	-	-	12	<1	<1	<3	4	<10	<5	<5	<5	<0.028	<5	0.95	
17-Mar-20	3.86	500.36	1	<1	<1	<3	3	<10	<5	<5	<5	-	-	-	
17-Jun-20	2.98	501.24	15	<5.0	<5.0	<3.0	<5.0	<25	<25	<25	<25	-	-	-	

MW 59		Casing Elevation: 499.801	Installation Date 13-Feb-19 Construction details: 2-inch diameter; 10.8 feet total depth below grade; 9.8 feet solid riser; 1 feet screen. (deep-screened)										Ground Elev 497.65		
Date	DTW (feet)	Water Table Elevation	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead	
28-Feb-19	3.88	495.92	2	<1	<1	<5	4	<10	<5	<5	<5	<0.029	<5	<3	
25-Mar-19	3.79	496.01	-	-	-	-	-	-	-	-	-	-	-	-	
27-Mar-19	3.78	496.02	2	<1	<1	<5	4	<10	<5	<5	<5	<0.029	<5	<3	
17-Jun-19	3.84	495.96	-	-	-	-	-	-	-	-	-	-	-	-	
18-Jun-19	3.93	495.87	1	<1	<1	<5	4	<10	<5	<5	<5	<0.029	<5	<3	
23-Sep-19	5.08	494.72	<1	<1	<1	<3	4	<10	<5	<5	<5	<0.029	<5	<0.5	
09-Dec-19	4.46	495.34	<1	<1	<1	<3	5	<10	<5	<5	<5	<0.028	<5	<0.5	
17-Mar-20	4.63	495.17	2	<1	<1	<3	4	<10	7	<5	<5	-	-	-	
17-Jun-20	3.80	496.00	1.3	<1.0	<1.0	<6.0	3.7	<5.0	5.3	<5.0	<5.0	-	-	-	

All samples collected by bailer after purging/pumping and recharge, unless otherwise noted (such as duplicate samples collected while pumping through the tubing, or sampling with Hydrasleeve)
 MTBE= Methyl tert. butyl ether; 1,2,4-TMB = 1,2,4-Trimethylbenzene; 1,3,5-TMB = 1,3,5-Trimethylbenzene; EDB = Ethylene dibromide; EDC = 1,2-Dichloroethane. "-" = no data / not measured; data in bold exceed residential SHS MSCS
 ND (of 1) = non detect (method detection limit); J-value indicates a laboratory-estimated concentration between the limit of quantitation and method detection limit; "-" = not sampled/analyzed
 MWs 53B and 57-62 were installed by geoprobe-auger between 13 and 19 Feb. 2019; all wells were completed with solid PVC-riser to approx. 2 feet above grade and protective metal casing
 On 26 March 2019, location, casing and ground elevation of all groundwater monitoring wells were surveyed by a PA-licensed surveyor

PADEP residential used aquifer	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
Statewide health standards:	5	1,000	700	10,000	20	100	840	15	420	0.05	5	5
PADEP non-residential used aquifer	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
Statewide health standards:	5	1,000	700	10,000	20	100	3,500	62	1,200	0.05	5	5



Table 1-H: Liquid Level Gauging Data and Groundwater Sample Laboratory Analytical Results for MWs 60-62, February/March 2019-Present

Cornwall Pump Station Site, 370 Horseshoe Pike, West Cornwall Township, Lebanon County, PA
(Liquid level gauging and water table elevation data are in feet, dissolved analytical data are in ug/l)

MW 60		Casing Elevation: 499.822	Installation Date 13-Feb-19 Construction details: 2-inch diameter; 8.7 feet total depth below grade; 1.2 feet solid riser; 7.5 feet screen.										Ground Elevation: 499.58		
Date	DTW (feet)	Water Table Elevation	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead	
28-Feb-19	3.90	495.92	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.029	<5	<3	
25-Mar-19	4.01	495.81	-	-	-	-	-	-	-	-	-	-	-	-	
27-Mar-19	3.66	496.16	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.029	<5	<3	
17-Jun-19	4.01	495.81	-	-	-	-	-	-	-	-	-	-	-	-	
18-Jun-19	3.99	495.83	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.028	<5	<3	
23-Sep-19	5.31	494.51	1	<1	<1	<3	1	<10	<5	<5	<5	<0.028	<5	1.0	
09-Dec-19	4.94	494.88	<1	<1	<1	<3	<1	<10	<5	<5	<5	<0.028	<5	<0.5	
17-Mar-20	5.03	494.79	2	<1	2	<3	1	<10	<5	<5	<5	-	-	-	
17-Jun-20	4.93	494.89	1.8	<1.0	1.2	<6.0	1.4	<5.0	5.4	<5.0	<5.0	-	-	-	

MW 61		Casing Elevation: 501.782	Installation Date 15-Feb-19 Construction details: 2-inch diameter; 8.4 feet total depth below grade; 1.4 feet solid riser; 7 feet screen.										Ground Elevation: 499.28		
Date	DTW (feet)	Water Table Elevation	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead	
28-Feb-19	3.20	498.58	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.029	<5	<3	
25-Mar-19	3.28	498.50	-	-	-	-	-	-	-	-	-	-	-	-	
27-Mar-19	3.36	498.42	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.029	<5	<3	
17-Jun-19	3.92	497.86	-	-	-	-	-	-	-	-	-	-	-	-	
18-Jun-19	3.98	497.80	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.029	<5	<3	
23-Sep-19	5.52	496.26	4	<1	<1	<3	3	<10	<5	<5	<5	<0.028	<5	<0.5	
09-Dec-19	4.14	497.64	<1	<1	<1	<3	<1	<10	<5	<5	<5	<0.028	<5	<0.5	
17-Mar-20	4.37	497.41	2	<1	<1	<3	<1	<10	<5	<5	<5	-	-	-	
17-Jun-20	4.55	497.23	2.0	<1.0	<1.0	<6.0	<1.0	<5.0	<5.0	<5.0	<5.0	-	-	-	

MW 62		Casing Elevation: 498.097	Installation Date 19-Feb-19 Construction details: 2-inch diameter; 7.4 feet total depth below grade; 1.4 feet solid riser; 6 feet screen.										Ground Elevation: 496.04		
Date	DTW (feet)	Water Table Elevation	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead	
25-Mar-19	2.85	495.25	-	-	-	-	-	-	-	-	-	-	-	-	
28-Mar-19	2.96	495.14	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.030	<5	<3	
17-Jun-19	3.52	494.58	-	-	-	-	-	-	-	-	-	-	-	-	
18-Jun-19	3.49	494.61	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.029	<5	<3	
23-Sep-19	6.60	491.50	<1	<1	<1	<3	<1	<10	<5	<5	<5	<0.029	<5	<0.5	
09-Dec-19	6.67	491.43	<1	<1	<1	<3	<1	<10	<5	<5	<5	<0.028	<5	<0.5	
17-Mar-20	5.53	492.57	<1	<1	<1	<3	<1	<10	<5	<5	<5	-	-	-	

All samples collected by bailer after purging/pumping and recharge, unless otherwise noted (such as duplicate samples collected while pumping through the tubing, or sampling with Hydrasleeve)
 MTBE= Methyl tert. butyl ether; 1,2,4-TMB = 1,2,4-Trimethylbenzene; 1,3,5-TMB = 1,3,5-Trimethylbenzene; EDB = Ethylene dibromide; EDC = 1,2,-Dichloroethane-"-" = no data / not measured; data in bold exceed residential SHS MSCs
 ND (of 1) = non detect (method detection limit); J-value indicates a laboratory-estimated concentration between the limit of quantitation and method detection limit; "-" = not sampled/analyzed
 MWs 53B and 57-62 were installed by geoprobe-auger between 13 and 19 Feb. 2019; all wells were completed with solid PVC-riser to approx. 2 feet above grade and protective metal casing
 On 26 March 2019, location, casing and ground elevation of all groundwater monitoring wells were surveyed by a PA-licensed surveyor

PADEP residential used aquifer Statewide health standards:	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
	5	1,000	700	10,000	20	100	840	15	420	0.05	5	5
PADEP non-residential used aquifer Statewide health standards:	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
	5	1,000	700	10,000	20	100	3,500	62	1,200	0.05	5	5



Table 1-I: Liquid Level Gauging Data and Groundwater Sample Laboratory Analytical Results for RWs 1-3, March 2019-Present

Cornwall Pump Station Site, 370 Horseshoe Pike, West Cornwall Township, Lebanon County, PA
(Liquid level gauging and water table elevation data are in feet, dissolved analytical data are in ug/l)

RW 1		Casing Elevation: 560.263	Installation Date Handex 1993 Construction details: unknown; original total depth = 78 feet								Ground Elevation: 561.16			
Date	DTW (feet)	Water Table Elevation	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
25-Mar-19	31.39	528.87	-	-	<1	<5	<1	<10	<5	29	<5	<0.029	<5	<3
26-Mar-19	31.33	528.93	7	2	<1	<5	<1	<10	<5	29	<5	<0.029	<5	<3
17-Jun-19	37.43	522.83	-	-	-	-	-	-	-	-	-	-	-	-
18-Jun-19	37.54	522.72	4	<1	1	5	<1	<10	<5	26	<5	<0.029	<5	<3
23-Sep-19	39.40	520.86	-	-	-	-	-	-	-	-	-	-	-	-
25-Sep-19	-	-	8	2	<1	5	1	<10	<5	24	<5	<0.028	<5	<0.5
09-Dec-19	41.00	519.26	-	-	-	-	-	-	-	-	-	-	-	-
11-Dec-19	40.93	519.33	8	<1	<1	3	<1	<10	<5	12	<5	<0.028	<5	<0.5
17-Mar-20	39.37	520.89	-	-	-	-	-	-	-	-	-	-	-	-
18-Mar-20	39.34	520.92	9	<1	<1	<3	1	<10	<5	<5	<5	-	-	-

On 29 January and 17 March 2020, the total well depth was gauged at 73.9 feet

RW 2		Casing Elevation: 565.747	Installation Date 30-Oct-91* Construction details: 4-inch diameter; original total depth = 132 feet; 38 feet solid riser; 94 feet PVC screen.								Ground Elevation: 566.31			
Date	DTW (feet)	Water Table Elevation	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
25-Mar-19	38.83	526.92	-	-	-	-	-	-	-	-	-	-	-	-
28-Mar-19	40.47	525.28	130	230	820	4,800	9	420	64	1,300	510	0.24	ND (of 10)	ND (of 1.1)
28-Mar-19	Sampled with Hydrasleeve, set to 120'		140	240	960	6,500	7 J	340	55	1,500	430	-	-	-
17-Jun-19	44.50	521.25	-	-	-	-	-	-	-	-	-	-	-	-
18-Jun-19	44.70	521.05	77	230	600	2,800	18	300	40	920	300	ND (of 0.029)	ND (of 10)	ND (of 1.1)
18-Jun-19	Sampled with Hydrasleeve, set to 120'		120	630	910	4,800	26	370	50	1,200	390	-	-	-
23-Sep-19	47.94	517.81	-	-	-	-	-	-	-	-	-	-	-	-
24-Sep-19	48.04	517.71	230	3,400	2,000	11,000	11	670	95	2,600	770	ND (of 0.0095)	ND (of 10)	ND (of 0.071)
24-Sep-19	Sampled with Hydrasleeve, set to 120'		200	2,400	1,500	8,200	11	530	73	2,100	610	-	-	-
09-Dec-19	48.48	517.27	-	-	-	-	-	-	-	-	-	-	-	-
10-Dec-19	48.63	517.12	190	2,400	1,600	9,400	<5	550	80	2,100	630	0.25	<25	<0.5
10-Dec-19	Sampled with Hydrasleeve, set to 120'		190	2,400	1,500	9,700	<10	460	75	2,100	580	-	-	-
17-Mar-20	46.17	519.58	-	-	-	-	-	-	-	-	-	-	-	-
18-Mar-20	46.30	519.45	140	1,900	1,600	9,300	<10	480	82	2,000	630	-	-	-

* well retrofitted as RW by Handex in 1993, was originally MW 23; original MW 23 well log data presented here

On 28 March 2019, the regular sample was collected after purging (pump set to 120') and recharge

On 18 June and 24 September 2019, the regular samples were collected after purging (pump set to 70') and recharge

RW 3		Casing Elevation: 555.397	Installation Date 22-Feb-91* Construction details: 4-inch diameter; original total depth = 65 feet; 20 feet solid riser; 45 feet PVC screen.								Ground Elevation: 556.16			
Date	DTW (feet)	Water Table Elevation	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
25-Mar-19	43.44	511.96	-	-	-	-	-	-	-	-	-	-	-	-
26-Mar-19	42.59	512.81	58	12	140	560	<1	130	23	430	180	<0.029	<5	<3
17-Jun-19	45.79	509.61	-	-	-	-	-	-	-	-	-	-	-	-
18-Jun-19	45.76	509.64	27	6	52	210	<1	58	9	190	70	<0.028	<5	<3
23-Sep-19	48.40	507.00	-	-	-	-	-	-	-	-	-	-	-	-
24-Sep-19	-	-	20	6	39	100	<1	53	6	290	92	<0.028	<5	3.6
09-Dec-19	48.94	506.46	-	-	-	-	-	-	-	-	-	-	-	-
10-Dec-19	48.93	506.47	15	4 J	27	70	ND (of 1)	40 J	4 J	230	60	ND (of 0.0094)	ND (of 10)	3.2
17-Mar-20	48.02	507.38	-	-	-	-	-	-	-	-	-	-	-	-
18-Mar-20	48.04	507.36	29	6	57	110	<1	38	9	300	69	-	-	-

* well retrofitted as RW by Handex in 1993, was originally MW 13; original MW 13 well log data presented here

On 29 January and 17 March 2020, the total well depth was gauged at 59.8 feet

All samples collected by bailer after purging/pumping and recharge, unless otherwise noted (such as duplicate samples collected while pumping through the tubing, or sampling with Hydrasleeve)

Hydrasleeve samples were collected after liquid level gauging but before purging the wells; regular samples were collected after purging and recharge

MTBE= Methyl tert. butyl ether; 1,2,4-TMB = 1,2,4-Trimethylbenzene; 1,3,5-TMB = 1,3,5-Trimethylbenzene; EDB = Ethylene dibromide; EDC = 1,2,-Dichloroethane-" = no data / not measured; data in bold exceed residential SHS MSCs

ND (of "x") = non-detect (of detection limit); J-value indicates laboratory-estimated value between method detection limit and limit of quantitation

On 26 March 2019, location, casing and ground elevation of all groundwater monitoring wells were surveyed by a PA-licensed surveyor

PADEP residential used aquifer	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
Statewide health standards:	5	1,000	700	10,000	20	100	840	15	420	0.05	5	5
PADEP non-residential used aquifer	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
Statewide health standards:	5	1,000	700	10,000	20	100	3,500	62	1,200	0.05	5	5



Table 1-J: Liquid Level Gauging Data and Groundwater Sample Laboratory Analytical Results for RWs 4-6, March 2019-Present

Cornwall Pump Station Site, 370 Horseshoe Pike, West Cornwall Township, Lebanon County, PA
(Liquid level gauging and water table elevation data are in feet, dissolved analytical data are in ug/l)

Installation Date

RW 4 Casing Elevation: 555.884 30-Oct-91* Construction details: 4-inch diameter; original total depth = 65 feet; 22 feet solid riser; 43 feet PVC screen. Ground Elevation: 556.60

Date	DTW (feet)	Water Table Elevation	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
25-Mar-19	26.00	529.88	-	-	-	-	-	-	-	-	-	-	-	-
26-Mar-19	26.04	529.84	1,100	84	560	670	43	240	38	880	190	<0.029	<5	<3
17-Jun-19	31.24	524.64	-	-	-	-	-	-	-	-	-	-	-	-
18-Jun-19	-	-	1,100	66	480	500	34	240	25 J	740	160	ND (of 0.0094)	ND (of 10)	2.4 J
23-Sep-19	37.48	518.40	-	-	-	-	-	-	-	-	-	-	-	-
25-Sep-19	-	-	350	48	360	430	13	200	26	600	180	<0.028	<5	1.4
09-Dec-19	39.38	516.50	-	-	-	-	-	-	-	-	-	-	-	-
11-Dec-19	39.46	516.42	230	20	180	180	8	170	<25	590	180	<0.028	<25	2.2
17-Mar-20	34.88	521.00	-	-	-	-	-	-	-	-	-	-	-	-
18-Mar-20	34.97	520.91	980	57	330	310	26	190	26	820	190	-	-	-

* well retrofitted as RW by Handex in 1993, was originally MW 21; original MW 21 well log data presented here
On 29 January and 17 March 2020, the total well depth was gauged at 62.4 feet

Installation Date

RW 5 Casing Elevation: 548.821 30-Oct-91* Construction details: 4-inch diameter; original total depth = 55 feet; 16 feet solid riser; 39 feet PVC screen. Ground Elevation: 549.60

Date	DTW (feet)	Water Table Elevation	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
25-Mar-19	18.38	530.44	-	-	-	-	-	-	-	-	-	-	-	-
27-Mar-19	18.67	530.15	270	200	300	1,100	12	110	<25	320	88	0.065	ND (of 10)	ND (of 1.1)
17-Jun-19	23.54	525.28	-	-	-	-	-	-	-	-	-	-	-	-
18-Jun-19	23.60	525.22	690	500	880	2,900	19	350	56	950	280	0.052	ND (of 10)	2.0 J
23-Sep-19	27.30	521.52	-	-	-	-	-	-	-	-	-	-	-	-
24-Sep-19	-	-	750	280	870	2,200	21	400	70	950	350	<0.029	<25	1.9
09-Dec-19	28.24	520.58	-	-	-	-	-	-	-	-	-	-	-	-
11-Dec-19	28.32	520.50	560	260	630	2,000	13	320	47	800	240	0.051	<25	2.0
17-Mar-20	25.56	523.26	-	-	-	-	-	-	-	-	-	-	-	-
18-Mar-20	26.62	522.20	520	110	520	1,300	14	280	65	760	230	-	-	-

* well retrofitted as RW by Handex in 1993, was originally MW 22; original MW 22 well log data presented here
On 29 January and 17 March 2020, the total well depth was gauged at 40.4 feet

Installation Date

RW 6 Casing Elevation: 545.235 21-Feb-91* Construction details: 4-inch diameter; original total depth = 62 feet; 40 feet solid riser; 22 feet PVC screen. Ground Elev: 546.34

Date	DTW (feet)	Water Table Elevation	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
25-Mar-19	36.99	508.25	-	-	-	-	-	-	-	-	-	-	-	-
27-Mar-19	37.33	507.91	230	21	35	120	21	160	30	380	58	ND (of 0.0096)	ND (of 10)	1.3J
17-Jun-19	39.49	505.75	320	69	270	380	24	290	63	830	180	<0.028	<5	<3
23-Sep-19	41.24	504.00	-	-	-	-	-	-	-	-	-	-	-	-
24-Sep-19	-	-	370	53	350	340	31	320	51	970	210	<0.028	<25	0.72
09-Dec-19	41.47	503.77	-	-	-	-	-	-	-	-	-	-	-	-
10-Dec-19	41.44	503.80	370	53	300	200	31	320	50	930	180	ND (of 0.0096)	ND (of 10)	0.63
17-Mar-20	41.22	504.02	-	-	-	-	-	-	-	-	-	-	-	-
18-Mar-20	41.23	504.01	290	48	190	130	19	260	47	760	150	-	-	-

* well retrofitted as RW by Handex in 1993, was originally MW 12; original MW 12 well log data presented here
On 29 January and 17 March 2020, the total well depth was gauged at 57.6 feet

All samples collected by bailer after purging/pumping and recharge, unless otherwise noted (such as duplicate samples collected while pumping through the tubing, or sampling with Hydrasleeve)

Hydrasleeve samples were collected after liquid level gauging but before purging the wells; regular samples were collected after purging and recharge

MTBE= Methyl tert. butyl ether; 1,2,4-TMB = 1,2,4-Trimethylbenzene; 1,3,5-TMB = 1,3,5-Trimethylbenzene; EDB = Ethylene dibromide; EDC = 1,2,-Dichloroethane"" = no data / not measured; data in bold exceed residential SHS MSCs

ND (of "x") = non-detect (of detection limit); J-value indicates laboratory-estimated value between method detection limit and limit of quantitation

On 26 March 2019, location, casing and ground elevation of all groundwater monitoring wells were surveyed by a PA-licensed surveyor

PADEP residential used aquifer	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
Statewide health standards:	5	1,000	700	10,000	20	100	840	15	420	0.05	5	5
PADEP non-residential used aquifer	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
Statewide health standards:	5	1,000	700	10,000	20	100	3,500	62	1,200	0.05	5	5



Table 1-K: Liquid Level Gauging and Water Sample Analytical Data for S1 - S3; MWs 54 and 55, March/April 2019-Present

Cornwall Pump Station Site, 370 Horseshoe Pike, West Cornwall Township, Lebanon County, PA
(Liquid level gauging and water table elevation data are in feet, dissolved analytical data are in ug/l)

S 1		Casing Elevation:	500.995	Installation Date	October 2017	Construction details: 2-inch diam. PVC screen, TD=10.4 feet BTOC (stick-up riser to 2-3 feet above grade)										Ground Elevation:		498.64
Date	DTW (feet)	Water Table Elevation	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead				
25-Mar-19	2.90	498.10	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.029	<5	<3				
26-Apr-19	2.95	498.05	-	-	-	-	-	-	-	-	-	-	-	-				
17-Jun-19	3.00	498.00	<1	<1	<1	<5	1	<10	<5	<5	<5	<0.029	<5	<3				
23-Sep-19	4.46	496.54	<1	<1	<1	<3	2	<10	<5	<5	<5	<0.029	<5	<0.5				
09-Dec-19	3.10	497.90	<1	<1	<1	<3	<1	<10	<5	<5	<5	<0.028	<5	<0.5				
17-Mar-20	3.37	497.63	<1	<1	<1	<3	<1	<10	<5	<5	<5	-	-	-				

S 2		Casing Elevation:	501.723	Installation Date	October 2017	Construction details: 2-inch diam. PVC screen, TD=10.4 feet BTOC (stick-up riser to 2-3 feet above grade)										Ground Elevation:		497.94
Date	DTW (feet)	Water Table Elevation	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead				
25-Mar-19	3.35	498.37	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.029	<5	<3				
26-Apr-19	3.58	498.14	-	-	-	-	-	-	-	-	-	-	-	-				
17-Jun-19	3.42	498.30	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.029	<5	<3				
23-Sep-19	5.10	496.58	<1	<1	<1	<3	2	<10	<5	<5	<5	<0.028	<5	<0.5				
09-Dec-19	3.78	497.94	<1	<1	<1	<3	<1	<10	<5	<5	<5	<0.028	<5	<0.5				
17-Mar-20	3.94	497.78	<1	<1	<1	<3	<1	<10	<5	<5	<5	-	-	-				

S2 surveyed casing elevation is to top of metal lid, not rim of steel casing (well could not be opened during survey)

S 3		Casing Elevation	500.949	Installation Date	October 2017	Construction details: 2-inch diam. PVC screen, TD=10.4 feet BTOC (stick-up riser to 2-3 feet above grade)										Ground Elevation:		499.44
Date	DTW (feet)	Water Table Elevation	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead				
25-Mar-19	1.74	499.21	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.029	<5	<3				
26-Apr-19	2.60	498.35	-	-	-	-	-	-	-	-	-	-	-	-				
17-Jun-19	2.61	498.34	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.028	<5	<3				
23-Sep-19	4.45	496.50	<1	<1	<1	<3	<1	<10	<5	<5	<5	<0.029	<5	<0.5				
09-Dec-19	3.59	497.36	<1	<1	<1	<3	2	<10	<5	<5	<5	<0.029	<5	<0.5				
17-Mar-20	3.35	497.60	<1	<1	<1	<3	<1	<10	<5	<5	<5	-	-	-				

MW 54		Casing Elevation*	500.979	Installation Date	23-Apr-19	Construction details: 2-inch diam. pre-packed PVC screen, TD=5 feet BTOC (riser to 2-3 feet above grade)										Ground Elevation:		not measured
Date	DTW (feet)	Water Table Elevation	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead				
26-Apr-19	2.06	498.92	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.029	<5	ND (of 0.55)				
17-Jun-19	1.92	499.06	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.029	<5	ND (of 0.55)				
23-Sep-19	3.70	497.28	<1	<1	<1	<3	<1	<10	<5	<5	<5	<0.029	<5	<0.5				
09-Dec-19	2.89	498.09	<1	<1	<1	<3	<1	<10	<5	<5	<5	<0.028	<5	<0.5				
17-Mar-20	2.79	498.19	<1	<1	<1	<3	<1	<10	<5	<5	<5	-	-	-				

MW 54 was installed by motor-assisted, hand-held auger to approx. 5 feet bgs, where top of bedrock was encountered; * MW 54 was surveyed with S3 by Aquaterra on 26 April 2019

MW 55		Casing Elevation*	501.195	Installation Date	23-Apr-19	Construction details: 2-inch diam. pre-packed PVC screen, TD=4.6 feet BTOC (riser to 2-3 feet above grade)										Ground Elevation:		not measured
Date	DTW (feet)	Water Table Elevation	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead				
26-Apr-19	2.03	499.17	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.029	<5	ND (of 0.55)				
17-Jun-19	2.08	499.12	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.029	<5	ND (of 0.55)				
23-Sep-19	4.00	497.20	<1	<1	<1	<3	<1	<10	<5	<5	<5	<0.028	<5	<0.5				
09-Dec-19	2.29	498.91	<1	<1	<1	<3	<1	<10	<5	<5	<5	<0.028	<5	<0.5				
17-Mar-20	2.44	498.76	<1	<1	<1	<3	<1	<10	<5	<5	<5	-	-	-				

MW 55 was installed by motor-assisted, hand-held auger to approx. 4.6 feet bgs, where top of bedrock was encountered; * MW 55 was surveyed with S 1 by Aquaterra on 26 April 2019

MTBE= Methyl tert. butyl ether; 1,2,4-TMB = 1,2,4-Trimethylbenzene; 1,3,5-TMB = 1,3,5-Trimethylbenzene; EDB = Ethylene dibromide; EDC = 1,2-Dichloroethane-" = no data / not measured; data in bold exceed residential SHS MSCs

ND (of 1) = non detect (method detection limit); J-value indicates a laboratory-estimated concentration between the limit of quantitation and method detection limit; "-" = not sampled/analyzed

On 26 March 2019, location, casing and ground elevation of all groundwater monitoring wells were surveyed by a PA-licensed surveyor

PADEP residential used aquifer	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
Statewide health standards:	5	1,000	700	10,000	20	100	840	15	420	0.05	5	5
PADEP non-residential used aquifer	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
Statewide health standards:	5	1,000	700	10,000	20	100	3,500	62	1,200	0.05	5	5



Table 1-L: Liquid Level Gauging and Water Sample Analytical Data for Beck Creek Stream Gauges SGs 1-3, Beck Creek North of AOC, North of AOC 2 and Seepage Spring and Spring at 323 Horseshoe Pike, March 2019-Present
 Cornwall Pump Station Site, 370 Horseshoe Pike, West Cornwall Township, Lebanon County, PA
 (Liquid level gauging and water table elevation data are in feet, dissolved analytical data are in ug/l)

Beck Creek SG-1		Stage Elevation:	Installation Date 25-Oct-18 Stream Gauge is located along west bank of Beck Creek											
Date	DTW (feet)	Beck Creek Surface	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
25-Mar-19	1.47	492.76	-	-	-	-	-	-	-	-	-	-	-	-
27-Mar-19	1.54	492.69	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.029	<5	<3
17-Jun-19	1.75	492.48	-	-	-	-	-	-	-	-	-	-	-	-
19-Jun-19	1.75	492.48	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.029	<5	<3
23-Sep-19	dry at 1.80	<492.43	<1	<1	<1	<3	<1	<10	<5	<5	<5	<0.028	<5	<0.5
09-Dec-19	dry at 1.80	<492.43	<1	<1	<1	<3	<1	<10	<5	<5	<5	<0.029	<5	<0.5
17-Mar-20	1.85	492.38	<1	<1	<1	<5	<1	<10	<5	<5	<5	-	-	-

On 17 March 2020, a small sandbar had formed around SG-1 along the west bank of Beck Creek, however, a small flow channel was dug and saturated soil depressed around the gauge permit a reading of the creek's surface water level

Beck Creek SG-2		Stage Elevation:	Installation Date 25-Oct-18 Stream Gauge is located along west bank of Beck Creek											
Date	DTW (feet)	Beck Creek Surface	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
25-Mar-19	1.44	499.36	-	-	-	-	-	-	-	-	-	-	-	-
27-Mar-19	1.50	499.30	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.029	<5	<3
17-Jun-19	1.49	499.31	-	-	-	-	-	-	-	-	-	-	-	-
19-Jun-19	1.46	499.34	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.029	<5	<3
23-Sep-19	1.80	499.00	<1	<1	<1	<3	<1	<10	<5	<5	<5	<0.029	<5	<0.5
09-Dec-19	1.75	499.05	<1	<1	<1	<3	<1	<10	<5	<5	<5	<0.028	<5	<0.5
17-Mar-20	1.75	499.05	<1	<1	<1	<3	<1	<10	<5	<5	<5	-	-	-

Beck Creek SG-3		Stage Elevation:	Installation Date 25-Oct-18 Stream Gauge is located along west bank of Beck Creek											
Date	DTW (feet)	Beck Creek Surface	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
26-Mar-19	2.33	500.57	-	-	-	-	-	-	-	-	-	-	-	-
27-Mar-19	2.38	500.52	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.029	<5	<3
17-Jun-19	2.46	500.44	-	-	-	-	-	-	-	-	-	-	-	-
19-Jun-19	2.46	500.44	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.028	<5	<3
23-Sep-19	dry at 2.58	<500.32	<1	<1	<1	<3	<1	<10	<5	<5	<5	<0.029	<5	<0.5
09-Dec-19	2.63	500.27	<1	<1	<1	<3	<1	<10	<5	<5	<5	<0.028	<5	<0.5
17-Mar-20	2.63	500.27	<1	<1	<1	<3	<1	<10	<5	<5	<5	-	-	-

On 23 Sep 2019, the gauge was surrounded by dry, hard sediment, the creek bed did not reach the gauge at low flow conditions

On 9 Dec 2019, the gauge reading was obtained after the saturated sediment (saturated and moist, unlike in Sep 2019) around the gauge was pushed down to let creek water rise from below around the gauge, thus a reading could be obtained

Beck Creek North of AOC		Stage Elevation:	Installation Date 25-Oct-18 Sampling location is located inside Beck Creek, off the western bank just northeast of MWs 59 and 60											
Date	DTW (feet)	Beck Creek Surface	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
27-Mar-19	Not measured	Not measured	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.028	<5	<3
19-Jun-19	Not measured	Not measured	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.028	<5	<3
23-Sep-19	Not measured	Not measured	<1	<1	<1	<3	<1	<10	<5	<5	<5	<0.028	<5	<0.5
17-Jun-20	Not measured	Not measured	<1.0	<1.0	<1.0	<6.0	<1.0	<5.0	<5.0	<5.0	<5.0	-	-	-

In March, June and September 2019 and June 2020, the samples were collected just off the western edge of Beck Creek north of MW 60

Beck Creek North of AOC 2		Stage Elevation:	Installation Date 25-Oct-18 Sampling location is located inside Beck Creek, approx. 2 feet off the western bank where the spring discharges, between MWs 59 and 60											
Date	DTW (feet)	Beck Creek Surface	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
09-Dec-19	Not measured	Not measured	1	<1	<1	<3	<1	<10	<5	<5	<5	<0.029	<5	<0.5
17-Jun-20	Not measured	Not measured	<1.0	<1.0	<1.0	<6.0	<1.0	<5.0	<5.0	<5.0	<5.0	-	-	-

On 9 December 2019 and 17 June 2020, the samples were collected from along the western edge of Beck Creek between MWs 59 and 60, approx. 2 feet into the creek where the seepage spring discharges

Beck Creek AOC Seepage Spring		Stage Elevation:	Installation Date 25-Oct-18 Sampling location is located at a small spring-seep in the west bank of Beck Creek, between MWs 59 and 60											
Date	DTW (feet)	Beck Creek Surface	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
17-Mar-20	Not measured	Not measured	6	<1	8	2	19	15	15	<5	<5	-	-	-
17-Jun-20	Not measured	Not measured	5.2	<1.0	4.5	<6.0	<1.0	13	13	<5.0	<5.0	-	-	-

On 17 March 2020, the sample was collected from a small seep/spring that discharged into Beck Creek, between MWs 59 and 60, at the seep/creek surface water confluence (mostly seep water, some creek water)

On 17 June 2020, the sample was collected from a small seep/spring that discharged into Beck Creek, between MWs 59 and 60; the sample was collected approx. 1 foot above the creek surface from the spring flow path down the western bank

Spring at 323 HP		Ground at Spring:	Installation Date 25-Oct-18 Spring is located at 323 Horseshoe Pike, north of Route 322 bridge and along west bank of Beck Creek											
Date	DTW (feet)	Spring Surface	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
25-Mar-19	0.00	499.44	-	-	-	-	-	-	-	-	-	-	-	-
27-Mar-19	0.00	499.44	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.029	<5	<3
17-Jun-19	0.00	499.44	-	-	-	-	-	-	-	-	-	-	-	-
19-Jun-19	0.00	499.44	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.028	<5	<3
23-Sep-19	dry	<499.44	-	-	-	-	-	-	-	-	-	-	-	-
09-Dec-19	0.00	499.44	<1	<1	<1	<3	<1	<10	<5	<5	<5	<0.029	<5	<0.5
17-Mar-20	0.00	499.44	<1	<1	<1	<3	<1	<10	<5	<5	<5	-	-	-

MTBE= Methyl tert. butyl ether; 1,2,4-TMB = 1,2,4-Trimethylbenzene; 1,3,5-TMB = 1,3,5-Trimethylbenzene; EDB = Ethylene dibromide; EDC = 1,2-Dichloroethane; * = no data / not measured; data in bold exceed residential SHS MSCs
 ND (of 1) = non detect (method detection limit); J-value indicates a laboratory-estimated concentration between the limit of quantitation and method detection limit; ** = not sampled/analyzed

On 26 March 2019, location, stream gauge and ground elevation at the spring were surveyed by a PA-licensed surveyor

PADEP residential used aquifer	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
Statewide health standards:	5	1,000	700	10,000	20	100	840	15	420	0.05	5	5
PADEP non-residential used aquifer	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
Statewide health standards:	5	1,000	700	10,000	20	100	3,500	62	1,200	0.05	5	5



Table 1-M: Grab Water Sample Analytical Data for Supply Wells at 299, 300, 322 (FW 2), 323 (FW 1) Horseshoe Pike, 22 Spangler Road, Quentin Terminal and Old Barn Well, March/April 2019-Present
 Cornwall Pump Station Site, 370 Horseshoe Pike, West Cornwall Township, Lebanon County, PA
 (Liquid level gauging and water table elevation data are in feet, dissolved analytical data are in ug/l)

Installation Date

299 Horseshoe Pike		Casing Elevation:	not surveyed	unknown	Construction details unknown, presumably open rock, as per home owner: TD of 60 feet, pump is in basement								Ground Elevation:	not surveyed
Date	DTW (feet)	Water Table Elevation	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
27-Mar-19	not gauged	not gauged	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.029	<5	<3
18-Jun-19	not gauged	not gauged	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.028	<5	<3
24-Sep-19	not gauged	not gauged	<1	<1	<1	<3	<1	<10	<5	<5	<5	<0.028	<5	1.9
09-Dec-19	not gauged	not gauged	<1	<1	<1	<3	<1	<10	<5	<5	<5	<0.028	<5	0.96
17-Mar-20	not gauged	not gauged	<1	<1	<1	<3	<1	<10	<5	<5	<5	-	-	-

Sample collected at outside spigot, west side of house, per home owner request

Installation Date

300 Horseshoe Pike		Casing Elevation:	not surveyed	unknown	Spring in spring house is used for water supply								Ground Elevation:	not surveyed
Date	DTW (feet)	Water Table Elevation	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
27-Mar-19	not gauged	not gauged	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.029	<5	<3
18-Jun-19	not gauged	not gauged	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.028	<5	<3
24-Sep-19	not gauged	not gauged	<1	<1	<1	<3	<1	<10	<5	<5	<5	<0.028	<5	<0.5
09-Dec-19	not gauged	not gauged	<1	<1	<1	<3	<1	<10	<5	<5	<5	<0.028	<5	<0.5
17-Mar-20	not gauged	not gauged	<1	<1	<1	<3	<1	<10	<5	<5	<5	-	-	-

300 Horseshoe Pike is served by spring in basement of spring house - sample collected directly from spring basin near supply well pump

Installation Date

322 Horseshoe Pike (FW 2)		Casing Elevation	not surveyed	unknown	Construction details unknown, presumably open rock hole								Ground Elevation:	525.89
Date	DTW (feet)	Water Table Elevation	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
28-Mar-19	not gauged	not gauged	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.029	<5	<3
18-Jun-19	not gauged	not gauged	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.028	<5	<3
24-Sep-19	not gauged	not gauged	<1	<1	<1	<3	<1	<10	<5	<5	<5	<0.028	<5	0.71
09-Dec-19	not gauged	not gauged	<1	<1	<1	<3	<1	<10	<5	<5	<5	<0.028	<5	<0.5
17-Mar-20	not gauged	not gauged	<1	<1	<1	<3	<1	<10	<5	<5	<5	-	-	-

Sample collected from spigot in cow barn at Weaver's farm

Installation Date

323 Horseshoe Pike (FW 1)		Casing Elevation	538.991	unknown	Construction details unknown, presumably open rock hole								Ground Elevation:	537.52
Date	DTW (feet)	Water Table Elevation	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
28-Mar-19	not gauged	not gauged	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.029	<5	<3
18-Jun-19	not gauged	not gauged	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.029	<5	<3
24-Sep-19	not gauged	not gauged	<1	<1	<1	<3	<1	<10	<5	<5	<5	<0.029	<5	<0.5
09-Dec-19	not gauged	not gauged	<1	<1	<1	<3	<1	<10	<5	<5	<5	<0.028	<5	<0.5
17-Mar-20	not gauged	not gauged	<1	<1	<1	<3	<1	<10	<5	<5	<5	-	-	-

Sample collected from kitchen sink spigot, per home owner's request; casing elevation surveyed to top of sanitary seal cap

Installation Date

22 Spangler Road (Gibble)		Casing Elevation	not surveyed	unknown	Construction details: unknown; as per home owner, TD of 250 feet								Ground Elevation:	not surveyed
Date	DTW (feet)	Water Table Elevation	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
08-Apr-19	not gauged	not gauged	5	<1	<1	<5	26	<10	<5	<5	<5	<0.029	<5	<3
10-Jun-19	not gauged	not gauged	8	<1	<1	<5	36	<10	<5	<5	<5	-	-	-
15-Jul-19	not gauged	not gauged	5	<1	<1	<5	17	<10	<5	<5	<5	<0.028	<5	<3
09-Sep-19	not gauged	not gauged	7	<1	<1	<3	22	<10	<5	<5	<5	<0.029	<5	<3
09-Dec-19	not gauged	not gauged	5	<1	<1	<3	21	<10	<5	<5	<5	-	-	-
09-Mar-20	not gauged	not gauged	4	<1	<1	<3	17	<10	<5	<5	<5	-	-	-

Samples collected from influent stream port of the POET system in crawl space of the residence

Installation Date

Quentin Terminal Supply Well		Casing Elevation	not surveyed	30-Sep-58	Construction details: 6-inch diameter steel casing to 104 feet, open rock hole with TD of 177 feet								Ground Elevation:	not surveyed
Date	DTW (feet)	Water Table Elevation	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
28-Mar-19	not gauged	not gauged	<1	<1	3	<5	3	<10	<5	<5	<5	<0.029	<5	<3
17-Jun-19	not gauged	not gauged	<1	<1	10	9	4	<10	<5	<5	<5	<0.029	<5	<3
23-Sep-19	not gauged	not gauged	<1	<1	<1	<3	<1	<10	<5	<5	<5	<0.028	<5	<0.52
09-Dec-19	not gauged	not gauged	<1	<1	1	<3	3	<10	<5	<5	<5	<0.028	<5	<0.5
17-Mar-20	not gauged	not gauged	<1	<1	<1	<3	<1	<10	<5	<5	<5	-	-	-

Samples collected from outdoor spigot at Pump Station Building after 30 minutes of water withdrawal

Installation Date

Old Barn Well		Casing Elevation:	not surveyed	unknown	Access to subterranean conduit flow channel in old house at Weaver's farm, 322 Horseshoe Pike								Ground Elevation:	not surveyed
Date	DTW (feet)	Water Table Elevation	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
18-Jun-19	not gauged	not gauged	<1	<1	<1	<5	<1	<10	<5	<5	<5	-	-	-

The "well" in the old barn at the Weaver Farm, which is an access point to an underground flow channel, is not in use and was sampled only once, on 18 June 2019

MTBE= Methyl tert. butyl ether, 1,2,4-TMB = 1,2,4-Trimethylbenzene; 1,3,5-TMB = 1,3,5-Trimethylbenzene; EDB = Ethylene dibromide; EDC = 1,2-Dichloroethane*- = no data / not measured; data in bold exceed residential SHS MSCs
 On 26 March 2019, location, casing and ground elevation of all groundwater monitoring wells were surveyed by a PA-licensed surveyor

PADEP residential used aquifer Statewide health standards:	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
	5	1,000	700	10,000	20	100	840	15	420	0.05	5	5
PADEP non-residential used aquifer Statewide health standards:	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
	5	1,000	700	10,000	20	100	3,500	62	1,200	0.05	5	5



Table 1-N: Grab Water Sample Analytical Data for CH 1-4, March/April 2019-Present
 Cornwall Pump Station Site, 370 Horseshoe Pike, West Cornwall Township, Lebanon County, PA
 (Liquid level gauging and water table elevation data are in feet, dissolved analytical data are in ug/l)

Installation Date

CH 1		Casing Elevation	not surveyed	2017									Construction details: 6-inch diameter steel casing to 60 feet, open rock hole with TD of 540 feet			Ground Elevation:			not surveyed
Date	DTW (feet)	Water Table Elevation	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead					
08-Apr-19	not gauged	not gauged	<1	<1	<1	<5	6	<10	<5	<5	<5	<0.028	<5	<3					
10-Jun-19	not gauged	not gauged	<1	<1	<1	<5	16	<10	<5	<5	<5	-	-	-					
15-Jul-19	not gauged	not gauged	<1	<1	<1	<5	8	<10	<5	<5	<5	<0.028	<5	<3					
09-Sep-19	not gauged	not gauged	<1	<1	<1	<3	15	<10	<5	<5	<5	<0.028	<5	<3					

Samples collected from chicken house treatment system influent stream port; CH 1 was used as chicken house supply well between September 2018 and 18 September 2019

Installation Date

CH 2		Casing Elevation	511.361	2017									Construction details: 6-inch diameter steel casing to 61 feet, open rock hole with TD of 260 feet			Ground Elevation:			509.86
Date	DTW (feet)	Water Table Elevation	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead					
08-Apr-19	not gauged	not gauged	-	-	-	-	-	-	-	-	-	-	-	-					
17-Jun-19	not gauged	not gauged	-	-	-	-	-	-	-	-	-	-	-	-					
24-Sep-19	not gauged	not gauged	<1	<1	<1	<3	5	<10	<5	<5	<5	<0.029	<5	0.57					
16-Dec-19	not gauged	not gauged	<1	<1	<1	<3	5	<10	<5	<5	<5	-	-	-					
09-Mar-20	not gauged	not gauged	<1	<1	<1	<3	5	<10	<5	<5	<5	-	-	-					

Casing elevation surveyed to top of well cap; CH 2 was used as chicken house supply well between start-up in 2017 and Sep. 2018, and since 18 Sep. 2019; samples are collected from chicken house treatment system influent stream port

Installation Date

CH 3		Casing Elevation:	544.584	August 2018									Construction details: 6-inch diameter open rock well; TD = 500 feet; steel casing to 105 feet.			Ground Elev			542.47
Date	DTW (feet)	Water Table Elevation	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead					
25-Mar-19	37.33	507.25	-	-	-	-	-	-	-	-	-	-	-	-					
27-Mar-19	35.77	508.81	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.029	<5	<3					
27-Mar-19	Sampled through pump, intake set to 300'		<1	<1	<1	<5	<1	<10	<5	<5	<5	-	-	-					
17-Jun-19	39.77	504.81	-	-	-	-	-	-	-	-	-	-	-	-					
19-Jun-19	39.89	504.69	2	<1	<1	<5	<1	<10	<5	<5	<5	<0.029	<5	<3					
19-Jun-19	Sampled with Hydrasleeve, set to 300'		<1	<1	<1	<5	<1	<10	<5	<5	<5	-	-	-					
18-Jul-19	39.55	505.03	3	<1	<1	<5	<1	<10	<5	<5	<5	-	-	-					
18-Jul-19	Sampled with Hydrasleeve, set to 300'		2	<1	<1	<5	<1	<10	<5	<5	<5	-	-	-					
23-Sep-19	41.65	502.93	-	-	-	-	-	-	-	-	-	-	-	-					
25-Sep-19	41.72	502.86	3	<1	<1	<3	<1	<10	<5	<5	<5	<0.028	<5	<0.5					
25-Sep-19	Sampled with Hydrasleeve, set to 300'		2	<1	<1	<3	<1	<10	<5	<5	<5	-	-	-					
16-Dec-19	not gauged	not gauged	<1	1	<1	<3	<1	<10	<5	<5	<5	-	-	-					
09-Mar-20	not gauged	not gauged	<1	<1	<1	<3	<1	<10	<5	<5	<5	-	-	-					

On 19 Jun, 18 Jul and 25 Sep 2019, the pump was set to 80' during purging, sampled after 30 minute recharge

Since December 2019, CH-3 has been used as the Southern Chicken House supply well; samples have been collected from the treatment system influent stream port

Installation Date

CH 4		Casing Elevation:	542.206	August 2018									Construction details: 6-inch diameter open rock well; TD = 340 feet; steel casing to 105 feet.			Ground Elev			541.09
Date	DTW (feet)	Water Table Elevation	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead					
25-Mar-19	33.65	508.56	-	-	-	-	-	-	-	-	-	-	-	-					
26-Mar-19	39.44	502.77	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.029	<5	<3					
26-Mar-19	Sampled through pump, intake set to 300'		<1	<1	<1	<5	<1	<10	<5	<5	<5	-	-	-					
17-Jun-19	36.40	505.81	-	-	-	-	-	-	-	-	-	-	-	-					
19-Jun-19	36.54	505.67	3	<1	<1	<5	<1	<10	<5	<5	<5	<0.028	<5	<3					
19-Jun-19	Sampled with Hydrasleeve, set to 300'		2	<1	<1	<5	<1	<10	<5	<5	<5	-	-	-					
18-Jul-19	36.10	506.11	4	<1	<1	<5	<1	<10	<5	<5	<5	-	-	-					
18-Jul-19	Sampled with Hydrasleeve, set to 300'		3	<1	<1	<5	<1	<10	<5	<5	<5	-	-	-					
23-Sep-19	38.75	503.46	-	-	-	-	-	-	-	-	-	-	-	-					
25-Sep-19	38.82	504.69	4	<1	<1	<3	<1	<10	<5	<5	<5	<0.028	<5	<0.5					
25-Sep-19	Sampled with Hydrasleeve, set to 300'		3	<1	<1	<3	<1	<10	<5	<5	<5	-	-	-					
09-Mar-20	not gauged	not gauged	<1	<1	<1	<3	<1	<10	<5	<5	<5	-	-	-					

On 19 Jun, 18 Jul and 25 Sep 2019, the pump was set to 80' during purging, sampled after 30 minute recharge; CH-4 was not sampled in December 2019

In December 2019, CH-4 was converted to the Southern Chicken House back-up supply well, but was not in use and could not be sampled until it was added as a second supply well in January 2020

MTBE= Methyl tert. butyl ether; 1,2,4-TMB = 1,2,4-Trimethylbenzene; 1,3,5-TMB = 1,3,5-Trimethylbenzene; EDB = Ethylene dibromide; EDC = 1,2-Dichloroethane "-" = no data / not measured; data in bold exceed residential SHS MSCs

On 26 March 2019, location, casing and ground elevation of all groundwater monitoring wells were surveyed by a PA-licensed surveyor

PADEP residential used aquifer	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
Statewide health standards:	5	1,000	700	10,000	20	100	840	15	420	0.05	5	5
PADEP non-residential used aquifer	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
Statewide health standards:	5	1,000	700	10,000	20	100	3,500	62	1,200	0.05	5	5



Table 1-O: Liquid Level Gauging Data for Quentin Terminal Wells MWs 1-6, 6B, 41, 42 and 48, March 2019-Present
 Cornwall Pump Station Site, 370 Horseshoe Pike, West Cornwall Township, Lebanon County, PA
 (Liquid level gauging and water table elevation data are in feet)

MW 1 Casing Elevation: 561.22 Ground Elevation: 560.31

Date	DTW (feet)	Water Table Elevation
25-Mar-19	22.57	538.65
17-Jun-19	27.15	534.07
23-Sep-19	31.10	530.12
09-Dec-19	31.73	529.49
17-Mar-20	30.91	530.31

MW 6B Casing Elevation: 564.251 Ground Elevation: 561.85

Date	DTW (feet)	Water Table Elevation
25-Mar-19	33.18	531.07
17-Jun-19	36.55	527.70
23-Sep-19	dry	dry
09-Dec-19	42.58	521.67
17-Mar-20	40.86	523.39

MW 2 Casing Elevation: 559.816 Ground Elevation: 557.75

Date	DTW (feet)	Water Table Elevation
25-Mar-19	37.04	522.78
17-Jun-19	41.15	518.67
23-Sep-19	44.33	515.49
09-Dec-19	44.80	515.02
17-Mar-20	43.63	516.19

MW 41 Casing Elevation: 575.414 Ground Elevation: 573.64

Date	DTW (feet)	Water Table Elevation
25-Mar-19	22.89	552.52
17-Jun-19	25.20	550.21
23-Sep-19	28.04	547.37
09-Dec-19	27.80	547.61
17-Mar-20	28.02	547.39

TD gauge

MW 3 Casing Elevation: 563.199 Ground Elevation: 561.19

Date	DTW (feet)	Water Table Elevation
25-Mar-19	23.99	539.21
17-Jun-19	27.30	535.90
23-Sep-19	31.95	531.25
09-Dec-19	32.63	530.57
17-Mar-20	31.38	531.82

MW 42 Casing Elevation: 571.411 Ground Elevation: 569.03

Date	DTW (feet)	Water Table Elevation
25-Mar-19	23.20	548.21
17-Jun-19	25.82	545.59
23-Sep-19	27.45	543.96
09-Dec-19	27.90	543.51
17-Mar-20	26.71	544.70

MW 4 Casing Elevation: 561.989 Ground Elevation: 560.59

Date	DTW (feet)	Water Table Elevation
25-Mar-19	43.00	518.99
17-Jun-19	45.77	516.22
23-Sep-19	49.58	512.41
09-Dec-19	49.98	512.01
17-Mar-20	48.37	513.62

MW 43 Casing Elevation: 572.054 Ground Elevation: 569.78

Date	DTW (feet)	Water Table Elevation
25-Mar-19	34.02	538.03
17-Jun-19	35.75	536.30
23-Sep-19	38.45	533.60
09-Dec-19	38.53	533.52
17-Mar-20	38.47	533.58

MW 5 Casing Elevation: 565.085 Ground Elevation: 563.97

Date	DTW (feet)	Water Table Elevation
25-Mar-19	not gauged	not gauged
17-Jun-19	43.05	522.04
23-Sep-19	44.64	520.45
09-Dec-19	44.65	520.44
17-Mar-20	44.61	520.48

MW 48 Casing Elevation: 565.795 Ground Elevation: 563.36

Date	DTW (feet)	Water Table Elevation
25-Mar-19	24.26	541.54
17-Jun-19	28.63	537.17
23-Sep-19	32.85	532.95
09-Dec-19	33.86	531.94
17-Mar-20	32.66	533.14

MW 6 Casing Elevation: 570.616 Ground Elevation: 569.41

Date	DTW (feet)	Water Table Elevation
25-Mar-19	22.51	548.11
17-Jun-19	25.26	545.36
23-Sep-19	30.45	540.17
09-Dec-19	30.91	539.71
17-Mar-20	28.38	542.24

Well location, top of casing and topographic elevation were surveyed by PA-licensed surveyor on 26 March 2019. Surveyor was not able to survey MWs 6A and RW-1T



Table 2: MW 16 Pump Test Data, 12 September 2018 and 25-29 March 2019
 Cornwall Pump Station Site, 370 Horseshoe Pike, West Cornwall Twp., Lebanon County
 (All concentrations in ug/l)

Date	Static DTW (feet)	DTW (feet) at sample time	Sampling Depth (feet)*	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	Comment
12-Sep-18	17.20	>100	200.00	160	6	1	<5	29	<10	<5	<5	<5	Sample collected through pump
12-Sep-18	17.20	>100	<200	150	6	2	6	28	<10	6	<5	<5	Sampled by bailer during recharge
25-Mar-19	16.90	16.90	200.00	180	3	4	12	22	<10	9	<5	<5	Sample collected using Hydrasleeve
26-Mar-19	22.16	121.27	175.00	110	5	1	6	25	-	-	-	-	Sample time: 15:35
26-Mar-19	22.16	98.00	98.00	38	4	1	11	26	<10	<5	<5	<5	Sampled by bailer during recharge
27-Mar-19	16.63	121.40	175.00	150	7	2	12	32	<10	8	<5	<5	Sample time: 16:10
28-Mar-19	18.78	122.35	175.00	150	7	<5	<25	30	<50	<25	<5	<5	Sample time: 15:30
29-Mar-19	18.80	68.05	175.00	140	8	<5	<25	30	-	-	-	-	Sample time: 9:21

On 12 September 2018, the pump test on MW 16 was conducted for approximately 4 hours; between 25 and 29 March 2019, daily pump tests were conducted on MW 16
 DTW = Depth to water below top of casing (BTOC) at time of sampling; Static depth to water BTOC before starting daily pump test; All samples were analyzed by SW-846 8260B
 MTBE = Methyl tert.-butyl ether; Cumene = Isopropylbenzene; 1,2,4-TMB = 1,2,4-Trimethylbenzene; 1,3,5-TMB = 1,3,5-Trimethylbenzene
 During the pump test, the pump was deployed to approximately 175 feet BTOC; average pumping rate was approx. 2 gpm (5 gpm initially, decreased to 1 gpm after 1 hour)
 *The sample collected on 25 March 2019 was collected prior to starting the pump test, under static conditions, using a Hydrasleeve set to approx. 200 feet BTOC
 *The samples collected on 26-29 March 2019 were collected during daily pump test operation through the pump tubing, with the pump set at 175' BTOC.
 * One additional sample was collected on 26 March 2019, during post-pump test recharge, using a bailer



Table 3
Total Iron and Dissolved Iron for Select Wells
Cornwall Pump Station Site
370 Horseshoe Pike, West Cornwall Township, Lebanon County, PA

Sample Point	Sample Date	Total Iron (mg/l)	Dissolved Iron (mg/l)
MW 15	11-Dec-19	0.582	0.449
MW 16	11-Dec-19	7.19	6.73
MW 17	11-Dec-19	2.29	<0.2
MW 18	10-Dec-19	-	0.806
MW 24	9-Dec-19	0.311	<0.2
MW 25	10-Dec-19	9.32	4.39
MW 26	10-Dec-19	1.92	<0.2
MW 57	10-Dec-19	57.7	8.91
MW 58	10-Dec-19	14.4	7.36
MW 59	9-Dec-19	3.87	2.54
MW 61	9-Dec-19	33.6	<0.2
MW-62	9-Dec-19	126	<0.2
RW 1	11-Dec-19	-	47.7
RW 2	10-Dec-19	34.4	22.8
RW 4	11-Dec-19	27.7	22.7
RW 5	11-Dec-19	26.5	23.1

Total iron concentrations are reported for unfiltered samples (submitted for analyses in HNO₃-preserved bottles)
 Dissolved iron concentrations are reported for field-filtered samples (submitted for analyses in HNO₃-preserved bottles)
 "-" = not analyzed

Table 4
Water Sample Laboratory Analytical Results
Area West of Beck Creek - Beck Creek AOC
370 Horseshoe Pike, West Cornwall Township, Lebanon County, PA



Sample Point	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)	Isopropyl-benzene (µg/L)	Naphthalene (µg/L)	1,2,4-TMB (µg/L)	1,3,5-TMB (µg/L)
Ponded Water-Field WO BC Water	7-Nov-18	17	<1	8	<5	3	7	<10	<5	<5
TW-1	20-Dec-18	7	<1	<1	<5	3	<5	<10	<5	<5
TW-2	20-Dec-18	14	<1	6	<5	3	10	<10	<5	<5
TW-3	20-Dec-18	10	<1	8	<5	4	12	<10	<5	<5
TW-4	20-Dec-18	<1	<1	<1	<5	<1	<5	<10	<5	<5
TW-5	20-Dec-18	3	<1	<1	<5	1	<5	<10	<5	<5
TW-6	20-Dec-18	<1	<1	<1	<5	<1	<5	<10	<5	<5
Flow Channel Water	20-Dec-18	<1	<1	<1	<5	<1	<5	<10	<5	<5
Beck Creek	20-Dec-18	<1	<1	<1	<5	<1	<5	<10	<5	<5
PA Statewide Health Standard Medium Specific Concentration (Used Aquifer, Residential)		5	1,000	700	10,000	20	840	100	15	420

TW-1 - TW-6 are temporary, PVC-screened, 1-inch diameter piezometers that were installed by hand-auger to approximately 1-2 feet bgs
All values reported in micrograms per liter (µg/L) (equivalent to parts per billion); <# = Concentration less than the laboratory limit of quantitation (LOQ)
MTBE = Methyl tert.-butyl ether; TMB = Trimethylbenzene; WO BC = West of Beck Creek
The "Flow Channel Water" sample was collected between TW-5 and Beck Creek, in a northeasterly trajectory, approximately 6 feet west of Beck Creek
The "Beck Creek" sample was collected approx. 1 foot downstream of the flow channel discharge to Beck Creek, along the western bank of Beck Creek
Bold values indicate concentrations greater than the Statewide Health Standard MSC



Table 5
Grab Soil Sample Laboratory Analytical Results - December 2018 and September 2019
Area West of Beck Creek - Beck Creek AOC
370 Horseshoe Pike, West Cornwall Township, Lebanon County, PA

Sample Point	Sample Date	Benzene (µg/kg)	Toluene (µg/kg)	Ethyl-benzene (µg/kg)	Total Xylenes (µg/kg)	MTBE (µg/kg)	Isopropyl-benzene (µg/kg)	Naphthalene (µg/kg)	1,2,4-TMB (µg/kg)	1,3,5-TMB (µg/kg)	EDB (µg/kg)	EDC (µg/kg)	Lead (mg/kg)	Moisture (%)
TW-1	19-Dec-18	ND (of 24)	ND (of 18)	ND (of 24)	ND (of 53)	ND (of 29)	ND (of 29)	ND (of 35)	ND (of 35)	ND (of 29)	ND (of 18)	ND (of 18)	19.3	21.6
TW-2	19-Dec-18	6	2 J	4 J	2 J	0.7 J	12	8	1 J	1 J	ND (of 0.3)	ND (of 0.3)	18.6	22.7
TW-3	19-Dec-18	2 J	2 J	0.7 J	2 J	ND (of 0.6)	1 J	5 J	0.8 J	ND (of 0.6)	ND (of 0.4)	ND (of 0.4)	29.4	29.4
TW-4	19-Dec-18	ND (of 0.5)	0.9 J	ND (of 0.5)	ND (of 1)	ND (of 0.6)	ND (of 0.6)	ND (of 0.7)	ND (of 0.7)	ND (of 0.6)	ND (of 0.4)	ND (of 0.4)	20.9	24.7
TW-5	19-Dec-18	3 J	1 J	ND (of 0.5)	ND (of 1)	ND (of 0.7)	2 J	ND (of 0.7)	ND (of 0.7)	ND (of 0.6)	ND (of 0.4)	ND (of 0.4)	23.5	24.3
TW-6	19-Dec-18	ND (of 0.6)	0.9 J	ND (of 0.6)	ND (of 1)	ND (of 0.6)	ND (of 0.7)	ND (of 0.8)	ND (of 0.8)	ND (of 0.7)	ND (of 0.4)	ND (of 0.4)	41.5	22.9
WB-1	23-Sep-19	<9	<9	<9	<19	<9	<9	<9	<9	<9	-	-	-	42.5
WB-2	23-Sep-19	<7	<7	<7	<14	<7	<7	<7	<7	<7	-	-	-	30.7
PA Statewide Health Standard Medium Specific Concentration (Used Aquifer, Residential)		500	100,000	70,000	1,000,000	2,000	84,000	10,000	1,500	42,000	5	500	45	-

All organic compounds reported in micrograms per kilograms (µg/kg) (equivalent to parts per billion), on a dry-weight basis; Lead is reported in milligrams per kilogram (mg/kg) (equivalent to parts per million)

A J-value denotes a laboratory-estimated concentration between the limit of quantitation (LOQ) and the method detection limit (MDL); ND (of 24) = non-detect (method detection limit)

MTBE = Methyl tert.-butyl ether; TMB = Trimethylbenzene; E DB = 1,2-Dibromoethane (ethylene dibromide); EDC = 1,2,-Dichloroethane

The soil samples were saturated, therefore the saturated, used-aquifer, residential SHS MSCs are listed here

The December 2018 soil samples were collected via hand auger from approximately 1 foot below grade surface; the September 2019 soil samples were collected as surface grab samples from the creek's west bank



Table 6: Beck Creek North of AOC, North of AOC 2, AOC Seepage Spring Grab Water Sample Laboratory Analytical Results, March 2019-June 2020
 Cornwall Pump Station Site, 370 Horseshoe Pike, West Cornwall Township, Lebanon County, PA
 (Liquid level gauging and water table elevation data are in feet, dissolved analytical data are in ug/l)

Beck Creek North of AOC Stage Elevation: not surveyed

Sampling location is located inside Beck Creek, off the western bank just northeast of MWs 59 and 60

Date	DTW (feet)	Beck Creek Surface	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
27-Mar-19		Not measured	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.028	<5	<3
19-Jun-19		Not measured	<1	<1	<1	<5	<1	<10	<5	<5	<5	<0.028	<5	<3
23-Sep-19		Not measured	<1	<1	<1	<3	<1	<10	<5	<5	<5	<0.028	<5	<0.5
17-Jun-20		Not measured	<1.0	<1.0	<1.0	<6.0	<1.0	<5.0	<5.0	<5.0	<5.0	-	-	-

In March, June and September 2019 and June 2020, the samples were collected just off the western edge of Beck Creek north of MW 60

Beck Creek North of AOC 2 Stage Elevation: not surveyed

Sampling location is located inside Beck Creek, approx. 2 feet off the western bank where the spring discharges, between MWs 59 and 60

Date	DTW (feet)	Beck Creek Surface	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
09-Dec-19		Not measured	1	<1	<1	<3	<1	<10	<5	<5	<5	<0.029	<5	<0.5
17-Jun-20		Not measured	<1.0	<1.0	<1.0	<6.0	<1.0	<5.0	<5.0	<5.0	<5.0	-	-	-

On 9 December 2019 and 17 June 2020, the samples were collected from along the western edge of Beck Creek between MWs 59 and 60, approx. 2 feet into the creek where the seepage spring discharges

Beck Creek AOC Seepage Spring

Sampling location is located at a small spring-seep in the west bank of Beck Creek, between MWs 59 and 60

Date	DTW (feet)	Beck Creek Surface	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
17-Mar-20		Not measured	6	<1	8	6	2	19	15	<5	<5	-	-	-
17-Jun-20		Not measured	5.2	<1.0	4.5	<6.0	<1.0	13	13	<5.0	<5.0	-	-	-

On 17 March 2020, the sample was collected from a small seep/spring that discharged into Beck Creek, between MWs 59 and 60, at the seep/creek surface water confluence (mostly seep water, some creek water)

On 17 June 2020, the sample was collected from a small seep/spring that discharged into Beck Creek, between MWs 59 and 60; the sample was collected approx. 1 foot above the creek surface from the spring flow path down the western bank

PADEP residential used aquifer Statewide health standards:	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
	5	1,000	700	10,000	20	100	840	15	420	0.05	5	5
PA Chapter 93 Surface Water Standards	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	Naphthalene	Cumene	1,2,4-TMB	1,3,5-TMB	EDB	EDC	Dissolved Lead
	1.2 (HC)	1,300 (HC)	530 (HC)	70,000 (HC)		N/A		72 (HC)	72 (HC)		0.38 (HC)	N/A
	130 (F&A C)	330 (F&A C)	580 (F&A C)	210 (F&A C)		43 (F&A C)		N/A	N/A		3,100 (F&A C)	2.5*
					20**		840**			0.05**		

The PA Chapter 93 Surface Water Standards are the lower of the lowest (continuous concentration) fish and aquatic life criteria (F&A C) or human health criteria (HC); N/A = Criterion not developed

MTBE= Methyl tert. butyl ether; 1,2,4-TMB = 1,2,4-Trimethylbenzene; 1,3,5-TMB = 1,3,5-Trimethylbenzene; EDB = Ethylene dibromide; EDC = 1,2-Dichloroethane"-." = no data / not measured; data in bold exceed residential SHS MSCs

* Lead criteria for water with hardness of 100; ** compounds without published PA Chapter 93/16 surface water standards; residential, used-aquifer SHS listed instead

ND (of "x") = non-detect (of detection limit); J-value indicates laboratory-estimated value between method detection limit and limit of quantitation