

Ms. Karen Cahill
New York State Department of Environmental Conservation
615 Erie Boulevard
Syracuse, NY 13204

RE: October 2019 Semi-Annual Sampling Event

February 4, 2020

**Krutulis Property
NYSDEC Site Code – 727009
Kirkville, New York**

Dear Ms. Cahill:

This report presents the groundwater elevation and sampling results for the Krutulis Property semi-annual groundwater sampling event conducted on October 30, 2019. The work was performed in accordance with the New York State Department of Environmental Conservation (NYSDEC)-approved Groundwater Monitoring Program for the site, which extends through October 2022. After the sampling event was completed, the groundwater samples were transported using chain-of-custody protocol to Life Science Laboratories, Inc. in East Syracuse, New York for analysis and analyzed for volatile organic compounds (VOCs) using USEPA Method 8260.

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The groundwater elevation data obtained during the monitoring event is presented on **Table 1**, and a groundwater contour map has been prepared and included as **Figure 1**. The inferred groundwater flow direction is consistent with previous sampling rounds.

The analytical results from the October 30, 2019 semi-annual sampling event are presented in **Table 2**, and historical groundwater analytical data for the monitoring wells (MWs) are displayed in **Table 3**. A copy of the laboratory analytical report is also included in **Attachment 1**. The following was observed based on a review of **Table 2**.

- VOCs were not detected in monitoring well MW-2

- In MW-1, chloroform was detected at a concentration of 0.73 ppb which is consistent with historical results.
- In MW-3S, benzene, 1,1-dichloroethene (1,1-DCE), 1,2-dichloroethene – total (1,2-DCE), tetrachloroethene (PERC), trichloroethene (TCE), and vinyl chloride (VC) were detected at concentrations of 1.88 ppb, 19.7 ppb, 4,113.5 ppb, 1.99 ppb, 1,070 ppb, and 107 ppb, respectively. The results show that the TCE continues to biodegrade naturally into its degradation products of 1,2-DCE and VC. The detected concentrations are generally consistent with historical results.
- In MW-3D, 1,1-DCE, 1,2-DCE, TCE, and VC were detected at concentrations of 0.53 ppb, 193.7 ppb, 19.8 ppb, and 5.23 ppb, respectively, which are consistent with historical results.
- In MW-4, 1,2-DCE and TCE were detected at concentrations of 1.85 ppb, and 0.67 ppb, respectively, which are consistent with historical results.
- In MW-5, 1,2-DCE was detected at a concentration of 0.87 ppb, which is consistent with historical results.
- In MW-6S, 1,2-DCE and TCE were detected at concentrations of 0.55 ppb and 0.57 ppb, respectively, which are consistent with historical results.
- In MW-6D, 1,2-DCE, TCE and VC were detected at concentrations of 17.07 ppb, 1.08 ppb and 4.46 ppb, respectively, which are consistent with historical results.

Per your request in January 2012, historical graphs of the VOCs detected in monitoring well MW-3S, MW-3D, and MW-6D are presented in **Attachment 2**.

Per your July 12, 2019 email, we will be reducing the monitoring frequency to one annual event that is scheduled for October 2020. If you have any questions, please feel free to contact Mr. Richard Mator of Bristol-Myers Squibb Company at (609) 252-4273 or me at (315) 956-6665.

Yours sincerely,



Charles Sharpe, P.E.

PROJECT MANAGER-1
004-E&H APPLIED SCIENCE/NRR RES

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Attachments

cc: R. Jones, New York State Department of Health (electronic copy [ec])
R. Mator, Bristol-Myers Squibb Company (ec)
W. Pufko, Bristol-Myers Squibb Company (ec)
T. Garcia, Bristol-Myers Squibb Company (ec)
Richard and Pamela Mellor, Site owners (w/Attachments)
J. Becker, Town of Sullivan (w/Attachments)
C. Calkins, Ramboll (ec)

TABLES

TABLE 1
Krutulis Property
Kirkville, New York Site
Monitoring Wells - Water Level Measurements

Monitoring Well	Top of Casing Elevation (ft amsl)	Total Depth (ft btoc)	Groundwater Elevations (ft amsl)				
			5/25/93	6/1/93	6/27/97	9/16/97	12/18/97
MW-1	298.45	19.18	294.45	295.19	292.90	289.71	293.23
MW-2	302.46	19.11	294.36	294.02	292.11	288.64	291.07
MW-3S	290.51	19.16	289.72	289.75	288.91	287.48	289.28
MW-4	290.58	19.31	288.71	288.82	288.45	287.60	288.91
MW-5	290.29	18.68	288.40	288.47	288.40	287.76	288.80

Monitoring Well	Top of Casing Elevation (ft amsl)	Total Depth (ft btoc)	Groundwater Elevations (ft amsl)				
			03/18/98	09/23/98	03/26/99	09/24/99	12/21/99
MW-1	298.45	19.18	296.12	290.47	296.21	288.99	292.81
MW-2	302.46	19.11	295.63	289.07	294.96	287.42	290.68
MW-3S	290.51	19.16	290.35	288.22	290.51	287.53	289.06
MW-4	290.58	19.31	289.48	288.17	289.89	287.73	288.56
MW-5	290.29	18.68	289.36	288.24	289.73	288.02	288.41

Monitoring Well	Top of Casing Elevation (ft amsl)	Total Depth (ft btoc)	Groundwater Elevations (ft amsl)				
			03/15/00	09/13/00	03/29/01	09/25/01	03/14/02
MW-1	298.45	19.18	295.77	293.60	296.24	291.51	295.73
MW-2	302.46	19.11	294.22	291.05	295.72	289.15	294.06
MW-3S	290.51	19.16	290.01	288.99	290.24	289.29	289.96
MW-4	290.58	19.31	289.27	288.95	289.49	289.02	289.33
MW-5	290.29	18.68	288.98	288.18	289.12	288.98	289.08

Monitoring Well	Top of Casing Elevation (ft amsl)	Total Depth (ft btoc)	Groundwater Elevations (ft amsl)				
			09/10/02	05/16/03	09/22/03	05/04/04	09/30/04
MW-1	298.45	19.18	289.93	295.90	290.96	296.14	294.53
MW-2	302.46	19.11	289.00	295.34	290.06	295.75	293.26
MW-3S	290.51	19.16	288.01	290.08	288.69	290.51	290.11
MW-4	290.58	19.31	288.08	289.45	288.60	289.98	289.37
MW-5	290.29	18.68	288.31	289.15	288.74	289.75	289.29

Monitoring Well	Top of Casing Elevation (ft amsl)	Total Depth (ft btoc)	Groundwater Elevations (ft amsl)				
			3/28/05	9/29/05	4/19/06	10/2/06	5/17/07
MW-1	298.45	19.18	296.45	290.69	295.73	294.09	294.90
MW-2	302.46	19.11	295.43	289.43	295.11	291.91	294.96
MW-3S	290.51	19.16	290.51	289.02	290.41	290.01	290.01
MW-4	290.58	19.31	290.08	289.09	289.90	289.78	289.58
MW-5	290.29	18.68	289.80	289.19	289.61	288.33	289.54

TABLE 1
Krutulis Property
Kirkville, New York Site
Monitoring Wells - Water Level Measurements

Monitoring Well	Top of Casing Elevation (ft amsl)	Total Depth (ft btoc)	Groundwater Elevations (ft amsl)				
			9/7/07	4/30/08	10/16/08	4/30/09	10/6/09
MW-1	298.45	19.18	290.15	295.94	292.15	294.99	294.00
MW-2	302.46	19.11	289.34	295.60	289.99	295.04	292.06
MW-3S	290.51	19.16	288.51	290.51	289.60	290.61	290.31
MW-3D	294.97	31.76	NM	291.36	288.72	291.34	290.19
MW-4	290.58	19.31	288.78	290.18	289.56	290.58	289.98
MW-5	290.29	18.68	287.64	289.79	288.23	291.10	290.09
MW-6S	299.15	22.95	NM	293.69	289.97	293.15	291.14
MW-6D	299.27	35.95	NM	293.02	289.70	292.85	291.17

Monitoring Well	Top of Casing Elevation (ft amsl)	Total Depth (ft btoc)	Groundwater Elevations (ft amsl)				
			4/29/10	10/14/10	5/12/11	10/26/11	4/9/12
MW-1	298.45	19.18	295.04	295.35	295.60	295.82	294.54
MW-2	302.46	19.11	294.36	293.76	296.36	293.26	293.86
MW-3S	290.51	19.16	289.81	290.51	290.51	290.51	289.83
MW-3D	294.97	31.76	290.39	290.99	291.25	291.03	290.67
MW-4	290.58	19.31	289.59	289.73	289.70	290.16	289.58
MW-5	290.29	18.68	289.49	289.89	289.39	290.02	289.52
MW-6S	299.15	22.95	292.44	291.90	293.60	291.93	292.36
MW-6D	299.27	35.95	292.01	292.12	292.89	292.02	291.81

Monitoring Well	Top of Casing Elevation (ft amsl)	Total Depth (ft btoc)	Groundwater Elevations (ft amsl)				
			11/20/12	4/25/13	10/24/13	4/23/14	10/28/14
MW-1	298.45	19.18	291.89	295.98	294.50	296.16	295.05
MW-2	302.46	19.11	290.26	295.56	292.10	292.89	292.26
MW-3S	290.51	19.16	289.70	290.51	290.11	290.51	290.07
MW-3D	294.97	31.76	289.66	291.29	290.35	291.03	290.47
MW-4	290.58	19.31	289.57	289.73	289.58	289.78	289.61
MW-5	290.29	18.68	289.58	289.59	289.44	289.52	288.66
MW-6S	299.15	22.95	290.14	293.34	291.17	293.92	291.37
MW-6D	299.27	35.95	290.23	292.80	291.16	292.97	291.32

Monitoring Well	Top of Casing Elevation (ft amsl)	Total Depth (ft btoc)	Groundwater Elevations (ft amsl)				
			4/28/15	10/22/15	4/21/16	10/19/16	4/25/17
MW-1	298.45	19.18	295.87	294.86	295.64	290.02	296.13
MW-2	302.46	19.11	295.63	292.21	295.28	288.58	290.88
MW-3S	290.51	19.16	290.43	289.80	290.30	288.63	290.51
MW-3D	294.97	31.76	291.14	290.44	291.07	288.63	291.23
MW-4	290.58	19.31	289.60	289.51	289.59	288.79	289.99
MW-5	290.29	18.68	289.31	289.44	289.84	288.81	289.81
MW-6S	299.15	22.95	293.59	291.31	293.13	288.50	294.15
MW-6D	299.27	35.95	292.71	290.12	292.53	287.18	293.19

TABLE 1
Krutulis Property
Kirkville, New York Site
Monitoring Wells - Water Level Measurements

Monitoring Well	Top of Casing Elevation (ft amsl)	Total Depth (ft btoc)	Groundwater Elevations (ft amsl)				
			10/18/17	5/2/18	10/23/18	4/17/19	10/30/19
MW-1	298.45	19.18	291.71	296.09	292.43	295.78	295.19
MW-2	302.46	19.11	290.02	295.32	290.34	294.26	294.39
MW-3S	290.51	19.16	288.99	290.51	289.05	290.51	290.51
MW-3D	294.97	31.76	289.37	291.17	289.26	289.52	290.96
MW-4	290.58	19.31	289.16	289.76	289.16	289.65	290.23
MW-5	290.29	18.68	288.19	289.60	288.29	288.75	289.37
MW-6S	299.15	22.95	289.59	292.64	289.73	293.37	292.76
MW-6D	299.27	35.95	289.57	292.73	289.80	292.42	292.49

Notes:

ft amsl - feet above mean sea level

ft btoc - feet below top of casing

NM - Not measured

TABLE 2
Krutulis Property
Kirkville, New York Site
Groundwater Analytical Data - October 2019 Semi-Annual Sampling Event
Volatile Organic Compounds

PARAMETERS	NYSDEC Groundwater Quality Standards and Guidance Values	MW-1	MW-2	MW-3S	MW-3D	MW-4	MW-5	MW-6S	MW-6D
Benzene	1	<0.5	<0.5	1.88	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroform	7	0.73	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	5	<0.5	<0.5	19.7	0.53	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethene (total)	5	<0.5	<0.5	4,113.5	193.7	1.85	0.87	0.55	17.07
Tetrachloroethene	5	<0.5	<0.5	1.99	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	5	<0.5	<0.5	1,070	19.8	0.67	<0.5	0.57	1.08
Vinyl chloride	2	<1	<1	107	5.23	<1	<1	<1	4.46
Xylene (total)	5	<1	<1	<1	<1	<1	<1	<1	<1
Methyl isobutyl ketone	NA	<5	<5	<5	<5	<5	<5	<5	<5
Acetone	50	<10	<10	<10	<10	<10	<10	<10	<10

Notes:

1) All values are in µg/L. Detected values shown in **bold** text.

2) J or E - Estimated Value.

3) < - Not detected above the corresponding laboratory Practical Quantitation Limit.

4) NA - Not Applicable.

TABLE 3
Krutulis Property
Kirkville, New York Site
Historical Groundwater Analytical Data
Volatile Organic Compounds

MW-1

PARAMETERS	NYSDEC Groundwater Quality Standards and Guidance Values	MW-1											
		6/01/93	6/27/97	9/16/97	12/18/97	03/18/98	09/23/98	03/26/99	09/24/99	03/15/00	09/13/00	03/29/01	09/25/01
Benzene	1	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	7	<10	1	2	<1	<1	<1	<1	<1	<1	1	0.7 J	1
1,1-Dichloroethene	5	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethene (total)	5	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	5	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	5	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	2	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylene (total)	5	<10	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
Methyl isobutyl ketone	NA	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Acetone	50	<10	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100

MW-1

PARAMETERS	NYSDEC Groundwater Quality Standards and Guidance Values	MW-1											
		03/14/02	09/10/02	05/16/03	09/22/03	05/04/04	09/30/04	03/28/05	09/29/05	04/19/06	10/02/06	05/17/07	09/07/07
Benzene	1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroform	7	2	1	1	1	<1	1.6	1.1	1.3	2.1	2.3	1.1	2.0
1,1-Dichloroethene	5	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethene (total)	5	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	5	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	5	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	5	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	2	2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylene (total)	5	<3	<3	<3	<3	<3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Methyl isobutyl ketone	NA	<10	<10	<10	<10	<10	<5	<5	<5	<5	<5	<5	<5
Acetone	50	<100	<100	<100	<100	<100	<10	<10	<10	<10	<10	<10	<10

MW-1

PARAMETERS	NYSDEC Groundwater Quality Standards and Guidance Values	MW-1											
		04/30/08	10/16/08	4/30/09	10/06/09	04/29/10	10/14/10	05/12/11	10/26/11	04/19/12	11/20/12	04/25/13	10/24/13
Benzene	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroform	7	4.1	7.8	4.1	5.1	3.9	4.68	1.41	3.98	3.01	1.96	1.34	2.28
1,1-Dichloroethene	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethene (total)	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.30	<0.5	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylene (total)	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methyl isobutyl ketone	NA	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Acetone	50	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10

TABLE 3
Krutulis Property
Kirkville, New York Site
Historical Groundwater Analytical Data
Volatile Organic Compounds

MW-1

PARAMETERS	NYSDEC Groundwater Quality Standards and Guidance Values	MW-1												
		04/23/14	10/28/14	04/28/15	10/22/15	04/21/16	10/19/16	04/25/17	10/18/17	05/02/18	10/23/18	04/17/19	10/30/19	
Benzene	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Chloroform	7	1.04	3.05	0.77	1.37	1.00	1.42	0.73	<0.5	0.62	0.86	<0.5	0.73	
1,1-Dichloroethene	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
1,2-Dichloroethene (total)	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Tetrachloroethene	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Toluene	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Trichloroethene	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Vinyl chloride	2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Xylene (total)	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Methyl isobutyl ketone	NA	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
Acetone	50	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	

TABLE 3
Krutulis Property
Kirkville, New York Site
Historical Groundwater Analytical Data
Volatile Organic Compounds

MW-2

PARAMETERS	NYSDEC Groundwater Quality Standards and Guidance Values	MW-2											
		6/01/93	6/27/97	9/16/97	12/18/97	03/18/98	09/23/98	03/26/99	09/24/99	03/15/00	09/13/00	03/29/01	09/25/01
Benzene	1	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chloroform	7	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,1-Dichloroethene	5	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
1,2-Dichloroethene (total)	5	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Tetrachloroethene	5	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Toluene	5	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Trichloroethene	5	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Vinyl chloride	2	<10	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylene (total)	5	<10	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3	<3
Methyl isobutyl ketone	NA	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Acetone	50	<10	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100

MW-2

PARAMETERS	NYSDEC Groundwater Quality Standards and Guidance Values	MW-2											
		03/14/02	09/10/02	05/16/03	09/22/03	05/04/04	09/30/04	03/28/05	09/29/05	04/19/06	10/02/06	05/17/07	09/07/07
Benzene	1	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroform	7	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	5	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethene (total)	5	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	5	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	5	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	5	<1	<1	<1	<1	<1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylene (total)	5	<3	<3	<3	<3	<3	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Methyl isobutyl ketone	NA	<10	<10	<10	<10	<10	<5	<5	<5	<5	<5	<5	<5
Acetone	50	<100	<100	<100	<100	<100	<10	<10	<10	<10	<10	<10	<10

MW-2

PARAMETERS	NYSDEC Groundwater Quality Standards and Guidance Values	MW-2											
		04/30/08	10/16/08	04/30/09	10/06/09	04/29/10	10/14/10	05/12/11	10/26/11	04/19/12	11/20/12	04/25/13	10/24/13
Benzene	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroform	7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethene (total)	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Tetrachloroethene	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Vinyl chloride	2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylene (total)	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methyl isobutyl ketone	NA	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Acetone	50	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10

TABLE 3
Krutulis Property
Kirkville, New York Site
Historical Groundwater Analytical Data
Volatile Organic Compounds

MW-2

PARAMETERS	NYSDEC Groundwater Quality Standards and Guidance Values	MW-2												
		04/23/14	10/28/14	04/28/15	10/22/15	04/21/16	10/19/16	04/25/17	10/18/17	05/02/18	10/23/18	04/17/19	10/30/19	
Benzene	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Chloroform	7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
1,1-Dichloroethene	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
1,2-Dichloroethene (total)	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Tetrachloroethene	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Toluene	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Trichloroethene	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Vinyl chloride	2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Xylene (total)	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Methyl isobutyl ketone	NA	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
Acetone	50	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	

TABLE 3
Krutulis Property
Kirkville, New York Site
Historical Groundwater Analytical Data
Volatile Organic Compounds

MW-3S

PARAMETERS	NYSDEC Groundwater Quality Standards and Guidance Values	MW-3S												
		04/25/13	10/24/13	04/23/14	10/28/14	04/28/15	10/22/15	04/21/16	10/19/16	04/25/17	10/18/17	05/02/18	10/23/18	
Benzene	1	2.43	2.80	2.20	3.31	2.04	2.59	2.37	2.53	2.09	2.24	2.32	2.21	
Chloroform	7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
1,1-Dichloroethene	5	26.7	13.6	29.6	19.6	22.9	10.7	14.3	5.01	31.0	5.05	16.7	1.35	
1,2-Dichloroethene (total)	5	6,771.1	3,064.3	5,397.8	5,038	3,943.3	3,062.4	4,060	1,754	4,653.1	2,089.2	4,281.1	824.3	
Tetrachloroethene	5	30.8	0.60	17.6	<0.5	5.79	<0.5	1.64	<0.5	6.65	<0.5	2.64	<0.5	
Toluene	5	0.58	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Trichloroethene	5	4,840	305	2,300	316	1,140	164	846	16.3	1,620	52.8	942	2.21	
Vinyl chloride	2	26.2	109	47.9	335	31.9	189	<100	413	104	323.0	76.9	281	
Xylene (total)	5	<0.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Methyl isobutyl ketone	NA	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
Acetone	50	59.4	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	

MW-3S

PARAMETERS	NYSDEC Groundwater Quality Standards and Guidance Values	04/17/19	10/30/19
		04/17/19	10/30/19
Benzene	1	<5	1.88
Chloroform	7	<5	<0.5
1,1-Dichloroethene	5	15.4	19.7
1,2-Dichloroethene (total)	5	4,574.3	4,113.5
Tetrachloroethene	5	<5	2.0
Toluene	5	<5	<0.5
Trichloroethene	5	1,220	1,070
Vinyl chloride	2	60	107
Xylene (total)	5	<10	<1
Methyl isobutyl ketone	NA	<50	<5
Acetone	50	<100	<10

TABLE 3
Krutulis Property
Kirkville, New York Site
Historical Groundwater Analytical Data
Volatile Organic Compounds

MW-4

PARAMETERS	NYSDEC Groundwater Quality Standards and Guidance Values	MW-4												
		04/23/14	10/28/14	04/28/15	10/22/15	04/21/16	10/19/16	04/25/17	10/18/17	05/02/18	10/23/18	04/17/19	10/30/19	
Benzene	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Chloroform	7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
1,1-Dichloroethene	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
1,2-Dichloroethene (total)	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.85	
Tetrachloroethene	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Toluene	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Trichloroethene	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.67	
Vinyl chloride	2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Xylene (total)	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Methyl isobutyl ketone	NA	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
Acetone	50	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	

TABLE 3
Krutulis Property
Kirkville, New York Site
Historical Groundwater Analytical Data
Volatile Organic Compounds

MW-5

PARAMETERS	NYSDEC Groundwater Quality Standards and Guidance Values	MW-5												
		10/24/13	04/23/14	10/28/14	04/28/15	10/22/15	04/21/16	10/19/16	04/25/17	10/18/17	05/02/18	10/23/18	04/17/19	
Benzene	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Chloroform	7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
1,1-Dichloroethene	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
1,2-Dichloroethene (total)	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Tetrachloroethene	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Toluene	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Trichloroethene	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Vinyl chloride	2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Xylene (total)	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Methyl isobutyl ketone	NA	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
Acetone	50	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	

MW-5

PARAMETERS	NYSDEC Groundwater Quality Standards and Guidance Values	10/30/19
Benzene	1	<0.5
Chloroform	7	<0.5
1,1-Dichloroethene	5	<0.5
1,2-Dichloroethene (total)	5	0.87
Tetrachloroethene	5	<0.5
Toluene	5	<0.5
Trichloroethene	5	<0.5
Vinyl chloride	2	<1
Xylene (total)	5	<1
Methyl isobutyl ketone	NA	<5
Acetone	50	<10

TABLE 3
Krutulis Property
Kirkville, New York Site
Historical Groundwater Analytical Data
Volatile Organic Compounds

MW-6S

PARAMETERS	NYSDEC Groundwater Quality Standards and Guidance Values	MW-6S												
		10/24/13	04/23/14	10/28/14	04/28/15	10/22/15	04/21/16	10/19/16	04/25/17	10/18/17	05/02/18	10/23/18	04/17/19	
Benzene	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Chloroform	7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
1,1-Dichloroethene	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
1,2-Dichloroethene (total)	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Tetrachloroethene	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Toluene	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Trichloroethene	5	1.12	<0.5	<0.5	<0.5	0.58	0.87	1.59	<0.5	0.64	<0.5	<0.5	<0.5	
Vinyl chloride	2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Xylene (total)	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Methyl isobutyl ketone	NA	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
Acetone	50	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	

MW-6S

PARAMETERS	NYSDEC Groundwater Quality Standards and Guidance Values	10/30/19
Benzene	1	<0.5
Chloroform	7	<0.5
1,1-Dichloroethene	5	<0.5
1,2-Dichloroethene (total)	5	0.55
Tetrachloroethene	5	<0.5
Toluene	5	<0.5
Trichloroethene	5	0.57
Vinyl chloride	2	<1
Xylene (total)	5	<1
Methyl isobutyl ketone	NA	<5
Acetone	50	<10

TABLE 3
Krutulis Property
Kirkville, New York Site
Historical Groundwater Analytical Data
Volatile Organic Compounds

MW-6D

PARAMETERS	NYSDEC Groundwater Quality Standards and Guidance Values	10/18/07	04/30/08	10/16/08	4/30/09	10/06/09	04/29/10	10/14/10	05/12/11	10/26/11	04/19/12	11/20/12	04/25/13
Benzene	1	<25	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroform	7	<25	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	5	<25	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethene (total)	5	<25	10	6	2	8	8	23.01	6.73	54.66	33.21	35.75	31.26
Tetrachloroethene	5	<25	1	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	5	1,470	59	6	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	5	1,940	253	175	82	77	71	42.1	13.5	14.0	11.9	5.83	6.61
Vinyl chloride	2	<50	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylene (total)	5	<50	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methyl isobutyl ketone	NA	NA	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Acetone	50	NA	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10

MW-6D

PARAMETERS	NYSDEC Groundwater Quality Standards and Guidance Values	10/24/13	04/23/14	10/28/14	04/28/15	10/22/15	04/21/16	10/19/16	04/25/17	10/18/17	05/02/18	10/23/18	04/17/19
Benzene	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Chloroform	7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,1-Dichloroethene	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
1,2-Dichloroethene (total)	5	29.06	38.55	27.35	33.28	25.05	28.77	7.82	26.95	26.2	21.63	18.71	25.03
Tetrachloroethene	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Toluene	5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Trichloroethene	5	4.72	5.62	3.43	2.96	1.52	2.64	0.67	1.43	1.25	0.98	0.54	1.56
Vinyl chloride	2	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Xylene (total)	5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Methyl isobutyl ketone	NA	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Acetone	50	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10

MW-6D

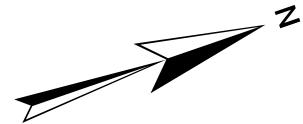
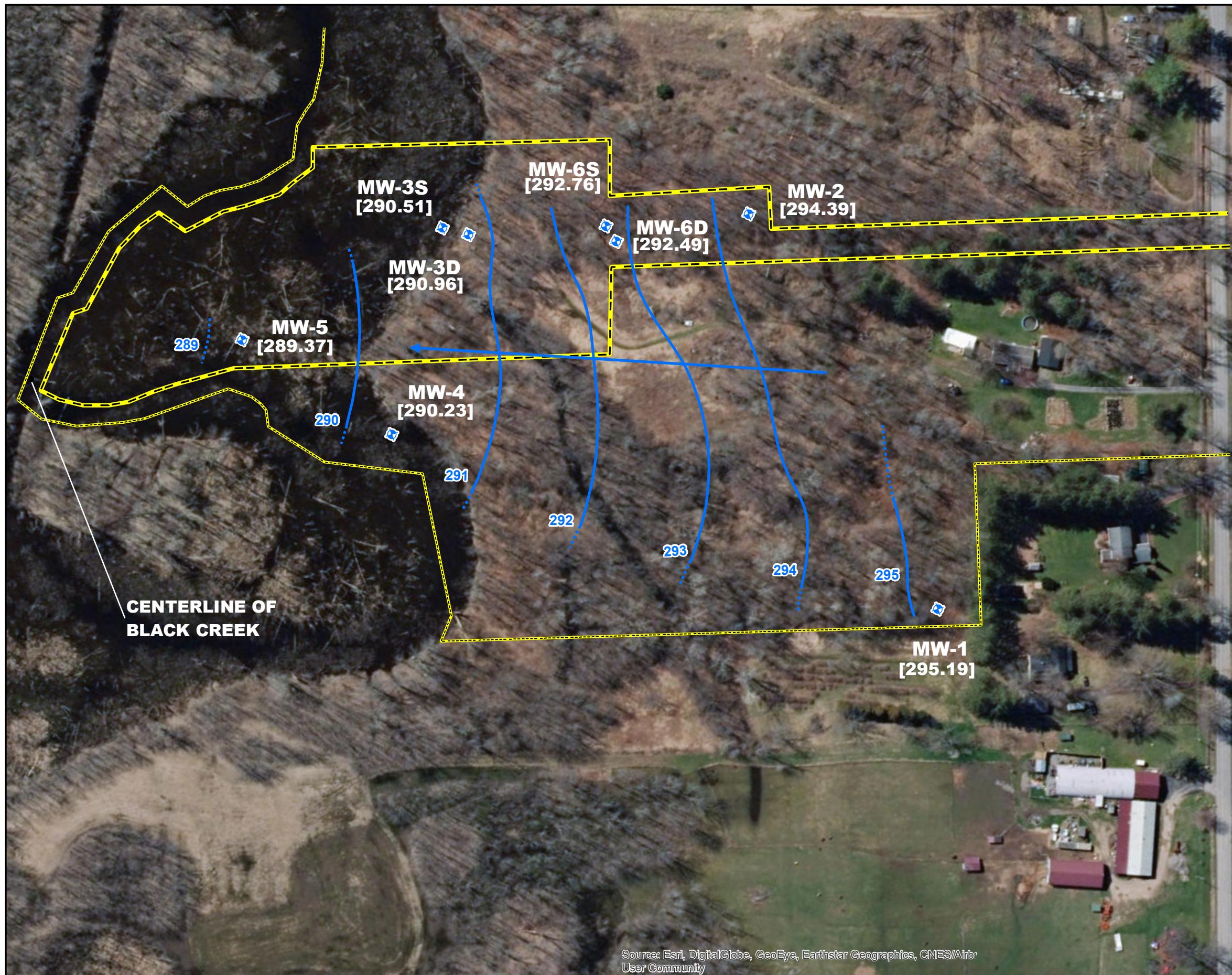
PARAMETERS	NYSDEC Groundwater Quality Standards and Guidance Values	10/30/19
Benzene	1	<0.5
Chloroform	7	<0.5
1,1-Dichloroethene	5	<0.5
1,2-Dichloroethene (total)	5	17.07
Tetrachloroethene	5	<0.5
Toluene	5	<0.5
Trichloroethene	5	1.08
Vinyl chloride	2	4.46
Xylene (total)	5	<1
Methyl isobutyl ketone	NA	<5
Acetone	50	<10

TABLE 3
Krutulis Property
Kirkville, New York Site
Historical Groundwater Analytical Data
Volatile Organic Compounds

Notes:

- 1) All values are in $\mu\text{g}/\text{L}$. Detected values shown in **bold** text.
- 2) J or E - Estimated Value.
- 3) < - Not detected above the corresponding laboratory Practical Quantitation Limit.
- 4) NA - Not Applicable.
- 5) The routine detection limit for acetone by Gas Chromatography (GC) is 100 $\mu\text{g}/\text{L}$. Samples that contain elevated concentrations of other parameters require a dilution of the sample to enable the instrument to analyze those parameters within the linear range. Therefore, the detection limits for the non-detected parameters must be raised by a correction factor equivalent to the dilution factor.
- 6) The 3/15/00 and 9/13/00 samples for MW-3 were re-analyzed to achieve lower detection limits. As a result, a J value of 150 mg/L for 1,1-Dichloroethylene was determined for the 3/15/00 sample.
- 7) The two 9/30/04 samples for MW-3 were analyzed at diluted concentrations resulting in higher detection levels than as presented for previous sampling events.
- 8) On 10/18/07 during site investigation activities, groundwater samples were collected from monitoring wells MW-3S, MW-3D, MW-6S, and MW-6D.

FIGURE



LEGEND

- PROPERTY LINE
- LIMITS OF KRUTULIS PROPERTY - REGISTRY SITE #727009
- MONITORING WELL LOCATIONS
- GW CONTOURS
- GW CONTOURS (INFERRED)
- FLOW DIRECTION

Note: Elevation values are in feet above mean sea level.

KRUTULIS PROPERTY
KIRKVILLE, NEW YORK

GROUNDWATER FLOW MAP
OCTOBER 30, 2019

0 100 200 400
Feet

FILE_NO. 2874.69452-002
NOVEMBER 27, 2019



O'BRIEN & GERE ENGINEERS, INC.

ATTACHMENTS

ATTACHMENT 1
LABORATORY ANALYTICAL REPORT



Life Science Laboratories, Inc.

5854 Butternut Drive
East Syracuse, NY 13057

(315) 445-1900

Friday, November 15, 2019

Chuck Sharpe
O'Brien & Gere Engineers, Inc.
333 W. Washington St.
PO Box 4873
Syracuse, NY 13221

TEL: 315-956-6100

Project: BMS KRUTULIS

RE: Analytical Results

Order No.: 1918264

Dear Chuck Sharpe:

Life Science Laboratories, Inc. received 9 sample(s) on 10/30/2019 for the analyses presented in the following report. Sample results relate only to the samples as received by the laboratory.

Very truly yours,
Life Science Laboratories, Inc.


David J Prichard
Project Manager



Life Science Laboratories, Inc.
5854 Butternut Drive
East Syracuse, NY 13057 (315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT:	O'Brien & Gere Engineers, Inc.	Lab ID:	1918264-001A
Project:	BMS Krutulis	Client Sample ID:	MW-1-103019
W Order:	1918264	Collection Date:	10/30/19 14:50
Matrix:	GROUNDWATER	Date Received:	10/30/19 16:10
Inst. ID:	MS04_73	PrepDate:	
ColumnID:	Rtx-VMS	BatchNo:	R33503
Revision:	11/12/19 7:36	FileID:	1-SAMP-R9012.D
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS						
				SW8260C/5030C		
1,1-Dichloroethene	ND	0.50		µg/L	1	11/01/19 14:33
4-Methyl-2-pentanone	ND	5.00		µg/L	1	11/01/19 14:33
Acetone	ND	10.0		µg/L	1	11/01/19 14:33
Benzene	ND	0.50		µg/L	1	11/01/19 14:33
Chloroform	0.73	0.50		µg/L	1	11/01/19 14:33
cis-1,2-Dichloroethene	ND	0.50		µg/L	1	11/01/19 14:33
Tetrachloroethene	ND	0.50		µg/L	1	11/01/19 14:33
Toluene	ND	0.50		µg/L	1	11/01/19 14:33
trans-1,2-Dichloroethene	ND	0.50		µg/L	1	11/01/19 14:33
Trichloroethene	ND	0.50		µg/L	1	11/01/19 14:33
Vinyl chloride	ND	1.00		µg/L	1	11/01/19 14:33
Xylenes (total)	ND	1.00		µg/L	1	11/01/19 14:33
Surr: 1,2-Dichloroethane-d4	110	75-130		%REC	1	11/01/19 14:33
Surr: 4-Bromofluorobenzene	107	75-125		%REC	1	11/01/19 14:33
Surr: Toluene-d8	96	75-125		%REC	1	11/01/19 14:33

Qualifiers:	* Value may exceed the Acceptable Level	B Analyte detected in the associated Method Blank
	E Value exceeds the instrument calibration range	H Holding times for preparation or analysis exceeded
	J Analyte detected below the PQL	ND Not Detected at the Practical Quantitation Limit (PQL)
	P Prim./Conf. column %D or RPD exceeds limit	S Spike Recovery outside accepted recovery limits



Life Science Laboratories, Inc.

5854 Butternut Drive

East Syracuse, NY 13057

(315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT: O'Brien & Gere Engineers, Inc.

Project: BMS Krutulis

W Order: 1918264

Matrix: GROUNDWATER

Inst. ID: MS04_73

Sample Size: NA

ColumnID: Rtx-VMS

%Moisture:

Revision: 11/12/19 7:36

TestCode: 8260W_KET

Col Type:

Lab ID: 1918264-002A

Client Sample ID: MW-2-103019

Collection Date: 10/30/19 14:10

Date Received: 10/30/19 16:10

PrepDate:

BatchNo: R33503

FileID: 1-SAMP-R9013.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS						
				SW8260C/5030C		
1,1-Dichloroethene	ND	0.50		µg/L	1	11/01/19 15:04
4-Methyl-2-pentanone	ND	5.00		µg/L	1	11/01/19 15:04
Acetone	ND	10.0		µg/L	1	11/01/19 15:04
Benzene	ND	0.50		µg/L	1	11/01/19 15:04
Chloroform	ND	0.50		µg/L	1	11/01/19 15:04
cis-1,2-Dichloroethene	ND	0.50		µg/L	1	11/01/19 15:04
Tetrachloroethene	ND	0.50		µg/L	1	11/01/19 15:04
Toluene	ND	0.50		µg/L	1	11/01/19 15:04
trans-1,2-Dichloroethene	ND	0.50		µg/L	1	11/01/19 15:04
Trichloroethene	ND	0.50		µg/L	1	11/01/19 15:04
Vinyl chloride	ND	1.00		µg/L	1	11/01/19 15:04
Xylenes (total)	ND	1.00		µg/L	1	11/01/19 15:04
Surr: 1,2-Dichloroethane-d4	112	75-130		%REC	1	11/01/19 15:04
Surr: 4-Bromofluorobenzene	105	75-125		%REC	1	11/01/19 15:04
Surr: Toluene-d8	96	75-125		%REC	1	11/01/19 15:04

Qualifiers:	* Value may exceed the Acceptable Level	B Analyte detected in the associated Method Blank
	E Value exceeds the instrument calibration range	H Holding times for preparation or analysis exceeded
	J Analyte detected below the PQL	ND Not Detected at the Practical Quantitation Limit (PQL)
	P Prim./Conf. column %D or RPD exceeds limit	S Spike Recovery outside accepted recovery limits



Life Science Laboratories, Inc.

5854 Butternut Drive

East Syracuse, NY 13057

(315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT: O'Brien & Gere Engineers, Inc.

Project: BMS Krutulis

W Order: 1918264

Matrix: GROUNDWATER

Inst. ID: MS04_73

ColumnID: Rtx-VMS

Revision: 11/12/19 7:36

Col Type:

Lab ID: 1918264-003A

Client Sample ID: MW-3S-103019

Collection Date: 10/30/19 11:10

Date Received: 10/30/19 16:10

PrepDate:

BatchNo: R33503

FileID: 1-SAMP-R9014.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
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VOLATILE ORGANIC COMPOUNDS BY GC/MS

SW8260C/5030C

1,1-Dichloroethene	19.7	0.50		µg/L	1	11/01/19 15:36
4-Methyl-2-pentanone	ND	5.00		µg/L	1	11/01/19 15:36
Acetone	ND	10.0		µg/L	1	11/01/19 15:36
Benzene	1.88	0.50		µg/L	1	11/01/19 15:36
Chloroform	ND	0.50		µg/L	1	11/01/19 15:36
cis-1,2-Dichloroethene	1210 E	0.50		µg/L	1	11/01/19 15:36
Tetrachloroethene	1.99	0.50		µg/L	1	11/01/19 15:36
Toluene	ND	0.50		µg/L	1	11/01/19 15:36
trans-1,2-Dichloroethene	43.5	0.50		µg/L	1	11/01/19 15:36
Trichloroethene	685 E	0.50		µg/L	1	11/01/19 15:36
Vinyl chloride	96.4 E	1.00		µg/L	1	11/01/19 15:36
Xylenes (total)	ND	1.00		µg/L	1	11/01/19 15:36
Surr: 1,2-Dichloroethane-d4	110	75-130	%REC	1		11/01/19 15:36
Surr: 4-Bromofluorobenzene	105	75-125	%REC	1		11/01/19 15:36
Surr: Toluene-d8	100	75-125	%REC	1		11/01/19 15:36

Qualifiers:	* Value may exceed the Acceptable Level	B Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S Spike Recovery outside accepted recovery limits



Life Science Laboratories, Inc.

5854 Butternut Drive

East Syracuse, NY 13057

(315) 445-1900

Analytical Results

CLIENT:	O'Brien & Gere Engineers, Inc.	Lab ID:	1918264-003ADL
Project:	BMS Krutulis	Client Sample ID:	MW-3S-103019
W Order:	1918264		
Matrix:	GROUNDWATER	Collection Date:	10/30/19 11:10
Inst. ID:	MS04_73	Date Received:	10/30/19 16:10
ColumnID:	Rtx-VMS	PrepDate:	
Revision:	11/12/19 7:36	BatchNo:	R33503
Col Type:		FileID:	1-DL-R9057.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS						
				SW8260C/5030C		
1,1-Dichloroethene	18.6	10.0		µg/L	20	11/04/19 16:26
4-Methyl-2-pentanone	ND	100		µg/L	20	11/04/19 16:26
Acetone	ND	200		µg/L	20	11/04/19 16:26
Benzene	ND	10.0		µg/L	20	11/04/19 16:26
Chloroform	ND	10.0		µg/L	20	11/04/19 16:26
cis-1,2-Dichloroethene	4070 E	10.0		µg/L	20	11/04/19 16:26
Tetrachloroethene	ND	10.0		µg/L	20	11/04/19 16:26
Toluene	ND	10.0		µg/L	20	11/04/19 16:26
trans-1,2-Dichloroethene	39.6	10.0		µg/L	20	11/04/19 16:26
Trichloroethene	1070	10.0		µg/L	20	11/04/19 16:26
Vinyl chloride	107	20.0		µg/L	20	11/04/19 16:26
Xylenes (total)	ND	20.0		µg/L	20	11/04/19 16:26
Surr: 1,2-Dichloroethane-d4	113	75-130	%REC	20	11/04/19 16:26	
Surr: 4-Bromofluorobenzene	104	75-125	%REC	20	11/04/19 16:26	
Surr: Toluene-d8	96	75-125	%REC	20	11/04/19 16:26	

Qualifiers:	*	Value may exceed the Acceptable Level	B	Analyte detected in the associated Method Blank
	E	Value exceeds the instrument calibration range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below the PQL	ND	Not Detected at the Practical Quantitation Limit (PQL)
	P	Prim./Conf. column %D or RPD exceeds limit	S	Spike Recovery outside accepted recovery limits



Life Science Laboratories, Inc.

5854 Butternut Drive

East Syracuse, NY 13057

(315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT:	O'Brien & Gere Engineers, Inc.	Lab ID:	1918264-004A
Project:	BMS Krutulis	Client Sample ID:	MW-3D-J03019
W Order:	1918264	Collection Date:	10/30/19 11:20
Matrix:	GROUNDWATER	Date Received:	10/30/19 16:10
Inst. ID:	MS04_73	PrepDate:	
ColumnID:	Rtx-VMS	BatchNo:	R33503
Revision:	11/12/19 7:36	FileID:	1-SAMP-R9015.D
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS						
				SW8260C/5030C		
1,1-Dichloroethene	0.53	0.50		µg/L	1	11/01/19 16:08
4-Methyl-2-pentanone	ND	5.00		µg/L	1	11/01/19 16:08
Acetone	ND	10.0		µg/L	1	11/01/19 16:08
Benzene	ND	0.50		µg/L	1	11/01/19 16:08
Chloroform	ND	0.50		µg/L	1	11/01/19 16:08
cis-1,2-Dichloroethene	154 E	0.50		µg/L	1	11/01/19 16:08
Tetrachloroethene	ND	0.50		µg/L	1	11/01/19 16:08
Toluene	ND	0.50		µg/L	1	11/01/19 16:08
trans-1,2-Dichloroethene	36.7	0.50		µg/L	1	11/01/19 16:08
Trichloroethene	19.8	0.50		µg/L	1	11/01/19 16:08
Vinyl chloride	5.23	1.00		µg/L	1	11/01/19 16:08
Xylenes (total)	ND	1.00		µg/L	1	11/01/19 16:08
Surr: 1,2-Dichloroethane-d4	113	75-130		%REC	1	11/01/19 16:08
Surr: 4-Bromofluorobenzene	106	75-125		%REC	1	11/01/19 16:08
Surr: Toluene-d8	97	75-125		%REC	1	11/01/19 16:08

Qualifiers:	* Value may exceed the Acceptable Level	B Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S Spike Recovery outside accepted recovery limits



Life Science Laboratories, Inc.

5854 Butternut Drive

East Syracuse, NY 13057

(315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT:	O'Brien & Gere Engineers, Inc.	Lab ID:	1918264-004ADL
Project:	BMS Krutulis	Client Sample ID:	MW-3D-103019
W Order:	1918264	Collection Date:	10/30/19 11:20
Matrix:	GROUNDWATER	Date Received:	10/30/19 16:10
Inst. ID:	MS04_73	PrepDate:	
ColumnID:	Rtx-VMS	BatchNo:	R33503
Revision:	11/12/19 7:36	FileID:	1-DL-R9056.D
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS						
				SW8260C/5030C		
1,1-Dichloroethene	ND	1.00		µg/L	2	11/04/19 15:54
4-Methyl-2-pentanone	ND	10.0		µg/L	2	11/04/19 15:54
Acetone	ND	20.0		µg/L	2	11/04/19 15:54
Benzene	ND	1.00		µg/L	2	11/04/19 15:54
Chloroform	ND	1.00		µg/L	2	11/04/19 15:54
cis-1,2-Dichloroethene	157	1.00		µg/L	2	11/04/19 15:54
Tetrachloroethene	ND	1.00		µg/L	2	11/04/19 15:54
Toluene	ND	1.00		µg/L	2	11/04/19 15:54
trans-1,2-Dichloroethene	38.2	1.00		µg/L	2	11/04/19 15:54
Trichloroethene	17.8	1.00		µg/L	2	11/04/19 15:54
Vinyl chloride	5.02	2.00		µg/L	2	11/04/19 15:54
Xylenes (total)	ND	2.00		µg/L	2	11/04/19 15:54
Surr: 1,2-Dichloroethane-d4	109	75-130		%REC	2	11/04/19 15:54
Surr: 4-Bromofluorobenzene	104	75-125		%REC	2	11/04/19 15:54
Surr: Toluene-d8	97	75-125		%REC	2	11/04/19 15:54

Qualifiers:	* Value may exceed the Acceptable Level	B Analyte detected in the associated Method Blank
	E Value exceeds the instrument calibration range	H Holding times for preparation or analysis exceeded
	J Analyte detected below the PQL	ND Not Detected at the Practical Quantitation Limit (PQL)
	P Prim./Conf. column %D or RPD exceeds limit	S Spike Recovery outside accepted recovery limits



Life Science Laboratories, Inc.

5854 Butternut Drive

East Syracuse, NY 13057

(315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT:	O'Brien & Gere Engineers, Inc.	Lab ID:	1918264-005A
Project:	BMS Krutulis	Client Sample ID:	<i>MW-4-103019</i>
W Order:	1918264		
Matrix:	GROUNDWATER	Collection Date:	10/30/19 9:50
Inst. ID:	MS04_73	Date Received:	10/30/19 16:10
ColumnID:	Rtx-VMS	PrepDate:	
Revision:	11/15/19 9:09	BatchNo:	R33503
Col Type:		FileID:	1-SAMP-R9016.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS						
1,1-Dichloroethene	ND	0.50		µg/L	1	11/01/19 16:40
4-Methyl-2-pentanone	ND	5.00		µg/L	1	11/01/19 16:40
Acetone	ND	10.0		µg/L	1	11/01/19 16:40
Benzene	ND	0.50		µg/L	1	11/01/19 16:40
Chloroform	ND	0.50		µg/L	1	11/01/19 16:40
cis-1,2-Dichloroethene	1.85	0.50		µg/L	1	11/01/19 16:40
Tetrachloroethene	ND	0.50		µg/L	1	11/01/19 16:40
Toluene	ND	0.50		µg/L	1	11/01/19 16:40
trans-1,2-Dichloroethene	ND	0.50		µg/L	1	11/01/19 16:40
Trichloroethene	0.67	0.50		µg/L	1	11/01/19 16:40
Vinyl chloride	ND	1.00		µg/L	1	11/01/19 16:40
Xylenes (total)	ND	1.00		µg/L	1	11/01/19 16:40
Surr: 1,2-Dichloroethane-d4	114	75-130		%REC	1	11/01/19 16:40
Surr: 4-Bromofluorobenzene	103	75-125		%REC	1	11/01/19 16:40
Surr: Toluene-d8	99	75-125		%REC	1	11/01/19 16:40

Qualifiers:	* Value may exceed the Acceptable Level	B Analyte detected in the associated Method Blank
	E Value exceeds the instrument calibration range	H Holding times for preparation or analysis exceeded
	J Analyte detected below the PQL	ND Not Detected at the Practical Quantitation Limit (PQL)
	P Prim./Conf. column %D or RPD exceeds limit	S Spike Recovery outside accepted recovery limits



Life Science Laboratories, Inc.

5854 Butternut Drive

East Syracuse, NY 13057

(315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT: O'Brien & Gere Engineers, Inc.

Project: BMS Krutulis

W Order: 1918264

Matrix: GROUNDWATER

Inst. ID: MS04_73

Sample Size: NA

ColumnID: Rtx-VMS

%Moisture:

Revision: 11/12/19 7:36

TestCode: 8260W_KET

Col Type:

Lab ID: 1918264-006A

Client Sample ID: MW-5-103019

Collection Date: 10/30/19 13:20

Date Received: 10/30/19 16:10

PrepDate:

BatchNo: R33503

FileID: 1-SAMP-R9017.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS						
1,1-Dichloroethene	ND	0.50		µg/L	1	11/01/19 17:12
4-Methyl-2-pentanone	ND	5.00		µg/L	1	11/01/19 17:12
Acetone	ND	10.0		µg/L	1	11/01/19 17:12
Benzene	ND	0.50		µg/L	1	11/01/19 17:12
Chloroform	ND	0.50		µg/L	1	11/01/19 17:12
cis-1,2-Dichloroethene	0.87	0.50		µg/L	1	11/01/19 17:12
Tetrachloroethene	ND	0.50		µg/L	1	11/01/19 17:12
Toluene	ND	0.50		µg/L	1	11/01/19 17:12
trans-1,2-Dichloroethene	ND	0.50		µg/L	1	11/01/19 17:12
Trichloroethene	ND	0.50		µg/L	1	11/01/19 17:12
Vinyl chloride	ND	1.00		µg/L	1	11/01/19 17:12
Xylenes (total)	ND	1.00		µg/L	1	11/01/19 17:12
Surr: 1,2-Dichloroethane-d4	114	75-130		%REC	1	11/01/19 17:12
Surr: 4-Bromofluorobenzene	108	75-125		%REC	1	11/01/19 17:12
Surr: Toluene-d8	93	75-125		%REC	1	11/01/19 17:12

Qualifiers:	* Value may exceed the Acceptable Level	B Analyte detected in the associated Method Blank
	E Value exceeds the instrument calibration range	H Holding times for preparation or analysis exceeded
	J Analyte detected below the PQL	ND Not Detected at the Practical Quantitation Limit (PQL)
	P Prim./Conf. column %D or RPD exceeds limit	S Spike Recovery outside accepted recovery limits



Life Science Laboratories, Inc.

5854 Butternut Drive

East Syracuse, NY 13057

(315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT:	O'Brien & Gere Engineers, Inc.	Lab ID:	1918264-007A
Project:	BMS Krutulis	Client Sample ID:	MW-6S-103019
W Order:	1918264	Collection Date:	10/30/19 12:15
Matrix:	GROUNDWATER	Date Received:	10/30/19 16:10
Inst. ID:	MS04_73	PrepDate:	
ColumnID:	Rtx-VMS	BatchNo:	R33503
Revision:	11/12/19 7:36	FileID:	1-SAMP-R9018.D
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS						
				SW8260C/5030C		
1,1-Dichloroethene	ND	0.50		µg/L	1	11/01/19 17:44
4-Methyl-2-pentanone	ND	5.00		µg/L	1	11/01/19 17:44
Acetone	ND	10.0		µg/L	1	11/01/19 17:44
Benzene	ND	0.50		µg/L	1	11/01/19 17:44
Chloroform	ND	0.50		µg/L	1	11/01/19 17:44
cis-1,2-Dichloroethene	0.55	0.50		µg/L	1	11/01/19 17:44
Tetrachloroethene	ND	0.50		µg/L	1	11/01/19 17:44
Toluene	ND	0.50		µg/L	1	11/01/19 17:44
trans-1,2-Dichloroethene	ND	0.50		µg/L	1	11/01/19 17:44
Trichloroethene	0.57	0.50		µg/L	1	11/01/19 17:44
Vinyl chloride	ND	1.00		µg/L	1	11/01/19 17:44
Xylenes (total)	ND	1.00		µg/L	1	11/01/19 17:44
Surr: 1,2-Dichloroethane-d4	105	75-130		%REC	1	11/01/19 17:44
Surr: 4-Bromofluorobenzene	114	75-125		%REC	1	11/01/19 17:44
Surr: Toluene-d8	92	75-125		%REC	1	11/01/19 17:44

Qualifiers:	* Value may exceed the Acceptable Level	B Analyte detected in the associated Method Blank
	E Value exceeds the instrument calibration range	H Holding times for preparation or analysis exceeded
	J Analyte detected below the PQL	ND Not Detected at the Practical Quantitation Limit (PQL)
	P Prim./Conf. column %D or RPD exceeds limit	S Spike Recovery outside accepted recovery limits



Life Science Laboratories, Inc.

5854 Butternut Drive

East Syracuse, NY 13057

(315) 445-1900

Analytical Results

StateCertNo: 10248

CLIENT:	O'Brien & Gere Engineers, Inc.	Lab ID:	1918264-008A
Project:	BMS Krutulis	Client Sample ID:	MW-6D-103019
W Order:	1918264	Collection Date:	10/30/19 12:25
Matrix:	GROUNDWATER	Date Received:	10/30/19 16:10
Inst. ID:	MS04_73	PrepDate:	
ColumnID:	Rtx-VMS	BatchNo:	R33503
Revision:	11/12/19 7:36	FileID:	1-SAMP-R9019.D
Col Type:			

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS						
				SW8260C/5030C		
1,1-Dichloroethene	ND	0.50		µg/L	1	11/01/19 18:16
4-Methyl-2-pentanone	ND	5.00		µg/L	1	11/01/19 18:16
Acetone	ND	10.0		µg/L	1	11/01/19 18:16
Benzene	ND	0.50		µg/L	1	11/01/19 18:16
Chloroform	ND	0.50		µg/L	1	11/01/19 18:16
cis-1,2-Dichloroethene	16.2	0.50		µg/L	1	11/01/19 18:16
Tetrachloroethene	ND	0.50		µg/L	1	11/01/19 18:16
Toluene	ND	0.50		µg/L	1	11/01/19 18:16
trans-1,2-Dichloroethene	0.87	0.50		µg/L	1	11/01/19 18:16
Trichloroethene	1.08	0.50		µg/L	1	11/01/19 18:16
Vinyl chloride	4.46	1.00		µg/L	1	11/01/19 18:16
Xylenes (total)	ND	1.00		µg/L	1	11/01/19 18:16
Surr: 1,2-Dichloroethane-d4	113	75-130		%REC	1	11/01/19 18:16
Surr: 4-Bromofluorobenzene	110	75-125		%REC	1	11/01/19 18:16
Surr: Toluene-d8	94	75-125		%REC	1	11/01/19 18:16

Qualifiers:	* Value may exceed the Acceptable Level	B Analyte detected in the associated Method Blank
	E Value exceeds the instrument calibration range	H Holding times for preparation or analysis exceeded
	J Analyte detected below the PQL	ND Not Detected at the Practical Quantitation Limit (PQL)
	P Prim./Conf. column %D or RPD exceeds limit	S Spike Recovery outside accepted recovery limits



Life Science Laboratories, Inc.

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Analytical Results

StateCertNo: 10248

CLIENT: O'Brien & Gere Engineers, Inc.

Project: BMS Krutulis

W Order: 1918264

Matrix: WATER Q

Inst. ID: MS04_73

Sample Size: NA

ColumnID: Rtx-VMS

%Moisture:

Revision: 11/12/19 7:36

TestCode: 8260W_KET

Col Type:

Lab ID: 1918264-009A

Client Sample ID: Trip Blank-103019

Collection Date: 10/30/19 0:00

Date Received: 10/30/19 16:10

PrepDate:

BatchNo: R33503

FileID: 1-SAMP-R9020.D

Analyte	Result	Qual	PQL	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOUNDS BY GC/MS						
				SW8260C/5030C		
1,1-Dichloroethene	ND	0.50		µg/L	1	11/01/19 18:48
4-Methyl-2-pentanone	ND	5.00		µg/L	1	11/01/19 18:48
Acetone	ND	10.0		µg/L	1	11/01/19 18:48
Benzene	ND	0.50		µg/L	1	11/01/19 18:48
Chloroform	ND	0.50		µg/L	1	11/01/19 18:48
cis-1,2-Dichloroethene	ND	0.50		µg/L	1	11/01/19 18:48
Tetrachloroethene	ND	0.50		µg/L	1	11/01/19 18:48
Toluene	ND	0.50		µg/L	1	11/01/19 18:48
trans-1,2-Dichloroethene	ND	0.50		µg/L	1	11/01/19 18:48
Trichloroethene	ND	0.50		µg/L	1	11/01/19 18:48
Vinyl chloride	ND	1.00		µg/L	1	11/01/19 18:48
Xylenes (total)	ND	1.00		µg/L	1	11/01/19 18:48
Surr: 1,2-Dichloroethane-d4	113	75-130		%REC	1	11/01/19 18:48
Surr: 4-Bromofluorobenzene	106	75-125		%REC	1	11/01/19 18:48
Surr: Toluene-d8	97	75-125		%REC	1	11/01/19 18:48

Qualifiers:	* Value may exceed the Acceptable Level	B Analyte detected in the associated Method Blank
E	Value exceeds the instrument calibration range	H Holding times for preparation or analysis exceeded
J	Analyte detected below the PQL	ND Not Detected at the Practical Quantitation Limit (PQL)
P	Prim./Conf. column %D or RPD exceeds limit	S Spike Recovery outside accepted recovery limits

Life Science Laboratories, Inc.

5854 Butternut Drive
East Syracuse, NY 13057

Chain of Custody Record

Phone # (315) 445-1900

Telefax # (315) 445-1104

Ransoll

Phone #

315-456-6100
Fax #

33 W. Washington St.
Syracuse NY 13032

1918264

Chucks
Shope, PE.
Client's I.D.:
BMS-Kratulis

Client:		Contact Person:		LSL Project #:					
LSL Sample Number	Client's Sample Identifications	Sample Date	Sample Time	Type	Preserv. Added	Containers	Analyses	Free Cl (mg/L)	Pres. Check
MW-1	001 AB	MW-1 - 103019	10/30/19	14:50	X	GW	HCl	2 60 v/v	EPA 8260
MW-2	002	MW-2 - 103019	10/30/19	14:10	X	GW	HCl	2 60 v/v	
MW-3	003	MW-3 - 103019	10/30/19	11:10	X	GW	HCl	2 60 v/v	
MW-3D	004	MW-3D - 103019	10/30/19	11:20	X	GW	HCl	2 60 v/v	
MW-4	005	MW-4 - 103019	10/30/19	09:50	X	GW	HCl	2 60 v/v	
MW-5	006	MW-5 - 103019	10/30/19	13:20	X	GW	HCl	2 60 v/v	
MW-6	007	MW-6 - 103019	10/30/19	12:15	X	GW	HCl	2 60 v/v	
MW-6D	008	MW-6D - 103019	10/30/19	12:25	X	GW	HCl	2 60 v/v	
	009 ✓	TB-103019	10/30/19	-		GW	HCl	2 60 v/v	
Please Fill Out Completely									
SAMPLES MUST BE RECEIVED ON ICE									
Custody Transfers									
Sampled and Relinquished By: Print Name: Scott Moshay	Signature: <i>Scott Moshay</i>		Date: 10/30/19	Time: 16:10					
Received By:									
Relinquished By:			Received By:						
Received for Lab By:			Received By:						
Samples Received		Samples Received Intact: Y N							
On Ice		80°c							
Shipment Method:		10/30/19 16:10							

Life Science Laboratories, Inc.

Sample Receipt Checklist

Client Name: OBG-MS

Date and Time Received:

10/30/2019 4:10:00 PM

Work Order Number: 1918264

Received by:

rsd

Checklist completed by:

Initials

ys

Date

10-31-19

Reviewed by:

Initials

DN

Date

Delivery Method: Hand Delivered

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Water - VOA vials have zero headspace?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input checked="" type="checkbox"/>

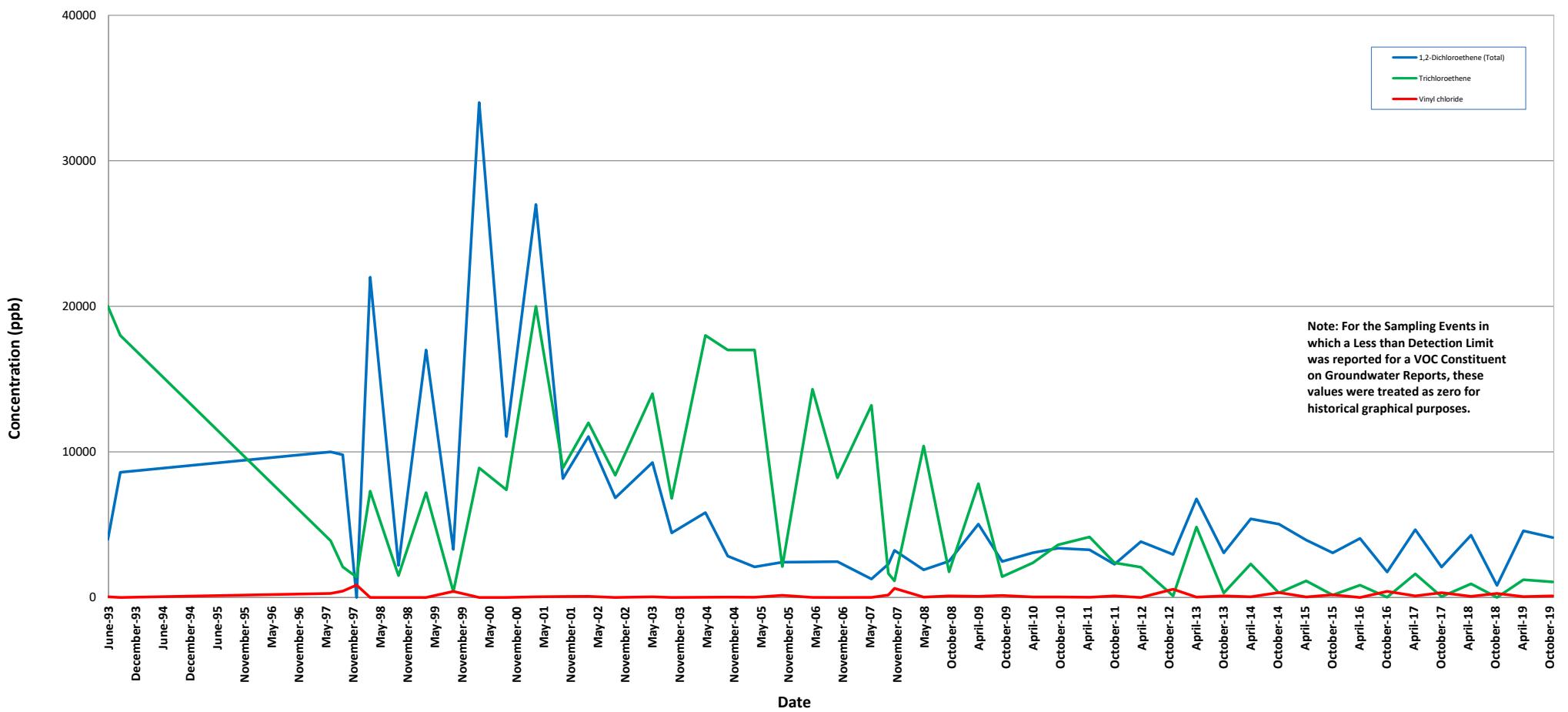
Comments:

Corrective Action:

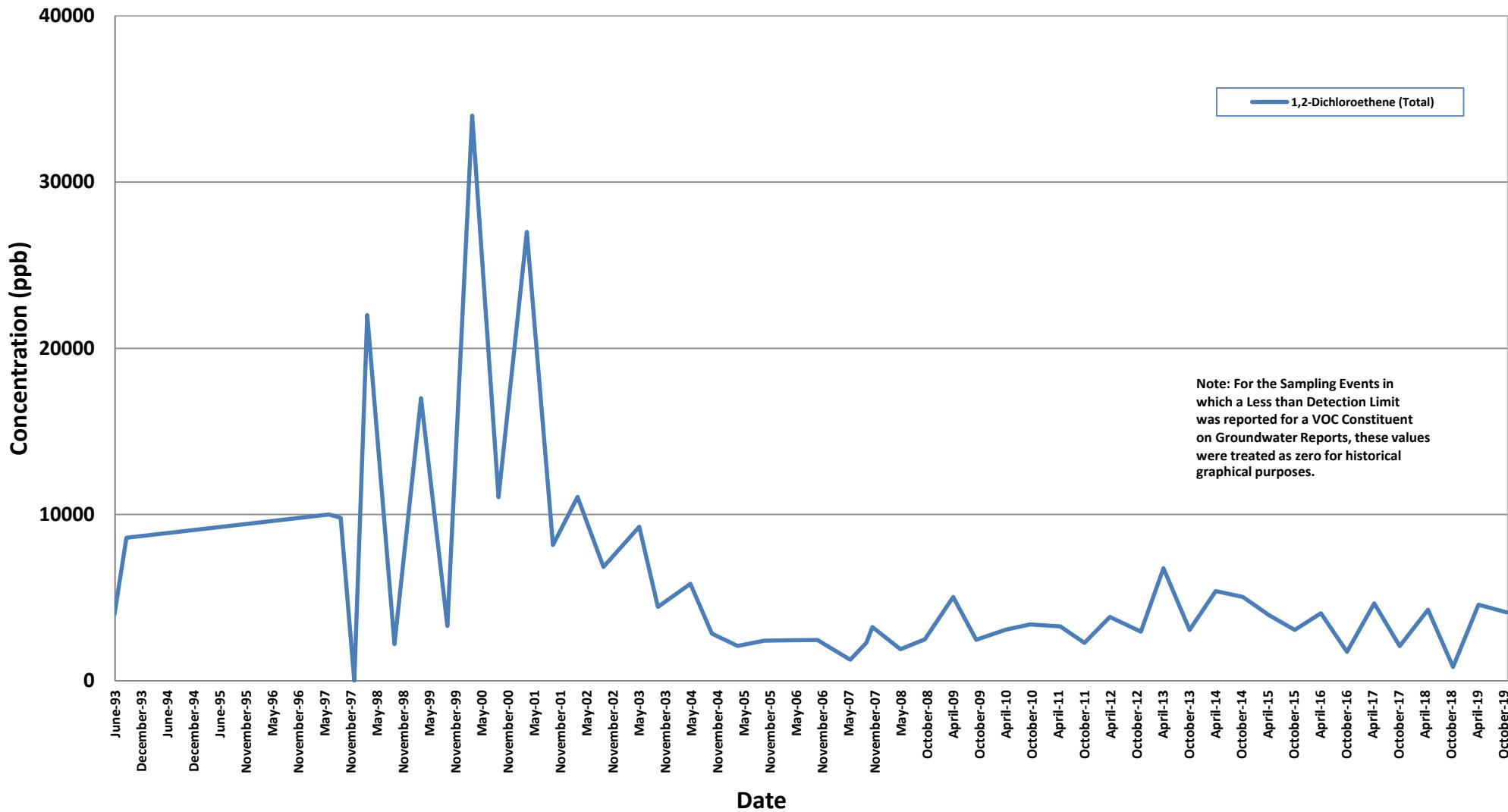
ATTACHMENT 2
HISTORIC GRAPHS FOR MW-3S, MW-3D, AND MW-6D

MW-3S HISTORIC GRAPHS

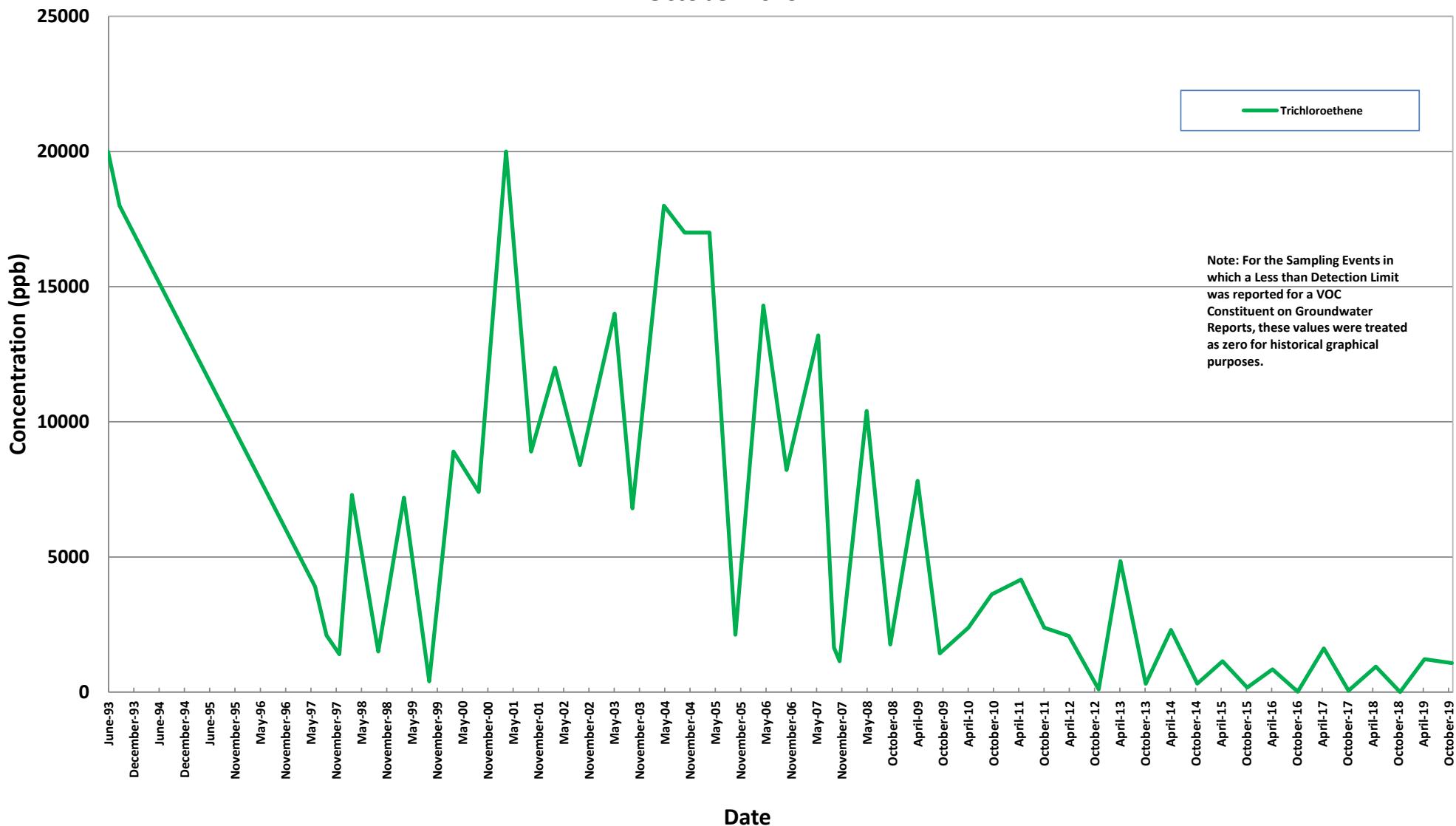
Krutulis Site
Monitoring Well - MW-3S
VOC Historical Data
October 2019



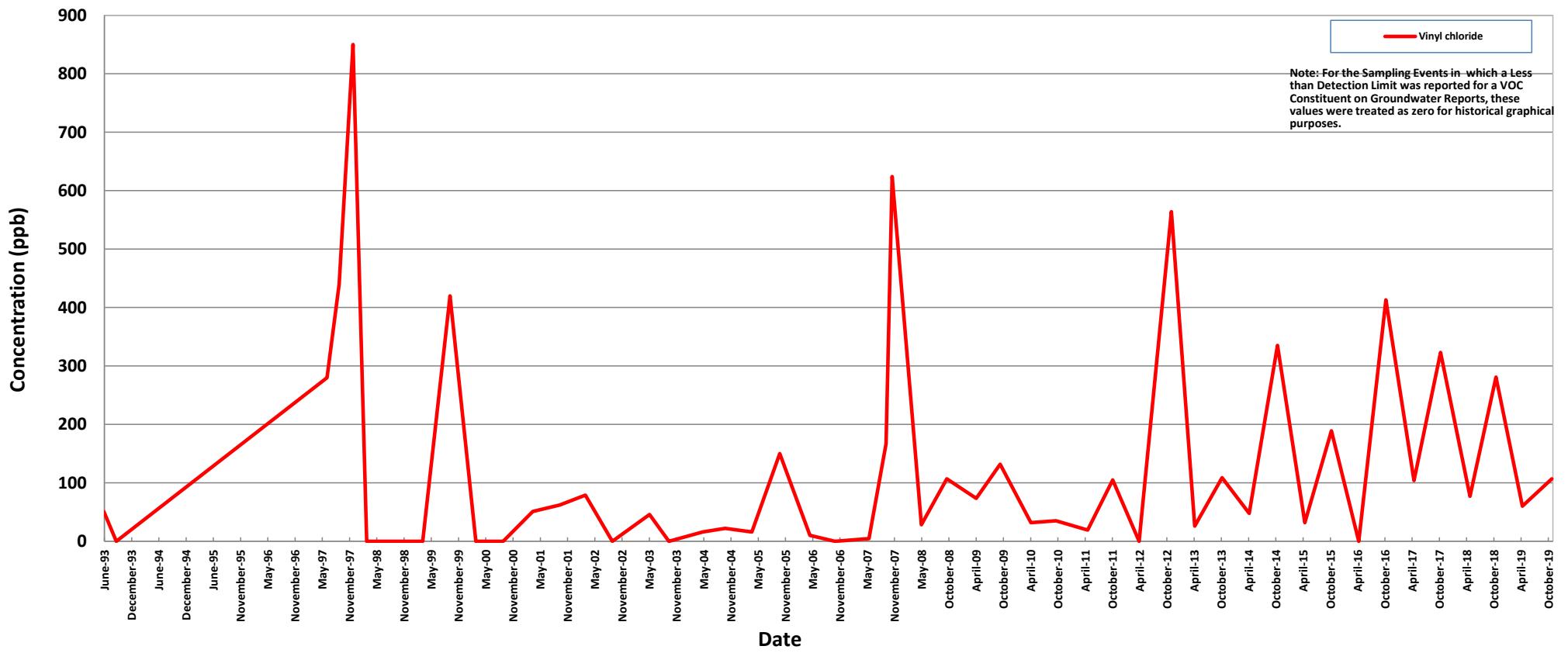
Krutulis Site
Monitoring Well - MW-3S
1,2-Dichloroethene (Total) Historical Data
October 2019



Krutulis Site
Monitoring Well - MW-3S
Trichloroethene Historical Data
October 2019

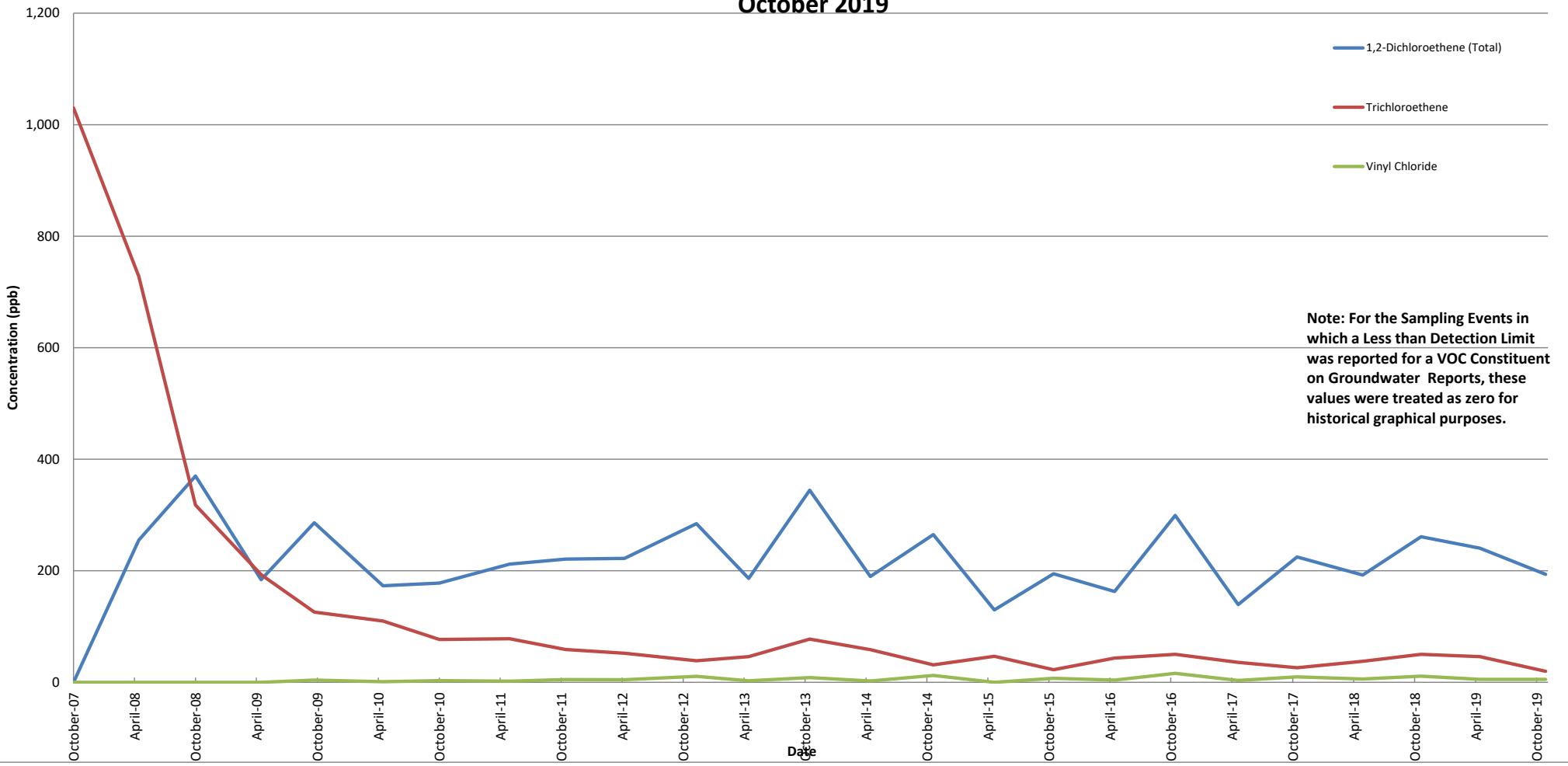


Krutulis Site
Monitoring Well - MW-3S
Vinyl Chloride Historical Data
October 2019

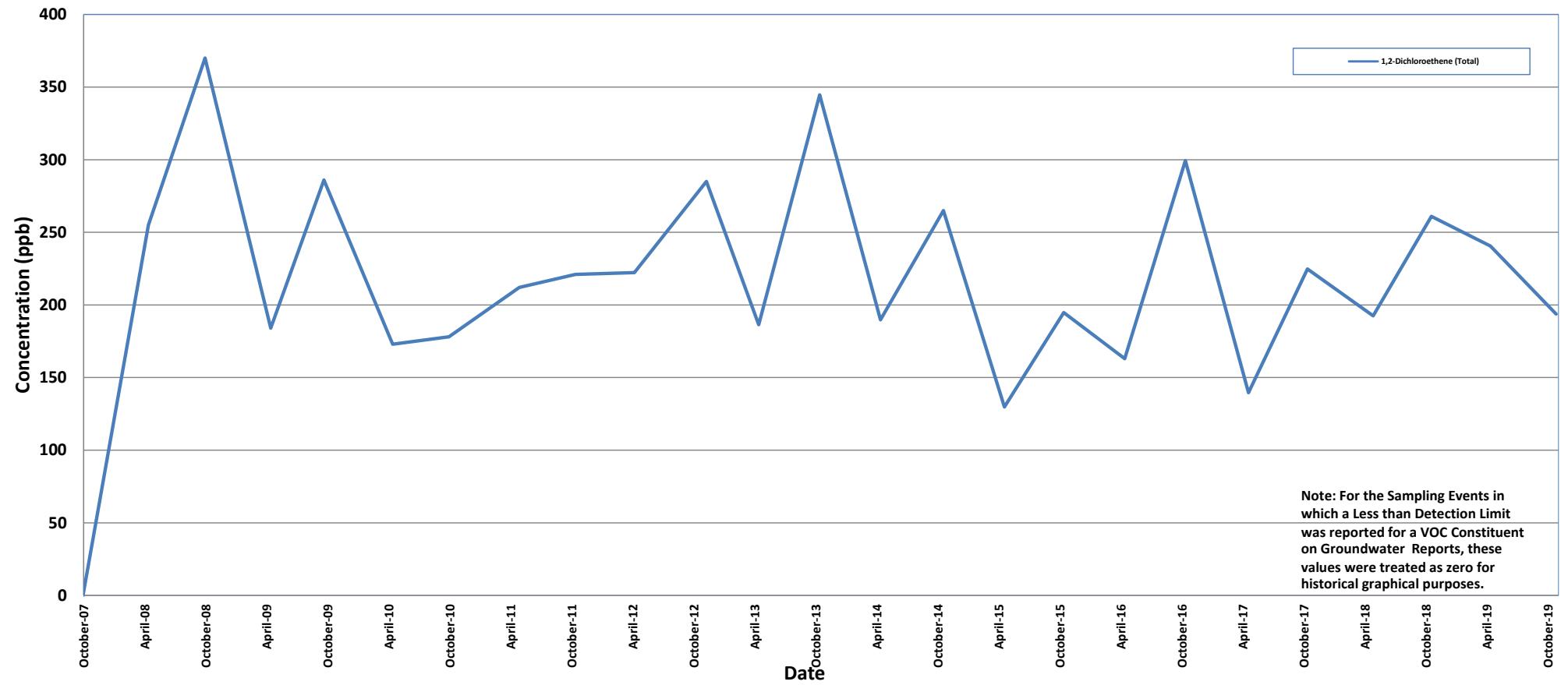


MW-3D HISTORIC GRAPHS

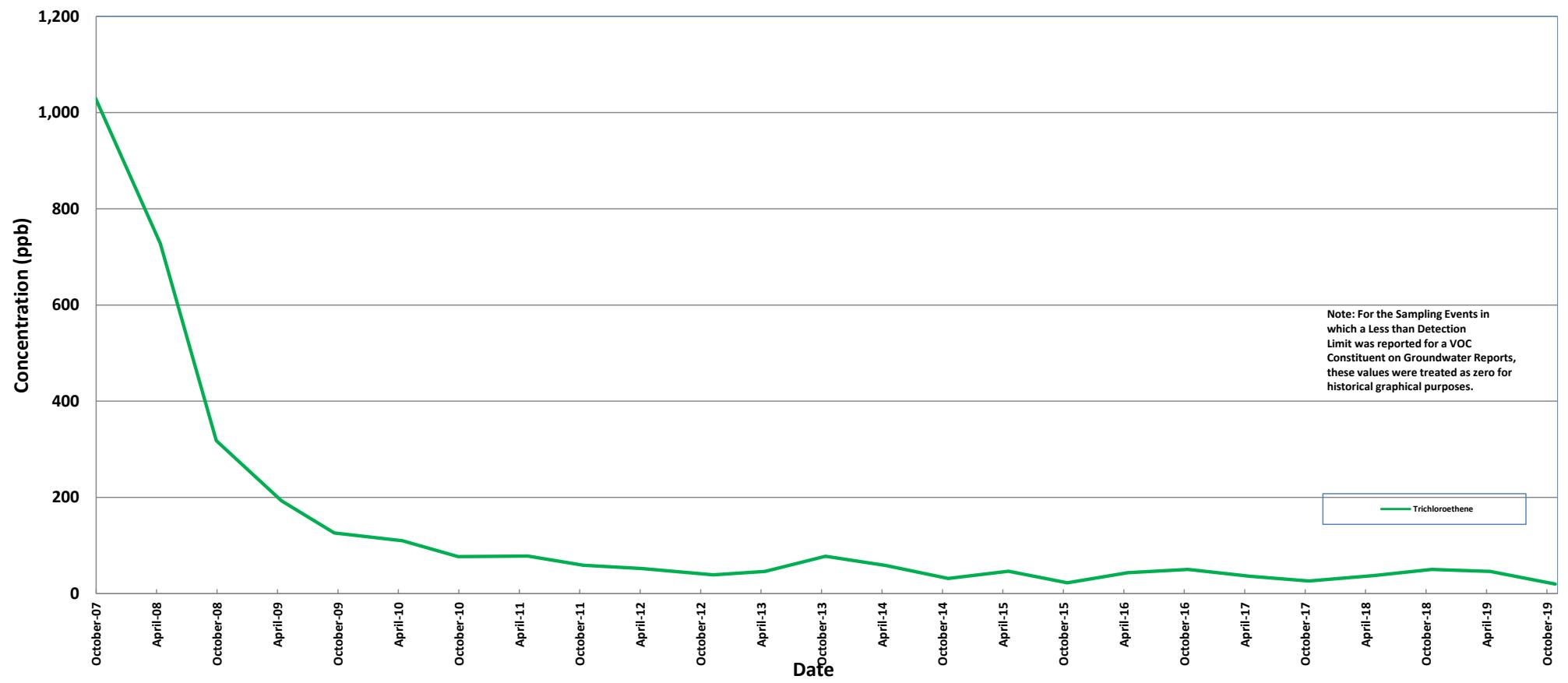
BMS-Krutulis Site
Monitoring Well - MW-3D
VOC Historical Results
October 2019



BMS-Krutulis Site
Monitoring Well - MW-3D
1,2-Dichloroethene (Total) Historical Results
October 2019

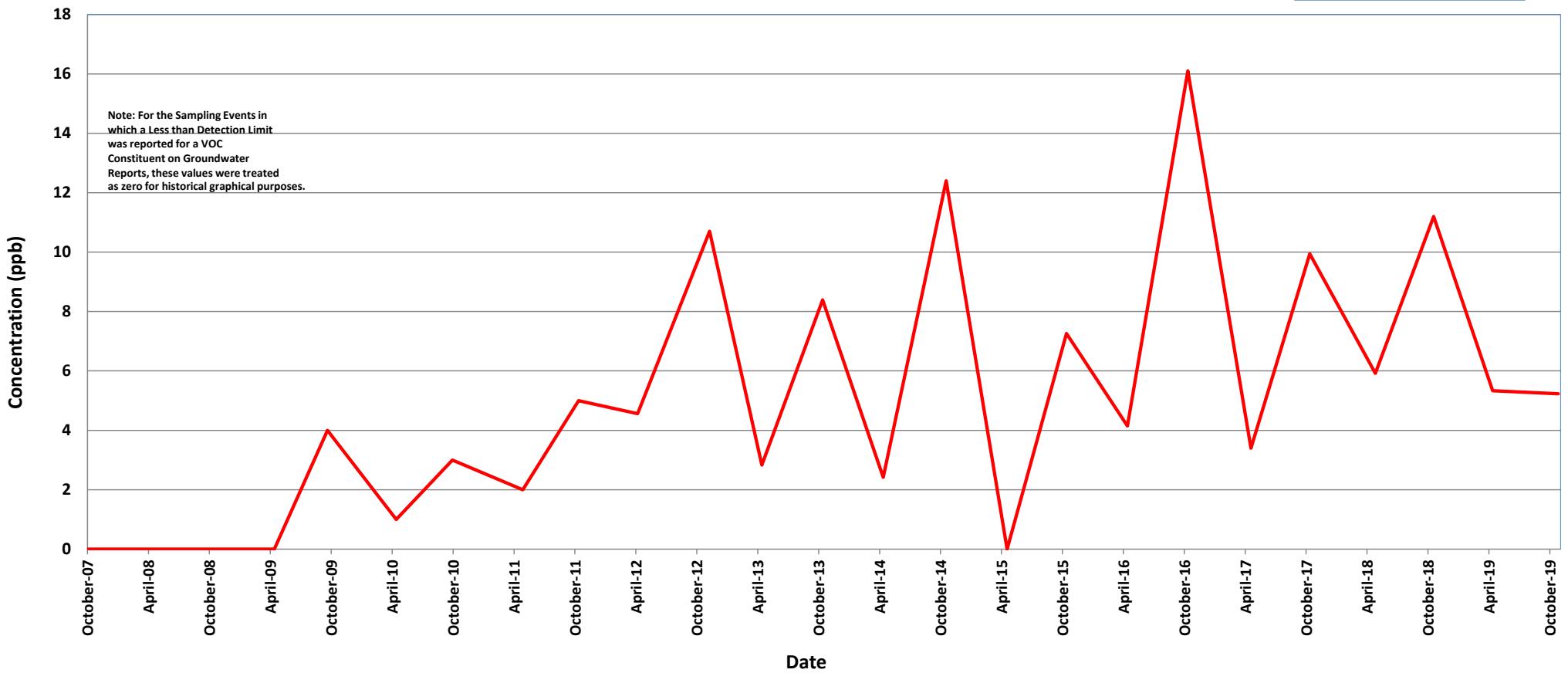


BMS-Krutulis Site
Monitoring Well - MW-3D
Trichloroethene Historical Results
October 2019



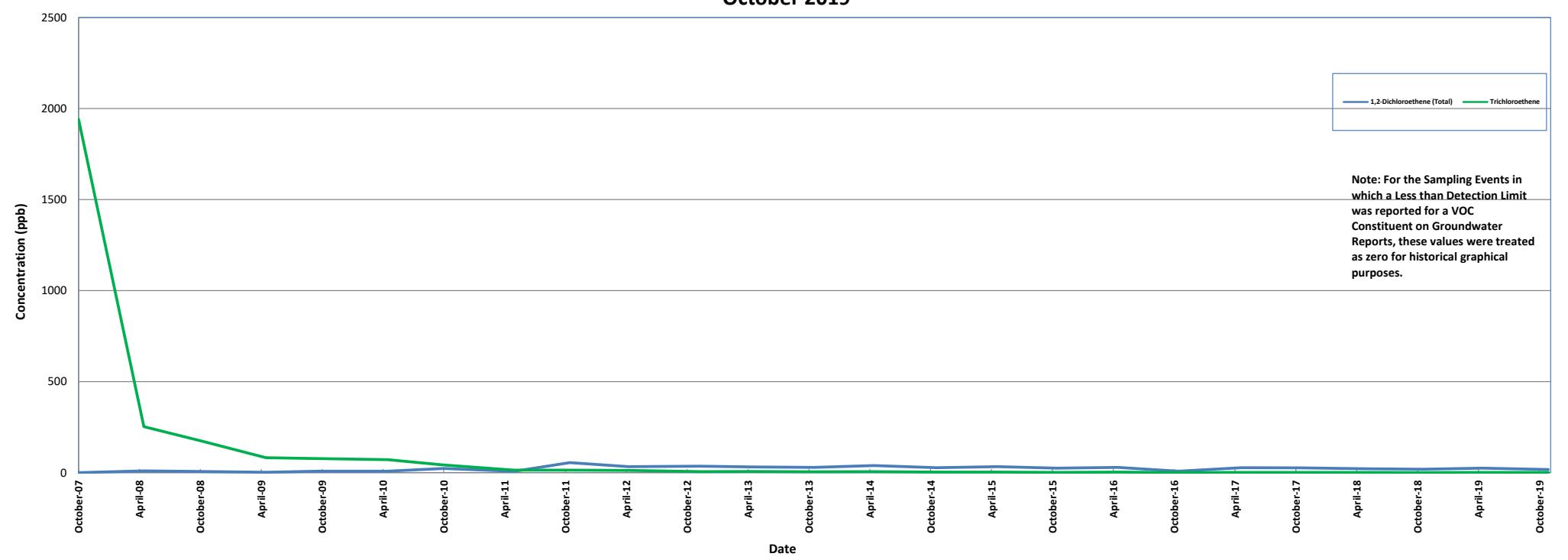
BMS-Krutulis Site
Monitoring Well - MW-3D
Vinyl Chloride Historical Results
October 2019

Vinyl Chloride

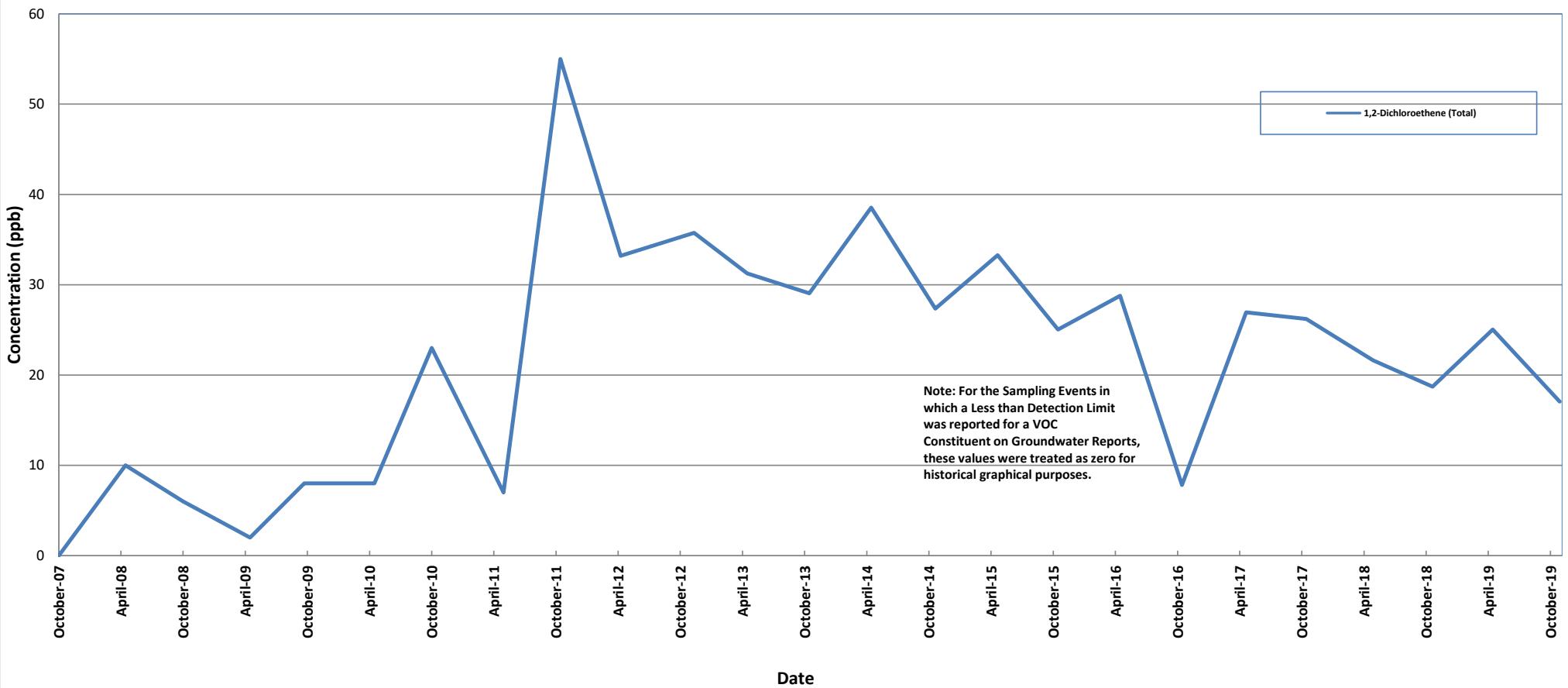


MW-6D HISTORIC GRAPHS

BMS-Krutulis Site
Monitoring Well - MW-6D
VOC Historical Results
October 2019



BMS-Krutulis Site
Monitoring Well - MW-6D
1,2-Dichloroethene (Total) Historical Results
October 2019



BMS-Krutulis Site
Monitoring Well - MW-6D
Trichloroethene Historical Results
October 2019

