



October 30, 2017

Michael D. MacCabe, P.E.
Senior Environmental Engineer
Division of Environmental Remediation
NYS Department of Environmental Conservation
625 Broadway, 12th Floor
Albany, NY 12233-7016

**Re: Site Status Update Report
Former Mobil Station #17-EMW
304 Columbia Street
Brooklyn, New York
NYSDEC Spill #89-04339**

Dear Mr. MacCabe:

Please find the enclosed *Site Status Update Report* for work performed between July through September 2017 for the Former Mobil Station #17-EMW (“the Site”) located at 304 Columbia Street in Brooklyn, New York. During this monitoring period, the following work was performed:

Quarterly Groundwater Monitoring

The 3rd quarter groundwater monitoring event was conducted on September 7th, 2017. Sixteen (16) monitoring wells were gauged (MW-1 through MW-3, MW-5, MW-8A, MW-10 through MW-20). Fourteen (14) monitoring wells were sampled (MW-1, MW-3, MW-5, MW-8A, MW-10 through MW-12, MW-14, MW-15, MW-17 through MW-20). Samples collected were analyzed for BTEX and MTBE via EPA Method 8260. Monitoring well MW-9 could not be located and therefore was not gauged or sampled. Monitoring well MW-7A was inaccessible and therefore was not gauged or sampled. LPH was detected in monitoring wells MW-2 (0.56 feet), and MW-13 (0.09 feet), and MW-16 (0.01) during the 3rd quarter 2017 groundwater monitoring event.

Dissolved BTEX concentrations ranged from non-detect at one (1) well (MW-5) to 13,499 µg/L (MW-10). Dissolved MTBE concentrations ranged from non-detect at eleven (11) wells (MW-1, MW-3, MW-5, MW-8A, MW-10, MW-12, MW-14, and MW-16 through MW-19) to 6.3 µg/L (MW-20).

The next groundwater monitoring event will be conducted in December 2017 and the 4th Quarter 2017 Site Status Update Report will be submitted in January 2018.

*3rd Quarter 2017 Site Status Update Report
Former Mobil Station #17-EMW
Brooklyn, New York*



Should you have any questions or comments regarding the information provided herein, please contact Michael DeGloria at (866) 839-5195, extension 3839.

Respectfully Submitted,
Groundwater & Environmental Services, Inc.

Dustin Gagliano
Associate Environmental Scientist

Michael DeGloria, P.G.
Senior Project Manager

Enclosure

cc: Elaine Lamm-Exxon Mobil Environmental Services Company



EXXONMOBIL ENVIRONMENTAL SERVICES COMPANY SITE STATUS UPDATE REPORT

Site ID:	Former Mobil Station #17-EMW	Regulatory Agency:	NYSDEC - Region 2
Site Address:	304 Columbia Street Brooklyn, New York	Regulatory Contact:	Michael MacCabe, P.E.
ExxonMobil Contact:	Elaine Lamm	NYSDEC Spill #(s):	89-04339
Consultant:	Groundwater & Environmental Services, Inc. (GES)	GES Project Manager:	Michael DeGloria, P.G.

Report Date: October 30, 2017

Monitoring Period: July through September 2017

Current Site Status: The Site is currently an automobile repair facility.

Work Performed:

- September 7, 2017 - Conducted quarterly groundwater monitoring activities which included the gauging of sixteen (16) monitoring wells were gauged (MW-1 through MW-3, MW-5, MW-8A, MW-10 through MW-20). Fourteen (14) monitoring wells were sampled (MW-1, MW-3, MW-5, MW-8A, MW-10 through MW-12, MW-14, MW-15, MW-17 through MW-20). Monitoring well MW-9 could not be located and therefore was not gauged or sampled. Monitoring well MW-7A was inaccessible and therefore was not gauged or sampled. Monitoring wells MW-2 and MW-13 contained measurable product and were not sampled.

Groundwater Monitoring:

Number of Wells:	<p>Total = 18</p> <p><u>On-Site Wells:</u> MWs (14): MW-1 through MW-3, MW-5, MW-7A, MW-11 through MW-14 and MW-16 through MW-20</p> <p><u>Off-Site Wells:</u> MWs (4): MW-8A, MW-9, MW-10 and MW-15</p>
Gauging Frequency:	Quarterly
LPH:	0.01 feet (MW-16), 0.09 (MW-13), and 0.56 feet (MW-2).
Groundwater Depth:	7.86 feet (MW-17) to 9.66 (MW-12) feet below TOC
Groundwater Flow:	South/southwest.
Sampling Frequency:	Quarterly
Groundwater Analytical Results:	<p><u>BTEX:</u> ND at one (1) well (MW-5) to 13,499 µg/L (MW-10).</p> <p><u>MTBE:</u> ND at eleven (11) wells (MW-1, MW-3, MW-5, MW-8A, MW-10, MW-12, MW-14, and MW-16 through MW-19) to 6.3 µg/L (MW-20).</p>



Proposed Plans:

- Conduct quarterly groundwater sampling in December 2017.
- Prepare a Site Status Update Report in January 2018 documenting quarterly Site activities.

Attachments:

Table 1 – Historical Groundwater Monitoring Summary

Figure 1 – Groundwater Monitoring Map – September 7, 2017

Attachment A – List of Acronyms

Attachment B – Site History

Attachment C – Laboratory Analytical Results – Groundwater

TABLE

Table 1



HISTORICAL GROUNDWATER MONITORING SUMMARY

Former Mobil Station # 17-EMW

304 Columbia Street

Brooklyn, New York

Well	Date	Casing Elevation (ft)	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Adjusted Groundwater Elevation (ft)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (ug/L)	Xylenes, Total (µg/L)	Total BTEX (µg/L)	MTBE (µg/L)	Comments
			NYSDEC TOGS 1.1 WQS				1	5	5	5	NS	10	
MW-1	2/28/2005	100.00	8.48	8.47	0.01	91.54	-	-	-	-	-	-	
	6/6/2005		8.41	8.40	0.01	91.60	-	-	-	-	-	-	
	9/8/2005		9.10	9.02	0.08	91.02	-	-	-	-	-	-	
	12/29/2005		7.95	7.94	0.01	92.07	-	-	-	-	-	-	
	3/20/2006		8.69	8.60	0.09	91.45	-	-	-	-	-	-	
	6/7/2006		7.65	-	-	92.35	-	-	-	-	-	-	
	9/14/2006		7.70	7.51	0.19	92.59	-	-	-	-	-	-	
	12/7/2006		7.88	7.62	0.26	92.51	-	-	-	-	-	-	
	3/29/2007		8.44	8.28	0.16	91.80	-	-	-	-	-	-	
	6/13/2007		-	-	-	-	-	-	-	-	-	-	
	9/19/2007		9.03	8.68	0.35	91.50	-	-	-	-	-	-	NM
	12/11/2007		9.10	9.08	0.02	90.93	-	-	-	-	-	-	
	3/13/2008		8.46	-	-	91.54	220	79.8	830	414	1,543.8	14.9	
	6/6/2008		8.61	-	-	91.39	271	89.1	817	481	1,658.1	17.3	
	12/30/2008		8.24	-	-	91.76	216	67.8	539	336	1,158.8	13.2	
	3/16/2009		9.41	-	-	90.59	215	78.8	761	474	1,528.8	9	
	6/8/2009		8.23	-	-	91.77	24	88.4	551	692	1,355.4	ND < 5	
	7/20/2009		8.48	8.20	0.28	91.94	-	-	-	-	-	-	
	9/24/2009		9.12	8.98	0.14	91.09	-	-	-	-	-	-	
	12/3/2009		8.96	8.86	0.10	91.19	-	-	-	-	-	-	
	3/3/2010		7.98	-	-	92.02	109	75.2	948	293	1,425.2	3.6	
	6/7/2010		8.31	8.27	0.04	91.75	-	-	-	-	-	-	
	9/1/2010		9.36	-	-	90.64	89.3	86.5	1,010	405	1,590.8	ND < 20	
	12/3/2010		9.13	9.10	0.03	90.91	-	-	-	-	-	-	
	3/29/2011		8.01	7.84	0.17	92.25	-	-	-	-	-	-	
	6/16/2011		5.53	5.13	0.40	95.07	-	-	-	-	-	-	
	8/8/2011		9.06	8.88	0.18	91.21	-	-	-	-	-	-	
	9/19/2011		7.75	7.37	0.38	92.82	-	-	-	-	-	-	
	12/5/2011		8.24	8.12	0.12	91.94	-	-	-	-	-	-	
	3/16/2012		9.32	9.29	0.03	90.73	-	-	-	-	-	-	
	6/8/2012		8.44	-	-	91.56	33.0	29.2	199	147	408.2	ND < 1.00	
	9/7/2012		8.81	-	-	91.19	33.5	20.5	270	119	443	ND < 1.00	
	12/18/2012		8.93	-	-	91.07	33.5	25.4	363	203	624.9	ND < 1.00	
	3/14/2013		8.71	-	-	91.29	42.8	38.0	378	227	685.8	ND < 1.00	
	6/24/2013		7.59	-	-	92.41	37.5	36.0	464	224	761.5	ND < 1.00	
	9/6/2013		8.93	8.85	0.08	91.19	-	-	-	-	-	-	
	9/26/2013		9.14	8.98	0.16	91.10	-	-	-	-	-	-	
	10/23/2013		9.41	9.37	0.04	90.65	-	-	-	-	-	-	
	11/11/2013		9.74	-	-	90.26	-	-	-	-	-	-	
	12/10/2013		9.88	-	-	90.12	16.7	28.7	315	211	571.4	ND < 1.00	COULD NOT GAUGE
1/21/2014		9.09	9.05	0.04	90.97	-	-	-	-	-	-		
3/10/2014		-	-	-	-	25.1	25.1	286	208	544.2	1.43	COULD NOT GAUGE	
6/3/2014		8.10	-	-	91.90	20.0	ND < 20.0	371	200	591	ND < 20.0		
10/2/2014		9.59	9.47	0.12	90.59	33.6	42.7	484	321	881.3	ND < 1.00		
12/3/2014		8.73	-	-	91.27	42.9	39.6	472	336	890.5	ND < 5.00	SHEEN	
3/11/2015		8.41	-	-	91.59	17.1	11.7	93.1	135	256.9	ND < 1.00		
6/18/2015		8.65	8.58	0.07	91.46	-	-	-	-	-	-		
9/9/2015		7.98	7.90	0.08	92.14	38.5	21.8	277	167	504.3	ND < 1.00		
12/10/2015		9.57	9.33	0.24	90.79	-	-	-	-	-	-		
3/16/2016		8.63	8.37	0.26	91.76	-	-	-	-	-	-		
6/15/2016		8.95	8.77	0.18	91.32	-	-	-	-	-	-		
9/19/2016		9.50	9.35	0.15	90.73	-	-	-	-	-	-		
12/8/2016		8.90	8.70	0.20	91.40	-	-	-	-	-	-		
3/16/2017		-	-	-	-	-	-	-	-	-	-		
6/26/2017		8.15	7.82	0.33	92.35	-	-	-	-	-	-		
9/7/2017		8.36	-	-	91.64	42.4	19.2	287	193	541.6	ND < 1.0		
MW-2	2/28/2005	100.16	8.78	8.77	0.01	91.40	-	-	-	-	-	-	
	6/6/2005		8.66	8.65	0.01	91.52	-	-	-	-	-	-	
	9/8/2005		9.87	9.62	0.25	90.67	-	-	-	-	-	-	
	12/29/2005		8.26	8.25	0.01	91.91	-	-	-	-	-	-	
	3/20/2006		8.96	8.88	0.08	91.32	-	-	-	-	-	-	
	6/7/2006		7.73	-	-	92.43	-	-	-	-	-	-	
	9/14/2006		7.90	7.58	0.32	92.74	-	-	-	-	-	-	
	12/7/2006		8.20	7.80	0.40	92.56	-	-	-	-	-	-	
	3/29/2007		8.81	8.72	0.09	91.49	-	-	-	-	-	-	
	6/13/2007		8.15	7.72	0.43	92.66	-	-	-	-	-	-	
	9/19/2007		9.18	8.68	0.50	91.73	-	-	-	-	-	-	
	12/11/2007		9.35	9.28	0.07	90.91	-	-	-	-	-	-	
	3/13/2008		8.77	-	-	91.39	204	18	130	109	461	ND < 2	
	6/6/2008		9.10	-	-	91.06	378	25	137	93.3	633.3	71	
	12/30/2008		8.56	-	-	91.60	305	27	50	84.4	466.4	37	
3/16/2009		9.71	-	-	90.45	246	18	23	53.4	340.4	67		
6/8/2009		8.61	8.53	0.08	91.67	-	-	-	-	-	-		
7/20/2009		9.47	8.35	1.12	92.37	-	-	-	-	-	-		
9/24/2009		9.06	9.01	0.05	91.18	-	-	-	-	-	-		
12/3/2009		9.75	9.05	0.70	91.46	-	-	-	-	-	-		

HISTORICAL GROUNDWATER MONITORING SUMMARY

Former Mobil Station # 17-EMW

304 Columbia Street

Brooklyn, New York

Well	Date	Casing Elevation (ft)	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Adjusted Groundwater Elevation (ft)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (ug/L)	Xylenes, Total (µg/L)	Total BTEX (µg/L)	MTBE (µg/L)	Comments
NYSDEC TOGS 1.1.1 WQS													
MW-2 (cont)	3/3/2010	100.16	8.30	8.27	0.03	91.91	1	5	5	5	NS	10	
	6/7/2010		9.07	8.36	0.71	92.16	-	-	-	-	-	-	
	9/1/2010		9.94	-	-	90.22	530	22	202	105	859	155	
	12/3/2010		9.37	-	-	90.79	500	52.4	336	232	1,120.4	120	
	3/29/2011		8.74	8.08	0.66	92.41	-	-	-	-	-	-	
	6/16/2011		9.80	8.30	1.50	92.61	-	-	-	-	-	-	
	8/8/2011		9.43	9.06	0.37	91.29	-	-	-	-	-	-	
	9/19/2011		7.81	7.50	0.31	92.82	-	-	-	-	-	-	
	12/5/2011		9.10	8.42	0.68	92.08	-	-	-	-	-	-	
	3/16/2012		10.10	9.58	0.52	90.84	-	-	-	-	-	-	
	6/8/2012		8.75	8.72	0.03	91.46	-	-	-	-	-	-	
	9/7/2012		8.95	8.91	0.04	91.27	-	-	-	-	-	-	
	12/18/2012		10.02	9.89	0.13	90.34	-	-	-	-	-	-	
	3/14/2013		9.65	9.60	0.05	90.59	-	-	-	-	-	-	
	6/24/2013		8.30	7.95	0.35	92.39	-	-	-	-	-	-	
	9/6/2013		9.07	9.02	0.05	91.16	-	-	-	-	-	-	
	10/7/2013		9.34	-	-	90.82	-	-	-	-	-	-	
	10/23/2013		9.70	9.67	0.03	90.51	-	-	-	-	-	-	
	11/11/2013		10.05	-	-	90.11	-	-	-	-	-	-	
	12/10/2013		10.08	-	-	90.08	258	18.5	204	109	589.5	39.1	COULD NOT GAUGE
	1/21/2014		9.33	-	-	90.83	-	-	-	-	-	-	
	3/10/2014		-	-	-	-	-	-	-	-	-	-	COULD NOT GAUGE
	6/3/2014		8.34	8.28	0.06	91.91	-	-	-	-	-	-	
	10/2/2014		9.76	9.64	0.12	90.58	487	23.7	201	162	873.7	2.63	
	12/3/2014		8.96	-	-	91.20	754	34.5	353	177	1,318.5	ND < 5.00	
	3/11/2015		-	-	-	-	-	-	-	-	-	-	INACCESSIBLE
	6/18/2015		9.12	8.86	0.26	91.43	-	-	-	-	-	-	
	9/9/2015		9.67	9.12	0.55	91.32	373	15.3	249	394	1,031.3	1.51	
	12/10/2015		9.95	9.55	0.40	90.81	-	-	-	-	-	-	
	3/16/2016		9.11	8.67	0.44	91.71	-	-	-	-	-	-	
6/15/2016		9.35	9.00	0.35	91.34	-	-	-	-	-	-		
9/19/2016		10.12	9.67	0.45	90.72	-	-	-	-	-	-		
12/8/2016		9.12	9.00	0.12	91.22	-	-	-	-	-	-		
3/16/2017		9.55	9.20	0.35	91.14	493	32.7	213	227	965.7	1.17		
6/26/2017		8.67	8.05	0.62	92.42	-	-	-	-	-	-		
9/7/2017		9.07	8.51	0.56	91.93	-	-	-	-	-	-		
MW-3	2/28/2005	100.43	9.32	-	-	91.11	120	38.5	167	151	476.5	13.1	
	6/6/2005		9.21	-	-	91.22	37.6	22.5	135	113	308.1	3.5	
	9/8/2005		9.67	-	-	90.76	86	23.5	47.9	139	296.4	7.8	
	12/29/2005		8.50	-	-	91.93	11.3	0.88	28.9	15.3	56.38	0.88	
	3/20/2006		9.98	-	-	90.45	218	12.1	94.6	61.9	386.6	24.7	
	6/7/2006		7.51	-	-	92.92	9.9	2.6	27.2	12.1	51.8	ND < 1	
	9/14/2006		7.57	-	-	92.86	17.8	ND < 1	20.8	3.9	42.5	ND < 1	
	12/7/2006		7.90	-	-	92.53	10.4	ND < 1	15.7	2	28.1	0.51	
	3/29/2007		8.69	-	-	91.74	0.94	ND < 1	5.1	1	7.04	ND < 1	
	6/13/2007		7.95	-	-	92.48	3.6	ND < 1	6.8	0.52	10.92	ND < 1	
	9/19/2007		9.45	-	-	90.98	61.8	1.70	63.2	7.8	134.5	9.5	
	12/11/2007		9.75	-	-	90.68	71.3	12.8	101	24.8	209.9	7.4	
	3/13/2008		8.56	-	-	91.87	10.8	ND < 1	3	0.72	14.52	ND < 1	
	6/6/2008		9.46	-	-	90.97	76.1	9.5	46.5	17.9	150	15	
	12/30/2008		8.49	-	-	91.94	5.8	0.44	0.28	ND < 1	6.52	0.53	
	3/16/2009		10.02	-	-	90.41	113	13.5	6	20.8	153.3	20.2	
	6/8/2009		8.33	-	-	92.10	1.7	ND < 1	1.4	ND < 1	3.1	ND < 1	
	7/20/2009		9.39	-	-	91.04	92	4	10.6	13.4	120	13.2	
	9/24/2009		9.57	-	-	90.86	153	12.1	79.5	97.3	341.9	ND < 1	
	12/3/2009		9.60	-	-	90.83	92.7	8.4	90.4	79.1	270.6	3.1	
	3/3/2010		8.18	-	-	92.25	0.27	ND < 1	1.7	1.6	3.57	ND < 1	
	6/7/2010		9.18	-	-	91.25	3	0.50	6.8	3.2	13.5	1.2	
	9/1/2010		10.66	-	-	89.77	49.3	28.8	164	170	412.1	25.8	
	12/3/2010		9.58	-	-	90.85	3.9	2.7	30.9	26.5	64	ND < 1	
	3/29/2011		8.25	-	-	92.18	ND < 1	ND < 1	0.36	0.33	0.69	ND < 1	
	6/16/2011		8.90	-	-	91.53	2.8	2.1	49.5	31.2	85.6	ND < 5	
	8/8/2011		9.51	-	-	90.92	23.1	17.4	157	114	311.5	ND < 1	
	3/16/2012		9.97	-	-	90.46	25	43	867	386	1,321	ND < 1	
	6/8/2012		9.27	-	-	91.16	14.9	27.0	389	208	638.9	ND < 1.00	
	9/7/2012		9.41	-	-	91.02	3.67	7.33	110	83.2	204.2	ND < 1.00	
	12/18/2012		9.51	-	-	90.92	19.2	31.6	378	278	706.8	ND < 1.00	
	3/14/2013		9.47	-	-	90.96	15.7	36.7	319	277	648.4	1.42	
	6/24/2013		8.07	-	-	92.36	ND < 1.00	3.05	63.9	68.2	135.15	ND < 1.00	
9/4/2013		9.72	-	-	90.71	7.74	14.1	127	113	261.84	6.86		
9/6/2013		9.76	-	-	90.67	7.74	14.1	127	113	261.84	6.86		
11/11/2013		10.85	-	-	89.58	-	-	-	-	-	-		
12/10/2013		10.55	-	-	89.88	4.18	18.5	222	211	455.68	ND < 1.00	COULD NOT GAUGE	
1/21/2014		9.78	-	-	90.65	-	-	-	-	-	-		
3/10/2014		-	-	-	-	1.60	5.32	75.7	118	200.62	1.26	COULD NOT GAUGE	
6/3/2014		8.56	-	-	91.87	ND < 1.00	1.26	28.3	43.2	72.76	ND < 1.00		

HISTORICAL GROUNDWATER MONITORING SUMMARY

Former Mobil Station # 17-EMW

304 Columbia Street

Brooklyn, New York

Well	Date	Casing Elevation (ft)	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Adjusted Groundwater Elevation (ft)	NYSDEC TOGS 1.1.1 WQS				Total BTEX (µg/L)	MTBE (µg/L)	Comments	
							Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)				
MW-3 (cont)	10/2/2014	100.43	10.29	-	-	90.14	3.21	4.44	12.2	118	137.85	ND < 1.00		
	12/3/2014		9.50	-	-	90.93	1.08	2.15	20.8	61.7	85.73	ND < 1.00		
	3/11/2015		8.19	-	-	92.24	ND < 1.00	ND < 1.00	1.63	2.95	4.58	ND < 1.00		
	6/18/2015		9.52	-	-	90.91	ND < 1.00	1.12	5.18	26.4	32.7	ND < 1.00		
	9/9/2015		-	-	-	-	-	-	-	-	-	-	INACCESSIBLE	
	12/10/2015		-	-	-	-	-	-	-	-	-	-	INACCESSIBLE	
	3/16/2016		9.19	-	-	91.24	ND < 1.00	ND < 1.00	ND < 1.00	ND < 3.00	ND	ND < 1.00		
	9/19/2016		8.45	-	-	91.98	ND < 1.00*	ND < 1.00*	8.66	11.6	20.26	ND < 1.00		
	12/8/2016		9.26	-	-	91.17	ND < 1.00	ND < 1.00	ND < 1.00	ND < 3.00	ND	ND < 1.00		
	3/16/2017		-	-	-	-	-	-	-	-	-	-	CNL	
	6/26/2017		-	-	-	-	-	-	-	-	-	-	INACCESSIBLE	
	9/7/2017		8.26	-	-	92.17	ND < 0.50	ND < 1.0	1.7	0.67	2.37	ND < 1.0		
MW-4	2/28/2005	100.05	9.02	-	-	91.03	50	2.6	11	25	88.6	ND < 1		
	6/6/2005		9.18	-	-	90.87	4.6	ND < 1	0.49	ND < 1	5.09	ND < 1		
	12/29/2005		8.54	-	-	91.51	ND < 1	ND < 1	ND < 1	ND < 1	ND	ND < 1		
	3/20/2006		9.16	-	-	90.89	9.1	ND < 1	0.62	0.59	10.31	ND < 1		
	6/7/2006		8.00	-	-	92.05	ND < 1	ND < 1	ND < 1	ND < 1	ND	ND < 1		
	9/14/2006	NSD	-	-	-	-	-	-	-	-	-	-	WELL DESTROYED	
MW-5	2/28/2005	101.15	8.47	-	-	92.68	0.86	ND < 1	1.6	8.1	10.56	3.1		
	6/6/2005		8.73	-	-	92.42	ND < 1	ND < 1	ND < 1	ND < 1	ND	ND < 1		
	9/8/2005		-	-	-	-	ND < 1	ND < 1	4.7	7.3	12	ND < 1	NM	
	12/29/2005		7.95	-	-	93.20	ND < 1	ND < 1	ND < 1	ND < 1	ND	ND < 1		
	3/20/2006		8.63	-	-	92.52	ND < 1	ND < 1	ND < 1	ND < 1	ND	ND < 1		
	6/7/2006		8.12	-	-	93.03	ND < 1	ND < 1	ND < 1	ND < 1	0.65	0.65	ND < 1	
	12/7/2006		7.97	-	-	93.18	ND < 1	ND < 1	ND < 1	ND < 1	ND	ND < 1		
	3/29/2007		8.10	-	-	93.05	ND < 1	ND < 1	ND < 1	ND < 1	ND	ND < 1		
	6/13/2007		7.68	-	-	93.47	ND < 1	ND < 1	ND < 1	ND < 1	ND	ND < 1		
	9/19/2007		8.96	-	-	92.19	ND < 1	ND < 1	ND < 1	ND < 1	ND	ND < 1		
	12/11/2007		9.20	-	-	91.95	ND < 1	ND < 1	ND < 1	ND < 1	ND	ND < 1		
	3/13/2008		8.56	-	-	92.59	ND < 1	ND < 1	ND < 1	ND < 1	ND	ND < 1		
	6/6/2008		8.85	-	-	92.30	ND < 1	ND < 1	ND < 1	ND < 1	ND	ND < 1		
	12/30/2008		8.09	-	-	93.06	ND < 1	ND < 1	ND < 1	ND < 1	ND	ND < 1		
	3/16/2009		9.41	-	-	91.74	ND < 1	ND < 1	ND < 1	ND < 1	ND	ND < 1		
	6/8/2009		8.40	-	-	92.75	ND < 1	ND < 1	ND < 1	ND < 1	ND	ND < 1		
	7/20/2009		8.63	-	-	92.52	-	-	-	-	-	-	-	
	9/24/2009		9.29	-	-	91.86	ND < 1	ND < 1	ND < 1	ND < 1	ND	ND < 1		
	12/3/2009		9.00	-	-	92.15	ND < 1	ND < 1	ND < 1	ND < 1	ND	ND < 1		
	3/3/2010		7.74	-	-	93.41	ND < 1	ND < 1	ND < 1	ND < 1	0.35	0.35	ND < 1	
	6/7/2010		8.73	-	-	92.42	ND < 1	ND < 1	ND < 1	ND < 1	ND	ND < 1		
	9/1/2010		9.61	-	-	91.54	ND < 1	ND < 1	ND < 1	ND < 1	ND	ND < 1		
	12/3/2010		9.40	-	-	91.75	ND < 1	ND < 1	ND < 1	ND < 1	ND	0.35		
	3/29/2011		7.91	-	-	93.24	ND < 1	ND < 1	ND < 1	ND < 1	ND	ND < 1		
	6/16/2011		8.60	-	-	92.55	ND < 1	ND < 1	ND < 1	ND < 1	0.25	0.25	ND < 1	
	8/8/2011		9.17	-	-	91.98	ND < 1	ND < 1	ND < 1	ND < 1	ND	1.3		
	9/19/2011		7.64	-	-	93.51	ND < 1	ND < 1	ND < 1	ND < 1	ND	ND < 1		
	12/5/2011		8.40	-	-	92.75	ND < 0.22	ND < 0.15	ND < 0.21	ND < 0.17	ND	ND < 0.18		
	3/16/2012		9.37	-	-	91.78	ND < 1	ND < 1	ND < 1	ND < 3	ND	ND < 1		
	6/8/2012		8.60	-	-	92.55	ND < 1.00	ND < 1.00	ND < 1.00	ND < 3.00	ND	ND < 1.00		
	9/7/2012		9.19	-	-	91.96	ND < 1.00	ND < 1.00	ND < 1.00	ND < 3.00	ND	ND < 1.00		
	12/18/2012		9.01	-	-	92.14	ND < 1.00	ND < 1.00	ND < 1.00	ND < 3.00	ND	ND < 1.00		
	3/14/2013		8.42	-	-	92.73	ND < 1.00	ND < 1.00	ND < 1.00	ND < 3.00	ND	ND < 1.00		
	6/24/2013		8.16	-	-	92.99	ND < 1.00	ND < 1.00	ND < 1.00	ND < 3.00	ND	ND < 1.00		
	9/4/2013		9.21	-	-	91.94	ND < 1.00	ND < 1.00	ND < 1.00	ND < 2.00	ND	ND < 1.00		
	9/6/2013		9.22	-	-	91.93	ND < 1.00	ND < 1.00	ND < 1.00	ND < 2.00	ND	ND < 1.00		
	12/10/2013		9.68	-	-	91.47	ND < 1.00	ND < 1.00	ND < 1.00	ND < 3.00	ND	ND < 1.00	COULD NOT GAUGE	
	1/21/2014		-	-	-	-	-	-	-	-	-	-	-	
	3/10/2014		-	-	-	-	-	ND < 1.00	ND < 1.00	ND < 1.00	ND < 3.00	ND	ND < 1.00	COULD NOT GAUGE
	6/3/2014		8.52	-	-	92.63	ND < 1.00	ND < 1.00	ND < 1.00	ND < 2.00	ND	ND < 1.00		
	10/2/2014		10.11	-	-	91.04	ND < 1.00	ND < 1.00	ND < 1.00	ND < 2.00	ND	ND < 1.00		
	12/3/2014		9.20	-	-	91.95	ND < 1.00	ND < 1.00	ND < 1.00	ND < 2.00	ND	ND < 1.00		
3/11/2015		8.65	-	-	92.50	ND < 1.00	ND < 1.00	ND < 1.00	ND < 2.00	ND	ND < 1.00			
6/18/2015		8.60	-	-	92.55	ND < 1.00	ND < 1.00	ND < 1.00	ND < 3.00	ND	ND < 1.00			
9/9/2015		8.98	-	-	92.17	ND < 1.00	ND < 1.00	ND < 1.00	ND < 3.00	ND	ND < 1.00			
12/10/2015		9.74	-	-	91.41	ND < 1.00	ND < 1.00	ND < 1.00	ND < 3.00	ND	ND < 1.00			
3/16/2016		8.44	-	-	92.71	ND < 1.00	ND < 1.00	ND < 1.00	ND < 3.00	ND	ND < 1.00			
6/15/2016		8.93	-	-	92.22	ND < 1.00	ND < 1.00	ND < 1.00	ND < 3.00	ND	ND < 1.00			
9/19/2016		10.31	-	-	90.84	ND < 1.00	ND < 1.00	ND < 1.00	ND < 3.00	ND	ND < 1.00			
12/8/2016		9.06	-	-	92.09	ND < 1.00	ND < 1.00	ND < 1.00	ND < 3.00	ND	ND < 1.00			
3/16/2017		-	-	-	-	-	-	-	-	-	-	INACCESSIBLE		
6/26/2017		8.30	-	-	92.85	ND < 0.50	ND < 1.0	ND < 1.0	ND < 1.0	ND	ND < 1.0			
9/7/2017		9.12	-	-	92.03	ND < 0.50	ND < 1.0	ND < 1.0	ND < 1.0	ND	ND < 1.0			
MW-6A	2/28/2005	101.17	8.29	-	-	92.88	ND < 1	ND < 1	ND < 1	ND < 1	ND	ND < 1		
	6/6/2005	NSD	-	-	-	-	-	-	-	-	-	-	WELL DESTROYED	

HISTORICAL GROUNDWATER MONITORING SUMMARY

Former Mobil Station # 17-EMW

304 Columbia Street

Brooklyn, New York

Well	Date	Casing Elevation (ft)	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Adjusted Groundwater Elevation (ft)	NYSDEC TOGS 1.1.1 WQS				Total BTEX (µg/L)	MTBE (µg/L)	Comments
							Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)			
MW-7A	2/28/2005	101.24	9.67	-	-	91.57	151	3.8	5	8.8	166.6	2.5	
	6/6/2005		9.59	-	-	91.65	13	ND < 1	ND < 1	ND < 1	13	ND < 1	
	12/29/2005	101.24	9.27	-	-	91.97	105	1	5.2	4	115.2	3.2	
	3/20/2006		9.57	-	-	91.67	9.4	ND < 1	ND < 1	0.46	9.86	0.51	
	6/7/2006		8.72	-	-	92.52	328	9.2	20	49	406.2	1.8	
	9/14/2006		8.52	-	-	92.72	4.7	ND < 1	0.35	ND < 1	5.05	ND < 1	
	12/7/2006		8.75	-	-	92.49	ND < 1	ND < 1	ND < 1	ND < 1	ND	ND < 1	
	3/29/2007		9.48	-	-	91.76	291	6	8.2	17	322.2	ND < 1	
	6/13/2007		8.56	-	-	92.68	448	18	28	53	547	2.4	
	9/19/2007		9.55	-	-	91.69	ND < 1	ND < 1	ND < 1	ND < 1	ND	ND < 1	
	12/11/2007		10.27	-	-	90.97	ND < 1	ND < 1	ND < 1	ND < 1	ND	2.3	
	3/13/2008		9.56	-	-	91.68	202	3.7	8.4	10	224.1	ND < 2.0	
	6/6/2008		9.74	-	-	91.50	4.5	ND < 1	ND < 1	ND < 1	4.5	0.31	
	12/30/2008		9.53	-	-	91.71	335	4.6	3.4	21	364	1.9	
	3/16/2009		10.58	-	-	90.66	ND < 1	ND < 1	ND < 1	ND < 1	ND	ND < 1	
	6/8/2009		9.52	-	-	91.72	30	ND < 1	ND < 1	ND < 1	30	ND < 1	
	7/20/2009		8.98	-	-	92.26	1	ND < 1	ND < 1	ND < 1	1	0.48	
	9/24/2009		10.07	-	-	91.17	ND < 1	ND < 1	ND < 1	ND < 1	ND	ND < 1	
	12/3/2009		10.11	-	-	91.13	ND < 1	ND < 1	ND < 1	ND < 1	ND	0.52	
	3/3/2010		9.41	-	-	91.83	145	2.9	5.5	5.6	159	1.2	
	6/7/2010		9.36	-	-	91.88	0.36	ND < 1	ND < 1	ND < 1	0.36	ND < 1	
	9/1/2010		10.50	-	-	90.74	ND < 1	ND < 1	ND < 1	ND < 1	ND	ND < 1	
	12/3/2010		10.31	-	-	90.93	ND < 1	ND < 1	ND < 1	ND < 1	ND	ND < 1	
	3/29/2011		8.87	-	-	92.37	1.7	ND < 1	ND < 1	ND < 1	1.7	ND < 1	
	6/16/2011		9.55	9.30	0.25	92.06	-	-	-	-	-	-	
	8/8/2011		9.99	9.98	0.01	91.26	-	-	-	-	-	-	
	9/19/2011		-	-	-	-	-	-	-	-	-	-	INACCESSIBLE
	3/16/2012		10.48	-	-	90.76	107	1.31	3.55	ND < 3	111.86	1.09	
	6/8/2012		9.76	-	-	91.48	143	4.03	25.3	7.23	179.56	1.12	
	9/7/2012		10.02	-	-	91.22	14.4	ND < 1.00	ND < 1.00	ND < 3.00	14.4	ND < 1.00	
	12/18/2012		10.13	-	-	91.11	12.9	ND < 1.00	ND < 1.00	ND < 3.00	12.9	ND < 1.00	
	3/14/2013		9.85	-	-	91.39	88.8	1.84	12.4	8.73	111.77	ND < 1.00	
	6/24/2013		8.76	-	-	92.48	45.8	ND < 1.00	3.81	ND < 3.00	49.61	ND < 1.00	
	9/4/2013		9.96	9.91	0.05	91.35	ND < 1.00	ND < 1.00	ND < 1.00	ND < 2.00	ND	ND < 1.00	
	9/6/2013		10.05	9.99	0.06	91.28	ND < 1.00	ND < 1.00	ND < 1.00	ND < 2.00	ND	ND < 1.00	
	12/10/2013		-	-	-	-	-	-	-	-	-	-	INACCESSIBLE
	1/21/2014		-	-	-	-	-	-	-	-	-	-	
	3/10/2014		-	-	-	-	9.00	ND < 1.00	ND < 1.00	ND < 3.00	9	ND < 1.00	COULD NOT GAUGE
	6/3/2014		9.21	-	-	92.03	2.07	ND < 1.00	ND < 1.00	ND < 2.00	2.07	ND < 1.00	
	10/2/2014		10.60	-	-	90.64	3.16	ND < 1.00	ND < 1.00	ND < 2.00	3.16	ND < 1.00	
	12/3/2014		9.77	-	-	91.47	6.83	ND < 1.00	ND < 1.00	ND < 2.00	6.83	ND < 1.00	
	3/11/2015		-	-	-	-	-	-	-	-	-	-	INACCESSIBLE
6/18/2015		-	-	-	-	-	-	-	-	-	-	INACCESSIBLE	
9/9/2015		10.14	-	-	91.10	ND < 1.00	ND < 1.00	ND < 1.00	ND < 3.00	ND	ND < 1.00		
12/10/2015		10.48	-	-	90.76	ND < 1.00	ND < 1.00	ND < 1.00	ND < 3.00	ND	ND < 1.00		
3/16/2016		9.48	-	-	91.76	ND < 1.00	ND < 1.00	ND < 1.00	ND < 3.00	ND	ND < 1.00		
6/15/2016		9.98	-	-	91.26	ND < 1.00	ND < 1.00	ND < 1.00	ND < 3.00	ND	ND < 1.00		
9/19/2016		10.02	-	-	91.22	ND < 1.00	ND < 1.00	ND < 1.00	ND < 3.00	ND	ND < 1.00		
12/8/2016		9.83	-	-	91.41	6.27	ND < 1.00	ND < 1.00	ND < 3.00	6.27	ND < 1.00		
3/16/2017		10.01	-	-	91.23	ND < 1.00	ND < 1.00	ND < 1.00	ND < 3.00	ND	ND < 1.00		
6/26/2017		-	-	-	-	-	-	-	-	-	-	INACCESSIBLE	
9/7/2017		-	-	-	-	-	-	-	-	-	-	INACCESSIBLE	
MW-8A	2/28/2005	100.59	10.02	-	-	90.57	1,430	369	1,020	3,180	5,999	4,720	
	6/6/2005		9.48	-	-	91.11	1,660	391	1,150	3,960	7,161	3,980	
	9/8/2005		10.02	-	-	90.57	2,030	447	1,200	3,880	7,557	3,640	
	12/29/2005		9.18	-	-	91.41	434	49.3	216	675	1,374.3	250	
	3/20/2006		9.87	-	-	90.72	2,060	467	1,220	4,040	7,787	4,730	
	9/14/2006		8.74	-	-	91.85	2,170	510	1,380	4,320	8,380	2,370	
	12/7/2006		8.62	-	-	91.97	1,660	430	1,350	4,570	8,010	1,980	
	3/29/2007		9.52	-	-	91.07	1,420	341	908	2,370	5,039	2,960	
	6/13/2007		8.55	-	-	92.04	444	155	694	1,770	3,063	380	
	9/19/2007		9.36	-	-	91.23	1,090	267	915	2,570	4,842	1,160	
	12/11/2007		10.13	-	-	90.46	1,530	305	1,090	3,420	6,345	1,570	
	3/13/2008		9.69	-	-	90.90	1,580	315	1,140	3,430	6,465	1,850	
	6/6/2008		9.35	-	-	91.24	1,230	280	1,070	2,610	5,190	806	
	12/30/2008		9.17	-	-	91.42	82.5	21.3	131	237	471.8	22.6	
	6/8/2009		9.18	-	-	91.41	292	64.9	348	616	1,320.9	129	
	7/20/2009		9.10	-	-	91.49	292	72.8	324	525	1,213.8	149	
	9/24/2009		10.79	-	-	89.80	984	223	909	2,320	4,436	542	
	12/3/2009		9.75	-	-	90.84	1,030	235	1,060	2,240	4,565	452	
	3/3/2010		9.25	-	-	91.34	691	177	762	2,070	3,700	185	
	6/7/2010		9.17	-	-	91.42	1,020	213	869	2,060	4,162	766	
	9/1/2010		10.18	-	-	90.41	1,520	291	1,070	3,030	5,911	939	
	12/3/2010		10.00	-	-	90.59	942	253	745	1,900	3,840	555	
	3/29/2011		9.46	-	-	91.13	1,070	227	831	1,860	3,988	418	
9/19/2011		8.26	-	-	92.33	779	157	533	1,060	2,529	298		
12/5/2011		9.20	-	-	91.39	1,540	222	682	1,530	3,974	637		
3/16/2012		10.07	-	-	90.52	2,220	386	1,410	5,250	9,266	1,100		



HISTORICAL GROUNDWATER MONITORING SUMMARY

Former Mobil Station # 17-EMW

304 Columbia Street

Brooklyn, New York

Well	Date	Casing Elevation (ft)	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Adjusted Groundwater Elevation (ft)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (ug/L)	Xylenes, Total (µg/L)	Total BTEX (µg/L)	MTBE (µg/L)	Comments	
NYSDEC TOGS 1.1 WQS							1	5	5	5	NS	10		
MW-8A (cont)	6/8/2012	100.59	9.84	-	-	90.75	808	111	434	1,200	2,553	983		
	9/7/2012		10.00	-	-	90.59	985	154	341	953	2,433	376		
	12/18/2012		10.78	-	-	89.81	1,300	231	496	2,200	4,227	336		
	3/14/2013		11.08	-	-	89.51	1,160	188	551	2,360	4,259	330		
	6/24/2013		9.31	-	-	91.28	991	155	482	1,930	3,558	157		
	9/6/2013		10.82	-	-	89.77	1,670	306	1,250	3,790	7,016	337		
	12/10/2013		11.44	-	-	89.15	1,370	226	742	3,210	5,548	333	COULD NOT GAUGE	
	1/21/2014		-	-	-	-	-	-	-	-	-	-	-	
	3/10/2014		-	-	-	-	1,860	299	989	3,320	6,468	390	COULD NOT GAUGE	
	6/3/2014		10.68	-	-	89.91	1,400	251	361	909	2,921	278		
	10/2/2014		11.05	-	-	89.54	1,500	286	1,120	3,720	6,626	367		
	12/3/2014		10.01	-	-	90.58	2,200	303	1,700	4,730	8,933	347		
	3/11/2015		10.30	-	-	90.29	1,480	326	1,670	6,450	9,926	429		
	6/18/2015		9.81	-	-	90.78	1,900	303	1,690	5,850	9,743	323		
	9/9/2015		10.00	-	-	90.59	1,640	282	1,150	3,530	6,602	194		
	12/10/2015		10.33	-	-	90.26	1,400	225	1,300	3,890	6,815	104		
	3/16/2016		10.02	-	-	90.57	341	198	1,400	3,890	5,829	140		
	6/15/2016		9.86	-	-	90.73	1,620	325	1,560	4,950	8,455	130		
	9/19/2016		10.39	-	-	90.20	1,490	281	1,490	4,830	8,091	109		
	12/8/2016		9.92	-	-	90.67	1,420	280	1,400	4,560	7,660	121		
3/16/2017		-	-	-	-	-	-	-	-	-	-	-	INACCESSIBLE	
6/26/2017		9.05	-	-	91.54	1,490	339	1,740	4,560	8,129	38.8			
9/7/2017		9.47	-	-	91.12	1,420	359	1,840	5,310	8,929	ND < 25			
MW-9	2/28/2005	100.10	9.45	-	-	90.65	ND < 1	ND < 1	ND < 1	ND < 1	ND	1.8		
	6/6/2005		9.38	-	-	90.72	ND < 1	ND < 1	ND < 1	ND < 1	ND	1.1		
	9/8/2005		10.01	-	-	90.09	ND < 1	ND < 1	0.73	2	2.73	7.3		
	12/29/2005		8.88	-	-	91.22	ND < 1	ND < 1	ND < 1	ND < 1	ND	16.7		
	3/20/2006		9.65	-	-	90.45	ND < 1	ND < 1	ND < 1	ND < 1	ND	9.8		
	9/14/2006		8.93	-	-	91.17	0.93	ND < 1	0.43	1.1	2.46	20.8		
	12/7/2006		8.72	-	-	91.38	0.88	0.72	ND < 1	3.6	5.2	45		
	3/29/2007		9.09	-	-	91.01	ND < 1	ND < 1	ND < 1	ND < 1	ND	46.8		
	6/13/2007		8.64	-	-	91.46	4.9	1.7	ND < 1	6.4	13	60		
	9/19/2007		9.39	-	-	90.71	0.35	ND < 1	ND < 1	0.97	1.32	19.2		
	12/11/2007		9.80	-	-	90.30	ND < 1	ND < 1	ND < 1	ND < 1	ND	15.7		
	3/13/2008		8.98	-	-	91.12	ND < 1	ND < 1	ND < 1	ND < 1	ND	6.5		
	6/6/2008		9.19	-	-	90.91	ND < 1	ND < 1	ND < 1	ND < 1	ND	6.2		
	12/30/2008		8.75	-	-	91.35	ND < 1	ND < 1	ND < 1	ND < 1	ND	2.6		
	7/20/2009		9.10	-	-	91.00	-	-	-	-	-	-	-	
	9/24/2009		9.71	-	-	90.39	ND < 1	ND < 1	ND < 1	ND < 1	ND	2.6		
	12/3/2009		9.62	-	-	90.48	ND < 1	ND < 1	ND < 1	ND < 1	ND	4.6		
	3/3/2010		8.47	-	-	91.63	ND < 1	ND < 1	ND < 1	ND < 1	ND	0.32		
	6/7/2010		9.24	-	-	90.86	ND < 1	ND < 1	ND < 1	ND < 1	ND	2.9		
	9/1/2010		10.11	-	-	89.99	ND < 1	ND < 1	ND < 1	ND < 1	ND	6.7		
	12/3/2010		9.90	-	-	90.20	ND < 1	ND < 1	ND < 1	ND < 1	ND	6.7		
	3/29/2011		9.04	-	-	91.06	ND < 1	ND < 1	ND < 1	ND < 1	ND	1.5		
	12/5/2011		9.20	-	-	90.90	ND < 0.22	ND < 0.15	ND < 0.21	ND < 0.17	ND	10.1		
	3/16/2012		10.33	-	-	89.77	ND < 1	ND < 1	ND < 1	ND < 3	ND	9.21		
	6/8/2012		9.44	-	-	90.66	ND < 1.00	ND < 1.00	ND < 1.00	ND < 3.00	ND	12.6		
	9/7/2012		9.79	-	-	90.31	ND < 1.00	ND < 1.00	ND < 1.00	ND < 3.00	ND	11.0		
	12/18/2012		-	-	-	-	-	-	-	-	-	-	-	CNL
	3/14/2013		-	-	-	-	-	-	-	-	-	-	-	INACCESSIBLE
	6/24/2013		-	-	-	-	-	-	-	-	-	-	-	CNL
	9/6/2013		-	-	-	-	-	-	-	-	-	-	-	CNL
12/10/2013		-	-	-	-	-	-	-	-	-	-	-	CNL	
1/21/2014		-	-	-	-	-	-	-	-	-	-	-		
3/10/2014		-	-	-	-	-	-	-	-	-	-	-	COULD NOT GAUGE	
6/3/2014		-	-	-	-	-	-	-	-	-	-	-	CNL	
10/2/2014		-	-	-	-	-	-	-	-	-	-	-	CNL	
12/3/2014		-	-	-	-	-	-	-	-	-	-	-	CNL	
3/11/2015		-	-	-	-	-	-	-	-	-	-	-	INACCESSIBLE	
6/18/2015		-	-	-	-	-	-	-	-	-	-	-	CNL	
9/9/2015		-	-	-	-	-	-	-	-	-	-	-	CNL	
12/10/2015		-	-	-	-	-	-	-	-	-	-	-	CNL	
3/16/2016		-	-	-	-	-	-	-	-	-	-	-	CNL	
6/26/2017		NSD	-	-	-	-	-	-	-	-	-	-	CNL	
9/7/2017		-	-	-	-	-	-	-	-	-	-	-	CNL	
MW-10	2/28/2005	100.50	9.94	-	-	90.56	5,040	763	1,520	7,160	14,483	10,300		
	6/6/2005		9.03	-	-	91.47	823	97.6	298	1,390	2,608.6	1,560		
	9/8/2005		9.90	-	-	90.60	2,780	331	1,000	3,840	7,951	5,030		
	12/29/2005		8.90	-	-	91.60	754	192	942	1,900	3,788	833		
	3/20/2006		9.54	-	-	90.96	6,220	803	1,640	6,970	15,633	10,500		
	6/7/2006		9.01	-	-	91.49	4,580	459	1,150	4,290	10,479	6,210		
	9/14/2006		8.58	-	-	91.92	4,900	625	1,520	5,930	12,975	6,740		
	12/7/2006		8.52	-	-	91.98	3,070	504	2,030	7,360	12,964	1,410		
	3/29/2007		9.40	-	-	91.10	7,050	1,180	3,550	11,900	23,680	6,820		
	6/13/2007		8.42	-	-	92.08	1,450	231	909	2,980	5,570	466		

HISTORICAL GROUNDWATER MONITORING SUMMARY

Former Mobil Station # 17-EMW

304 Columbia Street

Brooklyn, New York

Well	Date	Casing Elevation (ft)	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Adjusted Groundwater Elevation (ft)	Benzene	Toluene	Ethylbenzene	Xylenes, Total	Total BTEX	MTBE	Comments
							(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	
NYSDEC TOGS 1.1.1 WQS							1	5	5	5	NS	10	
MW-10 (cont)	9/19/2007	100.50	9.22	-	-	91.28	3,380	445	1,400	4,500	9,725	1,310	
	12/11/2007		11.03	-	-	89.47	3,030	411	1,360	4,010	8,811	1,750	
	3/13/2008		9.56	-	-	90.94	4,270	530	1,520	5,160	11,480	2,470	
	6/6/2008		9.25	-	-	91.25	3,080	414	1,510	4,450	9,454	1,260	
	12/30/2008		9.05	-	-	91.45	903	115	649	1,500	3,167	213	
	6/8/2009		8.97	-	-	91.53	1,110	143	658	1,440	3,351	166	
	7/20/2009		8.98	-	-	91.52	1,050	157	593	1,250	3,050	97.1	
	9/24/2009		9.59	-	-	90.91	2,390	374	1,490	3,210	7,464	315	
	12/3/2009		9.55	-	-	90.95	3,380	673	3,900	3,990	11,943	698	
	3/3/2010		9.25	-	-	91.25	3,450	440	1,400	3,440	8,730	1,810	
	6/7/2010		9.02	-	-	91.48	3,210	403	1,260	2,760	7,633	1,380	
	9/1/2010		10.00	-	-	90.50	4,870	485	1,830	4,040	11,225	1,580	
	12/3/2010		9.80	-	-	90.70	3,950	496	1,510	3,180	9,136	ND < 10	
	3/29/2011		9.35	-	-	91.15	5,450	594	1,550	3,700	11,294	1,640	
	6/16/2011		8.80	-	-	91.70	5,410	555	1,450	3,580	10,995	1,160	
	8/8/2011		9.72	-	-	90.78	6,180	645	1,450	3,460	11,735	1,030	
	9/19/2011		8.19	-	-	92.31	1,810	162	497	957	3,426	191	
	12/5/2011		9.00	-	-	91.50	3,790	443	1,910	3,860	10,003	610	
	3/16/2012		10.51	-	-	89.99	5,350	744	2,220	5,690	14,004	1,210	
	6/8/2012		9.47	-	-	91.03	3,780	343	859	1,720	6,702	860	
	9/7/2012		10.04	-	-	90.46	3,930	334	738	2,290	7,292	777	
	12/18/2012		10.83	-	-	89.67	5,460	623	1,170	3,340	10,593	708	
	3/14/2013		10.99	-	-	89.51	5,030	469	1,280	3,010	9,789	712	
	6/24/2013		8.51	-	-	91.99	2,680	330	927	2,900	6,837	137	
	9/6/2013		10.66	-	-	89.84	5,290	524	1,360	3,150	10,324	383	
	12/10/2013		11.36	-	-	89.14	6,080	560	1,410	4,520	12,570	464	COULD NOT GAUGE
	1/21/2014		-	-	-	-	-	-	-	-	-	-	
	3/10/2014		-	-	-	-	6,990	680	1,770	5,550	14,990	657	COULD NOT GAUGE
	6/3/2014		9.71	-	-	90.79	3,400	455	1,250	3,700	8,805	476	
	10/2/2014		10.90	-	-	89.60	5,540	636	2,200	5,670	14,046	601	SHEEN
	12/3/2014		9.91	-	-	90.59	5,250	664	2,050	5,380	13,344	612	
	3/11/2015		10.24	-	-	90.26	5,880	766	2,300	7,140	16,086	309	
	6/18/2015		9.69	-	-	90.81	5,580	631	1,780	5,480	13,471	202	
	9/9/2015		9.89	-	-	90.61	4,350	522	1,550	5,030	11,452	136	
	12/10/2015		10.23	-	-	90.27	3,850	371	1,610	1,370	7,201	75.0	
	3/16/2016		9.96	-	-	90.54	4,120	650	1,740	4,930	11,440	143	
	6/15/2016		9.74	-	-	90.76	4,110	518	1,550	4,780	10,958	146	
	9/19/2016		10.38	-	-	90.12	4,990	591	1,680	5,020	12,281	114	
	12/8/2016		9.85	-	-	90.65	4,790	742	1,830	5,750	13,112	126	
	3/16/2017		-	-	-	-	-	-	-	-	-	-	INACCESSIBLE
	6/26/2017		8.93	-	-	91.57	4,210	641	2,700	4,900	12,451	86.1	
	9/7/2017		9.36	-	-	91.14	4,120	629	2,190	6,560	13,499	ND < 20	
MW-11	2/28/2005	99.62	8.14	-	-	91.48	619	576	1,050	4,270	6,515	77	
	6/6/2005		8.07	-	-	91.55	616	410	1,070	5,050	7,146	71	
	9/8/2005		8.81	8.78	0.03	90.85	-	-	-	-	-	-	
	12/29/2005		11.63	-	-	87.99	697	249	1,170	3,630	5,746	57	
	3/20/2006		8.13	-	-	91.49	625	294	1,070	4,130	6,119	39	
	6/7/2006		7.45	-	-	92.17	-	-	-	-	-	-	
	9/14/2006		7.13	7.11	0.02	92.52	-	-	-	-	-	-	
	12/7/2006		7.30	7.28	0.02	92.35	-	-	-	-	-	-	
	3/29/2007		7.94	-	-	91.68	531	199	1,030	1,580	3,340	ND < 10	
	6/13/2007		7.18	-	-	92.44	438	125	738	935	2,236	32	
	9/19/2007		8.11	-	-	91.51	718	231	1,050	1,800	3,799	36	
	12/11/2007		8.70	8.68	0.02	90.95	-	-	-	-	-	-	
	3/13/2008		8.20	-	-	91.42	336	153	860	1,530	2,879	ND < 5	
	6/6/2008		8.17	-	-	91.45	617	194	954	1,410	3,175	37	
	12/30/2008		7.91	-	-	91.71	473	185	990	1,730	3,378	23.9	
	3/16/2009		9.06	-	-	90.56	423	192	770	1,610	2,995	20.9	
	6/8/2009		7.87	-	-	91.75	575	209	1,110	2,330	4,224	27.4	
	7/20/2009		7.93	7.85	0.08	91.81	-	-	-	-	-	-	
	9/24/2009		8.59	8.54	0.05	91.10	-	-	-	-	-	-	
	12/3/2009		8.51	-	-	91.11	797	142	1,280	1,020	3,239	46.9	
	3/3/2010		7.66	-	-	91.96	518	110	1,060	1,010	2,698	23.4	
	6/7/2010		7.94	-	-	91.68	382	33.1	901	498	1,814.1	23.1	
	9/1/2010		8.98	-	-	90.64	510	131	1,300	1,620	3,561	ND < 100	
	12/3/2010		8.71	-	-	90.91	513	206	911	1,560	3,190	11.3	
	3/29/2011		7.45	-	-	92.17	68.3	7.60	199	234	508.9	3.20	
	6/16/2011		7.71	-	-	91.91	148	23.3	293	315	779.3	2.80	
	8/8/2011		8.54	-	-	91.08	308	48.5	380	385	1,121.5	7.90	
	9/19/2011		6.98	-	-	92.64	57	12.3	162	171	402.3	1.40	
	12/5/2011		7.81	-	-	91.81	144	52	304	455	955	4	
	3/16/2012		8.98	-	-	90.64	637	149	794	1,580	3,160	12	
	6/8/2012		8.14	-	-	91.48	492	161	611	1,090	2,354	9.70	
	9/7/2012		8.18	-	-	91.44	604	164	699	1,240	2,707	7.61	
	12/18/2012		8.61	-	-	91.01	587	184	702	1,320	2,793	7.11	
	3/14/2013		8.40	-	-	91.22	487	150	608	934	2,179	7.78	

HISTORICAL GROUNDWATER MONITORING SUMMARY

Former Mobil Station # 17-EMW

304 Columbia Street

Brooklyn, New York

Well	Date	Casing Elevation (ft)	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Adjusted Groundwater Elevation (ft)	Benzene	Toluene	Ethylbenzene	Xylenes, Total	Total BTEX	MTBE	Comments
							(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	
NYSDEC TOGS 1.1.1 WQS													
MW-11 (cont)	6/24/2013	99.62	7.27	-	-	92.35	403	113	495	447	1,458	3.98	
	9/4/2013		8.50	-	-	91.12	513	147	947	1,230	2,837	3.54	
	9/6/2013		8.56	-	-	91.06	513	147	947	1,230	2,837	3.54	
	10/7/2013		8.76	-	-	90.86	-	-	-	-	-	-	
	10/23/2013		9.03	-	-	90.59	-	-	-	-	-	-	
	11/11/2013		9.42	-	-	90.20	-	-	-	-	-	-	
	12/10/2013		9.92	-	-	89.70	490	107	561	869	2,027	2.93	COULD NOT GAUGE
	1/21/2014		8.65	-	-	90.97	-	-	-	-	-	-	
	3/10/2014		-	-	-	-	435	86.0	521	801	1,843	3.54	COULD NOT GAUGE
	6/3/2014		7.71	-	-	91.91	218	70.6	287	468	1,043.6	3.16	
	10/2/2014		9.00	-	-	90.62	309	74.9	407	475	1,265.9	ND < 10.0	
	12/3/2014		8.28	-	-	91.34	241	61.8	325	354	981.8	4.82	
	3/11/2015		8.32	-	-	91.30	193	62.5	497	567	1,319.5	ND < 1.00	
	6/18/2015		8.47	-	-	91.15	246	63.3	540	551	1,400.3	4.43	
	9/9/2015		7.82	-	-	91.80	307	76.2	509	687	1,579.2	ND < 1.00	
	12/10/2015		9.21	-	-	90.41	224	31.8	546	438	1,239.8	ND < 1.00	
	3/16/2016		8.31	-	-	91.31	178	56.9	507	561	1,302.9	ND < 1.00	
	6/15/2016		8.66	-	-	90.96	314	70.4	559	668	1,611.4	ND < 5.00	
	9/19/2016		9.41	-	-	90.21	359	95.9	603	825	1,882.9	ND < 5.00	
	12/8/2016		8.54	-	-	91.08	160	47.3	426	497	1,130.3	ND < 5.00	
3/16/2017		8.87	-	-	90.75	129	23.7	316	270	738.7	ND < 5.00		
6/26/2017		7.71	-	-	91.91	191	13.3	348	328	880.3	2.1		
9/7/2017		8.23	-	-	91.39	260	55.4	512	544	1,371	2.2		
MW-12	2/28/2005	100.85	9.38	-	-	91.47	127	6.6	50	57	240.6	24.8	
	6/6/2005		9.17	-	-	91.68	250	8.2	29.2	51.4	338.8	129	
	3/20/2006		9.17	-	-	91.68	229	9	35.5	50.2	323.7	26.6	
	6/7/2006		8.68	-	-	92.17	470	17.4	81.1	86.8	655.3	96.7	
	9/14/2006		8.13	-	-	92.72	476	14	42.9	63.2	596.1	55	
	12/7/2006		8.37	-	-	92.48	225	7.3	5.1	22.5	259.9	29.4	
	3/29/2007		9.16	-	-	91.69	193	3.7	4	12.5	213.2	44.3	
	6/13/2007		8.28	-	-	92.57	274	8.3	5.8	24.7	312.8	86.5	
	9/19/2007		9.16	-	-	91.69	285	6.2	4.2	20.5	315.9	33	
	12/11/2007		9.90	-	-	90.95	249	5	4.2	17.6	275.8	31.6	
	3/13/2008		9.21	-	-	91.64	172	3.6	11	14.4	201	ND < 1	
	6/6/2008		9.33	-	-	91.52	134	4.4	8.5	15.8	162.7	20.6	
	12/30/2008		9.22	-	-	91.63	603	12.3	115	53.9	784.2	41	
	3/16/2009		10.21	-	-	90.64	144	3.2	32.2	17.7	197.1	12.9	
	6/8/2009		9.16	-	-	91.69	474	8.6	69.2	33.5	585.3	147	
	7/20/2009		9.38	-	-	91.47	14.5	0.56	15.2	2.4	32.66	41.9	
	9/24/2009		9.71	-	-	91.14	54.8	3.1	37.8	21.4	117.1	113	
	12/3/2009		9.75	-	-	91.10	120	3.9	52.7	28.5	205.1	88.4	
	3/3/2010		9.15	-	-	91.70	148	3.6	23.1	16.1	190.8	41.4	
	6/7/2010		8.97	-	-	91.88	22.9	1.1	8.4	7.2	39.6	8.6	
	9/1/2010		10.22	-	-	90.63	111	2.4	10.7	11.6	135.7	23	
	12/3/2010		10.00	-	-	90.85	87	1.6	7.5	7	103.1	20.3	
	3/29/2011		8.53	-	-	92.32	2.1	ND < 1	0.34	0.32	2.76	6.7	
	6/16/2011		8.90	-	-	91.95	3.5	0.36	0.72	1.3	5.88	8.9	
	8/8/2011		9.70	-	-	91.15	24	1.4	3.5	6.6	35.5	32.5	
	9/19/2011		8.39	-	-	92.46	2.8	0.35	2.4	3.2	8.75	ND < 1	
	3/16/2012		10.17	-	-	90.68	27	1.05	8.41	4.22	40.68	24	
	6/8/2012		9.42	-	-	91.43	30.2	ND < 1.00	4.87	ND < 3.00	35.07	24.3	
	9/7/2012		9.66	-	-	91.19	38.2	ND < 1.00	4.92	ND < 3.00	43.12	ND < 1.00	
	12/18/2012		9.98	-	-	90.87	50.5	1.02	5.07	ND < 3.00	56.59	13.4	
	3/14/2013		9.58	-	-	91.27	35.3	ND < 1.00	5.36	ND < 3.00	40.66	13.5	
	6/24/2013		8.36	-	-	92.49	2.76	ND < 1.00	ND < 1.00	ND < 3.00	2.76	2.48	
	9/4/2013		9.58	-	-	91.27	15.5	ND < 1.00	3.19	ND < 2.00	18.69	7.88	
	9/6/2013		9.65	-	-	91.20	15.5	ND < 1.00	3.19	ND < 2.00	18.69	7.88	
	10/7/2013		9.98	-	-	90.87	-	-	-	-	-	-	
	12/10/2013		10.67	-	-	90.18	34.4	ND < 1.00	1.45	ND < 3.00	35.85	12.1	COULD NOT GAUGE
	1/21/2014		-	-	-	-	-	-	-	-	-	-	INACCESSIBLE
	3/10/2014		-	-	-	-	5.71	ND < 1.00	ND < 1.00	ND < 3.00	5.71	ND < 1.00	COULD NOT GAUGE
	6/3/2014		8.81	-	-	92.04	2.19	ND < 1.00	ND < 1.00	ND < 2.00	2.19	1.59	
	10/2/2014		10.25	-	-	90.60	10.2	ND < 1.00	ND < 1.00	ND < 2.00	10.2	5.21	
	12/3/2014		9.55	-	-	91.30	19.9	ND < 1.00	ND < 1.00	ND < 2.00	19.9	8.41	
	3/11/2015		9.34	-	-	91.51	10.7	ND < 1.00	ND < 1.00	ND < 2.00	10.7	ND < 1.00	
	6/18/2015		9.44	-	-	91.41	1.56	ND < 1.00	ND < 1.00	ND < 3.00	1.56	3.48	
	9/9/2015		9.76	-	-	91.09	8.05	ND < 1.00	ND < 1.00	ND < 3.00	8.05	ND < 1.00	
	12/10/2015		10.16	-	-	90.69	6.74	ND < 1.00	ND < 1.00	ND < 3.00	6.74	2.28	
	3/16/2016		9.10	-	-	91.75	3.76	ND < 1.00	ND < 1.00	ND < 3.00	3.76	ND < 1.00	
	6/15/2016		9.49	-	-	91.36	9.33	ND < 1.00	ND < 1.00	ND < 3.00	9.33	5.40	
9/19/2016		10.35	-	-	90.50	9.06	ND < 1.00	ND < 1.00	ND < 3.00	9.06	1.84		
12/8/2016		9.80	-	-	91.05	14.8	ND < 1.00	ND < 1.00	ND < 3.00	14.8	9.59		
3/16/2017		9.65	-	-	91.20	1.75	ND < 1.00	ND < 1.00	ND < 3.00	1.75	ND < 1.00		
6/26/2017		9.65	-	-	91.20	0.39	ND < 1.0	ND < 1.0	ND < 1.0	0.39	0.58		
9/7/2017		9.66	-	-	91.19	3.3	ND < 1.0	0.35	ND < 1.0	3.7	ND < 1.0		

HISTORICAL GROUNDWATER MONITORING SUMMARY

Former Mobil Station # 17-EMW

304 Columbia Street

Brooklyn, New York

Well	Date	Casing Elevation (ft)	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Adjusted Groundwater Elevation (ft)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (ug/L)	Xylenes, Total (µg/L)	Total BTEX (µg/L)	MTBE (µg/L)	Comments
NYSDEC TOGS 1.1.1 WQS													
							1	5	5	5	NS	10	
MW-13	2/28/2005	100.04	8.83	6.66	2.17	94.47	-	-	-	-	-	-	
	6/6/2005		8.54	8.53	0.01	91.51	-	-	-	-	-	-	
	9/8/2005		9.37	9.16	0.21	90.99	-	-	-	-	-	-	
	12/29/2005		8.65	8.64	0.01	91.40	-	-	-	-	-	-	
	3/20/2006		6.67	6.66	0.01	93.38	-	-	-	-	-	-	
	6/7/2006		7.61	-	-	92.43	-	-	-	-	-	-	
	9/14/2006		7.34	7.32	0.02	92.73	-	-	-	-	-	-	
	12/7/2006		7.71	7.56	0.15	92.55	-	-	-	-	-	-	
	3/29/2007		8.53	-	-	91.51	76.5	ND < 5	ND < 5	ND < 5	76.5	9.3	
	6/13/2007		7.55	-	-	92.49	56.1	2.6	172	56.9	287.6	11	
	9/19/2007		8.53	8.51	0.02	91.54	-	-	-	-	-	-	
	12/11/2007		9.30	9.28	0.02	90.77	-	-	-	-	-	-	
	3/13/2008		8.58	-	-	91.46	179	6.1	303	74.7	562.8	13.3	
	6/6/2008		8.70	-	-	91.34	245	10.2	354	95.8	705	20.8	
	12/30/2008		8.37	-	-	91.67	226	20.3	394	136	776.3	12.3	
	3/16/2009		9.76	-	-	90.28	270	22.8	423	135	850.8	11.9	
	6/8/2009		8.24	-	-	91.80	68.6	6.2	129	36.8	240.6	11.7	
	7/20/2009		8.31	-	-	91.73	39	7.9	300	88.6	435.5	15.9	
	9/24/2009		9.01	-	-	91.03	115	4.1	295	44.1	458.2	10.8	
	12/3/2009		8.96	-	-	91.08	219	7	295	53	574	13.6	
	3/3/2010		7.90	-	-	92.14	31.8	2.3	109	18.5	161.6	4.8	
	6/7/2010		8.33	-	-	91.71	21.2	1.7	149	19.9	191.8	18.6	
	9/1/2010		9.44	-	-	90.60	541	120	884	1,490	3,035	16.9	
	12/3/2010		9.13	-	-	90.91	321	114	685	1,240	2,360	ND < 5	
	3/29/2011		7.90	-	-	92.14	6	ND < 1	8.7	5.2	19.9	3	
	6/16/2011		9.50	-	-	94.74	31.5	2	62	34.4	129.9	10.5	
	8/8/2011		9.04	-	-	91.00	212	40.6	260	284	796.6	3.1	
	9/19/2011		7.36	-	-	92.68	12.3	2	174	57.5	245.8	1.3	
	12/5/2011		8.25	-	-	91.79	20	1.8	110	44	175.8	3.4	
	3/16/2012		9.44	-	-	90.60	194	56	505	294	1,049	1.71	
	6/8/2012		8.62	-	-	91.42	135	38.6	331	235	739.6	2.74	
	9/7/2012		8.92	-	-	91.12	178	39.2	421	237	875.2	ND < 1.00	
	12/18/2012		9.09	-	-	90.95	308	84.5	663	452	1,507.5	2.82	
	3/14/2013		8.92	-	-	91.12	586	114	590	948	2,238	6.10	
	6/24/2013		7.74	-	-	92.30	117	38.6	544	399	1,098.6	2.43	
	9/4/2013		8.94	8.91	0.03	91.15	-	-	-	-	-	-	
	9/6/2013		9.06	8.89	0.17	91.24	-	-	-	-	-	-	
	9/26/2013		9.16	9.15	0.01	90.90	395	77.9	515	458	1,445.9	3.87	
	10/7/2013		9.21	-	-	90.83	-	-	-	-	-	-	
	10/23/2013		9.45	-	-	90.59	-	-	-	-	-	-	
	11/11/2013		9.86	-	-	90.18	-	-	-	-	-	-	
	12/10/2013		10.02	-	-	90.02	767	126	744	1,240	2,877	13.7	COULD NOT GAUGE
	1/21/2014		9.19	-	-	90.85	-	-	-	-	-	-	
	3/10/2014		-	-	-	-	250	53.8	294	461	1,058.8	2.51	COULD NOT GAUGE
	6/3/2014		8.26	-	-	91.78	92.1	29.0	235	383	739.1	1.52	
	10/2/2014		9.48	-	-	90.56	434	119	744	1,290	2,587	1.21	
	12/3/2014		8.84	-	-	91.20	395	118	755	1,000	2,268	ND < 1.00	
	3/11/2015		8.30	-	-	91.74	129	69.7	804	1,040	2,042.7	2.82	
	6/18/2015		8.67	8.62	0.05	91.45	-	-	-	-	-	-	
	9/9/2015		9.05	-	-	90.99	619	117	762	715	2,213	ND < 1.00	
	12/10/2015		9.45	9.30	0.15	90.82	-	-	-	-	-	-	
	3/16/2016		8.54	8.46	0.08	91.62	252	92.6	820	620	1,784.6	ND < 1.00	
	6/15/2016		8.85	8.80	0.05	91.27	810	114	870	939	2,733	ND < 5.00	
	9/19/2016		9.51	9.49	0.02	90.56	971	165	985	1,500	3,621	ND < 5.00	
	12/8/2016		8.86	8.79	0.07	91.29	731	69.4	677	705	2,182.4	ND < 5.00	
	3/16/2017		8.99	8.98	0.01	91.07	491	84.7	659	576	1,810.7	ND < 10.0	
	6/26/2017		7.96	7.95	0.01	92.10	23.1	4.8	183	99.7	310.6	1.4	
	9/7/2017		8.65	8.56	0.09	91.52	-	-	-	-	-	-	
MW-14	2/28/2005	100.04	12.87	-	-	87.17	4.2	0.61	1.7	6.7	13.21	2.5	
	6/6/2005		13.02	-	-	87.02	12.6	1	2.4	9.3	25.3	ND < 1	
	3/20/2006		13.03	12.53	0.50	87.76	-	-	-	-	-	-	
	6/7/2006		8.19	8.12	0.07	91.96	-	-	-	-	-	-	
	12/7/2006		13.30	8.55	4.75	93.87	-	-	-	-	-	-	
	3/29/2007		10.52	-	-	89.52	118	4.8	1.4	11.3	135.5	ND < 1	
	6/13/2007		8.38	-	-	91.66	125	5.6	5.4	41.1	177.1	ND < 1	
	9/19/2007		10.08	-	-	89.96	121	5	4.1	31.3	161.4	ND < 1	
	12/11/2007		10.95	10.90	0.05	89.16	-	-	-	-	-	-	
	3/13/2008		9.73	-	-	90.31	66.7	2.7	0.76	4.6	74.76	ND < 1	
	6/6/2008		10.05	-	-	89.99	95.5	3.6	1.3	5.8	106.2	ND < 1	
	12/30/2008		9.59	-	-	90.45	85.3	2.5	0.51	2.1	90.41	ND < 1	
	3/16/2009		10.44	-	-	89.60	101	4.1	0.77	4.3	110.17	ND < 1	
	6/8/2009		9.46	-	-	90.58	54.8	2.3	1.2	4.2	62.5	ND < 1	
	7/20/2009		9.30	-	-	90.74	51.6	1.3	0.58	2.3	55.78	ND < 1	
	9/24/2009		10.00	-	-	90.04	102	3.8	0.90	5.9	112.6	ND < 1	
	12/3/2009		9.81	-	-	90.23	147	4.3	1.1	4.6	157	ND < 1	

HISTORICAL GROUNDWATER MONITORING SUMMARY

Former Mobil Station # 17-EMW

304 Columbia Street

Brooklyn, New York

Well	Date	Casing Elevation (ft)	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Adjusted Groundwater Elevation (ft)	NYSDEC TOGS 1.1.1 WQS				Total BTEX (µg/L)	MTBE (µg/L)	Comments	
							1	5	5	5				NS
MW-14 (cont)	3/3/2010	100.04	8.90	-	-	91.14	13.5	ND < 1	ND < 1	5	13.5	ND < 1		
	6/7/2010		9.31	-	-	90.73	50.3	0.95	0.32	1.2	52.77	ND < 1		
	9/1/2010		10.36	-	-	89.68	139	3.4	1.2	3.7	147.3	ND < 1		
	12/3/2010		10.11	-	-	89.93	114	4	0.86	3.2	122.06	ND < 1		
	3/29/2011		8.60	-	-	91.44	12.7	ND < 1	ND < 1	ND < 1	12.7	ND < 1		
	6/16/2011		9.20	-	-	90.84	41.4	0.55	0.27	0.53	42.75	ND < 1		
	8/8/2011		9.87	-	-	90.17	84.1	0.77	ND < 1	ND < 1	84.87	ND < 1		
	9/19/2011		8.22	-	-	91.82	3.8	ND < 1	ND < 1	ND < 1	3.8	ND < 1		
	12/5/2011		9.19	-	-	90.85	64	0.39	0.22	0.60	65.21	ND < 0.18		
	3/16/2012		10.36	-	-	89.68	91	1.28	ND < 1	ND < 3	92.28	ND < 1		
	6/8/2012		9.62	-	-	90.42	74.8	ND < 1.00	ND < 1.00	ND < 3.00	74.8	ND < 1.00		
	9/7/2012		9.82	-	-	90.22	117	1.96	ND < 1.00	ND < 3.00	118.96	ND < 1.00		
	12/18/2012		9.84	-	-	90.20	70.8	1.60	ND < 1.00	ND < 3.00	72.4	ND < 1.00		
	3/14/2013		10.43	-	-	89.61	20.2	ND < 1.00	ND < 1.00	ND < 3.00	20.2	ND < 1.00		
	6/24/2013		8.50	-	-	91.54	7.68	ND < 1.00	ND < 1.00	ND < 3.00	7.68	ND < 1.00		
	9/4/2013		9.77	-	-	90.27	44.2	ND < 1.00	ND < 1.00	ND < 2.00	44.2	ND < 1.00		
	9/6/2013		9.85	-	-	90.19	44.2	ND < 1.00	ND < 1.00	ND < 2.00	44.2	ND < 1.00		
	12/10/2013		10.56	-	-	89.48	51.9	ND < 1.00	ND < 1.00	ND < 3.00	51.9	ND < 1.00	COULD NOT GAUGE	
	1/21/2014		-	-	-	-	-	-	-	-	-	-	-	
	3/10/2014		-	-	-	-	-	8.32	ND < 1.00	ND < 1.00	ND < 3.00	8.32	ND < 1.00	COULD NOT GAUGE
	6/3/2014		8.92	-	-	91.12	4.91	ND < 1.00	ND < 1.00	ND < 2.00	4.91	ND < 1.00		
	10/2/2014		10.49	-	-	89.55	42.8	ND < 1.00	ND < 1.00	ND < 2.00	42.8	ND < 1.00		
	12/3/2014		9.59	-	-	90.45	20.2	ND < 1.00	ND < 1.00	ND < 2.00	20.2	ND < 1.00		
	3/11/2015		9.34	-	-	90.70	8.69	ND < 1.00	ND < 1.00	ND < 2.00	8.69	ND < 1.00		
	6/18/2015		9.44	-	-	90.60	34.2	ND < 1.00	ND < 1.00	ND < 3.00	34.2	ND < 1.00		
	9/9/2015		9.97	-	-	90.07	46.4	ND < 1.00	ND < 1.00	ND < 3.00	46.4	ND < 1.00		
	12/10/2015		10.24	-	-	89.80	38.3	ND < 1.00	ND < 1.00	ND < 3.00	38.3	ND < 1.00		
	3/16/2016		9.28	-	-	90.76	6.99	ND < 1.00	ND < 1.00	ND < 3.00	6.99	ND < 1.00		
	6/15/2016		9.86	-	-	90.18	37.1	ND < 1.00	ND < 1.00	ND < 3.00	37.1	ND < 1.00		
	9/19/2016		10.52	-	-	89.52	24.8	ND < 1.00	ND < 1.00	ND < 3.00	24.8	ND < 1.00		
12/8/2016		9.52	-	-	90.52	ND < 1.00	ND < 1.00	ND < 1.00	ND < 3.00	ND	ND < 1.00			
3/16/2017		9.91	-	-	90.13	4.96	ND < 1.00	ND < 1.00	ND < 3.00	4.96	ND < 1.00			
6/26/2017		8.79	-	-	91.25	0.51	ND < 1.00	ND < 1.00	ND < 1.00	0.51	ND < 1.00			
9/7/2017		9.45	-	-	90.59	3.9	ND < 1.00	ND < 1.00	ND < 1.00	3.9	ND < 1.00			
MW-15	9/27/2006	100.47	10.72	-	-	89.75	616	21.1	21.7	64.4	723.2	425		
	12/7/2006		9.29	-	-	91.18	522	16.6	8.2	54.5	601.3	114		
	3/29/2007		9.81	-	-	90.66	389	14	5.9	30.7	439.6	59.5		
	6/13/2007		8.99	-	-	91.48	924	26.7	6	56.8	1,013.5	191		
	9/19/2007		9.72	-	-	90.75	747	16.6	3.5	34.1	801.2	104		
	12/11/2007		10.29	-	-	90.18	800	15.1	2.8	40	857.9	119		
	3/13/2008		9.85	-	-	90.62	662	6.4	2.9	15.2	686.5	83.4		
	6/6/2008		9.63	-	-	90.84	509	5.6	1.2	12.7	528.5	81.1		
	12/30/2008		9.50	-	-	90.97	164	1.9	0.58	4.6	171.08	16.8		
	3/16/2009		10.69	-	-	89.78	540	5.8	1.2	9.5	556.5	57.2		
	6/8/2009		9.45	-	-	91.02	141	ND < 1	ND < 1	1	142	14.8		
	7/20/2009		9.33	-	-	91.14	80.7	1.2	0.93	3.7	86.53	19.1		
	9/24/2009		9.91	-	-	90.56	162	3.9	7.3	8.6	181.8	74.5		
	12/3/2009		9.98	-	-	90.49	432	8.6	7.3	17.4	465.3	52.2		
	3/3/2010		9.41	-	-	91.06	606	6.4	8.1	18.5	639	99.2		
	6/7/2010		9.42	-	-	91.05	200	3.6	6.2	6.3	216.1	24.7		
	9/1/2010		10.06	-	-	90.41	194	3.6	2.8	5.3	205.7	101		
	12/3/2010		12.20	-	-	88.27	405	7.6	6.9	13.7	433.2	93.3		
	3/29/2011		9.52	-	-	90.95	119	0.86	ND < 1	0.89	120.75	26.8		
	6/16/2011		9.34	-	-	91.13	8	ND < 1	ND < 1	ND < 1	8	3.4		
	8/8/2011		9.93	-	-	90.54	81.1	2.3	0.85	4.2	88.45	45.1		
	9/19/2011		8.49	-	-	91.98	43.2	1.5	0.94	4.6	50.24	25.8		
	12/5/2011		9.40	-	-	91.07	5	ND < 0.15	ND < 0.21	0.51	5.51	5.4		
	3/16/2012		10.57	-	-	89.90	31	ND < 1	ND < 1	ND < 3	31	58		
	6/8/2012		9.67	-	-	90.80	3.89	ND < 1.00	ND < 1.00	ND < 3.00	3.89	8.11		
	9/7/2012		9.83	-	-	90.64	ND < 1.00	ND < 1.00	ND < 1.00	ND < 3.00	ND	10.2		
	12/18/2012		9.99	-	-	90.48	ND < 1.00	ND < 1.00	ND < 1.00	ND < 3.00	ND	11.3		
	3/14/2013		10.23	-	-	90.24	6.60	ND < 1.00	ND < 1.00	ND < 3.00	6.6	30.5		
	6/24/2013		8.98	-	-	91.49	2.91	ND < 1.00	ND < 1.00	ND < 3.00	2.91	2.21		
	9/6/2013		10.09	-	-	90.38	1.77	ND < 1.00	ND < 1.00	ND < 2.00	1.77	13.0		
12/10/2013		10.31	-	-	90.16	ND < 1.00	ND < 1.00	ND < 1.00	ND < 3.00	ND	18.0	COULD NOT GAUGE		
1/21/2014		-	-	-	-	-	-	-	-	-	-	-		
3/10/2014		-	-	-	-	-	ND < 1.00	ND < 1.00	ND < 1.00	ND	13.0	COULD NOT GAUGE		
6/3/2014		9.70	-	-	90.77	1.06	ND < 1.00	ND < 1.00	ND < 2.00	1.06	3.54			
10/2/2014		10.62	-	-	89.85	ND < 1.00	ND < 1.00	ND < 1.00	ND < 2.00	ND	8.18			
12/3/2014		10.21	-	-	90.26	ND < 1.00	ND < 1.00	ND < 1.00	ND < 2.00	ND	4.11			
3/11/2015		10.33	-	-	90.14	ND < 1.00	ND < 1.00	ND < 1.00	ND < 2.00	ND	9.97			
6/18/2015		10.02	-	-	90.45	ND < 1.00	ND < 1.00	ND < 1.00	ND < 3.00	ND	6.61			
9/9/2015		10.25	-	-	90.22	ND < 1.00	ND < 1.00	ND < 1.00	ND < 3.00	ND	6.55			
12/10/2015		10.50	-	-	89.97	ND < 1.00	ND < 1.00	ND < 1.00	ND < 3.00	ND	6.69			
3/16/2016		10.12	-	-	90.35	ND < 1.00	ND < 1.00	ND < 1.00	ND < 3.00	ND	3.18			
6/15/2016		10.26	-	-	90.21	2.49	ND < 1.00	ND < 1.00	ND < 3.00	2.49	4.76			

HISTORICAL GROUNDWATER MONITORING SUMMARY

Former Mobil Station # 17-EMW

304 Columbia Street

Brooklyn, New York

Well	Date	Casing Elevation (ft)	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Adjusted Groundwater Elevation (ft)	NYSDEC TOGS 1.1 WQS					Comments	
							Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)	Total BTEX (µg/L)		MTBE (µg/L)
MW-15 (cont)	9/19/2016	100.47	10.59	-	-	89.88	ND < 1.00	ND < 1.00	ND < 1.00	ND < 3.00	ND	8.42	
	12/8/2016		9.77	-	-	90.70	ND < 1.00	ND < 1.00	ND < 1.00	ND < 3.00	ND	2.96	
	3/16/2017		9.90	-	-	90.57	1.23	ND < 1.00	ND < 1.00	ND < 3.00	1.23	4.17	
	6/26/2017		9.03	-	-	91.44	1.6	ND < 1.00	ND < 1.00	ND < 1.00	1.6	ND < 1.0	
	9/7/2017		9.63	-	-	90.84	1.5	ND < 1.00	0.33	0.49	2.3	0.76	
MW-16	9/27/2006	100.42	11.90	-	-	88.52	1,600	159	1,220	2,520	5,499	2.3	
	12/7/2006		18.97	10.25	8.72	94.53	-	-	-	-	-	-	
	3/29/2007		11.36	-	-	89.06	2,320	87.1	430	1,110	3,947.1	ND < 20	
	6/13/2007		10.82	10.68	0.14	89.81	-	-	-	-	-	-	
	9/19/2007		10.98	10.76	0.22	89.77	-	-	-	-	-	-	
	12/11/2007		9.80	9.77	0.03	90.66	-	-	-	-	-	-	
	3/13/2008		10.89	-	-	89.53	1,200	34.1	146	303	1,683.1	ND < 10	
	6/6/2008		10.06	-	-	90.36	1,350	49.6	225	394	2,018.6	16.1	
	12/30/2008		9.66	-	-	90.76	958	59.8	393	662	2,072.8	7.7	
	3/16/2009		10.70	-	-	89.72	1,320	44	141	222	1,727	3.7	
	6/8/2009		9.64	-	-	90.78	2,830	158	667	1,010	4,665	ND < 20	
	7/20/2009		9.56	9.47	0.09	90.99	-	-	-	-	-	-	
	9/24/2009		9.96	9.80	0.16	90.70	-	-	-	-	-	-	
	12/3/2009		9.85	9.76	0.09	90.71	-	-	-	-	-	-	
	3/3/2010		8.90	-	-	91.52	940	104	1,070	2,020	4,134	3.5	
	6/7/2010		9.28	9.00	0.28	91.56	-	-	-	-	-	-	
	9/1/2010		10.21	-	-	90.21	2,590	131	492	828	4,041	ND < 20	
	12/3/2010		9.67	9.66	0.01	90.76	-	-	-	-	-	-	
	3/29/2011		8.45	-	-	91.97	312	26.3	284	319	941.3	ND < 2.5	
	6/16/2011		8.75	-	-	91.67	1,490	76.6	433	634	2,633.6	ND < 10	
	8/8/2011		9.44	9.41	0.03	91.02	-	-	-	-	-	-	
	9/19/2011		7.89	-	-	92.53	68.3	4.1	59.9	77.1	209.4	ND < 1	
	12/5/2011		8.77	-	-	91.65	655	26	237	246	1,164	ND < 0.37	
	3/16/2012		9.96	-	-	90.46	1,400	59	157	342	1,958	ND < 1	
	6/8/2012		9.22	-	-	91.20	1,310	49.2	157	229	1,745.2	ND < 1.00	
	9/7/2012		9.36	-	-	91.06	2,060	81.1	303	380	2,824.1	ND < 1.00	
	12/18/2012		9.56	-	-	90.86	1,130	63.4	423	329	1,945.4	ND < 1.00	
	3/14/2013		9.39	-	-	91.03	1,140	59.3	159	261	1,619.3	ND < 1.00	
	6/24/2013		8.23	-	-	92.19	509	46.1	177	303	1,035.1	ND < 1.00	
	9/4/2013		9.32	9.28	0.04	91.16	-	-	-	-	-	-	
	9/6/2013		9.57	9.36	0.21	91.16	-	-	-	-	-	-	
	9/26/2013		10.83	10.60	0.23	89.94	-	-	-	-	-	-	
	10/23/2013		10.08	9.83	0.25	90.72	-	-	-	-	-	-	
	11/11/2013		10.34	-	-	90.08	-	-	-	-	-	-	
	12/10/2013		10.75	-	-	89.67	1,060	57.8	99.1	200	1,416.9	1.30	COULD NOT GAUGE
	1/21/2014		9.68	9.56	0.12	90.92	-	-	-	-	-	-	
	3/10/2014		-	-	-	-	-	-	-	-	-	-	COULD NOT GAUGE
	6/3/2014		8.72	8.64	0.08	91.82	-	-	-	-	-	-	
	10/2/2014		9.85	-	-	90.57	1,060	68.5	495	1,020	2,643.5	ND < 10.0	SHEEN
	12/3/2014		9.25	-	-	91.17	1,380	86.9	337	1,390	3,193.9	ND < 1.00	
	3/11/2015		8.99	-	-	91.43	524	80.5	590	1,190	2,384.5	ND < 1.00	
6/18/2015		9.08	-	-	91.34	1,330	128	586	1,180	3,224	ND < 1.00		
9/9/2015		9.52	-	-	90.90	1,040	106	522	1,130	2,798	ND < 1.00		
12/10/2015		9.84	-	-	90.58	1,090	85.6	347	678	2,200.6	ND < 1.00		
3/16/2016		9.05	-	-	91.37	333	108	621	1,150	2,212	ND < 1.00		
6/15/2016		9.62	-	-	90.80	923	101	481	918	2,423	ND < 5.00		
9/19/2016		10.03	-	-	90.39	978	108	534	1,010	2,630	ND < 5.00		
12/8/2016		9.33	-	-	91.09	926	85.4	502	1,010	2,523.4	ND < 5.00		
3/16/2017		9.50	-	-	90.92	906	89.0	433	786	2,214	ND < 10.0		
6/26/2017		8.38	-	-	92.04	715	56.5	466	783	2,020.5	ND < 4.0		
9/7/2017		8.86	8.85	0.01	91.57	929	75.1	462	570	2,036	ND < 5.0		
MW-17	9/28/2006	100.05	10.59	-	-	89.46	4.8	64.2	378	1,420	1,867	202	
	12/7/2006		10.90	-	-	89.15	19.9	97.6	335	1,090	1,542.5	29.8	
	3/29/2007		10.18	-	-	89.87	15.4	145	432	1,300	1,892.4	19.4	
	6/13/2007		9.55	-	-	90.50	11.1	76.9	228	695	1,011	21.3	
	9/19/2007		9.71	-	-	90.34	11.4	69.3	252	665	997.7	13.6	
	12/11/2007		10.17	-	-	89.88	4.8	32.9	148	386	571.7	4.3	
	3/13/2008		9.17	-	-	90.88	20.4	143	695	2,160	3,018.4	8.2	
	6/6/2008		9.03	-	-	91.02	2.6	14.2	63.7	178	258.5	3.4	
	12/30/2008		8.51	-	-	91.54	18.1	60.3	421	418	917.4	2.3	
	3/16/2009		9.42	-	-	90.63	3.8	20.4	134	184	342.2	2.1	
	6/8/2009		8.19	-	-	91.86	244	80.1	773	439	1,536.1	7.7	
	7/20/2009		8.23	-	-	91.82	27.4	145	726	1,100	1,998.4	1.7	
	9/24/2009		8.93	-	-	91.12	10.6	47.7	324	369	751.3	ND < 1	
	12/3/2009		8.91	-	-	91.14	32.7	161	854	1,170	2,217.7	1.7	
	3/3/2010		8.02	-	-	92.03	7.5	37.7	225	289	559.2	1.4	
	6/7/2010		8.33	-	-	91.72	7.6	35	259	274	575.6	0.83	
	9/1/2010		9.01	-	-	91.04	16.3	91.3	716	675	1,498.6	ND < 2	
	12/3/2010		8.80	-	-	91.25	19.8	103	757	881	1,760.8	ND < 1	
	3/29/2011		7.83	-	-	92.22	6.3	14.7	166	90.9	277.9	1.2	
	6/16/2011		7.96	7.90	0.06	92.18	-	-	-	-	-	-	

HISTORICAL GROUNDWATER MONITORING SUMMARY

Former Mobil Station # 17-EMW

304 Columbia Street

Brooklyn, New York

Well	Date	Casing Elevation (ft)	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Adjusted Groundwater Elevation (ft)	NYSDEC TOGS 1.1 WQS				Total BTEX (µg/L)	MTBE (µg/L)	Comments	
							Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes, Total (µg/L)				
MW-17 (cont)	8/8/2011	100.05	8.62	8.58	0.04	91.49	1	5	5	5	NS	10		
	9/19/2011		7.12	7.11	0.01	92.95	-	-	-	-	-	-		
	12/5/2011		7.86	-	-	92.19	9.3	43	230	209	491.3	1		
	3/16/2012		9.40	9.33	0.07	90.76	-	-	-	-	-	-	-	
	6/8/2012		8.49	-	-	91.56	23.7	78.4	402	239	743.1	ND < 1.00		
	9/7/2012		8.49	-	-	91.56	24.6	89.0	279	304	696.6	ND < 1.00		
	12/18/2012		8.62	-	-	91.43	18.8	72.5	275	332	698.3	ND < 1.00		
	3/14/2013		8.37	-	-	91.68	3.85	21.2	80.2	69.1	174.35	1.40		
	6/24/2013		7.41	-	-	92.64	6.01	31.1	112	101	250.11	1.02		
	9/4/2013		8.75	8.70	0.05	91.38	-	-	-	-	-	-	-	
	9/6/2013		9.74	9.70	0.04	90.37	-	-	-	-	-	-	-	
	9/26/2013		7.94	7.90	0.04	92.17	4.58	21.3	84.9	63.5	174.28	ND < 1.00		
	10/7/2013		7.93	-	-	92.12	-	-	-	-	-	-	-	
	10/23/2013		9.06	-	-	90.99	-	-	-	-	-	-	-	
	11/11/2013		9.52	-	-	90.53	-	-	-	-	-	-	-	
	12/10/2013		9.45	-	-	90.60	10.2	80.4	562	719	1,371.6	ND < 1.00	COULD NOT GAUGE	
	1/21/2014		8.75	-	-	91.30	-	-	-	-	-	-	-	
	3/10/2014		-	-	-	-	-	-	-	-	-	-	-	COULD NOT GAUGE
	6/3/2014		7.86	7.85	0.01	92.21	16.1	98.6	288	412	814.7	ND < 1.00		
	10/2/2014		8.92	-	-	91.13	32.5	232	1,230	1,500	2,994.5	ND < 1.00		
	12/3/2014		8.21	-	-	91.84	27.6	151	1,030	1,220	2,428.6	ND < 1.00		
	3/11/2015		7.81	-	-	92.24	10.2	77.4	757	796	1,640.6	ND < 1.00		
	6/18/2015		8.09	-	-	91.96	25.2	167	1,080	1,240	2,512.2	ND < 1.00		
	9/9/2015		8.39	-	-	91.66	18.8	120	832	1,050	2,020.8	ND < 1.00		
	12/10/2015		8.88	-	-	91.17	18.8	133	1,220	797	2,168.8	ND < 1.00		
	3/16/2016		7.95	-	-	92.10	15.6	95.5	708	757	1,576.1	ND < 1.00		
	6/15/2016		8.31	-	-	91.74	19.1	129	828	1,030	2,006.1	ND < 5.00		
	9/19/2016		9.06	-	-	90.99	37.7	159	1,060	1,190	2,446.7	ND < 5.00		
	12/8/2016		8.26	-	-	91.79	24.5	125	923	1,130	2,202.5	ND < 5.00		
	3/16/2017		-	-	-	-	-	-	-	-	-	-	-	INACCESSIBLE
6/26/2017		7.40	-	-	92.65	5.8	16.6	12.3	111	145.7	ND < 1.0			
9/7/2017		7.86	-	-	92.19	15.2	84.4	755	601	1,455.6	ND < 2.0			
MW-18	9/28/2006	101.41	12.54	-	-	88.87	1,470	137	499	1,160	3,266	5.8		
	12/7/2006		12.76	-	-	88.65	2,490	210	518	1,820	5,038	ND < 10		
	3/29/2007		12.33	-	-	89.08	2,190	170	510	1,100	3,970	ND < 20		
	6/13/2007		11.10	-	-	90.31	2,400	296	1,040	3,360	7,096	ND < 10		
	9/19/2007		12.02	-	-	89.39	1,820	114	397	951	3,282	ND < 2.5		
	12/11/2007		13.40	-	-	88.01	1,670	63.6	241	439	2,413.6	ND < 5		
	3/13/2008		13.12	-	-	88.29	1,770	94.2	399	649	2,912.2	ND < 10		
	6/6/2008		13.24	-	-	88.17	2,410	156	746	1,220	4,532	ND < 10		
	12/30/2008		12.58	-	-	88.83	1,970	80.4	319	620	2,989.4	ND < 5		
	3/16/2009		12.85	-	-	88.56	1,850	79.7	254	417	2,600.7	ND < 5		
	6/8/2009		12.51	-	-	88.90	1,680	79.8	302	480	2,541.8	ND < 10		
	7/20/2009		12.65	-	-	88.76	1,570	83.7	301	537	2,491.7	ND < 10		
	9/24/2009		12.96	-	-	88.45	1,010	48.8	131	363	1,552.8	ND < 1		
	12/3/2009		12.76	-	-	88.65	1,380	57.2	355	720	2,512.2	ND < 5		
	3/3/2010		11.90	-	-	89.51	1,790	80.6	400	548	2,818.6	ND < 10		
	6/7/2010		12.47	-	-	88.94	1,630	103	502	548	2,783	ND < 5		
	9/1/2010		12.83	-	-	88.58	2,580	102	347	637	3,666	ND < 20		
	12/3/2010		12.87	-	-	88.54	1,020	39.4	119	175	1,353.4	ND < 10		
	3/29/2011		10.46	-	-	90.95	746	34.7	137	163	1,080.7	ND < 5		
	6/16/2011		11.00	-	-	90.41	2,180	123	548	738	3,589	ND < 10		
	8/8/2011		10.71	-	-	90.70	2,440	104	261	374	3,179	ND < 10		
	9/19/2011		10.34	-	-	91.07	1,200	64.8	318	425	2,007.8	ND < 5		
	12/5/2011		9.90	-	-	91.51	1,620	65	287	345	2,317	ND < 0.92		
	3/16/2012		10.66	-	-	90.75	1,740	101	1,310	1,510	4,661	ND < 1		
	6/8/2012		9.83	-	-	91.58	153	11.9	109	137	410.9	ND < 1.00		
	9/7/2012		10.05	-	-	91.36	1,070	53.8	451	337	1,911.8	ND < 1.00		
	12/18/2012		10.18	-	-	91.23	944	52.9	160	315	1,471.9	ND < 1.00		
	3/14/2013		9.95	-	-	91.46	780	31.3	89.2	137	1,037.5	ND < 1.00		
	6/24/2013		8.85	-	-	92.56	382	26.5	97.3	188	693.8	ND < 1.00		
	9/4/2013		10.13	-	-	91.28	1,150	87.8	371	522	2,130.8	ND < 1.00		
	9/6/2013		10.66	-	-	90.75	1,150	87.8	371	522	2,130.8	ND < 1.00		
	12/10/2013		11.01	-	-	90.40	820	55.1	122	176	1,173.1	ND < 1.00	COULD NOT GAUGE	
	1/21/2014		-	-	-	-	-	-	-	-	-	-	-	
3/10/2014		-	-	-	-	897	70.6	230	216	1,413.6	ND < 1.00	COULD NOT GAUGE		
6/3/2014		9.45	-	-	91.96	282	48.4	209	248	787.4	ND < 1.00			
10/2/2014		10.62	-	-	90.79	858	65.1	175	175	1,273.1	ND < 10.0	SHEEN		
12/3/2014		10.06	-	-	91.35	1,300	102	330	404	2,136	ND < 1.00	SHEEN		
3/11/2015		9.63	-	-	91.78	1,220	104	520	376	2,220	ND < 1.00			
6/18/2015		9.76	-	-	91.65	774	74.8	268	427	1,543.8	ND < 1.00			
9/9/2015		10.17	-	-	91.24	1,340	89.4	237	370	2,036.4	ND < 1.00			
12/10/2015		10.86	-	-	90.55	1,090	85.3	250	432	1,857.3	ND < 1.00			
3/16/2016		9.71	-	-	91.70	302	77.2	170	596	1,145.2	ND < 1.00			
6/15/2016		10.22	-	-	91.19	933	99.6	211	521	1,764.6	ND < 5.00			
9/19/2016		11.13	-	-	90.28	1,110	130	255	716	2,211	ND < 5.00			

HISTORICAL GROUNDWATER MONITORING SUMMARY

Former Mobil Station # 17-EMW

304 Columbia Street

Brooklyn, New York

Well	Date	Casing Elevation (ft)	Depth to Water (ft)	Depth to Product (ft)	Product Thickness (ft)	Adjusted Groundwater Elevation (ft)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (ug/L)	Xylenes, Total (µg/L)	Total BTEX (µg/L)	MTBE (µg/L)	Comments
NYSDEC TOGS 1.1.1 WQS							1	5	5	5	NS	10	
MW-18 (cont)	12/8/2016	101.41	10.08	-	-	91.33	971	82.8	145	467	1,665.8	ND < 5.00	
	3/16/2017		-	-	-	-	-	-	-	-	-	-	INACCESSIBLE
	6/26/2017		9.05	-	-	92.36	96.4	5.3	10.5	11.2	123.4	ND < 1.0	
	9/7/2017		9.57	-	-	91.84	1,510	111	127	427	2,175	ND < 10	
MW-19	9/6/2013	NSD	9.41	-	-	-	39.3	15.8	171	58.3	284.4	ND < 1.00	NSD
	10/7/2013		9.58	-	-	-	-	-	-	-	-	-	NSD
	10/23/2013		9.89	-	-	-	-	-	-	-	-	-	NSD
	11/11/2013		10.42	-	-	-	-	-	-	-	-	-	NSD
	12/10/2013		10.29	-	-	-	57.5	18.1	148	56.2	279.8	4.75	NSD
	1/21/2014		9.49	-	-	-	-	-	-	-	-	-	
	3/10/2014		-	-	-	-	67.1	8.28	245	58.0	378.38	2.75	COULD NOT GAUGE
	6/3/2014		8.58	-	-	-	35.7	4.06	126	36.2	201.96	ND < 1.00	
	10/2/2014		9.92	-	-	-	68.9	12.9	183	40.5	305.3	ND < 10.0	
	12/3/2014		9.15	-	-	-	57.7	11.3	168	46.4	283.4	ND < 1.00	
	3/11/2015		8.95	-	-	-	28.8	6.76	102	32.0	169.56	ND < 1.00	
	6/18/2015		9.08	-	-	-	63.6	9.92	72.6	34.5	180.62	2.40	
	9/9/2015		9.46	-	-	-	52.3	13.7	89.3	47.9	203.2	ND < 1.00	
	12/10/2015		9.82	-	-	-	38.3	13.9	105	58.5	215.7	ND < 1.00	
	3/16/2016		8.93	-	-	-	40.5	12.8	123	52.8	229.1	ND < 1.00	NSD
	6/15/2016		9.31	-	-	-	43.0	10.3	87.6	57.2	198.1	ND < 1.00	NSD
	9/19/2016		10.03	-	-	-	50.9	19.1	72.0	68.2	210.2	ND < 1.00	NSD
	12/8/2016		9.20	-	-	-	39.8	11.0	49.5	50.3	150.6	ND < 1.00	
	3/16/2017		9.47	-	-	-	45.7	12.4	46.5	46.9	151.5	ND < 1.00	
	6/26/2017		8.33	-	-	-	13.8	2.4	18.5	13.9	48.6	ND < 1.0	
	9/7/2017		8.86	-	-	-	41.0	10.1	21.7	42.6	115.4	ND < 1.0	
MW-20	9/6/2013	NSD	9.34	-	-	-	44.5	3.65	44.6	15.4	108.15	29.2	NSD
	10/7/2013		9.58	-	-	-	-	-	-	-	-	-	NSD
	10/23/2013		9.82	-	-	-	-	-	-	-	-	-	NSD
	11/11/2013		10.20	-	-	-	-	-	-	-	-	-	NSD
	12/10/2013		10.24	-	-	-	145	2.62	89.1	21.1	257.82	47.4	NSD
	1/21/2014		9.35	-	-	-	-	-	-	-	-	-	
	3/10/2014		-	-	-	-	19.8	ND < 1.00	2.63	ND < 3.00	22.43	10.5	COULD NOT GAUGE
	6/3/2014		8.38	-	-	-	3.99	ND < 1.00	ND < 1.00	ND < 2.00	3.99	2.97	
	10/2/2014		9.83	-	-	-	5.98	ND < 1.00	2.57	ND < 2.00	8.55	8.10	
	12/3/2014		9.11	-	-	-	10.9	ND < 1.00	7.94	4.12	22.96	6.57	
	3/11/2015		8.89	-	-	-	50.1	1.34	5.24	3.19	59.87	14.5	
	6/18/2015		9.04	-	-	-	4.01	ND < 1.00	ND < 1.00	ND < 3.00	4.01	3.64	
	9/9/2015		9.44	-	-	-	4.15	ND < 1.00	ND < 1.00	ND < 3.00	4.15	7.68	
	12/10/2015		9.74	-	-	-	5.91	ND < 1.00	ND < 1.00	ND < 3.00	5.91	5.26	
	3/16/2016		8.72	-	-	-	1.65	ND < 1.00	ND < 1.00	ND < 3.00	1.65	1.64	NSD
	6/15/2016		9.22	-	-	-	3.71	ND < 1.00	ND < 1.00	ND < 3.00	3.71	4.22	NSD
	9/19/2016		9.94	-	-	-	8.53	ND < 1.00	ND < 1.00	ND < 3.00	8.53	6.90	NSD
	12/8/2016		9.17	-	-	-	3.22	ND < 1.00	ND < 1.00	ND < 3.00	3.22	5.14	
	3/16/2017		9.30	-	-	-	ND < 1.00	ND < 1.00	ND < 1.00	ND < 3.00	ND	1.82	
	6/26/2017		8.22	-	-	-	0.74	ND < 1.0	ND < 1.0	ND < 1.0	0.74	1.9	
	9/7/2017		8.77	-	-	-	2.4	ND < 1.0	ND < 1.0	ND < 1.0	2.4	6.3	

NOTES:

TOGS 1.1.1 WQS = Ambient Water Quality Standards Guidance Values and Groundwater Effluent Limitations, amended April 2000

- = Not analyzed or measured

BOLD = Value exceeds regulatory limits

BTEX = Benzene, Toluene, Ethylbenzene, and Total Xylenes

CNL = Could Not Locate

DRY = Insufficient water for sampling

ft = Feet

J = Estimated value

mg/L = Milligrams/Liter

MTBE = Methyl tertiary butyl ether

ND < # = Not detected. Where an analyte is not detected, a reporting limit is given.

NS = No Standard

NSD = No Survey Data

NYSDEC = New York State Department of Environmental Conservation

µg/L = Micrograms per liter

NA = Not Analyzed

NM = Field Data Not Measured

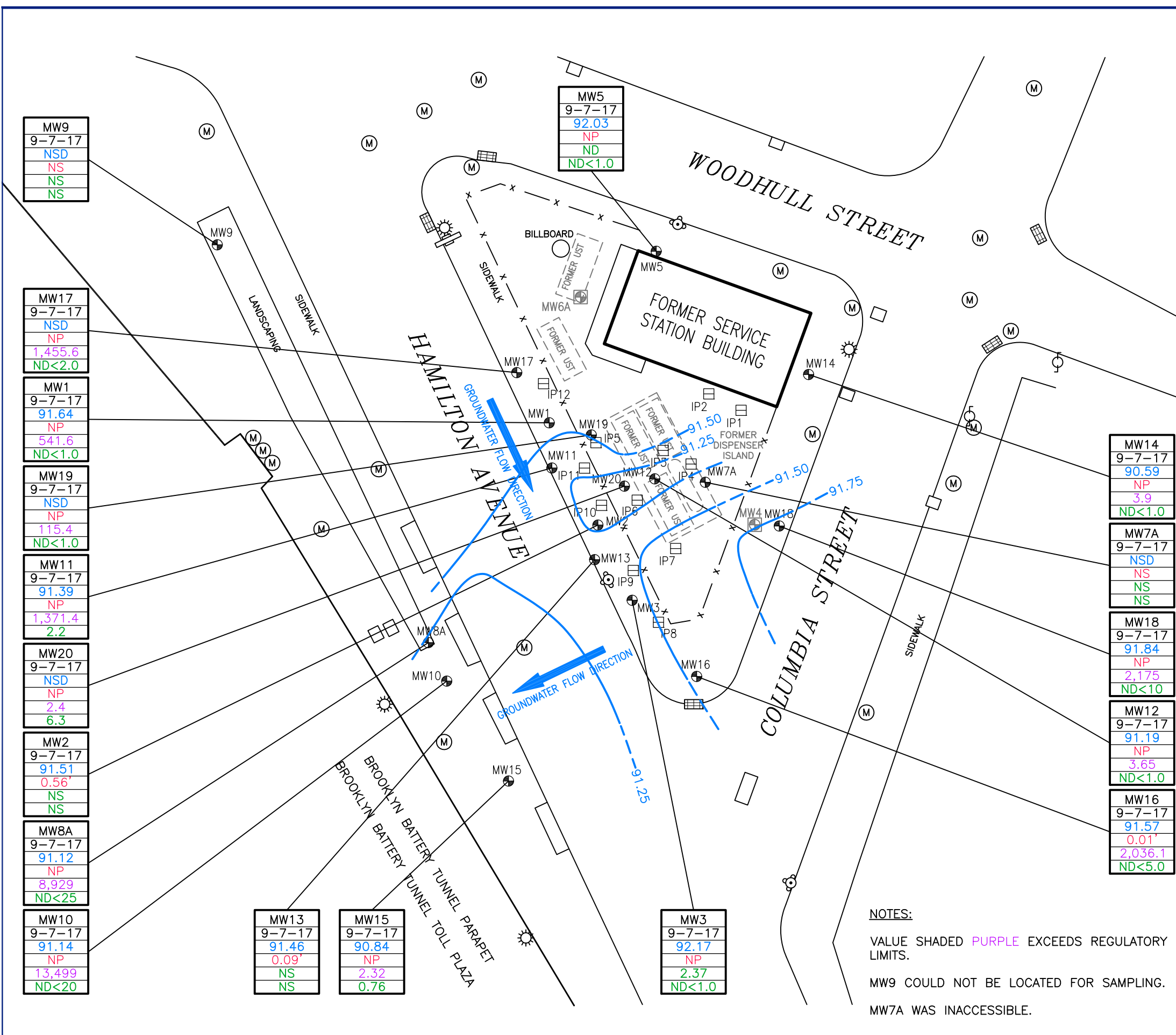
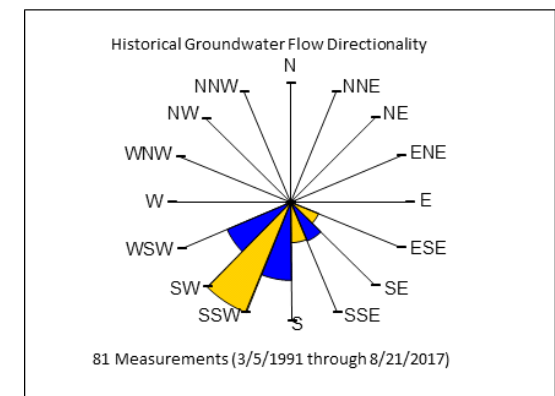
FIGURE

LEGEND

- x — FENCE
- CATCH BASIN
- UTILITY MANHOLE
- UTILITY POLE
- LIGHT POLE
- FIRE HYDRANT
- MONITORING WELL
- ABANDONED/DESTROYED MONITORING WELL
- INJECTION POINT

MW1	WELL IDENTIFICATION
9-7-17	SAMPLE DATE
91.64	GROUNDWATER ELEVATION (feet)
NP	LPH THICKNESS (feet)
541.6	BTEX CONCENTRATION (ug/L)
ND<1.0	MTBE CONCENTRATION (ug/L)

- ug/L MICROGRAMS PER LITER
- LPH LIQUID PHASE HYDROCARBONS
- BTEX BENZENE, TOLUENE, ETHYLBENZENE, XYLENES
- MTBE METHYL *tert*-BUTYL ETHER
- NSD NO SURVEY DATA
- NP NO PRODUCT
- NS NOT SAMPLED
- ND NON DETECT
- <# WHERE AN ANALYTE IS NOT DETECTED, A METHOD DETECTION LIMIT IS GIVEN
- GROUNDWATER CONTOUR (feet)
- DASHED WHERE INFERRED



MW9	9-7-17	NSD	NS	NS	NS
-----	--------	-----	----	----	----

MW5	9-7-17	92.03	NP	ND	ND<1.0
-----	--------	-------	----	----	--------

MW17	9-7-17	NSD	NP	1,455.6	ND<2.0
------	--------	-----	----	---------	--------

MW1	9-7-17	91.64	NP	541.6	ND<1.0
-----	--------	-------	----	-------	--------

MW19	9-7-17	NSD	NP	115.4	ND<1.0
------	--------	-----	----	-------	--------

MW11	9-7-17	91.39	NP	1,371.4	2.2
------	--------	-------	----	---------	-----

MW20	9-7-17	NSD	NP	2.4	6.3
------	--------	-----	----	-----	-----

MW2	9-7-17	91.51	0.56'	NS	NS
-----	--------	-------	-------	----	----

MW8A	9-7-17	91.12	NP	8,929	ND<25
------	--------	-------	----	-------	-------

MW10	9-7-17	91.14	NP	13,499	ND<20
------	--------	-------	----	--------	-------

MW13	9-7-17	91.46	0.09'	NS	NS
------	--------	-------	-------	----	----

MW15	9-7-17	90.84	NP	2.32	0.76
------	--------	-------	----	------	------

MW3	9-7-17	92.17	NP	2.37	ND<1.0
-----	--------	-------	----	------	--------

MW14	9-7-17	90.59	NP	3.9	ND<1.0
------	--------	-------	----	-----	--------

MW7A	9-7-17	NSD	NS	NS	NS
------	--------	-----	----	----	----

MW18	9-7-17	91.84	NP	2,175	ND<10
------	--------	-------	----	-------	-------

MW12	9-7-17	91.19	NP	3.65	ND<1.0
------	--------	-------	----	------	--------

MW16	9-7-17	91.57	0.01'	2,036.1	ND<5.0
------	--------	-------	-------	---------	--------

NOTES:
 VALUE SHADED PURPLE EXCEEDS REGULATORY LIMITS.
 MW9 COULD NOT BE LOCATED FOR SAMPLING.
 MW7A WAS INACCESSIBLE.

DRAFTED BY: E.V.	GROUNDWATER MONITORING MAP SEPTEMBER 7, 2017	
CHECKED BY:	MOBIL SERVICE STATION 17-EMW 304 COLUMBIA STREET BROOKLYN, NEW YORK	
REVIEWED BY:	Groundwater & Environmental Services, Inc. 89 CABOT COURT, SUITE A, HAUPPAUGE, NEW YORK 11788	
NORTH 	SCALE IN FEET 0 APPROXIMATE 30	DATE 10-13-17
	FIGURE 1	

ATTACHMENT A



LIST OF ACRONYMS

AS :	Air Sparge
BTEX :	Benzene, Toluene, Ethylbenzene and Total Xylenes
Cat-Ox :	Catalytic Oxidizer
COC :	Chemical of Concern
CP-51 SCG :	Soil quality standards as defined by the NYSDEC <i>Commissioner Policy 51/ Soil Cleanup Guidance</i> , amended October 21, 2010 (updated soil cleanup levels to TAGM 4046)
DO :	Dissolved Oxygen
DTW :	Depth to Water
EPA :	Environmental Protection Agency
ESA :	Environmental Site Assessment
eV :	Electron Volt
F&T :	Fate and Transport
ft bgs :	Feet Below Ground Surface
GES :	Groundwater & Environmental Services, Inc.
GPR :	Ground Penetrating Radar
HIT :	High Intensity Targeted
HVE :	High Vacuum Extraction
IP :	Injection Point
IRM :	Interim Remedial Measure
ISCO :	In-situ Chemical Oxidation
lbs/hr :	Pounds Per Hour
LNAPL :	Light Non-Aqueous Phase Liquids
LPH :	Liquid Phase Hydrocarbons
mg/L :	Milligrams per liter
MNA :	Monitored Natural Attenuation
MPE :	Multi-Phase Extraction
MTBE :	Methyl Tertiary Butyl Ether
mV :	Millivolts
MW :	Monitoring Well
ND :	Not Detected
NYCDEP :	New York City Department of Environmental Protection
NYSDEC :	New York State Department of Environmental Conservation
O&M :	Operations and Maintenance
ORP :	Oxidation-Reduction Potential
PID :	Photo-Ionization Detector
ppm _v :	Parts Per Million by Volume
P&T :	Pump and Treat
RAP :	Remedial Action Plan
RSCOs :	Recommended Soil Cleanup Objectives as defined by TAGM 4046
SRS :	Sensitive Receptor Survey
STARS :	<i>Spills Technology and Remediation Series #1</i> , amended August 1992
STIP :	Stipulation Agreement.
SVE :	Soil Vapor Extraction
SVOCs :	Semi Volatile Organic Compounds
TAGM :	<i>Technical and Administrative Guidance Memorandum (#4046): Determination of Soil Cleanup Objectives</i> , amended January 24, 1994
TOC :	Top of Casing



µg/kg :	Micrograms per kilogram
µg/L :	Micrograms per liter
UST :	Underground Storage Tank
VGAC :	Vapor-Phase Granulated Activated Carbon
VEGE :	Vacuum Enhanced Groundwater Extraction
VOCs :	Volatile Organic Compounds
WQS :	Groundwater quality standards as defined by the June 1998 <i>Technical and Operation Guidance Series 1.1.1, Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations</i> and the April 2000 <i>Addendum</i> .

ATTACHMENT B



SITE HISTORY

Former Mobil Station #17-EMW
304 Columbia Street
Brooklyn, New York

The site is currently an automobile repair facility. There are currently three (3) closed New York State Department of Environmental Conservation (NYSDEC) Spills associated with the site:

- NYSDEC Spill #93-12498 was opened on January 24, 1994 in response to a tank test failure. The spill was closed on May 14, 2003.
- NYSDEC Spill #05-02047 was opened on May 19, 2005 in response to a used oil spill. The spill was closed on April 26, 2010.
- NYSDEC Spill #06-10200 was opened on December 7, 2006 in response to an unknown spill event. The spill was closed on April 26, 2010.

There is one (1) active NYSDEC Spill associated with the site:

- NYSDEC Spill #89-04339 was opened on August 1, 1989 during UST removal activities. The spill remains open.

Information pertaining to the active spill, along with historical investigation and remedial activities conducted at the site, has been summarized below.

- July 1989 – A tank removal and replacement event was conducted on behalf of Mobil Oil Corporation. Fifteen (15) underground storage tanks (USTs) were removed from the site and four new USTs were installed. Petroleum-impacted soil and liquid phase hydrocarbons (LPH) were discovered during tank removal activities. Approximately 650 tons of petroleum-impacted soil was excavated and disposed at a state-certified landfill.
- August 1, 1989 – Spill #89-04339 was assigned to the site by the NYSDEC.
- July 25, 1990 – A site assessment was conducted at the site. Five (5) monitoring wells were installed (W-1 through W-5). LPH was present in wells W-2 and W-3.
- December 1996 – A subsurface investigation was conducted prior to site divestment, and included the installation of three (3) direct-push soil borings.
- April 22 through 25, 1997 – Site divestment activities were conducted and included the removal of one (1) 1,000-gallon waste oil UST, one (1) 4,000-gallon abandoned single-walled steel gasoline tank, two (2) 4,000-gallon double-walled gasoline fiberglass tanks, one (1) 4,000-gallon abandoned double-walled fiberglass gasoline tank, one (1) pump island, all associated piping, and three (3) hydraulic lifts. Approximately 235.06 tons of petroleum-contaminated soil was excavated and disposed at a state-certified landfill. Seven (7) on-site monitoring wells were destroyed during tank closure activities and site renovations.



- March 25 and April 6, 1998 – A subsurface investigation was conducted which included the installation of four (4) groundwater monitoring wells (MW-1 through MW-3 and MW-5).
- October 11, 1999 – An Environmental Site Assessment was conducted and included the installation of five (5) soil borings (B-1 through B-5) to varying depths between 8 and 34 feet below ground surface (bgs).
- May 10 and 15, 2002 – A *Site Investigation Work Plan* was submitted for proposed delineation and included the installation of ten (10) on-site soil borings and four (4) off-site soil borings (along the north side of Hamilton Avenue) using a direct-push drill rig to 16 feet bgs with groundwater sampling.
- June 24, 2002 – The NYSDEC approved the *Site Investigation Work Plan* and proposed schedules submitted on May 10 and 15, 2002. The NYSDEC requested four (4) additional soil borings along Columbia Street and two additional soil borings along Woodhull Street. The NYSDEC also requested a Sensitive Receptor Survey (SRS) and UST investigation of the former tank field to evaluate the existence and/or proper abandonment of 1,000-gallon USTs from 1997.
- July 22 through 26, 2002 – A subsurface investigation was conducted and included the installation of six (6) on-site soil borings (SB-1, SB-2, SB-4, SB-7, SB-8, and SB-9) and ten (10) off-site soil borings (SB-11 through SB-20).
- December 2, 2002 – A *Subsurface Investigation Report (SIR)* was submitted to the NYSDEC for fieldwork completed in July 2002. Recommendations were made for additional off-site borings/monitoring wells along Hamilton Avenue.
- February 10, 2003 – NYSDEC and ExxonMobil visited the site to discuss proposed monitoring well locations.
- February 21, 2003 – A revised proposed monitoring well/soil boring location map was submitted to the NYSDEC via email in accordance with site discussions on February 10, 2003.
- March 20, 2003 – A letter was received from the NYSDEC to ExxonMobil approving the on- and off-site boring and monitoring well locations submitted on the February 21, 2003 revised map.
- May 12, 2003 – A subsurface investigation was conducted which included the installation of five (5) monitoring wells (MW-6A, MW-7A, MW-8A, MW-9 and MW-10).
- September 16, 2003 – A *Corrective Action Plan (CAP)* was submitted which included a proposed pilot test and future remedial plan.
- September 25, 2003 – The NYSDEC requested the CAP be expanded to include details of the pilot test and the possible installation of additional wells.



- November 18, 2003 – Letter from the NYSDEC approving the amended CAP.
- February 9, 2004 – A subsurface investigation was conducted which included the installation of three (3) soil borings which were completed as monitoring wells (MW-11 through MW-13).
- February 27, 2004 – A high vacuum dual-phase extraction (HVDPE)/enhanced fluid recovery (EFR) event was conducted. During the event, preliminary data was collected to conduct an HVDPE/EFR pilot test.
- November 4, 2004 – A supplemental subsurface investigation was conducted in which one (1) soil boring was installed and completed as a monitoring well (MW-14).
- January 2005 through March 2006 – Enhanced fluid recovery events (EFR) were conducted on a monthly basis. A passive bailer was installed in monitoring well (MW-14) on September 23, 2005. Monitoring wells MW-6, MW-7, and MW-8 were destroyed during construction activities and MW-6A was destroyed in March 2005 during construction for a billboard sign.
- June 2008 – Subsurface investigation was conducted to further evaluate current soil and groundwater hydrocarbon concentrations for additional on- and off-site delineation.
- June 15 through 16, 2009 – Chemical oxidation injections were performed where approximately 1,800 gallons of sodium persulfate and 2,700 gallons of ISOTEC's patented catalyst were injected into twelve injection points located on site (IP-1 through IP-12).
- June 22 and 23, 2010 - Approximately 1,680 gallons of a diluted EnviroClean surfactant solution was injected at MW-1, MW-2, MW-3, MW-13, and MW-16 in order to address LPH observed at the site prior to continuation of chemical injections. On June 24, 25, and 28, 2010, approximately 710 gallons of fluids were recovered during EFR events from the five injection wells.
- July 26 through 28 and August 2 through 4, 2010 – Surfactant injection and recovery events were performed. A diluted EnviroClean surfactant solution was injected at MW-1 through MW-3, MW-13, and MW-16. Approximately 836 gallons of fluids were recovered during EFR events from the five injection wells.
- December 6 through 9, 2010 –An In-Situ Chemical Oxidation (ISCO) pilot test was conducted targeting off-site areas within the eastern sidewalk along Hamilton Avenue and onsite areas within the former gasoline UST area. Twelve injection points were installed. A total of 7,200 gallons of sodium persulfate (at approximately 10.0% concentration) activated with chelated iron catalyst (ASP), including 2,400 gallons of catalyst and 4,800 gallons of oxidizer, were injected.
- August 15 and August 18, 2011 – An ISCO event was conducted targeting off-site areas within the eastern sidewalk along Hamilton Avenue and on-site areas within the former gasoline underground storage tank (UST) area. A total of 7,200 gallons of Activated



Sodium Persulfate (ASP), including 2,400 gallons of catalyst and 4,800 gallons of oxidizer, were injected.

- July 9 through 11, 2012 – A Limited Off-Site Investigation was conducted within the eastern sidewalk along Hamilton Avenue to delineate soil impacts. Vertical Delineation: Soil analytical data results reported concentrations of STARS list compounds above CP-51 soil cleanup levels ranging from 8 to 20 feet below ground surface. Groundwater was encountered between 7 and 10 feet below ground surface within the recently advanced boring locations. This is evidence of a saturated smear zone that exists below the eastern sidewalk of Hamilton Avenue. Horizontal Delineation: Soil analytical data results reported concentrations of STARS list compounds above CP-51 soil cleanup levels within soil borings SB103 through SB107. Soil borings could not be completed south of SB107 due to underground utility obstructions. MW-17, located north of SB103, has contained measurable LPH within the last year. Horizontal delineation of soil impacts extend from SB101 south to MW-16 where increases of BTEX and MTBE have been reported in groundwater within the last year.
- December 18, 2012 – A Site Conceptual Model (SCM) and Remedial Alternatives Analysis (RAA) Report was submitted to NYSDEC.
- July 25, 2013 – A *Surfactant Injection and Well Installation Work Plan* was submitted to the NYSDEC detailing a proposed plan to conduct on-site surfactant injection/extraction activities to reduce the presence of liquid-phase hydrocarbons (LPH) in the vicinity of the western property boundary.
- July 29, 2013 – GES received approval of the July 2013 *Surfactant Injection and Well Installation Work Plan*.
- August 2, 2013 – An Underground Injection Control (UIC) Notification letter was submitted to the U.S. Environmental Protection Agency (EPA) requesting permission to conduct remedial activities at the Site involving the injection of surfactant solution into the subsurface. A copy of the letter was forwarded to the NYSDEC.
- August 29 and September 4, 2013 – Well installation activities were conducted which included the installation of two (2) monitoring wells (MW-19 and MW-20) on the west-central portion of the Site. The wells were installed in accordance with the July 2013 *Surfactant Injection and Well Installation Work Plan*.
- October 7 through 11, 2013 – A surfactant injection and extraction event was conducted at the Site to reduce the presence of LPH along the western property boundary. On October 7, 2013, 750 gallons of surfactant solution were injected into monitoring wells MW-1, MW-2, MW-11, MW-17, MW-19 and MW-20. Between October 8 and 11 of 2013, a total of 1,022 gallons of fluids were extracted from the same monitoring wells.
- October 15, 2013 – A *Monitoring Well Installation Report* was submitted to the NYSDEC detailing the August and September 2013 well installation activities.



- November 11 through 14, 2013 – A surfactant injection and extraction event was conducted at the Site. On November 11, 2013, a total of 500 gallons of surfactant solution was injected into monitoring wells MW-1, MW-2, MW-13 and MW-16. Between November 12 and 14 of 2013, a total of 1,008 gallons of fluids were extracted from the same monitoring wells.
- January 21, 2014 – Conducted post-surfactant injection groundwater monitoring activities which included the gauging of nine (9) monitoring wells (MW-1 through MW-3, MW-11, MW-13, MW-16, MW-17, MW-19 and MW-20). Monitoring well MW-12 was not gauged as it was inaccessible. LPH was detected in two (2) monitoring wells (MW-1 and MW-16).
- September 8 through 12, 2014 - Conducted a Surfactant Enhanced Groundwater Extraction Event which included the injection of approximately 500 gallons of surfactant into monitoring wells MW-1, MW-2, MW-11, MW-13, MW-16 and MW-17 on September 8, 2014 and the extraction of approximately 1,059 gallons of surfactant/groundwater mixture from these wells between September 9 through 12, 2014.
- December 8 through 12, 2014 – Conducted a Surfactant Enhanced Groundwater Extraction Event which included the injection of approximately 500 gallons of surfactant into monitoring wells MW-1, MW-2, MW-11, MW-13, MW-16 and MW-17 on December 8, 2014 and the extraction of approximately 1,450 gallons of surfactant/groundwater mixture from these wells between December 9 through 12, 2014.
- October 31, 2016 – GES submitted an Exposure Assessment Report to the NYSDEC which concluded that impacted soils and groundwater at the Site have been actively targeted by aggressive remediation techniques, the remaining on-Site and off-Site impacts are stable or decreasing and it has been demonstrated that there is no risk of exposure to residual soil and groundwater impacts for the residential properties up-gradient from the Site.

ATTACHMENT C

Technical Report for

ExxonMobil Corporation

GESNYPV: 17-EMW, 304 Columbia Street, Brooklyn, NY

0501997 MSA # 11905-00

SGS Accutest Job Number: JC50497

Sampling Date: 09/07/17

Report to:

Groundwater & Environmental Services
89 Cabot Court Suite A
Hauppauge, NY 11788
Matthew.Cordova@SGS.com; LILABS@GESOnline.com

ATTN: Dennis Shin

Total number of pages in report: 26



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Nancy Cole
Laboratory Director

Client Service contact: Matt Cordova 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (L-A-B L2248)

This report shall not be reproduced, except in its entirety, without the written approval of SGS Accutest.
Test results relate only to samples analyzed.

Table of Contents

-1-

Section 1: Sample Summary	3
Section 2: Summary of Hits	5
Section 3: Sample Results	8
3.1: JC50497-1: MW-1	9
3.2: JC50497-2: MW-3	10
3.3: JC50497-3: MW-5	11
3.4: JC50497-4: MW-8A	12
3.5: JC50497-5: MW-10	13
3.6: JC50497-6: MW-11	14
3.7: JC50497-7: MW-12	15
3.8: JC50497-8: MW-14	16
3.9: JC50497-9: MW-15	17
3.10: JC50497-10: MW-16	18
3.11: JC50497-11: MW-17	19
3.12: JC50497-12: MW-18	20
3.13: JC50497-13: MW-19	21
3.14: JC50497-14: MW-20	22
Section 4: Misc. Forms	23
4.1: Chain of Custody	24

1

2

3

4



Sample Summary

ExxonMobil Corporation

Job No: JC50497

GESNYPV: 17-EMW, 304 Columbia Street, Brooklyn, NY
 Project No: 0501997 MSA # 11905-00

Sample Number	Collected		Matrix Code	Type	Client Sample ID
	Date	Time By			
JC50497-1	09/07/17	10:10 BD/BV09/08/17	AQ	Ground Water	MW-1
JC50497-2	09/07/17	12:10 BD/BV09/08/17	AQ	Ground Water	MW-3
JC50497-3	09/07/17	09:45 BD/BV09/08/17	AQ	Ground Water	MW-5
JC50497-4	09/07/17	13:00 BD/BV09/08/17	AQ	Ground Water	MW-8A
JC50497-5	09/07/17	12:30 BD/BV09/08/17	AQ	Ground Water	MW-10
JC50497-6	09/07/17	11:00 BD/BV09/08/17	AQ	Ground Water	MW-11
JC50497-7	09/07/17	09:10 BD/BV09/08/17	AQ	Ground Water	MW-12
JC50497-8	09/07/17	10:15 BD/BV09/08/17	AQ	Ground Water	MW-14
JC50497-9	09/07/17	12:00 BD/BV09/08/17	AQ	Ground Water	MW-15
JC50497-10	09/07/17	11:15 BD/BV09/08/17	AQ	Ground Water	MW-16
JC50497-11	09/07/17	09:20 BD/BV09/08/17	AQ	Ground Water	MW-17
JC50497-12	09/07/17	10:45 BD/BV09/08/17	AQ	Ground Water	MW-18
JC50497-13	09/07/17	08:45 BD/BV09/08/17	AQ	Ground Water	MW-19



Sample Summary (continued)

ExxonMobil Corporation

Job No: JC50497

GESNYPV: 17-EMW, 304 Columbia Street, Brooklyn, NY
Project No: 0501997 MSA # 11905-00

Sample Number	Collected		Matrix		Client Sample ID
	Date	Time By	Received	Code Type	
JC50497-14	09/07/17	08:40 BD/BV	09/08/17	AQ Ground Water	MW-20

Summary of Hits

Job Number: JC50497
Account: ExxonMobil Corporation
Project: GESNYPV: 17-EMW, 304 Columbia Street, Brooklyn, NY
Collected: 09/07/17

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
JC50497-1		MW-1				
Benzene ^a		42.4	0.50	0.17	ug/l	SW846 8260C
Toluene ^a		19.2	1.0	0.25	ug/l	SW846 8260C
Ethylbenzene		287	5.0	1.1	ug/l	SW846 8260C
Xylene (total) ^a		193	1.0	0.22	ug/l	SW846 8260C
JC50497-2		MW-3				
Ethylbenzene		1.7	1.0	0.22	ug/l	SW846 8260C
Xylene (total)		0.67 J	1.0	0.22	ug/l	SW846 8260C
JC50497-3		MW-5				
No hits reported in this sample.						
JC50497-4		MW-8A				
Benzene		1420	13	4.4	ug/l	SW846 8260C
Toluene		359	25	6.2	ug/l	SW846 8260C
Ethylbenzene		1840	25	5.6	ug/l	SW846 8260C
Xylene (total)		5310	25	5.4	ug/l	SW846 8260C
JC50497-5		MW-10				
Benzene ^b		4120	100	35	ug/l	SW846 8260C
Toluene ^b		629	20	5.0	ug/l	SW846 8260C
Ethylbenzene ^b		2190	20	4.5	ug/l	SW846 8260C
Xylene (total) ^b		6560	20	4.3	ug/l	SW846 8260C
JC50497-6		MW-11				
Benzene		260	1.0	0.35	ug/l	SW846 8260C
Toluene		55.4	2.0	0.50	ug/l	SW846 8260C
Ethylbenzene		512	10	2.2	ug/l	SW846 8260C
Xylene (total)		544	2.0	0.43	ug/l	SW846 8260C
Methyl Tert Butyl Ether		2.2	2.0	0.50	ug/l	SW846 8260C
JC50497-7		MW-12				
Benzene		3.3	0.50	0.17	ug/l	SW846 8260C
Ethylbenzene		0.35 J	1.0	0.22	ug/l	SW846 8260C

Summary of Hits

Job Number: JC50497
Account: ExxonMobil Corporation
Project: GESNYPV: 17-EMW, 304 Columbia Street, Brooklyn, NY
Collected: 09/07/17

2

Lab Sample ID	Client Sample ID	Result/ Analyte	RL	MDL	Units	Method	
JC50497-8	MW-14						
		Benzene	3.9	0.50	0.17	ug/l	SW846 8260C
JC50497-9	MW-15						
		Benzene	1.5	0.50	0.17	ug/l	SW846 8260C
		Ethylbenzene	0.33 J	1.0	0.22	ug/l	SW846 8260C
		Xylene (total)	0.49 J	1.0	0.22	ug/l	SW846 8260C
		Methyl Tert Butyl Ether	0.76 J	1.0	0.25	ug/l	SW846 8260C
JC50497-10	MW-16						
		Benzene	929	2.5	0.87	ug/l	SW846 8260C
		Toluene	75.1	5.0	1.2	ug/l	SW846 8260C
		Ethylbenzene	462	5.0	1.1	ug/l	SW846 8260C
		Xylene (total)	570	5.0	1.1	ug/l	SW846 8260C
JC50497-11	MW-17						
		Benzene	15.2	1.0	0.35	ug/l	SW846 8260C
		Toluene	84.4	2.0	0.50	ug/l	SW846 8260C
		Ethylbenzene	755	10	2.2	ug/l	SW846 8260C
		Xylene (total)	601	2.0	0.43	ug/l	SW846 8260C
JC50497-12	MW-18						
		Benzene	1510	5.0	1.7	ug/l	SW846 8260C
		Toluene	111	10	2.5	ug/l	SW846 8260C
		Ethylbenzene	127	10	2.2	ug/l	SW846 8260C
		Xylene (total)	427	10	2.2	ug/l	SW846 8260C
JC50497-13	MW-19						
		Benzene	41.0	0.50	0.17	ug/l	SW846 8260C
		Toluene	10.1	1.0	0.25	ug/l	SW846 8260C
		Ethylbenzene	21.7	1.0	0.22	ug/l	SW846 8260C
		Xylene (total)	42.6	1.0	0.22	ug/l	SW846 8260C
JC50497-14	MW-20						
		Benzene	2.4	0.50	0.17	ug/l	SW846 8260C
		Methyl Tert Butyl Ether	6.3	1.0	0.25	ug/l	SW846 8260C

(a) (pH= 7) Sample is not acid preserved per method/client criteria.

Summary of Hits

Job Number: JC50497
Account: ExxonMobil Corporation
Project: GESNYPV: 17-EMW, 304 Columbia Street, Brooklyn, NY
Collected: 09/07/17

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
---------------	------------------	-----------------	----	-----	-------	--------

(b) (pH= 7)Sample pH did not satisfy field preservation criteria.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: MW-1		
Lab Sample ID: JC50497-1		Date Sampled: 09/07/17
Matrix: AQ - Ground Water		Date Received: 09/08/17
Method: SW846 8260C		Percent Solids: n/a
Project: GESNYPV: 17-EMW, 304 Columbia Street, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	4B74898.D	1	09/14/17 15:40	HT	n/a	n/a	V4B3073
Run #2	2A180933.D	5	09/14/17 00:26	JC	n/a	n/a	V2A7647

Run #	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	42.4	0.50	0.17	ug/l	
108-88-3	Toluene	19.2	1.0	0.25	ug/l	
100-41-4	Ethylbenzene	287 ^b	5.0	1.1	ug/l	
1330-20-7	Xylene (total)	193	1.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%	95%	80-120%
17060-07-0	1,2-Dichloroethane-D4	100%	99%	81-124%
2037-26-5	Toluene-D8	103%	102%	80-120%
460-00-4	4-Bromofluorobenzene	95%	98%	80-120%

(a) (pH= 7) Sample is not acid preserved per method/client criteria.

(b) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

32
3

Client Sample ID: MW-3		
Lab Sample ID: JC50497-2		Date Sampled: 09/07/17
Matrix: AQ - Ground Water		Date Received: 09/08/17
Method: SW846 8260C		Percent Solids: n/a
Project: GESNYPV: 17-EMW, 304 Columbia Street, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A180935.D	1	09/14/17 01:23	JC	n/a	n/a	V2A7647
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.17	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
100-41-4	Ethylbenzene	1.7	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	0.67	1.0	0.22	ug/l	J
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		80-120%
17060-07-0	1,2-Dichloroethane-D4	99%		81-124%
2037-26-5	Toluene-D8	101%		80-120%
460-00-4	4-Bromofluorobenzene	100%		80-120%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-5		
Lab Sample ID: JC50497-3		Date Sampled: 09/07/17
Matrix: AQ - Ground Water		Date Received: 09/08/17
Method: SW846 8260C		Percent Solids: n/a
Project: GESNYPV: 17-EMW, 304 Columbia Street, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A180936.D	1	09/14/17 01:51	JC	n/a	n/a	V2A7647
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	0.50	0.17	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		80-120%
17060-07-0	1,2-Dichloroethane-D4	97%		81-124%
2037-26-5	Toluene-D8	105%		80-120%
460-00-4	4-Bromofluorobenzene	95%		80-120%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

34
3

Client Sample ID: MW-8A	
Lab Sample ID: JC50497-4	Date Sampled: 09/07/17
Matrix: AQ - Ground Water	Date Received: 09/08/17
Method: SW846 8260C	Percent Solids: n/a
Project: GESNYPV: 17-EMW, 304 Columbia Street, Brooklyn, NY	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A180931.D	25	09/13/17 23:29	JC	n/a	n/a	V2A7647
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	1420	13	4.4	ug/l	
108-88-3	Toluene	359	25	6.2	ug/l	
100-41-4	Ethylbenzene	1840	25	5.6	ug/l	
1330-20-7	Xylene (total)	5310	25	5.4	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	25	6.3	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		80-120%
17060-07-0	1,2-Dichloroethane-D4	97%		81-124%
2037-26-5	Toluene-D8	104%		80-120%
460-00-4	4-Bromofluorobenzene	98%		80-120%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-10		
Lab Sample ID: JC50497-5		Date Sampled: 09/07/17
Matrix: AQ - Ground Water		Date Received: 09/08/17
Method: SW846 8260C		Percent Solids: n/a
Project: GESNYPV: 17-EMW, 304 Columbia Street, Brooklyn, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 ^a	2A180937.D	20	09/14/17 02:20	JC	n/a	n/a	V2A7647
Run #2 ^a	2A180938.D	200	09/14/17 02:48	JC	n/a	n/a	V2A7647

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	4120 ^b	100	35	ug/l	
108-88-3	Toluene	629	20	5.0	ug/l	
100-41-4	Ethylbenzene	2190	20	4.5	ug/l	
1330-20-7	Xylene (total)	6560	20	4.3	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	20	5.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%	95%	80-120%
17060-07-0	1,2-Dichloroethane-D4	98%	98%	81-124%
2037-26-5	Toluene-D8	101%	103%	80-120%
460-00-4	4-Bromofluorobenzene	98%	100%	80-120%

(a) (pH= 7)Sample pH did not satisfy field preservation criteria.

(b) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
 RL = Reporting Limit

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-11		
Lab Sample ID: JC50497-6		Date Sampled: 09/07/17
Matrix: AQ - Ground Water		Date Received: 09/08/17
Method: SW846 8260C		Percent Solids: n/a
Project: GESNYPV: 17-EMW, 304 Columbia Street, Brooklyn, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4B74896.D	2	09/14/17 14:44	HT	n/a	n/a	V4B3073
Run #2	2A180942.D	10	09/14/17 04:42	JC	n/a	n/a	V2A7647

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	260	1.0	0.35	ug/l	
108-88-3	Toluene	55.4	2.0	0.50	ug/l	
100-41-4	Ethylbenzene	512 ^a	10	2.2	ug/l	
1330-20-7	Xylene (total)	544	2.0	0.43	ug/l	
1634-04-4	Methyl Tert Butyl Ether	2.2	2.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%	94%	80-120%
17060-07-0	1,2-Dichloroethane-D4	101%	98%	81-124%
2037-26-5	Toluene-D8	100%	103%	80-120%
460-00-4	4-Bromofluorobenzene	97%	99%	80-120%

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

37
3

Client Sample ID: MW-12		Date Sampled: 09/07/17
Lab Sample ID: JC50497-7		Date Received: 09/08/17
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8260C		
Project: GESNYPV: 17-EMW, 304 Columbia Street, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A180939.D	1	09/14/17 03:16	JC	n/a	n/a	V2A7647
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	3.3	0.50	0.17	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
100-41-4	Ethylbenzene	0.35	1.0	0.22	ug/l	J
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		80-120%
17060-07-0	1,2-Dichloroethane-D4	97%		81-124%
2037-26-5	Toluene-D8	103%		80-120%
460-00-4	4-Bromofluorobenzene	101%		80-120%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis



Client Sample ID: MW-14		Date Sampled: 09/07/17
Lab Sample ID: JC50497-8		Date Received: 09/08/17
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8260C		
Project: GESNYPV: 17-EMW, 304 Columbia Street, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A180940.D	1	09/14/17 03:45	JC	n/a	n/a	V2A7647
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	3.9	0.50	0.17	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		80-120%
17060-07-0	1,2-Dichloroethane-D4	97%		81-124%
2037-26-5	Toluene-D8	103%		80-120%
460-00-4	4-Bromofluorobenzene	97%		80-120%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-15		
Lab Sample ID: JC50497-9		Date Sampled: 09/07/17
Matrix: AQ - Ground Water		Date Received: 09/08/17
Method: SW846 8260C		Percent Solids: n/a
Project: GESNYPV: 17-EMW, 304 Columbia Street, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A180941.D	1	09/14/17 04:13	JC	n/a	n/a	V2A7647
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	1.5	0.50	0.17	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
100-41-4	Ethylbenzene	0.33	1.0	0.22	ug/l	J
1330-20-7	Xylene (total)	0.49	1.0	0.22	ug/l	J
1634-04-4	Methyl Tert Butyl Ether	0.76	1.0	0.25	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		80-120%
17060-07-0	1,2-Dichloroethane-D4	99%		81-124%
2037-26-5	Toluene-D8	102%		80-120%
460-00-4	4-Bromofluorobenzene	98%		80-120%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-16		Date Sampled: 09/07/17
Lab Sample ID: JC50497-10		Date Received: 09/08/17
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8260C		
Project: GESNYPV: 17-EMW, 304 Columbia Street, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2A180944.D	5	09/14/17 05:38	JC	n/a	n/a	V2A7647
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	929	2.5	0.87	ug/l	
108-88-3	Toluene	75.1	5.0	1.2	ug/l	
100-41-4	Ethylbenzene	462	5.0	1.1	ug/l	
1330-20-7	Xylene (total)	570	5.0	1.1	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	5.0	1.3	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		80-120%
17060-07-0	1,2-Dichloroethane-D4	94%		81-124%
2037-26-5	Toluene-D8	103%		80-120%
460-00-4	4-Bromofluorobenzene	100%		80-120%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-17		
Lab Sample ID: JC50497-11		Date Sampled: 09/07/17
Matrix: AQ - Ground Water		Date Received: 09/08/17
Method: SW846 8260C		Percent Solids: n/a
Project: GESNYPV: 17-EMW, 304 Columbia Street, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4B74897.D	2	09/14/17 15:12	HT	n/a	n/a	V4B3073
Run #2	2A180946.D	10	09/14/17 06:35	JC	n/a	n/a	V2A7647

Run #	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	15.2	1.0	0.35	ug/l	
108-88-3	Toluene	84.4	2.0	0.50	ug/l	
100-41-4	Ethylbenzene	755 ^a	10	2.2	ug/l	
1330-20-7	Xylene (total)	601	2.0	0.43	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	0.50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%	97%	80-120%
17060-07-0	1,2-Dichloroethane-D4	101%	96%	81-124%
2037-26-5	Toluene-D8	100%	102%	80-120%
460-00-4	4-Bromofluorobenzene	94%	101%	80-120%

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-18		Date Sampled: 09/07/17
Lab Sample ID: JC50497-12		Date Received: 09/08/17
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8260C		
Project: GESNYPV: 17-EMW, 304 Columbia Street, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4B74891.D	10	09/14/17 12:22	HT	n/a	n/a	V4B3073
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	1510	5.0	1.7	ug/l	
108-88-3	Toluene	111	10	2.5	ug/l	
100-41-4	Ethylbenzene	127	10	2.2	ug/l	
1330-20-7	Xylene (total)	427	10	2.2	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	10	2.5	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		80-120%
17060-07-0	1,2-Dichloroethane-D4	106%		81-124%
2037-26-5	Toluene-D8	97%		80-120%
460-00-4	4-Bromofluorobenzene	100%		80-120%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-19		
Lab Sample ID: JC50497-13		Date Sampled: 09/07/17
Matrix: AQ - Ground Water		Date Received: 09/08/17
Method: SW846 8260C		Percent Solids: n/a
Project: GESNYPV: 17-EMW, 304 Columbia Street, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4B74907.D	1	09/14/17 19:59	HT	n/a	n/a	V4B3073
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	41.0	0.50	0.17	ug/l	
108-88-3	Toluene	10.1	1.0	0.25	ug/l	
100-41-4	Ethylbenzene	21.7	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	42.6	1.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		80-120%
17060-07-0	1,2-Dichloroethane-D4	100%		81-124%
2037-26-5	Toluene-D8	111%		80-120%
460-00-4	4-Bromofluorobenzene	92%		80-120%

ND = Not detected MDL = Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-20		
Lab Sample ID: JC50497-14		Date Sampled: 09/07/17
Matrix: AQ - Ground Water		Date Received: 09/08/17
Method: SW846 8260C		Percent Solids: n/a
Project: GESNYPV: 17-EMW, 304 Columbia Street, Brooklyn, NY		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4B74893.D	1	09/14/17 13:18	HT	n/a	n/a	V4B3073
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	2.4	0.50	0.17	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	
1634-04-4	Methyl Tert Butyl Ether	6.3	1.0	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		80-120%
17060-07-0	1,2-Dichloroethane-D4	110%		81-124%
2037-26-5	Toluene-D8	98%		80-120%
460-00-4	4-Bromofluorobenzene	102%		80-120%

ND = Not detected MDL = Method Detection Limit J = Indicates an estimated value
 RL = Reporting Limit B = Indicates analyte found in associated method blank
 E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

ACCUTEST Laboratories

2235 Rt. 130, Dayton, NJ 08810 (732) 329-0200 ___X___
 4405 Vineland Road, Orlando, FL 32811 (407) 425-8700 ___
 10165 Harwin Drive, Houston, TX 77036 (713) 271-4700 ___
 495 Tech Center West, Bldg 1, Marlborough, MA 01752 (508) 481-6200 ___

Accutest Job No. JC50497

Print Bill to Contact Name: Environmental INC # _____
 Name: _____
 Address: _____
 Phone Number: _____
 Special Billing instructions: _____
 Invoice GES GES MJA
#11905-00

Consultant: _____ Contact / PM: _____

Groundwater and Environmental Services, Inc
 Address: _____ Town: _____ State: _____ Zip: _____

PROJECT NAME: EM 17-EMW SITE ADDRESS: 304 Columbia St Town: Brooklyn State: NY

PROJECT CONTACT (Hardcopy or PDF Report to): _____ email: _____

SITE CONTACT: _____ PHONE NO.: _____ E-MAIL: _____ PROJECT NO.: _____

TELEPHONE: _____ FAX: _____

Sample by: (Print) Brian Dunn + Brandon Vello Project specific instructions: email EQEDD package to: ges@equisonline.com ; LILABS@gesonline.com

1-800-360-9405 631-582-4410

EM 17-EMW lab report 1810 EQEDD.zip

TURNAROUND TIME (BUSINESS DAYS):
 10 DAYS 5 DAYS 3 DAYS 2 DAYS 1 DAY

ANALYSES REQUESTED (Please specify methods where applicable)

DATA DELIVERABLE (Check one)
 COMMA COMMB REDT2 FULT1 OTHER (Specify below)

TEMPERATURE ON RECEIPT? _____
 CUSTODY / COOLER SEAL # _____
 SAMPLES RECEIVED ON ICE? Y / N

Specific Deliverable Type: _____

EDD: NTR GISKEY Project Custom Other

Sample Collection information

LAB USE ONLY

Field Sample Identification

SAMPLING DATE TIME MATRIX NO. OF CONT.

Preservative HCL HNO3 H2SO4 MEOH ENCORE NAOH NONE OTHER

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

Temperature on Receipt? _____

Custody / Cooler Seal # _____

Samples received on ice? Y / N

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

LAB USE ONLY

Relinquished by (Signature) [Signature]
 Relinquished by (Signature) [Signature]
 Relinquished by (Signature) [Signature]

Received by (Signature) [Signature]
 Received by (Signature) [Signature]
 Received by (Signature) [Signature]

Date: 9/17/17 Time: 1500
 Date: 9/18/17 Time: 9:45
 Date: _____ Time: _____

DISTRIBUTION: White with sample submission, Yellow kept by client

FX# 7250 6931 8933

ICEV 1.8°C - IP

SGS Accutest Sample Receipt Summary

Job Number: JC50497

Client: _____

Project: _____

Date / Time Received: 9/8/2017 9:45:00 AM

Delivery Method: _____

Airbill #'s: _____

Cooler Temps (Raw Measured) °C: Cooler 1: (1.8);

Cooler Temps (Corrected) °C: Cooler 1: (1.0);

<u>Cooler Security</u>	<u>Y or N</u>		<u>Y or N</u>	<u>Y or N</u>	
1. Custody Seals Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3. COC Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Custody Seals Intact:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4. Smpl Dates/Time OK	<input checked="" type="checkbox"/>	<input type="checkbox"/>

<u>Cooler Temperature</u>	<u>Y or N</u>	
1. Temp criteria achieved:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Cooler temp verification:	IR Gun	
3. Cooler media:	Ice (Bag)	
4. No. Coolers:	1	

<u>Quality Control Preservation</u>	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
1. Trip Blank present / cooler:	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Trip Blank listed on COC:	<input type="checkbox"/>		<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Samples preserved properly:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
4. VOCs headspace free:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>

<u>Sample Integrity - Documentation</u>	<u>Y or N</u>	
1. Sample labels present on bottles:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Container labeling complete:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Sample container label / COC agree:	<input checked="" type="checkbox"/>	<input type="checkbox"/>

<u>Sample Integrity - Condition</u>	<u>Y or N</u>	
1. Sample recvd within HT:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. All containers accounted for:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Condition of sample:	Intact	

<u>Sample Integrity - Instructions</u>	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
1. Analysis requested is clear:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
2. Bottles received for unspecified tests	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
3. Sufficient volume recvd for analysis:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
4. Compositing instructions clear:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Filtering instructions clear:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments

SM089-02
Rev. Date 12/1/16

JC50497: Chain of Custody

Page 3 of 3

4.1
4