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Subject:
Results of Third Quarter 2019 System Operation and Monitoring, Bethpage
Park Groundwater Containment System (BPGWCS), Operable Unit 3 (Former
Grumman Settling Ponds), Bethpage, New York, NYSDEC Site
#1-30-003A.

ENVIRONMENT

Date:
November 27, 2019

Dear Jason:

Contact:
Christopher Engler

Enclosed is one electronic PDF copy of the third quarter results of the OU3
BPGWCS operation and monitoring, performed in accordance with the NYSDEC-
approved OU3 Groundwater IRM OM&M Manual (Arcadis 2009) and the
NYSDEC-approved Sampling and Analysis Plan (SAP; Arcadis 2009). As we
have transitioned to electronic submittals (via PDF) in line with NYSDEC's paper
reduction program, hard copies of the report can be provided on request.

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Email:
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If you have any questions, please do not hesitate to contact me.

Our ref:
30018013

Sincerely,

Arcadis of New York, Inc.



Christopher Engler, PE
New York PE-069748

Vice President

Enclosure

Mr. Jason Pelton
November 27, 2019




Copies:

Edward Hannon, Northrop Grumman Corporation
Donald Hesler, NYSDEC
Steven Karpinski, NYS Dept. of Health
John Lovejoy, Nassau County Dept. of Health
Carlo San Giovanni, Arcadis
Nidal Azzam, USEPA
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Table 1
Operational Summary
Bethpage Park Groundwater Containment System
Operable Unit 3 (Former Grumman Settling Ponds)
Bethpage, New York

MONTH	DAY																															Days Operational ¹		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
2009 Total																																		160
2010 Total																																		352
2011 Total																																		351
2012 Total																																		353
2013 Total																																		354
2014 Total																																		349
2015 Total																																		348
2016 Total																																		351
2017 Total																																		354
2018 Total																																		348
1Q 2019																																		89
2Q 2019																																		91
Jul 2019																																		29
Aug 2019																																		31
Sept 2019																																		30
3Q 2019																																		90
TOTAL																																		3590

Legend:

-  Indicates system online the majority or all of the day.
-  Indicates system operated with reduced flow rates.
-  Indicates system off-line the majority or all of the day.

Abbreviations, Notes, and Units on last page.

Table 1
Operational Summary
Bethpage Park Groundwater Containment System
Operable Unit 3 (Former Grumman Settling Ponds)
Bethpage, New York

Notes:

1. Days the system was operational for the majority of the day are counted as one day.

Third Quarter 2019

2. System shutdown due to a failed PLC power supply.
3. RW-2 pump failed and system was brought back online operating at a reduced flowrate.

Abbreviations/Units:

3Q	Third Quarter
RW	Recovery Well

Table 2
Summary of Influent Water Sample Analytical Results
Bethpage Park Groundwater Containment System
Operable Unit 3 (Former Grumman Settling Ponds)
Bethpage, New York

Compound	11/08/18 (µg/L)	03/01/19 (µg/L)	06/07/19 (µg/L)	09/06/19 (µg/L)
<u>Project VOCs</u>				
1,1,1 - Trichloroethane	< 1.0	< 1.0	< 1.0	< 1.0
1,1 - Dichloroethane	< 1.0	< 1.0	< 1.0	< 1.0
1,2 - Dichloroethane	< 1.0	< 1.0	< 1.0	< 1.0
1,1 - Dichloroethene	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	2.6	3.1	2.4	3.0
Vinyl Chloride	1.9	2.7	1.6	1.8
cis 1,2-Dichloroethene	6.8	7.9	4.9	5.7
trans 1,2-Dichloroethene	< 1.0	< 1.0	< 1.0	< 1.0
Benzene	< 0.50	< 0.50	< 0.50	< 0.50
Toluene	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	< 1.0	< 1.0	< 1.0	< 1.0
m,p-Xylene	< 1.0	< 1.0	< 1.0	< 1.0
Subtotal Project VOCs	11.3	13.7	8.9	10.5
<u>Non-Project VOCs</u>				
1,1,2,2-Tetrachloroethane	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	< 1.0	< 1.0	< 1.0	< 1.0
2-Butanone	< 10	< 10	< 10	< 10
4-Methyl-2-Pentanone	< 5.0	< 5.0	< 5.0	< 5.0
Acetone	< 10	< 10	< 10	< 10
Bromodichloromethane	< 1.0	< 1.0	< 1.0	< 1.0
Bromoform	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane	< 2.0	< 2.0	< 2.0	< 2.0
Carbon Disulfide	< 2.0	< 2.0	< 2.0	< 2.0
Carbon Tetrachloride	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	< 1.0	< 1.0	< 1.0	< 1.0
Chlorodibromomethane	< 1.0	< 1.0	< 1.0	< 1.0
Chlorodifluoromethane (Freon 22)	--	< 5.0	< 5.0	< 5.0
Chloroethane	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform	< 1.0	< 1.0	< 1.0	< 1.0
Chloromethane	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,3-Dichloropropene	< 1.0	< 1.0	< 1.0	< 1.0

Abbreviations, Notes, Qualifiers, and Units on last page.

Table 2
Summary of Influent Water Sample Analytical Results
Bethpage Park Groundwater Containment System
Operable Unit 3 (Former Grumman Settling Ponds)
Bethpage, New York

Compound	11/08/18 (µg/L)	03/01/19 (µg/L)	06/07/19 (µg/L)	09/06/19 (µg/L)
<u>Non-Project VOCs</u>				
Dichlorodifluoromethane (Freon 12)	--	< 2.0	< 2.0	< 2.0
Dichloromethane	< 2.0	< 2.0	< 2.0	< 2.0
Ethylbenzene	< 1.0	< 1.0	< 1.0	< 1.0
Methyl N-Butyl Ketone	< 5.0	< 5.0	< 5.0	< 5.0
Methyl Tert-Butyl Ether	--	< 1.0	< 1.0	< 1.0
Styrene (Monomer)	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-Dichloropropene	< 1.0	< 1.0	< 1.0	< 1.0
Trichlorofluoromethane (Freon 11)	--	< 2.0	< 2.0	< 2.0
Trichlorotrifluoroethane (Freon 113)	< 5.0	< 5.0	< 5.0	< 5.0
1-Chloro-1,1-difluoroethane (Freon 142b)	--	--	< 5.0	< 5.0
Subtotal Non-Project VOCs	0	0	0	0
Total VOCs¹	11	14	9	11
1,4-Dioxane	0.59	0.80	0.33	0.70
Compound	11/08/18 (µg/L)	03/01/19 (µg/L)	06/07/19 (µg/L)	09/06/19 (µg/L)
<u>Inorganics</u>				
Dissolved Cadmium	--	--	--	--
Total Cadmium	--	--	--	--
Dissolved Chromium	--	--	--	--
Total Chromium	--	--	--	--
Dissolved Iron	--	204	--	--
Total Iron	--	--	--	--
Total Manganese	--	47.7	--	--
pH ²	5.7	5.5	5.3	5.5

Abbreviations, Notes, Qualifiers, and Units:

- Not Analyzed
- USEPA United States Environmental Protection Agency
- VOC Volatile Organic Compound

1. "Total VOCs" represents the sum of individual concentrations of the compounds detected. The values used in calculations referenced in this report have been rounded to the nearest whole number.
2. Influent pH samples collected and measured in the field by Arcadis personnel on the dates listed using a field calibrated pH/conductivity meter. pH units are standard units.

- 3.0** Bold value indicates a detection.
- < 1.0 Compound not detected at or above the laboratory quantification limit.
- J Result is estimated.
- µg/L micrograms per liter

Table 3
Summary of Effluent Water Sample Analytical Results
Bethpage Park Groundwater Containment System
Operable Unit 3 (Former Grumman Settling Ponds)
Bethpage, New York

Compound	Discharge Limit ¹ (µg/L)	10/10/18 (µg/L)	11/08/18 (µg/L)	12/06/18 (µg/L)	01/10/19 (µg/L)	02/05/19 (µg/L)	03/01/19 (µg/L)	04/02/19 (µg/L)	05/15/19 (µg/L)	06/07/19 (µg/L)	07/02/19 (µg/L)	08/02/19 (µg/L)	09/06/19 (µg/L)
Project VOCs													
1,1,1-Trichloroethane	5 ²	< 0.50	< 1.0	< 0.50	<0.50	<0.50	<0.50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	5 ²	< 0.50	< 1.0	< 0.50	<0.50	<0.50	<0.50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	5 ²	< 0.50	< 1.0	< 0.50	<0.50	<0.50	<0.50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	5 ²	< 0.50	< 1.0	< 0.50	<0.50	<0.50	<0.50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vinyl Chloride	5 ²	< 0.50	< 1.0	< 0.50	<0.50	<0.50	<0.50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis 1,2-Dichloroethene	5 ²	< 0.50	< 1.0	< 0.50	<0.50	<0.50	<0.50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans 1,2-Dichloroethene	5 ²	< 0.50	< 1.0	< 0.50	<0.50	<0.50	<0.50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Subtotal Project VOCs		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Compound	Discharge Limit ¹ (µg/L)	10/10/18 (µg/L)	11/08/18 (µg/L)	12/06/18 (µg/L)	01/10/19 (µg/L)	02/05/19 (µg/L)	03/01/19 (µg/L)	04/02/19 (µg/L)	05/15/19 (µg/L)	06/07/19 (µg/L)	07/02/19 (µg/L)	08/02/19 (µg/L)	09/06/19 (µg/L)
Non-Project VOCs													
Chloroform	5 ²	< 0.50	< 1.0	< 0.50	<0.50	<0.50	<0.50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dichloromethane	5 ²	< 0.50	< 1.0	< 0.50	<0.50	<0.50	<0.50	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Trichlorotrifluoroethane (Freon 113)	5 ²	< 0.50	< 2.0	< 0.50	<0.50	<0.50	<0.50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Subtotal Non-Project VOCs		0	0	0	0	0	0	0	0	0	0	0	0
Total VOCs³		0	0	0	0	0	0	0	0	0	0	0	0
Treatment Efficiency ⁴		> 99.9%	> 99.9%	> 99.9%	> 99.9%	> 99.9%	> 99.9%	> 99.9%	> 99.9%	> 99.9%	> 99.9%	> 99.9%	> 99.9%
Compound	Discharge Limit ¹ (µg/L)	10/10/18 (µg/L)	11/08/18 (µg/L)	12/06/18 (µg/L)	01/10/19 (µg/L)	02/05/19 (µg/L)	03/01/19 (µg/L)	04/02/19 (µg/L)	05/15/19 (µg/L)	06/07/19 (µg/L)	07/02/19 (µg/L)	08/02/19 (µg/L)	09/06/19 (µg/L)
Inorganics													
Dissolved Cadmium	5	--	--	--	--	--	--	--	--	--	--	--	--
Total Cadmium	5	--	--	--	--	--	--	--	--	--	--	--	--
Dissolved Chromium	50	--	--	--	--	--	--	--	--	--	--	--	--
Total Chromium	50	--	--	--	--	--	--	--	--	--	--	--	--
Dissolved Iron	600	--	--	--	--	--	--	--	--	--	--	--	--
Total Iron	600	145	142	144	120	179	204	< 100	126	< 100	102	133	133
Total Mercury	250	--	--	--	--	--	--	--	--	--	--	--	--
Total Manganese	600	47.3	50.6	48.8	52.4	51.2	47.7	44.2	47.3	45.2	49.4	50.1	51.2
Nitrate and Nitrite	10,000	2,600	2,600	2,800	2,700	2,800	2,500	2,700	2,500	2,300	2,500	2,500	2,700
Total Kjeldahl Nitrogen	10,000	< 200	< 200	< 200	< 200	< 201	450.0	< 200	< 200	< 200	< 200	< 200	310.0
Total Nitrogen	10,000	2,600	2,600	2.8	2,700	2,800	3,000	2,800	2,700	2,300	2,500	2,500	3,000
1,4-Dioxane	NE	0.57	0.49	0.78	0.73	1.10	0.76	0.61	0.74	0.61	0.68	0.34	0.71
pH ⁵	5.5-8.5	6.5	6.8	6.8	6.9	7.0	6.6	6.8	6.6	6.7	7.0	6.7	6.7

Abbreviations, Notes, Qualifiers, and Units on last page.

Table 3
Summary of Effluent Water Sample Analytical Results
Bethpage Park Groundwater Containment System
Operable Unit 3 (Former Grumman Settling Ponds)
Bethpage, New York

Abbreviations, Notes, Qualifiers, and Units:

--	Not Analyzed
NYSDEC	New York State Department of Environmental Conservation
SPDES	State Pollutant Discharge Elimination System
USEPA	United States Environmental Protection Agency
VOC	Volatile Organic Compound

1. Discharge limits per the interim SPDES equivalency program or Division of Water Technical and Operational Guidance Series (TOGS 1.1.1) Quality Standards and Guidance Values and Groundwater Effluent Limitations, if the compound is not part of the SPDES Permit Equivalency.
2. As of September 2017, the 10 SPDES VOCs discharge limits are per Site Number 1-30-003A Operable Unit 3 SPDES Permit Equivalency.
3. "Total VOCs" represents the sum of individual concentrations of compounds detected. The values used in calculations referenced in this report have been rounded to the nearest whole number.
4. Treatment efficiency was calculated by dividing the difference between the influent and effluent total VOC concentrations by the influent total VOC concentration.
5. Effluent pH measured on site using a handheld pH meter. pH units are standard units.

102	Bold value indicates a detection.
< 0.50	Compound not detected above the laboratory quantification limit.
J	Result is estimated.
µg/L	micrograms per liter

Table 4
Influent Vapor Sample Analytical Results
Bethpage Park Groundwater Containment System
Operable Unit 3 (Former Grumman Settling Ponds)
Bethpage, New York

Compound ¹	11/08/18 (µg/m ³)	03/01/19 (µg/m ³)	06/07/19 (µg/m ³)	09/06/19 (µg/m ³)
<u>Project VOCs</u>				
1,1,1 - Trichloroethane	0.76	0.76	0.65	0.93
1,1 - Dichloroethane	3.6	6.9	4.5	4.5
1,2 - Dichloroethane	< 0.65	< 0.65	< 0.65	< 0.81
1,1 - Dichloroethene	1.2	1.9	1.1	1.1
Tetrachloroethene	4.1	2.8	10	2.6
Trichloroethene	45	54	48	54.8
Vinyl Chloride	29.1	52.7	29.7	30.7
cis 1,2-Dichloroethene	120	165	103	103
trans 1,2-Dichloroethene	< 0.63	0.52 J	0.34 J	< 0.79
Benzene	0.64	0.93	0.64	< 0.64
Toluene	0.41 J	0.87	0.57 J	0.49 J
o-Xylene	< 0.69	0.69	0.74	0.52 J
m,p-Xylene	< 0.69	0.74	0.48 J	< 0.87
Subtotal Project VOCs	205	289	200	193
<u>Non-Project VOCs</u>				
1,1,2,2-Tetrachloroethane	< 0.55	< 0.55	< 0.55	< 0.69
1,1,2-Trichloroethane	< 0.44	< 0.44	< 0.44	< 0.55
1,2-Dichloropropane	< 0.74	< 0.74	< 0.74	< 0.92
1,3-Butadiene	< 0.35	< 0.35	< 0.35	< 0.44
2-Butanone	0.74	0.47	22	0.65
4-Methyl-2-Pentanone	< 0.66	< 0.66	< 0.66	< 0.82
Acetone	5.2	4.8	104	5.5
Bromodichloromethane	< 0.54	< 0.54	< 0.54	< 0.67
Bromoform	< 0.33	< 0.33	< 0.33	< 0.41
Bromomethane	< 0.62	< 0.62	0.47 J	< 0.78
Carbon Disulfide	< 0.50	< 0.50	< 0.50	< 0.62
Carbon Tetrachloride	0.48	0.42	0.43	< 0.25
Chlorobenzene	< 0.74	< 0.74	< 0.74	< 0.92
Chlorodibromomethane	< 0.68	< 0.68	< 0.68	< 0.85
Chlorodifluoromethane (Freon 22)	12	8.1	8.4	8.4
Chloroethane	< 0.42	< 0.42	< 0.42	< 0.53
Chloroform	7.8	6.3	7.3	7.8
Chloromethane	1.3	1.5	1.2	0.87
cis-1,3-Dichloropropene	< 0.73	< 0.73	< 0.73	< 0.91
Dichlorodifluoromethane (Freon 12)	2.4	1.9	2.2	2.2
Dichloromethane	< 0.56	0.63	< 0.56	0.94
Ethylbenzene	< 0.69	< 0.69	< 0.69	< 0.87
Methyl N-Butyl Ketone	< 0.65	< 0.65	0.41 J	< 0.82
Methyl Tert-Butyl Ether	0.47 J	0.50 J	< 0.58	0.43 J
Styrene (Monomer)	< 0.68	< 0.68	< 0.68	< 0.85
trans-1,3-Dichloropropene	< 0.73	< 0.73	< 0.73	< 0.91
Trichlorofluoromethane (Freon 11)	1.9	1.1	1.5	2.0
Trichlorotrifluoroethane (Freon 113)	2.1	1.8	2.1	1.8
1-Chloro-1,1-difluoroethane (Freon 142b)	< 0.66	< 0.66	< 0.66	< 0.82
Subtotal Non-Project VOCs	34	28	150	20
Total VOCs²	239	317	350	213

Abbreviations, Notes, Qualifiers, and Units on last page.

Table 4
Influent Vapor Sample Analytical Results
Bethpage Park Groundwater Containment System
Operable Unit 3 (Former Grumman Settling Ponds)
Bethpage, New York

Abbreviations, Notes, Qualifiers, and Units:

ELAP	Environmental Laboratory Approval Program
NYSDOH	New York State Department of Health
OM&M	Operation, Maintenance, and Monitoring
USEPA	United States Environmental Protection Agency
VOC	Volatile Organic Compound

1. Vapor samples collected by Arcadis on the dates shown and submitted to a NYSDOH ELAP certified laboratory for VOC analyses per Modified USEPA Method TO-15. A VOC analyte list is provided in the DRAFT Bethpage Park Groundwater Containment System OM&M Manual (Arcadis 2016). Influent samples were collected at Vapor Sampling Port-1 (VSP-1); refer to Figure 3 of this OM&M Report for the location of VSP-1.

2. "Total VOCs" represents the sum of individual concentrations of compounds detected. The values used in calculations referenced in this report have been rounded to the nearest whole number.

0.93	Bold value indicates a detection.
< 0.81	Compound not detected above the laboratory quantification limit.
J	Result is estimated.
µg/m ³	micrograms per cubic meter

Table 5
Summary of Effluent Vapor Sample Analytical Results
Bethpage Park Groundwater Containment System
Operable Unit 3 (Former Grumman Settling Ponds)
Bethpage, New York

Compound ¹	11/08/18 (µg/m ³)	03/01/19 (µg/m ³)	06/07/19 (µg/m ³)	09/06/19 (µg/m ³)
<u>Project VOCs</u>				
1,1,1 - Trichloroethane	< 0.44	0.65	0.82	0.76
1,1 - Dichloroethane	3.7	6.5	5.7	4.5
1,2 - Dichloroethane	< 0.65	< 0.65	0.28 J	< 0.81
1,1 - Dichloroethene	0.99	1.6	0.95	0.87
Tetrachloroethene	1.8	1.9	43	1.9
Trichloroethene	19	30	22	26
Vinyl Chloride	14.0	34.5	13	15.0
cis 1,2-Dichloroethene	67.4	114	65.0	65.8
trans 1,2-Dichloroethene	< 0.63	< 0.63	< 0.63	< 0.79
Benzene	< 0.51	1.0	1.2	< 0.64
Toluene	1.5	2.8	3.5	1.5
o-Xylene	< 0.69	0.69	0.43 J	< 0.87
m,p-Xylene	< 0.69	1.0	0.43 J	< 0.87
Subtotal Project VOCs	109	195	156	116
<u>Non-Project VOCs</u>				
1,1,1,2-Tetrachloroethane	< 0.55	< 0.55	< 0.56	< 0.69
1,1,2-Trichloroethane	< 0.44	< 0.44	3.3	< 0.55
1,2-Dichloropropane	< 0.74	< 0.74	< 0.74	< 0.92
1,3-Butadiene	< 0.35	< 0.35	< 0.35	< 0.44
2-Butanone	20	14	26	1.8
4-Methyl-2-Pentanone	< 0.66	< 0.66	< 0.66	< 0.82
Acetone	122	96.4	302	21
Bromodichloromethane	< 0.54	< 0.54	< 0.55	< 0.67
Bromoform	< 0.33	< 0.33	< 0.34	< 0.41
Bromomethane	< 0.62	< 0.62	< 0.62	< 0.78
Carbon Disulfide	< 0.50	< 0.50	< 0.50	< 0.62
Carbon Tetrachloride	< 0.20	0.33	0.34	< 0.25
Chlorobenzene	< 0.74	0.97	< 0.74	< 0.92
Chlorodibromomethane	< 0.68	< 0.68	< 0.70	< 0.85
Chlorodifluoromethane (Freon 22)	11	8.8	8.4	8.4
Chloroethane	< 0.42	< 0.42	< 0.42	< 0.53
Chloroform	10.0	10	11	10
Chloromethane	0.97	1.5	1.5	0.85
cis-1,3-Dichloropropene	< 0.73	< 0.73	< 0.73	< 0.91
Dichlorodifluoromethane (Freon 12)	2.5	2.1	2.3	2.1
Dichloromethane	< 0.56	0.66	0.56	< 0.69
Ethylbenzene	< 0.69	< 0.69	< 0.69	< 0.87
Methyl N-Butyl Ketone	< 0.65	< 0.65	< 0.65	< 0.82
Methyl Tert-Butyl Ether	0.29 J	0.36 J	< 0.58	< 0.72
Styrene (Monomer)	< 0.68	< 0.68	< 0.68	< 0.85
trans-1,3-Dichloropropene	< 0.73	< 0.73	< 0.73	< 0.91
Trichlorofluoromethane (Freon 11)	1.8	1.3	1.5	1.6
Trichlorotrifluoroethane (Freon 113)	2.3	2.5	2.5	2.1
1-Chloro-1,1-difluoroethane (Freon 142b)	< 0.66	< 0.66	< 0.66	< 0.82
Subtotal Non-Project VOCs	171	139	359	39
Total VOCs²	280	334	516	156

Abbreviations, Notes, Qualifiers, and Units on last page.

Table 5
Summary of Effluent Vapor Sample Analytical Results
Bethpage Park Groundwater Containment System
Operable Unit 3 (Former Grumman Settling Ponds)
Bethpage, New York

Abbreviations, Notes, Qualifiers, and Units:

ELAP	Environmental Laboratory Approval Program
NYSDOH	New York State Department of Health
OM&M	Operation, Maintenance, and Monitoring
USEPA	United States Environmental Protection Agency
VOC	Volatile Organic Compound

1. Vapor samples collected by Arcadis on the dates shown and submitted to a NYSDOH ELAP certified laboratory for VOC analyses per Modified USEPA Method TO-15. A VOC analyte list is provided in the DRAFT Bethpage Park Groundwater Containment System OM&M Manual (Arcadis 2016). Effluent samples were collected at Vapor Sampling Port-5 (VSP-5); refer to Figure 3 of this OM&M Report for the location of VSP-5.

2. "Total VOCs" represents the sum of individual concentrations of all compounds detected. The values used in calculations referenced in this report have been rounded to the nearest whole number.

0.76	Bold value indicates a detection.
< 0.81	Compound not detected above the laboratory quantification limit.
J	Result is estimated.
µg/m ³	micrograms per cubic meter

Table 6
Summary of Effluent Vapor Tentatively Identified Compounds
Bethpage Park Groundwater Containment System
Operable Unit 3 (Former Grumman Settling Ponds)
Bethpage, New York

Compound ^{1,2,3}	11/08/18 (ppbv)	03/01/19 (ppbv)	06/07/19 (ppbv)	09/06/19 (ppbv)
<u>Tentatively Identified Compounds</u>				
2-Ethyl-1-hexanol	ND	1.1 JN	ND	ND
2-Phenyl-2-propanol	ND	1.6 JN	3.3 JN	ND
Acetophenone	ND	1.3 JN	2.1 JN	ND
Alkane	ND	7.9 J	ND	ND
Alkane	ND	4.4 J	ND	ND
C3 alkyl benzene	ND	ND	6.2 J	ND
Carbon Dioxide	16 JNB	170 JNB	100 JNB	220 JB
Isopropylbenzene	ND	3.3 JN	ND	ND
Unknown (A)	ND	ND	2.8 J	ND
Unknown (B)	ND	ND	ND	3.3 J
Total VOC TICs⁴	0	19.6 J	14.4 J	3.3 J

Abbreviations, Notes, Qualifiers, and Units:

ECU	Emission Control Unit
ELAP	Environmental Laboratory Approval Program
NYSDOH	New York State Department of Health
OM&M	Operation, Maintenance, and Monitoring
TIC	Tentatively Identified Compound
USEPA	United States Environmental Protection Agency
VOC	Volatile Organic Compound

1. Vapor samples collected by Arcadis on the dates shown and submitted to a NYSDOH ELAP certified laboratory for VOC analyses per Modified USEPA Method TO-15. A VOC analyte list is provided in the DRAFT Bethpage Park Groundwater Containment System OM&M Manual (Arcadis 2016). Effluent samples were collected at Vapor Sampling Port-5 (VSP-5); refer to Figure 3 of this OM&M Report for the location of VSP-5.

2. The ECUs were placed in a parallel configuration on 3/1/2018 to test for performance gain.

3. VSP-5 sample location moved to new sample port at ECU effluent stack.

4. Compounds found in associated method blank are not included in Total VOC TICs.

3.3	Bold value indicates a detection.
ND	TIC were not detected.
B	TIC was detected in the associated method blank.
J	Result is estimated.
N	Indicates presumptive evidence of a compound.
ppbv	parts per billion by volume

Table 7
Summary of System Parameters
 Bethpage Park Groundwater Containment System
 Operable Unit 3 (Former Grumman Settling Ponds)
 Bethpage, New York

Date ¹	Water Flow Rates				Water Pressures				Air Flow Rate ²	Air Pressures ⁵				Air Temp. ⁵			
	Remedial Well ²		Combined Influent ³ (gpm)	Effluent ² (gpm)	Remedial Well Effluent ^{2,4}		Effluent ⁵ (psi)	Effluent (scfm)		ECU Influent					Effluent (iwc)		
	RW-1 (gpm)	RW-2 (gpm)			RW-3 (gpm)	RW-4 (gpm)			RW-1 (psi)	RW-2 (psi)	RW-3 (psi)	RW-4 (psi)	GAC-501 (iwc)	GAC-502 (iwc)		PPZ-601 (iwc)	PPZ-602 (iwc)
10/10/18	30.7	77.8	80.7	30.7	220	227	53	66	33	54	14	1,827	0.0	0.0	0.0	0.0	540
11/08/18	30.9	70.6	80.8	30.8	213	229	53	12	32	54	19	1,789	0.0	0.0	0.0	0.0	538
12/06/18	31.3	60.5	80.5	30.3	203	213	53	10	32	55	15	1,720	0.0	0.0	0.0	0.0	535
01/10/19	30.4	69.8	80.2	30.7	211	221	54	6	33	54	12	1,581	0.0	0.0	0.0	0.0	530
02/05/19	30.9	75.6	76.0	30.7	213	223	54	67	47	55	14	1,607	0.0	0.0	0.0	0.0	535
03/01/19	30.5	75.0	75.9	30.3	212	220	55	30	47	56	12	1,695	0.0	0.0	0.0	0.0	528
04/02/19	30.6	59.6	75.2	30.2	196	205	54	5	37	56	12	1,692	0.0	0.0	0.0	0.0	532
05/15/19	30.3	64.8	76.5	30.0	202	211	55	6	44	56	12	1,698	0.0	0.0	0.0	0.0	534
06/07/19	30.4	53.0 ⁶	73.1	30.0	134	197 ⁶	56	5 ⁶	46	55	11	1,658	0.0	0.0	0.0	0.0	540
07/02/19	29.6	71.7	72.7	29.0	203	212	54	66	43	53	29	1,491	0.0	0.0	0.0	0.0	541
08/02/19	28.4	64.9	70.1	28.4	192	200	54	60	44	54	13	1,463	0.0	0.0	0.0	0.0	541
09/06/19	29.7	63.4	74.1	30.3	198	207	57	15	39	56	13	1,522	0.0	0.0	0.0	0.0	542

Abbreviations, Notes, and Units on last page.

Table 7
Summary of System Parameters
Bethpage Park Groundwater Containment System
Operable Unit 3 (Former Grumman Settling Ponds)
Bethpage, New York

Abbreviations, Notes, and Units:

ECU	Emission Control Unit
GAC	Granular Activated Carbon
HMI	Human-Machine Interface
RW	Remedial Well
SCADA	Supervisory Control and Data Acquisition
Temp	Temperature

1. Operational data collected by Arcadis on days noted. Parameters listed were typically recorded during compliance monitoring events. Data in this table correspond to approximately the past year of system operation.
2. Instantaneous parameters obtained from the SCADA HMI: Water Flow Rate, Water Pressure, Air Flow Rate.
3. Combined influent water-flow rate is the sum of individual well flow rates via the SCADA System.
4. Remedial Well effluent pressure readings measured at the influent manifold within the treatment system building.
5. Instantaneous values recorded from field-mounted instruments during weekly site visits.
6. Due to a RW-2 pump failure on 6/07/19 after system sampling, the flow rate average was calculated using readings between midnight and the time of shutdown.

gpm	gallons per minute
iwc	inches of water column
psi	pounds per square inch
°R	degrees Rankine
scfm	standard cubic feet per minute

Table 8
 Summary of Groundwater Recovered, VOC Mass Recovered, and VOC Mass Recovery Rates
 Bethpage Park Groundwater Containment System
 Operable Unit 3 (Former Grumman Settling Ponds)
 Bethpage, New York



Operating Period ¹	Volume of Groundwater Recovered (x1,000 gal) ²					VOC Mass Recovered (lbs) ³															VOC Mass Recovery Rate (lbs/day) ⁴														
						Total VOCs ⁵					Project VOCs ⁶					Non-Project VOCs ⁷					Total VOCs ⁵					Project VOCs ⁶					Non-Project VOCs ⁷				
	RW-1	RW-2	RW-3	RW-4	Total	RW-1	RW-2	RW-3	RW-4	Total	RW-1	RW-2	RW-3	RW-4	Total	RW-1	RW-2	RW-3	RW-4	Total	RW-1	RW-2	RW-3	RW-4	Total	RW-1	RW-2	RW-3	RW-4	Total	RW-1	RW-2	RW-3	RW-4	Total
System Pilot Test, Shutdown and Start-up Totals⁸	137	270	251	150	808	NA	NA	NA	NA	1.1	NA	NA	NA	NA	1.0	NA	NA	NA	NA	0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2010 Totals	15,726	35,127	38,160	15,689	104,702	0.56	172	412	89	672	0.56	171	28	0.10	200	< 0.01	0.17	383	89	469	< 0.01	0.46	1.1	0.24	1.8	< 0.01	0.46	0.075	< 0.01	0.54	< 0.01	< 0.01	1.0	0.24	1.3
2011 Totals	15,218	36,570	37,682	15,196	104,666	0.36	167	271	78	516	0.36	167	35	0.090	203	< 0.01	1.1	236	78	314	< 0.01	0.45	0.73	0.21	1.4	< 0.01	0.45	0.095	< 0.01	0.55	< 0.01	< 0.01	0.64	0.21	0.85
2012 Totals	15,260	35,178	36,111	15,336	101,885	0.28	114	113	40	267	0.25	113	12	0.39	126	< 0.01	1.5	101	40	141	< 0.01	0.31	0.31	0.11	0.73	< 0.01	0.31	0.032	< 0.01	0.35	< 0.01	< 0.01	0.28	0.11	0.39
2013 Totals	15,968	37,514	36,622	16,036	106,140	0.14	111	41	18	171	0.14	110	4.3	0.36	113	< 0.01	1.6	37	18	57	< 0.01	0.30	0.11	0.050	0.47	< 0.01	0.30	0.012	< 0.01	0.31	< 0.01	< 0.01	0.10	0.049	0.16
2014 Totals	15,690	33,222	31,199	15,691	95,802	0.063	67	9.9	8.1	85	0.063	65	2.0	0.20	67	< 0.01	1.5	8.1	7.9	17	< 0.01	0.19	0.028	0.023	0.24	< 0.01	0.18	< 0.01	< 0.01	0.19	< 0.01	< 0.01	0.023	0.022	0.047
2015 Totals	15,859	38,082	34,961	14,755	103,657	0.028	47	7.1	4.5	57	0.021	45	1.5	0.20	45	< 0.01	1.7	5.6	4.2	12	< 0.01	0.13	0.019	0.012	0.16	< 0.01	0.12	< 0.01	< 0.01	0.12	< 0.01	< 0.01	0.015	0.012	0.032
2016 Totals	15,826	34,539	39,349	15,826	105,540	< 0.01	38	3.2	2.2	44	< 0.01	37	1.4	0.20	39	< 0.01	1.5	1.7	2.0	5.2	< 0.01	0.10	< 0.01	< 0.01	0.12	< 0.01	0.10	< 0.01	< 0.01	0.11	< 0.01	< 0.01	< 0.01	< 0.01	0.014
2017 Totals	16,005	31,600	37,614	15,965	101,184	< 0.01	13	2.2	1.2	17	< 0.01	13	1.1	0.16	14	< 0.01	0.56	1.1	1.1	2.7	< 0.01	0.037	< 0.01	< 0.01	0.046	< 0.01	0.035	< 0.01	< 0.01	0.038	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2018 Totals	15,145	37,712	32,473	14,917	100,247	< 0.01	13.71	0.90	0.56	15.2	< 0.01	13.5	0.70	< 0.01	14.2	< 0.01	0.27	0.19	0.52	0.97	< 0.01	0.038	< 0.01	< 0.01	0.042	< 0.01	0.037	< 0.01	< 0.01	0.039	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
January 2019 through March 2019 Totals																																			
01/01/19 - 02/01/19	1,322	1,656	3,433	1,319	7,730	< 0.01	0.76	0.12	< 0.01	0.88	< 0.01	0.8	0.094	< 0.01	0.85	< 0.01	< 0.01	0.022	< 0.01	0.022	< 0.01	0.025	< 0.01	< 0.01	0.028	< 0.01	0.025	< 0.01	< 0.01	0.028	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
02/01/19 - 03/01/19	1,231	3,013	3,031	1,206	8,481	< 0.01	1.4	0.10	< 0.01	1.5	< 0.01	1.4	0.083	< 0.01	1.5	< 0.01	< 0.01	0.019	< 0.01	0.019	< 0.01	0.049	< 0.01	< 0.01	0.053	< 0.01	0.049	< 0.01	< 0.01	0.052	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
03/01/19 - 04/01/19	1,318	2,789	3,264	1,305	8,675	< 0.01	1.3	0.11	< 0.01	1.4	< 0.01	1.3	0.090	< 0.01	1.4	< 0.01	< 0.01	0.021	< 0.01	0.021	< 0.01	0.041	< 0.01	< 0.01	0.045	< 0.01	0.041	< 0.01	< 0.01	0.044	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Subtotal Jan - Mar 2019	3,870	7,458	9,727	3,830	24,885	< 0.01	3.4	0.33	< 0.01	3.8	< 0.01	3.4	0.27	< 0.01	3.7	< 0.01	< 0.01	0.062	< 0.01	0.062	< 0.01	0.038	< 0.01	< 0.01	0.042	< 0.01	0.038	< 0.01	< 0.01	0.041	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
April 2019 through June 2019 Totals																																			
04/01/19 - 05/01/19	1,317	2,812	3,229	1,291	8,649	< 0.01	0.93	0.13	< 0.01	1.05	< 0.01	0.93	0.10	< 0.01	1.03	< 0.01	< 0.01	0.023	< 0.01	0.023	< 0.01	0.031	< 0.01	< 0.01	0.035	< 0.01	0.031	< 0.01	< 0.01	0.034	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
05/01/19 - 06/01/19	1,363	2,789	3,376	1,350	8,878	< 0.01	0.92	0.13	< 0.01	1.05	< 0.01	0.92	0.11	< 0.01	1.0	< 0.01	< 0.01	0.024	< 0.01	0.024	< 0.01	0.030	< 0.01	< 0.01	0.034	< 0.01	0.030	< 0.01	< 0.01	0.033	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
06/01/19 - 07/01/19	1,335	1,884	3,265	1,308	7,792	< 0.01	0.62	0.13	< 0.01	0.75	< 0.01	0.62	0.10	< 0.01	0.72	< 0.01	< 0.01	0.024	< 0.01	0.024	< 0.01	0.021	< 0.01	< 0.01	0.025	< 0.01	0.021	< 0.01	< 0.01	0.024	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Subtotal Apr - June 2019	4,015	7,485	9,870	3,949	25,319	< 0.01	2.47	0.38	< 0.01	2.85	< 0.01	2.5	0.31	< 0.01	2.8	< 0.01	< 0.01	0.071	< 0.01	0.071	< 0.01	0.027	< 0.01	< 0.01	0.031	< 0.01	0.027	< 0.01	< 0.01	0.031	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
July 2019 through September 2019 Totals																																			
07/01/19 - 08/01/19	1,296	3,140	3,183	1,272	8,891	< 0.01	1.01	0.11	< 0.01	1.12	< 0.01	1.0	0.082	< 0.01	1.09	< 0.01	< 0.01	0.024	< 0.01	0.024	< 0.01	0.033	< 0.01	< 0.01	0.036	< 0.01	0.033	< 0.01	< 0.01	0.035	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
08/01/19 - 09/01/19	1,314	3,013	3,236	1,313	8,876	< 0.01	0.97	0.11	< 0.01	1.08	< 0.01	1.0	0.084	< 0.01	1.1	< 0.01	< 0.01	0.025	< 0.01	0.025	< 0.01	0.031	< 0.01	< 0.01	0.035	< 0.01	0.031	< 0.01	< 0.01	0.034	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
09/01/19 - 10/01/19	1,287	2,712	3,197	1,310	8,506	< 0.01	0.87	0.11	< 0.01	0.98	< 0.01	0.9	0.083	< 0.01	1.0	< 0.01	< 0.01	0.024	< 0.01	0.024	< 0.01	0.029	< 0.01	< 0.01	0.033	< 0.01	0.029	< 0.01	< 0.01	0.032	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Subtotal Jul - Sept 2019⁹	3,897	8,865	9,616	3,895	26,273	< 0.01	2.86	0.32	< 0.01	3.18	< 0.01	2.9	0.25	< 0.01	3.1	< 0.01	< 0.01	0.073	< 0.01	0.073	< 0.01	0.031	< 0.01	< 0.01	0.035	< 0.01	0.031	< 0.01	< 0.01	0.034	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2019 Totals	11,783	23,807	29,213	11,674	76,477	< 0.01	8.75	1.03	< 0.01	9.78	< 0.01	8.75	0.83	< 0.01	9.58	< 0.01	< 0.01	0.206	< 0.01	0.21	< 0.01	0.032	< 0.01	< 0.01	0.036	< 0.01	0.032	< 0.01	< 0.01	0.035	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Total¹⁰	159,209	357,459	370,080	157,809	1,044,557	2	1,027	915	256	2,197	2	1,016	105	2	1,125	< 0.01	10	809	254	1,066	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Abbreviations, Notes, Qualifiers, and Units:

NA Not Applicable

VOC Volatile Organic Compound.

1. Represents operating period between consecutive monitoring events.

2. Volume of groundwater recovered is based on individual local well totalized flow readings. Listed value is the difference between totalized flow values recorded between consecutive monitoring events. The total groundwater recovered during a given operating period is the sum of the individual well flow totals. Values shown are rounded to the nearest gallon, but should only be considered accurate to two significant figures to account for error associated with field measurements.

3. Mass recovered per well was calculated by multiplying the Total VOC concentration from the most recent sampling event by the number of gallons extracted during the reporting period. The total amount recovered during a given operating period is the sum of masses recovered from each of the individual wells. Values less than ten pounds are presented using two significant figures and values greater than ten pounds have been rounded to the nearest whole number; however, these values should only be considered accurate to two significant figures to account for error associated with field measurements and analytical data.

4. Mass recovery rates were calculated by dividing the total mass recovered for each well and for the system by the number of days in the respective operating period. Values are presented using two significant figures.

5. "Total VOCs" represents the sum of individual concentrations of the VOCs detected.

6. "Project VOCs" represents the sum of individual compound concentrations of 1,1,1-trichloroethane; 1,1-dichloroethane; 1,2-dichloroethane; 1,1-dichloroethene; tetrachloroethene; trichloroethylene; vinyl chloride; cis-1,2-dichloroethene; trans-1,2-dichloroethene; benzene; toluene; and xylenes-o,m, p.

7. "Non-Project VOCs" represents the difference between Total VOCs and Project VOCs.

8. Values based on operational data recorded prior to system startup on July 21, 2009.

9. The volume of groundwater recovered and mass recovered calculations represent the operational period between July 1, 2019 and September 30, 2019.

10. "Total" refers to the amounts removed by the Operable Unit 3 Bethpage Park Groundwater Containment System.

< Less than

gal Gallons

lbs Pounds

lbs/day Pounds per day

Table 9
Summary of Air Quality Impact Analysis
Bethpage Park Groundwater Containment System
Operable Unit 3 (Former Grumman Settling Ponds)
Bethpage, New York

Toxic Air Contaminant ⁴	CAS#	VSP-05 Vapor Effluent (µg/m ³)		Emission Rate ¹			Scaled Impact - Hourly ² (µg/m ³)	Scaled Impact - Annual ² (µg/m ³)	SGC ³ (µg/m ³)	AGC ³ (µg/m ³)	% of SGC	% of AGC
		9/6/2019		lb/yr	lb/hr	g/s						
Project VOCs												
1,1,1-Trichloroethane	00071-55-6		0.76	0.04	4.32E-06	5.4E-07	1.7E-03	5.3E-05	9,000	5000	0.0%	0.0%
1,1-Dichloroethane	00075-34-3		4.5	0.22	2.56E-05	3.2E-06	1.0E-02	3.1E-04	--	0.63	--	0.0%
1,1-Dichloroethene	00075-35-4		0.87	0.04	4.95E-06	6.2E-07	2.0E-03	6.0E-05	--	200	--	0.0%
cis-1,2-Dichloroethene	00156-59-2		65.8	3.28	3.74E-04	4.7E-05	1.5E-01	4.5E-03	--	63	--	0.0%
Tetrachloroethene	00127-18-4		1.9	0.09	1.08E-05	1.4E-06	4.3E-03	1.3E-04	300	4	0.0%	0.0%
Toluene	00108-88-3		1.5	0.07	8.53E-06	1.1E-06	3.4E-03	1.0E-04	37,000	5000	0.0%	0.0%
Trichloroethene	00079-01-6		26	1.30	1.48E-04	1.9E-05	5.9E-02	1.8E-03	20	0.2	0.3%	0.9%
Vinyl Chloride	00075-01-4		15	0.75	8.53E-05	1.1E-05	3.4E-02	1.0E-03	180,000	0.11	0.0%	0.9%
Non-Project VOCs												
2-Butanone	00078-93-3		1.8	0.09	1.02E-05	1.3E-06	4.1E-03	1.2E-04	13,000	5000	0.0%	0.0%
Acetone	00067-64-1		21	1.05	1.19E-04	1.5E-05	4.7E-02	1.5E-03	180,000	30000	0.0%	0.0%
Chlorodifluoromethane (Freon 22)	00075-45-6		8.4	0.42	4.78E-05	6.0E-06	1.9E-02	5.8E-04	--	50000	--	0.0%
Chloroform	00067-66-3		10	0.50	5.69E-05	7.2E-06	2.3E-02	6.9E-04	150	14.7	0.0%	0.0%
Chloromethane	00074-87-3		0.85	0.04	4.83E-06	6.1E-07	1.9E-03	5.9E-05	22,000	90	0.0%	0.0%
Dichlorodifluoromethane (Freon 12)	00075-71-8		2.1	0.10	1.19E-05	1.5E-06	4.7E-03	1.5E-04	--	12000	--	0.0%
Trichlorofluoromethane (Freon 11)	00075-69-4		1.6	0.08	9.10E-06	1.1E-06	3.6E-03	1.1E-04	9,000	5000	0.0%	0.0%
Trichlorotrifluoroethane (Freon 113)	00076-13-1		2.1	0.10	1.19E-05	1.5E-06	4.7E-03	1.5E-04	960,000	180000	0.0%	0.0%

Abbreviations, Notes, and Units on last page.

Table 9
Summary of Air Quality Impact Analysis
Bethpage Park Groundwater Containment System
Operable Unit 3 (Former Grumman Settling Ponds)
Bethpage, New York

Abbreviations, Notes, and Units:

AGC	Annual Guideline Concentration
DAR-1	Division of Air Resources-1
--	None Specified
NYSDEC	New York State Department of Environmental Conservation
SGC	Short-term Guideline Concentration
VSP	Vapor Sampling Point

1. Emission rate calculated based on VSP-05 effluent concentration and a daily average exit air flow rate of 1,522 ft³/min for 9/06/2019.
 $1,1,1\text{-Trichloroethane (lb/hr)} = \text{TCE } [\mu\text{g}/\text{m}^3] \times \text{Air Flow Rate } [\text{ft}^3/\text{min}] \times (1 \text{ m}^3/35.3147 \text{ ft}^3) \times (60 \text{ min/hr}) \times (0.000001 \text{ g}/1 \mu\text{g}) \times (0.0022 \text{ lb/g})$
 $\text{lb/yr} = \text{lb/hr} \times 8,760 \text{ hrs/yr}$
 $\text{g/s} = \text{lb/hr} \times \text{hr}/3,600 \text{ sec} \times 453.59 \text{ g/lb}$
2. Ambient impact based on AERMOD modeling using normalized rate of 1 g/s is scaled to the actual emission rate of the pollutant. Modeling was performed using the representative meteorological data from the nearest station (Brookhaven/Farmingdale) for the years 2011 through 2015. The maximum impact from all the years was used for the calculations.
 $\text{Scaled hourly impact } (\mu\text{g}/\text{m}^3) = \text{AERMOD predicted hourly ambient impact at } 1 \text{ g/s } (\mu\text{g}/\text{m}^3)[\text{g/s}] \times \text{Actual emission rate (g/s)}$
 $\text{Scaled annual impact } (\mu\text{g}/\text{m}^3) = \text{AERMOD predicted annual ambient impact at } 1 \text{ g/s } (\mu\text{g}/\text{m}^3)[\text{g/s}] \times \text{Actual emission rate (g/s)}$

AERMOD Normalized Ambient Impact at 1 g/s	
Hourly ($\mu\text{g}/\text{m}^3$)[g/s]	Annual ($\mu\text{g}/\text{m}^3$)[g/s]
3,153.03	96.49

3. Short-term and annual guideline concentrations specified in the NYSDEC DAR-1 AGC/SGC tables revised August 10, 2016.
4. Compounds not detected above the laboratory reporting limit are excluded from the air quality impact analysis summary.

cfm	cubic feet per minute
g/s	grams per second
lb/hr	pounds per hour
lb/yr	pounds per year
$\mu\text{g}/\text{m}^3$	micrograms per cubic meter

Table 10
 Summary of Remedial Well Groundwater Sample Analytical Results - VOCs
 Bethpage Park Groundwater Containment System
 Operable Unit 3 (Former Grumman Settling Ponds)
 Bethpage, New York

Compound ¹ (µg/L)	Sample Location: Sample Date: NYSDEC SCGs	RW-1 11/8/2018	RW-1 3/1/2019	RW-1 6/7/2019	RW-1 9/6/2019	RW-2 11/8/2018	RW-2 3/1/2019	RW-2 6/7/2019	RW-2 9/6/2019	RW-3 11/8/2018	RW-3 3/1/2019	RW-3 6/7/2019	RW-3 9/6/2019	RW-4 11/8/2018	RW-4 3/1/2019	RW-4 6/7/2019	RW-4 9/6/2019
Project VOCs																	
1,1,1-Trichloroethane	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethane	5	<1.0	<1.0	<1.0	<1.0	<1.0	1.1	0.78 J	0.58 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichloroethane	0.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethene	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethylene	5	<1.0	<1.0	<1.0	<1.0	8.2	9.9	8.1	10.2	1.6	2.1	2.5	2	<1.0	<1.0	<1.0	<1.0
Vinyl Chloride	2	<1.0	<1.0	<1.0	<1.0	7.6	10.7	8.0	8	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-dichloroethene	5	<1.0	<1.0	<1.0	<1.0	26.6	33.4	22.7	19.9	1.0	1.2	1.3	1.1	<1.0	<1.0	<1.0	<1.0
trans-1,2-dichloroethene	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Benzene	1	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Toluene	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylene-o	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Xylenes-m,p	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Subtotal Project VOCs	0	0	0	0	0	42.4	55.1	39.6	38.1	2.6	3.3	3.8	3.1	0	0	0	0
Non-Project VOCs																	
1,1,2,2-Tetrachloroethane	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichloropropane	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,3-Butadiene	0.5	<5.0	NA	<5.0	<5.0	<5.0	NA	<5.0	<5.0	<5.0	NA	<5.0	<5.0	<5.0	NA	<5.0	<5.0
2-Butanone	NE	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
4-methyl-2-pentanone	50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Acetone	NE	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Bromodichloromethane	50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromoform	50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromomethane	5	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Carbon Disulfide	60	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Carbon tetrachloride	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chlorobenzene	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chlorodibromomethane	50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chlorodifluoromethane (Freon 22)	NE	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	3.8	3.4 J	4.0 J	<5.0
Chloroethane	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroform	7	<1.0	<1.0	<1.0	<1.0	0.51 J	<1.0	<1.0	<1.0	0.73 J	0.76 J	0.87 J	0.91 J	<1.0	<1.0	<1.0	<1.0
Chloromethane	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,3-dichloropropene	0.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dichlorodifluoromethane (Freon 12)	5	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Dichloromethane	5	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Ethylbenzene	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl N-Butyl Ketone	50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Methyl tert-Butyl Ether	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Styrene	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
trans-1,3-dichloropropene	0.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichlorofluoromethane (Freon 11)	5	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Trichlorotrifluoroethane (Freon 113)	5	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1-Chloro-1,1-difluoroethane (Freon 142b)	NE	NA	NA	<5.0	<5.0	NA	NA	<5.0	<5.0	NA	NA	<5.0	<5.0	NA	NA	<5.0	<5.0
Subtotal Non-Project VOCs	0	0	0	0	0	0.51	0	0	0	0.73	0.76	0.87	0.91	0	3.4	4.0	0
Total VOCs²	0	0	0	0	0	42.91	55.1	39.58	38.10	3.33	4.1	4.67	4.01	0	3.4	4.0	0
1,4-Dioxane		0.46	0.42	0.33	0.41	0.87	2.2	1.4	1.7	0.29	0.41	0.32	0.35	0.13 J	0.21 J	0.15 J	0.17 J

Notes and abbreviations on last page.

Table 10
Summary of Remedial Well Groundwater Sample Analytical Results - VOCs
 Bethpage Park Groundwater Containment System
 Operable Unit 3 (former Grumman Settling Ponds)
 Bethpage, New York

Abbreviations, Notes, Qualifiers, and Units:

ASP	Analytical Services Protocol
ELAP	Environmental Laboratory Approval Program
NA	Not Analyzed
NE	Not Established
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
OLM	Ozone Limited Method
OM&M	Operation, Maintenance, and Monitoring
SCGs	Standards, Criteria, and Guidance values
USEPA	United States Environmental Protection Agency
VOC	Volatile Organic Compound

1. Water samples collected by Arcadis on the dates shown and submitted to a NYSDOH ELAP certified laboratory for VOC analyses per NYSDEC ASP 2005, Method OLM 4.3 (prior to September 1, 2014) and per EPA Method 8260C (after September 1, 2014). Results validated following protocols specified in Sampling and Analysis Plan in the DRAFT Bethpage Park Groundwater Containment System OM&M Manual (Arcadis 2016). See previous quarterly reports for historical analytical results.

2. "Total VOCs" represents the sum of individual concentrations of the VOCs detected.

8.1	Bold cell outline indicates an exceedance of an SCG
4.1.0	Bold data indicates a detection
J	Compound not detected above its laboratory quantification limit
	Compound detected below its reporting limit, value is estimated
	micrograms per liter

Table 11
Concentrations of Volatile Organic Compounds and 1,4-Dioxane
in Groundwater Samples Collected from Monitoring Wells,
Bethpage Park Groundwater Containment System,
OU3 (Former Settling Ponds)
Bethpage, New York

Compound ^(1,2,3) (units in µg/L)	Sample Location: Sample Date:	B24MW-2 12/28/2015	B24MW-2 12/29/2016	B24MW-2 8/4/2017	B24MW-2 8/9/2018	B24MW-2 7/18/2019
	NYSDEC SCGs					
1,1,1-Trichloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,1,2-Tetrachloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	0.6	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2-Butanone	NE	< 10	< 10	< 10	< 10	< 10
2-Hexanone	50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
4-Methyl-2-Pentanone	50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Acetone	NE	< 10	< 10	< 10	< 10	< 10
Benzene	1	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromodichloromethane	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromoform	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon Disulfide	60	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon Tetrachloride	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorodifluoromethane (Freon 22)	NE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform	7	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloromethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,3-Dichloropropene	0.4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorodibromomethane	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dichlorodifluoromethane (Freon 12)	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Ethylbenzene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl-Tert-Butylether	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methylene Chloride	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Styrene (Monomer)	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-Dichloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-Dichloropropene	0.4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	5	2.7	2.4	2.1	2.5	4.0
Trichlorotrifluoroethane (Freon 113)	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Vinyl Chloride	2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m,p-Xylene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total VOCs ⁽⁴⁾		2.7	2.4	2.1	2.5	4
Project VOCs ⁽⁴⁾		2.7	2.4	2.1	2.5	4
1,4-Dioxane		0.185	0.417	0.348	0.16 J	0.29

See Notes and Abbreviations on Last Page

Table 11
Concentrations of Volatile Organic Compounds and 1,4-Dioxane
in Groundwater Samples Collected from Monitoring Wells,
Bethpage Park Groundwater Containment System,
OU3 (Former Settling Ponds)
Bethpage, New York

Compound ^(1,2,3) (units in µg/L)	Sample Location: Sample Date:	B24MW-3 12/28/2015	B24MW-3 1/20/2017	B24MW-3 8/2/2017	B24MW-3 8/9/2018	B24MW-3 7/16/2019
	NYSDEC SCGs					
1,1,1-Trichloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,1,2,2-Tetrachloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	0.6	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2-Butanone	NE	< 10	< 10	< 10	< 10	< 10
2-Hexanone	50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
4-Methyl-2-Pentanone	50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Acetone	NE	< 10	< 10	< 10	< 10	< 10
Benzene	1	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromodichloromethane	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromoform	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon Disulfide	60	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon Tetrachloride	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorodifluoromethane (Freon 22)	NE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform	7	0.30 J	< 1.0	< 1.0	< 1.0	< 1.0
Chloromethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	5	< 1.0	< 1.0	0.59 J	< 1.0	3.2
cis-1,3-Dichloropropene	0.4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorodibromomethane	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dichlorodifluoromethane (Freon 12)	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Ethylbenzene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl-Tert-Butylether	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methylene Chloride	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Styrene (Monomer)	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-Dichloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-Dichloropropene	0.4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	5	0.25 J	< 1.0	< 1.0	< 1.0	1.3
Trichlorotrifluoroethane (Freon 113)	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Vinyl Chloride	2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m,p-Xylene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total VOCs ⁽⁴⁾		0.55	0	0.59	0	4.5
Project VOCs ⁽⁴⁾		0.25	0	0.59	0	4.5
1,4-Dioxane		0.257	0.918	0.675	0.11 J	< 0.24

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Table 11
Concentrations of Volatile Organic Compounds and 1,4-Dioxane
in Groundwater Samples Collected from Monitoring Wells,
Bethpage Park Groundwater Containment System,
OU3 (Former Settling Ponds)
Bethpage, New York

Compound ^(1,2,3) (units in µg/L)	Sample Location: Sample Date:	B30MW-1 12/31/2015	B30MW-1 1/4/2017	B30MW-1 8/3/2017	B30MW-1 8/9/2018	B30MW-1 7/17/2019
	NYSDEC SCGs					
1,1,1-Trichloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,1,2,2-Tetrachloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	0.6	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2-Butanone	NE	< 10	< 10	< 10	< 10	< 10
2-Hexanone	50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
4-Methyl-2-Pentanone	50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Acetone	NE	< 10	< 10	< 10	< 10	< 10
Benzene	1	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromodichloromethane	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromoform	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon Disulfide	60	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon Tetrachloride	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorodifluoromethane (Freon 22)	NE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform	7	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloromethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,3-Dichloropropene	0.4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorodibromomethane	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dichlorodifluoromethane (Freon 12)	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Ethylbenzene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl-Tert-Butylether	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methylene Chloride	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Styrene (Monomer)	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-Dichloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-Dichloropropene	0.4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichlorotrifluoroethane (Freon 113)	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Vinyl Chloride	2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m,p-Xylene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total VOCs ⁽⁴⁾		0	0	0	0	0
Project VOCs ⁽⁴⁾		0	0	0	0	0
1,4-Dioxane		< 0.10	< 0.200	< 0.200	< 0.24	< 0.24

See Notes and Abbreviations on Last Page

Table 11
Concentrations of Volatile Organic Compounds and 1,4-Dioxane
in Groundwater Samples Collected from Monitoring Wells,
Bethpage Park Groundwater Containment System,
OU3 (Former Settling Ponds)
Bethpage, New York

Compound ^(1,2,3) (units in µg/L)	Sample Location: Sample Date:	BCPMW-4-1 10/8/2015	BCPMW-4-1 12/30/2015	BCPMW-4-1 12/28/2016	BCPMW-4-1 7/31/2017	BCPMW-4-1 7/24/2018
	NYSDEC SCGs					
1,1,1-Trichloroethane	5	4.2	7.3	0.36 J	< 1.0	< 1.0
1,1,2,2-Tetrachloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	1	1.1	1.7	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	5	13.3	27.1	3.2	1.6	0.87 J
1,1-Dichloroethene	5	0.98 J	1.7	0.42 J	< 1.0	< 1.0
1,2-Dichloroethane	0.6	0.97 J	1.3	0.87 J	< 1.0	< 1.0
1,2-Dichloropropane	1	0.95	1.5	< 1.0	< 1.0	< 1.0
2-Butanone	NE	< 10	< 10	< 10	< 10	< 10
2-Hexanone	50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
4-Methyl-2-Pentanone	50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Acetone	NE	< 10	< 10	< 10	< 10	< 10
Benzene	1	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromodichloromethane	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromoform	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon Disulfide	60	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon Tetrachloride	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorodifluoromethane (Freon 22)	NE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform	7	0.70 J	1.1	1.4	0.76 J	< 1.0
Chloromethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	5	156	252 D	81.4	53.5	30.7
cis-1,3-Dichloropropene	0.4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorodibromomethane	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dichlorodifluoromethane (Freon 12)	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Ethylbenzene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl-Tert-Butylether	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methylene Chloride	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Styrene (Monomer)	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	5	1.1	1.1	0.50 J	< 1.0	< 1.0
Toluene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-Dichloroethene	5	< 1.0	0.86 J	0.49 J	< 1.0	< 1.0
trans-1,3-Dichloropropene	0.4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	5	68.1	81.5	48.2	21.9	13.5
Trichlorotrifluoroethane (Freon 113)	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Vinyl Chloride	2	13	197	3.3	< 1.0	< 1.0
o-Xylene	5	< 1.0	0.70 J	< 1.0	< 1.0	< 1.0
m,p-Xylene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total VOCs ⁽⁴⁾		260	570	140	78	45
Project VOCs ⁽⁴⁾		260	570	140	77	45
1,4-Dioxane		--	37.7	39.3	2.64	0.68

See Notes and Abbreviations on Last Page

Table 11
Concentrations of Volatile Organic Compounds and 1,4-Dioxane
in Groundwater Samples Collected from Monitoring Wells,
Bethpage Park Groundwater Containment System,
OU3 (Former Settling Ponds)
Bethpage, New York

Compound ^(1,2,3) (units in µg/L)	Sample Location: Sample Date:	BCPMW-4-1 7/11/2019	BCPMW-4-2 10/8/2015	BCPMW-4-2 12/31/2015	BCPMW-4-2 (REP) 12/31/2015	BCPMW-4-2 12/22/2016
	NYSDEC SCGs					
1,1,1-Trichloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2,2-Tetrachloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	5	0.73 J	0.48 J	0.23 J	0.24 J	0.22 J
1,1-Dichloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	0.6	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2-Butanone	NE	< 10	< 10	< 10	< 10	< 10
2-Hexanone	50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
4-Methyl-2-Pentanone	50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Acetone	NE	< 10	< 10	< 10	< 10	< 10
Benzene	1	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromodichloromethane	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromoform	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon Disulfide	60	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon Tetrachloride	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorodifluoromethane (Freon 22)	NE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform	7	< 1.0	1.3	2.0	2.0	3.9
Chloromethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	5	20.7	29.7	13.3	13.2	16.9
cis-1,3-Dichloropropene	0.4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorodibromomethane	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dichlorodifluoromethane (Freon 12)	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Ethylbenzene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl-Tert-Butylether	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methylene Chloride	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Styrene (Monomer)	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-Dichloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	0.62 J
trans-1,3-Dichloropropene	0.4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	5	8.9	25.6	16.0	16.3	18.0
Trichlorotrifluoroethane (Freon 113)	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Vinyl Chloride	2	< 1.0	3.7	0.96 J	0.92 J	< 1.0
o-Xylene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m,p-Xylene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total VOCs ⁽⁴⁾		30	61	32	33	40
Project VOCs ⁽⁴⁾		30	59	30	31	36
1,4-Dioxane		7.4	--	0.858	0.982	2.34

See Notes and Abbreviations on Last Page

Table 11
Concentrations of Volatile Organic Compounds and 1,4-Dioxane
in Groundwater Samples Collected from Monitoring Wells,
Bethpage Park Groundwater Containment System,
OU3 (Former Settling Ponds)
Bethpage, New York

Compound ^(1,2,3) (units in µg/L)	Sample Location: Sample Date:	BCPMW-4-2 (REP) 12/22/2016	BCPMW-4-2 7/31/2017	BCPMW-4-2 7/24/2018	BCPMW-4-2 7/11/2019	BCPMW-4-3 12/31/2015
	NYSDEC SCGs					
1,1,1-Trichloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,1,2,2-Tetrachloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,1,2-Trichloroethane	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	5	0.23 J	0.25 J	0.87 J	0.97 J	< 1.0
1,1-Dichloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	0.6	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2-Butanone	NE	< 10	< 10	< 10	< 10	< 10
2-Hexanone	50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
4-Methyl-2-Pentanone	50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Acetone	NE	< 10	< 10	< 10	< 10	< 10
Benzene	1	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromodichloromethane	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromoform	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon Disulfide	60	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon Tetrachloride	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorodifluoromethane (Freon 22)	NE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0 J
Chloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform	7	3.6	2.3	1.3	< 1.0	< 1.0
Chloromethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	5	17.4	19.9	58.1	68.5	< 1.0
cis-1,3-Dichloropropene	0.4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorodibromomethane	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dichlorodifluoromethane (Freon 12)	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Ethylbenzene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl-Tert-Butylether	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methylene Chloride	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Styrene (Monomer)	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	5	0.27 J	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-Dichloroethene	5	0.58 J	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-Dichloropropene	0.4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	5	18.1	17.6	61.5	37.0	< 1.0
Trichlorotrifluoroethane (Freon 113)	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0 J
Vinyl Chloride	2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m,p-Xylene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total VOCs ⁽⁴⁾		40	40	120	110	0
Project VOCs ⁽⁴⁾		37	38	120	110	0
1,4-Dioxane		2.40	1.35	2.4	0.77	0.263

See Notes and Abbreviations on Last Page

Table 11
Concentrations of Volatile Organic Compounds and 1,4-Dioxane
in Groundwater Samples Collected from Monitoring Wells,
Bethpage Park Groundwater Containment System,
OU3 (Former Settling Ponds)
Bethpage, New York

Compound ^(1,2,3) (units in µg/L)	Sample Location: Sample Date:	BCPMW-4-3 12/22/2016	BCPMW-4-3 8/3/2017	BCPMW-4-3 8/8/2018	BCPMW-4-3 7/11/2019	BCPMW-6-1 12/23/2015
	NYSDEC SCGs					
1,1,1-Trichloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,1,2,2-Tetrachloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	0.6	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2-Butanone	NE	< 10	< 10	< 10	< 10	< 10
2-Hexanone	50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
4-Methyl-2-Pentanone	50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Acetone	NE	< 10	< 10	< 10	< 10	< 10
Benzene	1	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromodichloromethane	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromoform	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon Disulfide	60	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon Tetrachloride	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorodifluoromethane (Freon 22)	NE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform	7	0.52 J	< 1.0	< 1.0	< 1.0	< 1.0
Chloromethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,3-Dichloropropene	0.4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorodibromomethane	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dichlorodifluoromethane (Freon 12)	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Ethylbenzene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl-Tert-Butylether	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methylene Chloride	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Styrene (Monomer)	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-Dichloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-Dichloropropene	0.4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichlorotrifluoroethane (Freon 113)	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Vinyl Chloride	2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m,p-Xylene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total VOCs ⁽⁴⁾		0.52	0	0	0	0
Project VOCs ⁽⁴⁾		0	0	0	0	0
1,4-Dioxane		0.776	0.616	0.43	0.41	< 0.10

See Notes and Abbreviations on Last Page

Table 11
Concentrations of Volatile Organic Compounds and 1,4-Dioxane
in Groundwater Samples Collected from Monitoring Wells,
Bethpage Park Groundwater Containment System,
OU3 (Former Settling Ponds)
Bethpage, New York

Compound ^(1,2,3) (units in µg/L)	Sample Location: Sample Date:	BCPMW-6-1 12/27/2016	BCPMW-6-1 8/1/2017	BCPMW-6-1 8/6/2018	BCPMW-6-1 7/15/2019	BCPMW-6-2 12/23/2015
	NYSDEC SCGs					
1,1,1-Trichloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,1,2,2-Tetrachloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	0.6	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2-Butanone	NE	< 10	< 10	< 10	< 10	< 10
2-Hexanone	50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
4-Methyl-2-Pentanone	50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Acetone	NE	< 10	< 10	< 10	< 10	< 10
Benzene	1	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromodichloromethane	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromoform	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon Disulfide	60	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon Tetrachloride	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorodifluoromethane (Freon 22)	NE	< 5.0	< 5.0	3.7 J	4.1 J	< 5.0
Chloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform	7	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloromethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,3-Dichloropropene	0.4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorodibromomethane	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dichlorodifluoromethane (Freon 12)	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Ethylbenzene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl-Tert-Butylether	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methylene Chloride	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Styrene (Monomer)	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-Dichloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-Dichloropropene	0.4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichlorotrifluoroethane (Freon 113)	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Vinyl Chloride	2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m,p-Xylene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total VOCs ⁽⁴⁾		0	0	3.7	4.1	0
Project VOCs ⁽⁴⁾		0	0	0	0	0
1,4-Dioxane		< 0.200	< 0.200	< 0.24	< 0.23	< 0.10

See Notes and Abbreviations on Last Page

Table 11
Concentrations of Volatile Organic Compounds and 1,4-Dioxane
in Groundwater Samples Collected from Monitoring Wells,
Bethpage Park Groundwater Containment System,
OU3 (Former Settling Ponds)
Bethpage, New York

Compound ^(1,2,3) (units in µg/L)	Sample Location: Sample Date:	BCPMW-6-2 12/27/2016	BCPMW-6-2 8/2/2017	BCPMW-6-2 8/6/2018	BCPMW-6-2 7/16/2019	BCPMW-7-1 12/22/2015
	NYSDEC SCGs					
1,1,1-Trichloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,1,2,2-Tetrachloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	5	< 1.0	0.21 J	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	0.6	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2-Butanone	NE	< 10	< 10	< 10	< 10	< 10
2-Hexanone	50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
4-Methyl-2-Pentanone	50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Acetone	NE	< 10	< 10	< 10	< 10	< 10
Benzene	1	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromodichloromethane	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromoform	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon Disulfide	60	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon Tetrachloride	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorodifluoromethane (Freon 22)	NE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform	7	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloromethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	5	< 1.0	< 1.0	0.97 J	0.92 J	< 1.0
cis-1,3-Dichloropropene	0.4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorodibromomethane	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dichlorodifluoromethane (Freon 12)	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Ethylbenzene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl-Tert-Butylether	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methylene Chloride	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Styrene (Monomer)	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-Dichloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-Dichloropropene	0.4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichlorotrifluoroethane (Freon 113)	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Vinyl Chloride	2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m,p-Xylene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total VOCs ⁽⁴⁾		0	0.21	0.97	0.92	0
Project VOCs ⁽⁴⁾		0	0.21	0.97	0.92	0
1,4-Dioxane		< 0.200	< 0.100	0.092 J	0.096 J	< 0.10

See Notes and Abbreviations on Last Page

Table 11
Concentrations of Volatile Organic Compounds and 1,4-Dioxane
in Groundwater Samples Collected from Monitoring Wells,
Bethpage Park Groundwater Containment System,
OU3 (Former Settling Ponds)
Bethpage, New York

Compound ^(1,2,3) (units in µg/L)	Sample Location: Sample Date:	BCPMW-7-1 12/28/2016	BCPMW-7-1 8/1/2017	BCPMW-7-1 8/3/2018	BCPMW-7-1 8/8/2018	BCPMW-7-1 7/10/2019
	NYSDEC SCGs					
1,1,1-Trichloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,1,2,2-Tetrachloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,1,2-Trichloroethane	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	0.6	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2-Butanone	NE	< 10	< 10	< 10	< 10	< 10
2-Hexanone	50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
4-Methyl-2-Pentanone	50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Acetone	NE	< 10	< 10	< 10	< 10	< 10
Benzene	1	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromodichloromethane	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromoform	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon Disulfide	60	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon Tetrachloride	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorodifluoromethane (Freon 22)	NE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform	7	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloromethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,3-Dichloropropene	0.4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorodibromomethane	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dichlorodifluoromethane (Freon 12)	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Ethylbenzene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl-Tert-Butylether	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methylene Chloride	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Styrene (Monomer)	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-Dichloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-Dichloropropene	0.4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichlorotrifluoroethane (Freon 113)	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Vinyl Chloride	2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m,p-Xylene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total VOCs ⁽⁴⁾		0	0	0	0	0
Project VOCs ⁽⁴⁾		0	0	0	0	0
1,4-Dioxane		< 0.200	< 0.200	--	< 0.24	< 0.24

See Notes and Abbreviations on Last Page

Table 11
Concentrations of Volatile Organic Compounds and 1,4-Dioxane
in Groundwater Samples Collected from Monitoring Wells,
Bethpage Park Groundwater Containment System,
OU3 (Former Settling Ponds)
Bethpage, New York

Compound ^(1,2,3) (units in µg/L)	Sample Location: Sample Date:	MW-200-1 12/24/2015	MW-200-1 1/17/2017	MW-200-1 8/7/2017	MW-200-1 7/30/2018	MW-200-1 7/8/2019
	NYSDEC SCGs					
1,1,1-Trichloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,1,2,2-Tetrachloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0 J	< 1.0
1,2-Dichloroethane	0.6	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2-Butanone	NE	< 10	< 10	< 10	< 10	< 10
2-Hexanone	50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
4-Methyl-2-Pentanone	50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Acetone	NE	< 10	< 10	< 10	< 10	< 10
Benzene	1	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromodichloromethane	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromoform	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon Disulfide	60	< 2.0	< 2.0	< 2.0	< 2.0 J	< 2.0
Carbon Tetrachloride	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorodifluoromethane (Freon 22)	NE	< 5.0	< 5.0	< 5.0	< 5.0 J	< 5.0
Chloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform	7	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloromethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,3-Dichloropropene	0.4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorodibromomethane	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dichlorodifluoromethane (Freon 12)	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Ethylbenzene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl-Tert-Butylether	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methylene Chloride	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Styrene (Monomer)	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-Dichloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-Dichloropropene	0.4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichlorotrifluoroethane (Freon 113)	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Vinyl Chloride	2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m,p-Xylene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total VOCs ⁽⁴⁾		0	0	0	0	0
Project VOCs ⁽⁴⁾		0	0	0	0	0
1,4-Dioxane		0.309	0.725	0.537	0.40	0.26

See Notes and Abbreviations on Last Page

Table 11
Concentrations of Volatile Organic Compounds and 1,4-Dioxane
in Groundwater Samples Collected from Monitoring Wells,
Bethpage Park Groundwater Containment System,
OU3 (Former Settling Ponds)
Bethpage, New York

Compound ^(1,2,3) (units in µg/L)	Sample Location: Sample Date:	MW-201-1 12/24/2015	MW-201-1 1/18/2017	MW-201-1 8/8/2017	MW-201-1 8/1/2018	MW-201-1 7/8/2019
	NYSDEC SCGs					
1,1,1-Trichloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,1,2,2-Tetrachloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,1,2-Trichloroethane	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	0.6	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2-Butanone	NE	< 10	< 10	< 10	< 10	< 10
2-Hexanone	50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
4-Methyl-2-Pentanone	50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Acetone	NE	< 10	< 10	< 10	< 10	< 10
Benzene	1	< 1.0	< 0.50	< 0.50	< 0.50	< 0.50
Bromodichloromethane	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromoform	50	< 4.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon Disulfide	60	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon Tetrachloride	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorodifluoromethane (Freon 22)	NE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform	7	0.43	< 1.0	< 1.0	< 1.0	< 1.0
Chloromethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	5	2.0	2.0	1.5	0.87 J	< 1.0
cis-1,3-Dichloropropene	0.4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorodibromomethane	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dichlorodifluoromethane (Freon 12)	5	< 5.0	< 2.0	< 2.0	< 2.0	< 2.0
Ethylbenzene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl-Tert-Butylether	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methylene Chloride	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Styrene (Monomer)	5	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-Dichloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-Dichloropropene	0.4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	5	2.3	1.6	1.3	0.90 J	0.69 J
Trichlorotrifluoroethane (Freon 113)	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Vinyl Chloride	2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m,p-Xylene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total VOCs ⁽⁴⁾		4.7	3.6	2.8	1.8	0.69
Project VOCs ⁽⁴⁾		4.3	3.6	2.8	1.8	0.69
1,4-Dioxane		0.262	0.655	0.676	0.40	0.30

See Notes and Abbreviations on Last Page

Table 11
Concentrations of Volatile Organic Compounds and 1,4-Dioxane
in Groundwater Samples Collected from Monitoring Wells,
Bethpage Park Groundwater Containment System,
OU3 (Former Settling Ponds)
Bethpage, New York

Compound ^(1,2,3) (units in µg/L)	Sample Location: Sample Date:	MW-202-1 12/31/2015	MW-202-1 1/19/2017	MW-202-1 8/9/2017	MW-202-1 7/31/2018	MW-202-1 7/10/2019
	NYSDEC SCGs					
1,1,1-Trichloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,1,2,2-Tetrachloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	5	2.4	0.66 J	0.80 J	< 1.0	< 1.0
1,1-Dichloroethene	5	1.5	0.33 J	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	0.6	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2-Butanone	NE	< 10	< 10	< 10	< 10	< 10
2-Hexanone	50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
4-Methyl-2-Pentanone	50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Acetone	NE	< 10	< 10	< 10	< 10	< 10
Benzene	1	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromodichloromethane	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromoform	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon Disulfide	60	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon Tetrachloride	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorodifluoromethane (Freon 22)	NE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform	7	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloromethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	5	1.2	0.45 J	< 1.0	< 1.0	< 1.0
cis-1,3-Dichloropropene	0.4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorodibromomethane	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dichlorodifluoromethane (Freon 12)	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Ethylbenzene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl-Tert-Butylether	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methylene Chloride	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Styrene (Monomer)	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	5	2.5	1.3	1.4	1.1	< 1.0
Toluene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-Dichloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-Dichloropropene	0.4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	5	1.3	0.68 J	0.96 J	0.70 J	< 1.0
Trichlorotrifluoroethane (Freon 113)	5	1.1 J	< 5.0	< 5.0	< 5.0	< 5.0
Vinyl Chloride	2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m,p-Xylene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total VOCs ⁽⁴⁾		10	3.4	3.2	1.8	0
Project VOCs ⁽⁴⁾		8.9	3.4	3.2	1.8	0
1,4-Dioxane		0.404	0.396	0.518	0.30	0.17 J

See Notes and Abbreviations on Last Page

Table 11
Concentrations of Volatile Organic Compounds and 1,4-Dioxane
in Groundwater Samples Collected from Monitoring Wells,
Bethpage Park Groundwater Containment System,
OU3 (Former Settling Ponds)
Bethpage, New York

Compound ^(1,2,3) (units in µg/L)	Sample Location: Sample Date:	MW-203-1 12/30/2015	MW-203-1 1/20/2017	MW-203-1 8/10/2017	MW-203-1 8/2/2018	MW-203-1 7/9/2019
	NYSDEC SCGs					
1,1,1-Trichloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,1,2,2-Tetrachloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	5	0.38 J	0.30 J	0.34 J	< 1.0	< 1.0
1,1-Dichloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	0.6	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2-Butanone	NE	< 10	< 10	< 10	< 10	< 10
2-Hexanone	50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
4-Methyl-2-Pentanone	50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Acetone	NE	< 10	< 10	< 10	< 10	< 10
Benzene	1	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromodichloromethane	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromoform	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon Disulfide	60	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon Tetrachloride	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorodifluoromethane (Freon 22)	NE	1.9 J	2.0 J	3.3 J	< 5.0	< 5.0
Chloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform	7	0.32 J	0.27 J	0.35 J	< 1.0	< 1.0
Chloromethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	5	0.35 J	0.92 J	0.55 J	< 1.0	< 1.0
cis-1,3-Dichloropropene	0.4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorodibromomethane	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dichlorodifluoromethane (Freon 12)	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Ethylbenzene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl-Tert-Butylether	5	0.58 J	< 1.0	< 1.0	< 1.0	< 1.0
Methylene Chloride	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Styrene (Monomer)	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	5	1.2	0.76 J	1.2	< 1.0	1.2
Toluene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-Dichloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-Dichloropropene	0.4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	5	2.5	3.9	2.9	2.6	2.3
Trichlorotrifluoroethane (Freon 113)	5	0.56 J	< 5.0	< 5.0	< 5.0	< 5.0
Vinyl Chloride	2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m,p-Xylene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total VOCs ⁽⁴⁾		7.8	8.2	8.6	2.6	3.5
Project VOCs ⁽⁴⁾		4.4	5.9	5.0	2.6	3.5
1,4-Dioxane		0.134	0.401	0.262	0.19 J	0.24

See Notes and Abbreviations on Last Page

Table 11
Concentrations of Volatile Organic Compounds and 1,4-Dioxane
in Groundwater Samples Collected from Monitoring Wells,
Bethpage Park Groundwater Containment System,
OU3 (Former Settling Ponds)
Bethpage, New York

Compound ^(1,2,3) (units in µg/L)	Sample Location: Sample Date:	MW-204-1 12/24/2015	MW-204-1 1/17/2017	MW-204-1 8/7/2017	MW-204-1 (REP) 8/7/2017	MW-204-1 7/30/2018
	NYSDEC SCGs					
1,1,1-Trichloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,1,2,2-Tetrachloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0 J
1,2-Dichloroethane	0.6	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2-Butanone	NE	< 10	< 10	< 10	< 10	< 10
2-Hexanone	50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
4-Methyl-2-Pentanone	50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Acetone	NE	< 10	< 10	< 10	< 10	< 10
Benzene	1	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromodichloromethane	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromoform	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon Disulfide	60	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0 J
Carbon Tetrachloride	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorodifluoromethane (Freon 22)	NE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0 J
Chloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform	7	0.50 J	0.24 J	< 1.0	< 1.0	< 1.0
Chloromethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	5	2.5	3.4	< 1.0	< 1.0	< 1.0
cis-1,3-Dichloropropene	0.4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorodibromomethane	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dichlorodifluoromethane (Freon 12)	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Ethylbenzene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl-Tert-Butylether	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methylene Chloride	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Styrene (Monomer)	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-Dichloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-Dichloropropene	0.4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	5	4.0	4.1	2.4	2.5	0.63 J
Trichlorotrifluoroethane (Freon 113)	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Vinyl Chloride	2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m,p-Xylene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total VOCs ⁽⁴⁾		7.0	7.7	2.4	2.5	0.63
Project VOCs ⁽⁴⁾		6.5	7.5	2.4	2.5	0.63
1,4-Dioxane		< 0.11	0.350	0.306	0.319	0.25 J

See Notes and Abbreviations on Last Page

Table 11
Concentrations of Volatile Organic Compounds and 1,4-Dioxane
in Groundwater Samples Collected from Monitoring Wells,
Bethpage Park Groundwater Containment System,
OU3 (Former Settling Ponds)
Bethpage, New York

Compound ^(1,2,3) (units in µg/L)	Sample Location: Sample Date:	MW-204-1 7/8/2019	MW-205-1 12/29/2015	MW-205-1 1/18/2017	MW-205-1 8/8/2017	MW-205-1 8/1/2018
	NYSDEC SCGs					
1,1,1-Trichloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,1,2,2-Tetrachloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	0.6	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2-Butanone	NE	< 10	< 10	< 10	< 10	< 10
2-Hexanone	50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
4-Methyl-2-Pentanone	50	< 5.0	3.0 J	< 5.0	< 5.0	< 5.0
Acetone	NE	< 10	< 10	< 10	< 10	< 10
Benzene	1	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromodichloromethane	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromoform	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon Disulfide	60	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon Tetrachloride	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorodifluoromethane (Freon 22)	NE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform	7	< 1.0	< 1.0	0.64 J	< 1.0	< 1.0
Chloromethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	5	< 1.0	1.1	0.39 J	0.62 J	0.76 J
cis-1,3-Dichloropropene	0.4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorodibromomethane	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dichlorodifluoromethane (Freon 12)	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Ethylbenzene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl-Tert-Butylether	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methylene Chloride	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Styrene (Monomer)	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-Dichloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-Dichloropropene	0.4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	5	< 1.0	0.76 J	0.91 J	0.41 J	< 1.0
Trichlorotrifluoroethane (Freon 113)	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Vinyl Chloride	2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m,p-Xylene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total VOCs ⁽⁴⁾		0	4.9	1.9	1.0	0.76
Project VOCs ⁽⁴⁾		0	1.9	1.3	1.0	0.76
1,4-Dioxane		0.14 J	0.162	0.366	0.714	0.40

See Notes and Abbreviations on Last Page

Table 11
Concentrations of Volatile Organic Compounds and 1,4-Dioxane
in Groundwater Samples Collected from Monitoring Wells,
Bethpage Park Groundwater Containment System,
OU3 (Former Settling Ponds)
Bethpage, New York

Compound ^(1,2,3) (units in µg/L)	Sample Location: Sample Date:	MW-205-1 7/8/2019	MW-206-1 12/29/2015	MW-206-1 1/19/2017	MW-206-1 8/9/2017	MW-206-1 7/31/2018
	NYSDEC SCGs					
1,1,1-Trichloroethane	5	< 1.0	< 1.0	0.27 J	0.76 J	< 1.0
1,1,1,2,2-Tetrachloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	5	< 1.0	0.44 J	0.74 J	3.0	0.96 J
1,1-Dichloroethene	5	< 1.0	< 1.0	0.27 J	1.7	< 1.0
1,2-Dichloroethane	0.6	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2-Butanone	NE	< 10	< 10	< 10	< 10	< 10
2-Hexanone	50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
4-Methyl-2-Pentanone	50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Acetone	NE	< 10	< 10	< 10	< 10	< 10
Benzene	1	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromodichloromethane	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromoform	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon Disulfide	60	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon Tetrachloride	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorodifluoromethane (Freon 22)	NE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform	7	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloromethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	5	< 1.0	0.32 J	0.92 J	1.3	0.56 J
cis-1,3-Dichloropropene	0.4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorodibromomethane	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dichlorodifluoromethane (Freon 12)	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Ethylbenzene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl-Tert-Butylether	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methylene Chloride	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Styrene (Monomer)	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	5	< 1.0	0.45 J	0.56 J	2.8	1.4
Toluene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-Dichloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-Dichloropropene	0.4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	5	< 1.0	< 1.0	< 1.0	0.65 J	0.79 J
Trichlorotrifluoroethane (Freon 113)	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Vinyl Chloride	2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m,p-Xylene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total VOCs ⁽⁴⁾		0	1.2	2.8	10	3.7
Project VOCs ⁽⁴⁾		0	1.2	2.8	10	3.7
1,4-Dioxane		0.16 J	< 0.10	0.301	1.06	0.34

See Notes and Abbreviations on Last Page

Table 11
Concentrations of Volatile Organic Compounds and 1,4-Dioxane
in Groundwater Samples Collected from Monitoring Wells,
Bethpage Park Groundwater Containment System,
OU3 (Former Settling Ponds)
Bethpage, New York

Compound ^(1,2,3) (units in µg/L)	Sample Location: Sample Date:	MW-206-1 7/9/2019	MW-207A-1R 7/10/2019	MW-207B-1R 7/10/2019	MW-208-1 12/29/2015	MW-208-1 1/20/2017
	NYSDEC SCGs					
1,1,1-Trichloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,1,2,2-Tetrachloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	5	< 1.0	< 1.0	< 1.0	2.9	2.1
1,1-Dichloroethene	5	< 1.0	< 1.0	< 1.0	0.89 J	0.70 J
1,2-Dichloroethane	0.6	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	1	< 1.0	< 1.0	< 1.0	< 1.0	0.35 J
2-Butanone	NE	< 10	< 10	< 10	< 10	< 10
2-Hexanone	50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
4-Methyl-2-Pentanone	50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Acetone	NE	< 10	< 10	< 10	< 10	< 10
Benzene	1	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromodichloromethane	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromoform	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon Disulfide	60	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon Tetrachloride	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorodifluoromethane (Freon 22)	NE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform	7	< 1.0	< 1.0	< 1.0	3.1	2.8
Chloromethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	5	< 1.0	< 1.0	< 1.0	546 D	597
cis-1,3-Dichloropropene	0.4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorodibromomethane	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dichlorodifluoromethane (Freon 12)	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Ethylbenzene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl-Tert-Butylether	5	< 1.0	< 1.0	< 1.0	0.39 J	0.43 J
Methylene Chloride	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Styrene (Monomer)	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-Dichloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	0.60 J
trans-1,3-Dichloropropene	0.4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	5	< 1.0	< 1.0	0.88 J	17.4	10.9
Trichlorotrifluoroethane (Freon 113)	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Vinyl Chloride	2	< 1.0	< 1.0	< 1.0	6.4	3.3
o-Xylene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m,p-Xylene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total VOCs ⁽⁴⁾		0	0	0.88	580	620
Project VOCs ⁽⁴⁾		0	0	0.88	570	610
1,4-Dioxane		0.21 J	0.45	0.68	0.526	1.02

See Notes and Abbreviations on Last Page

Table 11
Concentrations of Volatile Organic Compounds and 1,4-Dioxane
in Groundwater Samples Collected from Monitoring Wells,
Bethpage Park Groundwater Containment System,
OU3 (Former Settling Ponds)
Bethpage, New York

Compound ^(1,2,3) (units in µg/L)	Sample Location: Sample Date:	MW-208-1 8/10/2017	MW-208-1 8/2/2018	MW-208-1 (REP) 8/2/2018	MW-208-1 7/9/2019	MW-208-1 (REP) 7/9/2019
	NYSDEC SCGs					
1,1,1-Trichloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,1,2,2-Tetrachloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	5	1.1	0.61 J	< 1.0	0.69 J	< 1.0
1,1-Dichloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	0.6	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
2-Butanone	NE	< 10	< 10	< 10	< 10	< 10
2-Hexanone	50	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
4-Methyl-2-Pentanone	50	< 5.0	< 5.0	< 5.0	< 5.0 J	< 5.0
Acetone	NE	< 10	< 10	< 10	< 10	< 10
Benzene	1	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Bromodichloromethane	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromoform	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon Disulfide	60	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon Tetrachloride	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorodifluoromethane (Freon 22)	NE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chloroethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform	7	1.4	0.75 J	0.71 J	0.53 J	0.62 J
Chloromethane	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	5	268	129	135	176 J	166
cis-1,3-Dichloropropene	0.4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorodibromomethane	50	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dichlorodifluoromethane (Freon 12)	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Ethylbenzene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methyl-Tert-Butylether	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Methylene Chloride	5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Styrene (Monomer)	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-Dichloroethene	5	1.6	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-Dichloropropene	0.4	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethene	5	12.8	11.7	11.4	9.1	9.4
Trichlorotrifluoroethane (Freon 113)	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Vinyl Chloride	2	1.8	1.1	0.98 J	< 1.0	< 1.0
o-Xylene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m,p-Xylene	5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total VOCs ⁽⁴⁾		290	140	150	190	180
Project VOCs ⁽⁴⁾		290	140	150	190	180
1,4-Dioxane		0.800	0.51	0.35	0.38	0.40

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Table 11
Concentrations of Volatile Organic Compounds and 1,4-Dioxane
in Groundwater Samples Collected from Monitoring Wells,
Bethpage Park Groundwater Containment System,
OU3 (Former Settling Ponds)
Bethpage, New York

Notes and Abbreviations

1. Historic data available in previous quarterly reports.
2. Results are validated at 20% frequency, per protocols specified in Sampling and Analysis Plan in the Bethpage Park Groundwater Containment System OM&M Manual (ARCADIS 2016).
3. Samples analyzed for the TCL VOCs using USEPA Method 8260C. Samples analyzed for 1,4-Dioxane using USEPA Method 8270D SIM (prior to 2016), per USEPA Method 522 SIM (2016-2017) and per USEPA Method 8270D SIM (since 2018).
4. "Total VOCs" represents the sum of individual concentrations of the VOCs detected. TVOCs were rounded to two significant figures. "Project VOCs" represents the sum of individual concentrations of 1,1,1-Trichloroethane; 1,1-Dichloroethane; 1,2-Dichloroethane; 1,1-Dichloroethene; Tetrachloroethene; Trichloroethene; Vinyl Chloride; cis-1,2-Dichloroethene; trans-1,2-Dichloroethene; Benzene; Toluene; and Xylenes-o,m, and p.

█	Bolded outline indicates an exceedance of an SCG.
< 5	Compound not detected above its laboratory quantification limit.
2.1	Bold value indicates a detection.
<i>italicized</i>	<i>italicized indicates most recent data</i>
D	Constituent identified from secondary dilution
J	Result is estimated
ug/L	Micrograms per liter
NE	Not Established
ASP	Analytical Services Protocol
--	Not Analyzed
NE	Not Established
NYSDEC	New York State Department of Environmental Conservation
REP	Field Replicate QA/QC sample
SCGs	Standards, Criteria, and Guidance values
SIM	Selective Ion Monitoring
TCL	Target compound list.
USEPA	United State Environmental Protection Agency
VOC	Volatile Organic Compound
OU	Operable Unit

Table 12
Concentrations of Metals in Groundwater Samples Collected
from Monitoring Wells, Bethpage Park Groundwater Containment System,
OU 3 (Former Settling Ponds),
Bethpage, New York ^(1,2)

Constituents (units in ug/L)	Sample Location: Sample Date:	B24MW-3	B30MW-1	BCPMW-4-1	BCPMW-4-1	BCPMW-4-1	BCPMW-4-1	BCPMW-4-1
		8/9/2018	8/9/2018	10/8/2015	12/30/2015	12/28/2016	7/31/2017	7/24/2018
	NYSDEC SCGs							
Cadmim, Total	5	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Cadmim, Dissolved	5	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Chromim, Total	50	12.5	< 10	24.9	22.7	< 10	< 10	< 10
Chromim, Dissolved	50	< 10	< 10	22.1	19.2	< 10	< 10	< 10

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Table 12
Concentrations of Metals in Groundwater Samples Collected
from Monitoring Wells, Bethpage Park Groundwater Containment System,
OU 3 (Former Settling Ponds),
Bethpage, New York ^(1,2)

Constituents (units in ug/L)	Sample Location: Sample Date:	BCPMW-4-1	BCPMW-4-2	BCPMW-4-2	BCPMW-4-2	BCPMW-4-2	BCPMW-4-2 (REP)	BCPMW-4-2
		7/11/2019	10/8/2015	12/31/2015	12/22/2016	12/22/2016	12/22/2016	7/31/2017
	NYSDEC SCGs							
Cadmim, Total	5	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Cadmim, Dissolved	5	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Chromim, Total	50	19.4	< 10	< 10	17.3	< 10	20.5	< 10
Chromim, Dissolved	50	17.2	< 10	< 10	< 10	< 10	< 10	< 10

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Table 12
Concentrations of Metals in Groundwater Samples Collected
from Monitoring Wells, Bethpage Park Groundwater Containment System,
OU 3 (Former Settling Ponds),
Bethpage, New York ^(1,2)

Constituents (units in ug/L)	Sample Location: Sample Date:	BCPMW-4-2	BCPMW-4-2	BCPMW-4-3	BCPMW-4-3	BCPMW-4-3	BCPMW-4-3
		7/11/2019	7/24/2018	10/9/2015	12/31/2015	12/22/2016	8/3/2017
	NYSDEC SCGs						
Cadmim, Total	5	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Cadmim, Dissolved	5	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Chromim, Total	50	< 10	< 10	< 10	< 10	11.2	< 10
Chromim, Dissolved	50	< 10	< 10	< 10	< 10	< 10	< 10

Notes and Abbreviations on Last Page

Table 12
Concentrations of Metals in Groundwater Samples Collected
from Monitoring Wells, Bethpage Park Groundwater Containment System,
OU 3 (Former Settling Ponds),
Bethpage, New York ^(1,2)

Constituents (units in ug/L)	Sample Location: Sample Date:	BCPMW-4-3 8/8/2018	BCPMW-4-3 7/11/2019	BCPMW-6-1 12/23/2015	BCPMW-6-1 12/27/2016	BCPMW-6-1 8/1/2017	BCPMW-6-1 8/6/2018
	NYSDEC SCGs						
Cadmim, Total	5	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Cadmim, Dissolved	5	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Chromim, Total	50	< 10	< 10	< 10	223	< 10	< 10
Chromim, Dissolved	50	< 10	< 10	< 10	< 10	< 10	< 10

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Table 12
Concentrations of Metals in Groundwater Samples Collected
from Monitoring Wells, Bethpage Park Groundwater Containment System,
OU 3 (Former Settling Ponds),
Bethpage, New York ^(1,2)

Constituents (units in ug/L)	Sample Location: Sample Date:	BCPMW-6-1 7/15/2019	BCPMW-6-2 12/23/2015	BCPMW-6-2 12/27/2016	BCPMW-6-2 8/2/2017	BCPMW-6-2 8/6/2018
	NYSDEC SCGs					
Cadmim, Total	5	< 3.0	< 3.0	< 3.0	3.3	< 3.0
Cadmim, Dissolved	5	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Chromim, Total	50	< 10	< 10	13.5	87.7	< 10
Chromim, Dissolved	50	< 10	< 10	< 10	< 10	< 10

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Table 12
Concentrations of Metals in Groundwater Samples Collected
from Monitoring Wells, Bethpage Park Groundwater Containment System,
OU 3 (Former Settling Ponds),
Bethpage, New York ^(1,2)

Constituents (units in ug/L)	Sample Location: Sample Date:	BCPMW-7-1	BCPMW-7-1	BCPMW-7-1	BCPMW-7-1	BCPMW-7-1	BCPMW-7-1
		12/22/2015	12/28/2016	8/1/2017	8/3/2018	8/8/2018	7/10/2019
	NYSDEC SCGs						
Cadmim, Total	5	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Cadmim, Dissolved	5	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Chromim, Total	50	< 10	66.0	< 10	< 10	< 10	< 10
Chromim, Dissolved	50	< 10	< 10	< 10	< 10	< 10	< 10

Notes and Abbreviations on Last Page

Table 12
Concentrations of Metals in Groundwater Samples Collected
from Monitoring Wells, Bethpage Park Groundwater Containment System,
OU 3 (Former Settling Ponds),
Bethpage, New York ^(1,2)

Constituents (units in ug/L)	Sample Location: Sample Date:	MW-200-1	MW-200-1	MW-200-1	MW-200-1	MW-200-1
		12/24/2015	1/17/2017	8/7/2017	7/30/2018	7/8/2019
	NYSDEC SCGs					
Cadmim, Total	5	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Cadmim, Dissolved	5	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Chromim, Total	50	54.2	< 10	11.1	12.4	11.5
Chromim, Dissolved	50	29.5	< 10	< 10	< 10	< 10

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Table 12
Concentrations of Metals in Groundwater Samples Collected
from Monitoring Wells, Bethpage Park Groundwater Containment System,
OU 3 (Former Settling Ponds),
Bethpage, New York ^(1,2)

Constituents (units in ug/L)	Sample Location: Sample Date:	MW-201-1	MW-201-1	MW-201-1	MW-201-1	MW-201-1	MW-201-1	MW-202-1	MW-202-1
		12/30/2015	1/18/2017	8/8/2017	8/1/2018	7/8/2019	12/31/2015	1/19/2017	
	NYSDEC SCGs								
Cadmim, Total	5	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Cadmim, Dissolved	5	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Chromim, Total	50	< 10	< 10	11.7	< 10	< 10	< 10	34.9	< 10
Chromim, Dissolved	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Notes and Abbreviations on Last Page									

Table 12
Concentrations of Metals in Groundwater Samples Collected
from Monitoring Wells, Bethpage Park Groundwater Containment System,
OU 3 (Former Settling Ponds),
Bethpage, New York ^(1,2)

Constituents (units in ug/L)	Sample Location: Sample Date:	MW-202-1	MW-202-1	MW-202-1	MW-202-1	MW-203-1	MW-203-1	MW-203-1
		8/9/2017	7/31/2018	7/10/2019	12/20/2015	1/20/2017	8/10/2017	
	NYSDEC SCGs							
Cadmim, Total	5	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Cadmim, Dissolved	5	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Chromim, Total	50	73.4	21.4	26.5	81.6	< 10	< 10	138
Chromim, Dissolved	50	14.4	< 10	< 10	< 10	< 10	< 10	< 10

Notes and Abbreviations on Last Page

Table 12
Concentrations of Metals in Groundwater Samples Collected
from Monitoring Wells, Bethpage Park Groundwater Containment System,
OU 3 (Former Settling Ponds),
Bethpage, New York ^(1,2)

Constituents (units in ug/L)	Sample Location: Sample Date:	MW-203-1 8/2/2018	MW-203-1 7/9/2019	MW-204-1 12/24/2015	MW-204-1 1/17/2017	MW-204-1 8/7/2017	MW-204-1 (REP) 8/7/2017
	NYSDEC SCGs						
Cadmim, Total	5	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Cadmim, Dissolved	5	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Chromim, Total	50	22.7	< 10	85.3	57.0	175	171
Chromim, Dissolved	50	< 10	< 10	38.5	31.1	87.0	85.3

Notes and Abbreviations on Last Page

Table 12
Concentrations of Metals in Groundwater Samples Collected
from Monitoring Wells, Bethpage Park Groundwater Containment System,
OU 3 (Former Settling Ponds),
Bethpage, New York ^(1,2)

Constituents (units in ug/L)	Sample Location: Sample Date:	MW-204-1	MW-204-1	MW-205-1	MW-205-1	MW-205-1	MW-205-1	MW-205-1
		7/30/2018	7/8/2019	12/29/2015	1/18/2017	8/8/2017	8/1/2018	MW-205-1 7/8/2019
	NYSDEC SCGs							
Cadmim, Total	5	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Cadmim, Dissolved	5	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Chromim, Total	50	239	30.1	11.4	73.4	134	88.7	70.2
Chromim, Dissolved	50	89.1	< 10	< 10	< 10	< 10	23.7	22.1

Notes and Abbreviations on Last Page

Table 12
Concentrations of Metals in Groundwater Samples Collected
from Monitoring Wells, Bethpage Park Groundwater Containment System,
OU 3 (Former Settling Ponds),
Bethpage, New York ^(1,2)

Constituents (units in ug/L)	Sample Location: Sample Date:	MW-206-1	MW-206-1	MW-206-1	MW-206-1	MW-206-1	MW-206-1	MW-206-1	MW-207A-1R	MW-207B-1R
		12/29/2015	1/19/2017	8/9/2017	7/31/2018	7/9/2019	7/10/2019	7/10/2019	7/10/2019	
	NYSDEC SCGs									
Cadmim, Total	5	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Cadmim, Dissolved	5	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Chromim, Total	50	12.6	162	82.0	13.6	10.7	10.7	< 10	< 10	86.6
Chromim, Dissolved	50	< 10	< 10	10.7	< 10	< 10	< 10	< 10	< 10	< 10

Notes and Abbreviations on Last Page

Table 12
Concentrations of Metals in Groundwater Samples Collected
from Monitoring Wells, Bethpage Park Groundwater Containment System,
OU 3 (Former Settling Ponds),
Bethpage, New York ^(1,2)

Constituents (units in ug/L)	Sample Location: Sample Date:	MW-208-1	MW-208-1	MW-208-1	MW-208-1	MW-208-1	MW-208-1 (REP)	MW-208-1	MW-208-1 (REP)
		12/29/2015	1/20/2017	8/10/2017	8/2/2018	8/2/2018	8/2/2018	7/9/2019	7/9/2019
	NYSDEC SCGs								
Cadmim, Total	5	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Cadmim, Dissolved	5	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0	< 3.0
Chromim, Total	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Chromim, Dissolved	50	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10

Notes and Abbreviations on Last Page

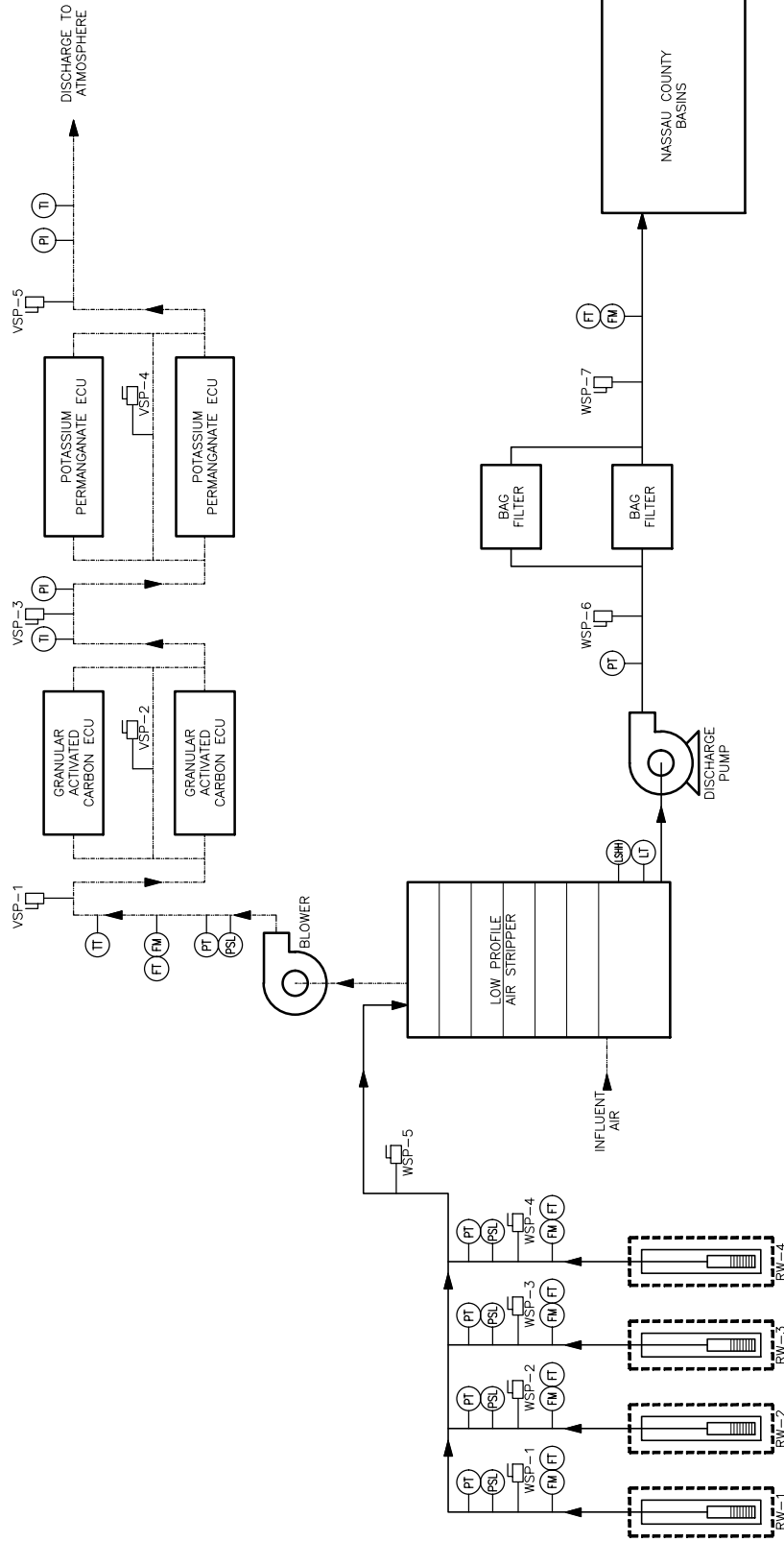
Table 12
Concentrations of Metals in Groundwater Samples Collected from Monitoring Wells, Bethpage Park Groundwater Containment System, OU 3 (Former Settling Ponds), Bethpage, New York ^(1,2)

Notes and Abbreviations:

1. Historic data available in previous quarterly reports.
2. Results are validated at 20% frequency, per protocols specified in Sampling and Analysis Plan in the DRAFT Bethpage Park Groundwater Containment System OM&M Manual (ARCADIS 2016).
3. Samples analyzed for metals using USEPA Method 6010.

italicized indicates most recent data

ug/L	Micrograms per liter
12.5	Indicates an exceedance of an SCG
< 5	Bold indicates a detection
B	Compound not detected above its laboratory quantification limit
--	Compound detected in associated blank sample
NE	Not Analyzed
NYSDEC	Not Established
USEPA	New York State Department of Environmental Conservation
SCGs	United State Environmental Protection Agency
OU	Standards, Criteria, and Guidance values
	Operable Unit



- LEGEND:**
- PROCESS WATER
 - - - PROCESS AIR
 - ⊖ INSTRUMENT
 - SAMPLE PORT
 - ▲ FLOW DIRECTION
 - FM FLOW METER
 - FT FLOW RATE TRANSMITTER
 - PSL PRESSURE VACUUM LOW
 - PT PRESSURE TRANSMITTER
 - PI PRESSURE INDICATOR
 - LSHH LEVEL SWITCH HIGH HIGH
 - LT LEVEL TRANSMITTER
 - TT TEMPERATURE TRANSMITTER
 - TI TEMPERATURE INDICATOR
 - WSP WATER SAMPLE PORT
 - VSP VAPOR SAMPLE PORT
 - ECU EMISSION CONTROL UNIT

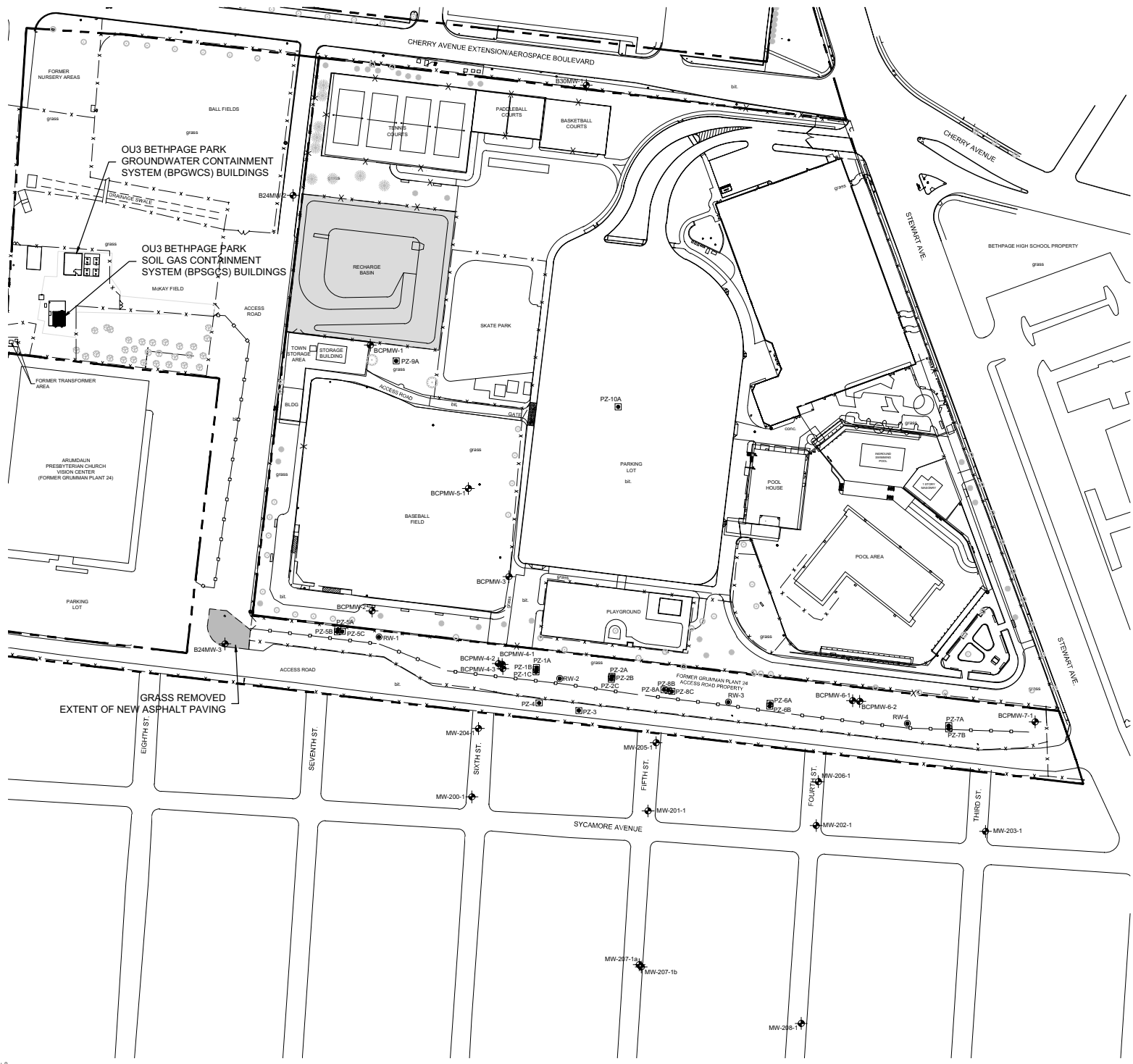
BETHPAGE PARK GROUNDWATER CONTAINMENT SYSTEM
OPERABLE UNIT
(FORMER GRUAMAN SETTILING PONDS)
BETHPAGE, NEW YORK

**GROUNDWATER TREATMENT SYSTEM
PROCESS SCHEMATIC AND
MONITORING LOCATIONS**

FIGURE
3



CITY OF BETHPAGE, DIVISION OF ENVIRONMENTAL SERVICES, 100 SOUTH WOODLAND AVENUE, BETHPAGE, NY 11702
 PROJECT: BETHPAGE PARK GROUNDWATER CONTAINMENT SYSTEM OPERABLE UNIT 3 (FORMER GRUMMAN SETTLING PONDS)
 DRAWING: GROUNDWATER MONITORING NETWORK SITE PLAN
 DATE: 11/11/2024
 SCALE: AS SHOWN
 PROJECT NO.: 2024-001
 DRAWING NO.: 100



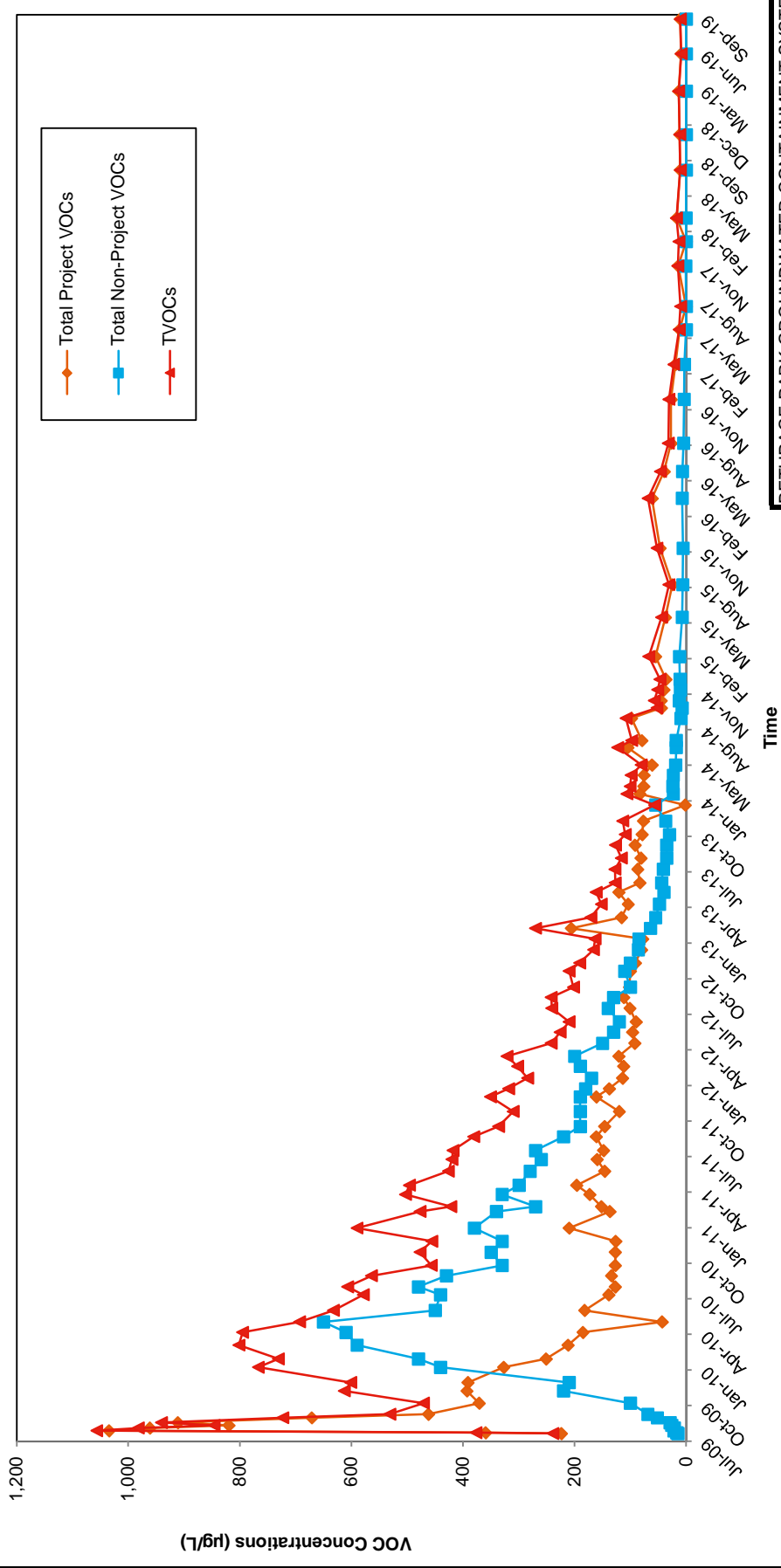
- EXPLANATION:**
- NORTHROP GRUMMAN PROPERTY LINE
 - x - x - FENCE
 - [Hatched Box] BASIN
 - bit. BITUMINOUS PAVEMENT
 - MW-200-1 [Monitoring Well Symbol] MONITORING WELL
 - RW-2 [Remedial Well Symbol] REMEDIAL WELL
 - PZ-2C [Piezometer Symbol] PIEZOMETER

- NOTES:**
- MONITORING WELLS, REMEDIAL WELLS, AND PIEZOMETERS SURVEYED TO NORTH AMERICAN DATUM (NAD) 83.
 - PARK FEATURES SHOWN WERE PRESENT PRIOR TO TOWN OF OYSTER BAY REDEVELOPMENT IN 2005.



BETHPAGE PARK GROUNDWATER CONTAINMENT SYSTEM
 OPERABLE UNIT 3
 (FORMER GRUMMAN SETTLING PONDS)
 BETHPAGE, NEW YORK

**GROUNDWATER MONITORING NETWORK
 SITE PLAN**



Abbreviations, Notes, and Units:

VOC = Volatile Organic Compound
 TVOCs = Total VOCs detected.

Project VOCs = sum of 1,1,1-trichloroethane; 1,1-dichloroethane; 1,2-dichloroethane; 1,1-dichloroethene; tetrachloroethene; trichloroethene; vinyl chloride; cis-1,2-dichloroethene; trans-1,2-dichloroethene; benzene; toluene; and total xylenes.

Non-Project VOCs = sum of VOCs that are not Project VOCs.
 µg/L = micrograms per liter

BETHPAGE PARK GROUNDWATER CONTAINMENT SYSTEM
 OPERABLE UNIT 3
 (FORMER GRUMMAN SETTLING PONDS)
 BETHPAGE, NEW YORK

INFLUENT TOTAL, PROJECT AND NON-PROJECT VOC CONCENTRATIONS



FIGURE 7

