Glenn Springs Holdings, Inc.
A subsidiary of Occidental Petroleum

Joe Branch
Project Manager
Direct Dial (231) 670-6809

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Montague, MI 49437
Fax (231) 894-4033

July 30, 2021

Reference No. 007478

Mr. Benjamin J. McPherson
New York State Department of Environmental Conservation
270 Michigan Avenue
Buffalo, NY 14203-2999

Re: Quarterly Progress Report – Second Quarter 2021
Occidental Chemical Corporation, Buffalo Avenue Plant
NY Permit Number 9-2911-00112/00167-0
Module II – Corrective Action Requirements

In accordance with Module II of the Niagara Plant's Resource Conservation and Recovery Act (RCRA)/Part 373 Permit, the following is the quarterly data report for the period of April 1, 2021 to June 30, 2021. Table 1 is a summary of the monitoring tasks by quarter that are performed each year along with completion dates where applicable. Table 2 presents a summary of maintenance activities performed during the quarter.

Bedrock Groundwater

The groundwater system was operational 99.8 percent of the time this quarter. The treatment system downtime was due to scrubber and radio communications maintenance. Downtime for greater than 72 hours consecutively and/or greater than 120 hours in a month did not occur.

Downtime for all extraction system wells (or most wells at once) occurred due to some of the issues associated with the treatment system, as well as sump levels, pH probe failure, and a short-term undetermined outage. Downtime for individual extraction wells occurred due to some of the issues associated with the treatment system as well as a motor replacement at BEW706C.

Performance monitoring data for the bedrock groundwater system are presented as follows:

Overburden Groundwater

The Flow Zone 1 remedial system was operational 97.6 percent of the time for WW1 and 99.9 percent of the time for WW2 this quarter. The Flow Zone 3 remedial system (WWB of the Energy Boulevard Drain Tile System) was operational 99.9 percent of the time this quarter. Downtime occurred due to some of the issues associated with the treatment system as well as high pH at WW1, and pump replacement at WW1.

Occidental Chemical Corporation (OxyChem) voluntarily operates two additional overburden groundwater collection systems at the Plant. These systems include the abandoned Outfall 005 and adjacent abandoned sanitary sewer in the F- and K-Areas of the Plant (MH159L) and the abandoned D-Area sanitary sewer (MH301).

Performance monitoring data for the overburden groundwater system are presented as follows:

An analytical data summary and validation for the overburden chemical monitoring program is presented in Attachment A.

Non-aqueous Phase Liquid (NAPL) Monitoring

In accordance with the letter to the NYSDEC dated February 26, 2009, OxyChem incorporated quarterly NAPL monitoring and collection from six bedrock monitoring wells installed and monitored under the S-Area Remedial Requisite Technology Program into the Niagara Plant Corrective Action Program. Three other wells were added in accordance with the recommendations of the 2009 Annual Performance Evaluation. An additional well was added during the first quarter of 2012 in accordance with the recommendations of the 2011 Annual Performance Evaluation. These bedrock monitoring wells, designated OW229, OW243, OW618, OW619, OW620, OW621, OW634, OW635, OW638, and OW643, are located within, or immediately adjacent to, the N-Area of the Niagara Plant and contain N-Area NAPL. Quarterly NAPL checks and recovery have continued in 2021.

NAPL monitoring and collection data are presented as follows:

Should you have any questions on the above, please do not hesitate to contact Joseph Branch at 231-670-6809 or email at joseph_branch@oxy.com or Tim Bathory at 716-278-7679 or email at timothy_bathory@oxy.com.

Very truly yours,

Tim Bathory
Environmental Engineer
Buffalo Avenue Plant

Joseph Branch
Project Manager
Glenn Springs Holdings, Inc.

JP/kf/22/007478

Encl.

cc: C. Staniszewski, NYSDEC
A. Everett, USEPA
N. Ackerman, OCC
J. Pentilchuk, GHD

LEGEND

- D-ZONE MONITORING WELL
- C-ZONE MONITORING WELL
- B-ZONE MONITORING WELL
- D-ZONE EXTRACTION WELL
- C-ZONE EXTRACTION WELL
- B-ZONE EXTRACTION WELL

0 200 400ft

OW655 OW654 NYPA OW139 OW653 OW658 OW659 OW652 OW657 OW651 OW407 OW668 OW666 OW408 OW420 OW667 BEW706 OW419 OW665 BEW705 OW418 OW664 OW405 BEW704 OW406 BEW703 OW663 OW417 OW404 OW403 BEW702 OW662 OW402 OW415 BEW701 OW649 OW401 BEW700 OW416 OW661 OW400 OW660 OW409 OW410 OW411 CAPPED DIOXIN AREA

ROYAL AVENUE · ENERGY BOULEVARD · STEPHENSON AVENUE · BUFFALO AVENUE · ADAMS AVENUE · ROBERT MOSES PARKWAY · NIAGARA RIVER · A STREET · O STREET · 102ND STREET · 100TH STREET · 99TH STREET · 98TH STREET

figure 1

BEDROCK GROUNDWATER HYDRAULIC MONITORING LOCATIONS
BUFFALO AVENUE PLANT
OCCIDENTAL CHEMICAL CORPORATION
GLENN SPRINGS HOLDINGS, INC.
Niagara Falls, New York

GHD

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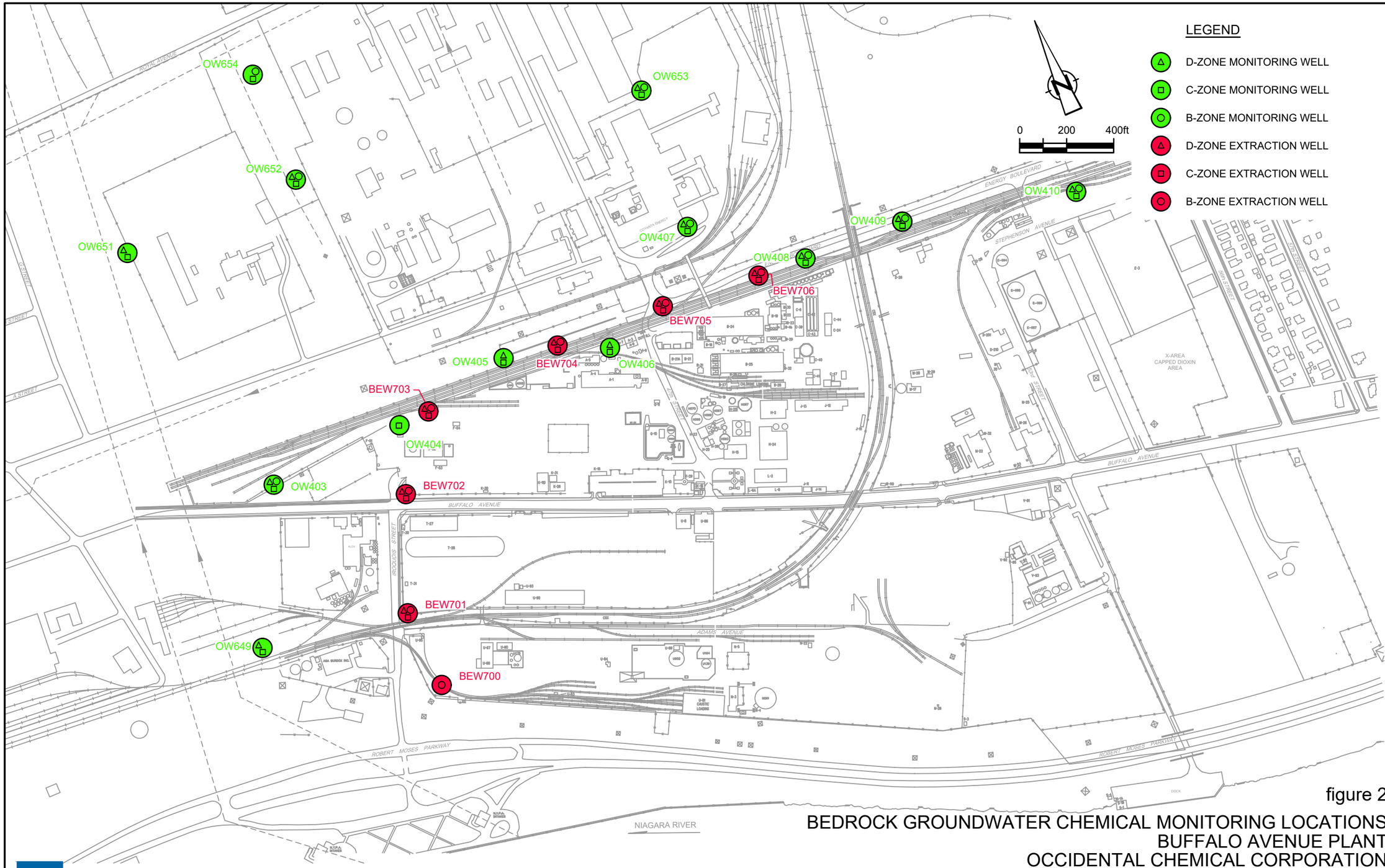
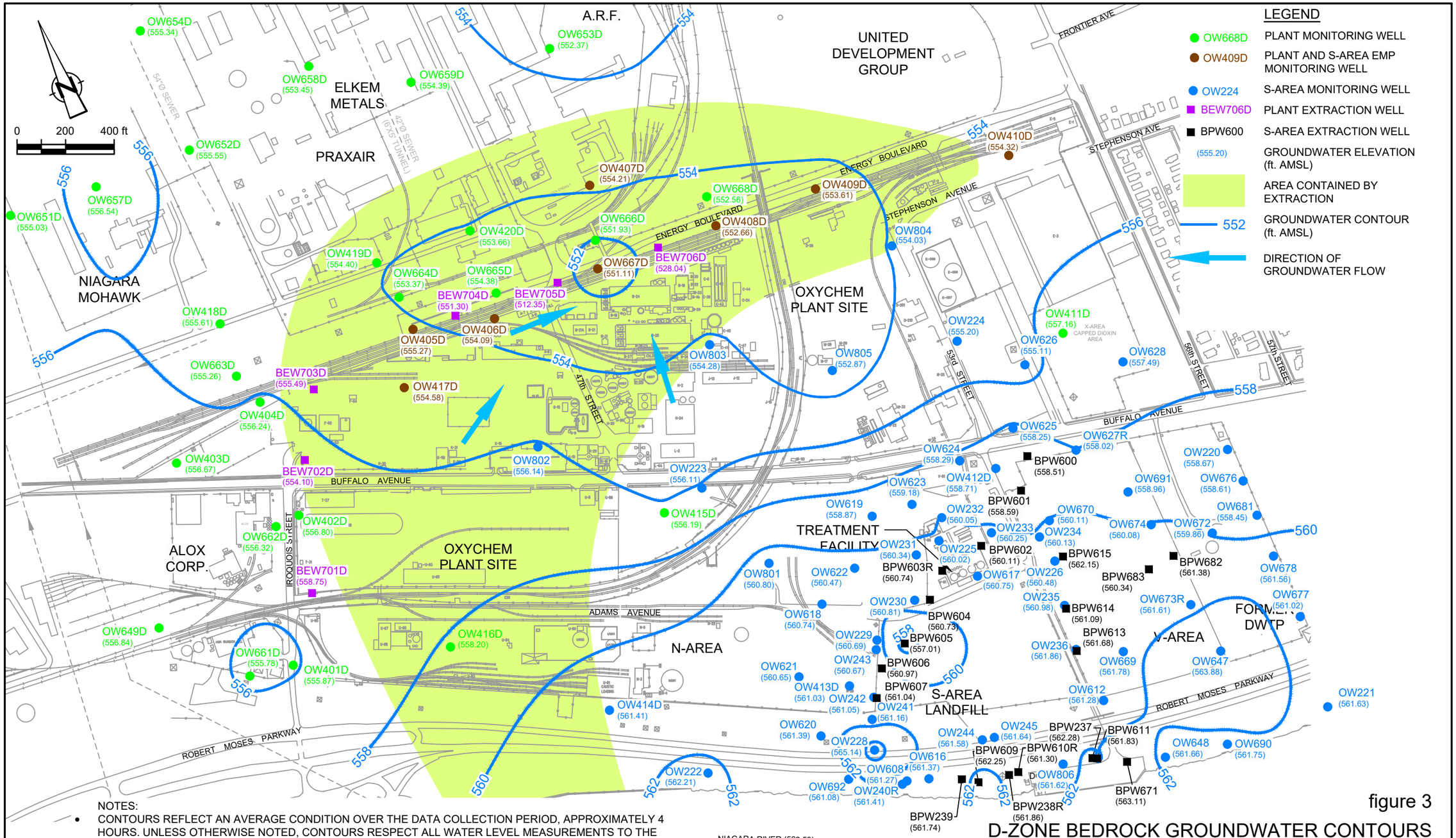


figure 2

BEDROCK GROUNDWATER CHEMICAL MONITORING LOCATIONS
BUFFALO AVENUE PLANT
OCCIDENTAL CHEMICAL CORPORATION
GLENN SPRINGS HOLDINGS, INC.
Niagara Falls, New York

N:\CA\Waterloo\Legacy\CAD\drawings\07000s\07478\07478-CORR\07478-10-403(MCPH022)\07478-10-403(MCPH022)GN\07478-GHD-0000-LTR-EN-0102_WA-MCPH022.DWG Plot Date: JUN 28, 2021



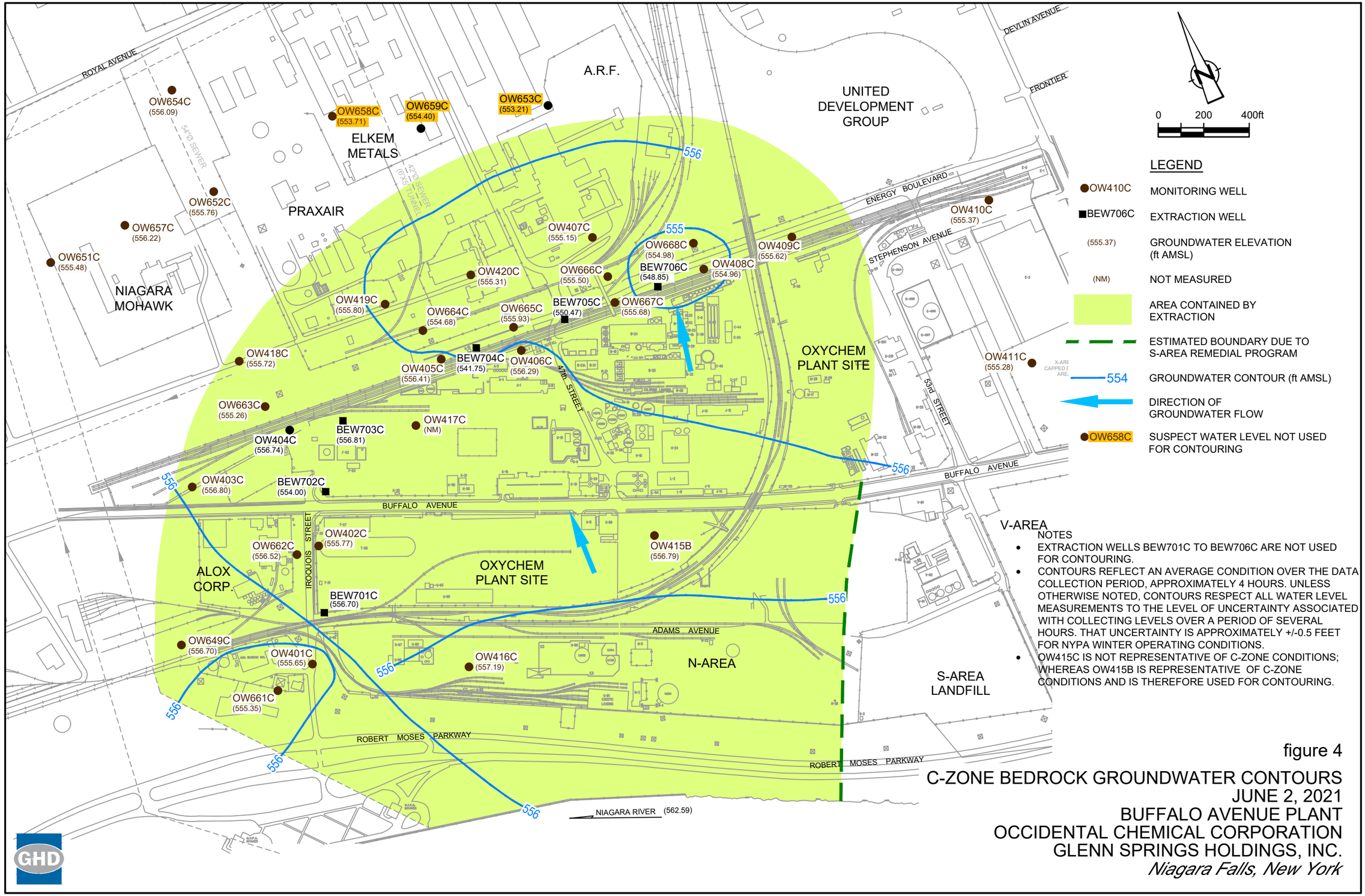
NOTES:

- CONTOURS REFLECT AN AVERAGE CONDITION OVER THE DATA COLLECTION PERIOD, APPROXIMATELY 4 HOURS. UNLESS OTHERWISE NOTED, CONTOURS RESPECT ALL WATER LEVEL MEASUREMENTS TO THE LEVEL OF UNCERTAINTY ASSOCIATED WITH COLLECTING LEVELS OVER A PERIOD OF SEVERAL HOURS. THAT UNCERTAINTY IS APPROXIMATELY +/-0.5 FEET FOR NYPA WINTER OPERATING CONDITIONS.
- MEASURED ELEVATIONS FOR S-AREA PLANT EXTRACTION WELLS BEW701D-BEW706D WERE NOT USED FOR CONTOURING.

figure 3

D-ZONE BEDROCK GROUNDWATER CONTOURS JUNE 2, 2021

BUFFALO AVENUE PLANT
OCCIDENTAL CHEMICAL CORPORATION
GLENN SPRINGS HOLDINGS, INC.
Niagara Falls, New York



NOTES

- EXTRACTION WELLS BEW701C TO BEW706C ARE NOT USED FOR CONTOURING.
- CONTOURS REFLECT AN AVERAGE CONDITION OVER THE DATA COLLECTION PERIOD, APPROXIMATELY 4 HOURS. UNLESS OTHERWISE NOTED, CONTOURS RESPECT ALL WATER LEVEL MEASUREMENTS TO THE LEVEL OF UNCERTAINTY ASSOCIATED WITH COLLECTING LEVELS OVER A PERIOD OF SEVERAL HOURS. THAT UNCERTAINTY IS APPROXIMATELY +/-0.5 FEET FOR NYPA WINTER OPERATING CONDITIONS.
- OW415C IS NOT REPRESENTATIVE OF C-ZONE CONDITIONS; WHEREAS OW415B IS REPRESENTATIVE OF C-ZONE CONDITIONS AND IS THEREFORE USED FOR CONTOURING.

figure 4

C-ZONE BEDROCK GROUNDWATER CONTOURS JUNE 2, 2021 BUFFALO AVENUE PLANT OCCIDENTAL CHEMICAL CORPORATION GLENN SPRINGS HOLDINGS, INC.

Niagara Falls, New York

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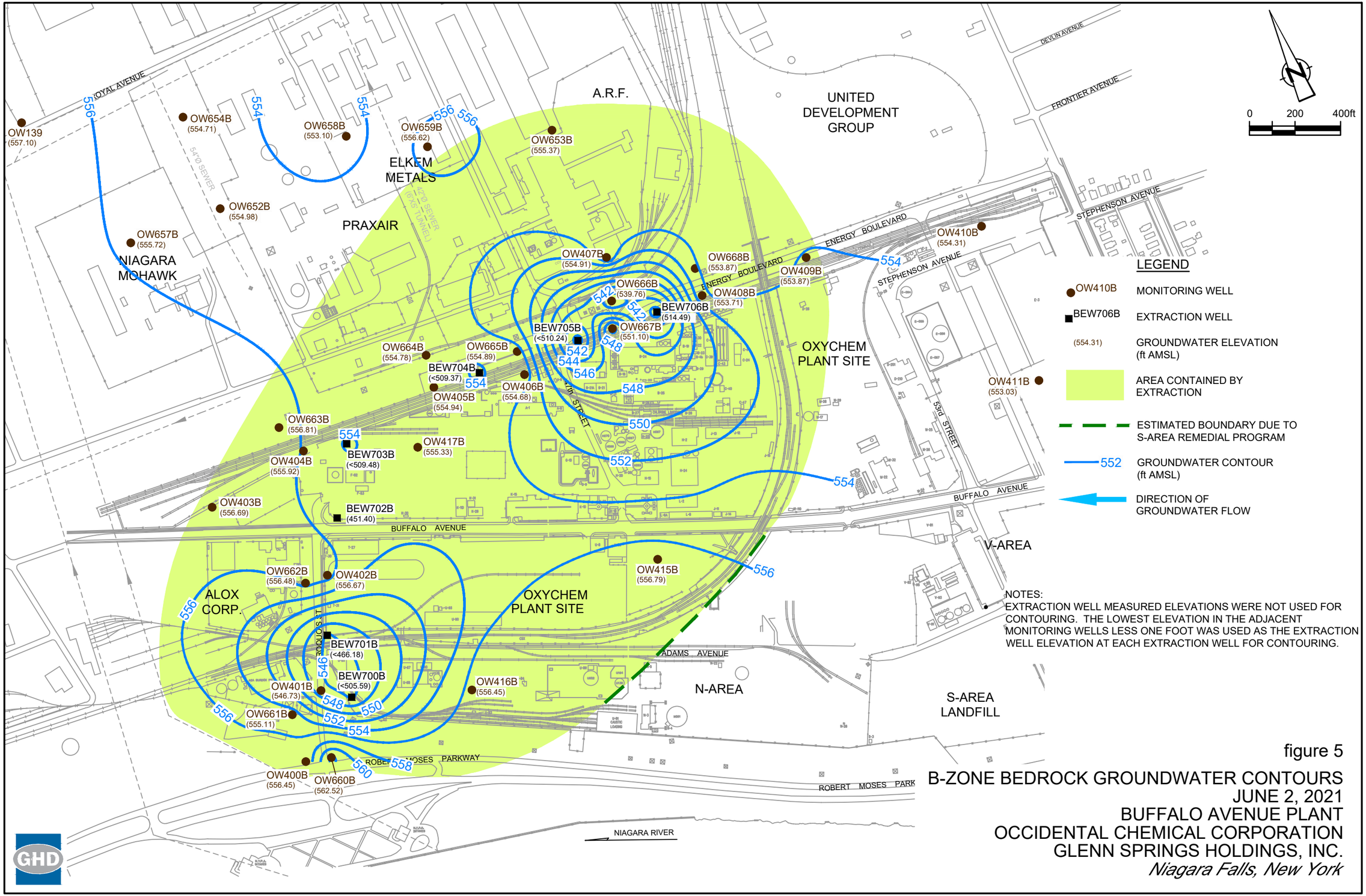

NOTES:
EXTRACTION WELL MEASURED ELEVATIONS WERE NOT USED FOR CONTOURING. THE LOWEST ELEVATION IN THE ADJACENT MONITORING WELLS LESS ONE FOOT WAS USED AS THE EXTRACTION WELL ELEVATION AT EACH EXTRACTION WELL FOR CONTOURING.

figure 5

B-ZONE BEDROCK GROUNDWATER CONTOURS JUNE 2, 2021 BUFFALO AVENUE PLANT OCCIDENTAL CHEMICAL CORPORATION GLENN SPRINGS HOLDINGS, INC.

Niagara Falls, New York

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0 150 300ft

OW553
OW554
OW555
OW556
OW308
OW557
OW558
OW306
WS25A
BH1B-88
WS111R
OW305
OW559
OW573R
OW304
OW317
OWG8
OW303
WS122
OW578
OW327
OW574
OW302
BH8-89
OW576
CMH2
OW572
OW571
OW301
OW570
OW569
CMH1
WW2
OW568
OW567
OW575
OW300
BH7-89
WW1
MHA
OW565
OW316
WS8A
OW566
MHB
OW314
OW564
MHC
WS10A
OW563
OW562
OW273
OW270
MHD
OW358
MHE
OW577
OW313
MHF
WWA
WW 'B'
MH1
MH2
WS107
OW310
WS23A
BH4-88

ENERGY BOULEVARD
STEPHENSON AVENUE
BUFFALO AVENUE
ADAMS AVENUE
ROBERT MOSES PARKWAY
NIAGARA RIVER
IROQUOIS STREET
CSX
CONRAIL
OUTFALL
X-AREA CAPPED DIOXIN AREA
CHLORINE LOADING
U-81 CAUSTIC LOADING
COVANTA ENERGY
AGA BURDOX INC.
NLY.P.A. INTAKES

LEGEND

OW553	OVERBURDEN QUARTERLY GROUNDWATER MONITORING WELL
OW559	OVERBURDEN ANNUAL GROUNDWATER MONITORING WELL
WW2	WETWELL / MANHOLE QUARTERLY GROUNDWATER MONITORING LOCATION
MH1	FLOW ZONE 3 MANHOLE LOCATION

figure 6

OVERBURDEN GROUNDWATER HYDRAULIC MONITORING LOCATIONS
BUFFALO AVENUE PLANT
OCCIDENTAL CHEMICAL CORPORATION
GLENN SPRINGS HOLDINGS, INC.
Niagara Falls, New York

GHD

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0 150 300ft

LEGEND

- OW553 — OVERBURDEN GROUNDWATER MONITORING WELL
- WW1 — WET WELL
- MH159L — MANHOLE

OW553 OW554 OW555 OW556 OW557 OW558 OW559 OW573R OW560 OW574 OW565 OW567 OW537 OW310 OW300 OW303 OW304 OW305 OW306 OW314 OW270 OW273

WWB (EBDTS) MH301 MH159L WW1 WW2

ENERGY BOULEVARD STEPHENSON AVENUE BUFFALO AVENUE ROBERT MOSES PARKWAY ADAMS AVENUE IROQUOIS STREET 47TH STREET 53RD STREET 56TH STREET

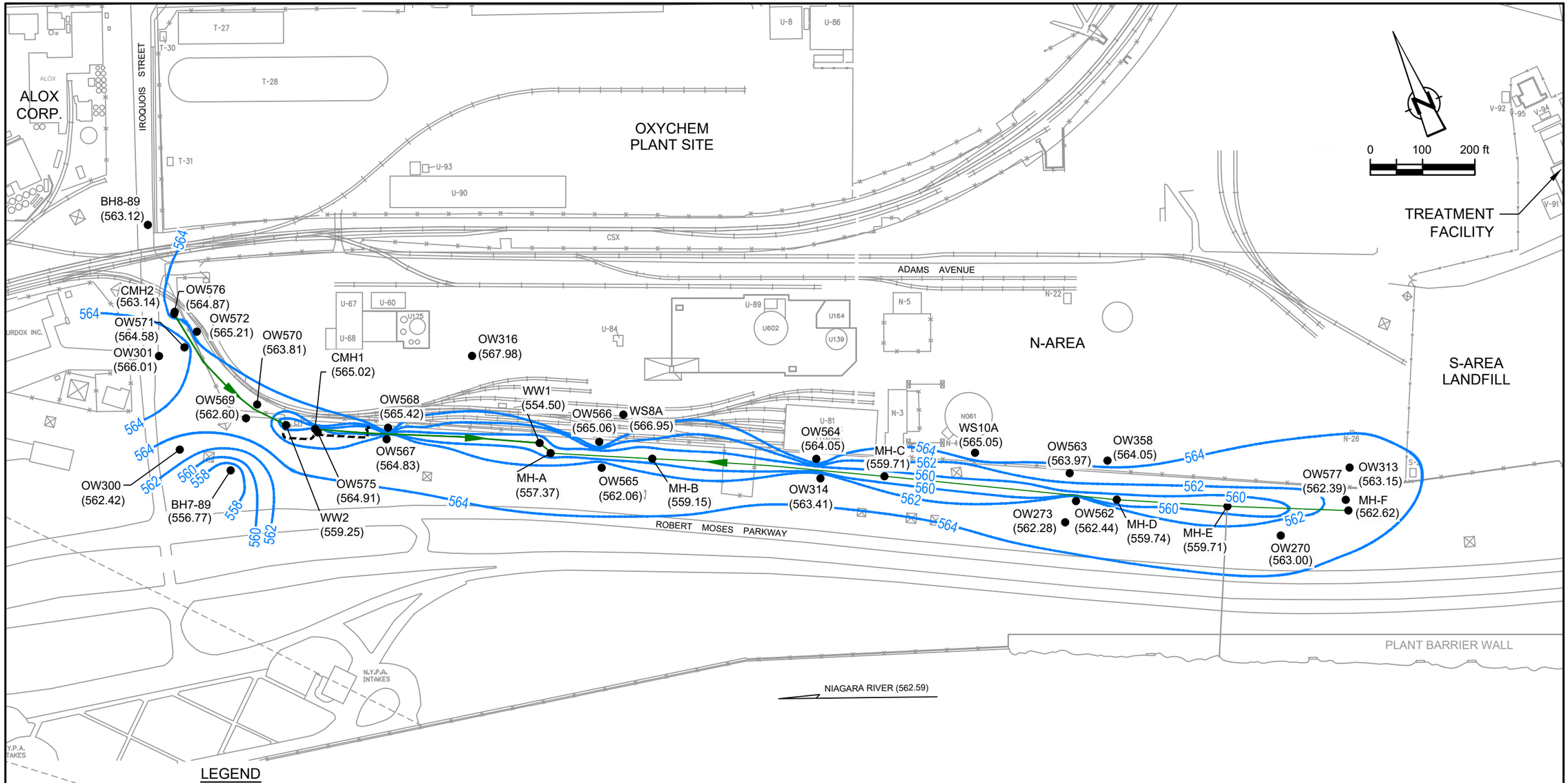
X-AREA CAPPED DIOXIN AREA

COVANTA ENERGY AGA BURDOK INC. CSX NIAGARA RIVER N.Y.P.A. INTAKES

figure 7

OVERBURDEN GROUNDWATER CHEMICAL MONITORING LOCATIONS
BUFFALO AVENUE PLANT
OCCIDENTAL CHEMICAL CORPORATION
GLENN SPRINGS HOLDINGS, INC.
Niagara Falls, New York

N:\CA\Waterloo\Legacy\CAD\drawings\07000s\07478\07478-CORR\07478-10-403(MCPH022)\07478-10-403(MCPH022)GN\07478-GHD-0000-LTR-EN-0107_WA-MCPH022.DWG Plot Date: JUN 28, 2021



LEGEND

- FLOW ZONE 1 COLLECTION SYSTEM
- OW316 — EXISTING OVERBURDEN MONITORING WELLS
- (567.98) — GROUNDWATER ELEVATION
- 564 — OVERBURDEN GROUNDWATER CONTOUR (ft AMSL) DASHED WHERE INFERRED

figure 8

FLOW ZONE 1 OVERBURDEN GROUNDWATER CONTOURS JUNE 4, 2021

BUFFALO AVENUE PLANT
OCCIDENTAL CHEMICAL CORPORATION
GLENN SPRINGS HOLDINGS, INC.
Niagara Falls, New York

GHD

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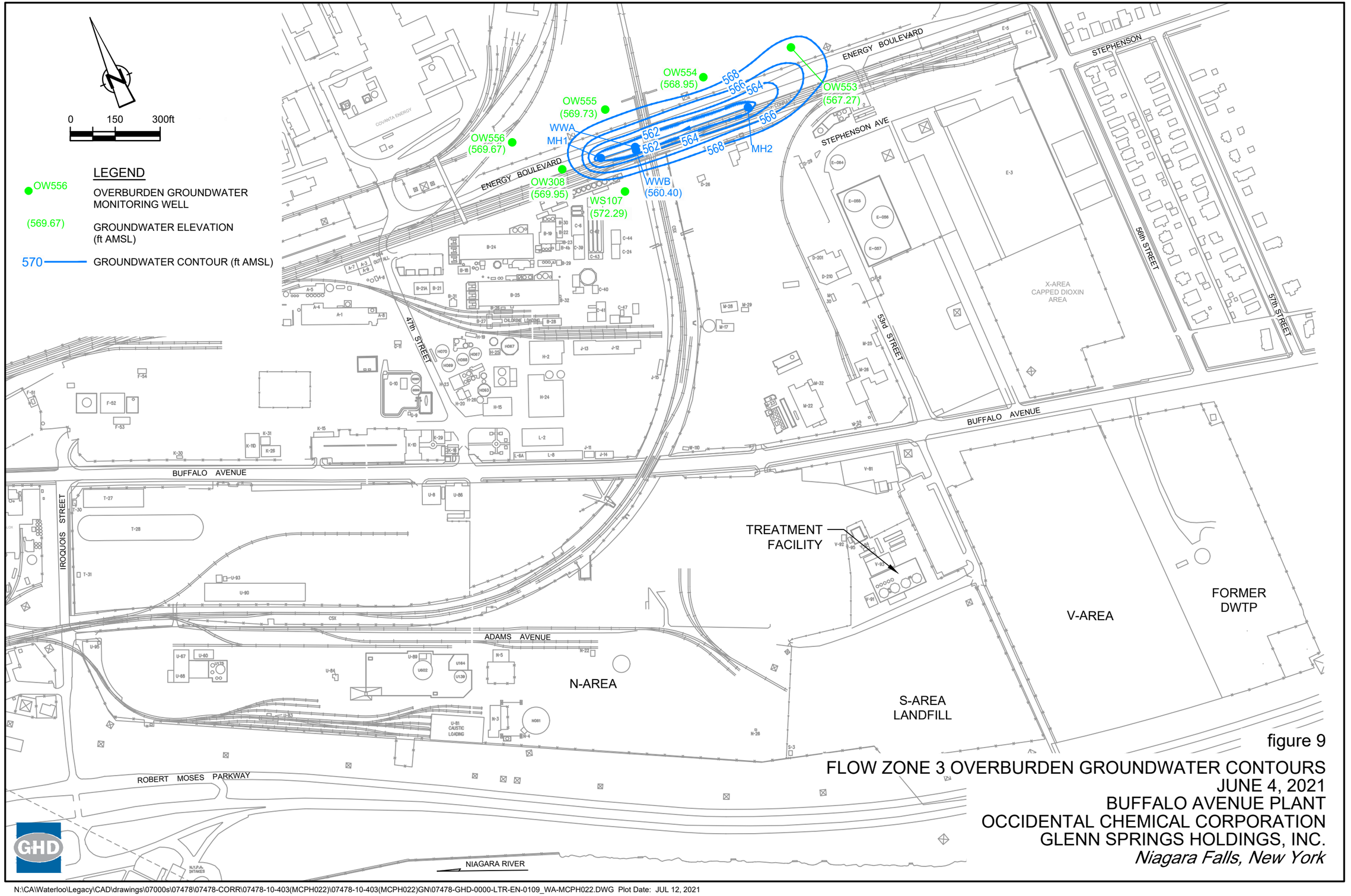

figure 9

FLOW ZONE 3 OVERBURDEN GROUNDWATER CONTOURS
JUNE 4, 2021
BUFFALO AVENUE PLANT
OCCIDENTAL CHEMICAL CORPORATION
GLENN SPRINGS HOLDINGS, INC.
Niagara Falls, New York

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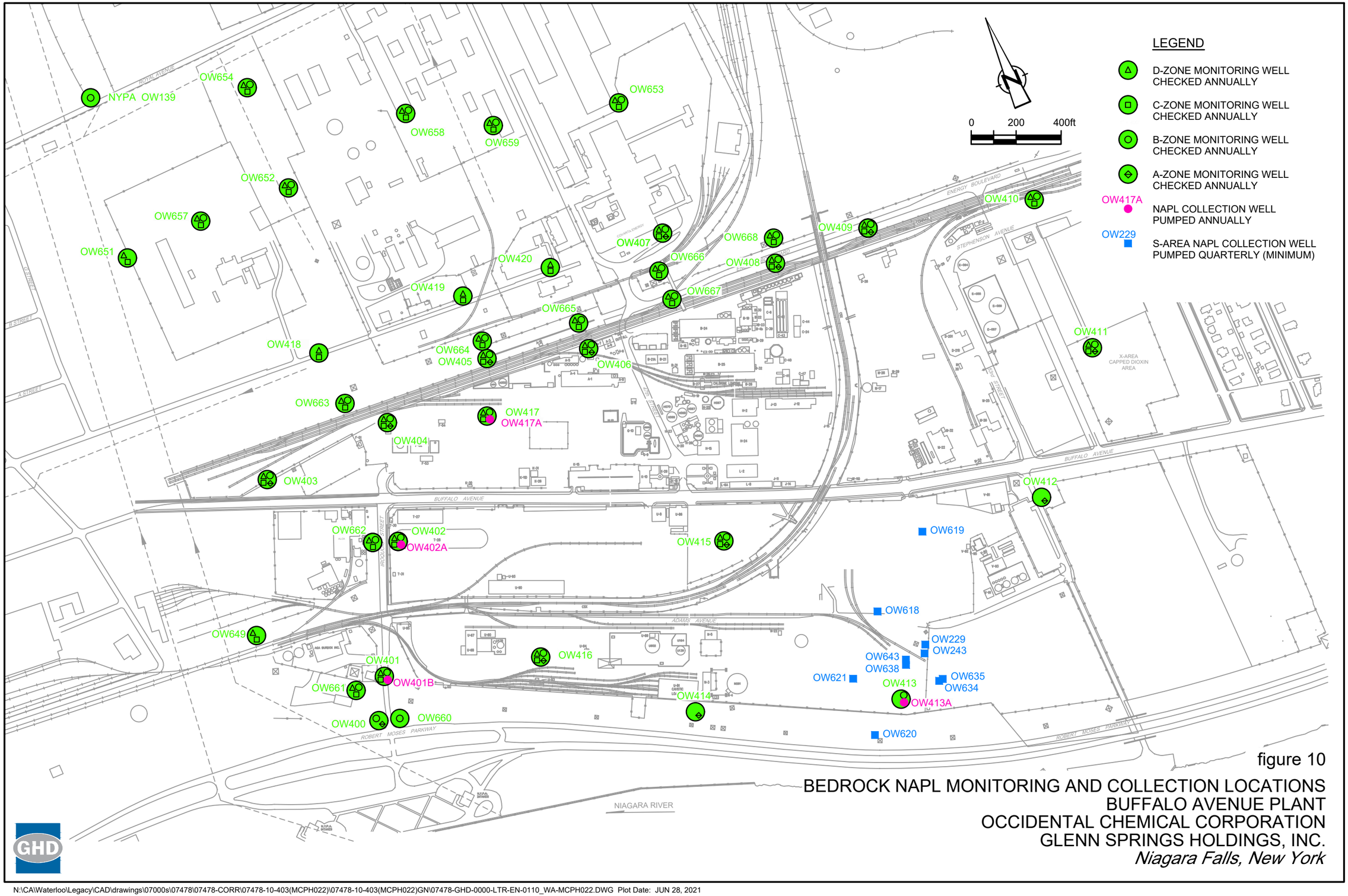

figure 10

BEDROCK NAPL MONITORING AND COLLECTION LOCATIONS
BUFFALO AVENUE PLANT
OCCIDENTAL CHEMICAL CORPORATION
GLENN SPRINGS HOLDINGS, INC.
Niagara Falls, New York

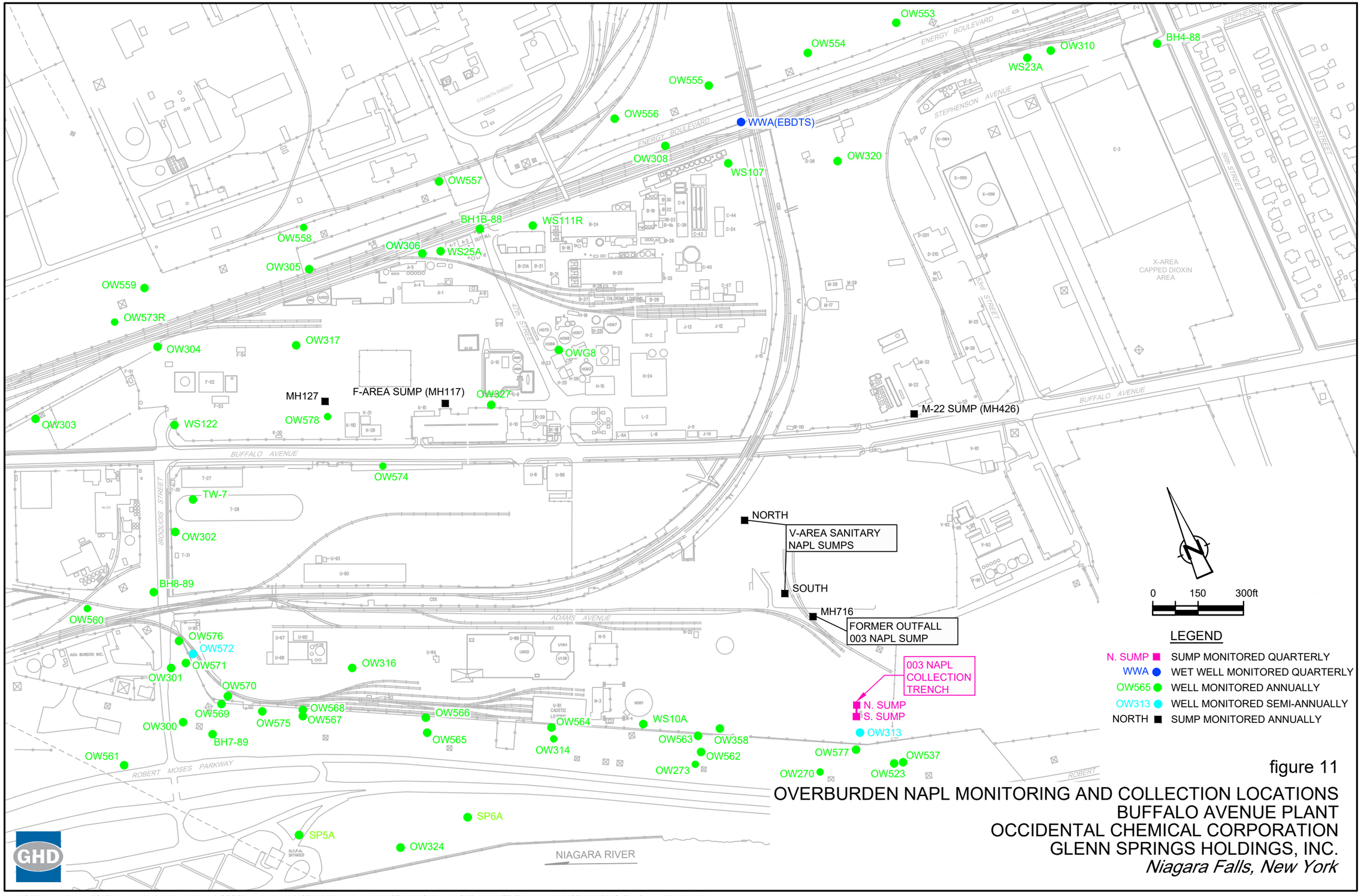

figure 11

OVERBURDEN NAPL MONITORING AND COLLECTION LOCATIONS
BUFFALO AVENUE PLANT
OCCIDENTAL CHEMICAL CORPORATION
GLENN SPRINGS HOLDINGS, INC.
Niagara Falls, New York

N:\CA\Waterloo\Legacy\CAD\drawings\07000s\07478\07478-CORR\07478-10-403(MCPH022)\07478-10-403(MCPH022)GN\07478-GHD-0000-LTR-EN-0111_WA-MCPH022.DWG Plot Date: JUN 28, 2021

Table 1

Summary of Monitoring Tasks and Associated Completion Dates
Second Quarter 2021
Buffalo Avenue Plant

Quarter	Program	Task	Date(s) Task was Completed (2021)
First	**Bedrock Groundwater**	Weekly Flow Measurements	1/4, 1/11, 1/18, 1/25, 2/1, 2/8, 2/15, 2/22, 3/1, 3/8, 3/15, 3/22, 3/29
		Quarterly Hydraulic Monitoring	3/17
		Annual Chemical Monitoring	3/5 - 4/4
	Overburden Groundwater	Weekly Flow Measurements	1/4, 1/11, 1/18, 1/25, 2/1, 2/8, 2/15, 2/22, 3/1, 3/8, 3/15, 3/22, 3/29
		Quarterly Hydraulic Monitoring - Flow Zones 1 and 3	3/19
	NAPL Monitoring	Quarterly NAPL Monitoring/Collection in 003 Collection Trench	2/1
		Quarterly NAPL Monitoring/Collection - N-Area Bedrock Wells	2/'25
		Quarterly NAPL Monitoring/Collection of EBDTS	3/19
		Annual NAPL Monitoring/Collection of Overburden Monitoring Wells	(1)
Second	**Bedrock Groundwater**	Weekly Flow Measurements	4/5, 4/12, 4/19, 4/26, 5/3, 5/10, 5/17, 5/24, 5/31, 6/7, 6/14, 6/21, 6/28
		Quarterly Hydraulic Monitoring	6/2
	Overburden Groundwater	Weekly Flow Measurements	4/5, 4/12, 4/19, 4/26, 5/3, 5/10, 5/17, 5/24, 5/31, 6/7, 6/14, 6/21, 6/28
		Quarterly Hydraulic Monitoring - Flow Zones 1 and 3	6/4
		Annual Chemical Monitoring - Mercury Cell Area (OW304, OW305, OW306, and OW574)	5/18 - 5/24
		Annual Chemical Monitoring - Plant Wells	5/11 - 5/24
	NAPL Monitoring	Quarterly NAPL Monitoring/Collection in 003 Collection Trench	4/16
		Quarterly NAPL Monitoring/Collection - N-Area Bedrock Wells	5/13
		Quarterly NAPL Monitoring/Collection of EBDTS	6/4
Third	**Bedrock Groundwater**	Weekly Flow Measurements	
		Quarterly Hydraulic Monitoring	
	Overburden Groundwater	Weekly Flow Measurements	
		Quarterly Hydraulic Monitoring - Flow Zones 1 and 3	
		Annual Hydraulic Monitoring - Other Areas	
	NAPL Monitoring	Quarterly NAPL Monitoring/Collection in 003 Collection Trench	
		Quarterly NAPL Monitoring/Collection of EBDTS	
		Quarterly NAPL Monitoring/Collection - N-Area Bedrock Wells	
		Semiannual NAPL Monitoring/Collection of Overburden Monitoring Wells	
		Annual NAPL Check - OW401B, OW402A, OW413A, and OW417A	
		Annual Sump/Manhole NAPL Checks	
Fourth	**Bedrock Groundwater**	Weekly Flow Measurements	
		Quarterly Hydraulic Monitoring	
		Annual Well Inspections	
	Overburden Groundwater	Weekly Flow Measurements	
		Quarterly Hydraulic Monitoring - Flow Zones 1 and 3	
		Semiannual Chemical Monitoring - Mercury Cell Area (OW574)	
		Annual Well Inspections	
	NAPL Monitoring	Quarterly NAPL Monitoring/Collection in 003 Collection Trench	
		Quarterly NAPL Monitoring/Collection of EBDTS	
		Quarterly NAPL Monitoring/Collection - N-Area Bedrock Wells	

Notes:
(1) - To be completed in the next quarter

Table 2

Summary of Maintenance Activities
Second Quarter 2020
Buffalo Avenue Plant

Date	Location	Maintenance Activity
4/1	F-Area	Troubleshoot Decanter Sump level probes
4/3	F-Area	Troubleshoot Hand-Off-Auto switch for Oxidizer Sump
4/4	F-Area	Troubleshoot WW2 high pH
4/5	F-Area	Troubleshoot Oxidizer Sump level issues
4/6	F-Area	Troubleshoot Effluent pH probe
4/6	F-Area	pH calibrations Effluent, Air Stripper, Scrubber, WW1, & WW2
4/8	F-Area	Repaired BEW-706C Hand-Off-Auto switch
4/19	F-Area	MH-159 repairs
4/20	F-Area	MH-159 repairs
4/21	F-Area	MH-159 repairs
4/22	F-Area	MH-159 repairs
4/22	F-Area	Troubleshoot Decanter Sump level probes
4/23	F-Area	MH-159 repairs
4/23	F-Area	Decanter Sump level probes cleaned and repaired
4/27	F-Area	MH-159 repairs
4/28	F-Area	MH-159 repairs
4/29	F-Area	MH-159 repairs
4/29	F-Area	Repaired Effluent pH probe
4/30	F-Area	Troubleshoot Decanter Sump level probes
5/3	F-Area	MH-159 repairs
5/4	F-Area	MH-159 repairs
5/4	F-Area	Decanter Sump level probes cleaned
5/5	F-Area	Troubleshoot MH-159 flow issue
5/7	F-Area	pH calibrations Effluent, Air Stripper, & Scrubber
5/7	F-Area	Troubleshoot Bleach line leak
5/10	F-Area	Troubleshoot leak on North Carbon Feed Pump
5/14	F-Area	Troubleshoot leak on Sand Filter Backwash pump
5/17	F-Area	Replaced belts on Scrubber Blower Motor
5/17	F-Area	Troubleshoot and adjust PSL-203 (fuel valve) on Oxidizer

Table 2

Summary of Maintenance Activities
Second Quarter 2020
Buffalo Avenue Plant

Date	Location	Maintenance Activity
5/20	F-Area	Replaced seal on North Carbon Feed Pump
5/21	F-Area	pH calibrations WW1 & WW2
5/24	F-Area	Troubleshoot leak on North APL Pump
5/28	F-Area	pH calibrations Effluent & Air Stripper
6/3	F-Area	Hose clamp replaced on Scrubber exit line
6/3	F-Area	Replaced seal on North APL Pump
6/4	F-Area	Repaired leak on Sand Filter Backwash Pump
6/4	F-Area	pH calibrations Scrubber
6/8	F-Area	Troubleshoot WW1 high pH
6/9	F-Area	Sevenson cleaning out connecting line from MHA-WW1
6/9	F-Area	Troubleshoot WW1 pump operation
6/10	F-Area	WW1 Motor replaced
6/11	F-Area	pH calibrations Air Stripper & Effluent
6/14	F-Area	pH calibrations WW1 & WW2
6/24	F-Area	Repair broken rotometer on CO_2 injection system

Table 3

D-Zone Extraction Well Flow Rates
Second Quarter 2021
Buffalo Avenue Plant

Date	BEW701D		BEW702D		BEW703D		BEW704D		BEW705D		BEW706D	
	Total Flow (gallons)	Average Flow Rate (gpm)	Total Flow (gallons)	Average Flow Rate (gpm)	Total Flow (gallons)	Average Flow Rate (gpm)	Total Flow (gallons)	Average Flow Rate (gpm)	Total Flow (gallons)	Average Flow Rate (gpm)	Total Flow (gallons)	Average Flow Rate (gpm)
4/5/2021							420000	41.92	269000	26.85	252000	25.00
4/12/2021							406000	42.03	257000	26.60	268000	26.75
4/19/2021							417000	41.37	257000	25.50	267000	26.49
4/26/2021							413000	41.22	265000	26.45	263000	26.25
5/3/2021							415000	41.17	267000	26.49	288000	28.57
5/10/2021							417000	41.37	264000	26.19	259000	25.69
5/17/2021							416000	41.27	264000	26.19	242000	24.01
5/24/2021							420000	41.67	262000	26.15	243000	24.11
5/31/2021							421000	41.77	258000	25.60	274000	27.18
6/7/2021							418000	41.97	254000	25.35	290000	29.12
6/14/2021							423000	41.96	258000	25.60	265000	26.29
6/21/2021							425000	42.16	259000	25.69	250000	24.80
6/28/2021							421000	41.77	256000	25.40	268000	26.59

Notes:

GPM - gallons per minute
BEW701D, 702D, and 703D were shut down on October 9, 2008 following NYSDEC approval.
Target rates for BEW704D, 705D, and 706D are 40 GPM each.

Table 4

C-Zone Extraction Well Flow Rates
Second Quarter 2021
Buffalo Avenue Plant

Date	BEW701C		BEW702C		BEW703C		BEW704C		BEW705C		BEW706C	
	Total Flow (gallons)	Average Flow Rate (gpm)	Total Flow (gallons)	Average Flow Rate (gpm)	Total Flow (gallons)	Average Flow Rate (gpm)	Total Flow (gallons)	Average Flow Rate (gpm)	Total Flow (gallons)	Average Flow Rate (gpm)	Total Flow (gallons)	Average Flow Rate (gpm)
4/5/2021							1079000	107.68	1055000	105.29	1056000	105.39
4/12/2021							1037000	107.35	1016000	105.18	944000	93.65
4/19/2021							1079000	107.04	1052000	104.37	1023000	101.49
4/26/2021							1069000	106.69	1040000	103.79	1012000	101.00
5/3/2021							1076000	106.75	1045000	103.67	1018000	100.99
5/10/2021							1075000	106.65	1044000	103.57	1014000	100.60
5/17/2021							1074000	106.55	1042000	103.37	1009000	100.10
5/24/2021							1062000	107.27	1031000	104.14	995000	100.51
5/31/2021							1077000	106.85	1047000	104.49	1002000	99.40
6/7/2021							1055000	105.92	1024000	102.20	971000	97.49
6/14/2021							1068000	105.95	1037000	102.88	982000	97.42
6/21/2021							1076000	106.75	1048000	103.97	981000	97.32
6/28/2021							1072000	106.35	1043000	103.47	962000	95.44

Notes:

GPM - gallons per minute.
BEW701C, 702C, and 703C were shut down on May 22, 2007 following NYSDEC approval.
Target rates for BEW704C, 705C, and 706C are 100 GPM each.
(1) The totalizer for BEW706C malfunctioned the week of January 27, 2020. The average flow of the weeks before and after was used.

Table 5

B-Zone Extraction Well Flow Rates
Second Quarter 2021
Buffalo Avenue Plant

	BEW700B		BEW701B		BEW702B		BEW703B		BEW704B		BEW705B		BEW706B	
Date	Total Flow (gallons)	Average Flow Rate (gpm)	Total Flow (gallons)	Average Flow Rate (gpm)	Total Flow (gallons)	Average Flow Rate (gpm)	Total Flow (gallons)	Average Flow Rate (gpm)	Total Flow (gallons)	Average Flow Rate (gpm)	Total Flow (gallons)	Average Flow Rate (gpm)	Total Flow (gallons)	Average Flow Rate (gpm)
4/5/2021	42000	4.19	14000	1.40	25	0.002	85	0.008	97000	9.62	39000	3.89	48000	4.79
4/12/2021	40000	3.99	12000	1.19	20	0.002	24	0.002	97000	9.68	38000	3.77	47000	4.66
4/19/2021	36000	3.57	10000	0.99	20	0.002	22	0.002	97000	9.62	38000	3.77	46000	4.56
4/26/2021	34000	3.39	8000	0.80	19	0.002	21	0.002	95000	9.48	36000	3.61	43000	4.29
5/3/2021	33000	3.27	8000	0.79	21	0.002	27	0.003	97000	9.62	36000	3.57	42000	4.17
5/10/2021	32000	3.17	9000	0.89	20	0.002	30	0.003	95000	9.42	36000	3.57	42000	4.17
5/17/2021	31000	3.08	10000	0.99	19	0.002	23	0.002	95000	9.42	36000	3.57	39000	3.87
5/24/2021	31000	3.08	10000	0.99	40	0.004	57	0.006	94000	9.33	36000	3.57	39000	3.87
5/31/2021	31000	3.08	9000	0.89	20	0.002	25	0.002	94000	9.33	35000	3.47	38000	3.77
6/7/2021	30000	3.01	12000	1.20	16	0.002	36	0.004	91000	9.14	34000	3.39	36000	3.61
6/14/2021	28000	2.78	13000	1.29	24	0.002	41	0.004	92000	9.13	35000	3.49	35000	3.47
6/21/2021	29000	2.88	13000	1.29	18	0.002	40	0.004	93000	9.23	34000	3.37	34000	3.37
6/28/2021	29000	2.88	11000	1.09	18	0.002	35	0.003	92000	9.13	34000	3.37	35000	3.47

Notes:

GPM - gallons per minute.
(1) Totalizer malfunction occured for BEW706B. The average flow of the weeks before and after was used.

Table 6

Bedrock Extraction System Monthly Flow Rate Summary
Second Quarter 2021
Buffalo Avenue Plant

	Target Flow Rates (gpm)	Month			Quarterly Average (gpm)
		Apr-21 (gpm)	May-21 (gpm)	Jun-21 (gpm)	
System Component					
B-Zone	40	23	21	15	20
C-Zone	300	316	311	307	311
D-Zone	120	94	93	94	94
Operational Average	460	433	425	416	425
Treatment Plant					
Operational Average		451	453	449	451
Operating Time		100.0%	99.5%	99.9%	99.8%

Quarterly Average Operating Time = 99.8%
Total Volume Treated in Quarter = 58,943,520 **gallons**

Notes:

GPM - gallons per minute.
Flow rates shown are the average flow rate while the pump/treatment system is operational.

Table 7

Bedrock Groundwater Elevation Summary
First Quarter 2021
Buffalo Avenue Plant

Well	Top of Riser Elevation	Ground Surface Elevation	Date of Installation	Riser Diameter (inches)	Monitored Interval				Well Bottom		Water Level Data 6/2/2021	
					Top (AMSL)	Bottom (AMSL)	Top (BGS)	Bottom (BGS)	Elev. of (AMSL)	Depth to (BGS)	(ft BTOC)	(ft AMSL)
BEW700B	565.59	568.69	12/2/1994	8	457.1	414.0	111.6	154.7	414.0	154.7	>60	<505.59
BEW701B	566.18	569.15	12/9/1994	8	458.8	413.8	110.4	155.4	413.8	155.4	>100	<466.18
BEW701C	566.33	569.60	11/17/1994	8	498.4	460.9	71.2	108.7	460.9	108.7	9.63	556.70
BEW701D	565.86	569.03	12/7/1994	8	545.9	500.9	23.1	68.1	500.9	68.1	7.11	558.75
BEW702B	568.83	572.24	8/15/1994	8	452.9	415.9	119.3	156.3	415.9	156.3	117.43	451.40
BEW702C	568.86	571.95	8/8/1994	8	496.4	455.9	75.6	116.1	455.9	116.1	14.86	554.00
BEW702D	569.20	572.17	7/6/1994	8	548.6	499.4	23.6	72.8	499.4	72.8	15.10	554.10
BEW703B	569.48	572.57	9/8/1994	8	450.8	410.8	121.8	161.8	410.8	161.8	>60	<509.48
BEW703C	569.00	572.10	9/15/1994	8	501.8	453.7	70.3	118.4	453.7	118.4	12.19	556.81
BEW703D	569.87	572.77	9/16/1994	8	550.0	504.2	22.8	68.6	504.2	68.6	14.38	555.49
BEW704B	569.37	573.41	10/14/1994	8	452.3	417.3	121.1	156.1	417.3	156.1	>60	<509.37
BEW704C	569.24	573.31	10/14/1994	8	498.3	454.3	75.0	119.0	454.3	119.0	27.49	541.75
BEW704D	570.24	573.10	9/30/1994	8	546.3	501.3	26.8	71.8	501.3	71.8	18.94	551.30
BEW705B	570.24	573.26	10/11/1994	8	453.7	416.0	119.6	157.3	416.0	157.3	>60	<510.24
BEW705C	570.06	573.15	9/30/1994	8	502.0	456.5	71.2	116.7	456.5	116.7	19.59	550.47
BEW705D	570.66	573.65	10/10/1994	8	550.2	505.2	23.4	68.4	505.2	68.4	58.31	512.35
BEW706B	569.58	572.69	9/19/1994	8	452.9	416.4	119.8	156.3	416.4	156.3	55.09	514.49
BEW706C	568.97	571.9	10/11/1994	8	504.1	455.6	67.8	116.3	455.6	116.3	20.12	548.85
BEW706D	569.46	572.49	9/26/1994	8	550.7	504.2	21.8	68.3	504.2	68.3	41.42	528.04
OW139	570.63	569.08	1958	12	559.2	435.2	9.9	133.9	435.2	133.9	13.53	557.10
OW400B	579.25	579.61	5/10/1989	4	454.6	424.5	125.0	155.1	424.5	155.1	22.80	556.45
OW401B	568.54	568.95	5/24/1989	4	462.9	413.9	106.1	155.1	413.9	155.1	21.81	546.73
OW401C	568.55	568.94	5/25/1989	4	492.3	462.8	76.6	106.1	462.8	106.1	12.90	555.65
OW401D	568.42	568.87	5/26/1989	6.25	545.9	507.9	23.0	61.0	507.9	61.0	12.55	555.87
OW402B	569.46	570.33	6/28/1989	4	473.8	409.9	96.5	160.4	409.9	160.4	12.79	556.67
OW402C	569.48	570.3	6/26/1989	4	488.5	473.8	81.8	96.5	473.8	96.5	13.71	555.77
OW402D	569.22	570.01	6/29/1989	6.25	544.7	518.8	25.3	51.2	518.8	51.2	12.42	556.80
OW403B	570.04	570.48	5/16/1989	4	457.8	427.8	112.7	142.7	427.8	142.7	13.35	556.69
OW403C	570.02	570.26	5/22/1989	4	487.3	457.7	83.0	112.6	457.7	112.6	13.22	556.80
OW403D	570.08	570.31	5/23/1989	6.25	546.8	502.8	23.5	67.5	502.8	67.5	13.41	556.67
OW404B	571.03	571.53	6/9/1989	4	438.3	404.8	133.2	166.7	404.8	166.7	15.11	555.92
OW404C	570.82	571.38	6/7/1989	4	498.5	468.2	72.9	103.2	468.2	103.2	14.08	556.74
OW404D	570.45	571.85	6/23/1989	6.25	549.3	498.0	22.6	73.9	498.0	73.9	14.21	556.24
OW405B	572.78	573.14	3/27/1989	4	453.3	408.3	119.8	164.8	408.3	164.8	17.84	554.94

Table 7

Bedrock Groundwater Elevation Summary
First Quarter 2021
Buffalo Avenue Plant

Well	Top of Riser Elevation	Ground Surface Elevation	Date of Installation	Riser Diameter (inches)	Monitored Interval				Well Bottom		Water Level Data 6/2/2021	
					Top (AMSL)	Bottom (AMSL)	Top (BGS)	Bottom (BGS)	Elev. of (AMSL)	Depth to (BGS)	(ft BTOC)	(ft AMSL)
OW405C	572.7	573.07	5/31/1989	4	501.2	453.2	71.9	119.9	453.2	119.9	16.29	556.41
OW405D	572.6	573.11	6/9/1989	6.25	545.6	501.2	27.5	71.9	501.2	71.9	17.33	555.27
OW406B	571.52	571.77	6/8/1989	4	467.9	404.4	103.9	167.4	404.4	167.4	16.84	554.68
OW406C	571.44	571.73	6/14/1989	4	497.6	467.8	74.1	103.9	467.8	103.9	15.15	556.29
OW406D	571.81	572.1	6/16/1989	6.25	548.6	497.2	23.5	74.9	497.2	74.9	17.72	554.09
OW407B	572.05	572.46	5/2/1989	4	465.4	450.4	107.1	122.1	450.4	122.1	17.14	554.91
OW407C	571.27	572.12	5/1/1989	4	479.8	465.2	92.3	106.9	465.2	106.9	16.12	555.15
OW407D	571.32	571.72	5/4/1989	6.25	552.9	510.4	18.8	61.3	510.4	61.3	17.11	554.21
OW408B	575.04	571.98	7/20/1989	4	445.2	403.6	126.8	168.4	403.6	168.4	21.33	553.71
OW408C	575.68	572.71	7/11/1989	4	494.5	445.9	78.2	126.8	445.9	126.8	20.72	554.96
OW408D	576.2	573.12	7/6/1989	6.25	552.1	525.0	21.0	48.1	525.0	48.1	23.54	552.66
OW409B	575.7	572.79	6/20/1989	3	461.8	415.9	111.0	156.9	415.9	156.9	21.83	553.87
OW409C	575.57	572.95	6/26/1989	4	510.1	462.0	62.9	111.0	462.0	111.0	19.95	555.62
OW409D	575.46	575.76	6/28/1989	6.25	552.0	509.8	23.8	66.0	509.8	66.0	21.85	553.61
OW410B	572.32	572.62	6/26/1989	4	441.4	407.7	131.2	164.9	407.7	164.9	18.01	554.31
OW410C	572.57	572.72	7/17/1989	4	486.5	471.5	86.2	101.2	471.5	101.2	17.20	555.37
OW410D	571.96	572.64	6/27/1989	6.25	547.1	516.3	25.5	56.3	516.3	56.3	17.64	554.32
OW411B	574.08	574.82	4/4/1989	4	454.9	406.6	119.9	168.2	406.6	168.2	21.05	553.03
OW411C	574.39	574.78	4/11/1989	4	500.0	470.0	74.8	104.8	470.0	104.8	19.11	555.28
OW411D	574.51	574.84	4/14/1989	6.25	546.7	515.2	28.1	59.6	515.2	59.6	17.35	557.16
OW415B	571.38	571.73	5/31/1989	4	482.1	467.1	89.6	104.6	467.1	104.6	14.59	556.79
OW415C	571.26	571.56	5/30/1989	4	511.9	497.1	59.7	74.5	497.1	74.5	15.09	556.17
OW415D	571.3	571.6	5/31/1989	6.25	548.7	511.8	22.9	59.8	511.8	59.8	15.11	556.19
OW416B	570	570.69	5/22/1989	6.25	470.8	455.8	99.9	114.9	455.8	114.9	13.55	556.45
OW416C	569.9	570.57	~5/22/1989	6.25	500.7	470.7	69.9	99.9	470.7	99.9	12.71	557.19
OW416D	569.68	570.32	~5/22/1989	6.25	539.6	500.5	30.7	69.8	500.5	69.8	11.48	558.20
OW417B	572.93	572.7	~5/19/1989	6.25	461.1	412.6	111.6	160.1	412.6	160.1	17.60	555.33
OW417C	572.23	572.9	~5/19/1989	6.25	490.1	460.8	82.8	112.1	460.8	112.1	(1)	(1)
OW417D	572.26	572.5	~5/19/1989	6.25	545.5	505.9	27.0	66.6	505.9	66.6	17.68	554.58
OW418C	569.62	570.08	5/29/2003	4	501.0	458.7	69.1	111.4	458.7	111.4	13.90	555.72
OW418D	569.72	570.14	1/11/2002	6	547.0	504.3	23.1	65.8	504.3	65.8	14.11	555.61
OW419C	570.4	570.7	6/4/2003	4	502.7	455.7	68.0	115.0	455.7	115.0	14.60	555.80
OW419D	570.22	570.75	1/10/2002	6	550.3	505.6	20.5	65.2	505.6	65.2	15.82	554.40
OW420C	571.03	571.28	6/2/2003	4	500.3	452.5	71.0	118.8	452.5	118.8	15.72	555.31

Table 7

Bedrock Groundwater Elevation Summary
First Quarter 2021
Buffalo Avenue Plant

Well	Top of Riser Elevation	Ground Surface Elevation	Date of Installation	Riser Diameter (inches)	Monitored Interval				Well Bottom		Water Level Data 6/2/2021	
					Top (AMSL)	Bottom (AMSL)	Top (BGS)	Bottom (BGS)	Elev. of (AMSL)	Depth to (BGS)	(ft BTOC)	(ft AMSL)
OW420D	570.67	571.24	1/4/2002	6	548.7	503.1	22.5	68.1	503.1	68.1	17.01	553.66
OW649C	567.52	568.04	~10/31/1991	4	488.5	458.1	79.6	110.0	458.1	110.0	10.82	556.70
OW649D	568.29	568.35	10/31/1991	4	549.2	510.4	19.1	57.9	510.4	57.9	11.45	556.84
OW651C	568.62	568.91	10/10/1991	4	507.9	477.6	61.1	91.3	477.6	91.3	13.14	555.48
OW651D	568.53	568.72	~9/16/1991	6	553.2	507.7	15.5	61.0	507.7	61.0	13.50	555.03
OW652B	570.48	570.83	~9/16/1991	4	473.8	443.8	97.1	127.1	443.8	127.1	15.50	554.98
OW652C	570.18	570.64	2/5/1993	4	509.4	477.4	61.3	93.3	477.4	93.3	14.42	555.76
OW652D	569.98	570.25	9/16/1991	4	552.7	509.7	17.6	60.6	509.7	60.6	14.43	555.55
OW653B	572.19	572.55	~2/12/1993	4	475.4	451.4	97.2	121.2	451.4	121.2	16.82	555.37
OW653C	572.12	572.49	2/12/1993	4	503.1	478.1	69.4	94.4	478.1	94.4	18.91	553.21
OW653D	572	572.38	9/10/1991	6	552.1	503.7	20.3	68.7	503.7	68.7	19.63	552.37
OW654B	569.53	569.91	~8/27/1991	4	478.8	444.3	91.1	125.6	444.3	125.6	14.82	554.71
OW654C	570.14	570.39	~8/27/1991	4	509.7	481.8	60.7	88.6	481.8	88.6	14.05	556.09
OW654D	570.16	570.41	8/27/1991	6	556.0	510.7	14.4	59.7	510.7	59.7	14.82	555.34
OW655D	571.23	571.46	8/22/1991	6	552.7	507.4	18.8	64.1	507.4	64.1	18.90	552.33
OW657B	570.22	570.59	~4/9/1993	4	472.9	439.5	97.7	131.1	439.5	131.1	14.50	555.72
OW657C	570.42	570.83	~4/9/1993	4	503.7	475.7	67.2	95.2	475.7	95.2	15.71	556.22
OW657D	571.65	570.21	~4/9/1993	4	553.6	507.6	16.6	62.6	507.6	62.6	14.20	556.54
OW658B	570.48	570.93	~4/6/1993	4	473.4	439.9	97.6	131.1	439.9	131.1	17.38	553.10
OW658C	570.66	570.94	~4/6/1993	4	502.9	475.8	68.0	95.1	475.8	95.1	16.95	553.71
OW658D	570.75	571.1	~4/6/1993	4	552.6	506.1	18.6	65.1	506.1	65.1	17.30	553.45
OW659B	570.02	570.49	~3/30/1993	4	474.0	440.4	96.5	130.1	440.4	130.1	15.11	556.62
OW659C	570	570.41	~3/30/1993	4	503.9	475.8	66.5	94.6	475.8	94.6	15.03	554.40
OW659D	570.01	570.29	~3/30/1993	4	549.7	505.8	20.6	64.5	505.8	64.5	15.62	547.33
OW660B	579.42	579.85	10/19/1994	4	454.8	409.5	125.0	170.3	409.5	170.3	22.67	562.52
OW661B	568.63	569.05	12/15/1994	4	451.0	419.0	118.1	150.1	419.0	150.1	16.90	555.11
OW661C	568.87	569.22	10/24/1994	4	502.2	454.2	67.0	115.0	454.2	115.0	13.52	555.35
OW661D	568.88	569.25	11/1/1994	4	546.9	505.1	22.3	64.1	505.1	64.1	13.10	555.78
OW662B	569.79	570.08	7/6/1994	4	456.1	415.1	114.0	155.0	415.1	155.0	13.31	556.48
OW662C	569.75	570.02	7/5/1994	4	501.0	459.0	69.0	111.0	459.0	111.0	13.23	556.52
OW662D	569.92	570.24	7/1/1994	4	546.1	503.2	24.1	67.0	503.2	67.0	13.60	556.32
OW663B	571.79	572.15	8/9/1994	4	452.7	413.6	119.5	158.6	413.6	158.6	14.98	556.81
OW663C	572.08	572.37	8/10/1994	4	501.4	455.9	71.0	116.5	455.9	116.5	16.82	555.26
OW663D	572.21	572.33	8/9/1994	4	549.5	504.5	22.8	67.8	504.5	67.8	16.95	555.26

Table 7

Bedrock Groundwater Elevation Summary
First Quarter 2021
Buffalo Avenue Plant

Well	Top of Riser Elevation	Ground Surface Elevation	Date of Installation	Riser Diameter (inches)	Monitored Interval					Well Bottom		Water Level Data	
					Top (AMSL)		Bottom (AMSL)	Top (BGS)		Bottom (BGS)	Elev. of (AMSL)	Depth to (BGS)	6/2/2021 (ft BTOC)	(ft AMSL)
OW664B	571.53	571.85	12/14/1994	4	449.9	-	418.9	122.0	-	153.0	418.9	153.0	16.75	554.78
OW664C	571.5	571.84	12/5/1994	4	499.8	-	452.8	72.0	-	119.0	452.8	119.0	16.82	554.68
OW664D	571.56	571.9	12/12/1994	4	548.1	-	502.9	23.8	-	69.0	502.9	69.0	18.19	553.37
OW665B	573.06	573.37	7/22/1994	4	450.0	-	415.0	123.4	-	158.4	415.0	158.4	18.17	554.89
OW665C	573.04	573.33	7/25/1994	4	498.9	-	453.4	74.4	-	119.9	453.4	119.9	17.11	555.93
OW665D	573.13	573.42	7/22/1994	4	547.0	-	502.3	26.4	-	71.2	502.3	71.2	18.75	554.38
OW666B	571.37	571.59	1/12/1995	4	453.2	-	410.2	118.4	-	161.4	410.2	161.4	31.61	539.76
OW666C	571.29	571.69	1/10/1995	4	504.7	-	456.2	67.0	-	115.5	456.2	115.5	15.79	555.50
OW666D	571.2	571.57	1/10/1995	4	552.5	-	507.1	19.1	-	64.5	507.1	64.5	19.27	551.93
OW667B	576.28	573.48	10/6/1994	4	453.4	-	413.4	120.1	-	160.1	413.4	160.1	25.18	551.10
OW667C	575.78	572.97	10/5/1994	4	503.8	-	456.2	69.2	-	116.8	456.2	116.8	20.10	555.68
OW667D	576.31	573.48	10/6/1994	4	552.2	-	506.2	21.3	-	67.3	506.2	67.3	25.20	551.11
OW668B	570.86	571.29	1/4/1995	4	454.3	-	420.8	117.0	-	150.5	420.8	150.5	16.99	553.87
OW668C	570.95	571.2	1/4/1995	4	502.9	-	457.7	68.3	-	113.5	457.7	113.5	15.97	554.98
OW668D	571.1	571.25	12/23/1994	4	551.0	-	506.0	20.3	-	65.3	506.0	65.3	18.54	552.56
River	568.91	N/A	N/A	N/A	N/A	-	N/A	N/A	-	N/A	N/A	N/A	6.32	562.59

Notes:

ft BTOC – feet below top of casing
ft AMSL – feet above mean sea level
NM - Not measured
NC - Not calculated
N/A - Not applicable
(1) - Well buried under stone
(2) - Water level measured on June 15, 2020
(3) - Water level measured on September 21, 2020

Table 8

Overburden Weekly Flow Rates
Second Quarter 2021
Buffalo Avenue Plant

	Flow Zone 1						Flow Zone 3		Abandoned Outfall 005		Abandoned D-Area Sanitary Sewer	
	System Total		Wet Well 2		Wet Well 1		WWB		MH159L		MH301	
Date	Total Flow (gallons)	Average Flow Rate (gpm)	Total Flow (gallons)	Average Flow Rate (gpm)	Total Flow (gallons)	Average Flow Rate (gpm)	Total Flow (gallons)	Average Flow Rate (gpm)	Total Flow (gallons)	Average Flow Rate (gpm)	Total Flow (gallons)	Average Flow Rate (gpm)
4/5/2021	143000	14.28	11000	1.11	132000	13.17	63000	6.29	0	0.00	43000	4.27
4/12/2021	125000	12.41	8000	0.80	117000	11.61	50000	4.96	0	0.00	36000	3.59
4/19/2021	146000	14.48	12000	1.19	134000	13.29	82000	8.13	0	0.00	54000	5.36
4/26/2021	169000	16.87	14000	1.40	155000	15.47	73000	7.29	0	0.00	46000	4.59
5/3/2021	145000	14.38	11000	1.09	134000	13.29	50000	4.96	0	0.00	33000	3.27
5/10/2021	137000	13.59	11000	1.09	126000	12.50	50000	4.96	25000	2.48	33000	3.27
5/17/2021	128000	12.70	10000	0.99	118000	11.71	39000	3.87	35000	3.47	25000	2.48
5/24/2021	115000	11.43	8000	0.81	107000	10.62	26000	2.58	36000	3.57	16000	3.27
5/31/2021	106000	10.52	7000	0.69	99000	9.82	28000	2.78	35000	3.47	20000	1.98
6/7/2021	99000	9.94	7000	0.70	92000	9.24	36000	3.57	33000	3.27	24000	2.38
6/14/2021	101000	12.82	1000	0.10	100000	12.72	41000	8.50	34000	3.37	30000	2.98
6/21/2021	143000	14.19	9000	0.89	134000	13.29	42000	4.17	33000	3.27	27000	2.68
6/28/2021	145000	14.38	10000	0.99	135000	13.39	40000	3.97	31000	3.08	27000	2.68

Notes:

GPM - gallons per minute.
Flow rates shown are the average flow rate while the pump is operational.
(1) Totalizer malfunction occured for MH301. The average flow of the weeks before and after was used.

Table 9

Overburden Performance Summary
Second Quarter 2021
Buffalo Avenue Plant

Flow Rate Summary

System Component	Average Flow Apr-21	May-21	Jun-21	Quarterly	Quarterly Total (gallons)
Flow Zone 1					
Wet Well 1	13.4	11.6	12.2	12.4	1,583,000
Wet Well 2	1.1	0.9	0.7	0.91	119,000
TOTAL	**12.5**	**12.8**	**13.3**	**12.9**	**1,702,000**
Flow Zone 3					
WWB	6.7	3.8	5.1	5.2	620,000
Abandoned Outfall 005					
MH159L	0.0	2.6	3.2	1.9	262,000
Abandoned D-Area Sanitary Sewer					
MH301	4.5	2.9	2.7	3.3	414,000

Operating Time Summary

System Component	Average Percent Operational Apr-21	May-21	Jun-21	Quarterly
Flow Zone 1				
Wet Well 1	99.7%	100.0%	93.0%	97.6%
Wet Well 2	99.9%	100.0%	99.7%	99.9%
Flow Zone 3				
WWB	99.9%	100.0%	99.7%	99.9%
Abandoned Outfall 005				
MH159L	0.0%	89.1%	99.7%	62.9%
Abandoned D-Area Sanitary Sewer				
MH301	99.9%	100.0%	99.7%	99.9%

Notes:

GPM - gallons per minute.

Table 10

Overburden Groundwater Elevation Summary
Second Quarter 2020
Buffalo Avenue Plant

Well	Top of Riser Elevation	Ground Surface Elevation	Date of Installation	Riser Diameter (inches)	Screened Interval Top (ft AMSL)		Screened Interval Bottom (ft AMSL)	Screened Interval Top (ft BGS)		Screened Interval Bottom (ft BGS)	Well Bottom Elev. of (ft AMSL)	Well Bottom Depth to (ft BGS)	Water Level Data 6/4/2021 (ft BTOC)	Water Level Data 6/4/2021 (ft AMSL)
BH1B-88[1]	572.53	572.70	12/20/1988	2	568.8	-	557.8	3.9	-	14.9	557.8	14.9	-	-
BH4-88[1]	572.12	572.45	12/9/1988	2	568.2	-	565.2	4.3	-	7.3	565.2	7.3	-	-
BH7-89	572.32	572.67	5/24/1989	2	560.6	-	553.2	12.1	-	19.5	553.2	19.5	15.55	556.77
BH8-89	568.00	568.23	1/6/1989	2	563.4	-	549.4	4.8	-	18.8	549.4	18.8	4.88	563.12
CMH1	569.50	568.53	1997	NA	NA	-	558.0	NA	-	10.5	558.0	10.5	4.48	565.02
CMH2	569.42	568.49	1997	NA	NA	-	562.5	NA	-	6.0	562.5	6.0	6.28	563.14
MH-A	568.89	569.85	Unknown	NA	NA	-	556.5	NA	-	13.4	556.5	13.4	11.52	557.37
MH-B	568.87	568.72	Unknown	NA	NA	-	556.5	NA	-	12.2	556.5	12.2	9.72	559.15
MH-C	568.88	568.59	Unknown	NA	NA	-	557.0	NA	-	11.6	557.0	11.6	9.17	559.71
MH-D	569.89	568.50	Unknown	NA	NA	-	556.3	NA	-	12.2	556.3	12.2	10.15	559.74
MH-E	568.81	567.48	Unknown	NA	NA	-	555.8	NA	-	11.7	555.8	11.7	9.10	559.71
MH-F	568.90	567.83	1998	NA	NA	-	553.5	NA	-	14.4	553.5	14.4	6.28	562.62
OW270	571.55	570.88	10/16/1987	2	564.5	-	545.5	6.4	-	25.4	545.5	25.4	8.55	563.00
OW273	570.00	570.28	10/20/1987	2	563.5	-	551.5	6.8	-	18.8	551.5	18.8	7.72	562.28
OW300	567.07	567.56	5/25/1989	2	560.5	-	545.0	7.1	-	22.6	545.0	22.6	4.65	562.42
OW301	568.38	568.95	7/24/1989	2	564.8	-	557.8	4.2	-	11.2	557.8	11.2	2.37	566.01
OW302[1]	569.98	570.10	10/26/1988	2	565.6	-	563.6	4.5	-	6.5	563.6	6.5	-	-
OW303[1]	570.81	570.10	11/2/1988	2	566.3	-	562.3	3.8	-	7.8	562.3	7.8	-	-
OW304[1]	571.50	571.40	10/20/1988	2	565.3	-	560.3	6.1	-	11.1	560.3	11.1	-	-
OW305[1]	572.75	573.20	10/31/1988	2	569.4	-	564.4	3.8	-	8.8	564.4	8.8	-	-
OW306[1]	571.85	571.90	11/15/1988	2	567.9	-	564.9	4.0	-	7.0	564.9	7.0	-	-
OW308	574.24	571.40	11/17/1988	2	567.6	-	564.6	3.8	-	6.8	564.6	6.8	4.29	569.95
OW310[1]	572.28	572.80	11/22/1988	2	569.3	-	564.3	3.5	-	8.5	564.3	8.5	-	-
OW313	569.26	568.70	10/13/1988	2	550.8	-	545.8	17.9	-	22.9	545.8	22.9	6.11	563.15
OW314	569.04	568.90	6/12/1989	2	565.4	-	553.4	3.5	-	15.5	553.4	15.5	5.63	563.41
OW316	569.77	570.10	11/9/1988	2	566.1	-	559.1	4.0	-	11.0	559.1	11.0	1.79	567.98
OW317[1]	572.60	572.50	9/26/1988	2	568.8	-	563.8	3.7	-	8.7	563.8	8.7	-	-
OW327[1]	570.75	571.40	2/9/1990	2	567.4	-	565.4	4.0	-	6.0	565.4	6.0	-	-
OW358	571.49	569.02	9/26/1989	2	563.9	-	550.9	5.1	-	18.1	550.9	18.1	7.44	564.05
OW553	573.51	573.77	8/27/1991	2	570.1	-	565.1	3.7	-	8.7	565.1	8.7	6.24	567.27
OW554	573.83	572.35	9/3/1991	2	568.4	-	563.4	4.0	-	9.0	563.4	9.0	4.88	568.95
OW555	571.51	571.65	9/3/1991	2	568.5	-	563.5	3.2	-	8.2	563.5	8.2	1.78	569.73
OW556	571.73	571.93	8/30/1991	2	567.8	-	562.8	4.1	-	9.1	562.8	9.1	2.06	569.67
OW557[1]	571.69	572.16	5/16/1991	2	567.5	-	562.5	4.7	-	9.7	562.5	9.7	-	-
OW558[1]	571.28	571.21	5/16/1991	2	567.4	-	562.4	3.8	-	8.8	562.4	8.8	-	-
OW559[1]	569.73	570.35	9/10/1991	2	566.7	-	561.7	3.7	-	8.7	561.7	8.7	-	-
OW562	568.49	568.48	12/9/1996	2	555.2	-	550.2	13.3	-	18.3	550.2	18.3	6.05	562.44
OW563	567.67	568.02	12/5/1996	2	560.6	-	555.6	7.4	-	12.4	555.6	12.4	3.70	563.97
OW564	569.05	569.58	12/11/1996	2	560.4	-	555.4	9.2	-	14.2	555.4	14.2	5.00	564.05

Table 10

Overburden Groundwater Elevation Summary
Second Quarter 2020
Buffalo Avenue Plant

Well	Top of Riser Elevation	Ground Surface Elevation	Date of Installation	Riser Diameter (inches)	Screened Interval Top (ft AMSL)		Screened Interval Bottom (ft AMSL)	Screened Interval Top (ft BGS)		Screened Interval Bottom (ft BGS)	Well Bottom Elev. of (ft AMSL)	Well Bottom Depth to (ft BGS)	Water Level Data 6/4/2021 (ft BTOC)	Water Level Data 6/4/2021 (ft AMSL)
OW565	568.89	569.53	12/10/1996	2	557.0	-	552.0	12.5	-	17.5	552.0	17.5	6.83	562.06
OW566	568.55	568.83	12/5/1996	2	559.4	-	554.4	9.4	-	14.4	554.4	14.4	3.49	565.06
OW567	569.12	569.15	4/23/1998	2	560.1	-	555.1	9.0	-	14.0	555.1	14.0	4.29	564.83
OW568	568.26	568.95	4/23/1998	2	560.3	-	555.3	8.7	-	13.7	555.3	13.7	2.84	565.42
OW569	567.20	567.74	4/23/1998	2	562.7	-	559.7	5.0	-	8.0	559.7	8.0	4.60	562.60
OW570	568.46	568.70	4/23/1998	2	563.6	-	560.6	5.1	-	8.1	560.6	8.1	4.65	563.81
OW571	567.80	568.52	4/24/1998	2	566.2	-	561.2	2.3	-	7.3	561.2	7.3	3.22	564.58
OW572	567.95	568.30	4/24/1998	2	565.9	-	560.9	2.4	-	7.4	560.9	7.4	2.74	565.21
OW573R(1)	573.02	573.48	6/29/2004	2	569.0	-	564.0	4.5	-	9.5	564.0	9.5	-	-
OW574(1)	571.16	571.24	11/15/1999	2	560.8	-	555.8	10.4	-	15.4	555.8	15.4	-	-
OW575	568.40	568.45	1/15/2002	1	564.6	-	559.8	3.9	-	8.7	559.8	8.7	3.49	564.91
OW576	568.32	568.52	1/15/2002	1	565.6	-	560.9	2.9	-	7.6	560.9	7.6	3.45	564.87
OW577	567.53	567.59	1/15/2002	1	563.3	-	558.0	4.3	-	9.6	558.0	9.6	5.14	562.39
OW578(1)	572.21	572.48	6/6/2002	1	568.6	-	564.6	3.9	-	7.9	564.6	7.9	-	-
OWG8(1)	570.66	571.10	6/3/1986	2	566.2	-	564.2	4.9	-	6.9	564.2	6.9	-	-
WS107	573.18	573.73	7/30/1980	1.5	565.6	-	563.6	8.1	-	10.1	563.6	10.1	.89	572.29
WS10A	572.58	569.78	1/16/1979	1.5	567.9	-	552.9	1.9	-	16.9	552.9	16.9	7.53	565.05
WS111R(1)	572.35	572.70	6/6/2002	1	568.2	-	565.2	4.5	-	7.5	565.2	7.5	-	-
WS122(1)	571.57	572.25	7/7/1980	1.5	564.6	-	562.6	7.7	-	9.7	562.6	9.7	-	-
WS23A(1)	572.30	572.74	1/29/1979	1.5	570.5	-	565.5	2.2	-	7.2	565.5	7.2	-	-
WS25A(1)	571.10	571.67	1/26/1979	1.5	569.3	-	564.3	2.4	-	7.4	564.3	7.4	-	-
WS8A	570.10	570.20	3/19/1979	1.5	566.3	-	551.3	3.9	-	18.9	551.3	18.9	3.15	566.95
WW1	570.30	569.26	1997	NA	NA	-	545.3	NA	-	24.0	545.3	24.0	15.80	554.50
WW2	569.27	568.82	1997	NA	NA	-	553.8	NA	-	15.0	553.8	15.0	10.02	559.25
WWB	573.74	572.68	1980	NA	NA	-	556.7	NA	-	16.0	556.7	16.0	13.34	560.40

Notes:

ft BGS - Feet below ground surface
ft BTOC - Feet below top of casing
ft AMSL - Feet above mean sea level
MH - Manhole chamber
NA - Not applicable
NM - Not measured
"-" Not measured per monitoring schedule
(1) - Annual measurements only
(2) - Dry

Table 11

Summary of Bedrock NAPL Monitoring and Collection
Second Quarter 2021
Buffalo Avenue Plant

Date	Bedrock A-Wells				S-Area Bedrock Wells in the N-Area									
					Shallow						Intermediate		Deep	
	OW402A (Gallons)	OW413A (Gallons)	OW417A (Gallons)	OW401B (Gallons)	OW229 (Gallons)	OW243 (Gallons)	OW618 (Gallons)	OW619 (Gallons)	OW620 (Gallons)	OW621 (Gallons)	OW634 (Gallons)	OW638 (Gallons)	OW635 (Gallons)	OW643 (Gallons)
May 13, 2021	--	--	--	--	NR	0.3	NR	NR	NR	1.5	NR	3	NR	1.25
Cumulative Volume (as of March 31, 2020)	6154.05	579.75	<40.80	6.00	11.20	55.70	20.95	0.00	0.00	30.00	5.50	137.70	8.75	241.45
Cumulative Volume (as of June 30, 2021)	6154.05	579.75	<40.80	6.00	11.20	56.00	20.95	0.00	0.00	31.50	5.50	140.70	8.75	242.70
Monitoring Frequency [(1)]	Annual	Annual	Annual	Annual	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly	Quarterly

Notes:

-- Not checked per schedule.
ND None detected.
NR Not recoverable
(1) Frequency revised in second quarter 2010 to reflect NYSDEC's May 4, 2010 letter.

Table 12

Summary of Overburden NAPL Monitoring and Collection
Second Quarter 2021
Buffalo Avenue Plant

Date	003 NAPL Collection Trench (Gallons)	OW313 (Gallons)	OW572 (Gallons)	OW317 (Gallons)	OW320 (Gallons)	OW358 (Gallons)	OW523 (Gallons)	OW562 (Gallons)	OW563 (Gallons)	TW-7 (Gallons)	OW306 (Gallons)	BH8-89 (Gallons)	OW564 (Gallons)	OW537 (Gallons)	OW577 (Gallons)	Energy Boulevard Drain Tile System (Gallons)
April 16, 2021	ND	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
June 4, 2021	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	ND
Subtotal (Second Quarter)	0.00	0.30	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cumulative volume (as of March 31, 2021)	959.75	46.10	38.83	0.21	1.50	0.50	0.30	0.00	9.00	0.56	0.00	0.00	0.00	0.00	0.25	6011.25
Cumulative volume (as of June 30, 2021)	959.75	46.10	38.83	0.21	1.50	0.50	0.30	0.00	9.00	0.56	0.00	0.00	0.00	0.00	0.25	6011.25
Monitoring Frequency [1]	Quarterly	Semiannual	Semiannual	Annual	Annual	Annual	Annual	Annual	Annual	Annual	Annual	Annual	Annual	Annual	Annual	Quarterly

Notes:

-- Not checked per schedule.
ND - None detected.
NR - Not recoverable.
[1] Frequency revised in second quarter 2010 to reflect NYSDEC's May 4, 2010 letter.