Ms. Sarah Johnston
Project Manager
New York State Department of Environmental Conservation
Remedial Bureau D
625 Broadway
Albany, New York 12233-7015

Arcadis of New York, Inc.
290 Broadhollow Road,
Suite 307 E
Melville
New York 11747
Phone: 631 249 7600
Fax: 631 249 7610
www.arcadis.com

Date: May 31, 2025
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Subject: 2025 First Quarter Operation, Maintenance, and Monitoring Report, Operable Unit 2, Northrop Grumman and Naval Weapons Industrial Reserve Plant (NWIRP) Sites, Bethpage, New York.
(NYSDEC Site #'s 1-30-003A and B)

Dear Ms. Johnston:

On behalf of Northrop Grumman, Arcadis is providing the NYSDEC with the First Quarter 2025 Operation, Maintenance, and Monitoring Report (Report). This Report was prepared to document the operation, maintenance, and monitoring (OM&M) activities conducted for the on-site portion of the Operable Unit 2 (OU2) groundwater remedy and the results of ongoing volatile organic compound (VOC) and inorganic monitoring in groundwater to meet the remedial objectives set forth in the March 2001 OU2 Record of Decision (ROD) and associated December 2019 Amended Record of Decision (AROD).

Table 1 summarizes OU2 remedial system performance operational data, mass removed, and water balance. **Tables 2 and 3A/3B** provide the analytical results for remedial system water and vapor samples, respectively, for this period. **Tables 4A and 4B** provide an air quality impact analysis (under 6 CRR-NY 212 [Rule 212]) for quarterly vapor sample results collected from the Building 96 and Building 102 systems, respectively, including air modeling analysis if warranted. **Table 5** provides validated analytical results associated with groundwater monitoring efforts completed during this period. **Figures 1 through 3** show the Locations of Wells and On-site Groundwater Remedy, ONCT Groundwater Extraction and Treatment System Site Plan, and the ONCT Groundwater Extraction and Treatment System Schematic, respectively.

Sarah Johnston
NYSDEC
May 31, 2025

Please contact us if you have any questions or comments.

Sincerely,
Arcadis of New York, Inc.

Christopher Engler, P.E.
New York PE-069748
Vice President

Email: christopher.engler@arcadis.com
Direct Line: 315.409.6579

CC. Ed Hannon – Northrop Grumman
Chris Engelhardt – NYSDEC Region 1
Jason Pelton – NYSDEC
Jess LaClair - NYSDEC
James Sullivan – New York State Department of Health
Stephanie Selmer – New York State Department of Health
Angela Pettinelli – NCDOH
Robin Putman – NCDOH
Richard Castle – NCDOH
Scott Sokolowski– NAVFAC Mid-Atlantic Environmental
Rick Moore - TetraTech NUS, Inc.
David Brayack – TetraTech NUS, Inc.
Paul Bluestein – Glenn Springs Holdings, Inc.
Manfred Bohms – Steel Equities
Nidal Azzam – USEPA
Alexis Stabulas - USEPA
Matthew Russo – Town of Oyster Bay
Kevin Reilly – Massapequa Water District
Richard Kern – Liberty Utilities
Frank Koch – South Farmingdale Water District
John Reinhardt – Town of Hempstead Water District
Michael Boufis – Bethpage Water District
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Enclosures

Tables

Table 1
Operational Summary for the Treatment System
First Quarter 2025[1] Reporting Period
Operable Unit 2
Northrop Grumman
Bethpage, New York

	Quarterly Flow Rates (gpm)		Quarterly Flow Volumes (MG)			Quarterly VOC Concentrations (µg/L)		VOC Mass Removed (lbs)		First Quarter Remedial Well Uptime (%)
	Current Model Design [2]	Current Operational Flow [3,4]	Design [2]	Actual [3,4]	% of Design	TCE [5]	TVOC [5,6]	Quarterly	Cumulative	
Influent Groundwater[7]										
Well 1	800	824	104	106	102%	428	446	395	58,989	99.3%
Well 3R	700	840	91	108	119%	175	236	213	95,557	99.5%
Well 17	1,000	1,002	130	110	85%	122	137	126	56,952	84.8%
Well 18	800	995	104	125	120%	23.9	42.0	44	7,760	96.9%
Well 19	500	499	65	51	78%	50.6	63.1	27	9,895	78.8%
Total [8]	**3,800**	**4,160**	**494**	**500**	**101%**	**--**	**--**	**805**	**229,153**	**--**
Effluent Groundwater [9,14]										
Calpine	100 - 400	27	--	3	--	--	--	--	--	--
OXY Biosparge [10]	2 - 42	0	--	0	--	--	--	--	--	--
West Recharge Basins	1,112 - 1,455	1,509	--	196	--	--	ND	--	--	--
South Recharge Basins (Building 102)	2231 - 4631	2,207	296 - 607	286	--	--	ND	--	--	--
South Recharge Basins (Building 109)	1,500	1,884	194	244	--	--	ND	--	--	--
South Recharge Basins (Combined)	2231 - 4631	4,091	495 - 806	530	--	--	ND	--	--	--
Total	**--**	**3,743**	**--**	**485**	**--**					
Additional Flow to South Recharge Basins										
Storm Water Runoff Contributing to South Recharge Basins Flow Volume [11]	--	--	--	10	--	--	--	--	--	--
Total Flow Volume to South Recharge Basins [10,11,12]			**495 - 806**	**540**	**--**					
Treatment Efficiencies [13]										
Building 96 System:	>99.9%									
Building 102 System:	>99.9%									

See Notes and Abbreviations on last page.

Table 1
Operational Summary for the Treatment System
First Quarter 2025[(1)] Reporting Period
Operable Unit 2
Northrop Grumman
Bethpage, New York

Notes and Abbreviations:

(1) Quarterly reporting period: January 1, 2025 through March 31, 2025.

(2) "Current Model Design" flow rates were determined for the five remedial wells and for the South Recharge Basin (SRB) based on computer modeling (ARCADIS G&M, Inc. 2002, updated in 2021 and 2023). Flow rates for Calpine Power Plant (Calpine), Occidental Chemical (OXY) Biosparge, and West Recharge Basin flow rates are typical flow rates and are provided for reader information. Flow to SRB reflects operation of the B109 treatment system. High-end of range of flow to the SRB reflects up to a 2,400 gpm contribution from B109. Model simulations demonstrated ONCT capture zone maintained for SRB discharge rates within range. "Design" flow volumes represent the volume of water that is expected to be pumped/discharged during the reporting period and is calculated by multiplying the design rate by the reporting period duration.

(3) Actual flow rates for the remedial wells represent the average actual pumping rates when the pumps are operational and do not take into account the time that a well is not operational. Actual flow volumes are collated from the monthly SPDES reports, which are calculated using the SCADA instantaneous flow rates transmitted from local flow meters.

(4) “Actual” flow rates for the system discharges represent the average flow rate during the reporting period and are determined by dividing the total flow recorded during the reporting period by the reporting period duration.

(5) The TCE and TVOC concentrations are from the quarterly sampling events performed during this reporting period on February 26, 2025.

(6) The TVOC concentrations for the West Recharge Basin (Outfall 006 of the Building 96 System) and the South Recharge Basin (Outfall 005 of the Building 102 System) are their respective average monthly Outfall SPDES concentrations for the current quarter.

(7) Building 96 (Wells 1 and 3R): Building 96 was shut down this reporting period on January 16th due to an Exterior GAC change-out.
Building 102 (Wells 17, 18, and 19): Building 102 was shut down this reporting period on February 16th, March 11th, March 12th, and March 20th for small-scale repairs and maintenance. Well 17 shut down on January 24th through February 6th due to VFD issues. Well 19 shut down on March 7th and operated intermittently through March 31st as Northrop Grumman worked to resolve pump issues; Northrop Grumman continues to troubleshoot the issue.

(8) Total pumpage/recharge rates are accurate to ±15% based on available information and expected or typical precision/accuracy factors for the gauges and meters.

(9) There are four possible discharges for the effluent groundwater: South Recharge Basins, West Recharge Basins, Calpine, and the OXY Biosparge system. Treated water is continuously discharged to the south and west recharge basins during routine operation, and is available "on-demand" to both Calpine for use as make-up water, and the OXY Biosparge remediation system. For this quarter, the quarterly flow rates to the south and west recharge basins (SRB and WRB, respectively) were calculated using the remedial well flow rates and available additional information and assumptions provided by Northrop Grumman regarding flow distribution, as follows: the Building 96 system (Remedial Wells 1 and 3R) discharges effluent water to the WRB, less Calpine usage and less 119 gpm of Building 102 steam condenser usage (15.8 MG); the Building 102 System (Remedial Wells 17 through 19), including the Building 102 steam condenser usage (15.8 MG), and the Building 109 System (Remedial Wells 20 through 22) discharge effluent water to the SRB.

(10) Oxy has not reported any water usage for the OXY Biosparge system since May 2016.

(11) Storm water runoff volume is calculated by multiplying the adjusted tributary area and NOAA precipitation data for the reporting periods. The tributary area is adjusted by the runoff coefficient to exclude the infiltration volume from the total rainfall volume. The tributary area, runoff coefficient, and adjusted tributary area are from Dvirka and Bartilucci Consulting Engineers' Storm Water Permit Evaluation Report (January, 28, 2010). The NOAA precipitation data are calculated as a sum of NOAA daily precipitation data for the reporting period. NOAA precipitation data are retrieved from Station GHCND:USW00054787 - FARMINGDALE REPUBLIC AIRPORT, NY US for January, February, and March 2025.

(12) Total flow volume to South Recharge Basins is estimated as a sum of flow volumes contributed by the effluent groundwater to South Recharge Basins (B102 and B109 treatment systems) and from storm water runoff to South Recharge Basins. First Quarter 2025 calculated South Recharge Basin flow volume is within historical operating range.

(13) Treatment system efficiencies are calculated by dividing the difference between the remedial well flow weighted influent and effluent TVOC concentrations by the remedial well flow weighted influent concentration.

(14) RW-21 system start-up testing was initiated in May 2023, and continuing with full-scale operation beginning in August 2023. As such, flow volumes to the south recharge basins are representative of volumes from the Building 102 and Building 109 treatment systems since RW-21 system start-up.

--	Not Applicable
µg/L	micrograms per liter
gpm	gallons per minute
lbs	pounds
MG	million gallons
NOAA	National Oceanic and Atmospheric Administration
SCADA	Supervisory Controls and Data Acquisition
SPDES	State Pollution Discharge Elimination System
TCE	trichloroethene
TVOC	total volatile organic compounds
VOC	volatile organic compounds

Table 2
Concentrations of Constituents in Remedial Wells and Treatment System Effluents
First Quarter 2025[1] Reporting Period
Operable Unit 2
Northrop Grumman
Bethpage, New York

Constituents[2] (units in µg/L)	CAS#	Location ID: / Sample ID: / Sample Date:	WELL 1 / WELL 1 / 2/26/2025	WELL 3R / WELL 3R / 2/26/2025	96 EFFLUENT / 96 EFFLUENT / 2/26/2025	WELL 17 / WELL 17 / 2/26/2025	WELL 18 / WELL 18 / 2/26/2025	WELL 19 / WELL 19 / 2/26/2025	102 EFFLUENT / 102 EFFLUENT / 2/26/2025
Volatile Organic Compounds (VOCs)[3]									
1,1,1-Trichloroethane	00071-55-6		< 2.5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2,2-Tetrachloroethane	00079-34-5		< 2.5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	00079-00-5		< 2.5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	00075-34-3		< 2.5	**1.4**	< 1.0	**0.63 J**	**1.1**	< 1.0	< 1.0
1,1-Dichloroethene	00075-35-4		< 2.5	**4.3**	< 1.0	< 1.0	**1.7**	**0.77 J**	< 1.0
1,2-Dichloroethane	00107-06-2		< 2.5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	00078-87-5		**1.9 J**	< 1.0	< 1.0	**0.67 J**	< 1.0	< 1.0	< 1.0
2-Butanone (MEK)	00078-93-3		< 25	< 10	< 10	< 10	< 10	< 10	< 10
2-Hexanone (MBK)	00591-78-6		< 13	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
4-Methyl-2-Pentanone (MIK)	00108-10-1		< 13	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Acetone	00067-64-1		< 25	< 10	< 10	< 10	< 10	< 10	< 10
Benzene	00071-43-2		< 1.3	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Bromodichloromethane	00075-27-4		< 2.5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromoform	00075-25-2		< 2.5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Bromomethane	00074-83-9		< 5.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon Disulfide	00075-15-0		< 5.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Carbon Tetrachloride	00056-23-5		< 2.5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chlorobenzene	00108-90-7		< 2.5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroethane	00075-00-3		< 2.5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloroform	00067-66-3		< 2.5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Chloromethane	00074-87-3		< 2.5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
cis-1,2-Dichloroethene	00156-59-2		**4.0**	**3.3**	< 1.0	**1.8 J**	**1.9**	**6.3**	< 1.0
cis-1,3-Dichloropropene	10061-01-5		< 2.5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dibromochloromethane	00124-48-1		< 2.5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	00100-41-4		< 2.5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Dichloromethane	00075-09-2		< 5.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Styrene	00100-42-5		< 2.5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Tetrachloroethene	00127-18-4		**10.4**	**48.1**	< 1.0	**11**	**14.7**	**4.7**	< 1.0
Toluene	00108-88-3		< 2.5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,2-Dichloroethene	00156-60-5		< 2.5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
trans-1,3-Dichloropropene	10061-02-6		< 2.5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Trichloroethylene	00079-01-6		**428**	**175**	< 1.0	**122**	**23.9**	**50.6**	< 1.0
Trichlorotrifluoroethane (Freon 113)	00076-13-1		**1.9 J**	**2.0 J**	< 5.0	**1.3 J**	**0.66 J**	**0.77 J**	< 5.0
Vinyl Chloride	00075-01-4		< 2.5	**1.7**	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Xylene-o	00095-47-6		< 2.5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Xylene-m,p	179601-23-1		< 2.5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total VOCs[4]			**446**	**236**	**ND**	**137**	**44.0**	**63.1**	**ND**
1,4-Dioxane[3]			**8.0**	**9.1**	**7.9**	**5.5**	**4.9**	**4.1**	**6.0**

Notes and abbreviations on last page.

Table 2
Concentrations of Constituents in Remedial Wells and Treatment System Effluents
First Quarter 2025[(1)] Reporting Period
Operable Unit 2
Northrop Grumman
Bethpage, New York

Notes and Abbreviations:

(1) Quarterly reporting period: January 1, 2025 through March 31, 2025.

(2) Results for the program are validated at 20% frequency, per protocols specified in OU2 Groundwater Monitoring Plan (Arcadis 2016).

(3) VOC samples analyzed using USEPA Method 8260C. 1,4-Dioxane samples analyzed using USEPA Method 8270D-SIM.

(4) TVOC concentrations are rounded to the number of decimal places of the individual VOC with the least numerical precision (decimal place), including whole numbers with no decimal place.

1.4	Bold value indicates a detection
< 1.0	Compound is not detected above its laboratory quantification limit
µg/L	micrograms per liter
J	Compound detected below its reporting limit; value is estimated
ND	Not detected
OU2	Operable Unit 2
REP	Blind Replicate Sample
USEPA	United States Environmental Protection Agency
VOC	Volatile Organic Compound

Table 3A
Vapor Sample Analytical Results,
Building 96 Treatment System,
First Quarter 2025[1] Reporting Period
Operable Unit 2
Northrop Grumman
Bethpage, New York

Constituents (units in µg/m3)	Location ID: Sample ID: Sample Date:	96 INFLUENT T96 INFLUENT 2/26/2025	96 MID-EFFLUENT T96 MIDTRAIN 2/26/2025	96 EFFLUENT T96 EFFLUENT 2/26/2025
Volatile Organic Compounds (VOCs)[2]	**CAS #**			
1,1,1-Trichloroethane	00071-55-6	< 11.0	< 8.7	< 0.44
1,1,2,2-Tetrachloroethane	00079-34-5	< 14.0	< 11.0	< 0.55
1,1,2-Trichloroethane	00079-00-5	< 11.0	< 8.7	< 0.44
1,1-Dichloroethane	00075-34-3	**22**	**47**	**4.5**
1,1-Dichloroethene	00075-35-4	**54.7**	**146**	**21**
1,2-Dichloroethane	00107-06-2	< 16.0	< 13.0	< 0.65
1,2-Dichloropropane	00078-87-5	**20**	**12 J**	< 0.74
Benzene	00071-43-2	< 13	< 10.0	< 0.51
Bromodichloromethane	00075-27-4	< 13	< 11.0	< 0.54
Bromoform	00075-25-2	< 8.3	< 6.6	< 0.33
Bromomethane	00074-83-9	< 16.0	< 12.0	< 0.62
Carbon Disulfide	00075-15-0	< 12.0	< 10.0	< 0.50
Carbon Tetrachloride	00056-23-5	< 5.0	< 4.0	< 0.20
Chlorobenzene	00108-90-7	< 18.0	< 15.0	< 0.74
Chloroethane	00075-00-3	< 11.0	< 8.4	**1.6**
Chloroform	00067-66-3	< 20.0	**12 J**	**0.44 J**
Chloromethane	00074-87-3	< 8.3	< 6.6	**0.89**
cis-1,2-Dichloroethene	00156-59-2	**87.6**	**123**	**1.3**
cis-1,3-Dichloropropene	10061-01-5	< 18.0	< 15.0	< 0.73
Dibromochloromethane	00124-48-1	< 17.0	< 14.0	< 0.68
Ethylbenzene	00100-41-4	< 17.0	< 14.0	< 0.69
Dichloromethane	00075-09-2	**25**	< 11.0	**3.1**
Styrene	00100-42-5	< 17.0	< 14.0	< 0.68
Tetrachloroethene	00127-18-4	**520**	**4.9**	< 0.22
Toluene	00108-88-3	< 15.0	< 12.0	< 0.60
trans-1,2-Dichloroethene	00156-60-5	< 16.0	< 13.0	< 0.63
trans-1,3-Dichloropropene	10061-02-6	< 18.0	< 15.0	< 0.73
Trichloroethylene	00079-01-6	**5,970**	**3,690**	**49**
Trichlorotrifluoroethane (Freon 113)	00076-13-1	**44**	**74**	**6.0**
Vinyl Chloride	00075-01-4	**13**	**30**	**23**
Xylene-o	00095-47-6	< 17.0	< 14.0	< 0.69
Xylene-m,p	179601-23-1	< 17.0	< 14.0	< 0.69
Total VOCs [3]		**6,756**	**4,139**	**111**

Notes and abbreviations on last page.

Table 3A
Vapor Sample Analytical Results,
Building 96 Treatment System,
First Quarter 2025(1) Reporting Period
Operable Unit 2
Northrop Grumman
Bethpage, New York

Notes and Abbreviations:

(1)	Quarterly reporting period: January 1, 2025 through March 31, 2025.
(2)	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.
(3)	TVOC concentrations are rounded to the number of decimal places of the individual VOC with the least numerical precision (decimal place), including whole numbers with no decimal place.
22	Bold value indicates a detection
< 0.44	Compound is not detected above its laboratory quantification limit
µg/m^3	micrograms per cubic meter
J	Compound detected below its reporting limit; value is estimated
ELAP	Environmental Laboratory Approval Program
NYSDOH	New York State Department of Health
USEPA	United States Environmental Protection Agency
VOC	Volatile Organic Compound

Table 3B
Vapor Sample Analytical Results
Building 102 Treatment System
First Quarter 2025[1] Reporting Period
Operable Unit 2
Northrop Grumman
Bethpage, New York

Constitents (units in µg/m3)	Location ID: Sample ID: Sample Date:	102 INFLUENT T102 INFLUENT 2/26/2025	102 EFFLUENT T102 EFFLUENT 2/26/2025
Volatile Organic Componds (VOCs) [2]	**CAS #**		
1,1,1-Trichloroethane	00071-55-6	< 11.0	**0.46**
1,1,2,2-Tetrachloroethane	00079-34-5	< 14.0	< 0.55
1,1,2-Trichloroethane	00079-00-5	< 11.0	< 0.44
1,1-Dichloroethane	00075-34-3	**39**	**23**
1,1-Dichloroethene	00075-35-4	**51.9**	**37**
1,2-Dichloroethane	00107-06-2	< 16.0	< 0.65
1,2-Dichloropropane	00078-87-5	**24**	< 0.74
Benzene	00071-43-2	< 13	< 0.51
Bromodichloromethane	00075-27-4	< 13	< 0.54
Bromoform	00075-25-2	< 8.3	< 0.33
Bromomethane	00074-83-9	< 16.0	< 0.62
Carbon Dislfide	00075-15-0	< 12.0	< 0.50
Carbon Tetrachloride	00056-23-5	< 5.0	< 0.20
Chlorobenzene	00108-90-7	< 18.0	< 0.74
Chloroethane	00075-00-3	< 11.0	< 0.42
Chloroform	00067-66-3	< 20.0	**2.8**
Chloromethane	00074-87-3	< 8.3	**0.85**
cis-1,2 Dichloroethene	00156-59-2	**197**	**28**
cis-1,3-Dichloropropene	10061-01-5	< 18.0	< 0.73
Dibromochloromethane	00124-48-1	< 17.0	< 0.68
Ethylbenzene	00100-41-4	< 17.0	< 0.69
Dichloromethane	00075-09-2	< 14.0	**2.0**
Styrene	00100-42-5	< 17.0	**0.89**
Tetrachloroethene	00127-18-4	**793**	**1.8**
Toluene	00108-88-3	< 15.0	**0.57 J**
trans-1,2-Dichloroethene	00156-60-5	< 16.0	**0.56 J**
trans-1,3-Dichloropropene	10061-02-6	< 18.0	< 0.73
Trichloroethylene	00079-01-6	**4,070**	**15**
Trichlorotrifloroethane (Freon 113)	00076-13-1	**48**	**28**
Vinyl Chloride	00075-01-4	< 2.0	< 0.082
Xylene-o	00095-47-6	< 17.0	< 0.69
Xylene-m,p	179601-23-1	< 17.0	< 0.69
Total VOCs [3]		**5,223**	**141**

Notes and abbreviations on last page.

Table 3B
Vapor Sample Analytical Results
Building 102 Treatment System
First Quarter 2025(1) Reporting Period
Operable Unit 2
Northrop Grumman
Bethpage, New York

Notes and Abbreviations:

(1) Quarterly reporting period: January 1, 2025 through March 31, 2025.

(2) 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.

(3) TVOC concentrations are rounded to the number of decimal places of the individual VOC with the least numerical precision (decimal place), including whole numbers with no decimal place.

23	Bold value indicates a detection
< 11	Compound is not detected above its laboratory quantification limit
µg/m^3	micrograms per cubic meter
J	Compound detected below its reporting limit; value is estimated
ELAP	Environmental Laboratory Approval Program
NYSDOH	New York State Department of Health
USEPA	United States Environmental Protection Agency
VOC	Volatile Organic Compound

Table 4A
Rule 212 Evaluation
Building 96 Treatment System
First Quarter 2025(1) Reporting Period
Operable Unit 2
Northrop Grumman
Bethpage, New York

Project VOCs	CAS#	HTAC[2]	Tower 96 Treatment System Effluent Conc. (ug/m3)[3]	Tower 96 Emissions (lb/yr)[4]	Rule 212 Limit (lb/yr)[5]	Rule 212 Evaluation[6]	Further evaluation Required?[6]
1,1-Dichloroethane	75-34-3	No	4.5	0.646	100	Less than limit, Rule 212 compliant	N
1,1-Dichloroethene	75-35-4	No	21.0	3.013	100	Less than limit, Rule 212 compliant	N
Chloroethane	75-00-3	No	1.6	0.230	100	Less than limit, Rule 212 compliant	N
Chloroform	67-66-3	Yes	0.44	0.063	100	Less than limit, Rule 212 compliant	N
Chloromethane	74-87-3	No	0.89	0.128	100	Less than limit, Rule 212 compliant	N
cis-1,2 Dichloroethene	156-59-2	No	1.3	0.186	100	Less than limit, Rule 212 compliant	N
Methylene Chloride	75-09-2	No	3.1	0.445	100	Less than limit, Rule 212 compliant	N
Trichloroethylene	79-01-6	Yes	49.0	7.030	500	Less than limit, Rule 212 compliant	N
Trichlorotrifluoroethane (Freon 113)	76-13-1	No	6.0	0.861	100	Less than limit, Rule 212 compliant	N
Vinyl Chloride	75-01-4	Yes	23	3.300	100	Less than limit, Rule 212 compliant	N

Flowrates and Normalized Modeling Impacts

Description	Flow (cfm)	AERMOD Normalized Ambient Impact at 1 g/s	
		Hourly ([µg/m^3]/[g/s])	Annual ([µg/m^3]/[g/s])
Tower 96	4,381	148.1	4.3

Notes and Abbreviations:

(1) Quarterly reporting period: January 1, 2025 through March 31, 2025.

(2) High toxicity air contaminant (HTAC) based on 6 CRR-NY Rule 212-2.2, Table 2 – High Toxicity Air Contaminant List.

(3) Effluent concentrations based on sampling performed in the quarterly reporting period. Compounds not detected above the laboratory reporting limit are excluded from the air quality impact analysis summary.

(4) Emission rate calculated based on maximum effluent concentration and maximum air flow rates measured during the sampling events. Emission rate standardized at 70 ^{o}F and 1 atm.

Trichloroethylene (lb/yr) = Trichloroethylene [µg/m^3] x Air Flow Rate [ft^3/min] x (1 m^3/35.3147 ft^3) x (60 min/hr) x (0.000001 g/1 µg) x (0.0022 lb/g) x 8,760 hrs/yr

(5) 100 lb/yr for non-HTACs, and mass emission limits based on Rule 212-2.2, Table 2 for HTACs.

(6) For HTACs, no further demonstration is required if the actual emissions are less than mass emission limit. For non-HTACs, no further demonstration is required if the actual emissions are less than 100 lbs/yr.

SGC Short-Term Guideline Concentrations
AGC Annual Guideline Concentrations

Table 4B
Rule 212 Evaluation
Building 102 Treatment System
First Quarter 2025(1) Reporting Period
Operable Unit 2
Northrop Grumman
Bethpage, New York

Project VOCs	CAS#	HTAC[2]	Tower 102 Treatment System Effluent Conc. (ug/m3)[3,8]	Tower 102 Emissions (lb/yr)[4]	Rule 212 Limit (lb/yr)[5]	Rule 212 Evaluation[6]	Further evaluation Required?[6]
1,1,1-Trichloroethane	71-55-6	No	0.46	0.112	100	Less than limit, Rule 212 compliant	N
1,1-Dichloroethane	75-34-3	No	23	5.579	100	Less than limit, Rule 212 compliant	N
1,1-Dichloroethene	75-35-4	No	37	8.975	100	Less than limit, Rule 212 compliant	N
Chloroform	67-66-3	Yes	2.8	0.679	100	Less than limit, Rule 212 compliant	N
Chloromethane	74-87-3	No	0.85	0.206	100	Less than limit, Rule 212 compliant	N
cis-1,2 Dichloroethene	156-59-2	No	28	6.792	100	Less than limit, Rule 212 compliant	N
Methylene Chloride	75-09-2	No	2.0	0.485	100	Less than limit, Rule 212 compliant	N
Styrene	100-42-5	No	0.89	0.216	100	Less than limit, Rule 212 compliant	N
Tetrachloroethene	127-18-4	Yes	1.8	0.437	1,000	Less than limit, Rule 212 compliant	N
Toluene	108-88-3	No	0.57	0.138	100	Less than limit, Rule 212 compliant	N
trans-1,2-Dichloroethene	156-60-5	No	0.56	0.136	100	Less than limit, Rule 212 compliant	N
Trichloroethylene	79-01-6	Yes	15	3.639	500	Less than limit, Rule 212 compliant	N
Trichlorotrifluoroethane (Freon 113)	76-13-1	No	28	6.792	100	Less than limit, Rule 212 compliant	N

Flowrates and Normalized Modeling Impacts

Description	Flow (cfm)	AERMOD Normalized Ambient Impact at 1 g/s	
		Hourly ([µg/m^3]/[g/s])	Annual ([µg/m^3]/[g/s])
Tower 102	7,408	348.9	2.3

Notes and Abbreviations:

(1) Quarterly reporting period: January 1, 2025 through March 31, 2025.

(2) High toxicity air contaminant (HTAC) based on 6 CRR-NY Rule 212-2.2, Table 2 – High Toxicity Air Contaminant List.

(3) Effluent concentrations based on sampling performed in the quarterly reporting period. Compounds not detected above the laboratory reporting limit are excluded from the air quality impact analysis summary.

(4) Emission rate calculated based on maximum effluent concentration and maximum air flow rates measured during the sampling events. Emission rate standardized at 70 ^{o}F

Trichloroethylene (lb/yr) = Trichloroethylene [µg/m^3] x Air Flow Rate [ft^3/min] x (1 m^3/35.3147 ft^3) x (60 min/hr) x (0.000001 g/1 µg) x (0.0022 lb/g) x 8,760

(5) 100 lb/yr for non-HTACs, and mass emission limits based on Rule 212-2.2, Table 2 for HTACs.

(6) For HTACs, no further demonstration is required if the actual emissions are less than mass emission limit. For non-HTACs, no further demonstration is required if the actual emissions are less than 100 lbs/yr.

SGC Short-Term Guideline Concentrations
AGC Annual Guideline Concentrations

Table 5
Concentrations of Volatile Organic Compounds and 1,4 Dioxane in Monitoring and Outpost (BPOW) Wells
First Quarter 2025
Operable Unit 2
Northrop Grumman
Bethpage, New York

Constituents (units in ug/L)	Well ID: Sample ID: Date:	BPOW 1-2 BPOW 1-2 2/5/2025	BPOW1-4 BPOW1-4 2/4/2025	BPOW 1-5 BPOW 1-5 2/4/2025	BPOW 1-6 BPOW 1-6 2/4/2025	BPOW 2-1 BPOW 2-1 2/5/2025	BPOW 2-2 BPOW 2-2 2/5/2025	BPOW 2-3 BPOW 2-3 2/5/2025
Volatile Organic Constituents [1, 2, 3]								
1,1,1-Trichloroethane		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2,2-Tetrachloroethane		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2-trichloro-1,2,2-trifluoroethane (Freon 113)		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1-Dichloroethane		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1-Dichloroethene		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Dichloroethane		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-Dichloropropane		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
2-Butanone (MEK)		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
4-Methyl-2-Pentanone		<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Acetone		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Benzene		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Bromodichloromethane		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Bromoform		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Bromomethane		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Carbon Disulfide		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Carbon Tetrachloride		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Chlorobenzene		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Chlorodibromomethane		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Chloroethane		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Chloroform		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Chloromethane		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
cis-1,2-Dichloroethene		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
cis-1,3-Dichloropropene		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Dichloromethane		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Ethylbenzene		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
m&p-Xylenes		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Methyl N-Butyl Ketone (2-Hexanone)		<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
o-Xylene		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Styrene (Monomer)		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Tetrachloroethene		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Toluene		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
trans-1,2-Dichloroethene		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
trans-1,3-Dichloropropene		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Trichloroethene		**0.52**	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Vinyl chloride		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TVOCs [4]		**0.52**	ND	ND	ND	ND	ND	ND
1,4 Dioxane [1, 2, 3]		**0.088 J**	**0.38**	<0.20	<0.20	**1.2**	**0.67**	**3.9**

See notes and abbreviations on last page.

Table 5
Concentrations of Volatile Organic Compounds and 1,4 Dioxane in Monitoring and Outpost (BPOW) Wells
First Quarter 2025
Operable Unit 2
Northrop Grumman
Bethpage, New York

Constituents (units in ug/L)	Well ID: Sample ID: Date:	BPOW 3-1 BPOW 3-1 2/6/2025	BPOW 3-2 BPOW 3-2 2/6/2025	BPOW 3-3 BPOW 3-3 2/7/2025	BPOW 3-4 BPOW 3-4 2/7/2025	BPOW 3-4 REP020725KK1 2/7/2025	BPOW 4-1R BPOW 4-1R 2/10/2025	BPOW 4-2R BPOW 4-2R 2/14/2025	GM-21D2 GM-21D2 2/14/2025
Volatile Organic Constituents [1, 2, 3]									
1,1,1-Trichloroethane		<0.50	<0.50	<0.50	**0.87**	**0.86**	<0.50	<0.50	<1.0
1,1,2,2-Tetrachloroethane		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0
1,1,2-trichloro-1,2,2-trifluoroethane (Freon 113)		<1.0	<1.0	**0.84 J**	**11.3**	**11.3**	**38.9**	**34.4**	<5.0
1,1,2-Trichloroethane		<0.50	<0.50	<0.50	**1.6**	**1.6**	<0.50	<0.50	<1.0
1,1-Dichloroethane		<0.50	<0.50	<0.50	**1.9**	**2.0**	<0.50	<0.50	<1.0
1,1-Dichloroethene		<0.50	<0.50	<0.50	**15.5**	**15.8**	**1.4**	**1.0**	<1.0
1,2-Dichloroethane		<0.50	<0.50	<0.50	**0.28 J**	**0.29 J**	**0.20 J**	<0.50 J	<1.0
1,2-Dichloropropane		<0.50	<0.50	<0.50	**0.24 J**	**0.23 J**	<0.50	<0.50	<1.0
2-Butanone (MEK)		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10 J
4-Methyl-2-Pentanone		<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0 J	<5.0
Acetone		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10 J
Benzene		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Bromodichloromethane		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0
Bromoform		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0
Bromomethane		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0
Carbon Disulfide		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0
Carbon Tetrachloride		<0.50	<0.50	<0.50	**0.90**	**0.99**	**0.44 J**	**0.27 J**	<1.0
Chlorobenzene		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0
Chlorodibromomethane		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0
Chloroethane		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50 J	<0.50	<1.0
Chloroform		<0.50	<0.50	<0.50	**1.9**	**1.9**	**0.64**	<0.50	<1.0
Chloromethane		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50 J	<0.50	<1.0 J
cis-1,2-Dichloroethene		<0.50	<0.50	<0.50	**2.7**	**2.8**	**0.50**	**0.29 J**	<1.0
cis-1,3-Dichloropropene		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0
Dichloromethane		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<2.0 J
Ethylbenzene		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0
m&p-Xylenes		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0
Methyl N-Butyl Ketone (2-Hexanone)		<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<5.0
o-Xylene		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0
Styrene (Monomer)		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0
Tetrachloroethene		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	**1.4**	**0.58 J**
Toluene		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0
trans-1,2-Dichloroethene		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0
trans-1,3-Dichloropropene		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0
Trichloroethene		<0.50	<0.50	<0.50	**242**	**272**	**2.1**	**4.5**	**4.5**
Vinyl chloride		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0 J
TVOCs [4]		ND	ND	**0.84**	**279**	**310**	**44.2**	**41.9**	**5.1**
1,4 Dioxane [1, 2, 3]		**0.70**	**3.8**	**9.4**	**17.1**	**17.5**	**5.9**	**3.1**	**4.9**

See notes and abbreviations on last page.

Table 5
Concentrations of Volatile Organic Compounds and 1,4 Dioxane in Monitoring and Outpost (BPOW) Wells
First Quarter 2025
Operable Unit 2
Northrop Grumman
Bethpage, New York

Notes and Abbreviations:

(1) Samples from outpost (BPOW) wells were analyzed for VOCs using USEPA Method 524.2. Samples were analyzed for 1,4-dioxane using USEPA Method 522.

(2) Samples from monitoring wells were analyzed for VOCs using USEPA Method 8260C. Samples were analyzed for 1,4-dioxane using USEPA Method 8270D-SIM.

(3) Results for the program are validated at 20% frequency, per protocols specified in OU2 Groundwater Monitoring Plan (Arcadis 2016).

(4) TVOC concentrations are rounded to the number of decimal places of the individual VOC with the least precision (decimal places), including whole numbers with no decimal place.

Bold	Value indicates constituent detected
TVOCs	Total Volatile Organic Compounds
REP	Blind Duplicate Sample
USEPA	United States Environmental Protection Agency
VOC	Volatile Organic Compounds
µg/L	micrograms per liter
<0.5	Compound not detected above its laboratory quantification limit
J	Value is estimated concentration
ND	Not Detected

Figures

HWD 10208
HWD 8779
BWD 8768
BWD 8767
BWD 9591
HAYPATH ROAD
FARMERS AVENUE
(PLAINVIEW ROAD)
(107)
FORMER U.S. NAVY SITE
PLANT 111
PLANT 35
PLANT 116
PLANT 115
PLANT 21
PLANT 37
PLANT 15
PLANT 14
PLANT 26
PLANT 30
PLANT 12
PLANT 12A
PLANT 3
PLANT 10
FW-03
BETHPAGE HIGH SCHOOL
HN-24I
HN-24S
HN-42S
HN-42I
PLANT 25
PLANT 5
GM-13D
GM-16I
GM-16SR
HN-40S
HN-40I
UPGRADIENT OF OU2 ONCT SYSTEM
BROADWAY
MW-3-1
WELL 3R
10597
WELL 3
GM-17SR
GM-17I
GM-17D
OU2 MAIN FACILITY REMEDIAL SYSTEM (TOWER 96)
OU2 MAIN FACILITY REMEDIAL SYSTEM (TOWER 102)
MW-1GF
GM-32S
PLANT 2
GRUMMAN ROAD
WELL 1
GM-19S
GM-19I
PLANT 1
MW-5
MW-6
MW-4
GM-15SR
GM-15I
GM-15D
GM-15D2
GM-39DA
GM-39DB
MW-2GF
GM-18S
GM-18I
GM-18D
GM-73D3
GM-73D2
GM-73D
GM-74I
GM-74D
GM-74D2
GM-74D3
WELL-18
WELL-19
GM-33D2
10631
WELL-17
MW-3R
RE123
PROXIMATE TO OU2 ONCT SYSTEM
LONG ISLAND RAILROAD
10600
GM-78S
GM-78I
GM-78D
GM-78D2
RE106
GM-20I
GM-20D
GM-21D2
10633
CENTRAL AVENUE
9921
RE107
GM-75D2
10624
GM-21S
GM-21I
GM-21D
RE126
GM-79I
GM-79D
10628
RE109
10627
10634
RE122
GM-71D2
GM-37D
GM-37D2
NEAR CENTRAL DOWNGRADIENT OF OU2 ONCT SYSTEM
BLOOMINGDALE ROAD
NORTH WANTAGH AVE.
RE108
GM-70D2
GM-35D2
GM-36D
GM-36D2
N-10821
BWD 6915
6916
FAR CENTRAL DOWNGRADIENT OF OU2 ONCT SYSTEM
MALLARD ROAD
BWD 8941
3876
GM-38D
GM-38D2
GM-34D
GM-34D2
HICKSVILLE ROAD
STEWART AVENUE
BWD 8004
(GARDINER'S AVENUE)
LOWLAND ROAD
SEAFORD - OYSTER BAY EXPRESSWAY
STHPAGE STATE PARKWAY
TOH(LWD) 7076
PIKE
BPOW 1-4
BPOW 1-5
BPOW 1-6
BPOW 1-3
BPOW 1-1
BPOW 1-2
SFWD 7377
SFWD 5148
SFWD 4043
BOUNDARY AVENUE
BPOW 4-2R
BPOW 4-1R
TOH(LWD) 5303
BPOW 2-2
BPOW 2-3
BPOW 2-1
SFWD 6150
BPOW 3-3
BPOW 3-4
BPOW 3-2
BPOW 3-1
NYAW 9338
NYAW 8480
HICKSVILLE

0 1000' 2000'
APPROXIMATE SCALE IN FEET

EXPLANATION

- PROPERTY BOUNDARY OF THE FORMER GRUMMAN AEROSPACE SITE
- PROPERTY BOUNDARY OF THE FORMER NAVY SITE
- PROPERTY BOUNDARY OF THE FORMER OXY/RUCO SITE
- LONG ISLAND RAILROAD
- DENOTES NORTHROP GRUMMAN OWNED PROPERTY (AS OF 2022)
- DENOTES NAVY OWNED PROPERTY (AS OF 2014)
- DENOTES FORMER NAVY OWNED PROPERTY
- RECHARGE BASIN
- 10592 OBSERVATION/MONITORING/OUTPOST WELL (1)
- 9591 PUBLIC SUPPLY WELL (2)
- WELL-17 NORTHROP GRUMMAN REMEDIAL WELL
- RE108 SUPPLEMENTAL NAVY MONITORING WELL
- PART OF ON-SITE REMEDY
- NWIRP NAVAL WEAPONS INDUSTRIAL RESERVE PLANT
- TOH (LWD) TOWN OF HEMPSTEAD LEVITOWN WATER DISTRICT
- HWD HICKSVILLE WATER DISTRICT
- SFWD SOUTH FARMINGDALE WATER DISTRICT
- BWD BETHPAGE WATER DISTRICT
- NYAW NEW YORK AMERICAN WATER

NOTE:

(1) THIS FIGURE DEPICTS OBSERVATION/MONITORING/OUTPOST WELLS INCLUDED IN THE OU-2 GROUNDWATER MONITORING PROGRAM.

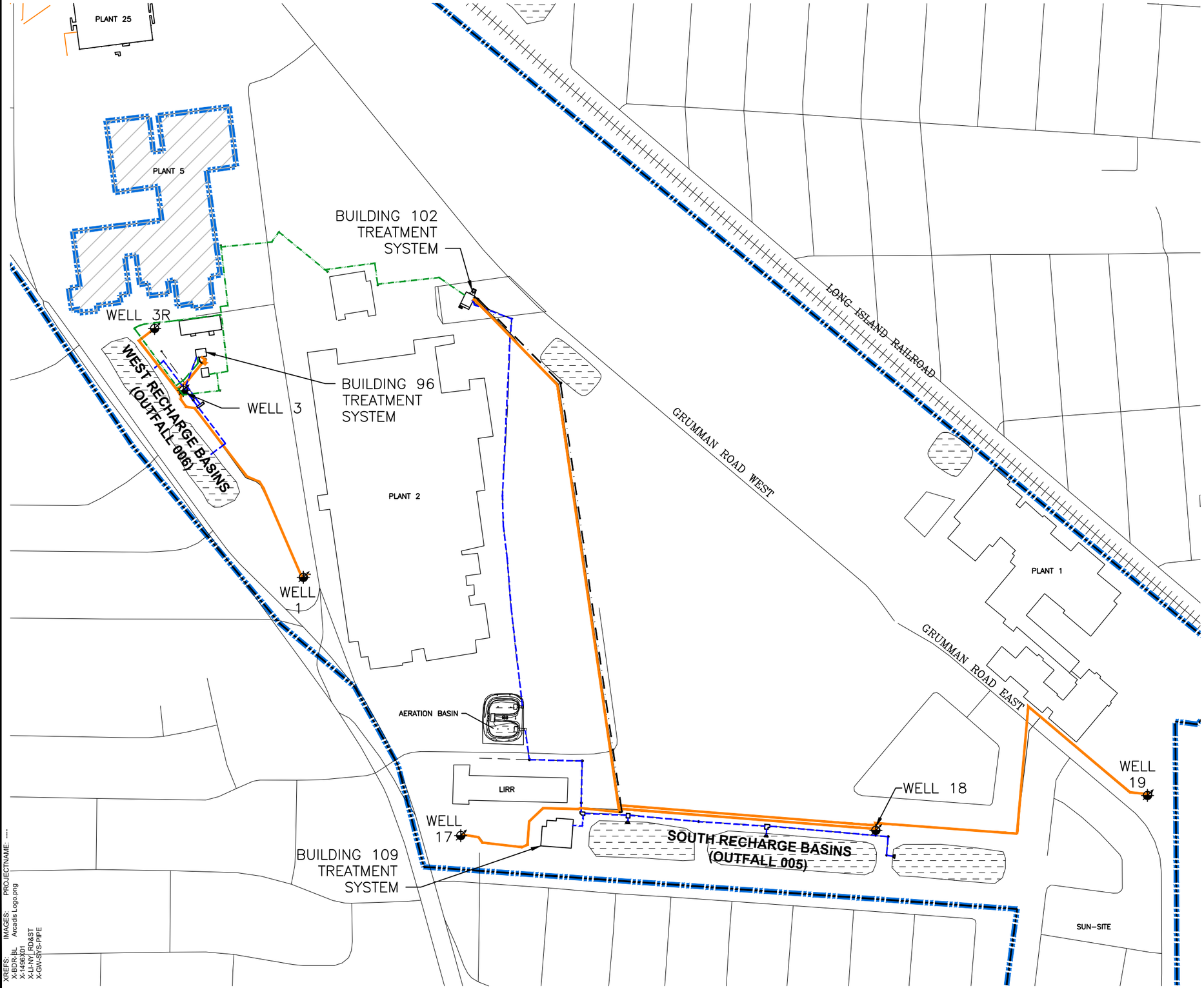
(2) PUBLIC SUPPLY WELLS ARE NOT SAMPLED AS A PART OF THE OU2 GROUNDWATER MONITORING PROGRAM AND ARE ONLY FOR REFERENCE.

NORTHROP GRUMMAN SYSTEMS CORPORATION
BETHPAGE, NEW YORK
OPERABLE UNIT 2

LOCATIONS OF OF WELLS AND ON-SITE GROUNDWATER REMEDY

ARCADIS

FIGURE 1



LEGEND:

- FORMER NORTHROP GRUMMAN PROPERTY LINE
- INFLUENT LINE
- BYPASS
- STORM DRAIN (EFFLUENT)
- NON POTABLE WATER DISTRIBUTION LINE (EFFLUENT)
- RAILROAD TRACKS
- FENCE
- WELL 18 — REMEDIAL WELL
- BASIN
- ONCT — ON–SITE CONTAMINANT

NOTES:

1. DRAWING IS NOT TO BE USED FOR DESIGN PURPOSES. LAYOUT OF PIPING IS FOR REPRESENTATION ONLY (LOCATIONS ARE APPROXIMATE).
2. THE PIPING REPRESENTED IN THIS DRAWING MAY BE CONSTRUCTED OF CAST IRON PIPE (CIP), DUCTILE IRON PIPE (DIP), ASBESTOS CEMENT PIPE (ACP) OR TRANSITE, OR A COMBINATION OF THESE PIPE TYPES.

NORTHROP GRUMMAN
BETHPAGE, NEW YORK

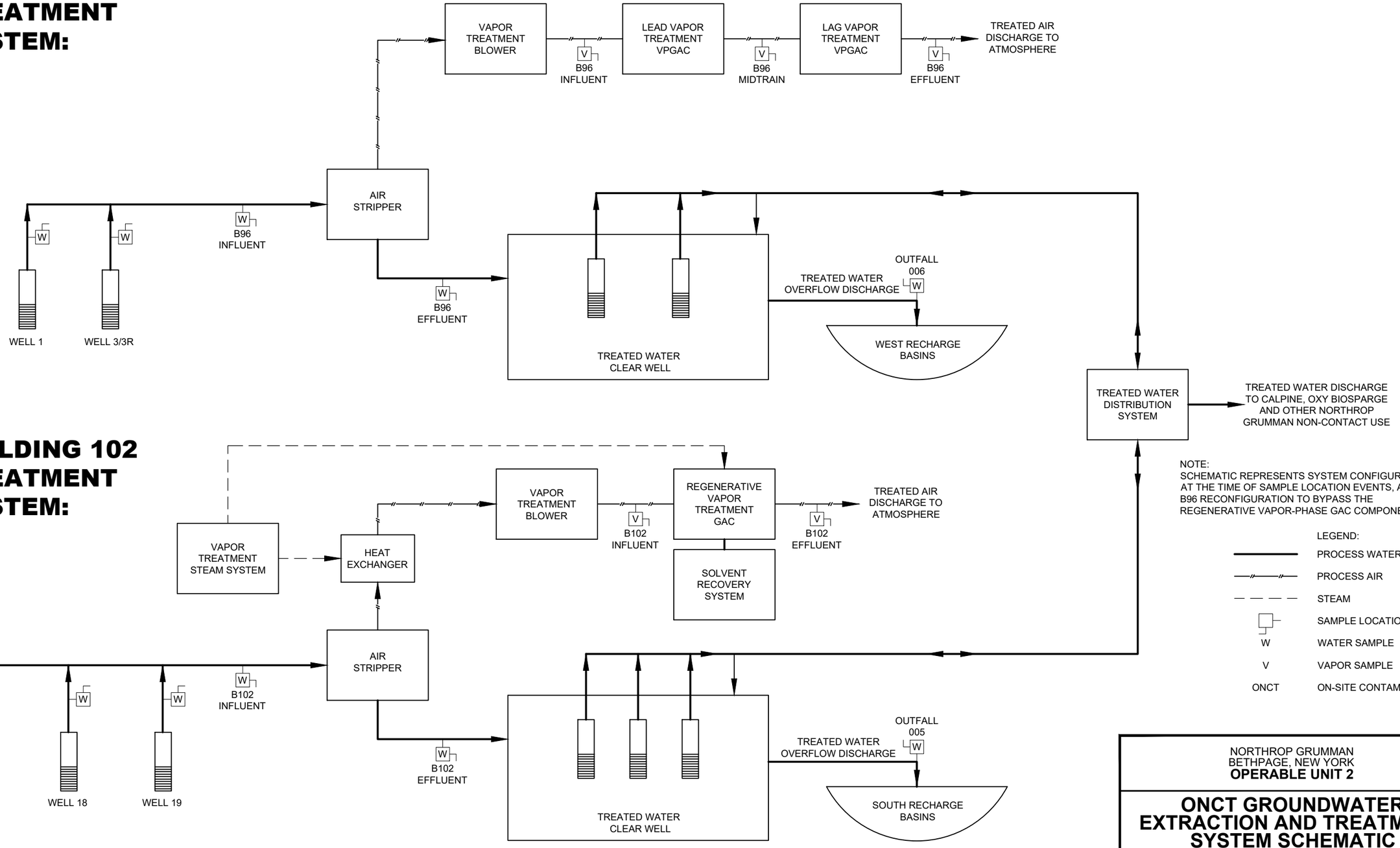
ONCT GROUNDWATER EXTRACTION AND TREATMENT SYSTEM SITE PLAN

ARCADIS

FIGURE
2

C:\Users\BSSmallDC\ACCDocs\Arcadis ACC US\AUS-99999999-NOR GRUM_BETHPAGE_NY\Project Files\10_WIP\10T_ARC_ENV\2025\01-DWG\GEN-ONCT-GW-ETS-SITEPLAN.dwg LAYOUT: 2 SAVED: 6/2/2025 3:40 PM ACADVER: 24.2S (LMS TECH) PAGESETUP: --- PLOTSTYLETABLE: ---
PLOTTED: 6/2/2025 3:40 PM BY: SMALL, BRIAN
XREFS: IMAGES: PROJECTNAME: ----
X-BDR-BL Arcadis Logo.png
X-1496X01
X-LI-NY_RD&ST
X-GW-SYS-PIPE

BUILDING 96 TREATMENT SYSTEM:



BUILDING 102 TREATMENT SYSTEM:

NOTE:
SCHEMATIC REPRESENTS SYSTEM CONFIGURATIONS AT THE TIME OF SAMPLE LOCATION EVENTS, AFTER B96 RECONFIGURATION TO BYPASS THE REGENERATIVE VAPOR-PHASE GAC COMPONENTS

LEGEND:

———	PROCESS WATER
——//——//——	PROCESS AIR
— — — —	STEAM
	SAMPLE LOCATION
W	WATER SAMPLE
V	VAPOR SAMPLE
ONCT	ON-SITE CONTAMINANT

NORTHROP GRUMMAN
BETHPAGE, NEW YORK
OPERABLE UNIT 2

ONCT GROUNDWATER EXTRACTION AND TREATMENT SYSTEM SCHEMATIC

ARCADIS

FIGURE
3

CITY: MANCHESTER DIV/GROUP: ENVCAD DB: B.SMALL PM: TM:
C:\Users\BSmall\DOCACCDocs\Arcadis ACC US\AUS-99999999-NOR GRUM_BETHPAGE_NY\Project Files\10_WIP\10T_ARC_ENV\2024\01-DWG\OU2-F03-GWE SYSTEM.dwg LAYOUT: 3 SAVED: 3/28/2024 12:03 PM ACADVER: 24.2S (LMS TECH) PAGESETUP: ---- PLOTSTYLETABLE: PLTFULL.CTB
PLOTTED: 3/28/2024 12:05 PM BY: SMALL, BRIAN
XREFS: IMAGES: PROJECTNAME: ----