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ENVIRONMENT

Mr. Steven Scharf, P.E.
New York State Department of Environmental Conservation (NYSDEC)
Division of Environmental Remediation
625 Broadway
Albany, New York 12233-7015

Subject:
Results of Second Quarter 2013 Groundwater Monitoring,
Operable Unit 2, Northrop Grumman Systems Corporation and Naval Weapons Industrial Reserve Plant (NWIRP) Sites, Bethpage, New York.
(NYSDEC Site #s 1-30-003A and B)

Date:
August 30, 2013

Contact:
David Stern

Phone:
631-391-5284

Email:
david.stern@arcadis-us.com

Our ref:
NY001496.0312.GWMI4

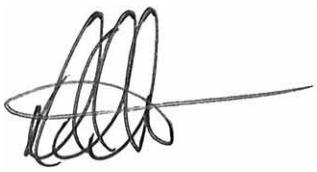
Dear Mr. Scharf:

On behalf of Northrop Grumman Systems Corporation (Northrop Grumman), ARCADIS is providing the NYSDEC with the validated results of Operable Unit 2 (OU2) groundwater monitoring, performed in accordance with the approved groundwater monitoring plan (ARCADIS G&M, Inc. 2006) and the Public Water Supply Contingency Plan (PWSCP) (ARCADIS G&M, Inc. 2003), plus additional wells installed by the Navy that Northrop Grumman agreed to monitor on a voluntary basis. Table 1 provides OU2 remedial system performance operational data and water balance. Table 2 provides the validated analytical results of remedial wells for this period. Tables 3, Table 4 and Table 5 provide the validated analytical results of monitoring wells for this period. Figure 1 shows the site plan with well locations.

Please contact us if you have any questions or comments.

Sincerely,

ARCADIS of New York, Inc.



David E. Stern
Senior Hydrogeologist

Enclosures

Copies:
Ed Hannon – Northrop Grumman
Walter Parish – NYSDEC Region 1
Bill Spitz - NYSDEC Region 1
Steven Karpinski – New York State Department of Health
Michael Alarcon – Nassau County Department of Health
Joseph DeFranco – Nassau County Department of Health
Lora Fly – NAVFAC Midlant Environmental
David Brayack – TetraTech NUS, Inc.
Roger Smith – Glenn Springs Holdings, Inc.
Kevin Lumpe – Steel Equities
Thomas Taccone – USEPA
Matthew Russo – Town of Oyster Bay
John Caruso – Massapequa Water District
Matthew Snyder – New York American Water
Charles Prucha – South Farmingdale Water District
John Reinhardt – Town of Hempstead Water District
Michael Boufis – Bethpage Water District
Anthony J. Sabino Esq. – Bethpage Water District
Lois Lovisolo – Bethpage Public Library (Public Repository)
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Table 1. Operational Summary for the On-Site Portion of the Operable Unit 2 Groundwater Remedy, Second Quarter 2013, Northrop Grumman Systems Corporation, Bethpage, New York. [1]

Identification	Flow Rates (gpm)		Quarterly Flow Volumes (MG)			VOC Concentrations (ug/L)		VOC Mass Removed (lbs) [7]
	Design [2]	Average [3,4]	Design [2]	Actual [3,4]	% of Design	TCE [5]	TVOC [5,6]	Quarterly
Influent Groundwater								
Well 1	800	805	104.8	105.5	101%	380	444	391
Well 3 [11]	700	610	91.7	78.3	85%	1,400	1,541	987
Well 17	1,000	1,138	131.0	138.7	106%	190	233	264
Well 18	600	634	78.6	77.3	98%	60	80	51
Well 19	700	692	91.7	86.1	94%	180	216	152
Total	3,800	3,879	498	486	98%	--	--	1,845
Effluent Groundwater [8]								
Calpine	100 - 400	98	--	12.8	--	--	--	--
OXY Biosparge [10]	2 - 42	3.8	--	0.5	--	--	--	--
West Recharge Basins	1,112 - 1,455	646	--	84.7	--	--	0.40	--
South Recharge Basins	2,231	2,960	292.4	387.9	133%	--	0.62	--
Total	--	3,708	--	486	--	--	--	--

Treatment Efficiencies [9]

Tower 96 System Efficiency:	99.96%
Tower 102 System Efficiency:	>99.99%

see footnotes on last page

Table 1. Operational Summary for the On-Site Portion of the Operable Unit 2 Groundwater Remedy, Second Quarter 2013, Northrop Grumman Systems Corporation, Bethpage, New York. (1)

Notes:

(1) Quarterly reporting period: April 01, 2013 through July 01, 2013

(2) "Design" flow rates were determined for the five remedial wells and for the South Recharge Basins based on computer modeling (ARCADIS G&M, Inc. 2003c, modified in April 2005). Flow rates for Calpine, OXY Biosparge and West Recharge Basins are typical flow rates and are provided for reader information. "Design" flow volumes represent the volume of water that should be pumped/discharged during the reporting period and is calculated by multiplying the design rate by the reporting period duration.

(3) "Average" 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. During this reporting period, the remedial wells operated for the following percentage of the time: Well 1 (100%), Well 3 (98%), Well 17 (93%), Well 18 (93%), and Well 19 (95%). "Actual" volumes are determined via totalizing flow meters. Downtime associated with Wells 17, 18 and 19 (Tower 102 System) was due to repairs to the duct work at the treatment system and communication errors between the remedial wells and the treatment system.

(4) "Average" flow rates for the system discharges represent the average flow rate during the entire reporting period and are determined by dividing the total flow during the reporting period by the reporting period duration. The Calpine, OXY Biosparge, and South Recharge Basins flow volumes are determined via totalizing flow meters. The West Recharge Basin flow is calculated by subtracting the cumulative flow to the other discharges from the total influent flow. Actual flow to the recharge basins are greater than shown because storm water combines with the plant effluents prior to discharge to the recharge basins.

(5) The TCE and TVOC concentrations for the remedial wells are from the quarterly sampling event performed during this reporting period (Table 2).

(6) The TVOC concentration for the two sets of recharge basins are their respective average monthly SPDES concentration for the current quarter.

(7) TVOC mass removed for the reporting period is calculated by multiplying the TVOC concentration from the quarterly sampling event and the quantity of water pumped during the reporting period.

(8) There are five discharges for the effluent groundwater: South Recharge Basins, West Recharge Basins, Calpine, OXY Biosparge system, and minor losses (pipe loss, irrigation use). Treated water is continuously discharged to the south and west recharge basins, and is available "on-demand" to both the Calpine Power Plant (Calpine) for use as make-up water, and the biosparge remediation system operated by Occidental Chemical (OXY Biosparge).

(9) Treatment System Efficiencies are calculated by dividing the difference between the influent and effluent TVOC concentrations by the influent concentration.

(10) The flow rate and volume for OXY Biosparge were estimated based on the average pumping rate calculated from data from April 2007 through March 2012.

(11) Well 3 flow rate was lowered to approximately 560 gpm on May 1, 2013 due to a decreasing specific capacity and an increased drawdown. Work is scheduled to be completed in the third quarter to lower the pump and increase its flow rate back to design.

Acronyms:

--	Not Available or Not Applicable	lbs	pounds
TVOC	Total Volatile Organic Compounds	MG	Million Gallons
gpm	gallons per minute	ug/L	micrograms per liter
SPDES	State Pollutant Discharge Elimination System	OU2	Operable Unit 2
NG	Northrop Grumman Systems Corporation	NYSDEC	New York State Department of Environmental Conservation
TCE	Trichloroethene	VPGAC	Vapor Phase Granular Activated Carbon

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Table 2. Concentrations of Volatile Organic Compounds Detected in Groundwater Remedial Wells and Systems, Second Quarter 2013, Operable Unit 2, Northrop Grumman Systems Corporation, Bethpage, New York.

	Well:	WELL 17	WELL 18	WELL 19	WELL 19	102 INFLUENT	102 EFFLUENT
	Sample ID:	WELL 17	WELL 18	WELL 19	REP060613	102 INFLUENT	102 EFFLUENT
CONSTITUENT (Units in ug/L)	**Date:**	06/06/13	06/06/13	06/06/13	06/06/13	06/06/13	06/06/13
1,1,1-Trichloroethane		**0.52 J**	**0.76 J**	**0.45 J**	**0.50 J**	**0.61 J**	< 5.0 U
1,1,2,2-Tetrachloroethane		< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
1,1,2-Trichloroethane		< 10 U	< 5.0 U	**0.21 J**	< 5.0 U	< 5.0 U	< 5.0 U
1,1-Dichloroethane		**1.3 J**	**1.1 J**	**0.84 J**	**0.87 J**	**1.1 J**	< 5.0 U
1,1-Dichloroethene		**2.3 J**	**3.0 J**	**1.6 J**	**1.6 J**	**2.3 J**	< 5.0 U
1,2-Dichloroethane		< 10 U	< 5.0 U	**0.47 J**	**0.47 J**	< 5.0 U	< 5.0 U
1,2-Dichloropropane		< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
2-Butanone (MEK)		< 100 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
2-Hexanone (MBK)		< 100 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
4-methyl-2-pentanone (MIK)		< 100 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
Acetone		< 100 U	< 50 U	< 50 U	< 50 U	< 50 U	< 50 U
Benzene		< 1.4 U	< 0.70 U	< 0.70 U	< 0.70 U	< 0.70 U	< 0.70 U
Bromodichloromethane		< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Bromoform		< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Bromomethane		< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Carbon Disulfide		< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Carbon tetrachloride		< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Chlorobenzene		< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Chloroethane		< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Chloroform		**0.48 J**	**0.26 J**	**0.51 J**	**0.50 J**	**0.37 J**	< 5.0 U
Chloromethane		< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
cis-1,2-dichloroethene		**4.5 J**	**1.7 J**	**24**	**23**	**9.0**	< 5.0 U
cis-1,3-dichloropropene		< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Dibromochloromethane		< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Ethylbenzene		< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Methylene Chloride		< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Styrene		< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Tetrachloroethene		**30**	**12**	**6.5**	**6.9**	**22**	< 5.0 U
Toluene		< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
trans-1,2-dichloroethene		< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
trans-1,3-dichloropropene		< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Trichloroethylene		**190**	**60**	**180**	**190**	**170**	< 5.0 U
Trichlorotrifluoroethane (Freon 113)		**4.0 J**	**1.5 J**	**0.96 J**	**0.90 J**	**3.1 J**	< 5.0 U
Vinyl Chloride		< 4.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U	< 2.0 U
Xylene-o		< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
Xylenes - m,p		< 10 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U	< 5.0 U
	Total VOCs	**230**	**80**	**220**	**220**	**210**	0

Note: Results rounded to two significant figures.

Bold Constituent detected
VOCs Volatile Organic Compounds
ug/L Micrograms per liter
J Constituent value is estimated
REP Replicate Sample
U Constituent not detected

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Table 2. Concentrations of Volatile Organic Compounds Detected in Groundwater Remedial Wells and Systems, Second Quarter 2013, Operable Unit 2, Northrop Grumman Systems Corporation, Bethpage, New York.

CONSTITUENT (Units in ug/L)	Well: / Sample ID: / Date:	WELL 1 / WELL 1 / 06/06/13	WELL 3 / WELL 3 / 06/06/13	96 INFLUENT / 96 INFLUENT / 06/06/13	96 EFFLUENT / 96 EFFLUENT / 06/06/13
1,1,1-Trichloroethane		< 13 U	< 50 U	**0.68 J**	< 5.0 U
1,1,2,2-Tetrachloroethane		< 13 U	< 50 U	< 5.0 U	< 5.0 U
1,1,2-Trichloroethane		< 13 U	< 50 U	< 5.0 U	< 5.0 U
1,1-Dichloroethane		**0.68 J**	< 50 U	**1.1 J**	< 5.0 U
1,1-Dichloroethene		**2.2 J**	**8.7 J**	**4.2 J**	< 5.0 U
1,2-Dichloroethane		< 13 U	< 50 U	< 5.0 U	< 5.0 U
1,2-Dichloropropane		**5.9 J**	< 50 U	**4.3 J**	< 5.0 U
2-Butanone (MEK)		< 130 U	< 500 U	< 50 U	< 50 U
2-Hexanone (MBK)		< 130 U	< 500 U	< 50 U	< 50 U
4-methyl-2-pentanone (MIK)		< 130 U	< 500 U	< 50 U	< 50 U
Acetone		< 130 U	< 500 U	< 50 U	< 50 U
Benzene		< 1.8 U	< 7.0 U	< 0.70 U	< 0.70 U
Bromodichloromethane		< 13 U	< 50 U	< 5.0 U	< 5.0 U
Bromoform		< 13 U	< 50 U	< 5.0 U	< 5.0 U
Bromomethane		< 13 U	< 50 U	< 5.0 U	< 5.0 U
Carbon Disulfide		< 13 U	< 50 U	< 5.0 U	< 5.0 U
Carbon tetrachloride		< 13 U	< 50 U	< 5.0 U	< 5.0 U
Chlorobenzene		< 13 U	< 50 U	< 5.0 U	< 5.0 U
Chloroethane		< 13 U	**4.0 J**	**1.1 J**	< 5.0 U
Chloroform		< 13 U	< 50 U	**0.25 J**	< 5.0 U
Chloromethane		< 13 U	< 50 U	< 5.0 U	< 5.0 U
cis-1,2-dichloroethene		**3.9 J**	**8.3 J**	**6.4**	< 5.0 U
cis-1,3-dichloropropene		< 13 U	< 50 U	< 5.0 U	< 5.0 U
Dibromochloromethane		< 13 U	< 50 U	< 5.0 U	< 5.0 U
Ethylbenzene		< 13 U	< 50 U	< 5.0 U	< 5.0 U
Methylene Chloride		< 13 U	< 50 U	< 5.0 U	< 5.0 U
Styrene		< 13 U	< 50 U	< 5.0 U	< 5.0 U
Tetrachloroethene		**48**	**54**	**46**	< 5.0 U
Toluene		< 13 U	< 50 U	< 5.0 U	< 5.0 U
trans-1,2-dichloroethene		< 13 U	< 50 U	< 5.0 U	< 5.0 U
trans-1,3-dichloropropene		< 13 U	< 50 U	< 5.0 U	< 5.0 U
Trichloroethylene		**380**	**1400**	**700 D**	**0.33 J**
Trichlorotrifluoroethane (Freon 113)		**3.1 J**	**6.3 J**	**3.1 J**	< 5.0 U
Vinyl Chloride		< 5.0 U	**60**	**22**	< 2.0 U
Xylene-o		< 13 U	< 50 U	< 5.0 U	< 5.0 U
Xylenes - m,p		< 13 U	< 50 U	< 5.0 U	< 5.0 U
	Total VOCs	**440**	**1500**	**790**	**0.33**

Note: Results rounded to two significant figures.

Bold Constituent detected
VOCs Volatile Organic Compounds
ug/L Micrograms per liter
J Constituent value is estimated
REP Replicate Sample
U Constituent not detected

Table 3. Concentrations of Volatile Organic Compounds Detected in Monitoring Wells and Groundwater Remedial Wells, Second Quarter 2013, Operable Unit 2, Northrop Grumman Systems Corporation, Bethpage, New York.

CONSTITUENT (Units in µg/L)	Well: / Sample ID: / Date:	FW-03 FW-03 6/10/2013	GM-13D GM-13D 6/17/2013	GM-15S GM-15S 5/24/2013	GM-15I GM-15I 5/24/2013	GM-15D GM-15D 5/24/2013	GM-15D2 GM-15D2 5/24/2013	GM-17I GM-17I 6/11/2013	GM-17D GM-17D 6/11/2013
1,1,1-Trichloroethane		< 5	**2.5 J**	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane		< 5	**6.5**	< 5	< 5	< 5	**0.24 J**	< 5	< 5
1,1-Dichloroethene		< 5	**10**	< 5	< 5	< 5	**1.1 J**	< 5	< 5
1,2-Dichloroethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone		< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 5
2-Hexanone		< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
4-methyl-2-pentanone		< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Acetone		< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50 B
Benzene		< 0.7	< 1.4	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform		< 5	**0.35 J**	< 5	< 5	**0.28 J**	**0.31 J**	< 5	< 5
Chloromethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene		< 5	**22**	< 5	< 5	< 5	**0.28 J**	< 5	< 5
cis-1,3-dichloropropene		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Styrene		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene		**50**	**180**	< 5	**0.31 J**	**0.30 J**	**7.3**	< 5	< 5
Toluene		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene		**3.5 J**	**72**	**1.9 J**	< 5	**0.36 J**	**11**	**0.86 J**	**0.34 J**
Trichlorotrifluoroethane (Freon 113)		< 5	**2.9 J**	< 5	< 5	< 5	**1.1 J**	< 5	< 5
Vinyl Chloride		< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylenes - m,p		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Total VOCs		**54**	**300**	**1.9**	**0.31**	**0.94**	**20**	**0.86**	**0.34**

See notes on last page

Table 3. Concentrations of Volatile Organic Compounds Detected in Monitoring Wells and Groundwater Remedial Wells, Second Quarter 2013, Operable Unit 2, Northrop Grumman Systems Corporation, Bethpage, New York.

CONSTITUENT (Units in µg/L)	Well: / Sample ID: / Date:	GM-18I / GM-18I / 6/12/2013	GM-18D / GM-18D / 6/10/2013	GM-20I / GM-20I / 6/12/2013	GM-20D / GM-20D / 6/12/2013	GM-21S / GM-21S / 5/29/2013	GM-21I / GM-21I / 5/29/2013	GM-21D / GM-21D / 5/29/2013	GM-33D2 / GM-33D2 / 6/18/2013
1,1,1-Trichloroethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethene		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloroethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone		< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
2-Hexanone		< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
4-methyl-2-pentanone		< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Acetone		< 50	< 50	< 50	< 50	< 50 B	< 50	< 50	< 50
Benzene		< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloromethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene		< 5	< 5	< 5	< 5	< 5	< 5	< 5	**0.30 J**
cis-1,3-dichloropropene		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Styrene		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene		< 5	< 5	< 5	< 5	< 5	< 5	< 5	**4.7 J**
Toluene		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene		< 5	**0.92 J**	**0.34 J**	**0.32 J**	**0.34 J**	**0.31 J**	**1.8 J**	**27**
Trichlorotrifluoroethane (Freon 113)		< 5	< 5	< 5	< 5	< 5	< 5	< 5	**5.6**
Vinyl Chloride		< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylenes - m,p		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Total VOCs		0	**0.92**	**1.0**	**1.0**	**0.34**	**0.31**	**1.8**	**38**

See notes on last page

Table 3. Concentrations of Volatile Organic Compounds Detected in Monitoring Wells and Groundwater Remedial Wells, Second Quarter 2013, Operable Unit 2, Northrop Grumman Systems Corporation, Bethpage, New York.

CONSTITUENT (Units in µg/L)	Well: / Sample ID: / Date:	GM-34D / GM-34D / 6/17/2013	GM-34D2 / GM-34D2 / 6/17/2013	GM-35D2 / GM-35D2 / 5/23/2013	GM-38D / GM-38D / 6/13/2013	GM-38D2 / GM-38D2 / 6/13/2013	GM-39D$_A$ / GM-39D$_A$ / 6/13/2013	GM-39D$_B$ / GM-39D$_B$ / 6/14/2013	GM-73D / GM-73D / 5/23/2013
1,1,1-Trichloroethane		< 10	< 5	< 5	**1.0 J**	**0.78 J**	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane		< 10	< 5	< 5	< 13	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane		< 10	**0.21 J**	< 5	< 13	< 5	< 5	< 5	< 5
1,1-Dichloroethane		**0.88 J**	**0.34 J**	< 5	**1.5 J**	**4.2 J**	< 5	< 5	< 5
1,1-Dichloroethene		**4.0 J**	**1.4 J**	**0.22 J**	**2.5 J**	**1.1 J**	< 5	< 5	< 5
1,2-Dichloroethane		< 10	< 5	< 5	**2.3 J**	**0.65 J**	< 5	< 5	< 5
1,2-Dichloropropane		< 10	< 5	< 5	< 13	< 5	< 5	< 5	< 5
2-Butanone		< 130	< 100	< 50	< 130	< 50	< 50	< 50	< 50
2-Hexanone		< 130	< 100	< 50	< 130	< 50	< 50	< 50	< 50
4-methyl-2-pentanone		< 130	< 100	< 50	< 130	< 50	< 50	< 50	< 50
Acetone		< 130	< 100	< 50	< 130	< 50	< 50	< 50	< 50
Benzene		< 1.4	< 0.7	< 0.7	< 1.8	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane		< 10	< 5	< 5	< 13	< 5	< 5	< 5	< 5
Bromoform		< 10	< 5	< 5	< 13	< 5	< 5	< 5	< 5
Bromomethane		< 10	< 5	< 5	< 13	< 5	< 5	< 5	< 5
Carbon Disulfide		< 10	< 5	< 5	< 13	< 5	< 5	< 5	< 5
Carbon tetrachloride		< 10	< 5	< 5	< 13	< 5	< 5	< 5	< 5
Chlorobenzene		< 10	< 5	< 5	< 13	< 5	< 5	< 5	< 5
Chloroethane		< 10	< 5	< 5	< 13	< 5	< 5	< 5	< 5
Chloroform		**0.44 J**	**0.22 J**	< 5	**0.93 J**	**1.9 J**	< 5	< 5	< 5
Chloromethane		< 10	< 5	< 5	< 13	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene		**8.4 J**	**3.6 J**	**0.45 J**	**1.7 J**	**2.0 J**	< 5	**0.43 J**	< 5
cis-1,3-dichloropropene		< 10	< 5	< 5	< 13	< 5	< 5	< 5	< 5
Dibromochloromethane		< 10	< 5	< 5	< 13	< 5	< 5	< 5	< 5
Ethylbenzene		< 10	< 5	< 5	< 13	< 5	< 5	< 5	< 5
Methylene Chloride		< 10	< 5	< 5	< 13	< 5	< 5	< 5	< 5
Styrene		< 10	< 5	< 5	< 13	< 5	< 5	< 5	< 5
Tetrachloroethene		**5.4 J**	**9.3**	**6.7 J**	**11 J**	< 5	< 5	**0.49 J**	< 5
Toluene		< 10	< 5	< 5	< 13	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene		< 10	< 5	< 5	< 13	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene		< 13	< 5	< 5	< 13	< 5	< 5	< 5	< 5
Trichloroethylene		**330**	**180 D**	**90 J**	**410**	**29**	**2.8 J**	**80**	**21 J**
Trichlorotrifluoroethane (Freon 113)		**6.8 J**	**1.5 J**	**1.3 J**	**2.5 J**	**0.38 J**	< 5	< 5	< 5
Vinyl Chloride		< 4	< 4	< 2	< 5	< 2	< 2	< 2	< 2
Xylene-o		< 10	< 5	< 5	< 13	< 5	< 5	< 5	< 5
Xylenes - m,p		< 10	< 5	< 5	< 13	< 5	< 5	< 5	< 5
Total VOCs		**350**	**190**	**98**	**430**	**40**	**2.8**	**80**	**21**

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Table 3. Concentrations of Volatile Organic Compounds Detected in Monitoring Wells and Groundwater Remedial Wells, Second Quarter 2013, Operable Unit 2, Northrop Grumman Systems Corporation, Bethpage, New York.

CONSTITUENT (Units in ug/L)	Well: / Sample ID: / Date:	GM-73D2 GM-73D2 5/23/2013	GM-74I GM-74I 5/23/2013	GM-74D GM-74D 5/23/2013	GM-74D2 GM-74D2 5/23/2013	GM-75D2 GM-75D2 6/12/2013	GM-75D2 GM-75D2 (REP) 6/12/2013	GM-78S GM-78S 5/29/2013	GM-78I GM-78I 5/29/2013
1,1,1-Trichloroethane		**0.27 J**	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane		**0.60 J**	< 5	< 5	**0.44 J**	< 5	< 5	< 5	< 5
1,1-Dichloroethene		**0.71 J**	< 5	< 5	**0.76 J**	**0.46 J**	**0.39 J**	< 5	< 5
1,2-Dichloroethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone		< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
2-Hexanone		< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
4-methyl-2-pentanone		< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Acetone		< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Benzene		< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chlorobenzene		< 5	**0.23 J**	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform		< 5	< 5	< 5	**0.25 J**	< 5	< 5	< 5	< 5
Chloromethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene		**0.38 J**	< 5	< 5	**0.28 J**	< 5	< 5	< 5	< 5
cis-1,3-dichloropropene		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Styrene		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene		**1.1 J**	< 5	**0.21 J**	**4.8 J**	**2.1 J**	**2.1 J**	< 5	< 5
Toluene		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene		**39 J**	**0.27 J**	**1.4 J**	**7.3 J**	**39**	**38**	< 5	**0.31 J**
Trichlorotrifluoroethane (Freon 113)		< 5	< 5	< 5	**0.66 J**	**0.82 J**	**0.64 J**	< 5	< 5
Vinyl Chloride		< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylenes - m,p		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Total VOCs		**42**	**0.50**	**1.6**	**15**	**42**	**41**	0	**0.31**

See notes on last page

Table 3. Concentrations of Volatile Organic Compounds Detected in Monitoring Wells and Groundwater Remedial Wells, Second Quarter 2013, Operable Unit 2, Northrop Grumman Systems Corporation, Bethpage, New York.

CONSTITUENT (Units in µg/L)	Well: / Sample ID: / Date:	GM-79I GM-79I 5/28/2013	GM-79D GM-79D 5/28/2013	HN-24I HN-24I 6/10/2013	HN-40S HN-40S 5/28/2013	HN-40I HN-40I 5/28/2013	HN-42S HN-42S 5/28/2013	HN-42I HN-42I 5/28/2013	N-10624 N-10624 6/12/2013
1,1,1-Trichloroethane		< 5	< 5	**1.6 J**	< 5	**1.9 J**	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,1,2-Trichloroethane		< 5	< 5	**2.8 J**	< 5	< 5	< 5	< 5	< 5
1,1-Dichloroethane		< 5	< 5	**9.6**	< 5	**0.23 J**	< 5	< 5	< 5
1,1-Dichloroethene		< 5	< 5	< 5	< 5	**0.24 J**	< 5	< 5	< 5
1,2-Dichloroethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
1,2-Dichloropropane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
2-Butanone		< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
2-Hexanone		< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
4-methyl-2-pentanone		< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50
Acetone		< 50	< 50	< 50	< 50	< 50	< 50	< 50	**2.1 J**
Benzene		< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7	< 0.7
Bromodichloromethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromoform		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Bromomethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon Disulfide		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Carbon tetrachloride		< 5	< 5	**0.37 J**	< 5	< 5	< 5	< 5	< 5
Chlorobenzene		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Chloroform		< 5	< 5	**1.5 J**	**0.21 J**	**0.26 J**	< 5	< 5	< 5
Chloromethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
cis-1,2-dichloroethene		< 5	**0.25 J**	**1.1 J**	< 5	**0.76 J**	< 5	**1.1 J**	< 5
cis-1,3-dichloropropene		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Dibromochloromethane		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Ethylbenzene		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Methylene Chloride		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Styrene		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Tetrachloroethene		< 5	**0.45 J**	**33**	< 5	**2.1 J**	< 5	< 5	< 5
Toluene		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,2-dichloroethene		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
trans-1,3-dichloropropene		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Trichloroethylene		< 5	**19 J**	**16**	< 5	**22**	< 5	**3.0 J**	< 5
Trichlorotrifluoroethane (Freon 113)		< 5	< 5	**0.86 J**	< 5	< 5	< 5	< 5	< 5
Vinyl Chloride		< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2
Xylene-o		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Xylenes - m,p		< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Total VOCs		0	**20**	**65**	**0.21**	**28**	0	**4.1**	**2.1**

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Table 3. Concentrations of Volatile Organic Compounds Detected in Monitoring Wells and Groundwater Remedial Wells, Second Quarter 2013, Operable Unit 2, Northrop Grumman Systems Corporation, Bethpage, New York.

	Well:	N-10627	N-10631
CONSTITUENT	**Sample ID:**	N-10627	N-10631
(Units in µg/L)	**Date:**	6/21/2013	6/21/2013
1,1,1-Trichloroethane		< 5	< 5
1,1,2,2-Tetrachloroethane		< 5	< 5
1,1,2-Trichloroethane		< 5	< 5
1,1-Dichloroethane		< 5	< 5
1,1-Dichloroethene		< 5	< 5
1,2-Dichloroethane		< 5	< 5
1,2-Dichloropropane		< 5	< 5
2-Butanone		< 50	< 50
2-Hexanone		< 50	< 50
4-methyl-2-pentanone		< 50	< 50
Acetone		**1.8 J**	**2.1 J**
Benzene		< 0.7	< 0.7
Bromodichloromethane		< 5	< 5
Bromoform		< 5	< 5
Bromomethane		< 5	< 5
Carbon Disulfide		< 5	< 5
Carbon tetrachloride		< 5	< 5
Chlorobenzene		< 5	< 5
Chloroethane		< 5	< 5
Chloroform		< 5	< 5
Chloromethane		< 5	< 5
cis-1,2-dichloroethene		< 5	< 5
cis-1,3-dichloropropene		< 5	< 5
Dibromochloromethane		< 5	< 5
Ethylbenzene		< 5	< 5
Methylene Chloride		< 5	< 5
Styrene		< 5	< 5
Tetrachloroethene		< 5	< 5
Toluene		< 5	< 5
trans-1,2-dichloroethene		< 5	< 5
trans-1,3-dichloropropene		< 5	< 5
Trichloroethylene		**0.61 J**	**0.78 J**
Trichlorotrifluoroethane (Freon 113)		< 5	< 5
Vinyl Chloride		< 2	< 2
Xylene-o		< 5	< 5
Xylenes - m,p		< 5	< 5
	Total VOCs	**2.4**	**2.9**

Note: Results rounded to two significant figures.

Bold	Constituent detected
VOCs	Volatile Organic Compounds
ug/L	Micrograms per liter
J	Constituent value is estimated
REP	Replicate Sample
D	Concentration was estimated from dilution

Table 4. Concentrations of Metals in Monitoring Wells,
Second Quarter 2013, Operable Unit 2, Northrop Grumman Systems Corporation, Bethpage, New York.

CONSTITUENT (Units in mg/L)	Well: / Sample ID: / Date:	GM-15S GM-15S 5/4/2013	GM-78I GM-78I 5/29/2013	GM-78S GM-78S 5/29/2013	MW-01GF MW-01GF 5/29/2013	MW-02GF MW-02GF 5/29/2013	PT1 MW-4 PT1 MW-4 5/24/2013	PT1 MW-5 PT1 MW-5 5/24/2013	PT1 MW-6 PT1 MW-6 5/24/2013
Cadmium		--	< 5	< 5	< 5	< 5	--	--	--
Cadmium (Dissolved)		--	< 5	< 5	< 5	< 5	--	--	--
Chromium		**804**	< 10	< 10	< 10	**13.9**	< 10	**352**	**183**
Chromium (Dissolved)		**788**	< 10	< 10	< 10	**13**	< 10	**339**	**184**

Bold Constituent detected
mg/L Milligrams per liter
-- Not analyzed

ARCADIS

Table 5. Concentrations of Site Related Volatile Organic Compunds Detected in Outpost Wells,
Second Quarter 2013, Operable Unit 2, Northrop Grumman Systems Corporation, Bethpage, New York.

CONSTITUENT (Units in µg/L)	Well: / Sample ID: / Date:	BPOW 1-1 / BPOW 1-1 / 5/14/2013	BPOW 1-2 / BPOW 1-2 / 5/14/2013	BPOW 1-3 / BPOW 1-3 / 5/14/2013	BPOW 1-4 / BPOW 1-4 / 5/16/2013	BPOW 1-5 / BPOW 1-5 / 5/16/2013	BPOW 1-6 / BPOW 1-6 / 5/16/2013	BPOW 2-1 / BPOW 2-1 / 5/15/2013
Trichloroethane		<5.0	**0.26 J**	<5.0	< 5.0	< 5.0	< 5.0	<5.0
1,1,2,2-Tetrachloroethane		<5.0	<5.0	<5.0	< 5.0	< 5.0	< 5.0	<5.0
1,1,2-Trichloroethane		<5.0	<5.0	<5.0	< 5.0	< 5.0	< 5.0	<5.0
1,1-Dichloroethane		<5.0	<5.0	<5.0	< 5.0	< 5.0	< 5.0	<5.0
1,1-Dichloroethene		<5.0	**0.23 J**	<5.0	< 5.0	< 5.0	< 5.0	<5.0
1,2-Dichloroethane		<5.0	<5.0	<5.0	< 5.0	< 5.0	< 5.0	<5.0
Carbon Tetrachloride		<5.0	<5.0	<5.0	< 5.0	< 5.0	< 5.0	<5.0
Chlorobenzene		<5.0	<5.0	<5.0	< 5.0	< 5.0	< 5.0	<5.0
Chloroform		<5.0	<5.0	<5.0	< 5.0	< 5.0	< 5.0	<5.0
cis-1,2-Dichloroethene		<5.0	<5.0	<5.0	< 5.0	< 5.0	< 5.0	<5.0
Trichlorotrifluoroethane (Freon 113)		<5.0	<5.0	<5.0	< 5.0	< 5.0	< 5.0	<5.0
Tetrachloroethene		<5.0	<5.0	<5.0	< 5.0	< 5.0	< 5.0	<5.0
trans-1,2-Dichloroethene		<5.0	<5.0	<5.0	< 5.0	< 5.0	< 5.0	<5.0
Trichloroethene		**0.82 J**	**0.33 J**	<5.0	< 5.0	< 5.0	< 5.0	<5.0
Total Site-Related VOCs [1]:		**0.82 [3]**	**0.82 [3]**	0	0	0	0	0
TVOC Trigger Value [2]:		**0.6**	**0.6**	**0.6**	**NE**	**NE**	**NE**	**NE**

See notes on last page

ARCADIS

Table 5. Concentrations of Site Related Volatile Organic Compunds Detected in Outpost Wells,
Second Quarter 2013, Operable Unit 2, Northrop Grumman Systems Corporation, Bethpage, New York.

CONSTITUENT (Units in µg/L)	Well: / Sample ID: / Date:	BPOW 2-3 / BPOW 2-3 / 5/15/2013	BPOW 3-1 / BPOW 3-1 / 5/20/2013	BPOW 3-2 / BPOW 3-2 / 5/20/2013	BPOW 3-3 / BPOW 3-3 / 5/21/2013	BPOW 3-4 / BPOW 3-4 / 5/21/2013	BPOW 4-1 / BPOW 4-1 / 5/22/2013	BPOW 4-2 / BPOW 4-2 / 5/22/2013
Trichloroethane		< 5.0	<5.0	<5.0	< 5.0	< 5.0	<5.0	<5.0
1,1,2,2-Tetrachloroethane		< 5.0	<5.0	<5.0	< 5.0	< 5.0	<5.0	<5.0
1,1,2-Trichloroethane		< 5.0	<5.0	<5.0	< 5.0	**0.51 J**	<5.0	<5.0
1,1-Dichloroethane		< 5.0	<5.0	<5.0	< 5.0	< 5.0	<5.0	<5.0
1,1-Dichloroethene		< 5.0	<5.0	<5.0	< 5.0	< 5.0	**0.21 J**	<5.0
1,2-Dichloroethane		< 5.0	<5.0	<5.0	< 5.0	< 5.0	<5.0	<5.0
Carbon Tetrachloride		< 5.0	<5.0	<5.0	< 5.0	**0.81 J**	<5.0	<5.0
Chlorobenzene		< 5.0	<5.0	<5.0	< 5.0	< 5.0	<5.0	<5.0
Chloroform		< 5.0	<5.0	<5.0	< 5.0	**0.83 J**	<5.0	<5.0
cis-1,2-Dichloroethene		< 5.0	<5.0	<5.0	< 5.0	**0.65 J**	<5.0	<5.0
Trichlorotrifluoroethane (Freon 113)		< 5.0	<5.0	<5.0	< 5.0	< 5.0	**3.8 J**	**1.5 J**
Tetrachloroethene		< 5.0	<5.0	<5.0	< 5.0	< 5.0	<5.0	<5.0
trans-1,2-Dichloroethene		< 5.0	<5.0	<5.0	< 5.0	< 5.0	<5.0	<5.0
Trichloroethene		**0.30 J**	<5.0	<5.0	< 5.0	**53**	<5.0	**0.30 J**
Total Site-Related VOCs [1]:		**0.30**	0	0	0	**56**	**4.0 [4]**	**1.8 [4]**
TVOC Trigger Value [2]:		**NE**	**NE**	**1.5**	**NE**	**NE**	**1.5**	**1.5**

Note: Outpost wells BPOW2-2 was not sampled by Northrop Grumman this round, due to well redevelopment activities performed by Navy.
Wells BPOW1-4, BPOW1-5, BPOW1-6, BPOW3-3, and BPOW3-4 are currently monitoreed by Northrop Grumman on a voluntary basis. The screen intervals for these wells were selected by the Navy based on data obtained from vertical profile borings VP-127 (BPOW-1 cluster) and VP-128 (BPOW-3 cluster).

(1) Site-related VOCs were established in the Public Water Supply Contingency Plan (PWSCP) (ARCADIS G&M, Inc. 2003). Results adjusted to two signficant figures

(2) TVOC Trigger Values were established in the PWSCP (ARCADIS G&M, Inc. 2003).

(3) The TVOC Trigger Value for Cluster 1 was initially exceeded on April 23, 2004; confirmatory sampling and reporting was conducted as per the PWSCP (ARCADIS G&M, Inc. 2003).

(4) The TVOC Trigger Value for BPOW 4-1 was initially exceeded on March 1, 2012; confirmatory sampling and reporting was conducted as per the PWSCP (ARCADIS G&M, Inc. 2003).

NE Not established

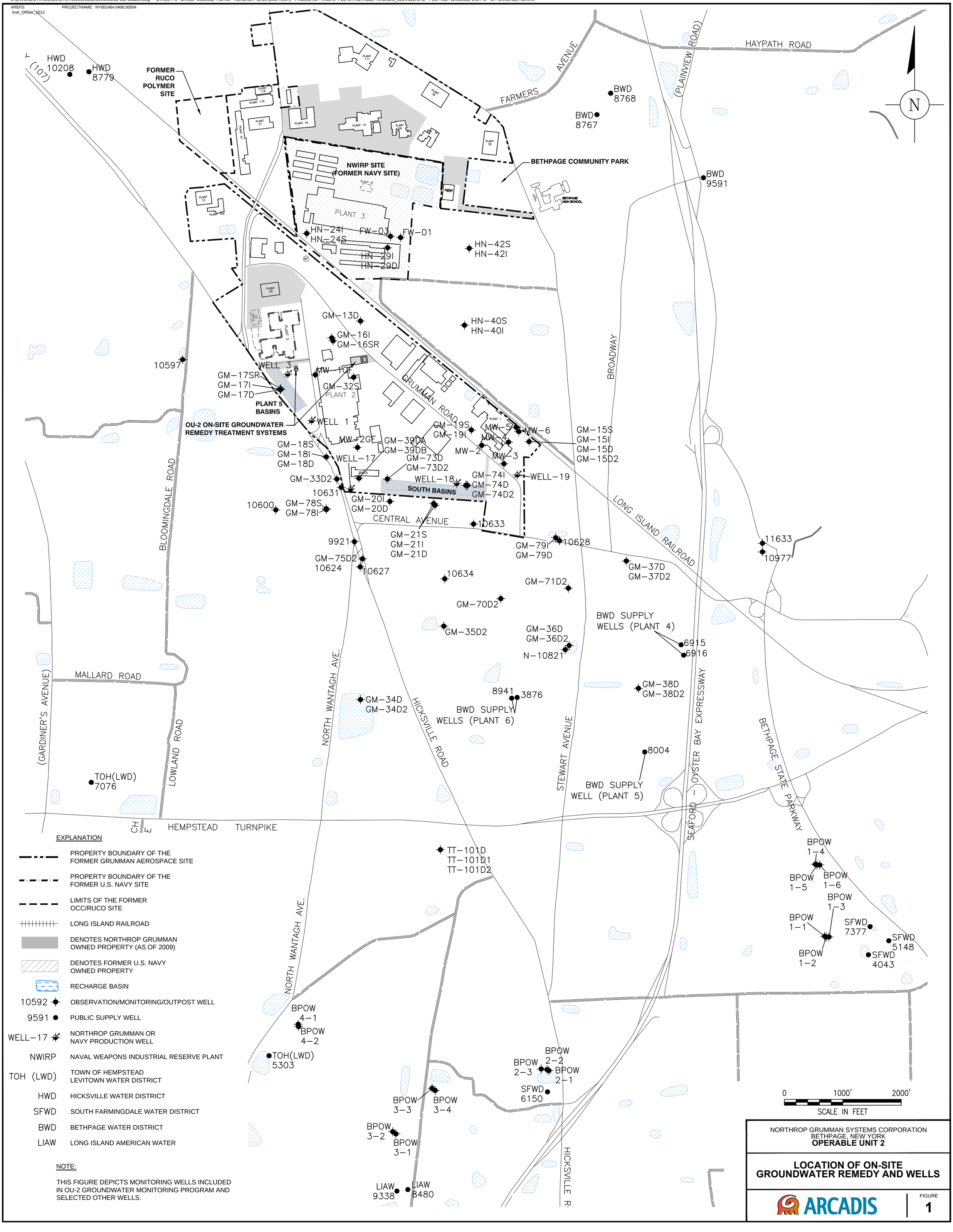
ug/L Micrograms per liter

Bold Constituent detected

TVOC Total Volatile Organic Compounds

J Constituent value is estimated

CITY:MELVILLE DIV/GROUP:ENV DB:ALS LD: PIC: PM:CSG TM:DS LYR:ON=*;OFF=*REF*
G:\ENVCAD\SYRACUSE\ACT\NY001496\0312\GWMI4\OU2 Site location.dwg LAYOUT: 1 SAVED: 4/30/2012 7:55 AM ACADVER: 18.1S (LMS TECH) PAGESETUP: ANSI C PLOTSTYLETABLE: ARCADIS_MELVILLE.CTB PLOTTED: 11/16/2012 1:34 PM BY: SANCHEZ, ADRIAN
XREFS: PROJECTNAME: NY001464.0408.00004
Xref_OffSite_2012



EXPLANATION

- PROPERTY BOUNDARY OF THE FORMER GRUMMAN AEROSPACE SITE
- PROPERTY BOUNDARY OF THE FORMER U.S. NAVY SITE
- LIMITS OF THE FORMER OCC/RUCO SITE
- LONG ISLAND RAILROAD
- DENOTES NORTHROP GRUMMAN OWNED PROPERTY (AS OF 2009)
- DENOTES FORMER U.S. NAVY OWNED PROPERTY
- RECHARGE BASIN
- 10592 OBSERVATION/MONITORING/OUTPOST WELL
- 9591 PUBLIC SUPPLY WELL
- WELL-17 NORTHROP GRUMMAN OR NAVY PRODUCTION WELL
- 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
- LIAW LONG ISLAND AMERICAN WATER

NOTE:

THIS FIGURE DEPICTS MONITORING WELLS INCLUDED IN OU-2 GROUNDWATER MONITORING PROGRAM AND SELECTED OTHER WELLS.

NORTHROP GRUMMAN SYSTEMS CORPORATION
BETHPAGE, NEW YORK
OPERABLE UNIT 2

LOCATION OF ON-SITE GROUNDWATER REMEDY AND WELLS

ARCADIS

FIGURE 1