

ARCADIS U.S., Inc.
Two Huntington Quadrangle
Suite 1S10
Melville
New York 11747
Tel 631.249.7600
Fax 631.249.7610
www.arcadis-us.com

Mr. Steven M. Scharf, P.E.
Project Engineer
New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Action, Bureau A
625 Broadway
Albany, New York 12233-7015

ENVIRONMENT

Subject:
March 2008 Monthly Progress Report,
Northrop Grumman Systems Corporation,
Operable Unit 3,
NYSDEC Site ID # 1-30-003A,
Bethpage, New York

Date:
April 23, 2008

Contact:
David Stern

Phone:
631-391-5284

Email:
David.Stern@arcadis-us.com

Our ref:
NY001464.0908.00006

Dear Steve:

In accordance with Section III of Administrative Order on Consent (AOC) Index # W1-0018-04-01, this letter reports the activities for Operable Unit 3 (OU3) performed by Northrop Grumman Systems Corporation (Northrop Grumman) during the month of March 2008; activities planned for April 2008 are also discussed. This report is the 24th OU3 monthly progress report since the AOC between Northrop Grumman and the New York State Department of Environmental Conservation (NYSDEC) was signed on June 24, 2005.

OU3 Activities Conducted During March 2008

Validated data from the RI and the Soil Gas Interim Remedial Measure (IRM) are provided in Tables 1 and 2, respectively. The site plan showing well and vertical profile boring (VPBs) locations is provided as Figure 1. Activities performed this period include:

- Prepared and submitted the February 2008 AOC Monthly Progress Report.
- Conducted planning, implementation, and data review/evaluation for the OU3 RI/FS as follows:
 - Continued preparation of Site Area Focused Feasibility Study Report (FFS Report).

Imagine the result

- Conducted planning, implementation, and data review/evaluation for on-site IRMs as follows:
 - Completed 28-day startup testing program for the Soil Gas IRM.
 - Commenced Soil Gas IRM routine operation, maintenance, and monitoring (OM&M).
 - Continued preparation of Soil Gas IRM as-built drawings.
 - Completed Basis of Design (formerly termed the 50-75 percent design) letter preparation for Groundwater IRM and submitted report to NYSDEC.
 - Began preparation of Final design/construction document for Groundwater IRM.
 - Initiated drilling and development of Groundwater IRM aquifer test pumping/observation wells. Prepared for Groundwater IRM aquifer test.
- Conducted RI/FS field activities including the following:
 - Completed mud rotary (MR) drilling rig mobilization to VP-116. Began and completed drilling and hydropunch groundwater sampling of VP-116. Initiated installation of Monitoring Well MW116-5.
 - Completed MR drilling rig mobilization to VP-113. Began drilling and hydropunch groundwater sampling of VP-113.

OU3 Activities Expected During April 2008

- Prepare and submit March 2008 Monthly Progress Report.
- Conduct planning, implementation, and data review/evaluation for the OU3 RI/FS as follows:
 - Continue preparation of Site Area FFS Report.
 - Continue drilling and hydropunch sampling of off-site VPB VP-113.
 - Complete Monitoring Well MW116-5 installation; demobilize MR drilling rig from location. Mobilize development rig and crew and perform development and complete installation of Monitoring Well MW116-5.
 - Mobilize and commence drilling and hydropunch sampling of off-site VPB VP-115.
- Conduct planning, implementation, and data review/evaluation for on-site IRMs as follows:

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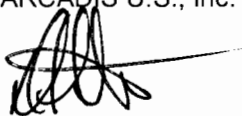
Mr. Steve Scharf
NYSDEC
April 23, 2008

- o Continue routine OM&M of the Soil Gas IRM.
- o Continue preparation of Soil Gas IRM as-built drawings.
- o Continue preparation of Final design/construction document for Groundwater IRM.
- o Conduct aquifer test as part of design of Groundwater IRM.

Feel free to call us if you have any questions.

Sincerely,

ARCADIS U.S., Inc.



David E. Stern
Associate Project Manager/Senior Scientist

Copies:

C. San Giovanni, ARCADIS
M. Wolfert, ARCADIS
File, ARCADIS
L. Leskovjan, Northrop Grumman
J. Cofman, Northrop Grumman
Kent A. Smith, Northrop Grumman
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Table 1. Volatile Organic Compounds in Off-Site Vertical Profile Boring Groundwater Samples, Bethpage, New York.

CONSTITUENT (units in ug/L)	NYSDEC SOCs	Sample ID: VP-116		VP-116		VP-116		VP-116		VP-116		VP-116		VP-116		VP-116		VP-116	
		Depth bis:	Date:	Depth bis:	Date:	Depth bis:	Date:	Depth bis:	Date:	Depth bis:	Date:	Depth bis:	Date:	Depth bis:	Date:	Depth bis:	Date:	Depth bis:	Date:
1,1,1-Trichloroethane	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1,2-Trichloroethane	1	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1-Dichloroethane	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,1-Dichloroethene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,2-Dichloroethane	0.6	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Carbon disulfide	50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Carbon tetrachloride	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Chlorodifluoromethane	NE	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Chlorofluoromethane	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Chloroform	5	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7	<7
cis-1,2-Dichloroethene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
cis-1,3-Dichloropropene	0.4	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Dichlorodifluoromethane	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
trans-1,2-Dichloroethene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
trans-1,3-Dichloropropene	NE	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Tetrachloroethene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trichloroethane	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Trichlorotrifluoroethane	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Vinyl Chloride	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Ethylbenzene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
1,2-Dichloropropane	1	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Xylenes	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Toluene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2-Butanone (MEK)	50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Acetone	50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Bromomethane	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Methylene Chloride	50	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Chloromethane	NE	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
4-Methyl-2-pentanone (MIBK)	NE	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Benzene	1	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7	<0.7
1,1,2,2-Tetrachloroethane	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
2-Hexanone	NE	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Bromodichloromethane	NE	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Bromoform	NE	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Chlorobenzene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Dibromochloromethane	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Styrene	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Vinyl Acetate	NE	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Total VOCs	-	0	0	0	0	16	19	36	27	182	1,011	909	81	193	452	130	0	0	5

See footnotes on last page.

Table 1. Volatile Organic Compounds in Off-Site Vertical Profile Boring Groundwater Samples, Bethpage, New York.

CONSTITUENT (units in µg/L)	NYSDEC SCCs	Sample ID: VP-116												Total VOCs		
		414	434	454	474	494	514	544	554	574	594	614	634		659	674
		3/13/08	3/14/08	3/14/08	3/14/08	3/14/08	3/17/08	3/18/08	3/18/08	3/18/08	3/19/08	3/19/08	3/20/08	3/20/08	3/20/08	3/20/08
1,1,1-Trichloroethane	5	<50	<50	<50	<50	<50	<250	<130	<100	<500	<50	<130	<50	<100	<50	<50
1,1,2-Trichloroethane	1	<5	<5	<5	<5	<5	<25	<13	<10	<50	<5	<13	<5	<10	<5	<5
1,1-Dichloroethane	5	<5	5.6	5.6	5.6	<5	<25	<13	<10	<50	<5	<13	<5	<10	<5	<5
1,2-Dichloroethane	0.6	<5	<5	<5	<5	<5	<25	<13	<10	<50	6.9	<13	<5	<10	<5	<5
Carbon disulfide	50	<5	<5	<5	<5	<5	<25	<13	<10	<50	<5	<13	<5	<10	<5	<5
Carbon tetrachloride	5	<5	<5	<5	<5	<5	<25	<13	<10	<50	<5	<13	<5	<10	<5	<5
Chlorodifluoromethane	NE	<5	<5	<5	<5	<5	<25	<13	<10	<50	<5	<13	<5	<10	<5	<5
Chloroethane	5	<5	<5	<5	<5	<5	<25	<13	<10	<50	<5	<13	<5	<10	<5	<5
Chloroform	5	<7	<7	<7	<7	<7	<25	<13	22	<50	20	<13	<5	<10	<5	<5
cis-1,2-Dichloroethene	5	<5	<5	<5	<5	<5	61	33	51	140	120	31	<5	<10	<5	<5
cis-1,3-Dichloropropene	0.4	<5	<5	<5	<5	<5	<25	<13	<10	<50	<5	<13	<5	<10	<5	<5
Dichlorodifluoromethane	5	<5	<5	<5	<5	<5	<25	<13	<10	<50	<5	<13	<5	<10	<5	<5
trans-1,2-Dichloroethene	5	<5	<5	<5	<5	<5	<25	<13	<10	<50	<5	<13	<5	<10	<5	<5
trans-1,3-Dichloropropene	NE	<5	<5	<5	<5	<5	<25	<13	<10	<50	<5	<13	<5	<10	<5	<5
Tetrachloroethene	5	<5	<5	<5	<5	<5	<25	<13	<10	<50	<5	<13	<5	<10	<5	<5
Trichloroethene	5	<5	<5	<5	<5	<5	18	470	330	250	1900	910	460	28	43	8.5
Trichlorotrifluoroethane	5	<5	<5	<5	<5	<5	<25	<13	<10	<50	<5	<13	<5	<10	<5	<5
Vinyl Chloride	2	<5	<5	<5	<5	<5	<10	<5	<4	<20	<2	<4	<2	<4	<2	<2
Ethylbenzene	5	<5	<5	<5	<5	<5	<25	<13	<10	<50	<5	<13	<5	<10	<5	<5
1,2-Dichloropropane	1	<5	<5	<5	<5	<5	<25	<13	<10	<50	<5	<13	<5	<10	<5	<5
Xylenes	5	<5	<5	<5	<5	<5	<25	<13	<10	<50	<5	<13	<5	<10	<5	<5
Toluene	5	<5	<5	<5	<5	<5	<25	<13	<10	<50	<5	<13	<5	<10	<5	<5
2-Butanone (MEK)	50	<50	<50	<50	<50	<50	<250	<130	<100	<500	<50	<130	<50	<100	<50	<50
Acetone	50	<50	<50	<50	<50	<50	<250	<130	<100	<500	<50	<130	<50	<100	<50	<50
Bromomethane	5	<50	<50	<50	<50	<50	<250	<130	<100	<500	<50	<130	<50	<100	<50	<50
Methylene Chloride	50	<5	<5	<5	<5	<5	<25	<13	<10	<50	<5	<13	<5	<10	<5	<5
Chloromethane	NE	<5	<5	<5	<5	<5	<25	<13	<10	<50	<5	<13	<5	<10	<5	<5
4-Methyl-2-pentanone (MIBK)	NE	<50	<50	<50	<50	<50	<250	<130	<100	<500	<50	<130	<50	<100	<50	<50
Benzene	1	<0.7	<0.7	<0.7	<0.7	<0.7	<3.5	<1.8	<1.4	<7	<2	<1.8	<2	<1.4	<2	<2
1,1,2,2-Tetrachloroethane	5	<5	<5	<5	<5	<5	<25	<13	<10	<50	<5	<13	<5	<10	<5	<5
2-Hexanone	NE	<50	<50	<50	<50	<50	<250	<130	<100	<500	<50	<130	<50	<100	<50	<50
Bromochloromethane	NE	<5	<5	<5	<5	<5	<25	<13	<10	<50	<5	<13	<5	<10	<5	<5
Bromobrom	NE	<5	<5	<5	<5	<5	<25	<13	<10	<50	<5	<13	<5	<10	<5	<5
Chlorobenzene	5	<5	<5	<5	<5	<5	<25	<13	<10	<50	<5	<13	<5	<10	<5	<5
Dibromochloromethane	5	<5	<5	<5	<5	<5	<25	<13	<10	<50	<5	<13	<5	<10	<5	<5
Styrene	5	<5	<5	<5	<5	<5	<25	<13	<10	<50	<5	<13	<5	<10	<5	<5
Vinyl Acetate	NE	<5	<5	<5	<5	<5	<25	<13	<10	<50	<5	<13	<5	<10	<5	<5
Total VOCs	-	0	6	6	11	18	531	363	323	2,040	1,057	491	28	43	9	0

See footnotes on last page.

Notes and Abbreviations:

1. Results validated following protocols specified in March 2006 RI/FS Work Plan (ARCADIS G&M, Inc. 2006).
2. Groundwater samples analyzed for the TCL VOCs using NYSDEC ASP Method 2000 OLUM4.2.

[]	Indicates an exceedance of an SCG
[]	Indicates a detection
NYSDEC	New York State Department of Environmental Conservation
TCL	Target compound list
VOC	Volatile Organic Compound
ASP	Analytical services protocol
VP	Vertical Profile Boring
SCGs	Standard, criteria, and guidance values
ft bis	feet below land surface
ug/L	Micrograms per liter
TVOC	Total volatile organic compounds

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Table 2. Vapor Sample Results, Operable Unit-3 Soil Gas Interim Remedial Measure, Former Grumman Settling Ponds, Northrop Grumman Systems Corporation, Bethpage, New York.

Parameter (units in ug/m ³)	Location ID:		VSP-602		VSP-601		VSP-602		VSP-601		VSP-602	
	Sample ID:	Sample Date:	OU3 VPGAC INF-20080218	OU3 VPGAC EFF-20080218	PRE VPGAC-20080218	POST VPGAC-20080219	2/18/2008	2/19/2008	2/19/2008	2/19/2008	2/25/2008	2/25/2008
1,1,1-Trichloroethane			110	< 0.62	71	< 0.61	< 0.61	< 0.61	35	< 0.63	< 0.63	< 0.63
1,1,2,2-Tetrachloroethane	< 14		< 0.62	< 0.62	< 11	< 0.61	< 0.61	< 25	< 0.63	< 0.63	< 0.63	
1,1,2-Trichloroethane	< 14		< 0.62	< 0.62	< 11	< 0.61	< 0.61	< 25	< 0.63	< 0.63	< 0.63	
1,1-Dichloroethane	43		< 0.62	< 0.62	33	< 0.61	< 0.61	45	< 0.63	< 0.63	< 0.63	
1,1-Dichloroethene	< 14		< 0.62	< 0.62	< 11	< 0.61	< 0.61	< 25	< 0.63	< 0.63	< 0.63	
1,2-Dichloroethane	< 14		< 0.62	< 0.62	< 11	< 0.61	< 0.61	< 25	< 0.63	< 0.63	< 0.63	
1,2-Dichloropropane	< 14		< 0.62	< 0.62	< 11	< 0.61	< 0.61	< 25	< 0.63	< 0.63	< 0.63	
1,3-Butadiene	< 14		< 0.62	< 0.62	< 11	< 0.61	< 0.61	< 25	< 0.63	< 0.63	< 0.63	
2-Butanone	16		< 0.62	< 0.62	< 11	< 0.61	< 0.61	< 25	< 0.63	< 0.63	< 0.63	
4-Hexanone	< 14		< 0.62	< 0.62	< 11	< 0.61	< 0.61	< 25	< 0.63	< 0.63	< 0.63	
4-Methyl-2-Pentanone	< 14		< 0.62	< 0.62	< 11	< 0.61	< 0.61	< 25	< 0.63	< 0.63	< 0.63	
Acetone	< 140		< 6.2	< 6.2	< 110	< 6.1	< 6.1	< 250	< 6.3	< 6.3	< 6.3	
Benzene	67		< 0.62	< 0.62	22	< 0.61	< 0.61	< 25	< 0.63	< 0.63	< 0.63	
Bromodichloromethane	< 14		< 0.62	< 0.62	< 11	< 0.61	< 0.61	< 25	< 0.63	< 0.63	< 0.63	
Bromoform	< 14		< 0.62	< 0.62	< 11	< 0.61	< 0.61	< 25	< 0.63	< 0.63	< 0.63	
Bromomethane	< 14		< 0.62	< 0.62	< 11	< 0.61	< 0.61	< 25	< 0.63	< 0.63	< 0.63	
Carbon Disulfide	< 14		< 0.62	< 0.62	< 11	< 0.61	< 0.61	< 25	< 0.63	< 0.63	< 0.63	
Carbon Tetrachloride	< 14		< 0.62	< 0.62	< 11	< 0.61	< 0.61	< 25	< 0.63	< 0.63	< 0.63	
CFC-11	< 14		< 0.62	< 0.62	< 11	< 0.61	< 0.61	< 25	< 0.63	< 0.63	< 0.63	
Chlorobenzene	< 14		< 0.62	< 0.62	< 11	< 0.61	< 0.61	< 25	< 0.63	< 0.63	< 0.63	
Chlorodibromomethane	< 14		< 0.62	< 0.62	< 11	< 0.61	< 0.61	< 25	< 0.63	< 0.63	< 0.63	
Chloroethane	< 14		< 0.62	< 0.62	< 11	< 0.61	< 0.61	< 25	< 0.63	< 0.63	< 0.63	
Chloroform	34		< 0.62	< 0.62	24	< 0.61	< 0.61	< 25	< 0.63	< 0.63	< 0.63	
Chloromethane	< 14		< 0.62	< 0.62	< 11	< 0.61	< 0.61	< 25	< 0.63	< 0.63	< 0.63	
cis-1,2-Dichloroethene	5800		< 0.62	< 0.62	4600	< 0.61	< 0.61	2900	< 0.63	< 0.63	< 0.63	
cis-1,3-Dichloropropene	< 14		< 0.62	< 0.62	< 11	< 0.61	< 0.61	< 25	< 0.63	< 0.63	< 0.63	
Ethylbenzene	< 14		< 0.62	< 0.62	< 11	< 0.61	< 0.61	< 25	< 0.63	< 0.63	< 0.63	
Freon 113	< 14		< 0.62	< 0.62	< 11	< 0.61	< 0.61	< 25	< 0.63	< 0.63	< 0.63	
Freon 12	< 14		< 0.62	< 0.62	< 11	0.71	0.71	< 25	5.7	< 0.63	< 0.63	
Methyl Tert-Butyl Ether	< 14		< 0.62	< 0.62	< 11	< 0.61	< 0.61	< 25	< 0.63	< 0.63	< 0.63	
Methylene Chloride	< 14		< 0.62	< 0.62	< 11	< 0.61	< 0.61	< 25	< 0.63	< 0.63	< 0.63	
Styrene	< 14		< 0.62	< 0.62	< 11	< 0.61	< 0.61	< 25	< 0.63	< 0.63	< 0.63	
Tetrachloroethene	340		< 0.62	< 0.62	200	< 0.61	< 0.61	82	< 0.63	< 0.63	< 0.63	
Toluene	92		< 0.62	< 0.62	98	< 0.61	< 0.61	34	< 0.63	< 0.63	< 0.63	
Trans-1,2-Dichloroethene	120		< 0.62	< 0.62	71	< 0.61	< 0.61	< 25	< 0.63	< 0.63	< 0.63	
Trans-1,3-Dichloropropene	< 14		< 0.62	< 0.62	< 11	< 0.61	< 0.61	< 25	< 0.63	< 0.63	< 0.63	
Trichloroethylene	14000		< 0.62	< 0.62	9400	< 0.61	< 0.61	5100	< 0.63	< 0.63	< 0.63	
Vinyl Chloride	< 14		< 0.62	< 0.62	< 11	< 0.61	< 0.61	< 25	1.1	< 0.63	< 0.63	
Xylene-O	< 14		< 0.62	< 0.62	< 11	< 0.61	< 0.61	< 25	< 0.63	< 0.63	< 0.63	
Xylenes - M,P	< 28		< 1.2	< 1.2	< 21	< 1.2	< 1.2	< 51	< 1.3	< 1.3	< 1.3	
Total VOCs	20,622		0	0	14,519	0	0	8,196	6.8			

