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ENVIRONMENT

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

Subject:
January to June 2013 Semi-Annual Progress Report
Northrop Grumman Systems Corporation
Operable Unit 3 (OU3), NYSDEC Site ID # 1-30-003A,
Bethpage, New York

Date:
July 18, 2013

Contact:
David Stern

Phone:
631-391-5284

Email:
David.Stern@arcadis-us.com

Our ref:
NY001496.0711.RPTA5

Dear Steve:

In accordance with Section III of Administrative Order on Consent (AOC) Index # W1-0018-04-01, and the May 2011 Work Plan for Modification of AOC Progress Report, this letter reports OU3 activities performed by Northrop Grumman Systems Corporation (Northrop Grumman) during the months from January to June 2013. Activities planned for July to December 2013 are also summarized. In accordance with our approved work plan, these reports will be submitted to the NYSDEC on a semi-annual basis until it is determined that the reports are no longer necessary.

OU3 Activities Conducted During January to June 2013

Soil Gas IRM

- Continued Operation, Maintenance, and Monitoring (OM&M) of the Soil Gas Interim Remedial Measure (IRM)
- Submitted the Soil Gas IRM 2012 Annual and First Quarter 2013 OM&M Reports (March and May 2013) to the NYSDEC

Groundwater IRM

- Continued OM&M of the Groundwater IRM
- Submitted the Groundwater IRM 2012 Annual and First Quarter 2013 OM&M Reports (May 2013) to the NYSDEC

Other

- Performed quarterly monitoring of Monitoring Wells MW109-3 and MW111-4 and monthly monitoring of Monitoring Well MW116-5. Validated data are provided in **Table 1**.
- Submitted July to December 2012 AOC progress report to NYSDEC

OU3 Activities Scheduled During July to December 2013

Soil Gas IRM

- Continue OM&M of the Soil Gas IRM
- Submit OU3 Soil Gas IRM Second and Third Quarter Reports (August and November 2013) to the NYSDEC

Groundwater IRM

- Continue OM&M of the Groundwater IRM
- Submit OU3 Groundwater IRM Second and Third Quarter Reports (August and November 2013) to the NYSDEC

Other

- Perform quarterly monitoring of Monitoring Wells MW109-3 and MW111-4 and monthly monitoring of Monitoring Well MW116-5.

Feel free to call us if you have any questions.

Sincerely,

ARCADIS of New York, Inc.

David E. Stern
Senior Scientist/Associate Project Manager

Enclosure

Copies:
F. Weber, Northrop Grumman
E. Hannon, Northrop Grumman
C. Stein – USEPA
R. Alvey – USEPA
Bethpage Public Library – Public Repository
C. San Giovanni, ARCADIS
M. Wolfert, ARCADIS
File, ARCADIS

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Table 1. Concentrations of Volatile Organic Compounds in Groundwater Samples, Operable Unit 3, Northrop Grumman Systems Corporation, Bethpage, New York.

Sample ID:	MW-109-3	MW-111-4	MW-116-5	MW-116-5	MW-116-5
Sample Location:	MW-109-3	MW-111-4	MW-116-5	MW-116-5	MW-116-5
Sample Date:	2/21/2013	2/21/2013	2/22/2013	3/25/2013	4/25/2013
Constituent Name (units in ug/L)					
1,1,1-Trichloroethane	< 25	< 130	< 50	< 50	< 50
1,1,2,2-Tetrachloroethane	< 25	< 130	< 50	< 50	< 50
1,1,2-Trichloroethane	< 25	< 130	< 50	< 50	< 50
1,1-Dichloroethane	< 25	< 130	< 50	**3.3 J**	**2.6 J**
1,1-Dichloroethene	**6.0 J**	**14 J**	< 50	< 50	< 50
1,2-Dichloroethane	**2.2 J**	**14 J**	**2.6 J**	**3.4 J**	**4.0 J**
1,2-Dichloropropane	**1.7 J**	**< 130 U**	**8.7 J**	**11 J**	**11 J**
2-Butanone	< 25	< 130	**5.4 J**	**5.0 J**	**4.3 J**
2-Hexanone	< 250	< 1300	< 500	< 500	< 500
4-methyl-2-pentanone	< 250	< 1300	< 500	< 500	< 500
Acetone	< 250	< 1300	< 500	< 500	< 500
Benzene	< 3.5	< 18	< 7.0	< 7.0	< 7.0
Bromodichloromethane	< 25	< 130	< 50	< 50	< 50
Bromomethane	< 25	< 130	< 50	< 50	< 50
Carbon Disulfide	< 25	< 130	< 50	< 50	< 50
Carbon Tetrachloride	< 25	< 130	< 50	< 50	< 50
Chlorobenzene	< 25	< 130	< 50	< 50	< 50
Chlorodifluoromethane (Freon 22)	**2.4 J**	< 130	< 50	< 50	< 50
Chloroethane	< 25	< 130	< 50	< 50	< 50
Chloroform	**4.0 J**	**6.5 J**	**15 J**	**16 J**	**17 J**
Chloromethane	< 25	< 130	< 50	< 50	< 50
cis-1,2-dichloroethene	**480**	**1200**	**200**	**210**	**250**
cis-1,3-dichloropropene	< 25	< 130	< 50	< 50	< 50
Dibromochloromethane	< 25	< 130	< 50	< 50	< 50
Dichlorodifluoromethane (Freon 12)	**1.4 J**	< 130	< 50	< 50	< 50
Ethylbenzene	< 25	< 130	< 50	< 50	< 50
Methyl tert-Butyl Ether	< 25	< 130	< 50	< 50	< 50
Methylene Chloride	< 25	< 130	< 50	< 50	< 50
Styrene	< 25	< 130	< 50	< 50	< 50
Tetrachloroethene	**2.3 J**	**11 J**	< 50	< 50	< 50
Toluene	< 25	< 130	< 50	< 50	< 50
trans-1,2-dichloroethene	**1.9 J**	< 130	**2.6 J**	< 50	< 50
trans-1,3-dichloropropene	< 25	< 130	< 50	< 50	< 50
Trichloroethylene	**700**	**3500**	**2100**	**1900**	**1900**
Trichlorofluoromethane (CFC-11)	< 25	< 130	< 50	< 50	< 50
Trichlorotrifluoroethane (Freon 113)	< 25	< 130	< 50	< 50	< 50
Vinyl Chloride	< 10	< 50	< 20	< 20	< 20
Xylene-o	< 25	< 130	< 50	< 50	< 50
Xylenes - m,p	< 25	< 130	< 50	< 50	< 50
TVOCs	**1200**	**4700**	**2300**	**2100**	**2200**

Notes and Abbreviations:

All results are validated.

Samples analyzed for the TCL VOCs using NYSDEC ASP 2000 Method OLM4.3.

TVOCs are rounded to two significant figures.

Bold value indicates a detection.

NYSDEC	New York State Department of Environmental Conservation
TCL	Target compound list
VOC	Volatile Organic Compound
TVOC	Total Volatile Organic Compounds
ASP	Analytical services protocol
ug/L	Micrograms per liter
J	Estimated concentration
--	Not analyzed