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Subject:  
September 2015 Monthly Progress Report  
Northrop Grumman Systems Corporation  
Operable Unit 2, NYSDEC Site ID # 1-30-003A,  
Bethpage, New York

Dear Henry and Steve:

In accordance with Appendix "A", Section III, C of Administrative Order on Consent (AOC) Index # W1-118-14-12, this letter reports Operable Unit 2 (OU2) activities performed by Northrop Grumman Systems Corporation (Northrop Grumman) during the month of September 2015. Activities planned for October 2015 are also discussed.

This progress report provides data validated in the current period that are not included in routine reporting, as applicable. Validated data submitted as part of routine reporting (e.g., quarterly reports as specified in the Groundwater Monitoring Plan) are not included to avoid redundancy.

Since this is an ongoing remediation project, Northrop Grumman would like to submit future progress reports on a quarterly frequency.

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ENVIRONMENT

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Our ref:  
NY001496.0114.LARA5

Imagine the result

**OU2 Activities Conducted During September 2015**

**OU2 On-Site Containment (ONCT) System**

- Continued Operation, Maintenance and Monitoring (OM&M) of the OU2 ONCT system
- Performed Third Quarter 2015 OU2 ONCT system sampling
- Data not routinely reported are provided for the current period as follows:
  - Validated analytical data associated with August 2015 monthly sampling for Remedial Wells 1 and 3R are provided in Table 1

**Regional Groundwater Monitoring & Outpost Well Monitoring**

- Completed Third Quarter 2015 groundwater monitoring

**Northrop Grumman Cooperation with Navy**

- Continued to work cooperatively with the Navy through periodic communications and meetings while NYSDEC is in process of reviewing the previously submitted Plan for Coordination with the U.S. Navy on the RE-108D2 Hot Spot (June 30 2015), including:
  - Continued communications with Navy to develop a plan to address the elevated levels of impacted groundwater identified in the vicinity of Well RE-108D2
  - Continued sampling of additional outpost wells installed by Navy as requested by Navy (in May 6, 2015 letter)
  - Collected water samples for analysis of additional parameters from the ONCT system as requested by Navy (in August 6, 2015 letter)

**Other**

- Prepared and submitted the August 2015 AOC monthly progress report

**OU2 Activities Scheduled for October 2015****OU2 On-Site Containment (ONCT) System**

- Continue OM&M of OU2 ONCT system
- Prepare draft Third Quarter 2015 Groundwater Monitoring data report

**Regional Groundwater Monitoring & Outpost Well Monitoring**

- Initiate Fourth Quarter 2015 groundwater monitoring
- Prepare draft Third Quarter 2015 Groundwater Monitoring data report

**Northrop Grumman Cooperation with Navy**

- Continue to work cooperatively with the Navy through periodic communications and meetings while NYSDEC is in process of reviewing the previously submitted Plan for Coordination with the U.S. Navy on the RE-108D2 Hot Spot (June 30, 2015), including:
  - Continue with communications and meetings supporting the Navy plan to address the elevated levels of impacted groundwater identified in the vicinity of Well RE-108D2
  - Sample new/additional outpost wells installed by Navy as requested in May 6, 2015 communication

**Other**

- Submit September 2015 AOC monthly progress report

Feel free to contact Northrop Grumman if you have any questions.

Sincerely,

ARCADIS of New York, Inc.



Art Zahradnik  
Senior Hydrogeologist/Associate Project Manager

Enclosures

Copies:

Krista Anders, NYSDOH  
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Fred Weber, Northrop Grumman  
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Table 1. Concentrations of Volatile Organic Compounds in Remedial Wells 1 and 3R, Validated in September 2015, Operable Unit 2, Northrop Grumman Systems Corporation, Bethpage, New York.

Constituent (Units in µg/L)	Well: Sample ID: Date:	Well 1 WELL 1 8/4/2015	Well 3R WELL 3R 8/4/2015	Trip Blank TB-080415-KV1 8/4/2015
<b><u>Volatile Organic Compounds<sup>(1)</sup></u></b>				
1,1,1-Trichloroethane		<2.0 U	<b>0.91 J</b>	<1.0 U
1,1,2,2-Tetrachloroethane		<1.0 U	<1.0 U	<0.50 U
1,1,2-Trichloroethane		<2.0 U	<2.0 U	<1.0 U
1,1-Dichloroethane		<b>0.84 J</b>	<b>1.5 J</b>	<1.0 U
1,1-Dichloroethene		<b>3.2</b>	<b>5.4</b>	<1.0 U
1,2-Dichloroethane		<2.0 U	<2.0 U	<1.0 U
1,2-Dichloropropane		<4.0 U	<4.0 U	<2.0 U
2-Butanone (MEK)		<20 U	<20 U	<10 U
Methyl N-Butyl Ketone (2-Hexanone)		<20 U	<20 U	<10 U
4-methyl-2-pentanone		<10 U	<10 U	<5.0 U
Acetone		<20 U	<20 U	<10 U
Benzene		<1.0 U	<1.0 U	<0.50 U
Bromodichloromethane		<2.0 U	<2.0 U	<1.0 U
Bromoform		<2.0 U	<2.0 U	<1.0 U
Bromomethane		<4.0 U	<4.0 U	<2.0 U
Carbon Disulfide		<10 U	<10 U	<5.0 U
Carbon Tetrachloride		<2.0 U	<2.0 U	<1.0 U
Chlorobenzene		<2.0 U	<2.0 U	<1.0 U
Chloroethane		<4.0 U	<4.0 U	<2.0 U
Chloroform		<2.0 U	<2.0 U	<1.0 U
Chloromethane		<4.0 U	<4.0 U	<2.0 U
cis-1,2-dichloroethene		<b>4</b>	<b>5.7</b>	<1.0 U
cis-1,3-dichloropropene		<1.0 U	<1.0 U	<0.50 U
Chlorodibromomethane		<2.0 U	<2.0 U	<1.0 U
Ethylbenzene		<2.0 U	<2.0 U	<1.0 U
Dichloromethane		<4.0 U	<4.0 U	<2.0 U
Styrene (Monomer)		<10 U	<10 U	<5.0 U
Tetrachloroethene		<b>33.5</b>	<b>35.4</b>	<1.0 U
Toluene		<2.0 U	<2.0 U	<1.0 U
trans-1,2-dichloroethene		<2.0 U	<2.0 U	<1.0 U
trans-1,3-dichloropropene		<1.0 U	<1.0 U	<0.50 U
Trichloroethene		<b>435 D</b>	<b>555</b>	<1.0 U
1,1,2-trichloro-1,2,2-trifluoroethane		<b>3.9 J</b>	<b>3.7 J</b>	<5.0 U
Vinyl Chloride		<2.0 U	<b>20.2</b>	<1.0 U
o-Xylene		<2.0 U	<2.0 U	<1.0 U
m,p-Xylene		<2.0 U	<2.0 U	<1.0 U
<b>Total VOCs<sup>(2)</sup></b>		<b>480</b>	<b>630</b>	<b>0</b>

**Notes and Abbreviations:**

(1) Sample analysis by Method 8260C

(2) Results rounded to two significant figures.

Results validated following protocols specified in OU2 Groundwater Monitoring Plan (ARCADIS 2014).

<b>Bold</b>	Constituent detected
VOCs	Volatile Organic Compounds
µg/L	Micrograms per liter
J	Constituent value is estimated
D	Sample was diluted
<5.0	Compound not detected above its laboratory quantification limit.
OU2	Operable Unit 2
U	Compound is not detected
TB	Trip blank