



17 December 2015

Mr. Henry Wilkie  
New York State Department of Environmental Conservation  
Division of Solid & Hazardous Materials  
625 Broadway  
Albany, NY 12233-7252

**Subject: GROUNDWATER DISCHARGE MONITORING/AIR EMISSION REPORT  
GM-38 AREA, NWIRP BETHPAGE, NY; DER SITE # 1-30-003B-OU 2  
NOVEMBER 2015 REPORTING PERIOD**

Dear Mr. Wilkie:

H&S Environmental, Inc. (H&S) is submitting this monthly monitoring report of the groundwater discharge and air emission results for the Groundwater Treatment Plant (GWTP) located at the Former Naval Weapons Industrial Reserve Plant (NWIRP), Bethpage, NY, GM-38 Area. This report was prepared in accordance with GWTP operational requirements for DER Site # 1-30-003B-OU 2.

GWTP operational data from 1 November 2015 to 30 November 2015 are presented in Attachment A. There was no significant downtime for the GWTP during this reporting period.

As indicated in Attachment A, all permitted constituents were in compliance with regulatory guidelines during this reporting period.

Please contact me at 508-366-7442 with any questions or concerns you may have regarding this report.

Sincerely,  
H&S Environmental, Inc.

Jennifer Good  
Project Manager

Attachment A: Groundwater and Air Sampling Results from November 2015

Cc: Steven Scharf – NYSDEC  
Jean Occidental - NYSDEC Division of Water  
Jennifer Pilewski - NYSDEC – Region 1 Water Engineer  
Gerard Ennis - Nassau County Department of Public Works  
Linda Bianculli - Town of Oyster Bay  
Lora Fly - NAVFAC Mid-Atlantic RPM  
Greg Pearman – NWIRP Bethpage  
GM-38 Copy

**ATTACHMENT A**  
**GROUNDWATER AND AIR SAMPLING RESULTS**  
**NOVEMBER 2015**

**GM-38 Area Groundwater Remediation  
Groundwater Treatment Plant  
Naval Weapons Industrial Reserve Plant - Bethpage, NY  
Discharge Monitoring Report  
November 2015**

SPDES Parameters	November 2015					
Process Stream	Daily Treated Effluent Maximum	Units	RW-1 <sup>(1)</sup>	RW-3 <sup>(1)</sup>	Combined Influent <sup>(1)</sup>	Treated Effluent
Well Depth	N/A	ft	445	530	N/A	N/A
Screened Interval	N/A	ft bgs	335-395 410-430	392-412 442-504	N/A	N/A
Sampling Date	N/A		11/16/15			
Average Flowrate	1100	GPM	995	0.3	995	1,037
Total Flow	N/A	gallons	42,990,133	13,400	43,003,533	44,782,267
pH	5.5 - 8.5	SU	5.44	N/A	5.44	6.18
Carbon Tetrachloride	NA	µg/L	ND (1.0)	N/A	ND (1.0)	ND (1.0)
1,1-Dichloroethane	5	µg/L	2.1	N/A	2.1	ND (1.0)
1,2-Dichloroethane	0.6	µg/L	ND (1.0)	N/A	ND (1.0)	ND (1.0)
1,1-Dichloroethene	5	µg/L	2.1	N/A	2.1	ND (1.0)
cis 1,2-Dichloroethene	5	µg/L	13.1	N/A	13.1	ND (1.0)
trans 1,2-Dichloroethene	5	µg/L	0.29 J	N/A	0.29 J	ND (1.0)
Tetrachloroethene	5	µg/L	30.5	N/A	30.5	ND (1.0)
1,1,1-Trichloroethene	5	µg/L	1.4	N/A	1.4	ND (1.0)
Trichloroethene	5	µg/L	155	N/A	155	ND (1.0)
Vinyl Chloride	2	µg/L	0.43 J	N/A	0.43 J	ND (2.0)
Mercury	0.00025	mg/L	ND (0.00050)	N/A	ND (0.00050)	ND (0.00050)
Total Suspended Solids (TSS)	N/A	mg/L	ND (5)	N/A	ND (5)	ND (5)

**Notes:**

J - Estimated result between laboratory method detection limit and reporting limit

ND - Not detected above laboratory method detection limit. Reporting Limit (RL) given in parentheses.

NR - Not Recorded

NS - Not Sampled. RW-3 sampling frequency has been reduced from monthly to semi-annually.

N/A - Not Applicable

(1) On 1 July 2015, the RW-1 flowrate was increased from ~800 gpm to ~1,000 gpm and RW-3 was taken off-line, as approved by NYSDEC on 20 April 2015. To maintain the integrity of RW-3 for potential future use, approximately 200 gallons per minute of water are pumped for a 1-hour period from the well on a monthly basis. RW-3 will be sampled semi-annually, consistent with the groundwater monitoring program. Influent concentrations presented above are therefore equivalent to RW-1 concentrations only.

**GM-38 Area Groundwater Remediation  
Groundwater Treatment Plant  
Naval Weapons Industrial Reserve Plant - Bethpage, NY  
Air Sampling Results  
November 2015**

DAR Parameters	Units	Discharge Goal <sup>(1)</sup>	November 2015	
			Influent	Effluent
Process Stream				
Sampling Date	N/A	N/A	11/2/15	
Average Flowrate	CFM	N/A	NR	9,670
Total Flow	ft <sup>3</sup>	N/A	NR	417,729,600
Total Flow	m <sup>3</sup>	N/A	NR	11,828,785
1,2-Dichloroethane	µg/m <sup>3</sup>	N/A	4.7 J	ND
cis 1,2-Dichloroethene	µg/m <sup>3</sup>	> 100,000 <sup>(2)</sup>	120	0.96 J
trans 1,2-Dichloroethene	µg/m <sup>3</sup>		ND	ND
1,2-Dichloroethene (total)	µg/m <sup>3</sup>	>100,000	120	ND
Toluene	µg/m <sup>3</sup>	N/A	1.9 J	4.3
Total Xylene	µg/m <sup>3</sup>	N/A	ND	ND
1,1,2-Trichloroethane	µg/m <sup>3</sup>	N/A	ND	ND
Trichloroethene	µg/m <sup>3</sup>	2,600	2,200	20
Vinyl Chloride	µg/m <sup>3</sup>	560	5.0 J	1.9 J
Tetrachloroethene	µg/m <sup>3</sup>	5,100	410	9.2

Notes:

CFM - cubic feet per minute

DAR - Division of Air Resources

J - Estimated result between laboratory method detection limit and reporting limit

N/A - Not Applicable

NR - Not recorded

(1) Discharge goal as approved by NYSDEC's letter dated 31 October 2013.

(2) Discharge goal is for total 1,2-Dichloroethene.

**GM-38 Area Groundwater Remediation  
Groundwater Treatment Plant  
Naval Weapons Industrial Reserve Plant - Bethpage, NY  
Controlled Stack Emissions  
November 2015**

<b>DAR Parameters</b>	<b>Units</b>	<b>Discharge Goal <sup>(1)</sup></b>	<b>November 2015</b>
Sampling Date	N/A	N/A	11/2/15
Average Flowrate	CFM	N/A	9,670
Total Flow	ft <sup>3</sup>	N/A	417,729,600
Total Flow	m <sup>3</sup>	N/A	11,828,785
Trichloroethene	lb/hr	0.09	0.00072
Vinyl Chloride	lb/hr	0.02	0.00007
1,2 Dichloroethene	lb/hr	11	0.00000
1,2-Dichloroethane	lb/hr	N/A	0.00000
Toluene	lb/hr	N/A	0.00016
Total Xylene	lb/hr	N/A	0.00000
1,1,2-Trichloroethane	lb/hr	N/A	0.00000
Tetrachloroethene	lb/hr	0.18	0.00033

Notes:

CFM - cubic feet per minute

DAR - Division of Air Resources

N/A - Not Applicable

(1) Discharge goal as approved by NYSDEC's letter dated 31 October 2013.