



NOR-03143

January 11, 2024

Ms. Kristin Granzen  
Project Manager, Remedial Bureau D, Section B  
New York State Department of Environmental Conservation  
Division of Environmental Remediation, 12<sup>th</sup> Floor  
625 Broadway  
Albany, New York 12233-7015

Reference: CLEAN Contract No. N6247016D9008  
Contract Task Order WE13

Subject: December 2023 Reporting Period  
Groundwater Discharge Monitoring Report RE-137 Area, Drainage Basin 17, Nassau County  
Basin #305  
NYSDEC Site No. 130003B, NWIRP Bethpage

Dear Ms. Granzen:

Tetra Tech is providing this monthly monitoring report for the groundwater discharge at the RE-137 Area Groundwater Treatment System (GWTS) located near the former Naval Weapons Industrial Reserve Plant (NWIRP), Bethpage. This report was prepared in accordance with New York State Department of Environmental Conservation (NYSDEC) State Pollutant Discharge Elimination System (SPDES) Permit Equivalent dated February 16, 2022.

This document is the twentieth monthly report for this system. Full time operation of the RE-137 GWTS began on May 2, 2022 at a nominal flowrate of 100 gallons per minute (GPM) and has been gradually increased since then. In December 2023, the system ran at a nominal flowrate of 354 GPM. During the month of December 2023, the RE-137 GWTS operated for approximately 599 hours (uptime of 83.4%) and extracted, treated, and discharged an approximate total of 13,041,182 gallons of groundwater. The reduced uptime in December 2023 was due to modification activities related to the aeration tank upgrade to improve system performance and basin-high alarms caused by multiple rain events during the month.

As of December 31, 2023, the system has treated a total of 264,333,324 gallons of groundwater and removed 1,925 pounds of volatile organic compounds. The monthly samples were collected on December 18, 2023. The modification to the system to improve its performance is in process and is scheduled to be completed in January 2024. As part of the system upgrade, only a circulation fan in the aeration tank was running during sampling, two aerator pumps still need to be installed. Routine operation and maintenance of the RE-137 GWTS is ongoing.

If you have any questions, please contact me at [vin.varricchio@tetrattech.com](mailto:vin.varricchio@tetrattech.com) or 631-962-0812.

NOR-03143  
Ms. Kristi Granzen  
January 11, 2024 - Page 2

Sincerely,



Vincent Varricchio, P.G.  
NWIRP Bethpage Facilities Manager

Attachment A: Discharge Monitoring Report, December 2023

cc: J. Pilewski, NYSDEC – Region 1  
J. Pelton, NYSDEC  
M. Travis, NYSDEC  
G. Ennis, Nassau County Department of Public Works  
S. Sokolowski, NAVFAC Mid-Atlantic  
D. Brayack, Tetra Tech  
R. Moore, Tetra Tech

**ATTACHMENT A**  
**DISCHARGE MONITORING REPORT**  
**DECEMBER 2023**

**Attachment A - Groundwater Sampling Results for Discharge Monitoring Report  
RE-137 Area Groundwater Remediation  
Groundwater Treatment System  
Naval Weapons Industrial Reserve Plant – Bethpage, New York  
December 2023**

SPDES Parameters			December 2023		
Process Stream	Daily Treated Effluent Maximum	Units	RE-137 Influent (SP-100)	AOP Effluent (SP-201)	Treated Effluent (SP-303)
Well Depth	N/A	ft bgs	750	N/A	N/A
Screened Interval	N/A	ft bgs	630-745	N/A	N/A
Sampling Date	N/A	N/A	12/18/2023		
System Flowrate	400	GPM	N/A	N/A	354
Total Flow	N/A	Gallons	N/A	N/A	13,041,182
pH	4.0-8.5	SU	NR	NR	5.72
1,1,2-Trichloro-1,2,2-trifluoroethane	5	µg/L	10.4	13.0	2.5
1,1,2-Trichloroethane	1	µg/L	0.41 J	0.75 U	0.75 U
1,1-Dichloroethane	5	µg/L	0.39 J	0.75 U	0.75 U
1,1-Dichloroethene	5	µg/L	3.0	0.75 U	0.75 U
1,4-Dioxane (via 8270 SIM)	0.35	µg/L	3.5 Q	0.2 UQ	0.2 UQ
Bis(2-Ethylhexyl) phthalate	7.5	µg/L	N/A	N/A	4.0 U
Carbon Tetrachloride	5	µg/L	1.2	1.4	0.75 U
Chloroform	7	µg/L	0.52 J	0.47 J	0.75 U
cis-1,2-Dichloroethene	5	µg/L	1.5	0.75 U	0.75 U
Tetrachloroethene	5	µg/L	2.4	0.75 U	0.75 U
Trichloroethene	5	µg/L	567	0.75 U	0.75 U

Total VOCs Influent December 2023 (mg/L) 0.59  
Total VOCs Treated December 2023 (pounds) 64  
Total VOCs Treated (pounds) 1,925

µg/L - micrograms per liter.

mg/L - milligrams per liter.

AOP - Advanced Oxidation Process.

ft bgs - feet below ground surface.

GPM - gallons per minute.

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

N/A - Not Applicable.

NR - Not recorded.

SPDES - State Pollutant Discharge Elimination System.

SU - Standard Units.

U - Not detected.

Q - Indicates LCS control criteria did not meet requirements.

- Sample SP-302 was created and collected during the aeration tank upgrade. This sample is located after the carbon vessels, but before the aeration tank. Only a circulation fan in the aeration tank was running during the December 2023 sampling event. 1,1,2-Trichloro-1,2,2-trifluoroethane was detected at 4.7 µg/L at SP-302.