



**450 UNION STREET  
NAPL GAUGING AND RECOVERY  
MONTHLY REPORT – MARCH 2023**

450 Union Street – NAPL Gauging and Recovery  
New York State Department of Environmental Conservation (NYSDEC)  
BCP Site No. C224219

Monthly Report No. 12

This report serves to document Dense Non-Aqueous Phase Liquid (DNAPL) gauging and recovery performed by GZA GeoEnvironmental, Inc. (GZA), on behalf of National Grid, at the 450 Union Street property in Brooklyn, New York (Site). Consistent with the October 2020 Remedial Action Work Plan (RAWP) prepared by Langan on behalf of 450 Union LLC and 450 Union Developer LLC, DNAPL gauging, and recovery was performed at two wells (RW-01 and RW-02) which are located on the eastern portion of the Site.

**Summary of Field Activities:**

- On March 28, 2023, GZA performed DNAPL gauging and recovery at RW-01 and RW-02. The table below provides a summary of this event, and the attached **Table 1** summarizes gauging and recovery data collected by GZA to date.

Pre-Recovery						Post Recovery	
Well ID	Date	Depth to Water (ft)	Depth to NAPL (ft)	DNAPL Thickness (ft)	DNAPL Volume Removed (gal)	Depth to NAPL (ft)	DNAPL Thickness (ft)
RW-01	3/28/23	10.74	38.45	10.45	50	Trace	Trace
RW-02	3/28/23	10.95	52.53	5.82	50	Trace	Trace

- The area around each well was covered with polyethylene sheeting prior to performance of gauging and recovery activities.
- Approximately 100 gallons of DNAPL/water mixture was recovered from the two wells during the March 28, 2023, recovery event with a submersible pump and the Pulse Pump<sup>®</sup> Model LP1301.
- The recovered DNAPL/water and polyethylene sheeting/PPE were containerized in 55-gallon drums. Prior to leaving the Site, these drums were transported off-Site for disposal by Miller Environmental Group at the Waterworks, facility in Newburgh, New York (PPE), and Norlite facility in Cohoes, New York (DNAPL). A copy of the disposal manifests is attached.



June 2023  
450 Union Street  
Brooklyn, New York  
File No. 03.0034060.10

Attachments: Table 1: Summary of NAPL Gauging and Recovery Activities

Attachment A: Disposal Manifest

#### Certification

I, James J. Clark, certify that I am currently a Qualified Environmental Professional as defined in 6 NYCRR Part 375 and that this field report was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

James J. Clark, P.E., LEP  
Qualified Environmental Professional

6/14/2023  
Date

  
Signature



June 2023  
450 Union Street  
Brooklyn, New York  
File No. 03.0034060.10

**TABLE 1**  
**SUMMARY OF NAPL GAUGING ACTIVITIES**

**TABLE 1**  
**Summary of NAPL Gauging and Recovery Activities**  
450 Union Street  
Brooklyn, NY

Location	Prior to DNAPL Recovery			Post DNAPL Recovery			Volume of DNAPL Removed	Cumulative Volume of DNAPL Removed	Comments
	Date	Depth to DNAPL (ft.)	DNAPL Thickness (ft)	Date/Time	Depth to DNAPL (ft.)	DNAPL Thickness (ft)	(gallons)	(gallons)	
<b>RW-01</b> Total well depth = 48.90 ft.	4/19/2022	38.2	10.7	4/19/22 8:30	Trace	Trace	14	14	Flooding observed prior to DNAPL recovery
	5/20/2022	40	8.90	5/20/22 8:55	Trace	Trace	20	34	Some flooding observed prior to DNAPL recovery
	6/21/2022	39.17	9.73	6/21/2022	Trace	Trace	40	74	No flooding observed
	7/28/2022	39.34	9.56	7/28/2022	Trace	Trace	16	90	Flooding observed prior to DNAPL recovery
	8/30/2022	39.15	9.75	8/30/2022	Trace	Trace	20	110	No flooding observed
	9/28/2022	39.19	9.71	9/28/2022	Trace	Trace	15	125	No flooding observed
	10/26/2022	38.65	10.25	10/26/2022	Trace	Trace	35	160	Some flooding observed prior to DNAPL recovery
	11/29/2022	45.30	3.6	11/29/2022	Trace	Trace	20	180	No flooding observed
	12/28/2022	39.51	9.39	12/28/2022	Trace	Trace	35	215	No flooding observed
	1/31/2023	39.10	9.8	1/31/2023	Trace	Trace	25	240	Flooding observed prior to DNAPL recovery
	2/21/2023	39.05	9.85	2/21/2023	Trace	Trace	27	267	Flooding observed prior to DNAPL recovery
	3/28/2023	38.45	10.45	3/28/2023	Trace	Trace	50	317	No flooding observed

**TABLE 1**  
**Summary of NAPL Gauging and Recovery Activities**  
450 Union Street  
Brooklyn, NY

Location	Prior to DNAPL Recovery			Recovery after Removal			Volume of DNAPL Removed	Cumulative Volume of DNAPL Removed	Total Cumulative Volume of DNAPL Removed	Comments
	Date	Depth to DNAPL (ft.)	DNAPL Thickness (ft)	Date/Time	Depth to DNAPL (ft.)	DNAPL Thickness (ft)	(gallons)	(gallons)	(gallons)	
<b>RW-02</b> Total well depth = 58.35 ft.	4/19/2022	39.00	19.35	4/19/22 10:30	42.0	16.35	31	31	45	Well cap damaged - needs to be replaced
	5/20/2022	39.75	18.60	5/20/22 11:00	50.41	10.66	68	99	133	Well cap damaged - needs to be replaced
	6/21/2022	43.17	15.18	6/21/2022	Trace	Trace	80	179	253	Well cap replaced wih a 6-inch J-Plug
	7/28/2022	51.75	6.60	7/28/2022	Trace	Trace	22	201	291	
	8/30/2022	49.9	8.45	8/30/2022	56.85	1.5	35	236	346	
	9/28/2022	46.82	11.53	9/28/2022	Trace	Trace	65	301	426	
	10/26/2022	47.20	11.15	10/26/2022	Trace	Trace	105	406	566	
	11/29/2022	49.20	9.15	11/29/2022	Trace	Trace	80	486	666	
	12/28/2022	50.53	7.82	12/28/2022	Trace	Trace	55	541	756	
	1/31/2023	52.60	5.75	1/31/2023	Trace	Trace	70	611	851	
	2/21/2023	52.67	5.68	2/21/2023	57.5	0.85	82	693	960	
	3/28/2023	52.53	5.82	2/21/2023	Trace	Trace	50	743	1060	



June 2023  
450 Union Street  
Brooklyn, New York  
File No. 03.0034060.10

**ATTACHMENT A**  
**DISPOSAL MANIFEST**

Please print or type

BILL OF LADING		N/A		1. Document No. METRO1291		2. Page 1 of 1	
3. Offeror Name and Mailing Address <b>NATIONAL GRID</b> 175 East Old Country Road Hicksville, NY 11801				Site Address <b>NATIONAL GRID</b> 450 UNION ST BROOKLYN, NY 11231			
4. Offeror Phone ( <b>347-213-8874</b>							
5. Transporter 1 Company Name <b>MILLER ENVIRONMENTAL GROUP, INC</b>		6. EPA ID # <b>NYD986908085</b>		A. State Transporter's ID			
				B. Transporter 1 Phone <b>800-394-8606</b>			
7. Transporter 2 Company Name <i>Tradebe Transportation</i>		8. EPA ID # <i>ICTD021816889</i>		C. State Transporter's ID			
				D. Transporter 2 Phone			
9. Designated Facility Name and Site Address <b>NORLITE, LLC</b> 628 S. SARATOGA ST. COHOES, NY 12047		10. EPA ID # <b>NYD080469935</b>		E. State Facility's ID			
HM				F. Facility's Phone <b>518-235-0401</b>			
11. Shipping Name				12. Containers No. Type		13. Total Quantity	
a. <b>NON-RCRA, NON-DOT REGULATED LIQUIDS N.O.S.(DNAPLE)</b>				2 DM		100 G	
b.							
c.							
d.							
G. Additional Descriptions for Materials Listed Above				Document # D36645 Job #: NY02230416 PO#			
1) APPROVAL# <u>1000312816</u> X55-GAL DRUM; TRUCK # 6605							
15. Special Handling Instructions and Additional Information				3580224			
16. OFFEROR CERTIFICATION: I hereby certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulation of the Department of Transportation. The materials described on this document are not subject to federal uniform hazardous waste manifest requirements.							
Printed/Typed Name <i>As Agent for Nat Grid</i> <b>Robert Bettes</b>				Signature <i>Robert Bettes</i>		Date Month Day Year 3 28 23	
17. Transporter 1 Acknowledgment of Receipt of Materials				Date			
Printed/Typed Name <b>Robert Bettes</b>				Signature <i>Robert Bettes</i>		Month Day Year 3 28 23	
18. Transporter 2 Acknowledgment of Receipt of Materials				Date			
Printed/Typed Name <i>Abdul Andrews</i>				Signature <i>Abdul Andrews</i>		Month Day Year 4 4 23	
19. Discrepancy Indication Space							
20. Facility Owner or Operator; Certification of receipt of the materials covered by this bill of lading except as noted in item 19.				Date			
Printed/Typed Name <b>Jennifer Bushey</b>				Signature <i>Jennifer Bushey</i>		Month Day Year 4 7 23	

GENERATOR

BILL OF LADING

TRANSPORTER

FACILITY

Please print or type

BILL OF LADING		N/A		1. Document No. METRO1292		2. Page 1 of 1	
3. Offeror Name and Mailing Address NATIONAL GRID 175 East Old Country Road Hicksville, NY 11801				Site Address NATIONAL GRID 450 UNION ST BROOKLYN, NY 11231			
4. Offeror Phone ( 347-213-8874		6. EPA ID # NYD986908085		A. State Transporter's ID			
5. Transporter 1 Company Name MILLER ENVIRONMENTAL GROUP, INC		8. EPA ID #		B. Transporter 1 Phone 800-394-8606			
7. Transporter 2 Company Name		10. EPA ID #		C. State Transporter's ID			
9. Designated Facility Name and Site Address WATERWORKS 77 STEWART AVENUE NEWBURGH, NY 12550 HM		10. EPA ID # NYR000236349		D. Transporter 2 Phone			
				E. State Facility's ID			
				F. Facility's Phone 845-590-0408			
11. Shipping Name		12. Containers No. Type		13. Total Quantity		14. Unit Wt./Vol.	
a. NON-RCRA, NON-DOT, SOLIDS, N.O.S (PPE)		1 1 DM		40		P	
b.							
c.							
d.							
G. Additional Descriptions for Materials Listed Above Document # D36646 Job #: NY02230416 PO# 1) 20d00159 ____ X55-GAL DRUM; TRUCK # 6605							
15. Special Handling Instructions and Additional Information							
16. OFFEROR CERTIFICATION: I hereby certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulation of the Department of Transportation. The materials described on this document are not subject to federal uniform hazardous waste manifest requirements.							
Printed/Typed Name AS Agent for Nat Grid Robert Bettes						Date Month Day Year 3 28 23	
Signature Robert Bettes							
17. Transporter 1 Acknowledgment of Receipt of Materials						Date Month Day Year 3 28 23	
Printed/Typed Name Robert Bettes							
Signature Robert Bettes							
18. Transporter 2 Acknowledgment of Receipt of Materials						Date Month Day Year	
Printed/Typed Name							
Signature							
19. Discrepancy Indication Space							
20. Facility Owner or Operator; Certification of receipt of the materials covered by this bill of lading except as noted in item 19.							
Printed/Typed Name Steven T. Sokeno						Date Month Day Year	
Signature							

GENERATOR

BILL OF LADING

TRANSPORTER

FACILITY





GZA GeoEnvironmental of New York