



May 2024
450 Union Street
Brooklyn, New York
File No. 03.0034060.10

**450 UNION STREET
NAPL GAUGING AND RECOVERY
MONTHLY REPORT FEBRUARY 2024**

BCP Site No. C224219

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 February 27, 2024, 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	2/27/24	9.14	40.50	8.40	15	Trace	Trace
RW-02	2/27/24	9.21	53.60	4.75	--	--	--

- The area around each well was covered with polyethylene sheeting prior to performance of gauging and recovery activities.
- Approximately 15 gallons of DNAPL/water mixture was recovered from RW-01 during the February 27, 2024, recovery event with a submersible pump and the Pulse Pump[®] Model LP1301, however was unable to recover from RW-02 due to equipment issues.
- 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 Tradabe facility in East Chicago, Indiana (DNAPL). A copy of the disposal manifests are attached.

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

Attachment A: Disposal Manifest



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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

5/30/2024
Date

James J. Clark
Signature



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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)	
RW-01 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
	4/1/2023								Site Inaccessible due to demolition
	5/1/2023								Site Inaccessible due to demolition
	6/8/2023	38.60	10.3	3/28/2023	Trace	Trace	40	357	No flooding observed
	7/6/2023	39.45	9.45	7/6/2023	Trace	Trace	40	397	No flooding observed
	8/15/2023	38.85	10.05	8/15/2023	Trace	Trace	20	417	Flooding observed prior to DNAPL recovery
	9/19/2023	43.80	5.1	9/19/2023	Trace	Trace	25	442	Flooding observed prior to DNAPL recovery
	10/17/2023	45.35	3.55	10/17/2023	Trace	Trace	30	472	No flooding observed
	11/21/2023	45.05	3.85	11/21/2023	Trace	Trace	40	512	No flooding observed
	12/27/2023	45.00	3.9	12/27/2023	Trace	Trace	15	527	No flooding observed
	1/30/2024	41.20	7.7	1/30/2024	Trace	Trace	35	562	No flooding observed
	2/27/2024	40.50	8.4	2/27/2024	Trace	Trace	15	577	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)	
RW-02 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	3/28/2023	Trace	Trace	50	743	1060	
										Site Inaccessible due to demolition
										Site Inaccessible due to demolition
	6/8/2023	45.40	12.95	6/8/2023	56.5	1.85	140	883	1240	
	7/6/2023	48.25	10.10	7/6/2023	57	1.35	110	993	1390	
	8/15/2023	49.50	8.85	8/15/2023	Trace	Trace	130	1123	1540	
	9/19/2023	51.81	6.54	9/19/2023	Trace	Trace	110	1233	1675	
	10/17/2023	54.70	3.65	10/17/2023	Trace	Trace	40	1273	1745	
	11/21/2023	53.65	4.70	11/21/2023	Trace	Trace	50	1323	1835	
	12/27/2023	55.50	2.85	12/27/2023	Trace	Trace	10	1333	1860	
	1/30/2024	52.90	5.45	1/30/2024	Trace	Trace	50	1383	1945	
	2/27/2024	53.60	4.75	2/27/2024	53.6	4.75	0	1383	1960	No recovery due to equipment issue



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ATTACHMENT A
DISPOSAL MANIFEST

Please print or type

BILL OF LADING

1. Document No.

METRO3114

2. Page 1

of 1

3. Offeror Name and Mailing Address

NATIONAL GRID
360 ERIE BOULEVARD
SYRACUSE, NY 13202175 E Old Country Rd
Hicksville, NY 11801

4. Offeror Phone

342-138874

Site Address

National Grid
450 Union St.
Brooklyn, NY 11231

5. Transporter 1 Company Name

Miller Environmental

6. EPA ID

NYD086908005

A. State Transporter's ID

B. Transporter 1 Phone

C. State Transporter's ID

D. Transporter 2 Phone

E. State Facility's ID

F. Facility's Phone

518-235-0401

9. Designated Facility Name and Site Address

NORLITE LLC
628 S. SARATOGA ST.
COHOES, NY 12047

NYD080469935

10. Shipping Name

Non RCRA Non DOT Regulated Liquids (DNRL)

12. Containers

No.

Type

13.
Total
Quantity14.
Unit
Wt./Vol.

1

DM

15

E

G. Additional Descriptions for Materials Listed Above

Document # D43988 Job #: NY02240373 PO# 33489

1) Approval

000062816

2) Container Size: 55-gal drums

3) Truck

8807

3972615

Ref # 3972615 reported to alternate facility

pass byo Miller 3.20.24

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.

AS PER AGENT NAT GRID

Printed/Typed Name

CRAIG PEARCE

Signature

Craig Pearce

Date

Month Day Year
2 27 24

17. Transporter 1 Acknowledgment of Receipt of Materials

Printed/Typed Name

Nicholas Dumont

Signature

ND

Date

Month Day Year
2 27 24

18. Transporter 2 Acknowledgment of Receipt of Materials

Printed/Typed Name

Signature

Month Day Year

19. Discrepancy Indication Space

Tracebe TTR 4343 Kennedy Ave East Chicago IN 46312 IN0000646943

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

Signature

Date

Month Day Year

BILL OF LADING

TRANSPORTER

FACILITY

Please print or type

BILL OF LADING		1. Document No. METRO3115		2. Page 1 of 1	
3. Offeror Name and Mailing Address NATIONAL GRID 380 ERIE BOULEVARD SYRACUSE, NY 13232 175 E Old Country Rd Hicksville, NY 11801		Site Address National Grid 450 Union St Brooklyn, NY 11231			
4. Offeror Phone (3472138874		A. State Transporter's ID			
5. Transporter 1 Company Name MILLER ENVIRONMENTAL GROUP, INC		6. EPA ID # NYD9886808085		B. Transporter 1 Phone 800-394-8606	
7. Transporter 2 Company Name		8. EPA ID #		C. State Transporter's ID	
				D. Transporter 2 Phone	
9. Designated Facility Name and Site Address WATERWORKS 77 STEWART AVENUE NEWBURGH, NY 12550 HM		10. EPA ID # NYR000236349		E. State Facility's ID	
				F. Facility's Phone 845-561-4111	
11. Shipping Name		12. Containers No. Type		13. Total Quantity ~	
a. Non RCRA Non DOT Regulated Solids (Oily Debris)		1 DM		25	
b.					
c.					
d.					
G. Additional Descriptions for Materials Listed Above — Document # D43689 Job #: NY02240373 PO# 1) Approval #: 2) Container Size: 55-gal drums 3) Truck #: 8807 1100 1400 1100 1400					
15. Special Handling Instructions and Additional Information 65.3					
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 Per AGENT for NAT Grid Craig Pearce					Date Month Day Year 2 27 24
Signature <i>Craig Pearce</i>					
17. Transporter 1 Acknowledgment of Receipt of Materials					Date
Printed/Typed Name Nicholas Dumont					Month Day Year 2 27 24
Signature <i>ND</i>					
18. Transporter 2 Acknowledgment of Receipt of Materials					Date
Printed/Typed Name					Month Day Year
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 I Soler					Date Month Day Year 3 4 24
Signature <i>[Signature]</i>					

GENERATOR

BILL OF LADING

TRANSPORTER

FACILITY



GZA GeoEnvironmental of New York