

April 25, 2016

Ms. Elizabeth Lukowski
Remedial Project Manager
New York State Department of Environmental Conservation
Division of Environmental Remediation, Remedial Bureau C, Section A
625 Broadway, 11th Floor
Albany, New York 12233-7014

Subject: Off-Site Investigation Summary Letter Report
Patchogue Former MGP Site
NYSDEC Site No. 1-52-182
Village of Patchogue, Suffolk County, New York

Dear Ms. Lukowski:

This letter presents the results of recent investigation activities conducted on the off-site property (212 West Main Street) adjacent to the Patchogue Former Manufactured Gas Plant (MGP) Site (hereinafter referred to as the "Site"). These activities were performed in accordance with the New York State Department of Environmental Conservation (NYSDEC)-approved letter work plan dated February 1, 2016. The NYSDEC approval of the work plan was received in an email dated February 5, 2016. As described in the work plan, the objective of this investigation is to provide additional delineation of the impacts previously observed on the off-site property and ultimately to revise the Remedial Action Plan drawing (Drawing C-108) in the December 2012 "Remedial Design Report (50 to 75% Submission)". The December 2012 Remedial Design Report is herein referred to as the "50-75% RDR". The revised Remedial Action Plan will form the basis for the preparation of the 95% Remedial Design Report submittal.

A total of three soil borings were completed during field activities conducted on March 17, 2016. The following table provides a summary of the observations recorded during the soil boring program. A figure depicting the locations of the soil borings is attached to this letter (Figure 1).

Soil Boring ID	Depth Interval (ft., bgs)	Visual/Olfactory Impacts
SB-212	4.0 – 4.6	Little black staining (flat luster), faint-slight mothball-like odor.
	4.6 – 5.0	Black staining, moderate-strong mothball-like odor.
	5.0 – 5.4	Slight black staining, slight mothball-like odor.
	5.4 – 5.9	Soils moderately coated with black, moderately viscous NAPL (stringy, tacky), strong mothball-like odor, black staining, sheen.
	5.9 – 6.6	Faint mothball-like odor.
SB-213	5.0 - 5.8	Black staining (flat luster), slight mothball-like odor.
	5.8 - 6.8	Little black staining (flat luster), moderate mothball-like odor.
SB-214	4.0 – 4.2	Little black staining (flat luster), slight mothball-like odor.
	4.2 – 4.5	Slight mothball-like odor.

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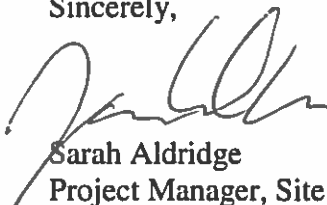
In accordance with the February 1, 2016 letter work plan, the following items associated with the off-site investigation are being submitted:

- Soil boring logs;
- Figure depicting the locations of the soil borings and the revised limits of the proposed off-site excavation (Figure 1); and
- Updated geologic cross-section C-C' from Drawing C-106 of the 50-75% RDR incorporating observations from the additional off-site investigation activities (Figure 2).

Based on the above observations and attached documentation, the extent of the visible MGP-related source material on the off-site property is defined. National Grid recommends that the limits serve as the basis for the progress on the remedial design to the next phase (95% Remedial Design Report).

If you should have any questions, comments or require any additional information, please do not hesitate to contact me (516) 545-2568.

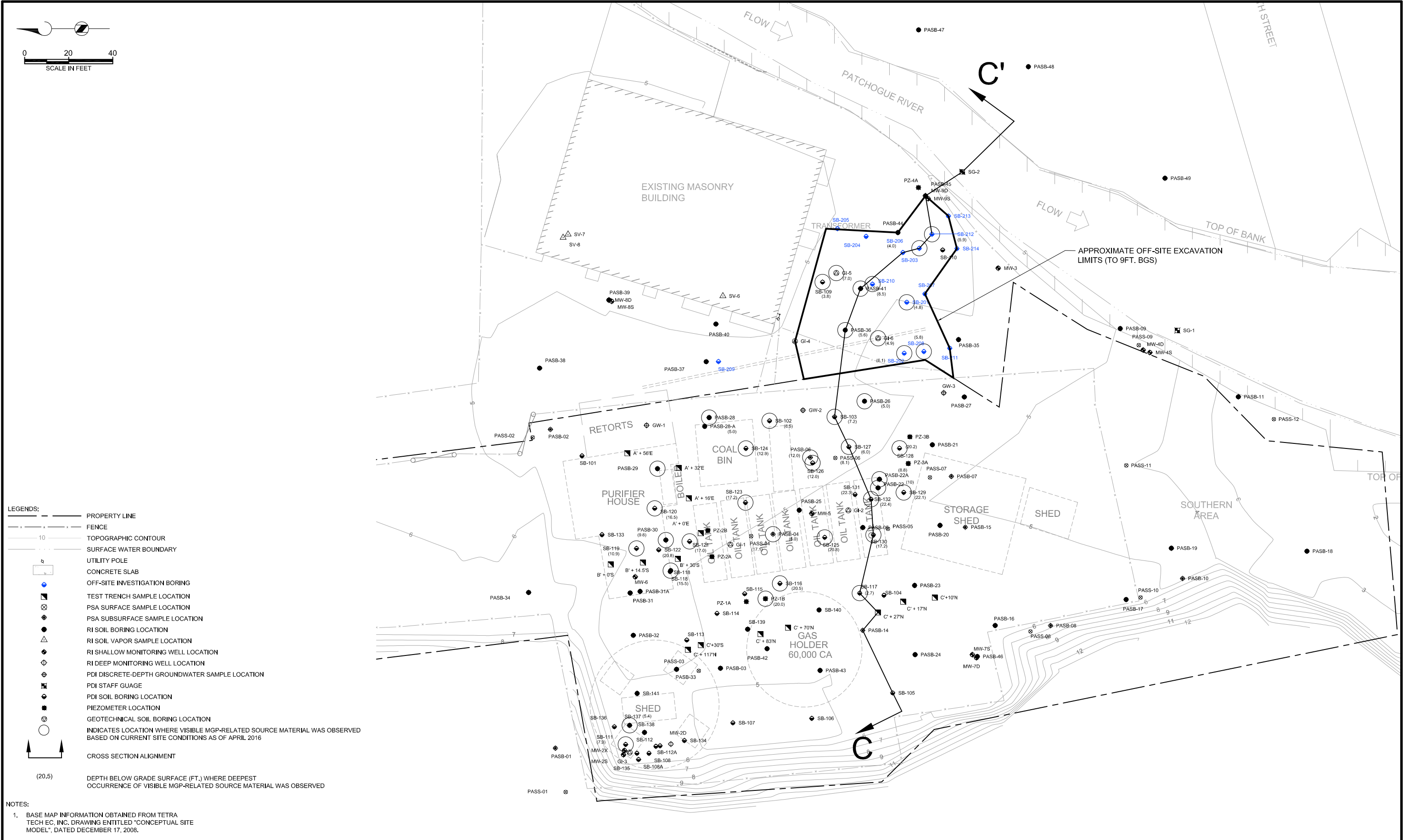
Sincerely,

 For:
Sarah Aldridge
Project Manager, Site Investigation and Remediation

Attachments

cc: J. Nealon, NYSDOH
A. Juchatz, SCDHS
R. Milito, SCDHS
F. Murphy, Esq., National Grid

T. Leissing, National Grid
S. Deyette, NYSDEC



DATE: April 25, 2016


NATIONAL GRID
PATCHOGUE FORMER MGP SITE
234 WEST MAIN STREET
VILLAGE OF PATCHOGUE, NEW YORK

SITE PLAN

FIGURE

1

BORING LOG

	Project Name: Patchogue Former MGP Site Project Number: 142128 Project Location: Patchogue, NY			Permit Number: <div style="text-align: center;">NA</div>	Boring No. <div style="text-align: center;">SB-212</div>
				NA	Page 1 of 1


Inspector/Office BFT/Albany, NY	Checked By: JLM	Borehole Diameter: 3"	Screen Diameter and Type: NA	Slot Size: NA"	Total Boring Depth (ft) 10.0 ft.
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Start/Finish Date 3/17/16 - 3/17/16	Drilling Contractor: ZEBRA Technical Services	Sampling: Auger/Macrocore ^(R) Hammer Type: NA	Development Method: NA
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Driller: E. Moraitis	Drilling Method: Direct-Push	Drilling Equipment: Geoprobe ^(R) 6620DT	Horiz Datum/Proj: NYS Plane NAD83 Vert Datum: NAVD 88 Ground Surface Elev: 5.1 ft.	Easting: 1255344.1 ft. Northing: 219230.4 ft. TOC Elev: NA ft.
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Depth (feet)	Elevation (feet)	USC Soil Type	Description	Blow Counts	Sample No.	Graphic Log				ppm Readings (ppm)	Remarks
						Sample Int	Recovery	Lithology	Backfill		
		SP	Asphalt	NA	1					0	0.3-2.5' BGS: Black discoloration from organic material, slight decomposing organic-like odor.
		SP	FILL Brown mf SAND, some (-) mf Gravel, trace Silt. Dry to Moist @ 0.7' BGS.	NA	2					0.9	
		SP	Brown mf SAND, some (-) cmf Gravel (subrounded), trace Silt, trace Organics (wood). Moist.	NA	3					0.1	
		SW	Brown cmf SAND, little mf Gravel (rounded), trace (+) Silt. Moist.	NA	4					0	
		SW	Brown cmf SAND, little mf Gravel (rounded), trace (+) Silt. Saturated.	NA	5					0.1	3.2-4.0' BGS: Black discoloration from organic material, moderate decomposing organic-like odor. 4.0-4.6' BGS: Little black staining (flat luster), faint-slight mothball-like odor. 4.6-5.0' BGS: Black staining, moderate-strong mothball-like odor. 5.0-5.4' BGS: Slight black staining, slight mothball-like odor. 5.4-5.9' BGS: Soils moderately coated with black, moderately viscous NAPL (stringy, tacky), strong mothball-like odor, black staining, sheen. 5.9-6.6' BGS: Faint mothball-like odor.
		SP	ALLUVIAL DEPOSITS Brown cmf SAND, little (+) mf Gravel, little Organics (wood chips), trace Silt/Clay. Saturated.	NA	6					0.8	
		SP	Brown mf SAND, some Organics (wood fibers and chips), little mf Gravel, trace Silt. Saturated.	NA	7					1	
		SW	Brown mf SAND, some (+) mf Gravel, trace (Silt). Saturated.	NA	8					15.3	
5	0	SP	Brown mf SAND, some (-) Organics (wood fibers), little mf Gravel, trace Silt. Saturated.								
		SP	Brown cmf SAND, little mf Gravel, trace Silt. Saturated.								
		SW	Brown mf SAND, little mf Gravel, little Organics (wood fibers), trace Silt. Saturated.								
		SW	OUTWASH DEPOSITS Light grey mf SAND, trace (-) f Gravel. Saturated. Brown/red brown, cmf SAND, little f Gravel. Saturated.								
10											Boring backfilled with cement/bentonite grout

BORING LOG

	Project Name: Patchogue Former MGP Site Project Number: 142128 Project Location: Patchogue, NY			Permit Number: <div style="text-align: center;">NA</div>	Boring No. <div style="text-align: center;">SB-213</div>
				Page 1 of 1	
Inspector/Office BFT/Albany, NY	Checked By: JLM	Borehole Diameter: 3"	Screen Diameter and Type: NA	Slot Size: NA"	Total Boring Depth (ft) 10.0 ft.
Start/Finish Date 3/17/16 - 3/17/16	Drilling Contractor: ZEBRA Technical Services	Sampling: Auger/Macrocore ^(R) Hammer Type: NA	Development Method: NA		
Driller: E. Moraitis	Drilling Method: Direct-Push	Drilling Equipment: Geoprobe ^(R) 6620DT	Horiz Datum/Proj: NYS Plane NAD83 Vert Datum: NAVD 88 Ground Surface Elev: 5.1 ft.	Easting: 1255352.2 ft. Northing: 219223.0 ft. TOC Elev: NA ft.	

Depth (feet)	Elevation (feet)	USC Soil Type	Description	Blow Counts	Sample No.	Graphic Log				ppm Readings (ppm)	Remarks
						Sample Int	Recovery	Lithology	Backfill		
		SP	Asphalt	NA	1					0.2	
			FILL								
			Brown mf SAND, little (+) mf Gravel, trace Silt. Dry.	NA	2					0.6	
		SP	Brown mf SAND, little mf Gravel, trace Silt, trace Organics. Dry to Moist.	NA							
				NA	3					1.5	
		SP	ALLUVIAL DEPOSITS	NA	4					0.7	2.5-4.0' BGS: Black discoloration from organic material, slight decomposing organic-like odor.
			Brown mf SAND, little mf Gravel, little Organics (wood and wood fibers). Moist.	NA	5					1.8	
		SP	Brown mf SAND, some (-) mf Gravel (subrounded), trace Organics (wood). Saturated.	NA	6					0.6	
				NA	7					0.4	
		SP	Same as above.	NA	8					0.3	
5	0	SW	OUTWASH DEPOSITS	NA	9					1.1	5.0-5.8' BGS: Black staining (flat luster), slight mothball-like odor.
			Brown cmf SAND, little mf Gravel, trace Silt. Saturated.								
		SP	Brown mf SAND, little mf Gravel, little Silt, trace Organics. Saturated.								5.8-6.8' BGS: Little black staining (flat luster), moderate mothball-like odor.
		SP	Grey grading to brown/red brown mf SAND, little (+) mf Gravel. Saturated.								
10											Boring backfilled with cement/bentonite grout

BORING LOG

		Project Name: Patchogue Former MGP Site Project Number: 142128 Project Location: Patchogue, NY		Permit Number: <div style="text-align: center; font-size: 1.2em;">NA</div>	Boring No. <div style="text-align: center; font-size: 1.2em;">SB-214</div> <div style="text-align: center;">Page 1 of 1</div>	
Inspector/Office BFT/Albany, NY		Checked By: <div style="text-align: center;">JLM</div>	Borehole Diameter: <div style="text-align: center;">3" </div>	Screen Diameter and Type: <div style="text-align: center;">NA </div>	Slot Size: <div style="text-align: center;">NA" </div>	Total Boring Depth (ft) <div style="text-align: center;">10.0 ft. </div>
Start/Finish Date 3/17/16 - 3/17/16		Drilling Contractor: ZEBRA Technical Services	Sampling: Auger/Macrocore ^(R) Hammer Type: NA	Development Method: NA		
Driller: E. Moraitis	Drilling Method: Direct-Push	Drilling Equipment: Geoprobe ^(R) 6620DT	Horiz Datum/Proj: NYS Plane NAD83 Vert Datum: NAVD 88 Ground Surface Elev: 5.1 ft.		Easting: 1255337.6 ft. Northing: 219219.0 ft. TOC Elev: NA ft.	

Depth (feet)	Elevation (feet)	USC Soil Type	Description	Blow Counts	Sample No.	Graphic Log				ppm Readings (ppm)	Remarks
						Sample Int	Recovery	Lithology	Backfill		
		SP	Asphalt	NA	1					1.2	
			FILL								
			Brown mf SAND, little mf Gravel, trace Silt. Dry.	NA							
		SP	Brown mf SAND, little cmf Gravel, trace Silt, trace Organics. Dry to Moist.	NA	2					1.6	
		SP	Brown mf SAND, little cmf Gravel, trace Silt, trace Organics. Moist.	NA	3					0.4	
		SW	Brown cmf SAND, some (-) mf Gravel, trace Silt. Moist.	NA	4					3.1	
		SW	ALLUVIAL DEPOSITS	NA	5					2.1	
			Brown cmf SAND, some mf Gravel, trace Silt, trace (-) Organics. Saturated.	NA							
		SP	Brown mf SAND, some (-) f Gravel, trace Silt, trace Organics (wood fibers and pieces). Saturated.	NA	6					2.5	
		SP	Brown mf SAND, little (-) f Gravel, little (-) Organics (wood fibers and pieces). Saturated.	NA	7					1.4	
		SP		NA	8					0.8	
		SP		NA							
		SW	OUTWASH DEPOSITS	NA	9					0.7	
			Grey mf SAND, little f Gravel, little Silt. Saturated.								
		SP	Brown/red brown mf SAND, little (+) mf Gravel, trace Silt. Saturated.								
		SP	Brown cmf SAND, little mf Gravel. Saturated.								
		SW	Grey mf SAND, little f Gravel. Saturated.								
			Dark brown mf SAND, little (+) Organics (wood pieces), little f Gravel. Saturated.								
			Grey grading to dark brown/red brown cmf SAND, some (+) mf Gravel. Saturated.								
5	0										
10											

Boring backfilled with cement/bentonite grout