

December 13, 2013

Mr. R. Scott Deyette
New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau C
11th Floor
625 Broadway
Albany, NY 12233-7014

**RE: Former Front Street Holder Station Site
Brooklyn, Kings County
Index No. A2-0552-0606, Site No. 224063
Well Decommissioning**

Dear Mr. Deyette:

On behalf of National Grid, URS Corporation (URS) has decommissioned the five monitoring wells installed during the Site Characterization of the former Front Street Holder Station site in Brooklyn, NY (the Site). The text following this introductory paragraph has been prepared by URS to document the well decommissioning and associated restoration of sidewalks. Copies of the well decommissioning logs and photographs of the sidewalk repairs are attached.

URS coordinated the decommissioning of monitoring wells MW-1 through MW-5 at the Front Street Former Gas Holder site on October 23 and 24, 2013 (see Figures 1, 2, and 3). Well decommissioning services were provided by Zebra Environmental, Inc., and overseen by URS Geologist Megan Dascoli. Well decommissioning was performed in accordance with New York State Department of Environmental Conservation (NYSDEC) *CP-43: Groundwater Well Decommissioning Policy*, dated November 3, 2009.

Prior to decommissioning, the following water level and depth-to-bottom measurements were recorded for each well:

Well	Depth to Water (ft)	Depth to Bottom (ft)
MW-1	43.02	50.26
MW-2	37.72	49.34
MW-3	41.83	53.73
MW-4	38.95	44.05
MW-5	6.35	15.78

All wells were grouted in place. The decommissioning process involved placing a cement/bentonite grout mixture into the well, using a tremie pipe, from the base of the well up to approximately 5 feet below grade. The upper portion of the well riser was then broken off or unscrewed and then grout added to approximately 1 foot below grade. The remaining 1 foot was then backfilled with concrete.

The protective road boxes were left in place. The road boxes for wells MW-1 through MW-4 were later removed during sidewalk flag replacement as discussed below. At the request of the property owner, Great Front Reality, the road box for well MW-5, located in the lumber yard portion of the Site at 171 York Street, was left in place.

On November 21, 2013, URS returned to the Site to oversee the replacement of the sidewalk flags that were penetrated during the well installation program. Sidewalk replacement services were provided by a seven-man crew from New York Paving, Inc. (NY Paving) under contract to National Grid. URS Geologist Megan Dascoli provided oversight.

NY Paving removed and replaced six sidewalk flags with new concrete at the following locations:

- 218 Front Street – one 5 ft by 5 ft flag at the former location of well MW-1;
- 218A Front Street – one 5 ft by 5 ft flag at the location of a gas valve box (this flag was mistakenly removed by NY Paving prior to URS arriving at the site);
- 206 Front Street – one 5 ft by 5 ft flag at the former location of well MW-3 and the adjacent 5 ft by 5 ft flag which was the location of a boring that was abandoned due to shallow drilling refusal; and
- 171 York Street – two 5.5 ft by 6.5 ft flags, one at former location of well MW-2 and one at the former location of well MW-4.

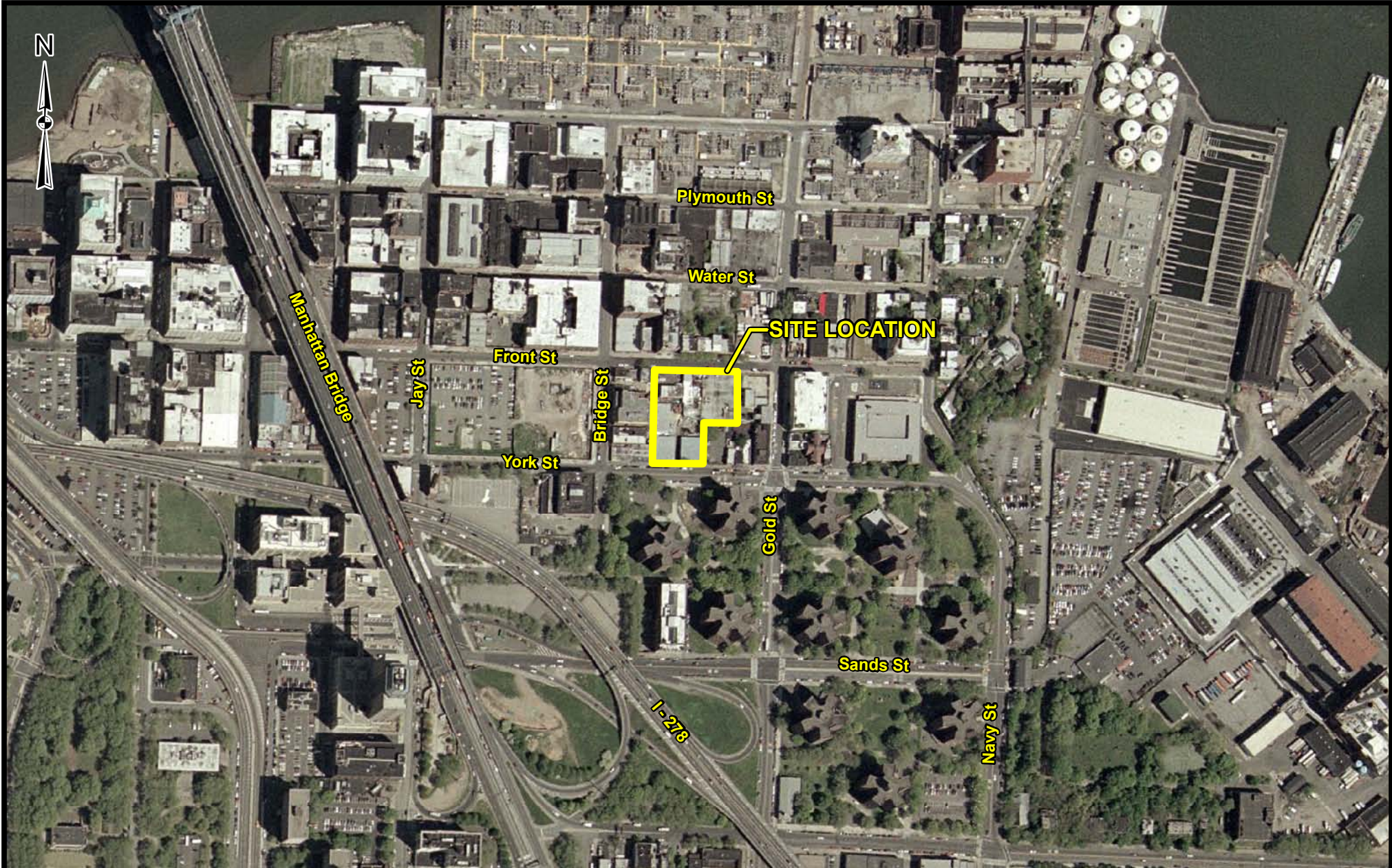
Upon completion, the repaired areas were cordoned off with temporary barriers.

Sincerely,



Donald P. Campbell
Project Manager

ec: Bridget Callaghan, NYSDOH
K. Connare, URS

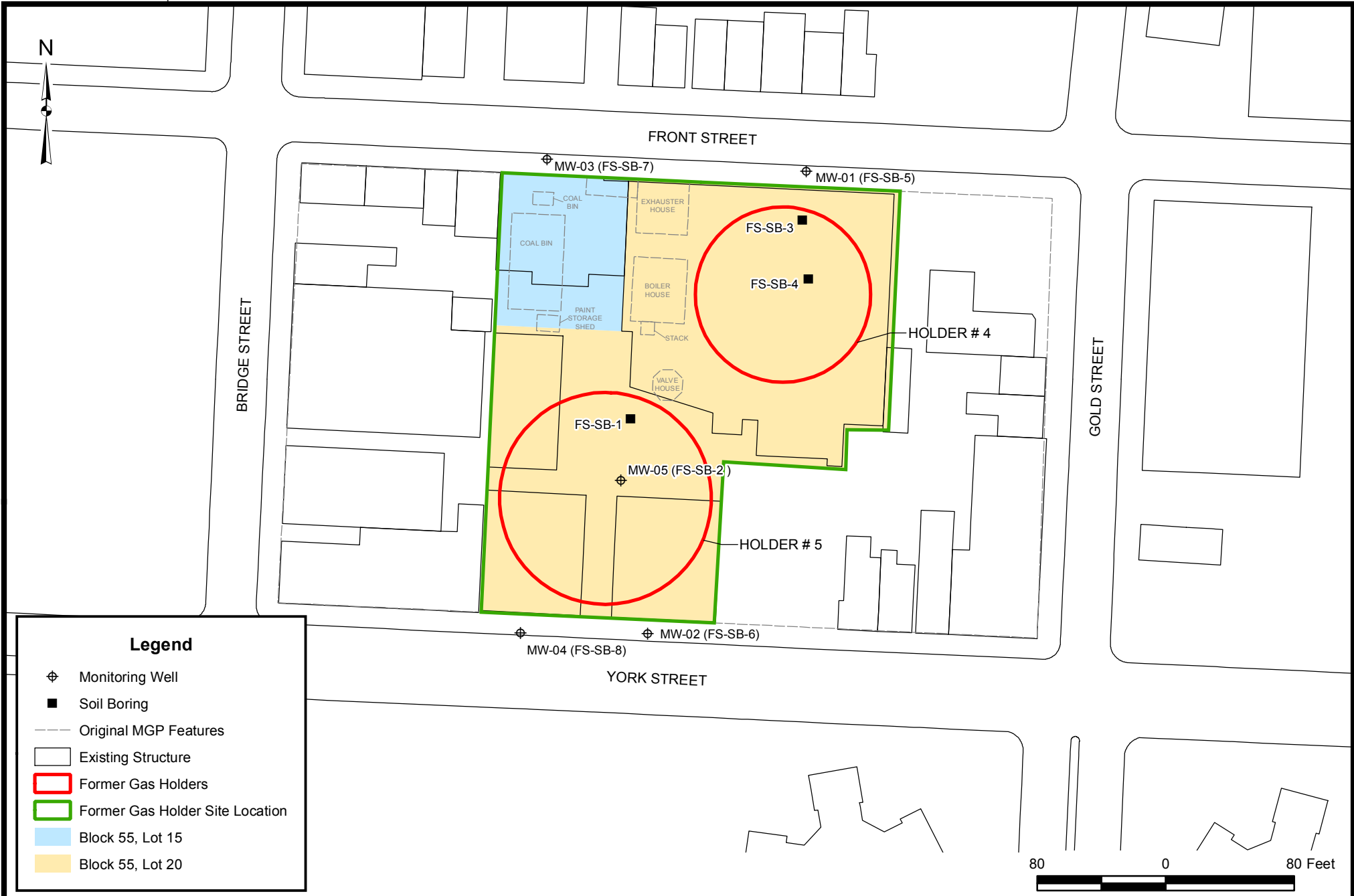


SOURCE:
- New York State GIS Clearinghouse NYSDOP High Resolution imagery 2000 - 2003

URS

FRONT STREET FORMER GAS HOLDER SITE
SITE ORTHOPHOTO

FIGURE 1





WELL DECOMMISSIONING LOGS

FIGURE 3

WELL DECOMMISSIONING RECORD

Site Name: National Grid Front Street
 Site Location: Front St + York St, Brooklyn, NY
 Drilling Co.: Zebra

Well I.D.: MW-01
 Driller: Quincy Brandt
 Inspector: Megan Dascoli
 Date: 10/24/13

DECOMMISSIONING DATA
 (Fill in all that apply)

OVERDRILLING

Interval Drilled
 Drilling Method(s)
 Borehole Dia. (in.)
 Temporary Casing Installed? (y/n)
 Depth temporary casing installed
 Casing type/dia. (in.)
 Method of installing

CASING PULLING

Method employed
 Casing retrieved (feet)
 Casing type/dia. (in.)

manual
1'
PVC 1/2"

CASING PERFORATING

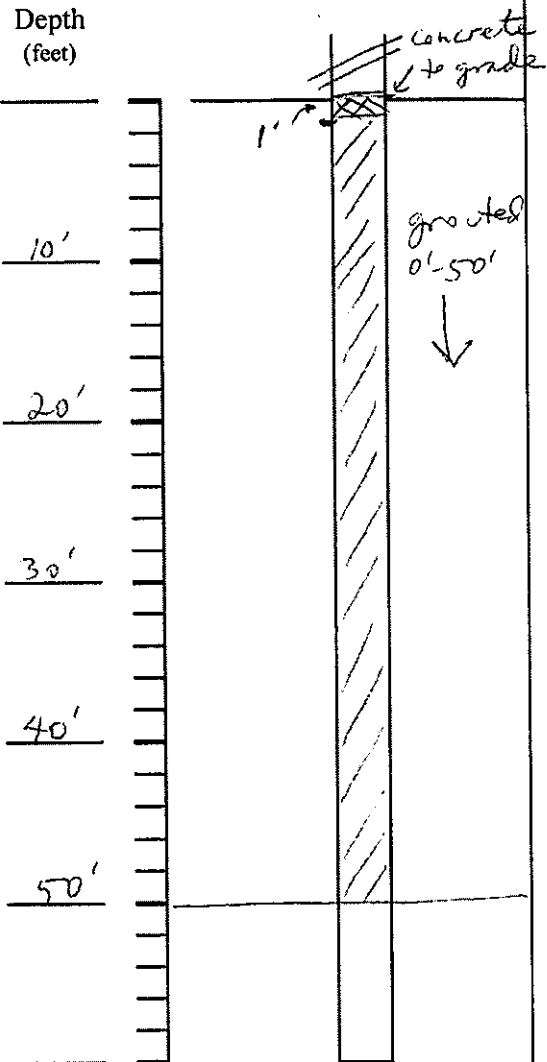
Equipment used
 Number of perforations/foot
 Size of perforations
 Interval perforated

GROUTING

Interval grouted (FBLs)
 # of batches prepared
 For each batch record:
 Quantity of water used (gal.)
 Quantity of cement used (lbs.)
 Cement type
 Quantity of bentonite used (lbs.)
 Quantity of calcium chloride used (lbs.)
 Volume of grout prepared (gal.)
 Volume of grout used (gal.)

0-50'
1
30
200
Portland
25
0
30
30

WELL SCHEMATIC*



COMMENTS:

* Sketch in all relevant decommissioning data, including:
 interval overdrilled, interval grouted, casing left in hole,
 well stickup, etc.

Drilling Contractor

Megan Dascoli
 Department Representative / Inspector

Note: Before decommissioning, water level was measured, below top of casing. DTW = 43.02 DTB = 50.26

FIGURE 3

WELL DECOMMISSIONING RECORD

Site Name: <i>National Grid Front Street</i>	Well I.D.: <i>MW-02</i>
Site Location: <i>Front St + York St, Brooklyn, NY</i>	Driller: <i>Quincy Brandt</i>
Drilling Co.: <i>Zebra</i>	Inspector: <i>Megan Dascoli</i>
	Date: <i>10/23/13</i>

DECOMMISSIONING DATA (Fill in all that apply)		WELL SCHEMATIC*	
OVERDRILLING		Depth (feet)	
Interval Drilled		0'	
Drilling Method(s)		10'	
Borehole Dia. (in.)		20'	
Temporary Casing Installed? (y/n)		30'	
Depth temporary casing installed		40'	
Casing type/dia. (in.)		50'	
Method of installing			
CASING PULLING			
Method employed	<i>manual</i>		
Casing retrieved (feet)	<i>1.5'</i>		
Casing type/dia. (in.)	<i>PVC, 2"</i>		
CASING PERFORATING			
Equipment used			
Number of perforations/foot			
Size of perforations			
Interval perforated			
GROUTING			
Interval grouted (FBLs)	<i>0'-50'</i>		
# of batches prepared	<i>2 + 20 gal</i>		
For each batch record:			
Quantity of water used (gal.)	<i>30</i>		
Quantity of cement used (lbs.)	<i>200</i>		
Cement type	<i>Portland</i>		
Quantity of bentonite used (lbs.)	<i>25</i>		
Quantity of calcium chloride used (lbs.)	<i>0</i>		
Volume of grout prepared (gal.)	<i>30</i>		
Volume of grout used (gal.)	<i>80 gal</i>		
COMMENTS:		* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc	

Drilling Contractor

Megan Dascoli
Department Representative / Inspector

Note: Before decommissioning, water level
was measured, below top of casing. DTW = 37.72
10/23/13 DTB = 49.34

FIGURE 3

WELL DECOMMISSIONING RECORD

Site Name: <u>National Grid Front Street</u>	Well I.D.: <u>MW-03</u>
Site Location: <u>Front St + York St, Brooklyn, NY</u>	Driller: <u>Quincy Brandt</u>
Drilling Co.: <u>Zebra</u>	Inspector: <u>Megan Dascoli</u>
	Date: <u>10/24/13</u>

DECOMMISSIONING DATA (Fill in all that apply)		WELL SCHEMATIC*	
OVERDRILLING		Depth (feet)	
Interval Drilled		10'	
Drilling Method(s)		20'	
Borehole Dia. (in.)		30'	
Temporary Casing Installed? (y/n)		40'	
Depth temporary casing installed		50'	
Casing type/dia. (in.)		60'	
Method of installing			
CASING PULLING			
Method employed	<u>manual</u>		
Casing retrieved (feet)	<u>2'</u>		
Casing type/dia. (in.)	<u>PVC / 2"</u>		
CASING PERFORATING			
Equipment used			
Number of perforations/foot			
Size of perforations			
Interval perforated			
GROUTING			
Interval grouted (FBLs)	<u>0-54'</u>		
# of batches prepared	<u>1</u>		
For each batch record:			
Quantity of water used (gal.)	<u>30</u>		
Quantity of cement used (lbs.)	<u>200</u>		
Cement type	<u>Portland</u>		
Quantity of bentonite used (lbs.)	<u>25</u>		
Quantity of calcium chloride used (lbs.)	<u>0</u>		
Volume of grout prepared (gal.)	<u>30</u>		
Volume of grout used (gal.)	<u>20</u>		
COMMENTS:		* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.	

Drilling Contractor

Megan Dascoli
 Department Representative / Inspector

Note: Before decommissioning, water level was measured on 10/23/13, below tp of casing. DTW = 41.83 DTB = 53.73

FIGURE 3
WELL DECOMMISSIONING RECORD

Site Name: <u>National Grid Front Street</u>	Well I.D.: <u>MW-04</u>
Site Location: <u>Front St + York St, Brooklyn, NY</u>	Driller: <u>Quincy Brandt</u>
Drilling Co.: <u>Zebra</u>	Inspector: <u>Megan Dascoli</u>
	Date: <u>10/23/13</u>

DECOMMISSIONING DATA (Fill in all that apply)		WELL SCHEMATIC*
OVERDRILLING		
Interval Drilled		
Drilling Method(s)		
Borehole Dia. (in.)		
Temporary Casing Installed? (y/n)		
Depth temporary casing installed		
Casing type/dia. (in.)		
Method of installing		
CASING PULLING		
Method employed	<u>manual</u>	
Casing retrieved (feet)	<u>1.5'</u>	
Casing type/dia. (in.)	<u>PVC 1/2"</u>	
CASING PERFORATING		
Equipment used		
Number of perforations/foot		
Size of perforations		
Interval perforated		
GROUTING		
Interval grouted (FBLs)	<u>0-44'</u>	
# of batches prepared	<u>1 + 20 gal</u>	
For each batch record:		
Quantity of water used (gal.)	<u>30</u>	
Quantity of cement used (lbs.)	<u>200</u>	
Cement type	<u>Portland</u>	
Quantity of bentonite used (lbs.)	<u>25</u>	
Quantity of calcium chloride used (lbs.)	<u>0</u>	
Volume of grout prepared (gal.)	<u>30</u>	
Volume of grout used (gal.)	<u>50</u>	
COMMENTS:	<p>* Sketch in all relevant decommissioning data, including: interval overdrilled, interval grouted, casing left in hole, well stickup, etc.</p>	

Drilling Contractor _____

Megan Dascoli
Department Representative / Inspector

Note: Before decommissioning, water level was measured, below top of casing. DTW=38.95
DTB = ~~44.05~~ 44.05
10/23/13

FIGURE 3
WELL DECOMMISSIONING RECORD

Site Name: <u>National Grid Front Street</u>	Well I.D.: <u>MLV-05</u>
Site Location: <u>Front St + York St, Brooklyn, NY</u>	Driller: <u>Quincy Brandt</u>
Drilling Co.: <u>Zebra</u>	Inspector: <u>Megan Dascoli</u>
	Date: <u>10/23/13</u>

DECOMMISSIONING DATA (Fill in all that apply)		WELL SCHEMATIC*
OVERDRILLING Interval Drilled Drilling Method(s) Borehole Dia. (in.) Temporary Casing Installed? (y/n) Depth temporary casing installed Casing type/dia. (in.) Method of installing		
CASING PULLING Method employed Casing retrieved (feet) Casing type/dia. (in.)		
CASING PERFORATING Equipment used Number of perforations/foot Size of perforations Interval perforated		
GROUTING Interval grouted (FBLs) # of batches prepared For each batch record: Quantity of water used (gal.) Quantity of cement used (lbs.) Cement type Quantity of bentonite used (lbs.) Quantity of calcium chloride used (lbs.) Volume of grout prepared (gal.) Volume of grout used (gal.)		
COMMENTS: <u>unscrewed + removed 5' of riser.</u> <u>10' of screen remained. Grouted 15' of well.</u> <u>Finished with concrete at grade.</u>		

* Sketch in all relevant decommissioning data, including:
interval overdrilled, interval grouted, casing left in hole,
well stickup, etc.

Drilling Contractor

Megan Dascoli
Department Representative / Inspector

Note: Before decommissioning, water level was
measured, below top of casing. DTW = 6.35
10/23/13 DTB = 15.78

SIDEWALK FLAG REPAIR PHOTOGRAPHS



One Penn Plaza, Suite 600
New York, NY 10119
Phone: 212-736-4444
Facsimile: 212-629-4249

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:

National Grid

PROJECT NAME:

NATIONAL GRID FRONT STREET

URS PROJECT:**Photo No.**

1

Date:

11/21/13

Description:

Looking south at former
MW-01 location at 218
Front Street.

**Photo No.**

2

Date:

11/21/13

Description:

Looking east at former
MW-03 location near 206
Front Street. Two flags
were replaced- one that
held the monitoring well
and one that had a patch
from a refusal.





One Penn Plaza, Suite 600
New York, NY 10119
Phone: 212-736-4444
Facsimile: 212-629-4249

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:

National Grid

PROJECT NAME:

NATIONAL GRID FRONT STREET

URS PROJECT:

Photo No.

3

Date:

11/21/13

Description:

Looking northwest at former MW-02 location just east of the lumber yard at 171 York Street.



Photo No.

4

Date:

11/21/13

Description:

Looking northwest at former MW-4 location west of 171 York Street.





One Penn Plaza, Suite 600
New York, NY 10119
Phone: 212-736-4444
Facsimile: 212-629-4249

PHOTOGRAPHIC DOCUMENTATION

CLIENT NAME:

National Grid

PROJECT NAME:

NATIONAL GRID FRONT STREET

URS PROJECT:**Photo No.**

5

Date:

11/21/13

Description:

Looking southwest at accidentally replaced flag with gas meter box near 218A Front Street. NY Paving had mistakenly marked this flag for replacement instead of MW-03 location, which was then correctly marked out and replaced.

