Donald P. Campbell
Lead Engineer
Site Investigation & Remediation

nationalgrid

August 15, 2014

Elizabeth B. Lukowski
Engineering Geologist
New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau C, 11th Floor
625 Broadway
Albany, NY 12233-7014

Re: Site Characterization Supplemental Scope of Work
Former Peoples Works Manufactured Gas Plant Site
Brooklyn, New York
NYSDEC Site No. 224053, Index No. A2-0552-0606

Dear Ms. Lukowski,

On behalf of National Grid, Tetra Tech, Inc. (Tetra Tech) has prepared the following scope of work to supplement Site Characterization activities for the Former Peoples Works Manufactured Gas Plant (MGP) Site (the Site) in Brooklyn, New York. The former Peoples Works MGP is located between Kent Avenue and Wallabout Channel, between former South 10th Street and former South 11th Street. The Site layout is shown on the attached figure.

This scope of work was developed based upon discussions during a June 26, 2014 meeting between National Grid, the New York State Department of Environmental Conservation (NYSDEC), and Tetra Tech regarding potential, upcoming redevelopment of the Site by a third party and potential Site Characterization (SC) data gaps. This scope of work was prepared with the objectives of determining the extent and source of BTEX in groundwater at the Site, determining the presence or absence of former MGP structures, and further characterizing the potential for MGP related impacts around the footprint of the former structures and along the bulkhead. The findings will be presented in a revised draft SC Report following completion of field activities.

The proposed work will be conducted in accordance with the NYSDEC-approved December 2009 Site Characterization Work Plan (SCWP), Quality Assurance Project Plan (QAPP), and Health and Safety Plan (HASP) for the site investigation. Field activities will also be conducted in accordance with NYSDEC's DER-10 Technical Guidance for Site Investigation and Remediation (NYSDEC, 2010). The SCWP was approved by the NYSDEC in a letter dated March 28, 2010.

Tetra Tech's surveying subcontractor will locate and mark the outlines of the former structures as depicted on the 1887 Sanborn Fire Insurance map, to the extent possible, to facilitate test pit excavations to locate the structure foundations, if present. A utility location subcontractor will then locate and mark all utilities or subsurface objects in the vicinity of the planned borings, test pits and monitoring wells.

Tetra Tech will then mobilize a drilling/excavation subcontractor and sampling equipment. All locations will be cleared using soft dig methods (e.g., vacuum excavation and hand clearing) to a depth of at least five feet below ground surface (bgs) prior to commencement of the planned borings, test pits and monitoring wells. Final locations and completion of the soil borings and test pits will be dependent upon the ability for the field equipment and crew to access the proposed areas.

Eight borings (PWSB-13 through PWSB-20) are proposed along the bulkhead to evaluate the presence or absence of MGP related impacts (Figure 1). The borings will be located as close to the bulkhead as the operation of the lumber yard and subsurface conditions will permit. These borings will be advanced to approximately 40 feet bgs, to 10 feet below the deepest MGP-impacted material, or to refusal. Up to two soil samples per boring will be selected for chemical analysis (Table 1). The first soil sample will be collected at the depth interval indicating the greatest degree of observed impacts at each boring. The greatest degree of impact will be identified by field screening of the borings with a PID, and by visual and olfactory observations. A sample will also be collected 10 feet below the deepest occurrence of observed impacts, or at the termination of the boring. If no impacts are observed within a particular boring, then a sample will be collected immediately above the groundwater table. Soil samples will be analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX), polycyclic aromatic hydrocarbons (PAHs) and free cyanide.

Five borings (PWSB-21 through PWSB-25) are proposed in the vicinity of wells MW-11 and MW-12 to determine the extent and source of BTEX in groundwater at this area of the Site. The borings will be advanced to approximately 20 feet bgs (to correspond with the depths of MW-11 and MW-12). Up to two soil samples per boring will be selected for chemical analysis. The first soil sample will be collected at the depth interval indicating the greatest degree of observed impacts at each boring as described above. A sample will also be collected 10 feet below the deepest occurrence of observed impacts, or at the termination of the boring. If no impacts are observed within a particular boring, then a sample will be collected immediately above the groundwater table. Soil samples will be analyzed for BTEX and PAHs. In addition, groundwater grab samples will be collected (e.g., Hydropunch) at each of these locations, to be analyzed for BTEX and PAHs.

One boring, PWSB-26 will be advanced to further investigate the location of the former purifier house. Another boring, PWSB-27, will be advanced in the northwest portion of the site to investigate the location of potential piping

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extending to the bulkhead. These borings will be advanced to approximately 40 feet bgs, to 10 feet below the deepest MGP-impacted material, or to refusal. Soil samples will be collected as described above, and will be analyzed for BTEX, PAHs, and free cyanide.

The borings will be installed using methodologies to be determined, based on access issues and subsurface conditions. Each soil boring will be continuously logged, and sediment and soils from each boring will be visually characterized to evaluate the presence of impacts. A PID will be used to screen all cores, and measurements will be recorded on the boring logs. Upon completion, soil borings will be grouted with a cement/bentonite mixture and the ground surface, concrete slab or asphalt, will be repaired appropriately.

One monitoring well, PWMW-03, will be installed north of MW-11 and MW-12 to determine the potential for off-site contributions to the observed BTEX in groundwater at the Site. Soil samples will be collected from the monitoring well boring as described for the soil borings and will be analyzed for BTEX and PAHs. The well will be installed as a pre-packed 2-inch polyvinyl chloride (PVC) well with a 10-foot 0.020-inch slotted screened interval, and will be screened across the water table. Each well will be finished with a flush mounted curb box. Upon completion and development of the well, a groundwater sample will be collected using low-flow methods, and analyzed for BTEX and PAHs. In addition, existing monitoring well MW-9 will be inspected and evaluated. The casing and cover will be examined, a bailer will be lowered down the well to check for obstructions or a shift in casing, and a sounding of the well will be conducted to determine the degree of sediment build up in the well. If MW-9 is deemed unsuitable for further use, another new well (PWMW-04) will be installed at location PWSB-13, in the manner described above.

Eight test pits, PWTP-1 through PWTP-8, will be excavated to determine the presence or absence of former MGP structures. The test pits will be excavated across the foundation areas of the gas holder (two test pits); the purifier house; the iron coal oil tanks; the retort house; and in the former South 10th Street right-of-way to explore potential piping that may extend to the bulkhead. The asphalt or concrete slab at each location will be saw cut to approximately two to three feet in width, to allow sufficient room to excavate, and approximately eight to ten feet in length. The test pits will be excavated using a combination of soft dig techniques and a small back-hoe (e.g., Bobcat), dependent upon utilities or structures within the test pit, to a depth of at least five feet bgs. During excavation, the soil will be screened with a PID and inspected for visual or olfactory MGP-related impacts. If MGP-related impacts are identified, a soil sample will be collected from the material, as well as from the bottom of the test pit, below observed impacts (if possible) and analyzed for BTEX, PAHs, and free cyanide. If no impacts are observed, then one sample will be collected from a sidewall of the test pit. Upon completion, test pits will be backfilled with the excavated soil, and the concrete slab or asphalt will be repaired appropriately.

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The services of a New York State licensed land surveyor will be retained to survey the vertical and horizontal locations of the monitoring wells, soil boring, and test pit locations. All investigation-derived wastes will be containerized into United States Department of Transportation (USDOT)-approved 55-gallon drums. A representative disposal sample will be collected following the completion of SSC activities and analyzed for disposal parameters required by the National Grid-selected disposal facility. All investigation-derived wastes will be disposed of at a National Grid-approved disposal facility.

Upon completion of the above activities, a tidal study will be conducted. Water level data loggers will be placed in MW-5, MW-9 (or PWMW-04 if MW-9 is not usable), MW-11, MW-12, PWMW-01, PWMW-02 and PWMW-03. The data loggers will record groundwater elevations across at least two tidal cycles. Tetra Tech will also measure the surface water elevation from a fixed point (to be surveyed) on a bulkhead at the Site and will obtain tide records for this period. This information will be used to determine the tidal influence on groundwater at the Site.

Please note that the boring logs, cross sections, and plan view figures from the sediment investigation have been included with this scope of work, as requested.

If you have any questions please do not hesitate to contact me at 718-963-5453, or via e-mail at donald.campbell@nationalgrid.com.

Sincerely,

Donald P. Campbell
Project Manager

cc: R. Cantagallo (Tetra Tech)

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Table 1
Sample Program Summary
Peoples Works MGP Site
Brooklyn, New York

Boring ID	Total Depth of Boring	Matrix	Sample Depth	Analyses	Rationale
PWSB-13	40 ft. bgs, 10 ft. below MGP impacts, or to refusal	Soil	MGP-impacted Zone	BTEX, PAHs, free cyanide	Boring to determine presence/absence of MGP residuals along bulkhead. Boring will be advanced to the top of the silty clay or 10 feet below MGP impacts, whichever is the greater depth. One sample immediately above the water table will be collected if no impacts are observed.
		Soil	Below MGP-impacted Zone	BTEX, PAHs, free cyanide	
PWSB-14	40 ft. bgs, 10 ft. below MGP impacts, or to refusal	Soil	MGP-impacted Zone	BTEX, PAHs, free cyanide	Boring to determine presence/absence of MGP residuals along bulkhead. Boring will be advanced to the top of the silty clay or 10 feet below MGP impacts, whichever is the greater depth. One sample immediately above the water table will be collected if no impacts are observed.
		Soil	Below MGP-impacted Zone	BTEX, PAHs, free cyanide	
PWSB-15	40 ft. bgs, 10 ft. below MGP impacts, or to refusal	Soil	MGP-impacted Zone	BTEX, PAHs, free cyanide	Boring to determine presence/absence of MGP residuals along bulkhead. Boring will be advanced to the top of the silty clay or 10 feet below MGP impacts, whichever is the greater depth. One sample immediately above the water table will be collected if no impacts are observed.
		Soil	Below MGP-impacted Zone	BTEX, PAHs, free cyanide	
PWSB-16	40 ft. bgs, 10 ft. below MGP impacts, or to refusal	Soil	MGP-impacted Zone	BTEX, PAHs, free cyanide	Boring to determine presence/absence of MGP residuals along bulkhead. Boring will be advanced to the top of the silty clay or 10 feet below MGP impacts, whichever is the greater depth. No samples will be collected if no impacts are observed.
		Soil	Below MGP-impacted Zone	BTEX, PAHs, free cyanide	
PWSB-17	40 ft. bgs, 10 ft. below MGP impacts, or to refusal	Soil	MGP-impacted Zone	BTEX, PAHs, free cyanide	Boring to determine presence/absence of MGP residuals along bulkhead. Boring will be advanced to the top of the silty clay or 10 feet below MGP impacts, whichever is the greater depth. One sample immediately above the water table will be collected if no impacts are observed.
		Soil	Below MGP-impacted Zone	BTEX, PAHs, free cyanide	

Table 1
Sample Program Summary
Peoples Works MGP Site
Brooklyn, New York

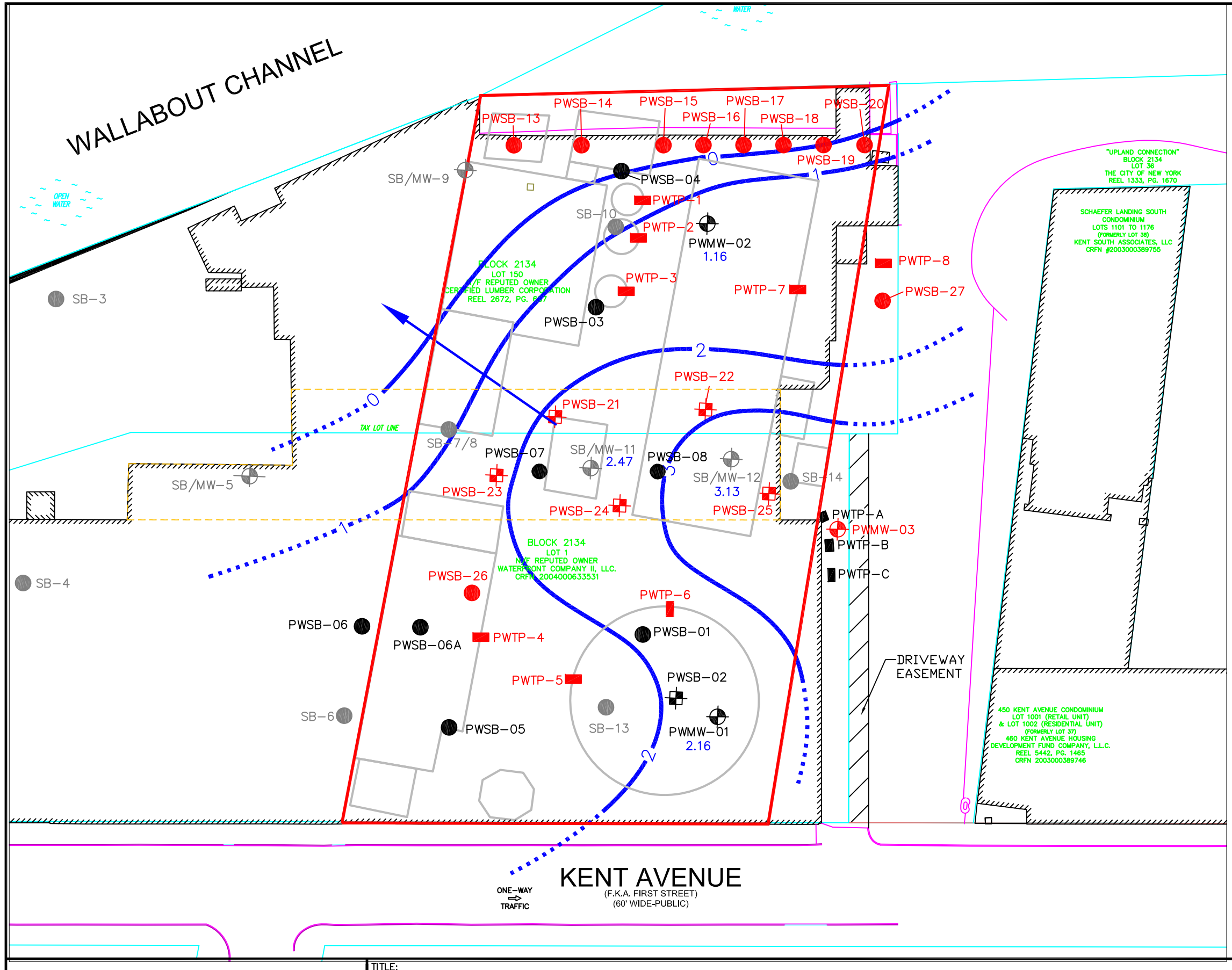
Boring ID	Total Depth of Boring	Matrix	Sample Depth	Analyses	Rationale
PWSB-18	40 ft. bgs, 10 ft. below MGP impacts, or to refusal	Soil	MGP-impacted Zone	BTEX, PAHs, free cyanide	Boring to determine presence/absence of MGP residuals along bulkhead. Boring will be advanced to the top of the silty clay or 10 feet below MGP impacts, whichever is the greater depth. One sample immediately above the water table will be collected if no impacts are observed.
		Soil	Below MGP-impacted Zone	BTEX, PAHs, free cyanide	
PWSB-19	40 ft. bgs, 10 ft. below MGP impacts, or to refusal	Soil	MGP-impacted Zone	BTEX, PAHs, free cyanide	Boring to determine presence/absence of MGP residuals along bulkhead. Boring will be advanced to the top of the silty clay or 10 feet below MGP impacts, whichever is the greater depth. One sample immediately above the water table will be collected if no impacts are observed.
		Soil	Below MGP-impacted Zone	BTEX, PAHs, free cyanide	
PWSB-20	40 ft. bgs, 10 ft. below MGP impacts, or to refusal	Soil	MGP-impacted Zone	BTEX, PAHs, free cyanide	Boring to determine presence/absence of MGP residuals along bulkhead. Boring will be advanced to the top of the silty clay or 10 feet below MGP impacts, whichever is the greater depth. No samples will be collected if no impacts are observed.
		Soil	Below MGP-impacted Zone	BTEX, PAHs, free cyanide	
PWSB-21	20 ft. bgs	Soil	MGP-impacted Zone	BTEX, PAHs	Boring to investigate the source of BTEX impacts to groundwater in MW-11 and MW-12. One sample immediately above the water table will be collected if no impacts are observed.
		Soil	Below MGP-impacted Zone	BTEX, PAHs	
		Groundwater	10 to 15 feet bgs	BTEX, PAHs	
PWSB-22	20 ft. bgs	Soil	MGP-impacted Zone	BTEX, PAHs	Boring to investigate the source of BTEX impacts to groundwater in MW-11 and MW-12. One sample immediately above the water table will be collected if no impacts are observed.
		Soil	Below MGP-impacted Zone	BTEX, PAHs	
		Groundwater	10 to 15 feet bgs	BTEX, PAHs	

Table 1
Sample Program Summary
Peoples Works MGP Site
Brooklyn, New York

Boring ID	Total Depth of Boring	Matrix	Sample Depth	Analyses	Rationale
PWSB-23	20 ft. bgs	Soil	MGP-impacted Zone	BTEX, PAHs	Boring to investigate the source of BTEX impacts to groundwater in MW-11 and MW-12. One sample immediately above the water table will be collected if no impacts are observed.
		Soil	Below MGP-impacted Zone	BTEX, PAHs	
		Groundwater	10 to 15 feet bgs	BTEX, PAHs	
PWSB-24	20 ft. bgs	Soil	MGP-impacted Zone	BTEX, PAHs	Boring to investigate the source of BTEX impacts to groundwater in MW-11 and MW-12. No soil samples will be collected if no impacts are observed.
		Soil	Below MGP-impacted Zone	BTEX, PAHs	
		Groundwater	10 to 15 feet bgs	BTEX, PAHs	
PWSB-25	20 ft. bgs	Soil	MGP-impacted Zone	BTEX, PAHs	Boring to investigate the source of BTEX impacts to groundwater in MW-11 and MW-12. One sample immediately above the water table will be collected if no impacts are observed.
		Soil	Below MGP-impacted Zone	BTEX, PAHs	
		Groundwater	10 to 15 feet bgs	BTEX, PAHs	
PWSB-26	40 ft. bgs, 10 ft. below MGP impacts, or to refusal	Soil	MGP-impacted Zone	BTEX, PAHs, free cyanide	Boring within the footprint of the former purifier house to determine the potential for MGP related impacts and the presence of subsurface structures.
		Soil	Below MGP-impacted Zone	BTEX, PAHs, free cyanide	
PWSB-27	40 ft. bgs, 10 ft. below MGP impacts, or to refusal	Soil	MGP-impacted Zone	BTEX, PAHs, free cyanide	Boring to investigate the potential for MGP related impacts along the possible piping route along the northern portion of the Site.
		Soil	Below MGP-impacted Zone	BTEX, PAHs, free cyanide	
PWMW-03	20 ft. bgs or 10 ft. below water table	Soil	Screened interval	BTEX, PAHs	Monitoring well to investigate the source of BTEX impacts to groundwater in MW-11 and MW-12. The soil and groundwater sample will be used to evaluate the possible off-site contributions to BTEX concentrations.
		Groundwater	10 to 15 feet bgs	BTEX, PAHs	

Table 1
Sample Program Summary
Peoples Works MGP Site
Brooklyn, New York

Boring ID	Total Depth of Boring	Matrix	Sample Depth	Analyses	Rationale
PWTP-01	Not Applicable	Soil	MGP-impacted Zone	BTEX, PAHs, free cyanide	To investigate the potential presence of subsurface structures related to the former oil, coal and gas tanks. One sample will be collected from a side wall of the test pit if no impacts are observed.
		Soil	Below MGP-impacted Zone	BTEX, PAHs, free cyanide	
PWTP-02	Not Applicable	Soil	MGP-impacted Zone	BTEX, PAHs, free cyanide	To investigate the potential presence of subsurface structures related to the former oil, coal and gas tanks. One sample will be collected from a side wall of the test pit if no impacts are observed.
		Soil	Below MGP-impacted Zone	BTEX, PAHs, free cyanide	
PWTP-03	Not Applicable	Soil	MGP-impacted Zone	BTEX, PAHs, free cyanide	To investigate the potential presence of subsurface structures related to the former oil, coal and gas tanks. One sample will be collected from a side wall of the test pit if no impacts are observed.
		Soil	Below MGP-impacted Zone	BTEX, PAHs, free cyanide	
PWTP-04	Not Applicable	Soil	MGP-impacted Zone	BTEX, PAHs, free cyanide	To investigate the potential presence of subsurface structures related to the former purifier house. One sample will be collected from a side wall of the test pit if no impacts are observed.
		Soil	Below MGP-impacted Zone	BTEX, PAHs, free cyanide	
PWTP-05	Not Applicable	Soil	MGP-impacted Zone	BTEX, PAHs, free cyanide	To investigate the potential presence of subsurface structures related to the former gas holder. One sample will be collected from a side wall of the test pit if no impacts are observed.
		Soil	Below MGP-impacted Zone	BTEX, PAHs, free cyanide	
PWTP-06	Not Applicable	Soil	MGP-impacted Zone	BTEX, PAHs, free cyanide	To investigate the piping route along the northern portion of the Site. One sample will be collected from a side wall of the test pit if no impacts are observed.
		Soil	Below MGP-impacted Zone	BTEX, PAHs, free cyanide	



LEGEND

- APPROXIMATE FORMER MGP BOUNDARY
- CURRENT BUILDING
- PAVEMENT
- LOT BOUNDARY
- FORMER MGP-RELATED STRUCTURES
- COVERED AREA
- PWMW-01 / 2.16 — MONITORING WELL LOCATION APPROXIMATE GROUNDWATER ELEVATION (IN FEET RELATIVE TO REFERENCE STATION NYBK)
- PWSB-02 — SOIL BORING AND GROUNDWATER GRAB LOCATION
- SB/MW-09 — APPROXIMATE MONITORING WELL LOCATION INSTALLED DURING PREVIOUS INVESTIGATION
- SB-3 — APPROXIMATE SOIL BORING LOCATION FROM PREVIOUS INVESTIGATIONS
- PWSB-01 — SOIL BORING LOCATION
- PWTP-A — TEST PIT LOCATION
- PWSB-20 — PROPOSED SOIL BORING AND GROUNDWATER GRAB LOCATION
- PWMW-03 — PROPOSED MONITORING WELL LOCATION
- PWSB-13 — PROPOSED SOIL BORING LOCATION
- PWTP-1 — PROPOSED TEST PIT LOCATION
- APPROXIMATE GROUNDWATER ELEVATION CONTOUR, DASHED WHERE INFERRED

ALL UNITS ARE IN MICROGRAMS PER LITER (UG/L).

BTEX = BENZENE, TOLUENE, ETHYLBENZENE, AND XYLENES

ND = NOT DETECTED

PAH = POLYCYCLIC AROMATIC HYDROCARBONS

SOURCES:
BOUNDARY AND SURVEY, NATIONAL GRID – FORMER PEOPLES WORKSITE, BROOKLYN, NEW YORK, PREPARED BY BORBAS SURVEYING & MAPPING, LLC, CONTROL POINT ASSOCIATES, INC, DRAWING NO. 110905_2011-10-24, NOVEMBER 1, 2011, ORIGINAL ISSUE.

SANBORN FIRE INSURANCE MAP, DATED 1887.

0 25 50
FEET

TETRA TECH, INC.

TITLE:
Proposed Additional Soil Borings and Groundwater Grab Sample Locations
Former Peoples Works Manufactured Gas Plant Site
Brooklyn, Kings County, New York

DWN.:	DATE:	PROJECT NO.:
EO	07/16/14	194-4727
CHKD:	REV.:	FIGURE NO.:
RCC	6	1
DES.:	APPD:	
RCC	RCC	

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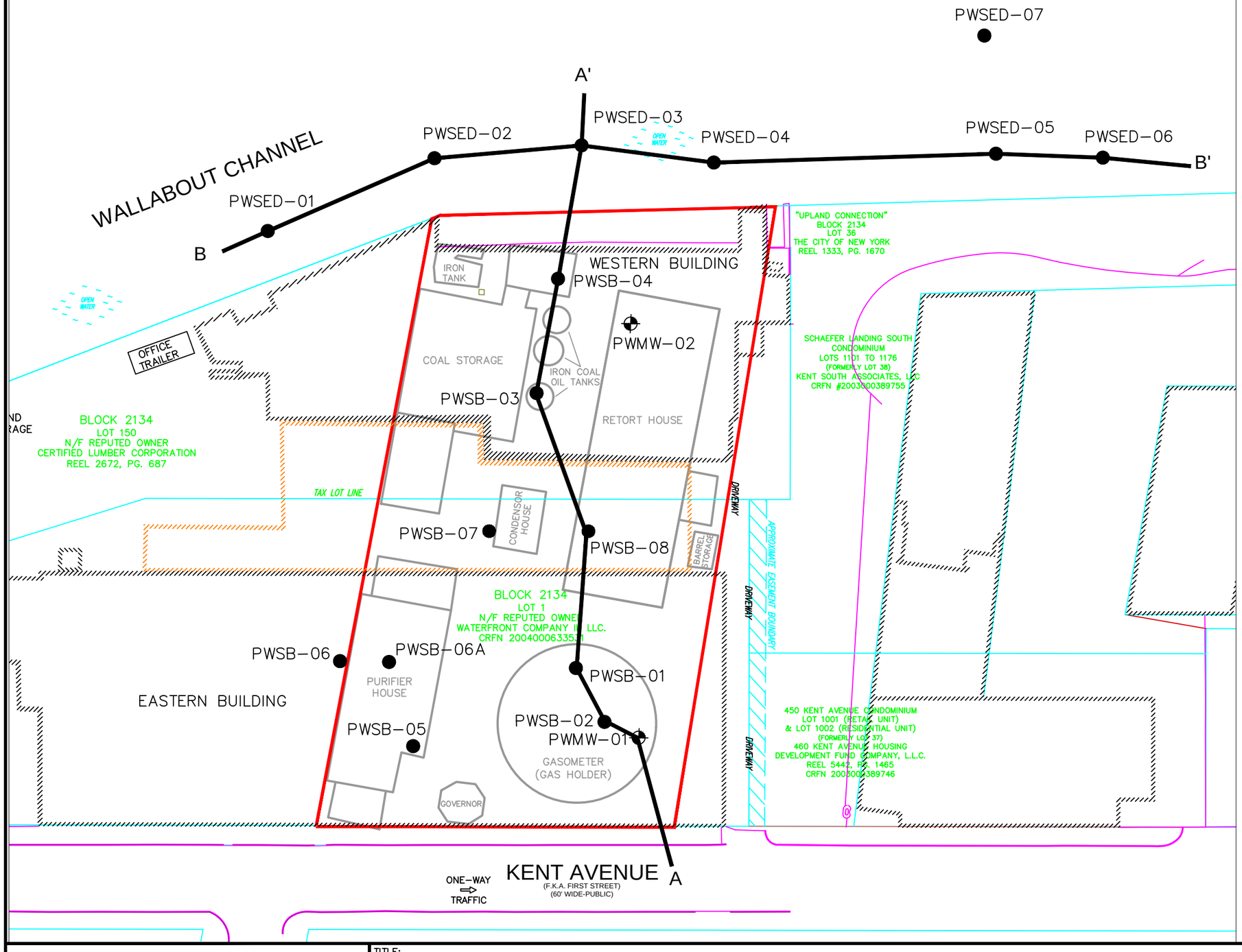

LEGEND

- APPROXIMATE FORMER MGP BOUNDARY
- CURRENT BUILDING
- CURRENT COVERED ROADWAY
- PAVEMENT
- LOT BOUNDARY
- FORMER MGP–RELATED STRUCTURES
- APPROXIMATE EASEMENT
- PROPOSED SEDIMENT BORING

SOURCES:
BOUNDARY AND SURVEY, NATIONAL GRID – FORMER PEOPLES WORKSITE, BROOKLYN, NEW YORK, PREPARED BY BORBAS SURVEYING & MAPPING, LLC, CONTROL POINT ASSOCIATES, INC, DRAWING NO. 110905_2011–10–24, NOVEMBER 1, 2011, ORIGINAL ISSUE.

SANBORN FIRE INSURANCE MAP, DATED 1887.

0 30 60
FEET

TETRA TECH, INC.

TITLE:
Sediment Boring and Cross Section Locations
Former Peoples Works Manufactured Gas Plant Site
Brooklyn, Kings County, New York

DWN.: EO	DATE: 05/20/14	PROJECT NO.: 194–4727	
CHKD: RCC	REV.: 0	FIGURE NO.: 6	
DES.: AV	APPD: RCC		

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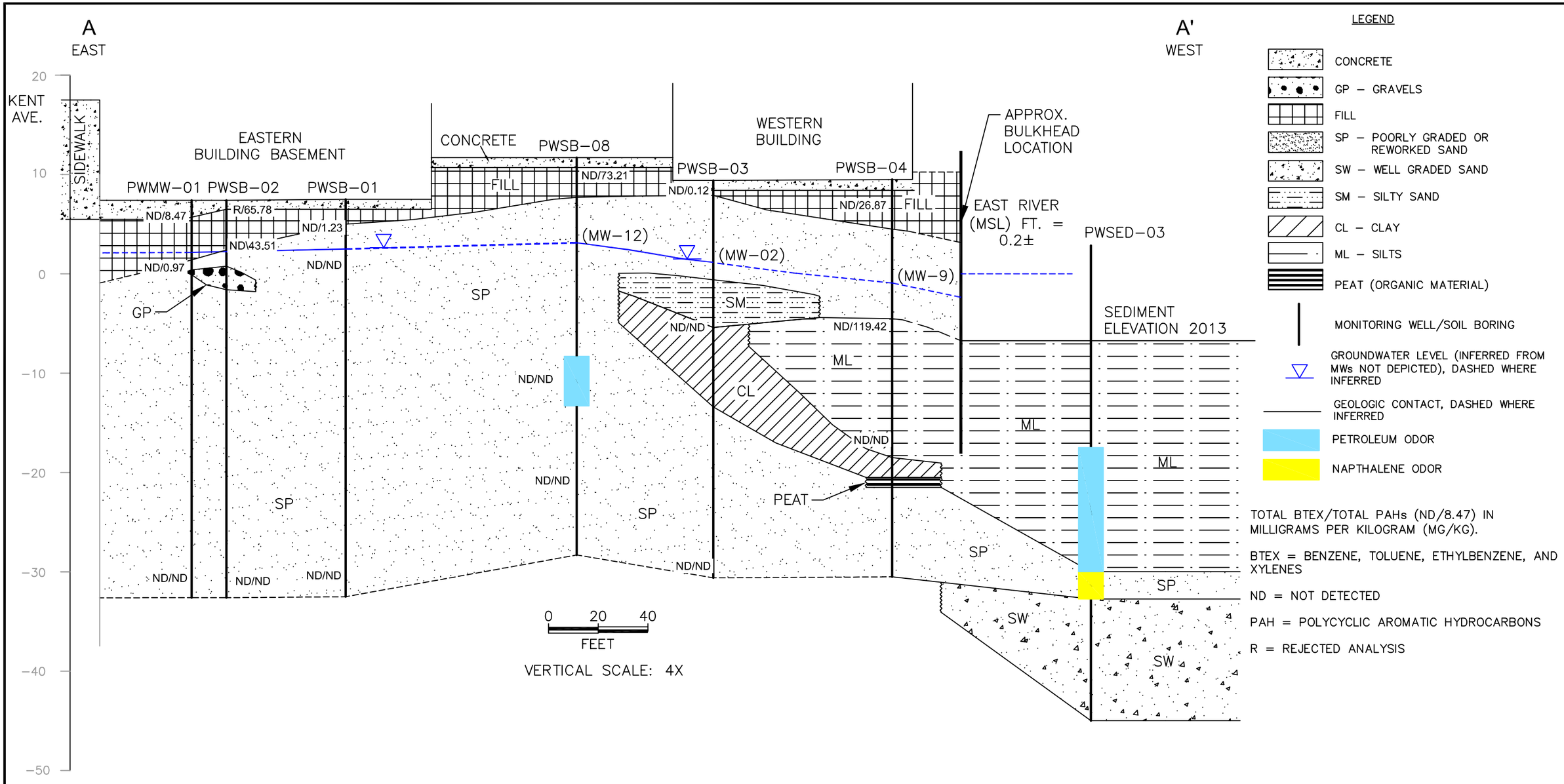

TOTAL BTEX/TOTAL PAHs (ND/8.47) IN MILLIGRAMS PER KILOGRAM (MG/KG).

BTEX = BENZENE, TOLUENE, ETHYLBENZENE, AND XYLENES

ND = NOT DETECTED

PAH = POLYCYCLIC AROMATIC HYDROCARBONS

R = REJECTED ANALYSIS

NOTES:

1. DEPICTED SB/MW BOTTOM DEPTH BASED ON BORING LOG COMPLETION DEPTH (40' BELOW GROUND SURFACE).

2. PWMW−01, PWSB−02, PWSB−01 IN BASEMENT FLOOR (GRADE ELEVATION).

TETRA TECH INC.

TITLE:
Cross−Section A−A'
Former Peoples Works Manufactured Gas Plant Site
Brooklyn, Kings County, New York

DWN.: LMC/DB/EO	DATE: 07/10/14	PROJECT NO.: 194−4727	
CHKD: RCC	REV.: 2		
DES.: AV	APPD: RCC	FIGURE NO.: 7	

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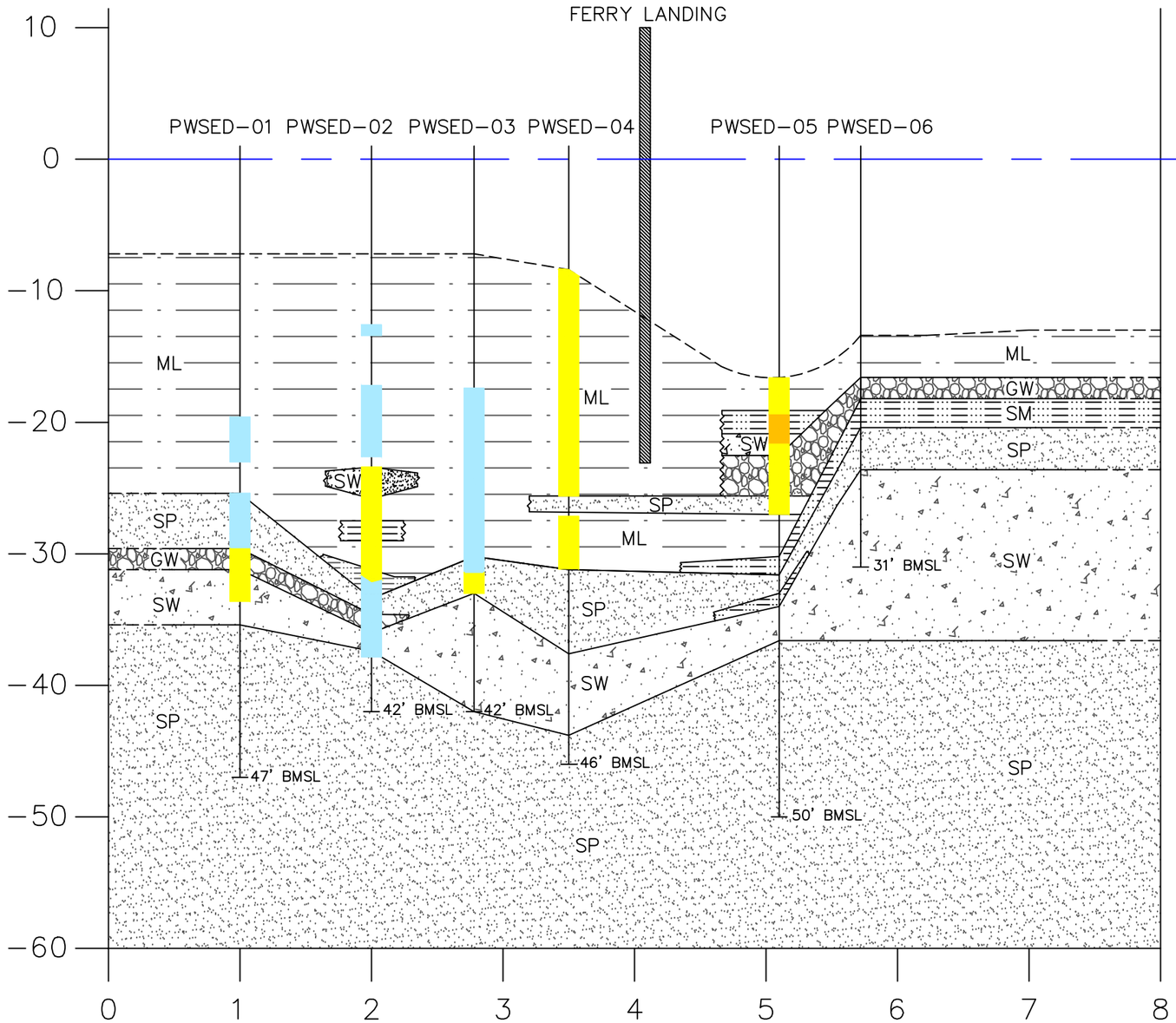
B (SOUTH)

B' (NORTH)



1" = 10 ft.

1" = 100 ft.

LEGEND

- ML – SILTS
- SM – SILTY–SAND
- SW – WELL GRADED SAND
- SP – POORLY GRADED SAND
- GW – GRAVELS
- PETROLEUM ODOR
- NAPTHALENE ODOR
- COAL TAR BLEBS
- MEAN SEA LEVEL FEET
- BOTTOM PROFILE
- FERRY LANDING
- SEDIMENT BORING

SCALE: HORIZONTAL 1" = 100'
VERTICAL 1" = 100'

TETRA TECH, INC.

TITLE:
Cross–Section B–B'
Former Peoples Works Manufactured Gas Plant Site
Brooklyn, Kings County, New York

DWN.: EO	DATE: 06/23/14	PROJECT NO.: 194–4727	
CHKD: AV	REV.: 1	FIGURE NO.: 8	
DES.: AV	APPD: RCC		

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FIELD BORING LOG SHEET

BORING LOG SHEET

BORING NUMBER: PWSED-01

TETRA TECH

PROJECT:	National Grid - Peoples Works	DATE STARTED:	11/21/2013
PROJECT NO.:	194-4727.0002.0001	DATE COMPLETED:	11/21/2013
LOCATION (well or boring ID):	PWSED-01	GROUNDWATER DEPTH (FT):	NA
TOTAL DEPTH (FT):	40'	GROUND ELEVATION (FT):	
GEOLOGIST:	A.Valli	X COORDINATE:	587026.92
DRILLER:	MPI Drilling	Y COORDINATE:	4506824.4
DRILLING/SAMPLING METHOD:	Sonic Drilling	DATUM:	UTM 18 North - NAD 1983

Sample ID	Start Depth (feet)	End Depth (feet)	BLOWS per 6"	Recovery (ft)	Consoli-dated ? Y or N	USCS Soil Classification or Material	Geologic Unit Code	Color	Description	TIME	DATE	Depth of PID/FID (ft)	FID (ppm)	PID (ppm)	Comments	Contact (A, H, U)
PWSED-01 Run #1 (0-5) Recovery 54"/90%	0	1		10"		ML		N5	Silt, Trace Fine Sand, Very Soft, Wet.	12:15	11/21/13	0				
												0				
												0				
												0				
	1	5		44"		ML		N5	Silt, Trace Fine Sand and Clay, Very Soft, Wet.	12:15	11/21/13	0				
												0				
												0				
												0				
PWSED-01 Run #2 (5-23) Recovery 16'/100%	6	12		72"		ML		N5	Silt, Trace Fine Sand, Very Soft, Wet, Little Organics.	13:01	11/21/13	0			No Odor	
												0				
												3.2				
												0				
	12	15		36"		ML		N5	Silt, Some Fine Sand, Soft, Moist, Some Organic Material.	13:01	11/21/13	0			Strong Petroleum Odor at 15"	
												0.6				
												1.9				
												10.8				
	15	18		36"		ML		N5	Silt, Little Fine Sand, Soft, Wet.	13:01	11/21/13	1.2				
												1.4				
												0.9				
												0.6				

FIELD BORING LOG SHEET

BORING LOG SHEET

BORING NUMBER: PWSED-01

TETRA TECH

PROJECT:	National Grid - Peoples Works	DATE STARTED:	11/21/2013
PROJECT NO.:	194-4727.0002.0001	DATE COMPLETED:	11/21/2013
LOCATION (well or boring ID):	PWSED-01	GROUNDWATER DEPTH (FT):	NA
TOTAL DEPTH (FT):	40'	GROUND ELEVATION (FT):	
GEOLOGIST:	A.Valli	X COORDINATE:	587026.92
DRILLER:	MPI Drilling	Y COORDINATE:	4506824.4
DRILLING/SAMPLING METHOD:	Sonic Drilling	DATUM:	UTM 18 North - NAD 1983

Sample ID	Start Depth (feet)	End Depth (feet)	BLOWS per 6"	Recovery (ft)	Consoli-dated ? Y or N	USCS Soil Classification or Material	Geologic Unit Code	Color	Description	TIME	DATE	Depth of PID/FID (ft)	FID (ppm)	PID (ppm)	Comments	Contact (A, H, U)
	18	22		38"		SP		N5	Fine Sand, Trace Silt, Moist.	13:01	11/21/13	1.8			Petroleum Odor with Faint Napthalene Odor.	
												9.5				
												22.8				
												5.6				
	22	23		12"		GW		N5	Fine Gravel, Some Fine to Medium Sand, Wet.	13:01	11/21/13	3.6				
												3				
												2.1				
												1.4				
PWSED-01 Run #3 (23-40) Recovery 14'/82%	23	27		48"		SW		10YR3/1	Fine to Medium Sand, Trace Silt, Wet, Hard.	14:22	11/21/13	1.8			Faint Napthalene Odor	
												3.2				
												2.1				
												0				
	27	29		12"		SP		10YR3/1	Fine Sand, Trace Silt, Wet.	14:22	11/21/13	0			No Odor	
												0				
												0				
												0				
	29	40		60"		SP		10YR4/4	Fine to Medium Sand, Trace Silt, Wet.	14:22	11/21/13	0			No Odor	
												0				
												0				
									End of Boring			0				

FIELD BORING LOG SHEET

BORING LOG SHEET

BORING NUMBER: PWSED-02

PROJECT:	National Grid - Peoples Works	DATE STARTED:	11/21/2013
PROJECT NO.:	194-4727.0002.0001	DATE COMPLETED:	11/21/2013
LOCATION (well or boring ID):	PWSED-02	GROUNDWATER DEPTH (FT):	NA
TOTAL DEPTH (FT):	35'	GROUND ELEVATION (FT):	
GEOLOGIST:	A.Valli	X COORDINATE:	
DRILLER:	MPI Drilling	Y COORDINATE:	
DRILLING/SAMPLING METHOD:	Sonic Drilling	DATUM:	

TETRA TECH

Sample ID	Start Depth (feet)	End Depth (feet)	BLOWS per 6"	Recovery (ft)	Consolidated ? Y or N	USCS Soil Classification or Material	Geologic Unit Code	Color	Description	TIME	DATE	Depth of PID/FID (ft)	FID (ppm)	PID (ppm)	Comments	Contact (A, H, U)
PWSED-02 Run #1 (0-5) Recovery 52"/86%	0	5		52"		ML		N5	Silt, Trace Clay, Very Soft, Wet, Little Organic Material.	8:49	11/21/13	0			Slight Petroleum Odor at 5'.	
												0				
												0				
												0				
PWSED-02 Run #2 (5-20) Recovery 13'/86%	5	10		60"		ML		N5	Silt, Little Fine Sand, Trace Clay, Very Soft, Wet.	9:40	11/21/13	0			No Odor	
												0				
												0				
												0				
	10	15		60"		ML		N5	Silt, Little, Clay, Trace Fine Sand, Very Soft., Wet.	9:40	11/21/13	0			Faint Petroleum Odor.	
												0				
												0				
												0				
	15	16		12"		ML		N5	Silt, Little Clay, Trace Fine Sand, Soft, Wet.	9:40	11/21/13	0				
												0				
												0				
												0				
	16	18		24"		SW		N5	Fine to Medium Sand, Little Fine Gravel, Trace Silt, Wet.	9:40	11/21/13	0			Strong Napthalene Odor	
												6				
												12				
												17				

FIELD BORING LOG SHEET

BORING LOG SHEET

BORING NUMBER: PWSED-02

PROJECT:	National Grid - Peoples Works	DATE STARTED:	11/21/2013
PROJECT NO.:	194-4727.0002.0001	DATE COMPLETED:	11/21/2013
LOCATION (well or boring ID):	PWSED-02	GROUNDWATER DEPTH (FT):	NA
TOTAL DEPTH (FT):	35'	GROUND ELEVATION (FT):	
GEOLOGIST:	A.Valli	X COORDINATE:	
DRILLER:	MPI Drilling	Y COORDINATE:	
DRILLING/SAMPLING METHOD:	Sonic Drilling	DATUM:	

TETRA TECH

Sample ID	Start Depth (feet)	End Depth (feet)	BLOWS per 6"	Recovery (ft)	Consolidated ? Y or N	USCS Soil Classification or Material	Geologic Unit Code	Color	Description	TIME	DATE	Depth of PID/FID (ft)	FID (ppm)	PID (ppm)	Comments	Contact (A, H, U)
	18	20		24"		ML		N5	Silt, Little Fine Sand, Wet, Organic Material Present (hair and wood)	9:40	11/21/13	7			Napthalene Odor	
												3				
												0				
												0				
PWSED-02 Run #3 (20-35) Recovery 15'/100%	20	21.5		18"		SM		N5	Fine to Medium Sand, Little Silte, Soft, Wet.	11:16	11/21/13	0			Napthalene Odor	
												0				
												0				
												0.6				
	21.5	23.5		24"		ML		N5	Silt, Little Clay, Trace Fine Sand, Soft, Wet, Organic Material Present.	11:16	11/21/13	6			Strong Napthalene Odor	
												11				
												18.4				
												6				
	23.5	24.5		12"		ML		N5	Silt, Little Fine Sand, Set.	11:16	11/21/13	2.4			Napthalene Odor	
												0				
												0				
												0				
	24.5	25.5		12"		SM		N5	Fine Sand, Some Silt, Moist.	11:16	11/21/13	2.1			Light Napthalene Odor	
												1.1				
												0.6				
												0				

FIELD BORING LOG SHEET

BORING LOG SHEET

BORING NUMBER: PWSED-02

TETRA TECH

PROJECT:	National Grid - Peoples Works	DATE STARTED:	11/21/2013
PROJECT NO.:	194-4727.0002.0001	DATE COMPLETED:	11/21/2013
LOCATION (well or boring ID):	PWSED-02	GROUNDWATER DEPTH (FT):	NA
TOTAL DEPTH (FT):	35'	GROUND ELEVATION (FT):	
GEOLOGIST:	A.Valli	X COORDINATE:	
DRILLER:	MPI Drilling	Y COORDINATE:	
DRILLING/SAMPLING METHOD:	Sonic Drilling	DATUM:	

Sample ID	Start Depth (feet)	End Depth (feet)	BLOWS per 6"	Recovery (ft)	Consolidated ? Y or N	USCS Soil Classification or Material	Geologic Unit Code	Color	Description	TIME	DATE	Depth of PID/FID (ft)	FID (ppm)	PID (ppm)	Comments	Contact (A, H, U)
	25.5	27		18"		SP		N5	Fine to Medium Sand, Trace Silt, Set.	11:16	11/21/13	1.9			Petroleum Odor.	
												0				
												0				
												0				
	27	27.5		2"		ML		N5	Clayey Silt, Trace Fine Sand, Soft, Moist.	11:16	11/21/13	0			Petroleum Odor.	
												0				
												0				
												0				
	27.5	29		18"		SW		N5	Fine to Medium Sand, Trace Silt, Wet.	11:16	11/21/13	0			Petroleum Odor.	
												0				
												0				
												0				
	29	30		10"		GW		N5	Fine Gravel, Some Fine to Coarse Sand, Wet.	11:16	11/21/13	0			No Odor.	
												0				
												0				
												0				
	30	35		60"		SP		10YR4/1 to 10YR2/1	Fine to Medium Sand, Trace Silt, Wet.	11:16	11/21/13	0			No Odor.	
												0				
												0				
									End of Boring.			0				

FIELD BORING LOG SHEET

BORING LOG SHEET

BORING NUMBER: PWSED-03

PROJECT:	National Grid - Peoples Works	DATE STARTED:	11/20/2013
PROJECT NO.:	194-4727.0002.0001	DATE COMPLETED:	11/21/2013
LOCATION (well or boring ID):	PWSED-03	GROUNDWATER DEPTH (FT):	NA
TOTAL DEPTH (FT):	35'	GROUND ELEVATION (FT):	
GEOLOGIST:	A.Valli	X COORDINATE:	
DRILLER:	MPI Drilling	Y COORDINATE:	
DRILLING/SAMPLING METHOD:	Sonic Drilling	DATUM:	

TETRA TECH

Sample ID	Start Depth (feet)	End Depth (feet)	BLOWS per 6"	Recovery (ft)	Consolidated ? Y or N	USCS Soil Classification or Material	Geologic Unit Code	Color	Description	TIME	DATE	Depth of PID/FID (ft)	FID (ppm)	PID (ppm)	Comments	Contact (A, H, U)
PWSED-03 Run #1 (0-4) Recovery 36"/75%	0	0.5		3"		SP		10YR4/4	Fine Sand, Little Silt, Loose, Wet.	15:21	11/20/13	0				
												0				
												0				
												0				
	0.5	4		33"		ML		N5	Silt, Little Fine Sand, Soft, Shells present.	15:21	11/20/13	0			Organic Odor Present.	
												0				
												0				
												0				
PWSED-03 Run #2 (4-10) Recovery 72"/100%	4	10		72"		ML		N5	Silt, Little Fine Sand, Soft, Wet.	14:09	11/20/13	0			White Material with Ammonia like odor at 9.5'.	
												0				
												0				
												0				
PWSED-03 Run #3 (10-35) Recovery 240"/80%	10	15		60"		ML		N5	Silt with Little Fine Sand, Trace Clay. Soft, Wet, Some Organic Material.	8:08	11/21/13	0			Mild Petroleum Odor and Biotic Sheen Present.	
												0				
												0				
												0				
	15	20		60"		ML		N5	Silt with Fine Sand, Soft, Wet, Lots of Organic Material.	8:08	11/21/13	0			Mild Petroleum Odor and Biotic Sheen Present.	
												0				
												0				
												0				

FIELD BORING LOG SHEET

BORING LOG SHEET

BORING NUMBER: PWSED-03

PROJECT:	National Grid - Peoples Works	DATE STARTED:	11/20/2013
PROJECT NO.:	194-4727.0002.0001	DATE COMPLETED:	11/21/2013
LOCATION (well or boring ID):	PWSED-03	GROUNDWATER DEPTH (FT):	NA
TOTAL DEPTH (FT):	35'	GROUND ELEVATION (FT):	
GEOLOGIST:	A.Valli	X COORDINATE:	
DRILLER:	MPI Drilling	Y COORDINATE:	
DRILLING/SAMPLING METHOD:	Sonic Drilling	DATUM:	

TETRA TECH

Sample ID	Start Depth (feet)	End Depth (feet)	BLOWS per 6"	Recovery (ft)	Consolidated ? Y or N	USCS Soil Classification or Material	Geologic Unit Code	Color	Description	TIME	DATE	Depth of PID/FID (ft)	FID (ppm)	PID (ppm)	Comments	Contact (A, H, U)
	20	23		36"		ML		N5	Silt, Little Clay, Very Soft, Wet, Organic Material.	8:08	11/21/13	0			Slight Petroleum Odor and Biotic Sheen Present.	
												0				
												0				
												0				
	23	25		24"		SP		N5	Fine Sand, Trace Silt, Loose, Wet.	8:08	11/21/13	0			Slight Napthalene Odor.	
												0				
												0				
												0				
	25	35		120"		SW		10YR2/1	Fine to Medium Sand, Trace Silt and Fine Gravel, Wet.	8:08	11/21/13	0			No Odor.	
												0				
												0				
												0				
									End of Boring							

FIELD BORING LOG SHEET

BORING LOG SHEET

BORING NUMBER: PWSED-04

PROJECT:	National Grid - Peoples Works	DATE STARTED:	11/19/2013
PROJECT NO.:	194-4727.0002.0001	DATE COMPLETED:	11/20/2013
LOCATION (well or boring ID):	PWSED-04	GROUNDWATER DEPTH (FT):	NA
TOTAL DEPTH (FT):	38'	GROUND ELEVATION (FT):	
GEOLOGIST:	A.Valli	X COORDINATE:	
DRILLER:	MPI Drilling	Y COORDINATE:	
DRILLING/SAMPLING METHOD:	Sonic Drilling	DATUM:	

TETRA TECH

Sample ID	Start Depth (feet)	End Depth (feet)	BLOWS per 6"	Recovery (ft)	Consolidated ? Y or N	USCS Soil Classification or Material	Geologic Unit Code	Color	Description	TIME	DATE	Depth of PID/FID (ft)	FID (ppm)	PID (ppm)	Comments	Contact (A, H, U)
PWSED-04 Run #1 (0-3) Recovery 36"/100%	0	3		36"		ML		N5	Clayey Silt, Very Soft, Wet.	15:21	11/19/13	0			Very Mild Napthalene Odor.	
												0				
												0				
												0				
PWSED-04 Run #2 (3-8) Recovery 48"/80%	3	8		48"		ML		N5	Clayey Silt, Very Soft, Wet.	15:36	11/19/13	0			Mild Napthalene Odor at 5', Strong Napthalene Odor at 8'.	
												0				
												0				
												0				
PWSED-04 Run #3 (8-18) Recovery 96"/80%	8	13		48"		ML		N5	Silt, Soft, Wet	16:57	11/19/13	0				
												0				
												0				
												0				
	13	17		36"		ML		N5	Clayey Silt, Organic Material Present including wood and hair, Wet.	16:57	11/19/13	0			Strong Napthalene Odor.	
												0				
												0				
												0				
	17	18		12"		SP		GL2 4/5B	Fine to Medium Sand, Trace Silt, Wet	16:57	11/19/13	0			No Odor	
												0				
												0				
												0				

FIELD BORING LOG SHEET

BORING LOG SHEET

BORING NUMBER: PWSED-04

PROJECT:	National Grid - Peoples Works	DATE STARTED:	11/19/2013
PROJECT NO.:	194-4727.0002.0001	DATE COMPLETED:	11/20/2013
LOCATION (well or boring ID):	PWSED-04	GROUNDWATER DEPTH (FT):	NA
TOTAL DEPTH (FT):	38'	GROUND ELEVATION (FT):	
GEOLOGIST:	A.Valli	X COORDINATE:	
DRILLER:	MPI Drilling	Y COORDINATE:	
DRILLING/SAMPLING METHOD:	Sonic Drilling	DATUM:	

TETRA TECH

Sample ID	Start Depth (feet)	End Depth (feet)	BLOWS per 6"	Recovery (ft)	Consolidated ? Y or N	USCS Soil Classification or Material	Geologic Unit Code	Color	Description	TIME	DATE	Depth of PID/FID (ft)	FID (ppm)	PID (ppm)	Comments	Contact (A, H, U)
PWSED-04 Run #4 (18-28) Recovery 96"/80%	18	23		52"		ML		N5	Silt, Little Fine Sand, Organic Material Present.	10:01	11/20/13	0			Mild Napthalene Odor	
												0				
												0				
												0				
	23	24		12"		SP		N5	Fine Sand, Little Silt	10:01	11/20/13	0			Strong Napthalene Odor.	
												0				
												0				
												0				
	24	26		18"		SP		GL1 3/5GY	Fine to Medium Sand, Trace Silt, Wet	10:01	11/20/13	0			No Odor	
												0				
												0				
												0				
	26	28		12"		SP		GL1 3/5GY	Fine to Medium Sand, Wet.	10:01	11/20/13	0			No Odor	
												0				
												0				
												0				
PWSED-04 Run #5 (28-38) Recovery 108"/90%	28	29		12"		SP		10YR3/1	Fine to Medium Sand, Trace Fine Gravel.	11:25	11/20/13	0			No Odor	
												0				
												0				
												0				

FIELD BORING LOG SHEET

BORING LOG SHEET

BORING NUMBER: PWSED-04

PROJECT:	National Grid - Peoples Works	DATE STARTED:	11/19/2013
PROJECT NO.:	194-4727.0002.0001	DATE COMPLETED:	11/20/2013
LOCATION (well or boring ID):	PWSED-04	GROUNDWATER DEPTH (FT):	NA
TOTAL DEPTH (FT):	38'	GROUND ELEVATION (FT):	
GEOLOGIST:	A.Valli	X COORDINATE:	
DRILLER:	MPI Drilling	Y COORDINATE:	
DRILLING/SAMPLING METHOD:	Sonic Drilling	DATUM:	

TETRA TECH

Sample ID	Start Depth (feet)	End Depth (feet)	BLOWS per 6"	Recovery (ft)	Consolidated ? Y or N	USCS Soil Classification or Material	Geologic Unit Code	Color	Description	TIME	DATE	Depth of PID/FID (ft)	FID (ppm)	PID (ppm)	Comments	Contact (A, H, U)
	29	30		6"		SM		N5	Fine Sand, Little Silt.	11:25	11/20/13	0			No Odor	
												0				
												0				
												0				
	30	34		48"		SW		10YR4/1	Fine to Coarse Sand, Little Fine Gravel.	11:25	11/20/13	0			No Odor	
												0				
												0				
												0				
	34	36		24"		SW		10YR4/1	Fine to Medium Sand, Little Fine Gravel, Trace Silt.	11:25	11/20/13	0			No Odor	
												0				
												0				
												0				
	36	38		30"		SP		10YR2/1	Fine Sand, Trace Silt.	11:25	11/20/13	0			No Odor	
												0				
												0				
												0				
									End of Boring							

FIELD BORING LOG SHEET

BORING LOG SHEET

BORING NUMBER: PWSED-05

PROJECT:	National Grid - Peoples Works	DATE STARTED:	11/18/2013
PROJECT NO.:	194-4727.0002.0001	DATE COMPLETED:	11/19/2013
LOCATION (well or boring ID):	PWSED-05	GROUNDWATER DEPTH (FT):	NA
TOTAL DEPTH (FT):	35'	GROUND ELEVATION (FT):	
GEOLOGIST:	A.Valli	X COORDINATE:	
DRILLER:	MPI Drilling	Y COORDINATE:	
DRILLING/SAMPLING METHOD:	Sonic Drilling	DATUM:	

TETRA TECH

Sample ID	Start Depth (feet)	End Depth (feet)	BLOWS per 6"	Recovery (ft)	Consolidated ? Y or N	USCS Soil Classification or Material	Geologic Unit Code	Color	Description	TIME	DATE	Depth of PID/FID (ft)	FID (ppm)	PID (ppm)	Comments	Contact (A, H, U)
PWSED-05 RUN#1 (0-5) Recovery 48"/80%	0	3		36"		ML		N2.5	Silt with Trace Fine Sand, Wet	13:00	11/18/13	0			Mild Napthalene Odor	
												0				
												0				
												0				
	3	5		12"		SM		N2.5	Fine Sand some Silt, Trace Fine Gravel and Shells, Wet.	13:00	11/18/13	0			Coal Tar Blebs, Strong Napthalene Odor.	
												0				
												0				
												0				
PWSED-05 Run #2 (5-10) Recovery 60"/100%	5	6		14"		SW		N2.5	Well Graded Fine Sand, Little Silt, Trace Fine Gravel, Loose, Wet	14:24	11/18/13	0			Slight Napthalene Odor.	
												0				
												0				
												0				
	6	8.5		30"		GW		N2.5	Gravel and Fine Sand, Wet	14:24	11/18/13	0			Strong Napthalene Odor, Coating.	
												0				
												0				
												0				
	8.5	9.5		10"		SP		5YR4/2	Fine Sand, Trace Silt, Dry.	14:24	11/18/13	0			Slight Napthalene Odor.	
												0				
												0				
												0				

FIELD BORING LOG SHEET

BORING LOG SHEET

BORING NUMBER: PWSED-05

PROJECT:	National Grid - Peoples Works	DATE STARTED:	11/18/2013
PROJECT NO.:	194-4727.0002.0001	DATE COMPLETED:	11/19/2013
LOCATION (well or boring ID):	PWSED-05	GROUNDWATER DEPTH (FT):	NA
TOTAL DEPTH (FT):	35'	GROUND ELEVATION (FT):	
GEOLOGIST:	A.Valli	X COORDINATE:	
DRILLER:	MPI Drilling	Y COORDINATE:	
DRILLING/SAMPLING METHOD:	Sonic Drilling	DATUM:	

TETRA TECH

Sample ID	Start Depth (feet)	End Depth (feet)	BLOWS per 6"	Recovery (ft)	Consolidated ? Y or N	USCS Soil Classification or Material	Geologic Unit Code	Color	Description	TIME	DATE	Depth of PID/FID (ft)	FID (ppm)	PID (ppm)	Comments	Contact (A, H, U)
	9.5	10		6"		ML		7.5YR4/4	Clayey Silt, Soft, Dry.	14:24	11/18/13	0			No Odor	
												0				
												0				
												0				
PWSED-05 Run #3 (10-15) Recovery 36"/60%	10	13.5		20"		ML		7.5YR4/4	Clayey Silt, Soft, Moist	16:53	11/18/13	0			No Odor	
												0				
												0				
												0				
	13.5	14.5		12"		SW		7.5YR4/2	Fine Sand, Trace Silt, Dry.	16:53	11/18/13	0			No Odor	
												0				
												0				
												0				
	14.5	15		4"		SW		N5	Fine to Medium Sand, Little Fine Gravel, Shells Present.	16:53	11/18/13	0			No Odor	
												0				
												0				
												0				
PWSED-05 Run #4 (15-25) Recovery 84"/70%	15	16.5		16"		SP		10YR3/2	Fine Sand, Trace Fine Gravel, Loose, Wet.	10:44	11/19/13	0			No Odor	
												0				
												0				
												0				

FIELD BORING LOG SHEET

BORING LOG SHEET

BORING NUMBER: PWSED-05

PROJECT:	National Grid - Peoples Works	DATE STARTED:	11/18/2013
PROJECT NO.:	194-4727.0002.0001	DATE COMPLETED:	11/19/2013
LOCATION (well or boring ID):	PWSED-05	GROUNDWATER DEPTH (FT):	NA
TOTAL DEPTH (FT):	35'	GROUND ELEVATION (FT):	
GEOLOGIST:	A.Valli	X COORDINATE:	
DRILLER:	MPI Drilling	Y COORDINATE:	
DRILLING/SAMPLING METHOD:	Sonic Drilling	DATUM:	

TETRA TECH

Sample ID	Start Depth (feet)	End Depth (feet)	BLOWS per 6"	Recovery (ft)	Consolidated ? Y or N	USCS Soil Classification or Material	Geologic Unit Code	Color	Description	TIME	DATE	Depth of PID/FID (ft)	FID (ppm)	PID (ppm)	Comments	Contact (A, H, U)
	16.5	17.5		6"		SM		7.5YR4/4	Fine Sand, Some Silt, Moist.	10:44	11/19/13	0			No Odor	
												0				
												0				
												0				
	17.5	20		24"		SW		10YR4/3	Fine to Coarse Sand, Little Fine Gravel, Wet.	10:44	11/19/13	0			No Odor	
												0				
												0				
												0				
	20	25		38"		SP		10YR4/2	Fine to Medium Sand, Trace Silt, Wet.	10:44	11/19/13	0			No Odor	
												0				
												0				
												0				
PWSED-05 Run #5 (25-35) Recovery 96"/80%	25	35		96"		SP		10YR4/3	Fine Sand, Trace Silt, Wet.	12:58	11/19/13	0			No Odor	
												0				
												0				
												0				
									End of Boring							

FIELD BORING LOG SHEET

BORING LOG SHEET

BORING NUMBER: PWSED-06

TETRA TECH

PROJECT:	National Grid - Peoples Works	DATE STARTED:	11/22/2013
PROJECT NO.:	194-4727.0002.0001	DATE COMPLETED:	11/22/2013
LOCATION (well or boring ID):	PWSED-06	GROUNDWATER DEPTH (FT):	NA
TOTAL DEPTH (FT):	18'	GROUND ELEVATION (FT):	
GEOLOGIST:	A.Valli	X COORDINATE:	587005.71
DRILLER:	MPI Drilling	Y COORDINATE:	4506970.23
DRILLING/SAMPLING METHOD:	Sonic Drilling	DATUM:	UTM 18 North - NAD 1983

Sample ID	Start Depth (feet)	End Depth (feet)	BLOWS per 6"	Recovery (ft)	Consoli-dated ? Y or N	USCS Soil Classification or Material	Geologic Unit Code	Color	Description	TIME	DATE	Depth of PID/FID (ft)	FID (ppm)	PID (ppm)	Comments	Contact (A, H, U)
PWSED-06 Run #1 (0-18) Recovery 13'/72%	0	0.33		4"		SP		N5	Fine Sand, Little Silt, Some Shells, Wet.	8:52	11/22/13	0			No Odor.	
												0				
												0				
												0				
	0.33	3		32"		ML		N5	Silt, Trace Fine Sand, Organic Material Present.	8:52	11/22/13	0			No Odor.	
												0				
												0				
												0				
	3	4.5		18"		GW		N5	Fine Gravel, Little Silt and Fine Sand, Wet.	8:52	11/22/13	0			No Odor.	
												0				
												0				
												0				
	4.5	8		34"		SM		10YR4/4	Fine Sand, Little Silt, Wet.	8:52	11/22/13	0			No Odor.	
												0				
												0				
												0				
	8	11		34"		SP		10YR3/4	Fine to Medium Sand, Trace Silt, Wet.	8:52	11/22/13	0			No Odor.	
												0				
												0				
												0				

FIELD BORING LOG SHEET

BORING LOG SHEET

BORING NUMBER: PWSED-06

PROJECT:	National Grid - Peoples Works	DATE STARTED:	11/22/2013
PROJECT NO.:	194-4727.0002.0001	DATE COMPLETED:	11/22/2013
LOCATION (well or boring ID):	PWSED-06	GROUNDWATER DEPTH (FT):	NA
TOTAL DEPTH (FT):	18'	GROUND ELEVATION (FT):	
GEOLOGIST:	A.Valli	X COORDINATE:	587005.71
DRILLER:	MPI Drilling	Y COORDINATE:	4506970.23
DRILLING/SAMPLING METHOD:	Sonic Drilling	DATUM:	UTM 18 North - NAD 1983

TETRA TECH

Sample ID	Start Depth (feet)	End Depth (feet)	BLOWS per 6"	Recovery (ft)	Consoli-dated ? Y or N	USCS Soil Classification or Material	Geologic Unit Code	Color	Description	TIME	DATE	Depth of PID/FID (ft)	FID (ppm)	PID (ppm)	Comments	Contact (A, H, U)
	11	18		36"		SW		10YR3/4	Fine to Coarse Sand, Little Fine Gravel, Wet.	8:52	11/22/13	0			No Odor.	
												0				
												0				
												0				
									End of Boring							

FIELD BORING LOG SHEET

BORING LOG SHEET

BORING NUMBER: PWSED-07

PROJECT:	National Grid - Peoples Works	DATE STARTED:	11/22/2013
PROJECT NO.:	194-4727.0002.0001	DATE COMPLETED:	11/22/2013
LOCATION (well or boring ID):	PWSED-07	GROUNDWATER DEPTH (FT):	NA
TOTAL DEPTH (FT):	15'	GROUND ELEVATION (FT):	
GEOLOGIST:	A.Valli	X COORDINATE:	586985.46
DRILLER:	MPI Drilling	Y COORDINATE:	4506948.21
DRILLING/SAMPLING METHOD:	Sonic Drilling	DATUM:	UTM 18 North - NAD 1983

TETRA TECH

Sample ID	Start Depth (feet)	End Depth (feet)	BLOWS per 6"	Recovery (ft)	Consoli-dated ? Y or N	USCS Soil Classification or Material	Geologic Unit Code	Color	Description	TIME	DATE	Depth of PID/FID (ft)	FID (ppm)	PID (ppm)	Comments	Contact (A, H, U)
PWSED-07 Run #1 (0-15) Recovery 13'/86%	0	5		48"		SP		N5	Fine Sand, Little Silt, Some Shells, Wet.	9:37	11/22/13	0			No Odor.	
												0				
												0				
												0				
	5	10		60"		ML		N5	Silt, Trace Fine Sand, Some Organic Material and Shells, Very Soft, Wet.	9:37	11/22/13	0			No Odor.	
												0				
												0				
												0				
	10	10.5		6"		SP		N5	Fine Sand, Little Silt, Wet.	9:37	11/22/13	0			No Odor.	
												0				
												0				
												0				
	10.5	12		12"		SM		10YR4/4	Fine Sand, Trace Silt.	9:37	11/22/13	0			No Odor.	
												0				
												0				
												0				
	12	15		24"		SP		N5	Fine to Medium Sand, Little Fine Gravel, Trace Silt., Wet.	9:37	11/22/13	0			No Odor.	
												0				
												0				
									End of Boring			0				