

From: [James Robinson](#)
To: [Barraza, Alicia A \(DEC\)](#)
Cc: [Komoroske, Michael \(DEC\)](#); [Gerald Nicholls](#); [Michael D. Burke](#); [Woo Kim](#)
Subject: RE: Former Watermark Designs Facility - C224139 - Supplemental Design Investigation Report
Date: Tuesday, July 09, 2019 11:00:46 AM
Attachments: [image001.png](#)
[image002.png](#)

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Alicia,

Thank you for the notice. We will proceed with communication testing.

We completed groundwater sampling last month and will present the results in a forthcoming quarterly progress report.

Regards,

James Robinson, PE, PG
Project Engineer
Direct: 212.479.5565
Mobile: 651.558.1949
[File Sharing Link](#)

LANGAN

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From: Barraza, Alicia A (DEC) <alicia.barraza@dec.ny.gov>
Sent: Tuesday, July 9, 2019 10:51 AM
To: James Robinson <jrobinson@langan.com>
Cc: Komoroske, Michael (DEC) <michael.komoroske@dec.ny.gov>; Gerald Nicholls <gnicholls@Langan.com>; Michael D. Burke <mburke@Langan.com>; Woo Kim <wkim@langan.com>
Subject: RE: Former Watermark Designs Facility - C224139 - Supplemental Design Investigation Report

James-

This communication test plan is acceptable to DEC. However, in the interim, groundwater monitoring should continue in accordance with the Site Management Plan. Last month

(6/11/19 email), Gerry Nichols requested a change to the wells to be sampled. DEC is agreeable to some of these changes and will respond to this request in a separate email.

Alicia Barraza

Project Manager, Environmental Remediation

New York State Department of Environmental Conservation

625 Broadway, 12th Floor, Albany, NY 12233-7016

P: (518) 402-9690 | alicia.barraza@dec.ny.gov

www.dec.ny.gov |  | 

From: James Robinson <jrobinson@langan.com>

Sent: Wednesday, July 03, 2019 1:20 PM

To: Barraza, Alicia A (DEC) <alicia.barraza@dec.ny.gov>

Cc: Komoroske, Michael (DEC) <michael.komoroske@dec.ny.gov>; Gerald Nicholls <gnicholls@Langan.com>; Michael D. Burke <mburke@Langan.com>; Woo Kim <wkim@langan.com>

Subject: RE: Former Watermark Designs Facility - C224139 - Supplemental Design Investigation Report

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Hi Alicia,

I have attached our proposed communication test plan to gather data for design of a long-term vapor mitigation system for the site. We hope to begin communication testing the week of July 15th.

Let us know if you have any questions or would like to discuss.

Regards,

James Robinson, PE, PG
Project Engineer

Direct: 212.479.5565

Mobile: 651.558.1949

[File Sharing Link](#)

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July 3, 2019

Ms. Alicia Barraza
Project Manager, Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway, 12th Floor
Albany, New York 12233-7016

**Re: Communication Test Plan
Former Watermark Designs Facility (BCP Site No. C224139)
491 Wortman Avenue, Brooklyn, NY 11208
Langan Project No.: 170329301**

Dear Ms. Barraza:

Langan Engineering, Environmental, Survey, Landscape Architecture and Geology, D.P.C. (Langan) prepared this Communication Test Plan on behalf of J&H Holding Co. (the Participant) for the property located at 491 Wortman Avenue in Brooklyn, New York (the Site). Since issuance of a Certificate of Completion (COC) on October 24, 2017, the Participant has operated and maintained the air sparge/soil vapor extraction (AS/SVE) system in accordance with the New York State Department of Environmental Conservation (NYSDEC)-approved Site Management Plan (SMP). The existing AS/SVE system has proven to be an effective method of remediating chlorinated solvent impacts in soil and groundwater for the portion of the site affected by solvent use in relation to the former metal plating operations. With on-site groundwater concentrations of chlorinated solvent contaminants of concern all below applicable Ambient Water Quality Standards and Guidance Values for Class GA Water, Langan recommends replacing the existing active remediation system (AS/SVE) at the site with a long-term vapor mitigation engineering control.

This memo lays out a plan to perform the assessments necessary to design a long-term vapor mitigation engineering control for the site consisting of sub-slab depressurization. The assessments will consist of site-wide soil pneumatic communication tests. Our proposed communication test plan is laid out below and divided into two phases. Phase I will provide data for the western portion of the site (Lot 31) which is currently capped. Phase II will provide data for the eastern portion of the site (Lot 36) where a cap and the AS/SVE system are in place.

Phase I – Lot 31

Phase I communication testing will involve the installation of a temporary vacuum/pressure point and vacuum monitoring points at the locations shown on the attached Figure 1. The proposed temporary vacuum/pressure point and vacuum monitoring points will be installed by coring 2-inch (for the vacuum/pressure point) or 0.5-inch (for the vacuum monitoring points) diameter holes through the engineering control (concrete slab) until subsurface strata is exposed. A perforated PVC pipe fitted with a barbed connection point will be inserted into and sealed within the cored vacuum/pressure point hole. We will then apply a vacuum/pressure consistent with design-flow parameters and measure airflow and vacuum/pressure at each surrounding vacuum monitoring point. After the test is completed, the concrete slab will be repaired in kind. The purpose of Phase I communication testing is to assess the pneumatic characteristics of the soil immediately beneath the slab; these characteristics will inform our sub-slab depressurization system design on Lot 31.

Phase II – Lot 36

Phase II communication testing will involve the installation of temporary vacuum monitoring points and partially sealing two existing soil vapor extraction (SVE) wells (SVE-1 and SVE-3) and three existing vapor points (VP) (VP-2, VP-3, and VP-7) using grout (or an equivalent substance). Grout will be installed with the goal of maintaining the top 3 feet of effective screen in the modified SVE wells and the top 1 foot of effective screen in the modified VPs. After grouting the SVE wells and VPs, a vacuum/pressure will be applied using the existing AS/SVE system blower and/or an external vacuum blower. Flow and vacuum/pressure will be measured at the SVE wells and VPs. After the test is completed, the temporary vacuum monitoring points will be resealed and restored to preexisting conditions. The purpose of Phase II communication testing is to determine whether it is feasible to convert the existing AS/SVE system wells into sub-slab depressurization wells.

To facilitate communication testing, we will temporarily shut down the AS/SVE system. Following communication testing, we will restart the AS/SVE system and operate and maintain it as per the SMP.

CLOSING

Please let us know if you have any questions or comments. We plan to begin communication testing activities the week of July 15, 2019. We have enclosed the SSDS Communication Test Plan (Figure 1) and annotated SVE and VP construction logs for context into our proposed approach.

Sincerely,

**Langan Engineering, Environmental, Surveying,
Landscape Architecture and Geology, D.P.C.**



Gerald Nicholls, PE, CHMM
Associate

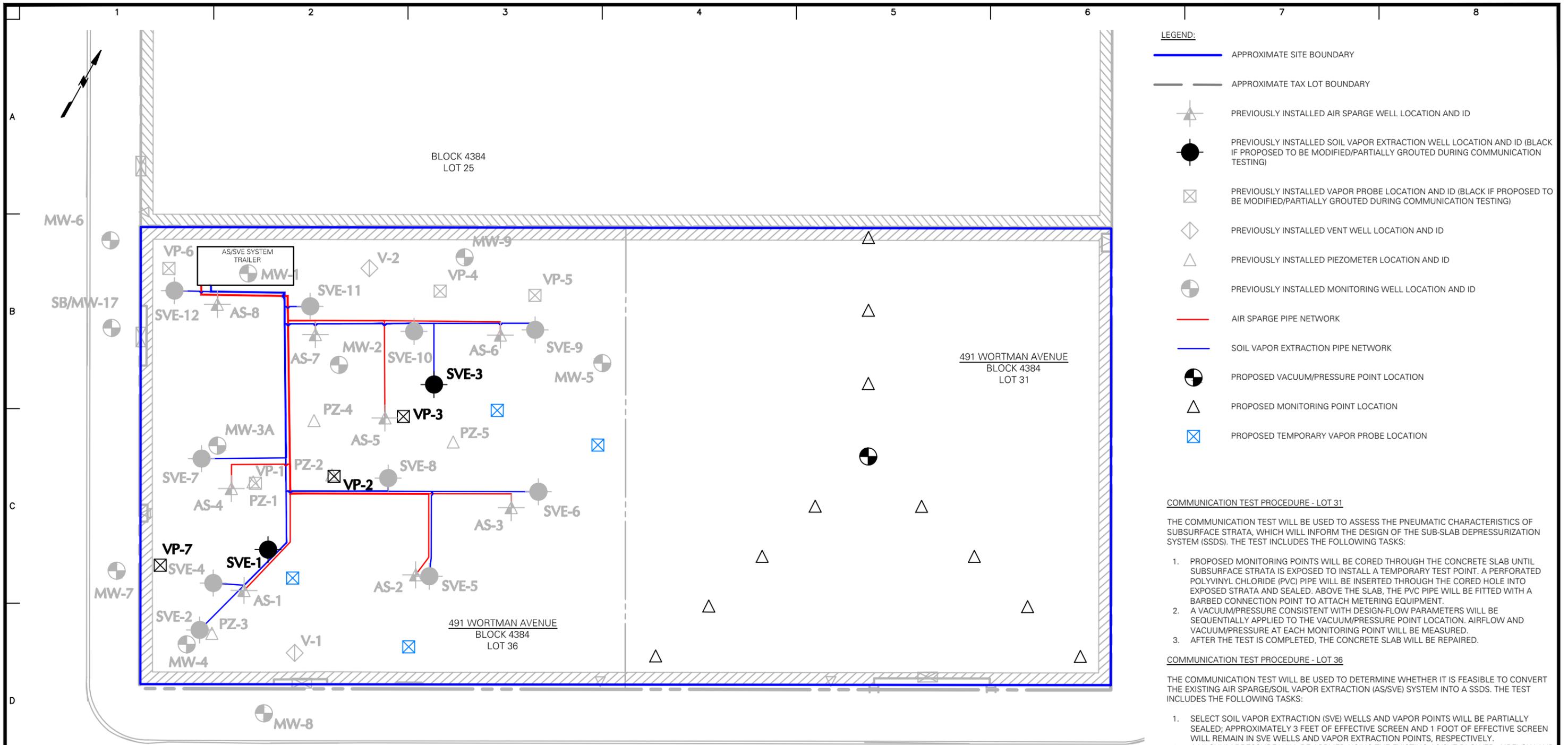


Michael D. Burke, PG, CHMM
Principal/Vice President

cc: J. Robinson (Langan)

Enclosures: Figure 1 – SSDS Communication Test Plan
Attachment A – Soil Vapor Extraction and Vapor Point Construction Logs

FIGURE



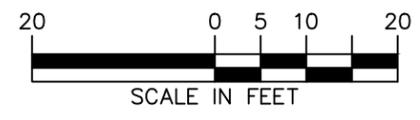
- LEGEND:**
- APPROXIMATE SITE BOUNDARY
 - APPROXIMATE TAX LOT BOUNDARY
 - PREVIOUSLY INSTALLED AIR SPARGE WELL LOCATION AND ID
 - PREVIOUSLY INSTALLED SOIL VAPOR EXTRACTION WELL LOCATION AND ID (BLACK IF PROPOSED TO BE MODIFIED/PARTIALLY GROUTED DURING COMMUNICATION TESTING)
 - PREVIOUSLY INSTALLED VAPOR PROBE LOCATION AND ID (BLACK IF PROPOSED TO BE MODIFIED/PARTIALLY GROUTED DURING COMMUNICATION TESTING)
 - PREVIOUSLY INSTALLED VENT WELL LOCATION AND ID
 - PREVIOUSLY INSTALLED PIEZOMETER LOCATION AND ID
 - PREVIOUSLY INSTALLED MONITORING WELL LOCATION AND ID
 - AIR SPARGE PIPE NETWORK
 - SOIL VAPOR EXTRACTION PIPE NETWORK
 - PROPOSED VACUUM/PRESSURE POINT LOCATION
 - PROPOSED MONITORING POINT LOCATION
 - PROPOSED TEMPORARY VAPOR PROBE LOCATION

- COMMUNICATION TEST PROCEDURE - LOT 31**
- THE COMMUNICATION TEST WILL BE USED TO ASSESS THE PNEUMATIC CHARACTERISTICS OF SUBSURFACE STRATA, WHICH WILL INFORM THE DESIGN OF THE SUB-SLAB DEPRESSURIZATION SYSTEM (SSDS). THE TEST INCLUDES THE FOLLOWING TASKS:
- PROPOSED MONITORING POINTS WILL BE CORED THROUGH THE CONCRETE SLAB UNTIL SUBSURFACE STRATA IS EXPOSED TO INSTALL A TEMPORARY TEST POINT. A PERFORATED POLYVINYL CHLORIDE (PVC) PIPE WILL BE INSERTED THROUGH THE CORED HOLE INTO EXPOSED STRATA AND SEALED. ABOVE THE SLAB, THE PVC PIPE WILL BE FITTED WITH A BARBED CONNECTION POINT TO ATTACH METERING EQUIPMENT.
 - A VACUUM/PRESSURE CONSISTENT WITH DESIGN-FLOW PARAMETERS WILL BE SEQUENTIALLY APPLIED TO THE VACUUM/PRESSURE POINT LOCATION. AIRFLOW AND VACUUM/PRESSURE AT EACH MONITORING POINT WILL BE MEASURED.
 - AFTER THE TEST IS COMPLETED, THE CONCRETE SLAB WILL BE REPAIRED.

- COMMUNICATION TEST PROCEDURE - LOT 36**
- THE COMMUNICATION TEST WILL BE USED TO DETERMINE WHETHER IT IS FEASIBLE TO CONVERT THE EXISTING AIR SPARGE/SOIL VAPOR EXTRACTION (AS/SVE) SYSTEM INTO A SSDS. THE TEST INCLUDES THE FOLLOWING TASKS:
- SELECT SOIL VAPOR EXTRACTION (SVE) WELLS AND VAPOR POINTS WILL BE PARTIALLY SEALED; APPROXIMATELY 3 FEET OF EFFECTIVE SCREEN AND 1 FOOT OF EFFECTIVE SCREEN WILL REMAIN IN SVE WELLS AND VAPOR EXTRACTION POINTS, RESPECTIVELY.
 - A VACUUM/PRESSURE WILL BE APPLIED USING THE EXISTING AS/SVE BLOWER. AIRFLOW AND VACUUM/PRESSURE AT SOIL VAPOR EXTRACTION WELLS AND VAPOR POINTS WILL BE MEASURED.
 - THREE SETS OF COMMUNICATION TESTS WILL BE PERFORMED AT SELECT SVE WELLS AND VAPOR POINTS.

- NOTES:**
- BASE MAP SOURCE: 491 WORTMAN AVENUE BOUNDARY SURVEY PREPARED BY LANGAN ENGINEERING, SURVEY, LANDSCAPE ARCHITECTURE AND GEOLOGY, D.P.C., DATED NOVEMBER 2, 2015.
 - NORTH ARROW SHOWS TRUE NORTH.
 - LOCATIONS ARE APPROXIMATE AND SUBJECT TO CHANGE.

WARNING: IT IS A VIOLATION OF THE NYS EDUCATION LAW ARTICLE 145 FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS ITEM IN ANY WAY.



<p>Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C. 21 Penn Plaza, 360 West 31st Street, 8th Floor New York, NY 10001 T: 212.479.5400 F: 212.479.5444 www.langan.com</p>	Project 491 WORTMAN AVENUE BLOCK No. 4384, LOT Nos. 31 & 36 BROOKLYN KINGS NEW YORK	Figure Title SSDS COMMUNICATION TEST PLAN	Project No. 170329301	Figure No. 1
		Date 06/28/2019	Drawn By WK	
			Checked By JR	

ATTACHMENT A

**SOIL VAPOR EXTRACTION AND VAPOR POINT
CONSTRUCTION LOGS**

PROJECT 491 Wortman Avenue	PROJECT NO. 170329301
LOCATION Brooklyn, New York	ELEVATION AND DATUM ±
DRILLING AGENCY AARCO Environmental Services, Corp.	DATE STARTED 10/16/2014
DRILLING EQUIPMENT Geoprobe® 7822 Track-mounted Rig	DATE FINISHED 10/16/2014
SIZE AND TYPE OF BIT 4 5/8-inch ID Hollow Stem Auger	DRILLER Jon Sepe
	INSPECTORS Albert Tashji

METHOD OF INSTALLATION
 Approximately 4 to 5 inches of concrete was cored through the existing floor slab using a 12-inch diameter core drill. The bore hole was hand cleared to a depth of 5 feet for utility clearance. A Geoprobe® was used to advance 6 5/8-inch ID hollow stem augers to a depth of 9 feet. SVE-01 was installed at 9 feet with a 4" diameter Sch 40 PVC sump, screen, and riser.

METHOD OF WELL DEVELOPMENT

TYPE OF CASING Sch 40 PVC	DIAMETER 4 inches	TYPE OF BACKFILL MATERIAL Portland Cement and Bentonite Mixture
TYPE OF SCREEN Sch 40 PVC	DIAMETER 4 inches	TYPE OF SEAL MATERIAL Bentonite
BOREHOLE DIAMETER 10 inches with auger blades		TYPE OF FILTER MATERIAL Morie # 02 Sand

STICKUP HEIGHT	ELEVATION (ft) ⁽³⁾	HEIGHT (ft)	WELL DETAILS	NOTES	DEPTH (FT) ⁽¹⁾	
TOP OF SEAL		DEPTH (ft) 2		24-inch Stick up		
TOP OF FILTER		DEPTH (ft) 1.5		Existing Concrete Slab	0.0	
TOP OF SCREEN		DEPTH (ft) 2.5				
BOTTOM OF SUMP		DEPTH (ft) 3			1.5	
SCREEN LENGTH		LENGTH (ft) 9			2.5	
SLOT SIZE		INCHES 5			3.0	
GROUNDWATER ELEVATIONS						
ELEVATION	DATE	DEPTH TO WATER (ft) ⁽¹⁾				
ELEVATION	DATE	DEPTH TO WATER (ft) ⁽¹⁾				8.0
ELEVATION	DATE	DEPTH TO WATER (ft) ⁽¹⁾				9.0
ELEVATION	DATE	DEPTH TO WATER (ft) ⁽¹⁾			E.O.B.	
ELEVATION	DATE	DEPTH TO WATER (ft) ⁽¹⁾				
ELEVATION	DATE	DEPTH TO WATER (ft) ⁽¹⁾				

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(1) Depth is measured from concrete slab elevation.

PROJECT 491 Wortman Avenue	PROJECT NO. 170329301
LOCATION Brooklyn, New York	ELEVATION AND DATUM ±
DRILLING AGENCY AARCO Environmental Services, Corp.	DATE STARTED 10/16/2014
DRILLING EQUIPMENT Geoprobe® 7822 Track-mounted Rig	DATE FINISHED 10/16/2014
SIZE AND TYPE OF BIT 4 5/8-inch ID Hollow Stem Auger	DRILLER Jon Sepe
	INSPECTORS Albert Tashji

METHOD OF INSTALLATION
 Approximately 4 to 5 inches of concrete was cored through the existing floor slab using a 12-inch diameter core drill. The bore hole was hand cleared to a depth of 5 feet for utility clearance. A Geoprobe® was used to advance 6 5/8-inch ID hollow stem augers to a depth of 9 feet. SVE-02 was installed at 9 feet with a 4" diameter Sch 40 PVC sump, screen, and riser.

METHOD OF WELL DEVELOPMENT

TYPE OF CASING Sch 40 PVC	DIAMETER 4 inches	TYPE OF BACKFILL MATERIAL Portland Cement and Bentonite Mixture
TYPE OF SCREEN Sch 40 PVC	DIAMETER 4 inches	TYPE OF SEAL MATERIAL Bentonite
BOREHOLE DIAMETER 10 inches with auger blades		TYPE OF FILTER MATERIAL Morie # 02 Sand

STICKUP HEIGHT	ELEVATION (ft) ⁽³⁾	HEIGHT (ft)	WELL DETAILS	NOTES	DEPTH (FT) ⁽¹⁾	
TOP OF SEAL		2		24-inch Stick up		
TOP OF FILTER		1.5		Riser	Existing Concrete Slab	0.0
TOP OF SCREEN		2.5		Grout		1.5
BOTTOM OF SUMP		3				2.5
SCREEN LENGTH		9				3.0
SLOT SIZE		5		1-foot seal		
GROUNDWATER ELEVATIONS				Screen	SVE-3 to be sealed from 6 to 9 feet bgs	
ELEVATION	DATE	DEPTH TO WATER (ft) ⁽¹⁾		Morie #02		
ELEVATION	DATE	DEPTH TO WATER (ft) ⁽¹⁾		Sand		8.0
ELEVATION	DATE	DEPTH TO WATER (ft) ⁽¹⁾		Pack		
ELEVATION	DATE	DEPTH TO WATER (ft) ⁽¹⁾	Sump	9.0		
ELEVATION	DATE	DEPTH TO WATER (ft) ⁽¹⁾		E.O.B.		

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(1) Depth is measured from concrete slab elevation.

PROJECT 491 Wortman Avenue	PROJECT NO. 170329301	
LOCATION Brooklyn, New York	ELEVATION AND DATUM ±	
DRILLING AGENCY AARCO Environmental Services, Corp.	DATE STARTED 10/14/2014	DATE FINISHED 10/15/2014
DRILLING EQUIPMENT Geoprobe® 7822 Track-mounted Rig	DRILLER Jon Sepe	
SIZE AND TYPE OF BIT 4 5/8-inch ID Hollow Stem Auger	INSPECTORS Albert Tashji	

METHOD OF INSTALLATION
Approximately 4 to 5 inches of concrete was cored through the existing floor slab using a 12-inch diameter core drill. The bore hole was hand cleared to a depth of 5 feet for utility clearance. A Geoprobe® was used to advance 4 5/8-inch ID hollow stem augers to a depth of 21 feet. PZ-02 was installed at 21 feet with 2" diameter Sch 40 PVC screen and riser. Vapor point VP-02 was nested in this borehole with 1/2" diameter Sch 40 PVC screen and riser. Both were equipped with a 1' sump.

METHOD OF WELL DEVELOPMENT
A submersible impeller pump was used at PZ-02 to purge about 13.5 gallons of water and until the effluent was observed to be clear and free of silt.

TYPE OF CASING Sch 40 PVC	DIAMETER 2 inches	TYPE OF BACKFILL MATERIAL Portland Cement and Bentonite Mixture
TYPE OF SCREEN Sch 40 PVC	DIAMETER 2 inches	TYPE OF SEAL MATERIAL Bentonite
BOREHOLE DIAMETER 8 inches with auger blades		TYPE OF FILTER MATERIAL Morie # 02 Sand

STICKUP HEIGHT	WELL DETAILS		NOTES	DEPTH (FT) ⁽¹⁾	
	PZ-02	VP-02			
TOP OF SEAL	DEPTH (ft) 8.5	DEPTH (ft) 3.5			
TOP OF FILTER	DEPTH (ft) 9.5	DEPTH (ft) 4.5		24-inch Stick up	
TOP OF SCREEN	DEPTH (ft) 10	DEPTH (ft) 5		Existing Concrete Slab	0.0
BOTTOM OF SUMP	DEPTH (ft) 21	DEPTH (ft) 9		1-foot seal	3.5
SCREEN LENGTH	LENGTH (ft) 10	LENGTH (ft) 3		1-foot seal	4.5
SLOT SIZE	INCHES 0.02			Grout	5.0
GROUNDWATER ELEVATIONS				Sump of vapor point VP-02	8.0
ELEVATION	DATE	DEPTH TO WATER (ft) ⁽¹⁾		8.5	
ELEVATION	DATE	DEPTH TO WATER (ft) ⁽¹⁾		9.0	
ELEVATION	DATE	DEPTH TO WATER (ft) ⁽¹⁾		9.5	
ELEVATION	DATE	DEPTH TO WATER (ft) ⁽¹⁾		10.0	
ELEVATION	DATE	DEPTH TO WATER (ft) ⁽¹⁾		20.0	
ELEVATION	DATE	DEPTH TO WATER (ft) ⁽¹⁾		21.0	
ELEVATION	DATE	DEPTH TO WATER (ft) ⁽¹⁾		E.O.B.	

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(1) Depth is measured from concrete slab elevation.

PROJECT 491 Wortman Avenue	PROJECT NO. 170329301	
LOCATION Brooklyn, New York	ELEVATION AND DATUM ±	
DRILLING AGENCY AARCO Environmental Services, Corp.	DATE STARTED 10/17/2014	DATE FINISHED 10/17/2014
DRILLING EQUIPMENT Geoprobe® 7822 Track-mounted Rig	DRILLER Jon Sepe	
SIZE AND TYPE OF BIT 4 5/8-inch ID Hollow Stem Auger	INSPECTORS Albert Tashji	

METHOD OF INSTALLATION
 Approximately 4 to 5 inches of concrete was cored through the existing floor slab using a 12-inch diameter core drill. The bore hole was hand cleared to a depth of 5 feet for utility clearance. A Geoprobe® was used to advance 4 5/8-inch ID hollow stem augers to a depth of 7 feet. Vapor point VP-03 was installed at 7 feet with 1/2" diameter Sch 40 PVC sump, screen, and riser.

METHOD OF WELL DEVELOPMENT

TYPE OF CASING Sch 40 PVC	DIAMETER 1/2 inches	TYPE OF BACKFILL MATERIAL Portland Cement and Bentonite Mixture
TYPE OF SCREEN Sch 40 PVC	DIAMETER 1/2 inches	TYPE OF SEAL MATERIAL Bentonite
BOREHOLE DIAMETER 8 inches with auger blades		TYPE OF FILTER MATERIAL Morie # 02 Sand

STICKUP HEIGHT	ELEVATION (ft) ⁽³⁾	HEIGHT (ft)	WELL DETAILS	NOTES	DEPTH (FT) ⁽¹⁾	
TOP OF SEAL		2		24-inch Stick up		
TOP OF FILTER		3.5		Existing Concrete Slab	0.0	
TOP OF SCREEN		4.5				
BOTTOM OF SUMP		5			3.5	
SCREEN LENGTH		7			4.5	
SLOT SIZE		1			5.0	
		0.02			6.0	
GROUNDWATER ELEVATIONS					7.0	
ELEVATION	DATE	DEPTH TO WATER (ft) ⁽¹⁾			E.O.B.	
ELEVATION	DATE	DEPTH TO WATER (ft) ⁽¹⁾				
ELEVATION	DATE	DEPTH TO WATER (ft) ⁽¹⁾				
ELEVATION	DATE	DEPTH TO WATER (ft) ⁽¹⁾				
ELEVATION	DATE	DEPTH TO WATER (ft) ⁽¹⁾				
ELEVATION	DATE	DEPTH TO WATER (ft) ⁽¹⁾				

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 21 Penn Plaza, 360 West 31st Street, 8th Floor, New York, New York 10001

(1) Depth is measured from concrete slab elevation.

WELL CONSTRUCTION SUMMARY

Well No. VP-7

PROJECT 491 Wortman Avenue			PROJECT NO. 170329301			
LOCATION Brooklyn, NY			ELEVATION AND DATUM --			
DRILLING AGENCY AARCO Environmental Services Corp.			DATE STARTED 7/29/2015		DATE FINISHED 7/29/2015	
DRILLING EQUIPMENT Geoprobe 7822 DT			DRILLER Tom Seickel			
SIZE AND TYPE OF BIT 3.75-inch direct push			INSPECTOR Anna Schmiedicke			
METHOD OF INSTALLATION Cut Concrete with demo-saw. Use drill hammer, hand dig and hand auger to about 5-feet below grade. Use 3.75-inch direct push to advance to 10-feet below grade.						
METHOD OF WELL DEVELOPMENT None						
TYPE OF CASING PVC		DIAMETER 0.5-inch	TYPE OF BACKFILL MATERIAL Cement Grout			
TYPE OF SCREEN PVC		DIAMETER 0.5-inch	TYPE OF SEAL MATERIAL Hydrated Bentonite Chips			
BOREHOLE DIAMETER 3.75-inches			TYPE OF FILTER MATERIAL No. 2 Sand			
TOP OF CASING	ELEVATION	DEPTH (ft)			DEPTH (FT)	
	--	0.5			SUMMARY SOIL CLASSIFICATION	
TOP OF SEAL	ELEVATION	DEPTH (ft)			no boring log recorded	0.5
	--	1.5				
TOP OF FILTER	ELEVATION	DEPTH (ft)				
	--	2.5				
TOP OF SCREEN	ELEVATION	DEPTH (ft)				
	--	3				
BOTTOM OF BORING	ELEVATION	DEPTH (ft)				
	--	10				
SCREEN LENGTH				1.5		
				2.5		
SLOT SIZE				3.0		
GROUNDWATER ELEVATIONS						
ELEVATION	DATE	DEPTH TO WATER				
--	7/29/2015	NA				
ELEVATION	DATE	DEPTH TO WATER				
ELEVATION	DATE	DEPTH TO WATER				
ELEVATION	DATE	DEPTH TO WATER				
					8.0	
ELEVATION	DATE	DEPTH TO WATER			10.0	
LANGAN Engineering, Environmental, Surveying and Landscape Architecture, D.P.C. 21 Penn Plaza, 360 West 31st Street, 8th Floor, New York						