

Environmental Management & Consulting

Sent via electronic mail (michael.maccabe@dec.ny.gov)

June 5, 2018

Michael D. MacCabe, P.E. Senior Environmental Engineer Division of Environmental Remediation NYS Department of Environmental Conservation 625 Broadway, 12th Floor Albany, NY 12233-7016

Re: Semi-Annual Groundwater Monitoring Report – June 2018 388 Bridge Street Site - Brooklyn, New York BCP Site #C224134

Dear Mr. MacCabe:

Fleming-Lee Shue Inc. (FLS) presents this Semi-Annual Groundwater Monitoring Report for the 388 Bridge Street property (Site). The groundwater monitoring program was implemented to monitor natural attenuation of volatile organic compounds (VOC) in the groundwater following the downsizing of the soil vapor extraction (SVE) system. The SVE system, installed in 2013, was downsized and modified in 2016 to target the area where the bulk of the contaminant mass remains, primarily in the area of SVE well 2 (SVE-2). Selected soil vapor extraction wells were converted to monitoring wells and included in the groundwater monitoring program. The Site Location Map is included as Figure 1.

Background

Results from subsurface investigations performed by FLS from 2008 to 2010 detected tetrachloroethene (PCE) in both soil and groundwater. The Site was accepted into the NYSDEC Brownfields Cleanup Program (BCP) in August 2009. Remedial activities were conducted in accordance with the NYSDEC-approved Remedial Action Work Plan dated April 2012. The BCP Volunteer achieved a Track 2 remedy at the Site. After completion of the remedial work, residual contamination remained on-Site. Therefore, institutional and engineering controls were incorporated into the Site remedy to control exposure to the remaining contamination.

In June 2013, the SVE system was installed to remove VOCs from soil gas beneath the building slab. The system operated from 2013 through 2016 and included six extraction points (SVE-1, SVE-2, SVE-3, SVE-4, SVE-5 and SVE-6).

In 2016, after monitoring of PCE concentrations and prior approval of NYSDEC, the 2013 SVE system was downsized to limit extraction where the bulk of the PCE mass remains (SVE-2). Each of the vapor extraction points, except for one location (SVE-2), were converted into groundwater

monitoring wells (SVE-MW-1, SVE-MW-3, SVE-MW 4, SVE-MW-5 and SVE-MW-6) to monitor natural attenuation of VOCs.

In July 2016 and with the prior approval of NYSDEC (dated July 29, 2016), SVE-MW-3 and SVE-MW-6 were abandoned because they did not extend into the groundwater table and were therefore not usable as groundwater monitoring wells. Off-Site monitoring wells, MW-3 and MW-7, were destroyed during construction activities.

Once remediation is completed, extraction well SVE-2 will be converted to a groundwater monitoring well and serve as the downgradient well. Figure 2 presents the well locations and results from the last three rounds of groundwater sampling.

Groundwater Monitoring Program

The semi-annual groundwater sampling events started in March 2016. The objectives of the groundwater monitoring program include the following:

- Provide a current round of groundwater analytical data from the monitoring wells;
- Evaluate the existing and time-based groundwater conditions at the Site; and
- Evaluate the time-based trends of VOCs.

The groundwater monitoring program involves the following activities:

- Measurement of groundwater field parameters including pH, dissolved oxygen (DO), total dissolved solids (TDS), conductivity, oxidation-reduction potential (ORP), turbidity, salinity, and temperature to determine groundwater conditions;
- Collection of groundwater samples for VOCs to evaluate chlorinated VOC concentration trends and monitor natural attenuation;
- Collection of groundwater samples for geochemical parameters including nitrate, nitrite, sulfate, iron (II), total organic carbon, and dissolved organic carbon to evaluate evidence supporting natural attenuation.

Groundwater Sampling Procedures

On March 14, 2018, groundwater samples were collected from the three on-Site monitoring wells (SVE-MW-1, SVE-MW 4, and SVE-MW-5). Groundwater samples were collected using the low-flow sampling method (EPA Low-Flow Groundwater Sampling Procedures, April 1996). Each monitoring well was purged prior to sampling using a peristaltic pump until groundwater parameters (temperature, pH, DO, conductivity, ORP, TDS, and turbidity) stabilized. Water-quality measurements were monitored using a Horiba U-52 multi-parameter water-quality meter. The monitoring well purging logs are included in Appendix A.

After the stabilization of the groundwater parameters, samples were collected via dedicated pump tubing directly into laboratory-supplied containers. After sample collection each container was labeled, placed on ice in an insulated cooler and transported under chain-of-custody protocol to SGS Accutest Laboratories of Dayton, New Jersey, a New York Environmental Laboratory

Approval Program Certified Laboratory. The groundwater samples were analyzed for Target Compounds List VOCs by EPA Method 8260B and several geochemical parameters.

Summary of Analytical Results

The groundwater analytical results, from all five sampling rounds, were compared to the NYSDEC Division of Water Technical and Operational Guidance Series 1.1.1 Ambient Water Quality Standards and Guidance Values (TOGS) and are summarized in Table 1. The laboratory data report is provided in Appendix B.

The groundwater analytical results indicate that PCE is present in concentrations that exceed the TOGS of 5 μ g/L in each of the monitoring wells sampled: SVE-MW-1 (7.4 μ g/L). SVE-MW-4 (28.7 μ g/L), and SVE-MW-5 (21.5 μ g/L). Trichloroethene (TCE) was detected at a concentration below the TOGS in all three monitoring wells. There were no other exceedances of the Site's contaminants of concern (PCE and its breakdown products, TCE and cis-1,2-dichloroethene). See the attached graphs for an overview of PCE and TCE concentrations since semi-annual groundwater monitoring began in March 2016.

In addition, analytical results indicate chloroform concentration above the TOGS in one of the monitoring wells (SVE-MW-5) and nitrogen, nitrate + nitrite concentrations above the TOGS in SVE-MW-1.

Conclusions and Recommendations

The only contaminant of concern detected above the TOGS is PCE, which was detected above TOGS in each of the three monitoring wells sampled. No other contaminants of concern (TCE and cis-1,2-dichloroethene) were detected at concentration above the TOGS. During this monitoring event, PCE concentrations in each well were higher than in previous sampling events. However, PCE concentrations continue to decline overall compared to pre-remediation concentrations.

FLS recommends continuing the groundwater monitoring on a semi-annual basis to further assess groundwater quality. The next groundwater monitoring event is scheduled for September 2018.

Please contact us with any comments or questions.

Sincerely,

Fleming-Lee Shue, Inc.

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Adam Conti, E.I.T. Environmental Engineer

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Mark Hutson Director

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Roger Fortune Jennifer Coghlan, Eso Michael Bogin Arnold F. Fleming, P Mark Hutson	Sive, Paget & Riesel
Table 1	Groundwater Sampling Analytical Results
Figure 1 Figure 2	Site Location Map Site Plan and Groundwater Sampling Results
Graphs	PCE and TCE Concentration Trends
Appendix A Appendix B	Monitoring Well Purge Logs Laboratory Analytical Data Report

Tables



Table 1 - Groundwater Sampling Analytical Results Semi-Annual Groundwater Report 388 Bridge Street, Brooklyn NY

Client Sample ID: NY TOGS SVE-MW-1 SVE-MW-2 SVE-MW-4 Client Sample ID: Job 18 Sample ID:	6 3/17/2017 Groundwater) ND (5.0) 4) ND (0.14) 5) ND (0.46) 5) ND (0.55) 4) ND (0.34) 5) ND (0.46) 0) ND (1.9)	JC51891-3 JC62395-3 9/26/2017 3/14/2018 ND (5.0) ND (5.0) ND (0.17) ND (0.17) ND (0.38) ND (0.38) ND (0.22) ND (0.22) ND (0.42) ND (1.4)
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2-Hexanone ug/l - ND (1.7) ND (1.5) ND (1.5) ND (3.3) ND (3.3) ND (1.7) ND (1.5) ND (3.3) ND (3.3) ND (1.7) ND (1.5) ND (3.3) ND (3.3) ND (1.7) ND	, , ,	ND (3.3) ND (3.3)
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4-Methyl-2-pentanone(MIBK) ug/l - ND (1.0) ND (1.2) ND (1.2) ND (3.0) ND (3.0) ND (1.2) ND (1.2) ND (1.2) ND (3.0) ND (3.0) ND (3.0) ND (1.0) ND (1.0) ND (1.2)	, , ,	ND (3.0) ND (3.0)
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1,1,2,2-Tetrachloroethane ug/l 5 ND (0.21) ND (0.39) ND (0.17) ND (0.17) ND (0.39) ND (0.17) ND (0.39) ND (0.17) ND (0.21)	A) ND (0.39) 6.6	ND (0.17) ND (0.17) 32 21.5
Tetrachloroethene ug/l 5 11.9 11.8 9.7 2.4 7.4 12.5 11.9 11.6 34.6 28.7 12.1 11.3 Toluene ug/l 5 ND (0.16) ND (0.23) ND (0.25) ND (0.16) ND (0.25) ND (0.23) ND (0.25) ND (0.23) ND (0.24) ND (0.25) ND (0.25) ND (0.23) ND (0.24) ND (0.25) ND (0.25		ND (0.25) ND (0.25)
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Trichloroethene ug/l 5 0.49 J 0.40 J 0.46 J ND (0.27) 0.28 J 7.8 8.8 7.2 2 1.9 3.3 2.6	1.4	2.9 1.7
Trichlorofluoromethane ug/l 5 ND (0.43) ND (0.58) ND (0.58) ND (0.60) ND (0.43) ND (0.58) ND (0.60) ND (0.60) ND (0.43) ND (0.58) ND (0.60) ND (0.58) ND (0.58) ND (0.60) ND (0.43) ND (0.58) ND (0.58) ND (0.60) ND (0.43) ND (0.43) ND (0.58) ND (0.58) <t< td=""><td>B) ND (0.58)</td><td>ND (0.60) ND (0.60)</td></t<>	B) ND (0.58)	ND (0.60) ND (0.60)
Vinyl chloride ug/l 2 ND (0.15) ND (0.33) ND (0.33) ND (0.62) ND (0.62) ND (0.51) ND (0.33) ND (0.62) ND (0.62) ND (0.51) ND (0.53) ND (0.62) ND (0.62) ND (0.55) ND (B) ND (0.33)	ND (0.62) ^a ND (0.62)
m,p-Xylene ug/l - ND (0.38) ND (0.42) ND (0.42) ND (0.43) ND (0.43) ND (0.38) ND (0.42) ND (0.43) ND (0.43	2) ND (0.42)	ND (0.43) ND (0.43)
o-Xylene ug/l 5 ND (0.17) ND (0.21) ND (0.21) ND (0.22) ND (0.22) ND (0.21) ND (0.21) ND (0.21) ND (0.22) ND (0.22) ND (0.21) ND (0.22) ND (0.22) ND (0.22) ND (0.22) ND (0.21) ND (0.21) ND (0.21) ND (0.22) ND (0.22) ND (0.21) ND (0.22) ND (0.22) ND (0.22) ND (0.22) ND (0.22) ND (0.22) ND (0.21)		ND (0.22) ND (0.22)
Xylene (total) ug/l 5 ND (0.17) ND (0.21) ND (0.22) ND (0.21) ND (0.21) ND (0.21) ND (0.22) ND (0.21) ND (0.22) ND (0.21) ND (0.22) ND (0.21) ND (0.21) ND (0.22) ND (0.22) ND (0.17) ND (0.21) ND ND ND ND ND ND (0.21) ND (0.22) ND (0.17) ND (0.21) ND (0.21) ND (0.22) ND (0.17) ND (0.21) ND (0.21) ND (0.21) ND (0.22) ND (0.17) ND (0.21)	I) ND (0.21)	ND (0.22) ND (0.22)
General Chemistry		
Dissolved Organic Carbon mg/l <1.0 - 1.5 1.2 - <1.0 - 1.4 1.4 - <1.0	-	1.4 <1.0
Iron, Ferrous mg/l <0.20 <0.20 ° <0.20 - <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <0.20 ° <	<0.20 ^ª	<0.20
Nitrogen, Nitrate mg/l 10 - 12.2 10.3 ^b 15.8 ^b 10.6 - 6.7 8.1 ^b 10 ^b 4.9 - 9.4	23.2 ^b	6.3 ^b 5.7
Nitrogen, Nitrate + Nitrite mg/l 10 - 12.2 10.3 15.8 10.6 - 6.7 8.1 10 4.9 - 9.4	23.2	6.3 5.7
Nitrogen, Nitrite mg/l 1 - <0.010 ND (0.010) <0.010 - <0.010 0.017 <0.010 - <0.01		ND (0.010) <0.010
Sulfate mg/l 250 - 95.7 88.3 62.7 114 - 94.4 96.6 74.7 40.9 - 75	108	39.5 40.8
Total Organic Carbon mg/l - <1.0 1.2 1 1 1.6 - <1.0	1.3	<1.0

Notes:

ND - not detected

J - estimated concentration

ND - not detected

^a Associated CCV outside of control limits high, sample was ND

^b Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

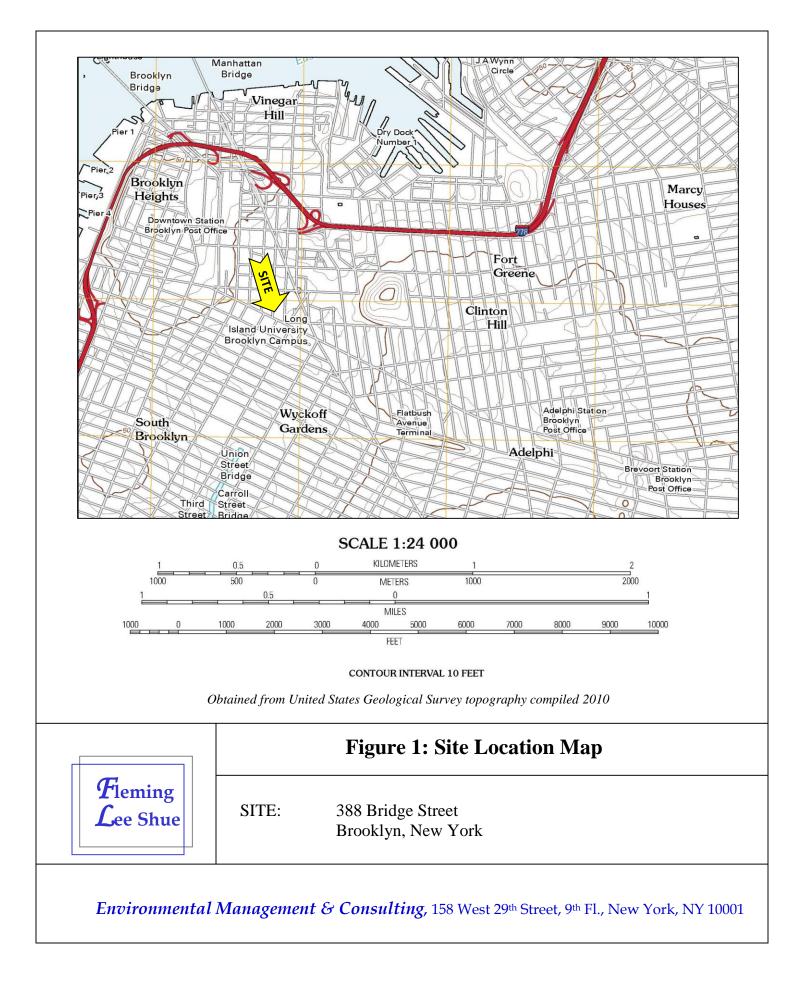
* Groundwater filtered

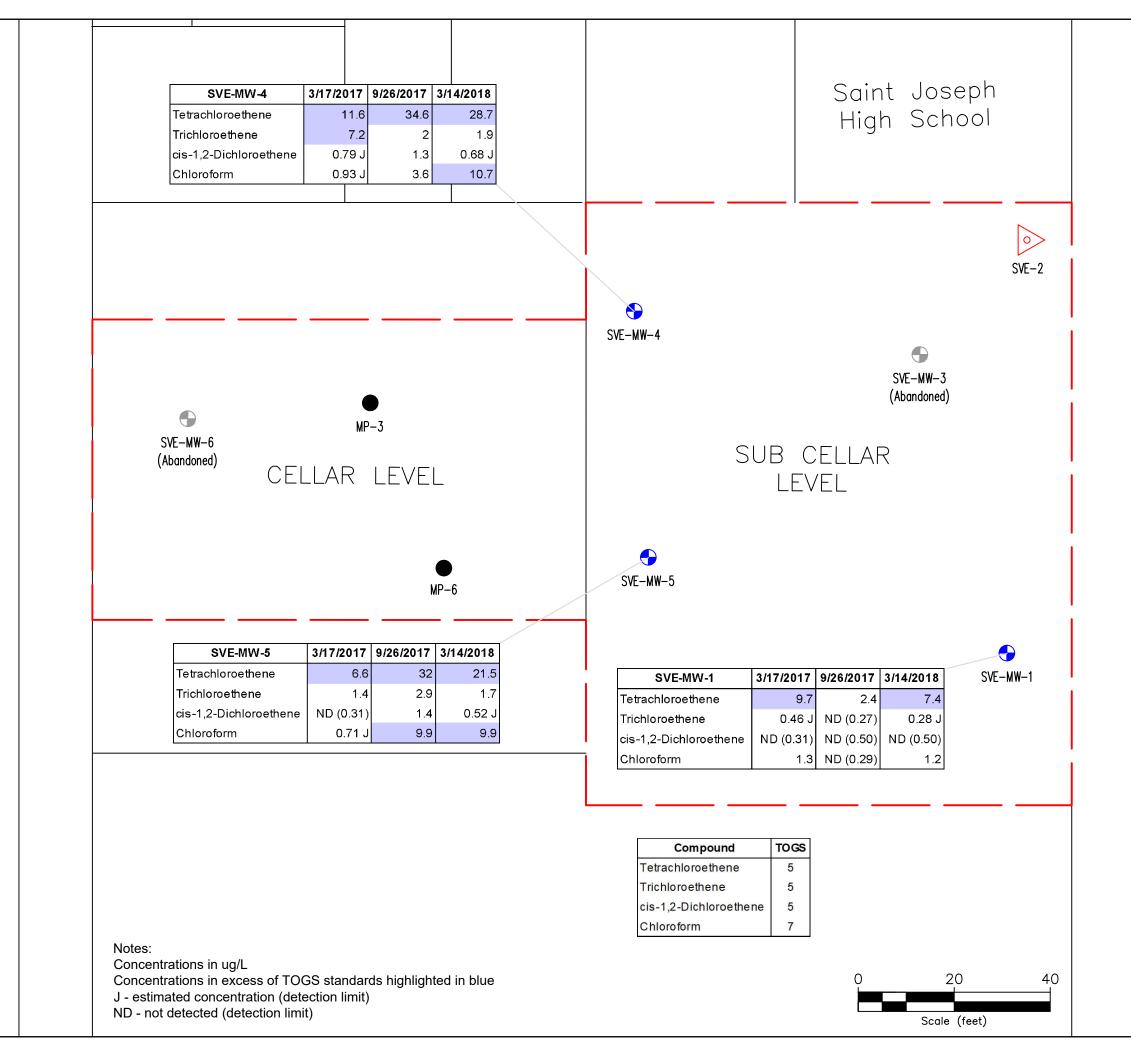
Exceedances of a standard are highlighted in yellow and bolded

Detection of a compound is highlighted in blue

Figures











Environmental Management & Consulting

158 West 29th Street, 9th Fl. New York, NY 10001

388 Bridge Street Brookly, NY BCP Site # C224134

Figure 2

Site Plan and Chlorinated VOCs in Groundwater

May 2018

Project Number 10149-001

LEGEND

—— Site Boundary



Active SVE Well

Groundwater Monitoring Well

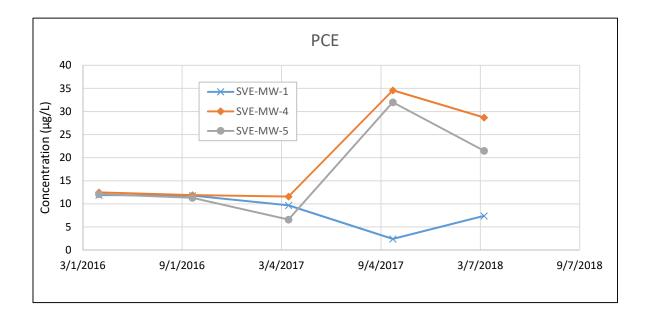
Vacuum Monitoring Point

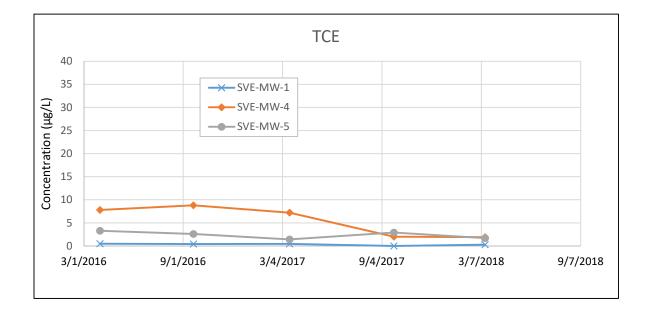
Bridge St.

Graphs



Graphs – Contaminant Concentration Trends Semi-Annual Groundwater Report 388 Bridge Street, Brooklyn, NY





Appendix A

Monitoring Well Purge Logs





Well Purge Log Project: Stahl Real Estate Project Location: 388 Bridge St, Brooklyn, NY

Ν	Monitoring Well:	SVE-MW-1		,	Well Volume :		gal		Initial	Depth to Water:	17.61	ft-btc	
	Date:	314/18	14/18 Total Gallons Purged: <u>1.5</u> gal Depth to Produ					epth to Product:	-	ft-btc			
	Time Pump On:	11:29		Average	e Purge Rate:		mL/min			Total Depth:	19.16	ft-btc	
	ample Collection:				urge Method:		-			Water Column:			
					-		-					-	
	Time Pump Off:	12:29	i	ŀ	PID Reading:	0.0	ppm			Well Diameter	4	in	
Time	Elapsed Time (min.)	DTW (ft-btc)	Well Volume Purged (gal)	Total Volume Purged (gal)	Temp (°C)	рН (s.u.)	ORP (mV)	Cond (mS/cm)	Turbidity (NTUs)	D.O. (mg/L)	TDS (g/l)	Sal (%)	Odor/Color
11:30	0	-	-	-	17.42	6.97	135	0.949	784	14.98	0.607	0.05	Clear, no odor
11:35	5				17.4	7.5	149	0.951	661	13.66	0.609	0.05	Clear, no odor
11:40	10				17.33	7.78	180	0.967	291	15.57	0.619	0.05	Clear, no odor
11:45	15				17.32	7.72	191	0.976	190	15.3	0.623	0.05	Clear, no odor
11:50	2				17.32	7.63	199	0.977	180	15.27	0.625	0.05	Clear, no odor
11:55	25				17.29	7.67	204	0.989	171	15.1	0.633	0.05	Clear, no odor
12:00	30				17.3	7.67	206	0.995	182	15.05	0.637	0.05	Clear, no odor
12:05	35				17.28	7.66	208	0.997	176	15	0.639	0.05	Clear, no odor

Notes:

 $\begin{array}{l} \text{ppm} = \text{parts per million} \\ \text{min} = \text{minutes} \\ \text{DTW} = depth to water \\ \text{ft-btc} = feet below top of casing \\ gal = gallons \\ \text{T} = temperature} \\ \text{`c- degrees celsius} \end{array}$

s.u.=standard units ORP=oxidation reduction potential mV=millivolts Cond=conductivity mS/cm= milliSiemens per centimeter NTUs=Nephelemetric Turbidity Units mg/L = milligrams per liter

Allowable Fluctuations:

mL/min = milliliters per minute TDS = Total Dissolved Solids g/L = grams per liter Sal= Salinity wc = water column

± 10 mV

3%

±0.1

3%

 10% if > 5 NTU
 10% if >0.5 mg/L

 3 rounds if < 5 NTU</td>
 3 rounds if < 0.5mg/L</td>

Well Volume (gal) = 5.8752 * D ² * WC, where D = well diameter (feet)										
Well diameter	1"	2"	4"							
Multiply wc by	0.041	0.163	0.653							



Well Purge Log Project: Stahl Real Estate Project Location: 388 Bridge St, Brooklyn, NY

Monitoring Well:	SVE-MW-4	Well Volume :	gal	Initial Depth to Water:	17.72	_ft-btc
Date:	3/14/2018	Total Gallons Purged: 1.5	gal	Depth to Product:	-	_ft-btc
Time Pump On:	13:50	Average Purge Rate:	_mL/min	Total Depth:	22.18	_ft-btc
Time of Sample Collection:	14:20	Purge Method: Peristaltic	_	Water Column:	4.46	_ft
Time Pump Off:		PID Reading: 0.0	ppm	Well Diameter	4	in

Time	Elapsed Time (min.)	DTW (ft-btc)	Well Volume Purged (gal)	Total Volume Purged (gal)	Temp (°C)	рН (s.u.)	ORP (mV)	Cond (mS/cm)	Turbidity (NTUs)	D.O. (mg/L)	TDS (g/l)	Sal (%)	Odor/Color
13:50	0	-	-	-	17.98	7.55	213	0.596	275	6.63	0.381	0.03	No odor, clear
13:55	5				18.32	7.49	232	0.595	59.9	4.83	0.381	0.03	No odor, clear
14:00	10				18.35	7.47	233	0.595	85.1	4.72	0.381	0.03	No odor, clear
14:05	15				18.38	7.46	234	0.597	58.6	4.68	0.382	0.03	No odor, clear
14:10	20				18.42	7.43	234	0.599	14.2	4.71	0.384	0.03	No odor, clear
14:15	25				18.42	7.43	235	0.6	13.9	4.72	0.386	0.03	No odor, clear
14:20	30				18.44	7.43	235	0.6	12.6	4.72	0.387	0.03	No odor, clear
	•	Allowable Fluctu	ations:	•	3%	± 0.1	± 10 mV	3%	10% if > 5 NTU	10% if >0.5 mg/L	•	•	·

Notes:

 $\begin{array}{l} \text{ppm} = \text{parts per million} \\ \text{min} = \text{minutes} \\ \text{DTW} = depth to water \\ \text{ft-btc} = \text{feet below top of casing} \\ \text{gal} = \text{gallons} \\ \text{T} = \text{temperature} \\ \text{`c} = \text{degrees celsius} \end{array}$

mL/min = milliliters per minute TDS = Total Dissolved Solids g/L = grams per liter Sal= Salinity wc = water column 3 rounds if < 5 NTU 3 rounds if < 0.5mg/L

Well Volume (gal) = 5.8752 * D ² * WC, where D = well diameter (feet)										
Well diameter	1"	2"	4"							
Multiply wc by	0.041	0.163	0.653							



Well Purge Log Project: Stahl Real Estate Project Location: 388 Bridge St, Brooklyn, NY

M	onitoring Well:	SVE-MW-5		١	Well Volume :		gal		Initial	Depth to Water:	17.54	ft-btc		
	Date:	3/14/2018		Total Gallons Purged: 0.8				gal Depth to Product:ft-btc						
	Time Pump On:	12:37		Average	Purge Rate:		_mL/min Total Depth				20.49	ft-btc		
Time of Sample Collection: 13:11 Purge Method:						Peristaltic				Water Column:	2.95	ft		
	Time Pump Off:			PID Reading:0.0ppm					Well Diameter 4 in					
Time	Elapsed Time (min.)	DTW (ft-btc)	Well Volume Purged (gal)	Total Volume Purged (gal)	Temp (°C)	рН (s.u.)	ORP (mV)	Cond (mS/cm)	Turbidity (NTUs)	D.O. (mg/L)	TDS (g/l)	Sal (%)	Odor/Color	
12:40	0	-	-	-	17.24	8.05	201	0.738	34.8	9.88	0.471	0.04	Clear, no odor	
12:45	5				17.45	7.82	217	0.728	0	9.14	0.466	0.04	Clear, no odor	

		3%	± 0.1	± 10 mV	3%	10% if > 5 NTU	10% if >0.5 mg/L					
13:05	25			17.46	7.73	222	0.727	0	8.96	0.465	0.04	Clear, no odor
13:00	20			17.45	7.73	223	0.727	0.3	8.97	0.465	0.04	Clear, no odor
12:55	15			17.46	7.72	221	0.727	1.1	9	0.465	0.04	Clear, no odor
12:50	10			17.46	7.79	223	0.727	0.6	9.06	0.465	0.04	Clear, no odor
12:45	5			17.45	7.82	217	0.728	0	9.14	0.466	0.04	Clear, no odor
12110	ç				0.00	201	011 00	0 110	0.00	0	0.0 .	eleal, no eaci

Notes:

 $\begin{array}{l} \text{ppm} = \text{parts per million} \\ \text{min} = \text{minutes} \\ \text{DTW} = depth to water \\ \text{ft-btc} = \text{feet below top of casing} \\ \text{gal} = \text{gallons} \\ \text{T} = \text{temperature} \\ \text{`c} = \text{degrees celsius} \end{array}$

 $\label{eq:mL/min} = \mbox{mliliters per minute} \\ \mbox{TDS} = \mbox{Total Dissolved Solids} \\ \mbox{g/L} = \mbox{grams per liter} \\ \mbox{Sal= Salinity} \\ \mbox{wc} = \mbox{water column} \\ \mbox{mliliters} \end{cases}$

3 rounds if < 5 NTU 3 rounds if < 0.5mg/L

Well Volume (gal) = 5.8752 * D ² * WC, where D = well diameter (feet)										
Well diameter	1"	2"	4"							
Multiply wc by	0.041	0.163	0.653							

Appendix B

Laboratory Analytical Data Report





Dayton, NJ

The results set forth herein are provided by SGS North America Inc.

Technical Report for

Fleming-Lee Shue, Inc. 388 Bridge Street, Brooklyn, NY 10165-001-1 PO# FP1251 SGS Job Number: JC62395



Sampling Date: 03/14/18

Report to:

Fleming-Lee Shue, Inc.

adam@flemingleeshue.com

ATTN: Adam Conti

Total number of pages in report: 22



Mancy F. Cole

Nancy Cole Laboratory Director

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

Client Service contact: Tammy McCloskey 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

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Please share your ideas about how we can serve you better at: EHS.US.CustomerCare@sgs.com



1 of 22

05/22/18

Automated Report

e-Hardcopy 2.0

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Sample Summary

Fleming-Lee Shue, Inc.

JC62395 Job No:

388 Bridge Street, Brooklyn, NY Project No: 10165-001-1 PO# FP1251

Sample Number	Collected Date	Time By	Received	Matri Code		Client Sample ID
JC62395-1	03/14/18	12:29 SS	03/15/18	AQ	Ground Water	SVE-MW-1
JC62395-1F	03/14/18	12:29 SS	03/15/18	AQ	Groundwater Filtered	SVE-MW-1
JC62395-2	03/14/18	13:11 SS	03/15/18	AQ	Ground Water	SVE-MW-5
JC62395-2F	03/14/18	13:11 SS	03/15/18	AQ	Groundwater Filtered	SVE-MW-5
JC62395-3	03/14/18	14:20 SS	03/15/18	AQ	Ground Water	SVE-MW-4
JC62395-3F	03/14/18	14:20 SS	03/15/18	AQ	Groundwater Filtered	SVE-MW-4



CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	Fleming-Lee Shue, Inc.	Job No	JC62395
Site:	388 Bridge Street, Brooklyn, NY	Report Date	3/29/2018 6:01:16 PM

On 03/15/2018, 3 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 4.9 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JC62395 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

MS Volatiles By Method SW846 8260C

	Matrix: AQ	Batch ID:	V2B7083
--	------------	-----------	---------

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC62401-8MS, JC62401-8MSD were used as the QC samples indicated.
- Blank Spike Recovery(s) for 1,2-Dibromo-3-chloropropane are outside control limits. High percent recoveries and no associated positive reported in the QC batch.
- Matrix Spike Duplicate Recovery(s) for Benzene, Ethylbenzene are outside control limits. Outside control limits due to high level in sample relative to spike amount.
- JC62395-3 for 1,2-Dibromo-3-chloropropane: Associated CCV outside of control limits high, sample was ND. This compound in BS is outside in house QC limits bias high. Associated CCV outside of control limits high, sample was ND.
- JC62395-2 for Bromoform: Associated CCV outside of control limits high, sample was ND.
- JC62395-1 for 1,2-Dibromo-3-chloropropane: Associated CCV outside of control limits high, sample was ND. This compound in BS is outside in house QC limits bias high.
- JC62395-1 for Bromoform: Associated CCV outside of control limits high, sample was ND.
- JC62395-3 for Bromoform: Associated CCV outside of control limits high, sample was ND.
- JC62395-2 for 1,2-Dibromo-3-chloropropane: Associated CCV outside of control limits high, sample was ND. This compound in BS is outside in house QC limits bias high. Associated CCV outside of control limits high, sample was ND.

General Chemistry By Method EPA 300/SW846 9056A

_	· · ·						
Γ	Matrix: AQ	Batch ID:	GP11845				
-	 All samples were prepared within the recommended method holding time. 						

- All method blanks for this batch meet method specific criteria.
- Sample(s) JC62415-2DUP, JC62415-2MS were used as the QC samples for Sulfate.

General Chemistry By Method EPA 353.2/LACHAT

Γ	Matrix: AQ	Batch ID:	GP12047

- All samples were prepared within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC62365-3DUP, JC62365-3MS were used as the QC samples for Nitrogen, Nitrate + Nitrite.
- Matrix Spike Recovery(s) for Nitrogen, Nitrate + Nitrite are outside control limits. Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

General Chemistry By Method EPA353.2/SM4500NO2B

- The data for EPA353.2/SM4500NO2B meets quality control requirements.
- JC62395-1 for Nitrogen, Nitrate: Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

Batch ID: R168810 Matrix: AO

The data for EPA353.2/SM4500NO2B meets quality control requirements.

JC62395-2 for Nitrogen, Nitrate: Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

Matrix: AQ Batch ID: R168811

The data for EPA353.2/SM4500NO2B meets quality control requirements.

JC62395-3 for Nitrogen, Nitrate: Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

General Chemistry By Method SM3500FE B-11

Matrix: AQ	Batch ID: GN77475
- All	

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

- Sample(s) JC62307-1DUP, JC62307-1MS, JC62307-1MSD were used as the QC samples for Iron, Ferrous.
- JC62395-1 for Iron, Ferrous: Field analysis required. Received out of hold time and analyzed by request.
- JC62395-2 for Iron, Ferrous: Field analysis required. Received out of hold time and analyzed by request.
- JC62395-3 for Iron, Ferrous: Field analysis required. Received out of hold time and analyzed by request.

General Chemistry By Method SM4500NO2 B-11

	Matrix: AQ	Batch ID:	GN77464
-	All samples were analyzed withi	n the recommended metho	d holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) JC62365-2DUP, JC62365-2MS were used as the QC samples for Nitrogen, Nitrite.

General Chemistry By Method SM5310 B-11

	Matrix: AQ	Batch ID:	GP11967
-	All samples were prepared within	the recommended metho	d holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) JC62395-2MS, JC62395-2MSD were used as the QC samples for Total Organic Carbon.

	Matrix: AQ	Batch ID:	GP11993
_	A11 1 1 .a.	4 11 4	

All samples were prepared within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Sample(s) JC62395-2FMS, JC62395-2FMSD were used as the QC samples for Dissolved Organic Carbon.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

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Summary of Hits

Job Number:	JC62395
Account:	Fleming-Lee Shue, Inc.
Project:	388 Bridge Street, Brooklyn, NY
Collected:	03/14/18

Lab Sample ID Client Sample ID Analyte	Result/ Qual	RL	MDL	Units	Method
JC62395-1 SVE-MW-1					
Chloroform Tetrachloroethene Trichloroethene Nitrogen, Nitrate ^a Nitrogen, Nitrate + Nitrite Sulfate Total Organic Carbon JC62395-1F SVE-MW-1	1.2 7.4 0.28 J 10.6 10.6 114 1.2	1.0 1.0 0.31 0.30 2.0 1.0	0.29 0.50 0.27	ug/l ug/l ug/l mg/l mg/l mg/l	SW846 8260C SW846 8260C SW846 8260C EPA353.2/SM4500NO2B EPA 353.2/LACHAT EPA 300/SW846 9056A SM5310 B-11
Dissolved Organic Carbon	1.2	1.0		mg/l	SM5310 B-11
JC62395-2 SVE-MW-5				0	
Chloroform cis-1,2-Dichloroethene Tetrachloroethene Trichloroethene Nitrogen, Nitrate ^a Nitrogen, Nitrate + Nitrite Sulfate JC62395-2F SVE-MW-5	9.9 0.52 J 21.5 1.7 5.7 5.7 40.8	1.0 1.0 1.0 0.21 0.20 2.0	0.29 0.50 0.50 0.27	ug/l ug/l ug/l ug/l mg/l mg/l	SW846 8260C SW846 8260C SW846 8260C SW846 8260C EPA353.2/SM4500NO2B EPA 353.2/LACHAT EPA 300/SW846 9056A
No hits reported in this sample.					
JC62395-3 SVE-MW-4					
Chloroform cis-1,2-Dichloroethene Tetrachloroethene Trichloroethene Nitrogen, Nitrate ^a Nitrogen, Nitrate + Nitrite Sulfate Total Organic Carbon JC62395-3F SVE-MW-4	10.7 0.68 J 28.7 1.9 4.9 4.9 40.9 1.6	1.0 1.0 1.0 0.11 0.10 2.0 1.0	0.29 0.50 0.50 0.27	ug/l ug/l ug/l ug/l mg/l mg/l mg/l	SW846 8260C SW846 8260C SW846 8260C SW846 8260C EPA353.2/SM4500NO2B EPA 353.2/LACHAT EPA 300/SW846 9056A SM5310 B-11
Dissolved Organic Carbon	1.4	1.0		mg/l	SM5310 B-11
Dissolven Organic Cardon	1.4	1.0		mg/l	21413910 D-11

(a) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

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SGS





Dayton, NJ

Section 4

Sample Results

Report of Analysis



4



	Report	Report of Analysis				Page 1 of 2	
Client Sam Lab Sampl Matrix: Method: Project:	ple ID: SVE-MW-1 e ID: JC62395-1 AQ - Ground Water SW846 8260C 388 Bridge Street, Br	ooklyn, NY			Date	1	3/14/18 3/15/18 /a
Run #1 Run #2		Analyzed 03/24/18 00:40	By SS	Prep D n/a	ate	Prep Batch n/a	Analytical Batch V2B7083
Run #1 Run #2	Purge Volume 5.0 ml						
VOA TCL	List (SOM0 1.1)						
CAS No.	Compound	Result	RL	MDL	Units	Q	
67-64-1	Acetone	ND	10	5.0	ug/l		
71-43-2	Benzene	ND	0.50	0.17	ug/l		
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l		
75-27-4	Bromodichloromethane	ND	1.0	0.22	ug/l		
75-25-2	Bromoform ^a	ND	1.0	0.42	ug/l		
74-83-9	Bromomethane	ND	2.0	1.4	ug/l		
78-93-3	2-Butanone (MEK)	ND	10	4.8	ug/l		
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l		
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l		
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l		
75-00-3	Chloroethane	ND	1.0	0.59	ug/l		
67-66-3	Chloroform	1.2	1.0	0.29	ug/l		
74-87-3	Chloromethane	ND	1.0	0.53	ug/l		
110-82-7	Cyclohexane	ND	5.0	0.63	ug/l		
96-12-8	1,2-Dibromo-3-chloropropan	ı ^b ND	2.0	0.69	ug/l		
124-48-1	Dibromochloromethane	ND	1.0	0.16	ug/l		
106-93-4	1,2-Dibromoethane	ND	1.0	0.21	ug/l		
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l		
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l		
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l		
75-71-8	Dichlorodifluoromethane	ND	2.0	1.9	ug/l		
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l		
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l		
75-35-4	1,1-Dichloroethene	ND	1.0	0.47	ug/l		
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.50	ug/l		
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.40	ug/l		
78-87-5	1,2-Dichloropropane	ND	1.0	0.24	ug/l		
10061-01-5	· 1 1	ND	1.0	0.25	ug/l		
10061-02-6	· 1	ND	1.0	0.22	ug/l		
123-91-1	1,4-Dioxane	ND	130	52	ug/l		
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l		
76 19 1	Encon 119	ND	50	19			

ND = Not detected MDL = Method Detection Limit

ND

5.0

1.2

RL = **Reporting Limit**

76-13-1

Freon 113

ug/l

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

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JC62395

E = Indicates value exceeds calibration range

J = Indicates an estimated value

Project: VOA TCL List (SO	388 Bridge Street, Brooklyn, NY		
Method:	SW846 8260C	Percent Solids:	n/a
Matrix:	AQ - Ground Water	Date Received:	03/15/18
Lab Sample ID:	JC62395-1	Date Sampled:	03/14/18
Client Sample ID:	SVE-MW-1		

Report	of	Analysis	
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CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	3.3	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.25	ug/l	
79-20-9	Methyl Acetate	ND	5.0	3.1	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	3.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.17	ug/l	
127-18-4	Tetrachloroethene	7.4	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.24	ug/l	
79-01-6	Trichloroethene	0.28	1.0	0.27	ug/l	J
75-69-4	Trichlorofluoromethane	ND	2.0	0.60	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.62	ug/l	
	m,p-Xylene	ND	1.0	0.43	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limi	ts	
1868-53-7	Dibromofluoromethane	97 %		80-12	20%	
17060-07-0	1,2-Dichloroethane-D4	117%		81-1	24%	
2037-26-5	Toluene-D8	92 %		80-1	20%	
460-00-4	4-Bromofluorobenzene	93 %		80-1	20%	

(a) Associated CCV outside of control limits high, sample was ND.

(b) Associated CCV outside of control limits high, sample was ND. This compound in BS is outside in house QC limits bias high.

- **J** = Indicates an estimated value
- B = Indicates analyte found in associated method blank
- N = Indicates presumptive evidence of a compound

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SGS

SGS LabLink@1001009 14:02 22-May-2018

Client Sample ID: SVE-N Lab Sample ID: JC623 Matrix: AQ - (Date Sampled Date Received Percent Solids	: 03	
Project: 388 Bi	idge Street, Bro	oklyn, NY			i ci cent bonus	. 11/0	
General Chemistry							
Analyte	Result	RL	Units	DF	Analyzed	By	Method
Iron, Ferrous ^a	< 0.20	0.20	mg/l	1	03/15/18 21:45	LS	SM3500FE B-11
Nitrogen, Nitrate ^b	10.6	0.31	mg/l	1	03/29/18 14:00	BM	EPA353.2/SM4500NO2B
Nitrogen, Nitrate + Nitrite	10.6	0.30	mg/l	3	03/29/18 14:00	BM	EPA 353.2/LACHAT
Nitrogen, Nitrite	< 0.010	0.010	mg/l	1	03/15/18 19:35	LS	SM4500NO2 B-11
Sulfate	114	2.0	mg/l	1	03/21/18 10:53	NV	EPA 300/SW846 9056A

mg/l

1

03/27/18 00:42 CD

Report of Analysis

(a) Field analysis required. Received out of hold time and analyzed by request.

1.0

(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

1.2

Total Organic Carbon



SM5310 B-11

4.1 **4**



SGS LabLink@1001009 14:02 22-May-2018

Client Sample ID:SVE-MW-1Lab Sample ID:JC62395-1FMatrix:AQ - Groundwater FilteredProject:388 Bridge Street, Brooklyn, NY					Date Sampled Date Received Percent Solids	: 03		
General Chemistry	7							
Analyte		Result	RL	Units	DF	Analyzed	By	Method
Dissolved Organic (Carbon	1.2	1.0	mg/l	1	03/27/18 19:21	CD	SM5310 B-11

Report of Analysis

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4.2

4





		Report	of Ai	nalysis			Page 1 of 2
Client Sam Lab Sampl Matrix: Method: Project:	-	rooklyn, NY			Date	-	5/14/18 5/15/18 a
Run #1 Run #2		Analyzed 03/24/18 01:10	By SS	Prep D n/a	ate	Prep Batch n/a	Analytical Batch V2B7083
Run #1 Run #2	Purge Volume 5.0 ml						
VOA TCL	List (SOM0 1.1)						
CAS No.	Compound	Result	RL	MDL	Units	Q	
67-64-1 71-43-2	Acetone Benzene	ND ND	10 0.50	5.0 0.17	ug/l ug/l		
74-97-5 75-27-4	Bromochloromethane Bromodichloromethane	ND ND	1.0 1.0	0.38 0.22	ug/l ug/l		
75-25-2 74-83-9 78-02-2	Bromoform ^a Bromomethane 2 Butanona (MEK)	ND ND ND	1.0 2.0	0.42 1.4	ug/l ug/l		
78-93-3 75-15-0 56-23-5	2-Butanone (MEK) Carbon disulfide Carbon tetrachloride	ND ND ND	10 2.0 1.0	4.8 0.50 0.34	ug/l ug/l ug/l		
108-90-7 75-00-3	Chlorobenzene Chloroethane	ND ND	1.0 1.0 1.0	0.34 0.24 0.59	ug/l ug/l		
67-66-3 74-87-3	Chloroform Chloromethane	9.9 ND	1.0 1.0	0.29 0.53	ug/l ug/l		
110-82-7 96-12-8	Cyclohexane 1,2-Dibromo-3-chloropropar		5.0 2.0	0.63 0.69	ug/l ug/l		
124-48-1 106-93-4	Dibromochloromethane 1,2-Dibromoethane	ND ND	1.0 1.0	0.16 0.21	ug/l ug/l		
95-50-1 541-73-1	1,2-Dichlorobenzene 1,3-Dichlorobenzene 1,4-Dichlorobenzene	ND ND	1.0 1.0	0.50 0.50	ug/l ug/l		
106-46-7 75-71-8 75-34-3	1,4-Dichlorobenzene Dichlorodifluoromethane 1,1-Dichloroethane	ND ND ND	1.0 2.0 1.0	0.50 1.9 0.21	ug/l ug/l ug/l		
107-06-2 75-35-4	1,2-Dichloroethane 1,1-Dichloroethene	ND ND	1.0 1.0 1.0	0.21 0.20 0.47	ug/l ug/l		
156-59-2 156-60-5	cis-1,2-Dichloroethene trans-1,2-Dichloroethene	0.52 ND	1.0 1.0	0.50 0.40	ug/l ug/l	J	
78-87-5 10061-01-5 10061-02-6		ND ND ND	1.0 1.0 1.0	0.24 0.25 0.22	ug/l ug/l		
123-91-1 100-41-4	1,4-Dioxane Ethylbenzene	ND ND	130 1.0	52 0.22	ug/l ug/l ug/l		
76-13-1	Freon 113	ND	5.0	1.2	ug/l		

ND = Not detected MDL = Method Detection Limit

RL = **Reporting Limit**

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

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E = Indicates value exceeds calibration range

Report of Analysis

Client Sample ID:	SVE-MW-5		
Lab Sample ID:	JC62395-2	Date Sampled:	03/14/18
Matrix:	AQ - Ground Water	Date Received:	03/15/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	388 Bridge Street, Brooklyn, NY		

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	3.3	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.25	ug/l	
79-20-9	Methyl Acetate	ND	5.0	3.1	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	3.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.17	ug/l	
127-18-4	Tetrachloroethene	21.5	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.24	ug/l	
79-01-6	Trichloroethene	1.7	1.0	0.27	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.60	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.62	ug/l	
	m,p-Xylene	ND	1.0	0.43	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limi	its	
1868-53-7	Dibromofluoromethane	97 %		80-12	20%	
17060-07-0	1,2-Dichloroethane-D4	117%		81-12	24%	
2037-26-5	Toluene-D8	93%		80-12	20%	
460-00-4	4-Bromofluorobenzene	94%		80-12	20%	

(a) Associated CCV outside of control limits high, sample was ND.

(b) Associated CCV outside of control limits high, sample was ND. This compound in BS is outside in house QC limits bias high. Associated CCV outside of control limits high, sample was ND.

- $B = \ Indicates \ analyte \ found \ in \ associated \ method \ blank$
- N = Indicates presumptive evidence of a compound

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JC62395

SGS LabLink@1001009 14:02 22-May-2018

95-2				Date Received	: 03	/14/18 /15/18 a
ridge Street, Bro	oklyn, NY					
						1
Result	RL	Units	DF	Analyzed	By	Method
< 0.20	0.20	mg/l	1	03/15/18 21:45	LS	SM3500FE B-11
5.7	0.21		1	03/29/18 14:05	BM	EPA353.2/SM4500NO2B
5.7	0.20	mg/l	2	03/29/18 14:05	BM	EPA 353.2/LACHAT
< 0.010	0.010	mg/l	1	03/15/18 19:41	LS	SM4500NO2 B-11
40.8	2.0	mg/l	1	03/21/18 11:17	NV	EPA 300/SW846 9056A
	Result < 0.20 5.7 5.7 < 0.010	95-2 Ground Water ridge Street, Brooklyn, NY Result RL < 0.20 0.20 5.7 0.21 5.7 0.20 < 0.010 0.010	95-2 Ground Water ridge Street, Brooklyn, NY Result RL Units <0.20 0.20 mg/l 5.7 0.21 mg/l 5.7 0.20 mg/l <0.010 0.010 mg/l	95-2 Ground Water ridge Street, Brooklyn, NY Result RL Units DF <0.20 0.20 mg/l 1 5.7 0.21 mg/l 1 5.7 0.20 mg/l 2 <0.010 0.010 mg/l 1	95-2 Date Sampled Ground Water Date Received Percent Solids ridge Street, Brooklyn, NY Result RL Units DF Analyzed < 0.20 0.20 mg/l 1 03/15/18 21:45 5.7 0.21 mg/l 1 03/29/18 14:05 5.7 0.20 mg/l 2 03/29/18 14:05 < 0.010 0.010 mg/l 1 03/15/18 19:41	95-2 Date Sampled: 03 Ground Water Date Received: 03 ridge Street, Brooklyn, NY Percent Solids: n/s Result RL Units DF Analyzed By < 0.20

mg/l

1

03/27/18 01:16 CD

Report of Analysis

(a) Field analysis required. Received out of hold time and analyzed by request.

1.0

(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

< 1.0

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SM5310 B-11



Total Organic Carbon



SGS LabLink@1001009 14:02 22-May-2018

Client Sample ID:SVE-MW-5Lab Sample ID:JC62395-2FMatrix:AQ - Groundwater FilteredProject:388 Bridge Street, Brooklyn, NY						Date Sampled Date Received Percent Solids	: 03	
General Chemistry	7							
Analyte		Result	RL	Units	DF	Analyzed	By	Method
Dissolved Organic (Carbon	< 1.0	1.0	mg/l	1	03/27/18 19:39	CD	SM5310 B-11

Report of Analysis

Page 1 of 1

4.4 **4**



		Report	of Ai	nalysis			Page 1 of 2
Client Sam Lab Sample Matrix: Method: Project:	-	ooklyn, NY			Date	1	/14/18 /15/18 a
Run #1 Run #2		Analyzed)3/24/18 03:11	By SS	Prep D n/a	ate	Prep Batch n/a	Analytical Batch V2B7083
Run #1 Run #2	Purge Volume 5.0 ml						
VOA TCL	List (SOM0 1.1)						
CAS No.	Compound	Result	RL	MDL	Units	Q	
67-64-1 71-43-2	Acetone Benzene	ND ND	10 0.50	5.0 0.17	ug/l ug/l		
74-97-5 75-27-4	Bromochloromethane Bromodichloromethane	ND ND	1.0 1.0	0.38 0.22	ug/l ug/l		
75-25-2 74-83-9	Bromoform ^a Bromomethane	ND ND	1.0 2.0	0.42 1.4	ug/l ug/l		
78-93-3 75-15-0	2-Butanone (MEK) Carbon disulfide	ND ND	10 2.0	4.8 0.50	ug/l ug/l		
56-23-5 108-90-7 75-00-3	Carbon tetrachloride Chlorobenzene Chloroethane	ND ND ND	1.0 1.0 1.0	0.34 0.24 0.59	ug/l ug/l ug/l		
67-66-3 74-87-3	Chloroform Chloromethane	10.7 ND	1.0 1.0 1.0	0.33 0.29 0.53	ug/l ug/l		
110-82-7 96-12-8	Cyclohexane 1,2-Dibromo-3-chloropropan	ND	5.0 2.0	0.63 0.69	ug/l ug/l		
124-48-1 106-93-4	Dibromochloromethane 1,2-Dibromoethane	ND ND	1.0 1.0	0.16 0.21	ug/l ug/l		
95-50-1 541-73-1	1,2-Dichlorobenzene 1,3-Dichlorobenzene	ND ND	1.0 1.0	0.50 0.50	ug/l ug/l		
106-46-7 75-71-8	1,4-Dichlorobenzene Dichlorodifluoromethane	ND ND	1.0 2.0	0.50 1.9	ug/l ug/l		
75-34-3 107-06-2 75-35-4	1,1-Dichloroethane 1,2-Dichloroethane 1,1-Dichloroethene	ND ND ND	1.0 1.0 1.0	0.21 0.20 0.47	ug/l ug/l		
156-59-2 156-60-5	cis-1,2-Dichloroethene trans-1,2-Dichloroethene	0.68 ND	1.0 1.0 1.0	0.47 0.50 0.40	ug/l ug/l ug/l	J	
78-87-5 10061-01-5	1,2-Dichloropropane cis-1,3-Dichloropropene	ND ND	1.0 1.0	0.24 0.25	ug/l ug/l		
10061-02-6 123-91-1 100-41-4	trans-1,3-Dichloropropene 1,4-Dioxane Ethylbenzene	ND ND ND	1.0 130 1.0	0.22 52 0.22	ug/l ug/l ug/l		
76-13-1	Freon 113	ND	5.0	1.2	ug/l		

MDL = Method Detection Limit ND = Not detected

RL = **Reporting Limit**

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

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E = Indicates value exceeds calibration range

Report of Analysis

Client Sample ID:	SVE-MW-4		
Lab Sample ID:	JC62395-3	Date Sampled:	03/14/18
Matrix:	AQ - Ground Water	Date Received:	03/15/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	388 Bridge Street, Brooklyn, NY		

VOA TCL List (SOM0 1.1)

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	5.0	3.3	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.25	ug/l	
79-20-9	Methyl Acetate	ND	5.0	3.1	ug/l	
108-87-2	Methylcyclohexane	ND	5.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	3.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.17	ug/l	
127-18-4	Tetrachloroethene	28.7	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.24	ug/l	
79-01-6	Trichloroethene	1.9	1.0	0.27	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.60	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.62	ug/l	
	m,p-Xylene	ND	1.0	0.43	ug/l	
95-47-6	o-Xylene	ND	1.0	0.22	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Lim	its	
1868-53-7	Dibromofluoromethane	95%		80-1	20%	
17060-07-0	1,2-Dichloroethane-D4	114%		81-1	24%	
2037-26-5	Toluene-D8	93%		80-1	20%	
460-00-4	4-Bromofluorobenzene	94%		80-1	20%	

(a) Associated CCV outside of control limits high, sample was ND.

(b) Associated CCV outside of control limits high, sample was ND. This compound in BS is outside in house QC limits bias high. Associated CCV outside of control limits high, sample was ND.

- $B = \ Indicates \ analyte \ found \ in \ associated \ method \ blank$
- N = Indicates presumptive evidence of a compound

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JC62395

SGS LabLink@1001009 14:02 22-May-2018

Lab Sample ID: JC62 Matrix: AQ -	MW-4 395-3 Ground Water Sridge Street, Bro	oklyn, NY			Date Sampled: 03/14/18 Date Received: 03/15/18 Percent Solids: n/a							
General Chemistry												
Analyte	Result	RL	Units	DF	Analyzed	By	Method					
Iron, Ferrous ^a	< 0.20	0.20	mg/l	1	03/15/18 21:45	LS	SM3500FE B-11					
Nitrogen, Nitrate ^b	4.9	0.11	mg/l	1	03/29/18 12:25	BM	EPA353.2/SM4500NO2B					
Nitrogen, Nitrate + Nitrit	4.9	0.10	mg/l	1	03/29/18 12:25	BM	EPA 353.2/LACHAT					
Nitrogen, Nitrite	< 0.010	0.010	mg/l	1	03/15/18 19:41	LS	SM4500NO2 B-11					
Sulfate	40.9	2.0	mg/l	1	03/21/18 11:41	NV	EPA 300/SW846 9056A					
Total Organic Carbon	1.6	1.0	mg/l	1	03/27/18 01:49	CD	SM5310 B-11					

Report of Analysis

(a) Field analysis required. Received out of hold time and analyzed by request.

(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)



4.5



SGS LabLink@1001009 14:02 22-May-2018

Client Sample ID: Lab Sample ID: Matrix: Project:	V-4 -3F oundwater Fil ge Street, Bro		Date Sampled Date Received Percent Solids	: 03				
General Chemistry	7							
Analyte		Result	RL	Units	DF	Analyzed	By	Method
Dissolved Organic	Carbon	1.4	1.0	mg/l	1	03/27/18 20:13	CD	SM5310 B-11

Report of Analysis

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Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

• Chain of Custody



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JUU A	CUTEST		2235 F TEL. 732-32	toute 130, 9-0200				0				FED-EX							rder Cont	-			-18-
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Company Name Flewing Lee Shur Street Address	Project Name: 382	3 Brida	,	98695.50		na standar																DV G1	W - Drinkir W - Groun WW - W
158 W 2944 St City New York NY	FII Street Zp City DCOI WWY	Bridge	2 St State NY	Billing In Company Street Add	Name	n (if diffe	rent fror	n Repo	rt to)							-							W - Surfac SO - S SL- Slu SED-Sed OI - C
Han Cont adam of the Phone # 212 675 322	shue com 10	165 • Order # 01251		City			Sta	te		Zip						TCL 1	0					5	LIQ - Othe AIR - SOL - Oth WP - V FB-Field
Sampler(s) Name(s) J. Golding S. Sa	Phone # Project Manage		Collection	Attention:			N N	umber o	f preser	ved Bott	es	C (LF)		4	Q	V8260T	XN03	2					B-Equipme RB- Rinse TB-Trip I
SGS Accusent Sample # Field ID / Point of Collection IF SVE-MW-1	MEOH/DI Vial #	Date 3/14/18	тіте 1229	Sampled by	Matrix GrW	# of bottles	NaOH	HNO3	NONE X	DI Water MEOH	ENCORE	X Doc	X FE2	X 504		$\frac{\alpha}{\lambda}$	XX					L	LAB USE
2F SVE-MW-5 3F SVE-MW-4		3/14/18	1311	53 JG	GW GW	8	4		33			$\frac{\lambda}{\lambda}$	$\frac{x}{x}$	$\frac{\chi}{\chi}$	xxx	へイ	イギャ						9D
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Turnaround Time (Business da				173866-18		Data	Deliver					MACTOR IN			Market.	117-1362			/ Specia				
Std. 10 Business Days 5 Day RUSH 3 Day RUSH 3 Day RUSH		S Accutest PM): / Date			ommerci	ial "A" (L ial "B" (L Level 3+4	evel 1) evel 2)			NYASI NYASI State I EDD F	P Cates Forms	jory B				INIT	ial a	SES	SMEN	7 <u>2</u>	n (û	L	
2 Day RUSH 1 Day RUSH other Emergency & Rush T/A data available V/A L	ablink				ial "A" = R	of Known Results On	ly, Comr	nercial	ol Rej 'B'' = F	esults +		ummary		Sami							t in the	Labor	
Relinquished to Samples		ample Custody m Received By: 1 Received By: 3	ust be docun						e pos : :		m, inc	luging c	ourie			11 10	<u>3</u> €	Receive 2 Receive	ad By:	A			<u>`</u>
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Form:SM088-01CRev.Date:9/13/16

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JC62395

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SGS Sample Receipt Summary

Job Number:	JC62395	Client:	FLEMING-LEE SHUE, INC.	Project: 388 BRIDGE ST	REET, BR	OOKLYN,	NY
Date / Time Received:	3/15/2018 5:34:00	PM	Delivery Method:	Airbill #'s:			
Cooler Temps (Raw Mea Cooler Temps (Cor	,	. ,					
Cooler Security	Y or N		Y or N	Sample Integrity - Documentation	<u>Y</u>	or N	
1. Custody Seals Present:		3. COC P		1. Sample labels present on bottles:	\checkmark		
2. Custody Seals Intact:	✓ □ 4	. Smpl Date	es/Time OK 🔽 🗌	2. Container labeling complete:	\checkmark		
Cooler Temperature	Y or N	L		3. Sample container label / COC agree:	\checkmark		
1. Temp criteria achieved:				Sample Integrity - Condition	Y	or N	
2. Cooler temp verification:				1. Sample recvd within HT:	\checkmark		
3. Cooler media:	Ice (Ba	g)		2. All containers accounted for:	\checkmark		
4. No. Coolers:	1			3. Condition of sample:		Intact	
Quality Control Preserv	<u>ation Y or</u>	N N/A	4	Sample Integrity - Instructions	Y	or N	N/A
						•	
1. Trip Blank present / cool				1. Analysis requested is clear:	<u> </u>		
 Trip Blank present / cool Trip Blank listed on COC 							
	: 0			1. Analysis requested is clear:			
2. Trip Blank listed on COC	:: □ 0 erly: ☑ [Analysis requested is clear: Bottles received for unspecified tests 			
 2. Trip Blank listed on COC 3. Samples preserved prop 	:: □ 0 erly: ☑ [Analysis requested is clear: Bottles received for unspecified tests Sufficient volume recvd for analysis: 		□ ▼	V
 2. Trip Blank listed on COC 3. Samples preserved prop 	:: □ 0 erly: ☑ [pH 12+:	 Analysis requested is clear: Bottles received for unspecified tests Sufficient volume recvd for analysis: Compositing instructions clear: Filtering instructions clear: 			
 2. Trip Blank listed on COC 3. Samples preserved prop 4. VOCs headspace free: 	:: □ 6 eenty: ☑ [☑ [pH 12+:	 Analysis requested is clear: Bottles received for unspecified tests Sufficient volume recvd for analysis: Compositing instructions clear: Filtering instructions clear: 			
 2. Trip Blank listed on COC 3. Samples preserved prop 4. VOCs headspace free: Test Strip Lot #s: 	:: □ 6 eenty: ☑ [☑ [pH 12+:	 Analysis requested is clear: Bottles received for unspecified tests Sufficient volume recvd for analysis: Compositing instructions clear: Filtering instructions clear: 			
 2. Trip Blank listed on COC 3. Samples preserved prop 4. VOCs headspace free: Test Strip Lot #s: 	:: □ 6 eenty: ☑ [☑ [pH 12+:	 Analysis requested is clear: Bottles received for unspecified tests Sufficient volume recvd for analysis: Compositing instructions clear: Filtering instructions clear: 			
 2. Trip Blank listed on COC 3. Samples preserved prop 4. VOCs headspace free: Test Strip Lot #s: 	:: □ 6 eenty: ☑ [☑ [pH 12+:	 Analysis requested is clear: Bottles received for unspecified tests Sufficient volume recvd for analysis: Compositing instructions clear: Filtering instructions clear: 			

SM089-03 Rev. Date 12/7/17

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JC62395

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