ENSAFE
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1233 Silas Deane Highway | Wethersfield, Connecticut 06109 | Telephone 860-665-1140 | Fax 860-665-9445 | www.ensafe.com

Via email to Jeffrey.dyber@dec.ny.gov

January 10, 2017

Mr. Jeffrey Dyber, P.E.
NYSDEC, Remedial Bureau A
Division of Environmental Remediation
625 Broadway
Albany, New York 12233-7015

Re: Progress Report: December 2016
Frost Street Sites: Site ID #s 1-30043 I, L, M
New Cassel Industrial Area, Westbury, New York

Dear Mr. Dyber:

EnSafe, Inc. is pleased to submit the Progress Report for the Frost Street Sites (Site ID #s 1-30043 I, L, M) for work completed in December 2016.

Soil Vapor Extraction (SVE)/Air Sparge (AS) System Operation and Maintenance (O&M)

- Operations continued this month, per the O&M Manual. During periodic O&M visits, system parameters were logged on dedicated O&M forms (**Appendix A**).
- A carbon exchange was performed on December 20, 2016; the carbon in all units was replaced.
- Quantitative sampling of the SVE system granular activated carbon influent and effluent air flow was conducted after the carbon exchange, on December 20, 2016, using Summa canisters. These samples were obtained by EnviroTrac, submitted to Phoenix Environmental Laboratories, and analyzed by Method TO-15. Results are included in **Appendix B**.
    - Influent concentrations of Frost Street-related contaminants of concern (tetrachloroethene, trichloroethene, cis-1,2-dichloroethene, and vinyl chloride) continue to indicate significant mass extraction. Photoionization detector readings between the lead and lag activated carbon media vessels and in the effluent air stream exhibit 0.0 parts per million total volatile organic compounds.
    - Effluent concentrations are well below the allowable limits, as shown in the table below.

Frost Street Sites Effluent Compliance			
System Flow Rate =		800	ft^3/m
Compound	**Annual Mass Emission Limit (lbs/year)**	**Allowable Continuous Annual Concentration ($\mu g/m^3$)**	**December 2016 Effluent Concentration ($\mu g/m^3$)**
Trichloroethene	500	19,000	3.8
Tetrachloroethene	1,000	38,000	13.2
Vinyl Chloride	100	3,800	ND
Cis-1,2-Dichloroethene	100	3,800	ND

Notes:

Source of Mass Emission Limit: Part 212-2.2 Table 2 - High Toxicity Air Contaminant List

Cis-1,2-dichloroethene is not a listed HTAC, so the default is 100 lbs/year.

These limits were calculated based on Frost Street-specific system operations (i.e., flow rate) in order to remain below the annual HTAC emissions listed in Part 212-2.2 Table 2. Remaining below these concentrations ensures that annual emissions will not exceed the limit which demonstrates compliance with Part 212 without having to perform compound-specific analyses.

- On December 15, 2016, approximately 550 gallons of system condensate water was discharged from the holding tank to the sewer via the onsite connection. All water is treated via activate carbon adsorption prior to discharge. Groundwater concentrations did not exceed applicable permit limits, as shown in **Appendix C.**

Quarterly/Annual Groundwater Monitoring

- The fourth quarter 2016 ("annual/fifth quarter") groundwater sampling event was completed during the week of December 5, 2016. The samples are being analyzed and will be validated by a third party data validator. Results will be included in a forthcoming report, when available.

If you have any questions or require additional information, please do not hesitate to contact me at 860-665-1140 or astark@ensafe.com.

Sincerely,

EnSafe, Inc., by

Alexandra M. J. Stark

Alexandra Stark, P.E.

Copies:	A. Tamuno, Esq., NYSDEC	*Via email to amtamuno@gw.dec.state.ny.us*
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	J. Wilkinson, Envirotrac	*Via email to jamesw@envirotrac.com*

Appendix A
SVE/AS System O&M Logs

Operation & Maintenance Data Sheet
Ensafe-Frost Street
101 Frost Street
Westbury, NY

EnviroTrac Environmental Services
5 Old Dock Road, Yaphank, NY 11980
(631)924-3001, Fax (631)924-5001

Date: 2-Dec
Weather / Temp: Clear / 44 DEG
Technician / Operator: DW, NZ

Arrival Time: 9:30
Departure Time: 10:30

System Status

	Arrival	Departure		Arrival	Departure
SVE Blower 1 (ON/OFF)	ON	ON	Sensaphone (ON/OFF)	ON	ON
SVE Blower 2 (ON/OFF)	OFF	OFF	Surge Protection (ON/OFF)	ON	ON
AS Compressor 1 (ON/OFF)	OFF	OFF	Lightning Protection (White/Black)	White	White
AS Compressor 2 (ON/OFF)	ON	ON			

Soil Vapor Extraction System

Blower Air Velocity/Flow Rate (fpm)/(cfm)	4600	903	Blower 1 Total Runtime (hrs)	44,719.3
Blower 1 Fresh Air Valve Open (%)	0		Blower 2 Total Runtime (hrs)	45,439.8
Blower 2 Fresh Air Valve Open (%)	0		Blower 1 Air Filter Differential Pressure ("H2O)	0
Moisture Separator Vacuum ("Hg)	3.5		Blower 2 Air Filter Differential Pressure ("H2O)	0
VGAC-1 Influent Vacuum ("H2O)	78		VGAC-1 Influent PID (ppm)	5.2
VGAC-1 Effluent Vacuum ("H2O)	68		VGAC-1 Effluent PID (ppm)	13.0
VGAC-2 Influent Vacuum ("H2O)	62		VGAC-2 Influent PID (ppm)	5.2
VGAC-2 Effluent Vacuum ("H2O)	64		VGAC-2 Effluent PID (ppm)	16.0
VGAC-3 Influent Vacuum ("H2O)	64		VGAC-3 Influent PID (ppm)	30.0
VGAC-3 Effluent Vacuum ("H2O)	69		VGAC-3 Effluent PID (ppm)	50.0
Blower Effluent Temp (DegF)			Blower Effluent PID (ppm)	30.0
Blower Effluent Pressure ("H2O)	8			
Transfer Pump Total Runtime (hrs)	25.022.7		Condensate Storage Tank Level (gal)	80

SVE Manifold Legs - Vacuum/Flow Rate/PID

	Vacuum	Velocity	Flow Rate	PID		Vacuum	Velocity	Flow Rate	PID
SVE-1 ("H2O)/(FPM)/(cfm)/(ppm)	50	7500	164		SVE-4 ("H2O)/(FPM)/(cfm)/(ppm)	42	4100	89	
SVE-2 ("H2O)/(FPM)/(cfm)/(ppm)	51	4500	98		SVE-5 ("H2O)/(FPM)/(cfm)/(ppm)	42	3000	65	
SVE-3 ("H2O)/(FPM)/(cfm)/(ppm)	42	5200	113		SVE-6B ("H2O)/(FPM)/(cfm)/(ppm)	42	6500	142	
SVE-3A ("H2O)/(FPM)/(cfm)/(ppm)	42	4200	92		SVE-7 ("H2O)/(FPM)/(cfm)/(ppm)	46	2900	63	

Air Sparge System

Compressor 1 Pressure (psi)	Off for repairs	Compressor 2 Pressure (psi)	86
Compressor 1 Temperature (degF)	Off for repairs	Compressor 2 Temperature (degF)	203
Compressor 1 Runtime (hrs)	27,317.0	Compressor 2 Runtime (hrs)	18,522.0
Manifold Regulator Pressure (psi)	70		

AS Manifold Legs - Pressure/Flow Rate

	Pressure	Flow Rate		Pressure	Flow Rate
AS-1 (psi)/(cfm)	18	6	AS-11 (psi)/(cfm)	15	8
AS-2 (psi)/(cfm)	15	5	AS-12B (psi)/(cfm)	15	8
AS-3 (psi)/(cfm)	15	10	AS-13B (psi)/(cfm)	15	7
AS-4 (psi)/(cfm)	15	7	AS-14 (psi)/(cfm)	15	7
AS-5 (psi)/(cfm)	16	10	AS-15 (psi)/(cfm)	15	8
AS-6 (psi)/(cfm)	15	8	AS-16B (psi)/(cfm)	15	8
AS-7 (psi)/(cfm)	15	10	AS-17 (psi)/(cfm)	15	5
AS-8 (psi)/(cfm)	15	9	AS-18 (psi)/(cfm)	15	8
AS-9 (psi)/(cfm)	15	9	AS-19 (psi)/(cfm)	15	9
AS-10B (psi)/(cfm)	15	8			

Notes, Comments & Observations:

Changed oil and greased bearings for Blower 1 & 2.

Added oil to compressor 2.

Operation & Maintenance Data Sheet
Ensafe-Frost Street
101 Frost Street
Westbury, NY

EnviroTrac Environmental Services
5 Old Dock Road, Yaphank, NY 11980
(631)924-3001, Fax (631)924-5001

Date: 9-Dec
Weather / Temp: Clear / 36 DEG
Technician / Operator: DW, JW

Arrival Time: 9:00
Departure Time: 11:30

System Status					
	Arrival	Departure		Arrival	Departure
SVE Blower 1 (ON/OFF)	OFF	OFF	Sensaphone (ON/OFF)	ON	ON
SVE Blower 2 (ON/OFF)	ON	ON	Surge Protection (ON/OFF)	ON	ON
AS Compressor 1 (ON/OFF)	OFF	OFF	Lightning Protection (White/Black)	White	White
AS Compressor 2 (ON/OFF)	ON	ON			

Soil Vapor Extraction System				
Blower Air Velocity/Flow Rate (fpm)/(cfm)	4600	903	Blower 1 Total Runtime (hrs)	44,762.5
Blower 1 Fresh Air Valve Open (%)	0		Blower 2 Total Runtime (hrs)	45,478.1
Blower 2 Fresh Air Valve Open (%)	0		Blower 1 Air Filter Differential Pressure ("H2O)	0
Moisture Separator Vacuum ("Hg)	3.5		Blower 2 Air Filter Differential Pressure ("H2O)	0
VGAC-1 Influent Vacuum ("H2O)	74		VGAC-1 Influent PID (ppm)	8.0
VGAC-1 Effluent Vacuum ("H2O)	70		VGAC-1 Effluent PID (ppm)	16.0
VGAC-2 Influent Vacuum ("H2O)	62		VGAC-2 Influent PID (ppm)	8.0
VGAC-2 Effluent Vacuum ("H2O)	64		VGAC-2 Effluent PID (ppm)	20.0
VGAC-3 Influent Vacuum ("H2O)	64		VGAC-3 Influent PID (ppm)	30.0
VGAC-3 Effluent Vacuum ("H2O)	69		VGAC-3 Effluent PID (ppm)	20.0
Blower Effluent Temp (DegF)			Blower Effluent PID (ppm)	20.0
Blower Effluent Pressure ("H2O)	8			
Transfer Pump Total Runtime (hrs)	25,022.8		Condensate Storage Tank Level (gal)	80

SVE Manifold Legs - Vacuum/Flow Rate/PID									
	Vacuum	Velocity	Flow Rate	PID		Vacuum	Velocity	Flow Rate	PID
SVE-1 ("H2O)/(FPM)/(cfm)/(ppm)	50	7500	164		SVE-4 ("H2O)/(FPM)/(cfm)/(ppm)	44	4200	92	
SVE-2 ("H2O)/(FPM)/(cfm)/(ppm)	54	4750	104		SVE-5 ("H2O)/(FPM)/(cfm)/(ppm)	44	3000	65	
SVE-3 ("H2O)/(FPM)/(cfm)/(ppm)	44	5300	116		SVE-6B ("H2O)/(FPM)/(cfm)/(ppm)	44	6500	142	
SVE-3A ("H2O)/(FPM)/(cfm)/(ppm)	44	4400	96		SVE-7 ("H2O)/(FPM)/(cfm)/(ppm)	46	2900	63	

Air Sparge System			
Compressor 1 Pressure (psi)	Off for repairs	Compressor 2 Pressure (psi)	86
Compressor 1 Temperature (degF)	Off for repairs	Compressor 2 Temperature (degF)	199
Compressor 1 Runtime (hrs)	27,317.0	Compressor 2 Runtime (hrs)	18,603.0
Manifold Regulator Pressure (psi)	90		

AS Manifold Legs - Pressure/Flow Rate						
	Pressure	Flow Rate		Pressure	Flow Rate
AS-1 (psi)/(cfm)	17	7	AS-11 (psi)/(cfm)	15	6
AS-2 (psi)/(cfm)	15	5	AS-12B (psi)/(cfm)	15	7
AS-3 (psi)/(cfm)	15	10	AS-13B (psi)/(cfm)	14	8
AS-4 (psi)/(cfm)	13	12	AS-14 (psi)/(cfm)	15	8
AS-5 (psi)/(cfm)	16	9	AS-15 (psi)/(cfm)	15	8
AS-6 (psi)/(cfm)	15	7	AS-16B (psi)/(cfm)	14	6
AS-7 (psi)/(cfm)	16	7	AS-17 (psi)/(cfm)	15	6
AS-8 (psi)/(cfm)	15	8	AS-18 (psi)/(cfm)	15	7
AS-9 (psi)/(cfm)	15	8	AS-19 (psi)/(cfm)	15	8
AS-10B (psi)/(cfm)	14	9			

Notes, Comments & Observations:

Changed Compressor 2 oil, filters, and separators.

Operation & Maintenance Data Sheet
Ensafe-Frost Street
101 Frost Street
Westbury, NY

EnviroTrac Environmental Services
5 Old Dock Road, Yaphank, NY 11980
(631)924-3001, Fax (631)924-5001

Date: 14-Dec
Weather / Temp: Clear / 44 DEG
Technician / Operator: DW

Arrival Time: 10:00
Departure Time: 11:30

System Status

	Arrival	Departure		Arrival	Departure
SVE Blower 1 (ON/OFF)	ON	ON	Sensaphone (ON/OFF)	ON	ON
SVE Blower 2 (ON/OFF)	OFF	OFF	Surge Protection (ON/OFF)	ON	ON
AS Compressor 1 (ON/OFF)	OFF	OFF	Lightning Protection (White/Black)	White	White
AS Compressor 2 (ON/OFF)	ON	ON			

Soil Vapor Extraction System

Blower Air Velocity/Flow Rate (fpm)/(cfm)	4600	903	Blower 1 Total Runtime (hrs)	44,809.6
Blower 1 Fresh Air Valve Open (%)	0		Blower 2 Total Runtime (hrs)	45,517.2
Blower 2 Fresh Air Valve Open (%)	0		Blower 1 Air Filter Differential Pressure ("H2O)	0
Moisture Separator Vacuum ("Hg)	4		Blower 2 Air Filter Differential Pressure ("H2O)	0
VGAC-1 Influent Vacuum ("H2O)	78		VGAC-1 Influent PID (ppm)	4.8
VGAC-1 Effluent Vacuum ("H2O)	68		VGAC-1 Effluent PID (ppm)	19.0
VGAC-2 Influent Vacuum ("H2O)	64		VGAC-2 Influent PID (ppm)	4.8
VGAC-2 Effluent Vacuum ("H2O)	64		VGAC-2 Effluent PID (ppm)	16.0
VGAC-3 Influent Vacuum ("H2O)	64		VGAC-3 Influent PID (ppm)	16.0
VGAC-3 Effluent Vacuum ("H2O)	69		VGAC-3 Effluent PID (ppm)	10.0
Blower Effluent Temp (DegF)			Blower Effluent PID (ppm)	10.0
Blower Effluent Pressure ("H2O)	8			
Transfer Pump Total Runtime (hrs)	25,022.9		Condensate Storage Tank Level (gal)	250

SVE Manifold Legs - Vacuum/Flow Rate/PID

	Vacuum	Velocity	Flow Rate	PID		Vacuum	Velocity	Flow Rate	PID
SVE-1 ("H2O)/(FPM)/(cfm)/(ppm)	50	7750	169		SVE-4 ("H2O)/(FPM)/(cfm)/(ppm)	44	4200	92	
SVE-2 ("H2O)/(FPM)/(cfm)/(ppm)	52	4750	104		SVE-5 ("H2O)/(FPM)/(cfm)/(ppm)	44	3000	65	
SVE-3 ("H2O)/(FPM)/(cfm)/(ppm)	44	5300	116		SVE-6B ("H2O)/(FPM)/(cfm)/(ppm)	44	6500	142	
SVE-3A ("H2O)/(FPM)/(cfm)/(ppm)	44	4400	96		SVE-7 ("H2O)/(FPM)/(cfm)/(ppm)	46	2900	63	

Air Sparge System

Compressor 1 Pressure (psi)	Off for repairs	Compressor 2 Pressure (psi)	96
Compressor 1 Temperature (degF)	Off for repairs	Compressor 2 Temperature (degF)	208
Compressor 1 Runtime (hrs)	27,317.0	Compressor 2 Runtime (hrs)	18,688.0
Manifold Regulator Pressure (psi)	90		

AS Manifold Legs - Pressure/Flow Rate

	Pressure	Flow Rate		Pressure	Flow Rate
AS-1 (psi)/(cfm)	15	10	AS-11 (psi)/(cfm)	14	4
AS-2 (psi)/(cfm)	14	15	AS-12B (psi)/(cfm)	13	8
AS-3 (psi)/(cfm)	13	6	AS-13B (psi)/(cfm)	13	8
AS-4 (psi)/(cfm)	13	10	AS-14 (psi)/(cfm)	14	8
AS-5 (psi)/(cfm)	14	8	AS-15 (psi)/(cfm)	14	8
AS-6 (psi)/(cfm)	14	9	AS-16B (psi)/(cfm)	13	8
AS-7 (psi)/(cfm)	14	8	AS-17 (psi)/(cfm)	14	6
AS-8 (psi)/(cfm)	14	9	AS-18 (psi)/(cfm)	14	8
AS-9 (psi)/(cfm)	14	8	AS-19 (psi)/(cfm)	14	4
AS-10B (psi)/(cfm)	13	9			

Notes, Comments & Observations:

Operation & Maintenance Data Sheet
Ensafe-Frost Street
101 Frost Street
Westbury, NY

EnviroTrac Environmental Services
5 Old Dock Road, Yaphank, NY 11980
(631)924-3001, Fax (631)924-5001

Date: 15-Dec
Weather / Temp: Clear / 30 DEG
Technician / Operator: JW

Arrival Time: 9:00
Departure Time: 11:00

System Status

	Arrival	Departure		Arrival	Departure
SVE Blower 1 (ON/OFF)	ON	ON	Sensaphone (ON/OFF)	ON	ON
SVE Blower 2 (ON/OFF)	OFF	OFF	Surge Protection (ON/OFF)	ON	ON
AS Compressor 1 (ON/OFF)	OFF	OFF	Lightning Protection (White/Black)	White	White
AS Compressor 2 (ON/OFF)	OFF	ON			

Soil Vapor Extraction System

Blower Air Velocity/Flow Rate (fpm)/(cfm)			Blower 1 Total Runtime (hrs)	44,820.6
Blower 1 Fresh Air Valve Open (%)			Blower 2 Total Runtime (hrs)	45,528.2
Blower 2 Fresh Air Valve Open (%)			Blower 1 Air Filter Differential Pressure ("H2O)	
Moisture Separator Vacuum ("Hg)			Blower 2 Air Filter Differential Pressure ("H2O)	
VGAC-1 Influent Vacuum ("H2O)			VGAC-1 Influent PID (ppm)	
VGAC-1 Effluent Vacuum ("H2O)			VGAC-1 Effluent PID (ppm)	
VGAC-2 Influent Vacuum ("H2O)			VGAC-2 Influent PID (ppm)	
VGAC-2 Effluent Vacuum ("H2O)			VGAC-2 Effluent PID (ppm)	
VGAC-3 Influent Pressure ("H2O)			VGAC-3 Influent PID (ppm)	
VGAC-3 Effluent Pressure ("H2O)			VGAC-3 Effluent PID (ppm)	
Blower Effluent Temp (DegF)			Blower Effluent PID (ppm)	
Blower Effluent Pressure ("H2O)				
Transfer Pump Total Runtime (hrs)	25,023.0		Condensate Storage Tank Level (gal)	300 → 0

SVE Manifold Legs - Vacuum/Flow Rate/PID

	Vacuum	Velocity	Flow Rate	PID		Vacuum	Velocity	Flow Rate	PID
SVE-1 ("H2O)/(FPM)/(cfm)/(ppm)					SVE-4 ("H2O)/(FPM)/(cfm)/(ppm)				
SVE-2 ("H2O)/(FPM)/(cfm)/(ppm)					SVE-5 ("H2O)/(FPM)/(cfm)/(ppm)				
SVE-3 ("H2O)/(FPM)/(cfm)/(ppm)					SVE-6B ("H2O)/(FPM)/(cfm)/(ppm)				
SVE-3A ("H2O)/(FPM)/(cfm)/(ppm)					SVE-7 ("H2O)/(FPM)/(cfm)/(ppm)				

Air Sparge System

Compressor 1 Pressure (psi)	Off for repairs	Compressor 2 Pressure (psi)	
Compressor 1 Temperature (degF)	Off for repairs	Compressor 2 Temperature (degF)	
Compressor 1 Runtime (hrs)	27,317.0	Compressor 2 Runtime (hrs)	18,711.0
Manifold Regulator Pressure (psi)			

AS Manifold Legs - Pressure/Flow Rate

	Pressure	Flow Rate		Pressure	Flow Rate
AS-1 (psi)/(cfm)			AS-11 (psi)/(cfm)		
AS-2 (psi)/(cfm)			AS-12B (psi)/(cfm)		
AS-3 (psi)/(cfm)			AS-13B (psi)/(cfm)		
AS-4 (psi)/(cfm)			AS-14 (psi)/(cfm)		
AS-5 (psi)/(cfm)			AS-15 (psi)/(cfm)		
AS-6 (psi)/(cfm)			AS-16B (psi)/(cfm)		
AS-7 (psi)/(cfm)			AS-17 (psi)/(cfm)		
AS-8 (psi)/(cfm)			AS-18 (psi)/(cfm)		
AS-9 (psi)/(cfm)			AS-19 (psi)/(cfm)		
AS-10B (psi)/(cfm)					

Notes, Comments & Observations:

Collected water sample, discharged 300-gallons of water.

Operation & Maintenance Data Sheet
Ensafe-Frost Street
101 Frost Street
Westbury, NY

EnviroTrac Environmental Services
5 Old Dock Road, Yaphank, NY 11980
(631)924-3001, Fax (631)924-5001

Date: 20-Dec
Weather / Temp: Clear / 44 DEG
Technician / Operator: DW

Arrival Time: 7:00
Departure Time: 12:00

System Status

	Arrival	Departure		Arrival	Departure
SVE Blower 1 (ON/OFF)	OFF	ON	Sensaphone (ON/OFF)	ON	ON
SVE Blower 2 (ON/OFF)	ON	OFF	Surge Protection (ON/OFF)	ON	ON
AS Compressor 1 (ON/OFF)	OFF	OFF	Lightning Protection (White/Black)	White	White
AS Compressor 2 (ON/OFF)	ON	ON			

Soil Vapor Extraction System

Blower Air Velocity/Flow Rate (fpm)/(cfm)	4500	884	Blower 1 Total Runtime (hrs)	44,882.7
Blower 1 Fresh Air Valve Open (%)	0		Blower 2 Total Runtime (hrs)	45,586.6
Blower 2 Fresh Air Valve Open (%)	0		Blower 1 Air Filter Differential Pressure ("H2O)	0
Moisture Separator Vacuum ("Hg)	4		Blower 2 Air Filter Differential Pressure ("H2O)	0
VGAC-1 Influent Vacuum ("H2O)	74		VGAC-1 Influent PID (ppm)	6.8
VGAC-1 Effluent Vacuum ("H2O)	70		VGAC-1 Effluent PID (ppm)	0.0
VGAC-2 Influent Vacuum ("H2O)	62		VGAC-2 Influent PID (ppm)	6.8
VGAC-2 Effluent Vacuum ("H2O)	64		VGAC-2 Effluent PID (ppm)	0.0
VGAC-3 Influent Pressure ("H2O)	5		VGAC-3 Influent PID (ppm)	0.0
VGAC-3 Effluent Pressure ("H2O)	2.5		VGAC-3 Effluent PID (ppm)	0.0
Blower Effluent Temp (DegF)	120		Blower Effluent PID (ppm)	0.0
Blower Effluent Pressure ("H2O)	16			
Transfer Pump Total Runtime (hrs)	25,023.1		Condensate Storage Tank Level (gal)	0

SVE Manifold Legs - Vacuum/Flow Rate/PID

	Vacuum	Velocity	Flow Rate	PID		Vacuum	Velocity	Flow Rate	PID
SVE-1 ("H2O)/(FPM)/(cfm)/(ppm)	50	7750	169	14.0	SVE-4 ("H2O)/(FPM)/(cfm)/(ppm)	44	4200	92	0.0
SVE-2 ("H2O)/(FPM)/(cfm)/(ppm)	52	4500	98	8.0	SVE-5 ("H2O)/(FPM)/(cfm)/(ppm)	44	3000	65	0.0
SVE-3 ("H2O)/(FPM)/(cfm)/(ppm)	44	5200	113	3.0	SVE-6B ("H2O)/(FPM)/(cfm)/(ppm)	44	6500	142	20.0
SVE-3A ("H2O)/(FPM)/(cfm)/(ppm)	44	4400	96	0.0	SVE-7 ("H2O)/(FPM)/(cfm)/(ppm)	46	2900	63	0.0

Air Sparge System

Compressor 1 Pressure (psi)	Off for repairs	Compressor 2 Pressure (psi)	104
Compressor 1 Temperature (degF)	Off for repairs	Compressor 2 Temperature (degF)	197
Compressor 1 Runtime (hrs)	27,317.0	Compressor 2 Runtime (hrs)	18,803.0
Manifold Regulator Pressure (psi)	95		

AS Manifold Legs - Pressure/Flow Rate

	Pressure	Flow Rate		Pressure	Flow Rate
AS-1 (psi)/(cfm)	16	6	AS-11 (psi)/(cfm)	15	5
AS-2 (psi)/(cfm)	16	12	AS-12B (psi)/(cfm)	15	7
AS-3 (psi)/(cfm)	14	9	AS-13B (psi)/(cfm)	15	8
AS-4 (psi)/(cfm)	15	9	AS-14 (psi)/(cfm)	14	8
AS-5 (psi)/(cfm)	16	8	AS-15 (psi)/(cfm)	14	5
AS-6 (psi)/(cfm)	16	8	AS-16B (psi)/(cfm)	15	6
AS-7 (psi)/(cfm)	16	8	AS-17 (psi)/(cfm)	15	8
AS-8 (psi)/(cfm)	16	8	AS-18 (psi)/(cfm)	15	6
AS-9 (psi)/(cfm)	16	8	AS-19 (psi)/(cfm)	15	8
AS-10B (psi)/(cfm)	14	8			

Notes, Comments & Observations:

GAC changeout oversight. Switched GAC-3 to blower effluent.

Operation & Maintenance Data Sheet
Ensafe-Frost Street
101 Frost Street
Westbury, NY

EnviroTrac Environmental Services
5 Old Dock Road, Yaphank, NY 11980
(631)924-3001, Fax (631)924-5001

Date: 29-Dec
Weather / Temp: Rain / 43 DEG
Technician / Operator: DW

Arrival Time: 12:00
Departure Time: 13:30

System Status

	Arrival	Departure		Arrival	Departure
SVE Blower 1 (ON/OFF)	ON	ON	Sensaphone (ON/OFF)	ON	ON
SVE Blower 2 (ON/OFF)	OFF	OFF	Surge Protection (ON/OFF)	ON	ON
AS Compressor 1 (ON/OFF)	OFF	OFF	Lightning Protection (White/Black)	White	White
AS Compressor 2 (ON/OFF)	ON	ON			

Soil Vapor Extraction System

Blower Air Velocity/Flow Rate (fpm)/(cfm)	4600	903	Blower 1 Total Runtime (hrs)	44,991.5
Blower 1 Fresh Air Valve Open (%)	0		Blower 2 Total Runtime (hrs)	45,693.1
Blower 2 Fresh Air Valve Open (%)	0		Blower 1 Air Filter Differential Pressure ("H2O)	0
Moisture Separator Vacuum ("Hg)	4		Blower 2 Air Filter Differential Pressure ("H2O)	0
VGAC-1 Influent Vacuum ("H2O)	76		VGAC-1 Influent PID (ppm)	5.3
VGAC-1 Effluent Vacuum ("H2O)	70		VGAC-1 Effluent PID (ppm)	0.0
VGAC-2 Influent Vacuum ("H2O)	60		VGAC-2 Influent PID (ppm)	5.3
VGAC-2 Effluent Vacuum ("H2O)	64		VGAC-2 Effluent PID (ppm)	0.0
VGAC-3 Influent Pressure ("H2O)	5		VGAC-3 Influent PID (ppm)	0.0
VGAC-3 Effluent Pressure ("H2O)	2.5		VGAC-3 Effluent PID (ppm)	0.0
Blower Effluent Temp (DegF)	124		Blower Effluent PID (ppm)	0.0
Blower Effluent Pressure ("H2O)	15			
Transfer Pump Total Runtime (hrs)	25,023.6		Condensate Storage Tank Level (gal)	250 → 0

SVE Manifold Legs - Vacuum/Flow Rate/PID

	Vacuum	Velocity	Flow Rate	PID		Vacuum	Velocity	Flow Rate	PID
SVE-1 ("H2O)/(FPM)/(cfm)/(ppm)	50	7500	164		SVE-4 ("H2O)/(FPM)/(cfm)/(ppm)	44	4000	87	
SVE-2 ("H2O)/(FPM)/(cfm)/(ppm)	52	4500	98		SVE-5 ("H2O)/(FPM)/(cfm)/(ppm)	44	3000	65	
SVE-3 ("H2O)/(FPM)/(cfm)/(ppm)	44	5200	113		SVE-6B ("H2O)/(FPM)/(cfm)/(ppm)	42	6500	142	
SVE-3A ("H2O)/(FPM)/(cfm)/(ppm)	44	4200	92		SVE-7 ("H2O)/(FPM)/(cfm)/(ppm)	44	2900	63	

Air Sparge System

Compressor 1 Pressure (psi)	Off for repairs	Compressor 2 Pressure (psi)	92
Compressor 1 Temperature (degF)	Off for repairs	Compressor 2 Temperature (degF)	198
Compressor 1 Runtime (hrs)	27,317.0	Compressor 2 Runtime (hrs)	18,856.0
Manifold Regulator Pressure (psi)	85		

AS Manifold Legs - Pressure/Flow Rate

	Pressure	Flow Rate		Pressure	Flow Rate
AS-1 (psi)/(cfm)	15	9	AS-11 (psi)/(cfm)	13	4
AS-2 (psi)/(cfm)	15	7	AS-12B (psi)/(cfm)	13	7
AS-3 (psi)/(cfm)	13	5	AS-13B (psi)/(cfm)	13	13
AS-4 (psi)/(cfm)	13	7	AS-14 (psi)/(cfm)	13	11
AS-5 (psi)/(cfm)	15	7	AS-15 (psi)/(cfm)	13	11
AS-6 (psi)/(cfm)	14	7	AS-16B (psi)/(cfm)	13	5
AS-7 (psi)/(cfm)	15	4	AS-17 (psi)/(cfm)	13	6
AS-8 (psi)/(cfm)	15	11	AS-18 (psi)/(cfm)	13	5
AS-9 (psi)/(cfm)	15	11	AS-19 (psi)/(cfm)	13	4
AS-10B (psi)/(cfm)	13	14			

Notes, Comments & Observations:

Appendix B

SVE System Influent/Effluent Sampling (TO-15)

Laboratory Analytical Results

Wednesday, January 04, 2017

Attn:
EnviroTrac
5 Old Dock Rd
Yaphank, NY 11980

Project ID: ENSAFE WESTBURY
Sample ID#s: BX10034 - BX10035

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis Shiller
Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #MA-CT-007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B
NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
VT Lab Registration #VT11301

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

January 04, 2017

FOR: Attn:
EnviroTrac
5 Old Dock Rd
Yaphank, NY 11980

Sample Information		Custody Information		Date	Time
Matrix:	AIR	Collected by:	DW	12/20/16	11:56
Location Code:	ENVIROTR	Received by:	SW	12/21/16	15:09
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					
Canister Id:	719				

Laboratory Data

SDG ID: GBX10034
Phoenix ID: BX10034

Project ID: ENSAFE WESTBURY
Client ID: INF

Parameter	ppbv Result		ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Dilution	
Volatiles (TO15)									
1,1,1,2-Tetrachloroethane	ND		*0.146*	ND	*1.00*	12/22/16	KCA	1	1
1,1,1-Trichloroethane	0.657		*0.183*	3.58	*1.00*	12/22/16	KCA	1	
1,1,2,2-Tetrachloroethane	ND		*0.146*	ND	*1.00*	12/22/16	KCA	1	
1,1,2-Trichloroethane	ND		*0.183*	ND	*1.00*	12/22/16	KCA	1	
1,1-Dichloroethane	ND		*0.247*	ND	*1.00*	12/22/16	KCA	1	
1,1-Dichloroethene	ND		*0.252*	ND	*1.00*	12/22/16	KCA	1	
1,2,4-Trichlorobenzene	ND		*0.135*	ND	*1.00*	12/22/16	KCA	1	
1,2,4-Trimethylbenzene	ND		*0.204*	ND	*1.00*	12/22/16	KCA	1	
1,2-Dibromoethane(EDB)	ND		*0.130*	ND	*1.00*	12/22/16	KCA	1	
1,2-Dichlorobenzene	ND		*0.166*	ND	*1.00*	12/22/16	KCA	1	
1,2-Dichloroethane	ND		*0.247*	ND	*1.00*	12/22/16	KCA	1	
1,2-dichloropropane	ND		*0.217*	ND	*1.00*	12/22/16	KCA	1	
1,2-Dichlorotetrafluoroethane	ND		*0.143*	ND	*1.00*	12/22/16	KCA	1	
1,3,5-Trimethylbenzene	ND		*0.204*	ND	*1.00*	12/22/16	KCA	1	
1,3-Butadiene	ND		*0.452*	ND	*1.00*	12/22/16	KCA	1	
1,3-Dichlorobenzene	ND		*0.166*	ND	*1.00*	12/22/16	KCA	1	
1,4-Dichlorobenzene	ND		*0.166*	ND	*1.00*	12/22/16	KCA	1	
1,4-Dioxane	ND		*0.278*	ND	*1.00*	12/22/16	KCA	1	
2-Hexanone(MBK)	ND		*0.244*	ND	*1.00*	12/22/16	KCA	1	1
4-Ethyltoluene	ND		*0.204*	ND	*1.00*	12/22/16	KCA	1	1
4-Isopropyltoluene	ND		*0.182*	ND	*1.00*	12/22/16	KCA	1	1
4-Methyl-2-pentanone(MIBK)	ND		*0.244*	ND	*1.00*	12/22/16	KCA	1	
Acetone	2.45	S	*0.421*	5.82	*1.00*	12/22/16	KCA	1	
Acrylonitrile	ND		*0.461*	ND	*1.00*	12/22/16	KCA	1	
Benzene	ND		*0.313*	ND	*1.00*	12/22/16	KCA	1	
Benzyl chloride	ND		*0.193*	ND	*1.00*	12/22/16	KCA	1	

Project ID: ENSAFE WESTBURY
Client ID: INF

Phoenix I.D.: BX10034

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Dilution	
Bromodichloromethane	1.06	*0.149*	7.10	*1.00*	12/22/16	KCA	1	
Bromoform	ND	*0.097*	ND	*1.00*	12/22/16	KCA	1	
Bromomethane	ND	*0.258*	ND	*1.00*	12/22/16	KCA	1	
Carbon Disulfide	ND	*0.321*	ND	*1.00*	12/22/16	KCA	1	
Carbon Tetrachloride	0.065	*0.040*	0.41	*0.25*	12/22/16	KCA	1	
Chlorobenzene	0.263	*0.217*	1.21	*1.00*	12/22/16	KCA	1	
Chloroethane	ND	*0.379*	ND	*1.00*	12/22/16	KCA	1	
Chloroform	ND	*0.205*	ND	*1.00*	12/22/16	KCA	1	
Chloromethane	ND	*0.485*	ND	*1.00*	12/22/16	KCA	1	
Cis-1,2-Dichloroethene	82.1	*7.57*	325	*30.0*	12/22/16	KCA	30	
cis-1,3-Dichloropropene	ND	*0.221*	ND	*1.00*	12/22/16	KCA	1	
Cyclohexane	ND	*0.291*	ND	*1.00*	12/22/16	KCA	1	
Dibromochloromethane	ND	*0.118*	ND	*1.00*	12/22/16	KCA	1	
Dichlorodifluoromethane	0.544	*0.202*	2.69	*1.00*	12/22/16	KCA	1	
Ethanol	1.55	*0.531*	2.92	*1.00*	12/22/16	KCA	1	1
Ethyl acetate	ND	*0.278*	ND	*1.00*	12/22/16	KCA	1	1
Ethylbenzene	ND	*0.230*	ND	*1.00*	12/22/16	KCA	1	
Heptane	ND	*0.244*	ND	*1.00*	12/22/16	KCA	1	
Hexachlorobutadiene	ND	*0.094*	ND	*1.00*	12/22/16	KCA	1	
Hexane	ND	*0.284*	ND	*1.00*	12/22/16	KCA	1	
Isopropylalcohol	1.72	*0.407*	4.23	*1.00*	12/22/16	KCA	1	
Isopropylbenzene	ND	*0.204*	ND	*1.00*	12/22/16	KCA	1	
m,p-Xylene	ND	*0.230*	ND	*1.00*	12/22/16	KCA	1	
Methyl Ethyl Ketone	ND	*0.339*	ND	*1.00*	12/22/16	KCA	1	
Methyl tert-butyl ether(MTBE)	ND	*0.278*	ND	*1.00*	12/22/16	KCA	1	
Methylene Chloride	ND	*0.288*	ND	*1.00*	12/22/16	KCA	1	
n-Butylbenzene	ND	*0.182*	ND	*1.00*	12/22/16	KCA	1	1
o-Xylene	ND	*0.230*	ND	*1.00*	12/22/16	KCA	1	
Propylene	ND	*0.581*	ND	*1.00*	12/22/16	KCA	1	1
sec-Butylbenzene	ND	*0.182*	ND	*1.00*	12/22/16	KCA	1	1
Styrene	ND	*0.235*	ND	*1.00*	12/22/16	KCA	1	
Tetrachloroethene	2950	*19.4*	20000	*131*	12/28/16	KCA	525	
Tetrahydrofuran	ND	*0.339*	ND	*1.00*	12/22/16	KCA	1	1
Toluene	ND	*0.266*	ND	*1.00*	12/22/16	KCA	1	
Trans-1,2-Dichloroethene	1.06	*0.252*	4.20	*1.00*	12/22/16	KCA	1	
trans-1,3-Dichloropropene	ND	*0.221*	ND	*1.00*	12/22/16	KCA	1	
Trichloroethene	151	*1.40*	811	*7.52*	12/22/16	KCA	30	
Trichlorofluoromethane	0.293	*0.178*	1.65	*1.00*	12/22/16	KCA	1	
Trichlorotrifluoroethane	ND	*0.131*	ND	*1.00*	12/22/16	KCA	1	
Vinyl Chloride	ND	*0.098*	ND	*0.25*	12/22/16	KCA	1	
QA/QC Surrogates								
% Bromofluorobenzene	111	*%*	111	*%*	12/22/16	KCA	1	

Project ID: ENSAFE WESTBURY
Client ID: INF

Phoenix I.D.: BX10034

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Dilution

1 = This parameter is not certified by NY NELAC for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

S - Laboratory solvent, contamination is possible.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
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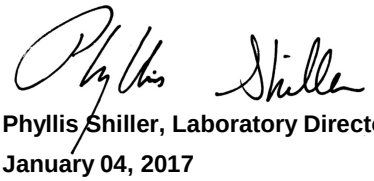

Phyllis Shiller, Laboratory Director

January 04, 2017

Reviewed and Released by: Ethan Lee, Project Manager

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

Analysis Report

January 04, 2017

FOR: Attn:
EnviroTrac
5 Old Dock Rd
Yaphank, NY 11980

Sample Information		Custody Information		Date	Time
Matrix:	AIR	Collected by:	DW	12/20/16	11:51
Location Code:	ENVIROTR	Received by:	SW	12/21/16	15:09
Rush Request:	72 Hour	Analyzed by:	see "By" below		
P.O.#:					
Canister Id:	749				

Laboratory Data

SDG ID: GBX10034
Phoenix ID: BX10035

Project ID: ENSAFE WESTBURY
Client ID: EFF

Parameter	ppbv Result		ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Dilution	
Volatiles (TO15)									
1,1,1,2-Tetrachloroethane	ND		*0.146*	ND	*1.00*	12/22/16	KCA	1	1
1,1,1-Trichloroethane	ND		*0.183*	ND	*1.00*	12/22/16	KCA	1	
1,1,2,2-Tetrachloroethane	ND		*0.146*	ND	*1.00*	12/22/16	KCA	1	
1,1,2-Trichloroethane	ND		*0.183*	ND	*1.00*	12/22/16	KCA	1	
1,1-Dichloroethane	ND		*0.247*	ND	*1.00*	12/22/16	KCA	1	
1,1-Dichloroethene	ND		*0.252*	ND	*1.00*	12/22/16	KCA	1	
1,2,4-Trichlorobenzene	ND		*0.135*	ND	*1.00*	12/22/16	KCA	1	
1,2,4-Trimethylbenzene	ND		*0.204*	ND	*1.00*	12/22/16	KCA	1	
1,2-Dibromoethane(EDB)	ND		*0.130*	ND	*1.00*	12/22/16	KCA	1	
1,2-Dichlorobenzene	ND		*0.166*	ND	*1.00*	12/22/16	KCA	1	
1,2-Dichloroethane	ND		*0.247*	ND	*1.00*	12/22/16	KCA	1	
1,2-dichloropropane	ND		*0.217*	ND	*1.00*	12/22/16	KCA	1	
1,2-Dichlorotetrafluoroethane	ND		*0.143*	ND	*1.00*	12/22/16	KCA	1	
1,3,5-Trimethylbenzene	ND		*0.204*	ND	*1.00*	12/22/16	KCA	1	
1,3-Butadiene	ND		*0.452*	ND	*1.00*	12/22/16	KCA	1	
1,3-Dichlorobenzene	ND		*0.166*	ND	*1.00*	12/22/16	KCA	1	
1,4-Dichlorobenzene	ND		*0.166*	ND	*1.00*	12/22/16	KCA	1	
1,4-Dioxane	ND		*0.278*	ND	*1.00*	12/22/16	KCA	1	
2-Hexanone(MBK)	ND		*0.244*	ND	*1.00*	12/22/16	KCA	1	1
4-Ethyltoluene	ND		*0.204*	ND	*1.00*	12/22/16	KCA	1	1
4-Isopropyltoluene	ND		*0.182*	ND	*1.00*	12/22/16	KCA	1	1
4-Methyl-2-pentanone(MIBK)	ND		*0.244*	ND	*1.00*	12/22/16	KCA	1	
Acetone	0.760	S	*0.421*	1.80	*1.00*	12/22/16	KCA	1	
Acrylonitrile	ND		*0.461*	ND	*1.00*	12/22/16	KCA	1	
Benzene	ND		*0.313*	ND	*1.00*	12/22/16	KCA	1	
Benzyl chloride	ND		*0.193*	ND	*1.00*	12/22/16	KCA	1	

Project ID: ENSAFE WESTBURY
Client ID: EFF

Phoenix I.D.: BX10035

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Dilution	
Bromodichloromethane	ND	*0.149*	ND	*1.00*	12/22/16	KCA	1	
Bromoform	ND	*0.097*	ND	*1.00*	12/22/16	KCA	1	
Bromomethane	ND	*0.258*	ND	*1.00*	12/22/16	KCA	1	
Carbon Disulfide	ND	*0.321*	ND	*1.00*	12/22/16	KCA	1	
Carbon Tetrachloride	ND	*0.040*	ND	*0.25*	12/22/16	KCA	1	
Chlorobenzene	ND	*0.217*	ND	*1.00*	12/22/16	KCA	1	
Chloroethane	ND	*0.379*	ND	*1.00*	12/22/16	KCA	1	
Chloroform	ND	*0.205*	ND	*1.00*	12/22/16	KCA	1	
Chloromethane	ND	*0.485*	ND	*1.00*	12/22/16	KCA	1	
Cis-1,2-Dichloroethene	ND	*0.252*	ND	*1.00*	12/22/16	KCA	1	
cis-1,3-Dichloropropene	ND	*0.221*	ND	*1.00*	12/22/16	KCA	1	
Cyclohexane	ND	*0.291*	ND	*1.00*	12/22/16	KCA	1	
Dibromochloromethane	ND	*0.118*	ND	*1.00*	12/22/16	KCA	1	
Dichlorodifluoromethane	ND	*0.202*	ND	*1.00*	12/22/16	KCA	1	
Ethanol	0.715	*0.531*	1.35	*1.00*	12/22/16	KCA	1	1
Ethyl acetate	ND	*0.278*	ND	*1.00*	12/22/16	KCA	1	1
Ethylbenzene	ND	*0.230*	ND	*1.00*	12/22/16	KCA	1	
Heptane	ND	*0.244*	ND	*1.00*	12/22/16	KCA	1	
Hexachlorobutadiene	ND	*0.094*	ND	*1.00*	12/22/16	KCA	1	
Hexane	ND	*0.284*	ND	*1.00*	12/22/16	KCA	1	
Isopropylalcohol	0.807	*0.407*	1.98	*1.00*	12/22/16	KCA	1	
Isopropylbenzene	ND	*0.204*	ND	*1.00*	12/22/16	KCA	1	
m,p-Xylene	ND	*0.230*	ND	*1.00*	12/22/16	KCA	1	
Methyl Ethyl Ketone	ND	*0.339*	ND	*1.00*	12/22/16	KCA	1	
Methyl tert-butyl ether(MTBE)	ND	*0.278*	ND	*1.00*	12/22/16	KCA	1	
Methylene Chloride	ND	*0.288*	ND	*1.00*	12/22/16	KCA	1	
n-Butylbenzene	ND	*0.182*	ND	*1.00*	12/22/16	KCA	1	1
o-Xylene	ND	*0.230*	ND	*1.00*	12/22/16	KCA	1	
Propylene	ND	*0.581*	ND	*1.00*	12/22/16	KCA	1	1
sec-Butylbenzene	ND	*0.182*	ND	*1.00*	12/22/16	KCA	1	1
Styrene	ND	*0.235*	ND	*1.00*	12/22/16	KCA	1	
Tetrachloroethene	1.95	*0.037*	13.2	*0.25*	12/22/16	KCA	1	
Tetrahydrofuran	ND	*0.339*	ND	*1.00*	12/22/16	KCA	1	1
Toluene	ND	*0.266*	ND	*1.00*	12/22/16	KCA	1	
Trans-1,2-Dichloroethene	ND	*0.252*	ND	*1.00*	12/22/16	KCA	1	
trans-1,3-Dichloropropene	ND	*0.221*	ND	*1.00*	12/22/16	KCA	1	
Trichloroethene	0.707	*0.047*	3.80	*0.25*	12/22/16	KCA	1	
Trichlorofluoromethane	ND	*0.178*	ND	*1.00*	12/22/16	KCA	1	
Trichlorotrifluoroethane	ND	*0.131*	ND	*1.00*	12/22/16	KCA	1	
Vinyl Chloride	ND	*0.098*	ND	*0.25*	12/22/16	KCA	1	
QA/QC Surrogates								
% Bromofluorobenzene	103	*%*	103	*%*	12/22/16	KCA	1	

Ver 1

Project ID: ENSAFE WESTBURY
Client ID: EFF

Phoenix I.D.: BX10035

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Dilution

1 = This parameter is not certified by NY NELAC for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level
QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

S - Laboratory solvent, contamination is possible.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.
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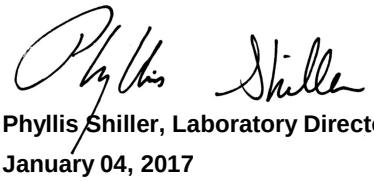

Phyllis Shiller, Laboratory Director

January 04, 2017

Reviewed and Released by: Ethan Lee, Project Manager

PHOENIX

Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

QA/QC Report

January 04, 2017

QA/QC Data

SDG I.D.: GBX10034

Parameter	Blk ppbv	Blk RL ppbv	Blk ug/m3	Blk RL ug/m3	LCS %	Sample Result ug/m3	Sample Dup ug/m3	Sample Result ppbv	Sample Dup ppbv	DUP RPD	% Rec Limits	% RPD Limits
QA/QC Batch 371038 (ppbv), QC Sample No: BX10242 (BX10034 (1X, 30X) , BX10035)												
Volatiles												
1,1,1,2-Tetrachloroethane	ND	0.146	ND	1.00	110	ND	ND	ND	ND	NC	70 - 130	25
1,1,1-Trichloroethane	ND	0.183	ND	1.00	99	ND	ND	ND	ND	NC	70 - 130	25
1,1,2,2-Tetrachloroethane	ND	0.146	ND	1.00	96	ND	ND	ND	ND	NC	70 - 130	25
1,1,2-Trichloroethane	ND	0.183	ND	1.00	95	ND	ND	ND	ND	NC	70 - 130	25
1,1-Dichloroethane	ND	0.247	ND	1.00	88	1.17	1.05	0.289	0.260	NC	70 - 130	25
1,1-Dichloroethene	ND	0.252	ND	1.00	88	8.56	8.40	2.16	2.12	1.9	70 - 130	25
1,2,4-Trichlorobenzene	ND	0.135	ND	1.00	108	ND	ND	ND	ND	NC	70 - 130	25
1,2,4-Trimethylbenzene	ND	0.204	ND	1.00	110	6.09	6.04	1.24	1.23	0.8	70 - 130	25
1,2-Dibromoethane(EDB)	ND	0.130	ND	1.00	102	ND	ND	ND	ND	NC	70 - 130	25
1,2-Dichlorobenzene	ND	0.166	ND	1.00	107	ND	ND	ND	ND	NC	70 - 130	25
1,2-Dichloroethane	ND	0.247	ND	1.00	90	ND	ND	ND	ND	NC	70 - 130	25
1,2-dichloropropane	ND	0.216	ND	1.00	90	ND	ND	ND	ND	NC	70 - 130	25
1,2-Dichlorotetrafluoroethane	ND	0.143	ND	1.00	111	ND	ND	ND	ND	NC	70 - 130	25
1,3,5-Trimethylbenzene	ND	0.204	ND	1.00	106	1.88	2.00	0.383	0.408	NC	70 - 130	25
1,3-Butadiene	ND	0.452	ND	1.00	109	ND	ND	ND	ND	NC	70 - 130	25
1,3-Dichlorobenzene	ND	0.166	ND	1.00	111	2.15	2.47	0.357	0.411	NC	70 - 130	25
1,4-Dichlorobenzene	ND	0.166	ND	1.00	112	ND	ND	ND	ND	NC	70 - 130	25
1,4-Dioxane	ND	0.278	ND	1.00	92	ND	ND	ND	ND	NC	70 - 130	25
2-Hexanone(MBK)	ND	0.244	ND	1.00	94	ND	ND	ND	ND	NC	70 - 130	25
4-Ethyltoluene	ND	0.204	ND	1.00	110	ND	1.08	ND	0.219	NC	70 - 130	25
4-Isopropyltoluene	ND	0.182	ND	1.00	119	ND	ND	ND	ND	NC	70 - 130	25
4-Methyl-2-pentanone(MIBK)	ND	0.244	ND	1.00	104	ND	ND	ND	ND	NC	70 - 130	25
Acetone	ND	0.421	ND	1.00	99	207	204	87.4	85.9	1.7	70 - 130	25
Acrylonitrile	ND	0.461	ND	1.00	80	ND	ND	ND	ND	NC	70 - 130	25
Benzene	ND	0.313	ND	1.00	96	ND	ND	ND	ND	NC	70 - 130	25
Benzyl chloride	ND	0.193	ND	1.00	122	ND	ND	ND	ND	NC	70 - 130	25
Bromodichloromethane	ND	0.149	ND	1.00	97	ND	1.80	ND	0.269	NC	70 - 130	25
Bromoform	ND	0.097	ND	1.00	127	ND	ND	ND	ND	NC	70 - 130	25
Bromomethane	ND	0.257	ND	1.00	99	ND	ND	ND	ND	NC	70 - 130	25
Carbon Disulfide	ND	0.321	ND	1.00	100	1.43	1.43	0.460	0.461	NC	70 - 130	25
Carbon Tetrachloride	ND	0.040	ND	0.25	102	0.48	0.41	0.077	0.065	NC	70 - 130	25
Chlorobenzene	ND	0.217	ND	1.00	98	ND	ND	ND	ND	NC	70 - 130	25
Chloroethane	ND	0.379	ND	1.00	98	ND	ND	ND	ND	NC	70 - 130	25
Chloroform	ND	0.205	ND	1.00	91	ND	ND	ND	ND	NC	70 - 130	25
Chloromethane	ND	0.484	ND	1.00	113	ND	ND	ND	ND	NC	70 - 130	25
Cis-1,2-Dichloroethene	ND	0.256	ND	1.01	88	1150	1090	290	276	4.9	70 - 130	25
cis-1,3-Dichloropropene	ND	0.220	ND	1.00	103	ND	ND	ND	ND	NC	70 - 130	25
Cyclohexane	ND	0.291	ND	1.00	90	ND	ND	ND	ND	NC	70 - 130	25
Dibromochloromethane	ND	0.117	ND	1.00	108	ND	ND	ND	ND	NC	70 - 130	25
Dichlorodifluoromethane	ND	0.202	ND	1.00	94	3.32	3.37	0.671	0.681	NC	70 - 130	25
Ethanol	ND	0.531	ND	1.00	65	39.2	38.2	20.8	20.3	2.4	70 - 130	25

QA/QC Data

SDG I.D.: GBX10034

Parameter	Blk ppbv	Blk RL ppbv	Blk ug/m3	Blk RL ug/m3	LCS %	Sample Result ug/m3	Sample Dup ug/m3	Sample Result ppbv	Sample Dup ppbv	DUP RPD	% Rec Limits	% RPD Limits
Ethyl acetate	ND	0.278	ND	1.00	106	ND	ND	ND	ND	NC	70 - 130	25
Ethylbenzene	ND	0.230	ND	1.00	107	ND	1.06	ND	0.245	NC	70 - 130	25
Heptane	ND	0.244	ND	1.00	95	ND	ND	ND	ND	NC	70 - 130	25
Hexachlorobutadiene	ND	0.094	ND	1.00	91	ND	ND	ND	ND	NC	70 - 130	25
Hexane	ND	0.284	ND	1.00	89	1.03 S	1.18 S	0.293 S	0.335 S	NC	70 - 130	25
Isopropylalcohol	ND	0.407	ND	1.00	78	3.00	2.90	1.22	1.18	NC	70 - 130	25
Isopropylbenzene	ND	0.204	ND	1.00	110	ND	ND	ND	ND	NC	70 - 130	25
m,p-Xylene	ND	0.230	ND	1.00	108	3.65	3.80	0.842	0.875	NC	70 - 130	25
Methyl Ethyl Ketone	ND	0.339	ND	1.00	87	6.60	6.25	2.24	2.12	5.5	70 - 130	25
Methyl tert-butyl ether(MTBE)	ND	0.277	ND	1.00	96	3.12	3.11	0.866	0.862	NC	70 - 130	25
Methylene Chloride	ND	0.288	ND	1.00	82	ND	ND	ND	ND	NC	70 - 130	25
n-Butylbenzene	ND	0.182	ND	1.00	118	ND	1.17	ND	0.214	NC	70 - 130	25
o-Xylene	ND	0.230	ND	1.00	105	1.41	1.45	0.325	0.335	NC	70 - 130	25
Propylene	ND	0.581	ND	1.00	95	9.27	9.5	5.39	5.54	2.7	70 - 130	25
sec-Butylbenzene	ND	0.182	ND	1.00	115	ND	ND	ND	ND	NC	70 - 130	25
Styrene	ND	0.235	ND	1.00	111	ND	ND	ND	ND	NC	70 - 130	25
Tetrachloroethene	ND	0.037	ND	0.25	101	79.3	75.9	11.7	11.2	4.4	70 - 130	25
Tetrahydrofuran	ND	0.339	ND	1.00	91	ND	ND	ND	ND	NC	70 - 130	25
Toluene	ND	0.266	ND	1.00	107	2.78	2.77	0.739	0.735	NC	70 - 130	25
Trans-1,2-Dichloroethene	ND	0.252	ND	1.00	89	30.0	29.3	7.57	7.39	2.4	70 - 130	25
trans-1,3-Dichloropropene	ND	0.220	ND	1.00	102	ND	ND	ND	ND	NC	70 - 130	25
Trichloroethene	ND	0.047	ND	0.25	100	209	203	38.9	37.8	2.9	70 - 130	25
Trichlorofluoromethane	ND	0.178	ND	1.00	113	3.37	3.17	0.600	0.564	NC	70 - 130	25
Trichlorotrifluoroethane	ND	0.131	ND	1.00	89	ND	ND	ND	ND	NC	70 - 130	25
Vinyl Chloride	ND	0.098	ND	0.25	114	19.6	19.8	7.66	7.77	1.4	70 - 130	25
% Bromofluorobenzene	102	%	102	%	101	104	107	104	107	NC	70 - 130	25
QA/QC Batch 371306 (ppbv), QC Sample No: BX11099 (BX10034 (525X))												
Volatiles												
Tetrachloroethene	ND	0.037	ND	0.25	98	1.67	1.71	0.247	0.253	2.4	70 - 130	25

I = This parameter is outside laboratory LCS/LCSD specified recovery limits.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference
LCS - Laboratory Control Sample
LCSD - Laboratory Control Sample Duplicate
MS - Matrix Spike
MS Dup - Matrix Spike Duplicate
NC - No Criteria
Intf - Interference

Phyllis Shiller, Laboratory Director
January 04, 2017

Wednesday, January 04, 2017

Criteria: None

State: NY

Sample Criteria Exceedances Report

GBX10034 - ENVIROTR

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units

*** No Data to Display ***

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

CHAIN OF CUSTODY RECORD
AIR ANALYSES

PHOENIX *Environmental Laboratories, Inc.*

587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040
Telephone: 860.645.1102 • Fax: 860.645.0823

800-827-5426
email: greg@phoenixlabs.com

P.O. # Page 1 of 1

Data Delivery:
☐ Fax #:
☑ Email: JAMESW@ENVIROTRAC.COM
☐ Phone #:

Report to:	Invoice to:	Project Name: ENSAFE WESTBURY
Customer: EnviroTrac LTd		Requested Deliverable: RCP ☐ ASP CAT B ☐
Address: 5 Old Dock Road		MCP ☐ NJ Deliverables ☐
Yaphank, NY 11980	Sampled by: DWebber	State where samples collected: NY

Phoenix ID #	Client Sample ID	Canister ID #	Canister Size (L)	Outgoing Canister Pressure (" Hg)	Incoming Canister Pressure ("Hg)	Flow Regulator ID #	Flow Controller Setting (mL/min)	Sampling Start Time	Sampling End Time	Sample Start Date	Canister Pressure at Start (" Hg)	Canister Pressure at End ("Hg)	Ambient/Indoor Air	Soil Gas	Grab (G) Composite (C)	TO-14	TO-15
		THIS SECTION FOR LAB USE ONLY											MATRIX			ANALYSES	
10034	INF	719	1.4	-30		—	—	1155	1156	12/20/16					X		X
10035	EFF	749	1.4	-30		—	—	1150	1151	↓					X		X
	~~Bobb~~ 2x1.4L Grab																

Relinquished by:	Accepted by:	Date:	Time:
		12/~~21~~20/16	1210
	Krystal Bunce	12-21-16	15:09

Data Format:
Excel ☐ Equis ☐ GISKey ☐
PDF ☐ Other: ☐

SPECIAL INSTRUCTIONS, QC REQUIREMENTS, REGULATORY INFORMATION:

Requested Criteria

Quote Number:

I attest that all media released by Phoenix Environmental Laboratories, Inc. have been received in good working condition and agree to the terms and conditions as listed on the back of this document:

Signature: Date:

Appendix C

Water Sample

Laboratory Analytical Results

American Analytical Laboratories, LLC.
56 Toledo Street
Farmingdale, New York 11735
TEL: (631) 454-6100 FAX: (631) 454-8027
Website: www.American-Analytical.com

December 20, 2016

Jim Wilkinson
Envirotrac
5 Old Dock Road
Yaphank, NY 11980
TEL: (631) 924-3001
FAX (631) 924-5001

RE: Frost Street, 101 Frost Street, Westbury, NY Order No.: 1612146

Dear Jim Wilkinson:

American Analytical Laboratories, LLC. received 1 sample(s) on 12/16/2016 for the analyses presented in the following report.

Samples were analyzed in accordance with the test procedures documented on the chain of custody and detailed throughout the text of this report. The results reported herein relate only to the items tested or to the samples as received by the laboratory. This report may not be reproduced, except in full, without the approval of American Analytical Laboratories, LLC and is not considered complete without a cover page and chain of custody documentation. The limits (LOQ) provided in the data package are analytical reporting limits and not Federal or Local mandated values to which the sample results should be compared.

There were no problems with the analyses and all data for associated QC met laboratory specifications. If there are any exceptions a Case Narrative is provided in the report or the data is qualified either on the sample results or in the QC section of the report. This package has been reviewed by American Analytical Laboratories' QA Department/Laboratory Director to comply with NELAC standards prior to report submittal.

If you have any questions regarding these tests results, please do not hesitate to call (631) 454-6100 or email me directly at lbeyer@american-analytical.com.

Sincerely,

Lori Beyer

Lori Beyer
Lab Director
American Analytical Laboratories, LLC.

American Analytical Laboratories, LLC.
56 Toledo Street
Farmingdale, New York 11735
TEL: (631) 454-6100 FAX: (631) 454-8027
Website: www.American-Analytical.com

Workorder Sample Summary

WO#: **1612146**

20-Dec-16

CLIENT: Envirotrac

Project: Frost Street, 101 Frost Street, Westbury, NY

Lab SampleID	Client Sample ID	Tag No	Date Collected	Date Received	Matrix
1612146-001A	Discharge Water		12/15/2016 10:30:00 AM	12/16/2016 10:20:00 AM	Liquid

CHAIN OF CUSTODY

AMERICAN ANALYTICAL LABORATORIES

56 Toledo Street, Farmingdale NY 11735
(T) 631-454-6100 (F) 631-454-8027
www.american-analytical.com

CERTIFICATIONS
NY ELAP - 11418 PA DEP - 68-00573
NJ DEP - NY050 CT DOH - PH-0205

Client Information			Project Information			Analytical Information
Company Name			**Project Name**			
EnviroTrac			Frost Street			
Address			**Street**			
5 Old Dock Road			101 Frost Street			
City	**State**	**Zip**	**City**	**State**	**Zip**	
Yaphank	NY	11980	Westbury	NY		
Project Contact			**Project #**			
Jim Wilkinson						
Phone #			**Sampler's Name / Company**			
631-924-3001			Jim Wilkinson / EnviroTrac			
E-mail			**Sampler's Signature**			
jamesw@envirotrac.com						

LAB SAMPLE # (LAB USE ONLY)	Sample Information			Sample Collection			Sample Containers									
								Number of Each Preserved Bottle								
	Client Sample ID	Sample Type	Matrix Code	Date	Time	Glass / Plastic	Total # of bottles	NONE	HCl	NaOH	HNO_3	H_2SO_4	$NaHSO_4$	MeOH	OTHER	
1612146-001	Discharge Water	Grab	L	12/15/16	10:30	GL	2		2							VOCS - EPA 624

Turnaround Time (Business Days)		SAMPLE TYPE	MATRIX CODES		Comments / Remarks
✓ Standard 7-10 Business Days	3 Day *RUSH*	G = Grab	L = Liquid	PC = Paint Chip	
5 Day *RUSH*	2 Day *RUSH*	C = Composite	S = Soil	SL = Sludge	
4 Day *RUSH*	1 Day *RUSH*	B = Blank	O = Oil	SD = Solid	
			W = Wipe	M = Miscellaneous	Cooler Temp: 5.2°C

Sample custody must be documented below, each time samples change possession, with a signature, date, and time.

RELINQUISHED BY (SIGNATURE)	DATE / TIME	PRINTED NAME	RECEIVED BY LAB (SIGNATURE)	DATE / TIME	PRINTED NAME
	DATE 12/15 TIME 10:10	Jim Wilkinson	Karen Kelly	DATE 12/16/16 TIME 10:20	K Kelly
RELINQUISHED BY (SIGNATURE)	DATE TIME	PRINTED NAME	RECEIVED BY LAB (SIGNATURE)	DATE TIME	PRINTED NAME

American Analytical Laboratories, LLC.
56 Toledo Street
Farmingdale, New York 11735
TEL: (631) 454-6100 FAX: (631) 454-8027
Website: www.American-Analytical.com

Sample Log-In Check List

Client Name: **ENVIROTRAC** Work Order Number: **1612146** RcptNo: **1**

Logged by:	**Lori Beyer**	**12/16/2016 10:20:00 AM**	Lori Beyer
Completed By:	**Lori Beyer**	**12/16/2016 10:42:09 AM**	Lori Beyer
Reviewed By:	**Karen Kelly**	**12/16/2016**	Karen Kelly

Chain of Custody

1.	Is Chain of Custody complete?	Yes ☑	No ☐	Not Present ☐
2.	How was the sample delivered?	Client		

Log In

3.	Coolers are present?	Yes ☑	No ☐	NA ☐
4.	Shipping container/cooler in good condition?	Yes ☑	No ☐	
	Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
	No. Seal Date:	Signed By:		
5.	Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
6.	Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
7.	Sample(s) in proper container(s)?	Yes ☑	No ☐	
8.	Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
9.	Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
10.	Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
11.	Is the headspace in the VOA vials less than 1/4 inch or 6 mm?	Yes ☑	No ☐	No VOA Vials ☐
12.	Were any sample containers received broken?	Yes ☐	No ☑	
13.	Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	
14.	Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	
15.	Is it clear what analyses were requested?	Yes ☑	No ☐	
16.	Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	

Special Handling (if applicable)

17.	Was client notified of all discrepancies with this order?	Yes ☐	No ☐	NA ☑

Person Notified: Date

By Whom: Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding:

Client Instructions:

18. Additional remarks:

Cooler Information

Cooler No	Temp ºC	Condition	Seal Intact	Seal No	Seal Date	Signed By

American Analytical Laboratories, LLC.
56 Toledo Street
Farmingdale, New York 11735
TEL: (631) 454-6100 FAX: (631) 454-8027
Website: www.American-Analytical.com

Case Narrative

WO#: **1612146**
Date: **12/20/2016**

CLIENT: Envirotrac
Project: Frost Street, 101 Frost Street, Westbury, NY

Samples were analyzed using the methods outlined in the following references:

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846 and additional methods as detailed throughout the text of the report. All method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives with exceptions notated in this Narrative discussion and/or in the QC Summary Section of the lab report with appropriate qualifiers. Additional quality control information such as surrogate recovery values for organic testing is provided as part of the analytical results. Batch MS/MSD results are provided in the QC section of the lab report unless the MS/MSD summary forms indicate one of your sample identifications. MS/MSD results relate only to the parent sample that was spiked.

Volatile LCS are analyzed with preservatives - HCL/NaHSO4/Methanol depending on level of analysis (high/low) similar to sample analysis. Outliers can be attributed to the presence of chemical preservatives. 2-Chloroethyl vinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

The following parameters (if included in this report) are not offered by NY ELAP: VOA 8260 Soil; 1,2,4,5-Tetramethylbenzene, Chlorodifluoromethane, Diisopropyl ether, Ethanol, Freon-114, p-Diethylbenzene, p-Ethyltoluene, Isopropyl Acetate, n-Amyl Acetate, n-Butyl Acetate, n-Propyl Acetate. VOA 8260 Liquid; 1,2,4,5-Tetramethylbenzene, Chlorodifluoromethane, Freon-114, p-Diethylbenzene, p-Ethyltoluene, Isopropyl Acetate, n-Amyl acetate, n-Butyl Acetate, n-Propyl Acetate. Pesticides 8081 Soil; DBCP. Herbicides 8151 Soil; 3,5-Dichlorobenzoic Acid, 4-Nitrophenol, Acifluorfen, Bentazon, Chloramben, DCPA, Picloram .Lachat 10-107-6-1B Ammonia in Soil, SM 2540G Total Volatile Solids, Soil TKN, Soil Organic Nitrogen, Percent Moisture, pH in non-potable water and temperature at which pH is measured, SM 4500-SO3 B Sulfite in Liquid, Total Sulfur in Soil, Acid Soluble Chloride by ASTMC1152, Water Soluble Chloride by ASTMC1218, Chlorine Demand by SM 2350 B, Total Residual Chlorine in Liquid and Reactivity to Sulfide and Reactivity to Cyanide.

The test results meet the requirements of the NYSDOH and NELAC standards, except where noted. The information contained in this analytical report is the sole property of American Analytical Laboratories, LLC. or the client for which this report was issued. The results contained in this report are only representative of the samples received. The sample receipt checklist is included as part of this lab report. Conditions can vary at different times and at different sampling conditions. American Analytical is not responsible for the use or interpretation of the data included herein.

American Analytical Laboratories, LLC.
56 Toledo Street
Farmingdale, New York 11735
TEL: (631) 454-6100 FAX: (631) 454-8027
Website: www.American-Analytical.com

Definition Only

WO#: **1612146**
Date: **12/20/2016**

Definitions:

Sample Result and QC Summary Qualifiers - Level I and Level II Reports
ND - Not detected at the reporting limit/Limit of Quantitation

B - The analyte was detected in the associated method blank. For volatiles, methylene chloride and acetone are common lab contaminants. Data users should consider anything <5x the blank value as artifact.

E - The value is above the quantitation range

D - Analyte concentration was obtained from diluted analysis or from analysis using reduced sample volume.

J - The analyte was detected below the limit of quantitation but greater than the established Limit of Detection (LOD). There is greater uncertainty associated with these results and data should be considered as estimated.

U - The compound was analyzed for but not detected.

H - Holding time for preparation or analysis has been exceeded.

S - Spike recovery is outside accepted recovery limits.

R - RPD is outside accepted recovery range.

P - Secondary column exceeds 40% difference for GC test.

* - Calibration exceeds method requirement. Due to the large number of analytes for organic testing, the method allows 10% of analytes to have %RSD and/or %D to be >20%.

LOD - Limit of Detection; the lowest level the analyte can be determined to be statistically different from a blank.

LOQ - Limit of Quantitation; the lowest amount of analyte in a sample that can be quantitatively determined with suitable precision and accurary.
m - Analyte was manually integrated for GC/MS.
+ - Concentration exceeds regulatory level for TCLP

American Analytical Laboratories, LLC.

Date: *20-Dec-16*

ELAP ID : 11418

CLIENT: Envirotrac
Client Sample ID: Discharge Water
Lab Order: 1612146
Collection Date: 12/15/2016 10:30:00 AM
Project: Frost Street, 101 Frost Street, Westbury, NY
Matrix: LIQUID
Lab ID: 1612146-001A

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE EPA METHOD 624			**E624**		**E624**		Analyst: **LA**
1,1,1-Trichloroethane	ND	0.20	2.0	U	µg/L	1	12/17/2016 12:41:00 AM
1,1,2,2-Tetrachloroethane	ND	0.20	2.0	U	µg/L	1	12/17/2016 12:41:00 AM
1,1,2-Trichloroethane	ND	0.20	2.0	U	µg/L	1	12/17/2016 12:41:00 AM
1,1-Dichloroethane	ND	0.20	2.0	U	µg/L	1	12/17/2016 12:41:00 AM
1,1-Dichloroethene	ND	0.20	2.0	U	µg/L	1	12/17/2016 12:41:00 AM
1,2-Dichlorobenzene	ND	0.20	2.0	U	µg/L	1	12/17/2016 12:41:00 AM
1,2-Dichloroethane	ND	0.20	2.0	U	µg/L	1	12/17/2016 12:41:00 AM
1,2-Dichloropropane	ND	0.20	2.0	U	µg/L	1	12/17/2016 12:41:00 AM
1,3-Dichlorobenzene	ND	0.20	2.0	U	µg/L	1	12/17/2016 12:41:00 AM
1,4-Dichlorobenzene	ND	0.20	2.0	U	µg/L	1	12/17/2016 12:41:00 AM
2-Chloroethyl vinyl ether	ND	0.20	2.0	U	µg/L	1	12/17/2016 12:41:00 AM
Benzene	ND	0.20	2.0	U	µg/L	1	12/17/2016 12:41:00 AM
Bromodichloromethane	ND	0.20	2.0	U	µg/L	1	12/17/2016 12:41:00 AM
Bromoform	ND	0.20	2.0	U	µg/L	1	12/17/2016 12:41:00 AM
Bromomethane	ND	0.20	2.0	U	µg/L	1	12/17/2016 12:41:00 AM
Carbon tetrachloride	ND	0.20	2.0	U	µg/L	1	12/17/2016 12:41:00 AM
Chlorobenzene	ND	0.20	2.0	U	µg/L	1	12/17/2016 12:41:00 AM
Chloroethane	ND	0.20	2.0	U	µg/L	1	12/17/2016 12:41:00 AM
Chloroform	ND	0.20	2.0	U	µg/L	1	12/17/2016 12:41:00 AM
Chloromethane	ND	0.20	2.0	U	µg/L	1	12/17/2016 12:41:00 AM
cis-1,3-Dichloropropene	ND	0.20	2.0	U	µg/L	1	12/17/2016 12:41:00 AM
Dibromochloromethane	ND	0.20	2.0	U	µg/L	1	12/17/2016 12:41:00 AM
Ethylbenzene	ND	0.20	2.0	U	µg/L	1	12/17/2016 12:41:00 AM
Methylene chloride	5.6	1.0	4.0	B	µg/L	1	12/17/2016 12:41:00 AM
Tetrachloroethene	ND	0.20	2.0	U	µg/L	1	12/17/2016 12:41:00 AM
Toluene	ND	0.20	2.0	U	µg/L	1	12/17/2016 12:41:00 AM
trans-1,2-Dichloroethene	ND	0.20	2.0	U	µg/L	1	12/17/2016 12:41:00 AM
trans-1,3-Dichloropropene	ND	0.20	2.0	U	µg/L	1	12/17/2016 12:41:00 AM
Trichloroethene	ND	0.20	2.0	U	µg/L	1	12/17/2016 12:41:00 AM
Trichlorofluoromethane	ND	0.20	2.0	U	µg/L	1	12/17/2016 12:41:00 AM
Vinyl chloride	ND	0.20	2.0	U	µg/L	1	12/17/2016 12:41:00 AM
Xylenes, Total	ND	0.60	6.0	U	µg/L	1	12/17/2016 12:41:00 AM
Acetone	4.4	1.0	4.0	B	µg/L	1	12/17/2016 12:41:00 AM

American Analytical Laboratories, LLC.

Date: *20-Dec-16*

ELAP ID : 11418

CLIENT:	Envirotrac	**Client Sample ID:**	Discharge Water
Lab Order:	1612146	**Collection Date:**	12/15/2016 10:30:00 AM
Project:	Frost Street, 101 Frost Street, Westbury, NY	**Matrix:**	LIQUID
Lab ID:	1612146-001A		

Certificate of Results

Analyses	Sample Result	LOD	LOQ	Qual	Units	DF	Date/Time Analyzed
VOLATILE EPA METHOD 624			**E624**		**E624**		Analyst: **LA**
m,p-Xylene	ND	0.40	4.0	U	µg/L	1	12/17/2016 12:41:00 AM
Methyl tert-butyl ether	ND	0.20	2.0	U	µg/L	1	12/17/2016 12:41:00 AM
o-Xylene	ND	0.20	2.0	U	µg/L	1	12/17/2016 12:41:00 AM
Surr: 4-Bromofluorobenzene	96.2	0.20	62-132		%Rec	1	12/17/2016 12:41:00 AM
Surr: Dibromofluoromethane	120	0.20	72-131		%Rec	1	12/17/2016 12:41:00 AM
Surr: Toluene-d8	105	0.20	58-131		%Rec	1	12/17/2016 12:41:00 AM

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Website: www.American-Analytical.com

QC SUMMARY REPORT

WO#: **1612146**

20-Dec-16

Client: Envirotrac

Project: Frost Street, 101 Frost Street, Westbury, NY **BatchID:** **11966**

Sample ID **LCS-11966**	SampType: **LCS**	TestCode: **624_W**	Units: **µg/L**	Prep Date: **12/16/2016**	RunNo: **21194**
Client ID: **LCSW**	Batch ID: **11966**	TestNo: **E624**	**E624**	Analysis Date: **12/16/2016**	SeqNo: **389754**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	47	2.0	50.00	0	94.2	54	134				
1,1,2,2-Tetrachloroethane	38	2.0	50.00	0	75.3	38	133				
1,1,2-Trichloroethane	45	2.0	50.00	0	89.3	53	132				
1,1-Dichloroethane	45	2.0	50.00	0	90.8	46	138				
1,1-Dichloroethene	51	2.0	50.00	0	102	47	137				
1,2-Dichlorobenzene	38	2.0	50.00	0	77.0	47	134				
1,2-Dichloroethane	45	2.0	50.00	0	90.2	52	136				
1,2-Dichloropropane	42	2.0	50.00	0	84.1	47	145				
1,3-Dichlorobenzene	38	2.0	50.00	0	76.2	47	136				
1,4-Dichlorobenzene	39	2.0	50.00	0	77.5	44	134				
2-Chloroethyl vinyl ether	ND	2.0	50.00	0	0	40	130				SU
Benzene	46	2.0	50.00	0	92.0	51	138				
Bromodichloromethane	45	2.0	50.00	0	90.4	48	143				
Bromoform	40	2.0	50.00	0	80.4	34	138				
Bromomethane	39	2.0	50.00	0	77.9	28	152				
Carbon tetrachloride	47	2.0	50.00	0	94.2	52	138				
Chlorobenzene	43	2.0	50.00	0	86.2	48	133				
Chloroethane	47	2.0	50.00	0	93.4	51	147				
Chloroform	47	2.0	50.00	0	94.3	54	136				
Chloromethane	42	2.0	50.00	0	84.4	58	146				
cis-1,3-Dichloropropene	42	2.0	50.00	0	83.3	52	138				
Dibromochloromethane	45	2.0	50.00	0	89.3	53	131				
Ethylbenzene	44	2.0	50.00	0	88.7	53	134				
Methylene chloride	22	4.0	50.00	0	43.3	13	100				B
Tetrachloroethene	41	2.0	50.00	0	81.6	44	126				
Toluene	47	2.0	50.00	0	94.7	54	134				

Qualifiers: S Spike Recovery outside accepted recovery limits W Sample container temperature is out of limit as specified at testcode

Original

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QC SUMMARY REPORT

WO#: **1612146**

20-Dec-16

Client: Envirotrac

Project: Frost Street, 101 Frost Street, Westbury, NY **BatchID:** **11966**

Sample ID **LCS-11966**	SampType: **LCS**	TestCode: **624_W**	Units: **µg/L**	Prep Date: **12/16/2016**	RunNo: **21194**
Client ID: **LCSW**	Batch ID: **11966**	TestNo: **E624**	**E624**	Analysis Date: **12/16/2016**	SeqNo: **389754**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
trans-1,2-Dichloroethene	47	2.0	50.00	0	93.8	44	138				
trans-1,3-Dichloropropene	43	2.0	50.00	0	86.9	46	137				
Trichloroethene	46	2.0	50.00	0	92.1	52	134				
Trichlorofluoromethane	45	2.0	50.00	0	90.7	56	151				
Vinyl chloride	43	2.0	50.00	0	85.4	55	151				
Acetone	4.5	4.0	50.00	0	8.98	45	120				BS
Surr: 4-Bromofluorobenzene	49		50.00		97.7	62	132				
Surr: Dibromofluoromethane	54		50.00		108	72	131				
Surr: Toluene-d8	52		50.00		104	58	131				

Sample ID **MB-11966**	SampType: **MBLK**	TestCode: **624_W**	Units: **µg/L**	Prep Date: **12/16/2016**	RunNo: **21194**
Client ID: **PBW**	Batch ID: **11966**	TestNo: **E624**	**E624**	Analysis Date: **12/16/2016**	SeqNo: **389755**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1-Trichloroethane	ND	2.0									U
1,1,2,2-Tetrachloroethane	ND	2.0									U
1,1,2-Trichloroethane	ND	2.0									U
1,1-Dichloroethane	ND	2.0									U
1,1-Dichloroethene	ND	2.0									U
1,2-Dichlorobenzene	ND	2.0									U
1,2-Dichloroethane	ND	2.0									U
1,2-Dichloropropane	ND	2.0									U
1,3-Dichlorobenzene	ND	2.0									U
1,4-Dichlorobenzene	ND	2.0									U
2-Chloroethyl vinyl ether	ND	2.0									U

Qualifiers: S Spike Recovery outside accepted recovery limits W Sample container temperature is out of limit as specified at testcode

Original

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QC SUMMARY REPORT

WO#: **1612146**

20-Dec-16

Client: Envirotrac

Project: Frost Street, 101 Frost Street, Westbury, NY **BatchID:** **11966**

Sample ID **MB-11966**	SampType: **MBLK**	TestCode: **624_W**	Units: **µg/L**	Prep Date: **12/16/2016**	RunNo: **21194**
Client ID: **PBW**	Batch ID: **11966**	TestNo: **E624**	**E624**	Analysis Date: **12/16/2016**	SeqNo: **389755**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	2.0									U
Bromodichloromethane	ND	2.0									U
Bromoform	ND	2.0									U
Bromomethane	ND	2.0									U
Carbon tetrachloride	ND	2.0									U
Chlorobenzene	ND	2.0									U
Chloroethane	ND	2.0									U
Chloroform	ND	2.0									U
Chloromethane	ND	2.0									U
cis-1,3-Dichloropropene	ND	2.0									U
Dibromochloromethane	ND	2.0									U
Ethylbenzene	ND	2.0									U
Methylene chloride	4.4	4.0									
Tetrachloroethene	ND	2.0									U
Toluene	ND	2.0									U
trans-1,2-Dichloroethene	ND	2.0									U
trans-1,3-Dichloropropene	ND	2.0									U
Trichloroethene	ND	2.0									U
Trichlorofluoromethane	ND	2.0									U
Vinyl chloride	ND	2.0									U
Xylenes, Total	ND	6.0									U
Acetone	4.5	4.0									
m,p-Xylene	ND	4.0									U
Methyl tert-butyl ether	ND	2.0									U
o-Xylene	ND	2.0									U
Surr: 4-Bromofluorobenzene	48		50.00		96.8	62	132				

Qualifiers:

S Spike Recovery outside accepted recovery limits

W Sample container temperature is out of limit as specified at testcode

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QC SUMMARY REPORT

WO#: **1612146**

20-Dec-16

Client: Envirotrac

Project: Frost Street, 101 Frost Street, Westbury, NY **BatchID:** **11966**

Sample ID **MB-11966**	SampType: **MBLK**	TestCode: **624_W**	Units: **µg/L**	Prep Date: **12/16/2016**	RunNo: **21194**
Client ID: **PBW**	Batch ID: **11966**	TestNo: **E624**	**E624**	Analysis Date: **12/16/2016**	SeqNo: **389755**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	59		50.00		119	72	131				
Surr: Toluene-d8	51		50.00		103	58	131				

Qualifiers:

S Spike Recovery outside accepted recovery limits

W Sample container temperature is out of limit as specified at testcode

Original