

Via email to rob.decandia@dec.ny.gov

May 10, 2019

Mr. Robert D. DeCandia Jr. P.E.
NYSDEC, Division of Environmental Remediation
Division of Environmental Remediation
625 Broadway
Albany, New York 12233-7015

Re: Progress Report: April 2019
Frost Street Sites: Site ID #s 1-30043 I, L, M
New Cassel Industrial Area, Westbury, New York

Dear Mr. DeCandia:

EnSafe Inc. is pleased to submit this Progress Report for the Frost Street Sites (Site ID #s 1-30043 I, L, M) for work completed in April 2019.

Soil Vapor Extraction (SVE)/Air Sparge (AS) System Operation and Maintenance (O&M) (OU1)

- 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**). Two alarm call were received in April 2019 due to high temperature and high moisture and rectified by restarting the system. The high moisture level alarm is caused by a broken transfer pump (caused by backpressure in the old carbon drum), both of which require replacement.
- The Frost Street Parties submitted a proposal for system reconfiguration/optimization to support site redevelopment efforts on September 27, 2018. NYSDEC preliminary comments were received via email on December 20, 2018; once a formal comment letter is received, the Frost Street Parties will prepare a response and/or revised proposal, as needed.
- Quantitative sampling of the SVE system granular activated carbon influent and effluent air flow was conducted on April 25, 2019, 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**.
 - o Photoionization detector readings and influent concentrations of Frost Street-related contaminants of concern (tetrachloroethene, trichloroethene, cis-1,2-dichloroethene,

and vinyl chloride [20,206 $\mu\text{g}/\text{m}^3$]) continue to indicate significant mass extraction.

Frost Street Sites Effluent Compliance			
System Flow Rate =		800 ft^3/m	
Compound	Annual Mass Emission Limit (lbs/year)	Carbon Exchange Required Indicator Concentration ($\mu\text{g}/\text{m}^3$) ²	April 2019 Effluent Concentration ($\mu\text{g}/\text{m}^3$)
Trichloroethene	500	19,000	0.21
Tetrachloroethene	1,000	38,000	5.5
Vinyl Chloride	100	3,800	ND
Cis-1,2-Dichloroethene ¹	100	3,800	39.2

Notes:

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

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

Groundwater Extraction/Hydraulic Containment System Installation (OU2)

Currently, the pumps in EX-1A, EX-1B, EX-1C, and EX-1D are operating near design flow rates. The EX-1B pump was replaced and put into service on April 9, 2019. The pump in EX-1B was reinstalled on April 16, 2019 after issue with the electrical (water in the vault's electrical box) was fixed.

EnSafe collected and prepared the additional information requested by NYSDEC on February 21, 2019, (additional pressure transducer data and groundwater elevation maps) to facilitate review and comment on the *Expanded Pumping Test Summary, Findings, and Recommendations*, submitted on August 10, 2018. This information was transmitted to NYSDEC on March 22, 2019.

Groundwater Monitoring

- The first quarter 2019 sampling event was completed the week of March 18, 2019. The data was submitted to NYSDEC via electronic data deliverable on April 23, 2019; the report will be submitted once complete.

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 Stark, P.E.

Attachments

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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: 5-Apr
 Weather / Temp: Clear / 40 DEG
 Technician / Operator: JW

Arrival Time: 9:30
 Departure Time: 10:00

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)	4250		834		Blower 1 Total Runtime (hrs)	54,238.6			
Blower 1 Fresh Air Valve Open (%)	0				Blower 2 Total Runtime (hrs)	52,497.6			
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)	50				VGAC-1 Influent PID (ppm)	2.4			
VGAC-1 Effluent Vacuum ("H2O)	55				VGAC-1 Effluent PID (ppm)	0.0			
VGAC-2 Influent Vacuum ("H2O)	50				VGAC-2 Influent PID (ppm)	2.4			
VGAC-2 Effluent Vacuum ("H2O)	55				VGAC-2 Effluent PID (ppm)	0.0			
VGAC-3 Influent Vacuum ("H2O)	6				VGAC-3 Influent PID (ppm)	0.0			
VGAC-3 Effluent Vacuum ("H2O)	2				VGAC-3 Effluent PID (ppm)	0.0			
VGAC-3 Influent Temp (DegF)	120				Blower Effluent PID (ppm)	0.0			
Blower Effluent Pressure ("H2O)	17								
Transfer Pump Total Runtime (hrs)	25,035.9				Condensate Storage Tank Level (gal)	100			
SVE Manifold Legs - Vacuum/Flow Rate/PID									
	Vacuum	Velocity	Flow Rate	PID		Vacuum	Velocity	Flow Rate	PID
SVE-1 ("H2O)/(FPM)/cfm)/ppm)	54	8000	175		SVE-4 ("H2O)/(FPM)/cfm)/ppm)	46	4200	92	
SVE-2 ("H2O)/(FPM)/cfm)/ppm)	56	5000	109		SVE-5 ("H2O)/(FPM)/cfm)/ppm)	45	3100	68	
SVE-3 ("H2O)/(FPM)/cfm)/ppm)	34	5500	120		SVE-6B ("H2O)/(FPM)/cfm)/ppm)	45	7000	153	
SVE-3A ("H2O)/(FPM)/cfm)/ppm)	46	4400	96		SVE-7 ("H2O)/(FPM)/cfm)/ppm)	45	3000	65	
Air Sparge System									
Compressor 1 Pressure (psi)	Off for repairs				Compressor 2 Pressure (psi)	81			
Compressor 1 Temperature (degF)	Off for repairs				Compressor 2 Temperature (degF)	174			
Compressor 1 Runtime (hrs)	27,317				Compressor 2 Runtime (hrs)	31,779			
Manifold Regulator Pressure (psi)	80								
AS Manifold Legs - Pressure/Flow Rate									
	Pressure		Flow Rate			Pressure		Flow Rate	
AS-1 (psi)/cfm)	17		5		AS-11 (psi)/cfm)	18		8	
AS-2 (psi)/cfm)	16		7		AS-12B (psi)/cfm)	16		6	
AS-3 (psi)/cfm)	16		6		AS-13B (psi)/cfm)	16		5	
AS-4 (psi)/cfm)	14		10		AS-14 (psi)/cfm)	16		10	
AS-5 (psi)/cfm)	16		7		AS-15 (psi)/cfm)	15		10	
AS-6 (psi)/cfm)	16		9		AS-16B (psi)/cfm)	15		10	
AS-7 (psi)/cfm)	16		5		AS-17 (psi)/cfm)	16		6	
AS-8 (psi)/cfm)	16		10		AS-18 (psi)/cfm)	15		7	
AS-9 (psi)/cfm)	16		8		AS-19 (psi)/cfm)	15		4	
AS-10B (psi)/cfm)	14		7						

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: 10-Apr
 Weather / Temp: Clear / 50 DEG
 Technician / Operator: JW

Arrival Time: 9:45
 Departure Time: 10:30

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)	OFF	ON							
Soil Vapor Extraction System									
Blower Air Velocity/Flow Rate (fpm)/cfm)	4200	825		Blower 1 Total Runtime (hrs)	54,298.8				
Blower 1 Fresh Air Valve Open (%)	0			Blower 2 Total Runtime (hrs)	52,557.7				
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)	50			VGAC-1 Influent PID (ppm)	1.6				
VGAC-1 Effluent Vacuum ("H2O)	55			VGAC-1 Effluent PID (ppm)	0.0				
VGAC-2 Influent Vacuum ("H2O)	50			VGAC-2 Influent PID (ppm)	1.6				
VGAC-2 Effluent Vacuum ("H2O)	55			VGAC-2 Effluent PID (ppm)	0.0				
VGAC-3 Influent Vacuum ("H2O)	6			VGAC-3 Influent PID (ppm)	0.0				
VGAC-3 Effluent Vacuum ("H2O)	2			VGAC-3 Effluent PID (ppm)	0.0				
VGAC-3 Influent Temp (DegF)	124			Blower Effluent PID (ppm)	0.0				
Blower Effluent Pressure ("H2O)	17								
Transfer Pump Total Runtime (hrs)	25,035.9			Condensate Storage Tank Level (gal)	100				
SVE Manifold Legs - Vacuum/Flow Rate/PID									
	Vacuum	Velocity	Flow Rate	PID		Vacuum	Velocity	Flow Rate	PID
SVE-1 ("H2O)/(FPM)/(cfm)/(ppm)	54	8000	175		SVE-4 ("H2O)/(FPM)/(cfm)/(ppm)	46	4200	92	
SVE-2 ("H2O)/(FPM)/(cfm)/(ppm)	56	5000	109		SVE-5 ("H2O)/(FPM)/(cfm)/(ppm)	45	3100	68	
SVE-3 ("H2O)/(FPM)/(cfm)/(ppm)	34	5500	120		SVE-6B ("H2O)/(FPM)/(cfm)/(ppm)	45	7000	153	
SVE-3A ("H2O)/(FPM)/(cfm)/(ppm)	46	4400	96		SVE-7 ("H2O)/(FPM)/(cfm)/(ppm)	45	3000	65	
Air Sparge System									
Compressor 1 Pressure (psi)	Off for repairs			Compressor 2 Pressure (psi)	82				
Compressor 1 Temperature (degF)	Off for repairs			Compressor 2 Temperature (degF)	195				
Compressor 1 Runtime (hrs)	27,317			Compressor 2 Runtime (hrs)	31,896				
Manifold Regulator Pressure (psi)	80								
AS Manifold Legs - Pressure/Flow Rate									
	Pressure	Flow Rate			Pressure	Flow Rate			
AS-1 (psi)/(cfm)	17	5		AS-11 (psi)/(cfm)	18	8			
AS-2 (psi)/(cfm)	16	7		AS-12B (psi)/(cfm)	15	8			
AS-3 (psi)/(cfm)	16	6		AS-13B (psi)/(cfm)	15	5			
AS-4 (psi)/(cfm)	14	10		AS-14 (psi)/(cfm)	15	10			
AS-5 (psi)/(cfm)	16	7		AS-15 (psi)/(cfm)	15	10			
AS-6 (psi)/(cfm)	16	9		AS-16B (psi)/(cfm)	15	8			
AS-7 (psi)/(cfm)	16	5		AS-17 (psi)/(cfm)	16	6			
AS-8 (psi)/(cfm)	15	10		AS-18 (psi)/(cfm)	15	7			
AS-9 (psi)/(cfm)	15	8		AS-19 (psi)/(cfm)	15	4			
AS-10B (psi)/(cfm)	14	6							

Notes, Comments & Observations:

AS compressor off due to high temp alarm - added oil, restarted.

Operation & Maintenance Data Sheet
Ensae-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: 17-Apr
Weather / Temp: Clear / 60 DEG
Technician / Operator: JW, MS

Arrival Time: 8:30
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)	OFF	ON			
Soil Vapor Extraction System					
Blower Air Velocity/Flow Rate (fpm)/(cfm)	4250	834	Blower 1 Total Runtime (hrs)	54,382.9	
Blower 1 Fresh Air Valve Open (%)	0		Blower 2 Total Runtime (hrs)	52,640.8	
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)	50		VGAC-1 Influent PID (ppm)	2.6	
VGAC-1 Effluent Vacuum ("H2O)	55		VGAC-1 Effluent PID (ppm)	0.0	
VGAC-2 Influent Vacuum ("H2O)	50		VGAC-2 Influent PID (ppm)	2.6	
VGAC-2 Effluent Vacuum ("H2O)	55		VGAC-2 Effluent PID (ppm)	0.0	
VGAC-3 Influent Pressure ("H2O)	6		VGAC-3 Influent PID (ppm)	0.0	
VGAC-3 Effluent Pressure ("H2O)	2		VGAC-3 Effluent PID (ppm)	0.0	
VGAC-3 Influent Temp (DegF)	120		Blower Effluent PID (ppm)	0.0	
Blower Effluent Pressure ("H2O)	17				
Transfer Pump Total Runtime (hrs)	25,035.9		Condensate Storage Tank Level (gal)	100	
SVE Manifold Legs - Vacuum/Flow Rate/PID					
	Vacuum	Velocity	Flow Rate	PID	
SVE-1 ("H2O)/(FPM)/(cfm)/(ppm)	52	8000	175		SVE-4 ("H2O)/(FPM)/(cfm)/(ppm)
SVE-2 ("H2O)/(FPM)/(cfm)/(ppm)	54	5000	109		SVE-5 ("H2O)/(FPM)/(cfm)/(ppm)
SVE-3 ("H2O)/(FPM)/(cfm)/(ppm)	46	5400	118		SVE-6B ("H2O)/(FPM)/(cfm)/(ppm)
SVE-3A ("H2O)/(FPM)/(cfm)/(ppm)	46	4400	96		SVE-7 ("H2O)/(FPM)/(cfm)/(ppm)
Air Sparge System					
Compressor 1 Pressure (psi)	Off for repairs			Compressor 2 Pressure (psi)	87
Compressor 1 Temperature (degF)	Off for repairs			Compressor 2 Temperature (degF)	167
Compressor 1 Runtime (hrs)	27,317			Compressor 2 Runtime (hrs)	31,931
Manifold Regulator Pressure (psi)	76				
AS Manifold Legs - Pressure/Flow Rate					
	Pressure	Flow Rate		Pressure	Flow Rate
AS-1 (psi)/(cfm)	19	6	AS-11 (psi)/(cfm)	18	7
AS-2 (psi)/(cfm)	18	4	AS-12B (psi)/(cfm)	19	7
AS-3 (psi)/(cfm)	17	8	AS-13B (psi)/(cfm)	17	6
AS-4 (psi)/(cfm)	16	9	AS-14 (psi)/(cfm)	18	7
AS-5 (psi)/(cfm)	19	10	AS-15 (psi)/(cfm)	18	8
AS-6 (psi)/(cfm)	19	7	AS-16B (psi)/(cfm)	17	7
AS-7 (psi)/(cfm)	18	8	AS-17 (psi)/(cfm)	17	4
AS-8 (psi)/(cfm)	18	8	AS-18 (psi)/(cfm)	17	7
AS-9 (psi)/(cfm)	18	9	AS-19 (psi)/(cfm)	17	8
AS-10B (psi)/(cfm)	17	7			

Notes, Comments & Observations:

Performed hydrovane semi-annual maintenance.

Moved GAC-3 to vacuum side of blowers after collecting O&M readings.

Operation & Maintenance Data Sheet
Ensae-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: 25-Apr
Weather / Temp: Clear / 60 DEG
Technician / Operator: JW

Arrival Time: 8:30
Departure Time: 12:30

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)	4800		942		Blower 1 Total Runtime (hrs)	54,461.9			
Blower 1 Fresh Air Valve Open (%)	0				Blower 2 Total Runtime (hrs)	52,717.1			
Blower 2 Fresh Air Valve Open (%)	0				Blower 1 Air Filter Differential Pressure ("H2O)	0			
Moisture Separator Vacuum ("Hg)	3				Blower 2 Air Filter Differential Pressure ("H2O)	0			
VGAC-1 Influent Vacuum ("H2O)	34				VGAC-1 Influent PID (ppm)	4.6			
VGAC-1 Effluent Vacuum ("H2O)	36				VGAC-1 Effluent PID (ppm)	0.0			
VGAC-2 Influent Vacuum ("H2O)	32				VGAC-2 Influent PID (ppm)	4.6			
VGAC-2 Effluent Vacuum ("H2O)	34				VGAC-2 Effluent PID (ppm)	0.0			
VGAC-3 Influent Vacuum ("H2O)	40				VGAC-3 Influent PID (ppm)	0.0			
VGAC-3 Effluent Vacuum ("H2O)	45				VGAC-3 Effluent PID (ppm)	0.0			
VGAC-3 Influent Temp (DegF)	NA				Blower Effluent PID (ppm)	0.0			
Blower Effluent Pressure ("H2O)	15								
Transfer Pump Total Runtime (hrs)	25,035.9				Condensate Storage Tank Level (gal)	100			
SVE Manifold Legs - Vacuum/Flow Rate/PID									
	Vacuum	Velocity	Flow Rate	PID		Vacuum	Velocity	Flow Rate	PID
SVE-1 ("H2O)/(FPM)/(cfm)/(ppm)	40	6500	142	5.0	SVE-4 ("H2O)/(FPM)/(cfm)/(ppm)	32	3900	85	0.0
SVE-2 ("H2O)/(FPM)/(cfm)/(ppm)	42	4000	87	1.9	SVE-5 ("H2O)/(FPM)/(cfm)/(ppm)	32	2700	59	0.0
SVE-3 ("H2O)/(FPM)/(cfm)/(ppm)	34	4250	93	3.5	SVE-6B ("H2O)/(FPM)/(cfm)/(ppm)	32	5500	120	15.6
SVE-3A ("H2O)/(FPM)/(cfm)/(ppm)	32	3450	75	0.0	SVE-7 ("H2O)/(FPM)/(cfm)/(ppm)	34	2800	61	0.0
Air Sparge System									
Compressor 1 Pressure (psi)	Off for repairs				Compressor 2 Pressure (psi)	78			
Compressor 1 Temperature (degF)	Off for repairs				Compressor 2 Temperature (degF)	175			
Compressor 1 Runtime (hrs)	27,317				Compressor 2 Runtime (hrs)	32,086			
Manifold Regulator Pressure (psi)	76								
AS Manifold Legs - Pressure/Flow Rate									
	Pressure	Flow Rate				Pressure	Flow Rate		
AS-1 (psi)/(cfm)	16	10			AS-11 (psi)/(cfm)	16	4		
AS-2 (psi)/(cfm)	16	6			AS-12B (psi)/(cfm)	15	8		
AS-3 (psi)/(cfm)	15	5			AS-13B (psi)/(cfm)	16	8		
AS-4 (psi)/(cfm)	14	9			AS-14 (psi)/(cfm)	15	10		
AS-5 (psi)/(cfm)	16	7			AS-15 (psi)/(cfm)	15	8		
AS-6 (psi)/(cfm)	16	8			AS-16B (psi)/(cfm)	15	10		
AS-7 (psi)/(cfm)	16	5			AS-17 (psi)/(cfm)	15	6		
AS-8 (psi)/(cfm)	15	9			AS-18 (psi)/(cfm)	15	7		
AS-9 (psi)/(cfm)	16	7			AS-19 (psi)/(cfm)	15	4		
AS-10B (psi)/(cfm)	15	9							

Notes, Comments & Observations: _____

Collected monthly samples. _____

Replaced transfer pump (left off until GAC drum is replaced). _____

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: 30-Apr
 Weather / Temp: Clear / 50 DEG
 Technician / Operator: JW

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

System Status									
	Arrival	Departure		Arrival	Departure				
SVE Blower 1 (ON/OFF)	OFF	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)	4800	942	Blower 1 Total Runtime (hrs)	54,483.1					
Blower 1 Fresh Air Valve Open (%)	0		Blower 2 Total Runtime (hrs)	52,735.1					
Blower 2 Fresh Air Valve Open (%)	0		Blower 1 Air Filter Differential Pressure ("H2O)	0					
Moisture Separator Vacuum ("Hg)	3		Blower 2 Air Filter Differential Pressure ("H2O)	0					
VGAC-1 Influent Vacuum ("H2O)	34		VGAC-1 Influent PID (ppm)	4.9					
VGAC-1 Effluent Vacuum ("H2O)	36		VGAC-1 Effluent PID (ppm)	0.0					
VGAC-2 Influent Vacuum ("H2O)	32		VGAC-2 Influent PID (ppm)	4.9					
VGAC-2 Effluent Vacuum ("H2O)	34		VGAC-2 Effluent PID (ppm)	0.0					
VGAC-3 Influent Vacuum ("H2O)	40		VGAC-3 Influent PID (ppm)	0.0					
VGAC-3 Effluent Vacuum ("H2O)	45		VGAC-3 Effluent PID (ppm)	0.0					
VGAC-3 Influent Temp (DegF)	NA		Blower Effluent PID (ppm)	0.0					
Blower Effluent Pressure ("H2O)	15								
Transfer Pump Total Runtime (hrs)	25,035.9		Condensate Storage Tank Level (gal)	100					
SVE Manifold Legs - Vacuum/Flow Rate/PID									
	Vacuum	Velocity	Flow Rate	PID		Vacuum	Velocity	Flow Rate	PID
SVE-1 ("H2O)/(FPM)/(cfm)/(ppm)	40	6500	142		SVE-4 ("H2O)/(FPM)/(cfm)/(ppm)	32	4000	87	
SVE-2 ("H2O)/(FPM)/(cfm)/(ppm)	42	4000	87		SVE-5 ("H2O)/(FPM)/(cfm)/(ppm)	32	2700	59	
SVE-3 ("H2O)/(FPM)/(cfm)/(ppm)	34	4000	87		SVE-6B ("H2O)/(FPM)/(cfm)/(ppm)	32	5000	109	
SVE-3A ("H2O)/(FPM)/(cfm)/(ppm)	32	3500	76		SVE-7 ("H2O)/(FPM)/(cfm)/(ppm)	34	2800	61	
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)	169				
Compressor 1 Runtime (hrs)	27,317			Compressor 2 Runtime (hrs)	32,125				
Manifold Regulator Pressure (psi)	80								
AS Manifold Legs - Pressure/Flow Rate									
	Pressure	Flow Rate		Pressure	Flow Rate				
AS-1 (psi)/(cfm)	16	10	AS-11 (psi)/(cfm)	16	4				
AS-2 (psi)/(cfm)	15	6	AS-12B (psi)/(cfm)	15	8				
AS-3 (psi)/(cfm)	15	5	AS-13B (psi)/(cfm)	15	8				
AS-4 (psi)/(cfm)	14	9	AS-14 (psi)/(cfm)	15	10				
AS-5 (psi)/(cfm)	15	7	AS-15 (psi)/(cfm)	15	8				
AS-6 (psi)/(cfm)	15	8	AS-16B (psi)/(cfm)	15	10				
AS-7 (psi)/(cfm)	15	5	AS-17 (psi)/(cfm)	15	6				
AS-8 (psi)/(cfm)	15	10	AS-18 (psi)/(cfm)	15	6				
AS-9 (psi)/(cfm)	16	7	AS-19 (psi)/(cfm)	15	4				
AS-10B (psi)/(cfm)	15	9							

Notes, Comments & Observations: _____

System off upon arrival due to high level in moisture separator. Pumped down tank manually, restarted system.

ALARM VISIT LOG
AS/SVE SYSTEM
101 FROST STREET, WESTBURY, NY

[illegible]

Appendix B
SVE System Influent/Effluent Sampling (TO-15)
Laboratory Analytical Results



Friday, May 03, 2019

Attn: James Wilkinson
EnviroTrac
5 Old Dock Rd
Yaphank, NY 11980

Project ID: ENSAFE- WESTBURY
SDG ID: GCD03179
Sample ID#s: CD03179 - CD03180

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 are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Phyllis Shiller".

Phyllis/Shiller

Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
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
UT Lab Registration #CT00007
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



Sample Id Cross Reference

May 03, 2019

SDG I.D.: GCD03179

Project ID: ENSAFE- WESTBURY

Client Id	Lab Id	Matrix
SVE EFFLUENT	CD03179	AIR
SVE INFLUENT	CD03180	AIR



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



Analysis Report

May 03, 2019

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

Sample Information

Matrix: AIR
Location Code: ENVIOTR
Rush Request: Standard
P.O.#:
Canister Id: 820

Custody Information

Collected by: JW
Received by: CP
Analyzed by: see "By" below

Date

04/25/19 10:41
04/29/19 15:19

Time

Project ID: ENSAFE- WESTBURY
Client ID: SVE EFFLUENT

Laboratory Data

SDG ID: GCD03179
Phoenix ID: CD03179

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Dilution
<u>Volatiles (TO15)</u>							
1,1,1,2-Tetrachloroethane	ND	0.146	ND	1.00	05/01/19	KCA	1
1,1,1-Trichloroethane	ND	0.183	ND	1.00	05/01/19	KCA	1
1,1,2,2-Tetrachloroethane	ND	0.146	ND	1.00	05/01/19	KCA	1
1,1,2-Trichloroethane	ND	0.183	ND	1.00	05/01/19	KCA	1
1,1-Dichloroethane	ND	0.247	ND	1.00	05/01/19	KCA	1
1,1-Dichloroethene	ND	0.051	ND	0.20	05/01/19	KCA	1
1,2,4-Trichlorobenzene	ND	0.135	ND	1.00	05/01/19	KCA	1
1,2,4-Trimethylbenzene	0.231	0.204	1.13	1.00	05/01/19	KCA	1
1,2-Dibromoethane(EDB)	ND	0.130	ND	1.00	05/01/19	KCA	1
1,2-Dichlorobenzene	ND	0.166	ND	1.00	05/01/19	KCA	1
1,2-Dichloroethane	ND	0.247	ND	1.00	05/01/19	KCA	1
1,2-dichloropropane	ND	0.217	ND	1.00	05/01/19	KCA	1
1,2-Dichlorotetrafluoroethane	ND	0.143	ND	1.00	05/01/19	KCA	1
1,3,5-Trimethylbenzene	ND	0.204	ND	1.00	05/01/19	KCA	1
1,3-Butadiene	ND	0.452	ND	1.00	05/01/19	KCA	1
1,3-Dichlorobenzene	ND	0.166	ND	1.00	05/01/19	KCA	1
1,4-Dichlorobenzene	ND	0.166	ND	1.00	05/01/19	KCA	1
1,4-Dioxane	ND	0.278	ND	1.00	05/01/19	KCA	1
2-Hexanone(MBK)	ND	0.244	ND	1.00	05/01/19	KCA	1
4-Ethyltoluene	ND	0.204	ND	1.00	05/01/19	KCA	1
4-Isopropyltoluene	ND	0.182	ND	1.00	05/01/19	KCA	1
4-Methyl-2-pentanone(MIBK)	ND	0.244	ND	1.00	05/01/19	KCA	1
Acetone	2.37	0.421	5.63	1.00	05/01/19	KCA	1
Acrylonitrile	ND	0.461	ND	1.00	05/01/19	KCA	1
Benzene	ND	0.313	ND	1.00	05/01/19	KCA	1
Benzyl chloride	ND	0.193	ND	1.00	05/01/19	KCA	1

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Dilution
Bromodichloromethane	ND	0.149	ND	1.00	05/01/19	KCA	1
Bromoform	ND	0.097	ND	1.00	05/01/19	KCA	1
Bromomethane	ND	0.258	ND	1.00	05/01/19	KCA	1
Carbon Disulfide	ND	0.321	ND	1.00	05/01/19	KCA	1
Carbon Tetrachloride	ND	0.032	ND	0.20	05/01/19	KCA	1
Chlorobenzene	ND	0.217	ND	1.00	05/01/19	KCA	1
Chloroethane	ND	0.379	ND	1.00	05/01/19	KCA	1
Chloroform	ND	0.205	ND	1.00	05/01/19	KCA	1
Chloromethane	ND	0.485	ND	1.00	05/01/19	KCA	1
Cis-1,2-Dichloroethene	9.89	0.051	39.2	0.20	05/01/19	KCA	1
cis-1,3-Dichloropropene	ND	0.221	ND	1.00	05/01/19	KCA	1
Cyclohexane	ND	0.291	ND	1.00	05/01/19	KCA	1
Dibromochloromethane	ND	0.118	ND	1.00	05/01/19	KCA	1
Dichlorodifluoromethane	0.685	0.202	3.39	1.00	05/01/19	KCA	1
Ethanol	2.43	0.531	4.58	1.00	05/01/19	KCA	1 1
Ethyl acetate	ND	0.278	ND	1.00	05/01/19	KCA	1 1
Ethylbenzene	ND	0.230	ND	1.00	05/01/19	KCA	1
Heptane	ND	0.244	ND	1.00	05/01/19	KCA	1
Hexachlorobutadiene	ND	0.094	ND	1.00	05/01/19	KCA	1
Hexane	ND	0.284	ND	1.00	05/01/19	KCA	1
Isopropylalcohol	0.812	0.407	1.99	1.00	05/01/19	KCA	1
Isopropylbenzene	ND	0.204	ND	1.00	05/01/19	KCA	1
m,p-Xylene	ND	0.230	ND	1.00	05/01/19	KCA	1
Methyl Ethyl Ketone	0.769	0.339	2.27	1.00	05/01/19	KCA	1
Methyl tert-butyl ether(MTBE)	ND	0.278	ND	1.00	05/01/19	KCA	1
Methylene Chloride	ND	0.864	ND	3.00	05/01/19	KCA	1
n-Butylbenzene	ND	0.182	ND	1.00	05/01/19	KCA	1 1
o-Xylene	ND	0.230	ND	1.00	05/01/19	KCA	1
Propylene	ND	0.581	ND	1.00	05/01/19	KCA	1 1
sec-Butylbenzene	ND	0.182	ND	1.00	05/01/19	KCA	1 1
Styrene	ND	0.235	ND	1.00	05/01/19	KCA	1
Tetrachloroethene	0.812	0.037	5.50	0.25	05/01/19	KCA	1
Tetrahydrofuran	ND	0.339	ND	1.00	05/01/19	KCA	1 1
Toluene	ND	0.266	ND	1.00	05/01/19	KCA	1
Trans-1,2-Dichloroethene	ND	0.252	ND	1.00	05/01/19	KCA	1
trans-1,3-Dichloropropene	ND	0.221	ND	1.00	05/01/19	KCA	1
Trichloroethene	0.039	0.037	0.21	0.20	05/01/19	KCA	1
Trichlorofluoromethane	1.11	0.178	6.23	1.00	05/01/19	KCA	1
Trichlorotrifluoroethane	ND	0.131	ND	1.00	05/01/19	KCA	1
Vinyl Chloride	ND	0.078	ND	0.20	05/01/19	KCA	1
<u>QA/OC Surrogates/Internals</u>							
% Bromofluorobenzene	92	%	92	%	05/01/19	KCA	1
% IS-1,4-Difluorobenzene	100	%	100	%	05/01/19	KCA	1
% IS-Bromochloromethane	95	%	95	%	05/01/19	KCA	1
% IS-Chlorobenzene-d5	107	%	107	%	05/01/19	KCA	1

Client ID: SVE EFFLUENT

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Dilution
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1 = This parameter is not certified by the primary accrediting authority (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 L=Biased Low

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

May 03, 2019

Reviewed and Released by: Greg Lawrence, Assistant Lab Director



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



Analysis Report

May 03, 2019

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

Sample Information

Matrix: AIR
Location Code: ENVIOTR
Rush Request: Standard
P.O.#:
Canister Id: 834

Custody Information

Collected by: JW
Received by: CP
Analyzed by: see "By" below

Date Time
04/25/19 10:46
04/29/19 15:19

Laboratory Data

SDG ID: GCD03179
Phoenix ID: CD03180

Project ID: ENSAFE- WESTBURY
Client ID: SVE INFLUENT

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Dilution
<u>Volatiles (TO15)</u>							
1,1,1,2-Tetrachloroethane	ND	0.729	ND	5.00	04/29/19	KCA	5
1,1,1-Trichloroethane	ND	0.917	ND	5.00	04/29/19	KCA	5
1,1,2,2-Tetrachloroethane	ND	0.729	ND	5.00	04/29/19	KCA	5
1,1,2-Trichloroethane	ND	0.917	ND	5.00	04/29/19	KCA	5
1,1-Dichloroethane	ND	1.24	ND	5.02	04/29/19	KCA	5
1,1-Dichloroethene	ND	0.252	ND	1.00	04/29/19	KCA	5
1,2,4-Trichlorobenzene	ND	0.674	ND	5.00	04/29/19	KCA	5
1,2,4-Trimethylbenzene	ND	1.02	ND	5.01	04/29/19	KCA	5
1,2-Dibromoethane(EDB)	ND	0.651	ND	5.00	04/29/19	KCA	5
1,2-Dichlorobenzene	ND	0.832	ND	5.00	04/29/19	KCA	5
1,2-Dichloroethane	ND	1.24	ND	5.02	04/29/19	KCA	5
1,2-dichloropropane	ND	1.08	ND	4.99	04/29/19	KCA	5
1,2-Dichlorotetrafluoroethane	ND	0.716	ND	5.00	04/29/19	KCA	5
1,3,5-Trimethylbenzene	ND	1.02	ND	5.01	04/29/19	KCA	5
1,3-Butadiene	ND	2.26	ND	5.00	04/29/19	KCA	5
1,3-Dichlorobenzene	ND	0.832	ND	5.00	04/29/19	KCA	5
1,4-Dichlorobenzene	ND	0.832	ND	5.00	04/29/19	KCA	5
1,4-Dioxane	ND	1.39	ND	5.01	04/29/19	KCA	5
2-Hexanone(MBK)	ND	1.22	ND	4.99	04/29/19	KCA	5
4-Ethyltoluene	ND	1.02	ND	5.01	04/29/19	KCA	5
4-Isopropyltoluene	ND	0.911	ND	5.00	04/29/19	KCA	5
4-Methyl-2-pentanone(MIBK)	ND	1.22	ND	4.99	04/29/19	KCA	5
Acetone	5.41	2.11	12.8	5.01	04/29/19	KCA	5
Acrylonitrile	ND	2.31	ND	5.01	04/29/19	KCA	5
Benzene	ND	1.57	ND	5.01	04/29/19	KCA	5
Benzyl chloride	ND	0.966	ND	5.00	04/29/19	KCA	5

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Dilution	
Bromodichloromethane	ND	0.747	ND	5.00	04/29/19	KCA	5	
Bromoform	ND	0.484	ND	5.00	04/29/19	KCA	5	
Bromomethane	ND	1.29	ND	5.01	04/29/19	KCA	5	
Carbon Disulfide	ND	1.61	ND	5.01	04/29/19	KCA	5	
Carbon Tetrachloride	ND	0.159	ND	1.00	04/29/19	KCA	5	
Chlorobenzene	ND	1.09	ND	5.01	04/29/19	KCA	5	
Chloroethane	ND	1.90	ND	5.01	04/29/19	KCA	5	
Chloroform	ND	1.02	ND	4.98	04/29/19	KCA	5	
Chloromethane	ND	2.42	ND	4.99	04/29/19	KCA	5	
Cis-1,2-Dichloroethene	173	0.252	686	1.00	04/29/19	KCA	5	
cis-1,3-Dichloropropene	ND	1.10	ND	4.99	04/29/19	KCA	5	
Cyclohexane	ND	1.45	ND	4.99	04/29/19	KCA	5	
Dibromochloromethane	ND	0.587	ND	5.00	04/29/19	KCA	5	
Dichlorodifluoromethane	ND	1.01	ND	4.99	04/29/19	KCA	5	
Ethanol	4.35	2.66	8.19	5.01	04/29/19	KCA	5	1
Ethyl acetate	ND	1.39	ND	5.01	04/29/19	KCA	5	1
Ethylbenzene	ND	1.15	ND	4.99	04/29/19	KCA	5	
Heptane	ND	1.22	ND	5.00	04/29/19	KCA	5	
Hexachlorobutadiene	ND	0.469	ND	5.00	04/29/19	KCA	5	
Hexane	ND	1.42	ND	5.00	04/29/19	KCA	5	
Isopropylalcohol	ND	2.04	ND	5.01	04/29/19	KCA	5	
Isopropylbenzene	ND	1.02	ND	5.01	04/29/19	KCA	5	
m,p-Xylene	ND	1.15	ND	4.99	04/29/19	KCA	5	
Methyl Ethyl Ketone	ND	1.70	ND	5.01	04/29/19	KCA	5	
Methyl tert-butyl ether(MTBE)	ND	1.39	ND	5.01	04/29/19	KCA	5	
Methylene Chloride	ND	4.32	ND	15.0	04/29/19	KCA	5	
n-Butylbenzene	ND	0.911	ND	5.00	04/29/19	KCA	5	1
o-Xylene	ND	1.15	ND	4.99	04/29/19	KCA	5	
Propylene	ND	2.91	ND	5.01	04/29/19	KCA	5	1
sec-Butylbenzene	ND	0.911	ND	5.00	04/29/19	KCA	5	1
Styrene	ND	1.17	ND	4.98	04/29/19	KCA	5	
Tetrachloroethene	2670	2.77	18100	18.8	05/01/19	KCA	75	
Tetrahydrofuran	ND	1.70	ND	5.01	04/29/19	KCA	5	1
Toluene	ND	1.33	ND	5.01	04/29/19	KCA	5	
Trans-1,2-Dichloroethene	2.84	1.26	11.3	4.99	04/29/19	KCA	5	
trans-1,3-Dichloropropene	ND	1.10	ND	4.99	04/29/19	KCA	5	
Trichloroethene	265	2.79	1420	15.0	05/01/19	KCA	75	
Trichlorofluoromethane	ND	0.891	ND	5.00	04/29/19	KCA	5	
Trichlorotrifluoroethane	ND	0.653	ND	5.00	04/29/19	KCA	5	
Vinyl Chloride	ND	0.391	ND	1.00	04/29/19	KCA	5	
<u>QA/QC Surrogates/Internals</u>								
% Bromofluorobenzene (5x)	109	%	109	%	04/29/19	KCA	5	
% IS-1,4-Difluorobenzene (5x)	73	%	73	%	04/29/19	KCA	5	
% IS-Bromochloromethane (5x)	83	%	83	%	04/29/19	KCA	5	
% IS-Chlorobenzene-d5 (5x)	96	%	96	%	04/29/19	KCA	5	
% Bromofluorobenzene (75x)	107	%	107	%	05/01/19	KCA	75	
% IS-1,4-Difluorobenzene (75x)	104	%	104	%	05/01/19	KCA	75	
% IS-Bromochloromethane (75x)	110	%	110	%	05/01/19	KCA	75	
% IS-Chlorobenzene-d5 (75x)	94	%	94	%	05/01/19	KCA	75	

Parameter	ppbv Result	ppbv RL	ug/m3 Result	ug/m3 RL	Date/Time	By	Dilution
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1 = This parameter is not certified by the primary accrediting authority (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 L=Biased Low

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200.
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Phyllis Shiller, Laboratory Director

May 03, 2019

Reviewed and Released by: Greg Lawrence, Assistant Lab Director



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



Canister Sampling Information

May 03, 2019

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

Location Code: ENVIOTR

SDG I.D.: GCD03179

Project ID: ENSAFE- WESTBURY

Client Id	Lab Id	Canister		Reg. Id	Chk Out Date	Laboratory					Field			
		Id	Type			Out Hg	In Hg	Out Flow	In Flow	Flow RPD	Start Hg	End Hg	Sampling Start Date	Sampling End Date
SVE EFFLUENT	CD03179	820	1.4L		04/19/19	-30	-		GRAB		-	-	04/25/19 10:40	04/25/19 10:41
SVE INFLUENT	CD03180	834	1.4L		04/19/19	-30	-		GRAB		-	-	04/25/19 10:45	04/25/19 10:46



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



QA/QC Report

May 03, 2019

QA/QC Data

SDG I.D.: GCD03179

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 476746 (ppbv), QC Sample No: CD02746 (CD03180 (5X))												
Volatiles												
1,1,1,2-Tetrachloroethane	ND	0.500	ND	3.43	97	ND	ND	ND	ND	NC	70 - 130	25
1,1,1-Trichloroethane	ND	0.500	ND	2.73	99	ND	ND	ND	ND	NC	70 - 130	25
1,1,2,2-Tetrachloroethane	ND	0.500	ND	3.43	96	ND	ND	ND	ND	NC	70 - 130	25
1,1,2-Trichloroethane	ND	0.500	ND	2.73	95	ND	ND	ND	ND	NC	70 - 130	25
1,1-Dichloroethane	ND	0.500	ND	2.02	101	ND	ND	ND	ND	NC	70 - 130	25
1,1-Dichloroethene	ND	0.500	ND	1.98	96	ND	ND	ND	ND	NC	70 - 130	25
1,2,4-Trichlorobenzene	ND	0.500	ND	3.71	129	ND	ND	ND	ND	NC	70 - 130	25
1,2,4-Trimethylbenzene	ND	0.500	ND	2.46	106	7.91	7.22	1.61	1.47	NC	70 - 130	25
1,2-Dibromoethane(EDB)	ND	0.500	ND	3.84	101	ND	ND	ND	ND	NC	70 - 130	25
1,2-Dichlorobenzene	ND	0.500	ND	3.00	102	ND	ND	ND	ND	NC	70 - 130	25
1,2-Dichloroethane	ND	0.500	ND	2.02	102	ND	ND	ND	ND	NC	70 - 130	25
1,2-dichloropropane	ND	0.500	ND	2.31	98	ND	ND	ND	ND	NC	70 - 130	25
1,2-Dichlorotetrafluoroethane	ND	0.500	ND	3.49	97	ND	ND	ND	ND	NC	70 - 130	25
1,3,5-Trimethylbenzene	ND	0.500	ND	2.46	95	ND	ND	ND	ND	NC	70 - 130	25
1,3-Butadiene	ND	0.500	ND	1.11	94	ND	ND	ND	ND	NC	70 - 130	25
1,3-Dichlorobenzene	ND	0.500	ND	3.00	99	ND	ND	ND	ND	NC	70 - 130	25
1,4-Dichlorobenzene	ND	0.500	ND	3.00	101	ND	ND	ND	ND	NC	70 - 130	25
1,4-Dioxane	ND	0.500	ND	1.80	109	ND	ND	ND	ND	NC	70 - 130	25
2-Hexanone(MBK)	ND	0.500	ND	2.05	113	ND	ND	ND	ND	NC	70 - 130	25
4-Ethyltoluene	ND	0.500	ND	2.46	91	7.91	7.07	1.61	1.44	NC	70 - 130	25
4-Isopropyltoluene	ND	0.500	ND	2.74	106	ND	ND	ND	ND	NC	70 - 130	25
4-Methyl-2-pentanone(MIBK)	ND	0.500	ND	2.05	95	5.49	4.91	1.34	1.20	NC	70 - 130	25
Acetone	ND	0.500	ND	1.19	95	366	316	154	133	14.6	70 - 130	25
Acrylonitrile	ND	0.500	ND	1.08	97	ND	ND	ND	ND	NC	70 - 130	25
Benzene	ND	0.500	ND	1.60	100	2.15	1.87	0.672	0.586	NC	70 - 130	25
Benzyl chloride	ND	0.500	ND	2.59	119	ND	ND	ND	ND	NC	70 - 130	25
Bromodichloromethane	ND	0.500	ND	3.35	121	ND	ND	ND	ND	NC	70 - 130	25
Bromoform	ND	0.500	ND	5.17	93	ND	ND	ND	ND	NC	70 - 130	25
Bromomethane	ND	0.500	ND	1.94	94	ND	ND	ND	ND	NC	70 - 130	25
Carbon Disulfide	ND	0.500	ND	1.56	94	ND	ND	ND	ND	NC	70 - 130	25
Carbon Tetrachloride	ND	0.500	ND	3.14	108	ND	ND	ND	ND	NC	70 - 130	25
Chlorobenzene	ND	0.500	ND	2.30	105	ND	ND	ND	ND	NC	70 - 130	25
Chloroethane	ND	0.500	ND	1.32	91	ND	ND	ND	ND	NC	70 - 130	25
Chloroform	ND	0.500	ND	2.44	107	ND	ND	ND	ND	NC	70 - 130	25
Chloromethane	ND	0.500	ND	1.03	85	ND	ND	ND	ND	NC	70 - 130	25
Cis-1,2-Dichloroethene	ND	0.256	ND	1.01	106	ND	ND	ND	ND	NC	70 - 130	25
cis-1,3-Dichloropropene	ND	0.220	ND	1.00	106	ND	ND	ND	ND	NC	70 - 130	25
Cyclohexane	ND	0.500	ND	1.72	98	ND	ND	ND	ND	NC	70 - 130	25
Dibromochloromethane	ND	0.500	ND	4.26	106	ND	ND	ND	ND	NC	70 - 130	25
Dichlorodifluoromethane	ND	0.500	ND	2.47	107	638	593	129	120	7.2	70 - 130	25
Ethanol	ND	0.500	ND	0.94	118	749 E	604	398 E	321	21.4	70 - 130	25

QA/QC Data

SDG I.D.: GCD03179

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	0.500	ND	1.80	82	6.81	ND	1.89	ND	NC	70 - 130	25
Ethylbenzene	ND	0.500	ND	2.17	97	7.07	6.47	1.63	1.49	NC	70 - 130	25
Heptane	ND	0.500	ND	2.05	91	4.14	3.97	1.01	0.970	NC	70 - 130	25
Hexachlorobutadiene	ND	0.500	ND	5.33	121	ND	ND	ND	ND	NC	70 - 130	25
Hexane	ND	0.500	ND	1.76	117	2.60	2.47	0.738	0.702	NC	70 - 130	25
Isopropylalcohol	ND	0.500	ND	1.23	91	35.6	31.0	14.5	12.6	14.0	70 - 130	25
Isopropylbenzene	ND	0.500	ND	2.46	102	ND	ND	ND	ND	NC	70 - 130	25
m,p-Xylene	ND	1.00	ND	4.34	92	28.2	24.0	6.50	5.54	15.9	70 - 130	25
Methyl Ethyl Ketone	ND	0.500	ND	1.47	97	38.3	28.4	13.0	9.63	29.8	70 - 130	25
Methyl tert-butyl ether(MTBE)	ND	0.500	ND	1.80	95	ND	ND	ND	ND	NC	70 - 130	25
Methylene Chloride	ND	0.500	ND	1.74	91	ND	ND	ND	ND	NC	70 - 130	25
n-Butylbenzene	ND	0.500	ND	2.74	100	ND	ND	ND	ND	NC	70 - 130	25
o-Xylene	ND	0.500	ND	2.17	101	7.77	7.51	1.79	1.73	NC	70 - 130	25
Propylene	ND	0.500	ND	0.86	102	ND	2.15	ND	1.25	NC	70 - 130	25
sec-Butylbenzene	ND	0.500	ND	2.74	100	ND	ND	ND	ND	NC	70 - 130	25
Styrene	ND	0.500	ND	2.13	92	ND	ND	ND	ND	NC	70 - 130	25
Tetrahydrofuran	ND	0.500	ND	1.47	87	21.9	18.4	7.42	6.23	17.4	70 - 130	25
Toluene	ND	0.500	ND	1.88	96	35.4	31.3	9.40	8.30	12.4	70 - 130	25
Trans-1,2-Dichloroethene	ND	0.500	ND	1.98	96	ND	ND	ND	ND	NC	70 - 130	25
trans-1,3-Dichloropropene	ND	0.500	ND	2.27	102	ND	ND	ND	ND	NC	70 - 130	25
Trichlorofluoromethane	ND	0.500	ND	2.81	92	5.42	4.62	0.965	0.823	NC	70 - 130	25
Trichlorotrifluoroethane	ND	0.500	ND	3.83	93	ND	ND	ND	ND	NC	70 - 130	25
Vinyl Chloride	ND	0.500	ND	1.28	90	ND	ND	ND	ND	NC	70 - 130	25
% Bromofluorobenzene	94	%	94	%	96	89	91	89	91	NC	70 - 130	25
% IS-1,4-Difluorobenzene	115	%	115	%	88	91	97	91	97	NC	60 - 140	25
% IS-Bromochloromethane	113	%	113	%	77	88	95	88	95	NC	60 - 140	25
% IS-Chlorobenzene-d5	111	%	111	%	94	88	94	88	94	NC	60 - 140	25

QA/QC Batch 477097 (ppbv), QC Sample No: CD03690 (CD03179, CD03180 (75X))

Volatiles

1,1,1,2-Tetrachloroethane	ND	0.500	ND	3.43	100	ND	ND	ND	ND	NC	70 - 130	25
1,1,1-Trichloroethane	ND	0.500	ND	2.73	95	ND	ND	ND	ND	NC	70 - 130	25
1,1,2,2-Tetrachloroethane	ND	0.020	ND	0.14	96	ND	ND	ND	ND	NC	70 - 130	25
1,1,2-Trichloroethane	ND	0.020	ND	0.11	97	ND	ND	ND	ND	NC	70 - 130	25
1,1-Dichloroethane	ND	0.150	ND	0.61	93	ND	ND	ND	ND	NC	70 - 130	25
1,1-Dichloroethene	ND	0.200	ND	0.79	89	ND	ND	ND	ND	NC	70 - 130	25
1,2,4-Trichlorobenzene	ND	0.054	ND	0.40	136	ND	ND	ND	ND	NC	70 - 130	25
1,2,4-Trimethylbenzene	ND	0.500	ND	2.46	104	ND	ND	ND	ND	NC	70 - 130	25
1,2-Dibromoethane(EDB)	ND	0.020	ND	0.15	99	ND	ND	ND	ND	NC	70 - 130	25
1,2-Dichlorobenzene	ND	0.100	ND	0.60	103	ND	ND	ND	ND	NC	70 - 130	25
1,2-Dichloroethane	ND	0.020	ND	0.08	98	5.54	5.26	1.37	1.30	5.2	70 - 130	25
1,2-dichloropropane	ND	0.020	ND	0.09	104	ND	1.05	ND	0.227	NC	70 - 130	25
1,2-Dichlorotetrafluoroethane	ND	0.500	ND	3.49	89	ND	ND	ND	ND	NC	70 - 130	25
1,3,5-Trimethylbenzene	ND	0.500	ND	2.46	97	ND	ND	ND	ND	NC	70 - 130	25
1,3-Butadiene	ND	0.500	ND	1.11	87	ND	ND	ND	ND	NC	70 - 130	25
1,3-Dichlorobenzene	ND	0.100	ND	0.60	100	ND	ND	ND	ND	NC	70 - 130	25
1,4-Dichlorobenzene	ND	0.080	ND	0.48	102	1.58	1.29	0.263	0.215	NC	70 - 130	25
1,4-Dioxane	ND	0.130	ND	0.47	104	ND	ND	ND	ND	NC	70 - 130	25
2-Hexanone(MBK)	ND	0.500	ND	2.05	110	ND	ND	ND	ND	NC	70 - 130	25
4-Ethyltoluene	ND	0.500	ND	2.46	94	ND	ND	ND	ND	NC	70 - 130	25
4-Isopropyltoluene	ND	0.500	ND	2.74	105	ND	ND	ND	ND	NC	70 - 130	25
4-Methyl-2-pentanone(MIBK)	ND	0.500	ND	2.05	94	4.07	ND	0.995	ND	NC	70 - 130	25
Acetone	ND	0.750	ND	1.78	89	ND	ND	ND	ND	NC	70 - 130	25

QA/QC Data

SDG I.D.: GCD03179

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
Acrylonitrile	ND	0.500	ND	1.08	90	ND	ND	ND	ND	NC	70 - 130	25
Benzene	ND	0.200	ND	0.64	93	ND	ND	ND	ND	NC	70 - 130	25
Benzyl chloride	ND	0.500	ND	2.59	117	ND	ND	ND	ND	NC	70 - 130	25
Bromodichloromethane	ND	0.020	ND	0.13	119	ND	ND	ND	ND	NC	70 - 130	25
Bromoform	ND	0.150	ND	1.55	94	ND	ND	ND	ND	NC	70 - 130	25
Bromomethane	ND	0.140	ND	0.54	90	ND	ND	ND	ND	NC	70 - 130	25
Carbon Disulfide	ND	0.500	ND	1.56	88	ND	ND	ND	ND	NC	70 - 130	25
Carbon Tetrachloride	ND	0.086	ND	0.54	104	1.04	1.03	0.166	0.164	NC	70 - 130	25
Chlorobenzene	ND	0.200	ND	0.92	104	ND	ND	ND	ND	NC	70 - 130	25
Chloroethane	ND	0.500	ND	1.32	88	ND	ND	ND	ND	NC	70 - 130	25
Chloroform	ND	0.200	ND	0.98	102	1.97	1.77	0.404	0.363	NC	70 - 130	25
Chloromethane	ND	0.500	ND	1.03	81	1.37	1.32	0.666	0.639	NC	70 - 130	25
Cis-1,2-Dichloroethene	ND	0.256	ND	1.01	104	ND	ND	ND	ND	NC	70 - 130	25
cis-1,3-Dichloropropene	ND	0.220	ND	1.00	110	ND	ND	ND	ND	NC	70 - 130	25
Cyclohexane	ND	0.500	ND	1.72	96	ND	ND	ND	ND	NC	70 - 130	25
Dibromochloromethane	ND	0.020	ND	0.17	107	ND	ND	ND	ND	NC	70 - 130	25
Dichlorodifluoromethane	ND	0.500	ND	2.47	104	ND	ND	ND	ND	NC	70 - 130	25
Ethanol	ND	0.750	ND	1.41	112	165 E	168	87.6 E	89.1	1.7	70 - 130	25
Ethyl acetate	ND	0.500	ND	1.80	77	3.29	3.17	0.913	0.879	NC	70 - 130	25
Ethylbenzene	ND	0.500	ND	2.17	96	ND	ND	ND	ND	NC	70 - 130	25
Heptane	ND	0.500	ND	2.05	93	ND	ND	ND	ND	NC	70 - 130	25
Hexachlorobutadiene	ND	0.020	ND	0.21	123	ND	ND	ND	ND	NC	70 - 130	25
Hexane	ND	0.450	ND	1.59	106	ND	ND	ND	ND	NC	70 - 130	25
Isopropylalcohol	ND	0.750	ND	1.84	87	312 E	317	127 E	129	1.6	70 - 130	25
Isopropylbenzene	ND	0.500	ND	2.46	106	ND	ND	ND	ND	NC	70 - 130	25
m,p-Xylene	ND	1.00	ND	4.34	96	ND	ND	ND	ND	NC	70 - 130	25
Methyl Ethyl Ketone	ND	0.450	ND	1.33	82	1.86	1.90	0.632	0.643	NC	70 - 130	25
Methyl tert-butyl ether(MTBE)	ND	0.500	ND	1.80	89	ND	ND	ND	ND	NC	70 - 130	25
Methylene Chloride	ND	3.00	ND	10.4	85	ND	ND	ND	ND	NC	70 - 130	25
n-Butylbenzene	ND	0.500	ND	2.74	107	ND	ND	ND	ND	NC	70 - 130	25
o-Xylene	ND	0.500	ND	2.17	105	ND	ND	ND	ND	NC	70 - 130	25
Propylene	ND	0.500	ND	0.86	102	ND	ND	ND	ND	NC	70 - 130	25
sec-Butylbenzene	ND	0.500	ND	2.74	98	ND	ND	ND	ND	NC	70 - 130	25
Styrene	ND	0.200	ND	0.85	89	2.49	2.49	0.586	0.584	NC	70 - 130	25
Tetrachloroethene	ND	0.100	ND	0.68	101	ND	ND	ND	ND	NC	70 - 130	25
Tetrahydrofuran	ND	0.500	ND	1.47	85	ND	ND	ND	ND	NC	70 - 130	25
Toluene	ND	0.500	ND	1.88	99	13.0	12.8	3.46	3.40	1.7	70 - 130	25
Trans-1,2-Dichloroethene	ND	0.200	ND	0.79	86	ND	ND	ND	ND	NC	70 - 130	25
trans-1,3-Dichloropropene	ND	0.500	ND	2.27	100	ND	ND	ND	ND	NC	70 - 130	25
Trichloroethene	ND	0.050	ND	0.27	100	1.36	1.15	0.254	0.215	NC	70 - 130	25
Trichlorofluoromethane	ND	0.500	ND	2.81	89	ND	ND	ND	ND	NC	70 - 130	25
Trichlorotrifluoroethane	ND	0.500	ND	3.83	88	ND	ND	ND	ND	NC	70 - 130	25
Vinyl Chloride	ND	0.100	ND	0.26	88	ND	ND	ND	ND	NC	70 - 130	25
% Bromofluorobenzene	94	%	94	%	101	103	101	103	101	NC	70 - 130	25
% IS-1,4-Difluorobenzene	119	%	119	%	89	103	107	103	107	NC	60 - 140	25
% IS-Bromochloromethane	121	%	121	%	85	99	101	99	101	NC	60 - 140	25
% IS-Chlorobenzene-d5	111	%	111	%	89	91	96	91	96	NC	60 - 140	25

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

r = This parameter is outside laboratory RPD specified recovery limits.

QA/QC Data

SDG I.D.: GCD03179

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
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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
May 03, 2019

Friday, May 03, 2019

Criteria: None

State: NJ

Sample Criteria Exceedances Report
GCD03179 - ENVIROTR

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
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*** No Data to Display ***

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance 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.



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Analysis Comments

May 03, 2019

SDG I.D.: GCD03179

The following analysis comments are made regarding exceptions to criteria not already noted in the Analysis Report or QA/QC Report: None.



800-827-5426

email: greg@phoenixlabs.com

P.O. #

Page 1 of 1

Data Delivery:

Fax #:

Email:

Phone #:

Invoice to: **EnviroTree**

Project Name: **EuSafe - Westbury**

Requested Deliverable:
RCP ☐ ASP CAT B ☐

Sampled by: **JIM WILKINSON**

State where samples collected: NY

Relinquished by:	Accepted by:	Date:	Time:	Data Format:
<i>[Signature]</i>	<i>[Signature]</i>	4-29-19	9:30	Excel ☒ Equis ☐ Other ☒ <i>pdf</i>
	<i>[Signature]</i>	4-29-19	15:19	Turnaround Time:

SPECIAL INSTRUCTIONS, OC REQUIREMENTS, REGULATORY INFORMATION:

(2) (1.4) (GCRB)

Requested Criteria

☐ 24 Hour ☐ 48 Hour ☐ 72 Hour ☒ Standard

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:

Quote Number:

Signature:

Date: