OSPREY ENVIRONMENTAL ENGINEERING, LLC.
146 EAST MAIN STREET . CLINTON, CT 06413
PHONE: 860.669.8651

Mr. Scott Bartlett, Superintendent, Director of Public Works Operations
Fairfield Department of Public Works
725 Old Post Road
Fairfield, CT 06824

11 July 2018

Re: Air Sampling During Earth Moving Activities
Aggregate Recycling Yard Berm Project, Fairfield, CT
Collection date: 26 June 2018

Per your request samples were collected from the area downwind of earth moving activities at the above referenced location. Air samples were collected over an 8-hour period from 6:45 am to 3:45pm. Sample containers (glass ampoules containing sorbent materials and glass filter cassettes) were supplied by ESIS Analytical Laboratory. Samples were collected using personal monitoring pumps with flow rates ranging from 0.1 liters/min. for PCBs to 2.0 liters/min. for metals and polynuclear aromatic hydrocarbons (PNAs). Flow rates were calibrated using a Mesalabs Defender 510 air calibration unit. The samples were submitted to ESIS for PCBs, PNAs, lead, mercury, and arsenic The following is a summary of results as compared to regulatory Permissible Exposure Limits (PELs).

Parameter → ***Concentration (mg/m³)*** **↓**	*** PEL**	**FFN (Northwest)**	**FFS Southeast)**
PCBs	0.001	ND<0.0010	ND<0.0010
PNAs	-	ND	ND
Arsenic	0.01	ND<0.00062	ND<0.00062
Lead	0.05	ND<0.0016	ND<0.0016
Mercury	0.1	ND<0.00062	ND<0.00062

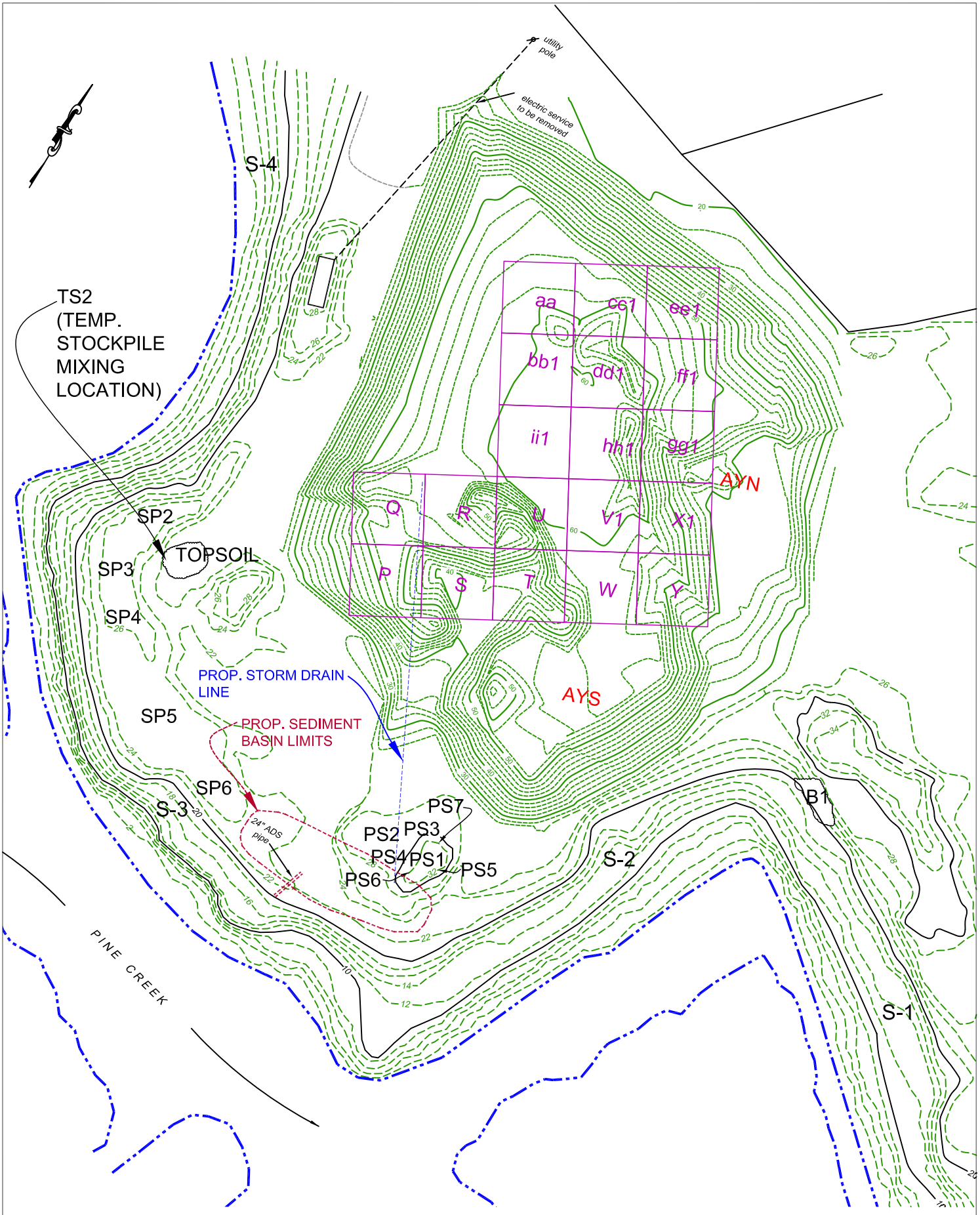
*ND = not detected above analytical threshold NE = not established * NIOSH PEL Reference for PCB , arsenic, lead, and mercury*

All air results were below applicable Permissible Exposure Limits, where standards have been established.

Should you have any questions regarding the above, please contact me.

Sincerely,
Osprey Environmental Engineering, LLC.

Robert Grabarek, P.E., L.S., LEP
President



A–7	**AGGREGATE YARD SAMPLES** **DEPARTMENT OF PUBLIC WORKS FACILITY** **90 ROD HIGHWAY, FAIRFIELD, CT**	OSPREY ENVIRONMENTAL ENGINEERING, LLC 146 East Main Street Clinton, CT 06413 Phone (860) 669–8651	DRAWN BY: RJC SCALE: 1"=100' DATE: 07.11.18 REVISIONS:

LABORATORY ANALYSIS REPORT

ESIS Environmental Health Laboratory
100 Sebethe Drive, Suite A-5
Cromwell, CT 06416
(860) 635-6475 or (800) 243-4903

To: Robert Grabarek
Osprey
146 East Main Street
Clinton, CT 06413

Report #: C1858035 ***Revision 1***

P.O. No.:
Fairfield AY

Date Received: 06/26/2018
Date Reported: 07/11/2018

Analysis: Total Particulates
Analytical Method: Gravimetric; NIOSH 0500 - MWAA Filter
Prep Date: 06/26/18 Analysis Date: 06/29/18

Sample Number	Air Volume (Liters)	Component	ug	mg/m³
AYN (Metals)	960	Total Particulates	<100	<0.10
AYS (Metals)	960	Total Particulates	<100	<0.10
		Total Particulates		*Reporting Limit: 100 ug*

The analytical sensitivity for this gravimetric method is 10.0 ug.
The media tolerance limit for MWAA filters is +/ - 100 ug.
A blank was not submitted for analysis. EHL recommends submitting a blank with the samples to check weight loss/gain.
Unless noted, the condition of samples on receipt was acceptable. Results relate only to items tested in the condition received.

Analysis: Mercury
Analytical Method: Atomic Absorption Spectrophotometry; Hydride Generation OSHA ID #145 - MCE Filter
Prep Date: 07/02/18 Analysis Date: 07/03/18

Sample Number	Air Volume (Liters)	Component	ug	mg/m³
AYN (Metals)	960	Mercury	<0.600	<0.00062
AYS (Metals)	960	Mercury	<0.600	<0.00062
		Mercury		*Reporting Limit: 0.600 ug*

A blank was not submitted with the samples. EHL recommends submitting a blank to check for contamination.
Analytical results do not require blank correction.
Concentrations reported are based on air volumes provided.
Unless noted, the condition of samples on receipt was acceptable. Results relate only to items tested in the condition received.

Date: 7/11/2018

Analysis: Polychlorinated Biphenyls
Analytical Method: Gas Chromatography; NIOSH 5503 - Florisil
Prep Date: 06/28/18 Analysis Date: 06/28/18

Sample Number	Air Volume (Liters)	Component	ug	mg/m³
AYN (PCBs)	96.0	Chlorodiphenyl (1254)	<0.0500	<0.00052
AYS (PCBs)	96.0	Chlorodiphenyl (1254)	<0.0500	<0.00052
		Chlorodiphenyl (1254)		*Reporting Limit: 0.0500 ug*

A blank was not submitted with the samples. EHL recommends that a blank be submitted to check for contamination.
No other Aroclors were detected in the samples.
Samples analyzed by gas chromatography are quantitated by matching the retention times of sample peaks with those of known compounds. A matching retention time is not proof of chemical identity.
On all sorbent tubes and 3M 3520 organic vapor monitors the front and back section were analyzed separately.
Unless indicated by an asterisk, significant breakthrough was not detected.
Concentrations reported are based on air volumes provided.
Unless noted, the condition of samples on receipt was acceptable. Results relate only to items tested in the condition received.

Analysis: Metals in Air
Analytical Method: Inductively Coupled Plasma; NIOSH 7300 - MCE Filter
Prep Date: 07/02/18 Analysis Date: 07/05/18

Sample Number	Air Volume (Liters)	Component	ug	mg/m³
AYN (Metals)	960	Arsenic	<0.600	<0.00062
		Lead	<1.50	<0.0016
AYS (Metals)	960	Arsenic	<0.600	<0.00062
		Lead	<1.50	<0.0016
		Arsenic		*Reporting Limit: 0.600 ug*
		Lead		*Reporting Limit: 1.50 ug*

A blank was not submitted with the samples. EHL recommends submitting a blank to check for possible contamination.
Analytical results do not require blank correction.
Concentrations reported are based on air volumes provided.
Unless noted, the condition of samples on receipt was acceptable. Results relate only to items tested in the condition received.

Date: 7/11/2018

Analysis: Polynuclear Aromatic Hydrocarbons (PAHs or PNAs)
Analytical Method: High Performance Liquid Chromatography (HPLC); NIOSH 5506
Prep Date: 07/06/18 Analysis Date: 07/06/18

Sample Number	Air Volume (Liters)	Component	ug	mg/m³	ppm
AYN (PNAs)	96.0	Naphthalene	<0.600	<0.0062	<0.0012
		Acenaphthylene	<1.20	<0.012	<0.0020
		Acenaphthene	<0.600	<0.0062	<0.00099
		Fluorene	<0.120	<0.0012	<0.00018
		Phenanthrene	<0.0600	<0.00062	<0.000086
		Anthracene	<0.0600	<0.00062	<0.000086
		Fluoranthene	<0.120	<0.0012	<0.00015
		Pyrene	<0.0600	<0.00062	<0.000076
		Benz(a)Anthracene	<0.0750	<0.00078	<0.000084
		Chrysene	<0.0750	<0.00078	<0.000084
		Benzo(b)Fluoranthene	<0.150	<0.0016	<0.00015
		Benzo(k)Fluoranthene	<0.0750	<0.00078	<0.000076
		Benzo(a)Pyrene	<0.0750	<0.00078	<0.000076
		Dibenz(ah)Anthracene	<0.180	<0.0019	<0.00016
		Benzo(ghi)Perylene	<0.180	<0.0019	<0.00017
		Indeno(1,2,3-cd)Pyrene	<0.180	<0.0019	<0.00017
AYS (PNAs)	96.0	Naphthalene	<0.600	<0.0062	<0.0012
		Acenaphthylene	<1.20	<0.012	<0.0020
		Acenaphthene	<0.600	<0.0062	<0.00099
		Fluorene	<0.120	<0.0012	<0.00018
		Phenanthrene	<0.0600	<0.00062	<0.000086
		Anthracene	<0.0600	<0.00062	<0.000086
		Fluoranthene	<0.120	<0.0012	<0.00015
		Pyrene	<0.0600	<0.00062	<0.000076
		Benz(a)Anthracene	<0.0750	<0.00078	<0.000084
		Chrysene	<0.0750	<0.00078	<0.000084
		Benzo(b)Fluoranthene	<0.150	<0.0016	<0.00015
		Benzo(k)Fluoranthene	<0.0750	<0.00078	<0.000076
		Benzo(a)Pyrene	<0.0750	<0.00078	<0.000076
		Dibenz(ah)Anthracene	<0.180	<0.0019	<0.00016
		Benzo(ghi)Perylene	<0.180	<0.0019	<0.00017
		Indeno(1,2,3-cd)Pyrene	<0.180	<0.0019	<0.00017

Date: 7/11/2018

Analysis: Polynuclear Aromatic Hydrocarbons (PAHs or PNAs)
Analytical Method: High Performance Liquid Chromatography (HPLC); NIOSH 5506
Prep Date: 07/06/18 Analysis Date: 07/06/18

Sample Number	Air Volume (Liters)	Component	
		Naphthalene	*Reporting Limit: 0.600 ug*
		Acenaphthylene	*Reporting Limit: 1.20 ug*
		Acenaphthene	*Reporting Limit: 0.600 ug*
		Fluorene	*Reporting Limit: 0.120 ug*
		Phenanthrene	*Reporting Limit: 0.0600 ug*
		Anthracene	*Reporting Limit: 0.0600 ug*
		Fluoranthene	*Reporting Limit: 0.120 ug*
		Pyrene	*Reporting Limit: 0.0600 ug*
		Benz(a)Anthracene	*Reporting Limit: 0.0750 ug*
		Chrysene	*Reporting Limit: 0.0750 ug*
		Benzo(b)Fluoranthene	*Reporting Limit: 0.150 ug*
		Benzo(k)Fluoranthene	*Reporting Limit: 0.0750 ug*
		Benzo(a)Pyrene	*Reporting Limit: 0.0750 ug*
		Dibenz(ah)Anthracene	*Reporting Limit: 0.180 ug*
		Benzo(ghi)Perylene	*Reporting Limit: 0.180 ug*
		Indeno(1,2,3-cd)Pyrene	*Reporting Limit: 0.180 ug*

Analytical results do not require blank correction.
A blank was not submitted with the samples. EHL recommends submitting a blank to check for contamination.
The samples analyzed by HPLC were quantitated by matching retention time of the samples with those of known compounds.
A matching retention time is not proof of chemical identity.
Concentrations reported are based on air volumes provided.
Unless noted, the condition of samples on receipt was acceptable. Results relate only to items tested in the condition received

Approved By: Patrick Dunn Patrick Dunn - Laboratory Manager Date: 7/11/2018