

PHASE II SITE INVESTIGATION REPORT

Subject Property:

**145-11 Liberty Avenue
Jamaica, New York
Block: 10019; Lots: 38, 39**

Prepared For:

**Almeida Concrete Pumping and Equipment, Inc.
97-25 72nd Drive
Forest Hills, NY 11375**

Prepared By:

**Atlantic Environmental Solutions, Inc.
5 Marine View Plaza, Suite 303
Hoboken, New Jersey 07030
Phone: (201) 876-9400 Fax: (201) 876-9563**

February 2017



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1.0 INTRODUCTION

Atlantic Environmental Solutions, Inc. (AESI) was retained by the Almeida Concrete Pumping and Equipment, Inc., to provide Phase II investigative activities in connection with the referenced property located at 145-11 Liberty Avenue in Jamaica, New York (“site” or “subject property”). The purpose of the Phase II investigation was to evaluate recognized environmental conditions (RECs) identified in AESI’s February 2017 Phase I Environmental Site Assessment (ESA).

2.0 BACKGROUND

AESI’s February 2017 Phase I ESA identified the following RECs in connection with the subject property:

- During AESI’s site inspection, two (2) fill ports, one (1) access cover, and one (1) vent pipe were observed in association with a 550-gallon waste oil UST. In addition, a previous Environmental Site Assessment provided by the Client identified three (3) floor drains and a waste oil pit. Presumably, the drains and the pit discharge into the oil separator before discharging into the waste oil UST. AESI personnel were unable to locate the pit; it is not clear if the pit has since been sealed or if it was inaccessible. Evidence of a discharge near the floor drains was not observed.
- During AESI’s site inspection, several five (5)-gallon buckets and seven, ten (10)-gallon steel drums containing various petroleum products, such as motor oils, hydraulic oils and transmission fluids, were observed throughout the interior of the subject property. In addition, one (1) 275-gallon aboveground storage tank (AST) containing motor oil was observed in the interior of the subject property. However, a previous Environmental Site Assessment provided by the Client identified two (2) ASTs, one containing fresh motor oil and the other containing hydraulic oil. These substances are commonly associated with truck repair operations. Evidence of a discharge in these areas was not observed.

AESI’s recommendations included performing a Phase II subsurface investigation to confirm the presence or absence of contamination on the site as a result of a potential discharge from the waste oil UST. In addition, AESI recommended the proper inventory, storage and disposal of all hazardous substance containers, as well as the proper closure and disposal of the AST, in accordance with all local, state and Federal regulations.

This report summarizes the Phase II subsurface activities associated with the waste oil UST.

3.0 FEBRUARY 2017 SOIL INVESTIGATION

On February 7, 2017, AESI installed four (4) soil borings in locations surrounding the waste oil UST. The soil borings were advanced to refusal, encountered at depths between 10 and 12 feet below ground surface (bgs). Soil in each boring was observed for visual and olfactory indications of contamination, as well as field-screened with a photoionization detector (PID) for volatile organic vapors. Evidence of contamination in the form of odors, staining or elevated PID readings, was not observed in any of the soil borings.



One (1) soil sample was collected from each boring at the six-inch interval above refusal for analysis of Priority Pollutant (PP) Metals, PP volatile organic compounds (VOCs), PP semi-volatile organic compounds (SVOCs), and total petroleum hydrocarbons (TPHC).

The subject property is utilized as commercial use, with no future plans for redevelopment into residential use. Therefore, the soil analytical results were compared to the New York State Department of Environmental Conservation (NYSDEC) Restricted Use Soil Cleanup Objectives. Contaminants were not detected in any soil sample at concentrations in exceedance of the NYSDEC Restricted Use Soil Cleanup Objectives.

Refer to Table 1 for a summary of the soil analytical results.

4.0 CONCLUSIONS AND RECOMMENDATIONS

The analytical results of the soil sampling conducted on February 7, 2017 indicated concentrations of TPHC, metals, VOCs and SVOCs were below the NYSDEC Restricted Use Soil Cleanup Objectives. No indications of a discharge were identified during the investigation.

AESI has no recommendations at this time.

5.0 LIMITATIONS

This report has been prepared on behalf of, and exclusively for the use of Almeida Concrete Pumping and Equipment, Inc. This report and the findings contained within shall not, in whole or in part, be distributed or conveyed to any other party without the prior consent of Atlantic Environmental Solutions, Inc. (AESI).

The opinions included in this report are based on the information obtained during the assessment, our experience, and the information provided by the persons available at the site at the time of inspection familiar with the subject property. If additional information becomes available, we require the opportunity to review the information, reassess the potential environmental concerns, and modify our opinions, if necessary.

This investigation is limited to the drilling and sampling points performed on the property. Other areas were not investigated. Furthermore, areas that were beneath the property buildings, structures, or otherwise inaccessible by the drilling methods employed, were not considered during this investigation.



Table 1 - Soil Sample Results
145-11 Liberty Avenue
Jamaica, New York

Sample #:		Part 375-6.8(a)	S-1				S-2				S-3				S-4			
Field ID:		Unrestricted Use																
Lab ID:		Soil Cleanup	01117-001				01117-002				01117-003				01117-004			
Date Sampled:		Objectives	02/07/2017				02/07/2017				02/07/2017				02/07/2017			
Depth(ft):		(ppm)	11/12				9/10				11/12				9/10			
	CAS		Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
Volatiles (mg/Kg)																		
Chloromethane	74-87-3	NS	ND		0.00127	0.000235	ND		0.00133	0.000246	ND		0.00137	0.000253	ND		0.00111	0.000205
Vinyl chloride	75-01-4	0.02	ND		0.00127	0.000235	ND		0.00133	0.000246	ND		0.00137	0.000253	ND		0.00111	0.000205
Bromomethane	74-83-9	NS	ND		0.00127	0.000378	ND		0.00133	0.000396	ND		0.00137	0.000408	ND		0.00111	0.000331
Chloroethane	75-00-3	NS	ND		0.00127	0.000337	ND		0.00133	0.000352	ND		0.00137	0.000363	ND		0.00111	0.000294
Trichlorofluoromethane	75-69-4	NS	ND		0.00127	0.000239	ND		0.00133	0.00025	ND		0.00137	0.000258	ND		0.00111	0.000209
Acrolein	107-02-8	NS	ND		0.025	0.0033	ND		0.027	0.00346	ND		0.027	0.00356	ND		0.022	0.00289
1,1-Dichloroethene	75-35-4	0.33	ND		0.00127	0.000479	ND		0.00133	0.000501	ND		0.00137	0.000516	ND		0.00111	0.000418
Methylene chloride	75-09-2	0.05	ND		0.00254	0.00126	ND		0.00266	0.00132	ND		0.00274	0.00136	ND		0.00222	0.0011
Acrylonitrile	107-13-1	NS	ND		0.025	0.00518	ND		0.027	0.00543	ND		0.027	0.00559	ND		0.022	0.00453
trans-1,2-Dichloroethene	156-60-5	0.19	ND		0.00127	0.000368	ND		0.00133	0.000386	ND		0.00137	0.000397	ND		0.00111	0.000322
1,1-Dichloroethane	75-34-3	0.27	ND		0.00127	0.000246	ND		0.00133	0.000258	ND		0.00137	0.000266	ND		0.00111	0.000215
Chloroform	67-66-3	0.37	ND		0.00127	0.000267	ND		0.00133	0.000279	ND		0.00137	0.000288	ND		0.00111	0.000233
1,1,1-Trichloroethane	71-55-6	0.68	ND		0.00127	0.0003	ND		0.00133	0.000314	ND		0.00137	0.000323	ND		0.00111	0.000262
Carbon tetrachloride	56-23-5	0.76	ND		0.00127	0.000204	ND		0.00133	0.000214	ND		0.00137	0.000221	ND		0.00111	0.000179
1,2-Dichloroethane (EDC)	107-06-2	0.02	ND		0.00127	0.000335	ND		0.00133	0.000351	ND		0.00137	0.000362	ND		0.00111	0.000293
Benzene	71-43-2	0.06	ND		0.00127	0.000331	ND		0.00133	0.000347	ND		0.00137	0.000358	ND		0.00111	0.00029
Trichloroethene	79-01-6	0.47	ND		0.00127	0.000356	ND		0.00133	0.000372	ND		0.00137	0.000384	ND		0.00111	0.000311
1,2-Dichloropropane	78-87-5	NS	ND		0.00127	0.000215	ND		0.00133	0.000225	ND		0.00137	0.000232	ND		0.00111	0.000188
Bromodichloromethane	75-27-4	NS	ND		0.00127	0.000296	ND		0.00133	0.00031	ND		0.00137	0.000319	ND		0.00111	0.000259
2-Chloroethyl vinyl ether	110-75-8	NS	ND		0.00254	0.000588	ND		0.00266	0.000616	ND		0.00274	0.000634	ND		0.00222	0.000514
cis-1,3-Dichloropropene	10061-01-5	NS	ND		0.00127	0.00026	ND		0.00133	0.000273	ND		0.00137	0.000281	ND		0.00111	0.000228
Toluene	108-88-3	0.7	ND		0.00127	0.00041	ND		0.00133	0.00043	ND		0.00137	0.000443	ND		0.00111	0.000359
trans-1,3-Dichloropropene	10061-02-6	NS	ND		0.00127	0.000293	ND		0.00133	0.000307	ND		0.00137	0.000316	ND		0.00111	0.000256
1,1,2-Trichloroethane	79-00-5	NS	ND		0.00127	0.000343	ND		0.00133	0.000359	ND		0.00137	0.00037	ND		0.00111	0.0003
Tetrachloroethene	127-18-4	1.3	ND		0.00127	0.000325	ND		0.00133	0.00034	ND		0.00137	0.000351	0.000408	J	0.00111	0.000284
Dibromochloromethane	124-48-1	NS	ND		0.00127	0.000237	ND		0.00133	0.000249	ND		0.00137	0.000256	ND		0.00111	0.000208
Chlorobenzene	108-90-7	1.1	ND		0.00127	0.000286	ND		0.00133	0.000299	ND		0.00137	0.000308	ND		0.00111	0.00025
Ethylbenzene	100-41-4	1	ND		0.00127	0.00031	ND		0.00133	0.000325	ND		0.00137	0.000334	ND		0.00111	0.000271
Total Xylenes	1330-20-7	0.26	ND		0.00254	0.00055	ND		0.00266	0.000576	ND		0.00274	0.000593	ND		0.00222	0.000481
Bromoform	75-25-2	NS	ND		0.00127	0.000364	ND		0.00133	0.000382	ND		0.00137	0.000393	ND		0.00111	0.000319
1,1,2,2-Tetrachloroethane	79-34-5	NS	ND		0.00127	0.000342	ND		0.00133	0.000358	ND		0.00137	0.000369	ND		0.00111	0.000299
1,3-Dichlorobenzene	541-73-1	2.4	ND		0.00127	0.000245	ND		0.00133	0.000257	ND		0.00137	0.000264	ND		0.00111	0.000214
1,4-Dichlorobenzene	106-46-7	1.8	ND		0.00127	0.000217	ND		0.00133	0.000227	ND		0.00137	0.000234	ND		0.00111	0.00019
1,2-Dichlorobenzene	95-50-1	1.1	ND		0.00127	0.00022	ND		0.00133	0.00023	ND		0.00137	0.000237	ND		0.00111	0.000192
TOTAL VO's:		NS	ND			NA	ND			NA	ND			NA	0.000408	J		NA

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Date Sampled:		Objectives	02/07/2017				02/07/2017				02/07/2017				02/07/2017			
Depth(ft):		(ppm)	11/12				9/10				11/12				9/10			
	CAS		Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
Semivolatiles - BN (mg/Kg)																		
N-Nitrosodimethylamine	62-75-9	NS	ND		0.035	0.030	ND		0.034	0.030	ND		0.034	0.030	ND		0.035	0.031
Bis(2-chloroethyl) ether	111-44-4	NS	ND		0.035	0.032	ND		0.034	0.031	ND		0.034	0.031	ND		0.035	0.032
1,3-Dichlorobenzene	541-73-1	2.4	ND		0.035	0.029	ND		0.034	0.028	ND		0.034	0.028	ND		0.035	0.029
1,4-Dichlorobenzene	106-46-7	1.8	ND		0.035	0.029	ND		0.034	0.028	ND		0.034	0.028	ND		0.035	0.029
1,2-Dichlorobenzene	95-50-1	1.1	ND		0.035	0.033	ND		0.034	0.032	ND		0.034	0.032	ND		0.035	0.033
2,2'-Oxybis(1-Chloropropane)	108-60-1	NS	ND		0.035	0.029	ND		0.034	0.029	ND		0.034	0.029	ND		0.035	0.030
N-Nitrosodi-n-propylamine	621-64-7	NS	ND		0.035	0.027	ND		0.034	0.026	ND		0.034	0.026	ND		0.035	0.027
Hexachloroethane	67-72-1	NS	ND		0.035	0.029	ND		0.034	0.029	ND		0.034	0.029	ND		0.035	0.030
Nitrobenzene	98-95-3	NS	ND		0.035	0.028	ND		0.034	0.027	ND		0.034	0.027	ND		0.035	0.028
Isophorone	78-59-1	NS	ND		0.035	0.030	ND		0.034	0.029	ND		0.034	0.029	ND		0.035	0.030
Bis(2-chloroethoxy) methane	111-91-1	NS	ND		0.035	0.032	ND		0.034	0.031	ND		0.034	0.031	ND		0.035	0.032
1,2,4-Trichlorobenzene	120-82-1	NS	ND		0.035	0.030	ND		0.034	0.030	ND		0.034	0.030	ND		0.035	0.031
Naphthalene	91-20-3	12	ND		0.035	0.031	ND		0.034	0.030	ND		0.034	0.030	ND		0.035	0.031
Hexachlorobutadiene	87-68-3	NS	ND		0.035	0.032	ND		0.034	0.032	ND		0.034	0.032	ND		0.035	0.033
Hexachlorocyclopentadiene	77-47-4	NS	ND		0.035	0.031	ND		0.034	0.030	ND		0.034	0.030	ND		0.035	0.031
2-Chloronaphthalene	91-58-7	NS	ND		0.035	0.029	ND		0.034	0.028	ND		0.034	0.028	ND		0.035	0.029
Dimethyl phthalate	131-11-3	NS	ND		0.035	0.032	ND		0.034	0.032	ND		0.034	0.032	ND		0.035	0.033
2,6-Dinitrotoluene	606-20-2	NS	ND		0.035	0.027	ND		0.034	0.026	ND		0.034	0.026	ND		0.035	0.027
Acenaphthylene	208-96-8	100	ND		0.035	0.029	ND		0.034	0.028	ND		0.034	0.028	ND		0.035	0.029
Acenaphthene	83-32-9	20	ND		0.035	0.031	ND		0.034	0.030	ND		0.034	0.030	ND		0.035	0.031
2,4-Dinitrotoluene	121-14-2	NS	ND		0.035	0.032	ND		0.034	0.031	ND		0.034	0.031	ND		0.035	0.032
Diethyl phthalate	84-66-2	NS	ND		0.035	0.034	ND		0.034	0.034	ND		0.034	0.034	ND		0.035	0.035
Fluorene	86-73-7	30	ND		0.035	0.032	ND		0.034	0.031	ND		0.034	0.031	ND		0.035	0.032
4-Chlorophenyl phenyl ether	7005-72-3	NS	ND		0.035	0.033	ND		0.034	0.032	ND		0.034	0.032	ND		0.035	0.033
N-Nitrosodiphenylamine	86-30-6	NS	ND		0.035	0.030	ND		0.034	0.030	ND		0.034	0.030	ND		0.035	0.031
1,2-Diphenylhydrazine	122-66-7	NS	ND		0.035	0.035	ND		0.034	0.034	ND		0.034	0.034	ND		0.035	0.035
4-Bromophenyl phenyl ether	101-55-3	NS	ND		0.035	0.030	ND		0.034	0.029	ND		0.034	0.029	ND		0.035	0.030
Hexachlorobenzene	118-74-1	0.33	ND		0.035	0.032	ND		0.034	0.032	ND		0.034	0.032	ND		0.035	0.033
Phenanthrene	85-01-8	100	ND		0.035	0.032	ND		0.034	0.031	ND		0.034	0.031	ND		0.035	0.032
Anthracene	120-12-7	100	ND		0.035	0.031	ND		0.034	0.030	ND		0.034	0.030	ND		0.035	0.031
Di-n-butyl phthalate	84-74-2	NS	ND		0.035	0.027	ND		0.034	0.026	ND		0.034	0.026	ND		0.035	0.027
Fluoranthene	206-44-0	100	ND		0.035	0.030	ND		0.034	0.029	ND		0.034	0.029	ND		0.035	0.030
Benidine	92-87-5	NS	ND		0.035	0.021	ND		0.034	0.021	ND		0.034	0.021	ND		0.035	0.021
Pyrene	129-00-0	100	ND		0.035	0.029	ND		0.034	0.028	ND		0.034	0.028	ND		0.035	0.029
Butyl benzyl phthalate	85-68-7	NS	ND		0.035	0.032	ND		0.034	0.032	ND		0.034	0.031	ND		0.035	0.033
3,3'-Dichlorobenzidine	91-94-1	NS	ND		0.035	0.025	ND		0.034	0.025	ND		0.034	0.025	ND		0.035	0.026
Benzo[a]anthracene	56-55-3	1	ND		0.035	0.030	ND		0.034	0.030	ND		0.034	0.029	ND		0.035	0.030
Chrysene	218-01-9	1	ND		0.035	0.030	ND		0.034	0.029	ND		0.034	0.029	ND		0.035	0.030
Bis(2-ethylhexyl) phthalate	117-81-7	NS	ND		0.035	0.022	ND		0.034	0.021	ND		0.034	0.021	ND		0.035	0.022
Di-n-octyl phthalate	117-84-0	NS	ND		0.035	0.030	ND		0.034	0.030	ND		0.034	0.030	ND		0.035	0.031
Benzo[b]fluoranthene	205-99-2	1	ND		0.035	0.028	ND		0.034	0.028	ND		0.034	0.028	ND		0.035	0.028
Benzo[k]fluoranthene	207-08-9	0.8	ND		0.035	0.029	ND		0.034	0.029	ND		0.034	0.029	ND		0.035	0.030
Benzo[a]pyrene	50-32-8	1	ND		0.035	0.029	ND		0.034	0.028	ND		0.034	0.028	ND		0.035	0.029
Indeno[1,2,3-cd]pyrene	193-39-5	0.5	ND		0.035	0.029	ND		0.034	0.028	ND		0.034	0.028	ND		0.035	0.029
Dibenz[a,h]anthracene	53-70-3	0.33	ND		0.035	0.034	ND		0.034	0.034	ND		0.034	0.034	ND		0.035	0.035
Benzo[g,h,i]perylene	191-24-2	100	ND		0.035	0.032	ND		0.034	0.031	ND		0.034	0.031	ND		0.035	0.032
TOTAL BN'S:		NS	ND		ND	NA	ND		ND	NA	ND		ND	NA	ND		ND	NA

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Date Sampled:		Objectives	02/07/2017				02/07/2017				02/07/2017				02/07/2017			
Depth(ft):		(ppm)	11/12				9/10				11/12				9/10			
	CAS																	
NJ-EPH-DRO (mg/Kg)			Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
C9-C28	IALC9	NS	24.1	J	50.1	20.0	ND		50.8	20.3	ND		51.2	20.5	43.3	J	49.1	19.6
C28-C40	IALC28	NS	30.8	J	50.1	20.0	ND		50.8	20.3	ND		51.2	20.5	35.7	J	49.1	19.6
C9-C40 Total	IALTC40	NS	54.9		50.1	20.0	ND		50.8	20.3	ND		51.2	20.5	79.1		49.1	19.6
Metals (mg/Kg)			Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
Antimony	7440-36-0	NS	ND		0.567	0.227	0.446	J	0.564	0.226	ND		0.546	0.218	0.605		0.567	0.227
Arsenic	7440-38-2	13	0.680		0.567	0.340	2.62		0.564	0.339	1.78		0.546	0.328	4.02		0.567	0.340
Beryllium	7440-41-7	7.2	ND		0.567	0.283	ND		0.564	0.282	ND		0.546	0.273	ND		0.567	0.283
Cadmium	7440-43-9	2.5	ND		0.567	0.283	ND		0.564	0.282	ND		0.546	0.273	ND		0.567	0.283
Chromium	7440-47-3	NS	14.7		0.567	0.397	14.3		0.564	0.395	15.2		0.546	0.382	13.5		0.567	0.397
Copper	7440-50-8	50	7.38		0.567	0.227	20.0		0.564	0.226	9.89		0.546	0.218	16.2		0.567	0.227
Lead	7439-92-1	63	2.33		0.567	0.170	187		0.564	0.169	3.48		0.546	0.164	49.1		0.567	0.170
Mercury	7439-97-6	0.18	ND		0.023	0.0091	0.020	J	0.026	0.011	ND		0.024	0.0096	0.020	J	0.025	0.010
Nickel	7440-02-0	30	9.68		0.567	0.283	10.9		0.564	0.282	10.9		0.546	0.273	9.25		0.567	0.283
Selenium	7782-49-2	3.9	ND		0.567	0.397	ND		0.564	0.395	1.28		0.546	0.382	ND		0.567	0.397
Silver	7440-22-4	2	ND		0.567	0.227	ND		0.564	0.226	ND		0.546	0.218	ND		0.567	0.227
Thallium	7440-28-0	NS	0.721		0.567	0.227	0.347	J	0.564	0.226	0.228	J	0.546	0.218	ND		0.567	0.227
Zinc	7440-66-6	109	13.7		0.567	0.340	74.0		0.564	0.339	29.9		0.546	0.328	60.0		0.567	0.340
6NYCRR Part 375-6.8(a) Unrestricted Use Soil Cleanup Objectives December 2006																		
BOLD Conc		Indicates a concentration that exceeds applicable criteria.																
BOLD RL		Indicates RL that exceeds applicable criteria.																
BOLD MDL		Indicates MDL that exceeds applicable criteria.																
NS = No Standard Available																		
ND = Analyzed for but Not Detected at the MDL																		
J = Concentration detected at a value below the RL and above the MDL for target compounds. For non-target compounds (i.e. TICs), qualifier indicates estimated concentrations.																		
All qualifiers on individual Volatiles & Semivolatiles are carried down through summation.																		