

# PHASE II ENVIRONMENTAL SITE ASSESSMENT

For:

# CIABATTONI PROPERTY

149 & 153 South Liberty Drive Stony Point, Rockland County, New York

Prepared For:

# THE SEMBLER COMPANY

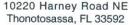
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Prepared By:

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> April 27, 2006 Project #: 050409





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April 27, 2006

Project # 050409

Mr. Robert J. Fargo The Sembler Company 5858 Central Avenue St. Petersburg, Florida 33707

RE:

CIABATTONI PROPERTY 149 & 153 South Liberty Stony Point, Rockland County, New York

Dear Mr. Fargo:

A2L Technologies, Inc. is pleased to present you with this **Phase II Environmental Site Assessment**. We would like to take this opportunity to thank you for selecting A2L Technologies, Inc. to assist you with this matter. This report has been prepared for the sole and exclusive use of The Sembler Company and its clients.

As always, should you have any further questions please feel free to contact us at your convenience.

Sincerely,

A2L Technologies, Inc.

Kent R. Ward ASP, CFEA, REPA

Vice President

Director of Environmental Services

# **TABLE OF CONTENTS**

SECTI	<u>ON</u> PAGE
1.0	Introduction
2.0	Site Contamination History
3.0	Site Assessment Scope of Services
4.0	Description of Assessment Activities
5.0	Findings and Results
6.0	Conclusions & Recommendations
7.0	Signature of Environmental Professional(s)
	LIST OF APPENDICES
	HRP Associates, Inc. Report Appendix A

### 1.0 INTRODUCTION

A2L Technologies, Inc. was authorized to proceed with a *Phase II Environmental Site*Assessment for the CIABATTONI PROPERTY located at 149 & 153 South Liberty Drive North in the Town of Stony Point, Rockland County, New York. This Phase II Assessment was performed in accordance with ASTM E1903-97, *Guide for Environmental Site Assessments: Phase II Environmental Site Assessment Process*. The areas of concern were identified by A2L Technologies, Inc. in a *Phase I Environmental Site Assessment* (dated January 12, 2006) which identified the following historical recognized environmental conditions: 1.) historic presence of a gas station/garage with gasoline and waste oil underground storage tanks (USTs) and hydraulic lifts, 2.) unauthorized dumping behind gas station building.

### 2.0 SITE CONTAMINATION HISTORY

The subject site has historically served as a gas station and garage since the 1950's. Documentation obtained from the EDR database report and Rockland County Department of Health indicates that the original tanks (installed in the 1950's) were removed in 1980 by Ira D. Conklin & Sons, Inc. (IDC) and replaced with three (3) 10,000 gallon gasoline UST's and two dispensers. In August 2003, IDC removed the three (3) 10,000 gallon gasoline UST's and one (1) 550 gallon waste oil UST. During the excavation process, it was established that the soil was contaminated and a New York State Department of Environmental Conservation (NYDEC) Spill Report Form was submitted on August 20, 2003. Approximately 600 tons of soil was removed from the tank excavation area and 150 tons of soil removed from the waste oil UST excavation. Laboratory results for the soil extracted upon excavation indicated contaminants above the NYSDEC TAGM

#4046 Recommended Soil Cleanup Objective level at the east wall (under South Liberty Drive) and bottom of the excavation. Upon inspection of the site, the Rockland County Department of Health representative requested the removal of the hydraulic lifts and dispensers on the site.

On November 1, 2004, the removal of three (3) in-ground hydraulic lifts and the dispenser island commenced. Approximately 1,780 tons of petroleum contaminated soil were removed from both excavations. Soil sample results indicated levels above the NYSDEC TAGM #4046 Recommended Soil Cleanup Objectives along the east wall of the excavation only. The remaining laboratory results were below the applicable levels. Although groundwater was encountered during the excavation, no groundwater sampling was performed at the subject site. A letter from IDC to Majac Enterprises (UST Owners) on December 28, 2004 indicated the presence of contaminated soil along the south wall of the hydraulic lift excavation. All of the Spill Incidents recorded for the subject site were closed by the NYSDEC. Residual contamination reportedly remains along the east property boundary. The presence of groundwater contamination was not established during tank closure activities.

### 3.0 SCOPE OF SERVICES

The purpose of the investigation was to determine the presence or absence of contamination caused by past activities on the subject property as presented in the *Phase I Environmental Site Assessment* (dated January 12, 2006) prepared by *A2L Technologies, Inc.* 

In order to address these specific concerns, the Scope of Services for this investigation Included:

- Site inspection and field-determination of sample locations.
- Field screening of soil samples at 2' intervals using an Organic Vapor Analyzer (OVA) equipped with a Photo-Ionization Detector (PID).
- Installation of soil borings at a total of three (3) field-determined locations around the former UST tank pit, dispenser island and product lines, representative of potential on-site contamination (Refer to Appendix A for details and locations).
- Installation of three (3) temporary monitoring wells at the soil boring locations around the former UST tank pit, dispenser island and product lines. (Refer to Appendix A for details and locations).
- Collection of one (1) soil sample from the former UST tank pit and dispenser area (location of the highest OVA response), with analysis using EPA Method 8021B for Volatile Organic Compounds (STARS VOA and VOH) and EPA Method 6010 for RCRA Metals.
- Collection of three (3) ground water samples from each of the temporary wells in the area of the former UST's with analysis using EPA Method 8021B for Volatile Organic Compounds (STARS VOA and VOH) and EPA Method 6010 for 8 RCRA Metals (filtered and unfiltered).
- Installation of soil borings at one (1) field-determined location around the former inground hydraulic lifts located within the garage of the gas station building. (Refer to Appendix A for details and locations).
- Installation of one (1) temporary monitoring wells at the center of the former inground hydraulic lifts area within the garage of the gas station building. (Refer to

- Appendix A for details and locations).
- Collection of one (1) soil sample from the former hydraulic lift area, with analysis using EPA Method 8021B for Volatile Organic Compounds (STARS VOA), EPA Method 8270C for Semi-Volatile Organic Compounds (STARS SVOC), EPA Method 6010 for 8 RCRA Metals (filtered and unfiltered), and EPA Method 8081 for PCB's.
- Collection of one (1) ground water sample from the temporary well in the area of the former hydraulic lift area with analysis using EPA Method 8021B for Volatile Organic Compounds (STARS VOA and VOH) and EPA Method 6010 for 8 RCRA Metals.
- Installation of soil borings at a total of three (3) field-determined locations at the south side (rear) of the former gas station building in the area of the recorded dumping of automotive fluids. The three (3) soil borings were installed along the rear wall of the gas station to approximately five (5) feet.
- Collection of one (1) soil sample from the rear of the building (location of the highest OVA response), with analysis using EPA Method 8021B for Volatile Organic Compounds (STARS VOA), EPA Method 8270C for Semi-Volatile Organic Compounds (STARS SVOC), and EPA Method 6010 for 8 RCRA Metals.
- Installation of soil borings at a total of two (2) field-determined locations at the west side of the former gas station building in the area of the former waste oil underground storage tank to approximately ten (10) feet below land surface.
- Collection of one (1) soil sample from the area of the waste oil tank (location of the highest OVA response), with analysis using EPA Method 8021B for Volatile Organic Compounds (STARS VOA and VOH), EPA Method 8270C for Semi-Volatile Organic

Compounds (STARS SVOC), and EPA Method 6010 for 8 RCRA Metals.

Preparation of report of activities and findings.

# 4.0 DESCRIPTION OF ASSESSMENT ACTIVITIES

On April 12, 2006, the site activities were performed by HRP Associates, Inc. (HRP) and Aztech Environmental Services, Inc. (Aztech). The soil and groundwater testing was being performed for the client in order to establish the presence of on-site contamination prior to future development. A description of the on-site activities and sampling follows (Refer to Appendix A for specific site details and information):

# 4.1 Soil Sampling

Soil borings were installed at a total of nine (9) field determined locations by Aztech using a truck-mounted combination direct push and hollow stem auger drill rig. The soil borings were advanced to depths ranging from 1 to 30 feet below land surface (bls). The soil samples were collected continuously in four foot intervals by HRP using a 1¾-inch inner diameter stainless steel Macrocore sampler. Due to access restrictions, soil borings were installed at the rear of the gas station building with a stainless steel hand auger and shovel. Soil boring logs describing the geologic descriptions and comments were maintained in the field during the boring activities.

The soil from each 2' increment was screened with an Organic Vapor Analyzer (OVA) equipped with a Photo-Ionization Detector (PID). Physical evidence of contamination (i.e. staining, odors, elevated PID measurements) was observed at five soil boring locations. Soil samples were extracted by HRP from the boring at each location indicating the highest

response. After collection, each soil sample was placed into laboratory-provided glass sampling containers. The sample containers were labeled and placed into a cooler, preserved on wet ice at 4° C, and delivered with a properly completed Chain-of-Custody to *Hudson Environmental Services, Inc.* for analysis using the specific methods previously listed. Laboratory results and Soil Boring logs listing the lithology, sampling interval, and specific analysis performed for each sample location are present in Appendix A.

# 4.2 Groundwater Sampling

Temporary monitoring wells were installed by Aztech at four (4) field determined soil boring locations using a truck-mounted combination direct push and hollow stem auger drill rig. The temporary wells were installed in the area of the former UST excavation and dispensers, as well as the former in-ground hydraulic lifts. The wells were installed to a depth of 20' - 29' bls, with groundwater encountered at the site between approximately 17' - 25' bls. The wells were constructed of 1" diameter PVC with 0.01" slotted screen in the lower ten (10) feet of the well. The annular space around the slotted screen, and two feet above was packed with 20/30 silica sand, followed by a fine sand (30/65) pack of 1' thick.

The temporary wells were purged by HRP prior to sample collection to ensure the acquisition of a sample representative of the local aquifer. The groundwater sample was collected at the end of the well volume purged and stabilization parameters were measured. A sample was then retrieved with a pre-cleaned dedicated Teflon bailer and transferred to laboratory supplied containers (samples for volatiles analysis were collected first) in accordance with the U.S. Environmental Protection Agency 40 CFR 136, Table II. The containers were labeled and placed into a cooler, preserved at 4° C, and delivered with a

properly completed Chain-of-Custody to *Hudson Environmental Services, Inc.* for analysis (Refer to Appendix A for site specific information).

# 5.0 FINDINGS AND RESULTS

# 5.1 Soil Sample Analysis

The laboratory analysis yielded results below detectable limits, except as follows:

Location/ Constituent	Result	Units	NYSDEC TAGM 4046 Recommended Soil Cleanup Objectives
SB-02: Former Waste Oil Tank Location	on (Sampled 4' - 6')	_	ADVISED 18
Total Xylenes	0.089 B	mg/kg	1.2
1,3,5 - Trimethylbenzene	0.240 B	mg/kg	NE
1,2,4 - Trimethylbenzene	0.072	mg/kg	NE
p-Isopropyltoluene	0.057	mg/kg	NE
Total VOC's	0.458	mg/kg	10
Barium	37	mg/kg	300
Chromium	25	mg/kg	10
Lead	43	mg/kg	SB
Silver	2.2	mg/kg	SB
SB-04: Former Dispenser Island Area	(Sampled 17' - 19')		
MTBE	0.016	mg/kg	NE
Benzene	0.63	mg/kg	0.060
Toluene	3.8 B	mg/kg	1.5
Ethylbenzene	1.9	mg/kg	5.5

Location/ Constituent	Result	Units	NYSDEC TAGM 4046 Recommended Soil Cleanup Objectives
Total Xylenes	5.9	mg/kg	1.2
Isopropylbenzene	0.51	mg/kg	NE
n-Propylbenzene	0.93	mg/kg	NE
1,3,5 - Trimethylbenzene	1.6	mg/kg	NE
1,2,4 - Trimethylbenzene	2.8 B	mg/kg	NE
Sec-Butylbenzene	0.027	mg/kg	NE
p-Isopropyltoluene	0.160	mg/kg	NE
Napthalene	0.41	mg/kg	NE
Total VOC's	18.68	mg/kg	10
Barium	55	mg/kg	300
Chromium	34	mg/kg	10
Lead	6.6	mg/kg	SB
Silver	1.1	mg/kg	SB
SB-06: Former In-Ground Hydraulic	Lift Area (Sampled 6' -	8')	
n-Propylbenzene	0.027 B	mg/kg	NE
1,3,5 - Trimethylbenzene	0.022 B	mg/kg	NE
1,2,4 - Trimethylbenzene	0.051 B	mg/kg	NE
p-Isopropyltoluene	0.019	mg/kg	NE
Total VOC's	0.119	mg/kg	10
Barium	64	mg/kg	300
Chromium	38	mg/kg	10
Lead	7.9	mg/kg	SB
Silver	0.54	mg/kg	SB

Location/ Constituent	Result	Units	NYSDEC TAGM 4046 Recommended Soil Cleanup Objectives
SB-08: Rear of Former Gas Station Bu	ilding (Sampled 0'	- 2')	
Barium	68	mg/kg	300
Chromium	54	mg/kg	10
Lead	290	mg/kg	SB
Silver	<0.58	mg/kg	SB

<sup>\*</sup> Soil samples that exceed NYSDEC TAGM values are bolded NYSDEC = New York State Department of Environmental Conservation TAGM = Technical and Administrative Guidance Memorandum # 4046

NE = Not Established

SB = Site Background

B = indicates estimated concentration

Benzene, Toluene, Total Xylene, and Total VOC's were found to be above the applicable regulatory limits in the area of the former dispensers. The chromium concentrations exceeded applicable standards at all of the sampled locations. No other analytes were detected in the samples collected. (Refer to Appendix A for Analytical Results).

## 5.2 Ground Water Assessment

The laboratory analysis yielded results below detectable limits, except as follows:

Location/ Constituent	Result	Units	TOGS Value
SB-03: Former Underground Storage	e Tank Area		
Benzene	1.4	μg/L	0.7
Toluene	0.94 B	μg/L	5
Ethylbenzene	10	μg/L	5
Xylenes - Total	20 B	µg/L	5

Location/ Constituent	Result	Units	TOGS Value
Isopropylbenzene	4.9	µg/L	5
n-Propylbenzene	6.4	μg/L	5
1,3,5-Trimethylbenzene	11	μg/L	5
1,2,4-Trimethylbenzene	23 B	μg/L	5
sec-Butylbenzene	1	μg/L	5
p-Isopropyltoluene	0.7	μg/L	5
Napthalene	0.6 B	µg/L	10
Total VOC's	79.94	μg/L	NE
Barium (Total)	26,000	μg/L	1000
Barium (dissolved)	140	μg/L	1000
Chromium (Total)	3,800	μg/L	50
Chromium (dissolved)	18	µg/L	50
Lead (Total)	650	⊿ μg/L	50
Lead (dissolved)	<42	μg/L	50
Selenium (Total)	<57	μg/L	10
Selenium (dissolved)	<57	μg/L	10
Silver (Total)	90	μg/L	50
Silver (dissolved)	<10	μg/L	50
SB-04: Former Dispenser Island Are	a	_	
Benzene	2,800	μg/L	0.7
Toluene	2,600 B	μg/L	5
Ethylbenzene	2,300	µg/L	5
Xylenes - Total	5,700 B	μg/L	5
Isopropylbenzene	150	μg/L	5
n-Propylbenzene	260	μg/L	5

Location/ Constituent	Result	Units	TOGS Value
1,3,5-Trimethylbenzene	400	μg/L	5
Tert-Butylbenzene	<25	μg/L	5
1,2,4-Trimethylbenzene	1,100 B	μg/L	5
sec-Butylbenzene	<25	μg/L	5
p-Isopropyltoluene	<25	μg/L	5
n-Butylbenzene	<25	μg/L	5
Napthalene	280 B	μg/L	10
MTBE*	910	μg/L	10
Total VOC's	16,500	μg/L	NE
Barium (Total)	16,000	μg/L	1000
Barium (dissolved)	200	μg/L	1000
Chromium (Total)	3,200	μg/L	50
Chromium (dissolved)	10/	μg/L	50
Lead (Total)	600	μg/L	50
Lead (dissolved)	<42	μg/L	50
Selenium (Total)	<57	μg/L	10
Selenium (dissolved)	<57	μg/L	10
Silver (Total)	60	μg/L	50
Silver (dissolved)	<10	µg/L	50
-05: Northwest of Former UST's a	and Dispensers		
Benzene	3.1	µg/L	0.7
Toluene	16 B	μg/L	5
Ethylbenzene	63	μg/L	5
Xylenes - Total	56	μg/L	5
Isopropylbenzene	32	μg/L	5

Location/ Constituent	Result	Units	TOGS Value
n-Propylbenzene	76	μg/L	5
1,3,5-Trimethylbenzene	27	μg/L	5
1,2,4-Trimethylbenzene	120 B	µg/L	5
sec-Butylbenzene	11	μg/L	5
p-Isopropyltoluene	1.6	μg/L	5
Napthalene	48 B	μg/L	10
MTBE*	1.6	μg/L	10
Total VOC's	453.7	μg/L	NE
Barium (Total)	13,000	μg/L	1000
Barium (dissolved)	100	μg/L	1000
Chromium (Total)	3,700	μg/L	50
Chromium (dissolved)	10	μg/L	50
Lead (Total)	840	√ μg/L	50
Lead (dissolved)	<42	μg/L	50
Selenium (Total)	<57	μg/L	10
Selenium (dissolved)	<57	μg/L	10
Silver (Total)	60	μg/L	50
Silver (dissolved)	<10	μg/L	50
SB-06: Former In-Ground Hydraulio	c Lift Area		
Benzene	1.2	μg/L	0.7
Toluene	0.91 B	μg/L	5
Ethylbenzene	1.0	μg/L	5
Xylenes - Total	2.3	μg/L	5
n-Propylbenzene	1.0	μg/L	5
1,3,5-Trimethylbenzene	1.3	μg/L	5

Location/ Constituent	Result	Units	TOGS Value
1,2,4-Trimethylbenzene	3.7 B	μg/L	5
Napthalene	2.1 B	µg/L	10
Total VOC's	13.51	μg/L	NE
Barium (Total)	6,400	μg/L	1,000
Barium (dissolved)	80	μg/L	1,000
Chromium (Total)	3,400	μg/L	50
Chromium (dissolved)	<7	μg/L	50
Lead (Total)	340	μg/L	50
Lead (dissolved)	<42	μg/L	50
Selenium (Total)	150	μg/L	10
Selenium (dissolved)	<57	– μg/L	10
Silver (Total)	70	μg/L	50
Silver (dissolved)	<10	⊿ µg/L	50

TOGS = NYSDEC Technical and Operational Guidance Series (1.1.1) Ground water samples that exceed NYSDEC GWQS are bolded B indicates estimated concentration NE indicates no standards established

Elevated levels of petroleum constituents were found to be present in all of the ground water samples extracted, which exceed the applicable NYSDEC groundwater quality standards. The sample results indicated that the area of the former dispenser has experienced the greatest impact. (Refer to Appendix A for site specific documentation).

# 6.0 CONCLUSIONS AND RECOMMENDATIONS

#### 6.1 Conclusions

Field assessment activities were performed for this Phase II Environmental Site Assessment (ESA) on April 12, 2006 by HRP Associates, Inc. and Aztech Environmental Services, Inc. (driller). The Phase II ESA was performed of the Ciabattoni Property due to the potential presence of contamination from the historic gas station (UST's, dispensers, waste oil tank, and in-ground hydraulic lifts). Investigative techniques utilized during the assessment are summarized below:

- Visual examination of soil brought to the surface during borehole installation to determine the subsurface lithology.
- Analysis with an Organic Vapor Analyzer (OVA) equipped with a Photo Ionization Detector (PID) to determine the quality of the unsaturated soils at the boring locations.
- Soil and groundwater sampling in the former UST and dispenser areas at the north side of the gas station building.
- Soil and groundwater sampling in the area of the former in-ground hydraulic lifts within the gas station building.
- Soil sampling in the area of the former waste oil UST at the west side of the building.
- Soil sampling at the rear of the gas station building in the area of the alleged illegal dumping.

A summary of the assessment findings is a follows:

The water table was encountered at approximately 17' - 25' bls. The groundwater level is consistent with that documented during the removal of the tanks.

- Natural geologic units encountered at the site below the gravelly back fill material consisted of reddish brown and grayish brown silty sand and gravel underlain by a well sorted medium sand. Bedrock was not encountered during the investigation.
- Physical evidence of contamination (i.e. staining, odors, PID measurements) was observed from the soil samples extracted from the waste oil UST area, UST and Dispenser area, and in-ground hydraulic lift.
- No significant levels of VOC's were established within the sampled soil in the area of the former waste oil UST.
- No significant levels of VOC's were established within the sampled soil in the area of the alleged dumping at the rear of the gas station building.
- No significant levels of VOC's were established within the sampled soil in the area of the former in-ground hydraulic lifts. Additionally, Benzene was detected slightly above TOGS value in the groundwater sample, with Selenium being the only dissolved metal exceeding the regulatory limit.
- Based on the results of sampling, groundwater at the former dispenser island and UST area have been impacted by numerous petroleum constituents above NYSDEC groundwater quality standards. The extent of the impact has not been delineated, and the potential exists that the groundwater impact may extend off-site.
- Metals concentrations exceeding the regulatory limits were established within the soil samples (chromium) and groundwater samples (totals barium, chromium, lead, selenium, silver and dissolved - selenium). The source of the elevated metals is unknown.

# 6.2 Recommendations

A soil and groundwater assessment has been performed at the Ciabattoni Property located at 149 & 153 South Liberty Drive in the Town of Stony Point, Rockland County New York. The sampling was performed due to the historic operation of a gas station and garage at this location. Based upon the findings of the assessment activities, the following recommendations are provided:

- Evidence of a petroleum release was identified during the performance of the assessment activities. It is recommended that the NYSDEC contacted to report the contamination and obtain a new spill number for the facility. The Rockland County Department of Health has closed all of the previously filed Spill numbers for the subject site. Additional assessment and remedial actions may be required by NYSDEC upon notification.
- Further investigation (soil borings and permanent wells) is recommended in the
  area of the former UST excavation and dispenser island to determine the degree
  and extent of soil and groundwater contamination and the presence of non-aqueous
  phase liquid (NAPL). Additionally, the properly installed and developed permanent
  monitoring wells can be sampled for metals to establish if the elevated
  concentrations are representative of the on-site groundwater conditions.
- An exposure assessment should be conducted in order to identify potential sensitive receptors in the area of the subject site.
- During site development for the new structures, there may be a potential for VOC's
  exposure identified in the soil and groundwater requiring special engineering
  controls (ie: soil vapor remedial system). Petroleum impacted soil that is disturbed
  during site development activities would require proper removal and disposal.

Based upon the results of this assessment, the subject site has been adversely impacted by the historic property usage as a gas station and garage. Further assessment and potential remediation is recommended for the subject property.

# 6.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONAL(S)

Prepared by:

Kent R. Ward, ASP, CFEA, REPA

Vice President

**Director of Environmental Services** 

Registered Environmental Property Assessor (NREP) Certified Florida Environmental Assessor (FEAA)

Reviewed by:

Varry G. Schmaltz, P.E. President

Registered Environmental Property Assessor (NREP) Certified Florida Environmental Assessor (FEAA) Certified Remediation Specialist (EAA)

# **APPENDIX A**

HRP Associates, Inc. Report

TECHNOLOGIES, INC.