

SITE SOILS CHARACTERIZATION AND CLEANUP REPORT

SMITH BROTHERS FARM  
27441 68<sup>th</sup> Ave. S  
KENT, WA 98032

Prepared for:

Carpinito Brothers, Inc.  
1148 North Central  
Kent, WA 98032

Prepared by:

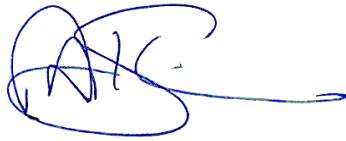
Blue Sage Environmental, Inc.  
P.O. Box 6738  
Kennewick, WA 99336

August 27, 2013

## STATEMENT OF WARRANTY

This report has been prepared for the sole use of Carpinito Brothers, Inc., Carpinito Farms LLC, their management, and their designated representatives. Blue Sage Environmental, Inc. (BSE) of Kennewick, Washington managed sample gathering, analytical methods, data review, and project reports as required by the Washington State Department of Ecology, Toxics Cleanup Program. Mr. Alexander H. Koch, environmental projects manager for BSE, directed all on-site technical services.

The analysis and conclusions in this report are based on site conditions, as they existed during the length of this investigation. Blue Sage Environmental, Inc. makes no warranty to the environmental condition of this property or to any bordering property or properties. BSE has solely reported findings from specific actions taken as a result of performing a site soil characterization following a cleanup in accordance with Washington State Department of Ecology guidelines and regulations. No other warranty or representation, express or implied, is made.



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Signature

August 27, 2013

Date

Alexander H. Koch  
Washington State Site Assessment Certified  
ICC No. 1059552-U7  
Expiration date July 19, 2015

## INTRODUCTION

### **SITE NAME AND LOCATION:**

Smith Brothers Farm  
27441 68<sup>th</sup> Ave. S  
Kent, WA 98032  
(**Figures 1 & 2**)

King County Parcel: 352204-9001

### Legal Description:

PP ACT 39962048 MOBILE HOME E 1040.07 FT OF PORTION OF NE QTR STR 35-22-04 LYING NORTH OF S 277TH ST EXC PORTION LYING WITHIN SECONDARY ST HWY NO 5-M; & EXC PORTION THEREOF CONVEYED TO STATE OF WA BY DEED UNDER RECORDING NO 8703231078; & EXC PORTION THEREOF CONVEYED TO KING CO BY DEED UNDER RECORDING NO 20030303001018 (CLASSIFIED AS "OPEN SPACE" FARM & AGRICULTURAL PURSUANT TO RCW 84.34.050)

### **SITE OWNER:**

Carpinito Farms, LLC  
1148 North Central  
Kent, WA 98032

### **PROJECT PURPOSE:**

In early 2013, the former Smith Brothers Farm was sold to Carpinito Farms LLC. As part of the real estate process, Phase I and Phase II Environmental Site Assessments were completed at the subject property (*Environmental Associates, Inc., 2012*). The Phase II ESA reported a release of Diesel Range Organics (DRO) around the area of a 10,000 gallon, above-ground storage tank (AST) (**Appendix I - Environmental Associates Figures & Table**). This AST had been used since the early 1980s for the storage of diesel fuel for dairy equipment operation and milk delivery (**Figure 2a**). It was setting on concrete supports inside a concrete containment structure with sidewalls that was covered with a wooden roof. In April 2013, several exploratory trenches were opened around the AST structure. A visual and olfactory examination of exposed soils in these trenches confirmed diesel fuel contamination was present. It also indicated that the contamination extended under the concrete containment structure. A decision was made by Carpinito management to remove the AST and containment structure and begin soil remediation.

### **SITE HISTORY:**

The subject property has been operated as a farm since the 1930s. It expanded into a dairy operation in the 1940s. Prior to the early 1980s, farm equipment was fueled from an AST that was located in the general vicinity of the existing diesel fuel tank. It was replaced around 1983 with a steel, 10,000 gallon tank which was placed inside of a concrete

containment structure. The original AST was reported to have been situated on the ground under an awning. At the time of the property sale, Smith Brothers Farms continued to operate their milk packaging and delivery operation. This continued up until July 2013. The property is currently vacated.

**SCOPE OF WORK:**

- Remove existing AST and structure;
- Excavate contaminated soils;
- Sample excavation sidewalls and floor for soils characterization;
- Stockpile contaminated soils in a treatment cell on the subject property.

**SAMPLE NOMENCLATURE:**

Samples were numbered sequentially and preceded by the identifier, “SBD” for Smith Brothers Dairy. Each chain of custody form has the date of sampling included as an identifier.

**ANALYTICAL PARAMETERS:**

Soil samples were analyzed for diesel and Benzene, Toluene, Ethylbenzene and Xylenes (BTEX) as specified in MTCA Table 830-1, Required Testing for Petroleum Releases, Diesel Range Organics (DRO).

**QUALITY ASSURANCE/QUALITY CONTROL:**

Soil samples were analyzed for their individual analytes by the ESN-Northwest laboratory in Olympia, WA. The laboratory QA/QC procedures followed standard methods accepted by EPA, listed in SW-846. Laboratory QA/QC procedures included laboratory surrogate recoveries. The holding times (extraction and analysis) for all samples were within the required limits. All QA/QC for soil samples meets or exceed EPA recommended guidance. The soil samples are considered acceptable quality and usable for evaluation of the environmental conditions at the site.

**SITE GEOLOGY:**

The subject property is located in the Duwamish Valley, south of the Green River. A large mudflow covers the drift plain forming a broad, fertile area (*Luzier, 1969*). Excavations at the subject property down to fifteen feet below the surface revealed a fine silt layer with no gravel or rocks, and occasional pieces of cedar timber.

**SITE REMEDIATION – June 5, 2013:**

In late May, the wooden structure covering the AST was removed, the 10,000 gallon steel tank lifted out of the concrete containment bay, and the concrete structure demolished. The AST and the structure are currently located along the western fence line. The AST was structurally intact with no visual evidence of any loss of integrity.

On June 5, the area immediately around and below the containment structure was excavated down to a depth of 5 feet. It was noted that a strong odor of diesel was present in both the excavated soils and the open excavation. Groundwater was present in several

areas across the floor of the excavation at that depth. A treatment cell was constructed with a 6 mil visqueen liner and straw bales at the northeast corner of the fence line. All excavated soils were placed in the cell (**Photos**).

**SITE SAMPLING – June 5, 2013:**

Soil samples were obtained from the sidewalls and floor of the excavation (**Figure 3a**). Petroleum odor and sheen testing were used to identify areas of potential contamination from the release.

Sample Number	Depth (ft)	Location
SBD 1	5	W sidewall
SBD 2	5	N sidewall, east end
SBD 3	5	N sidewall, west end
SBD 4	5	E sidewall, center
SBD 5	5	S sidewall, east end
SBD 6	5	S sidewall, west end
SBD 7	5	Floor, east end
SBD 8	5	Floor, center
SBD 9	5	Floor, west end

Concentrations of diesel were elevated above the MTCA Method A cleanup level for soil in all samples except for SBD 1. Additional excavation was required after review of the analytical results.

**SITE REMEDIATION – June 8, 2013:**

Removal of soil was done along the south, east and north sidewalls. The floor of the excavation was lowered from 5 to 10 feet. Groundwater was noted in several areas across the floor of the excavation (**Photos**).

**SITE SAMPLING – June 8, 2013:**

Soil samples were obtained from the sidewalls and floor of the excavation (**Figure 3b**).

Sample Number	Depth (ft)	Location
SBD 10	6	S sidewall, west end
SBD 11	11	Floor, west end
SBD 12	11	Floor, center
SBD 13	6	S sidewall, east end
SBD 14	11	Floor, east end
SBD 15	6	E sidewall, center
SBD 16	11	Floor, northeast corner
SBD 17	6	N sidewall, east end
SBD 18	6	N sidewall, center
SBD 19	6	N sidewall, west end

Elevated concentrations of diesel were present in the west end of the south sidewall, and in the center of the east sidewall.

**SITE REMEDIATION – June 15, 2013:**

Additional removal of soil was done several areas. On the south sidewall along the west end, and on the east sidewall continuing along the center of the wall up to the north end. Contamination was also found at the northeast corner of the excavation that extended approximately twelve feet to the north. The floor of the excavation was covered in water prior to excavation activities being undertaken. A temporary soil wall was used to keep existing water out of the east end of the excavation (**Photos**).

**SITE SAMPLING – June 15, 2013:**

Soil samples were obtained from the south sidewall near its west end, along the east sidewall, and in the northeast corner where the sidewall wall was expanded further to the north (**Figure 3c**).

Sample Number	Depth (ft)	Location
SBD 20	7	S sidewall, SE corner
SBD 21	7	E sidewall, south end
SBD 22	8	E sidewall, center
SBD 23	8	N sidewall, east end
SBD 24	8	E sidewall, north corner

All samples reported diesel concentrations below MTCA Method A cleanup levels for soil.

**LABORATORY ANALYTICAL RESULTS:**

ESN Northwest laboratory reports for June 5th, 8th and the 15<sup>th</sup> sampling activities are attached (**Appendix II**). All results are summarized in Table 1, parts 1 and 2 (**Tables**). All elevated concentrations of DRO compounds were limited to diesel. There were no detected concentrations of BTEX reported.

**SUMMARY OF REMEDIATION ACTIVITIES:**

Excavation around the area where the AST was located resulted in removing soils that had been impacted by a release of diesel. Sidewall and floor samples from across the excavation area indicate that soil with concentrations of diesel above the MTCA Method A cleanup level were removed. Sample locations from 2012 and 2013 are documented in an attached figure (**Figure 3d**).

All excavated material has been stored in a treatment cell located on the property. A nitrogen source has been added into the soil. The treatment cell is being aerated by turning the soil every 7 to 10 days. Samples will be taken at the end of summer to measure the progress in the bioremediation of this material.

Groundwater was notably present at 10 feet below the surface in the excavation. Characterization of groundwater will be addressed in the future. An attached figure shows the proposed locations of monitoring wells to be installed (**Figure 4**).

**ACTION ITEMS:**

Following are a list of actions to be undertaken at the subject property. These work items are a continuation of the characterization and documentation process required by Ecology. The expressed goal to be achieved is a “No Further Action” determination from Ecology.

- Install monitoring wells for groundwater characterization;
- Sample wells for a minimum of four quarters;
- Develop any additional appropriate remediation actions, if required;
- Document progress to obtain DRO concentrations below MTCA Method A Cleanup Levels for Soil in the bioremediation cell.

## REFERENCE LIST

Spencer, Don W., and Bagely, Mike, September 5, 2012, *Phase I Environmental Site Assessment*, Environmental Associates, Inc., consultants report for Carpinito Brothers, Inc.

Roe, Robert B., and Spencer, Don W., December 11, 2012, *Phase II Soil and Groundwater Exploration*, Environmental Associates, Inc., consultants report for Carpinito Brothers, Inc.

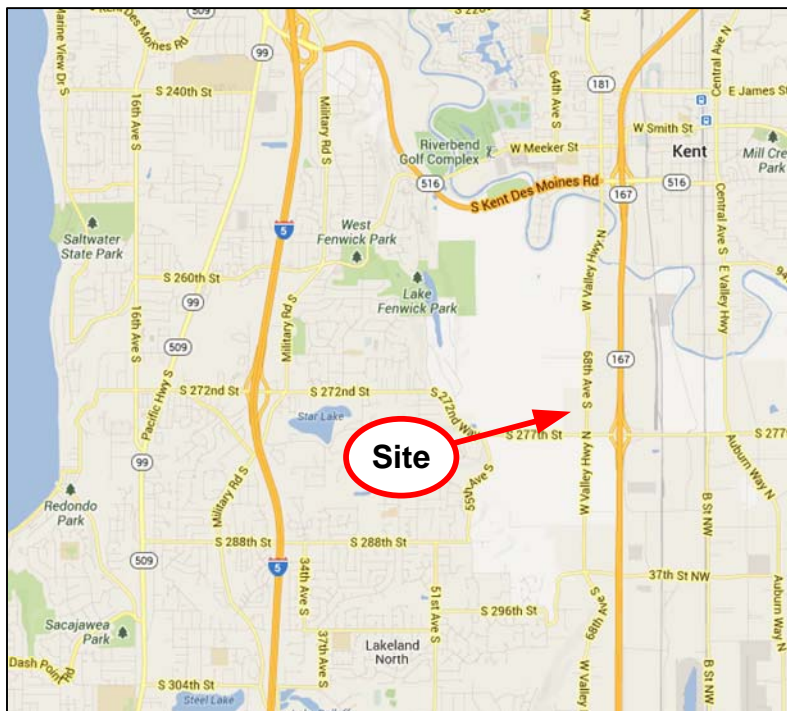
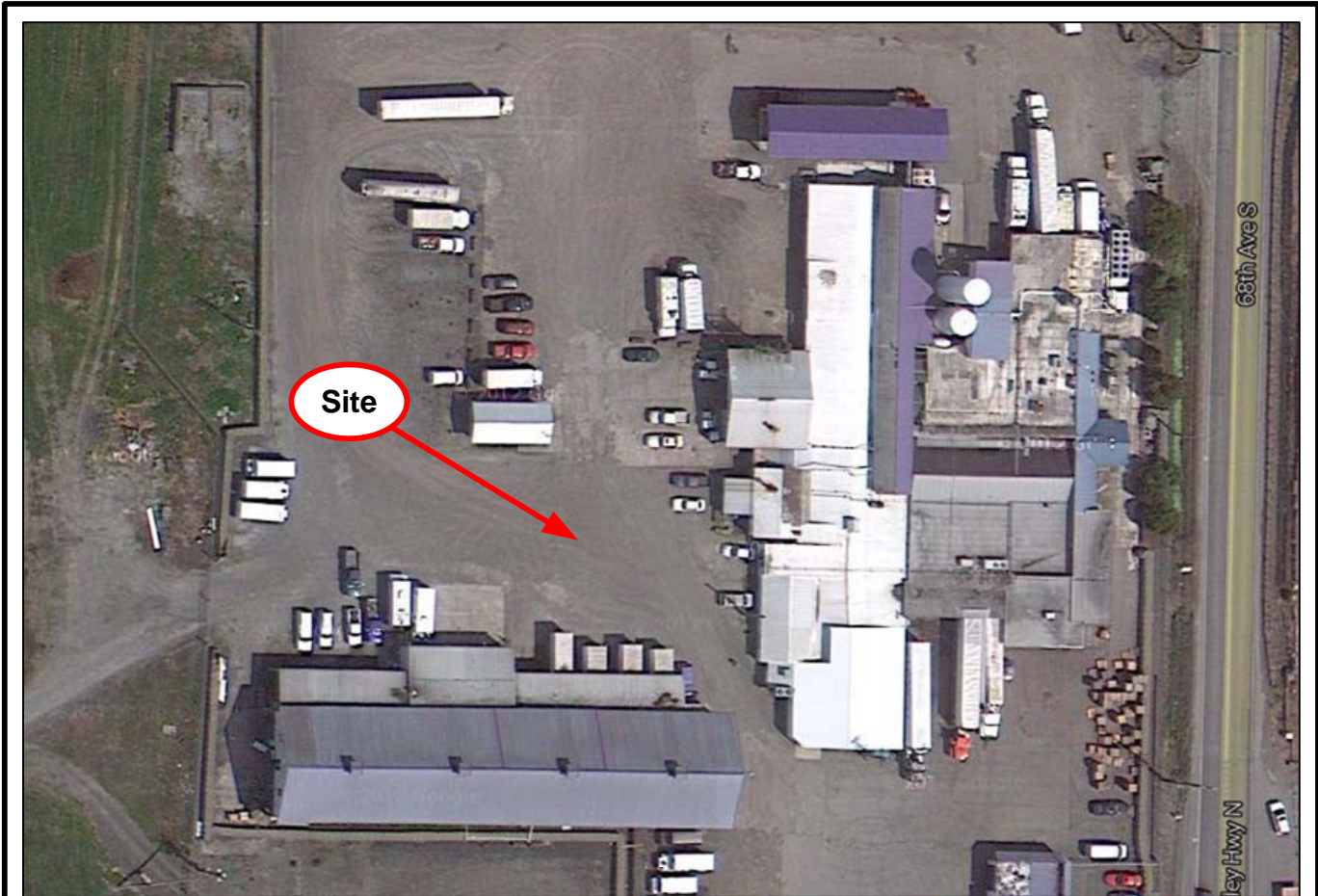
Luzier, J.E., 1969, *Geology and Groundwater Resources of Southwestern King County, Washington*, Department of Water Resources, Water Supply Bulletin N o. 28, Olympia, Washington.

Washington Department of Ecology, *Model Toxics Control Act Cleanup Regulation*, Chapter 173-340 WAC, Revised November 2007.

Washington State Department of Ecology, *Guidance for Site Checks and Site Assessments for Underground Storage Tanks*, February 1991 (Revised April 2003).

U.S. EPA, November 1992, *RCRA Ground-Water Monitoring: Draft Technical Guidance*, Office of Solid Waste, U.S. Environmental Protection Agency, Washington DC.

## FIGURES



Mapping Reference: Google Maps

**BLUE SAGE  
ENVIRONMENTAL INC  
KENNEWICK, WA**

Project File: 01-0876-A-F1.vsd

**Site Location Maps  
Smith Brothers Farm  
27441 68<sup>th</sup> Avenue South  
Kent, Washington 98032**

**Figure  
1**



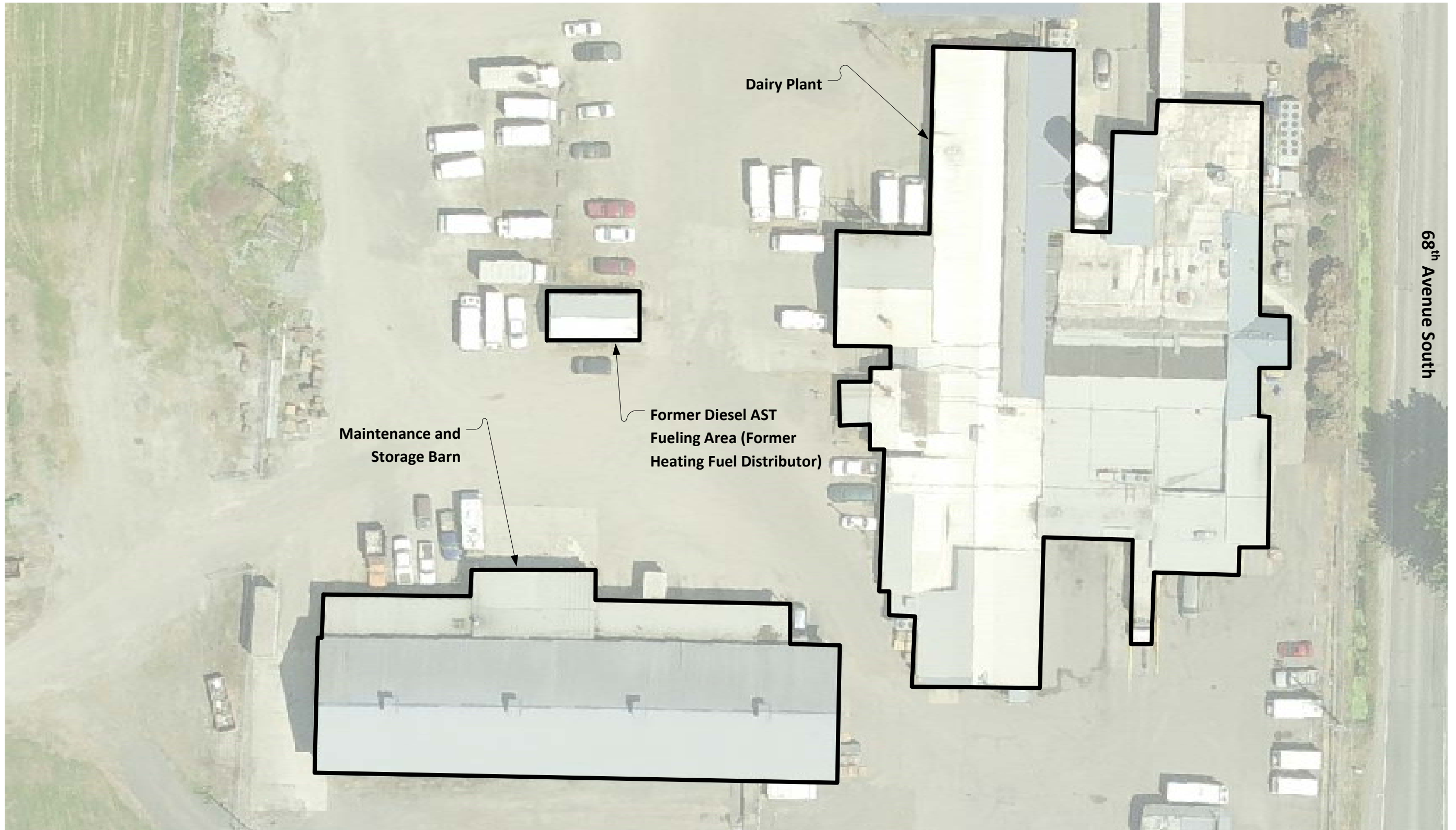
**BLUE SAGE  
ENVIRONMENTAL INC  
KENNEWICK, WA**

Approximate Drawing Scale: 1" = 200'  
0 ft. 120 ft. 200 ft. 400 ft.

Figure is prepared in color, black and white copies may not be suitable for viewing.

**Site Overview  
Smith Brothers Farms  
27441 68<sup>th</sup> Avenue South  
Kent, WA 98032**

**Figure  
2**



Mapping Reference: King County Assessor Inmap, Environmental Associates, Inc. "Phase II Soil & Groundwater Exploration"

**BLUE SAGE  
ENVIRONMENTAL INC  
KENNEWICK, WA**

Approximate Drawing Scale: 1" = 40'  
0.0 in. 288.0 in. 480.0 in. 960.0 in.

Figure is prepared in color, black and white copies may not be suitable for viewing.

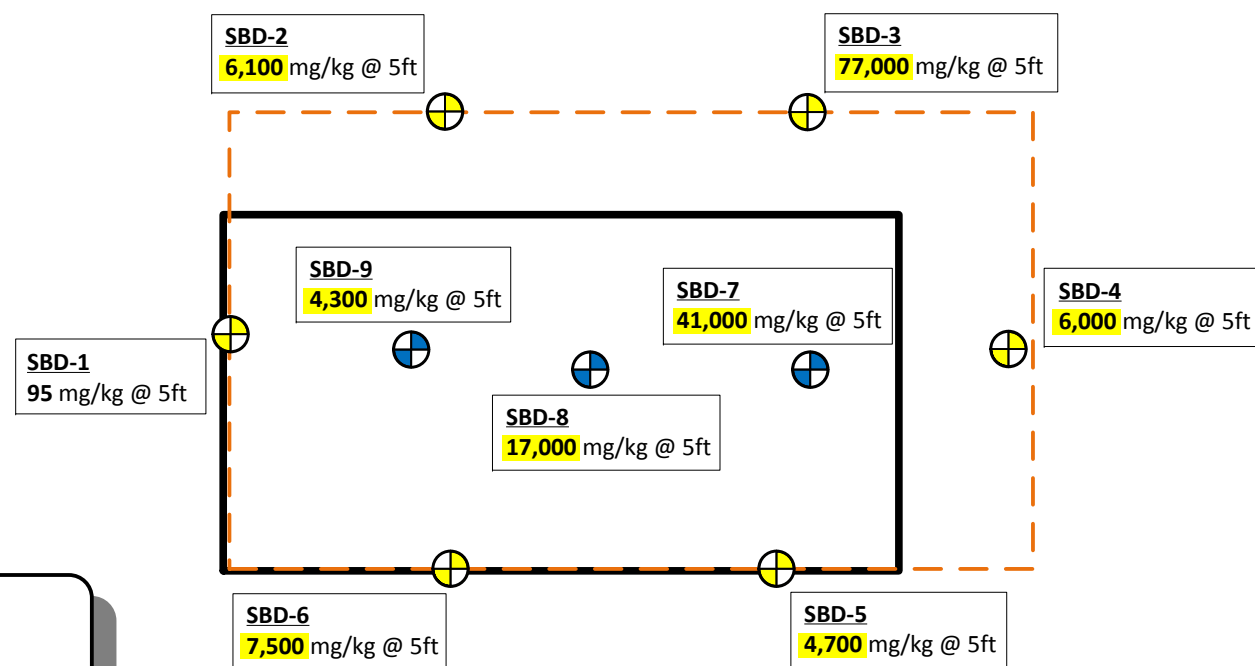
**Site Diagram  
Smith Brothers Farms  
27441 68<sup>th</sup> Avenue South  
Kent, WA 98032**

**Figure  
2A**



**Legend**

- Floor Soil Samples (6/5/2013)
- Sidewall Soil Samples (6/5/2013)
- Former Aboveground Storage Tank and Concrete Containment Structure
- Limit of Excavation



**Soil Data Legend**

Soil Excavation Sample ID, Heating Oil Concentrations, and Sample Depth (units mg/kg)

SBD-1  
 95 mg/kg @ 5ft  
 2,000 mg/kg @ 7ft

- Bold Numbers Indicate Heating Oil Detected
- Bold Numbers and Yellow Shading Indicated Heating Oil Detected Above MTCA Cleanup Level (2,000 mg/kg)

Mapping Reference: King County Assessor, Field Measurements

**BLUE SAGE ENVIRONMENTAL INC**  
KENNEWICK, WA

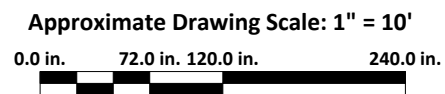






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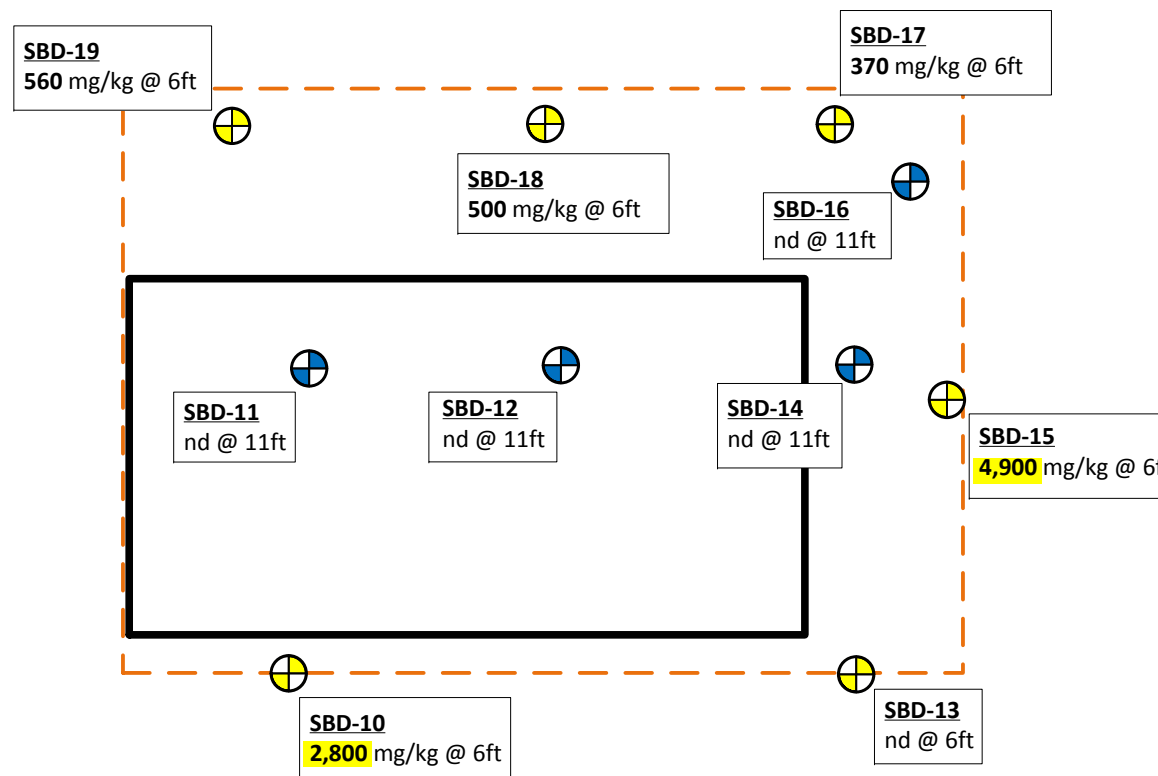
**BSE Excavation (6/5/2013)**  
Smith Brothers Farms  
27441 68<sup>th</sup> Avenue South  
Kent, WA 98032

Figure  
3A



**Legend**

-  Floor Soil Samples (6/8/2013)
-  Sidewall Soil Samples (6/8/2013)
-  Former Aboveground Storage Tank and Concrete Containment Structure
-  Limit of Excavation



**Soil Data Legend**

Soil Excavation Sample ID, Heating Oil Concentrations, and Sample Depth (units mg/kg)

SBD-1  
 95 mg/kg @ 5ft  
**2,000 mg/kg @ 7 ft**  
 nd @ 5ft

- Bold Numbers Indicate Heating Oil Detected
- Bold Numbers and Yellow Shading Indicated Heating Oil Detected Above MTCA Cleanup Level (2,000 mg/kg)
- Heating Oil Not Detected

Mapping Reference: King County Assessor, Field Measurements

**BLUE SAGE ENVIRONMENTAL INC**  
KENNEWICK, WA

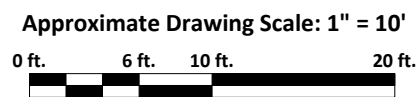





Figure is prepared in color, black and white copies may not be suitable for viewing.

**BSE Excavation (6/8/2013)**  
Smith Brothers Farms  
27441 68<sup>th</sup> Avenue South  
Kent, WA 98032

Figure  
3B



**Legend**

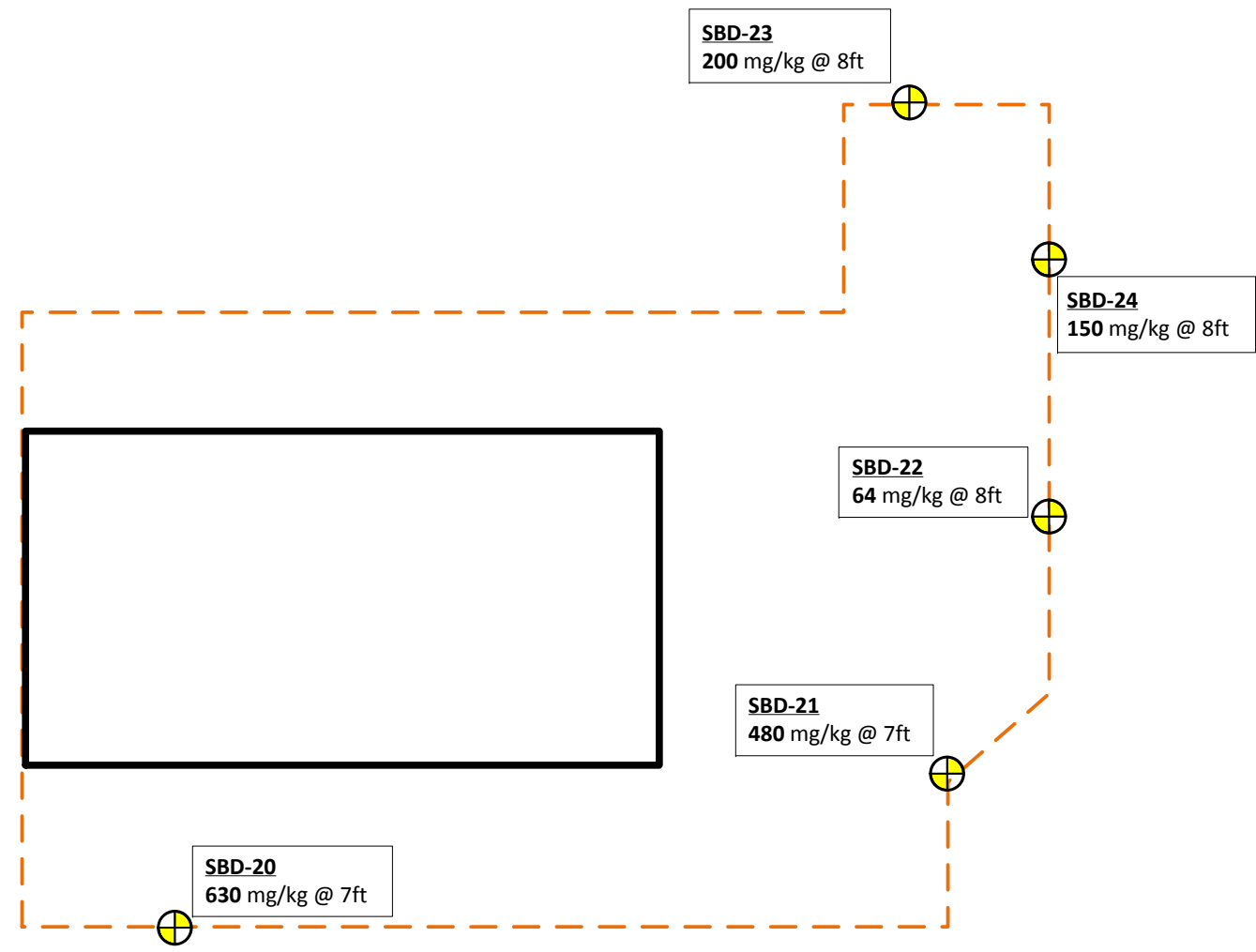
-  Sidewall Soil Samples (6/5/2013)
-  Former Aboveground Storage Tank and Concrete Containment Structure
-  Limit of Excavation

**Soil Data Legend**

Soil Excavation Sample ID, Heating Oil Concentrations, and Sample Depth (units mg/kg)

**SBD-1**  
95 mg/kg @ 5ft

Bold Numbers Indicate Heating Oil Detected and below MTCA Cleanup (2,000 mg/kg)



Mapping Reference: King County Assessor, Field Measurements

**BLUE SAGE  
ENVIRONMENTAL INC  
KENNEWICK, WA**

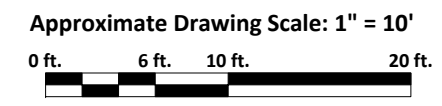


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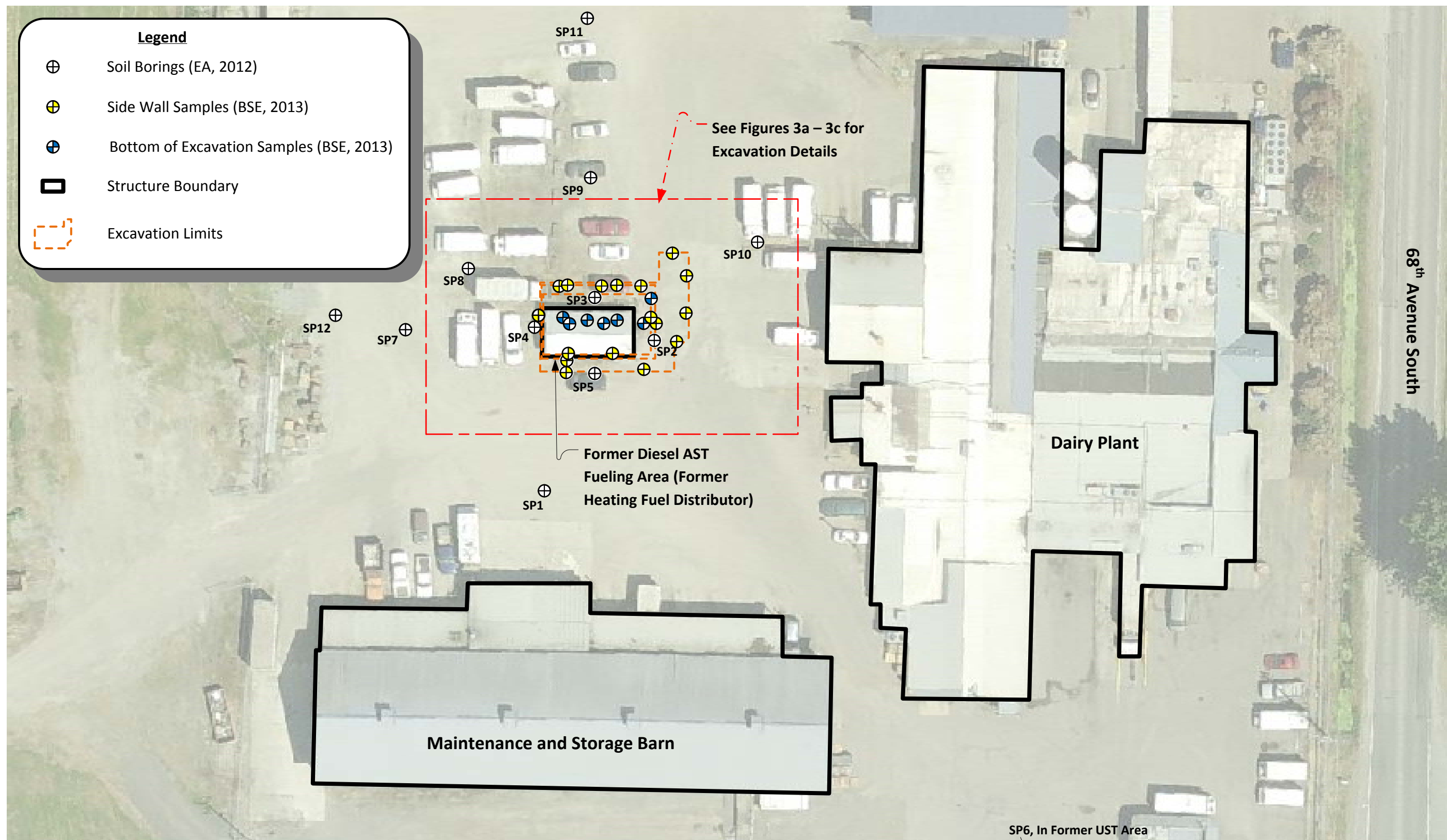
**BSE Excavation (6/15/2013)**  
**Smith Brothers Farms**  
 27441 68<sup>th</sup> Avenue South  
 Kent, WA 98032

Figure  
 3C



**Legend**

- ⊕ Soil Borings (EA, 2012)
- ⊕ Side Wall Samples (BSE, 2013)
- ⊕ Bottom of Excavation Samples (BSE, 2013)
- ▭ Structure Boundary
- - - Excavation Limits



68<sup>th</sup> Avenue South

Dairy Plant

Former Diesel AST  
Fueling Area (Former  
Heating Fuel Distributor)

Maintenance and Storage Barn

SP6, In Former UST Area

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KENNEWICK, WA**

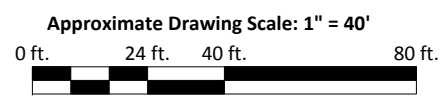





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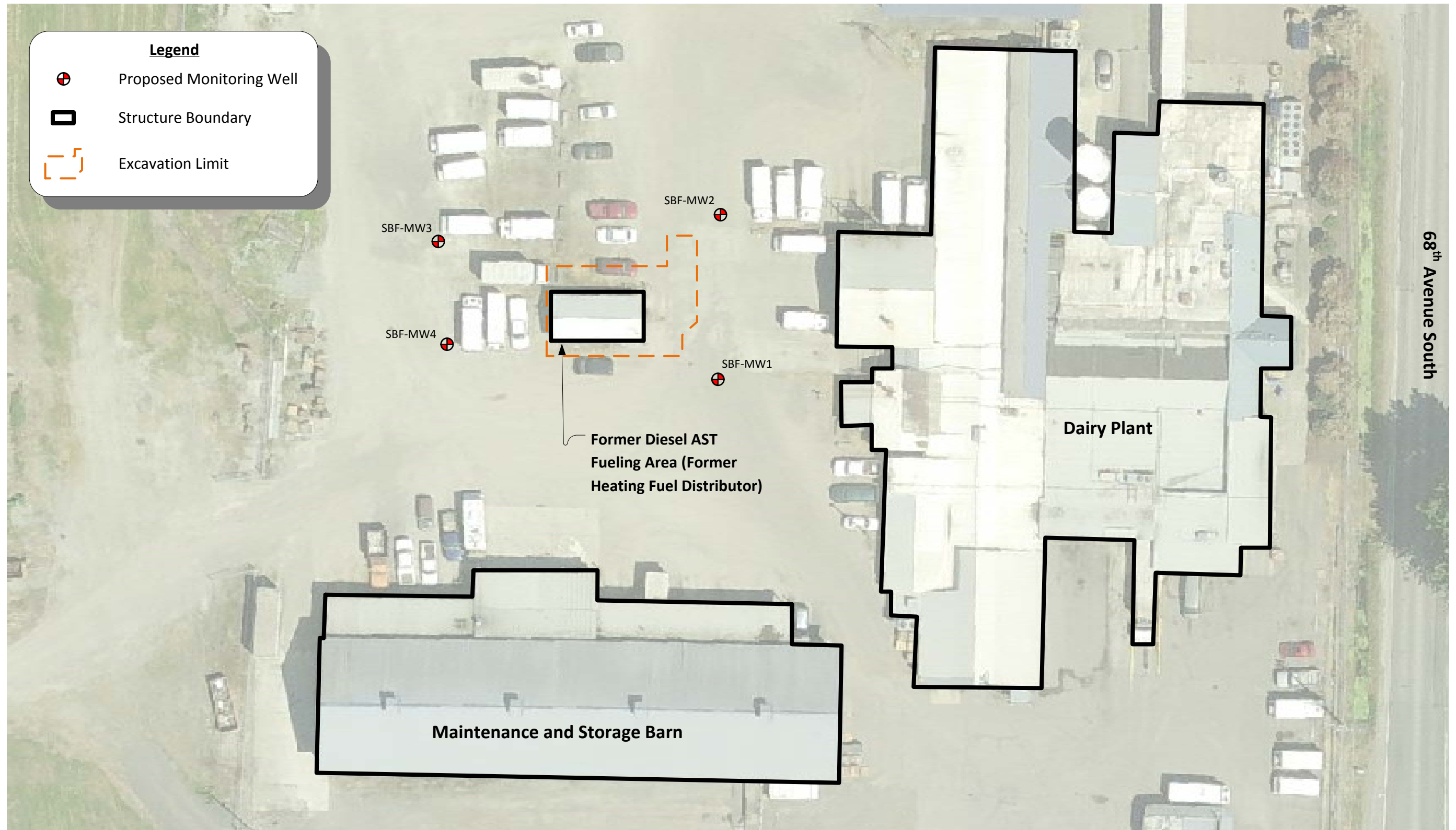
**Site Diagram, Sample Locations**  
**Smith Brothers Farms**  
 27441 68<sup>th</sup> Avenue South  
 Kent, WA 98032

Figure  
3D



**Legend**

-  Proposed Monitoring Well
-  Structure Boundary
-  Excavation Limit



Mapping Reference: King County Assessor Inmap, Survey

**BLUE SAGE  
ENVIRONMENTAL INC  
KENNEWICK, WA**

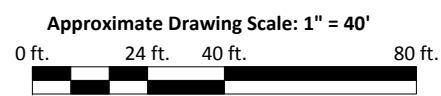


Figure is prepared in color, black and white copies may not be suitable for viewing.

**Site Diagram (Proposed Well Locations)  
Smith Brothers Farms  
27441 68<sup>th</sup> Avenue South  
Kent, WA 98032**

**Figure  
4**

## TABLES

**TABLE 1**  
**Soil Sample Analysis, Diesel, BTEX**  
**Smith Brother Farms**  
**27441 68th Avenue South**  
**Kent, WA 98032**

Sample Number	Sample Location	Sample Date	Depth (ft.)	Media	Result Units	Diesel	Benzene	Toluene	Ethylbenzene	Xylenes
						(NWTPH-Dx)				
SBD-1	W sidewall	6/5/2013	5	Soil	mg/kg	<b>95</b>	-	-	-	-
SBD-2	N sidewall, east end	6/5/2013	5	Soil	mg/kg	<b>6100</b>	-	-	-	-
SBD-3	N sidewall, west end	6/5/2013	5	Soil	mg/kg	<b>77000</b>	-	-	-	-
SBD-4	E sidewall, center	6/5/2013	5	Soil	mg/kg	<b>6000</b>	-	-	-	-
SBD-5	S sidewall, east end	6/5/2013	5	Soil	mg/kg	<b>4700</b>	-	-	-	-
SBD-6	S sidewall, west end	6/5/2013	5	Soil	mg/kg	<b>7500</b>	-	-	-	-
SBD-7	Floor, east end	6/5/2013	5	Soil	mg/kg	<b>41000</b>	-	-	-	-
SBD-8	Floor, center	6/5/2013	5	Soil	mg/kg	<b>17000</b>	-	-	-	-
SBD-9	Floor, west end	6/5/2013	5	Soil	mg/kg	<b>4300</b>	-	-	-	-
SBD-10	S sidewall, west end	6/8/2013	6	Soil	mg/kg	<b>2800</b>	nd	nd	nd	nd
SBD-11	Floor, west end	6/8/2013	11	Soil	mg/kg	nd	nd	nd	nd	nd
SBD-12	Floor, center	6/8/2013	11	Soil	mg/kg	nd	nd	nd	nd	nd
SBD-13	S sidewall, east end	6/8/2013	6	Soil	mg/kg	nd	nd	nd	nd	nd
SBD-14	Floor, east end	6/8/2013	11	Soil	mg/kg	nd	nd	nd	nd	nd
SBD-15	E sidewall, center	6/8/2013	6	Soil	mg/kg	<b>4900</b>	nd	nd	nd	nd
SBD-16	Floor, NE corner	6/8/2013	11	Soil	mg/kg	nd	nd	nd	nd	nd
SBD-17	N sidewall, east end	6/8/2013	6	Soil	mg/kg	<b>370</b>	nd	nd	nd	nd
SBD-18	N sidewall, center	6/8/2013	6	Soil	mg/kg	<b>500</b>	nd	nd	nd	nd
SBD-19	N sidewall, west end	6/8/2013	6	Soil	mg/kg	<b>560</b>	nd	nd	nd	nd
<b>MTCA Method A Cleanup Level for Soil</b>					<b>mg/kg</b>	<b>2000</b>	<b>0.03</b>	<b>7</b>	<b>6</b>	<b>9</b>

Notes:

nd Not Detected at Reporting Limits

**95** Bold number(s) indicate contamination detected

**6100** Bold and shaded number(s) indicate contamination above MTCA Method A cleanup level

- Not Analyzed

**TABLE 1**

**Soil Sample Analysis, Diesel, BTEX  
Smith Brother Farms  
27441 68th Avenue South  
Kent, WA 98032**

Sample Number	Sample Location	Sample Date	Depth (ft.)	Media	Result Units					
						Diesel (NWTPH-Dx)	Benzene	Toluene	Ethylbenzene	Xylenes
SBD-20	S sidewall, SE corner	6/15/2013	7	Soil	mg/kg	<b>630</b>	-	-	-	-
SBD-21	E sidewall, south end	6/15/2013	7	Soil	mg/kg	<b>480</b>	-	-	-	-
SBD-22	E sidewall, center	6/15/2013	8	Soil	mg/kg	<b>64</b>	-	-	-	-
SBD-23	N sidewall, east end	6/15/2013	8	Soil	mg/kg	<b>200</b>	-	-	-	-
SBD-24	E sidewall, north corner	6/15/2013	8	Soil	mg/kg	<b>150</b>	-	-	-	-
<b>MTCA Method A Cleanup Level for Soil</b>					<b>mg/kg</b>	<b>2000</b>	<b>0.03</b>	<b>7</b>	<b>6</b>	<b>9</b>

Notes:

nd Not Detected at Reporting Limits

**95** Bold number(s) indicate contamination detected**6100** Bold and shaded number(s) indicate contamination above MTCA Method A cleanup level

- Not Analyzed

## PHOTOGRAPHS



**BLUE SAGE  
ENVIRONMENTAL, INC.  
KENNEWICK, WA**

TITLE Smith Brothers Farm  
Excavation Arera  
June 5, 2013

SCALE: \_\_\_\_\_  
DWN: A. KOCH  
DATE: 8/27/2013

DWG. NO.  
**Photos**



**BLUE SAGE  
ENVIRONMENTAL, INC.  
KENNEWICK, WA**

TITLE Smith Brothers Farm  
Excavation Arera  
June 8, 2013

SCALE: \_\_\_\_\_  
DWN: A. KOCH  
DATE: 8/27/2013

DWG. NO.  
**Photos**



**BLUE SAGE  
ENVIRONMENTAL, INC.  
KENNEWICK, WA**

TITLE    Smith Brothers Farm  
Excavation Arera  
June 15, 2013

SCALE: \_\_\_\_\_  
DWN:    A. KOCH  
DATE:    8/27/2013

DWG. NO.  
**Photos**



6/5/2013

6/15/2013



**BLUE SAGE  
ENVIRONMENTAL, INC.  
KENNEWICK, WA**

TITLE Smith Brothers Farm  
Bioremediation Cell

SCALE: \_\_\_\_\_  
DWN: A. KOCH  
DATE: 8/27/2013

DWG. NO.  
**Photos**

## APPENDIX I

Environmental Associates, Inc.  
Figures & Table  
Phase 1I Soil and Groundwater Exploration  
December 11, 2012

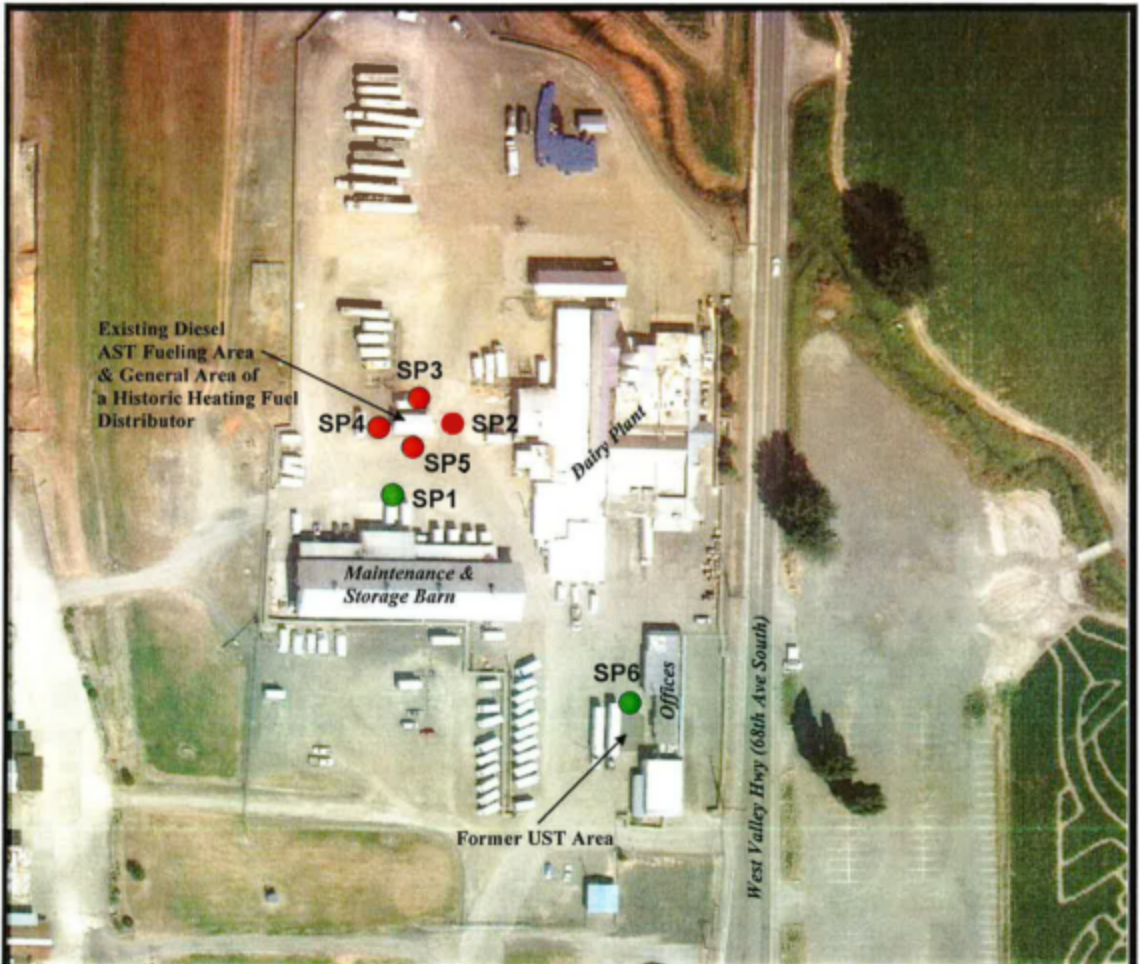
**TABLE 2 - Petroleum Hydrocarbons - Groundwater Sampling Results**  
**All results and limits in parts per billion (ppb)**

Strataprobe Boring	Gasoline (TPH)	Diesel (TPH)	Heavy Oil (TPH)	Benzene	Toluene	Ethylbenzene	Total Xylenes
SP1	<100	<250	<500	<1	<1	<1	<3
SP2	500	<b>830</b>	<500	<1	<1	<1	<3
SP3	100	<b>620</b>	<500	<1	<1	<1	<3
SP4	400	<b>540</b>	<500	<1	<1	<1	<3
SP5	<100	280	<500	<1	<1	<1	<3
SP6	<100	<250	<500	<b>1.4</b>	<1	<1	<3
SP7	NA	<b>12,000</b>	<500	NA	NA	NA	NA
SP8	NA	<b>1,400</b>	<500	NA	NA	NA	NA
SP9	NA	<250	<500	NA	NA	NA	NA
SP10	NA	<250	<500	NA	NA	NA	NA
SP11	NA	<250	<500	NA	NA	NA	NA
SP12	NA	<250	<500	NA	NA	NA	NA
Reporting Limit <sup>3</sup>	100	250	500	1	1	1	3
MTCA-Method-A Cleanup Levels <sup>4</sup>	<b>800 or 1000<sup>5</sup></b>	<b>500</b>	<b>500</b>	<b>5</b>	<b>1000</b>	<b>700</b>	<b>1000</b>

## Notes:

- 1 - "ND" denotes analyte not detected at or above listed Reporting Limit.
- 2 - "NA" denotes sample not analyzed for specific analyte.
- 3 - "Reporting Limit" represents the laboratory lower quantitation limit.
- 4 - Method A groundwater cleanup levels as published in the Model Toxics Control Act (MTCA) 173-340-WAC.
- 5 - The MTCA gasoline TPH cleanup level is 800 ppb for groundwater with benzene. Otherwise, the cleanup level is 1000 ppb.

Bold and Italics denotes concentrations above existing or proposed MTCA Method A groundwater cleanup levels.



- Approximate location of soil borings made by EAI in October 2012
- Red denotes locations where soil and/or groundwater contained diesel at concentrations above the WDOE's target compliance levels for unrestricted land use.



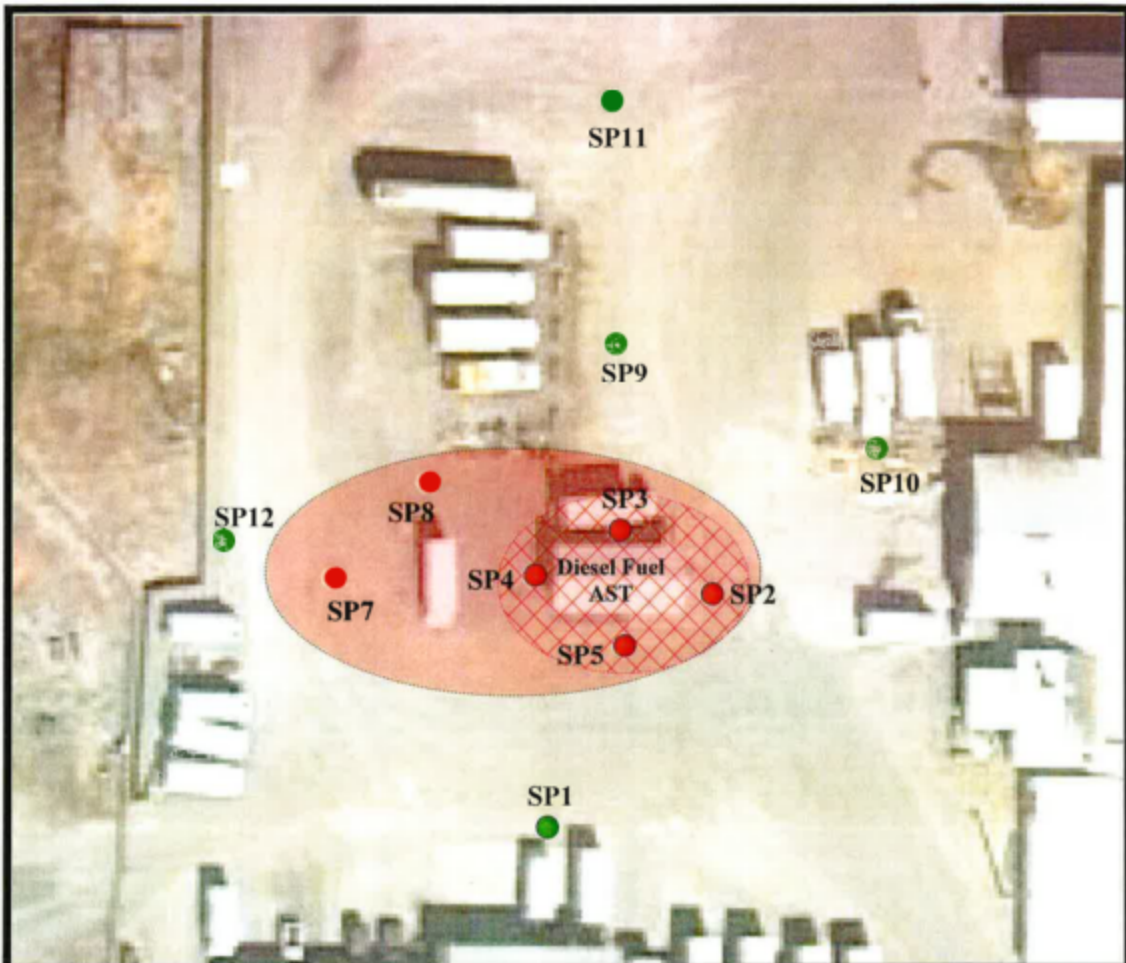
**ENVIRONMENTAL  
ASSOCIATES, INC.**




1380 - 112th Avenue N.E., Ste. 300  
Bellevue, Washington 98004

**SITE PLAN OVERVIEW**

Smith Brothers Farm  
27441 - 68th Avenue South  
Kent, Washington

Job Number:	Date:	Plate:
JN 32115-1	October 2012	2



-  Approximate location of soil borings made by EAI in October 2012
-  Red denotes locations where soil and/or groundwater contained diesel at concentrations above the WDOE's target compliance levels for unrestricted land use.
-  Conceptualization of diesel contamination plume. Cross-hatch area represents approximate area where petroleum-impacted soil may be present above the water table and impacting groundwater. Remaining area represents areas where the contaminant mass appears to be primarily dissolved into the groundwater, down gradient from the soil source area.



**ENVIRONMENTAL ASSOCIATES, INC.**

1380 - 112th Avenue N.E., Ste. 300  
Bellevue, Washington 98004

**DETAILED EXPLORATION PLAN**

Smith Brothers Farm  
27441 - 68th Avenue South  
Kent, Washington

Job Number:	Date:	Scale:	Plate:
JN-32115-2	November 2012	1"=40'	3

## APPENDIX II

ESN Northwest  
Laboratory Reports

Dated

June 7, 2013

June 13, 2013

June 19, 2013

June 7, 2013

Alex Koch  
Blue Sage Environmental  
P.O. Box 6738  
Kennewick, WA 99336

Dear Mr. Koch:

Please find enclosed the analytical data reports for the Smith Brothers Dairy Project in Kent, Washington. Soil samples were analyzed for Diesel and Oil by NWTPH-Dx/Dx Extended on June 6, 2013.

The results of the analyses are summarized in the attached tables. All soil values are reported on a dry weight basis. Applicable detection limits and QA/QC data are included. A copy of the invoice for this work is included.

ESN Northwest appreciates the opportunity to have provided analytical services to Blue Sage Environmental for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,



Michael A. Korosec  
*President*

**ESN NORTHWEST CHEMISTRY LABORATORY**

Carpinito Brothers, Inc  
 SMITH BROTHERS DAIRY PROJECT  
 Kent, Washington

ESN Northwest  
 1210 Eastside Street SE Suite 200  
 Olympia, WA 98501  
 (360) 459-4670 (360) 459-3432 Fax  
 lab@esnnw.com

**Analysis of Diesel Range Organics & Lube Oil Range Organics in Soil  
 by Method NWTPH-Dx Extended**

Sample Number	Date Prepared	Date Analyzed	Surrogate Recovery (%)	Diesel Range Organics (mg/kg)	Lube Oil Range Organics (mg/kg)
Method Blank	6/6/2013	6/6/2013	110	nd	nd
LCS	6/6/2013	6/6/2013	152	88%	---
SBD-1	6/6/2013	6/6/2013	103	95	nd
SBD-2	6/6/2013	6/6/2013	int	6100	nd
SBD-3	6/6/2013	6/6/2013	int	77,000	nd
SBD-4	6/6/2013	6/6/2013	int	6000	nd
SBD-5	6/6/2013	6/6/2013	int	4700	nd
SBD-6	6/6/2013	6/6/2013	int	7500	nd
SBD-7	6/6/2013	6/6/2013	int	41,000	nd
SBD-8	6/6/2013	6/6/2013	int	17,000	nd
SBD-9	6/6/2013	6/6/2013	int	4300	nd
SBD-9 Duplicate	6/6/2013	6/6/2013	int	3600	nd
Reporting Limits				50	100

"nd" Indicates not detected at the listed detection limits.  
 "int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 50% TO 150%



June 13, 2013

Alex Koch  
Blue Sage Environmental  
P.O. Box 6738  
Kennewick, WA 99336

Dear Mr. Koch:

Please find enclosed the analytical data reports for the Smith Brothers Dairy Project in Kent, Washington. Soil samples were analyzed for Diesel and Oil by NWTPH-Dx/Dx Extended and BTEX by Method 8260 on June 11, 2013.

The results of the analyses are summarized in the attached tables. All soil values are reported on a dry weight basis. Applicable detection limits and QA/QC data are included. A copy of the invoice for this work is included.

ESN Northwest appreciates the opportunity to have provided analytical services to Blue Sage Environmental for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,



Michael A. Korosec  
President

## ESN NORTHWEST CHEMISTRY LABORATORY

Carpinito Brothers  
SMITH BROS DAIRY PROJECT  
Kent, Washington

ESN Northwest  
1210 Eastside Street SE Suite 200  
Olympia, WA 98501  
(360) 459-4670 (360) 459-3432 Fax  
lab@esnnw.com

### Analysis of Diesel Range Organics in Soil by Method NWTPH-Dx Extended

Sample Number	Date Prepared	Date Analyzed	Surrogate Recovery (%)	Diesel Range Organics (mg/kg)
Method Blank	6/10/2013	6/11/2013	110	nd
LCS	6/10/2013	6/11/2013	130	93%
SBD-10	6/10/2013	6/11/2013	106	<b>2800</b>
SBD-11	6/10/2013	6/11/2013	101	nd
SBD-12	6/10/2013	6/11/2013	101	nd
SBD-13	6/10/2013	6/11/2013	94	nd
SBD-14	6/10/2013	6/11/2013	105	nd
SBD-15	6/10/2013	6/11/2013	142	<b>4900</b>
SBD-16	6/10/2013	6/11/2013	98	nd
SBD-17	6/10/2013	6/11/2013	102	<b>370</b>
SBD-18	6/10/2013	6/11/2013	84	<b>500</b>
SBD-19	6/10/2013	6/11/2013	104	<b>560</b>
SBD-19 Duplicate	6/10/2013	6/11/2013	150	<b>560</b>
Reporting Limits				50

"nd" Indicates not detected at the listed detection limits.

"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 50% TO 150%

## ESN NORTHWEST CHEMISTRY LABORATORY

Carpinito Brothers  
SMITH BROS DAIRY PROJECT  
Kent, Washington

ESN Northwest  
1210 Eastside Street SE Suite 200  
Olympia, WA 98501  
(360) 459-4670 (360) 459-3432 Fax  
lab@esnw.com

### Analysis of BTEX in Soil by EPA Method 8260C/5035A

Sample Number	Date Analyzed	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Surrogate Recovery (%)
Method Blank	6/11/2013	nd	nd	nd	nd	120
LCS	6/11/2013	95%	109%	106%	107%	115
LCSD	6/11/2013	95%	107%	97%	102%	112
SBD-10	6/10/2013	nd	nd	nd	nd	115
SBD-11	6/11/2013	nd	nd	nd	nd	118
SBD-12	6/11/2013	nd	nd	nd	nd	124
SBD-13	6/11/2013	nd	nd	nd	nd	117
SBD-14	6/11/2013	nd	nd	nd	nd	121
SBD-15	6/11/2013	nd	nd	nd	nd	119
SBD-16	6/11/2013	nd	nd	nd	nd	119
SBD-17	6/11/2013	nd	nd	nd	nd	123
SBD-18	6/11/2013	nd	nd	nd	nd	122
SBD-19	6/11/2013	nd	nd	nd	nd	117
Method Detection Limits		0.02	0.05	0.05	0.15	

"nd" Indicates not detected at the listed detection limits.

"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (4-Bromofluorobenzene) & LCS : 65% TO 135%



June 19, 2013

Alex Koch  
Blue Sage Environmental  
P.O. Box 6738  
Kennewick, WA 99336

Dear Mr. Koch:

Please find enclosed the analytical data reports for the Smith Brothers Farm Project in Kent, Washington. Soil samples were analyzed for Diesel and Oil by NWTPH-Dx/Dx Extended on June 18, 2013.

The results of the analyses are summarized in the attached tables. All soil values are reported on a dry weight basis. Applicable detection limits and QA/QC data are included. A copy of the invoice for this work is included.

ESN Northwest appreciates the opportunity to have provided analytical services to Blue Sage Environmental for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,



Michael A. Korosec  
President

**ESN NORTHWEST CHEMISTRY LABORATORY**

Carpinito Brothers  
SMITH BROS FARM PROJECT  
Kent, Washington

ESN Northwest  
1210 Eastside Street SE Suite 200  
Olympia, WA 98501  
(360) 459-4670 (360) 459-3432 Fax  
lab@esnw.com

**Analysis of Diesel Range Organics & Lube Oil Range Organics in Soil  
by Method NWTPH-Dx Extended**

Sample Number	Date Prepared	Date Analyzed	Surrogate Recovery (%)	Diesel Range Organics (mg/kg)	Lube Oil Range Organics (mg/kg)
Method Blank	6/18/2013	6/18/2013	105	nd	nd
LCS	6/18/2013	6/18/2013	int	133%	---
SBD-20	6/18/2013	6/18/2013	int	630	nd
SBD-21	6/18/2013	6/18/2013	int	480	nd
SBD-22	6/18/2013	6/18/2013	114	64	nd
SBD-23	6/18/2013	6/18/2013	126	200	nd
SBD-24	6/18/2013	6/18/2013	117	150	nd
SBD-24 Duplicate	6/18/2013	6/18/2013	120	130	nd
<b>Reporting Limits</b>				50	100

"nd" Indicates not detected at the listed detection limits.

"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 50% TO 150%

