



February 19, 2015

Washington Department of Ecology  
3190 160<sup>th</sup> Avenue SE  
Bellevue, Washington 98008  
Attn: Mr. Dale Myers

and

A&M Farms LLC  
c/o Cascadia Law Group  
1201 Third Avenue, Suite 320  
Seattle, Washington 98101  
Attn: Mr. Rodney Brown, Jr.

Re: **Sampling and Analysis Plan**  
Riverbend  
4304 State Route 530  
Arlington, Snohomish County, Washington 98  
Terracon Project No. 81147145  
Facility ID: 4864  
VCP Project No. NW2575

Dear Mr. Brown and Mr. Myers:

Terracon Consultants, Inc. (Terracon) is pleased to present you with the following Sampling and Analysis Plan for soil sampling and analysis at the above-referenced site. Terracon will perform sampling field work on behalf of A&M Farms LLC, in accordance with our proposal P81140311, dated November 25, 2014, and in accordance with Chapter 173-340 Washington Administrative Code (WAC), the Model Toxics Control Act.

## **A. PROJECT INFORMATION**

The site is located at 4304 State Route 530 in Arlington, Snohomish County, Washington, and consists of Snohomish County Tax parcels 01052900000100, -0200, -0300, -0500 to -1500. The subject property consists of approximately 140 acres improved with a residential structure and outbuildings, a six-bay carport, an equestrian barn, and agricultural fields.

In April 2011, Terracon performed a Limited Site Investigation (LSI) (Project 81117022) for the site located at 4304 State Route 530 Arlington, Snohomish County, Washington. As part of the scope of work for that project, Terracon reviewed the following environmental reports previously prepared for the site by others:



Terracon Consultants, Inc. 21905 64<sup>th</sup> Avenue West, Suite 100 Mountlake Terrace, Washington 98043  
P [425] 771-3304 F [425] 771-3549 [terracon.com](http://terracon.com)

Geotechnical



Environmental



Construction Materials



Facilities

- Tank Closure Assessment & Remedial Actions report dated June 9, 2004, and prepared by EAI.
- Phase I ESA, dated November 9, 2010 prepared by Krazan & Associates, Inc. (Krazan).

In the Tank Closure report prepared by EAI it was noted that approximately 40 tons of petroleum contaminated soil (PCS) was removed from the tank excavation and staged for disposal. According to the report, the PCS was stockpiled for planned future transport to a landfill facility or a thermal desorption facility. However, no record of off-site disposition of the PCS was noted in the report.

During Terracon's LSI, Terracon interviewed the site owner, Mr. Randy Faber, who stated that AAA Tank Services (AAA) removed the material and disposed of it off-site but that records of the disposal were not available. However, following subsequent discussions with Mr. Max Albert, site contact, Mr. Faber, and with Mr. Dale Myers of Ecology, given the lack of documentation indicating the PCS was exported from the site, it is possible that the stockpile was spread out over the site or relocated to another area of the property during dredging of the manure lagoon. As mentioned below, based on this assumption, we have prepared the scope of work provided herein.

Based on our review of Krazan's ESA report, records obtained from the Snohomish County Health Department indicated that a truck accident which occurred in 1992 resulted in a spill of approximately 100 gallons of diesel fuel to the ground on the northern portion of the site, near State Route 530. According to the Krazan report, approximately 20 cubic yards of soil were removed from the site for disposal. The report further indicated that records associated with the analytical testing and disposition of contaminated soils were not on file with the health department.

In addition, Krazan reported that some petroleum stained soil (approximately six feet by six feet) was observed inside a metal storage building at the site near some farm machinery.

Per the Client's request, Terracon conducted a Limited Site Investigation (LSI) that included eight soil borings advanced in the vicinity of the former USTs, the reported UST excavation and soil stockpile location, the historical diesel spill near State Route 530, and the stained soil inside of the metal storage building. The results of the sampling revealed the presence of petroleum hydrocarbons above Washington State Department of Ecology (Ecology) Model Toxic Control Act (MTCA) cleanup levels in shallow soil in the vicinity of the stained soil area inside the metal storage building.

Borings advanced in the areas of the former USTs, UST excavation and soil stockpile location, and the traffic spill along State Route 530 did not identify petroleum hydrocarbons in any of the soil samples collected. Two groundwater samples collected in the vicinity of the former USTs

identified low levels of diesel-range petroleum hydrocarbons; however, the laboratory indicated that the chromatograms were not representative of a diesel petroleum product and may be associated with organics.

Based on the results of our LSI and since soil contamination associated with the former USTs had not previously been reported to Ecology, Terracon recommended in an Opinion Letter dated June 28, 2011 that the EAI report and Terracon's LSI report be submitted to Ecology in order to satisfy regulatory reporting requirements as stated in WAC 173-340-300.

It is our understanding that Hearthstone Inc. previously submitted environmental reports prepared by Terracon and others and enrolled the site into Ecology's Voluntary Cleanup Program (VCP). Following formal enrollment of the site in the VCP (Facility I.D. 4864), Ecology issued an Opinion Letter regarding the work performed at the site. In the March 22, 2012 Opinion Letter, Mr. Dale Myers, a technical reviewer for Ecology, indicated that Ecology had determined that further remedial action was necessary at the subject site.

This determination was based on the absence of documentation of the disposition of impacted soils associated with the removal and excavation of the USTs and the traffic spill along State Route 530 in 1992. Further, Ecology concluded that the contaminated soil identified inside the storage building would need to be remediated. As a result, the site was also listed on the Confirmed and Suspected Contaminated Sites List (CSCSL) database.

In December of 2014, Mr. Rodney Brown, Jr. contacted Terracon regarding the site. Based on discussions with Mr. Brown, we understand that he represents A&M Farms LLC and they are working closely with Forterra to purchase the property. As a condition of the purchase and sale, we have been engaged to assist in achieving a No Further Action (NFA) determination for the Site from Ecology. Given that there is no record of petroleum contaminated soils (PCS) generated from the UST excavation and following subsequent discussions with Mr. Max Albert, site contact, Mr. Faber, and with Mr. Dale Myers of Ecology, we assume that these soils were left on site.

As a result, and following discussions with Mr. Dale Myers of Ecology regarding the path to achieving a NFA determination for the site, we understand that the site may only be eligible for a property specific NFA determination due to the possibility that soils were exported off-site without proper documentation. However, as mentioned for the purposes of this Plan, we assume that the soils remained onsite. As a result, Terracon has prepared the following plan to sample soils at the site in suspect areas for gasoline-range total petroleum hydrocarbons (TPH) and volatile organic compounds (VOCs) including benzene, toluene, ethylbenzene, and xylenes (BTEX). The purpose of the proposed sampling is to confirm that residual PCS, assumed to have been left onsite, is currently at concentrations below MTCA Method A cleanup levels for unrestricted land use.

## **B. SAMPLING AND ANALYSIS PLAN**

Terracon has a 100% commitment to the safety of all its employees. As such, and in accordance with our *Incident and Injury Free®* safety culture, Terracon will develop a safety plan to be used by our personnel during field services. Prior to commencement of on-site activities, Terracon will hold a meeting to review health and safety needs for this specific project. At this time, we anticipate performing fieldwork in a USEPA Level D work uniform consisting of hard hats, safety glasses, protective gloves, and steel-toed boots. It may become necessary to upgrade this level of protection while sampling activities are being conducted in the event that petroleum or chemical constituents are encountered in soils that present an increased risk for personal exposure.

### **1.1 Rationale**

In order to develop an effective sampling plan to evaluate for the presence of PCS which may have been stockpiled or spread out at the site, Terracon reviewed previous reports prepared by Terracon and others for the site including:

- Phase I Environmental Site Assessment, dated March 29, 2004, prepared by Environmental Associates, Inc. (EAI);
- Tank Closure Assessment & Remedial Actions, dated June 9, 2004, prepared by Environmental Associates, Inc. (EAI);
- Phase I Environmental Site Assessment, dated November 9, 2010, prepared by Krazan & Associates, Inc. (Krazan);
- Limited Site Investigation, dated June 28, 2011, prepared by Terracon Consultants, Inc.

In addition, Terracon reviewed aerial photography from select dates between 2005 and 2014 to evaluate for any noticeable changes to site features in an effort to determine specific areas of the site where PCS may have been placed. Based on information obtained from previous reports, historical information, and site interviews conducted with Mr. Albert, the PCS stockpile, if present on the property, was not relocated to portions of the site under active agricultural use, as these have been leased to Mr. Albert for agricultural use since 2004, or onto areas of the property that were slated for subdivision and residential development. As a result, we have identified select areas of the remaining portions of the site for confirmation sampling. Specifically, we infer that the PCS stockpile was either spread over localized areas in the vicinity of the UST excavation and original stockpile location or was relocated to the stockpile of dredged soils from the manure lagoon on the western boundary of the property. The select areas are depicted on Figure 2.

## 1.2 Soil Sampling

Proposed soil sample locations are presented on Figure 3. Those areas include the approximate location of the PCS stockpile in the vicinity of the former USTs and from the suspect soil stockpile on the western boundary of the site.

Soil samples will be placed into appropriate containers provided by the laboratory, and immediately placed into a cooler containing ice or ice substitute. Samples will be delivered to a Washington State-accredited analytical laboratory in strict accordance with the industry standard chain-of-custody protocol.

## 1.3 Laboratory Analytical Program

Soil samples will be analyzed collected for gasoline-range TPH and BTEX. Samples analyzed for gasoline-range TPH and BTEX will be collected using EPA Method 5035 sampling kits, as required for the analysis of volatile chemicals. Subcontract analytical laboratory services will be performed on a standard 10-day turnaround time and will be submitted to a Washington accredited analytical laboratory for analysis for the following:

Analysis	Sample Type	Maximum No. of Samples	Method
<b>PCS Soil Sampling</b>			
BTEX	Soil	26	EPA 8021
Gasoline range TPH	Soil	26	NWTPH Gx

Soil sampling will be completed using hand tools such as shovel, post-hole digger, or hand auger. Soil samples will be collected from within one foot of the ground surface.

## 1.4 Report Preparation

Upon completion of site activities, Terracon will prepare a report which will include the following:

- Documentation of field activities;
- Site diagram showing pertinent site features;
- Analytical laboratory results;
- Permits and disposal documentation;
- Data evaluation and presentation of pertinent findings; and,
- Recommendations concerning further action, if necessary.

Sampling and Analysis Plan  
4304 SR 530 ■ Arlington, Washington  
February 19, 2015



If you have any questions or comments regarding this sampling plan, please do not hesitate to contact us at your convenience.

Sincerely,  
**Terracon Consultants, Inc.**

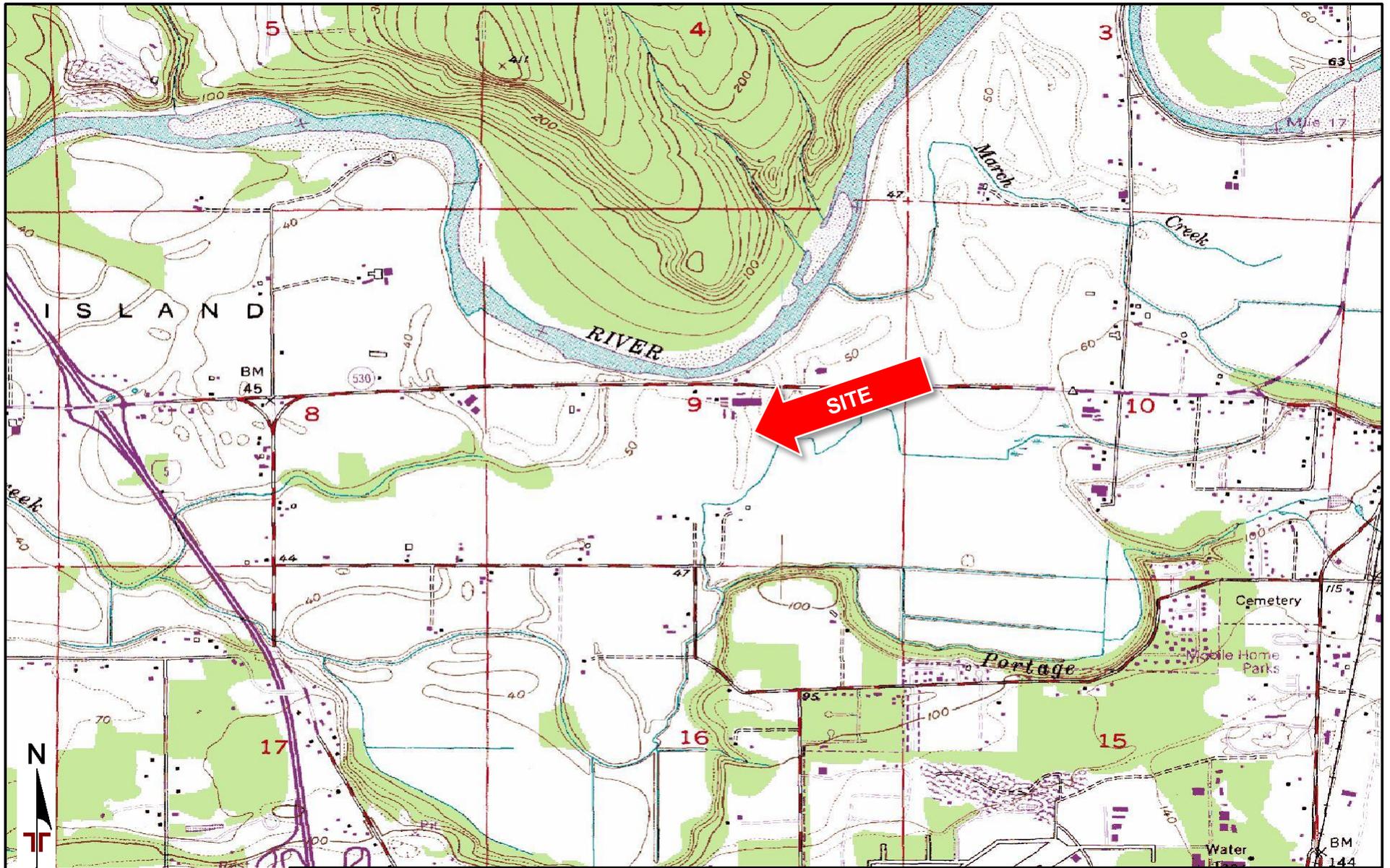
A blue ink signature of Lucas C. Swart, L.G., Project Manager. The signature is written in a cursive style and is positioned to the left of his name.

Lucas C. Swart, L.G.  
Project Manager

A blue ink signature of Matt Wheaton, L.G., E.I.T., Department Manager. The signature is written in a cursive style and is positioned to the left of his name.

Matt Wheaton, L.G., E.I.T.  
Department Manager

Attachments:      Site Location Figure  
                         Site Map  
                         Site Plan with Sample Locations



TOPOGRAPHIC MAP IMAGE COURTESY OF THE U.S. GEOLOGICAL SURVEY QUADRANGLES INCLUDE: ARLINGTON WEST, WA (1/1/1981).

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

Project Manager:	LCS	Project No.	81147145
Drawn by:	LCS	Scale:	1:24,000
Checked by:	LCS	File Name:	Fig
Approved by:	MYW	Date:	2-12-15

**Terracon**  
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 Mountlake Terrace, WA 98043

<b>SITE LOCATION</b>
Riverbend PCS Investigation 4304 SR 530 Arlington, WA

Exhibit
A-1



Approximate Site Boundary



2000 feet



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AERIAL PHOTOGRAPHY PROVIDED BY MICROSOFT BING MAPS

DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES

Project Manager: LCS  
 Drawn by: LCS  
 Checked by: LCS  
 Approved by: MYW

Project No. 81147145  
 Scale: AS SHOWN  
 File Name: ???  
 Date: 2-12-15

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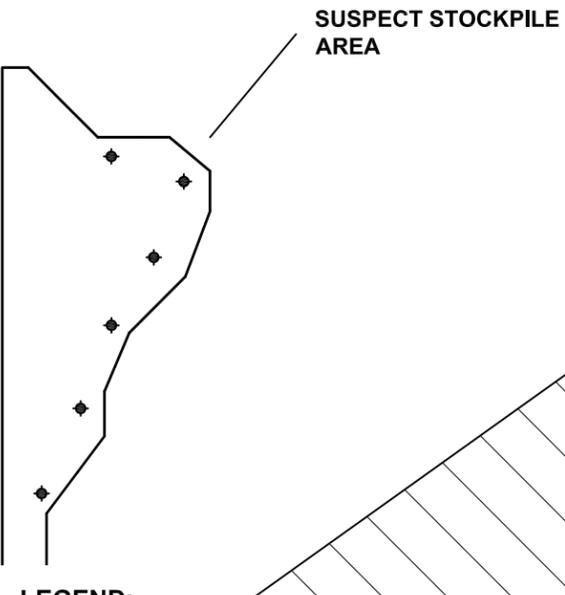
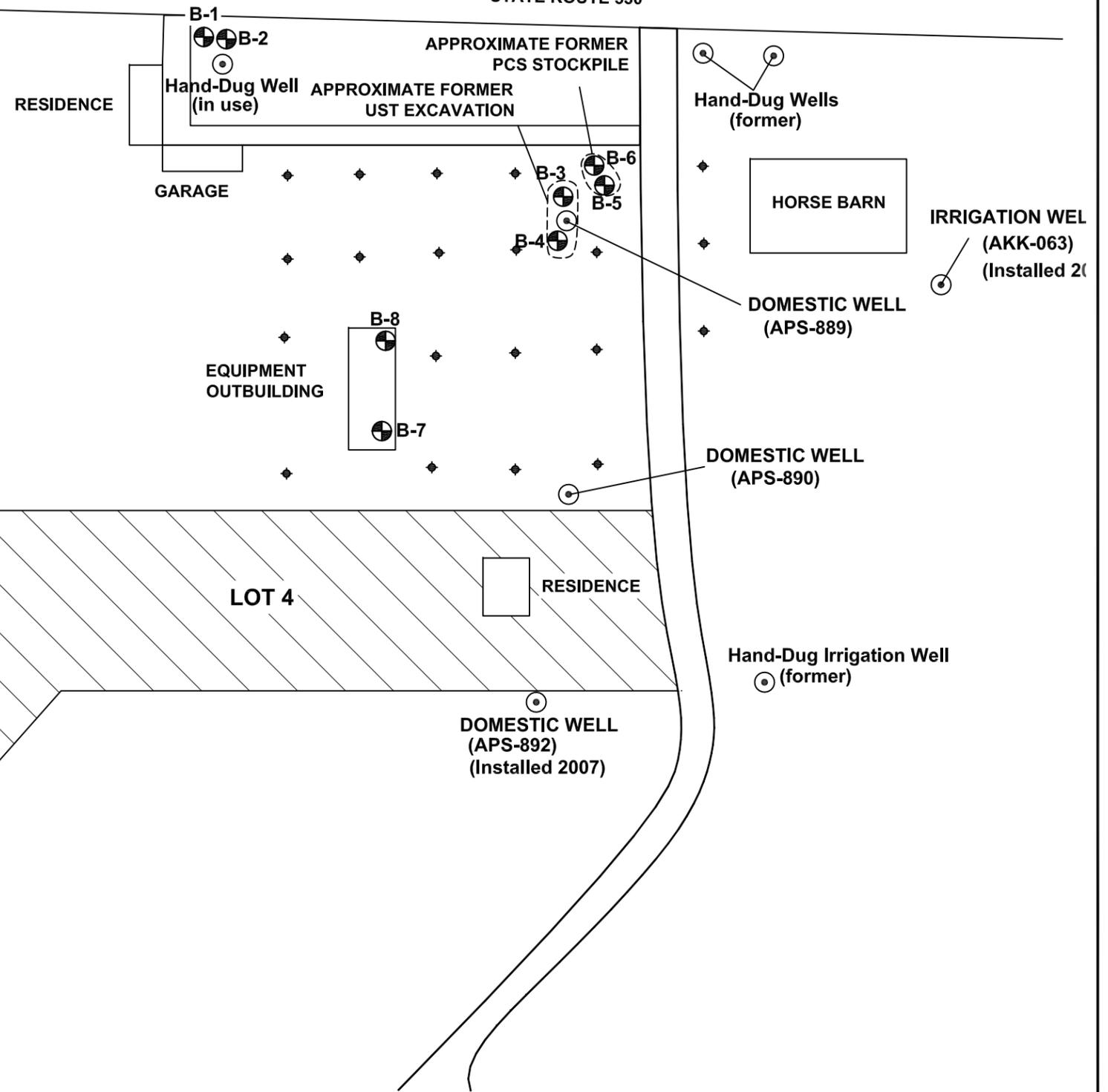
EXPLORATION PLAN

Riverbend PCS Investigation  
 4304 SR 530  
 Arlington, WA

Exhibit  
 A-2



STATE ROUTE 530



**LEGEND:**

-  B-1 BORING NUMBER AND APPROXIMATE LOCATION
-  PROPOSED BORING LOCATION
-  WELL APPROXIMATE WELL LOCATION
-  NOT PART OF SITE

Project Mngr:	MYW	Project No.	81147145
Drawn By:	LCS	Scale:	Not To Scale
Checked By:	LCS	File No.	Figure3.dwg
Approved By:	MYW	Date:	February 2015

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**SITE AND EXPLORATION PLAN**  
 Riverbend  
 Arlington, Washington

FIG. No.  
**3**