

**LIMITED PHASE II**  
Targeted Subsurface Investigation  
*Performed at:*  
**SUNSET POINTE DEVELOPMENT**  
2301 - 23<sup>rd</sup> Street Southeast  
(aka) 2102 - 23<sup>rd</sup> Street Place Southeast  
Puyallup, Washington 98372

May 22, 2024

***AEROTECH***  
*Environmental Consulting Inc.*

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2301 - 23<sup>rd</sup> Street Southeast  
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Puyallup, Washington 98372

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May 22, 2024

*Performed by:*

Aerotech Environmental Consulting, Inc.  
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LIMITED PHASE II  
TARGETED SUBSURFACE INVESTIGATION

*performed for:*

**SUNSET POINTE DEVELOPMENT**  
2301 - 23<sup>rd</sup> Street Southeast  
Puyallup, Washington 98372

---

Client(s): Dr. Peter Chen  
4709 Memory Lane West  
University Place, Washington 98466  
(253) 906-1634 / yiping10@HotMail.com

Point of Contact: Dr. Peter Chen

Subject Property Sunset Pointe Development  
(aka) **Pioneer Museum**  
2301 - 23<sup>rd</sup> Street Southeast  
  
(aka - southern) 2102 - 23<sup>rd</sup> Street Place Southeast  
(aka - northern) 2100 - 19<sup>th</sup> Avenue Southeast  
Puyallup, Washington 98372

Pierce County Assessor: No. 0420-35-3027  
9.090-acres / 395,960 square feet  
  
No. 0420-35-7011 / 0.098-acres  
0.090-acres / 4,256 square feet

Key Site Manager: Peter Chen

Property Classification: NAICS Code 487.110  
Vacant undeveloped land

Environmental Professional: Alan T. Blotch

Washington Licensed Geologist: Justin F. Foslien

Project Number: No. 24-0219

Report Date: May 22, 2024

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## CONCLUSIONS / RECOMMENDATIONS

### Aerotech Investigation Strategy

■ Aerotech Environmental Consulting, Inc., completed a *Near Surface Soil Investigation* of the subject Property in January through April. A total of 84 discrete areas (eighty three soil and one water locations) areas were sampled and were submitted to *Freemont Analytical Laboratories* for selected chemical analyses.

### ■ Areas of Concern Fully Investigated

Aerotech reviewed the volume of documents available concerning the history of the subject Property and the environmental requirements of (1) the City of Puyallup in order to issue a Building Permit; and (2) the interactions with the *Tacoma-Pierce County Health Department*; and (3) the actions and investigations necessary to obtain a *No Further Action Determination* from State of Washington Department of Ecology.

Aerotech identified and grouped the areas of concern based upon their similarities: (1) Retention Pond north side wall and impacts to the standing water in the Pond; (2) former drum storage identified by the Central Pierce Fire Department, and (3) Horse Barn and Original Storage Barn as areas that may have released the Contaminants of Concern which were generically labeled as:

- (1) Retention Pond Wall and Water
- (2) Museum Building - Former Drum Storage; and;
- (3) Horse Barn and Original Storage Barn

### Retention Pond - Batteries Removal and Impact

**Buried Battery Casings and Contents Release.** In 1965, the Owner of the subject Property obtained spent automotive batteries from a friend in the battery<sup>1</sup> recycling business. The battery interiors were reportedly clean by the recycler before delivery to the subject Property. When the batteries were received at the subject Property, available excess soils were used to fill the batteries. The batteries were then stacked on the northeastern corner of the Retention Pond to provide a sturdy wall.

In 2018, all of the remaining structures were demolished and general cleanup was completed which included “an old house, barns, out buildings, **battery casings**, tires and all miscellaneous debris found on the Property [emphasis added].<sup>2</sup>”

From January to March of 2024, Aerotech completed a Phase II activities included investigations the northeast edge of the wall. Three borings to a depth of 16 feet below surface – terminating two feet below the Pond water level – did not encounter any battery casings. The evidence indicates that the batteries were previously removed. No contaminated soil<sup>3</sup> or pond water is present, and **no further action is required**.

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<sup>1</sup> Batteries can contain: cadmium, lead, and mercury.

<sup>2</sup> Description of waste materials disposed of in 2023 by D.M. Disposal Co., Inc, in their *Letter of Disposal* dated September 15, 2023

<sup>3</sup> All tested soil pH is within the range required by Pierce County. See, *Development Engineering Handout 9 Soil Amendment*, Development Engineering Inspection Team, May 28, 2015.

## Removal and Disposal of Waste Materials

In 2010, arson fires set on two consecutive days destroyed the *Western Washington Pioneer Museum* building, and damaged oils and chemicals stored inside and adjoining the building. Mr. Tanner, a previous Property owner, had operated a business that include “treating wood for fencing” and the drums contained waste liquids from his associated business activities<sup>4</sup>. The drums stored inside contained the accumulated liquid wastes of those business operations<sup>5</sup>.

### ■ Demolition of Structures & Consolidation of Waste Materials

#### Asbestos-Containing Materials: Removal & Disposed.

The Parcel cleanup was initially started by *Tacoma Abatement Company, LLC*. They removed the asbestos-containing building materials (“ACBM”) from the residences and associated accessory buildings. The ACBM wastes were properly bagged and transported to a landfill approved to accept ACBM waste materials.

#### Demolition of Structures and Consolidation of Materials.

Following asbestos abatement, **DP Excavation** was engaged to perform “load out of demolition debris. Photographs on the DP Excavation website include photos of DP equipment performing the the the demolition activities and piling the waste. The demolition debris consisting primarily of wood building materials – estimated by the disposal contractor to be 275 tons of debris. During these activities, *Tacoma Abatement Company* performed airborne asbestos sampling, and bagged all materials as “asbestos-containing”.

This bagging – which likely included non-asbestos containing waste – was not necessary. However, the Property Owner, Dr. Peter Chen, incurred additional cost with this handling, but he did so in an abundance of caution.

#### Waste Transport and Final Disposal.

During the demolition activities, **Waste Connections** transported 15 loads / 125.66 tons of “possible” asbestos containing materials to the *LRI Landfill – Pierce County* for final disposal. The entire subject Property is free of all above-ground building materials, only the concrete pads remain. **No further action is required.**

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<sup>4</sup> See, Interview by Ron Holcomb (Department of Ecology Southwest Region) ERTS No.620837 with Sharon Tanner, who stated she had inherited the Property from her mother Grace Ardell Greeley, approximately 15 years ago when she passed away. Washington Department of Ecology Environmental Tracking System (“ERTS”) Report number 620837, May 04, 2012, page 5 of 7.

<sup>5</sup> *Ibid.* Statement of Joshua Gunia, grandson of Mr. Tanner.



## ■ Waste Removal & Disposal

Upon completion of demolition, **D.M. Disposal Co., Inc. (aka) Waste Connections**, was engaged to dispose of the on-site demolition waste. Their September 15, 2023 *Letter of Disposal* stated:

“This is to confirm with you that in July 2018, we hauled all of the demolition debris and clean up of your property. The entire job was classified as asbestos, and every load was wrapped and processed according to code, and disposed of at the LRI Landfill.

The debris consisted of an old house, barns, out buildings, **battery casings**, tires, and all miscellaneous debris found on the property [emphasis added].”

The D.M. Disposal *Proposed Contact* invoice was for 15 loads and 125.66 tons.

## CONTAMINANTS of CONCERN

The identified Contaminants of Concern (“COCs”) were previously identified by the Tacoma Pierce County Health Department (“TPCHD”) under contract and direction of the Department of Ecology to complete a Site Investigation and prepare the WDOE Form *Initial Investigation Field Report*. The Field Report was completed by TPCHD Investigator, Ms. Sharon Bell on May 10, 2011.

Aerotech identified, sampled, and had analyzed additional Contaminants of Concern primarily related to the possible contamination resulting from the use of battery casings for the Retention Pond northeastern wall.

The laboratory analysis included:

Gasoline by NWTPH-Gx  
Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Volatile Organic Compounds by EPA Method 8260D  
Polyaromatic Hydrocarbons (“PAH”) by EPA Method 8270 (SIM)

Metals (EPA 6020B) with TCLP Extraction (EPA 1311)  
Metals (Soil Total) by EPA Method 6020  
Metals (Water) by EPA Method 200.8

Arsenic (Water) by EPA Method 200.8  
Cadmium (Water) by EPA Method 200.8  
Chromium (Hexavalent) by EPA Method 7196

Moisture (Soil) Percent (wt%)

Pesticides (Organochlorine) by EPA Method 8081  
Pesticides (Organochlorine) with Lindane by EPA Method 8081A  
Herbicides by EPA Method 8151A (GC/MS)

## SUMMARY of SITE HISTORY

The following is a brief summary of the activities that have occurred at the subject Property:

Date of Work	Information Source	Development and/or Activity
xx/xx/1924	Pierce County Records	Construction of a 912 square foot residence on the northern portion of the Property
xx/xx/1928	Pierce County Records	Construction of a 1,104 square foot residence
— 1940 —		
xx/xx/1940	Pierce County Records	Construction of 10,000 square foot wood sided pole “horse” barn
xx/xx/1940	Pierce County Records	Construction of 1,092 square foot concrete block two-story detached garage
— 1950 —		
xx/xx/1950	Pierce Country Records	Construction of 4,480 square foot single story, wood pole and framed storage barn
xx/xx/1950	Pierce County Records	Construction of an approximately 10,000 square foot one-story wood pole and framed single-story barn, future location of <i>Western Washington Pioneer Museum</i>
xx/xx.1950	Pierce County Records	Construction of 4,000 square-foot utility barn / storage building.
— 1960 —		
xx/xx/1965		Retention Pond walls are constructed with soil spoils from the Property, and “cleaned” vehicle batteries filled with sand are used for a wall on the northwestern side of the Pond.
— 2000 —		
01/14/2004	Desert Creek, LLC	Reportedly <sup>6</sup> tested pond wall battery interiors for lead; reported levels below cleanup levels
— 2010 —		
06/27/2010	Central Fire District	Arson fire in vacant Pioneer Museum buildings
06/28/ 2010	Central Fire District	Arson fire in vacant Pioneer Museum buildings

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<sup>6</sup> Information from *Phase I Environmental Audit*, Environmental Associate, January 14, 2005, page 12.

07/07/2010	Department of Ecology	Letter to Cleanup Drums and Other Containers
– 2011 –		
05/10/2011	Tacoma-Pierce County Health Department	On-site to collection soil samples at 3 location on the south side of the former Museum building. Elevated levels of contaminants reported
05/24/2011	On Site Environmental	Analytical results of (3) soil samples
12-07-2011	Department of Ecology	Property is placed on the <i>Confirmed and Suspected Contaminated Sites Listing</i>
12/03/2011	Pierce County Office of the Clerk	Ottinger, Sharon sale to Peter Chen, four Assessor parcels
12/2111 - 2012	● Cost: \$17,336.97	Big Dog Demolition - Removal north residences
03/12/2018	City of Puyallup	Submittal of <i>City of Puyallup Environmental Checklist</i>
08/03-09/ 2018	DP Excavation ● Cost: \$15,000.00	“Clean up all garbage and asbestos materials” Did not include removal, only surface scraping and piling of materials
08/03-09/ 2018	Tacoma Abatement Company ● Cost: \$16,166.29	“Clean and clear work area. including general debris. Removal of asbestos Containing materials. Air sampling as required by Washington State.”
08/03-09/ 2018	DM Recycling and Waste Connections ● Cost: \$49,700.00	<b>Waste Removal:</b> excavation and disposal of 125.66 tons of mixed media, including “Battery Casings” all handled and disposed of as assumed asbestos contaminated materials to <i>LRI Landfill Pierce County</i>
09/21/2018	Habitat Technologies	<i>Preparation of Critical Areas Assessment</i>
10/26/2020	City of Puyallup	Revision and resubmittal of of <i>City of Puyallup :Environmental Checklist</i>
---- 2024 –		
January 19, 2024	Dr. Peter Chen	Dr. Chen engages Aerotech to complete a <i>Targeted Subsurface Investigation</i> at the subject Property
01/25 to 28/2024	Aerotech Environmental Consulting, Inc.	Phase II Investigation is completed by Aerotech. Work included borings at 36 locations and laboratory analysis of 75 individual samples.
03/2024	Aerotech Environmental Consulting, Inc.	Phase II Investigation, Site-wide soil background sampling: 38 sample locations, 52 lab analysis
02/29/2024	Aerotech Environmental Consulting, Inc.	Completion and delivery of <i>Phase II Investigation Report</i>



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## SUBJECT PROPERTY OVERVIEW

The subject Property is an approximately rectangular-shaped Parcel comprised of two contiguous Pierce County Assessor parcels that total approximately 10.07-acres (400,216 square feet) located adjoining 23<sup>rd</sup> Street Southeast on the south and 19<sup>th</sup> Avenue Southeast near *Wildwood Park* in Puyallup, Washington.

The subject Property surface is level with the grade of 23<sup>rd</sup> Street Southeast on the south side and remains level through the approximately center of the Property. In this portion of the Property are the remaining foundations of the *Western Washington Pioneer Museum*, a horse barn, two single-family residences, and a storage building.

The Property elevation is 390 feet above mean sea level ("MSL") decreasing by twenty feet in the center to the center of the Property, occupied by a large natural Retention Pond with the water level at 361 feet MSL. To the east and north of the Detention Pond the elevation increase to approximately 380 feet MSL.

### Property: Surface Development:

The subject Property is generally slightly sloped to the north - northwest. A ravine crosses through the Property from the western to eastern boundary. This ravine has been identified as a seasonal stream that originates off-site to the south.

The on-site ravine had undergone prior development actions to include the excavation and creation of three ornamental ponds. These ponds appear to have been created through the excavation of material within the ravine and through the placement of material within the ravine, and through the placement of the excavated material to establish two internal corridors crossing the ravine generally north to south.

Hydrology control structures and culverts installed to intentionally control surface water ponding are currently in-place. At the Property boundary the surface water within this corridor is captured within a buried drainage system installed as part of the development of the adjacent residential community. This drainage appears to lead to a tributary of the Deer Creek System.

### Property: Structural Development:

The subject Property was originally undeveloped wooded land; initially developed in the early 1920s with two small residences. In 1940, a detached garage and 10,000 square foot horse barn were constructed. In 1950, two approximately 4,000 square foot storage barns were constructed. The current Retention Pond was "constructed" in an area of lower elevation and natural runoff.

**Battery Wall Construction:** In approximately 1965, the Property owner obtained empty battery casings from the local battery recycler, who had cleaned the casing insides prior to being transported to the subject Property, where they were filled with Site soils. The casings were then stacked along the northern edge of the Retention Pond. The battery casing were removed from the edge of the pond in 1995 and replaced with a soil berm.

**Battery Wall Removal:** Beginning in January of 2024, Aerotech was engaged to complete an environmental evaluation of the *Sunset Pointe Development* for the Owner, Dr. Peter Chen. During the initial round of drilling, soil borings were completed in the former casing location, that had rebuilt with a non-native clayey fill. No boring refusals were encountered at drill depths of at 4, 8, 12, and 16 foot depths, which strongly indicate the casings were removed. Additionally, soil and Pond water sampling confirmed that neither media was impacted with contamination.



### **Arson Fire Destruction:**

In 2010, two arson fires destroyed the *Western Washington Pioneer Museum* building, and damaged oils and chemicals stored inside and adjoining the building. Mr. Tanner, a previous Property owner, operated a business that include “treating wood for fencing” and the drums contained waste liquids from his associated business activities<sup>7</sup>. The drums contained the accumulated liquid wastes of those business operations<sup>8</sup>. Following the fire, in 2011 the Property was placed on the State of *Washington Confirmed and Suspected Sites List* as “contaminated.” (Copies of the County and WDOE documents are include in the Appendix of this Assessment

In 2018, all of the remaining structures were demolished and general cleanup was completed which included “an old house, barns, out buildings, battery casings, tires and all miscellaneous debris found on the Property.” In 2023, all of the accumulated materials and debris were hauled off site for appropriate disposal by *Waste Connections*. Approximately 28 forty-yard roll off container loads of debris and material – 275 tons – were disposed of at the LRI Landfill<sup>10</sup>.

### **Previously Identified Contamination.**

Following the 2010 fire damage, in 2011 an environmental evaluation was completed the Tacoma-Pierce County Health Department for the State Department of Ecology. Elevated levels of NWTPH-gas, NWTPH-diesel / heavy oils, Organochlorine Pesticides, and Herbicides. As a result, in December of 2011, Ecology classified the Property as a “Contaminated Site.”

### **City of Puyallup Development Requirements**

On March 15, 2018, CES NW, Inc. – on behalf of the Owner Dr. Peter Chen – submitted a *Preliminary Major Plat* to the Planning Division of the City of Puyallup. A Planning Review response by Mr. Chris Beale with a Staff Updated Comment (July 28, 2023) stated:

“We will require pollution in the environment be cleaned up in compliance with WAC 173-340 before allowing any grading, filling, or other construction activities at the site, or an independent cleanup conducted under WAC 173-340-515, the cleanup would be complete when a no further action opinion (NFA) letter is issued under WAC 173-340-515(5)(b). [page 4 of 28]”

NOTE: The Ecology sections reference in this response – Washington Administrative Code § 173-340-515 sections – were amended in effective January 1, 2024.

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<sup>7</sup> See, Interview by Ron Holcomb (Department of Ecology Southwest Region) ERTS No.620837 with Sharon Tanner, who stated she had inherited the Property from her mother Grace Ardell Greeley, approximately 15 years ago when she passed away. Washington Department of Ecology Environmental Tracking System (“ERTS”) Report number 620837, May 04, 2012, page 5 of 7.

<sup>8</sup> *Ibid.* Statement of Joshua Gunia, grandson of Mr. Tanner.

<sup>9</sup> Description of waste materials disposed of in 2023 by D.M. Disposal Co., Inc, in their *Letter of Disposal* dated September 15, 2023

<sup>10</sup> “LRI” is the landfill of Pierce County Recycling, Composting, and Disposal, LLC (dba) “LRI.”

## INTRODUCTION

On January 19, 2024, Dr. Peter Chen engaged Aerotech Environmental Consulting (“Aerotech”) to complete a *Limited Phase II Targeted Subsurface Investigation for the subject Property Sunset Pointe Development*. The objective of this Investigation was to evaluate the condition of the subsurface soils for the Recognized Environmental Conditions in generalized areas: (1) the Retention Pond northeastern side; (2) the former *Western Washington Pioneer Museum* building; and (3) the former drum storage horse barn and adjoining paved pads.

## PROJECT SCOPE OF WORK

The Project Scope of Work was performed approximating the Scope of Work as delineated in the Aerotech Environmental Consulting, Inc., Contractual Agreement dated January 19, 2024, entitled *Professional Service Agreement Near Surface Soil Investigation at Areas of Concern*.

The areas addressed in the Aerotech Environmental Consulting, Inc. Professional Service Agreement Scope of Work included: (1) the Retention Pond northeastern side; (2) the former *Western Washington Pioneer Museum* building; and (3) the former drum storage horse barn. Particular Contaminants of Concern included Lindane<sup>®11</sup> and “Original” Roundup<sup>®12</sup>.

## SECTION I. SITE DESCRIPTION

### Site Exterior Description:

The subject Property is an approximately rectangular-shaped Parcel comprised of two contiguous Pierce County Assessor parcels that total approximately 10.07-acres (400,216 square feet) located adjoining 23<sup>rd</sup> Street Southeast on the south and 19<sup>th</sup> Avenue Southeast near *Wildwood Park* in Puyallup, Washington. One-quarter of a mile to the south is 23<sup>rd</sup> Avenue Southeast; Shaw Road East is one-half of a mile to the east; and Meridian Avenue East (State Route WA-161) is one and one-quarter of a mile to the west.

The subject Property surface is level with the grade of 23<sup>rd</sup> Street Southeast on the south side and remains level through the approximately center of the Property. In this portion of the Property are the remaining foundations of the *Western Washington Pioneer Museum*, a horse barn, two single-family residences, and a storage building.

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<sup>11</sup> *Lindane*® is a organochlorine chemical and an isomer of hexachlorocyclohexane, a commonly applied and very effective agricultural insecticide that is both bio-accumulative and shown to be toxic to humans.

<sup>12</sup> “Original Roundup” was a commonly applied and very effective herbicide used is agricultural as a crop desiccant to help speed the drying of crops before harvest, in order to improve the yields. One of the primary components of Old Roundup is glyphosate. It is a systemic herbicide meaning it is absorbed into the plant rather than just sticking to the outside. The U.S. EPA has stated the Acceptable Daily Intake (“ADI”) glyphosate is 0.5 milligrams per kilogram of body weight per day, i.e., 0.5 mg/kg/day. The U.S. production of Old Roundup was terminated in 2010. Currently, the manufacturer of glyphosate, is facing billions of dollars in class action suits.

The Property elevation is 390 feet above mean sea level (“MSL”) decreasing by twenty feet in the center to the center of the Property, occupied by a large natural Detention Pond with the water level at 361 feet MSL. To the east and north of the Retention Pond the elevation increase to approximately 380 feet MSL along the north and east sides. The northern corner of the Parcel has driveway access to the north at the intersection of 19<sup>th</sup> Avenue Southeast and 21<sup>st</sup> Street Southeast.

## Site Development History

### Wetlands Areas.

“Wetlands have been created through excavation of material within the ravine and via placement of the material to establish the wetland. The control of the flow of the wetlands stream is via culverts which have been installed<sup>13</sup>”

### Excavated Ponds.

Three intentionally excavated ponds are located on the subject Property. They were apparently created with material excavated from the north to south ravine. This excavation also created the two internal roadways crossing the ravine generally north to south.

### Subsurface Soils Overview:

The subject Property soils are dominated by soil that exhibits a silty loam texture and coloration typical of the *Kitsap Series*. The surficial soils in the graded areas is black to very dark gray to a depth of 8 to 20 inches below ground surface (“bgs”). The subsoil to a depth of 20 to 24 inches was very dark gray to gray and exhibited prominent redoximorphic (“RMF”) features<sup>14</sup>.

Aerotech conducted near-surface and subsurface testing of the Property soils to determine if an battery acid contamination was present on the Parcel. All of the ten soil sample analytical results were between 6.24 pH and 7.26 pH. Pierce County lists<sup>15</sup> the criteria for “Class A Compost” as between 6.0 - 8.0 pH.

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<sup>13</sup> See, as provided by Dr. Chen, *City of Pullaup Environmental Checklist*, Revised October 26, 2020.

<sup>14</sup> Redoximorphic (“RMF”) features consist of color patterns in a soil that are caused by a loss (depletion) or gain (concentration) of pigment compared to the matrix color, formed by oxidation / reduction of iron and/or manganese – controlled by the presence of iron. The composition and responsible formation process for a soil color or pattern must be known or inferred before it can be described as an RMF

<sup>15</sup> Pierce County Development Engineering Inspection Team, *Development Engineering Handout 9, Soil Amendment*, May 28, 2015.



## **Wetlands Delineation:**

Wetland exhibit three essential characteristics, all of which must be present in an area in order to meet the established criteria (United States Army Corps of Engineers, 1987 and United States Army Corps of Engineers, 2010. These essential characteristics are:

**Hydrophytic Vegetation:** The assemblage that occurs in areas where inundation to influence or soil saturation is either permanent or of sufficient frequency and duration to influence plant occurrence. Hydrophytic vegetation is present when the plant community is dominated by species that require or can tolerate prolonged inundation or soil saturation during the growing season.

**Hydric Soil:** A soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper parts. Most hydric soils exhibit characteristic morphologies that result from repeated periods of saturation or inundation. These processes result in distinctive characteristics that persist in the soil during both wet and dry periods.

**Wetland Hydrology:** Permanent or periodic inundation, or surface soil saturation, at least seasonally. Wetland hydrology indicators are used in combination with indicators of hydric soil and hydrophytic vegetation to define the area, Wetland hydrology indicators provide evidence that the site has continuing wetland hydrology regime. Where hydrology has not been altered vegetation and soils provide strong evidence that wetland hydrology is present.

Wetland hydrology can include fish and wildlife habitat areas necessary for maintaining the specific species in suitable habitats within their natural geographic distribution of wetlands areas. Additionally, wetlands may become habitats of local importance, not limited to areas designated as priority habitat by the Department of Fish and Wildlife.

A *Critical Areas Assessment* was performed by *Habitat Technologies* dated Revised September 21, 2018 for the "Sunset Pointe Residential Community." Their Report stated:

"Wetland determination was based on observations of hydrophytic vegetation, hydric soils, and wetland hydrology in accordance with the Corps of Engineers Wetland Delineation Manual ... Based on these methods no area within the project site was identified within the project site to exhibit all three of the established wetland criteria."

(Ibid, pp 9-10).

## **Property: Structural Development:**

The subject Property was originally undeveloped wooded land; initially developed in the early 1920s with two small residences. In 1940, a detached garage and 10,000 square foot horse barn. In 1950, two approximately 4,000 square foot storage barns were constructed. The current Retention Pond was constructed in an area of lower elevation.

In 1965<sup>16</sup>, the current Retention Pond was constructed in an area of lower elevation. At that time, the Property owner obtained empty battery casings from the local battery recycler, which were transported to the Site and filled with soil. The casings were then stacked along the northern edge of the Retention Pond. The battery casing were reportedly removed from the edge of the pond in the 1990s and replaced with a soil berm. Aerotech borings confirmed the statements of removal.

### **Arson Fires – 2010**

In 2010, arson fires set on two consecutive days destroyed the *Western Washington Pioneer Museum* building, and damaged oils and chemicals stored inside and adjoining the building. Mr. Tanner, a previous Property owner, operated a business that include “treating wood for fencing” and the drums contained waste liquids from his associated business activities<sup>17</sup>. The drums contained the accumulated liquid wastes of those business operations<sup>18</sup>.

### **Site Demolition and Cleanup – 2018 & 2023**

In 2018, all of the remaining structures were demolished and removed from the Property, and a general cleanup was completed.

Initially, **Tacoma Abatement Company, LLC** removed the asbestos-containing building materials (“ACBM”) from the residences and associated accessory buildings. The ACBM wastes were properly bagged and transported to a landfill approved to accept ACBM waste materials.

Following asbestos abatement, **DP Excavation** was engaged to perform “load out of demolition debris. Photographs in the DP Excavation website include photos of DP during the the demolition activities and resulting piles of demolition debris consisting primarily of wood building materials – estimated by the disposal contractor to be 275 tons of debris.

Upon completion of demolition, **D.M. Disposal Co., Inc. (aka) Waste Connections**, was engaged to dispose of the on-site demolition waste. Their September 15, 2023 *Letter of Disposal* stated:

“This is to confirm with you that in July 2018, we hauled all of the demolition debris and clean up of your property. The entire job was classified as asbestos, and every load was wrapped and processed according to code, and disposed of at the LRI Landfill.

The debris consisted of an old house, barns, out buildings, **battery casings**, tires, and all miscellaneous debris found on the property.”

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<sup>16</sup> Statement of Ms. Pat Tanner, the Owner of the subject Property in 2005, that the batteries were transported and filled on Site in approximately 1965. *See*, Phase “1” Environmental Audit”, Environmental Associates, Inc., date January 14, 2005, page 12.

<sup>17</sup> *See*, Interview by Ron Holcomb (Department of Ecology Southwest Region) ERTS No.620837 with Sharon Tanner, who stated she had inherited the Property from her mother Grace Ardell Greeley, approximately 15 years ago when she passed away. Washington Department of Ecology Environmental Tracking System (“ERTS”) Report number 620837, May 04, 2012, page 5 of 7.

<sup>18</sup> *Ibid*. Statement of Joshua Gunia, grandson of Mr. Tanner.

The D.M. Disposal *Proposed Contact* included providing a 40 cubic yard roll off container, to address an estimated 275 tons of material which would require 28 hauls to the landfill. The total estimated cost was \$49,700.

## SITE HISTORICAL USAGE

### Standard Historical Resources:

“The following historical resources shall be reviewed if, based upon local customary practice and the judgement of the environmental professional, they are reasonably ascertainable: (i) aerial photographs, (ii) fire insurance maps, (iii) local street directories, and (iv) historical topographic maps.” ASTM E1527-21 § 8.3.2. “Data, imagery, documents, records, and other resources that typically provide useful information about the historical uses of properties. Standard Historical Resources include: aerial photographs, fire insurance maps, local street directories, building department records, interviews, topographic maps, and property tax files.” ASTM E1527-21 § 3.2.89

### Fifty-Year Complete Standard Historical Source Summary:

The subject Property was originally undeveloped wooded land; initially developed in the early 1920s with two small residences. In 1940, a detached garage and 10,000 square foot horse barn. In 1950, two approximately 4,000 square foot storage barns were constructed. The current Retention Pond constructed in the early 1960s. In 2010, two arson fires destroyed the Western Washington Pioneer building, and damaged oils and chemicals stored inside and adjoining the building. In 2018, all of the remaining structures were demolished and removed from the Property, and a general cleanup was completed. In 2011, following the fire, the subject Property was classified as a Contaminated Site. All on-site buildings were demolished in 2018 and the waste materials removed in 2023.

### Aerial Photograph Review:

Originally performed under government contracts, aerial photographs of the general area are available beginning with the 1940's. The scales for these aerials can range from 1"=1667' to 1"=2500'; aerials taken by private contractors were generally taken at lower altitudes and provide a larger scale. Depending upon the resolution, the photographs can provide valuable information on land use and site development of both the subject and adjoining properties. Ultimately, the scale, clarity, and resolution serves as the limitations on visual interpretation. Aerial photographs for the subject Property were reviewed as available from numerous sources, including but not limited to, the Natural Resources Conservation Service District Offices; NETOnline<sup>19</sup> (“NETR”); U.S. Air Force (“USAF”); US Geological Service (“USGS”);

<i>Date:</i>	<i>Source:</i>	<i>Development:</i>
1941	USDA	The subject Property is developed with a small structure on the north end; substantially undeveloped wooded land. A roadway starts at the intersection of 19 <sup>th</sup> Avenue Southeast and 21 <sup>st</sup> Street Southeast and extends to the southeast past a small residence to the eastern ridge and

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<sup>19</sup> The NETR library include photographic collections that vary by state, county, and locality, and are all cited as “NET”R sources without referenced to the particular source collection.

		then extends to the south to terminate at a residence with farm building. To the south 23 <sup>rd</sup> Avenue is not present.
1943	USDA	The subject Property is developed with a small structure on the north end; substantially undeveloped wooded land. A roadway starts at the intersection of 19 <sup>th</sup> Avenue Southeast and 21 <sup>st</sup> Street Southeast and extends to the southeast past a small residence to the eastern ridge and then extends to the south to terminate at a residence with farm building. To the south 23 <sup>rd</sup> Avenue is not present. A gravel pit is adjoining to the south and southwest.
1957	USDA	The subject Property is developed on the north side by two small residences; to the south are two residences, a small, and a large barn. To the south is an adjoining is a gravel pit. A roadway starts at the intersection of 19 <sup>th</sup> Avenue Southeast and 21 <sup>st</sup> Street Southeast and extends to the southeast past a small residence to the eastern ridge and then extends to the south to intersect 23 <sup>rd</sup> Avenue. A gravel pit is adjoining to the south and southwest.
1968	USDA	The subject Property is developed on the north side by two small residences; to the south are two residences, a small, and a large barn. To the south is an adjoining is a gravel pit. A roadway starts at the intersection of 19 <sup>th</sup> Avenue Southeast and 21 <sup>st</sup> Street Southeast and extends to the southeast past a small residence to the eastern ridge and then extends to the south to intersect 23 <sup>rd</sup> Avenue. A gravel pit is adjoining to the south and southwest.
1980	USGS	The subject Property is developed on the north side by two small residences; to the south are two residences, a small, and a large barn. To the east is wooded land. To the south is an adjoining is a gravel pit. A roadway starts at the intersection of 19 <sup>th</sup> Avenue Southeast and 21 <sup>st</sup> Street Southeast and extends to the southeast past a small residence to the eastern ridge and then extends to the south to intersect 23 <sup>rd</sup> Avenue. A gravel pit is adjoining to the south and southwest.
1990	USGS	<p>The subject Property is developed on the north side by two small residences; to the south are two residences, a small, and a large barn. The large pond is visible at the northern curve of the driveway.</p> <p>To the east is a large parcel of cleared and graded land. To the south is an adjoining is a gravel pit. A roadway starts at the intersection of 19<sup>th</sup> Avenue Southeast and 21<sup>st</sup> Street Southeast and extends to the southeast past a small residence to the eastern ridge and then extends to the south to intersect 23<sup>rd</sup> Avenue. A gravel pit is adjoining to the south and southwest.</p>

2006	USGS	<p>The subject Property is primarily wooded land developed on the north side by two small residences; to the south are two residences, a small, and a large barn. The large pond is visible at the northern curve of the driveway.</p> <p>To the south, east, and west are large residential developments. To the north is a long strip of undeveloped partially wooded land.</p>
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### City and Telephone Directories:

Local directories based upon physical surveys of residents have been compiled since the late 1880's for use as city planning and marketing database tools. Commonly referred to as "reverse directories" or "city directories," these directories are generally maintained at public libraries. The historical reverse directories compiled by the Cole and Polk Companies were reviewed.

The northern portion of the subject Property is addressed as 2100 - 19<sup>th</sup> Avenue Southeast in Puyallup and 2102 - 23<sup>rd</sup> Street Place Southeast, Puyallup

<i>Date:</i>	<i>Address:</i>	<i>Occupant:</i>
2005	2104 - 23 <sup>rd</sup> St.Pl.SE 2104 - 23 <sup>rd</sup> St.Pl.SE	Starr, Ron Ottesen, Jeffrey L.
1998	2105 - 23 <sup>rd</sup> St.Pl.SE	Ottensen Jeffrey
1998	2105 - 23 <sup>rd</sup> St.Pl.SE	No listing

### County Permit/Inspection Department - Permit Review:

The Property is located in Puyallup. All building activity is regulated by the Municipal Building. Due the time required to obtain building department records via Freedom of Information requests ("FOIA"), this method of research was deemed to be reasonably ascertainable<sup>1</sup>. As such, documents were requested and reviewed at the offices of the Building Services Division. The no substantive information was available.

<i>Date:</i>	<i>Permit:</i>	<i>Description:</i>
1924		Construction of 912 square foot wood framed and sided one-story residence, with pitched composite shingles
1928		Construction of 1,104 square foot wood framed and sided one story residence, with pitched composite shingles.
1940		Construction of one-story, wood pole framed barn building, approximately 10,000 square feet.
1940		Construction of 1,092 square foot, concrete block two-story detached garage.
1950		Construction of 4,480 square foot wood pole framed "utility / storage" single-story barn

**Recorded Land Title Records:**

“Real Estate transaction routinely involve the purchase of title insurance *title insurance*; inherent in which is an offer to provide title insurance generally referred to as a *Title Commitment* or preliminary *Title Report* provided by a *Title Company*. ... Such title insurance documentation reliably identifies an AUL, environment liens, usage controls, and environmental access and/or monitoring requirements.” ASTM E1527-21 § 5.4.1.1

In addition to environmental information found in a Title Insurance (or Preliminary Title Insurance), the Land Title records will broadly capture more specifically-named AULs, such as ‘– environmental covenants – ‘ or ‘Environmental easements’, ‘land use covenants, “declaration of use covenants [and/or] agreements’, or ‘declaration of land use restrictions’. ‘environmental land use controls’, and other similarly worded documents.” ASTM E1527-21 § 5.4.1.2.2.

Recorded land titles are records usually maintained by the municipal clerk or county recorder of deeds which detail ownership fees, leases, land contracts, easements, liens, deficiencies, and other encumbrances attached to or recorded against the subject property in the local jurisdiction having control for or reporting responsibility to the subject Property.

Due to state land trust regulations and laws, land title records will often only provide trust names, bank trust numbers, owner's names, or easement holders, and not information concerning previous uses or occupants of the subject Property. Additionally, environmental liens recorded against the subject Property are considered outside the scope of recorded land title records. For these reasons, this Environmental Site Assessment has relied upon other information sources assumed to be either more accurate or informative than recorded land titles.

With an abundance of caution, the Site tax records at the Office of the Pierce County Assessor were accessed from review. The reasonably ascertainable records contained the following information:

<i>Date:</i>	<i>Excise Number:</i>	<i>Action:</i>
03/28/2019		Pierce County Assessor On Site Physical Property Inspection.
12/03/2011	4274495	Sharon Ottinger Grantor to: Peter Y and Liu Beth Chen, Statutory Warranty Deed – four assessor Parcels, Sale: \$632,000.

**Topographical (Historical) Maps:**

A topographic map is a flat representation of the curved surface of the surface of the earth. As a result, a topographic map shows the contours, which makes it possible to accurately place geological features and measure elevations. In addition, the maps contain symbols that represent features such as: streets, buildings, streams, vegetation, and actual occupancy or usage of particular areas. As areas become more developed, additional map symbols were added to represent: built-up roads, types of highways, areas of intermittent drainage, waterway descriptions, water retention and detention, seasonally submerged areas, and descriptions of areas of disturbed soils. This attention to accuracy and detail makes the use of historical topographic maps a reliable source of the historical development of an area or property.

The United States Geological Survey (“USGS”) has been the primary civilian mapping agency of the United States since 1879. The USGS topographic maps (“topo”) maps have been published at many scales, but 1:24,000 (also referred to as a 7.5-minute quadrangle) has been the

standard topographic map scale since 1947. Since 2009, the new computer-generated maps have been published every three years).

The USGS Historical Map Collection contains the USGS topographic maps published from 1884 through 2006. The goal of the USGS National Map's *Historical Topographic Map Collection* ("HTMC") is to provide a digital repository of USGS 1:250,000 scale and larger maps printed between 1884 and 2006. The following topographic maps were reviewed

<i>Date:</i>	<i>Source:</i>	<i>Description:</i>
1949	USGS	The subject Property is developed with four parcels; two residences, a storage barn, and horse barn. No ponds are identified on the Property. A small "gravel pit" is identified to the southwest.
1956	USGS	The subject Property is developed with four parcels; two residences, a storage barn, and horse barn. No ponds are identified on the Property. Directly to the west is a small "gravel pit"; to the east is undeveloped land.
1968	USGS	The subject Property is developed with four parcels; two residences, a storage barn, and horse barn. No ponds are identified on the Property. Two ponds are located in their current location. Directly to the west is a small "gravel pit"; to the east is undeveloped land.
1973	USGS	The subject Property is developed with four parcels; two residences, a storage barn, and horse barn. No ponds are identified on the Property. Directly to the west is a large "gravel pit"; to the east is undeveloped land.
1981	USGS	The subject Property is developed with four parcels; two residences, a storage barn, and horse barn. No ponds are identified on the Property. Directly to the west is a large "gravel pit"; to the east is undeveloped land.
1993	USGS	The subject Property is developed with four parcels; two residences, a storage barn, and horse barn. Two ponds are located in their current location. Directly to the west is a large "gravel pit"; to the east is undeveloped land.

## **Previously Recognized Environmental Conditions:**

### **Fire on Subject Property.**

On June 27, 2010, an arson fire occurred at the subject Property Pioneer Museum at 4:00 am, and extinguished by Central Pierce Fire and Rescue. On the following day (Sunday) at 2:00 am a second fire was called in, and subsequently extinguished. Both fires were suspected arson.

### **Cleanup of Fire Debris.**

State of Washington Department of Ecology (“WDOE”) personnel accompanied by Tacoma-Pierce County Department of Health Department (“TPCHD”) conducted a Site inspection and identified 27 containers from 5-gallon pails to 55-gallon drums. The WDOE personnel noted during their inspection:

“A number of the containers were not sealed and/or were badly corroded. Some spillage of petroleum product was evident on the gravel floor of the building [Pioneer Museum]. Although Ecology temporarily secured the drums covering ten with tarps and surrounding then with caution tape, the material poses a threat to the environment and public health.”

\* \* \* \* \*

As a property owner, it is your responsibility to identify and properly dispose of the waste material in the containers and to remove any contaminated soil that exceeds state cleanup standards. Failure to properly address this situation could lead to the property being listed on the state’s contaminated site list.”

(Ibid., *Drums and other Containers on parcel #0420353027*, State of Washington Department of Ecology, dated July 7, 2010].

### **Tacoma-Pierce County Health Department Site Sampling (2011).**

On May 10, 2011, Ms. Sharon Bell, Tacoma-Pierce County Health Department (“TPCHD”) *Environmental Health Specialists*, collected soil samples from “three different areas.” Ms. Bell stated in the WDOE *Initial Investigation Field Report*, submitted May 27, 2011 by Sharon Bell (TPCHD):

“I returned to the property on 05.10.11 and collected three soil samples. All three samples were packed and submitted for HCID, Total RCRA metals, SVOCs, and PCB analyses. Netal and SVOC results were below MTCA CULs; PCBs were non-detect. HCID results indicated oil present in all three samples and gasoline present in S2. Further analysis with NWTPH-dx and NWTPH-gx found oil present in all three samples, ranging from 3100 to 37,000 mg/kg. Gasoline range organics were detected in S2 at 1,900 mg/kg and were noted by the lab to be similar to mineral spirits.

The S1 sample was also tested for the presence of chlorinated herbicides, and well as organophosphorus pesticides were detected, with a laboratory PQL of 0.22 mg/kg (MCTA CUL 0.01). Lindane an organochlorine pesticide, was detected above the cleanup level.

Summary: lube oil and gasoline range organics were found in concentrations exceeding MTCA Method A CULs. A variety of pesticides and herbicides were also detected; lindane was found in concentrations equaling the CUL. Further Assessment of the site for the presence of lindane and other chemicals is warranted.”



## **TPCHD Site Sampling Locations (2011).**

Based upon the photos and captions taken by TPCHD *Health Specialists* Ms. Sharon Bell during the on-site sampling of May 10, 2011. Based upon the photograph taken by Ms. Bell on May 10, 2011, all three samples were collected in the fire debris area on the south side of the Pioneer Museum wall. The three samples were collected from the south side “storage area” with S1 adjoining the east wall; S2 approximately six feet to the northwest; and S3 six feet northwest of S2.

- Sample S1-00-051011 collected near the wall of the southern drum storage area south of the center door within six feet on the interior in a grassy area with scattered fire debris. The area appeared to be stained with a dark substance.
- Sample S2-00-051011 the area sampled was adjoining a group of six drums covered by wood and tarps. The location photo caption stated: “Sample location of S2-00-051011, in the stained area adjacent to a leaking drum in the SE corner of the drum group. Note the material hardened on the side of the drum and emanated from a hole now plugged.” The area sampled shows visible staining and small pieces of fire debris.
- Sample S3-00-051011 area sampled was six feet northwest of S2 near the northern metal wall of the storage shed. The sample location was adjoining a group of four drums covered by a tarp and scraps of wood. Sample was one foot from the drums is an area of black and rust brown staining

## **Summary of Sampling Locations.**

The previous sampling of the Site was performed by Ms. Sharon Bell (*Environmental Specialist*, Tacoma-Pierce County Health Department). This investigation reported:

“The results indicated the presence of gasoline range hydrocarbons (GRO), likely mineral spirits, and lube oil in concentrations significantly above the state’s cleanup levels: GRO [gasoline] was detected at 1900 ppm (state cleanup level is 100 ppm); lube oil ranged from 3100 to 37,000 ppm (state cleanup level is 2000 ppm). A variety of pesticides and herbicides were also detected,” [electronic communication by Sharon Bell to Joshua Gunia (Ms. Tanner grandson), “Drums at 2301 23<sup>rd</sup> St E” dated May 10, 2011”].

All of the samples were near-surface, at locations that visually contained: (1) fire debris visible on the ground; (2) within one foot of leaking drums, and (3) visual evidence of black staining typical of surficial staining of petroleum products. A second area of concern was the north-northeastern edge of the Retention Pond.

## **WDOE Early Notice Letter (2011)**

On December 7, 2011, the Department of Ecology issues an *Early Notice Letter Regarding the Release of Hazardous Substances at the Site Name: Former Pioneer Museum* which stated:

“This site has been added to our database because soil contaminated with Petroleum Hydrocarbons and agricultural products has been confirmed on this Property. Our report indicates that contaminated soils were found during an arson fire investigation.”

## IDENTIFICATION: CONTAMINANTS of CONCERN

The identified Contaminants of Concern (“COCs”) were previously identified by the Tacoma Pierce County Health Department (“TPCHD”) under contract and direction of the Department of Ecology to complete a Site Investigation and prepare the WDOE Form *Initial Investigation Field Report*. The Field Report was completed by TPCHD Investigator, Ms. Sharon Bell on May 10, 2011.

Ms. Bell collected three soil samples in the storage shed attached to the south side of the Western Washington Pioneer Museum. Ms. Bell likely concentrated on this area due to concentration of the number storage drum, amount of fire damaged debris in the area, and obvious visual presence of stained soils.

### The laboratory analysis included:

### Analytical Results:

NWTPH-gas	S2
NWTPH-HCID - Oil	S1, S2, S3
BTEX	Non-detect
NWTPH-diesel / heavy oils	S1, S2, S3
RCRA 8 Metals by EPA 6010B/7471A	Non-detect
Total Mercury by EPA 7471A	Non-detect
PCB by EPA 8082	Non-detect
Semivolatiles by EPA 8270D/SIM	Non-detect
Organochlorine Pesticides by EPA 8081A	Lindane (at CUL: 0.01 mg/kg)
Organophosphorus Pesticides by EPA 8270D/SIM	Present < MTCA CUL
Chlorinated Acid Herbicides by EPA 8151A	Present / No MTCA CUL

## SECTION II. FIELD WORK

### Notifications - “Public” Utilities:

Based upon the representation of the Property development and condition by the Key Site Manager, a public utilities notification was not performed.

### Site Service Providers:

The *Limited and Targeted Phase II Subsurface Investigation* was performed on January 25 and 26, 2024, under contract with Aerotech Environmental Consulting, Inc. All the work was performed during normal business hours. No unusual or unforeseen circumstances occurred during the Site activities.

The subsurface excavations were performed under by drilling equipment owned and operated by *B&W Standard Probe, LLC* in Lacey, Washington

The most of the laboratory analytical services were performed by *Fremont Analytical Laboratories, Inc.*, of Seattle, Washington. Analysis of specialized herbicides and pesticides was performed by *Pacific Agricultural Laboratory* of Sherwood, Oregon.

### **Magnetometer Investigation:**

Due to the nature of the anticipated Constituents of Concern, and lack of reported Site history of underground storage tanks use, or buried drums or containers, a magnetometer investigation was performed prior to the initiation of the Site subsurface investigation by *B&J Standard Probe, LLC*, was conducted of the north and northeast side of the Retention Pond to confirm the prior removal of the empty battery casings originally used as a retaining wall in 1960 by the then current Property owner.

### **Ground Penetrating Radar Investigation:**

A Ground Penetrating Radar (“GPR”) Study is a geophysical methodology which uses radar pulses to reflect off of subsurface structures and thus provide an image of the subsurface conditions and the possible presence of subsurface metallic objects. The depth of GPR Survey is determined by the electrical conductivity of the ground and the survey equipment transmitting frequency, and is generally limited to eight to thirteen feet below ground surface. However, the presence of significant subsurface obstructions or concrete rebar may limit the depth and/or effectiveness of the accuracy of the object identification. Additionally, surficial obstructions may limit the depth or effectiveness of the accuracy of the object identification. If a GPR Study identifies a “suspected” underground storage tank, the Study can provide an “estimate” of the size of the tank. However, this estimate is based upon the presence of detectible metal in the subsurface, and as such, the GRP Study can easily under or over estimate the size of the suspected tank. As a result, tank size estimates provided pursuant to the GRP Study should not be considered as absolutes – and are not a guarantee of the actual size of any suspected underground tank.

The study is performed with a GSSI Model SIR-3000 ground penetrating radar system employing a 400 MHz antenna. Additionally, a radio detection device capable of detecting any live power or data signals was is used when indicated.

A Ground Penetrating Radar Study was not performed in the Areas of Concern.

## **COLLECTION OF SOIL & WATER SAMPLES**

### **Sampling Soil Collection Methodology:**

The subsurface borings were conducted using a Geo-Probe® Limited Access Direct Push hydraulically powered drill. Soil samples were collected using a four-foot long hollow stem steel sampling rod open at the down gradient end with an inner acetate liner.

All of the down hole sampling equipment was decontaminated prior to use by washing in a Liquinox solution followed by a tap water rinse

### **Soil Sample Collection Methodology:**

Soils collected from each boring location were physically observed for composition and odor while still inside the acetate liner. The soil color, texture and size were compared to the general accepted industry standard *Geotechnical Gauge* manufactured by W.F. McCollough Company of Beltsville, Maryland. Selected portions of the soils collected inside the clear acetate inner liner were placed in laboratory-supplied sterile four-ounce jars with teflon sealed lids. Each sample was given a unique identifier number and placed in an iced cooler for sample preservation. A Chain of Custody recorded the collection and handling of every sample.

Samples were collected at locations and at depths as identified and directed by Aerotech

on-site personnel. Samples were collected from 1.5 to 22 foot depths

In some situations the upper elevation sample was analyzed as being the most representative of surficial and subsurface conditions – considering the most likely source of possible contamination was likely surficial storage releases. In other locations, lower elevation samples were collected as representative of the assumed Site conditions.

All sampling equipment for soil sampling, drive rods, and probes were decontaminated after each sampling point by washing with Liquinox solution of distilled water and rinsing with distilled water. The inner acetate liner was only used once. Additionally, all surfaces are wiped with clean paper towels, and plastic tubing is used only once.

As a result of the Site observations and recorded data, discrete soil and water samples were selected for laboratory analysis. The remaining soil samples were retained by the laboratory for analysis in the event that the groundwater or soil samples selected for laboratory analysis revealed elevated levels of constituents.

### **Sample Screening:**

The soil samples are typically collected from each excavation location and screened with a calibrated Perkin-Elmer Photo Ionization Detector ("PID") Model No. 2020 PID (Serial No. 001688), to determine if detectable levels of diesel range petroleum hydrocarbons were present in the samples. The collected samples were screened on-site for photoionizable compounds. The PID was calibrated with Isobutylene gas and a specific response factor capable of detecting and accurately quantifying diesel range organics.

The soil samples were placed in clean, resealable polyethylene bags. Each bag was sealed, and the sample was allowed to equilibrate for approximately five minutes after which a small opening was made in the bag. The probe of the PID was then inserted into the bag, and the air space above the soil sample was analyzed for organic vapors of diesel range petroleum concentrations. As such, organic vapor screening provides an immediate field level indication of the presence or absence of the targeted compound

This information was recorded, and then used to identify the discrete sample at each investigation location that potentially contained the greatest concentrations of petroleum constituents.

Due to the limited Scope of the sampling, and accelerated time requirements, PID sample was not performed for sampling acquisition.

### **Groundwater Sample Collection Methodology:**

Once the soil sampling had identified the depth to groundwater, the drill rod was withdrawn from the bore hole and a 3/4-inch diameter temporary well was installed. The well was constructed of ten foot long sections of PVC piping, either solid-walled or factory slotted to allow the entry of groundwater. The slotted PVC was initially placed in the hole with the solid piping threaded above the slotted.

A new 3/8-inch diameter polyethylene tubing was inserted and connected to a powered extraction pump. The groundwater samples were then pumped into hydrochloric acid-preserved containers (with no head space for air) of different sizes and compositions, depending upon the type of chemical being analyzed by the laboratory. The samples were labeled with individual identification numbers and place in an iced cooler.

### **Equipment Decontamination:**

All sample acquisition equipment was decontaminated before and after each boring to

eliminate the potential for cross-contamination between borings, as required. Since sample media was primarily collected by virgin polyurethane tubes and clean latex gloves, sample equipment decontamination was not required; and all sampling equipment was single-use only.

#### Site Boring Location Restoration:

Upon completion of the sampling for each bore hole, each boring location was filled with bentonite slurry mixture as specified by the State of Washington Department of Ecology, with the upper six to eight inches were filled with “cold patch” asphalt – a quick set asphalt that matched the surrounding surficial conditions.

### SUMMARY OF SAMPLE ACQUISITION SAMPLING by AREAS OF CONCERN

Area of Concern	Sample Number	Location	Sample Depth	Total Depth
Pioneer Museum <sup>20</sup>	B20-01 B20-02 B20-03 B20-04	southwest corner	2 feet bgs 4 feet bgs 6 feet bgs 8 feet bgs	8 feet
Pioneer Museum	B21-01	southeast side	6 feet bgs	6 feet
Pioneer Museum	B22-01 B22-02	east side southern corner	3 feet bgs 6 feet bgs	6 feet
Pioneer Museum	B23-02	east side southern corner of original doors	Pesticides Herbicides	2 feet
Pioneer Museum	B24-01 B24-02	east side northern corner of original doors	3 feet bgs 5 feet bgs	5 feet
Pioneer Museum	B25-01 B25-02	northeast corner north side	3 feet bgs 5 feet bgs	5 feet
Pioneer Museum	B26-01 B26-02	north side near center door	2 feet bgs 4 feet bgs	4 feet
Original Barn <sup>21</sup>	B27-01 B27-02	southwest corner - south	2 feet bgs 6 feet bgs	6 feet

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<sup>20</sup> Western Washington Pioneer Museum; originally constructed in 1950 as a 4,000 square foot storage barn, only the foundation remaining.

<sup>21</sup> “Original Barn” (north of Pioneer Museum) 4,000 square feet constructed in 1950, only the foundation remaining.

Area of Concern	Sample Number	Location	Sample Depth	Total Depth
Original Barn	B28-01 B28-02	southwest corner - west	2 feet bgs 6 feet bgs	6 feet
Original Barn	B29-01	northwest corner	3 feet bgs	3 feet
Original Barn	B30-01 B30-02	northeast corner	2 feet bgs 4 feet bgs	4 feet
Original Barn	B31-01 B31-02	east side center	2 feet bgs 4 feet bgs	4 feet
Original Barn	B32-01 B32-03	southeast corner	2 feet bgs 4 feet bgs	4 feet
Horse Barn <sup>22</sup>	B10-01	west door 3' east	3 feet	3 feet
Horse Barn	B11-01 B11-02	west door 2' west	2 feet 6 feet	6 feet
Horse Barn	B12-01	west side between door and northwest building corner	3 feet	3 feet
Horse Barn	B13-01 B13-02	auger refusal at 2'	3 feet	3 feet
Horse Barn	B14-01 B14-02	northwest corner, west side	3 feet 6 feet	6 feet
Horse Barn	B15-01 B15-02 B15-03	northwest corner, north side	3 feet 6 feet 12 feet	12 feet
Horse Barn	B16-01 B16-02	north wall 8' from NW corner	2 feet 4 feet	4 feet
Horse Barn	B17-01 B17-02	southwest corner west side	2 feet 4 feet	4 feet
Horse Barn	B18-01 B18-02 B18-03 B18-04	southwest corner south side	2 feet 4 feet 8 feet 12 feet	12 feet
Horse Barn	B19-01 B19-02	south wall 8' from corner	2 feet 4 feet	4 feet
Horse Barn	R19-01 R19-02	east of horse barn along Parcel east side fence line	4 feet 8 feet	8 feet

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<sup>22</sup> Horse Barn (directly east of Pioneer Museum) 10,000 square feet constructed in 1940.

Area of Concern	Sample Number	Location	Sample Depth	Total Depth
Retention Pond <sup>23</sup>	B1-1 B1-2	north side of entrance up incline 18 ' northeast	4 feet bgs 8 feet bgs	Feet from surface to fill material Pond water level:
Retention Pond	B2-1	north side of entrance 6' northeast	4 feet bgs	12 feet to surface
Retention Pond	B3-1 B3-2 B3-3	on northeast edge of pond 10' northwest of center line	4 feet bgs 8 feet bgs 12 feet bgs	7 feet to surface
Retention Pond	B4-1 B4-2	on edge of pond at centerline	8 feet bgs 16 feet bgs	7 feet to surface
Retention Pond	B5-1 B5-2 B5-3	on edge on pond at 6' southeast of centerline	4 feet bgs 12 feet bgs 16 feet bgs	7 feet to surface
Retention Pond	B6-1	on edge of pond 15' southeast of centerline		
Retention Pond	B7-1 B7-2 B7-3 B7-4	south side of entrance 10' north of pond edge	4 feet bgs 8 feet bgs 12 feet bgs 16 feet bgs	12 feet to surface
Retention Pond	B8-1 B8-2	north corner of center 10' north of pond edge	12 feet bgs 16 feet bgs	12 feet to surface
Retention Pond	B9-1 B9-1 B9-3 B9-4	on center line 20' northeast of edge of pond	4 feet bgs 8 feet bgs 12 feet bgs 16 feet bgs	12 feet to surface
Retention Pond	Water 1	northeastern side of pond	6 inches below surface	

**Pond Elevation:** the approximate elevation of the Retention Pond is 361 above Mean Sea Level ("MSL"). The lower "ledge" of the non-native fill is 368 MSL and the ground level surface of the Parcel extending to the east is 374 MSL. Based upon the elevation readings, six of the boring depths would have reported refusal if the batteries were still along the northeastern edge of the Retention Pond – as such, the battery casings were removed as previously reported.

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<sup>23</sup> "Retention Pond" created in 1962 by the then Owner to prevent the seasonal water flow and resulting flooding across the northern adjoining driveway. The northeastern pond wall was constructed of empty battery casings filled with native soils.

### SECTION III. ANALYTICAL RESULTS

#### **Petroleum Constituents**

All samples were below the most stringent State of Washington Model Toxics Control Act Method "A" Residential Unrestricted Use cleanup levels.

All samples were below the minimum laboratory limits of detection.

#### **Gasoline & BTEX Constituents:**

All samples were below the most stringent State of Washington Model Toxics Control Act Method "A" Residential Unrestricted Use cleanup levels.

All samples were below the minimum laboratory limits of detection.

#### **Diesel & Oils Constituents:**

All samples were below the most stringent State of Washington Model Toxics Control Act Method "A" Residential Unrestricted Use cleanup levels.

#### **Pesticides / Herbicides / "Old" Roundup:**

All samples were below the most stringent State of Washington Model Toxics Control Act Method "A" Residential Unrestricted Use cleanup levels.



## **APPLICABLE ANALYTICAL METHODOLOGIES AND PARAMETERS**

The analysis parameters requested were chosen to provide a comprehensive characterization of the subsurface soils and/or water present at the Site Areas of Concern and to comply with State of Washington recommended analysis parameters.

### **Analytical Methodology:**

#### **Gasoline Range Organics**

Northwest Total Petroleum Hydrocarbons (Method NWTPH-Gx)

#### **Diesel & Oil Range Organics**

State of Washington NWTPH-Dx/Dx Extended

#### **Residual Range Organics**

State of Washington NWTPH-Dx/Dx Extended

#### **Volatile Organic Compounds**

EPA Method 8260B

#### **Semivolatile Organic Compounds**

EPA Method 8270D

#### **Halogenated Volatile Compounds**

EPA Method 8260B

#### **RCRA Total Metals**

EPA Method 6020

### **Laboratory Analysis:**

Laboratory analysis was provided by:

Fremont Analytical Services Laboratories, Inc.  
3600 Fremont Avenue North  
Seattle, Washington 98103

## STATEMENT OF WASHINGTON LICENSED PROFESSIONAL

The following ASTM E1903-19 *Standard Practice* definitions as quoted below is the Practice "...intended to meet the business community's need for a written, practical reference describing a scientifically sound approach to investigating a *property* to evaluate the *presence of a substance* or likely *presence of a substance*." (ASTM E1903-19 § 4.1.2)


**"Elimination of Uncertainty – No Phase II ESA** [Environmental Site Assessment] can eliminate all uncertainty. Furthermore, any sample, either surface or subsurface, taken for *chemical testing* may or may not be representative of a larger population. Professional judgment and interpretation are inherent in the process, and even when exercised in accordance with objective scientific principles, uncertainty is inevitable." (ASTM E1903-19 § 4.1.2)

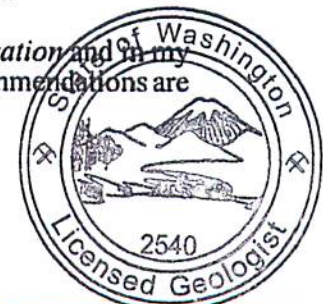
**"Failure to Detect –** Even when *Phase II* work is executed competently and in accordance with this practice, it must be recognized that certain conditions present especially difficult target analyte detection problems. Such conditions may include, but are not limited to, complex geological settings, unusual or generally poorly understood behavior and fate characteristics of certain substances, complex discontinuous, random, dynamic, or spotty distributions of existing *target analytes*, physical impediments to investigation imposed by the location of utilities and other man-made objects, and the inherent limitations of assessment technologies." (ASTM E1903-19 § 4.2.1.2)

**"Level of Assessment – Phase II ESAs** do not generally require an exhaustive assessment of the environmental conditions of a property. There is a point at which the cost of information obtained and the time required to obtain it outweigh the benefit of the information and, in the context of private transactions and contractual responsibilities, may become a material detriment to the orderly conduct of business. If the presence of *target analytes* is confirmed on a *property*, the extent of further assessment is a function of the degree of confidence required and the degree of uncertainty acceptable, in relation to the objectives of the assessment. " (ASTM E1903-19 § 4.2.2)

Any and/or all of the preceding statements regarding the performance of this Investigation may be applicable to the work performed by Aerotech.

I have reviewed this *Limited Phase II Targeted Subsurface Investigation* and in my professional opinion the observations, results, conclusions, and recommendations are reasonable and prudent.

  
Justin F. Foslien  
Washington Licensed Geologist  
No. 2540



JUSTIN FRANCIS FOSLIEN

## STATEMENT OF THE ENVIRONMENTAL PROFESSIONAL

The objective of this Limited Phase II Targeted Subsurface Investigation was to ascertain the potential presence or absence of environmental releases or threatened releases that could impact the subject Property, as delineated by the Scope of Work, for the exclusive use of the designated Clients. The procedure was to perform reasonable steps in accordance with the existing regulations, currently available technology, and generally accepted engineering practices in order to accomplish the stated objective.

The Scope of this Assessment does not purport to encompass every report, record, or other form of documentation relevant to the Property being evaluated. To the best of my knowledge, this Limited Phase II Targeted Subsurface Investigation has been performed in compliance with the Aerotech Environmental Consulting, Inc., Scope of Work applicable to this Project.

I have performed this Limited Phase II Targeted Subsurface Investigation in accordance with generally accepted environmental practices and procedures, as of the date of this Report. I have employed the degree of care and skill ordinarily exercised under similar circumstances by reputable environmental technologists practicing in this area. The conclusions contained within this Investigation are based upon site conditions I readily observed or were reasonably ascertainable and present at the time of the Site activities.

The conclusions and recommendations stated in this Report are based upon personal observations made by myself and other employees of Aerotech Environmental Consulting, Inc., information and analysis provided by third-party analytical laboratories, and also upon information provided by others. I have no reason to suspect or believe that the information provided is inaccurate.

This Assessment has been performed in accordance with generally accepted environmental practices and procedures, as of the date of the Report. All services have been performed employing that degree of care and skill ordinarily exercised under similar circumstances by reputable environmental technologists practicing in this, or similar localities. No other warranty or guarantee, expressed or implied, is made or offered.

**Limitations.** The conclusions and recommendations stated in this Report are based upon observations made by employees of Aerotech Environmental Consulting, Inc. and also upon information provided by others. We have no reason to suspect or believe that the information provided is inaccurate. However, we cannot be held responsible for the accuracy of the information provided to us by others. The Scope of this Assessment does not purport to encompass every report, record, or other form of documentation relevant to the Property being evaluated.

The observations contained within this Assessment are based upon site conditions readily visible and present at the time of our Site inspection. These site observations are unable to specifically address conditions of subsurface soil, groundwater, or underground storage tanks, unless specifically mentioned. This Phase I Environmental Assessment does not attempt to address the past or forecast the future Site conditions.

**Reliance Upon Report.** This Report is prepared for the exclusive use and reliance upon by the named Client(s) in this Report. Only Aerotech, with the written approval of the Client(s), can assign the Reliance Interest for this Report to parties other than the named Client(s). Any use of, or reliance upon the Report by a party other than those specifically named in this Report, shall be solely at the risk of such third party and without recourse against Aerotech, or its affiliates or subsidiaries, or their respective employees, officers, or directors, regardless of whether the action in which recovery of damages is sought is based upon contract, tort, (including the sole, concurrent, or other negligence and strict liability of Aerotech), statute, or otherwise. This Report shall not be used by a party that does not agree to be bound by the above statement.

Signature of Aerotech Consulting, Inc.  
Environmental Professional:

  
\_\_\_\_\_  
Signature - Alan T. Blotch

## DEFINITIONS SPECIFIC TO TARGETED PHASE II ASSESSMENT

**Background Concentration**..... the concentration of a target analyte in groundwater, surface water, air, soil gas, sediment, or soil at a referenced location near a release or potential release area under investigation, which is not attributable to the release under investigation. Background samples may contain the target analyte, due to either naturally occurring or manmade sources, but not due to the release(s) in question. (See, E 1903-97, § 3.1.3).

**Phase II Environmental Site Assessment**.... This practice (ASTM E 1903-97, Reapproved 2002) defines a commercially practical process for sound Phase II investigation that includes sampling and chemical testing. Such Phase II investigation is performed, at a minimum, to confirm the actual presence of contamination in environmental media at a property where prior assessment had indicated that contaminants may occur due to releases or potential releases of substances to the environment at the property, or to demonstrate prior to property acquisition that contamination by targeted analytes is absent. (See, E 1903-97, § 1.1.1).

**Phase II Environmental Site Assessment Limitations**..... “This practice [ASTM E1903-97, Reapproved 2002] recognizes that the *Phase II ESA* process can be applied either to an overall assessment of a property with respect to all releases and potential releases at the property, or to an evaluation targeted to a specific release or potential release. If a property-wide assessment is not necessary to meet the particular *User* objective, then the Phase II investigation process described herein should be applied to generate sound information regarding the specific question of problem to be resolved. If a Phase II investigation does not address all releases and potential releases identified at a property, the report of the assessment must be denoted as a “*Targeted Phase II*” *Environmental Site Assessment*. [E 1903-97, § 1.1.3]”

**Phase II Targeted Environmental Site Assessment**.... This Phase II Site Assessment is “targeted” as defined by the ASTM *Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process*, Designation E 1903-97 (Reapproved 2002); “an assessment performed in accordance with the process described in this [E 1903-97] practice, which addresses only certain *releases* or potential *releases*, or certain *target analytes*, at a property as selected by the *User* but which does not address all *releases*, potential *releases*, and *target analytes*. [E 1903-97, § 3.1.43]”

**Prior Knowledge**.... “This Standard Practice [ASTM E 1903-97, Reapproved 2002] assumes ... that all reasonably ascertainable information, including but not limited to prior Phase I Environmental Site Assessment Reports, will be considered in conducting a Phase II ESA and interpreting its results. [E 1903-97, § 1.1.2].”

**Targeted Analytes**.... substances that have been released or potentially have been released to environmental media at the site, and which are of interest in the context of the particular Phase II ESA and its objectives, the presence of which will be sought and concentrations of which will be quantified through field screening or chemical testing. (See, E 1903-97, § 3.1.63).

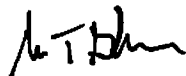
## **ENVIRONMENTAL CONTRACTOR'S CERTIFICATION**

### **SUNSET POINTE DEVELOPMENT**

2301 - 23<sup>rd</sup> Street Southwest  
(aka) 2102 - 23<sup>rd</sup> Street Place Southeast  
Puyallup, Washington 98372

1. Contractor's Name: Aerotech Environmental Consulting, Inc.
2. Contractor's Address: 14247 Ambaum Boulevard Southwest Rear, Burien, Washington 98166
3. Name and title of person completing this certification: Alan T. Blotch / President
4. Answer the following questions about each employee that contractor will have perform the assessment or prepare the report showing the results of the inspection:
  - a. Name and Title of Employee: Alan T. Blotch – Environmental Professional
  - b. Length of experience doing environmental assessments: 45 years
  - c. Education degrees received: Masters of Business Administration  
Juris Doctor Environmental Law
  - d. Relevant training received: ASTM E50 Environmental Assessment Committee Meetings
5. Identify any certifications and approvals issued to contractor pursuant to an official Federal, State or local program or policy to conduct environmental assessments: Registered Environmental Assessor  
Issued by State of California
6. Describe the generally recognized standards which the contractor will use to perform the assessment.  
*Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process (ASTM E 1903)*
7. Disclose the nature of any previous environmental inspections contractor has ever performed for the Owner of the property: None
8. Disclose the nature of any affiliation or association contractor now has, or ever had, with the above referenced seller of the property, of the above referenced buyer of the property: None
9. Describe the liability insurance carried by contractor to cover claims in the event that it fails to discover adverse environmental conditions during an environmental inspection.  
Professional Errors & Omissions Coverage \$1,000,000 / claim and \$1,000,000 aggregate liability

THE UNDERSIGNED HEREBY CERTIFIES, UNDER PENALTY OF THE CRIMINAL AND/OR CIVIL PENALTIES IN 18 U.S.C. § 1001 FOR FALSE STATEMENTS TO THE UNITED STATES GOVERNMENT, THAT THE ABOVE INFORMATION IS TRUE AND CORRECT.



Signature

05/22/24  
Date



**Tab No.7**

**Subject Property:**

**State of Washington  
Department of Ecology**

**REGULATORY INTERACTIONS**

**From:** Smith, Sandy B. (ECY) <sasm461@ECY.WA.GOV>  
**Sent:** Wednesday, July 26, 2023 2:40 PM  
**To:** Chris Beale <CBeale@PuyallupWA.gov>  
**Cc:** Lawson, Rebecca (ECY) <rlaw461@ECY.WA.GOV>; Lambiotte, Jerome (ECY) <jela461@ECY.WA.GOV>  
**Subject:** RE: Pioneer Museum clean up site ID 11739 | 2301 23RD AVE SE

You don't often get email from [sasm461@ecy.wa.gov](mailto:sasm461@ecy.wa.gov). [Learn why this is important](#)

**CAUTION:** This is an External Email. Do not click links or open attachments unless you are expecting them.

Hello Chris,

Thank you for reaching out to Ecology Toxics Cleanup Program regarding the Pioneer Museum cleanup site. I have looked at Ecology's site file, 2018 SEPA records, and pages from the Phase I Environmental Site Assessment of the site by Earth Solutions NW that you provided by email.

Based on my review of the documents, cleanup of the Pioneer Museum may be required by Ecology under the Model Toxics Control Act, Chapter 70A.305 RCW, and implementing regulations contained in Chapter 173-340 WAC. We recommend that the City of Puyallup require pollution in the environment be cleaned up in compliance with WAC 173-340 before allowing any grading, filling, or other construction activities at the site, and while contaminated soil and groundwater are still easily accessible. For an independent cleanup conducted under WAC 173-340-515, the cleanup would be complete when a no further action opinion (NFA) letter is issued under WAC 173-340-515(5)(b).

The project applicant may want to consider entering [Ecology's Voluntary Cleanup Program \(VCP\)](#) or expedited VCP. Under the VCP, Ecology works with customers by reviewing and providing technical opinions on cleanup work required by the Model Toxics Control Act (MTCA), which is Washington's environmental cleanup law. Jerome Lambiotte (cc'd here) is the VCP supervisor for the southwest region, which includes Puyallup. He can answer your questions about the VCP and what next steps would be under that program.

We recommend the following steps with regard to the Pioneer Museum site:

- Request the applicant submit the Phase I ESA to Ecology. The applicant also should submit documentation of the disposition of the approximately 50 drums and containers of waste material formerly present on the property.
- Include mitigation measures in the SEPA Determination to require site cleanup before any site disturbance or development of the property. Many cities in southwest Washington do require cleanup of known sites before development.
- Request the project applicant work with Ecology to clean up the site, such as through the VCP, and obtain an NFA. This typically involves the applicant hiring an environmental consultant familiar with cleanup in Washington State to assist the applicant through the [steps in the cleanup process](#).

If you have questions or want to discuss the site in more detail, please don't hesitate to contact me.

Sincerely, Sandy Smith

Sandy Smith

Cleanup Project Manager  
Southwest Regional Office – Toxics Cleanup Program  
Washington State Department of Ecology  
[sandy.smith@ecy.wa.gov](mailto:sandy.smith@ecy.wa.gov)  
Mobile: 360.999.9588





STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

PO Box 47775 • Olympia, Washington 98504-7775 • (360) 407-6300

December 7, 2011

Ms. Sharon Tanner  
11907 240<sup>th</sup> Street NE  
Arlington WA 98223

Dear Ms. Tanner:

RE: Early Notice Letter Regarding the Release of Hazardous Substance at the  
Site Name: Former Pioneer Museum (site name),  
Location: 2301 23<sup>rd</sup> Street SE, Puyallup, Washington 98373.  
Facility Site Identification Number: 9490  
ISIS Cleanup Site ID No.: 11739

Under Chapter 70.105D Revised Code of Washington (RCW) the Department of Ecology (Ecology) is required to conduct an Initial Investigation, of properties where we have received a report that there has been a release or threatened release of hazardous substance that could pose a threat to human health or the environment.

Ecology maintains a list of sites where an initial investigation has found that further testing and possible cleanup is needed. We call this our "database of Confirmed or Suspected Contaminated Sites". As a result of the initial investigation conducted by the Tacoma Pierce County Health Department, this property has been added to the database as a State Cleanup Site. The Facility Site Identification number assigned to this site is 18536 (existing site number). Please note that inclusion in this database does not mean Ecology has determined you liable for cleanup of the site, as that is a separate determination under the law.

This site has been added to our database because soil contaminated with Petroleum Hydrocarbons and agricultural products has been confirmed on this property. Our report indicates that contaminated soils were found during an arson fire investigation. Many drums containing hazardous substances were found at the site. We are aware the property was historically used as a farm and museum. We understand you inherited the property and designated your grandson as point of contact for issues involving the property and the fire. County staff talked to your grandson and were informed that it would take time for you to take care of the problem and that you were trying to sell the property. After months and no follow-up or cleanup activity our investigator collected samples which confirmed contamination and the property was listed. The purpose of the initial investigation is to confirm or deny the possibility of contamination on site.



Former Pioneer Museum  
December 7, 2011  
Page 2 of 2

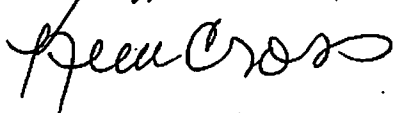
In the future, Ecology may conduct a more detailed inspection of this property including testing for possible contamination. This inspection is called a "Site Hazard Assessment". At that time, Ecology will assess whether action will be needed and if necessary establish a priority for the work.

Ecology's policy is to work cooperatively with individuals to accomplish prompt and effective cleanups. Your cooperation with Ecology in planning or conducting a remedial action is not an admission of guilt or liability. Please be aware of state laws that must be adhered to if you decide to proceed with cleanup work on your own. The primary law is Chapter 70.105D RCW and the implementing regulations, the Model Toxics Control Act Cleanup Regulation (MTCA or Chapter 173-340 WAC). These laws can be found at Ecology's Toxics Cleanup Program website, <http://www.ecy.wa.gov/toxicscleanup/policy>.

If you would like a printed copy of the MTCA regulations or if you have questions call me at (360) 407-6240. These rules and how they impact each site can be confusing and complicated. There are Environmental Consultants that can be employed to assist property owners with the cleanup and site assessment process.

Ecology's Voluntary Cleanup Program is designed to provide technical assistance, for a fee, to cleanup sites that qualify. If you would like additional information regarding this program you can find information on our website at <http://www.ecy.wa.gov/programs/tcp/vcp/vcpmain.htm> or you can contact Scott Rose at 360-407-6347.

Sincerely,



Kim Cross  
Toxics Cleanup Program  
Southwest Regional Office

ksc:BNL 12072011 Former Pioneer Museum

by certified mail: (7010 0780 0002 3403 2803)

cc: Joshua Gunia  
Sharon Bell, Department of Ecology  
Cris Matthews, Department of Ecology



# INITIAL INVESTIGATION FIELD REPORT

ERTS Number: 620837

Parcel #: 0420353027

COUNTY: PIERCE

## SITE INFORMATION

Site Name (e.g., Co. name over door): Pioneer Museum <i>Former</i>	Site Address (including City and Zip+4): 2301 23 <sup>rd</sup> St SE Puyallup, WA 98373	Site Phone: none
Site Contact and Title: Joshua Gunia, grandson of owner	Site Contact Address (including City and Zip+4): 11603 Canyon Road E. Puyallup 98373	Site Contact Phone: 253/435-9999
Site Owner: Sharon Tanner	Site Owner Address (including City and Zip+4): 11907 240 <sup>th</sup> St NE Arlington, WA 98223	Site Owner Phone: 360/474-1829
Site Owner Contact:	Site Owner Contact Address (including City and Zip+4):	Owner Contact Phone:
Alternate Site Name(s):	Comments:	Is property > 10 acres? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Previous Site Owner(s):	Comments:	

Location: Quarter-Quarter: 3-4 Section: 35 Township: 20N Range: 04E

Latitude: Degrees: 47 Minutes: 10 Seconds: 19.6 N

Longitude: Degrees: 122 Minutes: 15 Seconds: 54.8 W

## INSPECTION INFORMATION

Inspection Date: 11.16.10	Inspection Time: 10 am	Entry Notice: Announced <input checked="" type="checkbox"/> Unannounced <input type="checkbox"/>
Photographs Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Weather: Clear <input checked="" type="checkbox"/> Rain <input type="checkbox"/> Temperature: ~50 ° F	
Samples Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Wind Direction: Wind Speed:	

## RECOMMENDATION

No Further Action (Indicate NFA in box below):	LIST on ISIS (Indicate in box below):
Release or threatened release does not pose a threat <input type="checkbox"/>	Site Hazard Assessment <input checked="" type="checkbox"/>
No release or threatened release <input type="checkbox"/>	Interim Action <input type="checkbox"/>
Educational mailing <input type="checkbox"/>	Emergency Action <input type="checkbox"/>
Refer to program/agency (Name: _____) <input type="checkbox"/>	Independent Cleanup Action In progress <input type="checkbox"/>
Independent Cleanup Action Completed (i.e., contam, removed) <input type="checkbox"/>	

## COMPLAINT (Brief Summary of ERTS):

Leaking drums

## SITE STATUS (Brief Summary of site condition(s) after investigation):

Soil in vicinity of a cluster of stored drums is contaminated with petroleum hydrocarbons and agricultural chemicals.

Investigator: S. Bell

Date Submitted: 05.27.11



## OBSERVATIONS

### Description:

This property is about 20 acres in size, and encompasses three parcels. Two parcels list the taxpayer as Grace Ardell Greeley. A third parcel lists a separate taxpayer, Sharon Ottinger, with the same listed mailing address as the Greeley parcels. The Ottinger parcel is a half acre in size and forms the northwest corner of the southern Greeley parcel. Sharon Tanner currently owns all three parcels and is the daughter of Grace Greeley; Ottinger was her maiden name. The property was used as a farm and a museum until approximately 5 years ago when all activity ceased. The property was referred to as the Pioneer Museum, not to be confused with the Pioneer Farm Museum in Eatonville.

An arson fire occurred on the southern parcel, 0420353027, in late June 2010. The Fire Department encountered a number of unaffected drums in a burned structure on the property and contacted Ecology. Ron Holcomb with Ecology's Spill Response conducted an assessment of the drums and other containers. Subsequent information collected by Ron indicated the listed taxpayer, Grace Ardell Greeley, had been dead for a number of years and the property had been inherited by her daughter, Sharon Tanner. Ms. Tanner designated her grandson, Joshua Gunia, as the point of contact regarding issues at the site. Spill Response referred the site to the Toxics Cleanup Program in November 2010 for follow up regarding soil contamination due to spillage from some of the drums.

I contacted Joshua Gunia and set up an appointment to meet him at the site on 11.16.10. We walked the site together, concentrating on the large storage building where the drums were located. The southern half of the building was destroyed in the fire. The remaining half is in poor condition, lacking a roof and exposing the drums stored inside to weather conditions. The drums were stored together and covered with tarps. Soil staining was apparent around the drums and in several other areas. I spoke with Joshua about the need for his family to hire an environmental professional to delineate the extent and type of contamination on the property due to the leaks and/or spills from the drums, and we also spoke about the need to properly dispose of the drum and their contents. He told me that it would require several months for the family to be able to coordinate that, and that they were trying to sell the property. I told Joshua that an interested buyer might be willing to conduct a Phase II Environmental Site Assessment.

No progress was made in assessing or remediating the soil contamination at this property. I eventually coordinated an approved site visit through Joshua to collect soil samples at the subject property. I returned to the property on 05.10.11 and collected three soil samples. All three samples were jar packed and submitted for HCID, Total RCRA metals, SVOCs, and PCB analyses. Metal and SVOC results were below MTCA CULs; PCBs were non-detect. HCID results indicated oil present in all three samples and gasoline present in S2. Further analysis with NWTPH-dx and NWTPH-gx found oil present in all three samples, ranging from 3100 to 37,000 mg/kg. Gasoline range organics were detected in S2 at 1,900 mg/kg and were noted by the lab to be similar to mineral spirits.

The S1 sample was also tested for the presence of chlorinated herbicides, as well as organochlorine and organophosphorus pesticides. All of the detected herbicide compounds are in the phenoxy chemical family. No organophosphorus pesticides were detected, with a reported laboratory PQL of 0.22 mg/kg. Lindane, an organochlorine pesticide, was detected at the cleanup level. The pesticide and herbicide compounds detected are tabulated below; only one has a MTCA Method A CUL (lindane). For those compounds found in CLARC, the Method B mg/kg values are also provided.

S1 results for pesticides and herbicides; measurement units are mg/kg

Method	Analyte Group	Detects	Concentration	MTCA CUL	CLARC
8081A	Organochlorine pesticides	Beta-BHC (lindane)	0.01	0.01	0.0769
		Methoxychlor	0.019	---	400
8151A	Chlorinated acid herbicides	MCPPP	36	---	---
		MCPA	15	---	---
		Dichlorprop	1.1	---	---
		Pentachlorophenol	0.0035	---	8.33
		2,4,5-TP (Silvex)	0.094	---	640
		2,4-DB	0.037	---	640
		Dinoseb	0.011	---	80

Soil samples were jar packed, stored in a sample refrigerator, and transported on ice. GRO/VOCs were not anticipated as contaminants of concern. HCID results indicated the need to run S2 for gasoline and BTEX; the analytical results for these parameters should be considered estimates, with potential negative bias in the results as 5035A sample collection methods were not used and the sample preparation occurred past the recommended holding times. Also, matrix interference resulted in potential negative bias for the methoxychlor results; actual concentrations could be greater.

summary: lube oil and gasoline range organics were found in concentrations exceeding MTCA Method A CULs. A variety of pesticides and herbicides were also detected; lindane was found in concentrations equaling the CUL. Further assessment of the site



The TPCHD recommends listing this property as contaminated.

ACTIVITIES OR PRACTICES RESPONSIBLE FOR CONTAMINATION:

Spill  
Pesticide disposal  
Landfill  
Drums  
Other – Describe:

☒ 1  
☐ 2  
☐ 3  
☐ 4

LUST  
Tank  
Improper handling  
Improper disposal

--	--	--	--

Are discharges permitted (if yes, describe): No ☒ Yes ☐ Standard Industrial Code(s)

## CONTAMINANT(S)

AFFECTED MEDIA		CONTAMINANTS (#1-16: See contaminants key) Enter letter designating status of contaminant: C = Confirmed (above cleanup levels); S = Suspected; R= Remediated															
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ground Water			S				S	S									
Surface Water																	
Drinking Water																	
Soil			C				C	C									
Sediment																	
Air																	
1 Base/neutral organics		7 Petroleum products				13 Corrosive wastes											
2 Halogenated organic compounds		8 Phenolic compounds				14 Radioactive wastes											
3 Metals - Priority pollutants		9 Non-halogenated solvents				15 Conventional contaminants, organic											
4 Metals - Other		10 Dioxin				16 Conventional contaminants, inorganic											
5 Polychlorinated biPhenyls (PCBs)		11 Polynuclear aromatic hydrocarbons (PAHs)															
6 Pesticides		12 Reactive wastes															

# SITE INFORMATION

Soil type 13B Everett gravelly sandy loam and  
20B, 20C Kitsap silt loam

Slope Level

Site vegetation/cover present:

Forest ☒  
Bare soil ☒  
Brush ☒  
Landscaped ☐

Pasture/open field

Wetlands

Pavement

Surface water

☒

☐

☐

☐

Other - Describe:

Are there any drinking water systems affected?

☐ Yes

☐ No

Municipal, private, or both? (Circle one)

How many people are estimated to be affected? \_\_\_\_\_

Is there a potential for a release or threatened release to affect a drinking water source?

☐ Yes

☐ No

Are there monitoring wells in the vicinity?

☐ Yes

☐ No

Are there dry wells in the vicinity?

☐ Yes

☐ No

## CONTAMINANT PATHWAYS AND TARGETS

	Ingestion	Inhalation	Contact
Ground Water	x	x	x
Surface Water	x	x	x
Drinking Water	x	x	x
Soil	x	x	x
Sediment			
Air		x	
Targets possible:		Residential <input checked="" type="checkbox"/>	
Human, adult <input checked="" type="checkbox"/>		Industrial <input type="checkbox"/>	
Human, children <input checked="" type="checkbox"/>		Commercial <input type="checkbox"/>	

Sensitive environments (See WARM Scoring Manual for definition):

☒ Yes ☐ No If yes, describe:

This site overlies the Central Pierce County Sole Source Aquifer. A pond/wetland is present on the site. Within two miles are multiple wetlands, parks and streams.

General Comments:



**OnSite  
Environmental Inc.**

14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

May 23, 2011

Sharon Bell  
Tacoma-Pierce County Health Department  
3629 South "D" Street  
Tacoma, WA 98418-6813

Re: Analytical Data for Project 620837  
Laboratory Reference No. 1105-092

Dear Sharon:

Enclosed are the analytical results and associated quality control data for samples submitted on May 11, 2011.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumelster  
Project Manager

Enclosures

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OnSite Environmental, Inc. 14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody,  
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: May 23, 2011  
Samples Submitted: May 11, 2011  
Laboratory Reference: 1105-092  
Project: 620837

#### Case Narrative

Samples were collected on May 10, 2011 and received by the laboratory on May 11, 2011. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

#### Organochlorine Pesticides by EPA 8081A Analysis

Due to negative effects of the matrix on the instrument, values for 4,4'-DDT and Methoxychlor in the continuing calibration verification standards (CCVs) were low. Therefore, values can be greater than reported. Since the degradation of the CCV standards was reproducible after re-injecting the sample extracts, the CCV degradation problem was attributed to the matrix of these samples.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

#### Semivolatile EPA 8270D/SIM Analysis

Some MTCA cleanup levels are non-achievable for samples S1-00-051011, S2-00-051011, and S3-00-051011 due to the necessary dilutions of the samples.

Surrogate recovery data is not available for sample S2-00-051011 due to the necessary dilution of the sample coupled with sample matrix effects.

#### Organophosphorus Pesticides by EPA 8270D/SIM Analysis

The surrogate recovery for Triphenyl phosphate is not available due to sample matrix interference.

#### NWTPH Gx/BTEX Analysis

Method 5035 VOA vials were not provided for sample S2-00-051011. The sample was therefore extracted from a 4-ounce jar for analysis.

The chromatogram for sample S2-00-051011 is similar to mineral spirits.

Please note that any other QA/QC issues associated with these extractions and analyses will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.



Date of Report: May 23, 2011  
 Samples Submitted: May 11, 2011  
 Laboratory Reference: 1105-092  
 Project: 620837

**NWTPH-HCID**  
 (with acid/silica gel clean-up)

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	S1-00-051011					
Laboratory ID:	05-092-01					
Gasoline Range Organics	ND	33	NWTPH-HCID	5-11-11	5-11-11	U1
Diesel Range Organics	ND	8800	NWTPH-HCID	5-11-11	5-11-11	U1
Lube Oil	Detected	110	NWTPH-HCID	5-11-11	5-11-11	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	117	50-150				

Client ID:	S2-00-051011					
Laboratory ID:	05-092-02					
Gasoline Range Organics	Detected	110	NWTPH-HCID	5-11-11	5-12-11	
Diesel Range Organics	ND	530	NWTPH-HCID	5-11-11	5-12-11	U1
Lube Oil	Detected	540	NWTPH-HCID	5-11-11	5-12-11	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	121	50-150				

Client ID:	S3-00-051011					
Laboratory ID:	05-092-03					
Gasoline Range Organics	ND	21	NWTPH-HCID	5-11-11	5-11-11	
Diesel Range Organics	ND	5600	NWTPH-HCID	5-11-11	5-11-11	U1
Lube Oil	Detected	110	NWTPH-HCID	5-11-11	5-11-11	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	117	50-150				

OnSite Environmental, Inc. 14648 NE 85<sup>th</sup> Street, Redmond, WA 98052 (425) 883-3881

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Samples Submitted: May 11, 2011  
Laboratory Reference: 1105-092  
Project: 620837

**NWTPH-HCID  
QUALITY CONTROL**  
(with acid/silica gel clean-up)

Matrix: Soil  
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0511S1					
Gasoline Range Organics	ND	20	NWTPH-HCID	5-11-11	5-11-11	
Diesel Range Organics	ND	50	NWTPH-HCID	5-11-11	5-11-11	
Lube Oil Range Organics	ND	100	NWTPH-HCID	5-11-11	5-11-11	
Surrogate:	Percent Recovery	Control Limits				
<i>o</i> -Terphenyl	118	50-150				

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OnSite Environmental, Inc. 14848 NE 95<sup>th</sup> Street, Redmond, WA 98052 (425) 883-3881

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Date of Report: May 23, 2011  
 Samples Submitted: May 11, 2011  
 Laboratory Reference: 1105-092  
 Project: 620837

SEMIVOLATILES by EPA 8270D/SIM  
 page 1 of 2

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	S1-00-051011					
Laboratory ID:	05-092-01					
n-Nitrosodimethylamine	ND	1.9	EPA 8270	5-16-11	5-18-11	
Pyridine	ND	1.9	EPA 8270	5-16-11	5-18-11	
Phenol	ND	1.9	EPA 8270	5-16-11	5-18-11	
Aniline	ND	1.9	EPA 8270	5-16-11	5-18-11	
bis(2-Chloroethyl)ether	ND	1.9	EPA 8270	5-16-11	5-18-11	
2-Chlorophenol	ND	1.9	EPA 8270	5-16-11	5-18-11	
1,3-Dichlorobenzene	ND	1.9	EPA 8270	5-16-11	5-18-11	
1,4-Dichlorobenzene	ND	1.9	EPA 8270	5-16-11	5-18-11	
Benzyl alcohol	ND	1.9	EPA 8270	5-16-11	5-18-11	
1,2-Dichlorobenzene	ND	1.9	EPA 8270	5-16-11	5-18-11	
2-Methylphenol (o-Cresol)	ND	1.9	EPA 8270	5-16-11	5-18-11	
bis(2-Chloroisopropyl)ether	ND	1.9	EPA 8270	5-16-11	5-18-11	
(3+4)-Methylphenol (m,p-Cresol)	ND	1.9	EPA 8270	5-16-11	5-18-11	
n-Nitroso-di-n-propylamine	ND	1.9	EPA 8270	5-16-11	5-18-11	
Hexachloroethane	ND	1.9	EPA 8270	5-16-11	5-18-11	
Nitrobenzene	ND	1.9	EPA 8270	5-16-11	5-18-11	
Isophorone	ND	1.9	EPA 8270	5-16-11	5-18-11	
2-Nitrophenol	ND	1.9	EPA 8270	5-16-11	5-18-11	
2,4-Dimethylphenol	ND	1.9	EPA 8270	5-16-11	5-18-11	
bis(2-Chloroethoxy)methane	ND	1.9	EPA 8270	5-16-11	5-18-11	
2,4-Dichlorophenol	ND	1.9	EPA 8270	5-16-11	5-18-11	
1,2,4-Trichlorobenzene	ND	1.9	EPA 8270	5-16-11	5-18-11	
Naphthalene	ND	0.015	EPA 8270/SIM	5-16-11	5-20-11	
4-Chloroaniline	ND	1.9	EPA 8270	5-16-11	5-18-11	
Hexachlorobutadiene	ND	1.9	EPA 8270	5-16-11	5-18-11	
4-Chloro-3-methylphenol	ND	1.9	EPA 8270	5-16-11	5-18-11	
2-Methylnaphthalene	ND	0.015	EPA 8270/SIM	5-16-11	5-20-11	
1-Methylnaphthalene	ND	0.015	EPA 8270/SIM	5-16-11	5-20-11	
Hexachlorocyclopentadiene	ND	1.9	EPA 8270	5-16-11	5-18-11	
2,4,6-Trichlorophenol	ND	1.9	EPA 8270	5-16-11	5-18-11	
2,3-Dichloroaniline	ND	1.9	EPA 8270	5-16-11	5-18-11	
2,4,5-Trichlorophenol	ND	1.9	EPA 8270	5-16-11	5-18-11	
2-Chloronaphthalene	ND	1.9	EPA 8270	5-16-11	5-18-11	
2-Nitroaniline	ND	1.9	EPA 8270	5-16-11	5-18-11	
1,4-Dinitrobenzene	ND	1.9	EPA 8270	5-16-11	5-18-11	
Dimethylphthalate	ND	1.9	EPA 8270	5-16-11	5-18-11	
1,3-Dinitrobenzene	ND	1.9	EPA 8270	5-16-11	5-18-11	
2,6-Dinitrotoluene	ND	1.9	EPA 8270	5-16-11	5-18-11	
1,2-Dinitrobenzene	ND	1.9	EPA 8270	5-16-11	5-18-11	
Acenaphthylene	ND	0.015	EPA 8270/SIM	5-16-11	5-20-11	
3-Nitroaniline	ND	1.9	EPA 8270	5-16-11	5-18-11	

Date of Report: May 23, 2011  
 Samples Submitted: May 11, 2011  
 Laboratory Reference: 1105-092  
 Project: 620837

SEMIVOLATILES by EPA 8270D/SIM  
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	S1-00-051011					
Laboratory ID:	05-092-01					
2,4-Dinitrophenol	ND	9.3	EPA 8270	5-16-11	5-18-11	
Acenaphthene	0.019	0.015	EPA 8270/SIM	5-16-11	5-20-11	
4-Nitrophenol	ND	1.9	EPA 8270	5-16-11	5-18-11	
2,4-Dinitrotoluene	ND	1.9	EPA 8270	5-16-11	5-18-11	
Dibenzofuran	ND	1.9	EPA 8270	5-16-11	5-18-11	
2,3,5,6-Tetrachlorophenol	ND	1.9	EPA 8270	5-16-11	5-18-11	
2,3,4,6-Tetrachlorophenol	ND	1.9	EPA 8270	5-16-11	5-18-11	
Diethylphthalate	ND	9.3	EPA 8270	5-16-11	5-18-11	
4-Chlorophenyl-phenylether	ND	1.9	EPA 8270	5-16-11	5-18-11	
4-Nitroaniline	ND	1.9	EPA 8270	5-16-11	5-18-11	
Fluorene	ND	0.015	EPA 8270/SIM	5-16-11	5-20-11	
4,6-Dinitro-2-methylphenol	ND	9.3	EPA 8270	5-16-11	5-18-11	
n-Nitrosodiphenylamine	ND	1.9	EPA 8270	5-16-11	5-18-11	
1,2-Diphenylhydrazine	ND	1.9	EPA 8270	5-16-11	5-18-11	
4-Bromophenyl-phenylether	ND	1.9	EPA 8270	5-16-11	5-18-11	
Hexachlorobenzene	ND	1.9	EPA 8270	5-16-11	5-18-11	
Pentachlorophenol	ND	9.3	EPA 8270	5-16-11	5-18-11	
Phenanthrene	ND	0.015	EPA 8270/SIM	5-16-11	5-20-11	
Anthracene	ND	0.015	EPA 8270/SIM	5-16-11	5-20-11	
Carbazole	ND	1.9	EPA 8270	5-16-11	5-18-11	
Di-n-butylphthalate	ND	1.9	EPA 8270	5-16-11	5-18-11	
Fluoranthene	ND	0.015	EPA 8270/SIM	5-16-11	5-20-11	
Benzidine	ND	19	EPA 8270	5-16-11	5-18-11	
Pyrene	ND	0.015	EPA 8270/SIM	5-16-11	5-20-11	
Butylbenzylphthalate	ND	19	EPA 8270	5-16-11	5-18-11	
bis(2-Ethylhexyl)adipate	ND	1.9	EPA 8270	5-16-11	5-18-11	
3,3'-Dichlorobenzidine	ND	19	EPA 8270	5-16-11	5-18-11	
Benzo[a]anthracene	ND	0.015	EPA 8270/SIM	5-16-11	5-20-11	
Chrysene	ND	0.015	EPA 8270/SIM	5-16-11	5-20-11	
bis(2-Ethylhexyl)phthalate	ND	1.9	EPA 8270	5-16-11	5-18-11	
Di-n-octylphthalate	ND	1.9	EPA 8270	5-16-11	5-18-11	
Benzo[b]fluoranthene	0.029	0.015	EPA 8270/SIM	5-16-11	5-20-11	
Benzo[k]fluoranthene	0.040	0.015	EPA 8270/SIM	5-16-11	5-20-11	
Benzo[a]pyrene	0.13	0.015	EPA 8270/SIM	5-16-11	5-20-11	
Indeno[1,2,3-cd]pyrene	ND	0.015	EPA 8270/SIM	5-16-11	5-20-11	
Dibenz[a,h]anthracene	ND	0.015	EPA 8270/SIM	5-16-11	5-20-11	
Benzo[g,h,i]perylene	ND	0.015	EPA 8270/SIM	5-16-11	5-20-11	
Surrogate:	Percent Recovery	Control Limits				
2-Fluorophenol	73	30 - 97				
Phenol-d6	87	40 - 104				
Nitrobenzene-d5	75	35 - 102				
2-Fluorobiphenyl	91	44 - 97				
2,4,6-Tribromophenol	91	41 - 110				
Terphenyl-d14	88	53 - 107				

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 Samples Submitted: May 11, 2011  
 Laboratory Reference: 1105-092  
 Project: 620837

SEMIVOLATILES by EPA 8270D/SIM  
 page 1 of 2

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	S2-00-051011					
Laboratory ID:	05-092-02					
n-Nitrosodimethylamine	ND	3.6	EPA 8270	5-16-11	5-19-11	
Pyridine	ND	3.6	EPA 8270	5-16-11	5-19-11	
Phenol	ND	3.6	EPA 8270	5-16-11	5-19-11	
Aniline	ND	3.6	EPA 8270	5-16-11	5-19-11	
bis(2-Chloroethyl)ether	ND	3.6	EPA 8270	5-16-11	5-19-11	
2-Chlorophenol	ND	3.6	EPA 8270	5-16-11	5-19-11	
1,3-Dichlorobenzene	ND	3.6	EPA 8270	5-16-11	5-19-11	
1,4-Dichlorobenzene	ND	3.6	EPA 8270	5-16-11	5-19-11	
Benzyl alcohol	ND	3.6	EPA 8270	5-16-11	5-19-11	
1,2-Dichlorobenzene	ND	3.6	EPA 8270	5-16-11	5-19-11	
2-Methylphenol (o-Cresol)	ND	3.6	EPA 8270	5-16-11	5-19-11	
bis(2-Chloroisopropyl)ether	ND	3.6	EPA 8270	5-16-11	5-19-11	
(3+4)-Methylphenol (m,p-Cresol)	ND	3.6	EPA 8270	5-16-11	5-19-11	
n-Nitroso-di-n-propylamine	ND	3.6	EPA 8270	5-16-11	5-19-11	
Hexachloroethane	ND	3.6	EPA 8270	5-16-11	5-19-11	
Nitrobenzene	ND	3.6	EPA 8270	5-16-11	5-19-11	
Isophorone	ND	3.6	EPA 8270	5-16-11	5-19-11	
2-Nitrophenol	ND	3.6	EPA 8270	5-16-11	5-19-11	
2,4-Dimethylphenol	ND	3.6	EPA 8270	5-16-11	5-19-11	
bis(2-Chloroethoxy)methane	ND	3.6	EPA 8270	5-16-11	5-19-11	
2,4-Dichlorophenol	ND	3.6	EPA 8270	5-16-11	5-19-11	
1,2,4-Trichlorobenzene	ND	3.6	EPA 8270	5-16-11	5-19-11	
Naphthalene	0.55	0.036	EPA 8270/SIM	5-16-11	5-20-11	
4-Chloroaniline	ND	3.6	EPA 8270	5-16-11	5-19-11	
Hexachlorobutadiene	ND	3.6	EPA 8270	5-16-11	5-19-11	
4-Chloro-3-methylphenol	ND	3.6	EPA 8270	5-16-11	5-19-11	
2-Methylnaphthalene	0.095	0.036	EPA 8270/SIM	5-16-11	5-20-11	
1-Methylnaphthalene	0.055	0.036	EPA 8270/SIM	5-16-11	5-20-11	
Hexachlorocyclopentadiene	ND	3.6	EPA 8270	5-16-11	5-19-11	
2,4,6-Trichlorophenol	ND	3.6	EPA 8270	5-16-11	5-19-11	
2,3-Dichloroaniline	ND	3.6	EPA 8270	5-16-11	5-19-11	
2,4,5-Trichlorophenol	ND	3.6	EPA 8270	5-16-11	5-19-11	
2-Chloronaphthalene	ND	3.6	EPA 8270	5-16-11	5-19-11	
2-Nitroaniline	ND	3.6	EPA 8270	5-16-11	5-19-11	
1,4-Dinitrobenzene	ND	3.6	EPA 8270	5-16-11	5-19-11	
Dimethylphthalate	ND	3.6	EPA 8270	5-16-11	5-19-11	
1,3-Dinitrobenzene	ND	3.6	EPA 8270	5-16-11	5-19-11	
2,6-Dinitrotoluene	ND	3.6	EPA 8270	5-16-11	5-19-11	
1,2-Dinitrobenzene	ND	3.6	EPA 8270	5-16-11	5-19-11	
Acenaphthylene	ND	0.036	EPA 8270/SIM	5-16-11	5-20-11	
3-Nitroaniline	ND	3.6	EPA 8270	5-16-11	5-19-11	

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SEMIVOLATILES by EPA 8270D/SIM  
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	S2-00-051011					
Laboratory ID:	05-092-02					
2,4-Dinitrophenol	ND	18	EPA 8270	5-16-11	5-19-11	
Acenaphthene	ND	0.036	EPA 8270/SIM	5-16-11	5-20-11	
4-Nitrophenol	ND	3.6	EPA 8270	5-16-11	5-19-11	
2,4-Dinitrotoluene	ND	3.6	EPA 8270	5-16-11	5-19-11	
Dibenzofuran	ND	3.6	EPA 8270	5-16-11	5-19-11	
2,3,5,6-Tetrachlorophenol	ND	3.6	EPA 8270	5-16-11	5-19-11	
2,3,4,6-Tetrachlorophenol	ND	3.6	EPA 8270	5-16-11	5-19-11	
Diethylphthalate	ND	18	EPA 8270	5-16-11	5-19-11	
4-Chlorophenyl-phenylether	ND	3.6	EPA 8270	5-16-11	5-19-11	
4-Nitroaniline	ND	3.6	EPA 8270	5-16-11	5-19-11	
Fluorene	ND	0.036	EPA 8270/SIM	5-16-11	5-20-11	
4,6-Dinitro-2-methylphenol	ND	18	EPA 8270	5-16-11	5-19-11	
n-Nitrosodiphenylamine	ND	3.6	EPA 8270	5-16-11	5-19-11	
1,2-Diphenylhydrazine	ND	3.6	EPA 8270	5-16-11	5-19-11	
4-Bromophenyl-phenylether	ND	3.6	EPA 8270	5-16-11	5-19-11	
Hexachlorobenzene	ND	3.6	EPA 8270	5-16-11	5-19-11	
Pentachlorophenol	ND	18	EPA 8270	5-16-11	5-19-11	
Phenanthrene	0.060	0.036	EPA 8270/SIM	5-16-11	5-20-11	
Anthracene	ND	0.036	EPA 8270/SIM	5-16-11	5-20-11	
Carbazole	ND	3.6	EPA 8270	5-16-11	5-19-11	
Di-n-butylphthalate	ND	3.6	EPA 8270	5-16-11	5-19-11	
Fluoranthene	ND	0.036	EPA 8270/SIM	5-16-11	5-20-11	
Benzidine	ND	36	EPA 8270	5-16-11	5-19-11	
Pyrene	0.051	0.036	EPA 8270/SIM	5-16-11	5-20-11	
Butylbenzylphthalate	ND	36	EPA 8270	5-16-11	5-19-11	
bis-2-Ethylhexyladipate	ND	3.6	EPA 8270	5-16-11	5-19-11	
3,3'-Dichlorobenzidine	ND	36	EPA 8270	5-16-11	5-19-11	
Benzo[a]anthracene	0.076	0.036	EPA 8270/SIM	5-16-11	5-20-11	
Chrysene	0.17	0.036	EPA 8270/SIM	5-16-11	5-20-11	
bis(2-Ethylhexyl)phthalate	ND	3.6	EPA 8270	5-16-11	5-19-11	
Di-n-octylphthalate	ND	3.6	EPA 8270	5-16-11	5-19-11	
Benzo[b]fluoranthene	0.037	0.036	EPA 8270/SIM	5-16-11	5-20-11	
Benzo[j,k]fluoranthene	ND	0.036	EPA 8270/SIM	5-16-11	5-20-11	
Benzo[a]pyrene	0.038	0.036	EPA 8270/SIM	5-16-11	5-20-11	
Indeno[1,2,3-cd]pyrene	ND	0.036	EPA 8270/SIM	5-16-11	5-20-11	
Dibenz[a,h]anthracene	ND	0.036	EPA 8270/SIM	5-16-11	5-20-11	
Benzo[g,h,i]perylene	ND	0.036	EPA 8270/SIM	5-16-11	5-20-11	
Surrogate:	Percent Recovery	Control Limits				
2-Fluorophenol	..	30 - 97				S
Phenol-d6	..	40 - 104				S
Nitrobenzene-d5	..	35 - 102				S
2-Fluorobiphenyl	..	44 - 97				S
2,4,6-Tribromophenol	..	41 - 110				S
Terphenyl-d14	..	53 - 107				S

OnSite Environmental, Inc. 14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody,  
 and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: May 23, 2011  
 Samples Submitted: May 11, 2011  
 Laboratory Reference: 1105-092  
 Project: 620837

SEMIVOLATILES by EPA 8270D/SIM  
 page 1 of 2

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	S3-00-051011					
Laboratory ID:	05-092-03					
n-Nitrosodimethylamine	ND	1.8	EPA 8270	5-16-11	5-19-11	
Pyridine	ND	1.8	EPA 8270	5-16-11	5-19-11	
Phenol	ND	1.8	EPA 8270	5-16-11	5-19-11	
Aniline	ND	1.8	EPA 8270	5-16-11	5-19-11	
bis(2-Chloroethyl)ether	ND	1.8	EPA 8270	5-16-11	5-19-11	
2-Chlorophenol	ND	1.8	EPA 8270	5-16-11	5-19-11	
1,3-Dichlorobenzene	ND	1.8	EPA 8270	5-16-11	5-19-11	
1,4-Dichlorobenzene	ND	1.8	EPA 8270	5-16-11	5-19-11	
Benzyl alcohol	ND	1.8	EPA 8270	5-16-11	5-19-11	
1,2-Dichlorobenzene	ND	1.8	EPA 8270	5-16-11	5-19-11	
2-Methylphenol (o-Cresol)	ND	1.8	EPA 8270	5-16-11	5-19-11	
bis(2-Chloroisopropyl)ether	ND	1.8	EPA 8270	5-16-11	5-19-11	
(3+4)-Methylphenol (m,p-Cresol)	ND	1.8	EPA 8270	5-16-11	5-19-11	
n-Nitroso-di-n-propylamine	ND	1.8	EPA 8270	5-16-11	5-19-11	
Hexachloroethane	ND	1.8	EPA 8270	5-16-11	5-19-11	
Nitrobenzene	ND	1.8	EPA 8270	5-16-11	5-19-11	
Isophorone	ND	1.8	EPA 8270	5-16-11	5-19-11	
2-Nitrophenol	ND	1.8	EPA 8270	5-16-11	5-19-11	
2,4-Dimethylphenol	ND	1.8	EPA 8270	5-16-11	5-19-11	
bis(2-Chloroethoxy)methane	ND	1.8	EPA 8270	5-16-11	5-19-11	
2,4-Dichlorophenol	ND	1.8	EPA 8270	5-16-11	5-19-11	
1,2,4-Trichlorobenzene	ND	1.8	EPA 8270	5-16-11	5-19-11	
Naphthalene	ND	0.014	EPA 8270/SIM	5-16-11	5-19-11	
4-Chloroaniline	ND	1.8	EPA 8270	5-16-11	5-19-11	
Hexachlorobutadiene	ND	1.8	EPA 8270	5-16-11	5-19-11	
4-Chloro-3-methylphenol	ND	1.8	EPA 8270	5-16-11	5-19-11	
2-Methylnaphthalene	ND	0.014	EPA 8270/SIM	5-16-11	5-19-11	
1-Methylnaphthalene	ND	0.014	EPA 8270/SIM	5-16-11	5-19-11	
Hexachlorocyclopentadiene	ND	1.8	EPA 8270	5-16-11	5-19-11	
2,4,6-Trichlorophenol	ND	1.8	EPA 8270	5-16-11	5-19-11	
2,3-Dichloroaniline	ND	1.8	EPA 8270	5-16-11	5-19-11	
2,4,5-Trichlorophenol	ND	1.8	EPA 8270	5-16-11	5-19-11	
2-Chloronaphthalene	ND	1.8	EPA 8270	5-16-11	5-19-11	
2-Nitroaniline	ND	1.8	EPA 8270	5-16-11	5-19-11	
1,4-Dinitrobenzene	ND	1.8	EPA 8270	5-16-11	5-19-11	
Dimethylphthalate	ND	1.8	EPA 8270	5-16-11	5-19-11	
1,3-Dinitrobenzene	ND	1.8	EPA 8270	5-16-11	5-19-11	
2,6-Dinitrotoluene	ND	1.8	EPA 8270	5-16-11	5-19-11	
1,2-Dinitrobenzene	ND	1.8	EPA 8270	5-16-11	5-19-11	
Acenaphthylene	ND	0.014	EPA 8270/SIM	5-16-11	5-19-11	
3-Nitroaniline	ND	1.8	EPA 8270	5-16-11	5-19-11	

Date of Report: May 23, 2011  
 Samples Submitted: May 11, 2011  
 Laboratory Reference: 1105-092  
 Project: 620837

SEMIVOLATILES by EPA 8270D/SIM  
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	S3-00-051011					
Laboratory ID:	05-092-03					
2,4-Dinitrophenol	ND	8.9	EPA 8270	5-16-11	5-19-11	
Acenaphthene	0.015	0.014	EPA 8270/SIM	5-16-11	5-19-11	
4-Nitrophenol	ND	1.8	EPA 8270	5-16-11	5-19-11	
2,4-Dinitrotoluene	ND	1.8	EPA 8270	5-16-11	5-19-11	
Dibenzofuran	ND	1.8	EPA 8270	5-16-11	5-19-11	
2,3,5,6-Tetrachlorophenol	ND	1.8	EPA 8270	5-16-11	5-19-11	
2,3,4,6-Tetrachlorophenol	ND	1.8	EPA 8270	5-16-11	5-19-11	
Diethylphthalate	ND	8.9	EPA 8270	5-16-11	5-19-11	
4-Chlorophenyl-phenylether	ND	1.8	EPA 8270	5-16-11	5-19-11	
4-Nitroaniline	ND	1.8	EPA 8270	5-16-11	5-19-11	
Fluorene	ND	0.014	EPA 8270/SIM	5-16-11	5-19-11	
4,6-Dinitro-2-methylphenol	ND	8.9	EPA 8270	5-16-11	5-19-11	
n-Nitrosodiphenylamine	ND	1.8	EPA 8270	5-16-11	5-19-11	
1,2-Diphenylhydrazine	ND	1.8	EPA 8270	5-16-11	5-19-11	
4-Bromophenyl-phenylether	ND	1.8	EPA 8270	5-16-11	5-19-11	
Hexachlorobenzene	ND	1.8	EPA 8270	5-16-11	5-19-11	
Pentachlorophenol	ND	8.9	EPA 8270	5-16-11	5-19-11	
Phenanthrene	0.052	0.014	EPA 8270/SIM	5-16-11	5-19-11	
Anthracene	ND	0.014	EPA 8270/SIM	5-16-11	5-19-11	
Carbazole	ND	1.8	EPA 8270	5-16-11	5-19-11	
Di-n-butylphthalate	ND	1.8	EPA 8270	5-16-11	5-19-11	
Fluoranthene	ND	0.014	EPA 8270/SIM	5-16-11	5-19-11	
Benzidine	ND	18	EPA 8270	5-16-11	5-19-11	
Pyrene	ND	0.014	EPA 8270/SIM	5-16-11	5-19-11	
Butylbenzylphthalate	ND	18	EPA 8270	5-16-11	5-19-11	
bis-2-Ethylhexyladipate	ND	1.8	EPA 8270	5-16-11	5-19-11	
3,3'-Dichlorobenzidine	ND	18	EPA 8270	5-16-11	5-19-11	
Benzo[a]anthracene	ND	0.014	EPA 8270/SIM	5-16-11	5-19-11	
Chrysene	ND	0.014	EPA 8270/SIM	5-16-11	5-19-11	
bis(2-Ethylhexyl)phthalate	ND	1.8	EPA 8270	5-16-11	5-19-11	
Di-n-octylphthalate	ND	1.8	EPA 8270	5-16-11	5-19-11	
Benzo[b]fluoranthene	0.057	0.014	EPA 8270/SIM	5-16-11	5-19-11	
Benzo[k]fluoranthene	0.23	0.014	EPA 8270/SIM	5-16-11	5-19-11	
Benzo[a]pyrene	0.044	0.014	EPA 8270/SIM	5-16-11	5-19-11	
Indeno[1,2,3-cd]pyrene	ND	0.014	EPA 8270/SIM	5-16-11	5-19-11	
Dibenz[a,h]anthracene	ND	0.014	EPA 8270/SIM	5-16-11	5-19-11	
Benzo[g,h,i]perylene	ND	0.014	EPA 8270/SIM	5-16-11	5-19-11	
Surrogate:	Percent Recovery	Control Limits				
2-Fluorophenol	83	30 - 97				
Phenol-d6	98	40 - 104				
Nitrobenzene-d5	94	35 - 102				
2-Fluorobiphenyl	89	44 - 97				
2,4,6-Tribromophenol	87	41 - 110				
Terphenyl-d14	92	53 - 107				

OnSite Environmental, Inc. 14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 (425) 883-3881

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Date of Report: May 23, 2011  
 Samples Submitted: May 11, 2011  
 Laboratory Reference: 1105-092  
 Project: 620837

SEMIVOLATILES by EPA 8270D/SIM  
 METHOD BLANK QUALITY CONTROL  
 page 1 of 2

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:		MB0516S3				
n-Nitrosodimethylamine	ND	0.033	EPA 8270	5-16-11	5-17-11	
Pyridine	ND	0.33	EPA 8270	5-16-11	5-17-11	
Phenol	ND	0.033	EPA 8270	5-16-11	5-17-11	
Aniline	ND	0.033	EPA 8270	5-16-11	5-17-11	
bis(2-Chloroisopropyl)ether	ND	0.033	EPA 8270	5-16-11	5-17-11	
2-Chlorophenol	ND	0.033	EPA 8270	5-16-11	5-17-11	
1,3-Dichlorobenzene	ND	0.033	EPA 8270	5-16-11	5-17-11	
1,4-Dichlorobenzene	ND	0.033	EPA 8270	5-16-11	5-17-11	
Benzyl alcohol	ND	0.033	EPA 8270	5-16-11	5-17-11	
1,2-Dichlorobenzene	ND	0.033	EPA 8270	5-16-11	5-17-11	
2-Methylphenol (o-Cresol)	ND	0.033	EPA 8270	5-16-11	5-17-11	
bis(2-Chloroisopropyl)ether	ND	0.033	EPA 8270	5-16-11	5-17-11	
(3+4)-Methylphenol (m,p-Cresol)	ND	0.033	EPA 8270	5-16-11	5-17-11	
n-Nitroso-di-n-propylamine	ND	0.033	EPA 8270	5-16-11	5-17-11	
Hexachloroethane	ND	0.033	EPA 8270	5-16-11	5-17-11	
Nitrobenzene	ND	0.033	EPA 8270	5-16-11	5-17-11	
Isophorone	ND	0.033	EPA 8270	5-16-11	5-17-11	
2-Nitrophenol	ND	0.033	EPA 8270	5-16-11	5-17-11	
2,4-Dimethylphenol	ND	0.33	EPA 8270	5-16-11	5-17-11	
bis(2-Chloroethoxy)methane	ND	0.033	EPA 8270	5-16-11	5-17-11	
2,4-Dichlorophenol	ND	0.033	EPA 8270	5-16-11	5-17-11	
1,2,4-Trichlorobenzene	ND	0.033	EPA 8270	5-16-11	5-17-11	
Naphthalene	ND	0.0067	EPA 8270/SIM	5-16-11	5-19-11	
4-Chloroaniline	ND	0.033	EPA 8270	5-16-11	5-17-11	
Hexachlorobutadiene	ND	0.033	EPA 8270	5-16-11	5-17-11	
4-Chloro-3-methylphenol	ND	0.033	EPA 8270	5-16-11	5-17-11	
2-Methylnaphthalene	ND	0.0067	EPA 8270/SIM	5-16-11	5-19-11	
1-Methylnaphthalene	ND	0.0067	EPA 8270/SIM	5-16-11	5-19-11	
Hexachlorocyclopentadiene	ND	0.033	EPA 8270	5-16-11	5-17-11	
2,4,6-Trichlorophenol	ND	0.033	EPA 8270	5-16-11	5-17-11	
2,3-Dichloroaniline	ND	0.033	EPA 8270	5-16-11	5-17-11	
2,4,5-Trichlorophenol	ND	0.033	EPA 8270	5-16-11	5-17-11	
2-Chloronaphthalene	ND	0.033	EPA 8270	5-16-11	5-17-11	
2-Nitroaniline	ND	0.033	EPA 8270	5-16-11	5-17-11	
1,4-Dinitrobenzene	ND	0.033	EPA 8270	5-16-11	5-17-11	
Dimethylphthalate	ND	0.033	EPA 8270	5-16-11	5-17-11	
1,3-Dinitrobenzene	ND	0.033	EPA 8270	5-16-11	5-17-11	
2,6-Dinitrotoluene	ND	0.033	EPA 8270	5-16-11	5-17-11	
1,2-Dinitrobenzene	ND	0.033	EPA 8270	5-16-11	5-17-11	
Acenaphthylene	ND	0.0067	EPA 8270/SIM	5-16-11	5-19-11	
3-Nitroaniline	ND	0.033	EPA 8270	5-16-11	5-17-11	

OnSite Environmental, Inc. 14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 (425) 883-3881

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Date of Report: May 23, 2011  
 Samples Submitted: May 11, 2011  
 Laboratory Reference: 1105-092  
 Project: 620837

SEMIVOLATILES by EPA 8270D/SIM  
 METHOD BLANK QUALITY CONTROL  
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Laboratory ID: MB0516S3</b>						
2,4-Dinitrophenol	ND	0.17	EPA 8270	5-16-11	5-17-11	
Acenaphthene	ND	0.0067	EPA 8270/SIM	5-16-11	5-19-11	
4-Nitrophenol	ND	0.033	EPA 8270	5-16-11	5-17-11	
2,4-Dinitrotoluene	ND	0.033	EPA 8270	5-16-11	5-17-11	
Dibenzofuran	ND	0.033	EPA 8270	5-16-11	5-17-11	
2,3,5,6-Tetrachlorophenol	ND	0.033	EPA 8270	5-16-11	5-17-11	
2,3,4,6-Tetrachlorophenol	ND	0.033	EPA 8270	5-16-11	5-17-11	
Diethylphthalate	ND	0.17	EPA 8270	5-16-11	5-17-11	
4-Chlorophenyl-phenylether	ND	0.033	EPA 8270	5-16-11	5-17-11	
4-Nitroaniline	ND	0.033	EPA 8270	5-16-11	5-17-11	
Fluorene	ND	0.0067	EPA 8270/SIM	5-16-11	5-19-11	
4,6-Dinitro-2-methylphenol	ND	0.17	EPA 8270	5-16-11	5-17-11	
n-Nitrosodiphenylamine	ND	0.033	EPA 8270	5-16-11	5-17-11	
1,2-Diphenylhydrazine	ND	0.033	EPA 8270	5-16-11	5-17-11	
4-Bromophenyl-phenylether	ND	0.033	EPA 8270	5-16-11	5-17-11	
Hexachlorobenzene	ND	0.033	EPA 8270	5-16-11	5-17-11	
Pentachlorophenol	ND	0.17	EPA 8270	5-16-11	5-17-11	
Phenanthrene	ND	0.0067	EPA 8270/SIM	5-16-11	5-19-11	
Anthracene	ND	0.0067	EPA 8270/SIM	5-16-11	5-19-11	
Carbazole	ND	0.033	EPA 8270	5-16-11	5-17-11	
Di-n-butylphthalate	ND	0.33	EPA 8270	5-16-11	5-17-11	
Fluoranthene	ND	0.0067	EPA 8270/SIM	5-16-11	5-19-11	
Benzidine	ND	0.33	EPA 8270	5-16-11	5-17-11	
Pyrene	ND	0.0067	EPA 8270/SIM	5-16-11	5-19-11	
Butylbenzylphthalate	ND	0.33	EPA 8270	5-16-11	5-17-11	
bis-2-Ethylhexyladipate	ND	0.033	EPA 8270	5-16-11	5-17-11	
3,3'-Dichlorobenzidine	ND	0.33	EPA 8270	5-16-11	5-17-11	
Benzo[a]anthracene	ND	0.0067	EPA 8270/SIM	5-16-11	5-19-11	
Chrysene	ND	0.0067	EPA 8270/SIM	5-16-11	5-19-11	
bis(2-Ethylhexyl)phthalate	ND	0.033	EPA 8270	5-16-11	5-17-11	
Di-n-octylphthalate	ND	0.033	EPA 8270	5-16-11	5-17-11	
Benzo[b]fluoranthene	ND	0.0067	EPA 8270/SIM	5-16-11	5-19-11	
Benzo[j,k]fluoranthene	ND	0.0067	EPA 8270/SIM	5-16-11	5-19-11	
Benzo[a]pyrene	ND	0.0067	EPA 8270/SIM	5-16-11	5-19-11	
Indeno[1,2,3-cd]pyrene	ND	0.0067	EPA 8270/SIM	5-16-11	5-19-11	
Dibenz[a,h]anthracene	ND	0.0067	EPA 8270/SIM	5-16-11	5-19-11	
Benzo[g,h,i]perylene	ND	0.0067	EPA 8270/SIM	5-16-11	5-19-11	
<b>Surrogate:</b>	<b>Percent Recovery</b>	<b>Control Limits</b>				
2-Fluorophenol	58	30 - 97				
Phenol-d6	64	40 - 104				
Nitrobenzene-d5	60	35 - 102				
2-Fluorobiphenyl	66	44 - 97				
2,4,6-Tribromophenol	71	41 - 110				
Terphenyl-d14	74	53 - 107				

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Date of Report: May 23, 2011  
 Samples Submitted: May 11, 2011  
 Laboratory Reference: 1105-092  
 Project: 620837

SEMIVOLATILES by EPA 8270D/SIM  
 SB/SBD QUALITY CONTROL

Matrix: Soil  
 Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0516S3									
	SB	SBD	SB	SBD	SB	SBD				
Phenol	0.895	1.04	1.33	1.33	67	78	31 - 111	15	34	
2-Chlorophenol	0.899	1.03	1.33	1.33	68	77	29 - 112	14	37	
1,4-Dichlorobenzene	0.421	0.488	0.667	0.667	63	73	24 - 100	15	37	
n-Nitroso-di-n-propylamine	0.435	0.491	0.667	0.667	65	74	35 - 104	12	32	
1,2,4-Trichlorobenzene	0.420	0.472	0.667	0.667	63	71	29 - 94	12	35	
4-Chloro-3-methylphenol	0.957	1.06	1.33	1.33	73	80	53 - 104	9	25	
Acenaphthene	0.462	0.505	0.667	0.667	69	76	50 - 95	9	23	
4-Nitrophenol	1.06	1.14	1.33	1.33	80	86	42 - 126	7	30	
2,4-Dinitrotoluene	0.488	0.565	0.667	0.667	74	85	53 - 103	13	31	
Pentachlorophenol	0.971	1.06	1.33	1.33	73	80	50 - 116	9	30	
Pyrene	0.495	0.531	0.667	0.667	74	80	57 - 108	7	27	
Surrogate:										
2-Fluorophenol					62	71	30 - 97			
Phenol-d6					69	80	40 - 104			
Nitrobenzene-d5					70	77	35 - 102			
2-Fluorobiphenyl					72	76	44 - 97			
2,4,6-Tribromophenol					74	80	41 - 110			
Terphenyl-d14					75	81	53 - 107			

Date of Report: May 23, 2011  
 Samples Submitted: May 11, 2011  
 Laboratory Reference: 1105-092  
 Project: 620837

## PCBs by EPA 8082

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	S1-00-051011					
Laboratory ID:	05-092-01					
Aroclor 1016	ND	0.056	EPA 8082	5-11-11	5-12-11	
Aroclor 1221	ND	0.056	EPA 8082	5-11-11	5-12-11	
Aroclor 1232	ND	0.056	EPA 8082	5-11-11	5-12-11	
Aroclor 1242	ND	0.056	EPA 8082	5-11-11	5-12-11	
Aroclor 1248	ND	0.056	EPA 8082	5-11-11	5-12-11	
Aroclor 1254	ND	0.056	EPA 8082	5-11-11	5-12-11	
Aroclor 1260	ND	0.056	EPA 8082	5-11-11	5-12-11	
Surrogate:	Percent Recovery	Control Limits				
DCB	72	42-123				
Client ID:	S2-00-051011					
Laboratory ID:	05-092-02					
Aroclor 1016	ND	0.054	EPA 8082	5-11-11	5-12-11	
Aroclor 1221	ND	0.054	EPA 8082	5-11-11	5-12-11	
Aroclor 1232	ND	0.054	EPA 8082	5-11-11	5-12-11	
Aroclor 1242	ND	0.054	EPA 8082	5-11-11	5-12-11	
Aroclor 1248	ND	0.054	EPA 8082	5-11-11	5-12-11	
Aroclor 1254	ND	0.054	EPA 8082	5-11-11	5-12-11	
Aroclor 1260	ND	0.054	EPA 8082	5-11-11	5-12-11	
Surrogate:	Percent Recovery	Control Limits				
DCB	71	42-123				
Client ID:	S3-00-051011					
Laboratory ID:	05-092-03					
Aroclor 1016	ND	0.053	EPA 8082	5-11-11	5-12-11	
Aroclor 1221	ND	0.053	EPA 8082	5-11-11	5-12-11	
Aroclor 1232	ND	0.053	EPA 8082	5-11-11	5-12-11	
Aroclor 1242	ND	0.053	EPA 8082	5-11-11	5-12-11	
Aroclor 1248	ND	0.053	EPA 8082	5-11-11	5-12-11	
Aroclor 1254	ND	0.053	EPA 8082	5-11-11	5-12-11	
Aroclor 1260	ND	0.053	EPA 8082	5-11-11	5-12-11	
Surrogate:	Percent Recovery	Control Limits				
DCB	75	42-123				

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Date of Report: May 23, 2011  
 Samples Submitted: May 11, 2011  
 Laboratory Reference: 1105-092  
 Project: 620837

**PCBs by EPA 8082  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0511S1					
Aroclor 1018	ND	0.050	EPA 8082	5-11-11	5-12-11	
Aroclor 1221	ND	0.050	EPA 8082	5-11-11	5-12-11	
Aroclor 1232	ND	0.050	EPA 8082	5-11-11	5-12-11	
Aroclor 1242	ND	0.050	EPA 8082	5-11-11	5-12-11	
Aroclor 1248	ND	0.050	EPA 8082	5-11-11	5-12-11	
Aroclor 1254	ND	0.050	EPA 8082	5-11-11	5-12-11	
Aroclor 1260	ND	0.050	EPA 8082	5-11-11	5-12-11	
Surrogate:	Percent Recovery	Control Limits				
DCB	81	42-123				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	05-078-01										
	MS	MSD	MS	MSD		MS	MSD				
Aroclor 1280	0.468	0.461	0.500	0.500	ND	94	92	44-125	2	15	
Surrogate:											
DCB						77	75	42-123			

Date of Report: May 23, 2011  
 Samples Submitted: May 11, 2011  
 Laboratory Reference: 1105-092  
 Project: 620837

**ORGANOCHLORINE  
 PESTICIDES by EPA 8081A**

Matrix: Soil  
 Units: ug/Kg (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	S1-00-051011					
Laboratory ID:	05-092-01					
alpha-BHC	ND	5.6	EPA 8081	5-12-11	5-13-11	
gamma-BHC	ND	5.6	EPA 8081	5-12-11	5-13-11	
beta-BHC	10	5.6	EPA 8081	5-12-11	5-13-11	P
delta-BHC	ND	5.6	EPA 8081	5-12-11	5-13-11	
Heptachlor	ND	5.6	EPA 8081	5-12-11	5-13-11	
Aldrin	ND	5.6	EPA 8081	5-12-11	5-13-11	
Heptachlor Epoxide	ND	5.6	EPA 8081	5-12-11	5-13-11	
gamma-Chlordane	ND	11	EPA 8081	5-12-11	5-13-11	
alpha-Chlordane	ND	11	EPA 8081	5-12-11	5-13-11	
4,4'-DDE	ND	11	EPA 8081	5-12-11	5-13-11	
Endosulfan I	ND	5.6	EPA 8081	5-12-11	5-13-11	
Dieldrin	ND	11	EPA 8081	5-12-11	5-13-11	
Endrin	ND	11	EPA 8081	5-12-11	5-13-11	
4,4'-DDD	ND	11	EPA 8081	5-12-11	5-13-11	
Endosulfan II	ND	11	EPA 8081	5-12-11	5-13-11	
4,4'-DDT	ND	11	EPA 8081	5-12-11	5-13-11	
Endrin Aldehyde	ND	11	EPA 8081	5-12-11	5-13-11	
Methoxychlor	19	11	EPA 8081	5-12-11	5-13-11	P
Endosulfan Sulfate	ND	11	EPA 8081	5-12-11	5-13-11	
Endrin Ketone	ND	11	EPA 8081	5-12-11	5-13-11	
Toxaphene	ND	56	EPA 8081	5-12-11	5-13-11	
Surrogate:	Percent Recovery	Control Limits				
TCMX	74	30-111				
DCB	64	33-119				

Date of Report: May 23, 2011  
 Samples Submitted: May 11, 2011  
 Laboratory Reference: 1105-092  
 Project: 620837

**ORGANOCHLORINE  
 PESTICIDES by EPA 8081A  
 METHOD BLANK QUALITY CONTROL**

Matrix: Soil  
 Units: ug/Kg (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0512S1					
alpha-BHC	ND	5.0	EPA 8081	5-12-11	5-13-11	
gamma-BHC	ND	5.0	EPA 8081	5-12-11	5-13-11	
beta-BHC	ND	5.0	EPA 8081	5-12-11	5-13-11	
delta-BHC	ND	5.0	EPA 8081	5-12-11	5-13-11	
Heptachlor	ND	5.0	EPA 8081	5-12-11	5-13-11	
Aldrin	ND	5.0	EPA 8081	5-12-11	5-13-11	
Heptachlor Epoxide	ND	5.0	EPA 8081	5-12-11	5-13-11	
gamma-Chlordane	ND	10	EPA 8081	5-12-11	5-13-11	
alpha-Chlordane	ND	10	EPA 8081	5-12-11	5-13-11	
4,4'-DDE	ND	10	EPA 8081	5-12-11	5-13-11	
Endosulfan I	ND	5.0	EPA 8081	5-12-11	5-13-11	
Dieldrin	ND	10	EPA 8081	5-12-11	5-13-11	
Endrin	ND	10	EPA 8081	5-12-11	5-13-11	
4,4'-DDD	ND	10	EPA 8081	5-12-11	5-13-11	
Endosulfan II	ND	10	EPA 8081	5-12-11	5-13-11	
4,4'-DDT	ND	10	EPA 8081	5-12-11	5-13-11	
Endrin Aldehyde	ND	10	EPA 8081	5-12-11	5-13-11	
Methoxychlor	ND	10	EPA 8081	5-12-11	5-13-11	
Endosulfan Sulfate	ND	10	EPA 8081	5-12-11	5-13-11	
Endrin Ketone	ND	10	EPA 8081	5-12-11	5-13-11	
Toxaphene	ND	50	EPA 8081	5-12-11	5-13-11	
Surrogate:	Percent Recovery	Control Limits				
TCMX	83	30-111				
DCB	81	33-119				

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Date of Report: May 23, 2011  
 Samples Submitted: May 11, 2011  
 Laboratory Reference: 1105-092  
 Project: 620637

**ORGANOCHLORINE  
 PESTICIDES by EPA 8081A  
 MS/MSD QUALITY CONTROL**

Matrix: Soil  
 Units: ug/Kg (ppb)

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	05-092-01										
	MS	MSD	MS	MSD		MS	MSD				
gamma-BHC	33.4	34.6	50.0	50.0	ND	67	69	32-96	4	10	
Heptachlor	33.8	35.0	50.0	50.0	ND	68	70	29-101	3	13	
Aldrin	37.4	38.1	50.0	50.0	ND	75	72	27-99	4	10	
Dieldrin	90.3	93.3	125	125	ND	72	75	33-92	3	10	
Endrin	90.0	91.8	125	125	ND	72	73	29-101	2	11	
4,4'-DDT	84.6	83.6	125	125	ND	68	67	21-114	1	15	
Surrogate:											
TCMX						77	84	30-111			
DCB						73	78	33-119			



Date of Report: May 23, 2011  
 Samples Submitted: May 11, 2011  
 Laboratory Reference: 1105-092  
 Project: 620837

**CHLORINATED ACID  
 HERBICIDES by EPA 8151A**

Matrix: Soil  
 Units: ug/Kg (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	S1-00-051011					
Laboratory ID:	05-092-01					
Dalapon	ND	260	EPA 8151	5-12-11	5-19-11	
Dicamba	ND	11	EPA 8151	5-12-11	5-19-11	
MCPP	36000	10000	EPA 8151	5-12-11	5-19-11	
MCPA	15000	10000	EPA 8151	5-12-11	5-19-11	P
Dichlorprop	1100	780	EPA 8151	5-12-11	5-19-11	
2,4-D	ND	11	EPA 8151	5-12-11	5-19-11	
Pentachlorophenol	3.5	1.1	EPA 8151	5-12-11	5-19-11	P
2,4,5-TP (Silvex)	94	11	EPA 8151	5-12-11	5-19-11	
2,4,5-T	ND	11	EPA 8151	5-12-11	5-19-11	
2,4-DB	37	11	EPA 8151	5-12-11	5-19-11	
Dinoseb	11	11	EPA 8151	5-12-11	5-19-11	P
Surrogate:	Percent Recovery	Control Limits				
DCAA	57	30-96				

Date of Report: May 23, 2011  
 Samples Submitted: May 11, 2011  
 Laboratory Reference: 1105-092  
 Project: 620837

**CHLORINATED ACID  
 HERBICIDES by EPA 8151A  
 QUALITY CONTROL**

Matrix: Soil  
 Units: ug/Kg (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0512S1					
Dalapon	ND	230	EPA 8151	5-12-11	5-18-11	
Dicamba	ND	9.4	EPA 8151	5-12-11	5-18-11	
MCPP	ND	940	EPA 8151	5-12-11	5-18-11	
MCPA	ND	940	EPA 8151	5-12-11	5-18-11	
Dichlorprop	ND	71	EPA 8151	5-12-11	5-18-11	
2,4-D	ND	9.4	EPA 8151	5-12-11	5-18-11	
Pentachlorophenol	ND	0.95	EPA 8151	5-12-11	5-18-11	
2,4,5-TP (Silvex)	ND	9.5	EPA 8151	5-12-11	5-18-11	
2,4,5-T	ND	9.5	EPA 8151	5-12-11	5-18-11	
2,4-DB	ND	9.5	EPA 8151	5-12-11	5-18-11	
Dinoseb	ND	9.5	EPA 8151	5-12-11	5-18-11	
Surrogate:	Percent Recovery	Control Limits				
DCAA	47	30-96				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	05-092-01										
	MS	MSD	MS	MSD		MS	MSD				
Dicamba	60.4	58.1	100	100	ND	60	58	25-101	4	30	
2,4-D	49.5	54.7	100	100	ND	49	55	25-84	10	28	
Pentachlorophenol	7.52	7.79	10.0	10.0	3.13	44	47	27-86	4	26	
2,4,5-T	53.0	54.0	100	100	ND	53	54	25-94	2	20	
2,4-DB	67.2	76.0	100	100	33.4	34	43	25-117	12	27	
Surrogate:											
DCAA						79	56	30-96			

Date of Report: May 23, 2011  
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 Project: 620837

**TOTAL METALS  
 EPA 6010B/7471A**

Matrix: Soil  
 Units: mg/kg (ppm)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
<hr/>						
Lab ID:	05-092-01					
Client ID:	S1-00-051011					
<hr/>						
Arsenic	ND	11	6010B	5-13-11	5-13-11	
Barium	210	2.8	6010B	5-13-11	5-13-11	
Cadmium	ND	0.56	6010B	5-13-11	5-13-11	
Chromium	25	0.56	6010B	5-13-11	5-13-11	
Lead	79	5.6	6010B	5-13-11	5-13-11	
Mercury	ND	0.28	7471A	5-11-11	5-11-11	
Selenium	ND	11	6010B	5-13-11	5-13-11	
Silver	ND	0.56	6010B	5-13-11	5-13-11	

Lab ID:	05-092-02					
Client ID:	S2-00-051011					
<hr/>						
Arsenic	ND	11	6010B	5-13-11	5-13-11	
Barium	130	2.7	6010B	5-13-11	5-13-11	
Cadmium	ND	0.54	6010B	5-13-11	5-13-11	
Chromium	28	0.54	6010B	5-13-11	5-13-11	
Lead	13	5.4	6010B	5-13-11	5-13-11	
Mercury	ND	0.27	7471A	5-11-11	5-11-11	
Selenium	ND	11	6010B	5-13-11	5-13-11	
Silver	ND	0.54	6010B	5-13-11	5-13-11	

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Date of Report: May 23, 2011  
Samples Submitted: May 11, 2011  
Laboratory Reference: 1105-092  
Project: 620837

**TOTAL METALS  
EPA 6010B/7471A**

Matrix: Soil  
Units: mg/kg (ppm)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	05-092-03					
Client ID:	S3-00-051011					
Arsenic	ND	11	6010B	5-13-11	5-13-11	
Barium	91	2.7	6010B	5-13-11	5-13-11	
Cadmium	ND	0.53	6010B	5-13-11	5-13-11	
Chromium	18	0.53	6010B	5-13-11	5-13-11	
Lead	10	5.3	6010B	5-13-11	5-13-11	
Mercury	ND	0.27	7471A	5-11-11	5-11-11	
Selenium	ND	11	6010B	5-13-11	5-13-11	
Silver	ND	0.53	6010B	5-13-11	5-13-11	

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Date of Report: May 23, 2011  
Samples Submitted: May 11, 2011  
Laboratory Reference: 1105-092  
Project: 620837

**TOTAL METALS  
EPA 6010B  
METHOD BLANK QUALITY CONTROL**

Date Extracted: 5-13-11  
Date Analyzed: 5-13-11  
  
Matrix: Soil  
Units: mg/kg (ppm)  
  
Lab ID: MB0513S1

Analyte	Method	Result	PQL
Arsenic	6010B	ND	10
Barium	6010B	ND	2.5
Cadmium	6010B	ND	0.50
Chromium	6010B	ND	0.50
Lead	6010B	ND	5.0
Selenium	6010B	ND	10
Silver	6010B	ND	0.50

Date of Report: May 23, 2011  
Samples Submitted: May 11, 2011  
Laboratory Reference: 1105-092  
Project: 620837

**TOTAL MERCURY  
EPA 7471A  
METHOD BLANK QUALITY CONTROL**

Date Extracted: 5-11-11  
Date Analyzed: 5-11-11  
  
Matrix: Soil  
Units: mg/kg (ppm)  
  
Lab ID: MB0511S1

Analyte	Method	Result	PQL
Mercury	7471A	ND	0.25

Date of Report: May 23, 2011  
Samples Submitted: May 11, 2011  
Laboratory Reference: 1105-092  
Project: 620837

**TOTAL METALS  
EPA 8010B  
DUPLICATE QUALITY CONTROL**

Date Extracted: 5-13-11  
Date Analyzed: 5-13-11

Matrix: Soil  
Units: mg/kg (ppm)

Lab ID: 05-090-01

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Arsenic	ND	ND	NA	10	
Barium	67.1	71.8	7	2.5	
Cadmium	ND	ND	NA	0.50	
Chromium	40.5	43.0	6	0.50	
Lead	9.79	9.83	0	5.0	
Selenium	ND	ND	NA	10	
Silver	ND	ND	NA	0.50	

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Date of Report: May 23, 2011  
Samples Submitted: May 11, 2011  
Laboratory Reference: 1105-092  
Project: 620837

**TOTAL MERCURY  
EPA 7471A  
DUPLICATE QUALITY CONTROL**

Date Extracted: 5-11-11  
Date Analyzed: 5-11-11  
  
Matrix: Soil  
Units: mg/kg (ppm)  
  
Lab ID: 05-081-13

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Mercury	ND	ND	NA	0.25	

Date of Report: May 23, 2011  
Samples Submitted: May 11, 2011  
Laboratory Reference: 1105-092  
Project: 620837

**TOTAL METALS  
EPA 6010B  
MS/MSD QUALITY CONTROL**

Date Extracted: 5-13-11

Date Analyzed: 5-13-11

Matrix: Soil

Units: mg/kg (ppm)

Lab ID: 05-090-01

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Arsenic	100	92.6	93	92.6	93	0	
Barium	100	176	109	168	101	5	
Cadmium	50.0	48.4	97	47.6	95	2	
Chromium	100	137	97	132	92	4	
Lead	250	240	92	237	91	1	
Selenium	100	96.0	96	94.9	95	1	
Silver	25.0	22.3	89	22.0	88	2	

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Date of Report: May 23, 2011  
Samples Submitted: May 11, 2011  
Laboratory Reference: 1105-092  
Project: 620837

**TOTAL MERCURY  
EPA 7471A  
MS/MSD QUALITY CONTROL**

Date Extracted: 5-11-11  
Date Analyzed: 5-11-11  
  
Matrix: Soil  
Units: mg/kg (ppm)  
  
Lab ID: 05-081-13

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Mercury	ND	ND	NA	0.25	

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 Laboratory Reference: 1105-092  
 Project: 620837

**ORGANOPHOSPHORUS  
 PESTICIDES by EPA 8270/SIM**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	S1-00-051011					
Laboratory ID:	05-092-01					
Dichlorvos(DDVP)	ND	0.22	EPA 8270/SIM	5-16-11	5-17-11	
Mevinphos/Phosdrin	ND	0.22	EPA 8270/SIM	5-16-11	5-17-11	
Ethoprophos	ND	0.56	EPA 8270/SIM	5-16-11	5-17-11	
Monocrotophos	ND	0.56	EPA 8270/SIM	5-16-11	5-17-11	
Naled	ND	0.56	EPA 8270/SIM	5-16-11	5-17-11	
Sulfotepp	ND	0.22	EPA 8270/SIM	5-16-11	5-17-11	
Phorate	ND	0.22	EPA 8270/SIM	5-16-11	5-17-11	
Dimethoate	ND	0.22	EPA 8270/SIM	5-16-11	5-17-11	
Demeton-S	ND	0.22	EPA 8270/SIM	5-16-11	5-17-11	
Diazinon	ND	0.22	EPA 8270/SIM	5-16-11	5-17-11	
Disulfoton	ND	0.22	EPA 8270/SIM	5-16-11	5-17-11	
Parathion-methyl	ND	0.22	EPA 8270/SIM	5-16-11	5-17-11	
Fenchlorphos/Ronnel	ND	0.22	EPA 8270/SIM	5-16-11	5-17-11	
Malathion	ND	0.22	EPA 8270/SIM	5-16-11	5-17-11	
Fenthion	ND	0.22	EPA 8270/SIM	5-16-11	5-17-11	
Parathion-ethyl	ND	0.22	EPA 8270/SIM	5-16-11	5-17-11	
Chlorpyrifos/Dursban	ND	0.22	EPA 8270/SIM	5-16-11	5-17-11	
Trichloronate	ND	0.22	EPA 8270/SIM	5-16-11	5-17-11	
Merphos&Merphos-oxone	ND	0.56	EPA 8270/SIM	5-16-11	5-17-11	
Stirofos/Tetrachlorvinphos	ND	0.22	EPA 8270/SIM	5-16-11	5-17-11	
Tokuthion/Prothiofos	ND	0.22	EPA 8270/SIM	5-16-11	5-17-11	
Fensulfothion	ND	0.56	EPA 8270/SIM	5-16-11	5-17-11	
Bolstar/Sulprofos	ND	0.22	EPA 8270/SIM	5-16-11	5-17-11	
EPN	ND	0.22	EPA 8270/SIM	5-16-11	5-17-11	
Azinphos-methyl/Guthion	ND	0.22	EPA 8270/SIM	5-16-11	5-17-11	
Coumaphos	ND	0.22	EPA 8270/SIM	5-16-11	5-17-11	
Surrogate:	Percent Recovery	Control Limits				
Tributyl phosphate	106	28 - 109				
Triphenyl phosphate	--	37 - 118				F

Date of Report: May 23, 2011  
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 Project: 620837

**ORGANOPHOSPHORUS  
 PESTICIDES by EPA 8270/SIM  
 METHOD BLANK QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>Laboratory ID: MB0516S1</b>						
Dichlorvos(DDVP)	ND	0.020	EPA 8270/SIM	5-16-11	5-16-11	
Mevinphos/Phosdrin	ND	0.020	EPA 8270/SIM	5-16-11	5-16-11	
Ethoprophos	ND	0.050	EPA 8270/SIM	5-16-11	5-16-11	
Monocrotophos	ND	0.050	EPA 8270/SIM	5-16-11	5-16-11	
Naled	ND	0.050	EPA 8270/SIM	5-16-11	5-16-11	
Sulfotepp	ND	0.020	EPA 8270/SIM	5-16-11	5-16-11	
Phorate	ND	0.020	EPA 8270/SIM	5-16-11	5-16-11	
Dimethoate	ND	0.020	EPA 8270/SIM	5-16-11	5-16-11	
Demeton-S	ND	0.020	EPA 8270/SIM	5-16-11	5-16-11	
Diazinon	ND	0.020	EPA 8270/SIM	5-16-11	5-16-11	
Disulfoton	ND	0.020	EPA 8270/SIM	5-16-11	5-16-11	
Parathion-methyl	ND	0.020	EPA 8270/SIM	5-16-11	5-16-11	
Fenchlorphos/Ronnel	ND	0.020	EPA 8270/SIM	5-16-11	5-16-11	
Malathion	ND	0.020	EPA 8270/SIM	5-16-11	5-16-11	
Fenthion	ND	0.020	EPA 8270/SIM	5-16-11	5-16-11	
Parathion-ethyl	ND	0.020	EPA 8270/SIM	5-16-11	5-16-11	
Chlorpyrifos/Dursban	ND	0.020	EPA 8270/SIM	5-16-11	5-16-11	
Trichloronate	ND	0.020	EPA 8270/SIM	5-16-11	5-16-11	
Merphos&Merphos-oxone	ND	0.050	EPA 8270/SIM	5-16-11	5-16-11	
Stirofos/Tetrachlorvinphos	ND	0.020	EPA 8270/SIM	5-16-11	5-16-11	
Tokuthion/Prothiofos	ND	0.020	EPA 8270/SIM	5-16-11	5-16-11	
Fensulfthion	ND	0.050	EPA 8270/SIM	5-16-11	5-16-11	
Bolstar/Sulprofos	ND	0.020	EPA 8270/SIM	5-16-11	5-16-11	
EPN	ND	0.020	EPA 8270/SIM	5-16-11	5-16-11	
Azinphos-methyl/Guthion	ND	0.020	EPA 8270/SIM	5-16-11	5-16-11	
Coumaphos	ND	0.020	EPA 8270/SIM	5-16-11	5-16-11	
<b>Surrogate:</b>	<b>Percent Recovery</b>	<b>Control Limits</b>				
<i>Tributyl phosphate</i>	65	28 - 109				
<i>Triphenyl phosphate</i>	80	37 - 118				

OnSite Environmental, Inc. 14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody,  
 and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: May 23, 2011  
 Samples Submitted: May 11, 2011  
 Laboratory Reference: 1105-092  
 Project: 620837

**ORGANOPHOSPHORUS  
 PESTICIDES by EPA 8270D/SIM  
 SB/SBD QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0516S1									
	SB	SBD	SB	SBD	SB	SBD				
Dichlorvos(DDVP)	0.0585	0.0612	0.100	0.100	59	61	45 - 110	5	30	
Mevinphos/Phosdrin	0.0543	0.0590	0.100	0.100	54	59	50 - 110	8	30	
Ethoprophos	0.0741	0.0817	0.100	0.100	74	82	50 - 110	10	30	
Sulfotepp	0.0788	0.0856	0.100	0.100	80	86	45 - 110	7	30	
Phorate	0.0784	0.0849	0.100	0.100	78	85	50 - 110	8	30	
Dimethoate	0.0780	0.0863	0.100	0.100	78	86	50 - 110	10	30	
Demeton-S	0.0713	0.0813	0.100	0.100	71	81	45 - 110	13	30	
Diazinon	0.0739	0.0814	0.100	0.100	74	81	50 - 110	10	30	
Disulfoton	0.0790	0.0885	0.100	0.100	79	87	50 - 110	9	30	
Parathion-methyl	0.0708	0.0803	0.100	0.100	71	80	60 - 120	13	30	
Fenchlorphos/Ronnal	0.0879	0.0863	0.100	0.100	88	86	50 - 110	9	30	
Malathion	0.109	0.119	0.100	0.100	109	119	50 - 120	9	30	
Fenthion	0.0872	0.0849	0.100	0.100	87	85	50 - 110	8	30	
Parathion-ethyl	0.0679	0.0767	0.100	0.100	68	77	45 - 110	12	30	
Chlorpyrifos/Dursban	0.0850	0.0919	0.100	0.100	85	92	50 - 110	8	30	
Trichloronate	0.0872	0.0930	0.100	0.100	87	93	50 - 110	8	30	
Stirofos/Tetrachlorvinphos	0.139	0.153	0.100	0.100	139	153	80 - 160	10	30	
Tokuthion/Prothiotos	0.0790	0.0880	0.100	0.100	79	88	50 - 110	11	30	
Fensulfothion	0.0801	0.0885	0.100	0.100	80	87	45 - 110	19	30	
Bolstar/Sulprofos	0.0817	0.0919	0.100	0.100	82	92	50 - 110	12	30	
EPN	0.0700	0.0792	0.100	0.100	70	79	50 - 110	12	30	
Azinphos-methyl/Guthion	0.127	0.139	0.100	0.100	127	139	70 - 140	9	30	
Coumaphos	0.0728	0.0860	0.100	0.100	73	86	60 - 120	17	30	
Surrogate:										
Tributyl phosphate					68	71	28 - 109			
Triphenyl phosphate					78	86	37 - 118			

Date of Report: May 23, 2011  
Samples Submitted: May 11, 2011  
Laboratory Reference: 1105-092  
Project: 620837

**NWTPH-Gx/BTEX**

Matrix: Soil  
Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	S2-00-051011					
Laboratory ID:	05-092-02					
Benzene	ND	0.023	EPA 8021	5-13-11	5-16-11	
Toluene	0.60	0.12	EPA 8021	5-13-11	5-16-11	
Ethyl Benzene	27	2.9	EPA 8021	5-13-11	5-17-11	
m,p-Xylene	180	2.9	EPA 8021	5-13-11	5-17-11	
o-Xylene	31	2.9	EPA 8021	5-13-11	5-17-11	
Gasoline	1900	280	NWTPH-Gx	5-13-11	5-17-11	Z
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	92	68-124				



**Tab No.8**

*Sunset Pointe Development*

**ARSON FIRE  
SITE INVESTIGATION  
(2010 - 2011)**

*– Fire Department Site Photographs*  
Central Pierce Fire & Rescue, June 20, 2010

# Department of Ecology - Environmental Report Tracking System

ERTS # 620837

## Initial Report

External Reference #

### Caller Information

### Where did it happen

First Name	Last Name	Berth	Anchorage
Name	Lt.	Location Name	
Business Name	Tacoma Fire Department	Street Address	1900 blk 22nd Place
Street Address		Other Address	
Other Address		City/Place	PUYALLUP
City	State WA	Zip	State WA Zip
E-mail	Confidential_FL <input type="checkbox"/>	County - Region	PIERCE SWRO FS ID
Phone	Ext	Waterway	Type
(253) 591-5733	Business	Latitude	47.172051 Longitude 122.26551
		Topo Quad	1:24:000 PUYALLUP

### What happened

Spills Program Oil Spill? N

Incident Date 6/27/2010 Received Date 6/27/2010 5:55

Medium BUILDING/STRUCTURE

Material UNKNOWN

Quantity 15 Unit DRUM

Source UNKNOWN

Cause UNKNOWN

Incident Type

Activity UNKNOWN

Impact POTENTIAL POLLUTION/RELEASE

Vessel Name

Hull Number

### Primary Potentially Responsible Party Information

First Name Last Name  
Unknown

Business Name

Street Address

Other Address

City State WA Zip  
Phone Ext Type  
E-mail

### Additional Contact Information

Name Phone Ext Type  
Greg (253) 377-6854 Business

### More Information

Fire has discovered 15 drums of unknown contents and a scene of an abandoned warehouse fire.

Entry Person Baxter, Susan

Entry Date 6/28/2010

Department of Ecology - Environmental Report Tracking System

ERTS # 620837

Referral

<b>Referral Method</b>		<b>Person Referred to</b> BROOKS, NANNETTE	<b>Referral #</b> 134886
<input type="radio"/> E-mail ERTS number		Phone (360) 407-6242 Fax (360) 407-6305	Primary <input type="checkbox"/>
<input type="radio"/> E-mail attachment		E-mail nbro461@ecy.wa.gov	
<input type="radio"/> Print		Program/Organization SPILLS, PREVENTION, PREPAREDNESS AND RESPONSE	
<input checked="" type="radio"/> Telephone		Address PO BOX 47775	
		City OLYMPIA WA 98504-	
		Region/Location SWRO	
		Referral Date 6/27/2010	
<b>Referral Method</b>		<b>Person Referred to</b> BELL, SHARON	<b>Referral #</b> 138717
<input type="radio"/> E-mail ERTS number		Phone (253) 798-2891 Fax	Primary <input type="checkbox"/>
<input checked="" type="radio"/> E-mail attachment		E-mail erts@tpchd.org	
<input type="radio"/> Print		Program/Organization TOXICS CLEANUP	
<input type="radio"/> Telephone		Address TPCHD	
		City TACOMA WA	
		Region/Location swro	
		Referral Date 11/1/2010	

# Department of Ecology - Environmental Report Tracking System

ERTS # 620837

## Followup

<u>Inspector Information</u>				<u>Where did it happen</u>				Followup #1	
Referral # 134886				Berth				Anchorage	
<input type="checkbox"/> Lead Inspector BROOKS, NANNETTE				Location Name					
Program/Organization SPILLS, PREVENTION, PREPAREDNESS AND RESPONSE				Street Address 1900 blk 22nd Place					
* Region/Location SWRO				Other Address					
# of Ecology Staff 2 Overtime <input checked="" type="checkbox"/>				City/Place PUYALLUP State WA Zip					
Start Date 6/27/2010 End Date 6/27/2010				County PIERCE Region SWRO FS ID					
<u>Action</u>				Waterway				Type	
TELEPHONE - TECHNICAL ASSISTANCE				WRIA #					
<u>What happened</u>				Latitude 47.172051 Longitude 122.26551					
Incident Date 6/27/2010				Topo Quad 1:24,000 PUYALLUP					
Medium				Direction/Landmark (mile post, cross roads, township/range)					
BUILDING/STRUCTURE									
<u>Material</u>									
UNKNOWN									
Quantity 15 Unit DRUM Est <input checked="" type="checkbox"/>				<u>Potentially Responsible Party Information</u>					
Source UNKNOWN Regulated? <input type="checkbox"/>				Check if the primary PRP provided notice to Ecology <input type="checkbox"/>					
<u>Cause</u>									
UNKNOWN									
<u>Incident Type</u>									
<u>Activity</u>									
UNKNOWN									
<u>Impact</u>									
POTENTIAL POLLUTION/RELEASE									
<u>Vessel</u>									
<u>Narrative</u>									
I (Nannette Brooks) contacted the Fire Company. Greg from Engine Company 72, on scene. He told me that Engine 72 responded to a fire at the location and discovered the drums in an unaffected part of the building. The drums are not compromised at this time. They are in various states of fullness-some of the 55 gallon drums are full and some are closer to empty. When Fire leaves the scene, they will not be posting a fire watch and neither will the police department. The area is residential. Ecology assistance requested.									
I briefed my duty partner, Ron Holcomb. We decided I should contact Regional Supervisor Jim Sachet at 06:17 hrs. Due to the stability of the drums and the need to contact property owner, this response will be conducted during regular business hours.									
I briefed Fire at 06:27.									
I updated Ron Holcomb at 06:31.									
Entry Person: Baxter, Susan				Entry Date 6/28/2010					
<u>Inspector Information</u>				<u>Where did it happen</u>				Followup #2	
Referral # 134886				Berth				Anchorage	
<input checked="" type="checkbox"/> Lead Inspector HOLCOMB, RON				Location Name					
Program/Organization SPILLS, PREVENTION, PREPAREDNESS AND RESPONSE				Street Address 1900 blk 22nd Place					
* Region/Location SWRO				Other Address					
# of Ecology Staff 2 Overtime <input type="checkbox"/>				City/Place PUYALLUP State WA Zip					
Start Date 6/28/2010 End Date 6/28/2010				County PIERCE Region SWRO FS ID					
<u>Action</u>				Waterway				Type	
FIELD RESPONSE - INVESTIGATION				WRIA #					

Monday, November 01, 2010

\*\*\* The Initial report contains only information provided to Ecology from the complainant.

Page 3 of 6



# Department of Ecology - Environmental Report Tracking System

ERTS # 620837

## What happened

Incident Date 6/27/2010  
 Medium  
 Land  
 Material  
 Oily Water Mixture ☐ Sheen Only  
 Quantity To Water To Imperm Recover NRDA Est  
 1051 0 0 1051 ☐

Source Regulated? ☐  
 Leaking Drum or Container  
 Type Private Property Primary ☒

Cause  
 Other - External Conditions  
 Type External Conditions Primary ☒

## Incident Type

Oil Spill

## Activity

Other

## Impact

SOIL CONTAMINATION

## Vessel

Spills Program Oil Spill? Y

Latitude 47.172113 Longitude 122.265218

Topo Quad 1:24,000 PUYALLUP

Direction/Landmark (mile post, cross roads, township/range)

## Potentially Responsible Party Information

Check if the primary PRP provided notice to Ecology ☐

Primary ☒ First Last

Name Sharon Tanner

Business Name

Street Address 25518 - 133rd Ave. NE

Other Address

City ARLINGTON State WA Zip 98225-

Phone (360) 435-6469 Ext Type Home

E-mail

Primary ☐ First Last

Name Joshua Gunia

Business Name

Street Address 15714 44th Avenue Ct. E.

Other Address

City TACOMA State WA Zip 98446-

Phone (253) 579-6769 Ext Type Mobile

E-mail gunlagroup@comcast.net

## Narrative

On 6/27/10 I (Ron Holcomb) was contacted by after-hours spill responder Nannette Brooks to discuss the initial information provided by Central Pierce Fire & Rescue regarding a number of abandoned drums discovered while dealing with a fire at the old Western Washington Pioneer Museum in Puyallup. I advised Nannette to check with SWRO Regional Spill Response Unit Supervisor Jim Sachet to determine whether we should assess the situation today. Nannette called back and said Jim wanted to hold off until Monday (6/28/10).

On 6/28/10 Doug Stolz and I responded to Puyallup and met with CPF&R at Station #2. We then followed Engine 72 to the property and conducted a site inspection (see photos in file).

We initially checked an old horse barn and identified numerous (~25 - 30) empty 55-gallon drums (metal and fiber). No other chemicals were observed in this building that was not involved in the fire.

We then proceeded to the burned building and did some basic assessment of the drums and other containers. Following is a summary of what was identified:

Container Type	Total	# Empty	# Full/Partially Full	Total Maximum Capacity
55-gallon drums	22	4	18	990 gallons
15/30-gallon drums	3	1	2	45 gallons
5-gallon containers	3	0	3	15 gallons
< 1-gallon container	4	0	4	1 gallon
Total	32	5	27	1,051 gallon

We used a TIP meter on several open drums and one gave an indication of a flammable material. Others appeared to have waste oil or grease and others were sealed and unknown.

The empty drums and containers were marked 'MT' and the others were numbered and dated. We placed several tarps over the drums/containers and used caution tape to mark them off (see photos).

CPF&R did provide some property ownership information but no telephone numbers.

On 6/30/10 I left a message with the CF&R Fire Marshall about property owner contact information.

A check of the Pierce County Assessor's web site on 7/1/10 identified the property owner as:

Grace Ardell Greeley  
 25518 - 133rd Ave. NE



## Department of Ecology - Environmental Report Tracking System

ERTS # 620837

Arlington, WA 98225

The address of the 8.99 acre property is listed as:

2301 - 23rd Street E.  
Puyallup, WA

See file for additional details on the property.

No call-back from Fire Marshall as of 7/6/10.

On 7/7/10 I issued a letter to the property owner (Grace Ardell Greeley) regarding the drums and requesting contact with Ecology (see file).

On July 9, 2010 I received a call from Sharon Tanner and she explained that she inherited the property from her mother (Grace Ardell Greeley) some 15 years ago when she passed away. I advised her that the Pierce county property records had not been changed or updated.

Ms. Tanner went on to explain that she was aware of the drums and that they had been stored in the 'museum' building. The drums were from her father's work over the years that include treating wood for fencing. I explained that there was some spillage and that the drums were not marked. I advised her that it would be in her interest to have the drums properly tested and the waste disposed of by an environmental contractor especially since the property was unoccupied and someone had likely set the fire that destroyed the building which had housed the Pioneer Museum.

I also noted that there were two large fuel tanks on the property. Ms. Tanner said the elevated tank at the south end of the property had been used for gasoline but had been empty for many years. She did not seem to be aware of the second tank I observed at the southwest corner of the burned building.

I then explained that I would be sending another letter and would include a list of environmental contractors. I also encouraged her to have her grandson contact me as she said he was helping with trying to sell the property. I further advised her that I was available to provide advice and guidance to assist her, but if she chose not to do anything that I would have to refer this site to Ecology's Toxic Cleanup Program and that her property would likely be listed as a contaminated site.

On July 13, 2010 I issued a second letter with the contractor list and photos of the drums. I requested that she inform me within 14 days of how she would be proceeding with the situation.

On 8/20/10 I contacted Ms. Tanner to check on the status of the property and she stated that her grandsons were directly involved with the situation and she provided their names and contact information:

Joshua Gunia (253) 579-6769  
Jeremey Gunia (253) 273-4612

At approximately 1420, I was able to contact Joshua Gunia who confirmed that he was Ms. Tanner's grandson and was working on selling the property and dealing with city officials regarding the burned structures. He said he was aware of the drums and would work on that issue also (he said he was not aware of the fact that Ecology had been communicating with his grandmother on this issue). Mr. Gunia asked me to email him the information I had provided to his grandmother at guniagroup@comcast.net. I said I would and that I would be available to help him as he proceeds with the cleanup.

The two letters, photos and contractor list were sent on 8/20/10 via email:

Joshua,  
Attached are the photos and two letters that I sent to your grandmother.

Also, following is a link to Ecology's list of environmental cleanup contractors (although you can choose any qualified contractor you want even if they are not on Ecology's list):

[http://www.ecy.wa.gov/programs/spills/response/Hazmat\\_Spill\\_Contractor\\_List.pdf](http://www.ecy.wa.gov/programs/spills/response/Hazmat_Spill_Contractor_List.pdf)

Please respond back to let me know that you received this information and also provide a mailing address where I can send correspondence to you.

Please feel free to contact me by phone or email if you have any questions.

Thank you and good luck with your efforts to sell the property.

Ron Holcomb  
Hazardous Materials Specialist  
Department of Ecology  
Southwest Region  
(360) 407-6373  
Ron.Holcomb@ecy.wa.gov

I received the following reply from Joshua:

Department of Ecology - Environmental Report Tracking System

ERTS # 620837

Hi Ron . Thank you for the email and also for working with us on this. my mailing address is 15714 44th ave ct e Tacoma WA 98446. Have a great weekend.

Joshua Gunla, Vice President  
A Advanced Septic Services, Inc.  
253-435-9999 Office  
253-579-6769 Cell  
joshua@gunlagroup.com

aadvancedservices.com

'The Guys To Know When You Gotta Go!'

Because the SWRO Spill Response Unit has not received any information regarding the progress of the cleanup at this site, it will be referred to the Toxic Cleanup Program.

Referral to TCP (Sharon Bell, Tacoma-Pierce County Health Department) was made on 11/1/10.

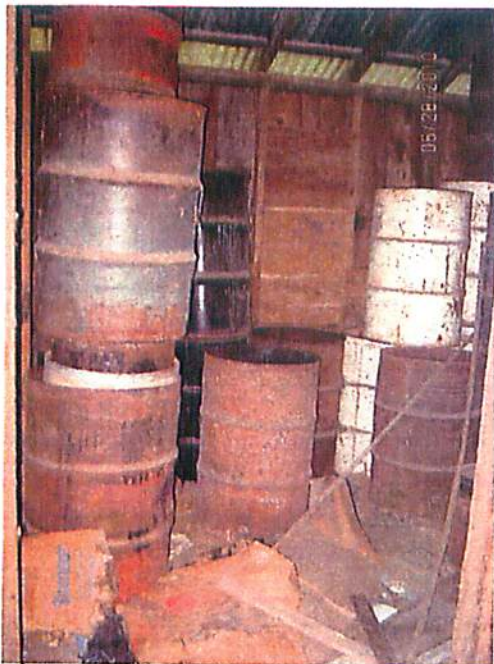
Entry Person: HOLCOMB, RON

Entry Date 6/29/2010



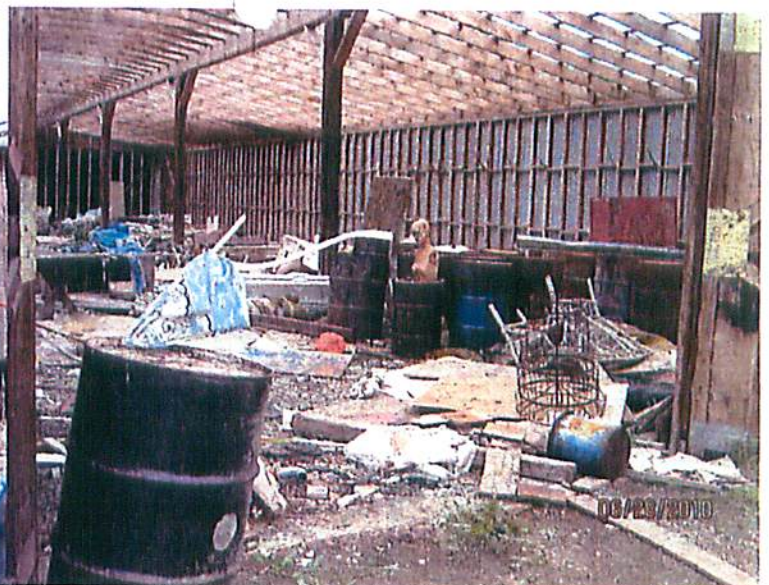
West-WA Pioneer Museum Five

620837



R. Holcomb





R. Holcomb



*Sunset Pointe Development*

**ARSON FIRE  
SITE INVESTIGATION  
(2010 - 2011)**

*– Initial Investigation: Site Photographs*  
Tacoma-Pierce County Health Department, May 10, 2011



# INITIAL INVESTIGATION FIELD REPORT

ERTS Number: 620837

Parcel #: 0420353027

COUNTY: PIERCE

## SITE INFORMATION

Site Name (e.g., Co. name over door): Pioneer Museum <i>Former</i>	Site Address (including City and Zip+4): 2301 23 <sup>rd</sup> St SE Puyallup, WA 98373	Site Phone: none
Site Contact and Title: Joshua Gunia, grandson of owner	Site Contact Address (including City and Zip+4): 11603 Canyon Road E. Puyallup 98373	Site Contact Phone: 253/435-9999
Site Owner: Sharon Tanner	Site Owner Address (including City and Zip+4): 11907 240 <sup>th</sup> St NE Arlington, WA 98223	Site Owner Phone: 360/474-1829
Site Owner Contact:	Site Owner Contact Address (including City and Zip+4):	Owner Contact Phone:
Alternate Site Name(s):	Comments:	Is property > 10 acres? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Previous Site Owner(s):	Comments:	

Location: Quarter-Quarter: 3-4 Section: 35 Township: 20N Range: 04E

Latitude: Degrees: 47 Minutes: 10 Seconds: 19.6 N

Longitude: Degrees: 122 Minutes: 15 Seconds: 54.8 W

## INSPECTION INFORMATION

Inspection Date: 11.16.10	Inspection Time: 10 am	Entry Notice: Announced <input checked="" type="checkbox"/> Unannounced <input type="checkbox"/>
Photographs Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Weather: Clear <input checked="" type="checkbox"/> Rain <input type="checkbox"/> Temperature: ~50 ° F	
Samples Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Wind Direction: Wind Speed:	

## RECOMMENDATION

No Further Action (Indicate NFA in box below):	LIST on ISIS (Indicate in box below):
Release or threatened release does not pose a threat <input type="checkbox"/>	Site Hazard Assessment <input checked="" type="checkbox"/>
No release or threatened release <input type="checkbox"/>	Interim Action <input type="checkbox"/>
Educational mailing <input type="checkbox"/>	Emergency Action <input type="checkbox"/>
Refer to program/agency (Name: _____) <input type="checkbox"/>	Independent Cleanup Action In progress <input type="checkbox"/>
Independent Cleanup Action Completed (i.e., contam, removed) <input type="checkbox"/>	

## COMPLAINT (Brief Summary of ERTS):

Leaking drums

## SITE STATUS (Brief Summary of site condition(s) after investigation):

Soil in vicinity of a cluster of stored drums is contaminated with petroleum hydrocarbons and agricultural chemicals.

Investigator: S. Bell

Date Submitted: 05.27.11

## OBSERVATIONS

### Description:

This property is about 20 acres in size, and encompasses three parcels. Two parcels list the taxpayer as Grace Ardell Greeley. A third parcel lists a separate taxpayer, Sharon Ottinger, with the same listed mailing address as the Greeley parcels. The Ottinger parcel is a half acre in size and forms the northwest corner of the southern Greeley parcel. Sharon Tanner currently owns all three parcels and is the daughter of Grace Greeley; Ottinger was her maiden name. The property was used as a farm and a museum until approximately 5 years ago when all activity ceased. The property was referred to as the Pioneer Museum, not to be confused with the Pioneer Farm Museum in Eatonville.

An arson fire occurred on the southern parcel, 0420353027, in late June 2010. The Fire Department encountered a number of unaffected drums in a burned structure on the property and contacted Ecology. Ron Holcomb with Ecology's Spill Response conducted an assessment of the drums and other containers. Subsequent information collected by Ron indicated the listed taxpayer, Grace Ardell Greeley, had been dead for a number of years and the property had been inherited by her daughter, Sharon Tanner. Ms. Tanner designated her grandson, Joshua Gunia, as the point of contact regarding issues at the site. Spill Response referred the site to the Toxics Cleanup Program in November 2010 for follow up regarding soil contamination due to spillage from some of the drums.

I contacted Joshua Gunia and set up an appointment to meet him at the site on 11.16.10. We walked the site together, concentrating on the large storage building where the drums were located. The southern half of the building was destroyed in the fire. The remaining half is in poor condition, lacking a roof and exposing the drums stored inside to weather conditions. The drums were stored together and covered with tarps. Soil staining was apparent around the drums and in several other areas. I spoke with Joshua about the need for his family to hire an environmental professional to delineate the extent and type of contamination on the property due to the leaks and/or spills from the drums, and we also spoke about the need to properly dispose of the drum and their contents. He told me that it would require several months for the family to be able to coordinate that, and that they were trying to sell the property. I told Joshua that an interested buyer might be willing to conduct a Phase II Environmental Site Assessment.

No progress was made in assessing or remediating the soil contamination at this property. I eventually coordinated an approved site visit through Joshua to collect soil samples at the subject property. I returned to the property on 05.10.11 and collected three soil samples. All three samples were jar packed and submitted for HCID, Total RCRA metals, SVOCs, and PCB analyses. Metal and SVOC results were below MTCA CULs; PCBs were non-detect. HCID results indicated oil present in all three samples and gasoline present in S2. Further analysis with NWTPH-dx and NWTPH-gx found oil present in all three samples, ranging from 3100 to 37,000 mg/kg. Gasoline range organics were detected in S2 at 1,900 mg/kg and were noted by the lab to be similar to mineral spirits.

The S1 sample was also tested for the presence of chlorinated herbicides, as well as organochlorine and organophosphorus pesticides. All of the detected herbicide compounds are in the phenoxy chemical family. No organophosphorus pesticides were detected, with a reported laboratory PQL of 0.22 mg/kg. Lindane, an organochlorine pesticide, was detected at the cleanup level. The pesticide and herbicide compounds detected are tabulated below; only one has a MTCA Method A CUL (lindane). For those compounds found in CLARC, the Method B mg/kg values are also provided.

S1 results for pesticides and herbicides; measurement units are mg/kg

Method	Analyte Group	Detects	Concentration	MTCA CUL	CLARC
8081A	Organochlorine pesticides	Beta-BHC (lindane)	0.01	0.01	0.0769
		Methoxychlor	0.019	---	400
8151A	Chlorinated acid herbicides	MCP	36	---	---
		MCPA	15	---	---
		Dichlorprop	1.1	---	---
		Pentachlorophenol	0.0035	---	8.33
		2,4,5-TP (Silvex)	0.094	---	640
		2,4-DB	0.037	---	640
		Dinoseb	0.011	---	80

Soil samples were jar packed, stored in a sample refrigerator, and transported on ice. GRO/VOCs were not anticipated as contaminants of concern. HCID results indicated the need to run S2 for gasoline and BTEX; the analytical results for these parameters should be considered estimates, with potential negative bias in the results as 5035A sample collection methods were not used and the sample preparation occurred past the recommended holding times. Also, matrix interference resulted in potential negative bias for the methoxychlor results; actual concentrations could be greater.

Summary: lube oil and gasoline range organics were found in concentrations exceeding MTCA Method A CULs. A variety of pesticides and herbicides were also detected; lindane was found in concentrations equaling the CUL. Further assessment of the site

The TPCHD recommends listing this property as contaminated.

Description of past practices likely to be responsible for contamination:  
Overflowing drums, leaking drums, spillage associated with storage of products in drums.

Spill	<input checked="" type="checkbox"/>	LUST	<input type="checkbox"/>
Pesticide disposal	<input type="checkbox"/>	Tank	<input type="checkbox"/>
Landfill	<input type="checkbox"/>	Improper handling	<input type="checkbox"/>
Drums	<input type="checkbox"/>	Improper disposal	<input type="checkbox"/>
Other — Describe:			

Are discharges permitted (if yes, describe):	No <input checked="" type="checkbox"/>	Yes <input type="checkbox"/>	Standard Industrial Code(s)
--	--	------------------------------	-----------------------------

CONTAMINANTS (#1-16: See contaminants key) Enter letter designating status of contaminant: C = Confirmed (above cleanup levels); S = Suspected; R = Remediated																
AFFECTED MEDIA	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Ground Water		S				S	S									
Surface Water																
Drinking Water																
Soil		C				C	C									
Sediment																
Air																
1 Base/neutral organics			7 Petroleum products					13 Corrosive wastes								
2 Halogenated organic compounds			8 Phenolic compounds					14 Radioactive wastes								
3 Metals - Priority pollutants			9 Non-halogenated solvents					15 Conventional contaminants, organic								
4 Metals - Other			10 Dioxin					16 Conventional contaminants, inorganic								
5 Polychlorinated biPhenyls (PCBs)			11 Polynuclear aromatic hydrocarbons (PAHs)													
6 Pesticides			12 Reactive wastes													

**SITE INFORMATION**Soil type 13B Everett gravelly sandy loam and  
20B, 20C Kitsap silt loam

Slope Level

Site vegetation/cover present:

Forest ☒  
Bare soil ☒  
Brush ☒  
Landscaped ☐Pasture/open field ☒Wetlands ☐Pavement ☐Surface water ☐

Other – Describe:

Are there any drinking water systems affected?

☐ Yes☐ No

Municipal, private, or both? (Circle one)

How many people are estimated to be affected? \_\_\_\_\_

Is there a potential for a release or threatened release to affect a drinking water source?

☐ Yes☐ No

Are there monitoring wells in the vicinity?

☐ Yes☐ No

Are there dry wells in the vicinity?

☐ Yes☐ No**CONTAMINANT PATHWAYS AND TARGETS**

	Ingestion	Inhalation	Contact
Ground Water	x	x	x
Surface Water	x	x	x
Drinking Water	x	x	x
Soil	x	x	x
Sediment			
Air		x	

Targets possible:

Human, adult ☒Human, children ☒Residential ☒Industrial ☐Commercial ☐

Sensitive environments (See WARM Scoring Manual for definition):

☒ Yes ☐ No If yes, describe:

This site overlies the Central Pierce County Sole Source Aquifer. A pond/wetland is present on the site. Within two miles are multiple wetlands, parks and streams.

General Comments:



*Sunset Pointe Development*

**ARSON FIRE  
SITE INVESTIGATION  
(2010 - 2011)**

*– Initial Investigation: Site Photographs*  
Tacoma-Pierce County Health Department, May 10, 2011

ERTS 620837, Pioneer Museum  
Photos taken by S. Bell, 05.10.11



1. Burned house located near the NW corner of the site.



2. Storage building where drums are located.



3. Inside the storage building, view towards the SW corner of the former building footprint.



4. Looking into the doors of the storage building; drums are visible on the right, with a 5 gallon container visible in the entrance. Doors are located on the east side of the building.



ERTS 620837, Pioneer Museum  
Photos taken by S. Bell, 05.10.11



5. 5 gallon container visible in doorway



6. Leakage is visible around bottom of container, as well as a heavily stained area to the south (left)..



7. Closeup of leaking 5 gallon container; contents appear to be grease.



8. Closeup of stained area south of drum, on the inside of the doors to the building.



ERTS 620837, Pioneer Museum  
Photos taken by S. Bell, 05.10.11



9. Drums stored inside building, view to north



10. Same drums, view towards northwest corner of building.



11. Same drums, view towards northeast corner of building.



12. Same drums, view towards east/southeast; note doors to building in background.



ERTS 620837, Pioneer Museum  
Photos taken by S. Bell, 05.10.11



13. Same drums, view along east side of drum storage towards the south; note stained area on ground around drums.



14. Same group of drums; this photo shows a drum with the top cut off, exposed to rain, overflowing, located in the SW corner of the group of drums..



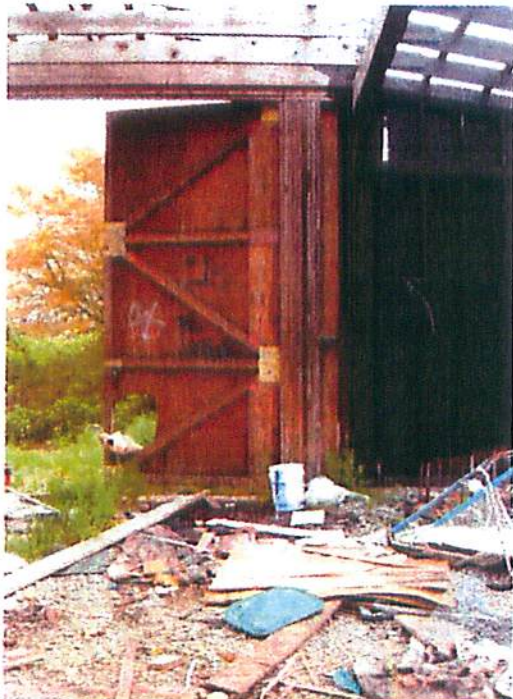
15. Sample locations are noted. View is looking towards the drums from the interior of the building, with the north wall in the background.



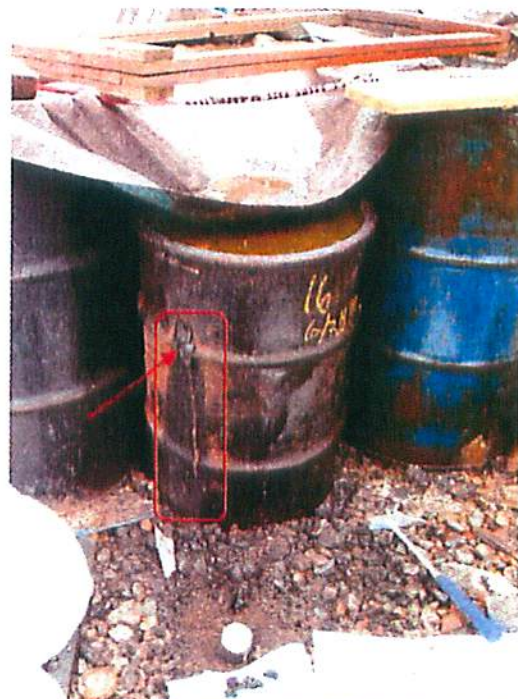
16. Sample S1-00-051011 collected near the east wall, and the interior edge of the south door.



ERTS 620837, Pioneer Museum  
Photos taken by S. Bell, 05.10.11



17. General sample location of S1-00-051011 indicated by the 5 gallon bucket.



18. Sample location of S2-00-051011, in the stained area adjacent to a leaking drum in the SE corner of the drum group. Note the material hardened on the side of the drum and emanating from a hole now plugged.



19. Photo depicts surface soil held together by sticky material at this location.



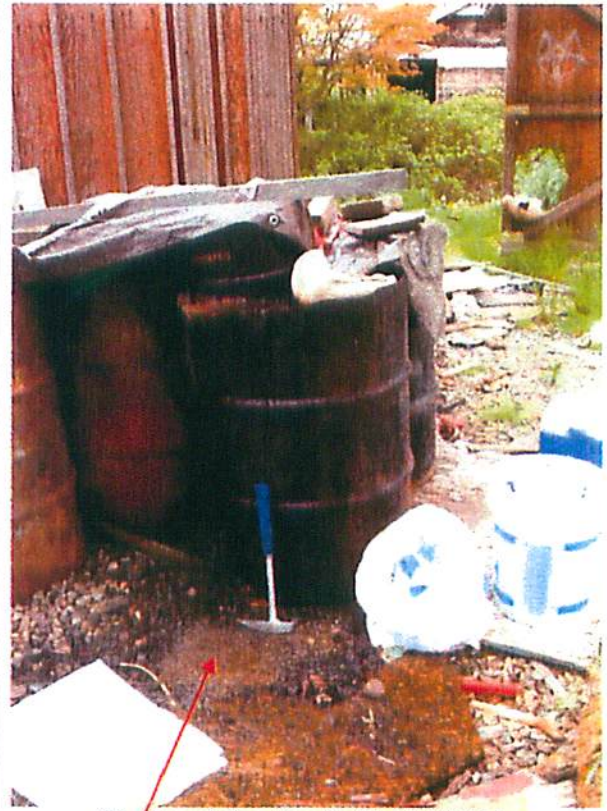
20. General sample location for S2-00-051011.



ERTS 620837, Pioneer Museum  
Photos taken by S. Bell, 05.10.11



21. General sample location for sample S3-00-051011.



22. Sample location for S3-00-051011.

**On Site Environmental, Inc.**

**Laboratory Analytical Results**

May 23, 2011



**OnSite  
Environmental Inc.**

14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 • (425) 883-3881

May 23, 2011

Sharon Bell  
Tacoma-Pierce County Health Department  
3629 South "D" Street  
Tacoma, WA 98418-6813

Re: Analytical Data for Project 620837  
Laboratory Reference No. 1105-092

Dear Sharon:

Enclosed are the analytical results and associated quality control data for samples submitted on May 11, 2011.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister  
Project Manager

Enclosures

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OnSite Environmental, Inc. 14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody,  
and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: May 23, 2011  
Samples Submitted: May 11, 2011  
Laboratory Reference: 1105-092  
Project: 620837

### Case Narrative

Samples were collected on May 10, 2011 and received by the laboratory on May 11, 2011. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

#### Organochlorine Pesticides by EPA 8081A Analysis

Due to negative effects of the matrix on the instrument, values for 4,4'-DDT and Methoxychlor in the continuing calibration verification standards (CCVs) were low. Therefore, values can be greater than reported. Since the degradation of the CCV standards was reproducible after re-injecting the sample extracts, the CCV degradation problem was attributed to the matrix of these samples.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

#### Semivolatiles EPA 8270D/SIM Analysis

Some MTCA cleanup levels are non-achievable for samples S1-00-051011, S2-00-051011, and S3-00-051011 due to the necessary dilutions of the samples.

Surrogate recovery data is not available for sample S2-00-051011 due to the necessary dilution of the sample coupled with sample matrix effects.

#### Organophosphorus Pesticides by EPA 8270D/SIM Analysis

The surrogate recovery for Triphenyl phosphate is not available due to sample matrix interference.

#### NWTPH Gx/BTEX Analysis

Method 5035 VOA vials were not provided for sample S2-00-051011. The sample was therefore extracted from a 4-ounce jar for analysis.

The chromatogram for sample S2-00-051011 is similar to mineral spirits.

Please note that any other QA/QC issues associated with these extractions and analyses will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.



Date of Report: May 23, 2011  
 Samples Submitted: May 11, 2011  
 Laboratory Reference: 1105-092  
 Project: 620837

**NWTPH-HCID**  
 (with acid/silica gel clean-up)

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	S1-00-051011					
Laboratory ID:	05-092-01					
Gasoline Range Organics	ND	33	NWTPH-HCID	5-11-11	5-11-11	U1
Diesel Range Organics	ND	6800	NWTPH-HCID	5-11-11	5-11-11	U1
Lube Oil	Detected	110	NWTPH-HCID	5-11-11	5-11-11	
Surrogate:	Percent Recovery	Control Limits				
<i>o</i> -Terphenyl	117	50-150				

Client ID:	S2-00-051011					
Laboratory ID:	05-092-02					
Gasoline Range Organics	Detected	110	NWTPH-HCID	5-11-11	5-12-11	
Diesel Range Organics	ND	530	NWTPH-HCID	5-11-11	5-12-11	U1
Lube Oil	Detected	540	NWTPH-HCID	5-11-11	5-12-11	
Surrogate:	Percent Recovery	Control Limits				
<i>o</i> -Terphenyl	121	50-150				

Client ID:	S3-00-051011					
Laboratory ID:	05-092-03					
Gasoline Range Organics	ND	21	NWTPH-HCID	5-11-11	5-11-11	
Diesel Range Organics	ND	5600	NWTPH-HCID	5-11-11	5-11-11	U1
Lube Oil	Detected	110	NWTPH-HCID	5-11-11	5-11-11	
Surrogate:	Percent Recovery	Control Limits				
<i>o</i> -Terphenyl	117	50-150				

Date of Report: May 23, 2011  
Samples Submitted: May 11, 2011  
Laboratory Reference: 1105-092  
Project: 620837

**NWTPH-HCID  
QUALITY CONTROL**  
(with acid/silica gel clean-up)

Matrix: Soil  
Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0511S1					
Gasoline Range Organics	ND	20	NWTPH-HCID	5-11-11	5-11-11	
Diesel Range Organics	ND	50	NWTPH-HCID	5-11-11	5-11-11	
Lube Oil Range Organics	ND	100	NWTPH-HCID	5-11-11	5-11-11	
Surrogate:	Percent Recovery	Control Limits				
<i>o</i> -Terphenyl	118	50-150				

Date of Report: May 23, 2011  
 Samples Submitted: May 11, 2011  
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 Project: 620837

SEMIVOLATILES by EPA 8270D/SIM  
 page 1 of 2

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	S1-00-051011					
Laboratory ID:	05-092-01					
n-Nitrosodimethylamine	ND	1.9	EPA 8270	5-16-11	5-18-11	
Pyridine	ND	1.9	EPA 8270	5-16-11	5-18-11	
Phenol	ND	1.9	EPA 8270	5-16-11	5-18-11	
Aniline	ND	1.9	EPA 8270	5-16-11	5-18-11	
bis(2-Chloroethyl)ether	ND	1.9	EPA 8270	5-16-11	5-18-11	
2-Chlorophenol	ND	1.9	EPA 8270	5-16-11	5-18-11	
1,3-Dichlorobenzene	ND	1.9	EPA 8270	5-16-11	5-18-11	
1,4-Dichlorobenzene	ND	1.9	EPA 8270	5-16-11	5-18-11	
Benzyl alcohol	ND	1.9	EPA 8270	5-16-11	5-18-11	
1,2-Dichlorobenzene	ND	1.9	EPA 8270	5-16-11	5-18-11	
2-Methylphenol (o-Cresol)	ND	1.9	EPA 8270	5-16-11	5-18-11	
bis(2-Chloroisopropyl)ether	ND	1.9	EPA 8270	5-16-11	5-18-11	
(3+4)-Methylphenol (m,p-Cresol)	ND	1.9	EPA 8270	5-16-11	5-18-11	
n-Nitroso-di-n-propylamine	ND	1.9	EPA 8270	5-16-11	5-18-11	
Hexachloroethane	ND	1.9	EPA 8270	5-16-11	5-18-11	
Nitrobenzene	ND	1.9	EPA 8270	5-16-11	5-18-11	
Isophorone	ND	1.9	EPA 8270	5-16-11	5-18-11	
2-Nitrophenol	ND	1.9	EPA 8270	5-16-11	5-18-11	
2,4-Dimethylphenol	ND	1.9	EPA 8270	5-16-11	5-18-11	
bis(2-Chloroethoxy)methane	ND	1.9	EPA 8270	5-16-11	5-18-11	
2,4-Dichlorophenol	ND	1.9	EPA 8270	5-16-11	5-18-11	
1,2,4-Trichlorobenzene	ND	1.9	EPA 8270	5-16-11	5-18-11	
Naphthalene	ND	0.015	EPA 8270/SIM	5-16-11	5-20-11	
4-Chloroaniline	ND	1.9	EPA 8270	5-16-11	5-18-11	
Hexachlorobutadiene	ND	1.9	EPA 8270	5-16-11	5-18-11	
4-Chloro-3-methylphenol	ND	1.9	EPA 8270	5-16-11	5-18-11	
2-Methylnaphthalene	ND	0.015	EPA 8270/SIM	5-16-11	5-20-11	
1-Methylnaphthalene	ND	0.015	EPA 8270/SIM	5-16-11	5-20-11	
Hexachlorocyclopentadiene	ND	1.9	EPA 8270	5-16-11	5-18-11	
2,4,6-Trichlorophenol	ND	1.9	EPA 8270	5-16-11	5-18-11	
2,3-Dichloroaniline	ND	1.9	EPA 8270	5-16-11	5-18-11	
2,4,5-Trichlorophenol	ND	1.9	EPA 8270	5-16-11	5-18-11	
2-Chloronaphthalene	ND	1.9	EPA 8270	5-16-11	5-18-11	
2-Nitroaniline	ND	1.9	EPA 8270	5-16-11	5-18-11	
1,4-Dinitrobenzene	ND	1.9	EPA 8270	5-16-11	5-18-11	
Dimethylphthalate	ND	1.9	EPA 8270	5-16-11	5-18-11	
1,3-Dinitrobenzene	ND	1.9	EPA 8270	5-16-11	5-18-11	
2,6-Dinitrotoluene	ND	1.9	EPA 8270	5-16-11	5-18-11	
1,2-Dinitrobenzene	ND	1.9	EPA 8270	5-16-11	5-18-11	
Acenaphthylene	ND	0.015	EPA 8270/SIM	5-16-11	5-20-11	
3-Nitroaniline	ND	1.9	EPA 8270	5-16-11	5-18-11	

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Date of Report: May 23, 2011  
 Samples Submitted: May 11, 2011  
 Laboratory Reference: 1105-092  
 Project: 620837

SEMIVOLATILES by EPA 8270D/SIM  
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	S1-00-051011					
Laboratory ID:	05-092-01					
2,4-Dinitrophenol	ND	9.3	EPA 8270	5-16-11	5-18-11	
Acenaphthene	0.019	0.015	EPA 8270/SIM	5-16-11	5-20-11	
4-Nitrophenol	ND	1.9	EPA 8270	5-16-11	5-18-11	
2,4-Dinitrotoluene	ND	1.9	EPA 8270	5-16-11	5-18-11	
Dibenzofuran	ND	1.9	EPA 8270	5-16-11	5-18-11	
2,3,5,6-Tetrachlorophenol	ND	1.9	EPA 8270	5-16-11	5-18-11	
2,3,4,6-Tetrachlorophenol	ND	1.9	EPA 8270	5-16-11	5-18-11	
Diethylphthalate	ND	9.3	EPA 8270	5-16-11	5-18-11	
4-Chlorophenyl-phenylether	ND	1.9	EPA 8270	5-16-11	5-18-11	
4-Nitroaniline	ND	1.9	EPA 8270	5-16-11	5-18-11	
Fluorene	ND	0.015	EPA 8270/SIM	5-16-11	5-20-11	
4,6-Dinitro-2-methylphenol	ND	9.3	EPA 8270	5-16-11	5-18-11	
n-Nitrosodiphenylamine	ND	1.9	EPA 8270	5-16-11	5-18-11	
1,2-Diphenylhydrazine	ND	1.9	EPA 8270	5-16-11	5-18-11	
4-Bromophenyl-phenylether	ND	1.9	EPA 8270	5-16-11	5-18-11	
Hexachlorobenzene	ND	1.9	EPA 8270	5-16-11	5-18-11	
Pentachlorophenol	ND	9.3	EPA 8270	5-16-11	5-18-11	
Phenanthrene	ND	0.015	EPA 8270/SIM	5-16-11	5-20-11	
Anthracene	ND	0.015	EPA 8270/SIM	5-16-11	5-20-11	
Carbazole	ND	1.9	EPA 8270	5-16-11	5-18-11	
Di-n-butylphthalate	ND	1.9	EPA 8270	5-16-11	5-18-11	
Fluoranthene	ND	0.015	EPA 8270/SIM	5-16-11	5-20-11	
Benzidine	ND	19	EPA 8270	5-16-11	5-18-11	
Pyrene	ND	0.015	EPA 8270/SIM	5-16-11	5-20-11	
Butylbenzylphthalate	ND	19	EPA 8270	5-16-11	5-18-11	
bis-2-Ethylhexyladipate	ND	1.9	EPA 8270	5-16-11	5-18-11	
3,3'-Dichlorobenzidine	ND	19	EPA 8270	5-16-11	5-18-11	
Benzo[a]anthracene	ND	0.015	EPA 8270/SIM	5-16-11	5-20-11	
Chrysene	ND	0.015	EPA 8270/SIM	5-16-11	5-20-11	
bis(2-Ethylhexyl)phthalate	ND	1.9	EPA 8270	5-16-11	5-18-11	
Di-n-octylphthalate	ND	1.9	EPA 8270	5-16-11	5-18-11	
Benzo[b]fluoranthene	0.029	0.015	EPA 8270/SIM	5-16-11	5-20-11	
Benzo[j,k]fluoranthene	0.040	0.015	EPA 8270/SIM	5-16-11	5-20-11	
Benzo[a]pyrene	0.13	0.015	EPA 8270/SIM	5-16-11	5-20-11	
Indeno[1,2,3-cd]pyrene	ND	0.015	EPA 8270/SIM	5-16-11	5-20-11	
Dibenz[a,h]anthracene	ND	0.015	EPA 8270/SIM	5-16-11	5-20-11	
Benzo[g,h,i]perylene	ND	0.015	EPA 8270/SIM	5-16-11	5-20-11	
Surrogate:	Percent Recovery	Control Limits				
2-Fluorophenol	73	30 - 97				
Phenol-d6	87	40 - 104				
Nitrobenzene-d5	75	35 - 102				
2-Fluorobiphenyl	91	44 - 97				
2,4,6-Tribromophenol	91	41 - 110				
Terphenyl-d14	86	53 - 107				

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 Laboratory Reference: 1105-092  
 Project: 620837

SEMIVOLATILES by EPA 8270D/SIM  
 page 1 of 2

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	S2-00-051011					
Laboratory ID:	05-092-02					
n-Nitrosodimethylamine	ND	3.6	EPA 8270	5-16-11	5-19-11	
Pyridine	ND	36	EPA 8270	5-16-11	5-19-11	
Phenol	ND	3.6	EPA 8270	5-16-11	5-19-11	
Aniline	ND	3.6	EPA 8270	5-16-11	5-19-11	
bis(2-Chloroethyl)ether	ND	3.6	EPA 8270	5-16-11	5-19-11	
2-Chlorophenol	ND	3.6	EPA 8270	5-16-11	5-19-11	
1,3-Dichlorobenzene	ND	3.6	EPA 8270	5-16-11	5-19-11	
1,4-Dichlorobenzene	ND	3.6	EPA 8270	5-16-11	5-19-11	
Benzyl alcohol	ND	3.6	EPA 8270	5-16-11	5-19-11	
1,2-Dichlorobenzene	ND	3.6	EPA 8270	5-16-11	5-19-11	
2-Methylphenol (o-Cresol)	ND	3.6	EPA 8270	5-16-11	5-19-11	
bis(2-Chloroisopropyl)ether	ND	3.6	EPA 8270	5-16-11	5-19-11	
(3+4)-Methylphenol (m,p-Cresol)	ND	3.6	EPA 8270	5-16-11	5-19-11	
n-Nitroso-di-n-propylamine	ND	3.6	EPA 8270	5-16-11	5-19-11	
Hexachloroethane	ND	3.6	EPA 8270	5-16-11	5-19-11	
Nitrobenzene	ND	3.6	EPA 8270	5-16-11	5-19-11	
Isophorone	ND	3.6	EPA 8270	5-16-11	5-19-11	
2-Nitrophenol	ND	3.6	EPA 8270	5-16-11	5-19-11	
2,4-Dimethylphenol	ND	36	EPA 8270	5-16-11	5-19-11	
bis(2-Chloroethoxy)methane	ND	3.6	EPA 8270	5-16-11	5-19-11	
2,4-Dichlorophenol	ND	3.6	EPA 8270	5-16-11	5-19-11	
1,2,4-Trichlorobenzene	ND	3.6	EPA 8270	5-16-11	5-19-11	
Naphthalene	0.55	0.036	EPA 8270/SIM	5-16-11	5-20-11	
4-Chloroaniline	ND	3.6	EPA 8270	5-16-11	5-19-11	
Hexachlorobutadiene	ND	3.6	EPA 8270	5-16-11	5-19-11	
4-Chloro-3-methylphenol	ND	3.6	EPA 8270	5-16-11	5-19-11	
2-Methylnaphthalene	0.095	0.036	EPA 8270/SIM	5-16-11	5-20-11	
1-Methylnaphthalene	0.055	0.036	EPA 8270/SIM	5-16-11	5-20-11	
Hexachlorocyclopentadiene	ND	3.6	EPA 8270	5-16-11	5-19-11	
2,4,6-Trichlorophenol	ND	3.6	EPA 8270	5-16-11	5-19-11	
2,3-Dichloroaniline	ND	3.6	EPA 8270	5-16-11	5-19-11	
2,4,5-Trichlorophenol	ND	3.6	EPA 8270	5-16-11	5-19-11	
2-Chloronaphthalene	ND	3.6	EPA 8270	5-16-11	5-19-11	
2-Nitroaniline	ND	3.6	EPA 8270	5-16-11	5-19-11	
1,4-Dinitrobenzene	ND	3.6	EPA 8270	5-16-11	5-19-11	
Dimethylphthalate	ND	3.6	EPA 8270	5-16-11	5-19-11	
1,3-Dinitrobenzene	ND	3.6	EPA 8270	5-16-11	5-19-11	
2,6-Dinitrotoluene	ND	3.6	EPA 8270	5-16-11	5-19-11	
1,2-Dinitrobenzene	ND	3.6	EPA 8270	5-16-11	5-19-11	
Acenaphthylene	ND	0.036	EPA 8270/SIM	5-16-11	5-20-11	
3-Nitroaniline	ND	3.6	EPA 8270	5-16-11	5-19-11	

Date of Report: May 23, 2011  
 Samples Submitted: May 11, 2011  
 Laboratory Reference: 1105-092  
 Project: 620837

SEMIVOLATILES by EPA 8270D/SIM  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	S2-00-051011					
Laboratory ID:	05-092-02					
2,4-Dinitrophenol	ND	18	EPA 8270	5-16-11	5-19-11	
Acenaphthene	ND	0.036	EPA 8270/SIM	5-16-11	5-20-11	
4-Nitrophenol	ND	3.6	EPA 8270	5-16-11	5-19-11	
2,4-Dinitrotoluene	ND	3.6	EPA 8270	5-16-11	5-19-11	
Dibenzofuran	ND	3.6	EPA 8270	5-16-11	5-19-11	
2,3,5,6-Tetrachlorophenol	ND	3.6	EPA 8270	5-16-11	5-19-11	
2,3,4,6-Tetrachlorophenol	ND	3.6	EPA 8270	5-16-11	5-19-11	
Diethylphthalate	ND	18	EPA 8270	5-16-11	5-19-11	
4-Chlorophenyl-phenylether	ND	3.6	EPA 8270	5-16-11	5-19-11	
4-Nitroaniline	ND	3.6	EPA 8270	5-16-11	5-19-11	
Fluorene	ND	0.036	EPA 8270/SIM	5-16-11	5-20-11	
4,6-Dinitro-2-methylphenol	ND	18	EPA 8270	5-16-11	5-19-11	
n-Nitrosodiphenylamine	ND	3.6	EPA 8270	5-16-11	5-19-11	
1,2-Diphenylhydrazine	ND	3.6	EPA 8270	5-16-11	5-19-11	
4-Bromophenyl-phenylether	ND	3.6	EPA 8270	5-16-11	5-19-11	
Hexachlorobenzene	ND	3.6	EPA 8270	5-16-11	5-19-11	
Pentachlorophenol	ND	18	EPA 8270	5-16-11	5-19-11	
Phenanthrene	0.060	0.036	EPA 8270/SIM	5-16-11	5-20-11	
Anthracene	ND	0.036	EPA 8270/SIM	5-16-11	5-20-11	
Carbazole	ND	3.6	EPA 8270	5-16-11	5-19-11	
Di-n-butylphthalate	ND	3.6	EPA 8270	5-16-11	5-19-11	
Fluoranthene	ND	0.036	EPA 8270/SIM	5-16-11	5-20-11	
Benzidine	ND	36	EPA 8270	5-16-11	5-19-11	
Pyrene	0.051	0.036	EPA 8270/SIM	5-16-11	5-20-11	
Butylbenzylphthalate	ND	36	EPA 8270	5-16-11	5-19-11	
bis-2-Ethylhexyladipate	ND	3.6	EPA 8270	5-16-11	5-19-11	
3,3'-Dichlorobenzidine	ND	36	EPA 8270	5-16-11	5-19-11	
Benzo[a]anthracene	0.076	0.036	EPA 8270/SIM	5-16-11	5-20-11	
Chrysene	0.17	0.036	EPA 8270/SIM	5-16-11	5-20-11	
bis(2-Ethylhexyl)phthalate	ND	3.6	EPA 8270	5-16-11	5-19-11	
Di-n-octylphthalate	ND	3.6	EPA 8270	5-16-11	5-19-11	
Benzo[b]fluoranthene	0.037	0.036	EPA 8270/SIM	5-16-11	5-20-11	
Benzo[j,k]fluoranthene	ND	0.036	EPA 8270/SIM	5-16-11	5-20-11	
Benzo[a]pyrene	0.038	0.036	EPA 8270/SIM	5-16-11	5-20-11	
Indeno[1,2,3-cd]pyrene	ND	0.036	EPA 8270/SIM	5-16-11	5-20-11	
Dibenz[a,h]anthracene	ND	0.036	EPA 8270/SIM	5-16-11	5-20-11	
Benzo[g,h,i]perylene	ND	0.036	EPA 8270/SIM	5-16-11	5-20-11	
Surrogate:	Percent Recovery	Control Limits				
2-Fluorophenol	..	30 - 97				S
Phenol-d6	..	40 - 104				S
Nitrobenzene-d5	..	35 - 102				S
2-Fluorobiphenyl	..	44 - 97				S
2,4,6-Tribromophenol	..	41 - 110				S
Terphenyl-d14	..	53 - 107				S

OnSite Environmental, Inc. 14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 (425) 883-3881

This report pertains to the samples analyzed in accordance with the chain of custody,  
 and is intended only for the use of the individual or company to whom it is addressed.

Date of Report: May 23, 2011  
 Samples Submitted: May 11, 2011  
 Laboratory Reference: 1105-092  
 Project: 620837

SEMIVOLATILES by EPA 8270D/SIM  
 page 1 of 2

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	S3-00-051011					
Laboratory ID:	05-092-03					
n-Nitrosodimethylamine	ND	1.8	EPA 8270	5-16-11	5-19-11	
Pyridine	ND	18	EPA 8270	5-16-11	5-19-11	
Phenol	ND	1.8	EPA 8270	5-16-11	5-19-11	
Aniline	ND	1.8	EPA 8270	5-16-11	5-19-11	
bis(2-Chloroethyl)ether	ND	1.8	EPA 8270	5-16-11	5-19-11	
2-Chlorophenol	ND	1.8	EPA 8270	5-16-11	5-19-11	
1,3-Dichlorobenzene	ND	1.8	EPA 8270	5-16-11	5-19-11	
1,4-Dichlorobenzene	ND	1.8	EPA 8270	5-16-11	5-19-11	
Benzyl alcohol	ND	1.8	EPA 8270	5-16-11	5-19-11	
1,2-Dichlorobenzene	ND	1.8	EPA 8270	5-16-11	5-19-11	
2-Methylphenol (o-Cresol)	ND	1.8	EPA 8270	5-16-11	5-19-11	
bis(2-Chloroisopropyl)ether	ND	1.8	EPA 8270	5-16-11	5-19-11	
(3+4)-Methylphenol (m,p-Cresol)	ND	1.8	EPA 8270	5-16-11	5-19-11	
n-Nitroso-di-n-propylamine	ND	1.8	EPA 8270	5-16-11	5-19-11	
Hexachloroethane	ND	1.8	EPA 8270	5-16-11	5-19-11	
Nitrobenzene	ND	1.8	EPA 8270	5-16-11	5-19-11	
Isophorone	ND	1.8	EPA 8270	5-16-11	5-19-11	
2-Nitrophenol	ND	1.8	EPA 8270	5-16-11	5-19-11	
2,4-Dimethylphenol	ND	18	EPA 8270	5-16-11	5-19-11	
bis(2-Chloroethoxy)methane	ND	1.8	EPA 8270	5-16-11	5-19-11	
2,4-Dichlorophenol	ND	1.8	EPA 8270	5-16-11	5-19-11	
1,2,4-Trichlorobenzene	ND	1.8	EPA 8270	5-16-11	5-19-11	
Naphthalene	ND	0.014	EPA 8270/SIM	5-16-11	5-19-11	
4-Chloroaniline	ND	1.8	EPA 8270	5-16-11	5-19-11	
Hexachlorobutadiene	ND	1.8	EPA 8270	5-16-11	5-19-11	
4-Chloro-3-methylphenol	ND	1.8	EPA 8270	5-16-11	5-19-11	
2-Methylnaphthalene	ND	0.014	EPA 8270/SIM	5-16-11	5-19-11	
1-Methylnaphthalene	ND	0.014	EPA 8270/SIM	5-16-11	5-19-11	
Hexachlorocyclopentadiene	ND	1.8	EPA 8270	5-16-11	5-19-11	
2,4,6-Trichlorophenol	ND	1.8	EPA 8270	5-16-11	5-19-11	
2,3-Dichloroaniline	ND	1.8	EPA 8270	5-16-11	5-19-11	
2,4,5-Trichlorophenol	ND	1.8	EPA 8270	5-16-11	5-19-11	
2-Chloronaphthalene	ND	1.8	EPA 8270	5-16-11	5-19-11	
2-Nitroaniline	ND	1.8	EPA 8270	5-16-11	5-19-11	
1,4-Dinitrobenzene	ND	1.8	EPA 8270	5-16-11	5-19-11	
Dimethylphthalate	ND	1.8	EPA 8270	5-16-11	5-19-11	
1,3-Dinitrobenzene	ND	1.8	EPA 8270	5-16-11	5-19-11	
2,6-Dinitrotoluene	ND	1.8	EPA 8270	5-16-11	5-19-11	
1,2-Dinitrobenzene	ND	1.8	EPA 8270	5-16-11	5-19-11	
Acenaphthylene	ND	0.014	EPA 8270/SIM	5-16-11	5-19-11	
3-Nitroaniline	ND	1.8	EPA 8270	5-16-11	5-19-11	

Date of Report: May 23, 2011  
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 Laboratory Reference: 1105-092  
 Project: 620837

SEMIVOLATILES by EPA 8270D/SIM  
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	S3-00-051011					
Laboratory ID:	05-092-03					
2,4-Dinitrophenol	ND	8.9	EPA 8270	5-16-11	5-19-11	
Acenaphthene	0.015	0.014	EPA 8270/SIM	5-16-11	5-19-11	
4-Nitrophenol	ND	1.8	EPA 8270	5-16-11	5-19-11	
2,4-Dinitrotoluene	ND	1.8	EPA 8270	5-16-11	5-19-11	
Dibenzofuran	ND	1.8	EPA 8270	5-16-11	5-19-11	
2,3,5,6-Tetrachlorophenol	ND	1.8	EPA 8270	5-16-11	5-19-11	
2,3,4,6-Tetrachlorophenol	ND	1.8	EPA 8270	5-16-11	5-19-11	
Diethylphthalate	ND	8.9	EPA 8270	5-16-11	5-19-11	
4-Chlorophenyl-phenylether	ND	1.8	EPA 8270	5-16-11	5-19-11	
4-Nitroaniline	ND	1.8	EPA 8270	5-16-11	5-19-11	
Fluorene	ND	0.014	EPA 8270/SIM	5-16-11	5-19-11	
4,6-Dinitro-2-methylphenol	ND	8.9	EPA 8270	5-16-11	5-19-11	
n-Nitrosodiphenylamine	ND	1.8	EPA 8270	5-16-11	5-19-11	
1,2-Diphenylhydrazine	ND	1.8	EPA 8270	5-16-11	5-19-11	
4-Bromophenyl-phenylether	ND	1.8	EPA 8270	5-16-11	5-19-11	
Hexachlorobenzene	ND	1.8	EPA 8270	5-16-11	5-19-11	
Pentachlorophenol	ND	8.9	EPA 8270	5-16-11	5-19-11	
Phenanthrene	0.052	0.014	EPA 8270/SIM	5-16-11	5-19-11	
Anthracene	ND	0.014	EPA 8270/SIM	5-16-11	5-19-11	
Carbazole	ND	1.8	EPA 8270	5-16-11	5-19-11	
Di-n-butylphthalate	ND	1.8	EPA 8270	5-16-11	5-19-11	
Fluoranthene	ND	0.014	EPA 8270/SIM	5-16-11	5-19-11	
Benzidine	ND	18	EPA 8270	5-16-11	5-19-11	
Pyrene	ND	0.014	EPA 8270/SIM	5-16-11	5-19-11	
Butylbenzylphthalate	ND	18	EPA 8270	5-16-11	5-19-11	
bis-2-Ethylhexyladipate	ND	1.8	EPA 8270	5-16-11	5-19-11	
3,3'-Dichlorobenzidine	ND	18	EPA 8270	5-16-11	5-19-11	
Benzo[a]anthracene	ND	0.014	EPA 8270/SIM	5-16-11	5-19-11	
Chrysene	ND	0.014	EPA 8270/SIM	5-16-11	5-19-11	
bis(2-Ethylhexyl)phthalate	ND	1.8	EPA 8270	5-16-11	5-19-11	
Di-n-octylphthalate	ND	1.8	EPA 8270	5-16-11	5-19-11	
Benzo[b]fluoranthene	0.057	0.014	EPA 8270/SIM	5-16-11	5-19-11	
Benzo[j,k]fluoranthene	0.23	0.014	EPA 8270/SIM	5-16-11	5-19-11	
Benzo[a]pyrene	0.044	0.014	EPA 8270/SIM	5-16-11	5-19-11	
Indeno[1,2,3-cd]pyrene	ND	0.014	EPA 8270/SIM	5-16-11	5-19-11	
Dibenz[a,h]anthracene	ND	0.014	EPA 8270/SIM	5-16-11	5-19-11	
Benzo[g,h,i]perylene	ND	0.014	EPA 8270/SIM	5-16-11	5-19-11	
Surrogate:	Percent Recovery	Control Limits				
2-Fluorophenol	83	30 - 97				
Phenol-d6	96	40 - 104				
Nitrobenzene-d5	94	35 - 102				
2-Fluorobiphenyl	89	44 - 97				
2,4,6-Tribromophenol	87	41 - 110				
Terphenyl-d14	92	53 - 107				

OnSite Environmental, Inc. 14648 NE 95<sup>th</sup> Street, Redmond, WA 98052 (425) 883-3881

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Date of Report: May 23, 2011  
 Samples Submitted: May 11, 2011  
 Laboratory Reference: 1105-092  
 Project: 620837

SEMIVOLATILES by EPA 8270D/SIM  
 METHOD BLANK QUALITY CONTROL  
 page 1 of 2

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<hr/>						
Laboratory ID:	MB0516S3					
n-Nitrosodimethylamine	ND	0.033	EPA 8270	5-16-11	5-17-11	
Pyridine	ND	0.33	EPA 8270	5-16-11	5-17-11	
Phenol	ND	0.033	EPA 8270	5-16-11	5-17-11	
Aniline	ND	0.033	EPA 8270	5-16-11	5-17-11	
bis(2-Chloroethyl)ether	ND	0.033	EPA 8270	5-16-11	5-17-11	
2-Chlorophenol	ND	0.033	EPA 8270	5-16-11	5-17-11	
1,3-Dichlorobenzene	ND	0.033	EPA 8270	5-16-11	5-17-11	
1,4-Dichlorobenzene	ND	0.033	EPA 8270	5-16-11	5-17-11	
Benzyl alcohol	ND	0.033	EPA 8270	5-16-11	5-17-11	
1,2-Dichlorobenzene	ND	0.033	EPA 8270	5-16-11	5-17-11	
2-Methylphenol (o-Cresol)	ND	0.033	EPA 8270	5-16-11	5-17-11	
bis(2-Chloroisopropyl)ether	ND	0.033	EPA 8270	5-16-11	5-17-11	
(3+4)-Methylphenol (m,p-Cresol)	ND	0.033	EPA 8270	5-16-11	5-17-11	
n-Nitroso-di-n-propylamine	ND	0.033	EPA 8270	5-16-11	5-17-11	
Hexachloroethane	ND	0.033	EPA 8270	5-16-11	5-17-11	
Nitrobenzene	ND	0.033	EPA 8270	5-16-11	5-17-11	
Isophorone	ND	0.033	EPA 8270	5-16-11	5-17-11	
2-Nitrophenol	ND	0.033	EPA 8270	5-16-11	5-17-11	
2,4-Dimethylphenol	ND	0.33	EPA 8270	5-16-11	5-17-11	
bis(2-Chloroethoxy)methane	ND	0.033	EPA 8270	5-16-11	5-17-11	
2,4-Dichlorophenol	ND	0.033	EPA 8270	5-16-11	5-17-11	
1,2,4-Trichlorobenzene	ND	0.033	EPA 8270	5-16-11	5-17-11	
Naphthalene	ND	0.0067	EPA 8270/SIM	5-16-11	5-19-11	
4-Chloroaniline	ND	0.033	EPA 8270	5-16-11	5-17-11	
Hexachlorobutadiene	ND	0.033	EPA 8270	5-16-11	5-17-11	
4-Chloro-3-methylphenol	ND	0.033	EPA 8270	5-16-11	5-17-11	
2-Methylnaphthalene	ND	0.0067	EPA 8270/SIM	5-16-11	5-19-11	
1-Methylnaphthalene	ND	0.0067	EPA 8270/SIM	5-16-11	5-19-11	
Hexachlorocyclopentadiene	ND	0.033	EPA 8270	5-16-11	5-17-11	
2,4,6-Trichlorophenol	ND	0.033	EPA 8270	5-16-11	5-17-11	
2,3-Dichloroaniline	ND	0.033	EPA 8270	5-16-11	5-17-11	
2,4,5-Trichlorophenol	ND	0.033	EPA 8270	5-16-11	5-17-11	
2-Chloronaphthalene	ND	0.033	EPA 8270	5-16-11	5-17-11	
2-Nitroaniline	ND	0.033	EPA 8270	5-16-11	5-17-11	
1,4-Dinitrobenzene	ND	0.033	EPA 8270	5-16-11	5-17-11	
Dimethylphthalate	ND	0.033	EPA 8270	5-16-11	5-17-11	
1,3-Dinitrobenzene	ND	0.033	EPA 8270	5-16-11	5-17-11	
2,6-Dinitrotoluene	ND	0.033	EPA 8270	5-16-11	5-17-11	
1,2-Dinitrobenzene	ND	0.033	EPA 8270	5-16-11	5-17-11	
Acenaphthylene	ND	0.0067	EPA 8270/SIM	5-16-11	5-19-11	
3-Nitroaniline	ND	0.033	EPA 8270	5-16-11	5-17-11	

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Date of Report: May 23, 2011  
 Samples Submitted: May 11, 2011  
 Laboratory Reference: 1105-092  
 Project: 620837

SEMIVOLATILES by EPA 8270D/SIM  
 METHOD BLANK QUALITY CONTROL  
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID: MB0516S3						
2,4-Dinitrophenol	ND	0.17	EPA 8270	5-16-11	5-17-11	
Acenaphthene	ND	0.0067	EPA 8270/SIM	5-16-11	5-19-11	
4-Nitrophenol	ND	0.033	EPA 8270	5-16-11	5-17-11	
2,4-Dinitrotoluene	ND	0.033	EPA 8270	5-16-11	5-17-11	
Dibenzofuran	ND	0.033	EPA 8270	5-16-11	5-17-11	
2,3,5,6-Tetrachlorophenol	ND	0.033	EPA 8270	5-16-11	5-17-11	
2,3,4,6-Tetrachlorophenol	ND	0.033	EPA 8270	5-16-11	5-17-11	
Diethylphthalate	ND	0.17	EPA 8270	5-16-11	5-17-11	
4-Chlorophenyl-phenylether	ND	0.033	EPA 8270	5-16-11	5-17-11	
4-Nitroaniline	ND	0.033	EPA 8270	5-16-11	5-17-11	
Fluorene	ND	0.0067	EPA 8270/SIM	5-16-11	5-19-11	
4,6-Dinitro-2-methylphenol	ND	0.17	EPA 8270	5-16-11	5-17-11	
n-Nitrosodiphenylamine	ND	0.033	EPA 8270	5-16-11	5-17-11	
1,2-Diphenylhydrazine	ND	0.033	EPA 8270	5-16-11	5-17-11	
4-Bromophenyl-phenylether	ND	0.033	EPA 8270	5-16-11	5-17-11	
Hexachlorobenzene	ND	0.033	EPA 8270	5-16-11	5-17-11	
Pentachlorophenol	ND	0.17	EPA 8270	5-16-11	5-17-11	
Phenanthrene	ND	0.0067	EPA 8270/SIM	5-16-11	5-19-11	
Anthracene	ND	0.0067	EPA 8270/SIM	5-16-11	5-19-11	
Carbazole	ND	0.033	EPA 8270	5-16-11	5-17-11	
Di-n-butylphthalate	ND	0.33	EPA 8270	5-16-11	5-17-11	
Fluoranthene	ND	0.0067	EPA 8270/SIM	5-16-11	5-19-11	
Benzidine	ND	0.33	EPA 8270	5-16-11	5-17-11	
Pyrene	ND	0.0067	EPA 8270/SIM	5-16-11	5-19-11	
Butylbenzylphthalate	ND	0.33	EPA 8270	5-16-11	5-17-11	
bis-2-Ethylhexyladipate	ND	0.033	EPA 8270	5-16-11	5-17-11	
3,3'-Dichlorobenzidine	ND	0.33	EPA 8270	5-16-11	5-17-11	
Benzo[a]anthracene	ND	0.0067	EPA 8270/SIM	5-16-11	5-19-11	
Chrysene	ND	0.0067	EPA 8270/SIM	5-16-11	5-19-11	
bis(2-Ethylhexyl)phthalate	ND	0.033	EPA 8270	5-16-11	5-17-11	
Di-n-octylphthalate	ND	0.033	EPA 8270	5-16-11	5-17-11	
Benzo[b]fluoranthene	ND	0.0067	EPA 8270/SIM	5-16-11	5-19-11	
Benzo[j,k]fluoranthene	ND	0.0067	EPA 8270/SIM	5-16-11	5-19-11	
Benzo[a]pyrene	ND	0.0067	EPA 8270/SIM	5-16-11	5-19-11	
Indeno[1,2,3-cd]pyrene	ND	0.0067	EPA 8270/SIM	5-16-11	5-19-11	
Dibenz[a,h]anthracene	ND	0.0067	EPA 8270/SIM	5-16-11	5-19-11	
Benzo[g,h,i]perylene	ND	0.0067	EPA 8270/SIM	5-16-11	5-19-11	
Surrogate:	Percent Recovery	Control Limits				
2-Fluorophenol	58	30 - 97				
Phenol-d6	64	40 - 104				
Nitrobenzene-d5	60	35 - 102				
2-Fluorobiphenyl	66	44 - 97				
2,4,6-Tribromophenol	71	41 - 110				
Terphenyl-d14	74	53 - 107				

Date of Report: May 23, 2011  
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 Laboratory Reference: 1105-092  
 Project: 620837

**SEMIVOLATILES by EPA 8270D/SIM  
 SB/SBD QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0516S3									
	SB	SBD	SB	SBD	SB	SBD				
Phenol	0.895	1.04	1.33	1.33	67	78	31 - 111	15	34	
2-Chlorophenol	0.899	1.03	1.33	1.33	68	77	29 - 112	14	37	
1,4-Dichlorobenzene	0.421	0.488	0.667	0.667	63	73	24 - 100	15	37	
n-Nitroso-di-n-propylamine	0.435	0.491	0.667	0.667	65	74	35 - 104	12	32	
1,2,4-Trichlorobenzene	0.420	0.472	0.667	0.667	63	71	29 - 94	12	35	
4-Chloro-3-methylphenol	0.967	1.06	1.33	1.33	73	80	53 - 104	9	25	
Acenaphthene	0.462	0.505	0.667	0.667	69	76	50 - 95	9	23	
4-Nitrophenol	1.06	1.14	1.33	1.33	80	86	42 - 126	7	30	
2,4-Dinitrotoluene	0.496	0.565	0.667	0.667	74	85	53 - 103	13	31	
Pentachlorophenol	0.971	1.06	1.33	1.33	73	80	50 - 116	9	30	
Pyrene	0.495	0.531	0.667	0.667	74	80	57 - 108	7	27	
Surrogate:										
2-Fluorophenol					62	71	30 - 97			
Phenol-d6					69	80	40 - 104			
Nitrobenzene-d5					70	77	35 - 102			
2-Fluorobiphenyl					72	76	44 - 97			
2,4,6-Tribromophenol					74	80	41 - 110			
Terphenyl-d14					75	81	53 - 107			

Date of Report: May 23, 2011  
 Samples Submitted: May 11, 2011  
 Laboratory Reference: 1105-092  
 Project: 620837

# PCBs by EPA 8082

Matrix: Soil  
 Units: mg/Kg (ppm)

Chloroform: 1 mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	S1-00-051011					
Laboratory ID:	05-092-01					
Aroclor 1016	ND	0.056	EPA 8082	5-11-11	5-12-11	
Aroclor 1221	ND	0.056	EPA 8082	5-11-11	5-12-11	
Aroclor 1232	ND	0.056	EPA 8082	5-11-11	5-12-11	
Aroclor 1242	ND	0.056	EPA 8082	5-11-11	5-12-11	
Aroclor 1248	ND	0.056	EPA 8082	5-11-11	5-12-11	
Aroclor 1254	ND	0.056	EPA 8082	5-11-11	5-12-11	
Aroclor 1260	ND	0.056	EPA 8082	5-11-11	5-12-11	
Surrogate:	Percent Recovery	Control Limits				
DCB	72	42-123				
Client ID:	S2-00-051011					
Laboratory ID:	05-092-02					
Aroclor 1016	ND	0.054	EPA 8082	5-11-11	5-12-11	
Aroclor 1221	ND	0.054	EPA 8082	5-11-11	5-12-11	
Aroclor 1232	ND	0.054	EPA 8082	5-11-11	5-12-11	
Aroclor 1242	ND	0.054	EPA 8082	5-11-11	5-12-11	
Aroclor 1248	ND	0.054	EPA 8082	5-11-11	5-12-11	
Aroclor 1254	ND	0.054	EPA 8082	5-11-11	5-12-11	
Aroclor 1260	ND	0.054	EPA 8082	5-11-11	5-12-11	
Surrogate:	Percent Recovery	Control Limits				
DCB	71	42-123				
Client ID:	S3-00-051011					
Laboratory ID:	05-092-03					
Aroclor 1016	ND	0.053	EPA 8082	5-11-11	5-12-11	
Aroclor 1221	ND	0.053	EPA 8082	5-11-11	5-12-11	
Aroclor 1232	ND	0.053	EPA 8082	5-11-11	5-12-11	
Aroclor 1242	ND	0.053	EPA 8082	5-11-11	5-12-11	
Aroclor 1248	ND	0.053	EPA 8082	5-11-11	5-12-11	
Aroclor 1254	ND	0.053	EPA 8082	5-11-11	5-12-11	
Aroclor 1260	ND	0.053	EPA 8082	5-11-11	5-12-11	
Surrogate:	Percent Recovery	Control Limits				
DCB	75	42-123				

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Date of Report: May 23, 2011  
 Samples Submitted: May 11, 2011  
 Laboratory Reference: 1105-092  
 Project: 620837

**PCBs by EPA 8082  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0511S1					
Aroclor 1016	ND	0.050	EPA 8082	5-11-11	5-12-11	
Aroclor 1221	ND	0.050	EPA 8082	5-11-11	5-12-11	
Aroclor 1232	ND	0.050	EPA 8082	5-11-11	5-12-11	
Aroclor 1242	ND	0.050	EPA 8082	5-11-11	5-12-11	
Aroclor 1248	ND	0.050	EPA 8082	5-11-11	5-12-11	
Aroclor 1254	ND	0.050	EPA 8082	5-11-11	5-12-11	
Aroclor 1260	ND	0.050	EPA 8082	5-11-11	5-12-11	
Surrogate:	Percent Recovery	Control Limits				
DCB	81	42-123				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	05-078-01										
	MS	MSD	MS	MSD		MS	MSD				
Aroclor 1260	0.468	0.461	0.500	0.500	ND	94	92	44-125	2	15	
Surrogate:											
DCB						77	75	42-123			

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Date of Report: May 23, 2011  
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 Laboratory Reference: 1105-092  
 Project: 620837

**ORGANOCHLORINE  
 PESTICIDES by EPA 8081A**

Matrix: Soil  
 Units: ug/Kg (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	S1-00-051011					
Laboratory ID:	05-092-01					
alpha-BHC	ND	5.6	EPA 8081	5-12-11	5-13-11	
gamma-BHC	ND	5.6	EPA 8081	5-12-11	5-13-11	
beta-BHC	10	5.6	EPA 8081	5-12-11	5-13-11	P
delta-BHC	ND	5.6	EPA 8081	5-12-11	5-13-11	
Heptachlor	ND	5.6	EPA 8081	5-12-11	5-13-11	
Aldrin	ND	5.6	EPA 8081	5-12-11	5-13-11	
Heptachlor Epoxide	ND	5.6	EPA 8081	5-12-11	5-13-11	
gamma-Chlordane	ND	11	EPA 8081	5-12-11	5-13-11	
alpha-Chlordane	ND	11	EPA 8081	5-12-11	5-13-11	
4,4'-DDE	ND	11	EPA 8081	5-12-11	5-13-11	
Endosulfan I	ND	5.6	EPA 8081	5-12-11	5-13-11	
Dieldrin	ND	11	EPA 8081	5-12-11	5-13-11	
Endrin	ND	11	EPA 8081	5-12-11	5-13-11	
4,4'-DDD	ND	11	EPA 8081	5-12-11	5-13-11	
Endosulfan II	ND	11	EPA 8081	5-12-11	5-13-11	
4,4'-DDT	ND	11	EPA 8081	5-12-11	5-13-11	
Endrin Aldehyde	ND	11	EPA 8081	5-12-11	5-13-11	
Methoxychlor	19	11	EPA 8081	5-12-11	5-13-11	P
Endosulfan Sulfate	ND	11	EPA 8081	5-12-11	5-13-11	
Endrin Ketone	ND	11	EPA 8081	5-12-11	5-13-11	
Toxaphene	ND	56	EPA 8081	5-12-11	5-13-11	
Surrogate:	Percent Recovery	Control Limits				
TCMX	74	30-111				
DCB	64	33-119				

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 Samples Submitted: May 11, 2011  
 Laboratory Reference: 1105-092  
 Project: 620837

**ORGANOCHLORINE  
 PESTICIDES by EPA 8081A  
 METHOD BLANK QUALITY CONTROL**

Matrix: Soil  
 Units: ug/Kg (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0512S1					
alpha-BHC	ND	5.0	EPA 8081	5-12-11	5-13-11	
gamma-BHC	ND	5.0	EPA 8081	5-12-11	5-13-11	
beta-BHC	ND	5.0	EPA 8081	5-12-11	5-13-11	
delta-BHC	ND	5.0	EPA 8081	5-12-11	5-13-11	
Heptachlor	ND	5.0	EPA 8081	5-12-11	5-13-11	
Aldrin	ND	5.0	EPA 8081	5-12-11	5-13-11	
Heptachlor Epoxide	ND	5.0	EPA 8081	5-12-11	5-13-11	
gamma-Chlordane	ND	10	EPA 8081	5-12-11	5-13-11	
alpha-Chlordane	ND	10	EPA 8081	5-12-11	5-13-11	
4,4'-DDE	ND	10	EPA 8081	5-12-11	5-13-11	
Endosulfan I	ND	5.0	EPA 8081	5-12-11	5-13-11	
Dieldrin	ND	10	EPA 8081	5-12-11	5-13-11	
Endrin	ND	10	EPA 8081	5-12-11	5-13-11	
4,4'-DDD	ND	10	EPA 8081	5-12-11	5-13-11	
Endosulfan II	ND	10	EPA 8081	5-12-11	5-13-11	
4,4'-DDT	ND	10	EPA 8081	5-12-11	5-13-11	
Endrin Aldehyde	ND	10	EPA 8081	5-12-11	5-13-11	
Methoxychlor	ND	10	EPA 8081	5-12-11	5-13-11	
Endosulfan Sulfate	ND	10	EPA 8081	5-12-11	5-13-11	
Endrin Ketone	ND	10	EPA 8081	5-12-11	5-13-11	
Toxaphene	ND	50	EPA 8081	5-12-11	5-13-11	
Surrogate:	Percent Recovery	Control Limits				
TCMX	83	30-111				
DCB	81	33-119				

Date of Report: May 23, 2011  
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 Laboratory Reference: 1105-092  
 Project: 620837

**ORGANOCHLORINE  
 PESTICIDES by EPA 8081A  
 MS/MSD QUALITY CONTROL**

Matrix: Soil  
 Units: ug/Kg (ppb)

Matrix Spiking (ppb)											
Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	05-092-01										
	MS	MSD	MS	MSD		MS	MSD				
gamma-BHC	33.4	34.6	50.0	50.0	ND	67	69	32-96	4	10	
Heptachlor	33.8	35.0	50.0	50.0	ND	68	70	29-101	3	13	
Aldrin	37.4	36.1	50.0	50.0	ND	75	72	27-99	4	10	
Dieldrin	90.3	93.3	125	125	ND	72	75	33-92	3	10	
Endrin	90.0	91.8	125	125	ND	72	73	29-101	2	11	
4,4'-DDT	84.6	83.6	125	125	ND	68	67	21-114	1	15	
Surrogate:											
TCMX						77	84	30-111			
DCB						73	78	33-119			



Date of Report: May 23, 2011  
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 Project: 620837

**CHLORINATED ACID  
 HERBICIDES by EPA 8151A**

Matrix: Soil  
 Units: ug/Kg (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	S1-00-051011					
Laboratory ID:	05-092-01					
Dalapon	ND	260	EPA 8151	5-12-11	5-19-11	
Dicamba	ND	11	EPA 8151	5-12-11	5-19-11	
MCPP	36000	10000	EPA 8151	5-12-11	5-19-11	
MCPA	15000	10000	EPA 8151	5-12-11	5-19-11	P
Dichlorprop	1100	790	EPA 8151	5-12-11	5-19-11	
2,4-D	ND	11	EPA 8151	5-12-11	5-19-11	
Pentachlorophenol	3.5	1.1	EPA 8151	5-12-11	5-19-11	P
2,4,5-TP (Silvex)	94	11	EPA 8151	5-12-11	5-19-11	
2,4,5-T	ND	11	EPA 8151	5-12-11	5-19-11	
2,4-DB	37	11	EPA 8151	5-12-11	5-19-11	
Dinoseb	11	11	EPA 8151	5-12-11	5-19-11	P
Surrogate:	Percent Recovery	Control Limits				
DCAA	57	30-96				

Date of Report: May 23, 2011  
 Samples Submitted: May 11, 2011  
 Laboratory Reference: 1105-092  
 Project: 620837

**CHLORINATED ACID  
 HERBICIDES by EPA 8151A  
 QUALITY CONTROL**

Matrix: Soil  
 Units: ug/Kg (ppb)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0512S1					
Dalapon	ND	230	EPA 8151	5-12-11	5-18-11	
Dicamba	ND	9.4	EPA 8151	5-12-11	5-18-11	
MCPP	ND	940	EPA 8151	5-12-11	5-18-11	
MCPA	ND	940	EPA 8151	5-12-11	5-18-11	
Dichlorprop	ND	71	EPA 8151	5-12-11	5-18-11	
2,4-D	ND	9.4	EPA 8151	5-12-11	5-18-11	
Pentachlorophenol	ND	0.95	EPA 8151	5-12-11	5-18-11	
2,4,5-TP (Silvex)	ND	9.5	EPA 8151	5-12-11	5-18-11	
2,4,5-T	ND	9.5	EPA 8151	5-12-11	5-18-11	
2,4-DB	ND	9.5	EPA 8151	5-12-11	5-18-11	
Dinoseb	ND	9.5	EPA 8151	5-12-11	5-18-11	
Surrogate:	Percent Recovery	Control Limits				
DCAA	47	30-96				

Analyte	Result		Spike Level		Source Result	Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
MATRIX SPIKES											
Laboratory ID:	05-092-01										
	MS	MSD	MS	MSD		MS	MSD				
Dicamba	60.4	58.1	100	100	ND	60	58	25-101	4	30	
2,4-D	49.5	54.7	100	100	ND	49	55	25-84	10	28	
Pentachlorophenol	7.52	7.79	10.0	10.0	3.13	44	47	27-96	4	26	
2,4,5-T	53.0	54.0	100	100	ND	53	54	25-94	2	20	
2,4-DB	67.2	76.0	100	100	33.4	34	43	25-117	12	27	
Surrogate:											
DCAA						79	56	30-96			

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 Laboratory Reference: 1105-092  
 Project: 620837

**TOTAL METALS**  
**EPA 6010B/7471A**

Matrix: Soil  
 Units: mg/kg (ppm)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
<hr/>						
Lab ID:	05-092-01					
Client ID:	S1-00-051011					
<hr/>						
Arsenic	ND	11	6010B	5-13-11	5-13-11	
Barium	210	2.8	6010B	5-13-11	5-13-11	
Cadmium	ND	0.56	6010B	5-13-11	5-13-11	
Chromium	25	0.56	6010B	5-13-11	5-13-11	
Lead	79	5.6	6010B	5-13-11	5-13-11	
Mercury	ND	0.28	7471A	5-11-11	5-11-11	
Selenium	ND	11	6010B	5-13-11	5-13-11	
Silver	ND	0.56	6010B	5-13-11	5-13-11	

Lab ID:	05-092-02					
Client ID:	S2-00-051011					
<hr/>						
Arsenic	ND	11	6010B	5-13-11	5-13-11	
Barium	130	2.7	6010B	5-13-11	5-13-11	
Cadmium	ND	0.54	6010B	5-13-11	5-13-11	
Chromium	28	0.54	6010B	5-13-11	5-13-11	
Lead	13	5.4	6010B	5-13-11	5-13-11	
Mercury	ND	0.27	7471A	5-11-11	5-11-11	
Selenium	ND	11	6010B	5-13-11	5-13-11	
Silver	ND	0.54	6010B	5-13-11	5-13-11	

Date of Report: May 23, 2011  
Samples Submitted: May 11, 2011  
Laboratory Reference: 1105-092  
Project: 620837

**TOTAL METALS**  
**EPA 6010B/7471A**

Matrix: Soil  
Units: mg/kg (ppm)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	05-092-03					
Client ID:	S3-00-051011					
Arsenic	ND	11	6010B	5-13-11	5-13-11	
Barium	91	2.7	6010B	5-13-11	5-13-11	
Cadmium	ND	0.53	6010B	5-13-11	5-13-11	
Chromium	18	0.53	6010B	5-13-11	5-13-11	
Lead	10	5.3	6010B	5-13-11	5-13-11	
Mercury	ND	0.27	7471A	5-11-11	5-11-11	
Selenium	ND	11	6010B	5-13-11	5-13-11	
Silver	ND	0.53	6010B	5-13-11	5-13-11	

Date of Report: May 23, 2011  
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Laboratory Reference: 1105-092  
Project: 620837

**TOTAL METALS  
EPA 6010B  
METHOD BLANK QUALITY CONTROL**

Date Extracted: 5-13-11  
Date Analyzed: 5-13-11  
  
Matrix: Soil  
Units: mg/kg (ppm)  
  
Lab ID: MB0513S1

Analyte	Method	Result	PQL
Arsenic	6010B	ND	10
Barium	6010B	ND	2.5
Cadmium	6010B	ND	0.50
Chromium	6010B	ND	0.50
Lead	6010B	ND	5.0
Selenium	6010B	ND	10
Silver	6010B	ND	0.50

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Project: 620837

**TOTAL MERCURY  
EPA 7471A  
METHOD BLANK QUALITY CONTROL**

Date Extracted: 5-11-11  
Date Analyzed: 5-11-11  
  
Matrix: Soil  
Units: mg/kg (ppm)  
  
Lab ID: MB0511S1

Analyte	Method	Result	PQL
Mercury	7471A	ND	0.25



Date of Report: May 23, 2011  
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Project: 620837

**TOTAL METALS  
EPA 6010B  
DUPLICATE QUALITY CONTROL**

Date Extracted: 5-13-11  
Date Analyzed: 5-13-11

Matrix: Soil  
Units: mg/kg (ppm)

Lab ID: 05-090-01

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Arsenic	ND	ND	NA	10	
Barium	67.1	71.8	7	2.5	
Cadmium	ND	ND	NA	0.50	
Chromium	40.5	43.0	6	0.50	
Lead	9.79	9.83	0	5.0	
Selenium	ND	ND	NA	10	
Silver	ND	ND	NA	0.50	

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Laboratory Reference: 1105-092  
Project: 620837

**TOTAL MERCURY  
EPA 7471A  
DUPLICATE QUALITY CONTROL**

Date Extracted: 5-11-11  
Date Analyzed: 5-11-11  
  
Matrix: Soil  
Units: mg/kg (ppm)  
  
Lab ID: 05-081-13

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Mercury	ND	ND	NA	0.25	

Date of Report: May 23, 2011  
Samples Submitted: May 11, 2011  
Laboratory Reference: 1105-092  
Project: 620837

**TOTAL METALS  
EPA 6010B  
MS/MSD QUALITY CONTROL**

Date Extracted: 5-13-11

Date Analyzed: 5-13-11

Matrix: Soil

Units: mg/kg (ppm)

Lab ID: 05-090-01

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Arsenic	100	92.6	93	92.8	93	0	
Barium	100	176	109	168	101	5	
Cadmium	50.0	48.4	97	47.6	95	2	
Chromium	100	137	97	132	92	4	
Lead	250	240	92	237	91	1	
Selenium	100	96.0	96	94.9	95	1	
Silver	25.0	22.3	89	22.0	88	2	

Date of Report: May 23, 2011  
Samples Submitted: May 11, 2011  
Laboratory Reference: 1105-092  
Project: 620837

**TOTAL MERCURY  
EPA 7471A  
MS/MSD QUALITY CONTROL**

Date Extracted: 5-11-11  
Date Analyzed: 5-11-11  
  
Matrix: Soil  
Units: mg/kg (ppm)  
  
Lab ID: 05-081-13

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Mercury	ND	ND	NA	0.25	

Date of Report: May 23, 2011  
 Samples Submitted: May 11, 2011  
 Laboratory Reference: 1105-092  
 Project: 620837

**ORGANOPHOSPHORUS  
 PESTICIDES by EPA 8270D/SIM**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	S1-00-051011					
Laboratory ID:	05-092-01					
Dichlorvos(DDVP)	ND	0.22	EPA 8270/SIM	5-16-11	5-17-11	
Mevinphos/Phosdrin	ND	0.22	EPA 8270/SIM	5-16-11	5-17-11	
Ethoprophos	ND	0.56	EPA 8270/SIM	5-16-11	5-17-11	
Monocrotophos	ND	0.56	EPA 8270/SIM	5-16-11	5-17-11	
Naled	ND	0.56	EPA 8270/SIM	5-16-11	5-17-11	
Sulfotepp	ND	0.22	EPA 8270/SIM	5-16-11	5-17-11	
Phorate	ND	0.22	EPA 8270/SIM	5-16-11	5-17-11	
Dimethoate	ND	0.22	EPA 8270/SIM	5-16-11	5-17-11	
Demeton-S	ND	0.22	EPA 8270/SIM	5-16-11	5-17-11	
Diazinon	ND	0.22	EPA 8270/SIM	5-16-11	5-17-11	
Disulfoton	ND	0.22	EPA 8270/SIM	5-16-11	5-17-11	
Parathion-methyl	ND	0.22	EPA 8270/SIM	5-16-11	5-17-11	
Fenchlorphos/Ronnel	ND	0.22	EPA 8270/SIM	5-16-11	5-17-11	
Malathion	ND	0.22	EPA 8270/SIM	5-16-11	5-17-11	
Fenthion	ND	0.22	EPA 8270/SIM	5-16-11	5-17-11	
Parathion-ethyl	ND	0.22	EPA 8270/SIM	5-16-11	5-17-11	
Chlorpyrifos/Dursban	ND	0.22	EPA 8270/SIM	5-16-11	5-17-11	
Trichloronate	ND	0.22	EPA 8270/SIM	5-16-11	5-17-11	
Merphos&Merphos-oxone	ND	0.56	EPA 8270/SIM	5-16-11	5-17-11	
Stirofos/Tetrachlorvinphos	ND	0.22	EPA 8270/SIM	5-16-11	5-17-11	
Tokuthion/Prothiofos	ND	0.22	EPA 8270/SIM	5-16-11	5-17-11	
Fensulfothion	ND	0.56	EPA 8270/SIM	5-16-11	5-17-11	
Bolstar/Sulprofos	ND	0.22	EPA 8270/SIM	5-16-11	5-17-11	
EPN	ND	0.22	EPA 8270/SIM	5-16-11	5-17-11	
Azinphos-methyl/Guthion	ND	0.22	EPA 8270/SIM	5-16-11	5-17-11	
Coumaphos	ND	0.22	EPA 8270/SIM	5-16-11	5-17-11	
Surrogate:	Percent Recovery	Control Limits				
Tributyl phosphate	106	28 - 109				
Triphenyl phosphate	--	37 - 118				F

Date of Report: May 23, 2011  
 Samples Submitted: May 11, 2011  
 Laboratory Reference: 1105-092  
 Project: 620837

**ORGANOPHOSPHORUS  
 PESTICIDES by EPA 8270D/SIM  
 METHOD BLANK QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID: MB0516S1						
Dichlorvos(DDVP)	ND	0.020	EPA 8270/SIM	5-16-11	5-16-11	
Mevinphos/Phosdrin	ND	0.020	EPA 8270/SIM	5-16-11	5-16-11	
Ethoprophos	ND	0.050	EPA 8270/SIM	5-16-11	5-16-11	
Monocrotophos	ND	0.050	EPA 8270/SIM	5-16-11	5-16-11	
Naled	ND	0.050	EPA 8270/SIM	5-16-11	5-16-11	
Sulfotep	ND	0.020	EPA 8270/SIM	5-16-11	5-16-11	
Phorate	ND	0.020	EPA 8270/SIM	5-16-11	5-16-11	
Dimethoate	ND	0.020	EPA 8270/SIM	5-16-11	5-16-11	
Demeton-S	ND	0.020	EPA 8270/SIM	5-16-11	5-16-11	
Diazinon	ND	0.020	EPA 8270/SIM	5-16-11	5-16-11	
Disulfoton	ND	0.020	EPA 8270/SIM	5-16-11	5-16-11	
Parathion-methyl	ND	0.020	EPA 8270/SIM	5-16-11	5-16-11	
Fenchlorphos/Ronnel	ND	0.020	EPA 8270/SIM	5-16-11	5-16-11	
Malathion	ND	0.020	EPA 8270/SIM	5-16-11	5-16-11	
Fenthion	ND	0.020	EPA 8270/SIM	5-16-11	5-16-11	
Parathion-ethyl	ND	0.020	EPA 8270/SIM	5-16-11	5-16-11	
Chlorpyrifos/Dursban	ND	0.020	EPA 8270/SIM	5-16-11	5-16-11	
Trichloronate	ND	0.020	EPA 8270/SIM	5-16-11	5-16-11	
Merphos&Merphos-oxone	ND	0.050	EPA 8270/SIM	5-16-11	5-16-11	
Sitrofos/Tetrachlorvinphos	ND	0.020	EPA 8270/SIM	5-16-11	5-16-11	
Tokuthion/Prothiofos	ND	0.020	EPA 8270/SIM	5-16-11	5-16-11	
Fensulfothion	ND	0.050	EPA 8270/SIM	5-16-11	5-16-11	
Bolstar/Sulprofos	ND	0.020	EPA 8270/SIM	5-16-11	5-16-11	
EPN	ND	0.020	EPA 8270/SIM	5-16-11	5-16-11	
Azinphos-methyl/Guthion	ND	0.020	EPA 8270/SIM	5-16-11	5-16-11	
Coumaphos	ND	0.020	EPA 8270/SIM	5-16-11	5-16-11	
Surrogate:	Percent Recovery	Control Limits				
Tributyl phosphate	65	28 - 109				
Triphenyl phosphate	80	37 - 118				



Date of Report: May 23, 2011  
 Samples Submitted: May 11, 2011  
 Laboratory Reference: 1105-092  
 Project: 620837

**ORGANOPHOSPHORUS  
 PESTICIDES by EPA 8270D/SIM  
 SB/SBD QUALITY CONTROL**

Matrix: Soil  
 Units: mg/Kg

Analyte	Result		Spike Level		Percent Recovery		Recovery Limits	RPD	RPD Limit	Flags
SPIKE BLANKS										
Laboratory ID:	SB0516S1									
	SB	SBD	SB	SBD	SB	SBD				
Dichlorvos(DDVP)	0.0585	0.0612	0.100	0.100	59	61	45 - 110	5	30	
Mevinphos/Phosdrin	0.0543	0.0590	0.100	0.100	54	59	50 - 110	8	30	
Ethoprophos	0.0741	0.0817	0.100	0.100	74	82	50 - 110	10	30	
Sulfotepp	0.0798	0.0856	0.100	0.100	80	86	45 - 110	7	30	
Phorate	0.0784	0.0849	0.100	0.100	78	85	50 - 110	8	30	
Dimethoate	0.0780	0.0863	0.100	0.100	78	86	50 - 110	10	30	
Demeton-S	0.0713	0.0813	0.100	0.100	71	81	45 - 110	13	30	
Diazinon	0.0739	0.0814	0.100	0.100	74	81	50 - 110	10	30	
Disulfoton	0.0790	0.0865	0.100	0.100	79	87	50 - 110	9	30	
Parathion-methyl	0.0708	0.0803	0.100	0.100	71	80	60 - 120	13	30	
Fenchlorphos/Ronnel	0.0879	0.0963	0.100	0.100	88	96	50 - 110	9	30	
Malathion	0.109	0.119	0.100	0.100	109	119	50 - 120	9	30	
Fenthion	0.0872	0.0949	0.100	0.100	87	95	50 - 110	8	30	
Parathion-ethyl	0.0679	0.0767	0.100	0.100	68	77	45 - 110	12	30	
Chlorpyrifos/Dursban	0.0850	0.0919	0.100	0.100	85	92	50 - 110	8	30	
Trichloronate	0.0872	0.0930	0.100	0.100	87	93	50 - 110	6	30	
Stirofos/Tetrachlorvinphos	0.139	0.153	0.100	0.100	139	153	80 - 160	10	30	
Tokuthion/Prothiofos	0.0790	0.0880	0.100	0.100	79	88	50 - 110	11	30	
Fensulfotion	0.0801	0.0965	0.100	0.100	80	97	45 - 110	19	30	
Bolstar/Sulprofos	0.0817	0.0919	0.100	0.100	82	92	50 - 110	12	30	
EPN	0.0700	0.0792	0.100	0.100	70	79	50 - 110	12	30	
Azinphos-methyl/Guthion	0.127	0.139	0.100	0.100	127	139	70 - 140	9	30	
Coumaphos	0.0728	0.0860	0.100	0.100	73	86	60 - 120	17	30	
Surrogate:										
Tributyl phosphate					68	71	28 - 109			
Triphenyl phosphate					78	86	37 - 118			

Date of Report: May 23, 2011  
 Samples Submitted: May 11, 2011  
 Laboratory Reference: 1105-092  
 Project: 620837

**NWTPH-Gx/BTEX**

Matrix: Soil  
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	S2-00-051011					
Laboratory ID:	05-092-02					
Benzene	ND	0.023	EPA 8021	5-13-11	5-16-11	
Toluene	0.60	0.12	EPA 8021	5-13-11	5-16-11	
Ethyl Benzene	27	2.9	EPA 8021	5-13-11	5-17-11	
m,p-Xylene	180	2.9	EPA 8021	5-13-11	5-17-11	
o-Xylene	31	2.9	EPA 8021	5-13-11	5-17-11	
Gasoline	1900	290	NWTPH-Gx	5-13-11	5-17-11	Z
Surrogate:	Percent Recovery	Control Limits				
Fluorobenzene	92	68-124				

Date of Report: May 23, 2011  
 Samples Submitted: May 11, 2011  
 Laboratory Reference: 1105-092  
 Project: 620837

**NWTPH-Gx/BTEX  
 QUALITY CONTROL**

Matrix: Soil  
 Units: mg/kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0513S2					
Benzene	ND	0.020	EPA 8021	5-13-11	5-13-11	
Toluene	ND	0.050	EPA 8021	5-13-11	5-13-11	
Ethyl Benzene	ND	0.050	EPA 8021	5-13-11	5-13-11	
m,p-Xylene	ND	0.050	EPA 8021	5-13-11	5-13-11	
o-Xylene	ND	0.050	EPA 8021	5-13-11	5-13-11	
Gasoline	ND	5.0	NWTPH-Gx	5-13-11	5-13-11	
Surrogate:	Percent Recovery Control Limits					
Fluorobenzene	91 68-124					

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>								
Laboratory ID:	05-094-20							
	ORIG	DUP						
Benzene	ND	ND	NA	NA	NA	NA	NA	30
Toluene	ND	ND	NA	NA	NA	NA	NA	30
Ethyl Benzene	ND	ND	NA	NA	NA	NA	NA	30
m,p-Xylene	ND	ND	NA	NA	NA	NA	NA	30
o-Xylene	ND	ND	NA	NA	NA	NA	NA	30
Gasoline	ND	ND	NA	NA	NA	NA	NA	30
Surrogate:								
Fluorobenzene	110 104 68-124							

**SPIKE BLANKS**

Laboratory ID:	SB0513S1							
	SB	SBD	SB	SBD	SB	SBD		
Benzene	1.02	0.986	1.00	1.00	102	99	77-114	3 9
Toluene	1.07	1.05	1.00	1.00	107	105	80-115	2 9
Ethyl Benzene	1.13	1.12	1.00	1.00	113	112	80-118	1 9
m,p-Xylene	1.01	0.993	1.00	1.00	101	99	82-118	2 9
o-Xylene	1.00	0.970	1.00	1.00	100	97	82-116	3 9
Surrogate:								
Fluorobenzene	93 89 68-124							

Date of Report: May 23, 2011  
 Samples Submitted: May 11, 2011  
 Laboratory Reference: 1105-092  
 Project: 620837

**NWTPH-Dx**  
 (with acid/silica gel clean-up)

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	S1-00-051011					
Laboratory ID:	05-092-01					
Diesel Range Organics	ND	12000	NWTPH-Dx	5-18-11	5-18-11	U1
Lube Oil	37000	1100	NWTPH-Dx	5-18-11	5-18-11	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	129	50-150				

Client ID:	S2-00-051011					
Laboratory ID:	05-092-02					
Diesel Range Organics	ND	540	NWTPH-Dx	5-18-11	5-18-11	
Lube Oil	3100	1100	NWTPH-Dx	5-18-11	5-18-11	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	107	50-150				

Client ID:	S3-00-051011					
Laboratory ID:	05-092-03					
Diesel Range Organics	ND	7800	NWTPH-Dx	5-18-11	5-18-11	U1
Lube Oil	25000	1100	NWTPH-Dx	5-18-11	5-18-11	
Surrogate:	Percent Recovery	Control Limits				
o-Terphenyl	123	50-150				

Date of Report: May 23, 2011  
 Samples Submitted: May 11, 2011  
 Laboratory Reference: 1105-092  
 Project: 620837

**NWTPH-Dx  
 QUALITY CONTROL  
 (with acid/silica gel clean-up)**

Matrix: Soil  
 Units: mg/Kg (ppm)

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
<b>METHOD BLANK</b>						
Laboratory ID:	MB0518S1					
Diesel Range Organics	ND	25	NWTPH-Dx	5-18-11	5-18-11	
Lube Oil Range Organics	ND	50	NWTPH-Dx	5-18-11	5-18-11	
Surrogate:	Percent Recovery	Control Limits				
<i>o</i> -Terphenyl	122	50-150				

Analyte	Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
<b>DUPLICATE</b>						
Laboratory ID:	05-098-03					
	ORIG	DUP				
Diesel Range Organics	ND	ND		NA	NA	
Lube Oil Range Organics	ND	ND		NA	NA	
Surrogate:						
<i>o</i> -Terphenyl			116 108	50-150		

Date of Report: May 23, 2011  
Samples Submitted: May 11, 2011  
Laboratory Reference: 1105-092  
Project: 620837

**% MOISTURE**

Date Analyzed: 5-11-11

Client ID	Lab ID	% Moisture
S1-00-051011	05-092-01	11
S2-00-051011	05-092-02	7
S3-00-051011	05-092-03	6



## OnSite Environmental Inc.

### Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B - The analyte indicated was also found in the blank sample.
- C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E - The value reported exceeds the quantitation range and is an estimate.
- F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I - Compound recovery is outside of the control limits.
- J - The value reported was below the practical quantitation limit. The value is an estimate.
- K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L - The RPD is outside of the control limits.
- M - Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
- N - Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 - Hydrocarbons in diesel range are impacting lube oil range results.
- O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P - The RPD of the detected concentrations between the two columns is greater than 40.
- Q - Surrogate recovery is outside of the control limits.
- S - Surrogate recovery data is not available due to the necessary dilution of the sample.
- T - The sample chromatogram is not similar to a typical \_\_\_\_\_.
- U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 - The practical quantitation limit is elevated due to interferences present in the sample.
- V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X - Sample extract treated with a mercury cleanup procedure.
- Y - Sample extract treated with an acid/silica gel cleanup procedure.
- Z - The sample chromatogram is similar to mineral spirits.

ND - Not Detected at PQL

PQL - Practical Quantitation Limit

RPD - Relative Percent Difference



# Chain of Custody

**Laboratory Number:**

05-092

**(Check One)**

☐ Same Day ☒ 1 Day




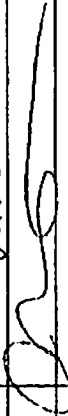
☐ 2 Day ☐ 3 Day☒ Standard (7 working days)

☒ Standard (7 working days)  
☒ (TPH analysis 5 working days)

(other)

Date	Time	Sampled	Matrix	Cont.
------	------	---------	--------	-------

[illegible]

Signature		Company	
Relinquished by		TPC/HO	
Received by		Speedy	
Relinquished by		Speedy	
Received by		OSCE	
Relinquished by			
Received by			
Reviewed by/Date			Reviewed by/Date

**DISTRIBUTION LEGEND:** White - OnSite Copy    Yellow - Report Copy    Pink - Client Copy

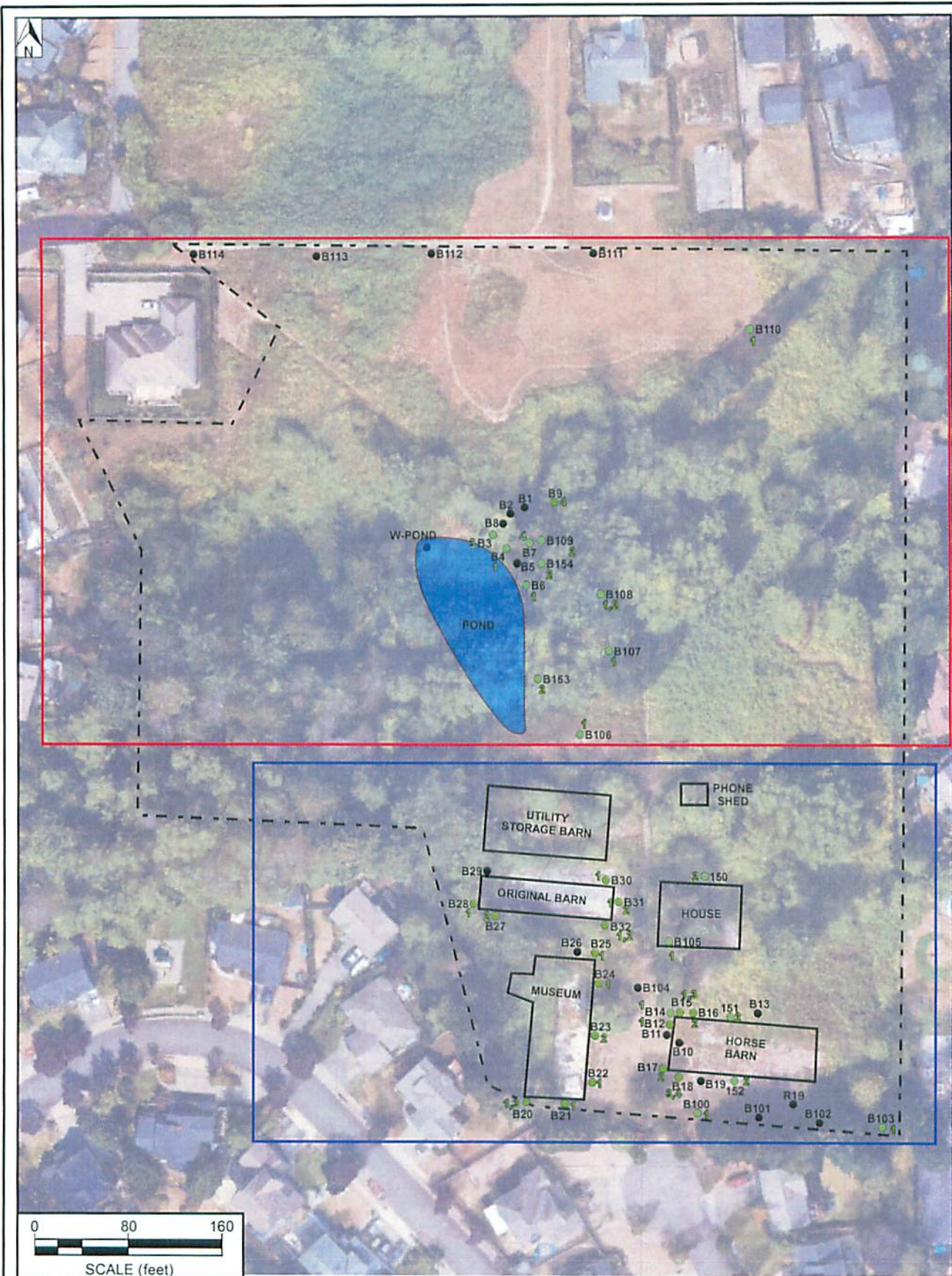
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- Tab Number 8      *Arson Fire Investigation*
  - Central Pierce Fire & Rescue:  
*Initial Incident Report*, June 28, 2010
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Tab Number 1

Site Maps





- Green numbers and symbols indicate soil concentrations below the MTCA Method A Cleanup Levels
- Blue numbers and symbols indicate groundwater concentrations below the MTCA Method A Cleanup Levels
- Red numbers and symbols indicate concentrations above the MTCA Method A Cleanup Levels

#### EXPLANATION

B6  
● Soil Boring Location

--- Property Boundary

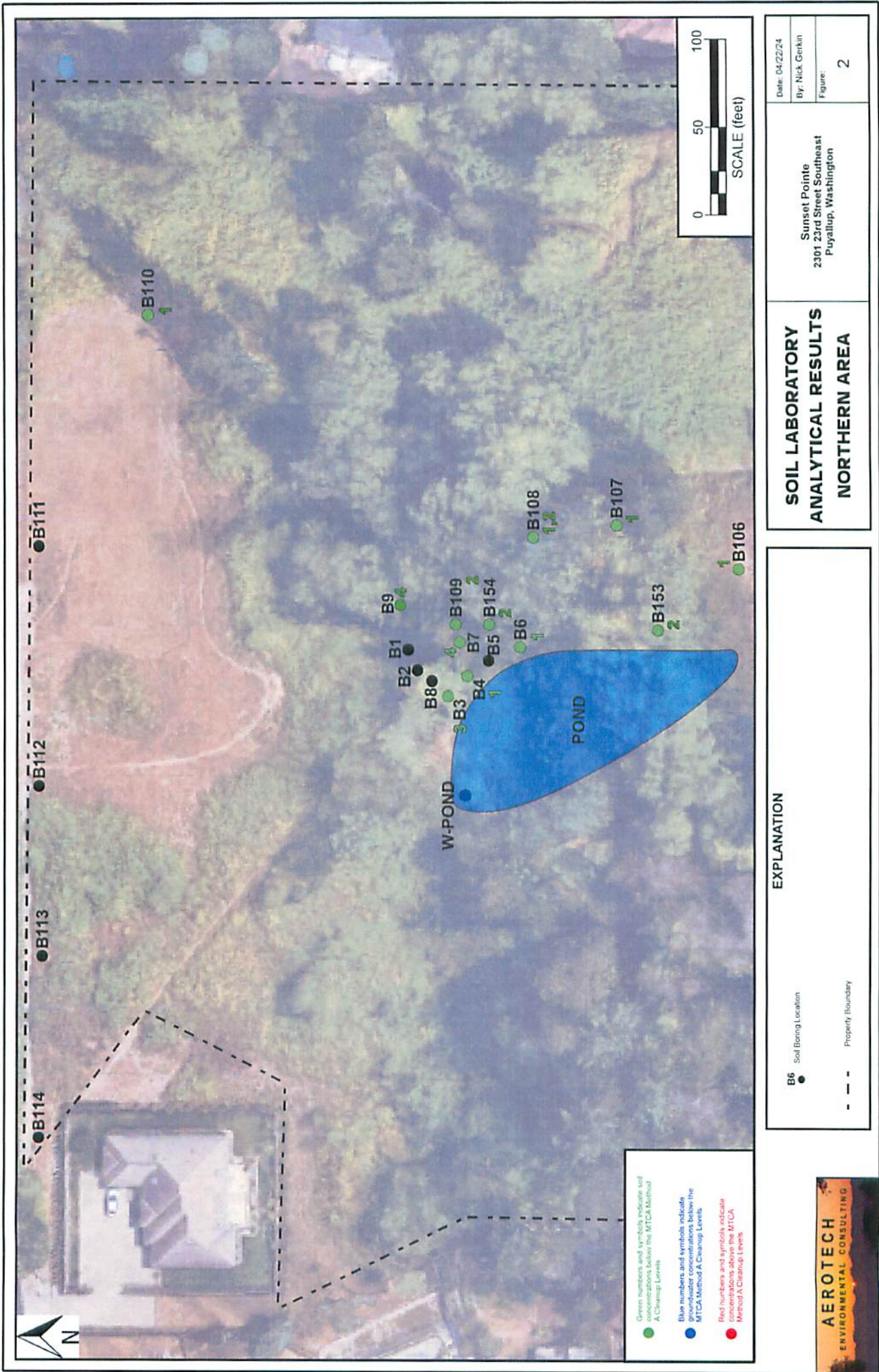


Extent of Figure 2  
Northern Area

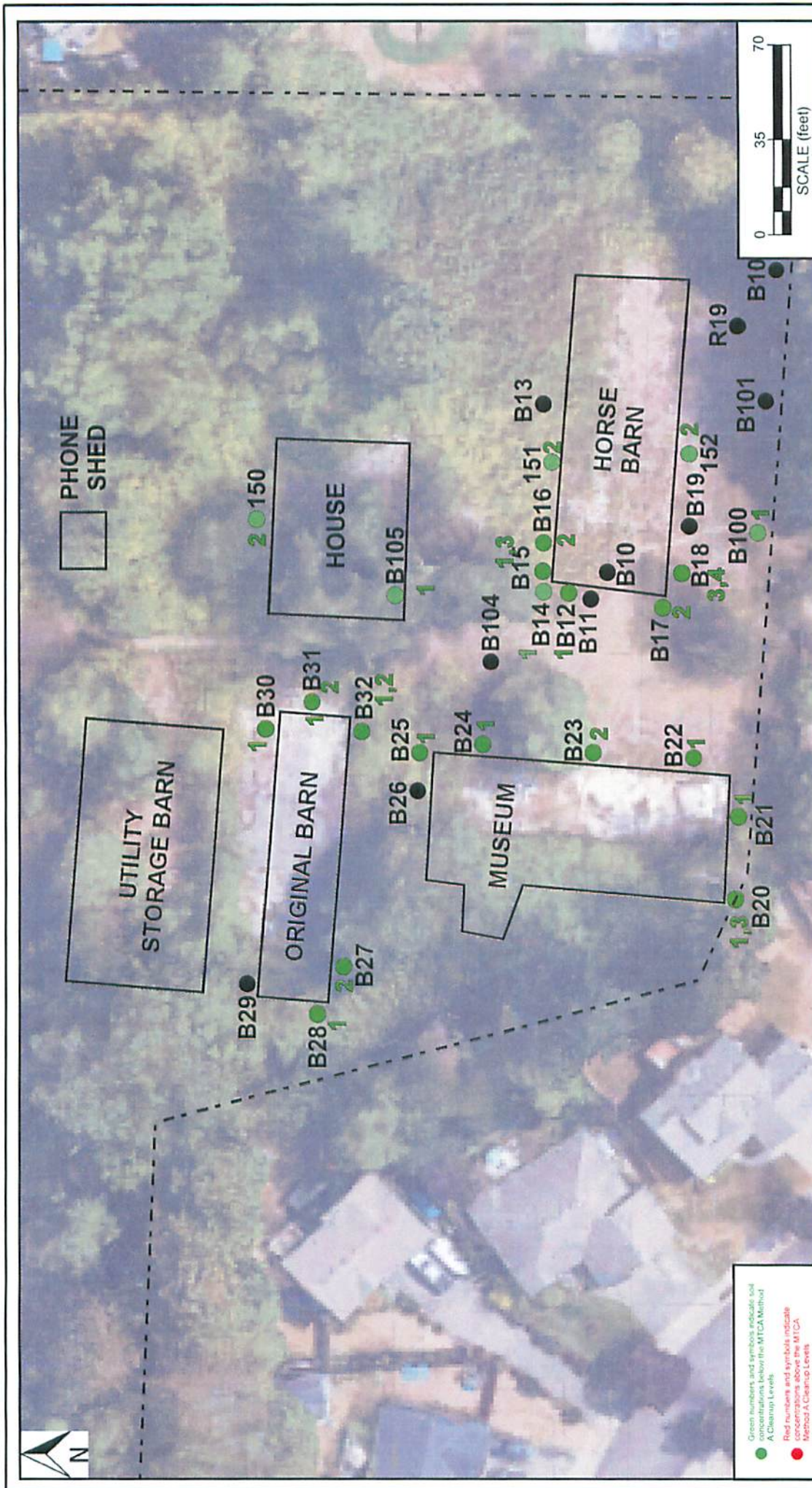


Extent of Figure 3  
Southern Area









<p><b>AEROTECH</b> ENVIRONMENTAL CONSULTING</p>	<p><b>SOIL LABORATORY ANALYTICAL RESULTS</b> <b>SOUTHERN AREA</b></p> <p>Sunset Pointe 2301 23rd Street Southeast Puyallup, Washington</p> <p>Date: 04/22/24 By: Nick Gerkin Figure: 3</p>
---	--

## Tab No.2

### SOIL SAMPLING PHOTOGRAPHIC DOCUMENTATION

#### *Pond Area Sampling* (January 26, 2024)

#### *Remaining Building Foundations:*

Horse Barn  
Museum Building  
Utility Barn  
Residence Main House  
(January 27, 2024)

#### *Area-Wide Background Metals Sampling* (March 21, 2024)



**Soil Sampling Photographic Documentation**

**Pond Area Sampling**

January 26, 2024



Sunset Pointe  
Pond Area Sampling  
Page 1 of 8

On-Site: January 26, 2024

North side slope



Center of testing area  
(likely battery wall former  
location)

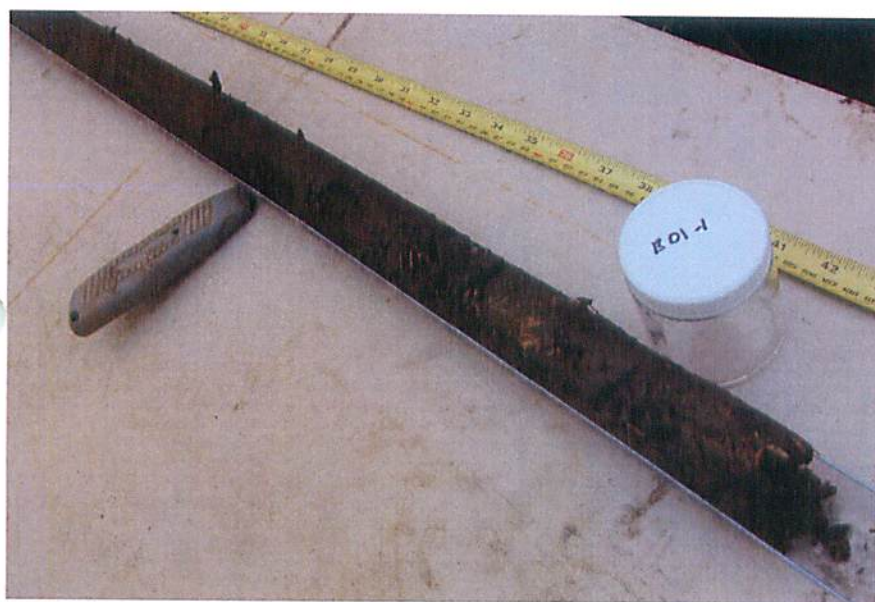
Sampling area south slope





Sunset Pointe  
Pond Area Sampling  
Page 2 of 8

Boring location B-01



Sampling sleeve

Soils: one to four feet





Sunset Pointe  
Pond Area Sampling  
Page 3 of 8

Boring location B-02



Sampling sleeve

Soils at eight feet depth





Sunset Pointe  
Pond Area Sampling  
Page 4 of 8

Sampling location B-3



Note location slope

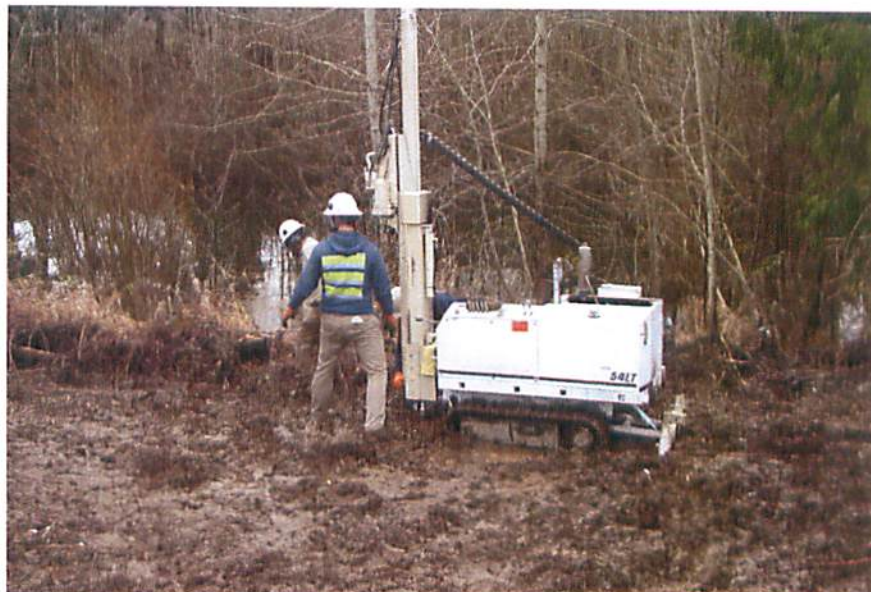
Sampling sleeves





Sunset Pointe  
Pond Area Sampling  
Page 5 of 8

Boring location B-4



Sampling sleeve (1-4 feet)

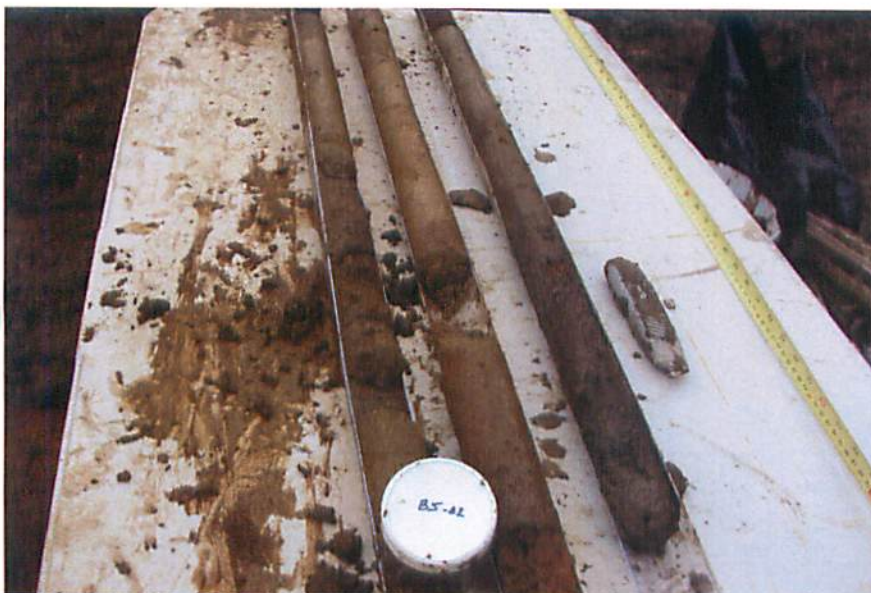
Sampling sleeves





Sunset Pointe  
Pond Area Sampling  
Page 6 of 8

Boring location B-05  
(moved due to slippage)



Boring location B-6  
Sampling sleeves

Boring Located B-06





Sunset Pointe  
Pond Sampling Area  
Page 7 of 8

Boring location B-07



Sampling sleeves

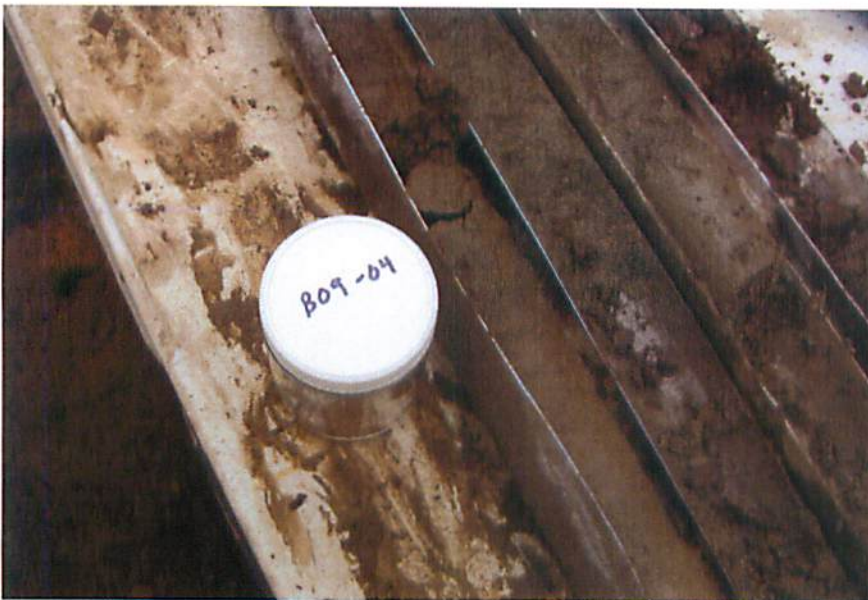
Boring location B-08





Sunset Pointe  
Pond Area Sampling  
Page 8 of 8

Boring location B-09



Sample sleeves

Boring location B-10  
(northeastern edge of Pond)





## **Soil Sampling Photographic Documentation**

### **Remaining Building Foundations:**

**Horse Barn**

**Museum Building**

**Utility Barn (4,000 sqft)**

**Residence (main house)**

January 27, 2024



Boring location B-11



Soil sampling sleeve

Boring location B-13





Boring location B14



Rocks above confining layer

Boring location B17  
Southeastern corner of Property





Sunset Pointe  
Horse Barn Foundation  
Page 3 of 8

Boring location B17



Boring location B18

Boring location B-19





Sunset Pointe  
Pioneer Museum Foundation  
Page 4 of 8

Boring location B20  
Depth sampling



Surface of Museum foundation

Boring location B22





Boring location B-23



Boring location B-24

Boring location B-25





Boring location B-26



Boring B-25  
Soil sampling sleeves

Boring location B-27





Sunset Pointe  
Original Barn Foundation  
Page 7 of 8

Boring B-28



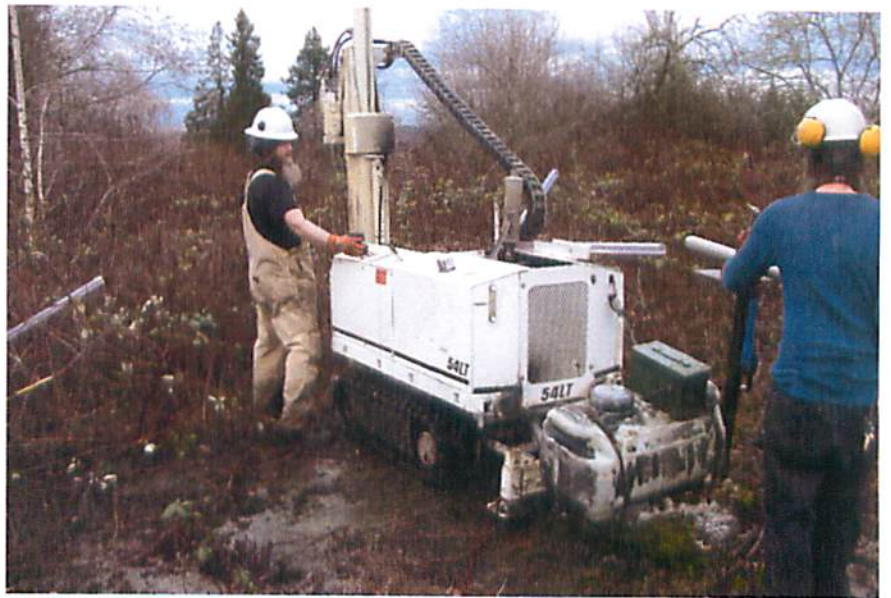
Boring location B-29

Soil boring B-30





Boring location B-31



Boring location B-32

Boring B-32  
Soil sampling sleeves





**Soil Sampling Photographic Documentation**

**AREA-WIDE METALS BACKGROUND**

March 21, 2024



Sunset Pointe  
Puyallup, Washington  
Additional Metals Sampling  
Page 1 of 2

On-site: March 21, 2024

Sample B-150  
South 12 feet of NW corner  
Horse Barn



Sample B-151  
East 15 feet of NW corner  
edge of foundation Horse Barn

North side of Horse Barn





Sunset Pointe  
Puyallup, Washington  
Additional Metals Sapling  
Page 2 of 2

Sample B-152  
East side of Retention Pond



Area of Sample B-153

Sample B-153  
NE edge of Pond  
East of clay overburden



**Tab No.3**

Sunset Pointe Development

**RETENTION POND INVESTIGATION**

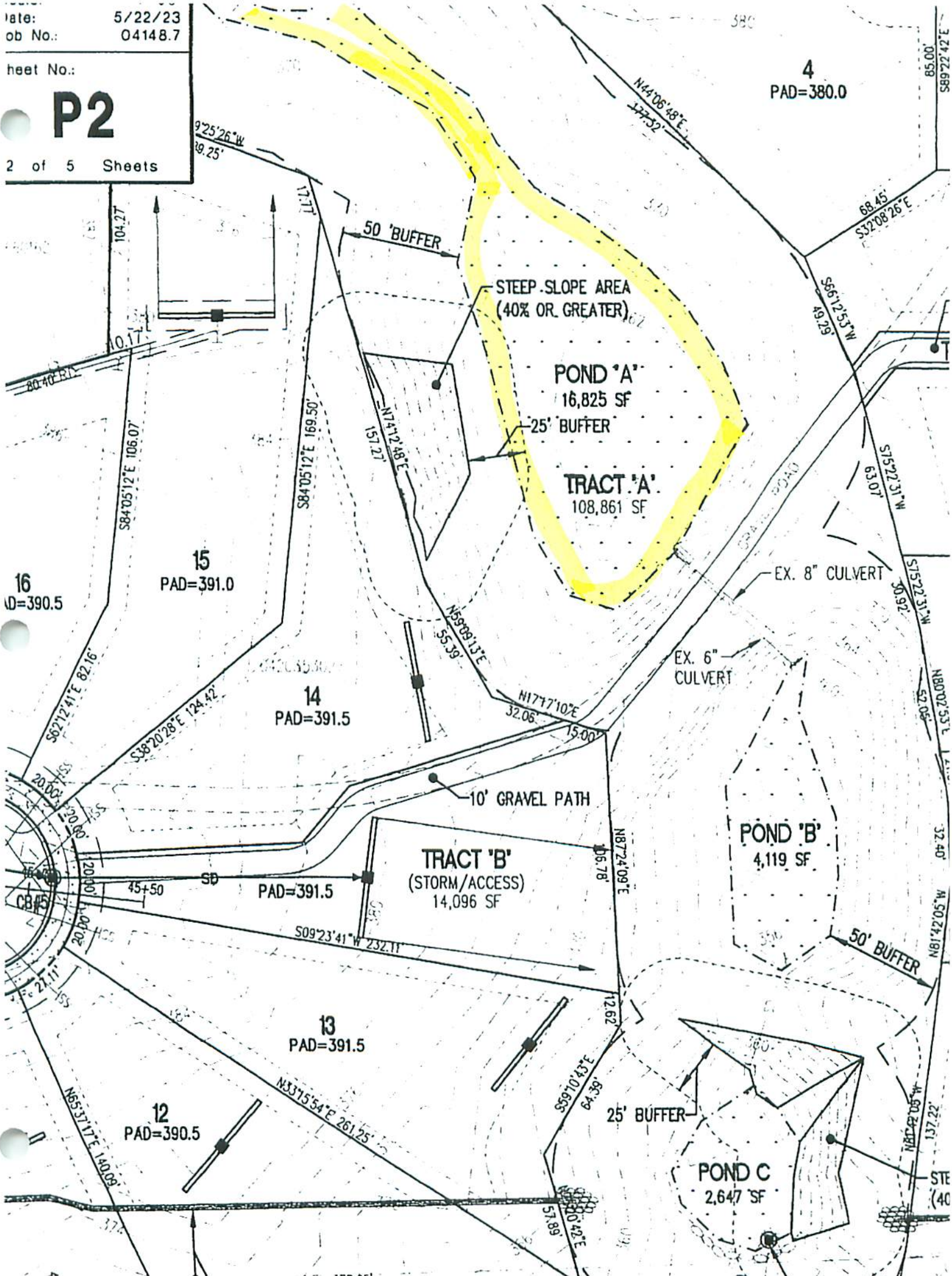


Date: 5/22/23  
Job No.: 04148.7

Sheet No.:

**P2**

2 of 5 Sheets



Scale: 1"=50'  
Date: 5/15/23  
Job No.: 04148.7

Sheet No.:

**P4**

4 of 5 Sheets

POND 'A'

I.E. 6" PVC  
PIPE=361.85

I.E. 8" PVC  
PIPE=368.47

I.E. 8" PVC  
PIPE=367.35

I.E. 6" PVC  
PIPE=358.78

POND 'B'

TOP 8" CONC. VERTICAL  
STAND PIPE=356.82'

I.E. 8" CONC. PIPE=352.45

STEEL LID=352.36'

I.E. 8" CONC. PIPE=350.92'

TOP 12" CONC. VERTICAL  
STAND PIPE=351.97'

I.E. 12" CONC. PIPE= +/-344.60'

POND C

PARCEL D

PARCEL C

0420353027

**AEROTECH**

***Environmental Consulting Inc.***

www.AerotechEnvironmental.com

14247 Ambaum Boulevard Southwest Rear

Burien, Washington 98166

(360) 710-5899

512 West Intl Airport Road, No.201

Anchorage, Alaska 99518

(907) 575-6661

5319 SW Westgate Dr., Suite 24D

Portland, Oregon 97221

2916 NW Bucklin Hill Road, Suite 126

Silverdale, Washington 98383

January 2, 2024

**RE: SUNSET POINTE DEVELOPMENT**

2301 - 23<sup>rd</sup> Street Southwest

Puyallup, Washington

**Land Clearing for Access of North Site of Pond Wall**

Removal of debris not required

Alan T. Blotch

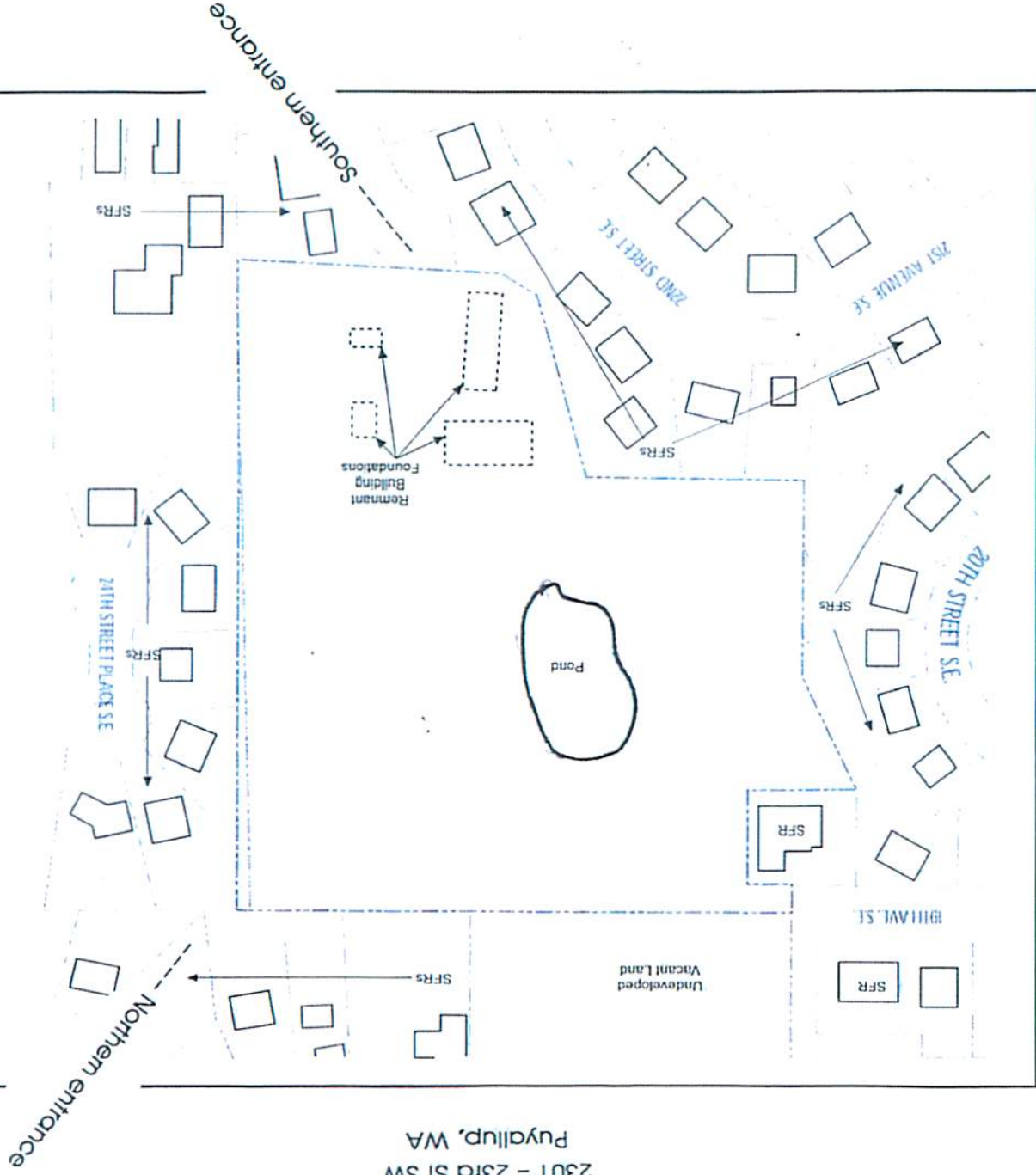
AEROTECH ENVIRONMENTAL

(360) 710-5899

Alan@DirtyDirt.us



Sunset Pointe Development  
 2301 - 23rd St SW  
 Puyallup, WA





Sunset Pointe Pond  
Puyallup, Washington  
Page 1 of 4

NE Corner of Parcel  
19th Ave SE & 21st St SE



NE Corner entrance

North side of Parcel





Sunset Point Pond  
Puyallup, Washington  
Page 2 of 4

Northern side of Parcel



North Pond "wall"  
(primary area of soil  
investigation)

South side runoff slope and  
swale discharge into Pond





Sunset Pointe Pond  
Puyallup, Washington  
Page 3 of 4

West side access to Pond  
(20' elevation drop)



View of Pond  
twenty foot elevation drop  
(eastern view from west side)

West side surface access to  
Pond





Sunset Pointe Pond  
Puyallup, Washington  
Page 4 of 4

Southern entrance to Parcel



Southern entrance driveway

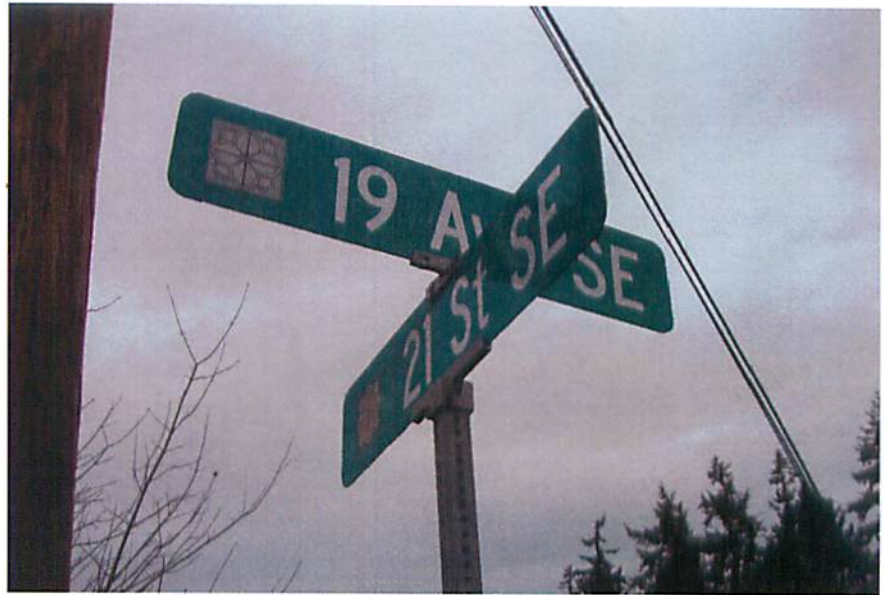
North side of Pond





Sunset Pointe  
Directions to Pond  
Page 1 of 4

Entrance located at corner of  
19th Ave SE  
and 22 st SE in Puyallup



Entrance on the right

Address of 2013 - 19th Ave SE,  
Puyallup is the house across the  
street

Down the long path





Sunset Pointe  
Pathway to the Pond  
Page 2 of 4

Down this long path to the  
south



This is the right turn onto the  
western path





Sunset Pointe  
Entrance to edge of Pond  
Page 3 of 4

At this point you are just about  
on the east edge of the pond.  
To the left is the access to the  
east side of the pond.  
To the right is the path to the  
north side access.



Here is the east side assess  
point.  
About 25-30 feet above the  
pond



The parth to the north access.  
This is where it starts getting  
muddy  
Had to make cuts into the soils  
in order to remove the very  
thick blackberries.





Sunset Pointe  
Page 4 of 4

Path doen to the north side.  
This access point is at water  
level.  
May have to hand sample one  
location here.



Slope up from the pond.  
This is the main issue; will the  
LAR  
be able to got up in muddy  
conditions?

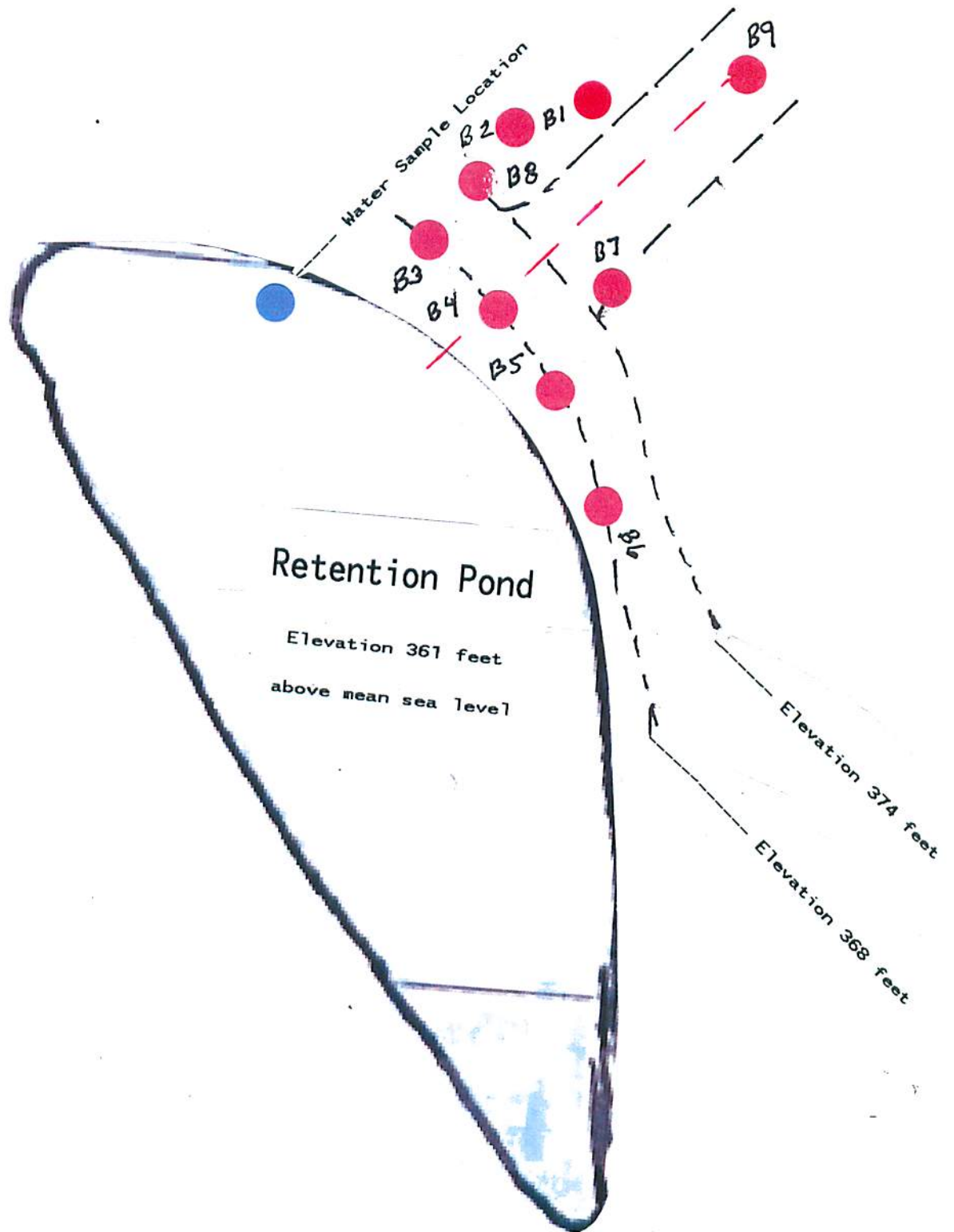


The north edge of the pond.  
Above water level 8-10 feet

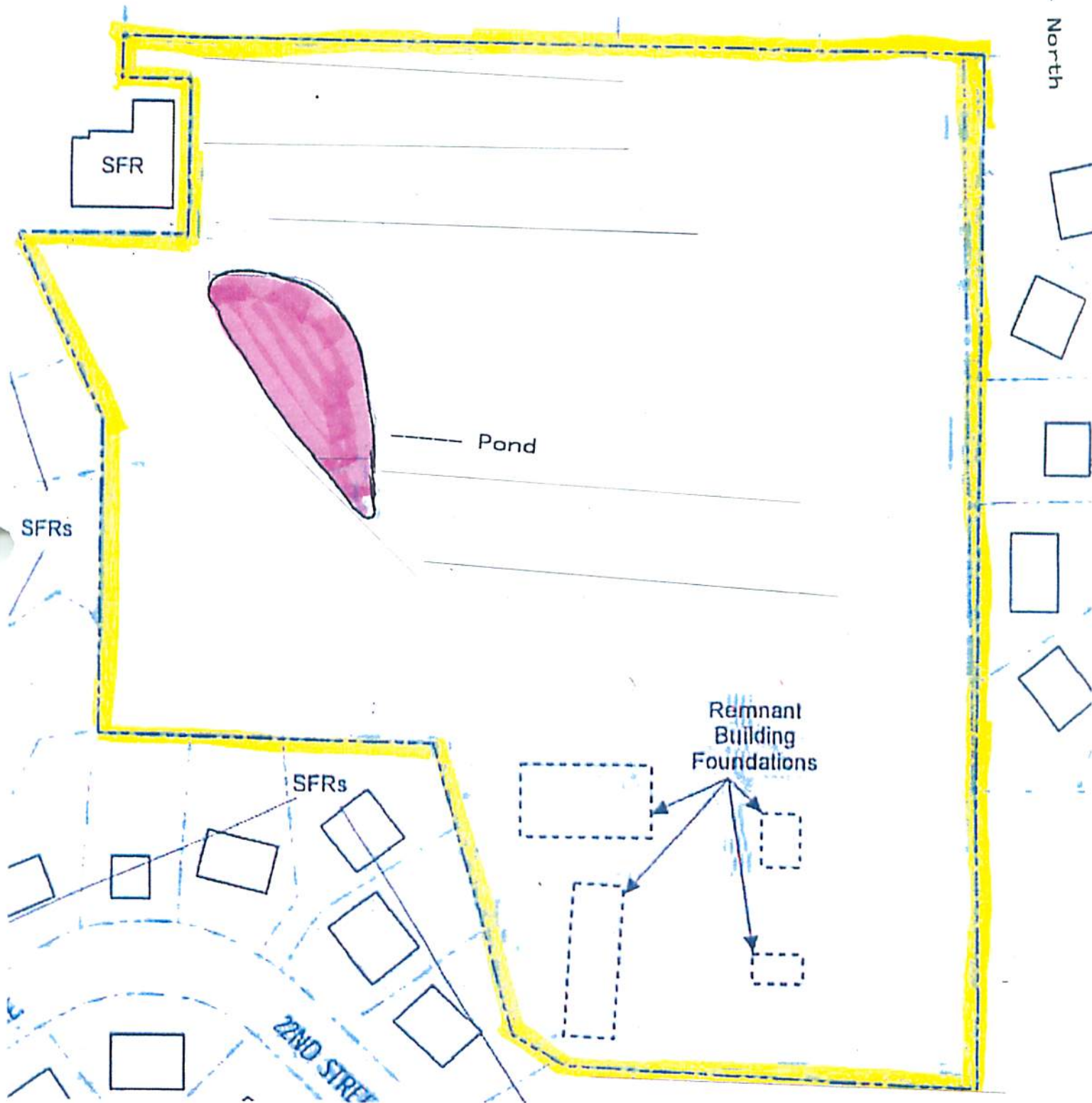




Sunset Pointe Development  
2301 - 23rd Street SE  
Puyallup, Washington



Sunset Pointe Development  
2301 - 23rd Street SE  
Puyallup, Washington



Drawings not to scale



Sunset Pointe  
Pond Area Sampling  
Page 1 of 8

North side slope



Center of testing area  
(likely battery wall former  
location)

Sampling area south slope





Sunset Pointe  
Pond Area Sampling  
Page 2 of 8

Boring location B-01



Sampling sleeve

Soils: one to four feet





Sunset Pointe  
Pond Area Sampling  
Page 3 of 8

Boring location B-02



Sampling sleeve

Soils at eight feet depth





Sunset Pointe  
Pond Area Sampling  
Page 4 of 8

Sampling location B-3



Note location slope

Sampling sleeves





Sunset Pointe  
Pond Area Sampling  
Page 5 of 8

Boring location B-4



Sampling sleeve (1-4 feet)

Sampling sleeves





Sunset Pointe  
Pond Area Sampling  
Page 6 of 8

Boring location B-05  
(moved due to slippage)



Boring location B-6  
Sampling sleeves

Boring Located B-06





Sunset Pointe  
Pond Sampling Area  
Page 7 of 8

Boring location B-07



Sampling sleeves

Boring location B-08





Sunset Pointe  
Pond Area Sampling  
Page 8 of 8

Boring location B-09



Sample sleeves

Boring location B-10  
(northeastern edge of Pond)





## Tab No.4

### LABORATORY ANALYTICAL RESULTS: TABLES

(Tables 1-4)





**TABLE 1**  
**SOIL ANALYTICAL RESULTS**  
**Petroleum & Pesticides**  
Sunset Pointe Development  
2301 23rd Street Southeast  
Puyallup, Washington

Aerotech Environmental Consulting, Inc. - Phase II Limited & Targeted Subsurface Assessment (continued)

Sample ID	Soil Boring/Point Well ID	Sampling Date	Sample Depth Feet/BGS	Percent Moisture %	TPH mg/kg	TPHd mg/kg	TotPh mg/kg	Benzene mg/kg	Toluene mg/kg	Ethyl- benzene mg/kg	Xylenes mg/kg	PAHs mg/kg	Toxaphene mg/kg	4,4'-DDE mg/kg	4,4'-DDT mg/kg	Method used/label
B108-01	B108	03/14/24	1	16.4	--	--	--	--	--	--	--	--	--	--	--	--
B108-02	B108	03/14/24	2	16.4	--	--	--	--	--	--	--	--	--	--	--	--
B109-02	B109	03/14/24	2	21.3	--	--	--	--	--	--	--	--	--	--	--	--
B110-01	B110	03/14/24	1	30.6	--	--	--	--	--	--	--	--	--	--	--	--
B150-2	B150	03/21/24	2	7.4	--	--	--	--	--	--	--	--	--	--	--	--
B151-2	B151	03/21/24	2	25.2	--	--	--	--	--	--	--	--	--	--	--	--
B152-2	B152	03/21/24	2	22.5	--	--	--	--	--	--	--	--	--	--	--	--
B153-2	B153	03/21/24	2	34.0	--	--	--	--	--	--	--	--	--	--	--	--
B154-2	B154	03/21/24	2	23.9	--	--	--	--	--	--	--	--	--	--	--	--
MTCA Method A Cleanup Levels					30	2000	7	0.03	6	6	6	0.10	7.20	2.90	3.00	--

#### EXPLANATION

MTCA = Model Toxic Control Act Cleanup Level (WAC173-340-900)  
BGS = Below Ground Surface mg/kg = milligram of analyte per kilogram of soil  
< = not detected at indicated Laboratory Detection Limits -- = not analyzed  
Benzene, Toluene, Ethylbenzene, Xylenes by EPA Method 8260D  
PAHs - Polycyclic Aromatic Hydrocarbons by EPA Method 8270 SIM  
TPH - Total Petroleum Hydrocarbons - Gasoline by NWTPH-Gx  
TPHd - Total Petroleum Hydrocarbons - Diesel by NWTPH-Dx  
TPHo - Total Petroleum Hydrocarbons - Motor Oil by NWTPH-Dx extended  
Glyphosate by Monsanto Method  
Toxaphene; 4,4'-DDE; 4,4'-DDT; and Methoxychlor 'Organochlorine Pesticides by EPA Method 8081A  
Dicamba and Bentazon Herbicides by EPA Method 8151A(GC/MS)  
Bolted numbers and red-shaded cells denote concentrations above the MTCA Method A Cleanup Levels for soil  
^ = Cleanup Level taken from CLARC Ecology Spreadsheet - Soil Protective of Groundwater in Vadose @13 degrees C (Eq. 747-1)  
ND=Not Detected above Laboratory Reporting Limit, see the laboratory reports for the varying Reporting Limits  
H=Holding times for preparation or analysis exceeded

**TABLE 2**  
**SOIL ANALYTICAL RESULTS**  
**pH & Metals**  
 Sunset Pointe Development  
 2301 23rd Street Southeast  
 Puyallup, Washington

Aerotech Environmental Consulting, Inc. - Phase II Limited & Targeted Subsurface Assessment

Sample ID	Soil Boring/Point Wall ID	Sampling Date	Sample Depth	Percent Moisture	pH	Arsenic	Cadmium	Chromium	Hexavalent Chromium	Lead	Mercury
			Feet BGS	%	unitless	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
B3-3	B3	01/27/24	3	19.7	6.99H	--	--	--	--	--	--
B4-1	B4	01/27/24	1	18.9	6.24H	--	--	--	--	--	--
B6-1	B6	01/27/24	1	15.6	6.69H	--	--	--	--	--	--
B7-4	B7	01/27/24	4	24.6	6.80H	--	--	--	--	--	--
B9-04	B9	01/27/24	4	21.2	--	4.42	0.0416	--	--	--	--
B12-01	B12	01/30/24	1	14.1	6.95	2.77	0.0591	--	--	--	--
B14-01	B14	01/30/24	1	21.4	--	--	--	25.3	--	12.8	<0.268
B15-01	B15	01/30/24	1	10.4	--	2.87	0.0457	--	--	--	--
B15-03	B15	01/30/24	3	14.0	--	2.73	0.0503	--	--	--	--
B16-02	B16	01/30/24	2	9.29	--	4.25	0.0542	--	--	--	--
B17-02	B17	01/30/24	2	13.9	--	2.37	0.0536	--	--	--	--
B18-03	B18	01/30/24	3	18.1	--	1.97	0.0630	--	--	--	--
B18-04	B18	01/30/24	4	19.8	--	2.81	0.0948	--	--	--	--
B19-01	B19	01/30/24	1	--	6.98H	--	--	--	--	--	--
B20-01	B20	01/30/24	1	26.0	--	2.99	0.312	--	--	--	--
B20-02	B20	01/30/24	2	12.7	--	--	--	--	--	--	--
B20-03	B20	01/30/24	3	11.2	6.67	--	--	--	--	--	--
B20-04	B20	01/30/24	4	13.8	--	--	--	--	--	--	--
B21-01	B20	01/30/24	1	8.75	--	1.62	0.0420	--	--	--	--
B22-01	B22	01/30/24	1	10.3	--	3.28	0.140	--	--	--	--
B23-02	B23	01/30/24	2	14.6	6.53	2.33	0.0500	--	--	--	--
B24-01	B24	01/30/24	1	7.87	--	3.16	0.190	--	--	--	--
B24-02	B24	01/30/24	2	7.80	7.07	--	--	--	--	--	--
B25-01	B25	01/30/24	1	14.5	--	4.72	0.746	--	--	--	--
B25-02	B25	01/30/24	2	10.2	--	--	--	--	--	--	--
B27-02	B27	01/30/24	2	30.0	7.26	4.59	0.216	--	--	--	--
B28-01	B28	01/30/24	1	10.8	--	3.20	0.0352	--	--	--	--
B30-01	B30	01/30/24	1	39.2	--	2.99	0.445	--	--	--	--
B31-02	B31	01/30/24	2	21.4	--	3.45	0.0291	--	--	--	--
B32-01	B32	01/30/24	1	29.8	--	1.86	0.215	--	--	--	--
B32-02	B32	01/30/04	2	21.9	--	1.83	0.0625	33.7	1.63	3.98	<0.199
B100-01	B100	03/14/24	1	22.2	--	5.39	0.117	--	--	--	--
B103-01	B103	03/14/24	1	28.1	--	3.59	0.150	--	--	--	--
B105-01	B105	03/14/24	1	38.5	--	3.60	0.532	--	--	--	--
B106-01	B106	03/14/24	1	11.8	--	2.23	0.132	--	--	--	--
B107-01	B107	03/14/24	1	25.8	--	2.72	0.121	--	--	--	--
B108-01	B108	03/14/24	1	16.4	--	2.88	0.102	--	--	--	--
B108-02	B108	03/14/24	2	16.4	--	3.38	0.109	--	--	--	--
B109-02	B109	03/14/24	2	21.3	--	4.37	0.0685	--	--	--	--
B110-01	B110	03/14/24	1	30.6	--	3.78	0.175	--	--	--	--
B150-2	B150	03/21/24	2	7.4	--	2.96	0.150	--	--	--	--
B151-2	B151	03/21/24	2	25.2	--	2.80	0.251	--	--	--	--
B152-2	B152	03/21/24	2	22.5	--	3.63	0.0900	--	--	--	--
B153-2	B153	03/21/24	2	34.0	--	3.96	0.120	--	--	--	--
B154-2	B154	03/21/24	2	23.9	--	4.41	0.127	--	--	--	--
<b>MTCA Method A Cleanup Levels</b>					--	20	2	2,000	19	250	2

**EXPLANATION**

MTCA = Model Toxic Control Act Cleanup Level (WAC173-340-900)

BGS = Below Ground Surface mg/kg = milligram of analyte per kilogram of soil

< = not detected at indicated Laboratory Detection Limits -- = not analyzed

Metals by EPA Method 6020

Bolded numbers and red-shaded cells denote concentrations above the MTCA Method A Cleanup Levels for soil

^ = Cleanup Level taken from CLARC Ecology Spreadsheet - Soil Protective of Groundwater in Vadose @13 degrees C (Eq. 747-1)

ND=Not Detected above Laboratory Reporting Limit, see the laboratory reports for the varying Reporting Limits

H=Holding times for preparation or analysis exceeded

**TABLE 3**  
**TCLP SOIL ANALYTICAL RESULTS**  
 Sunset Pointe Development  
 2301 23rd Street Southeast  
 Puyallup, Washington

Aerotech Environmental Consulting, Inc. - Limited Phase II - Retention Pond Investigation

Sample ID	Soil Boring/Pit/Well ID	Sampling Date	Sample Depth	Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver
B14-01	B14	01/30/24	Feet BGS	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RCRA Hazard Levels - Toxicity Characteristic Leaching Procedure (TCLP)				<0.100	<0.500	<0.100	<0.200	<0.200	<0.020	<0.100	<0.200
				5.0	100.0	1.0	5.0	5.0	0.2	1.0	5.0

**EXPLANATION**

MTCA = Model Toxic Control Act Cleanup Level (WAC173-340-900)  
 BGS = Below Ground Surface    µg/L = microgram of analyte per liter of water  
 < = not detected at indicated Laboratory Detection Limits    -- = not analyzed  
 Metals by 6020 with EPA Method 1311 TCLP Extraction  
 Bolded numbers and red-shaded cells denote concentrations above the MTCA Method A Cleanup Levels for soil

**TABLE 4**  
**GRAB SURFACE WATER ANALYTICAL RESULTS**  
 Sunset Pointe Development  
 2301 23rd Street Southeast  
 Puyallup, Washington

Aerotech Environmental Consulting, Inc. - Limited Phase II - Retention Pond Investigation

Sample ID	Soil Boring/Point Well ID	Sampling Date	Sample Depth	Triphenylamine	4,4'-DDE	4,4'-DDT	Endrin	Endosulfan II	4,4'-DDE	4,4'-DDT	Endrin	Endosulfan II	4,4'-DDE	4,4'-DDT	Endrin	Endosulfan II	4,4'-DDE	4,4'-DDT	Endrin	Endosulfan II
Pond Water	Retention Pond	12/09/23	surface	<0.152	<0.0304	<0.0304	<0.0304	<0.0304	<0.0304	<0.0304	<0.0304	<0.0304	<0.0304	<0.0304	<0.0304	<0.0304	<0.0304	<0.0304	<0.0304	<0.0304
MTCA Method A GW Cleanup Levels																				
MTCA Method B GW Cleanup Levels																				

Sample ID	Soil Boring/Point Well ID	Sampling Date	Sample Depth	Triphenylamine	4,4'-DDE	4,4'-DDT	Endrin	Endosulfan II	4,4'-DDE	4,4'-DDT	Endrin	Endosulfan II	4,4'-DDE	4,4'-DDT	Endrin	Endosulfan II	4,4'-DDE	4,4'-DDT	Endrin	Endosulfan II
Pond Water	Retention Pond	12/09/23	surface	<0.0304	<0.0304	<0.0304	<0.0304	<0.0304	<0.0304	<0.0304	<0.0304	<0.0304	<0.0304	<0.0304	<0.0304	<0.0304	<0.0304	<0.0304	<0.0304	<0.0304
MTCA Method A GW Cleanup Levels																				
MTCA Method B GW Cleanup Levels																				

Sample ID	Soil Boring/Point Well ID	Sampling Date	Sample Depth	Triphenylamine	4,4'-DDE	4,4'-DDT	Endrin	Endosulfan II	4,4'-DDE	4,4'-DDT	Endrin	Endosulfan II	4,4'-DDE	4,4'-DDT	Endrin	Endosulfan II	4,4'-DDE	4,4'-DDT	Endrin	Endosulfan II
Pond Water	Retention Pond	03/18/24	surface	0.99	5	5	4.8	8	0.99	5	5	4.8	8	0.99	5	5	4.8	8	0.99	5
MTCA Method A GW Cleanup Levels																				
MTCA Method B GW Cleanup Levels																				

**EXPLANATION**

MTCA = Model Toxic Control Act Cleanup Level (WAC 173-340-900)  
 BGS = Below Ground Surface    µg/L = microgram of analyte per liter of water  
 < = not detected at indicated Laboratory Detection Limits    -- = not analyzed  
 Glyphosate by Modified EPA Method 547  
 Organochlorine Pesticides by EPA Method 8081  
 Metals by EPA Method 6020  
 ND = Not Detected (minimum detection limit unknown)  
 Bolded numbers and red-shaded cells denote concentrations above the MTCA Method A Cleanup Levels for soil  
 \* = No Method A Cleanup Level, Method B Protection of Groundwater Non Cancer Cleanup Level is presented in table



## Tab No.5

### LABORATORY ANALYTICAL RESULTS: REPORTS

#### *Initial Sampling in Areas of Concern*

(Analytical Report dated: February 26, 2024)

#### *Initial Sampling in Areas of Concern*

(Analytical Report dated: April 17, 2024)

#### *Area-Wide Soil Metals Background Levels*

(Report dated: March 25, 2024)

#### *Pond Water Testing*

(Report dated: March 22, 2024)

**LABORATORY ANALYTICAL RESULTS: REPORTS**

*Initial Sampling in Areas of Concern*  
(Analytical Report dated: February 26, 2024)





**Fremont**  
*Analytical*  
An Alliance Technical Group Company

3600 Fremont Ave. N.  
Seattle, WA 98103  
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F: (206) 352-7178  
info@fremontanalytical.com

**Aerotech**

Alan Blotch  
14220 Interurban Ave S, Ste. 116  
Tukwila, WA 98168

**RE: Sunset Pointe**

**Work Order Number: 2401550**

February 26, 2024

**Attention Alan Blotch:**

Fremont Analytical, Inc. received 26 sample(s) on 1/30/2024 for the analyses presented in the following report.

*Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.*  
*Gasoline by NWTPH-Gx*  
*Herbicides by EPA Method 8151A (GC/MS)*  
*Organochlorine Pesticides by EPA Method 8081*  
*pH by EPA Method 9045*  
*pH by SM 4500H+B*  
*Sample Moisture (Percent Moisture)*  
*Volatile Organic Compounds by EPA Method 8260D*

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.4 for Environmental Testing  
ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing  
Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910

Revision v1

[www.fremontanalytical.com](http://www.fremontanalytical.com)

**CLIENT:** Aerotech  
**Project:** Sunset Pointe  
**Work Order:** 2401550

## Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2401550-001	B1-1	01/27/2024 12:00 AM	01/30/2024 3:15 PM
2401550-002	B1-2	01/27/2024 12:00 AM	01/30/2024 3:15 PM
2401550-003	B2-1	01/27/2024 12:00 AM	01/30/2024 3:15 PM
2401550-004	B2-2	01/27/2024 12:00 AM	01/30/2024 3:15 PM
2401550-005	B3-1	01/27/2024 12:00 AM	01/30/2024 3:15 PM
2401550-006	B3-2	01/27/2024 12:00 AM	01/30/2024 3:15 PM
2401550-007	B3-3	01/27/2024 12:00 AM	01/30/2024 3:15 PM
2401550-008	B4-1	01/27/2024 12:00 AM	01/30/2024 3:15 PM
2401550-009	B4-2	01/27/2024 12:00 AM	01/30/2024 3:15 PM
2401550-010	B5-1	01/27/2024 12:00 AM	01/30/2024 3:15 PM
2401550-011	B5-2	01/27/2024 12:00 AM	01/30/2024 3:15 PM
2401550-012	B5-3	01/27/2024 12:00 AM	01/30/2024 3:15 PM
2401550-013	B7-1	01/27/2024 12:00 AM	01/30/2024 3:15 PM
2401550-014	B7-2	01/27/2024 12:00 AM	01/30/2024 3:15 PM
2401550-015	B7-3	01/27/2024 12:00 AM	01/30/2024 3:15 PM
2401550-016	B7-4	01/27/2024 12:00 AM	01/30/2024 3:15 PM
2401550-017	B8-1	01/27/2024 12:00 AM	01/30/2024 3:15 PM
2401550-018	B8-2	01/27/2024 12:00 AM	01/30/2024 3:15 PM
2401550-019	B9-1	01/27/2024 12:00 AM	01/30/2024 3:15 PM
2401550-020	B9-2	01/27/2024 12:00 AM	01/30/2024 3:15 PM
2401550-021	B9-03	01/27/2024 12:00 AM	01/30/2024 3:15 PM
2401550-022	B9-04	01/27/2024 12:00 AM	01/30/2024 3:15 PM
2401550-023	B10-01	01/27/2024 12:00 AM	01/30/2024 3:15 PM
2401550-024	B6-1	01/27/2024 12:00 AM	01/30/2024 3:15 PM
2401550-025	Pond Sample	01/30/2024 1:00 PM	01/30/2024 3:15 PM
2401550-026	Trip Blank	01/25/2024 9:01 AM	01/30/2024 3:15 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned



Brianna Barnes  
Project Manager

*DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.4 for Environmental Testing  
ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing  
Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910*

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Revision v1

[www.fremontanalytical.com](http://www.fremontanalytical.com)

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**CLIENT:** Aerotech  
**Project:** Sunset Pointe

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### I. SAMPLE RECEIPT:

Samples receipt information is recorded on the attached Sample Receipt Checklist.

### II. GENERAL REPORTING COMMENTS:

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

### III. ANALYSES AND EXCEPTIONS:

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

2401550-025E

TEST\_SUB has been Sub Contracted.

Rev1: Additional analysis requested by the client.

### Qualifiers:

- \* - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

### Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- DUP - Sample Duplicate
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MCL - Maximum Contaminant Level
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- REP - Sample Replicate
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



## Analytical Report

Work Order: 2401550

Date Reported: 2/26/2024

Client: Aerotech

Collection Date: 1/27/2024

Project: Sunset Pointe

Lab ID: 2401550-007

Matrix: Soil

Client Sample ID: B3-3

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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### Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Batch ID: 42780

Analyst: AP

Diesel Range Organics	ND	61.6		mg/Kg-dry	1	2/1/2024 5:31:06 PM
Heavy Oil	ND	123		mg/Kg-dry	1	2/1/2024 5:31:06 PM
Total Petroleum Hydrocarbons	ND	185		mg/Kg-dry	1	2/1/2024 5:31:06 PM
Surr: 2-Fluorobiphenyl	128	50 - 150		%Rec	1	2/1/2024 5:31:06 PM
Surr: o-Terphenyl	129	50 - 150		%Rec	1	2/1/2024 5:31:06 PM

### Gasoline by NWTPH-Gx

Batch ID: 42778

Analyst: KJ

Gasoline Range Organics	ND	6.08		mg/Kg-dry	1	2/1/2024 8:30:28 AM
Surr: Toluene-d8	99.8	65 - 135		%Rec	1	2/1/2024 8:30:28 AM
Surr: 4-Bromofluorobenzene	98.7	65 - 135		%Rec	1	2/1/2024 8:30:28 AM

### Volatile Organic Compounds by EPA Method 8260D

Batch ID: 42778

Analyst: KJ

Benzene	ND	0.0213		mg/Kg-dry	1	2/1/2024 8:30:28 AM
Toluene	ND	0.0365		mg/Kg-dry	1	2/1/2024 8:30:28 AM
Ethylbenzene	ND	0.0304		mg/Kg-dry	1	2/1/2024 8:30:28 AM
m,p-Xylene	ND	0.0608		mg/Kg-dry	1	2/1/2024 8:30:28 AM
o-Xylene	ND	0.0304		mg/Kg-dry	1	2/1/2024 8:30:28 AM
Surr: Dibromofluoromethane	101	79.2 - 123		%Rec	1	2/1/2024 8:30:28 AM
Surr: Toluene-d8	99.9	77.6 - 126		%Rec	1	2/1/2024 8:30:28 AM
Surr: 1-Bromo-4-fluorobenzene	98.7	72 - 131		%Rec	1	2/1/2024 8:30:28 AM

### Sample Moisture (Percent Moisture)

Batch ID: R89306

Analyst: BS

Percent Moisture	19.7	0.500		wt%	1	1/31/2024 10:32:28 AM
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### pH by EPA Method 9045

Batch ID: R89429

Analyst: AM

Hydrogen Ion (pH)	6.99		H	pH	1	2/5/2024 10:20:00 AM
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## Analytical Report

Work Order: 2401550

Date Reported: 2/26/2024

Client: Aerotech

Collection Date: 1/27/2024

Project: Sunset Pointe

Lab ID: 2401550-008

Matrix: Soil

Client Sample ID: B4-1

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 42780

Analyst: AP

Diesel Range Organics	ND	61.0		mg/Kg-dry	1	2/1/2024 5:41:59 PM
Heavy Oil	ND	122		mg/Kg-dry	1	2/1/2024 5:41:59 PM
Total Petroleum Hydrocarbons	ND	183		mg/Kg-dry	1	2/1/2024 5:41:59 PM
Surr: 2-Fluorobiphenyl	68.2	50 - 150		%Rec	1	2/1/2024 5:41:59 PM
Surr: o-Terphenyl	62.1	50 - 150		%Rec	1	2/1/2024 5:41:59 PM

**Sample Moisture (Percent Moisture)**

Batch ID: R89306

Analyst: BS

Percent Moisture	18.9	0.500		wt%	1	1/31/2024 10:32:28 AM
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**pH by EPA Method 9045**

Batch ID: R89429

Analyst: AM

Hydrogen Ion (pH)	6.24		H	pH	1	2/5/2024 10:20:00 AM
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## Analytical Report

Work Order: 2401550

Date Reported: 2/26/2024

Client: Aerotech

Collection Date: 1/27/2024

Project: Sunset Pointe

Lab ID: 2401550-016

Matrix: Soil

Client Sample ID: B7-4

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 42780

Analyst: AP

Diesel Range Organics	ND	64.7		mg/Kg-dry	1	2/1/2024 5:52:53 PM
Heavy Oil	ND	129		mg/Kg-dry	1	2/1/2024 5:52:53 PM
Total Petroleum Hydrocarbons	ND	194		mg/Kg-dry	1	2/1/2024 5:52:53 PM
Surr: 2-Fluorobiphenyl	100	50 - 150		%Rec	1	2/1/2024 5:52:53 PM
Surr: o-Terphenyl	103	50 - 150		%Rec	1	2/1/2024 5:52:53 PM

**Sample Moisture (Percent Moisture)**

Batch ID: R89306

Analyst: BS

Percent Moisture	24.6	0.500		wt%	1	1/31/2024 10:32:28 AM
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**pH by EPA Method 9045**

Batch ID: R89429

Analyst: AM

Hydrogen Ion (pH)	6.80		H	pH	1	2/5/2024 10:20:00 AM
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# Analytical Report

Work Order: 2401550

Date Reported: 2/26/2024

Client: Aerotech

Collection Date: 1/27/2024

Project: Sunset Pointe

Lab ID: 2401550-024

Matrix: Soil

Client Sample ID: B6-1

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.**

Batch ID: 42780

Analyst: AP

Diesel Range Organics	ND	54.8		mg/Kg-dry	1	2/1/2024 6:03:47 PM
Heavy Oil	ND	110		mg/Kg-dry	1	2/1/2024 6:03:47 PM
Total Petroleum Hydrocarbons	ND	165		mg/Kg-dry	1	2/1/2024 6:03:47 PM
Surr: 2-Fluorobiphenyl	139	50 - 150		%Rec	1	2/1/2024 6:03:47 PM
Surr: o-Terphenyl	139	50 - 150		%Rec	1	2/1/2024 6:03:47 PM

**Sample Moisture (Percent Moisture)**

Batch ID: R89306

Analyst: BS

Percent Moisture	15.6	0.500		wt%	1	1/31/2024 10:32:28 AM
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**pH by EPA Method 9045**

Batch ID: R89429

Analyst: AM

Hydrogen Ion (pH)	6.69		H	pH	1	2/5/2024 10:20:00 AM
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## Analytical Report

Work Order: 2401550

Date Reported: 2/26/2024

Client: Aerotech

Collection Date: 1/30/2024 1:00:00 PM

Project: Sunset Pointe

Lab ID: 2401550-025

Matrix: Water

Client Sample ID: Pond Sample

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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### Organochlorine Pesticides by EPA Method 8081

Batch ID: 42806

Analyst: SK

Toxaphene	ND	0.152		µg/L	1	2/5/2024 4:37:25 PM
alpha-BHC	ND	0.0304		µg/L	1	2/5/2024 4:37:25 PM
beta-BHC	ND	0.0304		µg/L	1	2/5/2024 4:37:25 PM
Gamma BHC (Lindane)	ND	0.0304		µg/L	1	2/5/2024 4:37:25 PM
delta-BHC	ND	0.0304		µg/L	1	2/5/2024 4:37:25 PM
Heptachlor	ND	0.0405		µg/L	1	2/5/2024 4:37:25 PM
Aldrin	ND	0.0253		µg/L	1	2/5/2024 4:37:25 PM
Heptachlor epoxide	ND	0.0304		µg/L	1	2/5/2024 4:37:25 PM
gamma-Chlordane	ND	0.0304		µg/L	1	2/5/2024 4:37:25 PM
Endosulfan I	ND	0.0304		µg/L	1	2/5/2024 4:37:25 PM
alpha-Chlordane	ND	0.0304		µg/L	1	2/5/2024 4:37:25 PM
Dieldrin	ND	0.0304		µg/L	1	2/5/2024 4:37:25 PM
4,4'-DDE	ND	0.0304		µg/L	1	2/5/2024 4:37:25 PM
Endrin	ND	0.0405		µg/L	1	2/5/2024 4:37:25 PM
Endosulfan II	ND	0.0405		µg/L	1	2/5/2024 4:37:25 PM
4,4'-DDD	ND	0.0405		µg/L	1	2/5/2024 4:37:25 PM
Endrin aldehyde	ND	0.0405		µg/L	1	2/5/2024 4:37:25 PM
Endosulfan sulfate	ND	0.0405		µg/L	1	2/5/2024 4:37:25 PM
4,4'-DDT	ND	0.0405		µg/L	1	2/5/2024 4:37:25 PM
Endrin ketone	ND	0.0405		µg/L	1	2/5/2024 4:37:25 PM
Methoxychlor	ND	0.0506		µg/L	1	2/5/2024 4:37:25 PM
Surr: Decachlorobiphenyl	55.8	8.55 - 155		%Rec	1	2/5/2024 4:37:25 PM
Surr: Tetrachloro-m-xylene	68.8	16.9 - 96.4		%Rec	1	2/5/2024 4:37:25 PM

### Herbicides by EPA Method 8151A (GC/MS)

Batch ID: 42994

Analyst: SH

Dicamba	ND	0.944	H	µg/L	1	2/26/2024 10:20:29 AM
2,4-D	ND	0.944	H	µg/L	1	2/26/2024 10:20:29 AM
2,4-DP	ND	0.944	H	µg/L	1	2/26/2024 10:20:29 AM
2,4,5-TP (Silvex)	ND	0.944	H	µg/L	1	2/26/2024 10:20:29 AM
2,4,5-T	ND	0.944	H	µg/L	1	2/26/2024 10:20:29 AM
Dinoseb	ND	0.944	H	µg/L	1	2/26/2024 10:20:29 AM
Dalapon	ND	3.78	H	µg/L	1	2/26/2024 10:20:29 AM
2,4-DB	ND	0.944	H	µg/L	1	2/26/2024 10:20:29 AM
MCP	ND	4.72	H	µg/L	1	2/26/2024 10:20:29 AM
MCPA	ND	4.72	H	µg/L	1	2/26/2024 10:20:29 AM
Picloram	ND	0.944	H	µg/L	1	2/26/2024 10:20:29 AM
Bentazon	ND	0.944	H	µg/L	1	2/26/2024 10:20:29 AM
Chloramben	ND	0.944	H	µg/L	1	2/26/2024 10:20:29 AM





## Analytical Report

Work Order: 2401550

Date Reported: 2/26/2024

Client: Aerotech

Collection Date: 1/30/2024 1:00:00 PM

Project: Sunset Pointe

Lab ID: 2401550-025

Matrix: Water

Client Sample ID: Pond Sample

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Herbicides by EPA Method 8151A (GC/MS)**

Batch ID: 42994

Analyst: SH

Acifluorfen	ND	4.72	H	µg/L	1	2/26/2024 10:20:29 AM
3,5-Dichlorobenzoic acid	ND	0.944	H	µg/L	1	2/26/2024 10:20:29 AM
4-Nitrophenol	ND	4.72	H	µg/L	1	2/26/2024 10:20:29 AM
Dacthal (DCPA)	ND	4.72	H	µg/L	1	2/26/2024 10:20:29 AM
Surr: 2,4-Dichlorophenylacetic acid	89.3	67.1 - 123	H	%Rec	1	2/26/2024 10:20:29 AM

**pH by SM 4500H+B**

Batch ID: R89373

Analyst: NK

Hydrogen Ion (pH)	7.33		H	pH	1	1/31/2024 2:45:00 PM
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**Work Order:** 2401550  
**CLIENT:** Aerotech  
**Project:** Sunset Pointe

## QC SUMMARY REPORT

pH by EPA Method 9045

Sample ID: <b>MB-R89429</b>		SampType: <b>MBLK</b>			Units: <b>pH</b>		Prep Date: <b>2/5/2024</b>			RunNo: <b>89429</b>		
Client ID: <b>MBLKS</b>		Batch ID: <b>R89429</b>			Analysis Date: <b>2/5/2024</b>			SeqNo: <b>1867194</b>				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Hydrogen Ion (pH) 6.17

Sample ID: LCS-R89429	SampType: LCS	Units: pH			Prep Date: 2/5/2024				RunNo: 89429		
Client ID: LCSS	Batch ID: R89429	Analysis Date: 2/5/2024							SeqNo: 1867195		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Hydrogen Ion (pH) 7.19 7.000 0 103 95 105

Sample ID: 2402027-036ADUP		SampType: DUP		Units: pH		Prep Date: 2/5/2024			RunNo: 89429		
Client ID: BATCH		Batch ID: R89429					Analysis Date: 2/5/2024			SeqNo: 1867200	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Hydrogen Ion (pH) 7.14 7.260 1.67 10

Work Order: 2401550  
CLIENT: Aerotech  
Project: Sunset Pointe

## QC SUMMARY REPORT

### pH by SM 4500H+B

Sample ID: <b>MB-R89373</b>		SampType: <b>MBLK</b>			Units: <b>pH</b>		Prep Date: <b>1/31/2024</b>			RunNo: <b>89373</b>		
Client ID: <b>MBLKW</b>		Batch ID: <b>R89373</b>			Analysis Date: <b>1/31/2024</b>				SeqNo: <b>1866154</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Hydrogen Ion (pH) 7.69

Sample ID: <b>LCS-R89373</b>	SampType: <b>LCS</b>	Units: <b>pH</b>				Prep Date: <b>1/31/2024</b>				RunNo: <b>89373</b>		
Client ID: <b>LCSW</b>	Batch ID: <b>R89373</b>					Analysis Date: <b>1/31/2024</b>				SeqNo: <b>1866155</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Hydrogen Ion (pH) 7.17 7.000 0 102 95 105

Sample ID: 2401550-025CDUP		SampType: DUP			Units: pH		Prep Date: 1/31/2024			RunNo: 89373		
Client ID: Pond Sample		Batch ID: R89373			Analysis Date: 1/31/2024			SeqNo: 1866157				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Hydrogen Ion (pH) 7.39 7.330 0.815 10 H

Work Order: 2401550  
 CLIENT: Aerotech  
 Project: Sunset Pointe

## QC SUMMARY REPORT

### Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID: <b>MB-42780</b>		SampType: <b>MBLK</b>			Units: <b>mg/Kg</b>		Prep Date: <b>1/31/2024</b>			RunNo: <b>89357</b>		
Client ID: <b>MBLKS</b>		Batch ID: <b>42780</b>			Analysis Date: <b>2/1/2024</b>				SeqNo: <b>1865873</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Diesel Range Organics	ND	50.0									
Heavy Oil	ND	100									
Total Petroleum Hydrocarbons	ND	150									
Surr: 2-Fluorobiphenyl	10.3		10.00		103	50	150				
Surr: o-Terphenyl	10.0		10.00		100	50	150				

Sample ID: LCS-42780	SampType: LCS	Units: mg/Kg				Prep Date: 1/31/2024				RunNo: 89357		
Client ID: LCSS	Batch ID: 42780					Analysis Date: 2/1/2024				SeqNo: 1865874		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Total Petroleum Hydrocarbons	511	150	500.0	0	102	80.8	118				
Surr: 2-Fluorobiphenyl	10.0		10.00		100	50	150				
Surr: o-Terphenyl	12.1		10.00		121	50	150				

Sample ID: LCSD-42780		SampType: LCSD			Units: mg/Kg		Prep Date: 1/31/2024			RunNo: 89357		
Client ID: LCSS02		Batch ID: 42780			Analysis Date: 2/1/2024			SeqNo: 1865875				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Total Petroleum Hydrocarbons	488	150	500.0	0	97.5	80.8	118	511.2	4.72	30	
Surr: 2-Fluorobiphenyl	9.47		10.00		94.7	50	150		0		
Surr: o-Terphenyl	11.4		10.00		114	50	150		0		

Sample ID: 2401579-002AMS		SampType: MS			Units: mg/Kg-dry		Prep Date: 1/31/2024		RunNo: 89357		
Client ID: BATCH		Batch ID: 42780			Analysis Date: 2/1/2024				SeqNo: 1865882		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Petroleum Hydrocarbons	915	176	588.1	0	156	43.5	147				S
Surr: 2-Fluorobiphenyl	15.2		11.76		129	50	150				
Surr: o-Terphenyl	19.2		11.76		163	50	150				S



**Work Order:** 2401550  
**CLIENT:** Aerotech  
**Project:** Sunset Pointe

## QC SUMMARY REPORT

### Diesel and Heavy Oil by NWTPH-Dx/Dx Ext.

Sample ID: 2401579-002AMS		SampType: MS			Units: mg/Kg-dry		Prep Date: 1/31/2024			RunNo: 89357		
Client ID: BATCH		Batch ID: 42780			Analysis Date: 2/1/2024				SeqNo: 1865882			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

**NOTES:**

- S - Outlying spike recovery(ies) observed. A duplicate analysis was performed and recovered within range.
- S - Outlying surrogate recovery(ies) observed. A duplicate analysis was performed and recovered within range.

Sample ID: 2401579-002AMSD	SampType: MSD	Units: mg/Kg-dry				Prep Date: 1/31/2024			RunNo: 89357		
Client ID: BATCH	Batch ID: 42780					Analysis Date: 2/1/2024			SeqNo: 1865883		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Petroleum Hydrocarbons	450	174	580.8	0	77.5	43.5	147	914.9	68.1	30	
Surr: 2-Fluorobiphenyl	7.95		11.62		68.4	50	150		0		
Surr: o-Terphenyl	10.1		11.62		87.3	50	150		0		

Work Order: 2401550  
 CLIENT: Aerotech  
 Project: Sunset Pointe

## QC SUMMARY REPORT

### Herbicides by EPA Method 8151A (GC/MS)

Sample ID: <b>MB-42994</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>			Prep Date: <b>2/21/2024</b>			RunNo: <b>89820</b>			
Client ID: <b>MBLKW</b>	Batch ID: <b>42994</b>				Analysis Date: <b>2/26/2024</b>			SeqNo: <b>1874604</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dicamba	ND	0.961									
2,4-D	ND	0.961									
2,4-DP	ND	0.961									
2,4,5-TP (Silvex)	ND	0.961									
2,4,5-T	ND	0.961									
Dinoseb	ND	0.961									
Dalapon	ND	3.84									
2,4-DB	ND	0.961									
MCPP	ND	4.80									
MCPA	ND	4.80									
Picloram	ND	0.961									
Bentazon	ND	0.961									
Chloramben	ND	0.961									
Acifluorfen	ND	4.80									
3,5-Dichlorobenzoic acid	ND	0.961									
4-Nitrophenol	ND	4.80									
Dacthal (DCPA)	ND	4.80									
Surr: 2,4-Dichlorophenylacetic acid	13.8		19.22		71.6	62.9	132				

Sample ID: <b>LCS-42994</b>	SampType: <b>LCS</b>	Units: <b>µg/L</b>				Prep Date: <b>2/21/2024</b>			RunNo: <b>89820</b>		
Client ID: <b>LCSW</b>	Batch ID: <b>42994</b>					Analysis Date: <b>2/26/2024</b>			SeqNo: <b>1874605</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dicamba	2.82	0.968	3.873	0	72.9	52.4	153				
2,4-D	3.14	0.968	3.873	0	81.1	49.2	171				
2,4-DP	2.88	0.968	3.873	0	74.4	48.4	155				
2,4,5-TP (Silvex)	2.99	0.968	3.873	0	77.3	52.7	161				
2,4,5-T	3.14	0.968	3.873	0	81.0	50.2	164				
Dinoseb	1.96	0.968	3.873	0	50.7	17.8	148				
Dalapon	13.8	3.87	19.36	0	71.4	29.6	105				
2,4-DB	2.56	0.968	3.873	0	66.1	38.5	163				

Work Order: 2401550  
 CLIENT: Aerotech  
 Project: Sunset Pointe

## QC SUMMARY REPORT

### Herbicides by EPA Method 8151A (GC/MS)

Sample ID: <b>LCS-42994</b>	SampType: <b>LCS</b>	Units: <b>µg/L</b>				Prep Date: <b>2/21/2024</b>			RunNo: <b>89820</b>		
Client ID: <b>LCSW</b>	Batch ID: <b>42994</b>	Analysis Date: <b>2/26/2024</b>						SeqNo: <b>1874605</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
MCPP	21.2	4.84	19.36	0	110	66	133				
MCPA	22.0	4.84	19.36	0	113	70	132				
Picloram	2.02	0.968	3.873	0	52.3	13.6	144				
Bentazon	3.51	0.968	3.873	0	90.7	39.7	167				
Chloramben	0.714	0.968	3.873	0	18.4	5	126				
Acifluorfen	2.35	4.84	3.873	0	60.8	22.5	159				
3,5-Dichlorobenzoic acid	3.37	0.968	3.873	0	87.0	45.2	138				
4-Nitrophenol	0.685	4.84	3.873	0	17.7	5	116				
Dacthal (DCPA)	1.38	4.84	3.873	0	35.7	14	82.9				
Surr: 2,4-Dichlorophenylacetic acid	22.9		19.36		118	67.1	123				

Sample ID: 2401550-025BMS	SampType: MS	Units: µg/L				Prep Date: 2/21/2024			RunNo: 89820		
Client ID: Pond Sample	Batch ID: 42994	Analysis Date: 2/26/2024							SeqNo: 1874607		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dicamba	3.29	0.937	3.746	0	87.8	59.6	136				H
2,4-D	3.70	0.937	3.746	0	98.6	52.5	166				H
2,4-DP	3.42	0.937	3.746	0	91.3	52.7	147				H
2,4,5-TP (Silvex)	3.55	0.937	3.746	0	94.8	60.2	149				H
2,4,5-T	3.84	0.937	3.746	0	103	58.8	150				H
Dinoseb	2.29	0.937	3.746	0	61.1	21.2	133				H
Dalapon	14.1	3.75	18.73	0	75.2	29.7	94.2				H
2,4-DB	3.09	0.937	3.746	0	82.4	41.6	159				H
MCP P	25.2	4.68	18.73	0	135	55.1	139				H
MCPA	25.5	4.68	18.73	0	136	56.2	139				H
Picloram	3.45	0.937	3.746	0	92.1	16.6	132				H
Bentazon	4.39	0.937	3.746	0	117	45.6	158				H
Chloramben	1.35	0.937	3.746	0	36.0	7.42	100				H
Acifluorfen	2.68	4.68	3.746	0	71.5	16	149				H
3,5-Dichlorobenzoic acid	3.85	0.937	3.746	0	103	49.3	137				H
4-Nitrophenol	1.50	4.68	3.746	0	40.0	5	116				H

**Work Order:** 2401550  
**CLIENT:** Aerotech  
**Project:** Sunset Pointe

## QC SUMMARY REPORT

### Herbicides by EPA Method 8151A (GC/MS)

Sample ID: 2401550-025BMS	SampType: MS	Units: µg/L			Prep Date: 2/21/2024				RunNo: 89820		
Client ID: Pond Sample	Batch ID: 42994	Analysis Date: 2/26/2024							SeqNo: 1874607		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Dacthal (DCPA)	1.26	4.68	3.746	0	33.7	5	79.4				H
Surr: 2,4-Dichlorophenylacetic acid	28.6		18.73		153	67.1	123				SH

**NOTES:**

S - Outlying surrogate recovery(ies) observed.



**Work Order:** 2401550  
**CLIENT:** Aerotech  
**Project:** Sunset Pointe

## QC SUMMARY REPORT

### Organochlorine Pesticides by EPA Method 8081

Sample ID: <b>MB-42806</b>		SampType: <b>MBLK</b>		Units: <b>µg/L</b>		Prep Date: <b>2/2/2024</b>		RunNo: <b>89450</b>			
Client ID: <b>MBLKW</b>		Batch ID: <b>42806</b>				Analysis Date: <b>2/5/2024</b>		SeqNo: <b>1867482</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toxaphene	ND	0.149									
alpha-BHC	ND	0.0299									
beta-BHC	ND	0.0299									
Gamma BHC (Lindane)	ND	0.0299									
delta-BHC	ND	0.0299									
Heptachlor	ND	0.0398									
Aldrin	ND	0.0249									
Heptachlor epoxide	ND	0.0299									
gamma-Chlordane	ND	0.0299									
Endosulfan I	ND	0.0299									
alpha-Chlordane	ND	0.0299									
Dieldrin	ND	0.0299									
4,4'-DDE	ND	0.0299									
Endrin	ND	0.0398									
Endosulfan II	ND	0.0398									
4,4'-DDD	ND	0.0398									
Endrin aldehyde	ND	0.0398									
Endosulfan sulfate	ND	0.0398									
4,4'-DDT	ND	0.0398									
Endrin ketone	ND	0.0398									
Methoxychlor	ND	0.0498									
Surr: Decachlorobiphenyl	0.275		0.3981		69.0	8.55	155				
Surr: Tetrachloro-m-xylene	0.265		0.3981		66.6	16.9	96.4				

Sample ID: <b>LCS1-42806</b>		SampType: <b>LCS</b>		Units: <b>µg/L</b>		Prep Date: <b>2/2/2024</b>		RunNo: <b>89450</b>			
Client ID: <b>LCSW</b>		Batch ID: <b>42806</b>				Analysis Date: <b>2/5/2024</b>		SeqNo: <b>1867483</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
alpha-BHC	0.324	0.0301	0.4017	0	80.6	26.8	106				
beta-BHC	0.354	0.0301	0.4017	0	88.2	52.9	101				
Gamma BHC (Lindane)	0.327	0.0301	0.4017	0	81.5	30	110				

Work Order: 2401550  
 CLIENT: Aerotech  
 Project: Sunset Pointe

## QC SUMMARY REPORT

### Organochlorine Pesticides by EPA Method 8081

Sample ID: <b>LCS1-42806</b>		SampType: <b>LCS</b>		Units: <b>µg/L</b>		Prep Date: <b>2/2/2024</b>		RunNo: <b>89450</b>			
Client ID: <b>LCSW</b>		Batch ID: <b>42806</b>				Analysis Date: <b>2/5/2024</b>		SeqNo: <b>1867483</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
delta-BHC	0.333	0.0301	0.4017	0	82.8	37.9	123				
Heptachlor	0.326	0.0402	0.4017	0	81.3	25.8	106				
Aldrin	0.313	0.0251	0.4017	0	77.9	22.2	105				
Heptachlor epoxide	0.339	0.0301	0.4017	0	84.3	41.2	110				
gamma-Chlordane	0.324	0.0301	0.4017	0	80.8	28.8	123				
Endosulfan I	0.366	0.0301	0.4017	0	91.2	40.9	108				
alpha-Chlordane	0.346	0.0301	0.4017	0	86.2	38.4	117				
Dieldrin	0.341	0.0301	0.4017	0	84.9	48.7	111				
4,4'-DDE	0.350	0.0301	0.4017	0	87.2	36.9	121				
Endrin	0.369	0.0402	0.4017	0	92.0	38.9	128				
Endosulfan II	0.350	0.0402	0.4017	0	87.1	36.9	125				
4,4'-DDD	0.352	0.0402	0.4017	0	87.6	39.5	127				
Endrin aldehyde	0.295	0.0402	0.4017	0	73.5	43.8	107				
Endosulfan sulfate	0.354	0.0402	0.4017	0	88.2	52.5	115				
4,4'-DDT	0.370	0.0402	0.4017	0	92.0	39.8	127				
Endrin ketone	0.364	0.0402	0.4017	0	90.6	47.2	131				
Methoxychlor	0.413	0.0502	0.4017	0	103	47.1	123				
Surr: Decachlorobiphenyl	0.299		0.4017		74.4	8.55	155				
Surr: Tetrachloro-m-xylene	0.249		0.4017		62.0	16.9	96.4				

Sample ID: <b>LCS1D-42806</b>		SampType: <b>LCSD</b>		Units: <b>µg/L</b>		Prep Date: <b>2/2/2024</b>		RunNo: <b>89450</b>			
Client ID: <b>LCSW02</b>		Batch ID: <b>42806</b>				Analysis Date: <b>2/5/2024</b>		SeqNo: <b>1867484</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
alpha-BHC	0.308	0.0300	0.4000	0	76.9	26.8	106	0.3238	5.09	30	
beta-BHC	0.345	0.0300	0.4000	0	86.2	52.9	101	0.3542	2.73	30	
Gamma BHC (Lindane)	0.314	0.0300	0.4000	0	78.4	30	110	0.3273	4.27	30	
delta-BHC	0.327	0.0300	0.4000	0	81.7	37.9	123	0.3326	1.74	30	
Heptachlor	0.309	0.0400	0.4000	0	77.2	25.8	106	0.3265	5.60	30	
Aldrin	0.292	0.0250	0.4000	0	73.1	22.2	105	0.3128	6.72	30	
Heptachlor epoxide	0.323	0.0300	0.4000	0	80.8	41.2	110	0.3386	4.60	30	



Work Order: 2401550  
 CLIENT: Aerotech  
 Project: Sunset Pointe

## QC SUMMARY REPORT

### Organochlorine Pesticides by EPA Method 8081

Sample ID: <b>LCS1D-42806</b>		SampType: <b>LCSD</b>		Units: <b>µg/L</b>		Prep Date: <b>2/2/2024</b>		RunNo: <b>89450</b>			
Client ID: <b>LCSW02</b>		Batch ID: <b>42806</b>				Analysis Date: <b>2/5/2024</b>		SeqNo: <b>1867484</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
gamma-Chlordane	0.305	0.0300	0.4000	0	76.3	28.8	123	0.3245	6.09	30	
Endosulfan I	0.334	0.0300	0.4000	0	83.4	40.9	108	0.3663	9.33	30	
alpha-Chlordane	0.320	0.0300	0.4000	0	80.1	38.4	117	0.3463	7.78	30	
Dieldrin	0.317	0.0300	0.4000	0	79.2	48.7	111	0.3411	7.45	30	
4,4'-DDE	0.319	0.0300	0.4000	0	79.8	36.9	121	0.3502	9.25	30	
Endrin	0.342	0.0400	0.4000	0	85.5	38.9	128	0.3695	7.77	30	
Endosulfan II	0.318	0.0400	0.4000	0	79.5	36.9	125	0.3498	9.51	30	
4,4'-DDD	0.314	0.0400	0.4000	0	78.5	39.5	127	0.3518	11.4	30	
Endrin aldehyde	0.280	0.0400	0.4000	0	69.9	43.8	107	0.2954	5.48	30	
Endosulfan sulfate	0.314	0.0400	0.4000	0	78.6	52.5	115	0.3542	11.9	30	
4,4'-DDT	0.328	0.0400	0.4000	0	82.0	39.8	127	0.3696	11.9	30	
Endrin ketone	0.319	0.0400	0.4000	0	79.6	47.2	131	0.3639	13.3	30	
Methoxychlor	0.356	0.0500	0.4000	0	89.0	47.1	123	0.4125	14.7	30	
Surr: Decachlorobiphenyl	0.231		0.4000		57.9	8.55	155		0		
Surr: Tetrachloro-m-xylene	0.235		0.4000		58.8	16.9	96.4		0		

Sample ID: <b>LCS2-42806</b>		SampType: <b>LCS</b>		Units: <b>µg/L</b>		Prep Date: <b>2/2/2024</b>		RunNo: <b>89450</b>			
Client ID: <b>LCSW</b>		Batch ID: <b>42806</b>				Analysis Date: <b>2/5/2024</b>		SeqNo: <b>1867485</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toxaphene	1.59	0.149	1.993	0	79.7	41.7	133				
Surr: Decachlorobiphenyl	0.262		0.3986		65.8	8.55	155				
Surr: Tetrachloro-m-xylene	0.230		0.3986		57.6	16.9	96.4				

Sample ID: <b>LCS3-42806</b>		SampType: <b>LCS</b>		Units: <b>µg/L</b>		Prep Date: <b>2/2/2024</b>		RunNo: <b>89450</b>			
Client ID: <b>LCSW</b>		Batch ID: <b>42806</b>				Analysis Date: <b>2/5/2024</b>		SeqNo: <b>1867486</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlordane, Total (Technical)	1.52	0.249	1.995	0	76.3	47	136				
Surr: Decachlorobiphenyl	0.241		0.3990		60.4	8.55	155				
Surr: Tetrachloro-m-xylene	0.245		0.3990		61.4	16.9	96.4				

Work Order: 2401550  
CLIENT: Aerotech  
Project: Sunset Pointe

## QC SUMMARY REPORT

### Organochlorine Pesticides by EPA Method 8081

Sample ID: LCS3-42806	SampType: LCS	Units: µg/L	Prep Date: 2/2/2024	RunNo: 89450							
Client ID: LCSW	Batch ID: 42806		Analysis Date: 2/5/2024	SeqNo: 1867486							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual



**Work Order:** 2401550  
**CLIENT:** Aerotech  
**Project:** Sunset Pointe

## QC SUMMARY REPORT

### Gasoline by NWTPH-Gx

Sample ID: <b>LCS-42778</b>	SampType: <b>LCS</b>	Units: <b>mg/Kg</b>				Prep Date: <b>1/31/2024</b>			RunNo: <b>89359</b>		
Client ID: <b>LCSS</b>	Batch ID: <b>42778</b>					Analysis Date: <b>2/1/2024</b>			SeqNo: <b>1865918</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline Range Organics	21.2	5.00	25.00	0	84.6	65	135				
Surr: Toluene-d8	1.28		1.250		103	65	135				
Surr: 4-Bromofluorobenzene	1.27		1.250		101	65	135				

Sample ID: <b>MB-42778</b>	SampType: <b>MBLK</b>	Units: <b>mg/Kg</b>				Prep Date: <b>1/31/2024</b>				RunNo: <b>89359</b>		
Client ID: <b>MBLKS</b>	Batch ID: <b>42778</b>					Analysis Date: <b>2/1/2024</b>				SeqNo: <b>1865908</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline Range Organics	ND	5.00									
Surr: Toluene-d8	1.26		1.250		101	65	135				
Surr: 4-Bromofluorobenzene	1.23		1.250		98.6	65	135				

Sample ID: 2401579-001BDUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 1/31/2024			RunNo: 89359		
Client ID: BATCH		Batch ID: 42778		Analysis Date: 2/1/2024					SeqNo: 1865912		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Gasoline Range Organics	ND	6.09						0		30	
Surr: Toluene-d8	1.53		1.523		100	65	135		0		
Surr: 4-Bromofluorobenzene	1.48		1.523		97.0	65	135		0		

Sample ID: 2401579-003BMS		SampType: MS			Units: mg/Kg-dry		Prep Date: 1/31/2024			RunNo: 89359		
Client ID: BATCH		Batch ID: 42778			Analysis Date: 2/1/2024				SeqNo: 1865916			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Gasoline Range Organics	21.2	5.05	25.25	0	84.1	65	135				
Surr: Toluene-d8	1.22		1.263		96.7	65	135				
Surr: 4-Bromofluorobenzene	1.26		1.263		100	65	135				

Work Order: 2401550  
 CLIENT: Aerotech  
 Project: Sunset Pointe

## QC SUMMARY REPORT

### Volatile Organic Compounds by EPA Method 8260D

Sample ID: <b>LCS-42778</b>		SampType: <b>LCS</b>		Units: <b>µg/L</b>		Prep Date: <b>1/31/2024</b>		RunNo: <b>89354</b>			
Client ID: <b>LCSS</b>		Batch ID: <b>42778</b>				Analysis Date: <b>2/1/2024</b>		SeqNo: <b>1865826</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0.992	0.0175	1.000	0	99.2	80	120				
Toluene	1.05	0.0300	1.000	0	105	80	120				
Ethylbenzene	1.01	0.0250	1.000	0	101	80	120				
m,p-Xylene	1.98	0.0500	2.000	0	98.8	80	120				
o-Xylene	1.03	0.0250	1.000	0	103	80	120				
Surr: Dibromofluoromethane	1.27		1.250		102	79.2	123				
Surr: Toluene-d8	1.29		1.250		103	77.6	126				
Surr: 1-Bromo-4-fluorobenzene	1.24		1.250		99.4	72	131				

Sample ID: <b>MB-42778</b>		SampType: <b>MBLK</b>		Units: <b>mg/Kg</b>		Prep Date: <b>1/31/2024</b>		RunNo: <b>89354</b>			
Client ID: <b>MBLKS</b>		Batch ID: <b>42778</b>				Analysis Date: <b>2/1/2024</b>		SeqNo: <b>1865817</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.0175									
Toluene	ND	0.0300									
Ethylbenzene	ND	0.0250									
m,p-Xylene	ND	0.0500									
o-Xylene	ND	0.0250									
Surr: Dibromofluoromethane	1.25		1.250		99.9	79.5	124				
Surr: Toluene-d8	1.26		1.250		101	77.5	124				
Surr: 1-Bromo-4-fluorobenzene	1.23		1.250		98.4	60.5	139				

Sample ID: <b>2401579-001BDUP</b>		SampType: <b>DUP</b>		Units: <b>mg/Kg-dry</b>		Prep Date: <b>1/31/2024</b>		RunNo: <b>89354</b>			
Client ID: <b>BATCH</b>		Batch ID: <b>42778</b>				Analysis Date: <b>2/1/2024</b>		SeqNo: <b>1865821</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.0213						0		30	
Toluene	ND	0.0366						0		30	
Ethylbenzene	ND	0.0305						0		30	
m,p-Xylene	ND	0.0609						0		30	
o-Xylene	ND	0.0305						0		30	

**Work Order:** 2401550  
**CLIENT:** Aerotech  
**Project:** Sunset Pointe

## QC SUMMARY REPORT

### Volatile Organic Compounds by EPA Method 8260D

Sample ID: 2401579-001BDUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 1/31/2024		RunNo: 89354			
Client ID: BATCH		Batch ID: 42778				Analysis Date: 2/1/2024		SeqNo: 1865821			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Dibromofluoromethane	1.54		1.523		101	79.2	123		0		
Surr: Toluene-d8	1.52		1.523		99.9	77.6	126		0		
Surr: 1-Bromo-4-fluorobenzene	1.48		1.523		97.1	72	131		0		

Sample ID: 2401579-002BMS	SampType: MS	Units: mg/Kg-dry				Prep Date: 1/31/2024			RunNo: 89354		
Client ID: BATCH	Batch ID: 42778	Analysis Date: 2/1/2024							SeqNo: 1865825		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	1.27	0.0220	1.260	0	100	73	136				
Toluene	1.25	0.0378	1.260	0	99.1	79.3	131				
Ethylbenzene	1.27	0.0315	1.260	0	101	82.3	122.3				
m,p-Xylene	2.48	0.0630	2.520	0	98.5	81.6	121.6				
o-Xylene	1.29	0.0315	1.260	0	102	79.6	123				
Surr: Dibromofluoromethane	1.62		1.575		103	79.2	123				
Surr: Toluene-d8	1.59		1.575		101	77.6	126				
Surr: 1-Bromo-4-fluorobenzene	1.57		1.575		99.7	72	131				



## Sample Log-In Check List

Client Name: AEROTE  
 Logged by: Morgan Wilson

Work Order Number: 2401550  
 Date Received: 1/30/2024 3:15:00 PM

### Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐  
 2. How was the sample delivered? Client

### Log In

3. Custody Seals present on shipping container/cooler?  
 (Refer to comments for Custody Seals not intact) Yes ☐ No ☐ Not Present ☒  
 4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐  
 5. Were all items received at a temperature of >2°C to 6°C \* Yes ☒ No ☐ NA ☐  
 6. Sample(s) in proper container(s)? Yes ☒ No ☐  
 7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐  
 8. Are samples properly preserved? Yes ☒ No ☐  
 9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐  
 10. Is there headspace in the VOA vials? Yes ☐ No ☐ NA ☒  
 11. Did all samples containers arrive in good condition(unbroken)? Yes ☒ No ☐  
 12. Does paperwork match bottle labels? Yes ☒ No ☐  
 13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐  
 14. Is it clear what analyses were requested? Yes ☒ No ☐  
 15. Were all hold times (except field parameters, pH e.g.) able to be met? Yes ☒ No ☐

### Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☒ No ☐ NA ☐

Person Notified: Alan Blotch Date: 1/31/2024  
 By Whom: Morgan Wilson Via: ☒ eMail ☐ Phone ☐ Fax ☐ In Person  
 Regarding: Sampling Dates/Times, Metals Bottle Received, Sub Glyphosate  
 Client Instructions: See updated COC, okay to sub

17. Additional remarks:

### Item Information

Item #	Temp °C
Sample	5.6

\* Note: DoD/ELAP and TNI require items to be received at 4°C +/- 2°C





3600 Fremont Ave N.  
Seattle, WA 98103  
Tel: 206-352-3790

# Chain of Custody Record & Laboratory Services Agreement

Date: 01/27/24 Page: 1 of 3

Laboratory Project No (Internal): 2401550

Special Remarks:

Client: AEROTECH ENV.

Address: 14247 AMBAUM BL SW - REAR

City, State, Zip: BURien

Telephone: 360-710-5899

Report To (PM): A. BLOTCH

Email(s): ALAN @ DIRTY DIRT . US

Project Name: SUNSET POINTE

Project No:

Collected by: A. BLOTCH

Location:

Disposal: Samples will be disposed in 30 days unless otherwise requested.  
☐ Retain volume (specify above) ☐ Return to client

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	SOIL (EPA 8260 / 624)	BTEX	VOCs (EPA 8270 - 5M)	SVOCs (EPA 8270 - 625)	Dechlorinated Organics (DO)	Hydrocarbon Identification (GCI)	Gasoline Range Organics (GX)	PCBs (EPA 8270 - 5M)	Metals (EPA 8082 / 608)	Total (T) (EPA 6070 / 200 g)	Anions (IC) (EPA 8001)	Comments
1 B1-1	01-27		SOIL													
2 B1-2																
3 B2-1																
4 B2-2																
5 B3-1																
6 -2																
7 -3																
8 B4-1																
9 -2																
10 B5-1																

\*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Waste Water

\*\*Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti V Zn

\*\*\*Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide Fluoride Nitrate-Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished (Signature)

Print Name

Date/Time

Received (Signature)

Print Name

Date/Time

Relinquished (Signature)

Print Name

Date/Time

Received (Signature)

Print Name

Date/Time

Turn-around Time:

☒ Standard ☐ Next Day

☐ 3 Day ☐ Same Day

☐ 2 Day (specify)

Print Name: Britton Stone 1/30/24 15:15





3600 Fremont Ave N.  
Seattle, WA 98103  
Tel: 206-352-3790

# Chain of Custody Record & Laboratory Services Agreement

Date: 01/27/24 Page: 2 of: 3 Laboratory Project No (Internal): 2401550

Special Remarks:

Client: AEROTECH

Project Name: SUNSET POINTE

Project No:

Address:

Collected by:

City, State, Zip:

Location:

Telephone:

Report To (PM):

Email(s):

Disposal: Samples will be disposed in 30 days unless otherwise requested.  
☐ Retain volume (specify above) ☐ Return to client

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	VOCs (EPA 8260 / 624)	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HID)	Diesel/Heavy Oil Range Organics (HX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 / 625)	PCBs (EPA 8082 / 608)	Metals** (EPA 6020 / 200.8)	Total (T) (EPA 6020 / 200.8)	Anions (IC)***	EDB (6011)	Comments
1 B5-2	01-27		Soil														
2 " -3																	
3 B7-1																	
4 " -2																	
5 " -3																	
6 " -4																	
7 B8-1																	
8 " -2																	
9 B9-1																	
10 " -2																	

\*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water  
\*\*Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl V Zn  
\*\*\*Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide Fluoride Nitrate+Nitrite

Turn-around Time:  
☒ Standard ☐ Next Day  
☐ 3 Day ☐ Same Day  
☐ 2 Day (specify)

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished (Signature)

Print Name

Date/Time

Received (Signature)

Print Name

Date/Time

Relinquished (Signature)

Print Name

Date/Time

Received (Signature)

Print Name

Date/Time





**Fremont**  
Analytical

3600 Fremont Ave N.  
Seattle, WA 98103  
Tel: 206-352-3790  
Fax: 206-352-7178

Client: **AEROTECH**

Address:

City, State, Zip:

Telephone:

Fax:

# Chain of Custody Record & Laboratory Services Agreement

Date: **01/27/24** Page: **3** of: **3**

Laboratory Project No (Internal): **2401550**

Special Remarks:

Project Name: **SUNSET POND**

Project No:

Collected by:

Location:

Report To (PM):

PM Email:

Sample Disposal: ☐ Return to client ☒ Disposal by lab (after 30 days)

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	VOC (EPA 8260 / 624)	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HID)	SVOC (EPA 8270 / 625)	PAHs (EPA 8082 / 608)	PCBs (EPA 8270 / 625)	Metals ** (EPA 6020 / 200.8)	Total (T) Dissolved (D)	Anions (IC) ***	EDS (8011)	Comments
1 B9-03																
2 " 04																
3 B10-01																
4																
5 BL-1									X						X	
6																
7 POND SAMPLE																PEST   HERB   PH
8																
9																LINDANE   ROUND -UP
10																

\*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

\*\*Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti V Zn

\*\*\*Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

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Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time
<b>ALAN T. BLOTEN</b>	<b>ALAN T. BLOTEN</b>		<b>BRITHEN STONE</b>	<b>BRITHEN STONE</b>	<b>1/30/24 15:15</b>
Relinquished (Signature)	Print Name	Date/Time	Received (Signature)	Print Name	Date/Time





3600 Fremont Ave N.  
Seattle, WA 98103  
Tel: 206-352-3790

# Chain of Custody Record & Laboratory Services Agreement

Laboratory Project No (Internal): 2401550

Date: 01/27/24 Page: 1 of: 3

Special Remarks:

Client: AEROTECH ENV.

Address: 14247 AMBAUM BL SW - REAR

City, State, Zip: BURIEU

Telephone: 360-710-5899

Project Name: SUNSET POINTE

Project No:

Collected by: A. BLATCH

Location:

Disposal: Samples will be disposed in 30 days unless otherwise requested.  
☐ Retain volume (specify above) ☐ Return to client

Report To (PM): A. BLATCH

ALAN B DIRTY DIRT . U S

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	Comments
1 B1-1	01-27		SOIL		
2 B1-2					
3 B2-1					
4 B2-2					
5 B3-1					
6 -2					
7 -3					
8 B4-1					
9 -2					
10 B5-1					

\*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water  
\*\*Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag Al As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti V Zn  
\*\*\*Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide Fluoride Nitrate/Nitrite

Turn-around Time:  
☒ Standard ☐ Next Day  
☐ 3 Day ☐ Same Day  
☐ 2 Day (specify)

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Relinquished (Signature)	Print Name	Date/Time
x	ALAN T. BLATCH	
Relinquished (Signature)	Print Name	Date/Time
x	Britton Stone	1/30/24 15:15





**Fremont**  
Analytical  
A Alliance Technical Group Company

3600 Fremont Ave N.  
Seattle, WA 98103  
Tel: 206-352-3790

# Chain of Custody Record & Laboratory Services Agreement

Date: 01/27/24 Page: 2 of: 3

Laboratory Project No (Internal): 2401550

Special Remarks:

Project Name: SUNSET POINTE

Client: AEROTECH

Project No:

Address:

Collected by:

City, State, Zip:

Location:

Telephone:

Report To (PM):

Email(s):

Disposal: Samples will be disposed in 30 days unless otherwise requested.  
☐ Retain volume (specify above) ☐ Return to client

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	VOCs (EPA 8260 / 624)	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HID)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 - 51M)	PCBs (EPA 8270 / 625)	Metals** (EPA 8082 / 608)	Total (T) / Dissolved (D)	Anions (IC)***	ED8 (8011)	Comments
1 B5-2	01-27		Soil													
2 " -3																
3 B7-1																
4 " -2																
5 " -3																
6 " -4																
7 B8-1																
8 " -2																
9 B9-1																
10 " -2																

\*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

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Relinquished (Signature) \_\_\_\_\_ Date/Time \_\_\_\_\_

Relinquished (Signature) ALAN T. BLOTCH Date/Time \_\_\_\_\_

Relinquished (Signature) \_\_\_\_\_ Date/Time \_\_\_\_\_

Relinquished (Signature) Britton Stone Date/Time 1/30/24 15:15

Relinquished (Signature) \_\_\_\_\_ Date/Time \_\_\_\_\_

Relinquished (Signature) \_\_\_\_\_ Date/Time \_\_\_\_\_

Relinquished (Signature) \_\_\_\_\_ Date/Time \_\_\_\_\_

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**Fremont**  
Analytical

3600 Fremont Ave N.  
Seattle, WA 98103  
Tel: 206-352-3790  
Fax: 206-352-7178

Client: **AEROTECH**

Address:

City, State, Zip:

Telephone:

Fax:

# Chain of Custody Record & Laboratory Services Agreement

Date: **01/27/24** Page: **3** of: **3**

Project Name: **SUNSET POINT**

Project No:

Collected by:

Location:

Report To (PM):

PM Email:

Laboratory Project No (Internal): **2401550**

Special Remarks:

**Update per AB -mw 1/31/24**

Sample Disposal: ☐ Return to client ☒ Disposal by lab (after 30 days)

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	VOCs (EPA 8260 / 624)	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HID)	SVOC (EPA 8270 / 625)	PAHs (EPA 8270 - 5M)	PCBs (EPA 8082 / 608)	Metals ** (EPA 8082 / 608)	Total (T) / Dissolved (D)	Anions (IC) / Dissolved (D)	EP8 (8011)	Comments
B9-03	1/27/24		S													
" 04																
B10-01																
BL-1																
POND SAMPLE	1/30/24	13:00	W													PEST / HERB / PH
																LINDANE ROUND -UP

\*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

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\*\*\*Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide Fluoride Nitrate+Nitrite

Turn-around Time: ☒ Standard ☐ Next Day ☐ 3 Day ☐ Same Day ☐ 2 Day (specify)

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished (Signature) **ALAN T. BLOTCH** Date/Time **1/30/24 15:15** Print Name **Alan T. Blotch**

Relinquished (Signature) **Dr. Henry Stone** Date/Time **1/30/24 15:15** Print Name **Dr. Henry Stone**

**LABORATORY ANALYTICAL RESULTS: REPORTS**

*Initial Sampling in Areas of Concern*  
(Analytical Report dated: April 17, 2024)





# Fremont

Analytical

An Alliance Technical Group Company

3600 Fremont Ave. N.

Seattle, WA 98103

T: (206) 352-3790

F: (206) 352-7178

info@fremontanalytical.com

**Aerotech**

Alan Blotch

14220 Interurban Ave S, Ste. 116

Tukwila, WA 98168

**RE: Sunset Point Development**

**Work Order Number: 2402027**

April 17, 2024

**Attention Alan Blotch:**

Fremont Analytical, Inc, an Alliance Technical Group company, received 48 sample(s) on 2/1/2024 for the analyses presented in the following report.

*Diesel and Heavy Oil by NWTPH-Dx*

*Gasoline by NWTPH-Gx*

*Hexavalent Chromium by EPA Method 7196*

*Metals (EPA 6020B) with TCLP Extraction (EPA 1311)*

*Organochlorine Pesticides by EPA Method 8081A*

*PAHs by EPA Method 8270E SIM*

*pH by EPA Method 9045*

*Sample Moisture (Percent Moisture)*

*Total Metals by EPA 6020B*

*Volatile Organic Compounds by EPA Method 8260D*

All analyses were performed according to our accredited Quality Assurance program. Please contact the laboratory if you should have any questions about the results.

Please note, while the appearance of our logo and branding will update, our commitment to accuracy, speed, and customer service remain values celebrated and shared by Alliance Technical Group. Thank you for the opportunity to serve you.

Sincerely,

Brianna Barnes

Project Manager

*DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.4 for Environmental Testing*

*ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing*

*Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910*

Revision v3

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Date: 04/17/2024

CLIENT: Aerotech  
Project: Sunset Point Development  
Work Order: 2402027

## Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2402027-001	B11-01	01/30/2024 12:00 AM	02/01/2024 3:30 PM
2402027-002	B11-02	01/30/2024 12:00 AM	02/01/2024 3:30 PM
2402027-003	B12-01	01/30/2024 12:00 AM	02/01/2024 3:30 PM
2402027-004	B13-01	01/30/2024 12:00 AM	02/01/2024 3:30 PM
2402027-005	B13-02	01/30/2024 12:00 AM	02/01/2024 3:30 PM
2402027-006	B14-01	01/30/2024 12:00 AM	02/01/2024 3:30 PM
2402027-007	B14-02	01/30/2024 12:00 AM	02/01/2024 3:30 PM
2402027-008	B15-01	01/30/2024 12:00 AM	02/01/2024 3:30 PM
2402027-009	B15-02	01/30/2024 12:00 AM	02/01/2024 3:30 PM
2402027-010	B15-03	01/30/2024 12:00 AM	02/01/2024 3:30 PM
2402027-011	B16-01	01/30/2024 12:00 AM	02/01/2024 3:30 PM
2402027-012	B16-02	01/30/2024 12:00 AM	02/01/2024 3:30 PM
2402027-013	B17-01	01/30/2024 12:00 AM	02/01/2024 3:30 PM
2402027-014	B17-02	01/30/2024 12:00 AM	02/01/2024 3:30 PM
2402027-015	B18-01	01/30/2024 12:00 AM	02/01/2024 3:30 PM
2402027-016	B18-02	01/30/2024 12:00 AM	02/01/2024 3:30 PM
2402027-017	B18-03	01/30/2024 12:00 AM	02/01/2024 3:30 PM
2402027-018	B18-04	01/30/2024 12:00 AM	02/01/2024 3:30 PM
2402027-019	B19-01	01/30/2024 12:00 AM	02/01/2024 3:30 PM
2402027-020	B19-02	01/30/2024 12:00 AM	02/01/2024 3:30 PM
2402027-021	B20-01	01/30/2024 12:00 AM	02/01/2024 3:30 PM
2402027-022	B20-02	01/30/2024 12:00 AM	02/01/2024 3:30 PM
2402027-023	B20-03	01/30/2024 12:00 AM	02/01/2024 3:30 PM
2402027-024	B20-04	01/30/2024 12:00 AM	02/01/2024 3:30 PM
2402027-025	B21-01	01/30/2024 12:00 AM	02/01/2024 3:30 PM
2402027-026	B22-01	01/30/2024 12:00 AM	02/01/2024 3:30 PM
2402027-027	B22-02	01/30/2024 12:00 AM	02/01/2024 3:30 PM
2402027-028	B23-02	01/30/2024 12:00 AM	02/01/2024 3:30 PM
2402027-029	B24-01	01/30/2024 12:00 AM	02/01/2024 3:30 PM
2402027-030	B24-02	01/30/2024 12:00 AM	02/01/2024 3:30 PM
2402027-031	B25-01	01/30/2024 12:00 AM	02/01/2024 3:30 PM
2402027-032	B25-02	01/30/2024 12:00 AM	02/01/2024 3:30 PM
2402027-033	B26-01	01/30/2024 12:00 AM	02/01/2024 3:30 PM
2402027-034	B26-02	01/30/2024 12:00 AM	02/01/2024 3:30 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

**CLIENT:** Aerotech  
**Project:** Sunset Point Development  
**Work Order:** 2402027

## Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2402027-035	B27-01	01/30/2024 12:00 AM	02/01/2024 3:30 PM
2402027-036	B27-02	01/30/2024 12:00 AM	02/01/2024 3:30 PM
2402027-037	B28-01	01/30/2024 12:00 AM	02/01/2024 3:30 PM
2402027-038	B28-02	01/30/2024 12:00 AM	02/01/2024 3:30 PM
2402027-039	B29-01	01/30/2024 12:00 AM	02/01/2024 3:30 PM
2402027-040	B30-01	01/30/2024 12:00 AM	02/01/2024 3:30 PM
2402027-041	B30-02	01/30/2024 12:00 AM	02/01/2024 3:30 PM
2402027-042	B31-01	01/30/2024 12:00 AM	02/01/2024 3:30 PM
2402027-043	B31-02	01/30/2024 12:00 AM	02/01/2024 3:30 PM
2402027-044	B32-01	01/30/2024 12:00 AM	02/01/2024 3:30 PM
2402027-045	B32-02	01/30/2024 12:00 AM	02/01/2024 3:30 PM
2402027-046	B33-01	01/30/2024 12:00 AM	02/01/2024 3:30 PM
2402027-047	B33-02	01/30/2024 12:00 AM	02/01/2024 3:30 PM
2402027-048	B34-01	01/30/2024 12:00 AM	02/01/2024 3:30 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned

---

**CLIENT:** Aerotech  
**Project:** Sunset Point Development

---

**I. SAMPLE RECEIPT:**

Samples receipt information is recorded on the attached Sample Receipt Checklist.

**II. GENERAL REPORTING COMMENTS:**

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

**III. ANALYSES AND EXCEPTIONS:**

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

2402027-028B

TEST\_SUB has been Sub Contracted.

3/1/2024: Rev1 includes subcontracted data.

3/18/2024: Rev2 includes additional data per client request.

4/16/2024: Rev3 includes additional data per client request.

### Qualifiers:

- \* - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

### Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- DUP - Sample Duplicate
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MCL - Maximum Contaminant Level
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- REP - Sample Replicate
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate





## Analytical Report

Work Order: 2402027

Date Reported: 4/17/2024

Client: Aerotech

Collection Date: 1/30/2024

Project: Sunset Point Development

Lab ID: 2402027-003

Matrix: Soil

Client Sample ID: B12-01

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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### Total Metals by EPA 6020B

Batch ID: 43204

Analyst: ME

Arsenic	2.77	0.270	mg/Kg-dry	1	3/14/2024 12:13:00 PM
Cadmium	0.0591	0.0216	mg/Kg-dry	1	3/14/2024 12:13:00 PM

### Sample Moisture (Percent Moisture)

Batch ID: R90179

Analyst: MP

Percent Moisture	14.1	0.500	wt%	1	3/13/2024 8:19:44 AM
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### pH by EPA Method 9045

Batch ID: R89429

Analyst: AM

Hydrogen Ion (pH)	6.95		pH	1	2/5/2024 10:20:00 AM
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## Analytical Report

Work Order: 2402027

Date Reported: 4/17/2024

Client: Aerotech

Collection Date: 1/30/2024

Project: Sunset Point Development

Lab ID: 2402027-006

Matrix: Soil

Client Sample ID: B14-01

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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### Diesel and Heavy Oil by NWTPH-Dx

Batch ID: 42819

Analyst: AP

Diesel Range Organics	ND	59.6		mg/Kg-dry	1	2/5/2024 5:15:07 PM
Heavy Oil	ND	119		mg/Kg-dry	1	2/5/2024 5:15:07 PM
Total Petroleum Hydrocarbons	ND	179		mg/Kg-dry	1	2/5/2024 5:15:07 PM
Surr: 2-Fluorobiphenyl	132	50 - 150		%Rec	1	2/5/2024 5:15:07 PM
Surr: o-Terphenyl	127	50 - 150		%Rec	1	2/5/2024 5:15:07 PM

### Metals (EPA 6020B) with TCLP Extraction (EPA 1311)

Batch ID: 43587

Analyst: ME

Arsenic	ND	0.100		mg/L	1	4/16/2024 3:10:00 PM
Barium	ND	0.500		mg/L	1	4/16/2024 3:10:00 PM
Cadmium	ND	0.100		mg/L	1	4/16/2024 3:10:00 PM
Chromium	ND	0.200		mg/L	1	4/16/2024 3:10:00 PM
Lead	ND	0.200		mg/L	1	4/16/2024 3:10:00 PM
Mercury	ND	0.0200		mg/L	1	4/16/2024 3:10:00 PM
Selenium	ND	0.100		mg/L	1	4/16/2024 3:10:00 PM
Silver	ND	0.200		mg/L	1	4/16/2024 3:10:00 PM

### Sample Moisture (Percent Moisture)

Batch ID: R89408

Analyst: YL

Percent Moisture	21.4	0.500		wt%	1	2/5/2024 11:01:33 AM
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## Analytical Report

Work Order: 2402027  
Date Reported: 4/17/2024

Client: Aerotech

Collection Date: 1/30/2024

Project: Sunset Point Development

Lab ID: 2402027-008

Matrix: Soil

Client Sample ID: B15-01

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Total Metals by EPA 6020B**

Batch ID: 43204

Analyst: ME

Arsenic	2.87	0.264		mg/Kg-dry	1	3/14/2024 12:29:00 PM
Cadmium	0.0457	0.0211		mg/Kg-dry	1	3/14/2024 12:29:00 PM

**Sample Moisture (Percent Moisture)**

Batch ID: R90179

Analyst: MP

Percent Moisture	10.4	0.500		wt%	1	3/13/2024 8:19:44 AM
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# Analytical Report

Work Order: 2402027

Date Reported: 4/17/2024

Client: Aerotech

Collection Date: 1/30/2024

Project: Sunset Point Development

Lab ID: 2402027-010

Matrix: Soil

Client Sample ID: B15-03

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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## Gasoline by NWTPH-Gx

Batch ID: 42809

Analyst: CC

Gasoline Range Organics	ND	5.69		mg/Kg-dry	1	2/3/2024 8:34:09 AM
Surr: Toluene-d8	86.9	65 - 135		%Rec	1	2/3/2024 8:34:09 AM
Surr: 4-Bromofluorobenzene	107	65 - 135		%Rec	1	2/3/2024 8:34:09 AM

## Volatile Organic Compounds by EPA Method 8260D

Batch ID: 42809

Analyst: CC

Benzene	ND	0.0199		mg/Kg-dry	1	2/3/2024 8:34:09 AM
Toluene	ND	0.0341		mg/Kg-dry	1	2/3/2024 8:34:09 AM
Ethylbenzene	ND	0.0284		mg/Kg-dry	1	2/3/2024 8:34:09 AM
m,p-Xylene	ND	0.0569		mg/Kg-dry	1	2/3/2024 8:34:09 AM
o-Xylene	ND	0.0284		mg/Kg-dry	1	2/3/2024 8:34:09 AM
Surr: Dibromofluoromethane	109	79.2 - 123		%Rec	1	2/3/2024 8:34:09 AM
Surr: Toluene-d8	125	77.6 - 126		%Rec	1	2/3/2024 8:34:09 AM
Surr: 1-Bromo-4-fluorobenzene	105	72 - 131		%Rec	1	2/3/2024 8:34:09 AM

## Total Metals by EPA 6020B

Batch ID: 43204

Analyst: ME

Arsenic	2.73	0.286		mg/Kg-dry	1	3/14/2024 12:32:00 PM
Cadmium	0.0503	0.0229		mg/Kg-dry	1	3/14/2024 12:32:00 PM

## Sample Moisture (Percent Moisture)

Batch ID: R89408

Analyst: YL

Percent Moisture	14.0	0.500		wt%	1	2/5/2024 11:01:33 AM
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## Analytical Report

Work Order: 2402027  
Date Reported: 4/17/2024

Client: Aerotech  
Project: Sunset Point Development  
Lab ID: 2402027-012  
Client Sample ID: B16-02

Collection Date: 1/30/2024

Matrix: Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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### Total Metals by EPA 6020B

Batch ID: 43204 Analyst: ME

Arsenic	4.25	0.278		mg/Kg-dry	1	3/14/2024 12:34:00 PM
Cadmium	0.0542	0.0222		mg/Kg-dry	1	3/14/2024 12:34:00 PM

### Sample Moisture (Percent Moisture)

Batch ID: R90179 Analyst: MP

Percent Moisture	9.29	0.500		wt%	1	3/13/2024 8:19:44 AM
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## Analytical Report

Work Order: 2402027  
Date Reported: 4/17/2024

Client: Aerotech  
Project: Sunset Point Development  
Lab ID: 2402027-014  
Client Sample ID: B17-02

Collection Date: 1/30/2024

Matrix: Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Total Metals by EPA 6020B**

Batch ID: 43204

Analyst: ME

Arsenic	2.37	0.277		mg/Kg-dry	1	3/14/2024 12:37:00 PM
Cadmium	0.0536	0.0222		mg/Kg-dry	1	3/14/2024 12:37:00 PM

**Sample Moisture (Percent Moisture)**

Batch ID: R90179

Analyst: MP

Percent Moisture	13.9	0.500		wt%	1	3/13/2024 8:19:44 AM
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## Analytical Report

Work Order: 2402027

Date Reported: 4/17/2024

Client: Aerotech

Collection Date: 1/30/2024

Project: Sunset Point Development

Lab ID: 2402027-017

Matrix: Soil

Client Sample ID: B18-03

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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### Total Metals by EPA 6020B

Batch ID: 43204

Analyst: ME

Arsenic	1.97	0.318	mg/Kg-dry	1	3/14/2024 12:39:00 PM
Cadmium	0.0630	0.0254	mg/Kg-dry	1	3/14/2024 12:39:00 PM

### Sample Moisture (Percent Moisture)

Batch ID: R90179

Analyst: MP

Percent Moisture	18.1	0.500	wt%	1	3/13/2024 8:19:44 AM
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## Analytical Report

Work Order: 2402027

Date Reported: 4/17/2024

Client: Aerotech

Collection Date: 1/30/2024

Project: Sunset Point Development

Lab ID: 2402027-018

Matrix: Soil

Client Sample ID: B18-04

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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### Gasoline by NWTPH-Gx

Batch ID: 42809

Analyst: CC

Gasoline Range Organics	ND	6.46		mg/Kg-dry	1	2/3/2024 9:34:28 AM
Surr: Toluene-d8	86.1	65 - 135		%Rec	1	2/3/2024 9:34:28 AM
Surr: 4-Bromofluorobenzene	106	65 - 135		%Rec	1	2/3/2024 9:34:28 AM

### Volatile Organic Compounds by EPA Method 8260D

Batch ID: 42809

Analyst: CC

Benzene	ND	0.0226		mg/Kg-dry	1	2/3/2024 9:34:28 AM
Toluene	ND	0.0387		mg/Kg-dry	1	2/3/2024 9:34:28 AM
Ethylbenzene	ND	0.0323		mg/Kg-dry	1	2/3/2024 9:34:28 AM
m,p-Xylene	ND	0.0646		mg/Kg-dry	1	2/3/2024 9:34:28 AM
o-Xylene	ND	0.0323		mg/Kg-dry	1	2/3/2024 9:34:28 AM
Surr: Dibromofluoromethane	111	79.2 - 123		%Rec	1	2/3/2024 9:34:28 AM
Surr: Toluene-d8	126	77.6 - 126	S	%Rec	1	2/3/2024 9:34:28 AM
Surr: 1-Bromo-4-fluorobenzene	104	72 - 131		%Rec	1	2/3/2024 9:34:28 AM

#### NOTES:

S - Outlying surrogate recovery(ies) observed (high bias). Sample is non-detect; result meets QC requirements.

### Total Metals by EPA 6020B

Batch ID: 43204

Analyst: ME

Arsenic	2.81	0.322		mg/Kg-dry	1	3/14/2024 12:42:00 PM
Cadmium	0.0948	0.0258		mg/Kg-dry	1	3/14/2024 12:42:00 PM

### Sample Moisture (Percent Moisture)

Batch ID: R89408

Analyst: YL

Percent Moisture	19.8	0.500		wt%	1	2/5/2024 11:01:33 AM
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Analytical Report

Work Order: 2402027  
Date Reported: 4/17/2024

Client: Aerotech  
Project: Sunset Point Development  
Lab ID: 2402027-019  
Client Sample ID: B19-01

Collection Date: 1/30/2024  
Matrix: Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>pH by EPA Method 9045</b>				Batch ID: R89492     Analyst: AM		
Hydrogen Ion (pH)	6.98		H	pH	1	2/8/2024 10:00:00 AM



## Analytical Report

Work Order: 2402027

Date Reported: 4/17/2024

Client: Aerotech

Collection Date: 1/30/2024

Project: Sunset Point Development

Lab ID: 2402027-021

Matrix: Soil

Client Sample ID: B20-01

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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### Diesel and Heavy Oil by NWTPH-Dx

Batch ID: 42968

Analyst: AP

Diesel Range Organics	ND	70.3	H	mg/Kg-dry	1	2/20/2024 5:12:31 AM
Heavy Oil	1,870	141	H	mg/Kg-dry	1	2/20/2024 5:12:31 AM
Total Petroleum Hydrocarbons	1,870	211	H	mg/Kg-dry	1	2/20/2024 5:12:31 AM
Surr: 2-Fluorobiphenyl	121	50 - 150	H	%Rec	1	2/20/2024 5:12:31 AM
Surr: o-Terphenyl	126	50 - 150	H	%Rec	1	2/20/2024 5:12:31 AM

#### NOTES:

Detection may be biased high by organic material

### Total Metals by EPA 6020B

Batch ID: 43204

Analyst: ME

Arsenic	2.99	0.346		mg/Kg-dry	1	3/14/2024 12:44:00 PM
Cadmium	0.312	0.0277		mg/Kg-dry	1	3/14/2024 12:44:00 PM

### Sample Moisture (Percent Moisture)

Batch ID: R89676

Analyst: MP

Percent Moisture	26.0	0.500		wt%	1	2/19/2024 8:09:46 AM
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## Analytical Report

Work Order: 2402027

Date Reported: 4/17/2024

Client: Aerotech

Collection Date: 1/30/2024

Project: Sunset Point Development

Lab ID: 2402027-022

Matrix: Soil

Client Sample ID: B20-02

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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### Diesel and Heavy Oil by NWTPH-Dx

Batch ID: 42968

Analyst: AP

Diesel Range Organics	ND	54.7	H	mg/Kg-dry	1	2/20/2024 12:53:05 AM
Heavy Oil	115	109	H	mg/Kg-dry	1	2/20/2024 12:53:05 AM
Total Petroleum Hydrocarbons	ND	164	H	mg/Kg-dry	1	2/20/2024 12:53:05 AM
Surr: 2-Fluorobiphenyl	123	50 - 150	H	%Rec	1	2/20/2024 12:53:05 AM
Surr: o-Terphenyl	121	50 - 150	H	%Rec	1	2/20/2024 12:53:05 AM

### Sample Moisture (Percent Moisture)

Batch ID: R89676

Analyst: MP

Percent Moisture	12.7	0.500		wt%	1	2/19/2024 8:09:46 AM
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## Analytical Report

Work Order: 2402027

Date Reported: 4/17/2024

Client: Aerotech

Collection Date: 1/30/2024

Project: Sunset Point Development

Lab ID: 2402027-023

Matrix: Soil

Client Sample ID: B20-03

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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### Diesel and Heavy Oil by NWTPH-Dx

Batch ID: 42819

Analyst: AP

Diesel Range Organics	ND	54.0		mg/Kg-dry	1	2/6/2024 12:18:14 AM
Heavy Oil	968	108		mg/Kg-dry	1	2/6/2024 12:18:14 AM
Total Petroleum Hydrocarbons	968	162		mg/Kg-dry	1	2/6/2024 12:18:14 AM
Surr: 2-Fluorobiphenyl	84.1	50 - 150		%Rec	1	2/6/2024 12:18:14 AM
Surr: o-Terphenyl	86.8	50 - 150		%Rec	1	2/6/2024 12:18:14 AM

### PAHs by EPA Method 8270E SIM

Batch ID: 42838

Analyst: RG

Naphthalene	ND	0.0244		mg/Kg-dry	1	2/6/2024 9:26:56 PM
2-Methylnaphthalene	ND	0.0244		mg/Kg-dry	1	2/6/2024 9:26:56 PM
1-Methylnaphthalene	ND	0.0244		mg/Kg-dry	1	2/6/2024 9:26:56 PM
Acenaphthylene	ND	0.0244		mg/Kg-dry	1	2/6/2024 9:26:56 PM
Acenaphthene	ND	0.0244		mg/Kg-dry	1	2/6/2024 9:26:56 PM
Fluorene	ND	0.0244		mg/Kg-dry	1	2/6/2024 9:26:56 PM
Phenanthrene	ND	0.0244		mg/Kg-dry	1	2/6/2024 9:26:56 PM
Anthracene	ND	0.0244		mg/Kg-dry	1	2/6/2024 9:26:56 PM
Fluoranthene	ND	0.0244		mg/Kg-dry	1	2/6/2024 9:26:56 PM
Pyrene	ND	0.0488		mg/Kg-dry	1	2/6/2024 9:26:56 PM
Benz(a)anthracene	ND	0.0244		mg/Kg-dry	1	2/6/2024 9:26:56 PM
Chrysene	ND	0.0244		mg/Kg-dry	1	2/6/2024 9:26:56 PM
Benzo(b)fluoranthene	ND	0.0305		mg/Kg-dry	1	2/6/2024 9:26:56 PM
Benzo(k)fluoranthene	ND	0.0305		mg/Kg-dry	1	2/6/2024 9:26:56 PM
Benzo(a)pyrene	ND	0.0366		mg/Kg-dry	1	2/6/2024 9:26:56 PM
Indeno(1,2,3-cd)pyrene	ND	0.0488		mg/Kg-dry	1	2/6/2024 9:26:56 PM
Dibenz(a,h)anthracene	ND	0.0611		mg/Kg-dry	1	2/6/2024 9:26:56 PM
Benzo(g,h,i)perylene	ND	0.0611		mg/Kg-dry	1	2/6/2024 9:26:56 PM
Surr: 2-Fluorobiphenyl	58.8	29.3 - 159		%Rec	1	2/6/2024 9:26:56 PM
Surr: Terphenyl-d14 (surr)	58.5	28.4 - 159		%Rec	1	2/6/2024 9:26:56 PM

### Total Metals by EPA 6020B

Batch ID: 43204

Analyst: ME

Arsenic	2.71	0.273		mg/Kg-dry	1	3/14/2024 12:47:00 PM
Cadmium	0.136	0.0218		mg/Kg-dry	1	3/14/2024 12:47:00 PM

### Sample Moisture (Percent Moisture)

Batch ID: R89409

Analyst: YL

Percent Moisture	11.2	0.500		wt%	1	2/5/2024 11:04:19 AM
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## Analytical Report

Work Order: 2402027

Date Reported: 4/17/2024

Client: Aerotech

Collection Date: 1/30/2024

Project: Sunset Point Development

Lab ID: 2402027-023

Matrix: Soil

Client Sample ID: B20-03

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**pH by EPA Method 9045**

Batch ID: R89429 Analyst: AM

Hydrogen Ion (pH)	6.67			pH	1	2/5/2024 10:20:00 AM
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An Alliance Technical Group Company

## Analytical Report

Work Order: 2402027

Date Reported: 4/17/2024

Client: Aerotech

Collection Date: 1/30/2024

Project: Sunset Point Development

Lab ID: 2402027-024

Matrix: Soil

Client Sample ID: B20-04

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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### Diesel and Heavy Oil by NWTPH-Dx

Batch ID: 42968

Analyst: AP

Diesel Range Organics	ND	56.6	H	mg/Kg-dry	1	2/19/2024 11:26:40 PM
Heavy Oil	ND	113	H	mg/Kg-dry	1	2/19/2024 11:26:40 PM
Total Petroleum Hydrocarbons	ND	170	H	mg/Kg-dry	1	2/19/2024 11:26:40 PM
Surr: 2-Fluorobiphenyl	100	50 - 150	H	%Rec	1	2/19/2024 11:26:40 PM
Surr: o-Terphenyl	97.6	50 - 150	H	%Rec	1	2/19/2024 11:26:40 PM

### Sample Moisture (Percent Moisture)

Batch ID: R89676

Analyst: MP

Percent Moisture	13.8	0.500		wt%	1	2/19/2024 8:09:46 AM
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**Fremont**  
*An Alliance Technical Group Company*

## Analytical Report

Work Order: 2402027

Date Reported: 4/17/2024

Client: Aerotech

Collection Date: 1/30/2024

Project: Sunset Point Development

Lab ID: 2402027-025

Matrix: Soil

Client Sample ID: B21-01

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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### Diesel and Heavy Oil by NWTPH-Dx

Batch ID: 42968

Analyst: AP

Diesel Range Organics	ND	78.8	H	mg/Kg-dry	1	2/19/2024 11:37:24 PM
Heavy Oil	ND	158	H	mg/Kg-dry	1	2/19/2024 11:37:24 PM
Total Petroleum Hydrocarbons	ND	237	H	mg/Kg-dry	1	2/19/2024 11:37:24 PM
Surr: 2-Fluorobiphenyl	96.9	50 - 150	H	%Rec	1	2/19/2024 11:37:24 PM
Surr: o-Terphenyl	95.1	50 - 150	H	%Rec	1	2/19/2024 11:37:24 PM

### Total Metals by EPA 6020B

Batch ID: 43204

Analyst: ME

Arsenic	1.62	0.276		mg/Kg-dry	1	3/14/2024 12:49:00 PM
Cadmium	0.0420	0.0221		mg/Kg-dry	1	3/14/2024 12:49:00 PM

### Sample Moisture (Percent Moisture)

Batch ID: R89676

Analyst: MP

Percent Moisture	8.75	0.500		wt%	1	2/19/2024 8:09:46 AM
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## Analytical Report

Work Order: 2402027

Date Reported: 4/17/2024

Client: Aerotech

Collection Date: 1/30/2024

Project: Sunset Point Development

Lab ID: 2402027-026

Matrix: Soil

Client Sample ID: B22-01

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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**Total Metals by EPA 6020B**

Batch ID: 43204

Analyst: ME

Arsenic	3.28	0.281		mg/Kg-dry	1	3/14/2024 12:57:00 PM
Cadmium	0.140	0.0225		mg/Kg-dry	1	3/14/2024 12:57:00 PM

**Sample Moisture (Percent Moisture)**

Batch ID: R90179

Analyst: MP

Percent Moisture	10.3	0.500		wt%	1	3/13/2024 8:19:44 AM
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## Analytical Report

Work Order: 2402027  
Date Reported: 4/17/2024

Client: Aerotech

Collection Date: 1/30/2024

Project: Sunset Point Development

Lab ID: 2402027-028

Matrix: Soil

Client Sample ID: B23-02

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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### Organochlorine Pesticides by EPA Method 8081A

Batch ID: 42839

Analyst: SK

Toxaphene	ND	1.10	D	mg/Kg-dry	10	2/8/2024 10:12:11 AM
Alpha BHC	ND	0.0110		mg/Kg-dry	1	2/7/2024 12:40:59 PM
Beta BHC	ND	0.0110		mg/Kg-dry	1	2/7/2024 12:40:59 PM
Gamma BHC (Lindane)	ND	0.0110		mg/Kg-dry	1	2/7/2024 12:40:59 PM
Delta BHC	ND	0.0110		mg/Kg-dry	1	2/7/2024 12:40:59 PM
Heptachlor	ND	0.0110		mg/Kg-dry	1	2/7/2024 12:40:59 PM
Aldrin	ND	0.0110		mg/Kg-dry	1	2/7/2024 12:40:59 PM
Heptachlor epoxide	ND	0.0110		mg/Kg-dry	1	2/7/2024 12:40:59 PM
gamma-Chlordane	ND	0.0110		mg/Kg-dry	1	2/7/2024 12:40:59 PM
Endosulfan I	ND	0.0110		mg/Kg-dry	1	2/7/2024 12:40:59 PM
alpha-Chlordane	ND	0.0110		mg/Kg-dry	1	2/7/2024 12:40:59 PM
Dieldrin	ND	0.0110		mg/Kg-dry	1	2/7/2024 12:40:59 PM
4,4'-DDE	ND	0.0110		mg/Kg-dry	1	2/7/2024 12:40:59 PM
Endrin	ND	0.0110		mg/Kg-dry	1	2/7/2024 12:40:59 PM
Endosulfan II	ND	0.0110		mg/Kg-dry	1	2/7/2024 12:40:59 PM
4,4'-DDD	ND	0.110	D	mg/Kg-dry	10	2/8/2024 10:12:11 AM
Endrin aldehyde	ND	0.0110		mg/Kg-dry	1	2/7/2024 12:40:59 PM
Endosulfan sulfate	ND	0.0110		mg/Kg-dry	1	2/7/2024 12:40:59 PM
4,4'-DDT	ND	0.110	D	mg/Kg-dry	10	2/8/2024 10:12:11 AM
Endrin ketone	ND	0.0110		mg/Kg-dry	1	2/7/2024 12:40:59 PM
Methoxychlor	ND	0.110	D	mg/Kg-dry	10	2/8/2024 10:12:11 AM
Surr: Decachlorobiphenyl	99.4	44.8 - 154		%Rec	1	2/7/2024 12:40:59 PM
Surr: Tetrachloro-m-xylene	108	62.8 - 160		%Rec	1	2/7/2024 12:40:59 PM

### Total Metals by EPA 6020B

Batch ID: 43204

Analyst: ME

Arsenic	2.33	0.298		mg/Kg-dry	1	3/14/2024 12:59:00 PM
Cadmium	0.0500	0.0238		mg/Kg-dry	1	3/14/2024 12:59:00 PM

### Sample Moisture (Percent Moisture)

Batch ID: R89409

Analyst: YL

Percent Moisture	14.6	0.500		wt%	1	2/5/2024 11:04:19 AM
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### pH by EPA Method 9045

Batch ID: R89429

Analyst: AM

Hydrogen Ion (pH)	6.53			pH	1	2/5/2024 10:20:00 AM
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## Analytical Report

Work Order: 2402027

Date Reported: 4/17/2024

Client: Aerotech

Collection Date: 1/30/2024

Project: Sunset Point Development

Lab ID: 2402027-029

Matrix: Soil

Client Sample ID: B24-01

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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### Total Metals by EPA 6020B

Batch ID: 43204

Analyst: ME

Arsenic	3.16	0.280		mg/Kg-dry	1	3/14/2024 1:02:00 PM
Cadmium	0.190	0.0224		mg/Kg-dry	1	3/14/2024 1:02:00 PM

### Sample Moisture (Percent Moisture)

Batch ID: R90179

Analyst: MP

Percent Moisture	7.87	0.500		wt%	1	3/13/2024 8:19:44 AM
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## Analytical Report

Work Order: 2402027

Date Reported: 4/17/2024

Client: Aerotech

Collection Date: 1/30/2024

Project: Sunset Point Development

Lab ID: 2402027-030

Matrix: Soil

Client Sample ID: B24-02

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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### Diesel and Heavy Oil by NWTPH-Dx

Batch ID: 42819

Analyst: AP

Diesel Range Organics	ND	53.6		mg/Kg-dry	1	2/5/2024 5:26:00 PM
Heavy Oil	ND	107		mg/Kg-dry	1	2/5/2024 5:26:00 PM
Total Petroleum Hydrocarbons	ND	161		mg/Kg-dry	1	2/5/2024 5:26:00 PM
Surr: 2-Fluorobiphenyl	112	50 - 150		%Rec	1	2/5/2024 5:26:00 PM
Surr: o-Terphenyl	106	50 - 150		%Rec	1	2/5/2024 5:26:00 PM

### Sample Moisture (Percent Moisture)

Batch ID: R89409

Analyst: YL

Percent Moisture	7.80	0.500		wt%	1	2/5/2024 11:04:19 AM
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### pH by EPA Method 9045

Batch ID: R89429

Analyst: AM

Hydrogen Ion (pH)	7.07			pH	1	2/5/2024 10:20:00 AM
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## Analytical Report

Work Order: 2402027  
Date Reported: 4/17/2024

Client: Aerotech  
Project: Sunset Point Development  
Lab ID: 2402027-031  
Client Sample ID: B25-01

Collection Date: 1/30/2024

Matrix: Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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### Total Metals by EPA 6020B

Batch ID: 43204

Analyst: ME

Arsenic	4.72	0.310		mg/Kg-dry	1	3/14/2024 1:04:00 PM
Cadmium	0.746	0.0248		mg/Kg-dry	1	3/14/2024 1:04:00 PM

### Sample Moisture (Percent Moisture)

Batch ID: R90179

Analyst: MP

Percent Moisture	14.5	0.500		wt%	1	3/13/2024 8:19:44 AM
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## Analytical Report

Work Order: 2402027

Date Reported: 4/17/2024

Client: Aerotech

Collection Date: 1/30/2024

Project: Sunset Point Development

Lab ID: 2402027-032

Matrix: Soil

Client Sample ID: B25-02

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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### Diesel and Heavy Oil by NWTPH-Dx

Batch ID: 42819

Analyst: AP

Diesel Range Organics	ND	53.5		mg/Kg-dry	1	2/5/2024 5:36:51 PM
Heavy Oil	ND	107		mg/Kg-dry	1	2/5/2024 5:36:51 PM
Total Petroleum Hydrocarbons	ND	160		mg/Kg-dry	1	2/5/2024 5:36:51 PM
Surr: 2-Fluorobiphenyl	112	50 - 150		%Rec	1	2/5/2024 5:36:51 PM
Surr: o-Terphenyl	108	50 - 150		%Rec	1	2/5/2024 5:36:51 PM

### Sample Moisture (Percent Moisture)

Batch ID: R89409

Analyst: YL

Percent Moisture	10.2	0.500		wt%	1	2/5/2024 11:04:19 AM
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## Analytical Report

Work Order: 2402027  
Date Reported: 4/17/2024

Client: Aerotech  
Project: Sunset Point Development  
Lab ID: 2402027-036  
Client Sample ID: B27-02

Collection Date: 1/30/2024

Matrix: Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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### Total Metals by EPA 6020B

Batch ID: 43204 Analyst: ME

Arsenic	4.59	0.366		mg/Kg-dry	1	3/14/2024 1:06:00 PM
Cadmium	0.216	0.0293		mg/Kg-dry	1	3/14/2024 1:06:00 PM

### Sample Moisture (Percent Moisture)

Batch ID: R90179 Analyst: MP

Percent Moisture	30.0	0.500		wt%	1	3/13/2024 8:19:44 AM
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### pH by EPA Method 9045

Batch ID: R89429 Analyst: AM

Hydrogen Ion (pH)	7.26			pH	1	2/5/2024 10:20:00 AM
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## Analytical Report

Work Order: 2402027

Date Reported: 4/17/2024

Client: Aerotech

Collection Date: 1/30/2024

Project: Sunset Point Development

Lab ID: 2402027-037

Matrix: Soil

Client Sample ID: B28-01

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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### Total Metals by EPA 6020B

Batch ID: 43204

Analyst: ME

Arsenic	3.20	0.265		mg/Kg-dry	1	3/14/2024 1:09:00 PM
Cadmium	0.0352	0.0212		mg/Kg-dry	1	3/14/2024 1:09:00 PM

### Sample Moisture (Percent Moisture)

Batch ID: R90179

Analyst: MP

Percent Moisture	10.8	0.500		wt%	1	3/13/2024 8:19:44 AM
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## Analytical Report

Work Order: 2402027  
Date Reported: 4/17/2024

Client: Aerotech  
Project: Sunset Point Development  
Lab ID: 2402027-040  
Client Sample ID: B30-01

Collection Date: 1/30/2024

Matrix: Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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### Total Metals by EPA 6020B

Batch ID: 43204 Analyst: ME

Arsenic	2.99	0.418		mg/Kg-dry	1	3/14/2024 1:14:00 PM
Cadmium	0.445	0.0334		mg/Kg-dry	1	3/14/2024 1:14:00 PM

### Sample Moisture (Percent Moisture)

Batch ID: R90179 Analyst: MP

Percent Moisture	39.2	0.500		wt%	1	3/13/2024 8:19:44 AM
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## Analytical Report

Work Order: 2402027

Date Reported: 4/17/2024

Client: Aerotech

Collection Date: 1/30/2024

Project: Sunset Point Development

Lab ID: 2402027-043

Matrix: Soil

Client Sample ID: B31-02

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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### Total Metals by EPA 6020B

Batch ID: 43204

Analyst: ME

Arsenic	3.45	0.304		mg/Kg-dry	1	3/14/2024 1:16:00 PM
Cadmium	0.0291	0.0243		mg/Kg-dry	1	3/14/2024 1:16:00 PM

### Sample Moisture (Percent Moisture)

Batch ID: R90179

Analyst: MP

Percent Moisture	21.4	0.500		wt%	1	3/13/2024 8:19:44 AM
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## Analytical Report

Work Order: 2402027  
Date Reported: 4/17/2024

Client: Aerotech  
Project: Sunset Point Development  
Lab ID: 2402027-044  
Client Sample ID: B32-01

Collection Date: 1/30/2024

Matrix: Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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### Total Metals by EPA 6020B

Batch ID: 43235 Analyst: ME

Arsenic	1.86	0.354		mg/Kg-dry	1	3/13/2024 3:12:00 PM
Cadmium	0.215	0.0283		mg/Kg-dry	1	3/13/2024 3:12:00 PM

### Sample Moisture (Percent Moisture)

Batch ID: R90179 Analyst: MP

Percent Moisture	29.8	0.500		wt%	1	3/13/2024 8:19:44 AM
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## Analytical Report

Work Order: 2402027

Date Reported: 4/17/2024

Client: Aerotech

Collection Date: 1/30/2024

Project: Sunset Point Development

Lab ID: 2402027-045

Matrix: Soil

Client Sample ID: B32-02

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
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### Total Metals by EPA 6020B

Batch ID: 42814

Analyst: ME

Arsenic	1.83	0.248		mg/Kg-dry	1	2/6/2024 5:09:00 PM
Cadmium	0.0625	0.0199		mg/Kg-dry	1	2/6/2024 5:09:00 PM
Chromium	33.7	0.248		mg/Kg-dry	1	2/6/2024 5:09:00 PM
Lead	3.98	0.993		mg/Kg-dry	1	2/6/2024 5:09:00 PM
Mercury	ND	0.199		mg/Kg-dry	1	2/6/2024 5:09:00 PM

### Sample Moisture (Percent Moisture)

Batch ID: R89409

Analyst: YL

Percent Moisture	21.9			wt%	1	2/5/2024 11:04:19 AM
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### Hexavalent Chromium by EPA Method 7196

Batch ID: 43020

Analyst: SS

Chromium, Hexavalent	1.63	0.620		mg/Kg-dry	1	2/23/2024 4:13:00 PM
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**Work Order:** 2402027  
**CLIENT:** Aerotech  
**Project:** Sunset Point Development

## QC SUMMARY REPORT

### Hexavalent Chromium by EPA Method 7196

Sample ID: MB-43020		SampType: MBLK		Units: mg/Kg		Prep Date: 2/23/2024			RunNo: 89805		
Client ID: MBLKS		Batch ID: 43020		Analysis Date: 2/23/2024						SeqNo: 1874410	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chromium, Hexavalent ND 0.500

Sample ID: LCS-43020		SampType: LCS			Units: mg/Kg		Prep Date: 2/23/2024			RunNo: 89805		
Client ID: LCSS		Batch ID: 43020			Analysis Date: 2/23/2024			SeqNo: 1874411				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Chromium, Hexavalent 10.7 0.500 12.87 0 82.8 66.6 106.6

Sample ID: 2402117-004ADUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 2/23/2024			RunNo: 89805			
Client ID: BATCH		Batch ID: 43020					Analysis Date: 2/23/2024			SeqNo: 1874414		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Chromium, Hexavalent ND 0.610 0 30

Sample ID: 2402117-004AMS1		SampType: MS		Units: mg/Kg-dry		Prep Date: 2/23/2024			RunNo: 89805			
Client ID: BATCH		Batch ID: 43020					Analysis Date: 2/23/2024			SeqNo: 1874415		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Chromium, Hexavalent ND 0.632 16.28 0 0 5 143 S

**NOTES:**

S - Outlying spike recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

Sample ID: 2402117-004AMS2		SampType: MS		Units: mg/Kg-dry		Prep Date: 2/23/2024			RunNo: 89805			
Client ID: BATCH		Batch ID: 43020					Analysis Date: 2/23/2024			SeqNo: 1874416		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Chromium, Hexavalent ND 0.652 16.77 0 0 5 143 S

**NOTES:**

S - Outlying spike recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.



**Work Order:** 2402027  
**CLIENT:** Aerotech  
**Project:** Sunset Point Development

## QC SUMMARY REPORT

pH by EPA Method 9045

Sample ID: MB-R89429		SampType: MBLK			Units: pH		Prep Date: 2/5/2024			RunNo: 89429		
Client ID: MBLKS		Batch ID: R89429			Analysis Date: 2/5/2024			SeqNo: 1867194				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Hydrogen Ion (pH) 6.17

Sample ID: LCS-R89429		SampType: LCS			Units: pH		Prep Date: 2/5/2024			RunNo: 89429		
Client ID: LCSS		Batch ID: R89429			Analysis Date: 2/5/2024			SeqNo: 1867195				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Hydrogen Ion (pH) 7.19 7.000 0 103 95 105

Sample ID: 2402027-036ADUP		SampType: DUP			Units: pH		Prep Date: 2/5/2024			RunNo: 89429		
Client ID: B27-02		Batch ID: R89429			Analysis Date: 2/5/2024			SeqNo: 1867200				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Hydrogen Ion (pH) 7.14 7.260 1.67 10

Sample ID: MB-R89492		SampType: MBLK			Units: pH		Prep Date: 2/8/2024			RunNo: 89492		
Client ID: MBLKS		Batch ID: R89492			Analysis Date: 2/8/2024			SeqNo: 1868387				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Hydrogen Ion (pH) 6.20

Sample ID: LCS-R89492		SampType: LCS			Units: pH		Prep Date: 2/8/2024			RunNo: 89492		
Client ID: LCSS		Batch ID: R89492			Analysis Date: 2/8/2024			SeqNo: 1868388				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Hydrogen Ion (pH) 7.17 7.000 0 102 95 105



Work Order: 2402027  
CLIENT: Aerotech  
Project: Sunset Point Development

**QC SUMMARY REPORT**  
**pH by EPA Method 9045**

Sample ID: 2402027-019ADUP		SampType: DUP		Units: pH		Prep Date: 2/8/2024			RunNo: 89492		
Client ID: B19-01		Batch ID: R89492		Analysis Date: 2/8/2024			SeqNo: 1868390				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Hydrogen Ion (pH)	7.04							6.980	0.856	10	H

**Work Order:** 2402027  
**CLIENT:** Aerotech  
**Project:** Sunset Point Development

## QC SUMMARY REPORT

**Total Metals by EPA 6020B**

Sample ID: MB-42814		SampType: MBLK		Units: mg/Kg		Prep Date: 2/5/2024			RunNo: 89458			
Client ID: MBLKS		Batch ID: 42814					Analysis Date: 2/6/2024			SeqNo: 1867705		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Arsenic	ND	0.202
Cadmium	ND	0.0161
Chromium	ND	0.202
Lead	ND	0.806
Mercury	ND	0.161

Sample ID: LCS-42814		SampType: LCS		Units: mg/Kg		Prep Date: 2/5/2024			RunNo: 89458			
Client ID: LCSS		Batch ID: 42814					Analysis Date: 2/6/2024			SeqNo: 1867706		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Arsenic	42.9	0.214	42.74	0	100	80	120
Cadmium	2.28	0.0171	2.137	0	107	80	120
Chromium	46.6	0.214	42.74	0	109	80	120
Lead	22.8	0.855	21.37	0	107	80	120
Mercury	1.13	0.171	1.068	0	106	80	120

Sample ID: 2402021-003AMS		SampType: MS		Units: mg/Kg-dry		Prep Date: 2/5/2024			RunNo: 89458			
Client ID: BATCH		Batch ID: 42814					Analysis Date: 2/6/2024			SeqNo: 1867709		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Arsenic	49.7	0.226	45.26	7.390	93.6	75	125
Cadmium	2.47	0.0181	2.263	0.1382	103	75	125
Chromium	58.9	0.226	45.26	17.20	92.1	75	125
Lead	35.6	0.905	22.63	10.54	111	75	125
Mercury	1.22	0.181	1.132	0.02852	106	75	125

**Work Order:** 2402027  
**CLIENT:** Aerotech  
**Project:** Sunset Point Development

## QC SUMMARY REPORT

Total Metals by EPA 6020B

Sample ID: 2402021-003AMSD		SampType: MSD		Units: mg/Kg-dry		Prep Date: 2/5/2024		RunNo: 89458			
Client ID: BATCH		Batch ID: 42814				Analysis Date: 2/6/2024		SeqNo: 1867710			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	48.9	0.228	45.63	7.390	90.9	75	125	49.75	1.81	20	
Cadmium	2.38	0.0183	2.281	0.1382	98.2	75	125	2.467	3.69	20	
Chromium	57.0	0.228	45.63	17.20	87.2	75	125	58.89	3.33	20	
Lead	34.9	0.913	22.81	10.54	107	75	125	35.64	2.20	20	
Mercury	1.16	0.183	1.141	0.02852	99.5	75	125	1.223	5.03	20	

Sample ID: MB-43235		SampType: MBLK		Units: mg/Kg		Prep Date: 3/12/2024		RunNo: 90205			
Client ID: MBLKS		Batch ID: 43235				Analysis Date: 3/13/2024		SeqNo: 1881741			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.254									
Cadmium	ND	0.0203									

Sample ID: LCS-43235		SampType: LCS		Units: mg/Kg		Prep Date: 3/12/2024		RunNo: 90205			
Client ID: LCSS		Batch ID: 43235				Analysis Date: 3/13/2024		SeqNo: 1881742			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	42.9	0.260	41.67	0	103	80	120				
Cadmium	2.15	0.0208	2.083	0	103	80	120				

Sample ID: 2403152-001AMS		SampType: MS		Units: mg/Kg-dry		Prep Date: 3/12/2024		RunNo: 90205			
Client ID: BATCH		Batch ID: 43235				Analysis Date: 3/13/2024		SeqNo: 1881745			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	43.1	0.274	43.77	2.450	92.8	75	125				
Cadmium	2.31	0.0219	2.189	0.08086	102	75	125				



**Work Order:** 2402027  
**CLIENT:** Aerotech  
**Project:** Sunset Point Development

## QC SUMMARY REPORT

Total Metals by EPA 6020B

Sample ID: 2403152-001AMSD		SampType: MSD		Units: mg/Kg-dry		Prep Date: 3/12/2024			RunNo: 90205		
Client ID: BATCH		Batch ID: 43235					Analysis Date: 3/13/2024			SeqNo: 1881746	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Arsenic	50.4	0.298	47.72	2.450	100	75	125	43.08	15.6	20	
Cadmium	2.71	0.0239	2.386	0.08086	110	75	125	2.308	16.2	20	

Sample ID: MB-43204		SampType: MBLK			Units: mg/Kg		Prep Date: 3/11/2024			RunNo: 90269		
Client ID: MBLKS		Batch ID: 43204			Analysis Date: 3/14/2024			SeqNo: 1882943				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Arsenic	ND	0.246									
Cadmium	ND	0.0197									

Sample ID: LCS-43204		SampType: LCS			Units: mg/Kg		Prep Date: 3/11/2024			RunNo: 90269		
Client ID: LCSS		Batch ID: 43204			Analysis Date: 3/14/2024			SeqNo: 1882944				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Arsenic	39.4	0.254	40.65	0	96.9	80	120				
Cadmium	2.03	0.0203	2.033	0	99.9	80	120				

Sample ID: 2402027-003AMS		SampType: MS		Units: mg/Kg-dry		Prep Date: 3/11/2024			RunNo: 90269			
Client ID: B12-01		Batch ID: 43204					Analysis Date: 3/14/2024			SeqNo: 1882947		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Arsenic	45.1	0.278	44.45	2.770	95.1	75	125				
Cadmium	2.35	0.0222	2.222	0.05909	103	75	125				

Sample ID: 2402027-003AMSD		SampType: MSD		Units: mg/Kg-dry		Prep Date: 3/11/2024			RunNo: 90269		
Client ID: B12-01		Batch ID: 43204		Analysis Date: 3/14/2024			SeqNo: 1882948				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Arsenic	47.4	0.287	45.84	2.770	97.4	75	125	45.05	5.10	20	
Cadmium	2.49	0.0229	2.292	0.05909	106	75	125	2.354	5.62	20	

**Work Order:** 2402027  
**CLIENT:** Aerotech  
**Project:** Sunset Point Development

## QC SUMMARY REPORT

**Total Metals by EPA 6020B**

Sample ID: 2402027-003AMSD	SampType: MSD	Units: mg/Kg-dry	Prep Date: 3/11/2024	RunNo: 90269							
Client ID: B12-01	Batch ID: 43204		Analysis Date: 3/14/2024	SeqNo: 1882948							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

**Work Order:** 2402027  
**CLIENT:** Aerotech  
**Project:** Sunset Point Development

## QC SUMMARY REPORT

### Metals (EPA 6020B) with TCLP Extraction (EPA 1311)

Sample ID: MB-43587	SampType: MBLK	Units: mg/L	Prep Date: 4/16/2024	RunNo: 91018							
Client ID: MBLKS	Batch ID: 43587		Analysis Date: 4/16/2024	SeqNo: 1897726							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Arsenic	ND	0.100
Barium	ND	0.500
Cadmium	ND	0.100
Chromium	ND	0.200
Lead	ND	0.200
Mercury	ND	0.0200
Selenium	ND	0.100
Silver	ND	0.200

Sample ID: LCS-43587	SampType: LCS	Units: mg/L	Prep Date: 4/16/2024	RunNo: 91018							
Client ID: LCSS	Batch ID: 43587		Analysis Date: 4/16/2024	SeqNo: 1897727							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Arsenic	5.39	0.100	5.000	0	108	65	135
Barium	5.57	0.500	5.000	0	111	65	135
Cadmium	0.282	0.100	0.2500	0	113	65	135
Chromium	5.94	0.200	5.000	0	119	65	135
Lead	2.82	0.200	2.500	0	113	65	135
Mercury	0.146	0.0200	0.1250	0	117	65	135
Selenium	0.534	0.100	0.5000	0	107	65	135
Silver	0.270	0.200	0.2500	0	108	65	135

Sample ID: 2402027-006ADUP		SampType: DUP		Units: mg/L		Prep Date: 4/16/2024			RunNo: 91018		
Client ID: B14-01		Batch ID: 43587		Analysis Date: 4/16/2024						SeqNo: 1897729	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Arsenic	ND	0.100						0		30
Barium	ND	0.500						0		30
Cadmium	ND	0.100						0		30
Chromium	ND	0.200						0		30
Lead	ND	0.200						0		30

**Work Order:** 2402027  
**CLIENT:** Aerotech  
**Project:** Sunset Point Development

## QC SUMMARY REPORT

### Metals (EPA 6020B) with TCLP Extraction (EPA 1311)

Sample ID: 2402027-006ADUP		SampType: DUP			Units: mg/L		Prep Date: 4/16/2024			RunNo: 91018		
Client ID: B14-01		Batch ID: 43587			Analysis Date: 4/16/2024				SeqNo: 1897729			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Mercury	ND	0.0200						0		30	
Selenium	ND	0.100						0		30	
Silver	ND	0.200						0		30	

Sample ID: 2402027-006AMS		SampType: MS		Units: mg/L		Prep Date: 4/16/2024			RunNo: 91018			
Client ID: B14-01		Batch ID: 43587					Analysis Date: 4/16/2024			SeqNo: 1897731		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Arsenic	5.10	0.100	5.000	0.001300	102	65	135				
Barium	5.54	0.500	5.000	0.3121	105	65	135				
Cadmium	0.266	0.100	0.2500	0.001000	106	65	135				
Chromium	5.35	0.200	5.000	0.01365	107	65	135				
Lead	2.52	0.200	2.500	0.001550	101	65	135				
Mercury	0.131	0.0200	0.1250	0.0005500	105	65	135				
Selenium	0.503	0.100	0.5000	0	101	65	135				
Silver	0.259	0.200	0.2500	0.0001000	104	65	135				

Sample ID: 2402027-006AMSD	SampType: MSD	Units: mg/L				Prep Date: 4/16/2024				RunNo: 91018		
Client ID: B14-01	Batch ID: 43587					Analysis Date: 4/16/2024				SeqNo: 1897732		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Arsenic	4.88	0.100	5.000	0.001300	97.6	65	135	5.100	4.42	30	
Barium	5.54	0.500	5.000	0.3121	105	65	135	5.542	0.0460	30	
Cadmium	0.266	0.100	0.2500	0.001000	106	65	135	0.2663	0.150	30	
Chromium	5.11	0.200	5.000	0.01365	102	65	135	5.355	4.73	30	
Lead	2.51	0.200	2.500	0.001550	100	65	135	2.523	0.457	30	
Mercury	0.132	0.0200	0.1250	0.0005500	105	65	135	0.1312	0.835	30	
Selenium	0.481	0.100	0.5000	0	96.2	65	135	0.5035	4.51	30	
Silver	0.260	0.200	0.2500	0.0001000	104	65	135	0.2590	0.308	30	



**Work Order:** 2402027  
**CLIENT:** Aerotech  
**Project:** Sunset Point Development

## QC SUMMARY REPORT

### Diesel and Heavy Oil by NWTPH-Dx

Sample ID: MB-42819	SampType: MBLK	Units: mg/Kg				Prep Date: 2/5/2024				RunNo: 89451		
Client ID: MBLKS	Batch ID: 42819					Analysis Date: 2/5/2024				SeqNo: 1867493		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Diesel Range Organics	ND	50.0									
Heavy Oil	ND	100									
Total Petroleum Hydrocarbons	ND	150									
Surr: 2-Fluorobiphenyl	9.33		10.00		93.3	50	150				
Surr: o-Terphenyl	9.25		10.00		92.5	50	150				

Sample ID: LCS-42819		SampType: LCS			Units: mg/Kg		Prep Date: 2/5/2024			RunNo: 89451		
Client ID: LCSS		Batch ID: 42819			Analysis Date: 2/5/2024			SeqNo: 1867494				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Total Petroleum Hydrocarbons	485	150	500.0	0	96.9	80.8	118				
Surr: 2-Fluorobiphenyl	9.33		10.00		93.3	50	150				
Surr: o-Terphenyl	12.1		10.00		121	50	150				

Sample ID: 2402027-032AMS		SampType: MS		Units: mg/Kg-dry		Prep Date: 2/5/2024			RunNo: 89451			
Client ID: B25-02		Batch ID: 42819					Analysis Date: 2/5/2024			SeqNo: 1867498		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Total Petroleum Hydrocarbons	487	161	536.7	0	90.8	43.5	147				
Surr: 2-Fluorobiphenyl	10.9		10.73		101	50	150				
Surr: o-Terphenyl	13.7		10.73		128	50	150				

Sample ID: 2402027-032AMSD	SampType: MSD	Units: mg/Kg-dry				Prep Date: 2/5/2024			RunNo: 89451		
Client ID: B25-02	Batch ID: 42819					Analysis Date: 2/5/2024			SeqNo: 1867499		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Petroleum Hydrocarbons	683	161	536.2	0	127	43.5	147	487.5	33.4	30	
Surr: 2-Fluorobiphenyl	13.1		10.72		122	50	150		0		
Surr: o-Terphenyl	16.0		10.72		150	50	150		0		

**Work Order:** 2402027  
**CLIENT:** Aerotech  
**Project:** Sunset Point Development

## QC SUMMARY REPORT

### Diesel and Heavy Oil by NWTPH-Dx

Sample ID: 2402028-001ADUP		SampType: DUP		Units: mg/Kg-dry		Prep Date: 2/5/2024		RunNo: 89451			
Client ID: BATCH		Batch ID: 42819				Analysis Date: 2/5/2024		SeqNo: 1867510			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel Range Organics	ND	74.4						0		30	
Heavy Oil	502	149						342.7	37.7	30	
Total Petroleum Hydrocarbons	526	223						342.7	42.2	30	
Surr: 2-Fluorobiphenyl	19.9		14.87		134	50	150		0		
Surr: o-Terphenyl	18.0		14.87		121	50	150		0		

Sample ID: MB-42968		SampType: MBLK			Units: mg/Kg		Prep Date: 2/19/2024			RunNo: 89791		
Client ID: MBLKS		Batch ID: 42968			Analysis Date: 2/19/2024			SeqNo: 1874064				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Diesel Range Organics	ND	50.0									
Heavy Oil	ND	100									
Total Petroleum Hydrocarbons	ND	150									
Surr: 2-Fluorobiphenyl	10.4		10.00		104	50	150				
Surr: o-Terphenyl	10.3		10.00		103	50	150				

Sample ID: LCS-42968		SampType: LCS			Units: mg/Kg		Prep Date: 2/19/2024			RunNo: 89791		
Client ID: LCSS		Batch ID: 42968			Analysis Date: 2/19/2024			SeqNo: 1874065				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	

Total Petroleum Hydrocarbons	524	150	500.0	0	105	80.8	118				
Surr: 2-Fluorobiphenyl	9.71		10.00		97.1	50	150				
Surr: o-Terphenyl	12.3		10.00		123	50	150				

Sample ID: 2402027-022AMS	SampType: MS	Units: mg/Kg-dry				Prep Date: 2/19/2024			RunNo: 89791		
Client ID: B20-02	Batch ID: 42968					Analysis Date: 2/20/2024			SeqNo: 1874070		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Petroleum Hydrocarbons	692	169	564.0	114.8	102	43.5	147				H
Surr: 2-Fluorobiphenyl	11.3		11.28		101	50	150				H

**Work Order:** 2402027  
**CLIENT:** Aerotech  
**Project:** Sunset Point Development

## QC SUMMARY REPORT

### Diesel and Heavy Oil by NWTPH-Dx

Sample ID: 2402027-022AMS		SampType: MS		Units: mg/Kg-dry		Prep Date: 2/19/2024		RunNo: 89791			
Client ID: B20-02		Batch ID: 42968				Analysis Date: 2/20/2024		SeqNo: 1874070			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Surr: o-Terphenyl	14.1		11.28		125	50	150				H
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Sample ID: 2402027-022AMSD		SampType: MSD		Units: mg/Kg-dry		Prep Date: 2/19/2024			RunNo: 89791		
Client ID: B20-02		Batch ID: 42968					Analysis Date: 2/20/2024			SeqNo: 1874071	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Petroleum Hydrocarbons	760	167	556.9	114.8	116	43.5	147	692.3	9.39	30	H
Surr: 2-Fluorobiphenyl	12.0		11.14		107	50	150		0		H
Surr: o-Terphenyl	15.5		11.14		139	50	150		0		H

Sample ID: 2402028-051ADUP	SampType: DUP	Units: mg/Kg-dry				Prep Date: 2/19/2024			RunNo: 89791		
Client ID: BATCH	Batch ID: 42968					Analysis Date: 2/20/2024			SeqNo: 1874082		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Diesel Range Organics	ND	70.7						0		30	H
Heavy Oil	626	141						431.5	36.9	30	H
Total Petroleum Hydrocarbons	626	212						0	200	30	H
Surr: 2-Fluorobiphenyl	16.6		14.15		117	50	150		0		H
Surr: o-Terphenyl	16.9		14.15		119	50	150		0		H

**Work Order:** 2402027  
**CLIENT:** Aerotech  
**Project:** Sunset Point Development

## QC SUMMARY REPORT

### PAHs by EPA Method 8270E SIM

Sample ID: MB-42838		SampType: MBLK		Units: mg/Kg		Prep Date: 2/6/2024		RunNo: 89463			
Client ID: MBLKS		Batch ID: 42838				Analysis Date: 2/6/2024		SeqNo: 1867796			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	0.0200									
2-Methylnaphthalene	ND	0.0200									
1-Methylnaphthalene	ND	0.0200									
Acenaphthene	ND	0.0200									
Acenaphthylene	ND	0.0200									
Phenanthrene	ND	0.0200									
Fluorene	ND	0.0200									
Anthracene	ND	0.0200									
Fluoranthene	ND	0.0200									
Pyrene	ND	0.0400									
Benz(a)anthracene	ND	0.0200									
Chrysene	ND	0.0200									
Benzo(b)fluoranthene	ND	0.0250									
Benzo(k)fluoranthene	ND	0.0250									
Benzo(a)pyrene	ND	0.0300									
Indeno(1,2,3-cd)pyrene	ND	0.0400									
Dibenz(a,h)anthracene	ND	0.0500									
Benzo(g,h,i)perylene	ND	0.0500									
Surr: 2-Fluorobiphenyl	1.06		1.000		106	22.2	146				
Surr: Terphenyl-d14 (surr)	1.03		1.000		103	20.2	159				

Sample ID: LCS-42838		SampType: LCS		Units: mg/Kg		Prep Date: 2/6/2024		RunNo: 89463			
Client ID: LCSS		Batch ID: 42838				Analysis Date: 2/6/2024		SeqNo: 1867797			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	1.69	0.0200	2.000	0	84.7	54.4	123				
2-Methylnaphthalene	1.69	0.0200	2.000	0	84.7	55.3	123				
1-Methylnaphthalene	1.68	0.0200	2.000	0	83.9	56.6	121				
Acenaphthene	1.66	0.0200	2.000	0	83.1	50.4	123				
Acenaphthylene	1.64	0.0200	2.000	0	82.1	57	122				
Phenanthrene	1.64	0.0200	2.000	0	81.8	47.4	127				



Work Order: 2402027  
CLIENT: Aerotech  
Project: Sunset Point Development

## QC SUMMARY REPORT

### PAHs by EPA Method 8270E SIM

Sample ID: LCS-42838		SampType: LCS		Units: mg/Kg		Prep Date: 2/6/2024		RunNo: 89463			
Client ID: LCSS		Batch ID: 42838				Analysis Date: 2/6/2024		SeqNo: 1867797			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Fluorene	1.66	0.0200	2.000	0	83.0	51.5	127				
Anthracene	1.64	0.0200	2.000	0	82.0	48.5	124				
Fluoranthene	1.65	0.0200	2.000	0	82.6	46.4	132				
Pyrene	1.69	0.0400	2.000	0	84.3	45.2	134				
Benz(a)anthracene	1.67	0.0200	2.000	0	83.4	45.9	138				
Chrysene	1.59	0.0200	2.000	0	79.7	51.5	124				
Benzo(b)fluoranthene	1.58	0.0250	2.000	0	79.0	52.8	130				
Benzo(k)fluoranthene	1.63	0.0250	2.000	0	81.5	50	127				
Benzo(a)pyrene	1.52	0.0300	2.000	0	76.1	53	127				
Indeno(1,2,3-cd)pyrene	1.64	0.0400	2.000	0	81.9	55.7	129				
Dibenz(a,h)anthracene	1.59	0.0500	2.000	0	79.7	54.3	126				
Benzo(g,h,i)perylene	1.57	0.0500	2.000	0	78.5	52.7	123				
Surr: 2-Fluorobiphenyl	1.03		1.000		103	29.3	159				
Surr: Terphenyl-d14 (surr)	1.00		1.000		100	28.4	159				

Sample ID: LCSD-42838		SampType: LCSD		Units: mg/Kg		Prep Date: 2/6/2024		RunNo: 89463			
Client ID: LCSS02		Batch ID: 42838				Analysis Date: 2/6/2024		SeqNo: 1867798			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	1.69	0.0200	2.000	0	84.3	54.4	123	1.694	0.461	30	
2-Methylnaphthalene	1.69	0.0200	2.000	0	84.7	55.3	123	1.694	0.0229	30	
1-Methylnaphthalene	1.68	0.0200	2.000	0	83.9	56.6	121	1.677	0.0980	30	
Acenaphthene	1.64	0.0200	2.000	0	82.0	50.4	123	1.663	1.37	30	
Acenaphthylene	1.64	0.0200	2.000	0	81.9	57	122	1.643	0.313	30	
Phenanthrene	1.60	0.0200	2.000	0	80.1	47.4	127	1.636	2.08	30	
Fluorene	1.64	0.0200	2.000	0	81.8	51.5	127	1.659	1.47	30	
Anthracene	1.63	0.0200	2.000	0	81.5	48.5	124	1.640	0.604	30	
Fluoranthene	1.62	0.0200	2.000	0	81.2	46.4	132	1.651	1.71	30	
Pyrene	1.65	0.0400	2.000	0	82.7	45.2	134	1.685	1.93	30	
Benz(a)anthracene	1.64	0.0200	2.000	0	82.0	45.9	138	1.668	1.72	30	
Chrysene	1.56	0.0200	2.000	0	78.1	51.5	124	1.595	2.10	30	

**Work Order:** 2402027  
**CLIENT:** Aerotech  
**Project:** Sunset Point Development

## QC SUMMARY REPORT

### PAHs by EPA Method 8270E SIM

Sample ID: LCSD-42838	SampType: LCSD	Units: mg/Kg	Prep Date: 2/6/2024	RunNo: 89463							
Client ID: LCSS02	Batch ID: 42838		Analysis Date: 2/6/2024	SeqNo: 1867798							
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzo(b)fluoranthene	1.55	0.0250	2.000	0	77.6	52.8	130	1.580	1.80	30	
Benzo(k)fluoranthene	1.59	0.0250	2.000	0	79.3	50	127	1.631	2.77	30	
Benzo(a)pyrene	1.48	0.0300	2.000	0	74.1	53	127	1.522	2.68	30	
Indeno(1,2,3-cd)pyrene	1.62	0.0400	2.000	0	81.1	55.7	129	1.637	0.879	30	
Dibenz(a,h)anthracene	1.57	0.0500	2.000	0	78.3	54.3	126	1.595	1.82	30	
Benzo(g,h,i)perylene	1.55	0.0500	2.000	0	77.4	52.7	123	1.570	1.45	30	
Surr: 2-Fluorobiphenyl	1.02		1.000		102	29.3	159		0		
Surr: Terphenyl-d14 (surr)	0.969		1.000		96.9	28.4	159		0		

Sample ID: 2402026-002AMS		SampType: MS		Units: mg/Kg-dry		Prep Date: 2/6/2024			RunNo: 89463		
Client ID: BATCH		Batch ID: 42838					Analysis Date: 2/6/2024			SeqNo: 1867800	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Naphthalene	2.06	0.0254	2.535	0.04343	79.6	45.1	134				
2-Methylnaphthalene	2.10	0.0254	2.535	0.04170	81.1	45	136				
1-Methylnaphthalene	2.09	0.0254	2.535	0.05189	80.4	46.7	133				
Acenaphthene	2.04	0.0254	2.535	0.04827	78.7	38.4	137				
Acenaphthylene	2.19	0.0254	2.535	0.09870	82.6	48.7	133				
Phenanthrene	3.55	0.0254	2.535	1.187	93.3	38.3	138				
Fluorene	2.11	0.0254	2.535	0.09554	79.5	41.7	137				
Anthracene	2.03	0.0254	2.535	0.06987	77.4	40.5	135				
Fluoranthene	3.50	0.0254	2.535	1.204	90.5	33.6	148				
Pyrene	4.14	0.0507	2.535	1.619	99.3	32.8	146				
Benz(a)anthracene	2.61	0.0254	2.535	0.4423	85.5	37.8	142				
Chrysene	2.77	0.0254	2.535	0.6519	83.6	39	136				
Benzo(b)fluoranthene	2.70	0.0317	2.535	0.6034	82.7	34.3	146				
Benzo(k)fluoranthene	2.26	0.0317	2.535	0.2041	80.9	33.7	138				
Benzo(a)pyrene	2.68	0.0380	2.535	0.5887	82.5	41.8	137				
Indeno(1,2,3-cd)pyrene	2.28	0.0507	2.535	0.2346	80.9	33.1	145				
Dibenz(a,h)anthracene	2.01	0.0634	2.535	0.07101	76.5	33	142				
Benzo(g,h,i)perylene	2.29	0.0634	2.535	0.3213	77.5	24.4	143				

**Work Order:** 2402027  
**CLIENT:** Aerotech  
**Project:** Sunset Point Development

## QC SUMMARY REPORT

### PAHs by EPA Method 8270E SIM

Sample ID: 2402026-002AMS	SampType: MS	Units: mg/Kg-dry			Prep Date: 2/6/2024			RunNo: 89463			
Client ID: BATCH	Batch ID: 42838				Analysis Date: 2/6/2024			SeqNo: 1867800			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Surr: 2-Fluorobiphenyl	1.48		1.268		117	29.3	159				
Surr: Terphenyl-d14 (surr)	1.41		1.268		111	28.4	159				

Sample ID: 2402026-002AMSD		SampType: MSD		Units: mg/Kg-dry		Prep Date: 2/6/2024			RunNo: 89463		
Client ID: BATCH		Batch ID: 42838		Analysis Date: 2/6/2024			SeqNo: 1867801				
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Naphthalene	2.84	0.0259	2.594	0.04343	108	45.1	134	2.062	31.8	30	
2-Methylnaphthalene	2.88	0.0259	2.594	0.04170	110	45	136	2.097	31.6	30	
1-Methylnaphthalene	2.86	0.0259	2.594	0.05189	108	46.7	133	2.091	31.1	30	
Acenaphthene	2.79	0.0259	2.594	0.04827	106	38.4	137	2.043	30.9	30	
Acenaphthylene	2.88	0.0259	2.594	0.09870	107	48.7	133	2.193	27.0	30	
Phenanthrene	3.48	0.0259	2.594	1.187	88.4	38.3	138	3.551	2.06	30	
Fluorene	2.82	0.0259	2.594	0.09554	105	41.7	137	2.110	28.8	30	
Anthracene	2.76	0.0259	2.594	0.06987	104	40.5	135	2.031	30.3	30	
Fluoranthene	3.44	0.0259	2.594	1.204	86.3	33.6	148	3.499	1.67	30	
Pyrene	3.74	0.0519	2.594	1.619	81.8	32.8	146	4.135	10.0	30	
Benz(a)anthracene	3.08	0.0259	2.594	0.4423	102	37.8	142	2.609	16.4	30	
Chrysene	3.01	0.0259	2.594	0.6519	90.8	39	136	2.772	8.16	30	
Benzo(b)fluoranthene	3.10	0.0324	2.594	0.6034	96.3	34.3	146	2.700	13.9	30	
Benzo(k)fluoranthene	2.90	0.0324	2.594	0.2041	104	33.7	138	2.255	24.9	30	
Benzo(a)pyrene	3.03	0.0389	2.594	0.5887	94.2	41.8	137	2.681	12.3	30	
Indeno(1,2,3-cd)pyrene	2.90	0.0519	2.594	0.2346	103	33.1	145	2.285	23.7	30	
Dibenz(a,h)anthracene	2.71	0.0648	2.594	0.07101	102	33	142	2.011	29.5	30	
Benzo(g,h,i)perylene	2.82	0.0648	2.594	0.3213	96.2	24.4	143	2.285	20.8	30	
Surr: 2-Fluorobiphenyl	1.68		1.297		130	29.3	159		0		
Surr: Terphenyl-d14 (surr)	1.62		1.297		125	28.4	159		0		

Work Order: 2402027

CLIENT: Aerotech

Project: Sunset Point Development

## QC SUMMARY REPORT

### Organochlorine Pesticides by EPA Method 8081A

Sample ID: MB-42839	SampType: MBLK	Units: mg/Kg			Prep Date: 2/6/2024			RunNo: 89505			
Client ID: MBLKS	Batch ID: 42839	Analysis Date: 2/7/2024						SeqNo: 1868589			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alpha BHC	ND	0.0100									
Beta BHC	ND	0.0100									
Gamma BHC (Lindane)	ND	0.0100									
Delta BHC	ND	0.0100									
Heptachlor	ND	0.0100									
Aldrin	ND	0.0100									
Heptachlor epoxide	ND	0.0100									
gamma-Chlordane	ND	0.0100									
Endosulfan I	ND	0.0100									
alpha-Chlordane	ND	0.0100									
Dieldrin	ND	0.0100									
4,4'-DDE	ND	0.0100									
Endrin	ND	0.0100									
Endosulfan II	ND	0.0100									
Endrin aldehyde	ND	0.0100									
Endosulfan sulfate	ND	0.0100									
Endrin ketone	ND	0.0100									
Surr: Decachlorobiphenyl	0.194		0.2000		96.8	43.8	173				
Surr: Tetrachloro-m-xylene	0.212		0.2000		106	36.6	156				

Sample ID: LCS1-42839	SampType: LCS	Units: mg/Kg				Prep Date: 2/6/2024			RunNo: 89505		
Client ID: LCSS	Batch ID: 42839					Analysis Date: 2/7/2024			SeqNo: 1868590		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alpha BHC	0.235	0.0100	0.2000	0	117	68.1	149				
Beta BHC	0.239	0.0100	0.2000	0	120	69.8	138				
Gamma BHC (Lindane)	0.235	0.0100	0.2000	0	118	68.7	139				
Delta BHC	0.228	0.0100	0.2000	0	114	70	138				
Heptachlor	0.252	0.0100	0.2000	0	126	77.9	150				
Aldrin	0.240	0.0100	0.2000	0	120	68.1	144				
Heptachlor epoxide	0.243	0.0100	0.2000	0	122	69.3	143				



Work Order: 2402027

CLIENT: Aerotech

Project: Sunset Point Development

## QC SUMMARY REPORT

### Organochlorine Pesticides by EPA Method 8081A

Sample ID: LCS1-42839		SampType: LCS		Units: mg/Kg		Prep Date: 2/6/2024		RunNo: 89505			
Client ID: LCSS		Batch ID: 42839				Analysis Date: 2/7/2024		SeqNo: 1868590			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
gamma-Chlordane	0.244	0.0100	0.2000	0	122	67	141				
Endosulfan I	0.239	0.0100	0.2000	0	119	68.2	142				
alpha-Chlordane	0.243	0.0100	0.2000	0	121	65.3	140				
Dieldrin	0.237	0.0100	0.2000	0	118	66.3	142				
4,4'-DDE	0.243	0.0100	0.2000	0	121	64	135				
Endrin	0.253	0.0100	0.2000	0	127	71.7	144				
Endosulfan II	0.234	0.0100	0.2000	0	117	67.6	135				
4,4'-DDD	0.239	0.0100	0.2000	0	119	61.8	142				
Endrin aldehyde	0.200	0.0100	0.2000	0	99.9	65.1	135				
Endosulfan sulfate	0.230	0.0100	0.2000	0	115	64.1	135				
4,4'-DDT	0.252	0.0100	0.2000	0	126	68.2	140				
Endrin ketone	0.229	0.0100	0.2000	0	115	66.4	132				
Methoxychlor	0.265	0.0100	0.2000	0	132	66	136				
Surr: Decachlorobiphenyl	0.179		0.2000		89.4	44.8	154				
Surr: Tetrachloro-m-xylene	0.200		0.2000		100	62.8	160				

Sample ID: LCS3-42839		SampType: LCS		Units: mg/Kg		Prep Date: 2/6/2024		RunNo: 89505			
Client ID: LCSS		Batch ID: 42839				Analysis Date: 2/7/2024		SeqNo: 1868592			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlordane, Total (Technical)	0.934	0.100	1.000	0	93.4	49.1	161				
Surr: Decachlorobiphenyl	0.174		0.2000		86.8	44.8	154				
Surr: Tetrachloro-m-xylene	0.192		0.2000		95.1	62.8	160				

Sample ID: 2402028-009AMS		SampType: MS		Units: mg/Kg-dry		Prep Date: 2/6/2024		RunNo: 89505			
Client ID: BATCH		Batch ID: 42839				Analysis Date: 2/7/2024		SeqNo: 1868595			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alpha BHC	0.391	0.0146	0.2921	0	134	63.1	154				
Beta BHC	0.385	0.0146	0.2921	0	132	59.4	159				
Gamma BHC (Lindane)	0.384	0.0146	0.2921	0	131	55.8	156				

Work Order: 2402027

CLIENT: Aerotech

Project: Sunset Point Development

## QC SUMMARY REPORT

### Organochlorine Pesticides by EPA Method 8081A

Sample ID: 2402028-009AMS		SampType: MS		Units: mg/Kg-dry		Prep Date: 2/6/2024		RunNo: 89505			
Client ID: BATCH		Batch ID: 42839				Analysis Date: 2/7/2024		SeqNo: 1868595			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Delta BHC	0.388	0.0146	0.2921	0	133	58.3	157				
Heptachlor	0.422	0.0146	0.2921	0	145	56.6	156				
Aldrin	0.414	0.0146	0.2921	0.01174	138	59.3	155				
Heptachlor epoxide	0.402	0.0146	0.2921	0	138	63.7	157				
gamma-Chlordane	0.374	0.0146	0.2921	0	128	53.7	159				
Endosulfan I	0.374	0.0146	0.2921	0	128	60.8	159				
alpha-Chlordane	0.404	0.0146	0.2921	0	138	55.8	160				
Dieldrin	7.51	0.0146	0.2921	7.125	131	66.5	157				
4,4'-DDE	0.601	0.0146	0.2921	0.2349	125	55	159				
Endrin	0.371	0.0146	0.2921	0	127	64	159				
Endosulfan II	0.347	0.0146	0.2921	0	119	65.5	156				
4,4'-DDD	0.392	0.0146	0.2921	0	134	58.3	160				
Endrin aldehyde	0.290	0.0146	0.2921	0	99.1	48.9	146				
Endosulfan sulfate	0.331	0.0146	0.2921	0	113	64.6	155				
4,4'-DDT	0.820	0.0146	0.2921	0.4956	111	59.1	159				
Endrin ketone	0.365	0.0146	0.2921	0	125	67.9	158				
Methoxychlor	0.548	0.0146	0.2921	0	187	62.5	157				S
Surr: Decachlorobiphenyl	0.265		0.2921		90.7	44.8	154				
Surr: Tetrachloro-m-xylene	0.345		0.2921		118	62.8	160				

#### NOTES:

S - Outlying spike recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

Sample ID: 2402028-009AMSD		SampType: MSD		Units: mg/Kg-dry		Prep Date: 2/6/2024		RunNo: 89505			
Client ID: BATCH		Batch ID: 42839				Analysis Date: 2/7/2024		SeqNo: 1868596			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Alpha BHC	0.524	0.0196	0.3917	0	134	63.1	154	0.3907	29.1	30	
Beta BHC	0.509	0.0196	0.3917	0	130	59.4	159	0.3846	27.8	30	
Gamma BHC (Lindane)	0.513	0.0196	0.3917	0	131	55.8	156	0.3836	28.9	30	
Delta BHC	0.511	0.0196	0.3917	0	130	58.3	157	0.3876	27.4	30	
Heptachlor	0.567	0.0196	0.3917	0	145	56.6	156	0.4224	29.3	30	
Aldrin	0.553	0.0196	0.3917	0.01174	138	59.3	155	0.4138	28.9	30	

Work Order: 2402027

CLIENT: Aerotech

Project: Sunset Point Development

## QC SUMMARY REPORT

### Organochlorine Pesticides by EPA Method 8081A

Sample ID: 2402028-009AMSD		SampType: MSD		Units: mg/Kg-dry		Prep Date: 2/6/2024		RunNo: 89505			
Client ID: BATCH		Batch ID: 42839				Analysis Date: 2/7/2024		SeqNo: 1868596			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Heptachlor epoxide	0.532	0.0196	0.3917	0	136	63.7	157	0.4022	27.8	30	
gamma-Chlordane	0.498	0.0196	0.3917	0	127	53.7	159	0.3740	28.5	30	
Endosulfan I	0.495	0.0196	0.3917	0	126	60.8	159	0.3745	27.7	30	
alpha-Chlordane	0.530	0.0196	0.3917	0	135	55.8	160	0.4040	27.0	30	
Dieldrin	8.18	0.0196	0.3917	7.125	269	66.5	157	7.507	8.55	30	S
4,4'-DDE	0.733	0.0196	0.3917	0.2349	127	55	159	0.6007	19.8	30	
Endrin	0.496	0.0196	0.3917	0	127	64	159	0.3707	28.9	30	
Endosulfan II	0.468	0.0196	0.3917	0	119	65.5	156	0.3470	29.6	30	
4,4'-DDD	0.526	0.0196	0.3917	0	134	58.3	160	0.3916	29.2	30	
Endrin aldehyde	0.393	0.0196	0.3917	0	100	48.9	146	0.2895	30.3	30	
Endosulfan sulfate	0.437	0.0196	0.3917	0	112	64.6	155	0.3314	27.5	30	
4,4'-DDT	0.939	0.0196	0.3917	0.4956	113	59.1	159	0.8202	13.5	30	
Endrin ketone	0.477	0.0196	0.3917	0	122	67.9	158	0.3650	26.7	30	
Methoxychlor	0.670	0.0196	0.3917	0	171	62.5	157	0.5477	20.1	30	S
Surr: Decachlorobiphenyl	0.350		0.3917		89.5	44.8	154		0		
Surr: Tetrachloro-m-xylene	0.447		0.3917		114	62.8	160		0		

#### NOTES:

S - Outlying spike recovery(ies) observed. A duplicate analysis was performed with similar results indicating a possible matrix effect.

Sample ID: MB-42839		SampType: MBLK		Units: mg/Kg		Prep Date: 2/6/2024		RunNo: 89505			
Client ID: MBLKS		Batch ID: 42839				Analysis Date: 2/8/2024		SeqNo: 1868602			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toxaphene	ND	0.100									
4,4'-DDD	ND	0.0100									
4,4'-DDT	ND	0.0100									
Methoxychlor	ND	0.0100									

Work Order: 2402027

CLIENT: Aerotech

Project: Sunset Point Development

## QC SUMMARY REPORT

### Organochlorine Pesticides by EPA Method 8081A

Sample ID: LCS2-42839		SampType: LCS		Units: mg/Kg		Prep Date: 2/6/2024			RunNo: 89505		
Client ID: LCSS		Batch ID: 42839					Analysis Date: 2/8/2024			SeqNo: 1868604	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Toxaphene	0.979	0.100	1.000	0	97.9	58	150				
Surr: Decachlorobiphenyl	0.213		0.2000		107	44.8	154				
Surr: Tetrachloro-m-xylene	0.223		0.2000		111	62.8	160				



**QC SUMMARY REPORT****Gasoline by NWTPH-Gx**

Units: mg/Kg		Prep Date: 2/2/2024			RunNo: 89415		
		Analysis Date: 2/3/2024			SeqNo: 1867034		
PK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
0	85.6	65	135				
	91.1	65	135				
	104	65	135				

Units: mg/Kg		Prep Date: 2/2/2024			RunNo: 89415		
		Analysis Date: 2/3/2024			SeqNo: 1867033		
PK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
	85.5	65	135				
	106	65	135				

Units: mg/Kg-dry		Prep Date: 2/2/2024			RunNo: 89415		
		Analysis Date: 2/3/2024			SeqNo: 1867005		
PK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
				0		30	
	86.2	65	135		0		
	105	65	135		0		

Units: mg/Kg-dry		Prep Date: 2/2/2024			RunNo: 89415		
		Analysis Date: 2/3/2024			SeqNo: 1867008		
PK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
				0		30	
	86.3	65	135		0		
	106	65	135		0		

**LABORATORY ANALYTICAL RESULTS: REPORTS**

*Area-Wide Soil Metals Background Levels*  
(Report dated: March 25, 2024)



**Fremont**  
*Analytical*  
An Alliance Technical Group Company

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info@fremontanalytical.com

**Aerotech**  
Alan Blotch  
14220 Interurban Ave S, Ste. 116  
Tukwila, WA 98168

**RE: Sunset Pointe**  
**Work Order Number: 2403441**

March 28, 2024

**Attention Alan Blotch:**

Fremont Analytical, Inc. received 10 sample(s) on 3/25/2024 for the analyses presented in the following report.

***Sample Moisture (Percent Moisture)***  
***Total Metals by EPA Method 6020***

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes  
Project Manager

DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.4 for Environmental Testing  
ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing  
Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910

Original

[www.fremontanalytical.com](http://www.fremontanalytical.com)

CLIENT: Aerotech  
Project: Sunset Pointe  
Work Order: 2403441

**Work Order Sample Summary**

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2403441-001	B150-1	03/21/2024 12:00 AM	03/25/2024 12:05 PM
2403441-002	B150-2	03/21/2024 12:00 AM	03/25/2024 12:05 PM
2403441-003	B151-1	03/21/2024 12:00 AM	03/25/2024 12:05 PM
2403441-004	B151-2	03/21/2024 12:00 AM	03/25/2024 12:05 PM
2403441-005	B152-1	03/21/2024 12:00 AM	03/25/2024 12:05 PM
2403441-006	B152-2	03/21/2024 12:00 AM	03/25/2024 12:05 PM
2403441-007	B153-1	03/21/2024 12:00 AM	03/25/2024 12:05 PM
2403441-008	B153-2	03/21/2024 12:00 AM	03/25/2024 12:05 PM
2403441-009	B154-1	03/21/2024 12:00 AM	03/25/2024 12:05 PM
2403441-010	B154-2	03/21/2024 12:00 AM	03/25/2024 12:05 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned



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**CLIENT:** Aerotech  
**Project:** Sunset Pointe

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**I. SAMPLE RECEIPT:**

Samples receipt information is recorded on the attached Sample Receipt Checklist.

**II. GENERAL REPORTING COMMENTS:**

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

**III. ANALYSES AND EXCEPTIONS:**

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

### Qualifiers:

- \* - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

### Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- DUP - Sample Duplicate
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MCL - Maximum Contaminant Level
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- REP - Sample Replicate
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate



## Analytical Report

Work Order: 2403441  
Date Reported: 3/28/2024

CLIENT: Aerotech  
Project: Sunset Pointe

Lab ID: 2403441-002

Client Sample ID: B150-2

Collection Date: 3/21/2024

Matrix: Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Total Metals by EPA Method 6020</u>				Batch ID: 43374 Analyst: ME		
Arsenic	2.96	0.259		mg/Kg-dry	1	3/26/2024 4:09:00 PM
Cadmium	0.150	0.0208		mg/Kg-dry	1	3/26/2024 4:09:00 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R90557 Analyst: MF		
Percent Moisture	7.36	0.500		wt%	1	3/28/2024 9:18:21 AM

Lab ID: 2403441-004

Client Sample ID: B151-2

Collection Date: 3/21/2024

Matrix: Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Total Metals by EPA Method 6020</u>				Batch ID: 43374 Analyst: ME		
Arsenic	2.80	0.314		mg/Kg-dry	1	3/26/2024 4:12:00 PM
Cadmium	0.251	0.0251		mg/Kg-dry	1	3/26/2024 4:12:00 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R90557 Analyst: MF		
Percent Moisture	25.2	0.500		wt%	1	3/28/2024 9:18:21 AM

Lab ID: 2403441-006

Client Sample ID: B152-2

Collection Date: 3/21/2024

Matrix: Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<u>Total Metals by EPA Method 6020</u>				Batch ID: 43374 Analyst: ME		
Arsenic	3.63	0.306		mg/Kg-dry	1	3/26/2024 4:28:00 PM
Cadmium	0.0900	0.0245		mg/Kg-dry	1	3/26/2024 4:28:00 PM
<u>Sample Moisture (Percent Moisture)</u>				Batch ID: R90557 Analyst: MF		
Percent Moisture	22.5	0.500		wt%	1	3/28/2024 9:18:21 AM

Original





## Analytical Report

Work Order: 2403441

Date Reported: 3/28/2024

CLIENT: Aerotech

Project: Sunset Pointe

Lab ID: 2403441-008

Client Sample ID: B153-2

Collection Date: 3/21/2024

Matrix: Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>Total Metals by EPA Method 6020</b>				Batch ID: 43374		Analyst: ME
Arsenic	3.96	0.373		mg/Kg-dry	1	3/26/2024 4:30:00 PM
Cadmium	0.120	0.0298		mg/Kg-dry	1	3/26/2024 4:30:00 PM
<b>Sample Moisture (Percent Moisture)</b>				Batch ID: R90557		Analyst: MF
Percent Moisture	34.0	0.500		wt%	1	3/28/2024 9:18:21 AM

Lab ID: 2403441-010

Client Sample ID: B154-2

Collection Date: 3/21/2024

Matrix: Soil

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>Total Metals by EPA Method 6020</b>				Batch ID: 43374		Analyst: ME
Arsenic	4.41	0.318		mg/Kg-dry	1	3/26/2024 4:33:00 PM
Cadmium	0.127	0.0255		mg/Kg-dry	1	3/26/2024 4:33:00 PM
<b>Sample Moisture (Percent Moisture)</b>				Batch ID: R90557		Analyst: MF
Percent Moisture	23.9	0.500		wt%	1	3/28/2024 9:18:21 AM



**Work Order:** 2403441  
**CLIENT:** Aerotech  
**Project:** Sunset Pointe

**QC SUMMARY REPORT**  
**Total Metals by EPA Method 6020**

Sample ID: <b>MB-43374</b>		SampType: <b>MBLK</b>		Units: <b>mg/Kg</b>		Prep Date: <b>3/25/2024</b>			RunNo: <b>90530</b>			
Client ID: <b>MBLKS</b>		Batch ID: <b>43374</b>					Analysis Date: <b>3/26/2024</b>			SeqNo: <b>1888034</b>		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Arsenic	ND	0.250										
Cadmium	ND	0.0200										

Sample ID: LCS-43374	SampType: LCS	Units: mg/Kg				Prep Date: 3/25/2024			RunNo: 90530		
Client ID: LCSS	Batch ID: 43374					Analysis Date: 3/26/2024			SeqNo: 1888035		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	38.3	0.250	40.00	0	95.6	80	120				
Cadmium	1.96	0.0200	2.000	0	98.2	80	120				

Sample ID: 2403441-004AMS		SampType: MS		Units: mg/Kg-dry		Prep Date: 3/25/2024		RunNo: 90530			
Client ID: B151-2		Batch ID: 43374				Analysis Date: 3/26/2024		SeqNo: 1888066			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	46.9	0.312	49.88	2.803	88.4	75	125				
Cadmium	2.58	0.0249	2.494	0.2513	93.3	75	125				

Sample ID: 2403441-004AMSD		SampType: MSD		Units: mg/Kg-dry		Prep Date: 3/25/2024		RunNo: 90530			
Client ID: B151-2		Batch ID: 43374				Analysis Date: 3/26/2024		SeqNo: 1888069			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	45.1	0.316	50.63	2.803	83.5	75	125	46.88	3.93	20	
Cadmium	2.52	0.0253	2.532	0.2513	89.5	75	125	2.578	2.38	20	



## Sample Log-In Check List

Client Name: AEROTE

Work Order Number: 2403441

Logged by: Morgan Wilson

Date Received: 3/25/2024 12:05:00 PM

### Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐  
2. How was the sample delivered? Client

### Log In

3. Custody Seals present on shipping container/cooler?  
(Refer to comments for Custody Seals not intact) Yes ☐ No ☐ Not Present ☒  
4. Was an attempt made to cool the samples? Yes ☐ No ☒ NA ☐  
5. Were all items received at a temperature of  $>2^{\circ}\text{C}$  to  $6^{\circ}\text{C}$  \* Unknown prior to receipt. Yes ☐ No ☐ NA ☒  
6. Sample(s) in proper container(s)? Yes ☒ No ☐  
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐  
8. Are samples properly preserved? Yes ☒ No ☐  
9. Was preservative added to bottles? Yes ☐ No ☒ NA ☐  
10. Is there headspace in the VOA vials? Yes ☐ No ☐ NA ☒  
11. Did all samples containers arrive in good condition(unbroken)? Yes ☒ No ☐  
12. Does paperwork match bottle labels? Yes ☒ No ☐  
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐  
14. Is it clear what analyses were requested? Yes ☒ No ☐  
15. Were all hold times (except field parameters, pH e.g.) able to be met? Yes ☒ No ☐

### Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified: \_\_\_\_\_ Date: \_\_\_\_\_  
By Whom: \_\_\_\_\_ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person  
Regarding: \_\_\_\_\_  
Client Instructions: \_\_\_\_\_

17. Additional remarks:

### Item Information

Item #	Temp $^{\circ}\text{C}$
Sample	18.5

\* Note: DoD/ELAP and TNI require items to be received at  $4^{\circ}\text{C}$  +/-  $2^{\circ}\text{C}$

Original





**Fremont**  
Analytical

3600 Fremont Ave N.  
Seattle, WA 98103  
Tel: 206-352-3790  
Fax: 206-352-7178

## Chain of Custody Record & Laboratory Services Agreement

Date: 03-22-24

Page: 1 of 1

Laboratory Project No (internal): 2403441

Project Name: SUNSET POINTE

Special Remarks:

Client: AEROTECH

Project No:

Address:

Collected by:

City, State, Zip:

Location:

Telephone: (360) 710-5899

Report To (PM): ALAN BLOTCH

Sample Disposal: ☐ Return to client ☒ Disposal by lab (after 30 days)

Fax:

PM Email: ALAN@DIRTYDIRT.US

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	VOCs (EPA 8260 / 624)	BTEX	Gasoline Range Organics (GX)	Hydrocarbon Identification (HCID)	Diesel/Heavy Oil Range Organics (DX)	SVOCs (EPA 8270 / 625)	PAHs (EPA 8270 / 625)	PCBs (EPA 8082 / 698)	Metals** (EPA 6020 / 700.8)	Total (T)	Anions (IC)**	EDB (8011)	ARSENIC - CAIWM	Comments
1 B150-1	03/21		SOIL															
2 " -2																		X
3 B151-1																		
4 " 2																		X
5 B152-1																		
6 " -2																		X
7 B153-1																		
8 " -2																		X
9 B154-1																		
10 " -2																		X

\*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

\*\*Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl V Zn

\*\*\*Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide O-Phosphate Fluoride Nitrate+Nitrite

Turn-around Time:

☒ Standard ☐ Next Day  
☐ 3 Day ☐ Same Day  
☐ 2 Day (specify)

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished (Signature)

Print Name

Date/Time

Received (Signature)

Print Name

Date/Time

Relinquished (Signature)

Print Name

Date/Time

Received (Signature)

Print Name

Date/Time

**LABORATORY ANALYTICAL RESULTS: REPORTS**

*Pond Water Testing*

(Report dated: March 22, 2024)





**Fremont**  
*Analytical*  
An Alliance Technical Group Company

3600 Fremont Ave. N.

Seattle, WA 98103

T: (206) 352-3790

F: (206) 352-7178

info@fremontanalytical.com

**Aerotech**

Alan Blotch

14220 Interurban Ave S, Ste. 116

Tukwila, WA 98168

**RE: Sunset Pointe**

**Work Order Number: 2403328**

March 22, 2024

**Attention Alan Blotch:**

Fremont Analytical, Inc. received 1 sample(s) on 3/19/2024 for the analyses presented in the following report.

**Total Metals by EPA Method 200.8**

This report consists of the following:

- Case Narrative
- Analytical Results
- Applicable Quality Control Summary Reports
- Chain of Custody

All analyses were performed consistent with the Quality Assurance program of Fremont Analytical, Inc. Please contact the laboratory if you should have any questions about the results.

Thank you for using Fremont Analytical.

Sincerely,

Brianna Barnes  
Project Manager

DoD-ELAP Accreditation #79636 by PJLA, ISO/IEC 17025:2017 and QSM 5.4 for Environmental Testing  
ORELAP Certification: WA 100009 (NELAP Recognized) for Environmental Testing  
Washington State Department of Ecology Accredited for Environmental Testing, Lab ID C910

Original

[www.fremontanalytical.com](http://www.fremontanalytical.com)

CLIENT: Aerotech  
Project: Sunset Pointe  
Work Order: 2403328

## Work Order Sample Summary

Lab Sample ID	Client Sample ID	Date/Time Collected	Date/Time Received
2403328-001	W-Pond	03/18/2024 2:00 PM	03/19/2024 1:30 PM

Note: If no "Time Collected" is supplied, a default of 12:00AM is assigned



---

**CLIENT:** Aerotech  
**Project:** Sunset Pointe

---

**I. SAMPLE RECEIPT:**

Samples receipt information is recorded on the attached Sample Receipt Checklist.

**II. GENERAL REPORTING COMMENTS:**

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report ("mg/kg-dry" or "ug/kg-dry").

Matrix Spike (MS) and MS Duplicate (MSD) samples are tested from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. The sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The LCS and the MB are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

**III. ANALYSES AND EXCEPTIONS:**

Exceptions associated with this report will be footnoted in the analytical results page(s) or the quality control summary page(s) and/or noted below.

### Qualifiers:

- \* - Flagged value is not within established control limits
- B - Analyte detected in the associated Method Blank
- D - Dilution was required
- E - Value above quantitation range
- H - Holding times for preparation or analysis exceeded
- I - Analyte with an internal standard that does not meet established acceptance criteria
- J - Analyte detected below Reporting Limit
- N - Tentatively Identified Compound (TIC)
- Q - Analyte with an initial or continuing calibration that does not meet established acceptance criteria
- S - Spike recovery outside accepted recovery limits
- ND - Not detected at the Reporting Limit
- R - High relative percent difference observed

### Acronyms:

- %Rec - Percent Recovery
- CCB - Continued Calibration Blank
- CCV - Continued Calibration Verification
- DF - Dilution Factor
- DUP - Sample Duplicate
- HEM - Hexane Extractable Material
- ICV - Initial Calibration Verification
- LCS/LCSD - Laboratory Control Sample / Laboratory Control Sample Duplicate
- MCL - Maximum Contaminant Level
- MB or MBLANK - Method Blank
- MDL - Method Detection Limit
- MS/MSD - Matrix Spike / Matrix Spike Duplicate
- PDS - Post Digestion Spike
- Ref Val - Reference Value
- REP - Sample Replicate
- RL - Reporting Limit
- RPD - Relative Percent Difference
- SD - Serial Dilution
- SGT - Silica Gel Treatment
- SPK - Spike
- Surr - Surrogate





## Analytical Report

Work Order: 2403328

Date Reported: 3/22/2024

Client: Aerotech

Collection Date: 3/18/2024 2:00:00 PM

Project: Sunset Pointe

Lab ID: 2403328-001

Matrix: Water

Client Sample ID: W-Pond

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
----------	--------	----	------	-------	----	---------------

**Total Metals by EPA Method 200.8**

Batch ID: 43331

Analyst: ME

Arsenic	0.994	0.500		µg/L	1	3/21/2024 1:34:00 PM
Cadmium	ND	0.100		µg/L	1	3/21/2024 1:34:00 PM

**Work Order:** 2403328  
**CLIENT:** Aerotech  
**Project:** Sunset Pointe

**QC SUMMARY REPORT**  
**Total Metals by EPA Method 200.8**

Sample ID: <b>MB-43331</b>	SampType: <b>MBLK</b>	Units: <b>µg/L</b>			Prep Date: <b>3/20/2024</b>			RunNo: <b>90395</b>			
Client ID: <b>MBLKW</b>	Batch ID: <b>43331</b>				Analysis Date: <b>3/21/2024</b>			SeqNo: <b>1885523</b>			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.500									
Cadmium	ND	0.100									

Sample ID: LCS-43331	SampType: LCS	Units: µg/L				Prep Date: 3/20/2024			RunNo: 90395		
Client ID: LCSW	Batch ID: 43331					Analysis Date: 3/21/2024			SeqNo: 1885524		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	103	0.500	100.0	0	103	85	115				
Cadmium	5.21	0.100	5.000	0	104	85	115				

Sample ID: 2403264-001ADUP		SampType: DUP		Units: µg/L		Prep Date: 3/20/2024			RunNo: 90395		
Client ID: BATCH		Batch ID: 43331					Analysis Date: 3/21/2024			SeqNo: 1885526	
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.500						0		30	
Cadmium	27.0	0.100						27.04	0.0185	30	E

Sample ID: 2403264-001AMS	SampType: MS	Units: µg/L				Prep Date: 3/20/2024			RunNo: 90395		
Client ID: BATCH	Batch ID: 43331	Analysis Date: 3/21/2024							SeqNo: 1885528		
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	105	0.500	100.0	0.3510	104	70	130				
Cadmium	32.8	0.100	5.000	27.04	116	70	130				E

Sample ID: 2403334-001BMS	SampType: MS	Units: µg/L			Prep Date: 3/20/2024			RunNo: 90395			
Client ID: BATCH	Batch ID: 43331				Analysis Date: 3/21/2024			SeqNo: 1885514			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	103	0.500	100.0	1.500	102	70	130				
Cadmium	5.33	0.100	5.000	0.01100	106	70	130				

**Work Order:** 2403328  
**CLIENT:** Aerotech  
**Project:** Sunset Pointe

**QC SUMMARY REPORT**  
**Total Metals by EPA Method 200.8**

Sample ID: 2403334-001BMS		SampType: MS		Units: µg/L		Prep Date: 3/20/2024		RunNo: 90395			
Client ID: BATCH		Batch ID: 43331				Analysis Date: 3/21/2024		SeqNo: 1885514			
Analyte	Result	RL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

## Sample Log-In Check List

Client Name: AEROTE

Work Order Number: 2403328

Logged by: Morgan Wilson

Date Received: 3/19/2024 1:30:00 PM

### Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? Client

### Log In

3. Custody Seals present on shipping container/cooler?  
(Refer to comments for Custody Seals not intact) Yes ☐ No ☐ Not Present ☒
4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all items received at a temperature of  $>2^{\circ}\text{C}$  to  $6^{\circ}\text{C}$  \* Yes ☒ No ☐ NA ☐
6. Sample(s) in proper container(s)? Yes ☒ No ☐
7. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
8. Are samples properly preserved? Yes ☒ No ☐
9. Was preservative added to bottles? Yes ☒ No ☐ NA ☐  
HNO<sub>3</sub> NA ☒
10. Is there headspace in the VOA vials? Yes ☐ No ☐ NA ☒
11. Did all samples containers arrive in good condition(unbroken)? Yes ☒ No ☐
12. Does paperwork match bottle labels? Yes ☒ No ☐
13. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
14. Is it clear what analyses were requested? Yes ☒ No ☐
15. Were all hold times (except field parameters, pH e.g.) able to be met? Yes ☒ No ☐

### Special Handling (if applicable)

16. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

17. Additional remarks:

### Item Information

Item #	Temp °C
Sample	1.3

\* Note: DoD/ELAP and TNI require items to be received at  $4^{\circ}\text{C}$  +/-  $2^{\circ}\text{C}$

Original





3600 Fremont Ave N.  
Seattle, WA 98103  
Tel: 206-352-3790

# Chain of Custody Record & Laboratory Services Agreement

Laboratory Project No (Internal): **2403328**

Date: **3/19/24** Page: **1** of: **1**

Special Remarks:

Client:

**Acotec**  
**14247 Amburn Blvd SW, Renton**

Address:

**Burien, WA 98166**

City, State, Zip:

**206 482-2287**

Telephone:

**nike@jtyd.us**

Email(s):

Project No:

**Nike Gerkin**

Collected by:

**Puyallup**

Location:

**Old Alou Blotch**

Report To (PM):

Disposal: Samples will be disposed in 30 days unless otherwise requested.  
☐ Retain volume (specify above) ☐ Return to client

Sample Name	Sample Date	Sample Time	Sample Type (Matrix)*	# of Cont.	Comments
1 W-PONDS	3/19/24	1400	W	2	
2					
3					
4					
5					
6					
7					
8					
9					
10					

\*\*Matrix: A = Air, AQ = Aqueous, B = Bulk, O = Other, P = Product, S = Soil, SD = Sediment, SL = Solid, W = Water, DW = Drinking Water, GW = Ground Water, SW = Storm Water, WW = Waste Water

\*\*Metals (Circle): MTCA-5 RCRA-8 Priority Pollutants TAL Individual: Ag As B Ba Be Ca Cd Co Cr Cu Fe Hg K Mg Mn Mo Na Ni Pb Sb Se Sr Sn Ti Tl V Zn

\*\*Anions (Circle): Nitrate Nitrite Chloride Sulfate Bromide Fluoride Nitrate+Nitrite

I represent that I am authorized to enter into this Agreement with Fremont Analytical on behalf of the Client named above, that I have verified Client's agreement to each of the terms on the front and backside of this Agreement.

Relinquished (Signature)

**Nike Gerkin**

Date/Time

**1330**

Received (Signature)

Print Name

Date/Time

**Hein-Gipson 3/19/24 1330**

Received (Signature)

Print Name

Date/Time

**Hein-Gipson 3/19/24 1330**

**Tab No.6**

*Sunset Pointe Development*

City of Puyallup

**PRELIMINARY MAJOR PLAT REVIEW**





City of Puyallup

**Planning Division**

333 S. Meridian, Puyallup, WA 98371

(253) 864-4165

[www.cityofpuyallup.org](http://www.cityofpuyallup.org)

July 28, 2023

CES NW Inc.

29th St. NE, suite D

Puyallup, WA 98372

DEVELOPMENT REVIEW TEAM (DRT) LETTER	
DRT #	2
PERMIT #	P-18-0040
PROJECT NAME	SUNSET POINTE
PERMIT TYPE	Preliminary Major Plat
PROJECT DESCRIPTION	** SUNSET POINTE MAJOR PLAT ** AMR E-18-0166
SITE ADDRESS	2301 23RD ST SE ;
PARCEL #	0420353027;
ASSOCIATED LAND USE PERMIT(S)	
APPLICATION DATE	March 15, 2018
APPLICATION COMPLETE DATE	
PROJECT STATUS	<b>Active Development Review Team (DRT) review case – resubmittal required.</b> Please address review comments below and resubmit revised permit materials and by responding in writing to the remaining items that need to be addressed.
APPROVAL EXPIRATION	<b>N/A</b> – Active permit application, not approved
CONDITIONS	<b>Active permit application, not approved;</b> Pursuant to PMC 20.11.022 regarding inactive applications, any and all pending land use applications or plat applications shall be deemed null and void unless a timely re-submittal is made to the City within 1 year of issuance of this Development Review Team (DRT) comment letter. DRT review letters typically identify requested corrections, studies or other additional required pieces of information necessary to demonstrate conformance with the City's adopted development standards and codes.

	Subsequent applicant re-submittals shall make a good faith effort to respond to each request from this letter in order for the application to remain active. The failure to provide timely responses or lack of providing the requested material(s) within the 1-year window following DRT comment letter issuance shall be grounds for expiration, thus deeming the pending application null and void with or without a full or partial refund of application fees.
--	--

The City has completed the review of the above-mentioned permit submittal. All of your review comments, conditions, and redlined plans can be found on the [City's permit portal](#). Redlined plans can be found on the City's Permit Portal in the "Reviews" section under "Documents Returned for Corrections". Below please find the permit submittal review comments from your review team and re-submittal instructions. Should you have any questions regarding the review comments, please contact the plan reviewer associated with the comment listed below.

### Re-submittal Instructions

To resubmit, you must respond to all comments in a written response letter and submit a letter of transmittal. Letter of transmittal and response letter must be submitted to the 'Correction Response Letter' item listed in the submittal items list. Avoid using "upload additional docs" unless there is NO submittal item available for your document. Please Note: If you do not resubmit as instructed your re-submittal will be rejected. If you have any questions about how to resubmit, please contact the permit center at [permitcenter@puyallupwa.gov](mailto:permitcenter@puyallupwa.gov).

- 1 Log in to your permits portal and navigate to the [status page](#) for this permit. Under the 'Upload Documents' section, select 'click here to upload document'.
- 2 For each submittal item listed re-submit a new version of the submittal item by clicking the "New Version" button next to the file name of the original file submitted. DO NOT click the 'browse' button unless the document you are submitting for that submittal item is not a new version of the originally submitted document.
- 3 Click 'Upload Documents' at bottom of the page.

### How to use this letter





This review letter includes two sections: **"Corrections"** and **"Conditions"**.

The **"Corrections"** section includes all items that the applicant must address to comply with the Puyallup Municipal Code (PMC) and city standards. Items listed in under **Action Items** require a resubmittal under this permit for further review by the Development Review Team (DRT); your application is not approved. Please make those updates to the proposed plans and resubmit for review. Please include a response letter outlining how you have revised your proposal to meet these items for ease of plan check by DRT members.

The **"Conditions"** are items that will govern the final permit submittal(s) for the project. Please be aware that these conditions will become conditions of the final permits and/or recommendations to the Hearing Examiner, if applicable.

If you have questions regarding the action items or conditions outlined in this letter, please contact the appropriate staff member directly using the phone number and/or email provided.

## **Corrections**



**Planning Review** - Chris Beale; (253) 841-5418; CBeale@PuyallupWA.gov

- The site appears to be marked as PENDING CLEAN UP for site contamination with the Tacoma Pierce County Health Department (TPCHD); previous SEPA comments from Ecology also indicate environmental clean up issues (see Ecology letter dated April, 2018). SEPA mitigation conditions are forthcoming regarding site environmental assessment, and possible site clean up at the direction of Ecology, to be addressed at the time of civil review. Applicant must coordinate with Ecology and/or TPCHD to resolve. February, 2022 staff follow up comment to this correct: The Ecology clean up report data was obtained in 2020 (Ecology clean up ID 11739). Also see the Ecology SEPA comment letter with requirements (dated April 27, 2018) under the Toxic Clean ups section. The response report (Environmental associates phase 1 report, dated January 14, 2005) provided does not resolve this comment. Please contact the Toxic Clean ups coordinator and Ecology and obtain updated guidance on needed remediation steps to resolve site contamination issues and provide upon resubmittal.

UPDATED COMMENT: (July 28, 2023) Staff has reviewed the Phase I Environmental Site Assessment of the site by Earth Solutions NW and transmitted the report to Ecology for review under SEPA. Ecology provided a response on July 26, 2023 - see file in documents and images. We will require pollution in the environment be cleaned up in compliance with WAC 173-340 before allowing any grading, filling, or other construction activities at the site. or an independent cleanup conducted under WAC 173-340-515, the cleanup would be complete when a no further action opinion (NFA) letter is issued under WAC 173-340-515(5)(b). Please follow up with a response to the Ecology email with a plan of action on the part of the owner/applicant to address the recommendations from the Toxic Cleanup program staff.

- At the time of civil permit application, the applicant shall provide an access and grading plan for proposed lots 7 and 8 that demonstrates access drive will not exceed 10% slope, that storm water design will direct water to the proposed dispersion area to the west and that retaining walls needed to support access to lots 7 and 8 meet the retaining wall codes (PMC 19.12.070 (3) and PMC 20.58.005 (2)). The access tract may need to shift south to avoid conflicts and meet code which may impact final plat layout. See corresponding comments from Fire Prevention and Engineering.

UPDATED COMMENT: (July 28, 2023) Staff has reviewed the preliminary exhibit and cannot determine if the wall proposed will meet the setback and height regulations in PMC 19.12.070 (3) and PMC 20.58.005 (2). See mark ups. The feasibility of lot 8 appears dependent upon tract c access and grading and walls.

- All pedestrian walkways shall be dedicated as use by the public at the time of final plat; the walk way between lots 14/15, site wetlands, lots 3/5 will be a public right of way dedication at the time of final plat. These walkways shall be 15' wide right of way, and fully improved with blacktop asphalt or other approved surfacing by Public Works, 10' wide improved surface, with 24" gravel shoulders, access restrictions (bollards or other method as approved by Public Works) and landscaping, at the time of civil permitting.

UPDATED COMMENT: (July 28, 2023) These do not appear to be called out as ROW dedication and are not shown as improved as required. Please note this will be a condition of recommended approval.

- Other conditions outlined in the December, 2020 DRT letter remain in effect and will be carried forward to the Hearing Examiner once all issues related to the plat are resolved.
- Confirm that the NGPA will not be disturbed during site grading. Its not clear if a retaining wall is proposed or a storm drainage line? [R6-02 Prelim plat sheet P2, planning comment]
- Confirm the height and setback of this wall meets PMC 20.58.005 (2). The feasibility of lot 8 appears dependent upon tract c access and grading and walls. [R6-02 Prelim plat sheet P2, planning comment]
- Add a list of tracts and purpose of each tract to the cover sheet. Please note that tract E, the trail area between pond A and B and trail along west side of tract B are required to be dedicated as public right of way [R6-02 Prelim plat sheet 1, planning comment]
- Note condition from December 2020 letter that applies to this connection between Highlands DR and 19th Ave extension. Public right of way dedication of 80' for future roadway connection from the extended 19th Ave to Highlands Drive shall be provided at the time of final plat on parcel A; [R6-02 Prelim plat sheet 1, planning comment]

**Engineering Review** - Jamie Carter; (253) 435-3616; JCarter@puyallupwa.gov

- NOTE TO DESIGNER: As this project has a lot of history and several reviews/reviewers, on this round of Major Plat Review we have included many notes regarding plat layout and construction. This is to ensure that notes from previous reviews are not lost or forgotten. Many of these engineering comments do not require responses or corrections and are included as reminders or placeholders for items and design concepts that shall be included with the civil submittal. Other comments will require clarification or correction for this phase of development review. Please review the notes thoroughly in order to reduce subsequent submittals and review times.



- **STORM GENERAL**

- Development and redevelopment projects are required to employ, wherever feasible, Low Impact Development practices to meet the design criteria set forth in PMC 21.10.190 and the Ecology Manual.
- Public ROW runoff shall be detained and treated independently from proposed private stormwater facilities. This shall be accomplished by providing separate publicly maintained storm facilities within a tract or dedicated ROW; enlarging the private facilities to account for bypass runoff; or other methods as approved by the City Engineer. PMC 21.10.190(3).
- At the time of civil permit application the applicant is responsible for submitting a permanent stormwater management plan which meets the design requirements provided by PMC 21.10. The plan and accompanying information shall provide sufficient information to evaluate the environmental characteristics of the affected areas, the potential impacts of the proposed development on surface water resources, and the effectiveness and acceptability of measures proposed for managing storm water runoff. The findings, existing and proposed impervious areas, facility sizing, and overflow control shall be summarized in a written report. PMC 21.10.190, 21.10.060.
- In the event that during civil design there is insufficient room for proposed stormwater facilities in the area(s) shown on the plat, the stormwater area(s) shall be increased as necessary so that the final design will be in compliance with city and state standards. This may result in the number of lots being reduced, or a reduction in other site amenities. PMC 21.10.060(4), PMC 21.10.150.
- At the time of preliminary plat construction all storm drains shall be signed according to City of Puyallup Design Standard 204.11.
- All private storm drainage facilities shall be covered by a maintenance agreement provided by the city and recorded by Pierce County. Under this agreement, if the owner fails to properly maintain the facilities, the city, after giving the owner notice, may perform necessary maintenance at the owners expense. PMC 21.10.270
- Erosion control measures for this site will be critical. A comprehensive erosion control plan will be required as part of the civil permit application.
- Prior to the final plat being accepted by the city, all disturbed areas within the site shall be stabilized to the satisfaction of the City Engineer.
- A Stormwater System Development Charge (SDC) will be assessed for each new Single Family Residence (SFR). The current SDC as of this writing is \$4,013.00 per unit. Stormwater SDCs are due at the time of site development permit, or in the case where no site development permit is required, at the time of building permit issuance for the individual lot(s), and the fees do not vest until the time of site development permit issuance, or at the time of building permit issuance in the case where a site development permit is not required.
- A Construction Stormwater General Permit shall be obtained from the Washington State Department of Ecology if any land disturbing activities will disturb one or more

acres of land, or are part of a larger common plat of development or sale that will ultimately disturb one or more acres of land.

- **FULL DISPERSION** - The concept of FULL DISPERSION is acceptable to the City and is a preferred method of controlling runoff. However, there are specific design standards laid out by the ECY Manual that have to be met in order to qualify the design. The Drainage Report at CIVIL SUBMITTAL must clearly demonstrate how the design will achieve these requirements. Specifically:
  - According to the 2019 SWMMWW the design must be laid out to allow the runoff from the impervious or cleared areas to fully disperse into the preserved area, meaning that the flows cannot be intercepted by PIPES, ditches, streams, rivers, lakes, or wetlands. See BMP T5.30.
  - The entire parcel set aside for dispersion must be in an easement or be dedicated to the City. Showing the 100 foot flow path is correct for stormwater analysis, but the entire parcel is to be preserved.
  - Specify that the project is using FULL DISPERSION FROM ROADWAY SURFACES under BMP T5.30 to mitigate roofs and driveways. Address each bullet (requirement) from that section in detail or describe how the roof and driveway runoff will be otherwise conveyed and dispersed through the preserved parcel.
  - Refer to FULL DISPERSION FROM CLEARED AREAS IN RESIDENTIAL PROJECTS for requirements related to landscaped and cleared areas. Address each bullet from that section in detail or describe how the cleared areas will be dispersed through the preserved parcel.
  - What is the true size of the proposed preserved parcel? Page 8 of the stormwater report says 10.74 while other docs claim about 11.13. GIS says 10.77. Measure the parcel POST-DEDICATION and use that number for the 10% impervious area within a dispersion basin calculation.
- **RECHARGE BASIN** - This project basin ultimately discharges to existing wetlands/ponds within the development. To that end the project must demonstrate compliance with the following conditions:
  - Document the tributary area to the wetland/ponds and provide an analysis of surface water elevations and volume using a continuous runoff model for the 100-year recurrence interval developed condition.
  - Any developed flows to the ponds shall match the pre-developed flowrates for the 2-, 10-, and 100-year recurrence interval flows.
  - The overflow route from the wetlands/ponds shall be analyzed, using the fully developed contributing basin and any potential adverse impacts shall be identified and mitigated.
  - Provide hydroperiod analysis in accordance with the ECY Manual MR#8 and Appendix I-C.
- **RECHARGE BASIN** - Will roofs from lots 16-18 be hard piped to manifold in back of lots? Is manifold to be installed in "forested" area? How will runoff from Lots 9-12 drain to the buffer?

model. Lawn is 0.76 on Basin Map and is modeled as 0.543 acres. Totals do not match: 5.45 acres on the map and 5.238 acres modeled. Clarify or revise.

- RECHARGE BASIN: Existing culverts should be analyzed in conjunction with the recharge of the ponds/wetlands for proper capacity based on the developed condition. The analysis shall be enhanced prior to civil submittal to include details about the proposed control structures and the specific inputs and outflows to the existing ponds/wetlands.
- ROADWAY BASIN - 23rd St PI SE - Model this basin like the recharge basin. Clearly step through each phase of the drainage (ex: lawn->forest->buffer->pond) for both routes (23rd St PI SE and through the buffer behind Lot 15). Current modeling shows that mitigated flows exceed pre-developed flows. Provide more information and show the graph of the mitigated versus the pre-developed. Incorporate the model results into the Hydroperiod Analysis and clearly illustrate the nexus between the two.
- GROUNDWATER MONITORING PROGRAM - Clarify for reviewers the results of the groundwater monitoring program. The purpose is to record the highest and median groundwater levels in order for the project to be allowed to exclude infiltration from the design (in this case). In TP-104 the peak depth is recorded, but the peak groundwater level would correspond with the smallest depth BGS recorded thus revealing the highest elevation that the groundwater reached. Also, it is unclear to reviewers why the other 2 wells (TP-201 and TP-202) were only dug to depths that represent a level that is just above all recorded groundwater levels resulting in negative (?) depths to groundwater and N/A readings in the table. If the level of the water is known can it not be reported and analyzed? Revise or clarify.
- Correct typo as indicated. [R6-05 Prelim Report 2023\_05\_23\*, Page 15/281]
- Correct typo as indicated. [R6-05 Prelim Report 2023\_05\_23\*, Page 38/281]
- Why are CB#1 and CB#2 proposed to drain directly into the City's system? Report says the roadway for 23rd St PI SE will flow to dispersion trench in Tract B. [R6-02 Preliminary Plat Plans, Sheet P2]
- Symbol not in legend. Is this a retaining wall? Provide details including drainage and structural engineering if required with civil submittal. [R6-02 Preliminary Plat Plans, Sheet P2]
- What does this shape and linetype represent? Legend shows this linetype as an easement line. [R6-02 Preliminary Plat Plans, Sheet P2]
- WATER PMC Chapter 14.02 and Puyallup Design Standards Section 300
  - A new 8-inch diameter water main shall be extended into the site. The 4-inch main proposed on the plans on 23rd St PI SE may be acceptable as it is a dead-end run with no possibility of being expanded in the future. If a fire hydrant is required then the pipe will need to be upsized. Pipe for water mains shall be ductile iron conforming to Section 7-9 of the Standard Specifications.
  - Water mains shall have a minimum cover of 36-inches from paved final grade in improved ROW and easements, and 48-inches of cover in unimproved ROW and easements.

- 2-inch blow off assemblies are required on dead-end water lines except where fire hydrants are installed at the dead-end. See Detail 03.06.01.
- A 3/4-inch water service shall be provided for each building lot and shall be extended 10-feet into each of the proposed lots.
- The water main shall be located generally 10 or 12-feet west or south of roadway centerlines per city standard details.
- The minimum distance between water lines and sewer lines shall be 10-feet horizontally and 18-inches vertically. If this criterion cannot be met the applicant shall isolate the sewer and water lines by encasement, shielding, or other approved methods. CS 301.1(8).
- Fire Hydrants and other appurtenances shall be placed as directed by the Puyallup Fire Code Official. Fire Hydrants shall be placed so that there is a minimum of 50-feet separation from hydrants to any building walls.
- Air relief valves are required at high points in water lines. See detail 03.07.01.
- Water valves shall be installed along the water line at a maximum spacing of 400 feet and at the intersection of lateral lines. Water valves shall be clustered generally and shall be designed and located so that each leg of the main line system can be isolated.
- Detectable marking tape shall be installed on all new water mains including water service lines. The tape shall be placed approximately 1.5 feet above the top of pipe and shall extend its full length. Detectable marking tape shall be blue in color and meet the material requirements specified in the Standard Specifications 9-15.18.
- A water systems development charge (SDC) will be assessed for each new single-family residence. The current amount as of this writing is \$5,218.00. SDCs are due at the time of building permit issuance and do not vest until time of permit issuance.
- SEWER PMC Chapter 14.08 and Puyallup Design Standards Section 400
  - The applicant shall extend the existing public sewer main located within 23rd St PI SE into the new cul-de-sac.
  - 6-inch side sewers shall be extended 15 feet into the proposed lots. The depth at the property line shall be a minimum depth of 5-feet.
  - Side sewers shall have a cleanout at the property line, at the building, and every 100 feet between the two points.
  - A sewer systems development charge (SDC) will be assessed for each new single-family residence. The current amount as of this writing is \$5,218.00. SDCs are due at the time of building permit issuance and do not vest until time of permit issuance.
- TRAFFIC SCOPING WORKSHEET - Traffic scoping worksheet says 15 units and current plans show 18. Update scoping document for civil submittal.
- STREETS GENERAL
  - Root barriers in accordance with City Standard Detail 01.02.03 shall be installed for all street trees within 10-feet of the ROW.
  - Wheel chair ramps, driveways, etc. shall be constructed in accordance with city standards and current ADA regulations. If there is a conflict between the city standards



and ADA regulations, the ADA regulations shall take precedence over the city's requirements.

- A separate street lighting and channelization plan is required for the city's review as part of the civil permit review.
- The sidewalks fronting home sites within the plat shall be poured at the time the homes are built. All other sidewalks are to be poured at the time of plat development. The developer shall be responsible to post an assignment of funds to guarantee all sidewalks are poured within 18 months of final plat approval.
- The asphalt within the sub-division shall be placed in two 2-inch lifts. The first lift shall be placed prior to final plat approval. The second lift shall be delayed until 90% of the homes are built or until 18 months after time of final plat, whichever occurs first. The developer shall be required to post an assignment of funds to guarantee the second lift.
- Street numbering and addressing shall be provided by Engineering Services and reflected on the final plat documents.
- Prior to final plat approval, the developer shall post a maintenance bond with the city in an amount set by the city to guarantee all workmanship for a one-year period from the time of plat completion.
- Existing private utilities that are in conflict with city maintained ROW and utilities shall be relocated outside of the traveled road section, i.e., behind the curb and under the sidewalk area at the developers expense.
- What will become of the newly created areas of 23rd St PI SE where the 'existing cul-de-sac is to be removed'? While these areas are dedicated to the City, they still need to be reconstructed or stabilized.
- Identify/locate and label with the AFN the storm easement depicted between 22nd St SE and 23rd St PI SE.
- Label entire 40 foot utility easement on and near 19th Ave SE on the plans. The lines are shown, but more labels/dimensions are needed.
- GRADING GENERAL
  - A Grading Plan conforming to all requirements of PMC Section 21.14.120 will be required for this project during civil submittal.
  - Note on the plat shall indicate: Certified safe bearing load for the building lots.
  - Note on the plat shall indicate: Geotech report required for each building lot prior to issuance of a building permit for said lot.
  - Cross sections will be required at various points along the property lines extending 30-feet onto adjacent properties to assure no impact from storm water damming or runoff.
- The following dedication language shall be provided on the final plat document:
  - FURTHER, THE UNDERSIGNED OWNERS OF THE LAND HEREBY SUBDIVIDED, WAIVE FOR THEMSELVES, THEIR HEIRS AND ASSIGNS, AND ANY PERSON OR ENTITY DERIVING TITLE FROM THE UNDERSIGNED, ANY AND ALL CLAIMS FOR DAMAGES

AGAINST THE CITY OF PUYALLUP, ITS SUCCESSORS AND ASSIGNS, WHICH MAY BE OCCASIONED TO ADJACENT LAND BY THE CONSTRUCTION, DRAINAGE OR MAINTENANCE OF DEDICATED ROADS WITHIN THIS SUBDIVISION, OTHER THAN CLAIMS RESULTING FROM INADEQUATE MAINTENANCE BY THE CITY OF PUYALLUP.

FURTHER, THE UNDERSIGNED OWNERS OF THE LAND HEREBY SUBDIVIDED, AGREE FOR THEMSELVES, THEIR HEIRS AND ASSIGNS, TO INDEMNIFY AND HOLD THE CITY OF PUYALLUP, ITS SUCCESSORS AND ASSIGNS, HARMLESS FROM ANY LOSSES, INCLUDING ANY REASONABLE COSTS OF DEFENSE, SUFFERED BY THE CITY OF PUYALLUP, ITS SUCCESSORS AND ASSIGNS, RESULTING FROM CLAIMS FOR DAMAGES BY PERSONS WITHIN OR WITHOUT THIS SUBDIVISION FINALLY ADJUDICATED TO HAVE BEEN CAUSED BY THE NEGLIGENCE OR WRONGFUL ACTS OR OMISSIONS OF THE UNDERSIGNED OWNERS, THEIR EMPLOYEES, AGENTS OR CONTRACTORS, IN ALTERING THE GROUND SURFACE, DRAINAGE OR SURFACE OR SUB-SURFACE WATER FLOWS WITHIN THIS SUBDIVISION, OR IN ESTABLISHING OR CONSTRUCTING THE ROADS WITHIN THIS SUBDIVISION.

PROVIDED, THIS WAIVER AND INDEMNIFICATION SHALL NOT APPLY TO THE EXTENT THAT ANY LIABILITY OR DAMAGES RESULT IN WHOLE OR IN PART FROM THE NEGLIGENCE OR WRONGFUL ACTS OR OMISSIONS OF THE CITY OF PUYALLUP, OR ITS EMPLOYEES, AGENTS, CONTRACTORS, SUCCESSORS OR ASSIGNS.

SUBJECT TO THE TERMS AND CONDITIONS CONTAINED HEREIN, THIS SUBDIVISION, DEDICATION, WAIVER OF CLAIMS AND AGREEMENT TO HOLD HARMLESS IS MADE WITH THE FREE CONSENT AND IN ACCORDANCE WITH THE DESIRES OF SAID OWNERS.

- GENERAL
  - Clearly indicate that all Tracts will be dedicated to the city as open space and/or critical area. The city requires adequate provisions for access and maintenance to all public storm facilities located within these tracts and shall condition the review of the civil plans to provide it.
  - Utility extensions shall be completed prior to building permit issuance.
  - Benchmark and monumentation to the City of Puyallup datum (NAVD 88) will be required as part of this project/plat.
  - Prior to permit approval, the applicant shall provide documentation that the United States Post Office has been contacted to coordinate mailbox locations for the project.
- Submit a comment response letter detailing how each correction has been addressed and confirming that the conditions and standards requested for future permit submittals have either been prepared or will be.

## **Conditions**

Condition Category	Condition	Department	Condition Status
	<p>SPECIFIC ENGINEERING CONDITIONS OF PROJECT APPROVAL:</p> <p>*The project proposed to provide a protective easement of the entire Parcel 0420353009. This easement shall be in place prior to the approval of the final plat.</p> <p>*The project shall extend frontage improvements to the West along 19th Ave SE to tie into the existing curb line. The frontage improvements shall include curb/gutter, sidewalk, storm and half street paving. The storm improvements shall include removal of any existing facilities that don't meet current city standards and installation of required facilities for proper drainage.</p> <p>*Due to the onsite Wetlands the Project is required to meet minimum requirement # 8 of the 2014 ECY SWMMWW. As part of the requirement seasonal high groundwater will need to be determined to have a complete picture of the hydraulics of the Wetlands. Based on this requirement the project shall provide continuous groundwater monitoring through a minimum of one wet season as outlined in the 2014 ECY SWMMWW.</p> <p>*If changes to existing culvert and control structure within the wetlands are proposed as part of the project the applicant shall obtain all required Army Corp of Engineers and WDFW permits for the alterations and work with the wetlands.</p>	Engineering Division	Open
	<p>GENERAL ENGINEERING CONDITIONS OF PROJECT APPROVAL:</p> <p>The following engineering conditions are references to requirements and standards that apply to the development proposal regardless of any specific conditions noted above. This list is intended to assist the applicant with incorporating City requirements into the project design</p>	Development & Permitting Services	Open

Condition Category	Condition	Department	Condition Status
	<p>documents but should not be considered an exhaustive list of all necessary provisions from the Municipal Code, design standards, or the Ecology stormwater manual.</p> <p>GENERAL:</p> <p>*The individual lot designations shall be identified by numerals, starting with numeral one. [PMC 19.02.100]</p> <p>*Indicate a 10-foot private utility easement adjacent to the right-of-way line of the proposed lots. [PMC 17.42]</p> <p>*The following Dedication language shall be provided on the final plat document:  FURTHER, THE UNDERSIGNED OWNERS OF THE LAND HEREBY SUBDIVIDED, WAIVE FOR THEMSELVES, THEIR HEIRS AND ASSIGNS, AND ANY PERSON OR ENTITY DERIVING TITLE FROM THE UNDERSIGNED, ANY AND ALL CLAIMS FOR DAMAGES AGAINST THE CITY OF PUYALLUP, ITS SUCCESSORS AND ASSIGNS, WHICH MAY BE OCCASIONED TO ADJACENT LAND BY THE CONSTRUCTION, DRAINAGE OR MAINTENANCE OF DEDICATED ROADS WITHIN THIS SUBDIVISION, OTHER THAN CLAIMS RESULTING FROM INADEQUATE MAINTENANCE BY THE CITY OF PUYALLUP.</p> <p>FURTHER, THE UNDERSIGNED OWNERS OF THE LAND HEREBY SUBDIVIDED, AGREE FOR THEMSELVES, THEIR HEIRS AND ASSIGNS, TO INDEMNIFY AND HOLD THE CITY OF PUYALLUP, ITS SUCCESSORS AND ASSIGNS, HARMLESS FROM ANY LOSSES, INCLUDING ANY REASONABLE COSTS OF DEFENSE, SUFFERED BY THE CITY OF PUYALLUP, ITS SUCCESSORS AND ASSIGNS, RESULTING FROM CLAIMS FOR DAMAGES BY PERSONS WITHIN OR WITHOUT THIS SUBDIVISION FINALLY ADJUDICATED TO HAVE BEEN CAUSED BY THE NEGLIGENCE OR WRONGFUL ACTS OR OMISSIONS OF THE</p>		



Condition Category	Condition	Department	Condition Status
	<p>UNDERSIGNED OWNERS, THEIR EMPLOYEES, AGENTS OR CONTRACTORS, IN ALTERING THE GROUND SURFACE, DRAINAGE OR SURFACE OR SUB-SURFACE WATER FLOWS WITHIN THIS SUBDIVISION, OR IN ESTABLISHING OR CONSTRUCTING THE ROADS WITHIN THIS SUBDIVISION.</p> <p>PROVIDED, THIS WAIVER AND INDEMNIFICATION SHALL NOT APPLY TO THE EXTENT THAT ANY LIABILITY OR DAMAGES RESULT IN WHOLE OR IN PART FROM THE NEGLIGENCE OR WRONGFUL ACTS OR OMISSIONS OF THE CITY OF PUYALLUP, OR ITS EMPLOYEES, AGENTS, CONTRACTORS, SUCCESSORS OR ASSIGNS.</p> <p>SUBJECT TO THE TERMS AND CONDITIONS CONTAINED HEREIN, THIS SUBDIVISION, DEDICATION, WAIVER OF CLAIMS AND AGREEMENT TO HOLD HARMLESS IS MADE WITH THE FREE CONSENT AND IN ACCORDANCE WITH THE DESIRES OF SAID OWNERS.</p>		
	<p>WATER:</p> <p>*The proposed water system shall be designed and constructed to current City (Fire/ Domestic) standards. [PMC 14.02.120]</p> <p>*The water main shall be located generally 10 or 12-feet west or south of roadway centerlines per city standard drawings. [PMC 14.02.120(f) &amp; CS 301.1(11)]</p> <p>*A new water main line shall be extended to, and through, the site sufficient to provide the necessary flows for both the domestic system and fire system. The minimum water pipe size shall be 8-inch diameter. [PMC 14.02.190, 14.20.010 &amp; CS 301.1(1)]</p> <p>*A 1-inch poly line water service including setter and box shall be provided for each building lot and shall be extended 10-feet into each of the</p>	Development & Permitting Services	Open

Condition Category	Condition	Department	Condition Status
	<p>proposed lots. The City will install meters at the time of individual lot development. NOTE: Tract meters, including transmitters, shall be installed by the applicant. [PMC 14.02.220(2) &amp; CS 301.3]</p> <p>*The minimum distance between water lines and sewer lines shall be 10-feet horizontally and 18-inches vertically. If this criterion cannot be met, the applicant shall isolate the sewer and water lines by encasement, shielding, or other approved methods. [PMC 14.02.120(f) &amp; CS 301.1(8)]</p> <p>*Fire hydrants and other appurtenances shall be placed as directed by the Puyallup Fire Code Official. Fire hydrants shall be placed so that there is a minimum of 50-feet of separation from hydrants to any building walls. [PMC 16.08.080 &amp; CS 301.2, 302.3]</p> <p>*Prior to completion of the project, the engineer-of-record shall complete the State Department of Health's "Construction Completion Report for Distribution Main Projects", seal, and provide to the City. [WAC 246-290-120]</p> <p>*For new plats, water connection fees and systems development charges will be assessed at the time of building permit issuance for the individual lots. [PMC 14.02.040, 14.10.030]</p>		
	<p><b>SANITARY SEWER:</b></p> <p>*The proposed sanitary sewer system shall be designed and constructed to current City Standards. [PMC 14.08.040, 14.08.120]</p> <p>*6-inch side sewers shall be extended 15-feet into the proposed lots. [PMC 14.20.010 &amp; CS 401(6)]</p> <p>*The sanitary sewer main shall be located 5-feet east or north of roadway centerlines. [PMC 17.42]</p> <p>*Any portion of a mainline extension located outside City right-of-way must be centered in a 40-foot wide easement granted to the City for maintenance purposes. The easement, if necessary, shall be clearly indicated on the plat</p>	Development & Permitting Services	Open

Condition Category	Condition	Department	Condition Status
	<p>document. [PMC 17.42 &amp; CS 401(14)]</p> <p>*A separate and independent side sewer will be required from the public main to all building sites for each proposed lot. Side sewers shall be extended from the main 15-feet beyond the property line at the building site and shall be 6-inch minimum diameter with a 0.02 foot per foot slope. [PMC 14.08.110 &amp; CS 401(6)]</p> <p>*Side sewers shall have a cleanout at the property line, at the building, and every 100 feet between the two points. [PMC 14.08.120 &amp; CS 401(7)]</p> <p>*Individual grinder pump systems shall comply with City Standard 401 (17) and provide a minimum storage capacity of 220 gallons in accordance with City's Sanitary Sewer Comprehensive Plan.</p> <p>*Any forcemains serving the individual lots shall be privately maintained and located outside the limits of the ROW. Provide a gravity sewer connection between the private forcemain discharge on private property and the public sewer main. Clearly indicate private sewer easement(s) across the individual lots.</p> <p>*Utility extensions shall be completed prior to building permit issuance.</p> <p>*A sanitary sewer system development charge (SDC) will be assessed for each new single family residence and is due at the time of building permit issuance for the individual lot(s). [PMC 14.10.010, 14.10.030]</p> <p>*Sewer connection fees and systems development charges are due at the time of building permit issuance and do not vest until time of permit issuance. [PMC 14.10.010, 14.10.030]</p>		
	<p><b>STORMWATER/ EROSION CONTROL:</b></p> <p>*Stormwater design shall be in accordance with the 2012 Stormwater Management Manual for Western Washington as amended in December,</p>	Development & Permitting Services	Open

Condition Category	Condition	Department	Condition Status
	<p>2014 (The 2014 SWMMWW aka "Ecology Manual").</p> <p>*The applicant shall complete the stormwater flowchart, Figure 3.1, contained in Ecology's Phase II Municipal Stormwater Permit, Appendix I. The completed flowchart shall be submitted with the preliminary stormwater site plan.</p> <p>*The proposed plat shall employ, wherever feasible, low impact development practices to meet the design criteria set forth in PMC 21.10.190, the Ecology Manual Volume III, Chapter 3, and Volume V, Chapter 5.</p> <p>*The applicant is responsible for submitting a preliminary stormwater management site plan (2 sets) which meets the design requirements provided by PMC Section 21.10 and Ecology Manual Volume I, Section 2.5.1. The preliminary stormwater site plan (PSSP) shall be submitted prior to Preliminary Plat approval to ensure that adequate stormwater facilities are anticipated prior to development of the individual lot(s). The preliminary stormwater site plan shall reasonably estimate the quantity of roof and driveway stormwater runoff and the application of On-site Stormwater Management BMPs for the proposed development.</p> <p>*The storm drainage system shall be designed and constructed in accordance with current City Standards. [PMC 17.42]</p> <p>*Preliminary feasibility/infeasibility testing for infiltration facilities shall be in accordance with the site analysis requirements of the Ecology Manual, Volume I, Chapter 3, specifically:</p> <ul style="list-style-type: none"> <li>-Groundwater evaluation, either instantaneous (MR1-5); or continuous monitoring (MR1-9), during the wet weather months (December 21 through April 1).</li> <li>-Hydraulic conductivity testing using the Small Scale Pilot Infiltration Tests (PIT) during the wet</li> </ul>		



Condition Category	Condition	Department	Condition Status
	<p>weather months (December 21 through April 1) unless the site is located on unconsolidated outwash soils. If the site is located on unconsolidated outwash soils, grain size analyses may be substituted for the Small Scale PIT test.</p> <p>-Testing to determine the hydraulic restriction layer.</p> <p>*Public right-of-way runoff shall be detained and treated independently from proposed private stormwater facilities. This shall be accomplished by providing separate publicly maintained storm facilities within a tract or dedicated right-of-way; enlarging the private facilities to account for bypass runoff; or other methods as approved by the City Engineer. [PMC 21.10.190(3)]</p> <p>*Water quality treatment of stormwater shall be in accordance with the Ecology Manual, Volume V.</p> <p>*A maintenance access road and approach will be required to maintain the public storm facilities in Tract B.</p> <p>*A Construction Stormwater General Permit shall be obtained from the Department of Ecology prior to any land disturbing activities such as clearing, grading, excavating and/or demolition.</p> <p>*At the time of civil permit application, the applicant is responsible for submitting a permanent storm water management plan (2 sets) which meets the design requirements provided by PMC Section 21.10. The plan and accompanying information shall provide sufficient information to evaluate the environmental characteristics of the affected areas, the potential impacts of the proposed development on surface water resources, and the effectiveness and acceptability of measures proposed for managing storm water runoff. The findings, existing and proposed impervious area, facility sizing, and overflow control shall be summarized in a written report</p>		

Condition Category	Condition	Department	Condition Status
	<p>(TIR or SSP). [PMC 21.10.190, 21.10.060]</p> <p>*The written technical report shall clearly delineate any offsite basins tributary to the project site and include the following information: [PMC 21.10.060]</p> <ul style="list-style-type: none"> <li>-the quantity of the offsite runoff;</li> <li>-the location(s) where the offsite runoff enters the project site;</li> <li>-how the offsite runoff will be routed through the project site.</li> <li>-the location of proposed retention/detention facilities</li> <li>-and, the location of proposed treatment facilities</li> </ul> <p>*In the event that during civil design, there is insufficient room for proposed stormwater facilities in the area(s) shown on the major plat, the stormwater area(s) shall be increased as necessary so the final design will be in compliance with current City Standards. This may result in the number of lots being reduced, or a reduction in other site amenities. [PMC 21.10.060(4), 21.10.150]</p> <p>*Overflow facilities shall be provided for any proposed detention/retention facilities in accordance with the City Standards. This includes a downstream analysis a minimum of ¼ mile downstream from the site.</p> <p>*Any above-ground stormwater facility shall be screened from public right-of-way and adjacent property per the underlying zoning perimeter buffer requirements in the PMC.</p> <p>*Stormwater R/D facilities shall be a minimum of 20-feet from any public right-of-way, tract, vegetative buffer, and/or property line measured from the toe of the exterior slope/embankment of the facility. [PMC 21.10 &amp; DOE Manual, Vol. V, Pg 10-39 and Pg 10-9]</p> <p>*The proposed project discharges to an adjacent</p>		

Condition Category	Condition	Department	Condition Status																
	<p>wetland. The applicant shall provide a hydrologic analysis which ensures the wetland's hydrologic conditions, hydrophytic vegetation, and substrate characteristics are maintained.</p> <p>*The number of infiltration tests shall be based on the area contributing to the proposed BMP, e.g., one test for every 5,000 sq. ft of permeable pavement, or one test for each bioretention cell. Upon submission of the geotechnical infiltration testing, appropriate long-term correction factors shall be noted for any areas utilizing infiltration into the underlying native soils in accordance with the Ecology Manual, Volume III, Chapter 3.</p> <p>*Construction of frontage improvements associated with this project will likely require extension of the stormwater main to accommodate road runoff.</p> <p>*At the time of civil permit application, all pipe reaches shall be summarized in a Conveyance Table containing the following minimum information and included in the TIR:</p> <table><tr><td>Pipe Reach Name</td><td>Design Flow (cfs)</td></tr><tr><td>Structure Tributary Area</td><td>Pipe-Full Flow (cfs)</td></tr><tr><td>Pipe Diameter (in)</td><td>Water Depth at Design Flow (in)</td></tr><tr><td>Pipe Length (ft)</td><td>Critical Depth (in)</td></tr><tr><td>Pipe Slope (%)</td><td>Velocity at Design Flow (fps)</td></tr><tr><td>Manning's Coefficient (n)</td><td>Velocity at Pipe-Full Flow (fps)</td></tr><tr><td colspan="2">Percent full at Design Flow (%)</td></tr><tr><td colspan="2">HGL for each Pipe Reach (elev)</td></tr></table> <p>*At the time of preliminary plat construction, all storm drains shall be signed as follows:</p> <p>-Publicly maintained stormwater catch basins shall be signed using glue-down markers supplied</p>	Pipe Reach Name	Design Flow (cfs)	Structure Tributary Area	Pipe-Full Flow (cfs)	Pipe Diameter (in)	Water Depth at Design Flow (in)	Pipe Length (ft)	Critical Depth (in)	Pipe Slope (%)	Velocity at Design Flow (fps)	Manning's Coefficient (n)	Velocity at Pipe-Full Flow (fps)	Percent full at Design Flow (%)		HGL for each Pipe Reach (elev)			
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Manning's Coefficient (n)	Velocity at Pipe-Full Flow (fps)																		
Percent full at Design Flow (%)																			
HGL for each Pipe Reach (elev)																			

Condition Category	Condition	Department	Condition Status
	<p>by the City and installed by the project proponent.</p> <p>-Privately maintained stormwater catch basins shall be signed with pre-cut 90ml torch down heavy-duty, intersection-grade preformed thermoplastic pavement marking material. It shall read either "Only Rain Down the Drain" or "No Dumping, Drains to Stream". Alternatively, the glue-down markers may be purchased from the City for a nominal fee.</p> <p>*All private storm drainage facilities shall be covered by a maintenance agreement provided by the City and recorded with Pierce County. Under this agreement, if the owner fails to properly maintain the facilities, the City, after giving the owner notice, may perform necessary maintenance at the owner's expense.</p> <p>*Erosion control measures for this site will be critical. A comprehensive erosion control plan will be required as part of the civil permit application.</p> <p>*Prior to the final plat being accepted by the City, all disturbed areas within the site shall be stabilized to the satisfaction of the City Engineer.</p> <p>*A Stormwater Systems Development Charge (SDC) will be assessed for each new single family residence.</p> <p>*Stormwater Systems Development fees are due at the time of site development permit or in the case where no site development permit is required, at the time of building permit issuance for the individual lot(s); and the fees do not vest until the time of site development permit issuance, or at the time of building permit issuance in the case where a site development permit is not required.</p>		
	<p>STREET:</p> <p>56. Half-street improvements shall be completed along the entire property frontage and</p>	Development & Permitting Services	Open



Condition Category	Condition	Department	Condition Status
	<p>include curb, gutter, sidewalk, roadway base, pavement, street lighting, and drainage. Dedication of right-of-way may be required to provide for adequate roadway section. [PMC 11.08.120, 11.08.130, 19.12.050(1)]</p> <p>*Upon civil permit application, the following items shall be provided:</p> <ul style="list-style-type: none"> <li>-Road plans shall include a plan and profile view of the roadway indicating both the centerline and flow line elevations. [PMC 17.42 &amp; CS 2.2]</li> <li>-A separate street lighting and channelization plan shall be provided in accordance with City Standards.</li> <li>-Root barriers in accordance with City Standard Detail 01.02.03 shall be installed for all street trees within ten (10) feet of the public ROW.</li> <li>-Wheel chair ramps, accessible routes, etc. shall be constructed in accordance with City Standards and current ADA regulations. If there is a conflict between the City Standards and ADA regulations, the ADA regulations shall take precedence over the City's requirements. [PMC 17.42]</li> <li>-Indicate the ROW limits for 13th St SW and Road A.</li> <li>-Indicate the Sight Distance Triangle limit at the Road A intersection.</li> </ul> <p>*Street numbering and addressing shall be provided by Engineering Services and reflected on the final plat document. [CS 103.1]</p> <p>*Existing private utilities (gas, telcom, cable, etc...) that are in conflict with City maintained right-of-way and utilities shall be relocated outside of the travelled road section, i.e., behind the curb under the sidewalk area.</p>		
	<p><b>GRADING:</b></p> <p>*A Grading Plan conforming to all requirements of PMC Section 21.14.120 will be required for this</p>	Development & Permitting Services	Open

Condition Category	Condition	Department	Condition Status
	<p>project. The Plan shall be prepared by a Civil Engineer licensed in the State of Washington. [PMC 21.14.070]</p> <p>*A geotechnical report conforming to all requirements PMC Sections 21.14.150 and 21.14.160 will be required prior to issuance of the first building permit. The Report shall be prepared by a Civil Engineer or Engineering Geologist licensed in the State of Washington. Prior to final acceptance of this project, the author of the Report shall provide certification to the City of the following:</p> <ul style="list-style-type: none"> <li>-The project was constructed in accordance with the recommendations contained in the report.</li> <li>-Any building lot within the site is suitable for building up to a maximum safe bearing load expressed in pounds per square foot (psf). A note indicating the certified safe bearing load for the building lots shall be provided on the face of the plat. Alternatively, a note shall be provided on the face of the plat indicating that a geotechnical report will be required for each building lot prior to issuance of a building permit on that lot.</li> </ul> <p>*Cross sections will be required at various points along the property lines extending 30-feet onto adjacent properties to assure no impact from storm water damming or runoff. [PMC 17.42 &amp; CS 502.1]</p> <p>*At the time of civil permit application, the following notes shall be added to the first sheet of the TЕСP:</p> <ul style="list-style-type: none"> <li>a. "At any time during construction it is determined by the City that mud and debris are being tracked onto public streets with insufficient cleanup, all work shall cease on the project until this condition is corrected. The contractor and/or the owner shall immediately take all steps</li> </ul>		

Condition Category	Condition	Department	Condition Status
	<p>necessary to prevent future tracking of mud and debris into the public ROW, which may include the installation of a wheel wash facility on-site."</p> <p>b. "Contractor shall designate a Washington Department of Ecology certified erosion and sediment control leadperson, and shall comply with the Stormwater Pollution Prevention Plan (SWPPP) prepared for this project."</p> <p>c. "Sediment-laden runoff shall not be allowed to discharge beyond the construction limits in accordance with the Project's NPDES General Stormwater Permit."</p> <p>d. "The closed depression is the permanent stormwater infiltration system for the project and shall not be utilized for TESC runoff. Connect to the closed depression only after construction is complete and site is stabilized and paved."</p> <p>*RCW 19.122 requires all owners of underground facilities to notify pipeline companies of scheduled excavations through the one-number locator service if proposed excavation is within 100 feet of the utility. Notification must occur in a window of not less than 2 business days but not more than 10 business days before beginning the excavation. If a transmission pipeline company is notified that excavation work will occur near a pipeline, a representative of the company must consult with the excavator on-site prior to excavation.</p>		
	<p>*Engineering plans submitted for review and approval shall be comply with City Standards Section 1.0 and Section 2.0, particularly:</p> <ul style="list-style-type: none"> <li>-Engineering plans submitted for review and approval shall be based on 24 x 36-inch sheets.</li> <li>-The scale for design plans shall be indicated directly below the north arrow and shall be only 1"=20' or 1"=30'. The north arrow shall point up or</li> </ul> <p>to the right on the plans.</p>	Development & Permitting Services	Open

Condition Category	Condition	Department	Condition Status
	<p>-Engineering plan sheets shall be numbered sequentially in this manner: Sheet 1 of 20, Sheet 2 of 20, etc. ending in Sheet 20 of 20.</p> <p>-All applicable City Standard Notes and Standard Details shall be included on the construction plans for this project. A copy of the City Standards</p> <p>can be found on the City's web site under Office of the City Engineer, Engineering Services.</p> <p>*Prior to Acceptance/Occupancy, Record Drawings shall be provided for review and approval by the City. Record Drawings shall be provided as follows:</p> <p>a. Electronic version of the record drawings in the following formats:</p> <p>i. AutoCAD Map 2007 or newer in State Plane South Projection</p> <p>ii. PDF</p>		
	<ol style="list-style-type: none"> <li>1. Comply with 2018 IFC, IBC and C.O.P engineering codes and standards.</li> <li>2. Fire Hydrants will be addressed at Civils and required to be constructed to C.O.P standards.</li> <li>3. Fire Hydrants to reach all points of each structure within 600'.</li> <li>4. 10% Maximum for road grade and driveways.</li> </ol>	Fire Prevention	Open
	<p><b>TRAFFIC CONDITIONS OF APPROVAL:</b></p> <p>Traffic Impact fees (TIF) will be assessed for each new single family residence in accordance with fees adopted by ordinance, per PMC 21.10.</p> <p>Park impact fees shall be charged per new dwelling unit based on its size. Fees are assessed in accordance with fees adopted by ordinance, per PMC 21.10</p> <p>School impact fees shall be paid directly to the</p>	Development & Permitting Services	Open



Condition Category	Condition	Department	Condition Status
	<p>school district in accordance with adopted fee at the time of collection by the District.</p> <p>Per Puyallup Municipal Code Section 11.08.130, the applicant/owner would be expected to construct half-street improvements including curb, gutter, sidewalk, roadway base, pavement, and street lighting. Any existing improvements which are damaged now or during the course of construction, or which do not meet current City Standards, shall be replaced. Based on the materials submitted, the applicant would be expected to construct half-street improvements (along the property frontage) on the following streets:</p> <p>a) 23rd St PI SE shall consist of 28' streets with curb, gutter, 5' sidewalks, 5.5' planter strips, and streetlights within a 50' right-of-way. "NO PARKING" signs on one side of the street will be required.</p> <p>b) 19th Ave SE shall match the existing curb alignment on the south side of the street. The roadway shall consist of a 28' street with curb, gutter, 5' sidewalks, and streetlights in a 60' right-of-way. "NO PARKING" signs on one side of the street will be required.</p> <p>A separate street lighting plan is required for the City's civil review. Streetlights will be required on 19th Ave SE &amp; 23rd St PI SE.</p> <p>The maximum grade for City streets is 10%.</p> <p>Offsite striping plan required to safely transition vehicles to/from widened sections on 19th Ave SE.</p> <p>At the intersection of 21st St SE &amp; 19th Ave SE, the NE corner must be completely clear of sight obstructions. The City's Approach Sight Distance Standards 01.01.11 (85ft sight triangle) must be</p>		

<b>Condition Category</b>	<b>Condition</b>	<b>Department</b>	<b>Condition Status</b>
	<p>shown on civil plans.</p> <p>The Cul-de-sac on 19th Ave SE must meet minimum radius requirement per Fire requirements.</p> <p>The future road connection stubs (Highland Dr &amp; north side of the 19th Ave SE Cul-de-sac) shall be installed with "Roadway to be extended in future" signage (per standard 01.01.21). Right of way dedication shall be provided at the time of final plat.</p>		
Submit With Building Permit Application	Permit submittals and construction plans must adhere to the conditions and recommendations of the geotechnical report(s).	Building Division	Open

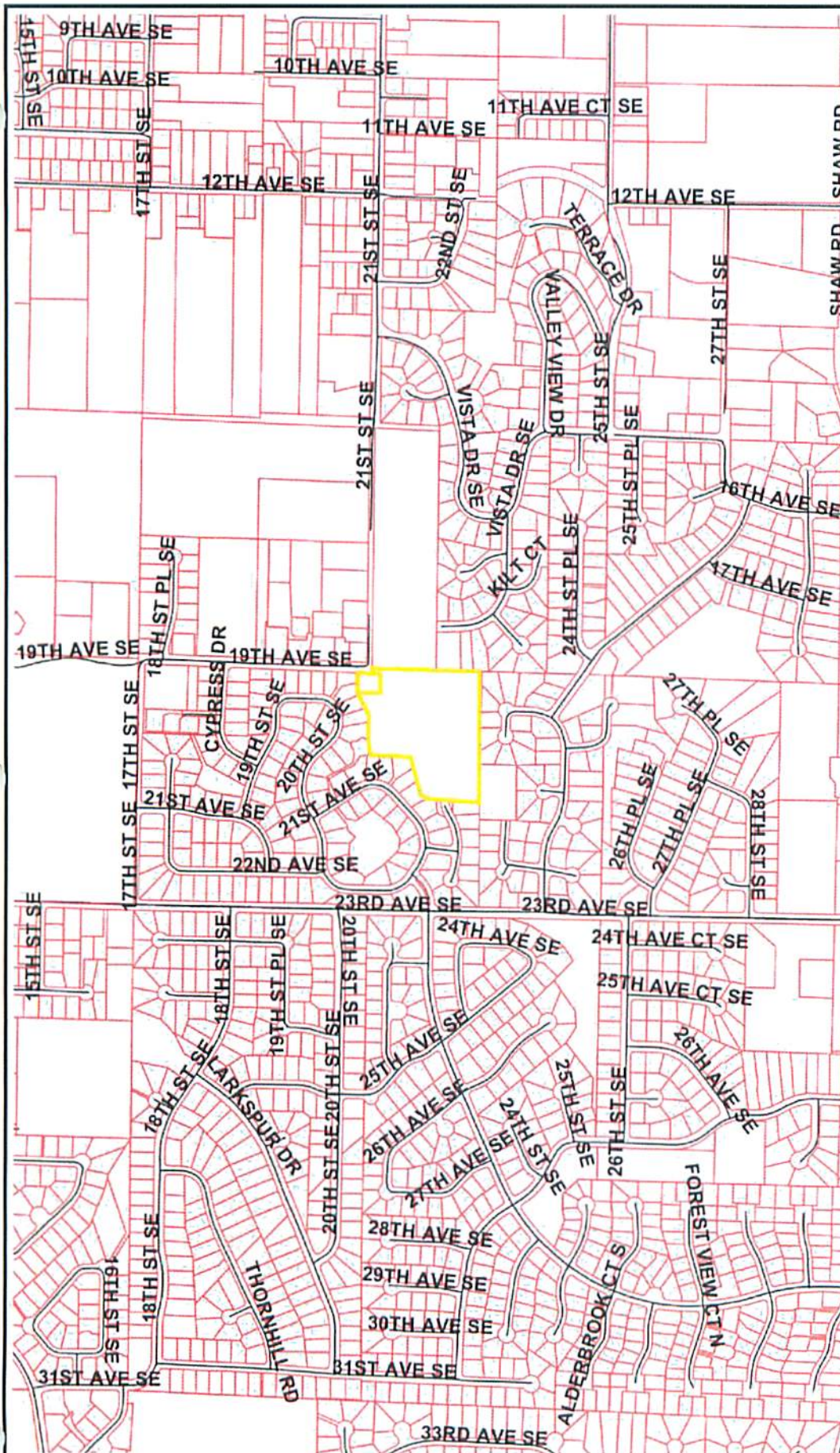
Sincerely,  
Chris Beale  
Senior Planner  
(253) 841-5418  
CBeale@PuyallupWA.gov

Habitat Technologies, Inc.

**CRITICAL AREAS ASSESSMENT:  
SUNSET POINTE RESIDENTIAL DEVELOPMENT**

September 21, 2018





The map features are approximate and are intended only to provide an indication of said feature. Additional areas that have not been mapped may be present. This is not a survey. The orthophotos and other data may not align. Pierce County and Habitat Technologies assume no liability for variations ascertained by actual survey. All data is expressly provided AS IS and WITH ALL FAULTS. Pierce County and Habitat Technologies make no warranty of fitness for a particular purpose.

### Map Legend






- Highlighted Tax Parcels
- Tax Parcels
- ~ Roads
- ~ Major Roads


**Figure 1 Site Vicinity**





**Map Legend**

-  Highlighted Tax Parcels
-  Tax Parcels
-  Roads
-  Major Roads
-  National Wetlands Inventory



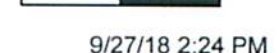
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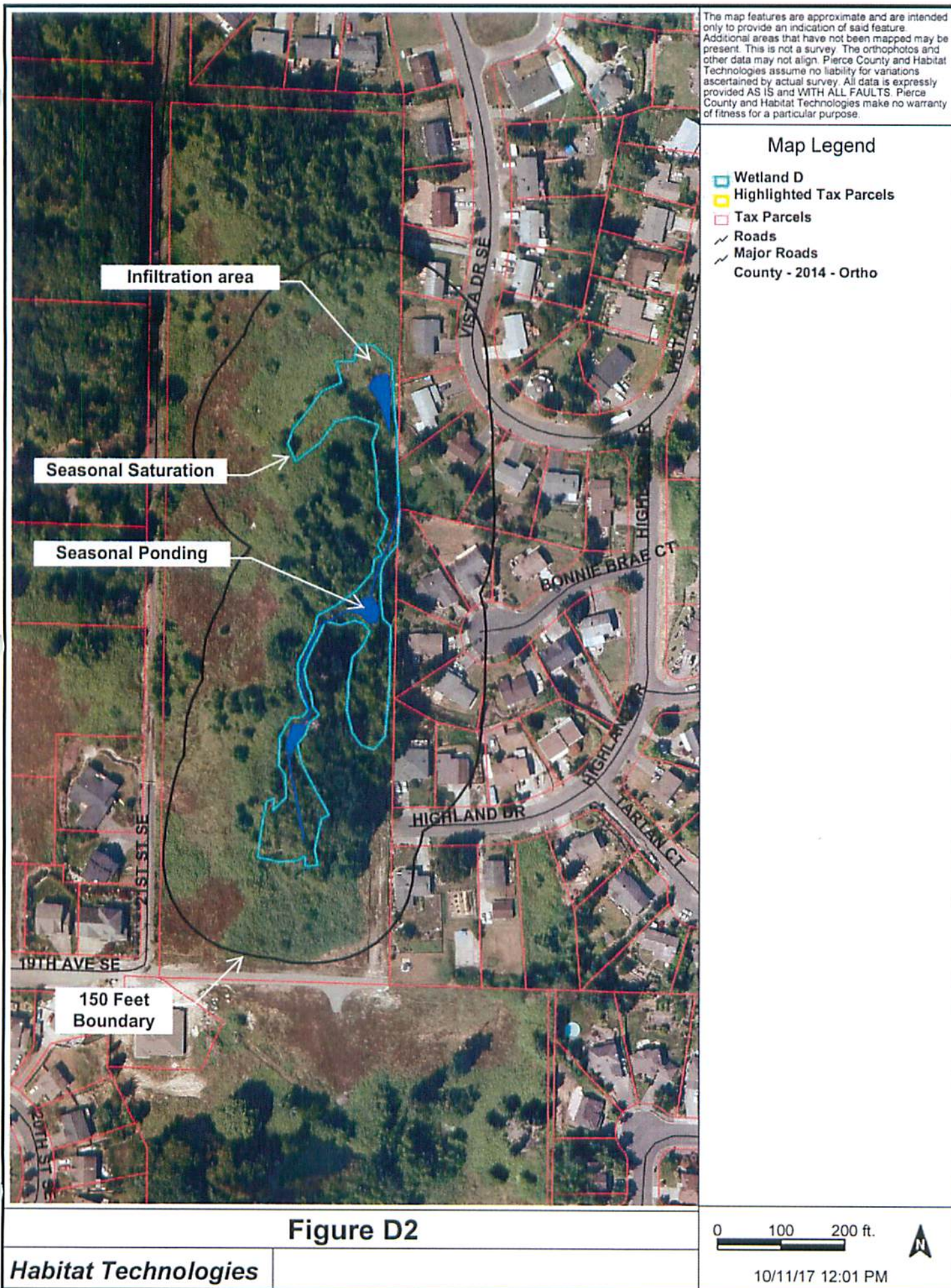
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- 2-inch blow off assemblies are required on dead-end water lines except where fire hydrants are installed at the dead-end. See Detail 03.06.01.
- A 3/4-inch water service shall be provided for each building lot and shall be extended 10-feet into each of the proposed lots.
- The water main shall be located generally 10 or 12-feet west or south of roadway centerlines per city standard details.
- The minimum distance between water lines and sewer lines shall be 10-feet horizontally and 18-inches vertically. If this criterion cannot be met the applicant shall isolate the sewer and water lines by encasement, shielding, or other approved methods. CS 301.1(8).
- Fire Hydrants and other appurtenances shall be placed as directed by the Puyallup Fire Code Official. Fire Hydrants shall be placed so that there is a minimum of 50-feet separation from hydrants to any building walls.
- Air relief valves are required at high points in water lines. See detail 03.07.01.
- Water valves shall be installed along the water line at a maximum spacing of 400 feet and at the intersection of lateral lines. Water valves shall be clustered generally and shall be designed and located so that each leg of the main line system can be isolated.
- Detectable marking tape shall be installed on all new water mains including water service lines. The tape shall be placed approximately 1.5 feet above the top of pipe and shall extend its full length. Detectable marking tape shall be blue in color and meet the material requirements specified in the Standard Specifications 9-15.18.
- A water systems development charge (SDC) will be assessed for each new single-family residence. The current amount as of this writing is \$5,218.00. SDCs are due at the time of building permit issuance and do not vest until time of permit issuance.
- SEWER PMC Chapter 14.08 and Puyallup Design Standards Section 400
  - The applicant shall extend the existing public sewer main located within 23rd St PI SE into the new cul-de-sac.
  - 6-inch side sewers shall be extended 15 feet into the proposed lots. The depth at the property line shall be a minimum depth of 5-feet.
  - Side sewers shall have a cleanout at the property line, at the building, and every 100 feet between the two points.
  - A sewer systems development charge (SDC) will be assessed for each new single-family residence. The current amount as of this writing is \$5,218.00. SDCs are due at the time of building permit issuance and do not vest until time of permit issuance.
- TRAFFIC SCOPING WORKSHEET - Traffic scoping worksheet says 15 units and current plans show 18. Update scoping document for civil submittal.
- STREETS GENERAL
  - Root barriers in accordance with City Standard Detail 01.02.03 shall be installed for all street trees within 10-feet of the ROW.
  - Wheel chair ramps, driveways, etc. shall be constructed in accordance with city standards and current ADA regulations. If there is a conflict between the city standards



and ADA regulations, the ADA regulations shall take precedence over the city's requirements.

- A separate street lighting and channelization plan is required for the city's review as part of the civil permit review.
- The sidewalks fronting home sites within the plat shall be poured at the time the homes are built. All other sidewalks are to be poured at the time of plat development. The developer shall be responsible to post an assignment of funds to guarantee all sidewalks are poured within 18 months of final plat approval.
- The asphalt within the sub-division shall be placed in two 2-inch lifts. The first lift shall be placed prior to final plat approval. The second lift shall be delayed until 90% of the homes are built or until 18 months after time of final plat, whichever occurs first. The developer shall be required to post an assignment of funds to guarantee the second lift.
- Street numbering and addressing shall be provided by Engineering Services and reflected on the final plat documents.
- Prior to final plat approval, the developer shall post a maintenance bond with the city in an amount set by the city to guarantee all workmanship for a one-year period from the time of plat completion.
- Existing private utilities that are in conflict with city maintained ROW and utilities shall be relocated outside of the traveled road section, i.e., behind the curb and under the sidewalk area at the developers expense.
- What will become of the newly created areas of 23rd St PI SE where the 'existing cul-de-sac is to be removed'? While these areas are dedicated to the City, they still need to be reconstructed or stabilized.
- Identify/locate and label with the AFN the storm easement depicted between 22nd St SE and 23rd St PI SE.
- Label entire 40 foot utility easement on and near 19th Ave SE on the plans. The lines are shown, but more labels/dimensions are needed.
- GRADING GENERAL
  - A Grading Plan conforming to all requirements of PMC Section 21.14.120 will be required for this project during civil submittal.
  - Note on the plat shall indicate: Certified safe bearing load for the building lots.
  - Note on the plat shall indicate: Geotech report required for each building lot prior to issuance of a building permit for said lot.
  - Cross sections will be required at various points along the property lines extending 30-feet onto adjacent properties to assure no impact from storm water damming or runoff.
- The following dedication language shall be provided on the final plat document:
  - FURTHER, THE UNDERSIGNED OWNERS OF THE LAND HEREBY SUBDIVIDED, WAIVE FOR THEMSELVES, THEIR HEIRS AND ASSIGNS, AND ANY PERSON OR ENTITY DERIVING TITLE FROM THE UNDERSIGNED, ANY AND ALL CLAIMS FOR DAMAGES



AGAINST THE CITY OF PUYALLUP, ITS SUCCESSORS AND ASSIGNS, WHICH MAY BE OCCASIONED TO ADJACENT LAND BY THE CONSTRUCTION, DRAINAGE OR MAINTENANCE OF DEDICATED ROADS WITHIN THIS SUBDIVISION, OTHER THAN CLAIMS RESULTING FROM INADEQUATE MAINTENANCE BY THE CITY OF PUYALLUP.

FURTHER, THE UNDERSIGNED OWNERS OF THE LAND HEREBY SUBDIVIDED, AGREE FOR THEMSELVES, THEIR HEIRS AND ASSIGNS, TO INDEMNIFY AND HOLD THE CITY OF PUYALLUP, ITS SUCCESSORS AND ASSIGNS, HARMLESS FROM ANY LOSSES, INCLUDING ANY REASONABLE COSTS OF DEFENSE, SUFFERED BY THE CITY OF PUYALLUP, ITS SUCCESSORS AND ASSIGNS, RESULTING FROM CLAIMS FOR DAMAGES BY PERSONS WITHIN OR WITHOUT THIS SUBDIVISION FINALLY ADJUDICATED TO HAVE BEEN CAUSED BY THE NEGLIGENCE OR WRONGFUL ACTS OR OMISSIONS OF THE UNDERSIGNED OWNERS, THEIR EMPLOYEES, AGENTS OR CONTRACTORS, IN ALTERING THE GROUND SURFACE, DRAINAGE OR SURFACE OR SUB-SURFACE WATER FLOWS WITHIN THIS SUBDIVISION, OR IN ESTABLISHING OR CONSTRUCTING THE ROADS WITHIN THIS SUBDIVISION.

PROVIDED, THIS WAIVER AND INDEMNIFICATION SHALL NOT APPLY TO THE EXTENT THAT ANY LIABILITY OR DAMAGES RESULT IN WHOLE OR IN PART FROM THE NEGLIGENCE OR WRONGFUL ACTS OR OMISSIONS OF THE CITY OF PUYALLUP, OR ITS EMPLOYEES, AGENTS, CONTRACTORS, SUCCESSORS OR ASSIGNS.

SUBJECT TO THE TERMS AND CONDITIONS CONTAINED HEREIN, THIS SUBDIVISION, DEDICATION, WAIVER OF CLAIMS AND AGREEMENT TO HOLD HARMLESS IS MADE WITH THE FREE CONSENT AND IN ACCORDANCE WITH THE DESIRES OF SAID OWNERS.

- GENERAL
  - Clearly indicate that all Tracts will be dedicated to the city as open space and/or critical area. The city requires adequate provisions for access and maintenance to all public storm facilities located within these tracts and shall condition the review of the civil plans to provide it.
  - Utility extensions shall be completed prior to building permit issuance.
  - Benchmark and monumentation to the City of Puyallup datum (NAVD 88) will be required as part of this project/plat.
  - Prior to permit approval, the applicant shall provide documentation that the United States Post Office has been contacted to coordinate mailbox locations for the project.
- Submit a comment response letter detailing how each correction has been addressed and confirming that the conditions and standards requested for future permit submittals have either been prepared or will be.

## **Conditions**

Condition Category	Condition	Department	Condition Status
	<p>SPECIFIC ENGINEERING CONDITIONS OF PROJECT APPROVAL:</p> <p>*The project proposed to provide a protective easement of the entire Parcel 0420353009. This easement shall be in place prior to the approval of the final plat.</p> <p>*The project shall extend frontage improvements to the West along 19th Ave SE to tie into the existing curb line. The frontage improvements shall include curb/gutter, sidewalk, storm and half street paving. The storm improvements shall include removal of any existing facilities that don't meet current city standards and installation of required facilities for proper drainage.</p> <p>*Due to the onsite Wetlands the Project is required to meet minimum requirement # 8 of the 2014 ECY SWMMWW. As part of the requirement seasonal high groundwater will need to be determined to have a complete picture of the hydraulics of the Wetlands. Based on this requirement the project shall provide continuous groundwater monitoring through a minimum of one wet season as outlined in the 2014 ECY SWMMWW.</p> <p>*If changes to existing culvert and control structure within the wetlands are proposed as part of the project the applicant shall obtain all required Army Corp of Engineers and WDFW permits for the alterations and work with the wetlands.</p>	Engineering Division	Open
	<p>GENERAL ENGINEERING CONDITIONS OF PROJECT APPROVAL:</p> <p>The following engineering conditions are references to requirements and standards that apply to the development proposal regardless of any specific conditions noted above. This list is intended to assist the applicant with incorporating City requirements into the project design</p>	Development & Permitting Services	Open

Condition Category	Condition	Department	Condition Status
	<p>documents but should not be considered an exhaustive list of all necessary provisions from the Municipal Code, design standards, or the Ecology stormwater manual.</p> <p>GENERAL:</p> <p>*The individual lot designations shall be identified by numerals, starting with numeral one. [PMC 19.02.100]</p> <p>*Indicate a 10-foot private utility easement adjacent to the right-of-way line of the proposed lots. [PMC 17.42]</p> <p>*The following Dedication language shall be provided on the final plat document:</p> <p>FURTHER, THE UNDERSIGNED OWNERS OF THE LAND HEREBY SUBDIVIDED, WAIVE FOR THEMSELVES, THEIR HEIRS AND ASSIGNS, AND ANY PERSON OR ENTITY DERIVING TITLE FROM THE UNDERSIGNED, ANY AND ALL CLAIMS FOR DAMAGES AGAINST THE CITY OF PUYALLUP, ITS SUCCESSORS AND ASSIGNS, WHICH MAY BE OCCASIONED TO ADJACENT LAND BY THE CONSTRUCTION, DRAINAGE OR MAINTENANCE OF DEDICATED ROADS WITHIN THIS SUBDIVISION, OTHER THAN CLAIMS RESULTING FROM INADEQUATE MAINTENANCE BY THE CITY OF PUYALLUP.</p> <p>FURTHER, THE UNDERSIGNED OWNERS OF THE LAND HEREBY SUBDIVIDED, AGREE FOR THEMSELVES, THEIR HEIRS AND ASSIGNS, TO INDEMNIFY AND HOLD THE CITY OF PUYALLUP, ITS SUCCESSORS AND ASSIGNS, HARMLESS FROM ANY LOSSES, INCLUDING ANY REASONABLE COSTS OF DEFENSE, SUFFERED BY THE CITY OF PUYALLUP, ITS SUCCESSORS AND ASSIGNS, RESULTING FROM CLAIMS FOR DAMAGES BY PERSONS WITHIN OR WITHOUT THIS SUBDIVISION FINALLY ADJUDICATED TO HAVE BEEN CAUSED BY THE NEGLIGENCE OR WRONGFUL ACTS OR OMISSIONS OF THE</p>		

Condition Category	Condition	Department	Condition Status
	<p>UNDERSIGNED OWNERS, THEIR EMPLOYEES, AGENTS OR CONTRACTORS, IN ALTERING THE GROUND SURFACE, DRAINAGE OR SURFACE OR SUB-SURFACE WATER FLOWS WITHIN THIS SUBDIVISION, OR IN ESTABLISHING OR CONSTRUCTING THE ROADS WITHIN THIS SUBDIVISION.</p> <p>PROVIDED, THIS WAIVER AND INDEMNIFICATION SHALL NOT APPLY TO THE EXTENT THAT ANY LIABILITY OR DAMAGES RESULT IN WHOLE OR IN PART FROM THE NEGLIGENCE OR WRONGFUL ACTS OR OMISSIONS OF THE CITY OF PUYALLUP, OR ITS EMPLOYEES, AGENTS, CONTRACTORS, SUCCESSORS OR ASSIGNS.</p> <p>SUBJECT TO THE TERMS AND CONDITIONS CONTAINED HEREIN, THIS SUBDIVISION, DEDICATION, WAIVER OF CLAIMS AND AGREEMENT TO HOLD HARMLESS IS MADE WITH THE FREE CONSENT AND IN ACCORDANCE WITH THE DESIRES OF SAID OWNERS.</p>		
	<p>WATER:</p> <p>*The proposed water system shall be designed and constructed to current City (Fire/ Domestic) standards. [PMC 14.02.120]</p> <p>*The water main shall be located generally 10 or 12-feet west or south of roadway centerlines per city standard drawings. [PMC 14.02.120(f) &amp; CS 301.1(11)]</p> <p>*A new water main line shall be extended to, and through, the site sufficient to provide the necessary flows for both the domestic system and fire system. The minimum water pipe size shall be 8-inch diameter. [PMC 14.02.190, 14.20.010 &amp; CS 301.1(1)]</p> <p>*A 1-inch poly line water service including setter and box shall be provided for each building lot and shall be extended 10-feet into each of the</p>	Development & Permitting Services	Open



Condition Category	Condition	Department	Condition Status
	<p>proposed lots. The City will install meters at the time of individual lot development. NOTE: Tract meters, including transmitters, shall be installed by the applicant. [PMC 14.02.220(2) &amp; CS 301.3]</p> <p>*The minimum distance between water lines and sewer lines shall be 10-feet horizontally and 18-inches vertically. If this criterion cannot be met, the applicant shall isolate the sewer and water lines by encasement, shielding, or other approved methods. [PMC 14.02.120(f) &amp; CS 301.1(8)]</p> <p>*Fire hydrants and other appurtenances shall be placed as directed by the Puyallup Fire Code Official. Fire hydrants shall be placed so that there is a minimum of 50-feet of separation from hydrants to any building walls. [PMC 16.08.080 &amp; CS 301.2, 302.3]</p> <p>*Prior to completion of the project, the engineer-of-record shall complete the State Department of Health's "Construction Completion Report for Distribution Main Projects", seal, and provide to the City. [WAC 246-290-120]</p> <p>*For new plats, water connection fees and systems development charges will be assessed at the time of building permit issuance for the individual lots. [PMC 14.02.040, 14.10.030]</p>		
	<p><b>SANITARY SEWER:</b></p> <p>*The proposed sanitary sewer system shall be designed and constructed to current City Standards. [PMC 14.08.040, 14.08.120]</p> <p>*6-inch side sewers shall be extended 15-feet into the proposed lots. [PMC 14.20.010 &amp; CS 401(6)]</p> <p>*The sanitary sewer main shall be located 5-feet east or north of roadway centerlines. [PMC 17.42]</p> <p>*Any portion of a mainline extension located outside City right-of-way must be centered in a 40-foot wide easement granted to the City for maintenance purposes. The easement, if necessary, shall be clearly indicated on the plat</p>	Development & Permitting Services	Open

Condition Category	Condition	Department	Condition Status
	<p>document. [PMC 17.42 &amp; CS 401(14)]</p> <p>*A separate and independent side sewer will be required from the public main to all building sites for each proposed lot. Side sewers shall be extended from the main 15-feet beyond the property line at the building site and shall be 6-inch minimum diameter with a 0.02 foot per foot slope. [PMC 14.08.110 &amp; CS 401(6)]</p> <p>*Side sewers shall have a cleanout at the property line, at the building, and every 100 feet between the two points. [PMC 14.08.120 &amp; CS 401(7)]</p> <p>*Individual grinder pump systems shall comply with City Standard 401 (17) and provide a minimum storage capacity of 220 gallons in accordance with City's Sanitary Sewer Comprehensive Plan.</p> <p>*Any forcemains serving the individual lots shall be privately maintained and located outside the limits of the ROW. Provide a gravity sewer connection between the private forcemain discharge on private property and the public sewer main. Clearly indicate private sewer easement(s) across the individual lots.</p> <p>*Utility extensions shall be completed prior to building permit issuance.</p> <p>*A sanitary sewer system development charge (SDC) will be assessed for each new single family residence and is due at the time of building permit issuance for the individual lot(s). [PMC 14.10.010, 14.10.030]</p> <p>*Sewer connection fees and systems development charges are due at the time of building permit issuance and do not vest until time of permit issuance. [PMC 14.10.010, 14.10.030]</p>		
	<p><b>STORMWATER/ EROSION CONTROL:</b></p> <p>*Stormwater design shall be in accordance with the 2012 Stormwater Management Manual for Western Washington as amended in December,</p>	Development & Permitting Services	Open

Condition Category	Condition	Department	Condition Status
	<p>2014 (The 2014 SWMMWW aka "Ecology Manual").</p> <p>*The applicant shall complete the stormwater flowchart, Figure 3.1, contained in Ecology's Phase II Municipal Stormwater Permit, Appendix I. The completed flowchart shall be submitted with the preliminary stormwater site plan.</p> <p>*The proposed plat shall employ, wherever feasible, low impact development practices to meet the design criteria set forth in PMC 21.10.190, the Ecology Manual Volume III, Chapter 3, and Volume V, Chapter 5.</p> <p>*The applicant is responsible for submitting a preliminary stormwater management site plan (2 sets) which meets the design requirements provided by PMC Section 21.10 and Ecology Manual Volume I, Section 2.5.1. The preliminary stormwater site plan (PSSP) shall be submitted prior to Preliminary Plat approval to ensure that adequate stormwater facilities are anticipated prior to development of the individual lot(s). The preliminary stormwater site plan shall reasonably estimate the quantity of roof and driveway stormwater runoff and the application of On-site Stormwater Management BMPs for the proposed development.</p> <p>*The storm drainage system shall be designed and constructed in accordance with current City Standards. [PMC 17.42]</p> <p>*Preliminary feasibility/infeasibility testing for infiltration facilities shall be in accordance with the site analysis requirements of the Ecology Manual, Volume I, Chapter 3, specifically:</p> <ul style="list-style-type: none"> <li>-Groundwater evaluation, either instantaneous (MR1-5); or continuous monitoring (MR1-9), during the wet weather months (December 21 through April 1).</li> <li>-Hydraulic conductivity testing using the Small Scale Pilot Infiltration Tests (PIT) during the wet</li> </ul>		

Condition Category	Condition	Department	Condition Status
	<p>weather months (December 21 through April 1) unless the site is located on unconsolidated outwash soils. If the site is located on unconsolidated outwash soils, grain size analyses may be</p> <ul style="list-style-type: none"> <li>substituted for the Small Scale PIT test.</li> <li>-Testing to determine the hydraulic restriction layer.</li> </ul> <p>*Public right-of-way runoff shall be detained and treated independently from proposed private stormwater facilities. This shall be accomplished by providing separate publicly maintained storm facilities within a tract or dedicated right-of-way; enlarging the private facilities to account for bypass runoff; or other methods as approved by the City Engineer. [PMC 21.10.190(3)]</p> <p>*Water quality treatment of stormwater shall be in accordance with the Ecology Manual, Volume V.</p> <p>*A maintenance access road and approach will be required to maintain the public storm facilities in Tract B.</p> <p>*A Construction Stormwater General Permit shall be obtained from the Department of Ecology prior to any land disturbing activities such as clearing, grading, excavating and/or demolition.</p> <p>*At the time of civil permit application, the applicant is responsible for submitting a permanent storm water management plan (2 sets) which meets the design requirements provided by PMC Section 21.10. The plan and accompanying information shall provide sufficient information to evaluate the environmental characteristics of the affected areas, the potential impacts of the proposed development on surface water resources, and the effectiveness and acceptability of measures proposed for managing storm water runoff. The findings, existing and proposed impervious area, facility sizing, and overflow control shall be summarized in a written report</p>		



Condition Category	Condition	Department	Condition Status
	<p>(TIR or SSP). [PMC 21.10.190, 21.10.060]</p> <p>*The written technical report shall clearly delineate any offsite basins tributary to the project site and include the following information: [PMC 21.10.060]</p> <ul style="list-style-type: none"> <li>-the quantity of the offsite runoff;</li> <li>-the location(s) where the offsite runoff enters the project site;</li> <li>-how the offsite runoff will be routed through the project site.</li> <li>-the location of proposed retention/detention facilities</li> <li>-and, the location of proposed treatment facilities</li> </ul> <p>*In the event that during civil design, there is insufficient room for proposed stormwater facilities in the area(s) shown on the major plat, the stormwater area(s) shall be increased as necessary so the final design will be in compliance with current City Standards. This may result in the number of lots being reduced, or a reduction in other site amenities. [PMC 21.10.060(4), 21.10.150]</p> <p>*Overflow facilities shall be provided for any proposed detention/retention facilities in accordance with the City Standards. This includes a downstream analysis a minimum of ¼ mile downstream from the site.</p> <p>*Any above-ground stormwater facility shall be screened from public right-of-way and adjacent property per the underlying zoning perimeter buffer requirements in the PMC.</p> <p>*Stormwater R/D facilities shall be a minimum of 20-feet from any public right-of-way, tract, vegetative buffer, and/or property line measured from the toe of the exterior slope/embankment of the facility. [PMC 21.10 &amp; DOE Manual, Vol. V, Pg 10-39 and Pg 10-9]</p> <p>*The proposed project discharges to an adjacent</p>		

Condition Category	Condition	Department	Condition Status																
	<p>wetland. The applicant shall provide a hydrologic analysis which ensures the wetland's hydrologic conditions, hydrophytic vegetation, and substrate characteristics are maintained.</p> <p>*The number of infiltration tests shall be based on the area contributing to the proposed BMP, e.g., one test for every 5,000 sq. ft of permeable pavement, or one test for each bioretention cell. Upon submission of the geotechnical infiltration testing, appropriate long-term correction factors shall be noted for any areas utilizing infiltration into the underlying native soils in accordance with the Ecology Manual, Volume III, Chapter 3.</p> <p>*Construction of frontage improvements associated with this project will likely require extension of the stormwater main to accommodate road runoff.</p> <p>*At the time of civil permit application, all pipe reaches shall be summarized in a Conveyance Table containing the following minimum information and included in the TIR:</p> <table><tr><td>Pipe Reach Name</td><td>Design Flow (cfs)</td></tr><tr><td>Structure Tributary Area</td><td>Pipe-Full Flow (cfs)</td></tr><tr><td>Pipe Diameter (in)</td><td>Water Depth at Design Flow (in)</td></tr><tr><td>Pipe Length (ft)</td><td>Critical Depth (in)</td></tr><tr><td>Pipe Slope (%)</td><td>Velocity at Design Flow (fps)</td></tr><tr><td>Manning's Coefficient (n)</td><td>Velocity at Pipe-Full Flow (fps)</td></tr><tr><td colspan="2">Percent full at Design Flow (%)</td></tr><tr><td colspan="2">HGL for each Pipe Reach (elev)</td></tr></table> <p>*At the time of preliminary plat construction, all storm drains shall be signed as follows:</p> <p>-Publicly maintained stormwater catch basins shall be signed using glue-down markers supplied</p>	Pipe Reach Name	Design Flow (cfs)	Structure Tributary Area	Pipe-Full Flow (cfs)	Pipe Diameter (in)	Water Depth at Design Flow (in)	Pipe Length (ft)	Critical Depth (in)	Pipe Slope (%)	Velocity at Design Flow (fps)	Manning's Coefficient (n)	Velocity at Pipe-Full Flow (fps)	Percent full at Design Flow (%)		HGL for each Pipe Reach (elev)			
Pipe Reach Name	Design Flow (cfs)																		
Structure Tributary Area	Pipe-Full Flow (cfs)																		
Pipe Diameter (in)	Water Depth at Design Flow (in)																		
Pipe Length (ft)	Critical Depth (in)																		
Pipe Slope (%)	Velocity at Design Flow (fps)																		
Manning's Coefficient (n)	Velocity at Pipe-Full Flow (fps)																		
Percent full at Design Flow (%)																			
HGL for each Pipe Reach (elev)																			

Tab No.6

**Property Demolition & Cleanup**

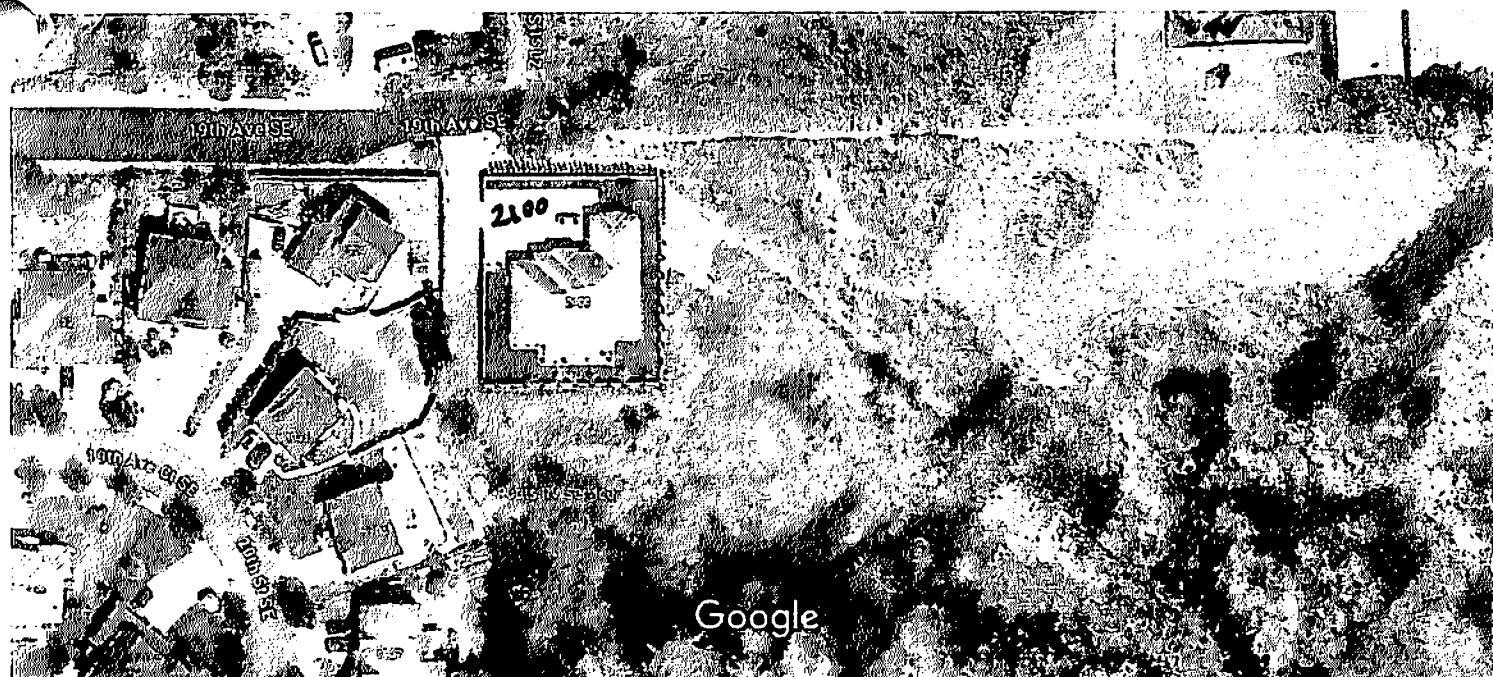
- Big Dog Demolition (2011 - 2012)
- Tacoma Abatement Company (2018)
- DP Excavation (August 2018)
- DM Disposal & Waste Connections (2018)

BIG DOG DEMOLITION

(2011-2012)



Google Maps 2300 19th Ave SE



*Big Dog Demolition* demolished the two original residences construction in 1924 and 1928. The residence at 2100 - 19<sup>th</sup> Avenue Southeast was constructed at their former location.

Alan Blotch

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**From:** Peter Chen <yiping080756@gmail.com>  
**Sent:** Saturday, April 27, 2024 11:43 PM  
**To:** Alan Blotch  
**Subject:** Copy of paychecks  
**Attachments:** scan0016.pdf

Hi Alan,

I am so happy to have you as my environmental consultant.

Attached are copies of 2 paychecks to Big Dog Demo for its combined work of demolishing a remnant of a burned house and removing drums in the property shortly after I brought it.

The owner of Big Dog Demo sold his company to the current owner a few years later and is not reachable now.

Peter

STORE YOUR DUPLICATE CHECKS IN YOUR CHECK BOX.

☒ Track your expenses...

- ☐ Clothing    ☐ Food    ☐ Transportation  
☐ Credit Card    ☐ Utilities    ☐ Mortgage  
☐ Entertainment    ☐ Insurance    ☐ Other: \_\_\_\_\_

☐ TAX-DEDUCTIBLE ITEM

1700

12/10 11

BALANCE FORWARD	
THIS ITEM	8052.00
BALANCE	
DEPOSIT	
OTHER	
BALANCE FORWARD	

Big Dog. Dena  
Eight thousand and 00/100

Daniel H. Fouse



For added security, your name and account number do not appear on this copy.

NOT NEGOTIABLE

STRIKE YOUR UNPAID CHECKS IN YOUR CHECK BOOK

☒ Mark your expenses

- ☐ Clothing
- ☐ Credit Card
- ☐ Entertainment
- ☐ Food
- ☐ Utilities
- ☐ Insurance

- ☐ Transportation
- ☐ Mortgage
- ☐ Other

☐ TRANSFERABLE ITEM

1710

1/25 12

BALANCE FORWARD

THIS ITEM

BALANCE

DEPOSIT

OTHER

BALANCE FORWARD

40697

Big Dog 6.1.2  
Nine thousand nine hundred thirty six and 00/100

Dennis J. Fish



NOT NEGOTIABLE

For added security, your name and account number do not appear on this copy.



TACOMA ABATEMENT COMPANY  
Asbestos Abatement  
(2018)



Notice of Asbestos Removal:

8/10/2018

Completion of Asbestos Clean up  
Concerning:

Completion of the Asbestos Removal at: 2100 19th Ave Se, Puyallup WA 98372

Per the Department of Labor and Industries WAC regulation 296-155(9) Part S, the asbestos containing materials as identified in the lab results provided by CEI labs, has been removed from this property that was affected. Work practices, personal air monitoring and engineering controls have shown the area to be cleared.

If you have any questions please contact me,

Matthew Ware  
Operations Manager  
Tacoma Abatement Company, LLC  
5111 S. Burlington Way, Tacoma, Wa 98409  
Phone: 253-830-5945 Fax: 253-985-0165

Alan Blotch

---

**From:** Alan Blotch  
**Sent:** Tuesday, February 20, 2024 10:49 AM  
**To:** matt@TACabate.com  
**Cc:** yiping chen  
**Subject:** FW: Prior Project Information

Hello Matt,

Were you able to find the documents?  
We are concerned if nothing is included in our Report, Ecology will have questions.  
Thanks for your efforts  
Alan  
(360) 710-5899

**From:** Alan Blotch  
**Sent:** Thursday, February 15, 2024 10:54 AM  
**To:** matt@TACabate.com  
**Cc:** yiping chen <yiping10@hotmail.com>  
**Subject:** Prior Project Information

Hello Matt

Thanks for your callback

Our Firm is preparing a request for No Further Action report to Ecology, and they want all the available info for the following.  
Of course, no one at Ecology ever looks at such info, but I think they just check a box on a form that the info is provided.

Client: Dr. Peter Chen

Site: 2100 – 19<sup>th</sup> Ave Southeast  
Puyallup, WA

"Notice of Asbestos Removal: Completion of Asbestos Removal"  
Letter dated 08/1-/2018

Thanks for your assistance!  
Alan  
(360) 710-5899

Alan Blotch  
Aerotech Environmental Consulting, Inc.  
14247 Ambaum Boulevard SW – Rear  
Burien, Washington 98166  
(360) 710-5899



# Tacoma Abatement Company, LLC

5111 S Burlington Way  
Tacoma, WA 98409

(253) 830-5945  
(253) 276-0267 Fax  
info@tacomaabatement.com

## Invoice

Date	Invoice #
8/9/2018	4407

### Bill To

Peter Chen  
2100 19th Ave SE  
Puyallup, WA 98372  
USA

### Project

Peter Chen  
2100 19th Ave SE  
Puyallup, WA 98372  
USA

P.O. No.	Terms
----------	-------

Net 15

Quantity	Description	U/M	Rate	Amount
	Clean and clear work area, including general debris. Removal of Asbestos Containing Materials		13,200.00	13,200.00T
	Notifications		610.00	610.00T
20	Air Sampling as Required by Washington State		45.00	900.00T
	SALES TAX (SHIP TO: PUYALLUP-2711)		9.90%	1,456.29

To pay by credit card, please visit our website at  
tacomaabatement.com and click on "Pay Your Bill".

EIN: 45-3178053

WA State Contractor: TACOMAC894PE

**Total** \$16,166.29

**Payments/Credits** -58,000.00

**Balance Due** **\$8,166.29**



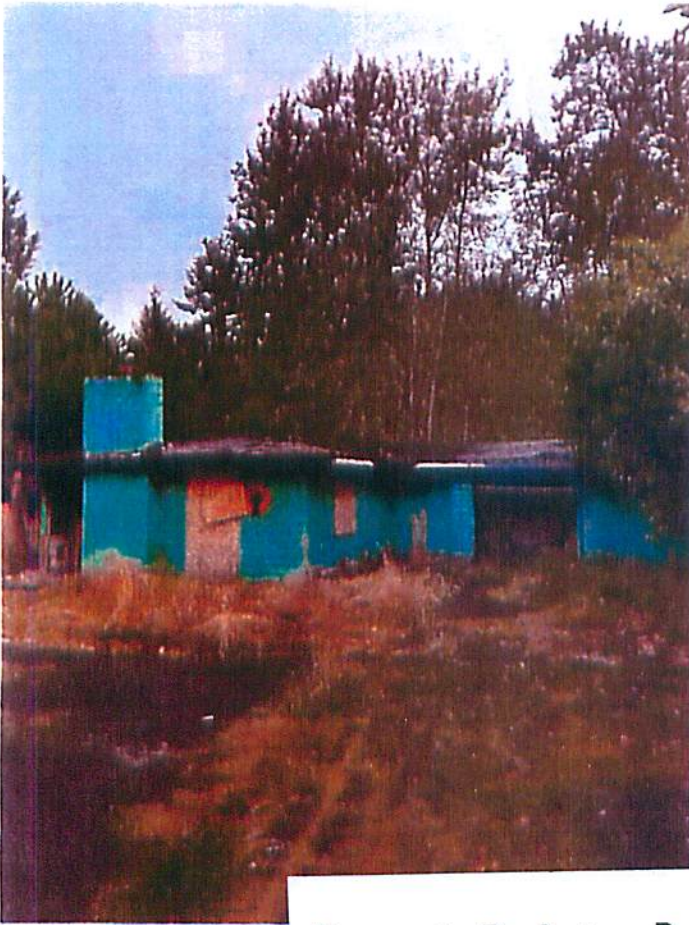
**D.P. EXCAVATION**  
Building Demolition  
(2018)

## Sunset Pointe Demo(August 2, 2018)

by D.P.Excavation







Sunset Pointe Demo(August 2, 2018)







Demolition - Land Clearing - Hauling -  
Septic Systems - Site Development

License #: DPEXCE\*833DC

253-720-7790

11410 316th Street East  
Graham, WA 98338

## INVOICE

Inv. No: 18-00021

August 18, 2018

TO:  
Dr. Peter Chen

Address: 2100 19<sup>th</sup> ave se Puyallup wa

**Scope:** Clean up all garbage and asbestos materials

Original scope of work \$15,000

**TOTAL REQUESTED \$15,000**

**Paid in Full**





Demolition - Land Clearing - Hauling -  
Septic Systems - Site Development

License #: DPEXCE\*833DC  
253-720-7790  
11410 316th Street East  
Graham, WA 98338

## PROPOSAL AND CONTRACT

This agreement is made this 30<sup>th</sup> day of July 2018 between the Contractor, DP Excavation, a Washington sole proprietorship hereinafter "Contractor" and **DR. PETER CHEN AND DR. BETH LIU CHEN** hereinafter "Owner", for the following project:  
**LOAD OUT OF DEMOLITION DEBRIS,**

**Site Address:** 2100 19<sup>TH</sup> AVE.S.E., PUYALLUP, WA

**Parcel No(s):** 0420353026; 042035027; 0420353009; 0420357011 **Legal Description:**

Section 35 Township 20 Range 04 Quarter 33 : PARCEL 1 OF ROS FOR BLA 2018-04-16-5001 POR OF SW DESC AS FOLL COM AT SW COR OF SW TH E ALG S LI 1974.60 TH N 0 DEG 2 MIN 48 SEC W 615.92 FT TH N 0 DEG 2 MIN 48 SEC W 750.69 FT TH N 88 DEG 18 MIN W 617.28 FT TH S 0 DEG 53 MIN 14 SEC W 30 FT TO POB TH S 88 DEG 18 MIN E 60.85 FT TH S 1 DEG 3 MIN 13 SEC W 122.62 FT TH N 87 DEG 52 MIN 20 SEC W 130.65 FT TH N 1 DEG 9 MIN 3 SEC E 121.64 FT TH S 88 DEG 18 E 69.57 FT TO POB SEG F 7515 DC5/29/96JU DC00570389 5/18/18 KG

The Owner and Contractor agree as follows:

### ARTICLE I

The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations or agreements, either written or oral.

### ARTICLE II

#### DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION

The work shall commence no later than 8-2-18 and Substantial completion shall by 8-14-18. **PROPOSAL & CONTRACT-**  
CHEN, PETER & BETH LIU (Page 1 OF 3) Initials py c ps

ARTICLE III  
CONTRACT SUM

The Owner shall pay the Contractor the Contract Sum in current funds for the Contractor's performance of the Contract. The Contract Sum being: **\$15,000.00 (FIFTEEN THOUSAND DOLLARS & ZERO CENTS) Such Sum includes WSST (Sales Tax)**

ARTICLE IV  
PAYMENTS

The Owner agrees to pay the Contractor the Contract Sum as follows: **CONTRACT SUM SHALL BE PAID IN FULL IN CASH UPON COMPLETION.**

ARTICLE V  
DISPUTE RESOLUTION

The Owner and Contractor agree that any disputes will be first subject to non-binding mediation. Each party shall bear their own costs for such mediation. Otherwise, jurisdiction shall be the Superior Court in and for the State of Washington County of Pierce. The American Rule shall apply with respect to any and all attorneys' fees.

ARTICLE VI  
INCLUSIONS

1) LOAD OUT OF DEMOLITION DEBRIS PILES CURRENTLY PILED ON SITE.


ARTICLE VII  
EXCLUSIONS


- 1) Asbestos Abatement;
- 2) Erosion Control shall consist of Straw placed upon footprint area of the debris piles being loaded for removal from site. Any and all other erosion control is expressly excluded;
- 3) ANY AND ALL DEMOLITION DEBRIS SHALL BE HAULED BY WASTE CONNECTIONS AND TIPPING FEES SHALL BE PAID BY OWNER DIRECTLY TO WASTE CONNECTIONS;
- 4) LOADING AND/OR REMOVAL OF ANY CONCRETE DEBRIS FROM SITE IS EXPRESSLY EXCLUDED FROM THE SCOPE OF WORK.

pyc pn

Attached to this Agreement as Exhibit "A" is Contractor's Disclosure in accordance with RCW 18.27 *et seq.*

DATED this 30<sup>TH</sup> Day of July 2018.

By   
Dr. Peter Chen  
Owner 7/31/2018

By   
Paul E. Newton  
Contractor 8-1-18

By \_\_\_\_\_  
Dr. Beth Liu Chen  
Owner

**D.M. DISPOSAL, INC**  
Demolition Debris & Site Cleanup  
(2018)





## D.M. DISPOSAL CO., INC.

POST OFFICE BOX 532  
PUYALLUP, WASHINGTON 98371  
(253) 414-0347

Date: September 15, 2023

RE: Letter of Disposal

Customer: Peter Chen

Site Address: 2100 19<sup>th</sup> Ave SE, Puyallup, WA 98372

Dear Mr. Chen

This is to confirm with you that In July 2018 we hauled all of the demolition debris and site clean up of your property. The entire job was classified as asbestos, and every load was wrapped and processed according to code, and disposed at the LRI Landfill.

The debris consisted of an old house, barns, out buildings, battery casings, tires, and all miscellaneous debris found on the property. If you have any additional questions regarding this project, please let me know.

Sincerely,

John Rush  
Senior Account Manager  
John.Rush@Wasteconnections.com

alan.blotch@earthlink.net

**From:** John Rush <John.Rush@WasteConnections.com>  
**Sent:** Friday, February 23, 2024 8:48 AM  
**To:** Alan Blotch  
**Subject:** RE: Peter Chen Property

Alan –

This is the best I can do to get you this information. The material was disposed at:

**LRI-Landfill – Pierce County**

30919 Meridian St E  
Graham, WA 98338

**Hauls and Loads:**

Date	Total Disposal Weight (lb)	Total Disposal Weight (ton)
8/3/2018	8,840.00	4.42
8/2/2018	10,220.00	5.11
8/2/2018	12,400.00	6.20
8/3/2018	11,640.00	5.82
8/3/2018	12,040.00	6.02
8/7/2018	17,540.00	8.77
8/7/2018	21,840.00	10.92
8/7/2018	25,960.00	12.98
8/7/2018	14,340.00	7.17
8/8/2018	22,040.00	11.02
8/8/2018	24,040.00	12.02
8/8/2018	32,700.00	16.35
8/8/2018	15,180.00	7.59
8/8/2018	22,540.00	11.27
8/9/2018	5.83	0.00

John Rush  
Cell:253.255.5633  
[John.Rush@Wasteconnections.com](mailto:John.Rush@Wasteconnections.com)

125.66 TONS



**From:** Alan Blotch <Alan@dirtydirt.us>  
**Sent:** Wednesday, February 21, 2024 10:12 AM  
**To:** John Rush <John.Rush@WasteConnections.com>  
**Subject:** RE: Peter Chen Property

Alan Blotch

---

**From:** John Rush <John.Rush@WasteConnections.com>  
**Sent:** Wednesday, February 28, 2024 11:10 AM  
**To:** Alan Blotch  
**Subject:** RE: Peter Chen Property

Alan –

It was good to talk with you again today. I wanted to clarify with you every load that we hauled of Mr. Chen's property was hauled as asbestos. Meaning, each container load was double lined, burrito wrapped and disposed at the LRI-304<sup>th</sup> Landfill as such.

The reason that the entire job, or clean up had to be treated and processed that way is because each structure had been caught fire and burned. Due to the age of the structures it was assumed that there must have been some asbestos, and once they have burned there is no way to adequately test for asbestos, so the county requires it all be treated as asbestos.

This came as a significantly higher price to MR. Chen, but it was handled correctly. If you have any questions, please let me know.

**John Rush**  
Cell: 253.255.5633  
[John.Rush@Wasteconnections.com](mailto:John.Rush@Wasteconnections.com)





## D.M. DISPOSAL CO., INC.

POST OFFICE BOX 532  
PUYALLUP, WASHINGTON 98171  
(253) 414-0347

### Proposal/Contract

*Peter - Yiping Chen*

2100 19<sup>th</sup> Ave SE  
Puyallup, WA 98372

*July 25, 2018*

Dear Peter -


The following proposal outlines the cost for hauling ACM (Asbestos Contained Material) demolition debris, from your site in Puyallup, WA. Note,

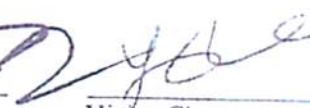
**Proposed Costs For Hauling ACM Demolition Debris:**

- 40-yard Roll Off Container
- Delivery Fee - \$95 per box
- Hauling and Disposal Fee - \$1775 per load
- Maximum tonnage per container is 10 ton

**Total job cost:**

- Estimated number of tons 275
- Total number of hauls 28
- Total cost including tax - \$49,700

  
John Rush  
253.255.5633  
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Yiping Chen

*7/31/2018*