PHASE I ENVIRONMENTAL SITE ASSESSMENT

Conducted On:

JEFFERSON COUNTY TAX PARCELS #901262002, 901262003, 901233010, 901233011, 901224001, 901233002, 901233005 AND 901233008
CHIMACUM, WA 98325

February 19, 2014
Project No: 0214-03

Prepared for:
JEFFERSON LAND TRUST
1033 LAWRENCE STREET
PORT TOWNSEND, WA 98368

Prepared By:

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EXECUTIVE SUMMARY

This report represents the findings of ADESA's Phase I Environmental Site Assessment performed on Jefferson County Tax Parcels #901262002, 901262003, 901233010, 901233011, 901224001, 901233002, 901233005 and 901233008, located at 1594 Center Road Chimacum, WA 98325 (Subject Property, Property, Short Family Farm, Valley View Family Trust) in Sections 22, 23, and 26, Township 29, Range 1W. The Subject Property is located approximately 1½ miles south of the city of Chimacum, WA. Access to the Property is provided by a private road at 1594 Center Road and a pull off associated with a single family residential mobile home on the southeastern corner of the Property. The Chimacum Creek flows south to north through the central area of the Property. Jefferson Land Trust is proposing to purchase a conservation easement on the irregular shaped, approximately 265 acre Subject Property from the current owners Roger Short and the Valley View Family Trust (represented by Roger Short).

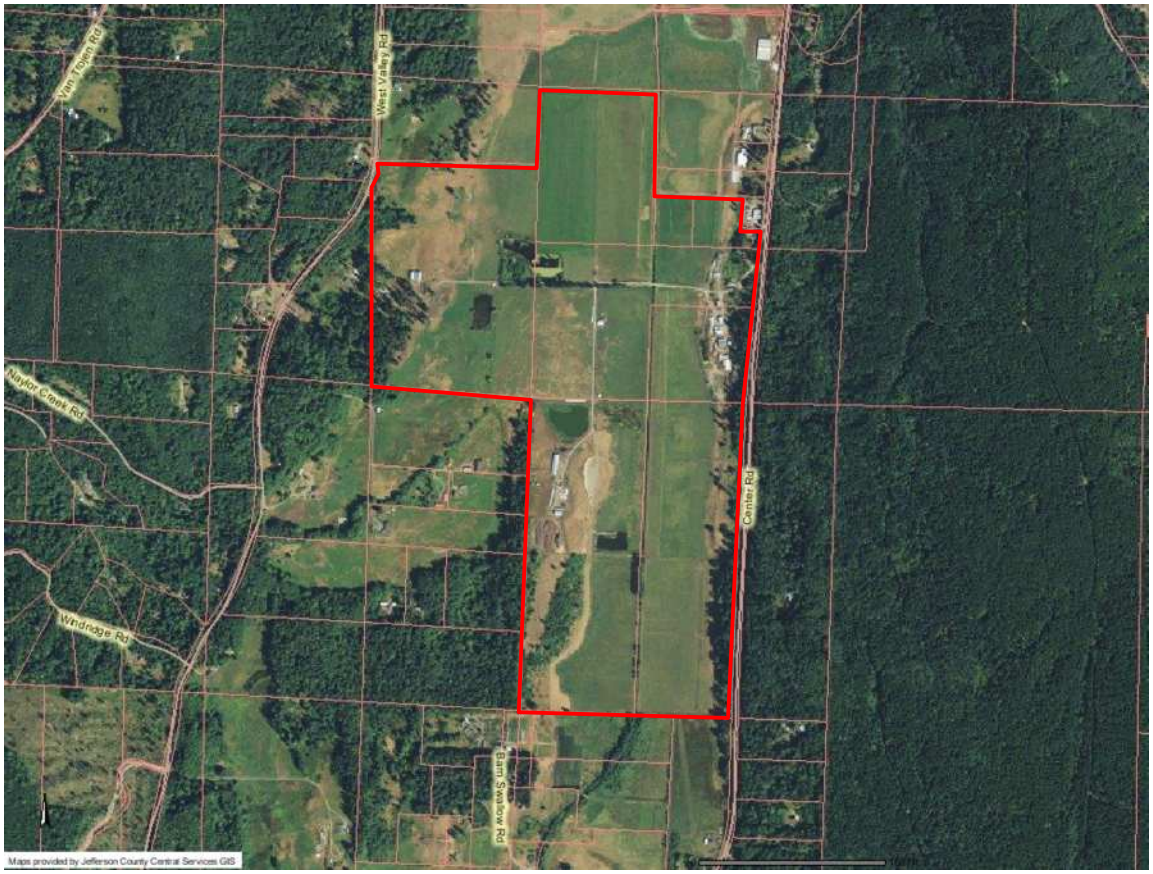

Figure 1.0: 2012 Jefferson Co. Parcel Map (Subject Property Boundary in Red)

Current improvements on the Property include one single family residential structure constructed in the early 1900s with multiple additions (main house), a ~1,600 sqft shop building (circa 1989/90), a ~3,400 sqft milking parlor (circa 1985), a ~4,500 sqft historic barn (circa 1900), a ~300,000 gallon manure lagoon, a ~5,000 sqft hay shed known as the "mound shed" (circa 1900), a 4,000 sqft equipment storage shed (circa 1950's) and a 4,500 sqft material storage shed (soil and compost mixtures) (circa 1982), a ~3 million gallon manure lagoon, a

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~4,000 sqft open air calf shed constructed in 1990, a ~2,200 sqft loafing/hay shed with scales known as the Center Valley Shed (circa 1960's), a ~6,500 sqft covered storage shed built in the 1980s, a ~3,500 sqft barn structure known as the South Shed built in the 1960's, a ~2 acre compost area, a ~0.8 acre borrow area, a ~0.32 acre area used for equipment storage, two ~2,500 sqft loafing/storage sheds known as the "western hay sheds" (circa 1960s), a 60ft domestic well (1991), a ~100ft irrigation well (circa 1950's), two concrete bunker silos, two man-made ponds, an old chicken coop, two single family residential structures constructed in the late 1800s/early 1900s and the 1960s (house near Center Road), a ~1,500 sqft storage shed (circa 1970s) utilized by a landscaping business, a single wide mobile home, a ~1,500 sqft storage shed known as the "lumber shed", a small shed that formerly held the filter system for a former swimming pool, two single wide mobile homes, a 1,000 gallon and a 3,000 gallon waste oil above ground storage tanks (ASTs), two 1,000 gallon diesel/gas ASTs, three ~500 gallon motor oil/gear oil/transmission oil ASTs, two 10,000 gallon irrigation water ASTs, one unused/never installed 1,000 gallon AST and multiple concrete bunker silos. The facility is supplied with power by Jefferson County PUD and domestic water is provided by a private well.

According to Roger Short, current owner and Trust representative, the Property was acquired from his father Norris Short in 1979. The Short Family originally purchased the farm in 1945. Dating back to the late 1800's/early 1900's, the Property has been used for agricultural purposes, including a small commercial dairy and cattle ranch. The Property is currently used for hay and silage production, a commercial composting and compost/topsoil sales operation and a small commercial cattle/beef operation with approximately 250 head of cattle. Areas of the Property are also open to the public for waterfowl hunting as part of the Washington State Department of Fish and Wildlife's (WDFW) Waterfowl Quality Hunt Program (WQHP).

During the initial site inspection performed by ADESA on December 18, 2013, oil/petroleum staining was observed beneath the western end of the 1,000 gallon and 3,000 gallon waste oil above ground storage tanks (ASTs) in the northeastern portion of the Property. The tanks are situated to the southwest of the storage shed rented to a landscaping company near the former location of a swimming pool. The two tanks held waste oil that was used to fire a waste oil burning heater associated with the swimming pool. Also during the inspection of the Property, Mr. Short identified the location of a former 1,000 gallon gasoline underground storage tank that he removed from the Property approximately 20 years ago; no samples were collected at the time of the removal.

To assess the significance of the oil stained soil below the waste oil ASTs and the lack of sampling in the former gasoline UST location, on January 20, 2014, Roger Short removed the area of surface staining beneath the waste oil tanks and ADESA collected soil samples from 1-2 feet below the ground surface (B1 & B2). The samples were submitted for laboratory analysis. The soil samples were non-detect for diesel/oil range petroleum hydrocarbons, benzene, toluene, ethyl benzene and xylenes. The results confirm that the surface staining was of minor significance and represents a de minimis condition and not a recognized environmental condition in relationship to this report. Also on January 20, a test pit investigation was performed in the location of the previously removed gasoline UST. Two soil samples (B3 & B4) were collected from 6-7 feet below the ground surface, beneath the former location of the bottom of the UST, and submitted for laboratory analysis. Both of the samples were non-detect for gasoline range petroleum hydrocarbons and BTEX, and no indications of petroleum impacts

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were observed within the test pit. Based on the results of the soil analysis, the former gasoline UST does not represent a recognized environmental condition.

The environmental database review identified one site within the ASTM search radius with a potential to impact the Property. Lee's Truck Repair, 1520 Center Road, is located on the adjoining parcel north along Center Road from the Property. As a result of the current/former operation of this rural truck repair facility, the soil on this site, and possibly the Property, has been contaminated with diesel and oil range petroleum hydrocarbons. A Site Hazard Assessment, performed by Jefferson County Public Health (JCPH) in 2012, indicates that surface water and waste oil residue from the flat pad adjacent to Center Road and two above ground waste oil tanks is drained through a storm drain system that discharges onto a blackberry covered embankment on the western site of the site directly onto the slope. In 2009, soil samples collected by JCPH from the area below the outfall were analyzed and contained 37,000 mg/kg motor oil and 8,500 mg/kg diesel. Following the initial investigation performed by JCPH, Mr. Lee Short excavated contaminated soil from the area below the stormwater outfall drain pipe and stockpiled the soil on a concrete pad located on the Property, just south of the Lee's Truck Service site along Center Road, on parcel 901233005. Mr. Short also installed a new stormwater outfall pipe. No confirmation soil samples were taken/reported following the removal of the contaminated soil from below the stormwater outfall. During the 2012 Site Hazard Assessment, JCPH collected soil samples from below the new stormwater outfall and the contaminated soil stockpile. The samples collected from below the new outfall contained levels of diesel, motor oil, toluene, xylene, cadmium, chromium and lead below the Model Toxics Control Act (MTCA) Method A Cleanup Levels for Unrestricted Land Use. The samples collected from the contaminated soil stockpile were analyzed for metals only and contained levels of cadmium, chromium, lead and mercury below the Model Toxics Control Act (MTCA) Method A Cleanup Levels for Unrestricted Land Use. The Lee's Truck Repair site is still awaiting cleanup.

ADESA has developed and performed this Phase I Environmental Site Assessment within the scope and limitations of ASTM Practice E 1527-05, and in conformance with the Federal AAI Rules. Any exceptions to, or deletions from, this practice are described in this report. The Phase I Site Assessment of Jefferson County Tax Parcels #901262002, 901262003, 901233010, 901233011, 901224001, 901233002, 901233005 and 901233008 has revealed the following evidence Recognized Environmental Conditions (REC).

- Lee's Truck Service: Stormwater outfall and contaminated soil stockpile

  Based on the proximity of the Property to the current and former stormwater outfall pipes associated with the Lee's Truck Repair site, the incomplete remediation of the petroleum impacts on the Lee's Truck Repair site and the stockpile of contaminated soil that is currently located on a concrete pad in the far northeastern portion of the Property adjoining the Lee's Truck Repair site, soil and groundwater would be required to determine if significant impact have occurred. Given that the Lee's Truck facility appears to be continuing operations, future impacts are also a potential risk.

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Jefferson County Tax Parcels #901262002, 901262003, 901233010, 901233011, 901224001, 901233002, 901233005 and 901233008

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF APPENDICES

PO BOX 1009 ▪ Tenino, WA ▪ 98589
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1.0 INTRODUCTION AND SCOPE OF WORK

This report represents the findings of ADESA's Phase I Environmental Site Assessment performed on Jefferson County Tax Parcels #901262002, 901262003, 901233010, 901233011, 901224001, 901233002, 901233005 and 901233008, located at 1594 Center Road Chimacum, WA 98325 (Subject Property, Property, Short Family Farm, Valley View Family Trust) in Sections 22, 23, and 26, Township 29, Range 1W. Jefferson Land Trust is proposing to purchase a conservation easement on the Property from the current owners Roger Short and the Valley View Family Trust (represented by Roger Short).

1.1 LOCATION AND REAL ESTATE DESCRIPTION

Jefferson County Tax Parcels #901262002, 901262003, 901233010, 901233011, 901224001, 901233002, 901233005 and 901233008 are located in Sections 22, 23, and 26, Township 29, Range 1W.

The following abbreviated legal descriptions were provided by the Jefferson County Assessor Office's online property database:

#901262002 – 50.5 acres in the southeast area of the Property; Structures include one single-wide mobile home manufactured and placed in approximately 1973.

S26 T29 R1W NW1/4(LS PTNS E OF CO RD & W OF VALLEY RIDGELINE

#901262003 – 59 acres in the southwest area of the Property; Structures include a ~3 million gallon manure lagoon, a ~4,000 sqft open air calf shed constructed in 1990, a ~6,500 sqft covered storage shed built in the 1980s, a ~3,500 sqft barn structure known as the South Shed built in the 1960's, a ~2 acre compost area, a ~0.8 acre borrow area, and a ~0.32 acre area used for equipment storage.

S26 T29 R1W NW1/4(W OF VALLEY RIDGELINE)

#901233010 – 16 acres, in the central and eastern areas of the Property; Structures include one single family residential structure constructed in the early 1900s with multiple additions (main house), a ~1,600 sqft shop building (circa 1989/90), a ~3,400 sqft milking parlor (circa 1985), a ~4,500 sqft historic barn (circa 1900), a ~300,000 gallon manure lagoon, a ~5,000 sqft hay shed known as the "mound shed" (circa 1900), a 4,000 sqft equipment storage shed (circa 1950's) and a 4,500 sqft material storage shed (soil and compost mixtures) (circa 1982) and several concrete bunker silos.

S23 T29 R1W S1/2 SW (BETWEEN CO RD & CREEK) LESS N 500' LESS R/W

#901233011 – 30.3 acres in the northern portion of the Property; There are no current or known historic structures

S23 T29 R1W TAX 24 (ENGL BY TAX 25) W/EASE

#901224001 – 61 acres in the northwestern portion of the Property; Structures include two ~2,500 sqft loafing/storage sheds known as the "western hay sheds" (circa 1960s), a 60ft

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domestic well (1991), a ~100ft irrigation well (circa 1950's), two concrete bunker silos, two man-made ponds and an old chicken coop.

S22 T29 R1W E1/2 SE LS R/W LS TX 17

#901233002 – 40 acres in the east-central area of the Property; Structures include two single family residential structures constructed in the late 1800s/early 1900s and the 1960s (house near Center Road), a ~1,500 sqft storage shed (circa 1970s) utilized by a landscaping business, a single wide mobile home, a ~1,500 sqft storage shed known as the "lumber shed", a ~2,200 sqft loafing/hay shed with scales known as the Center Valley Shed (circa 1960's) and a small shed that formerly held the filter system for a former swimming pool. There was previously a swimming pool and a calf barn on this parcel that have been removed.

S23 T29 R1W S1/2 SW1/4 (LS PTN E CO RD) (LS PTN BTWN CO RD & CREEK)

#901233005 – 4.9 acres in the northeastern portion of the Property; Structures include one concrete bunker silo. The silo is location of a diesel and motor oil contaminated soil stockpile associated with a cleanup on the adjoining Property to northeast, Lee's Truck Service, which is owned by Lee Short, Roger Short's brother.

S23 T29 R1W S1/2 NE SW (W OF HWY)LS TX 7,15 LS R/W

#901233008 – 3.2 acres in the northeastern area of the Property; There are no known current or historical structures.

S23 T29 R1W TAX 8

1.2 UTILITIES INFORMATION

The Subject Property has the following utility configuration:

Power – Jefferson County PUD

Waste Water – Septic Systems

Heat – Electric

Water – A 60ft domestic well (1991) and a ~100ft irrigation well (circa 1950's)

1.3 RELATIONSHIP OF THE PURCHASE PRICE TO FAIR MARKET VALUE

The current fair market value appraisal information was not available at the time of this report. Roger Short, owner of the Short Family Farm and representative for the Valley View Family Trust, indicated in the attached pre-survey questionnaire that the price of the conservation easement will be based on the fair market appraisal and that he is not aware of any detrimental environmental conditions that could reduce the value of the Property. There are no indications that the price of the Property will be altered based on any known REC.

1.4 SEARCH FOR ENVIRONMENTAL LIENS OR USE LIMITATIONS

To assess the potential for environmental liens or activity use limitations on the Subject Property, ADESA researched information available at the Jefferson County Auditor's and

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Assessor's Office, Ecology's Environmental Covenant Registry and other pertinent regulatory databases listed in Appendix A of this report. During the course of this investigation, no environmental liens or use limitations were found in connection with the Subject Property other than those associated with the critical areas and their buffers.

1.5 PHYSICAL SETTING OF THE SUBJECT PROPERTY AND VICINITY

The Subject Property is an irregular shaped, approximately 265 acre area composed of pasture, wetland and riparian areas, and uplands developed with agricultural and residential structures. The Subject Property is located in a rural agricultural area approximately 1½ miles south of the city of Chimacum, WA, known as the West Valley. Access to the Property is provided by a private road at 1594 Center Road and a pull off associated with a single family residential mobile home on the southeastern corner of the Property. The northwestern corner of Property parcel 901224001 borders West Valley Road. Chimacum Creek flows from south to north through the central area of the Property in a nearly straight and fairly uniform width channel. Areas of the Property are also open to the public for waterfowl hunting as part of the Washington State Department of Fish and Wildlife's (WDFW) Waterfowl Quality Hunt Program (WQHP). Chimacum Creek discharges to Port Townsend Bay, approximately 4 miles to the northwest.

Based on information obtained from the USFWS National Wetlands Inventory online database, there are Palustrine, Emergent, Seasonally Flooded and Partially Drained/Ditched (PEMCd) wetland areas spread across much of the valley floor in the pasture areas of the Property.

According to 1953 USGS 7.5 Minute Topographic Maps of the Center Quadrangle, the elevation of Subject Property ranges from approximately 120 feet above mean sea level (AMSL) in the valley floor to 176 feet AMSL on the eastern portion of the Property along Center Road.

According to Roger Short there is a 60ft domestic well (1991) and a ~100ft irrigation well (circa 1950's) located on the Property. A well log filed for the 60 foot well was identified in the Washington State Department of Ecology's Well Database. According to the well log, the static water level on the Subject Property was 5 feet below the ground surface (bgs) at the time of its installation in 1991. No well log was discovered for the older, 100 foot well. A copy of the well log is included in the Appendix section of this report. The presumed groundwater flow is to the north (northeast/northwest depending on the location relative to Chimacum Creek).

The soil types on the Subject Property have been identified through the USDA Natural Resource Conservation Service, Web Soil Survey. The dominate soil types on the Subject Property include: Swantown gravelly loam, 0 to 8 percent slopes (SuB); Alderwood gravelly sandy loam, 0 to 15 percent slopes (AlC); Everett gravelly sandy loam, 0 to 15 percent slopes (EvC); Semiahmoo muck (Se); Semiahmoo muck, moderately shallow variant (Sh); Kitsap gravelly loam, 15 to 30 percent slopes; Snohomish silty clay loam (So); Sinclair gravelly sandy loam, 0 to 15 percent slopes (SnC); and Swantown gravelly sandy loam, 0 to 8 percent slopes (StB).

The Property contains areas within the 100 year flood plain, Zone A, as identified on FEMA Map Panel 5300690435B dated July 19, 1982. Copies of the web soil survey, wetlands inventory map, nearby well logs and the FEMA Firmettes are included in the Appendix of this report.

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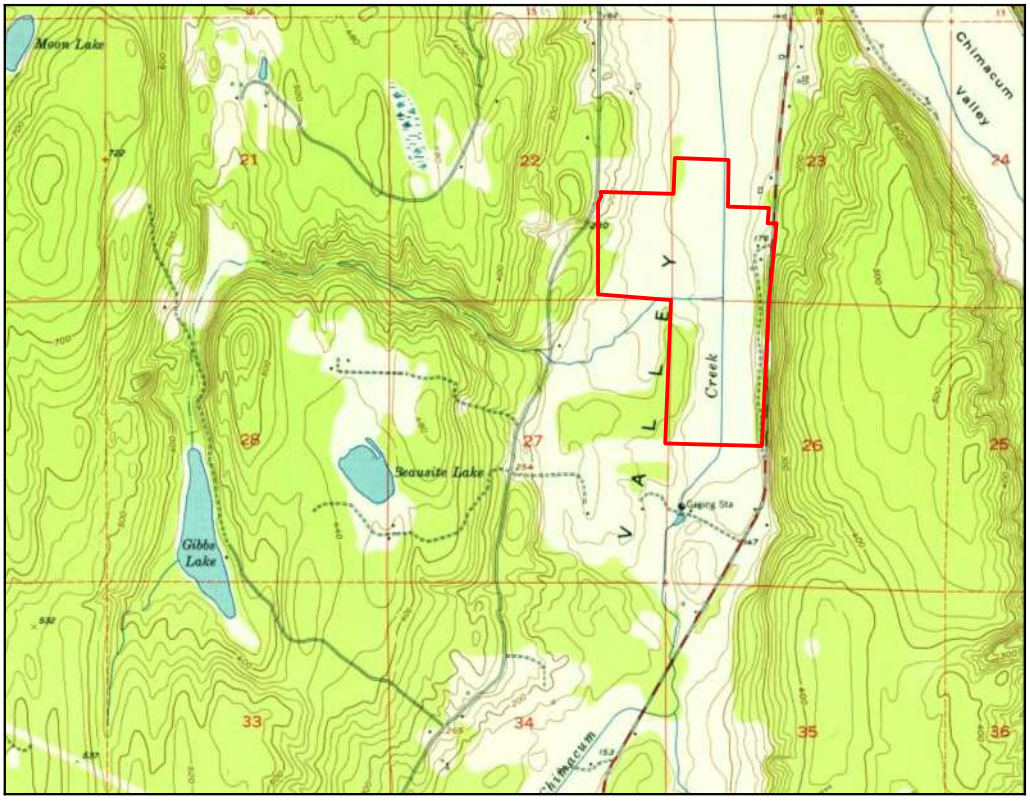

Figure 2.0: 1995 USGS Topographic Map (Subject Property Boundary in Red)

1.6 SCOPE OF WORK

This ESA has been completed at the request of the Jefferson Land Trust to satisfy the due diligence requirement necessary to qualify for the innocent purchaser defense to CERCLA environmental liability. Specifically, this means the practices that constitute all appropriate inquiry into the previous ownership and uses of the property, consistent with good commercial or customary practice, to identify any current or historic Recognized Environmental Conditions (REC/HREC). The scope-of-work for this ESA adheres to the American Society for Testing and Materials (ASTM) Standard Practice for Environmental Site Assessments (E 1527-05) and the United States Environmental Protection Agency (USEPA) All Appropriate Inquiry (AAI) Final Rule, 40 C.F.R. Part 312.

- ASTM Standard E 1527-05 defines a REC as:

  "The presence or likely presence of hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include de minimis conditions that generally do not present a material risk of harm to public health or the environment and that generally would

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not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies."

2.0 HISTORICAL USE INFORMATION

Historical records including aerial photographs, topographic maps, Metsker maps, Sanborn maps, city directories and property records pertaining to the previous uses and development of the Subject Property were searched for, reviewed or obtained by ADESA from various sources including:

- Washington State Department of Transportation (WSDOT)
- Washington State Library
- Washington State Department of Natural Resources (DNR)
- Washington State Department of Ecology (Ecology)
- Washington State Archives Office
- University of Washington Library's Map Collection & Cartographic Information Services Unit
- Washington State University Online Digital Map Collection (WSU)
- Evergreen State College Library (TESC)
- Timberland Regional Library System
- Jefferson County Offices (Assessor, Auditor, Health Department/Environmental Health)
- Washington State Department of Fish and Wildlife (WDFW)
- Microsoft Research Maps online (http://msrmaps.com/)

Date	Information Obtained	Source
Late 1800's/Early 1900's	Construction timeframe for the two older residential structures and the two oldest agricultural structures currently located in the eastern developed area of the Property along Center Road.	Site visit and interview conducted with the current owner of the Property, Roger Short
1936	The majority of the Property is owned by Arthur W. Cays and approximately 50 acres of the southern portion of the Property is owned by Jefferson County. The Metsker Maps do not depict structures.	Metsker Map of Jefferson County reviewed at the Washington State Library.
1936	Four structures are depicted in the approximate locations of the oldest barn, storage and residential structures on the eastern side of the Property, along Center Road.	USGS 1:62500 Scale Topographic Map of the Quilcene Quadrangle reviewed online at the USGS Map Store https://store.usgs.gov
1942	Development on the Property appears limited to the eastern portion along Center Road. The upland area on parcel 901262003 is forested and no	Aerial photograph reviewed online at the Washington State Department of Ecology's Coastal Atlas. https://fortress.wa.gov/ecy/coastalatla

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Phone: 360-701-8797 ▪ Fax: 360-264-2028 ▪ email: wrutherford@adesa-wa.com

	structures are visible. Neither of the manure lagoons have been created, nor the man made ponds. The surrounding areas to the north and south appear to be in agriculture use with sparse structural developments including rural residential and agricultural structures. Areas to the east and west of the Property appear similar to current conditions.	s/
1943	The majority of the Property is owned by Arthur W. Cays and approximately 50 acres of the southern portion of the Property is owned by Hanna Williams and another ~15 acres is owned by William Eldridge. The Metsker Maps do not depict structures.	Metsker Map of Jefferson County reviewed at the Washington State Library.
1945	Date that the Short Family purchased the majority of the Property.	Personal interview with Roger Short
1951	The Property appears similar to the 1942 photograph described above.	Aerial Photograph reviewed on the USGS Earth Explorer online database. http://earthexplorer.usgs.gov/
1952	The majority of the Property is owned by W.H. & N.W. Short and approximately 50 acres of the southern portion of the Property is owned by Earl Gould, ~15 acres is owned by Hanna Williams and another ~15 acres is owned by William Eldridge. The Metsker Maps do not depict structures.	Metsker Map of Jefferson County reviewed at the Washington State Library.
1953	Three structures are depicted on the Property in the approximate location of the two older residential structures and the old barn on the eastern edge of the Property along Center Road.	USGS 1:24000 Scale Topographic Map of the Center Quadrangle reviewed online at the USGS Map Store https://store.usgs.gov
1950's and 1960's	Period of expansion on the Property. Many of the current ancillary agricultural structures were constructed in this timeframe.	Site visit and interview conducted with the current owner of the Property, Roger Short
1968	The resolution of the image prevents a detailed assessment of the improvements on the Property; however the majority of the Property appears similar to current conditions. The upland area on parcel 901262003	Aerial Photograph reviewed on the USGS Earth Explorer online database. http://earthexplorer.usgs.gov/

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	is forested and appears undeveloped. Neither of the manure lagoons have been created, nor the man made ponds.	
1974	The third permanent residential structure was built on the Property just off Center Road on the north side of the main entrance to the Short Family Farm.	Jefferson County Assessor's Records
1978	The ownership of the Property is split between Norris Short and G.D. Short. The Metsker Maps do not depict structures.	Metsker Map of Jefferson County reviewed at the Washington State Library.
1979	The resolution of the image prevents a detailed assessment of the improvements on the Property; however the majority of the Property appears similar to current conditions. The large forested area currently located east of the Property appears to have been recently logged.	Aerial Photograph reviewed on the USGS Earth Explorer online database. http://earthexplorer.usgs.gov/
1994	The Property and surrounding areas appear similar to current conditions.	Aerial photograph reviewed online at http://www.co.jefferson.wa.us/idms/mapserver.shtml
1996	The ownership of the Property is split between Roger Short and Valley View N&L Family Trust. The Metsker Maps do not depict structures.	Metsker Map of Jefferson County reviewed at the Washington State Library.
1997	Eleven structures are depicted on the Property in the approximate locations of the developments currently present.	USGS 1:24000 Scale Topographic Map of the Center Quadrangle reviewed online at the USGS Map Store https://store.usgs.gov
2000, 2005, 2006, 2009, 2011	The Property and surrounding areas appear similar to current conditions.	Aerial photograph reviewed online at http://www.co.jefferson.wa.us/idms/mapserver.shtml

The property is not covered by Sanborn Maps or any city directories. The review of the historical use information above has revealed no REC. The current uses of the Property include a yard waste composting facility with retail topsoil and compost available, livestock related agricultural, hay production, and rural residential. The historic references reviewed for this assessment suggest that the Subject Property has been used for livestock related agricultural, hay production, and rural residential purposes dating back to the 1940's, as a small family dairy in the 1980's and 1990's, and as a rural homestead back to the 1800's/early 1900's. Prior to the first development, the Property was likely undeveloped forest and floodplain.

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3.0 INTERVIEWS

ADESA contacted local government agencies to identify any current or historical information or reports of hazardous materials usage, storage, and/or releases that may have impacted the Subject Property. ADESA made reasonable efforts to contact previous property owners and conducted interviews modeled after the ASTM derived ADESA Phase I ESA User questionnaire (See Appendix C). Some previous property owners were not contacted due to the lack of usable contact information, and/or the likelihood that any information provided would be duplicative.

Interviewee	Information Obtained	Date/Style
Roger Short, (owner) Short Family Farm and representative for the Valley View Family Trust	Mr. Short provided ADESA with a guided tour of the Property and provided a description of the current and historic operations. Mr. Short has lived on the Property since 1945. Mr. Short further stated that he is unaware of any current or historic land uses that could have led to detrimental environmental conditions on the Property. A copy of Mr. Short's completed questionnaire is included in the Appendix of this report.	12/17/2013 Environmental Questionnaire
Cathy Avery Public Health Assistant Jefferson County Public Health	Ms. Avery reviewed the Jefferson County permitting/land use/general complaint database and found no information to suggest the use of petroleum underground storage tanks or hazardous materials storage has occurred on the Subject Property. The following records of interest were identified within the Jefferson County files on the Property: • On parcel 901262003 there is a complaint from 2005 regarding "dumping large amounts of fill". This is a Department of Community Development (DCD) complaint that is still pending. There have been no DCD actions as far as Ms. Avery could tell and there were no additional records regarding this complaint. • On parcel 901233010 the septic permit was not finalized, see note in the file SEP85-00177 (attached in Appendix) • On parcel 901233002 there is a house, Assessor records indicate built 1974. Septic permits were required at this time but we have no records for the residence. • On parcel 901262002, Assessor records show a mobile home built 1978. Septic permits were required at this time but we have no records for the residence.	1/16/2014 Email and Telephone

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Marjorie Boyd, Jefferson County Public Health	Ms. Boyd provided information and answered questions regarding the 2012 Site Hazard Assessment she conducted on the Lee's Truck Repair Facility. The information provided by Ms. Boyd is included in the discussion of the Lee's Truck Repair in the following section of this report.	Telephone Interview 2/19/2014

4.0 REGULATORY AND ENVIRONMENTAL DATABASE REVIEW

As part of this assessment, ADESA performed a review of pertinent Local, State and Federal databases in search of potential documented Recognized Environmental Conditions (REC) in association with the Subject Property and/or properties within a 1-mile search radius. The regulatory database search information is presented in Appendix A of this report and is consistent with that specified by ASTM Standard E 1527-05 for government records review. Further, governmental databases not identified below indicate that no sites fitting those criteria exist within the ASTM specified search radius or were otherwise determined to be of no significance to this investigation. For a full listing of the governmental databases reviewed, see Appendix A.

The Property was identified under the names "Valley View Dairy Chimacum", Water Quality Program facility id: 7539286, in regards to the dairy/manure lagoons, and "Valley View Dairy Compost", Solid Waste-Waste 2 Resources facility id: 9590129, regarding the active composting operation. The Property was not identified on any State or Federal regulatory databases reviewed for this report that could be construed as a recognized environmental condition. The following summarizes the essential finding of the environmental database review.

Federal NPL

The National Priorities List (NPL) is the Environmental Protection Agency (EPA) database of uncontrolled or abandoned hazardous waste sites identified for priority remedial actions under the Superfund Program.

No NPL sites are located within one mile of the Property.

Federal CERCLIS List

The Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) list is a compilation of sites that the EPA has investigated or is currently investigating for a release or threatened release of hazardous substances.

No CERCLIS sites were listed within one-half mile of the Property.

Federal CERCLIS NFRAP Sites List

The CERCLIS No Further Remedial Action Planned (NFRAP) List is a compilation of sites that the EPA has investigated, and has determined that the facility does not pose a threat to human health or the environment, under the CERCLA framework.

No CERCLIS NAFRAP sites were listed within one-half mile of the Property.

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Federal Resource Conservation and Recovery Act (RCRA) CORRACTS TSD Facilities List

The EPA Resource Conservation and Recovery Act (RCRA) Program identifies and tracks hazardous waste from the point of generation to the point of disposal. The RCRA Treatment, Storage and Disposal (TSD) database is a compilation by the EPA of reporting facilities that treat, store or dispose of hazardous waste. The CORRACTS database is the EPA's list of treatment storage or disposal facilities subject to corrective action under RCRA.

No RCRA CORRACTS TSD facilities are listed within one mile of the Property.

Federal Resource Conservation and Recovery Act (RCRA) Non-CORRACTS TSD Facilities List

The RCRA TSD database is a compilation by the EPA of reporting facilities that treat, store or dispose of hazardous waste.

No RCRA TSD sites are listed within one-half mile of the Property.

Federal RCRA Generator List

The RCRA program identifies and tracks hazardous waste from the point of generation to the point of disposal. The RCRA Generators database is a compilation by the EPA of reporting facilities that generate hazardous waste.

No Generator facilities are listed on or adjacent to the Property.

Federal Emergency Response Notification System (ERNS)

The Emergency Response Notification System (ERNS) is a national database used to collect information or reported release of oil or hazardous substances.

No ERNS sites were listed on the Property or on the adjacent properties.

US Engineering Controls/US Institutional Controls

Listings of sites with imposed engineering or institutional controls.

No US Engineering Controls/US Institutional Controls sites were identified within one-half mile of the Property.

State Priority List

The Washington State Department of Ecology maintains a State Priority List (SPL) or Hazardous Sites List (HSL) of sites that have been ranked by Ecology using the Washington Ranking Method (WARM). The HSL database is the state NPL equivalent in Washington.

One HSL site was identified within one mile of the Property:

- Lee's Truck Repair, 1520 Center Road, is located on the adjoining parcel north along Center Road from the Property. As a result of the former operation of this rural truck repair facility, the soil on this site has been contaminated with diesel and oil range petroleum hydrocarbons. Based on work conducted by the Jefferson County Public

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Health (JCPH) in 2009 and 2012, including a 2012 Site Hazard Assessment performed on behalf of Ecology, it appears that soil and possibly groundwater has been contaminated with diesel/oil range petroleum hydrocarbons and low levels of metals as a result of the commercial truck service located on this site. The Site Hazard Assessment indicates that surface water and waste oil residue from the flat pad adjacent to Center Road and two above ground waste oil tanks is drained through a storm drain system that discharges onto a blackberry covered embankment on the western site of the site directly onto the slope.

In 2009, soil samples collected by JCPH from the area below the outfall were analyzed and contained 37,000 mg/kg motor oil and 8,500 mg/kg diesel. Following the initial investigation performed by JCPH, Mr. Lee Short excavated contaminated soil from the area below the stormwater outfall drain pipe and stockpiled the soil on a concrete pad located on the Property, just south of the Lee's Truck Service site along Center Road, on parcel 901233005. Mr. Short also installed a new stormwater outfall pipe. No confirmation soil samples were taken/reported following the removal of the contaminated soil from below the stormwater outfall.

During the 2012 Site Hazard Assessment, JCPH collected soil samples from below the new stormwater outfall and the contaminated soil stockpile. The samples collected from below the new outfall contained levels of diesel, motor oil, toluene, xylene, cadmium, chromium and lead below the Model Toxics Control Act (MTCA) Method A Cleanup Levels for Unrestricted Land Use. The samples collected from the contaminated soil stockpile were analyzed for metals only and contained levels of cadmium, chromium, lead and mercury below the Model Toxics Control Act (MTCA) Method A Cleanup Levels for Unrestricted Land Use.

Based on the proximity of the Property to the current and former stormwater outfall pipes associated with the Lee's Truck Repair site, the incomplete remediation of the petroleum impacts on the Lee's Truck Repair site and the stockpile of contaminated soil that is currently located on a concrete pad in the far northeastern portion of the Property adjoining the Lee's Truck Repair site, additional samples would be required to determine if significant impact have occurred. Given that the Lee's Truck facility appears to be continuing operations, future impacts are also a potential risk.

State CERCLIS-Equivalent List

The Washington State Department of Ecology maintains a State CERCLIS-equivalent list (SCL) or Confirmed or Suspected Contaminated Sites List (CSCSL), of sites under investigation that could be actually or potentially contaminated and presenting a possible threat to human health and the environment. The CSCSL database is the state CERCLIS equivalent in Washington

One CSCSL sites were identified within one mile of the Property:

- Lee's Truck Repair, 1520 Center Road. This site is discussed in more detail in the HSL discussion above.

Solid Waste Facilities/Landfill Facilities (SWF/LF)

A database of SWF/LF is prepared by the Washington State Department of Ecology.

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One SWF/LF facilities are listed within one-half mile of the Property:

The Property was identified under the name "Valley View Dairy Compost", Solid Waste-Waste 2 Resources facility id: 9590129, regarding the active composting operation. No violations where found/reported.

State Leaking Underground Storage Tank List (LUST)

The Washington State Department of Ecology compiles lists of all leaks of hazardous substances from underground storage tanks.

No active LUST sites are listed within one-half mile of the Property.

State Underground Storage Tank List (UST)

The Washington State Department of Ecology compiles a list of UST locations.

No registered UST facilities are listed on the sites adjoining the Property.

Interim Cleanup Report Sites (ICR)

The Washington State Department of Ecology compiles a list of facilities that have submitted remedial action reports to Ecology.

No ICR facilities were identified within one half mile from the Property.

Voluntary Cleanup Program (VCP)

The Washington State Department of Ecology compiles a list of VCP facilities.

There are no active VCP facilities listed within one half mile from the Property:

The remaining databases reviewed for this report either do not have listings within the ASTM search radius or do not, by their nature, provide information suggestive of environmental threats or concerns.

5.0 SITE INSPECTION DETAILS

On December 18, 2013, Mr. William W. Rutherford (ADESA) inspected the Subject Property for signs of current/historic recognized environmental conditions (REC). Mr. Roger Short, current owner of the Property, provided site access and answered general questions related to the site layout and operations. The majority of the Subject Property is pasture with riparian and seasonally flooded wetland areas near the Chimacum Creek. Development on the Property has been focused in several areas: the upland areas along Center Road, and the upland areas in the northwestern and southwestern portions of the Property.

Current improvements on the Property include one single family residential structure constructed in the early 1900s with multiple additions (main house), a ~1,600 sqft shop building (circa 1989/90), a ~3,400 sqft milking parlor (circa 1985), a ~4,500 sqft historic barn (circa 1900), a ~300,000 gallon manure lagoon, a ~5,000 sqft hay shed known as the "mound shed"

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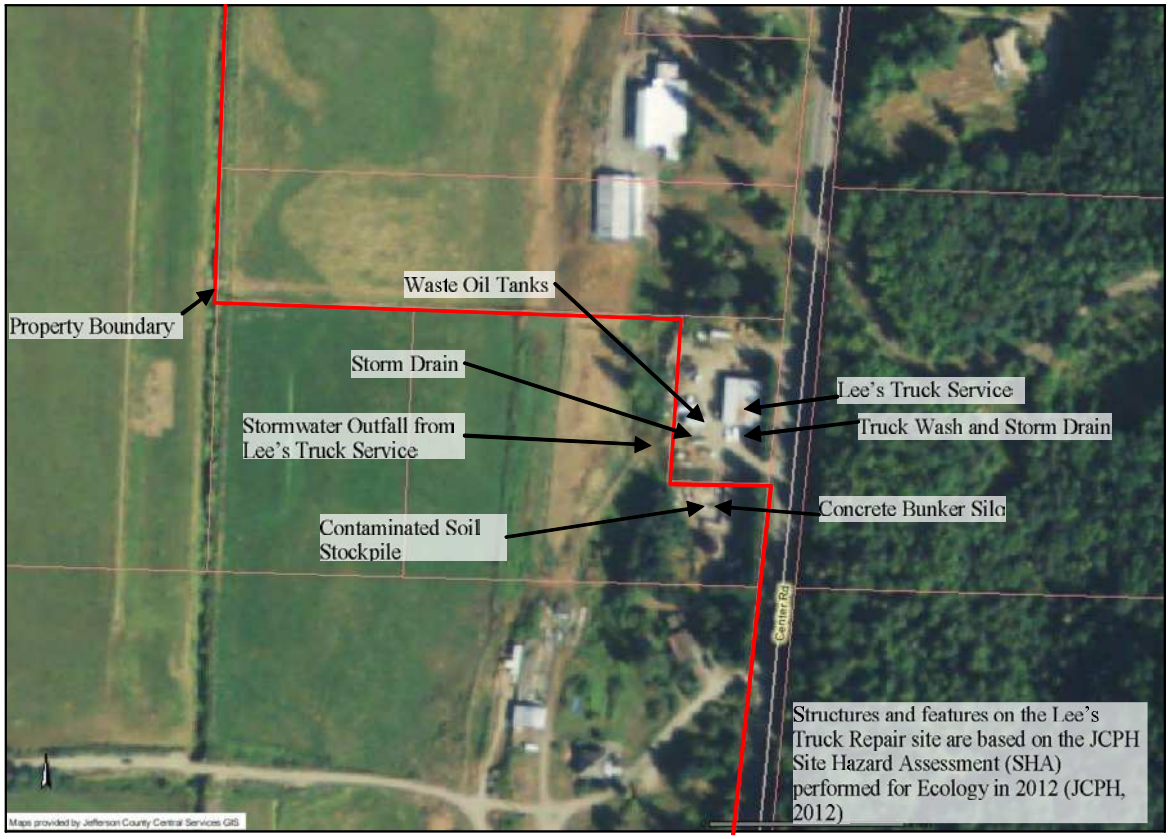
(circa 1900), a 4,000 sqft equipment storage shed (circa 1950's) and a 4,500 sqft material storage shed (soil and compost mixtures) (circa 1982), a ~3 million gallon manure lagoon, a ~4,000 sqft open air calf shed constructed in 1990, a ~2,200 sqft loafing/hay shed with scales known as the Center Valley Shed (circa 1960's), a ~6,500 sqft covered storage shed built in the 1980s, a ~3,500 sqft barn structure known as the South Shed built in the 1960's, a ~2 acre compost area, a ~0.8 acre borrow area, a ~0.32 acre area used for equipment storage, two ~2,500 sqft loafing/storage sheds known as the "western hay sheds" (circa 1960s), a 60ft domestic well (1991), a ~100ft irrigation well (circa 1950's), two concrete bunker silos, two man-made ponds, an old chicken coop, two single family residential structures constructed in the late 1800s/early 1900s and the 1960s (house near Center Road), a ~1,500 sqft storage shed (circa 1970s) utilized by a landscaping business, a single wide mobile home, a ~1,500 sqft storage shed known as the "lumber shed", a small shed that formerly held the filter system for a former swimming pool, two single wide mobile homes, a 1,000 gallon and a 3,000 gallon waste oil above ground storage tanks (ASTs), two 1,000 gallon diesel/gas ASTs, three ~500 gallon motor oil/gear oil/transmission oil ASTs, two 10,000 gallon irrigation water ASTs, one unused/never installed 1,000 gallon AST and multiple concrete bunker silos. The facility is supplied with power by Jefferson County PUD and domestic water is provided by a private well. See the chart below and the photograph Appendix for additional details.



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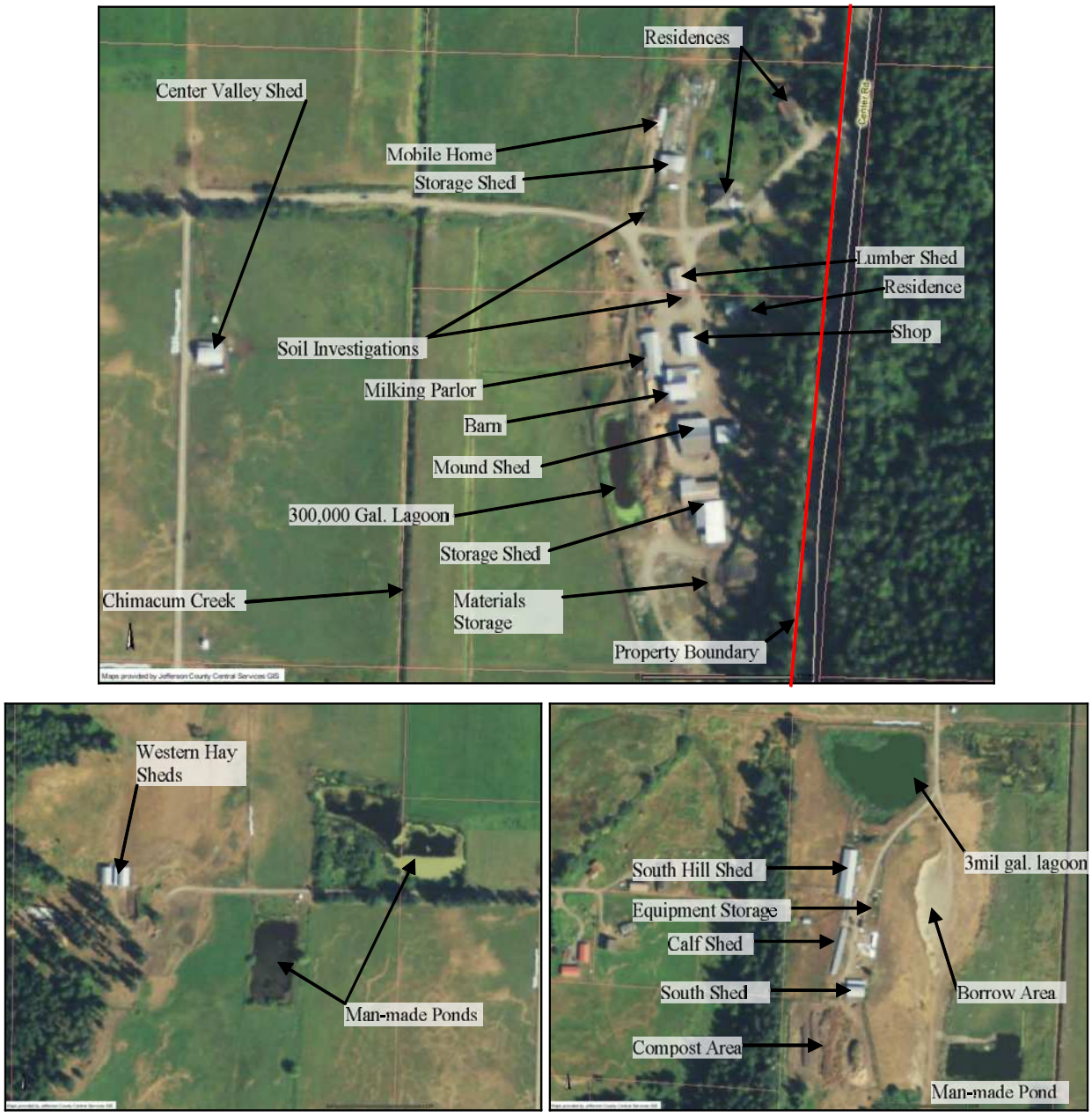

Figure 3.0: Property Detail Map (northeastern developments including Lee's Truck Service, top; eastern developments, middle; northwestern developments, bottom left; southwestern developments, bottom right)

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Condition or Feature	Present	REC	Reference Sources
Petroleum Underground Storage Tank (UST)	No	No	Site Visit, Personal Interviews, Jefferson Co. Environmental Health, WA State Department of Ecology. Historically the site operated a gasoline UST, which was removed approximately 20 years ago. See discussion below for additional details.
Petroleum Aboveground Storage Tank (AST)	Yes	No	Site Visit, Personal Interviews. At the time of the site inspection, the facility operated five petroleum ASTs associated with the lumber shed, used for maintaining farm machinery, and two petroleum ASTs associated with the heating system for a swimming pool (no longer present). See discussion below for additional details.
Vapor Encroachment Condition (VEC)	No	No	No REC or likely contamination on the Subject Property or nearby sites base on environmental records review
Asbestos Containing Building Materials (ACM)	Possible	No	Site Visit. Copies of the asbestos building inspections for the current structures were not available for review.
Lead paint	Possible	No	Site Visit, based on the age of the structures on the Property, the use of lead paint is possible. No lead surveys were identified in the research or provided to ADESA.
Drainage points	Yes	No	Site Visit, interview with Roger Short. The agricultural buildings on the eastern portion of the Property drain to the 300,000 gallon manure lagoon in that area. Developed areas in the southwestern portion of the Property drain to the 3 million gallon manure tank in that area. There are three manmade ponds in the northwest-central area of the Property. The remaining

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Phone: 360-701-8797 ▪ Fax: 360-264-2028 ▪ email: wrutherford@adesa-wa.com

			areas drain to Chimacum Creek.
Dumping	Possibly	No	Site Visit, Jefferson County On parcel 901262003 there is a complaint from 2005 regarding "dumping large amounts of fill". This is a Department of Community Development (DCD) complaint that is still pending. There have been no DCD actions as far as Ms. Cathy Avery, Jefferson County, could tell and there were no additional records regarding this complaint.
Odors	No	No	Site Visit
Pools of liquids	No	No	Site Visit
Operation or management of equipment potentially containing PCBs	No	No	Site Visit
Surface stains	Yes	No	Site Visit, see discussion below
Stressed vegetation	No	No	Site Visit
Areas that are apparently filled or graded by non-natural causes	Yes	No	Site Visit. Man made ponds and lagoons, soil borrow area, retaining walls, peat/muck harvesting
Wells	Yes	No	Site Visit, Ecology Well Log Database. One 60ft domestic well (1991), and one ~100ft irrigation well (circa 1950's)
Septic, sewage, and/or waste water	Yes, Septic	No	Site Visit, information provided by the current owner, Jefferson County Environmental Health

During the initial site inspection performed by ADESA on December 18, 2013, retail size containers and 55-gallon drums of motor oil, gear oil and other common farm equipment maintenance materials were observed in and around the shop building. No significant petroleum staining was observed around these materials; however, for long term storage these materials should be stored on an impervious surface and protected from weather.

ADESA also observed oil/petroleum staining beneath the western end of the 1,000 gallon and 3,000 gallon waste oil above ground storage tanks (ASTs). The tanks are situated to the southwest of the storage shed rented to a landscaping company near the former location of a swimming pool. The two tanks held waste oil that was used to fire a waste oil burning heater associated with the swimming pool. Also during the inspection of the Property, Mr. Short identified the location of a former 1,000 gallon gasoline underground storage tank that he removed from the Property approximately 20 years ago; no samples were collected at the time of the removal.

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To assess the significance of the oil stained soil below the waste oil ASTs and the lack of sampling in the former gasoline UST location, on January 20, 2014, Roger Short removed the area of surface staining beneath the waste oil tanks and ADESA collected soil samples from 1-2 feet below the ground surface (B1 & B2). The samples were submitted for laboratory analysis. The soil samples were non-detect for diesel/oil range petroleum hydrocarbons, benzene, toluene, ethyl benzene and xylenes. The results confirm that the surface staining was of minor significance and represents a de minimis condition and not a recognized environmental condition in relationship to this report. Also on January 20, 2014, a test pit investigation was performed in the location of the previously removed gasoline UST. Two soil samples (B3 & B4) were collected from 6-7 feet below the ground surface, beneath the former location of the bottom of the UST, and submitted for laboratory analysis. Both of the samples were non-detect for gasoline range petroleum hydrocarbons and BTEX, and no indications of petroleum impacts were observed within the test pit. Based on the results of the soil analysis, the former gasoline UST does not represent a recognized environmental condition. Laboratory Documentation is provided in Appendix E of this report and a photograph log of the investigation is presented in Appendix C.

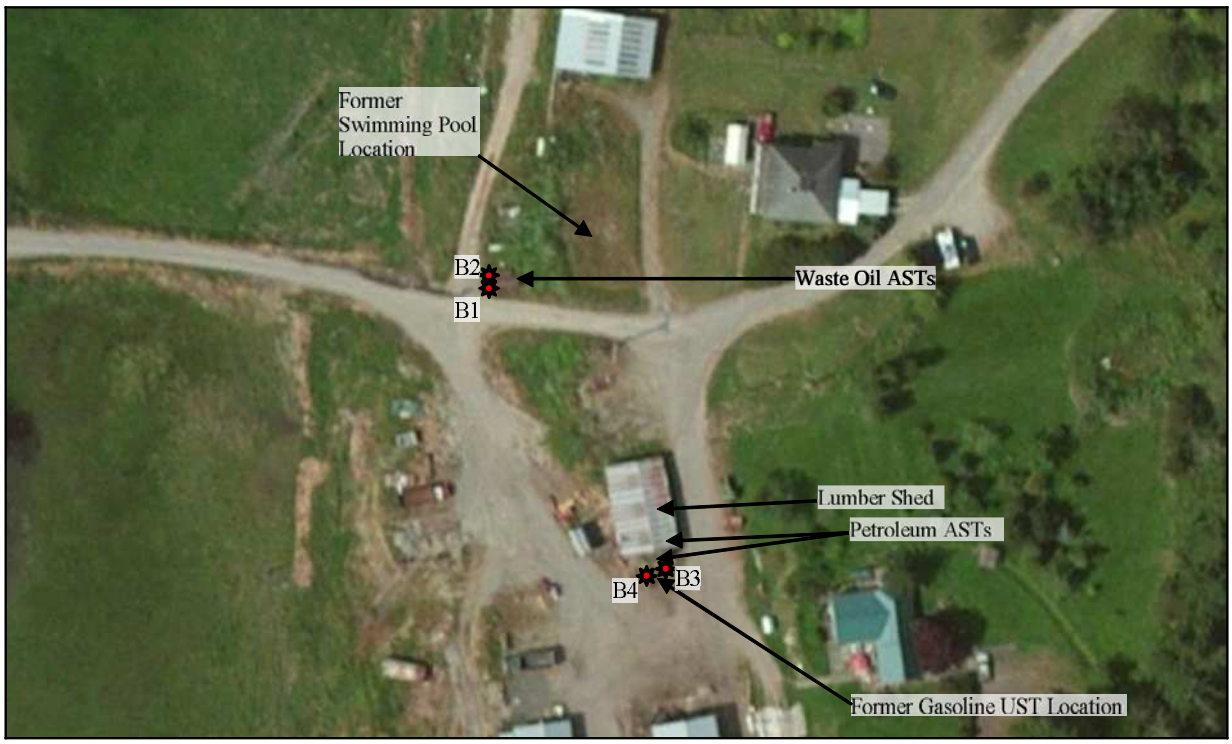

Figure 4.0: Soil Investigation Detail Map

5.1 ADJACENT PROPERTY OBSERVATIONS

Property Description	Location Relative to Subject Property	REC Anticipated (Y/N)
Lee's Truck Repair, Commercial Truck Service	North along Center Road	Yes, details of the Lee's Truck Service

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Phone: 360-701-8797 ▪ Fax: 360-264-2028 ▪ email: wrutherford@adesa-wa.com

		are provided in Section 4.0 above.
Pasture	North	N
Rural residential, agricultural and undeveloped forest land	West	N
Undeveloped forest land	East	N
Rural residential, agricultural and undeveloped forest land	South	N

Potential RECs on the neighboring properties are discussed in Section 4.0 of this report.

6.0 CONCLUSIONS AND RECOMMENDATIONS

ADESA has developed and performed this Phase I Environmental Site Assessment within the scope and limitations of ASTM Practice E 1527-05, and in conformance with the Federal AAI Rules. Any exceptions to, or deletions from, this practice are described in this report. The Phase I Site Assessment of Jefferson County Tax Parcels #901262002, 901262003, 901233010, 901233011, 901224001, 901233002, 901233005 and 901233008 has revealed the following evidence Recognized Environmental Conditions (REC).

- Lee's Truck Service: Stormwater outfall and contaminated soil stockpile

  Based on the proximity of the Property to the current and former stormwater outfall pipes associated with the Lee's Truck Repair site, the incomplete remediation of the petroleum impacts on the Lee's Truck Repair site and the stockpile of contaminated soil that is currently located on a concrete pad in the far northeastern portion of the Property adjoining the Lee's Truck Repair site, soil and groundwater would be required to determine if significant impact have occurred. Given that the Lee's Truck facility appears to be continuing operations, future impacts are also a potential risk.

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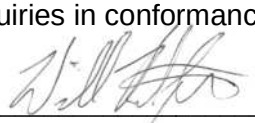
7.0 QUALIFICATIONS, INVESTIGATION LIMITATIONS, AND USER RELIANCE

7.1 STATEMENT OF QUALIFIED ENVIRONMENTAL PROFESSIONAL

Mr. William Rutherford is a qualified Environmental Professional under the EPA's All Appropriate Inquiries Final Rule. Mr. Rutherford has been performing due diligence related site assessments for twelve years across the United States (Ohio, Maryland, Kentucky, West Virginia, Oregon, California, Idaho and Washington). Mr. Rutherford possesses a Master of Environmental Studies degree from an accredited college and has held multiple state and federal certifications to perform environmental investigations in Washington State for 11 years.

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in §312.10 of 40 CFR Part 312. I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the Subject Property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.



William W. Rutherford, MES, AHERA
Senior Environmental Project Manager

7.2 RELIANCE

This report has been prepared for the benefit of the Jefferson Land Trust (User). Any other party without the express written consent of the Jefferson Land Trust and ADESA may not use the information contained in this report, including all exhibits and attachments. It should be emphasized that conditions at the Subject Property can change over time. The use of this report by third parties shall be at their own risk.

7.3 INVESTIGATION LIMITATIONS

ADESA's site inspection included observations of areas that were accessible by foot and a visual inspection of surrounding and adjacent properties, including those properties identified in the environmental regulatory agency database search that were located adjacent to the Subject Property. Certain conditions may have prevented or limited access to all on-site locations.

The work conducted by ADESA is limited to the services agreed to with the Jefferson Land Trust (i.e. Phase I ESA per ASTM Standard E 1527-05), and no other services beyond those explicitly stated should be inferred or are implied.

ADESA's Phase I ESA is limited to visual observations of site conditions on the day inspected, review of readily available and relevant data, and statements made and information provided by the client, their agents, outside parties and regulatory agencies. ADESA has exercised due diligence and customary care in the conduct of its assessment. The Phase I ESA is a limited and non-exhaustive survey that is intended to evaluate whether readily available information indicates that the historic or current use of the Subject Property resulted in contamination by hazardous substances or waste. As a result, without a comprehensive sampling and analysis

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program or implementation of services beyond the original scope-of-work, certain conditions, including, but not limited to those summarized below, may not be revealed:

- Naturally occurring toxic substances or elements found in the subsurface soils, rocks, or water;
- Toxic substances commonly found in current habitable environments, such as, stored household products, building materials, and consumables;
- Biological or infectious agents and pathogens;
- Contaminant plumes (liquid or gaseous) below the surface from a remote or unknown source;
- Contaminants or conditions that do not violate current regulatory standards, but may violate such standards in the future
- Unknown, unreported, and not readily visible site contamination.

In preparing this report, ADESA has reviewed historical records, conducted interviews with certain private and public officials, and performed an on-site visual inspection of the property. ADESA has examined and relied upon documents referenced in the report and has relied on oral statements made by certain individuals. ADESA has not conducted an independent examination of the facts contained in referenced materials and statements. ADESA has assumed the genuineness of the documents and that the information provided in documents or statements is true and accurate. ADESA has prepared this report in a professional manner, using that degree of skill and care exercised for similar projects under similar conditions by reputable and competent environmental consultants. ADESA shall not be responsible for conditions or consequences arising from relevant facts that were concealed, withheld, or not fully disclosed at the time the report was prepared. ADESA also notes that the facts and conditions referenced in this report may change over time, and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report and the site inspection. ADESA believes the conclusions stated herein to be factual, but no guarantee is made or implied.

The following data failure/gaps were indentified in this Phase I Environmental Site:

- The date of the first agricultural development/structures on the Property could not be ascertained; however, the sources reviewed for this report suggest that the first developments occurred in the late 1800s/early 1900s. This is not anticipated to be a significant gap because the use of the Property has remained consistence throughout the historic record as identified in standard historical sources.

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8.0 REFERENCES

Other sources used in the completion of this report are cited elsewhere in the document, generally at the point of use.

Army Map Service Aerial Photograph. 1942. https://fortress.wa.gov/ecy/coastalatlas/

Charles F. Metsker, Metzker's Map of Jefferson County: 1936, 1943, 1952, 1978, and 1996

EPA Enviromapper. http://www.epa.gov/emefdata/em4ef.home, February 16, 2014.

Jefferson County Assessors Online/Hardcopy Data. All property records for Subject Property and limited adjoining properties. February, 2014.

Jefferson County Public Health (JCPH). Site Hazard Assessment for the Lee's Truck Service Site. Parcel#901233009 and 901233005. October 15, 2012.

NRCS, USDA. Soil Survey of Jefferson County. http://www.or.nrcs.usda.gov/. January 2014.

Washington State Department of Ecology. Aerial Photograph reviewed online at Ecology Coastal Zone Atlas https://fortress.wa.gov/ecy/coastalatlas/.

Washington State Department of Ecology. Facility/Site Atlas. http://apps.ecy.wa.gov/website/facsite/viewer.htm., February 16, 2014.

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APPENDIX A
REGULATORY DATABASE SEARCH TABLE

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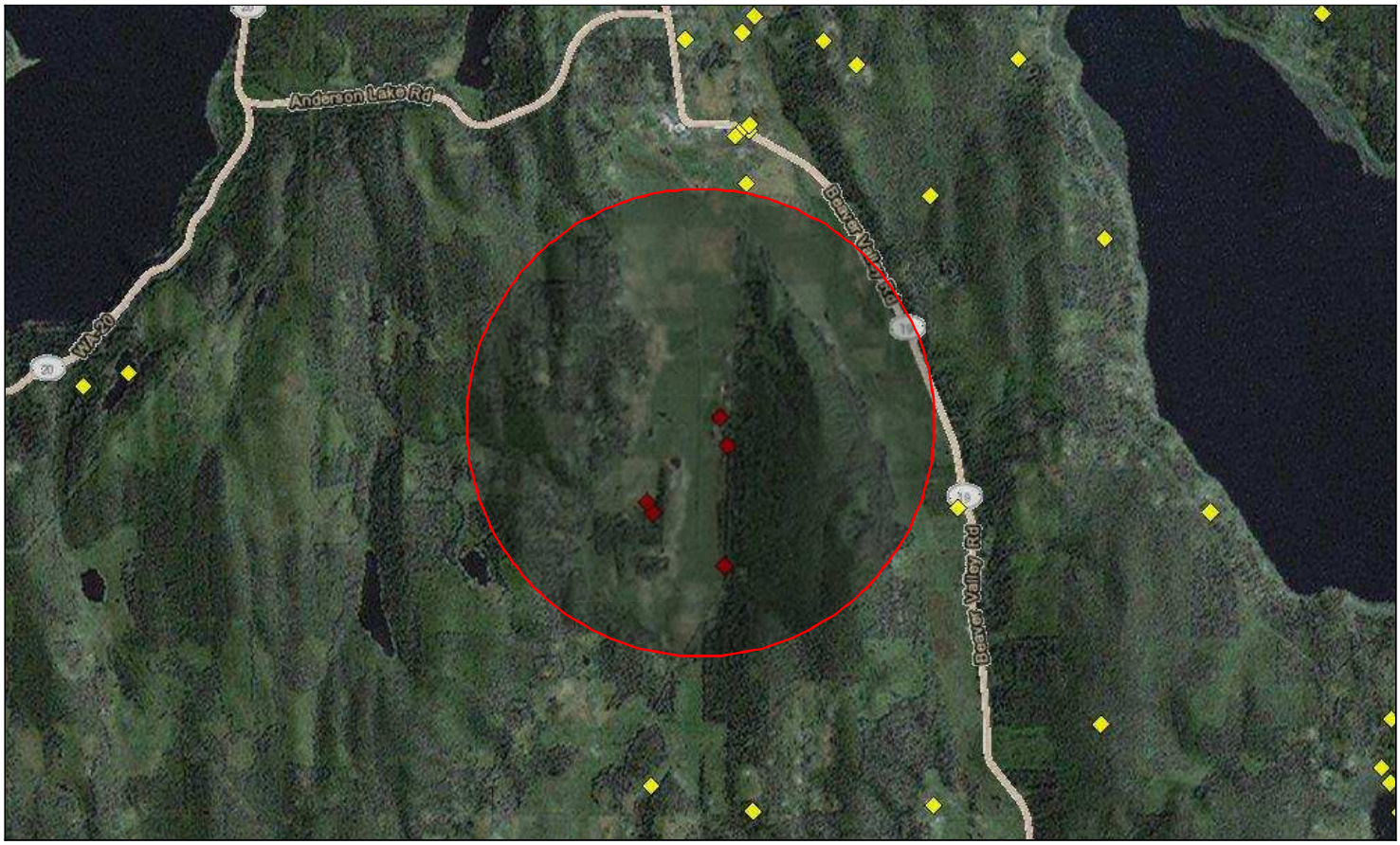
Regulatory Database Search Table

Standard Environmental Record Sources Searched[1] per ASTM 1527-05	Search Distance (Miles)	Sites present within 0.0-0.25 Miles (#) or Search Distance	Sites present within 0.25-0.5 Miles (#)	Sites present within 0.5-1.0 Miles (#)	Potential REC Indicated[3]	Final Research Date[2]
Federal NPL site list	1.0	0	0	0	No	2/16/2014
Federal Delisted NPL site list	0.5	0	0	NA	No	2/16/2014
Federal CERCLIS list	0.5	0	0	NA	No	2/16/2014
Federal CERCLIS NFRAP site list	0.5	0	0	NA	No	2/16/2014
Federal RCRA CORRACTS facilities list	1.0	0	0	0	No	2/16/2014
Federal RCRA non-CORRACTS TSD facilities list	0.5	0	0	NA	No	2/16/2014
Federal RCRA generators list	*Property and adjoining properties*	0	NA	NA	No	2/16/2014
Federal institutional control/engineering control registries	*Property only and surrounding sites*	0	0	NA	No	2/16/2014
Federal ERNS list	*Property only*	0	NA	NA	No	2/16/2014
State-and tribal-equivalent NPL (HSL)	1.0	1	0	0	No	2/16/2014
State-and tribal-equivalent CERCLIS (CSCSL)	0.5	1	0	NA	No	2/16/2014
State and tribal landfill and/or (SWL/LF)	0.5	0	0	NA	No	2/16/2014
State and tribal leaking storage tank list (LUST): active sites only	0.5	0	0	NA	No	2/16/2014
State and tribal registered storage tank list (UST)	*Property and adjoining properties*	0	NA	NA	No	2/16/2014
State and tribal institutional control/engineering control registries	*Property only*	0	NA	NA	No	2/16/2014
State and tribal voluntary cleanup sites (VCP)	0.5	1	0	NA	No	2/16/2014
State and tribal Brownfield sites	0.5	0	0	NA	No	2/16/2014

[1]Ecology - Washington State Department of Ecology's Integrated Site Information System (ISIS) and Facilities/Site Identification System (F/SID), EPA Enviromapper online database inquiry tool, and NETR-Online Environmental Radius Report.
[2]Ecology and EPA databases were current on the date of the review. The databases searched use data from various environmental records sources, which although current, may not themselves have been updated on the date of the review.
[3]Site identified as potential threats to the environmental integrity of the Property are discussed in the Regulatory and Records Review section of the report.

EPA Enviromapper. http://www.epa.gov/emefdata/em4ef.home, February 16, 2014
Washington State Department of Ecology. Facility/Site Atlas. http://apps.ecy.wa.gov/website/facsite/viewer.htm., February 16, 2014.
NETR-Online Environmental Radius Report. http://www.netronline.com/,dated February 16, 2014

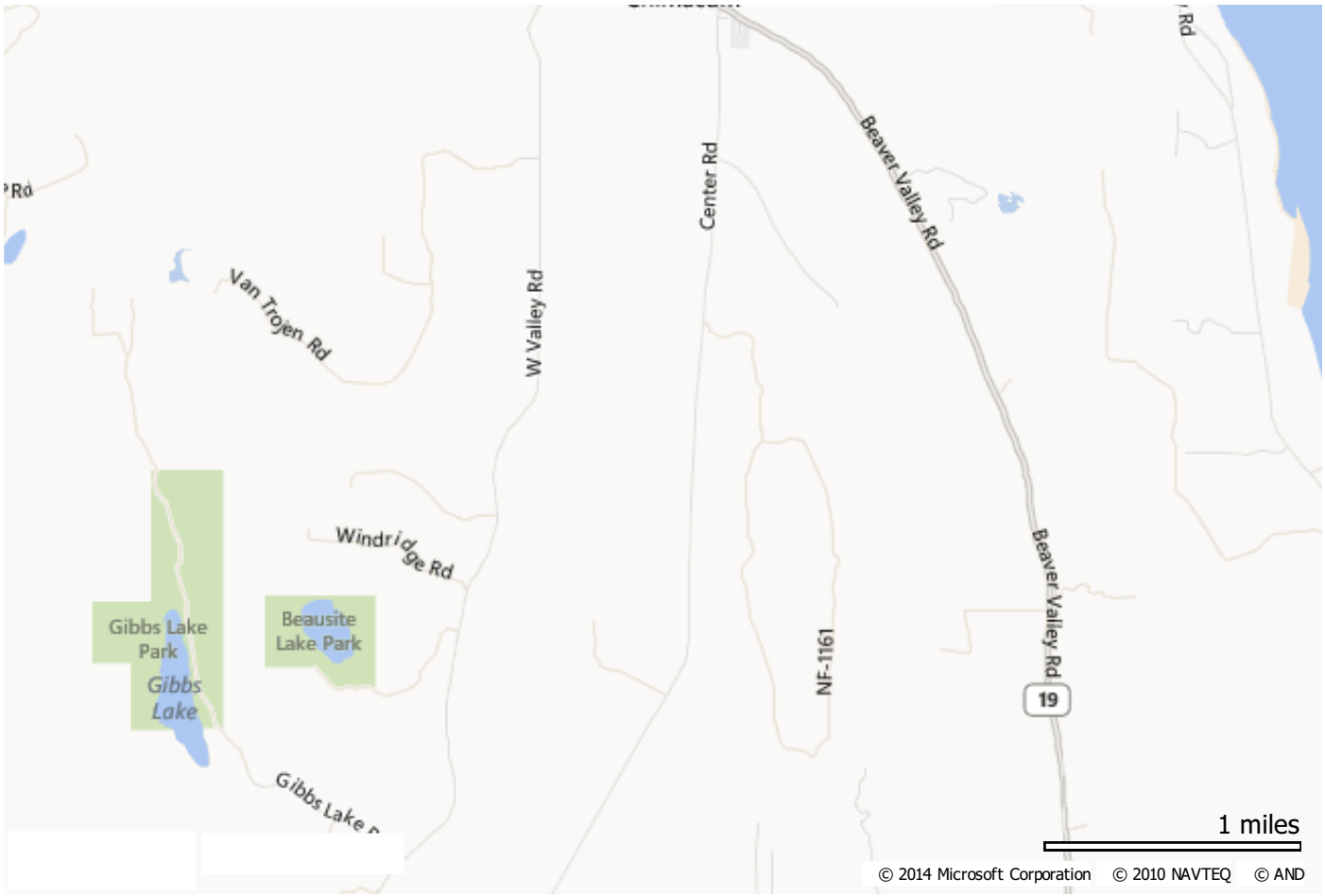
Washington State Department of Ecology Facility/Site Atlas: 2 Mile Radius



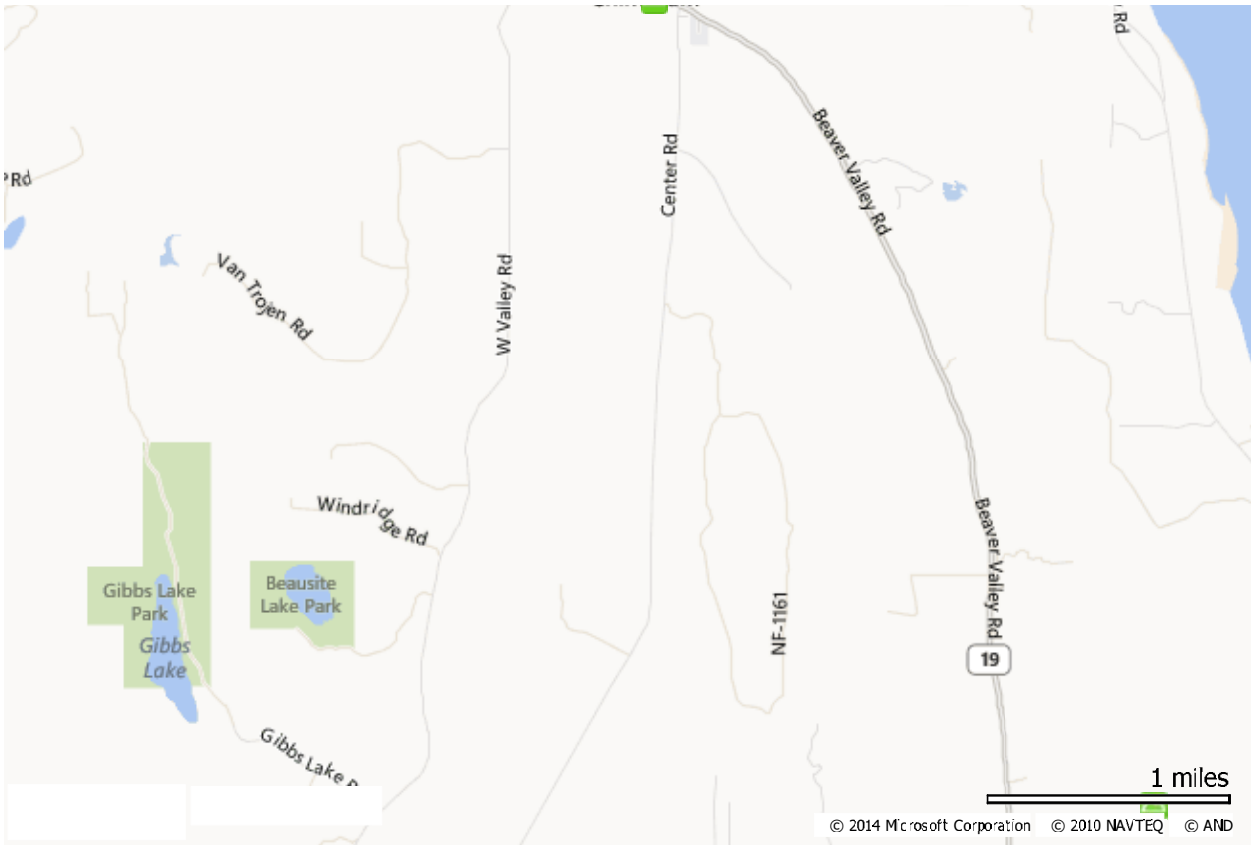
Print Map

Facility/Site ID	Facility/Site Name	Address	City	State	Zip Code	Latitude	Longitude
24761	LEES TRUCK REPAIR	1520 CENTER RD	CHIMACUM	WA	98325	47.985249	-122.770832
2161322	SPRINT COMMUNICATIONS CO CENTER	4131 CENTER RD	CENTER	WA	98325	47.979721	-122.779998
7539286	Valley View Dairy Chimacum	1720 CENTER RD	CHIMACUM	WA	98325-9779	47.97536452	-122.7711597
9590129	Valley View Dairy Compost	1594 CENTER RD	QUILCENE	WA	98325	47.98757894	-122.7717332
39939394	CENEX HARVEST STATES COOP	9315 RHODEDENDREN DR	CHIMACUM	WA	98325	47.980645	-122.780721

EPA EnviroMapper - Air Quality Related Sites/Facilities - 1 Mile Radius



EPA EnviroMapper - Related Land Use Sites/Facilities - 1 Mile Radius

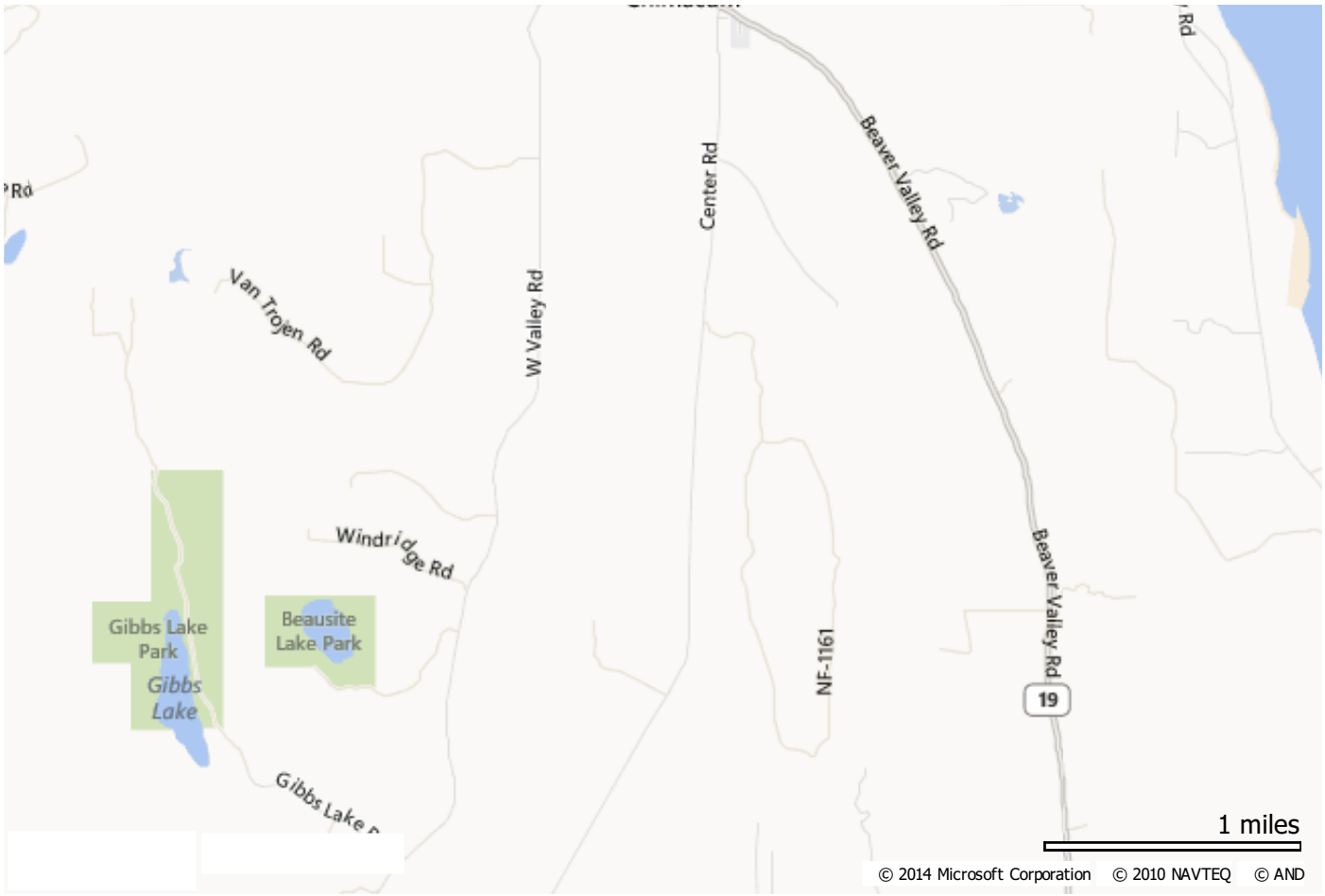


Media: Land

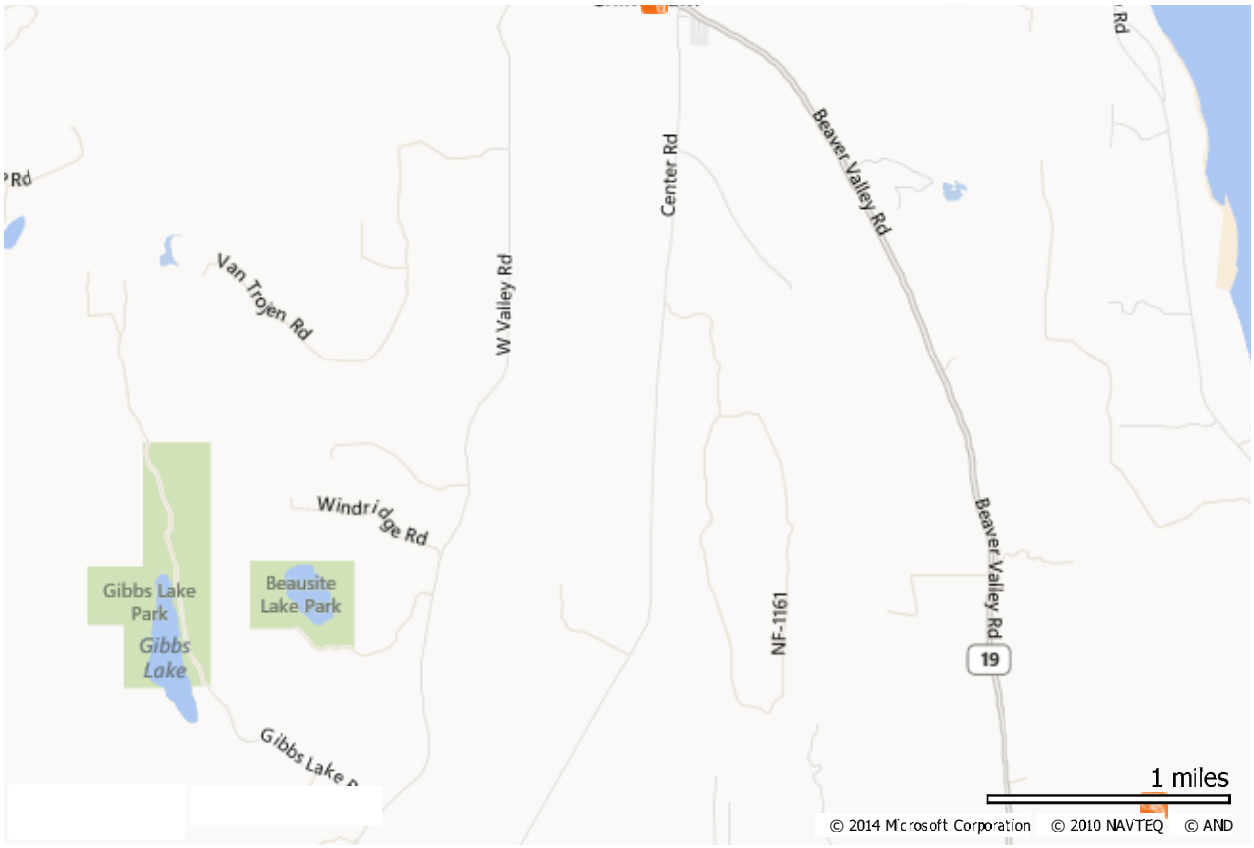
Single facility

Facility cluster

EPA EnviroMapper - Toxics and Radiation Related Sites/Facilities - 1 Mile Radius



EPA EnviroMapper - Related Waste Sites/Facilities - 1 Mile Radius

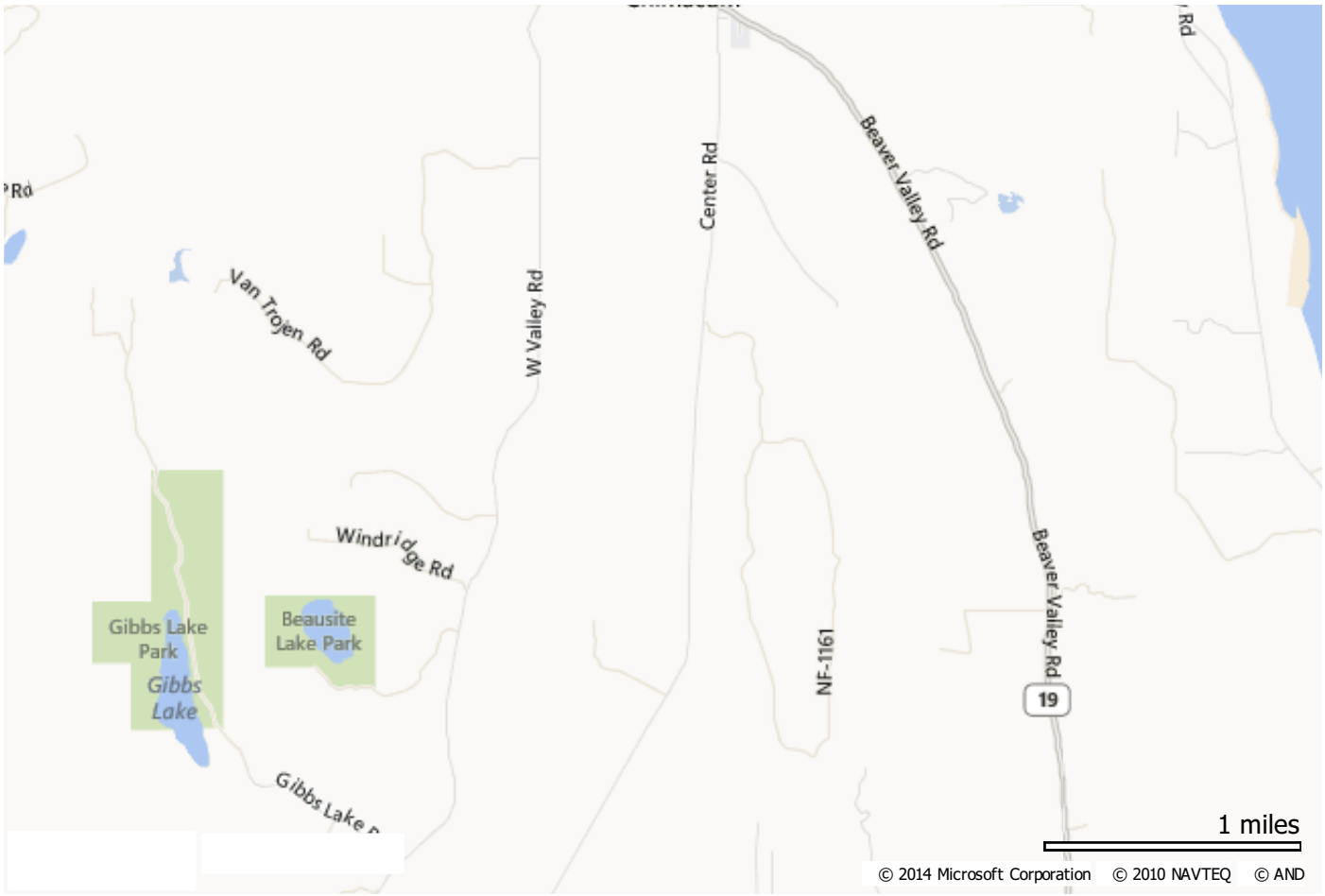


Media: Waste

Single facility

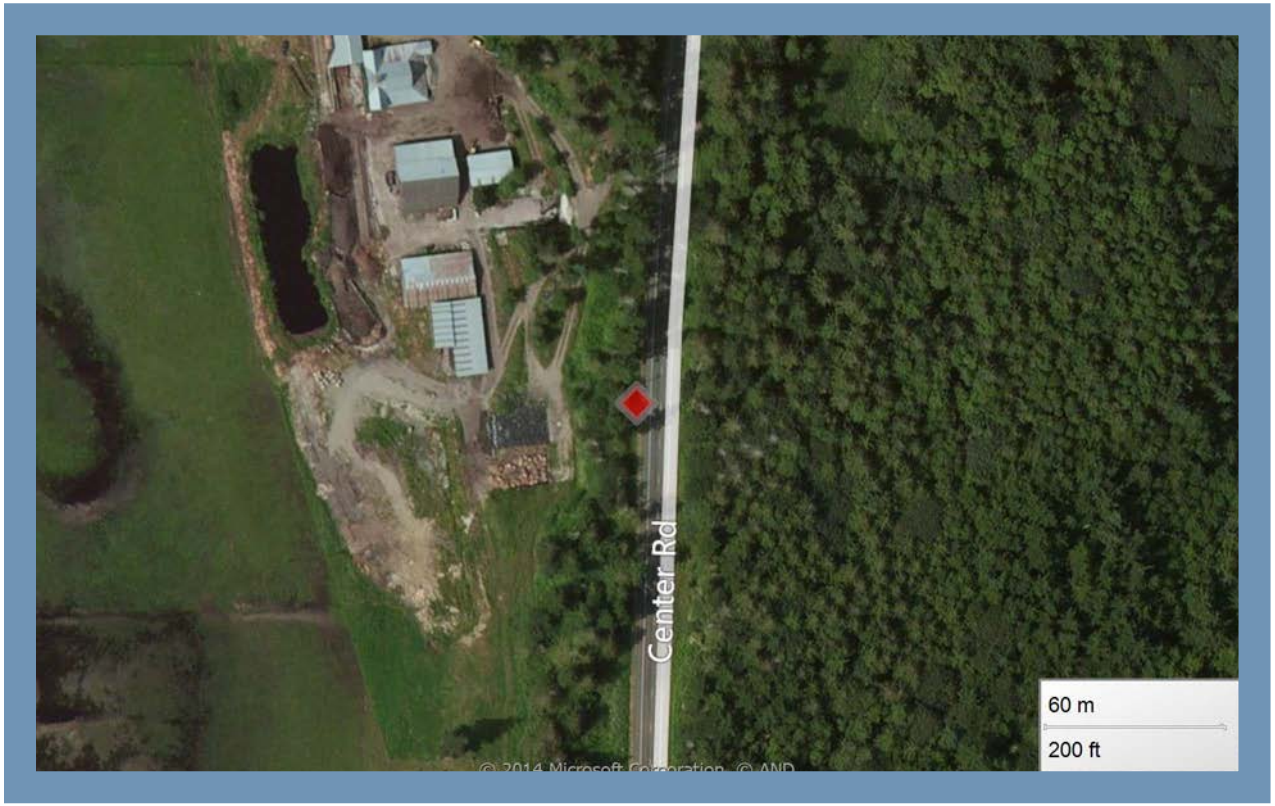
Facility cluster

EPA EnviroMapper - Water Quality Related Sites/Facilities - 1 Mile Radius



Facility/Site: LEES TRUCK REPAIR 24761

Also known as: LEE'S TRUCK REPAIR



Address

1520 CENTER RD

CHIMACUM WA 98325

Decimal Coordinates

Latitude: 47.98525

Longitude: -122.77083

Geographic Information

Ecology Region: SWRO	Legislative District: 24	WRIA: 17
County: Jefferson	Congressional District: 6	Tribal Land: No

Ecology Interactions

Interaction Description	Ecology Program	Ecology Program Phone	Program ID	Start Date	End Date
Voluntary Cleanup Sites	TOXICS	(360) 407-7224	SW1028	5/5/2009	

Industrial Codes (External Links Below)

NAICS Code	NAICS Description
811111	General Automotive Repair

No SIC information is available for this facility site.

JEFFERSON COUNTY

SITE I

LEES TRUCK REPAIR

CleanupSite ID: **2673** FS ID: **24761**

Alternate Name(s): LEE'S TRUCK REPAIR, LEES TRUCK REPAIR

LOCATION:

View Vicinity Map

Address: **1520 CENTER RD**
CHIMACUM **98325**

Lat/Long: **47.98525** **-122.77083**
Township/Range/Section: **29N** **1W** **23**

Legislative District: **24**
Congressional District: **6**

STATUS:

View Site Web Page

Ecology Status: **Cleanup Started**
WARM BIN#: **1**

Responsible Unit: **Southwest**
Site Manager: **Middleton, Tom**
Statute: **MTCA**

Is Brownfield?
Environmental Covenant?
Is PSI Site?

UST Site ID:
WRIA ID: **17**

NFA Received? NFA Date: NFA Reason:

ASSOCIATED CLEANUP UNIT(s)

cuID	Cleanup Unit Name	Unit Type	Process Type	Unit Status	Size (Acres)	ERTS ID
1812	LEES TRUCK REPAIR	Upland	No Process	Cleanup Started		606369

SITE ACTIVITIES:

Applies to:	Related ID (Unit-LUST-VCP)	Activity Display Name	Status	Start Date	End Date	Legal Mechanism	Performed By	Project Manager
CleanupSite		Initial Investigation / Federal Preliminary Assessment	Completed	6/12/2008	5/5/2009		PLP	County Health-SW
CleanupSite		Site Hazard Assessment/Federal Site Inspection	Completed	5/15/2012	10/16/2012		Ecology w/ Contractor	Matthews, Cris
CleanupSite		Hazardous Sites Listing/NPL			10/16/2012			Matthews, Cris
VcpProject	SW1028	VCP Application	Completed	5/5/2009				
VcpProject	SW1028	VCP Status Request	Completed	12/7/2011	1/9/2012			Middleton, Tom

AFFECTED MEDIA & CONTAMINANTS:

Media:

Contaminant:	Ground Water	Surface Water	Soil	Sediment	Air	Bedrock
Petroleum Products-Unspecified	S		C			

Key:
B - Below Cleanup Level
C - Confirmed Above Cleanup Level
S - Suspected
R - Remediated
RA - Remediated-Above
RB - Remediated-Below

SITE HAZARD ASSESSMENT

WORKSHEET 1

Summary Score Sheet

SITE INFORMATION:

Site Name: Lee's Truck Repair
Address: 1520 Center Road, Chimacum, WA. 98325
Ecology Facility Site ID No.: 24761
Section/Township/Range: SW ¼ Section 23, Township 29N, R 1W
Latitude: 47.98888 Longitude: -122.77108
ERTS #: 606369
Jefferson County Parcel #: 901233009, 901233005

Site scored/ranked for the February 2013 update
OCTOBER 15, 2012

SITE DESCRIPTION:
The site came to the attention of Jefferson County Public Health (JCPH) during a Local Source Control visit in April, 2008. An ERTS was called in to Washington State Department of Ecology. An initial Investigation was completed in February, 2009.

Lee's Truck Repair has operated continuously at this site since 1975. The repair business is located on a relatively flat, approximately one acre parcel along the west side of Center Road, that sits above Chimacum Valley. Lee Short's parcel is the northeast corner of a larger 5 acre parcel belonging to the Short Family's Valley View N&L Family Trust. Mr. Short's property is approximately 760 feet and up-gradient from Chimacum Creek (a type-2 salmon bearing stream that runs through the valley), and is approximately 300 feet from a class 5 stream that feeds Chimacum Creek. The land below the repair shop is a thin strip of grassy slope with some blackberry brambles. This is roughly the property boundary between Lee Short's property and the Family Trust. The slope then flattens out into Chimacum Valley, a wetlands and peat bog which routinely floods for most of the winter months. Chimacum Valley is also a wintering area for Trumpeter Swans, which various states list as a threatened or endangered species. The potable water well serving the farm and shop is approximately 1700 feet away in the valley, down-gradient from the site.

The property has three different soil types. The flat pad of land below the road, where the shop, tanks, etc. are located is gravelly sandy fill dirt. Below it the native soil is Kitsap series, a gravelly loam to about 30". Runoff for Kitsap series is medium to rapid. The thin band of bank below the pad is fill on top of Everett Series soil, somewhat excessively drained, gravelly sandy loam. This is where the stormwater outfall deposits water. The land below this, Chimacum valley bottom land, is Semiahmoo Muck. It is very poorly drained soil; the upper five feet of this soil tends to be muck, and below this is mucky peat. Runoff is very slow or ponded, and seasonal water table is generally 0 to 1 foot.

Structures on the site consist of a large, approximately 60'x75' two-bay shop and office with a cement floor. There are no floor drains in the shop. The shop is surrounded on three sides by a U-shaped gravel/dirt driveway. There are three exterior cement pads, two of which have stormwater drains: one in

front of the shop's south bay doors (40'x40'), the second (about 15'x40') is down-gradient from the first, next to an open-sided, metal-roofed structure (approximately 10'x30') that houses two metal tanks storing used oil (one 1000 gallon and one 2000 gallon). A third 30'x30'cement pad is outside the shop's western door. It does not have a stormwater drain.

According to Mr. Short, until recently the storm drains have not had any treatment system and for over thirty years liquids collected by the system were deposited directly to the grassy slope below the shop. Sometime after February 2009, Mr. Short installed a home-made oil skimmer (tire rim) around the opening of the lower storm drain, and installed two open-topped steel tanks below the stormwater outfall to serve as an oil-water separator system. Soil was excavated from the hillside in order to seat the tanks. The excavated soil, which is from the area previously found to have lab-confirmed diesel and motor oil levels above MTCA, is stored on a cement pad (old foundation?) on the southern edge of the property. It is uncovered and there are no berms preventing runoff.

Mr. Short primarily repairs trucks and large equipment. Activities at the repair shop include all aspects of vehicle repair including welding, metal grinding, and parting-out vehicles. Mr. Short does not have a wrecker's license. Mr. Short states that Safety Kleen collects and disposes of his solvents and cleaners, Pettit collects 2-3 gallons of antifreeze a month, and Interstate collects his batteries. He disposes of all manner of oils by collecting the fluids in buckets and pouring them into one of the two metal storage tanks. These tanks are under a roofed structure which is open sided. There is a low poured-cement retaining wall for secondary containment. Until 2009, the secondary containment was used as a settling pond for the oil, sometimes with several inches of standing oil sitting for long periods of time. During the June 26, 2012 SHA sampling event, the secondary containment was virtually empty.

JCPH conducted an Initial Investigation (II) of this site, which was completed in February 2009. Results from soil samples taken from below the stormwater outflow confirmed diesel at **8,500 mg/kg** and motor oil at **37,000 mg/kg** (the MTCA Method A cleanup levels for both is 2000 mg/kg). Testing for other contaminants was not done at this time.

In May, 2009 Mr. Short entered Ecology's Voluntary Clean-up Program (VCP). In January, 2012 Ecology terminated their VCP agreement with Mr. Short due to lack of progress in clean-up.

A Site Hazard Assessment (SHA) visit, including additional soil sampling, was conducted on June 26, 2012 by Marjorie Boyd, JCPH. Soil samples were obtained from the stockpiled soil excavated from below the original stormwater outflow, and from below the new outflow extending from the steel tank oil-water separator system. This newer outfall is down gradient from and approximately thirty feet below the original outfall.

Soil samples from below the new outfall showed the presence of diesel and motor oil, toluene and xylene, as well as the metals cadmium, chromium, and lead. All were below MTCA, though the chromium level is close to the MTCA level of 2.0 mg/kg for Method A unrestricted use. (See Table 1)

The stockpiled soil, which came from the area previously tested and shown positive for diesel and motor oil above MTCA, was tested for metals on June 26. It, too, was positive for cadmium, chromium, and lead, and was additionally positive for mercury. These were all below MTCA Method A levels. (See Table 1)

Table 1 - Soil sample results from 6/26/12

	NWTPH-DX	BTEX	CA-PAHs	Metals
Stockpiled Soil	Not Tested	Not Tested	Not Tested	cadmium 0.7 mg/kg chromium 33.2 mg/kg lead 10 mg/kg mercury .05 mg/kg
Below outfall	Diesel 110 mg/kg Motor oil 340 mg/kg	Toluene .021 mg/kg Xylene .021 mg/kg	Non-detect	cadmium 1.3 mg/kg chromium 52 mg/kg lead 46 mg/kg

SPECIAL CONSIDERATIONS (include limitations in site file data or data which cannot be accommodated in the model, but which are important in evaluating the risk associated with the site, or any other factor(s) over-riding a decision of no further action for the site):

ROUTE SCORES:

Surface Water/Human Health: **57**
Air/Human Health: NS
Groundwater/Human Health: **44**

Surface Water/Environmental: **76**
Air/Environmental: NS

OVERALL RANK: 1

WORKSHEET 2
Route Documentation

1. **SURFACE WATER ROUTE**
   a. List those substances to be considered for scoring: Source: 1,2

      Diesel and motor oil, cadmium, chromium, lead, toluene, xylene, and mercury.

   b. Explain basis for choice of substance(s) to be used in scoring:

      These substances were detected in site soil samples and are potentially available to this route.

   a. List those management units to be considered for scoring: Source: 1,2,4

      Surface and sub-surface soils.

   b. Explain basis for choice of unit to be used in scoring:

      There is no containment or any other system to prevent soil contamination from reaching nearby streams, especially during winter when the valley floods.

2. **AIR ROUTE: NOT SCORED**

3. **GROUNDWATER ROUTE**
   a. List those substances to be considered for scoring: Source: 1,2

      Diesel and motor oil, cadmium, chromium, lead, toluene, xylene, and mercury.

   b. Explain basis for choice of substance(s) to be used in scoring:

      These substances were detected in site soil samples and are potentially available to this route.

   c. List those management units to be considered for scoring: Source: 1,2,4

      Surface and sub-surface soils.

   d. Explain basis for choice of unit to be used in scoring:

      There is no containment or any other system to prevent soil contamination from reaching groundwater.

WORKSHEET 4
Surface Water Route

1.0 SUBSTANCE CHARACTERISTICS

1.1 Human Toxicity

	Substance	Drinking Water Standard (µg/L)	Value	Acute Toxicity (mg/ kg-bw)	Value	Chronic Toxicity (mg/kg/day)	Value	Carcinogenicity WOE *	Carcinogenicity CPF**	Value
1	TPH-diesel	160	4	490 (rat)	5	0.004 (RfD)	3	-	-	-
2	cadmium	5	8	225 (rat)	5	0.0005	5	B1	-	-
3	chromium	100	6	-	-	1.0	1	-	-	-
4	lead	15	6	-	-	-	-	-	-	-
5	mercury	2	8	-	-	0.0003	5	-	-	-
6	toluene	2000	2	5000 (rat)	3	0.2	1	-	-	-
7	xylene	1000	2	50 (hmn)	10	2.0	1	-	-	-

** Weight of Evidence* ***Cancer Potency Factor mg/kg/day*

Source: 1,2,3

Highest Value: 8
(Max = 10)

Plus 2 Bonus Points? 2

Final Toxicity Value:10
(Max = 12)

1.2 Environmental Toxicity (X) Freshwater ( ) Marine

	Substance	Acute Water Quality Criteria (µg/L)	Value	Non-Human Mammalian Acute Toxicity (mg/kg)	Value
1	TPH-diesel	2300	2		
2	cadmium	3.9	8		
3	chromium	1700	2		
4	lead	82	6		
5	mercury	2.4	8		
6	toluene	17,500	2		
7	xylene	-	-		

Source: 3,4

Highest Value: 8
(Max = 10)

1.3 Substance Quantity	
Explain Basis: For 30 years an outfall has released contaminants from the edge of the primary site onto a second 4 acre parcel, approx 3 acres of which are down-gradient of primary site. Use 3 acres as basis = 130,680 cubic yards.	Source: 1, 4 **Value: 10** (Max = 10)

2.0 MIGRATION POTENTIAL

		Source	Value
2.1	**Containment:** No control of run-off, no cover. **Explain basis:** Contaminated surface soil with no containment	1,4	**10** (Max = 10)
2.2	**Surface Soil Permeability:** Soil at outflow is primarily sandy/rocky fill on top of Everett Series soil (gravelly sandy loam). This drains to flatlands of Semiahmoo Muck/peat which are flooded yearly, engulfing Chimacum Creek	1,4,13	**7** (Max = 7)
2.3	**Total Annual Precipitation:** 27.94"	5	**2** (Max = 5)
2.4	**Max 2yr/24hr Precipitation:** 2.5"	6	**3** (Max = 5)
2.5	**Flood Plain:** Area of contamination is on narrow strip of bank above 100 yr floodplain (that floods yearly)	10, 14	**2** (Max = 2)
2.6	**Terrain Slope: from outflow:** 50'/670' * 100 = 7.4%	7	**3** (Max = 5)

3.0 TARGETS

		Source	Value
3.1	**Distance to Surface Water:** 670' from outflow	1,10	**10** (Max = 10)
3.2	**Population Served within 2 miles**: Approx. 30 people.	12	**5** (Max = 75)
3.3	**Area Irrigated by surface water within 2 miles :** (0.75)*√ 1520 acres = **29**	12	**29** (Max = 30)
3.4	**Distance to Nearest Fishery Resource:** 760' (Chimacum Creek)	1,10	**12** (Max = 12)
3.5	**Distance to, and Name(s) of, Nearest Sensitive Environment(s):** Wetands and Chimacum Creek, both < 1000	1,10	**12** (Max = 12)

4.0 RELEASE

Explain Basis: Initial Investigation reports verbal statement by Lee Short of release via stormwater outfall and intentional release from buckets for 30 yrs; contamination below outfall lab-confirmed.	Source:1,2,4 **Value: 5** (Max = 5)

WORKSHEET 5
Air Route
Not Scored

WORKSHEET 6
Groundwater Route

1.0 SUBSTANCE CHARACTERISTICS

1.1 Human Toxicity

	Substance	Drinking Water Standard (µg/L)	Value	Acute Toxicity (mg/ kg-bw)	Value	Chronic Toxicity (mg/kg/day)	Value	Carcinogenicity WOE *	Carcinogenicity PF**	Value
1	TPH-diesel	160	4	490 (rat)	5	0.004 (RfD)	3	-	-	-
2	cadmium	5	8	225 (rat)	5	0.0005	5	B1	-	-
3	chromium	100	6	-	-	1.0	1	-	-	-
4	lead	15	6	-	-	0.001	10	B2	-	-
5	mercury	2	8	-	-	0.0003	5	-	-	-
6	toluene	2000	2	5000 (rat)	3	0.2	1	-	-	-
	xylene	1000	2	50 (hmn)	10	2.0	1	-	-	-

** Weight of Evidence* ***Cancer Potency Factor mg/kg/day*

Source: 1,2,3

Highest Value: 10
(Max = 10)

Plus 2 Bonus Points? 2

Final Toxicity Value: 12
(Max = 12)

1.2 Mobility (use numbers to refer to above listed substances)

Cations/Anions [Coefficient of Aqueous Migration (K)] OR	Solubility (mg/L)
TPH-diesel	1= 3.0E + 01= 1
Cadmium K is >1.0 = 3	2=
chromium K is < 0.1 = 1	3 =
Lead K is 0.1 to 1.0 = 2	4=
Mercury K is >1.0 = 3	5=

toluene	6= 5.5E+02= 2
xylene	7= 2.0E+02= 2
	Source: 1-4 **Value: 3** (Max = 3)

1.3 Substance Quantity:	
Explain basis: For 30 years an outfall has released contaminants from the edge of the primary site onto a second 4 acre parcel, approx 3 acres of which are down-gradient of primary site. Use 3 acres as basis = 130,680 cubic yards.	Source:1,2,4 **Value: 7** (Max=10)

2.0 MIGRATION POTENTIAL

		Source	Value
2.1	**Containment (explain basis):** Contaminated soil below stormwater outfall and soil stockpile: 10 (no liner, cover, leachate collection system or run off control)	1,2,4	**10** (Max = 10)
2.2	**Net precipitation:** 11.2" – 6.1" = 5.1"	5	**1** (Max = 5)
2.3	**Subsurface hydraulic conductivity:** Everett Series soil, somewhat excessively drained, gravelly sandy loam = 4	1,4,13	**4** (Max = 4)
2.4	**Vertical depth to groundwater:** 35' from valley floor to GW (per well log)	1, 15	**6** (Max = 8)

1.0 TARGETS

		Source	Value
3.1	**Groundwater usage:** Private supply, no alternate available	1,12	**5** (Max = 10)
3.2	**Distance to nearest drinking water well:** 1700' from outfall to farm's well, 1300' to 2600' from likely contamination plume.	1	**3** (Max = 5)
3.3	**Population served within 2 miles:** 67 domestic wells x 3 = 201 √201 = 14	4,12	14 (Max = 100)
3.4	**Area irrigated by (groundwater) wells within 2 miles:** (0.75)*√ 1174 acres = 34	12	**34** (Max = 50)

2.0 RELEASE

No confirmed release to groundwater

	Source 1	Value 0
Explain basis for scoring a release to groundwater:		(Max = 5)

SOURCES USED IN SCORING

1. Initial Investigation Report, Washington State Department of Ecology, February 19, 2009.

2. Soil sample results from June 26, 2012 sampling event at Lee's Truck Repair.

3. Washington State Department of Ecology, Toxicology Database for Use in Washington Ranking Method Scoring, January 1992.

4. Washington State Department of Ecology, Washington Ranking Method (WARM) Scoring Manual, April 1992.

5. Climate Summary for Chimacum, WA., Western Regional Climate Center, http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?wa1414 downloaded 7-25-12.

6. Isopluvials of 2-Yr. 24 Hr. Precipitation in Tenths of an Inch, NOAA Atlas 2, Volume IX, U.S. Department of Agriculture, Soil Conservation Service, Engineering Division, http://www.wrcc.dri.edu/pcpnfreq/wa2y24h.gif, downloaded 7-25-12.

7. U.S.G.S. topographical map for area.

8. Map of Commercial and Recreational Shellfish Growing Areas, Puget Sound, January 2009, Washington State Department of Health, www.doh.wa.gov/ehp/sf/Pubs/ai-map.pdf.

9. Washington Climate Booklet, U.S. Department of Agriculture, Washington State Extension Service, Pullman, WA., December 1972.

10. Jefferson County On-Line GIS system for Jefferson County Environmental Health Information (Arcview 10).

11. Sentry Internet Database of Water Wells, Washington State Department of Health.

12. Water Right Tracking System, Washington State Department of Ecology. https://fortress.wa.gov/ecy/wrx/wrtssp1/wrtsmain.aspx?xpage=intro&xnavigate=clear.

13. Soil Survey of Jefferson County, Washington; U.S. Department of Agriculture Soil Conservation Service and Washington Agriculture Experiment Station, August, 1975.

14. Jefferson County FEMA Q3 Flood Data Map. http://www.co.jefferson.wa.us/idms/metadata/FEMA%20FIRMS.shtml

15. Water Well Report Soil Log, Roger Short Property, 1720 Center Road, June 24, 1991.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

July 18, 2012

Marjorie Boyd
Environmental Health Specialist
Jefferson County Public Health
615 Sheridan Street
Port Townsend, WA 98368

RE: Client Project: Lee Short Site
ARI Job No.: VA41

Dear Ms. Boyd:

Please find enclosed the Chain-of-Custody record (COC), sample receipt documentation, and the final results for samples from the project referenced above. Analytical Resources, Inc. (ARI) accepted two soil samples on June 27, 2012 under ARI job number VA41. For further details regarding sample receipt, please refer to the enclosed Cooler Receipt Form.

The duplicate RPD of lead was outside the 20% control limit for sample **Below Outfall**. All relevant data have been flagged with a "*" qualifier on the Form VI. No further corrective action was taken.

There were no other anomalies associated with the analyses of these samples.

An electronic copy of this report and all associated raw data will remain on file with ARI. Should you have any questions or problems, please feel free to contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC.

Cheronne Oreiro
Project Manager
-For-
Susan Dunnihoo
Director, Client Services
sue@arilabs.com
206-695-6207

Enclosures

cc: eFile VA41

4611 South 134th Place, Suite 100 • Tukwila WA 98168 • **206-695-6200** • **206-695-6201** fax

Chain of Custody Record & Laboratory Analysis Request

ARI Assigned Number: VA41	Turn-around Requested:
ARI Client Company: Jefferson County Public Health	Phone: (360) 379-4480
Client Contact: Marjorie Boyd	
Client Project Name: Lee Short Site	
Client Project #:	Samplers: M. Boyd

Page: 1 of 1	
Date: 6-26-12	Ice Present?
No. of Coolers:	Cooler Temps:

Analytical Resources, Incorporated
Analytical Chemists and Consultants
4611 South 134th Place, Suite 100
Tukwila, WA 98168
206-695-6200 206-695-6201 (fax)

Sample ID	Date	Time	Matrix	No. Containers	Analysis Requested: NWTPH-Dx	CA-PAHs	BTEX	RCRA-8 + Pb + metals					Notes/Comments
(1) Below Outfall	6/26/12	10:45	Soil	(1)	X								
(2) Below Outfall	"	10:47	SOIL	(1)		X							
(3) Below Outfall	"	10:52	SOIL	(1)			X						
(4) " "	"	11:00	SOIL	(1)			X						
(5) " "	"	11:02	SOIL	(1)			X						
(6) " "	"	11:04	SOIL	(1)			X						
(7) Below Outfall	"	11:10	SOIL	(1)				X					
(8) STOCKPILED SOIL	"	11:38	SOIL	(1)				X					

Comments/Special Instructions	Relinquished by: (Signature)	Received by: (Signature)	Relinquished by: (Signature)	Received by: (Signature)
	Printed Name: Marjorie Boyd	Printed Name: A. Volgardsen	Printed Name:	Printed Name:
	Company: JCPH	Company: ARI	Company:	Company:
	Date & Time: 6-26-12	Date & Time: 6/27/12 1105	Date & Time:	Date & Time:

VA11:0002

Limits of Liability: *ARI will perform all requested services in accordance with appropriate methodology following ARI Standard Operating Procedures and the ARI Quality Assurance Program. This program meets standards for the industry. The total liability of ARI, its officers, agents, employees, or successors, arising out of or in connection with the requested services, shall not exceed the Invoiced amount for said services. The acceptance by the client of a proposal for services by ARI release ARI from any liability in excess thereof, not withstanding any provision to the contrary in any contract, purchase order or co-signed agreement between ARI and the Client.*

Sample Retention Policy: All samples submitted to ARI will be appropriately discarded no sooner than 90 days after receipt or 60 days after submission of hardcopy data, whichever is longer, unless alternate retention sched ave been established by work-order or contract.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Jefferson County Project Name: Lee Short Site

COC No(s): _____ (NA) Delivered by: Fed-Ex (UPS) Courier Hand Delivered Other: _____

Assigned ARI Job No: VA41 Tracking No: 1Z Y61 W65 0357 0852 642 NA

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	YES	(NO)
Were custody papers included with the cooler?	(YES)	NO
Were custody papers properly filled out (ink, signed, etc.)	(YES)	NO
Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)	5.7	

If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: 90941619

Cooler Accepted by: AV Date: 6/27/12 Time: 1105

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	(NO)
What kind of packing material was used?	(Bubble Wrap) Wet Ice (Gel Packs) (Baggies) Foam Block Paper Other:		
Was sufficient ice used (if appropriate)?	NA	(YES)	NO
Were all bottles sealed in individual plastic bags?		YES	(NO)
Did all bottles arrive in good condition (unbroken)?		(YES)	NO
Were all bottle labels complete and legible?		(YES)	NO
Did the number of containers listed on COC match with the number of containers received?		(YES)	NO
Did all bottle labels and tags agree with custody papers?		(YES)	NO
Were all bottles used correct for the requested analyses?		(YES)	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)	(NA)	YES	NO
Were all VOC vials free of air bubbles?	(NA)	YES	NO
Was sufficient amount of sample sent in each bottle?		(YES)	NO
Date VOC Trip Blank was made at ARI	(NA)		

Was Sample Split by ARI : (NA) YES Date/Time: _____ Equipment: _____ Split by: _____

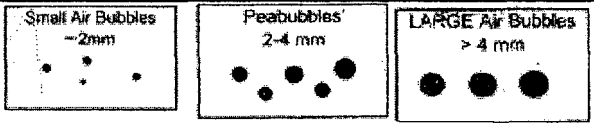
Samples Logged by: AV Date: 6/27/12 Time: 1345

***** Notify Project Manager of discrepancies or concerns *****

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

By: Date:



Small → "sm"
Peabubbles → "pb"
Large → "lg"
Headspace → "hs"

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: VA41
Client: Jefferson Cty Public Health
Project Event: N/A
Project Name: Lee Short Site

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	Below Outfall	VA41A	12-12215	Soil	06/26/12 10:45	06/27/12 11:05
2.	Stockpile Soil	VA41B	12-12216	Soil	06/26/12 11:38	06/27/12 11:05

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Data Reporting Qualifiers

Effective 2/14/2011

Inorganic Data

U	Indicates that the target analyte was not detected at the reported concentration
*	Duplicate RPD is not within established control limits
B	Reported value is less than the CRDL but ≥ the Reporting Limit
N	Matrix Spike recovery not within established control limits
NA	Not Applicable, analyte not spiked
H	The natural concentration of the spiked element is so much greater than the concentration spiked that an accurate determination of spike recovery is not possible
L	Analyte concentration is ≤5 times the Reporting Limit and the replicate control limit defaults to ±1 RL instead of the normal 20% RPD

Organic Data

U	Indicates that the target analyte was not detected at the reported concentration
*	Flagged value is not within established control limits
B	Analyte detected in an associated Method Blank at a concentration greater than one-half of ARI's Reporting Limit or 5% of the regulatory limit or 5% of the analyte concentration in the sample.
J	Estimated concentration when the value is less than ARI's established reporting limits
D	The spiked compound was not detected due to sample extract dilution
E	Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.
Q	Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20%Drift or minimum RRF).

S Indicates an analyte response that has saturated the detector. The calculated concentration is not valid; a dilution is required to obtain valid quantification of the analyte

NA The flagged analyte was not analyzed for

NR Spiked compound recovery is not reported due to chromatographic interference

NS The flagged analyte was not spiked into the sample

M Estimated value for an analyte detected and confirmed by an analyst but with low spectral match parameters. This flag is used only for GC-MS analyses

M2 The sample contains PCB congeners that do not match any standard Aroclor pattern. The PCBs are identified and quantified as the Aroclor whose pattern most closely matches that of the sample. The reported value is an estimate.

N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification"

Y The analyte is not detected at or above the reported concentration. The reporting limit is raised due to chromatographic interference. The Y flag is equivalent to the U flag with a raised reporting limit.

EMPC Estimated Maximum Possible Concentration (EMPC) defined in EPA Statement of Work DLM02.2 as a value "calculated for 2,3,7,8-substituted isomers for which the quantitation and /or confirmation ion(s) has signal to noise in excess of 2.5, but does not meet identification criteria" **(Dioxin/Furan analysis only)**

C The analyte was positively identified on only one of two chromatographic columns. Chromatographic interference prevented a positive identification on the second column

P The analyte was detected on both chromatographic columns but the quantified values differ by ≥40% RPD with no obvious chromatographic interference

X Analyte signal includes interference from polychlorinated diphenyl ethers. **(Dioxin/Furan analysis only)**

Z Analyte signal includes interference from the sample matrix or perfluorokerosene ions. **(Dioxin/Furan analysis only)**

Geotechnical Data

A	The total of all fines fractions. This flag is used to report total fines when only sieve analysis is requested and balances total grain size with sample weight.
F	Samples were frozen prior to particle size determination
SM	Sample matrix was not appropriate for the requested analysis. This normally refers to samples contaminated with an organic product that interferes with the sieving process and/or moisture content, porosity and saturation calculations
SS	Sample did not contain the proportion of "fines" required to perform the pipette portion of the grain size analysis
W	Weight of sample in some pipette aliquots was below the level required for accurate weighting

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
BETX by Method SW8021BMod
Page 1 of 1

Sample ID: Below Outfall
SAMPLE

Lab Sample ID: VA41A
LIMS ID: 12-12215
Matrix: Soil
Data Release Authorized:
Reported: 06/29/12

QC Report No: VA41-Jefferson Cty Public Health
Project: Lee Short Site
Event: NA
Date Sampled: 06/26/12
Date Received: 06/27/12

Date Analyzed: 06/28/12 13:00
Instrument/Analyst: PID1/MH

Purge Volume: 5.0 mL
Sample Amount: 120 mg-dry-wt
Percent Moisture: 20.6%

CAS Number	Analyte	RL	Result
71-43-2	Benzene	11	< 11 U
108-88-3	**Toluene**	**11**	**21**
100-41-4	Ethylbenzene	11	< 11 U
179601-23-1	**m,p-Xylene**	**21**	**21**
95-47-6	o-Xylene	11	< 11 U

BETX Surrogate Recovery

Trifluorotoluene	99.1%
Bromobenzene	94.0%

BETX values reported in µg/kg (ppb)

Results corrected for soil moisture content per Section 11.10.5 of EPA Method 8000C.

MH 6/29/12

Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid1.i/vpcc061228-1.b/0628a009.d ARI ID: VA41A
Data file 2: /chem3/pid1.i/vpcc061228-2.b/0628a009.d Client ID:
Method: /chem3/pid1.i/vpcc061228-2.b/PIDB.m Injection Date: 28-JUN-2012 13:00
Instrument: pid1.i Matrix: WATER
Gas Ical Date: 15-MAY-2012 Dilution Factor: 1.000
BETX Ical Date: 15-MAY-2012

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
7.878	0.003	2906	35817	97.0	TFT(Surr)
15.409	0.003	1789	14772	92.4	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(9.80 to 17.91)	341191	8797	0.026
8015C 2MP-TMB	(4.20 to 16.22)	678311	4683	0.007
AK101 nC6-nC10	(4.70 to 15.12)	538315	2670	0.005
NWTPHG Tol-Nap	(9.80 to 18.92)	359529	10138	0.028

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

PID Surrogates

RT	Shift	Response	%Rec	Compound
7.886	0.002	3674	99.1	TFT(Surr)
15.416	0.002	7668	94.0	BB(Surr)

SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.050	0.001	27	0.11N	Benzene
9.913	0.001	108	0.49N	Toluene
12.810	0.004	26	0.13N	Ethylbenzene
12.973	0.006	108	0.50N	M/P-Xylene
13.923	0.005	25	0.15N	O-Xylene
ND	---	---	---	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak was manually integrated

Data File: /chem3/pid1.i/vpcc061228-1.b/0628a009.d

Page 1

Date : 28-JUN-2012 13:00

Client ID:

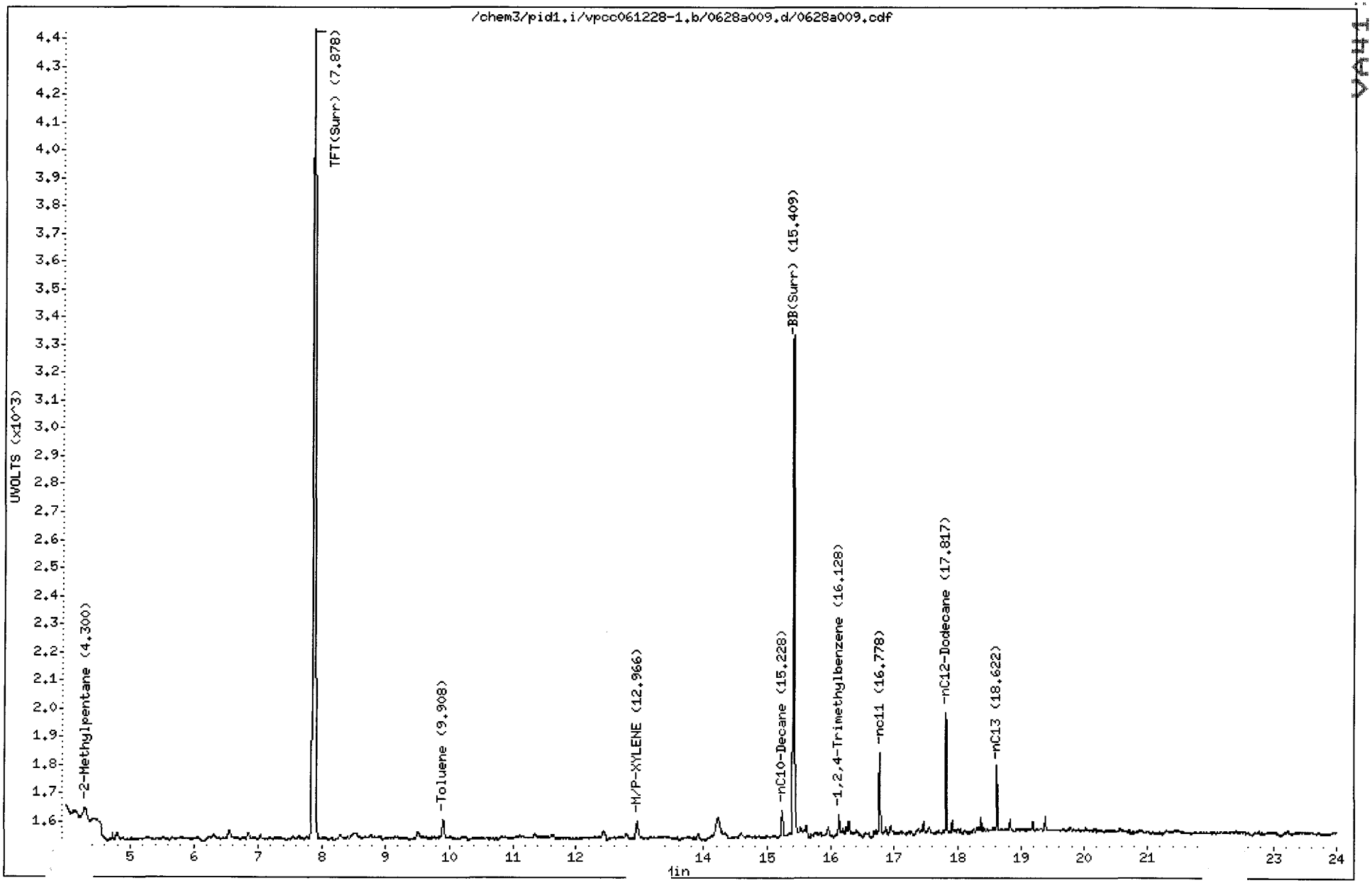
Instrument: pid1.i

Sample Info: VA41A

Operator: MH

Column phase: RTX 502-2 FID

Column diameter: 0.18



Data File: /chem3/pid1.i/vpcc061228-2.b/0628a009.d

Page 1

Date : 28-JUN-2012 13:00

Client ID:

Instrument: pid1.i

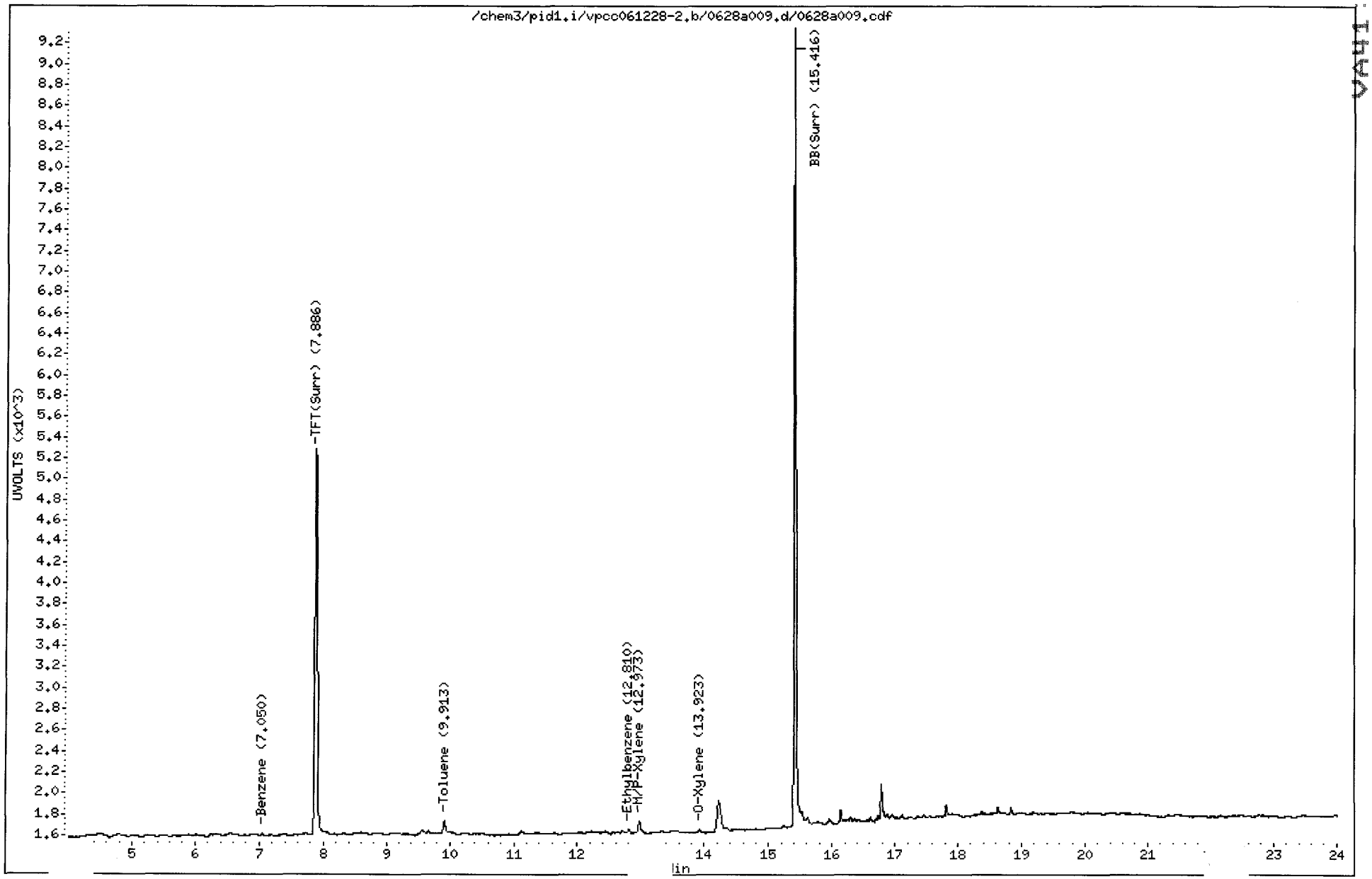
Sample Info: VA41A

Operator: MH

Column phase: RTX 502-2 PID

Column diameter: 0.18

VA41 00011



ANALYTICAL RESOURCES INCORPORATED

BETX SOIL SURROGATE RECOVERY SUMMARY

ARI Job: VA41
Matrix: Soil

QC Report No: VA41-Jefferson Cty Public Health
Project: Lee Short Site
Event: NA

Client ID	TFT	BBZ	TOT OUT
MB-062812	95.2%	96.0%	0
LCS-062812	97.9%	95.5%	0
LCSD-062812	93.9%	92.2%	0
Below Outfall	99.1%	94.0%	0

	LCS/MB LIMITS	QC LIMITS
(TFT) = Trifluorotoluene	(80-120)	(68-124)
(BBZ) = Bromobenzene	(77-120)	(62-134)

Log Number Range: 12-12215 to 12-12215

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
BETX by Method SW8021BMod
Page 1 of 1

Sample ID: LCS-062812
LAB CONTROL SAMPLE

Lab Sample ID: LCS-062812
LIMS ID: 12-12215
Matrix: Soil
Data Release Authorized:
Reported: 06/29/12

QC Report No: VA41-Jefferson Cty Public Health
Project: Lee Short Site
Event: NA
Date Sampled: NA
Date Received: NA

Date Analyzed LCS: 06/28/12 07:15
LCSD: 06/28/12 07:44
Instrument/Analyst LCS: PID1/MH
LCSD: PID1/MH

Purge Volume: 5.0 mL

Sample Amount LCS: 100 mg-dry-wt
LCSD: 100 mg-dry-wt

Analyte	LCS	Spike Added-LCS	LCS Recovery	LCSD	Spike Added-LCSD	LCSD Recovery	RPD
Benzene	176	185	95.1%	176	185	95.1%	0.0%
Toluene	1960	1980	99.0%	1970	1980	99.5%	0.5%
Ethylbenzene	550	580	94.8%	551	580	95.0%	0.2%
m,p-Xylene	2000	2120	94.3%	2010	2120	94.8%	0.5%
o-Xylene	915	960	95.3%	926	960	96.5%	1.2%

Reported in µg/kg (ppb)

RPD calculated using sample concentrations per SW846.

BETX Surrogate Recovery

	LCS	LCSD
Trifluorotoluene	97.9%	93.9%
Bromobenzene	95.5%	92.2%

MH 6/29/12

Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid1.i/vpcc061228-1.b/0628a004.d ARI ID: LCS0628
Data file 2: /chem3/pid1.i/vpcc061228-2.b/0628a004.d Client ID:
Method: /chem3/pid1.i/vpcc061228-2.b/PIDB.m Injection Date: 28-JUN-2012 07:15
Instrument: pid1.i Matrix: WATER
Gas Ical Date: 15-MAY-2012 Dilution Factor: 1.000
BETX Ical Date: 15-MAY-2012

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
7.875	-0.001	2962	42013	98.9	TFT(Surr)
15.406	0.000	1864	16072	96.3	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(9.80 to 17.91)	341191	337049	0.988
8015C 2MP-TMB	(4.20 to 16.22)	678311	700223	1.032
AK101 nC6-nC10	(4.70 to 15.12)	538315	565682	1.051
NWTPHG Tol-Nap	(9.80 to 18.92)	359529	353101	0.982

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

PID Surrogates

RT	Shift	Response	%Rec	Compound
7.883	0.000	3631	97.9	TFT(Surr)
15.413	0.000	7791	95.5	BB(Surr)

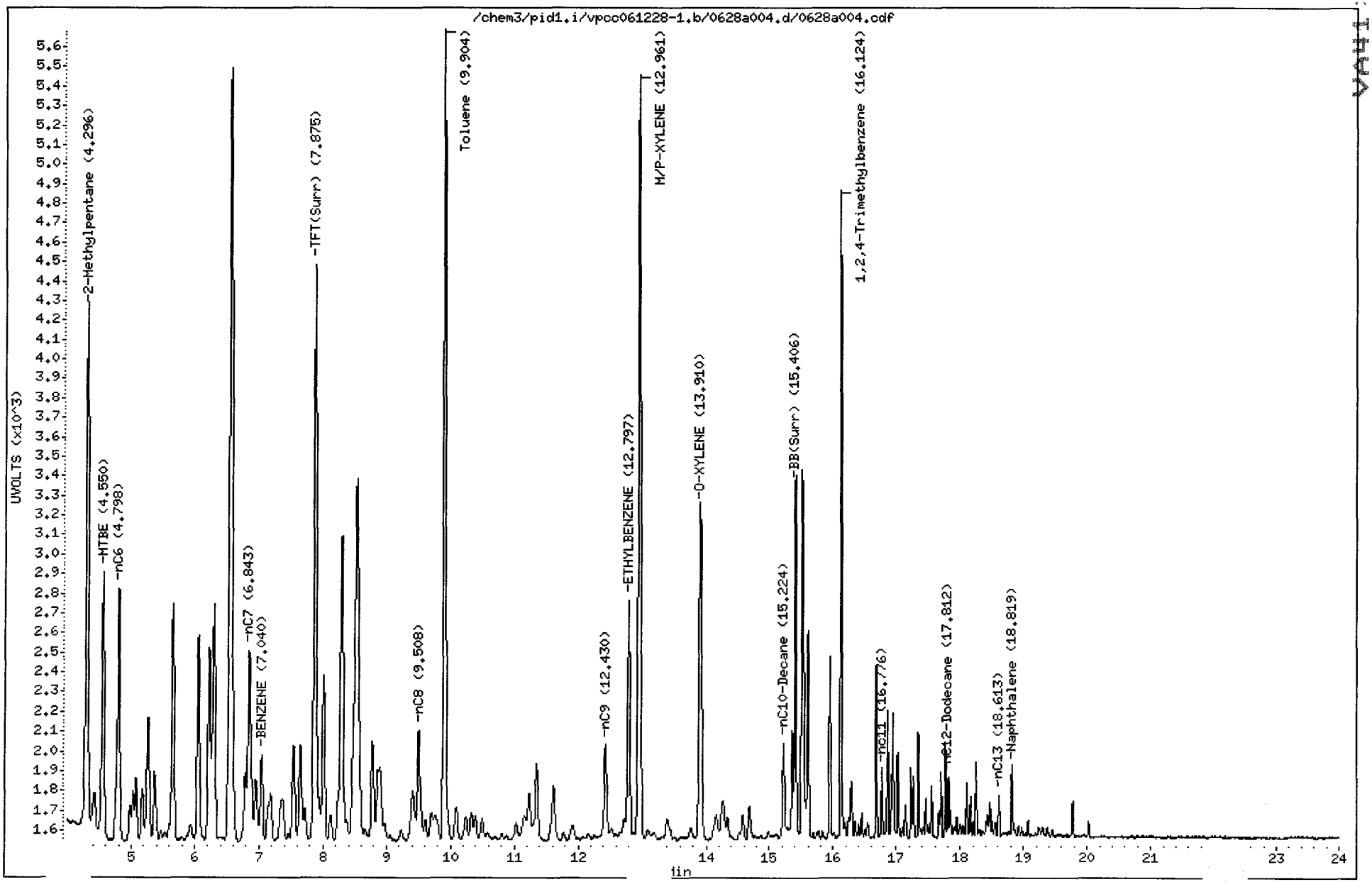
SW8021 (PID)

RT	Shift	Response	Amount	Compound
7.048	-0.001	875	3.51	Benzene
9.912	0.000	8541	39.12	Toluene
12.806	-0.001	2127	10.99	Ethylbenzene
12.970	0.002	8571	39.91	M/P-Xylene
13.919	0.000	3074	18.30	O-Xylene
4.555	-0.015	195	2.32	MTBE

A Indicates Peak Area was used for quantitation instead of Height
N Indicates peak was manually integrated

Data File: /chem3/pid1.i/vpcc061228-1.b/0628a004.d
Date : 28-JUN-2012 07:15
Client ID:
Sample Info: LCS0628

Instrument: pid1.i
Operator: MH
Column phase: RTX 502-2 FID
Column diameter: 0.18

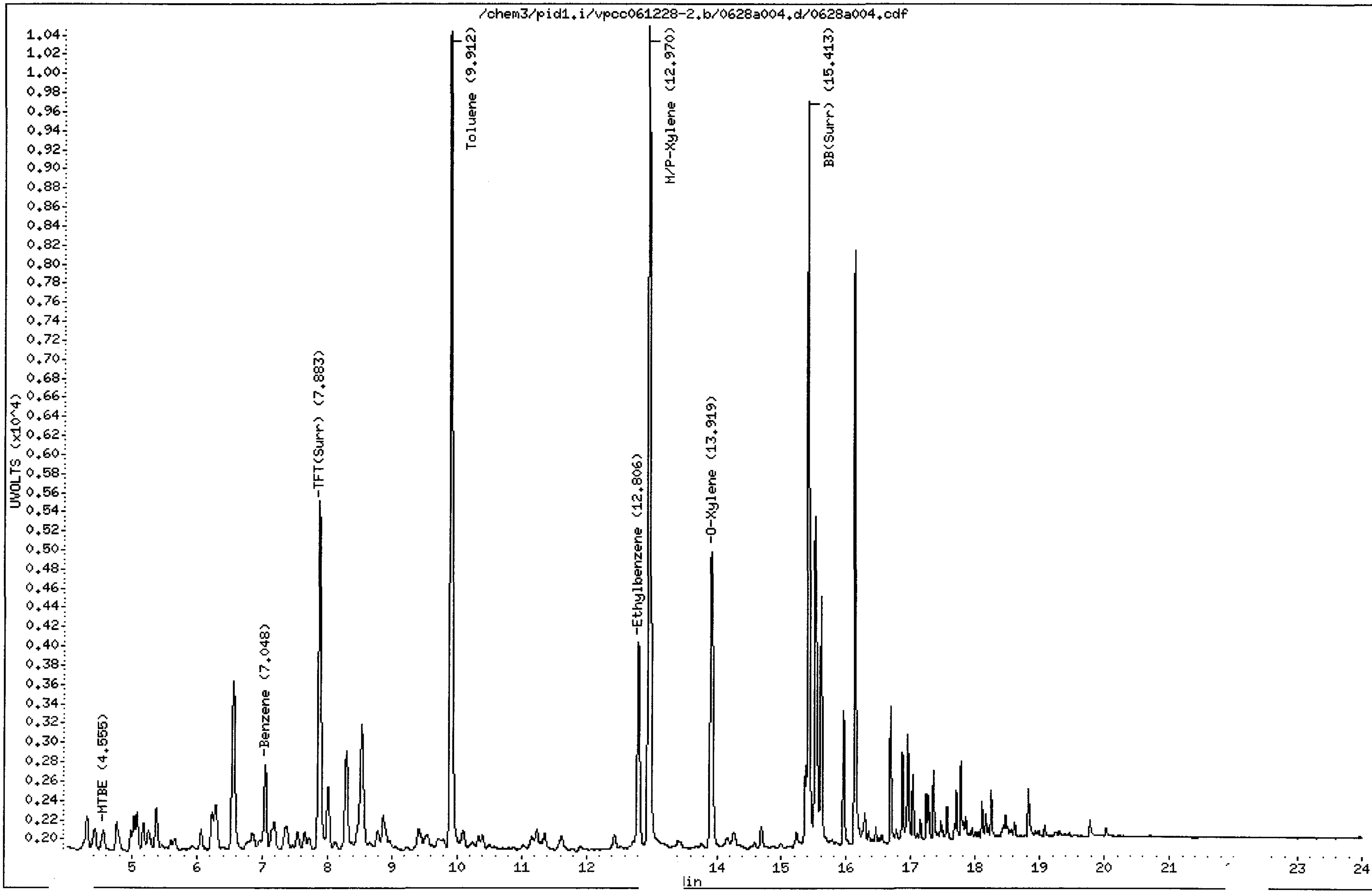


Data File: /chem3/pid1.i/vpcc061228-2.b/0628a004.d
Date : 28-JUN-2012 07:15
Client ID:
Sample Info: LCS0628

Column phase: RTX 502-2 PID

Instrument: pid1.i

Operator: MH
Column diameter: 0.18



Data File: /chem3/pid1.i/vpcc061228-2.b/0628a005.d

Date : 28-JUN-2012 07:44

Client ID:

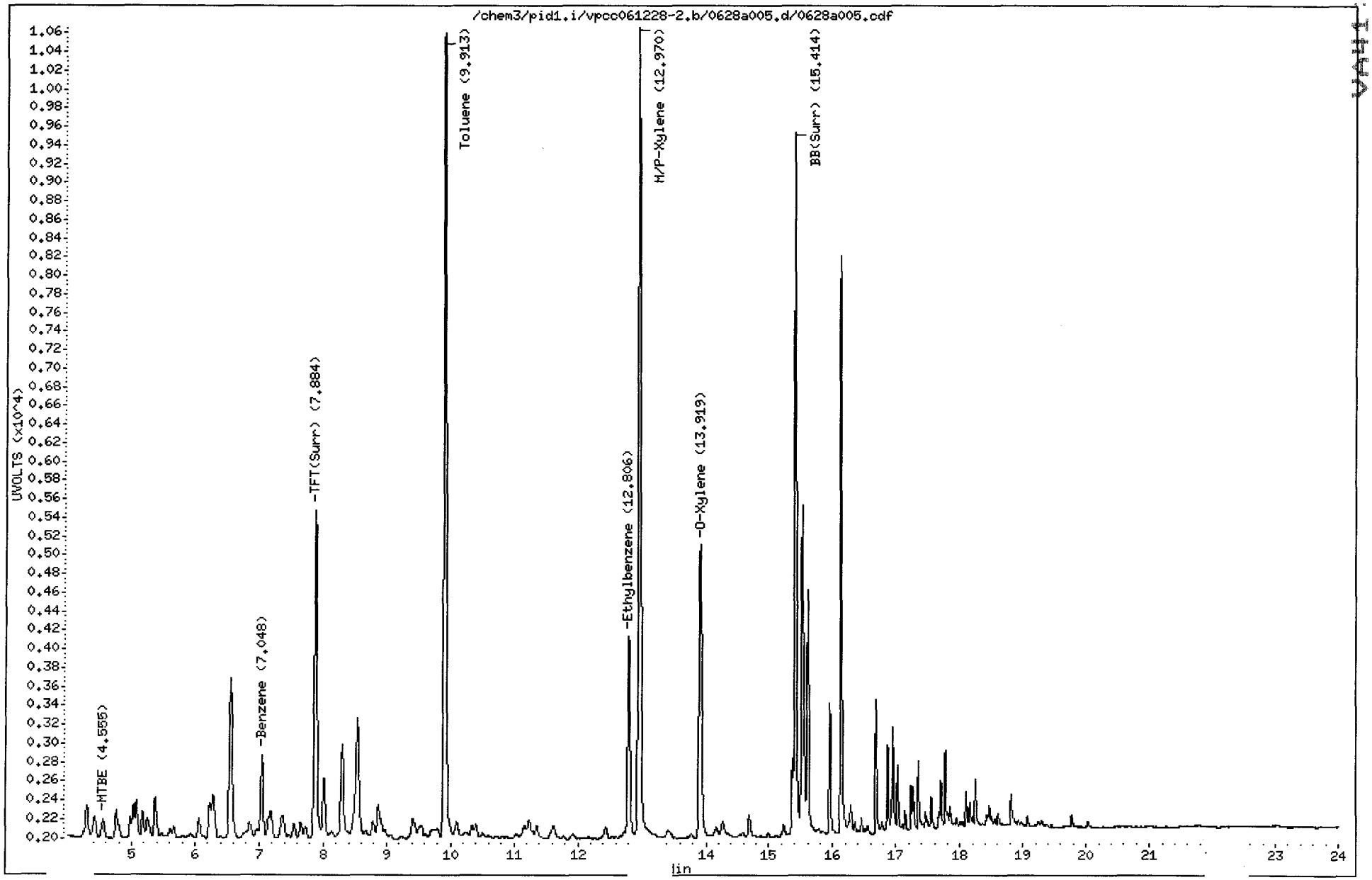
Sample Info: LCSD0628

Column phase: RTX 502-2 PID

Instrument: pid1.i

Operator: MH

Column diameter: 0.18



ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
BETX by Method SW8021BMod

Sample ID: MB-062812
METHOD BLANK

Lab Sample ID: MB-062812
LIMS ID: 12-12215
Matrix: Soil
Data Release Authorized:
Reported: 06/29/12

QC Report No: VA41-Jefferson Cty Public Health
Project: Lee Short Site
Event: NA
Date Sampled: NA
Date Received: NA

Date Analyzed: 06/28/12 08:13
Instrument/Analyst: PID1/MH

Purge Volume: 5.0 mL
Sample Amount: 100 mg-dry-wt

CAS Number	Analyte	RL	Result
71-43-2	Benzene	12	< 12 U
108-88-3	Toluene	12	< 12 U
100-41-4	Ethylbenzene	12	< 12 U
179601-23-1	m,p-Xylene	25	< 25 U
95-47-6	o-Xylene	12	< 12 U

BETX Surrogate Recovery

Trifluorotoluene	95.2%
Bromobenzene	96.0%

BETX values reported in µg/kg (ppb)

MH 6/29/12

Analytical Resources Inc.
BETX/Gas Quantitation Report

Data file 1: /chem3/pid1.i/vpcc061228-1.b/0628a006.d ARI ID: MB0628
Data file 2: /chem3/pid1.i/vpcc061228-2.b/0628a006.d Client ID:
Method: /chem3/pid1.i/vpcc061228-2.b/PIDB.m Injection Date: 28-JUN-2012 08:13
Instrument: pid1.i Matrix: WATER
Gas Ical Date: 15-MAY-2012 Dilution Factor: 1.000
BETX Ical Date: 15-MAY-2012

FID Surrogates

RT	Shift	Height	Area	%Rec	Compound
7.878	0.002	2882	36088	96.2	TFT(Surr)
15.407	0.001	1880	15553	97.1	BB(Surr)

PETROLEUM HYDROCARBONS (FID)

Range		RF	Total Area*	Amount
WAGas Tol-C12	(9.80 to 17.91)	341191	2397	0.007
8015C 2MP-TMB	(4.20 to 16.22)	678311	1588	0.002
AK101 nC6-nC10	(4.70 to 15.12)	538315	962	0.002
NWTPHG Tol-Nap	(9.80 to 18.92)	359529	2397	0.007

M Indicates manual integration within range

* Surrogate areas are subtracted from Total Area
Range marker RT's are set by daily RT standard

PID Surrogates

RT	Shift	Response	%Rec	Compound
7.886	0.002	3531	95.2	TFT(Surr)
15.415	0.001	7832	96.0	BB(Surr)

SW8021 (PID)

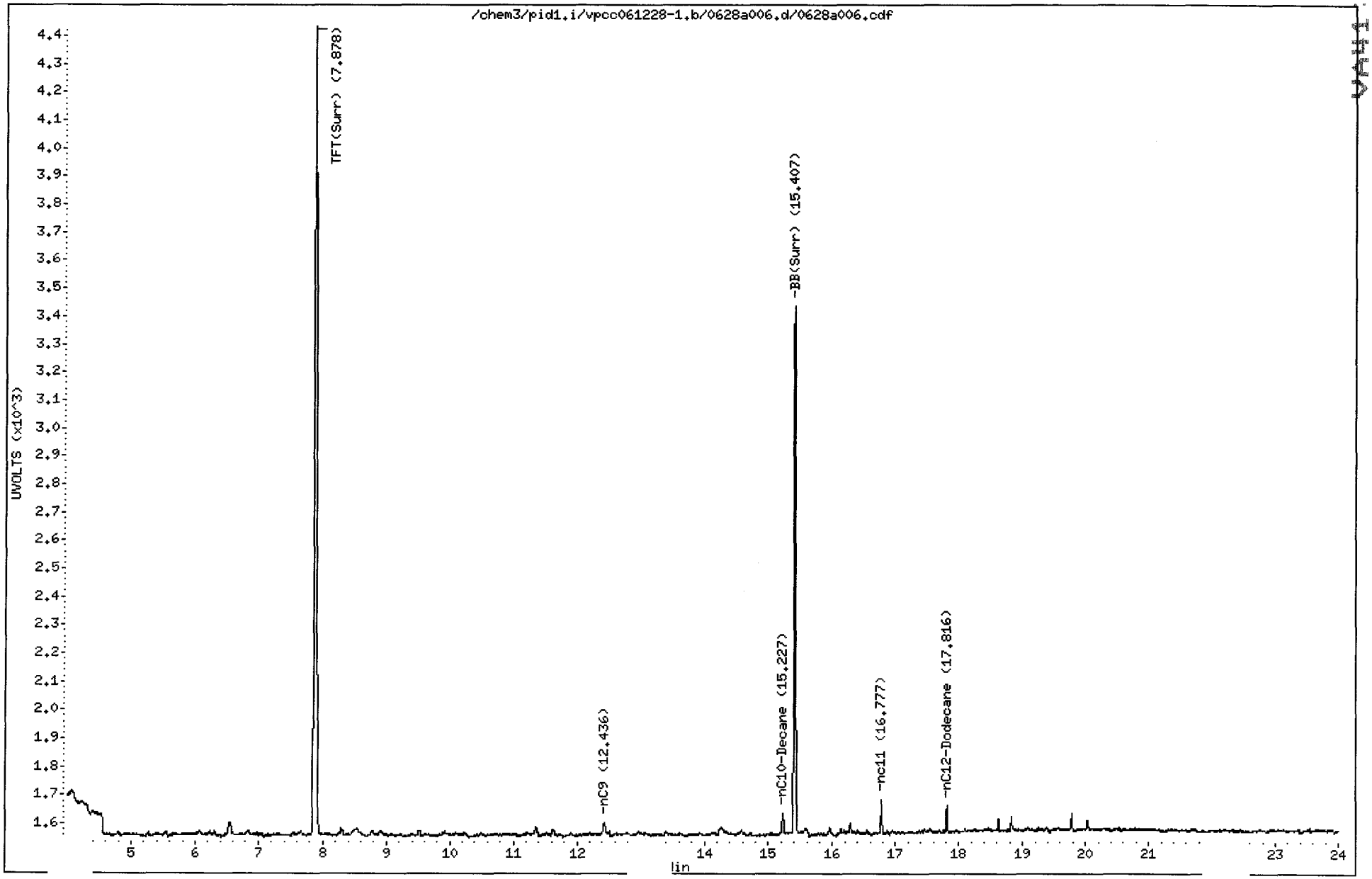
RT	Shift	Response	Amount	Compound
ND	---	---	---	Benzene
ND	---	---	---	Toluene
ND	---	---	---	Ethylbenzene
ND	---	---	---	M/P-Xylene
ND	---	---	---	O-Xylene
ND	---	---	---	MTBE

.. Indicates Peak Area was used for quantitation instead of Height
N Indicates peak was manually integrated

Data File: /chem3/pid1.i/vpcc061228-1.b/0628a006.d
Date : 28-JUN-2012 08:13
Client ID:
Sample Info: MB0628

Instrument: pid1.i
Operator: MH
Column diameter: 0.18

Column phase: RTX 502-2 FID



Data File: /chem3/pid1.i/vpcc061228-2.b/0628a006.d

Page 1

Date : 28-JUN-2012 08:13

Client ID:

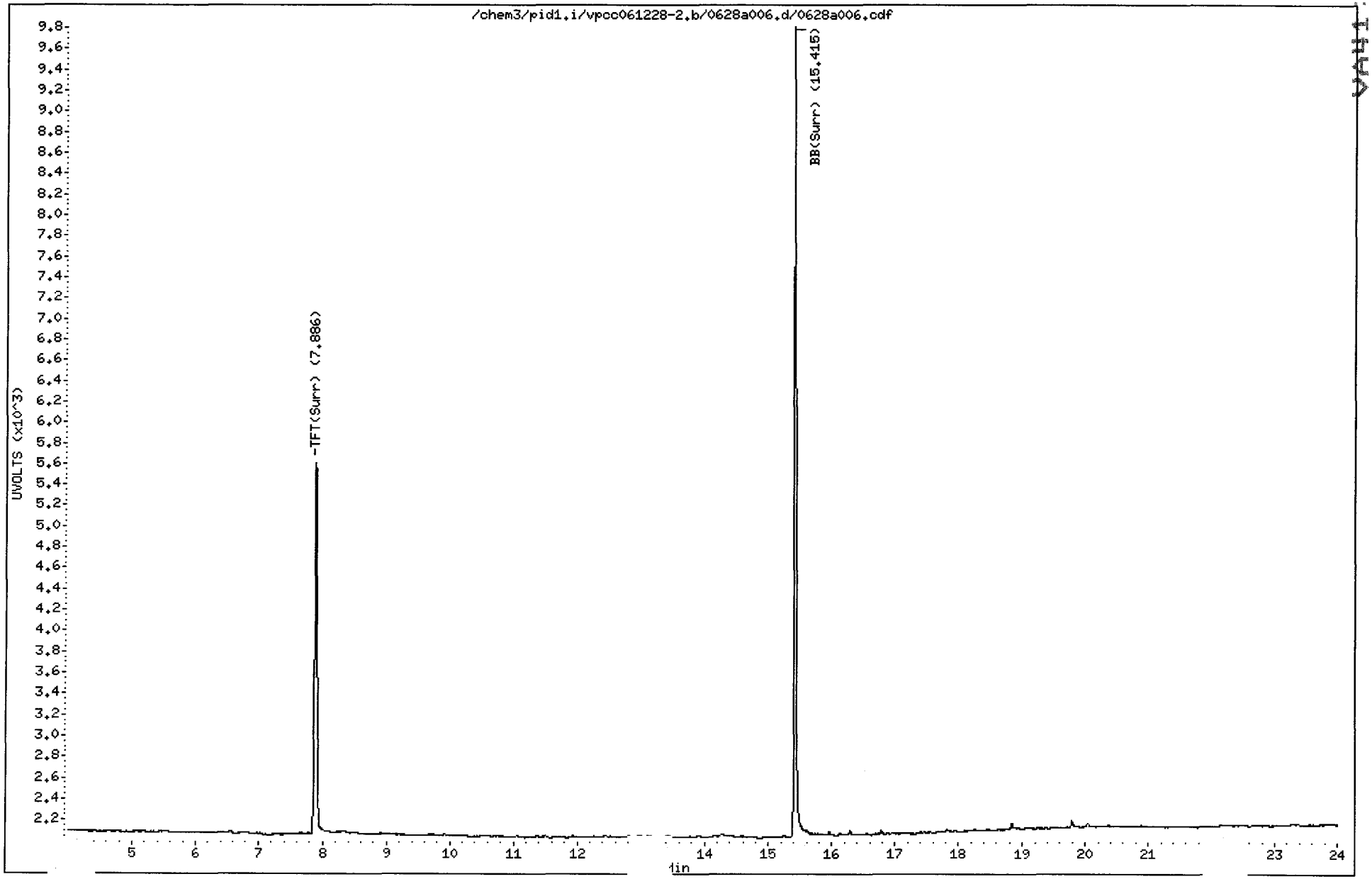
Instrument: pid1.i

Sample Info: MB0628

Operator: MH

Column phase: RTX 502-2 PID

Column diameter: 0.18



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ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PNAs by SW8270D GC/MS
Page 1 of 1

Sample ID: Below Outfall
SAMPLE

Lab Sample ID: VA41A
LIMS ID: 12-12215
Matrix: Soil
Data Release Authorized: B
Reported: 07/06/12

QC Report No: VA41-Jefferson Cty Public Health
Project: Lee Short Site

Date Sampled: 06/26/12
Date Received: 06/27/12

Date Extracted: 07/05/12
Date Analyzed: 07/06/12 14:30
Instrument/Analyst: NT6/JZ
GPC Cleanup: No
Alumina: No
Silica Gel: No

Sample Amount: 8.01 g-dry-wt
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: 20.6%

CAS Number	Analyte	RL	Result
56-55-3	Benzo(a)anthracene	62	< 62 U
218-01-9	Chrysene	62	< 62 U
50-32-8	Benzo(a)pyrene	62	< 62 U
193-39-5	Indeno(1,2,3-cd)pyrene	62	< 62 U
53-70-3	Dibenz(a,h)anthracene	62	< 62 U
TOTBFA	Total Benzofluoranthenes	62	< 62 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d14-p-Terphenyl	58.4%
2-Fluorobiphenyl	66.4%

ANALYTICAL RESOURCES INCORPORATED

SW8270 PNA SURROGATE RECOVERY SUMMARY

Matrix: Soil

QC Report No: VA41-Jefferson Cty Public Health
Project: Lee Short Site

Client ID	TER	FBP	TOT OUT
MB-070512	76.0%	66.0%	0
LCS-070512	80.0%	65.6%	0
Below Outfall	58.4%	66.4%	0

	LCS/MB LIMITS	QC LIMITS
(TER) = d14-p-Terphenyl	(30-160)	(30-160)
(FBP) = 2-Fluorobiphenyl	(30-160)	(30-160)

Prep Method: SW3546
Log Number Range: 12-12215 to 12-12215

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PNAs by SW8270D GC/MS

Sample ID: LCS-070512
LAB CONTROL

Lab Sample ID: LCS-070512
LIMS ID: 12-12215
Matrix: Soil
Data Release Authorized:
Reported: 07/06/12

QC Report No: VA41-Jefferson Cty Public Health
Project: Lee Short Site

Date Sampled: NA
Date Received: 06/27/12

Date Extracted: 07/05/12
Date Analyzed: 07/06/12 13:23
Instrument/Analyst: NT6/JZ
GPC Cleanup: No
Silica Gel Cleanup: No

Sample Amount: 7.50 g-dry-wt
Final Extract Volume: 0.50 mL
Dilution Factor: 1.00
Alumina Cleanup: No

Analyte	Lab Control	Spike Added	Recovery
Benzo(a)anthracene	1180	1670	70.7%
Chrysene	1270	1670	76.0%
Benzo(a)pyrene	1190	1670	71.3%
Indeno(1,2,3-cd)pyrene	1180	1670	70.7%
Dibenz(a,h)anthracene	1200	1670	71.9%
Total Benzofluoranthenes	2530	3330	76.0%

Semivolatile Surrogate Recovery	
d14-p-Terphenyl	80.0%
2-Fluorobiphenyl	65.6%

Results reported in µg/kg

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
PNAs by SW8270D GC/MS

Sample ID: MB-070512
METHOD BLANK

Lab Sample ID: MB-070512
LIMS ID: 12-12215
Matrix: Soil
Data Release Authorized:
Reported: 07/06/12

QC Report No: VA41-Jefferson Cty Public Health
Project: Lee Short Site

Date Sampled: NA
Date Received: NA

Date Extracted: 07/05/12
Date Analyzed: 07/06/12 12:50
Instrument/Analyst: NT6/JZ
GPC Cleanup: No
Alumina: No
Silica Gel: No

Sample Amount: 7.50 g
Final Extract Volume: 0.5 mL
Dilution Factor: 1.00
Percent Moisture: NA

CAS Number	Analyte	RL	Result
56-55-3	Benzo(a)anthracene	67	< 67 U
218-01-9	Chrysene	67	< 67 U
50-32-8	Benzo(a)pyrene	67	< 67 U
193-39-5	Indeno(1,2,3-cd)pyrene	67	< 67 U
53-70-3	Dibenz(a,h)anthracene	67	< 67 U
TOTBFA	Total Benzofluoranthenes	67	< 67 U

Reported in µg/kg (ppb)

Semivolatile Surrogate Recovery

d14-p-Terphenyl	76.0%
2-Fluorobiphenyl	66.0%

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
TOTAL DIESEL RANGE HYDROCARBONS
NWTPHD by GC/FID-Silica and Acid Cleaned — QC Report No: VA41-Jefferson Cty Public Healt
Extraction Method: — Project: Lee Short Site

Matrix: Soil
Data Release Authorized: MW
Reported: 07/05/12

ARI ID	Sample ID	Extraction Date	Analysis Date	EFV DL	Range/Surrogate	RL	Result
MB-070212	Method Blank	07/02/12	07/03/12	1.00	Diesel Range	5.0	< 5.0 U
12-12215	HC ID: ---		FID4A	1.0	Motor Oil Range	10	< 10 U
					o-Terphenyl		85.4%
VA41A	Below Outfall	07/02/12	07/03/12	1.00	**Diesel Range**	**6.1**	**110**
12-12215	HC ID: **DRO/MOTOR OIL**		FID4A	1.0	**Motor Oil Range**	**12**	**340**
					o-Terphenyl		63.1%

Reported in mg/kg (ppm)

EFV-Effective Final Volume in mL.
DL-Dilution of extract prior to analysis.
RL-Reporting limit.

Diesel range quantitation on total peaks in the range from C12 to C24.
Motor Oil range quantitation on total peaks in the range from C24 to C38.
HC ID: DRO/RRO indicate results of organics or additional hydrocarbons in ranges are not identifiable.

MH 7/5/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120703.b/0703a006.d ARI ID: VA41MBS1
Method: /chem3/fid4a.i/20120703.b/ftphfid4a.m Client ID: VA41MBS1
Instrument: fid4a.i Injection: 03-JUL-2012 08:25
Operator: MH
Report Date: 07/05/2012 Dilution Factor: 1
Macro: 22-JUN-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:12-JUN-2012 M.Oil:12-JUN-2012

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc
Toluene	1.414	0.003	2148	3423	GAS (Tol-C12)	241396	16.05
C8	1.699	0.009	1686	3047	DIESEL (C12-C24)	129183	8.62
C10	3.236	-0.002	578	526	M.OIL (C24-C38)	110206	8.77
C12	4.132	0.009	289	188	AK-102 (C10-C25)	167750	9.50
C14	4.798	-0.003	525	363	AK-103 (C25-C36)	84370	9.88
C16	5.393	0.005	1683	1785			
C18	5.952	-0.003	1675	1185			
C20	6.530	0.007	1070	2052	JET-A (C10-C18)	127482	8.59
C22	7.074	-0.001	1072	1875	MIN.OIL (C24-C38)	110206	8.20
C24	7.601	0.003	754	892			
C25	7.851	0.000	469	478			
C26	8.090	-0.001	610	774			
C28	8.539	-0.006	1617	1663			
C32	9.351	0.001	1566	3238			
C34	9.726	0.005	840	1214			
Filter Peak	9.995	0.009	1064	1564	BUNKERC (C10-C38)	275587	30.77
6	10.081	0.000	1190	2643			
3	10.426	-0.003	1606	2552			
C40	10.786	0.018	2542	10674			
o-terph	6.099	0.000	1022936	807946			
Triacon Surr	8.969	-0.001	856781	785404			

M Indicates manual integration within range.
Range Times: NW Diesel(4.123 - 7.598) AK102(3.24 - 7.85) Jet A(3.24 - 5.95)
NW M.Oil(7.60 - 10.43) AK103(7.85 - 10.08) OR Diesel(3.24 - 8.55)

Surrogate	Area	Amount	%Rec
o-Terphenyl	807946	38.4	85.4
Triacontane	785404	41.2	91.4

Analyte	RF	Curve Date
o-Terph Surr	21021.3	12-JUN-2012
Triacon Surr	19086.0	12-JUN-2012
Gas	15043.9	10-MAY-2012
Diesel	14983.0	12-JUN-2012
Motor Oil	12569.0	12-JUN-2012
AK102	17655.0	12-JUN-2012
AK103	8538.0	24-MAY-2012
JetA	14842.0	13-APR-2011
Min Oil	13440.7	09-MAY-2012
Bunker C	8956.5	22-JUN-2012

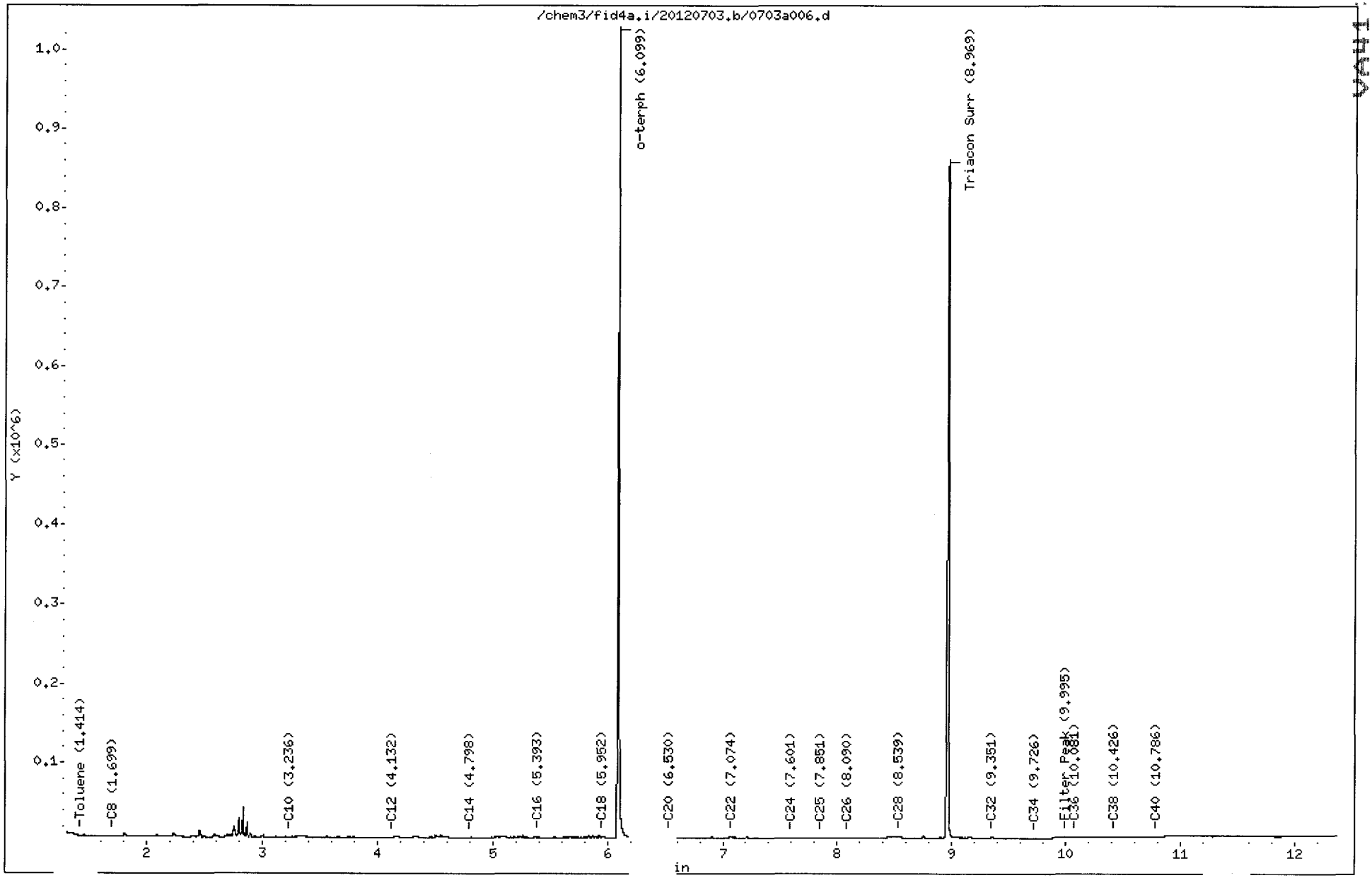
Data File: /chem3/fid4a.i/20120703.b/0703a006.d
Date : 03-JUL-2012 08:25
Client ID: VA41MBS1
Sample Info: VA41MBS1

Column phase: RTX-1

Instrument: fid4a.i

Operator: MH
Column diameter: 0.25

VA41 000030



MH 7/5/12

Analytical Resources Inc.
407S TPH Quantitation Report

Data file: /chem3/fid4a.i/20120703.b/0703a008.d
Method: /chem3/fid4a.i/20120703.b/ftphfid4a.m
Instrument: fid4a.i
Operator: MH
Report Date: 07/05/2012
Macro: 22-JUN-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:12-JUN-2012 M.Oil:12-JUN-2012

ARI ID: VA41A
Client ID: Below Outfall
Injection: 03-JUL-2012 09:09

Dilution Factor: 1

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc	
Toluene	1.415	0.003	1445	2734	GAS (Tol-C12)	301902	20.07	
C8	1.709	0.018	7446	8547	DIESEL (C12-C24)	13083765	873.24	
C10	3.245	0.007	1714	2909	M.OIL (C24-C38)	34310523	2729.77	
C12	4.128	0.005	7539	7819	AK-102 (C10-C25)	14613809	827.74	M
C14	4.801	0.000	5824	8891	AK-103 (C25-C36)	30371672	3557.23	M
C16	5.388	0.000	25372	25095				
C18	5.952	-0.002	63704	79487				
C20	6.527	0.004	92615	124149	JET-A (C10-C18)	1962791	132.25	
C22	7.079	0.005	140548	141616	MIN.OIL (C24-C38)	34310523	2552.74	M
C24	7.589	-0.009	175472	180001				
C25	7.846	-0.005	185841	76892				
C26	8.089	-0.002	216075	114377				
C28	8.551	0.005	295283	352676				
C32	9.357	0.007	222040	148530				
C34	9.730	0.008	179260	95208				
Filter Peak	9.985	-0.001	158561	164229	BUNKERC (C10-C38)	47498278	5303.24	M
6	10.082	0.001	149309	73197				
3	10.428	-0.001	107325	75774				
C40	10.775	0.007	65893	33696				
o-terph	6.099	0.000	816552	596719				
Triacon Surr	8.986	0.016	643927	570817				

M Indicates manual integration within range.
Range Times: NW Diesel(4.123 - 7.598) AK102(3.24 - 7.85) Jet A(3.24 - 5.95)
NW M.Oil(7.60 - 10.43) AK103(7.85 - 10.08) OR Diesel(3.24 - 8.55)

Surrogate	Area	Amount	%Rec
o-Terphenyl	596719	28.4	63.1
Triacontane	570817	29.9	66.5

Analyte	RF	Curve Date
o-Terph Surr	21021.3	12-JUN-2012
Triacon Surr	19086.0	12-JUN-2012
Gas	15043.9	10-MAY-2012
Diesel	14983.0	12-JUN-2012
Motor Oil	12569.0	12-JUN-2012
AK102	17655.0	12-JUN-2012
AK103	8538.0	24-MAY-2012
JetA	14842.0	13-APR-2011
Min Oil	13440.7	09-MAY-2012
Bunker C	8956.5	22-JUN-2012

Data File: /chem3/fid4a.i/20120703.b/0703a008.d

Date : 03-JUL-2012 09:09

Client ID: Below Outfall

Sample Info: VA41A

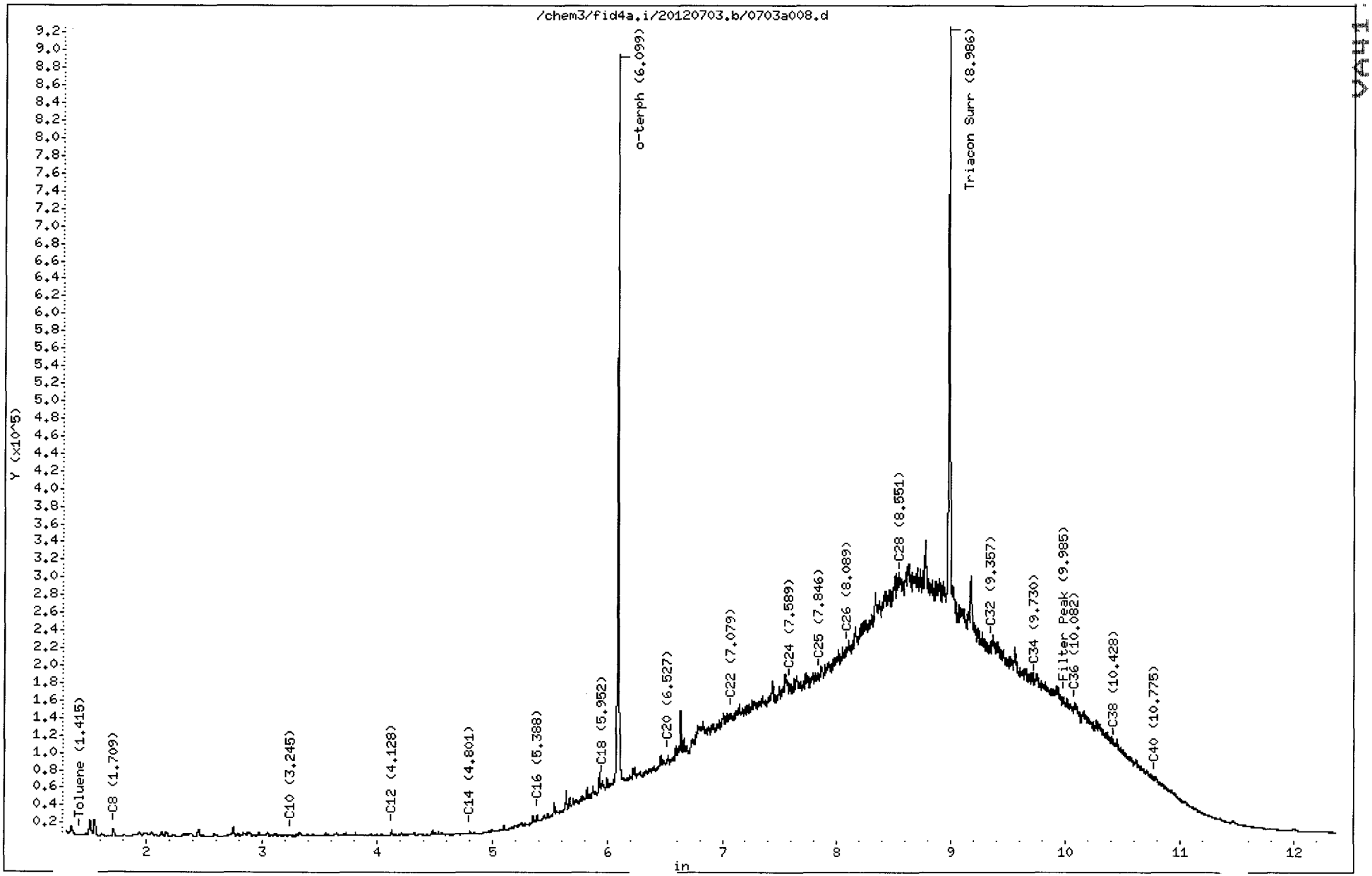
Column phase: RTX-1

Instrument: fid4a.i

Operator: MH

Column diameter: 0.25

VA41A00032



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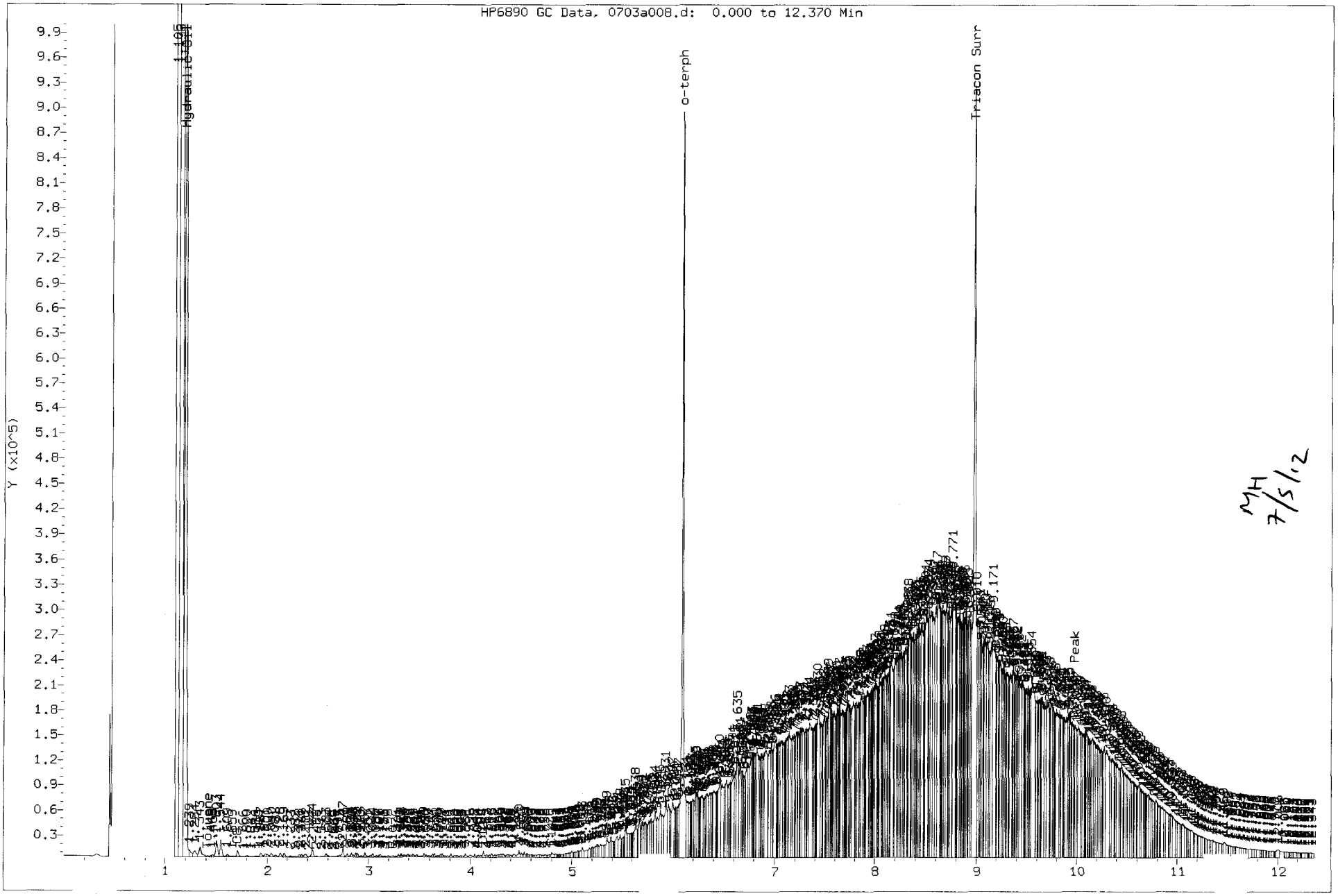
Injection Date: 03-JUL-2012 09:09
Instrument: fid4a.i
Client Sample ID: Below Outfall

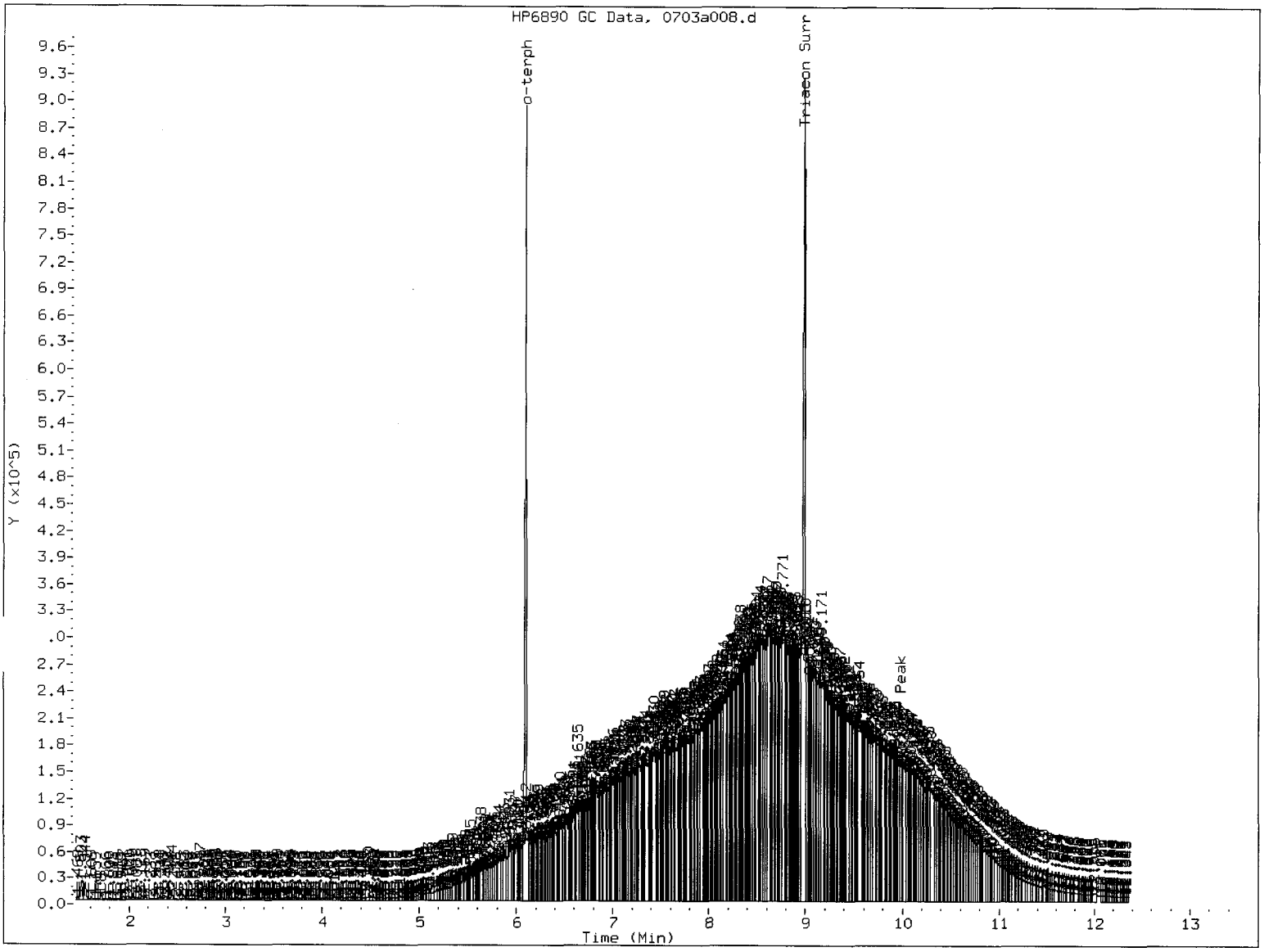


MH 7/5/12

VA41 : 00033

FID:4A-2C/RTX-1 VA41A

FID:4A SIGNAL



MANUAL INTEGRATION

X 1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 7/5/12

ANALYTICAL RESOURCES INCORPORATED

CLEANED TPHD SURROGATE RECOVERY SUMMARY

Matrix: Soil

QC Report No: VA41-Jefferson Cty Public Health
Project: Lee Short Site

Client ID	OTER	TOT OUT
MB-070212	85.4%	0
LCS-070212	92.6%	0
Below Outfall	63.1%	0

	LCS/MB LIMITS	QC LIMITS
(OTER) = o-Terphenyl	(50-150)	(50-150)

Prep Method: SW3546
Log Number Range: 12-12215 to 12-12215

ANALYTICAL RESOURCES INCORPORATED

ORGANICS ANALYSIS DATA SHEET
NWTPHD by GC/FID-Silica and Acid Cleaned **Sample ID: LCS-070212**
Page 1 of 1 **LAB CONTROL**

Lab Sample ID: LCS-070212 QC Report No: VA41-Jefferson Cty Public Health
LIMS ID: 12-12215 Project: Lee Short Site
Matrix: Soil
Data Release Authorized: MW Date Sampled: 06/26/12
Reported: 07/05/12 Date Received: 06/27/12

Date Extracted: 07/02/12 Sample Amount: 10.0 g
Date Analyzed: 07/03/12 08:47 Final Extract Volume: 1.0 mL
Instrument/Analyst: FID/MH Dilution Factor: 1.0

Range	Lab Control	Spike Added	Recovery
Diesel	124	150	82.7%

TPHD Surrogate Recovery

o-Terphenyl	92.6%

Results reported in mg/kg

MH 7/5/12

Analytical Resources Inc.
407S TPH Quantitation Report

ta file: /chem3/fid4a.i/20120703.b/0703a007.d ARI ID: VA41LCSS1
Method: /chem3/fid4a.i/20120703.b/ftphfid4a.m Client ID: VA41LCSS1
Instrument: fid4a.i Injection: 03-JUL-2012 08:47
Operator: MH
Report Date: 07/05/2012 Dilution Factor: 1
Macro: 22-JUN-2012
Calibration Dates: Gas:10-MAY-2012 Diesel:12-JUN-2012 M.Oil:12-JUN-2012

FID:4A RESULTS

Compound	RT	Shift	Height	Area	Range	Total Area	Conc	
Toluene	1.410	-0.001	519	671	GAS (Tol-C12)	4056568	269.65	
C8	1.717	0.027	4521	7258	DIESEL (C12-C24)	18521008	1236.13	
C10	3.242	0.004	114728	91804	M.OIL (C24-C38)	380519	30.27	
C12	4.122	-0.001	284445	206026	AK-102 (C10-C25)	21523629	1219.12	M
C14	4.799	-0.002	403137	398986	AK-103 (C25-C36)	274056	32.10	
C16	5.390	0.002	610997	507345				
C18	5.958	0.004	511647	480434				
C20	6.523	0.000	355125	413742	JET-A (C10-C18)	15890340	1070.63	
C22	7.072	-0.002	186595	203539	MIN.OIL (C24-C38)	380519	28.31	
C24	7.595	-0.002	48042	60882				
C25	7.845	-0.005	20945	26846				
C26	8.088	-0.003	9531	18357				
C28	8.538	-0.007	3413	5632				
C32	9.347	-0.003	2189	5245				
C34	9.708	-0.014	1160	1679				
Filter Peak	9.987	0.001	1483	2691	BUNKERC (C10-C38)	21830955	2437.45	M
5	10.094	0.014	1405	1429				
8	10.439	0.010	1814	860				
C40	10.765	-0.004	2609	1293				
o-terph	6.102	0.003	1039518	875946				
Triacon Surr	8.966	-0.004	848929	806389				

M Indicates manual integration within range.
Range Times: NW Diesel(4.123 - 7.598) AK102(3.24 - 7.85) Jet A(3.24 - 5.95)
NW M.Oil(7.60 - 10.43) AK103(7.85 - 10.08) OR Diesel(3.24 - 8.55)

Surrogate	Area	Amount	%Rec
o-Terphenyl	875946	41.7	92.6
Triacontane	806389	42.3	93.9

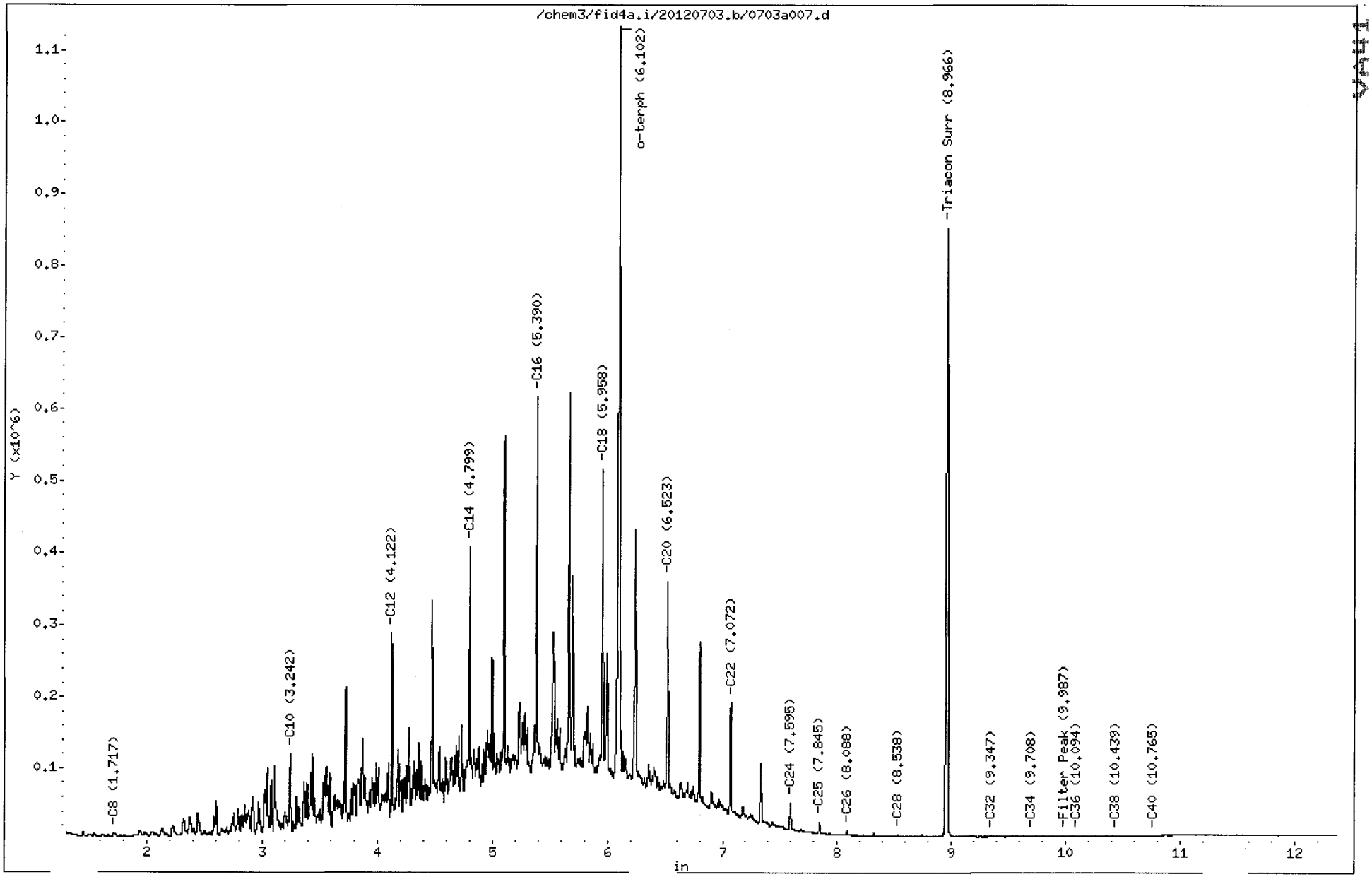
Analyte	RF	Curve Date
o-Terph Surr	21021.3	12-JUN-2012
Triacon Surr	19086.0	12-JUN-2012
Gas	15043.9	10-MAY-2012
Diesel	14983.0	12-JUN-2012
Motor Oil	12569.0	12-JUN-2012
AK102	17655.0	12-JUN-2012
AK103	8538.0	24-MAY-2012
JetA	14842.0	13-APR-2011
Min Oil	13440.7	09-MAY-2012
Bunker C	8956.5	22-JUN-2012

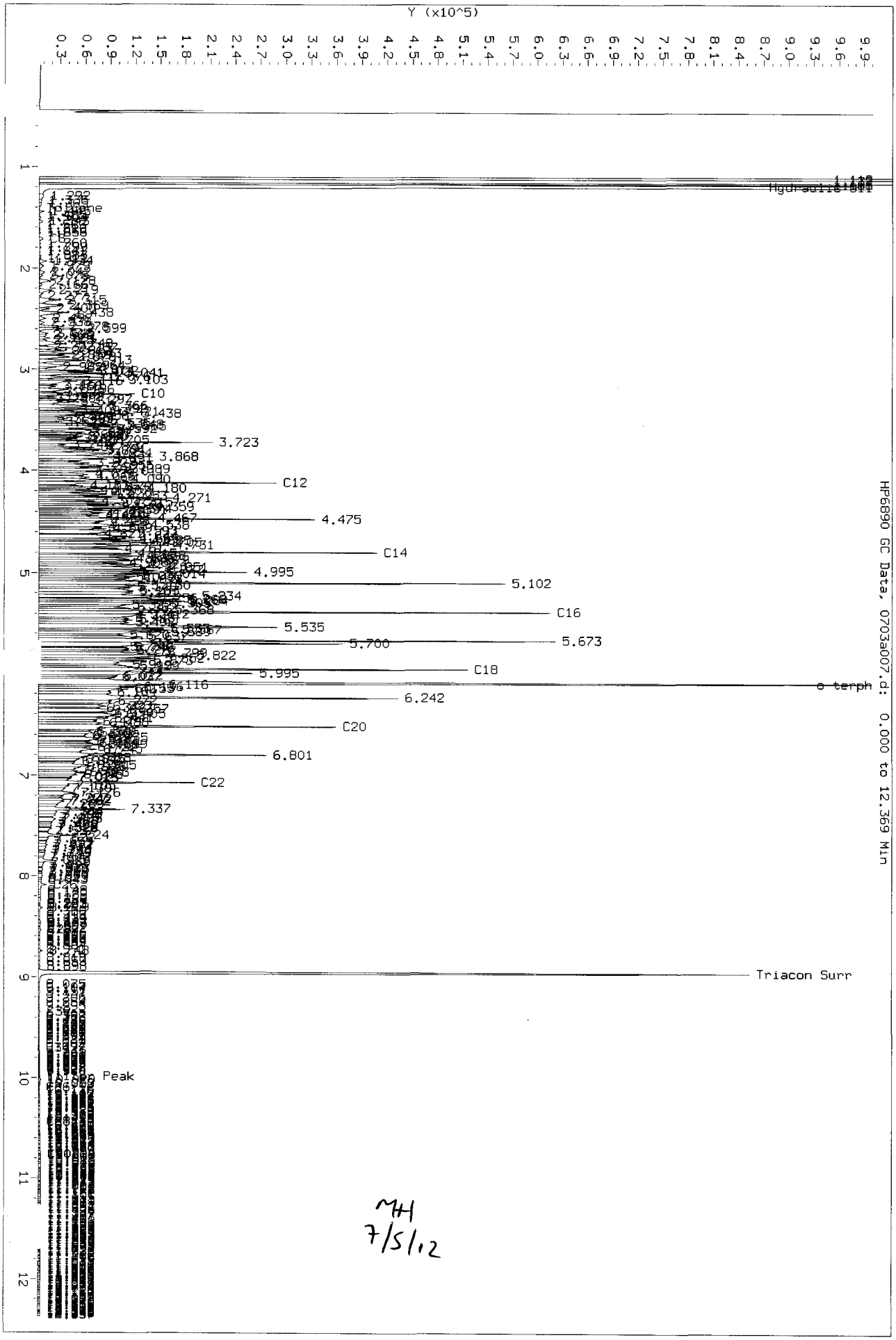
Data File: /chem3/fid4a.i/20120703.b/0703a007.d
Date : 03-JUL-2012 08:47
Client ID: VA41LCSS1
Sample Info: VA41LCSS1

Instrument: fid4a.i
Operator: MH
Column diameter: 0.25

Column phase: RTX-1

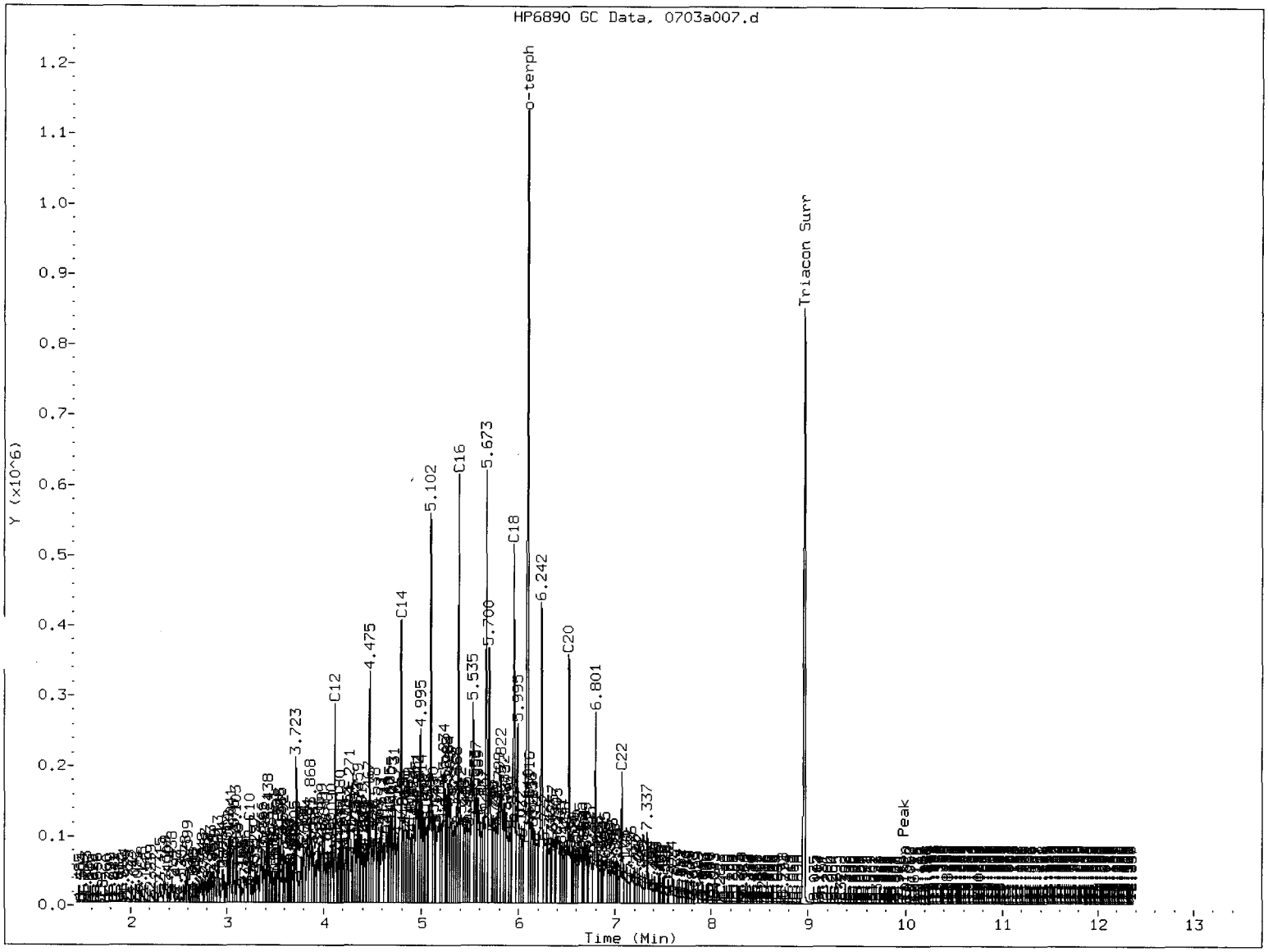
VA41 000038




Y (x10^5)
Data File: /chem3/fid4a.i/20120703.b/0703a007.d
Injection Date: 03-JUL-2012 08:47
Instrument: fid4a.i
Client Sample ID: VA41LCSS1
HP6890 GC Data, 0703a007.d: 0.000 to 12.369 Min
C10
3.723
C12
4.475
C14
5.102
C16
5.673
C18
6.242
C20
6.801
C22
7.337
Triacon Surr
Peak

MH
7/5/12

FID:4A-2C/RTX-1 VA41LCSS1 FID:4A SIGNAL



MANUAL INTEGRATION

X 1. Baseline correction
2. Poor chromatography
3. Peak not found
4. Totals calculation

5. Other _____

Analyst: MH Date: 7/5/12

ANALYTICAL RESOURCES INCORPORATED

TOTAL DIESEL RANGE HYDROCARBONS-EXTRACTION REPORT

ARI Job: VA41
Matrix: Soil Project: Lee Short Site
Date Received: 06/27/12

ARI ID	Client ID	Client Amt	Final Vol	Basis	Prep Date
12-12215-070212MB1	Method Blank	10.0 g	1.00 mL	-	07/02/12
12-12215-070212LCS1	Lab Control	10.0 g	1.00 mL	-	07/02/12
12-12215-VA41A	Below Outfall	8.15 g	1.00 mL	D	07/02/12

Basis: D=Dry Weight W=As Received

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: Below Outfall
SAMPLE

Lab Sample ID: VA41A
LIMS ID: 12-12215
Matrix: Soil
Data Release Authorized:
Reported: 07/09/12

QC Report No: VA41-Jefferson Cty Public Health
Project: Lee Short Site

Date Sampled: 06/26/12
Date Received: 06/27/12

Percent Total Solids: 79.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	06/29/12	6010C	07/05/12	7440-38-2	Arsenic	10	10	U
3050B	06/29/12	6010C	07/05/12	**7440-39-3**	**Barium**	0.9	**85.6**	
3050B	06/29/12	6010C	07/05/12	**7440-43-9**	**Cadmium**	0.6	**1.3**	
3050B	06/29/12	6010C	07/05/12	**7440-47-3**	**Chromium**	1	**52**	
3050B	06/29/12	6010C	07/05/12	**7439-92-1**	**Lead**	6	**46**	
CLP	06/28/12	7471A	07/07/12	7439-97-6	Mercury	0.03	0.03	U
3050B	06/29/12	6010C	07/05/12	7782-49-2	Selenium	10	10	U
3050B	06/29/12	6010C	07/05/12	7440-22-4	Silver	0.9	0.9	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: Stockpile Soil
SAMPLE

Lab Sample ID: VA41B
LIMS ID: 12-12216
Matrix: Soil
Data Release Authorized:
Reported: 07/09/12

QC Report No: VA41-Jefferson Cty Public Health
Project: Lee Short Site

Date Sampled: 06/26/12
Date Received: 06/27/12

Percent Total Solids: 60.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	RL	mg/kg-dry	Q
3050B	06/29/12	6010C	07/03/12	7440-38-2	Arsenic	8	8	U
3050B	06/29/12	6010C	07/03/12	**7440-39-3**	**Barium**	0.5	**61.7**	
3050B	06/29/12	6010C	07/03/12	**7440-43-9**	**Cadmium**	0.3	**0.7**	
3050B	06/29/12	6010C	07/03/12	**7440-47-3**	**Chromium**	0.8	**33.2**	
3050B	06/29/12	6010C	07/03/12	**7439-92-1**	**Lead**	3	**10**	
CLP	06/28/12	7471A	07/07/12	**7439-97-6**	**Mercury**	0.04	**0.05**	
3050B	06/29/12	6010C	07/03/12	7782-49-2	Selenium	8	8	U
3050B	06/29/12	6010C	07/03/12	7440-22-4	Silver	0.5	0.5	U

U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: Below Outfall
MATRIX SPIKE

Lab Sample ID: VA41A
LIMS ID: 12-12215
Matrix: Soil
Data Release Authorized:
Reported: 07/09/12

QC Report No: VA41-Jefferson Cty Public Health
Project: Lee Short Site

Date Sampled: 06/26/12
Date Received: 06/27/12

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Arsenic	6010C	10 U	230	235	97.9%	
Barium	6010C	85.6	302	235	92.1%	
Cadmium	6010C	1.3	61.9	58.8	103%	
Chromium	6010C	52	104	58.8	88.4%	
Lead	6010C	46	254	235	88.5%	
Mercury	7471A	0.03 U	0.35	0.286	122%	
Selenium	6010C	10 U	230	235	97.9%	
Silver	6010C	0.9 U	58.3	58.8	99.1%	

Reported in mg/kg-dry

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

"Rite in the Rain"
ALL-WEATHER WRITING PAPER

Name ______

Address ______

Phone ______

Project Lee Shot's Truck Repair
1520 Center Rd., Chimacum
732-4781

47.98878
-122.77139

FSID: 24761

SHA Visit date: 6-26-12
Time entered Site: 9:15AM
Present: Lee Shot, M. Boyd
Weather: Temp - 52°F (Bank)
wind - Ø overcast light wind - trans.

GPS: OUTFALL
Left Site: 11:45 - just getting sunny in spots - still mostly overcast.

Questions:

- Size of oil tanks? 1) 500 - 1000, 2) 2k (back side)
- Floor drains in Shop? Y - no hookup
- Drain to where? ? plugged.
- LOCATION of Drinking well for property? (GPS?) PHOTO?
- When/ever tested for VOC's, petroleum?
- (copies of 4ts "go" -
- Depth of wells? (to groundwater) 100 ft.
- # of wells? (1)
- On which parcel? 1's parcel (lee-lcow)

- Drywells on property? ∅
- if yes, when? NA –

- location of Septic drainfield? (behind m'dale / Shop) currently covered w/ SW.

- Explain oil/water Separator Sx:
Where did soil go? Stockpiled on cement pad, uncovered, to Ⓢ of property.

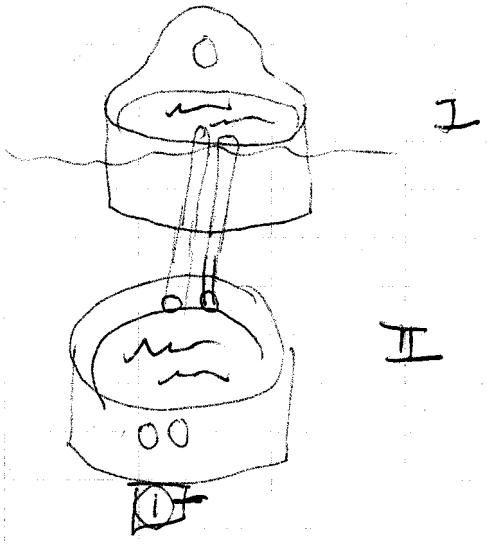
- Direction of flow of CHIM CREEK. → North

- Distance from outflow pipe to [illegible]

- How long has oil been collected / disposed of this way? ≈ 30 yrs.

- Verify locations / sizes of cement pads, size of shop?
(≈ 1700')
- 579 meters from cement pad to area of water well
- Today we discussed options for preventing further contamination. During conversation Lee states he washes down vehicles next to oil tank shed.
- Lee states his Jace is primarily fill dirt.
- There is a large amount of Solid Waste on the site: disassembled trailers, burn barrels, piles of metal, discarded commodities, Lee states that much of this belongs to his son Scott, who has just been sentenced to 7 years jail for assault. Also multiple junk vehicles, vehicle parts, and hulls. Lee states he does not have a wrecker's license.
- area right around outflow is very sandy fill.
- Photos obtained of various parts of site

- G's
- Walk site - other areas of concern
- flag sample sites



- on dark absorbent cup – noted sheen almost small to tank #1 small 1-1.5" clumps of oil sheen visible.
Tank #2 – clumps of oil sheen visible as well.

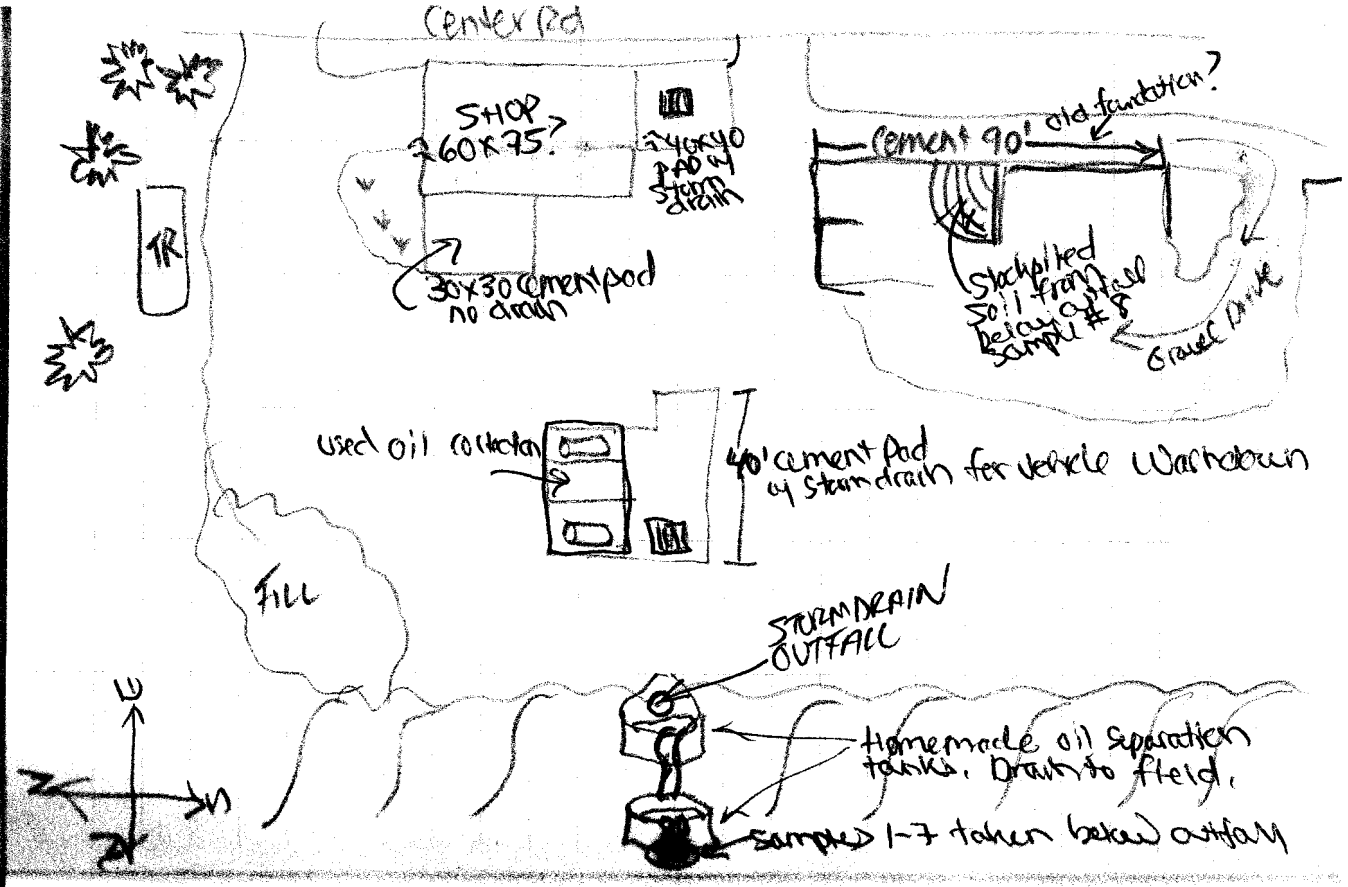
Sampling

①	NWTPH-Dx below new surface		10:45
②	CA-PAH's		10:47
③	BTEX	soaken w/ MeOH	10:52
④	"	"	11:00
⑤	"	"	11:02
⑥	"	MeOH	11:04
⑦	Metals - RCRA 8 + Pb		11:10

⑧ Stockpiled soil - Metals (RCRA 8 + Pb) 11:38

Each stored in ice cooler post collection.

Shipped @ "Mail plus" to ARI lab


Center Rd
SHOP
~60x75?
~40x40 pad w/ storm drain
30x30 cement pad no drain
TR
Cement 90'
old foundation?
Stockpiled soil from behind sample #5
Gravel Drive
Used oil collector
40' cement pad w/ storm drain for vehicle Washdown
FILL
STORM DRAIN OUTFALL
Homemade oil separation tanks. Drain to field.
samples 1-7 taken below outfall
N
W
E
S

Facility/Site: 2161322 SPRINT COMMUNICATIONS CO CENTER

Also known as:

Address

4131 CENTER RD

CENTER WA 98325

Decimal Coordinates

Latitude: 47.97972

Longitude: -122.78

Geographic Information

Ecology Region: SWRO | Legislative District: 24 | WRIA: 17

County: Jefferson | Congressional District: 6 | Tribal Land: No

Ecology Interactions

Interaction Description	Ecology Program	Ecology Program Phone	Program ID	Start Date	End Date
Emergency/Haz Chem Rpt TIER2	HAZWASTE	(360) 407-6729	CRK000031040	1/1/1991	7/4/1776

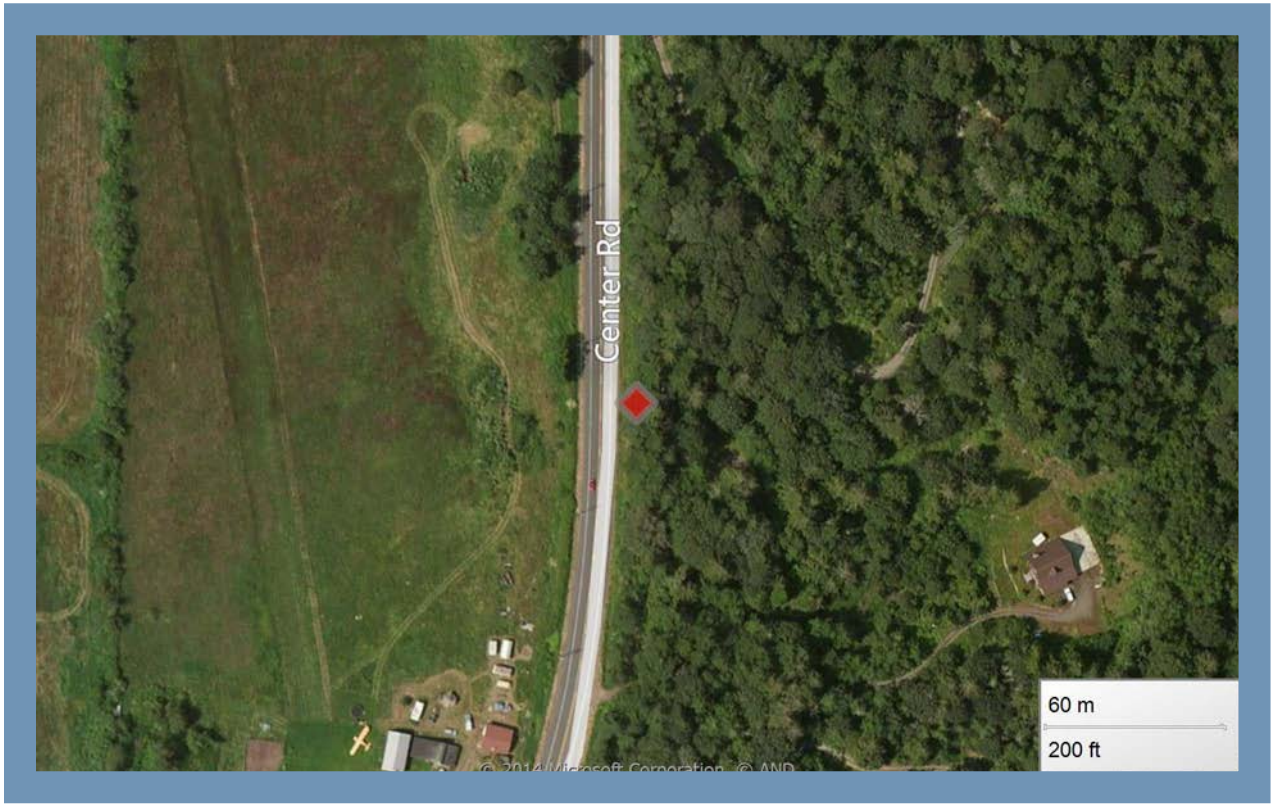
Industrial Codes (External Links Below)

No NAICS information is available for this facility site.

SIC Code	SIC Description
4813	TELEPHONE COMMUNICATIONS, EXC. RADIO

Facility/Site: Valley View Dairy Chimacum 7539286

Also known as: VALLEY VIEW DAIRY



Address

1720 CENTER RD

Chimacum WA 98325-9779

Decimal Coordinates

Latitude: 47.97536

Longitude: -122.77116

Geographic Information

Ecology Region: SWRO | Legislative District: 24 | WRIA: 17

County: Jefferson | Congressional District: 6 | Tribal Land: No

Ecology Interactions

Interaction Description	Ecology Program	Ecology Program Phone	Program ID	Start Date	End Date
Dairy	WATQUAL	(360) 407-6400		8/5/2002	
CAFO GP	WATQUAL	(360) 407-6400	WAG011037	5/6/1999	1/1/2002

Industrial Codes (External Links Below)

No NAICS information is available for this facility site.

SIC Code	SIC Description
0241	DAIRY FARMS
241	DAIRY FARMS

Facility/Site: Valley View Dairy Compost 9590129

Also known as: Valley View Dairy Compost

Address

1594 CENTER RD

Quilcene WA 98325

Decimal Coordinates

Latitude: 47.98758

Longitude: -122.77173

Geographic Information

Ecology Region: SWRO | Legislative District: 24 | WRIA: 17

County: Jefferson | Congressional District: 6 | Tribal Land: No

Ecology Interactions

Interaction Description	Ecology Program	Ecology Program Phone	Program ID	Start Date	End Date
Composting	W2R	(360)407-6132		1/1/1900	

Industrial Codes (External Links Below)

No NAICS information is available for this facility site.

No SIC information is available for this facility site.

APPENDIX B
PHASE I ESA QUESTIONNAIRE

PO BOX 1009 ▪ Tenino, WA ▪ 98589
Phone: 360-701-8797 ▪ Fax: 360-264-2028 ▪ email: wrutherford@adesa-wa.com

ADESA Environmental Investigations

All Appropriate Inquiries Phase I Environmental Site Assessment Questionnaire

Please answer the following questions to the best of your knowledge in as much detail as possible.

(1.) Environmental cleanup liens that are filed or recorded against the site (40 CFR 312.25).
Are you aware of any environmental cleanup liens against the property that are filed or recorded under federal, tribal, state or local law? None

(2.) Activity and land use limitations that are in place on the site or that have been filed or recorded in a registry (40 CFR 312.26).
Are you aware of any AULs, such as engineering controls, land use restrictions or institutional controls that are in place at the site and/or have been filed or recorded in a registry under federal, tribal, state or local law? None

(3.) Do you have any specialized knowledge or experience related to the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?
Current owner lived on farm since 1945

(4.) Does the purchase price being paid for this property reasonably reflect the fair market value of the property? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the property? The appraised value will not be know till 60 days before closing

(5.) Are you aware of commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases? Please answer the following as completely as possible:

a) When did you acquire the property, and from whom? 1979 From parents

b) Do you possess contact information for any of the previous owners? Please provide here. No

c) Do you know the past uses of the property? yes

PO BOX 1009 ▪ Tenino, WA ▪ 98589
Phone: 360-701-8797 ▪ Fax: 360-264-2028 ▪ email: wrutherford@adesa-wa.com

d) Which companies provide utilities to the property? (Water, Sewer, Garbage/Waste, Gas, Power) own well, septic (county land fill) propane
Power PUD

e) Do you know of specific chemicals that are present or once were present at the property? a few herbicides

f) Do you know of spills or other chemical releases that have taken place at the property? Very small gas + diesel spills

g) Do you know of any environmental cleanups that have taken place at the property? No

h) Are you aware of, or do you possess any of the following documents relating to the property? Please provide copies as attachments.
Environmental Site Assessments, Environmental Compliance Audits, Local State or Federal Permits (solid/hazardous waste, NPDES, wastewater), Underground Storage Tank Documentation, Material Safety Data Sheets, Safety Plans, Historical Photographs, Geotechnical Studies, Risk Assessments, Environmental Impact Statements or Environmental Assessments, etc…

(6.) Based on your knowledge and experience related to the property are there any obvious indicators that point to the presence or likely presence of contamination at the property? No

I have answered these questions and provided site specific information to the best of my knowledge. Failure to provide this information could result in a determination that "all appropriate inquiry" is not complete.

Roger Short
Print Name

Roger Dean Short 12-17-13
Signature **Date**

PO BOX 1009 ▪ Tenino, WA ▪ 98589
Phone: 360-701-8797 ▪ Fax: 360-264-2028 ▪ email: wrutherford@adesa-wa.com

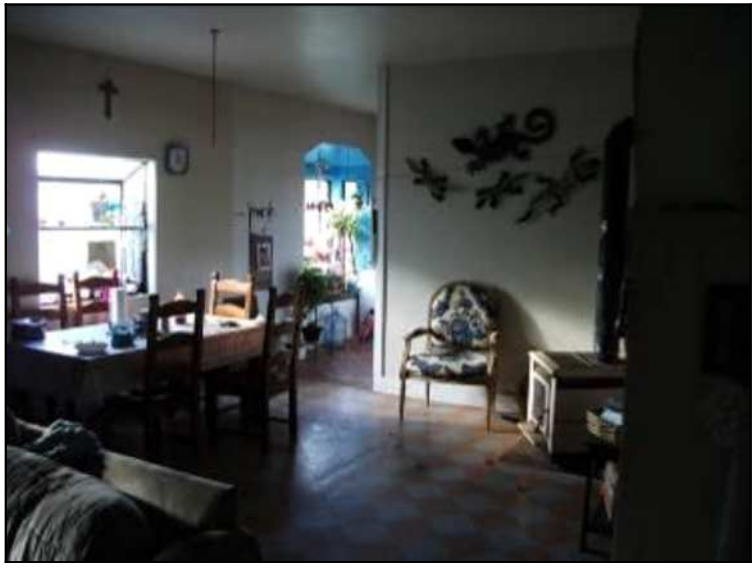
APPENDIX C
SITE INSPECTION PHOTOGRAPHS

PO BOX 1009 ▪ Tenino, WA ▪ 98589
Phone: 360-701-8797 ▪ Fax: 360-264-2028 ▪ email: wrutherford@adesa-wa.com

Residential structure (rental) in northeast area of the Property

Interior of residential structure (rental)

Older residential structure (rental) in northeast area of the Property



Interior of older residential structure (rental)

Lumber Shed with petroleum ASTs eastern portion of the Property

Interior of Lumber Shed

Storage shed in northeast area of the Property

Storage shed in northeast area of the Property

Waste oil tanks used to hold oil for the waste oil burning water heater in northeast area of the Property

Waste oil burning water heater used for the former swimming pool in northeast area of the Property

Former pool filter equipment room in northeast area of the Property

Single wide mobile in northeast area of the Property

Center Valley Shed in the central pasture area of the Property

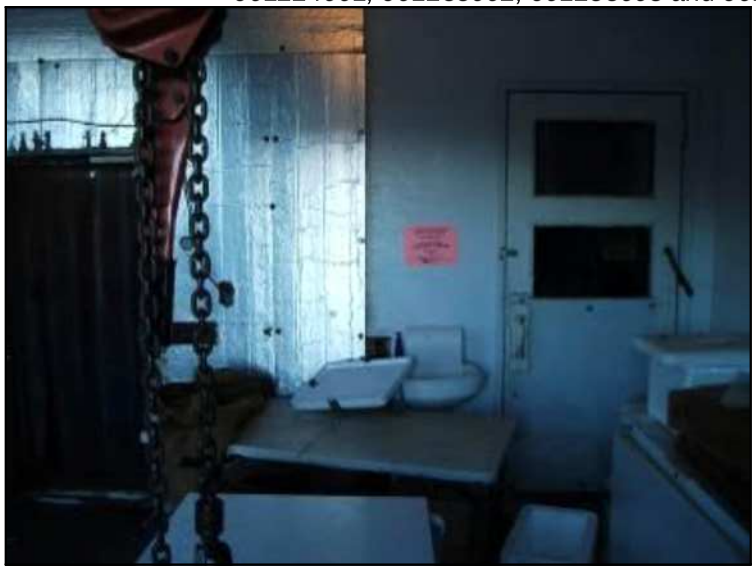
Main House on the east side of the Property

Interior of the Main House

Milking Parlor on the east side of the Property

PO BOX 1009 ▪ Tenino, WA ▪ 98589
Phone: 360-701-8797 ▪ Fax: 360-264-2028 ▪ email: wrutherford@adesa-wa.com

Mobile Generator in Milking Parlor



Cold Storage in Milking Parlor

Milking Parlor interior

Shop Building on the east side of the Property

PO BOX 1009 ▪ Tenino, WA ▪ 98589
Phone: 360-701-8797 ▪ Fax: 360-264-2028 ▪ email: wrutherford@adesa-wa.com

Interior of Shop Building

Historic Barn on the east side of the Property

Historic Barn

Historic Barn looking northeast

PO BOX 1009 ▪ Tenino, WA ▪ 98589
Phone: 360-701-8797 ▪ Fax: 360-264-2028 ▪ email: wrutherford@adesa-wa.com

~300,000 gallon manure lagoon

Mound Shed on the east side of the Property

Equipment Shed on the east side of the Property

Bunker silo and materials storage on the east side of the Property

Bunker silo and silage on the east side of the Property

Materials storage area on the east side of the Property

West Hay Shed #1 in the northwest portion of the Property

West Hay Shed #2 in the northwest portion of the Property

~3million gallon manure lagoon

South Hill Shed in southwest/central portion of the Property

Calf shed in southwest/central portion of the Property

South Shed in the southwest/central portion of the Property

Single wide in southeastern portion of the Property

Compost area in the southwest/central area of the Property

Borrow area in the central area of the Property

Southern pasture area of the Property looking east

PO BOX 1009 ▪ Tenino, WA ▪ 98589
Phone: 360-701-8797 ▪ Fax: 360-264-2028 ▪ email: wrutherford@adesa-wa.com

Chimacum Creek as it passes through the Property #1

Chimacum Creek as it passes through the Property #2

Main developed area of the Property looking east #1

Main developed area of the Property looking east #2

Waste oil ASTs associated with former oil burning water heater for swimming pool

Waste oil AST area following the removal of surface staining and sampling

Test pit at the location of the former gasoline UST, south of the "lumber shed"

Test pit at the location of the former gasoline UST

APPENDIX D
HISTORIC PROPERTY INFORMATION

PO BOX 1009 ▪ Tenino, WA ▪ 98589
Phone: 360-701-8797 ▪ Fax: 360-264-2028 ▪ email: wrutherford@adesa-wa.com

File Original and First Copy with Department of Ecology
Second Copy—Owner's Copy
Third Copy—Driller's Copy

WATER WELL REPORT

STATE OF WASHINGTON

Start Card No 062650

Water Right Permit No. _____

(1) OWNER: Name Roger Shuck Address 1320 Central Chimacum Rd

(2) LOCATION OF WELL: County Jeff . 6E ¼ SE ¼ Sec 22 T 29 N., R 1 W.M.

(2a) STREET ADDDRESS OF WELL (or nearest address) SAME -

(3) PROPOSED USE: ☒ Domestic ☒ Irrigation ☐ DeWater ☐ Industrial ☐ Test Well ☐ Municipal ☐ Other ☐
STANDBY

(4) TYPE OF WORK: Owner's number of well (if more than one) _____
Abandoned ☐ New well ☒ Deepened ☐ Reconditioned ☐ Method: Dug ☐ Cable ☒ Rotary ☐ Bored ☐ Driven ☐ Jetted ☐

(5) DIMENSIONS: Diameter of well 6 inches.
Drilled 60 feet. Depth of completed well 60 ft.

(6) CONSTRUCTION DETAILS:
Casing installed: 50 " Diam. from _____ ft. to _____ ft.
Welded ☒ Liner installed ☒ Threaded ☐ _____ " Diam. from _____ ft. to _____ ft.
_____ " Diam. from _____ ft. to _____ ft.

Perforations: Yes ☐ No ☐
Type of perforator used Perf Liner 4½ PVC
SIZE of perforations _____ in. by _____ in.
_____ perforations from 50 ft. to 60 ft.
_____ perforations from _____ ft. to _____ ft.
_____ perforations from _____ ft. to _____ ft.

Screens: Yes ☐ No ☐
Manufacturer's Name _____
Type _____ Model No. _____
Diam. _____ Slot size _____ from _____ ft. to _____ ft.
Diam. _____ Slot size _____ from _____ ft. to _____ ft.

Gravel packed: Yes ☐ No ☐ Size of gravel _____
Gravel placed from _____ ft. to _____ ft.

Surface seal: Yes ☒ No ☐ To what depth? 18 ft.
Material used in seal Bentonite
Did any strata contain unusable water? Yes ☐ No ☐
Type of water? _____ Depth of strata _____
Method of sealing strata off _____

(7) PUMP: Manufacturer's Name _____
Type: _____ H.P. _____

(8) WATER LEVELS: Land-surface elevation above mean sea level _____ ft.
Static level 9 ft. below top of well Date 6-24-91
Artesian pressure _____ lbs. per square inch Date _____
Artesian water is controlled by _____ (Cap, valve, etc.)

(9) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? Yes ☐ No ☐ If yes, by whom? _____
Yield: _____ gal./min. with _____ ft. drawdown after _____ hrs.
" " " "
" " " "

Recovery data (time taken as zero when pump turned off) (water level measured from well top to water level)

Time	Water Level	Time	Water Level	Time	Water Level

Date of test _____
Bailer test 50+ gal./min. with 0 ft. drawdown after 2 hrs.
Airtest _____ gal./min. with stem set at _____ ft. for _____ hrs.
Artesian flow _____ g.p.m. Date _____
Temperature of water _____ Was a chemical analysis made? Yes ☐ No ☐

(10) WELL LOG or ABANDONMENT PROCEDURE DESCRIPTION

Formation: Describe by color, character, size of material and structure, and show thickness of aquifers and the kind and nature of the material in each stratum penetrated, with at least one entry for each change of information.

MATERIAL	FROM	TO
Peat	0	4
Sdstr	4	8
Cem Sdstr	8	35
W/B Sdstr	35	37
Cem Sdstr	37	39
W/Boulder	39	40
Cem Sdstr	40	42
Blue Clay	42	53
W/B Gr	53	60

Work started 6-13-91 19. Completed 6-24 19 91

WELL CONSTRUCTOR CERTIFICATION:

I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

NAME Hancock Well Drilling (PERSON, FIRM, OR CORPORATION) (TYPE OR PRINT)

Address 8 C Bourbonnais Port Townsend

(Signed) Myron Hancock (WELL DRILLER) License No. 0204

Contractor's Registration No. HANCOW0ND Date 6-24-91 19

(USE ADDITIONAL SHEETS IF NECESSARY)

ECY 050-1-20 (10/87) -1329-

Q01 262002

RESIDENTIAL APPRAISAL

Roll No. ..... Page No. .....
Map No. ..... Photo No. .....
Monthly Rent .....
Remodeled 19 ..... Cost $ .....
Sold 19 ..... Amount $ .....
Sold 19 ..... Amount $ .....

Owner ... Roger D. Short
Address ... Box 338 CHIMACUM, WASH 98325

Permit No. .....
Date .....

SEC/LOT	TWP	RGE	BLOCK	DISTRICT
526	T29	R1W	~~80.00~~ 50 / ~~76.36~~ 27	1-4/9 F1

NW¼ Cless PTNS E of CO. RD.

3' W of VALLEY RIDGELINE

LAND QUALITY
GOOD — AVERAGE — POOR

ACCESS AND TOPOGRAPHY

Class ..... AV ..... Perimeter .....
Condition FAV. ..... Square ft. .....
Year Built ..... Const. Cost $ .....

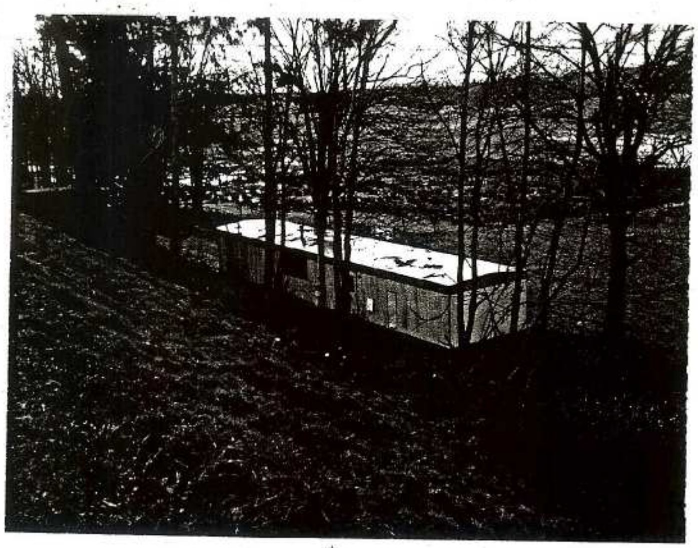
BUILDING	CONSTRUCTION	STORIES	1	1½	2	A	B
Dwelling	Single	No. Rooms					
Duplex	Doub	No.					
FOUNDATION	Block	No. Bro					
Conc. 6 8 10	Insul						
Concrete Block		PARTITIONS					
Brick		Plaster					
Stone	HEATING	Drywall					
Piers	Forced	Compo.					
EXT. WALLS	Gravity	Paper					
Bevel	Floor or Wall	Wood Panel					
Rustic		Plywood					
B. and B.	Hot Water	CEILING					
Vertical	Baseboard	Plaster					
Wood Shingles	C. I. Rad.	Drywall					
Comp. Shingles	Floor Rad.	Compo.					
Aluminum		Plywood					
Comp. Shakes	Electric	Tile					
Wood Shakes	Wall Units	Paper					
Low Cost	Baseboard	Wood Panel					
Average	Glass Panel						
Good	Ceiling Rad.	FLOORS					
Concrete Block	Floor Rad.	Single					
Stucco		Double					
Brick		Softwood					
Common		Hardwood					
Roman	FIREPLACE	Plywood					
Stone	1 Sty. Single	Carpet					
	1 Sty. Bkd.	Tile					
	2 Sty. Single	Concrete					
ROOF	2 Sty. Bkd.	Linoleum					
Flat	2 Sty. Stkd.						
Hip		BASEMENT					
Gable	EXTRAS	None					
	B. I. Oven	Full					
Pitch	B. I. Range	Part					
Low	Hood and Fan	No. Rooms					
Medium	Water Soft.	Class Rooms					
Steep		Daylight					
Shingles							
Wood	BUILT-INS	PLUMBING					
Composition	Fir	1st G.		2nd G.			
Aluminum	Hardwood	Toilet		Shower Stall			
	Metal	Tub		Tub Shower			
Shakes	Lineal Feet	Lav.		Sink			
Light	LIGHTING	Laundry Fac.					
Medium	Good	Garbage Disp.					
Heavy	Average	Dishwasher					
Built-up	Poor	Hot Water Heater					
Roll		Counters - Sq. Feet					
Tile		No. Fixtures					

OPEN SPACE

2330

	−	+
Rate Adj.		
Base Rate		
1978 FLEETWOOD 70'X14' REG. 48 REAL PROPERTY		
TOTAL RATES		
ADJ. BASE RATE		
ADDED FEATURES	−	+
Basement		
Basement Rooms		
Heating		
Plumbing 46X10' OWD. 460 @ 3 =		1200
Fireplace		
Attached Garage		
Upper Stories		
Extras		
See Over		
TOTALS		
Adjusted Total		
Area ..... x ..... P.S.F.		
Added Features		
Total Base Cost		
19 ..... Cost Index ..... % x Base C.		
Depreciation ..... % Phy.-Func.-Econ.		
Additional Buildings		
Total Value		
Assessed Value MH 14285 + 4980		19265

Deputy	Mo	Da	Yr	Remarks
MM	12	24	82	RS 4-87 RS 3-13-91 N/C RS 10-14-98 RS 6-18-03 RS 7-9-07
CH	7	7	11	



PHYSICAL DATA

Frontage ______ Width ______ Depth. ______

Unit Foot Frontage ______

Shape ______ Contour, Topography Rolling

Soil and Subsoil ______

Landscape Features ½ Wooded ½ cleared

Utility Connections (Underline):
Electricity, Water, Sewer, Storm Sewer,
Sanitary Sewer, Gas, Telephone

Comments ______

Corner Influence ______

Type of Street, Curbs, Walks B T

SPECIAL ASSESSMENTS

Zoning (Use) ______

Restrictions, Easements ______

OTHER BUILDINGS — IMPROVEMENTS

No.	Type / Use	Found.	Floor	Roof	Walls	Condition	Dimensions	Area	Rate	Qual. Index % MDF	Repl. Cost	Dep. %	Depreciated Replacement Cost	
							42X60	Loafing Shed						
							中	Rate		Cost	Dep.			
		Bldg 2												
		(see map - Section 23)					2520	2.00		5040	20%		= 3780	3500
		(Roger Short's property)												

PLATTED								PLATTED								
Lot No.	Land Value	Impr.	Total	Mo	Dr	Yr	Deputy	Lot No.	Land Value	Impr.	Total	Mo	Dr	Yr	Deputy	
											1987					
										MV	1500/acre					

1979 Land — LAND USE — 1983

No. Acres	Class	AV @ Ac	Total	No. Acres	Class	AV @ Ac	Total	No. Acres	Class	AV @ Ac	Total	
	Cultivated (open space)	76.36 Ac	@225 =		Improved 17,180				Timber			
	Orchard				Bldg. Site		FM=		Waste 1750 per.			
	Pasture	FM	1,500	P/A	Unimproved							

ROADS				WATER				
	Paved		Good	Source	Quantity			~~80~~ @ 225 = ~~18,000~~
	Gravel		Average	Well	Ample			76.36 17,180
	Dirt		Poor	Spring	Limited			
	Private		Limited Ac.	River				~~80 @ 550 = 44,000~~
				None	Quality	Good	Poor	
	State		County	Supplier:				
				Water Rights with Land	Yes	No		

901262003

RESIDENTIAL APPRAISAL

Roll No. ..... Page No. .....
Map No. ..... Photo No. .....
Monthly Rent .....
Remodeled 19 ..... Cost $ W.P
Sold 19 2-28-79 Amount $ 96,500 ~~96,735~~ #38269
Sold 19 ..... Amount $ #38270

Owner ... Roger D. Short
Address ... P O Box 338
Chimacum, Wa 98325

Permit No. .....
Date .....

SEC/LOT	TWP	RGE	BLOCK	DISTRICT
26	29N	1W	~~43~~ 64	1-49142

NW 1/4 (W of Valley Ridgeline)

BUILDING	CONSTRUCTION	STORIES	1	1/2	2	A	B
Dwelling	Single	No. Rooms					
Duplex	Double	No. Baths					
FOUNDATION	Block	No. Bedrooms					
Conc. 6 8 10	Insulation						
Concrete Block		PARTITIONS					
Brick		Plaster					
Stone	HEATING	Drywall					
Piers	Forced	Compo.					
EXT. WALLS	Gravity	Paper					
Bevel	Floor or Wall	Wood Panel					
Rustic		Plywood					
B. and B.	Hot Water	CEILING					
Vertical	Baseboard	Plaster					
Wood Shingles	C. I. Rad.	Drywall					
Comp. Shingles	Floor Rad.	Compo.					
Aluminum		Plywood					
Comp. Shakes	Electric	Tile					
Wood Shakes	Wall Units	Paper					
Low Cost	Baseboard	Wood Panel					
Average	Glass Panel						
Good	Ceiling Rad.	FLOORS					
Concrete Block	Floor Rad.	Single					
Stucco		Double					
Brick		Softwood					
Common		Hardwood					
Roman	FIREPLACE	Plywood					
Stone	1 Sty. Single	Carpet					
	1 Sty. Bkd.	Tile					
	2 Sty. Single	Concrete					
ROOF	2 Sty. Bkd.	Linoleum					
Flat	2 Sty. Stkd.						
Hip		BASEMENT					
Gable	EXTRAS	None					
	B. I. Oven	Full					
Pitch	B. I. Range	Part					
Low	Hood and Fan	No. Rooms					
Medium	Water Soft.	Class Rooms					
Steep		Daylight					
Shingles							
Wood	BUILT-INS	PLUMBING					
Composition	Fir	1st G.		2nd G.			
Aluminum	Hardwood	Toilet		Shower Stall			
	Metal	Tub		Tub Shower			
Shakes	Lineal Feet	Lav.		Sink			
Light	LIGHTING	Laundry Fac.					
Medium	Good	Garbage Disp.					
Heavy	Average	Dishwasher					
Built-up	Poor	Hot Water Heater					
Roll		Counters - Sq. Feet					
Tile		No. Fixtures					

LAND QUALITY
GOOD ____ AVERAGE ____ POOR ____

ACCESS AND TOPOGRAPHY
FAV. ____ AV ____ DIFF ____ INOP ____

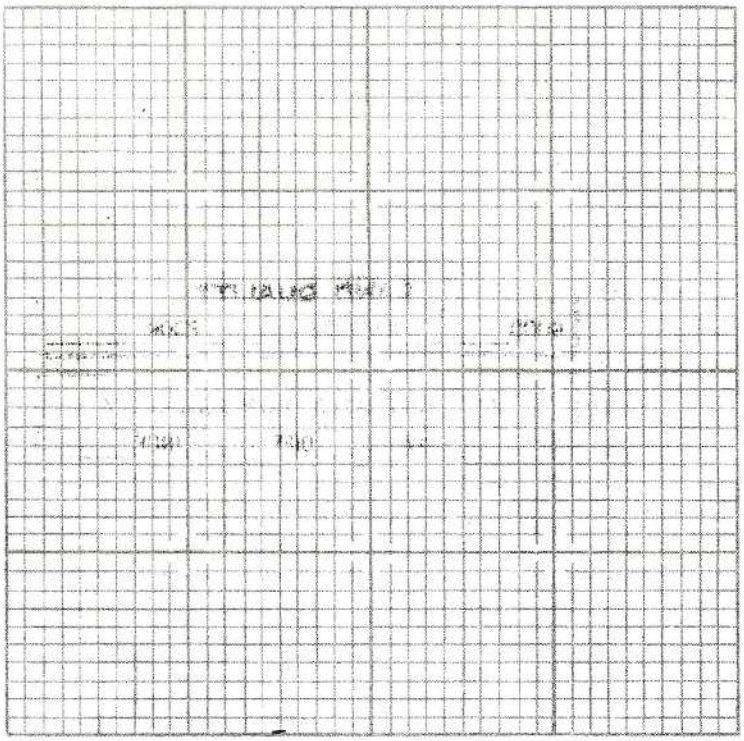
Class ..... Perimeter .....
Condition ..... Square ft. .....
Year Built ..... Const. Cost $ .....

Rate Adj.	−	+
Base Rate		
TOTAL RATES		
ADJ. BASE RATE		

ADDED FEATURES	−	+
Basement		
Basement Rooms		
Heating		
Plumbing		
Fireplace		
Attached Garage		
Upper Stories		
Extras		
TOTALS		
Adjusted Total		
Area ..... x ..... P.S.F.		
Added Features		
Total Base Cost		
19 ..... Cost Index ..... % x Base C.		
Depreciation ..... % Phy.-Func.-Econ.		
Additional Buildings		
Total Value		
Assessed Value		

Deputy	Mo	Da	Yr	Remarks

Tmbr ✓ 39130



PHYSICAL DATA

Frontage _____ Width _____ Depth. _____

Unit Foot Frontage _____

Shape _____ Contour, Topography _____

Soil and Subsoil _____

Landscape Features _____

Utility Connections (Underline):

Electricity, Water, Sewer, Storm Sewer,

Sanitary Sewer, Gas, Telephone

Comments _____

Corner Influence _____

Type of Street, Curbs, Walks _____

SPECIAL ASSESSMENTS

Zoning (Use) _____

Restrictions, Easements _____

OTHER BUILDINGS / IMPROVEMENTS

No.	Type Use	DESCRIPTION Found.	Floor	Roof	Walls	Condition	Dimensions	Area	Rate	Qual. Index % MDF	Repl. Cost	Dep. %	Depreciated Replacement Cost	

PLATTED

Lot No.	Land Value	Impr.	Total	Mo	Dy	Yr	Deputy

PLATTED

Lot No.	Land Value	Impr.	Total	Mo	Dy	Yr	Deputy
	1987						
	MV 1750/acre						

LAND USE

1983

No. Acres		Class	AV @ Ac	Total	No. Acres		Class	AV @ Ac	Total	No. Acres		Class	AV @ Ac	Total
		Cultivated		TOR			Improved					Timber		
		Orchard					Bldg. Site					Waste		
		Pasture					Unimproved							

ROADS				WATER				
	Paved		Good	Source		Quantity		43.64 @ 90 = 3930
	Gravel		Average		Well		Ample	
	Dirt		Poor		Spring		Limited	
	Private		Limited Ac.		River			
					None	Quality	Good / Poor	
	State		County		Supplier:			
					Water Rights with Land		Yes / No	

90123301 ①

RESIDENTIAL APPRAISAL

Roll No. .... Page No. .... Owner ... Roger D. Short
Map No. .... Photo No. .... Address... P O Box 338, Chimacum 98325
Monthly Rent ....
Remodeled 19 .... Cost $ WOP 69
Sold 19 2-28-79 Amount $ 96,735 — #38270 Permit No. ....
Sold 19 .... Amount $ .... Date ....

SEC/LOT	TWP	RGE	BLOCK	DISTRICT
23	29	1W	~~18.62A~~ 16.14	1-491 1H2

S½ SW¼ (Between Creek & Co Rd less N 500') less R/W

OPEN SPACE agr

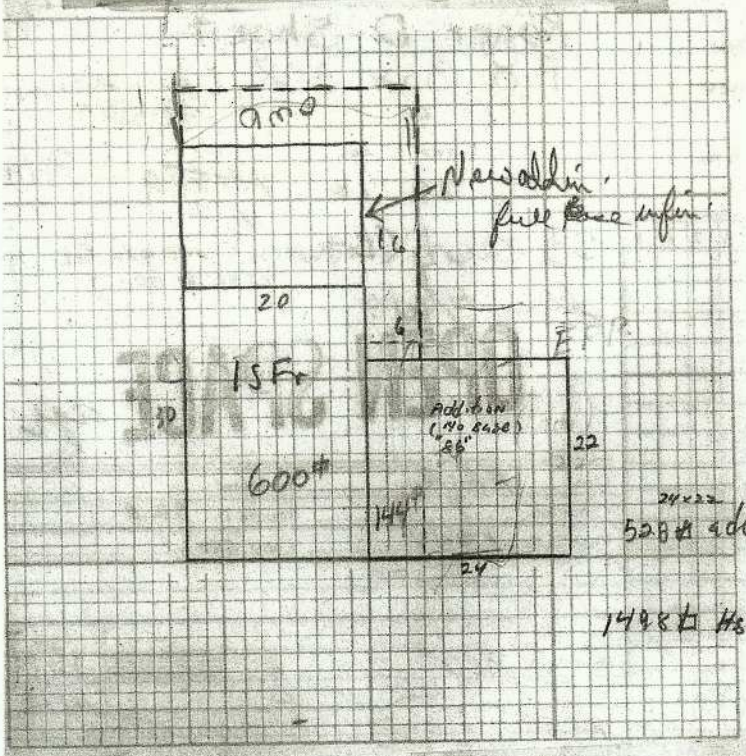
BUILDING		CONSTRUCTION		STORIES	1	½	2	A	B
✓	Dwelling		Single	No. Rooms	4				
	Duplex	✓	Double	No. Baths	1				
	FOUNDATION		Block	No. Bedrooms	2				
	Conc. 6 8 10		Insulation						
	Concrete Block			PARTITIONS					
	Brick			Plaster					
	Stone		HEATING	Drywall	✓				
✓	Piers		Forced	Compo.					
	EXT. WALLS		Gravity	Paper					
	Bevel		Floor or Wall	Wood Panel					
	Rustic	✓	Spc Htr	Plywood					
	B. and B.		Hot Water	CEILING					
✓	Vertical T-111		Baseboard	Plaster					
	Wood Shingles		C. I. Rad.	Drywall	✓				
	Comp. Shingles		Floor Rad.	Compo.					
	Aluminum		Wood	Plywood					
	Comp. Shakes		Electric	Tile					
	Wood Shakes		Wall Units	Paper					
	Low Cost		Baseboard	Wood Panel	/				
	Average		Glass Panel	OB	/				
	Good		Ceiling Rad.	FLOORS					
	Concrete Block		Floor Rad.	Single					
	Stucco			Double					
	Brick			Softwood	✓				
	Common			Hardwood					
	Roman	0	FIREPLACE	Plywood					
	Stone		1 Sty. Single	Carpet	✓ 60				
✓	Drop		1 Sty. Bkd.	Tile					
			2 Sty. Single	Concrete					
	ROOF		2 Sty. Bkd.	Linoleum	✓ 40				
	Flat		2 Sty. Stkd.						
✓	Hip			BASEMENT					
	Gable	0	EXTRAS	None					
			B. I. Oven	Full					
	Pitch		B. I. Range	✓ Part 20X16 unfin.					
✓	Low		Hood and Fan	No. Rooms					
	Medium		Water Soft.	Class Rooms					
	Steep			Daylight					
✓	Shingles								
	Wood		BUILT-INS	PLUMBING					
✓	Composition	✓	Fir	1st G.	2nd G.				
	Aluminum		Hardwood	1 Toilet	Shower Stall				
			Metal	Tub 1	Tub Shower				
	Shakes		Lineal Feet	1 Lav.	1 Sink				
	Light		LIGHTING	✓ Laundry Fac.					
	Medium		Good	Garbage Disp.					
	Heavy		Average	Dishwasher					
	Built-up	✓	Poor	1 Hot Water Heater					
	Roll			Counters - Sq. Feet					
	Tile			5 No. Fixtures					

Class FAIR Perimeter ....
Condition P Square ft. 920
Year Built 1944 Const. Cost $ ....

	−	+
Rate Adj.		
Base Rate 900# Siding		25.14
Floor		1.12
heat	—	
Roof	—	
TOTAL RATES		26.26
ADJ. BASE RATE		
ADDED FEATURES	−	+
Basement 320# unfin. @ 7.71		2463
Basement Rooms		
Heating		
Plumbing − 1C		
Fireplace		
Attached Garage		
Upper Stories		
Extras		
144# EFP @ 50% 8.50		1225
OWP 252# @ 5.00		1260
TOTALS		4950
Adjusted Total		
Area 920 26.26 P.S.F.		24160
Added Features		4950
Total Base Cost		29110
1982 Cost Index 1.13 % x Base C.		32894
Depreciation 20 % Phy.-Func.-Econ.		26315
Additional Buildings See add sheet		+29675
Total Value		
Assessed Value 100%		55990
LAND		6000
OSA		3965

CH 7-7-11

Deputy	Mo	Da	Yr	Remarks
RGDT	2	10	75	MM 12-22-82 TWO N/C 1/RS 4-27-87 two. new OSA
MM	12	6	78	Picked up New addn. N/C Low to FAIR RS 4-29-03 add. tax - milking parlor
RSULR	4	26	91	Tenu shop peaked 32x48 other Buildings same N/C Sheet 1 of 2 RS 7407



PHYSICAL DATA

Frontage _____ Width _____ Depth. _____

Unit Foot Frontage _____

Shape _____ Contour, Topography ROLLING

Soil and Subsoil _____

Landscape Features _____

Utility Connections (Underline):

Electricity, Water, Sewer, Storm Sewer,

Sanitary Sewer, Gas, Telephone

Comments _____

Corner Influence _____

Type of Street, Curbs, Walks BT

SPECIAL ASSESSMENTS ?

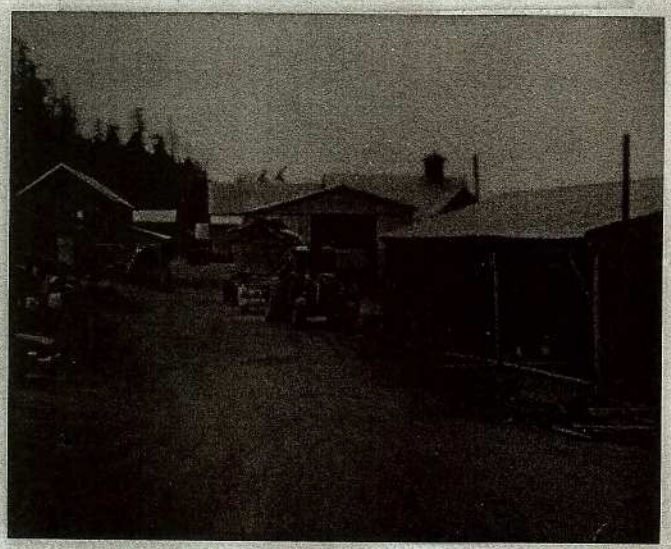
Zoning (Use) _____

Restrictions, Easements ?

OTHER BUILDINGS

No.	Type	DESCRIPTION	Area	Rate	Qual. Index	Depl.	Depr.	Depreciated Replacement

IMPROVEMENTS



4/26/91

4-26-91

Paved	Road	Water		Quantity	
Gravel	Average	Well		Ample	
Dirt	Poor	Spring		Limited	
Private	Limited Ac.	River			
		None	Quality	Good	Poor
State	County	Supplier:			
		Water Rights with Land		Yes	No

1 AC Site 3000 + 1000 = 4000

18 AC PAST 1500 = 27000

$ 31,000

OWNERSHIP HISTORY

AFF.# 61914 DATE 4-9-90 DEED SWD
SALES PRICE 44,355
OWNER ROGER SHORT

AFF.# DATE DEED
SALES PRICE
OWNER

AFF.# DATE DEED
SALES PRICE
OWNER

AFF.# DATE DEED
SALES PRICE
OWNER

AFF.# DATE DEED
SALES PRICE
OWNER

AFF.# DATE DEED
SALES PRICE
OWNER

AFF.# DATE DEED
SALES PRICE
OWNER

AFF.# DATE DEED
SALES PRICE
OWNER

AFF.# DATE DEED
SALES PRICE
OWNER

AFF.# DATE DEED
SALES PRICE
OWNER

PARCEL NO. 901 233 011

SEC/LOT	TWP	RGE	BLOCK
23	29N	1W	

TAX 24 (ENLG BY TAX 25)

W/EASE

TAX 25 # 62056

TOTAL SIZE 29.56 A 30.31 A
TAX CODE 211 NEIGHBORHOOD

IMPROVEMENTS

PERMIT # DATE
EST VALUE USE CODE
BLDG INFO

PROGRAM INFO.

SENIOR CITIZEN EXEMPTION ☐
SINGLE FAMILY EXEMPTION ☐
TO BE REMOVED

OPEN SPACE
AG ☑ II (GRADE)
TBR ☐
O.S. ☐ 29.56 A (ACRES)

FOREST LANDS
DESIG. ☐
CLAS. ☐ (ACRES)

ACRES	GRADE

COMMENTS

JEFFERSON COUNTY ASSESSOR

(JCA-AP89)

901 224001 R/W 93/353

RESIDENTIAL APPRAISAL

THE VALLEY VIEW FAMILY TRUST

Roll No. ..... Page No. .....
Map No. ..... Photo No. .....
Monthly Rent .....
Remodeled 19 ..... Cost $ .....
Sold 19 ..... Amount $ .....
Sold 19 9/14/90 Amount $ TRUST #63570

Owner ... ~~Norris W. Short.~~
Address ... ~~Box 296~~ ~~Chimacum, Wash. 98325~~

Permit No. .....
Date .....

SEC/LOT	TWP	RGE	BLOCK	DISTRICT
S22	T29	R1W	~~80.00~~ 59.92 ~~79.92~~	1-49F1

E½ SE less R/W, less Tx 17

OPEN SPACE

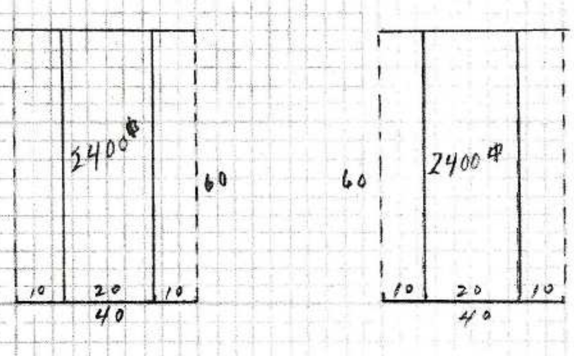
Hay Storage and Feeding shelters

BUILDING	CONSTRUCTION	STORIES	1	½	2	A	B
Dwelling	Single	No. Rooms					
Duplex	Double	No. Baths					
FOUNDATION	Block	No. Bedrooms					
Conc. 6 8 10	Insulation						
Concrete Block		PARTITIONS					
Brick		Plaster					
Stone	HEATING	Drywall					
Piers	Forced	Compo.					
EXT. WALLS	Gravity	Paper					
Bevel	Floor or Wall	Wood Panel					
Rustic		Plywood					
B. and B.	Hot Water	CEILING					
Vertical	Baseboard	Plaster					
Wood Shingles	C. I. Rad.	Drywall					
Comp. Shingles	Floor Rad.	Compo.					
Aluminum —		Plywood					
Comp. Shakes	Electric	Tile					
Wood Shakes	Wall Units	Paper					
Low Cost	Baseboard	Wood Panel					
Average	Glass Panel						
Good	Ceiling Rad.	FLOORS					
Concrete Block	Floor Rad.	Single					
Stucco		Double					
Brick		Softwood					
Common		Hardwood					
Roman	FIREPLACE	Plywood					
Stone	1 Sty. Single	Carpet					
	1 Sty. Bkd.	Tile					
	2 Sty. Single	Concrete					
ROOF	2 Sty. Bkd.	Linoleum					
Flat	2 Sty. Stkd.						
Hip		BASEMENT					
Gable	EXTRAS	None					
	B. I. Oven	Full					
Pitch	B. I. Range	Part					
Low	Hood and Fan	No. Rooms					
Medium	Water Soft.	Class Rooms					
Steep		Daylight					
Shingles							
Wood	BUILT-INS	PLUMBING					
Composition	Fir	1st G.	2nd G.				
Aluminum	Hardwood	Toilet	Shower Stall				
	Metal	Tub	Tub Shower				
Shakes	Lineal Feet	Lav.	Sink				
Light	LIGHTING	Laundry Fac.					
Medium	Good	Garbage Disp.					
Heavy	Average	Dishwasher					
Built-up	Poor	Hot Water Heater					
Roll		Counters - Sq. Feet					
Tile		No. Fixtures					

Class Com - Av. Shed Perimeter .....
Condition ..... Square ft. (24004) X2
Year Built ..... Const. Cost $ .....

	−	+
Rate Adj.		
Base Rate		
2 identical units of 24004		
TOTAL RATES		
ADJ. BASE RATE		
ADDED FEATURES	−	+
Basement		
Basement Rooms		
Heating		
Plumbing		
Fireplace		
Attached Garage		
Upper Stories		
Extras		
TOTALS		
Adjusted Total		
Area 48.00 x ..... P.S.F.		
Added Features		
Total Base Cost		
19 87 Cost Index ..... % x Base C.		
Depreciation 30 % Phy.-Func.-Econ.		4,000
Additional Buildings		
Total Value		
Assessed Value 100%		0
Land		13,500

Deputy	Mo	Da	Yr	Remarks
LH.	12	30	74	Request Open Space 75-3 || CH 6-2911
LH	1	12	83	PS 4.5787
				Wall Heater A.C. ?



PHYSICAL DATA

Frontage ______ Width ______ Depth ______

Unit Foot Frontage ______

Shape ______ Contour, Topography *Some level – rolling*

Soil and Subsoil ______

Landscape Features *PASTURE*

Utility Connections (Underline):

Electricity, Water, Sewer, Storm Sewer,

Sanitary Sewer, Gas, Telephone

Comments ______

Corner Influence ______

Type of Street, Curbs, Walks *BT*

SPECIAL ASSESSMENTS

Zoning (Use) ______

Restrictions, Easements ______

OTHER BUILDINGS							IMPROVEMENTS						
No.	Type Use	DESCRIPTION Found.	Floor	Roof	Walls	Condition	Dimensions	Area	Rate	Qual. Index % MDF	Repl. Cost	Dep. %	Depreciated Replacement Cost

PLATTED								PLATTED '79 OS							
Lot No.	Land Value	Impr.	Total	Mo	Dr	Yr	Deputy	Lot No.	Land Value	Impr.	Total	Mo	Dr	Yr	Deputy
					59.93						*13,480*				
					79.93										
								AC. @ 225 = 78,000							
											1987				
								F.M. 1500 P/A			*10/5 MV 1759/ac*			*1 ACRE Hmst*	

to 5,000 / 1000 / IMP 6000

1983

LAND USE											
No. Acres	Class	AV @ Ac	Total	No. Acres	Class	AV @ Ac	Total	No. Acres	Class	AV @ Ac	Total
	Cultivated	*59.93*		*05*	Improved *@ 225*	*13,480*			Timber		
	Orchard	*FM = 2000*			Bldg. Site				Waste		
	Pasture				Unimproved						

ROADS				WATER			
Paved		Good		Source	Quantity		
Gravel		Average		Well	Ample		*~~18 Ac TBA @ 650 = 11700~~*
Dirt		Poor		Spring	Limited		*62 Ac wet Pasture 400 = 24800*
Private		Limited Ac.		River			
				None	Quality Good Poor		*36500*
State		County		Supplier:			
				Water Rights with Land Yes No			

901235002

RESIDENTIAL APPRAISAL

OPEN SPACE

Roll No. ______ Page No. ______ Owner: Norris Short
Map No. ______ Photo No. ______ Address ______
Monthly Rent ______
Remodeled 19 ______ Cost $ ______
Sold 19 ______ Amount $ ______ Permit No. 620
Sold 19 ______ Amount $ ______ Date 73-1-24 / 14000.00

SEC/LOT	TWP	RGE	40Ac 18	DISTRICT
23	29	1W	~~59.18Ac~~	1-49-F1H

S ½ SW ¼ (Less ptn E of Co Rd, (less ptn between Creek & Co Rd ~~[illegible]~~)

New Construction

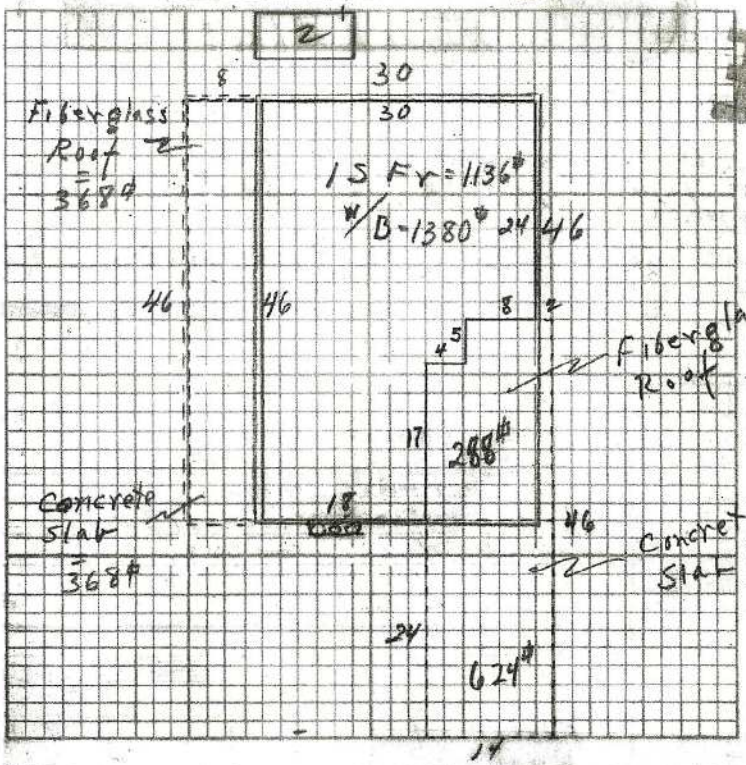
BUILDING		CONSTRUCTION		STORIES	1	½	2	A	B
✓	Dwelling	✓	Single M. Floor	No. Rooms					3
	Duplex	✓	Double Basement	No. Baths	1				¾
	FOUNDATION		Block	No. Bedrooms					2
✓	Conc. 6 8 10	✓	Insulation						
	Concrete Block			PARTITIONS					
	Brick			Plaster					
	Stone	7	HEATING	Drywall					
	Piers		Forced	Compo.					
	EXT. WALLS		Gravity	Paper					
✓	Bevel		Floor or Wall	Wood Panel					✓
	Rustic	✓	Wood Furn	Plywood				/	
	B. and B.		Hot Water	CEILING					
✓	Vertical T/11		Baseboard	Plaster					
	Wood Shingles		C. I. Rad.	Drywall					
	Comp. Shingles		Floor Rad.	Compo.					
	Aluminum			Plywood					
	Comp. Shakes		Electric	Tile					
	Wood Shakes		Wall Units	Paper					
	Low Cost		Baseboard	Wood Panel					✓
	Average		Glass Panel						
	Good		Ceiling Rad.	FLOORS					
	Concrete Block		Floor Rad.	Single					
	Stucco			Double					
	Brick			Softwood					
	Common			Hardwood					
	Roman		FIREPLACE	Plywood					
	Stone	✓	1 Sty. Single	Carpet					
			1 Sty. Bkd.	Tile					
			2 Sty. Single	Concrete					✓
	ROOF		2 Sty. Bkd.	Linoleum	✓ 100%				
	Flat		2 Sty. Stkd.						
	Hip			BASEMENT					
✓	Gable	0	EXTRAS	None					
			B. I. Oven	✓ Full					
	Pitch		B. I. Range	Part					
✓	Low	✓	Hood and Fan	No. Rooms					
	Medium		Water Soft.	Class Rooms					
	Steep	BI	microwave	Daylight					
	Shingles								
	Wood	0	BUILT-INS	PLUMBING					
	Composition		Fir	1st G.		2nd G.			
	Aluminum		Hardwood	/ Toilet		/ Shower Stall			
			Metal	Tub		Tub Shower			
	Shakes		Lineal Feet	/ Lav.		/ Sink			
	Light		LIGHTING	✓ Laundry Fac.					
	Medium		Good	Garbage Disp.					
	Heavy	✓	Average	✓ Dishwasher					
	Built-up		Poor	/ Hot Water Heater					
	Roll			Counters - Sq. Feet					
✓	Tile			5 No. Fixtures					

Class: Fair-Ave Perimeter ______
Condition: In construction Square ft. 1136
Year Built: 1974 Const. Cost $ ______

Rate Adj.	—	+
Base Rate 1200# siding		26.36
Tile roof		.82
Floor		.90
heat	.3	—
TOTAL RATES		28.08
ADJ. BASE RATE		
ADDED FEATURES	—	+
Basement 1380# @ 5.27		7270
Basement Rooms 1380# @		12228
Heating		
Plumbing — 1 unit @	445	
Fireplace 1945 Single		2000
Attached Garage		
Upper Stories		
Extras		
368# Cc. Slab @		370
624# Cc. Slab @		625
368# F.G. Roof @ 3		1970
288# F.G. Roof @		
Intercom Syst.		275
TOTALS		24290
Adjusted Total		
Area 1136 ~~[illegible]~~ P.S.F.		31900
Added Features		24290
Total Base Cost		56190
19 82 Cost Index 113% x Base C.		63490
~~Depreciation~~ 15 % Phy.-Func.-Econ.		53970
Additional Buildings		
Total Value		53970
Assessed Value		

Deputy	Mo	Da	Yr	Remarks
REOI	2	10	75	$17535 Recorded as new Construction 1975 April 18 REOI — Land
				Reduced to $14610 — 1975 June 23 REOT Hrs 4-27-57 NOH
REOT	4	30	76	New construction out - $6,95 MM 10-1-70 = 80% comp. Sheet 1 of 2

Margin notes: JH 1-7-11; PS 4-29-03 7-9-07; RSWCB 4-26-91 two N/C; MM 4-26-79 90% comp. new const. 1979 $5070



650 PA
as comp to
225 open space
Norris should
be paying on
#121,000 more

GRIFF
153,000

No.	Type Use	Found.	Floor	Roof
2	Stor	P	Dirt	FG

Depreciated Replacement Cost: 1211

1979 OPEN PLAT

Lot No.	Land Value	Impr.	Total
	2 AC	HOME SITE	
	38.18 AC	PAST	

No. Acres	Class	AV @ Ac
	Cultivated	
	Orchard	
	Pasture	

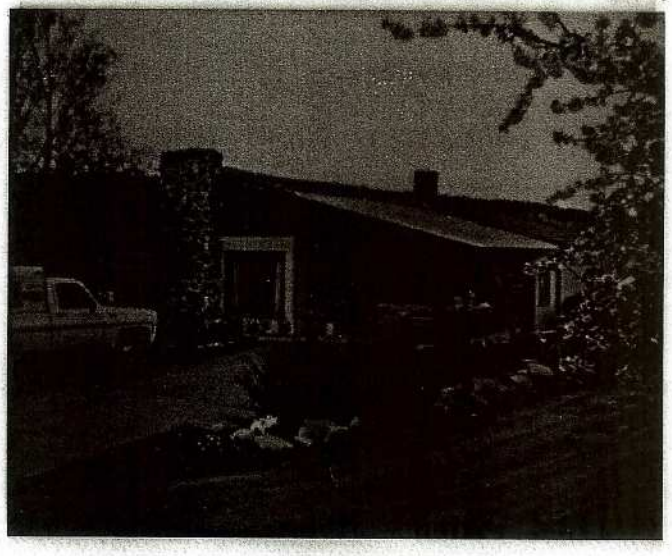
Yr | Deputy

=10000
2000
12000

AV @ Ac | Total

Waste

Unimproved



4/26/91

1979 MARKET VALUE

ROADS			WATER		
Paved		Good	Source		Quantity
Gravel		Average	Well		Ample.
Dirt		Poor	Spring		Limited
Private		Limited Ac.	River		
			None	Quality: Good / Poor	
State		County	Supplier:		
			Water Rights with Land: Yes / No		

2 AC Site = 6000 + Imp 2000 = 8000
38.18 AC PAST @ 1250 = 12865 #47725
#55725

19 Ac TBR @ 650 = 12350
33.18 Ac Past @ 300 = 9955
2 Ac Homesite 500 2500

901 233002

RESIDENTIAL APPRAISAL

Roll No. ..... Page No. .....
Map No. ..... Photo No. .....
Monthly Rent .....
Remodeled 19 ..... Cost $ .....
Sold 19 ..... Amount $ .....
Sold 19 ..... Amount $ .....

Owner ... Norris Short
Address ... (Former Residence)

Permit No. ....
Date .....

SEC/LOT	TWP	RGE	BLOCK	DISTRICT
23	29	1W	40 18	1-49 1H2

S½ SW¼ (LESS PTN E of Co. RD.)
(Less ptn between creek & Co Rd less N500')

BUILDING	CONSTRUCTION	STORIES	1	½	2	A	B
✓ Dwelling	Single	No. Rooms	5				1
Duplex	✓ Double	No. Baths	1				
FOUNDATION	Block	No. Bedrooms	3				
✓ Conc. 6 8 10	Insulation						
Concrete Block		PARTITIONS					
Brick		Plaster					
Stone	HEATING	Drywall					
Piers	✓ Forced	Compo.					
EXT. WALLS	Gravity	~~Paper~~ Tile	✓				
✓ Bevel	Floor or Wall	Wood Panel					
Rustic		Plywood					
B. and B.	Hot Water	CEILING					
Vertical	Baseboard	Plaster					
Wood Shingles	C. W. Rad.	Drywall					
Comp. Shingles	Floor Rad.	Compo.					
Aluminum –	✓ Wood Furnace	Plywood					
Comp. Shakes	Electric	Tile	✓				
Wood Shakes	Wall Units	Paper					
Low Cost	Baseboard	Wood Panel					
Average	Glass Panel						
Good	Ceiling Rad.	FLOORS					
Concrete Block	Floor Rad.	Single					
Stucco		Double					
Brick		Softwood					
Common		Hardwood					
Roman	0 FIREPLACE	Plywood					
Stone	1 Sty. Single	Carpet	✓ 50%				
	1 Sty. Bkd.	Tile					
	2 Sty. Single	Concrete		~~50%~~			✓
ROOF	2 Sty. Bkd.	Linoleum	✓	R+Bd			
Flat	2 Sty. Stkd.						
Hip		BASEMENT					
Gable	0 EXTRAS	None					
✓ Pyramid	B. I. Oven	✓ Full					
Pitch	B. I. Range	Part					
Low	Hood and Fan	No. Rooms					
Medium	Water Soft.	Class Rooms					
Steep		Daylight					
✓ Shingles							
Wood	BUILT-INS	PLUMBING					
✓ Composition	✓ Fir	1st G.		2nd G.			
Aluminum	Hardwood	1 Toilet		Shower Stall			
	Metal	1 Tub		Tub Shower			
Shakes	Lineal Feet	1 Lav.	1	Sink			
Light	LIGHTING	✓ Laundry Fac.					
Medium	Good	Garbage Disp.					
Heavy	✓ Average	Dishwasher					
Built-up	Poor	1 Hot Water Heater					
Roll		Counters - Sq. Feet					
Tile		5 No. Fixtures					

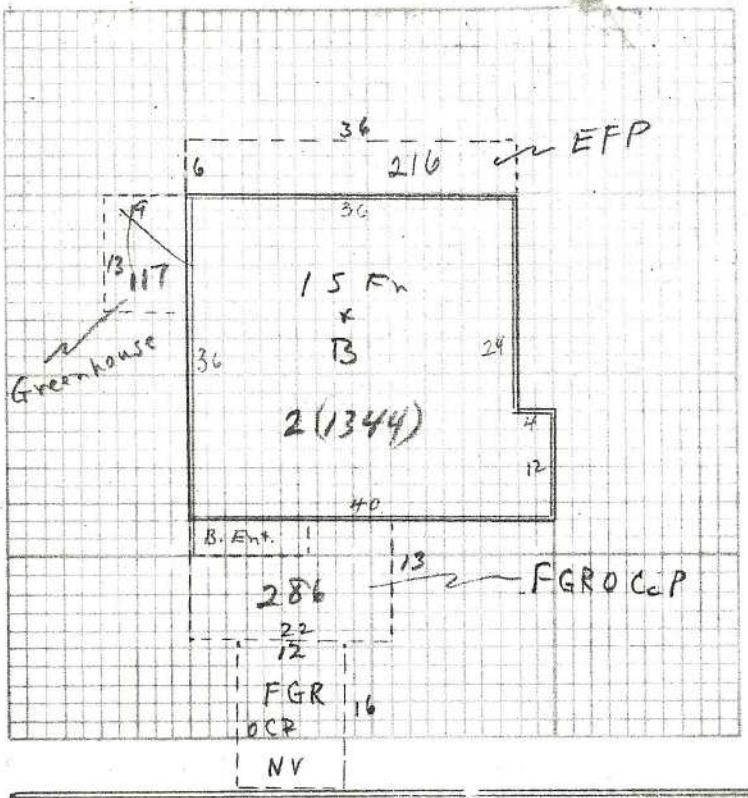
Class ... L.O.W. ... Perimeter ...
Condition ... Fair ... Square ft. 1344
Year Built ... 1880 ... Const. Cost $ ...

	–	+
Rate Adj.		
Base Rate 1300# siding		~~20~~ 80
Heat		–
Roof		–
Floor		90
TOTAL RATES		
ADJ. BASE RATE		91.70
ADDED FEATURES	–	+
Basement 1344# @ 4.00		6560
Basement ~~Room~~ Below Grade		300
Heating		
Plumbing		
Fireplace		
Attached Garage		
Upper Stories		
Extras		
Greenhouse		–
216# EFP @ 6.00		1295
286# FGROCP @ 3.00		860
TOTALS		9015
Adjusted Total		
Area 1344 x 7.70 P.S.F.		10,165
Added Features		9015
Total Base Cost		19180
19 78 Cost Index 1.13 % x Base C.		21673
Depreciation 50 % Phy.-Func.-Econ.		10,836
Additional Buildings See Attached drawing with computation		
~~Total Value~~		
Assessed Value 100 %		21570

Land on sheet 1 of 2

Deputy	Mo	Da	Yr	Remarks
KEOI	2	10	75	RS 4-27-57 somewhat improved this area
mm	12	6	78	N/C

Sheet 2 of 2



PHYSICAL DATA

Frontage _____ Width _____ Depth _____

Unit Foot Frontage _____

Shape _____ Contour, Topography _____

Soil and Subsoil _____

Landscape Features _____

Utility Connections (Underline):

Electricity, Water, Sewer, Storm Sewer,

Sanitary Sewer, Gas, Telephone

Comments _____

Corner Influence _____

Type of Street, Curbs, Walks _____

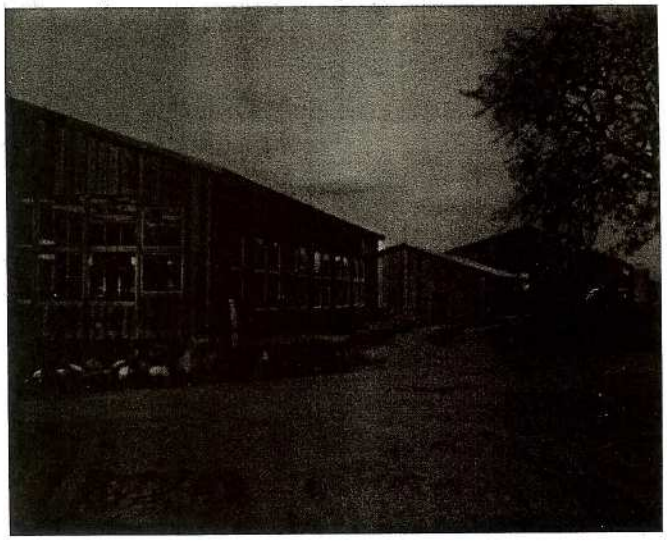
SPECIAL ASSESSMENTS

Zoning (Use) _____

Restrictions, Easements _____

OTHER BUILDINGS							IMPROVEMENTS							
No.	Type Use	DESCRIPTION Found.	Floor	Roof	Walls	Condition	Dimensions	Area	Rate	Qual. Index % MDF	Repl. Cost	Dep. %	Depreciated Replacement Cost	

PLATTED



PLATTED

4/26/91

4-21-91

4012333005

RESIDENTIAL APPRAISAL

VALLEY VIEW N & L TRUST

Roll No. ..... Page No. .....
Map No. ..... Photo No. .....
Monthly Rent .....
Remodeled 19 ..... Cost $ 33225
Sold 19 ..... Amount $ .....
Sold 19 9/4/90 Amount $ -0- 63569

Owner ~~Norris W. Short~~
Address ~~Box 296~~ ~~Chimacum, Wash 98325~~

Permit No. .....
Date .....

SEC/LOT	TWP	RGE	Block	DISTRICT
S23	T29	R1W	~~5.00~~ 4.89A	1-49F1

S½ NE SW (W of Hwy) Less Tax No. 7
(Less R o W) ~~Less~~ Tax 15

OPEN SPACE

Class ..... Perimeter .....
Condition ..... Square ft. .....
Year Built ..... Const. Cost $ .....

BUILDING	CONSTRUCTION	STORIES	1	½	2	A	B
Dwelling	Single	No. Rooms					
Duplex	Double	No. Baths					
FOUNDATION	Block	No. Bedrooms					
Conc. 6 8 10	Insulation						
Concrete Block		PARTITIONS					
Brick		Plaster					
Stone	HEATING	Drywall					
Piers	Forced	Compo.					
EXT. WALLS	Gravity	Paper					
Bevel	Floor or Wall	Wood Panel					
Rustic		Plywood					
B. and B.	Hot Water	CEILING					
Vertical	Baseboard	Plaster					
Wood Shingles	C. I. Rad.	Drywall					
Comp. Shingles	Floor Rad.	Compo.					
Aluminum		Plywood					
Comp. Shakes	Electric	Tile					
Wood Shakes	Wall Units	Paper					
Low Cost	Baseboard	Wood Panel					
Average	Glass Panel						
Good	Ceiling Rad.	FLOORS					
Concrete Block	Floor Rad.	Single					
Stucco		Double					
Brick		Softwood					
Common		Hardwood					
Roman	FIREPLACE	Plywood					
Stone	1 Sty. Single	Carpet					
	1 Sty. Bkd.	Tile					
	2 Sty. Single	Concrete					
ROOF	2 Sty. Bkd.	Linoleum					
Flat	2 Sty. Stkd.						
Hip		BASEMENT					
Gable	EXTRAS	None					
	B. I. Oven	Full					
Pitch	B. I. Range	Part					
Low	Hood and Fan	No. Rooms					
Medium	Water Soft.	Class Rooms					
Steep		Daylight					
Shingles							
Wood	BUILT-INS	PLUMBING					
Composition	Fir	1st G.		2nd G.			
Aluminum	Hardwood	Toilet		Shower Stall			
	Metal	Tub		Tub Shower			
Shakes	Lineal Feet	Lav.		Sink			
Light	LIGHTING	Laundry Fac.					
Medium	Good	Garbage Disp.					
Heavy	Average	Dishwasher					
Built-up	Poor	Hot Water Heater					
Roll		Counters - Sq. Feet					
Tile		No. Fixtures					

Rate Adj.	–	+
Base Rate		
½ R.O.W. = 6.27 ac		
TOTAL RATES		
ADJ. BASE RATE		
ADDED FEATURES	–	+
Basement		
Basement Rooms		
Heating		
Plumbing		
Fireplace		
Attached Garage		
Upper Stories		
Extras		
TOTALS		
Adjusted Total		
Area ..... x ..... P.S.F.		
Added Features		
Total Base Cost		
19 ..... Cost Index ..... % x Base C.		
Depreciation ..... % Phy.-Func.-Econ.		
Additional Buildings		
Total Value		
Assessed Value		

Deputy	Mo	Da	Yr	Remarks
LH	12	30	74	Open Space Application 75-3

✓ LAND 3,730 ✓

PHYSICAL DATA

Frontage ______ Width ______ Depth. ______

Unit Foot Frontage ______

Shape ______ Contour, Topography Rolling

Soil and Subsoil ______

Landscape Features ______

Utility Connections (Underline):

Electricity, Water, Sewer, Storm Sewer,

Sanitary Sewer, Gas, Telephone

Comments ______

Corner Influence ______

Type of Street, Curbs, Walks BT

SPECIAL ASSESSMENTS

Zoning (Use) ______

Restrictions, Easements ______

OTHER BUILDINGS							IMPROVEMENTS							
No.	Type Use	DESCRIPTION Found.	Floor	Roof	Walls	Condition	Dimensions	Area	Rate	Qual. Index % MDF	Repl. Cost	Dep. %	Depreciated Replacement Cost	

PLATTED								PLATTED								
Lot No.	Land Value	Impr.	Total	Mo	Dr	Yr	Deputy	Lot No.	Land Value	Impr.	Total	Mo	Dr	Yr	Deputy	
										1987						
									1Ac Homesite 3000							
									4Ac OS. MV 3000/Ac							

1979 Land — LAND USE — 1983

No. Acres		Class	AV @ Ac	Total	No. Acres	Class	AV @ Ac	Total	No. Acres		Class	AV @ Ac	Total	
		Cultivated	1Ac Hp. 2500			Improved			4 Ac @		Timber 225	= 1000		
		Orchard	4.00 Ac @ 225 =	1000 (Open Space)		Bldg. Site					Waste			
		Pasture				Unimproved						3750	FMV @ 3250/Ac	

1Ac Hp @ 2750

Market Value 3500

ROADS				WATER				
	Paved		Good		Source		Quantity	
	Gravel		Average		Well		Ample	
	Dirt		Poor		Spring		Limited	
	Private		Limited Ac.		River			
					None		Quality Good	Poor
	State		County		Supplier:			
					Water Rights with Land		Yes	No

5Ac @ 750 = 3750

~~1.00 @ 650 = 650~~

~~4.00 @ 225 = 1000 open space~~

~~1650~~

5.00 @ 650 = 3250 T.V.

9012330008

RESIDENTIAL APPRAISAL

VALLEY VIEW N & L TRUST

Roll No. ..... Page No. .....
Map No. ..... Photo No. .....
Monthly Rent .....
Remodeled 19 ..... Cost $ .....
Sold 19 9/4/90 Amount $ -0- #63569
Sold 19 ..... Amount $ .....

Owner ... ~~Norris W. Short~~
Address ... ~~Box 296 ... Chimacum, Wash. ... 98325~~

Permit No. .....
Date .....

SEC/LOT	TWP	RGE	BLOCK	DISTRICT
S23	T29	R1W	2.83A	1-49F1

Tax No. 8

OPEN SPACE

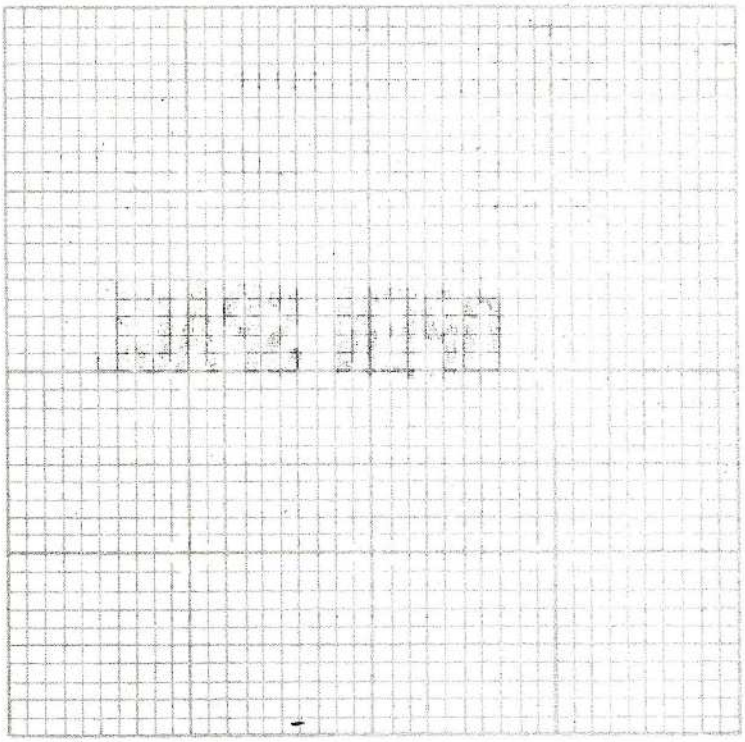
BUILDING	CONSTRUCTION	STORIES	1	½	2	A	B
Dwelling	Single	No. Rooms					
Duplex	Double	No. Baths					
FOUNDATION	Block	No. Bedrooms					
Conc. 6 8 10	Insulation						
Concrete Block		PARTITIONS					
Brick		Plaster					
Stone	HEATING	Drywall					
Piers	Forced	Compo.					
EXT. WALLS	Gravity	Paper					
Bevel	Floor or Wall	Wood Panel					
Rustic		Plywood					
B. and B.	Hot Water	CEILING					
Vertical	Baseboard	Plaster					
Wood Shingles	C. I. Rad.	Drywall					
Comp. Shingles	Floor Rad.	Compo.					
Aluminum		Plywood					
Comp. Shakes	Electric	Tile					
Wood Shakes	Wall Units	Paper					
Low Cost	Baseboard	Wood Panel					
Average	Glass Panel						
Good	Ceiling Rad.	FLOORS					
Concrete Block	Floor Rad.	Single					
Stucco		Double					
Brick		Softwood					
Common		Hardwood					
Roman	FIREPLACE	Plywood					
Stone	1 Sty. Single	Carpet					
	1 Sty. Bkd.	Tile					
	2 Sty. Single	Concrete					
ROOF	2 Sty. Bkd.	Linoleum					
Flat	2 Sty. Stkd.						
Hip		BASEMENT					
Gable	EXTRAS	None					
	B. I. Oven	Full					
Pitch	B. I. Range	Part					
Low	Hood and Fan	No. Rooms					
Medium	Water Soft.	Class Rooms					
Steep		Daylight					
Shingles							
Wood	BUILT-INS	PLUMBING					
Composition	Fir	1st G.		2nd G.			
Aluminum	Hardwood	Toilet		Shower Stall			
	Metal	Tub		Tub Shower			
Shakes	Lineal Feet	Lav.		Sink			
Light	LIGHTING	Laundry Fac.					
Medium	Good	Garbage Disp.					
Heavy	Average	Dishwasher					
Built-up	Poor	Hot Water Heater					
Roll		Counters - Sq. Feet					
Tile		No. Fixtures					

Class ..... Perimeter .....
Condition ..... Square ft. .....
Year Built ..... Const. Cost $ .....

	−	+
Rate Adj.		
Base Rate		
TOTAL RATES		
ADJ. BASE RATE		
ADDED FEATURES	−	+
Basement		
Basement Rooms		
Heating		
Plumbing		
Fireplace		
Attached Garage		
Upper Stories		
Extras		
TOTALS		
Adjusted Total		
Area ..... x ..... P.S.F.		
Added Features		
Total Base Cost		
19 ..... Cost Index ..... % x Base C.		
Depreciation ..... % Phy.-Func.-Econ.		
Additional Buildings		
Total Value		
Assessed Value		

Deputy	Mo	Da	Yr	Remarks
LH	12	30	94	Open Space Request 75-3

✓ Card 1635 ✓



PHYSICAL DATA

Frontage _____ Width _____ Depth. _____

Unit Foot Frontage _____

Shape _____ Contour, Topography ROLLING

Soil and Subsoil _____

Landscape Features CLEARED

Utility Connections (Underline):

Electricity, Water, Sewer, Storm Sewer,

Sanitary Sewer, Gas, Telephone

Comments Water STAND

Corner Influence _____

Type of Street, Curbs, Walks _____

SPECIAL ASSESSMENTS

Zoning (Use) _____

Restrictions, Easements _____

OTHER BUILDINGS IMPROVEMENTS

No.	Type Use	DESCRIPTION Found.	Floor	Roof	Walls	Condition	Dimensions	Area	Rate	Qual. Index % MDF	Repl. Cost	Dep. %	Depreciated Replacement Cost	

PLATTED								PLATTED								
Lot No.	Land Value	Impr.	Total	Mo	Dr	Yr	Deputy	Lot No.	Land Value	Impr.	Total	Mo	Dr	Yr	Deputy	
										1987						
										OS MV	3500					
										LESS 50%	1750/ac					

LAND USE

1983

No. Acres	Class	AV @ Ac	Total	No. Acres	Class	AV @ Ac	Total	No. Acres	Class	AV @ Ac	Total	
	Cultivated	93			Improved		STANDING		Timber			
	Orchard FMV	2.83Ac@3250			Bldg. Site		WATER		Waste			
	Pasture	Less 50%			Unimproved							

ROADS			WATER				(79" O.S.)
	Paved	Good	Source		Quantity		2.83 @ 225 = 635
	Gravel	Average	Well		Ample		
	Dirt	Poor	Spring		Limited		
	Private	Limited Ac.	River				~~2.83 @ 750 = 2120 F.V.~~
			None	Quality: Good	Poor		2.83 Ac @ 2750 = 7780
	State	County	Supplier:				-50% WATER PROB. = 3890
			Water Rights with Land	Yes	No		

APPENDIX E
LABORATORY AND OTHER SUPPORTING DOCUMENTS

PO BOX 1009 ▪ Tenino, WA ▪ 98589
Phone: 360-701-8797 ▪ Fax: 360-264-2028 ▪ email: wrutherford@adesa-wa.com

Libby Environmental, Inc.

4139 Libby Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@aol.com

SHORT FAMILY FARM PROJECT
ADESA
Chimicum, Washington
Libby Project # L140122-1
Client Project # 0214-01

Analyses of Gasoline (NWTPH-Gx) & BTEX (EPA Method 8260C) in Soil

Sample Number	Date Analyzed	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Gasoline (mg/kg)	Surrogate Recovery (%)
Method Blank	1/22/14	nd	nd	nd	nd	nd	89
LCS	1/22/14	126%	118%				80
B3	1/22/14	nd	nd	nd	nd	nd	83
B4	1/22/14	nd	nd	nd	nd	nd	85
L140122-2 MS	1/22/14	123%	121%				92
L140122-2 MSD	1/22/14	120%	109%				74
Practical Quantitation Limit		0.02	0.10	0.05	0.15	10	

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

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (Toluene-d8): 65% TO 135%

ANALYSES PERFORMED BY: Kyle Williams

Libby Environmental, Inc.

4139 Libby Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@aol.com

SHORT FAMILY FARM PROJECT
ADESA
Chimicum, Washington
Libby Project # L140122-1
Client Project # 0214-01

Analyses of Diesel & Oil (NWTPH-Dx/Dx Extended) in Soil

Sample Number	Date Analyzed	Surrogate Recovery (%)	Diesel (mg/kg)	Oil (mg/kg)
Method Blank	1/22/14	96	nd	nd
B1	1/22/14	99	nd	nd
B1 Dup	1/22/14	93	nd	nd
B2	1/22/14	102	nd	nd
B2 Dup	1/22/14	104	nd	nd
Practical Quantitation Limit			25	40

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

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (2-F Biphenyl): 65% TO 135%

ANALYSES PERFORMED BY: Paul Burke

Libby Environmental, Inc.

4139 Libby Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@aol.com

SHORT FAMILY FARM PROJECT
ADESA
Chimicum, Washington
Libby Project # L140122-1
Client Project # 0214-01

Analyses of BTEX by EPA Method 8260C in Soil

Sample Number	Date Analyzed	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Surrogate Recovery (%)
Method Blank	1/22/14	nd	nd	nd	nd	89
LCS	1/22/14	126%	118%			80
B1	1/22/14	nd	nd	nd	nd	87
L140122-2 MS	1/22/14	123%	121%			92
L140122-2 MSD	1/22/14	120%	109%			74
Practical Quantitation Limit		0.02	0.10	0.05	0.15	

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

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (Toluene-d8): 65% TO 135%

ANALYSES PERFORMED BY: Kyle Williams

Libby Environmental, Inc.

Chain of Custody Record

4139 Libby Road NE
Olympia, WA 98506
Ph: 360-352-2110
Fax: 360-352-4154

Date: 1/21/14 Page: 1 of 1

Client: ADESA
Project Manager: Will Rutherford
Address: PO Box 1009 Tenino, WA 98589
Project Name: Short Family Farm
Phone: 360-701-8797 Fax:
Location: Chimicum, WA
Client Project # 0214-01
Collector: WR Date of Collection: 1/20

	Sample Number	Depth	Time	Sample Type	Container Type	VOA 8021B	VOA 8021B BTEX Only	VOA 8260	SEMI VOL 8270	NWTPH-HCID	NWTPH-Gx	NWTPH-Dx	NWTPH-Dx Ext.	PAH 8270	PCB's 8082	MTCA 5 Metals				Field Note/# Containers
1	B1	1.5'		Soil	4oz	X						X								
2	B2	1.5'			4oz							X								
3	B3	6.5'			4oz 2x40ml	X					X									40ml preserved CH_3OH
4	B4	6.5'			4oz 2x40ml	X					X									" "
5	S1	2in.			4oz							X			X					Hold
6																				
7																				
8																				
9																				
10																				
11																				
12																				
13																				
14																				
15																				
16																				
17																				
18																				

Relinquished by:	Date / Time	Received by	Date / Time
[signature]	1/22	[signature]	1/22/14 0928
Relinquished by:	Date / Time	Received by	Date / Time
Relinquished by:	Date / Time	Received by	Date / Time

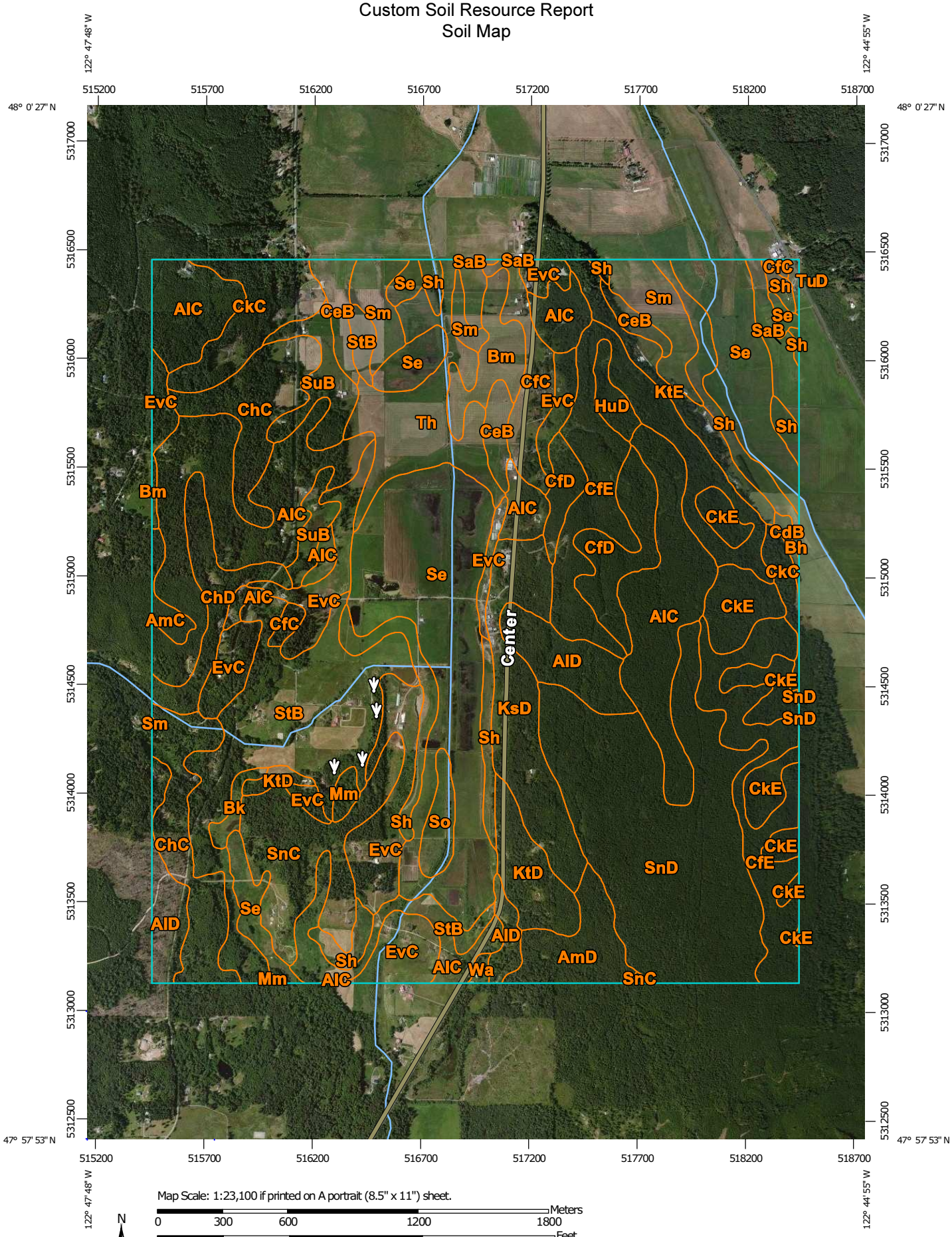
Sample Receipt:	
Good Condition?	
Cold?	
Seals Intact?	
Total Number of Containers	

Remarks:

TAT 24HR 48HR (5-Day)

Distribution White - Lab, Yellow - File, Pink - Originator

Custom Soil Resource Report
Soil Map



Map Scale: 1:23,100 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 300 600 1200 1800

Feet: 0 1000 2000 4000 6000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 10N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Jefferson County Area, Washington
Survey Area Data: Version 9, Dec 9, 2013

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 9, 2010—Aug 28, 2011

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Jefferson County Area, Washington (WA631)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
AlC	Alderwood gravelly sandy loam, 0 to 15 percent slopes	295.7	12.0%
AlD	Alderwood gravelly sandy loam, 15 to 30 percent slopes	71.5	2.9%
AmC	Alderwood gravelly loam, 0 to 15 percent slopes	9.1	0.4%
AmD	Alderwood gravelly loam, 15 to 30 percent slopes	39.5	1.6%
Bh	Belfast silt loam, heavy variant	0.8	0.0%
Bk	Belfast silt loam, wet variant	7.0	0.3%
Bm	Belfast silty clay loam, wet variant	30.6	1.2%
CdB	Casey fine sandy loam, 0 to 8 percent slopes	3.4	0.1%
CeB	Casey silt loam, 0 to 8 percent slopes	34.3	1.4%
CfC	Cassolary sandy loam, 0 to 15 percent slopes	38.3	1.6%
CfD	Cassolary sandy loam, 15 to 30 percent slopes	53.4	2.2%
CfE	Cassolary sandy loam, 30 to 50 percent slopes	186.7	7.6%
ChC	Cassolary-Everett complex, 0 to 15 percent slopes	111.3	4.5%
ChD	Cassolary-Everett complex, 15 to 30 percent slopes	38.1	1.5%
CkC	Cassolary-Kitsap complex, 0 to 15 percent slopes	60.6	2.5%
CkE	Cassolary-Kitsap complex, 30 to 50 percent slopes	70.4	2.9%
EvC	Everett gravelly sandy loam, 0 to 15 percent slopes	154.3	6.3%
HuD	Hoypus gravelly loamy sand, 15 to 30 percent slopes	11.5	0.5%
KsD	Kitsap gravelly loam, 15 to 30 percent slopes	80.5	3.3%
KtD	Kitsap silt loam, 15 to 30 percent slopes	41.0	1.7%
KtE	Kitsap silt loam, 30 to 50 percent slopes	30.9	1.3%
Mm	McMurray and Mukilteo peats	5.6	0.2%
SaB	San Juan gravelly sandy loam, 0 to 8 percent slopes	17.6	0.7%

Jefferson County Area, Washington (WA631)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
Se	Semiahmoo muck	293.1	11.9%
Sh	Semiahmoo muck, moderately shallow variant	82.6	3.3%
Sm	Semiahmoo muck, shallow variant	55.0	2.2%
SnC	Sinclair gravelly sandy loam, 0 to 15 percent slopes	77.8	3.2%
SnD	Sinclair gravelly sandy loam, 15 to 30 percent slopes	236.1	9.6%
So	Snohomish silty clay loam	15.4	0.6%
StB	Swantown gravelly sandy loam, 0 to 8 percent slopes	188.1	7.6%
SuB	Swantown gravelly loam, 0 to 8 percent slopes	41.8	1.7%
Th	Tisch silt loam	82.0	3.3%
TuD	Tukey gravelly loam, 15 to 30 percent slopes	2.3	0.1%
Wa	Wapato silty clay loam	2.4	0.1%
Totals for Area of Interest		**2,468.7**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with

some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Jefferson County Area, Washington

AlC—Alderwood gravelly sandy loam, 0 to 15 percent slopes

Map Unit Setting

Elevation: 50 to 800 feet
Mean annual precipitation: 25 to 60 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 180 to 220 days

Map Unit Composition

Alderwood and similar soils: 100 percent

Description of Alderwood

Setting

Landform: Terraces
Parent material: Basal till with a component of volcanic ash in the upper part

Properties and qualities

Slope: 0 to 15 percent
Depth to restrictive feature: 20 to 40 inches to densic material
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: About 18 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Very low (about 2.5 inches)

Interpretive groups

Farmland classification: Farmland of statewide importance
Land capability (nonirrigated): 4s
Hydrologic Soil Group: B
Other vegetative classification: Unnamed (G002XN302WA)

Typical profile

0 to 3 inches: Gravelly sandy loam
3 to 30 inches: Very gravelly loam
30 to 60 inches: Gravelly sandy loam

AlD—Alderwood gravelly sandy loam, 15 to 30 percent slopes

Map Unit Setting

Elevation: 50 to 800 feet
Mean annual precipitation: 25 to 60 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 180 to 220 days

Map Unit Composition

Alderwood and similar soils: 100 percent

Description of Alderwood

Setting

Landform: Terraces
Parent material: Basal till with a component of volcanic ash in the upper part

Properties and qualities

Slope: 15 to 30 percent
Depth to restrictive feature: 20 to 40 inches to densic material
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: About 18 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Very low (about 2.5 inches)

Interpretive groups

Farmland classification: Farmland of statewide importance
Land capability (nonirrigated): 4e
Hydrologic Soil Group: B
Other vegetative classification: Unnamed (G002XN302WA)

Typical profile

0 to 3 inches: Gravelly sandy loam
3 to 30 inches: Very gravelly loam
30 to 60 inches: Gravelly sandy loam

AmC—Alderwood gravelly loam, 0 to 15 percent slopes

Map Unit Setting

Elevation: 50 to 800 feet
Mean annual precipitation: 25 to 60 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 180 to 220 days

Map Unit Composition

Alderwood and similar soils: 100 percent

Description of Alderwood

Setting

Landform: Terraces
Parent material: Basal till with a component of volcanic ash in the upper part

Properties and qualities

Slope: 0 to 15 percent
Depth to restrictive feature: 20 to 40 inches to densic material
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: About 18 to 36 inches

Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 3.1 inches)

Interpretive groups
Farmland classification: Farmland of statewide importance
Land capability (nonirrigated): 4s
Hydrologic Soil Group: C
Other vegetative classification: Unnamed (G002XN302WA)

Typical profile
0 to 6 inches: Gravelly loam
6 to 30 inches: Very gravelly loam
30 to 60 inches: Gravelly sandy loam

AmD—Alderwood gravelly loam, 15 to 30 percent slopes

Map Unit Setting
Elevation: 50 to 800 feet
Mean annual precipitation: 25 to 60 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 180 to 220 days

Map Unit Composition
Alderwood and similar soils: 100 percent

Description of Alderwood

Setting
Landform: Terraces
Parent material: Basal till with a component of volcanic ash in the upper part

Properties and qualities
Slope: 15 to 30 percent
Depth to restrictive feature: 20 to 40 inches to densic material
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: About 18 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 3.1 inches)

Interpretive groups
Farmland classification: Farmland of statewide importance
Land capability (nonirrigated): 4e
Hydrologic Soil Group: C
Other vegetative classification: Unnamed (G002XF303WA)

Typical profile
0 to 6 inches: Gravelly loam
6 to 30 inches: Very gravelly loam
30 to 60 inches: Gravelly sandy loam

Bh—Belfast silt loam, heavy variant

Map Unit Setting

Mean annual precipitation: 50 to 70 inches
Mean annual air temperature: 50 degrees F
Frost-free period: 170 days

Map Unit Composition

Belfast variant, heavy, and similar soils: 95 percent
Minor components: 5 percent

Description of Belfast Variant, Heavy

Setting

Landform: Flood plains
Parent material: Alluvium

Properties and qualities

Slope: 1 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: About 24 to 48 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Available water capacity: High (about 12.0 inches)

Interpretive groups

Farmland classification: All areas are prime farmland
Land capability (nonirrigated): 3w
Hydrologic Soil Group: C
Other vegetative classification: Unnamed (G002XN202WA)

Typical profile

0 to 5 inches: Silt loam
5 to 21 inches: Silt loam
21 to 60 inches: Silt loam

Minor Components

Belfast variant, wet

Percent of map unit: 5 percent
Landform: Alluvial cones

Bk—Belfast silt loam, wet variant

Map Unit Setting

Mean annual precipitation: 50 to 70 inches
Mean annual air temperature: 50 degrees F
Frost-free period: 170 days

Map Unit Composition

Belfast variant, wet, and similar soils: 95 percent
Minor components: 5 percent

Description of Belfast Variant, Wet

Setting

Landform: Flood plains
Parent material: Alluvium

Properties and qualities

Slope: 1 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: About 6 to 12 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Available water capacity: High (about 10.3 inches)

Interpretive groups

Farmland classification: Prime farmland if drained
Land capability (nonirrigated): 5w
Hydrologic Soil Group: C/D
Other vegetative classification: Unnamed (G002XN102WA)

Typical profile

0 to 9 inches: Silt loam
9 to 20 inches: Silt loam
20 to 60 inches: Stratified gravelly fine sandy loam to clay loam

Minor Components

Belfast

Percent of map unit: 5 percent

Bm—Belfast silty clay loam, wet variant

Map Unit Setting

Mean annual precipitation: 50 to 70 inches
Mean annual air temperature: 50 degrees F
Frost-free period: 170 days

Map Unit Composition

Belfast variant, wet, and similar soils: 95 percent
Minor components: 5 percent

Description of Belfast Variant, Wet

Setting

Landform: Flood plains
Parent material: Alluvium

Properties and qualities

Slope: 1 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: About 6 to 12 inches
Frequency of flooding: Occasional
Frequency of ponding: None
Available water capacity: High (about 10.3 inches)

Interpretive groups

Farmland classification: Prime farmland if drained
Land capability (nonirrigated): 5w
Hydrologic Soil Group: C/D
Other vegetative classification: Unnamed (G002XN102WA)

Typical profile

0 to 9 inches: Silty clay loam
9 to 20 inches: Loam
20 to 60 inches: Stratified gravelly fine sandy loam to clay loam

Minor Components

Belfast

Percent of map unit: 5 percent

CdB—Casey fine sandy loam, 0 to 8 percent slopes

Map Unit Setting

Mean annual precipitation: 30 inches
Mean annual air temperature: 45 degrees F
Frost-free period: 60 to 200 days

Map Unit Composition

Casey and similar soils: 100 percent

Description of Casey

Setting

Landform: Terraces
Parent material: Glacio lacustrine deposits and/or marine deposits

Properties and qualities

Slope: 0 to 8 percent
Depth to restrictive feature: 10 to 20 inches to abrupt textural change
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 in/hr)
Depth to water table: About 12 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Very low (about 2.5 inches)

Interpretive groups

Farmland classification: Prime farmland if drained
Land capability (nonirrigated): 3w
Hydrologic Soil Group: D
Other vegetative classification: Unnamed (G002XN202WA)

Typical profile

0 to 17 inches: Fine sandy loam
17 to 33 inches: Clay
33 to 60 inches: Stratified loamy fine sand to clay

CeB—Casey silt loam, 0 to 8 percent slopes

Map Unit Setting

Mean annual precipitation: 30 inches
Mean annual air temperature: 45 degrees F
Frost-free period: 60 to 200 days

Map Unit Composition

Casey and similar soils: 100 percent

Description of Casey

Setting

Landform: Terraces
Parent material: Glacio lacustrine deposits and/or marine deposits

Properties and qualities

Slope: 0 to 8 percent
Depth to restrictive feature: 10 to 20 inches to abrupt textural change
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Very low (0.00 in/hr)
Depth to water table: About 12 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 3.2 inches)

Interpretive groups

Farmland classification: Prime farmland if drained
Land capability (nonirrigated): 3w
Hydrologic Soil Group: D
Other vegetative classification: Unnamed (G002XN202WA)

Typical profile

0 to 17 inches: Silt loam
17 to 33 inches: Clay
33 to 60 inches: Stratified loamy fine sand to clay

CfC—Cassolary sandy loam, 0 to 15 percent slopes

Map Unit Setting

Elevation: 50 to 500 feet
Mean annual precipitation: 16 to 30 inches
Mean annual air temperature: 48 to 50 degrees F
Frost-free period: 160 to 200 days

Map Unit Composition

Cassolary and similar soils: 100 percent

Description of Cassolary

Setting

Landform: Terraces
Parent material: Glacial drift and/or marine deposits

Properties and qualities

Slope: 0 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: About 20 to 32 inches
Frequency of flooding: None

Frequency of ponding: None
Available water capacity: Moderate (about 8.5 inches)

Interpretive groups
Farmland classification: Farmland of statewide importance
Land capability classification (irrigated): 3e
Land capability (nonirrigated): 3e
Hydrologic Soil Group: C
Other vegetative classification: Unnamed (G002XN502WA)

Typical profile
0 to 3 inches: Sandy loam
3 to 23 inches: Sandy loam
23 to 49 inches: Stratified fine sandy loam to silty clay loam
49 to 60 inches: Sand

CfD—Cassolary sandy loam, 15 to 30 percent slopes

Map Unit Setting
Elevation: 50 to 500 feet
Mean annual precipitation: 16 to 30 inches
Mean annual air temperature: 48 to 50 degrees F
Frost-free period: 160 to 200 days

Map Unit Composition
Cassolary and similar soils: 100 percent

Description of Cassolary

Setting
Landform: Terraces
Parent material: Glacial drift and/or marine deposits

Properties and qualities
Slope: 15 to 30 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: About 20 to 32 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Moderate (about 8.5 inches)

Interpretive groups
Farmland classification: Farmland of statewide importance
Land capability (nonirrigated): 4e
Hydrologic Soil Group: C
Other vegetative classification: Unnamed (G002XN702WA)

Typical profile
0 to 3 inches: Sandy loam
3 to 23 inches: Sandy loam

23 to 49 inches: Stratified fine sandy loam to silty clay loam
49 to 60 inches: Sand

CfE—Cassolary sandy loam, 30 to 50 percent slopes

Map Unit Setting
Elevation: 50 to 500 feet
Mean annual precipitation: 16 to 30 inches
Mean annual air temperature: 48 to 50 degrees F
Frost-free period: 160 to 200 days

Map Unit Composition
Cassolary and similar soils: 100 percent

Description of Cassolary

Setting
Landform: Terraces
Parent material: Glacial drift and/or marine deposits

Properties and qualities
Slope: 30 to 50 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: About 20 to 32 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Moderate (about 8.5 inches)

Interpretive groups
Farmland classification: Not prime farmland
Land capability (nonirrigated): 7e
Hydrologic Soil Group: C

Typical profile
0 to 3 inches: Sandy loam
3 to 23 inches: Sandy loam
23 to 49 inches: Stratified fine sandy loam to silty clay loam
49 to 60 inches: Sand

ChC—Cassolary-Everett complex, 0 to 15 percent slopes

Map Unit Setting
Elevation: 50 to 500 feet
Mean annual precipitation: 16 to 45 inches
Mean annual air temperature: 48 to 50 degrees F

Frost-free period: 160 to 200 days

Map Unit Composition

Cassolary and similar soils: 60 percent
Everett and similar soils: 35 percent

Description of Cassolary

Setting

Landform: Terraces
Parent material: Glacial drift and/or marine deposits

Properties and qualities

Slope: 0 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: About 20 to 32 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Moderate (about 8.5 inches)

Interpretive groups

Farmland classification: Farmland of statewide importance
Land capability classification (irrigated): 3e
Land capability (nonirrigated): 3e
Hydrologic Soil Group: C
Other vegetative classification: Unnamed (G002XN502WA)

Typical profile

0 to 3 inches: Sandy loam
3 to 23 inches: Sandy loam
23 to 49 inches: Stratified fine sandy loam to silty clay loam
49 to 60 inches: Sand

Description of Everett

Setting

Landform: Terraces
Parent material: Glacial outwash

Properties and qualities

Slope: 0 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 4.2 inches)

Interpretive groups

Farmland classification: Farmland of statewide importance
Land capability (nonirrigated): 4s
Hydrologic Soil Group: B
Other vegetative classification: Unnamed (G002XN402WA)

Typical profile

0 to 16 inches: Very gravelly sandy loam
16 to 26 inches: Very gravelly sandy loam
26 to 60 inches: Very gravelly coarse sand

ChD—Cassolary-Everett complex, 15 to 30 percent slopes

Map Unit Setting

Elevation: 50 to 500 feet
Mean annual precipitation: 16 to 45 inches
Mean annual air temperature: 48 to 50 degrees F
Frost-free period: 160 to 200 days

Map Unit Composition

Cassolary and similar soils: 60 percent
Everett and similar soils: 35 percent

Description of Cassolary

Setting

Landform: Terraces
Parent material: Glacial drift and/or marine deposits

Properties and qualities

Slope: 15 to 30 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: About 20 to 32 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Moderate (about 8.5 inches)

Interpretive groups

Farmland classification: Farmland of statewide importance
Land capability (nonirrigated): 4e
Hydrologic Soil Group: C
Other vegetative classification: Unnamed (G002XN702WA)

Typical profile

0 to 3 inches: Sandy loam
3 to 23 inches: Sandy loam
23 to 49 inches: Stratified fine sandy loam to silty clay loam
49 to 60 inches: Sand

Description of Everett

Setting

Landform: Terraces
Parent material: Glacial outwash

Properties and qualities

Slope: 15 to 30 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 3.6 inches)

Interpretive groups

Farmland classification: Farmland of statewide importance
Land capability (nonirrigated): 4e
Hydrologic Soil Group: A
Other vegetative classification: Unnamed (G002XN402WA)

Typical profile

0 to 6 inches: Gravelly sandy loam
6 to 16 inches: Very gravelly sandy loam
16 to 60 inches: Very gravelly coarse sand

CkC—Cassolary-Kitsap complex, 0 to 15 percent slopes

Map Unit Setting

Elevation: 50 to 500 feet
Mean annual precipitation: 16 to 37 inches
Mean annual air temperature: 48 to 50 degrees F
Frost-free period: 160 to 200 days

Map Unit Composition

Cassolary and similar soils: 60 percent
Kitsap and similar soils: 35 percent

Description of Cassolary

Setting

Landform: Terraces
Parent material: Glacial drift and/or marine deposits

Properties and qualities

Slope: 0 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: About 20 to 32 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Moderate (about 8.5 inches)

Interpretive groups

Farmland classification: Farmland of statewide importance
Land capability classification (irrigated): 4e
Land capability (nonirrigated): 3e
Hydrologic Soil Group: C
Other vegetative classification: Unnamed (G002XN502WA)

Typical profile

0 to 3 inches: Sandy loam
3 to 23 inches: Sandy loam
23 to 49 inches: Stratified fine sandy loam to silty clay loam
49 to 60 inches: Sand

Description of Kitsap

Setting

Landform: Terraces
Parent material: Lacustrine deposits and/or marine deposits

Properties and qualities

Slope: 0 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 18 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: High (about 11.4 inches)

Interpretive groups

Farmland classification: Farmland of statewide importance
Land capability (nonirrigated): 3e
Hydrologic Soil Group: C
Other vegetative classification: Unnamed (G002XN502WA)

Typical profile

0 to 4 inches: Silt loam
4 to 32 inches: Silt loam
32 to 60 inches: Stratified silt loam to silty clay loam to gravelly silty clay loam

CkE—Cassolary-Kitsap complex, 30 to 50 percent slopes

Map Unit Setting

Elevation: 50 to 500 feet
Mean annual precipitation: 16 to 37 inches
Mean annual air temperature: 48 to 50 degrees F
Frost-free period: 160 to 200 days

Map Unit Composition

Cassolary and similar soils: 50 percent

Kitsap and similar soils: 45 percent

Description of Cassolary

Setting

Landform: Terraces
Parent material: Glacial drift and/or marine deposits

Properties and qualities

Slope: 30 to 50 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: About 20 to 32 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Moderate (about 8.5 inches)

Interpretive groups

Farmland classification: Not prime farmland
Land capability (nonirrigated): 7e
Hydrologic Soil Group: C

Typical profile

0 to 3 inches: Sandy loam
3 to 23 inches: Sandy loam
23 to 49 inches: Stratified fine sandy loam to silty clay loam
49 to 60 inches: Sand

Description of Kitsap

Setting

Landform: Terraces
Parent material: Lacustrine deposits and/or marine deposits

Properties and qualities

Slope: 30 to 50 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 18 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: High (about 11.4 inches)

Interpretive groups

Farmland classification: Not prime farmland
Land capability (nonirrigated): 7e
Hydrologic Soil Group: C

Typical profile

0 to 4 inches: Silt loam
4 to 32 inches: Silt loam
32 to 60 inches: Stratified silt loam to silty clay loam to gravelly silty clay loam

EvC—Everett gravelly sandy loam, 0 to 15 percent slopes

Map Unit Setting

Mean annual precipitation: 30 to 45 inches
Mean annual air temperature: 50 degrees F
Frost-free period: 180 days

Map Unit Composition

Everett and similar soils: 100 percent

Description of Everett

Setting

Landform: Terraces
Parent material: Glacial outwash

Properties and qualities

Slope: 0 to 15 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 3.6 inches)

Interpretive groups

Farmland classification: Not prime farmland
Land capability (nonirrigated): 3e
Hydrologic Soil Group: A
Other vegetative classification: Unnamed (G002XN402WA)

Typical profile

0 to 6 inches: Gravelly sandy loam
6 to 16 inches: Very gravelly sandy loam
16 to 60 inches: Very gravelly coarse sand

HuD—Hoypus gravelly loamy sand, 15 to 30 percent slopes

Map Unit Setting

Mean annual precipitation: 24 inches
Mean annual air temperature: 48 degrees F
Frost-free period: 200 to 240 days

Map Unit Composition

Hoypus and similar soils: 100 percent

Description of Hoypus

Setting

Landform: Terraces
Parent material: Glacial outwash

Properties and qualities

Slope: 15 to 30 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Very low (about 1.6 inches)

Interpretive groups

Farmland classification: Not prime farmland
Land capability (nonirrigated): 4e
Hydrologic Soil Group: A
Other vegetative classification: Unnamed (G002XN402WA)

Typical profile

0 to 2 inches: Gravelly loamy sand
2 to 10 inches: Gravelly loamy sand
10 to 26 inches: Gravelly loamy sand
26 to 60 inches: Gravelly loamy sand

KsD—Kitsap gravelly loam, 15 to 30 percent slopes

Map Unit Setting

Mean annual precipitation: 37 inches
Mean annual air temperature: 50 degrees F
Frost-free period: 160 to 200 days

Map Unit Composition

Kitsap and similar soils: 100 percent

Description of Kitsap

Setting

Landform: Terraces
Parent material: Lacustrine deposits and/or marine deposits

Properties and qualities

Slope: 15 to 30 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 18 to 36 inches

Frequency of flooding: None
Frequency of ponding: None
Available water capacity: High (about 11.1 inches)

Interpretive groups
Farmland classification: Farmland of statewide importance
Land capability (nonirrigated): 4e
Hydrologic Soil Group: C
Other vegetative classification: Unnamed (G002XN702WA)

Typical profile
0 to 4 inches: Gravelly loam
4 to 32 inches: Silt loam
32 to 60 inches: Stratified silt loam to silty clay loam to gravelly silty clay loam

KtD—Kitsap silt loam, 15 to 30 percent slopes

Map Unit Setting
Mean annual precipitation: 37 inches
Mean annual air temperature: 50 degrees F
Frost-free period: 160 to 200 days

Map Unit Composition
Kitsap and similar soils: 100 percent

Description of Kitsap

Setting
Landform: Terraces
Parent material: Lacustrine deposits and/or marine deposits

Properties and qualities
Slope: 15 to 30 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 18 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: High (about 11.4 inches)

Interpretive groups
Farmland classification: Farmland of statewide importance
Land capability (nonirrigated): 4e
Hydrologic Soil Group: C
Other vegetative classification: Unnamed (G002XN702WA)

Typical profile
0 to 4 inches: Silt loam
4 to 32 inches: Silt loam
32 to 60 inches: Stratified silt loam to silty clay loam to gravelly silty clay loam

KtE—Kitsap silt loam, 30 to 50 percent slopes

Map Unit Setting

Mean annual precipitation: 37 inches
Mean annual air temperature: 50 degrees F
Frost-free period: 160 to 200 days

Map Unit Composition

Kitsap and similar soils: 100 percent

Description of Kitsap

Setting

Landform: Canyons, bluffs
Parent material: Lacustrine deposits and/or marine deposits

Properties and qualities

Slope: 30 to 50 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 18 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: High (about 11.4 inches)

Interpretive groups

Farmland classification: Not prime farmland
Land capability (nonirrigated): 7e
Hydrologic Soil Group: C

Typical profile

0 to 4 inches: Silt loam
4 to 32 inches: Silt loam
32 to 60 inches: Stratified silt loam to silty clay loam to gravelly silty clay loam

Mm—McMurray and Mukilteo peats

Map Unit Setting

Elevation: 0 to 1,000 feet
Mean annual precipitation: 35 to 70 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 150 to 260 days

Map Unit Composition

Mukilteo and similar soils: 45 percent

Mcmurray and similar soils: 45 percent

Description of Mcmurray

Setting

Landform: Depressions
Parent material: Herbaceous organic material

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Available water capacity: Very high (about 26.9 inches)

Interpretive groups

Farmland classification: Prime farmland if drained
Land capability (nonirrigated): 5w
Hydrologic Soil Group: B/D
Other vegetative classification: Unnamed (G002XN102WA)

Typical profile

0 to 6 inches: Mucky peat
6 to 60 inches: Mucky peat

Description of Mukilteo

Setting

Landform: Depressions
Parent material: Herbaceous organic material

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 1.98 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Available water capacity: Very high (about 26.9 inches)

Interpretive groups

Farmland classification: Prime farmland if drained
Land capability (nonirrigated): 5w
Hydrologic Soil Group: B/D
Other vegetative classification: Unnamed (G002XN102WA)

Typical profile

0 to 11 inches: Peat
11 to 60 inches: Mucky peat

SaB—San Juan gravelly sandy loam, 0 to 8 percent slopes

Map Unit Setting

Elevation: 0 to 300 feet
Mean annual precipitation: 18 to 30 inches
Mean annual air temperature: 48 to 50 degrees F
Frost-free period: 210 to 250 days

Map Unit Composition

San juan and similar soils: 100 percent

Description of San Juan

Setting

Landform: Plains
Parent material: Glacial outwash

Properties and qualities

Slope: 0 to 8 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): High to very high (5.95 to 19.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 3.7 inches)

Interpretive groups

Farmland classification: Farmland of statewide importance
Land capability (nonirrigated): 3s
Hydrologic Soil Group: A
Other vegetative classification: Unnamed (G002XN402WA)

Typical profile

0 to 17 inches: Gravelly sandy loam
17 to 60 inches: Gravelly coarse sand

Se—Semiahmoo muck

Map Unit Setting

Elevation: 10 to 1,300 feet
Mean annual precipitation: 35 to 70 inches
Mean annual air temperature: 46 to 50 degrees F
Frost-free period: 125 to 250 days

Map Unit Composition
Semiahmoo and similar soils: 100 percent

Description of Semiahmoo

Setting
Landform: Depressions
Parent material: Herbaceous organic material

Properties and qualities
Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Available water capacity: Very high (about 26.6 inches)

Interpretive groups
Farmland classification: Prime farmland if drained
Land capability (nonirrigated): 5w
Hydrologic Soil Group: B/D
Other vegetative classification: Unnamed (G002XN102WA)

Typical profile
0 to 16 inches: Muck
16 to 54 inches: Muck
54 to 55 inches: Silt loam
55 to 60 inches: Muck

Sh—Semiahmoo muck, moderately shallow variant

Map Unit Setting
Elevation: 10 to 1,300 feet
Mean annual precipitation: 35 to 70 inches
Mean annual air temperature: 46 to 50 degrees F
Frost-free period: 125 to 250 days

Map Unit Composition
Semiahmoo and similar soils: 100 percent

Description of Semiahmoo

Setting
Landform: Depressions
Parent material: Herbaceous organic material

Properties and qualities
Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches

Drainage class: Very poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Available water capacity: Very high (about 19.7 inches)

Interpretive groups

Farmland classification: Prime farmland if drained
Land capability (nonirrigated): 5w
Hydrologic Soil Group: C/D
Other vegetative classification: Unnamed (G002XN102WA)

Typical profile

0 to 12 inches: Muck
12 to 36 inches: Muck
36 to 60 inches: Loamy sand

Sm—Semiahmoo muck, shallow variant

Map Unit Setting

Elevation: 10 to 1,300 feet
Mean annual precipitation: 35 to 70 inches
Mean annual air temperature: 46 to 50 degrees F
Frost-free period: 125 to 250 days

Map Unit Composition

Semiahmoo and similar soils: 100 percent

Description of Semiahmoo

Setting

Landform: Depressions
Parent material: Herbaceous organic material

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Available water capacity: Very high (about 15.0 inches)

Interpretive groups

Farmland classification: Prime farmland if drained
Land capability (nonirrigated): 5w
Hydrologic Soil Group: C/D
Other vegetative classification: Unnamed (G002XN102WA)

Typical profile
0 to 12 inches: Muck
12 to 20 inches: Muck
20 to 60 inches: Loamy sand

SnC—Sinclair gravelly sandy loam, 0 to 15 percent slopes

Map Unit Setting
Mean annual precipitation: 25 to 50 inches
Mean annual air temperature: 50 degrees F
Frost-free period: 200 days

Map Unit Composition
Sinclair and similar soils: 100 percent

Description of Sinclair

Setting
Landform: Terraces
Parent material: Basal till

Properties and qualities
Slope: 0 to 15 percent
Depth to restrictive feature: 20 to 40 inches to densic material
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: About 18 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Very low (about 2.3 inches)

Interpretive groups
Farmland classification: Farmland of statewide importance
Land capability (nonirrigated): 4s
Hydrologic Soil Group: B/D
Other vegetative classification: Unnamed (G002XN302WA)

Typical profile
0 to 8 inches: Gravelly sandy loam
8 to 25 inches: Gravelly sandy loam
25 to 60 inches: Gravelly sandy loam

SnD—Sinclair gravelly sandy loam, 15 to 30 percent slopes

Map Unit Setting
Mean annual precipitation: 25 to 50 inches
Mean annual air temperature: 50 degrees F

Frost-free period: 200 days

Map Unit Composition
Sinclair and similar soils: 100 percent

Description of Sinclair

Setting
Landform: Terraces
Parent material: Basal till

Properties and qualities
Slope: 15 to 30 percent
Depth to restrictive feature: 20 to 40 inches to densic material
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: About 18 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Very low (about 2.3 inches)

Interpretive groups
Farmland classification: Farmland of statewide importance
Land capability (nonirrigated): 4e
Hydrologic Soil Group: B/D
Other vegetative classification: Unnamed (G002XN302WA)

Typical profile
0 to 8 inches: Gravelly sandy loam
8 to 25 inches: Gravelly sandy loam
25 to 60 inches: Gravelly sandy loam

So—Snohomish silty clay loam

Map Unit Setting
Mean annual precipitation: 22 to 50 inches
Mean annual air temperature: 50 degrees F
Frost-free period: 185 days

Map Unit Composition
Snohomish and similar soils: 100 percent

Description of Snohomish

Setting
Landform: Flood plains
Parent material: Alluvium

Properties and qualities
Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Very high (about 32.6 inches)

Interpretive groups
Farmland classification: Prime farmland if drained
Land capability (nonirrigated): 5w
Hydrologic Soil Group: C/D
Other vegetative classification: Unnamed (G002XN102WA)

Typical profile
0 to 5 inches: Mucky silty clay loam
5 to 17 inches: Mucky silty clay
17 to 39 inches: Peat, mucky silty clay loam
39 to 60 inches: Peat

StB—Swantown gravelly sandy loam, 0 to 8 percent slopes

Map Unit Setting
Mean annual precipitation: 18 to 35 inches
Mean annual air temperature: 50 degrees F
Frost-free period: 210 to 230 days

Map Unit Composition
Swantown and similar soils: 100 percent

Description of Swantown

Setting
Parent material: Till

Properties and qualities
Slope: 0 to 8 percent
Depth to restrictive feature: 20 to 30 inches to densic material
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: About 6 to 12 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Very low (about 2.0 inches)

Interpretive groups
Farmland classification: Not prime farmland
Land capability (nonirrigated): 6w
Hydrologic Soil Group: D
Other vegetative classification: Unnamed (G002XN102WA)

Typical profile
0 to 5 inches: Gravelly sandy loam

5 to 13 inches: Very gravelly loam
13 to 22 inches: Very gravelly sandy loam
22 to 60 inches: Very gravelly sandy loam

SuB—Swantown gravelly loam, 0 to 8 percent slopes

Map Unit Setting
Mean annual precipitation: 18 to 35 inches
Mean annual air temperature: 50 degrees F
Frost-free period: 210 to 230 days

Map Unit Composition
Swantown and similar soils: 100 percent

Description of Swantown

Setting
Parent material: Till

Properties and qualities
Slope: 0 to 8 percent
Depth to restrictive feature: 20 to 30 inches to densic material
Drainage class: Somewhat poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: About 6 to 12 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Very low (about 2.2 inches)

Interpretive groups
Farmland classification: Not prime farmland
Land capability (nonirrigated): 6w
Hydrologic Soil Group: D
Other vegetative classification: Unnamed (G002XN102WA)

Typical profile
0 to 5 inches: Gravelly loam
5 to 13 inches: Very gravelly loam
13 to 22 inches: Very gravelly sandy loam
22 to 60 inches: Very gravelly sandy loam

Th—Tisch silt loam

Map Unit Setting
Elevation: 50 to 1,000 feet
Mean annual precipitation: 20 to 60 inches
Mean annual air temperature: 48 to 52 degrees F

Frost-free period: 150 to 250 days

Map Unit Composition

Tisch and similar soils: 100 percent

Description of Tisch

Setting

Landform: Depressions
Parent material: Volcanic ash, alluvium and diatomaceous earth

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: None
Frequency of ponding: Frequent
Available water capacity: Very high (about 24.8 inches)

Interpretive groups

Farmland classification: Prime farmland if drained
Land capability (nonirrigated): 5w
Hydrologic Soil Group: C/D
Other vegetative classification: Unnamed (G002XN102WA)

Typical profile

0 to 14 inches: Silt loam
14 to 31 inches: Silt
31 to 60 inches: Muck

TuD—Tukey gravelly loam, 15 to 30 percent slopes

Map Unit Setting

Mean annual precipitation: 21 inches
Mean annual air temperature: 50 degrees F
Frost-free period: 225 to 250 days

Map Unit Composition

Tukey and similar soils: 100 percent

Description of Tukey

Setting

Landform: Terraces
Parent material: Basal till

Properties and qualities

Slope: 15 to 30 percent
Depth to restrictive feature: 20 to 36 inches to densic material
Drainage class: Moderately well drained

Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: About 18 to 36 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 3.9 inches)

Interpretive groups
Farmland classification: Farmland of statewide importance
Land capability (nonirrigated): 4e
Hydrologic Soil Group: C
Other vegetative classification: Unnamed (G002XN402WA)

Typical profile
0 to 2 inches: Gravelly loam
2 to 8 inches: Gravelly loam
8 to 36 inches: Very gravelly loam
36 to 60 inches: Very gravelly loam

Wa—Wapato silty clay loam

Map Unit Setting
Elevation: 100 to 2,500 feet
Mean annual precipitation: 36 to 60 inches
Mean annual air temperature: 50 to 54 degrees F
Frost-free period: 150 to 210 days

Map Unit Composition
Wapato and similar soils: 95 percent
Minor components: 5 percent

Description of Wapato

Setting
Landform: Depressions
Parent material: Glaciofluvial deposits and/or marine deposits

Properties and qualities
Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)
Depth to water table: About 0 inches
Frequency of flooding: Frequent
Frequency of ponding: Frequent
Available water capacity: High (about 9.9 inches)

Interpretive groups
Farmland classification: Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
Land capability classification (irrigated): 6w
Land capability (nonirrigated): 5w

Hydrologic Soil Group: C/D
Other vegetative classification: Unnamed (G002XN102WA)

Typical profile
0 to 8 inches: Silty clay loam
8 to 60 inches: Silty clay loam

Minor Components

Belfast
Percent of map unit: 5 percent

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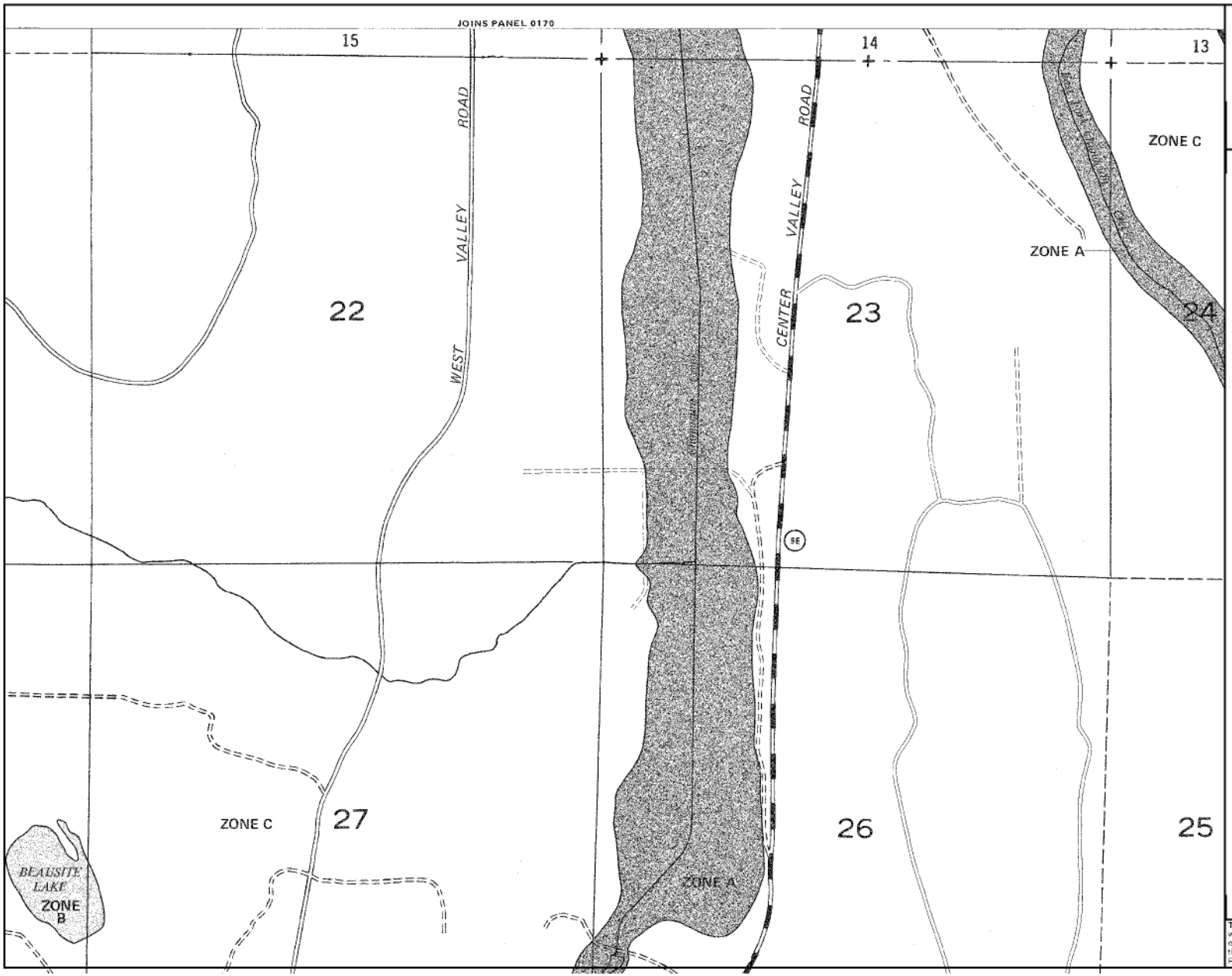

APPROXIMATE SCALE

1000 0 1000 FEET

NATIONAL FLOOD INSURANCE PROGRAM

FIRM

FLOOD INSURANCE RATE MAP

JEFFERSON COUNTY, WASHINGTON

(UNINCORPORATED AREAS)

PANEL 435 OF 1625

(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
530069 0435 B

EFFECTIVE DATE:
JULY 19, 1982

Federal Emergency Management Agency

U.S. Fish and Wildlife Service

National Wetlands Inventory

Jan 25, 2014

Wetlands

- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other

Riparian

- Herbaceous
- Forested/Shrub

Riparian Status

- Digital Data

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

User Remarks:

Jefferson County

Short Farm

This site is only open on Tuesdays, Thursdays and Saturdays.
From Hood Canal Bridge go west 10 miles on Hwy 104 to the Chimacum/Quilcene exit. This exit is approximately 4 miles east of Hwy 101 on Hwy 104. At the bottom of the ramp, turn left (north) on Center Road. Go 4.9 miles to the parking location on the west side of Center Road. The two field blinds, constructed by the local chapter of the Washington Waterfowl Association, are in fields to the west.
Walk down the trail, and around the gate, to reach the blinds. These blinds will not be productive until rains partially flood the fields.

Two additional pond blinds by WWA are located on the Short Farm on the west side of Chimacum Creek. To reach the parking spots, turn west off Center Rd. into the driveway marked with a sign for topsoil. Drive past the houses and barn and cross the creek. Take the first left and go straight to the two parking signs at the sand pit.

The opportunity to hunt is on a first come/first served basis. The first car parked at each sign reserves the entire field or blind.

This is a very popular site for the public to view wintering trumpeter swans. To assure future hunting opportunities at this site, please make every effort to avoid driving the protected swans from the area.

GPS – 517074 5314343