DANA Kevin

From: KENT Lynne
Sent: Wednesday, January 20, 2010 10:02 AM
To: DANA Kevin
Subject: FW: NFA/Refund Request

This will make them very happy I am sure!

Lynne

From: HUNTER Laurie
Sent: Wednesday, January 20, 2010 9:53 AM
To: ISMERIO Dawn
Cc: KORTENHOF Mike; KENT Lynne; CLARK Liz
Subject: NFA/Refund Request

All final charges have been applied to the Hamade Property (03-09-0775) L40643 site leaving a credit balance of $1209.05 that needs to be refunded. If the NFA has not already been sent, it may be sent now. I will close the business office file and CRIS account as soon as the refund process is completed.

Dawn, please prepare the refund request as follows:

L40643 Hamade Property (03-09-0775)
Transmittal Date: 12/17/09
Deposit Slip #: 43471
Check #: 010188090
Payer: Ahmed Hamade
Refund Amount: $1209.05

Thanks.

Laurie Hunter
DEQ - Accounting
Phone: (503) 229-5698
Fax: (503) 229-6730
E-mail: hunter.laurie@deq.state.or.us

file

Oregon
Theodore R. Kulongoski, Governor

Department of Environmental Quality
Northwest Region Portland Office
2020 SW 4th Avenue, Suite 400
Portland, OR 97201-4987
(503) 229-5263
Fax: (503) 229-6945
TTY: (503) 229-5471

December 15, 2009

AHMED HAMADE
PO BOX 8652
PORTLAND OR 97207

Re: Hamade Property
File No. 03-09-0775

Dear Mr. Hamade:

The Department of Environmental Quality (DEQ) has completed its review of the information submitted to date regarding the underground storage tank (UST) decommissioning and cleanup conducted at 13625 SE McLoughlin Boulevard, south of Milwaukie, Oregon. DEQ has determined that the cleanup appears to have met the requirements of Oregon Administrative Rules (OAR) 340-122-0205 through 340-122-0360. No further action is required at this time subject to the conditions described below.

This determination is a result of our evaluation and judgment based on the regulations and facts as we now understand them:

SITE HISTORY/BACKGROUND

The Hamade Property is located on the west side of SE McLoughlin Boulevard, just north of its intersection with Holly Avenue, in unincorporated Clackamas County. The site covers Tax Lot 3500 in the northeast quarter of the southwest quarter of Section 1, Township 2 South, Range 1 East of the Willamette Meridian. The site is currently vacant but previously housed a gasoline service station from the mid-1930s through the early 1980s.

UST DECOMMISSIONING

Two underground storage tanks were decommissioned by removal from the Hamade Property in late August 2009. The tank capacities were not reported. Both tanks were shipped to Metro Metals Northwest in Portland for recycling. Emulsified fuels and rinse waters were shipped to Oil Re-Refining Company (ORRCO) in Portland for recycling and disposal. A total of 67.40 tons of petroleum-contaminated soil (PCS) were excavated from around the USTs and shipped to the Hillsboro Landfill for disposal.

EXTENT OF CONTAMINATION DEFINED

On August 13, 2009, prior to the UST decommissioning, Alpha Environmental Services dug 10 test pits at the Hamade Property to investigate anomalies identified during a previous geophysical survey. The first test pit uncovered the two underground storage tanks. Alpha collected two soil

samples from the test pit, at depths of 3½ feet and 7 feet below ground surface (bgs), and analyzed the samples for petroleum hydrocarbons by the NWTPH-HCID sampling method. Contamination consistent with gasoline was detected in both samples. Alpha further analyzed the samples for gasoline by the NWTPH-Gx sampling method. Gasoline was detected in the sample from 3½ feet bgs at a concentration of 245 parts per million (ppm), and was detected in the sample from 7 feet bgs at a concentration of 688 ppm. Heavy oil was detected in four of the other test pits at concentrations up to 199 ppm. (In general, heavy oil concentrations below 500 ppm are not considered significant).

On September 1, 2009, after the two USTs were removed, Alpha collected a groundwater sample from the excavation pit and analyzed the sample for gasoline and volatile organic compounds (VOCs). Gasoline was detected in the groundwater at a concentration of 569 parts per billion (ppb), along with naphthalene at 0.6 ppb and n-propylbenzene at 6 ppb. Alpha collected a second groundwater sample on September 10 and analyzed it for diesel and heavy oil by the NWTPH-Dx sampling method. No diesel or heavy oil was detected.

REMEDIAL ACTIONS AND COMPLIANCE MONITORING/SAMPLING

From August 31 to September 3, 2009, Alpha Environmental Services excavated a total of 67.40 tons of petroleum-contaminated soil (PCS) from around the two underground storage tanks at the Hamade Property and shipped the PCS to the Hillsboro Landfill for disposal. Once the excavation was completed on September 3, Alpha collected confirmation soil samples from the north and south ends of the excavation pit. The samples were collected from the soil/groundwater interface at 6 feet bgs and were analyzed for gasoline, diesel and heavy oil, along with five petroleum constituents. Gasoline (at a concentration of 372 ppm) and heavy oil (at a concentration of 211 ppm) were detected in the north end of the pit, along with benzene (0.15 ppm), ethylbenzene (0.34 ppm), naphthalene (0.06 ppm), toluene (1.14 ppm), and xylenes (2.04 ppm). No contaminants were detected in the south end of the pit.

After trying and failing to advance soil borings around the excavation pit, Alpha dug test pits to the northwest, northeast, and east of the pit. On September 17, Alpha collected a soil sample from the northeast test pit at a depth of 6 feet bgs to determine the extent of contamination in the north end of the excavation pit. Alpha also collected soil samples from the east and west ends of the excavation pit at depths of 6 feet bgs. All three soil samples were analyzed for gasoline, diesel, heavy oil, and four petroleum constituents. No contaminants were detected.

On September 22, Alpha collected groundwater samples from the northwest and east test pits to determine the extent of contaminated groundwater observed in the excavation pit. The two groundwater samples were analyzed for gasoline, diesel, heavy oil, and five petroleum constituents. No contaminants were detected.

CURRENT AND FUTURE GROUNDWATER BENEFICIAL USE DETERMINATION

Alpha Environmental Services completed a Beneficial Water Use Determination for the Hamade Property in October 2009. Alpha identified 13 water wells within the same township/range/ section as the site. The nearest wells are located on the adjacent property to the north and in an adjacent mobile home park to the west. Both wells extend about 400 feet bgs and are sealed off from the shallow groundwater at 6 feet bgs. The static water level in the wells is between 150 and 200 feet bgs. Alpha concluded that the two wells were too deep and too far away to be impacted by the contaminated groundwater at the Hamade Property, and further concluded that the shallow groundwater wouldn't likely be used as a drinking water source.

A municipal water supply is available to the area through the Oak Lodge Water District, which serves most of the unincorporated area between Milwaukie and Gladstone. The District obtains its water from the Clackamas River. However, although a municipal supply is available, a number of properties in the area are currently relying on groundwater for drinking and other domestic uses. Consequently, there is a current (if not reasonably likely future) beneficial use of groundwater in the area, even if this use doesn't extend to the shallow aquifer.

CURRENT AND FUTURE LAND USE DETERMINATION

The Hamade Property is zoned General Community (C-3) by Clackamas County. The zoning generally allows for retail and service uses, with new single-family residential development specifically prohibited. Adjacent properties to the north, south, and east (i.e. bordering McLoughlin Boulevard) are also zoned General Community. The adjacent property to the west is currently occupied by a mobile home park and is zoned Medium Density Residential (MR-1).

The current Comprehensive Plan for the area shows essentially the same designations (General Commercial and Medium Density Residential, respectively). However, Clackamas County's plans for the McLoughlin Boulevard corridor include a mix of multi-family housing (apartments, condominiums, etc.) and commercial development. Consequently, although the current land use for the site is commercial, reasonably likely future land uses would include both commercial and urban residential developments.

CONTAMINANTS OF INTEREST

Contamination at the Hamade Property consists of gasoline and gasoline constituents in the soil and shallow groundwater. The constituents of interest in gasoline are benzene, toluene, ethylbenzene, and xylenes (collectively known as "BTEX"), 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, isopropylbenzene, n-propylbenzene, naphthalene, methyl tertiary-butyl ether (MTBE), ethylene dibromide, ethylene dichloride, and lead.

CONTAMINANTS OF POTENTIAL CONCERN

The following contaminants have been detected in soil and groundwater samples at the Hamade Property at concentrations that exceed one or more of DEQ's Risk-Based Cleanup standards:

- Benzene (at concentrations up to 0.15 ppm in the soil);
- Ethylbenzene (up to 0.34 ppm in the soil);
- Gasoline (up to 688 ppm in the soil and 569 ppb in the groundwater); and
- Naphthalene (up to 0.6 ppb in the groundwater).

CONCEPTUAL SITE MODEL AND RISK-BASED DETERMINATION

A Conceptual Site Model is a conceptual map of a site that identifies all of the potential ways people may be exposed to contamination at the site, now and in the future. Exposure to the contamination may occur through various routes. For example, residents or occupants of a site may be exposed to soil contamination through direct contact with the soil, or to groundwater contamination by pumping the water from a well and using it for drinking or other domestic purposes. Construction and excavation workers may come into direct contact with contaminated soil or groundwater while digging foundations or utility trenches. The contaminants in soil or groundwater may also volatilize to indoor or outdoor air and be inhaled, or soil contaminants may leach to groundwater and later be ingested.

The Hamade Property is currently zoned General Community (C-3) by Clackamas County. The zoning specifically excludes single-family residential redevelopment, so residential exposure scenarios will be excluded from the Conceptual Site Model. Future plans for the McLoughlin Boulevard corridor, however, envision a mix of urban residential and commercial uses. Consequently, urban residential and occupational exposure scenarios will be included in the Conceptual Site Model.

A municipal water supply is available to the area through the Oak Lodge Water District. However, private wells are also in use in the area, including on properties immediately to the north and west of the Hamade Property. Given the use of area groundwater for domestic purposes, the groundwater ingestion exposure pathway will be included in the Conceptual Site Model. In addition, given that soil contamination at the site extended down to the shallow groundwater at 6 feet bgs, the soil leaching to groundwater pathway will also be included in the Conceptual Site Model.

CONTAMINANTS OF CONCERN

Contaminants of Concern at a site are those Contaminants of Potential Concern that exceed DEQ's generic Risk-Based Cleanup (RBC) standards for potential exposure pathways at a site.

For the Hamade Property, the following are the Contaminants of Concern for the 17 potential exposure pathways identified in the Conceptual Site Model:

- No soil contaminants at the site are a concern for direct contact under either the urban residential or occupational exposure pathways.
- No soil contaminants at the site are a concern for direct contact under the construction worker or excavation worker exposure pathways.
- One soil contaminant at the site is a concern for vapor intrusion into indoor air under the urban residential exposure pathway: gasoline.
- No soil contaminants at the site are a concern for vapor intrusion into indoor air under the occupational exposure pathway.
- No soil contaminants at the site are a concern for volatilization to outdoor air under either the urban residential or occupational exposure pathways.
- Two soil contaminants at the site are a concern for leaching to groundwater under both the urban residential and occupational exposure pathways: benzene and gasoline.
- One groundwater contaminant at the site is a concern for ingestion under both the urban residential and occupational exposure pathways: gasoline.
- No groundwater contaminants at the site are a concern for direct contact under the construction and excavation worker exposure pathway.
- No groundwater contaminants at the site are a concern for vapor intrusion into indoor air under either the urban residential or occupational exposure pathways.
- No groundwater contaminants at the site are a concern for volatilization to outdoor air under either the urban residential or occupational exposure pathways.

In summary, the Contaminants of Concern at the Hamade Property are benzene and gasoline.

RISK MANAGEMENT

Seventeen potential exposure pathways were identified in the Conceptual Site Model for the Hamade Property. Of the 17 potential pathways, 12 are incomplete, and do not show a current or future risk to human health, because no contaminants have been detected at the site in

concentrations that exceed DEQ's generic Risk-Based Cleanup (RBC) standards for those pathways. Consequently, no further action is necessary with regard to those 12 pathways.

Of the remaining potential exposure pathways, two involve the risk of contaminated groundwater being ingested (under urban residential and occupational exposure scenarios), and two involve the risk of soil contamination leaching to groundwater and subsequently being ingested. However, it is not reasonable to assume that the shallow groundwater at the Hamade Property (located about 6 feet bgs) will ever be used as a water supply source. A municipal water supply system is available to the area, and usable (albeit much deeper) aquifers are also available. In addition, based on area well logs, the shallow groundwater appears to be isolated from the deeper, usable aquifers by basalt and clay layers. Consequently, the residual soil and groundwater contamination does not present an actual risk of exposure through ingestion, so no further action is necessary with regard to these four potential exposure pathways.

The final potential exposure pathway involves the risk of contaminants in the soil volatilizing and impacting an urban residential building. Gasoline was detected in the soil at the Hamade Property at a concentration of 688 ppm at 7 feet bgs, and in a confirmation soil sample from six feet bgs at 372 ppm. DEQ's generic RBC standard for gasoline vapor intrusion under an urban residential exposure scenario is 160 ppm. The risk of vapor intrusion is considered to extend up to 100 feet from the contaminated soil.

The remaining risk at the Hamade Property only applies to a portion of the property, and only applies to future residents in urban residential buildings (as opposed to workers and customers in commercial or other occupational buildings). Consequently, since residual contamination at the Hamade Property only poses a potential future threat to human health over a portion of the property and only under certain redevelopment scenarios, DEQ has determined that no further action is necessary with regards to this exposure pathway subject to the following condition:

- **No multi-family residential buildings (apartments, condominiums, nursing homes, etc.) shall be constructed within 100 feet of the residual gasoline-contaminated soil.** This restriction may be lifted upon DEQ review and approval of additional investigation and/or cleanup of the residual contamination, or DEQ review and approval of a residential building design that incorporates vapor barriers or other vapor control technology.

ECOLOGICAL RISK EVALUATION

The Hamade Property is located in an urbanized portion of Clackamas County. No natural environments or surface water bodies are present within 1,000 feet of the site. Consequently, no impacts to ecological receptors are anticipated.

PUBLIC NOTICE

No public notice or opportunity to comment on the proposed No Further Action (NFA) determination for the Hamade Property was provided. The residual contamination is confined to the property and does not impact or threaten adjacent properties or the McLoughlin Boulevard public right-of-way.

NFA DETERMINATION

Contamination remains at the Hamade Property. DEQ approves leaving the contamination in-place because the contamination does not present an unacceptable risk to human health, safety, welfare, or the environment. DEQ's approval to leave contamination at the site is based upon the site conditions and redevelopment restrictions described above.

Any future work in the contaminated areas of the property, including any sampling, management, and disposal of contamination, must be performed in accordance with DEQ regulations and policies.

DEQ's determination that no further action is necessary will not apply if new or undisclosed facts show that the cleanup does not comply with the referenced rules. In addition, this determination only applies to the contamination described above, and does not apply to contamination that may have originated from other sources not addressed by this letter.

DEQ recommends keeping a copy of all the documentation associated with the contamination with your permanent property records.

Your efforts to comply with the regulations to ensure that your property has been adequately cleaned up have been appreciated. If you have any questions, please contact me at (503) 229-5369.

Respectfully,

Kevin Dana

Kevin Dana, UST Cleanup Specialist
UST Cleanup and Compliance Section

Michael H. Kortenhof, Manager
UST Section and Hazardous Waste Compliance

cc: Phil Brewer
Alpha Environmental
9150 SW Salmon St
Portland OR 97225

(kpd:KPD)

DANA Kevin

From: KENT Lynne
Sent: Monday, December 14, 2009 12:17 PM
To: DANA Kevin
Subject: FW: 03-09-0775- Hamade

I have requested the final invoice amt. so it shouldn't be long.

Lynne

From: KENT Lynne
Sent: Monday, December 14, 2009 9:33 AM
To: DANA Kevin
Subject: FW: 03-09-0775- Hamade

Still waiting for word from Bill that he put in his time in case these guys call you. I will remind him at the staff mtg. I can't put through the estimated invoice amt. yet.

Lynne

From: KENT Lynne
Sent: Thursday, December 10, 2009 8:58 AM
To: ROBERTSON Bill
Subject: FW: 03-09-0775- Hamade

RP is calling because they want to expedite the NFA. Can you do your time today if possible. Thanks so much!

Lynne

From: KENT Lynne
Sent: Tuesday, December 08, 2009 11:04 AM
To: ROBERTSON Bill
Subject: RE: 03-09-0775- Hamade

Perfect...thanks!

Lynne

From: ROBERTSON Bill
Sent: Tuesday, December 08, 2009 11:03 AM
To: KENT Lynne
Subject: RE: 03-09-0775- Hamade

Not yet. I'll put it in later today and send you and email when I'm done.

Bill

From: KENT Lynne
Sent: Monday, December 07, 2009 3:22 PM
To: ROBERTSON Bill
Subject: 03-09-0775- Hamade

Have you billed your time for this site?

Thanks,

Lynne

DANA Kevin

From: Phil Brewer [phil@alphaenvironmental.net]
Sent: Thursday, December 03, 2009 3:21 PM
To: DANA Kevin
Subject: RE: report
Attachments: Limited Subsurface.Report.doc; 09-0706-LSSI_Figs_Apps.pdf

Kevin,

Actually, I looked under the DEQ's Website under "contact us" and it allows me to send an email, but does not give your email address or allow attachments.

If you have any questions, let me know.

Thank you,

Phillip Brewer

President

503-292-5346 office
503-319-0791 cell
503-203-1516 fax
phil@alphaenvironmental.net
www.alphaenvironmental.net

-----Original Message-----
From: DANA Kevin [mailto:DANA.Kevin@deq.state.or.us]
Sent: Wednesday, December 02, 2009 4:36 PM
To: phil@alphaenvironmental.net
Subject: RE: report

Seeing as you successfully e-mailed me, you seem to already have it. :)

It's dana.kevin@deq.state.or.us

-----Original Message-----
From: phil@alphaenvironmental.net [mailto:phil@alphaenvironmental.net]
Sent: Wednesday, December 02, 2009 3:29 PM
To: DANA Kevin
Subject: report

Kevin,

Can you please send me your email address and I will send the report for SE McLoughlin regarding the test pits.

Thank you,

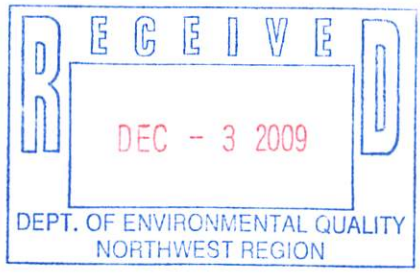
03-09-0775

LIMITED SUBSURFACE INVESTIGATION

13625 SE MCLOUGHLIN BLVD.
MILWAUKIE, OREGON
DATE ISSUED: APRIL 17, 2009
PROJECT NUMBER 09-0706

PREPARED FOR:

A.J. HAMADE



Prepared By:

Alpha environmental services, inc.

9525-A SW BEAVERTON-HILLSDALE HWY
BEAVERTON, OREGON 97005
TEL (503) 292-5346 FAX (503) 203-1516

1.0 INTRODUCTION

Alpha Environmental, Inc. (Alpha) was authorized by Alliance Restoration to complete a Limited Subsurface Investigation of the property located at 13625 SE McLoughlin Blvd, Milwaukie, OR (referred to in the report as "the Site"). This report presents the results of the initial investigation, and provides a background of the current levels of the constituents of concern at the Site.

1.1 Site Location and Setting

The Site is located at 13625 SE McLoughlin Blvd in Milwaukie, Oregon. The Site is bordered on the south by commercial and retail buildings and associated businesses and asphalt paved parking areas, on the east by SE McLoughlin Blvd., on the north by the "Bomber Complex"; a combination commercial and residential complex and former gas station, and on the west by a residential use trailer park. A site vicinity map is included as Figure 1.

The 2.6 acre site is currently undeveloped and heavily vegetated with the exception of a "C-shaped" asphalt parking area with a grassy center, and an outer gravel drive encircling the parking area.

2.0 PURPOSE AND SCOPE

The purpose of this work was to quantify the background soil levels of constituents of concern.

The scope of services included the collection of soil samples from within the vicinity of the underground storage tank (UST) pit, and from test pits distributed throughout the site in order to determine UST pit and background constituent concentrations.

3.0 FIELD METHODS

10 test pits were advanced to between 4 and 10.5 ft below ground surface (BGS). A total of 13 soil samples were collected. The soil samples were placed in Teflon© lined glass jars, placed in a cooler on ice, and transported to Wy'East Laboratory in Portland, Oregon for NWTPH-HCID analysis.

3.1 Tank Pit Area

TP-1

The first test pit (TP-1) was dug in the area identified as a potential UST pit. The top of a UST (UST 1) was observed at approximately 3.5 ft BGS. Observed tank trench backfill consisted of pockets of sand and debris, including asphalt and concrete and treated lumber. TP-1 was extended northward in an effort to expose the northern side of the tank and discern the depth of the tank bottom, which was observed at approximately 7 ft BGS.

Within the extended excavation, two east-west trending segments of 4 inch diameter metal piping were observed approximately three ft north of the tank. A soil sample (TP-1, S-1) was collected from TP-1 at a depth of 3.5 ft. Another sample was collected at the base of the northern side of UST 1 (TP-1, S-2) at a depth of about 7 ft.

TP-7

After several other test pits had been excavated throughout the site, a more thorough investigation into the tank area was undertaken. TP-7 was advanced just to the south of TP-1 in an effort to expose the southern edge of the tank. This excavation revealed a second UST (UST 2) adjacent to the previously encountered tank. UST 2 appeared to be damaged as evidenced by crumpled and extensively rusted sheet metal above and beside the tank body. TP-7 was expanded to expose both tanks. A heavily rusted span of sandy fill occupied the 6 inch space between the two tanks. A nearly vertical broken-off pipe was encountered approximately three feet west of the tanks. A soil sample was collected from TP-7 between UST 1 and UST 2 at a depth of about 5 ft.

TP-8

A large irregular slab of concrete was encountered in both TP-1 and TP-7. The slab covered the entire eastern portions of the USTs a including the eastern ends of the tanks. TP-8 was dug along the eastern edge of the concrete slab in order to obtain a soil sample from as close a proximity to the tank ends as possible. A soil sample was collected from TP-8 (TP-8, S-1) beneath the concrete slab, 15 ft east of the western edge of UST 2 and 17 ft east of the western edge of UST 1. Soil samples collected in the vicinity of the USTs are summarized in the following table:

Test Pit	Soil Samples	Approximate Sample Location
TP-1	TP-1, S-1 at 3.5 ft BGS	Near the top of UST 1
	TP-1, S-2 at 7 ft BGS	At the base of UST 1, on the northern side of the tank
TP-7	TP-7, S-1 at 5 ft BGS	Between UST 1 and UST 2
TP-8	TP-8, S-1 at 4.5 ft BGS	Beneath concrete slab, 15 ft east of western edge of UST 2 and 17 ft east of western edge of UST 1

3.2 Non-Tank Pit Area

The remaining test pits and associated soil samples were distributed throughout the site.

In general, where the excavations *not* located in the UST area revealed fill overlying native material, a sample was taken in each of the soil types present (fill versus native). Locations of test pits *not* in the UST area, and associated soil samples and depths are summarized in the following table:

Test Pit	Approximate Location	Soil Samples
TP-2	NW corner of grassy area within the "C-shaped" Asphalt area)	TP-2, S-1 at 3.5 ft BGS TP-2, S-2 at 6.5 ft BGS
TP-3	NE corner of site, along northern fence line	TP-3, S-1 at 3.5 ft BGS TP-3, S-2 at 7 ft BGS
TP-4	Northern central portion of site, along northern fence line	TP-4, S-1 at 3.5 ft BGS TP-4, S-1 at 3.5 ft BGS
TP-5	NW corner of site, along northern fence line	TP-5, S-1 at 4 ft BGS
TP-6	West Central portion of site, in gravel drive	TP-6, S-1 at 4 ft BGS
TP-10	SE corner of site	TP-10, S-1 at 2 ft BGS

4.0 RESULTS

4.1 Site Conditions

In general, the site is mantled with fill consisting of silty sand and gravel and concrete, asphalt, treated lumber, brick and metal fragments, and miscellaneous construction debris to depths ranging from about 2 to 5 ft BGS, underlain by silty and clayey organic soils over decomposed basalt bedrock. Slowly seeping groundwater was observed in two of the test pits at a depth of about 6 ft BGS. Two USTs and ancillary piping were encountered in test pits TP-1 (USTs and piping), TP-7 (USTs and piping), and TP-9 (piping). Generalized test pit and soils ample locations are shown on Figure 2.

4.2 Laboratory Analytical Results

Of the thirteen samples submitted for NWTPH-HCID analysis, nine samples tested negative (non-detect) for the presence of hydrocarbons above laboratory reporting limits,

two samples (TP-1,S-1, and TP-1,S-2) tested positive for the presence of gasoline range hydrocarbons above laboratory reporting limits of 20 mg/Kg, and four samples (TP-4, S-1, TP-6,S-1, TP-7, S-1, and TP-10,S-1) tested positive for the presence of heavy oil range hydrocarbons above laboratory reporting limits of 100 mg/Kg.

The two samples that tested positive for gasoline were resubmitted for NWTPH-Gx analysis in order to quantify the amounts of gasoline present in the samples, and the four samples that tested positive for heavy oil range hydrocarbons were resubmitted for NWTPH-Dx analysis in order to quantify the amounts of diesel and/or heavy oil present in the samples.

5.0 DISCUSSION

5.1 Tank Pit Area Impacted Soil

NWTPH-Gx results for sample TP-1,S-2 indicated the amount of gasoline present in the soil at 688 mg/kg in this location. Results for sample TP-1,S-1 indicated the amount of gasoline present in the soil at 245 mg/kg. NWTPH-Dx results for sample TP-7,S-1 indicated the amount of heavy oil present in the soil at 125 mg/kg.

Both samples that tested positive for the presence of gasoline range hydrocarbons were obtained from TP-1 in the immediate vicinity of the USTs. Neither heavy oil nor gasoline in soil was detected in nearby test pits, TP-8 and TP-9. Negative results in samples from the surrounding test pits indicate that gasoline impacted soil was limited to the area within a few feet of the tanks.

Per the formerly submitted report, *Risk Based Decision Making Cleanup* (Alpha Environmental September 2009), both USTs and surrounding UST related hydrocarbon-impacted soil has since been removed.

5.2 Heavy Oil-Range Detections

The four samples that tested positive for the presence of heavy oil range hydrocarbons (TP-4,S-1, TP-6,S-1, TP-7,S-1, and TP-10,S-1) were resubmitted for NWTPH-Dx analysis in order to quantify the amounts of diesel and/or heavy oil present in the samples. Results are summarized below:

Test Pit	Soil Samples	Diesel** mg/Kg	Heavy Oil* (mg/Kg)	Approximate Location
TP-4	TP-4, S-1 at 3.5 ft BGS	Non detect	**199**	Northern central portion of site, along northern

TP-6	TP-6, S-1 at 4 ft BGS	Non detect	Non detect	fence line West Central portion of site, in gravel drive
TP-7	TP-7, S-1	Non detect	**125**	Between UST 1 and UST 2
TP-10	TP-10, S-1 at 2 ft BGS	Non detect	**177**	SE corner of site

*Reporting Limit ≥ 100 mg/Kg
**Reporting Limit ≥25 mg/Kg

Three of the soil samples contained levels of heavy oil range hydrocarbons above the laboratory reporting limits, but below cleanup or reporting levels. Soil samples TP-4,S-1 and TP-10,S-2 were both obtained from within mixed uncontrolled fill characterized by a mélange of waste including construction debris and asphaltic concrete fragments. The relatively low levels of heavy oil range hydrocarbons in these areas are consistent with the presence of uncontrolled asphalt fill and the site's long term history of commercial land use. The heavy oil detection from test pit TP-7 (TP-7,S-1) was likely caused by either the presence of uncontrolled fill, or close proximity to the USTs and tank pit, or both.

Test pit TP-7 was advanced in the area of UST related petroleum impacted soil. This soil has been removed, per the formerly submitted report, *Risk Based Decision Making Cleanup* (Alpha Environmental September 2009).

Based on the findings of this report, low levels of heavy oil are present in the shallow fill found throughout the site. Heavy oil levels encountered in this study are consistent with the site history and use.

Carrie Beveridge, R.G.
Geologist
Alpha Environmental

FIGURES

Alpha environmental services, inc
9525-A SW Beaverton Hillsdale Hwy.
Beaverton, Oregon 97005
(503) 627-0131

FIGURE 1 SITE VICINITY MAP

Site Name: 13625 SE McLoughlin Blvd
Project Number: 09-0706

N

Alpha
Environmental Services, Inc.
9525-A SW Beaverton Hillsdale Hwy.
Beaverton, Oregon 97005
(503) 627-0131

FIGURE 2 TEST PIT LOCATIONS

Site Name: 13625 SE McLoughlin Blvd
Project Number: 09-0706

N

APPENDIX A:
TEST PIT LOGS

TP-1

Sample	(ft BGS)	
	1	silty fill concrete rubble
	2	concrete slab
TP-1,S-1	3	
	4	USTs, piping
	5	
	6	
TP-1,S-2	7	

TP-2

Sample	(ft BGS)	
	1	topsoil
	2	asphalt and gravel fill
TP-2,S-1	3	silty gravel fill
	4	sandy silt (native)
	5	
	6	slow GW seepage at 6 ft
TP-2,S-2	7	

GW= groundwater
BGS= below ground surface

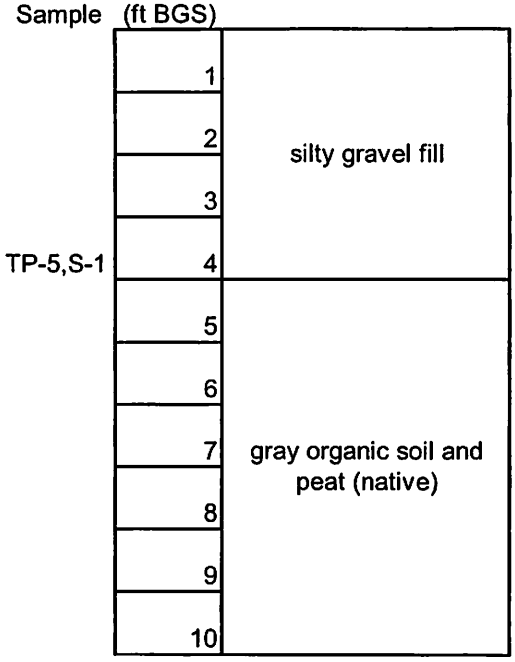
TP-3

Sample	(ft BGS)	
	1	silty gravel fill
	2	asphalt and gravel fill
TP-3,S-1	3	gray organic soil (native)
	4	
	5	
	6	
TP-3,S-2	7	
	8	
	9	
	10	slow GW seepage at 10 ft

TP-4

Sample	(ft BGS)	
	1	silt, sand, gravel, concrete, wood, and metallic debris fill
	2	
	3	
	4	
TP-4,S-1	5	
	6	
TP-4,S-2	7	gray organic soil (native)
	8	
	9	weathered basalt bedrock
	10	

TP-5



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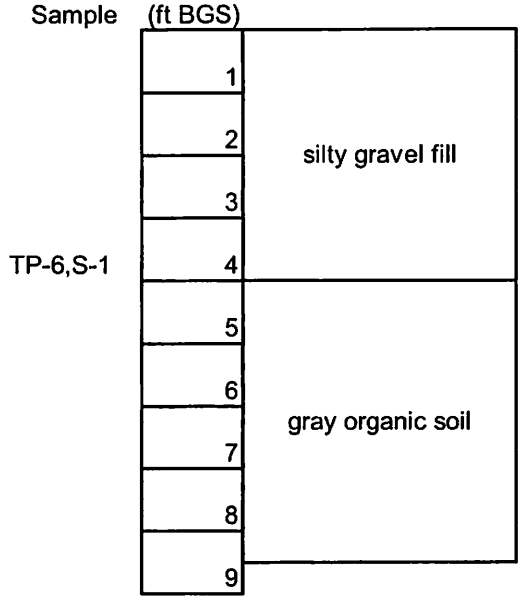

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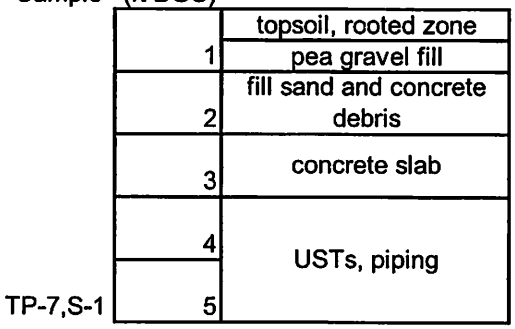

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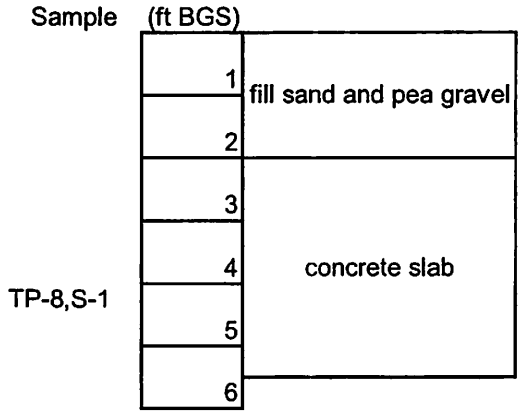

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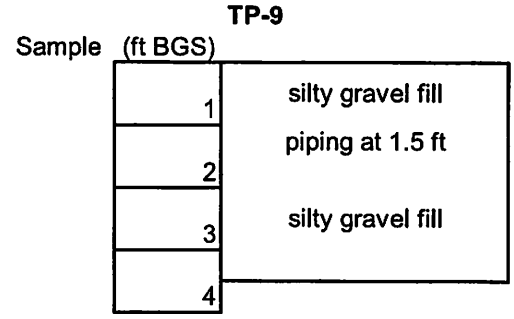
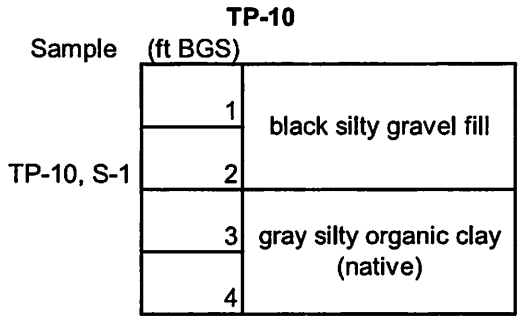


TP-10



APPENDIX B:
LABORATORY REPORTS

Laboratory Report

Alpha Environmental
9525 - A SW Beaverton- Hillsdale Hwy
Beaverton, OR 97005

Report Number: 74474
Report Date: 8/14/09

Project Name:
Project Location:
Project Number: 13625 SE McLoughlin Blvd
Date Sampled: 8/13/09
Date received: 8/13/09

NWTPH-HCID

Analyte: Petroleum Hydrocarbon Identification in soil

Field ID	Lab ID	Gasoline	Diesel	Oil	% Surr Recovery	QC
TP-1,S-1	A0756	Detected	ND	ND	87%	H090813-1
TP-1,S-2	A0757	Detected	ND	ND	87%	H090813-1
TP-2,S-1	A0758	ND	ND	ND	80%	H090813-1
TP-2,S-2	A0759	ND	ND	ND	86%	H090813-1
TP-3,S-1	A0760	ND	ND	ND	81%	H090813-1
TP-3,S-2	A0761	ND	ND	ND	83%	H090813-1
TP-4,S-1	A0762	ND	ND	Detected	96%	H090813-1
TP-4,S-2	A0763	ND	ND	ND	87%	H090813-1
TP-5,S-1	A0764	ND	ND	ND	90%	H090813-1
TP-6,S-1	A0765	ND	ND	Detected	98%	H090813-1
TP-7, S-1	A0766	ND	ND	Detected	100%	H090813-1
TP-8, S-1	A0767	ND	ND	ND	160%	H090813-1
TP-10, S-1	A0768	ND	ND	Detected	99%	H090813-1
Reporting Limit (mg/Kg)	--	20	50	100	-	

Results relate only to samples

2415 SE 11th Ave. Portland, OR 97214
Phone:503-231-9320
Fax 503-231-9344

LABORATORY REPORT

Alpha Environmental
9525 - A SW Beaverton- Hillsdale Hwy
Beaverton, OR 97005

PROJECT NAME:
SITE LOCATION: 13625 SE McLoughlin Blvd
PROJECT NUMBER:

REPORT NUMBER: 74474
REPORT DATE: 8/16/2009
PAGE: 1 of 1

NW-TPHGx
Analytes: Gasoline in Soil

Field ID	LAB ID	Gasoline (mg/Kg)	Surrogate Recovery (%)	Analytical Batch	Sampling Date	Preparation Batch
TP-1,S-1	A0756	**245**	**115%**	58PI090814-1	8/13/2009	G090814-1
TP-1,S-2	A0757	**688**	**140%**	58PI090814-1	8/13/2009	G090814-1
Reporting Limit:	--	**20**				

Surrogate is p-Bromofluorobenzene
ND = Not Detected (Below Reporting or Detection Limit)

This is a NELAP accredited method
Results relate only to samples

Chemist Initials C.Y Chan

Quality Control for Gasoline in Soil by NWTPH-Gx

Batch Date: 8/14/2009

Calibration Verification	*Analytical Batch*	*Result (ug/L)*	*Theoretical Result (ug/L)*	*Percent Difference*	*Acceptable Range*
CCV	58PI090814-1	1985	2000	1%	±20%
CCV2	58PI090814-1	1870	2000	6%	±20%

Matrix Blank	*Preparation Batch*	*Result (mg/Kg)*	*Acceptable Range*	*Surrogate Recovery*	*Surrogate Acceptable Range*
SBLK8-7	G090814-1	6.88	<20	101%	50%-150%

Matrix Spike	*Preparation Batch*	*Result (mg/Kg)*	*Theoretical Result (ug/L)*	*Percent Recovery*	*Acceptable Range*
SLCS8-7	G090814-1	98	100	98%	70%-130%

LABORATORY REPORT

Alpha Environmental
9525 - A SW Beaverton- Hillsdale Hwy
Beaverton, OR 97005

SITE NAME:
SITE LOCATION: 13625 SE McLoughlin Blvd
PROJECT NUMBER:

REPORT NUMBER: 74474
REPORT DATE: 8/17/09

NW-TPHDx
Analytes: Total Diesel and Heavy Oil range petroleum in Soil

Field ID	LAB ID	Diesel (mg/Kg)	Heavy Oil (mg/Kg)	Surrogate Recovery (%)	AB	PB	Sampling Date
TP-4,S-1	A0762	**ND**	**199**	101%	68FFL90814-1	D090814-1	8/13/2009
TP-6,S-1	A0765	**ND**	**ND**	93%	68FFL90814-1	D090814-1	8/13/2009
TP-7, S-1	A0766	**ND**	**125**	106%	68FFL90814-1	D090814-1	8/13/2009
TP-10, S-1	A0768	**ND**	**177**	101%	68FFL90814-1	D090814-1	8/13/2009
Reporting Limit:	--	**25**	**100**				

Surrogate is 1-ChloroOctadecane

Results relate only to samples

Chemist Initials: C.Y. Chan

Quality Control for NWTPH-Dx

Batch Date: 8/14/2009

QC Blank Sample Number	PB	Diesel Result (mg/Kg)	Oil Result (mg/Kg)	Blank Control Limits Diesel (mg/Kg)	Blank Control Limits Oil (mg/Kg)	Surrogate Recovery	Blank Surrogate Control Limit (%)
SBLANK1	D090814-1	0	0	25	100	94%	50%-150%
WBLANK	D090814-1	0	0	25	100	112%	50%-150%
SBLANK2	D090814-2	0	0	25	100	92%	50%-150%
SBLANK3	D090814-3	0	0	25	100	94%	50%-150%

QC LRB Sample Number	AB	Diesel Result (mg/Kg)	Oil Result (mg/Kg)	LRB Control Limit Diesel (mg/Kg)	LRB Control Limit Oil (mg/Kg)	Surrogate Recovery	LRB Surrogate Control Limit (%)

CCV Diesel Sample Number	Analytical Batch	Measured Concentration in extract (ug/mL)	Theoretical Concentration (ug/mL)	% Difference	CCV Control Limit (%)
DXCCV1	68FFL90814-1	505.28	500	1.06%	±20%
DXCCV2	68FFL90814-1	496.10	500	-0.78%	±20%

CCV Oil Sample Number	Analytical Batch	Measured Concentration in Extract (ug/mL)	Theoretical Concentration in Extract (ug/mL)	% Difference	CCV Control Limit (%)
OILCCV1	68FFL90814-1	352.55	400	-11.86%	±20%
OILCCV2	68FFL90814-1	328.80	400	-17.80%	±20%

QC LCS Sample Number	PB	Diesel Result in Extract (ug/mL)	Theoretical Spike Concentration (ug/mL)	LCS Spike Recovery (%)	LCS Spike Control Limits (ug/mL)	Surrogate Recovery	LCS Surrogate Control Limits (%)
SLCS1	D090814-1	370.10	357.14	104%	±30%	106%	50%-150%
WLCS	D090814-1	329.86	335.86	98%	±30%	113%	50%-150%
SLCS2	D090814-2	393.71	357.14	110%	±30%	128%	50%-150%
SLCS3	D090814-3	387.92	357.14	109%	±30%	125%	50%-150%

Pnone:503-231-9320
Fax 503-231-9344

Wy'East Environmental Sciences, Inc.
2415 SE 11th Ave. Portland Oregon 97214

CHAIN OF CUSTODY

Report Number 74474

Phone(503) 231-9320 FAX(503) 231-9344

Company: Alpha Environmental	Phone: 503.292.5346
Project #:	FAX:
Project Name:	Purchase Order #:
Site: 13625 SE McLoughlin Blvd	Report Attention: Phil / Collected By: Carrie Beveridge
Samples: Temperature 9°C On Ice? (Yes) No	Turnaround Time: [X] Regular [ ] 3-5 Business Days

Comments

LAB ID	Field ID	Sampling Date	Sampling Time	Matrix	Container	Volume	NW-TPH-Dx	NW-TPH-GX	NW-TPH-HCID	EPA 8021B (BTEX)	EPA 8270 SIM (PAH)	EPA 8260B	Analysis Requested
A756	TP-1, S-1	8/13	8:00	S	4oz	Glass			X				
A757	TP-1, S-2	8/13	8:15	S					X				
A758	TP-2, S-1	8/13	9:15	S					X				
A759	TP-2, S-2	8/13	9:30	S					X				
A760	TP-3, S-1	8/13	9:45	S					X				
A761	TP-3, S-2	8/13	10:00	S					X				
A762	TP-4, S-1	8/13	10:30	S					X				
A763	TP-4, S-2	8/13	10:40	S					X				
A764	TP-5, S-1	8/13	11:00	S					X				
A765	TP-6, S-1	8/13	11:15	S					X				
A766	TP-7, S-1	8/13	12:50	S					X				
A767	TP-8, S-1	8/13	13:20	S					X				
A768	TP-10, S-1	8/13	13:50	S					X				

Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
Carrie Beveridge	Alpha	8/13/09	4:20pm	Aye	Wy'East	8-13-09	4:20pm
Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time

2415 SE 11th Ave. Portland, OR 97214

State of Oregon
Department of Environmental Quality Memorandum

Date: December 2, 2009

To: **Kevin Dana, NWR – Portland**

From: **Bill Robertson, NWR – Portland** **DRAFT**

Subject: **No Further Action (NFA) Determination**
Hamade Property
13625 SE McLoughlinBoulevard
Milwaukie, OR 97222
DEQ File No. 03-09-0775

cc: **Mike Kortenhof, Manager**
UST Section and Hazardous Waste Compliance

I have reviewed the file and I believe the responsible party has met the requirements for issuance of an NFA for the investigation of petroleum releases related to underground storage tanks at the above property:

- The site was previously used as a retail filling station, but is now vacant land. In August 2009, two underground storage tanks (USTs) were decommissioned by removal.

- 67 tons of petroleum contaminated soil was excavated and disposed at Hillsboro Landfill.

- The magnitude and extent of contamination have been adequately identified by soil sampling and groundwater sampling using temporary well points. Analytical results from confirmation sampling detected relatively low concentrations of residual contamination. This residual contamination does not appear to extend beyond the general vicinity of the former tank pit.

- Shallow groundwater was encountered as shallow as 6 feet, but more commonly at approximately 20 feet. Shallow groundwater was not identified as a current or reasonably likely beneficial use. Static groundwater in the deeper aquifer occurs at approximately 150 to 200 feet. Production wells were identified in the area; thus, groundwater ingestion is a recognized beneficial use in the area, even though the Oak Lodge Water District supplies municipal water to the area. This water is obtained from the Clackamas River. However, it was determined that shallow groundwater is separated from deeper groundwater in the vicinity by basalt and clay layers.

- The current land use at the site is commercial and the NFA contains a condition that prohibits multi-family residential buildings within 100 feet of residual gasoline contaminated soil, unless protective measures are taken or the risk is otherwise mitigated.

- An ecological risk assessment was not required and was not performed; however, no surface water is present near the site, the residual contamination does not extend offsite, and no environmental impacts are anticipated.

503 GENERAL COMMERCIAL DISTRICT (C-3) (12/20/07)

503.01 PURPOSE

This section is adopted to implement the policies of the Comprehensive Plan for General Commercial areas. (12/21/06)

503.02 AREA OF APPLICATION

Property may be zoned C-3 when the site has a Comprehensive Plan designation of General Commercial and the criteria in Section 1202 are satisfied. (12/21/06)

503.03 PRIMARY USES

The following shall be allowed as primary uses: (12/21/06)

A. Any use permitted within the Retail Commercial District; (12/21/06)

B. Service and retail uses where there is a need for outdoor areas in order to conduct business activities and sales or storage areas are an integral part of the use, such as lumber yards or auto sales; (12/21/06)

C. Business Park District uses listed in Subsection 606.03(A), which are not otherwise listed as primary uses under Subsections 503.03(A) and (B), subject to Subsection 606.03 and provided no smoke, noise, or odors shall be emitted that detract from the character of a commercial district; (12/21/06)

D. Housing facilities for senior citizens or handicapped persons; (12/21/06)

E. Institutional Uses: Colleges, educational institutes, private schools, commercial schools, and trade schools; art, music, and dance studios; and radio and television studios, excluding transmission towers; (12/21/06)

F. Cultural/Public Uses: Galleries, museums, assembly or convention facilities, theaters for performing arts, exhibition halls, libraries, senior centers, and fraternal organizations; (12/21/06)

G. Wireless telecommunication facilities listed in Subsection 835.04, subject to Section 835. (12/21/06)

503.04 ACCESSORY USES

The following shall be allowed as accessory uses: (12/21/06)

A. Uses and structures customarily accessory and incidental to a primary use; (12/21/06)

B. Temporary buildings for uses incidental to construction work. Such buildings shall be removed upon completion or abandonment of the construction work; (12/21/06)

C. The temporary storage within an enclosed structure of source-separated recyclable/reusable materials generated and/or used on-site prior to on-site reuse or removal by the generator or licensed or franchised collector to a user or broker; (12/21/06)

D. Recyclable dropoff sites, subject to Section 819; (12/21/06)

E. Bus shelters, subject to Section 823; (12/21/06)

F. Bike racks, street furniture, drinking fountains, and other pedestrian and transit amenities; (12/21/06)

G. Solar collection apparatus.

503.05 USES SUBJECT TO REVIEW BY THE PLANNING DIRECTOR (3/14/02)

The following use may be approved by the Planning Director pursuant to Subsection 1305.02: (3/14/02)

A. Wireless telecommunication facilities listed in Subsection 835.05, subject to Section 835. (3/14/02)

503.06 CONDITIONAL USES

A. The following conditional uses may be allowed subject to review by the Hearings Officer pursuant to Section 1300. Approval shall not be granted unless the proposal complies with Section 1203 and any applicable provisions of Section 800. (5/22/03)

1. Hydroelectric facilities, subject to Section 829; (5/22/03)

2. Telephone exchanges, utility substations, railroad rights-of-way, and public utility structures including shops and garages; (5/22/03)

3. Radio and television transmission and receiving towers and earth stations, provided that the base of such towers shall not be closer to the property line than a distance equal to the height of the tower; (5/22/03)

4. Heliport landing areas; (5/22/03)

5. Outdoor stadiums and race tracks; (5/22/03)

6. Multi-use developments, subject to Section 1016. (5/22/03)

503.07 PROHIBITED AND PREEXISTING USES

A. The following uses shall be prohibited: (12/21/06)

1. Uses of structures and land not specifically permitted; (12/21/06)

2. The use of a manufactured dwelling, except as an office in a manufactured dwelling or recreational vehicle sales lot, unless authorized pursuant to Section 1204; (12/21/06)

3. New single- and two-family dwellings, except when incidental to a primary use; (12/21/06)

4. Retail uses larger than 60,000 square feet of gross leasable area per building or business in areas designated as Industrial on Map IV-8 of the Comprehensive Plan. (12/21/06)

B. Lawfully established dwellings shall be allowed to remodel or expand without review under Section 1206. (12/21/06)

C. A lawfully established dwelling may be converted to any use permitted in the district, subject to all requirements of this Ordinance for new development. (12/21/06)

D. No minimum lot size shall be required for a lot containing a preexisting dwelling. However, the setback and/or fire wall requirements of the Uniform Building Code shall be satisfied. (12/21/06)

503.08 DIMENSIONAL STANDARDS (12/21/06)

A. Purpose: The dimensional standards are intended to: (12/21/06)

1. Provide for protection of adjacent properties; (12/21/06)

2. Provide for efficient utilization of General Commercial areas; (12/21/06)

3. Ensure that the minimum operational requirements of the development are provided on-site; and (12/21/06)

4. Establish the maximum limits of the development. (12/21/06)

B. Minimum Site Area: None, except a two-acre minimum for the area defined as Hinckley Avenue on the north, Cleo Battin on the south, and between 82nd Avenue and I-205. (12/21/06)

C. Minimum Front Yard Setback: 15 feet. (12/21/06)

D. Maximum Front Yard Setback:

1. Buildings at or near a transit stop along a major transit street shall have a maximum front yard setback of 20 feet. "At or near" means within 250 feet of an intersection along a major transit street where a transit stop is within 250 feet of the intersection. (9/8/94)

2. The 20-foot maximum setback shall apply in both directions along the major transit street and along the intersecting street to the depth of the commercial zoning designation. This setback applies to the side of the major transit street having the transit stop, and applies whether the intersecting street is a public street or signalized private road. [See the diagram in Subsection 1005.03(E)(4).] (12/21/06)

3. Along a signalized private road, the maximum setback shall apply only along the first 250 feet from the major transit street. (12/21/06)

4. Buildings with nonconforming front yard setbacks may have additional height added as an expansion without being brought into conformance with this maximum setback. (9/8/94)

5. This maximum setback requirement from a major transit street or intersecting street does not apply to warehouses or industrial buildings with less than 5,000 square feet of attached offices. (9/8/94)

6. This maximum setback from major transit streets and intersecting streets shall contain no on-site parking; however, vehicular circulation lanes are permitted if crossing walkways are designed to ensure safety for pedestrians. (12/21/06)

E. Minimum Rear Yard Setback: None, except when the rear yard abuts a more restrictive district, in which case the minimum shall be 15 feet. Ten feet shall be added to the minimum rear yard setback for each ten-foot increment in building height over 35 feet. (12/21/06)

F. Minimum Side Yard Setback: None, except when the side yard abuts a more restrictive district, in which case the minimum shall be 15 feet. Ten feet shall be added to the side yard setback for each ten-foot increment in building height over 35 feet. (12/21/06)

G. Minimum Road Frontage: 50 feet. (12/21/06)

H. Minimum Landscaping: 15 percent of the site area. (12/21/06)

I. Corner Vision: No sight-obscuring structures or plantings exceeding 30 inches in height shall be located within a 20-foot radius of the lot corner nearest the intersection of two public, county, or state roads, or from the intersection of a private driveway, access drive, or private road and a public, county, or state road. Trees located within a 20-foot radius of such an intersection shall be maintained to allow 10 feet of visual clearance below the lowest-hanging branches. (12/21/06)

J. Exceptions: Dimensional standards are subject to modification pursuant to Section 900. (12/21/06)

K. Variances: The requirements of Subsections 503.08(B) through (I) may be modified pursuant to Section 1102 when such modification is consistent with Section 1205. A proposed reduction that exceeds 20 percent of the requirement shall be processed as a separate variance application pursuant to Section 1205. (12/21/06)

503.09 DEVELOPMENT STANDARDS

A. General: Development shall be subject to the applicable provisions of Sections 1000 and 1100. (12/21/06)

B. Community Plans and Design Plans: Development within a Community Plan or Design Plan area identified in Chapter 10 of the Comprehensive Plan shall comply with the specific policies and standards for the adopted Community Plan or Design Plan. If there is a conflict between this section and a Community Plan or Design Plan, the Community Plan or Design Plan shall govern. (12/21/06)

C. Operational Impacts: Processes and equipment employed and goods processed or sold shall be limited to those which are not objectionable by reason of odor, dust, smoke, cinders, gas, fumes, noise, vibration, refuse matter, or water-carried wastes. (12/21/06)

D. Landscaping: The function of landscaping shall be to implement boulevard and transitway provisions of the Comprehensive Plan, identify access points, define internal circulation, provide on-site traffic control, and buffer adjacent residential uses. (12/21/06)

E. Manufactured Dwelling Parks: Redevelopment of a manufactured dwelling park with a different use shall require compliance with Subsection 825.03. (12/20/07)

URBAN GROWTH CONCEPT

This section of the Land Use Chapter addresses the implementation of the Region 2040 Growth Concept as it applies to Clackamas County. It provides for design type areas that are consistent with the general locations shown on the Region 2040 Growth Concept Map.

Clackamas County, with approximately 67% of its population inside the Portland Metropolitan Urban Growth Boundary, is a partner in the region's efforts to efficiently utilize the land inside the boundary. This will minimize the need to expand the boundary and protect the land available for agricultural, forest and rural uses. The intent of the Urban Growth Concept is to focus increased development in appropriate locations, such as existing commercial centers and along transportation corridors with existing or planned high quality transit service. It also encourages increased employment densities in industrial and employment areas.

The provisions of the Urban Growth Concept apply in addition to other requirements identified in the Clackamas County Comprehensive Plan. The Urban Growth Concept is designed to provide guidance for Comprehensive Plan and Zoning Development Ordinance changes, as well as to identify specific development review requirements. All provisions except Green Corridors apply to lands inside the Portland Metropolitan Urban Growth Boundary. Green Corridors apply to rural, agricultural and forest areas. Future Urban Study Areas are areas in transition. When concept planning is completed for these areas, growth concept design types will be adopted as appropriate.

DEFINITIONS

Growth Concept Design Types

The locations of the following design types are identified on the Clackamas County Urban Growth Concept Map: (Map IV-8) or as described below: (5/27/04)

Regional Center: An area that is the focus of compact development, redevelopment, high quality transit service and multi-modal street networks. The intent of the Regional Center is to provide an area for the most intense development and highest densities of employment and housing.

Corridors: Areas located along streets which have existing or planned high quality transit service and feature a high quality pedestrian environment, convenient access to transit and increased residential and employment densities. The intent of the Corridor designation is to encourage increased densities by facilitating zone and plan changes in specific locations. In addition, it provides guidance for development review to implement a high quality pedestrian environment.

The streets where the Corridor design type designation is applied are: McLoughlin Blvd. (from Milwaukie to Gladstone), 82nd Avenue (within the Clackamas Regional Center Design Plan Area), Johnson Creek Boulevard (within the Clackamas Regional Center Design Plan Area), and Sunnyside Road (from 82nd Avenue to 139th Avenue).

Employment areas: Areas providing for various types of employment and some residential development with limited large-scale commercial uses. The intent is to define the appropriate locations for "big box retailers" to allow for more employment intensive uses.

Industrial areas: Areas set aside primarily for industrial activities with limited supporting uses. The intent is to prohibit "big box retailers" from these areas to allow for industrial uses.

Neighborhoods: Primarily residential areas that are accessible to jobs and neighborhood businesses. This broad category includes areas set aside for homes, parks and open space, schools, public services, and neighborhood business uses. The intent is to facilitate the Region 2040 "Inner Neighborhood" design type.

Green Corridors: Areas outside the Urban Growth Boundary adjacent to major transportation routes to neighboring cities where the rural character of the landscape and agricultural economy shall be maintained. The intent is to preserve the view sheds and maintain the rural character between urban areas along the major transportation routes.

Future Urban Study Areas: Areas brought within the Urban Growth Boundary for which the required planning has not yet been completed. The intent is to identify the areas where Title 11 of the Urban Growth Management Functional Plan and Metro code specify that concept planning and other requirements must be completed before other Urban Growth Concept design types and urban plan designations can be applied. Future Urban Study Areas include areas identified on Map IV-8 and areas brought into the Portland Metropolitan UGB after the adoption of Map IV-8. (5/27/04)

GOALS

- Provide for a compact urban form, integrating the built environment, transportation network, and open space, that:
  - Minimizes the amount of Urban Growth Boundary expansion required to accommodate expected population and employment growth in the next 20 years.
  - Efficiently uses public services including transportation, transit, parks, schools, sewer and water.

- Distinguishes areas for intensive development from areas appropriate for less intensive development.

- Preserves existing stable and distinct neighborhoods by focusing commercial and residential growth in mixed use centers and corridors.

- Develops mixed use centers and corridors at a pedestrian scale and with design features and public facilities that support pedestrian, bicycle and transit trips.

- Maintain the rural character of the landscape between the Urban Growth Boundary and neighboring cities.

POLICIES

Regional Center

1.0 The Regional Center design type designation is applied to the Clackamas Regional Center, as identified on Map IV-8. The goals and policies applicable to the Clackamas Regional Center are located in Chapter 10: Clackamas Regional Center Area Design Plan.

Corridors

2.0 The "Corridor Design Type Area" designation is applied to sites adjoining the Corridor streets shown on Map IV-8. Corridor Design Type Areas may be either continuous or development nodes. The areas of application for Corridor Design Type Areas are specified in Chapter 10 for all of the Corridor Streets.

The Policies that apply to all the Corridor Design Type Areas include:

2.1 Provide for both employment and housing, including mixed use.

2.2 Provide for a high level of bus usage, with land uses and transportation facilities to support bus use.

2.3 Encourage and support pedestrian travel with supportive land uses, frequent street connections, and sidewalks and pedestrian-ways.

2.4 Provide for vehicular traffic and auto-oriented uses, while expanding the share of trips via transit and other modes.

2.5 Enhance connectivity between neighborhoods adjacent to the Corridor Design Type Area and the Corridor Street.

3.0 Specific policies for the SE 82nd Ave, SE Johnson Creek Boulevard and SE Sunnyside Road (from 82nd Ave to approximately SE 117th Ave.) corridors are located in Chapter 10: Clackamas Regional Center Design Plan.

4.0 Specific policies for the Sunnyside Road (from approximately SE 117th Ave to SE 139th Avenue) Corridor Design Type Area are located within Chapter 10: The Sunnyside Corridor Community Plan.

5.0 Specific policies for the McLoughlin Blvd. Corridor are located in Chapter 10: McLoughlin Corridor Design Plan.

Employment Areas

6.0 The Employment Area Design Type designation is applied as shown on Map IV-8. Policies that apply to the Employment Design Type Areas include:

6.1 Employment Design Type Areas shall be developed to provide for a mix of employment and residential uses, including:

a. Industry, office and service uses,

b. Residential development,

c. Low traffic generating, land consumptive commercial uses with low parking demand which have community or region-wide market,

d. Limited retail uses designed primarily to serve the needs of people working or living in the immediate Employment Design Type Area.

6.2 Retail facilities larger than 60,000 square feet of gross leasable area per building or business may be allowed on sites designated for General Commercial uses in or before 1996, or when allowed by zoning and:

a. Transportation facilities adequate to serve the retail use, consistent with Metro's functional plan for transportation, will be in place at the time the retail use begins operation; and,

b. Transportation facilities adequate to meet the transportation need for other planned uses in the Employment Design Type Area are also provided.

Industrial Areas

7.0 The Industrial Area Design Type designation is applied as shown on Map IV-8. Policies that apply to the Industrial Areas include:

7.1 Retail uses larger than 60,000 square feet of gross leasable area per building or business are prohibited.

Neighborhoods

8.0 The Neighborhood Design Type designation is applied as shown on Map IV-8. Policies that apply to the Neighborhood Areas include:

McLOUGHLIN CORRIDOR DESIGN PLAN

The Portland metropolitan area has changed significantly in the past 20 years, and will likely experience more changes in the future. McLoughlin Boulevard, and the business and residential areas that surround it, have also changed – reflecting population and traffic changes, shifts in retail market and development types, and infill and maturation of the nearby residential neighborhoods.

A number of issues affect the future of the McLoughlin Corridor, which provided the impetus for a special study of the area in 1998-99, including:

- McLoughlin has been identified as a "Regional Street" in the Region 2040 Urban Growth Management Functional Plan, and is expected to continue to support high levels of through and local vehicular traffic.

- The area along McLoughlin is designated a "Corridor" in the Region 2040 Urban Growth Management Functional Plan. A corridor is intended to feature a high quality pedestrian environment and convenient access to transit, while continuing to meet the needs of the automobile. Corridor areas are expected to transition to higher residential and employment densities through infill and redevelopment.

- The Oregon Highway Plan designates McLoughlin as a District Highway. As a District Highway, McLoughlin provides a link between urbanized areas and also serves local access and traffic. The management objective is to provide for safe and efficient, low to moderate speed traffic flow and for pedestrian and bicycle movements.

- McLoughlin has been designated for frequent bus service.

- The Oregon Department of Transportation (ODOT) needs to evolve policies and standards for state highways in urban areas such as the McLoughlin Corridor.

Clackamas County worked with state and local agencies, a Citizen's Workgroup, and the general public through a series of open houses, to develop a plan in response to these issues.
The focus of the McLoughlin Corridor Study became the design of the street itself. McLoughlin Boulevard was the first four-lane highway constructed in the State. It was constructed in the 1930s, and improved incrementally since then. It generally has 120 feet of right-of-way, with an improved width of 80-90 feet. Several of the State and County policies that describe how a District Highway or Major Arterial is to be designed and constructed remain to be implemented.

The McLoughlin Corridor Design Plan is not intended to repeat policies that cover issues already addressed by other State and County plans, such as the need for continuous sidewalks, bike lanes, street lighting, and transit improvements. The Design Plan also does not attempt to modify existing state or county policies for access control. This plan focuses on designing aspects of the street for greater safety, aesthetics and utility, especially including a landscaping strip between the curb and sidewalk. Both safety and appearance will be improved by consistent design, including continuous bikelanes, landscaped strips, sidewalks, street lights, transit amenities, fewer driveways, and no on-street parking. The Design Plan includes typical cross sections, with strategies to apply them in the context of design work leading up to a reconstruction of McLoughlin and in the context of development review.
Land Uses in the McLoughlin Corridor were reviewed. A market analysis addressed the market for a range of land uses, and the types of employment and housing densities that are suitable for the corridor. It was determined that the employment and housing uses and densities appropriate to a corridor are already feasible under the existing plan designations provided for in the Comprehensive Plan.

Land uses would be better served in terms of access and circulation if there were better connectivity between parking lots, and between parking lots and streets to the side or rear of the development. The image of McLoughlin would be improved if the existing sign ordinance were better enforced. An improved appearance may lead to more investment, more patronage of businesses, and more job creation.

The overall Clackamas County Comprehensive Plan is applicable to the McLoughlin Corridor area. This chapter of the Comprehensive Plan describes the goals and policies that are specific to the McLoughlin Corridor. This chapter takes precedence where conflicts exist between it and the remainder of the Comprehensive Plan.

GOALS

- Design and improve McLoughlin to serve the needs of travelers by all modes of transportation along and across the roadway.

- Design McLoughlin to serve a balance between regional through traffic and local access for business and residents.

- Design McLoughlin to serve regional and local traffic, including public transportation, bicycle and pedestrian travel.

- Enhance safety for all travel modes and improve the aesthetic appeal of McLoughlin.

- Create a high quality pedestrian environment, convenient access to transit, and mix of land uses that implement the "Corridor" design type.

- Enhance pedestrian safety, especially pedestrian crossings near schools.

POLICIES

Land Use

1.0 The Growth Concept design type "Corridor", as defined in Chapter 4 and displayed on Map X-MC-1, shall be applied along McLoughlin Boulevard.

2.0 The Corridor design type is applied to properties within the McLoughlin Corridor Study area that have the following Comprehensive Plan designations: GC-General Commercial, SHD-Special High Density, HDR-High Density Residential, MHDR-Medium High Density Residential, and MDR-Medium Density Residential and are no more than 650 feet from the McLoughlin Boulevard Right-of-Way.

3.0 Corridor Policies 2.1-2.5 stated in Chapter 4: Urban Growth Concept shall be applicable within the Corridor design type area.

4.0 Office and commercial developments shall integrate with adjacent neighborhoods by providing, at minimum, excellent pedestrian access.

5.0 A range of land use designations may be applied within the designated Corridor design type area. Land use designations that provide primarily for employment and shopping, and land use designations that provide primarily for multi-family residences shall be considered. Land Use Designations applicable in the Corridor design type area are:

5.1 Commercial and Office designations that may be applied include: General Commercial, Retail Commercial, Office Commercial and Office Apartment. Any site designated for a commercial use shall be located adjacent to McLoughlin.

5.2 Multifamily designations that may be applied include: Special High Density, High Density, Medium High Density and Medium Density Residential. Multifamily designations should generally be located so as to form a buffer between commercial uses adjacent to McLoughlin and low density residential areas.

5.3 When applying for a Comprehensive Plan map amendment to a multi-family designation in the McLoughlin Corridor the applicant's property shall have access to a street designated as a major or minor arterial, collector, connector or local. Siting should not result in significant traffic increase on local streets serving low density residential areas.

Transportation

6.0 Encourage circulation to occur between businesses by requiring that adjacent parking lots be connected to each other or to a street at the side or rear of the development.

7.0 Develop a program for enforcement of the County's sign ordinance on McLoughlin Boulevard. Potential strategies include: providing additional funding and establishing priority with the County's Code Enforcement Section; and setting up a "Corridor Committee" of property owners and business owners who would work toward compliance by setting a good example, discussion, persuasion, and soliciting compliance in a friendly way.

8.0 ODOT's access standards are applicable to McLoughlin Boulevard as are their roadway standards between the curbs.

9.0 Apply the typical cross sections as shown on Figure X-MC-1 a and b. Map X-MC-2 shows where the various cross sections generally apply. These cross sections for the area of the roadway adjacent to a development (generally sidewalks and landscaping strips) shall be required during development review.

9.1 The standard arterial segment cross section is preferred at locations between intersections. In areas where the topography adjacent to the outside of the sidewalk slopes so that a retaining wall higher than 3 feet would be required, the landscaped buffer may be reduced in width. The topographically constrained cross section on Figure X-MC-1 a, portrays the maximum reduction in the improved width (landscaped buffer reduced to zero, but no reduction is allowed in sidewalk width). Reduction in the width of the landscaped buffer shall be the minimum necessary, considering a retaining wall 3 feet high.

10.0 The typical cross sections as shown on Figure X-MC-1 a and b, and indexed on Map X-MC-2 shall be used as guidelines for specific designs for reconstruction of McLoughlin Boulevard. More specific design work produced in preparation of a reconstruction of McLoughlin may replace the typical cross sections in regard to requirements for development and redevelopment. Design work for road reconstruction should start with the Final Report of the McLoughlin Corridor Land Use and Transportation Study as a guide.

11.0 Transit improvements in the McLoughlin Corridor should include a transit shuttle through the McLoughlin Corridor area.

McLoughlin Area Plan: HOME

About the Plan

Clackamas County is working with citizens, the business community and other agencies to enhance and revitalize the neighborhoods and communities in unincorporated Clackamas County between the cities of Milwaukie and Gladstone and between the Willamette River and Webster Road. The area of interest includes McLoughlin Boulevard in unincorporated Clackamas County as well as residential areas to the east and west of the corridor.

The McLoughlin area will experience investments in multiple public improvements over the next 10 years, including transportation, parks and greenspace, environmental health and housing. The timing of these activities, including the construction of the Portland-Milwaukie Light Rail project to Park Avenue and the Trolley Trail, presents a rare opportunity to plan in an integrated fashion to ensure maximum benefit to the residents and businesses in and near the boulevard, and the larger community.

The first phase of the McLoughlin Area Plan process is devoted to developing the community's vision forthe area. Part of the process is focused on defining the exact boundaries of the McLoughlin Area as well. The community will also play a key role in establishing values and guiding principles to help guide future planning, programming, and development within the area.

History

Oak Grove was named at the suggestion of Edward W. Cornell, a member of the surveying party that platted the townsite in the 1890s. The company that was developing the property had not been able to come up with a good name for the place and Cornell suggested Oak Grove after a crew ate lunch in a stand of oak trees in the northwestern part of the tract.

According to Oregon Geographic Names, Jennings Lodge was platted as a townsite in 1905 and named after Berryman Jennings, an Oregon pioneer, one of whose children still owned Jennings' house in 1927.

"McLoughlin Boulevard was originally US Route 99E, part of the major north-south Pacific Highway through Oregon's Willamette Valley to California. US Route 99E had its heyday just after WWII until it was eclipsed by Interstate 5, finished in 1966. Thereafter, the Boulevard, demoted into Oregon Route 99E, declined as Portland grew." – June Underwood, Painting Portland

McLoughlin was named after Dr. John McLoughlin, one of the most influential figures of the fur trade and settlement periods of Pacific Northwest history. Chief Factor of the Columbia District of the British Hudson's Bay Company, he reigned as a benevolent autocrat, befriended Americans, and eventually became an American citizen at Oregon City. In 1842 he surveyed and laid out the town site of Oregon City (formerly called Willamette Falls), and was mayor of Oregon City from 1851 until his death in 1857.

Until 1964, U.S. Route 99 was the main North-South highway on the U.S. West Coast running from Calexico, California at the U.S. Mexico border to Blaine, Washington on the U.S. side of the Canada border. In 1926, it was signed as a route of the United States Numbered Highways system, and remained in use until it was replaced for the most part by Interstate 5. Large portions are now California's State Route 99, Oregon's Route 99 and Washington's State Route 99.

Oak Lodge Water District

- Home
- About Your Water
  - Do I need to have my water tested?
  - Map of the District
  - Information on where does my water come from?
  - 2007 & 2008 Water Quality Report
- **Customer Services**
  - Make a Payment
  - How to Locate Your Emergency Shut Off Valve
  - How to Detect A Leak
  - Start and Stop Service Form
- **Cross Connection**
  - Cross Connection Information
  - Back Flow Testers
  - What dose a backflow device look like?
- Construction & Development
  - 2009 New Meter Insallation Fees
  - Drawing Specs
- Conservation
  - Regional Water Providers Consortium
  - Clackamas River Water Providers
- Contact Us
- Finance
  - Adopted Budget for 2009-2010

search site GO

Back to About Your Water

Do I need to have my water tested?

Map of the District

Information on where does my water come from?

2007 & 2008 Water Quality Report

Located at:
14496 SE River Road
Milwaukie, Or 97267
(503) 654-7765 phone

About your water source

Your water comes from the Clackamas River

The Clackamas River is an extremely high-quality raw water source. Timothy Lake and the Ollalie Lake make up the head waters of the Clackamas River. These lakes are

(503) 653-1973 fax
view map to offices

located high up in the Mount Hood National Park area. Along with the lakes, there are many other small tributary mountain streams that contribute to the flow of the river.

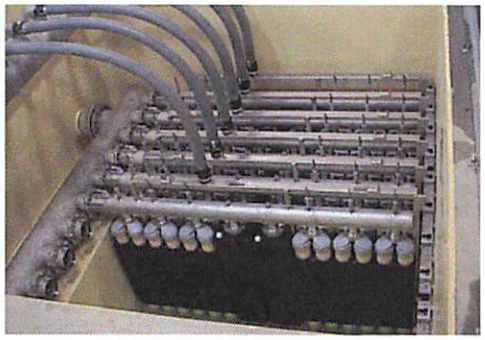
How do they turn river water it in to drinking water?

Drinking water for Oak Lodge Water District is pumped into our plant then placed through two different treatment techniques: slow sand filtration and membrane filtration.

The Allen F. Herr Water Treatment Facility began production in August 1999. Prior to the building of our own treatment plant, Oak Lodge Water District had to purchase our water from another provider. We are now part owners along with Sunrise Water Authority and the City of Gladstone, this makes up the North Clackamas County Water Commission.

The plant installed the membrane filters on July 28, 2005. Membrane filtration is a state-of-the-art treatment technique that filters water through a series of small tubes with openings one micron in size. This ultra filtered water allows for a continuous supply of water even when raw water turbidities rise due to heavy debris in the river during the winter months.

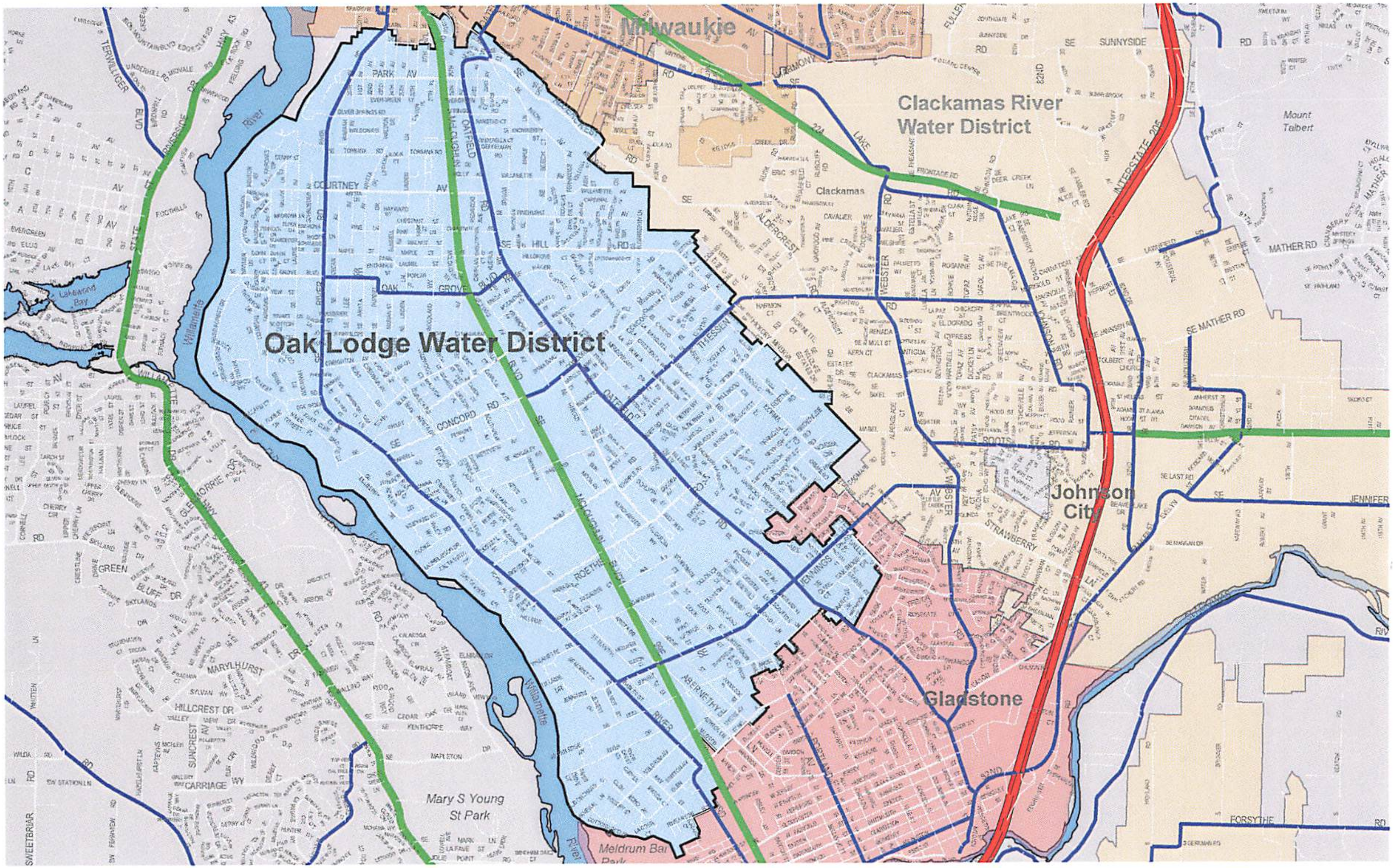
This is a picture of one of the micro membrane sections that is used to filter your water.



If you would like more information about the filtration process, you can email Alan Schacht at afschacht@comcast.net. Or please call OLWD and we can help to answer any questions you may have concerning your water.

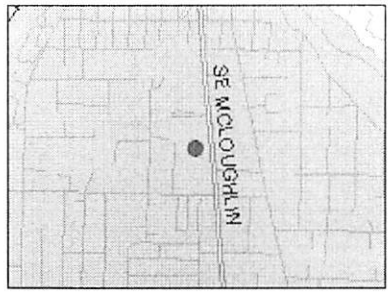
Is there Florid in our water?

We currently do not supply Florid in our water. For questions please email Alan at the following address afschacht@comcast.net.


Milwaukie
Clackamas River Water District
Oak Lodge Water District
Clackamas
Johnson City
Gladstone
Mount Talbert
Mary S Young St Park
Meldrum Bar Park

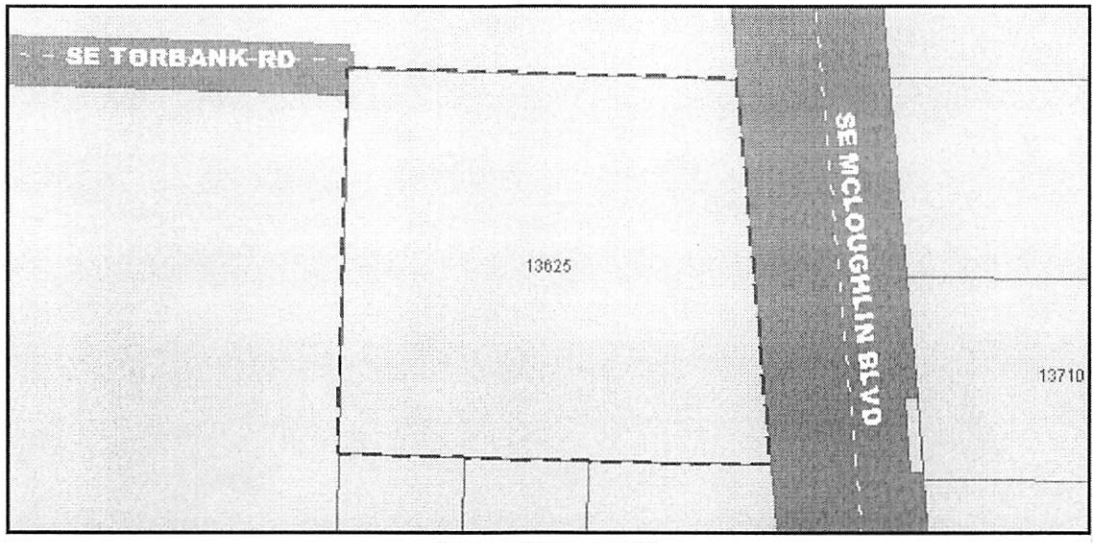
PortlandMaps

13625 SE MCLOUGHLIN BLVD



Description
Size 0 square feet
Number of Bedrooms
Bathrooms

Property Map



Property Value (2008)

Market Value $996,510.00
Assessed Value $0.00

Taxes ()

Property Taxes $0.00
Total Taxes $0.00

Misc Info

Year Built 0
Foundation Type
Interior Finish
Roof Style
Roof Cover Type
Flooring Type
Heating/AC Type

City of Portland, Corporate GIS

Assessor Data Updated 10/19/2009

PortlandMaps

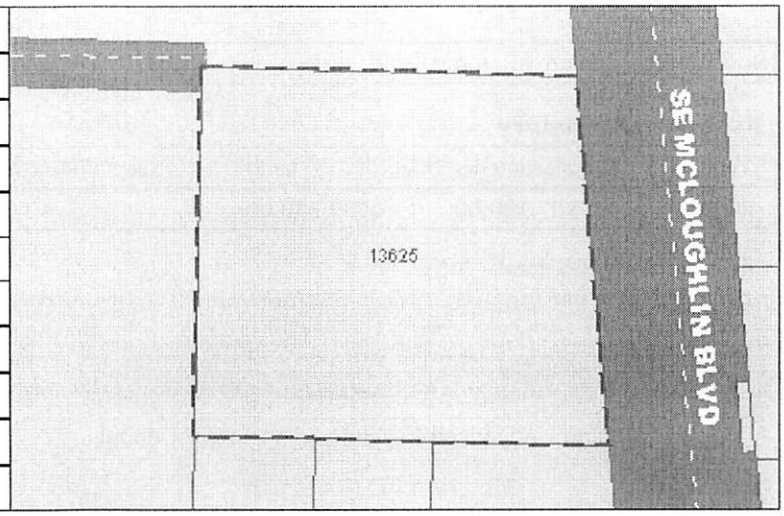
13625 SE MCLOUGHLIN BLVD - CLACKAMAS COUNTY

General Information

Property ID	C209442
County	CLACKAMAS
State ID	21E01CA03500
Alt Account #	171557
Map Number	

Site Info

Site Address	13625 SE MCLOUGHLIN BLVD
City/State/Zip	MILWAUKIE



Property Description

Tax Roll	Use
Lot	Block

Tax Districts

Tax Code 12057	Fire Clackamas Co. Fire Dist. #1
Park North Clackamas Park Dist. #2	Water Oak Lodge Water Dist. #4
School North Clackamas School Dist. #12	Sewer Oak Lodge 2 Sanitary Dist. #5

Deed Information

Sale Date	Type	Instrument	Sale Price
11/01/2006			$1,250,000.00

Land Information

Type	Acres	SQFT
COMMERCIAL LAND		100,872

Improvement Information

Improvement Type	
Improvement Value $57,180.00	
Room Descriptions	
Building Class	
Actual Year Built 0	Effective Year Built
Number of Segments	Construction Style
Foundation Type	Interior Finish
Roof Style	Roof Cover Type
Flooring Type	Heating/AC Type

Plumbing	Fireplace Type

Improvement Details

#	Segment Type	Class	Total Area
	Main		0

Tax History

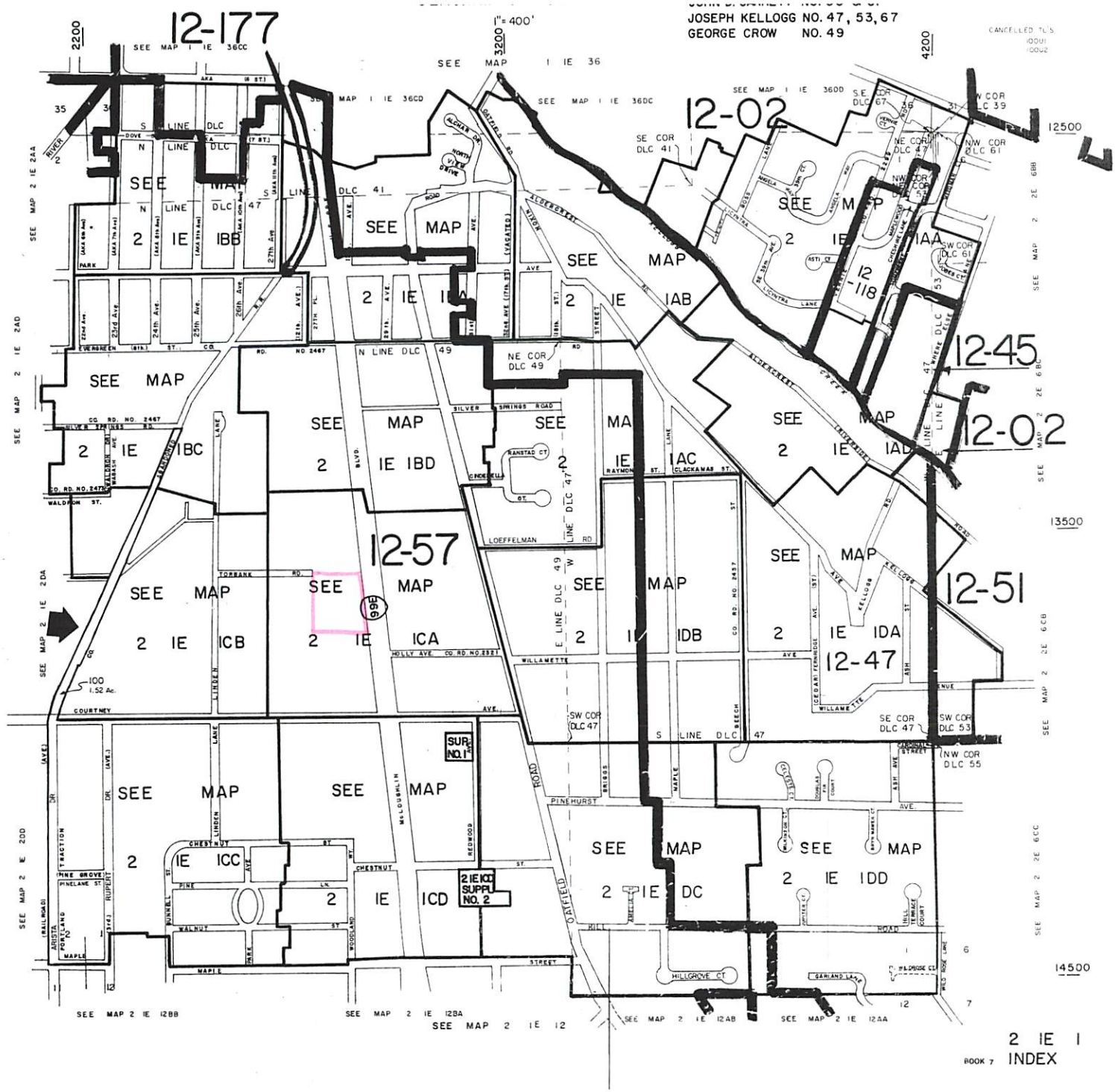
Year	Property Tax	Total Tax
No Tax History Information Available		

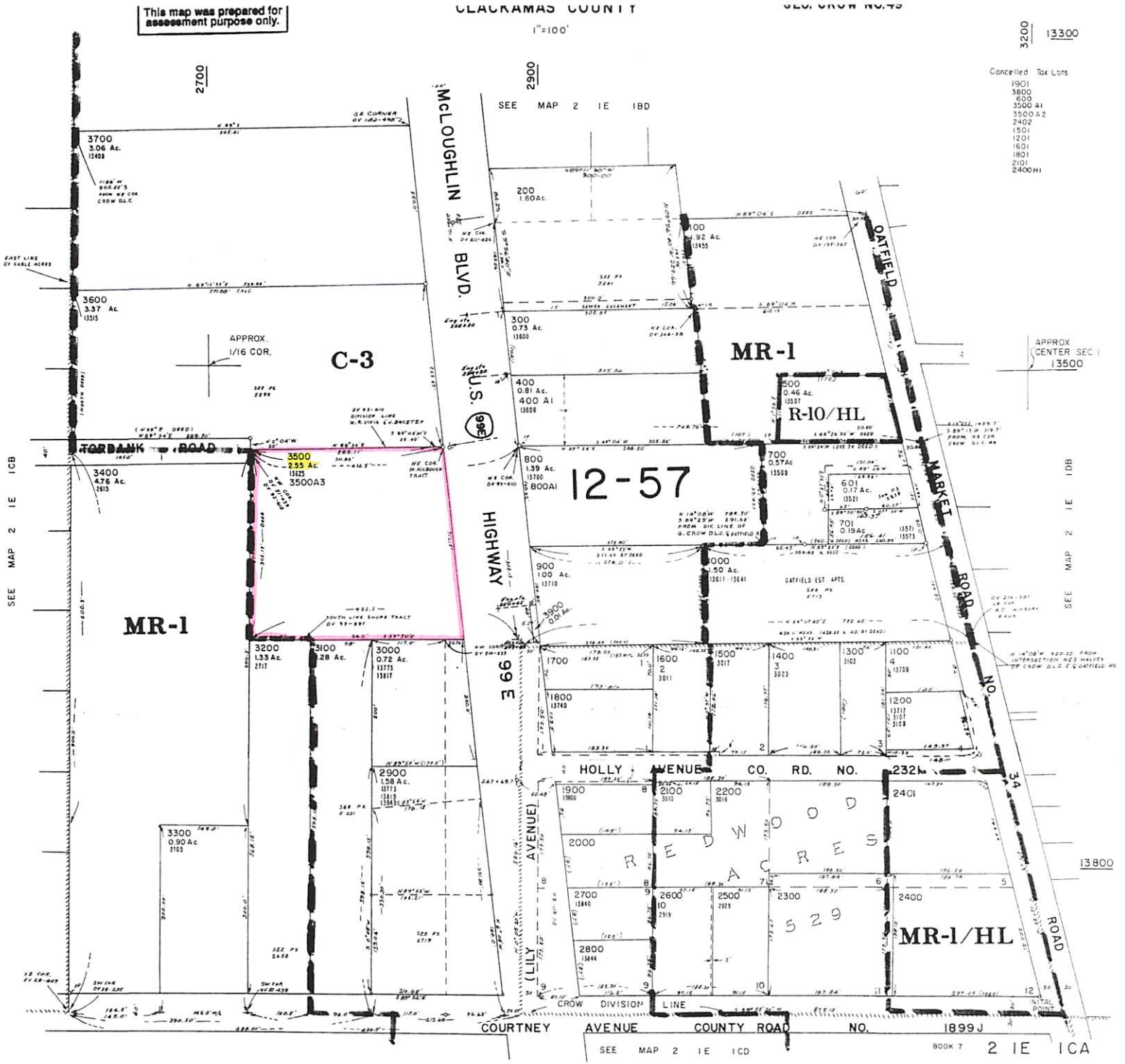
Assessment History

Year	Improvements	Land	Special Mkt/Use	Real Market	Exemptions	Assessed
2008	$57,180.00	$939,330.00	$0.00	$996,510.00	$0.00	$0.00

City of Portland, Corporate GIS

Assessor Data Updated 10/19/2009


12-177
12-02
12-45
12-02
12-57
12-51
12-47
JOSEPH KELLOGG NO. 47, 53, 67
GEORGE CROW NO. 49
1"= 400'
SEE MAP 2 IE 12BB
SEE MAP 2 IE 12BA
SEE MAP 2 IE 12
SEE MAP 2 IE 12AB
SEE MAP 2 IE 12AA
2 IE I
BOOK 7 INDEX


This map was prepared for assessment purpose only.
CLACKAMAS COUNTY
1"=100'
2700
2900
3200
13300
SEE MAP 2 1E 1BD
McLOUGHLIN BLVD.
OATFIELD
MARKET ROAD NO.
U.S. 99E
HIGHWAY
TORBANK ROAD
APPROX. 1/16 COR.
APPROX CENTER SEC. 13500
C-3
MR-1
R-10/HL
12-57
MR-1/HL
3700 3.06 Ac. 13408
3600 3.37 Ac. 13515
3500 2.55 Ac. 13625 3500A3
3400 4.76 Ac. 2615
3300 0.90 Ac. 2705
3200 1.33 Ac. 2717
3100 1.28 Ac.
3000 0.72 Ac. 13775 13817
2900 1.58 Ac. 13775 13815
200 1.60Ac.
100 1.92 Ac. 10455
300 0.73 Ac. 13600
400 0.81 Ac. 400 A1 13606
500 0.46 Ac. 13507
800 1.39 Ac. 13700 800A1
700 0.57Ac. 13509
601 0.17 Ac. 13521
701 0.19Ac. 13571 13573
900 1.00 Ac. 13710
1000 1.50 Ac. 13611-13641
3900 0.01 Ac.
OATFIELD EST. APTS.
Cancelled Tax Lots
1901
3800
600
3500 A1
3500 A2
2402
1501
1201
1601
1801
2101
2400 H1
SEE MAP 2 1E 1CB
SEE MAP 2 1E 1DB
HOLLY AVENUE CO. RD. NO. 232
(LILY AVENUE)
CROW DIVISION LINE
COURTNEY AVENUE COUNTY ROAD NO. 1899
SEE MAP 2 1E 1CD
BOOK 7 2 1E 1CA
13800
34 ROAD

ZONING

Urban North Clackamas County

- Clackamas County
- Urban Growth Boundary
- City Boundary
- City of Damascus

- Timber District (TBR)
- AG / Forest District (AG/F)
- Exclusive Farm Use (EFU)
- Rural Center SFR 1 acre (RA-1)
- Future Urban (FU-10)
  Rural Area SFR 2 acre (RA-2)
  Rural Res. Farm/Forest 5ac (RRFF-5)
  Farm-Forest 10ac (FF-10)
- Urban Low Density Res (R-15, R-20 & R-30)
- Urban Low Density Res (R-8.5 & R-10)
- Single Family Residential (R-2.5 & R-5)
- Village Small Lot (VR-4/5)
  Village Standard Lot (VR-5/7)
  Urban Low Density (R-7)
- Medium Density Res (MR-1)
  Village Townhouse (VTH)
  Medium High Density Res (MR-2)
  Plan Medium Density Res (PMD)
- High Density Res. (HDR)
  Village Apartment (VA)
  Special High Density (SHD)
  Regional Center Special High Density (RCHD)
- Neighborhood Commercial (NC)
  Community Commercial (C-2)
  General Community (C-3)
  Planned Commercial (PC)
  Retail Commercial (RTL)
  Village Commercial (VC)
  Rural Commercial (RC)
  Rural Tourist Commercial (RTC)
  Low Traffic Impact Com. (LTIC)
  Regional Center Commercial (RCC)
  Corridor Commercial (CC)
- Office Apartment (OA)
  Office Commercial (OC)
  Regional Center Office (RCO)
  Village Office (VO)
- General Industrial (I-3)
- Campus Industrial (CI)
  Light Industrial (I-2)
  Campus Industrial Park (CIP)
  Business Park (BP)
  Rural Industrial (RI)
- Planned Mixed Use (PMU-1, PMU-2, PMU-3)
- Village Community Service (VCS)
- Open Space Management (OSM)
- Incorporated Cities

CLACKAMAS COUNTY

GEOGRAPHIC INFORMATION SYSTEMS

DEPARTMENT OF INFORMATION SERVICES/GEOGRAPHIC INFORMATION SYSTEMS
121 LIBRARY COURT
OREGON CITY, OREGON 97045

20 September 2005

DATA LAYER SOURCES

Taxlots: Clackamas County Assessment & Taxation, March 2004

Zoning, City Limits, and Mapping Product: Clackamas County GIS, March 2004

Urban Growth Boundary: Boundary set by Metro (RLIS), Dec. 2002

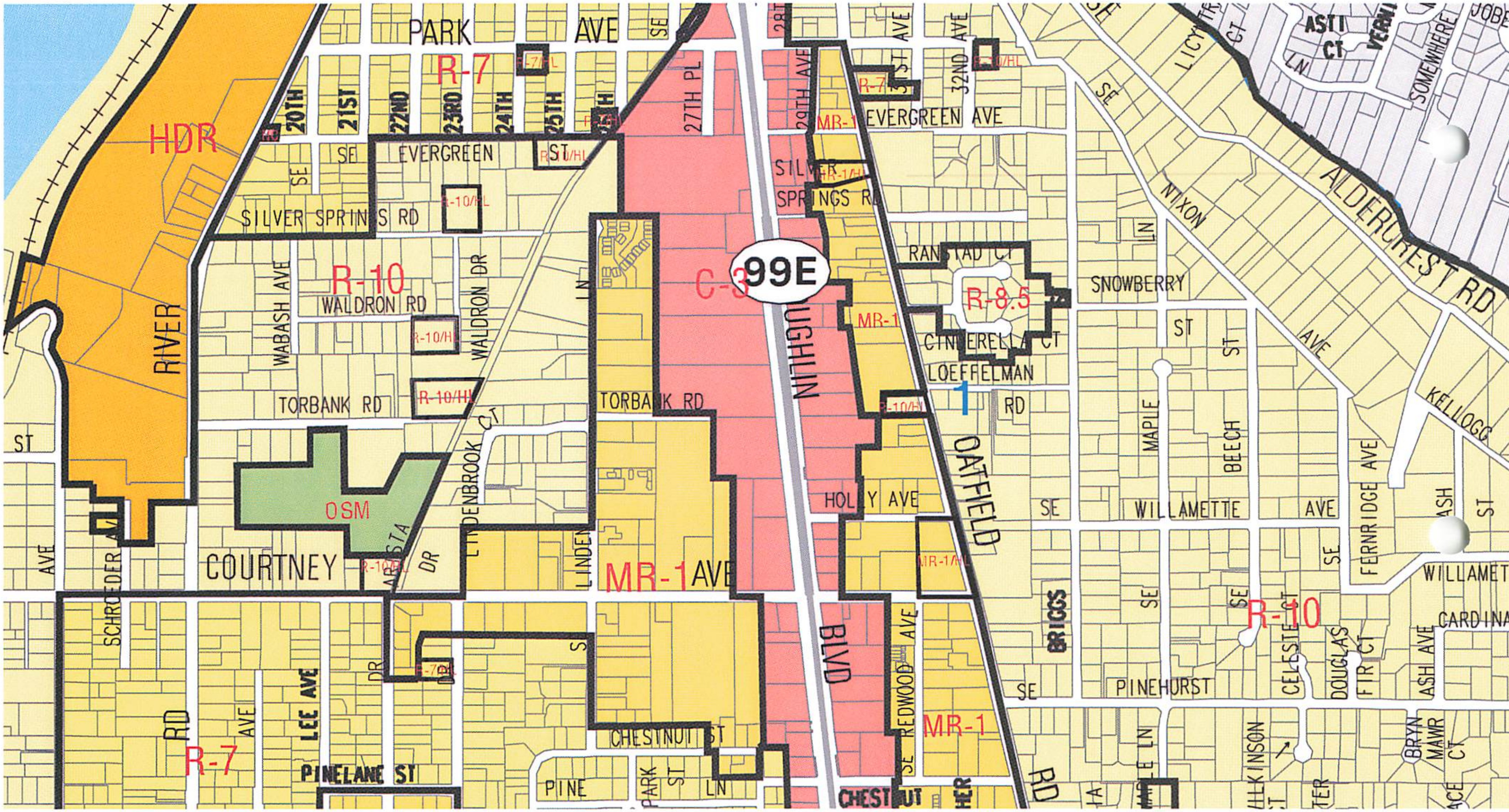
N

Scale = 1:15840

Scale: 1" = 1320'

0' 660' 1320' 2640' 3960'

CLACKAMAS COUNTY DTD | RANDYGRA | PDZN0108 | ZONINGURB.AML | 07 Dec 06



PARK AVE
R-7
HDR
EVERGREEN ST
EVERGREEN AVE
SILVER SPRINGS RD
R-10
WALDRON RD
WALDRON DR
WABASH AVE
RIVER
TORBANK RD
LINDENBROOK CT
OSM
COURTNEY AVE
SCHROEDER
C-3
99E
MCLOUGHLIN BLVD
MR-1
R-8.5
RANSTAD CT
SNOWBERRY ST
CINDERELLA CT
LOEFFELMAN RD
OATFIELD RD
ALDERCREST RD
NIXON AVE
KELLOGG
HOLLY AVE
WILLAMETTE AVE
MAPLE ST
BEECH ST
FERNRIDGE AVE
ASH ST
CARDINAL
PINEHURST
BRIGGS
REDWOOD AVE
CHESTNUT ST
PINELANE ST
LEE AVE
PINE
PARK ST
CELESTE CT
DOUGLAS FIR CT
ASH AVE
BRYN MAWR CT
27TH PL
29TH AVE
31ST AVE
32ND AVE
20TH
21ST
22ND
23RD
24TH
25TH
1

Comprehensive Plan

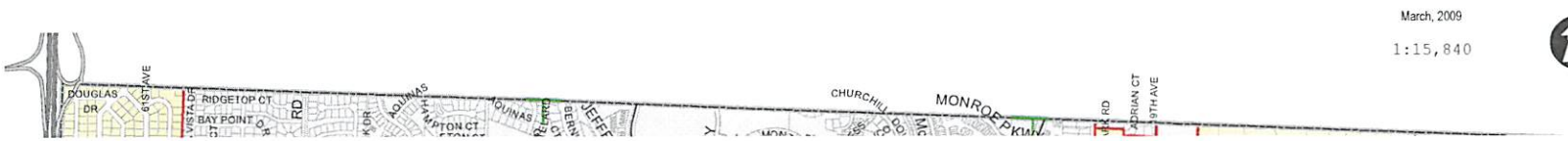
Map IV-6:
Urban North Clackamas County

For additional zoning information contact the Clackamas County Planning Division at 503-742-4500 or send an email to: ZoningInfo@clackamas.us. The Planning Division's web page can be accessed at: www.clackamas.us/transportation/planning

- City Boundaries
- Clackamas County Boundary
- Urban Growth Boundary
- City of Damascus

Designations

- Forest (F)
- Agriculture (AG)
- Rural (R)
- Unincorporated Community Residential (UCR)
- Low Density Residential (LDR)
- Medium Density Residential (MDR)
- High Density Residential (HDR,
  Medium-High Density Res. (MHDR)
  Special High Density Res. (SHDR)
  Regional Center High Density Res. (RCHDR)
- Community Commercial (CC)
  Corridor Commercial (COR)
  General Commercial (GC)
  Low Traffic Impact Commercial (LTIC)
  Regional Center Commercial (RCC)
  Retail Commercial (RTL)
  Rural Commercial (RC)
- Office Apartment (OA)
  Office Commercial (OC)
  Regional Center Office (RCO)
  Village Commercial (VC)
  Village Office (VO)
- Planned Mixed Use (PMU)
- General Industrial (GI)
- Business Park (BP)
  Campus Industrial (CI)
  Light Industrial (LI)
  Rural Industrial (RI)
- Public and Community Use Open Space (P
- Village Community Service (VCS)



March, 2009

1:15,840

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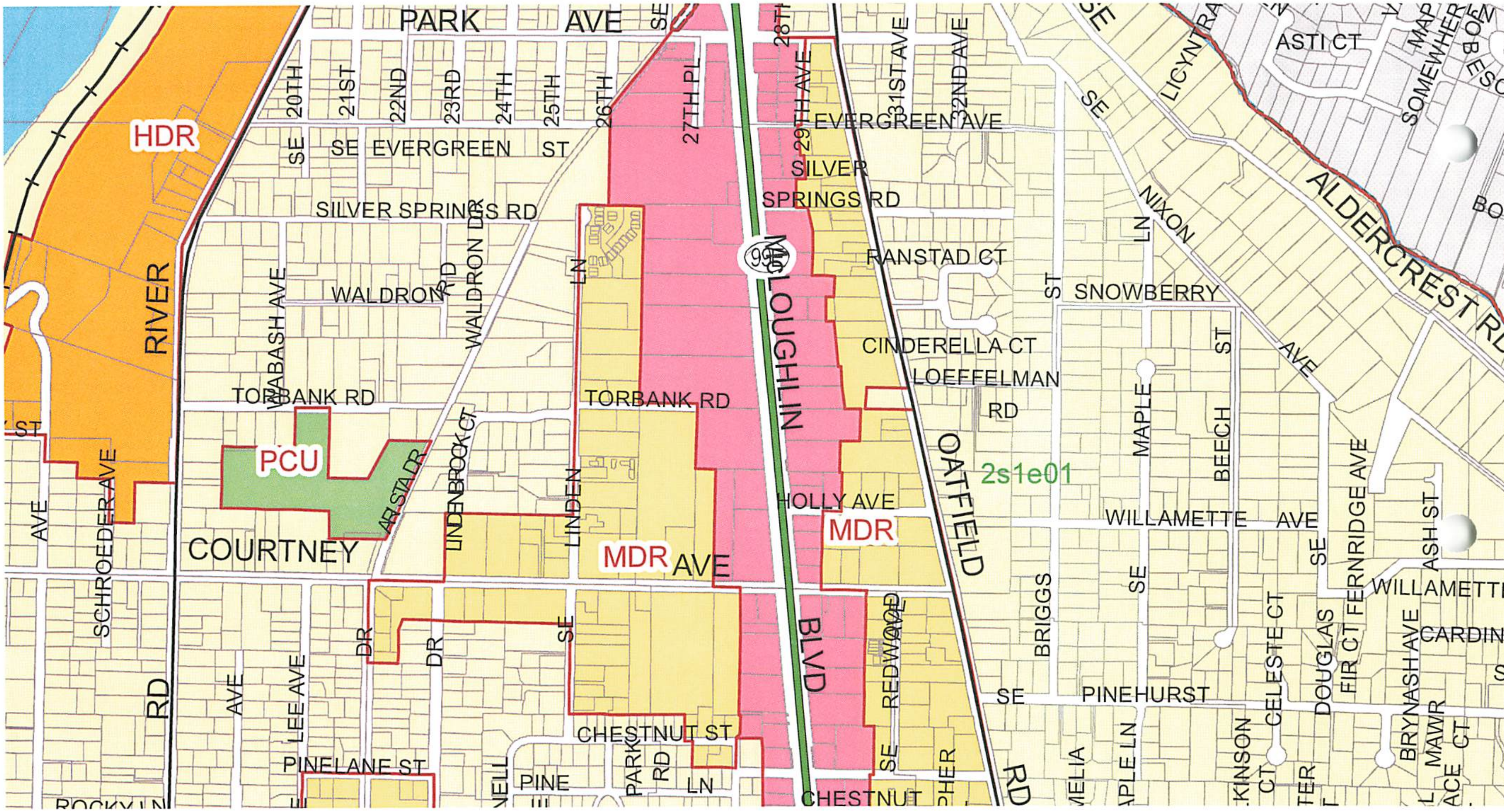

PARK AVE
HDR
SE EVERGREEN ST
EVERGREEN AVE
SILVER SPRINGS RD
SILVER SPRINGS RD
RANSTAD CT
WALDRON RD
WALDRON DR
SNOWBERRY
CINDERELLA CT
LOEFFELMAN RD
TORBANK RD
TORBANK RD
RIVER RD
PCU
OATFIELD RD
2s1e01
HOLLY AVE
MDR
WILLAMETTE AVE
COURTNEY AVE
MDR
MCLOUGHLIN BLVD
99E
ALDERCREST RD
NIXON AVE
ASTI CT
WABASH AVE
LINDEN LN
SCHROEDER AVE
LEE AVE
CHESTNUT ST
PINELANE ST
PINE LN
SE PINEHURST
BRIGGS ST
MAPLE ST
BEECH ST
FERNRIDGE AVE
ASH ST
CARDINAL
DOUGLAS
REDWOOD AVE
CELESTE CT
20TH
21ST
22ND
23RD
24TH
25TH
26TH
27TH PL
29TH AVE
31ST AVE
32ND AVE
CHESTNUT

Oregon
Theodore R. Kulongoski, Governor

partment of Environmental Quality
Northwest Region Portland Office
2020 SW 4th Avenue, Suite 400
Portland, OR 97201-4987
(503) 229-5263
Fax: (503) 229-6945
TTY: (503) 229-5471

October 12, 2009

AHMED HAMADE
PO BOX 8652
PORTLAND OR 97207

Re: Hamade Property
File No. 03-09-0775

Dear Mr. Hamade:

The purpose of this letter is to inform you that I have been assigned as project manager for your underground storage tank (UST) decommissioning and cleanup project located at 13625 SE McLoughlin Blvd. in Milwaukie, Oregon. As a reminder, the Department of Environmental Quality (DEQ) is required by law to recover its costs in reviewing and overseeing work on UST cleanup projects.

If you have any questions regarding DEQ's work on or involvement with your project, please call me at (503) 229-5369. Your efforts in investigating and cleaning up the release from your underground storage tank are appreciated.

Sincerely,

Kevin Dana

Kevin Dana
UST Cleanup Specialist

cc: Phil Brewer
Alpha Environmental
9150 SW Salmon St
Portland OR 97225

(kpd:KPD)

OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY
UNDERGROUND STORAGE TANK PROGRAM

DEQ
State of Oregon Department of Environmental Quality

Initial (Twenty Day) Report Form for UST Cleanup Projects

This report is due twenty (20) days from the date of the release.

DEQ USTC File No. 03-09-0095

DEQ Facility ID No. _____

Site Name: Hanada Property

Site Address: 13625 SE McLoughlin Blvd, Milwaukie 97222

INITIAL CLEANUP INFORMATION

(1) Type of contamination (check √ all that apply):

☒ Gasoline ☒ Diesel ☐ Waste Oil ☐ Heating Oil

☐ Other (specify) _____

(2) Estimate quantity of release (based on information known to date – ● select only one):

○ <100 gal. ⊗ 100-499 gal. ○ 500-999 gal. ○ 1,000-5,000 gal. ○ >5,000 gal.

SITE INFORMATION (check √ yes or √ no)

(3) ☒ Y ☐ N Did any water enter the excavation? If yes, please describe and identify the depth to groundwater in feet below ground surface: ~7'

(4) ☒ Y ☐ N Was a sheen or odor observed on any water in the excavation?

Note: If groundwater is encountered, soil samples from the soil/water interface must be collected and analyzed for BTEX and by the appropriate TPH method.

At sites where diesel or other non-gasoline products have been released, the water may also have to be screened or tested for polynuclear aromatic hydrocarbons (PAHs). *Please refer to OAR 340-122-0218.*

(5) ☒ Y ☐ N Was water pumped from the excavation?

☒ Y ☐ N If yes, did groundwater recharge within 24 hours after pumping?

Please describe the pumping procedure and disposal option selected for the purged excavation water:

(6) ☒ Y ☐ N Were any water samples collected from the excavation? If yes, please describe:

Gx, Dx & 8260

(7) ☒ Y ☐ N Have any soil and/or water sample results been received at this time?

If so, please attach any lab reports.

IF GROUNDWATER HAS BEEN ENCOUNTERED, PLEASE ANSWER QUESTIONS #8-13, BELOW.
IF NO WATER HAS BEEN ENCOUNTERED, PLEASE SKIP TO QUESTION #14

(8) What are the known uses of groundwater within a 500-foot radius of the release site (check √ all that apply)?

☑ non-use ☐ industrial ☐ agricultural ☐ drinking supply

(9) If groundwater in this area is being used as a drinking water supply, please check √ the type and size of population served by the supply:

☐ Community (community well used for drinking water year round – • select only one)

size: ○ <1,000 people ○ 1,000 - 5,000 people ○ >5,000 people

☐ Intermittent use (public water used for drinking water only on a part-time basis – • select only one)

size: ○ <50 people ○ 50 - 300 people ○ > 300 people

☑ Private wells (individual private well or wells used for drinking water – • select only one)

size: ○ <10 people ◉ 10 - 25 people ○ >25 people

(10) ☐ Y ☑ N Is there any evidence this water supply has been or is likely to be impacted from the petroleum product release? If yes, estimate how difficult it would be to replace the existing supply:

☐ bottled water is the only alternative

☐ on-site water treatment; bulk water delivery; new wells are available

☐ able to connect to existing water supply

☐ do not know what alternatives would be available

(11) ☐ Y ☑ N Are/were vapors present in on-site or nearby buildings? If yes:

A. Are you monitoring and/or mitigating any potential fire and safety hazards posed by vapors and free product? Explain:

_____

B. Estimate the number of people potentially affected by vapors – • select only one:

○ 1-2 people ○ 3-10 people ○ >10 people

(12) ☐ Y ☑ N Are vapors or is petroleum contamination present in the utility corridors?

If yes, please explain:

_____

(13) ☐ Y ☑ N Are natural areas located within 1/4 mile of the site? If so, please describe types (parks, rivers, wetlands, sensitive habitats, *etc.*) and proximity: _____

_____

(14) ☐ Y ☐ N If groundwater was not encountered in the excavation, do you believe that this cleanup project can be conducted under the requirements for an UST Cleanup Matrix site? If yes, then refer to OAR 340-122-0305 through 0360.

AREA/SITE CONDITIONS:

(15) Mean annual rainfall: ◯ <20 inches ◯ 20-45 inches ⊘ >45 inches

(16) Soil type(s) of the naturally occurring soils, not the backfill around the tank – • select only one:

◯ clays, compact tills, shales, and unfractured metamorphic and igneous rocks

⊘ sandy loams, loamy sands, silty clays, clay loams, moderately permeable limestone, dolomite, sandstones, moderately fractured igneous and metamorphic rock

◯ fine and silty sands, sands and gravels, highly fractured igneous and metamorphic rock, permeable basalts and lavas, karst limestones and dolomites

SOIL MANAGEMENT

(17) If soil sample results have been received:

☑ Y ☐ N Will the level of contamination detected require removal of contaminated soil for treatment or disposal?

(18) All contaminated soil temporarily stockpiled on-site prior to treatment or disposal must be contained within a bermed area, kept covered, and the entire area secured to prevent unauthorized access by the public. If you haven't done this, please explain why:

Note: It is a violation to stockpile petroleum contaminated soil (PCS) on-site for greater than 30 days without a DEQ Solid Waste Letter Authorization (SWLA) Permit.

(19) If contaminated soil is currently stockpiled on-site, please indicate when disposal will occur or when treatment will begin: _____

(20) Estimated volume of contaminated soil (specify tons or cubic yards): _____

(21) Intended disposition of soils (please • select only one):

◯ On-site/off-site treatment, Solid Waste Letter Authorization Permit Application attached.

◯ Thermal treatment off-site at an authorized facility.
Facility name: _____

◯ Landfill disposal.
Name of Landfill: _____

Note: Please attach additional information as necessary to explain any unusual circumstances associated with this project.

This initial report is intended to provide the Department with the basic initial information about activities associated with the release. Future reports should provide a more detailed and complete picture of the cleanup project.

Please be aware that a DEQ permit/authorization is required for the following activities:

1) Soil aeration, bioremediation (on-site or off-site), or on-site thermal treatment.

2) Water discharges to a stream/storm drain from the excavation or treatment tank.

If these activities will be included in your cleanup project, contact the regional DEQ office for the appropriate application forms, information on permit fees and guidance documents.

THIS REPORT WAS PREPARED BY:

Individual: Phil Brewer Date: 9/10/09

Company: Alpha Environmental Services, Inc. Phone: (503) 292-5346

Address: 9150 SW Salmon St

Portland, OR 97225

City: Portland State OR Zip 97225

1. Please return this form to the regional office in which the site is located. If you have questions, call the contact person in your regional office.

2. For all tanks, except heating oil tanks, you must submit an *UST Decommissioning Checklist and Site Assessment Report* to the appropriate regional office within 30 days of the UST decommissioning. Failure to do so can result in delays to your project and may result in continued billing for the annual tank permit fees.

3. Addresses and phone numbers for the regional offices can be found in the *UST Cleanup Manual* or viewed and downloaded from this DEQ Webpage: http://www.deq.state.or.us/about/locations.htm

4. Copies of the *UST Cleanup Manual* and other UST program forms and checklists can be viewed and downloaded from DEQ's Website: http://www.deq.state.or.us/lq/tanks/ust/index.htm

or in the Portland area by calling Steve Paiko at 503-229-6652

or outside the Portland area leaving a message on the UST Help Line (toll-free in Oregon) at 1-800-742-7878

KEEP A COPY OF THIS REPORT FOR YOUR FACILITY RECORDS

Laboratory Report

Alpha Environmental
9525 - A SW Beaverton- Hillsdale Hwy
Beaverton, OR 97005

Report Number: 74474
Report Date: 8/14/09

Project Name:
Project Location:
Project Number: 13625 SE McLoughlin Blvd
Date Sampled: 8/13/09
Date received: 8/13/09

NWTPH-HCID

Analyte: Petroleum Hydrocarbon Identification in soil

Field ID	Lab ID	Gasoline	Diesel	Oil	% Surr Recovery	QC
TP-1,S-1	A0756	Detected	ND	ND	87%	H090813-1
TP-1,S-2	A0757	Detected	ND	ND	87%	H090813-1
TP-2,S-1	A0758	ND	ND	ND	80%	H090813-1
TP-2,S-2	A0759	ND	ND	ND	86%	H090813-1
TP-3,S-1	A0760	ND	ND	ND	81%	H090813-1
TP-3,S-2	A0761	ND	ND	ND	83%	H090813-1
TP-4,S-1	A0762	ND	ND	Detected	96%	H090813-1
TP-4,S-2	A0763	ND	ND	ND	87%	H090813-1
TP-5,S-1	A0764	ND	ND	ND	90%	H090813-1
TP-6,S-1	A0765	ND	ND	Detected	98%	H090813-1
TP-7, S-1	A0766	ND	ND	Detected	100%	H090813-1
TP-8, S-1	A0767	ND	ND	ND	160%	H090813-1
TP-10, S-1	A0768	ND	ND	Detected	99%	H090813-1
Reporting Limit (mg/Kg)	--	20	50	100	--	

Results relate only to samples

2415 SE 11th Ave. Portland, OR 97214
Phone:503-231-9320
Fax 503-231-9344

LABORATORY REPORT

Alpha Environmental
9525 - A SW Beaverton- Hillsdale Hwy
Beaverton, OR 97005

PROJECT NAME:		**REPORT NUMBER:**	74474
SITE LOCATION:	13625 SE McLoughlin Blvd	**REPORT DATE:**	8/16/2009
PROJECT NUMBER:		**PAGE:**	1 of 1

NW-TPHGx
Analytes: Gasoline in Soil

Field ID	LAB ID	Gasoline (mg/Kg)	Surrogate Recovery (%)	Analytical Batch	Sampling Date	Preparation Batch
TP-1,S-1	A0756	**245**	**115%**	58PI090814-1	8/13/2009	G090814-1
TP-1,S-2	A0757	**688**	**140%**	58PI090814-1	8/13/2009	G090814-1
Reporting Limit:	--	**20**				

Surrogate is p-Bromofluorobenzene
ND = Not Detected (Below Reporting or Detection Limit)

This is a NELAP accredited method
Results relate only to samples

Chemist Initials C.Y Chan

LABORATORY REPORT

Alpha Environmental
9525 - A SW Beaverton- Hillsdale Hwy
Beaverton, OR 97005

SITE NAME:
SITE LOCATION: 13625 SE McLoughlin Blvd
PROJECT NUMBER:

REPORT NUMBER: 74474
REPORT DATE: 8/17/09

NW-TPHDx
Analytes: Total Diesel and Heavy Oil range petroleum in Soil

Field ID	LAB ID	Diesel (mg/Kg)	Heavy Oil (mg/Kg)	Surrogate Recovery (%)	AB	PB	Sampling Date
TP-4,S-1	A0762	**ND**	**199**	101%	68FFL90814-1	D090814-1	8/13/2009
TP-6,S-1	A0765	**ND**	**ND**	93%	68FFL90814-1	D090814-1	8/13/2009
TP-7, S-1	A0766	**ND**	**125**	106%	68FFL90814-1	D090814-1	8/13/2009
TP-10, S-1	A0768	**ND**	**177**	101%	68FFL90814-1	D090814-1	8/13/2009
Reporting Limit:	--	**25**	**100**				

Surrogate is 1-ChloroOctadecane

Results relate only to samples

Chemist Initials: C.Y Chan

Quality Control for Gasoline in Soil by NWTPH-Gx

Batch Date: 8/14/2009

Calibration Verification	*Analytical Batch*	*Result (ug/L)*	*Theoretical Result (ug/L)*	*Percent Difference*	*Acceptable Range*
CCV	58PI090814-1	1985	2000	1%	±20%
CCV2	58PI090814-1	1870	2000	6%	±20%

Matrix Blank	*Preparation Batch*	*Result (mg/Kg)*	*Acceptable Range*	*Surrogate Recovery*	*Surrogate Acceptable Range*
SBLK8-7	G090814-1	6.88	<20	101%	50%-150%

Matrix Spike	*Preparation Batch*	*Result (mg/Kg)*	*Theoretical Result (ug/L)*	*Percent Recovery*	*Acceptable Range*
SLCS8-7	G090814-1	98	100	98%	70%-130%

2415 SE 11th Ave., Portland, OR 97214 Phone (503) 231-9320 FAX (503) 231-9344

Quality Control for NWTPH-Dx

Batch Date: 8/14/2009

QC Blank Sample Number	PB	Diesel Result (mg/Kg)	Oil Result (mg/Kg)	Blank Control Limits Diesel (mg/Kg)	Blank Control Limits Oil (mg/Kg)	Surrogate Recovery	Blank Surrogate Control Limit (%)
SBLANK1	D090814-1	0	0	25	100	94%	50%-150%
WBLANK	D090814-1	0	0	25	100	112%	50%-150%
SBLANK2	D090814-2	0	0	25	100	92%	50%-150%
SBLANK3	D090814-3	0	0	25	100	94%	50%-150%

QC LRB Sample Number	AB	Diesel Result (mg/Kg)	Oil Result (mg/Kg)	LRB Control Limit Diesel (mg/Kg)	LRB Control Limit Oil (mg/Kg)	Surrogate Recovery	LRB Surrogate Control Limit (%)

CCV Diesel Sample Number	Analytical Batch	Measured Concentration in extract (ug/mL)	Theoretical Concentration (ug/mL)	% Difference	CCV Control Limit (%)
DXCCV1	68FFL90814-1	505.28	500	1.06%	±20%
DXCCV2	68FFL90814-1	496.10	500	-0.78%	±20%

CCV Oil Sample Number	Analytical Batch	Measured Concentration in Extract (ug/mL)	Theoretical Concentration in Extract (ug/mL)	% Difference	CCV Control Limit (%)
OILCCV1	68FFL90814-1	352.55	400	-11.86%	±20%
OILCCV2	68FFL90814-1	328.80	400	-17.80%	±20%

QC LCS Sample Number	PB	Diesel Result in Extract (ug/mL)	Theoretical Spike Concentration (ug/mL)	LCS Spike Recovery (%)	LCS Spike Control Limits (ug/mL)	Surrogate Recovery	LCS Surrogate Control Limits (%)
SLCS1	D090814-1	370.10	357.14	104%	±30%	106%	50%-150%
WLCS	D090814-1	329.86	335.86	98%	±30%	113%	50%-150%
SLCS2	D090814-2	393.71	357.14	110%	±30%	128%	50%-150%
SLCS3	D090814-3	387.92	357.14	109%	±30%	125%	50%-150%

Phone:503-231-9320
Fax 503-231-9344

WyEast Environmental Sciences, Inc.
2415 SE 11th Ave. Portland Oregon 97214

CHAIN OF CUSTODY

Report Number 74474

Phone(503) 231-9320 FAX(503) 231-9344

Company: Alpha Environmental
Phone: 503.292.5346
Project #:
FAX:
Project Name:
Purchase Order #:
Site: 13625 SE McLoughlin Blvd
Report Attention: Phil
Collected By: Carrie Beveridge
Samples: Temperature 9°C On Ice? (Yes) No
Turnaround Time: [X] Regular [ ] 3-5 Business Days

Comments:

LAB ID	Field ID	Sampling Date	Sampling Time	Matrix	Container	Volume	NW-TPH-Dx	NW-TPH-GX	NW-TPH-HCID	EPA 8021B (BTEX)	EPA 8270 SIM (PAH)	EPA 8260B	Analysis Requested
A756	TP-1, S-1	8/13	8:00	S	4oz	Glass			X				
A757	TP-1, S-2	8/13	8:15	S					X				
A758	TP-2, S-1	8/13	9:15	S					X				
A759	TP-2, S-2	8/13	9:30	S					X				
A760	TP-3, S-1	8/13	9:45	S					X				
A761	TP-3, S-2	8/13	10:00	S					X				
A762	TP-4, S-1	8/13	10:30	S					X				
A763	TP-4, S-2	8/13	10:40	S					X				
A764	TP-5, S-1	8/13	11:00	S					X				
A765	TP-6, S-1	8/13	11:15	S					X				
A766	TP-7, S-1	8/13	12:50	S					X				
A767	TP-8, S-1	8/13	13:20	S					X				
A768	TP-10, S-1	8/13	13:50	S					X				

Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
Carrie Beveridge	Alpha	8/13/09	4:20pm	Aye	WyEast	8-13-09	4:20pm

2415 SE 11th Ave. Portland, OR 97214

LABORATORY REPORT

Alpha Environmental
9525 - A SW Beaverton- Hillsdale Hwy
Beaverton, OR 97005

PROJECT NAME:
SITE LOCATION: 13265 SE McLoughlin Blvd
PROJECT NUMBER: 706

REPORT NUMBER: 74736
REPORT DATE: 9/2/2009
PAGE: 1 of 2

NW-TPHGx
Analytes: Gasoline in Soil

Field ID	LAB ID	Gasoline (mg/Kg)	Surrogate Recovery (%)	Analytical Batch	Sampling Date	Preparation Batch
PWS-7'	A2350	**1110****	*	58PI090901-1	8/31/2009	G090901-1
PWN-7'	A2351	**240****	**143%**	58PI090901-1	8/31/2009	G090901-1
Reporting Limit:	--	20				

Surrogate is p-Bromofluorobenzene
ND = Not Detected (Below Reporting or Detection Limit)
***Surrogate Peak Obscured by Matrix Interference**
****** Gasoline is present, result should be considered an estimate due to Diesel interference.**

This is a NELAP accredited method
Results relate only to samples

Chemist Initials C.Y Chan

Quality Control for Gasoline in Soil by NWTPH-Gx

74736

Batch Date: 9/1/2009 9/2/2009

Calibration Verification	*Analytical Batch*	*Result (ug/L)*	*Theoretical Result (ug/L)*	*Percent Difference*	*Acceptable Range*
CCV-WLCS	58PI090901-1	1892	2000	5%	±20%
CCV2	58PI090901-1	2131	2000	-7%	±20%

Matrix Blank	*Preparation Batch*	*Result (mg/Kg)*	*Acceptable Range*	*Surrogate Recovery*	*Surrogate Acceptable Range*
SBLANK1	G090901-1	7.23	<20	114%	50%-150%
Reporting Limit:	--	20			
Surrogate is p-Bromofl	G090901-1	87	100	86%	70%-130%

ND = Not Detected (Below Reporting or Detection Limit)

Wy'East
Environmental Sciences, Inc.
2415 SE 11th Ave. Portland Oregon 97214

CHAIN OF CUSTODY

Report Number 74736

Phone(503) 231-9320 FAX(503) 231-9344

Company: Alpha Environmental	Phone:
Project #: 07060	FAX:
Project Name:	Purchase Order #:
Site: 13265 SE McLoughlin	Report Attention: Phil — Collected By: Eric
Samples: Temperature 23.5 On Ice? (Yes) No	Turnaround Time: ☑ Regular ☐ 3-5 Business Days

LAB ID	Field ID	Sampling Date	Sampling Time	Matrix	Container	Volume	~~[illegible]~~	NW-TPH-GX	NW-TPH-HCID	EPA 8021B (BTEX)	EPA 8270 SIM (PAH)	EPA 8260B	Analysis Requested / Comments
A2350	PWS-7'	08/31/09		soil		4oz	~~✓~~	✓	✓				
A2351	PWN-7'	" "		" "		" "	~~✓~~	✓	✓				

Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
[signature]	Alpha			[signature]	Wy'East	8/31/09	17:25

LABORATORY REPORT

Alpha Environmental
9525 - A SW Beaverton- Hillsdale Hwy
Beaverton, OR 97005

PROJECT NAME:
SITE LOCATION: 13625 SE Mcloughlin
PROJECT NUMBER:

REPORT NUMBER: 74758
REPORT DATE: 9/3/2009
PAGE: 1 of 1

NW-TPHGx
Analytes: Gasoline in Water

Field ID	LAB ID	Gasoline (µg/L)	Surrogate Recovery (%)	Analytical Batch	Sampling Date
MCL-9/1-W	A2408	**569**	**114%**	58PI090902-1	9/1/2009
Reporting Limit:	--	**100**			

Surrogate is p-Bromofluorobenzene

This is a NELAP accredited method
Results relate only to samples

Chemist Initials C.Y Chan

2415 SE 11th Ave., Portland, OR 97214 Phone (503) 231-9320 FAX (503) 231-9344

LABORATORY REPORT

Alpha Environmental
9525 - A SW Beaverton- Hillsdale Hwy
Beaverton, OR 97005

PROJECT NAME:
SITE LOCATION: 13625 SE Mcloughlin
PROJECT NUMBER:
LAB ID: A2408
FIELD ID: MCL-9/1-W

REPORT NUMBER: 74758
REPORT DATE: 9/2/09
RUN DATE: 2Sep20092:56am
PREP. BATCH V090901
ANAL.BATCH: 8260090901-1
ANALYST:

EPA 8260C
Analyte: Volatile Organics (RBDM) in Water

Compound	Sample (ug/L)	Quant. Limit (ug/L)	Qualifier	Dilution Factor
benzene	ND	0.3		1
1,2-dibromoethane	ND	0.1		1
1,2-dichloroethane	ND	0.1		1
ethylbenzene	ND	1		1
isopropylbenzene	ND	2		1
methyl-tert-butylether(MTBE)	ND	2		1
naphthalene	0.6	0.25		1
n-propyl-benzene	6	2		1
toluene	ND	1		1
1,2,4-trimethlybenzene	ND	2		1
1,3,5-trimethylbenzene	ND	2		1
xylene(m&p)	ND	2		1
o-xylene	ND	2		1
total xylenes	ND	2		1

Surrogate:	1,2-dichloroethane-d4	toluene-d8	p-bromofluorobenzene
Percent Recovery	80	99	94

Analyst

Quality Control for Gasoline in Water by NWTPH-Gx

Batch Date: 9/2/2009

Calibration Verification	*Analytical Batch*	*Result (µg/L)*	*Theoretical Result (µg/L)*	*Percent Difference*	*Acceptable Range*
CCV1	58PI090902-1	1,007	1,000	-1%	±20%
CCV2	58PI090902-1	1,042	1,000	-4%	±20%

Matrix Blank	*Analytical Batch*	*Result (µg/L)*	*Theoretical Result (µg/L)*	*Surrogate Recovery*	*Surrogate Acceptable Range*
WBLANK	58PI090902-1	49	<200	122%	50%-150%

Matrix Spike	*Analytical Batch*	*Result (µg/L)*	*Theoretical Result (µg/L)*	*Percent Recovery*	*Acceptable Range*
CCV1	58PI090902-1	1,007	1,000	101%	70%-130%

2415 SE 11th Ave., Portland, OR 97214 Phone (503) 231-9320 FAX (503) 231-9344

WyEast
Environmental Sciences, Inc.
2415 SE 11th Ave. Portland Oregon 97214

CHAIN OF CUSTODY

Report Number 74758

Phone(503) 231-9320 FAX(503) 231-9344

Company: Alpha	Phone:
Project #:	FAX:
Project Name:	Purchase Order #:
Site: 13625 SE McLoughlin	Report Attention: P. Brewer / Collected By: E. Anderson
Samples: Temperature____ On Ice? Yes / No	Turnaround Time: ☒ Regular ☐ 3-5 Business Days

Comments:

LAB ID	Field ID	Sampling Date	Sampling Time	Matrix	Container	Volume	NW-TPH-Dx	NW-TPH-GX	NW-TPH-HCID	EPA 8021B (BTEX)	EPA 8270 SIM (PAH)	EPA 8260B-RBDM	Analysis Requested
A7408	MCL-9/1-W	9-1-09	14:37	WATER	40ml VOA			X				X	

Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
GK Cy	Alpha			cy Cln	WyZT	9/1/09	5:30pm
Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time

REVISED LABORATORY REPORT

Alpha Environmental
9525 - A SW Beaverton- Hillsdale Hwy
Beaverton, OR 97005

PROJECT NAME:	13625 SE McLoughlin	**REPORT NUMBER:**	74835R1
SITE LOCATION:		**REPORT DATE:**	9/10/2009
PROJECT NUMBER:	706	**PAGE:**	1 of 2

NW-TPHGx
Analytes: Gasoline in Soil

Field ID	LAB ID	Gasoline (mg/Kg)	Surrogate Recovery (%)	Analytical Batch	Sampling Date	Preparation Batch
SS-6'	A2880	**ND**	**107%**	58PI090907-1	9/3/2009	G090907-1
N-6'	A2881	**372**	**146%**	58PI090909-1	9/3/2009	G090909-1
Reporting Limit:	--	20				

Surrogate is p-Bromofluorobenzene
ND = Not Detected (Below Reporting or Detection Limit)
****Surrogate Recovery Below Acceptance Range**

This is a NELAP accredited method
Results relate only to samples

Chemist Initials C.C.Y Chan

LABORATORY REPORT

Alpha Environmental
9525 - A SW Beaverton- Hillsdale Hwy
Beaverton, OR 97005

PROJECT NAME: 13625 SE McLoughlin
SITE LOCATION:
PROJECT NUMBER: 706

REPORT NUMBER: 74835
REPORT DATE: 9/9/09

EPA 8021B
Analytes: BTEX for soil (Benzene, Toluene, Ethylbenzene, Xylenes)

Field ID	LAB ID	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylenes (mg/Kg)	Surrogate Recovery (%)
SS-6'	A2880	ND	ND	ND	ND	83%
N-6'	A2881	0.15	1.14†	0.34	2.04	102%
Reporting Limit: --		0.03	0.10	0.2	0.4	

Surrogate is Bromofluorobenzene, Internal Standard is α,α,α-Trifluorotoluene

LAB ID	Analytical Batch	Preparation Batch	Sampling Date
A2880	HPID090907-1	B090907-1	9/3/09
A2881	HPID090907-1	B090907-1	9/3/09

Results relate only to samples

Chemist Initials: C.Y Chan

Quality Control for Gasoline in Soil by NWTPH-Gx

74835R1

Batch Date: 9/7/2009

9/10/2009

Calibration Verification	Analytical Batch	Result (ug/L)	Theoretical Result (ug/L)	Percent Difference	Acceptable Range
CCVLCS	58PI090907-1	2069	2000	-3%	±20%
CCV2	58PI090907-1	2038	2000	-2%	±20%

Matrix Blank	Preparation Batch	Result (mg/Kg)	Acceptable Range	Surrogate Recovery	Surrogate Acceptable Range
SBLANK	G090907-1	5.29	<20	108%	50%-150%
Reporting Limit:	--	20			
Surrogate is p-Bromofluor	G090907-1	91	100	91%	70%-130%

ND = Not Detected (Below Reporting or Detection Limit)

Wy'East Environmental Sciences, Inc.

Quality Control Report for BTEX Soil By 8021B

HPID090907-1	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)
CCV	**1.88**	**1.93**	**1.85**	**5.47**
Theoretical Value	2.00	2.00	2.00	6.00
Percent Difference	-6%	-4%	-7%	-9%
Acceptable Range	± 20%	± 20%	± 20%	± 20%
CONTROL	**PASS**	**PASS**	**PASS**	**PASS**

B090907-1	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	BFB (Surrogate)
Blank	**0.00**	**0.00**	**0.04**	**0.00**	**102%**
Acceptable Range	<0.03	<0.1	<0.2	<0.4	50%-150%
CONTROL	**PASS**	**PASS**	**PASS**	**PASS**	**PASS**

Run with AB: HPID090907-1

LCS	**0.51**	**0.58**	**0.58**	**1.72**	**104%**
Theoretical Value	0.54	0.54	0.54	1.61	
Percent Recovery	94%	108%	108%	106%	
Acceptable Range	70%-130%	70%-130%	70%-130%	70%-130%	50%-150%
CONTROL	**PASS**	**PASS**	**PASS**	**PASS**	**PASS**

Run with AB: HPID090907-1

2415 SE 11th Ave., Portland, OR 97214 Phone (503) 231-9320 FAX (503) 231-9344

Environmental Sciences, Inc.
2415 SE 11th Ave. Portland Oregon 97214
Phone(503) 231-9320 FAX(503) 231-9344

CHAIN OF CUSTODY

Report Number 74835

Company: Alpha Environmental		Phone:											Comments
Project #: 0706		FAX:											
Project Name:		Purchase Order #:											
Site: 13625 SE McLoughlin		Report Attention: Ph: 1		Collected By: Erick									
Samples: Temperature 20.5 On Ice? Yes / No		Turnaround Time: ☑ Regular ☐ 3-5 Business Days											
LAB ID	Field ID	Sampling Date	Sampling Time	Matrix	Container	Volume	NW-TPH-Dx	NW-TPH-GX	NW-TPH-HCID	EPA 8021B (BTEX)	EPA 8270 SIM (PAH)	EPA 8260B	Analysis Requested
A2880	S5-6'	09/03/09		Soil	2	4oz	✓	✓		✓			
A2881	N-6	9/03/09		Soil	2	4oz	—	—		✓			Hold

Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
[signature]	Alpha			[signature]		9/8/09	11:05a
Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time

Phone (503) 231-9320 FAX (503) 231-9344
2415 SE 11th Ave., Portland, OR 97214

LABORATORY REPORT

Alpha Environmental
9525 - A SW Beaverton- Hillsdale Hwy
Beaverton, OR 97005

PROJECT NAME:	13625 SE McLoughn	**REPORT NUMBER:**	74864
SITE LOCATION:		**REPORT DATE:**	9/10/2009
PROJECT NUMBER:	706	**PAGE:**	1 of 1

NW-TPHGx
Analytes: Gasoline in Soil

Field ID	LAB ID	Gasoline (mg/Kg)	Surrogate Recovery (%)	Analytical Batch	Sampling Date	Preparation Batch
SP-6'	A3038	**36**	**118%**	58PI090909-1	9/8/2009	G090909-1
Reporting Limit:	--	**20**				

Surrogate is p-Bromofluorobenzene
ND = Not Detected (Below Reporting or Detection Limit)

This is a NELAP accredited method
Results relate only to samples

Chemist Initials C.Y Chan

LABORATORY REPORT

Alpha Environmental
9525 - A SW Beaverton- Hillsdale Hwy
Beaverton, OR 97005

SITE NAME: 13625 SE McLoughln
SITE LOCATION:
PROJECT NUMBER: 0706

REPORT NUMBER: 74864
REPORT DATE: 9/10/09

NW-TPHDx
Analytes: Total Diesel and Heavy Oil range petroleum in Soil

Field ID	LAB ID	Diesel (mg/Kg)	Heavy Oil (mg/Kg)	Surrogate Recovery (%)	AB	PB	Sampling Date
SP-6'	A3038	ND	ND	84%	68FFL90909-1	D090909-2	9/8/2009
Reporting Limit:	--	50	100				

Surrogate is 1-ChloroOctadecane

Results relate only to samples

Chemist Initials: C.Y Chan

Quality Control for Gasoline in Soil by NWTPH-Gx

Batch Date: 9/9/2009

Calibration Verification	*Analytical Batch*	*Result (ug/L)*	*Theoretical Result (ug/L)*	*Percent Difference*	*Acceptable Range*
CCVLCS	58PI090909-1	2140	2000	-7%	±20%
CCV2	58PI090909-1	2216	2000	-11%	±20%

Matrix Blank	*Preparation Batch*	*Result (mg/Kg)*	*Acceptable Range*	*Surrogate Recovery*	*Surrogate Acceptable Range*
SBLANK1	G090909-1	4.97	<20	111%	50%-150%

Matrix Spike	*Preparation Batch*	*Result (mg/Kg)*	*Theoretical Result (ug/L)*	*Percent Recovery*	*Acceptable Range*
SLCS1	G090909-1	94	100	93%	70%-130%

2415 SE 11th Ave., Portland, OR 97214 Phone (503) 231-9320 FAX (503) 231-9344

Quality Control for NWTPH-Dx

Batch Date: 9/9/2009

QC Blank Sample Number	PB	Diesel Result (mg/Kg)	Oil Result (mg/Kg)	Blank Control Limits Diesel (mg/Kg)	Blank Control Limits Oil (mg/Kg)	Surrogate Recovery	Blank Surrogate Control Limit (%)
SBLANK1	D090909-1	0	0	25	100	86%	50%-150%
WBLANK	D090909-1	0	0	25	100	124%	50%-150%
SBLANK2	D090909-2	0	0	25	100	88%	50%-150%

QC LRB Sample Number	AB	Diesel Result (mg/Kg)	Oil Result (mg/Kg)	LRB Control Limit Diesel (mg/Kg)	LRB Control Limit Oil (mg/Kg)	Surrogate Recovery	LRB Surrogate Control Limit (%)

CCV Diesel Sample Number	Analytical Batch	Measured Concentration in extract (ug/mL)	Theoretical Concentration (ug/mL)	% Difference	CCV Control Limit (%)
DXCCV1	68FFL90909-1	503.49	500	0.70%	±20%
DXCCV2	68FFL90909-1	515.86	500	3.17%	±20%

CCV Oil Sample Number	Analytical Batch	Measured Concentration in Extract (ug/mL)	Theoretical Concentration in Extract (ug/mL)	% Difference	CCV Control Limit (%)
OILCCV1	68FFL90909-1	396.65	400	-0.84%	±20%
OILCCV2	68FFL90909-1	414.42	400	3.61%	±20%

QC LCS Sample Number	PB	Diesel Result in Extract (ug/mL)	Theoretical Spike Concentration (ug/mL)	LCS Spike Recovery (%)	LCS Spike Control Limits (ug/mL)	Surrogate Recovery	LCS Surrogate Control Limits (%)
SLCS1	D090909-1	362.32	357.14	101%	±30%	98%	50%-150%
WLCS	D090909-1	270.63	220.26	123%	±30%	146%	50%-150%
SLCS2	D090909-2	347.29	357.14	97%	±30%	114%	50%-150%

CHAIN OF CUSTODY

Report Number 74864

Environmental Sciences, Inc.
2415 SE 11th Ave. Portland Oregon 97214
Phone(503) 231-9320 FAX(503) 231-9344

Company: ALPHA	Phone:												Comments
Project #: 0706	FAX:												
Project Name:	Purchase Order #:												
Site: 13625 SE McLoughlin	Report Attention: PAT IC	Collected By: ERIC											
Samples: Temperature 70° On Ice? (Yes) No	Turnaround Time: ☑ Regular ☐ 3-5 Business Days												
LAB ID	Field ID	Sampling Date	Sampling Time	Matrix	Container	Volume	NW-TPH-Dx	NW-TPH-Gx	NW-TPH-HCID	EPA 8021B (BTEX)	EPA 8270 SIM (PAH)	EPA 8260B	Analysis Requested
143038	SP-6'	9-8-09		SOIL	2	4oz	X	X					

Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
Eric Sturm	ALPHA	9-9-09				9/9/09	2:40
Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time

2415 SE 11th Ave., Portland, OR 97214 Phone (503) 231-9320 FAX (503) 231-9344

file

Oregon
Theodore R. Kulongoski, Governor

Department of Environmental Quality
Northwest Region Portland Office
2020 SW 4th Avenue, Suite 400
Portland, OR 97201-4987
(503) 229-5263
Fax: (503) 229-6945
TTY: (503) 229-5471

August 17, 2009

AHMED HAMADE
PO BOX 8652
PORTLAND OR 97207

RE: Hamade Property
File No.: 03-09-0775

The Department of Environmental Quality (DEQ) received a report of an oil spill on August 17, 2009 from an underground storage tank (UST) system at your facility located at 13625 SE McLoughlin Blvd. in Milwaukie, Oregon. As the responsible party for the facility, Oregon law requires you to clean up the spill (see OAR 340-122-0201 through 340-122-0360). These rules require you to clean up the soil, groundwater, surface water and anything else contaminated by petroleum. The cleanup must meet the appropriate standards or demonstrate that the contamination does not pose a risk to human health or the environment.

You must complete the enclosed Initial Report Form for UST Cleanup Projects and send it to this office within twenty (20) days from the date the release was reported. I have also enclosed an outline of additional reporting requirements that includes due dates for submittals. You can request a copy of the UST Cleanup regulations or an application for a letter of authorization for soil treatment. As the responsible party, you should be aware of the requirements for cleanup, even if you have hired a qualified contractor or consultant to assist you.

Please reference the DEQ File Number listed above in all future correspondence and reports.

Oregon law requires DEQ to recover project oversight costs. DEQ oversight begins with the initial site characterization and continues through cleanup approval and site closure. Oversight includes the time spent on activities such as reviewing reports, preparing correspondence, answering technical questions, site inspections, and enforcement actions. **DEQ will send you an invoice each month for all oversight activities performed to date.**

DEQ considers sites that pose the greatest hazard to human health, safety and the environment the highest priority for oversight. As a result, DEQ will not review in detail many lower environmental priority sites or issue a final "No Further Action" or "closure" letter until the higher priority sites are addressed. However, all projects, simple or complex, require at least some oversight. At a minimum, DEQ reviews each site to determine the environmental priority of the cleanup project. Until DEQ closes this project this property will remain on a DEQ list of contaminated properties.

If you want DEQ oversight and approval regardless of environmental priority, you must sign a Responsible Party Priority Site Program agreement requesting priority review and confirming your agreement to pay DEQ oversight costs in a timely manner.

If you do not sign this agreement, you are still responsible for investigation and/or cleanup of the contamination, and for paying DEQ oversight costs. Please be aware that there may be a waiting list for assignment to the next available project manager, and that these projects are assigned on a first come, first served basis.

Please read the attached information on the cost recovery and invoice process. We also are enclosing information about the Responsible Party Priority Site Program and an agreement, if you are interested in expediting review of your project. Contact the DEQ Land Quality Division at (503) 229-6635 if you have questions about cost recovery.

Thank you for your cooperation and continued efforts to comply with the regulations. **If you have any questions about the regulations and/or your cleanup project, please call (503) 229-5263 and ask to speak to the Underground Storage Tank Duty Officer.**

Sincerely,

Michael H. Kortenhof, Manager
UST Cleanup and Compliance Section

Enclosures

DANA Kevin

To: JANET@ALPHAENVIRONMENTAL.NET
Subject: OLPRR Incident Report in Accepted Status. Log Number: 03-09-0775

Your on-line tank data submittal has been reviewed and accepted by the State of Oregon DEQ.
New LUST Incident Log Number: 03-09-0775

Reported by: JANET CASON
Company Name: ALPHA ENVIRONMENTAL INC
Phone Number: 503-292-5346

Site Name: HAMADE PROPERTY
Site Address: 13625 SE McLoughlin Blvd
Site County: CLACKAMAS
Site City: MILWAUKIE
Site Zip Code: 97222
Comments: THIS MAY BE A REGULATED UST. IT IS AN ABANDONED GAS STATION. DATES UNKNOWN.

Date Received: 8/17/2009
Release Type: UnRegulated

RESPONSIBLE PARTY INFORMATION	INVOICE CONTACT INFORMATION
First Name:	First Name:
Ahmed	Ahmed
Last Name:	Last Name:
Hamade	Hamade
City:	City:
Portland	Portland
Phone:	Phone:
unknown	unknown
Address:	Address:
P.O. Box 8652	P.O. Box 8652
State:	State:
OR	OR
Zip:	Zip:
97207	97207

Confirmation: Contractor
Discovery: SiteAssessment Cause: Unknown

MEDIA TYPE
Soil

CONTAMINANT TYPE
Diesel (Motor Fuel)

PortlandMaps

13625 SE MCLOUGHLIN BLVD - CLACKAMAS COUNTY

Census 2000 Information

Aerial Photo

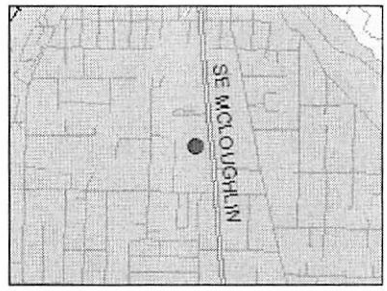
2008 / '07 / '06 / '05 / '04 / '03 / '02 / '01 6" / **2'** / 4' / 10' / 20' Streets: **Off** Lots: **Off** Dot: **On**

0 100 FT

City of Portland, Corporate GIS 8/17/2009

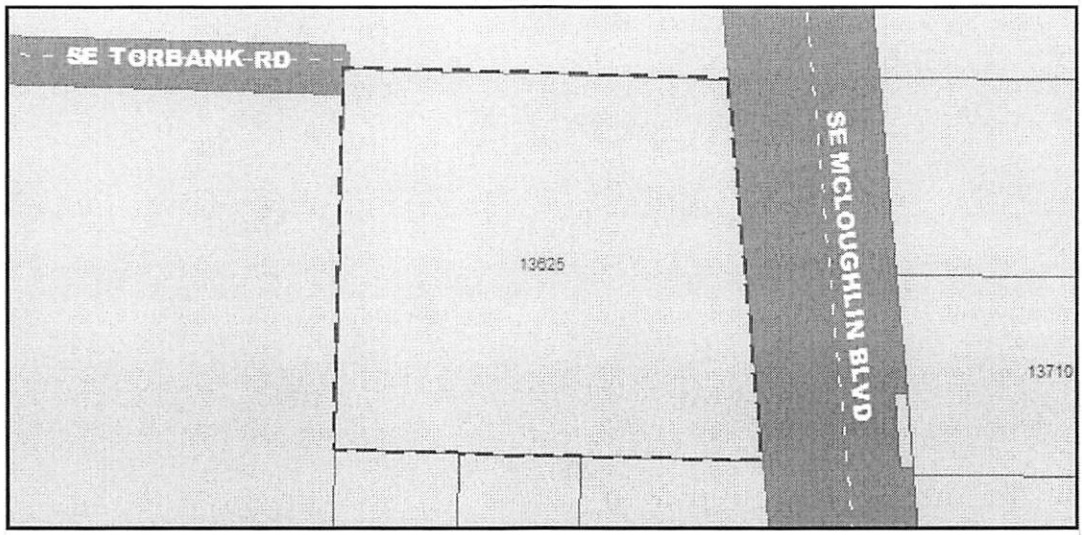
PortlandMaps

13625 SE MCLOUGHLIN BLVD



Description
Size 0 square feet
Number of Bedrooms
Bathrooms

Property Map



Property Value (2008)
Market Value $996,510.00
Assessed Value $0.00
Taxes ()
Property Taxes $0.00
Total Taxes $0.00
Misc Info
Year Built 0
Foundation Type
Interior Finish
Roof Style
Roof Cover Type
Flooring Type
Heating/AC Type

City of Portland, Corporate GIS Assessor Data Updated 8/11/2009

DANA Kevin

From: Oregon DEQ - Do not reply [OregonDEQ@deq.state.or.us]
Sent: Monday, August 17, 2009 1:40 PM
To: DEQTanksReviewNWR
Subject: OLPRR LUST Tank Start Notification for DEQ Staff

New LUST Incident information submitted to State of Oregon DEQ for review.

Contractor : ALPHA ENVIRONMENTAL INC
Reported by: JANET CASON
Phone Number: 503-292-5346

Site Name: 13625 SE McLoughlin Boulevard
Site Address: 13625 SE McLoughlin Boulevard
Site City: Milwaukie
Site Zip Code: 97222

Site County: Clackamas
Received by State of Oregon DEQ : 8/17/2009 1:40:07 PM.

Review Type: NEW | DEQ Office: NWR | First | Last | 1 of 2 Records | Next | Back

OLPRR Review

Incident Comments | Contractor Maintenance

OLP... 13260 **Incident Data**

Reported By: JANET CASON
RepBy Phone: 503-292-5346
Company: ALPHA ENVIRONMENTAL INC

Lookup LUST | Log Number: 03-09-0775 | Site Type: UnRegulated

Site Name: Hamade Property | Received Date: 8/17/2009

Site Address: 13625 SE McLoughlin Blvd

Other:

City: Milwaukie | Zip Code: 97222

County: Clackamas | Facility Id: | Lookup UST | Phone:

Responsible Party

First Name: Ahmed
Last Name: Hamade
Organization:
Address: P.O. Box 8652
Address2:
City: Portland
State: OR | Zip Code: 97207
Phone: unknown
E-Mail:

Mail Contacts

First Name: Ahmed
Last Name: Hamade
Organization:
Address: P.O. Box 8652
Address2:
City: Portland
State: OR | Zip Code: 97207
Phone: unknown
E-Mail:

Invoice Contact

First Name:
Last Name:
Organization:
Address:
Address2:
City:
State: | Zip Code:
Phone:
E-Mail:

Site Assessment

Discover Date: 8/17/2009 | Discovery: SiteAssessment | Cause: Unknown | Source: Tank | Confirmation: Contractor

Contaminants

- [ ] Heating Oil
- [ ] Waste Oil
- [ ] Other Pet. Dist.
- [ ] Leaded Gasoline
- [ ] Unleaded Gasoline
- [ ] Chemical
- [ ] Misc. Gasoline
- [ ] Lubricant
- [ ] MTBE
- [x] Diesel (Motor Fuel)
- [ ] Solvent
- [ ] Unknown

Impacted Media

- [ ] Groundwater
- [ ] Surface Water
- [ ] Drinking Water
- [ ] Free Product
- [ ] Vapor
- [x] Soil

Accept | Hold | Decline | Close

Q-Time #41232

CRA 9/10/09 LK

file

logged

DEQ

State of Oregon
Department of
Environmental
Quality

DEPT OF ENVIRONMENTAL QUALITY
RECEIVED
SEP 10 2009
NORTHWEST REGION

OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY
UNDERGROUND STORAGE TANK PROGRAM

Cost Recovery Agreement

This document serves as an agreement between the undersigned (hereinafter "you") and the Department of Environmental Quality (DEQ) regarding DEQ review and oversight of the investigation and/or cleanup of petroleum (hazardous substances) at the property located at:

Facility Name: Hamade Property

Address: 13625 SE McLoughlin Blvd.
Milwaukie, OR 97222

USTC No.: 03-09-0775 HC

DEQ agrees to review environmental documents submitted by you or on your behalf regarding the investigation and/or cleanup of the above-referenced site. Additional details regarding DEQ oversight will be established upon review of the initial site data.

DEQ requires that persons requesting DEQ review and oversight of investigation and cleanup activities agree to the terms of this cost recovery agreement and pay project oversight costs.

DEQ project oversight costs will include direct costs and indirect costs. Direct costs include site-specific expenses and legal costs. Indirect costs are those general management and support costs of the DEQ, including the Land Quality Division (LQ), allocable to DEQ oversight of this agreement and not charged as direct, site-specific costs. Indirect charges are based on a percentage of direct personal services costs. Review and oversight costs shall not include any unreasonable costs or costs not otherwise recoverable by DEQ under ORS 465.255.

DEQ costs are due within thirty (30) days of issuance of the monthly statement, by a check made payable to the "Department of Environmental Quality". Nine percent interest shall be charged on past due accounts.

Electing not to enter into this agreement does not release you from any responsibility that you might have for any reporting requirements, investigation and/or cleanup of petroleum (hazardous substances) at the above referenced facility. This does not preclude the DEQ from conducting audits or inspections of all or portions of the investigation and cleanup activities associated with this facility. Enforcement action may be initiated if any violation of Oregon Administrative Rules (OARs) or Oregon Revised Statutes (ORSs) is found.

Either DEQ or you may terminate this agreement by giving 15 days advance written notice to the other. Only those costs incurred or obligated by DEQ prior to the effective date of any termination of the agreement shall be recoverable under this agreement. Termination of this agreement will not affect any other right DEQ may have for recovery of costs under any applicable law.

You will hold DEQ harmless for any claims (including but not limited to claims of property damage or personal injury) arising from DEQ review and/or oversight activities under this agreement.

This agreement is not and shall not be construed to be an admission by you of any liability under ORS 465.255 or any other law or as a waiver by you of any defense to such liability. This agreement is not and shall not be construed to be a waiver, release, or settlement of claims that DEQ may have against you or any other responsible person nor is this agreement a waiver of any enforcement authority that DEQ may have.

The DEQ Tanks Program will be responsible for the review and oversight of the investigation and cleanup activities associated with the property. Please refer all site-specific inquiries to the UST Regional Offices in Northwest Region – Portland, Western Region – Salem and Eugene and Eastern Region – The Dalles. For locations and phone numbers of the regional offices, please see the UST Regional Office list at http://www.deq.state.or.us/about/locations.htm

All inquiries regarding cost recovery and/or invoices should be directed to Dawn Ismerio at 503-229-5812.

If the terms of this agreement are acceptable, please have it executed by an authorized officer in the space provided below. In order to more effectively schedule your project, please return this agreement within 30 days of receipt to the regional office responsible for your site.

Accepted and agreed to this 3 day of SEP, 2009

By: _____

Title: OWNER

Please provide the following information as to where the invoices should be sent.

Individual Name: AHMED HAMADE

Title: OWNER

Company Name: _____

Mail Address: P.O. BOX 8652

City, State, Zip: PORTLAND OR 97207

Phone Number: 503-381-7777 * phone need

RESULTS OF RISK-BASED DECISION MAKING CLEANUP FOR TWO FORMER UNDERGROUND STORAGE TANKS

13625 SE McLoughlin Blvd.
Milwaukie, Oregon
DEQ LUST #03-09-0775

Date Issued: September 28, 2009
Alpha Project Number 09-0706

Prepared For:

Mr. A.J. Hamade

Prepared By:

9525-A SW Beaverton-Hillsdale Hwy
Beaverton, Oregon 97005
TEL (503) 292-5346 FAX (503) 203-1516

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APPENDICES

1.0 INTRODUCTION

Alpha Environmental Services, Inc. (Alpha) was retained by Mr. A.J. Hamade to conduct a RBDM Cleanup for two commercial underground gasoline and diesel storage tanks located at 13625 SE McLoughlin Blvd., Oregon (the "Site"). The Site currently consists of a vacant lot that was previously the site of a gasoline filling station (Figure 1).

The protocol used is in general conformance with Oregon Administrative Rule (OAR) 340 Division 122 and the Oregon DEQ guidance document entitled "*Risk-Based Decision Making for the Remediation of Petroleum-Contaminated Sites*", September 22, 2003, revised October 3, 2008.

Scope of Services

The scope of services for this project included:

1. Decommissioning of the tanks by removal.
2. Collection of sufficient soil and water samples to determine the full vertical and horizontal extent of contamination at the Site.
3. Submission of the samples to a reputable independent laboratory for chemical analysis using approved analytical methods.
4. Evaluation of the analytical results with respect to State of Oregon hazardous substance remedial action rules and the RBDM guidance document.
5. Preparation of a report for submission to the Oregon DEQ documenting findings and analytical data, and requesting a determination that "No Further Action" is required in accordance with State of Oregon regulations.

1.2 Site History

A specific review of site history was not requested for this project.

1.3 Geology/Hydrology

The Site is situated within the Willamette Valley, which is a portion of the Puget Trough physiographic sub province of the Pacific Mountain System geological province. This area consists of fluviolacustrine sedimentary deposits. Underlying the local area is a thin mantle (less than 6 feet) of unconsolidated silt, and gravel which is underalin by bedrock of Columbia River Basalt.

No surface waters or wetlands are located in the immediate vicinity of the site. Groundwater was encountered during the course of the project at a depth of approximately 5½ to 6 feet bsg. Based on surface topographical data, groundwater is expected to flow generally to the north to northwest.

2.0 SITE WORK

2.1 Geophysical Survey

On August 4, 2009, a geophysical survey was completed on the subject property. The purpose of the survey was to identify possible underground storage tanks that may remain on the subject property from the previous service station. A copy of the geophysical survey report is included in Appendix A.

The survey was completed by Pacific Geophysics using a Geometrics G-858 portable cesium magnetometer, an Aqua-Tronics A6 Electromagnetic Tracer, a Schonstedt GA92xtd Magnetic Gradiometer and a GSSI SIR-2000 ground-penetrating radar (GPR) system with a 270-MHz antenna. The survey included all areas of the subject property that were covered by the former service station, and involved an initial survey of the entire property with the magnetometer with focused investigations around magnetic anomalies using the tracer, gradiometer and GPR equipment.

No anomalies were detected that were interpreted as underground storage tanks (USTs). A small object (3x3 feet) that appeared to have a semi-cylindrical top. The object was interpreted as possibly a part of a UST. A disturbed soil zone, interpreted to be a possible UST pit, was observed around the anomaly.

2.2 UST Decommissioning and Contaminated Soil Removal

On August 13, 2009, Alpha excavated an exploratory pit in the area of the identified anomaly during a Phase Two Assessment of the site. The excavation encountered a very large concrete pad overlying two underground storage tanks. The pad covered the eastern half of the tanks, leaving the west 4 feet of the tanks exposed in the excavation. The tanks weer 4 feet in diameter and buried to a depth of 7 feet. Soil samples collected from adjacent to the tanks contained gasoline ranging from 245 mg/kg (3.5' depth) to 688 mg/kg (7' depth), and no detected diesel or heavy oil.

On August 28, 2009, decommissioning activities were begun. The overlying concrete pad was approximately three feet thick, and required the use of a hydraulic hammer/chipper attached to the excavator to uncover the tanks. The tanks contents of the tanks (sluge and oily water) were removed and recycled by Oil Re-Refining Company. The tanks were removed, crushed and transported to Metro Metals for recycling (see receipts for oil and tanks - Appendix B).

Contaminated soil was encountered during the tank removal. Groundwater was encountered in the tank pit at a depth of approximately 6 feet bsg. Approximately 335 gallons of water was pumped from the pit by Oil Re-Refining Company and allowed to recharge for 24 hours before collecting a water sample. The water sample from the tank pit was collected on September 1, 2009 using a peristaltic pump and dedicated, disposable polyethylene tubing. The sample was placed in labeled glass laboratory-supplied bottles, capped with a Teflon®-lined lid, labeled with

a distinctive designation, and placed in a secure cooler for storage until delivered to Wy'East Environmental Sciences of Portland, Oregon for analysis.

The sample was analyzed for gasoline (NW-TPH-Gx) and volatile organics (EPA Method 8260C-RBDM list). The sample contained 569 micrograms per liter (µg/l) gasoline, 0.6 µg/l naphthalene, and 6 µg/l n-propylbenzene. A second water sample collected from the pit on September 10, 2009 was analyzed for diesel-fraction petroleum hydrocarbons. No diesel was detected.

Approximately 56.71 tons of petroleum-contaminated soil (PCS) was excavated from the tank pit using a track-mounted excavator and disposed of at Hillsboro Landfill under special waste permit #103484OR. Soil removal continued downward until groundwater and basalt bedrock were encountered. Lateral excavation continued until soils displayed no significant field evidence of petroleum contamination.

2.4 Confirmatory Soil and Groundwater Sampling Procedures

Confirmatory soil samples were collected from the four sidewalls at the soil/water interface. The soil samples were analyzed for gasoline, diesel and BTEX. Gasoline was reported in the soil sample on the north side of the pit at 372 mg/kg, 211 mg/kg heavy oil, no detected diesel, 0.15 mg/kg benzene, 1,14 mg/kg toluene, 0.34 mg/kg ethylbenzene, 2.04 mg/kg xylenes. No gasoline, diesel, or BTEX was detected in the other soil samples.

Two groundwater samples were collected downgradient and one groundwater sample was collected upgradient of the excavation to determine if the contaminated groundwater in the excavation extends beyond the tank pit. A soil sample was also collected 8 feet north of the excavation to define the northern extent of the gasoline-contaminated soil. Soil borings were attempted with a track-mounted AMS VTR-9500 direct-push probe rig. The probe met refusal at depths of approximately 5 to 5½ feet without encountering groundwater.

Due to the very coarse materials and shallow bedrock, the use of hollow-stem auger drilling was not expected to successfully encounter groundwater. Three test pits were excavated to the north, northwest, and east of the tank pit to depths of 5½ feet (test pit TP-2) and 6 feet (TP-1, TP-3). Groundwater entered the deeper pits (TP-1, TP-3) and was sampled using a peristaltic pump. Water did not enter pit TP-2. The water samples were analyzed for gasoline, diesel, BTEX and naphthalene. No analytes were detected in the samples.

The tank pit was backfilled with gravel and the overburden soil and restored to rough surface grade.

3.0 RISK- BASED CORRECTIVE ACTION

3.1 Exploration Summary

Laboratory analytical reports for samples collected during the investigation are included in Appendix A. Table 1 summarizes the location, depth, purpose, and analytical result of each soil sample.

Table 1a: Soil Samples - Gasoline Analysis (NWTPH-Gx)

Sample	Location	Depth	Purpose	Result (ppm)
TP-1, S-1	Test pit (pre-decomm.)	3.5'	Site assessment	245
TP1, S-2	Test pit (pre-decomm.)	7'	Site assessment	688
SS-6'	South soil/water interface	6'	Confirmatory	ND
N-6'	North soil/water interface	6'	Confirmatory	372
MCL-E6	East soil/water interface	6'	Confirmatory	ND
MCL-W6	West soil/water interface	6'	Confirmatory	ND
MCL-NN6	Test pit TP-2	6'	Lateral definition	ND

Table 1b: Soil Samples - Soil/Water Interface, BTEX Analysis

	Result (ppm)				
Sample	Benzene	Toluene	Ethylbenze	Xylenes	Naph.
SS-6'	ND	ND	ND	ND	Not tested
N-6'	0.15	1.14	0.34	2.04	0.06
MCL-E6	ND	ND	ND	ND	Not tested
MCL-W6	ND	ND	ND	ND	Not tested
MCL-NN6	ND	ND	ND	ND	Not tested

Table 1c: Soil Samples - Diesel Analysis (NWTPH-Dx)

Sample	Location	Depth	Purpose	Result (ppm)
TP-1, S-1	Test pit	3.5'	Site assessment	ND
TP1, S-2	Test pit	7'	Site assessment	ND
SS-6'	South soil/water interface	6'	Confirmatory	ND
N-6'	North soil/water interface	6'	Confirmatory	ND
MCL-E6	East soil/water interface	6'	Confirmatory	ND
MCL-W6	West soil/water interface	6'	Confirmatory	ND
MCL-NN6	Test pit TP-2	6'	Lateral definition	ND

Table 1d: Groundwater Samples, Gasoline Analyses, NWTPH-Gx

Sample	Location	Depth	Purpose	Result (ppb)
MCL-9/1-W	Pit floor, water	6'	Assessment	372
TP1	Test pit TP-1	6'	Confirmation	ND
TP3	Test pit TP-2	6'	Confirmation	ND

Table 1e: Groundwater Samples, Diesel Analyses, NWTPH-Dx

Sample	Location	Depth	Purpose	Result (ppb)
MCL-9/10-W	Pit floor, water	6'	Assessment	ND
TP1	Test pit TP-1	6'	Confirmation	ND
TP3	Test pit TP-2	6'	Confirmation	ND

Table 1f: Groundwater Samples, VOC Analysis

	Result (ppb)					
Sample	Benzene	Toluene	Ethylbenze	Xylenes	Naph.	n-prop.
MCL-9/1-W	ND	ND	ND	ND	0.6	6
TP1	ND	ND	ND	ND	ND	Not tested
TP3	ND	ND	ND	ND	ND	Not tested

3.2 Conceptual Site Model

The Conceptual Site Model (CSM) is employed to evaluate potential sources, pathways, and receptors relating to contamination at the Site.

A Beneficial Water Use Determination (BWUD) was completed by Alpha Environmental that showed two adjacent sites (Steeve's Mobile City and The Bomber Motel) that use groundwater for drinking water. It was determined that, based on the wells' distance from the LOF and the depth at which the wells draw water, the residual contamination in the LOF does not pose a significant environmental concern to the groundwater users. Therefore, groundwater ingestion and inhalation from tapwater is not considered to be a complete exposure pathway. A copy of the Beneficial Water Use Determination is included in Appendix C.

Table 2: Conceptual Site Model

Potentially Exposed Population	Exposure Route, Medium and Exposure Point	Was This Pathway Selected?	Reason for Selection or Exclusion
CURRENT AND FUTURE LAND USE: **URBAN RESIDENTIAL** IMPACTED MEDIUM: **SOIL**			
Occupants, Construction Workers, Excavation Workers	Soil Ingestion, Dermal Contact, or Inhalation of contaminants from on-site PCS (RBC_{SS})	Yes	Petroleum hydrocarbons and VOCs were detected in the confirmation samples.
Occupants	Inhalation of chemicals volatilized to outdoor air (RBC_{SO})	Yes	Volatile constituents were detected in soil.
Occupants	Inhalation of chemicals volatilized to indoor air (RBC_{SI})	Yes	Volatile constituents were detected in soil. Buildings are likely to be constructed on the site in the future.
Occupants	Leaching to groundwater followed by ingestion (RBC_{SW})	No	Local groundwater not used for domestic drinking water purposes. Municipal water supply is provided from surface water sources.
CURRENT AND FUTURE LAND USE: **URBAN RESIDENTIAL** IMPACTED MEDIUM: **GROUNDWATER**			
Occupants	Ingestion and inhalation from tap water (RBC_{TW})	No	Local groundwater not used for domestic drinking water purposes. Municipal water supply is provided from surface water sources.
Occupants	Inhalation of chemicals volatilized to outdoor air (RBC_{WO})	Yes	Volatile constituents were detected in groundwater.
Occupants	Inhalation of chemicals volatilized to indoor air (RBC_{WI})	Yes	Volatile constituents were detected in groundwater.
Construction Workers, Excavation Workers	Groundwater encountered during excavation activities (RBC_{WE})	Yes	Onsite excavation for utility trenches is reasonably foreseeable in the future.

3.3 Applicable Risk-Based Concentrations (RBCs)

Table 3: Comparison of Analytical Results to Generic RBCs

	RISK-BASED CONCENTRATIONS					*LABORATORY ANALYTICAL RESULTS*
Contaminated Medium	Soil	Soil	Soil	Soil	Soil	*Soil*
Exposure Pathway	Soil Ingestion, Dermal Contact, or Inhalation	Volatilization to Outdoor Air	Vapor Intrusion into Buildings	Construction Worker	Excavation Worker	
Receptor Scenario	Urban Residential	Urban Residential	Urban Residential	Urban Residential	Urban Residential	
Contaminant of Concern	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	mg/Kg (ppm)	*mg/Kg (ppm)*
Benzene	21	18	0.15	340	9,400	***0.15***
Toluene	5,300	-	-	68,000	39,000	***1.14***
Ethylbenzene	8,100	56	1.5	74,000	28,000	***0.34***
Xylenes	1,600	-	110	24,000	19,000	***2.04***
Acenaphthene	5,900	-	-	41,000	16,000	*ND*
Anthracene	41,000	-	-	-	90,000	*ND*
Benz[a]anthracene	1.7	-	-	21	590	*ND*
Benzo[b]fluoranthene	1.7	-	-	21	590	*ND*
Benzo[k]fluoranthene	17	-	-	210	5,900	*ND*
Benzo[a]pyrene	0.17	-	-	2.1	59	*ND*
Chrysene	170	-	-	2,100	59,000	*ND*
Dibenz[a,h]anthracene	0.17	-	-	2.1	59	*ND*
Fluoranthene	4,600	-	-	8,900	-	*ND*
Fluorene	5,200	-	-	12,000	-	*ND*
Indeno[1,2,3-cd]pyrene	1.7	-	-	21	590	*ND*
Naphthalene	16	9.6	12	540	15,000	***0.06***
Pyrene	3,400	-	-	21,000	6,700	*ND*
Generic Gasoline	1,500	-	-	22,000	13,000	***372***

Note: The laboratory detection limit is 0.03 ppm (benzene), 0.2 ppm (ethylbenzene), 0.4 ppm (xylenes), and 0.1 ppm (all other analyses).

Table 4: Comparison of Analytical Results to Generic RBCs for Groundwater

	RISK-BASED CONCENTRATIONS			*LABORATORY ANALYTICAL RESULTS*
Contaminated Medium	Water	Water	Water	*Water*
Exposure Pathway	Volatilization to Outdoor Air (RBC_{WO})	Vapor Intrusion into Buildings (RBC_{WI})	Groundwater in Excavation (RBC_{WE})	
Receptor Scenario	Urban Residential	Urban Residential	Construction/Excavation Worker	
Contaminant of Concern	ug/L (ppb)	ug/L (ppb)	ug/L (ppb)	ug/L (ppb)
Benzene	5,100	340	1,700	*<0.3*
Toluene	-	210,000	200,000	*<2*
Ethylbenzene	15,000	340	4,200	*<0.1*
Xylenes	-	59,000	22,000	*<2*
Naphthalene	5,500	1,200	470	***0.6***
1,2 Dibromoethane	940	230	28	*<0.1*
1,2 Dichloroethane	3,400	460	600	*<0.1*
MTBE	210,000	36,000	59,000	*<2*
1,2,4-Trimethylbenzene	-	4,300	1,300	*<2*
1,3,5-Trimethylbenzene	-	3,200	1,400	*<2*
n-Propylbenzene	-	-	-	***6.0***
Lead	-	-	-	*<5*
Generic Gasoline	-	-	12,000	***569***

Tables 3 and 4 demonstrate that none of the risk-based concentrations are exceeded for any of the complete exposure pathways.

4.0 CONCLUSIONS AND RECOMMENDATIONS

4.1 Conclusions

Based on information available as a result of activities performed at the Site by Alpha Environmental Services, Inc., it appears that:

- All PCS has been removed from the Site and properly disposed of, except for a portion of the soils on the north end of the former excavation. The maximum volume of remaining soil with detectable concentrations of gasoline is estimated to be 18 cubic yards (30 feet long, 8 feet wide, 2 feet thick).
- Groundwater impacts do not appear to significantly threaten human health or the environment and do not appear to extend beyond the general vicinity of the former tank pit.
- Laboratory analytical results indicate that levels of TPH and constituents at the Site are below DEQ's applicable generic Risk-Based Concentrations.
- The Site does not appear to pose a substantial threat to human health or to the environment.

4.2 Recommendations

Based on the corrective action completed at the Site and information available at this time, Alpha does not recommend further investigation or corrective action at this time. Alpha requests that the Oregon DEQ issue a No Further Action determination for this site.

4.3 Signature

This report has been prepared in general accordance with OAR 340-177-0001 through 0120 and the Oregon Department of Environmental Quality (DEQ) guidance document entitled "*Risk-Based Decision Making for the Remediation of Petroleum-Contaminated Sites*", September 22, 2003.

Wayne Bennett

9/28/09

WAYNE BENNETT
OREGON UST DECOMMISSIONING #26421
EXPIRATION: 11/14/2009

DATE

ALPHA ENVIRONMENTAL SERVICES, INC.
DEQ LICENSED SERVICE PROVIDER #17703
EXPIRATION: 7/14/09

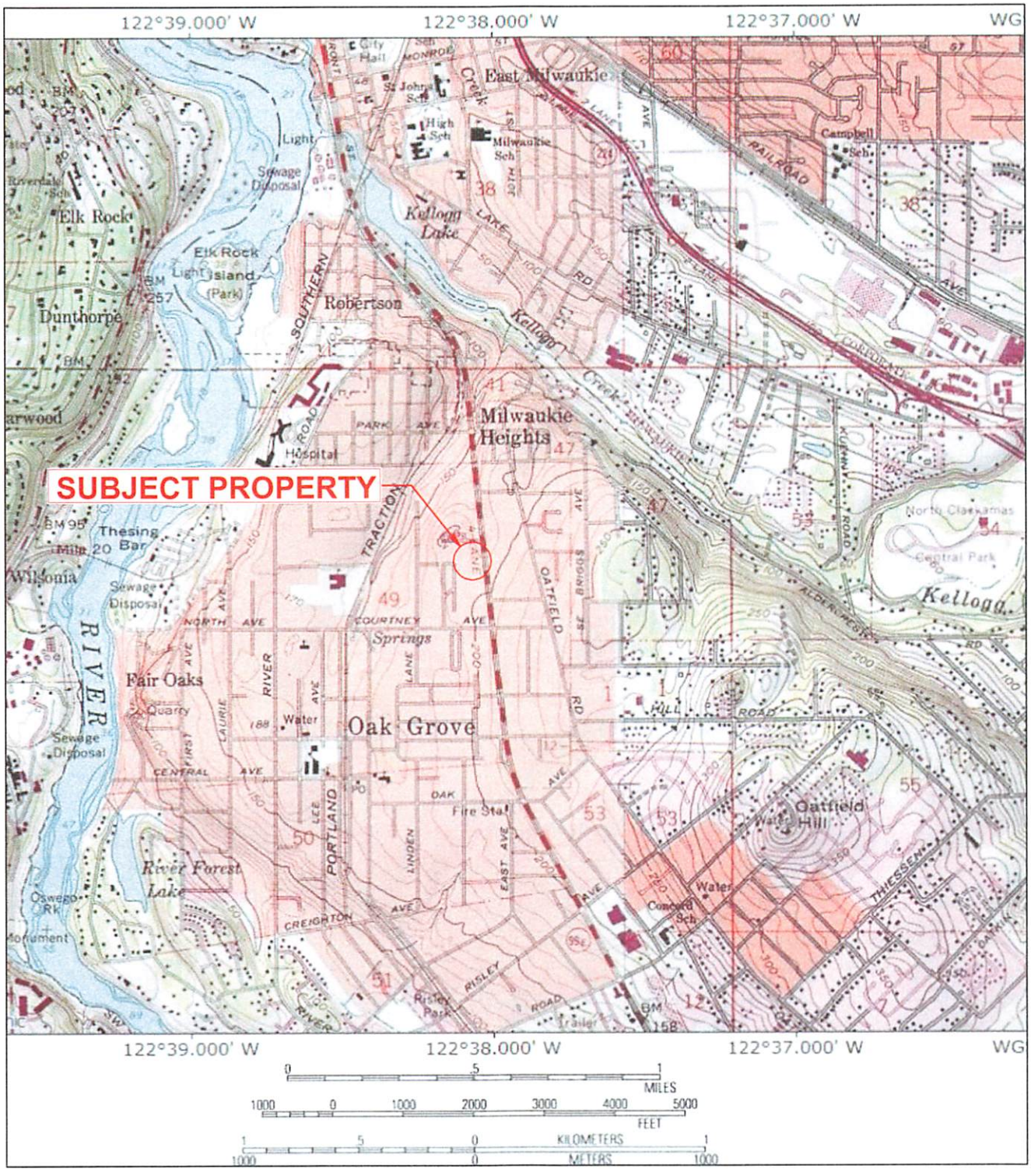
Signed

Erik Anderson, R.G.

Affiliation: Alpha Environmental Services, Inc.

FIGURES

SITE VICINITY MAP
SITE PLAN
SAMPLING PLAN

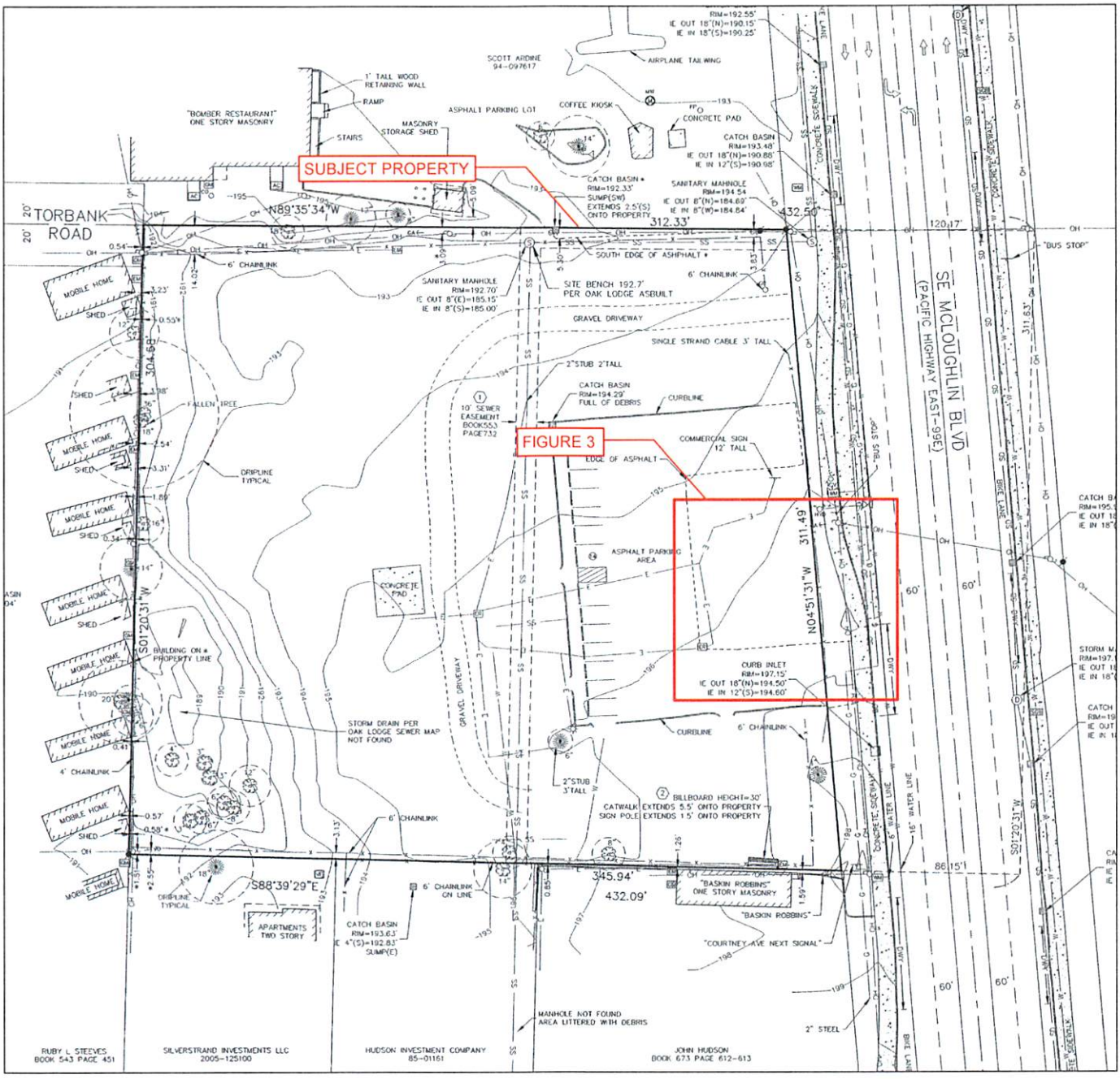


Alpha Environmental Services, Inc.

SITE LOCATION MAP

13625 SE McLoughlin Blvd.
Milwaukie, Oregon

SIZE		PROJECT NO.	REV
A			
		September 2009	FIGURE 1

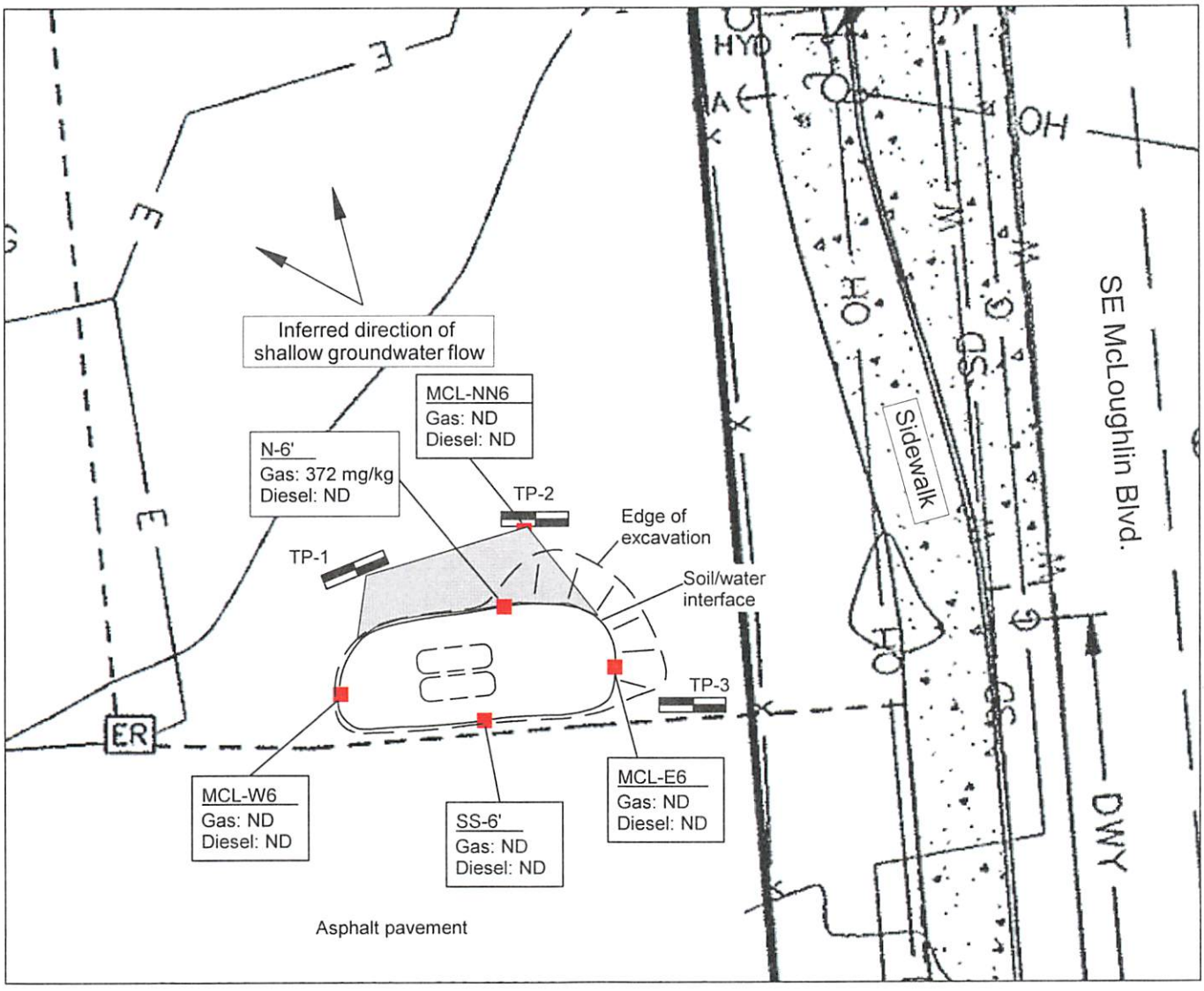


SITE AND VICINITY PLAN

13625 SE McLoughlin Blvd.
Milwaukie, Oregon

Alpha environmental services, inc

SIZE		PROJECT NO. 09-0706	REV
A			
		September 2009	FIGURE 2



LEGEND

- Soil sample
- Test pit
- Maximum extent of soils with detectable gasoline
- Former underground storage tanks

ND: None detected

0 8 16 32 48

Scale: 1"=16'

Alpha Environmental Services, Inc.

SITE DETAIL PLAN		
13625 SE McLoughlin Blvd. Milwaukie, Oregon		
SIZE A	PROJECT NO. 09-0706	REV
	September 2009	FIGURE 3

APPENDIX A

LABORATORY REPORTS

SOIL SAMPLES

LABORATORY REPORT

Alpha Environmental
9525 - A SW Beaverton- Hillsdale Hwy
Beaverton, OR 97005

PROJECT NAME:	13625 SE McLoughlin Blvd	**REPORT NUMBER:**	74985
SITE LOCATION:		**REPORT DATE:**	9/18/09
PROJECT NUMBER:			

EPA 8021B
Analytes: BTEX for soil (Benzene, Toluene, Ethylbenzene, Xylenes)

Field ID	LAB ID	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylenes (mg/Kg)	Surrogate Recovery (%)
MCL-E6-9/17	A3772	**ND**	**ND**	**ND**	**ND**	**90%**
MCL-W6-9/17	A3773	**ND**	**ND**	**ND**	**ND**	**90%**
MCL-NN6-9/17	A3775	**ND**	**ND**	**ND**	**ND**	**84%**
Reporting Limit:	--	0.03	0.10	0.20	0.40	

Surrogate is Bromofluorobenzene, Internal Standard is α,α,α-Trifluorotoluene

LAB ID	Analytical Batch	Preparation Batch	Sampling Date
A3772	HPID090917-1	B090917-1	9/17/09
A3773	HPID090917-1	B090917-1	9/17/09
A3775	HPID090917-1	B090917-1	9/17/09

Client Initials: C.Y. Chan

[illegible] Ave., Portland, OR 97214 Phone (503) 231-9320 FAX (503) 231-9344

Wy'East Environmental Sciences, Inc.

Quality Control Report for BTEX Soil By 8021B

HPID090917-1	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)
CCV	**1.90**	**1.89**	**1.86**	**5.50**
Theoretical Value	2.00	2.00	2.00	6.00
Percent Difference	-5%	-5%	-7%	-8%
Acceptable Range	± 20%	± 20%	± 20%	± 20%
CONTROL	**PASS**	**PASS**	**PASS**	**PASS**

B090917-1	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	BFB (Surrogate)
Blank	**0.00**	**0.00**	**0.00**	**0.00**	**98%**
Acceptable Range	<0.03	<0.1	<0.2	<0.4	50%-150%
CONTROL	**PASS**	**PASS**	**PASS**	**PASS**	**PASS**
Run with AB: HPID090917-1					
LCS	**0.53**	**0.55**	**0.52**	**1.53**	**96%**
Theoretical Value	0.50	0.50	0.50	1.50	
Percent Recovery	105%	110%	104%	102%	
Acceptable Range	70%-130%	70%-130%	70%-130%	70%-130%	50%-150%
CONTROL	**PASS**	**PASS**	**PASS**	**PASS**	**PASS**
Run with AB: HPID090917-1					

2415 SE 11th Ave., Portland, OR 97214 Phone (503) 231-9320 FAX (503) 231-9344

LABORATORY REPORT

Alpha Environmental
9525 - A SW Beaverton- Hillsdale Hwy
Beaverton, OR 97005

SITE NAME: 13625 SE McLoughlin Blvd
SITE LOCATION:
PROJECT NUMBER:

REPORT NUMBER: 74985
REPORT DATE: 9/18/09

NW-TPHDx
Analytes: Total Diesel and Heavy Oil range petroleum in Soil

Field ID	LAB ID	Diesel (mg/Kg)	Heavy Oil (mg/Kg)	Surrogate Recovery (%)	AB	PB	Sampling Date
MCL-E6-9/17	A3772	**ND**	**ND**	80%	68FFL90917-1	D090917-1	9/17/2009
MCL-W6-9/17	A3773	**ND**	**ND**	79%	68FFL90917-1	D090917-1	9/17/2009
MCL-NN6-9/17	A3775	**ND**	**ND**	80%	68FFL90917-1	D090917-1	9/17/2009
Reporting Limit:	--	**50**	**100**				

Surrogate is 1-ChloroOctadecane

Results relate only to samples

Chemist Initials: C.Y Chan

Quality Control for NWTPH-Dx

Batch Date: 9/17/2009

QC Blank Sample Number	PB	Diesel Result (mg/Kg)	Oil Result (mg/Kg)	Blank Control Limits Diesel (mg/Kg)	Blank Control Limits Oil (mg/Kg)	Surrogate Recovery	Blank Surrogate Control Limit (%)
SBLANK1	D090917-1	0	0	25	100	92%	50%-150%
SBLANK2	D090917-2	0	0	25	100	95%	50%-150%
SBLNK3	D090917-3	0	0	25	100	96%	50%-150%

QC LRB Sample Number	AB	Diesel Result (mg/Kg)	Oil Result (mg/Kg)	LRB Control Limit Diesel (mg/Kg)	LRB Control Limit Oil (mg/Kg)	Surrogate Recovery	LRB Surrogate Control Limit (%)

CCV Diesel Sample Number	Analytical Batch	Measured Concentration in extract (ug/mL)	Theoretical Concentration (ug/mL)	% Difference	CCV Control Limit (%)
DXCCV1	68FFL90917-1	454.31	500	-9.14%	±20%
DXCCV2	68FFL90917-1	510.29	500	2.06%	±20%

CCV Oil Sample Number	Analytical Batch	Measured Concentration in Extract (ug/mL)	Theoretical Concentration in Extract (ug/mL)	% Difference	CCV Control Limit (%)
OILCCV1	68FFL90917-1	327.21	400	-18.20%	±20%
OILCCV2	68FFL90917-1	347.67	400	-13.08%	±20%

QC LCS Sample Number	PB	Diesel Result in Extract (ug/mL)	Theoretical Spike Concentration (ug/mL)	LCS Spike Recovery (%)	LCS Spike Control Limits (ug/mL)	Surrogate Recovery	LCS Surrogate Control Limits (%)
SLCS1	D090917-1	334.40	357.14	94%	±30%	124%	50%-150%
SLCS2	D090917-2	339.31	357.14	95%	±30%	111%	50%-150%
SLCS3	D090917-3	336.69	357.14	94%	±30%	111%	50%-150%

LABORATORY REPORT

Alpha Environmental
9525 - A SW Beaverton- Hillsdale Hwy
Beaverton, OR 97005

PROJECT NAME: 13625 SE McLoughlin Blvd
SITE LOCATION:
PROJECT NUMBER:

REPORT NUMBER: 74985
REPORT DATE: 9/18/2009
PAGE: 1 of 1

NW-TPHGx
Analytes: Gasoline in Soil

Field ID	LAB ID	Gasoline (mg/Kg)	Surrogate Recovery (%)	Analytical Batch	Sampling Date	Preparation Batch
MCL-E6-9/17	A3772	**ND**	**117%**	58PI090917-1	9/17/2009	G090917-1
MCL-W6-9/17	A3773	**ND**	**121%**	58PI090917-1	9/17/2009	G090917-1
MCL-NN6-9/17	A3775	**ND**	**120%**	58PI090917-1	9/17/2009	G090917-1
Reporting Limit:	--	**20**				

Surrogate is p-Bromofluorobenzene
ND = Not Detected (Below Reporting or Detection Limit)

This is a NELAP accredited method
Results relate only to samples

Chemist Initials C.Y Chan

Quality Control for Gasoline in Soil by NWTPH-Gx

Batch Date: 9/17/2009

Calibration Verification	*Analytical Batch*	*Result (ug/L)*	*Theoretical Result (ug/L)*	*Percent Difference*	*Acceptable Range*
CCVLCS	58PI090917-1	1952	2000	2%	±20%
CCV2	58PI090917-1	2119	2000	-6%	±20%

Matrix Blank	*Preparation Batch*	*Result (mg/Kg)*	*Acceptable Range*	*Surrogate Recovery*	*Surrogate Acceptable Range*
SBLANK1	G090917-1	6.15	<20	114%	50%-150%

Matrix Spike	*Preparation Batch*	*Result (mg/Kg)*	*Theoretical Result (ug/L)*	*Percent Recovery*	*Acceptable Range*
SLCS1	G090917-1	93	100	93%	70%-130%

PK East

Environmental Sciences, Inc.
2415 SE 11th Ave. Portland Oregon 97214

CHAIN OF CUSTODY

Report Number 74985

Phone(503) 231-9320 FAX(503) 231-9344

Company: Alpha Environmental	Phone: (503)292-5346		
Project #:	FAX:		
Project Name: 13625 SE McLoughlin Blvd.	Purchase Order #:		
Site:	Report Attention: Phil Brewer	Collected By: E. Anderson	
Samples: Temperature 20.5 On Ice? Yes / No	Turnaround Time: ☒ Regular ☐ 3-5 Business Days		

LAB ID	Field ID	Sampling Date	Sampling Time	Matrix	Container	Volume	NW-TPH-Dx	NW-TPH-GX	NW-TPH-HCID	EPA 8021B (BTEX)	EPA 8270 SIM (PAH)	EPA 8260B	Comments / Analysis Requested
A3772	MCL-E6-9/17	9/17/06	10:22	SOIL			X	X		X			
A3773	MCL-W6-9/17	"	10:57	"			X	X		X			
A3774	MCL-S6-9/17	"	10:45	"									HOLD
A3775	MCL-NW6-9/17	"	11:10	"			X	X		X			

Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
[signature]	Alpha/AGI	9/17/09	11:48	[signature]		9/17/09	11:54
Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time

2415 SE 11th Ave., Portland, OR 97214 Phone (503) 231-9320 FAX (503) 231-9344

LABORATORY REPORT

Alpha Environmental
9525 - A SW Beaverton- Hillsdale Hwy
Beaverton, OR 97005

PROJECT NAME:	13625 SE McLoughlin	**REPORT NUMBER:**	74835
SITE LOCATION:		**REPORT DATE:**	9/16/09
PROJECT NUMBER:	706	**RUN DATE:**	14Sep20098:12pm
EXTRACTION DATE:	9-11-09	**PREP. BATCH:**	V090911
FIELD ID:	N-6'	**LAB ID:**	A2881

EPA 8260C
Analyte: Volatile Organics(RBDM) in Soil

Compound	Sample (mg/Kg)	Quant. Limit (mg/Kg)	Qualifier	Dilution Factor
benzene	ND	0.02		1
1,2-dibromoethane	ND	0.006		1
1,2-dichloroethane	ND	0.006		1
ethylbenzene	ND	0.06		1
isopropylbenzene	ND	0.1		1
methyl-tert-butylether(MTBE)	ND	0.1		1
naphthalene	0.06	0.01		1
n-propyl-benzene	ND	0.1		1
toluene	ND	0.06		1
1,2,4-trimethlybenzene	ND	0.1		1
1,3,5-trimethylbenzene	ND	0.1		1
xylene(m&p)	ND	0.1		1
o-xylene	ND	0.1		1
total xylenes	ND	0.1		1

Surrogate:	1,2-dichloroethane-d4	toluene-d8	p-bromofluorobenzene
Percent Recovery	70	94	114
Analyst			

LABORATORY REPORT

Alpha Environmental
9525 - A SW Beaverton- Hillsdale Hwy
Beaverton, OR 97005

PROJECT NAME: 13625 SE McLoughlin
SITE LOCATION:
PROJECT NUMBER: 706

REPORT NUMBER: 74835
REPORT DATE: 9/9/09

EPA 8021B
Analytes: BTEX for soil (Benzene, Toluene, Ethylbenzene, Xylenes)

Field ID	LAB ID	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylenes (mg/Kg)	Surrogate Recovery (%)
SS-6'	A2880	**ND**	**ND**	**ND**	**ND**	**83%**
N-6'	A2881	**0.15**	**1.14†**	**0.34**	**2.04**	**102%**
Reporting Limit: --		**0.03**	**0.10**	**0.2**	**0.4**	

Surrogate is Bromofluorobenzene, Internal Standard is α,α,α-Trifluorotoluene

LAB ID	Analytical Batch	Preparation Batch	Sampling Date
A2880	HPID090907-1	B090907-1	9/3/09
A2881	HPID090907-1	B090907-1	9/3/09

Chemist Initials: CY Chan

Wy'East Environmental Sciences, Inc.

Quality Control Report for BTEX Soil By 8021B

HPID090907-1	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)
CCV	**1.88**	**1.93**	**1.85**	**5.47**
Theoretical Value	2.00	2.00	2.00	6.00
Percent Difference	-6%	-4%	-7%	-9%
Acceptable Range	± 20%	± 20%	± 20%	± 20%
CONTROL	**PASS**	**PASS**	**PASS**	**PASS**

B090907-1	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	BFB (Surrogate)
Blank	**0.00**	**0.00**	**0.04**	**0.00**	**102%**
Acceptable Range	<0.03	<0.1	<0.2	<0.4	50%-150%
CONTROL	**PASS**	**PASS**	**PASS**	**PASS**	**PASS**

Run with AB: HPID090907-1

LCS	**0.51**	**0.58**	**0.58**	**1.72**	**104%**
Theoretical Value	0.54	0.54	0.54	1.61	
Percent Recovery	94%	108%	108%	106%	
Acceptable Range	70%-130%	70%-130%	70%-130%	70%-130%	50%-150%
CONTROL	**PASS**	**PASS**	**PASS**	**PASS**	**PASS**

Run with AB: HPID090907-1

2415 SE 11th Ave., Portland, OR 97214 Phone (503) 231-9320 FAX (503) 231-9344

REVISED LABORATORY REPORT

Alpha Environmental
9525 - A SW Beaverton- Hillsdale Hwy
Beaverton, OR 97005

SITE NAME: 13625 SE McLoughlin
SITE LOCATION:
PROJECT NUMBER: 0706

REPORT NUMBER: 74835R1
REPORT DATE: 9/9/09

NW-TPHDx
Analytes: Total Diesel and Heavy Oil range petroleum in Soil

Field ID	LAB ID	Diesel (mg/Kg)	Heavy Oil (mg/Kg)	Surrogate Recovery (%)	AB	PB	Sampling Date
SS-6'	A2880	ND	ND	83%	68FFL90908-1	D090908-1	9/3/2009
N-6'	A2881	ND	211	90%	68FFL90909-1	D090909-1	9/3/2009
Reporting Limit:	--	50	100				

Surrogate is 1-ChloroOctadecane

Results relate only to samples

Chemist Initials: C.Y Chan

Quality Control for NWTPH-Dx

Batch Date: 9/9/2009

QC Blank Sample Number	PB	Diesel Result (mg/Kg)	Oil Result (mg/Kg)	Blank Control Limits Diesel (mg/Kg)	Blank Control Limits Oil (mg/Kg)	Surrogate Recovery	Blank Surrogate Control Limit (%)
SBLANK1	D090909-1	0	0	25	100	86%	50%-150%
WBLANK	D090909-1	0	0	25	100	124%	50%-150%
SBLANK2	D090909-2	0	0	25	100	88%	50%-150%
SBLANK3	D090909-3	0	0	25	100	84%	50%-150%

QC LRB Sample Number	AB	Diesel Result (mg/Kg)	Oil Result (mg/Kg)	LRB Control Limit Diesel (mg/Kg)	LRB Control Limit Oil (mg/Kg)	Surrogate Recovery	LRB Surrogate Control Limit (%)

CCV Diesel Sample Number	Analytical Batch	Measured Concentration in extract (ug/mL)	Theoretical Concentration (ug/mL)	% Difference	CCV Control Limit (%)
DXCCV1	68FFL90909-1	503.49	500	0.70%	±20%
DXCCV2	68FFL90909-1	515.86	500	3.17%	±20%
DXCCV3	68FFL90909-2	459.94	500	-8.01%	±20%

CCV Oil Sample Number	Analytical Batch	Measured Concentration in Extract (ug/mL)	Theoretical Concentration in Extract (ug/mL)	% Difference	CCV Control Limit (%)
OILCCV1	68FFL90909-1	396.65	400	-0.84%	±20%
OILCCV2	68FFL90909-1	414.42	400	3.61%	±20%
OILCCV3	68FFL90909-2	380.80	400	-4.80%	±20%

QC LCS Sample Number	PB	Diesel Result in Extract (ug/mL)	Theoretical Spike Concentration (ug/mL)	LCS Spike Recovery (%)	LCS Spike Control Limits (ug/mL)	Surrogate Recovery	LCS Surrogate Control Limits (%)
SLCS1	D090909-1	362.32	357.14	101%	±30%	98%	50%-150%
WLCS	D090909-1	270.63	220.26	123%	±30%	146%	50%-150%
SLCS2	D090909-2	347.29	357.14	97%	±30%	114%	50%-150%
SLCS3	D090909-3	353.87	357.14	99%	±30%	107%	50%-150%

REVISED LABORATORY REPORT

Alpha Environmental
9525 - A SW Beaverton- Hillsdale Hwy
Beaverton, OR 97005

PROJECT NAME:	13625 SE McLoughlin	**REPORT NUMBER:**	74835R1
SITE LOCATION:		**REPORT DATE:**	9/10/2009
PROJECT NUMBER:	706	**PAGE:**	1 of 2

NW-TPHGx
Analytes: Gasoline in Soil

Field ID	LAB ID	Gasoline (mg/Kg)	Surrogate Recovery (%)	Analytical Batch	Sampling Date	Preparation Batch
SS-6'	A2880	**ND**	**107%**	58PI090907-1	9/3/2009	G090907-1
N-6'	A2881	**372**	**146%**	58PI090909-1	9/3/2009	G090909-1
Reporting Limit:	--	20				

Surrogate is p-Bromofluorobenzene
ND = Not Detected (Below Reporting or Detection Limit)
****Surrogate Recovery Below Acceptance Range**

This is a NELAP accredited method
Results relate only to samples

Chemist Initials C.C.Y Chan

Quality Control for Gasoline in Soil by NWTPH-Gx

74835R1
Batch Date: 9/7/2009 9/10/2009
PAGE: 2 of 2

Calibration Verification	Analytical Batch	Result (ug/L)	Theoretical Result (ug/L)	Percent Difference	Acceptable Range
CCVLCS	58PI090907-1	2069	2000	-3%	±20%
CCV2	58PI090907-1	2038	2000	-2%	±20%

Matrix Blank	Preparation Batch	Result (mg/Kg)	Acceptable Range	Surrogate Recovery	Surrogate Acceptable Range
SBLANK	G090907-1	5.29	<20	108%	50%-150%
Reporting Limit:	--	20			
Surrogate is p-Bromofluor	G090907-1	91	100	91%	70%-130%

ND = Not Detected (Below Reporting or Detection Limit)

Environmental Sciences, Inc.
2415 SE 11th Ave. Portland Oregon 97214
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CHAIN OF CUSTODY

Report Number #74835

Company: Alpha Environmental		Phone:											Comments
Project #: 0700		FAX:											
Project Name:		Purchase Order #:											
Site: 13625 SE McLoughlin		Report Attention: Ph: 1		Collected By: Erick									
Samples: Temperature 20.5 On Ice? Yes / No		Turnaround Time: ☑ Regular ☐ 3-5 Business Days											
LAB ID	Field ID	Sampling Date	Sampling Time	Matrix	Container	Volume	NW-TPH-Dx	NW-TPH-GX	NW-TPH-HCID	EPA 8021B (BTEX)	EPA 8270 SIM (PAH)	EPA 8260B	Analysis Requested
A2880	S5-6'	09/03/09		soil	2	4oz	✓	✓		✓			
A2881	N-6'	9/03/09		soil	2	4oz				✓			Hold

Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
[signature]	Alpha			[signature]		9/8/09	11:05a
Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time

Wy'East Environmental Sciences, Inc.

Laboratory Report

Alpha Environmental
9525 - A SW Beaverton- Hillsdale Hwy
Beaverton, OR 97005

Report Number: 74474
Report Date: 8/14/09

Project Name:
Project Location:
Project Number: 13625 SE McLoughlin Blvd
Date Sampled: 8/13/09
Date received: 8/13/09

NWTPH-HCID

Analyte: Petroleum Hydrocarbon Identification in soil

Field ID	Lab ID	Gasoline	Diesel	Oil	% Surr Recovery	QC
TP-1,S-1	A0756	Detected	ND	ND	87%	H090813-1
TP-1,S-2	A0757	Detected	ND	ND	87%	H090813-1
TP-2,S-1	A0758	ND	ND	ND	80%	H090813-1
TP-2,S-2	A0759	ND	ND	ND	86%	H090813-1
TP-3,S-1	A0760	ND	ND	ND	81%	H090813-1
TP-3,S-2	A0761	ND	ND	ND	83%	H090813-1
TP-4,S-1	A0762	ND	ND	Detected	96%	H090813-1
TP-4,S-2	A0763	ND	ND	ND	87%	H090813-1
TP-5,S-1	A0764	ND	ND	ND	90%	H090813-1
TP-6,S-1	A0765	ND	ND	Detected	98%	H090813-1
TP-7, S-1	A0766	ND	ND	Detected	100%	H090813-1
TP-8, S-1	A0767	ND	ND	ND	160%	H090813-1
TP-10, S-1	A0768	ND	ND	Detected	99%	H090813-1
Reporting Limit (mg/Kg)	–	20	50	100	–	

Results relate only to samples

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CHAIN OF CUSTODY

Report Number 74474

Company: Alpha Environmental	Phone: 503.292.5346		
Project #:	FAX:		
Project Name:	Purchase Order #:		
Site: 13625 SE McLoughlin Blvd	Report Attention: Phil	Collected By: Carrie Beveridge	
Samples: Temperature 9°C On Ice? (Yes) No	Turnaround Time: [X] Regular [ ] 3-5 Business Days		

LAB ID	Field ID	Sampling Date	Sampling Time	Matrix	Container	Volume	NW-TPH-Dx	NW-TPH-GX	NW-TPH-HCID	EPA 8021B (BTEX)	EPA 8270 SIM (PAH)	EPA 8260B	Comments / Analysis Requested
A756	TP-1, S-1	8/13	8:00	S	40z → Glass				X				
A757	TP-1, S-2	8/13	8:15	S					X				
A758	TP-2, S-1	8/13	9:15	S					X				
A759	TP-2, S-2	8/13	9:30	S					X				
A760	TP-3, S-1	8/13	9:45	S					X				
A761	TP-3, S-2	8/13	10:00	S					X				
A762	TP-4, S-1	8/13	10:30	S					X				
A763	TP-4, S-2	8/13	10:40	S					X				
A764	TP-5, S-1	8/13	11:00	S					X				
A765	TP-6, S-1	8/13	11:15	S					X				
A766	TP-7, S-1	8/13	12:50	S					X				
A767	TP-8, S-1	8/13	13:20	S					X				
A768	TP-10, S-1	8/13	13:50	S					X				

Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
Carrie Beveridge	Alpha	8/13/09	4:20 PM	Ayc	WS East	8-13-09	4:20pm
Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time

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LABORATORY REPORT

Alpha Environmental
9525 - A SW Beaverton- Hillsdale Hwy
Beaverton, OR 97005

PROJECT NAME:
SITE LOCATION: 13625 SE McLoughlin Blvd
PROJECT NUMBER:

REPORT NUMBER: 74474
REPORT DATE: 8/16/2009
PAGE: 1 of 1

NW-TPHGx
Analytes: Gasoline in Soil

Field ID	LAB ID	Gasoline (mg/Kg)	Surrogate Recovery (%)	Analytical Batch	Sampling Date	Preparation Batch
TP-1,S-1	A0756	**245**	**115%**	58PI090814-1	8/13/2009	G090814-1
TP-1,S-2	A0757	**688**	**140%**	58PI090814-1	8/13/2009	G090814-1
Reporting Limit:	--	**20**				

Surrogate is p-Bromofluorobenzene
ND = Not Detected (Below Reporting or Detection Limit)

This is a NELAP accredited method
Results relate only to samples

Chemist Initials C.Y Chan

Quality Control for Gasoline in Soil by NWTPH-Gx

Batch Date: 8/14/2009

Calibration Verification	*Analytical Batch*	*Result (ug/L)*	*Theoretical Result (ug/L)*	*Percent Difference*	*Acceptable Range*
CCV	58PI090814-1	1985	2000	1%	±20%
CCV2	58PI090814-1	1870	2000	6%	±20%

Matrix Blank	*Preparation Batch*	*Result (mg/Kg)*	*Acceptable Range*	*Surrogate Recovery*	*Surrogate Acceptable Range*
SBLK8-7	G090814-1	6.88	<20	101%	50%-150%

Matrix Spike	*Preparation Batch*	*Result (mg/Kg)*	*Theoretical Result (ug/L)*	*Percent Recovery*	*Acceptable Range*
SLCS8-7	G090814-1	98	100	98%	70%-130%

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LABORATORY REPORT

Alpha Environmental
9525 - A SW Beaverton- Hillsdale Hwy
Beaverton, OR 97005

SITE NAME:
SITE LOCATION: 13625 SE McLoughlin Blvd
PROJECT NUMBER:

REPORT NUMBER: 74474
REPORT DATE: 8/17/09

NW-TPHDx
Analytes: Total Diesel and Heavy Oil range petroleum in Soil

Field ID	LAB ID	Diesel (mg/Kg)	Heavy Oil (mg/Kg)	Surrogate Recovery (%)	AB	PB	Sampling Date
TP-4,S-1	A0762	**ND**	**199**	101%	68FFL90814-1	D090814-1	8/13/2009
TP-6,S-1	A0765	**ND**	**ND**	93%	68FFL90814-1	D090814-1	8/13/2009
TP-7, S-1	A0766	**ND**	**125**	106%	68FFL90814-1	D090814-1	8/13/2009
TP-10, S-1	A0768	**ND**	**177**	101%	68FFL90814-1	D090814-1	8/13/2009
Reporting Limit:	—	**25**	**100**				

Surrogate is 1-ChloroOctadecane

Results relate only to samples

Chemist Initials: C.Y Chan

Quality Control for NWTPH-Dx

Batch Date: 8/14/2009

QC Blank Sample Number	PB	Diesel Result (mg/Kg)	Oil Result (mg/Kg)	Blank Control Limits Diesel (mg/Kg)	Blank Control Limits Oil (mg/Kg)	Surrogate Recovery	Blank Surrogate Control Limit (%)
SBLANK1	D090814-1	0	0	25	100	94%	50%-150%
WBLANK	D090814-1	0	0	25	100	112%	50%-150%
SBLANK2	D090814-2	0	0	25	100	92%	50%-150%
SBLANK3	D090814-3	0	0	25	100	94%	50%-150%

QC LRB Sample Number	AB	Diesel Result (mg/Kg)	Oil Result (mg/Kg)	LRB Control Limit Diesel (mg/Kg)	LRB Control Limit Oil (mg/Kg)	Surrogate Recovery	LRB Surrogate Control Limit (%)

CCV Diesel Sample Number	Analytical Batch	Measured Concentration in extract (ug/mL)	Theoretical Concentration (ug/mL)	% Difference	CCV Control Limit (%)
DXCCV1	68FFL90814-1	505.28	500	1.06%	±20%
DXCCV2	68FFL90814-1	496.10	500	-0.78%	±20%

CCV Oil Sample Number	Analytical Batch	Measured Concentration in Extract (ug/mL)	Theoretical Concentration in Extract (ug/mL)	% Difference	CCV Control Limit (%)
OILCCV1	68FFL90814-1	352.55	400	-11.86%	±20%
OILCCV2	68FFL90814-1	328.80	400	-17.80%	±20%

QC LCS Sample Number	PB	Diesel Result in Extract (ug/mL)	Theoretical Spike Concentration (ug/mL)	LCS Spike Recovery (%)	LCS Spike Control Limits (ug/mL)	Surrogate Recovery	LCS Surrogate Control Limits (%)
SLCS1	D090814-1	370.10	357.14	104%	±30%	106%	50%-150%
WLCS	D090814-1	329.86	335.86	98%	±30%	113%	50%-150%
SLCS2	D090814-2	393.71	357.14	110%	±30%	128%	50%-150%
SLCS3	D090814-3	387.92	357.14	109%	±30%	125%	50%-150%

WATER SAMPLES

LABORATORY REPORT

Alpha Environmental
9525 - A SW Beaverton- Hillsdale Hwy
Beaverton, OR 97005

PROJECT NAME:
SITE LOCATION: 13625 SE Mcloughlin
PROJECT NUMBER:

REPORT NUMBER: 74758
REPORT DATE: 9/3/2009
PAGE: 1 of 1

NW-TPHGx
Analytes: Gasoline in Water

Field ID	LAB ID	Gasoline (µg/L)	Surrogate Recovery (%)	Analytical Batch	Sampling Date
MCL-9/1-W	A2408	**569**	**114%**	58PI090902-1	9/1/2009
Reporting Limit:	--	**100**			

Surrogate is p-Bromofluorobenzene

Chemist Initials C.Y Chan

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Quality Control for Gasoline in Water by NWTPH-Gx

Batch Date: 9/2/2009

Calibration Verification	Analytical Batch	Result (µg/L)	Theoretical Result (µg/L)	Percent Difference	Acceptable Range
CCV1	58PI090902-1	1,007	1,000	-1%	±20%
CCV2	58PI090902-1	1,042	1,000	-4%	±20%

Matrix Blank	Analytical Batch	Result (µg/L)	Theoretical Result (µg/L)	Surrogate Recovery	Surrogate Acceptable Range
WBLANK	58PI090902-1	49	<200	122%	50%-150%

Matrix Spike	Analytical Batch	Result (µg/L)	Theoretical Result (µg/L)	Percent Recovery	Acceptable Range
CCV1	58PI090902-1	1,007	1,000	101%	70%-130%

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LABORATORY REPORT

Alpha Environmental
9525 - A SW Beaverton- Hillsdale Hwy
Beaverton, OR 97005

PROJECT NAME:
SITE LOCATION: 13625 SE Mcloughlin
PROJECT NUMBER:
LAB ID: A2408
FIELD ID: MCL-9/1-W

REPORT NUMBER: 74758
REPORT DATE: 9/2/09
RUN DATE: 2Sep20092:56am
PREP. BATCH V090901
ANAL.BATCH: 8260090901-1
ANALYST:

EPA 8260C
Analyte: Volatile Organics (RBDM) in Water

Compound	Sample (ug/L)	Quant. Limit (ug/L)	Qualifier	Dilution Factor
benzene	ND	0.3		1
1,2-dibromoethane	ND	0.1		1
1,2-dichloroethane	ND	0.1		1
ethylbenzene	ND	1		1
isopropylbenzene	ND	2		1
methyl-tert-butylether(MTBE)	ND	2		1
naphthalene	0.6	0.25		1
n-propyl-benzene	6	2		1
toluene	ND	1		1
1,2,4-trimethlybenzene	ND	2		1
1,3,5-trimethylbenzene	ND	2		1
xylene(m&p)	ND	2		1
o-xylene	ND	2		1
total xylenes	ND	2		1

Surrogate:	1,2-dichloroethane-d4	toluene-d8	p-bromofluorobenzene
Percent Recovery	80	99	94

Analyst

Environmental Sciences, Inc.
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Phone(503) 231-9320 FAX(503) 231-9344

CHAIN OF CUSTODY

Report Number 74758

Company	Phone												
Alpha													
Project #	FAX												
Project Name	Purchase Order #												
Site: 13625 SE McLoughlin	Report Attention: P. Brewer	Collected By: E. Andersen											
Samples: Temperature____ On Ice? Yes / No	Turnaround Time: ☒ Regular ☐ 3-5 Business Days												

LAB ID	Field ID	Sampling Date	Sampling Time	Matrix	Container	Volume	NW-TPH-Dx	NW-TPH-GX	NW-TPH-HCID	EPA 8021B (BTEX)	EPA 8270 SIM (PAH)	EPA 8260B-RSDM	Comments / Analysis Requested
A74408	MCL-9/1-W	9-1-09	14:37	WATER	40ml VOA			X				X	

Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
[signature]	Alpha			[signature]	WyEast	8/1/09	5:30pm

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LABORATORY REPORT

Alpha Environmental
9525 - A SW Beaverton- Hillsdale Hwy
Beaverton, OR 97005

SITE NAME: 13625 SE McLoughlin Blvd
SITE LOCATION:
PROJECT NUMBER:

REPORT NUMBER: 74910
REPORT DATE: 9/13/09

NW-TPHDx
Analytes: Total Diesel and Heavy Oil range petroleum in water

Field ID	LAB ID	Diesel (mg/L)	Heavy Oil (mg/L)	Surrogate Recovery (%)	AB	PB	Sampling Date
MCL-PITW-9/10	A3350	ND	ND	119%	68FFL90911-2	D090911-1	9/10/2009
Reporting Limit:	—	0.08	0.5				

Surrogate is 1-ChloroOctadecane

Results relate only to samples

Chemist Initials: C.Y Chan

Quality Control for NWTPH-Dx

Batch Date: 9/11/2009

QC Blank Sample Number	PB	Diesel Result (mg/Kg)	Oil Result (mg/Kg)	Blank Control Limits Diesel (mg/Kg)	Blank Control Limits Oil (mg/Kg)	Surrogate Recovery	Blank Surrogate Control Limit (%)
WBLANK	D090911-1	0	0	25	100	104%	50%-150%
SBLANK	D090911-1	0	0	25	100	89%	50%-150%
SBLANK2	D090911-2	0	0	25	100	76%	50%-150%
SBLANK3	D090911-3	0	0	25	100	97%	50%-150%

QC LRB Sample Number	AB	Diesel Result (mg/Kg)	Oil Result (mg/Kg)	LRB Control Limit Diesel (mg/Kg)	LRB Control Limit Oil (mg/Kg)	Surrogate Recovery	LRB Surrogate Control Limit (%)

CCV Diesel Sample Number	Analytical Batch	Measured Concentration in extract (ug/mL)	Theoretical Concentration (ug/mL)	% Difference	CCV Control Limit (%)
DXCCV1	68FFL90911-1	479.38	500	-4.12%	±20%
DXCCV2	68FFL90911-1	479.45	500	-4.11%	±20%
DXCCV3	68FFL90911-2	449.97	500	-10.01%	±20%

CCV Oil Sample Number	Analytical Batch	Measured Concentration in Extract (ug/mL)	Theoretical Concentration in Extract (ug/mL)	% Difference	CCV Control Limit (%)
OILCCV1	68FFL90911-1	395.08	400	-1.23%	±20%
OILCCV2	68FFL90911-1	329.78	400	-17.55%	±20%
OILCCV3	68FFL90911-2	323.96	400	-19.01%	±20%

QC LCS Sample Number	PB	Diesel Result in Extract (ug/mL)	Theoretical Spike Concentration (ug/mL)	LCS Spike Recovery (%)	LCS Spike Control Limits (ug/mL)	Surrogate Recovery	LCS Surrogate Control Limits (%)
WLCS	D090911-1	322.14	413.04	78%	±30%	108%	50%-150%
SLCS	D090911-1	343.37	357.14	96%	±30%	100%	50%-150%
SLCS2	D090911-2	328.55	357.14	92%	±30%	101%	50%-150%
SLCS3	D090911-3	335.97	357.14	94%	±30%	117%	50%-150%

Environmental Sciences, Inc.
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CHAIN OF CUSTODY

Report Number 74910

Company: Hahn Environmental		Phone											Comments
Project #		FAX											
Project Name: 13625 SE McLoughlin Blvd.		Purchase Order #											
Site		Report Attention: P. Brewer		Collected By: E. Anderson									
Samples: Temperature 15 On Ice? (Yes / No)		Turnaround Time: ☒ Regular ☐ 3-5 Business Days											
LAB ID	Field ID	Sampling Date	Sampling Time	Matrix	Container	Volume	NW-TPH-Dx	NW-TPH-GX	NW-TPH-HCID	EPA 8021B (BTEX)	EPA 8270 SIM (PAH)	EPA 8260B	Analysis Requested
A33350	MCL-PITW-9/10	9/10/09	1:07	Water	1 amber	x2	X						

Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
[signature]				[signature]	[signature]	9/11/09	3:04
Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time

2415 SE 11th Ave., Portland, OR 97214 Phone (503) 231-9320 FAX (503) 231-9344

LABORATORY REPORT

Alpha Environmental
9525 - A SW Beaverton- Hillsdale Hwy
Beaverton, OR 97005

PROJECT NAME:		**REPORT NUMBER:**	75051
SITE LOCATION:	13625 SE McLoughlin Blvd.	**REPORT DATE:**	9/23/2009
PROJECT NUMBER:	706	**PAGE:**	1 of 1

NW-TPHGx
Analytes: Gasoline in Water

Field ID	LAB ID	Gasoline (µg/L)	Surrogate Recovery (%)	Analytical Batch	Sampling Date
TPI	A4133	**ND**	**120%**	58PI090922-1	9/22/2009
TP3	A4134	**ND**	**118%**	58PI090922-1	9/22/2009
Reporting Limit:	--	**100**			

Surrogate is p-Bromofluorobenzene
Samples(s) came in warm: A4133, A4134

Chemist Initials C.Y Chan

2415 SE 11th Ave., Portland, OR 97214 Phone (503) 231-9320 FAX (503) 231-9344

Quality Control for Gasoline in Water by NWTPH-Gx

Batch Date: 9/22/2009

Calibration Verification	*Analytical Batch*	*Result (µg/L)*	*Theoretical Result (µg/L)*	*Percent Difference*	*Acceptable Range*
CCV-WLCS	58PI090922-1	1,023	1,000	-2%	±20%
CCV2	58PI090922-1	1,023	1,000	-2%	±20%

Matrix Blank	*Analytical Batch*	*Result (µg/L)*	*Theoretical Result (µg/L)*	*Surrogate Recovery*	*Surrogate Acceptable Range*
WBLANK	58PI090922-1	23	<200	126%	50%-150%

Matrix Spike	*Analytical Batch*	*Result (µg/L)*	*Theoretical Result (µg/L)*	*Percent Recovery*	*Acceptable Range*
CCV-WLCS	58PI090922-1	1,023	1,000	102%	70%-130%

2415 SE 11th Ave., Portland, OR 97214 Phone (503) 231-9320 FAX (503) 231-9344

LABORATORY REPORT

Alpha Environmental
9525 - A SW Beaverton- Hillsdale Hwy
Beaverton, OR 97005

SITE NAME:
SITE LOCATION: 13625 SE McLoughlin Blvd.
PROJECT NUMBER: 706

REPORT NUMBER: 75051
REPORT DATE: 9/23/09
PAGE: 1 of 1

EPA 8021B
Analytes: BTEX for water (Benzene, Toluene, Ethylbenzene, Xylenes)

Field ID	LAB ID	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	Surrogate Recovery (%)
TPI	A4133	**ND**	**ND**	**ND**	**ND**	**94%**
TP3	A4134	**ND**	**ND**	**ND**	**ND**	**91%**
Reporting Limit:	--	**0.3**	**1**	**1**	**3**	

Surrogate is p-Bromofluorobenzene, Internal Standard is α,α,α-Trifluorotoluene
Sample(s) A4133, A4134 came in warm (above 4C or not on ice.)

LAB ID	Analytical Batch	Sampling Date
A4133	HPID090922-1	**9/22/2009**
A4134	HPID090922-1	**9/22/2009**

Chemist Initials: C.Y Chan

Wy'East Environmental Sciences, Inc.

Quality Control Report for BTEX Water By 8021B

HPID090922-1	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	BFB (Surrogate)
CCV	**5**	**5**	**5**	**14**	
Theoretical Value	5	5	5	15	
Percent Difference	-7%	-8%	-8%	-9%	
Acceptable Range	± 20%	± 20%	± 20%	± 20%	
CONTROL	**PASS**	**PASS**	**PASS**	**PASS**	
Blank	**0.00**	**0.00**	**0.00**	**0.00**	**92%**
Acceptable Range	0.2	<1	<1	<3	50%-150%
CONTROL	**PASS**	**PASS**	**PASS**	**PASS**	**PASS**
LCS	**5**	**5**	**5**	**14**	**91%**
Theoretical Value	5	5	5	15	
Percent Recovery	93%	92%	92%	91%	
Acceptable Range	70%-130%	70%-130%	70%-130%	70%-130%	50%-150%
CONTROL	**PASS**	**PASS**	**PASS**	**PASS**	**PASS**

2415 SE 11th Ave., Portland, OR 97214 Phone (503) 231-9320 FAX (503) 231-9344

LABORATORY REPORT

Alpha Environmental
9525 - A SW Beaverton- Hillsdale Hwy
Beaverton, OR 97005

SITE NAME:
SITE LOCATION: 13625 SE McLoughlin Blvd.
PROJECT NUMBER: 706

REPORT NUMBER: 75051
REPORT DATE: 9/24/09

NW-TPHDx
Analytes: Total Diesel and Heavy Oil range petroleum in water

Field ID	LAB ID	Diesel (mg/L)	Heavy Oil (mg/L)	Surrogate Recovery (%)	AB	PB	Sampling Date
TPI	A4133	**ND**	**ND**	90%	68FFL90923-1	D090923-1	9/22/2009
TP3	A4134	**ND**	**ND**	94%	68FFL90923-1	D090923-1	9/22/2009
Reporting Limit:	--	**0.08**	**0.5**				

Surrogate is 1-ChloroOctadecane

Results relate only to samples

Chemist Initials: C.Y Chan

Quality Control for NWTPH-Dx

Batch Date: 9/23/2009

QC Blank Sample Number	PB	Diesel Result (mg/Kg)	Oil Result (mg/Kg)	Blank Control Limits Diesel (mg/Kg)	Blank Control Limits Oil (mg/Kg)	Surrogate Recovery	Blank Surrogate Control Limit (%)
SBLANK1	D090923-1	0	0	25	100	79%	50%-150%
WBLANK	D090923-1	0	0	25	100	83%	50%-150%
SBLANK2	D090923-2	0	0	25	100	92%	50%-150%

QC LRB Sample Number	AB	Diesel Result (mg/Kg)	Oil Result (mg/Kg)	LRB Control Limit Diesel (mg/Kg)	LRB Control Limit Oil (mg/Kg)	Surrogate Recovery	LRB Surrogate Control Limit (%)

CCV Diesel Sample Number	Analytical Batch	Measured Concentration in extract (ug/mL)	Theoretical Concentration (ug/mL)	% Difference	CCV Control Limit (%)
DXCCV1	68FFL90923-1	449.74	500	-10.05%	±20%
DXCCV2	68FFL90923-1	469.60	500	-6.08%	±20%

CCV Oil Sample Number	Analytical Batch	Measured Concentration in Extract (ug/mL)	Theoretical Concentration in Extract (ug/mL)	% Difference	CCV Control Limit (%)
OILCCV1	68FFL90923-1	382.26	400	-4.43%	±20%
OILCCV2	68FFL90923-1	411.00	400	2.75%	±20%

QC LCS Sample Number	PB	Diesel Result in Extract (ug/mL)	Theoretical Spike Concentration (ug/mL)	LCS Spike Recovery (%)	LCS Spike Control Limits (ug/mL)	Surrogate Recovery	LCS Surrogate Control Limits (%)
SLCS1	D090923-1	333.66	357.14	93%	±30%	87%	50%-150%
WLCS	D090923-1	278.96	339.29	82%	±30%	122%	50%-150%
SLCS2	D090923-2	342.91	357.14	96%	±30%	87%	50%-150%

LABORATORY REPORT

Alpha Environmental
9525 - A SW Beaverton- Hillsdale Hwy
Beaverton, OR 97005

PROJECT NAME:		**REPORT NUMBER:**	75051
SITE LOCATION:	13625 SE McLoughlin Blvd.	**REPORT DATE:**	9/25/09
PROJECT NUMBER:	706	**EXTRACTION DATI**	9/23/09
RUN DATE	9/24/09	**ACQ. ON:**	24Sep2009 3:5
FIELD ID:	TPI	**LAB ID:**	A4133W

Oregon PAH GC/MS-SIM
Analyte: Polynuclear Aromatic Hydrocarbon (PAH's) in Water

Compound	Sample (ug/L)	Quant. Limit (ug/L)	Qualifier	Dilution
Naphthalene	ND	0.1		1

Surrogate:	Percent Recovery
1-chloro-octadecane	142

Chemist Initials:

LABORATORY REPORT

Alpha Environmental
9525 - A SW Beaverton- Hillsdale Hwy
Beaverton, OR 97005

PROJECT NAME:		**REPORT NUMBER:**	75051
SITE LOCATION:	13625 SE McLoughlin Blvd.	**REPORT DATE:**	9/25/09
PROJECT NUMBER:	706	**EXTRACTION DATI**	9/23/09
RUN DATE	9/24/09	**ACQ. ON:**	25Sep2009 2:1
FIELD ID:	TP3	**LAB ID:**	A4134W

Oregon PAH GC/MS-SIM
Analyte: Polynuclear Aromatic Hydrocarbon (PAH's) in Water

Compound	Sample (ug/L)	Quant. Limit (ug/L)	Qualifier	Dilution
Naphthalene	ND	0.1		1

Surrogate:	Percent Recovery
1-chloro-octadecane	141

Chemist Initials:

Wy'East
Environmental Sciences, Inc.
2415 SE 11th Ave. Portland Oregon 97214

CHAIN OF CUSTODY

Report Number ~~75051~~ 75052

Phone(503) 231-9320 FAX(503) 231-9

Company: ALPHA ENVIRONMENTAL	Phone:
Project #: 0706	FAX:
Project Name:	Purchase Order #:
Site: 13625 SE McLOUGHLIN BLVD	Report Attention: PHIL — Collected By: ERIC
Samples: Temperature 20.5 On Ice? Yes / (No)	Turnaround Time: ~~Regular~~ ☐ 3-5 Business Days

Comments:

LAB ID	Field ID	Sampling Date	Sampling Time	Matrix	Container	Volume	NW-TPH-Dx	NW-TPH-GX	NW-TPH-HCID	EPA 8021B (BTEX)	EPA 8270 SIM (PAH)	EPA 8260B	Analysis Requested
A4133	TP1	9-22		WATER	GLASS	2-1L	X	X		X			
A4134	TP3	9-22		WATER	GLASS	2-1L	X	X		X			

Relinquished by	Affiliation	Date	Time	Received by	Affiliation	Date	Time
Eric [signature]	ALPHA	9-22-09		[signature]	WyEast	9/22/09	9:3

APPENDIX B

RECEIPTS

Customer Summary Report
Criteria: 09/01/2009 12:00 AM to 09/22/2009 1:00 PM
Business Unit Name: Hillsboro Landfill - S03305 (USA)
User: DThomps3
Date: Sep 22 2009, 3:02:00 PM - Central Standard Time
Operation Type: All
Customer Name: ALPHAENVSERV (ALPHA ENVIRONMENTAL SERVICES)
Ticket Type: All
Customer Type: All
PMT Category: All

Ticket Date	Ticket ID	Customer	Generator	Profile	Material Description	Origin	Rate	Tons	Material Revenue	Surcharge Revenue	Total
9/1/2009	1223943	ALPHA ENVIRONMENTAL SERVICES	OR-KATHY BAILEY	103468OR	Cont. Soil - Petroleum, PMT is RGC	MULT-IN	$32.00	9.14	$ 292.48	$ 41.00	$ 333.48
9/10/2009	1225167	ALPHA ENVIRONMENTAL SERVICES	OR-KATHY BAILEY	103468OR	Cont. Soil - Petroleum, PMT is RGC	MULT-IN	$32.00	7.84	$ 250.88	$ 6.00	$ 256.88
								16.98	$ 543.36	$ 47.00	$ 590.36
9/3/2009	1224107	ALPHA ENVIRONMENTAL SERVICES	OR-SUPER BULLDOG LLC	103480OR	Cont. Soil - Petroleum, PMT is RGC	MULT-IN	$32.00	1.59	$ 50.88	$ 41.00	$ 91.88
								1.59	$ 50.88	$ 41.00	$ 91.88
9/1/2009	1223945	ALPHA ENVIRONMENTAL SERVICES	OR-AJ HAMADE	103484OR	Cont. Soil - Petroleum, PMT is RGC	CLACK-IN	$32.00	10.04	$ 321.28	$ 41.00	$ 362.28
9/3/2009	1224145	ALPHA ENVIRONMENTAL SERVICES	OR-AJ HAMADE	103484OR	Cont. Soil - Petroleum, PMT is RGC	CLACK-IN	$32.00	37.93	$ 1,213.76	$ 6.00	$ 1,219.76
9/3/2009	1225171	ALPHA ENVIRONMENTAL SERVICES	OR-AJ HAMADE	103484OR	Cont. Soil - Petroleum, PMT is RGC	CLACK-IN	$32.00	8.74	$ 279.68	$ 6.00	$ 285.68
								56.71	$ 1,814.72	$ 53.00	$ 1,867.72

Customer Summary Report
Criteria: 07/01/2009 12:00 AM to 08/31/2009 11:59 PM
Business Unit Name: Hillsboro Landfill - S03305 (USA)
User: DThomps3
Date: Sep 01 2009, 2:57:44 PM - Central Standard Time
Operation Type: All
Customer Name: ALPHAENVSERV (ALPHA ENVIRONMENTAL SERVICES)
Ticket Type: All
Customer Type: All
PMT Category: All

Ticket Date	Ticket ID	Generator	Profile	Material Description	Origin	Rate	Tons	Material Revenue	Surcharge Revenue	Total
7/3/2009	1220378	OR-CLEVONNE JACKSON	103353OR	Cont. Soil - Petroleum, PMT is RGC	MULT-IN	$32.00	9.13	$292.16	$41.00	$333.16
7/14/2009	1220978	OR-FEDERAL HOME LOAN	103367OR	Cont. Soil - Petroleum, PMT is RGC	MULT-IN	$32.00	7.41	$237.12	$41.00	$278.12
7/22/2009	1221443	OR-MICHAEL SORENSEN	103417OR	Cont. Soil - Petroleum, PMT is RGC	MULT-IN	$32.00	3.98	$127.36	$41.00	$168.36
7/24/2009	1221617	OR-CRAIG HELNRICH	103413OR	Cont. Soil - Petroleum, PMT is RGC	MULT-IN	$32.00	11.08	$354.56	$41.00	$395.56
7/27/2009	1221719	OR-RYAN KILPATRICK	103813OR	Cont. Soil - Petroleum, PMT is RGC	MULT-IN	$32.00	7.11	$227.52	$41.00	$268.52
7/27/2009	1221722	OR-CRAIG HELNRICH	103413OR	Cont. Soil - Petroleum, PMT is RGC	MULT-IN	$32.00	1.23	$50.00	$41.00	$91.00
8/7/2009	1222524	OR-ESTATE OF ANNEI ASBERRY	103837OR	Cont. Soil - Petroleum, PMT is RGC	MULT-IN	$32.00	5.26	$168.32	$43.00	$211.32
8/13/2009	1222887	OR-SUNTRUST MORTAGE	103444OR	Cont. Soil - Petroleum, PMT is RGC	MULT-IN	$32.00	6.08	$194.56	$6.00	$200.56
8/18/2009	1223115	OR-CHARLES CARNESE	103456OR	Cont. Soil - Petroleum, PMT is RGC	MULT-IN	$32.00	2.31	$73.92	$41.00	$114.92
8/18/2009	1223117	OR-JAMES SUTHERLAND	103449OR	Cont. Soil - Petroleum, PMT is RGC	MULT-IN	$32.00	5.75	$184.00	$41.00	$225.00
8/18/2009	1223131	OR-GEORGE ORBAN	103459OR	Cont. Soil - Petroleum, PMT is RGC	MULT-IN	$32.00	11.02	$352.64	$6.00	$358.64
8/19/2009	1223256	OR-GEORGE ORBAN	103459OR	Cont. Soil - Petroleum, PMT is RGC	MULT-IN	$32.00	5.07	$162.24	$41.00	$203.24
8/24/2009	1223446	OR-HARRIET RASMUSSEN	103460OR	Cont. Soil - Petroleum, PMT is RGC	MULT-IN	$32.00	10.01	$320.32	$41.00	$361.32
8/26/2009	1223555	OR-RICHARD FERREIRA	103447OR	Cont. Soil - Petroleum, PMT is RGC	CLACK-IN	$32.00	10.26	$328.32	$41.00	$369.32
8/31/2009	1223919	OR-AJ HAMADE	103484OR	Cont. Soil - Petroleum, PMT is RGC	CLACK-IN	$32.00	10.69	$342.08	$6.00	$348.08
Material Total	15						106.39	$3,415.12	$512.00	$3,927.12
Customer Total	15						106.39	$3,415.12	$512.00	$3,927.12
Ticket Totals	15						106.39	$3,415.12	$512.00	$3,927.12

Internal Customer	Loads	Total Ticket Amount
External Customer	Loads	Total Ticket Amount
ALPHA ENVIRONMENTAL SERVICES	15	$3,927.12

ORRCO
Oil Re-Refining Company

Head Office
4150 N. Suttle Rd.
Portland, OR 97217
1-800-367-8894

RECEIVING RECORD

R **01-09-0831-004**

Received From:
Alpha Environmental Services
9525-A SW Beaverton-Hillsdale
Beaverton OR 97005
EPA#
Phone: 503-292-5346
Customer ID# ***9490***
Driver: severo

Receiving Location: Plant #
FPI
4150 N. Suttle Road
Portland, OR 97217

Phone 503-286-8352
EPA# ORD980975692

Date	Terms	Written By	Sales Rep.	Page
08/31/09	-0-	Laureano	83	*1* of *1*

Line	Qty.	Unit	Item	%H20	Manifest #	B/L#	Net Qty
1	*2*	*Brl.*	*Oily Solids*	*0 %*			
			Generator ID# 9490 Alpha Environmental Services profile on file.				
			Total Brl. 2.				
2	*185*	*Gal.*	*Emulsified Fuel*	*45 %*			
			Generator ID# 9490 Alpha Environmental Services profile on file. (Diesel)				
			Total Gal. 185.				

Customer warrents that the waste petroleum products being received do not contain any contaminants including, without limitation, pesticides, chlorinated solvents at total concentrations greater than 1000 PPM, PCB's greater than 2 PPM, or any other material classified as hazardous waste by 40 CFR part 261, Subparts C and D (implementing the Federal Resource Conservation and Recovery Act) or by any other state or local hazardous waste classification program. Should Laboratory tests find this product not in compliance with 40 CFR part 261 customer agrees to pay all disposal costs incurred.

Signed X _____ DATE: 08/31/09

FOR SECURITY PURPOSES - THIS DOCUMENT HAS SOLVENT STAIN PATTERNS AND INVISIBLE FLUORESCENT FIBERS

METRO METALS NORTHWEST, INC.
5611 N.E. Columbia Blvd.
Portland, Oregon 97218
(503) 287-8861

METRO METALS NORTHWEST, INC.

WELLS FARGO Wells Fargo Bank, N.A.

2099974

11-24
1210

2099974

PAY TO THE ORDER OF ALPHA ENVIRONMENTAL SERVICE CO

Aug. 28, 2009

$ ***301.50

***301 Dollars and 50 Cents DOLLARS

TWO SIGNATURES REQUIRED OVER $2,000 DOLLARS

ALPHA ENVIRONMENTAL SERVICE CO
915 SW SALMON ST
PORTLAND, OR 97225

AUTHORIZED SIGNATURE

AUTHORIZED SIGNATURE

ORIGINAL CHECK IS PRINTED ON CHEMICAL REACTIVE PAPER WHICH CONTAINS A WATERMARK

⑈2099974⑈ ⑆121000248⑆ 4121218507⑈

METRO METALS NORTHWEST, INC.: FERROUS

Date: 08/28/2009

2099974

Vendor: 209280 ALPHA ENVIRONMENTAL SERVICE CO

Ticket#: 72105

2099974

Paid To: ALPHA ENVIRONMENTAL SERVICE CO

Total Wt: 4,020

Descrip:

Truck# Notes:

Tot.Paid: $301.50

Commodity	Gross	Tare	Tare2 Contam	Net UM	Price	Total
#2 Steel Unprepared	15,680	11,660		4,020 N	150.00	301.50

APPENDIX C

BENEFICIAL WATER USE DETERMINATION

BENEFICIAL WATER USE DETERMINATION

13625 SE McLoughlin Blvd.
Milwaukie, Oregon
DEQ LUST #03-09-0775

Date Issued: October 19, 2009
Project Number 09-0706

Prepared For:

MR. A.J. HAMADE

Prepared By:

9525-A SW BEAVERTON-HILLSDALE HWY
BEAVERTON, OREGON 97005
TEL (503) 292-5346 FAX (503) 203-1516

TABLE OF CONTENTS

FIGURES

APPENDICES

1.0 INTRODUCTION

Alpha Environmental Services, Inc. (Alpha) was retained by Mr. Ahmed Hamade to conduct a Beneficial Water Use Determination of the environmental cleanup site located at 13625 SE McLoughlin Blvd., Clackamas County, Milwaukie, Oregon (the "Site"). The Site currently consists of a vacant lot that was previously the site of a gasoline filling station (Figure 1). The purpose of this report is to determine current and reasonably likely future beneficial uses of groundwater and surface water for the Site. The protocol used is in general conformance with Oregon Administrative Rule (OAR) 340 Division 122 and the Oregon DEQ guidance document entitled "*Guidance for Conducting Beneficial Water Use Determinations at Environmental Cleanup Sites*" dated July 1, 1998. This report summarizes the findings of previous investigations, and presents the results and conclusions of the current investigation.

1.1 Site Location and Setting

The Site is located at 13625 SE McLoughlin Blvd in unincorporated Clackamas County, Oregon. The site is bordered on the south by commercial and retail buildings and associated businesses and asphalt paved parking areas, on the east by SE McLoughlin Blvd., on the north by the "Bomber Complex"; a combination commercial and residential complex and former gas station, and on the west by a residential use trailer park for Seniors.

The 2.6 acre site is currently undeveloped and heavily vegetated with the exception of a "C-shaped" asphalt parking area with a grassy center, and an outer gravel drive encircling the parking area, as shown on Figures 1 and 2; Site Vicinity Map and Site Plan.

Based on a review of available well logs and previous studies of the site and environs, shallow groundwater ranges from approximately six feet below ground surface (BGS) during the dry season to depths near the ground surface during periods of prolonged or intense rainfall. Based on surface topographical data, groundwater is expected to flow generally to the north to northwest.

2.0 BACKGROUND

2.1 Previous Investigations

2.1.1 Phase One Environmental Site Assessment - Wohlers Environmental; October 2005

A Phase One Environmental Site Assessment was issued on October 31, 2005 by Wohlers Environmental. The report revealed the following recognized environmental conditions in connection with the property:

1) A retail petroleum fuel facility was located on the eastern portion of the Site from the mid 1930s through the early 1980s. The onsite retail petroleum fuel facility was not identified on state or federal databases reviewed at the time of the assessment.

2) Oregon DEQ Leaking UST Site No. 26-94-0221 was identified as the Ardine Lacey Scott (current location of The Bomber complex commercial facility) facility located at 13515 S.E. McLoughlin Boulevard, adjacent to the northern portion of the subject site. Oregon DEQ information indicated that a release of miscellaneous gasoline from a registered UST was discovered during site assessment activities and subsequently

reported to the Oregon DEQ in November 1994. Gasoline impacts to soil and groundwater were identified at this adjacent release site. Following cleanup activities that reportedly included quarterly groundwater monitoring activities, in August 2004, the Oregon DEQ issued a No Further Action (NFA) finding for this adjacent release site.

Wohlers assumes that the predominant direction of shallow groundwater flow on the Site and in the vicinity of the Site is south-southeast to north-northwest at approximately 5 feet below the ground surface (bgs). Recommendations made by the Wohlers Phase One indicate that subsurface investigation activities should be completed in the reported area(s) of former onsite USTs to document subsurface soil conditions in vicinity of the former onsite USTs including soil and groundwater sampling. Additionally, Wohlers recommended the decommissioning of identified onsite USTs in accordance with current Oregon DEQ rules and regulations.

2.1.2 Geophysical Survey - Pacific Geophysics; August 2009

On August 4, 2009, a geophysical survey was completed on the subject property. The purpose of the survey was to identify possible underground storage tanks that may remain on the subject property from the previous service station. A copy of the geophysical survey report is included in Appendix A.

The survey was completed by Pacific Geophysics using a Geometrics G-858 portable cesium magnetometer, an Aqua-Tronics A6 Electromagnetic Tracer, a Schonstedt GA92xtd Magnetic Gradiometer and a GSSI SIR-2000 ground-penetrating radar (GPR) system with a 270-MHz antenna. The survey included all areas of the subject property that were covered by the former service station, and involved an initial survey of the entire property with the magnetometer with focused investigations around magnetic anomalies using the tracer, gradiometer and GPR equipment.

No anomalies were detected that were interpreted as underground storage tanks (USTs). One possible UST excavation containing metallic objects or debris was detected. Other anomalies were detected but were interpreted to be caused by piping or debris. One of the detected anomalies was interpreted as potentially caused by a septic tank or cesspool.

2.1.3 Limited Subsurface Investigation - Alpha Environmental (August 2009)

Alpha was retained to conduct a Limited Subsurface Investigation of the Site on August 14, 2009. The investigation consisted of excavating several test pits throughout the Site with particular emphasis on areas identified by the geophysical survey as having possibly contained a UST, a UST trench or septic tank related features.

The investigation revealed the presence of two USTs within a common trench in the area identified by the geophysical report as a possible UST pit. One of the tanks appeared to be damaged. Pooled groundwater observed in the vicinity of the damaged tank exhibited a sheen. Stained soil was also visible in the trench adjacent to the tanks.

Soil samples collected from adjacent to the tanks contained gasoline ranging from 245 mg/kg (3.5' depth) to 688 mg/kg (7' depth), and no detected diesel or heavy oil.

2.1.4 Risk Based Decision Making Cleanup - Alpha Environmental (September 2009)

Based on the findings of the Limited Subsurface Investigation, Alpha was retained to conduct a Risk-Based Decision-Making Cleanup for the two commercial underground gasoline and diesel storage tanks located at the Site.

The two tanks were decommissioned on August 28, 2009. Contaminated soil was encountered during the tank removal. Groundwater was encountered in the tank pit at a depth of approximately 6 feet BGS. After purging the pit and allowing the water to naturally recharge, the groundwater was sampled and analyzed for gasoline (NW-TPH-Gx) and volatile organics (EPA Method 8260C-RBDM list). The sample contained 569 micrograms per liter (µg/l) gasoline, 0.6 µg/l naphthalene, and 6 µg/l n-propylbenzene.

Approximately 56.71 tons of petroleum-contaminated soil (PCS) was excavated from the tank pit. Soil removal continued downward until groundwater and basalt bedrock were encountered. Lateral excavation continued until soils displayed no significant field evidence of petroleum contamination.

Confirmatory soil samples were collected from the four sidewalls at the soil/water interface. The soil samples were analyzed for gasoline, diesel and BTEX. Gasoline was reported in the soil sample on the north side of the pit at 372 mg/kg, 211 mg/kg heavy oil, no detected diesel, 0.15 mg/kg benzene, 1.14 mg/kg toluene, 0.34 mg/kg ethylbenzene, 2.04 mg/kg xylenes. No gasoline, diesel, or BTEX was detected in the other soil samples.

Two groundwater samples were collected downgradient and one groundwater sample was collected upgradient of the excavation to determine if the contaminated groundwater in the excavation extends beyond the tank pit. Three test pits were excavated to the north, northwest, and east of the tank pit to depths of 5½ feet (test pit TP-2) and 6 feet (TP-1, TP-3) bgs. Groundwater entered the deeper pits (TP-1, TP-3) and was sampled using a peristaltic pump. The samples were analyzed for gasoline, diesel and BTEX. No analytes were detected.

A soil sample was also collected 8 feet north of the excavation to define the northern extent of the gasoline-contaminated soil.

Following the completion of the RBDM corrective action, the tank pit was backfilled with gravel and the overburden soil and restored to rough surface grade.

Based on information available as a result of activities performed at the Site by Alpha Environmental Services, Inc., it was found that the only generic risk-based concentration that was exceeded was for ingestion and inhalation of groundwater. The findings of the current Beneficial Water Use Determination were used to evaluate whether this is a complete pathway.

3.0 PURPOSE

The purpose of this work was to assess local groundwater use in the area to determine if groundwater is presently used, or is likely to be used in the future, for drinking water.

4.0 BENEFICIAL WATER USE DETERMINATION

A Beneficial Water Use Determination was completed to identify the present and reasonably likely future use of groundwater and surface water in the site vicinity. The evaluation consisted of 1) a review of published reports describing the geology and hydrogeology of the Region; 2) a review of local water well logs registered with the Oregon Water Resources Department (OWRD); and 3) a determination of current and reasonably likely water supply sources for the Region.

Various terms are used throughout the BWUD which define the limits and parameters of the determination. These terms are described below:

Facility

The Facility is defined by DEQ as the area where materials may have been deposited, stored, placed, or otherwise have come to be located. Based on the findings of the recent soil and groundwater sampling, the Facility is defined as the area within the former UST pit and the area of contaminated soil on the north end of the former excavation (see Figure 2).

Locality of the Facility (LOF)

The Locality of the Facility (LOF) is defined as the area where human or ecological receptors are reasonably likely to come in contact with the hazardous substances. The LOF is determined by considering factors such as the physical and chemical characteristics of the contaminants, the physical characteristics that govern the migration of contaminants (soil characteristics and groundwater gradient), and human activities in the vicinity.

The Locality of the Facility takes into account the likelihood of the contamination migrating over time, so it is sometimes larger than the facility.

Given that no free product has been encountered and any on-going source of contamination has been removed except for a portion of the soils on the north end of the former excavation, there should be no ongoing migration of contamination. The LOF is therefore assumed to be the same area as defined by the Facility.

4.1 Hydrogeologic Site Characterization

4.1.1 Regional Geology and Hydrogeology

Soils and Geology

The Site is situated within the Willamette Valley, which is a portion of the Puget Trough physiographic sub province of the Pacific Mountain System geological province. This area consists of fluviolacustrine sedimentary deposits. Underlying the local area is a thin mantle (less than 6 feet) of unconsolidated silt, and gravel which is underlain by bedrock of Columbia River Basalt.

The subject property is relatively flat at an elevation of approximately 200 feet above mean sea level, but slopes vey gently toward the north and west. Local topography slopes

at a gentle gradient (1:100) toward the Willamette River, which is located 3/4 mile west of the LOF.

Groundwater

Groundwater was encountered during the course of the project at a depth of approximately 6 feet below ground surface (bgs). Based on surface topographical data, groundwater is expected to flow at generally a low gradient to the north to northwest.

Alpha searched the Oregon Water Resources Department records for water wells completed within one-quarter mile of the Site and examined water level data from wells and geotechnical borings. At nearby monitoring wells or geotechnical holes, groundwater was reported between 4 and 7.5 feet bgs.

4.1.2 Surface Water Hydrology in the LOF

No surface water features are located within the LOF.

4.1.3 Conceptual Site Hydrogeologic Model

The hydrogeologic model of the LOF assumes an unconfined aquifer primarily within the stratified, fractured and variably weathered basalt bedrock. This basalt aquifer extends to a depth of several hundred feet, and is underlain by marine sedimentary deposits. The lower few feet of the unconsolidated alluvium overlying the basalt aquifer may be saturated, particularly following periods of prolonged precipitation.

Based on groundwater flow directions measured at the adjacent Bomber Restaurant site to the north and on local topography, the groundwater flow direction across the LOF is expected to be to the north to northwest, varying seasonally in response to precipitation.

The release of petroleum hydrocarbons appears to have occurred from leakage of underground fuel storage tanks or the associated piping. Introduction of petroleum hydrocarbon constituents to groundwater was caused through contact between shallow, slowly migrating groundwater and petroleum-contaminated soil (PCS) in the zones above the bedrock; at relatively shallow depths.

After removal of the PCS, confirmatory sampling indicates that detectable concentrations of total petroleum hydrocarbon (TPH) and volatile constituents in the groundwater do not extend beyond the confines of the former UST excavation. The localized soil and groundwater contamination is expected to be further reduced through dilution and natural attenuation.

The Site is undeveloped, and does not have connected water service, although water lines in the vicinity are serviced by Oak Lodge Water District. Based on information in the Oregon Water Resources Department Grid-Web online database, no water supply wells are located on the Site.

4.2 Current and Future Land Use

The subject property and all adjacent properties are currently zoned "General Commercial" by the Clackamas County Zoning and Development Department. Primary uses include service and retail uses where there is a need for outdoor areas in order to conduct business activities where sales or storage areas are an integral part of the use. Secondary uses include Business Park District uses, housing facilities for senior citizens or handicapped persons, Institutional Uses:

Colleges and other educational institutes, Cultural/Public Uses and wireless telecommunication facilities.

The current property owner has no plans to request a zoning change for the property. The property owner is requesting closure of the site under the residential risk-based standards, which should account for any potential future changes in land use.

The Site is bordered on the south by commercial and retail buildings and associated businesses and asphalt paved parking areas, on the east by SE McLoughlin Blvd., on the north by the "Bomber Complex"; a combination commercial and residential complex and former gas station, and on the west by a residential trailer park.

4.3 Current Beneficial Water Use

4.3.1 Water Well Log Records

Water well logs were obtained from the Oregon Water Resources Department online GRID database system for information regarding groundwater users in the region. The Facility is located within SE¼, NW¼, Section 1, Township 2 South, Range 1 East (Willamette Meridian). The well log database showed thirteen water well logs in Section 1, Township 2 South, Range 1 East (see Appendix A). At least hree of the wells are located within 1/4 of a mile of the LOF. The locations of the wells are plotted on Figure 1. The remaining ten wells are not located by address.

One of the wells (Log #CLAC 2455) is an irrigation well constructed in 1970 and located on the northwest corner of the adjacent "Bomber Complex" site, approximately 690 feet northwest of the LOF. The owner of the property has stated that the well is currently in use and supplies drinking water to tenants of the property. According to the well log, groundwater was reported in sand and gravel at a depth of 40 feet bgs (static water level: 18 feet bgs), and in fractured and decomposed basalt at depths of 71, 240, 285 and 384 feet bgs. The well was cased and grout-sealed from 0 to 50 feet bgs, and completed to a total depth of 405 feet. The static water level in the completed well was 194 feet bgs.

> **Evaluation:** The shallow aquifer is sealed from this well and the well draws water from relatively deep portions of the basalt aquifer (approximately 194 feet and greater). Based on this information, and the relatively low concentrations of groundwater contaminants in the small, well-defined area 700 feet from the well, the threat to the water well by the contamination within the LOF is not significant.

Another water well (Log #CLAC 2182) is located at Steeve's Mobile City (mobile home park) located at 2615 SE Courtney Road. The owner stated that the well is situated near the middle of the park, and is currently in use. According to the log, the well was constructed in 1956 to a depth of 397 feet bgs. The static water in the borehole was 150 feet bgs at depths of 350 and 397 feet bgs. The well was cased and grout-sealed from 0 to 23 feet bgs. The water level in the finished well was 150 feet bgs.

> **Evaluation:** The shallow aquifer is sealed from this well and the well draws water from relatively deep portions of the basalt aquifer (approximately 150 feet and greater). Based on this information, and the relatively low concentrations of groundwater contaminants in the small, well-defined area 500 feet from the well, the threat to the water well by the contamination within the LOF is not significant.

The third well (Log #CLAC 481) is a "test well" constructed in 1960 at 13121 SE McLoughlin Blvd, approximately 1,500 feet north-northwest of the subject property. According to the log, groundwater was reported in porous and broken basalt at depths of 123 and 161 feet bgs. The well was cased from 0 to 83 feet bgs, grout-sealed from 58-83 feet bgs, and completed to a total depth of 201feet. The static water level in the completed well was 125 feet bgs.

Evaluation: Based on the distance of the well from the LOF the threat to the water well by the contamination within the LOF is not significant.

4.3.2 Door-to Door Well Survey

A door-to-door survey was conducted of the commercial properties that have water wells on site and are within 1/4 mile radius of the LOF as well as the properties that are adjacent to the LOF. The property owners were asked whether any water wells (active or inactive) are located on their property, and what the current source of drinking water is. Survey responses were followed up with telephone contact.

Of the property owners that responded to the survey, two of the properties have on-site water well supplied drinking water, and the rest of the properties have domestic water provided by the Oak Lodge Water District. The following is a list of the properties and their owners. Respondents for the Bomber Complex at 13515 SE McLoughlin Blvd indicated that although the well log indicates that the well is used for irrigation, on-site residents use the well as a drinking water supply. On October 14, 2009, Bomber Complex respondents indicated that the well was "tested for any contamination and that samples came back clean just yesterday" (October 13, 2009).

Site Address	Property Owner	Drinking Water Source?	On-Site Water Well or Sump?
16735-16843 SE McLoughlin Ave (Strip mall adjacent to and south of Site)	John Hudson	Oak Lodge Water District (assumed)	No
13515 SE McLoughlin (the "Bomber Complex")	Ardine and Jason Scott	Water Well	Yes
2615 SE Courtney (Steeve's Mobile City)	Russ Nikolas	Water Well	Yes
13121 SE McLoughlin (Elks Lodge)	Unknown	Oak Lodge Water District (assumed)	No Reply
2571, 2565, 2561, 2555, 2551 SE Courtney	Unknown	Oak Lodge Water District (assumed)	No reply

4.3.3 Municipal Water Districts

Properties in the LOF are supplied water by the Oak Lodge Water District, which obtains its water primarily from the Willamette River. Drinking water for Oak Lodge customers is produced by two methods: conventional filtration and slow sand filtration. Oak Lodge Water District operates and maintains over 100 miles of water main, approximately 750 fire hydrants and over 8,200 service connections. The District has four reservoirs with a combined capacity of 15.6 million gallons. The District also maintains three separate pressure zones.

Repeated phone calls concerning the details of the District's emergency preparedness and contingency plan to the water District went unanswered. Regardless, the Willamette River is regarded as a reliable source of drinking water. It is unlikely that local groundwater within the LOF will be developed for domestic or industrial use in the future.

4.3.4 Regional Groundwater Quality and Use

Background water quality in the LOF is not known, however water quality on adjacent properties is known through periodic testing of the well water at the Bomber Complex and Steeve's Mobile City. Both of these sites conduct annual testing of their water for various contaminants. Steeve's Mobile City has reported no detection of volatile organic compounds since 1983, the earliest year that records were maintained by Oregon Health Division - Drinking Water Program. The Bomber Motel has only tested their well water for nitrates, nitrites, fluoride, and metals.

4.4 Reasonably Likely Future Beneficial Water Uses

Oak Lodge Water District expects its current water supply system to handle the expected population growth for the foreseeable future. It is unlikely that future beneficial water use of shallow groundwater in the vicinity of the subject property will include water supply for domestic, irrigation, or industrial uses. Further development in the area of the LOF is limited by lack of available buildable area.

4.5 Conclusions Regarding Beneficial Water Use

It is unlikely that the future beneficial water use of the alluvial aquifer will include domestic, irrigation, or industrial uses. The aquifer is not likely to be needed to meet future water needs in the area. Given that domestic, irrigation, and industrial uses are not likely, the only current and reasonably likely beneficial use of groundwater in the area is as discharge to an ephemeral tributary of Kellogg Creek, which drains to the Willamette River.

Professional Certification

I accept responsibility for the groundwater data in this report. All work performed during this time is in compliance with Oregon's standards. This report is true to the best of my knowledge and belief.

Registration Number: Oregon Geologist G2243

Signed:

Date: October 19, 2009

Carrie Beveridge

Affiliation: Alpha Environmental Services, Inc.

References

Snyder, D.T., 2008, Estimated Depth to Ground Water and Configuration of the Water Table in the Portland, Oregon Area, USGS Scientific Investigations Report 2008-5059

State of Oregon Water Resources Department Website: http://www.wrd.state.or.us/

The United States Department of Agriculture (USDA) Natural Resources Conservation Service's Web Soil Survey Website: http://soils.usda.gov/

The United States Geological Survey (USGS): Lake Oswego, OR Quadrangle 7.5 Minute Series Topographic Map, 1961 (Photorevised 1984)

Alpha Environmental Services, Inc.
9525-A SW Beaverton Hillsdale Hwy.
Beaverton, Oregon 97005
(503) 627-0131

FIGURE 1 SITE VICINITY MAP

Site Name: 13625 SE McLoughlin Blvd
Project Number: 09-0706

N

Alpha Environmental Services, Inc.
9525-A SW Beaverton Hillsdale Hwy.
Beaverton, Oregon 97005
(503) 627-0131

FIGURE 2 SITE PLAN

Site Name: 13625 SE McLoughlin Blvd
Project Number: 09-0706

N

APPENDIX A

WELL LOGS

CLAC 2455

Per Wash. Co. Health Dept. 2/1-16

RECEIVED
AUG 7 1970
STATE ENGINEER
SALEM, OREGON

WATER WELL REPORT
STATE OF OREGON
(Please type or print)
(Do not write above this line)

State Well No. 2/1-1b

State Permit No. .....

FILE TO WATER WELL CONTRACTOR
The original and first copy of this report are to be filed with the STATE ENGINEER, SALEM, OREGON 97310 within 30 days from the date of well completion.

(1) OWNER:
Name Art Lacey D.B.A. The Bomber
Address 13515 S.E. McLaughlin Blvd.
Milwaukie, Ore. 97222

(2) TYPE OF WORK (check):
New Well ☒ Deepening ☐ Reconditioning ☐ Abandon ☐
If abandonment, describe material and procedure in Item 12.

(3) TYPE OF WELL:
Rotary ☐ Driven ☐
Cable ☒ Jetted ☐
☐ Bored ☐

(4) PROPOSED USE (check):
Domestic ☐ Industrial ☐ Municipal ☐
Irrigation ☒ Test Well ☐ Other ☐

CASING INSTALLED:
Threaded ☐ Welded ☒
" Diam. from 0 ft. to 50 ft. Gage .250
" Diam. from ..... ft. to ..... ft. Gage .....
" Diam. from ..... ft. to ..... ft. Gage .....

PERFORATIONS:
Perforated? ☐ Yes ☒ No.
Type of perforator used .....
Size of perforations ..... in. by ..... in.
..... perforations from ..... ft. to ..... ft.
..... perforations from ..... ft. to ..... ft.
..... perforations from ..... ft. to ..... ft.
..... perforations from ..... ft. to ..... ft.
..... perforations from ..... ft. to ..... ft.

(7) SCREENS:
Well screen installed? ☐ Yes ☒ No
Manufacturer's Name .....
Type ..... Model No. .....
Diam. ..... Slot size ..... Set from ..... ft. to ..... ft.
Diam. ..... Slot size ..... Set from ..... ft. to ..... ft.

(8) WATER LEVEL: Completed well.
Level 194 ft. below land surface Date 6-13-70
Artesian pressure ..... lbs. per square inch Date .....

(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.
" " " "
" " " "
Bailer test 40 gal./min. with 1 ft. drawdown after 2 hrs.
Artesian flow ..... g.p.m. Date .....
Temperature of water Was a chemical analysis made? ☐ Yes ☒ No

(10) CONSTRUCTION:
Well seal—Material used Cement Grout
Depth of seal 50 ft.
Diameter of well bore to bottom of seal 12 in.
Were any loose strata cemented off? ☒ Yes ☐ No Depth 50-94 ft.
Was a drive shoe used? ☐ Yes ☒ No
Did any strata contain unusable water? ☐ Yes ☒ No
Type of water? ..... depth of strata .....
Method of sealing strata off .....
Was well gravel packed? ☐ Yes ☒ No Size of gravel: .....
Gravel placed from ..... ft. to ..... ft.

(11) LOCATION OF WELL:
County Clackamas Driller's well number 70-3
¼ ¼ Section T. 2S R. 1E W.M.
Bearing and distance from section or subdivision corner
George Crow D.L.C.

(12) WELL LOG:
Diameter of well below casing 8"
Depth drilled 405 ft. Depth of completed well 405 ft.

Formation: Describe color, texture, grain size and structure of materials; and show thickness and nature of each stratum and aquifer penetrated, with at least one entry for each change of formation. Report each change in position of Static Water Level as drilling proceeds. Note drilling rates.

MATERIAL	From	To	SWL
Boulders-Clay-Yellow	0	40	
Sand-Gravel-Large-Water	40	41	18
Rock Basalt-Hard-Black	41	57	
Claystone-Greenish Black	57	71	
Decomposed Lava-Porsh-Water	71	87	70
Rock-Basalt-Hard-Gray	87	103	
Rock-Basalt-Decomp.-Blk.	103	138	
Claystone-Dark Green	138	182	
Basalt-Rock-Hard-Black	182	240	
Fractured Basalt-Dark Gray	240	253	180
Rock-Lava-Black	253	275	
Fractured Lava-Dark	275	285	184
Broken Rock-Water	285	303	193
Basalt-Hard-Gray	303	340	
Decomp. Vegetalon-Blk.	340	373	
Basalt-Black-Hard	373	384	
Fractured Rock-Water	384	401	194
Glarmemnt Rock-Claystone	401	405	

Work started 3-30 19 70 Completed 6-13 19 70
Date well drilling machine moved off of well 6-13 19 70

Drilling Machine Operator's Certification:
This well was constructed under my direct supervision. Materials used and information reported above are true to my best knowledge and belief.
[Signed] Walter Mace (Drilling Machine Operator) Date 6-27, 19 70
Drilling Machine Operator's License No. 595

Water Well Contractor's Certification:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
NAME S & M Drilling & Supply (Person, firm or corporation) (Type or print)
Address Rt. 1 Box 31, Canby, Ore. 97013
[Signed] Walter Mace (Water Well Contractor)
Contractor's License No. 497 Date 6-27, 19 70

(USE ADDITIONAL SHEETS IF NECESSARY)

CLAC 481

RECEIVED JUN 8 1966 STATE ENGINEER SALEM, OREGON

RECEIVED JUN 20 1966 STATE ENGINEER

WATER WELL REPORT

STATE OF OREGON (Please type or print)

NOTICE TO WATER WELL CONTRACTOR: The original and first copy of this report are to be filed with the STATE ENGINEER, SALEM, OREGON 97310 within 30 days from the date of well completion.

State Well No. 2/1-1F

State Permit No.

(1) OWNER:

Name MILWAUKIE ELKS # 2032

Address 13121 SE MCLOUGHLIN BLVD. MILWAUKIE, OREGON

(2) LOCATION OF WELL:

County CLACK Driller's well number 4127

SE ¼ NW ¼ Section 1 T. 2S R. 1E W.M.

Bearing and distance from section or subdivision corner

(3) TYPE OF WORK (check):

New Well [X] Deepening [ ] Reconditioning [ ] Abandon [ ]

If abandonment, describe material and procedure in Item 12.

(4) PROPOSED USE (check):

Domestic [ ] Industrial [ ] Municipal [ ]
Irrigation [ ] Test Well [ ] Other [X]

(5) TYPE OF WELL:

Rotary [X] Driven [ ]
Cable [ ] Jetted [ ]
Dug [ ] Bored [ ]

(6) CASING INSTALLED:

Threaded [ ] Welded [X]

8 " Diam. from 0 ft. to 83 ft. Gage .277

" Diam. from ft. to ft. Gage

" Diam. from ft. to ft. Gage

(7) PERFORATIONS:

Perforated? [ ] Yes [X] No

Type of perforator used

Size of perforations in. by in.

perforations from ft. to ft.

perforations from ft. to ft.

perforations from ft. to ft.

perforations from ft. to ft.

perforations from ft. to ft.

(8) SCREENS:

Well screen installed? [ ] Yes [X] No

Manufacturer's Name

Model No.

Diam. Slot size Set from ft. to ft.

Diam. Slot size Set from ft. to ft.

(9) CONSTRUCTION:

Well seal—Material used in seal CEMENT GROUT

Depth of seal 58-83 ft. Was a packer used? No

Diameter of well bore to bottom of seal 10 3/4 in.

Were any loose strata cemented off? [ ] Yes [X] No Depth

Was a drive shoe used? [ ] Yes [ ] No

Was well gravel packed? [ ] Yes [ ] No Size of gravel:

Gravel placed from ft. to ft.

Did any strata contain unusable water? [ ] Yes [X] No

Type of water? depth of strata

Method of sealing strata off

(10) WATER LEVELS:

Static level 125 ft. below land surface Date 5/20/66

Artesian pressure lbs. per square inch Date

(11) WELL TESTS:

Drawdown is amount water level is lowered below static level

Was a pump test made? [X] Yes [ ] No If yes, by whom? STRASSER

Yield: 270 gal./min. with 1 ft. drawdown after 8 hrs.

" " " "

" " " "

Bailer test gal./min. with ft. drawdown after hrs.

Artesian flow g.p.m. Date

Temperature of water 53½° Was a chemical analysis made? [ ] Yes [X] No

(12) WELL LOG:

Diameter of well below casing 8 INCH

Depth drilled 201 ft. Depth of completed well 201 ft.

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 formation.

MATERIAL	FROM	TO
TOP SOIL	0	2
RED CLAY	2	12
SOFT BROKEN ROCK	12	68
GREY BASALT	68	103
BLACK BASALT	103	123
BROKEN BASALT (WATER)	123	148
MED HARD BLACK BASALT	148	154
BROKEN BASALT	154	158
MED. HARD BLACK BASALT	158	161
POROUS BLACK (WATER)	161	175
HARD BLACK BASALT	175	191
HARD GREY BASALT	191	201

Work started APR 29 19 66 Completed APR 23 19 66

Date well drilling machine moved off of well APR 12 19 66

(13) PUMP:

Manufacturer's Name

Type: H.P.

Water Well Contractor's Certification:

This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME R J STRASSER DRILLING CO (Person, firm or corporation) (Type or print)

Address 8110 SUNSET LANE PORTLAND,

Drilling Machine Operator's License No. 395

[Signed] Robert L Strasser (Water Well Contractor)

Contractor's License No. 10 Date MAY 29, 19 66

(USE ADDITIONAL SHEETS IF NECESSARY)

RECEIVED DEC 18 1956 STATE ENGINEER ... OREGON

WATER WELL

clac 2182

G-3671

Do Not Fill In — State Well No. 9/1-23M — State Permit No.

Pg 1 of 3

(1) OWNER:
Name Dwight M. Steeves,
Address 2615 S.E. Courtney Road,
Milwaukie 22, Oregon.

(2) LOCATION OF WELL:
County Clackamas Owner's number, if any—
R. F. D. or Street No. 2615 S.E. Courtney Rd.
Bearing and distance from section or subdivision corner
Well in the N.E. 1/4 of the S.W. 1/4 of Sec 1, T 2 S. R 1 E.

(3) TYPE OF WORK (check):
New well ☒ Deepening ☐ Reconditioning ☐ Abandon ☐
If abandonment, describe material and procedure in Item 11.

(4) PROPOSED USE (check):
Domestic ☒ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☒

(5) EQUIPMENT:
Rotary ☐
Cable ☒
Dug Well ☐

(6) CASING INSTALLED:
Threaded ☐ Welded ☒

FROM	ft. to	ft. Diam.	Gage or Wall
0	23	6"	.280"

If gravel packed

Diameter of Bore	from ft.	to ft.
none		

Size of gravel:
Type and size of shoe or well ring
Describe joint none

(7) PERFORATIONS:
Type of perforator used None
SIZE of perforations in., length, by in.
FROM ft. to ft. perf per foot No. of rows

SCREENS:
Give Manufacturer's Name, Model No. and Size
None

(8) CONSTRUCTION:
Was a surface sanitary seal provided? ☐ Yes ☒ No To what depth ft.
Were any strata sealed against pollution? ☒ Yes ☐ No
If yes, note depth of strata
FROM 0 ft. to 23 ft.
METHOD OF SEALING Pipe cemented in rock

(9) WATER LEVELS:
Depth ~~XXXXXXXXXXXXXXX~~ ft.
Standing level ~~XXXXXXXXX~~ 150. 10/56 ft.
~~Standing level XXXXXXXXXX~~ ft.
Log Accepted by:
[Signed] D M Steeves Dated ...., 19....
Owner

(10) WELL TESTS:
Was a pump test made? ☐ Yes ☒ No If yes, by whom?
Yield: gal./min. with ft. draw down after hrs.
Artesian flow g.p.m.
Shut-in pressure lbs. per square inch.
Bailer test 25 g.p.m. with 25 ft. drawdown
Temperature of water Was a chemical analysis made? ☐ Yes ☒ No
Was electric log made of well? ☐ Yes ☒ No

(11) WELL LOG:
Diameter of well, 6 inches.
Total depth 397 ft. Depth of completed well 397 ft.
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 formation.*

ft. to	ft.	
0"	4	"clay
4"	14	"broken rock & clay
14"	20	"broken rock
20"	34	"hard rock, some crevices
34"	41	"softer rock
41"	48	"hard grey rock
48"	100	"black rock
100"	118	"hard grey rock
118"	140	"black rock
140"	159	"hard grey rock
159"	264	"alternate black & grey rock
264"	280	"black rock, 7 G.P.M. Static 150
280"	288	"gray shalish rock, (soft)
288"	350	"medium hard grey rock
Static 150' 18 G.P.M. 35' Draw Down.		
350"	364	"hard grey rock
364"	388	" medium hard black rock
388"	396	" black rock, red seams
396"	397	" hard grey rock.

static 150' - 25 G.P.M. with a 25' D.D.

Ground elevation at well site 200 feet above mean sea level.
Work started Sept 1956 Completed Oct 1956

Well Driller's Statement:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.

NAME Steinman Bros
(Person, firm, or corporation) (Typed or printed)
Address 8332 S.E. 16th Ave. Portland, Ore.
Driller's well number 3556
[Signed] Ed Steinman
(Well Driller)
License No. 1 Dated Nov. 2, 1956

STATE ENGINEER
Salem, Oregon

Clas 2182

Well Record

STATE WELL NO. 2/1-1L1
COUNTY MULTNOMAH
APPLICATION NO.

Pg 2 of 3

OWNER: D. M. Steeves

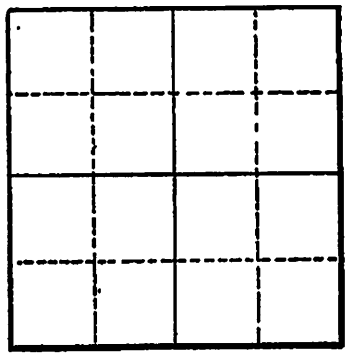
MAILING ADDRESS:

CITY AND STATE:

LOCATION OF WELL: Owner's No.

____¼ ____¼ Sec. ____ T. ____ N. S., R. ____ E. W., W.M.

Bearing and distance from section or subdivision corner



Altitude at well 190

TYPE OF WELL: Drilled Date Constructed

Depth drilled 397 Depth cased 23

Section

CASING RECORD:

6 inch

FINISH:

AQUIFERS:

Basalt, Columbia River basalt-Depth to top-264 feet

WATER LEVEL:

150 feet below land surface, October, 1956

PUMPING EQUIPMENT: Type H.P.

Capacity G.P.M.

WELL TESTS:

Drawdown ft. after hours G.P.M.

Drawdown ft. after hours G.P.M.

USE OF WATER Domestic Temp. °F., 19

SOURCE OF INFORMATION USGS

DRILLER or DIGGER

ADDITIONAL DATA:

Log X Water Level Measurements Chemical Analysis Aquifer Test

REMARKS:

Bailed 25 gpm, drawdown 25 feet.

State Printing 83116

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STATE ENGINEER
Salem, Oregon

clac 2182

State Well No. 2/1-1L1
County MULTNOMAH
Application No.

Well Log

Owner: D. M. Steeves Owner's No.

Driller: Steinman Bros. Drilling Co. Date Drilled 1956

CHARACTER OF MATERIAL	(Feet below land surface) From	To	Thickness (feet)
Columbia River Basalt:			
Clay	0	4	4
Rock, broken, and clay	4	14	10
Rock, broken	14	20	6
Rock, hard, some crevices	20	34	14
Rock, softer	34	41	7
Rock, black and gray, hard	41	264	223
Rock, black; test bailed 7 gpm, static			

OJ NAME = "User: pcguest; Job: harbor_1-2425"