# FINAL - INTERIM REMEDIAL ACTION REPORT FORMER TEXACO SERVICE STATION NO. 21-1556 101 Mulford Road Toledo, Washington

**April 14, 2011** 

Prepared for:
Washington State Department of Ecology
P.O. Box 47775
Olympia, Washington 98504-7775

Prepared by: SAIC Energy, Environment & Infrastructure, LLC 18912 North Creek Parkway, Suite 101 Bothell, Washington 98011

On Behalf of: Chevron Environmental Management Company 6101 Bollinger Canyon Road San Ramon, California 94583



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> Gabriel Cisneros, LG Project Geologist

Michael E. Jenkins, LG, LHG Senior Project Manager



Gabriel Cisneros

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# FINAL - INTERIM REMEDIAL ACTION REPORT FORMER TEXACO SERVICE STATION NO. 21-1556

### 1. INTRODUCTION

SAIC Energy, Environment & Infrastructure, LLC (SAIC), on behalf of Chevron Environmental Management Company (CEMC), prepared this report documenting the results of an interim remedial action that was performed at the former Texaco Oil Company (Texaco) Service Station No. 21-1556 (the site) near Toledo, Washington. The site is also known as Cowlitz BP, Cowlitz Food and Fuel, or Washington State Department of Ecology (Ecology) Facility No. 1166.

The interim remedial action was performed in accordance with the Final Interim Remedial Action Work Plan (the Benham Companies, LLC, an SAIC Company [SAIC-Benham], 2010), which was approved by Ecology in a letter dated August 17, 2010. The work was also performed in accordance with Agreed Order No. DE 5236, between Ecology and Texaco Downstream Properties, Inc. (TDPI), and the Model Toxics Control Act (MTCA) Cleanup Regulation, Chapter 173-340 WAC.

## 2. PROJECT BACKGROUND

### 2.1 SITE DESCRIPTION

The site is located east of Interstate 5, off the Vader-Ryderwood exit, near the intersection of Cowlitz Ridge Road and Mulford Road, in Lewis County, Washington (Figure 1).

The site is comprised of three land parcels owned by Mr. Charles Vineyard. An active or operating Shell-branded gasoline service station, mini-mart, and restaurant are located on the two parcels north of Mulford Road (Assessor's Parcel Number [APN] 012429003001 and APN 012429004000). A vacant lot, formerly a Texaco gasoline service station, is located on the parcel south of Mulford Road (APN 012429002001). Both service station locations have confirmed subsurface petroleum-hydrocarbon impacts. They were combined into the Cowlitz BP Site by Ecology in part due to their common property ownership.

# 2.2 SITE HISTORY

The site was originally part of a single tax lot that was purchased in 1947 by Mr. Frank Vineyard (former property owner, now deceased) and used for farming. In 1955, the lot was subdivided and leased.

The two parcels north of Mulford Road were leased to Texaco in 1955. Texaco constructed a service station building and installed four underground storage tanks (USTs) and associated piping. In 1980, Texaco passed lease and ownership interests to Olson Brothers Garage, Inc.; lease and ownership interests were passed to West Coast Oil Company in 1985. In 1986, Robert and Sherry Smith purchased the service station from West Coast Oil Company. The Smiths operated the service station until 2004, when it was purchased by Tri-Tex Oil Company. Tri-Tex currently operates the Cowlitz Shell gasoline service station north of Mulford Road.

The parcel south of Mulford Road was originally leased to General Petroleum Corporation. In 1978, a new lease was assigned to Olson Brothers Garage, Inc., who operated a Mobil service station and a small restaurant on the property until 1984. In 1992, two 6,000-gallon and one 300-gallon USTs were removed. Sometime around 1994, the parcel south of Mulford Road was utilized as a sales lot for pre-fabricated homes. The property is currently vacant.



# 2.3 SITE ASSESSMENT AND REMEDIATION HISTORY

Numerous environmental investigations have been conducted on each of the properties since 1991. A groundwater monitoring program has been ongoing since 1991. These investigations have identified two separate petroleum-impacted areas on the property north of Mulford Road. A single petroleum-impacted area has been identified on the property south of Mulford Road. A summary of these environmental investigations and findings are provided in the Final Interim Remedial Action Work Plan (SAIC-Benham, 2010).

### 3. INTERIM REMEDIAL ACTION

The objective of this interim remedial action was to remove petroleum-hydrocarbon impacted soil from the site. The action focused primarily on the excavation and disposal of impacted soils associated with a former diesel UST located north of Mulford Road (Excavation 1), and the excavation and disposal of impacted soils associated with a former gasoline UST located south of Mulford Road (Excavation 2). These features are shown on Figure 2.

In conjunction with the interim remedial action field work, six groundwater monitoring wells were decommissioned and five others were repaired. This additional work is documented in this report.

# 3.1 SCOPE OF WORK

In summary, the interim remedial action proposed by CEMC and approved by Ecology included:

- Decommissioning monitoring wells MW-101 and MW-104 through MW-108.
- Repairing the well monuments on monitoring wells MW-111 and B-1 through B-4.
- Excavating and disposing all petroleum-impacted soil, with constituent concentrations exceeding their respective MTCA cleanup levels (CULs), associated with the former diesel UST located north of Mulford Road (Excavation 1) and the former gasoline UST located south of Mulford Road (Excavation 2).
- Collecting confirmation soil samples from the sidewalls and bottom of each excavation.
- Segregating unimpacted overburden soil from petroleum-impacted soil in separate stockpiles prior to disposal.
- Applying an oxygen-releasing compound (ORC) onto the bottom of each excavation.
- Backfilling each excavation with imported fill material and compacting it to specification.

A detailed discussion of the interim remedial action activities, findings, and results is provided in sections 3.2 through 3.12.

# 3.2 SUBSURFACE UTILITY LOCATION

Prior to beginning work, SAIC contacted the Utilities Underground Location Center ("One Call") to arrange for locating and marking all known conductible and non-conductible underground utilities on the site and nearby public rights of way. In addition, SAIC contracted Underground Locating Services Corporation (ULS) to locate and mark underground utilities. ULS marked subsurface utilities on October 1, 2010.



Representatives from Qwest and 360 Network were present during Excavation 2 activities (south of Mulford Road) to ensure that the excavation did not impact an underground fiber optics line that runs between the east side of Cowlitz Ridge Road and the west side of Excavation 2.

Underground utilities were not encountered during the interim remedial action.

## 3.3 MONITORING WELL DECOMMISSIONING

Six groundwater monitoring wells were decommissioned during this field effort. The furthest down-gradient monitoring wells (MW-104 through MW-108) were decommissioned, with Ecology approval, because petroleum-hydrocarbon constituents were not detected in groundwater at concentrations exceeding MTCA Method A CULs for at least four consecutive quarterly sampling events. Monitoring well MW-101 was decommissioned because it was located within the proposed areal limits of Excavation 2.

SAIC contracted Cascade Drilling, Inc., of Woodinville, Washington to decommission the monitoring wells. The well monuments were removed and subsurface well materials were overdrilled with a hollow-stem auger to their total depth. Each boring was backfilled with bentonite chips to 2 feet below ground surface (bgs), and filled with sand to the ground surface. Well decommissioning occurred from October 5 through October 7, 2010.

# 3.4 MONITORING WELL REPAIR

Cascade Drilling replaced the well monuments on five monitoring wells, including B-1 through B-4 and MW-111. The original well monuments had either subsided below grade, had broken cover-bolt flanges, or had other damage that prevented them from being adequately locked or secured. Well repairs occurred on October 6 and 7, 2010.

# 3.5 EXCAVATION SOIL CLEANUP LEVELS

The Interim Remedial Action Work Plan established the following soil CULs. The CULs incorporated a simplified Terrestrial Ecological Evaluation (TEE) for soils less than 6 feet bgs, and MTCA Method A for soils greater than 6 feet bgs.

Depth (ft bgs)	TPH-G (mg/kg)	TPH-D (mg/kg)	TPH-O (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl- benzene (mg/kg)	Total Xylenes (mg/kg)
0 to 6 (TEE)	30	460	2,000	0.03	7	6	9
6 to 15	30	2,000	2,000	0.03	7	6	9

Abbreviations:

mg/kg = Milligrams per kilogram

TPH-G = Total petroleum hydrocarbons as gasoline-range organics

TPH-D = Total petroleum hydrocarbons as diesel-range organics

TPH-O = Total petroleum hydrocarbons as heavy oil-range organics



### 3.6 LABORATORY ANALYSIS

SAIC contracted Environmental Services Network of Olympia, Washington to provide an on-site mobile laboratory to analyze excavation and stockpile soil samples during the interim remedial action. All soil samples were analyzed for the following:

- TPH-G by Ecology Method NWTPH-Gx;
- TPH-D by Ecology Method NWTPH-Dx with silica-gel cleanup;
- TPH-O by Ecology Method NWTPH-Dx with silica-gel cleanup; and
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX) by United States Environmental Protection Agency (EPA) Method 8021.

Select soil samples from the excavation sidewalls and bottom were analyzed for:

- Carcinogenic polycyclic aromatic hydrocarbons (cPAHs) by EPA Method 8270C SIM;
- Total lead by EPA Method 6020;
- Extractable petroleum hydrocarbons (EPH) and volatile petroleum hydrocarbons (VPH) by EPA Method NW-EPH and NW-VPH, respectively; and
- Total volatile organic compounds, ethylene dibromide, and ethylene dichloride by EPA Method 8260.

# 3.7 EXCAVATION AND CONFIRMATION SOIL SAMPLING METHODS

SAIC contracted Clear Creek Contractors of Everett, Washington to perform the remedial excavations. Two track-mounted excavators were used. Excavation 1 began on October 4, 2010, and backfilling was completed on October 19, 2010. Excavation 2 began on October 13, 2010, and backfilling was completed on October 25, 2010.

The methods used on both excavations were generally similar. Excavation began near the center of each impacted area, and extended downward and outward at an approximately 1:1 slope until groundwater was encountered and petroleum-impacted soil was no longer encountered in the excavation sidewalls. Soil samples were field screened for the presence of petroleum hydrocarbons using a photo-ionization detector (PID) and a sheen pan. Soil samples were analyzed by the mobile laboratory to differentiate between unimpacted overburden soil and petroleum-hydrocarbon impacted soil. Soil sample locations for Excavation 1 and Excavation 2 are shown on Figures 3 and 4, respectively. Sample identifications designate the excavation number (EX1), the sample number from that excavation (60), and the corresponding depth (10), e.g., EX1-60-10.

Unimpacted overburden soil was segregated from petroleum-hydrocarbon impacted soil. Both were placed on, and covered with, plastic sheeting in separate stockpiles pending analytical results and eventual transportation and disposal off site.

Excavation 1 initially extended to just above the groundwater table at approximately 9.5 to 10 feet bgs. Excavation 2 similarly extended to approximately 8 feet bgs. Petroleum-hydrocarbon impacted soil was observed at the water table and within the capillary fringe in both excavations.

In an effort to lower the water table and excavate as much impacted soil as possible, a sump was excavated in the bottom of each excavation, and a diaphragm pump was installed to remove



groundwater. Accumulating groundwater was pumped into and stored on site in temporary polyethylene tanks while awaiting analytical testing results and off site transportation and disposal. This dewatering lowered the water table in each excavation by approximately 2 feet and enabled the excavation of additional petroleum-hydrocarbon impacted soil.

The final dimensions of Excavation 1 measured approximately 45 feet by 50 feet by 12 feet deep. The final dimensions of Excavation 2 measured approximately 55 feet by 80 feet by 10.5 feet deep.

# 3.8 EXCAVATION SOIL SAMPLING RESULTS

Soil sample locations used to distinguish between unimpacted overburden soil and petroleum-impacted soil, as well as characterize the excavation sidewalls and bottoms, are shown on Figures 3 and 4. Soil analytical results for Excavation 1 (including TPH-G, -D, -O, and BTEX) are provided in Table 1. Soil analytical results for Excavation 2 (including TPH-G, -D, -O, and BTEX) are provided in Table 2. Additional soil analytical results for Excavations 1 and 2 (including cPAHs and total lead) are provided in Table 3. Analytical laboratory reports are provided as Appendix A.

These data demonstrate the concentration of petroleum-hydrocarbon constituents in the sidewalls of each excavation are below the soil CULs established in section 3.5. However, these data indicate residual petroleum-hydrocarbon impacted soil still exists in the bottom of each excavation.

In the bottom of Excavation 1, TPH-G were detected at concentrations ranging from 47 to 6,600 mg/kg, and TPH-D were detected at concentrations ranging from 2,800 to 4,500 mg/kg. TPH-G were detected at concentrations ranging from 980 to 1,800 mg/kg in the bottom of Excavation 2. No other constituents were detected above applicable soil CULs.

# 3.9 OXYGEN RELEASING COMPOUND

Confirmation soil samples collected from both excavations indicate petroleum-hydrocarbon impacted soil is still present at or below the groundwater table. ORC that contained calcium oxy-hydroxide was applied throughout the bottom of both excavations to enhance future biodegradation. Approximately 700 pounds of ORC were applied to the bottom of Excavation 1, and approximately 1,300 pounds of ORC were applied to the bottom of Excavation 2.

## 3.10 UNIMPACTED SOIL STOCKPILE SAMPLING RESULTS

Excavation activities generated five unimpacted overburden soil stockpiles (SP-1 through SP-5). These stockpiles were sampled and analyzed for TPH-G, -D, -O, and BTEX for disposal purposes. Analytical results are provided in Table 4.

TPH-G were detected in one of three samples (SP-1-1) collected from stockpile SP-1 at a concentration exceeding the soil CULs established in section 3.5. As a result, this stockpile was considered petroleum-hydrocarbon impacted soil. In addition, TPH-O were detected at concentrations above the laboratory method detection limit in two of 10 samples (SP-4-9 and SP-4-10) collected from stockpile SP-4. Although these detections were below the soil CULs, SAIC decided the portion of the unimpacted overburden stockpile where these samples were collected should be removed and added to an impacted soil stockpile. After removing this portion of SP-4, two additional stockpile samples were collected (SP-4-11 and SP-4-12) to confirm that the impacted soil had been removed.



All remaining unimpacted soil stockpiles contained no detectable petroleum-hydrocarbon constituents.

## 3.11 SOIL AND GROUNDWATER DISPOSAL

Approximately 860 tons (550 cubic yards) of petroleum-hydrocarbon impacted soil were removed from Excavation 1, and approximately 435 tons (260 cubic yards) of petroleum-hydrocarbon impacted soil were removed from Excavation 2. A total of approximately 1,295 tons (810 cubic yards) of petroleum-hydrocarbon impacted soil were transported to the Waste Management, Inc., landfill in Hillsboro, Oregon. Waste Management trucking tickets are provided as Appendix B.

Approximately 320 cubic yards of unimpacted overburden soil were removed from Excavation 1, and approximately 1,000 cubic yards of unimpacted overburden soil were removed from Excavation 2. Unimpacted overburden soil was not used to backfill the excavations because the high percentage of rounded river cobbles contained in these soils would prevent adequate compaction. Therefore, all unimpacted overburden soil (approximately 1,320 cubic yards) was transported to and disposed of as Class 1 soil at Wallace Sand and Gravel, located in Toledo, Washington.

Approximately 5,500 gallons of petroleum-impacted groundwater were generated during excavation activities. A groundwater sample was collected from Excavation 2 and analyzed for TPH-G, -D, -O, and BTEX. Groundwater analytical results are provided in Table 5. Groundwater was transported by to the Waste Management, Inc., hazardous waste facility in Arlington, Oregon.

# 3.12 EXCAVATION BACKFILLING AND COMPACTION TESTING

All unimpacted overburden soils were not suitable for compaction; therefore, approximately 4,200 tons of quarry spalls, gravel borrow, and 1 ¼-inch minus gravel road base were imported from Wallace Sand and Gravel to return both excavations to the original ground surface.

Excavation backfilling and compaction testing activities were generally performed per the Ecology approved Grading Plan for this project, with the following exceptions:

- Excavation 1: An approximately 4-inch-thick lift of 1 ¼-inch minus gravel road base was used as the final course of backfill material to better prepare this area for vehicular traffic. No compaction testing was performed on this final lift of backfill material.
- Excavation 2: Due to heavy rains that occurred for several days prior to October 25, 2010, and which resulted in excessive moisture content in the backfill materials such that the compaction specifications could not be met, geotextile fabric was placed on top of the uppermost lift of imported gravel borrow backfill, at approximately 12 inches bgs, and the upper 12 inches of this excavation were backfilled with 1 ¼-inch minus gravel road base. No compaction testing was performed on the upper 16 inches of backfill material in this excavation; however, the excavation contractor performed qualitative stability tests of the backfill materials, via heavy equipment and vehicular traffic, such that SAIC believes this area will not be subject to excessive settlement or otherwise result in a hazard to the public. This modification to the approved Grading Plan specifications was verbally approved by Ecology on October 25, 2010.

Compaction testing reports are included as Appendix C.



### 4. CONCLUSIONS

This interim remedial action successfully removed and disposed of approximately 1,295 tons (810 cubic yards) of petroleum-hydrocarbon impacted soil (as defined in section 3.5) from the former diesel UST located north of Mulford Road (Excavation 1), and the former gasoline UST located south of Mulford Road (Excavation 2). However, although the excavations were successful in removing a significant portion of the petroleum-hydrocarbon source mass in each of the excavation areas, some petroleum-hydrocarbon impacted soil remains at and below the groundwater table in these areas. Approximately 2,000 pounds of ORC were applied to the bottom of the excavations, which should be effective in promoting further reductions in petroleum-hydrocarbon source mass through enhanced biodegradation.

The effectiveness of the interim remedial action excavations and ORC application to reduce concentrations of dissolved-phase petroleum hydrocarbons in groundwater will be evaluated by comparing past and future groundwater sampling results for monitoring wells located down gradient of the excavation areas. Due to the decommissioning of monitoring well MW-101, CEMC is planning to install one new monitoring well (MW-120) on the property south of Mulford Road, down gradient of Excavation 2 (Figure 2). This monitoring well will be located approximately 10 to 15 feet from the down-gradient boundary of Excavation 2, and will be the primary sampling location for evaluating the effectiveness of the interim remedial action activities on this portion of the site.

Groundwater monitoring and sampling will continue to be performed at this site on a quarterly basis.

### 5. REFERENCES

SAIC-Benham, 2010. Final Interim Remedial Action Work Plan, Former Cowlitz BP/Texaco Station #211556 in Toledo, Washington. Prepared for Washington State Department of Ecology. August 18, 2010.



# **Figures**



# NORTH







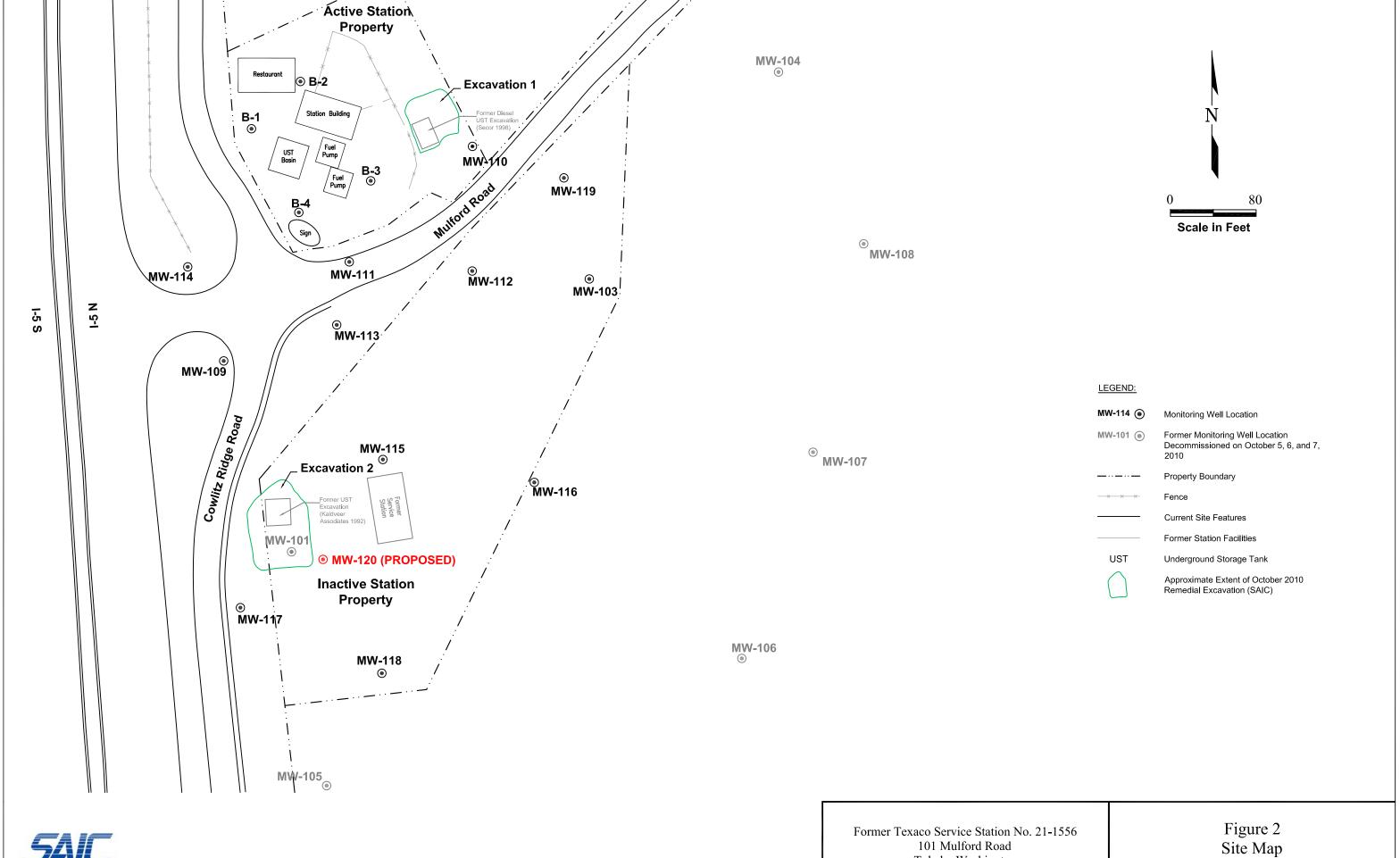


Former Texaco Service Station No. 21-1556 101 Mulford Road Toledo, Washington FIGURE 1 Vicinity Map

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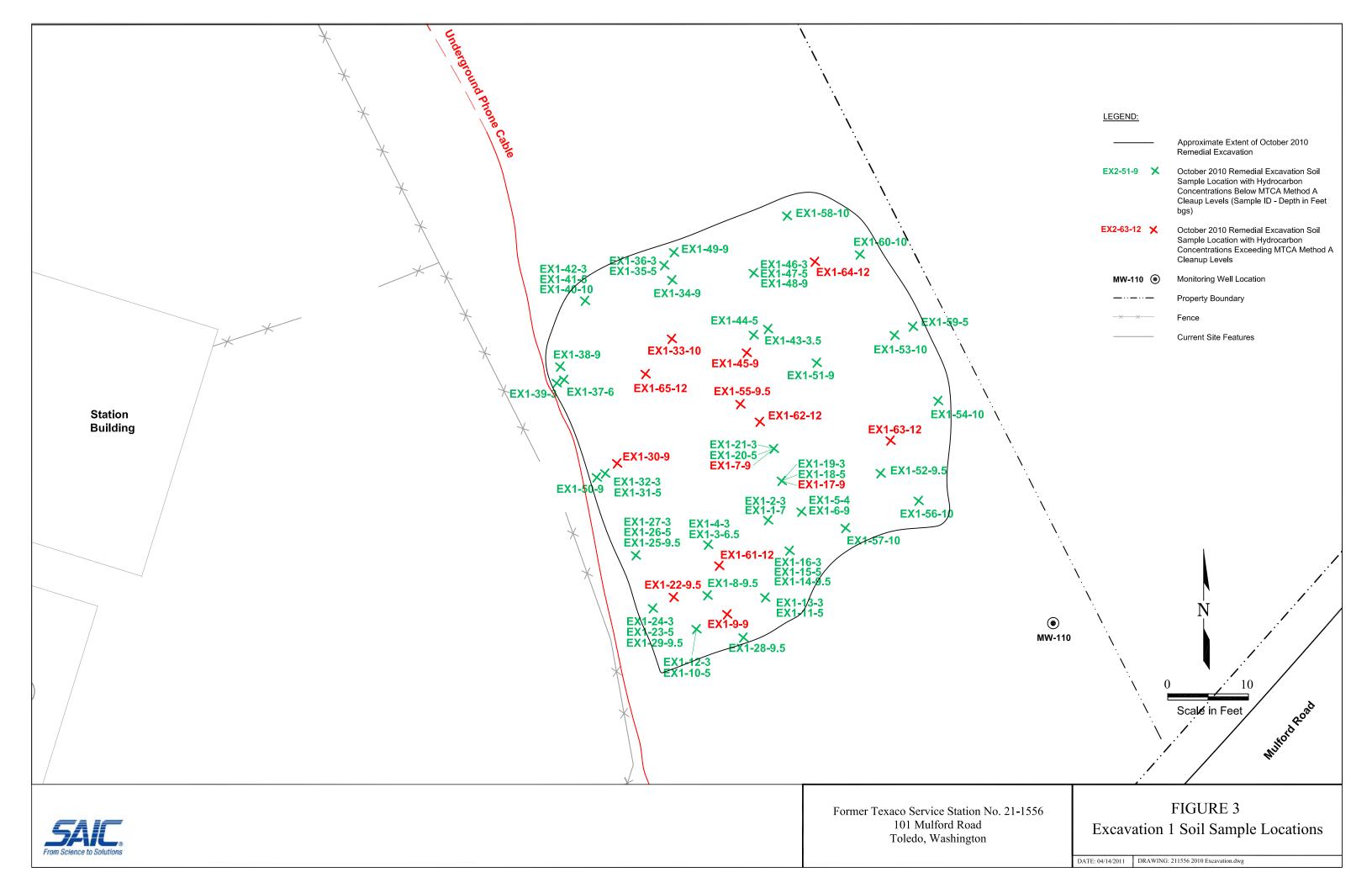
211556\_VM.dwg

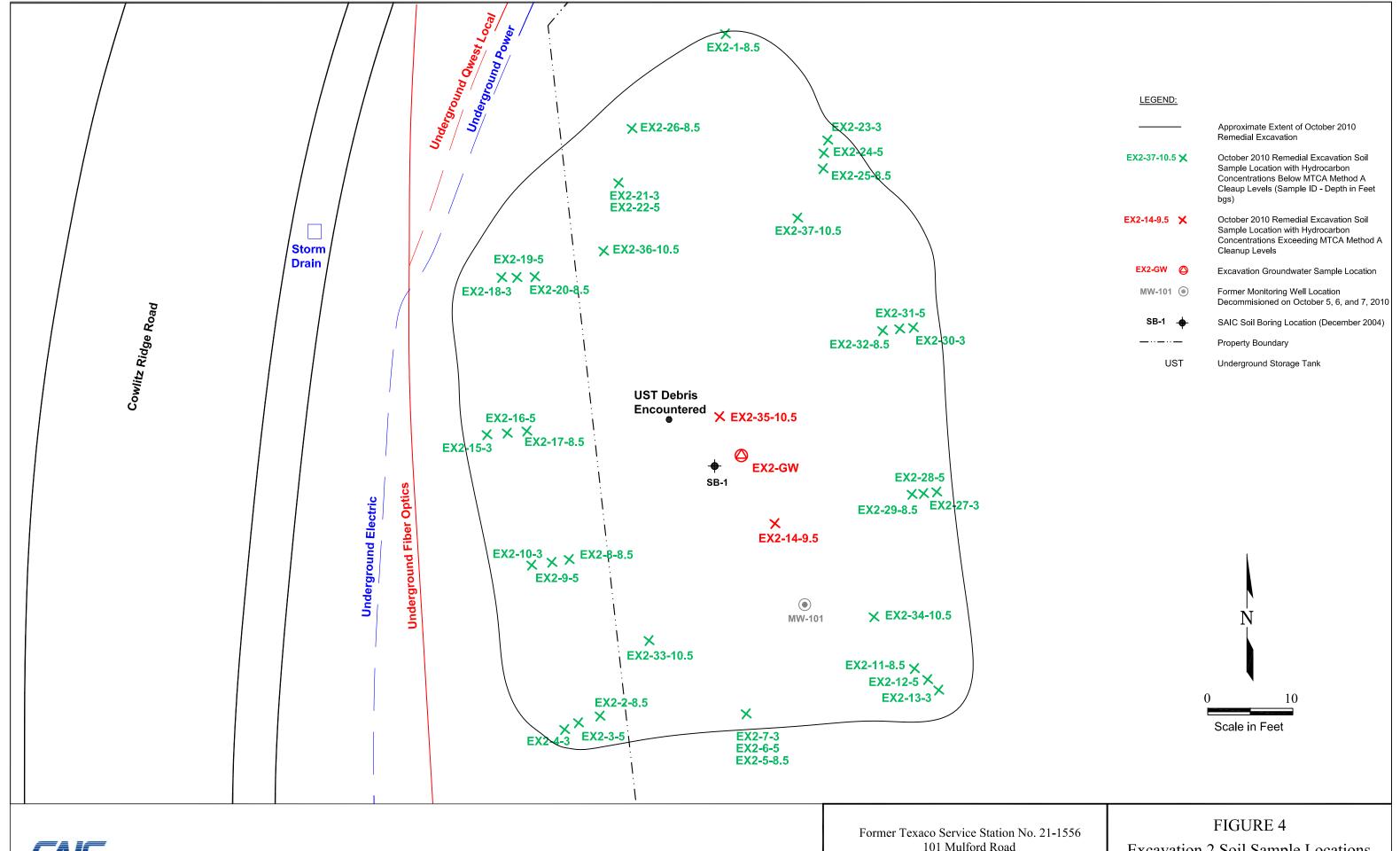
01/20/2011



Toledo, Washington

DATE: 04/06/2011 DRAWING: 211556 2011 Site Map.dwg





101 Mulford Road Toledo, Washington **Excavation 2 Soil Sample Locations** 

DATE: 04/14/2011 DRAWING: 211556 2010 Excavation.dwg



# EXCAVATION 1 SOIL ANALYTICAL RESULTS FORMER TEXACO SERVICE STATION NO. 21-1556

# 101 Mulford Road, Toledo, Washington Concentrations reported in mg/kg

Concentrations reported in hig/kg												
	Sample Depth							Ethyl-	Total			
Sample ID	(feet)	Date	$TPH-G^1$	$TPH-D^2$	$TPH-O^2$	Benzene <sup>3</sup>	<b>Toluene</b> <sup>3</sup>	benzene <sup>4</sup>	<b>Xylenes</b> <sup>3</sup>			
EX1-1-7	7	10/5/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U			
EX1-2-3	3	10/5/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U			
EX1-3-6.5	6.5	10/5/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U			
EX1-4-3	3	10/5/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U			
EX1-5-4	4	10/6/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U			
EX1-6-9	9	10/6/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U			
EX1-7-9	9	10/6/10	2,800	1,400	100 U	0.02 U	0.05 U	0.05 U	0.15 U			
EX1-8-9.5	9.5	10/6/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U			
EX1-9-9	9	10/6/10	47	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U			
EX1-10-5	5	10/6/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U			
EX1-11-5	5	10/6/10	16	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U			
EX1-12-3	3	10/6/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U			
EX1-13-3	3	10/6/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U			
EX1-14-9.5	9.5	10/6/10	10 U	140	100 U	0.02 U	0.05 U	0.05 U	0.15 U			
EX1-15-5	5	10/6/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U			
EX1-16-3	3	10/6/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U			
EX1-17-9	9	10/6/10	110	360	100 U	0.02 U	0.05 U	0.05 U	0.15 U			
EX1-18-5	5	10/6/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U			
EX1-19-3	3	10/6/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U			
EX1-20-5	5	10/6/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U			
EX1-21-3	3	10/6/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U			
EX1-22-9.5	9.5	10/6/10	66	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U			
EX1-23-5	5	10/6/10	22	160	100 U	0.02 U	0.05 U	0.05 U	0.15 U			
EX1-24-3	3	10/6/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U			
EX1-25-9.5	9.5	10/6/10	28	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U			
EX1-26-5	5	10/6/10	24	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U			
EX1-27-3	5	10/6/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U			



# EXCAVATION 1 SOIL ANALYTICAL RESULTS FORMER TEXACO SERVICE STATION NO. 21-1556

# 101 Mulford Road, Toledo, Washington Concentrations reported in mg/kg

Sample Sample											
	Depth		- 1	2	- 2	3	3	Ethyl-	Total		
Sample ID	(feet)	Date	TPH-G <sup>1</sup>	TPH-D <sup>2</sup>	TPH-O <sup>2</sup>	Benzene <sup>3</sup>	Toluene <sup>3</sup>	benzene <sup>4</sup>	<b>Xylenes</b> <sup>3</sup>		
EX1-28-9.5	9.5	10/7/10	12	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U		
EX1-29-9.5	9.5	10/7/10	25	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U		
EX1-30-9	9	10/7/10	3,100	4,500	100 U	0.02 U	0.05 U	0.05 U	0.15 U		
EX1-31-5	5	10/7/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U		
EX1-32-3	3	10/7/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U		
EX1-33-10	10	10/7/10	94	1,900	100 U	0.02 U	0.05 U	0.05 U	0.15 U		
EX1-34-9	9	10/7/10	18	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U		
EX1-35-5	5	10/7/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U		
EX1-36-3	3	10/7/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U		
EX1-37-6	6	10/7/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U		
EX1-38-9	9	10/7/10	22	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U		
EX1-39-3	3	10/7/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U		
EX1-40-10	10	10/7/10	20	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U		
EX1-41-5	5	10/7/10	10	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U		
EX1-42-3	3	10/7/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U		
EX1-43-3.5	3	10/7/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U		
EX1-44-5	5	10/7/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U		
EX1-45-9	9	10/7/10	180	2,800	100 U	0.02 U	0.05 U	0.05 U	0.15 U		
EX1-46-3	3	10/7/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U		
EX1-47-5	5	10/7/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U		
EX1-48-9	9	10/7/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U		
EX1-49-9	9	10/8/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U		
EX1-50-9	9	10/8/10	19	120	100 U	0.02 U	0.05 U	0.05 U	0.15 U		
EX1-51-9	9	10/8/10	14	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U		
EX1-52-9.5	9.5	10/8/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U		
EX1-52-9.5 Dup	9.5	10/8/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U		
EX1-53-10	10	10/11/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U		



# EXCAVATION 1 SOIL ANALYTICAL RESULTS FORMER TEXACO SERVICE STATION NO. 21-1556

# 101 Mulford Road, Toledo, Washington

Concentrations reported in mg/kg

	Sample				Ü				
	Depth			_	_	_	_	Ethyl-	Total
Sample ID	(feet)	Date	TPH-G <sup>1</sup>	$TPH-D^2$	<b>TPH-O</b> <sup>2</sup>	Benzene <sup>3</sup>	<b>Toluene</b> <sup>3</sup>	benzene <sup>4</sup>	<b>Xylenes</b> <sup>3</sup>
EX1-53-10 Dup	10	10/11/10	10 U	NA	NA	0.02 U	0.05 U	0.05 U	0.15 U
EX1-54-10	10	10/11/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U
EX1-54-10 Dup	10	10/11/10	NA	50 U	100 U	NA	NA	NA	NA
EX1-55-9.5	9.5	10/11/10	6,600	1,100	100 U	0.02 U	0.05 U	0.05 U	0.15 U
EX1-56-10	10	10/12/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U
EX1-56-10 Dup	10	10/12/10	10 U	NA	NA	0.02 U	0.05 U	0.05 U	0.15 U
EX1-57-10	10	10/12/10	26	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U
EX1-57-10 Dup	10	10/12/10	NA	50 U	100 U	NA	NA	NA	NA
EX1-58-10	10	10/12/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U
EX1-59-5	5	10/12/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U
EX1-60-10	10	10/12/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U
EX1-61-12	12	10/12/10	260	105	100 U	0.02 U	0.05 U	0.05 U	0.15 U
EX1-62-12	12	10/12/10	50	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U
EX1-63-12	12	10/12/10	750	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U
EX1-64-12	12	10/12/10	71	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U
EX1-65-12	12	10/12/10	65	65	100 U	0.02 U	0.05 U	0.05 U	0.15 U
	MTCA M	ethod A CULs	30/100	2,000	2,000	0.03	7.0	6.0	9.0

### **EXPLANATIONS:**

CULs = Cleanup levels

Dup = Duplicate

EPA = United States Environmental Protection Agency

mg/kg = Milligrams

MTCA = Model Toxics Control Act

NA = Not analyzed

TPH = Total petroleum hydrocarbons

TPH-G = TPH as gasoline

TPH-D = TPH as diesel

TPH-O = TPH as heavy oil

U = Analyte not detected at or above the listed method detection limit

Ecology = Washington State Department of Ecology

Results in bold indicate analyte reported in concentration exceeding the Ecology MTCA Method A

- 1. Analyzed by Ecology Method NWTPH-Gx.
- 2. Analyzed by Ecology Method NWTPH-Dx with silica-gel cleanup.
- 3. Analyzed by EPA method 8260B.



# TABLE 2 EXCAVATION 2 SOIL ANALYTICAL RESULTS

# FORMER TEXACO SERVICE STATION NO. 21-1556

# 101 Mulford Road, Toledo, Washington

Concentrations reported in mg/kg

	Sample			Î	orted in ing/i	6		Trale - J	T-4-1
G 1 TD	Depth	<b>5</b> .	mpy of	CDIT D2	TDVI 02	<b>D</b> 3	m 1 3	Ethyl-	Total 3
Sample ID	(ft)	Date	TPH-G <sup>1</sup>	TPH-D <sup>2</sup>	TPH-O <sup>2</sup>	Benzene <sup>3</sup>	Toluene <sup>3</sup>	benzene <sup>3</sup>	Xylenes <sup>3</sup>
EX2-1-8.5	8.5	10/13/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U
EX2-2-8.5	8.5	10/14/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U
EX2-3-5	5	10/14/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U
EX2-4-3	3	10/14/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U
EX2-5-8.5	8.5	10/14/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U
EX2-5-8.5 Dup	8.5	10/14/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U
EX2-6-5	5	10/14/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U
EX2-7-3	3	10/14/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U
EX2-8-8.5	8.5	10/14/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U
EX2-9-5	5	10/14/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U
EX2-10-3	3	10/14/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U
EX2-11-8.5	8.5	10/14/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U
EX2-12-5	5	10/14/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U
EX2-13-3	3	10/14/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U
EX2-13-3 Dup	3	10/14/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U
EX2-14-9.5	9.5	10/14/10	1,800	50 U	100 U	0.02 U	0.05 U	0.16	0.41
EX2-15-3	3	10/18/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U
EX2-15-3 Dup	3	10/18/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U
EX2-16-5	5	10/18/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U
EX2-17-8.5	8.5	10/18/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U
EX2-18-3	3	10/18/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U
EX2-19-5	5	10/18/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U
EX2-20-8.5	8.5	10/18/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U
EX2-21-3	3	10/18/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U
EX2-22-5	5	10/18/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U
EX2-23-3	3	10/18/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U
EX2-24-5	5	10/18/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U
EX2-25-8.5	8.5	10/18/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U
EX2-26-8.5	8.5	10/19/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U



# EXCAVATION 2 SOIL ANALYTICAL RESULTS FORMER TEXACO SERVICE STATION NO. 21-1556

# 101 Mulford Road, Toledo, Washington

Concentrations reported in mg/kg

	Sample Depth							Ethyl-	Total
Sample ID	(ft)	Date	TPH-G <sup>1</sup>	TPH-D <sup>2</sup>	TPH-O <sup>2</sup>	Benzene <sup>3</sup>	Toluene <sup>3</sup>	benzene <sup>3</sup>	Xylenes <sup>3</sup>
EX2-27-3	3	10/19/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U
EX2-28-5	5	10/19/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U
EX2-29-8.5	8.5	10/19/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U
EX2-30-3	3	10/19/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U
EX2-30-3 Dup	3	10/19/10	NA	50 U	100 U	NA	NA	NA	NA
EX2-31-5	5	10/19/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U
EX2-32-8.5	8.5	10/19/10	10 U	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U
EX2-33-10.5	10.5	10/20/10	29	50 U	100 U	0.02 U	0.06	0.05 U	0.18
EX2-34-10.5	10.5	10/20/10	29	50 U	100 U	0.02 U	0.05 U	0.05 U	0.11
EX2-35-10.5	10.5	10/20/10	980	50 U	100 U	0.02 U	0.08	1.10	4.40
EX2-36-10.5	10.5	10/20/10	22	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U
EX2-37-10.5	10.5	10/20/10	22	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U
EX2-37-10.5	10.5	10/20/10	27	50 U	100 U	0.02 U	0.05 U	0.05 U	0.15 U
	MTCA M	ethod A CULs	30/100	2,000	2,000	0.03	7.0	6.0	9.0

## **EXPLANATIONS:**

CULs = Cleanup levels

Dup = Duplicate

EPA = United States Environmental Protection Agency

mg/kg = Milligrams per kilogram

MTCA = Model Toxics Control Act

NA = Not analyzed

TPH = Total petroleum hydrocarbons

TPH-G = TPH as gasoline

TPH-D = TPH as diesel

TPH-O = TPH as heavy oil

U = Analyte not detected at or above the listed method detection limit

Ecology = Washington State Department of Ecology

Results in bold indicate analyte reported in concentration exceeding the Ecology MTCA Method A CUL.

- 1. Analyzed by Ecology Method NWTPH-Gx.
- 2. Analyzed by Ecology Method NWTPH-Dx with silica-gel cleanup.
- 3. Analyzed by EPA method 8260B.



# TABLE 3 cPAHs AND TOTAL LEAD ANALYTICAL RESULTS FORMER TEXACO SERVICE STATION NO. 21-1556

# 101 Mulford Road, Toledo, Washington

Concentrations reported in mg/kg

Sample ID	Sample Depth (ft)	Date	Benzo(a)anthracene¹	Benzo(a)pyrene¹	Benzo(b)fluoranthene <sup>1</sup>	Benzo(k)floranthene <sup>1</sup>	Chrysene <sup>1</sup>	Dibenz(a,h)anthracene <sup>1</sup>	Indeno(1,2,3-cd)pyrene <sup>1</sup>	Total Toxicity Equivalency of Benzo(a)pyrene	Total Lead²
EX1-7-9	9	10/6/10	0.0078 U	0.0078 U	0.0078 U	0.00780 U	0.0039 U	0.0078 U	0.0078 U	0.01174	5.48
EX1-28-9.5	9.5	10/7/10	0.0010	0.00084 U	0.0016	0.00084 U	0.0026	0.00084 U	0.00084 U	0.00138	7.91
EX1-29-9.5	9.5	10/7/10	0.00091	0.0011	0.0017	0.00081 U	0.0014	0.00081 U	0.00088	0.00163	11.4
EX1-33-10	10	10/7/10	0.0046	0.0015 U	0.0015 U	0.0015 U	0.020	0.0015 U	0.0015 U	0.00276	7.11
EX1-34-9	9	10/7/10	0.00086 U	0.00086 U	0.00086 U	0.00086 U	0.0011	0.00086 U	0.00086 U	0.0013	7.22
EX1-62-12	12	10/12/10	0.00089 U	0.0011	0.0014	0.00089 U	0.0034	0.00089 U	0.00089 U	0.00163	9.50
EX1-63-12	12	10/12/10	0.00074 U	0.00074 U	0.00074 U	0.00074 U	0.0016	0.00074 U	0.00074 U	0.00113	6.16
EX2-14-9.5	9.5	10/14/10	0.021	0.023	0.026	0.011	0.023	0.0025	0.0090	0.03018	6.04

### **EXPLANATIONS**:

CULs = Cleanup levels

EPA = United States Environmental Protection Agency

mg/kg = Milligrams per kilogram

MTCA = Model Toxics Control Act

NA = Not analyzed

U = Analyte not detected at or above the listed method detection limit

- 1. cPAHs analyzed by EPA Method 8270C SIM.
- 2. Total Lead analyzed by EPA Method 6020.



# STOCKPILE SOIL ANALYTICAL RESULTS FORMER TEXACO SERVICE STATION NO. 21-1566

# ${\bf 101\ Mulford\ Road,\ Toledo,\ Washington}$

Concentrations reported in mg/kg

					orteu III III	0 0	,		Ethyl-		Total				
Sample ID	Date	TPH-0	$\mathbf{j}^1$	TPH-I	$\mathbf{p}^2$	TPH-	$O^2$	Benzene	3	Toluene	3	benzene	3	Xylenes	3
SP-1-1	10/5/10	40		160		10	U	0.020	U	0.050	U	0.050	U	0.150	U
SP-1-2	10/5/10	10	U	50	U	10	U	0.020	U	0.050	U	0.050	U	0.150	U
SP-1-3	10/6/10	10	U	50	U	10	U	0.020	U	0.050	U	0.050	U	0.150	U
SP-1-3 Dup	10/6/10	NA		50	U	10	U	NA		NA		NA		NA	
SP-2-1	10/8/10	5	U	25	U	60	U	0.005	U	0.005	U	0.005	U	0.005	U
SP-2-2	10/8/10	5	U	25	U	60	U	0.005	U	0.005	U	0.005	U	0.005	U
SP-2-3	10/8/10	5	U	25	U	60	U	0.005	U	0.005	U	0.005	U	0.005	U
SP-2-3 Dup	10/8/10	NA		25	U	60	U	NA		NA		NA		NA	
SP-2-4	10/12/10	5	U	25	U	60	U	0.005	U	0.005	U	0.005	U	0.005	U
SP-2-5	10/12/10	5	U	25	U	60	U	0.005	U	0.005	U	0.005	U	0.005	U
SP-3-1	10/12/10	5	U	25	U	60	U	0.005	U	0.005	U	0.005	U	0.005	U
SP-3-2	10/12/10	5	U	25	U	60	U	0.005	U	0.005	U	0.005	U	0.005	U
SP-3-3	10/12/10	5	U	25	U	60	U	0.005	U	0.005	U	0.005	U	0.005	U
SP-3-3 Dup	10/12/10	5	U	NA		NA		0.005	U	0.005	U	0.005	U	0.005	U
SP-3-4	10/12/10	5	U	25	U	60	U	0.005	U	0.005	U	0.005	U	0.005	U
SP-3-5	10/12/10	5	U	25	U	60	U	0.005	U	0.005	U	0.005	U	0.005	U
SP-4-1	10/14/10	5	U	25	U	60	U	0.005	U	0.005	U	0.005	U	0.005	U
SP-4-2	10/14/10	5	U	25	U	60	U	0.005	U	0.005	U	0.005	U	0.005	U
SP-4-3	10/14/10	5	U	25	U	60	U	0.005	U	0.005	U	0.005	U	0.005	U
SP-4-4	10/14/10	5	U	25	U	60	U	0.005	U	0.005	U	0.005	U	0.005	U
SP-4-5	10/14/10	5	U	25	U	60	U	0.005	U	0.005	U	0.005	U	0.005	U
SP-4-6	10/15/10	5	U	25	U	60	U	0.005	U	0.005	U	0.005	U	0.005	U
SP-4-6 Dup	10/15/10	5	U	NA		NA		0.005	U	0.005	U	0.005	U	0.005	U
SP-4-7	10/15/10	5	U	25	U	60	U	0.005	U	0.005	U	0.005	U	0.005	U
SP-4-7 Dup	10/15/10	NA		25	U	60	U	NA		NA		NA		NA	
SP-4-8	10/15/10	5	U	25	U	60	U	0.005	U	0.005	U	0.005	U	0.005	U
SP-4-9	10/15/10	5	U	25	U	91		0.005	U	0.005	U	0.005	U	0.005	U
SP-4-10	10/15/10	5	U	25	U	67		0.005	U	0.005	U	0.005	U	0.005	U



# STOCKPILE SOIL ANALYTICAL RESULTS FORMER TEXACO SERVICE STATION NO. 21-1566

# 101 Mulford Road, Toledo, Washington

Concentrations reported in mg/kg

									0 0	,					
												Ethyl-		Total	
Sample ID	Date	TPH-0	$\mathbf{j}^1$	TPH-I	$D^2$	TPH-	$O^2$	Benzene	3	Toluene	3	benzene	3	Xylenes	3
SP4-11	10/19/10	10	U	25	U	60	U	0.020	U	0.050	U	0.050	U	0.150	U
SP4-12	10/19/10	10	U	25	U	60	U	0.020	U	0.050	U	0.050	U	0.150	U
SP-5-1	10/18/10	5	U	25	U	60	U	0.005	U	0.005	U	0.005	U	0.005	U
SP-5-2	10/18/10	5	U	25	U	60	U	0.005	U	0.005	U	0.005	U	0.005	U
SP-5-3	10/18/10	5	U	25	U	60	U	0.005	U	0.005	U	0.005	U	0.005	U
SP-5-3 Dup	10/18/10	5	U	25	U	60	U	0.005	U	0.005	U	0.005	U	0.005	U
MTCA Metho	od A CULs	30/10	0	2,000	)	2,00	0	0.03		7.0		6.0		9.0	

### **EXPLANATIONS:**

CULs = Cleanup levels

Dup = Duplicate

EPA = United States Environmental Protection Agency

mg/kg = Milligrams per kilogram

MTCA = Model Toxics Control Act

NA = Not analyzed

TPH = Total petroleum hydrocarbons

TPH-G = TPH as gasoline

TPH-D = TPH as diesel

TPH-O = TPH as heavy oil

U = Analyte not detected at or above the listed method detection limit

Ecology = Washington State Department of Ecology

Results in bold indicate analyte reported in concentration exceeding the Ecology MTCA Method A CUL.

- 1. Analyzed by Ecology Method NWTPH-Gx.
- 2. Analyzed by Ecology Method NWTPH-Dx with silica-gel cleanup.
- 3. Analyzed by EPA method 8260B.



# EXCAVATION 2 GROUNDWATER ANALYTICAL RESULTS FORMER TEXACO SERVICE STATION NO. 21-1556

# 101 Mulford Road, Toledo, Washington

Concentrations reported in µg/L

Sample ID	Date	TPH-G <sup>1</sup>	TPH-D <sup>2</sup>	TPH-O <sup>2</sup>	Benzene <sup>3</sup>	Toluene <sup>3</sup>	Ethylbenzene <sup>3</sup>	Total Xylenes <sup>3</sup>
EX2-GW	10/18/10	6,600	250 U	500 U	1.0 U	1.0 U	28	160
MTCA M	ethod A CULs	800/1,000	500	500	5	1,000	700	1,000

## **EXPLANATIONS**:

CULs = Cleanup levels

EPA = United States Environmental Protection Agency

MTCA = Model Toxics Control Act

NA = Not analyzed

TPH = Total petroleum hydrocarbons

TPH-G = TPH as gasoline

TPH-D = TPH as diesel

TPH-O = TPH as heavy oil

U = Analyte not detected at or above the listed method detection limit

 $\mu g/L = Micrograms per liter$ 

Ecology = Washington State Department of Ecology

Results in bold indicate analyte reported in concentration exceeding the Ecology MTCA Method A CUL.

- 1. Analyzed by WDOE Method NWTPH-Gx.
- 2. Analyzed by WDOE Method NWTPH-Dx with silica-gel cleanup.
- 3. Analyzed by EPA method 8260B.



Appendix A: Laboratory Reports



ESN Environmental

CLIENT: SATC	1							.	DATE: [0-10]	01	PAGE_	0 /	OF 2	
ADDRESS:									PROJECT NAME:	1]	Toledo			
PHONE:			FAX:	×					LOCATION					
CLIENT PROJECT #:	**		PROJE	CT MA	NAGE	R:Gal	PROJECT MANAGER: (JODICE CISAGES	STORE	COLLECTOR			88	COLLECTION	10/10/
Sample Number	Depth	Sample Time Type	Container Typ	THE STATE OF	10 10 10 10 10 10 10 10 10 10 10 10 10 1	2 6 7 14 14 14 14 14 14 14 14 14 14 14 14 14	1 15/18	6.00	100 100 100 100 100 100 100 100 100 100	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	2	NOTES	sedmid leto	fotal Number of Containers Shorestory Aboratory Jose Number
1. EX-1-1-7		18	.Sal			X	Y							-
2. EX-1-2-3		_		X		×	×							-
3. (2) -1-5-6,5				X		×	×							$\vdash$
4. EX-1-4-3				×		×	×							-
5. 5/2-1-1				X		X	X							_
6. 59-1-2				X		X	×							
7. 58-1-3				×		×	×							<del> </del>
8. EX-1-5-4	<u>5-</u>	Shb		<u></u>		<b>&gt;</b> <	×							<del> </del>
9. EX-1-69		8		$\times$		~	×							-
10. EX-1-7-9				×		Χ	X							<del> </del>
11. EX-1-8-9.5		0,21		×		Σ	X						-	
12. EX-1-9-9		1370		×		X	×							
13. EX1-17-9		1402		×		×	×							
14. CXI-14.9.5	7	R		$\stackrel{\checkmark}{}$		X	¥							_
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	SAM	IPLE DISPOS	SAMPLE DISPOSAL INSTRUCTIONS	TONS				RECEIVE	RECEIVED GOOD COND /COLD	9				
OE	O ESN DISPOSAL		@ \$2.00 each   Return	1	Pickup			NOTES:			Turn Around Time:	nd Time: 24 HR	R 48 HR	5 DAY

ESN Environmental Services Network

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OF 7			DATE OF COLLECTION	Total Number of Containers Laboratory Note Number																			•	S	•			HR 48 HR 5 DAY
$\downarrow$	Toledo		3 5	NOTES						7	-				-								LABORATORY NOTES:	1 Ansite 1	5	1		Turn Around Time: 24 HR
- DATE: 10-7-10	PROJECT NAME:	LOCATION:	nowedollector:																				SAMPLE RECEIPT	TOTAL NUMBER OF CONTAINERS	CHAIN OF CUSTODY SEALS YMINA	SEALS INTACT? Y/N/NA	RECEIVED GOOD COND./COLD	NOTES:
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Environmental Services Network

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Ŋ			NON	Total Number																								48 HR
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DATE: 10-11-10	PROJECT NAME: TOPOLO	LOCATION:	COLLECTOR:	1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		×															SAMPLE RECEIPT	TOTAL NUMBER OF CONTAINERS	CHAIN OF CUSTODY SEALS YMINA	SEALS INTACT? YANNA	RECEIVED GOOD COND./COLD	NOTES:
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ADDRESS: 101	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	ul Ford	Road	Multend Road, To Codo, WA	4	PROJECT NAME:	Tolodo	Tolodo 211556	
PHONE: 425-482-3321	82-	1288		FAX#8485-5566	75	LOCATION:	Tole	Toledo, WA	
CLIENT PROJECT #: 211556	# 7	11556		PROJECT MANAGER: Re	GER: Peter Cafford		Creveres	,	COLLECTION 19/14/10
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5. FXI- 60-10	9	12.40							
6. EXI-61-12	12	1320					////		
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For Lancaster Laboratories use only

Sample #:

BIEX 40,005 x114 9,43 Must meet lowest detaction limits TIMB Time T = Thiosulfate Confirm MTBE + Naphthalene possible for 8260 compounds oxy s on highest hit Limits below Confirm highest hit by 8260 Preservative Codes Late Detiction B = NaOH 0 = Other oxy s on all hits Gas < 5 ms/ks ☐ J value reporting needed Confirm all hits by 8260 8021 MTBE Confirmation Comments / Remarks Date Date Pleane have オートとった。 Drudezs 037110 £ H = HCI N = HNO<sub>3</sub> S = H<sub>2</sub>SO<sub>4</sub> □ Run □ Run Υes 公司表 Custody Seels Intact? Received by: Received by: Received by: Received by: Analyses Requested Preservation Codes □ dosuguenti Cagou MALLEH HICLD 2450 Time Time Diss. D Method Extended Rng. 12/2 12/2 Date Date MATPHEX Oxygenates 8260 full sean ິບ रहा हो Total Number of Confainers Relinquished by Commercial Carrier: Oil Air Matrix U NbDE8 Temperature Upon Receipt Water Potable lios Composite Relinquished by: Relinquished Grab 0850 0852 280 Collected 4580 7580 880 0850 SPS Time \_\_Lead Consultant:\_\_ Collected 1912 Bothell, WA Date 21/0 16/17 Consultant Phone #: 425-482-3321 Fex #. ☐Non SAR: Male ad Consultant Pri. Mgr.: Refer Continue M Turnaround Time Requested (TAT) (please circle) 5 day Data Package Options (please circle if required) Standard Format J. Cierras Chevron PM: Arry Cailein Type I - Full Disk / EDD 0 4 day 5P-9-3 5-2-25 1-2-8 50-3-8 2 6-3-4 5-5-45 1-2-15 Sample Identification Type Vi (Raw Data) Consultant/Office: Service Order #: WIP (RWQCB) QC Summary Site Address: Facility #:-Sampler: STD. TAI 24 hour

Lancaster Laboratories, Inc., 2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 (717) 656-2300 Copies: White and yellow should accompany samples to Lancaster Laboratories. The pink copy should be retained by the client.

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Where quality is a science.

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

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

Sample	Date	Date	Surrogate	Discol Panes Over	I - I - Ol P - O
Number	Prepared	Analyzed	Recovery (%)	Diesel Range Organics	Lube Oil Range Organics
Method Blank	10/6/2010	10/6/2010	105	(mg/kg)	(mg/kg)
EX1-1-7	10/6/2010	10/6/2010	103	nd	nd
EX1-2-3	10/6/2010	10/6/2010	102	nd	nd
EX1-3-6.5	10/6/2010	10/6/2010		nd 1	nd
EX1-4-3			104 nd 94 nd		nd
SP-1-1	10/6/2010	10/6/2010 10/6/2010			nd
SP-1-2	10/6/2010			nd	
SP-1-3	10/6/2010	10/6/2010	93 93	nd	nd
SP-1-3 Dup	10/6/2010	10/6/2010		nd	nd
EX1-5-4	10/6/2010		102	nd	nd
EX1-6-9	10/6/2010	10/6/2010	94	nd	nd
EX1-7-9	10/6/2010	10/6/2010	99	nd	nd
EX1-8-9.5	10/6/2010	10/6/2010	int	1400	nd
EX1-9-9	10/6/2010	10/6/2010	99	nd	nd
EX1-10-5		10/6/2010	100	nd	nd
EX1-10-5	10/7/2010	10/8/2010	106	nd	nd
EX1-11-3	10/6/2010	10/7/2010	96	nd	nd
EX1-12-3	10/7/2010	10/8/2010	110	nd	nd
EX1-13-3 EX1-14-9.5	10/7/2010	10/8/2010	93	nd	nd
	10/6/2010	10/6/2010	int	140	nd
EX1-15-5	10/6/2010	10/7/2010	101	nd	nd
EX1-16-3	10/7/2010	10/8/2010	108	nd	nd
EX1-17-9	10/6/2010	10/6/2010	int	360	nd
EX1-18-5	10/6/2010	10/7/2010	105	nd	nd
EX1-19-3	10/7/2010	10/8/2010	56	nd	, nd
EX1-20-5	10/6/2010	10/7/2010	94	nd	nd
EX1-21-3	10/7/2010	10/8/2010	96	nd	nd
EX1-22-9.5	10/6/2010	10/6/2010	97	nd	nd
EX1-23-5	10/6/2010	10/7/2010	103	160	nd
EX1-24-3	10/7/2010	10/8/2010	100	nd	nd
EX1-25-9.5	10/7/2010	10/7/2010	104	nd	nd
EX1-26-5	10/7/2010	10/7/2010	73	nd	nd
EX1-27-5	10/7/2010	10/7/2010	112	nd	nd
Reporting Limits				50	100

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

"int" Indicates that interference prevents determination.

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

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

Sample	Date	Date	Surrogate	Diesel Range Organics	Lube Oil Range Organics
Number	Prepared	Analyzed	Recovery (%)	(mg/kg)	(mg/kg)
Method Blank	10/7/2010	10/7/2010	103	nd	nd
EX1-28-9.5	10/7/2010	10/7/2010	102	nd	nd
EX1-29-9.5	10/7/2010	10/7/2010	107	nd	nd
EX1-30-9	10/7/2010	10/7/2010	int	4500	nd
EX1-31-5	10/7/2010	10/7/2010	101	nd	nd
EX1-32-3	10/7/2010	10/8/2010	107	nd	nd
EX1-33-10	-10 10/7/2010 10/7/2010 int <b>1900</b>		1900	nd	
EX1-34-9	10/7/2010	10/7/2010	99	nd	nd
EX1-35-5	X1-35-5 10/7/2010		72	nd	nd
EX1-36-3	10/8/2010	10/8/2010	98	nd	nd
EX1-37-6	10/7/2010	10/7/2010	81	nd	nd
EX1-38-9	10/7/2010	10/7/2010	88	nd	nd
EX1-39-3	10/8/2010	10/8/2010	86	nd	nd
EX1-40-10	10/7/2010	10/8/2010	102	nd	nd
EX1 <b>-</b> 41-5	10/8/2010	10/8/2010	97	nd	nd
EX1-42-3	10/8/2010	10/8/2010	101	nd	nd
EX1-43-3	10/8/2010	10/11/2010	88	nd	nd
EX1-44-5	10/8/2010	10/11/2010	98	nd	nd
EX1-45-9	10/7/2010	10/8/2010	int	2800	nd
EX1-46-3	10/8/2010	10/11/2010	87	nd	nd
EX1-47-5	10/8/2010	10/11/2010	88	nd	nd
EX1-48-9	10/7/2010	10/7/2010	99	nd	nd
Reporting Limits				50	100

<sup>&</sup>quot;nd" Indicates not detected at the listed detection limits.

<sup>&</sup>quot;int" Indicates that interference prevents determination.

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

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

Sample	Date	Date	Surrogate	Diesel Range Organics	Lube Oil Range Organics
Number	Prepared	Analyzed	Recovery (%)	(mg/kg)	(mg/kg)
Method Blank	10/8/2010	10/8/2010	106	nd	nd
EX1-49-9	10/8/2010	10/8/2010	82	nd	nd
EX1-50-9	10/8/2010	10/8/2010	127	120	nd
EX1-51-9	10/8/2010	10/8/2010	98	nd	nd
EX1-52-9.5	10/8/2010	10/8/2010	97	nd	nd
EX1-52-9.5 Dup	10/8/2010	10/8/2010	99	nd	nd
Reporting Limits	45.			50	100

<sup>&</sup>quot;nd" Indicates not detected at the listed detection limits.

<sup>&</sup>quot;int" Indicates that interference prevents determination.

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

Sample	Date	Date	Surrogate	Diesel Range Organics	Lube Oil Range Organics
Number	Prepared	Analyzed	Recovery (%)	(mg/kg)	(mg/kg)
Method Blank	10/11/2010	10/11/2010	98	nd	nd
EX1-53-10	10/11/2010	10/11/2010	112	nd	nd
EX1-54-10	10/11/2010	10/11/2010	108	nd	nd
EX1-54-10 Dup	10/11/2010	10/11/2010	104	nd	nd
EX1-55-9.5	10/11/2010	10/11/2010	int	1100	nd
Reporting Limits				50	100

<sup>&</sup>quot;nd" Indicates not detected at the listed detection limits.

<sup>&</sup>quot;int" Indicates that interference prevents determination.

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

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

Sample	Date	Date	Surrogate	Diesel Range Organics	Lube Oil Range Organics
Number	Prepared	Analyzed	Recovery (%)	(mg/kg)	(mg/kg)
Method Blank	10/13/2010	10/13/2010	105	nd	nd
EX1-56.10	10/13/2010	10/13/2010	85	nd	nd
EX1-57-10	10/13/2010	10/13/2010	98	nd	nd
EX1-57-10 DUP	10/13/2010	10/13/2010	107	nd	nd
EX1-58-10	10/13/2010	10/13/2010	97	nd	nd
EX1-59-10	10/13/2010	10/13/2010	99	nd	nd
EX1 <b>-</b> 60-10	10/13/2010	10/13/2010	100	nd	nd
EX1-61-12	10/13/2010	10/13/2010	84	105	nd
EX1-62-12	10/13/2010	10/13/2010	97	nd	nd
EX1-63-12	10/13/2010	10/13/2010	115	nd	nđ
EX1-64-12	10/13/2010	10/13/2010	94	nd	nd
EX1-65-12	10/13/2010	10/13/2010	111	65	nd
Reporting Limits				50	100

<sup>&</sup>quot;nd" Indicates not detected at the listed detection limits.

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

Sample Number	Date Prepared	Date Analyzed	Surrogate	Diesel Range Organics	Lube Oil Range Organics
	<del></del>		Recovery (%)	(mg/kg)	(mg/kg)
Method Blank	10/12/2010	10/12/2010	69%	nd	nd
SP-2-1	10/12/2010	10/12/2010	63%	nd	nd
SP-2-2	10/12/2010	10/12/2010	59%	nd	nd
SP-2-3	10/12/2010	10/12/2010	56%	nd	nd
SP-2-3dup	10/12/2010	10/12/2010	74%	nd	nd
Reporting Limits				25 .	60

<sup>&</sup>quot;nd" Indicates not detected at the listed detection limits.

<sup>&</sup>quot;int" Indicates that interference prevents determination.

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# Analysis of Diesel Range Organics & Lube Oil Range Organics in Soil by Method NWTPH-Dx with Silica Gel Clean Up

Sample	Date	Date	Surrogate	Diesel Range Organics	Lube Oil Range Organics
Number	Prepared	Analyzed	Recovery (%)	(mg/kg)	(mg/kg)
Method Blank	10/12/2010	10/12/2010	69%	nd	nd
SP-2-4	10/12/2010	10/12/2010	70%	nd	nd
SP-2-5	10/12/2010	10/12/2010	56%	nd	nd
SP-3-1	10/12/2010	10/12/2010	66%	nd	nd
SP-3-2	10/12/2010	10/12/2010	70%	nd	nd
SP-3-3	10/12/2010	10/12/2010	56%	nd	nd
SP-3-4	10/12/2010	10/12/2010	58%	nd	nd
SP-3-5	10/12/2010	10/12/2010	50%	nd	nd
Reporting Limits				25	60

<sup>&</sup>quot;nd" Indicates not detected at the listed detection limits.

<sup>&</sup>quot;int" Indicates that interference prevents determination.

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

# Analysis of Gasoline Range Organics & BTEX in Soil by Method NWTPH-Gx/8260

Sample	Date	Date	Benzene	Toluene	Ethylbenzene	Xylenes	Gasoline Range Organics	Surrogate
Number	Prepared	Analyzed	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	Recovery (%)
Method Blank	10/6/2010	10/6/2010	nd	nd	nd	nd	nd	99
LCS	10/6/2010	10/6/2010	110%	88%	88%	93%	78%	96
EX-1-1-7	10/6/2010	10/6/2010	nd	nd	nd	nd	nd	98
EX-1-2-3	10/6/2010	10/6/2010	nd	nđ	nd	nd	nď	99
EX-1-3-6.5	10/6/2010	10/6/2010	nd	nd	nd	nd	nd	100
EX-1-4-3	10/6/2010	10/6/2010	nd	nd	nd	nd	nd	96
SP-1-1	10/6/2010	10/6/2010	nd	nd	nd	nd	40	103
SP-1-2	10/6/2010	10/13/2010	nd	nd	nd	nd	nd	104
SP-1-3	10/6/2010	10/13/2010	nd	nd	nd	nd	nd	107
EX-1-5-4	10/6/2010	10/6/2010	nd	nd	nd	nd	nd	107
EX-1-6-9	10/6/2010	10/6/2010	nd	nd	nd	nd	nd	97
EX-1-7-9	10/6/2010	10/6/2010	nd	nd	nd	nd	2800	102
EX-1-8-9.5	10/6/2010	10/6/2010	nđ	nd	nd	nd	nd	102
EX1-9-9	10/6/2010	10/6/2010	nd	nd	nd	nd	47	104
EX1-10-5	10/6/2010	10/8/2010	nd	nd	nd	nd	nd	103
EX1-11-5	10/6/2010	10/7/2010	nd	nd	nd	nd	16	103
EX1-12-3	10/6/2010	10/8/2010	nd	nd	nd	nd	nd	103
EX1-13-3	10/7/2010	10/13/2010	nd	nd	nd	nd	nd	83
EX1-14-9.5	10/6/2010	10/6/2010	nd	nd	nd	nd	nd	104
EX1-15-5	10/6/2010	10/8/2010	nd	nd	nd	nd	nd	100
EX1-16-3	10/7/2010	10/8/2010	nd	nd	nd	nd	nd	105
EX1-17-9	10/6/2010	10/6/2010	nd	nd	nd	nd	110	99
EX1-18-5	10/6/2010	10/12/2010	nd	nd	nd	nd	nd	99
EX1-19-3	10/7/2010	10/8/2010	nd	nd	nd	nd	nd	106
EX1-20-5	10/6/2010	10/8/2010	nd	nđ	nd	nd	nd	99
EX1-21-3	10/7/2010	10/8/2010	nd	nd	nd	nd	nď	101
EX1-22-9.5	10/6/2010	10/6/2010	nd	nd	nd	nd	66	103
EX1-23-5	10/6/2010	10/7/2010	nd	nd	nd	nd	22	99
EX1-24-3	10/7/2010	10/14/2010	nd	nd	nd	nd	nd	105
EX1-25-9.5	10/7/2010	10/7/2010	nd	nd	nd	nd	28	100
EX1-26-5	10/7/2010	10/7/2010	nd	nd	nd	nd	24	100
EX1-27-5	10/7/2010	10/13/2010	nd	nd	nd	nd	nd	102
MS	10/6/2010	10/6/2010	86%	67%	75%	74%	11u	92
MSD	10/6/2010	10/6/2010	102%	71%	79%	79%		92
Reporting Limits			0.02	0.05	0.05	0.15	10	

<sup>&</sup>quot;\*\*\*" indicates additional analysis required for accurate results; update report will be sent

<sup>&</sup>quot;nd" Indicates not detected at the listed detection limits.

<sup>&</sup>quot;int" Indicates that interference prevents determination.

SAIC TOLEDO PROJECT Toledo, Washington

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

# Analysis of Gasoline Range Organics & BTEX in Soil by Method NWTPH-Gx/8260

Sample	Date	Date	Benzene	Toluene	Ethylbenzene	Xylenes	C-T D	·
Number	Prepared		(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	Gasoline Range Organics	Surrogate
Method Blank			nd	nd	nd	nd	(mg/kg)	Recovery (%
LCS	10/7/2010		100%	69%	73%	78%	nd	99
EX1-2895	10/7/2010		nd	nd	nd	nd	64%	90
EX1-29-9.5	10/7/2010	10///2010	nd	nd	nd		12	99
EX1-30-9	10/7/2010	10/7/2010	nd	nd	nd	nd	25	99
EX1-31-5	10/7/2010	10/13/2010	nđ	nd	nd	nd	3100	101
EX1-32-3	10/7/2010	10/8/2010	nd	nd		nd	nd	107
EX1-33-10	10/7/2010	10/13/2010	nd	nd	nd 	nd	nd	101
EX1-34-9	10/7/2010	10/8/2010	nd	nd	nd	nd	94	106
EX1-35-5	10/7/2010		nd	nd	nd	nd	18	101
EX1-36-3	10/7/2010		nd		nd	nd	nd	102
EX1-37-6	10/7/2010	10/7/2010	nd	nd	nd	nd	nd	98
EX1-38-9	10/7/2010	10/7/2010	nd	nd	nd	nd	nd	103
EX1-39-3	10/7/2010	10/12/2010	nd	nd	nd	nd	22	101
EX1-40-10	10/7/2010	10/7/2010	nd	nd	nd	nd	nd	102
EX1-41-5	10/7/2010	10/7/2010		nd	nd	nd	20	103
EX1-42-3	10/8/2010	10/12/2010	nd 1	nd	nđ	nd	10	104
EX1-43-3	10/8/2010	10/12/2010	nd	nd	nd	nd	nd	110
EX1-44-5	10/8/2010	10/12/2010	nd	nd	nd	nd	nd	104
EX1-45-9	10/7/2010	10/7/2010	nd	nd	nd	nd	nd	98
X1-46-3	10/8/2010		nd	nd	nd	nd	180	103
X1-47-5	10/8/2010	10/14/2010	nd	nd	nd	nd	nd	106
X1-48-9	10/3/2010	10/12/2010	nd	nd	nd	nd	nd	99
IS		10/7/2010	nd	nd	nd	nd	nd	102
1SD		10/14/2010	115%	91%	87%	91%	774	96
	10/7/2010	10/14/2010	112%	97%	91%	99%		96 99
eporting Limits			0.02	0.05				77
		<del></del>	0.02	0.05	0.05	0.15	10	

<sup>&</sup>quot;\*\*\*" indicates additional analysis required for accurate results; update report will be sent

<sup>&</sup>quot;nd" Indicates not detected at the listed detection limits.

<sup>&</sup>quot;int" Indicates that interference prevents determination.

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# Analysis of Gasoline Range Organics & BTEX in Soil by Method NWTPH-Gx/8260

			3 TIII-GX/8200							
Sample Number Method Blank	Date Prepared	Date Analyzed	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Gasoline Range Organics (mg/kg)	. 0		
LCS EX1-49-9 EX1-50-9 EX1-51-9 EX1-52-9.5 EX1-52-9.5 Dup MS MSD	10/8/2010 10/8/2010 10/8/2010	10/8/2010 10/8/2010 10/8/2010 10/8/2010 10/8/2010 10/8/2010 10/8/2010 10/8/2010 10/8/2010	nd 112% nd nd nd nd nd 119 119 120 120 120 120 120 120 120 120 120 120	nd 71% nd nd nd nd d 104 104 105 105 105 105 105 105 105 105 105 105	nd 76% nd nd nd nd nd 56%	nd 81% nd nd nd nd nd od 69%	nd nd 19 14 nd nd	99 95 95 95 101 99 103 101 95		
Reporting Limits	<del>-</del>		0.02	0.05	0.05	0.15	10	97		

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# Analysis of Gasoline Range Organics & BTEX in Soil by Method NWTPH-Gx/8260

Sample Number Method Blank	Date Prepared	Date Analyzed	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Gasoline Range Organics (mg/kg)	0	
EX1-53-10 Dup EX1-53-10 Dup EX1-54-10 EX1-55-9.5 MS	10/11/2010 10/11/2010 10/11/2010 10/11/2010		nd 125% nd nd nd nd 117% 129%	nd 72% nd nd nd nd 99%	nd 71% nd nd nd nd 90%	nd 76% nd nd nd nd 106%	nd nd nd nd 6600	87 80 89 99 92 83 99	
eporting Limits		<u> </u>	0.02	0.05	0.05	0.15	10	93	

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# Analysis of Gasoline Range Organics & BTEX in Soil by Method NWTPH-Gx/8260

Sample Number	Date Prepared	Date Analyzed	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes	Gasoline Range Organics	Surrogate
Method Blank	10/13/2010	10/13/2010	nd	nd		(mg/kg)	(mg/kg)	Recovery (%)
LCS	10/13/2010	10/13/2010	97%	90%	nd	nd	nd	97
EX1-56-10		10/13/2010	nd		78%	86%	91%	103
EX1-56-10 DUP	10/13/2010		nd	nd	nd	nd	nd	101
EX1-57-10	10/13/2010			nd	nd	nd	nd	103
EX1-58-10			nd	nd	nd	nd	26	102
EX1-59-10	10/13/2010		nd	nd	nd	nd	nd	
	10/13/2010		nd	nd	nd	nd		92
EX1-60-10	10/13/2010	10/13/2010	nd	nd	nd		nd	95
EX1-61-12	10/13/2010	10/13/2010	nd	nd		nd	nd	94
EX1-62-12	10/13/2010		nd		nd	nd	260	102
X1-63-12	10/13/2010		nd	nd	nd	nd	50	105
X1-64-12	10/13/2010			nd	nd	nd	750	103
X1-65-12	10/13/2010		nd	nd	nd	nd	71	105
1S	10/13/2010		nd	nd	nd	nd	65	103
ISD			113%	101%	93%	97%		105
	10/13/2010 1	10/13/2010	100%	91%	89%	91%		
eporting Limits						-		104
cporting Limits			0.02	0.05	0.05	0.15	10	

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# Analysis of Gasoline Range Organics & BTEX in Soil by Method NWTPH-Gx/8260

Sample Number	Date Prepared	Date Analyzed	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Gasoline Range Organics (mg/kg)	Surrogate Recovery (%)
Method Blank	10/12/2010	10/12/2010	nd	nd	nd	nd	nd	101%
LCS	10/12/2010	10/12/2010	122%	128%	117%	115%	92%	99%
SP2-1	10/12/2010	10/12/2010	nd	nd	nd	nd	nd	97%
SP2-2	10/12/2010	10/12/2010	nd	nd	nd	nd	nd	106%
SP-2-3	10/12/2010	10/12/2010	nd	nd	nd	nd	nd	97%
Reporting Limits			0.005	0.005	0.005	0.005	5	

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# Analysis of Gasoline Range Organics & BTEX in Soil by Method NWTPH-Gx/8260

Sample Number	Date Prepared	Date Analyzed	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Gasoline Range Organics (mg/kg)	Surrogate Recovery (%)
Method Blank	10/12/2010	10/12/2010	nd	nd	nd	nd	nd	
LCS	10/12/2010	10/12/2010	122%	128%	117%	115%	92%	101%
SP-2-4	10/12/2010	10/12/2010	nd	nd	nd	nd	nd	99%
SP-2-5	10/12/2010	10/12/2010	nd	nd	nd	nd		99%
SP-3-1	10/12/2010	10/12/2010	nd	nd	nd	nd	nd	102%
SP-3-2	10/12/2010	10/12/2010	nd	nd	nd	nd	nd	103%
SP-3-3	10/12/2010	10/12/2010	nd	nd	nd		nd	99%
SP-3-3dup	10/12/2010	10/12/2010	nd	nd	nd	nd	nd	105%
SP-3-4	10/12/2010	10/12/2010	nd	nd		nd	nd	108%
SP-3-5	10/12/2010	10/12/2010	nd		nd	nd	nd	104%
	10, 12,2010	10/12/2010	IIQ	nd	nd	nd	nd	102%
Reporting Limits			0.005	0.005	0.005	0.005	5	

<sup>&</sup>quot;---" Indicates not tested for component.

<sup>&</sup>quot;nd" Indicates not detected at the listed detection limits.

<sup>&</sup>quot;int" Indicates that interference prevents determination.

PAGE / OF L	2118	10, Wit	CESNETOS DATE OF 101	Note Number Total Number of Containers Laboratory Note Number	10/14/10 [Jowan	10/14/10 DexcFm	10/14/10/Louits/	10/13/10	10/14/10	10/14/10										7	Do (AST	10/14/10 Lower Retta	LABORATORY NOTES:					Turn Around Time: 24 HR 48 HR 5 DAY	The Asia
DATE: 10/14/10	PROJECT NAME:	LOCATION: Tolodo	P	100 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0																3	×		SAMPLE RECEIPT	TOTAL NUMBER OF CONTAINERS	CHAIN OF CUSTODY SEALS YMMA	SEALS INTACT? YANNA	RECEIVED GOOD COND./COLD	NOTES:	
\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\	of Road, Tolado, WA	FAX: 475-45-5566	stolaste	0/00/0		1			11								2					$\dashv$	RECEIVED BY (Signature) DAI E/11ME	( ) on will han sid 10/14/10	RECEIVED BY (Signature) DATE/TIME			☐ Retum ☐ Pickup	アメメー も
HC/Cheyron	01 Multoro	182-3321	9.55117	Sample Sample Time Type C	WA 0915-5011	NA 0912 11	0260	8.5 MSB V	R5 0930 11	- 0935 11	3 0940 11	35 1030 11		3 1040 11	8.5 1206 11	5 1205 11	11 0121 8	11 0221 11	11 5221 5			148		10/14/16 1723			SAMPLE DISPOSAL INSTRUCTIONS	D ESY DISPOSAL @ \$2.00 each	4 1410 Soil 402
CLIENT:	ADDRESS: (	PHONE: 475-482-33	CLIENT PROJECT #:_	Sample Number De	1. SP-4-1 W	2	3. 59-4-3 N	4. EXZ-1-8.5 8	5. EX2-2-8.5 B	6. EX2-3-5	8	8.5	5	_			~	14. EX2-11-8.5	15. EX2-12-5		14-6.5	18. SP-4-4	RELINQUISMED BY (Signature)		RECINQUISHED BY (Signature)				9, SP-4-5 NA

Environmental

	Toledo Former Texaco Station#21552	18A	STATES COLLECTION 10/15/1	NOT Total Number Total Number of Containers of Containers Number Note Number	3	Lab Oetectra	these # 15: 20	6 45	5270	0 < 60	BIEK < 0.005										1	LABORATORY NOTES:					Turn Around Time: 24 HB 48 HR 5 DAY
DATE: 10117 110	PROJECT NAME: Tole	LOCATION: To Ledo, WA	COLLECTOR: G. Lishaus															1/				SAMPLE RECEIPT	TOTAL NUMBER OF CONTAINERS	CHAIN OF CUSTODY SEALS YANNA	SEALS INTACT? YMNA	RECEIVED GOOD COND./COLD	ES:
VAIC (CALYCON	101 Mulland Road, Toledes WA	FAX: 425-485-5566	PROJECT MANAGER: P. Cattual	Container Type Artificial Container Type Artifical Container Type Artificial Container Type Arti										XX								RECEIVED BY (Signature) A DATE/TIME	Christon Waster	RECEIVED BY (Signature) DATE/TIME CHA			ach   Return   Pickup   NOTES:
	Mallod	- 3374	211556	Sample Time Type	J/A 1110 Stock	1119 Pila	1125	1.887	<b>&gt;</b>													DATE/TIME	1924 143g	DATE/TIME		SAMPLE DISPOSAL INSTRUCTIONS	[] ESN DISPOSAL @ \$2.00 each
CLIENT: TAGE	ADDRESS: \0\	PHONE: 425-487-3324	CLIENT PROJECT #: 21/556	Sample Number Depth	1.5P-4-6 N/A	A 3	3. 5/4-0 4 < 0.4-9		6.	7.	8.	9.	10.	×-	12.	13,	14.	15.	16.	17.	18.	RELINQUISHED BY (Signature)	SMIN.	RELINQUISHED BY (Signature)		9	DESNE

ESN Environmental

CLIENT: SASC										۵	NE: A	DATE: \$ 10-18-10		PAGE	r i-	JOF_		
ADDRESS:										<u>a</u>	ROJECT	PROJECT NAME: 8 Toledo	10/	ope				
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6. EXZ-24-3	П	14h																
7. EX2-22-5	14	1415																
8. EXZ-18-3		B																
9. EXZ-ZX-3	H	1430																
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11.PX7-75-85	4	n  8hh	<b>→</b>														-	-
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DESA	D ESN DISPOSAL	SAL @ \$2.00 each	1	D Return D	Pickup	٥			NOTES:	ij				Turn Around Time:		24 HR	48 HR	5 DAY
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Environmental Services Network

CLIENT: SATC		DATE:1019-10	PAGE (OF /	
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CLIENT PROJECT #:	PROJECT MANAGER:	COLLECTOR:	DATE OF COLLECTION	
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RELINQUISHED BY (Signature) DATE/TIME	RECEIVED BY (Signature) DATE/TIME	SAMPLE RECEIPT	LABORATORY NOTES:	
		TOTAL NUMBER OF CONTAINERS		
RELINQUISHED BY (Signature) DATE/TIME	RECEIVED BY (Signature) DATE/TIME	CHAIN OF CUSTODY SEALS YMMA		
		SEALS INTACT? YANNA		
SAMPLE DISPOS	SAMPLE DISPOSAL INSTRUCTIONS	RECEIVED GOOD COND./COLD		
D ESN DISPOSAL @ \$2.0	@ \$2.00 each   Return   Pickup	NOTES:	Turn Around Time: 24 HR 48 HR 5 DAY	≽
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SAIC TOLEDO PROJECT Toledo, Washington ESN Northwest 1210 Eastside Street SE Suite 200 Olympia, WA 98501 (360) 459-4670 (360) 459-3432 Fax lab@esnnw.com

### Analysis of Gasoline Range Organics & BTEX in Soil by Method NWTPH-Gx/8260

Sample	Date	Date	Benzene	Toluene	Ethylbenzene	Xylenes	Gasoline Range Organics	Surrogate
Number	Prepared	Analyzed	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	Recovery (%)
Method Blank	10/15/2010	10/15/2010	nd	nd	nd	nd	nd	107
LCS	10/15/2010	10/15/2010	131%	110%	95%	103%	92%	96
EX2-1-8.5	10/15/2010	10/15/2010	nd	nd	nd	nd	nd	104
EX2-2-8.5	10/15/2010	10/15/2010	nd	nd	nd	nd	nd	97
EX2-3-5	10/15/2010	10/18/2010	nd	nd	nd	nd	nd	106
EX2-4-3	10/15/2010	10/18/2010	nd	nd	nd	nd	nd	108
EX2-5-8.5	10/15/2010	10/18/2010	nd	nd	nd	nd	nd	99
EX2-5-8.5 Dup	10/15/2010	10/21/2010	nd	nd	nd	nd	nd	81
EX2-6-5	10/15/2010	10/18/2010	nd	nd	nd	nd	nd	101
EX2-7-3	10/15/2010	10/18/2010	nd	nd	nd	nd	nd	100
EX2-8-8.5	10/15/2010	10/18/2010	nd	nd	nd	nd	nd	99
EX2-9-5	10/15/2010	10/19/2010	nd	nd	nd	nd	nd	92
EX2-10-3	10/15/2010	10/21/2010	nd	nd	nd	nd	nd	94
EX2-11-8.5	10/15/2010	10/19/2010	nd	nd	nd	nd	nd	93
EX2-12-5	10/15/2010	10/15/2010	nd	nd	nd	nd	nd	109
EX2-13-3	10/15/2010	10/21/2010	nd	nd	nd	nd	nd	100
EX2-13-3 Dup	10/15/2010	10/21/2010	nd	nd	nd	nd	nd	82
EX2-14-9.5	10/15/2010	10/15/2010	nd	nd	0.16	0.41	1800	90
MS	10/15/2010	10/15/2010	148%	113%	96%	109%		90
MSD	10/15/2010	10/15/2010	133%	111%	98%	110%		93
Reporting Limits			0.02	0.05	0.05	0.15	10	

<sup>&</sup>quot;\*\*\*" indicates additional analysis required for accurate results; update report will be sent

<sup>&</sup>quot;nd" Indicates not detected at the listed detection limits.

<sup>&</sup>quot;int" Indicates that interference prevents determination.

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

# Analysis of Gasoline Range Organics & BTEX in Soil by Method NWTPH-Gx/8260

Sample	Date	Date	Benzene	Toluene	Ethylbenzene	Xylenes	Gasoline Range Organics	Surrogate
Number	Prepared	Analyzed	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	Recovery (%)
Method Blank	10/19/2010	10/19/2010	nd	nd	nd	nd	nd	95
LCS	10/19/2010	10/21/2010	133%	132%	131%	130%	90%	100
EX2-15-3	10/19/2010	10/21/2010	nd	nd	nd	nd	nd	79
EX2-15-3 Dup		10/21/2010	nd	nd	nd	nd	nd	82
EX2-16-5	10/19/2010	10/21/2010	nd	nd	nd	nd	nd	102
EX2-17-8.5	10/19/2010	10/19/2010	nd	nd	nd	nd	nd	89
EX2-18-3	10/19/2010	10/21/2010	nd	nd	nd	nd	nd	73
EX2-19-5	10/19/2010	10/21/2010	nd	nd	nd	nd	nd	104
EX2-20-8.5	10/19/2010	10/19/2010	nd	nd	nd	nd	nd	93
EX2-21-3	10/19/2010	10/21/2010	nd	nd	nd	nd	nd	83
EX2-22-5	10/19/2010	10/21/2010	nd	nd	nd	nd	nd	102
EX2-23-3	10/19/2010	10/21/2010	nd	nd	nd	nd	nd	73
EX2-24-5	10/19/2010	10/21/2010	nd	nd	nd	nd	nd	104
EX2-25-8.5	10/19/2010	10/19/2010	nd	nd	nd	nd	nd	99
EX2-26-8.5	10/19/2010	10/19/2010	nd	nd	nd	nd	nd	96
EX2-27-3	10/20/2010	10/21/2010	nd	nd	nd	nd	nd	83
EX2-28-5	10/19/2010	10/21/2010	nd	nd	nd	nd	nd	102
EX2-29-8.5	10/19/2010	10/19/2010	nd	nd	nd	nd	nd	97
EX2-30-3	10/20/2010	10/21/2010	nd	nd	nd	nd	nd	69
EX2-31-5	10/19/2010	10/21/2010	nd	nd	nd	nd	nd	101
EX2-32-8.5	10/19/2010	10/19/2010	nd	nd	nd	nd	nd	96
MS	10/19/2010	10/21/2010	118%	113%	92%	89%		97
MSD	10/19/2010	10/21/2010	109%	96%	84%	78%		96
Reporting Limits			0.02	0.05	0.05	0.15	10	

<sup>&</sup>quot;\*\*\*" indicates additional analysis required for accurate results; update report will be sent

<sup>&</sup>quot;nd" Indicates not detected at the listed detection limits.

<sup>&</sup>quot;int" Indicates that interference prevents determination.

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

# Analysis of Gasoline Range Organics & BTEX in Soil by Method NWTPH-Gx/8260

Sample	Date	Date	Benzene	Toluene	Ethylbenzene	Xylenes	Gasoline Range Organics	Surrogate
Number	Prepared	Analyzed	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	Recovery (%)
Method Blank	10/21/2010	10/22/2010	nd	nd	nd	nd	nd	105
LCS	10/21/2010	10/22/2010	178%	138%	126%	81%	94%	100
EX2-33-10.5	10/21/2010	10/22/2010	nd	0.06	nd	0.18	29	115
EX2-34-10.5	10/21/2010	10/22/2010	nd	nd	nd	0.11	29	106
EX2-35-10.5	10/21/2010	10/22/2010	nd	0.08	1.1	4.4	980	101
EX2-36-10.5	10/21/2010	10/22/2010	nd	nd	nd	nd	22	106
EX2-37-10.5	10/21/2010	10/22/2010	nd	nd	nd	nd	22	102
EX2-37-10.5 Dup	10/21/2010	10/22/2010	nd	nd	nd	nd	27	101
MS	10/21/2010	10/22/2010	140%	112%	111%	71%		103
MSD	10/21/2010	10/22/2010	154%	124%	132%	90%		106
Reporting Limits			0.02	0.05	0.05	0.15	10	

<sup>&</sup>quot;\*\*\*" indicates additional analysis required for accurate results; update report will be sent

<sup>&</sup>quot;nd" Indicates not detected at the listed detection limits.

<sup>&</sup>quot;int" Indicates that interference prevents determination.

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

### Analysis of Gasoline Range Organics & BTEX in Soil by Method NWTPH-Gx/8260

Sample	Date	Date	Benzene	Toluene	Ethylbenzene	Xylenes	Gasoline Range Organics	Surrogate
Number	Prepared	Analyzed	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	Recovery (%)
Method Blank	10/15/2010	10/15/2010	nd	nd	nd	nd	nd	107
LCS	10/15/2010	10/15/2010	131%	110%	95%	103%	92%	96
SP-4-1	10/15/2010	10/15/2010	nd	nd	nd	nd	nd	100
SP-4-2	10/15/2010	10/15/2010	nd	nd	nd	nd	nd	99
SP-4-3	10/15/2010	10/15/2010	nd	nd	nd	nd	nd	98
SP-4-4	10/15/2010	10/15/2010	nd	nd	nd	nd	nd	97
SP-4-5	10/15/2010	10/15/2010	nd	nd	nđ	nd	nd	105
SP-4-6	10/15/2010	10/18/2010	nd	nd	nd	nd	nd	100
SP-4-6	10/15/2010	10/18/2010	nd	nd	nd	nd	nd	100
SP-4-7	10/15/2010	10/18/2010	nd	nd	nd	nd	nd	104
SP-4-8	10/15/2010	10/18/2010	nd	nd	nd	nd	nd	97
SP-4-9	10/15/2010	10/18/2010	nd	nd	nd	nd	nd	89
SP-4-10	10/15/2010	10/18/2010	nd	nd	nd	nd	nd	97
MS	10/15/2010	10/15/2010	148%	113%	96%	109%		90
MSD	10/15/2010	10/15/2010	133%	111%	98%	110%	in	93
Reporting Limits			0.005	0.005	0.005	0.005	5	************

<sup>&</sup>quot;\*\*\*" indicates additional analysis required for accurate results; update report will be sent

<sup>&</sup>quot;nd" Indicates not detected at the listed detection limits.

<sup>&</sup>quot;int" Indicates that interference prevents determination.

SAIC TOLEDO PROJECT Client Project #21556 Toledo, Washington ESN Northwest 1210 Eastside Street SE Suite 200 Olympia, WA 98501 (360) 459-4670 (360) 459-3432 Fax lab@esnnw.com

### Analysis of Gasoline Range Organics & BTEX in Soil by Method NWTPH-Gx/8260

Sample Number	Date	Date	Benzene	Toluene	Ethylbenzene	Xylenes	Gasoline Range Organics	Surrogate
Number	Prepared	Analyzed	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	Recovery (%)
Method Blank	10/21/2010	10/21/2010	nd	nd	nd	nd	nd	94%
LCS	10/21/2010	10/21/2010	133%	132%	131%	130%	106%	100%
SP4-11	10/19/2010	10/21/2010	nd	nd	nd	nd	nd	94%
SP4-12	10/19/2010	10/21/2010	nd	nd	nd	nd	nd	95%
Reporting Limits			0.02	0.05	0.05	0.15	10	

<sup>&</sup>quot;---" Indicates not tested for component.

<sup>&</sup>quot;nd" Indicates not detected at the listed detection limits.

<sup>&</sup>quot;int" Indicates that interference prevents determination.

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# Analysis of Gasoline Range Organics & BTEX in Soil by Method NWTPH-Gx/8260

Sample Number	Date Prepared	Date Analyzed	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Gasoline Range Organics (mg/kg)	Surrogate Recovery (%)
Method Blank	10/19/2010	10/19/2010	nd	nd	nd	nd	nd	95
LCS	10/19/2010	10/21/2010	133%	132%	131%	130%	90%	100
SP-5-1	10/19/2010	10/19/2010	nd	nd	nd	nd	nd	93
SP-5-2	10/19/2010	10/19/2010	nd	nd	nd	nd	nd	97
SP-5-3	10/19/2010	10/19/2010	nd	nd	nd	nđ	nd	92
SP-5-3 Dup	10/19/2010	10/19/2010	nd	nd	nd	nd	nd	81
MS	10/19/2010	10/21/2010	118%	113%	92%	89%		97
MSD	10/19/2010	10/21/2010	109%	96%	84%	78%		96
Reporting Limits			0.005	0.005	0.005	0.005	5	

<sup>&</sup>quot;\*\*\*" indicates additional analysis required for accurate results, update report will be sent

<sup>&</sup>quot;nd" Indicates not detected at the listed detection limits.

<sup>&</sup>quot;int" Indicates that interference prevents determination.

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### Analysis of Gasoline Range Organics, BTEX in Water by Method NWTPH-Gx/8260

Sample	Date	Benzene	Toluene	Ethylbenzene	Xylenes	Gasoline Range Organic	Surrogate
Number	Analyzed	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	Recovery (%)
Method Blank	10/22/2010	nd	nd	nd	nd	nd	115
LCS	10/22/2010	134%	117%	121%	89%	86%	100
EX2-GW	10/21/2010	nd	nd	28	160	6600	71
MS	10/22/2010	129%	119%	int	int		105
MSD	10/22/2010	145%	133%	int	int		108%
Reporting Limit	S .	1.0	1.0	1.0	3.0	100	

<sup>&</sup>quot;nd" Indicates not detected at the listed detection limits.

<sup>&</sup>quot;int" Indicates that interference prevents determination.

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

Sample	Date	Date	Surrogate	Diesel Range Organics	Lube Oil Range Organics
Number	Prepared	Analyzed	Recovery (%)	(mg/kg)	(mg/kg)
Method Blank	10/15/2010	10/15/2010	97	nd	nd
EX2-1-8.5	10/15/2010	10/15/2010	102	nd	nd
EX2-2-8.5	10/15/2010	10/15/2010	98	nd	nd
EX2-3-5	10/15/2010	10/15/2010	103	nd	nd
EX2-4-3	10/15/2010	10/15/2010	121	nd	nd
EX2-5-8.5	10/15/2010	10/15/2010	102	nd	nd
EX2-5-8.5	10/15/2010	10/15/2010	127	nd	nd
EX2-6-5	10/15/2010	10/15/2010	105	nd	nd
EX2-7-3	10/15/2010	10/15/2010	113	nd	nd
EX2-8-8.5	10/15/2010	10/18/2010	90	nd	nd
EX2-9-5	10/15/2010	10/18/2010	101	nd	nd
EX2-10-3	10/15/2010	10/18/2010	95	nd	nd
EX2-11-8.5	10/15/2010	10/18/2010	97	nd	nd
EX2-12-5	10/15/2010	10/18/2010	92	nd	nd
EX2-13-3	10/15/2010	10/18/2010	102	nd	nd
EX2-13-3 Dup	10/15/2010	10/18/2010	102	nd	nd
EX2-14-9.5	10/15/2010	10/15/2010	124	nd	nd

<sup>&</sup>quot;nd" Indicates not detected at the listed detection limits.
"int" Indicates that interference prevents determination.

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

Sample	Date	Date	Surrogate	Diesel Range Organics	Lube Oil Range Organics
Number	Prepared	Analyzed	Recovery (%)	(mg/kg)	(mg/kg)
Method Blank	10/19/2010	10/19/2010	103	nđ	nd
EX2-15-3	10/19/2010	10/19/2010	98	nd	nd
EX2-15-3 Dup	10/19/2010	10/19/2010	87	nd	nd
EX2-16-5	10/19/2010	10/19/2010	97	nd	nd
EX2-17-8.5	10/19/2010	10/19/2010	92	nd	nd
EX2-18-3	10/19/2010	10/19/2010	103	nd	nd
EX2-19-5	10/19/2010	10/19/2010	96	nd	nd
EX2-20-8.5	10/19/2010	10/19/2010	93	nd	nd
EX2-21-3	10/19/2010	10/19/2010	102	nd	nd
EX2-22-5	10/19/2010	10/19/2010	109	nd	nd
EX2-23-3	10/19/2010	10/19/2010	101	nd	nd
EX2-24-5	10/19/2010	10/19/2010	102	nd	nd
EX2-25-8.5	10/19/2010	10/19/2010	100	nd	nd
EX2-26-8.5	10/19/2010	10/19/2010	105	nd	nd
EX2-28-5	10/19/2010	10/19/2010	101	nd	nd
EX2-29-8.5	10/19/2010	10/19/2010	101	nd	nd
EX2-31-5	10/19/2010	10/19/2010	102	nd	nd
EX2-32-8.5	10/19/2010	10/19/2010	101	nd	nd
Reporting Limits				50	100

<sup>&</sup>quot;nd" Indicates not detected at the listed detection limits.

<sup>&</sup>quot;int" Indicates that interference prevents determination.

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

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

Sample	Date	Date	Surrogate	Diesel Range Organics	Lube Oil Range Organics
Number	Prepared	Analyzed	Recovery (%)	(mg/kg)	(mg/kg)
Method Blank	10/20/2010	10/20/2010	105	nd	nd
EX2-27-3	10/20/2010	10/20/2010	94	nd	nd
EX2-30-3	10/20/2010	10/20/2010	90	nd	nd
EX2-30-3 Dup	10/20/2010	10/20/2010	98	nd	nd
Reporting Limits	<u> </u>			50	100

<sup>&</sup>quot;nd" Indicates not detected at the listed detection limits.

<sup>&</sup>quot;int" Indicates that interference prevents determination.

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

Sample	Date	Date	Surrogate	Diesel Range Organics	Lube Oil Range Organics
Number	Prepared	Analyzed	Recovery (%)	(mg/kg)	(mg/kg)
Method Blank	10/21/2010	10/25/2010	109	nd	nd
EX2-33-10.5	10/21/2010	10/25/2010	99	nd	nd
EX2-34-10.5	10/21/2010	10/25/2010	133	nd	nd
EX2-35-10.5	10/21/2010	10/25/2010	89	nd	nd
EX2-36-10.5	10/21/2010	10/25/2010	82	nd	nd
EX2-37-10.5	10/21/2010	10/25/2010	90	nd	nd
EX2-37-10.5 DUP	10/21/2010	10/25/2010	105	nd	nd
Reporting Limits				50	100

<sup>&</sup>quot;nd" Indicates not detected at the listed detection limits.

<sup>&</sup>quot;int" Indicates that interference prevents determination.

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

Sample	Date	Date	Surrogate	Diesel Range Organics	Lube Oil Range Organics
Number	Prepared	Analyzed	Recovery (%)	(mg/kg)	(mg/kg)
Method Blank	10/15/2010	10/15/2010	97	nd	nd
SP4-1	10/15/2010	10/15/2010	60	nd	nd
SP4-2	10/15/2010	10/15/2010	89	nd	nd
SP4-3	10/15/2010	10/15/2010	71	nd	nd
SP4-4	10/15/2010	10/15/2010	101	nd	nd
SP4-5	10/15/2010	10/15/2010	106	nd	nd
SP4-6	10/15/2010	10/18/2010	91	nd	nd
SP4-7	10/15/2010	10/15/2010	83	nd	nd
SP4-7 Dup	10/15/2010	10/18/2010	84	nd	nd
SP4-8	10/15/2010	10/18/2010	90	nd	nd
SP4-9	10/15/2010	10/18/2010	111	nd	91
SP4-10	10/15/2010	10/15/2010	94	nd	67
Reporting Limits				25	60

<sup>&</sup>quot;nd" Indicates not detected at the listed detection limits.

<sup>&</sup>quot;int" Indicates that interference prevents determination.

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

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

Sample	Date	Date	Surrogate	Diesel Range Organics	Lube Oil Range Organics
Number	Prepared	Analyzed	Recovery (%)	(mg/kg)	(mg/kg)
Method Blank	10/20/2010	10/20/2010	105	nd	nd
SP4-11	10/20/2010	10/20/2010	99	nd	nd
SP4-12	10/20/2010	10/20/2010	104	nd	nd
Reporting Limits				25	60

<sup>&</sup>quot;nd" Indicates not detected at the listed detection limits.

<sup>&</sup>quot;int" Indicates that interference prevents determination.

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

Sample	Date	Date	Surrogate	Diesel Range Organics	Lube Oil Range Organics
Number	Prepared	Analyzed	Recovery (%)	(mg/kg)	(mg/kg)
Method Blank	10/19/2010	10/19/2010	103	nd	nd
SP-5-1	10/19/2010	10/19/2010	103	nd	nd
SP-5-2	10/19/2010	10/19/2010	98	nd	nd
SP-5-3	10/19/2010	10/19/2010	106	nd	nd
sp-5-3 Dup	10/19/2010	10/19/2010	87	nd	nd
Reporting Limits				25	60

<sup>&</sup>quot;nd" Indicates not detected at the listed detection limits.

<sup>&</sup>quot;int" Indicates that interference prevents determination.

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### Analysis of Diesel Range Organics & Lube Oil Range Organics in Water by Method NWTPH-Dx/Dx Extended

Sample Number	Date Prepared	Date Analyzed	Surrogate Recovery (%)	Diesel Range Organics (ug/L)	Lube Oil Range Organics (ug/L)
Method Blank	10/20/2010	10/20/2010	100	nd	nd
EX2-GW	10/20/2010	10/20/2010	100	nd	nd
Reporting Limits				250	500

<sup>&</sup>quot;nd" Indicates not detected at the listed detection limits.

<sup>&</sup>quot;int" Indicates that interference prevents determination.

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### Analyses of Gasoline Range Organics in Soil by Method NWTPH-Gx

Sample	Date	Date	Surrogate	Gasoline Range Organics
Number	Prepared	Analyzed	Recovery (%)	(mg/kg)
Method Blank	10/14/2010	10/14/2010	101%	nd
LCS	10/14/2010	10/14/2010	105%	95%
EX1-55-9.5	10/11/2010	10/14/2010	99%	2300
Reporting Limits				10

<sup>&</sup>quot;nd" Indicates not detected at the listed detection limits.

<sup>&</sup>quot;int" Indicates that interference prevents determination.

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### Analysis of Volatile Organic Compounds in Soil by Method 8260

Analytical Results

		MTH BLK	LCS	LCS	EX1-55-9.5
Date extracted	Reporting	10/14/10	10/14/10	10/14/10	10/11/10
Date analyzed	Limits	10/14/10	10/14/10	10/14/10	10/14/10
Moisture, %	(mg/kg)				12%
1,2-Dichloroethane (EDC)	0.05	nd	85%	97%	nd
1,2-Dibromoethane (EDB)	0.01	nd	83%	97%	nd
Hexane	0.05	nd	100%	82%	2.3
Benzene	0.02	nd	93%	100%	nd
Toluene	0.05	nd	95%	96%	nd
Ethylbenzene	0.05	nd	103%	93%	nd
Xylenes	0.05	nd	100%	92%	nd
Surrogate recoveries:					
Dibromofluoromethane		95%	99%	97%	91%
Toluene-d8		98%	96%	94%	111%
4-Bromofluorobenzene		104%	108%	97%	98%

### Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

na - not analyzed

C - coelution with sample peaks

M - matrix interference

J - estimated value

Results reported on dry-weight basis

Acceptable Recovery limits: 65% TO 135%

Acceptable RPD limit: 35%

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### Analysis of Polynuclear Aromatic Hydrocarbons in Soil by Method 8270

Analytical Results

		MTH BLK	LCS	EX1-55-9.5	MS	MSD	RPD
Date extracted	Reporting	10/14/10	10/14/10	10/14/10	10/14/10	10/14/10	
Date analyzed	Limits	10/14/10	10/14/10	10/14/10	10/14/10	10/14/10	
Moisture, %	(mg/kg)			12%		· · ·	
Acenaphthene	0.02	nd	115%	0.09	93%	85%	9%
Acenaphthylene	0.02	nd	101%	nd			
Anthracene	0.02	nd	124%	nd			
Benzo(a)anthracene*	0.02	nd	53%	nd			
Benzo(a)pyrene*	0.02	nd	76%	nd			
Benzo(b)fluoranthene*	0.02	nd	66%	nd			
Benzo(ghi)perylene	0.02	nd	94%	nd			
Benzo(k)fluoranthene*	0.02	nd	72%	nd			
Chrysene*	0.02	nd	116%	nd			
Dibenzo(a,h)anthracene*	0.02	nd	87%	nd			
Fluorene	0.02	nd	120%	0.21			
Fluoranthene	0.02	nd	91%	nd			
Indeno(1,2,3-cd)pyrene*	0.02	nd	59%	nd			
Naphthalene	0.02	nd	116%	nd			
1-Methylnaphthalene	0.02	nd	ns	0.43			
2-Methylnaphthalene	0.02	nd	ns	0.24			
Phenanthrene	0.02	nd	110%	0.45			
Pyrene	0.02	nd	110%	0.03	68%	71%	4%
Total Carcinogens				nd			
2 cm cm cm cpoint				114			
Surrogate recoveries:							
2-Fluorobiphenyl		71%	87%	87%	91%	97%	
p-Terphenyl-d14		54%	60%	66%	64%	70%	

### Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

na - not analyzed

C - coelution with sample peaks

M - matrix interference

J - estimated value

Results reported on dry-weight basis

Acceptable Recovery limits: 50% TO 150%

Acceptable RPD limit: 35%

<sup>\* -</sup> Carcinogenic Analyte



CLIENT:

**ESN Northwest** 

1210 Eastside St SE

Olympia, WA 98501

CLIENT CONTACT: CLIENT SAMPLE ID Steve Loague EX1-55-9.5

ALS SAMPLE#:

-01

DATE:

10/20/2010

ALS JOB#:

1010094

CLIENT PROJECT:

SAIC - TOLEDO

DATE RECEIVED:

10/14/2010

**COLLECTION DATE:** 

10/11/2010 11:50

WDOE ACCREDITATION:

C601

		DA	TA RESULTS				
ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS DATE	ANALYSIS BY
>C8-C10 Aliphatics	NWEPH	120	5.0	1	MG/KG	10/18/2010	EBS
>C10-C12 Aliphatics	NWEPH	170	5.0	1	MG/KG	10/18/2010	EBS
>C12-C16 Aliphatics	NWEPH	500	5.0	1	MG/KG	10/18/2010	EBS
>C16-C21 Aliphatics	NWEPH	420	5.0	1	MG/KG	10/18/2010	EBS
C21-C34 Aliphatics	NWEPH	78	5.0	1	MG/KG	10/18/2010	EBS
>C8-C10 Aromatics	NWEPH	9.0	5.0	1	MG/KG	10/18/2010	EBS
C10-C12 Aromatics	NWEPH	58	5.0	1	MG/KG	10/18/2010	EBS
C12-C16 Aromatics	NWEPH	190	5.0	1	MG/KG	10/18/2010	EBS
>C16-C21 Aromatics	NWEPH	400	5.0	1	MG/KG	10/18/2010	EBS
>C21-C34 Aromatics	NWEPH	62	5.0	1	MG/KG	10/18/2010	EBS
SURROGATE	METHOD	%REC				ANALYSIS DATE	ANALYSIS BY
C25	NWEPH	93.0				10/18/2010	EBS
p-Terphenyl	NWEPH	89.0				10/18/2010	EBS



CLIENT:

**ESN Northwest** 

1210 Eastside St SE

Olympia, WA 98501

Steve Loague

DATE:

10/20/2010

ALS JOB#: 1010094

**CLIENT PROJECT:** 

SAIC - TOLEDO

WDOE ACCREDITATION:

C601

#### LABORATORY BLANK RESULTS

## MBLK-10182010

**CLIENT CONTACT:** 

			REPORTING	DILUTION		ANALYSIS A	ANALYSIS
ANALYTE	METHOD	RESULTS	LIMITS	FACTOR	UNITS	DATE	BY
>C8-C10 Aliphatics	NWEPH	U	5.0	1	MG/KG	10/18/2010	EBS
>C10-C12 Aliphatics	NWEPH	U	5.0	1	MG/KG	10/18/2010	EBS
>C12-C16 Aliphatics	NWEPH	U	5.0	1	MG/KG	10/18/2010	EBS
>C16-C21 Aliphatics	NWEPH	U	5.0	1	MG/KG	10/18/2010	EBS
>C21-C34 Aliphatics	NWEPH	U	5.0	1	MG/KG	10/18/2010	EBS
>C8-C10 Aromatics	NWEPH	U	5.0	1	MG/KG	10/18/2010	EBŞ
>C10-C12 Aromatics	NWEPH	U	5.0	1	MG/KG	10/18/2010	EBS
>C12-C16 Aromatics	NWEPH	U	5.0	1	MG/KG	10/18/2010	EBS
>C16-C21 Aromatics	NWEPH	U	5.0	1	MG/KG	10/18/2010	EBS
>C21-C34 Aromatics	NWEPH	U	5.0	1	MG/KG	10/18/2010	EBS



CLIENT:

**ESN Northwest** 

Steve Loague

1210 Eastside St SE

Olympia, WA 98501

DATE:

10/20/2010

ALS JOB#:

1010094

**CLIENT PROJECT:** 

SAIC - TOLEDO

WDOE ACCREDITATION:

C601

## LABORATORY CONTROL SAMPLE RESULTS

#### ALS Test Batch ID: R71078

**CLIENT CONTACT:** 

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS DATE	ANALYSIS BY
>C8-C10 Aliphatics - BS	NWEPH	77.0			10/18/2010	EBS
>C8-C10 Aliphatics - BSD	NWEPH	80.0	3		10/18/2010	EBS
>C10-C12 Aliphatics - BS	NWEPH	83.0			10/18/2010	EBS
>C10-C12 Aliphatics - BSD	NWEPH	85.0	2		10/18/2010	EBS
>C12-C16 Aliphatics - BS	NWEPH	86.0			10/18/2010	EBS
>C12-C16 Aliphatics - BSD	NWEPH	86.0	0		10/18/2010	EBS
>C16-C21 Aliphatics - BS	NWEPH	89.0			10/18/2010	EBS
>C16-C21 Aliphatics - BSD	NWEPH	87.0	2		10/18/2010	EBS
>C21-C34 Aliphatics - BS	NWEPH	84.0			10/18/2010	EBS
>C21-C34 Aliphatics - BSD	NWEPH	82.0	2		10/18/2010	EBS
>C8-C10 Aromatics - BS	NWEPH	82.0			10/18/2010	EBS
>C8-C10 Aromatics - BSD	NWEPH	86.0	4		10/18/2010	EBS
>C10-C12 Aromatics - BS	NWEPH	84.0			10/18/2010	EBS
>C10-C12 Aromatics - BSD	NWEPH	88.0	4		10/18/2010	EBS
>C12-C16 Aromatics - BS	NWEPH	87.0			10/18/2010	EBS
>C12-C16 Aromatics - BSD	NWEPH	90.0	3		10/18/2010	EB\$
>C16-C21 Aromatics - BS	NWEPH	89.0			10/18/2010	EBS
>C16-C21 Aromatics - BSD	NWEPH	90.0	1		10/18/2010	EBS
>C21-C34 Aromatics - BS	NWEPH	100			10/18/2010	EBS
>C21-C34 Aromatics - BSD	NWEPH	104	3		10/18/2010	EBS

APPROVED BY:

Laboratory Director

Date of Report: October 25, 2010 Samples Submitted: October 14, 2010 Laboratory Reference: 1010-120

Project: SAIC - TOLEDO

## **Case Narrative**

Samples were collected on October 11, 2010 and received by the laboratory on October 14, 2010. They were maintained at the laboratory at a temperature of 2°C to 6°C.

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

#### Volatile Petroleum Hydrocarbons Analysis

Per EPA method 5035A, samples were received by the laboratory in pre-weighed 40 ml VOA vials preserved with either Methanol or Sodium Bisulfate.

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

Date of Report: October 25, 2010 Samples Submitted: October 14, 2010 Laboratory Reference: 1010-120

Project: SAIC - TOLEDO

#### **VOLATILE PETROLEUM HYDROCARBONS**

Date Extracted:

10-20-10

Date Analyzed:

10-20-10

Matrix:

Soil

Units:

mg/Kg (ppm)

Lab ID:

10-120-01

Client ID:

EX-1-55-9.5

VPH:	Results	PQL
Aliphatic C5-C6	ND	5.0
Aliphatic C6-C8	120	5.0
Aliphatic C8-C10	79	5.0
Aliphatic C10-C12	74	5.0
Total Aliphatic:	280	
Aromatic C8-C10	41	5.0
Aromatic C10-C12	32	5.0
Aromatic C12-C13	15	5.0
Total Aromatic:	89	
Target Analytes:		
Methyl t-butyl ether	ND	0.50
Benzene	0.42	0.020
Toluene	ND	0.50
Ethylbenzene	2.6	0.50
m,p-Xylene	1.1	0.50
o-Xylene	ND	0.50

Surrogate:

**Percent Recovery** 

**Control Limits** 

Fluorobenzene

88

60-126

Flags:

Date of Report: October 25, 2010 Samples Submitted: October 14, 2010 Laboratory Reference: 1010-120 Project: SAIC - TOLEDO

#### **VOLATILE PETROLEUM HYDROCARBONS** METHOD BLANK QUALITY CONTROL

Date Extracted:

10-20-10

Date Analyzed:

10-20-10

Matrix:

Soil

Units:

mg/Kg (ppm)

Lab ID:

MB1020S1

VPH:	Results	PQL
Aliphatic C5-C6	ND	5.0
Aliphatic C6-C8	ND	5.0
Aliphatic C8-C10	ND	5.0
Aliphatic C10-C12	ND	5.0
Total Aliphatic:	NA	
Aromatic C8-C10	ND	5.0
Aromatic C10-C12	ND	5.0
Aromatic C12-C13	ND	5.0
Total Aromatic:	NA	
Target Analytes:		
Methyl t-butyl ether	ND	0.50
Benzene	ND	0.020
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylene	ND	0.50
o-Xylene	ND	0.50

Surrogate:

**Percent Recovery** 

**Control Limits** 

Fluorobenzene

81

60-126

Flags:

Date of Report: October 25, 2010 Samples Submitted: October 14, 2010 Laboratory Reference: 1010-120

Project: SAIC - TOLEDO

# VOLATILE PETROLEUM HYDROCARBONS SB/SBD QUALITY CONTROL

Date Extracted:

10-20-10

Date Analyzed:

10-20-10

Matrix:

Soil

Units:

mg/Kg (ppm)

Spike Level (ppm):

1.00

Lab ID:

SB1020S1

SBD1020S1

		Percent		Percent		
	Result	Recovery	Result	Recovery	PQL	RPD
Benzene	0.939	94	0.941	94	0.020	0
Toluene	0.952	95	0.955	96	0.50	0
Ethylbenzene	0.964	96	0.968	97	0.50	0
m,p-Xylene	0.975	98	0.977	98	0.50	0
o-Xylene	0.950	95	0.954	95	0.50	0

	Percent	Percent	Control
Surrogate:	Recovery	Recovery	Limits
Fluorobenzene	88	87	60-127



#### **Data Qualifiers and Abbreviations**

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

**Z** -

- ND Not Detected at PQL
- PQL Practical Quantitation Limit
- RPD Relative Percent Difference



2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 •717-656-2300 Fax:717-656-2681 • www.lancasterlabs.com

#### ANALYTICAL RESULTS

Prepared by:

Prepared for:

Lancaster Laboratories 2425 New Holland Pike Lancaster, PA 17605-2425 Chevron 6001 Bollinger Canyon Rd L4310 San Ramon CA 94583

October 29, 2010

Project: 211556

Submittal Date: 10/19/2010 Group Number: 1216990 PO Number: 0015061243 Release Number: GILPIN State of Sample Origin: WA

Client Sample Description	<u>Lancaster Labs (LLI) #</u>
EX1-7-9 Grab Soil Sample	6115497
EX1-28-9.5 Grab Soil Sample	6115498
EX1-29-9.5 Grab Soil Sample	6115499
EX1-33-10 Grab Soil Sample	6115500
EX1-34-9 Grab Soil Sample	6115501
EX1-62-12 Grab Soil Sample	6115502
EX1-63-12 Grab Soil Sample	6115503
EX2-14-9.5 Grab Soil Sample	6115504

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC SAIC Attn: Mike Lange

COPY TO

ELECTRONIC SAIC Attn: Peter Catterall

COPY TO



2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Questions? Contact your Client Services Representative Jill M Parker at (717) 656-2300 Ext. 1241

Respectfully Submitted,

Barbara F. Reedy Senior Specialist



Account

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Page 1 of 1

Sample Description: EX1-7-9 Grab Soil Sample

Facility# 211556

101 Mulford Rd - Toledo, WA

LLI Sample # SW 6115497 LLI Group # 1216990

# 11255

Project Name: 211556

Collected: 10/06/2010 10:50 by GC Chevron

6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

Submitted: 10/19/2010 09:05 Reported: 10/29/2010 09:34

#### MTE17

CAT No.	Analysis Name	CAS Number	Dry Result	Method Detection Limit	Dilution Factor
GC/MS	Semivolatiles SW-	846 8270C SIM	mg/kg	mg/kg	
10722	Benzo(a)anthracene	56-55-3	N.D.	0.0078	10
10722	Benzo(a)pyrene	50-32-8	N.D.	0.0078	10
10722	Benzo(b)fluoranthene	205-99-2	N.D.	0.0078	10
10722	Benzo(k)fluoranthene	207-08-9	N.D.	0.0078	10
10722	Chrysene	218-01-9	N.D.	0.0039	10
10722	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0078	10
10722	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0078	10
Repo	rting limits were raised o	due to interference fr	om the sample mat	rix.	
Metals	SW-	846 6020	mg/kg	mg/kg	
06135	Lead	7439-92-1	5.48	0.0117	2
Wet Cl	nemistry SM2	0 2540 G	%	8	
00111	Moisture	n.a.	14.8	0.50	1
	"Moisture" represents th 103 - 105 degrees Celsiu as-received basis.	9	-	1 0	

## General Sample Comments

State of Washington Lab Certification No. C259 Carcinogenic PAHs have been reported for this sample

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10722	PAH SIM 8270 Soil Microwave	SW-846 8270C SIM	1	10292SLD026	10/28/2010 22:08	Barton C Conner	10
10810	BNA Soil Microwave SIM PAH	SW-846 3546	1	10292SLD026	10/19/2010 18:00	Sally L Appleyard	1
06135	Lead	SW-846 6020	1	102931026001A	10/27/2010 09:24	Choon Y Tian	2
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	102931026001	10/20/2010 12:45	James L Mertz	1
00111	Moisture	SM20 2540 G	1	10293820005A	10/20/2010 18:13	Scott W Freisher	1



Account

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Page 1 of 1

Sample Description: EX1-28-9.5 Grab Soil Sample

Facility# 211556

101 Mulford Rd - Toledo, WA

LLI Sample # SW 6115498 LLI Group # 1216990

# 11255

Project Name: 211556

Collected: 10/07/2010 08:10 by GC Chevron

6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

Submitted: 10/19/2010 09:05 Reported: 10/29/2010 09:34

#### MT128

CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor			
GC/MS	Semivolatiles S	SW-846	8270C SIM	mg/kg	mg/kg				
10722	Benzo(a)anthracene		56-55-3	0.0010	0.00084	1			
10722	Benzo(a)pyrene		50-32-8	N.D.	0.00084	1			
10722	Benzo(b)fluoranthene		205-99-2	0.0016	0.00084	1			
10722	Benzo(k)fluoranthene		207-08-9	N.D.	0.00084	1			
10722	Chrysene		218-01-9	0.0026	0.00042	1			
10722	Dibenz(a,h)anthracene	9	53-70-3	N.D.	0.00084	1			
10722	Indeno(1,2,3-cd)pyrer	ne	193-39-5	N.D.	0.00084	1			
Metals	s .	SW-846	6020	mg/kg	mg/kg				
06135	Lead		7439-92-1	7.91	0.0131	2			
Wet Ch	nemistry S	SM20 25	540 G	8	%				
00111	Moisture		n.a.	21.1	0.50	1			
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis								

#### General Sample Comments

State of Washington Lab Certification No. C259 Carcinogenic PAHs have been reported for this sample

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10722	PAH SIM 8270 Soil Microwave	SW-846 8270C SIM	1	10292SLD026	10/28/2010 23:49	Barton C Conner	1
10810	BNA Soil Microwave SIM PAH	SW-846 3546	1	10292SLD026	10/19/2010 18:00	Sally L Appleyard	1
06135	Lead	SW-846 6020	1	102931026001A	10/27/2010 09:35	Choon Y Tian	2
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	102931026001	10/20/2010 12:45	James L Mertz	1
00111	Moisture	SM20 2540 G	1	10293820005A	10/20/2010 18:13	Scott W Freisher	1



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Sample Description: EX1-29-9.5 Grab Soil Sample

Facility# 211556

101 Mulford Rd - Toledo, WA

LLI Sample # SW 6115499 LLI Group # 1216990

Account # 11255

Project Name: 211556

Collected: 10/07/2010 08:30 by GC Chevron

6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

Submitted: 10/19/2010 09:05 Reported: 10/29/2010 09:34

#### MT129

CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor			
GC/MS	Semivolatiles	SW-846	8270C SIM	mg/kg	mg/kg				
10722	Benzo(a)anthracene		56-55-3	0.00091	0.00081	1			
10722	Benzo(a)pyrene		50-32-8	0.0011	0.00081	1			
10722	Benzo(b) fluoranthene	9	205-99-2	0.0017	0.00081	1			
10722	Benzo(k)fluoranthene	9	207-08-9	N.D.	0.00081	1			
10722	Chrysene		218-01-9	0.0014	0.00040	1			
10722	Dibenz(a,h)anthrace	ne	53-70-3	N.D.	0.00081	1			
10722	Indeno(1,2,3-cd)pyre	ene	193-39-5	0.00088	0.00081	1			
Metals	5	SW-846	6020	mg/kg	mg/kg				
06135	Lead		7439-92-1	11.4	0.0124	2			
Wet Cl	nemistry	SM20 25	540 G	%	%				
00111	Moisture		n.a.	17.2	0.50	1			
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis								

General Sample Comments

State of Washington Lab Certification No. C259 Carcinogenic PAHs have been reported for this sample

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
10722	PAH SIM 8270 Soil Microwave	SW-846 8270C SIM	1	10292SLD026	10/29/2010 00	0:23	Barton C Conner	1
10810	BNA Soil Microwave SIM PAH	SW-846 3546	1	10292SLD026	10/19/2010 18	8:00	Sally L Appleyard	1
06135	Lead	SW-846 6020	1	102931026001A	10/27/2010 09	9:37	Choon Y Tian	2
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	102931026001	10/20/2010 12	2:45	James L Mertz	1
00111	Moisture	SM20 2540 G	1	10293820005A	10/20/2010 18	8:13	Scott W Freisher	1



Account

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Sample Description: EX1-33-10 Grab Soil Sample

Facility# 211556

101 Mulford Rd - Toledo, WA

LLI Sample # SW 6115500 LLI Group # 1216990

# 11255

Project Name: 211556

Collected: 10/07/2010 10:00 by GC Chevron

6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

Submitted: 10/19/2010 09:05 Reported: 10/29/2010 09:34

#### MT133

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Semivolatiles SW-846	8270C SIM	mg/kg	mg/kg	
10722	Benzo(a)anthracene	56-55-3	0.0046	0.0015	1
10722	Benzo(a)pyrene	50-32-8	N.D.	0.0015	1
10722	Benzo(b) fluoranthene	205-99-2	N.D.	0.0015	1
10722	Benzo(k)fluoranthene	207-08-9	N.D.	0.0015	1
10722	Chrysene	218-01-9	0.020	0.00074	1
10722	Dibenz(a,h)anthracene	53-70-3	N.D.	0.0015	1
10722	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.0015	1
m1		00 11 11 1			

The surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.

Reporting limits were raised due to interference from the sample matrix.

Metals	3	SW-84	46 602	20	mg/kg	mg/	kg	
06135	Lead			7439-92-1	7.11	0.0	113	2
Wet Cl	nemistry	SM20	2540	G	%	%		
00111	Moisture			n.a.	10.5	0.5	0	1
	"Moisture"	represents the	loss i	n weight of th	e sample after ove	n drving at		

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

#### General Sample Comments

State of Washington Lab Certification No. C259 Carcinogenic PAHs have been reported for this sample

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10722	PAH SIM 8270 Soil Microwave	SW-846 8270C SIM	1	10292SLD026	10/29/2010 00:57	Barton C Conner	1
10810	BNA Soil Microwave SIM PAH	SW-846 3546	1	10292SLD026	10/19/2010 18:00	Sally L Appleyard	1
06135	Lead	SW-846 6020	1	102931026001A	10/27/2010 09:43	Choon Y Tian	2
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	102931026001	10/20/2010 12:45	James L Mertz	1
00111	Moisture	SM20 2540 G	1	10293820005A	10/20/2010 18:13	Scott W Freisher	1



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Sample Description: EX1-34-9 Grab Soil Sample

Facility# 211556

101 Mulford Rd - Toledo, WA

LLI Sample # SW 6115501 LLI Group # 1216990 Account # 11255

Project Name: 211556

Collected: 10/07/2010 10:15 by GC Chevron

6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

Submitted: 10/19/2010 09:05 Reported: 10/29/2010 09:34

#### MT134

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor				
GC/MS	Semivolatiles SW-	-846 8270C SIM	mg/kg	mg/kg					
10722	Benzo(a)anthracene	56-55-3	N.D.	0.00086	1				
10722	Benzo(a)pyrene	50-32-8	N.D.	0.00086	1				
10722	Benzo(b)fluoranthene	205-99-2	N.D.	0.00086	1				
10722	Benzo(k)fluoranthene	207-08-9	N.D.	0.00086	1				
10722	Chrysene	218-01-9	0.0011	0.00043	1				
10722	Dibenz(a,h)anthracene	53-70-3	N.D.	0.00086	1				
10722	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.00086	1				
Metal	s SW-	-846 6020	mg/kg	mg/kg					
06135	Lead	7439-92-1	7.22	0.0129	2				
Wet C	hemistry SM2	20 2540 G	%	%					
00111	Moisture	n.a.	22.7	0.50	1				
	"Moisture" represents the loss in weight of the sample after oven drying at  103 - 105 degrees Celsius. The moisture result reported above is on an								

as-received basis.

#### General Sample Comments

State of Washington Lab Certification No. C259 Carcinogenic PAHs have been reported for this sample

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10722	PAH SIM 8270 Soil Microwave	SW-846 8270C SIM	1	10292SLD026	10/29/2010 01:	31 Barton C Conner	1
10810	BNA Soil Microwave SIM PAH	SW-846 3546	1	10292SLD026	10/19/2010 18:	00 Sally L Appleyard	. 1
06135	Lead	SW-846 6020	1	102931026001A	10/27/2010 09:	45 Choon Y Tian	2
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	102931026001	10/20/2010 12:	45 James L Mertz	1
00111	Moisture	SM20 2540 G	1	10293820005A	10/20/2010 18:	13 Scott W Freisher	1



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Sample Description: EX1-62-12 Grab Soil Sample

Facility# 211556

101 Mulford Rd - Toledo, WA

LLI Sample # SW 6115502 LLI Group # 1216990 Account # 11255

1

Project Name: 211556

Collected: 10/12/2010 13:41 by GC Chevron

6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

Submitted: 10/19/2010 09:05 Reported: 10/29/2010 09:34

#### MT162

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Semivolatiles SW-846 8	270C SIM	mg/kg	mg/kg	
10722	Benzo(a)anthracene	56-55-3	N.D.	0.00089	1
10722	Benzo(a)pyrene	50-32-8	0.0011	0.00089	1
10722	Benzo(b) fluoranthene	205-99-2	0.0014	0.00089	1
10722	Benzo(k)fluoranthene	207-08-9	N.D.	0.00089	1
10722	Chrysene	218-01-9	0.0034	0.00045	1
10722	Dibenz(a,h)anthracene	53-70-3	N.D.	0.00089	1
10722	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.00089	1
	surrogate data is outside the QC lems evident in the sample chrom		unresolvable matrix		

 Metals
 SW-846
 6020
 mg/kg
 mg/kg

 06135
 Lead
 7439-92-1
 9.50
 0.0134
 3.50

Wet Chemistry SM20 2540 G % % %
00111 Moisture n.a. 25.5 0.50
"Moisture" represents the loss in weight of the sample after oven drying at

103 - 105 degrees Celsius. The moisture result reported above is on an

as-received basis.

# General Sample Comments

State of Washington Lab Certification No. C259 Carcinogenic PAHs have been reported for this sample

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	_	Analyst	Dilution Factor
					Date and Time	=		ractor
10722	PAH SIM 8270 Soil Microwave	SW-846 8270C SIM	1	10292SLD026	10/29/2010 0	2:06	Barton C Conner	1
10810	BNA Soil Microwave SIM PAH	SW-846 3546	1	10292SLD026	10/19/2010 1	18:00	Sally L Appleyard	1
06135	Lead	SW-846 6020	1	102931026001A	10/27/2010 0	9:47	Choon Y Tian	2
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	102931026001	10/20/2010 1	2:45	James L Mertz	1
00111	Moisture	SM20 2540 G	1	10293820005A	10/20/2010 1	18:13	Scott W Freisher	1



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Sample Description: EX1-63-12 Grab Soil Sample

Facility# 211556

101 Mulford Rd - Toledo, WA

LLI Sample # SW 6115503 LLI Group # 1216990 Account # 11255

Project Name: 211556

Collected: 10/12/2010 14:09 by GC Chevron

6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

Submitted: 10/19/2010 09:05 Reported: 10/29/2010 09:34

#### MT163

CAT No.	Analysis Name		CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS	Semivolatiles	SW-846	8270C SIM	mg/kg	mg/kg	
10722	Benzo(a)anthracene		56-55-3	N.D.	0.00074	1
10722	Benzo(a)pyrene		50-32-8	N.D.	0.00074	1
10722	Benzo(b) fluoranthene	<b>:</b>	205-99-2	N.D.	0.00074	1
10722	Benzo(k)fluoranthene	<b>:</b>	207-08-9	N.D.	0.00074	1
10722	Chrysene		218-01-9	0.0016	0.00037	1
10722	Dibenz(a,h)anthracer	ie	53-70-3	N.D.	0.00074	1
10722	Indeno(1,2,3-cd)pyre	ene	193-39-5	N.D.	0.00074	1
Metals	5	SW-846	6020	mg/kg	mg/kg	
06135	Lead		7439-92-1	6.16	0.0116	2
Wet Cl	nemistry	SM20 25	540 G	%	%	
00111	Moisture		n.a.	10.3	0.50	1
	"Moisture" represent	s the lo	ss in weight of th	ne sample after	oven drying at	
	103 - 105 degrees Ce	elsius. T	he moisture result	reported above	is on an	
	as-received basis.					

#### General Sample Comments

State of Washington Lab Certification No. C259 Carcinogenic PAHs have been reported for this sample

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10722	PAH SIM 8270 Soil Microwave	SW-846 8270C SIM	1	10292SLD026	10/29/2010 02:39	Barton C Conner	1
10810	BNA Soil Microwave SIM PAH	SW-846 3546	1	10292SLD026	10/19/2010 18:00	Sally L Appleyard	1
06135	Lead	SW-846 6020	1	102931026001A	10/27/2010 09:48	Choon Y Tian	2
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	102931026001	10/20/2010 12:45	James L Mertz	1
00111	Moisture	SM20 2540 G	1	10293820005A	10/20/2010 18:13	Scott W Freisher	1



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Sample Description: EX2-14-9.5 Grab Soil Sample

Facility# 211556

101 Mulford Rd - Toledo, WA

LLI Sample # SW 6115504 LLI Group # 1216990

Account # 11255

Project Name: 211556

Collected: 10/14/2010 14:50 by GC Chevron

6001 Bollinger Canyon Rd L4310

San Ramon CA 94583

Submitted: 10/19/2010 09:05 Reported: 10/29/2010 09:34

#### MT214

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor				
GC/MS	Semivolatiles SW-846	8270C SIM	mg/kg	mg/kg					
10722	Benzo(a)anthracene	56-55-3	0.021	0.00076	1				
10722	Benzo(a)pyrene	50-32-8	0.023	0.00076	1				
10722	Benzo(b)fluoranthene	205-99-2	0.026	0.00076	1				
10722	Benzo(k)fluoranthene	207-08-9	0.011	0.00076	1				
10722	Chrysene	218-01-9	0.023	0.00038	1				
10722	Dibenz(a,h)anthracene	53-70-3	0.0025	0.00076	1				
10722	Indeno(1,2,3-cd)pyrene	193-39-5	0.0090	0.00076	1				
Metals	SW-846	6020	mg/kg	mg/kg					
06135	Lead	7439-92-1	6.04	0.0117	2				
Wet Cl	nemistry SM20 2	540 G	8	%					
00111	Moisture	n.a.	12.1	0.50	1				
	"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.								

#### General Sample Comments

State of Washington Lab Certification No. C259 Carcinogenic PAHs have been reported for this sample

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10722	PAH SIM 8270 Soil Microwave	SW-846 8270C SIM	1	10292SLD026	10/29/2010 03:14	Barton C Conner	1
10810	BNA Soil Microwave SIM PAH	SW-846 3546	1	10292SLD026	10/19/2010 18:00	Sally L Appleyard	1
06135	Lead	SW-846 6020	1	102931026001A	10/27/2010 09:50	Choon Y Tian	2
11026	SW SW846 ICP-MS Digest	SW-846 3050B	1	102931026001	10/20/2010 12:45	James L Mertz	1
00111	Moisture	SM20 2540 G	1	10293820005A	10/20/2010 18:13	Scott W Freisher	1



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# Quality Control Summary

Client Name: Chevron Group Number: 1216990

Reported: 10/29/10 at 09:34 AM

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method

## Laboratory Compliance Quality Control

Analysis Name	Blank <u>Result</u>	Blank <u>MDL</u>	Report <u>Units</u>	LCS %REC	LCSD %REC	LCS/LCSD <u>Limits</u>	<u>RPD</u>	RPD Max
Batch number: 10292SLD026	Sample numbe	er(s): 611	5497-6115	504				
Benzo(a) anthracene	N.D.	0.00067	mq/kq	93		74-112		
Benzo(a)pyrene	N.D.	0.00067	mg/kg	81		70-109		
Benzo(b)fluoranthene	N.D.	0.00067	mg/kg	83		73-123		
Benzo(k)fluoranthene	N.D.	0.00067	mg/kg	77		65-130		
Chrysene	N.D.	0.00033	mg/kg	95		79-111		
Dibenz(a,h)anthracene	N.D.	0.00067	mg/kg	80		69-128		
Indeno(1,2,3-cd)pyrene	N.D.	0.00067	mg/kg	81		71-127		
Batch number: 102931026001A	Sample numbe	er(s): 611	5497-6115	504				
Lead	0.0108	0.0100	mg/kg	102		80-120		
Batch number: 10293820005A	Sample numbe	er(s): 611	5497-6115	504				
Moisture	-			100		99-101		

# Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD <u>Limits</u>	<u>RPD</u>	RPD <u>MAX</u>	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: 10292SLD026	Sample	number(s)	: 6115497	-611550	04 UNSP	K: 6115497			
Benzo(a)anthracene	90	86	20-138	4	30				
Benzo(a)pyrene	73	68	34-156	6	30				
Benzo(b)fluoranthene	74	68	43-155	8	30				
Benzo(k)fluoranthene	70	65	49-145	7	30				
Chrysene	87	88	41-126	1	30				
Dibenz(a,h)anthracene	87	75	10-157	15	30				
Indeno(1,2,3-cd)pyrene	87	76	10-164	14	30				
Batch number: 102931026001A	Sample	number(s)	: 6115497	-611550	04 UNSP	K: 6115497 I	BKG: 6115497	,	
Lead	220*	185*	75-125	10	20	4.67	7.31	44*	20
Batch number: 10293820005A	Sample	number(s)	: 6115497	-611550	04 BKG	: P115593			
Moisture	1	, , , ,				20.1	20.2	0	15

# Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

#### \*- Outside of specification

- (1) The result for one or both determinations was less than five times the LOQ.
- (2) The unspiked result was more than four times the spike added.



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# Quality Control Summary

Client Name: Chevron Group Number: 1216990

Reported: 10/29/10 at 09:34 AM

Surrogate Quality Control

Analysis Name: PAH SIM 8270 Soil Microwave

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14
115497	92	94	79
115498	115	111	86
115499	102	104	89
115500	246*	100	90
115501	106	101	90
115502	162*	103	86
115503	110	108	91
115504	58	100	89
lank	106	106	98
CS	104	109	97
IS	87	107	89
ISD	101	90	76
imits:	53-152	52-132	51-141

<sup>\*-</sup> Outside of specification

<sup>(1)</sup> The result for one or both determinations was less than five times the LOQ.

<sup>(2)</sup> The unspiked result was more than four times the spike added.

# Chevron Northwest Region Analysis Request/Chain of Custody



For Lancaster Laboratories use only Acct. #: 1255 Sample #: 6115497-504		223300
Acct. #: 11235 Sample #: 6115497-504	SCR#:	

											A	nalys	ses F	leque	sted	1			Grps	井し	2169	90
Facility #: Toledo Cheuson Si	He No-	21155	6		Matri	x			$\equiv$	$\equiv$	구	rese	rvati	on Co	des	$\equiv$	<del>-</del>	二			live Code	
Site Address: 101 Mulford Pd, Tolon	lo,WA			. L				ㅁ		$\dashv$	$\sqcap$		$\top$	+	+	+	+	H	H = HCI N = HNO <sub>3</sub>	, 1	T = Thios B = NaO	Н
Chevron PM: Amy Gilpin Lead Co	nsultant:	SAIL		. [			တ္	dapht							15	4			<b>S</b> = H <sub>2</sub> SO.	·	O = Othe	
Consultant/Office: Bothell				.	table		ainer			. [		g. Sanup	힐	E C	0009	36			☐ J value re	-	_	
Consultant Prj. Mgr.: Peter Catteral	r			.	☐ Potable ☐ NPDES		ont	826				윤물	] Net	antific		90	1		☐ Must med possible		est detect :60 compo	
Consultant Phone #: 425-482-3321		485-55	66	.		4	) jo	8021 🔲 8260 🗀 Naphth 🗀		_		Extended Rng. Silica Gel Cleanup	ss.		.   7	<b>\$</b> 8	\$		8021 MTBE			
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# Chevron Northwest Region Analysis Request/Chain of Custody



Acct. #: 11255 For Lancaster Laboratories use only Sample #015497 - 504 SCR#:

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Lancaster Laboratories, Inc., 2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 (717) 656-2300 Copies: White and yellow should accompany samples to Lancaster Laboratories. The pink copy should be retained by the client.

3468 Rev. 8/6/01



# **Explanation of Symbols and Abbreviations**

The following defines common symbols and abbreviations used in reporting technical data:

RL N.D.	Reporting Limit none detected	BMQL MPN	Below Minimum Quantitation Level Most Probable Number
TNTC	Too Numerous To Count	CP Units	cobalt-chloroplatinate units
IU	International Units	NTU	nephelometric turbidity units
umhos/cm	micromhos/cm	ng	nanogram(s)
С	degrees Celsius	F	degrees Fahrenheit
meq	milliequivalents	lb.	pound(s)
g	gram(s)	kg	kilogram(s)
ug	microgram(s)	mg	milligram(s)
ml	milliliter(s)	I	liter(s)
m3	cubic meter(s)	ul	microliter(s)

- < less than The number following the sign is the <u>limit of quantitation</u>, the smallest amount of analyte which can be reliably determined using this specific test.
- > greater than
- J estimated value The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).
- ppm parts per million One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

Increasic Ovelitions

ppb parts per billion

**Dry weight**basis
Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

#### U.S. EPA CLP Data Qualifiers:

	Organic Qualifiers		Inorganic Qualifiers
Α	TIC is a possible aldol-condensation product	В	Value is <crdl, but="" th="" ≥idl<=""></crdl,>
В	Analyte was also detected in the blank	Ε	Estimated due to interference
С	Pesticide result confirmed by GC/MS	M	Duplicate injection precision not met
D	Compound quantitated on a diluted sample	N	Spike sample not within control limits
Ε	Concentration exceeds the calibration range of	S	Method of standard additions (MSA) used
	the instrument		for calculation
N	Presumptive evidence of a compound (TICs only)	U	Compound was not detected
Р	Concentration difference between primary and	W	Post digestion spike out of control limits
	confirmation columns >25%	*	Duplicate analysis not within control limits
U	Compound was not detected	+	Correlation coefficient for MSA < 0.995
X,Y,Z	Defined in case narrative		

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Ormania Ovalitiana

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL LANCASTER LABORATORIES BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF LANCASTER LABORATORIES AND (B) WHETHER LANCASTER LABORATORIES HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Lancaster Laboratories which includes any conditions that vary from the Standard Terms and Conditions, and Lancaster hereby objects to any conflicting terms contained in any acceptance or order submitted by client.



November 18, 2010

Peter Catterall SAIC 18912 North Creek Parkway, Suite 101 Bothell, WA 98011

Dear Mr. Catterall:

Please find enclosed the analytical data report for the Toledo #211556 Project located in Toledo, Washington. One soil sample was analyzed for PAH & Naphthalene by Method 8270, EDB, EDC & Hexane by Method 8260, VPH, and EPH on November 3 – 5, 2010.

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

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

Sincerely,

Michael A. Korosec

Michael a Korner

President

# **ESN NORTHWEST CHEMISTRY LABORATORY**

SAIC Toledo #21556 PROJECT Client Project ##211556 Toledo, WA ESN Northwest 1210 Eastside Street SE Suite 200 Olympia, WA 98501 (360) 459-4670 (360) 459-3432 Fax lab@esnnw.com

# Analysis of Polynuclear Aromatic Hydrocarbons in Soil by Method 8270

# **Analytical Results**

		MTH BLK	LCS	EX2-35-10.5
Date extracted	Reporting	11/03/10	11/03/10	11/03/10
Date analyzed	Limits	11/03/10	11/03/10	11/03/10
Moisture, %	(mg/kg)			37%
Benzo(a)anthracene*	0.02	nd	125%	nd
Benzo(a)pyrene*	0.02	nd	114%	nd
Benzo(b)fluoranthene*	0.02	nd	133%	nd
Benzo(k)fluoranthene*	0.02	nd	123%	nd
Chrysene*	0.02	nd	114%	nd
Dibenzo(a,h)anthracene*	0.02	nd	110%	nd
Indeno(1,2,3-cd)pyrene*	0.02	nd	110%	nd
Naphthalene	0.02	nd	116%	1.6
1-Methylnaphthalene	0.02	nd	ns	2.5
2-Methylnaphthalene	0.02	nd	ns	4.4
Total Carcinogens				nd
Surrogate recoveries:				
2-Fluorobiphenyl		107%	104%	103%
p-Terphenyl-d14		108%	118%	108%

# Data Qualifiers and Analytical Comments

\* - Carcinogenic Analyte

nd - not detected at listed reporting limits

na - not analyzed

C - coelution with sample peaks

M - matrix interference

J - estimated value

Results reported on dry-weight basis

Acceptable Recovery limits: 50% TO 150%

Acceptable RPD limit: 35% ns- not in the spiking solution

## ESN NORTHWEST CHEMISTRY LABORATORY

SAIC Toledo #21556 PROJECT Client Project ##211556 Toledo, WA ESN Northwest 1210 Eastside Street SE Suite 200 Olympia, WA 98501 (360) 459-4670 (360) 459-3432 Fax lab@esnnw.com

## Analysis of Volatile Organic Compounds in Soil by Method 8260

# Analytical Results

		MTH BLK	LCS	EX2-35-10.5
Date extracted	Reporting	11/03/10	11/03/10	11/03/10
Date analyzed	Limits	11/03/10	11/03/10	11/03/10
Moisture, %	(mg/kg)			37%
1,2-Dichloroethane (EDC)	0.05	nd	76%	nd
1,2-Dibromoethane (EDB)	0.01	nd	83%	nd
n-hexane	0.05	nd	74%	nd
Surrogate recoveries:				
Dibromofluoromethane		68%	89%	65%
Toluene-d8		94%	94%	93%
4-Bromofluorobenzene		100%	101%	100%

# Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

na - not analyzed

C - coelution with sample peaks

M - matrix interference

J - estimated value

Results reported on dry-weight basis

Acceptable Recovery limits: 65% TO 135%

Acceptable RPD limit: 35%



CLIENT: **ESN Northwest** 

DATE: 11/16/2010 1210 Eastside St SE ALS JOB#: 1011035 -01

Olympia, WA 98501 ALS SAMPLE#:

CLIENT CONTACT: Steve Loague

DATE RECEIVED: 11/4/2010 SAIC - TOLEDO / Proj #211556 CLIENT PROJECT: **COLLECTION DATE:** 10/20/2010 11:10

**CLIENT SAMPLE ID** EX-2-35-10.5 WDOE ACCREDITATION: C601

		DA	ATA RESULTS				
ANALYTE	METHOD	RESULTS	REPORTING LIMITS	DILUTION FACTOR	UNITS	ANALYSIS A	ANALYSIS BY
Methyl T-Butyl Ether	EPA-8021	ND- H	0.65	1	MG/KG	11/11/2010	DLC
Benzene	EPA-8021	ND- H	0.50	1	MG/KG	11/11/2010	DLC
Toluene	EPA-8021	ND- H	0.50	1	MG/KG	11/11/2010	DLC
Ethylbenzene	EPA-8021	2.9 H	0.50	1	MG/KG	11/11/2010	DLC
M & P- Xylenes	EPA-8021	5.5 H	0.50	1	MG/KG	11/11/2010	DLC
O-Xylene	EPA-8021	3.0 H	0.50	1	MG/KG	11/11/2010	DLC
C5-C6 Aliphatics	NWVPH	7.3 H	5.0	1	MG/KG	11/09/2010	DLC
>C6-C8 Aliphatics	NWVPH	84 H	5.0	1	MG/KG	11/09/2010	DLC
>C8-C10 Aliphatics	NWVPH	60 H	5.0	1	MG/KG	11/09/2010	DLC
>C10-C12 Aliphatics	NWVPH	180 H	5.0	1	MG/KG	11/09/2010	DLC
>C8-C10 Aromatics	NWVPH	140 H	5.0	1	MG/KG	11/09/2010	DLC
>C10-C12 Aromatics	NWVPH	260 H	5.0	1	MG/KG	11/09/2010	DLC
>C12-C13 Aromatics	NWVPH	100 H	5.0	1	MG/KG	11/09/2010	DLC
Hexane	NWVPH	ND- H	0.33	1	MG/KG	11/11/2010	DLC
>C8-C10 Aliphatics	NWEPH	96 H	5.0	1	MG/KG	11/05/2010	EB\$
>C10-C12 Aliphatics	NWEPH	93 H	5.0	1	MG/KG	11/05/2010	EBS
>C12-C16 Aliphatics	NWEPH	81 H	5.0	1	MG/KG	11/05/2010	EBS
>C16-C21 Aliphatics	NWEPH	50 H	5.0	1	MG/KG	11/05/2010	EB\$
>C21-C34 Aliphatics	NWEPH	130 H	5.0	1	MG/KG	11/05/2010	EBS
>C8-C10 Aromatics	NWEPH	41 H	5.0	1	MG/KG	11/05/2010	EBS
>C10-C12 Aromatics	NWEPH	110 H	5.0	1	MG/KG	11/05/2010	EBS
>C12-C16 Aromatics	NWEPH	60 H	5.0	1	MG/KG	11/05/2010	EBS
>C16-C21 Aromatics	NWEPH	37 H	5.0	1	MG/KG	11/05/2010	EBS
>C21-C34 Aromatics	NWEPH	62 H	5.0	1	MG/KG	11/05/2010	EBS
						ANALYSIS A	
SURROGATE	METHOD	%REC				DATE	BY
TFT	EPA-8021	62.8				11/11/2010	DLC
TFT - Aliphatic	NWVPH	62.0				11/09/2010	DLC
TFT - Aromatic	NWVPH	65.0				11/09/2010	DLC
TFT - Hexane	NWVPH	63.0				11/11/2010	DLC
C25	NWEPH	90.0				11/05/2010	EBS
p-Terphenyl	NWEPH	98.0				11/05/2010	EBS

H - Sample analyzed outside of hold time.

MtBE and Hexane reporting limits raised due to low percent solids in sample.

## Page 1



CLIENT:

**ESN Northwest** 

DATE:

11/16/2010

1210 Eastside St SE

ALS JOB#:

1011035

Olympia, WA 98501

WDOE ACCREDITATION:

C601

**CLIENT CONTACT: CLIENT PROJECT:** 

Steve Loague

SAIC - TOLEDO / Proj #211556

# LABORATORY BLANK RESULTS

## MB-R71411

			REPORTING	DILUTION		ANALYSIS A	NALYSIS
ANALYTE	METHOD	RESULTS	LIMITS	FACTOR	UNITS	DATE	BY
Methyl T-Butyl Ether	EPA-8021	U	0.50	1	MG/KG	11/11/2010	DLC
Benzene	EPA-8021	U	0.50	1	MG/KG	11/11/2010	DLC
Toluene	EPA-8021	U	0.50	1	MG/KG	11/11/2010	DLC
Ethylbenzene	EPA-8021	U	0.50	1	MG/KG	11/11/2010	DLC
M & P- Xylenes	EPA-8021	U	0.50	1	MG/KG	11/11/2010	DLC
O-Xylene	EPA-8021	U	0.50	1	MG/KG	11/11/2010	DLC

## MBLK-1192010

			REPORTING	DILUTION		ANALYSIS A	ANALYSIS
ANALYTE	METHOD	RESULTS	LIMITS	FACTOR	UNITS	DATE	BY
C5-C6 Aliphatics	NWVPH	U	5.0	1	MG/KG	11/09/2010	DLC
>C6-C8 Aliphatics	NWVPH	U	5.0	1	MG/KG	11/09/2010	DLC
>C8-C10 Aliphatics	NWVPH	U	5.0	1	MG/KG	11/09/2010	DLC
>C10-C12 Aliphatics	NWVPH	U	5.0	1	MG/KG	11/09/2010	DLC
>C8-C10 Aromatics	NWVPH	U	5.0	1	MG/KG	11/09/2010	DLC
>C10-C12 Aromatics	NWVPH	U	5.0	1	MG/KG	11/09/2010	DLC
>C12-C13 Aromatics	NWVPH	U	5.0	1	MG/KG	11/09/2010	DLC
Hexane	NWVPH	U	0.20	1	MG/KG	11/11/2010	DLC

# MBLK-1152010

			REPORTING	DILUTION		ANALYSIS A	ANALYSIS
ANALYTE	METHOD	RESULTS	LIMITS	FACTOR	UNITS	DATE	BY
>C8-C10 Aliphatics	NWEPH	U	5.0	1	MG/KG	11/05/2010	EBS
>C10-C12 Aliphatics	NWEPH	U	5.0	1	MG/KG	11/05/2010	EBŞ
>C12-C16 Aliphatics	NWEPH	U	5.0	1	MG/KG	11/05/2010	EB\$
>C16-C21 Aliphatics	NWEPH	U	5.0	1	MG/KG	11/05/2010	EBS
>C21-C34 Aliphatics	NWEPH	U	5.0	1	MG/KG	11/05/2010	EBS
>C8-C10 Aromatics	NWEPH	U	5.0	1	MG/KG	11/05/2010	EBS
>C10-C12 Aromatics	NWEPH	U	5.0	1	MG/KG	11/05/2010	EBS
>C12-C16 Aromatics	NWEPH	U	5.0	1	MG/KG	11/05/2010	EBS
>C16-C21 Aromatics	NWEPH	U	5.0	1	MG/KG	11/05/2010	EBS
>C21-C34 Aromatics	NWEPH	U	5.0	1	MG/KG	11/05/2010	EBS



CLIENT:

**ESN Northwest** 

DATE:

11/16/2010

1210 Eastside St SE

ALS JOB#:

WDOE ACCREDITATION:

1011035 C601

Olympia, WA 98501

CLIENT CONTACT: CLIENT PROJECT: Steve Loague SAIC - TOLEDO / Proj #211556

# LABORATORY CONTROL SAMPLE RESULTS

## ALS Test Batch ID: R71411 - Soil by EPA-8021

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS Date	ANALYSIS BY	
Methyl T-Butyl Ether - BS	EPA-8021	98.0			11/11/2010	DLC	
Methyl T-Butyl Ether - BSD	EPA-8021	108	9		11/11/2010	DLC	
Benzene - B\$	EPA-8021	99.0			11/11/2010	DLC	
Benzene - BSD	EPA-8021	105	5		11/11/2010	DLC	
Toluene - BS	EPA-8021	99.0			11/11/2010	DLC	
Toluene - BSD	EPA-8021	105	5		11/11/2010	DLC	
Ethylbenzene - BS	EPA-8021	100			11/11/2010	DLC	
Ethylbenzene - BSD	EPA-8021	106	5		11/11/2010	DLC	
M & P- Xylenes - BS	EPA-8021	102			11/11/2010	DLC	
M & P- Xylenes - BSD	EPA-8021	107	4		11/11/2010	DLC	
O-Xylene - BS	EPA-8021	100			11/11/2010	DLC	
O-Xylene - BSD	EPA-8021	106	5		11/11/2010	DLC	

# ALS Test Batch ID: R71408 - Soil by NWVPH

SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	ANALYSIS Date	ANALYSIS BY
C5-C6 Aliphatics - BS	NWVPH	89.0			11/09/2010	DLC
C5-C6 Aliphatics - BSD	NWVPH	93.0	4		11/09/2010	DLC
>C6-C8 Aliphatics - BS	NWVPH	91.0			11/09/2010	DLC
>C6-C8 Aliphatics - BSD	NWVPH	95.0	4		11/09/2010	DLC
>C8-C10 Aliphatics - BS	NWVPH	81.0			11/09/2010	DLC
>C8-C10 Aliphatics - BSD	NWVPH	84.0	3		11/09/2010	DLC
>C10-C12 Aliphatics - BS	NWVPH	87.0			11/09/2010	DLC
>C10-C12 Aliphatics - BSD	NWVPH	86.0	1		11/09/2010	DLC
>C8-C10 Aromatics - BS	NWVPH	94.0			11/09/2010	DLC
>C8-C10 Aromatics - BSD	NWVPH	99.0	5		11/09/2010	DLC
>C10-C12 Aromatics - BS	NWVPH	89.0			11/09/2010	DLC
>C10-C12 Aromatics - BSD	NWVPH	87.0	2		11/09/2010	DLC
>C12-C13 Aromatics - BS	NWVPH	88.0			11/09/2010	DLC
>C12-C13 Aromatics - BSD	NWVPH	86.0	2		11/09/2010	DLC
Hexane - BS	NWVPH	91.0			11/11/2010	DLC
Hexane - BSD	NWVPH	94.0	3		11/11/2010	DLC



CLIENT: **ESN Northwest** 

1210 Eastside St SE

DATE: ALS JOB#: 11/16/2010

Olympia, WA 98501

1011035

**CLIENT CONTACT:** 

Steve Loague

WDOE ACCREDITATION:

C601

**CLIENT PROJECT:** 

SAIC - TOLEDO / Proj #211556

# LABORATORY CONTROL SAMPLE RESULTS

# ALS Test Batch ID: R71406 - Soil by NWEPH

					ANALYSIS	ANALYSIS
SPIKED COMPOUND	METHOD	%REC	RPD	QUAL	DATE	BY
>C8-C10 Aliphatics - BS	NWEPH	86.0			11/05/2010	EB\$
>C8-C10 Aliphatics - BSD	NWEPH	86.0	0		11/05/2010	EBS
>C10-C12 Aliphatics - BS	NWEPH	91.0			11/05/2010	EBS
>C10-C12 Aliphatics - BSD	NWEPH	90.0	1		11/05/2010	EBS
>C12-C16 Aliphatics - BS	NWEPH	95.0			11/05/2010	EBS
>C12-C16 Aliphatics - BSD	NWEPH	92.0	3		11/05/2010	EBS
>C16-C21 Aliphatics - BS	NWEPH	96.0			11/05/2010	EBS
>C16-C21 Aliphatics - BSD	NWEPH	92.0	4		11/05/2010	EBS
>C21-C34 Aliphatics - BS	NWEPH	92.0			11/05/2010	EBS
>C21-C34 Aliphatics - BSD	NWEPH	96.0	4		11/05/2010	EBS
>C8-C10 Aromatics - BS	NWEPH	84.0			11/05/2010	EBS
>C8-C10 Aromatics - BSD	NWEPH	82.0	2		11/05/2010	EBS
>C10-C12 Aromatics - BS	NWEPH	83.0			11/05/2010	EBS
>C10-C12 Aromatics - BSD	NWEPH	81.0	2		11/05/2010	EBS
>C12-C16 Aromatics - BS	NWEPH	85.0			11/05/2010	EBS
>C12-C16 Aromatics - BSD	NWEPH	83.0	2		11/05/2010	EBS
>C16-C21 Aromatics - BS	NWEPH	87.0			11/05/2010	EBS
>C16-C21 Aromatics - BSD	NWEPH	86.0	1		11/05/2010	EB\$
>C21-C34 Aromatics - BS	NWEPH	84.0			11/05/2010	EBS
>C21-C34 Aromatics - BSD	NWEPH	82.0	2		11/05/2010	EBS

APPROVED BY:

**Laboratory Director** 



# CHAIN-OF-CUSTODY RECORD

Turn Around Time: 24 HR 48 HR 5 DAY	Ę		COLD	CONC	RECEIVED GOOD COND./COLD	RECEIV NOTES:			Pickup	1 1 1	SAMPLE DISPOSAL INSTRUCTIONS DISPOSAL @ \$2.00 each   Rejum	AL INS	OISPOS © \$2.0	MPLE SPOSAL	SAMPLE D ESN DISPOSAL	2		
(xclace 11/5/10		}		ANNA	SEALS INTACT? Y/N/NA	SEAL		(										
718 30		NA	ALS YAU	ODY SE	CHAIN OF CUSTODY SEALS YAVINA	_	DATE/TIME	٥	nature)	NS) A8	RECEIVED BY (Signature	اٰھ	ᇒ	D <sub>A</sub>	Ì	ED BY (Sign	RELINQUISHED BY (Signature)	<u> </u>
Analysis added by	<u>L</u>	6	TAINER	OF CO	TOTAL NUMBER OF CONTAINERS	$\overline{}$	19:00:00		त्र	Z		1300)		10/20/10		R		
LABORATORY NOTES:	ي		EIPT	MPLE RECEIPT	SAM		DATE/TIME	0	BP (Signature)	P) (Si	RECEVED	20	DATE/TIME	D <sub>A</sub>	ature)	UBINATAB DE	RELINQUISHED BY (Signature)	T
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	XX	X					メ		Z					1110		Ex2-35-10.5	l 1	رن ن
can be								-								4-10.5	2. EX2-34-10.5	N
These samples							_					402	50 i l	1045	10.5	EX1-33-10,5-	5-2X3	<u></u>
Total Number of Containen Laboratory Note Number	Control of the contro	A SULLA	10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		(B) 18 )		(	Constant Con	20 20 20 20 20 20 20 20 20 20 20 20 20 2	ALTER ALL	er Type	Container Type	Sample Type	Птю	Oepth	lumber	Sample Number	
-			1			1					_							_
H. Lee COLLECTION (0/20/10)	Cisveros	(iz)	COLLECTOR: 6.	ЕСТО	COLL	fercell	ucat	199	AGEF	MAN	PROJECT MANAGER: Peter Catteral		355	2115	#	ROJEC	CLIENT PROJECT #: 211556	
7	Tolado, WA	Stad	Lı	TION	LOCATION: _	8	FAX: 425-485-5566	581	15	42	FAX:		721	-252	7.B.H	425-	PHONE: 425-432-352	
#211856	oledo #	70	PROJECT NAME:	ECT N	PROJ		Road, Toledo LNA	da	756	Le la	V	200	DI Mul Pord	>	101	s.	ADDRESS:	
3EOF	PAGE		01/20/10	1 1	DATE:								V 62' A	Che	SAIC Chevron	V	CLIENT:	

Appendix B: Trucking Tickets





3205 SE Minter Bridge Hillsboro, OR, 97123 Ph: (503)-640-9427

SO# 4699536

Volume

Customer Name CHEVRON CARE OF CRA WASTE SER Carrier **ADVENTURE** 

Ticket Date 10/11/2010 Payment Type Credit Account

Manual Ticket#

Hauling Ticket# Route

State Waste Code Manifest

Destination

PO

S0#4699536 STRATA#211556-0-15

Profile Generator

1071420R (SOIL/DRILL CUTTINGS IMPACTED W/DIESEL) OR-TEXACO DOWNSTREAM TEXACO DOWNSTREAM 211556

Time 10/11/2010 11:11:39 Iπ

Scale Inbound 1

Operator sda

Vehicle#

Driver

Check# Billing #

**Grid** 

Container

Gen EPA ID N/A

brock

0002755

Inbound Net 104540 lb\* 39100 lb\* 65440 lb

10/11/2010 11:11:39 Out

\* Manual Weight

Tons

Tare

Gross

32.72

Comments

REPLACEMENT TICKET FOR TICKET # 1249164

Consumer Comments? We want to know. Please call.

oduct	LD%	Qty	MOM E	Rate	Гах Аі	ıount Origi:	ì
Cont Soil Pet-RGC-	100	32.72	 Tons	32.50	AND THE PARTY OF T	\$1063.40 LEWIS	
ENVFEE\$4.23-Env Fe TRANSFEE\$19.55-TRA		32.72 32.72		4.23 19.55		\$138.41 LEWIS \$639.68 LEWIS	

Total Tax Total Ticket

\$1841.49

Driver's Signature



Hillsboro Landfill, Inc 3205 SE Minter Bridge Hillsboro, DR, 97123 Ph: (503)-640-9427

Original Ticket# 1249154

O# 4699536

TRUCKING Customer Name CHEVRON CARE OF CRA WASTE SER Carrier KISSLER

10/11/2010 Ticket Date Payment Type Credit Account

Vehicle# Container Volume

Driver

Manual Ticket#

Check#

ANTHONY

Hauling Ticket# Route

Billino #

0002755 Gen EPA ID N/A

State Waste Code Manifest

Grid

Destination

S0#4699536 STRATA#211556-0-15

PO. Profile

1071420R (SOIL/DRILL CUTTINGS IMPACTED W/DIESEL)

Generator

OR-TEXACO DOWNSTREAM TEXACO DOWNSTREAM 211556

Time 10/11/2010 10:31:49 Scale

Operator

Inbound

108240 lb\* Gross

Inbound 2

sdm ajm

Tare Net

38600 lb 69640 1b

10/11/2010 10:54:47

Outbound

\* Manual Weight

Tons

34.82

Comments

Please call. Consumer Comments? We want to know.

P	roduct	LD%	Qty	LIOM	Rate	Tax	Amount	Origin
1	Cont Soil Pet-RGC-	100	34,82	Tons	32.50		\$1131.6	35 LEWIS
2	AF1-Approval Fee S	100	1	Each	35.00		\$35.0	
3	ENVFEE\$4.23-Env Fe	2000 000 PM	34.82		44 km2 1 km2	经国际证券 医皮肤炎	\$147.2	
4	TRANSFEE \$19.55-TRA	100	34.82	Tons	19.55		\$55 <b>0.</b> .	73 LEWIS

Total Tax Total Ticket

\$1994.67

Driver's Signature



Hillsboro Landfill, Inc 3205 SE Minter Bridge Hillsboro, OR, 97123 Ph: (503)-640-9427

Original Ticket# 1249155

SO# 4699536

Volume

Customer Name CHEVRON CARE OF CRA WASTE SER Carrier Ticket Date

10/11/2010

Payment Type Credit Account Manual Ticket#

Hauling Ticket# Route

State Waste Code Manifest

Time

Destination

PΩ

Profile Generator

S0#4699536 STRATA#211556-0-15

OR-TEXACO DOWNSTREAM TEXACO DOWNSTREAM 211556

10/11/2010 10:33:19

10/11/2010 10:57:47

1071420R (SOIL/DRILL CUTTINGS IMPACTED W/DIESEL)

Operator .

Scale

Inbound 2 Outbound

sdm ajm

\* Manual Weight

Vehicle#

Container

Billing #

Gen EPA ID N/A

Driver

Check#

Grid

KISSLER

**JARROD** 

0002755

Inbound Gross

TRUCKING

106160 lb\* Tare 37980 lb 68180 lb

Net Tons 34.09

Comments

Ιn

Consumer Comments? We want to know. Please call,

Product	LD% 0	lty UOM	Rate	Tax A	ount Origin
1 Cont Soil Pet-RGC-		34.09 Tons	32.50		\$1107.93 LEWIS
2 ENVFEE\$4.23—Env Fe 3 TRANSFEE\$19.55—TRA		34.09 Tons 34.09 Tons	4.23 19.55		\$144.20 LEWIS \$666.46 LEWIS

Total Tax Total Ticket

\$1918.59

Driver's Signature



Hillsboro Landfill, Inc 3205 SE Minter Bridge Hillsboro, OR, 97123 Ph: (503)-640-9427

Original Ticket# 1249157

SO# 4699536

Customer Name CHEVRON CARE OF CRA WASTE SER Carrier

Ticket Date 10/11/2010 Payment Type Credit Account

Manual Ticket#

Hauling Ticket# Route

State Waste Code Manifest

Time

Destination

PO Profile Generator S0#4699536 STRATA#211556-0-15

OR-TEXACO DOWNSTREAM TEXACO DOWNSTREAM 211556

1071420R (SOIL/DRILL CUTTINGS IMPACTED W/DIESEL)

Scale

In 10/11/2010 10:44:01 Out 10/11/2010 11:02:09 Inbound 2

Outbound

Operator sdm. aim

& Manual Weight

KISSLER TRUCKING Volume

Vehicle# Container

Driver **JOSH** 

Check#

Billing # 0002755 Gen EPA ID N/A

Grid

Inbound

Gross Tare Net

Tons

38840 lb 66260 1b

33.13

105100 1b\*

Comments

Consumer Comments? We want to know. Please call.

Product	LDX	Пty	UOM	Rate	Тах	Amount	Origin
1 Cont Soil Pet-RGC-	100	33. 13	Tons	32.50		\$1076,73	
2 ENVFEE\$4.23-Env Fe 3 TRANSFEE\$19.55-TRA		33, 13 33, 13		4.23 19.55		\$140.14 \$647.69	Control Contro

Total Tax Total Ticket

Driver's Signature



Original Ticket# 1249161

SO# 4699536

Volume

Customer Name CHEVRON CARE OF CRA WASTE SER Carrier **ADVENTURE** 

Ticket Date 10/11/2010

Payment Type Credit Account

Manual Ticket# Hauling Ticket#

Route

State Waste Code Manifest

Destination

Grid

PΩ Profile Generator

S0#4699536 STRATA#211556-0-15

1071420R (SOIL/DRILL CUTTINGS IMPACTED W/DIESEL) DR-TEXACO DOWNSTREAM TEXACO DOWNSTREAM 211556

In

10/11/2010 11:02:58 10/11/2010 11:02:58

Scale Inbound 2

sdm \* Manual Weight

Doerator

sdm

Vehicle#

Container

Billing #

Gen EPA ID N/A

Driver

Check#

6123

ron

0002755

Inbound

Gross Tare Net

105900 1b\* 40700 lb\*

65200 lb 32,60 Tons

Comments

Out

Consumer Comments? We want to know. Please call.

Product	LD% 0	ty UOM	Rate	Tax Amount	Origin
1 Cont Soil Pet-RGC-	100	32.60 Tans	32.50	\$1059.50	A Company of the Comp
2 ENVFEE\$4.23-Env Fe 3 TRANSFEE\$19.55-TRA		32,60 Tons 32,60 Tons	4,23 19,55	\$137.90 \$637.33	Commence of the contract of th

Total Tax Total Ticket

\$1834.73



Driginal Ticket# 1249165

SO# 4699536

Customer Name CHEVRON CARE OF CRA WASTE SER Carrier ross adams

10/11/2010 Ticket Date

Payment Type Credit Account

na

10/11/2010 11:41:34

Manual Ticket# Hauling Ticket#

Route

State Waste Code

Time

Manifest Destination

PO

Profile Generator SO#4699536 STRATA#211556-0-15

OR-TEXACO DOWNSTREAM TEXACO DOWNSTREAM 211556

1071420R (SOIL/DRILL CUTTINGS IMPACTED W/DIESEL)

Scale 10/11/2010 11:41:15 Inbound 1

Inbound 1

Operator ajm

ajm \* Manual Weight

Volume

Grid

Vehicle#

Container

Gen EPA ID N/A

Driver

Check# Billing #

101

ross

Inbound

**0002755** 

Gross Tare

37600 lb\* Net: 61440 lb Tons

30.72

99040 lb

Comments

In

Out

Consumer Comments? We want to know. Please call.

Product	LD% Qty	UOM R	ate Tax	Amount Origin
1 Cont Soil Pet-RGC-	100 . 30	.72 Tons	32,50	\$998.40 LEWIS
2 ENVFEE\$4.23-Env Fe 3 TRANSFEE\$19.55-TRA		.72 Tons .72 Tons	4, 23 19, 55	\$129.95 LEWIS \$600.58 LEWIS

Total Tax Total Ticket

\$1728.93

Driver's Signature



Original Ticket# 1249166

SO# 4699536

Volume

Customer Name CHEVRON CARE OF CRA WASTE SER Carrier

Ticket Date 10/11/2010

Payment Type Credit Account

Manual Ticket# Hauling Ticket#

Route

State Waste Code Manifest

Destination

PO.

Profile

10/11/2010 11:44:03

10/11/2010 11:44:20

Generator

Time

S0#4699536 STRATA#211556-0-15 1071420R (SOIL/DRILL CUTTINGS IMPACTED W/DIESEL)

OR-TEXACO DOWNSTREAM TEXACO DOWNSTREAM 211556

jlr

Scale

Inbound 2

Inbound &

ilr \* Manual Weight

Operator

Vehicle#

Container

Billing #

Gen EPA ID N/A

Driver

Check#

Grid

Inbound

LAWRENCE ADAMS

0002755

201

larry

Net Tons

Gross

Tare

110000 1b\* 37900 1b\*

72100 15 36.05

Comments

Ιn

Out

Consumer Comments? We want to know. Please call.

Product	LDX Oty	UOM	Rate Tax	Amount	Origin
1 Cont Sail Pet-RGC-	100 36.	05 Tons	32.50	<b>*1171.63</b>	LEWIS
2 ENVFEE\$4.23-Env Fe	100 36.	05 Tons	4, 23	\$152,49	LEWI5
3 TRANSFEE\$19.55-TRA	100 36.	05 Tons	19.55	\$704.78	LEWIS

Total Tax Total Ticket

Driver's Signature



Original Ticket# 1249183

SO# 4699536

Volume

Customer Name CHEVRON CARE OF CRA WASTE SER Carrier KISSLER TRUCKING Vehicle#

Ticket Date 10/11/2010

Payment Type Credit Account

Manual Ticket#

Hauling Ticket# Route

State Waste Code Manifest

Destination

PO

S0#4699536 STRATA#211556-0-15

Profile Generator 1071420R (SOIL/DRILL CUTTINGS IMPACTED W/DIESEL)

OR-TEXACO DOWNSTREAM TEXACO DOWNSTREAM 211556

Time 10/11/2010 14:47:49 10/11/2010 14:47:49

Scale Inbound 2

sdm sd 🛚

Operator

5

jared

0002755

Container

Billing #

\* Manual Weight

Gen EPA ID N/A

Driver

Check#

Grid

Inbound Gross Tare

105680 15\* 37980 1b\* 67700 1b

Net Tons

33.85

Comments

In

Dut

Consumer Comments? We want to know. Please call.

Product	LD% Qty	UOM Ra	te Tax	Amount Origin
1 Cont Soil Pet-RGC- 2 ENVFEE\$4.23-Env Fe		5 Tons 5 Tons	32.50 4.23	\$1100.13 LEWIS \$143.19 LEWIS
3 TRANSFEE\$19.55-TRA	100 33.8	5 Tons	19.55	\$661.77 LEWIS

Total Tax Total Ticket

\$1905.09

Driver's Signature



Original Ticket# 1249184

SO# 4699536

Volume

Customer Name CHEVRON CARE OF CRA WASTE SER Carrier KISSLER TRUCKING

10/11/2010 Ticket Date

Payment Type Credit Account

Manual Ticket# Hauling Ticket#

Route

State Waste Code Manifest

Destination

PO

Out

S0#4699536 STRATA#211556-0-15

Profile Generator 1071420R (SOIL/DRILL CUTTINGS IMPACTED W/DIESEL) OR-TEXACO DOWNSTREAM TEXACO DOWNSTREAM 211556

Time In

10/11/2010 14:55:41 10/11/2010 15:15:15

Inbound 1 Outbound

Scale

Operator jir jlr

\* Manual Weight

Vehicle#

Container

Billing #

Gen EPA ID

anthony

N/A

0002755

Driver

Check#

Grid

Inbound Gross

104880 15\* 37840 lb

Tare Net Tons

67040 15

33.52

Comments

Consumer Comments? We want to know. Please call.

Product	LD% Qt	y UOM	Rate	Tax Ar	ount	Origin
1 Cont Soil Pet-RGC-		3.52 Tons	32.50		\$1089.40 L	
2 ENVFEE\$4.23-Env Fe 3 TRANSFEE\$19.55-TRA	Control of the Contro	3.52 Tons 3.52 Tons	4,23 19,55		\$141.79 L \$655.32 L	THE PARTY OF THE P

Total Tax Total Ticket

\$1886.51

Driver's Signature 403WM



Original Ticket# 1249186

SO# 4699536

Volume

Customer Name CHEVRON CARE OF CRA WASTE SER Carrier TRUCKING KISSLER

Ticket Date 10/11/2010 Payment Type Credit Account

Vehicle#

Container Driver josh

Manual Ticket# Hauling Ticket# Check# Route

Billing # 0002755 Gen EPA ID N/A

State Waste Code Manifest

Destination PO

Grid S0#4699536 STRATA#211556-0-15

Profile

1071420R (SDIL/DRILL CUTTINGS IMPACTED W/DIESEL)

Generator OR-TEXACO DOWNSTREAM TEXACO DOWNSTREAM 211556

Iπ 10/11/2010 15:07:20 10/11/2010 15:07:20 Out

Scale Inbound 2

Operator sd∎ sdm

\* Manual Weight

Inbound

Gross Tare

102740 1b\* 38840 1b\*

Net

63900 1b

Tons

31.95

Comments

Consumer Comments? We want to know.

Product	LD%	Qty (	JOM Ra	te T	ах Ашо	unt Origin
1 Cont Soil Pet-RGC-	100	31.95 ]	Tons	32.50	•	1038.38 LEWIS
2 ENVFEE\$4.23-Env Fe 3 TRANSFEE\$19.55-TRA		31.95 7 31.95 7		4, 23 19, 55	내용 하는 사람들은 사람들이 없다.	\$135.15 LEWIS \$624.62 LEWIS

Total Tax Total Ticket

Driver's Signature

403W/M



Original Ticket# 1249192

SO# 4699536

Volume

Customer Name CHEVRON CARE OF CRA WASTE SER Carrier ross adams

Ticket Date 10/11/2010

Payment Type Credit Account

Manual Ticket# Hauling Ticket# Route

State Waste Code Manifest na

Destination

PO Profile Generator SO#4699536 STRATA#211556-0-15

1071420R (SOIL/DRILL CUTTINGS IMPACTED W/DIESEL)

OR-TEXACO DOWNSTREAM TEXACO DOWNSTREAM 211556

Time n 10/11/2010 16:00:17 ut 10/11/2010 16:00:17 Scale Inbound\_1 Operator jlr jlr

Vehicle#

Container

Gen EPA ID

Driver

Check# Billing #

Grid

101

ross

0002755

N/A

lr Manual Weight

Inbound Gross

Tare Net Tons 106900 1b\* 37600 1b\* 69300 1b

34.65

Comments

Consumer Comments? We want to know. Please call.

Product LD%	Qty DOM	Rate Tax	Amount Origin
1 Cont Soil Pet-RGC- 100	34.65 Tons	32,50	\$1126.13 LEWIS
2 ENVFEE\$4,23-Env Fe 100	34.65 Tons	4.23	\$146.57 LEWIS
3 TRANSFEE\$19.55-TRA 100	34.65 Tons	19,55	\$677.41 LEWIS

Total Tax Total Ticket

\$1950.11

Driver's Signature



Original Ticket# 1249193

SO# 4699536

Volume

LAWRENCE ADAMS Customer Name CHEVRON CARE OF CRA WASTE SER Carrier

10/11/2010 Ticket Date

Payment Type Credit Account

Manual Ticket# Hauling Ticket#

Route

State Waste Code Manifest

Destination

PΠ Profile Generator S0#4699536 STRATA#211556-0-15

1071420R (SOIL/DRILL CUTTINGS IMPACTED W/DIESEL)

OR-TEXACO DOWNSTREAM TEXACO DOWNSTREAM 211556

Time

10/11/2010 16:00:38 10/11/2010 16:00:38

Scale Inbound 2

Operator sd# sdm

\* Manual Weight

Vehicle#

Container Driver

Billing #

Gen EPA ID N/A

Check#

Grid

201

larry

0002755

Inbound

Gross

109960 1b\* 37900 1b\* Tare

Net Tons

Comments

In

Out

Consumer Comments? We want to know. Please call.

Produ <u>c</u> t	LD% Qty	UOM Rate	Тах	Amount Origin
1 Cont Soil Pet-RGC-	100 36.03	3 Tons 32	. 50	\$1170.98 LEWIS
2 ENVFEE\$4.23-Env Fe 3 TRANSFEE\$19.55-TRA			. 23 . 55	\$152.41 LEWIS \$704.39 LEWIS

Total Tax Total Ticket

\$2027.78

Driver's Signature



Original Ticket# 1249194

SO# 4699536

Volume

Customer Name CHEVRON CARE OF CRA WASTE SER Carrier **ADVENTURE** Vehicle# 6130

Ticket Date 10/11/2010

Payment Type Credit Account

Manual Ticket# Hauling Ticket#

Route

State Waste Code Manifest na

Destination

pπ

Profile Generator S0#4699536 STRATA#211556-0-15

1071420R (SOIL/DRILL CUTTINGS IMPACTED W/DIESEL)

OR-TEXACO DOWNSTREAM TEXACO DOWNSTREAM 211556

Time 10/11/2010 16:23:44 10/11/2010 16:23:44

Inbound 1

Scale

sdm sdm

\* Manual Weight

Container

Billing #

Gen EPA ID N/A

brock

0002755

Driver

Check#

Grid

Operator

Inbound Gross

Tare

103020 lh\* 39100 1b\*

Net 63920 15 31.96 Tons

Comments

In

Out

Consumer Comments?

We want to know. Please call.

Product	LDX	Cty UO	M Rate	Tax	Amount	Origin
1 Cont Soil Pet-	RGC- 100	31.96 To	ns 32,5	2	\$1038.70	LEWIS
2 ENVFEE\$4,23-Er	ıv Fe 100	31.96 To	ns 4.2.	3	\$135.19	LEWIS
3 TRANSFEE\$19.55	5-TRA 100	31.96 To	ns 19.5	5	\$624.82	LEWIS

Total Tax Total Ticket

Driver's Signatur



Original Ticket# 1249223

SO# 4699536

Customer Name CHEVRON CARE OF CRA WASTE SER Carrier **ADVENTURE** Vehicle# 6130

10/12/2010 Ticket Date

Payment Type Credit Account

Manual Ticket# Hauling Ticket#

Route

State Waste Code Manifest

Destination

PO

Profile Generator

Comments

In

S0#4699536 STRATA#211556-0-15

1071420R (SOIL/DRILL CUTTINGS IMPACTED W/DIESEL)

OR-TEXACO DOWNSTREAM TEXACO DOWNSTREAM 211556

Time 10/12/2010 10:10:13

Out 10/12/2010 10:10:13

Scale Inbound 1

jlr jlr

\* Manual Weight

Container

Billing #

Gen EPA ID N/A

brock

0002755

Driver

**Check#** 

Grid

Operator

Volume

Inbound Gross 105860 1b\*

> Tare Net

39100 lb\* 66760 1b

33.38

Tons

Consumer Comments? We want to know. Please call.

Proc	luet	LD%	Qty	UOM	Rate	Tax	Amount	Origin
1	Cont Soil Pet-RGC-	100	33.38	Tons	32,50		\$1084.85	LEWIS
2	ENVFEE\$4.23-Env Fe	100	33, 38	Tons	4,23		\$141.20	LEWIS
3	TRANSFEE\$19.55-TRA	100	33.38	Tons	19,55		<b>\$652,58</b>	LEWIS



Total Tax Total Ticket

\$1878.63

Driver's Signature



Original Ticket# 1249226

SO# 4699536

Volume

Customer Name CHEVRON CARE OF CRA WASTE SER Carrier ADVENTURE Vehicle# 6123

Ticket Date 10/12/2010 Payment Type Credit Account

Manual Ticket# Hauling Ticket# Route

State Waste Code Manifest na

Time

Destination

PO

Profile Generator S0#4699536 STRATA#211556-0-15

OR-TEXACO DOWNSTREAM TEXACO DOWNSTREAM 211556

1071420R (SOIL/DRILL CUTTINGS IMPACTED W/DIESEL)

10/12/2010 10:27:32

10/12/2010 10:27:32

Scale Inbound 1

jlr jlr

\* Manual Weight

Container

Billing #

Gen EPA ID N/A

ron

Driver

Check#

Grid

Operator

0002755

Inbound

Tare Net Tons

Gross

105060 lb\* 40700 lb\* 64360 15 32.18

Comments

Iπ

Consumer Comments? We want to know. Please call.

Product	LD% Oty	y UOM	Rate Tax	Amount Origin
1 Cont Soil Pet-RGC-	100 3	2.18 Tons	32.50	\$1045.85 LEWIS
2 ENVFEE\$4.23-Env Fe 3 TRANSFEE\$19.55-TRA	200	2.18 Tons 2.18 Tons	4.23 19.55	\$136.12 LEWIS \$629.12 LEWIS



Total Tax Total Ticket

\$1811.09

Driver's Signature



Original Ticket# 1249260

SO# 4699536

Volume

Customer Name CHEVRON CARE OF CRA WASTE SER Carrier **ADVENTURE** Ticket Date 10/12/2010 Vehicle# 6130

Payment Type Credit Account

Manual Ticket# Hauling Ticket# Route

State Waste Code Manifest na

Destination

S0#4699536 STRATA#211556-0-15

DO: Profile 1071420R (SOIL/DRILL CUTTINGS IMPACTED W/DIESEL)

OR-TEXACO DOWNSTREAM TEXACO DOWNSTREAM 211556 Generator

Time 10/12/2010 14:20:45

10/12/2010 14:20:45

Scale Inbound 1

Operator ajm ajm

\* Manual Weicht

Container

Billing #

Gen EPA ID N/A

brock

0002755

Driver

Check#

Grid

Inbound Gross

Tare Net

39100 1b\* 64820 lb

103920 15\*

Tons 32.41

Comments

In

Consumer Comments? We want to know. Please call.

Pro	duct	LD%	Oty 1	NOM	Rate	Тах	Amount	Origin
1	Cont Sail Pet-RGC-	- 100	32.41	Tons	32,50		\$1053.33	LEWIS
2	ENVFEE\$4.23-Env Fe	2 100	32.41	Tons	4.23		\$137.09	LEWIS
3	TRANSFEE\$19.55-TRA	100	32,41	Tons	19.55		\$633.62	LEWIS

Total Tax Total Ticket

Driver's Signature



Original Ticket# 1249261

SO# 4699536

Volume

Customer Name CHEVRON CARE OF CRA WASTE SER Carrier **ADVENTURE** 

10/12/2010 Ticket Date

Payment Type Credit Account

Manual Ticket# Haulino Ticket#'

Route State Waste Code

Manifest

Destination

PO

Profile Generator S0#4699536 STRATA#211556-0-15 1071420R (SDIL/DRILL CUTTINGS IMPACTED W/DIESEL)

OR-TEXACO DOWNSTREAM TEXACO DOWNSTREAM 211556

10/12/2010 14:29:54 Out 10/12/2010 14:29:54

Scale Inbound 1

Operator aim a im

\* Manual Weight

Vehicle#

Driver

Check#

Brid

Container

Billing #

Gen EPA ID N/A

6123

ron

0002755

Inbound

Gross Tare Net Tons

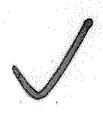
6658Ø 1b 33.29

Comments

Ιn

Consumer Comments? We want to know. Please call.

Pre	oduct	LD%	Qty	UOM	Rate	Tax '	Amount	Origin
1	Cont Soil Pet-RGC-	100	33, 29	Tons	32.5	50	\$1081	.93 LEWIS
2	ENVFEE\$4.23-Env Fe	100	33.29	Tons	4. 8	3	\$140	.82 LEWIS
3	TRANSFEE\$19.55-TRA	100	33, 29	Tons	19.5	<b>55</b>	\$650	.82 LEWIS



Total Tax Total Ticket

\$1873.57

Driver's Signature

403WM

In Watson



Original Ticket# 1249303

SO# 4699536

Volume

Customer Name CHEVRON CARE OF CRA WASTE SER Carrier **ADVENTURE** 

Ticket Date 10/13/2010

Payment Type Credit Account

Manual Ticket# Hauling Ticket#

Route State Waste Code

Manifest пa

Destination

PO

Profile

Generator

SO#4699536 STRATA#211556-0-15

1071420R (SOIL/DRILL CUTTINGS IMPACTED W/DIESEL)

OR-TEXACO DOWNSTREAM TEXACO DOWNSTREAM 211556

Time Scale 10/13/2010 10:06:23

10/13/2010 10:06:23

Inbound 2

Operator ajm ajm

\* Manual Weight

Vehicle#

Container

Billing #

Gen EPA ID N/A

Driver

Check#

Grid

6130

brock

0002755

Inbound Gross

> Tare Net Tons

39100 1b\* 66980 lb 33.49

106080 15\*

Comments

In

Out

Consumer Comments? We want to know. Please call.

Product	LD%	Oty L	JOM Ra	ite Ta	х Ашоци	: Origin
1 Cont Soil Pet-RGC-	100	33.49 1	loπs	32.50	\$100	38.43 LEWIS
2 ENVFEE\$4.23-Env Fe	100	33.49 T	ORS	4.23	\$12	1.66 LEWIS
3 TRANSFEE\$19.55-TRA	100	33.49 T	Fons	19.55	<b>\$6</b> .	54.73 LEWIS

Total Tax Total Ticket

\$1884.82

Driver's Signature



Original Ticket# 1249306

SO# 4699536

Volume

Customer Name CHEVRON CARE OF CRA WASTE SER Carrier ADVENTURE

Ticket Date 10/13/2010

Payment Type Credit Account

Manual Ticket# Hauling Ticket#

Route

State Waste Code Manifest

Destination

PO Profile

Generator

S0#4699536 STRATA#211556-0-15

1071420R (SOIL/DRILL CUTTINGS IMPACTED W/DIESEL) OR-TEXACO DOWNSTREAM TEXACO DOWNSTREAM 211556

Time 10/13/2010 10:15:53 10/13/2010 10:15:53

Scale Inbound 1

jlr \* Manual Weight

Vehicle#

Container

Billing #

Gen EPA ID N/A

Driver

Check#

Grid

Operator

ilr

Inbound

6123

ron

0002755

Tare Net Tons

Gross

105020 16\* 40700 1b\*

64320 1b 32.16

Comments

Īπ

Out

Consumer Comments?

We want to know. Please call.

Pr	od	uct		LD%	Qty	UOM	Ŕ	ate	Тах	Amount	Origin
1		Cont Soil	Pet-RGC-	100	32 <b>.</b> 16	Tons		32.50		\$1045.29	) LEWIS
2		ENVFEE\$4.	23-Env Fe	100	32.16	Tons		4.23		\$136.04	+ LEWIS
3		TRANSFEE\$	19.55-TRA	100	32.16	Tons		19.55		\$628.73	EWIS

Total Tax Total Ticket

Driver's Signature

403WW

Ron Watson



Original Ticket# 1249355

SO# 4699536

Volume

Customer Name CHEVRON CARE OF CRA WASTE SER Carrier **ADVENTURE** Vehicle# 6130

Ticket Date 10/13/2010

Payment Type Credit Account

10/13/2010 14:25:11

Manual Ticket# Hauling Ticket#

Route State Waste Code Manifest па

Destination

PO

Profile Generator S0#4699536 STRATA#211556-0-15

107142OR (SOIL/DRILL CUTTINGS IMPACTED W/DIESEL)

Grid

OR-TEXACO DOWNSTREAM TEXACO DOWNSTREAM 211556

Time Scale 10/13/2010 14:25:11

Inbound 1

scin sda

\* Manual Weight

Operator

Container

Billing #

Gen EPA ID N/A

brock

0002755

Driver

Check#

Inbound Gross

> Tare Net

39100 lb\* 67120 1b 33, 56

106220 15\*

Tons

Comments

In

Out

Consumer Comments? We want to know.

Product	LDX	Oty	UOM	Rate	Тах	Amount	Origin
1 Cont Soil Pet- 2 ENVFEE\$4.23-En 3 TRANSFEE\$19.55	v Fe 100	33, 56 33, 56 33, 56		32,50 4,23 19,55		\$1090.70 \$141.96 \$656.10	LEHIS

Total Tax Total Ticket

\$1888.76

Driver's Signature



Original Ticket# 1249357

SO# 4699536

Customer Name CHEVRON CARE OF CRA WASTE SER Carrier **ADVENTURE** Vehicle# 6123

10/13/2010 Ticket Date Payment Type Credit Account

Manual Ticket# Hauling Ticket# Route

State Waste Code Manifest

Destination

DFI Profile Generator SO#4699536 STRATA#211556-0-15

1071420R (SDIL/DRILL CUTTINGS IMPACTED W/DIESEL) OR-TEXACO DOWNSTREAM TEXACO DOWNSTREAM 211556

In

10/13/2010 14:33:29 Out 10/13/2010 14:33:29

Scale Inbound 1

Operator sdin sda

\* Manual Weight

Container Driver

Billing #

Gen EPA ID

Check#

Grid

ron

0002755

N/A

Volume

101800 lb\* 40700 lb\* Gross Inbound

Tare 61100 lb Net 30.55 Tons

Comments

Consumer Comments? We want to know. Please call.

Product	LD%	Qty UO	n Rate	Tax Amoi	int Origin
1 Cont Soil Pet-RGC-	100	30.55 Ter	ns 32.50	박병일 보다면 하는 사람들은 모든 하는 하다.	992.88 LEWIS
2 ENVFEE\$4.23-Env Fe 3 TRANSFEE\$19.55-TRA	production and an arrangement	30.55 Tor 30.55 Tor		[[하다] 2016년 1일 1일 1일 1일 1일 1일	129.23 LEWIS 597.25 LEWIS

Total Tax Total Ticket

\$1719.36

200 Watson



Original Ticket# 1249403

SO# 4699536

Volume

Customer Name CHEVRON CARE OF CRA WASTE SER Carrier **ADVENTURE** 6130 Vehicle#

Ticket Date 10/14/2010 Payment Type Credit Account

Manual Ticket# Hauling Ticket#

Route

State Waste Code Manifest

Destination

PO

Profile Generator

Comments

In

80#4699536 STRATA#211556-0-15

OR-TEXACO DOWNSTREAM TEXACO DOWNSTREAM 211556

1071420R (SOIL/DRILL CUTTINGS IMPACTED W/DIESEL)

10/14/2010 10:11:58 10/14/2010 10:11:58

Scale

Inbound 1

sdm .\* Manual Weight

Container

Billing #

Gen EPA ID N/A

brock

0002755

Driver

Check#

Grid

Operator

sdm

Inbound

Net Tons

Gross

Tare

107740 1b\* 39100 lb\* 68640 1b

34.32

Consumer Comments? We want to know. Please call.

Proc	uct	LD% GI	y UOM	Rate	Tax Ai	want Origin '
1	Cont Soil Pet-RGC-	- 100	4.32 Tons	32,50		\$1115.40 LEWIS
2	ENVFEE\$4.23-Env Fi		14.32 Tons			\$145.17 LEWIS
చ	TRANSFEE\$19.55-TRA	3 1000	14.32 Tons	19,55	발한 경우의 보다는 하나 보다는다. 전기를 하고 있는 것이 되는 것이다.	\$670.96 LEWIS

Total Tax Total Ticket

\$1931.53

Driver's Signature



Original Ticket# 1249478

SO# 4699536

Volume

Customer Name CHEVRON CARE OF CRA WASTE SER Carrier **ADVENTURE** 

Ticket Date 10/15/2010

Payment Type Credit Account

Manual Ticket# Hauling Ticket#

Route State Waste Code

Manifest

Destination

DN Profile Generator S0#4699536 STRATA#211556-0-15

1071420R (SOIL/DRILL CUTTINGS IMPACTED W/DIESEL) OR-TEXACO DOWNSTREAM TEXACO DOWNSTREAM 211556

Time 10/15/2010 09:40:26 10/15/2010 09:40:26

Scale Inbound 1

Operator ilr jlr

Vehicle#

Container

Billing #

\* Mamaal Weight

Gen EPA ID

Driver

Check#

Grid

6130

brock

N/A

0002755

Inbound

Gross Tare

103800 1b\* 39100 1b\*

Net Tons 64700 1b

32, 35

Comments

In

Out

Consumer Comments? Please call. We want to know.

Product	LD% G	ty LIOM	Rate Ta	x Amount	Origin
1 Cont Soil Pet-RGC-	100	32.35 Tons	32,50	\$1051	.30 LEWIS
2 ENVFEE\$4.23-Env Fe	100	32.35 Tons	4,23	\$135	.84 LEWIS
3 TRANSFEE\$19.55-TRA	100	32.35 Tons	19.55	\$632	,44 LEWIS

Total Tax Total Ticket

\$1820.66

Driver's Signature



Original Ticket# 1249615

SO# 4699536

Volume

Customer Name CHEVRON CARE OF CRA WASTE SER Carrier ADVENTURE Vehicle# 6130

Ticket Date 10/19/2010

Payment Type Credit Account

Manual Ticket# Hauling Ticket#

Route State Waste Code

Manifest na

Destination

PO

SO#4699536 STRATA#211556-0-15

Profile Generator 1071420R (SOIL/DRILL CUTTINGS IMPACTED W/DIESEL) OR-TEXACO DOWNSTREAM TEXACO DOWNSTREAM 211556

Time 10/19/2010 09:55:52 10/19/2010 09:55:52

Scale Inbound 2

Operator idb jdb \* Manual Weight

Container

Billing #

Gen EPA ID N/A

brock

0002755

Driver

Check#

Inbound

Tare Net Tons

Gross

103480 15\* 39100 lb\* 64380 1b 32.19

Comments

In

Consumer Comments? We want to know. Please call.

	Prod	uet	LD% [	lty	NOM	Rate	Тах Аз	ount Crigin	
	1	Cont Soil Pet-RGC-	100	32, 19	Tons	32,50		\$1046.18 LEWIS	
ĵ	2	ENVFEE\$4.23-Env Fe	100	32.19 )	Tons	4.23		\$136.16 LEWIS	
	3	TRANSFEE\$19.55-TRA	100	32.19	Tons	19, 55		\$629.31 LEWIS	

Total Tax Total Ticket

\$1811.65

Driver's Signature



Original Ticket# 1249654

SO# 4699536

Volume

ADVENTURE Customer Name CHEVRON CARE OF CRA WASTE SER Carrier Vehicle# 6130

10/19/2010 Ticket Date

Payment Type Credit Account

Manual Ticket# Hauling Ticket# Route

State Waste Code Manifest

Destination

DΠ

Profile Generator SO#4699536 STRATA#211556-0-15 1071420R (SOIL/DRILL CUTTINGS IMPACTED W/DIESEL)

OR-TEXACO DOWNSTREAM TEXACO DOWNSTREAM 211556

Time 10/19/2010 14:28:15

Dut 10/19/2010 14:28:15

Scale Inbound 1

idb jdb

\* Manual Weight

Container

Billing #

Gen EPA ID N/A

brock

0002755

Driver

Check#

Grid

Operator

Inbound

Tare Net

Gross

39100 lb\* 64540 lb

103640 lb\*

Tons

32.27

Comments

Ιn

Consumer Comments? We want to know. Please call.

Product	LD%	Oty W	OM Rate	Tax	Amount Origin
					#1048.78 LEWIS
보통하다는 승규들까게 불통하다.	Pet-RGC- 100 3-Env Fe 100	32,27 Ti		.50 .23	\$136.50 LEWIS
3 TRANSFEE\$1	3.55-TRA 100	32. <i>2</i> 7 Ti	ons 19	.55	4630.88 LEWIS

Total Tax Total Ticket

\$1815.16

Driver's Signature



Manual Ticket#

Hillsboro Landfill, Inc የቫsቼaro, briege Ph: (503)-640-9427

Original Ticket# 1249697

SO# 4699536

Volume

Customer Name CHEVRON CARE OF CRA WASTE SER Carrier **ADVENTURE** Vehicle# 6123 Ticket Date 10/20/2010 Payment Type Credit Account Container

Driver Hauling Ticket# Check#

Billing # 0002755 Route Gen EPA ID N/A State Waste Code Manifest

Grid Destination S0#4699536 STRATA#211556-0-15

Profile 1071420R (SOIL/DRILL CUTTINGS IMPACTED W/DIESEL) OR-TEXACO DOWNSTREAM TEXACO DOWNSTREAM 211556 Generator

101000 lb\* Gross Scale Operator Inbound Time 40700 lb\* Tare Ĭn 10/20/2010 10:23:58 Inbound 1 jlr 60300 lb Net 10/20/2010 10:23:58 ilr 30.15 & Ma**nual** Weight Tons

ron

Comments

Consumer Comments? We want to know. Please call.

Product LD%	Oty UOM	Rate Tax	Angunt	Origin
1 Cont Soil Pet-RGC- 100	30.15 Tons	32,50		LENIS
2 ENVFEE\$4.23-Env Fe 100 3 TRANSFEE\$19.55-TRA 100	30.15 Tons 30.15 Tons	4. 23 19. 55		LEWIS LEWIS

Total Tax Total Ticket

\$1696.84

Driver's Signature

Ron Watson 2



Original Ticket# 1249774

SO# 4699536

Volume

Customer Name CHEVRON CARE OF CRA WASTE SER Carrier ADVENTURE

Ticket Date 10/21/2010

Payment Type Credit Account Manual Ticket#

Hauling Ticket#

Route

State Waste Code Manifest

Destination

DΩ

Profile Generator

Comments

In

Out

S0#4699536 STRATA#211556-0-15

1071420R (SOIL/DRILL CUTTINGS IMPACTED W/DIESEL) OR-TEXACO DOWNSTREAM TEXACO DOWNSTREAM 211556

Scale

Tige 10/21/2010 09:58:09 10/21/2010 09:58:09

Inbound 2

Ron Watson G

\* Manual Weight

Vehicle#

Container

Billing # Gen EPĀ ID N/A

Driver

Check#

Grid

Operator

ilr

jlp

6123

ron

0002755

Inbound

Net Tons

Gross

Tare

103320 15\* 40700 lb\* 62620 lb

31.31

Consumer Comments? We want to know. Please call.

Product	LDX Qty	UOM Rate	Tax Amou	int Origin
1 Cont Soil Pet-RGC-				017.58 LEWIS
2 ENVFEE\$4.23-Env Fe 3 TRANSFEE\$19.55-TRA				132.44 LEWIS 5612.11 LEWIS

Total Tax Total Ticket

\$1762.13



Original Ticket# 1249780

SO# 4699536

Customer Name CHEVRON CARE OF CRA WASTE SER Carrier RON WATSON TRKG DUMP TRUCK & TRAILER Ticket Date 10/21/2010 Vehicle# Volume

Container

Billing #

Gen EPA ID N/A

ron

0002755

Driver

Check#

Grid

Payment Type Credit Account

Manual Ticket#

Hauling Ticket# Route

State Waste Code

Manifest Destination

PD Profile S0#4699536 STRATA#211556-0-15

1071420R (SOIL/DRILL CUTTINGS IMPACTED W/DIESEL)

Generator

OR-TEXACO DOWNSTREAM TEXACO DOWNSTREAM 211556

Time 10/21/2010 10:10:46 10/21/2010 10:35:32

Scale Inbound 1 Outbound

Operator ajm ajm" \* Manual Weight Inbound Gross Tare

109340 1b\* 39020 1b

Net: 70320 lb 35.16 Tons

Comments

In

Out

Consumer Comments? We want to know. Please call.

- Product	LD≭ Qt	y DOM	Rate '	Tax Amo	unt Origin
1 Cont Soil Pet-RGC-	100 3	5.16 Tons	32 <b>.</b> 50		1142.70 LEWIS
2 ENVFEE\$4.23-Env Fe 3 TRANSFEE\$19.55-TRA		5.16 Tans 5.16 Tans	4, 23 19, 55		\$148.73 LEWIS \$687.38 LEWIS

Ron Hatan In

Total Tax Total Ticket

\$1978.81

Driver's Signature



Original

Ticket# 1249785

SO# 4699536

Customer Name CHEVRON CARE OF CRA WASTE SER Carrier lucore truck redish

Volume Ticket Date 10/21/2010 Vehicle# 4977

Payment Type Credit Account Container Manual Ticket# Driver eric Hauling Ticket# Check#

Route Billing # State Waste Code Gen EPA ID N/A

Manifest Destination Grid

PΩ S0#4699536 STRATA#211556-0-15

Profile 1071420R (SOIL/DRILL CUTTINGS IMPACTED W/DIESEL) Generator OR-TEXACO DOWNSTREAM TEXACO DOWNSTREAM 211556

Time 103160 1b\* Scale Operator Inbound Gross In 10/21/2010 10:41:36 Tare 38760 lb Inbound 1 ajm Out 10/21/2010 10:52:11 Outbound Net 64400 1h ajm 32.20 Tons \* Manual Weight

0002755

Comments

Consumer Comments? We want to know. Please call.

P	<b>)</b> •	0	d	U	C	t					1											L	D:	L			Q	t	y						1	d	۵	Þ	1					₹.	a	t	2							T	<b>a</b>	×				•	ì	<b>I</b>	o:	11	n l	<b>t</b>							ſ	ŀ	1	1	1	1	1		
1					C	O	F	ł		٤	C	1	1	F	4		R	6	C		1	0	2					3	2	-	Z	1	ð			T	0	T	l	5							3	2	*	-	Ų	)											\$	13	2	46	٠,	1 1	5(	)		1	1	Ξŀ	11	Ę					
3				4					S				7	 					F	₹:		⊤:	Ξ.					3 3									7											49	7:	$\equiv$													111			:::	75				33			k							1

Sur Jums

Total Tax Total Ticket

\$1812.22

Driver's Signature 403WM



Original Ticket# 1249799

SO# 4699536

Volume

Customer Name CHEVRON CARE OF CRA WASTE SER Carrier koay Vehicle# 3 10/21/2010 Ticket Date Payment Type Credit Account

Container

travis Driver

Check#

0002755 Billing # Gen EPA ID N/A

Grid

Destination

Route

PO

In

Out

Manifest

Manual Ticket#

Hauling Ticket#

State Waste Code

S0#4699536 STRATA#211556-0-15

Profile

1071420R (SDIL/DRILL CUTTINGS IMPACTED W/DIESEL)

Generator

OR-TEXACO DOWNSTREAM TEXACO DOWNSTREAM 211556

Ties 10/21/2010 11:47:09

10/21/2010 12:05:06

Scale Inbound 2 Outbound

Operator jdb ajm \* Manual Weight

Inbound

Gross Tare Net Tons

108080 1b\* 38800 lb 6928Ø 1b 34.64

Comments

Consumer Comments? We want to know. Please call.

Product	LD% D	ty UDM	Rate	Tax	Amount Origin
1 Cont Soil Pet-RGC-	100	34.64 Tons	32.50		\$1125.80 LEWIS
2 ENVFEE\$4.23-Env Fe 3 TRANSFEE\$19.55-TRA	Transactions and the second	34.64 Tons 34.64 Tons			\$146.53 LEWIS \$677.21 LEWIS

Total Tax Total Ticket

\$1949.54

Driger's Signature



Original Ticket# 1249801

SO# 4699536

Customer Name CHEVRON CARE OF CRA WASTE SER Carrier MARK BOURDEAU TRUCKING

Ticket Date 10/21/2010 Vehicle# 011 Volume

Payment Type Credit Account

Container

Manual Ticket#

Driver

john

Hauling Ticket# Route

Check#

0002755

State Waste Code

Billing # Gen EPA ID N/A

Manifest Destination

Smid

PO

S0#4699536 STRATA#211556-0-15

Profile

1071420R (SOIL/DRILL CUTTINGS IMPACTED W/DIESEL)

Generator

OR-TEXACO DOWNSTREAM TEXACO DOWNSTREAM 211556

Time 10/21/2010 11:48:57 In

Scale

Operator

Inbound

Gross 103540 1b\*

Inbound 2

jdb

Tare

40020 lb

10/21/2010 12:21:29

aim

Net

63520 1b

Dut

Outbound

\* Manual Weicht

Tons

31.76

Comments

Consumer Comments? We want to know. Please call.

Product		LD%	Oty L	JOM Ra	te Ta	ax An	ount Orig	in
1 Coi	nt Soil Pet-RG(	<u>:- 100</u>	31.76 1	ons	32.50		\$1032.20 LEWIS	
	VFEE\$4.23-Env	e 100	31.76 T	ons	4.23		\$134.34 LEWIS	NA PARL
3 TR(	ANSFEE\$19.55-TI	RA 100	31.76 1	ons	19, 55		\$620.91 LEWIS	

To Theel

Total Tax Total Ticket

\$1787.45

Drixer's Signature



Original Ticket# 1249803

SO# 4699536

Customer Name CHEVRON CARE OF CRA WASTE SER Carrier PACIFIC TRANSPORT DUMP TRK & TRAILER Volume

Ticket Date 10/21/2010 Vehicle#

Payment Type Credit Account Container

Manual Ticket# Driver john Hauling Ticket# Check#

Route Billing # 0002755

State Waste Code Gen EPA ID N/A Manifest пa

Destination Grid pn SU#4699536 STRATA#211556-0-15

Profile 1071420R (SOIL/DRILL CUTTINGS IMPACTED W/DIESEL)

OR-TEXACO DOWNSTREAM TEXACO DOWNSTREAM 211556 Generator

Time Scale Operator Inbound 105380 1b\* Gross 10/21/2010 11:54:04 Inbound 1 In Tare 35660 lb ajm 10/21/2010 12:17:25 Outbound Net 6972Ø 1b ajm \* Manual Weight Tons 34.86

Comments

Consumer Comments? We want to know. Please call.

Pro	duet LD%	Qty UOM	Rate	Tax Amount	Origin
1	Cont Sail Pet-RGC- 100	34.86 Tons	32,50	9113	2.95 LEWIS
2	ENVFEE\$4.23-Env Fe 100 TRANSFEE\$19.55-TRA 100	34.86 Tons 34.86 Tons	4, 23 19, 55		7.46 LEWIS 1.51 LEWIS
: <del> </del>	1 MHNOFEE # 196 33 1 MH 188	94.00 luns	<b>47-44</b>		1: 14 LCM12

Total Tax Total Ticket

\$1961.92

Driver's Signature



Original Ticket# 1249822

SO# 4699536

Customer Name CHEVRON CARE OF CRA WASTE SER Carrier **ADVENTURE** Ticket Date 10/21/2010 Vehicle#

Payment Type Credit Account

Manual Ticket#

Hauling Ticket#

Route State Waste Code

Manifest Destination

DΠ

Time

Profile Generator S0#4699536 STRATA#211556-0-15

1071420R (SOIL/DRILL CUTTINGS IMPACTED W/DIESEL)

Scale 10/21/2010 13:53:13

10/21/2010 13:53:13

Inbound 1

\* Manual Weight

Operator

ilr

jlr

6123

Volume

Grid

Container

Billing #

Gen EPA ID N/A

Driver

Check#

OR-TEXACO DOWNSTREAM TEXACO DOWNSTREAM 211556

ron

0002755

Inbound

Gross Tare Net

101900 lb\* 40700 15\* 61200 16 30.60

Tons

Comments

In

Out

Please call. Consumer Comments? We want to know.

Pro	duct:	LD% (	ity UOM	Rate	Тах	Amount	Origin
1	Cont Soil Pet-RGC-	- 100	30.60 Ton	32.5	<b>10</b>	\$994.50	LEWIS
2	ENVFEE\$4.23-Env Fe		30.60 Ton:			\$129.44	
3	TRANSFEE\$19.55-TRE	4 100	30.60 Ton:	s <b>19.</b> 5		<b>\$598.23</b>	TEMTO

Jon Watson C

Total Tax Total Ticket

\$1722.17

Driver's Signature



Original Ticket# 1249836

SO# 4699536

Customer Name CHEVRON CARE OF CRA WASTE SER Carrier lucore truck redish

Ticket Date 10/21/2010 Vehicle# Volume 4977

Payment Type Credit Account Container Manual Ticket# Driver eric

Hauling Ticket# Check#

Route Billing # 0002755 State Waste Code Gen EPA ID N/A Manifest

Destination Grid

PO S0#4699536 STRATA#211556-0-15

San F

na

Profile 1071420R (SOIL/DRILL CUTTINGS IMPACTED W/DIESEL) OR-TEXACO DOWNSTREAM TEXACO DOWNSTREAM 211556 Generator

Time Scale 104500 1b\* Operator Inbound Gross 10/21/2010 14:49:39 jdb 38760 1b\* In Inbound 1 Tare Out 10/21/2010 14:49:39 Net 6574Ø 1b jdb \* Manual Weight Tons 32.87

Comments

Consumer Comments? We want to know. Please call.

Pro	luct LD%	Oty UOM	Rate Tax	Amount Drigin
1	Cont Soil Pet-RGC- 100	32.87 Tons	32.50	\$1068.28 LEWIS
2	ENVFEE\$4.23-Env Fe 100	32.87 Tons	4.23	\$139.04 LEWIS
3	TRANSFEE\$19.55-TRA 100	32.87 Tons	19.55	\$642.61 LEWIS

Sic Dunn

Total Tax Total Ticket

\$1849.93

Driver's Signature



Original Ticket# 1249844

SO# 4699536

Volume

Customer Name CHEVRON CARE OF CRA WASTE SER Carrier kooy 10/21/2010 Vehicle# 3

Ticket Date Payment Type Credit Account

Manual Ticket# Hauling Ticket#

Route

State Waste Code

Manifest

Time

Destination PO

Profile Generator S0#4699536 STRATA#211556-0-15

1071420R (SDIL/DRILL CUTTINGS IMPACTED W/DIESEL)

10/21/2010 16:47:47

10/21/2010 16:47:47

Scale

Inbound 1

\* Manual Weight

travis

Grid

Operator

jlr

jlr

Container

Billing #

Gen EPA ID N/A

Driver

Check#

OR-TEXACO DOWNSTREAM TEXACO DOWNSTREAM 211556

0002755

Inbound

Tare Net Tons

Gross

36480 1b\* 5388Ø 1b

90360 1b\*

26.94

Comments

In

Out

Consumer Comments? We want to know. Please call.

Product	LDX @	ty UOM	Rate	Tax /	Amount	Origin
1 Cont Soil Pet-RGC-	100	26.94 Tons	32.50		<b>\$875.</b> 55	LEWIS
2 ENVFEE\$4.23-Env Fe		26.94 Tons	4.23		1-1-	LEWIS
3 TRANSFEE\$19.55-TRA	100	26.94 Tons	19.55		\$586.50	LEWIS

Total Tax Total Ticket

\$1576.01

Driver's Signature



Original Ticket# 1249845

SO# 4699536

Volume

Customer Name CHEVRON CARE OF CRA WASTE SER Carrier 10/21/2010 Uphicle# Ticket Date

Payment Type Credit Account

10/21/2010 17:09:08

Manual Ticket# Hauling Ticket#

Route State Waste Code Manifest na

Time

Destination

Profile Generator S0#4699536 STRATA#211556-0-15 107142OR (SOIL/DRILL CUTTINGS IMPACTED W/DIESEL)

OR-TEXACO DOWNSTREAM TEXACO DOWNSTREAM 211556

Grid

Scale 10/21/2010 16:49:34

Inbound 1 Outbound .

Operator jlr ilr

\* Manual Weight

Container

Billing #

Gen EPA ID N/A

Driver

Check#

kooy

14

ben

**MMM2755** 

Inbound Gross

Tare Net Tons

105940 1b\* 38880 lb 67060 lb

33.53

Comments

In

Out

Consumer Comments? We want to know. Please call.

Product	LD% Oty UC	3M Rate	Tax Amour	nt Origin
1 Cont Soil Pet-RGC-	100 33.53 Te	ons 32.50	\$11	089.73 LEWIS
2 ENVEEE\$4.23-Env Fe	100 33.53 To	ons 4.23		141.83 LEWIS 555.51 LEWIS
3 /TRANSFEE\$19.55-TRA	100 33.53 To	ons 19.55		

Total Tax Total Ticket

\$1887.07

Driver's Signature



Original Ticket# 1249886

SO# 4699536

Volume

lucore truck redish Customer Name CHEVRON CARE OF CRA WASTE SER Carrier

4977 10/22/2010 Vehicle# Ticket Date Payment Type Credit Account

Container

Driver eric

Check#

0002755 Billing #

Gen EPA ID N/A

State Waste Code Manifest Destination

Manual Ticket#

Hauling Ticket#

Grid

90#4699536 STRATA#211556-0-15

Profile Generator

Route

1071420R (SDIL/DRILL CUTTINGS IMPACTED W/DIESEL) OR-TEXACO DOWNSTREAM TEXACO DOWNSTREAM 211556

105540 lb\* Scale Operator Inbound Gross Time Tare 38760 1b\* Inbound 1 10/22/2010 09:58:53 ídb Ιn 66780 16 Net Dut 10/22/2010 09:58:53 jdb 33.39 Tons \* Manual Weight

Comments

Consumer Comments? Please calls We want to know.

Product LDX Qty UOM Rate	Tax Amount Origin
1 Cont Soil Pet-RGC- 100 33.39 Tons 32.5	
2 ENVFEE\$4.23-Env Fe 100 33.39 Tons 4.2 3 TRANSFEE\$19.55-TRA 100 33.39 Tons 19.5	

Total Tax Total Ticket

\$1879.19

Driver's Signature

Suchware



Original Ticket# 1249919

SO# 4699536

Customer Name CHEVRON CARE OF CRA WASTE SER Carrier lucore truck redish

Ticket Date 10/22/2010 Payment Type Credit Account

4977 Vehicle#

Volume

Container Driver

Manual Ticket# Hauling Ticket#

eric Check#

Route

0002755 Billing # Gen EPA ID N/A

State Waste Code Manifest

Grid

Destination

PO Profile S0#4699536 STRATA#211556-0-15 1071420R (SDIL/DRILL CUTTINGS IMPACTED W/DIESEL)

Generator

DR-TEXACO DOWNSTREAM TEXACO DOWNSTREAM 211556

Time

Scale Inbound 2

Operator aju

Inbound

Gross 105340 1b\* Tare

10/22/2010 13:52:44 In 10/22/2010 13:52:44

aju

Net

38760 lb\* 66580 1b

\* Manual Weight

Tons

33.29

Comments

Consumer Comments? We want to know. Please call.

Product	LD% Qty	UOM Rate	Tax Am	ount Origin
				#10A1.93 LEWIS
1 Cont Soil Pet-RGC 2 ENVFEE\$4.23-Env F		Tons 32.5 Tons 4.2		\$1081.33 LEWIS \$140.82 LEWIS
3 TRANSFEE \$19.55-TF		Tons 19.5		\$650.82 LEWIS

Total Tax Total Ticket

Driver's Signature

403WM

Suchuri



Original Ticket# 1249936

SO# 4699536

Customer Name CHEVRON CARE OF CRA WASTE SER Carrier lucore truck redish

Volume 10/23/2010 Vehicle# 4977 Ticket Date

Container Payment Type Credit Account Manual Ticket#

Driver eric

Check#

0002755 Billing #

Gen EPA ID N/A

Manifest

Destination

Grid

PO

Route :

Hauling Ticket#

State Waste Code

S0#4699536 STRATA#211556-0-15

Profile Generator 1071420R (SOIL/DRILL CUTTINGS IMPACTED W/DIESEL)

OR-TEXACO DOWNSTREAM TEXACO DOWNSTREAM 211556

52640 lb\* Operator Inbound Gross Time Scale 25340 lb Tare Inbound 2 10/23/2010 08:03:24 j] lr In 27300 lb Net 10/23/2010 08:11:36 Outbound ajm Out 13.65 Tons ·\* Manual Weight

Comments

Consumer Comments? We want to know. Please call.

Product	LD% Qty	UOM	Rate	Tax Amount	Origin
1 Cont Soil Pet-RGC-	100 13	.65 Tons	32 <b>.</b> 50		.63 LEWIS
2 ENVFEE\$4.23-Env Fe	100 13	.65 Tons	4, 23		.74 LEWIS
3 TRANSFEE \$19.55-TRA	100 13	.65 Tons	19.55	<b>\$</b> 386	.50 LEWIS

Nic Sherr

Total Tax Total Ticket

\$1087.87

Driver's Signature 403WM



Original Ticket# 1249447

Volume

Customer Name CHEVRON CARE OF CRA WASTE SER Carrier ADVENTURE

Ticket Date 10/14/2010

Payment Type Credit Account

Manual Ticket# Hauling Ticket#

Route

State Waste Code Manifest na

Time

Destination

Profile

SD#4699536 STRATA#211556-0-15

Generator OR-TEXACO DOWNSTREAM TEXACO DOWNSTREAM 211556

1071420R (SOIL/DRILL CUTTINGS IMPACTED W/DIESEL)

Scale

10/14/2010 14:07:12 Inbound\_1 Out 10/14/2010 14:07:12

Vehicle# 6130

Driver brock

Gen EPA ID N/A

0002755

Container

Billing #

Check#

Operator ajm ajm

\* Manual Weight

Inbound

Gross Tare Net

102920 lb\* 39100 lb\* 63820 lb

Tons

31.91

Comments

Ι'n

Consumer Comments? We want to know. Please call.

Prod	uct	LD%	Qty	LOM	Rate	Tax	Amount	Origin
1 2 3	Cont Soil Pet-RGC- ENVFEE\$4.23-Env Fe TRANSFEE\$19.55-TRA	100	31.91 31.91 31.91	Tons	32.50 4.23 19.55	ngga nggap cyndi digar dddlo milet. Ac	\$1037.08 \$134.98 \$623.84	LEWIS LEWIS

Total Tax Total Ticket

\$1795.90

Driver's Signature

Organization ID	Customer Name (Site)	Ticket In (Date/Time)	Ticket No	Profile Nm (Site)	Material Nm - Ticket Tons	Rate UOM - Material	Material Amt - Ticket
S03305	CHEVRON CARE OF CRA WASTE SERVICES	10/11/2010 10:31	1249154	107142OR	Cont Soil Pet- RGC-To	34.82 Tons	1131.65
S03305	CHEVRON CARE OF CRA WASTE SERVICES	10/11/2010 10:33	1249155	5 107142OR	Cont Soil Pet- RGC-To	34.09 Tons	1107.93
	CHEVRON CARE OF CRA WASTE				Cont Soil Pet-		
S03305	SERVICES CHEVRON CARE OF CRA WASTE	10/11/2010 10:44	1249157	7 107142OR	RGC-To  Cont Soil Pet-	33.13 Tons	1076.73
S03305	SERVICES CHEVRON CARE OF CRA	10/11/2010 11:02	1249161	107142OR	RGC-To	32.6 Tons	1059.5
S03305	WASTE SERVICES CHEVRON CARE OF CRA	10/11/2010 11:11	1249976	3 107142OR	Cont Soil Pet- RGC-To	32.72 Tons	1063.4
S03305	WASTE SERVICES CHEVRON	10/11/2010 11:41	1249165	5 107142OR	Cont Soil Pet- RGC-To	30.72 Tons	998.4
S03305	CARE OF CRA WASTE SERVICES CHEVRON	10/11/2010 11:44	1249166	3 107142OR	Cont Soil Pet- RGC-To	36.05 Tons	1171.63
S03305	CARE OF CRA WASTE SERVICES	10/11/2010 14:47	1249183	3 107142OR	Cont Soil Pet- RGC-To	33.85 Tons	1100.13
S03305	CHEVRON CARE OF CRA WASTE SERVICES	10/11/2010 14:55	1249184	107142OR	Cont Soil Pet- RGC-To	33.52 Tons	1089.4
	CHEVRON CARE OF CRA WASTE				Cont Soil Pet-		
S03305	SERVICES CHEVRON CARE OF CRA WASTE	10/11/2010 15:07	1249186	6 107142OR	RGC-To  Cont Soil Pet-	31.95 Tons	1038.38
S03305	SERVICES CHEVRON CARE OF CRA	10/11/2010 16:00	1249192	2 107142OR	RGC-To	34.65 Tons	1126.13
S03305	WASTE SERVICES CHEVRON	10/11/2010 16:00	1249193	3 107142OR	Cont Soil Pet- RGC-To	36.03 Tons	1170.98
S03305	CARE OF CRA WASTE SERVICES CHEVRON	10/11/2010 16:23	1249194	107142OR	Cont Soil Pet- RGC-To	31.96 Tons	1038.7
S03305	CARE OF CRA WASTE SERVICES	10/12/2010 10:10	1249223	3 107142OR	Cont Soil Pet- RGC-To	33.38 Tons	1084.85

	CHEVRON CARE OF CRA					
S03305	WASTE SERVICES	10/12/2010 10:27	1249226 107142OR	Cont Soil Pet- RGC-To	32.18 Tons	1045.85
	CHEVRON CARE OF CRA WASTE			Cont Soil Pet-		
S03305	SERVICES CHEVRON CARE OF CRA	10/12/2010 14:20	1249260 107142OR	RGC-To	32.41 Tons	1053.33
S03305	WASTE SERVICES	10/12/2010 14:29	1249261 107142OR	Cont Soil Pet- RGC-To	33.29 Tons	1081.93
	CHEVRON CARE OF CRA WASTE			Cont Soil Pet-		
S03305	SERVICES CHEVRON	10/13/2010 10:06	1249303 107142OR	RGC-To	33.49 Tons	1088.43
S03305	CARE OF CRA WASTE SERVICES	10/13/2010 10:15	1249306 107142OR	Cont Soil Pet- RGC-To	32.16 Tons	1045.2
	CHEVRON CARE OF CRA WASTE			Cont Soil Pet-		
S03305	SERVICES CHEVRON	10/13/2010 14:25	1249355 107142OR	RGC-To	33.56 Tons	1090.7
S03305	CARE OF CRA WASTE SERVICES	10/13/2010 14:33	1249357 107142OR	Cont Soil Pet- RGC-To	30.55 Tons	992.88
	CHEVRON CARE OF CRA					
S03305	WASTE SERVICES CHEVRON	10/14/2010 10:11	1249403 107142OR	Cont Soil Pet- RGC-To	34.32 Tons	1115.4
S03305	CARE OF CRA WASTE SERVICES	10/14/2010 14:07	1249447 107142OR	Cont Soil Pet- RGC-To	31.91 Tons	1037.08
000000	CHEVRON CARE OF CRA	10/14/2010 14.07	1243447 107142010	100 10	31.31 1013	1007.00
S03305	WASTE SERVICES CHEVRON	10/15/2010 9:40	1249478 107142OR	Cont Soil Pet- RGC-To	32.35 Tons	1051.38
	CARE OF CRA WASTE			Cont Soil Pet-		
S03305	SERVICES CHEVRON CARE OF CRA	10/19/2010 9:55	1249615 107142OR	RGC-To	32.19 Tons	1046.18
S03305	WASTE SERVICES	10/19/2010 14:28	1249654 107142OR	Cont Soil Pet- RGC-To	32.27 Tons	1048.78
	CHEVRON CARE OF CRA WASTE			Cont Soil Pet-		
S03305	SERVICES CHEVRON	10/20/2010 10:23	1249697 107142OR	RGC-To	30.15 Tons	979.88
S03305	CARE OF CRA WASTE SERVICES	10/21/2010 9:58	1249774 107142OR	Cont Soil Pet- RGC-To	31.31 Tons	1017.58
	CHEVRON CARE OF CRA WASTE			Cont Soil Pet-		
S03305	SERVICES	10/21/2010 10:10	1249780 107142OR	RGC-To	35.16 Tons	1142.7

S03305	SERVICES CHEVRON CARE OF CRA WASTE	10/22/2010 13:52	1249919 107142OR	RGC-To  Cont Soil Pet-	33.29 Tons	1081.93
	CHEVRON CARE OF CRA WASTE			Cont Soil Pet-		
S03305	CHEVRON CARE OF CRA WASTE SERVICES	10/22/2010 9:58	1249886 107142OR	Cont Soil Pet- RGC-To	33.39 Tons	1085.18
S03305	CHEVRON CARE OF CRA WASTE SERVICES	10/21/2010 16:49	1249845 107142OR	Cont Soil Pet- RGC-To	33.53 Tons	1089.73
S03305	CHEVRON CARE OF CRA WASTE SERVICES	10/21/2010 16:47	1249844 107142OR	Cont Soil Pet- RGC-To	26.94 Tons	875.55
S03305	CHEVRON CARE OF CRA WASTE SERVICES	10/21/2010 14:49	1249836 107142OR	Cont Soil Pet- RGC-To	32.87 Tons	1068.28
S03305	CHEVRON CARE OF CRA WASTE SERVICES	10/21/2010 13:53	1249822 107142OR	Cont Soil Pet- RGC-To	30.6 Tons	994.5
S03305	CHEVRON CARE OF CRA WASTE SERVICES	10/21/2010 11:54	1249803 107142OR	Cont Soil Pet- RGC-To	34.86 Tons	1132.95
S03305	CHEVRON CARE OF CRA WASTE SERVICES	10/21/2010 11:48	1249801 107142OR	Cont Soil Pet- RGC-To	31.76 Tons	1032.2
S03305	CHEVRON CARE OF CRA WASTE SERVICES	10/21/2010 11:47	1249799 107142OR	Cont Soil Pet- RGC-To	34.64 Tons	1125.8
S03305	CHEVRON CARE OF CRA WASTE SERVICES	10/21/2010 10:41	1249785 107142OR	Cont Soil Pet- RGC-To	32.2 Tons	1046.5

Appendix C: Compaction Testing Reports



Project No. P10171

Project Former Texaco Service Station #211556

Address 101 Mulford Road, Toledo, WA

Permit No. N/A

Contractor Clearcreek Contractors

Record No. 001 **REVISED 10-11-10** 

Date October 6, 2010

Weather Foggy

Inspection Sample Pick Up

Sample(s) (2) 5-gal buckets of gravel borrow

Arrived on site as requested to pick up sample. Upon arrival, the contractor decided not to use the on site material for backfill. Then traveled to the Wallace Toledo pit to pick up (2) 5-gallon buckets of gravel borrow to be used as backfill. Sample obtained and delivered to the Portland laboratory for proctor analysis.

#### **AMENDED 10-11-10**

Per conversation with Willie, on site overburden material will have to be removed and all recombined due to at least (2) different material to get an accurate proctor and in place density testing results. For this reason the contractor decided not to use overburden material as backfill.

Inspector: Cliff Zenger WABO # SI 01733

Reviewed by:

Mark A. Galusha, P.E. Branch Manager

Page 1 of 1

**Seattle Office** 20225 Cedar Vallev Road

Tacoma Office

ph 253.584.3720 fax 253.584.3707

Portland Office 7911 NE 33rd Drive Suite 190 Portland, OR 97211

ph 503.281.7515

fax 503.281.7579

10029 S. Tacoma Way

Suite 110 Lynnwood, WA 98036 ph 425.742.9360 fax 425.745.1737

Suite E-2 Tacoma, WA 98499

Project No. P10171

Project Former Texaco Service Station #211556

Address 101 Mulford Road, Toledo, WA

Permit No. N/A

Contractor Clearcreek Contractors

Record No. 002

Date October 14, 2010

Weather Fog

Inspection Soil Density

Sample(s) none

Seattle Office

20225 Cedar Valley Road Suite 110 Lynnwood, WA 98036 ph 425.742.9360 fax 425.745.1737

Tacoma Office

10029 S. Tacoma Way Suite E-2

Tacoma, WA 98499 ph 253.584.3720 fax 253.584.3707

Portland Office

7911 NE 33rd Drive Suite 190 Portland, OR 97211 ph 503.281.7515 fax 503.281.7579

On site as scheduled to perform in place nuclear density testing using a Troxler 3440 gauge. Material placed was a gravel borrow from Wallace Toledo pit with a proctor value of 128.2 pcf at 9.6" optimum moisture. Material was placed using a Komatsu PC138 track hoe and compacted using a Vibromax smooth drum vibratory roller in an area where fuel tanks had been removed. Material was placed in 8" loose lifts and compacted to the required 95% of modified proctor value. All tests taken today met or exceeded the required compaction. See attached Field Density Test Report for locations and results. NOTE: A 2-hour delay for equipment delivery.

To the best of our knowledge, items inspected this date are in accordance with approved plans and specifications.

Inspector: John Salts WABO # SI 01654

REVISED

1:27 pm, Oct 26, 2010

Reviewed by:

Mark A. Galusha, P.E. Branch Manager

20225 Cedar Valley Road, Suite 110 Ph 425.742.9360 Lynnwood, WA 98036 Fax 425.745.1737

10029 S. Tacoma Way, Suite E-2 Ph 253.584.3720 Tacoma, WA 98499 Fax 253.584.3707

7911 NE 33<sup>rd</sup> Drive, Suite 190 Ph 503.281.7515 Portland, OR 97211 Fax 503.281.7579

# Soil FIELD DENSITY TEST REPORT

**ASTM D 6938** 

Project No.:	P10171	Date:	10/14/2010
Project: Form	ner Texaco Se	rvice Stati	on #211556
Inspector: John	Salts		
MTE Nuclear G	auge No.:	,	18

	Location Tout	Depth or Backscatter /		Labora	Laboratory		Field			
Test #	Location Tank Area	Elevation (feet)	Direct Transmission	Max Dry Density (PCF)	OMC %	Wet Density (PCF)	Dry Density (PCF)	Moisture Content %	Compaction %	Soil Type Description
1	NW Corner	-9'	DT	128.2	9.6	130.8	121.5	7.6	94.8	Gravel Borrow
2	SW Corner	-9'	DT	128.2	9.6	129.6	121.5	6.7	94.6	Gravel Borrow
3	SE Corner	-8'4"	DT	128.2	9.6	138.0	129.0	7.0	100+	Gravel Borrow
4	NE Corner	-8'4"	DT	128.2	9.6	132.7	122.5	8.3	95.6	Gravel Borrow
5	SE Quadrant	-7'8"	DT	128.2	9.6	135.0	125.3	7.8	97.7	Gravel Borrow
6	NE Quadrant	-7'8"	DT	128.2	9.6	135.9	126.9	7.0	99.0	Gravel Borrow
7	NW Quadrant	-7'	DT	128.2	9.6	137.2	128.0	7.1	99.9	Gravel Borrow
8	SW Quadrant	-7'	DT	128.2	9.6	133.1	124.8	6.6	97.4	Gravel Borrow
9	SE Quadrant	-7'	DT	128.2	9.6	136.1	127.2	7.0	99.2	Gravel Borrow
10	NE Qudarant	-7'	DT	128.2	9.6	138.1	127.9	8.0	99.8	Gravel Borrow
11	SW Quadrant	-6'4"	DT	128.2	9.6	135.0	126.9	6.4	99.0	Gravel Borrow

Specification Compaction and Material : 95%  ASTM D 1557 (Modified Proctor)		In our opinion, fill generally meets specifications as indicated by test numbers: Tests 1 to 10							
☐ ASTM D 698 (Standard Proctor)  Type and Number of earth moving units: 1- T	rack hoe exavator	In our opinion, fill does not meet specifications as indicated by test numbers:							
Type and Number of Compaction units:  vibratory doller 48"	-smooth drum	<ul><li>✓ Fill test meets compaction specifications</li><li>✓ Contractor Advised</li></ul>							
Number of Passes: <u>various</u> Thickness of Method of Adding Moisture:	f lift: 8"	✓ Full-time observation ☐ Part-time observation  QC Sample: Test No.: 1 Dry Density: 122.5 Moisture %: 8.3							
Comments:									

20225 Cedar Valley Road, Suite 110 Ph 425.742.9360

Fax 425.745.1737

Depth or

Tank

Backscatter /

10029 S. Tacoma Way, Suite E-2 Ph 253.584.3720 Tacoma, WA 98499 Fax 253.584.3707

Lynnwood, WA 98036

Location

7911 NE 33<sup>rd</sup> Drive, Suite 190 Portland, OR 97211 Ph 503.281.7515 Fax 503.281.7579

### Soil **FIELD DENSITY TEST REPORT**

**ASTM D 6938** 

Laboratory

Project No.:	P10171	Date: _	10/14/2010
Project: Form	ner Texaco Se	rvice Stati	on #211556
Inspector: John	Salts		
MTE Nuclear G	auge No.:	,	18

**Field** 

Page 2 of 2

Test #	Location	Elevation (feet)	Direct Transmission	Max Dry Density (PCF)	OMC %	Wet Density (PCF)	Dry Density (PCF)	Moisture Content %	Compaction %	Soil Type Description
12	NW Quadrant	-6.4	DT	128.2	9.6	132.3	124.8	6.0	97.3	Gravel Borrow
☑ AST	ΓM D 1557 (Modified Proctor)	5%		In our opini test 12	on, fill ge	nerally meets	s specification	ns as indicate	ed by test numl	pers:
	FM D 698 (Standard Proctor)  I Number of earth moving units: 1- Track ho	e exavator		In our opini	on, fill do	es not meet s	specifications	as indicated	by test number	ers:
ype and	Number of Compaction units: 1-smoo	th drum		Fill test me	ets compa	action specifi	cations			
vibrato	ry doller 48"			Contractor	Advised					
lumber o	of Passes: <u>various</u> Thickness of lift:	8"	_	Full-time of	oservation	n 🗌 Pa	art-time obser	vation		
1ethod o	of Adding Moisture:		QC	Sample:	Test No.	:1	Dry D	ensity:	122.5 M	oisture %: 8.3
ommen	ts:									

Project No. P10171

Project Former Texaco Service Station #211556

Address 101 Mulford Road, Toledo, WA

Permit No. N/A

Contractor Clearcreek Contractors

Record No. 003

Date October 15, 2010

Weather Fog

Inspection Soil Density

Sample(s) none

**Seattle Office** 20225 Cedar Valley Road Suite 110 Lynnwood, WA 98036 ph 425.742.9360 fax 425.745.1737

**Tacoma Office** 10029 S. Tacoma Way Suite E-2 Tacoma, WA 98499 ph 253.584.3720 fax 253.584.3707

Portland Office 7911 NE 33rd Drive Suite 190 Portland, OR 97211 ph 503.281.7515 fax 503.281.7579

Arrived on site as scheduled and attended a safety meeting prior to the start up of daily activities. Safety meeting was given by Alex of SAIC.

Performed in place nuclear density testing using a Troxler 3440 gauge. Material tested was gravel borrow from Toledo pit owned by Wallace Rock products and placed in 8" loose lifts and compacted to 95% per modified proctor value. Material was placed using a Komatsu PC 138 track hoe and compacted with a Vibromax 48" smooth drum vibratory roller. All tests taken today met or exceeded the 95% compaction requirements. See attached Field Density Test Report for locations and results.

To the best of our knowledge, items inspected this date are in accordance with approved plans and specifications.

Inspector: John Salts WABO # SI 01654

Reviewed by:

Mark A. Galusha, P.E. Branch Manager

20225 Cedar Valley Road, Suite 110 Ph 425.742.9360 Lynnwood, WA 98036 Fax 425.745.1737

10029 S. Tacoma Way, Suite E-2 Ph 253.584.3720 Tacoma, WA 98499 Fax 253.584.3707

7911 NE 33<sup>rd</sup> Drive, Suite 190 Ph 503.281.7515 Portland, OR 97211 Fax 503.281.7579

# Soil FIELD DENSITY TEST REPORT

**ASTM D 6938** 

Project No.:	P10171	Date:	10/15/2010
Project: Form	ner Texaco Se	rvice Stati	on #211556
Inspector: John	Salts		
MTE Nuclear G	auge No.:	,	18

	Location	Depth or	Backscatter /	<sub>/</sub> Laboratory		Field				
Test #	Location Tank Reclamation Area next to station	Elevation (feet)	Direct Transmission	Max Dry Density (PCF)	OMC %	Wet Density (PCF)	Dry Density (PCF)	Moisture Content %	Compaction %	Soil Type Description
1	SE quadrant	-5'8"	DT	128.2	9.6	132.0	123.2	7.1	96.1	Gravel Borrow
2	SW quadrant	-5'8"		128.2	9.6	135.0	126.3	6.9	98.5	Gravel Borrow
3	NE quadrant	5'		128.2	9.6	133.8	127.0	5.4	99.0	Gravel Borrow
4	NW quadrant	5'		128.2	9.6	133.1	127.0	4.7	99.1	Gravel Borrow
5	SW quadrant	-4'4"		128.2	9.6	135.6	127.4	6.4	99.4	Gravel Borrow
6	SE quadrant	-4'4"		128.2	9.6	134.3	126.0	6.6	98.3	Gravel Borrow
7	NE quadrant	-3'8"		128.2	9.6	135.5	127.9	5.9	99.8	Gravel Borrow
8	NW quadrant	-3'8"		128.2	9.6	133.9	126.5	5.8	98.7	Gravel Borrow
9	NE quadrant	-3'		128.2	9.6	135.0	126.5	6.7	98.7	Gravel Borrow
10	NW quadrant	-3'		128.2	9.6	136.0	127.0	7.1	99.0	Gravel Borrow

Specification Compaction and Material : 95%  ASTM D 1557 (Modified Proctor)  ASTM D 698 (Standard Proctor)	<ul> <li>✓ In our opinion, fill generally meets specifications as indicated by test numbers:</li> <li>Tests 1 to 10</li> <li>✓ In our opinion, fill does not meet specifications as indicated by test numbers:</li> </ul>
Type and Number of earth moving units: 1- Track hoe exavator	
Type and Number of Compaction units: 1-smooth drum	Fill test meets compaction specifications
vibratory doller 48"	✓ Contractor Advised
Number of Passes: various Thickness of lift: 8"	✓ Full-time observation Part-time observation
Method of Adding Moisture:	QC Sample: Test No.: 2 Dry Density: 126.3 Moisture %:
Comments:	

Project No. P10171

Project Former Texaco Service Station #211556

Address 101 Mulford Road, Toledo, WA

Permit No. N/A

Contractor Clearcreek Contractors

Record No. 004

Date October 18, 2010

Weather Fog/Sun Inspection Soil Density

Sample(s) (1) sample of gravel borrow and (1) sample of crushed

Seattle Office 20225 Cedar Valley Road Suite 110 Lynnwood, WA 98036 ph 425.742.9360 fax 425.745.1737

**Tacoma Office** 10029 S. Tacoma Way Suite E-2 Tacoma, WA 98499 ph 253.584.3720 fax 253.584.3707

Portland Office 7911 NE 33rd Drive Suite 190 Portland, OR 97211 ph 503.281.7515 fax 503.281.7579

On site as scheduled and attended a safety meeting present by SAIC prior to start up of daily activities. Performed in place nuclear density testing using a Troxler 3440 nuclear gauge. Material placed was gravel borrow supplied by Wallace Rock Products from their Toledo pit. Test #'s 1 to 4 was placed in 8" compacted lifts and test #'s 5-12 were placed in 4" compacted lifts, per job specifications, to 95% compaction of modified proctor value. Material was placed using a track hoe excavator and compacted using a 48' smooth drum vibratory roller. All tests taken today met or exceeded the 95% compaction requirements. See attached Field Density Test Report for locations and results.

Obtained samples of the gravel borrow and 1-1/4" minus crushed aggregate from the site stockpile for laboratory analysis.

To the best of our knowledge, items inspected this date are in accordance with approved plans and specifications.

Inspector: John Salts WABO # SI 01654

Reviewed by:

Mark A. Galusha, P.E. Branch Manager

20225 Cedar Valley Road, Suite 110 Ph 425.742.9360 Lynnwood, WA 98036 Fax 425.745.1737

 10029 S. Tacoma Way, Suite E-2
 Ph
 253.584.3720

 Tacoma, WA 98499
 Fax
 253.584.3707

7911 NE 33<sup>rd</sup> Drive, Suite 190 Ph 503.281.7515 Portland, OR 97211 Fax 503.281.7579

## Soil FIELD DENSITY TEST REPORT

**ASTM D 6938** 

Project No.:	P10171	Date: _	10/18/2010			
Project: Form	ner Texaco Se	Service Station #211556				
Inspector: John	Salts					
MTE Nuclear G	auge No.:		18			

	Location Tank Area	Depth or	Backscatter / Direct Transmission	Labora	atory		F	ield		
Test #		Elevation (feet)		Max Dry Density (PCF)	OMC %	Wet Density (PCF)	Dry Density (PCF)	Moisture Content %	Compaction %	Soil Type Description
1	SW Quadrant	-2'4"	DT	128.2	9.6	136.0	127.6	6.6	99.5	Gravel Borrow
2	NW Quadrant	-2'4"	DT	128.2	9.6	132.2	125.9	5.4	98.2	Gravel Borrow
3	SE Quadrant	-1'8"	DT	128.2	9.6	130.1	124.5	4.5	97.1	Gravel Borrow
4	NE Quadrant	-1'8"	DT	128.2	9.6	134.0	127.8	4.8	99.7	Gravel Borrow
5	SW Quadrant	-1'4"	DT	128.2	9.6	134.6	127.6	5.4	99.6	Gravel Borrow
6	NW Quadrant	-1'4"	DT	128.2	9.6	134.2	126.9	5.7	99.0	Gravel Borrow
7	SE Quadrant	-1'	DT	128.2	9.6	133.0	123.5	6.1	97.7	Gravel Borrow
8	NE Quadrant	-1'	DT	128.2	9.6	134.3	126.5	6.1	98.7	Gravel Borrow
9	SE Quadrant	-8"	DT	128.2	9.6	131.3	124.3	5.7	96.9	Gravel Borrow
10	NE Quadrant	-8"	DT	128.2	9.6	131.3	124.9	5.1	97.4	Gravel Borrow

Specification Compaction and Material : 95%  ASTM D 1557 (Modified Proctor)	In our opinion, fill generally meets specifications as indicated by test numbers: tests 1 to 10
☐ ASTM D 698 (Standard Proctor)  Type and Number of earth moving units: 1- Track hoe exavat	In our opinion, fill does not meet specifications as indicated by test numbers:
Type and Number of Compaction units:  1-smooth drum	Fill test meets compaction specifications  Contractor Advised
vibratory doller 48"	Contractor Advised
Number of Passes: various Thickness of lift: 8" & 4"	Full-time observation Part-time observation
Method of Adding Moisture:	QC Sample: Test No.: 7 Dry Density: 123.5 Moisture %: 6.1
Comments:	

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10029 S. Tacoma Way, Suite E-2 Ph 253.584.3720 Tacoma, WA 98499 Fax 253.584.3707

7911 NE 33<sup>rd</sup> Drive, Suite 190 Ph 503.281.7515 Portland, OR 97211 Fax 503.281.7579

Method of Adding Moisture:

Comments:

# Soil FIELD DENSITY TEST REPORT

**ASTM D 6938** 

Project No.:	P10171	Date:	10/18/2010						
Project: Forn	ner Texaco Se	rvice Stati	on #211556						
Inspector: John Salts									
MTE Nuclear G	auge No.:		18						

Page 2 of 2

	Location   Tar	Depth or	Backscatter /	Labor	atory		Fi	ield		Soil Type Description
Test #	Location Tar Area	Elevation (feet)	Direct Transmission	Max Dry Density (PCF)	OMC %	Wet Density (PCF)	Dry Density (PCF)	Moisture Content %	Compaction %	Soil Type Description
10	SW quadrant	-4"	DT	128.2	9.6	135.5	128.5	5.4	100+	Gravel Borrow
11	NW quadrant	-4"	DT	128.2	9.6	132.1	125.6	5.2	98	Gravel Borrow
✓ AS	TM D 1557 (Modified Proctor)	95%		In our opin tests 11 to	_	nerally meet	s specification	ns as indicate	ed by test num	bers:
	TM D 698 (Standard Proctor)  d Number of earth moving units: 1- Track	noe exavator		In our opin	ion, fill do	es not meet	specifications	as indicated	by test number	ers:
Type and Number of Compaction units:  vibratory doller 48"  1-smooth drum				Fill test meets compaction specifications  Contractor Advised						
Number	of Passes: <u>various</u> Thickness of lift:	8"		Full-time of	bservatio	n Pa	art-time obser	vation		

QC Sample: Test No.: 1

Dry Density:

122.5

Moisture %: 8.3

Project No. P10171

Project Former Texaco Service Station #211556

Address 101 Mulford Road, Toledo, WA

Permit No. N/A

Contractor Clearcreek Contractors

Record No. 005

Date October 21, 2010
Weather Partly Cloudy
Inspection Soil Density

Sample(s) none

Seattle Office 20225 Cedar Valley Road Suite 110 Lynnwood, WA 98036 ph 425.742.9360 fax 425.745.1737

**Tacoma Office** 10029 S. Tacoma Way Suite E-2 Tacoma, WA 98499 ph 253.584.3720 fax 253.584.3707

Portland Office 7911 NE 33rd Drive Suite 190 Portland, OR 97211 ph 503.281.7515 fax 503.281.7579

On site to perform in place density tests on imported gravel borrow being used as backfill in fuel tank and unsuitable material over excavation area. Material was placed in approximately 8" to 10" loose lifts and compacted with a steel drum vibratory roller. All in place density tests met the minimum project requirements of 95%. See attached Field Density Test Report for locations and results.

To the best of our knowledge, items inspected this date are in accordance with approved plans and specifications.

Inspector: Steve Harlin WABO # SI 01686

Michael S. Dolder, P.E.

Vice President

Reviewed by:

20225 Cedar Valley Road, Suite 110 Ph 425.742.9360 Lynnwood, WA 98036 Fax 425.745.1737

10029 S. Tacoma Way, Suite E-2 Ph 253.584.3720 Tacoma, WA 98499 Fax 253.584.3707

7911 NE 33<sup>rd</sup> Drive, Suite 190 Ph 503.281.7515 Portland, OR 97211 Fax 503.281.7579

## Soil FIELD DENSITY TEST REPORT

**ASTM D 6938** 

Project No.:	P10171	Date:	10/21/2010							
Project: Forn	ner Texaco Se	ervice Station #211556								
Inspector: Stev	Inspector: Steve Harlin									
MTE Nuclear G	auge No.:		18							

	Location	Tank	Depth or	Backscatter /	Labora	atory		Fi	ield		
Test #	Area Removal backfill	rank	Elevation (feet)	Direct Transmission	Max Dry Density (PCF)	OMC %	Wet Density (PCF)	Dry Density (PCF)	Moisture Content %	Compaction %	Soil Type Description
1	N side of excavation		7' BFSG	DT	128.2	9.6	139.5	129.2	8.0	100	Gravel Borrow
2	S side of excavation		7' BFSG	DT	128.2	9.6	137.3	127.8	7.5	100	Gravel Borrow
3	E side of excavation		6.5' BFSG	DT	128.2	9.6	137.3	127.4	7.8	99	Gravel Borrow
4	W side of excavation		6.5' BFSG	DT	128.2	9.6	136.8	128.2	6.7	100	Gravel Borrow
5	N side of excavation		6' BFSG	DT	128.2	9.6	137.2	127.8	7.3	99	Gravel Borrow
6	S side of excavation		6' BFSG	DT	128.2	9.6	135.6	126.9	6.8	99	Gravel Borrow
7	E side of excavation		5.5' BFSG	DT	128.2	9.6	133.7	124.9	7.1	97	Gravel Borrow
8	W side of excavation		5.5' BFSG	DT	128.2	9.6	131.7	123.8	6.3	97	Gravel Borrow
9	N side of excavation		5' BFSG	DT	128.2	9.6	136.4	126.3	8.0	98	Gravel Borrow
10	S side of excavation		5' BFSG	DT	128.2	9.6	130.5	122.4	6.6	96	Gravel Borrow

Specification Compaction and Material : 95%  ASTM D 1557 (Modified Proctor)		In our opinion, fill generally meets specifications as indicated by test numbers:  tests 1 to 10									
☐ ASTM D 698 (Standard Proctor)  Type and Number of earth moving units: 1-c	lozer	In our opinion, fill does not meet specifications as indicated by test numbers:									
Type and Number of Compaction units: 1-roller		<ul><li>✓ Fill test meets compaction specifications</li><li>✓ Contractor Advised</li></ul>									
Number of Passes: <u>various</u> Thickness of lift: _	8-10"	✓ Full-time observation ☐ Part-time observation									
Method of Adding Moisture:		QC Sample: Test No.: 2 Dry Density: 127.8 Moisture %: 7.5									
Comments:											

Project No. P10171

Project Former Texaco Service Station #211556

Address 101 Mulford Road, Toledo, WA

Permit No.

Contractor Clearcreek Contractors

Record No. 006

October 22, 2010 Date Weather Partly Cloudy Inspection Soil Density

Sample(s) none

Seattle Office 20225 Cedar Valley Road Suite 110 Lynnwood, WA 98036

ph 425.742.9360 fax 425.745.1737

Tacoma Office 10029 S. Tacoma Way Suite E-2 Tacoma, WA 98499 ph 253.584.3720 fax 253.584.3707

Portland Office 7911 NE 33rd Drive Suite 190 Portland, OR 97211 ph 503.281.7515 fax 503.281.7579

On site to perform in place nuclear density tests on imported gravel borrow used as backfill in fuel tank and unsuitable over excavation area. Material was place din 8" lifts up to 24" below final subgrade, above 24" it was placed in 4" lifts then compacted with a steel drum vibratory roller. All density tests met the minimum project requirement of 95%. See attached Field Density Test Report for locations and results.

To the best of our knowledge, items inspected this date are in accordance with approved plans and specifications.

> Inspector: Steve Harlin WABO # SI 01686

Michael S. Dolder, P.E. Vice President

Reviewed by:

20225 Cedar Valley Road, Suite 110 Ph 425.742.9360 Lynnwood, WA 98036 Fax 425.745.1737

10029 S. Tacoma Way, Suite E-2 Ph 253.584.3720 Tacoma, WA 98499 Fax 253.584.3707

7911 NE 33<sup>rd</sup> Drive, Suite 190 Ph 503.281.7515 Portland, OR 97211 Fax 503.281.7579

# Soil FIELD DENSITY TEST REPORT

**ASTM D 6938** 

Project No.:	P10171	Date:	10/22/2010				
Project: Forn	ner Texaco Se	ervice Station #211556					
Inspector: Stev	e Harlin						
MTE Nuclear G	Bauge No.:		18				

	Location Tank Area	Depth or	Backscatter /	Labora	atory		Fi	ield		
Test #		Elevation (feet)	Direct Transmission	Max Dry Density (PCF)	OMC %	Wet Density (PCF)	Dry Density (PCF)	Moisture Content %	Compaction %	Soil Type Description
1	E side of excavation	4.5' BFSG	DT	128.2	9.6	134.5	125.7	7.0	98	Gravel Borrow
2	W side of excavation	4.5' BFSG	DT	128.2	9.6	132.8	124.3	6.8	97	Gravel Borrow
3	N side of excavation	4' BFSG	DT	128.2	9.6	135.7	126.8	7.0	99	Gravel Borrow
4	S side of excavation	4' BFSG	DT	128.2	9.6	134.2	126.0	6.5	98	Gravel Borrow
5	E side of excavation	3.5' BFSG	DT	128.2	9.6	134.9	127.3	5.9	99	Gravel Borrow
6	W side of excavation	3.5' BFSG	DT	128.2	9.6	133.7	125.9	6.2	98	Gravel Borrow
7	N side of excavation	3' BFSG	DT	128.2	9.6	136.2	127.2	7.1	99	Gravel Borrow
8	S side of excavation	3' BFSG	DT	128.2	9.6	132.2	122.7	7.7	96	Gravel Borrow
9	N side of excavation	2.5' BFSG	DT	128.2	9.6	131.7	123.0	7.0	96	Gravel Borrow
10	S side of excavation	2.5' BFSG	DT	128.2	9.6	135.6	128.0	6.0	100	Gravel Borrow
11	E side of excavation	2' BFSG	DT	128.2	9.6	129.8	122.1	6.3	95	

Specification Compaction and Material : 95%  ASTM D 1557 (Modified Proctor)		In our opinion, fill generally meets specifications as indicated by test numbers: tests 1 to 11									
ASTM D 698 (Standard Proctor)  Type and Number of earth moving units:	dozer	In our opinion, fill does not meet specifications as indicated by test numbers:									
Type and Number of Compaction units: roller		Fill test meets compaction specifications  Contractor Advised									
Number of Passes: <u>various</u> Thickness of	of lift: 8", 4" -24" to top	✓ Full-time observation	Part-ti	me observation							
Method of Adding Moisture:		QC Sample: Test No.:	1	Dry Density:	125.7	Moisture %:	7				
Comments:											

20225 Cedar Valley Road, Suite 110 Ph 425.742.9360 Lynnwood, WA 98036 Fax 425.745.1737

10029 S. Tacoma Way, Suite E-2 Ph 253.584.3720 Tacoma, WA 98499 Fax 253.584.3707

7911 NE 33<sup>rd</sup> Drive, Suite 190 Ph 503.281.7515 Portland, OR 97211 Fax 503.281.7579

# Soil FIELD DENSITY TEST REPORT

**ASTM D 6938** 

Project No.:	P10171	Date: _	10/18/2010							
Project: Form	ner Texaco Se	rvice Stati	on #211556							
Inspector: John	Inspector: John Salts									
MTE Nuclear G	auge No.:	,	18							

Page 2 of 2

	Location Tank	Depth or	Backscatter / Direct Transmission	Labora	atory		F	ield		
Test #	Area	Elevation (feet)		Max Dry Density (PCF)	OMC %	Wet Density (PCF)	Dry Density (PCF)	Moisture Content %	Compaction %	Soil Type Description
12	W side excavation	2'BFSG	DT	128.2	9.6	135.1	122.2	6.5	95	Gravel Borrow
13	N side excavation	2'BFSG	DT	128.2	9.6	133.1	125.5	6.8	98	Gravel Borrow
14	S side excavation	2'BFSG	DT	128.2	9.6	131.5	124.2	5.9	97	
15	E side excavation	20" BFSG	DT	128.2	9.6	133.3	124.9	6.7	97	
16	W side excavation	20" BFSG	DT	128.2	9.6	134.5	126.2	6.6	98	
17	N side excavation	16" BFSG	DT	128.2	9.6	130.3	122.2	6.6	95	
18	S side excavation	16" BFSG	DT	128.2	9.6	136.3	127.9	6.6	100	

Specification Compaction and Material : 95%  ASTM D 1557 (Modified Proctor)	In our opinion, fill generally meets specifications as indicated by test numbers: tests 12 to 18	
ASTM D 698 (Standard Proctor)  Type and Number of earth moving units: 1- Track hoe exavator	☐ In our opinion, fill does not meet specifications as indicated by test numbers:	
Type and Number of Compaction units:  vibratory doller 48"  1-smooth drum	Fill test meets compaction specifications  Contractor Advised	
Number of Passes: <u>various</u> Thickness of lift: <u>8"</u> Method of Adding Moisture:	✓ Full-time observation ☐ Part-time observation  QC Sample: Test No.: Dry Density: Moisture %:	
Comments:		

Project No. P10171

Project Former Texaco Service Station #211556

Address 101 Mulford Road, Toledo, WA

Permit No. N/A

Contractor Clearcreek Contractors

Record No. 007

Date October 25, 2010

Weather Rain

Inspection Soil Density

Sample(s) none

Seattle Office

20225 Cedar Valley Road Suite 110 Lynnwood, WA 98036 ph 425.742.9360 fax 425.745.1737

Tacoma Office

10029 S. Tacoma Way

Suite E-2

Tacoma, WA 98499 ph 253.584.3720 fax 253.584.3707

Portland Office

7911 NE 33rd Drive Suite 190 Portland, OR 97211 ph 503.281.7515 fax 503.281.7579

On site to perform in place nuclear density testing. The contractor had to pump standing water off the fill site. The contractor placed (1) 4" lift of imported gravel borrow on top of saturated existing gravel borrow fill. Material was then static rolled. Material became soft and yielding with high moisture content. Material was too wet for density testing. After engineer's approval, the contractor is going to place geo fabric over gravel borrow and backfill to final grade with 1-1/4" CSBC. The 1-1/4" CSBC does not require density testing. No density tests were performed this date.

#### **Preliminary**

Inspector: Steve Harlin WABO # SI 01686

Michael S. Dolder, P.E. Vice President

....

Reviewed by:

7911 NE 33rd Drive, Suite 190 Ph 503-281-7515 Portland, OR 97211 Fax 503-281-7579	
<b>DATE:</b> 10/8/2010	
CLIENT: Clearcreek Contractors	
3203 15th St., Everett, WA 98201	
PROJECT: Former Texaco Service Station #211556	REPORT STATUS:
PROJECT # P10171	Original 🔽
<b>LAB.</b> # 1963	Amended
SAMPLE DESCRIPTION	l:
Gravel Borrow	
Wallace (Toledo Pit)	
D	
Date Sample Received: 10/6/2010	
TEST RESULTS:	
Proctor Analysis (ASTM D698, D1557 or A	ASHTO T99, T180)
See attached analysis she	et.
	_
Tested By: Charles Schneider Reviewed By:	March flux Co

Information in this report applies only to the actual samples tested and shall not be reproduced except in full, without the approval of Mayes Testing Engineers, Inc.

Mark A. Galusha, P.E.

**Branch Manager** 

Date Tested: 10/7/2010

7911 NE 33rd Drive, Suite 190

Ph 503-281-7515

Portland, OR 97211

Fax 503-281-7579

Client: Clearcreek Contractors

3203 15th St., Everett, WA 98201

Project: Former Texaco Service Station #211556

Test Method: ASTM D-1557 Method C / C 127 / D 4718 (if needed)

#### **Moisture Density Relationship Test**

Report Date: 10/8/2010 Date Tested: 10/7/2010 Project Number: P10171

Lab Number: 1963

Wet Preparation		Mechanical	Χ
Dry Preparation	Χ	Hand Tamper	

Date Received: 10/6/2010

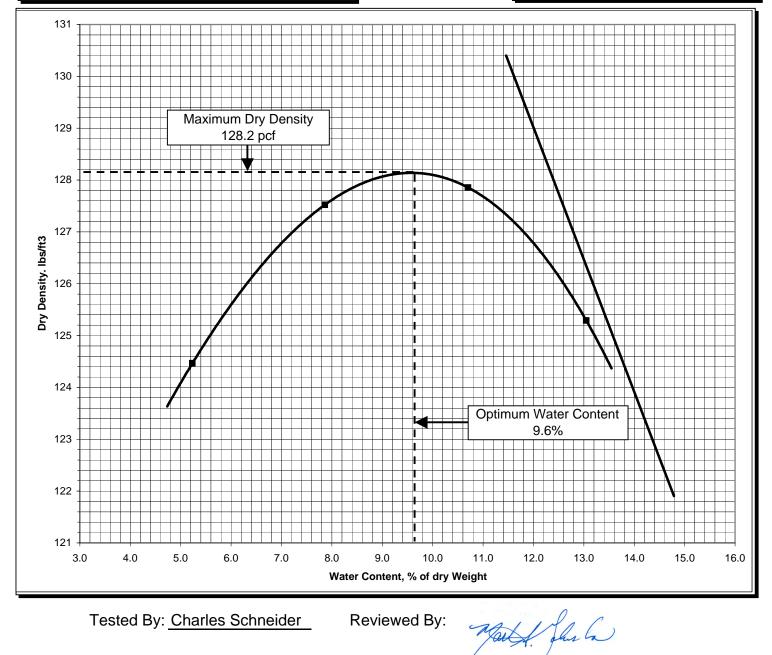
Source of Sample: Wallace (Toledo Pit)

Description of Sample: Gravel Borrow

Zero Void line plotted at Assumed SpG: 2.75 Max. Density Uncorrected: 125.4

Test Results		
Optim	um Water Content %	9.6
Max Dr	y Density Corr. lbs/ft3	128.2

Sieve Analysis		
Sieve Size	Percent Retained	
3/4	10%	
3/8	35%	
#4	48%	



Tested By: Charles Schneider

Reviewed By:

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Mark A. Galusha, P.E. es Testing Engineers, Inc. Branch Manager MTE Form # 149, Rev 2, 6/02

	lax 425.745.1737
<b>DATE</b> : 10/29/2010	Tacoma Office
CLIENT: Clear Creek Contractors	10029 S. Tacoma Way Suite E-2
	Tacoma, WA 98499 ph 253.584.3720
PROJECT: Former Texaco #211556	fax 253.584.3707
PROJECT # P10171	Portland Office
<b>LAB.</b> # 10252	7911 NE 33rd Drive Suite 190
	Portland, OR 97211
REPORT STATUS: <a> Original</a> Amended	ph 503.281.7515
NET GIVE GIVE GIRGING E 7 MILONGOG	
SAMPLE DESCRIPTION:	
Gravel Borrow -Sandy	
Onsite Stockpile, Import from Wallace Pit Toledo	
Date Sample Received: 10/19/2010	
TEST RESULTS:	
TEST RESELTS.	
Proctor Analysis (ASTM D698, D1557 or AASHTO T99, T180	<u>')                                    </u>
See attached analysis sheet.	

Tested By: Nancy Simmons Date Tested: 10/28/2010

Reviewed By:

Michael S. Dolder, P.E.

Seattle Office 20225 Cedar Valley

Lynnwood, WA 98036 ph 425.742.9360

Road Suite 110

Vice President

7911 NE 33rd Drive, Suite 190

Ph 503-281-7515

#### **Moisture Density Relationship Test**

Portland, OR 97211

Fax 503-281-7579

Client: Clear Creek Contractors

Project: Former Texaco #211556

Test Method: ASTM D-1557 Method C / C 127 / D 4718 (if needed)

Report Date: 10/29/2010

Date Tested: 10/28/2010

Project Number: P10171

Lab Number: 10252

Wet Preparation **Dry Preparation** 

Date Received: 10/19/2010

Description of Sample: Gravel Borrow -Sandy

Mechanical

Hand Tamper

Source of Sample: Onsite Stockpile, Import from Wallace Pit Toledo

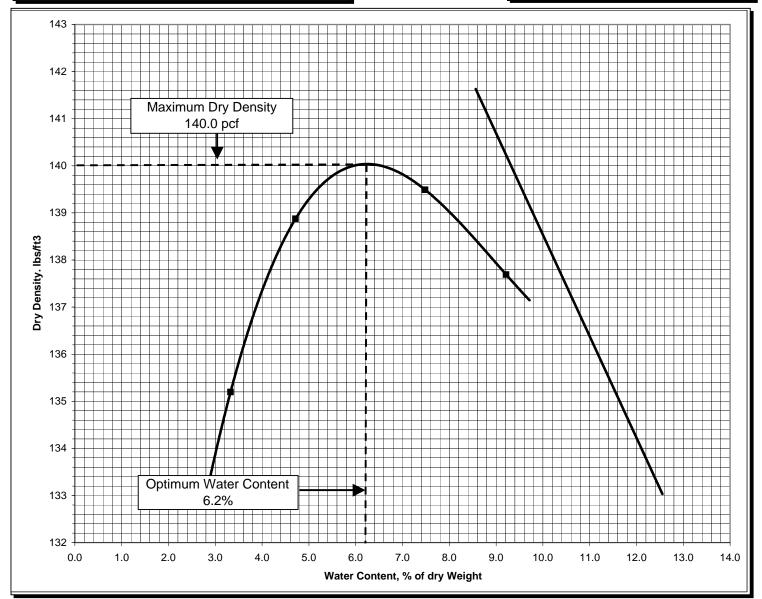
**Test Results** Optimum Water Content % 6.2 Max Dry Density Corr. lbs/ft3 140.0

#4

Sieve Analysis Sieve Size Percent Retained 29% 52% 3/8

64%

Zero Void line plotted at SpG: 2.65 Max. Density Uncorrected: 132.4



Tested By: Nancy Simmons Reviewed By:

Information in this report applies only to the actual samples tested and shall not be reproduced except in full, without the approval of Mayes Testing Engineers, Inc.

10/29/2010 MTE Form # 149, Rev 2, 6/02

		fax 425.745.1737
<b>DATE</b> : 10/27/2010		Tacoma Office
CLIENT: Clear Creek Contractors	10029 S. Tacoma Wa Suite E-2	
		Tacoma, WA 98499
PROJECT: Former Texaco #211556		ph 253.584.3720 fax 253.584.3707
PROJECT # P10171		Portland Office
LAB. # 10253	7911 NE 33rd Drive Suite 190 Portland, OR 97211	
REPORT STATUS: 🗸	Original	ph 503.281.7515
SAMI	PLE DESCRIPTION:	
	1 1/4" Crushed	
Onsite Stock	pile, Import from Walla	ce Pit
Date Sample Re	ceived: 10/19/2010	
Т	EST RESULTS:	
Proctor Analysis (ASTM	l D698, D1557 or AAS	HTO T99, T180)
See att	tached analysis sheet.	
Tested By: Karl Pauly	Reviewed By:	ul & Qu
Date Tested: 10/26/2010		Michael S. Dolder, P.E.

Seattle Office 20225 Cedar Valley

Lynnwood, WA 98036 ph 425.742.9360

Road Suite 110

Vice President

7911 NE 33rd Drive, Suite 190

Ph 503-281-7515

### **Moisture Density Relationship Test**

Portland, OR 97211

Fax 503-281-7579

Client: Clear Creek Contractors

Project: Former Texaco #211556

Test Method: ASTM D-1557 Method C / C 127 / D 4718 (if needed)

Report Date: 10/27/2010

Date Tested: 10/26/2010

Project Number: P10171

Lab Number: 10253

Wet Preparation
Dry Preparation

Mechanical
X Hand Tamper

Date Received: 10/19/2010

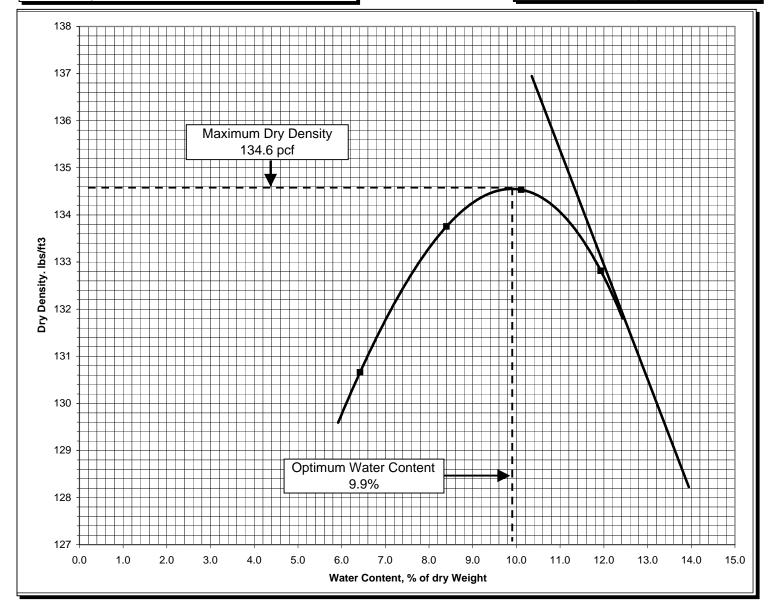
Source of Sample: Onsite Stockpile, Import from Wallace Pit

Description of Sample: 1 1/4" Crushed

Zero Void line plotted at SpG: 2.75
Max. Density Uncorrected: 130.7

Test Results	S
Optimum Water Content %	9.9
Max Dry Density Corr. lbs/ft3	134.6

Sieve Analysis		
Sieve Size	Percent Retained	
3/4	14%	
3/8	54%	
#4	74%	



Tested By: Karl Pauly Reviewed By:

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10/27/2010 MTE Form # 149, Rev 2, 6/02