Materials Testing & Consulting, Inc.

Geotechnical Engineering ● Materials Testing ● Special Inspection ● Environmental Consulting

February 17, 2014

Skagit County
1800 Continental Place, Suite 100
Mount Vernon, Washington 98273
Attn: Mr. Marc Estvold
Via email: *mestvold@comcast.net*

RE: **Phase II Environmental Site Assessment**
Truck City Site, 3228 Old Highway 99 South
Mount Vernon, WA 98273

MTC Project No.: **13B093-02**

Dear Mr. Estvold,

Materials Testing and Consulting, Inc. (MTC) is pleased to present our FINAL report describing the findings of the Phase II Environmental Site Assessment for the above referenced project. This assessment was prepared in general accordance with the American Society of Testing and Materials (ASTM) *Standard Practice for Environmental Site Assessments: Phase II ESA Process* (ASTM E1903-11), as well as current standard industry practices.

The purpose of this Phase II ESA was to evaluate the recognized and potential environmental conditions (RECs) identified in MTC's Phase I ESA in order to provide sufficient information regarding the presence, nature, and extent of contamination to assist the client in making informed decisions about the property. Where applicable, this study is also intended to provide the level of knowledge necessary to satisfy the innocent purchaser defense under CERCLA. The complete results of our assessment, opinions regarding site environmental conditions, and recommendations are found in the following report.

If you should have any questions or require clarification of this report, please feel free to contact the undersigned. We welcome the opportunity to be of further service to Skagit County.

Respectfully Submitted,
MATERIALS TESTING & CONSULTING, INC.

John R. Gillaspy, L.E.G.
Project Engineering Geologist

Leland B. Rupp, P.E.
Geotechnical Division Manager

PHASE II
ENVIRONMENTAL SITE ASSESSMENT

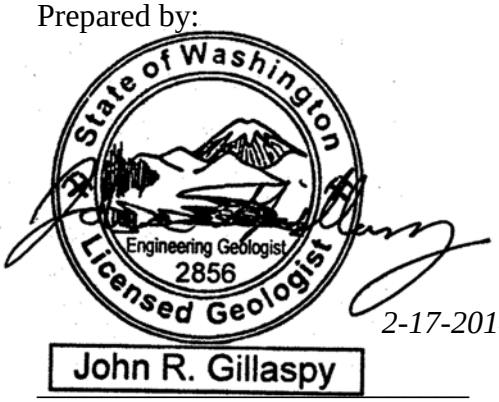
Truck City Site

3228 Old Highway 99 South
Mt. Vernon, Washington

Prepared for:

Skagit County
1800 Continental Place, Suite 100
Mount Vernon, Washington 98273

Prepared by:



2-17-2014

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February 17, 2014
MTC Project Number: 13B093-02

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1 Executive Summary

At the request of Skagit County, Materials Testing and Consulting, Inc. (MTC) has performed a Phase II Environmental Site Assessment at the Truck City site, located at 3228 Old Highway 99 South, Mount Vernon, Washington. This assessment was prepared in general accordance with American Society of Testing and Materials (ASTM) *Standard Practice for Environmental Site Assessments: Phase II ESA Process* (ASTM E1903-11), and current standard industry practices.

The property is under consideration for purchase and redevelopment as a correctional facility, along with adjoining undeveloped parcels to the south. On behalf of the client, MTC completed a Phase I ESA (October, 2013), identifying recognized and potential environmental conditions (RECs) and providing recommendations for further assessment. The purpose of this Phase II ESA was to evaluate RECs identified in MTC's Phase I ESA, to provide sufficient information regarding the presence, nature, and extent of contamination for assisting the client in making informed decisions about the property. Where applicable, this study is also intended to provide the level of knowledge necessary to satisfy the innocent purchaser defense under CERCLA.

The property has been operated as a commercial truck stop since the 1950's, including fueling and service stations and associated businesses (restaurants, stores, washes, truck parking). Standard Oil Co. developed the site and operated it until the mid-1970's when a structure fire claimed the main buildings, then the site was reconstructed in the late 1970's. Following a 1989 discovery of subsurface fuel release, a 1993 remediation occurred with substantial removal of petroleum-impacted soil and groundwater as well as original tank and pump installations concentrated at the west end. Due to site constraints, an unknown amount of impacted soil and groundwater was left on site, and no monitoring followed. Surface releases of fuel spills were examined in 1999 and 2005. In 2006, a Phase II ESA was performed for the current owner which did not encounter affected soil or groundwater, although the scope was limited.

Potential RECs assessed in the Phase II ESA included: current presence and extent of subsurface petroleum contamination on site from past LUST releases, the potential impact from active USTs and surface releases, possible petroleum and metals migration in groundwater from up-gradient sources, and undiscovered USTs or other underground installations that may remain from historic site use. This assessment has not included an evaluation of existing building structures for the presence of asbestos containing materials (ACM) or lead containing paint (LCP).

Phase II ESA exploration activities conducted included a geophysical survey (Ground Penetrating Radar), advancement of eight direct-push borings, installation of three temporary monitoring wells for groundwater sampling, and supplemental shallow soil sampling. Soil samples from each borehole were analyzed for hydrocarbon contamination via appropriate methods (HCID or NWTPH-Gx & Dx) selected based on PID field screening results, and metals concentrations (RCRA 8 Metals) were analyzed at select representative locations. Groundwater sample sets were analyzed for hydrocarbon (NWTPH-Gx & Dx) and metals concentrations.

MTC's GPR survey did not find evidence of historic tanks or major utilities, but a decommissioned waste oil tank may reportedly reside under the store. No petroleum-impacted soil or groundwater was discovered exceeding MTCA Method A cleanup standards at locations explored. No hydrocarbons were detected in groundwater at temporary wells spaced across the site. Results from the majority of the site with no hydrocarbon detection suggest active USTs and up-gradient sources have not impacted the site. Two instances of elevated metals analytes are considered isolated anomalies. No major effects of surface spills were discovered in shallow soils at locations explored, although affected media was enclosed in the stormdrain system.

Impacted soil was found at two western locations including at the base of the prior remediation. Diesel- and oil-range concentrations found were generally low (100 mg/kg range versus 2000 mg/kg limit). Gasoline-range concentration at a single location approached MTCA Method A limits (74 mg/kg versus 100 mg/kg limit). No BTEX was detected. We interpret this is likely a remnant of the prior release history, and may be considered a *historical* REC if concentrations are known to be localized and relatively low, assuming all sources have been removed.

Given that contamination remains after 20 years since remediation, we cannot rule out the potential for higher levels of petroleum product existing locally that were not encountered via the distribution of survey explorations. Targeted supplemental study of the western area would provide a greater understanding and assurance as to the present-day extent of petroleum contamination, potentially including the following discretionary courses of action:

- Additional groundwater sampling via existing permanent monitoring wells, if viable.
- Supplementary subsurface explorations and soil analysis among the western zone.

MTC recommends that the client consider the findings of this Phase II ESA and the potential benefits of additional exploration in light of the proposed project and site selection. MTC recommends that we be contacted at the client's discretion to discuss supplemental services.

2 Introduction

2.1 Purpose

Materials Testing and Consulting, Inc. (MTC) has been contracted by the client, Skagit County, to conduct a Phase II Environmental Assessment (ESA) of the Truck City site, an operational truck stop and fueling station located at 3228 Old Highway 99 South, Mt. Vernon, Washington 98273 subsequently referred to in this report as "the property". This assessment was prepared in general accordance with the American Society of Testing and Materials (ASTM) *Standard Practice for Environmental Site Assessments: Phase II ESA Process* (ASTM E1903-11), as well as current standard industry practices.

MTC understands the property has been selected as one of two alternatives under evaluation for purchase and redevelopment for the proposed Skagit Correctional Facility (Skagit Jail). MTC completed a Phase I Environmental Site Assessment (October 21, 2013) for the property and several adjacent undeveloped parcels, which identified recognized and potential environmental conditions (RECs) and provided recommendations for further site assessment. A brief review of the identified RECs, as well as a summary of pertinent information including prior site assessments and documented environmental interactions, is provided for reference herein.

The purpose of this Phase II ESA was to evaluate the RECs identified in MTC's Phase I ESA in order to provide sufficient information regarding the presence, nature, and extent of contamination to assist the client in making informed decisions about the property. Where applicable, this study is also intended to provide the level of knowledge necessary to satisfy the innocent purchaser defense under CERCLA.

2.2 Scope of Services

The scope of work for this assessment was selected in general accordance with the American Society of Testing and Materials (ASTM) *Standard Practice for Environmental Site Assessments: Phase II ESA Process* (ASTM E1903-11), as well as current standard industry practices for Phase II Environmental Site Assessment. The site-specific scope detailed herein was executed for the purpose of evaluating recognized environmental conditions (RECs) known or suspected to be present on the subject property. The scope of work is consistent with the

findings and recommendations of MTC's Phase I Environmental Site Assessment (October 21, 2013) completed for the subject property.

MTC's scope of services has included the following tasks:

- Review of Existing Information and Project Scoping
- Site Reconnaissance with Geophysical Survey (Ground Penetrating Radar)
- Executing Subsurface Explorations
- Soil Sampling (Push-probe and supplemental Surface/Hand Auger)
- Groundwater Sampling
- Laboratory Chemical Analyses
- Evaluation of Field Data and Analytical Results
- Report with Findings and Conclusions

2.3 Special Terms and Conditions

This assessment has not included an evaluation of environmental concerns existing on the site pertaining to the following: the possible presence of asbestos containing materials (ACM) or lead containing paint (LCP) in existing building structures. MTC understands that the client will be contracting a separate investigation for ACM and LCP survey, where applicable and at the client's discretion. The findings and conclusions presented in this report apply only to the RECs and potential RECs assessed as detailed herein.

2.4 Limitations and Exceptions of Assessments

This report has been prepared in accordance with generally accepted environmental assessment methods and practices, as referred to in ASTM E1903-11 *Standard Practice for Environmental Site Assessments: Phase II ESA Process*. No other warranties, expressed or implied, are made concerning the professional services provided under the terms of our contract and included in this report.

2.5 Limiting Conditions and Methodologies Used

No Environmental Site Assessment is able to eliminate all uncertainties as to property environmental conditions. MTC's investigation reduces, but does not eliminate, uncertainty regarding recognized environmental conditions. The sampling and analysis described herein has attempted, within the time and cost limitations of the scope of study, to provide a general representation of site conditions. However, any surface or subsurface sample collected for

analysis may or may not be representative of a larger population and thus the existing conditions in general. This assessment, including its findings and conclusions, employs professional judgment and site interpretations which are inherent to the process. Therefore, the findings and conclusions about the environmental conditions of the project site represent probabilities, not scientific certainties, and some level of uncertainty is unavoidable. The client should be aware that additional assessment activities may help to reduce the level of uncertainty.

Certain extenuating conditions can also be detrimental to the level of certainty within an assessment. Problematic subsurface conditions such as complex stratigraphy or hydrogeologic conditions, presence of variable fills and alterations from prior site development activities, and the potential for complex interaction of multiple contamination types and/or sources, may exist whether identified or unknown at the time of the interpretation. Limitations on site exploration locations due to buildings, utilities, and other obstructions as well as the intrinsic capability of subsurface testing methods and machinery employed also may contribute to uncertainties.

A Phase II ESA is site and time specific. It is applicable only to the site location for the given timeframe of the assessment. Field measurements, discoveries, data collected, and results of sample analysis represent site conditions at the time of field investigation. Therefore, the data and results presented herein may have a finite lifetime for accurate use and representation, depending on the intent and application of its usage. For considering its use beyond the original purpose and time of study, an appropriate timeframe for reliance on the findings of this study should be evaluated and at the discretion of the environmental professional.

As is generally the case with Phase II ESAs, the appropriate inquiry and scope of exploration used in conducting this assessment shall not be considered exhaustive. A reasonable balance was achieved between the cost and time demands of conducting the investigation and the need to reduce the uncertainty of environmental conditions. The scope of investigation was determined while considering in combination the known or suspected environmental conditions of the subject property, the needs and requests of the client, and the appropriate level of investigation consistent with industry standard practices for assessment. If in the course of this Phase II ESA, hazardous substances or petroleum products are confirmed to be present on the site, further assessment may be recommended. The extent of additional work shall be at the discretion of the client upon considering the results presented herein, and undertaking or adjusting the degree of additional scope may be based on the client's acceptable level of certainty in order to become informed as to existing site conditions.

3 Background

3.1 Site Description and Features

The subject property is located at 3228 Old Highway 99 South on the east side of the road in Mount Vernon, Washington (See Location Map, Section 10.2). For the purposes of this study, the property is delineated as approximately the western two-thirds of the parcel fully inclusive of the active Truck City Truck Stop and associated developed facilities, with Skagit County Property ID P29546. Property boundaries are shown on the Site Plan Aerial Photo (Section 10.3). Sole vehicle access to the site is currently provided by northern and southern entrances along the west edge of the property bordering Old Highway 99.

3.1.1 Building Conditions and Existing Improvements

At present there are six permanent buildings located on the main parcel of the site. The buildings are currently being used or have recently been used for ongoing site operations and commerce including a retail shop and administration office, restaurant, truck wash, storage, office space, and a contractor's staging shop.

The single-story metal framed building located at the middle of the southern site boundary was constructed in 1957 and is reportedly used only for storage at this time. The five remaining buildings on the property were constructed in 1978. In the central portion of the study area is the truck wash building bordered to the south by the retail store and offices. At the west edge of the site is the truck scale and a small shed.

Active fueling stations are located primarily to the south of the retail store in the middle of the site. A secondary pump station is located approximately 50 feet west of the retail store. The active UST nest is approximately 20 feet east of the retail/office building, and consists of three 5,000-gallon Gasoline tanks and one 15,000-gallon Diesel tank. All active pumps are reportedly supplied from the single tank nest. Fueling utilities appear to extend westward from the south end of the tank nest, through the primary pump area then heading WNW to the western pump station.

3.1.2 Exterior Surface and Border Conditions

The western majority of the site is fully surfaced with asphaltic pavement in fair condition. The eastern approximately one-third of the site is surfaced by variably deteriorating pavement in generally poor condition and crushed rock presumably overlying or replacing broken areas of pavement. The parcel inclusive of the study area extends eastward unobstructed and is generally surfaced with crushed rock. East of the site is a landscape rock supply yard bordering the I-5 corridor.

The northern border of the site, where primarily shared with adjacent storage and greenhouse facility, is restricted by chain-linked fence with barbed wire and some areas of thick bordering vegetation. The southern border is undeveloped but generally lined with thick brambles. At its west end are several trees. Bordering land to the south is generally grass-covered. To the west of the site is Old Highway 99, a two-lane thoroughfare, followed by farmland acreage.

3.2 Physical Setting

3.2.1 Topography

Topography at the site and its immediate vicinity is roughly flat. Topographic profiles extending to the north, south, and west exhibit similar elevations to the subject property, with local variations most commonly due to site developments. Within the site, the surface has been visibly altered for building and parking development, although current grade may be similar to original grade. Topography of the site vicinity slopes very gently westward to southwestward and similar topography continues west to Britt Slough and the Skagit River. East of the site within approximately 0.5 miles, topography rises along the west flank of Little Mountain.

3.2.2 Geologic Summary

According to the *Geologic Map of the Mt. Vernon 7.5-minute quadrangle, Skagit County, Washington* published by the USGS (Open-File Report 81-105, D.P. Dethier and J.T. Whetten, 1981) geology of the site vicinity and low lying areas to the west, north and south are comprised of Quaternary alluvium (Qa) deposited by the Skagit River system. East of the project area, as topography rises, deposits are mapped as Quaternary glacial deposits (Qe, Qvt) of the Everson Interstade and Vashon Stade. Alluvium of the Skagit River valley is generally described as sorted and interbedded clay, silt, and sand deposits with lesser occurrences of coarse sand and cobbly gravel.

Shallow soils at the western majority of the site are mapped by the NRCS Web Soil Survey as *Sumas Silt-Loam,* formed from alluvium and generally consisting of silt loam to silty clay loam becoming coarse sand with depth. The *Sumas Silt-Loam* unit is poorly drained and classified as Hydrologic Group C, with the depth to seasonal high groundwater ranging from 1.0 to 3.0 feet BPG. The east portion of the site is mapped as *Field Silt-Loam,* generally silt loam becoming stratified loamy fine sand to sand with depth. *Field Silt-Loam* is typically moderately well drained and classified as Hydrologic Group B, with the depth to seasonal high groundwater ranging from 3.0 to 4.0 feet BPG.

MTC's prior Cursory Geotechnical Evaluation (October 8, 2013) conducted at the property and adjacent sites to the south documented alluvial soil conditions consistent with published sources. Typically to 20 feet BPG or greater, soils consisted of interbedded silty sand, silt horizons, and lenses of coarse sand to sand with silt. This stratigraphy is representative of flood plain deposits in an active, evolving river basin. Groundwater in the summer season was encountered at approximately 6 to 8 feet BPG, with evidence of mottling extending as shallow as 3 feet BPG at some locations.

3.2.3 Hydrogeologic Summary

A full delineation of groundwater flow direction and gradient, as well as monitoring for seasonal fluctuations, was outside the scope and timeframe of this investigation. Hydrogeologic conditions for the property and its immediate vicinity were inferred from MTC's prior geotechnical studies completed at the site and at nearby properties as well as from the findings of the current investigation and prior studies, as discussed herein. In addition, available geologic and topographic maps and regional well log data were reviewed as readily available. Based on this information it is likely that local near-surface groundwater flow is directed in a roughly westerly to southerly direction in the immediate vicinity of the subject property. Actual flow directions may vary seasonally, and may also be affected by local alterations in site drainages and subsurface installations (i.e. utility trenches, deeper excavations for underground tanks).

The Skagit River is approximately 1.25 miles away to the west and northwest of the site. Britt Slough is located approximately 0.25 miles away to the west. The entirety of the site is mapped within the 100-year flood plain.

3.3 Site History and Use

3.3.1 Current Use of Site

The property is used commercially as a gas station, truck stop and truck wash, restaurant, and small retail store. Active public areas and associated passenger car parking occupy the western half of the site. The east portion is primarily used as short-term large truck and trailer parking, which continues eastward out of the prescribed study area. The northeast and southeast buildings are reportedly used privately for a contractor's staging garage and storage facility, respectively.

3.3.2 Past Use of Site

The following information is consolidated from sources including MTC's recent Phase 1 ESA, conversations with the current owner, and site historical summaries provided within prior site documents reviewed in the course of this study.

Prior to development, the site vicinity was generally rural farmland with sparse residences and large spans of undeveloped acreage. Development of the site apparently began in the early 1950's, at which time it was operated as a truck stop and gas station with fueling facilities and a restaurant. In the mid-1970's, a structure fire claimed the truck stop building. In 1978, the site was reconstructed to its current configuration and renewed use of the existing underground tank nests, both east of the current store and near the west end of the site.

In the early 1990's the western tank nests were removed along with the west auto fuel station, accompanied by remedial action removal of petroleum-affected soil and groundwater in the vicinity of the tanks, as discussed below. A small underground tank (suspected historical use for waste oil and/or heating oil) was reportedly decommissioned in place and filled with sand beneath the retail store footprint, according to the current owner's common knowledge. Review of site UST permits confirms the presence of a small waste oil tank cleared of product and exempted from removal prior to 1996, presumably still on site. The eastern tank set was upgraded in 1998 to the configuration in use today, according to active UST permits.

3.4 Adjacent Property Use

3.4.1 Current and Past Use of Adjoining Properties

Current uses for the adjoining properties include the following:

- North: Residences at northwest corner, commercial greenhouse and garden supply wholesalers (*Skagit Gardens*)
- West: Old Highway 99, agricultural land, and railroad corridor.
- East: Additional truck parking lot for Truck City, landscaping supply yard (*Northstar Stone & Landscaping*), and I-5 corridor.
- South: Undeveloped partially forested and cleared land, new paved parking lot to southeast (under development). Further south, Suzanne Lane and propane company (*Northwest Propane*).

Past uses of adjoining properties include the following:

- North: Commercial greenhouse after approximately 1990. Prior adjacent use apparently for residential and agricultural purposes, vacant land.
- West: Long-standing use as agricultural land, a railroad corridor, and Old Hwy 99.
- East: Development linked with subject property. Truck parking yard expanded eastward in 1970's and 1980's. Landscaping supply to east opened after 2006.
- South: Undeveloped or agricultural land prior to approximately 2000.

3.4.2 Surrounding Area

The site vicinity appears to have been historically used as rural farmland or vacant until around the 1970's or 1980's. The site vicinity is within the railroad corridor that has existed since the early 1900's. Since the construction of the interstate corridor, I-5, in the early 1950's the land adjacent to the corridor has typically been used for light commercial and agricultural purposes. In addition to the subject site, other properties in the vicinity presently and/or in the past appear to have been used as fuel stations.

As reported in MTC's Phase 1 ESA, the *Hallmark Refining Corp.* is located approximately 1/8 miles southeast of the property, across I-5 at the intersection of Cedardale Rd and Dale Ln. The facility is registered for hazardous waste generation (RCRA-LQG), storage, and management, and is permitted to discharge wastewater to state waters and privately owned treatment works.

The site is of potential concern to environmental conditions of the study site due to its proximity and potential up-gradient relationship considering inferred vicinity groundwater flow direction.

3.5 Summary of Previous Assessments

In addition to conducting the recent Phase 1 ESA (MTC, October 21, 2013) which included the study site and adjacent land to the south considered for purchase, MTC has obtained and reviewed prior environmental assessments and site monitoring reports regarding site environmental conditions beginning in 1989. While covered in some detail in the Phase 1 ESA, pertinent findings and related events are summarized in order of occurrence below. Primary referenced sources include:

- Hydrocarbon Contamination Assessment (Applied Geotechnology; November, 1989).
- Interim Action Cleanup Report (Washington Department of Ecology; January, 1993).
- Phase II Site Characterization Report (Associated Environmental Group, LLC; November, 2005).
- Various correspondences and file notes (Public Disclosure Request Results - Skagit County, Department of Ecology; 1989 to 2013).

3.5.1 Initial Assessments and Remedial Action

A Hydrocarbons Assessment Report was filed on November 13, 1989 (Applied Geotechnology Inc.), which documented the presence of petroleum contamination in the soil and groundwater associated with the several western tank nests constructed in close proximity to each other. At the time, an auto gas pump island was present at the west end of the site next to the truck scale. The western sets of tanks had been in use for the known history of the site for both diesel and gasoline, and issues were evident. The survey study advanced borings primarily among the area west of the present-day store and main pump station, and upon finding extensive PCS installed monitoring wells. Levels of gasoline and diesel product were found affecting soil and groundwater to levels several times state standards, likely from multiple source tanks. The study concluded that given the permeable shallow aquifer, product could be highly mobile moving westward and southwestward, and a large scale remediation would likely be incurred to address removal of affected soil and groundwater. Cursory testing of two locations in the vicinity of the present-day tank nest east of the store revealed minor levels of fuel, likely diesel, present only at shallow levels. At that time, the eastern tank nest was exclusively diesel, a diesel repair shop

was present north of the store, and a surface diesel spill had occurred in 1987. However no major action was anticipated for the east tank nest.

The Interim Action Cleanup Report (Department of Ecology; January, 1993) documents cleanup efforts including removal of two tank nests and associated piping at the western portion of the site. Three 5,000-gallon tanks were removed from each nest, located approximately north and south of the present-day auto parking median. Two additional 500-gallon tanks were also discovered and removed. During excavation a septic tank containing petroleum-affected sludge (generally waste oil) was discovered and removed from eastward of the fuel tanks. The septic tank was reportedly linked to the stormwater system and suspected to be a significant contributor to the extensive contamination discovered.

The cleanup efforts, monitored by the Washington Department of Ecology (DoE), removed over 6,000 cubic yards of affected soil. The excavation was extended to approximately 9 feet BPG to clean soil (1 to 2 feet below groundwater level) and laterally north, south, and east until petroleum contamination was apparently minimal or absent. Confirmation sampling recorded low or non-detected levels of fuel remaining. Most of the west border near the truck scale and Old Highway 99 also recorded low to non-detected final results. However, near the center of the truck scale excavation ceased with PCS remaining due to access restrictions, containing gasoline and BTEX exceeding MTCA Method A standards.

During the course of the excavating, approximately 90,000 gallons of contaminated water and free seeping product were pumped from the excavation as it recharged quickly. Final sampling of water present just before backfilling revealed gasoline and BTEX components present well in excess of MTCA Method A standards. Due to the absence of down-gradient wells to sample, the report was inconclusive regarding the extent of groundwater contamination outside of the excavated zone or the potential for other undiscovered sources upgradient on the site.

Soil spoils were spread within a lined laydown area at the northeast corner of the site for aeration. The DoE continued to monitor the pile over the course of several years. Once attenuated to acceptable levels, spoils may have been spread over the east end of the site upon DoE approval. In 1994, the DoE ranked the site for inclusion in their site registry. Truck City was given a ranking of 3 (1 being highest risk, 5 being lowest). In 1997, a series of monitoring wells were installed in the vicinity of the prior cleanup. However due to budget issues no monitoring was implemented by the state, and to our knowledge no private efforts ensued.

3.5.2 Phase II Environmental Site Assessment

In 2005 a Phase II ESA was performed by Associated Environmental Group, LLC (AEG) on behalf of the prospective buyer and now current owner. The study was performed as a general survey to determine the extent of soil and groundwater contamination remaining at the Truck City site. Eleven push-probe locations were conducted in total; seven were spaced along the eastern and southern access lanes next to the existing UST nest and main pumps, and two each were performed within the north and south driving lanes near the west end of the site. No locations were conducted within the estimated extent of the prior remediation excavation.

The study presented the results of NWTPH-HCID analysis on twelve selected soil samples and twelve groundwater samples (one from each location). All results were reported as Non-Detected for gasoline, diesel, and oil-range hydrocarbons. AEG also reported sampling of three monitoring wells in 2003 though no petroleum hydrocarbons were detected (no data was included for review). Prior sampled locations included wells near the north end of the truck scale, near the southwest site corner, and near the southwest corner of the main pump station. Based on these results, the study concluded that no additional environmental investigation was warranted.

However, MTC notes that Method Detection Limits (MDL) for HCID-groundwater analyses presented in the 2005 Phase II ESA are higher than used for other targeted analyses (NWTPH-Gx, Dx). This is significant especially in the case of Diesel- and Oil-range hydrocarbons which list MDLs of 0.5 mg/L, coinciding with the MTCA Method A cleanup level for groundwater media. Therefore, Diesel- and Oil-range hydrocarbons may have been present to near cleanup levels without detection, and it is possible that Gasoline-range hydrocarbons may have also been detected at lower levels in groundwater samples by employing a different analysis.

3.5.3 Other Events and Interactions

In addition to subsurface assessments, a surface water sampling event occurred at the site in March, 1999, performed by the Skagit County Health Department in communication with the DoE. The event included nine (9) samples from various storm drain locations, catch basins, and release points among the property and its southern perimeter where the system adjoined Maddox Creek. Documentation indicates the event was prompted by human detection of petroleum odors as well as a locally visible sheen at some open drains and discharges. Laboratory analyses indicated all locations having detectable amounts of diesel- and oil-range product, ranging in

concentration from 0.5 to 16.0 mg/L for diesel-range and 0.8 to 7.5 mg/L for oil-range hydrocarbons. Upon integrity testing of the single diesel tank remaining on site, a tank leak was ruled out as a contributing factor. Surface spills and remnant sources within the existing stormwater system were suspected. Further notes and correspondences suggest various stormwater updates and flushing were considered to help address the potentially chronic issue. MTC did not locate records as to final determinations made or remedies implemented after the 1999 event.

Washington Department of Ecology files were reviewed regarding a spill event at the property in February, 2005. An unknown volume of diesel fuel was released due to human error; the USTs were not suspected to be of issue. Petroleum-affected stormwater entered the site's drainage system and was apparently released into the Maddox Creek drainage based on sampling results. Some affected soil and water was removed from the discharge venue and downstream vicinity, and the issue appeared to abate. Interactions apparently ceased, suggesting the event was an acute occurrence.

A 2012 Skagit County Public Health Local Source Control routine check-up visit documented recent observed site conditions and operational practices relating to stormwater. The letter states the truck parking area of the site appeared clean and free of spills evidence, and that the owner reported routine monitoring of catch basin stormwater was meeting site permit requirements. Several relatively minor points were noted, including potentially updating the stormwater system with an oil/water separator and updating the restaurant's outdoor cooking waste oil tanks observed to be in poor condition. MTC is not aware if any actions were taken by the owner. No sampling was apparently conducted as part of the routine visit.

3.5.4 MTC's Phase 1 ESA Recommendations

MTC reviewed the above described documents and completed standard Phase 1 ESA research and reconnaissance. Based on the aggregate of prior documents, potential surrounding factors, and existing observed conditions, MTC recommended a Phase 2 ESA be conducted. A limited exploratory environmental sampling program was recommended with the goal of assessing the general presence and extent of potential petroleum contamination throughout the site from past known conditions and current use, potentially addressing and including the following items:

- Survey explorations with soil and groundwater sampling for subsurface petroleum and metals contamination including specifically:

  - Western zone of prior excavation remediation and adjacent native areas.
  - Central portions in active use including existing pumps and tank nest vicinity.
  - Eastern boundary area of proposed property purchase, assessing for potential contamination from up-gradient sources.
- Additional near-surface soil and water sampling as deemed appropriate based on visible conditions at the time of the study.
- Geophysical survey efforts to assess the potential presence of remaining undocumented underground storage tanks not discovered during prior site remediation.

MTC's recommended approach of the Phase 2 ESA was to perform a reasonable level of subsurface investigation with coverage throughout the site in order to more confidently provide an overview assessment of site conditions in full. Based on the results of the initial program, better informed decisions could be made by the client as to the viability of the property for purchase and redevelopment, as well as the benefit or necessity of additional targeted explorations to address specific concerns or discoveries.

4 Phase II Activities

4.1 Scope of Assessment

MTC developed the scope of work for this Phase 2 ESA following the intent of recommendations provided in MTC's Phase 1 ESA and to address the cited environmental concerns. A proposal was issued to the client that included scoping of the approximate amount of test locations and time allotment for field exploration, plus a general plan for chemical analysis. The actual test locations were to be determined by reconnaissance, access, and geophysical survey (GPR). The actual schedule of chemical analysis was also to be determined based on the results of field screening. The scope of study was refined after project discussions with the client to be consistent with the allowable budget and timeframe of the study.

4.1.1 Exploration Plan

Site explorations positioned throughout the site were determined to be conducted within a single field day utilizing compact direct-push technology provided by a third party contractor and directed by MTC personnel. A total of eight test locations were proposed to be advanced to a typical depth of 15 feet below present grade (BPG), including continuous sampling of subsurface soils via internal push-probe sleeves and groundwater level estimated from soil moisture content confirmed with down-hole measurement. Field screening for evidence of potential hydrocarbon product using a Photo-Ionization Detector (PID) was planned to be conducted at regular intervals of at minimum approximately every 5 feet (each sleeve) of retrieved sample, with special emphasis on soils from the vadose zone and near the existing groundwater table.

The schedule and push-probe methods of field exploration allowed for insertion of temporary pvc well screening to be retrieved and abandoned in the single day. A total of three temporary well locations were selected prior to field work for optimum coverage; near the operational tank nest, near the southeast corner of the project area, and among the west end of the site. A minimum of three groundwater sample locations were anticipated, with the capability for additional locations if field findings dictated.

A Ground Penetrating Radar (GPR) survey was planned in conjunction with subsurface explorations to provide broad site coverage in assessment of potential undiscovered tanks. The GPR survey was proposed to be done prior to field activities to aid in selection of test locations.

4.1.2 Sampling and Chemical Analysis Plan

Targeted potential contaminants for the site in entirety were gasoline-, diesel-, and oil-range petroleum hydrocarbons in soil and groundwater. Heavy metals analytes including lead in soil and groundwater were a potential concern due to the long-running history of site use as a fueling and service station as well as from up-gradient sources. Laboratory analyses selected for use included hydrocarbon screening (NWTPH-HCID) for petroleum presence, quantitative gasoline- and diesel/oil-range analysis (NWTPH-Gx and NWTPH-Dx), and heavy metals screening (RCRA 8 Metals).

The proposed sampling plan prescribed that representative soil samples from each borehole be collected for HCID screening and confirmation purposes, at minimum one per hole. Samples were planned to be taken at approximately the vadose zone and groundwater table interface, or as possible based on sample recovery. RCRA Metals soil samples were planned at minimum to be collected from an eastern and western test location as well as near the operational tanks. Quantitative analysis (Gx and Dx) samples were planned to be taken at locations and depths registering PID results and/or visual or olfactory evidence of potentially contaminated soils if discovered. Groundwater sample sets were planned to include NWTPH-Gx, –Dx, and RCRA Metals analyses. Any supplementary shallow sampling, if collected via surface retrieval or hand augering, was planned to follow the same procedure for field screening and test selection.

4.1.3 Deviations from the Proposed Plan

There were no deviations from the proposed plan of work defined prior to commencing field activities, excepting minor adjustments made based on selection of test locations and field screening results. These changes were anticipated in the nature of the plan of study.

Aside from prior known limited access to certain areas of the site due to permanent obstructions, utilities, and existing structures, no other limiting factors were encountered that would have dictated eliminating or significantly relocating test locations.

Sampling of soil and groundwater media were successful at all attempted locations. Where noted on field exploration logs, poor sample recovery occasionally limited sample availability. However this phenomenon did not occur to a potentially limiting extent.

4.2 Field Explorations and Methods

4.2.1 GPR Survey

MTC's Geophysical survey performed using Ground Penetrating Radar was conducted on the afternoons of January 7th and 8th, 2014, preceding subsurface explorations and environmental sampling. Weather conditions during the GPR survey were rainy with temperatures in the low 40's, and puddling was common on the site surface.

A site map with approximate survey lines is provided in Figure 4, Appendix 10.6. Following the map is a commentary on the general function and interpretation of GPR data for the benefit of the reader. Representative GPR logs are also attached in Appendix 10.6, and discussed in the results section below.

Profile locations were selected in order to provide regular coverage in areas where the Phase I ESA identified possible historical locations for USTs, and generally to provide additional subsurface information about the project site. Profile numbers 114 to 132 were acquired on January 7, 2014, at various locations around the western portion of the study area for survey of the vicinity under prior use for fueling stations and tank nests. Profile numbers 133 to 146 were acquired on January 8, 2014, primarily for mapping utilities relative to the planned direct-push boring locations. However, profiles 133 and 141 were also performed to detect possible objects and were acquired in the area just east of the active USTs. The GPR survey was not conducted within existing structures.

4.2.2 Test Borings

Site exploration activities were performed on January 13, 2014, and involved advancing a total of eight boreholes using a direct-push track-mounted probe machine provided by a third-party contractor. Exploration operations were directed by MTC personnel and test locations were selected prior to commencing work as discussed above. Borings were generally advanced to the contracted depth of 15 feet BPG, except in the case of location B-2 which was terminated early at approximately 11 feet BPG to place temporary monitoring well screening prior to caving. Boring locations were numbered in order of completion.

Borehole B-1 was advanced east of the south end of the operational tank nest. Borehole B-2 was advanced east of the northeast corner of the southeast building, near the southeast extent of the study area. Borehole B-3 was advanced west of the western pump station, in the northern

portion of the prior excavation zone. Borehole B-4 was advanced near the southeast corner of the truck scale, just outside to the south of the prior excavation zone. Borehole B-5 was advanced between the north wall of the southwest building and southwest corner of the main pump station. Borehole B-6 was advanced near the north site boundary north of the operational truck wash building. Borehole B-7 was advanced east of the southeast corner of the northeast building, near the northeast extent of the study area. Borehole B-8 was advanced approximately 30 feet from the south boundary between the southwest and southeast buildings. Exploration locations are shown on the site plan aerial photo presented in Appendix 10.3, Figure 2.

Soil samples were recovered at 5 foot continuous intervals in disposable plastic sleeves. An MTC engineering geologist visually examined and logged soil characteristics and groundwater conditions using the Unified Soil Classification System, presented in Figure 3, Appendix 10.5. Soils at representative intervals (at minimum once per sleeve) were retrieved with a decontaminated stainless steel sampling spoon into plastic bags and sealed temporarily for volatile entrapment. Field screening for volatile organic compounds indicating potential hydrocarbon presence was performed on all bagged samples using a MiniRae 3000 PID unit prior to analytical sample selection. Complete results of borehole advancement and field screening are provided on our exploration logs attached in Appendix 10.5.

4.2.3 Temporary Monitoring Wells

Temporary PVC monitoring wells were installed at boreholes B-1, B-2 and B-3. The typical apparatus consisted of 1-inch diameter PVC with the bottom 5 feet slotted screen and the upper section solid PVC to surface grade. Screen depths are shown on the exploration logs in Appendix 10.5.

MTC returned to prepare and sample groundwater in the B-1 and B-2 wells at the end of the field day. Groundwater levels remained approximately as documented on the exploration logs. For location B-3, due to high truck traffic in the work area and borehole caving in coarse soils, a stainless steel screen was inserted for stability and evacuation began immediately. All wells were prepared by evacuating with a low-flow peristaltic pump for a period of approximately one half hour. Removed water volumes were approximately two to three gallons. Discharged water was notably silty at first, becoming relatively clear prior to sampling. Recharge was rapid throughout the evacuation process. Sampling was undertaken immediately. All wells were decommissioned promptly by removal of the apparatus and sealing with bentonite.

4.2.4 Supplemental Surface and Hand Auger Sampling

Supplemental hand auger samplings were also performed on January 13, 2014 by MTC personnel at selected locations along the southern property border. Two hand auger borings were advanced with a 4-inch diameter hollow-stem auger decontaminated between locations. Boring S-1 was located roughly 550 feet east of Highway 99 and advanced to a depth of 2.5 feet BPG, terminated early due to difficult advancement. Boring S-2 was located roughly 400 feet east of Highway 99, adjacent to the southeast building, and advanced to a depth of 5.0 feet BPG after encountering groundwater. Soil documentation, field screening and analytical sampling procedures were consistent with methods used for the direct-push boreholes. Exploration logs are attached in Appendix 10.5, with test locations shown on Figure 2 of Appendix 10.3.

MTC returned to the site on January 15, 2014 to collect a sample of media from the surface storm drain system. A representative location was selected east-southeast and visually down-gradient of the main pump station, as shown on Figure 2 of Appendix 10.3. Only minor free water was present at the time of the visit, although a sheen was visible and slight petroleum odor was present. A soil grab sample was collected and field screening resulted in a PID reading of 12 PPM. A portion of the screened sample was transferred to a sample jar for analysis.

4.3 Sampling and Chemical Analyses

4.3.1 Soil

Soil samples for chemical analysis were collected from each borehole as well as supplemental sampling locations based on the results of field screening and as prescribed in the above sampling plan. For each test location, the depth and requested analysis for analytical samples are noted on the exploration logs in Appendix 10.5. Soils were retrieved directly into sterilized sample jars via grab sampling with a stainless steel spoon. Sampling tools were cleaned within an aqueous detergent bath (Aquanox) and rinsed with distilled water between each sample depth and location to limit the potential for cross-contamination. Samples were immediately labeled, sealed and placed on ice in coolers for temporary storage, then delivered to Edge Analytical Laboratories upon completion of site sampling at the end of the day. .Standard Chain of Custody (CoC) procedures and documentation requirements were followed. Submitted CoC forms are attached with the complete laboratory results in Appendix 10.7.

Soil samples submitted for analytical laboratory analysis are catalogued in Table 1 of Appendix 10.1. Samples are listed by test location, depth, and requested analysis. Third-party analytical

laboratory services were performed by Edge Analytical of Burlington, Washington. Per the project proposal and sampling plan, soils analyses ordered included hydrocarbon screening (NWTPH-HCID) for general petroleum presence, quantitative gasoline- and diesel/oil-range analysis (NWTPH-Gx and NWTPH-Dx), and heavy metals screening (RCRA 8 Metals). NWTPH-Gx analysis for gasoline-range hydrocarbons included itemized benzene, toluene, ethylbenzene, and xylene concentrations (BTEX).

4.3.2 Groundwater

Three sets of groundwater samples were retrieved, one from each temporary monitoring well location as also noted on the exploration logs in Appendix 10.5. Groundwater samples were collected directly from the well installations on the day of field exploration using a low-flow peristaltic pump system and disposable tubing to prevent cross-contamination. General sampling and preservation procedures were followed as described above prior to delivery to Edge Analytical Laboratories by the end of the field day.

Groundwater samples submitted for analytical laboratory analysis are catalogued in Table 1 of Appendix 10.1. Per the proposal and sampling plan, each set of groundwater samples included quantitative gasoline- and diesel/oil-range analysis (NWTPH-Gx and NWTPH-Dx), and heavy metals screening (RCRA 8 Metals). NWTPH-Gx analysis for gasoline-range hydrocarbons included itemized benzene, toluene, ethylbenzene, and xylene concentrations (BTEX).

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5 Evaluation and Presentation of Results

5.1 Subsurface Conditions

5.1.1 Soil Conditions

Soil conditions to the depths explored in this study were relatively consistent and indicative of alluvial flood plain deposits beneath a developed site surface. At all borehole locations, asphalt and crushed rock surfacing overlay sand with gravel base fill to a depth of approximately 1.5 to 2.5 feet BPG. Typically, silty fine- to medium-grained sand was encountered beneath the fill, except at some perimeter locations (B-4, B-6, B-7, B-8) where stiff silt was present for approximately 1 to 1.5 feet thick over the silty sand. The silt appeared to be native subsoil and may have been stripped from the majority of the site during original grading and filling.

Soils remained primarily silty sand to the range of at least 10 feet BPG, interbedded locally with silt horizons and coarse sand lenses and often becoming more coarse-grained with depth. Several boreholes encountered a distinct layer of coarse sand to sand with silt of 3 to 5 feet minimum thickness beginning around 10 feet BPG (B-4, B-5, B-6, B-8). Boreholes B-1, B-5, and B-8 contacted a very soft silt to silty clay horizon at approximately 13 feet BPG extending to termination depth, while at B-7 this soil was encountered at 8.5 feet BPG. Based on MTC's prior findings from deeper site explorations, a similar alluvial stratigraphy extends to between 25 to 30 feet BPG.

The exception from typical conditions was observed at B-3 conducted in the north-central portion of the prior excavation zone. At B-3, layers of sand with gravel to gravel with sand were present to approximately 8 feet BPG, corresponding to the base depth of the remediation. Silty sand extended from 8 to 15 feet BPG.

5.1.2 Groundwater Conditions

Groundwater was encountered at all borehole locations. Approximate free water levels were recorded at all locations during borehole advancement. Water levels were noted within temporary monitoring well locations at the time of sampling and found to be consistent with initial estimates.

Depth to groundwater typically ranged from 4 to 6 feet BPG, with an average water level of roughly 5 feet BPG. Groundwater was exceptionally shallow at B-6 near the northern border, estimated at 3.0 feet BPG. Groundwater was deepest at B-3, encountered at approximately 8.0 feet BPG corresponding to the base depth of prior remediation excavation. Local variations in water levels may be partly a function of complex hydrostratigraphy among the interbedded sands and silts. In general, water levels were most shallow at the northern border locations (B-6, B-7), relatively intermediary at the southeastern and central test locations (B-1, B-2, B-8), and deepest at the western and southwestern locations (B-3, B-4, B-5). This implies a general site groundwater flow direction to the south and west, which is consistent with past site assessments and cited sources.

Mottling was typically observed in the silty sand at approximately 2.5 to 3.5 feet BPG with low-chroma coloration commonly occurring 1 to 1.5 feet above the observed groundwater levels. The investigation was commenced in the mid-winter season, however preceding conditions were abnormally dry. Measured water levels may represent a reduced wet-season phenomenon.

5.1.3 Field Screening Results

Results of field PID screening are shown on the exploration logs in Appendix 10.5 and presented by depth and location in Table 2 of Appendix 10.1. PID screening did not detect volatile presence at any sample depths and locations among the northern, central, and southeastern portions of the site (B-1, B-2, B-6, B-7, B-8). At southwestern (B-4) and south-central (B-5) locations, low PID readings of approximately 1 ppm were recorded on samples from approximately 7 to 9 feet BPG while samples above and below were effectively nil.

At borehole B-3, PID readings from approximately 8 to 9 feet BPG reached 62 ppm. Coincident was a moderately strong petroleum odor and visible sheen on latent water in the sample tube. The odor and sheen was present from approximately 7 to 11 feet BPG. PID readings from a sample at 12.5 feet BPG were effectively nil.

5.1.4 Results of GPR Survey

Results of the GPR survey are attached as profile logs in Appendix 10.6. The GPR profile that was acquired above the existing fuel tank and concrete apron yielded anomalies positive for the presence of four USTs and associated supply pipes (See Profile #114). Their interpreted depths ranged from 3.5 to 5.5 feet BPG. Subsequent GPR profiles that were acquired within the south

and west fueling islands and within the paved area between detected anomalies consistent with fuel supply pipe and other utilities as marked on the pavement and understood to be part of the currently operational station system. Signals suggesting the presence of other USTs or vessels similar to the existing fuel tanks were not observed.

Profiles acquired at the paved western area to the west of the store and restaurant buildings revealed signals consistent with MTC's knowledge of local soils as well as the previously excavated and remediated area (See Profiles #120 and #123). Anomalies were observed that were consistent with the truck scale platform, utilities that were marked on the surface, the approximate surface of the groundwater table, and weaker anomalies that may be associated with previous site construction disturbances or localized soil stratigraphy. Profile #123 did appear to encounter anomalies near the south end of the profile (in front of the restaurant) that appeared to have a larger diameter (approximately 2 to 2.5 feet). Given its proximity to the stormwater drop inlets and inferred pipe location, we interpret the anomaly to be associated with the stormwater system pipe or pipes. The profiles in the west area also encountered fuel supply pipes, where the profiles crossed near and between fueling islands in areas known to contain operational utilities.

Based on MTC's GPR survey with coverage as shown herein and interpretation using standard industry practices as well as baseline site measurements of active tanks and utilities, no apparent anomalies were encountered that were representative of potential buried structures, inactive utility lines, or historic undiscovered fuel tanks.

5.2 Analytical Results

5.2.1 Results of Soil Analysis

Laboratory results for soil analyses are summarized in Table 3 of Appendix 10.1. Complete results with associated laboratory QA/QC methods are attached in Appendix 10.7.

Results of the NWTPH-HCID analysis indicate that petroleum hydrocarbons were not present above practical quantitation limits (100 mg/kg) in sampled soils from borehole locations and depths that also did not register PID readings. This includes a majority of test locations representing the northern, central, and eastern portions of the property (B-1, 2, 6, 7, 8; S-2). The sample of sediment collected in the on-site storm grate registered estimated diesel- and oil-range concentrations of approximately 300 mg/kg and 200 mg/kg respectively. Note that the sample

was taken from material trapped within the drain basin and is not directly indicative of external conditions.

Detectable concentrations of gas-, diesel-, and oil-range petroleum products were discovered at borehole locations in the westernmost portion of the property (B-3, B-4). Washington State MTCA Method A soil cleanup standards for gas-range hydrocarbons and diesel- to oil-range hydrocarbons concentrations in soil are 100 mg/Kg and 2,000 mg/kg respectively, where no Benzene is detected and total BTEX is less than 1% of the gasoline mixture. No BTEX components were detected at the sample locations and depths. All discovered hydrocarbon concentrations were below Method A standards. Gasoline and diesel were present at B-3 to concentrations of 74 mg/Kg and 103 mg/Kg respectively, but not detected at B-4 where heavy oil was found to 118 mg/Kg. At B-5, PID readings were suggestive of low hydrocarbon concentrations, however quantitative analyses returned non-detected results for all ranges.

Results of RCRA Metals analysis on four soil samples show concentrations of metals analytes either not detected (ND) above practical quantitation limits or generally occurring below background levels. Arsenic, Selenium, and Silver were not detected at any sample location. Lead concentrations were notably at or below background levels. There were no occurrences of metals present in soils exceeding current MTCA cleanup standards. Background concentrations are published by the Washington State Department of Ecology, and referenced from *Natural Background Soil Metals Concentrations in Washington State* (Publication No. 94-115, 1994). The site vicinity is within Group "W", which includes Whatcom and Skagit Counties. For reference, the applicable background levels (90^{th} percentile) and Washington State MTCA standards for cleanup levels are shown in Table 3.

Cadmium concentration at a single location (B-4) exceeded published background levels for regional and statewide occurrence. A value of 1.86 mg/kg was documented in comparison to state background concentrations of 1.0 mg/kg and state cleanup levels of 2.0 mg/kg. However, no other metals analyzed returned elevated results. Cadmium was not detected at the other three test locations. The result appears to be an isolated phenomenon.

5.2.2 Results of Groundwater Analysis

Results of laboratory analyses conducted on groundwater samples are summarized in Table 4 of Appendix 10.1. Complete results with associated laboratory QA/QC methods are attached in Appendix 10.7.

All three sets of groundwater samples analyzed via NWTPH-Gx & BTEX and NWTPH-Dx did not contain detectable concentrations of the applicable petroleum range. BTEX was also not detected above minimum detection limits.

The results of RCRA Metals analysis indicate that analytes are generally present at levels which are proportional to soil background concentrations and the results presented herein for soil concentrations where sampled. Mercury and Silver were not detected above minimum reporting limits at any of the three sample locations. Lead concentrations were notably low. Arsenic levels were high at a single location, borehole B-1, whereas other analytes were not perceptibly elevated. At B-1 the Arsenic concentration was 5.9 ug/L (ppb), exceeding the MTCA Method A Soil Cleanup Standard. However this result appears to be isolated and anomalous in comparison to all other results, and therefore does not appear to be indicative of an environmental condition.

6 Discussion of Findings and Conclusions

6.1 Recognized Environmental Conditions

This study has assessed known past recognized environmental conditions (RECs) and potential RECs at the property. The known past REC is the petroleum contamination from on-site LUSTs that impacted subsurface soil and groundwater among the western portion of the site, necessitating a substantial cleanup excavation and concurrent removal of old UST nests and utilities. Related potential present-day RECs include the possible presence of remaining soil and groundwater affected by the prior release, as well as the possible presence of historic USTs or underground structures not discovered during the remediation. Other potential RECs evaluated by the sampling survey and document research have included the active USTs, site impacts from a history of surface spills, and possible petroleum and metals migration via groundwater from nearby up-gradient sources, This study has not included an evaluation of existing building structures for the presence of asbestos containing materials (ACM) or lead containing paint (LCP), which is outside the scope of MTC's Phase 2 ESA.

Some potential RECs are considered unlikely based on the results of this study. The geophysical GPR survey did not encounter evidence of remaining underground tanks or structures, excepting known operational tanks and utilities which appeared to be consistent with available documentation. Exploration and analytical results from the eastern and central portion of the site indicate up-gradient sources have not obviously impacted the site in general. No major lasting effects of isolated surface fuel spills were discovered in shallow soils at the locations explored, and it is likely that released product primarily enters the site's storm drain system rather than its subsurface as documented during prior site interactions.

Concerning the past REC and potential present-day REC at the western part of the site including the prior remediation zone, results presented herein show that some level of petroleum contamination presently remains. Soil samples from the two westernmost locations returned detectable gas-, diesel-, and oil-range product varying locally, however groundwater samples did not contain detectable hydrocarbons. This study has not identified petroleum hydrocarbon concentrations in soil or groundwater exceeding MTCA Method A cleanup standards.

6.2 Affected Media

Hydrocarbons were not detected in three groundwater sample locations dispersed throughout the property. Gasoline-, diesel-, and oil-range hydrocarbons were detected above laboratory minimum levels but below applicable cleanup levels in soil samples from two western exploration locations. The laboratory detection of petroleum-affected soil at these locations coincides with positive PID field screening results.

Isolated instances of elevated metals concentrations were discovered in soil and groundwater samples. In both cases, the elevated analyte was accompanied by otherwise apparent background levels of all other metals. At B-1 Arsenic was discovered in groundwater exceeding MTCA Method A standards (5.9 ppb versus 5.0 ppb standard). However, no other evidence was identified to suggest that groundwater has been affected, and the result may have been affected by sampling methods as discussed below.

6.3 Accuracy and Coverage of Investigation

The expressed purpose of this investigation was to provide a reasonable coverage of property conditions in general, in order to assess the likelihood of impact to the site from various events and sources as summarized above. This approach allows for a broad understanding of property environmental conditions and is suitable for large-scale interpretation as well as for identification of potentially widespread environmental contamination if present. For any subsurface investigation, a balance must be achieved between the amount of explorations and the lateral extent of coverage for a given scope of work to be suitable in meeting project goals at the time of the study. In the event that a greater detail of understanding is desired based on locally encountered conditions reported herein, additional targeted investigation may be warranted.

Site explorations were performed to depths surpassing the zone of seasonal groundwater fluctuation and determined to be sufficient for encountering suspected hazardous substances and petroleum products if present at the test location. The schedule of field screening and analytical soil sampling was also performed to a reliably diligent level at each test location.

Groundwater sampling methods via temporary monitoring wells allowed for rapid establishment and retrieval of water samples in order to assess for the general presence of contamination at points throughout the site during the field exploration visit. Potential limitations of this procedure may include 1) limiting the amount of time for groundwater conditions to stabilize

both horizontally as well as vertically within the water column prior to sampling, and 2) increasing the likelihood of water-born soil particles in samples due to rudimentary screening. The accuracy of assessing for low concentrations of hydrocarbons in groundwater may be affected by #1 if remaining dispersed in the water column during sampling, although detecting higher concentrations may be less affected. Siltation of the water column (#2) may potentially affect the accuracy of metals analytical results, when analytes may be present to background concentrations in the adjacent soil.

6.4 Conclusions

This Phase 2 ESA has identified petroleum-impacted soil present at the western portion of the site within and in close proximity to the prior remediation, an area which has experienced a long history of use as a fueling and service station. Documented contaminant present within site soils includes gasoline-, diesel-, and oil-range hydrocarbons, but no BTEX constituents were detected. Discovered concentrations were below MTCA Method A cleanup standards for unrestricted land use. Diesel- and oil-range product was relatively low compared to MTCA Method A standards (roughly 100 mg/kg versus 2000 mg/kg limit). Gasoline-range product concentration detected at a single location within the prior remediation zone was approaching but under MTCA Method A limits (74 mg/kg versus 100 mg/kg limit, assuming no BTEX presence).

It is likely that the levels and locations of contamination discovered represent remnants of the prior release, in which case the condition may be considered a *historical* REC if concentrations are localized and relatively low, and assuming sources have been removed. Although it is possible that a new or previously unidentified source could exist on the site, this probability is largely lessened by the general extent and documentation of prior remediation as well as the results of the current GPR survey. The remediation report admits excavation limitations in depth due to groundwater and laterally along the western extent due to the truck scale and highway, which caused some affected soil media to be left in place. We acknowledge that the remediation occurred over 20 years ago and such remnant conditions may have naturally abated further in that time. However given these discoveries via the exploration survey, the potential existence of more highly contaminated subsurface locations below the western portion of the site, both within the prior excavation zone and its vicinity, cannot be ruled out. A targeted approach to additional investigation would provide greater understanding and assurance as to the present-day extent and level of the petroleum contamination.

Additional environmental considerations may impact the cost of site redevelopment. To the best of our knowledge, a waste oil tank of size between 100 to 1000 gallons may have been decommissioned in place beneath the existing store interior. No information was uncovered as to whether the subsurface vicinity of the tank, if present, may be affected by petroleum release. This study did not attempt indoor explorations or explorations directly adjacent to the building and pumps in consideration of site utilities. The existing storm drain system may also contain affected soil and water media in enclosed basins and pipes, as evidenced by the results of soil sampling in the basin below an active storm grate. Generally, this system would not be expected to communicate with external environmental conditions, but given its age the potential exists for localized leakage. Over time the stormwater system may have conveyed affected surface water to other shallow areas of the site as well as bordering release points.

7 Recommendations

MTC recommends that the client consider the findings of this Phase 2 ESA and its environmental exploration survey of site conditions in light of the proposed project. MTC understands that the property is considered as one of two possible sites for full redevelopment as a correctional facility. If the property remains under consideration following submittal of this report, additional targeted investigation of the western portion of the site may be of interest to provide further assurance as to the present-day environmental conditions among the zone of prior remediation and its vicinity.

Based on the results of our Phase 2 ESA communicated herein, MTC recommends the following potential discretionary courses of action may be considered for further investigation:

- Additional groundwater sampling using existing permanent monitoring wells installed previously among the western zone, if determined to be in suitable condition, to more comprehensively screen for petroleum presence in site groundwater.

- Supplementary subsurface explorations among the western zone (amount and locations to be determined), including field screening and analytical soil sampling to provide a more detailed assessment of petroleum contamination remaining in site soils.

MTC recommends that we be contacted at the client's discretion to discuss additional environmental investigation services.

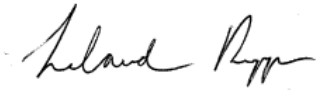
8 Closing and Signatures

MTC has performed a Phase 2 Environmental Site Assessment for the property at 3228 Old Highway 99 South in Mt. Vernon, Skagit County, Washington, currently operated as the Truck City Truck Stop. This report has been prepared in accordance with generally accepted environmental assessment methods and practices, as referred to in ASTM E1903-11 *Standard Practice for Environmental Site Assessments: Phase II ESA Process*. No other warranties, expressed or implied, are made concerning the professional services provided under the terms of our contract and included in this report.

This report has been prepared for the exclusive use of the client, Skagit County, and its consultants. No reliance on this report and its findings may be assumed by any other third party person or entity without the expressed written consent of Materials Testing and Consulting, Inc. and Skagit County.

Respectfully Submitted,
MATERIALS TESTING & CONSULTING, INC.

John R. Gillaspy, L.E.G.
Project Engineering Geologist



Leland B. Rupp, P.E.
Geotechnical Division Manager

9 References and Sources of Information

As cited in the contents of this report, MTC has relied on the following sources of information:

ASTM E1527-13 Standard Practice for Environmental Site Assessments: Phase I ESA Process

ASTM E1903-11 Standard Practice for Environmental Site Assessments: Phase II ESA Process

USGS Open-File Report 81-105: Geologic Map of the Mt. Vernon 7.5-minute quadrangle, Skagit County, Washington (D.P. Dethier and J.T. Whetten, 1981)

NRCS Web Soil Survey (accessed 1-28-14)

Phase 1 ESA: Truck City & Adjoining Parcels (MTC; October 21, 2013)

Cursory Geotechnical Evaluation: Truck City & Adjoining Parcels (MTC; October 8, 2013)

Hydrocarbon Contamination Assessment: Truck City Truck Stop (Applied Geotechnology Inc.; November 13, 1989).

Interim Action Cleanup Report: Truck City Truck Stop (Washington Department of Ecology; January, 1993).

Phase II Site Characterization Report: Truck City Truck Stop (Associated Environmental Group, LLC; November 30, 2005).

Department of Ecology files, 1989 - 2012: Truck City Truck Stop (Public Disclosure Request)

Skagit County Health Department Environmental Health files, 1989 - 2013: Truck City Truck Stop (Public Disclosure Request).

10 Appendix

10.1 Data Tables
- *TABLE 1*: List of Analytical Sample Locations
- *TABLE 2*: Field PID Screening Results
- *TABLE 3*: Soil Analytical Results
- *TABLE 4*: Groundwater Analytical Results

10.2 Location Map

10.3 Aerial Photo Site Plans

10.4 Photographs of Investigation

10.5 Subsurface Exploration Logs

10.6 GPR Results

10.7 Analytical Laboratory Results & COCs
- *Exhibit 1*: Laboratory Transmittal Letter
- *Exhibit 2*: Results of NWTPH-Gx Analyses
- *Exhibit 3*: Results of NWTPH-Dx Analyses
- *Exhibit 4*: Results of NWTPH-HCID Analyses
- *Exhibit 5*: Results of RCRA Metals Analyses
- *Exhibit 6*: Chain of Custody Forms

10.1 Data Tables

TABLE 1. List of Analytical Sample Locations

Location	Depth (BPG, ft)	Media	Analysis	Sample Date
B-1	6.5	Soil	HCID	1/13/2014
B-1	8.0	Soil	RCRA Metals	1/13/2014
B-1	N/A	Groundwater	NWTPH-Gx & BTEX	1/13/2014
B-1	N/A	Groundwater	NWTPH-Dx	1/13/2014
B-1	N/A	Groundwater	RCRA Metals	1/13/2014
B-2	7.0	Soil	HCID	1/13/2014
B-2	9.0	Soil	RCRA Metals	1/13/2014
B-2	N/A	Groundwater	NWTPH-Gx & BTEX	1/13/2014
B-2	N/A	Groundwater	NWTPH-Dx	1/13/2014
B-2	N/A	Groundwater	RCRA Metals	1/13/2014
B-3	9.0	Soil	NWTPH-Gx & BTEX	1/13/2014
B-3	9.5	Soil	NWTPH-Dx	1/13/2014
B-3	10.5	Soil	RCRA Metals	1/13/2014
B-3	N/A	Groundwater	NWTPH-Gx & BTEX	1/13/2014
B-3	N/A	Groundwater	NWTPH-Dx	1/13/2014
B-3	N/A	Groundwater	RCRA Metals	1/13/2014
B-4	7.0	Soil	NWTPH-Gx & BTEX	1/13/2014
B-4	8.0	Soil	NWTPH-Dx	1/13/2014
B-4	8.5	Soil	RCRA Metals	1/13/2014
B-5	7.5	Soil	NWTPH-Dx	1/13/2014
B-5	8.0	Soil	NWTPH-Gx & BTEX	1/13/2014
B-6	4.0	Soil	HCID	1/13/2014
B-7	5.0	Soil	HCID	1/13/2014
B-8	4.5	Soil	HCID	1/13/2014
S-2	4.0	Soil	HCID	1/13/2014
Mid-S Storm Grate	Grab	Soil	HCID	1/15/2014

TABLE 2. Field PID Screening Results

Location	Depth (BPG, ft)	Result (ppm)
B-1	5.5	-
B-1	9.5	-
B-1	14.0	-
B-2	7.5	-
B-3	8.5	**62**
B-3	12.5	**0.1**
B-4	4.5	-
B-4	7.5	**0.8**
B-4	12.0	**0.1**
B-5	5.0	-
B-5	9.0	**0.7**
B-5	13.0	-
B-6	3.5	-
B-6	7.5	-
B-6	12.0	-
B-7	4.0	-
B-7	8.0	-
B-7	12.5	-
B-8	5.5	-
B-8	9.5	-
S-1	1.2	-
S-2	1.2	-
S-2	3.5	-
Mid-S Storm Grate	N/A	**12**

TABLE 3. Soil Analytical Results

3.1 Petroleum Hydrocarbon Analyses:

Location	Depth (BPG, ft)	Analysis	Gasoline C_8-C_{12} (mg/kg)	Diesel C_{12}-C_{24} (mg/kg)	Oil >C_{24} (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)
B-1	6.5	HCID	ND	ND	ND	-	-	-	-
B-2	7.0	HCID	ND	ND	ND	-	-	-	-
B-3	9.0	NWTPH-Gx	**74.4**	-	-	ND	ND	ND	ND
B-3	9.5	NWTPH-Dx	-	**103**	ND	-	-	-	-
B-4	7.0	NWTPH-Gx	ND	-	-	ND	ND	ND	ND
B-4	8.0	NWTPH-Dx	-	ND	**118**	-	-	-	-
B-5	7.5	NWTPH-Dx	-	ND	ND	-	-	-	-
B-5	8.0	NWTPH-Gx	ND	-	-	ND	ND	ND	ND
B-6	4.0	HCID	ND	ND	ND	-	-	-	-
B-7	5.0	HCID	ND	ND	ND	-	-	-	-
B-8	4.5	HCID	ND	ND	ND	-	-	-	-
S-2	4.0	HCID	ND	ND	ND	-	-	-	-
Mid-S SG	Grab	HCID	ND	**302^**	**232^**	-	-	-	-
MTCA METHOD A CLEANUP STANDARDS			**100**	**2000**	**2000**	**0.03**	**7.0**	**6.0**	**9.0**
PQL - NWTPH-Gx & Dx *			43	50	50	0.04	0.17	0.17	0.34
PQL - HCID *			100	100	100	-	-	-	-

All values presented in units of mg/kg (ppm).
ND = Not detected by method Practical Quantitation Limits (PQL).
* PQL per analyses specified by laboratory.
^ Denotes sample taken from enclosed storm grate basin. Not representative of external conditions.

3.2 RCRA Metals Analysis:

Location	Depth (BPG, ft)	Arsenic (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)
B-1	8.0	ND	44.5	ND	22.2	11.3	ND	0.0122	ND	ND
B-2	9.0	ND	16.0	ND	10.2	4.71	ND	ND	ND	ND
B-3	10.5	ND	28.5	ND	16.4	8.05	3.75	0.0108	ND	ND
B-4	8.5	ND	98.7	**1.86**	47.9	25.0	4.86	0.0747	ND	ND
Background Soil Concentration (90%)		8.5	255*	0.1 (1**)	78.5	52.9	10.7	0.13	0.78*	0.61*
MTCA Method A Cleanup Standards		**20**	**^**	**2**	**2000** (III)	**^**	**250**	**2**	**^**	**^**

All values presented in units of mg/kg (ppm).
ND = Not detected by method Practical Quantitation Limits (PQL).
* Background concentrations taken directly from report referenced in text. Not included in current WA DoE published lists. All other background concentrations (90th percentile) published by WA DoE.
** Statewide background concentration provided for reference.
^ Denotes metal does not have a Method A cleanup level per current MTCA standards.

TABLE 4. Groundwater Analytical Results

4.1 Petroleum Hydrocarbon Analyses:

Location	Analysis	Gasoline C_8-C_{12} (ug/L)	Diesel C_{12}-C_{24} (ug/L)	Oil >C_{24} (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)
B-1	NWTPH-Gx & Dx	ND	ND	ND	ND	ND	ND	ND
B-2	NWTPH-Gx & Dx	ND	ND	ND	ND	ND	ND	ND
B-3	NWTPH-Gx & Dx	ND	ND	ND	ND	ND	ND	ND
MTCA METHOD A CLEANUP STANDARDS		**1000**	**500**	**500**	**5.0**	**1000.0**	**700.0**	**1000.0**
Minimum Detection Limit		12.5	90.0	200	0.1	0.2	0.21	0.1

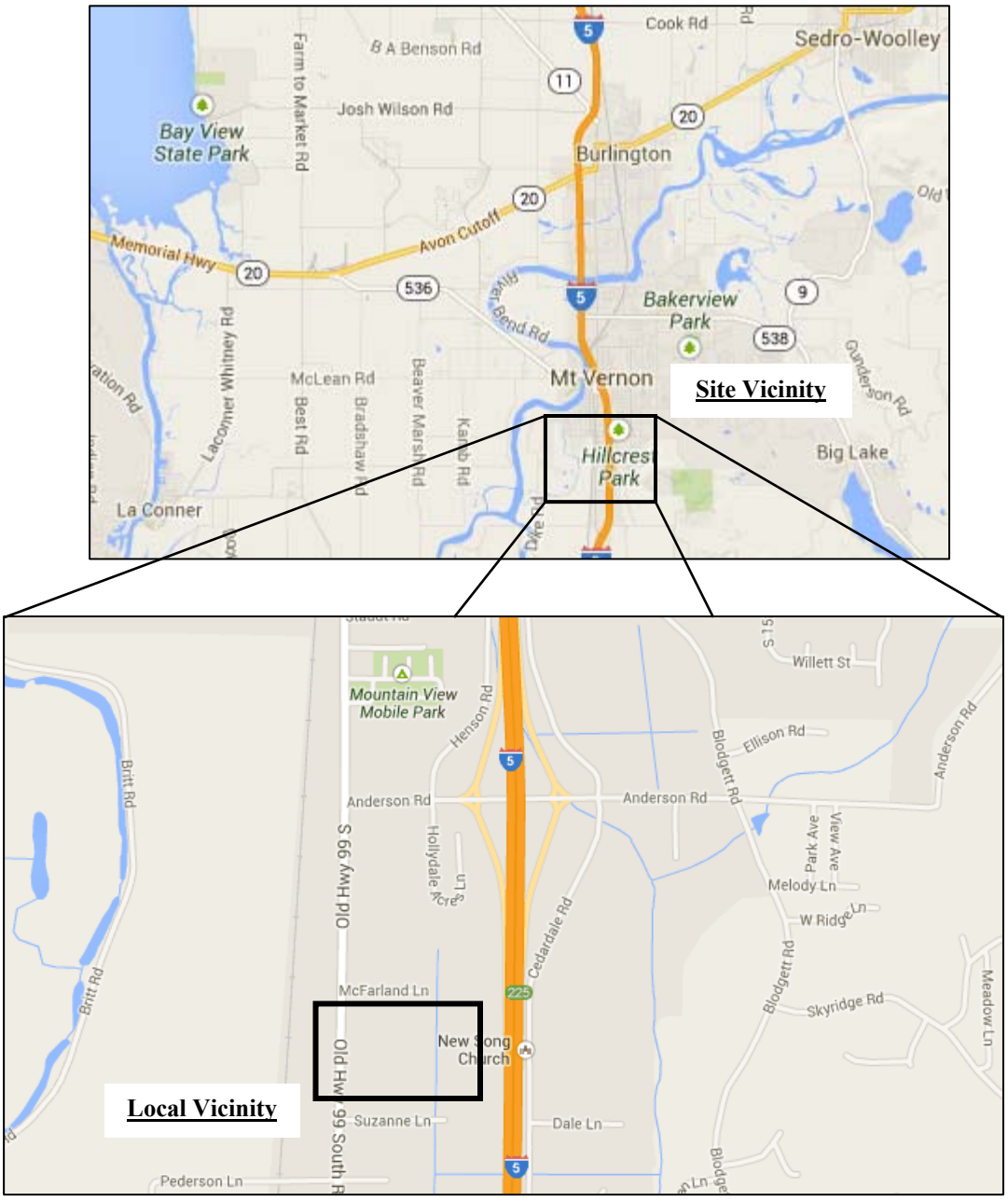
All values presented in units of ug/L (ppb).
ND = Not detected by method Minimum Detection Limits (MDL), listed above.

4.2 RCRA Metals Analysis:

Location	Arsenic (ug/L)	Barium (ug/L)	Cadmium (ug/L)	Chromium (ug/L)	Lead (ug/L)	Mercury (ug/L)	Selenium (ug/L)	Silver (ug/L)
B-1	**5.9**	96.0	0.025	9.2	0.4	ND	0.4	ND
B-2	2	59	0.02	2	1.3	ND	0.3	ND
B-3	1.5	42	0.23	10	0.55	ND	0.7	ND
MTCA Method A Cleanup Standards	**5**	**^**	**5**	**50**	**15**	**2**	**^**	**^**
Method Reporting Limit	1.0	1.0	0.12	1.0	0.5	0.2	2.0	0.2

All values presented in units of ug/L (ppb).
ND = Not detected by method Practical Quantitation Limits (PQL).
^ Denotes metal does not have a Method A cleanup level per current MTCA standards.

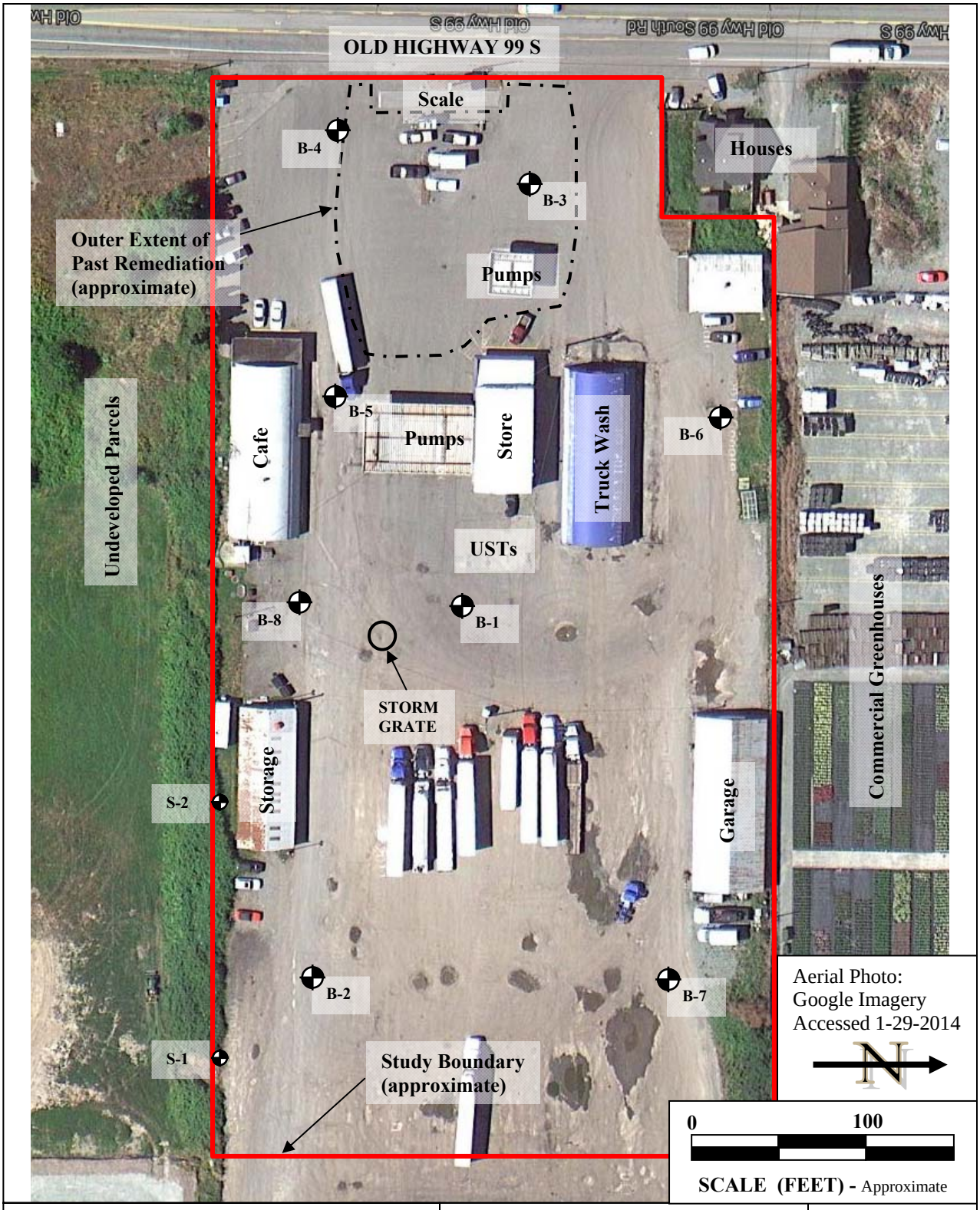
10.2 Location Map



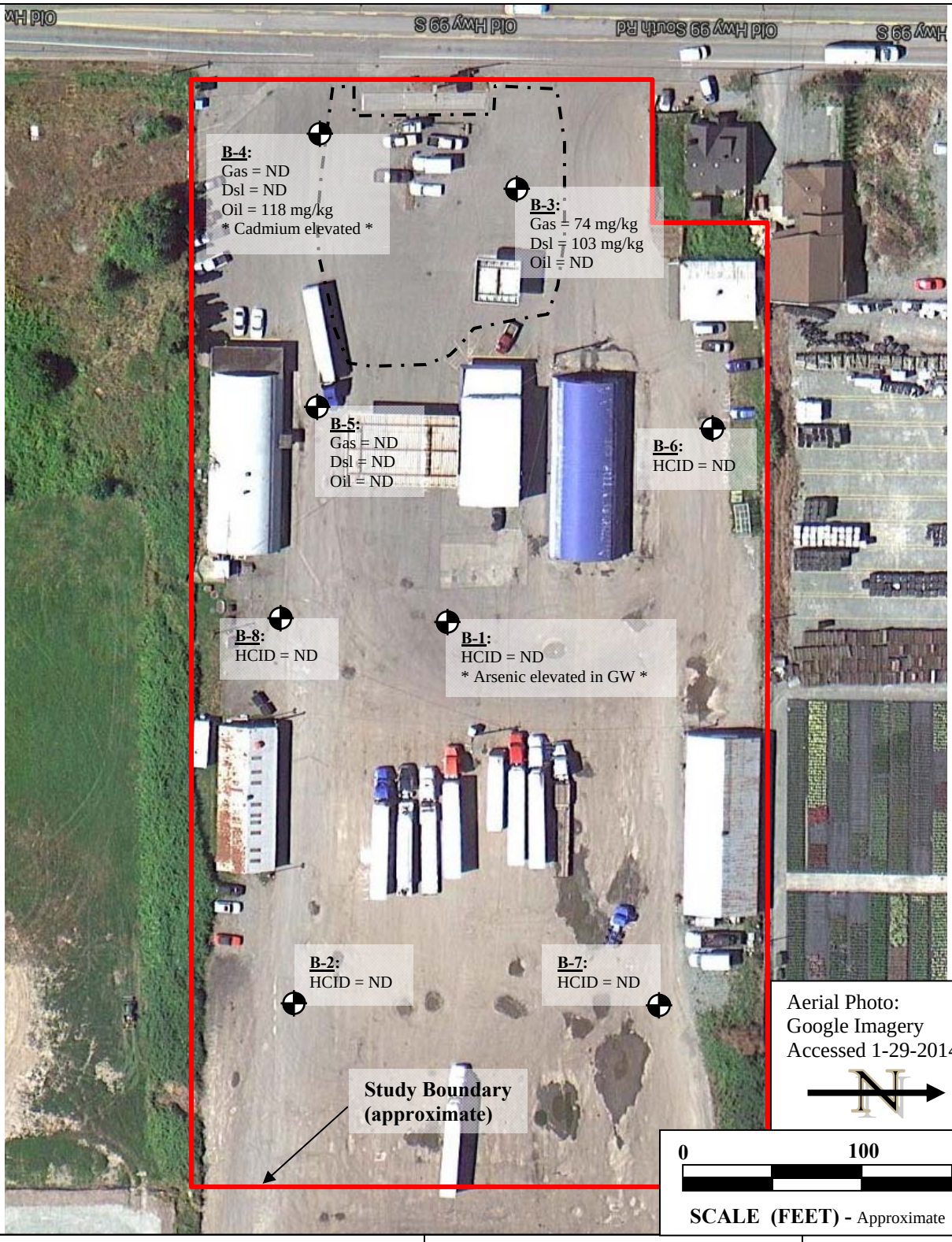
Maps Source: Google Imagery 2013

Materials Testing & Consulting, Inc. 777 Chrysler Drive Burlington, WA 98233	**Site Location and Vicinity** 3228 Old Highway 99 South Mount Vernon, WA	**FIGURE** 1

10.3 Aerial Photo Site Plans



Materials Testing & Consulting, Inc. 777 Chrysler Drive Burlington, WA 98233	**Site Plan with Test Locations** 3228 Old Highway 99 South Mount Vernon, WA	**FIGURE** **2a**



Materials Testing & Consulting, Inc. 777 Chrysler Drive Burlington, WA 98233	**Site Plan with Test Results** 3228 Old Highway 99 South Mount Vernon, WA	**FIGURE** **2b**

10.4 Photographs of Investigation

Photo 1. Borehole B-1 in progress. Existing USTs to left. Looking North.

Photo 2. Borehole B-2 in progress. Storage to left, truck parking to right. Looking West.

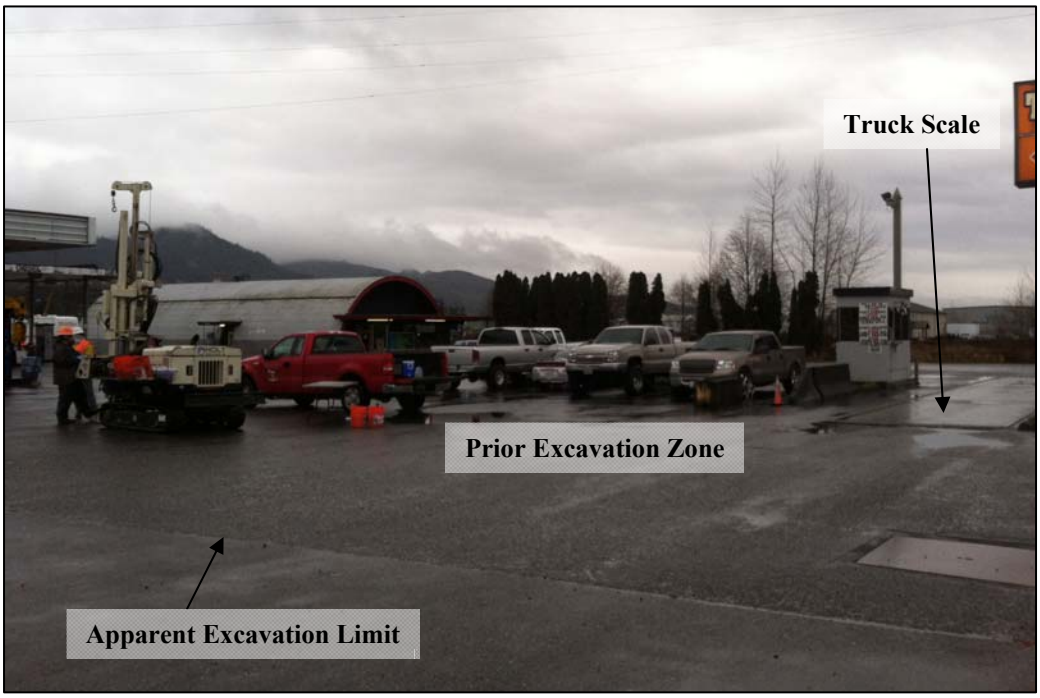


Photo 3. Borehole B-3 in progress. West pump station to left, truck scale to right. Looking Southeast. Apparent limit of prior excavation zone in foreground.

Photo 4. Field PID screening of samples from exploration B-3.

10.5 Subsurface Exploration Logs

Unified Soil Classification System Chart

Major Divisions			Graph	USCS	Typical Description
Coarse Grained Soils More Than 50% Retained On No. 200 Sieve	**Gravel** More Than 50% of Coarse Fraction Retained On No. 4 Sieve	Clean Gravels		GW	Well-graded Gravels, Gravel-Sand Mixtures
				GP	Poorly-Graded Gravels, Gravel-Sand Mixtures
		Gravels With Fines		GM	Silty Gravels, Gravel-Sand-Silt Mixtures
				GC	Clayey Gravels, Gravel-Sand-Clay Mixtures
	Sand More Than 50% of Coarse Fraction Passing No. 4 Sieve	Clean Sands		SW	Well-graded Sands, Gravelly Sands
				SP	Poorly-Graded Sands, Gravelly Sands
		Sands With Fines		SM	Silty Sands, Sand-Silt Mixtures
				SC	Clayey Sands, Clay Mixtures
Fine Grained Soils More Than 50% Passing The No. 200 Sieve	**Silts & Clays**	Liquid Limit Less Than 50		ML	Inorganic Silts, rock Flour, Clayey Silts With Low Plasticity
				CL	Inorganic Clays of Low To Medium Plasticity
				OL	Organic Silts and Organic Silty Clays of Low Plasticity
	Silts & Clays	Liquid Limit Greater Than 50		MH	Inorganic Silts of Moderate Plasticity
				CH	Inorganic Clays of High Plasticity
				OH	Organic Clays And Silts of Medium to High Plasticity
Highly Organic Soils				PT	Peat, Humus, Soils with Predominantly Organic Content

Sampler Symbol Description

- Standard Penetration Test (SPT)
- Shelby Tube
- Grab or Bulk
- California (3.0" O.D.)
- Modified California (2.5" O.D.)

Stratigraphic Contact

- Distinct Stratigraphic Contact Between Soil Strata
- Gradual Change Between Soil Strata
- Approximate location of stratagraphic change

- Groundwater observed at time of exploration
- Measured groundwater level in exploration, well, or piezometer
- Perched water observed at time of exploration

Modifiers

Description	%
Trace	>5
Some	5-12
With	>12

Soil Consistency

Granular Soils		Fine-grained Soils	
Density	***SPT Blowcount***	***Consistency***	***SPT Blowcount***
Very Loose	0-4	Very Soft	0-2
Loose	4-10	Soft	2-4
Medium Dense	10-30	Firm	4-8
Dense	30-50	Stiff	8-15
Very Dense	> 50	Very Stiff	15-30
		Hard	> 30

Grain Size

DESCRIPTION		SIEVE SIZE	GRAIN SIZE	APPROXIMATE SIZE
Boulders		> 12"	> 12"	Larger than a basketball
Cobbles		3 - 12"	3 - 12"	Fist to basketball
Gravel	Coarse	3/4 - 3"	3/4 - 3"	Thumb to fist
	Fine	#4 - 3/4"	0.19 - 0.75"	Pea to thumb
Sand	Coarse	#10 - #4	0.079 - 0.19"	Rock salt to pea
	Medium	#40 - #10	0.017 - 0.079"	Sugar to rock salt
	Fine	#200 - #40	0.0029 - 0.017"	Flour to Sugar
Fines		Passing #200	< 0.0029"	Flour and smaller

Materials Testing & Consulting, Inc. 777 Chrysler Drive Burlington, WA 98233	**Exploration Log Key** 3228 Old Highway 99 South Mount Vernon, WA	**FIGURE** **3**

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Log of Boring B-1

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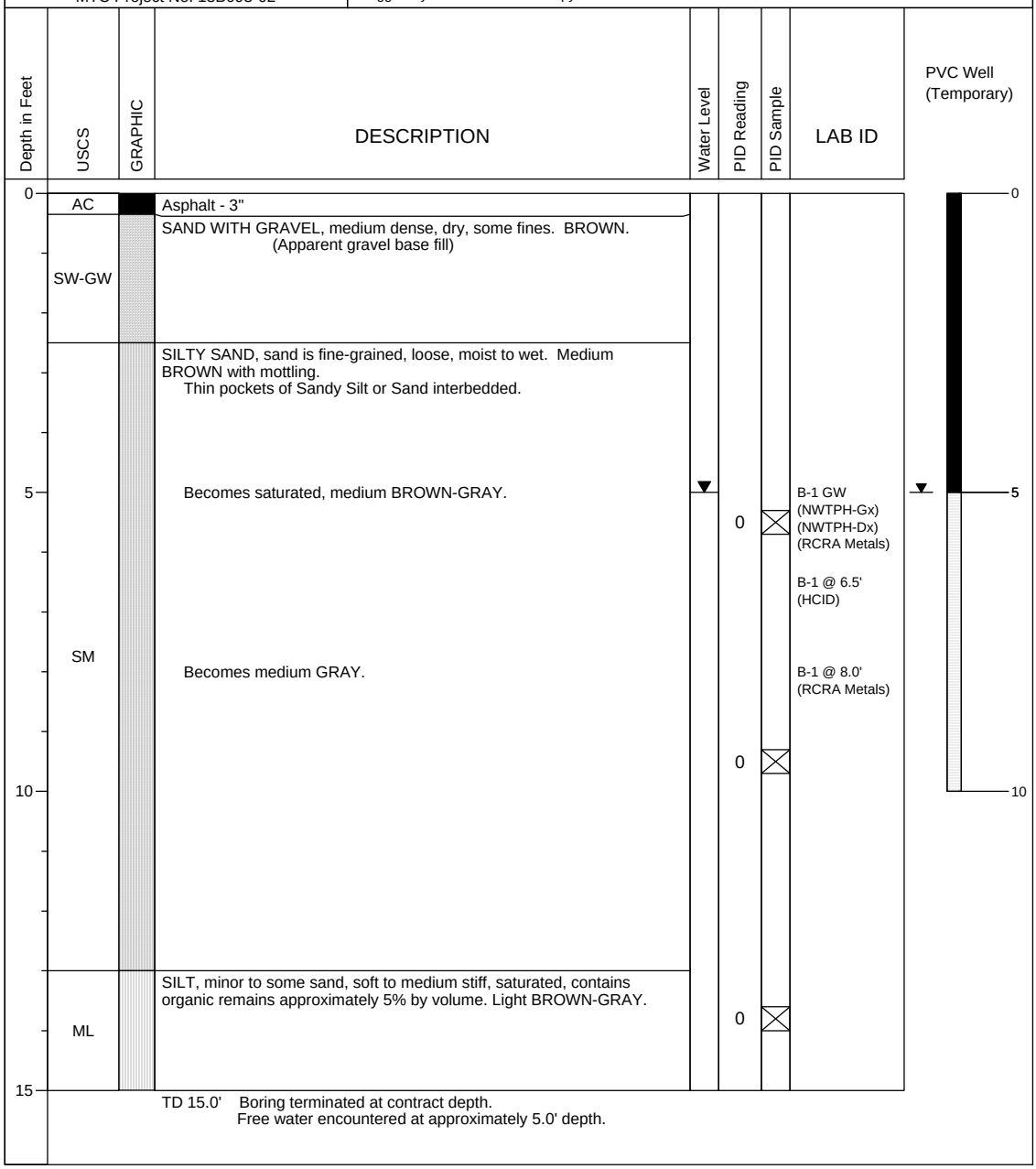
Skagit County Jail - Phase 2 ESA
Truck City Site, 3216 Old Hwy 99 S Road
Mt. Vernon, WA

MTC Project No. 13B093-02

Date Started	: 1/13/14
Date Completed	: 1/13/14
Sampling Method	: Geoprobe: Continuous sampling, 5' sleeves
Location	: 20' E of Existing Tank SE end
Logged By	: J. Gillaspy



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Log of Boring B-2

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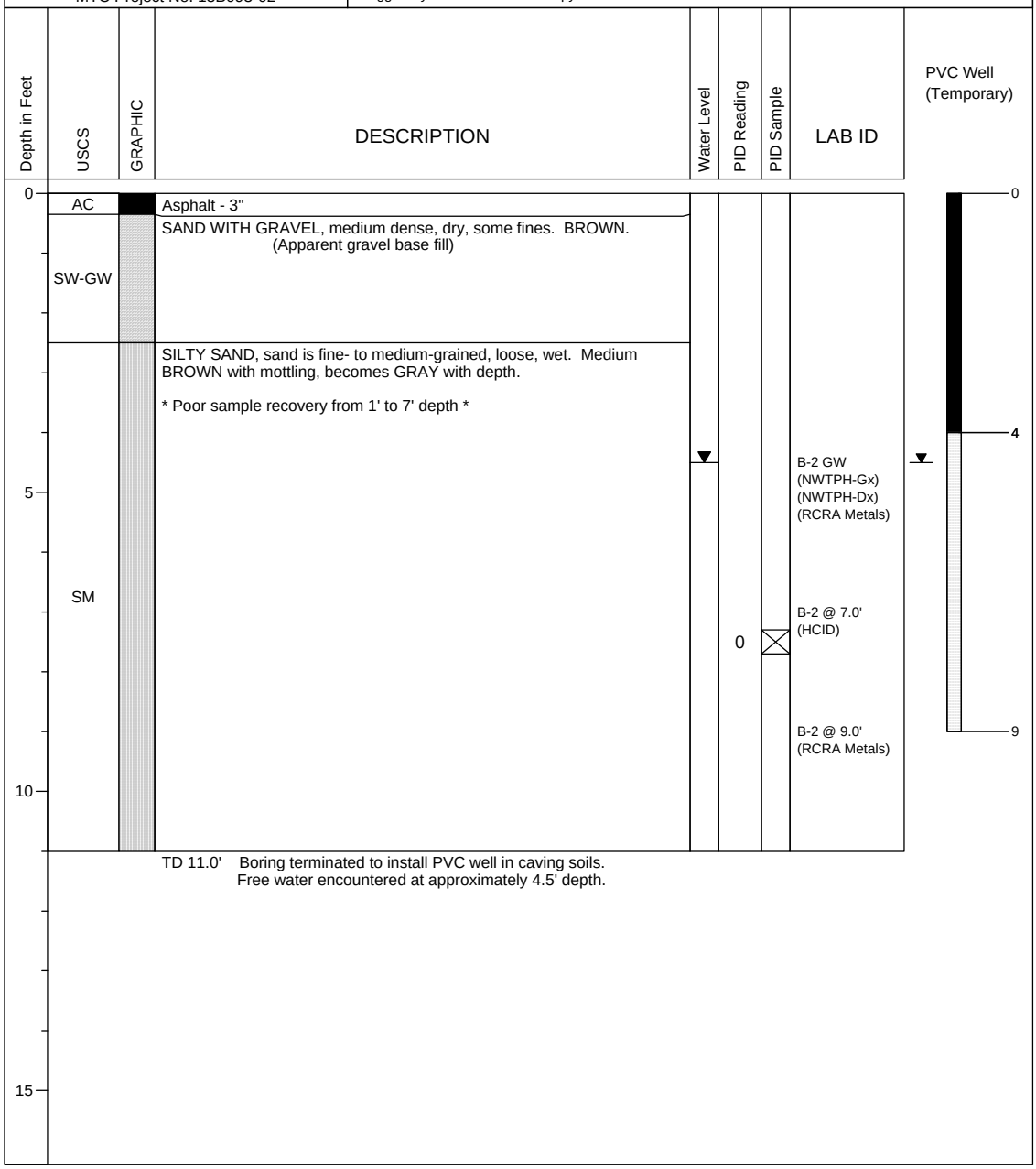
Skagit County Jail - Phase 2 ESA
Truck City Site, 3216 Old Hwy 99 S Road
Mt. Vernon, WA

MTC Project No. 13B093-02

Date Started	: 1/13/14
Date Completed	: 1/13/14
Sampling Method	: Geoprobe: Continuous sampling, 5' sleeves
Location	: 60' E of SE Building's NE corner
Logged By	: J. Gillaspy



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Log of Boring B-3

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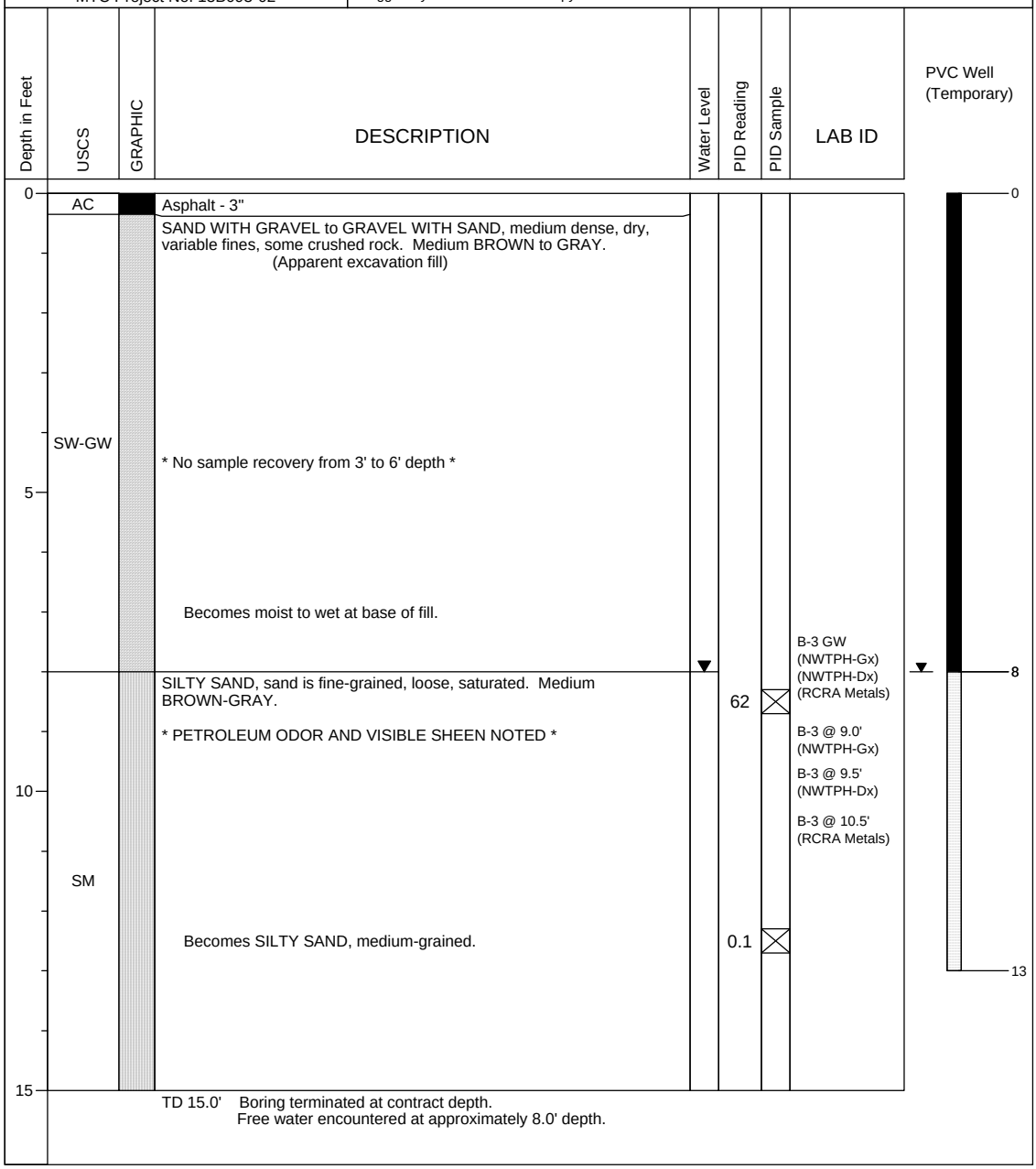
Skagit County Jail - Phase 2 ESA
Truck City Site, 3216 Old Hwy 99 S Road
Mt. Vernon, WA

MTC Project No. 13B093-02

Date Started	: 1/13/14
Date Completed	: 1/13/14
Sampling Method	: Geoprobe: Continuous sampling, 5' sleeves
Location	: 40' W of NW Pump Station's NW corner, in prior excavation
Logged By	: J. Gillaspy



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Log of Boring B-4

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Skagit County Jail - Phase 2 ESA
Truck City Site, 3216 Old Hwy 99 S Road
Mt. Vernon, WA

MTC Project No. 13B093-02

Date Started	: 1/13/14
Date Completed	: 1/13/14
Sampling Method	: Geoprobe: Continuous sampling, 5' sleeves
Location	: 25' SE of Truck Scale's SE corner, edge of prior excavation
Logged By	: J. Gillaspy

Depth in Feet	USCS	GRAPHIC	DESCRIPTION	Water Level	PID Reading	PID Sample	LAB ID
0	AC		Asphalt - 3"				
	SW-GW		SAND WITH GRAVEL, medium dense, dry, some fines. BROWN. (Apparent gravel base fill)				
	ML		SILT, minor sand, stiff, dry. Medium BROWN.				
	SM		SILTY SAND, sand is fine- to medium-grained, loose, damp to moist. Medium BROWN.				
			Becomes heavily mottled.		0	☒	
5			Becomes BROWN-GRAY, wet to saturated.	▼			
			Becomes medium GRAY.		0.8	☒	B-4 @ 7.0' (NWTPH-Gx) B-4 @ 8.0' (NWTPH-Dx) B-4 @ 8.5' (RCRA Metals)
10	SP		SAND to SAND WITH SILT, sand is medium- to coarse-grained, loose to medium dense, saturated. Medium GRAY.		0.1	☒	
	SM		SILTY SAND, sand is fine-grained, loose, saturated. Medium GRAY.				
15			TD 15.0' Boring terminated at contract depth. Free water encountered at approximately 6.0' depth.				

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Log of Boring B-5

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Skagit County Jail - Phase 2 ESA
Truck City Site, 3216 Old Hwy 99 S Road
Mt. Vernon, WA

MTC Project No. 13B093-02

Date Started	: 1/13/14
Date Completed	: 1/13/14
Sampling Method	: Geoprobe: Continuous sampling, 5' sleeves
Location	: 25' S of Main Pump Station's SW corner
Logged By	: J. Gillaspy

Depth in Feet	USCS	GRAPHIC	DESCRIPTION	Water Level	PID Reading	PID Sample	LAB ID
0	AC		Asphalt - 3"				
	SW-GW		SAND WITH GRAVEL to GRAVEL WITH SAND, medium dense, dry, some fines, variable content in lifts. BROWN to GRAY. (Apparent gravel base fill)				
5	SM		SILTY SAND, sand is fine-grained, loose, damp to moist. Medium BROWN with mottling. Interbedded with thin SANDY SILT layers to approximately 5' depth. Becomes BROWN-GRAY, moist		0	☒	
			Becomes wet to saturated, medium GRAY.	▼			B-5 @ 7.5' (NWTPH-Dx) B-5 @ 8.0' (NWTPH-Gx)
10	SP		SAND to SAND WITH SILT, sand is medium- to coarse-grained, loose to medium dense, saturated. Medium GRAY.		0.7	☒	
					0	☒	
	SM-ML		SILTY SAND to SANDY SILT, sand is fine-grained, loose/soft, saturated. Medium GRAY.				
15			TD 15.0' Boring terminated at contract depth. Free water encountered at approximately 6.0' depth.				

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Log of Boring B-6

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Skagit County Jail - Phase 2 ESA
Truck City Site, 3216 Old Hwy 99 S Road
Mt. Vernon, WA

MTC Project No. 13B093-02

Date Started	: 1/13/14
Date Completed	: 1/13/14
Sampling Method	: Geoprobe: Continuous sampling, 5' sleeves
Location	: 50' NE of Truck Washes NW corner
Logged By	: J. Gillaspy

Depth in Feet	USCS	DESCRIPTION	Water Level	PID Reading	PID Sample	LAB ID
0	AC	Asphalt - 3"				
	SW-GW	SAND WITH GRAVEL, medium dense, dry, some fines. BROWN. (Apparent gravel base fill)				
	ML	SILT, minor sand, stiff, dry. Medium BROWN.				
	SM	SILTY SAND, sand is fine- to medium-grained, loose, wet to saturated. Medium BROWN with mottling.	▼	0	☒	B-6 @ 4.0' (HCID)
5		Becomes medium BROWN-GRAY.		0	☒	
	ML	SILT, minor sand, very soft, abundant organic remnants. Medium GRAY.				
10	SM-SP	SILTY SAND, sand is fine- to medium-grained, loose, saturated, pockets of coarse sand. Medium GRAY.		0	☒	
		Coarse SAND content increases with depth.				
15		TD 15.0' Boring terminated at contract depth. Free water encountered at approximately 3.0' depth.				

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777 Chrysler Drive

Log of Boring B-7

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Skagit County Jail - Phase 2 ESA
Truck City Site, 3216 Old Hwy 99 S Road
Mt. Vernon, WA

MTC Project No. 13B093-02

Date Started	: 1/13/14
Date Completed	: 1/13/14
Sampling Method	: Geoprobe: Continuous sampling, 5' sleeves
Location	: 50' NE of Truck Washes NW corner
Logged By	: J. Gillaspy

Depth in Feet	USCS	GRAPHIC	DESCRIPTION	Water Level	PID Reading	PID Sample	LAB ID
0	AC		Asphalt - 3"				
	SW-GW		SAND WITH GRAVEL, medium dense, dry, some fines. BROWN. (Apparent gravel base fill)				
	ML		SILT, minor sand, stiff, dry to damp. Medium BROWN to BROWN-GRAY.				
	SM		SILTY SAND, sand is fine-grained, loose, damp to moist. Medium BROWN with mottling.				
			Becomes wet to saturated.	▼	0	☒	
5	SM		Increased medium-grained sand content.				B-7 @ 5.0' (HCID)
					0	☒	
	ML		SILT to SILTY CLAY, minor sand, very soft to soft, some organic remnants, saturated. Medium BROWN-GRAY.				
10					0	☒	
15			TD 15.0' Boring terminated at contract depth. Free water encountered at approximately 4.0' depth.				

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Log of Boring B-8

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Skagit County Jail - Phase 2 ESA
Truck City Site, 3216 Old Hwy 99 S Road
Mt. Vernon, WA

MTC Project No. 13B093-02

Date Started	: 1/13/14
Date Completed	: 1/13/14
Sampling Method	: Geoprobe: Continuous sampling, 5' sleeves
Location	: 35' E of Restaurant's NE corner
Logged By	: J. Gillaspy

Depth in Feet	USCS	GRAPHIC	DESCRIPTION	Water Level	PID Reading	PID Sample	LAB ID
0	AC		Asphalt - 3"				
	SW-GW		SAND WITH GRAVEL, medium dense, dry, some fines. BROWN. (Apparent gravel base fill)				
	ML		SILT, minor sand, stiff, dry to damp. Medium BROWN to BROWN-GRAY.				
	SM		SILTY SAND, sand is fine- to medium-grained, loose, damp to moist. Medium BROWN with mottling. Becomes wet to saturated, BROWN-GRAY.	▼	0	☒	B-8 @ 4.5' (HCID)
5	ML		SILT, minor sand, soft, saturated. Medium BROWN-GRAY.				
	SP		SAND to SAND WITH SILT, sand is medium- to coarse-grained, loose to medium dense, saturated. Medium GRAY.		0	☒	
10	ML		SILT to SILTY CLAY, minor fine sand, soft, rare organic remnants, saturated. Medium BROWN-GRAY.				
15			TD 15.0' Boring terminated at contract depth. Free water encountered at approximately 4.0' depth.				

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777 Chrysler Drive

Log of Hand Auger S-1

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Skagit County Jail - Phase 2 ESA
Truck City Site, 3216 Old Hwy 99 S Road
Mt. Vernon, WA

MTC Project No. 13B093-02

Date Started	: 1/13/14
Date Completed	: 1/13/14
Sampling Method	: Grab sampling
Location	: S edge of gravel truck lot, ~550' E of HWY 99
Logged By	: L. Rupp

Depth in Feet	USCS	GRAPHIC	DESCRIPTION	Water Level	PID Reading	PID Sample	LAB ID
0	ML-OL		TOPSOIL: SANDY SILT, soft, moist, roots. Dark BROWN.				
1	ML		SILT to SANDY SILT, medium stiff, damp to moist. Medium BROWN.		0	X	
2			TD 2.5' Boring terminated due to difficult advancement. No free water encountered by end depth.				
3							
4							
5							
6							

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Burlington, WA
777 Chrysler Drive

Log of Hand Auger S-2

(Page 1 of 1)

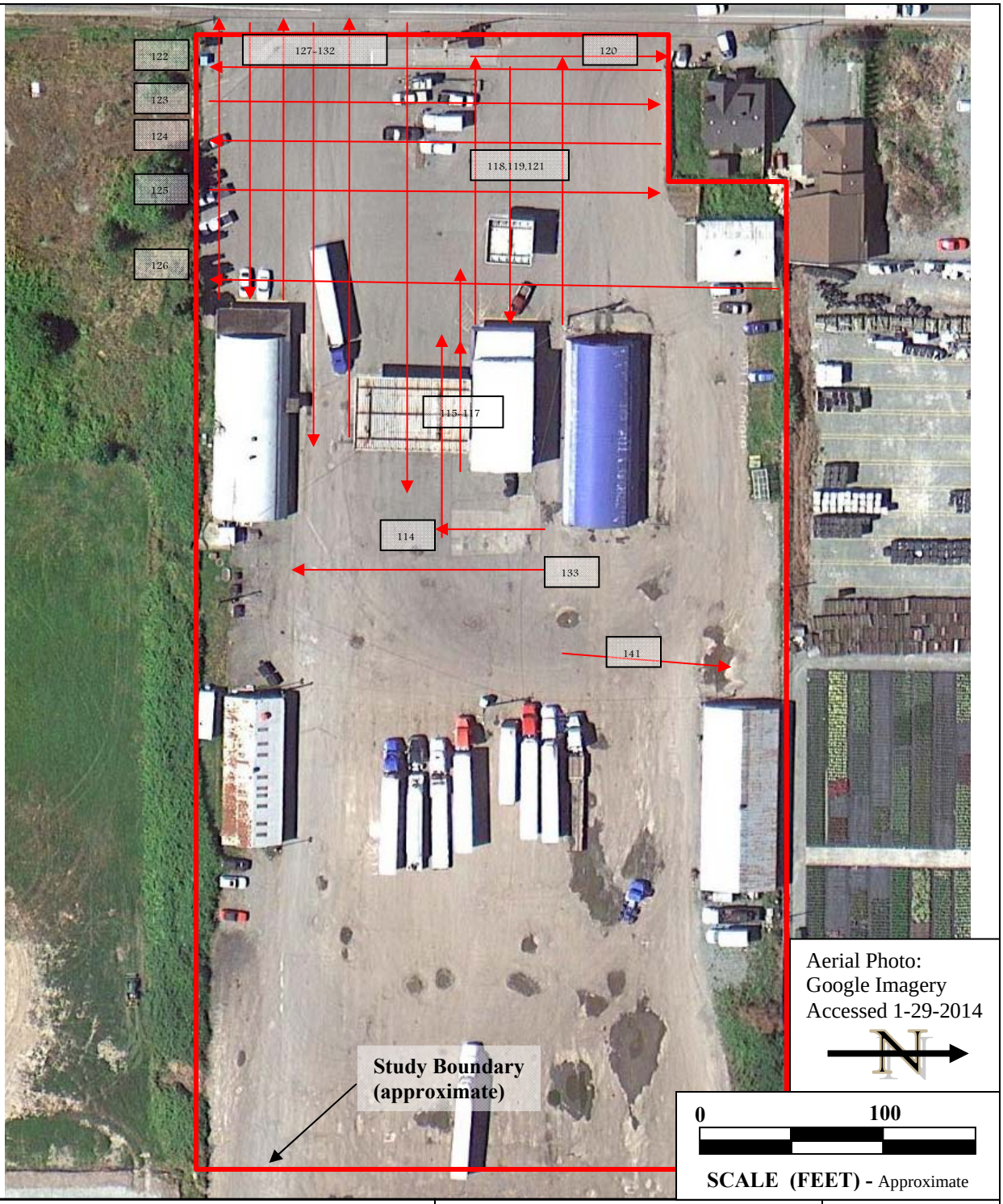
Skagit County Jail - Phase 2 ESA
Truck City Site, 3216 Old Hwy 99 S Road
Mt. Vernon, WA

MTC Project No. 13B093-02

Date Started	: 1/13/14
Date Completed	: 1/13/14
Sampling Method	: Grab sampling
Location	: S edge of gravel truck lot, by SE bldg, ~400' E of HWY 99
Logged By	: L. Rupp

Depth in Feet	USCS	GRAPHIC	DESCRIPTION	Water Level	PID Reading	PID Sample	LAB ID
0	ML-OL		TOPSOIL: SANDY SILT, soft, moist, roots. Dark BROWN.				
1	ML-SM		SANDY SILT to SILTY SAND, loose/medium stiff, damp to moist. Medium BROWN with mottling.		0	X	
2							
3			Becomes wet.	▼			
4	ML		SILT, medium stiff, wet. Medium BROWN-GRAY.		0	X	S-2 @ 4.0' (HCID)
5			TD 5.0' Boring terminated upon encountering groundwater. Free water encountered at approximately 3.5' depth.				
6							

10.6 GPR Results



Materials Testing & Consulting, Inc. 777 Chrysler Drive Burlington, WA 98233	**GPR Survey Map** 3228 Old Highway 99 South Mount Vernon, WA	**FIGURE** **4**

GPR Function and Interpretation:

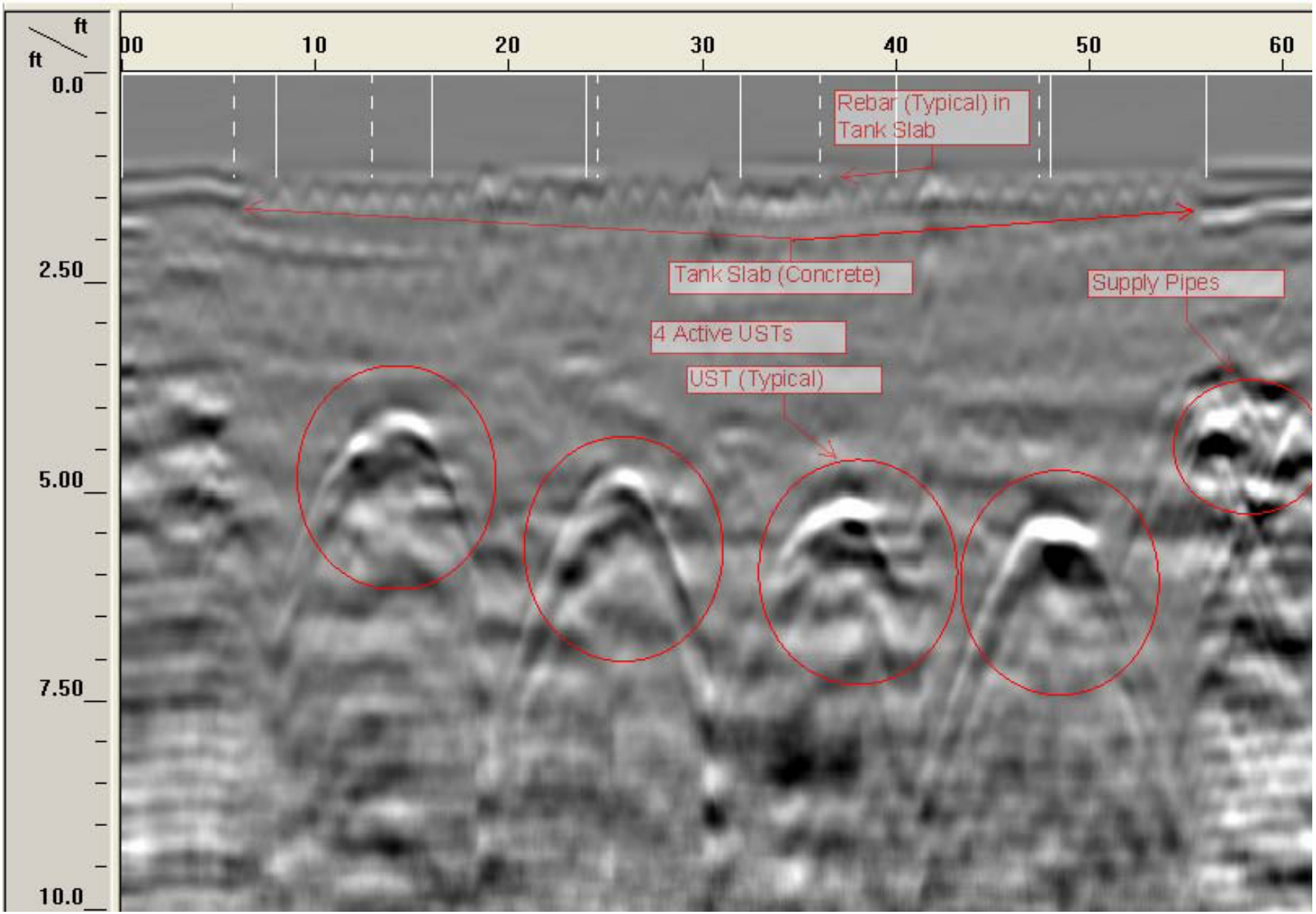
Ground Penetrating RADAR (GPR) typically uses a radio energy source to scan the subsurface for buried objects, structural or textural changes. MTC's GPR method employed the SIR-3000 unit, produced by Geophysical Survey Systems, Inc. with a 400-MHz (megahertz) bi-static antenna. The bi-static antenna houses both the radio source and reflected signal receiver.

In the GPR method, a spherical radio wave is generated by the antenna, whose design causes the radio energy to be directed primarily into the ground. The wave penetrates the subsurface nearly instantaneously, whose speed depends upon the magnetic susceptibility, or the density, of the medium being investigated. As the wave propagates through the subsurface, when a material with significantly different density is encountered, a reflection is returned to the antenna. The reflected wave returns to the antenna in the "two-way travel time", measured in nanoseconds. Based on the medium's density and the reflection's two-way travel time, the SIR-3000 computes a target equivalent depth (in feet). All GPR profiles reveal encountered reflections, or anomalies, as well as showing the signal of the surrounding medium, the "background" signal.

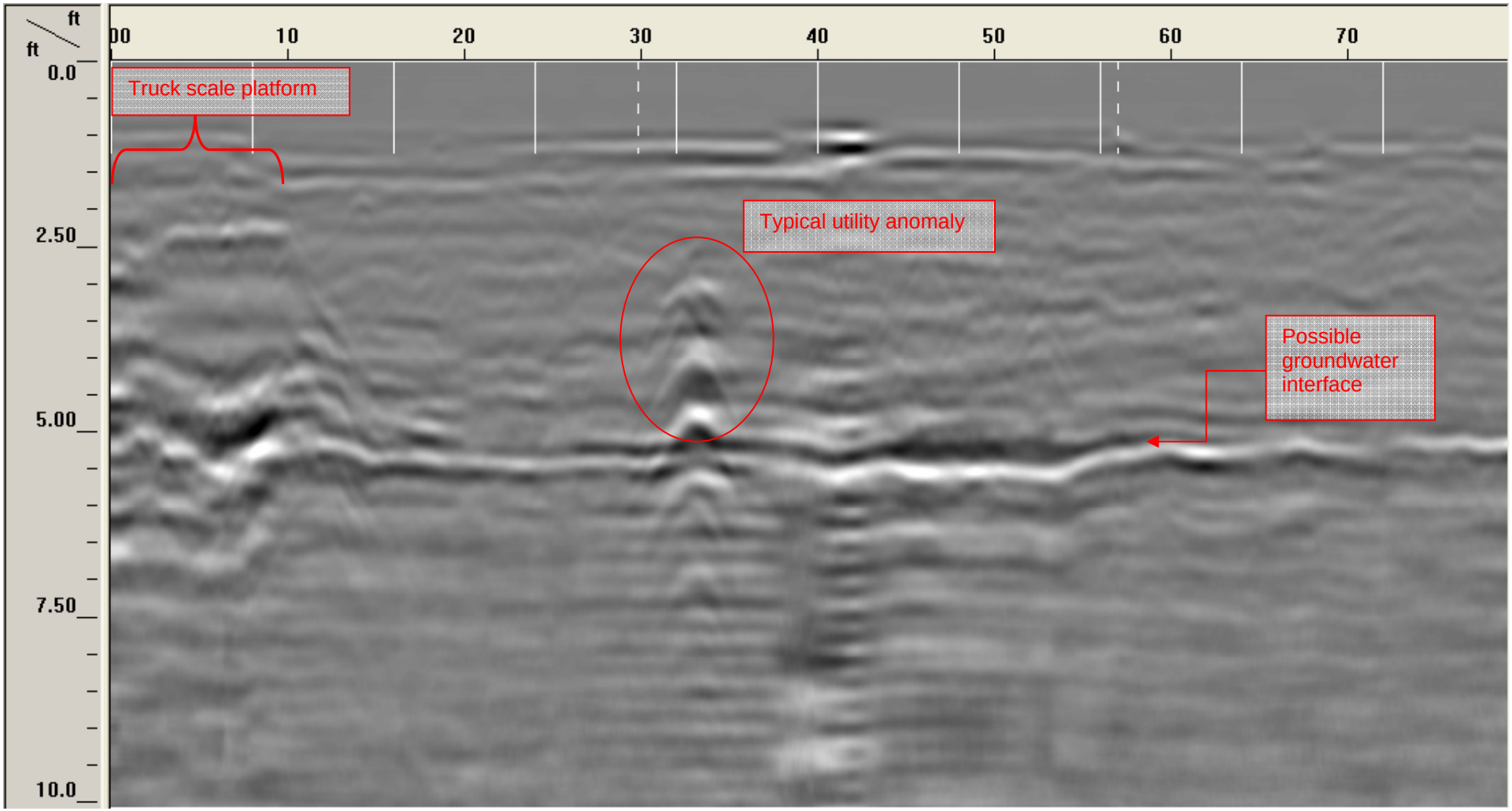
The shape and amplitude of each anomaly depends on its composition and that of the surrounding medium. Typically, an air void or lighter density region will return an anomaly characterized by dark, or weak, bands with a span dependent on the depth and extent of the void. A dense or electrically conductive object buried in soil, like a metal pipe or underground storage tank (UST), will return a positive reflection, characterized by bright banding. A positive reflector, if sufficiently dense or metallic, can also produce multiple reflections, a result of the reflected wave bouncing off the object and antenna continuously.

Important limitations of the GPR method for scanning for subsurface objects include but are not limited to the following. The depth of investigation is limited by the type of antenna and the soil type and moisture. Typically the 400-MHz antenna can penetrate at least 10 feet and up to about 20 feet below the surface under ideal conditions, which comprise low-clay, unsaturated soils. The presence of groundwater, which is electrically conductive, will attenuate the GPR energy, potentially obscuring deeper objects. The rule of thumb for resolving objects is the 1 inch per 1 foot rule, which states that for every 1 foot of depth, GPR will not detect objects smaller than the equivalent inches in diameter. Therefore, an object that is 5 inches diameter and 5 feet below grade is considered to be at the limit and may or may not be resolvable from the background signal. Materials of lower magnetic susceptibility (e.g. PVC, clay) are more difficult to resolve relative to surrounding soil.

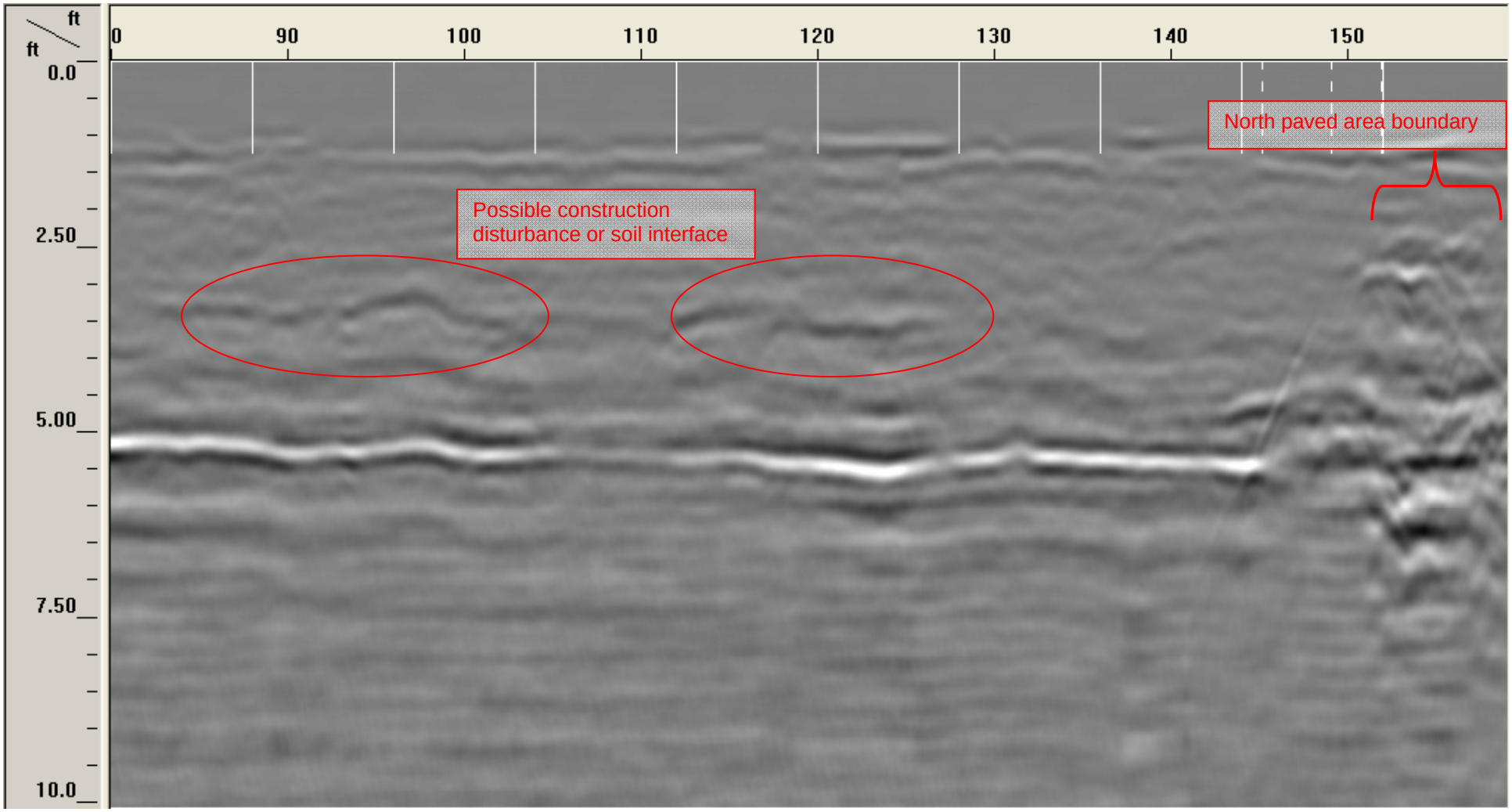
Profile #114


ft
ft
00
10
20
30
40
50
60
0.0
2.50
5.00
7.50
10.0
Rebar (Typical) in Tank Slab
Tank Slab (Concrete)
Supply Pipes
4 Active USTs
UST (Typical)

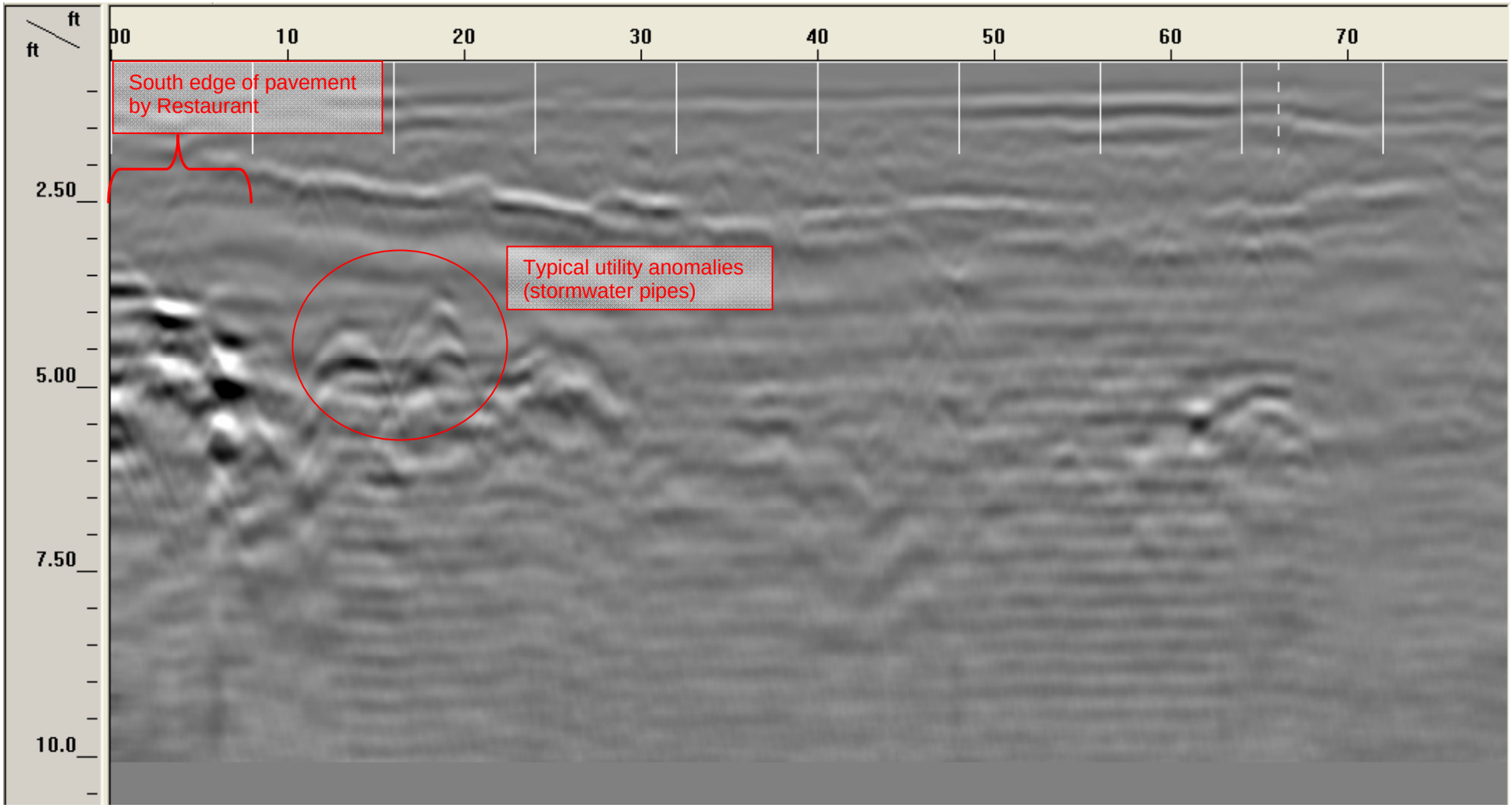
Profile #120A



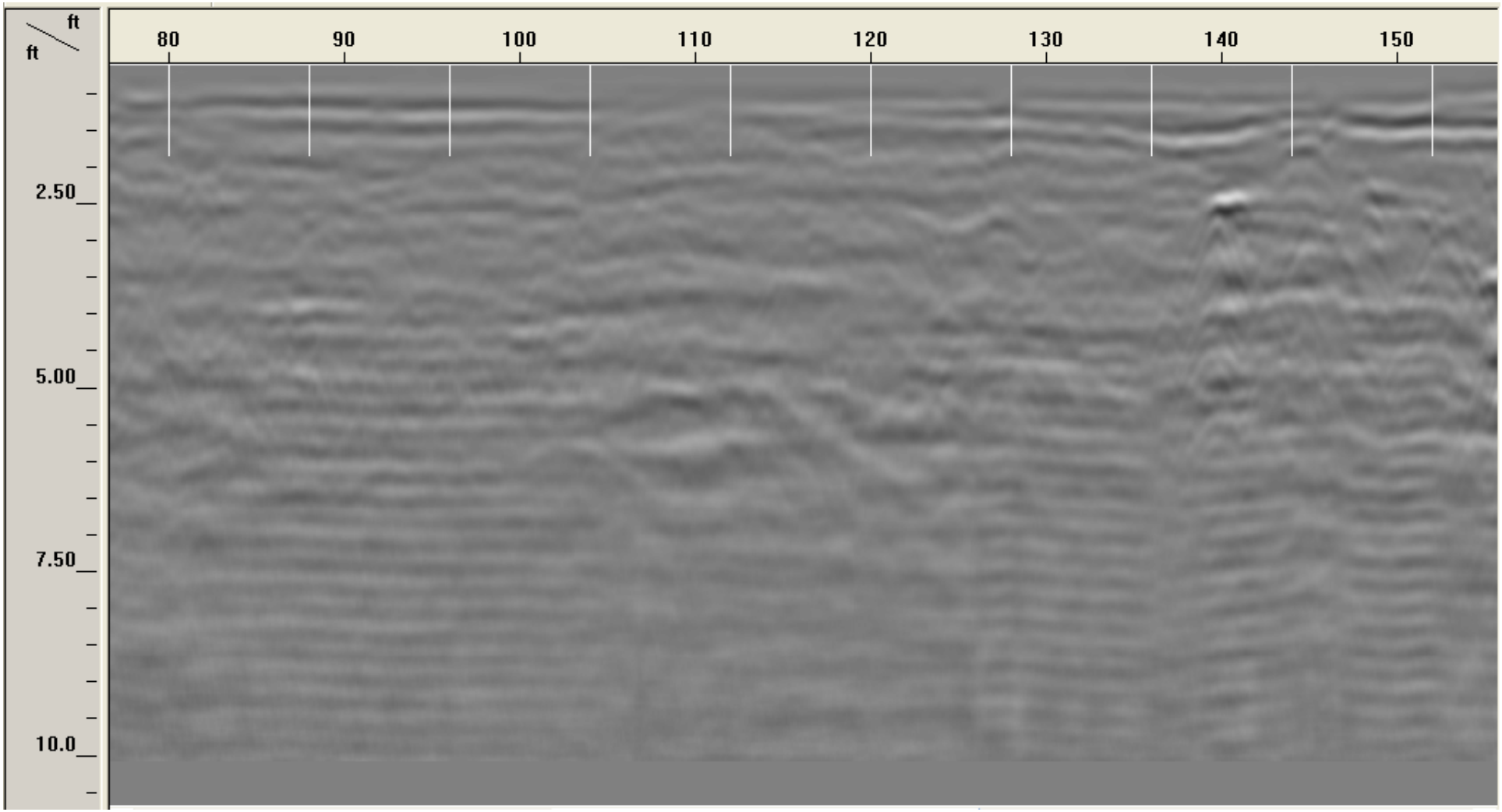
Profile #120B



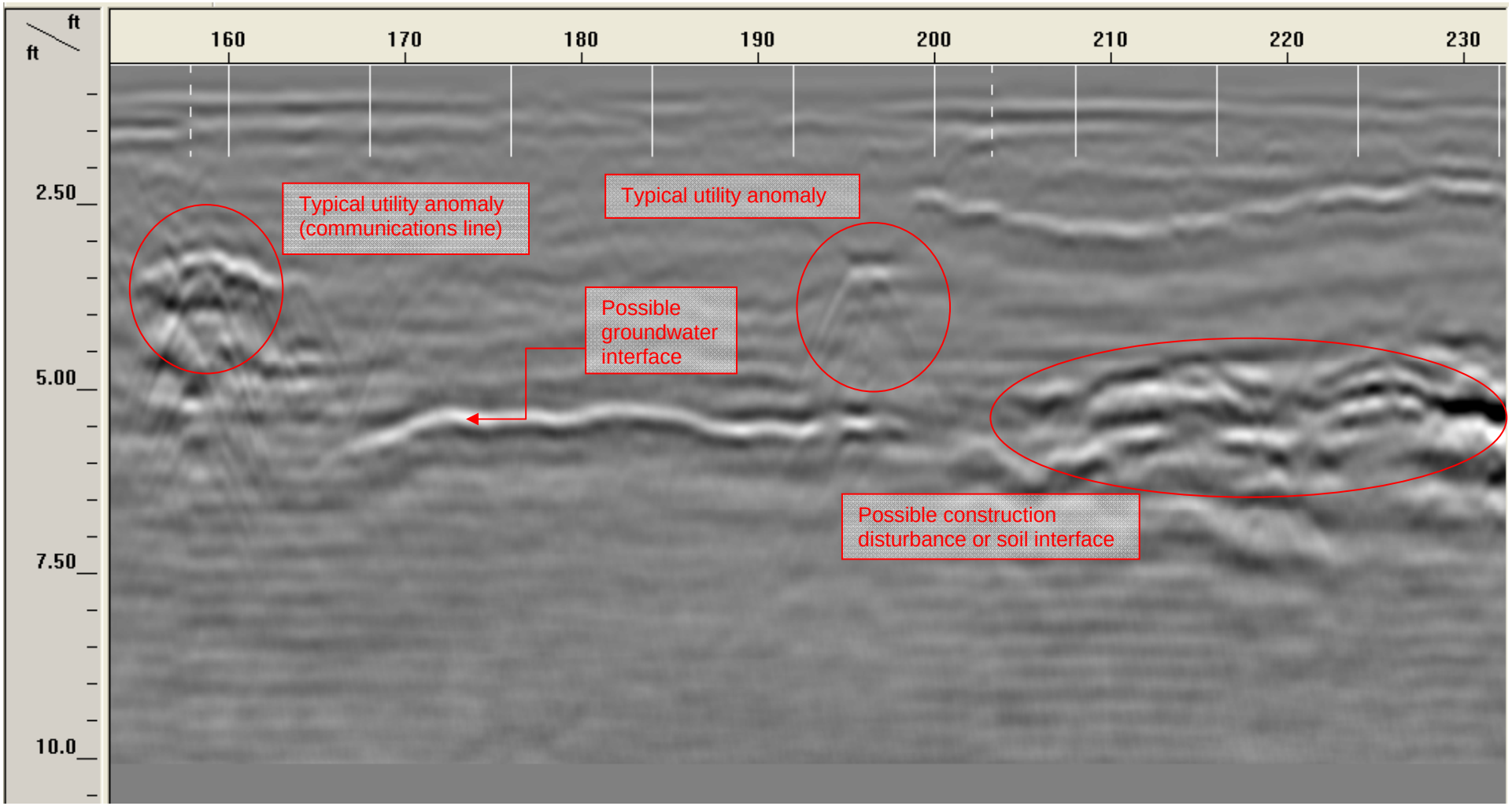
Profile #123A



Profile #123B



Profile #123C



10.7 Analytical Laboratory Reports & COCs

EDGE ANALYTICAL LABORATORIES

Burlington WA	Bellingham WA	Portland OR
Corporate Office	*Microbiology*	*Microbiology/Chemistry*
1620 S Walnut St - 98233	805 Orchard Dr Ste 4 - 98225	9150 SW Pioneer Ct Ste W- 97070
800.755.9295 • 360.757.1400	360.671.0688	503.682.7802

January 30, 2014

Mr. John Gillaspy
Materials Testing & Consulting
777 Chrysler Drive
Burlington, WA 98233

RE: 14-00707 - Phase II ESA

Dear Mr. John Gillaspy,

Your project: Phase II ESA, was received on Tuesday January 14, 2014.
All samples were analyzed within the accepted holding times, were appropriately preserved and were analyzed according to approved analytical protocols. The quality control data was within laboratory acceptance limits, unless specified in the QA reports.

If you have questions phone us at 800 755-9295.

Respectfully Submitted,

Lawrence J Henderson, PhD
Director of Laboratories

Enclosures Data Report
QC Reports
Chain of Custody

EDGE ANALYTICAL LABORATORIES

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503.682.7802

Hydrocarbon Data Report

Client Name: Materials Testing & Consulting
777 Chrysler Drive
Burlington, WA 98233

Reference Number: **14-00707**
Project: Phase II ESA
Report Date: 1/30/14
Date Received: 1/14/14
Peer Review:

Sample Description: B-3 GW - Truck City
Lab Number: 1665
Date 1/15/14

Sample Date: 1/13/14
Collected By: John Gillaspy
Analyzed By: HY

Parameter	Result	Flag	DF	Cleanup Level	PQL	MDL	Units	Method	Batch	Comment
NWTPH-Gx										
BENZENE	**ND**		1	0.005	0.0004	0.00014	mg/L	8260B/5030B	GXW_140115	
TOLUENE	**ND**		1	1.00	0.0004	0.0002	mg/L	8260B/5030B	GXW_140115	
ETHYLBENZENE	**ND**		1	0.70	0.0004	0.00021	mg/L	8260B/5030B	GXW_140115	
TOTAL XYLENES	**ND**		1	1.00	0.0008	0.0001	mg/L	8260B/5030B	GXW_140115	
GASOLINE (C8 - C12)	**ND**		1	1	0.10	0.0125	mg/L	8260B/5030B	GXW_140115	

Sample Description: B-1GW - Truck City
Lab Number: 1669
Date 1/15/14

Sample Date: 1/13/14
Collected By: John Gillaspy
Analyzed By: HY

Parameter	Result	Flag	DF	Cleanup Level	PQL	MDL	Units	Method	Batch	Comment
NWTPH-Gx										
BENZENE	**ND**		1	0.005	0.0004	0.00014	mg/L	8260B/5030B	GXW_140115	
TOLUENE	**ND**		1	1.00	0.0004	0.0002	mg/L	8260B/5030B	GXW_140115	
ETHYLBENZENE	**ND**		1	0.70	0.0004	0.00021	mg/L	8260B/5030B	GXW_140115	
TOTAL XYLENES	**ND**		1	1.00	0.0008	0.0001	mg/L	8260B/5030B	GXW_140115	
GASOLINE (C8 - C12)	**ND**		1	1	0.10	0.0125	mg/L	8260B/5030B	GXW_140115	

Sample Description: B-2 GW - Truck City
Lab Number: 1670
Date 1/15/14

Sample Date: 1/13/14
Collected By: John Gillaspy
Analyzed By: HY

Parameter	Result	Flag	DF	Cleanup Level	PQL	MDL	Units	Method	Batch	Comment
NWTPH-Gx										
BENZENE	**ND**		1	0.005	0.0004	0.00014	mg/L	8260B/5030B	GXW_140115	

Notation:
ND - A result of "ND" indicates that the compound was not detected above the Lab's Method Reporting Limit - MRL.
PQL = Practical Quantitation Limit is the lowest level that can be achieved within specified limits of precision and accuracy during routine laboratory operating conditions.
D.F. - Dilution Factor
Cleanup Level - The regulatory limit for Method A Cleanup Levels (MTCA, Chapter173-340 WAC) contaminants in the specified matrix. Amended Feb 12, 2001
The Cleanup level for Gasoline Range Organics (GRO) is 100 mg/Kg for gas mixtures without benzene and when the total ethylbenzene, toluene and xylenes are less than 1% of the gasoline concentration. The Cleanup level for GRO is 30 mg/Kg for all other mixtures.

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Reference Number: **14-00707**
Report Date: 1/30/14

Hydrocarbon Data Report

TOLUENE	**ND**	1	1.00	0.0004	0.0002	mg/L	8260B/5030B	GXW_140115
ETHYLBENZENE	**ND**	1	0.70	0.0004	0.00021	mg/L	8260B/5030B	GXW_140115
TOTAL XYLENES	**ND**	1	1.00	0.0008	0.0001	mg/L	8260B/5030B	GXW_140115
GASOLINE (C8 - C12)	**ND**	1	1	0.10	0.0125	mg/L	8260B/5030B	GXW_140115

Notation:

ND - A result of "ND" indicates that the compound was not detected above the Lab's Method Reporting Limit - MRL.
PQL = Practical Quantitation Limit is the lowest level that can be achieved within specified limits of precision and accuracy during routine laboratory operating conditions.
D.F. - Dilution Factor
Cleanup Level - The regulatory limit for Method A Cleanup Levels (MTCA, Chapter173-340 WAC) contaminants in the specified matrix. Amended Feb 12, 2001

The Cleanup level for Gasoline Range Organics (GRO) is 100 mg/Kg for gas mixtures without benzene and when the total ethylbenzene, toluene and xylenes are less than 1% of the gasoline concentration. The Cleanup level for GRO is 30 mg/Kg for all other mixtures.

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Microbiology/Chemistry
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503.682.7802

Hydrocarbon Data Report

Client Name: Materials Testing & Consulting
777 Chrysler Drive
Burlington, WA 98233

Reference Number: **14-00707**
Project: Phase II ESA
Report Date: 1/30/14
Date Received: 1/14/14
Peer Review:

Sample Description: B-3@9.0' - Truck City
Lab Number: 1666
Date 1/27/14

Sample Date: 1/13/14
Collected By: John Gillaspy
Analyzed By: HY

Parameter	Result	Flag	DF	Cleanup Level	PQL	MDL	Units	Method	Batch	Comment
NWTPH-Gx										
BENZENE	**ND**		2	0.03	0.04		mg/Kg	8260B/5035A	GXS_140127	
TOLUENE	**ND**		2	7.0	0.17		mg/Kg	8260B/5035A	GXS_140127	
ETHYLBENZENE	**ND**		2	6.0	0.17		mg/Kg	8260B/5035A	GXS_140127	
TOTAL XYLENES	**ND**		2	9.0	0.34		mg/Kg	8260B/5035A	GXS_140127	
GAS Range Organics	**74.4**		2	100/30*	43		mg/Kg	8260B/5035A	GXS_140127	

Sample Description: B-4@7.0 - Truck City
Lab Number: 1667
Date 1/27/14

Sample Date: 1/13/14
Collected By: John Gillaspy
Analyzed By: HY

Parameter	Result	Flag	DF	Cleanup Level	PQL	MDL	Units	Method	Batch	Comment
NWTPH-Gx										
BENZENE	**ND**		2	0.03	0.04		mg/Kg	8260B/5035A	GXS_140127	
TOLUENE	**ND**		2	7.0	0.16		mg/Kg	8260B/5035A	GXS_140127	
ETHYLBENZENE	**ND**		2	6.0	0.16		mg/Kg	8260B/5035A	GXS_140127	
TOTAL XYLENES	**ND**		2	9.0	0.32		mg/Kg	8260B/5035A	GXS_140127	
GAS Range Organics	**ND**		2	100/30*	40		mg/Kg	8260B/5035A	GXS_140127	

Sample Description: B-5@8.0 - Truck City
Lab Number: 1668
Date 1/27/14

Sample Date: 1/13/14
Collected By: John Gillaspy
Analyzed By: HY

Parameter	Result	Flag	DF	Cleanup Level	PQL	MDL	Units	Method	Batch	Comment
NWTPH-Gx										
BENZENE	**ND**		1	0.03	0.03		mg/Kg	8260B/5035A	GXS_140127	

Notation:
ND - A result of "ND" indicates that the compound was not detected above the Lab's Method Reporting Limit - MRL.
PQL = Practical Quantitation Limit is the lowest level that can be achieved within specified limits of precision and accuracy during routine laboratory operating conditions.
D.F. - Dilution Factor
Cleanup Level - The regulatory limit for Method A Cleanup Levels (MTCA, Chapter173-340 WAC) contaminants in the specified matrix. Amended Feb 12, 2001
The Cleanup level for Gasoline Range Organics (GRO) is 100 mg/Kg for gas mixtures without benzene and when the total ethylbenzene, toluene and xylenes are less than 1% of the gasoline concentration. The Cleanup level for GRO is 30 mg/Kg for all other mixtures.

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Reference Number: **14-00707**
Report Date: 1/30/14

Hydrocarbon Data Report

TOLUENE	**ND**	1	7.0	0.14	mg/Kg	8260B/5035A	GXS_140127
ETHYLBENZENE	**ND**	1	6.0	0.14	mg/Kg	8260B/5035A	GXS_140127
TOTAL XYLENES	**ND**	1	9.0	0.28	mg/Kg	8260B/5035A	GXS_140127
GAS Range Organics	**ND**	1	100/30*	35	mg/Kg	8260B/5035A	GXS_140127

Notation:

ND - A result of "ND" indicates that the compound was not detected above the Lab's Method Reporting Limit - MRL.
PQL = Practical Quantitation Limit is the lowest level that can be achieved within specified limits of precision and accuracy during routine laboratory operating conditions.
D.F. - Dilution Factor
Cleanup Level - The regulatory limit for Method A Cleanup Levels (MTCA, Chapter173-340 WAC) contaminants in the specified matrix. Amended Feb 12, 2001

The Cleanup level for Gasoline Range Organics (GRO) is 100 mg/Kg for gas mixtures without benzene and when the total ethylbenzene, toluene and xylenes are less than 1% of the gasoline concentration. The Cleanup level for GRO is 30 mg/Kg for all other mixtures.

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Portland OR
Microbiology/Chemistry
9150 SW Pioneer Ct Ste W- 97070
503.682.7802

Hydrocarbon Data Report

Client Name: Materials Testing & Consulting
777 Chrysler Drive
Burlington, WA 98233

Reference Number: **14-00707**
Project: Phase II ESA
Report Date: 1/30/14
Date Received: 1/14/14
Peer Review:

Sample Description: B-3 GW - 10:40 Truck City
Lab Number: 1663
Date 1/14/14
Sample Date: 1/13/14
Collected By: John Gillaspy
Analyzed By: EM

Parameter	Result	Flag	DF	Cleanup Level	PQL	MDL	Units	Method	Batch	Comment
NWTPH-Dx										
DIESEL (C12 - C24)	**ND**		1	0.5	0.2	0.09	mg/L	NWTPH-Dx/3510C	DXW_140114	acid/silica gel cleanup
HEAVIER OILS (>C24)	**ND**		1	0.5	0.2		mg/L	NWTPH-Dx/3510C	DXW_140114	acid/silica gel cleanup

Sample Description: B-1 GW - Truck City
Lab Number: 1682
Date 1/14/14
Sample Date: 1/13/14
Collected By: John Gillaspy
Analyzed By: EM

Parameter	Result	Flag	DF	Cleanup Level	PQL	MDL	Units	Method	Batch	Comment
NWTPH-Dx										
DIESEL (C12 - C24)	**ND**		1	0.5	0.2	0.09	mg/L	NWTPH-Dx/3510C	DXW_140114	Field DUP: ND
HEAVIER OILS (>C24)	**ND**		1	0.5	0.2		mg/L	NWTPH-Dx/3510C	DXW_140114	Field DUP: ND

Sample Description: B-2 GW - Truck City
Lab Number: 1683
Date 1/14/14
Sample Date: 1/13/14
Collected By: John Gillaspy
Analyzed By: EM

Parameter	Result	Flag	DF	Cleanup Level	PQL	MDL	Units	Method	Batch	Comment
NWTPH-Dx										
DIESEL (C12 - C24)	**ND**		1	0.5	0.2	0.09	mg/L	NWTPH-Dx/3510C	DXW_140114	acid/silica gel cleanup
HEAVIER OILS (>C24)	**ND**		1	0.5	0.2		mg/L	NWTPH-Dx/3510C	DXW_140114	acid/silica gel cleanup

Notation:
ND - A result of "ND" indicates that the compound was not detected above the Lab's Method Reporting Limit - MRL.
PQL = Practical Quantitation Limit is the lowest level that can be achieved within specified limits of precision and accuracy during routine laboratory operating conditions.
D.F. - Dilution Factor
Cleanup Level - The regulatory limit for Method A Cleanup Levels (MTCA, Chapter173-340 WAC) contaminants in the specified matrix. Amended Feb 12, 2001
The Cleanup level for Gasoline Range Organics (GRO) is 100 mg/Kg for gas mixtures without benzene and when the total ethylbenzene, toluene and xylenes are less than 1% of the gasoline concentration. The Cleanup level for GRO is 30 mg/Kg for all other mixtures.

If you have any questions concerning this report contact us at the above phone number.
Form: cHCID.rpt

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Hydrocarbon Data Report

Client Name: Materials Testing & Consulting
777 Chrysler Drive
Burlington, WA 98233

Reference Number: **14-00707**
Project: Phase II ESA
Report Date: 1/30/14
Date Received: 1/14/14
Peer Review:

Sample Description: B-3@9.5' - Truck City
Lab Number: 1664
Date 1/27/14

Sample Date: 1/13/14
Collected By: John Gillaspy
Analyzed By: EM

Parameter	Result	Flag	DF	Cleanup Level	PQL	MDL	Units	Method	Batch	Comment
NWTPH-Dx										
DIESEL (C12 - C24)	**103**		1	2000	50		mg/Kg	NWTPH-Dx/3550B	DXS_140124	Lab DUP: 71 mg/Kg
HEAVIER OILS (>C24)	**ND**		1	2000	50		mg/Kg	NWTPH-Dx/3550B	DXS_140124	

Sample Description: B-4@8.0' - Truck City
Lab Number: 1671
Date 1/27/14

Sample Date: 1/13/14
Collected By: John Gillaspy
Analyzed By: EM

Parameter	Result	Flag	DF	Cleanup Level	PQL	MDL	Units	Method	Batch	Comment
NWTPH-Dx										
DIESEL (C12 - C24)	**ND**		1	2000	50		mg/Kg	NWTPH-Dx/3550B	DXS_140124	
HEAVIER OILS (>C24)	**118**		1	2000	50		mg/Kg	NWTPH-Dx/3550B	DXS_140124	

Notation:
ND - A result of "ND" indicates that the compound was not detected above the Lab's Method Reporting Limit - MRL.
PQL = Practical Quantitation Limit is the lowest level that can be achieved within specified limits of precision and accuracy during routine laboratory operating conditions.
D.F. - Dilution Factor
Cleanup Level - The regulatory limit for Method A Cleanup Levels (MTCA, Chapter173-340 WAC) contaminants in the specified matrix. Amended Feb 12, 2001
The Cleanup level for Gasoline Range Organics (GRO) is 100 mg/Kg for gas mixtures without benzene and when the total ethylbenzene, toluene and xylenes are less than 1% of the gasoline concentration. The Cleanup level for GRO is 30 mg/Kg for all other mixtures.

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Hydrocarbon Data Report

Client Name: Materials Testing & Consulting
777 Chrysler Drive
Burlington, WA 98233

Reference Number: **14-00707**
Project: Phase II ESA
Report Date: 2/7/14
Date Received: 1/14/14
Peer Review:

Sample Description: B-5@7.5' - Truck City
Lab Number: 1674
Date 2/4/14

Sample Date: 1/13/14
Collected By: John Gillaspy
Analyzed By: EM

Parameter	Result	Flag	DF	Cleanup Level	PQL	MDL	Units	Method	Batch	Comment
NWTPH-Dx										
DIESEL (C12 - C24)	**ND**	H1	1	2000	50		mg/Kg	NWTPH-Dx/3550B	DXS_140204	Lab DUP: ND
HEAVIER OILS (>C24)	**ND**	H1	1	2000	50		mg/Kg	NWTPH-Dx/3550B	DXS_140204	Lab DUP: ND

Notation:
ND - A result of "ND" indicates that the compound was not detected above the Lab's PQL (also known as a Method Reporting Limit or MRL).
PQL = Practical Quantitation Limit is the lowest level that can be achieved within specified limits of precision and accuracy during routine laboratory operating conditions.
D.F. - Dilution Factor
Cleanup Level - The regulatory limit for Method A Cleanup Levels (MTCA, Chapter173-340 WAC) contaminants in the specified matrix. Amended Feb 12, 2001
The Cleanup level for Gasoline Range Organics (GRO) is 100 mg/Kg for gas mixtures without benzene and when the total ethylbenzene, toluene and xylenes are less than 1% of the gasoline concentration. The Cleanup level for GRO is 30 mg/Kg for all other mixtures.

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Hydrocarbon Data Report

Client Name: Materials Testing & Consulting
777 Chrysler Drive
Burlington, WA 98233

Reference Number: **14-00707**
Project: Phase II ESA
Report Date: 1/29/14
Date Received: 1/14/14
Peer Review:

Sample Description: B-1@6.5' - Truck City
Lab Number: 1655
Date 1/21/14

Sample Date: 1/13/14
Collected By: John Gillaspy
Analyzed By: RJK

Parameter	Result	Flag	DF	Cleanup Level	PQL	MDL	Units	Method	Batch	Comment
Hydrocarbon Identification										
GASOLINE (C8 - C12)	**ND**		1	100	100		mg/Kg	NWTPH-HCID/3550B	HCIDS_140120	
DIESEL (C12 - C24)	**ND**		1	2000	100		mg/Kg	NWTPH-HCID/3550B	HCIDS_140120	
HEAVY HYDROCARBONS (>C24)	**ND**		1	2000	100		mg/Kg	NWTPH-HCID/3550B	HCIDS_140120	

Sample Description: B-2@7.0' - Truck City
Lab Number: 1658
Date 1/21/14

Sample Date: 1/13/14
Collected By: John Gillaspy
Analyzed By: RJK

Parameter	Result	Flag	DF	Cleanup Level	PQL	MDL	Units	Method	Batch	Comment
Hydrocarbon Identification										
GASOLINE (C8 - C12)	**ND**		1	100	100		mg/Kg	NWTPH-HCID/3550B	HCIDS_140120	
DIESEL (C12 - C24)	**ND**		1	2000	100		mg/Kg	NWTPH-HCID/3550B	HCIDS_140120	
HEAVY HYDROCARBONS (>C24)	**ND**		1	2000	100		mg/Kg	NWTPH-HCID/3550B	HCIDS_140120	

Sample Description: B-6@4.0 - Truck City
Lab Number: 1676
Date 1/21/14

Sample Date: 1/13/14
Collected By: John Gillaspy
Analyzed By: RJK

Parameter	Result	Flag	DF	Cleanup Level	PQL	MDL	Units	Method	Batch	Comment
Hydrocarbon Identification										
GASOLINE (C8 - C12)	**ND**		1	100	100		mg/Kg	NWTPH-HCID/3550B	HCIDS_140120	
DIESEL (C12 - C24)	**ND**		1	2000	100		mg/Kg	NWTPH-HCID/3550B	HCIDS_140120	
HEAVY HYDROCARBONS (>C24)	**ND**		1	2000	100		mg/Kg	NWTPH-HCID/3550B	HCIDS_140120	

Notation:
ND - A result of "ND" indicates that the compound was not detected above the Lab's Method Reporting Limit - MRL.
PQL = Practical Quantitation Limit is the lowest level that can be achieved within specified limits of precision and accuracy during routine laboratory operating conditions.
D.F. - Dilution Factor
Cleanup Level - The regulatory limit for Method A Cleanup Levels (MTCA, Chapter173-340 WAC) contaminants in the specified matrix. Amended Feb 12, 2001
The Cleanup level for Gasoline Range Organics (GRO) is 100 mg/Kg for gas mixtures without benzene and when the total ethylbenzene, toluene and xylenes are less than 1% of the gasoline concentration. The Cleanup level for GRO is 30 mg/Kg for all other mixtures.

If you have any questions concerning this report contact us at the above phone number.
Form: cHCID.rpt

Reference Number: **14-00707**
Report Date: 1/29/14

Hydrocarbon Data Report

Sample Description: B-7@5.0' - Truck City
Lab Number: 1678
Date 1/21/14

Sample Date: 1/13/14
Collected By: John Gillaspy
Analyzed By: RJK

Parameter	Result	Flag	DF	Cleanup Level	PQL	MDL	Units	Method	Batch	Comment
Hydrocarbon Identification										
GASOLINE (C8 - C12)	**ND**		1	100	100		mg/Kg	NWTPH-HCID/3550B	HCIDS_140120	
DIESEL (C12 - C24)	**ND**		1	2000	100		mg/Kg	NWTPH-HCID/3550B	HCIDS_140120	
HEAVY HYDROCARBONS (>C24)	**ND**		1	2000	100		mg/Kg	NWTPH-HCID/3550B	HCIDS_140120	

Sample Description: B-8@4.5' - Truck City
Lab Number: 1680
Date 1/21/14

Sample Date: 1/13/14
Collected By: John Gillaspy
Analyzed By: RJK

Parameter	Result	Flag	DF	Cleanup Level	PQL	MDL	Units	Method	Batch	Comment
Hydrocarbon Identification										
GASOLINE (C8 - C12)	**ND**		1	100	100		mg/Kg	NWTPH-HCID/3550B	HCIDS_140120	
DIESEL (C12 - C24)	**ND**		1	2000	100		mg/Kg	NWTPH-HCID/3550B	HCIDS_140120	
HEAVY HYDROCARBONS (>C24)	**ND**		1	2000	100		mg/Kg	NWTPH-HCID/3550B	HCIDS_140120	

Sample Description: S-2 4' & Dup - Truck City
Lab Number: 1685
Date 1/21/14

Sample Date: 1/13/14
Collected By: John Gillaspy
Analyzed By: RJK

Parameter	Result	Flag	DF	Cleanup Level	PQL	MDL	Units	Method	Batch	Comment
Hydrocarbon Identification										
GASOLINE (C8 - C12)	**ND**		1	100	100		mg/Kg	NWTPH-HCID/3550B	HCIDS_140120	
DIESEL (C12 - C24)	**ND**		1	2000	100		mg/Kg	NWTPH-HCID/3550B	HCIDS_140120	
HEAVY HYDROCARBONS (>C24)	**ND**		1	2000	100		mg/Kg	NWTPH-HCID/3550B	HCIDS_140120	

Sample Description: Mid-S Storm Grate - Truck City
Lab Number: 2563
Date 1/21/14

Sample Date: 1/15/14
Collected By: John Gillaspy
Analyzed By: RJK

Parameter	Result	Flag	DF	Cleanup Level	PQL	MDL	Units	Method	Batch	Comment
Hydrocarbon Identification										
GASOLINE (C8 - C12)	**ND**		1	100	100		mg/Kg	NWTPH-HCID/3550B	HCIDS_140120	
DIESEL (C12 - C24)	**>100**		1	2000	100		mg/Kg	NWTPH-HCID/3550B	HCIDS_140120	Estimated: 302 mg/Kg
HEAVY HYDROCARBONS (>C24)	**>100**		1	2000	100		mg/Kg	NWTPH-HCID/3550B	HCIDS_140120	Estimated: 232 mg/Kg

Notation:

ND - A result of "ND" indicates that the compound was not detected above the Lab's Method Reporting Limit - MRL.
PQL = Practical Quantitation Limit is the lowest level that can be achieved within specified limits of precision and accuracy during routine laboratory operating conditions.
D.F. - Dilution Factor
Cleanup Level - The regulatory limit for Method A Cleanup Levels (MTCA, Chapter173-340 WAC) contaminants in the specified matrix. Amended Feb 12, 2001
The Cleanup level for Gasoline Range Organics (GRO) is 100 mg/Kg for gas mixtures without benzene and when the total ethylbenzene, toluene and xylenes are less than 1% of the gasoline concentration. The Cleanup level for GRO is 30 mg/Kg for all other mixtures.

EDGE ANALYTICAL LABORATORIES

Burlington WA
Corporate Office
1620 S Walnut St - 98233
800.755.9295 • 360.757.1400

Bellingham WA
Microbiology
805 Orchard Dr Ste 4 - 98225
360.671.0688

Portland OR
Microbiology/Chemistry
9150 SW Pioneer Ct Ste W- 97070
503.682.7802

Data Report

Client Name: Materials Testing & Consulting
777 Chrysler Drive
Burlington, WA 98233

Reference Number: **14-00707**
Project: Phase II ESA

Report Date: 1/30/14
Date Received: 1/14/14
Reviewed by:

Sample Description: B-1@8.0' - Truck City
Lab Number: 1657 Sample Comment:
Sample Date: 1/13/14
Collected By: John Gillaspy

CAS ID#	Parameter	Result	PQL	MRL	MDL	Units	DF	Method	Analyzed	Analyst	Batch	Comment
7439-97-6	**MERCURY**	0.0122	0.0055	0.0055		mg/kg	1.00	7471A	1/20/14	EAF	7471A_140120	
7440-38-2	**ARSENIC**	ND	1.47	1.47		mg/kg	1.00	6010B/3051	1/23/14	BJ	6010B-140123A	
7440-39-3	**BARIUM**	44.5	1.47	1.47		mg/kg	1.00	6010B/3051	1/23/14	BJ	6010B-140123A	
7440-43-9	**CADMIUM**	ND	1.47	1.47		mg/kg	1.00	6010B/3051	1/23/14	BJ	6010B-140123A	
7440-47-3	**CHROMIUM**	22.2	1.47	1.47		mg/kg	1.00	6010B/3051	1/23/14	BJ	6010B-140123A	
7440-50-8	**COPPER**	11.3	1.47	1.47		mg/kg	1.00	6010B/3051	1/23/14	BJ	6010B-140123A	
7439-92-1	**LEAD**	ND	1.47	1.47		mg/kg	1.00	6010B/3051	1/23/14	BJ	6010B-140123A	
7782-49-2	**SELENIUM**	ND	1.47	1.47		mg/kg	1.00	6010B/3051	1/23/14	BJ	6010B-140123A	
7440-22-4	**SILVER**	ND	1.47	1.47		mg/kg	1.00	6010B/3051	1/23/14	BJ	6010B-140123A	

Sample Description: B-2@9.0' - Truck City
Lab Number: 1659 Sample Comment:
Sample Date: 1/13/14
Collected By: John Gillaspy

CAS ID#	Parameter	Result	PQL	MRL	MDL	Units	DF	Method	Analyzed	Analyst	Batch	Comment
7439-97-6	**MERCURY**	ND	0.0065	0.0065		mg/kg	1.00	7471A	1/20/14	EAF	7471A_140120	
7440-38-2	**ARSENIC**	ND	1.51	1.51		mg/kg	1.00	6010B/3051	1/23/14	BJ	6010B-140123A	
7440-39-3	**BARIUM**	16.0	1.51	1.51		mg/kg	1.00	6010B/3051	1/23/14	BJ	6010B-140123A	
7440-43-9	**CADMIUM**	ND	1.51	1.51		mg/kg	1.00	6010B/3051	1/23/14	BJ	6010B-140123A	
7440-47-3	**CHROMIUM**	10.2	1.51	1.51		mg/kg	1.00	6010B/3051	1/23/14	BJ	6010B-140123A	
7440-50-8	**COPPER**	4.71	1.51	1.51		mg/kg	1.00	6010B/3051	1/23/14	BJ	6010B-140123A	
7439-92-1	**LEAD**	ND	1.51	1.51		mg/kg	1.00	6010B/3051	1/23/14	BJ	6010B-140123A	
7782-49-2	**SELENIUM**	ND	1.51	1.51		mg/kg	1.00	6010B/3051	1/23/14	BJ	6010B-140123A	
7440-22-4	**SILVER**	ND	1.51	1.51		mg/kg	1.00	6010B/3051	1/23/14	BJ	6010B-140123A	

Sample Description: B-3@10.5' - Truck City
Lab Number: 1660 Sample Comment:
Sample Date: 1/13/14
Collected By: John Gillaspy

CAS ID#	Parameter	Result	PQL	MRL	MDL	Units	DF	Method	Analyzed	Analyst	Batch	Comment
7439-97-6	**MERCURY**	0.0108	0.0066	0.0066		mg/kg	1.00	7471A	1/20/14	EAF	7471A_140120	
7440-38-2	**ARSENIC**	ND	1.51	1.51		mg/kg	1.00	6010B/3051	1/23/14	BJ	6010B-140123A	
7440-39-3	**BARIUM**	28.5	1.51	1.51		mg/kg	1.00	6010B/3051	1/23/14	BJ	6010B-140123A	
7440-43-9	**CADMIUM**	ND	1.51	1.51		mg/kg	1.00	6010B/3051	1/23/14	BJ	6010B-140123A	

Notes:
ND = Not detected above the listed practical quantitation limit (PQL) or not above the Method Detection Limit (MDL), if requested.
PQL = Practical Quantitation Limit is the lowest level that can be achieved within specified limits of precision and accuracy during routine laboratory operating conditions.
D.F. - Dilution Factor

If you have any questions concerning this report contact Lawrence Henderson at the above phone number.
Form: cRslt_2.rpt

Reference Number: **14-00707**
Report Date: 1/30/14

Data Report

7440-47-3	**CHROMIUM**	16.4	1.51	1.51		mg/kg	1.00	6010B/3051	1/23/14	BJ	6010B-140123A
7440-50-8	**COPPER**	8.05	1.51	1.51		mg/kg	1.00	6010B/3051	1/23/14	BJ	6010B-140123A
7439-92-1	**LEAD**	3.75	1.51	1.51		mg/kg	1.00	6010B/3051	1/23/14	BJ	6010B-140123A
7782-49-2	**SELENIUM**	ND	1.51	1.51		mg/kg	1.00	6010B/3051	1/23/14	BJ	6010B-140123A
7440-22-4	**SILVER**	ND	1.51	1.51		mg/kg	1.00	6010B/3051	1/23/14	BJ	6010B-140123A

Sample Description: B-3 GW - 10:30 Truck City — Sample Date: 1/13/14
Lab Number: 1662 — Sample Comment: — Collected By: John Gillaspy

CAS ID#	Parameter	Result	PQL	MRL	MDL	Units	DF	Method	Analyzed	Analyst	Batch	Comment
7439-97-6	**MERCURY**	ND	0.0002	0.0002	0.0000086	mg/L	1.00	245.1	1/17/14	EAF	245.1_140117	
7440-38-2	**ARSENIC**	0.0015		0.001	2.40E-05	mg/L	1.00	6020A/3010A	1/17/14	MVP	6020_140117	
7440-39-3	**BARIUM**	0.042		0.001	1.55E-05	mg/L	1.00	6020A/3010A	1/17/14	MVP	6020_140117	
7440-43-9	**CADMIUM**	0.00023		0.0001	4.93E-06	mg/L	1.00	6020A/3010A	1/17/14	MVP	6020_140117	
7440-47-3	**CHROMIUM**	0.010		0.001	3.52E-05	mg/L	1.00	6020A/3010A	1/17/14	MVP	6020_140117	
7439-92-1	**LEAD**	0.00055		0.0005	1.27E-05	mg/L	1.00	6020A/3010A	1/17/14	MVP	6020_140117	
7782-49-2	**SELENIUM**	0.0007 J		0.002	3.12E-05	mg/L	1.00	6020A/3010A	1/17/14	MVP	6020_140117	
7440-22-4	**SILVER**	ND		0.0002	5.50E-06	mg/L	1.00	6020A/3010A	1/17/14	MVP	6020_140117	

Sample Description: B-4@8.5' - Truck City — Sample Date: 1/13/14
Lab Number: 1672 — Sample Comment: — Collected By: John Gillaspy

CAS ID#	Parameter	Result	PQL	MRL	MDL	Units	DF	Method	Analyzed	Analyst	Batch	Comment
7439-97-6	**MERCURY**	0.0747	0.0085	0.0085		mg/kg	1.00	7471A	1/20/14	EAF	7471A_140120	
7440-38-2	**ARSENIC**	ND	1.37	1.37		mg/kg	1.00	6010B/3051	1/23/14	BJ	6010B-140123A	
7440-39-3	**BARIUM**	98.7	1.37	1.37		mg/kg	1.00	6010B/3051	1/23/14	BJ	6010B-140123A	
7440-43-9	**CADMIUM**	1.86	1.37	1.37		mg/kg	1.00	6010B/3051	1/23/14	BJ	6010B-140123A	
7440-47-3	**CHROMIUM**	47.9	1.37	1.37		mg/kg	1.00	6010B/3051	1/23/14	BJ	6010B-140123A	
7440-50-8	**COPPER**	25.0	1.37	1.37		mg/kg	1.00	6010B/3051	1/23/14	BJ	6010B-140123A	
7439-92-1	**LEAD**	4.86	1.37	1.37		mg/kg	1.00	6010B/3051	1/23/14	BJ	6010B-140123A	
7782-49-2	**SELENIUM**	ND	1.37	1.37		mg/kg	1.00	6010B/3051	1/23/14	BJ	6010B-140123A	
7440-22-4	**SILVER**	ND	1.37	1.37		mg/kg	1.00	6010B/3051	1/23/14	BJ	6010B-140123A	

Sample Description: B-1 GW - Truck City — Sample Date: 1/13/14
Lab Number: 1682 — Sample Comment: — Collected By: John Gillaspy

CAS ID#	Parameter	Result	PQL	MRL	MDL	Units	DF	Method	Analyzed	Analyst	Batch	Comment
7439-97-6	**MERCURY**	ND	0.0002	0.0002	0.0000086	mg/L	1.00	245.1	1/17/14	EAF	245.1_140117	
7440-38-2	**ARSENIC**	0.0059		0.001	2.40E-05	mg/L	1.00	6020A/3010A	1/17/14	MVP	6020_140117	
7440-39-3	**BARIUM**	0.096		0.001	1.55E-05	mg/L	1.00	6020A/3010A	1/17/14	MVP	6020_140117	
7440-43-9	**CADMIUM**	0.000025		0.0001	4.93E-06	mg/L	1.00	6020A/3010A	1/17/14	MVP	6020_140117	
7440-47-3	**CHROMIUM**	0.0092		0.001	3.52E-05	mg/L	1.00	6020A/3010A	1/17/14	MVP	6020_140117	
7439-92-1	**LEAD**	0.0004 J		0.0005	1.27E-05	mg/L	1.00	6020A/3010A	1/17/14	MVP	6020_140117	
7782-49-2	**SELENIUM**	0.0004 J		0.002	3.12E-05	mg/L	1.00	6020A/3010A	1/17/14	MVP	6020_140117	
7440-22-4	**SILVER**	ND		0.0002	5.50E-06	mg/L	1.00	6020A/3010A	1/17/14	MVP	6020_140117	

Notes:

ND = Not detected above the listed practical quantitation limit (PQL) or not above the Method Detection Limit (MDL), if requested.
PQL = Practical Quantitation Limit is the lowest level that can be achieved within specified limits of precision and accuracy during routine laboratory operating conditions.
D.F. - Dilution Factor

Reference Number: **14-00707**

Report Date: 1/30/14

Data Report

Sample Description: B-2 GW - Truck City | Sample Date: 1/13/14

Lab Number: 1683 | Sample Comment: | Collected By: John Gillaspy

CAS ID#	Parameter	Result	PQL	MRL	MDL	Units	DF	Method	Analyzed	Analyst	Batch	Comment
7439-97-6	**MERCURY**	ND	0.0002	0.0002	0.0000086	mg/L	1.00	245.1	1/17/14	EAF	245.1_140117	
7440-38-2	**ARSENIC**	0.002		0.001	2.40E-05	mg/L	1.00	6020A/3010A	1/17/14	MVP	6020_140117	
7440-39-3	**BARIUM**	0.059		0.001	1.55E-05	mg/L	1.00	6020A/3010A	1/17/14	MVP	6020_140117	
7440-43-9	**CADMIUM**	0.00002		0.00001	4.93E-06	mg/L	1.00	6020A/3010A	1/17/14	MVP	6020_140117	
7440-47-3	**CHROMIUM**	0.002		0.001	3.52E-05	mg/L	1.00	6020A/3010A	1/17/14	MVP	6020_140117	
7439-92-1	**LEAD**	0.0013		0.0005	1.27E-05	mg/L	1.00	6020A/3010A	1/17/14	MVP	6020_140117	
7782-49-2	**SELENIUM**	0.0003 IJ		0.002	3.12E-05	mg/L	1.00	6020A/3010A	1/17/14	MVP	6020_140117	
7440-22-4	**SILVER**	ND		0.0002	5.50E-06	mg/L	1.00	6020A/3010A	1/17/14	MVP	6020_140117	

Notes:

ND = Not detected above the listed practical quantitation limit (PQL) or not above the Method Detection Limit (MDL), if requested.

PQL = Practical Quantitation Limit is the lowest level that can be achieved within specified limits of precision and accuracy during routine laboratory operating conditions.

D.F. - Dilution Factor

Chain of Custody / Analysis Request

(Please complete all applicable shaded sections)

21520

Report to:	Materials Testing & Consulting	Bill to:	Same	**For Lab Use Only** Ref #	14-00707
Ship Address:	777 Chrysler Drive	Address:			
City:	Burlington St: WA Zip: 98233	City:	St: Zip:	**Check Regulatory Program**	
Attn:	John	Phone:	FAX:	☐ Safe Drinking Water Act	
Phone:	360.755-1990 FAX: 755-1980	P.O.#:	Attn:	☐ Clean Water Act	
Email:		☐ Visa ☐ M/C ☐ A/E	Expires /	☒ RCRA / CERCLA	
Project	Phase II ESA	Card#:		☐ Other	

EDGE ANALYTICAL LABORATORIES

Main Lab (800-755-9295)
1620 South Walnut St. Burlington, WA 98233
Microbiology (888-725-1212)
805 W. Orchard Dr. Suite 4 Bellingham, WA 98225

Wilsonville Lab (503-682-7802)
9150 SW Pioneer Ct. Suite W Wilsonville, OR 97070
Corvallis Lab (541-753-4946)
540 SW 3rd St. Corvallis, OR 97333

Instructions

1. Use one line per sample Location.
2. Be specific in analysis requests.
3. *(NEW)* **List each metal individually** *(NEW)*
4. Check off analyses to be performed for each sample Loaction.
5. Enter number of containers.

Turn Around Time Required

- ☒ Standard
- ☐ Half-time (50% surcharge)
- ☐ Quickest (100% surcharge) Phone Call Req.
- ☐ Emergency (Phone Call Req.)

Analyses Requested

CO021520

	Field ID	Location	Grab/ Comp.	Sample Matrix*	Date	Time	NWTPH-Dx.W	NWTPH-HCID.S	RCRA Metals.S	RCRA Metals.W	NWTPH-Dx.S				Number of Containers	Special Instructions Conditions on Receipt
1	B-1@6.5'	Truck City		S	1-13	845	☐	☒	☐	☐	☐	☐	☐	☐	1	Hold
2	B-1@12.0'			S		850	☐	☒	☐	☐	☐	☐	☐	☐	1	H
3	B-1@8.0'			S		850	☐	☐	☒	☐	☐	☐	☐	☐	1	H
4	B-2@7.0'			S		935	☐	☒	☐	☐	☐	☐	☐	☐	1	H
5	B-2@9.0'			S		920	☐	☐	☒	☐	☐	☐	☐	☐	1	H
6	B-3@10.5'			S		1020	☐	☐	☒	☐	☐	☐	☐	☐	1	
7	B-3@14.0'			S		1020	☐	☒	☐	☐	☐	☐	☐	☐	1	Hold
8	B-3@GW			GW		1030	☐	☐	☐	☒	☐	☐	☐	☐	1	
9	B-3 GW			GW		1040	☒	☐	☐	☐	☐	☐	☐	☐	2	
10	B-3@9.5'			S		1020	☐	☐	☐	☐	☒	☐	☐	☐	1	

Sampled by: John Gillaspy Phone: Same FAX: Same Email: john.gillaspy@mtc-inc.net Total Containers: 11

Sample Receipt Request (Must include FAX or Email) ☐

* **W** - water **SW** - surface water **WW** - waste water **OL** - oil
DW - drinking water **GW** - Ground water **S** - soil Other_____

Relinquished by	Date	Time	Received by	Date	Time
			[signature]	1/14/14	0830

	Yes	No	N/A
Custody seals intact	☐	☐	☒
Sample temp 3 °C satisfactory	☐	☐	☐
Samples received intact	☐	☐	
Chain of custody & labels agree	☐	☐	

edge

FORM: COC 01-06-2009

Chain of Custody / Analysis Request

(Please complete all applicable shaded sections)

21520

Report to:	Materials Testing & Consulting			Bill to:	Same		
Ship Address:	777 Chrysler Drive			Address:			
City:	Burlington	St:	WA Zip: 98233	City:		St:	Zip:
Attn:	John			Phone:		FAX:	
Phone:	360.755-1990 FAX:		755-1980	P.O.#:		Attn:	
Email:				☐ Visa ☐ M/C ☐ A/E		Expires	/
Project	Phase II ESA			Card#:			

For Lab Use Only

Ref #

Check Regulatory Program

- ☐ Safe Drinking Water Act
- ☐ Clean Water Act
- ☒ RCRA / CERCLA
- ☐ Other

EDGE ANALYTICAL LABORATORIES

Main Lab (800-755-9295)
1620 South Walnut St. Burlington, WA 98233
Microbiology (888-725-1212)
805 W. Orchard Dr. Suite 4 Bellingham, WA 98225

Wilsonville Lab (503-682-7802)
9150 SW Pioneer Ct. Suite W Wilsonville, OR 97070
Corvallis Lab (541-753-4946)
540 SW 3rd St. Corvallis, OR 97333

Instructions

1. Use one line per sample Location.
2. Be specific in analysis requests.
3. *(NEW)* **List each metal individually** *(NEW)*
4. Check off analyses to be performed for each sample Loaction.
5. Enter number of containers.

Turn Around Time Required

- ☒ Standard
- ☐ Half-time (50% surcharge)
- ☐ Quickest (100% surcharge) Phone Call Req.
- ☐ Emergency (Phone Call Req.)

Analyses Requested

	Field ID	Location	Grab/ Comp.	Sample Matrix*	Date	Time	5035/8260 (Soil) (Gx)	8081A Soil	8081A - Water	8151.W	8151A.S	Field Blank (8260)	Field Blank 5035 A	NWTPH/G-BTEX.W	Number of Containers	Special Instructions Conditions on Receipt
1	B-3 GW	Truck Cks		GW	1-13	1030		☐	☐	☐	☐	X		X	3	
2	B-3@9.0'			S		1015	X	☐	☐	☐	☐	☐	X	☐	4	
3	B-4@7.0'			S		1130	X	☐	☐	☐	☐	☐	X	☐	4	
4	B-5@8.0'			S		1230	X	☐	☐	☐	☐	☐	X	☐	4	
5	B-1 GW			GW		330	☐	☐	☐	☐	☐	X	☐	X	3	
6	B-2 GW			GW		400	☐	☐	☐	☐	☐	X	☐	X	3	
7							☐	☐	☐	☐	☐	☐	☐	☐		B2 GW Dup Broken
8							☐	☐	☐	☐	☐	☐	☐	☐		
9							☐	☐	☐	☐	☐	☐	☐	☐		
10							☐	☐	☐	☐	☐	☐	☐	☐		

CO021520

Sampled by: John G. Maggay Phone: Same FAX: Same Email: john.g.maggay@mtc-inc.net 21 Total Containers

Sample Receipt Request (Must include FAX or Email) ☐

* **W** - water **SW** - surface water **WW** - waste water **OL** - oil
DW - drinking water **GW** - Ground water **S** - soil Other_____

Relinquished by	Date	Time	Received by	Date	Time

	Yes	No	N/A
Custody seals intact	☐	☐	☐
Sample temp_____C satisfactory	☐	☐	☐
Samples received intact	☐	☐	
Chain of custody & labels agree	☐	☐	

Chain of Custody / Analysis Request

(Please complete all applicable shaded sections)

21520

EDGE ANALYTICAL LABORATORIES
Main Lab (800-755-9295)
1620 South Walnut St. Burlington, WA 98233
Microbiology (888-725-1212)
805 W. Orchard Dr. Suite 4 Bellingham, WA 98225
Wilsonville Lab (503-682-7802)
9150 SW Pioneer Ct. Suite W Wilsonville, OR 97070
Corvallis Lab (541-753-4946)
540 SW 3rd St. Corvallis, OR 97333

Report to:	Materials Testing & Consulting	Bill to:	Same
Ship Address:	777 Chrysler Drive	Address:	
City:	Burlington St: WA Zip: 98233	City: St: Zip:	
Attn:	John	Phone: FAX:	
Phone:	360.755-1990 FAX: 755-1980	P.O.#: Attn:	
Email:		☐ Visa ☐ M/C ☐ A/E Expires /	
Project	Phase II ESA	Card#:	

For Lab Use Only
Ref #

Check Regulatory Program
- ☐ Safe Drinking Water Act
- ☐ Clean Water Act
- ☒ RCRA / CERCLA
- ☐ Other

Instructions

1. Use one line per sample Location.
2. Be specific in analysis requests.
3. *(NEW)* **List each metal individually** *(NEW)*
4. Check off analyses to be performed for each sample Loaction.
5. Enter number of containers.

Turn Around Time Required
- ☒ Standard
- ☐ Half-time (50% surcharge)
- ☐ Quickest (100% surcharge) Phone Call Req.
- ☐ Emergency (Phone Call Req.)

Analyses Requested

CO021520

	Field ID	Location	Grab/ Comp.	Sample Matrix*	Date	Time	NWTPH-Dx.W	NWTPH-HCID.S	RCRA Metals.S	RCRA Metals.W	NWTPH-Dx.S				Number of Containers	Special Instructions Conditions on Receipt
1	B-4 @ 8.0'	Truck City		S	1-13	1130	☐	☐	☐	☐	☒	☐	☐	☐	1	
2	B-4 @ 8.5'			S		1120	☐	☐	☒	☐	☐	☐	☐	☐	1	
3	B-4 @ 12.5			S		1130	☐	☒	☐	☐	☐	☐	☐	☐	1	Hold
4	B-5 @ 7.5'			S		1230	☐	☐	☐	☐	☒	☐	☐	☐	1	
5	B-5 @ 12.5'			S		1230	☐	☒	☐	☐	☐	☐	☐	☐	1	Hold
6	B-6 @ 4.0'			S		140	☐	☒	☐	☐	☐	☐	☐	☐	1	H
7	B-6 @ 8.5'			S		140	☐	☒	☐	☐	☐	☐	☐	☐	1	H
8	B-7 @ 5.0'			S		215	☐	☒	☐	☐	☐	☐	☐	☐	1	H
9	B-7 @ 9.5'			S		215	☐	☒	☐	☐	☐	☐	☐	☐	1	H
10							☐	☐	☐	☐	☐	☐	☐	☐		

Sampled by: John Gillaspy Phone: Same FAX: Same Email: john.gillaspy@nte-inc.net 9 Total Containers

Sample Receipt Request (Must include FAX or Email) ☐

* **W** - water **SW** - surface water **WW** - waste water **OL** - oil
DW - drinking water **GW** - Ground water **S** - soil Other_____

Relinquished by	Date	Time	Received by	Date	Time

	Yes	No	N/A
Custody seals intact	☐	☐	☐
Sample temp_____C satisfactory	☐	☐	☐
Samples received intact	☐	☐	
Chain of custody & labels agree	☐	☐	

FORM: COC 01-06-2009

Chain of Custody / Analysis Request

(Please complete all applicable shaded sections)

21520

Report to:	Materials Testing & Consulting	Bill to:	Same
Ship Address:	777 Chrysler Drive	Address:	
City:	Burlington St: WA Zip: 98233	City: St: Zip:	
Attn:	John	Phone: FAX:	
Phone:	360.755-1990 FAX: 755-1980	P.O.#: Attn:	
Email:		☐ Visa ☐ M/C ☐ A/E Expires /	
Project	Phase II ESA	Card#:	

For Lab Use Only

Ref #

Check Regulatory Program

- ☐ Safe Drinking Water Act
- ☐ Clean Water Act
- ☒ RCRA / CERCLA
- ☐ Other

EDGE ANALYTICAL LABORATORIES

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Microbiology (888-725-1212)
805 W. Orchard Dr. Suite 4 Bellingham, WA 98225

Wilsonville Lab (503-682-7802)
9150 SW Pioneer Ct. Suite W Wilsonville, OR 97070
Corvallis Lab (541-753-4946)
540 SW 3rd St. Corvallis, OR 97333

Instructions

1. Use one line per sample Location.
2. Be specific in analysis requests.
3. (NEW) **List each metal individually** (NEW)
4. Check off analyses to be performed for each sample Loaction.
5. Enter number of containers.

Turn Around Time Required

- ☒ Standard
- ☐ Half-time (50% surcharge)
- ☐ Quickest (100% surcharge) Phone Call Req.
- ☐ Emergency (Phone Call Req.)

Analyses Requested

CO021520

	Field ID	Location	Grab/ Comp.	Sample Matrix*	Date	Time	NWTPH-Dx.W	NWTPH-HCID.S	RCRA Metals.S	RCRA Metals.W					Number of Containers	Special Instructions Conditions on Receipt
1	B-8@4.5'	Truck GTS		S	1-13	250	☐	☒	☐	☐	☐	☐	☐	☐	1	Hold
2	B-8@11.0'			S		250	☐	☒	☐	☐	☐	☐	☐	☐	1	Hold
3	B-1 GW			GW		330	☒	☐	☐	☒	☐	☐	☐	☐	3	
4	B-2 GW			GW		400	☒	☐	☐	☒	☐	☐	☐	☐	3	
5	S-1 2'+Dup.			S		1100	☐	☒	☐	☐	☐	☐	☐	☐	2	Hold
6	S-2 4'+Dup.			S			☐	☒	☐	☐	☐	☐	☐	☐	2	Hold
7							☐	☐	☐	☐	☐	☐	☐	☐		
8							☐	☐	☐	☐	☐	☐	☐	☐		
9							☐	☐	☐	☐	☐	☐	☐	☐		
10							☐	☐	☐	☐	☐	☐	☐	☐		

Sampled by: John Gillaspy Phone: same FAX: same Email: john.gillaspy@mtc-inc.net 12 Total Containers

Sample Receipt Request (Must include FAX or Email) ☐

* **W** - water **SW** - surface water **WW** - waste water **OL** - oil
DW - drinking water **GW** - Ground water **S** - soil Other_____

Relinquished by	Date	Time	Received by	Date	Time

	Yes	No	N/A
Custody seals intact	☐	☐	☐
Sample temp_____C satisfactory	☐	☐	☐
Samples received intact	☐	☐	
Chain of custody & labels agree	☐	☐	