

**Quarterly Groundwater Monitoring and
Stormwater Conveyance Piping Camera Survey**

Senz Automotive Service
Yamhill, Oregon

For

Oregon Department of Environmental Quality

February 23, 2011



15055 SW Sequoia Parkway Suite 140
Portland, Oregon 97224
503.624.9274

**Groundwater Monitoring and
Stormwater Conveyance Piping Camera
Survey**

**Senz Automotive Service
Yamhill, Oregon**

File No. 2787-039-01

February 23, 2011

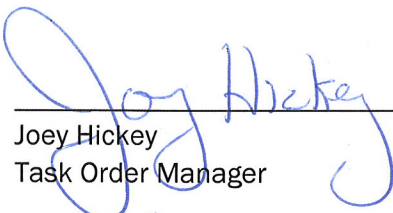
Prepared for:

Oregon Department of Environmental Quality
Western Region Office
750 Front Street, Suite 120
Salem, Oregon 97301-1039

Attention: Jim Glass

Prepared by:

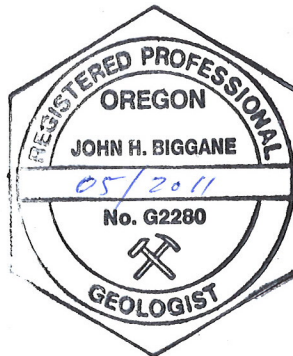
GeoEngineers, Inc.
15055 SW Sequoia Parkway, Suite 140
Portland, Oregon 97224
503.624.9274



Joey Hickey
Task Order Manager



John H. Biggane, RG
Program Manager



JFH:JHB:jrm
P:\2\2787039\01\Finals\278703901 Dec_10 Qtly.docx

Disclaimer: Any electronic form, facsimile or hard copy of the original document (email, text, table, and/or figure), if provided, and any attachments are only a copy of the original document. The original document is stored by GeoEngineers, Inc. and will serve as the official document of record.

Copyright© 2011 by GeoEngineers, Inc. All rights reserved.

Table of Contents

| | |
|---|----------|
| 1.0 INTRODUCTION | 1 |
| 2.0 SITE DESCRIPTION AND BACKGROUND | 1 |
| 2.1. Site Description | 1 |
| 2.2. Background | 1 |
| 3.0 PURPOSE..... | 2 |
| 3.1. Scope of Services..... | 2 |
| 4.0 SUBSURFACE EXPLORATION PROGRAM | 2 |
| 4.1. Groundwater Sampling from Monitoring Wells | 2 |
| 4.2. Stormwater Conveyance Piping Camera Survey | 2 |
| 5.0 HYDROGEOLOGY | 3 |
| 6.0 ANALYTICAL RESULTS..... | 3 |
| 6.1. Groundwater Analytical Results | 3 |
| 6.1.1. Gasoline-Range Hydrocarbons in Groundwater | 3 |
| 6.1.2. Volatile Organic Compounds in Groundwater | 3 |
| 6.2. Camera Survey Results | 4 |
| 7.0 RISK SCREENING..... | 4 |
| 7.1. Groundwater..... | 4 |
| 7.2. Locality of Facility..... | 5 |
| 8.0 SUMMARY AND CONCLUSIONS..... | 6 |
| 9.0 LIMITATIONS | 6 |
| 10.0 REFERENCES | 7 |

LIST OF TABLES

Table 1. Summary of Groundwater Elevations

Table 2. Summary of Groundwater Chemical Analytical Data, Petroleum Hydrocarbons and Lead

Table 3. Summary of Groundwater Sample Chemical Analytical Data, RBCA Volatile Organic Compounds

LIST OF FIGURES

Figure 1. Vicinity Map

Figure 2. Site Plan with Locality of Facility

Figure 3. Groundwater Elevations December 20, 2010

Figure 4. Gasoline, and BETX, Concentrations in Groundwater

Figure 5. MTBE Concentrations in Groundwater

Figure 6. Camera Survey Results

APPENDICES

Appendix A. Field Procedures

Appendix B. Chemical Analytical Data

Appendix C. Report Limitations and Guidelines for Use

1.0 INTRODUCTION

This report presents the results of the quarterly groundwater monitoring conducted by GeoEngineers during December 2010 at the Senz Automotive Service facility (former Senz station) and surrounding properties in Yamhill, Oregon. This report also presents the results of the stormwater conveyance piping system camera survey. The site vicinity is shown in Figure 1 and the site layout is shown in Figure 2.

GeoEngineers completed the services described herein under Oregon Department of Environmental Quality (DEQ) Task Order No. 58-08-16, and in general accordance with the Budget and Assumptions Proposal (BAP), dated November 22, 2010. The services described herein were funded by DEQ under a Leaking Underground Storage Tank (LUST) Corrective Action Cooperative Agreement, using funding provided by the American Recovery and Reinvestment Act (ARRA) of 2009.

2.0 SITE DESCRIPTION AND BACKGROUND

2.1. Site Description

The former Senz Automotive Service property operated as a service station (recently the “Yamhill Station”) until late 2009, when the facility was demolished as part of an interim removal action measure (IRAM). The IRAM was conducted to remove petroleum-contaminated soil underneath and in the vicinity of the service station building (GeoEngineers, 2010). The former Senz station property consists of an approximately 30,800 square foot parcel, which is currently vacant. The site is located in Yamhill County in the southeast quarter of the northwest quarter of Section 4, Township 3 South, Range 4 West, Willamette Meridian.

The former Senz station property included a service station building, a gasoline dispenser island, a diesel dispenser island, a propane aboveground storage tank (AST) and dispenser, and a gasoline/diesel AST. All facilities at the former Senz station property, and approximately 3,258 tons of petroleum-contaminated soil, were removed during the IRAM.

The former Senz station property is bounded by First Street on the north and Maple Street (Oregon Highway 47) on the east. A restaurant is located south of the former Senz station property, a fire station is located to the southwest, and a fire department storage building is located to the west. Residential properties are located further west and south and additional commercial facilities are located further north, east, and south. The former Senz station property slopes gently downward to the west and southwest.

2.2. Background

The former Senz station property was used as a service station between at least the 1930s and late 2009. Releases of gasoline were reported at the service station in 1988 and 2006. Both releases apparently originated in the eastern portion of the property, as a result of leaks from the petroleum piping systems.

Released gasoline migrated to the City of Yamhill stormwater conveyance system and impacted areas southwest of the former Senz station property. The site history and previous investigations are described in more detail in GeoEngineers' report dated April 10, 2010.

3.0 PURPOSE

The purpose of the investigation was to:

1. Further evaluate the magnitude and extent of groundwater contamination at the site;
2. Complete a survey of the stormwater conveyance system; and
3. Assess potential risks to human health and the environment.

3.1. Scope of Services

GeoEngineers completed the following tasks at the former Senz station and nearby properties during the field investigation completed in December 2010 and January 2011:

- Measured depth-to-water in all of the monitoring wells (total of 17 wells) and collected groundwater samples from 10 wells.
- Submitted water samples to ESC Lab Sciences (ESC) for chemical analysis.
- Conducted a camera survey of the stormwater lines near the fire station to map out the location of pertinent stormwater lines and determine if a drain line from the former Senz site is connected to the existing municipal stormwater system.

4.0 FIELD EXPLORATION PROGRAM

GeoEngineers completed the groundwater sampling on December 20 and 21, 2010. Field exploration methods are described in detail in Appendix A.

4.1. Groundwater Sampling from Monitoring Wells

GeoEngineers measured groundwater elevations in 17 monitoring wells and collected groundwater samples from 10 wells (MW-4, MW-5, MW-6, MW-8, MW-10, MW-11 and MW-15 through MW-18).

4.2. Stormwater Conveyance Piping Camera Survey

GeoEngineers documented the completion of a camera survey of the municipal stormwater lines that was performed by Bravo Environmental (Bravo). The focus was on the potential connections between the Senz Auto site and the existing municipal stormwater line. A 4-inch drain line was encountered and removed from the former Senz station property during the IRAM. It was suspected that the 4-inch drain line was connected to the municipal system at a location southwest of the former Senz station property.

The camera survey was conducted from the manhole near the fire station parking lot entrance on Second Street, north to the catch basin in the fire station parking lot. In addition Bravo conducted a camera survey of the lateral storm line east of the manhole. This line runs in an east to west orientation along Second Street. The goal of the survey was to determine pipe intrusions, leaks and/or petroleum sheens on the water. The locations of the manhole and storm lines are shown in Figure 6. Any intrusions were marked with white paint on the pavement surface.

5.0 HYDROGEOLOGY

GeoEngineers measured groundwater levels in monitoring wells on December 20, 2010. The depth-to-water (DTW) in the groundwater monitoring wells varied between 0.95 and 7.12 feet below top-of-casing. Groundwater elevations are summarized in Table 1 and shown in Figure 3. The inferred direction of shallow groundwater flow on December 20, 2010 was to the southwest, which is generally parallel to the topographic gradient and consistent with previously observed groundwater flow directions at the site.

6.0 RESULTS

The following section summarizes the chemical analytical data for groundwater samples collected in December 2010. Laboratory analytical reports and GeoEngineers' review of the data quality are included in Appendix B.

6.1. Groundwater Analytical Results

GeoEngineers submitted 10 groundwater samples for analysis of gasoline-range hydrocarbons by Method NWTPH-Gx and risk based decision making (RBDM) volatile organic compounds (VOCs) by Environmental Protection Agency (EPA) Method 8260. Groundwater chemical analytical results are presented in Tables 2 and 3.

6.1.1. Gasoline-Range Hydrocarbons in Groundwater

Gasoline-range hydrocarbons were detected in groundwater samples collected from ten groundwater monitoring wells, at concentrations ranging between 120 micrograms per liter ($\mu\text{g}/\text{l}$) and 25,000 $\mu\text{g}/\text{l}$. The highest concentrations of gasoline-range hydrocarbons were detected in groundwater samples collected from monitoring wells MW-4, MW-8, and MW-15. The concentration of gasoline-range hydrocarbons in groundwater is shown in Figure 4.

6.1.2. Volatile Organic Compounds in Groundwater

One or more of the following VOCs were detected in each groundwater sample, with the exception of samples collected from monitoring wells MW-17 and MW-18: benzene; ethylbenzene; toluene; xylenes; iso-propylbenzene; naphthalene; methyl tert-butyl ether (MTBE); 1,2,4-trimethylbenzene; 1,2-Dichloroethane; and 1,3,5-trimethylbenzene. The highest VOC concentrations were generally detected at locations that exhibited high concentrations of gasoline-range hydrocarbons. The concentration of benzene, ethylbenzene and toluene in groundwater is shown in Figure 4.

MTBE was detected in groundwater samples collected from four monitoring wells (MW-4, MW-6, MW-8, and MW-11). MTBE was the only contaminant of potential concern (COPC) detected in MW-6 and MW-8. The detections from MW-4 and MW-11 were flagged as being below the method reporting limit (MRL) but above the method detection limit (MDL), as such these values are considered estimates. The concentration of MTBE in groundwater is shown in Figure 5. 1,2-dibromoethane (EDB) was not detected in any groundwater samples.

6.2. Camera Survey Results

The camera survey performed by Bravo Environmental was successfully completed on January 25, 2011. The manhole cover in Second Street (south of the Fire Station) was removed to gain access to the stormwater lines and a petroleum odor was present. The twelve inch reinforced concrete pipe trending east along Second Street from the manhole was found to be in good condition with no sign of water infiltration. This line was sealed with concrete where it terminated about 27 feet from the manhole and was marked with white paint on the Second Street pavement surface. Figure 6 shows a schematic of this pipe survey.

The eight inch reinforced concrete pipe trending north between the manhole and catch basin in the Fire Station parking lot was observed to have flowing water and iron oxide precipitation occurring on the bottom portion of the pipe. Bravo had to jet-clean this pipe to allow access for the camera along the length of the pipe. A four inch pipe intrusion was observed at approximately 21 feet from the manhole. This pipe appeared to trend to the northwest toward the Fire Station. A second four inch pipe intrusion was observed at approximately 83 feet from the manhole that ties into a joint in the stormwater line. This pipe was the source for the flowing water and appeared to trend toward the northeast toward the former Senz station property. This pipe intruded into the stormwater line approximately three inches and would not allow camera access past this point. The approximate location of the intruding pipe was marked with white paint on the parking lot surface and the parking lot catch basin is approximately 15 feet south of this point.

GeoEngineers cleared the Fire Station parking lot catch basin of debris and observed that no other pipes tie in from the west, north or east. A DVD of the camera survey was produced and two copies were sent to the DEQ on January 26, 2011.

7.0 RISK SCREENING

GeoEngineers evaluated potential risks to human health and the environment by comparing chemical analytical data for groundwater to risk-based concentrations (RBCs) for relevant exposure scenarios.

7.1. Groundwater

GeoEngineers (2010) identified a number of potential groundwater contaminant exposure scenarios at the site that are either currently complete or could be complete in the future. These potential exposure scenarios include the following:

- Ingestion, dermal contact, and inhalation (residential receptors and occupational workers);

- Vapor intrusion to indoor air (residential and occupational receptors);
- Volatilization to outdoor air (residential and occupational receptors); and
- Direct contact (excavation worker).

GeoEngineers compared the concentrations of contaminants detected during the December 2010 site investigation to RBCs for the exposure scenarios listed above. The comparison is presented in Tables 2 and 3 and is discussed below.

Numerous compounds (gasoline-range hydrocarbons and VOCs) were detected in groundwater at concentrations that exceed RBCs for the exposure scenarios listed above, suggesting that contaminants in groundwater could pose an unacceptable risk to human health. It appears; however, that contaminated groundwater is not currently used as a source of domestic, irrigation, or industrial water. Therefore, the contaminants in groundwater appear to pose little current risk to human health (residential or occupational) as a result of direct contact, ingestion, or inhalation from tap water.

Several chemicals are present in groundwater at concentrations that exceed one or more RBCs for the vapor intrusion or volatilization to outdoor air exposure pathways. For example, benzene was present in December 2010 at concentrations that exceed the RBC (190 µg/l) for residential exposure via vapor intrusion to indoor air in groundwater samples collected from MW-4, MW-5, MW-8, MW-11, MW-15 and MW-16. Ethylbenzene was also detected in groundwater samples collected from MW-4, MW-8 and MW-15 at concentrations that exceed the RBC (490 µg/l) for residential exposure via vapor intrusion to indoor air. The concentrations of benzene in the central portion of the site exceed the RBCs for residential exposure via volatilization to outdoor air and occupational exposure via vapor intrusion into buildings. Figure 4 shows the approximate extent of benzene in groundwater that exceeds residential RBCs for volatilization to outdoor air and intrusion to indoor air and occupational exposure by intrusion to indoor air.

The concentrations of gasoline-range hydrocarbons and benzene in groundwater in the central portion of the site exceed the RBCs for excavation worker exposure. Groundwater rises to depths less than three feet bgs during portions of the year; therefore, there is potential that excavation workers could be exposed to gasoline-range hydrocarbons and benzene in groundwater. It is also possible that residents could be exposed to contaminants in shallow groundwater; however, residential exposure frequency and duration are expected to be infrequent.

7.2. Locality of Facility

The locality of facility (LOF) is defined as the area that is currently impacted or is reasonably likely to be impacted in the future by contaminants released at the site

The LOF consists of soil between approximately 1 and 14 feet bgs, and shallow groundwater. The LOF includes the former Senz station, small areas in the First Street and Maple Street rights-of-way; tax lot 2800 west of the former Senz station, most of the Yamhill Fire Department property (tax lot 3500), the Pythian Hall property (tax lot 3400), a portion of tax

lots 2801, 3000, 3600, 3700 and 3100, and possibly, a small part of tax lots 3200 and 3300. Figure 2 shows the estimated lateral extent of the LOF.

8.0 SUMMARY AND CONCLUSIONS

GeoEngineers conducted a groundwater monitoring event and stormwater camera survey at the former Senz station and nearby properties in Yamhill, Oregon during December 2010 and January 2011. These investigations were conducted to refine the understanding of the magnitude and extent of contamination at the site and to further evaluate potential contaminant risks to human health.

The concentrations of gasoline-range hydrocarbons and VOCs in the groundwater samples collected from the monitoring wells during the December 2010 sampling event were generally lower the concentrations detected during previous monitoring events. However, the results still fall within the historical minimum and maximum concentrations with the exception of wells MW-10 and MW-16. The lowest concentrations to date were found in these wells.

The camera survey revealed an intersecting pipe that connects to the municipal stormwater line in the Fire Station parking lot. The intersecting pipe appears to follow a northeastern trend toward the former Senz station where apparently contaminated water enters and was observed to be flowing from this pipe into the municipal stormwater line.

9.0 LIMITATIONS

This report has been prepared for use by the DEQ, their authorized agents, and regulatory agencies. This report is not intended for use by others, and the information contained herein is not applicable to other sites.

Within the limitations of scope, schedule and budget, our services have been executed in accordance with generally accepted environmental science practices in this area at the time this work plan was prepared. No warranty or other conditions express or implied should be understood. Appendix C further describes these limitations.

Any electronic form, facsimile or hard copy of the original document (email, text, table, and/or figure), if provided, and any attachments are only a copy of the original document. The original document is stored by GeoEngineers, Inc.

10.0 REFERENCES

GeoEngineers, Inc. Senz Automotive Service Site Investigation Work Plan, October 28, 2009.

GeoEngineers, Inc. Site Investigation Report, Senz Automotive Service, Yamhill, Oregon, April 9, 2010.

GeoEngineers, Inc. Interim Removal Action Measure Report, Senz Automotive Service, Yamhill, Oregon, April 12, 2010.

Oregon Department of Environmental Quality, 2003. Risk-Based Decision Making for the Remediation of Petroleum Contaminated Sites (updated 2009).

TABLE 1
SUMMARY OF GROUNDWATER ELEVATIONS
SENZ AUTOMOTIVE SERVICE - SITE INVESTIGATION
YAMHILL, OREGON

| Monitoring Well Identification | Top of Casing¹ Elevation (feet) | Date Measured | Depth to Water (feet) | Water Table Elevation (feet) |
|---------------------------------------|---|----------------------|------------------------------|-------------------------------------|
| MW-1 | 98.26 | 10/08/07 | 4.42 | 93.84 |
| | | 06/11/08 | 4.31 | 93.95 |
| | | 08/26/08 | 4.38 | 93.88 |
| | | 12/30/08 | 5.91 | 92.35 |
| | | 12/22/09 | 3.95 | 94.31 |
| | | 03/04/10 | 5.15 | 93.11 |
| | | 06/14/10 | 4.46 | 93.80 |
| | | 09/29/10 | 5.42 | 92.84 |
| | | 12/20/20 | 4.48 | 93.78 |
| MW-2 | 95.46 | 10/08/07 | 3.52 | 91.94 |
| | | 06/11/08 | 4.58 | 90.88 |
| | | 08/26/08 | 4.55 | 90.91 |
| | | 12/30/08 | 2.83 | 92.63 |
| | | 12/22/09 | -- | -- |
| | | 03/04/10 | -- | -- |
| | | 06/14/10 | -- | -- |
| | | 09/29/10 | -- | -- |
| | | 12/20/10 | -- | -- |
| MW-3 | 94.19 | 10/08/07 | 4.38 | 89.81 |
| | | 06/11/08 | 7.80 | 86.39 |
| | | 08/26/08 | 6.37 | 87.82 |
| | | 12/30/08 | 4.76 | 89.43 |
| | | 12/22/09 | 3.24 | 90.95 |
| | | 03/04/10 | 4.29 | 89.90 |
| | | 06/14/10 | 8.15 | 86.04 |
| | | 09/29/10 | 5.69 | 88.50 |
| | | 12/20/10 | 4.83 | 89.36 |
| MW-4 | 88.93 | 10/08/07 | 2.66 | 86.27 |
| | | 06/11/08 | 1.04 | 87.89 |
| | | 08/26/08 | 5.81 | 83.12 |
| | | 12/30/08 | 6.29 | 82.64 |
| | | 12/22/09 | 1.88 | 87.05 |
| | | 03/04/10 | 3.68 | 85.25 |
| | | 06/14/10 | 4.65 | 84.28 |
| | | 09/29/10 | 7.04 | 81.89 |
| | | 12/20/10 | 4.11 | 84.82 |
| MW-5 | 89.39 | 10/08/07 | 5.48 | 83.91 |
| | | 06/11/08 | 4.78 | 84.61 |
| | | 08/26/08 | 6.77 | 82.62 |
| | | 12/30/08 | 7.45 | 81.94 |
| | | 12/22/09 | 3.02 | 86.37 |
| | | 03/04/10 | 5.48 | 83.91 |
| | | 06/14/10 | 5.75 | 83.64 |
| | | 09/29/10 | 6.12 | 83.27 |
| | | 12/20/10 | 4.60 | 84.79 |
| MW-6 | 86.78 | 10/08/07 | 5.68 | 81.10 |
| | | 06/11/08 | 4.15 | 82.63 |
| | | 08/26/08 | 5.96 | 80.82 |
| | | 12/30/08 | 2.00 | 84.78 |

TABLE 1
SUMMARY OF GROUNDWATER ELEVATIONS
SENZ AUTOMOTIVE SERVICE - SITE INVESTIGATION
YAMHILL, OREGON

| Monitoring Well Identification | Top of Casing ¹ Elevation (feet) | Date Measured | Depth to Water (feet) | Water Table Elevation (feet) |
|--------------------------------|---|---------------|-----------------------|------------------------------|
| | | 12/22/09 | 2.72 | 84.06 |
| | | 03/04/10 | 2.77 | 84.01 |
| | | 06/14/10 | 3.36 | 83.42 |
| | | 09/29/10 | 6.98 | 79.80 |
| | | 12/20/10 | 2.43 | 84.35 |
| MW-7 | 97.08 | 06/11/08 | 6.23 | 90.85 |
| | | 08/26/08 | 5.11 | 91.97 |
| | | 12/30/08 | 3.83 | 93.25 |
| | | 12/22/09 | 3.87 | 93.21 |
| | | 03/04/10 | 4.22 | 92.86 |
| | | 06/14/10 | 6.02 | 91.06 |
| | | 09/29/10 | 6.03 | 91.05 |
| | | 12/20/10 | 4.95 | 92.13 |
| MW-8 | 91.88 | 06/11/08 | 3.98 | 87.90 |
| | | 08/26/08 | 4.69 | 87.19 |
| | | 12/30/08 | 2.83 | 89.05 |
| | | 12/22/09 | 3.13 | 88.75 |
| | | 03/04/10 | 3.20 | 88.68 |
| | | 06/14/10 | 3.75 | 88.13 |
| | | 09/29/10 | 5.96 | 85.92 |
| | | 12/20/10 | 3.52 | 88.36 |
| MW-9 | 88.05 | 06/11/08 | 4.18 | 83.87 |
| | | 08/26/08 | 3.39 | 84.66 |
| | | 12/30/08 | 2.61 | 85.44 |
| | | 12/22/09 | 1.03 | 87.02 |
| | | 03/04/10 | 1.00 | 87.05 |
| | | 06/14/10 | 1.98 | 86.07 |
| | | 09/29/10 | 4.58 | 83.47 |
| | | 12/20/10 | 4.72 | 83.33 |
| MW-10 | 91.17 | 12/22/09 | 2.34 | 88.83 |
| | | 03/04/10 | 3.08 | 88.09 |
| | | 06/14/10 | 3.33 | 87.84 |
| | | 09/29/10 | 7.61 | 83.56 |
| | | 12/20/10 | 0.95 | 90.22 |
| MW-11 | 94.84 | 12/22/09 | 3.19 | 91.65 |
| | | 03/04/10 | 1.70 | 93.14 |
| | | 06/14/10 | 2.89 | 91.95 |
| | | 09/29/10 | 5.01 | 89.83 |
| | | 12/20/10 | 3.07 | 91.77 |
| MW-12 | 93.04 | 12/22/09 | 4.81 | 88.23 |
| | | 03/04/10 | 3.05 | 89.99 |
| | | 06/14/10 | 4.86 | 88.18 |
| | | 09/29/10 | 6.40 | 86.64 |
| | | 12/20/10 | 3.52 | 89.52 |
| MW-13 | 86.54 | 12/22/09 | 1.48 | 85.06 |
| | | 03/04/10 | 2.70 | 83.84 |
| | | 06/14/10 | 4.13 | 82.41 |
| | | 09/29/10 | 10.42 | 76.12 |
| | | 12/20/10 | 2.46 | 84.08 |

TABLE 1
SUMMARY OF GROUNDWATER ELEVATIONS
SENZ AUTOMOTIVE SERVICE - SITE INVESTIGATION
YAMHILL, OREGON

| Monitoring Well Identification | Top of Casing ¹ Elevation (feet) | Date Measured | Depth to Water (feet) | Water Table Elevation (feet) |
|--------------------------------|---|---------------|-----------------------|------------------------------|
| MW-14 | 83.76 | 12/22/09 | 3.45 | 80.31 |
| | | 03/04/10 | 2.49 | 81.27 |
| | | 06/14/10 | 3.73 | 80.03 |
| | | 09/29/10 | 9.80 | 73.96 |
| | | 12/20/10 | 3.32 | 80.44 |
| MW-15 | 93.05 | 12/22/09 | 5.34 | 87.71 |
| | | 03/04/10 | 3.86 | 89.19 |
| | | 06/14/10 | 4.08 | 88.97 |
| | | 09/29/10 | 7.21 | 85.84 |
| | | 12/20/10 | 3.13 | 89.92 |
| MW-16 | 87.97 | 12/22/09 | 2.59 | 85.38 |
| | | 03/04/10 | 2.45 | 85.52 |
| | | 06/14/10 | 2.41 | 85.56 |
| | | 09/29/10 | 4.93 | 83.04 |
| | | 12/20/10 | 7.12 | 80.85 |
| MW-17 | 87.66 | 06/14/10 | 2.25 | 85.41 |
| | | 09/29/10 | 6.88 | 80.78 |
| | | 12/20/10 | 3.50 | 84.16 |
| MW-18 | 90.71 | 06/14/10 | 2.90 | 87.81 |
| | | 09/29/10 | 7.82 | 82.89 |
| | | 12/20/10 | 3.57 | 87.14 |

Notes:

¹Top of casings were surveyed by Tim O'Gara, R.G., October 31, 2007 and GeoEngineers, Inc. on June 11, 2008 and December 22, 2009.

-- = MW-2 was destroyed during the IRAM activities and not tested during this monitoring event.

P:\2787039\01\Finals\[278703901SI tables.xlsx]T1

TABLE 2
SUMMARY OF GROUNDWATER CHEMICAL ANALYTICAL DATA¹ - PETROLEUM HYDROCARBONS AND LEAD
SENZ AUTOMOTIVE SERVICE - SITE INVESTIGATION
YAMHILL, OR

| Monitoring Well Identification | Date Sampled | Gasoline-Range Hydrocarbons (Northwest Method NWTPH-Gx) | Diesel-Range Hydrocarbons (Northwest Method NWTPH-Dx) | Oil-Range Hydrocarbons | Dissolved Lead (EPA Method 6020 or (µg/l)) | Total Lead (EPA Method 6010B) (µg/l) | |
|--------------------------------|--------------|---|---|------------------------|--|--------------------------------------|---|
| | | (µg/l) | (µg/l) | (µg/l) | | | |
| MW-1 | 06/11/08 | <100 | - | - | <1.0 | - | |
| | 08/28/08 | <100 | - | - | <1.0 | - | |
| | 12/30/08 | <100 | - | - | <1.0 | - | |
| | 12/16/09 | <100 | - | - | - | - | |
| | 03/05/10 | <100 | - | - | - | - | |
| | 06/15/10 | <100 | - | - | <1.0 | - | |
| | 09/29/10 | <100 | - | - | - | - | |
| MW-2 | 06/11/08 | 11,000 | 810 | <260 | <1.0 | - | |
| | 08/28/08 | 21,000 | - | - | <1.0 | - | |
| | 12/30/08 | 26,000 | - | - | <1.0 | - | |
| | 12/17/09 | - | - | - | - | - | |
| MW-3 | 06/11/08 | <100 | - | - | <1.0 | - | |
| | 08/28/08 | <100 | - | - | <1.0 | - | |
| | 12/30/08 | <100 | - | - | <1.0 | - | |
| | 12/23/09 | <100 | - | - | - | - | |
| | 03/05/10 | <100 | - | - | - | - | |
| | 06/15/10 | <100 | - | - | <1.0 | - | |
| | 09/29/10 | <100 | - | - | - | - | |
| MW-4 | Duplicate | 06/11/08 | 47,000 | - | - | <1.0 | - |
| | | 55,000 | - | - | <1.0 | - | |
| | Duplicate | 08/28/08 | 18,000 | - | - | <1.0 | - |
| | | 18,000 | - | - | <1.0 | - | |
| | Duplicate | 12/30/08 | 22,000 | - | - | <1.0 | - |
| | | 19,000 | - | - | <1.0 | - | |
| | Duplicate | 12/23/09 | 24,000 | - | - | - | - |
| | | 03/08/10 | 14,000 | - | - | - | - |
| | | 11,000 | - | - | - | - | |
| | | 06/15/10 | 11,000 | - | - | <1.0 | - |
| 09/29/10 | | 10,000 | - | - | - | - | |
| 12/21/10 | | 11,000 | - | - | - | - | |

TABLE 2
SUMMARY OF GROUNDWATER CHEMICAL ANALYTICAL DATA¹ - PETROLEUM HYDROCARBONS AND LEAD
SENZ AUTOMOTIVE SERVICE - SITE INVESTIGATION
YAMHILL, OR

| Monitoring Well Identification | Date Sampled | Gasoline-Range Hydrocarbons (Northwest Method NWTPH-Gx) | Diesel-Range Hydrocarbons (Northwest Method NWTPH-Dx) | Oil-Range Hydrocarbons | Dissolved Lead (EPA Method 6020 or (µg/l)) | Total Lead (EPA Method 6010B) (µg/l) |
|--------------------------------|--------------|---|---|------------------------|--|--------------------------------------|
| | | (µg/l) | (µg/l) | (µg/l) | | |
| MW-5 | 06/11/08 | 55,000 | - | - | <1.0 | - |
| | 08/28/08 | 19,000 | - | - | <1.0 | - |
| | 12/30/08 | 4,400 | - | - | <1.0 | - |
| | 12/22/09 | 5,700 | - | - | - | - |
| | 03/08/10 | 700 | - | - | - | - |
| | 06/15/10 | 2,700 | - | - | 0.27 | - |
| | 09/29/10 | 5,500 | - | - | - | - |
| | 12/21/10 | 5,300 | - | - | - | - |
| MW-6 | 06/11/08 | <100 | - | - | <1.0 | - |
| | 08/28/08 | 8,700 | - | - | <1.0 | - |
| | 12/30/08 | 1,800 | - | - | <1.0 | - |
| | 12/22/09 | 4,900 | - | - | - | - |
| | 03/08/10 | 810 | - | - | - | - |
| | 06/15/10 | 190 | - | - | 0.43 | - |
| | 09/29/10 | 820 | - | - | - | - |
| | 12/21/10 | 120 | - | - | - | - |
| MW-7 | 06/11/08 | <100 | - | - | <1.0 | - |
| | 08/28/08 | <100 | - | - | <1.0 | - |
| | 12/30/08 | <100 | - | - | <1.0 | - |
| | 12/23/09 | <100 | - | - | - | - |
| | 03/05/10 | <100 | - | - | <1.0 | - |
| | 06/15/10 | <100 | - | - | <1.0 | - |
| | 09/29/10 | <100 | - | - | - | - |
| | 12/21/10 | <100 | - | - | - | - |
| MW-8 | 06/11/08 | 6,000 | <1.0 | - | <1.0 | - |
| | 08/28/08 | 27,000 | <1.0 | - | <1.0 | - |
| | 12/30/08 | 46,000 | <1.0 | - | - | - |
| | 12/22/09 | 36,000 | - | - | <1.0 | - |
| | 03/08/10 | 21,000 | 860 | <250 | <1.0 | - |
| | 06/15/10 | 21,000 | - | - | 0.32 | - |
| | 09/29/10 | 50,000 | - | - | - | - |
| | 12/21/10 | 19,000 | - | - | - | - |
| MW-9 | 06/11/08 | 12,000 | <1.0 | - | <1.0 | - |

TABLE 2
SUMMARY OF GROUNDWATER CHEMICAL ANALYTICAL DATA¹ - PETROLEUM HYDROCARBONS AND LEAD
SENZ AUTOMOTIVE SERVICE - SITE INVESTIGATION
YAMHILL, OR

| Monitoring Well Identification | Date Sampled | Gasoline-Range Hydrocarbons (Northwest Method NWTPH-Gx) (µg/l) | Diesel-Range Hydrocarbons (Northwest Method NWTPH-Dx) (µg/l) | Oil-Range Hydrocarbons | Dissolved Lead (EPA Method 6020 or (µg/l) | Total Lead (EPA Method 6010B) (µg/l) |
|--------------------------------|--------------|--|--|------------------------|---|--------------------------------------|
| | | | | Hydrocarbons | | |
| MW-9 cont. | 08/28/08 | 17,000 | <1.0 | -- | <1.0 | -- |
| | 12/30/08 | 16,000 | <1.0 | -- | -- | -- |
| | 12/23/09 | 20,000 | -- | -- | 2.6 | <5.0 |
| | 03/08/10 | 4,100 | -- | -- | -- | -- |
| | 06/15/10 | 7,000 | -- | -- | <1.0 | -- |
| | 09/29/10 | 8,400 | -- | -- | -- | -- |
| MW-10 | 12/22/09 | 49,000 | -- | -- | 2.6 | <5.0 |
| | 03/08/10 | 37,000 | 1,600 | <250 | <1.0 | -- |
| | 06/15/10 | 36,000 | -- | -- | 0.36 | -- |
| | 09/29/10 | 17,000 | -- | -- | -- | -- |
| | 12/20/10 | 1,800 | -- | -- | -- | -- |
| MW-11 | 12/22/09 | 23,000 | -- | -- | 5 | 2 |
| | 03/05/10 | 5,800 | 420 | <250 | <1.0 | -- |
| | 06/15/10 | 7,300 | -- | -- | <1.0 | -- |
| | 09/29/10 | 7,600 | -- | -- | -- | -- |
| | 12/20/10 | 7,600 | -- | -- | -- | -- |
| MW-12 | 12/23/09 | <100 | -- | 3.4 | 1.8 | 3.4 |
| | 03/08/10 | <100 | -- | -- | -- | -- |
| | 06/15/10 | <100 | -- | -- | <1.0 | -- |
| | 09/29/10 | <100 | -- | -- | -- | -- |
| MW-13 | 12/22/09 | <100 | -- | -- | <5.0 | <5.0 |
| | 03/08/10 | <100 | -- | -- | -- | -- |
| | 06/15/10 | <100 | -- | -- | <1.0 | -- |
| | 09/29/10 | <100 | -- | -- | -- | -- |
| MW-14 | 12/23/09 | <100 | -- | -- | 4.5 | <5.0 |
| | 03/08/10 | <100 | -- | -- | -- | -- |
| | 06/15/10 | <100 | -- | -- | <1.0 | -- |
| | 09/29/10 | <100 | -- | -- | -- | -- |
| MW-15 | 12/23/09 | 46,000 | -- | -- | 3.9 | <5.0 |
| | 03/08/10 | 36,000 | 1,000 | <250 | <1.0 | -- |
| DUPE-1 | 06/15/10 | 31,000 | -- | -- | 1 | 0.34 |
| | | 24,000 | -- | -- | -- | -- |
| | 09/29/10 | 32,000 | -- | -- | -- | -- |
| | 12/20/10 | 25,000 | -- | -- | -- | -- |

TABLE 2
SUMMARY OF GROUNDWATER CHEMICAL ANALYTICAL DATA¹ - PETROLEUM HYDROCARBONS AND LEAD
SENZ AUTOMOTIVE SERVICE - SITE INVESTIGATION
YAMHILL, OR

| Monitoring Well Identification | Date Sampled | Gasoline-Range Hydrocarbons (Northwest Method NWTPH-Gx) (µg/l) | Diesel-Range Hydrocarbons (Northwest Method NWTPH-Dx) (µg/l) | Oil-Range Hydrocarbons (µg/l) | Dissolved Lead (EPA Method 6020 or (µg/l) | Total Lead (EPA Method 6010B) (µg/l) |
|--|--------------|--|--|-------------------------------|---|--------------------------------------|
| | | | | | | |
| MW-16 | 12/22/09 | 15,000 | -- | -- | -- | -- |
| | 03/08/10 | 8,300 | -- | -- | -- | -- |
| | 06/15/10 | 15,000 | -- | -- | 0.34 | 0.34 |
| | 09/29/10 | 18,000 | -- | -- | -- | -- |
| | 12/21/10 | 5,400 | -- | -- | -- | -- |
| MW-17 | 06/15/10 | <100 | -- | -- | <1.0 | -- |
| | 09/29/10 | <100 | -- | -- | -- | -- |
| | 12/20/10 | <100 | -- | -- | -- | -- |
| MW-18 | 06/15/10 | <100 | -- | -- | <1.0 | -- |
| | 09/29/10 | <100 | -- | -- | -- | -- |
| | 12/20/10 | <100 | -- | -- | -- | -- |
| Catch Basin/Outfall | | | | | | |
| CATCH BASIN-1 | 05/14/10 | 8,600 | -- | -- | -- | -- |
| CATCH BASIN-1 | 06/15/10 | 3,900 | -- | -- | -- | -- |
| OUTFALL-1 | 05/14/10 | <100 | -- | -- | -- | -- |
| OUTFALL-1 | 06/15/10 | <100 | -- | -- | -- | -- |
| DEQ Risk-Based Concentrations (µg/l) ² | | | | | | |
| Ingestion and Inhalation from Tap Water | | | | | | |
| Residential | | 100 | 90 | * | 15 | 15 |
| Urban Residential | | 100 | 90 | * | 15 | 15 |
| Occupational | | 420 | 360 | * | 15 | 15 |
| Groundwater Volatilization to Outdoor Air | | | | | | |
| Residential | | * | * | * | * | * |
| Urban Residential | | * | * | * | * | * |
| Occupational | | * | * | * | * | * |
| Groundwater Vapor Intrusion into Buildings | | | | | | |
| Residential | | * | * | * | * | * |
| Urban Residential | | * | * | * | * | * |
| Occupational | | * | * | * | * | * |

TABLE 2
SUMMARY OF GROUNDWATER CHEMICAL ANALYTICAL DATA¹ - PETROLEUM HYDROCARBONS AND LEAD
SENZ AUTOMOTIVE SERVICE - SITE INVESTIGATION
YAMHILL, OR

| Monitoring Well Identification | Date Sampled | Gasoline-Range Hydrocarbons (Northwest Method NWTPH-Gx) (µg/l) | Diesel-Range Hydrocarbons (Northwest Method NWTPH-Dx) (µg/l) | Oil-Range Hydrocarbons (Northwest Method NWTPH-Ox) (µg/l) | Dissolved Lead (EPA Method 6020 or (µg/l) | Total Lead (EPA Method 6010B) (µg/l) |
|--|--------------|--|--|---|---|--------------------------------------|
| | | | | | | |
| Groundwater in Excavation | | | | | | |
| Construction and Excavation Worker | | 13,000 | * | * | * | * |
| Occupational | | 420 | | | * | * |
| Applicable DEQ Ecological Level II Screening Level Values | | * | | | 2.5 | |
| Aquatics | | * | | | 28,000 | |
| Birds | | * | | | 323,000 | |

Notes:

¹ Chemical analyses were performed by ESC Lab Sciences of Mt. Juliet, Tennessee.

² Oregon Department of Environmental Quality Risk Based Decision Making for the Remediation of Petroleum-Contaminated Sites, revised September 2009.

*This RBC is not established.

-- = not analyzed; µg/l = micrograms per liter; RBC = Risk Based Concentration

Bold indicates analyte detection. Shading indicates concentration exceeds one or more RBC's.

P:\2\2787039\01\Finals\Dec_2010 Qtrly\[278703901 tables December 2010.xlsx]Table 2

TABLE 3

**SUMMARY OF GROUNDWATER SAMPLE CHEMICAL ANALYTICAL DATA¹ - RBCA VOLATILE ORGANIC COMPOUNDS
 SENZ AUTOMOTIVE SERVICE - SITE INVESTIGATION
 YAMHILL, OREGON**

| Monitoring Well Identification | Date Collected | Volatile Organic Compounds EPA Method 8260B (µg/l) | | | | | | | | | | |
|--------------------------------|----------------|--|--------------|---------|----------------|------------------|-------------|-------------------------|------------------------|-------------------|--------------------|------------------------|
| | | Benzene | Ethylbenzene | Toluene | Xylenes, Total | Isopropylbenzene | Naphthalene | Methyl tert-butyl ether | 1,2,4-Trimethylbenzene | 1,2-Dibromoethane | 1,2-Dichloroethane | 1,3,5-Trimethylbenzene |
| | | MW-1 | 06/11/08 | <1.0 | <1.0 | <5.0 | <3.0 | <1.0 | <5.0 | 1.8 | <1.0 | <1.0 |
| | 08/28/08 | <1.0 | <1.0 | <5.0 | <3.0 | <1.0 | <5.0 | 2.6 | <1.0 | <1.0 | <1.0 | <1.0 |
| | 12/30/08 | <1.0 | <1.0 | <5.0 | <3.0 | <1.0 | <5.0 | 1.5 | <1.0 | <1.0 | <1.0 | <1.0 |
| | 12/23/09 | <1.0 | <1.0 | <5.0 | <3.0 | <1.0 | <5.0 | 2.3 | <1.0 | <1.0 | <1.0 | <1.0 |
| | 03/05/10 | <0.50 | <0.50 | <0.50 | <1.5 | <0.50 | <0.50 | 1.7 | <0.50 | <0.50 | <0.50 | <0.50 |
| | 06/14/10 | <0.50 | <0.50 | <0.50 | <1.5 | <0.50 | <1.0 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| | 09/29/10 | <1.0 | <1.0 | <5.0 | <3.0 | <1.0 | <5.0 | 1.4 | <1.0 | <1.0 | <1.0 | <1.0 |
| MW-2 | 06/11/08 | 1,200 E | 80 | 1,300 E | 2,800 E | <10 | 110 | 170 | 600 | <10 | <10 | 200 |
| | 08/28/08 | 3,500 | 1,900 | 5,700 | 7,000 | 71 | 270 | 160 | 1,200 | <50 | <50 | 390 |
| | 12/30/08 | 1,200 E | 2,000 | 1,100 E | 6,800 | 78 | <250 | 170 | 1,300 | <50 | <50 | 380 |
| | 12/23/09 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 06/15/10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | 09/29/10 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| MW-3 | 06/11/08 | <1.0 | <1.0 | <5.0 | <3.0 | <1.0 | <5.0 | 2.9 | <1.0 | <1.0 | <1.0 | <1.0 |
| | 08/28/08 | <1.0 | <1.0 | <5.0 | <3.0 | <1.0 | <5.0 | 2.8 | <1.0 | <1.0 | <1.0 | <1.0 |
| | 12/30/08 | <1.0 | <1.0 | <5.0 | <3.0 | <1.0 | <5.0 | 3.2 | <1.0 | <1.0 | <1.0 | <1.0 |
| | 12/23/09 | 1.6 | <1.0 | 1.0 | <3.0 | <1.0 | <5.0 | 1.8 | <1.0 | <1.0 | <1.0 | <1.0 |
| | 03/05/10 | <0.50 | <0.50 | <0.50 | <1.5 | <0.50 | <0.50 | 2.5 | <0.50 | <0.50 | <0.50 | <0.50 |
| | 06/14/10 | <0.50 | <0.50 | <0.50 | <1.5 | <0.50 | <1.0 | 3.2 | <0.50 | <0.50 | <0.50 | <0.50 |
| | 09/29/10 | <1.0 | <1.0 | <5.0 | <3.0 | <1.0 | <5.0 | 2.8 | <1.0 | <1.0 | <1.0 | <1.0 |
| MW-4 | 06/11/08 | 9,700 | 2,400 | 5,400 | 7,800 | 95 | 380 | 6.5 | 1,500 | <5.0 | <5.0 | 340 |
| Duplicate | | 9,600 | 1,600 | 5,400 | 5,400 | <100 | <500 | <100 | 790 | <100 | <100 | 210 |
| | 08/28/08 | 6,100 | 1,900 | 1,200 | 5,800 | 85 | 260 | <50 | 1,200 | <50 | <50 | 350 |
| Duplicate | | 6,600 | 1,800 | 1,000 | 5,100 | 80 | 260 | <25 | 1,100 | <25 | <25 | 340 |
| | 12/30/08 | 4,400 | 1,300 | 700 | 3,000 | 58 | <250 | <50 | 800 | <50 | <50 | 250 |
| Duplicate | | 3,300 | 1,400 | 640 | 3,500 | 71 | <250 | <50 | 980 | <50 | <50 | 320 |
| | 12/23/09 | 6,700 | 1,500 | 460 | 2,500 | 67 | 290 | 4.9 | 980 | <10 | <10 | 230 |
| MW-4 cont. | 03/08/10 | 2,800 | 560 | 140 | 1,500 | 23 | 180 | 4.5 | 620 | <1.0 | <1.0 | 170 |

TABLE 3

**SUMMARY OF GROUNDWATER SAMPLE CHEMICAL ANALYTICAL DATA¹ - RBCA VOLATILE ORGANIC COMPOUNDS
 SENZ AUTOMOTIVE SERVICE - SITE INVESTIGATION
 YAMHILL, OREGON**

| Monitoring Well Identification | Date Collected | Volatile Organic Compounds EPA Method 8260B (µg/l) | | | | | | | | | | |
|--------------------------------|----------------|--|--------------|---------|----------------|------------------|-------------|-------------------------|------------------------|-------------------|--------------------|------------------------|
| | | Benzene | Ethylbenzene | Toluene | Xylenes, Total | Isopropylbenzene | Naphthalene | Methyl tert-butyl ether | 1,2,4-Trimethylbenzene | 1,2-Dibromoethane | 1,2-Dichloroethane | 1,3,5-Trimethylbenzene |
| Duplicate | 03/08/10 | 2,500 | 280 | 110 | 830 | <100 | 120 | <100 | 300 | <100 | <100 | 78 |
| | 06/15/10 | 5,900 | 2,100 | 440 | 3,300 | 66 | 300 | <25 | 930 | <25 | <25 | 200 |
| | 09/29/10 | 3,000 | 760 | 54 J | 650 | 44 J | 150 J | <100 | 370 | <100 | <100 | 91 |
| | 12/21/10 | 3,300 | 790 | 130 | 980 | 33 | 120 | 4.0 J | 270 | <10 | 1.4 J | 52 |
| MW-5 | 06/11/08 | 3,300 | 1,400 | 8,600 | 6,500 | <25 | 320 | <25 | 1,300 | <25 | <25 | 390 |
| | 08/28/08 | 3,200 | 1,100 | 3,800 | 5,300 | <5.0 | 220 | <5.0 | 870 | <5.0 | <5.0 | 250 |
| | 12/30/08 | 1,100 E | 400 | 350 | 1,000 | <25 | <120 | <25 | 290 | <25 | <25 | 36 |
| | 12/22/09 | 860 | 290 | 58 | 300 | 22 | 84 | <1.0 | 140 | <1.0 | <1.0 | 32 |
| | 03/08/10 | 38 | 3.1 | 7.8 | 100 | <1.0 | 8.8 | <1.0 | 43 | <1.0 | <1.0 | 7.3 |
| | 06/15/10 | 610 | 240 | 150 | 230 | 5.6 | 30 | <0.50 | 60 | <0.50 | <0.50 | 4.4 |
| | 09/29/10 | 1,100 | 590 | 970 | 950 | 12 | 52 | <5.0 | 150 | <5.0 | <5.0 | 18 |
| | 12/21/10 | 740 | 310 | 1,100 | 1,300 | 6.6 | 28 | <0.50 | 150 | <0.50 | <0.50 | 35 |
| MW-6 | 06/11/08 | 12 | 3.5 | <5.0 | <3.0 | 3.5 | <5.0 | 3.5 | <1.0 | <1.0 | <1.0 | <1.0 |
| | 08/28/08 | 2,500 | 1,600 | 880 | 4,200 | 1,600 | 180 | 1,600 | 480 | <10 | <10 | 98 |
| | 12/30/08 | 500 | 210 | <100 | 100 | 210 | <100 | 210 | 88 | <20 | <20 | <20 |
| | 12/22/09 | 470 | 460 | 52 | 830 | 28 | 49 | 0.61 | 200 | <1.0 | <1.0 | 58 |
| | 03/08/10 | 8.7 | 15 | 0.99 | 82 | 1.3 | 12 | 0.52 | 60 | <1.0 | <1.0 | 8.5 |
| | 06/15/10 | 12 | 3.3 | 0.43 J | 8 | 0.69 | 2.1 | <0.50 | 3.5 | <1.0 | <1.0 | 0.5 |
| | 09/29/10 | 260 | 91 | 20 J | 140 | 4 | 9 | 0.64 J | 26 | <0.50 | <0.50 | 5.1 |
| | 12/21/10 | 24 | 2.2 | 0.8 | 8.9 | 0.47 J | 1.7 | 0.65 | 3.1 | <0.50 | <0.50 | 0.59 |
| MW-7 | 06/11/08 | <1.0 | <1.0 | <5.0 | <3.0 | <1.0 | <5.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| | 08/28/08 | <1.0 | <1.0 | <5.0 | <3.0 | <1.0 | <5.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| | 12/30/08 | <1.0 | <1.0 | <5.0 | <3.0 | <1.0 | <5.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |

TABLE 3

**SUMMARY OF GROUNDWATER SAMPLE CHEMICAL ANALYTICAL DATA¹ - RBCA VOLATILE ORGANIC COMPOUNDS
 SENZ AUTOMOTIVE SERVICE - SITE INVESTIGATION
 YAMHILL, OREGON**

| Monitoring Well Identification | Date Collected | Volatile Organic Compounds EPA Method 8260B (µg/l) | | | | | | | | | | |
|--------------------------------|----------------|--|--------------|---------|----------------|------------------|-------------|-------------------------|------------------------|-------------------|--------------------|------------------------|
| | | Benzene | Ethylbenzene | Toluene | Xylenes, Total | Isopropylbenzene | Naphthalene | Methyl tert-butyl ether | 1,2,4-Trimethylbenzene | 1,2-Dibromoethane | 1,2-Dichloroethane | 1,3,5-Trimethylbenzene |
| MW-7 cont. | 12/23/09 | <1.0 | <1.0 | <5.0 | <3.0 | <1.0 | 1.3 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| | 03/05/10 | <1.0 | <1.0 | <5.0 | <3.0 | <1.0 | <5.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| | 06/15/10 | <0.50 | <0.50 | <0.50 | <1.5 | <0.50 | <1.0 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| | 09/29/10 | <1.0 | <1.0 | <5.0 | <3.0 | <1.0 | <5.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| MW-8 | 06/11/08 | 10,000 | 1,300 | 17,000 | 8,500 | <200 | <1,000 | <200 | 780 | <200 | <200 | 230 |
| | 08/28/08 | 14,000 | 3,400 | 28,000 | 17,000 | 130 | 560 | <10 | 1,400 | <10 | <10 | 560 |
| | 12/30/08 | 7,200 | 2,100 | 9,300 | 9,300 | <200 | <1,000 | <200 | 1,000 | <200 | <200 | 330 |
| | 12/22/09 | 9,400 | 1,900 | 4,600 | 7,100 | 64 | 190 | 34 | 870 | <1.0 | <1.0 | 260 |
| | 03/08/10 | 5,500 | 1,000 | 900 | 2,300 | 39 | 98 | 60 | 350 | <1.0 | <1.0 | 140 |
| | 06/15/10 | 9,100 | 1,900 | 2,300 | 4,800 | 37 | 160 | <25 | 450 | <25 | <25 | 130 |
| | 09/29/10 | 10,000 | 2,000 | 8,000 | 7,200 | 46 J | 210 J | <100 | 800 | <100 | <100 | 240 |
| 12/21/10 | 6,200 | 1,200 | 560 | 2,500 | 32 | 150 | 30 | 410 | <25 | <25 | 150 | |
| MW-9 | 06/11/08 | 1,900 | 520 | 670 | 2,900 | <25 | <120 | <25 | 640 | <25 | <25 | 200 |
| | 08/28/08 | 4,800 | 1,800 | 1,100 | 4,800 | 65 | 270 | <50 | 1,000 | <50 | <50 | 310 |
| | 12/30/08 | 2,600 | 1,000 | 510 | 3,600 | <50 | <250 | <50 | 1,000 | <50 | <50 | 330 |
| | 12/23/09 | 3,200 | 1,100 | 81 | 2,900 | 49 | 290 | 9.2 | 680 | <10 | <10 | 280 |
| | 03/08/10 | 670 | 300 | 15 J | 1,700 | 13 | 190 | 36 | 710 | <1.0 | <1.0 | 220 |
| | 06/15/10 | 1,200 | 420 | 17 | 1,300 | 14 | 190 | 16 | 610 | <5.0 | <5.0 | 160 |
| | 09/29/10 | 2,800 | 990 | 58 J | 1,200 | 44 J | 180 J | <50 | 450 | <50 | <50 | 130 |
| MW-10 | 12/22/09 | 4,300 | 1,400 | 9,000 | 8,900 | 67 | 210 | 76 | 1,600 | <1.0 | 5.9 | 470 |
| | 03/08/10 | 5,700 | 770 | 6,100 | 6,200 | 41 | 180 | 98 | 910 | <1.0 | <1.0 | 260 |
| | 06/15/10 | 5,700 | 2,000 | 10,000 | 9,200 | 45 J | 320 | <50 | 1,300 | <50 | <50 | 330 |
| | 09/29/10 | 5,600 | 780 | 2,200 | 2,000 | 40 J | 190 J | 65 J | 130 | <100 | <100 | 360 |
| | 12/20/10 | 29 | 25 | 48 | 85 | 1.3 | 6.5 | <0.50 | 28 | <0.50 | <0.50 | 9.9 |

TABLE 3

**SUMMARY OF GROUNDWATER SAMPLE CHEMICAL ANALYTICAL DATA¹ - RBCA VOLATILE ORGANIC COMPOUNDS
 SENZ AUTOMOTIVE SERVICE - SITE INVESTIGATION
 YAMHILL, OREGON**

| Monitoring Well Identification | Date Collected | Volatile Organic Compounds EPA Method 8260B (µg/l) | | | | | | | | | | |
|--------------------------------|----------------|--|--------------|---------|----------------|------------------|-------------|-------------------------|------------------------|-------------------|--------------------|------------------------|
| | | Benzene | Ethylbenzene | Toluene | Xylenes, Total | Isopropylbenzene | Naphthalene | Methyl tert-butyl ether | 1,2,4-Trimethylbenzene | 1,2-Dibromoethane | 1,2-Dichloroethane | 1,3,5-Trimethylbenzene |
| | | | | | | | | | | | | |
| MW-11 | 12/22/09 | 3,100 | 1,000 | 4,400 | 5,400 | 46 | 150 | 14 | 940 | <1.0 | <1.0 | 250 |
| | 03/05/10 | <0.50 | 220 | 89 | 1,000 | 20 | 77 | 13 | 430 | <0.50 | <0.50 | 150 |
| | 06/15/10 | 1,100 | 230 | 1,000 | 830 | <25 | <50 | <25 | 130 | <25 | <25 | 25 |
| | 09/29/10 | 2,800 | 580 | 1,600 | 2,400 | 18 J | 93 J | <50 | 400 | <50 | <50 | 120 |
| | 12/20/10 | 780 | 180 | 790 | 1,100 | 6.4 | 37 | 2.0 J | 170 | <2.5 | <2.5 | 46 |
| MW-12 | 12/23/09 | <1.0 | <1.0 | <5.0 | <3.0 | <1.0 | <5.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| | 03/08/10 | <1.0 | <1.0 | <5.0 | <3.0 | <1.0 | <5.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| | 06/15/10 | <0.50 | <0.50 | <0.50 | <1.5 | <0.50 | <1.0 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| | 09/29/10 | <1.0 | <1.0 | <5.0 | <3.0 | <1.0 | <5.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| MW-13 | 12/22/09 | <1.0 | <1.0 | <5.0 | <3.0 | <1.0 | <5.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| | 03/08/10 | <1.0 | <1.0 | <5.0 | <3.0 | <1.0 | <5.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| | 06/15/10 | <0.50 | <0.50 | <0.50 | <1.5 | <0.50 | <1.0 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| | 09/29/10 | <1.0 | <1.0 | <5.0 | <3.0 | <1.0 | <5.0 | 1.6 | <1.0 | <1.0 | <1.0 | <1.0 |
| MW-14 | 12/23/09 | <1.0 | <1.0 | <5.0 | <3.0 | <1.0 | <5.0 | 0.63 | <1.0 | <1.0 | <1.0 | <1.0 |
| | 03/08/10 | <1.0 | <1.0 | <5.0 | <3.0 | <1.0 | <5.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| | 06/15/10 | <0.50 | <0.50 | <0.50 | <1.5 | <0.50 | <1.0 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| | 09/29/10 | <1.0 | <1.0 | <5.0 | <3.0 | <1.0 | <5.0 | 0.63 J | <1.0 | <1.0 | <1.0 | <1.0 |
| MW-15 | 12/23/09 | 6,400 | 1,700 | 8,200 | 13,000 | 88 | 390 | 4.2 | 1,700 | <1.0 | <1.0 | 440 |
| | 03/08/10 | 4,400 | 1,200 | 4,600 | 7,700 | 38 | 170 | <50 | 1,200 | <50 | <50 | 310 |
| DUPE-1 | 06/15/10 | 4,500 | 1,500 | 2,900 | 7,500 | 38 | 200 | <25 | 980 | <25 | <25 | 240 |
| | | 4,100 | 1,000 | 2,000 | 5,100 | 19 J | 130 | <25 | 600 | <25 | <25 | 140 |
| | 09/29/10 | 4,800 | 1,900 | 1,300 | 6,800 | 62 J | 240 J | <100 | 1,500 | <100 | <100 | 420 |
| | 12/20/10 | 3,300 | 1,100 | 1,400 | 4,500 | 42 | 230 | <25 | 1,200 | <25 | <25 | 360 |

TABLE 3

**SUMMARY OF GROUNDWATER SAMPLE CHEMICAL ANALYTICAL DATA¹ - RBCA VOLATILE ORGANIC COMPOUNDS
 SENZ AUTOMOTIVE SERVICE - SITE INVESTIGATION
 YAMHILL, OREGON**

| Monitoring Well Identification | Date Collected | Volatile Organic Compounds EPA Method 8260B (µg/l) | | | | | | | | | | |
|--|----------------|--|--------------|---------|----------------|------------------|-------------|-------------------------|------------------------|-------------------|--------------------|------------------------|
| | | Benzene | Ethylbenzene | Toluene | Xylenes, Total | Isopropylbenzene | Naphthalene | Methyl tert-butyl ether | 1,2,4-Trimethylbenzene | 1,2-Dibromoethane | 1,2-Dichloroethane | 1,3,5-Trimethylbenzene |
| MW-16 | 12/22/09 | 2,200 | 270 | 3,600 | 3,700 | 15 | 90 | 0.54 | 410 | <1.0 | <1.0 | 130 |
| | 03/08/10 | 1,000 | 53 | 910 | 2,200 | <10 | 34 | 5 | 270 | <10 | <10 | 83 |
| | 06/15/10 | 4,100 | 940 | 3,200 | 5,100 | 25 | 160 | <25 | 660 | <25 | <25 | 180 |
| | 09/29/10 | 6,500 | 650 | 1,100 | 2,300 | 26 J | 130 J | <100 | 360 | <100 | <100 | 120 |
| | 12/21/10 | 790 | 46 | 110 | 300 | 2.6 J | 11 | <5.0 | 41 | <5.0 | <5.0 | 17 |
| MW-17 | 06/14/10 | <0.50 | <0.50 | 2.5 | <1.5 | <0.50 | <1.0 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| | 09/29/10 | <1.0 | <1.0 | <5.0 | <3.0 | <1.0 | <5.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| | 12/20/10 | <0.50 | <0.50 | <0.50 | <1.5 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| MW-18 | 06/14/10 | <0.50 | <0.50 | 9.4 | <1.5 | <0.50 | <1.0 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| | 09/29/10 | <1.0 | <1.0 | <5.0 | <3.0 | <1.0 | <5.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| | 12/20/10 | <0.50 | <0.50 | <0.50 | <1.5 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| Catch Basin/Outfall | | | | | | | | | | | | |
| CATCH BASIN-1 | 05/14/10 | 490 | 180 | 1,100 | 1,600 | 7.8 | 69 | 3.9 | 270 | <1.0 | <1.0 | 67 |
| CATCH BASIN-1 | 06/15/10 | 390 | 120 J5 | 720 | 840 J5 | <5.0 | 57 | <5.0 | 110 J5 | <5.0 | <5.0 | 24 |
| OUTFALL-1 | 05/14/10 | 1.8 | 0.49 J | 4.1 J | 3.7 | <1.0 | <5.0 | <1.0 | 0.31 J | <1.0 | <1.0 | <1.0 |
| OUTFALL-1 | 06/15/10 | <0.50 | <0.50 | 0.71 | 0.86 J | <0.50 | <1.0 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| Quality Control Samples | | | | | | | | | | | | |
| TRIP BLANK | 03/05/10 | <0.50 | <0.50 | <0.50 | <1.5 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 | <0.50 |
| TRIP BLANK | 03/08/10 | <1.0 | <1.0 | <5.0 | <3.0 | <1.0 | <5.0 | <1.0 | <1.0 | <1.0 | <1.0 | <1.0 |
| DEQ Risk-Based Concentrations³ | | | | | | | | | | | | |
| Ingestion and Inhalation from Tap Water | | | | | | | | | | | | |
| Residential | | 0.39 | 1.4 | 2,300 | 200 | 680 | 0.14 | 12 | 15 | 0.0063 | 0.14 | 12 |
| Urban Residential | | 1.7 | 6.7 | 4,600 | 410 | 1,400 | 0.78 | 53 | 29 | 0.031 | 0.69 | 25 |
| Occupational | | 2.2 | 7.8 | 9,200 | 850 | 2,800 | 0.72 | 67 | 61 | 0.034 | 0.78 | 52 |

TABLE 3
SUMMARY OF GROUNDWATER SAMPLE CHEMICAL ANALYTICAL DATA¹ - RBCA VOLATILE ORGANIC COMPOUNDS
SENZ AUTOMOTIVE SERVICE - SITE INVESTIGATION
YAMHILL, OREGON

| Monitoring Well Identification | Date Collected | Volatile Organic Compounds EPA Method 8260B (µg/l) | | | | | | | | | | |
|---|----------------|--|--------------|---------|----------------|------------------|-------------|-------------------------|------------------------|-------------------|--------------------|------------------------|
| | | Benzene | Ethylbenzene | Toluene | Xylenes, Total | Isopropylbenzene | Naphthalene | Methyl tert-butyl ether | 1,2,4-Trimethylbenzene | 1,2-Dibromoethane | 1,2-Dichloroethane | 1,3,5-Trimethylbenzene |
| Groundwater Volatilization to Outdoor Air | | | | | | | | | | | | |
| Residential | | 2,800 | 8,200 | * | * | * | 3,100 | 230,000 | * | 190 | 1,900 | * |
| Urban Residential | | 7,600 | 22,000 | * | * | * | 8,400 | 610,000 | * | 520 | 5,100 | * |
| Occupational | | 14,000 | 41,000 | * | * | * | 16,000 | 1,100,000 | * | 960 | 9,500 | * |
| Groundwater Vapor Intrusion into Buildings | | | | | | | | | | | | |
| Residential | | 190 | 490 | * | 58,000 | * | 670 | 39,000 | 5,000 | 46 | 250 | 3,200 |
| Urban Residential | | 510 | 1,300 | * | 58,000 | * | 1,800 | 110,000 | 5,000 | 130 | 690 | 3,200 |
| Occupational | | 2,800 | 7,400 | * | * | * | 10,000 | 590,000 | * | 690 | 3,800 | 41,000 |
| Groundwater in Excavation | | | | | | | | | | | | |
| Construction & Excavation Worker | | 1,700 | 4,400 | 210,000 | 23,000 | * | 500 | 62,000 | 1,700 | 28 | 630 | 1,400 |

Notes:

¹Chemical analytical analyses were performed by ESC Lab Sciences of Mt. Juliet, Tennessee.

²Oregon Department of Environmental Quality Risk Based Decision Making for the Remediation of Petroleum-Contaminated Sites, revised September 2009.

* = This RBC is not established.

J = This reported concentration is less than the laboratory reporting limit but greater than the laboratory detection limit. The concentration should be considered an estimate.

E=GTL(EPA) - Greater than upper calibration limit: Actual value is known to be greater than the upper calibration range.

µg/l= micrograms per liter; **Bold** indicates analyte detection. Green shading indicates concentration exceeds one or more RBCs.

Red shading indicates concentration exceeds one or more vapor intrusion RBCs.

P:\2\2787039\01\Finals\Dec_2010 Qtrly\[278703901 tables December 2010.xlsx]Table 3

APPENDIX A
Field Procedures

APPENDIX A FIELD PROCEDURES

General

This appendix describes the field procedures, field quality assurance/quality control (QA/QC) protocol, and the chemical testing program. Field exploration methods described in this appendix include:

- Groundwater sampling;
- Location control;
- Decontamination procedures;
- Handling of investigation-derived waste; and
- Chain of custody procedures.

Groundwater Elevations and Groundwater Sampling

Groundwater Elevations

Depth to groundwater, relative to the monitoring well measuring points, was measured using an Oil Recovery Systems, Inc. (ORS) interface probe. The instrument was decontaminated prior to use in each well. Groundwater elevations were calculated by subtracting the water table depth from the surveyed measuring point elevations.

Groundwater Sampling from Monitoring Wells

The groundwater samples were collected using disposable bailers. The groundwater samples were transferred in the field to laboratory-prepared sample containers and kept cool during transport to the testing laboratory. Efforts were made to fill each container completely to eliminate headspace in the container. Chain-of-custody procedures were observed during transport of the groundwater samples to the testing laboratory.

Decontamination Procedures

The objective of the decontamination procedure was to minimize the potential for cross-contamination between sample locations. All sampling and exploration equipment was decontaminated in accordance with the following procedures before each sampling attempt or measurement.

1. Brushed equipment with a nylon brush to remove large particulate matter.
2. Rinsed with potable tap water.
3. Washed with non-phosphate detergent solution (Liquinox and potable tap water).
4. Rinsed with potable tap water.
5. Rinsed with distilled water.

Handling of Investigation-Derived Waste

GeoEngineers placed purge and decontamination water into the on-site groundwater treatment system. The purge and decontamination water was treated using the on-site treatment system. Disposable items, such as disposable bailers, bailer line, gloves, and paper towels, etc., were placed in plastic bags after use and deposited in trash receptacles for disposal.

Chain of Custody Procedures

All samples obtained for chemical analysis were transferred into clean sample containers supplied by the project analytical laboratory. Sufficient sample volume was obtained for the laboratory to complete the method-specific QC analyses. Possession of the samples was documented by the chain-of-custody. The chain-of-custody forms were signed and dated in the appropriate places by parties involved with a transfer of custody.

Upon receipt of the samples at the laboratory, whether delivered by GeoEngineers personnel or a courier service, the following procedures were followed. The custody seals were broken, the chain-of-custody form was signed by the laboratory personnel, and the conditions of the samples were recorded on the form. The original chain-of-custody form remained with the laboratory and copies were returned to the relinquishing party.

APPENDIX B
Chemical Analytical Data

APPENDIX B CHEMICAL ANALYTICAL DATA

Data Quality Objectives

Consistent with Environmental Protection Agency (EPA) and Oregon Department of Environmental Quality (DEQ) risk assessment methodology, the quality assurance goal was to generate analytical data sufficient for risk assessment purposes and capable of calculating risk below the 1×10^{-6} risk level. For this project, method reporting limit (MRL) goals were based on DEQ cleanup criteria for residential exposure scenarios. The DEQ's risk based concentrations (RBCs) provided the reporting limit goals for the project.

Samples

Chain-of-custody procedures were followed during the transport of the field samples to the accredited analytical laboratory. The samples were held in cold storage pending extraction and/or analysis. The analytical results and quality control records are included in this attachment.

LABORATORY QUALITY ASSURANCE

The following analytical methods were used for this project:

- Gasoline-range hydrocarbons by NWTPH-Gx method; and
- Volatile organic compounds by EPA Method 8260;

Laboratory Quality Control

The laboratory maintains an internal quality assurance program as documented in its laboratory quality assurance manual.

Analytical Data Review Summary

The laboratory maintains an internal quality assurance program as documented in its laboratory quality assurance manual. The laboratory uses a combination of blanks, surrogate recoveries, duplicates, matrix spike recoveries, matrix spike duplicate recoveries, blank spike recoveries and blank spike duplicate recoveries to evaluate the validity of the analytical results. The laboratory also uses data quality goals for individual chemicals or groups of chemicals based on the long-term performance of the test methods. The data quality goals were included in the laboratory reports. The laboratory compared each group of samples with the existing data quality goals and noted any exceptions in the laboratory reports. Any data quality exceptions documented by the accredited laboratory were reviewed by GeoEngineers and are addressed in the data quality review section of this attachment. All analyses were completed within the holding time.

Analytical Data Review- ESC Laboratory Report L494959

GeoEngineers reviewed the laboratory report (specifically Attachments A and B of the laboratory report) for qualifiers. A number of J flags were reported for estimated values below the lowest calibration point. In addition, the laboratory provided a Level II QA/QC report; a review of the level II report showed no data qualifiers.

GeoEngineers reviewed the laboratory report and no qualifiers were noted that significantly affect the use of the data for the site investigation.

In general, acceptable method performance was demonstrated through surrogates, laboratory control samples, matrix spike and/or blank samples. For the purpose of this report the analytical data, with the exceptions noted, are considered acceptable.

APPENDIX C
Report Limitations and Guidelines for Use

APPENDIX C REPORT LIMITATIONS AND GUIDELINES FOR USE

This appendix provides information to help you manage your risks with respect to the use of this report.

Environmental Services Are Performed For Specific Purposes, Persons and Projects

This report has been prepared for the exclusive use of the Oregon Department of Environmental Quality (DEQ). This report is not intended for use by others, and the information contained herein is not applicable to other sites.

GeoEngineers structures our services to meet the specific needs of our clients. For example, an environmental site assessment study conducted for a property owner may not fulfill the needs of a prospective purchaser of the same property. Because each environmental study is unique, each environmental report is unique, prepared solely for the specific client and project site. No one except the DEQ should rely on this environmental report without first conferring with DEQ and GeoEngineers. This report should not be applied for any purpose or project except the one originally contemplated.

This Environmental Report Is Based On A Unique Set Of Project-Specific Factors

This report has been prepared for the Senz Automotive Service site in Yamhill, Oregon. GeoEngineers considered a number of unique, project-specific factors when establishing the scope of services for this project and report. Unless GeoEngineers specifically indicates otherwise, do not rely on this report if it was:

- Not prepared for you.
- Not prepared for your project.
- Not prepared for the specific site explored.
- Completed before important project changes were made.

If important changes are made after the date of this report, GeoEngineers should be given the opportunity to review our interpretations and recommendations and provide written modifications or confirmation, as appropriate.

Reliance Conditions for Third Parties

Our report was prepared for the exclusive use of DEQ. No other party may rely on the product of our services unless DEQ and GeoEngineers agree in advance to such reliance in writing. This is to provide our firm and DEQ with reasonable protection against open-ended liability claims by third parties with whom there would otherwise be no contractual limits to their actions. Within the limitations of scope, schedule and budget, our services have been executed in accordance with our Agreement with the DEQ and generally accepted environmental practices in this area at the time this report was prepared.

Environmental Regulations Are Always Evolving

Some substances may be present in the site vicinity in quantities or under conditions that may have led, or may lead, to contamination of the subject site, but are not included in current local, state or federal regulatory definitions of hazardous substances or do not otherwise present current potential liability. GeoEngineers cannot be responsible if the standards for appropriate inquiry, or regulatory definitions of hazardous substance, change or if more stringent environmental standards are developed in the future.

Uncertainty May Remain

No site investigation can wholly eliminate uncertainty regarding the potential for contamination in connection with a property. Our interpretation of subsurface conditions in this study is based on field observations and chemical analytical data from widely-spaced sampling locations. It is always possible that contamination exists in areas that were not explored, sampled or analyzed.

Subsurface Conditions Can Change

This environmental report is based on conditions that existed at the time the study was performed. The findings and conclusions of this report may be affected by the passage of time, by manmade events such as construction on or adjacent to the site, by new releases of hazardous substances, or by natural events such as floods, earthquakes, and slope instability or groundwater fluctuations. Always contact GeoEngineers before applying this report to determine if it is still applicable.

Soil and Groundwater End Use

The cleanup levels referenced in this report are site-and situation-specific. The cleanup levels may not be applicable for other sites or for other on-site uses of the affected media (soil and/or groundwater). Note that hazardous substances may be present in some of the site soil and/or groundwater at detectable concentrations that are less than the referenced cleanup levels. GeoEngineers and DEQ should be contacted prior to the export of soil or groundwater from the subject site or reuse of the affected media on-site to evaluate the potential for associated environmental liabilities. We cannot be responsible for potential environmental liability arising out of the transfer of soil and/or groundwater from the subject site to another location or its reuse on-site in instances that we were not aware of or could not control.

Most Environmental Findings Are Professional Opinions

Our interpretations of subsurface conditions are based on field observations and chemical analytical data from widely spaced sampling locations at the site. Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. GeoEngineers reviewed field and laboratory data and then applied our professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ sometimes significantly from those indicated in this report. Our report, conclusions and interpretations should not be construed as a warranty of the subsurface conditions.

Read These Provisions Closely

Some clients, design professionals and contractors may not recognize that the geoscience practices (geotechnical engineering, geology and environmental science) are far less exact than other engineering and natural science disciplines. This lack of understanding can create unrealistic expectations that could lead to disappointments, claims and disputes. GeoEngineers includes these explanatory “limitations” provisions in our reports to help reduce such risks. Please confer with GeoEngineers if you are unclear how these “Report Limitations and Guidelines for Use” apply to your project or site.

Geotechnical, Geologic and GeoEnvironmental Reports Should Not Be Interchanged

The equipment, techniques and personnel used to perform an environmental study differ significantly from those used to perform a geotechnical or geologic study and vice versa. For that reason, a geotechnical engineering or geologic report does not usually relate any environmental findings, conclusions or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. Similarly, environmental reports are not used to address geotechnical or geologic concerns regarding a specific project.

Biological Pollutants

GeoEngineers’ Scope of Work specifically excludes the investigation, detection, prevention or assessment of the presence of Biological Pollutants. Accordingly, this report does not include any interpretations, recommendations, findings, or conclusions regarding the detecting, assessing, preventing or abating of Biological Pollutants and no conclusions or inferences should be drawn regarding Biological Pollutants, as they may relate to this project. The term “Biological Pollutants” includes, but is not limited to, molds, fungi, spores, bacteria, and viruses, and/or any of their byproducts.

If DEQ desires these specialized services, they should be obtained from a consultant who offers services in this specialized field.