PHASE II ENVIRONMENTAL SITE ASSESSMENT

Oregon State Hospital –
North Campus

2575 Bittern Street NE, 2575 and
2600 Center Street NE,
Salem, Oregon

Prepared for:
Oregon Department of Administrative Services

Stantec

December 10, 2013

Executive Summary

Stantec Consulting Services, Inc. (Stantec) completed a Phase II Environmental Site Assessment (ESA) at the Oregon State Hospital – North Campus (OSH-NC) facility at 2575 Bittern Street NE and 2575-2600 Center Street NE in Salem, Oregon. The Phase II ESA was based on findings contained in a Phase I report completed by Stantec in May 2013. The areas chosen for investigation were based on results of Stantec's *Phase I Environmental Site Assessment Report*, dated May 14, 2013. A summary of the results of this Phase II ESA are provided as follows:

- The subsurface lithology consists primarily of silt with variable amounts of sand from ground surface to the total depth of our explorations (25 feet below existing grades). Groundwater was encountered at approximately 14 feet below existing grade elevations;

- Soil analytical results indicated all samples submitted for analysis did not contain selected constituent concentrations above the Oregon Department of Environmental Quality's (ODEQ's) most stringent Risk-Based Concentrations (RBCs) with the following exception:

    - Concentrations of Total Arsenic were detected in soil samples collected from borings SB-3 through SB-12 and SB-16 through SB-19 exceeding the most stringent ODEQ RBC of 0.39 mg/Kg, but were well below the background concentration of 18 mg/Kg for the Southern Willamette Valley as presented in ODEQ's *Development of Oregon Background Metals Concentrations in Soil*, dated March 2013.

- Groundwater analytical results indicated all samples submitted for analysis did not contain selected constituent concentrations above the most stringent ODEQ RBCs with the following exceptions:

    - Total Arsenic, Total Barium and Total Lead concentrations detected in groundwater samples collected from Site-wide borings exceeded their respective most stringent ODEQ RBCs. However, high sample turbidity and elevated background concentrations of metals in soil may have caused false positives in sample results for total metals in groundwater.

- The Irrigation well (known as "Well No. 4"), identified during Stantec's Phase I ESA was determined to be inactive at the time of this report and a cost estimate for proper well abandonment as per the Oregon Water Resources Department (OWRD) is provided in Appendix E.

Based on these results additional environmental assessment at the Site is not recommended at this time.

Table of Contents

Executive Summary E.1

1.0 INTRODUCTION 4
1.1 SCOPE OF WORK 4
1.2 SITE BACKGROUND AND ENVIRONMENTAL HISTORY 4
1.3 PURPOSE AND SCOPE OF WORK 5

2.0 GEOLOGY AND HYDROGEOLOGY 8
2.1 GEOLOGY 8
2.2 HYDROGEOLOGY 8

3.0 SUBSURFACE INVESTIGATION 9
3.1 HEALTH AND SAFETY 9
3.2 UTILITY CLEARANCE 9
3.3 DRILLING AND SOIL SAMPLING 9
3.4 GROUNDWATER SAMPLING 10
3.5 QUALITY ASSURANCE PROCEDURES 10
3.6 ANALYTICAL METHODS 10
3.7 SOIL SAMPLE ANALYTICAL RESULTS 13
3.8 GROUNDWATER SAMPLE ANALYTICAL RESULTS 13

4.0 INVESTIGATION OF IRRIGATION WELL 15

5.0 SUMMARY AND CONCLUSIONS 16

6.0 RECOMMENDATIONS 17

7.0 APPROVAL AND DECLARATIONS OF ENVIRONMENTAL PROFESSIONALS 18

TABLES

Table 1 Soil Analytical Results – TPH, VOCs and PCBs
Table 2 Soil Analytical Results – SVOCs and PAHs
Table 3 Soil Analytical Results – Total Metals
Table 4 Groundwater Elevation and Analytical Results – TPH, VOCs and PCBs
Table 5 Groundwater Analytical Results – SVOCs and PAHs
Table 6 Groundwater Analytical Results - Metals

LIST OF APPENDICES

Appendix A Figures
Appendix B Borehole Logs
Appendix C Laboratory Reports and Chain of Custody Documentation
Appendix D Leaking Underground Storage Tank and Environmental Site Cleanup Information Documentation
Appendix E Irrigation Well Abandonment Cost Estimate

1.0 INTRODUCTION

This report details the results of a Phase II Environmental Site Assessment (ESA) completed by Stantec Consulting Services, Inc. (Stantec) on behalf of the Oregon Department of Administrative Services (DAS) at the Oregon State Hospital – North Campus (OSH-NC, hereinafter referred to as "Site") property located at 2575 Bittern Street NE and 2575-2600 Center Street NE in Salem, Oregon (Figure 1). The areas chosen for investigation were based on results of Stantec's *Phase I Environmental Site Assessment Report*, dated May 14, 2013. .

1.1 SCOPE OF WORK

The Phase II ESA comprised the following scope of work:

- Preparation of a site-specific Health and Safety Plan (HASP);
- Notification of municipal Utility Notification Center (One Call) and a private utility locator to locate, identify, and mark-out subsurface utilities;
- Supervision of the advancement of nineteen soil borings, identified as SB-1 through SB-19 to a maximum depth of 25 feet below ground surface (bgs) at the locations shown in Figure 2;
- Collection of soil and groundwater samples from each boring and the development of geologic logs of the subsurface soil conditions encountered during drilling operations;
- Investigation of the reported irrigation well (known as Well No. 4) located northeast of McKenzie Hall; and
- Preparation of this report which includes our findings and conclusions.

1.2 SITE BACKGROUND AND ENVIRONMENTAL HISTORY

Stantec's understanding of the property is based on historical research, regulatory agency reviews, Site reconnaissance and interviews conducted as part of the Phase I ESA completed by Stantec.

The Site consists of approximately 47.37 acres of land developed with seven buildings, an interconnecting underground tunnel system, associated support structures (mechanical equipment/rooms, backup generators, and sheds/storage areas), roadways, parking lots and landscaped areas. Formerly occupied as the northern portion of a State psychiatric facility between approximately 1888 and 2012, two of the buildings (Dome Building and Yaquina Hall) are currently occupied as offices by the Oregon Department of Corrections (DOC) and DAS, respectively. The remainder of the North Campus is generally vacant, with portions of the buildings used for storage of equipment associated with the former psychiatric facility.

A 2,000-gallon fiberglass diesel underground storage tank (UST) is present east of Eola Hall (Figure 2). The UST is associated with the adjacent backup generator for Eola Hall. Based on records provided by the Salem Fire Department, it appears the active UST was installed in 1999 to replace a UST formerly present in this location. Upon removal of the former UST (in 1999), it appears that soil contamination was identified and leaking underground storage tank (LUST) file #24-99-4050 was issued. This LUST file was subsequently granted No Further Action (NFA) by the Oregon Department of Environmental Quality (ODEQ) in 2000.

An additional LUST file #24-89-4017 was issued by ODEQ in 1989 in association with a documented release from a former 250-gallon leaded gasoline UST connected to a backup generator located south of the west entrance to McKenzie Hall (Figure 2). The release of 240 gallons is reported to have occurred on or before March 13, 1989, and the UST was removed on March 14, 1989. The release resulted in the presence of soil contamination and free floating gasoline on the groundwater. Subsequent assessment and remediation activities were conducted between 1989 and 1999, and the activity was granted a No Further Action (NFA) determination by ODEQ in 2000. However, due to impacts left in place in localized groundwater, a limitation was placed on future use of development of shallow groundwater in the vicinity of the impacts.

Environmental Cleanup Site Information (ESCI) System file #1894 was issued by ODEQ in 1996 in association with a release of 140 gallons of hydraulic oil from the west elevator of Yaquina Hall. Three groundwater monitoring wells were installed in July 1996 and three quarterly groundwater monitoring events were conducted. Analytical concentrations of benzene, toluene and naphthalene were detected in groundwater samples collected during the initial groundwater monitoring event, however all constituents of concern were reportedly below laboratory detection limits or the groundwater cleanup standard for the two subsequent quarterly groundwater monitoring events. This ESCI file was granted NFA status in 1997; however, residual hydraulic oil impacts may be present beneath the building.

An active LUST site is located directly to the southwest of the Site, on the northeast corner of Park Avenue NE and Center Street NE, identified as the “Center Street Auto SVC and Repair/Spartan Station/Less Arco Service Station.” A LUST was identified by ODEQ in 1990 and the cleanup appears to be ongoing. Five USTs listed at the facility appear to have been decommissioned and the facility appears to have been an auto service and repair facility from at least 1961 until the present.

Additional information regarding the historical use of the Site and adjacent properties was summarized in Stantec’s May 14, 2013 *Phase I Environmental Site Assessment Report,* previously submitted to DAS.

1.3 PURPOSE AND SCOPE OF WORK

The Phase I ESA concluded the following four Recognized Environmental Conditions (RECs) associated with the OSH-NC property:

(1.) Asbestos Containing Materials (ACM): An ACM and hazardous materials survey was completed by Stantec. Results are detailed in a separate report;

(2.) LUST File #24-99-4050 (former 2,000-gallon diesel UST);

(3.) LUST File #24-89-4017 (former 250-gallon leaded gasoline UST); and

(4.) ESCI File #1894 (hydraulic oil release from elevator in Yaquina Hall).

In addition to the RECs described above, the following *other findings of concern* were identified during the Phase I:

(1.) Miscellaneous hazardous materials and/or petroleum products throughout the buildings;

(2.) Electrical rooms marked "High Voltage" throughout the basements and tunnels with equipment of unknown condition and likely containing hydraulic oil with the potential to contain poly-chlorinated biphenyl's (PCBs): this is addressed as part of the separate ACM/hazardous materials survey report;

(3.) Lead Based Paint (LBP): this is addressed as part of the separate ACM/hazardous materials survey report;

(4.) Elevator equipment rooms in the basements of Breitenbush Hall and the Dome building appear to have oil staining on the floor areas outside of equipment containment structures;

(5.) LUST File #24-91-4255 related to a heating oil or diesel fuel release reported on August 28, 1991. There is no reference to the volume released or to a specific location; however, the release was reported by a "contractor working on the generator tank." This LUST file was granted administrative closure in August 2000;

(6.) It appears as though the shed, located northeast of McKenzie Hall, may be the location of a 190-foot deep irrigation well (known as Well No. 4). Status of the well was unclear at the time of the Phase I;

(7.) Former agricultural use of the Site;

(8.) At least eight substantial (and several other minor) historic structures were formerly present at various locations across the Site. It is likely that fill materials were imported in conjunction with filling subsurface portions of the former structures;

(9.) Salem Regional Rehabilitation Center/Hospital: this facility neighbors the Site on the west side of 23rd Street NE. A LUST was identified in 1997 and the cleanup appears to be on-going; and

(10.) Center Street Auto SVC and Repair/Spartan Station/Less Arco Service Station active LUST site southeast of the OSH-NC.

The following boring locations were chosen to investigate the RECs and *other findings of concern* identified in the Phase I (boring locations are presented on Figure 2):

- Borings SB-1 and SB-2 were located in the vicinity of the former 250-gallon gasoline UST to determine if significant impacts remain in the soil and/or groundwater in relation to LUST file #24-89-4017;
- Borings SB-3 through SB-12 were located adjacent to Site buildings to determine whether historic Site use and/or historic releases of hazardous materials and/or petroleum substances have occurred;
- Borings SB-13 through SB-15 were located in the vicinity of the 2,000-gallon diesel UST to identify any soil and/or groundwater impacts in relation to the current UST system as well as the former diesel UST (LUST file #24-99-4050);
- Borings SB-16 and SB-17 were located in the vicinity of the reported elevator hydraulic oil release on the west side of Yaquina Hall to determine if impacts remain in soil and/or groundwater in relation to ESCI #1894; and
- Borings SB-18 and SB-19 were located directly west (across Park Avenue NE) from the Center Street Auto SVC and Repair/Spartan Station/Less Arco Service Station to determine if impacts from the open LUST file are migrating westward onto the OSH-NC Site.

ODEQ documents[1] related to the LUST files and ESCI file discussed above are included as Attachment D.

Additionally, Stantec contacted DAS personnel to determine the status of the reported irrigation well (Well No. 4) located northeast of McKenzie Hall.

[1] ODEQ documents obtained electronically at http://www.deq.state.or.us/lq/tanks/lust/LustPublicLookup.asp (LUST database) and http://www.deq.state.or.us/lq/ECSI/ecsiquery.asp?listtype=lis&listtitle=Environmental+Cleanup+Site%20Information+Database (ESCI database).

2.0 GEOLOGY AND HYDROGEOLOGY

2.1 GEOLOGY

The Site is located within the Willamette Valley geologic province. Regional geologic mapping[2,3] indicates the Site is underlain by Quaternary age alluvial sediments that were deposited on bedrock consisting of lava flows of the Miocene-age Columbia River Basalt Group. Quaternary alluvium at the Site consists of fine-grained Pleistocene-age Missoula Flood deposits of silt, sand and clay. These fine-grained deposits are up to 40 feet thick and are reportedly underlain by gravel-dominated alluvial sediments.

Archived well logs for the Site and surrounding properties[4] indicate silt, clay and sand to 35 feet bgs, with sands and gravels down to a depth of 190 feet bgs underlain by bedrock. Soils encountered during the advancement of soil borings SB-1 through BS-19 included predominately silt with varying fractions of sand from the ground surface to approximately 25 feet bgs, the maximum depth explored during this assessment.

2.2 HYDROGEOLOGY

Shallow groundwater was encountered in the soil borings at approximately 14 feet bgs. Permanent groundwater wells were not installed as part of this investigation; therefore no static groundwater elevation data was collected and subsequently no groundwater flow direction or gradient were calculated for the OSH-NC Site. However, the regional groundwater flow direction is assumed to be westerly, towards the Willamette River located approximately 2 miles west of the Site. Borehole logs generated during this investigation are presented in Appendix B.

[2] Tolan, T.L. and Beeson, M. H., Geologic Map and Database of the Salem East and Turner 7.5 Minute Quadrangles, Marion County, Oregon, U.S. Geological Survey, OFR 00-351.

[3] Bela, J.L, 1981, Geology of the Rickerall, Salem West, Monmouth, and Sidney 7 ½' Quadrangles, Marion, Polk, and Linn Counties, Oregon. Geological Map Series GMS-18, Oregon Department of Geology and Mineral Industries.

[4] Marion County Well Log 20670; downloaded from Oregon Water Resources website (http://apps.wrd.state.or.us/apps/gw/well_log/Default.aspx); 10/25/2013

3.0 SUBSURFACE INVESTIGATION

3.1 HEALTH AND SAFETY

A site specific Health and Safety Plan (HASP) was prepared for the Site as part of the project. The HASP identified potential physical and chemical hazards associated with the proposed field activities and established personnel protection standards and mandatory safety practices. All Stantec personnel and subcontractors working on the Site were required to review, sign and comply with the provision set forth in the HASP.

3.2 UTILITY CLEARANCE

Prior to advancement of the soil probes, Stantec arranged to have the public underground utility location service identify subsurface municipal utilities located in public rights-of-way. In addition, Stantec contracted with a private underground utility location service to clear the marked proposed boring locations.

3.3 DRILLING AND SOIL SAMPLING

Between September 16 and 18, 2013, soil borings SB-1 through SB-19 were advanced to a total depth of 25 feet bgs at the locations depicted on Figure 2. The borings were advanced using a truck-mounted direct-push drilling rig operated by an Oregon licensed driller from Bergeson-Boese and Associates (BB&A) of Eugene, Oregon. Additionally, borings SB-12 through SB-15 were hand cleared to 5 feet bgs using a hand auger due to the close proximity of the borings from underground utilities and/or the active 2,000-gallon diesel UST. All field activities were conducted under the direction of an Oregon-registered professional engineer.

Soil samples were collected from each boring in approximate 5-foot intervals using an acetate liner inserted into the lead drill rod of the direct-push rig. Relatively undisturbed soil samples were collected for chemical analysis directly from the acetate liner and placed into laboratory-supplied glass jars with a Teflon-lined lid. Each sample was subsequentially labeled and stored on ice in a cooler prior to delivering the samples under chain-of-custody (COC) protocol to Apex Laboratories, LLC (Apex) of Portland, Oregon for analysis.

The remaining soil was used for soil type classification and field screening for petroleum hydrocarbons and volatile organic compounds (VOCs). Field screening included headspace analysis for VOCs. Headspace testing was completed using a photoionization detector (PID) equipped with a 10.6 electron volt (eV) lamp to analyze volatile compounds present in the bagged samples. A soil sample was placed in a re-sealable bag and allowed to equilibrate, then the probe of the PID was extended into the bag. The greatest vapor reading [in parts per million(ppm)] obtained from each sample was recorded on the field boring logs. Prior to use, the PID was calibrated to a known concentration of isobutylene, in accordance with the manufacturer's specifications. Boring logs are presented in Appendix B.

3.4 GROUNDWATER SAMPLING

Saturated soils were encountered during drilling between 12 feet bgs (SB-13) and 14.5 feet bgs (SB-4). Immediately following the drilling of the individual boreholes, the drill rods were removed from the boring and a temporary 1-inch diameter polyvinyl chloride (PVC) well with a 10-foot screen interval was placed in the open borehole to facilitate groundwater sample collection. Prior to sample collection, approximately 1.5 gallons of groundwater was purged from each temporary well with a peristaltic pump until turbidity decreased significantly, or the well was dewatered. Temporary wells that were dewatered during initial purging were allowed to recharge approximately 30 minutes prior to groundwater sample collection. Groundwater samples were subsequently collected with the peristaltic pump in laboratory-supplied bottles and placed on ice in a cooler for delivery to the laboratory under COC protocol.

3.5 QUALITY ASSURANCE PROCEDURES

Quality assurance procedures included decontamination of all drilling and sampling equipment prior to use and between each sampling location. All sampling equipment was cleaned in an aqueous solution of non-phosphate cleanser, rinsed with tap water, and rinsed a second time with distilled water to prevent cross-contamination between boreholes and sample intervals.

3.6 ANALYTICAL METHODS

The following summarizes the analytical selections associated with the drilling activities. . Copies of the laboratory analytical reports are included in Appendix C.

Borings SB-1 and SB-2; located in the vicinity of the former 250-gallon gasoline UST (LUST file #24-89-4017). A total of three soil samples were submitted to Apex Labs from borings SB-1 and SB-2 for the following analysis:

- Gasoline Range Total Petroleum Hydrocarbons (TPH-G) using Northwest Method NWTPH-Gx;
- Benzene, toluene, ethylbenzene and total xylenes (collectively BTEX), methyl tert-butyl ether (MTBE), 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, isopropylbenzene, n-propylbenzene, 1,2-Dibromoethane (EDB), 1,2-Dichloroethane (EDC), and naphthalene (RBCA Suite VOCs) using United States Environmental Protection Agency (EPA) Method 8260B; and
- Total Lead using EPA Method 6020.

Additionally, grab groundwater samples were collected from soil borings SB-1 and SB-2 and submitted for the following analysis:

- NWTPH-Gx;

- RBCA Suite VOCs using EPA Method 8260B; and
- Dissolved Lead using EPA Method 6020.

Borings SB-3 through SB-12; assessment of potential impacts associated with historical use of buildings.. A total of ten soil samples were submitted to Apex labs from borings SB-3 through SB-12 for the following analysis:

- Hydrocarbon Identification Screen using NWTPH-HCID;
- Full scan VOCs using EPA Method 8260B;
- Semivolatile Organic Compounds (SVOCs) using EPA Method 8270D;
- Polychlorinated Biphenyls (PCBs) using EPA Method 8082A; and
- Resource Conservation and Recovery Act (RCRA) Metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver) using EPA Method 6020.

Additionally, grab groundwater samples were collected from soil borings SB-4 through SB-11 and submitted for the following analysis:

- NWTPH-HCID;
- Full scan VOCs using EPA Method 8260B;
- SVOCs using EPA Method 8270D;
- PCBs using EPA Method 8082A; and
- RCRA Metals using EPA Method 6020.

Due to insufficient well recharge rates in temporary wells SB-3 and SB-12 a grab groundwater sample was submitted to Apex for analysis of VOCs only.

Borings SB-13 through SB-15; located in the vicinity of the 2,000-gallon diesel UST (LUST file #24-99-4050). A total of three soil samples were submitted to Apex from borings SB-13 through SB-15 for the following analysis:

- Diesel and Oil Range Total Petroleum Hydrocarbons (TPH-D) using Northwest Method NWTPH-Dx (with silica gel clean-up);
- BTEX using EPA Method 8260B; and
- Polynuclear Aromatic Hydrocarbons (PAHs) using EPA Method 8270C-SIM.

Additionally, grab groundwater samples were collected from soil borings SB-13 through SB-15 and submitted for the following analysis:

- NWTPH-Dx;
- BTEX using EPA Method 8260B; and
- PAHs using EPA Method 8270C-SIM.

Borings SB-16 and SB-17; located in the vicinity of the reported elevator hydraulic oil release on the west side of Yaquina Hall (ESCI #1894). A total of two soil samples and were submitted to Apex from borings SB-16 and SB-17 for the following analysis:

- NWTPH-HCID;
- Full scan VOCs using EPA Method 8260B;
- SVOCs using EPA Method 8270D;
- PAHs using EPA Method 8270C-SIM; and
- RCRA Metals using EPA Method 6020.

Additionally, grab groundwater samples were collected from soil boring SB-16 and submitted for the following analysis:

- NWTPH-HCID;
- Full scan VOCs using EPA Method 8260B;
- SVOCs using EPA Method 8270D;
- PAHs using EPA Method 8270C-SIM; and
- RCRA Metals using EPA Method 6020.

Due to insufficient well recharge rates in temporary well SB-17 a grab groundwater sample was submitted to Apex for analysis of VOCs only.

Borings SB-18 and SB-19; located across Park Avenue NE from the LUST Site identified as Center Street Auto SVC and Repair/Spartan Station/Less Arco Service Station. A total of two soil samples were submitted to Apex from borings SB-18 and SB-19 for the following analysis:

- NWTPH-HCID;
- Full scan VOCs using EPA Method 8260B;

- SVOCs using EPA Method 8270D;
- PCBs using EPA Method 8082A; and
- RCRA Metals using EPA Method 6020.

Additionally, grab groundwater samples were collected from soil borings SB-18 and SB-19 and submitted for the following analysis:

- NWTPH-HCID;
- Full scan VOCs using EPA Method 8260B;
- SVOCs using EPA Method 8270D;
- PCBs using EPA Method 8082A; and
- RCRA Metals using EPA Method 6020.

3.7 SOIL SAMPLE ANALYTICAL RESULTS

Soil analytical results are detailed in Tables 1 through 3, attached. Copies of laboratory reports and COC documentation are included in Appendix C.

All COPCs were either detected below laboratory method reporting limits (MRLs) or below the most stringent ODEQ RBCs with the following exception:

Total Arsenic was detected in all soil samples collected from borings SB-3 through SB-12 and SB-16 through SB-19 exceeding the most stringent ODEQ RBC of 0.39 mg/Kg. However, concentrations of Total Arsenic (ranging from 3.41 mg/Kg in sample SB-9-12.5' to 6.53 mg/Kg in sample SB-12-12.5') were below the background concentration of 18 mg/Kg for the Southern Willamette Valley as presented in ODEQ's *Development of Oregon Background Metals Concentrations in Soil*, dated March 2013.

3.8 GROUNDWATER SAMPLE ANALYTICAL RESULTS

Groundwater analytical results are detailed in Tables 4 through 6, attached. Copies of laboratory reports and COC documentation are included in Appendix C.

All COPCs were either detected below laboratory MRLs or below the most stringent ODEQ RBCs with the following exceptions:

Total Arsenic was detected in groundwater samples collected from borings SB-4 through SB-11, SB-16, SB-18 and SB-19 exceeding the most stringent ODEQ RBC of 0.038 micrograms per liter (µg/L). These samples were collected from temporary well points and not field filtered, therefore my not be representative of groundwater conditions due to turbidity. Additionally, as

described in Section 3.7, background concentrations of Arsenic in soil are known to be greater than the most stringent ODEQ RBCs in the southern Willamette Valley.

Total Barium and Total Cadmium were detected in groundwater samples collected from borings SB-7, SB-9 and SB-16 exceeding their respective EPA regional screening levels (RSLs) of 2,900 µg/L and 6.9 µg/L. However, detected concentrations of Total Barium and Total Cadmium were reported below their respective most stringent ODEQ RBCs of 7,300 µg/L and 18 µg/L.

Total lead was detected in groundwater samples collected from borings SB-1, SB-2, SB-4, SB-5, SB-7 through SB-9, SB-11, SB-16, SB-18 and SB-19 exceeding the most stringent ODEQ RBC of 15 µg/L. These samples were collected from temporary well points and not field filtered, therefore may not be representative of groundwater conditions due to turbidity. Additionally, concentrations of dissolved lead in samples collected from borings SB-1 and SB-2 were reported below laboratory MRLs, possibly indicating biased analytical results (false positive) due to sample turbidity and elevated background soil concentrations of lead in the southern Willamette Valley.

4.0 INVESTIGATION OF IRRIGATION WELL

During Stantec's Phase I Site Assessment of the OSH-NC Site, a shed located northeast of McKenzie Hall was identified as the possible location of an irrigation well (known to be "Well No. 4"). Stantec contacted Meril Craig, Services/Repair Supervisor with Oregon DAS, an individual with approximately 18 years of experience working at the OSH-NC Site.

During a Site visit with Meril on November 4, 2013 Stantec personnel gained access to the shed and an inspection of the well head and well components was performed. At the time of the Site visit, the well appeared to be inactive for an extended period of time. Photos of the well shed and components are included in Appendix E. A tag observed on the well motor read "repaired 2004." Electricity was supplied to the shed; however the well pump was not tested at the time of the Site visit.

Additionally, Mr. Craig indicated that irrigation water was currently supplied to the OSH-NC and Oregon State Hospital-South Campus (OSH-SC) from irrigation pumps in Mill Creek, located approximately one-half mile southeast of the Oregon State Hospital grounds. As noted in Stantec's Phase I ESA, potable water is provided to the Site by the City of Salem.

The presence of an inactive well on-Site that has not been properly abandoned was considered an "*other finding of environmental concern*" during the time of the Phase I ESA because it can be considered a pathway for surface contaminants to enter the subsurface. A cost estimate for the abandonment of "Well No. 4" is included in Appendix E.

In preparation for well abandonment, the shed will have to be demolished in order to gain access to wellhead components and provide access for a pump truck to remove the pump and turbine from the well. Cost of shed demolition is not included in the cost estimate for well abandonment, Appendix E.

Following removal of the pump, turbine and other ancillary equipment associated with the well, a down-hole video log will have to be completed in order to assess the well construction, perforation zone and condition of the well casing. The video will be used by the well abandonment contractor and OWRD to determine the proper method for well abandonment.

5.0 SUMMARY AND CONCLUSIONS

Based on the results of this Phase II ESA, Stantec concludes the following:

- The subsurface lithology consists primarily of silt with variable amounts of sand extending from below the existing ground surface to approximately 25 feet below Site elevations. Groundwater was encountered between approximately 12 and 14.5 feet bgs during drilling in all borings;

- Results of the investigation did not indicate the presence of residual soil and/or groundwater contamination is present within the vicinity of the former and current 2,000-gallon diesel USTs, located east of Eola Hall (LUST file #24-99-4016);

- Results of the investigation did not indicate residual soil and/or groundwater contamination present within the vicinity of the former 250-gallon leaded gasoline UST, located south of the west entrance of McKenzie Hall (LUST file #24-89-4017);

- Results of the investigation did not indicate residual soil and/or groundwater contamination present within the vicinity of the reported hydraulic oil release from an elevator in Yaquina Hall (ESCI #1894)

- Results of the investigation did not indicate residual soil and/or groundwater contamination present at the Site in relation to historical Site and/or building use;

- Detected concentrations of Arsenic in soil (borings SB-3 through SB-12, and SB-16 through SB-19) are below background levels for the Southern Willamette Valley;

- Detected concentrations of total Arsenic, total Barium, total Cadmium and total Lead in groundwater (borings SB-1, SB-2, SB-4 through SB-11, SB-16, SB-18 and SB-19) appear to be biased (false positives) due to high sample turbidity and background metals concentrations in the Southern Willamette Valley; and

- The irrigation well (known as “Well No. 4”) located northeast of McKenzie Hall is considered to be inactive and should be properly abandoned.

6.0 RECOMMENDATIONS

Based on the results of this Phase II ESA, additional assessment in the areas investigated is not recommended at this time. If requested by Oregon DAS, Stantec can facilitate the abandonment of Well No. 4 northeast of McKenzie Hall.

Stantec will submit a separate report detailing the ACM and hazardous materials survey.

7.0 APPROVAL AND DECLARATIONS OF ENVIRONMENTAL PROFESSIONALS

All information, conclusions, and recommendations provided by Stantec in this document regarding the Subject Property have been reviewed by the Licensed Professionals whose signatures appear below.

Respectfully submitted,

Stantec Consulting Services, Inc.

Original prepared by:

Original signed by:

Robert McAlister
Project Scientist

Marc Sauze, P.E.
Senior Environmental Engineer

RM/ms

STATEMENT OF LIMITATIONS

The conclusions presented in this report are professional opinions based on data described in this report. These opinions have been arrived at in accordance with currently accepted environmental industry standards and practices applicable to the work described in this report. The opinions presented are subject to the following inherent limitations:

1. This report was prepared for the exclusive use of the entity referenced in Section 1.0. No other entity may rely on the information presented in the report without the expressed written consent of Stantec.

2. This report is subject to the terms and conditions referenced in the contract between Stantec and its client under which the work was performed. Any use of the report constitutes acceptance of the limits of Stantec's liability specified in the contract. Stantec's liability extends only to its client and not to any other parties who may obtain the report.

3. The passage of time, manifestation of latent conditions, or occurrence of future events may require further study at the Subject Property, analysis of the data, and reevaluation of the findings, observations, and conclusions in the report.

4. The data reported and the findings, observations, and conclusions expressed in the report are limited by the scope of work. The scope of work is presented in Section 1.1 and was agreed to by the client.

5. Stantec's reports present professional opinions and findings of a scientific and technical nature. The report shall not be construed to offer legal opinion or representations as to the requirements of, nor compliance with, environmental laws, rules, regulations, or policies of Federal, state, or local governmental agencies.

6. The conclusions presented in this report are professional opinions based on data described in this report. They are intended only for the purpose, Subject Property location, and project indicated. This report is not a definitive study of contamination at the Subject Property and should not be interpreted as such.

Tables

Table 1
Soil Analytical Results - TPH, VOCs, and PCBs
Oregon State Hospital
2600 Center Street NE
Salem, Oregon 97301

Sample Location	Date Sampled	Depth (feet below grade)	TPH-HCID (g,d,o)	TPH-G (mg/Kg)	TPH-D (mg/Kg)	TPH-O (mg/Kg)	Volatile Organic Compounds															PCBs
							Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	m,p-Xylene (mg/Kg)	o-Xylene (mg/Kg)	MTBE (mg/Kg)	Naphthalene (mg/Kg)	1,2,4-Trimethylbenzene (mg/Kg)	1,3,5-Trimethylbenzene (mg/Kg)	Isopropylbenzene (mg/Kg)	N-Propylbenzene (mg/Kg)	1,2-Dibromoethane (EDB) (mg/Kg)	1,2-Dichloroethane (EDC) (mg/Kg)	Other VOCs	
SB-1-12.5'	9/17/2013	12.5	-	<7.18	-	-	<0.0180	<0.0718	<0.0359	<0.108	-	-	<0.0718	<0.144	<0.0718	<0.0718	<0.0718	<0.0359	<0.0359	<0.0359	-	-
SB-1-20'	9/17/2013	20	-	**18.0**	-	-	<0.0183	<0.0732	<0.0366	<0.110	-	-	<0.0732	<0.146	<0.0732	<0.0732	<0.0732	<0.0366	<0.0366	<0.0366	-	-
SB-2-12.5'	9/17/2013	12.5	-	<7.23	-	-	<0.0181	<0.0723	<0.0361	<0.108	-	-	<0.0723	<0.145	<0.0723	<0.0723	<0.0723	<0.0361	<0.0361	<0.0361	-	-
SB-3-12.5'	9/18/2013	12.5	ND				<0.0174	<0.0694	<0.0347	-	<0.0694	<0.0347	<0.0694	<0.139	<0.0694	<0.0694	<0.0694	<0.0347	<0.0347	<0.0347	ND	ND
SB-4-12.5'	9/17/2013	12.5	ND	-	-	-	<0.0181	<0.0722	<0.0361	-	<0.0722	<0.0361	<0.0722	<0.144	<0.0722	<0.0722	<0.0722	<0.0361	<0.0361	<0.0361	ND	ND
SB-5-12.5'	9/17/2013	12.5	ND	-	-	-	<0.0199	<0.0795	<0.0398	-	<0.0795	<0.0398	<0.0795	<0.159	<0.0398	<0.0398	<0.0795	<0.0398	<0.0398	<0.0398	ND	ND
SB-6-12.5'	9/17/2013	12.5	ND	-	-	-	<0.0179	<0.0717	<0.0358	-	<0.0717	<0.0358	<0.0717	<0.143	<0.0717	<0.0717	<0.0717	<0.0358	<0.0358	<0.0358	ND	ND
SB-7-12.5'	9/18/2013	12.5	ND	-	-	-	<0.0168	<0.0670	<0.0335		<0.0670	<0.0335	<0.0670	<0.134	<0.0670	<0.0670	<0.0670	<0.0335	<0.0335	<0.0335	ND	ND
SB-8-12.5'	9/18/2013	12.5	ND	-	-	-	<0.0156	<0.0622	<0.0331	-	<0.0622	<0.0311	<0.0622	<0.124	<0.0622	<0.0622	<0.0622	<0.0311	<0.0311	<0.0331	ND	ND
SB-9-12.5'	9/17/2013	12.5	ND	-	-	-	<0.0182	<0.0730	<0.0365	-	<0.0730	<0.0365	<0.0365	<0.146	<0.0730	<0.0730	<0.0730	<0.0365	<0.0365	<0.0365	ND	ND
SB-10-10'	9/16/2013	10	ND	-	-	-	<0.0190	<0.0758	<0.0379	-	<0.0758	<0.0379	<0.0758	<0.152	<0.0758	<0.0758	<0.0758	<0.0379	<0.0379	<0.0379	ND	ND
SB-11-10'	9/16/2013	10	ND	-	-	-	<0.0177	<0.0707	<0.0354	-	<0.0707	<0.0354	<0.0707	<0.141	<0.0707	<0.0707	<0.0707	<0.0354	<0.0354	<0.0354	ND	ND
SB-12-12.5'	9/18/2013	12.5	ND	-	-	-	<0.0185	<0.0741	<0.0371	-	<0.0741	<0.0371	<0.0741	<0.148	<0.741	<0.0741	<0.0741	<0.0371	<0.0371	<0.0371	ND	ND
SB-13-10'	9/16/2013	10	-	-	<25.0	<50.0	<0.0175	<0.0701	<0.0351	<0.105	-	-	-	-	-	-	-	-	-	-	-	-
SB-14-10'	9/16/2013	10	-	-	<29.9	<59.8	<0.0176	<0.0704	<0.0352	<0.106	-	-	-	-	-	-	-	-	-	-	-	-
SB-15-10'	9/16/2013	10	-	-	<25.0	<50.0	<0.0193	<0.0772	<0.0386	<0.116	-	-	-	-	-	-	-	-	-	-	-	-
SB-16-12.5'	9/18/2013	12.5	ND				<0.0177	<0.0708	<0.0354	-	<0.0708	<0.0354	<0.0708	<0.142	<0.0708	<0.0708	<0.0708	<0.0354	<0.0354	<0.0354	ND	ND
SB-17-12.5'	9/18/2013	12.5	ND				<0.0165	<0.0660	<0.0330	-	<0.0660	<0.0330	<0.0660	<0.132	<0.0660	<0.0660	<0.0660	<0.0330	<0.0330	<0.0330	ND	ND
SB-18-12.5'	9/16/2013	12.5	ND	-	-	-	<0.0188	<0.0753	<0.0377	-	<0.0753	<0.0377	<0.0753	<0.151	<0.0753	<0.0753	<0.0753	<0.0377	<0.0377	<0.0377	ND	ND
SB-19-12.5'	9/16/2013	12.5	ND	-	-	-	<0.0181	<0.0725	<0.0362	-	<0.0725	<0.0362	<0.0725	<0.145	<0.0725	<0.0725	<0.0725	<0.0362	<0.0362	<0.0362	ND	ND
Most Stringent DEQ Generic RBCs			-	31	1,100	-	0.0093	140	0.16	25	25		0.092	0.087	16	92	3,500 >Csat	-	0.000081	0.0014	-	-
Most Stringent EPA RSL			-	-	-	-	1.1	5000	5.4	630	-	690	43	3.6	62	780	2,100	3,400	0.0065	0.43	-	-

Notes:
All results expressed as milligrams per kilogram (mg/Kg).
shaded = indicates concentrations above noted cleanup levels
bold = indicates concentrations detected above method reporting limits
- = Not applicable, not analyzed, or not available
TPH-HCID = Total Petroleum Hydrocarbon Identification analyzed by Northwest Method NWTPH-HCID
g,d,o = gasoline, diesel, or heavy oil range hydrocarbons detected, respectively, by TPH-HCID
TPH-G = Total Petroleum Hydrocarbons as Gasoline analyzed by Northwest Method NWTPH-Gx
TPH-D = Total Petroleum Hydrocarbons - Diesel Range analyzed by Northwest Method NWTPH-Dx with Silica Gel Cleanup
TPH-O = Total Petroleum Hydrocarbons - Oil Range analyzed by Northwest Method NWTPH-Dx
VOCs = Volatile Organic Compounds analyzed by EPA Method 8260B
MTBE = Methyl tert-Butyl Ether
PCBs = Polychlorinated Biphenyls (Aroclor 1016, 1221, 1232, 1242, 1248, 1254, and 1260) analyzed by EPA Method 8082
ND = Not detected above laboratory method reporting limits.
<7.18 = indicates not detected above method reporting limit of 7.18 mg/Kg
RBCs = Generic Risk Based Concentrations based on Oregon DEQ's *Risk Based Decision Making for the Remediation of Petroleum-Contaminated Sites* , Table Of Risk-Based Concentrations, dated June 7, 2012
- = Not Applicable or Not Available
>Csat = This soil RBC exceeds the limits the limit of three phase equilibrium partitioning.
RSL = EPA Regional Screening Levels, November 2012

Table 2
Soil Analytical Results - SVOCs / PAHs
Oregon State Hospital
2600 Center Street NE
Salem, Oregon 97301

Sample Location	SB-3-12.5'	SB-4-12.5'	SB-5-12.5'	SB-6-12.5'	SB-7-12.5'	SB-8-12.5'	SB-9-12.5'	SB-10-10'	SB-11-10'	SB-12-12.5'	SB-13-10'	SB-14-10'	SB-15-10'	SB-16-12.5'	SB-17-12.5'	SB-18-12.5'	SB-19-12.5'	Most Stringent DEQ Generic RBCs
Date Sampled	9/18/2013	9/17/2013	9/17/2013	9/17/2013	9/18/2013	9/18/2013	9/17/2013	9/16/2013	9/16/2013	9/18/2013	9/16/2013	9/16/2013	9/16/2013	9/18/2013	9/18/2013	9/16/2013	9/16/2013	
Depth (feet below grade)	12.5	12.5	12.5	12.5	12.5	12.5	12.5	10	10	12.5	10	10	10	12.5	12.5	12.5	12.5	
Acenaphthene (mg/Kg)	<0.292	<0.320	<0.312	<0.323	<0.310	<0.284	<0.312	<0.327	<0.313	<0.324	<0.0115	<0.0134	<0.0117	<0.289	<0.300	<0.296	<0.299	4,700
Acenaphthylene (mg/Kg)	<0.292	<0.320	<0.312	<0.323	<0.310	<0.284	<0.312	<0.327	<0.313	<0.324	<0.0115	<0.0134	<0.0117	<0.289	<0.300	<0.296	<0.299	-
Anthracene (mg/Kg)	<0.292	<0.320	<0.312	<0.323	<0.310	<0.284	<0.312	<0.327	<0.313	<0.324	<0.0115	<0.0134	<0.0117	<0.289	<0.300	<0.296	<0.299	23,300
Benzo[a]anthracene (mg/Kg)	<0.292	<0.320	<0.312	<0.323	<0.310	<0.284	<0.312	<0.327	<0.313	<0.324	<0.0115	<0.0134	<0.0117	<0.289	<0.300	<0.296	<0.299	0.15
Benzo[a]pyrene (mg/Kg)	<0.292	<0.320	<0.312	<0.323	<0.310	<0.284	<0.312	<0.327	<0.313	<0.324	**0.0118**	<0.0134	<0.0117	<0.289	<0.300	<0.296	<0.299	0.015
Benzo[b]fluoranthene (mg/Kg)	<0.292	<0.320	<0.312	<0.323	<0.310	<0.284	<0.312	<0.327	<0.313	<0.324	-	<0.0134	<0.0117	<0.289	<0.300	<0.296	<0.299	0.15
Benzo[k]fluoranthene (mg/Kg)	<0.292	<0.320	<0.312	<0.323	<0.310	<0.284	<0.312	<0.327	<0.313	<0.324	-	<0.0134	<0.0117	<0.289	<0.300	<0.296	<0.299	1.5
Benzo[b+k]fluoranthene(s) (mg/Kg)	-	-	-	-	-	-	-	-	-	-	**0.234**	-	-	-	-	-	-	-
Benzo[g,h,i]perylene (mg/Kg)	<0.292	<0.320	<0.312	<0.323	<0.310	<0.284	<0.312	<0.327	<0.313	<0.324	**0.0127**	<0.0134	<0.0117	<0.289	<0.300	<0.296	<0.299	-
Chrysene (mg/Kg)	<0.292	<0.320	<0.312	<0.323	<0.310	<0.284	<0.312	<0.327	<0.313	<0.324	**0.0136**	<0.0134	<0.0117	<0.289	<0.300	<0.296	<0.299	14
Dibenz(a,h)anthracene (mg/Kg)	<0.292	<0.320	<0.312	<0.323	<0.310	<0.284	<0.312	<0.327	<0.313	<0.324	<0.0115	<0.0134	<0.0117	<0.289	<0.300	<0.296	<0.299	0.015
Fluoranthene (mg/Kg)	<0.292	<0.320	<0.312	<0.323	<0.310	<0.284	<0.312	<0.327	<0.313	<0.324	**0.0389**	<0.0134	<0.0117	<0.289	<0.300	<0.296	<0.299	23,000
Fluorene (mg/Kg)	<0.292	<0.320	<0.312	<0.323	<0.310	<0.284	<0.312	<0.327	<0.313	<0.324	<0.0115	<0.0134	<0.0117	<0.289	<0.300	<0.296	<0.299	3,100
Indeno[1,2,3-cd]pyrene (mg/Kg)	<0.292	<0.320	<0.312	<0.323	<0.310	<0.284	<0.312	<0.327	<0.313	<0.324	**0.0133**	<0.0134	<0.0117	<0.289	<0.300	<0.296	<0.299	0.15
Naphthalene (mg/Kg)	<0.292	<0.320	<0.312	<0.323	<0.310	<0.284	<0.312	<0.327	<0.313	<0.324	**0.0860**	<0.0134	<0.0117	<0.289	<0.300	<0.296	<0.299	0.087
Phenanthrene (mg/Kg)	<0.292	<0.320	<0.312	<0.323	<0.310	<0.284	<0.312	<0.327	<0.313	<0.324	**0.0396**	<0.0134	<0.0117	<0.289	<0.300	<0.296	<0.299	-
Pyrene (mg/Kg)	<0.292	<0.320	<0.312	<0.323	<0.310	<0.284	<0.312	<0.327	<0.313	<0.324	**0.0308**	<0.0134	<0.0117	<0.289	<0.300	<0.296	<0.299	1,700
Other SVOCs	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	-	-	-	ND	ND	ND	ND	-

Notes:
All results expressed as milligrams per kilogram (mg/Kg).
bold = indicates concentrations detected above method reporting limits
ND = Not detected at laboratory method reporting limits
- = Not applicable, not analyzed, or not available
PAH = Polynuclear Aromatic Compounds analyzed by EPA Method 8270D-SIM
SVOCs = Semi-Volatile Organic Compounds analyzed by EPA Method 8270D
<0.0117 = indicates not detected above method reporting limit of 0.0117 mg/Kg
RBCs = Generic Risk Based Concentrations based on Oregon DEQ's *Risk Based Decision Making for the Remediation of Petroleum-Contaminated Sites* , Table Of Risk Based Concentrations, dated June 7, 2012

Table 3
Soil Analytical Results - Total Metals
Oregon State Hospital
2600 Center Street NE
Salem, Oregon 97301

Sample Location	Date Sampled	Depth (feet below grade)	Total Arsenic (mg/kg)	Total Barium (mg/kg)	Total Cadmium (mg/kg)	Total Chromium (mg/kg)	Total Lead (mg/kg)	Total Mercury (mg/kg)	Total Selenium (mg/kg)	Total Silver (mg/kg)
SB-1-12.5'	9/17/2013	12.5	-	-	-	-	**9.33**	-	-	-
SB-1-20'	9/17/2013	20	-	-	-	-	**8.17**	-	-	-
SB-2-12.5'	9/17/2013	12.5	-	-	-	-	**16.7**	-	-	-
SB-3-12.5'	9/18/2013	12.5	**5.77**	**175**	**0.376**	**18.8**	**9.48**	<0.108	<1.34	<0.269
SB-4-12.5'	9/17/2013	12.5	**5.49**	**142**	<0.300	**18.5**	**10.8**	<0.240	<1.50	<0.300
SB-5-12.5'	9/17/2013	12.5	**4.45**	**141**	<0.308	**17.4**	**9.92**	<0.246	<1.54	<0.308
SB-6-12.5'	9/17/2013	12.5	**3.73**	**126**	**0.276**	**12.6**	**8.92**	<0.210	<1.31	<0.262
SB-7-12.5'	9/18/2013	12.5	**4.34**	**140**	**0.359**	**16.2**	**8.56**	<0.115	<1.44	<0.287
SB-8-12.5'	9/18/2013	12.5	**4.09**	**145**	**0.313**	**15.8**	**9.32**	<0.109	<1.36	<0.273
SB-9-12.5'	9/17/2013	12.5	**3.41**	**123**	**0.275**	**12.1**	**9.05**	<0.105	<1.31	<0.262
SB-10-10'	9/16/2013	10	**5.60**	**155**	**0.373**	**20.2**	**9.94**	<0.115	<1.44	<0.287
SB-11-10'	9/16/2013	10	**3.92**	**138**	**0.344**	**15.5**	**9.51**	<0.106	<1.32	<0.265
SB-12-12.5	9/18/2013	12.5	**6.53**	**176**	**0.386**	**21.8**	**10.5**	<0.119	<1.48	<0.297
SB-16-12.5'	9/18/2013	12.5	**5.37**	**154**	**0.428**	**19.2**	**9.75**	<0.107	<1.34	<0.268
SB-17-12.5'	9/18/2013	12.5	**4.42**	**158**	**0.307**	**16.5**	**10.5**	<0.0981	<1.23	<0.245
SB-18-12.5'	9/16/2013	12.5	**4.90**	**129**	**0.453**	**18.4**	**8.43**	<0.103	<1.29	<0.259
SB-19-12.5'	9/16/2013	12.5	**3.95**	**124**	**0.360**	**15.1**	**7.99**	<0.115	<1.44	<0.288

Most Stringent DEQ Generic RBCs	0.39	15,000	39	120,000	30	23	-	390
Background Metal Level South Willamette Valley	18	730	1.6	100	28	0.070	0.68	0.33
Most Stringent EPA RSL	0.39	15,000	70	120,000	400	23	390	390

Notes:
All results expressed as milligrams per kilogram (mg/Kg).
shaded = indicates concentrations above noted cleanup levels
bold = indicates concentrations detected above method reporting limits
- = Not applicable, not analyzed, or not available
<1.44 = indicates not detected above method reporting limit of 1.44 mg/Kg
Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, and Silver analyzed by EPA 6020 (ICPMS)
RBCs = Generic Risk Based Concentrations based on Oregon DEQ's *Risk Based Decision Making for the Remediation of Petroleum-Contaminated Sites* , Table of Risk-Based Concentrations, dated June 7, 2012
RSL = EPA Regional Screening Levels, November 2012
Background Metal Levels from DEQ's *Development of Oregon Background Metals Concentrations in Soil - South Willamette Valley* , dated March 2013

Table 4
Groundwater Elevation and Analytical Results - TPH, VOCs, and PCBs
Oregon State Hospital
2600 Center Street NE
Salem, Oregon 97301

Sample Location	Date Sampled	TPH-HCID (g,d,o)	TPH-G (µg/L)	TPH-D (µg/L)	TPH-O (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	m,p-Xylene (µg/L)	o-Xylene (µg/L)	MTBE (µg/L)	Naphthalene (µg/L)	1,2,4-Trimethylbenzene (µg/L)	1,3,5-Trimethylbenzene (µg/L)	Isopropylbenzene (µg/L)	N-Propylbenzene (µg/L)	1,2-Dibromoethane (EDB) (µg/L)	1,2-Dichloroethane (EDC) (µg/L)	Other VOCs	PCBs
SB-1	9/17/2013	-	<100	-	-	<0.250	<1.00	<0.500	<1.50	-	-	<1.00	<2.00	<1.00	<1.00	<1.00	<0.500	<0.500	<0.500	-	-
SB-2	9/17/2013	-	<100	-	-	<0.250	<1.00	<0.500	<1.50	-	-	<1.00	<2.00	<1.00	<1.00	<1.00	<0.500	<0.500	<0.500	-	-
SB-3	9/18/2013	-	-	-	-	<0.250	<1.00	<0.500	-	<1.00	<0.500	<1.00	<2.00	<1.00	<1.00	<1.00	<0.500	<0.500	<0.500	ND	-
SB-4	9/17/2013	ND	-	-	-	<0.250	<1.00	<0.500	-	<1.00	<0.500	<1.00	<2.00	<1.00	<1.00	<1.00	<0.500	<0.500	<0.500	ND	ND
SB-5	9/17/2013	ND	-	-	-	<0.250	<1.00	<0.500	-	<1.00	<0.500	<1.00	<2.00	<1.00	<1.00	<1.00	<0.500	<0.500	<0.500	ND	ND
SB-6	9/17/2013	ND	-	-	-	<0.250	<1.00	<0.500	-	<1.00	<0.500	<1.00	<2.00	<1.00	<1.00	<1.00	<0.500	<0.500	<0.500	ND	ND
SB-7	9/18/2013	ND	-	-	-	<0.250	<1.00	<0.500	-	<1.00	<0.500	<1.00	<2.00	<1.00	<1.00	<1.00	<0.500	<0.500	<0.500	ND	ND
SB-8	9/18/2013	ND	-	-	-	<0.250	<1.00	<0.500	-	<1.00	<0.500	<1.00	<2.00	<1.00	<1.00	<1.00	<0.500	<0.500	<0.500	ND	ND
SB-9	9/17/2013	ND	-	-	-	<0.250	<1.00	<0.500	-	<1.00	<0.500	<1.00	<2.00	<1.00	<1.00	<1.00	<0.500	<0.500	<0.500	ND	ND
SB-10	9/16/2013	ND				<0.250	<1.00	<0.500	-	<1.00	<0.500	<1.00	<2.00	<1.00	<1.00	<1.00	<0.500	<0.500	<0.500	ND	ND
SB-11	9/16/2013	ND	-	-	-	<0.250	<1.00	<0.500	-	<1.00	<0.500	<1.00	<2.00	<1.00	<1.00	<1.00	<0.500	<0.500	<0.500	ND	ND
SB-12	9/18/2013	-	-	-	-	<0.250	<1.00	<0.500	-	<1.00	<0.500	<1.00	<2.00	<1.00	<1.00	<1.00	<0.500	<0.500	<0.500	ND	-
SB-13	9/16/2013	-	-	<238	<476	<0.250	<1.00	<0.500	<1.50	-	-	-	-	-	-	-	-	-	-	-	-
SB-14	9/16/2013	-	-	<301	<602	<0.250	<1.00	<0.500	<1.50	-	-	-	-	-	-	-	-	-	-	-	-
SB-15	9/16/2013	-	-	<269	<538	<0.250	<1.00	<0.500	<1.50	-	-	-	-	-	-	-	-	-	-	-	-
SB-16	9/18/2013	ND	-	-	-	<0.250	<1.00	<0.500	-	<1.00	<0.500	<1.00	<2.00	<1.00	<1.00	<1.00	<0.500	<0.500	<0.500	ND	ND
SB-17	9/18/2013	-	-	-	-	<0.250	<1.00	<0.500	-	<1.00	<0.500	<1.00	<2.00	<1.00	<1.00	<1.00	<0.500	<0.500	<0.500	ND	-
SB-18	9/16/2013	ND	-	-	-	<0.250	<1.00	<0.500	-	<1.00	<0.500	<1.00	<2.00	<1.00	<1.00	<1.00	<0.500	<0.500	<0.500	ND	ND
SB-19	9/16/2013	ND	-	-	-	<0.250	<1.00	<0.500	-	<1.00	<0.500	<1.00	<2.00	<1.00	<1.00	<1.00	<0.500	<0.500	<0.500	ND	ND
Most Stringent DEQ Generic RBCs		-	110	100	-	0.39	2,300	1.4	200	200		12	0.14	15	360	680	-	0.0063	0.14	-	-
Most Stringent EPA RSL		-	-	-	-	0.39	860	1.3	190	190	190	12	0.36	31	87	390	530	0.0065	0.15	-	-

Notes:
All results expressed as micrograms per liter (µg/L).
shaded = indicates concentrations above noted cleanup levels
bold = indicates concentrations detected above method reporting limits
- = Not applicable, not analyzed, or not available
ND = Not detected above laboratory method reporting limits.
<0.250 = indicates not detected above method reporting limit of 0.250 µg/L
TPH-HCID = Total Petroleum Hydrocarbon Identification analyzed by Northwest Method NWTPH-HCID
g,d,o = gasoline, diesel, or heavy oil range hydrocarbons detected, respectively, by TPH-HCID
VOCs = Volatile Organic Compounds analyzed by EPA Method 8260B
MTBE = Methyl tert-Butyl Ether
PCBs = Polychlorinated Biphenyls (Aroclor 1016, 1221, 1232, 1242, 1248, 1254, and 1260) analyzed by EPA Method 8082
TPH-G = Total Petroleum Hydrocarbons as Gasoline analyzed by Northwest Method NWTPH-Gx
TPH-D = Total Petroleum Hydrocarbons - Diesel Range analyzed by Northwest Method NWTPH-Dx
TPH-O = Total Petroleum Hydrocarbons - Oil Range analyzed by Northwest Method NWTPH-Dx
RSL = EPA Regional Screening Levels, November 2012
RBCs = Generic Risk Based Concentrations based on Oregon DEQ's *Risk Based Decision Making for the Remediation of Petroleum-Contaminated Sites* , Table Of Risk-Based Concentrations, dated June 7, 2012

Table 5
Groundwater Analytical Results - SVOCs / PAHs
Oregon State Hospital
2600 Center Street NE
Salem, Oregon 97301

Sample Location	SB-4	SB-5	SB-6	SB-7	SB-8	SB-9	SB-10	SB-11	SB-13	SB-14	SB-15	SB-16	SB-18	SB-19	Most Stringent DEQ Generic RBCs
Date Sampled	9/17/2013	9/17/2013	9/17/2013	9/18/2013	9/18/2013	9/17/2013	9/16/2013	9/16/2013	9/16/2013	9/16/2013	6/16/2013	9/18/2013	9/16/2013	9/16/2013	
Acenaphthene (µg/L)	<0.952	<1.02	<0.952	<1.00	<0.962	<0.952	<0.952	<0.962	<0.0388	<0.0488	<0.0412	<1.00	<0.962	<0.943	2,200
Acenaphthylene (µg/L)	<0.952	<1.02	<0.952	<1.00	<0.962	<0.952	<0.952	<0.962	<0.0388	<0.0489	<0.0412	<1.00	<0.962	<0.943	-
Anthracene (µg/L)	<0.952	<1.02	<0.952	<1.00	<0.962	<0.952	<0.952	<0.962	<0.0388	<0.0488	<0.0412	<1.00	<0.962	<0.943	>S
Benzo[a]anthracene (µg/L)	<0.952	<1.02	<0.952	<1.00	<0.962	<0.952	<0.952	<0.962	<0.0388	<0.0489	<0.0412	<1.00	<0.962	<0.943	0.029
Benzo[a]pyrene (µg/L)	<0.952	<1.02	<0.952	<1.00	<0.962	<0.952	<0.952	<0.962	<0.0388	<0.0488	<0.0412	<1.00	<0.962	<0.943	0.0029
Benzo[b]fluoranthene (µg/L)	<0.952	<1.02	<0.952	<1.00	<0.962	<0.952	<0.952	<0.962	<0.0388	<0.0489	<0.0412	<1.00	<0.962	<0.943	0.011
Benzo[k]fluoranthene (µg/L)	<0.952	<1.02	<0.952	<1.00	<0.962	<0.952	<0.952	<0.962	<0.0388	<0.0488	<0.0412	<1.00	<0.962	<0.943	0.29
Benzo[g,h,i]perylene (µg/L)	<0.952	<1.02	<0.952	<1.00	<0.962	<0.952	<0.952	<0.962	<0.0388	<0.0489	<0.0412	<1.00	<0.962	<0.943	-
Chrysene (µg/L)	<0.952	<1.02	<0.952	<1.00	<0.962	<0.952	<0.952	<0.962	<0.0388	<0.0488	<0.0412	<1.00	<0.962	<0.943	0.16
Dibenz(a,h)anthracene (µg/L)	<0.952	<1.02	<0.952	<1.00	<0.962	<0.952	<0.952	<0.962	<0.0388	<0.0489	<0.0412	<1.00	<0.962	<0.943	0.0029
Fluoranthene (µg/L)	<0.952	<1.02	<0.952	<1.00	<0.962	<0.952	<0.952	<0.962	<0.0388	<0.0488	<0.0412	<1.00	<0.962	<0.943	>S
Fluorene (µg/L)	<0.952	<1.02	<0.952	<1.00	<0.962	<0.952	<0.952	<0.962	<0.0388	<0.0489	<0.0412	<1.00	<0.962	<0.943	1500
Indeno[1,2,3-cd]pyrene (µg/L)	<0.952	<1.02	<0.952	<1.00	<0.962	<0.952	<0.952	<0.962	<0.0388	<0.0488	<0.0412	<1.00	<0.962	<0.943	>S
Naphthalene (µg/L)	<0.952	<1.02	<0.952	<1.00	<0.962	<0.952	<0.952	<0.962	<0.0777	<0.0976	<0.0825	<1.00	<0.962	<0.943	0.14
Phenanthrene (µg/L)	<0.952	<1.02	<0.952	<1.00	<0.962	<0.952	<0.952	<0.962	<0.0388	<0.0488	<0.0412	<1.00	<0.962	<0.943	-
Pyrene (µg/L)	<0.952	<1.02	<0.952	<1.00	<0.962	<0.952	<0.952	<0.962	<0.0388	<0.0489	<0.0412	<1.00	<0.962	<0.943	>S
Other SVOCs	ND	ND	ND	ND	ND	ND	ND	ND	-	-	-	ND	ND	ND	-

Notes:
All results expressed as micrograms per liter (µg/L).
shaded = indicates concentrations above noted cleanup levels
bold = indicates concentrations detected above method reporting limits
- = Not applicable, not analyzed, or not available
PAH = Polynuclear Aromatic Compounds analyzed by EPA Method 8270D-SIM
SVOCs = Semi-Volatile Organic Compounds analyzed by EPA Method 8270D
<0.952 = indicates not detected above method reporting limit of 0.952 µg/L
RBCs = Generic Risk Based Concentrations based on Oregon DEQ's *Risk Based Decision Making for the Remediation of Petroleum-Contaminated Sites* , Table Of Risk-Based Concentrations, dated June 7, 2012
>S = This groundwater RBC exceeds the solubility limit.

Table 6
Groundwater Analytical Results - Metals
Oregon State Hospital
2600 Center Street NE
Salem, Oregon 97301

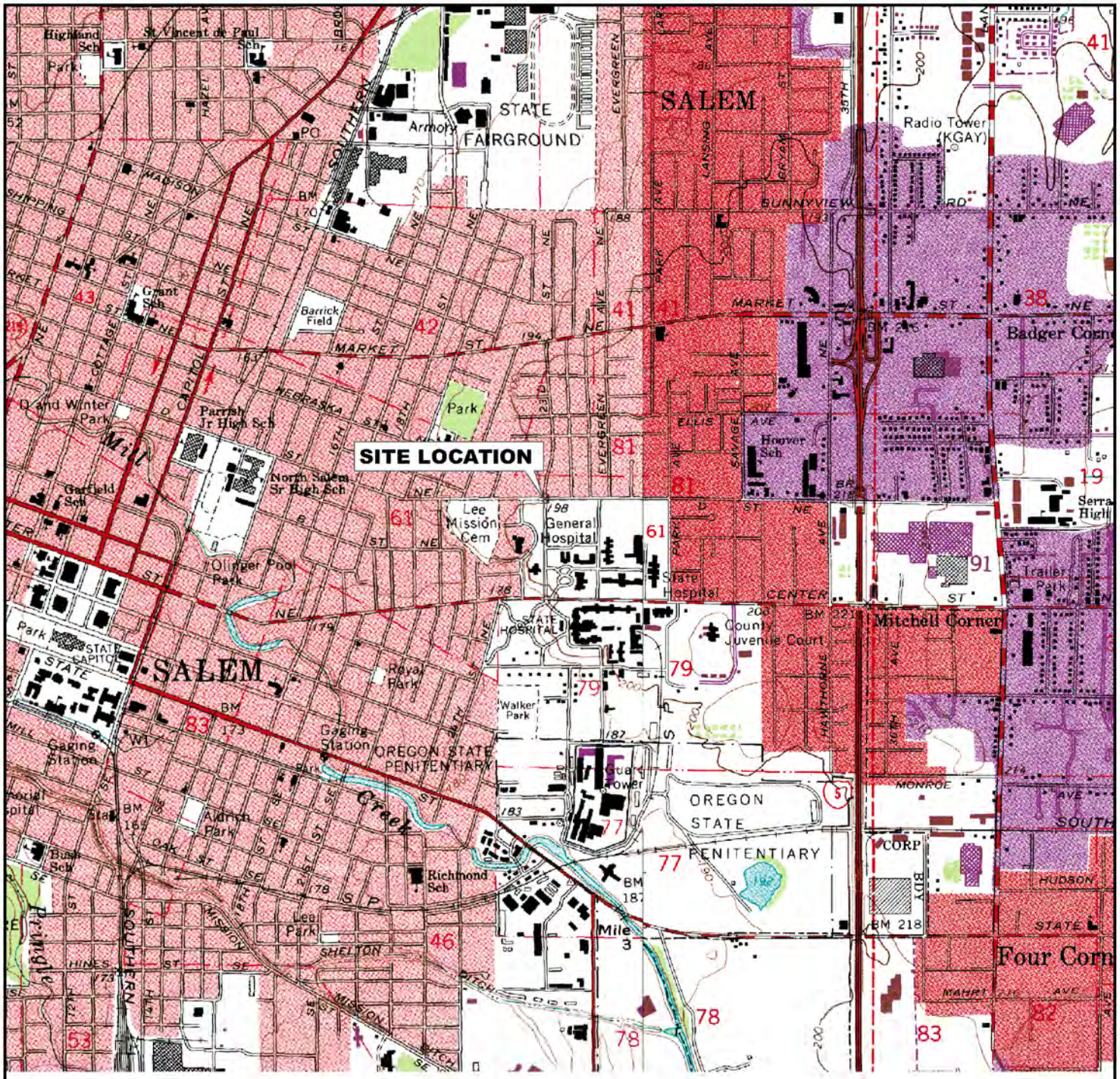
Sample Location	Date Sampled	Total Arsenic (µg/L)	Total Barium (µg/L)	Total Cadmium (µg/L)	Total Chromium (µg/L)	Total Lead (µg/L)	Total Mercury (µg/L)	Total Selenium (µg/L)	Total Silver (µg/L)	Dissolved Lead (µg/L)
SB-1	9/17/2013	**-**	**-**	-	-	**105**	-	-	-	<0.200
SB-2	9/17/2013	**-**	**-**	-	-	**72.4**	-	-	-	<0.200
SB-4	9/17/2013	**6.14**	**351**	**0.956**	**30.3**	**26.3**	<0.0800	**1.17**	<0.200	**-**
SB-5	9/17/2013	**36.5**	**2,200**	**5.56**	**124**	**172**	<0.800	**4.77**	**0.722**	**-**
SB-6	9/17/2013	**6.11**	**121**	<0.200	**7.16**	**4.86**	<0.0800	<1.00	<0.200	**-**
SB-7	9/18/2013	**144**	**6,290**	**15.9**	**166**	**468**	<1.60	<50.0	**2.67**	**-**
SB-8	9/18/2013	**15.0**	**1,410**	**2.78**	**73.8**	**89.2**	<1.30	<10.0	<2.00	**-**
SB-9	9/17/2013	**42.3**	**3,800**	**8.22**	**146**	**263**	<0.160	<10.0	<2.00	**-**
SB-10	9/16/2013	**4.82**	**177**	<0.900	**19.5**	**12.6**	<0.0800	<2.00	<0.200	**-**
SB-11	9/16/2013	**16.1**	**2,380**	**5.45**	**144**	**60.2**	<0.180	<4.50	<0.450	**-**
SB-16	9/18/2013	**114**	**4,530**	**9.89**	**194**	**377**	<1.60	<10.0	<2.00	**-**
SB-18	9/16/2013	**7.42**	**957**	**2.12**	**98.8**	**51.8**	<0.180	<4.50	<0.450	**-**
SB-19	9/16/2013	**10.9**	**1,050**	**2.05**	**92.6**	**59.4**	<0.180	<4.50	<0.450	

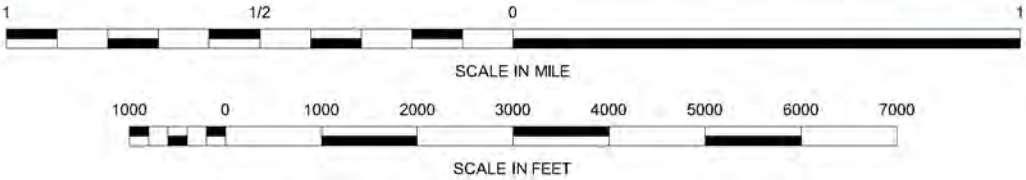
Most Stringent DEQ Generic RBCs	0.038	7,300	18	55,000	15	11	-	180	15
Most Stringent EPA RSL	0.045	2,900	6.9	16,000	-	4.3	78	71	-

Notes:
All results expressed as micrograms per liter (µg/L).
shaded = indicates concentrations above noted cleanup levels
bold = indicates concentrations detected above method reporting limits
- = Not applicable, not analyzed, or not available
<0.200 = indicates not detected above method reporting limit of 0.200 µg/L
Total arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver analyzed by EPA 6020
Dissolved lead samples were laboratory filtered and analyzed by EPA Method 6020
RBCs = Generic Risk Based Concentrations based on Oregon DEQ's *Risk Based Decision Making for the Remediation of Petroleum-Contaminated Sites* , Table Of Risk-Based Concentrations, dated June 7, 2012
RSL = EPA Regional Screening Levels, November 2012

Appendix A

Figures





REFERENCE: OR Digital Raster Graphics(http://www.reo.gov/gis/data/DRG_Files/ore.htm)
7.5 Minute Series, NAD27 OR State Planes, N Zone,Trimmed
Block o44123h1 & o44122h8, Dated 1990

No warranty is made by Stantec as to the accuracy, reliability, or completeness of these data. Original data were compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed electronically, and may be updated without notification. Any reproduction may result in a loss of scale and or information.

Stantec
12034 134th COURT NE SUITE 102
REDMOND, WASHINGTON
PHONE:(425) 298-1000 FAX:(425) 298-1020

FOR:			FIGURE:
OREGON STATE HOSPITAL NORTH CAMPUS 2575-2600 CENTER ST NE & 2575 BITTERNT ST NE SALEM, OREGON 97301		SITE LOCATION MAP	1
JOB NUMBER: 185750103	DRAWN BY: JR	CHECKED BY:	APPROVED BY:	DATE: APRIL 2013

FILEPATH:\\US1306-F02\slcworkgroups\2122\CADD\PROJECTS\OTHER\OSH\OSH-2013.dwg|blgardner|Oct 29, 2013 at 17:00|Layout: F1-SLM

No warranty is made by Stantec as to the accuracy, reliability, or completeness of these data. Original data were compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed electronically, and may be updated without notification. Any reproduction may result in a loss of scale and or information.

Stantec

9400 SW BARNES RD, STE 200
PORTLAND, OREGON
PHONE: (503) 297-1631 FAX: (503) 297-5429

FOR:
OREGON STATE HOSPITAL
NORTH CAMPUS
2575-2600 CENTER ST NE &
2575 BITTERN ST NE
SALEM, OREGON 97301

BORING LOCATIONS
FOR PHASE II ESA

2

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
185750103	JR	CH	CH	JULY 2013

FILEPATH:\\US1306-F02\slcworkgroups\2122\CADD\PROJECTS\OTHER\OSH\OSH-2013.dwg|blgardner|Nov 05, 2013 at 17:29|Layout: F2-SP(p)

Appendix B

Borehole Logs

PROJECT: **Oregon State Hospital - North Campus**
LOCATION: **Salem, Oregon**
PROJECT NUMBER: **185750148**

WELL / PROBEHOLE / BOREHOLE NO:
SB-1 PAGE 1 OF 1

DRILLING / INSTALLATION:
STARTED **9/17/13** COMPLETED: **9/17/13**
DRILLING COMPANY: **BB&A Environmental**
DRILLING EQUIPMENT: **Truck-mounted Geoprobe**
DRILLING METHOD: **Direct-push**
SAMPLING EQUIPMENT: **Acetate liner (5')**

NORTHING (ft):
EASTING (ft):
LAT:
LONG:
GROUND ELEV (ft):
TOC ELEV (ft):
INITIAL DTW (ft): **14.0**
WELL DEPTH (ft): **---**
STATIC DTW (ft): **Not Encountered**
BOREHOLE DEPTH (ft): **25.0**
WELL CASING DIA. (in): **N/A**
BOREHOLE DIA. (in): **3.0**
LOGGED BY: **RM**
CHECKED BY: **GM**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
			Grass						
		ML	**SILT** ; ML; 10YR 6/4 light yellowish brown; low plasticity; firm; dry; no gravels; some fine roots						
			10YR 4/3 brown; no roots						
			Stiff; trace iron oxide staining						
5					NS			0.0	5
			Medium plasticity; moist; no iron oxide staining						
10					NS			0.2	10
			SILT WITH SAND ; increase in moisture						
					840 SB-1-12.5'			1.0	
			Saturated; trace mica						
15					NS			0.7	15
			10YR 4/1 dark gray; slight heavy oil odor						
20					850 SB-1-20'			2.2	20
			10YR 4/3 brown; no odor						
25			Borehole terminated at 25 feet.		NS			0.3	25

GEO FORM 304 OSH SB-1 THRU SB-19 SEPTEMBER 2013 BORINGS.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 10/7/13

PROJECT: **Oregon State Hospital - North Campus**
LOCATION: **Salem, Oregon**
PROJECT NUMBER: **185750148**

WELL / PROBEHOLE / BOREHOLE NO:
SB-2 PAGE 1 OF 1

DRILLING / INSTALLATION:
STARTED **9/17/13** COMPLETED: **9/17/13**
DRILLING COMPANY: **BB&A Environmental**
DRILLING EQUIPMENT: **Truck-mounted Geoprobe**
DRILLING METHOD: **Direct-push**
SAMPLING EQUIPMENT: **Acetate liner (5')**

NORTHING (ft):
EASTING (ft):
LAT:
LONG:
GROUND ELEV (ft):
TOC ELEV (ft):
INITIAL DTW (ft): **14.0**
WELL DEPTH (ft): **---**
STATIC DTW (ft): **Not Encountered**
BOREHOLE DEPTH (ft): **25.0**
WELL CASING DIA. (in): **N/A**
BOREHOLE DIA. (in): **3.0**
LOGGED BY: **RM**
CHECKED BY: **GM**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
			Grass						
		ML	**SILT** ; ML; 10YR 5/6 yellowish brown; low plasticity; firm; dry; no gravels; some fine roots						
			10YR 4/3 brown; slightly moist; iron oxide staining						
5			No roots		NS			0.0	5
			SILT WITH SAND ; trace mica						
10					NS			0.7	10
			10YR 5/2 grayish brown; many small dark gray mottles (10YR 4/1)		920 SB-2-12.5'			1.8	
			10YR 4/3 brown; saturated						
15					NS			1.5	15
			SANDY SILT ; 10YR 5/1 gray						
20					NS			0.6	20
			10YR 4/3 brown; trace mica						
25			Borehole terminated at 25 feet.		NS			0.3	25

PROJECT: **Oregon State Hospital - North Campus**
LOCATION: **Salem, Oregon**
PROJECT NUMBER: **185750148**

WELL / PROBEHOLE / BOREHOLE NO: **SB-3** PAGE 1 OF 1

DRILLING / INSTALLATION:
STARTED **9/18/13** COMPLETED: **9/18/13**
DRILLING COMPANY: **BB&A Environmental**
DRILLING EQUIPMENT: **Truck-mounted Geoprobe**
DRILLING METHOD: **Direct-push**
SAMPLING EQUIPMENT: **Acetate liner (5')**

NORTHING (ft):
EASTING (ft):
LAT:
LONG:
GROUND ELEV (ft):
TOC ELEV (ft):
INITIAL DTW (ft): **14.0**
WELL DEPTH (ft): **---**
STATIC DTW (ft): **Not Encountered**
BOREHOLE DEPTH (ft): **25.0**
WELL CASING DIA. (in): **N/A**
BOREHOLE DIA. (in): **3.0**
LOGGED BY: **RM**
CHECKED BY: **GM**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
			Grass						
		ML	**SILT** ; ML; 10YR 6/4 light yellowish brown; low plasticity; firm; dry; no gravels; some fine roots						
			Trace iron oxide staining						
			10YR 4/3 brown; moist; no roots						
5					NS			0.0	5
			SILT WITH SAND						
			Trace mica, increase in moisture						
10					NS			0.0	10
					1130 SB-3-12.5'			0.0	
			Saturated						
15					NS			0.0	15
			SANDY SILT						
20					NS			0.0	20
			Very stiff						
25			Borehole terminated at 25 feet.		NS			0.0	25

PROJECT: **Oregon State Hospital - North Campus**
LOCATION: **Salem, Oregon**
PROJECT NUMBER: **185750148**

WELL / PROBEHOLE / BOREHOLE NO:
SB-4 PAGE 1 OF 1

DRILLING / INSTALLATION:
STARTED **9/17/13** COMPLETED: **9/17/13**
DRILLING COMPANY: **BB&A Environmental**
DRILLING EQUIPMENT: **Truck-mounted Geoprobe**
DRILLING METHOD: **Direct-push**
SAMPLING EQUIPMENT: **Acetate liner (5')**

NORTHING (ft):
EASTING (ft):
LAT:
LONG:
GROUND ELEV (ft):
TOC ELEV (ft):
INITIAL DTW (ft): **14.5**
WELL DEPTH (ft): **---**
STATIC DTW (ft): **Not Encountered**
BOREHOLE DEPTH (ft): **25.0**
WELL CASING DIA. (in): **N/A**
BOREHOLE DIA. (in): **3.0**
LOGGED BY: **RM**
CHECKED BY: **GM**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
			Grass						
		ML	**SILT** ; ML; 10YR 4/3 brown; low plasticity; firm; slightly moist; no gravels; some fine roots						
			Stiff; no roots; trace iron oxide staining						
5					NS			0.0	5
			SILT WITH TRACE SAND ; medium plasticity						
			10YR 6/4 light yellowish brown; some small gray mottles (10YR 6/1)						
10					NS			1.7	10
			Trace mica		1010 SB-4-12.5'			2.3	
			Saturated						▽
15					NS			1.8	15
			SANDY SILT ; low plasticity						
20					NS			0.7	20
			Very dense						
25			Borehole terminated at 25 feet.		NS			0.0	25

PROJECT: **Oregon State Hospital - North Campus**
LOCATION: **Salem, Oregon**
PROJECT NUMBER: **185750148**

WELL / PROBEHOLE / BOREHOLE NO:
SB-5 PAGE 1 OF 1

DRILLING / INSTALLATION:
STARTED **9/17/13** COMPLETED: **9/17/13**
DRILLING COMPANY: **BB&A Environmental**
DRILLING EQUIPMENT: **Truck-mounted Geoprobe**
DRILLING METHOD: **Direct-push**
SAMPLING EQUIPMENT: **Acetate liner (5')**

NORTHING (ft):
EASTING (ft):
LAT:
LONG:
GROUND ELEV (ft):
TOC ELEV (ft):
INITIAL DTW (ft): **14**
WELL DEPTH (ft): **---**
STATIC DTW (ft): **Not Encountered**
BOREHOLE DEPTH (ft): **25.0**
WELL CASING DIA. (in): **N/A**
BOREHOLE DIA. (in): **3.0**
LOGGED BY: **RM**
CHECKED BY: **GM**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
			Landscaping mulch						
		ML	**SILT** ; ML; 10YR 6/4 light yellowish brown; low plasticity; firm; dry; no gravels; some fine roots						
			SILT WITH SAND ; 10YR 4/3 brown; no roots; trace iron oxide staining.						
5					NS			0.0	5
			Medium plasticity; moist; no iron oxide staining						
10					NS			0.0	10
			Trace mica		1115 SB-5-12.5'			0.0	
			Saturated						
15					NS			0.0	15
			Low plasticity						
			2.5Y 6/2 light brownish gray; some small light bown mottles (7.5YR 6/3)						
20					NS			0.0	20
			SILT WITH SAND ; 10YR 5/1 gray; trace clay; trace mica						
25			Borehole terminated at 25 feet.		NS			0.0	25

PROJECT: **Oregon State Hospital - North Campus**
LOCATION: **Salem, Oregon**
PROJECT NUMBER: **185750148**

WELL / PROBEHOLE / BOREHOLE NO: **SB-6** PAGE 1 OF 1

DRILLING / INSTALLATION:
STARTED **9/17/13** COMPLETED: **9/17/13**
DRILLING COMPANY: **BB&A Environmental**
DRILLING EQUIPMENT: **Truck-mounted Geoprobe**
DRILLING METHOD: **Direct-push**
SAMPLING EQUIPMENT: **Acetate liner (5')**

NORTHING (ft):
EASTING (ft):
LAT:
LONG:
GROUND ELEV (ft):
TOC ELEV (ft):
INITIAL DTW (ft): **14.0**
WELL DEPTH (ft): **---**
STATIC DTW (ft): **Not Encountered**
BOREHOLE DEPTH (ft): **25.0**
WELL CASING DIA. (in): **N/A**
BOREHOLE DIA. (in): **3.0**
LOGGED BY: **RM**
CHECKED BY: **GM**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
			4" Asphalt, 5" Roadbase						
		ML	**SILT** ; ML; 10YR 6/4 light yellowish brown; low plasticity; firm; slightly moist; no gravels						
			10YR 3/1 very dark gray		NS			0.0	
			10YR 4/3 brown; moist						
5					NS			0.2	5
			Medium plasticity; some fine light brown mottles (7.5YR 6/3); trace mica						
10					NS			0.7	10
			SANDY SILT		1300 SB-6-12.5'			1.3	
			Saturated						▽
15					NS			0.6	15
20					NS			0.0	20
			10YR 5/1 gray; very stiff						
25			Borehole terminated at 25 feet.		NS			0.0	25

PROJECT: **Oregon State Hospital - North Campus**
LOCATION: **Salem, Oregon**
PROJECT NUMBER: **185750148**

WELL / PROBEHOLE / BOREHOLE NO: **SB-7** PAGE 1 OF 1

DRILLING / INSTALLATION:
STARTED **9/18/13** COMPLETED: **9/18/13**
DRILLING COMPANY: **BB&A Environmental**
DRILLING EQUIPMENT: **Truck-mounted Geoprobe**
DRILLING METHOD: **Direct-push**
SAMPLING EQUIPMENT: **Acetate liner (5')**

NORTHING (ft):
EASTING (ft):
LAT:
LONG:
GROUND ELEV (ft):
TOC ELEV (ft):
INITIAL DTW (ft): **14**
WELL DEPTH (ft): **---**
STATIC DTW (ft): **Not Encountered**
BOREHOLE DEPTH (ft): **25.0**
WELL CASING DIA. (in): **N/A**
BOREHOLE DIA. (in): **3.0**
LOGGED BY: **RM**
CHECKED BY: **GM**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
			Grass						
		ML	**SILT** ; ML; 10YR 4/3 brown; low plasticity; firm; slightly moist; no gravels; some fine roots						
			Some small gray mottles (10YR 5/1); trace iron oxide staining						
			Moist; no roots						
5					NS			0.1	5
			SILT WITH SAND ; 10YR 4/3 brown; medium plasticity; stiff						
			Increase in moisture; trace mica						
10					NS			0.0	10
			SANDY SILT						
					940 SB-7-12.5'			0.0	
			Saturated						
15					NS			0.0	15
20					NS			0.0	20
			Very stiff						
25			Borehole terminated at 25 feet.		NS			0.0	25

PROJECT: **Oregon State Hospital - North Campus**
LOCATION: **Salem, Oregon**
PROJECT NUMBER: **185750148**

WELL / PROBEHOLE / BOREHOLE NO:
SB-8 PAGE 1 OF 1

DRILLING / INSTALLATION:
STARTED **9/18/13** COMPLETED: **9/18/13**
DRILLING COMPANY: **BB&A Environmental**
DRILLING EQUIPMENT: **Truck-mounted Geoprobe**
DRILLING METHOD: **Direct-push**
SAMPLING EQUIPMENT: **Acetate liner (5')**

NORTHING (ft):
EASTING (ft):
LAT:
LONG:
GROUND ELEV (ft):
TOC ELEV (ft):
INITIAL DTW (ft): **14.0**
WELL DEPTH (ft): **---**
STATIC DTW (ft): **Not Encountered**
BOREHOLE DEPTH (ft): **25.0**
WELL CASING DIA. (in): **N/A**
BOREHOLE DIA. (in): **3.0**
LOGGED BY: **RM**
CHECKED BY: **GM**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
			Grass						
		ML	**SILT** ; ML; 10YR 4/3 brown; low plasticity; firm; slightly moist; no gravels; some fine roots						
			10YR 5/1 gray; some small light yellowish brown mottles (10YR 6/4)						
			Moist; no roots						
5					NS			0.0	5
			10YR 4/3 brown; some iron oxide staining						
			10YR 3/3 dark brown; medium plasticity; no iron oxide staining						
10					NS			0.0	10
			CLAYEY SILT						
					935 SB-8-12.5'			0.0	
			Saturated						
15					NS			0.0	15
			SILT WITH SAND ; trace mica						
20					NS			0.0	20
			Very stiff						
25			Borehole terminated at 25 feet.		NS			0.0	25

PROJECT: **Oregon State Hospital - North Campus**
LOCATION: **Salem, Oregon**
PROJECT NUMBER: **185750148**

WELL / PROBEHOLE / BOREHOLE NO:
SB-9 PAGE 1 OF 1

DRILLING / INSTALLATION:
STARTED **9/17/13** COMPLETED: **9/17/13**
DRILLING COMPANY: **BB&A Environmental**
DRILLING EQUIPMENT: **Truck-mounted Geoprobe**
DRILLING METHOD: **Direct-push**
SAMPLING EQUIPMENT: **Acetate liner (5')**

NORTHING (ft):
EASTING (ft):
LAT:
LONG:
GROUND ELEV (ft):
TOC ELEV (ft):
INITIAL DTW (ft): **14**
WELL DEPTH (ft): **---**
STATIC DTW (ft): **Not Encountered**
BOREHOLE DEPTH (ft): **25.0**
WELL CASING DIA. (in): **N/A**
BOREHOLE DIA. (in): **3.0**
LOGGED BY: **RM**
CHECKED BY: **GM**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
			4" Asphalt, 5" Roadbase						
			SILT ; 10YR 4/3 brown; low plasticity; firm; moist; no gravels; some fine gray veins (10YR 5/1)						
			10YR 3/3 dark brown						
			10YR 5/1 gray						
5					NS			0.0	5
			SANDY SILT ; 10YR 4/3 brown						
			10YR 6/4 light yellowish brown; some fine brown mottles (10YR 4/3)						
10					NS			0.0	10
			Medium plasticity						
					1345 SB-9-12.5'			0.0	
			Saturated						
15					NS			0.0	15
			Low plasticity						
20					NS			0.0	20
			10YR 5/1 gray; stiff						
25			Borehole terminated at 25 feet.		NS			0.0	25

GEO FORM 304 OSH SB-1 THRU SB-19 SEPTEMBER 2013 BORINGS.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 10/7/13

PROJECT: **Oregon State Hospital - North Campus**
LOCATION: **Salem, Oregon**
PROJECT NUMBER: **185750148**

WELL / PROBEHOLE / BOREHOLE NO:
SB-10 PAGE 1 OF 1

DRILLING / INSTALLATION:
STARTED **9/16/13** COMPLETED: **9/16/13**
DRILLING COMPANY: **BB&A Environmental**
DRILLING EQUIPMENT: **Truck-mounted Geoprobe**
DRILLING METHOD: **Direct-push**
SAMPLING EQUIPMENT: **Acetate liner (5')**

NORTHING (ft):
EASTING (ft):
LAT:
LONG:
GROUND ELEV (ft):
TOC ELEV (ft):
INITIAL DTW (ft): **14**
WELL DEPTH (ft): **---**
STATIC DTW (ft): **Not Encountered**
BOREHOLE DEPTH (ft): **25.0**
WELL CASING DIA. (in): **N/A**
BOREHOLE DIA. (in): **3.0**
LOGGED BY: **RM**
CHECKED BY: **GM**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
			Grass						
		ML	**SILT** ; ML; 10YR 5/4 yellowish brown; low plasticity; stiff; slightly moist; no gravels; some fine roots		NS			0.0	
			Few fine gray mottles (10YR 5/1); trace iron oxide staining						
5					NS			0.0	5
			Moist; trace mica; no iron oxide staining						
10					1130 SB-10-10'			0.0	10
			SANDY SILT ; increase in moisture						
			Saturated						
15					NS			0.0	15
		SP	**SAND WITH SILT** ; SP; 10YR 4/3 brown; medium dense; saturated; no gravels; non cohesive; some mica						
20					NS			0.0	20
		ML	**SILT WITH SAND** ; ML; 10YR 4/3 brown; low plasticity; stiff; saturated; no gravels; trace mica						
		SP	**SAND WITH SILT** ; SP; 10YR 4/1 dark gray; dense; saturated; no gravels; non cohesive						
25			Borehole terminated at 25 feet.		NS			0.0	25

PROJECT: **Oregon State Hospital - North Campus**
LOCATION: **Salem, Oregon**
PROJECT NUMBER: **185750148**

WELL / PROBEHOLE / BOREHOLE NO:
SB-11 PAGE 1 OF 1

DRILLING / INSTALLATION:
STARTED **9/16/13** COMPLETED: **9/16/13**
DRILLING COMPANY: **BB&A Environmental**
DRILLING EQUIPMENT: **Truck-mounted Geoprobe**
DRILLING METHOD: **Direct-push**
SAMPLING EQUIPMENT: **Acetate liner (5')**

NORTHING (ft):
EASTING (ft):
LAT:
LONG:
GROUND ELEV (ft):
TOC ELEV (ft):
INITIAL DTW (ft): **14.0**
WELL DEPTH (ft): **---**
STATIC DTW (ft): **Not Encountered**
BOREHOLE DEPTH (ft): **25.0**
WELL CASING DIA. (in): **N/A**
BOREHOLE DIA. (in): **3.0**
LOGGED BY: **RM**
CHECKED BY: **GM**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
			Grass						
		ML	**SILT** ; ML; 7.5YR 6/3 light brown; low plasticity; stiff; dry; no gravels; some fine roots						
			No roots; trace iron oxide staining						
			10YR 4/3 brown; moist						
5					NS			0.0	5
			CLAYEY SILT ; trace mica; no iron oxide staining						
			10YR 3/2 very dark grayish brown; medium plasticity						
10					1310 SB-11-10'			0.7	10
			SILT WITH SAND ; low plasticity; increase in moisture						
			Saturated						
15					NS			0.3	15
			SANDY SILT						
20					NS			0.3	20
			10YR 4/1 dark gray; very stiff						
25			Borehole terminated at 25 feet.		NS			0.0	25

PROJECT: **Oregon State Hospital - North Campus**
LOCATION: **Salem, Oregon**
PROJECT NUMBER: **185750148**

WELL / PROBEHOLE / BOREHOLE NO:
SB-12 PAGE 1 OF 1

DRILLING / INSTALLATION:
STARTED **9/18/13** COMPLETED: **9/18/13**
DRILLING COMPANY: **BB&A Environmental**
DRILLING EQUIPMENT: **Truck-mounted Geoprobe**
DRILLING METHOD: **Direct-push**
SAMPLING EQUIPMENT: **Acetate liner (5')**

NORTHING (ft):
EASTING (ft):
LAT:
LONG:
GROUND ELEV (ft):
TOC ELEV (ft):
INITIAL DTW (ft): **14.0**
WELL DEPTH (ft): **---**
STATIC DTW (ft): **Not Encountered**
BOREHOLE DEPTH (ft): **25.0**
WELL CASING DIA. (in): **N/A**
BOREHOLE DIA. (in): **3.0**
LOGGED BY: **RM**
CHECKED BY: **GM**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
			Grass						
		ML	**SILT** ; ML; 10YR 4/3 brown; low plasticity; firm; slightly moist; no gravels; some fine roots						
			10YR 6/4 light yellowish brown; stiff; no roots; trace iron oxide staining						
			SILT WITH SAND ; 10YR 4/3 brown; moist						
5					NS			0.0	5
			10YR 5/2 grayish brown; no iron oxide staining; trace mica						
			Medium plasticity						
10					NS			0.1	10
			10YR 4/3 brown; trace clay						
					1045 SB-12-12.5'			0.2	
			Saturated; no clay						
15					NS			0.1	15
			SILT WITH TRACE SAND						
			SANDY SILT						
20					NS			0.0	20
			Very stiff						
25			Borehole terminated at 25 feet.		NS			0.0	25

GEO FORM 304 OSH SB-1 THRU SB-19 SEPTEMBER 2013 BORINGS.GPJ STANTEC ENVIRO TEMPLATE 010509.GDT 10/7/13

PROJECT: **Oregon State Hospital - North Campus**
LOCATION: **Salem, Oregon**
PROJECT NUMBER: **185750148**

WELL / PROBEHOLE / BOREHOLE NO:

SB-13

Stantec

DRILLING / INSTALLATION:
STARTED **9/16/13** COMPLETED: **9/16/13**
DRILLING COMPANY: **BB&A Environmental**
DRILLING EQUIPMENT: **Truck-mounted Geoprobe**
DRILLING METHOD: **Direct-push**
SAMPLING EQUIPMENT: **Acetate liner (5')**

NORTHING (ft):
EASTING (ft):
LAT:
LONG:
GROUND ELEV (ft):
TOC ELEV (ft):
INITIAL DTW (ft): **12**
WELL DEPTH (ft): **---**
STATIC DTW (ft): **Not Encountered**
BOREHOLE DEPTH (ft): **25.0**
WELL CASING DIA. (in): **N/A**
BOREHOLE DIA. (in): **3.0**
LOGGED BY: **RM**
CHECKED BY: **GM**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
			6" Roadbase Gravel						
		ML	**SILT** ; ML; 10YR 4/3 brown; low plasticity; stiff; slightly moist; no gravel						
			10YR 4/2 dark grayish brown; moist						
5					NS			0.0	5
			10YR 3/1 very dark gray; some small brown mottles (10YR 4/3); few iron oxide veins						
10					910 SB-13-10'			0.2	10
			SANDY SILT ; 10YR 4/3 brown; saturated; trace mica						
15					NS			0.0	15
20			Very stiff		NS			0.0	20
25			Borehole terminated at 25 feet.		NS			0.0	25

PROJECT: **Oregon State Hospital - North Campus**
LOCATION: **Salem, Oregon**
PROJECT NUMBER: **185750148**

WELL / PROBEHOLE / BOREHOLE NO:
SB-14 PAGE 1 OF 1

DRILLING / INSTALLATION:
STARTED **9/16/13** COMPLETED: **9/16/13**
DRILLING COMPANY: **BB&A Environmental**
DRILLING EQUIPMENT: **Truck-mounted Geoprobe**
DRILLING METHOD: **Direct-push**
SAMPLING EQUIPMENT: **Acetate liner (5')**

NORTHING (ft):
EASTING (ft):
LAT:
LONG:
GROUND ELEV (ft):
TOC ELEV (ft):
INITIAL DTW (ft): **13.0**
WELL DEPTH (ft): **---**
STATIC DTW (ft): **Not Encountered**
BOREHOLE DEPTH (ft): **25.0**
WELL CASING DIA. (in): **N/A**
BOREHOLE DIA. (in): **3.0**
LOGGED BY: **RM**
CHECKED BY: **GM**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
			12" Roadbase Gravel						
		ML	**CLAYEY SILT** ; ML; 10YR 3/3 dark brown; medium plasticity; stiff; slightly moist; no gravels;						
			10YR 4/4 dark yellowish brown; moist						
5					NS			0.0	5
			Some small gray mottles (10YR 6/1)						
10					935 SB-14-10'			0.3	10
			10YR 6/1 gray						
			SANDY SILT ; 10YR 4/3 brown; saturated						
15					NS			0.2	15
20					NS			0.0	20
			SILT WITH SAND ; 10YR 6/1 gray						
25			Borehole terminated at 25 feet.		NS			0.0	25

PROJECT: **Oregon State Hospital - North Campus**
LOCATION: **Salem, Oregon**
PROJECT NUMBER: **185750148**

WELL / PROBEHOLE / BOREHOLE NO:

SB-15

Stantec

DRILLING / INSTALLATION:
STARTED **9/16/13** COMPLETED: **9/16/13**
DRILLING COMPANY: **BB&A Environmental**
DRILLING EQUIPMENT: **Truck-mounted Geoprobe**
DRILLING METHOD: **Direct-push**
SAMPLING EQUIPMENT: **Acetate liner (5')**

NORTHING (ft):
EASTING (ft):
LAT:
LONG:
GROUND ELEV (ft):
TOC ELEV (ft):
INITIAL DTW (ft): **14.0**
WELL DEPTH (ft): **---**
STATIC DTW (ft): **Not Encountered**
BOREHOLE DEPTH (ft): **25.0**
WELL CASING DIA. (in): **N/A**
BOREHOLE DIA. (in): **3.0**
LOGGED BY: **RM**
CHECKED BY: **GM**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
			12" Roadbase Gravel						
		ML	**SILT WITH TRACE CLAY** ; ML; 10YR 4/3 brown; medium plasticity; stiff; slightly moist; no gravels						
			10YR 4/4 dark yellowish brown						
5					NS			0.0	5
			Moist; few fine light brown mottles (7.5YR 6/3)						
10					1015 SB-15-10'			0.2	10
			SILT WITH SAND ; 10YR 4/3 brown						
			Saturated						
15					NS			0.1	15
20					NS			0.0	20
			10YR 5/1 gray						
25			Borehole terminated at 25 feet.		NS			0.0	25

PROJECT: **Oregon State Hospital - North Campus**
LOCATION: **Salem, Oregon**
PROJECT NUMBER: **185750148**

WELL / PROBEHOLE / BOREHOLE NO:
SB-16 PAGE 1 OF 1

DRILLING / INSTALLATION:
STARTED **9/18/13** COMPLETED: **9/18/13**
DRILLING COMPANY: **BB&A Environmental**
DRILLING EQUIPMENT: **Truck-mounted Geoprobe**
DRILLING METHOD: **Direct-push**
SAMPLING EQUIPMENT: **Acetate liner (5')**

NORTHING (ft):
EASTING (ft):
LAT:
LONG:
GROUND ELEV (ft):
TOC ELEV (ft):
INITIAL DTW (ft): **14.0**
WELL DEPTH (ft): **---**
STATIC DTW (ft): **Not Encountered**
BOREHOLE DEPTH (ft): **25.0**
WELL CASING DIA. (in): **N/A**
BOREHOLE DIA. (in): **3.0**
LOGGED BY: **RM**
CHECKED BY: **GM**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
			Grass						
		ML	**SILT** ; ML; 10YR 4/3 brown; low plasticity; firm; slightly moist; no gravels; some fine roots						
			10YR 3/3 dark brown; no roots; brick fragment at 2' bgs						
			Stiff; trace sand						
5					NS			0.0	5
			10YR 4/3 brown; few fine light brownish gray mottles (2.5Y 6/2)						
			10YR 4/3 brown; medium plasticity; increase in moisture						
10					NS			0.0	10
			SILT WITH TRACE CLAY						
					1255 SB-16-12.5'			0.0	
			Saturated						▽
15					NS			0.0	15
			SILT WITH SAND ; trace mica						
20					NS			0.0	20
			Very stiff						
25			Borehole terminated at 25 feet.		NS			0.0	25

PROJECT: **Oregon State Hospital - North Campus**
LOCATION: **Salem, Oregon**
PROJECT NUMBER: **185750148**

WELL / PROBEHOLE / BOREHOLE NO:
SB-17 PAGE 1 OF 1

DRILLING / INSTALLATION:
STARTED **9/18/13** COMPLETED: **9/18/13**
DRILLING COMPANY: **BB&A Environmental**
DRILLING EQUIPMENT: **Truck-mounted Geoprobe**
DRILLING METHOD: **Direct-push**
SAMPLING EQUIPMENT: **Acetate liner (5')**

NORTHING (ft):
EASTING (ft):
LAT:
LONG:
GROUND ELEV (ft):
TOC ELEV (ft):
INITIAL DTW (ft): **14.0**
WELL DEPTH (ft): **---**
STATIC DTW (ft): **Not Encountered**
BOREHOLE DEPTH (ft): **25.0**
WELL CASING DIA. (in): **N/A**
BOREHOLE DIA. (in): **3.0**
LOGGED BY: **RM**
CHECKED BY: **GM**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
			Grass						
		ML	**SILT** ; ML; 10YR 6/4 light yellowish brown; low plasticity; firm; dry; no gravels; some fine roots						
			Slightly moist; no roots						
			Trace sand						
5					NS			0.1	5
			10YR 6/4 light yellowish brown; few small brown mottles (10YR 4/3)						
			SILT WITH CLAY						
10			**SILT WITH SAND** ; moist; trace mica		NS			0.0	10
			Medium plasticity		1415 SB-17-12.5'			0.0	
			Saturated						
15					NS			0.1	15
			SANDY SILT ; 10YR 3/3 dark brown						
			SILT WITH CLAY ; trace sand						
20					NS			0.0	20
			Very stiff						
25			Borehole terminated at 25 feet.		NS			0.0	25

PROJECT: **Oregon State Hospital - North Campus**
LOCATION: **Salem, Oregon**
PROJECT NUMBER: **185750148**

WELL / PROBEHOLE / BOREHOLE NO:
SB-18 PAGE 1 OF 1

DRILLING / INSTALLATION:
STARTED **9/16/13** COMPLETED: **9/16/13**
DRILLING COMPANY: **BB&A Environmental**
DRILLING EQUIPMENT: **Truck-mounted Geoprobe**
DRILLING METHOD: **Direct-push**
SAMPLING EQUIPMENT: **Acetate liner (5')**

NORTHING (ft):
EASTING (ft):
LAT:
LONG:
GROUND ELEV (ft):
TOC ELEV (ft):
INITIAL DTW (ft): **14.0**
WELL DEPTH (ft): **---**
STATIC DTW (ft): **Not Encountered**
BOREHOLE DEPTH (ft): **25.0**
WELL CASING DIA. (in): **N/A**
BOREHOLE DIA. (in): **3.0**
LOGGED BY: **RM**
CHECKED BY: **GM**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
			Grass						
		ML	**SILT** ; ML; 10YR 6/4 light yellowish brown; low plasticity; firm; dry; no gravels; some fine roots						
			10YR 5/1 gray; slightly moist; some iron oxide staining						
			SILT WITH TRACE SAND ; 10YR 4/3 brown; no roots; no iron oxide staining						
5					NS			0.0	5
			10YR 4/4 dark yellowish brown; trace sand						
10					NS			1.3	10
			SILT WITH CLAY AND SAND ; medium plasticity		1455 SB-18-12.5'			1.7	
			Low plasticity; saturated						▽
15					NS			1.4	15
20					NS			0.0	20
			SANDY SILT ; 10YR 5/1 gray; very stiff; some iron oxide staining						
25			Borehole terminated at 25 feet.		NS			0.0	25

PROJECT: **Oregon State Hospital - North Campus**
LOCATION: **Salem, Oregon**
PROJECT NUMBER: **185750148**

WELL / PROBEHOLE / BOREHOLE NO: **SB-19** PAGE 1 OF 1

DRILLING / INSTALLATION:
STARTED **9/16/13** COMPLETED: **9/16/13**
DRILLING COMPANY: **BB&A Environmental**
DRILLING EQUIPMENT: **Truck-mounted Geoprobe**
DRILLING METHOD: **Direct-push**
SAMPLING EQUIPMENT: **Acetate liner (5')**

NORTHING (ft):
EASTING (ft):
LAT:
LONG:
GROUND ELEV (ft):
TOC ELEV (ft):
INITIAL DTW (ft): **13.0**
WELL DEPTH (ft): **---**
STATIC DTW (ft): **Not Encountered**
BOREHOLE DEPTH (ft): **25.0**
WELL CASING DIA. (in): **N/A**
BOREHOLE DIA. (in): **3.0**
LOGGED BY: **RM**
CHECKED BY: **GM**

Time & Depth (feet)	Graphic Log	USCS	Description	Sample	Time Sample ID	Measured Recov. (feet)	Blow Count	Headspace PID (units)	Depth (feet)
			Grass						
			SILT ; 10YR 6/4 light yellowish brown; low plasticity; firm; dry; no gravels; some fine roots						
			10YR 5/1 gray; some iron oxide staining						
			10YR 4/4 dark yellowish brown; moist; no roots						
5					NS			0.3	5
			Stiff; saturated						
10					NS			1.5	10
					1405 SB-19-12.5'			2.0	
			10YR 5/1 gray; very stiff						
15					NS			1.7	15
20					NS			0.5	20
25			Borehole terminated at 25 feet.		NS			0.0	25

Appendix C

Laboratory Reports and Chain of Custody Documentation

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Friday, September 27, 2013

Chris Gdak
Stantec
9400 SW Barnes Rd Ste 200
Portland, OR 97225

RE: OSH Phase II / 185750148

Enclosed are the results of analyses for work order A3I0315, which was received by the laboratory on 9/16/2013 at 4:54:00PM.

Thank you for using Apex Labs. We appreciate your business and strive to provide the highest quality services to the environmental industry.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB-10-10'	A3I0315-01	Soil	09/16/13 11:30	09/16/13 16:54
SB-11-10'	A3I0315-02	Soil	09/16/13 13:10	09/16/13 16:54
SB-13-10'	A3I0315-03	Soil	09/16/13 09:10	09/16/13 16:54
SB-14-10'	A3I0315-04	Soil	09/16/13 09:35	09/16/13 16:54
SB-15-10'	A3I0315-05	Soil	09/16/13 10:15	09/16/13 16:54
SB-18-12.5'	A3I0315-06	Soil	09/16/13 14:55	09/16/13 16:54
SB-19-12.5'	A3I0315-07	Soil	09/16/13 14:05	09/16/13 16:54

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

ANALYTICAL SAMPLE RESULTS

Hydrocarbon Identification Screen by NWTPH-HCID

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-10-10' (A3I0315-01)			**Matrix: Soil**		**Batch: 3090395**			
Gasoline Range Organics	ND	---	25.5	mg/kg dry	1	09/17/13 23:04	NWTPH-HCID	
Diesel Range Organics	ND	---	63.7	"	"	"	"	
Oil Range Organics	ND	---	127	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 105 %*	*Limits: 50-150 %*	"	"	"	
SB-11-10' (A3I0315-02)			**Matrix: Soil**		**Batch: 3090395**			
Gasoline Range Organics	ND	---	26.5	mg/kg dry	1	09/17/13 23:51	NWTPH-HCID	
Diesel Range Organics	ND	---	66.3	"	"	"	"	
Oil Range Organics	ND	---	133	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 105 %*	*Limits: 50-150 %*	"	"	"	
SB-18-12.5' (A3I0315-06)			**Matrix: Soil**		**Batch: 3090395**			
Gasoline Range Organics	ND	---	24.5	mg/kg dry	1	09/18/13 00:15	NWTPH-HCID	
Diesel Range Organics	ND	---	61.2	"	"	"	"	
Oil Range Organics	ND	---	122	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 100 %*	*Limits: 50-150 %*	"	"	"	
SB-19-12.5' (A3I0315-07)			**Matrix: Soil**		**Batch: 3090395**			
Gasoline Range Organics	ND	---	29.3	mg/kg dry	1	09/18/13 00:39	NWTPH-HCID	
Diesel Range Organics	ND	---	73.4	"	"	"	"	
Oil Range Organics	ND	---	147	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 99 %*	*Limits: 50-150 %*	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

ANALYTICAL SAMPLE RESULTS

Diesel and Oil Hydrocarbons by NWTPH-Dx with Silica Gel Cleanup

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-13-10' (A3I0315-03)			**Matrix: Soil**		**Batch: 3090454**			
Diesel	ND	---	25.0	mg/kg dry	1	09/19/13 21:06	NWTPH-Dx/SG	
Oil	ND	---	50.0	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 80 %*	*Limits: 50-150 %*	"	"	"	
SB-14-10' (A3I0315-04)			**Matrix: Soil**		**Batch: 3090454**			
Diesel	ND	---	29.9	mg/kg dry	1	09/19/13 21:24	NWTPH-Dx/SG	
Oil	ND	---	59.8	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 83 %*	*Limits: 50-150 %*	"	"	"	
SB-15-10' (A3I0315-05)			**Matrix: Soil**		**Batch: 3090454**			
Diesel	ND	---	25.0	mg/kg dry	1	09/19/13 21:42	NWTPH-Dx/SG	
Oil	ND	---	50.0	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 86 %*	*Limits: 50-150 %*	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

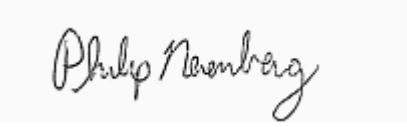
Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

ANALYTICAL SAMPLE RESULTS

BTEX Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-13-10' (A3I0315-03)			**Matrix: Soil**		**Batch: 3090367**			**V-15**
Benzene	ND	---	17.5	ug/kg dry	50	09/17/13 15:03	5035/8260B	
Toluene	ND	---	70.1	"	"	"	"	
Ethylbenzene	ND	---	35.1	"	"	"	"	
Xylenes, total	ND	---	105	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 121 %*	*Limits: 70-130 %*	1	"	"	
1,4-Difluorobenzene (Surr)			*110 %*	*Limits: 70-130 %*	"	"	"	
Toluene-d8 (Surr)			*103 %*	*Limits: 70-130 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*99 %*	*Limits: 70-130 %*	"	"	"	
SB-14-10' (A3I0315-04)			**Matrix: Soil**		**Batch: 3090367**			**V-15**
Benzene	ND	---	17.6	ug/kg dry	50	09/17/13 15:29	5035/8260B	
Toluene	ND	---	70.4	"	"	"	"	
Ethylbenzene	ND	---	35.2	"	"	"	"	
Xylenes, total	ND	---	106	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 121 %*	*Limits: 70-130 %*	1	"	"	
1,4-Difluorobenzene (Surr)			*109 %*	*Limits: 70-130 %*	"	"	"	
Toluene-d8 (Surr)			*101 %*	*Limits: 70-130 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*103 %*	*Limits: 70-130 %*	"	"	"	
SB-15-10' (A3I0315-05)			**Matrix: Soil**		**Batch: 3090368**			**V-15**
Benzene	ND	---	19.3	ug/kg dry	50	09/17/13 12:48	5035/8260B	
Toluene	ND	---	77.2	"	"	"	"	
Ethylbenzene	ND	---	38.6	"	"	"	"	
Xylenes, total	ND	---	116	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 97 %*	*Limits: 70-130 %*	1	"	"	
1,4-Difluorobenzene (Surr)			*102 %*	*Limits: 70-130 %*	"	"	"	
Toluene-d8 (Surr)			*99 %*	*Limits: 70-130 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*92 %*	*Limits: 70-130 %*	"	"	"	

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-10-10' (A3I0315-01)			**Matrix: Soil**		**Batch: 3090367**			**V-15**
Acetone	ND	---	1520	ug/kg dry	50	09/17/13 13:46	5035/8260B	
Benzene	ND	---	19.0	"	"	"	"	
Bromobenzene	ND	---	37.9	"	"	"	"	
Bromochloromethane	ND	---	75.8	"	"	"	"	
Bromodichloromethane	ND	---	75.8	"	"	"	"	
Bromoform	ND	---	75.8	"	"	"	"	
Bromomethane	ND	---	758	"	"	"	"	
2-Butanone (MEK)	ND	---	758	"	"	"	"	
n-Butylbenzene	ND	---	75.8	"	"	"	"	
sec-Butylbenzene	ND	---	75.8	"	"	"	"	
tert-Butylbenzene	ND	---	75.8	"	"	"	"	
Carbon tetrachloride	ND	---	37.9	"	"	"	"	
Chlorobenzene	ND	---	37.9	"	"	"	"	
Chloroethane	ND	---	758	"	"	"	"	
Chloroform	ND	---	75.8	"	"	"	"	
Chloromethane	ND	---	379	"	"	"	"	Q-31
2-Chlorotoluene	ND	---	75.8	"	"	"	"	
4-Chlorotoluene	ND	---	75.8	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	---	379	"	"	"	"	
Dibromochloromethane	ND	---	152	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	---	37.9	"	"	"	"	
Dibromomethane	ND	---	75.8	"	"	"	"	
1,2-Dichlorobenzene	ND	---	37.9	"	"	"	"	
1,3-Dichlorobenzene	ND	---	37.9	"	"	"	"	
1,4-Dichlorobenzene	ND	---	37.9	"	"	"	"	
Dichlorodifluoromethane	ND	---	152	"	"	"	"	
1,1-Dichloroethane	ND	---	37.9	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	---	37.9	"	"	"	"	
1,1-Dichloroethene	ND	---	37.9	"	"	"	"	
cis-1,2-Dichloroethene	ND	---	37.9	"	"	"	"	
trans-1,2-Dichloroethene	ND	---	37.9	"	"	"	"	
1,2-Dichloropropane	ND	---	37.9	"	"	"	"	
1,3-Dichloropropane	ND	---	37.9	"	"	"	"	
2,2-Dichloropropane	ND	---	75.8	"	"	"	"	
1,1-Dichloropropene	ND	---	75.8	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-10-10' (A3I0315-01)			**Matrix: Soil**		**Batch: 3090367**			**V-15**
cis-1,3-Dichloropropene	ND	---	75.8	ug/kg dry	50	"	5035/8260B	
trans-1,3-Dichloropropene	ND	---	75.8	"	"	"	"	
Ethylbenzene	ND	---	37.9	"	"	"	"	
Hexachlorobutadiene	ND	---	152	"	"	"	"	
2-Hexanone	ND	---	758	"	"	"	"	
Isopropylbenzene	ND	---	75.8	"	"	"	"	
4-Isopropyltoluene	ND	---	75.8	"	"	"	"	
4-Methyl-2-pentanone (MiBK)	ND	---	758	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	---	75.8	"	"	"	"	
Methylene chloride	ND	---	379	"	"	"	"	
Naphthalene	ND	---	152	"	"	"	"	
n-Propylbenzene	ND	---	37.9	"	"	"	"	
Styrene	ND	---	75.8	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	---	37.9	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	---	37.9	"	"	"	"	
Tetrachloroethene (PCE)	ND	---	37.9	"	"	"	"	
Toluene	ND	---	75.8	"	"	"	"	
1,2,3-Trichlorobenzene	ND	---	379	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	379	"	"	"	"	
1,1,1-Trichloroethane	ND	---	37.9	"	"	"	"	
1,1,2-Trichloroethane	ND	---	37.9	"	"	"	"	
Trichloroethene (TCE)	ND	---	37.9	"	"	"	"	
Trichlorofluoromethane	ND	---	152	"	"	"	"	
1,2,3-Trichloropropane	ND	---	75.8	"	"	"	"	
1,2,4-Trimethylbenzene	ND	---	75.8	"	"	"	"	
1,3,5-Trimethylbenzene	ND	---	75.8	"	"	"	"	
Vinyl chloride	ND	---	37.9	"	"	"	"	
m,p-Xylene	ND	---	75.8	"	"	"	"	
o-Xylene	ND	---	37.9	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 115 %*	*Limits: 70-130 %*	1	"	"	
1,4-Difluorobenzene (Surr)			*109 %*	*Limits: 70-130 %*	"	"	"	
Toluene-d8 (Surr)			*98 %*	*Limits: 70-130 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*99 %*	*Limits: 70-130 %*	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-11-10' (A3I0315-02)			**Matrix: Soil**		**Batch: 3090367**			**V-15**
Acetone	ND	---	1410	ug/kg dry	50	09/17/13 14:37	5035/8260B	
Benzene	ND	---	17.7	"	"	"	"	
Bromobenzene	ND	---	35.4	"	"	"	"	
Bromochloromethane	ND	---	70.7	"	"	"	"	
Bromodichloromethane	ND	---	70.7	"	"	"	"	
Bromoform	ND	---	70.7	"	"	"	"	
Bromomethane	ND	---	707	"	"	"	"	
2-Butanone (MEK)	ND	---	707	"	"	"	"	
n-Butylbenzene	ND	---	70.7	"	"	"	"	
sec-Butylbenzene	ND	---	70.7	"	"	"	"	
tert-Butylbenzene	ND	---	70.7	"	"	"	"	
Carbon tetrachloride	ND	---	35.4	"	"	"	"	
Chlorobenzene	ND	---	35.4	"	"	"	"	
Chloroethane	ND	---	707	"	"	"	"	
Chloroform	ND	---	70.7	"	"	"	"	
Chloromethane	ND	---	354	"	"	"	"	Q-31
2-Chlorotoluene	ND	---	70.7	"	"	"	"	
4-Chlorotoluene	ND	---	70.7	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	---	354	"	"	"	"	
Dibromochloromethane	ND	---	141	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	---	35.4	"	"	"	"	
Dibromomethane	ND	---	70.7	"	"	"	"	
1,2-Dichlorobenzene	ND	---	35.4	"	"	"	"	
1,3-Dichlorobenzene	ND	---	35.4	"	"	"	"	
1,4-Dichlorobenzene	ND	---	35.4	"	"	"	"	
Dichlorodifluoromethane	ND	---	141	"	"	"	"	
1,1-Dichloroethane	ND	---	35.4	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	---	35.4	"	"	"	"	
1,1-Dichloroethene	ND	---	35.4	"	"	"	"	
cis-1,2-Dichloroethene	ND	---	35.4	"	"	"	"	
trans-1,2-Dichloroethene	ND	---	35.4	"	"	"	"	
1,2-Dichloropropane	ND	---	35.4	"	"	"	"	
1,3-Dichloropropane	ND	---	35.4	"	"	"	"	
2,2-Dichloropropane	ND	---	70.7	"	"	"	"	
1,1-Dichloropropene	ND	---	70.7	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-11-10' (A3I0315-02)			**Matrix: Soil**		**Batch: 3090367**			**V-15**
cis-1,3-Dichloropropene	ND	---	70.7	ug/kg dry	50	"	5035/8260B	
trans-1,3-Dichloropropene	ND	---	70.7	"	"	"	"	
Ethylbenzene	ND	---	35.4	"	"	"	"	
Hexachlorobutadiene	ND	---	141	"	"	"	"	
2-Hexanone	ND	---	707	"	"	"	"	
Isopropylbenzene	ND	---	70.7	"	"	"	"	
4-Isopropyltoluene	ND	---	70.7	"	"	"	"	
4-Methyl-2-pentanone (MiBK)	ND	---	707	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	---	70.7	"	"	"	"	
Methylene chloride	ND	---	354	"	"	"	"	
Naphthalene	ND	---	141	"	"	"	"	
n-Propylbenzene	ND	---	35.4	"	"	"	"	
Styrene	ND	---	70.7	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	---	35.4	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	---	35.4	"	"	"	"	
Tetrachloroethene (PCE)	ND	---	35.4	"	"	"	"	
Toluene	ND	---	70.7	"	"	"	"	
1,2,3-Trichlorobenzene	ND	---	354	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	354	"	"	"	"	
1,1,1-Trichloroethane	ND	---	35.4	"	"	"	"	
1,1,2-Trichloroethane	ND	---	35.4	"	"	"	"	
Trichloroethene (TCE)	ND	---	35.4	"	"	"	"	
Trichlorofluoromethane	ND	---	141	"	"	"	"	
1,2,3-Trichloropropane	ND	---	70.7	"	"	"	"	
1,2,4-Trimethylbenzene	ND	---	70.7	"	"	"	"	
1,3,5-Trimethylbenzene	ND	---	70.7	"	"	"	"	
Vinyl chloride	ND	---	35.4	"	"	"	"	
m,p-Xylene	ND	---	70.7	"	"	"	"	
o-Xylene	ND	---	35.4	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 118 %*	*Limits: 70-130 %*	1	"	"	
1,4-Difluorobenzene (Surr)			*108 %*	*Limits: 70-130 %*	"	"	"	
Toluene-d8 (Surr)			*105 %*	*Limits: 70-130 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*101 %*	*Limits: 70-130 %*	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-18-12.5' (A3I0315-06)			**Matrix: Soil**		**Batch: 3090368**			**V-15**
Acetone	ND	---	1510	ug/kg dry	50	09/17/13 13:14	5035/8260B	
Benzene	ND	---	18.8	"	"	"	"	
Bromobenzene	ND	---	37.7	"	"	"	"	
Bromochloromethane	ND	---	75.3	"	"	"	"	
Bromodichloromethane	ND	---	75.3	"	"	"	"	
Bromoform	ND	---	75.3	"	"	"	"	
Bromomethane	ND	---	753	"	"	"	"	
2-Butanone (MEK)	ND	---	753	"	"	"	"	
n-Butylbenzene	ND	---	75.3	"	"	"	"	
sec-Butylbenzene	ND	---	75.3	"	"	"	"	
tert-Butylbenzene	ND	---	75.3	"	"	"	"	
Carbon tetrachloride	ND	---	37.7	"	"	"	"	
Chlorobenzene	ND	---	37.7	"	"	"	"	
Chloroethane	ND	---	753	"	"	"	"	
Chloroform	ND	---	75.3	"	"	"	"	
Chloromethane	ND	---	377	"	"	"	"	
2-Chlorotoluene	ND	---	75.3	"	"	"	"	
4-Chlorotoluene	ND	---	75.3	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	---	377	"	"	"	"	
Dibromochloromethane	ND	---	151	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	---	37.7	"	"	"	"	
Dibromomethane	ND	---	75.3	"	"	"	"	
1,2-Dichlorobenzene	ND	---	37.7	"	"	"	"	
1,3-Dichlorobenzene	ND	---	37.7	"	"	"	"	
1,4-Dichlorobenzene	ND	---	37.7	"	"	"	"	
Dichlorodifluoromethane	ND	---	151	"	"	"	"	
1,1-Dichloroethane	ND	---	37.7	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	---	37.7	"	"	"	"	
1,1-Dichloroethene	ND	---	37.7	"	"	"	"	
cis-1,2-Dichloroethene	ND	---	37.7	"	"	"	"	
trans-1,2-Dichloroethene	ND	---	37.7	"	"	"	"	
1,2-Dichloropropane	ND	---	37.7	"	"	"	"	
1,3-Dichloropropane	ND	---	37.7	"	"	"	"	
2,2-Dichloropropane	ND	---	75.3	"	"	"	"	
1,1-Dichloropropene	ND	---	75.3	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

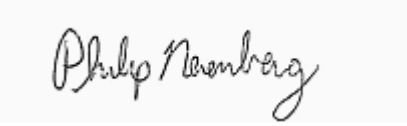
Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-18-12.5' (A3I0315-06)			**Matrix: Soil**		**Batch: 3090368**			**V-15**
cis-1,3-Dichloropropene	ND	---	75.3	ug/kg dry	50	"	5035/8260B	
trans-1,3-Dichloropropene	ND	---	75.3	"	"	"	"	
Ethylbenzene	ND	---	37.7	"	"	"	"	
Hexachlorobutadiene	ND	---	151	"	"	"	"	
2-Hexanone	ND	---	753	"	"	"	"	
Isopropylbenzene	ND	---	75.3	"	"	"	"	
4-Isopropyltoluene	ND	---	75.3	"	"	"	"	
4-Methyl-2-pentanone (MiBK)	ND	---	753	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	---	75.3	"	"	"	"	
Methylene chloride	ND	---	377	"	"	"	"	
Naphthalene	ND	---	151	"	"	"	"	
n-Propylbenzene	ND	---	37.7	"	"	"	"	
Styrene	ND	---	75.3	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	---	37.7	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	---	37.7	"	"	"	"	
Tetrachloroethene (PCE)	ND	---	37.7	"	"	"	"	
Toluene	ND	---	75.3	"	"	"	"	
1,2,3-Trichlorobenzene	ND	---	377	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	377	"	"	"	"	
1,1,1-Trichloroethane	ND	---	37.7	"	"	"	"	
1,1,2-Trichloroethane	ND	---	37.7	"	"	"	"	
Trichloroethene (TCE)	ND	---	37.7	"	"	"	"	
Trichlorofluoromethane	ND	---	151	"	"	"	"	
1,2,3-Trichloropropane	ND	---	75.3	"	"	"	"	
1,2,4-Trimethylbenzene	ND	---	75.3	"	"	"	"	
1,3,5-Trimethylbenzene	ND	---	75.3	"	"	"	"	
Vinyl chloride	ND	---	37.7	"	"	"	"	
m,p-Xylene	ND	---	75.3	"	"	"	"	
o-Xylene	ND	---	37.7	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 97 %*	*Limits: 70-130 %*	1	"	"	
1,4-Difluorobenzene (Surr)			*102 %*	*Limits: 70-130 %*	"	"	"	
Toluene-d8 (Surr)			*100 %*	*Limits: 70-130 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*93 %*	*Limits: 70-130 %*	"	"	"	

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-19-12.5' (A3I0315-07)			**Matrix: Soil**		**Batch: 3090368**			**V-15**
Acetone	ND	---	1450	ug/kg dry	50	09/17/13 13:40	5035/8260B	
Benzene	ND	---	18.1	"	"	"	"	
Bromobenzene	ND	---	36.2	"	"	"	"	
Bromochloromethane	ND	---	72.5	"	"	"	"	
Bromodichloromethane	ND	---	72.5	"	"	"	"	
Bromoform	ND	---	72.5	"	"	"	"	
Bromomethane	ND	---	725	"	"	"	"	
2-Butanone (MEK)	ND	---	725	"	"	"	"	
n-Butylbenzene	ND	---	72.5	"	"	"	"	
sec-Butylbenzene	ND	---	72.5	"	"	"	"	
tert-Butylbenzene	ND	---	72.5	"	"	"	"	
Carbon tetrachloride	ND	---	36.2	"	"	"	"	
Chlorobenzene	ND	---	36.2	"	"	"	"	
Chloroethane	ND	---	725	"	"	"	"	
Chloroform	ND	---	72.5	"	"	"	"	
Chloromethane	ND	---	362	"	"	"	"	
2-Chlorotoluene	ND	---	72.5	"	"	"	"	
4-Chlorotoluene	ND	---	72.5	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	---	362	"	"	"	"	
Dibromochloromethane	ND	---	145	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	---	36.2	"	"	"	"	
Dibromomethane	ND	---	72.5	"	"	"	"	
1,2-Dichlorobenzene	ND	---	36.2	"	"	"	"	
1,3-Dichlorobenzene	ND	---	36.2	"	"	"	"	
1,4-Dichlorobenzene	ND	---	36.2	"	"	"	"	
Dichlorodifluoromethane	ND	---	145	"	"	"	"	
1,1-Dichloroethane	ND	---	36.2	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	---	36.2	"	"	"	"	
1,1-Dichloroethene	ND	---	36.2	"	"	"	"	
cis-1,2-Dichloroethene	ND	---	36.2	"	"	"	"	
trans-1,2-Dichloroethene	ND	---	36.2	"	"	"	"	
1,2-Dichloropropane	ND	---	36.2	"	"	"	"	
1,3-Dichloropropane	ND	---	36.2	"	"	"	"	
2,2-Dichloropropane	ND	---	72.5	"	"	"	"	
1,1-Dichloropropene	ND	---	72.5	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-19-12.5' (A3I0315-07)			**Matrix: Soil**		**Batch: 3090368**			**V-15**
cis-1,3-Dichloropropene	ND	---	72.5	ug/kg dry	50	"	5035/8260B	
trans-1,3-Dichloropropene	ND	---	72.5	"	"	"	"	
Ethylbenzene	ND	---	36.2	"	"	"	"	
Hexachlorobutadiene	ND	---	145	"	"	"	"	
2-Hexanone	ND	---	725	"	"	"	"	
Isopropylbenzene	ND	---	72.5	"	"	"	"	
4-Isopropyltoluene	ND	---	72.5	"	"	"	"	
4-Methyl-2-pentanone (MiBK)	ND	---	725	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	---	72.5	"	"	"	"	
Methylene chloride	ND	---	362	"	"	"	"	
Naphthalene	ND	---	145	"	"	"	"	
n-Propylbenzene	ND	---	36.2	"	"	"	"	
Styrene	ND	---	72.5	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	---	36.2	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	---	36.2	"	"	"	"	
Tetrachloroethene (PCE)	ND	---	36.2	"	"	"	"	
Toluene	ND	---	72.5	"	"	"	"	
1,2,3-Trichlorobenzene	ND	---	362	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	362	"	"	"	"	
1,1,1-Trichloroethane	ND	---	36.2	"	"	"	"	
1,1,2-Trichloroethane	ND	---	36.2	"	"	"	"	
Trichloroethene (TCE)	ND	---	36.2	"	"	"	"	
Trichlorofluoromethane	ND	---	145	"	"	"	"	
1,2,3-Trichloropropane	ND	---	72.5	"	"	"	"	
1,2,4-Trimethylbenzene	ND	---	72.5	"	"	"	"	
1,3,5-Trimethylbenzene	ND	---	72.5	"	"	"	"	
Vinyl chloride	ND	---	36.2	"	"	"	"	
m,p-Xylene	ND	---	72.5	"	"	"	"	
o-Xylene	ND	---	36.2	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 98 %*	*Limits: 70-130 %*	1	"	"	
1,4-Difluorobenzene (Surr)			*102 %*	*Limits: 70-130 %*	"	"	"	
Toluene-d8 (Surr)			*100 %*	*Limits: 70-130 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*93 %*	*Limits: 70-130 %*	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

ANALYTICAL SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-10-10' (A3I0315-01RE2)			**Matrix: Soil**		**Batch: 3090586**			**C-07**
Aroclor 1016	ND	---	12.2	ug/kg dry	1	09/25/13 16:01	EPA 8082A	
Aroclor 1221	ND	---	12.2	"	"	"	"	
Aroclor 1232	ND	---	12.2	"	"	"	"	
Aroclor 1242	ND	---	12.2	"	"	"	"	
Aroclor 1248	ND	---	12.2	"	"	"	"	
Aroclor 1254	ND	---	12.2	"	"	"	"	
Aroclor 1260	ND	---	12.2	"	"	"	"	
Surrogate: Decachlorobiphenyl (Surr)			*Recovery: 73 %*	*Limits: 60-125 %*	"	"	"	
SB-11-10' (A3I0315-02RE2)			**Matrix: Soil**		**Batch: 3090586**			**C-07**
Aroclor 1016	ND	---	12.8	ug/kg dry	1	09/25/13 16:01	EPA 8082A	
Aroclor 1221	ND	---	12.8	"	"	"	"	
Aroclor 1232	ND	---	12.8	"	"	"	"	
Aroclor 1242	ND	---	12.8	"	"	"	"	
Aroclor 1248	ND	---	12.8	"	"	"	"	
Aroclor 1254	ND	---	12.8	"	"	"	"	
Aroclor 1260	ND	---	12.8	"	"	"	"	
Surrogate: Decachlorobiphenyl (Surr)			*Recovery: 72 %*	*Limits: 60-125 %*	"	"	"	
SB-18-12.5' (A3I0315-06RE2)			**Matrix: Soil**		**Batch: 3090586**			**C-07**
Aroclor 1016	ND	---	13.0	ug/kg dry	1	09/25/13 16:37	EPA 8082A	
Aroclor 1221	ND	---	13.0	"	"	"	"	
Aroclor 1232	ND	---	13.0	"	"	"	"	
Aroclor 1242	ND	---	13.0	"	"	"	"	
Aroclor 1248	ND	---	13.0	"	"	"	"	
Aroclor 1254	ND	---	13.0	"	"	"	"	
Aroclor 1260	ND	---	13.0	"	"	"	"	
Surrogate: Decachlorobiphenyl (Surr)			*Recovery: 70 %*	*Limits: 60-125 %*	"	"	"	
SB-19-12.5' (A3I0315-07RE2)			**Matrix: Soil**		**Batch: 3090586**			**C-07**
Aroclor 1016	ND	---	12.2	ug/kg dry	1	09/25/13 17:13	EPA 8082A	
Aroclor 1221	ND	---	12.2	"	"	"	"	
Aroclor 1232	ND	---	12.2	"	"	"	"	
Aroclor 1242	ND	---	12.2	"	"	"	"	
Aroclor 1248	ND	---	12.2	"	"	"	"	
Aroclor 1254	ND	---	12.2	"	"	"	"	
Aroclor 1260	ND	---	12.2	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

ANALYTICAL SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-19-12.5' (A3I0315-07RE2)			**Matrix: Soil**		**Batch: 3090586**			**C-07**
Surrogate: Decachlorobiphenyl (Surr)			*Recovery: 88 %*	*Limits: 60-125 %*	1	"	EPA 8082A	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-10-10' (A3I0315-01RE2)			**Matrix: Soil**		**Batch: 3090402**			
Acenaphthene	ND	---	327	ug/kg dry	1	09/19/13 13:12	EPA 8270D	
Acenaphthylene	ND	---	327	"	"	"	"	
Aniline	ND	---	327	"	"	"	"	
Anthracene	ND	---	327	"	"	"	"	
Azobenzene (1,2-DPH)	ND	---	327	"	"	"	"	
Benz(a)anthracene	ND	---	327	"	"	"	"	
Benzo(a)pyrene	ND	---	327	"	"	"	"	
Benzo(b)fluoranthene	ND	---	327	"	"	"	"	
Benzo(k)fluoranthene	ND	---	327	"	"	"	"	
Benzo(g,h,i)perylene	ND	---	327	"	"	"	"	
Benzoic acid	ND	---	1630	"	"	"	"	
Benzyl alcohol	ND	---	327	"	"	"	"	
Bis(2-Chloroethoxy) methane	ND	---	327	"	"	"	"	
Bis(2-Chloroethyl) ether	ND	---	327	"	"	"	"	
Bis(2-Chloroisopropyl) ether	ND	---	327	"	"	"	"	
Bis(2-Ethylhexyl) adipate	ND	---	327	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	---	327	"	"	"	"	
4-Bromophenyl phenyl ether	ND	---	327	"	"	"	"	
Butyl benzyl phthalate	ND	---	327	"	"	"	"	
Carbazole	ND	---	327	"	"	"	"	
4-Chloroaniline	ND	---	327	"	"	"	"	
4-Chloro-3-methylphenol	ND	---	327	"	"	"	"	
2-Chloronaphthalene	ND	---	327	"	"	"	"	
2-Chlorophenol	ND	---	327	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	---	327	"	"	"	"	
Chrysene	ND	---	327	"	"	"	"	
Dibenz(a,h)anthracene	ND	---	327	"	"	"	"	
Dibenzofuran	ND	---	327	"	"	"	"	
1,2-Dichlorobenzene	ND	---	327	"	"	"	"	
1,3-Dichlorobenzene	ND	---	327	"	"	"	"	
1,4-Dichlorobenzene	ND	---	327	"	"	"	"	
2,4-Dichlorophenol	ND	---	327	"	"	"	"	
Di-n-butylphthalate	ND	---	327	"	"	"	"	
Diethylphthalate	ND	---	327	"	"	"	"	
Dimethylphthalate	ND	---	327	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-10-10' (A3I0315-01RE2)			**Matrix: Soil**		**Batch: 3090402**			
2,4-Dimethylphenol	ND	---	327	ug/kg dry	1	"	EPA 8270D	
1,2-Dinitrobenzene	ND	---	327	"	"	"	"	
1,3-Dinitrobenzene	ND	---	327	"	"	"	"	
1,4-Dinitrobenzene	ND	---	327	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	---	784	"	"	"	"	
2,4-Dinitrophenol	ND	---	327	"	"	"	"	
2,4-Dinitrotoluene	ND	---	327	"	"	"	"	
2,6-Dinitrotoluene	ND	---	327	"	"	"	"	
Di-n-octyl phthalate	ND	---	327	"	"	"	"	
Fluoranthene	ND	---	327	"	"	"	"	
Fluorene	ND	---	327	"	"	"	"	
Hexachlorobenzene	ND	---	327	"	"	"	"	
Hexachlorobutadiene	ND	---	327	"	"	"	"	
Hexachlorocyclopentadiene	ND	---	327	"	"	"	"	
Hexachloroethane	ND	---	327	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	---	327	"	"	"	"	
Isophorone	ND	---	327	"	"	"	"	
1-Methylnaphthalene	ND	---	327	"	"	"	"	
2-Methylnaphthalene	ND	---	327	"	"	"	"	
2-Methylphenol	ND	---	327	"	"	"	"	
3+4-Methylphenol(s)	ND	---	327	"	"	"	"	
Naphthalene	ND	---	327	"	"	"	"	
2-Nitroaniline	ND	---	327	"	"	"	"	
3-Nitroaniline	ND	---	327	"	"	"	"	
4-Nitroaniline	ND	---	327	"	"	"	"	
Nitrobenzene	ND	---	327	"	"	"	"	
2-Nitrophenol	ND	---	327	"	"	"	"	
4-Nitrophenol	ND	---	327	"	"	"	"	
N-Nitrosodimethylamine	ND	---	327	"	"	"	"	
N-Nitroso-di-n-propylamine	ND	---	327	"	"	"	"	
N-Nitrosodiphenylamine	ND	---	327	"	"	"	"	
Pentachlorophenol (PCP)	ND	---	327	"	"	"	"	
Phenanthrene	ND	---	327	"	"	"	"	
Phenol	ND	---	327	"	"	"	"	
Pyrene	ND	---	327	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-10-10' (A3I0315-01RE2)			**Matrix: Soil**		**Batch: 3090402**			
Pyridine	ND	---	653	ug/kg dry	1	"	EPA 8270D	
2,3,4,6-Tetrachlorophenol	ND	---	327	"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	---	327	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	327	"	"	"	"	
2,4,5-Trichlorophenol	ND	---	327	"	"	"	"	
2,4,6-Trichlorophenol	ND	---	327	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 91 %*	*Limits: 35-120 %*	"	"	"	
2-Fluorobiphenyl (Surr)			*90 %*	*Limits: 45-120 %*	"	"	"	
Phenol-d6 (Surr)			*105 %*	*Limits: 40-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*107 %*	*Limits: 30-125 %*	"	"	"	
2-Fluorophenol (Surr)			*100 %*	*Limits: 35-120 %*	"	"	"	
2,4,6-Tribromophenol (Surr)			*79 %*	*Limits: 35-125 %*	"	"	"	
SB-11-10' (A3I0315-02RE2)			**Matrix: Soil**		**Batch: 3090402**			
Acenaphthene	ND	---	313	ug/kg dry	1	09/20/13 10:38	EPA 8270D	
Acenaphthylene	ND	---	313	"	"	"	"	
Aniline	ND	---	313	"	"	"	"	
Anthracene	ND	---	313	"	"	"	"	
Azobenzene (1,2-DPH)	ND	---	313	"	"	"	"	
Benz(a)anthracene	ND	---	313	"	"	"	"	
Benzo(a)pyrene	ND	---	313	"	"	"	"	
Benzo(b)fluoranthene	ND	---	313	"	"	"	"	
Benzo(k)fluoranthene	ND	---	313	"	"	"	"	
Benzo(g,h,i)perylene	ND	---	313	"	"	"	"	
Benzoic acid	ND	---	1560	"	"	"	"	
Benzyl alcohol	ND	---	313	"	"	"	"	
Bis(2-Chloroethoxy) methane	ND	---	313	"	"	"	"	
Bis(2-Chloroethyl) ether	ND	---	313	"	"	"	"	
Bis(2-Chloroisopropyl) ether	ND	---	313	"	"	"	"	
Bis(2-Ethylhexyl) adipate	ND	---	313	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	---	313	"	"	"	"	
4-Bromophenyl phenyl ether	ND	---	313	"	"	"	"	
Butyl benzyl phthalate	ND	---	313	"	"	"	"	
Carbazole	ND	---	313	"	"	"	"	
4-Chloroaniline	ND	---	313	"	"	"	"	
4-Chloro-3-methylphenol	ND	---	313	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-11-10' (A3I0315-02RE2)			**Matrix: Soil**		**Batch: 3090402**			
2-Chloronaphthalene	ND	---	313	ug/kg dry	1	"	EPA 8270D	
2-Chlorophenol	ND	---	313	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	---	313	"	"	"	"	
Chrysene	ND	---	313	"	"	"	"	
Dibenz(a,h)anthracene	ND	---	313	"	"	"	"	
Dibenzofuran	ND	---	313	"	"	"	"	
1,2-Dichlorobenzene	ND	---	313	"	"	"	"	
1,3-Dichlorobenzene	ND	---	313	"	"	"	"	
1,4-Dichlorobenzene	ND	---	313	"	"	"	"	
2,4-Dichlorophenol	ND	---	313	"	"	"	"	
Di-n-butylphthalate	ND	---	313	"	"	"	"	
Diethylphthalate	ND	---	313	"	"	"	"	
Dimethylphthalate	ND	---	313	"	"	"	"	
2,4-Dimethylphenol	ND	---	313	"	"	"	"	
1,2-Dinitrobenzene	ND	---	313	"	"	"	"	
1,3-Dinitrobenzene	ND	---	313	"	"	"	"	
1,4-Dinitrobenzene	ND	---	313	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	---	750	"	"	"	"	
2,4-Dinitrophenol	ND	---	313	"	"	"	"	
2,4-Dinitrotoluene	ND	---	313	"	"	"	"	
2,6-Dinitrotoluene	ND	---	313	"	"	"	"	
Di-n-octyl phthalate	ND	---	313	"	"	"	"	
Fluoranthene	ND	---	313	"	"	"	"	
Fluorene	ND	---	313	"	"	"	"	
Hexachlorobenzene	ND	---	313	"	"	"	"	
Hexachlorobutadiene	ND	---	313	"	"	"	"	
Hexachlorocyclopentadiene	ND	---	313	"	"	"	"	
Hexachloroethane	ND	---	313	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	---	313	"	"	"	"	
Isophorone	ND	---	313	"	"	"	"	
1-Methylnaphthalene	ND	---	313	"	"	"	"	
2-Methylnaphthalene	ND	---	313	"	"	"	"	
2-Methylphenol	ND	---	313	"	"	"	"	
3+4-Methylphenol(s)	ND	---	313	"	"	"	"	
Naphthalene	ND	---	313	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

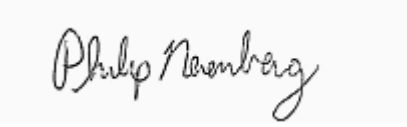
Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-11-10' (A3I0315-02RE2)			**Matrix: Soil**		**Batch: 3090402**			
2-Nitroaniline	ND	---	313	ug/kg dry	1	"	EPA 8270D	
3-Nitroaniline	ND	---	313	"	"	"	"	
4-Nitroaniline	ND	---	313	"	"	"	"	
Nitrobenzene	ND	---	313	"	"	"	"	
2-Nitrophenol	ND	---	313	"	"	"	"	
4-Nitrophenol	ND	---	313	"	"	"	"	
N-Nitrosodimethylamine	ND	---	313	"	"	"	"	
N-Nitroso-di-n-propylamine	ND	---	313	"	"	"	"	
N-Nitrosodiphenylamine	ND	---	313	"	"	"	"	
Pentachlorophenol (PCP)	ND	---	313	"	"	"	"	
Phenanthrene	ND	---	313	"	"	"	"	
Phenol	ND	---	313	"	"	"	"	
Pyrene	ND	---	313	"	"	"	"	
Pyridine	ND	---	625	"	"	"	"	
2,3,4,6-Tetrachlorophenol	ND	---	313	"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	---	313	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	313	"	"	"	"	
2,4,5-Trichlorophenol	ND	---	313	"	"	"	"	
2,4,6-Trichlorophenol	ND	---	313	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 88 %*	*Limits: 35-120 %*	"	"	"	
2-Fluorobiphenyl (Surr)			*85 %*	*Limits: 45-120 %*	"	"	"	
Phenol-d6 (Surr)			*101 %*	*Limits: 40-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*90 %*	*Limits: 30-125 %*	"	"	"	
2-Fluorophenol (Surr)			*95 %*	*Limits: 35-120 %*	"	"	"	
2,4,6-Tribromophenol (Surr)			*81 %*	*Limits: 35-125 %*	"	"	"	

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-18-12.5' (A3I0315-06RE1)			**Matrix: Soil**		**Batch: 3090402**			
Acenaphthene	ND	---	296	ug/kg dry	1	09/19/13 13:18	EPA 8270D	
Acenaphthylene	ND	---	296	"	"	"	"	
Aniline	ND	---	296	"	"	"	"	
Anthracene	ND	---	296	"	"	"	"	
Azobenzene (1,2-DPH)	ND	---	296	"	"	"	"	
Benz(a)anthracene	ND	---	296	"	"	"	"	
Benzo(a)pyrene	ND	---	296	"	"	"	"	
Benzo(b)fluoranthene	ND	---	296	"	"	"	"	
Benzo(k)fluoranthene	ND	---	296	"	"	"	"	
Benzo(g,h,i)perylene	ND	---	296	"	"	"	"	
Benzoic acid	ND	---	1480	"	"	"	"	
Benzyl alcohol	ND	---	296	"	"	"	"	
Bis(2-Chloroethoxy) methane	ND	---	296	"	"	"	"	
Bis(2-Chloroethyl) ether	ND	---	296	"	"	"	"	
Bis(2-Chloroisopropyl) ether	ND	---	296	"	"	"	"	
Bis(2-Ethylhexyl) adipate	ND	---	296	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	---	296	"	"	"	"	
4-Bromophenyl phenyl ether	ND	---	296	"	"	"	"	
Butyl benzyl phthalate	ND	---	296	"	"	"	"	
Carbazole	ND	---	296	"	"	"	"	
4-Chloroaniline	ND	---	296	"	"	"	"	
4-Chloro-3-methylphenol	ND	---	296	"	"	"	"	
2-Chloronaphthalene	ND	---	296	"	"	"	"	
2-Chlorophenol	ND	---	296	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	---	296	"	"	"	"	
Chrysene	ND	---	296	"	"	"	"	
Dibenz(a,h)anthracene	ND	---	296	"	"	"	"	
Dibenzofuran	ND	---	296	"	"	"	"	
1,2-Dichlorobenzene	ND	---	296	"	"	"	"	
1,3-Dichlorobenzene	ND	---	296	"	"	"	"	
1,4-Dichlorobenzene	ND	---	296	"	"	"	"	
2,4-Dichlorophenol	ND	---	296	"	"	"	"	
Di-n-butylphthalate	ND	---	296	"	"	"	"	
Diethylphthalate	ND	---	296	"	"	"	"	
Dimethylphthalate	ND	---	296	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-18-12.5' (A3I0315-06RE1)			**Matrix: Soil**		**Batch: 3090402**			
2,4-Dimethylphenol	ND	---	296	ug/kg dry	1	"	EPA 8270D	
1,2-Dinitrobenzene	ND	---	296	"	"	"	"	
1,3-Dinitrobenzene	ND	---	296	"	"	"	"	
1,4-Dinitrobenzene	ND	---	296	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	---	711	"	"	"	"	
2,4-Dinitrophenol	ND	---	296	"	"	"	"	
2,4-Dinitrotoluene	ND	---	296	"	"	"	"	
2,6-Dinitrotoluene	ND	---	296	"	"	"	"	
Di-n-octyl phthalate	ND	---	296	"	"	"	"	
Fluoranthene	ND	---	296	"	"	"	"	
Fluorene	ND	---	296	"	"	"	"	
Hexachlorobenzene	ND	---	296	"	"	"	"	
Hexachlorobutadiene	ND	---	296	"	"	"	"	
Hexachlorocyclopentadiene	ND	---	296	"	"	"	"	
Hexachloroethane	ND	---	296	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	---	296	"	"	"	"	
Isophorone	ND	---	296	"	"	"	"	
1-Methylnaphthalene	ND	---	296	"	"	"	"	
2-Methylnaphthalene	ND	---	296	"	"	"	"	
2-Methylphenol	ND	---	296	"	"	"	"	
3+4-Methylphenol(s)	ND	---	296	"	"	"	"	
Naphthalene	ND	---	296	"	"	"	"	
2-Nitroaniline	ND	---	296	"	"	"	"	
3-Nitroaniline	ND	---	296	"	"	"	"	
4-Nitroaniline	ND	---	296	"	"	"	"	
Nitrobenzene	ND	---	296	"	"	"	"	
2-Nitrophenol	ND	---	296	"	"	"	"	
4-Nitrophenol	ND	---	296	"	"	"	"	
N-Nitrosodimethylamine	ND	---	296	"	"	"	"	
N-Nitroso-di-n-propylamine	ND	---	296	"	"	"	"	
N-Nitrosodiphenylamine	ND	---	296	"	"	"	"	
Pentachlorophenol (PCP)	ND	---	296	"	"	"	"	
Phenanthrene	ND	---	296	"	"	"	"	
Phenol	ND	---	296	"	"	"	"	
Pyrene	ND	---	296	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-18-12.5' (A3I0315-06RE1)			**Matrix: Soil**		**Batch: 3090402**			
Pyridine	ND	---	593	ug/kg dry	1	"	EPA 8270D	
2,3,4,6-Tetrachlorophenol	ND	---	296	"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	---	296	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	296	"	"	"	"	
2,4,5-Trichlorophenol	ND	---	296	"	"	"	"	
2,4,6-Trichlorophenol	ND	---	296	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 89 %*	*Limits: 35-120 %*	"	"	"	
2-Fluorobiphenyl (Surr)			*86 %*	*Limits: 45-120 %*	"	"	"	
Phenol-d6 (Surr)			*93 %*	*Limits: 40-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*93 %*	*Limits: 30-125 %*	"	"	"	
2-Fluorophenol (Surr)			*82 %*	*Limits: 35-120 %*	"	"	"	
2,4,6-Tribromophenol (Surr)			*82 %*	*Limits: 35-125 %*	"	"	"	
SB-19-12.5' (A3I0315-07RE1)			**Matrix: Soil**		**Batch: 3090402**			
Acenaphthene	ND	---	299	ug/kg dry	1	09/19/13 13:55	EPA 8270D	
Acenaphthylene	ND	---	299	"	"	"	"	
Aniline	ND	---	299	"	"	"	"	
Anthracene	ND	---	299	"	"	"	"	
Azobenzene (1,2-DPH)	ND	---	299	"	"	"	"	
Benz(a)anthracene	ND	---	299	"	"	"	"	
Benzo(a)pyrene	ND	---	299	"	"	"	"	
Benzo(b)fluoranthene	ND	---	299	"	"	"	"	
Benzo(k)fluoranthene	ND	---	299	"	"	"	"	
Benzo(g,h,i)perylene	ND	---	299	"	"	"	"	
Benzoic acid	ND	---	1500	"	"	"	"	
Benzyl alcohol	ND	---	299	"	"	"	"	
Bis(2-Chloroethoxy) methane	ND	---	299	"	"	"	"	
Bis(2-Chloroethyl) ether	ND	---	299	"	"	"	"	
Bis(2-Chloroisopropyl) ether	ND	---	299	"	"	"	"	
Bis(2-Ethylhexyl) adipate	ND	---	299	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	---	299	"	"	"	"	
4-Bromophenyl phenyl ether	ND	---	299	"	"	"	"	
Butyl benzyl phthalate	ND	---	299	"	"	"	"	
Carbazole	ND	---	299	"	"	"	"	
4-Chloroaniline	ND	---	299	"	"	"	"	
4-Chloro-3-methylphenol	ND	---	299	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-19-12.5' (A3I0315-07RE1)			**Matrix: Soil**		**Batch: 3090402**			
2-Chloronaphthalene	ND	---	299	ug/kg dry	1	"	EPA 8270D	
2-Chlorophenol	ND	---	299	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	---	299	"	"	"	"	
Chrysene	ND	---	299	"	"	"	"	
Dibenz(a,h)anthracene	ND	---	299	"	"	"	"	
Dibenzofuran	ND	---	299	"	"	"	"	
1,2-Dichlorobenzene	ND	---	299	"	"	"	"	
1,3-Dichlorobenzene	ND	---	299	"	"	"	"	
1,4-Dichlorobenzene	ND	---	299	"	"	"	"	
2,4-Dichlorophenol	ND	---	299	"	"	"	"	
Di-n-butylphthalate	ND	---	299	"	"	"	"	
Diethylphthalate	ND	---	299	"	"	"	"	
Dimethylphthalate	ND	---	299	"	"	"	"	
2,4-Dimethylphenol	ND	---	299	"	"	"	"	
1,2-Dinitrobenzene	ND	---	299	"	"	"	"	
1,3-Dinitrobenzene	ND	---	299	"	"	"	"	
1,4-Dinitrobenzene	ND	---	299	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	---	718	"	"	"	"	
2,4-Dinitrophenol	ND	---	299	"	"	"	"	
2,4-Dinitrotoluene	ND	---	299	"	"	"	"	
2,6-Dinitrotoluene	ND	---	299	"	"	"	"	
Di-n-octyl phthalate	ND	---	299	"	"	"	"	
Fluoranthene	ND	---	299	"	"	"	"	
Fluorene	ND	---	299	"	"	"	"	
Hexachlorobenzene	ND	---	299	"	"	"	"	
Hexachlorobutadiene	ND	---	299	"	"	"	"	
Hexachlorocyclopentadiene	ND	---	299	"	"	"	"	
Hexachloroethane	ND	---	299	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	---	299	"	"	"	"	
Isophorone	ND	---	299	"	"	"	"	
1-Methylnaphthalene	ND	---	299	"	"	"	"	
2-Methylnaphthalene	ND	---	299	"	"	"	"	
2-Methylphenol	ND	---	299	"	"	"	"	
3+4-Methylphenol(s)	ND	---	299	"	"	"	"	
Naphthalene	ND	---	299	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-19-12.5' (A3I0315-07RE1)			**Matrix: Soil**		**Batch: 3090402**			
2-Nitroaniline	ND	---	299	ug/kg dry	1	"	EPA 8270D	
3-Nitroaniline	ND	---	299	"	"	"	"	
4-Nitroaniline	ND	---	299	"	"	"	"	
Nitrobenzene	ND	---	299	"	"	"	"	
2-Nitrophenol	ND	---	299	"	"	"	"	
4-Nitrophenol	ND	---	299	"	"	"	"	
N-Nitrosodimethylamine	ND	---	299	"	"	"	"	
N-Nitroso-di-n-propylamine	ND	---	299	"	"	"	"	
N-Nitrosodiphenylamine	ND	---	299	"	"	"	"	
Pentachlorophenol (PCP)	ND	---	299	"	"	"	"	
Phenanthrene	ND	---	299	"	"	"	"	
Phenol	ND	---	299	"	"	"	"	
Pyrene	ND	---	299	"	"	"	"	
Pyridine	ND	---	598	"	"	"	"	
2,3,4,6-Tetrachlorophenol	ND	---	299	"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	---	299	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	299	"	"	"	"	
2,4,5-Trichlorophenol	ND	---	299	"	"	"	"	
2,4,6-Trichlorophenol	ND	---	299	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 86 %*	*Limits: 35-120 %*	"	"	"	
2-Fluorobiphenyl (Surr)			*82 %*	*Limits: 45-120 %*	"	"	"	
Phenol-d6 (Surr)			*92 %*	*Limits: 40-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*87 %*	*Limits: 30-125 %*	"	"	"	
2-Fluorophenol (Surr)			*83 %*	*Limits: 35-120 %*	"	"	"	
2,4,6-Tribromophenol (Surr)			*77 %*	*Limits: 35-125 %*	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-13-10' (A3I0315-03)			**Matrix: Soil**		**Batch: 3090401**			
Acenaphthene	ND	---	11.5	ug/kg dry	1	09/18/13 19:59	EPA 8270D (SIM)	
Acenaphthylene	ND	---	11.5	"	"	"	"	
Anthracene	ND	---	11.5	"	"	"	"	
Benz(a)anthracene	ND	---	11.5	"	"	"	"	
Benzo(a)pyrene	**11.8**	---	11.5	"	"	"	"	
Benzo(b+k)fluoranthene(s)	**23.4**	---	23.1	"	"	"	"	Q-26
Benzo(g,h,i)perylene	**12.7**	---	11.5	"	"	"	"	
Chrysene	**13.6**	---	11.5	"	"	"	"	
Dibenz(a,h)anthracene	ND	---	11.5	"	"	"	"	
Fluoranthene	**38.9**	---	11.5	"	"	"	"	
Fluorene	ND	---	11.5	"	"	"	"	
Indeno(1,2,3-cd)pyrene	**13.3**	---	11.5	"	"	"	"	
Naphthalene	**86.0**	---	11.5	"	"	"	"	
Phenanthrene	**39.6**	---	11.5	"	"	"	"	
Pyrene	**30.8**	---	11.5	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 67 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*77 %*	*Limits: 30-120 %*	"	"	"	
SB-14-10' (A3I0315-04)			**Matrix: Soil**		**Batch: 3090401**			
Acenaphthene	ND	---	13.4	ug/kg dry	1	09/18/13 20:25	EPA 8270D (SIM)	
Acenaphthylene	ND	---	13.4	"	"	"	"	
Anthracene	ND	---	13.4	"	"	"	"	
Benz(a)anthracene	ND	---	13.4	"	"	"	"	
Benzo(a)pyrene	ND	---	13.4	"	"	"	"	
Benzo(b)fluoranthene	ND	---	13.4	"	"	"	"	
Benzo(k)fluoranthene	ND	---	13.4	"	"	"	"	
Benzo(g,h,i)perylene	ND	---	13.4	"	"	"	"	
Chrysene	ND	---	13.4	"	"	"	"	
Dibenz(a,h)anthracene	ND	---	13.4	"	"	"	"	
Fluoranthene	ND	---	13.4	"	"	"	"	
Fluorene	ND	---	13.4	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	---	13.4	"	"	"	"	
Naphthalene	ND	---	13.4	"	"	"	"	
Phenanthrene	ND	---	13.4	"	"	"	"	
Pyrene	ND	---	13.4	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 71 %*	*Limits: 45-120 %*	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

ANALYTICAL SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-14-10' (A3I0315-04)			**Matrix: Soil**		**Batch: 3090401**			
Surrogate: p-Terphenyl-d14 (Surr)			*Recovery: 91 %*	*Limits: 30-120 %*	1	"	EPA 8270D (SIM)	
SB-15-10' (A3I0315-05)			**Matrix: Soil**		**Batch: 3090401**			
Acenaphthene	ND	---	11.7	ug/kg dry	1	09/18/13 20:52	EPA 8270D (SIM)	
Acenaphthylene	ND	---	11.7	"	"	"	"	
Anthracene	ND	---	11.7	"	"	"	"	
Benz(a)anthracene	ND	---	11.7	"	"	"	"	
Benzo(a)pyrene	ND	---	11.7	"	"	"	"	
Benzo(b)fluoranthene	ND	---	11.7	"	"	"	"	
Benzo(k)fluoranthene	ND	---	11.7	"	"	"	"	
Benzo(g,h,i)perylene	ND	---	11.7	"	"	"	"	
Chrysene	ND	---	11.7	"	"	"	"	
Dibenz(a,h)anthracene	ND	---	11.7	"	"	"	"	
Fluoranthene	ND	---	11.7	"	"	"	"	
Fluorene	ND	---	11.7	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	---	11.7	"	"	"	"	
Naphthalene	ND	---	11.7	"	"	"	"	
Phenanthrene	ND	---	11.7	"	"	"	"	
Pyrene	ND	---	11.7	"	"	"	"	
Surrogate: 2-Fluorobiphenyl (Surr)			*Recovery: 70 %*	*Limits: 45-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*83 %*	*Limits: 30-120 %*	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-10-10' (A3I0315-01)			**Matrix: Soil**					
Batch: 3090527								
Arsenic	**5.60**	---	1.44	mg/kg dry	10	09/24/13 17:24	EPA 6020A	
Barium	**155**	---	1.44	"	"	"	"	
Cadmium	**0.373**	---	0.287	"	"	"	"	
Chromium	**20.2**	---	1.44	"	"	"	"	
Lead	**9.94**	---	0.287	"	"	"	"	
Mercury	ND	---	0.115	"	"	"	"	
Selenium	ND	---	1.44	"	"	"	"	
Silver	ND	---	0.287	"	"	"	"	
SB-11-10' (A3I0315-02)			**Matrix: Soil**					
Batch: 3090527								
Arsenic	**3.92**	---	1.32	mg/kg dry	10	09/24/13 17:29	EPA 6020A	
Barium	**138**	---	1.32	"	"	"	"	
Cadmium	**0.344**	---	0.265	"	"	"	"	
Chromium	**15.5**	---	1.32	"	"	"	"	
Lead	**9.51**	---	0.265	"	"	"	"	
Mercury	ND	---	0.106	"	"	"	"	
Selenium	ND	---	1.32	"	"	"	"	
Silver	ND	---	0.265	"	"	"	"	
SB-18-12.5' (A3I0315-06)			**Matrix: Soil**					
Batch: 3090527								
Arsenic	**4.90**	---	1.29	mg/kg dry	10	09/24/13 17:37	EPA 6020A	
Barium	**129**	---	1.29	"	"	"	"	
Cadmium	**0.453**	---	0.259	"	"	"	"	
Chromium	**18.4**	---	1.29	"	"	"	"	
Lead	**8.43**	---	0.259	"	"	"	"	
Mercury	ND	---	0.103	"	"	"	"	
Selenium	ND	---	1.29	"	"	"	"	
Silver	ND	---	0.259	"	"	"	"	
SB-19-12.5' (A3I0315-07)			**Matrix: Soil**					
Batch: 3090527								
Arsenic	**3.95**	---	1.44	mg/kg dry	10	09/24/13 17:40	EPA 6020A	
Barium	**124**	---	1.44	"	"	"	"	
Cadmium	**0.360**	---	0.288	"	"	"	"	
Chromium	**15.1**	---	1.44	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-19-12.5' (A3I0315-07)			**Matrix: Soil**					
Lead	**7.99**	---	0.288	mg/kg dry	10	"	EPA 6020A	
Mercury	ND	---	0.115	"	"	"	"	
Selenium	ND	---	1.44	"	"	"	"	
Silver	ND	---	0.288	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-10-10' (A3I0315-01)			**Matrix: Soil**		**Batch: 3090412**			
% Solids	**73.9**	---	1.00	% by Weight	1	09/19/13 10:51	Apex SOP	
SB-11-10' (A3I0315-02)			**Matrix: Soil**		**Batch: 3090412**			
% Solids	**73.9**	---	1.00	% by Weight	1	09/19/13 10:51	Apex SOP	
SB-13-10' (A3I0315-03)			**Matrix: Soil**		**Batch: 3090412**			
% Solids	**77.9**	---	1.00	% by Weight	1	09/19/13 10:51	Apex SOP	
SB-14-10' (A3I0315-04)			**Matrix: Soil**		**Batch: 3090412**			
% Solids	**73.8**	---	1.00	% by Weight	1	09/19/13 10:51	Apex SOP	
SB-15-10' (A3I0315-05)			**Matrix: Soil**		**Batch: 3090412**			
% Solids	**72.3**	---	1.00	% by Weight	1	09/19/13 10:51	Apex SOP	
SB-18-12.5' (A3I0315-06)			**Matrix: Soil**		**Batch: 3090412**			
% Solids	**74.8**	---	1.00	% by Weight	1	09/19/13 10:51	Apex SOP	
SB-19-12.5' (A3I0315-07)			**Matrix: Soil**		**Batch: 3090412**			
% Solids	**74.9**	---	1.00	% by Weight	1	09/19/13 10:51	Apex SOP	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

QUALITY CONTROL (QC) SAMPLE RESULTS

Hydrocarbon Identification Screen by NWTPH-HCID

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090395 - NWTPH-HCID (Soil)							**Soil**					
Blank (3090395-BLK1)						Prepared: 09/17/13 18:37	Analyzed: 09/17/13 22:40					
NWTPH-HCID												
Gasoline Range Organics	ND	---	18.2	mg/kg wet	1	---	---	---	---	---	---	
Diesel Range Organics	ND	---	45.5	"	"	---	---	---	---	---	---	
Oil Range Organics	ND	---	90.9	"	"	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)			*Recovery: 107 %*	*Limits: 50-150 %*			*Dilution: 1x*					
Duplicate (3090395-DUP1)						Prepared: 09/17/13 18:37	Analyzed: 09/17/13 23:27					
QC Source Sample: SB-10-10' (A3I0315-01)												
NWTPH-HCID												
Gasoline Range Organics	ND	---	25.7	mg/kg dry	1	---	ND	---	---	---	30%	
Diesel Range Organics	ND	---	64.3	"	"	---	ND	---	---	---	30%	
Oil Range Organics	ND	---	129	"	"	---	ND	---	---	---	30%	
Surr: o-Terphenyl (Surr)			*Recovery: 102 %*	*Limits: 50-150 %*			*Dilution: 1x*					

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

QUALITY CONTROL (QC) SAMPLE RESULTS

Diesel and Oil Hydrocarbons by NWTPH-Dx with Silica Gel Cleanup

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090454 - EPA 3546 (Fuels)							**Soil**					
Blank (3090454-BLK1)					Prepared: 09/19/13 14:56 Analyzed: 09/19/13 19:54							
NWTPH-Dx/SG												
Diesel	ND	---	25.0	mg/kg wet	1	---	---	---	---	---	---	
Oil	ND	---	50.0	"	"	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)			*Recovery: 90 %*	*Limits: 50-150 %*			*Dilution: 1x*					
LCS (3090454-BS1)					Prepared: 09/19/13 14:56 Analyzed: 09/19/13 20:13							
NWTPH-Dx/SG												
Diesel	125	---	25.0	mg/kg wet	1	125	---	100	77-115%	---	---	
Surr: o-Terphenyl (Surr)			*Recovery: 94 %*	*Limits: 50-150 %*			*Dilution: 1x*					

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

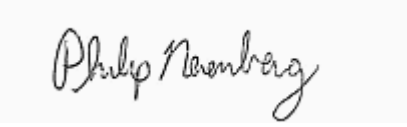
Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

QUALITY CONTROL (QC) SAMPLE RESULTS

BTEX Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090367 - EPA 5035A							**Soil**					
Blank (3090367-BLK1)					Prepared: 09/17/13 09:00		Analyzed: 09/17/13 11:11					
5035/8260B												
Benzene	ND	---	8.33	ug/kg wet	50	---	---	---	---	---	---	
Toluene	ND	---	33.3	"	"	---	---	---	---	---	---	
Ethylbenzene	ND	---	16.7	"	"	---	---	---	---	---	---	
Xylenes, total	ND	---	50.0	"	"	---	---	---	---	---	---	
Surr: Dibromofluoromethane (Surr)			*Recovery: 116 %*		*Limits: 70-130 %*			*Dilution: 1x*				
1,4-Difluorobenzene (Surr)			*112 %*		*70-130 %*			*"*				
Toluene-d8 (Surr)			*98 %*		*70-130 %*			*"*				
4-Bromofluorobenzene (Surr)			*99 %*		*70-130 %*			*"*				
LCS (3090367-BS1)					Prepared: 09/17/13 09:00		Analyzed: 09/17/13 10:19					
5035/8260B												
Benzene	1220	---	12.5	ug/kg wet	50	1000	---	122	65-135%	---	---	
Toluene	1010	---	50.0	"	"	"	---	101	"	---	---	
Ethylbenzene	1060	---	25.0	"	"	"	---	106	"	---	---	
Xylenes, total	3150	---	75.0	"	"	3000	---	105	"	---	---	
Surr: Dibromofluoromethane (Surr)			*Recovery: 108 %*		*Limits: 70-130 %*			*Dilution: 1x*				
1,4-Difluorobenzene (Surr)			*110 %*		*70-130 %*			*"*				
Toluene-d8 (Surr)			*97 %*		*70-130 %*			*"*				
4-Bromofluorobenzene (Surr)			*96 %*		*70-130 %*			*"*				
Duplicate (3090367-DUP1)					Prepared: 09/17/13 11:30		Analyzed: 09/17/13 14:12					
QC Source Sample: SB-10-10' (A3I0315-01)												
5035/8260B												
Benzene	ND	---	19.1	ug/kg dry	50	---	ND	---	---	---	30%	
Toluene	ND	---	76.5	"	"	---	ND	---	---	---	30%	
Ethylbenzene	ND	---	38.2	"	"	---	ND	---	---	---	30%	
Xylenes, total	ND	---	115	"	"	---	ND	---	---	---	30%	
Surr: Dibromofluoromethane (Surr)			*Recovery: 115 %*		*Limits: 70-130 %*			*Dilution: 1x*				
1,4-Difluorobenzene (Surr)			*105 %*		*70-130 %*			*"*				
Toluene-d8 (Surr)			*102 %*		*70-130 %*			*"*				
4-Bromofluorobenzene (Surr)			*100 %*		*70-130 %*			*"*				

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

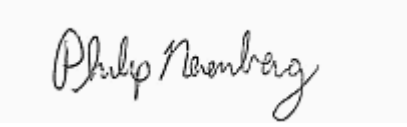
Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

QUALITY CONTROL (QC) SAMPLE RESULTS

BTEX Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090368 - EPA 5035A							**Soil**					
Blank (3090368-BLK1)						Prepared: 09/17/13 09:00	Analyzed: 09/17/13 11:12					
5035/8260B												
Benzene	ND	---	8.33	ug/kg wet	50	---	---	---	---	---	---	
Toluene	ND	---	33.3	"	"	---	---	---	---	---	---	
Ethylbenzene	ND	---	16.7	"	"	---	---	---	---	---	---	
Xylenes, total	ND	---	50.0	"	"	---	---	---	---	---	---	
Surr: Dibromofluoromethane (Surr)			*Recovery: 98 %*	*Limits: 70-130 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Surr)			*102 %*	*70-130 %*			*"*					
Toluene-d8 (Surr)			*99 %*	*70-130 %*			*"*					
4-Bromofluorobenzene (Surr)			*91 %*	*70-130 %*			*"*					
LCS (3090368-BS1)						Prepared: 09/17/13 09:00	Analyzed: 09/17/13 10:21					
5035/8260B												
Benzene	980	---	12.5	ug/kg wet	50	1000	---	98	65-135%	---	---	
Toluene	974	---	50.0	"	"	"	---	97	"	---	---	
Ethylbenzene	1030	---	25.0	"	"	"	---	103	"	---	---	
Xylenes, total	3150	---	75.0	"	"	3000	---	105	"	---	---	
Surr: Dibromofluoromethane (Surr)			*Recovery: 99 %*	*Limits: 70-130 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Surr)			*100 %*	*70-130 %*			*"*					
Toluene-d8 (Surr)			*96 %*	*70-130 %*			*"*					
4-Bromofluorobenzene (Surr)			*88 %*	*70-130 %*			*"*					
Duplicate (3090368-DUP1)						Prepared: 09/17/13 11:30	Analyzed: 09/17/13 14:06					
QC Source Sample: SB-19-12.5' (A3I0315-07)												
5035/8260B												
Benzene	ND	---	18.1	ug/kg dry	50	---	ND	---	---	---	30%	
Toluene	ND	---	72.5	"	"	---	ND	---	---	---	30%	
Ethylbenzene	ND	---	36.2	"	"	---	ND	---	---	---	30%	
Xylenes, total	ND	---	109	"	"	---	ND	---	---	---	30%	
Surr: Dibromofluoromethane (Surr)			*Recovery: 99 %*	*Limits: 70-130 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Surr)			*103 %*	*70-130 %*			*"*					
Toluene-d8 (Surr)			*101 %*	*70-130 %*			*"*					
4-Bromofluorobenzene (Surr)			*92 %*	*70-130 %*			*"*					

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090367 - EPA 5035A							**Soil**					
Blank (3090367-BLK1)						Prepared: 09/17/13 09:00	Analyzed: 09/17/13 11:11					
5035/8260B												
Acetone	ND	---	667	ug/kg wet	50	---	---	---	---	---	---	
Benzene	ND	---	8.33	"	"	---	---	---	---	---	---	
Bromobenzene	ND	---	16.7	"	"	---	---	---	---	---	---	
Bromochloromethane	ND	---	33.3	"	"	---	---	---	---	---	---	
Bromodichloromethane	ND	---	33.3	"	"	---	---	---	---	---	---	
Bromoform	ND	---	33.3	"	"	---	---	---	---	---	---	
Bromomethane	ND	---	333	"	"	---	---	---	---	---	---	
2-Butanone (MEK)	ND	---	333	"	"	---	---	---	---	---	---	
n-Butylbenzene	ND	---	33.3	"	"	---	---	---	---	---	---	
sec-Butylbenzene	ND	---	33.3	"	"	---	---	---	---	---	---	
tert-Butylbenzene	ND	---	33.3	"	"	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	16.7	"	"	---	---	---	---	---	---	
Chlorobenzene	ND	---	16.7	"	"	---	---	---	---	---	---	
Chloroethane	ND	---	333	"	"	---	---	---	---	---	---	
Chloroform	ND	---	33.3	"	"	---	---	---	---	---	---	
Chloromethane	ND	---	167	"	"	---	---	---	---	---	---	Q-31
2-Chlorotoluene	ND	---	33.3	"	"	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	33.3	"	"	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	167	"	"	---	---	---	---	---	---	
Dibromochloromethane	ND	---	66.7	"	"	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	16.7	"	"	---	---	---	---	---	---	
Dibromomethane	ND	---	33.3	"	"	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	16.7	"	"	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	16.7	"	"	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	16.7	"	"	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	66.7	"	"	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	16.7	"	"	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	16.7	"	"	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	16.7	"	"	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090367 - EPA 5035A							**Soil**					
Blank (3090367-BLK1)					Prepared: 09/17/13 09:00 Analyzed: 09/17/13 11:11							
cis-1,2-Dichloroethene	ND	---	16.7	ug/kg wet	"	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	16.7	"	"	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	16.7	"	"	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	16.7	"	"	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	33.3	"	"	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	33.3	"	"	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	33.3	"	"	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	33.3	"	"	---	---	---	---	---	---	
Ethylbenzene	ND	---	16.7	"	"	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	66.7	"	"	---	---	---	---	---	---	
2-Hexanone	ND	---	333	"	"	---	---	---	---	---	---	
Isopropylbenzene	ND	---	33.3	"	"	---	---	---	---	---	---	
4-Isopropyltoluene	ND	---	33.3	"	"	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	---	333	"	"	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	---	33.3	"	"	---	---	---	---	---	---	
Methylene chloride	ND	---	167	"	"	---	---	---	---	---	---	
Naphthalene	ND	---	66.7	"	"	---	---	---	---	---	---	
n-Propylbenzene	ND	---	16.7	"	"	---	---	---	---	---	---	
Styrene	ND	---	33.3	"	"	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	---	16.7	"	"	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	16.7	"	"	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	16.7	"	"	---	---	---	---	---	---	
Toluene	ND	---	33.3	"	"	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	167	"	"	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	167	"	"	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	16.7	"	"	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	16.7	"	"	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	16.7	"	"	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	66.7	"	"	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	33.3	"	"	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090367 - EPA 5035A							**Soil**					
Blank (3090367-BLK1)					Prepared: 09/17/13 09:00 Analyzed: 09/17/13 11:11							
1,2,4-Trimethylbenzene	ND	---	33.3	"	"	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	---	33.3	"	"	---	---	---	---	---	---	
Vinyl chloride	ND	---	16.7	"	"	---	---	---	---	---	---	
m,p-Xylene	ND	---	33.3	"	"	---	---	---	---	---	---	
o-Xylene	ND	---	16.7	"	"	---	---	---	---	---	---	
Surr: Dibromofluoromethane (Surr)			*Recovery: 116 %*	*Limits: 70-130 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Surr)			*112 %*	*70-130 %*			*"*					
Toluene-d8 (Surr)			*98 %*	*70-130 %*			*"*					
4-Bromofluorobenzene (Surr)			*99 %*	*70-130 %*			*"*					
LCS (3090367-BS1)					Prepared: 09/17/13 09:00 Analyzed: 09/17/13 10:19							
5035/8260B												
Acetone	2520	---	1000	ug/kg wet	50	2000	---	126	65-135%	---	---	
Benzene	1220	---	12.5	"	"	1000	---	122	"	---	---	
Bromobenzene	956	---	25.0	"	"	"	---	96	"	---	---	
Bromochloromethane	1340	---	50.0	"	"	"	---	134	"	---	---	
Bromodichloromethane	1110	---	50.0	"	"	"	---	111	"	---	---	
Bromoform	1020	---	50.0	"	"	"	---	102	"	---	---	
Bromomethane	2490	---	500	"	"	"	---	249	"	---	---	ESTb
2-Butanone (MEK)	2600	---	500	"	"	2000	---	130	"	---	---	
n-Butylbenzene	1070	---	50.0	"	"	1000	---	107	"	---	---	
sec-Butylbenzene	988	---	50.0	"	"	"	---	99	"	---	---	
tert-Butylbenzene	930	---	50.0	"	"	"	---	93	"	---	---	
Carbon tetrachloride	1220	---	25.0	"	"	"	---	122	"	---	---	
Chlorobenzene	1040	---	25.0	"	"	"	---	104	"	---	---	
Chloroethane	1500	---	500	"	"	"	---	150	"	---	---	ESTb
Chloroform	1190	---	50.0	"	"	"	---	119	"	---	---	
Chloromethane	843	---	250	"	"	"	---	84	"	---	---	Q-31
2-Chlorotoluene	942	---	50.0	"	"	"	---	94	"	---	---	
4-Chlorotoluene	962	---	50.0	"	"	"	---	96	"	---	---	
1,2-Dibromo-3-chloropropane	934	---	250	"	"	"	---	93	"	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090367 - EPA 5035A							**Soil**					
LCS (3090367-BS1)					Prepared: 09/17/13 09:00		Analyzed: 09/17/13 10:19					
Dibromochloromethane	928	---	100	ug/kg wet	"	"	---	93	"	---	---	
1,2-Dibromoethane (EDB)	1060	---	25.0	"	"	"	---	106	"	---	---	
Dibromomethane	1220	---	50.0	"	"	"	---	122	"	---	---	
1,2-Dichlorobenzene	1020	---	25.0	"	"	"	---	102	"	---	---	
1,3-Dichlorobenzene	982	---	25.0	"	"	"	---	98	"	---	---	
1,4-Dichlorobenzene	920	---	25.0	"	"	"	---	92	"	---	---	
Dichlorodifluoromethane	1280	---	100	"	"	"	---	128	"	---	---	
1,1-Dichloroethane	1140	---	25.0	"	"	"	---	114	"	---	---	
1,2-Dichloroethane (EDC)	1220	---	25.0	"	"	"	---	122	"	---	---	
1,1-Dichloroethene	1360	---	25.0	"	"	"	---	136	"	---	---	Q-29
cis-1,2-Dichloroethene	1170	---	25.0	"	"	"	---	117	"	---	---	
trans-1,2-Dichloroethene	1250	---	25.0	"	"	"	---	125	"	---	---	
1,2-Dichloropropane	1180	---	25.0	"	"	"	---	118	"	---	---	
1,3-Dichloropropane	1070	---	25.0	"	"	"	---	107	"	---	---	
2,2-Dichloropropane	1430	---	50.0	"	"	"	---	143	"	---	---	ESTb
1,1-Dichloropropene	1030	---	50.0	"	"	"	---	103	"	---	---	
cis-1,3-Dichloropropene	884	---	50.0	"	"	"	---	88	"	---	---	
trans-1,3-Dichloropropene	1050	---	50.0	"	"	"	---	105	"	---	---	
Ethylbenzene	1060	---	25.0	"	"	"	---	106	"	---	---	
Hexachlorobutadiene	937	---	100	"	"	"	---	94	"	---	---	
2-Hexanone	2200	---	500	"	"	2000	---	110	"	---	---	
Isopropylbenzene	1030	---	50.0	"	"	1000	---	103	"	---	---	
4-Isopropyltoluene	915	---	50.0	"	"	"	---	92	"	---	---	
4-Methyl-2-pentanone (MiBK)	2250	---	500	"	"	2000	---	112	"	---	---	
Methyl tert-butyl ether (MTBE)	1100	---	50.0	"	"	1000	---	110	"	---	---	
Methylene chloride	1250	---	250	"	"	"	---	125	"	---	---	
Naphthalene	917	---	100	"	"	"	---	92	"	---	---	
n-Propylbenzene	1010	---	25.0	"	"	"	---	101	"	---	---	
Styrene	1060	---	50.0	"	"	"	---	106	"	---	---	
1,1,1,2-Tetrachloroethane	1010	---	25.0	"	"	"	---	101	"	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090367 - EPA 5035A							**Soil**					
LCS (3090367-BS1)					Prepared: 09/17/13 09:00		Analyzed: 09/17/13 10:19					
1,1,2,2-Tetrachloroethane	1050	---	25.0	"	"	"	---	105	"	---	---	
Tetrachloroethene (PCE)	1090	---	25.0	"	"	"	---	109	"	---	---	
Toluene	1010	---	50.0	"	"	"	---	101	"	---	---	
1,2,3-Trichlorobenzene	946	---	250	"	"	"	---	95	"	---	---	
1,2,4-Trichlorobenzene	1010	---	250	"	"	"	---	101	"	---	---	
1,1,1-Trichloroethane	1160	---	25.0	"	"	"	---	116	"	---	---	
1,1,2-Trichloroethane	1090	---	25.0	"	"	"	---	109	"	---	---	
Trichloroethene (TCE)	1130	---	25.0	"	"	"	---	113	"	---	---	
Trichlorofluoromethane	1300	---	100	"	"	"	---	130	"	---	---	
1,2,3-Trichloropropane	995	---	50.0	"	"	"	---	100	"	---	---	
1,2,4-Trimethylbenzene	972	---	50.0	"	"	"	---	97	"	---	---	
1,3,5-Trimethylbenzene	969	---	50.0	"	"	"	---	97	"	---	---	
Vinyl chloride	1410	---	25.0	"	"	"	---	141	"	---	---	ESTb
m,p-Xylene	2170	---	50.0	"	"	2000	---	108	"	---	---	
o-Xylene	977	---	25.0	"	"	1000	---	98	"	---	---	

Surr: Dibromofluoromethane (Surr)	*Recovery: 108 %*	*Limits: 70-130 %*	*Dilution: 1x*
1,4-Difluorobenzene (Surr)	*110 %*	*70-130 %*	*"*
Toluene-d8 (Surr)	*97 %*	*70-130 %*	*"*
4-Bromofluorobenzene (Surr)	*96 %*	*70-130 %*	*"*

Duplicate (3090367-DUP1)					Prepared: 09/17/13 11:30		Analyzed: 09/17/13 14:12					
QC Source Sample: SB-10-10' (A3I0315-01)												
5035/8260B												
Acetone	ND	---	1530	ug/kg dry	50	---	ND	---	---	---	30%	
Benzene	ND	---	19.1	"	"	---	ND	---	---	---	30%	
Bromobenzene	ND	---	38.2	"	"	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	76.5	"	"	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	76.5	"	"	---	ND	---	---	---	30%	
Bromoform	ND	---	76.5	"	"	---	ND	---	---	---	30%	
Bromomethane	ND	---	765	"	"	---	ND	---	---	---	30%	
2-Butanone (MEK)	ND	---	765	"	"	---	ND	---	---	---	30%	
n-Butylbenzene	ND	---	76.5	"	"	---	ND	---	---	---	30%	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

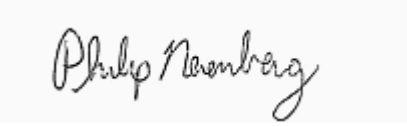
Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090367 - EPA 5035A							**Soil**					
Duplicate (3090367-DUP1)					Prepared: 09/17/13 11:30 Analyzed: 09/17/13 14:12							
QC Source Sample: SB-10-10' (A3I0315-01)												
sec-Butylbenzene	ND	---	76.5	ug/kg dry	"	---	ND	---	---	---	30%	
tert-Butylbenzene	ND	---	76.5	"	"	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	38.2	"	"	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	38.2	"	"	---	ND	---	---	---	30%	
Chloroethane	ND	---	765	"	"	---	ND	---	---	---	30%	
Chloroform	ND	---	76.5	"	"	---	ND	---	---	---	30%	
Chloromethane	ND	---	382	"	"	---	ND	---	---	---	30%	Q-31
2-Chlorotoluene	ND	---	76.5	"	"	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	76.5	"	"	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	382	"	"	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	153	"	"	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	38.2	"	"	---	ND	---	---	---	30%	
Dibromomethane	ND	---	76.5	"	"	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	38.2	"	"	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	38.2	"	"	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	38.2	"	"	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	153	"	"	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	38.2	"	"	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	38.2	"	"	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	38.2	"	"	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	---	38.2	"	"	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	---	38.2	"	"	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	38.2	"	"	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	38.2	"	"	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	76.5	"	"	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	76.5	"	"	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	76.5	"	"	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	76.5	"	"	---	ND	---	---	---	30%	
Ethylbenzene	ND	---	38.2	"	"	---	ND	---	---	---	30%	

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090367 - EPA 5035A							**Soil**					
Duplicate (3090367-DUP1)						Prepared: 09/17/13 11:30	Analyzed: 09/17/13 14:12					
QC Source Sample: SB-10-10' (A3I0315-01)												
Hexachlorobutadiene	ND	---	153	ug/kg dry	"	---	ND	---	---	---	30%	
2-Hexanone	ND	---	765	"	"	---	ND	---	---	---	30%	
Isopropylbenzene	ND	---	76.5	"	"	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	---	76.5	"	"	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	---	765	"	"	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	---	76.5	"	"	---	ND	---	---	---	30%	
Methylene chloride	ND	---	382	"	"	---	ND	---	---	---	30%	
Naphthalene	ND	---	153	"	"	---	ND	---	---	---	30%	
n-Propylbenzene	ND	---	38.2	"	"	---	ND	---	---	---	30%	
Styrene	ND	---	76.5	"	"	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	38.2	"	"	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	---	38.2	"	"	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	---	38.2	"	"	---	ND	---	---	---	30%	
Toluene	ND	---	76.5	"	"	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	---	382	"	"	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	382	"	"	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	38.2	"	"	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	38.2	"	"	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	---	38.2	"	"	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	---	153	"	"	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	76.5	"	"	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	---	76.5	"	"	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	---	76.5	"	"	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	38.2	"	"	---	ND	---	---	---	30%	
m,p-Xylene	ND	---	76.5	"	"	---	ND	---	---	---	30%	
o-Xylene	ND	---	38.2	"	"	---	ND	---	---	---	30%	

Surr:	*Dibromofluoromethane (Surr)*	*Recovery:*	*115 %*	*Limits:*	*70-130 %*	*Dilution: 1x*
	1,4-Difluorobenzene (Surr)		*105 %*		*70-130 %*	*"*
	Toluene-d8 (Surr)		*102 %*		*70-130 %*	*"*

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090367 - EPA 5035A							**Soil**					
Duplicate (3090367-DUP1)						Prepared: 09/17/13 11:30	Analyzed: 09/17/13 14:12					
QC Source Sample: SB-10-10' (A3I0315-01)												
Surr: 4-Bromofluorobenzene (Surr)			*Recovery: 100 %*	*Limits: 70-130 %*			*Dilution: 1x*					

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090368 - EPA 5035A							**Soil**					
Blank (3090368-BLK1)						Prepared: 09/17/13 09:00	Analyzed: 09/17/13 11:12					
5035/8260B												
Acetone	ND	---	667	ug/kg wet	50	---	---	---	---	---	---	
Benzene	ND	---	8.33	"	"	---	---	---	---	---	---	
Bromobenzene	ND	---	16.7	"	"	---	---	---	---	---	---	
Bromochloromethane	ND	---	33.3	"	"	---	---	---	---	---	---	
Bromodichloromethane	ND	---	33.3	"	"	---	---	---	---	---	---	
Bromoform	ND	---	33.3	"	"	---	---	---	---	---	---	
Bromomethane	ND	---	333	"	"	---	---	---	---	---	---	
2-Butanone (MEK)	ND	---	333	"	"	---	---	---	---	---	---	
n-Butylbenzene	ND	---	33.3	"	"	---	---	---	---	---	---	
sec-Butylbenzene	ND	---	33.3	"	"	---	---	---	---	---	---	
tert-Butylbenzene	ND	---	33.3	"	"	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	16.7	"	"	---	---	---	---	---	---	
Chlorobenzene	ND	---	16.7	"	"	---	---	---	---	---	---	
Chloroethane	ND	---	333	"	"	---	---	---	---	---	---	
Chloroform	ND	---	33.3	"	"	---	---	---	---	---	---	
Chloromethane	ND	---	167	"	"	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	33.3	"	"	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	33.3	"	"	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	167	"	"	---	---	---	---	---	---	
Dibromochloromethane	ND	---	66.7	"	"	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	16.7	"	"	---	---	---	---	---	---	
Dibromomethane	ND	---	33.3	"	"	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	16.7	"	"	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	16.7	"	"	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	16.7	"	"	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	66.7	"	"	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	16.7	"	"	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	16.7	"	"	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	16.7	"	"	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090368 - EPA 5035A							**Soil**					
Blank (3090368-BLK1)					Prepared: 09/17/13 09:00 Analyzed: 09/17/13 11:12							
cis-1,2-Dichloroethene	ND	---	16.7	ug/kg wet	"	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	16.7	"	"	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	16.7	"	"	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	16.7	"	"	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	33.3	"	"	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	33.3	"	"	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	33.3	"	"	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	33.3	"	"	---	---	---	---	---	---	
Ethylbenzene	ND	---	16.7	"	"	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	66.7	"	"	---	---	---	---	---	---	
2-Hexanone	ND	---	333	"	"	---	---	---	---	---	---	
Isopropylbenzene	ND	---	33.3	"	"	---	---	---	---	---	---	
4-Isopropyltoluene	ND	---	33.3	"	"	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	---	333	"	"	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	---	33.3	"	"	---	---	---	---	---	---	
Methylene chloride	ND	---	167	"	"	---	---	---	---	---	---	
Naphthalene	ND	---	66.7	"	"	---	---	---	---	---	---	
n-Propylbenzene	ND	---	16.7	"	"	---	---	---	---	---	---	
Styrene	ND	---	33.3	"	"	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	---	16.7	"	"	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	16.7	"	"	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	16.7	"	"	---	---	---	---	---	---	
Toluene	ND	---	33.3	"	"	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	167	"	"	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	167	"	"	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	16.7	"	"	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	16.7	"	"	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	16.7	"	"	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	66.7	"	"	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	33.3	"	"	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090368 - EPA 5035A							**Soil**					
Blank (3090368-BLK1)					Prepared: 09/17/13 09:00 Analyzed: 09/17/13 11:12							
1,2,4-Trimethylbenzene	ND	---	33.3	"	"	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	---	33.3	"	"	---	---	---	---	---	---	
Vinyl chloride	ND	---	16.7	"	"	---	---	---	---	---	---	
m,p-Xylene	ND	---	33.3	"	"	---	---	---	---	---	---	
o-Xylene	ND	---	16.7	"	"	---	---	---	---	---	---	
Surr: Dibromofluoromethane (Surr)			*Recovery: 98 %*	*Limits: 70-130 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Surr)			*102 %*	*70-130 %*			*"*					
Toluene-d8 (Surr)			*99 %*	*70-130 %*			*"*					
4-Bromofluorobenzene (Surr)			*91 %*	*70-130 %*			*"*					
LCS (3090368-BS1)					Prepared: 09/17/13 09:00 Analyzed: 09/17/13 10:21							
5035/8260B												
Acetone	2230	---	1000	ug/kg wet	50	2000	---	112	65-135%	---	---	
Benzene	980	---	12.5	"	"	1000	---	98	"	---	---	
Bromobenzene	1010	---	25.0	"	"	"	---	101	"	---	---	
Bromochloromethane	1130	---	50.0	"	"	"	---	113	"	---	---	
Bromodichloromethane	1050	---	50.0	"	"	"	---	105	"	---	---	
Bromoform	1040	---	50.0	"	"	"	---	104	"	---	---	
Bromomethane	996	---	500	"	"	"	---	100	"	---	---	
2-Butanone (MEK)	2050	---	500	"	"	2000	---	103	"	---	---	
n-Butylbenzene	1070	---	50.0	"	"	1000	---	107	"	---	---	
sec-Butylbenzene	1070	---	50.0	"	"	"	---	107	"	---	---	
tert-Butylbenzene	1080	---	50.0	"	"	"	---	108	"	---	---	
Carbon tetrachloride	1150	---	25.0	"	"	"	---	115	"	---	---	
Chlorobenzene	1010	---	25.0	"	"	"	---	101	"	---	---	
Chloroethane	2080	---	500	"	"	"	---	208	"	---	---	ESTb
Chloroform	1090	---	50.0	"	"	"	---	109	"	---	---	
Chloromethane	998	---	250	"	"	"	---	100	"	---	---	
2-Chlorotoluene	1020	---	50.0	"	"	"	---	102	"	---	---	
4-Chlorotoluene	1080	---	50.0	"	"	"	---	108	"	---	---	
1,2-Dibromo-3-chloropropane	840	---	250	"	"	"	---	84	"	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090368 - EPA 5035A							**Soil**					
LCS (3090368-BS1)					Prepared: 09/17/13 09:00		Analyzed: 09/17/13 10:21					
Dibromochloromethane	1120	---	100	ug/kg wet	"	"	---	112	"	---	---	
1,2-Dibromoethane (EDB)	1040	---	25.0	"	"	"	---	104	"	---	---	
Dibromomethane	1020	---	50.0	"	"	"	---	102	"	---	---	
1,2-Dichlorobenzene	1000	---	25.0	"	"	"	---	100	"	---	---	
1,3-Dichlorobenzene	1010	---	25.0	"	"	"	---	101	"	---	---	
1,4-Dichlorobenzene	1030	---	25.0	"	"	"	---	103	"	---	---	
Dichlorodifluoromethane	1130	---	100	"	"	"	---	113	"	---	---	
1,1-Dichloroethane	1050	---	25.0	"	"	"	---	105	"	---	---	
1,2-Dichloroethane (EDC)	1190	---	25.0	"	"	"	---	119	"	---	---	
1,1-Dichloroethene	1100	---	25.0	"	"	"	---	110	"	---	---	
cis-1,2-Dichloroethene	994	---	25.0	"	"	"	---	99	"	---	---	
trans-1,2-Dichloroethene	1040	---	25.0	"	"	"	---	104	"	---	---	
1,2-Dichloropropane	1060	---	25.0	"	"	"	---	106	"	---	---	
1,3-Dichloropropane	1030	---	25.0	"	"	"	---	103	"	---	---	
2,2-Dichloropropane	1060	---	50.0	"	"	"	---	106	"	---	---	
1,1-Dichloropropene	950	---	50.0	"	"	"	---	95	"	---	---	
cis-1,3-Dichloropropene	890	---	50.0	"	"	"	---	89	"	---	---	
trans-1,3-Dichloropropene	1110	---	50.0	"	"	"	---	111	"	---	---	
Ethylbenzene	1030	---	25.0	"	"	"	---	103	"	---	---	
Hexachlorobutadiene	964	---	100	"	"	"	---	96	"	---	---	
2-Hexanone	1920	---	500	"	"	2000	---	96	"	---	---	
Isopropylbenzene	1010	---	50.0	"	"	1000	---	101	"	---	---	
4-Isopropyltoluene	1050	---	50.0	"	"	"	---	105	"	---	---	
4-Methyl-2-pentanone (MiBK)	2250	---	500	"	"	2000	---	112	"	---	---	
Methyl tert-butyl ether (MTBE)	1020	---	50.0	"	"	1000	---	102	"	---	---	
Methylene chloride	998	---	250	"	"	"	---	100	"	---	---	
Naphthalene	864	---	100	"	"	"	---	86	"	---	---	
n-Propylbenzene	1100	---	25.0	"	"	"	---	110	"	---	---	
Styrene	1050	---	50.0	"	"	"	---	105	"	---	---	
1,1,1,2-Tetrachloroethane	1060	---	25.0	"	"	"	---	106	"	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090368 - EPA 5035A							**Soil**					
LCS (3090368-BS1)					Prepared: 09/17/13 09:00		Analyzed: 09/17/13 10:21					
1,1,2,2-Tetrachloroethane	1120	---	25.0	"	"	"	---	112	"	---	---	
Tetrachloroethene (PCE)	998	---	25.0	"	"	"	---	100	"	---	---	
Toluene	974	---	50.0	"	"	"	---	97	"	---	---	
1,2,3-Trichlorobenzene	892	---	250	"	"	"	---	89	"	---	---	
1,2,4-Trichlorobenzene	919	---	250	"	"	"	---	92	"	---	---	
1,1,1-Trichloroethane	1110	---	25.0	"	"	"	---	111	"	---	---	
1,1,2-Trichloroethane	1040	---	25.0	"	"	"	---	104	"	---	---	
Trichloroethene (TCE)	926	---	25.0	"	"	"	---	93	"	---	---	
Trichlorofluoromethane	1910	---	100	"	"	"	---	191	"	---	---	ESTb
1,2,3-Trichloropropane	1110	---	50.0	"	"	"	---	111	"	---	---	
1,2,4-Trimethylbenzene	1080	---	50.0	"	"	"	---	108	"	---	---	
1,3,5-Trimethylbenzene	1030	---	50.0	"	"	"	---	103	"	---	---	
Vinyl chloride	1210	---	25.0	"	"	"	---	121	"	---	---	
m,p-Xylene	2170	---	50.0	"	"	2000	---	108	"	---	---	
o-Xylene	978	---	25.0	"	"	1000	---	98	"	---	---	

Surr: Dibromofluoromethane (Surr)	*Recovery: 99 %*	*Limits: 70-130 %*	*Dilution: 1x*
1,4-Difluorobenzene (Surr)	*100 %*	*70-130 %*	*"*
Toluene-d8 (Surr)	*96 %*	*70-130 %*	*"*
4-Bromofluorobenzene (Surr)	*88 %*	*70-130 %*	*"*

Duplicate (3090368-DUP1)					Prepared: 09/17/13 11:30		Analyzed: 09/17/13 14:06					
QC Source Sample: SB-19-12.5' (A3I0315-07)												
5035/8260B												
Acetone	ND	---	1450	ug/kg dry	50	---	ND	---	---	---	30%	
Benzene	ND	---	18.1	"	"	---	ND	---	---	---	30%	
Bromobenzene	ND	---	36.2	"	"	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	72.5	"	"	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	72.5	"	"	---	ND	---	---	---	30%	
Bromoform	ND	---	72.5	"	"	---	ND	---	---	---	30%	
Bromomethane	ND	---	725	"	"	---	ND	---	---	---	30%	
2-Butanone (MEK)	ND	---	725	"	"	---	ND	---	---	---	30%	
n-Butylbenzene	ND	---	72.5	"	"	---	ND	---	---	---	30%	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

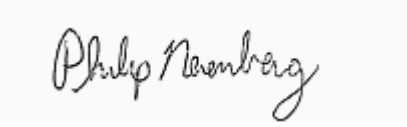
Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090368 - EPA 5035A							**Soil**					
Duplicate (3090368-DUP1)					Prepared: 09/17/13 11:30 Analyzed: 09/17/13 14:06							
QC Source Sample: SB-19-12.5' (A3I0315-07)												
sec-Butylbenzene	ND	---	72.5	ug/kg dry	"	---	ND	---	---	---	30%	
tert-Butylbenzene	ND	---	72.5	"	"	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	36.2	"	"	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	36.2	"	"	---	ND	---	---	---	30%	
Chloroethane	ND	---	725	"	"	---	ND	---	---	---	30%	
Chloroform	ND	---	72.5	"	"	---	ND	---	---	---	30%	
Chloromethane	ND	---	362	"	"	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	72.5	"	"	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	72.5	"	"	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	362	"	"	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	145	"	"	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	36.2	"	"	---	ND	---	---	---	30%	
Dibromomethane	ND	---	72.5	"	"	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	36.2	"	"	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	36.2	"	"	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	36.2	"	"	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	145	"	"	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	36.2	"	"	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	36.2	"	"	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	36.2	"	"	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	---	36.2	"	"	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	---	36.2	"	"	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	36.2	"	"	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	36.2	"	"	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	72.5	"	"	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	72.5	"	"	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	72.5	"	"	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	72.5	"	"	---	ND	---	---	---	30%	
Ethylbenzene	ND	---	36.2	"	"	---	ND	---	---	---	30%	

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

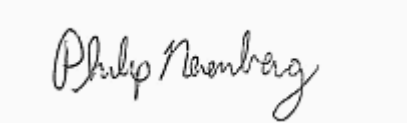
QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090368 - EPA 5035A							**Soil**					
Duplicate (3090368-DUP1)					Prepared: 09/17/13 11:30 Analyzed: 09/17/13 14:06							
QC Source Sample: SB-19-12.5' (A3I0315-07)												
Hexachlorobutadiene	ND	---	145	ug/kg dry	"	---	ND	---	---	---	30%	
2-Hexanone	ND	---	725	"	"	---	ND	---	---	---	30%	
Isopropylbenzene	ND	---	72.5	"	"	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	---	72.5	"	"	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	---	725	"	"	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	---	72.5	"	"	---	ND	---	---	---	30%	
Methylene chloride	ND	---	362	"	"	---	ND	---	---	---	30%	
Naphthalene	ND	---	145	"	"	---	ND	---	---	---	30%	
n-Propylbenzene	ND	---	36.2	"	"	---	ND	---	---	---	30%	
Styrene	ND	---	72.5	"	"	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	36.2	"	"	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	---	36.2	"	"	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	---	36.2	"	"	---	ND	---	---	---	30%	
Toluene	ND	---	72.5	"	"	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	---	362	"	"	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	362	"	"	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	36.2	"	"	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	36.2	"	"	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	---	36.2	"	"	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	---	145	"	"	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	72.5	"	"	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	---	72.5	"	"	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	---	72.5	"	"	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	36.2	"	"	---	ND	---	---	---	30%	
m,p-Xylene	ND	---	72.5	"	"	---	ND	---	---	---	30%	
o-Xylene	ND	---	36.2	"	"	---	ND	---	---	---	30%	

Surr: Dibromofluoromethane (Surr)	*Recovery: 99 %*	*Limits: 70-130 %*	*Dilution: 1x*
1,4-Difluorobenzene (Surr)	*103 %*	*70-130 %*	*"*
Toluene-d8 (Surr)	*101 %*	*70-130 %*	*"*

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090368 - EPA 5035A							**Soil**					
Duplicate (3090368-DUP1)						Prepared: 09/17/13 11:30 Analyzed: 09/17/13 14:06						
QC Source Sample: SB-19-12.5' (A3I0315-07)												
Surr: 4-Bromofluorobenzene (Surr)			*Recovery: 92 %*	*Limits: 70-130 %*			*Dilution: 1x*					

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

QUALITY CONTROL (QC) SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090444 - EPA 3546							**Soil**					
Blank (3090444-BLK1)					Prepared: 09/19/13 12:14		Analyzed: 09/20/13 09:48					**C-07**
EPA 8082A												
Aroclor 1016	ND	---	8.33	ug/kg wet	1	---	---	---	---	---	---	
Aroclor 1221	ND	---	8.33	"	"	---	---	---	---	---	---	
Aroclor 1232	ND	---	8.33	"	"	---	---	---	---	---	---	
Aroclor 1242	ND	---	8.33	"	"	---	---	---	---	---	---	
Aroclor 1248	ND	---	8.33	"	"	---	---	---	---	---	---	
Aroclor 1254	ND	---	8.33	"	"	---	---	---	---	---	---	
Aroclor 1260	ND	---	8.33	"	"	---	---	---	---	---	---	
Surr: Decachlorobiphenyl (Surr)			*Recovery: 109 %*	*Limits: 60-125 %*			*Dilution: 1x*					*Q-23*
LCS (3090444-BS1)					Prepared: 09/19/13 12:14		Analyzed: 09/20/13 10:07					**C-07**
EPA 8082A												
Aroclor 1016	260	---	10.0	ug/kg wet	1	250	---	104	40-140%	---	---	
Aroclor 1260	246	---	10.0	"	"	"	---	99	60-130%	---	---	
Surr: Decachlorobiphenyl (Surr)			*Recovery: 109 %*	*Limits: 60-125 %*			*Dilution: 1x*					*Q-23*

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

QUALITY CONTROL (QC) SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090586 - EPA 3546							**Soil**					
Blank (3090586-BLK1)					Prepared: 09/25/13 10:29		Analyzed: 09/25/13 14:49					**C-07**
EPA 8082A												
Aroclor 1016	ND	---	8.33	ug/kg wet	1	---	---	---	---	---	---	
Aroclor 1221	ND	---	8.33	"	"	---	---	---	---	---	---	
Aroclor 1232	ND	---	8.33	"	"	---	---	---	---	---	---	
Aroclor 1242	ND	---	8.33	"	"	---	---	---	---	---	---	
Aroclor 1248	ND	---	8.33	"	"	---	---	---	---	---	---	
Aroclor 1254	ND	---	8.33	"	"	---	---	---	---	---	---	
Aroclor 1260	ND	---	8.33	"	"	---	---	---	---	---	---	
Surr: Decachlorobiphenyl (Surr)			*Recovery: 108 %*	*Limits: 60-125 %*			*Dilution: 1x*					
LCS (3090586-BS1)					Prepared: 09/25/13 10:29		Analyzed: 09/25/13 15:07					**C-07**
EPA 8082A												
Aroclor 1016	213	---	10.0	ug/kg wet	1	250	---	85	40-140%	---	---	
Aroclor 1260	203	---	10.0	"	"	"	---	81	60-130%	---	---	
Surr: Decachlorobiphenyl (Surr)			*Recovery: 106 %*	*Limits: 60-125 %*			*Dilution: 1x*					
Duplicate (3090586-DUP1)					Prepared: 09/25/13 10:29		Analyzed: 09/25/13 16:37					**C-07**
QC Source Sample: SB-10-10' (A3I0315-01RE2)												
EPA 8082A												
Aroclor 1016	ND	---	13.5	ug/kg dry	1	---	ND	---	---	---	30%	
Aroclor 1221	ND	---	13.5	"	"	---	ND	---	---	---	30%	
Aroclor 1232	ND	---	13.5	"	"	---	ND	---	---	---	30%	
Aroclor 1242	ND	---	13.5	"	"	---	ND	---	---	---	30%	
Aroclor 1248	ND	---	13.5	"	"	---	ND	---	---	---	30%	
Aroclor 1254	ND	---	13.5	"	"	---	ND	---	---	---	30%	
Aroclor 1260	ND	---	13.5	"	"	---	ND	---	---	---	30%	
Surr: Decachlorobiphenyl (Surr)			*Recovery: 84 %*	*Limits: 60-125 %*			*Dilution: 1x*					

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090402 - EPA 3546							**Soil**					
Blank (3090402-BLK1)						Prepared: 09/18/13 07:25	Analyzed: 09/18/13 15:49					
EPA 8270D												
Acenaphthene	ND	---	208	ug/kg wet	1	---	---	---	---	---	---	
Acenaphthylene	ND	---	208	"	"	---	---	---	---	---	---	
Aniline	ND	---	208	"	"	---	---	---	---	---	---	
Anthracene	ND	---	208	"	"	---	---	---	---	---	---	
Azobenzene (1,2-DPH)	ND	---	208	"	"	---	---	---	---	---	---	
Benz(a)anthracene	ND	---	208	"	"	---	---	---	---	---	---	
Benzo(a)pyrene	ND	---	208	"	"	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	---	208	"	"	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	---	208	"	"	---	---	---	---	---	---	
Benzo(b+k)fluoranthene(s)	ND	---	417	"	"	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	---	208	"	"	---	---	---	---	---	---	
Benzoic acid	ND	---	1040	"	"	---	---	---	---	---	---	
Benzyl alcohol	ND	---	208	"	"	---	---	---	---	---	---	
Bis(2-Chloroethoxy) methane	ND	---	208	"	"	---	---	---	---	---	---	
Bis(2-Chloroethyl) ether	ND	---	208	"	"	---	---	---	---	---	---	
Bis(2-Chloroisopropyl) ether	ND	---	208	"	"	---	---	---	---	---	---	
Bis(2-Ethylhexyl) adipate	ND	---	208	"	"	---	---	---	---	---	---	
Bis(2-ethylhexyl)phthalate	ND	---	208	"	"	---	---	---	---	---	---	
4-Bromophenyl phenyl ether	ND	---	208	"	"	---	---	---	---	---	---	
Butyl benzyl phthalate	ND	---	208	"	"	---	---	---	---	---	---	
Carbazole	ND	---	208	"	"	---	---	---	---	---	---	
4-Chloroaniline	ND	---	208	"	"	---	---	---	---	---	---	
4-Chloro-3-methylphenol	ND	---	208	"	"	---	---	---	---	---	---	
2-Chloronaphthalene	ND	---	208	"	"	---	---	---	---	---	---	
2-Chlorophenol	ND	---	208	"	"	---	---	---	---	---	---	
4-Chlorophenyl phenyl ether	ND	---	208	"	"	---	---	---	---	---	---	
Chrysene	ND	---	208	"	"	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	---	208	"	"	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

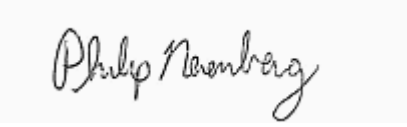
Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090402 - EPA 3546							**Soil**					
Blank (3090402-BLK1)					Prepared: 09/18/13 07:25 Analyzed: 09/18/13 15:49							
Dibenzofuran	ND	---	208	"	"	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	208	"	"	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	208	"	"	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	208	"	"	---	---	---	---	---	---	
2,4-Dichlorophenol	ND	---	208	"	"	---	---	---	---	---	---	
Di-n-butylphthalate	ND	---	208	"	"	---	---	---	---	---	---	
Diethylphthalate	ND	---	208	"	"	---	---	---	---	---	---	
Dimethylphthalate	ND	---	208	"	"	---	---	---	---	---	---	
2,4-Dimethylphenol	ND	---	208	"	"	---	---	---	---	---	---	
1,2-Dinitrobenzene	ND	---	208	"	"	---	---	---	---	---	---	
1,3-Dinitrobenzene	ND	---	208	"	"	---	---	---	---	---	---	
1,4-Dinitrobenzene	ND	---	208	"	"	---	---	---	---	---	---	
4,6-Dinitro-2-methylphenol	ND	---	500	"	"	---	---	---	---	---	---	
2,4-Dinitrophenol	ND	---	208	"	"	---	---	---	---	---	---	
2,4-Dinitrotoluene	ND	---	208	"	"	---	---	---	---	---	---	
2,6-Dinitrotoluene	ND	---	208	"	"	---	---	---	---	---	---	
Di-n-octyl phthalate	ND	---	208	"	"	---	---	---	---	---	---	
Fluoranthene	ND	---	208	"	"	---	---	---	---	---	---	
Fluorene	ND	---	208	"	"	---	---	---	---	---	---	
Hexachlorobenzene	ND	---	208	"	"	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	208	"	"	---	---	---	---	---	---	
Hexachlorocyclopentadiene	ND	---	208	"	"	---	---	---	---	---	---	
Hexachloroethane	ND	---	208	"	"	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	---	208	"	"	---	---	---	---	---	---	
Isophorone	ND	---	208	"	"	---	---	---	---	---	---	
1-Methylnaphthalene	ND	---	208	"	"	---	---	---	---	---	---	
2-Methylnaphthalene	ND	---	208	"	"	---	---	---	---	---	---	
2-Methylphenol	ND	---	208	"	"	---	---	---	---	---	---	
3+4-Methylphenol(s)	ND	---	208	"	"	---	---	---	---	---	---	
Naphthalene	ND	---	208	"	"	---	---	---	---	---	---	
2-Nitroaniline	ND	---	208	"	"	---	---	---	---	---	---	

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

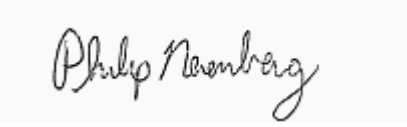
Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090402 - EPA 3546							**Soil**					
Blank (3090402-BLK1)					Prepared: 09/18/13 07:25 Analyzed: 09/18/13 15:49							
3-Nitroaniline	ND	---	208	ug/kg wet	"	---	---	---	---	---	---	
4-Nitroaniline	ND	---	208	"	"	---	---	---	---	---	---	
Nitrobenzene	ND	---	208	"	"	---	---	---	---	---	---	
2-Nitrophenol	ND	---	208	"	"	---	---	---	---	---	---	
4-Nitrophenol	ND	---	208	"	"	---	---	---	---	---	---	
N-Nitrosodimethylamine	ND	---	208	"	"	---	---	---	---	---	---	
N-Nitroso-di-n-propylamine	ND	---	208	"	"	---	---	---	---	---	---	
N-Nitrosodiphenylamine	ND	---	208	"	"	---	---	---	---	---	---	
Pentachlorophenol (PCP)	ND	---	208	"	"	---	---	---	---	---	---	
Phenanthrene	ND	---	208	"	"	---	---	---	---	---	---	
Phenol	ND	---	208	"	"	---	---	---	---	---	---	
Pyrene	ND	---	208	"	"	---	---	---	---	---	---	
Pyridine	ND	---	417	"	"	---	---	---	---	---	---	
2,3,4,6-Tetrachlorophenol	ND	---	208	"	"	---	---	---	---	---	---	
2,3,5,6-Tetrachlorophenol	ND	---	208	"	"	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	208	"	"	---	---	---	---	---	---	
2,4,5-Trichlorophenol	ND	---	208	"	"	---	---	---	---	---	---	
2,4,6-Trichlorophenol	ND	---	208	"	"	---	---	---	---	---	---	
Surr: Nitrobenzene-d5 (Surr)			*Recovery: 91 %*	*Limits: 35-120 %*			*Dilution: 1x*					
2-Fluorobiphenyl (Surr)			*85 %*	*45-120 %*			*"*					
Phenol-d6 (Surr)			*97 %*	*40-120 %*			*"*					
p-Terphenyl-d14 (Surr)			*92 %*	*30-125 %*			*"*					
2-Fluorophenol (Surr)			*89 %*	*35-120 %*			*"*					
2,4,6-Tribromophenol (Surr)			*80 %*	*35-125 %*			*"*					
LCS (3090402-BS1)					Prepared: 09/18/13 07:25 Analyzed: 09/18/13 16:25							
EPA 8270D												
Acenaphthene	738	---	500	ug/kg wet	2	800	---	92	45-125%	---	---	
Acenaphthylene	784	---	500	"	"	"	---	98	"	---	---	
Aniline	561	---	500	"	"	"	---	70	40-120%	---	---	Q-31
Anthracene	764	---	500	"	"	"	---	95	55-125%	---	---	
Azobenzene (1,2-DPH)	826	---	500	"	"	"	---	103	25-120%	---	---	

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

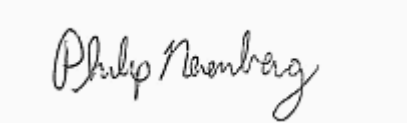
Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090402 - EPA 3546							**Soil**					
LCS (3090402-BS1)					Prepared: 09/18/13 07:25 Analyzed: 09/18/13 16:25							
Benz(a)anthracene	726	---	500	ug/kg wet	"	"	---	91	50-125%	---	---	
Benzo(a)pyrene	767	---	500	"	"	"	---	96	"	---	---	
Benzo(b)fluoranthene	738	---	500	"	"	"	---	92	45-125%	---	---	
Benzo(k)fluoranthene	715	---	500	"	"	"	---	89	"	---	---	
Benzo(b+k)fluoranthene(s)	1450	---	1000	"	"	1600	---	91	"	---	---	
Benzo(g,h,i)perylene	759	---	500	"	"	800	---	95	40-125%	---	---	
Benzoic acid	ND	---	2500	"	"	1600	---	64	10-120%	---	---	
Benzyl alcohol	721	---	500	"	"	800	---	90	20-125%	---	---	
Bis(2-Chloroethoxy) methane	764	---	500	"	"	"	---	96	45-120%	---	---	
Bis(2-Chloroethyl) ether	726	---	500	"	"	"	---	91	40-120%	---	---	
Bis(2-Chloroisopropyl) ether	785	---	500	"	"	"	---	98	20-120%	---	---	
Bis(2-Ethylhexyl) adipate	671	---	500	"	"	"	---	84	40-120%	---	---	
Bis(2-ethylhexyl)phthalate	650	---	500	"	"	"	---	81	45-125%	---	---	
4-Bromophenyl phenyl ether	715	---	500	"	"	"	---	89	45-120%	---	---	
Butyl benzyl phthalate	714	---	500	"	"	"	---	89	50-125%	---	---	
Carbazole	878	---	500	"	"	"	---	110	45-125%	---	---	
4-Chloroaniline	509	---	500	"	"	"	---	64	10-120%	---	---	Q-31
4-Chloro-3-methylphenol	806	---	500	"	"	"	---	101	45-120%	---	---	
2-Chloronaphthalene	745	---	500	"	"	"	---	93	"	---	---	
2-Chlorophenol	722	---	500	"	"	"	---	90	"	---	---	
4-Chlorophenyl phenyl ether	754	---	500	"	"	"	---	94	"	---	---	
Chrysene	736	---	500	"	"	"	---	92	55-125%	---	---	
Dibenz(a,h)anthracene	724	---	500	"	"	"	---	90	40-125%	---	---	
Dibenzofuran	770	---	500	"	"	"	---	96	50-125%	---	---	
1,2-Dichlorobenzene	655	---	500	"	"	"	---	82	45-120%	---	---	
1,3-Dichlorobenzene	645	---	500	"	"	"	---	81	40-120%	---	---	
1,4-Dichlorobenzene	647	---	500	"	"	"	---	81	35-120%	---	---	
2,4-Dichlorophenol	755	---	500	"	"	"	---	94	45-120%	---	---	
Di-n-butylphthalate	815	---	500	"	"	"	---	102	55-120%	---	---	

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090402 - EPA 3546							**Soil**					
LCS (3090402-BS1)					Prepared: 09/18/13 07:25	Analyzed: 09/18/13 16:25						
Diethylphthalate	799	---	500	"	"	"	---	100	50-120%	---	---	
Dimethylphthalate	763	---	500	"	"	"	---	95	"	---	---	
2,4-Dimethylphenol	733	---	500	"	"	"	---	92	30-120%	---	---	
1,2-Dinitrobenzene	796	---	500	"	"	"	---	99	40-120%	---	---	
1,3-Dinitrobenzene	777	---	500	"	"	"	---	97	"	---	---	
1,4-Dinitrobenzene	776	---	500	"	"	"	---	97	"	---	---	
4,6-Dinitro-2-methylphenol	ND	---	1200	"	"	"	---	107	30-135%	---	---	
2,4-Dinitrophenol	875	---	500	"	"	"	---	109	15-130%	---	---	
2,4-Dinitrotoluene	734	---	500	"	"	"	---	92	50-120%	---	---	
2,6-Dinitrotoluene	713	---	500	"	"	"	---	89	"	---	---	
Di-n-octyl phthalate	644	---	500	"	"	"	---	81	40-130%	---	---	
Fluoranthene	777	---	500	"	"	"	---	97	55-125%	---	---	
Fluorene	781	---	500	"	"	"	---	98	50-125%	---	---	
Hexachlorobenzene	683	---	500	"	"	"	---	85	45-120%	---	---	
Hexachlorobutadiene	628	---	500	"	"	"	---	79	40-120%	---	---	
Hexachlorocyclopentadiene	740	---	500	"	"	"	---	92	"	---	---	
Hexachloroethane	648	---	500	"	"	"	---	81	35-120%	---	---	
Indeno(1,2,3-cd)pyrene	682	---	500	"	"	"	---	85	40-125%	---	---	
Isophorone	767	---	500	"	"	"	---	96	45-120%	---	---	
1-Methylnaphthalene	745	---	500	"	"	"	---	93	45-125%	---	---	
2-Methylnaphthalene	754	---	500	"	"	"	---	94	"	---	---	
2-Methylphenol	762	---	500	"	"	"	---	95	40-120%	---	---	
3+4-Methylphenol(s)	808	---	500	"	"	"	---	101	"	---	---	
Naphthalene	710	---	500	"	"	"	---	89	40-125%	---	---	
2-Nitroaniline	767	---	500	"	"	"	---	96	45-120%	---	---	
3-Nitroaniline	787	---	500	"	"	"	---	98	25-120%	---	---	
4-Nitroaniline	647	---	500	"	"	"	---	81	35-120%	---	---	Q-41
Nitrobenzene	769	---	500	"	"	"	---	96	40-120%	---	---	
2-Nitrophenol	811	---	500	"	"	"	---	101	"	---	---	
4-Nitrophenol	828	---	500	"	"	"	---	103	15-140%	---	---	
N-Nitrosodimethylamine	730	---	500	"	"	"	---	91	20-120%	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

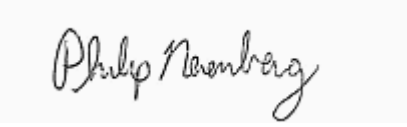
QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090402 - EPA 3546							**Soil**					
LCS (3090402-BS1)						Prepared: 09/18/13 07:25	Analyzed: 09/18/13 16:25					
N-Nitroso-di-n-propylamine	786	---	500	ug/kg wet	"	"	---	98	40-120%	---	---	
N-Nitrosodiphenylamine	802	---	500	"	"	"	---	100	50-120%	---	---	
Pentachlorophenol (PCP)	665	---	500	"	"	"	---	83	25-120%	---	---	
Phenanthrene	731	---	500	"	"	"	---	91	50-125%	---	---	
Phenol	789	---	500	"	"	"	---	99	40-120%	---	---	
Pyrene	788	---	500	"	"	"	---	99	45-125%	---	---	
Pyridine	ND	---	1000	"	"	"	---	78	40-120%	---	---	
2,3,4,6-Tetrachlorophenol	815	---	500	"	"	"	---	102	"	---	---	
2,3,5,6-Tetrachlorophenol	719	---	500	"	"	"	---	90	"	---	---	
1,2,4-Trichlorobenzene	679	---	500	"	"	"	---	85	45-120%	---	---	
2,4,5-Trichlorophenol	710	---	500	"	"	"	---	89	50-120%	---	---	
2,4,6-Trichlorophenol	786	---	500	"	"	"	---	98	45-120%	---	---	

Surr: Nitrobenzene-d5 (Surr)	*Recovery: 92 %*	*Limits: 35-120 %*	*Dilution: 2x*
2-Fluorobiphenyl (Surr)	*86 %*	*45-120 %*	*"*
Phenol-d6 (Surr)	*98 %*	*40-120 %*	*"*
p-Terphenyl-d14 (Surr)	*85 %*	*30-125 %*	*"*
2-Fluorophenol (Surr)	*89 %*	*35-120 %*	*"*
2,4,6-Tribromophenol (Surr)	*90 %*	*35-125 %*	*"*

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090401 - EPA 3546							**Soil**					
Blank (3090401-BLK1)					Prepared: 09/18/13 07:22 Analyzed: 09/18/13 14:15							
EPA 8270D (SIM)												
Acenaphthene	ND	---	8.33	ug/kg wet	1	---	---	---	---	---	---	
Acenaphthylene	ND	---	8.33	"	"	---	---	---	---	---	---	
Anthracene	ND	---	8.33	"	"	---	---	---	---	---	---	
Benz(a)anthracene	ND	---	8.33	"	"	---	---	---	---	---	---	
Benzo(a)pyrene	ND	---	8.33	"	"	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	---	8.33	"	"	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	---	8.33	"	"	---	---	---	---	---	---	
Benzo(b+k)fluoranthene(s)	ND	---	16.7	"	"	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	---	8.33	"	"	---	---	---	---	---	---	
Chrysene	ND	---	8.33	"	"	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	---	8.33	"	"	---	---	---	---	---	---	
Dibenzofuran	ND	---	8.33	"	"	---	---	---	---	---	---	
Fluoranthene	ND	---	8.33	"	"	---	---	---	---	---	---	
Fluorene	ND	---	8.33	"	"	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	---	8.33	"	"	---	---	---	---	---	---	
1-Methylnaphthalene	ND	---	8.33	"	"	---	---	---	---	---	---	
2-Methylnaphthalene	ND	---	8.33	"	"	---	---	---	---	---	---	
Naphthalene	ND	---	8.33	"	"	---	---	---	---	---	---	
Phenanthrene	ND	---	8.33	"	"	---	---	---	---	---	---	
Pyrene	ND	---	8.33	"	"	---	---	---	---	---	---	
Surr: 2-Fluorobiphenyl (Surr)			*Recovery: 72 %*	*Limits: 45-120 %*			*Dilution: 1x*					
p-Terphenyl-d14 (Surr)			*102 %*	*30-120 %*			*"*					
LCS (3090401-BS1)					Prepared: 09/18/13 07:22 Analyzed: 09/18/13 14:41							
EPA 8270D (SIM)												
Acenaphthene	663	---	10.0	ug/kg wet	1	800	---	83	45-125%	---	---	
Acenaphthylene	686	---	10.0	"	"	"	---	86	"	---	---	
Anthracene	694	---	10.0	"	"	"	---	87	55-125%	---	---	
Benz(a)anthracene	658	---	10.0	"	"	"	---	82	50-125%	---	---	
Benzo(a)pyrene	708	---	10.0	"	"	"	---	89	"	---	---	
Benzo(b)fluoranthene	754	---	10.0	"	"	"	---	94	45-125%	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

QUALITY CONTROL (QC) SAMPLE RESULTS

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090401 - EPA 3546							**Soil**					
LCS (3090401-BS1)					Prepared: 09/18/13 07:22		Analyzed: 09/18/13 14:41					
Benzo(k)fluoranthene	713	---	10.0	"	"	"	---	89	"	---	---	
Benzo(b+k)fluoranthene(s)	1460	---	20.0	"	"	1600	---	91	"	---	---	
Benzo(g,h,i)perylene	669	---	10.0	"	"	800	---	84	40-125%	---	---	
Chrysene	652	---	10.0	"	"	"	---	81	55-125%	---	---	
Dibenz(a,h)anthracene	656	---	10.0	"	"	"	---	82	40-125%	---	---	
Dibenzofuran	678	---	10.0	"	"	"	---	85	50-125%	---	---	
Fluoranthene	687	---	10.0	"	"	"	---	86	55-125%	---	---	
Fluorene	697	---	10.0	"	"	"	---	87	50-125%	---	---	
Indeno(1,2,3-cd)pyrene	645	---	10.0	"	"	"	---	81	40-125%	---	---	
1-Methylnaphthalene	678	---	10.0	"	"	"	---	85	45-125%	---	---	
2-Methylnaphthalene	677	---	10.0	"	"	"	---	85	"	---	---	
Naphthalene	634	---	10.0	"	"	"	---	79	40-125%	---	---	
Phenanthrene	649	---	10.0	"	"	"	---	81	50-125%	---	---	
Pyrene	680	---	10.0	"	"	"	---	85	45-125%	---	---	

Surr: 2-Fluorobiphenyl (Surr)	*Recovery: 75 %*	*Limits: 45-120 %*	*Dilution: 1x*
p-Terphenyl-d14 (Surr)	*90 %*	*30-120 %*	*"*

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

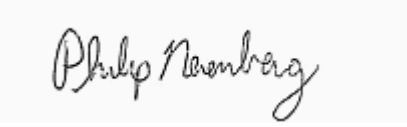
Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090527 - EPA 3051A							**Soil**					
Blank (3090527-BLK1)					Prepared: 09/23/13 13:46		Analyzed: 09/24/13 17:07					
EPA 6020A												
Arsenic	ND	---	1.00	mg/kg wet	10	---	---	---	---	---	---	
Barium	ND	---	1.00	"	"	---	---	---	---	---	---	
Cadmium	ND	---	0.200	"	"	---	---	---	---	---	---	
Chromium	ND	---	1.00	"	"	---	---	---	---	---	---	
Lead	ND	---	0.200	"	"	---	---	---	---	---	---	
Mercury	ND	---	0.0800	"	"	---	---	---	---	---	---	
Selenium	ND	---	1.00	"	"	---	---	---	---	---	---	
Silver	ND	---	0.200	"	"	---	---	---	---	---	---	
LCS (3090527-BS1)					Prepared: 09/23/13 13:46		Analyzed: 09/24/13 17:10					
EPA 6020A												
Arsenic	51.9	---	1.00	mg/kg wet	10	50.0	---	104	80-120%	---	---	
Barium	50.7	---	1.00	"	"	"	---	101	"	---	---	
Cadmium	52.4	---	0.200	"	"	"	---	105	"	---	---	
Chromium	49.5	---	1.00	"	"	"	---	99	"	---	---	
Lead	49.6	---	0.200	"	"	"	---	99	"	---	---	
Mercury	0.982	---	0.0800	"	"	1.00	---	98	"	---	---	
Selenium	26.7	---	1.00	"	"	25.0	---	107	"	---	---	
Silver	24.7	---	0.200	"	"	"	---	99	"	---	---	
Duplicate (3090527-DUP1)					Prepared: 09/23/13 13:46		Analyzed: 09/24/13 17:31					
QC Source Sample: SB-11-10' (A3I0315-02)												
EPA 6020A												
Arsenic	**4.96**	---	1.46	mg/kg dry	10	---	3.92	---	---	23	40%	
Barium	**149**	---	1.46	"	"	---	138	---	---	7	40%	
Cadmium	**0.423**	---	0.292	"	"	---	0.344	---	---	20	40%	
Chromium	**19.1**	---	1.46	"	"	---	15.5	---	---	21	40%	
Lead	**9.83**	---	0.292	"	"	---	9.51	---	---	3	40%	
Mercury	ND	---	0.117	"	"	---	ND	---	---	---	40%	
Selenium	ND	---	1.46	"	"	---	ND	---	---	---	40%	
Silver	ND	---	0.292	"	"	---	ND	---	---	---	40%	

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090527 - EPA 3051A							**Soil**					
Matrix Spike (3090527-MS1)						Prepared: 09/23/13 13:46	Analyzed: 09/24/13 17:34					
QC Source Sample: SB-11-10' (A3I0315-02)												
EPA 6020A												
Arsenic	77.4	---	1.44	mg/kg dry	10	71.8	3.92	102	75-125%	---	---	
Barium	215	---	1.44	"	"	"	138	107	"	---	---	
Cadmium	74.1	---	0.287	"	"	"	0.344	103	"	---	---	
Chromium	88.4	---	1.44	"	"	"	15.5	101	"	---	---	
Lead	78.8	---	0.287	"	"	"	9.51	97	"	---	---	
Mercury	1.41	---	0.115	"	"	1.44	ND	98	"	---	---	
Selenium	37.5	---	1.44	"	"	35.9	ND	104	"	---	---	
Silver	35.3	---	0.287	"	"	"	ND	98	"	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

QUALITY CONTROL (QC) SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090412 - Total Solids (Dry Weight)							**Soil**					
Duplicate (3090412-DUP1)					Prepared: 09/18/13 12:18		Analyzed: 09/19/13 10:51					
QC Source Sample: SB-19-12.5' (A3I0315-07)												
Apex SOP												
% Solids	**75.1**	---	1.00	% by Weight	1	---	74.9	---	---	0.3	20%	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

SAMPLE PREPARATION INFORMATION

Hydrocarbon Identification Screen by NWTPH-HCID

Prep: NWTPH-HCID (Soil)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3090395							
A3I0315-01	Soil	NWTPH-HCID	09/16/13 11:30	09/17/13 18:37	10.62g/10mL	10g/10mL	0.94
A3I0315-02	Soil	NWTPH-HCID	09/16/13 13:10	09/17/13 18:37	10.21g/10mL	10g/10mL	0.98
A3I0315-06	Soil	NWTPH-HCID	09/16/13 14:55	09/17/13 18:37	10.93g/10mL	10g/10mL	0.92
A3I0315-07	Soil	NWTPH-HCID	09/16/13 14:05	09/17/13 18:37	9.1g/10mL	10g/10mL	1.10

Diesel and Oil Hydrocarbons by NWTPH-Dx with Silica Gel Cleanup

Prep: EPA 3546 (Fuels)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3090454							
A3I0315-03	Soil	NWTPH-Dx/SG	09/16/13 09:10	09/19/13 14:56	13.73g/5mL	10g/5mL	0.73
A3I0315-04	Soil	NWTPH-Dx/SG	09/16/13 09:35	09/19/13 14:56	11.33g/5mL	10g/5mL	0.88
A3I0315-05	Soil	NWTPH-Dx/SG	09/16/13 10:15	09/19/13 14:56	14.5g/5mL	10g/5mL	0.69

BTEX Compounds by EPA 8260B

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3090367							
A3I0315-03	Soil	5035/8260B	09/16/13 09:10	09/17/13 11:30	11.47g/10mL	10g/10mL	0.87
A3I0315-04	Soil	5035/8260B	09/16/13 09:35	09/17/13 11:30	12.864g/10mL	10g/10mL	0.78
Batch: 3090368							
A3I0315-05	Soil	5035/8260B	09/16/13 10:15	09/17/13 11:30	11.924g/10mL	10g/10mL	0.84

Volatile Organic Compounds by EPA 8260B

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3090367							
A3I0315-01	Soil	5035/8260B	09/16/13 11:30	09/17/13 11:30	11.631g/10mL	10g/10mL	0.86
A3I0315-02	Soil	5035/8260B	09/16/13 13:10	09/17/13 11:30	12.75g/10mL	10g/10mL	0.78
Batch: 3090368							
A3I0315-06	Soil	5035/8260B	09/16/13 14:55	09/17/13 11:30	11.435g/10mL	10g/10mL	0.88
A3I0315-07	Soil	5035/8260B	09/16/13 14:05	09/17/13 11:30	11.977g/10mL	10g/10mL	0.84

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

SAMPLE PREPARATION INFORMATION

Polychlorinated Biphenyls by EPA 8082A

Prep: EPA 3546

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3090586							
A3I0315-01RE2	Soil	EPA 8082A	09/16/13 11:30	09/25/13 10:29	11.05g/5mL	10g/5mL	0.91
A3I0315-02RE2	Soil	EPA 8082A	09/16/13 13:10	09/25/13 10:29	10.6g/5mL	10g/5mL	0.94
A3I0315-06RE2	Soil	EPA 8082A	09/16/13 14:55	09/25/13 10:29	10.27g/5mL	10g/5mL	0.97
A3I0315-07RE2	Soil	EPA 8082A	09/16/13 14:05	09/25/13 10:29	10.91g/5mL	10g/5mL	0.92

Semivolatile Organic Compounds by EPA 8270D

Prep: EPA 3546

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3090402							
A3I0315-01RE2	Soil	EPA 8270D	09/16/13 11:30	09/18/13 07:25	10.36g/5mL	10g/5mL	0.97
A3I0315-02RE2	Soil	EPA 8270D	09/16/13 13:10	09/18/13 07:25	10.82g/5mL	10g/5mL	0.92
A3I0315-06RE1	Soil	EPA 8270D	09/16/13 14:55	09/18/13 07:25	11.28g/5mL	10g/5mL	0.89
A3I0315-07RE1	Soil	EPA 8270D	09/16/13 14:05	09/18/13 07:25	11.16g/5mL	10g/5mL	0.90

Polyaromatic Hydrocarbons (PAHs) by EPA 8270D SIM

Prep: EPA 3546

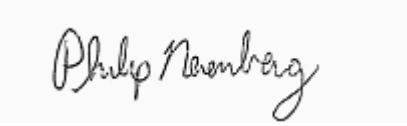
Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3090401							
A3I0315-03	Soil	EPA 8270D (SIM)	09/16/13 09:10	09/18/13 07:22	11.13g/5mL	10g/5mL	0.90
A3I0315-04	Soil	EPA 8270D (SIM)	09/16/13 09:35	09/18/13 07:22	10.11g/5mL	10g/5mL	0.99
A3I0315-05	Soil	EPA 8270D (SIM)	09/16/13 10:15	09/18/13 07:22	11.79g/5mL	10g/5mL	0.85

Total Metals by EPA 6020 (ICPMS)

Prep: EPA 3051A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3090527							
A3I0315-01	Soil	EPA 6020A	09/16/13 11:30	09/23/13 13:46	0.471g/50mL	0.5g/50mL	1.06
A3I0315-02	Soil	EPA 6020A	09/16/13 13:10	09/23/13 13:46	0.511g/50mL	0.5g/50mL	0.98
A3I0315-06	Soil	EPA 6020A	09/16/13 14:55	09/23/13 13:46	0.517g/50mL	0.5g/50mL	0.97
A3I0315-07	Soil	EPA 6020A	09/16/13 14:05	09/23/13 13:46	0.463g/50mL	0.5g/50mL	1.08

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

Notes and Definitions

Qualifiers:

C-07	Extract has undergone Sulfuric Acid Cleanup by EPA 3665A, Sulfur Cleanup by EPA 3660B, and Florisil Cleanup by EPA 3620B in order to minimize matrix interference.
ESTb	Result reported as an Estimated Value. Recovery for Lab Control Spike (LCS) is above the upper control limit. Data may be biased high.
Q-23	Recovery of Continuing Calibration Verification sample above upper control limit for this analyte. Data is likely biased high.
Q-26	Peak separation for Benzo(b) and Benzo(k)fluoranthenes does not meet method specified criteria. Reported result includes the combined area of the two isomers and should be considered the total of Benzo(b+k)Fluoranthenes.
Q-29	Recovery for Lab Control Spike (LCS) is above the upper control limit. Data may be biased high.
Q-31	Estimated Results. Recovery of Continuing Calibration Verification sample below lower control limit for this analyte. Results are likely biased low.
Q-41	Estimated Results. Recovery of Continuing Calibration Verification sample above upper control limit for this analyte. Results are likely biased high.
V-15	Sample aliquot was subsampled from the sample container. The subsampled aliquot was preserved in the laboratory within 48 hours of sampling.

Notes and Conventions:

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis. Results listed as 'wet' or without 'dry'designation are not dry weight corrected.
RPD	Relative Percent Difference
MDL	If MDL is not listed, data has been evaluated to the Method Reporting Limit only.
WMSC	Water Miscible Solvent Correction has been applied to Results and MRLs for volatiles soil samples per EPA 8000C.
Batch QC	Unless specifically requested, this report contains only results for Batch QC derived from client samples included in this report. All analyses were performed with the appropriate Batch QC (including Sample Duplicates, Matrix Spikes and/or Matrix Spike Duplicates) in order to meet or exceed method and regulatory requirements. Any exceptions to this will be qualified in this report. Complete Batch QC results are available upon request. In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) is analyzed to demonstrate accuracy and precision of the extraction and analysis.
Blank Policy	Apex assesses blank data for potential high bias down to a level equal to ½ the method reporting limit (MRL), except for conventional chemistry and HCID analyses which are assessed only to the MRL. Sample results flagged with a B or B-02 qualifier are potentially biased high if they are less than ten times the level found in the blank for inorganic analyses or less than five times the level found in the blank for organic analyses. For accurate comparison of volatile results to the level found in the blank; water sample results should be divided by the dilution factor, and soil sample results should be divided by 1/50 of the sample dilution to account for the sample prep factor. Results qualified as reported below the MRL may include a potential high bias if associated with a B or B-02 qualified blank. B and B-02 qualifications are not applied to J qualified results reported below the MRL.

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	09/27/13 15:50

--- QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

*** Used to indicate a possible discrepency with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Apex Laboratories

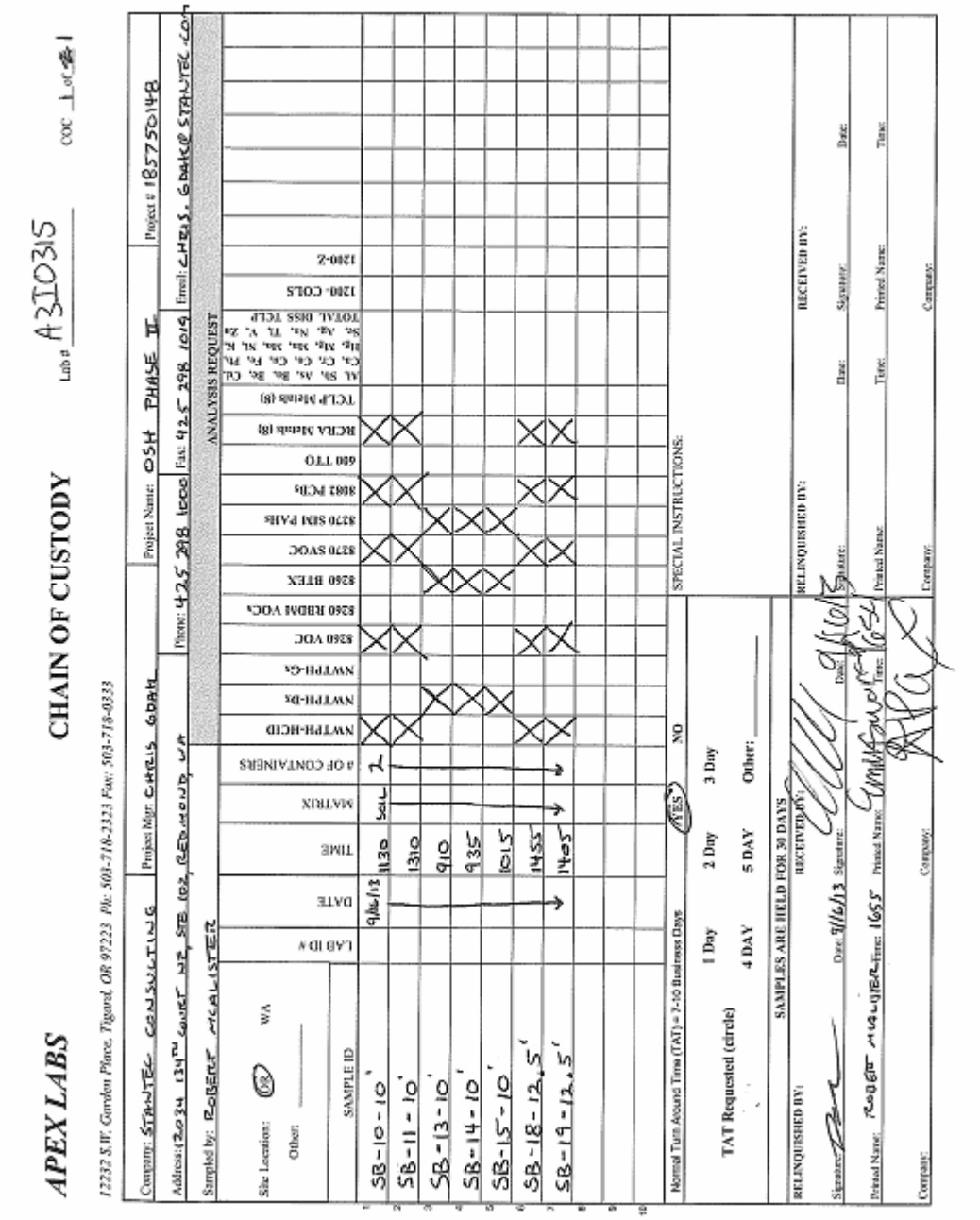
Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec 9400 SW Barnes Rd Ste 200 Portland, OR 97225	Project: **OSH Phase II** Project Number: 185750148 Project Manager: Chris Gdak	**Reported:** 09/27/13 15:50



APEX LABS

12232 S.W. Garden Place, Tigard, OR 97223 Ph: 503-718-2323 Fax: 503-718-0333

CHAIN OF CUSTODY

Lab # A3I0315 COC 1 of 1

Company: STANTEC CONSULTING Project Mgr: CHRIS GDAK Project Name: OSH PHASE II Project # 185750148

Address: 2034 134TH COURT NE, STE 102, REDMOND, WA Phone: 425 298 1000 Fax: 425 298 1019 Email: CHRIS.GDAK@STANTEC.COM

Sampled by: ROBERT MCALLISTER

Site Location: OR WA Other: _____

ANALYSIS REQUEST

SAMPLE ID	LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 VOC	8260 RBDM VOCs	8260 BTEX	8270 SVOC	8270 SIM PAHs	8082 PCBs	680 TTO	RCRA Metals (8)	TCLP Metals (8)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS TCLP	1200- COLS	1200-Z
1 SB-10-10'		9/6/13	1130	SOIL	2	X			X			X		X		X				
2 SB-11-10'			1310			X			X			X		X		X				
3 SB-13-10'			910				X				X		X							
4 SB-14-10'			935				X				X		X							
5 SB-15-10'			1015				X				X		X							
6 SB-18-12.5'			1455			X			X			X		X		X				
7 SB-19-12.5'			1405			X			X			X		X		X				
8																				
9																				
10																				

Normal Turn Around Time (TAT) = 7-10 Business Days YES NO

SPECIAL INSTRUCTIONS:

TAT Requested (circle): 1 Day 2 Day 3 Day 4 DAY 5 DAY Other: _____

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY: Signature: Printed Name: ROBERT MCALLISTER Company:

RECEIVED BY: Date: 9/6/13 Time: 1655

RELINQUISHED BY: Signature: Printed Name: Company:

RECEIVED BY: Date: Time: 1655

RELINQUISHED BY: Signature: Printed Name: Company:

RECEIVED BY: Date: Signature: Time: Printed Name: Company:

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Wednesday, October 2, 2013

Chris Gdak
Stantec
9400 SW Barnes Rd Ste 200
Portland, OR 97225

RE: OSH Phase II / 185750148

Enclosed are the results of analyses for work order A3I0335, which was received by the laboratory on 9/17/2013 at 3:22:00PM.

Thank you for using Apex Labs. We appreciate your business and strive to provide the highest quality services to the environmental industry.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

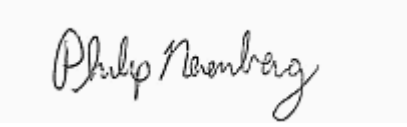
Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB-1-12.5'	A3I0335-01	Soil	09/17/13 08:40	09/17/13 15:22
SB-1-20'	A3I0335-02	Soil	09/17/13 08:50	09/17/13 15:22
SB-2-12.5'	A3I0335-03	Soil	09/17/13 09:20	09/17/13 15:22
SB-4-12.5'	A3I0335-04	Soil	09/17/13 10:10	09/17/13 15:22
SB-5-12.5'	A3I0335-05	Soil	09/17/13 11:15	09/17/13 15:22
SB-6-12.5'	A3I0335-06	Soil	09/17/13 13:00	09/17/13 15:22
SB-9-12.5'	A3I0335-07	Soil	09/17/13 13:45	09/17/13 15:22

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

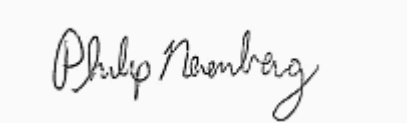
Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

ANALYTICAL SAMPLE RESULTS

Hydrocarbon Identification Screen by NWTPH-HCID

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-4-12.5' (A3I0335-04)			**Matrix: Soil**		**Batch: 3090395**			
Gasoline Range Organics	ND	---	27.9	mg/kg dry	1	09/18/13 01:02	NWTPH-HCID	
Diesel Range Organics	ND	---	69.7	"	"	"	"	
Oil Range Organics	ND	---	139	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 100 %*	*Limits: 50-150 %*	"	"	"	
SB-5-12.5' (A3I0335-05)			**Matrix: Soil**		**Batch: 3090395**			
Gasoline Range Organics	ND	---	29.4	mg/kg dry	1	09/18/13 01:26	NWTPH-HCID	
Diesel Range Organics	ND	---	73.6	"	"	"	"	
Oil Range Organics	ND	---	147	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 105 %*	*Limits: 50-150 %*	"	"	"	
SB-6-12.5' (A3I0335-06)			**Matrix: Soil**		**Batch: 3090395**			
Gasoline Range Organics	ND	---	28.0	mg/kg dry	1	09/18/13 01:50	NWTPH-HCID	
Diesel Range Organics	ND	---	70.0	"	"	"	"	
Oil Range Organics	ND	---	140	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 109 %*	*Limits: 50-150 %*	"	"	"	
SB-9-12.5' (A3I0335-07)			**Matrix: Soil**		**Batch: 3090395**			
Gasoline Range Organics	ND	---	27.7	mg/kg dry	1	09/18/13 02:38	NWTPH-HCID	
Diesel Range Organics	ND	---	69.3	"	"	"	"	
Oil Range Organics	ND	---	139	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 107 %*	*Limits: 50-150 %*	"	"	"	

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene to Naphthalene) by NWTPH-Gx

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-1-12.5' (A3I0335-01)			**Matrix: Soil**		**Batch: 3090390**			**V-15**
Gasoline Range Organics	ND	---	7.18	mg/kg dry	50	09/17/13 20:06	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 95 %*	*Limits: 50-150 %*	1	"	"	
1,4-Difluorobenzene (Sur)			*98 %*	*Limits: 50-150 %*	"	"	"	
SB-1-20' (A3I0335-02)			**Matrix: Soil**		**Batch: 3090390**			**V-15**
Gasoline Range Organics	**18.0**	---	7.32	mg/kg dry	50	09/17/13 20:56	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 109 %*	*Limits: 50-150 %*	1	"	"	
1,4-Difluorobenzene (Sur)			*104 %*	*Limits: 50-150 %*	"	"	"	
SB-2-12.5' (A3I0335-03)			**Matrix: Soil**		**Batch: 3090390**			**V-15**
Gasoline Range Organics	ND	---	7.23	mg/kg dry	50	09/17/13 21:22	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 96 %*	*Limits: 50-150 %*	1	"	"	
1,4-Difluorobenzene (Sur)			*99 %*	*Limits: 50-150 %*	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

ANALYTICAL SAMPLE RESULTS

RBCA Compounds (BTEX+) by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-1-12.5' (A3I0335-01)			**Matrix: Soil**		**Batch: 3090390**			**V-15**
Benzene	ND	---	18.0	ug/kg dry	50	09/17/13 20:06	5035/8260B	
Toluene	ND	---	71.8	"	"	"	"	
Ethylbenzene	ND	---	35.9	"	"	"	"	
Xylenes, total	ND	---	108	"	"	"	"	
Naphthalene	ND	---	144	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	---	71.8	"	"	"	"	
Isopropylbenzene	ND	---	71.8	"	"	"	"	
n-Propylbenzene	ND	---	35.9	"	"	"	"	
1,2,4-Trimethylbenzene	ND	---	71.8	"	"	"	"	
1,3,5-Trimethylbenzene	ND	---	71.8	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	---	35.9	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	---	35.9	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 93 %*	*Limits: 70-130 %*	1	"	"	
1,4-Difluorobenzene (Surr)			*101 %*	*Limits: 70-130 %*	"	"	"	
Toluene-d8 (Surr)			*98 %*	*Limits: 70-130 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*92 %*	*Limits: 70-130 %*	"	"	"	
SB-1-20' (A3I0335-02)			**Matrix: Soil**		**Batch: 3090390**			**V-15**
Benzene	ND	---	18.3	ug/kg dry	50	09/17/13 20:56	5035/8260B	
Toluene	ND	---	73.2	"	"	"	"	
Ethylbenzene	ND	---	36.6	"	"	"	"	
Xylenes, total	ND	---	110	"	"	"	"	
Naphthalene	ND	---	146	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	---	73.2	"	"	"	"	
Isopropylbenzene	ND	---	73.2	"	"	"	"	
n-Propylbenzene	ND	---	36.6	"	"	"	"	
1,2,4-Trimethylbenzene	ND	---	73.2	"	"	"	"	
1,3,5-Trimethylbenzene	ND	---	73.2	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	---	36.6	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	---	36.6	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 94 %*	*Limits: 70-130 %*	1	"	"	
1,4-Difluorobenzene (Surr)			*103 %*	*Limits: 70-130 %*	"	"	"	
Toluene-d8 (Surr)			*94 %*	*Limits: 70-130 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*92 %*	*Limits: 70-130 %*	"	"	"	
SB-2-12.5' (A3I0335-03)			**Matrix: Soil**		**Batch: 3090390**			**V-15**
Benzene	ND	---	18.1	ug/kg dry	50	09/17/13 21:22	5035/8260B	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

ANALYTICAL SAMPLE RESULTS

RBCA Compounds (BTEX+) by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-2-12.5' (A3I0335-03)			**Matrix: Soil**		**Batch: 3090390**			**V-15**
Toluene	ND	---	72.3	ug/kg dry	50	"	5035/8260B	
Ethylbenzene	ND	---	36.1	"	"	"	"	
Xylenes, total	ND	---	108	"	"	"	"	
Naphthalene	ND	---	145	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	---	72.3	"	"	"	"	
Isopropylbenzene	ND	---	72.3	"	"	"	"	
n-Propylbenzene	ND	---	36.1	"	"	"	"	
1,2,4-Trimethylbenzene	ND	---	72.3	"	"	"	"	
1,3,5-Trimethylbenzene	ND	---	72.3	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	---	36.1	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	---	36.1	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 94 %*	*Limits: 70-130 %*	1	"	"	
1,4-Difluorobenzene (Surr)			*102 %*	*Limits: 70-130 %*	"	"	"	
Toluene-d8 (Surr)			*98 %*	*Limits: 70-130 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*93 %*	*Limits: 70-130 %*	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-4-12.5' (A3I0335-04)			**Matrix: Soil**		**Batch: 3090390**			**V-15**
Acetone	ND	---	1440	ug/kg dry	50	09/17/13 21:47	5035/8260B	
Benzene	ND	---	18.1	"	"	"	"	
Bromobenzene	ND	---	36.1	"	"	"	"	
Bromochloromethane	ND	---	72.2	"	"	"	"	
Bromodichloromethane	ND	---	72.2	"	"	"	"	
Bromoform	ND	---	72.2	"	"	"	"	
Bromomethane	ND	---	722	"	"	"	"	
2-Butanone (MEK)	ND	---	722	"	"	"	"	
n-Butylbenzene	ND	---	72.2	"	"	"	"	
sec-Butylbenzene	ND	---	72.2	"	"	"	"	
tert-Butylbenzene	ND	---	72.2	"	"	"	"	
Carbon tetrachloride	ND	---	36.1	"	"	"	"	
Chlorobenzene	ND	---	36.1	"	"	"	"	
Chloroethane	ND	---	722	"	"	"	"	
Chloroform	ND	---	72.2	"	"	"	"	
Chloromethane	ND	---	361	"	"	"	"	
2-Chlorotoluene	ND	---	72.2	"	"	"	"	
4-Chlorotoluene	ND	---	72.2	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	---	361	"	"	"	"	
Dibromochloromethane	ND	---	144	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	---	36.1	"	"	"	"	
Dibromomethane	ND	---	72.2	"	"	"	"	
1,2-Dichlorobenzene	ND	---	36.1	"	"	"	"	
1,3-Dichlorobenzene	ND	---	36.1	"	"	"	"	
1,4-Dichlorobenzene	ND	---	36.1	"	"	"	"	
Dichlorodifluoromethane	ND	---	144	"	"	"	"	
1,1-Dichloroethane	ND	---	36.1	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	---	36.1	"	"	"	"	
1,1-Dichloroethene	ND	---	36.1	"	"	"	"	
cis-1,2-Dichloroethene	ND	---	36.1	"	"	"	"	
trans-1,2-Dichloroethene	ND	---	36.1	"	"	"	"	
1,2-Dichloropropane	ND	---	36.1	"	"	"	"	
1,3-Dichloropropane	ND	---	36.1	"	"	"	"	
2,2-Dichloropropane	ND	---	72.2	"	"	"	"	
1,1-Dichloropropene	ND	---	72.2	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-4-12.5' (A3I0335-04)			**Matrix: Soil**		**Batch: 3090390**			**V-15**
cis-1,3-Dichloropropene	ND	---	72.2	ug/kg dry	50	"	5035/8260B	
trans-1,3-Dichloropropene	ND	---	72.2	"	"	"	"	
Ethylbenzene	ND	---	36.1	"	"	"	"	
Hexachlorobutadiene	ND	---	144	"	"	"	"	
2-Hexanone	ND	---	722	"	"	"	"	
Isopropylbenzene	ND	---	72.2	"	"	"	"	
4-Isopropyltoluene	ND	---	72.2	"	"	"	"	
4-Methyl-2-pentanone (MiBK)	ND	---	722	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	---	72.2	"	"	"	"	
Methylene chloride	ND	---	361	"	"	"	"	
Naphthalene	ND	---	144	"	"	"	"	
n-Propylbenzene	ND	---	36.1	"	"	"	"	
Styrene	ND	---	72.2	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	---	36.1	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	---	36.1	"	"	"	"	
Tetrachloroethene (PCE)	ND	---	36.1	"	"	"	"	
Toluene	ND	---	72.2	"	"	"	"	
1,2,3-Trichlorobenzene	ND	---	361	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	361	"	"	"	"	
1,1,1-Trichloroethane	ND	---	36.1	"	"	"	"	
1,1,2-Trichloroethane	ND	---	36.1	"	"	"	"	
Trichloroethene (TCE)	ND	---	36.1	"	"	"	"	
Trichlorofluoromethane	ND	---	144	"	"	"	"	
1,2,3-Trichloropropane	ND	---	72.2	"	"	"	"	
1,2,4-Trimethylbenzene	ND	---	72.2	"	"	"	"	
1,3,5-Trimethylbenzene	ND	---	72.2	"	"	"	"	
Vinyl chloride	ND	---	36.1	"	"	"	"	
m,p-Xylene	ND	---	72.2	"	"	"	"	
o-Xylene	ND	---	36.1	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 94 %*	*Limits: 70-130 %*	1	"	"	
1,4-Difluorobenzene (Surr)			*102 %*	*Limits: 70-130 %*	"	"	"	
Toluene-d8 (Surr)			*98 %*	*Limits: 70-130 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*91 %*	*Limits: 70-130 %*	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-5-12.5' (A3I0335-05)			**Matrix: Soil**		**Batch: 3090390**			**V-15**
Acetone	ND	---	1590	ug/kg dry	50	09/17/13 22:12	5035/8260B	
Benzene	ND	---	19.9	"	"	"	"	
Bromobenzene	ND	---	39.8	"	"	"	"	
Bromochloromethane	ND	---	79.5	"	"	"	"	
Bromodichloromethane	ND	---	79.5	"	"	"	"	
Bromoform	ND	---	79.5	"	"	"	"	
Bromomethane	ND	---	795	"	"	"	"	
2-Butanone (MEK)	ND	---	795	"	"	"	"	
n-Butylbenzene	ND	---	79.5	"	"	"	"	
sec-Butylbenzene	ND	---	79.5	"	"	"	"	
tert-Butylbenzene	ND	---	79.5	"	"	"	"	
Carbon tetrachloride	ND	---	39.8	"	"	"	"	
Chlorobenzene	ND	---	39.8	"	"	"	"	
Chloroethane	ND	---	795	"	"	"	"	
Chloroform	ND	---	79.5	"	"	"	"	
Chloromethane	ND	---	398	"	"	"	"	
2-Chlorotoluene	ND	---	79.5	"	"	"	"	
4-Chlorotoluene	ND	---	79.5	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	---	398	"	"	"	"	
Dibromochloromethane	ND	---	159	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	---	39.8	"	"	"	"	
Dibromomethane	ND	---	79.5	"	"	"	"	
1,2-Dichlorobenzene	ND	---	39.8	"	"	"	"	
1,3-Dichlorobenzene	ND	---	39.8	"	"	"	"	
1,4-Dichlorobenzene	ND	---	39.8	"	"	"	"	
Dichlorodifluoromethane	ND	---	159	"	"	"	"	
1,1-Dichloroethane	ND	---	39.8	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	---	39.8	"	"	"	"	
1,1-Dichloroethene	ND	---	39.8	"	"	"	"	
cis-1,2-Dichloroethene	ND	---	39.8	"	"	"	"	
trans-1,2-Dichloroethene	ND	---	39.8	"	"	"	"	
1,2-Dichloropropane	ND	---	39.8	"	"	"	"	
1,3-Dichloropropane	ND	---	39.8	"	"	"	"	
2,2-Dichloropropane	ND	---	79.5	"	"	"	"	
1,1-Dichloropropene	ND	---	79.5	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-5-12.5' (A3I0335-05)			**Matrix: Soil**		**Batch: 3090390**			**V-15**
cis-1,3-Dichloropropene	ND	---	79.5	ug/kg dry	50	"	5035/8260B	
trans-1,3-Dichloropropene	ND	---	79.5	"	"	"	"	
Ethylbenzene	ND	---	39.8	"	"	"	"	
Hexachlorobutadiene	ND	---	159	"	"	"	"	
2-Hexanone	ND	---	795	"	"	"	"	
Isopropylbenzene	ND	---	79.5	"	"	"	"	
4-Isopropyltoluene	ND	---	79.5	"	"	"	"	
4-Methyl-2-pentanone (MiBK)	ND	---	795	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	---	79.5	"	"	"	"	
Methylene chloride	ND	---	398	"	"	"	"	
Naphthalene	ND	---	159	"	"	"	"	
n-Propylbenzene	ND	---	39.8	"	"	"	"	
Styrene	ND	---	79.5	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	---	39.8	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	---	39.8	"	"	"	"	
Tetrachloroethene (PCE)	ND	---	39.8	"	"	"	"	
Toluene	ND	---	79.5	"	"	"	"	
1,2,3-Trichlorobenzene	ND	---	398	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	398	"	"	"	"	
1,1,1-Trichloroethane	ND	---	39.8	"	"	"	"	
1,1,2-Trichloroethane	ND	---	39.8	"	"	"	"	
Trichloroethene (TCE)	ND	---	39.8	"	"	"	"	
Trichlorofluoromethane	ND	---	159	"	"	"	"	
1,2,3-Trichloropropane	ND	---	79.5	"	"	"	"	
1,2,4-Trimethylbenzene	ND	---	79.5	"	"	"	"	
1,3,5-Trimethylbenzene	ND	---	79.5	"	"	"	"	
Vinyl chloride	ND	---	39.8	"	"	"	"	
m,p-Xylene	ND	---	79.5	"	"	"	"	
o-Xylene	ND	---	39.8	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 94 %*	*Limits: 70-130 %*	1	"	"	
1,4-Difluorobenzene (Surr)			*102 %*	*Limits: 70-130 %*	"	"	"	
Toluene-d8 (Surr)			*98 %*	*Limits: 70-130 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*93 %*	*Limits: 70-130 %*	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

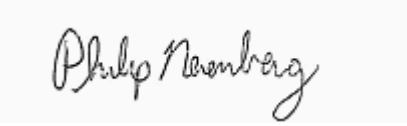
Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-6-12.5' (A3I0335-06)			**Matrix: Soil**		**Batch: 3090390**			**V-15**
Acetone	ND	---	1430	ug/kg dry	50	09/17/13 22:37	5035/8260B	
Benzene	ND	---	17.9	"	"	"	"	
Bromobenzene	ND	---	35.8	"	"	"	"	
Bromochloromethane	ND	---	71.7	"	"	"	"	
Bromodichloromethane	ND	---	71.7	"	"	"	"	
Bromoform	ND	---	71.7	"	"	"	"	
Bromomethane	ND	---	717	"	"	"	"	
2-Butanone (MEK)	ND	---	717	"	"	"	"	
n-Butylbenzene	ND	---	71.7	"	"	"	"	
sec-Butylbenzene	ND	---	71.7	"	"	"	"	
tert-Butylbenzene	ND	---	71.7	"	"	"	"	
Carbon tetrachloride	ND	---	35.8	"	"	"	"	
Chlorobenzene	ND	---	35.8	"	"	"	"	
Chloroethane	ND	---	717	"	"	"	"	
Chloroform	ND	---	71.7	"	"	"	"	
Chloromethane	ND	---	358	"	"	"	"	
2-Chlorotoluene	ND	---	71.7	"	"	"	"	
4-Chlorotoluene	ND	---	71.7	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	---	358	"	"	"	"	
Dibromochloromethane	ND	---	143	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	---	35.8	"	"	"	"	
Dibromomethane	ND	---	71.7	"	"	"	"	
1,2-Dichlorobenzene	ND	---	35.8	"	"	"	"	
1,3-Dichlorobenzene	ND	---	35.8	"	"	"	"	
1,4-Dichlorobenzene	ND	---	35.8	"	"	"	"	
Dichlorodifluoromethane	ND	---	143	"	"	"	"	
1,1-Dichloroethane	ND	---	35.8	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	---	35.8	"	"	"	"	
1,1-Dichloroethene	ND	---	35.8	"	"	"	"	
cis-1,2-Dichloroethene	ND	---	35.8	"	"	"	"	
trans-1,2-Dichloroethene	ND	---	35.8	"	"	"	"	
1,2-Dichloropropane	ND	---	35.8	"	"	"	"	
1,3-Dichloropropane	ND	---	35.8	"	"	"	"	
2,2-Dichloropropane	ND	---	71.7	"	"	"	"	
1,1-Dichloropropene	ND	---	71.7	"	"	"	"	

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-6-12.5' (A3I0335-06)			**Matrix: Soil**		**Batch: 3090390**			**V-15**
cis-1,3-Dichloropropene	ND	---	71.7	ug/kg dry	50	"	5035/8260B	
trans-1,3-Dichloropropene	ND	---	71.7	"	"	"	"	
Ethylbenzene	ND	---	35.8	"	"	"	"	
Hexachlorobutadiene	ND	---	143	"	"	"	"	
2-Hexanone	ND	---	717	"	"	"	"	
Isopropylbenzene	ND	---	71.7	"	"	"	"	
4-Isopropyltoluene	ND	---	71.7	"	"	"	"	
4-Methyl-2-pentanone (MiBK)	ND	---	717	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	---	71.7	"	"	"	"	
Methylene chloride	ND	---	358	"	"	"	"	
Naphthalene	ND	---	143	"	"	"	"	
n-Propylbenzene	ND	---	35.8	"	"	"	"	
Styrene	ND	---	71.7	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	---	35.8	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	---	35.8	"	"	"	"	
Tetrachloroethene (PCE)	ND	---	35.8	"	"	"	"	
Toluene	ND	---	71.7	"	"	"	"	
1,2,3-Trichlorobenzene	ND	---	358	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	358	"	"	"	"	
1,1,1-Trichloroethane	ND	---	35.8	"	"	"	"	
1,1,2-Trichloroethane	ND	---	35.8	"	"	"	"	
Trichloroethene (TCE)	ND	---	35.8	"	"	"	"	
Trichlorofluoromethane	ND	---	143	"	"	"	"	
1,2,3-Trichloropropane	ND	---	71.7	"	"	"	"	
1,2,4-Trimethylbenzene	ND	---	71.7	"	"	"	"	
1,3,5-Trimethylbenzene	ND	---	71.7	"	"	"	"	
Vinyl chloride	ND	---	35.8	"	"	"	"	
m,p-Xylene	ND	---	71.7	"	"	"	"	
o-Xylene	ND	---	35.8	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 94 %*	*Limits: 70-130 %*	1	"	"	
1,4-Difluorobenzene (Surr)			*102 %*	*Limits: 70-130 %*	"	"	"	
Toluene-d8 (Surr)			*99 %*	*Limits: 70-130 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*91 %*	*Limits: 70-130 %*	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-9-12.5' (A3I0335-07)			**Matrix: Soil**		**Batch: 3090390**			**V-15**
Acetone	ND	---	1460	ug/kg dry	50	09/17/13 23:02	5035/8260B	
Benzene	ND	---	18.2	"	"	"	"	
Bromobenzene	ND	---	36.5	"	"	"	"	
Bromochloromethane	ND	---	73.0	"	"	"	"	
Bromodichloromethane	ND	---	73.0	"	"	"	"	
Bromoform	ND	---	73.0	"	"	"	"	
Bromomethane	ND	---	730	"	"	"	"	
2-Butanone (MEK)	ND	---	730	"	"	"	"	
n-Butylbenzene	ND	---	73.0	"	"	"	"	
sec-Butylbenzene	ND	---	73.0	"	"	"	"	
tert-Butylbenzene	ND	---	73.0	"	"	"	"	
Carbon tetrachloride	ND	---	36.5	"	"	"	"	
Chlorobenzene	ND	---	36.5	"	"	"	"	
Chloroethane	ND	---	730	"	"	"	"	
Chloroform	ND	---	73.0	"	"	"	"	
Chloromethane	ND	---	365	"	"	"	"	
2-Chlorotoluene	ND	---	73.0	"	"	"	"	
4-Chlorotoluene	ND	---	73.0	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	---	365	"	"	"	"	
Dibromochloromethane	ND	---	146	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	---	36.5	"	"	"	"	
Dibromomethane	ND	---	73.0	"	"	"	"	
1,2-Dichlorobenzene	ND	---	36.5	"	"	"	"	
1,3-Dichlorobenzene	ND	---	36.5	"	"	"	"	
1,4-Dichlorobenzene	ND	---	36.5	"	"	"	"	
Dichlorodifluoromethane	ND	---	146	"	"	"	"	
1,1-Dichloroethane	ND	---	36.5	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	---	36.5	"	"	"	"	
1,1-Dichloroethene	ND	---	36.5	"	"	"	"	
cis-1,2-Dichloroethene	ND	---	36.5	"	"	"	"	
trans-1,2-Dichloroethene	ND	---	36.5	"	"	"	"	
1,2-Dichloropropane	ND	---	36.5	"	"	"	"	
1,3-Dichloropropane	ND	---	36.5	"	"	"	"	
2,2-Dichloropropane	ND	---	73.0	"	"	"	"	
1,1-Dichloropropene	ND	---	73.0	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-9-12.5' (A3I0335-07)			**Matrix: Soil**		**Batch: 3090390**			**V-15**
cis-1,3-Dichloropropene	ND	---	73.0	ug/kg dry	50	"	5035/8260B	
trans-1,3-Dichloropropene	ND	---	73.0	"	"	"	"	
Ethylbenzene	ND	---	36.5	"	"	"	"	
Hexachlorobutadiene	ND	---	146	"	"	"	"	
2-Hexanone	ND	---	730	"	"	"	"	
Isopropylbenzene	ND	---	73.0	"	"	"	"	
4-Isopropyltoluene	ND	---	73.0	"	"	"	"	
4-Methyl-2-pentanone (MiBK)	ND	---	730	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	---	73.0	"	"	"	"	
Methylene chloride	ND	---	365	"	"	"	"	
Naphthalene	ND	---	146	"	"	"	"	
n-Propylbenzene	ND	---	36.5	"	"	"	"	
Styrene	ND	---	73.0	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	---	36.5	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	---	36.5	"	"	"	"	
Tetrachloroethene (PCE)	ND	---	36.5	"	"	"	"	
Toluene	ND	---	73.0	"	"	"	"	
1,2,3-Trichlorobenzene	ND	---	365	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	365	"	"	"	"	
1,1,1-Trichloroethane	ND	---	36.5	"	"	"	"	
1,1,2-Trichloroethane	ND	---	36.5	"	"	"	"	
Trichloroethene (TCE)	ND	---	36.5	"	"	"	"	
Trichlorofluoromethane	ND	---	146	"	"	"	"	
1,2,3-Trichloropropane	ND	---	73.0	"	"	"	"	
1,2,4-Trimethylbenzene	ND	---	73.0	"	"	"	"	
1,3,5-Trimethylbenzene	ND	---	73.0	"	"	"	"	
Vinyl chloride	ND	---	36.5	"	"	"	"	
m,p-Xylene	ND	---	73.0	"	"	"	"	
o-Xylene	ND	---	36.5	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 95 %*	*Limits: 70-130 %*	1	"	"	
1,4-Difluorobenzene (Surr)			*103 %*	*Limits: 70-130 %*	"	"	"	
Toluene-d8 (Surr)			*99 %*	*Limits: 70-130 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*92 %*	*Limits: 70-130 %*	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

ANALYTICAL SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-4-12.5' (A3I0335-04)			**Matrix: Soil**		**Batch: 3090691**			**C-07**
Aroclor 1016	ND	---	13.1	ug/kg dry	1	09/30/13 15:47	EPA 8082A	
Aroclor 1221	ND	---	13.1	"	"	"	"	
Aroclor 1232	ND	---	13.1	"	"	"	"	
Aroclor 1242	ND	---	13.1	"	"	"	"	
Aroclor 1248	ND	---	13.1	"	"	"	"	
Aroclor 1254	ND	---	13.1	"	"	"	"	
Aroclor 1260	ND	---	13.1	"	"	"	"	
Surrogate: Decachlorobiphenyl (Surr)			*Recovery: 34 %*	*Limits: 60-125 %*	"	"	"	*Q-23, S-03*
SB-5-12.5' (A3I0335-05RE1)			**Matrix: Soil**		**Batch: 3100002**			**C-07**
Aroclor 1016	ND	---	12.8	ug/kg dry	1	10/01/13 13:24	EPA 8082A	
Aroclor 1221	ND	---	12.8	"	"	"	"	
Aroclor 1232	ND	---	12.8	"	"	"	"	
Aroclor 1242	ND	---	12.8	"	"	"	"	
Aroclor 1248	ND	---	12.8	"	"	"	"	
Aroclor 1254	ND	---	12.8	"	"	"	"	
Aroclor 1260	ND	---	12.8	"	"	"	"	
Surrogate: Decachlorobiphenyl (Surr)			*Recovery: 67 %*	*Limits: 60-125 %*	"	"	"	
SB-6-12.5' (A3I0335-06RE1)			**Matrix: Soil**		**Batch: 3100002**			**C-07**
Aroclor 1016	ND	---	13.0	ug/kg dry	1	10/01/13 13:42	EPA 8082A	
Aroclor 1221	ND	---	13.0	"	"	"	"	
Aroclor 1232	ND	---	13.0	"	"	"	"	
Aroclor 1242	ND	---	13.0	"	"	"	"	
Aroclor 1248	ND	---	13.0	"	"	"	"	
Aroclor 1254	ND	---	13.0	"	"	"	"	
Aroclor 1260	ND	---	13.0	"	"	"	"	
Surrogate: Decachlorobiphenyl (Surr)			*Recovery: 74 %*	*Limits: 60-125 %*	"	"	"	
SB-9-12.5' (A3I0335-07)			**Matrix: Soil**		**Batch: 3090691**			**C-07**
Aroclor 1016	ND	---	12.7	ug/kg dry	1	09/30/13 16:59	EPA 8082A	
Aroclor 1221	ND	---	12.7	"	"	"	"	
Aroclor 1232	ND	---	12.7	"	"	"	"	
Aroclor 1242	ND	---	12.7	"	"	"	"	
Aroclor 1248	ND	---	12.7	"	"	"	"	
Aroclor 1254	ND	---	12.7	"	"	"	"	
Aroclor 1260	ND	---	12.7	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

ANALYTICAL SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-9-12.5' (A3I0335-07)			**Matrix: Soil**		**Batch: 3090691**			**C-07**
Surrogate: Decachlorobiphenyl (Surr)			*Recovery: 33 %*	*Limits: 60-125 %*	1	"	EPA 8082A	*Q-23, S-03*

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-4-12.5' (A3I0335-04RE2)			**Matrix: Soil**		**Batch: 3090402**			
Acenaphthene	ND	---	320	ug/kg dry	1	09/19/13 15:07	EPA 8270D	
Acenaphthylene	ND	---	320	"	"	"	"	
Aniline	ND	---	320	"	"	"	"	
Anthracene	ND	---	320	"	"	"	"	
Azobenzene (1,2-DPH)	ND	---	320	"	"	"	"	
Benz(a)anthracene	ND	---	320	"	"	"	"	
Benzo(a)pyrene	ND	---	320	"	"	"	"	
Benzo(b)fluoranthene	ND	---	320	"	"	"	"	
Benzo(k)fluoranthene	ND	---	320	"	"	"	"	
Benzo(g,h,i)perylene	ND	---	320	"	"	"	"	
Benzoic acid	ND	---	1600	"	"	"	"	
Benzyl alcohol	ND	---	320	"	"	"	"	
Bis(2-Chloroethoxy) methane	ND	---	320	"	"	"	"	
Bis(2-Chloroethyl) ether	ND	---	320	"	"	"	"	
Bis(2-Chloroisopropyl) ether	ND	---	320	"	"	"	"	
Bis(2-Ethylhexyl) adipate	ND	---	320	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	---	320	"	"	"	"	
4-Bromophenyl phenyl ether	ND	---	320	"	"	"	"	
Butyl benzyl phthalate	ND	---	320	"	"	"	"	
Carbazole	ND	---	320	"	"	"	"	
4-Chloroaniline	ND	---	320	"	"	"	"	
4-Chloro-3-methylphenol	ND	---	320	"	"	"	"	
2-Chloronaphthalene	ND	---	320	"	"	"	"	
2-Chlorophenol	ND	---	320	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	---	320	"	"	"	"	
Chrysene	ND	---	320	"	"	"	"	
Dibenz(a,h)anthracene	ND	---	320	"	"	"	"	
Dibenzofuran	ND	---	320	"	"	"	"	
1,2-Dichlorobenzene	ND	---	320	"	"	"	"	
1,3-Dichlorobenzene	ND	---	320	"	"	"	"	
1,4-Dichlorobenzene	ND	---	320	"	"	"	"	
2,4-Dichlorophenol	ND	---	320	"	"	"	"	
Di-n-butylphthalate	ND	---	320	"	"	"	"	
Diethylphthalate	ND	---	320	"	"	"	"	
Dimethylphthalate	ND	---	320	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-4-12.5' (A3I0335-04RE2)			**Matrix: Soil**		**Batch: 3090402**			
2,4-Dimethylphenol	ND	---	320	ug/kg dry	1	"	EPA 8270D	
1,2-Dinitrobenzene	ND	---	320	"	"	"	"	
1,3-Dinitrobenzene	ND	---	320	"	"	"	"	
1,4-Dinitrobenzene	ND	---	320	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	---	769	"	"	"	"	
2,4-Dinitrophenol	ND	---	320	"	"	"	"	
2,4-Dinitrotoluene	ND	---	320	"	"	"	"	
2,6-Dinitrotoluene	ND	---	320	"	"	"	"	
Di-n-octyl phthalate	ND	---	320	"	"	"	"	
Fluoranthene	ND	---	320	"	"	"	"	
Fluorene	ND	---	320	"	"	"	"	
Hexachlorobenzene	ND	---	320	"	"	"	"	
Hexachlorobutadiene	ND	---	320	"	"	"	"	
Hexachlorocyclopentadiene	ND	---	320	"	"	"	"	
Hexachloroethane	ND	---	320	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	---	320	"	"	"	"	
Isophorone	ND	---	320	"	"	"	"	
1-Methylnaphthalene	ND	---	320	"	"	"	"	
2-Methylnaphthalene	ND	---	320	"	"	"	"	
2-Methylphenol	ND	---	320	"	"	"	"	
3+4-Methylphenol(s)	ND	---	320	"	"	"	"	
Naphthalene	ND	---	320	"	"	"	"	
2-Nitroaniline	ND	---	320	"	"	"	"	
3-Nitroaniline	ND	---	320	"	"	"	"	
4-Nitroaniline	ND	---	320	"	"	"	"	
Nitrobenzene	ND	---	320	"	"	"	"	
2-Nitrophenol	ND	---	320	"	"	"	"	
4-Nitrophenol	ND	---	320	"	"	"	"	
N-Nitrosodimethylamine	ND	---	320	"	"	"	"	
N-Nitroso-di-n-propylamine	ND	---	320	"	"	"	"	
N-Nitrosodiphenylamine	ND	---	320	"	"	"	"	
Pentachlorophenol (PCP)	ND	---	320	"	"	"	"	
Phenanthrene	ND	---	320	"	"	"	"	
Phenol	ND	---	320	"	"	"	"	
Pyrene	ND	---	320	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-4-12.5' (A3I0335-04RE2)			**Matrix: Soil**		**Batch: 3090402**			
Pyridine	ND	---	641	ug/kg dry	1	"	EPA 8270D	
2,3,4,6-Tetrachlorophenol	ND	---	320	"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	---	320	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	320	"	"	"	"	
2,4,5-Trichlorophenol	ND	---	320	"	"	"	"	
2,4,6-Trichlorophenol	ND	---	320	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 87 %*	*Limits: 35-120 %*	"	"	"	
2-Fluorobiphenyl (Surr)			*82 %*	*Limits: 45-120 %*	"	"	"	
Phenol-d6 (Surr)			*89 %*	*Limits: 40-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*88 %*	*Limits: 30-125 %*	"	"	"	
2-Fluorophenol (Surr)			*80 %*	*Limits: 35-120 %*	"	"	"	
2,4,6-Tribromophenol (Surr)			*80 %*	*Limits: 35-125 %*	"	"	"	
SB-5-12.5' (A3I0335-05RE1)			**Matrix: Soil**		**Batch: 3090402**			
Acenaphthene	ND	---	312	ug/kg dry	1	09/19/13 15:43	EPA 8270D	
Acenaphthylene	ND	---	312	"	"	"	"	
Aniline	ND	---	312	"	"	"	"	
Anthracene	ND	---	312	"	"	"	"	
Azobenzene (1,2-DPH)	ND	---	312	"	"	"	"	
Benz(a)anthracene	ND	---	312	"	"	"	"	
Benzo(a)pyrene	ND	---	312	"	"	"	"	
Benzo(b)fluoranthene	ND	---	312	"	"	"	"	
Benzo(k)fluoranthene	ND	---	312	"	"	"	"	
Benzo(g,h,i)perylene	ND	---	312	"	"	"	"	
Benzoic acid	ND	---	1560	"	"	"	"	
Benzyl alcohol	ND	---	312	"	"	"	"	
Bis(2-Chloroethoxy) methane	ND	---	312	"	"	"	"	
Bis(2-Chloroethyl) ether	ND	---	312	"	"	"	"	
Bis(2-Chloroisopropyl) ether	ND	---	312	"	"	"	"	
Bis(2-Ethylhexyl) adipate	ND	---	312	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	---	312	"	"	"	"	
4-Bromophenyl phenyl ether	ND	---	312	"	"	"	"	
Butyl benzyl phthalate	ND	---	312	"	"	"	"	
Carbazole	ND	---	312	"	"	"	"	
4-Chloroaniline	ND	---	312	"	"	"	"	
4-Chloro-3-methylphenol	ND	---	312	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-5-12.5' (A3I0335-05RE1)			**Matrix: Soil**		**Batch: 3090402**			
2-Chloronaphthalene	ND	---	312	ug/kg dry	1	"	EPA 8270D	
2-Chlorophenol	ND	---	312	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	---	312	"	"	"	"	
Chrysene	ND	---	312	"	"	"	"	
Dibenz(a,h)anthracene	ND	---	312	"	"	"	"	
Dibenzofuran	ND	---	312	"	"	"	"	
1,2-Dichlorobenzene	ND	---	312	"	"	"	"	
1,3-Dichlorobenzene	ND	---	312	"	"	"	"	
1,4-Dichlorobenzene	ND	---	312	"	"	"	"	
2,4-Dichlorophenol	ND	---	312	"	"	"	"	
Di-n-butylphthalate	ND	---	312	"	"	"	"	
Diethylphthalate	ND	---	312	"	"	"	"	
Dimethylphthalate	ND	---	312	"	"	"	"	
2,4-Dimethylphenol	ND	---	312	"	"	"	"	
1,2-Dinitrobenzene	ND	---	312	"	"	"	"	
1,3-Dinitrobenzene	ND	---	312	"	"	"	"	
1,4-Dinitrobenzene	ND	---	312	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	---	749	"	"	"	"	
2,4-Dinitrophenol	ND	---	312	"	"	"	"	
2,4-Dinitrotoluene	ND	---	312	"	"	"	"	
2,6-Dinitrotoluene	ND	---	312	"	"	"	"	
Di-n-octyl phthalate	ND	---	312	"	"	"	"	
Fluoranthene	ND	---	312	"	"	"	"	
Fluorene	ND	---	312	"	"	"	"	
Hexachlorobenzene	ND	---	312	"	"	"	"	
Hexachlorobutadiene	ND	---	312	"	"	"	"	
Hexachlorocyclopentadiene	ND	---	312	"	"	"	"	
Hexachloroethane	ND	---	312	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	---	312	"	"	"	"	
Isophorone	ND	---	312	"	"	"	"	
1-Methylnaphthalene	ND	---	312	"	"	"	"	
2-Methylnaphthalene	ND	---	312	"	"	"	"	
2-Methylphenol	ND	---	312	"	"	"	"	
3+4-Methylphenol(s)	ND	---	312	"	"	"	"	
Naphthalene	ND	---	312	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

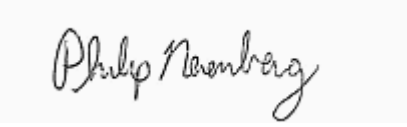
Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-5-12.5' (A3I0335-05RE1)			**Matrix: Soil**		**Batch: 3090402**			
2-Nitroaniline	ND	---	312	ug/kg dry	1	"	EPA 8270D	
3-Nitroaniline	ND	---	312	"	"	"	"	
4-Nitroaniline	ND	---	312	"	"	"	"	
Nitrobenzene	ND	---	312	"	"	"	"	
2-Nitrophenol	ND	---	312	"	"	"	"	
4-Nitrophenol	ND	---	312	"	"	"	"	
N-Nitrosodimethylamine	ND	---	312	"	"	"	"	
N-Nitroso-di-n-propylamine	ND	---	312	"	"	"	"	
N-Nitrosodiphenylamine	ND	---	312	"	"	"	"	
Pentachlorophenol (PCP)	ND	---	312	"	"	"	"	
Phenanthrene	ND	---	312	"	"	"	"	
Phenol	ND	---	312	"	"	"	"	
Pyrene	ND	---	312	"	"	"	"	
Pyridine	ND	---	624	"	"	"	"	
2,3,4,6-Tetrachlorophenol	ND	---	312	"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	---	312	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	312	"	"	"	"	
2,4,5-Trichlorophenol	ND	---	312	"	"	"	"	
2,4,6-Trichlorophenol	ND	---	312	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 98 %*	*Limits: 35-120 %*	"	"	"	
2-Fluorobiphenyl (Surr)			*83 %*	*Limits: 45-120 %*	"	"	"	
Phenol-d6 (Surr)			*96 %*	*Limits: 40-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*84 %*	*Limits: 30-125 %*	"	"	"	
2-Fluorophenol (Surr)			*86 %*	*Limits: 35-120 %*	"	"	"	
2,4,6-Tribromophenol (Surr)			*77 %*	*Limits: 35-125 %*	"	"	"	

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-6-12.5' (A3I0335-06RE2)			**Matrix: Soil**		**Batch: 3090402**			
Acenaphthene	ND	---	323	ug/kg dry	1	09/19/13 16:20	EPA 8270D	
Acenaphthylene	ND	---	323	"	"	"	"	
Aniline	ND	---	323	"	"	"	"	
Anthracene	ND	---	323	"	"	"	"	
Azobenzene (1,2-DPH)	ND	---	323	"	"	"	"	
Benz(a)anthracene	ND	---	323	"	"	"	"	
Benzo(a)pyrene	ND	---	323	"	"	"	"	
Benzo(b)fluoranthene	ND	---	323	"	"	"	"	
Benzo(k)fluoranthene	ND	---	323	"	"	"	"	
Benzo(g,h,i)perylene	ND	---	323	"	"	"	"	
Benzoic acid	ND	---	1620	"	"	"	"	
Benzyl alcohol	ND	---	323	"	"	"	"	
Bis(2-Chloroethoxy) methane	ND	---	323	"	"	"	"	
Bis(2-Chloroethyl) ether	ND	---	323	"	"	"	"	
Bis(2-Chloroisopropyl) ether	ND	---	323	"	"	"	"	
Bis(2-Ethylhexyl) adipate	ND	---	323	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	---	323	"	"	"	"	
4-Bromophenyl phenyl ether	ND	---	323	"	"	"	"	
Butyl benzyl phthalate	ND	---	323	"	"	"	"	
Carbazole	ND	---	323	"	"	"	"	
4-Chloroaniline	ND	---	323	"	"	"	"	
4-Chloro-3-methylphenol	ND	---	323	"	"	"	"	
2-Chloronaphthalene	ND	---	323	"	"	"	"	
2-Chlorophenol	ND	---	323	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	---	323	"	"	"	"	
Chrysene	ND	---	323	"	"	"	"	
Dibenz(a,h)anthracene	ND	---	323	"	"	"	"	
Dibenzofuran	ND	---	323	"	"	"	"	
1,2-Dichlorobenzene	ND	---	323	"	"	"	"	
1,3-Dichlorobenzene	ND	---	323	"	"	"	"	
1,4-Dichlorobenzene	ND	---	323	"	"	"	"	
2,4-Dichlorophenol	ND	---	323	"	"	"	"	
Di-n-butylphthalate	ND	---	323	"	"	"	"	
Diethylphthalate	ND	---	323	"	"	"	"	
Dimethylphthalate	ND	---	323	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-6-12.5' (A3I0335-06RE2)			**Matrix: Soil**		**Batch: 3090402**			
2,4-Dimethylphenol	ND	---	323	ug/kg dry	1	"	EPA 8270D	
1,2-Dinitrobenzene	ND	---	323	"	"	"	"	
1,3-Dinitrobenzene	ND	---	323	"	"	"	"	
1,4-Dinitrobenzene	ND	---	323	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	---	776	"	"	"	"	
2,4-Dinitrophenol	ND	---	323	"	"	"	"	
2,4-Dinitrotoluene	ND	---	323	"	"	"	"	
2,6-Dinitrotoluene	ND	---	323	"	"	"	"	
Di-n-octyl phthalate	ND	---	323	"	"	"	"	
Fluoranthene	ND	---	323	"	"	"	"	
Fluorene	ND	---	323	"	"	"	"	
Hexachlorobenzene	ND	---	323	"	"	"	"	
Hexachlorobutadiene	ND	---	323	"	"	"	"	
Hexachlorocyclopentadiene	ND	---	323	"	"	"	"	
Hexachloroethane	ND	---	323	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	---	323	"	"	"	"	
Isophorone	ND	---	323	"	"	"	"	
1-Methylnaphthalene	ND	---	323	"	"	"	"	
2-Methylnaphthalene	ND	---	323	"	"	"	"	
2-Methylphenol	ND	---	323	"	"	"	"	
3+4-Methylphenol(s)	ND	---	323	"	"	"	"	
Naphthalene	ND	---	323	"	"	"	"	
2-Nitroaniline	ND	---	323	"	"	"	"	
3-Nitroaniline	ND	---	323	"	"	"	"	
4-Nitroaniline	ND	---	323	"	"	"	"	
Nitrobenzene	ND	---	323	"	"	"	"	
2-Nitrophenol	ND	---	323	"	"	"	"	
4-Nitrophenol	ND	---	323	"	"	"	"	
N-Nitrosodimethylamine	ND	---	323	"	"	"	"	
N-Nitroso-di-n-propylamine	ND	---	323	"	"	"	"	
N-Nitrosodiphenylamine	ND	---	323	"	"	"	"	
Pentachlorophenol (PCP)	ND	---	323	"	"	"	"	
Phenanthrene	ND	---	323	"	"	"	"	
Phenol	ND	---	323	"	"	"	"	
Pyrene	ND	---	323	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-6-12.5' (A3I0335-06RE2)			**Matrix: Soil**		**Batch: 3090402**			
Pyridine	ND	---	647	ug/kg dry	1	"	EPA 8270D	
2,3,4,6-Tetrachlorophenol	ND	---	323	"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	---	323	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	323	"	"	"	"	
2,4,5-Trichlorophenol	ND	---	323	"	"	"	"	
2,4,6-Trichlorophenol	ND	---	323	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 93 %*	*Limits: 35-120 %*	"	"	"	
2-Fluorobiphenyl (Surr)			*86 %*	*Limits: 45-120 %*	"	"	"	
Phenol-d6 (Surr)			*104 %*	*Limits: 40-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*93 %*	*Limits: 30-125 %*	"	"	"	
2-Fluorophenol (Surr)			*91 %*	*Limits: 35-120 %*	"	"	"	
2,4,6-Tribromophenol (Surr)			*86 %*	*Limits: 35-125 %*	"	"	"	
SB-9-12.5' (A3I0335-07RE1)			**Matrix: Soil**		**Batch: 3090402**			
Acenaphthene	ND	---	312	ug/kg dry	1	09/19/13 17:59	EPA 8270D	
Acenaphthylene	ND	---	312	"	"	"	"	
Aniline	ND	---	312	"	"	"	"	
Anthracene	ND	---	312	"	"	"	"	
Azobenzene (1,2-DPH)	ND	---	312	"	"	"	"	
Benz(a)anthracene	ND	---	312	"	"	"	"	
Benzo(a)pyrene	ND	---	312	"	"	"	"	
Benzo(b)fluoranthene	ND	---	312	"	"	"	"	
Benzo(k)fluoranthene	ND	---	312	"	"	"	"	
Benzo(g,h,i)perylene	ND	---	312	"	"	"	"	
Benzoic acid	ND	---	1560	"	"	"	"	
Benzyl alcohol	ND	---	312	"	"	"	"	
Bis(2-Chloroethoxy) methane	ND	---	312	"	"	"	"	
Bis(2-Chloroethyl) ether	ND	---	312	"	"	"	"	
Bis(2-Chloroisopropyl) ether	ND	---	312	"	"	"	"	
Bis(2-Ethylhexyl) adipate	ND	---	312	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	---	312	"	"	"	"	
4-Bromophenyl phenyl ether	ND	---	312	"	"	"	"	
Butyl benzyl phthalate	ND	---	312	"	"	"	"	
Carbazole	ND	---	312	"	"	"	"	
4-Chloroaniline	ND	---	312	"	"	"	"	
4-Chloro-3-methylphenol	ND	---	312	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-9-12.5' (A3I0335-07RE1)			**Matrix: Soil**		**Batch: 3090402**			
2-Chloronaphthalene	ND	---	312	ug/kg dry	1	"	EPA 8270D	
2-Chlorophenol	ND	---	312	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	---	312	"	"	"	"	
Chrysene	ND	---	312	"	"	"	"	
Dibenz(a,h)anthracene	ND	---	312	"	"	"	"	
Dibenzofuran	ND	---	312	"	"	"	"	
1,2-Dichlorobenzene	ND	---	312	"	"	"	"	
1,3-Dichlorobenzene	ND	---	312	"	"	"	"	
1,4-Dichlorobenzene	ND	---	312	"	"	"	"	
2,4-Dichlorophenol	ND	---	312	"	"	"	"	
Di-n-butylphthalate	ND	---	312	"	"	"	"	
Diethylphthalate	ND	---	312	"	"	"	"	
Dimethylphthalate	ND	---	312	"	"	"	"	
2,4-Dimethylphenol	ND	---	312	"	"	"	"	
1,2-Dinitrobenzene	ND	---	312	"	"	"	"	
1,3-Dinitrobenzene	ND	---	312	"	"	"	"	
1,4-Dinitrobenzene	ND	---	312	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	---	749	"	"	"	"	
2,4-Dinitrophenol	ND	---	312	"	"	"	"	
2,4-Dinitrotoluene	ND	---	312	"	"	"	"	
2,6-Dinitrotoluene	ND	---	312	"	"	"	"	
Di-n-octyl phthalate	ND	---	312	"	"	"	"	
Fluoranthene	ND	---	312	"	"	"	"	
Fluorene	ND	---	312	"	"	"	"	
Hexachlorobenzene	ND	---	312	"	"	"	"	
Hexachlorobutadiene	ND	---	312	"	"	"	"	
Hexachlorocyclopentadiene	ND	---	312	"	"	"	"	
Hexachloroethane	ND	---	312	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	---	312	"	"	"	"	
Isophorone	ND	---	312	"	"	"	"	
1-Methylnaphthalene	ND	---	312	"	"	"	"	
2-Methylnaphthalene	ND	---	312	"	"	"	"	
2-Methylphenol	ND	---	312	"	"	"	"	
3+4-Methylphenol(s)	ND	---	312	"	"	"	"	
Naphthalene	ND	---	312	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

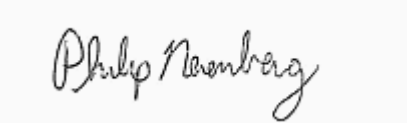
Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-9-12.5' (A3I0335-07RE1)			**Matrix: Soil**		**Batch: 3090402**			
2-Nitroaniline	ND	---	312	ug/kg dry	1	"	EPA 8270D	
3-Nitroaniline	ND	---	312	"	"	"	"	
4-Nitroaniline	ND	---	312	"	"	"	"	
Nitrobenzene	ND	---	312	"	"	"	"	
2-Nitrophenol	ND	---	312	"	"	"	"	
4-Nitrophenol	ND	---	312	"	"	"	"	
N-Nitrosodimethylamine	ND	---	312	"	"	"	"	
N-Nitroso-di-n-propylamine	ND	---	312	"	"	"	"	
N-Nitrosodiphenylamine	ND	---	312	"	"	"	"	
Pentachlorophenol (PCP)	ND	---	312	"	"	"	"	
Phenanthrene	ND	---	312	"	"	"	"	
Phenol	ND	---	312	"	"	"	"	
Pyrene	ND	---	312	"	"	"	"	
Pyridine	ND	---	624	"	"	"	"	
2,3,4,6-Tetrachlorophenol	ND	---	312	"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	---	312	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	312	"	"	"	"	
2,4,5-Trichlorophenol	ND	---	312	"	"	"	"	
2,4,6-Trichlorophenol	ND	---	312	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 86 %*	*Limits: 35-120 %*	"	"	"	
2-Fluorobiphenyl (Surr)			*82 %*	*Limits: 45-120 %*	"	"	"	
Phenol-d6 (Surr)			*97 %*	*Limits: 40-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*94 %*	*Limits: 30-125 %*	"	"	"	
2-Fluorophenol (Surr)			*95 %*	*Limits: 35-120 %*	"	"	"	
2,4,6-Tribromophenol (Surr)			*74 %*	*Limits: 35-125 %*	"	"	"	

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-1-12.5' (A3I0335-01)			**Matrix: Soil**					
Batch: 3090653								
Lead	**9.33**	---	0.276	mg/kg dry	10	09/27/13 14:19	EPA 6020A	
SB-1-20' (A3I0335-02)			**Matrix: Soil**					
Batch: 3090653								
Lead	**8.17**	---	0.303	mg/kg dry	10	09/27/13 14:21	EPA 6020A	
SB-2-12.5' (A3I0335-03)			**Matrix: Soil**					
Batch: 3090653								
Lead	**16.7**	---	0.281	mg/kg dry	10	09/27/13 13:30	EPA 6020A	Q-42
SB-4-12.5' (A3I0335-04)			**Matrix: Soil**					
Batch: 3090668								
Arsenic	**5.49**	---	1.50	mg/kg dry	10	10/01/13 10:43	EPA 6020A	
Barium	**142**	---	1.50	"	"	"	"	
Cadmium	ND	---	0.300	"	"	"	"	
Chromium	**18.5**	---	1.50	"	"	"	"	
Lead	**10.8**	---	0.300	"	"	"	"	
Mercury	ND	---	0.240	"	"	"	"	
Selenium	ND	---	1.50	"	"	"	"	
Silver	ND	---	0.300	"	"	"	"	
SB-5-12.5' (A3I0335-05)			**Matrix: Soil**					
Batch: 3090668								
Arsenic	**4.45**	---	1.54	mg/kg dry	10	10/01/13 10:46	EPA 6020A	
Barium	**141**	---	1.54	"	"	"	"	
Cadmium	ND	---	0.308	"	"	"	"	
Chromium	**17.4**	---	1.54	"	"	"	"	
Lead	**9.92**	---	0.308	"	"	"	"	
Mercury	ND	---	0.246	"	"	"	"	
Selenium	ND	---	1.54	"	"	"	"	
Silver	ND	---	0.308	"	"	"	"	
SB-6-12.5' (A3I0335-06)			**Matrix: Soil**					
Batch: 3090668								
Arsenic	**3.73**	---	1.31	mg/kg dry	10	10/01/13 10:48	EPA 6020A	
Barium	**126**	---	1.31	"	"	"	"	
Cadmium	**0.276**	---	0.262	"	"	"	"	
Chromium	**12.6**	---	1.31	"	"	"	"	
Lead	**8.92**	---	0.262	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-6-12.5' (A3I0335-06)			**Matrix: Soil**					
Mercury	ND	---	0.210	mg/kg dry	10	"	EPA 6020A	
Selenium	ND	---	1.31	"	"	"	"	
Silver	ND	---	0.262	"	"	"	"	
SB-9-12.5' (A3I0335-07)			**Matrix: Soil**					
Batch: 3090668								
Arsenic	**3.41**	---	1.31	mg/kg dry	10	09/30/13 12:40	EPA 6020A	
Barium	**123**	---	1.31	"	"	"	"	
Cadmium	**0.275**	---	0.262	"	"	"	"	
Chromium	**12.1**	---	1.31	"	"	"	"	
Lead	**9.05**	---	0.262	"	"	"	"	
Mercury	ND	---	0.105	"	"	"	"	
Selenium	ND	---	1.31	"	"	"	"	
Silver	ND	---	0.262	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-1-12.5' (A3I0335-01)			**Matrix: Soil**		**Batch: 3090412**			
% Solids	**73.3**	---	1.00	% by Weight	1	09/19/13 10:51	NWTPH-Dx	
SB-1-20' (A3I0335-02)			**Matrix: Soil**		**Batch: 3090412**			
% Solids	**72.6**	---	1.00	% by Weight	1	09/19/13 10:51	NWTPH-Dx	
SB-2-12.5' (A3I0335-03)			**Matrix: Soil**		**Batch: 3090412**			
% Solids	**75.7**	---	1.00	% by Weight	1	09/19/13 10:51	NWTPH-Dx	
SB-4-12.5' (A3I0335-04)			**Matrix: Soil**		**Batch: 3090412**			
% Solids	**73.0**	---	1.00	% by Weight	1	09/19/13 10:51	NWTPH-Dx	
SB-5-12.5' (A3I0335-05)			**Matrix: Soil**		**Batch: 3090412**			
% Solids	**71.9**	---	1.00	% by Weight	1	09/19/13 10:51	NWTPH-Dx	
SB-6-12.5' (A3I0335-06)			**Matrix: Soil**		**Batch: 3090412**			
% Solids	**74.0**	---	1.00	% by Weight	1	09/19/13 10:51	NWTPH-Dx	
SB-9-12.5' (A3I0335-07)			**Matrix: Soil**		**Batch: 3090412**			
% Solids	**73.4**	---	1.00	% by Weight	1	09/19/13 10:51	NWTPH-Dx	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

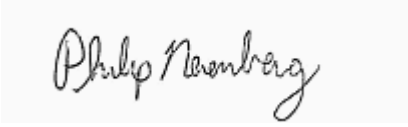
QUALITY CONTROL (QC) SAMPLE RESULTS

Hydrocarbon Identification Screen by NWTPH-HCID

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090395 - NWTPH-HCID (Soil)							**Soil**					
Blank (3090395-BLK1)						Prepared: 09/17/13 18:37	Analyzed: 09/17/13 22:40					
NWTPH-HCID												
Gasoline Range Organics	ND	---	18.2	mg/kg wet	1	---	---	---	---	---	---	
Diesel Range Organics	ND	---	45.5	"	"	---	---	---	---	---	---	
Oil Range Organics	ND	---	90.9	"	"	---	---	---	---	---	---	

Surr: o-Terphenyl (Surr) *Recovery: 107 %* *Limits: 50-150 %* *Dilution: 1x*

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

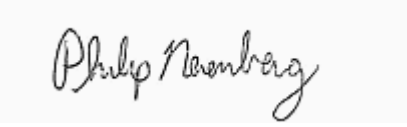
Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene to Naphthalene) by NWTPH-Gx

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090390 - EPA 5035A							**Soil**					
Blank (3090390-BLK1)					Prepared: 09/17/13 16:00		Analyzed: 09/17/13 19:14					
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	---	3.33	mg/kg wet	50	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 96 %*	*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*96 %*	*50-150 %*			*"*					
LCS (3090390-BS2)					Prepared: 09/17/13 16:00		Analyzed: 09/17/13 18:23					
NWTPH-Gx (MS)												
Gasoline Range Organics	23.7	---	5.00	mg/kg wet	50	25.0	---	95	70-130%	---	---	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 86 %*	*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*100 %*	*50-150 %*			*"*					
Duplicate (3090390-DUP1)					Prepared: 09/17/13 16:45		Analyzed: 09/17/13 20:31					
QC Source Sample: SB-1-12.5' (A3I0335-01)												
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	---	7.75	mg/kg dry	50	---	ND	---	---	---	30%	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 98 %*	*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*99 %*	*50-150 %*			*"*					

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

QUALITY CONTROL (QC) SAMPLE RESULTS

RBCA Compounds (BTEX+) by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090390 - EPA 5035A							**Soil**					
Blank (3090390-BLK1)						Prepared: 09/17/13 16:00	Analyzed: 09/17/13 19:14					
5035/8260B												
Benzene	ND	---	8.33	ug/kg wet	50	---	---	---	---	---	---	
Toluene	ND	---	33.3	"	"	---	---	---	---	---	---	
Ethylbenzene	ND	---	16.7	"	"	---	---	---	---	---	---	
Xylenes, total	ND	---	50.0	"	"	---	---	---	---	---	---	
Naphthalene	ND	---	66.7	"	"	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	---	33.3	"	"	---	---	---	---	---	---	
Isopropylbenzene	ND	---	33.3	"	"	---	---	---	---	---	---	
n-Propylbenzene	ND	---	16.7	"	"	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	---	33.3	"	"	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	---	33.3	"	"	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	16.7	"	"	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	16.7	"	"	---	---	---	---	---	---	

Surr: Dibromofluoromethane (Surr)	*Recovery: 92 %*	*Limits: 70-130 %*	*Dilution: 1x*
1,4-Difluorobenzene (Surr)	*100 %*	*70-130 %*	*"*
Toluene-d8 (Surr)	*98 %*	*70-130 %*	*"*
4-Bromofluorobenzene (Surr)	*93 %*	*70-130 %*	*"*

LCS (3090390-BS1)						Prepared: 09/17/13 16:00	Analyzed: 09/17/13 18:49					
5035/8260B												
Benzene	982	---	12.5	ug/kg wet	50	1000	---	98	65-135%	---	---	
Toluene	988	---	50.0	"	"	"	---	99	"	---	---	
Ethylbenzene	1020	---	25.0	"	"	"	---	102	"	---	---	
Xylenes, total	3120	---	75.0	"	"	3000	---	104	"	---	---	
Naphthalene	922	---	100	"	"	1000	---	92	"	---	---	
Methyl tert-butyl ether (MTBE)	972	---	50.0	"	"	"	---	97	"	---	---	
Isopropylbenzene	1010	---	50.0	"	"	"	---	101	"	---	---	
n-Propylbenzene	1090	---	25.0	"	"	"	---	109	"	---	---	
1,2,4-Trimethylbenzene	1070	---	50.0	"	"	"	---	107	"	---	---	
1,3,5-Trimethylbenzene	1040	---	50.0	"	"	"	---	104	"	---	---	
1,2-Dibromoethane (EDB)	1020	---	25.0	"	"	"	---	102	"	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

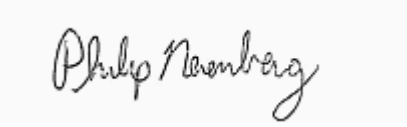
Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

QUALITY CONTROL (QC) SAMPLE RESULTS

RBCA Compounds (BTEX+) by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090390 - EPA 5035A							**Soil**					
LCS (3090390-BS1)					Prepared: 09/17/13 16:00		Analyzed: 09/17/13 18:49					
1,2-Dichloroethane (EDC)	1070	---	25.0	ug/kg wet	"	"	---	107	"	---	---	
Surr: Dibromofluoromethane (Surr)			*Recovery: 95 %*	*Limits: 70-130 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Surr)			*100 %*	*70-130 %*			*"*					
Toluene-d8 (Surr)			*96 %*	*70-130 %*			*"*					
4-Bromofluorobenzene (Surr)			*90 %*	*70-130 %*			*"*					
Duplicate (3090390-DUP1)					Prepared: 09/17/13 16:45		Analyzed: 09/17/13 20:31					
QC Source Sample: SB-1-12.5' (A3I0335-01)												
5035/8260B												
Benzene	ND	---	19.4	ug/kg dry	50	---	ND	---	---	---	30%	
Toluene	ND	---	77.5	"	"	---	ND	---	---	---	30%	
Ethylbenzene	ND	---	38.8	"	"	---	ND	---	---	---	30%	
Xylenes, total	ND	---	116	"	"	---	ND	---	---	---	30%	
Naphthalene	ND	---	155	"	"	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	---	77.5	"	"	---	ND	---	---	---	30%	
Isopropylbenzene	ND	---	77.5	"	"	---	ND	---	---	---	30%	
n-Propylbenzene	ND	---	38.8	"	"	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	---	77.5	"	"	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	---	77.5	"	"	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	38.8	"	"	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	38.8	"	"	---	ND	---	---	---	30%	
Surr: Dibromofluoromethane (Surr)			*Recovery: 94 %*	*Limits: 70-130 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Surr)			*102 %*	*70-130 %*			*"*					
Toluene-d8 (Surr)			*97 %*	*70-130 %*			*"*					
4-Bromofluorobenzene (Surr)			*93 %*	*70-130 %*			*"*					

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090390 - EPA 5035A							**Soil**					
Blank (3090390-BLK1)						Prepared: 09/17/13 16:00	Analyzed: 09/17/13 19:14					
5035/8260B												
Acetone	ND	---	667	ug/kg wet	50	---	---	---	---	---	---	
Benzene	ND	---	8.33	"	"	---	---	---	---	---	---	
Bromobenzene	ND	---	16.7	"	"	---	---	---	---	---	---	
Bromochloromethane	ND	---	33.3	"	"	---	---	---	---	---	---	
Bromodichloromethane	ND	---	33.3	"	"	---	---	---	---	---	---	
Bromoform	ND	---	33.3	"	"	---	---	---	---	---	---	
Bromomethane	ND	---	333	"	"	---	---	---	---	---	---	
2-Butanone (MEK)	ND	---	333	"	"	---	---	---	---	---	---	
n-Butylbenzene	ND	---	33.3	"	"	---	---	---	---	---	---	
sec-Butylbenzene	ND	---	33.3	"	"	---	---	---	---	---	---	
tert-Butylbenzene	ND	---	33.3	"	"	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	16.7	"	"	---	---	---	---	---	---	
Chlorobenzene	ND	---	16.7	"	"	---	---	---	---	---	---	
Chloroethane	ND	---	333	"	"	---	---	---	---	---	---	
Chloroform	ND	---	33.3	"	"	---	---	---	---	---	---	
Chloromethane	ND	---	167	"	"	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	33.3	"	"	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	33.3	"	"	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	167	"	"	---	---	---	---	---	---	
Dibromochloromethane	ND	---	66.7	"	"	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	16.7	"	"	---	---	---	---	---	---	
Dibromomethane	ND	---	33.3	"	"	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	16.7	"	"	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	16.7	"	"	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	16.7	"	"	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	66.7	"	"	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	16.7	"	"	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	16.7	"	"	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	16.7	"	"	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090390 - EPA 5035A							**Soil**					
Blank (3090390-BLK1)					Prepared: 09/17/13 16:00 Analyzed: 09/17/13 19:14							
cis-1,2-Dichloroethene	ND	---	16.7	ug/kg wet	"	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	16.7	"	"	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	16.7	"	"	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	16.7	"	"	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	33.3	"	"	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	33.3	"	"	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	33.3	"	"	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	33.3	"	"	---	---	---	---	---	---	
Ethylbenzene	ND	---	16.7	"	"	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	66.7	"	"	---	---	---	---	---	---	
2-Hexanone	ND	---	333	"	"	---	---	---	---	---	---	
Isopropylbenzene	ND	---	33.3	"	"	---	---	---	---	---	---	
4-Isopropyltoluene	ND	---	33.3	"	"	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	---	333	"	"	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	---	33.3	"	"	---	---	---	---	---	---	
Methylene chloride	ND	---	167	"	"	---	---	---	---	---	---	
Naphthalene	ND	---	66.7	"	"	---	---	---	---	---	---	
n-Propylbenzene	ND	---	16.7	"	"	---	---	---	---	---	---	
Styrene	ND	---	33.3	"	"	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	---	16.7	"	"	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	16.7	"	"	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	16.7	"	"	---	---	---	---	---	---	
Toluene	ND	---	33.3	"	"	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	167	"	"	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	167	"	"	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	16.7	"	"	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	16.7	"	"	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	16.7	"	"	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	66.7	"	"	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	33.3	"	"	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090390 - EPA 5035A							**Soil**					
Blank (3090390-BLK1)					Prepared: 09/17/13 16:00 Analyzed: 09/17/13 19:14							
1,2,4-Trimethylbenzene	ND	---	33.3	"	"	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	---	33.3	"	"	---	---	---	---	---	---	
Vinyl chloride	ND	---	16.7	"	"	---	---	---	---	---	---	
m,p-Xylene	ND	---	33.3	"	"	---	---	---	---	---	---	
o-Xylene	ND	---	16.7	"	"	---	---	---	---	---	---	
Surr: Dibromofluoromethane (Surr)			*Recovery: 92 %*	*Limits: 70-130 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Surr)			*100 %*	*70-130 %*			*"*					
Toluene-d8 (Surr)			*98 %*	*70-130 %*			*"*					
4-Bromofluorobenzene (Surr)			*93 %*	*70-130 %*			*"*					
LCS (3090390-BS1)					Prepared: 09/17/13 16:00 Analyzed: 09/17/13 18:49							
5035/8260B												
Acetone	2040	---	1000	ug/kg wet	50	2000	---	102	65-135%	---	---	
Benzene	982	---	12.5	"	"	1000	---	98	"	---	---	
Bromobenzene	1040	---	25.0	"	"	"	---	104	"	---	---	
Bromochloromethane	1030	---	50.0	"	"	"	---	103	"	---	---	
Bromodichloromethane	994	---	50.0	"	"	"	---	99	"	---	---	
Bromoform	984	---	50.0	"	"	"	---	98	"	---	---	
Bromomethane	1000	---	500	"	"	"	---	100	"	---	---	
2-Butanone (MEK)	1830	---	500	"	"	2000	---	92	"	---	---	
n-Butylbenzene	1050	---	50.0	"	"	1000	---	105	"	---	---	
sec-Butylbenzene	1070	---	50.0	"	"	"	---	107	"	---	---	
tert-Butylbenzene	1060	---	50.0	"	"	"	---	106	"	---	---	
Carbon tetrachloride	1120	---	25.0	"	"	"	---	112	"	---	---	
Chlorobenzene	1020	---	25.0	"	"	"	---	102	"	---	---	
Chloroethane	1650	---	500	"	"	"	---	165	"	---	---	EST
Chloroform	1050	---	50.0	"	"	"	---	105	"	---	---	
Chloromethane	920	---	250	"	"	"	---	92	"	---	---	
2-Chlorotoluene	1050	---	50.0	"	"	"	---	105	"	---	---	
4-Chlorotoluene	1040	---	50.0	"	"	"	---	104	"	---	---	
1,2-Dibromo-3-chloropropane	830	---	250	"	"	"	---	83	"	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090390 - EPA 5035A							**Soil**					
LCS (3090390-BS1)					Prepared: 09/17/13 16:00 Analyzed: 09/17/13 18:49							
Dibromochloromethane	1080	---	100	ug/kg wet	"	"	---	108	"	---	---	
1,2-Dibromoethane (EDB)	1020	---	25.0	"	"	"	---	102	"	---	---	
Dibromomethane	970	---	50.0	"	"	"	---	97	"	---	---	
1,2-Dichlorobenzene	1010	---	25.0	"	"	"	---	101	"	---	---	
1,3-Dichlorobenzene	1020	---	25.0	"	"	"	---	102	"	---	---	
1,4-Dichlorobenzene	1040	---	25.0	"	"	"	---	104	"	---	---	
Dichlorodifluoromethane	1060	---	100	"	"	"	---	106	"	---	---	
1,1-Dichloroethane	1020	---	25.0	"	"	"	---	102	"	---	---	
1,2-Dichloroethane (EDC)	1070	---	25.0	"	"	"	---	107	"	---	---	
1,1-Dichloroethene	1070	---	25.0	"	"	"	---	107	"	---	---	
cis-1,2-Dichloroethene	966	---	25.0	"	"	"	---	97	"	---	---	
trans-1,2-Dichloroethene	1020	---	25.0	"	"	"	---	102	"	---	---	
1,2-Dichloropropane	1020	---	25.0	"	"	"	---	102	"	---	---	
1,3-Dichloropropane	995	---	25.0	"	"	"	---	100	"	---	---	
2,2-Dichloropropane	994	---	50.0	"	"	"	---	99	"	---	---	
1,1-Dichloropropene	939	---	50.0	"	"	"	---	94	"	---	---	
cis-1,3-Dichloropropene	874	---	50.0	"	"	"	---	87	"	---	---	
trans-1,3-Dichloropropene	1050	---	50.0	"	"	"	---	105	"	---	---	
Ethylbenzene	1020	---	25.0	"	"	"	---	102	"	---	---	
Hexachlorobutadiene	1000	---	100	"	"	"	---	100	"	---	---	
2-Hexanone	1750	---	500	"	"	2000	---	87	"	---	---	
Isopropylbenzene	1010	---	50.0	"	"	1000	---	101	"	---	---	
4-Isopropyltoluene	1060	---	50.0	"	"	"	---	106	"	---	---	
4-Methyl-2-pentanone (MiBK)	2020	---	500	"	"	2000	---	101	"	---	---	
Methyl tert-butyl ether (MTBE)	972	---	50.0	"	"	1000	---	97	"	---	---	
Methylene chloride	988	---	250	"	"	"	---	99	"	---	---	
Naphthalene	922	---	100	"	"	"	---	92	"	---	---	
n-Propylbenzene	1090	---	25.0	"	"	"	---	109	"	---	---	
Styrene	1060	---	50.0	"	"	"	---	106	"	---	---	
1,1,1,2-Tetrachloroethane	1060	---	25.0	"	"	"	---	106	"	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090390 - EPA 5035A							**Soil**					
LCS (3090390-BS1)					Prepared: 09/17/13 16:00		Analyzed: 09/17/13 18:49					
1,1,2,2-Tetrachloroethane	1050	---	25.0	"	"	"	---	105	"	---	---	
Tetrachloroethene (PCE)	1050	---	25.0	"	"	"	---	105	"	---	---	
Toluene	988	---	50.0	"	"	"	---	99	"	---	---	
1,2,3-Trichlorobenzene	929	---	250	"	"	"	---	93	"	---	---	
1,2,4-Trichlorobenzene	972	---	250	"	"	"	---	97	"	---	---	
1,1,1-Trichloroethane	1070	---	25.0	"	"	"	---	107	"	---	---	
1,1,2-Trichloroethane	1010	---	25.0	"	"	"	---	101	"	---	---	
Trichloroethene (TCE)	970	---	25.0	"	"	"	---	97	"	---	---	
Trichlorofluoromethane	1460	---	100	"	"	"	---	146	"	---	---	EST
1,2,3-Trichloropropane	1050	---	50.0	"	"	"	---	105	"	---	---	
1,2,4-Trimethylbenzene	1070	---	50.0	"	"	"	---	107	"	---	---	
1,3,5-Trimethylbenzene	1040	---	50.0	"	"	"	---	104	"	---	---	
Vinyl chloride	1160	---	25.0	"	"	"	---	116	"	---	---	
m,p-Xylene	2130	---	50.0	"	"	2000	---	107	"	---	---	
o-Xylene	988	---	25.0	"	"	1000	---	99	"	---	---	

Surr: Dibromofluoromethane (Surr)	*Recovery: 95 %*	*Limits: 70-130 %*	*Dilution: 1x*
1,4-Difluorobenzene (Surr)	*100 %*	*70-130 %*	*"*
Toluene-d8 (Surr)	*96 %*	*70-130 %*	*"*
4-Bromofluorobenzene (Surr)	*90 %*	*70-130 %*	*"*

Duplicate (3090390-DUP1)					Prepared: 09/17/13 16:45		Analyzed: 09/17/13 20:31					
QC Source Sample: SB-1-12.5' (A3I0335-01)												
5035/8260B												
Acetone	ND	---	1550	ug/kg dry	50	---	ND	---	---	---	30%	
Benzene	ND	---	19.4	"	"	---	ND	---	---	---	30%	
Bromobenzene	ND	---	38.8	"	"	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	77.5	"	"	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	77.5	"	"	---	ND	---	---	---	30%	
Bromoform	ND	---	77.5	"	"	---	ND	---	---	---	30%	
Bromomethane	ND	---	775	"	"	---	ND	---	---	---	30%	
2-Butanone (MEK)	ND	---	775	"	"	---	ND	---	---	---	30%	
n-Butylbenzene	ND	---	77.5	"	"	---	ND	---	---	---	30%	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090390 - EPA 5035A							**Soil**					
Duplicate (3090390-DUP1)					Prepared: 09/17/13 16:45 Analyzed: 09/17/13 20:31							
QC Source Sample: SB-1-12.5' (A3I0335-01)												
sec-Butylbenzene	ND	---	77.5	ug/kg dry	"	---	ND	---	---	---	30%	
tert-Butylbenzene	ND	---	77.5	"	"	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	38.8	"	"	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	38.8	"	"	---	ND	---	---	---	30%	
Chloroethane	ND	---	775	"	"	---	ND	---	---	---	30%	
Chloroform	ND	---	77.5	"	"	---	ND	---	---	---	30%	
Chloromethane	ND	---	388	"	"	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	77.5	"	"	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	77.5	"	"	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloroprop ane	ND	---	388	"	"	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	155	"	"	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	38.8	"	"	---	ND	---	---	---	30%	
Dibromomethane	ND	---	77.5	"	"	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	38.8	"	"	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	38.8	"	"	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	38.8	"	"	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	155	"	"	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	38.8	"	"	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	38.8	"	"	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	38.8	"	"	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	---	38.8	"	"	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	---	38.8	"	"	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	38.8	"	"	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	38.8	"	"	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	77.5	"	"	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	77.5	"	"	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	77.5	"	"	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	77.5	"	"	---	ND	---	---	---	30%	
Ethylbenzene	ND	---	38.8	"	"	---	ND	---	---	---	30%	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090390 - EPA 5035A							**Soil**					
Duplicate (3090390-DUP1)						Prepared: 09/17/13 16:45	Analyzed: 09/17/13 20:31					
QC Source Sample: SB-1-12.5' (A3I0335-01)												
Hexachlorobutadiene	ND	---	155	ug/kg dry	"	---	ND	---	---	---	30%	
2-Hexanone	ND	---	775	"	"	---	ND	---	---	---	30%	
Isopropylbenzene	ND	---	77.5	"	"	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	---	77.5	"	"	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	---	775	"	"	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	---	77.5	"	"	---	ND	---	---	---	30%	
Methylene chloride	ND	---	388	"	"	---	ND	---	---	---	30%	
Naphthalene	ND	---	155	"	"	---	ND	---	---	---	30%	
n-Propylbenzene	ND	---	38.8	"	"	---	ND	---	---	---	30%	
Styrene	ND	---	77.5	"	"	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	38.8	"	"	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	---	38.8	"	"	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	---	38.8	"	"	---	ND	---	---	---	30%	
Toluene	ND	---	77.5	"	"	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	---	388	"	"	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	388	"	"	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	38.8	"	"	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	38.8	"	"	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	---	38.8	"	"	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	---	155	"	"	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	77.5	"	"	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	---	77.5	"	"	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	---	77.5	"	"	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	38.8	"	"	---	ND	---	---	---	30%	
m,p-Xylene	ND	---	77.5	"	"	---	ND	---	---	---	30%	
o-Xylene	ND	---	38.8	"	"	---	ND	---	---	---	30%	

Surr:	*Dibromofluoromethane (Surr)*	*Recovery:*	*94 %*	*Limits:*	*70-130 %*	*Dilution: 1x*
	1,4-Difluorobenzene (Surr)		*102 %*		*70-130 %*	*"*
	Toluene-d8 (Surr)		*97 %*		*70-130 %*	*"*

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090390 - EPA 5035A							**Soil**					
Duplicate (3090390-DUP1)						Prepared: 09/17/13 16:45 Analyzed: 09/17/13 20:31						
QC Source Sample: SB-1-12.5' (A3I0335-01)												
Surr: 4-Bromofluorobenzene (Surr)				*Recovery: 93 %*		*Limits: 70-130 %*			*Dilution: 1x*			

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

QUALITY CONTROL (QC) SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090691 - EPA 3546							**Soil**					
Blank (3090691-BLK1)					Prepared: 09/30/13 07:57		Analyzed: 09/30/13 15:11					**C-07**
EPA 8082A												
Aroclor 1016	ND	---	8.33	ug/kg wet	1	---	---	---	---	---	---	
Aroclor 1221	ND	---	8.33	"	"	---	---	---	---	---	---	
Aroclor 1232	ND	---	8.33	"	"	---	---	---	---	---	---	
Aroclor 1242	ND	---	8.33	"	"	---	---	---	---	---	---	
Aroclor 1248	ND	---	8.33	"	"	---	---	---	---	---	---	
Aroclor 1254	ND	---	8.33	"	"	---	---	---	---	---	---	
Aroclor 1260	ND	---	8.33	"	"	---	---	---	---	---	---	
Surr: Decachlorobiphenyl (Surr)			*Recovery: 94 %*	*Limits: 60-125 %*			*Dilution: 1x*					*Q-23*
LCS (3090691-BS1)					Prepared: 09/30/13 07:57		Analyzed: 09/30/13 15:29					**C-07**
EPA 8082A												
Aroclor 1016	268	---	10.0	ug/kg wet	1	250	---	107	40-140%	---	---	
Aroclor 1260	242	---	10.0	"	"	"	---	97	60-130%	---	---	
Surr: Decachlorobiphenyl (Surr)			*Recovery: 106 %*	*Limits: 60-125 %*			*Dilution: 1x*					*Q-23*
Duplicate (3090691-DUP1)					Prepared: 09/30/13 07:57		Analyzed: 09/30/13 16:05					**C-07**
QC Source Sample: SB-4-12.5' (A3I0335-04)												
EPA 8082A												
Aroclor 1016	ND	---	12.6	ug/kg dry	1	---	ND	---	---	---	30%	
Aroclor 1221	ND	---	12.6	"	"	---	ND	---	---	---	30%	
Aroclor 1232	ND	---	12.6	"	"	---	ND	---	---	---	30%	
Aroclor 1242	ND	---	12.6	"	"	---	ND	---	---	---	30%	
Aroclor 1248	ND	---	12.6	"	"	---	ND	---	---	---	30%	
Aroclor 1254	ND	---	12.6	"	"	---	ND	---	---	---	30%	
Aroclor 1260	ND	---	12.6	"	"	---	ND	---	---	---	30%	
Surr: Decachlorobiphenyl (Surr)			*Recovery: 27 %*	*Limits: 60-125 %*			*Dilution: 1x*					*Q-23, S-03*
Matrix Spike (3090691-MS1)					Prepared: 09/30/13 07:57		Analyzed: 09/30/13 17:17					**C-07**
QC Source Sample: SB-9-12.5' (A3I0335-07)												
EPA 8082A												
Aroclor 1016	167	---	12.1	ug/kg dry	1	302	ND	55	40-140%	---	---	
Aroclor 1260	120	---	12.1	"	"	"	ND	40	60-130%	---	---	Q-02

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

QUALITY CONTROL (QC) SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090691 - EPA 3546							**Soil**					
Matrix Spike (3090691-MS1)					Prepared: 09/30/13 07:57		Analyzed: 09/30/13 17:17					**C-07**
QC Source Sample: SB-9-12.5' (A3I0335-07)												
Surr: Decachlorobiphenyl (Surr)			*Recovery: 38 %*	*Limits: 60-125 %*			*Dilution: 1x*					*Q-23, S-03*

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

QUALITY CONTROL (QC) SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3100002 - EPA 3546							**Soil**					
Blank (3100002-BLK1)					Prepared: 10/01/13 07:47		Analyzed: 10/01/13 12:57					**C-07**
EPA 8082A												
Aroclor 1016	ND	---	8.33	ug/kg wet	1	---	---	---	---	---	---	
Aroclor 1221	ND	---	8.33	"	"	---	---	---	---	---	---	
Aroclor 1232	ND	---	8.33	"	"	---	---	---	---	---	---	
Aroclor 1242	ND	---	8.33	"	"	---	---	---	---	---	---	
Aroclor 1248	ND	---	8.33	"	"	---	---	---	---	---	---	
Aroclor 1254	ND	---	8.33	"	"	---	---	---	---	---	---	
Aroclor 1260	ND	---	8.33	"	"	---	---	---	---	---	---	
Surr: Decachlorobiphenyl (Surr)			*Recovery: 104 %*	*Limits: 60-125 %*			*Dilution: 1x*					
LCS (3100002-BS1)					Prepared: 10/01/13 07:47		Analyzed: 10/01/13 13:15					**C-07, Q-18**
EPA 8082A												
Aroclor 1016	197	---	10.0	ug/kg wet	1	250	---	79	40-140%	---	---	
Aroclor 1260	196	---	10.0	"	"	"	---	78	60-130%	---	---	
Surr: Decachlorobiphenyl (Surr)			*Recovery: 98 %*	*Limits: 60-125 %*			*Dilution: 1x*					

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090402 - EPA 3546							**Soil**					
Blank (3090402-BLK1)						Prepared: 09/18/13 07:25	Analyzed: 09/18/13 15:49					
EPA 8270D												
Acenaphthene	ND	---	208	ug/kg wet	1	---	---	---	---	---	---	
Acenaphthylene	ND	---	208	"	"	---	---	---	---	---	---	
Aniline	ND	---	208	"	"	---	---	---	---	---	---	
Anthracene	ND	---	208	"	"	---	---	---	---	---	---	
Azobenzene (1,2-DPH)	ND	---	208	"	"	---	---	---	---	---	---	
Benz(a)anthracene	ND	---	208	"	"	---	---	---	---	---	---	
Benzo(a)pyrene	ND	---	208	"	"	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	---	208	"	"	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	---	208	"	"	---	---	---	---	---	---	
Benzo(b+k)fluoranthene(s)	ND	---	417	"	"	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	---	208	"	"	---	---	---	---	---	---	
Benzoic acid	ND	---	1040	"	"	---	---	---	---	---	---	
Benzyl alcohol	ND	---	208	"	"	---	---	---	---	---	---	
Bis(2-Chloroethoxy) methane	ND	---	208	"	"	---	---	---	---	---	---	
Bis(2-Chloroethyl) ether	ND	---	208	"	"	---	---	---	---	---	---	
Bis(2-Chloroisopropyl) ether	ND	---	208	"	"	---	---	---	---	---	---	
Bis(2-Ethylhexyl) adipate	ND	---	208	"	"	---	---	---	---	---	---	
Bis(2-ethylhexyl)phthalate	ND	---	208	"	"	---	---	---	---	---	---	
4-Bromophenyl phenyl ether	ND	---	208	"	"	---	---	---	---	---	---	
Butyl benzyl phthalate	ND	---	208	"	"	---	---	---	---	---	---	
Carbazole	ND	---	208	"	"	---	---	---	---	---	---	
4-Chloroaniline	ND	---	208	"	"	---	---	---	---	---	---	
4-Chloro-3-methylphenol	ND	---	208	"	"	---	---	---	---	---	---	
2-Chloronaphthalene	ND	---	208	"	"	---	---	---	---	---	---	
2-Chlorophenol	ND	---	208	"	"	---	---	---	---	---	---	
4-Chlorophenyl phenyl ether	ND	---	208	"	"	---	---	---	---	---	---	
Chrysene	ND	---	208	"	"	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	---	208	"	"	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090402 - EPA 3546							**Soil**					
Blank (3090402-BLK1)					Prepared: 09/18/13 07:25 Analyzed: 09/18/13 15:49							
Dibenzofuran	ND	---	208	"	"	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	208	"	"	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	208	"	"	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	208	"	"	---	---	---	---	---	---	
2,4-Dichlorophenol	ND	---	208	"	"	---	---	---	---	---	---	
Di-n-butylphthalate	ND	---	208	"	"	---	---	---	---	---	---	
Diethylphthalate	ND	---	208	"	"	---	---	---	---	---	---	
Dimethylphthalate	ND	---	208	"	"	---	---	---	---	---	---	
2,4-Dimethylphenol	ND	---	208	"	"	---	---	---	---	---	---	
1,2-Dinitrobenzene	ND	---	208	"	"	---	---	---	---	---	---	
1,3-Dinitrobenzene	ND	---	208	"	"	---	---	---	---	---	---	
1,4-Dinitrobenzene	ND	---	208	"	"	---	---	---	---	---	---	
4,6-Dinitro-2-methylphenol	ND	---	500	"	"	---	---	---	---	---	---	
2,4-Dinitrophenol	ND	---	208	"	"	---	---	---	---	---	---	
2,4-Dinitrotoluene	ND	---	208	"	"	---	---	---	---	---	---	
2,6-Dinitrotoluene	ND	---	208	"	"	---	---	---	---	---	---	
Di-n-octyl phthalate	ND	---	208	"	"	---	---	---	---	---	---	
Fluoranthene	ND	---	208	"	"	---	---	---	---	---	---	
Fluorene	ND	---	208	"	"	---	---	---	---	---	---	
Hexachlorobenzene	ND	---	208	"	"	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	208	"	"	---	---	---	---	---	---	
Hexachlorocyclopentadiene	ND	---	208	"	"	---	---	---	---	---	---	
Hexachloroethane	ND	---	208	"	"	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	---	208	"	"	---	---	---	---	---	---	
Isophorone	ND	---	208	"	"	---	---	---	---	---	---	
1-Methylnaphthalene	ND	---	208	"	"	---	---	---	---	---	---	
2-Methylnaphthalene	ND	---	208	"	"	---	---	---	---	---	---	
2-Methylphenol	ND	---	208	"	"	---	---	---	---	---	---	
3+4-Methylphenol(s)	ND	---	208	"	"	---	---	---	---	---	---	
Naphthalene	ND	---	208	"	"	---	---	---	---	---	---	
2-Nitroaniline	ND	---	208	"	"	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090402 - EPA 3546							**Soil**					
Blank (3090402-BLK1)					Prepared: 09/18/13 07:25 Analyzed: 09/18/13 15:49							
3-Nitroaniline	ND	---	208	ug/kg wet	"	---	---	---	---	---	---	
4-Nitroaniline	ND	---	208	"	"	---	---	---	---	---	---	
Nitrobenzene	ND	---	208	"	"	---	---	---	---	---	---	
2-Nitrophenol	ND	---	208	"	"	---	---	---	---	---	---	
4-Nitrophenol	ND	---	208	"	"	---	---	---	---	---	---	
N-Nitrosodimethylamine	ND	---	208	"	"	---	---	---	---	---	---	
N-Nitroso-di-n-propylamine	ND	---	208	"	"	---	---	---	---	---	---	
N-Nitrosodiphenylamine	ND	---	208	"	"	---	---	---	---	---	---	
Pentachlorophenol (PCP)	ND	---	208	"	"	---	---	---	---	---	---	
Phenanthrene	ND	---	208	"	"	---	---	---	---	---	---	
Phenol	ND	---	208	"	"	---	---	---	---	---	---	
Pyrene	ND	---	208	"	"	---	---	---	---	---	---	
Pyridine	ND	---	417	"	"	---	---	---	---	---	---	
2,3,4,6-Tetrachlorophenol	ND	---	208	"	"	---	---	---	---	---	---	
2,3,5,6-Tetrachlorophenol	ND	---	208	"	"	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	208	"	"	---	---	---	---	---	---	
2,4,5-Trichlorophenol	ND	---	208	"	"	---	---	---	---	---	---	
2,4,6-Trichlorophenol	ND	---	208	"	"	---	---	---	---	---	---	
Surr: Nitrobenzene-d5 (Surr)			*Recovery: 91 %*	*Limits: 35-120 %*			*Dilution: 1x*					
2-Fluorobiphenyl (Surr)			*85 %*	*45-120 %*			*"*					
Phenol-d6 (Surr)			*97 %*	*40-120 %*			*"*					
p-Terphenyl-d14 (Surr)			*92 %*	*30-125 %*			*"*					
2-Fluorophenol (Surr)			*89 %*	*35-120 %*			*"*					
2,4,6-Tribromophenol (Surr)			*80 %*	*35-125 %*			*"*					
LCS (3090402-BS1)					Prepared: 09/18/13 07:25 Analyzed: 09/18/13 16:25							
EPA 8270D												
Acenaphthene	738	---	500	ug/kg wet	2	800	---	92	45-125%	---	---	
Acenaphthylene	784	---	500	"	"	"	---	98	"	---	---	
Aniline	561	---	500	"	"	"	---	70	40-120%	---	---	Q-31
Anthracene	764	---	500	"	"	"	---	95	55-125%	---	---	
Azobenzene (1,2-DPH)	826	---	500	"	"	"	---	103	25-120%	---	---	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090402 - EPA 3546							**Soil**					
LCS (3090402-BS1)					Prepared: 09/18/13 07:25 Analyzed: 09/18/13 16:25							
Benz(a)anthracene	726	---	500	ug/kg wet	"	"	---	91	50-125%	---	---	
Benzo(a)pyrene	767	---	500	"	"	"	---	96	"	---	---	
Benzo(b)fluoranthene	738	---	500	"	"	"	---	92	45-125%	---	---	
Benzo(k)fluoranthene	715	---	500	"	"	"	---	89	"	---	---	
Benzo(b+k)fluoranthene(s)	1450	---	1000	"	"	1600	---	91	"	---	---	
Benzo(g,h,i)perylene	759	---	500	"	"	800	---	95	40-125%	---	---	
Benzoic acid	ND	---	2500	"	"	1600	---	64	10-120%	---	---	
Benzyl alcohol	721	---	500	"	"	800	---	90	20-125%	---	---	
Bis(2-Chloroethoxy) methane	764	---	500	"	"	"	---	96	45-120%	---	---	
Bis(2-Chloroethyl) ether	726	---	500	"	"	"	---	91	40-120%	---	---	
Bis(2-Chloroisopropyl) ether	785	---	500	"	"	"	---	98	20-120%	---	---	
Bis(2-Ethylhexyl) adipate	671	---	500	"	"	"	---	84	40-120%	---	---	
Bis(2-ethylhexyl)phthalate	650	---	500	"	"	"	---	81	45-125%	---	---	
4-Bromophenyl phenyl ether	715	---	500	"	"	"	---	89	45-120%	---	---	
Butyl benzyl phthalate	714	---	500	"	"	"	---	89	50-125%	---	---	
Carbazole	878	---	500	"	"	"	---	110	45-125%	---	---	
4-Chloroaniline	509	---	500	"	"	"	---	64	10-120%	---	---	Q-31
4-Chloro-3-methylphenol	806	---	500	"	"	"	---	101	45-120%	---	---	
2-Chloronaphthalene	745	---	500	"	"	"	---	93	"	---	---	
2-Chlorophenol	722	---	500	"	"	"	---	90	"	---	---	
4-Chlorophenyl phenyl ether	754	---	500	"	"	"	---	94	"	---	---	
Chrysene	736	---	500	"	"	"	---	92	55-125%	---	---	
Dibenz(a,h)anthracene	724	---	500	"	"	"	---	90	40-125%	---	---	
Dibenzofuran	770	---	500	"	"	"	---	96	50-125%	---	---	
1,2-Dichlorobenzene	655	---	500	"	"	"	---	82	45-120%	---	---	
1,3-Dichlorobenzene	645	---	500	"	"	"	---	81	40-120%	---	---	
1,4-Dichlorobenzene	647	---	500	"	"	"	---	81	35-120%	---	---	
2,4-Dichlorophenol	755	---	500	"	"	"	---	94	45-120%	---	---	
Di-n-butylphthalate	815	---	500	"	"	"	---	102	55-120%	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090402 - EPA 3546							**Soil**					
LCS (3090402-BS1)					Prepared: 09/18/13 07:25	Analyzed: 09/18/13 16:25						
Diethylphthalate	799	---	500	"	"	"	---	100	50-120%	---	---	
Dimethylphthalate	763	---	500	"	"	"	---	95	"	---	---	
2,4-Dimethylphenol	733	---	500	"	"	"	---	92	30-120%	---	---	
1,2-Dinitrobenzene	796	---	500	"	"	"	---	99	40-120%	---	---	
1,3-Dinitrobenzene	777	---	500	"	"	"	---	97	"	---	---	
1,4-Dinitrobenzene	776	---	500	"	"	"	---	97	"	---	---	
4,6-Dinitro-2-methylphenol	ND	---	1200	"	"	"	---	107	30-135%	---	---	
2,4-Dinitrophenol	875	---	500	"	"	"	---	109	15-130%	---	---	
2,4-Dinitrotoluene	734	---	500	"	"	"	---	92	50-120%	---	---	
2,6-Dinitrotoluene	713	---	500	"	"	"	---	89	"	---	---	
Di-n-octyl phthalate	644	---	500	"	"	"	---	81	40-130%	---	---	
Fluoranthene	777	---	500	"	"	"	---	97	55-125%	---	---	
Fluorene	781	---	500	"	"	"	---	98	50-125%	---	---	
Hexachlorobenzene	683	---	500	"	"	"	---	85	45-120%	---	---	
Hexachlorobutadiene	628	---	500	"	"	"	---	79	40-120%	---	---	
Hexachlorocyclopentadiene	740	---	500	"	"	"	---	92	"	---	---	
Hexachloroethane	648	---	500	"	"	"	---	81	35-120%	---	---	
Indeno(1,2,3-cd)pyrene	682	---	500	"	"	"	---	85	40-125%	---	---	
Isophorone	767	---	500	"	"	"	---	96	45-120%	---	---	
1-Methylnaphthalene	745	---	500	"	"	"	---	93	45-125%	---	---	
2-Methylnaphthalene	754	---	500	"	"	"	---	94	"	---	---	
2-Methylphenol	762	---	500	"	"	"	---	95	40-120%	---	---	
3+4-Methylphenol(s)	808	---	500	"	"	"	---	101	"	---	---	
Naphthalene	710	---	500	"	"	"	---	89	40-125%	---	---	
2-Nitroaniline	767	---	500	"	"	"	---	96	45-120%	---	---	
3-Nitroaniline	787	---	500	"	"	"	---	98	25-120%	---	---	
4-Nitroaniline	647	---	500	"	"	"	---	81	35-120%	---	---	Q-41
Nitrobenzene	769	---	500	"	"	"	---	96	40-120%	---	---	
2-Nitrophenol	811	---	500	"	"	"	---	101	"	---	---	
4-Nitrophenol	828	---	500	"	"	"	---	103	15-140%	---	---	
N-Nitrosodimethylamine	730	---	500	"	"	"	---	91	20-120%	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090402 - EPA 3546							**Soil**					
LCS (3090402-BS1)					Prepared: 09/18/13 07:25		Analyzed: 09/18/13 16:25					
N-Nitroso-di-n-propylamine	786	---	500	ug/kg wet	"	"	---	98	40-120%	---	---	
N-Nitrosodiphenylamine	802	---	500	"	"	"	---	100	50-120%	---	---	
Pentachlorophenol (PCP)	665	---	500	"	"	"	---	83	25-120%	---	---	
Phenanthrene	731	---	500	"	"	"	---	91	50-125%	---	---	
Phenol	789	---	500	"	"	"	---	99	40-120%	---	---	
Pyrene	788	---	500	"	"	"	---	99	45-125%	---	---	
Pyridine	ND	---	1000	"	"	"	---	78	40-120%	---	---	
2,3,4,6-Tetrachlorophenol	815	---	500	"	"	"	---	102	"	---	---	
2,3,5,6-Tetrachlorophenol	719	---	500	"	"	"	---	90	"	---	---	
1,2,4-Trichlorobenzene	679	---	500	"	"	"	---	85	45-120%	---	---	
2,4,5-Trichlorophenol	710	---	500	"	"	"	---	89	50-120%	---	---	
2,4,6-Trichlorophenol	786	---	500	"	"	"	---	98	45-120%	---	---	

Surr: Nitrobenzene-d5 (Surr)	*Recovery: 92 %*	*Limits: 35-120 %*	*Dilution: 2x*
2-Fluorobiphenyl (Surr)	*86 %*	*45-120 %*	*"*
Phenol-d6 (Surr)	*98 %*	*40-120 %*	*"*
p-Terphenyl-d14 (Surr)	*85 %*	*30-125 %*	*"*
2-Fluorophenol (Surr)	*89 %*	*35-120 %*	*"*
2,4,6-Tribromophenol (Surr)	*90 %*	*35-125 %*	*"*

Matrix Spike (3090402-MS1)					Prepared: 09/18/13 07:25		Analyzed: 09/19/13 18:35					
QC Source Sample: SB-9-12.5' (A3I0335-07RE1)												
EPA 8270D												
Acenaphthene	940	---	317	ug/kg dry	1	1010	ND	93	45-120%	---	---	
Acenaphthylene	987	---	317	"	"	"	ND	97	"	---	---	
Aniline	729	---	317	"	"	"	ND	72	40-120%	---	---	
Anthracene	997	---	317	"	"	"	ND	98	55-120%	---	---	
Azobenzene (1,2-DPH)	1030	---	317	"	"	"	ND	102	25-120%	---	---	
Benz(a)anthracene	998	---	317	"	"	"	ND	98	50-120%	---	---	
Benzo(a)pyrene	1050	---	317	"	"	"	ND	104	"	---	---	
Benzo(b)fluoranthene	1050	---	317	"	"	"	ND	104	45-120%	---	---	
Benzo(k)fluoranthene	994	---	317	"	"	"	ND	98	45-125%	---	---	
Benzo(b+k)fluoranthene(s)	2030	---	634	"	"	2030	ND	100	"	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090402 - EPA 3546							**Soil**					
Matrix Spike (3090402-MS1)						Prepared: 09/18/13 07:25	Analyzed: 09/19/13 18:35					
QC Source Sample: SB-9-12.5' (A3I0335-07RE1)												
Benzo(g,h,i)perylene	953	---	317	"	"	1010	ND	94	40-125%	---	---	
Benzoic acid	1790	---	1590	"	"	2030	ND	88	10-120%	---	---	
Benzyl alcohol	965	---	317	"	"	1010	ND	95	20-125%	---	---	
Bis(2-Chloroethoxy) methane	1010	---	317	"	"	"	ND	100	45-120%	---	---	
Bis(2-Chloroethyl) ether	882	---	317	"	"	"	ND	87	40-120%	---	---	
Bis(2-Chloroisopropyl) ether	864	---	317	"	"	"	ND	85	20-120%	---	---	
Bis(2-Ethylhexyl) adipate	1050	---	317	"	"	"	ND	104	40-120%	---	---	
Bis(2-ethylhexyl)phthalate	1020	---	317	"	"	"	ND	101	45-125%	---	---	
4-Bromophenyl phenyl ether	924	---	317	"	"	"	ND	91	45-120%	---	---	
Butyl benzyl phthalate	1090	---	317	"	"	"	ND	107	50-125%	---	---	
Carbazole	1050	---	317	"	"	"	ND	103	45-120%	---	---	
4-Chloroaniline	744	---	317	"	"	"	ND	73	10-120%	---	---	
4-Chloro-3-methylphenol	915	---	317	"	"	"	ND	90	45-120%	---	---	
2-Chloronaphthalene	968	---	317	"	"	"	ND	95	"	---	---	
2-Chlorophenol	980	---	317	"	"	"	ND	97	"	---	---	
4-Chlorophenyl phenyl ether	946	---	317	"	"	"	ND	93	"	---	---	
Chrysene	943	---	317	"	"	"	ND	93	55-120%	---	---	
Dibenz(a,h)anthracene	963	---	317	"	"	"	ND	95	40-125%	---	---	
Dibenzofuran	960	---	317	"	"	"	ND	95	50-120%	---	---	
1,2-Dichlorobenzene	876	---	317	"	"	"	ND	86	45-120%	---	---	
1,3-Dichlorobenzene	868	---	317	"	"	"	ND	86	40-120%	---	---	
1,4-Dichlorobenzene	870	---	317	"	"	"	ND	86	35-120%	---	---	
2,4-Dichlorophenol	912	---	317	"	"	"	ND	90	45-120%	---	---	
Di-n-butylphthalate	939	---	317	"	"	"	ND	93	55-120%	---	---	
Diethylphthalate	1040	---	317	"	"	"	ND	102	50-120%	---	---	
Dimethylphthalate	982	---	317	"	"	"	ND	97	"	---	---	
2,4-Dimethylphenol	852	---	317	"	"	"	ND	84	30-120%	---	---	
1,2-Dinitrobenzene	900	---	317	"	"	"	ND	89	40-120%	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090402 - EPA 3546							**Soil**					
Matrix Spike (3090402-MS1)					Prepared: 09/18/13 07:25		Analyzed: 09/19/13 18:35					
QC Source Sample: SB-9-12.5' (A3I0335-07RE1)												
1,3-Dinitrobenzene	904	---	317	"	"	"	ND	89	"	---	---	
1,4-Dinitrobenzene	907	---	317	"	"	"	ND	89	"	---	---	
4,6-Dinitro-2-methylphenol	834	---	761	"	"	"	ND	82	30-135%	---	---	
2,4-Dinitrophenol	890	---	317	"	"	"	ND	88	15-130%	---	---	
2,4-Dinitrotoluene	908	---	317	"	"	"	ND	89	50-120%	---	---	
2,6-Dinitrotoluene	917	---	317	"	"	"	ND	90	"	---	---	
Di-n-octyl phthalate	1100	---	317	"	"	"	ND	108	40-130%	---	---	
Fluoranthene	982	---	317	"	"	"	ND	97	55-120%	---	---	
Fluorene	973	---	317	"	"	"	ND	96	50-120%	---	---	
Hexachlorobenzene	885	---	317	"	"	"	ND	87	45-120%	---	---	
Hexachlorobutadiene	934	---	317	"	"	"	ND	92	40-120%	---	---	
Hexachlorocyclopentadiene	1020	---	317	"	"	"	ND	101	"	---	---	
Hexachloroethane	914	---	317	"	"	"	ND	90	35-120%	---	---	
Indeno(1,2,3-cd)pyrene	942	---	317	"	"	"	ND	93	40-120%	---	---	
Isophorone	982	---	317	"	"	"	ND	97	45-120%	---	---	
1-Methylnaphthalene	977	---	317	"	"	"	ND	96	"	---	---	
2-Methylnaphthalene	1020	---	317	"	"	"	ND	100	"	---	---	
2-Methylphenol	852	---	317	"	"	"	ND	84	40-120%	---	---	
3+4-Methylphenol(s)	934	---	317	"	"	"	ND	92	"	---	---	
Naphthalene	924	---	317	"	"	"	ND	91	"	---	---	
2-Nitroaniline	934	---	317	"	"	"	ND	92	45-120%	---	---	
3-Nitroaniline	795	---	317	"	"	"	ND	78	25-120%	---	---	
4-Nitroaniline	863	---	317	"	"	"	ND	85	35-120%	---	---	
Nitrobenzene	986	---	317	"	"	"	ND	97	40-120%	---	---	
2-Nitrophenol	1020	---	317	"	"	"	ND	100	"	---	---	
4-Nitrophenol	894	---	317	"	"	"	ND	88	15-140%	---	---	
N-Nitrosodimethylamine	867	---	317	"	"	"	ND	85	20-120%	---	---	
N-Nitroso-di-n-propylamine	854	---	317	"	"	"	ND	84	40-120%	---	---	
N-Nitrosodiphenylamine	969	---	317	"	"	"	ND	95	50-120%	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

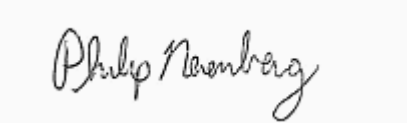
QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090402 - EPA 3546							**Soil**					
Matrix Spike (3090402-MS1)						Prepared: 09/18/13 07:25	Analyzed: 09/19/13 18:35					
QC Source Sample: SB-9-12.5' (A3I0335-07RE1)												
Pentachlorophenol (PCP)	795	---	317	ug/kg dry	"	"	ND	78	25-120%	---	---	
Phenanthrene	941	---	317	"	"	"	ND	93	50-120%	---	---	
Phenol	1060	---	317	"	"	"	ND	105	40-120%	---	---	
Pyrene	945	---	317	"	"	"	ND	93	45-120%	---	---	
Pyridine	706	---	634	"	"	"	ND	70	40-120%	---	---	
2,3,4,6-Tetrachlorophenol	878	---	317	"	"	"	ND	87	"	---	---	
2,3,5,6-Tetrachlorophenol	841	---	317	"	"	"	ND	83	"	---	---	
1,2,4-Trichlorobenzene	939	---	317	"	"	"	ND	93	45-120%	---	---	
2,4,5-Trichlorophenol	906	---	317	"	"	"	ND	89	50-120%	---	---	
2,4,6-Trichlorophenol	880	---	317	"	"	"	ND	87	45-120%	---	---	

Surr: Nitrobenzene-d5 (Surr)	*Recovery: 91 %*	*Limits: 35-120 %*	*Dilution: 1x*
2-Fluorobiphenyl (Surr)	*89 %*	*45-120 %*	*"*
Phenol-d6 (Surr)	*104 %*	*40-120 %*	*"*
p-Terphenyl-d14 (Surr)	*95 %*	*30-125 %*	*"*
2-Fluorophenol (Surr)	*100 %*	*35-120 %*	*"*
2,4,6-Tribromophenol (Surr)	*88 %*	*35-125 %*	*"*

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

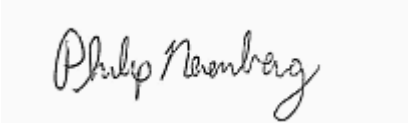
Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090653 - EPA 3051A							**Soil**					
Blank (3090653-BLK1)					Prepared: 09/27/13 09:04		Analyzed: 09/27/13 12:56					
EPA 6020A												
Lead	ND	---	0.200	mg/kg wet	10	---	---	---	---	---	---	
LCS (3090653-BS1)					Prepared: 09/27/13 09:04		Analyzed: 09/27/13 12:59					
EPA 6020A												
Lead	54.0	---	0.200	mg/kg wet	10	50.0	---	108	80-120%	---	---	
Duplicate (3090653-DUP1)					Prepared: 09/27/13 09:04		Analyzed: 09/27/13 13:33					
QC Source Sample: SB-2-12.5' (A3I0335-03)												
EPA 6020A												
Lead	**12.0**	---	0.278	mg/kg dry	10	---	16.7	---	---	32	40%	
Matrix Spike (3090653-MS1)					Prepared: 09/27/13 09:04		Analyzed: 09/27/13 13:36					
QC Source Sample: SB-2-12.5' (A3I0335-03)												
EPA 6020A												
Lead	103	---	0.264	mg/kg dry	10	66.0	16.7	131	75-125%	---	---	Q-01
Post Spike (3090653-PS1)					Prepared: 09/27/13 14:50		Analyzed: 09/27/13 15:19					
QC Source Sample: SB-2-12.5' (A3I0335-03)												
EPA 6020A												
Lead	308	---		ug/L	10	196	116	98	80-120%		---	

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090668 - EPA 3051A							**Soil**					
Blank (3090668-BLK1)					Prepared: 09/27/13 12:51		Analyzed: 09/30/13 12:32					
EPA 6020A												
Arsenic	ND	---	1.00	mg/kg wet	10	---	---	---	---	---	---	
Barium	ND	---	1.00	"	"	---	---	---	---	---	---	
Cadmium	ND	---	0.200	"	"	---	---	---	---	---	---	
Chromium	ND	---	1.00	"	"	---	---	---	---	---	---	
Lead	ND	---	0.200	"	"	---	---	---	---	---	---	
Selenium	ND	---	1.00	"	"	---	---	---	---	---	---	
Silver	ND	---	0.200	"	"	---	---	---	---	---	---	
Blank (3090668-BLK2)					Prepared: 09/27/13 12:51		Analyzed: 09/30/13 12:52					
EPA 6020A												
Mercury	ND	---	0.0800	mg/kg wet	10	---	---	---	---	---	---	Q-16
LCS (3090668-BS1)					Prepared: 09/27/13 12:51		Analyzed: 09/30/13 12:34					
EPA 6020A												
Arsenic	51.2	---	1.00	mg/kg wet	10	50.0	---	102	80-120%	---	---	
Barium	50.5	---	1.00	"	"	"	---	101	"	---	---	
Cadmium	50.6	---	0.200	"	"	"	---	101	"	---	---	
Chromium	48.8	---	1.00	"	"	"	---	97	"	---	---	
Lead	51.8	---	0.200	"	"	"	---	104	"	---	---	
Mercury	1.08	---	0.0800	"	"	1.00	---	108	"	---	---	
Selenium	27.1	---	1.00	"	"	25.0	---	108	"	---	---	
Silver	25.5	---	0.200	"	"	"	---	102	"	---	---	
Duplicate (3090668-DUP1)					Prepared: 09/27/13 12:51		Analyzed: 09/30/13 12:55					
QC Source Sample: SB-9-12.5' (A3I0335-07)												
EPA 6020A												
Arsenic	**5.45**	---	1.42	mg/kg dry	10	---	3.41	---	---	46	40%	Q-05
Barium	**135**	---	1.42	"	"	---	123	---	---	9	40%	
Cadmium	**0.341**	---	0.284	"	"	---	0.275	---	---	21	40%	
Chromium	**14.2**	---	1.42	"	"	---	12.1	---	---	16	40%	
Lead	**10.3**	---	0.284	"	"	---	9.05	---	---	13	40%	
Mercury	ND	---	0.114	"	"	---	ND	---	---	---	40%	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090668 - EPA 3051A							**Soil**					
Duplicate (3090668-DUP1)					Prepared: 09/27/13 12:51		Analyzed: 09/30/13 12:55					
QC Source Sample: SB-9-12.5' (A3I0335-07)												
Selenium	ND	---	1.42	"	"	---	ND	---	---	---	40%	
Silver	ND	---	0.284	"	"	---	ND	---	---	---	40%	
Matrix Spike (3090668-MS1)					Prepared: 09/27/13 12:51		Analyzed: 09/30/13 12:57					
QC Source Sample: SB-9-12.5' (A3I0335-07)												
EPA 6020A												
Arsenic	73.7	---	1.42	mg/kg dry	10	71.1	3.41	99	75-125%	---	---	
Barium	191	---	1.42	"	"	"	123	96	"	---	---	
Cadmium	72.1	---	0.284	"	"	"	0.275	101	"	---	---	
Chromium	80.0	---	1.42	"	"	"	12.1	95	"	---	---	
Lead	77.5	---	0.284	"	"	"	9.05	96	"	---	---	
Mercury	1.47	---	0.114	"	"	1.42	ND	103	"	---	---	
Selenium	35.5	---	1.42	"	"	35.5	ND	100	"	---	---	
Silver	35.4	---	0.284	"	"	"	ND	100	"	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

QUALITY CONTROL (QC) SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090412 - Total Solids (Dry Weight)							**Soil**					
Duplicate (3090412-DUP2)					Prepared: 09/18/13 12:18		Analyzed: 09/19/13 10:51					
QC Source Sample: SB-9-12.5' (A3I0335-07)												
NWTPH-Dx												
% Solids	**73.3**	---	1.00	% by Weight	1	---	73.4	---	---	0.1	20%	

No Client related Batch QC samples analyzed for this batch. See notes page for more information.

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

SAMPLE PREPARATION INFORMATION

Hydrocarbon Identification Screen by NWTPH-HCID

Prep: NWTPH-HCID (Soil)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3090395							
A3I0335-04	Soil	NWTPH-HCID	09/17/13 10:10	09/17/13 18:37	9.83g/10mL	10g/10mL	1.02
A3I0335-05	Soil	NWTPH-HCID	09/17/13 11:15	09/17/13 18:37	9.45g/10mL	10g/10mL	1.06
A3I0335-06	Soil	NWTPH-HCID	09/17/13 13:00	09/17/13 18:37	9.65g/10mL	10g/10mL	1.04
A3I0335-07	Soil	NWTPH-HCID	09/17/13 13:45	09/17/13 18:37	9.83g/10mL	10g/10mL	1.02

Gasoline Range Hydrocarbons (Benzene to Naphthalene) by NWTPH-Gx

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3090390							
A3I0335-01	Soil	NWTPH-Gx (MS)	09/17/13 08:40	09/17/13 16:45	12.726g/10mL	10g/10mL	0.79
A3I0335-02	Soil	NWTPH-Gx (MS)	09/17/13 08:50	09/17/13 16:45	12.687g/10mL	10g/10mL	0.79
A3I0335-03	Soil	NWTPH-Gx (MS)	09/17/13 09:20	09/17/13 16:45	11.748g/10mL	10g/10mL	0.85

RBCA Compounds (BTEX+) by EPA 8260B

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3090390							
A3I0335-01	Soil	5035/8260B	09/17/13 08:40	09/17/13 16:45	12.726g/10mL	10g/10mL	0.79
A3I0335-02	Soil	5035/8260B	09/17/13 08:50	09/17/13 16:45	12.687g/10mL	10g/10mL	0.79
A3I0335-03	Soil	5035/8260B	09/17/13 09:20	09/17/13 16:45	11.748g/10mL	10g/10mL	0.85

Volatile Organic Compounds by EPA 8260B

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3090390							
A3I0335-04	Soil	5035/8260B	09/17/13 10:10	09/17/13 16:45	12.744g/10mL	10g/10mL	0.79
A3I0335-05	Soil	5035/8260B	09/17/13 11:15	09/17/13 16:45	11.594g/10mL	10g/10mL	0.86
A3I0335-06	Soil	5035/8260B	09/17/13 13:00	09/17/13 16:45	12.493g/10mL	10g/10mL	0.80
A3I0335-07	Soil	5035/8260B	09/17/13 13:45	09/17/13 16:45	12.423g/10mL	10g/10mL	0.81

Polychlorinated Biphenyls by EPA 8082A

Prep: EPA 3546

Sample	Default	RL Prep

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

SAMPLE PREPARATION INFORMATION

Polychlorinated Biphenyls by EPA 8082A

Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 3090691							
A3I0335-04	Soil	EPA 8082A	09/17/13 10:10	09/30/13 07:57	10.42g/5mL	10g/5mL	0.96
A3I0335-07	Soil	EPA 8082A	09/17/13 13:45	09/30/13 07:57	10.7g/5mL	10g/5mL	0.94
Batch: 3100002							
A3I0335-05RE1	Soil	EPA 8082A	09/17/13 11:15	10/01/13 10:08	10.9g/5mL	10g/5mL	0.92
A3I0335-06RE1	Soil	EPA 8082A	09/17/13 13:00	10/01/13 10:08	10.36g/5mL	10g/5mL	0.97

Semivolatile Organic Compounds by EPA 8270D

Prep: EPA 3546

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3090402							
A3I0335-04RE2	Soil	EPA 8270D	09/17/13 10:10	09/18/13 07:25	10.69g/5mL	10g/5mL	0.94
A3I0335-05RE1	Soil	EPA 8270D	09/17/13 11:15	09/18/13 07:25	11.14g/5mL	10g/5mL	0.90
A3I0335-06RE2	Soil	EPA 8270D	09/17/13 13:00	09/18/13 07:25	10.45g/5mL	10g/5mL	0.96
A3I0335-07RE1	Soil	EPA 8270D	09/17/13 13:45	09/18/13 07:25	10.91g/5mL	10g/5mL	0.92

Total Metals by EPA 6020 (ICPMS)

Prep: EPA 3051A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3090653							
A3I0335-01	Soil	EPA 6020A	09/17/13 08:40	09/27/13 09:04	0.495g/50mL	0.5g/50mL	1.01
A3I0335-02	Soil	EPA 6020A	09/17/13 08:50	09/27/13 09:04	0.455g/50mL	0.5g/50mL	1.10
A3I0335-03	Soil	EPA 6020A	09/17/13 09:20	09/27/13 09:04	0.47g/50mL	0.5g/50mL	1.06
Batch: 3090668							
A3I0335-04	Soil	EPA 6020A	09/17/13 10:10	09/27/13 12:51	0.457g/50mL	0.5g/50mL	1.09
A3I0335-05	Soil	EPA 6020A	09/17/13 11:15	09/27/13 12:51	0.452g/50mL	0.5g/50mL	1.11
A3I0335-06	Soil	EPA 6020A	09/17/13 13:00	09/27/13 12:51	0.515g/50mL	0.5g/50mL	0.97
A3I0335-07	Soil	EPA 6020A	09/17/13 13:45	09/27/13 12:51	0.52g/50mL	0.5g/50mL	0.96

Percent Dry Weight

Prep: Total Solids (Dry Weight)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3090412							
A3I0335-01	Soil	NWTPH-Dx	09/17/13 08:40	09/18/13 12:19	1N/A/1N/A	1N/A/1N/A	NA

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

SAMPLE PREPARATION INFORMATION

Percent Dry Weight

Prep: Total Solids (Dry Weight)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A3I0335-02	Soil	NWTPH-Dx	09/17/13 08:50	09/18/13 12:19	1N/A/1N/A	1N/A/1N/A	NA
A3I0335-03	Soil	NWTPH-Dx	09/17/13 09:20	09/18/13 12:19	1N/A/1N/A	1N/A/1N/A	NA
A3I0335-04	Soil	NWTPH-Dx	09/17/13 10:10	09/18/13 12:19	1N/A/1N/A	1N/A/1N/A	NA
A3I0335-05	Soil	NWTPH-Dx	09/17/13 11:15	09/18/13 12:19	1N/A/1N/A	1N/A/1N/A	NA
A3I0335-06	Soil	NWTPH-Dx	09/17/13 13:00	09/18/13 12:19	1N/A/1N/A	1N/A/1N/A	NA
A3I0335-07	Soil	NWTPH-Dx	09/17/13 13:45	09/18/13 12:19	1N/A/1N/A	1N/A/1N/A	NA

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56

Notes and Definitions

Qualifiers:

C-07	Extract has undergone Sulfuric Acid Cleanup by EPA 3665A, Sulfur Cleanup by EPA 3660B, and Florisil Cleanup by EPA 3620B in order to minimize matrix interference.
EST	Result reported as an Estimated Value. Recovery for Lab Control Spike (LCS) is above the upper control limit. Data may be biased high.
Q-01	Spike recovery and/or RPD is outside acceptance limits.
Q-02	Spike recovery is outside of established control limits due to matrix interference.
Q-05	Analyses are not controlled on RPD values from sample or duplicate concentrations below 5 times the reporting level.
Q-16	Reanalysis of an original Batch QC sample.
Q-18	Matrix Spike results for this extraction batch are not reported due to the high dilution necessary for analysis of the source sample.
Q-23	Recovery of Continuing Calibration Verification sample above upper control limit for this analyte. Data is likely biased high.
Q-31	Estimated Results. Recovery of Continuing Calibration Verification sample below lower control limit for this analyte. Results are likely biased low.
Q-41	Estimated Results. Recovery of Continuing Calibration Verification sample above upper control limit for this analyte. Results are likely biased high.
Q-42	Matrix Spike and/or Duplicate analysis was performed on this sample. % Recovery or RPD for this analyte is outside laboratory control limits. (Refer to the QC Section of Analytical Report.)
S-03	Reextraction and analysis, or analysis of laboratory duplicate, confirms surrogate failure due to sample matrix effect.
V-15	Sample aliquot was subsampled from the sample container. The subsampled aliquot was preserved in the laboratory within 48 hours of sampling.

Notes and Conventions:

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis. Results listed as 'wet' or without 'dry'designation are not dry weight corrected.
RPD	Relative Percent Difference
MDL	If MDL is not listed, data has been evaluated to the Method Reporting Limit only.
WMSC	Water Miscible Solvent Correction has been applied to Results and MRLs for volatiles soil samples per EPA 8000C.
Batch QC	Unless specifically requested, this report contains only results for Batch QC derived from client samples included in this report. All analyses were performed with the appropriate Batch QC (including Sample Duplicates, Matrix Spikes and/or Matrix Spike Duplicates) in order to meet or exceed method and regulatory requirements. Any exceptions to this will be qualified in this report. Complete Batch QC results are available upon request. In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) is analyzed to demonstrate accuracy and precision of the extraction and analysis.

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Blank Policy

Apex assesses blank data for potential high bias down to a level equal to ½ the method reporting limit (MRL), except for conventional chemistry and HCID analyses which are assessed only to the MRL. Sample results flagged with a B or B-02 qualifier are potentially biased high if they are less than ten times the level found in the blank for inorganic analyses or less than five times the level found in the blank for organic analyses.

For accurate comparison of volatile results to the level found in the blank; water sample results should be divided by the dilution factor, and soil sample results should be divided by 1/50 of the sample dilution to account for the sample prep factor.

Results qualified as reported below the MRL may include a potential high bias if associated with a B or B-02 qualified blank. B and B-02 qualifications are not applied to J qualified results reported below the MRL.

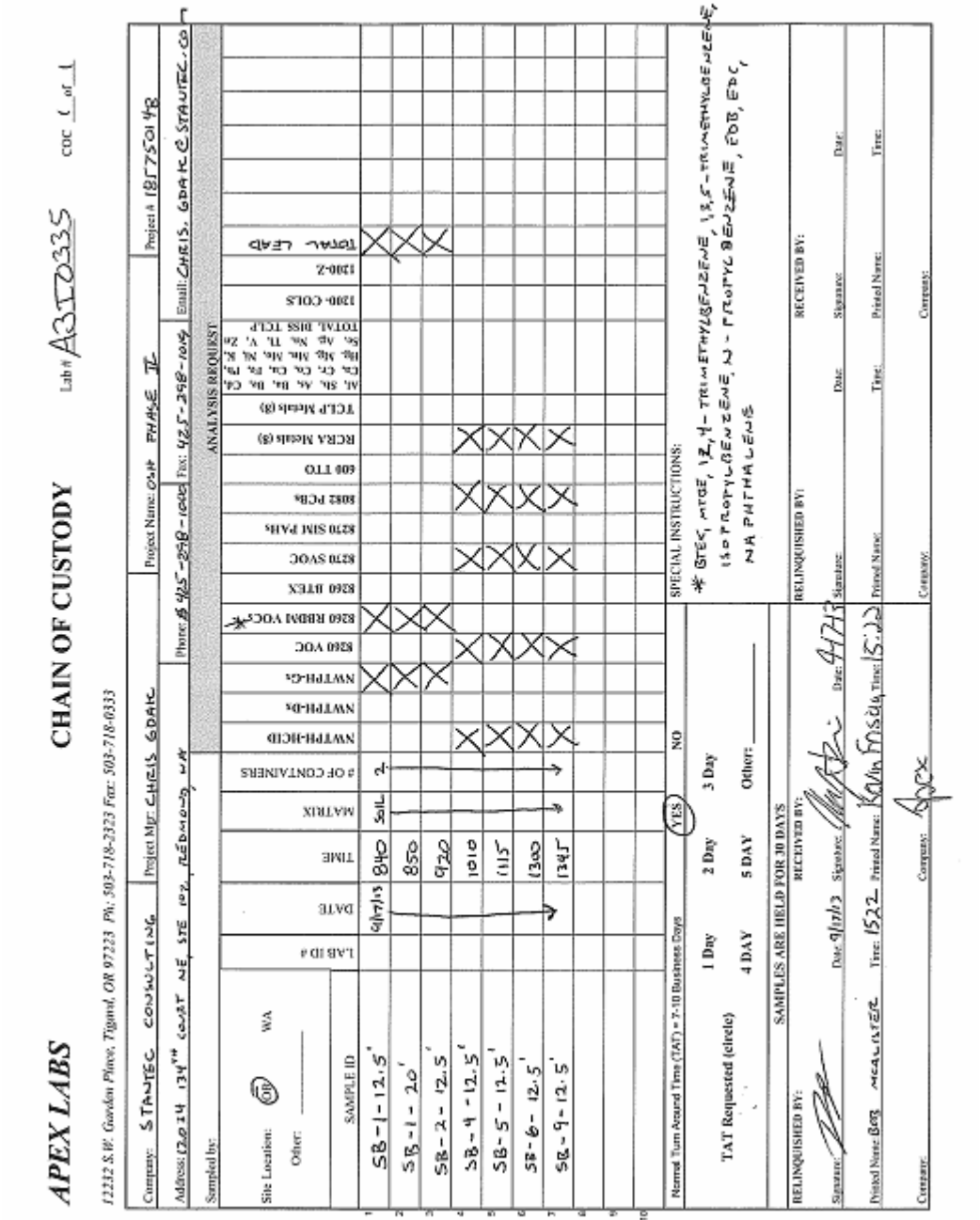
--- QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

*** Used to indicate a possible discrepency with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/02/13 17:56



APEX LABS

12232 S.W. Garden Place, Tigard, OR 97223 Ph: 503-718-2323 Fax: 503-718-0333

CHAIN OF CUSTODY

Lab # A3I0335 COC 1 of 1

Company: STANTEC CONSULTING Project Mgr: CHRIS GDAK Project Name: OSH PHASE II Project # 185750148

Address: 12014 134TH COURT NE, STE 102, REDMOND, WA Phone: 425-258-1005 Fax: 425-258-1005 Email: CHRIS.GDAK@STANTEC.COM

Sampled by:

Site Location: OR WA Other: _____

ANALYSIS REQUEST

	SAMPLE ID	LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 VOC	8260 RBDM VOCs*	8260 BTEX	8270 SVOC	8270 SIM PAHs	8082 PCBs	608 TTO	RCRA Metals (8)	TCLP Metals (8)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS TCLP	1200-COLS	1200-Z	TOTAL LEAD
1	SB-1-12.5'		9/7/13	840	SOIL	2			X		X											X
2	SB-1-20'			850					X		X											X
3	SB-2-12.5'			920					X		X											X
4	SB-4-12.5'			1010			X			X			X	X	X	X						
5	SB-5-12.5'			1115			X			X			X	X	X	X						
6	SB-6-12.5'			1300			X			X			X	X	X	X						
7	SB-9-12.5'			1345			X			X			X	X	X	X						
8																						
9																						
10																						

Normal Turn Around Time (TAT) = 7-10 Business Days YES NO

TAT Requested (circle): 1 Day 2 Day 3 Day 4 DAY 5 DAY Other: _____

SPECIAL INSTRUCTIONS:

* GRO, MTBE, 1,2,4-TRIMETHYLBENZENE, 1,3,5-TRIMETHYLBENZENE, ISOPROPYLBENZENE, N-PROPYLBENZENE, NAPHTHALENE

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY: Signature: Printed Name: Company:

RECEIVED BY: Date: 9/7/13 Time: 1522 Signature: Printed Name: Company: Apex

RELINQUISHED BY: Signature: Printed Name: Company:

RECEIVED BY: Date: Time: Signature: Printed Name: Company:

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Friday, October 4, 2013

Chris Gdak
Stantec
9400 SW Barnes Rd Ste 200
Portland, OR 97225

RE: OSH Phase II / 185750148

Enclosed are the results of analyses for work order A3I0351, which was received by the laboratory on 9/17/2013 at 3:22:00PM.

Thank you for using Apex Labs. We appreciate your business and strive to provide the highest quality services to the environmental industry.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

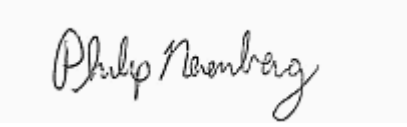
Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB-1	A3I0351-01	Water	09/17/13 09:00	09/17/13 15:22
SB-2	A3I0351-02	Water	09/17/13 09:45	09/17/13 15:22
SB-4	A3I0351-03	Water	09/17/13 10:40	09/17/13 15:22
SB-5	A3I0351-04	Water	09/17/13 11:40	09/17/13 15:22
SB-6	A3I0351-05	Water	09/17/13 13:10	09/17/13 15:22
SB-9	A3I0351-06	Water	09/17/13 14:00	09/17/13 15:22

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

ANALYTICAL SAMPLE RESULTS

Hydrocarbon Identification Screen by NWTPH-HCID

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-4 (A3I0351-03)			**Matrix: Water**		**Batch: 3090437**			
Gasoline Range Organics	ND	---	0.0980	mg/L	1	09/19/13 21:54	NWTPH-HCID	
Diesel Range Organics	ND	---	0.245	"	"	"	"	
Oil Range Organics	ND	---	0.245	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 95 %*	*Limits: 50-150 %*	"	"	"	
SB-5 (A3I0351-04)			**Matrix: Water**		**Batch: 3090437**			
Gasoline Range Organics	ND	---	0.100	mg/L	1	09/19/13 22:12	NWTPH-HCID	
Diesel Range Organics	ND	---	0.250	"	"	"	"	
Oil Range Organics	ND	---	0.250	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 98 %*	*Limits: 50-150 %*	"	"	"	
SB-6 (A3I0351-05)			**Matrix: Water**		**Batch: 3090437**			
Gasoline Range Organics	ND	---	0.0952	mg/L	1	09/19/13 22:31	NWTPH-HCID	
Diesel Range Organics	ND	---	0.238	"	"	"	"	
Oil Range Organics	ND	---	0.238	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 95 %*	*Limits: 50-150 %*	"	"	"	
SB-9 (A3I0351-06)			**Matrix: Water**		**Batch: 3090437**			
Gasoline Range Organics	ND	---	0.0980	mg/L	1	09/19/13 22:49	NWTPH-HCID	
Diesel Range Organics	ND	---	0.245	"	"	"	"	
Oil Range Organics	ND	---	0.245	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 99 %*	*Limits: 50-150 %*	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

ANALYTICAL SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene to Naphthalene) by NWTPH-Gx

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-1 (A3I0351-01)			**Matrix: Water**		**Batch: 3090404**			
Gasoline Range Organics	ND	---	0.100	mg/L	1	09/18/13 14:47	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 90 %*	*Limits: 50-150 %*	"	"	"	
1,4-Difluorobenzene (Sur)			*94 %*	*Limits: 50-150 %*	"	"	"	
SB-2 (A3I0351-02)			**Matrix: Water**		**Batch: 3090404**			
Gasoline Range Organics	ND	---	0.100	mg/L	1	09/18/13 15:38	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 92 %*	*Limits: 50-150 %*	"	"	"	
1,4-Difluorobenzene (Sur)			*98 %*	*Limits: 50-150 %*	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

ANALYTICAL SAMPLE RESULTS

RBCA Compounds (BTEX+) by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-1 (A3I0351-01)			**Matrix: Water**		**Batch: 3090404**			
Benzene	ND	---	0.250	ug/L	1	09/18/13 14:47	EPA 8260B	
Toluene	ND	---	1.00	"	"	"	"	
Ethylbenzene	ND	---	0.500	"	"	"	"	
Xylenes, total	ND	---	1.50	"	"	"	"	
Naphthalene	ND	---	2.00	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	"	"	"	"	
Isopropylbenzene	ND	---	1.00	"	"	"	"	
n-Propylbenzene	ND	---	0.500	"	"	"	"	
1,2,4-Trimethylbenzene	ND	---	1.00	"	"	"	"	
1,3,5-Trimethylbenzene	ND	---	1.00	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	---	0.500	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	---	0.500	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 93 %*	*Limits: 80-120 %*	"	"	"	
1,4-Difluorobenzene (Surr)			*100 %*	*Limits: 80-120 %*	"	"	"	
Toluene-d8 (Surr)			*95 %*	*Limits: 80-120 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*99 %*	*Limits: 80-120 %*	"	"	"	
SB-2 (A3I0351-02)			**Matrix: Water**		**Batch: 3090404**			
Benzene	ND	---	0.250	ug/L	1	09/18/13 15:38	EPA 8260B	
Toluene	ND	---	1.00	"	"	"	"	
Ethylbenzene	ND	---	0.500	"	"	"	"	
Xylenes, total	ND	---	1.50	"	"	"	"	
Naphthalene	ND	---	2.00	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	"	"	"	"	
Isopropylbenzene	ND	---	1.00	"	"	"	"	
n-Propylbenzene	ND	---	0.500	"	"	"	"	
1,2,4-Trimethylbenzene	ND	---	1.00	"	"	"	"	
1,3,5-Trimethylbenzene	ND	---	1.00	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	---	0.500	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	---	0.500	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 94 %*	*Limits: 80-120 %*	"	"	"	
1,4-Difluorobenzene (Surr)			*101 %*	*Limits: 80-120 %*	"	"	"	
Toluene-d8 (Surr)			*94 %*	*Limits: 80-120 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*98 %*	*Limits: 80-120 %*	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-4 (A3I0351-03)			**Matrix: Water**		**Batch: 3090436**			
Acetone	ND	---	20.0	ug/L	1	09/19/13 12:47	EPA 8260B	Q-31
Benzene	ND	---	0.250	"	"	"	"	
Bromobenzene	ND	---	0.500	"	"	"	"	
Bromochloromethane	ND	---	1.00	"	"	"	"	
Bromodichloromethane	ND	---	1.00	"	"	"	"	
Bromoform	ND	---	1.00	"	"	"	"	
Bromomethane	ND	---	5.00	"	"	"	"	
2-Butanone (MEK)	ND	---	10.0	"	"	"	"	Q-31
n-Butylbenzene	ND	---	1.00	"	"	"	"	
sec-Butylbenzene	ND	---	1.00	"	"	"	"	
tert-Butylbenzene	ND	---	1.00	"	"	"	"	
Carbon tetrachloride	ND	---	0.500	"	"	"	"	
Chlorobenzene	ND	---	0.500	"	"	"	"	
Chloroethane	ND	---	5.00	"	"	"	"	EST
Chloroform	ND	---	1.00	"	"	"	"	
Chloromethane	ND	---	5.00	"	"	"	"	
2-Chlorotoluene	ND	---	1.00	"	"	"	"	
4-Chlorotoluene	ND	---	1.00	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	---	5.00	"	"	"	"	
Dibromochloromethane	ND	---	1.00	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	---	0.500	"	"	"	"	
Dibromomethane	ND	---	1.00	"	"	"	"	
1,2-Dichlorobenzene	ND	---	0.500	"	"	"	"	
1,3-Dichlorobenzene	ND	---	0.500	"	"	"	"	
1,4-Dichlorobenzene	ND	---	0.500	"	"	"	"	
Dichlorodifluoromethane	ND	---	1.00	"	"	"	"	
1,1-Dichloroethane	ND	---	0.500	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	---	0.500	"	"	"	"	
1,1-Dichloroethene	ND	---	0.500	"	"	"	"	
cis-1,2-Dichloroethene	ND	---	0.500	"	"	"	"	
trans-1,2-Dichloroethene	ND	---	0.500	"	"	"	"	
1,2-Dichloropropane	ND	---	0.500	"	"	"	"	
1,3-Dichloropropane	ND	---	1.00	"	"	"	"	
2,2-Dichloropropane	ND	---	1.00	"	"	"	"	
1,1-Dichloropropene	ND	---	1.00	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-4 (A3I0351-03)			**Matrix: Water**		**Batch: 3090436**			
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	"	EPA 8260B	
trans-1,3-Dichloropropene	ND	---	1.00	"	"	"	"	
Ethylbenzene	ND	---	0.500	"	"	"	"	
Hexachlorobutadiene	ND	---	5.00	"	"	"	"	
2-Hexanone	ND	---	10.0	"	"	"	"	
Isopropylbenzene	ND	---	1.00	"	"	"	"	
4-Isopropyltoluene	ND	---	1.00	"	"	"	"	
4-Methyl-2-pentanone (MiBK)	ND	---	10.0	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	"	"	"	"	
Methylene chloride	ND	---	5.00	"	"	"	"	
Naphthalene	ND	---	2.00	"	"	"	"	
n-Propylbenzene	ND	---	0.500	"	"	"	"	
Styrene	ND	---	1.00	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	---	0.500	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	---	0.500	"	"	"	"	
Tetrachloroethene (PCE)	ND	---	0.500	"	"	"	"	
Toluene	ND	---	1.00	"	"	"	"	
1,2,3-Trichlorobenzene	ND	---	2.00	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	2.00	"	"	"	"	
1,1,1-Trichloroethane	ND	---	0.500	"	"	"	"	
1,1,2-Trichloroethane	ND	---	0.500	"	"	"	"	
Trichloroethene (TCE)	ND	---	0.500	"	"	"	"	
Trichlorofluoromethane	ND	---	2.00	"	"	"	"	
1,2,3-Trichloropropane	ND	---	1.00	"	"	"	"	
1,2,4-Trimethylbenzene	ND	---	1.00	"	"	"	"	
1,3,5-Trimethylbenzene	ND	---	1.00	"	"	"	"	
Vinyl chloride	ND	---	0.500	"	"	"	"	
m,p-Xylene	ND	---	1.00	"	"	"	"	
o-Xylene	ND	---	0.500	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 89 %*	*Limits: 80-120 %*	"	"	"	
1,4-Difluorobenzene (Surr)			*94 %*	*Limits: 80-120 %*	"	"	"	
Toluene-d8 (Surr)			*95 %*	*Limits: 80-120 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*98 %*	*Limits: 80-120 %*	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-5 (A3I0351-04)			**Matrix: Water**		**Batch: 3090436**			
Acetone	ND	---	20.0	ug/L	1	09/19/13 13:38	EPA 8260B	Q-31
Benzene	ND	---	0.250	"	"	"	"	
Bromobenzene	ND	---	0.500	"	"	"	"	
Bromochloromethane	ND	---	1.00	"	"	"	"	
Bromodichloromethane	ND	---	1.00	"	"	"	"	
Bromoform	ND	---	1.00	"	"	"	"	
Bromomethane	ND	---	5.00	"	"	"	"	
2-Butanone (MEK)	ND	---	10.0	"	"	"	"	Q-31
n-Butylbenzene	ND	---	1.00	"	"	"	"	
sec-Butylbenzene	ND	---	1.00	"	"	"	"	
tert-Butylbenzene	ND	---	1.00	"	"	"	"	
Carbon tetrachloride	ND	---	0.500	"	"	"	"	
Chlorobenzene	ND	---	0.500	"	"	"	"	
Chloroethane	ND	---	5.00	"	"	"	"	EST
Chloroform	ND	---	1.00	"	"	"	"	
Chloromethane	ND	---	5.00	"	"	"	"	
2-Chlorotoluene	ND	---	1.00	"	"	"	"	
4-Chlorotoluene	ND	---	1.00	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	---	5.00	"	"	"	"	
Dibromochloromethane	ND	---	1.00	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	---	0.500	"	"	"	"	
Dibromomethane	ND	---	1.00	"	"	"	"	
1,2-Dichlorobenzene	ND	---	0.500	"	"	"	"	
1,3-Dichlorobenzene	ND	---	0.500	"	"	"	"	
1,4-Dichlorobenzene	ND	---	0.500	"	"	"	"	
Dichlorodifluoromethane	ND	---	1.00	"	"	"	"	
1,1-Dichloroethane	ND	---	0.500	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	---	0.500	"	"	"	"	
1,1-Dichloroethene	ND	---	0.500	"	"	"	"	
cis-1,2-Dichloroethene	ND	---	0.500	"	"	"	"	
trans-1,2-Dichloroethene	ND	---	0.500	"	"	"	"	
1,2-Dichloropropane	ND	---	0.500	"	"	"	"	
1,3-Dichloropropane	ND	---	1.00	"	"	"	"	
2,2-Dichloropropane	ND	---	1.00	"	"	"	"	
1,1-Dichloropropene	ND	---	1.00	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-5 (A3I0351-04)			**Matrix: Water**		**Batch: 3090436**			
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	"	EPA 8260B	
trans-1,3-Dichloropropene	ND	---	1.00	"	"	"	"	
Ethylbenzene	ND	---	0.500	"	"	"	"	
Hexachlorobutadiene	ND	---	5.00	"	"	"	"	
2-Hexanone	ND	---	10.0	"	"	"	"	
Isopropylbenzene	ND	---	1.00	"	"	"	"	
4-Isopropyltoluene	ND	---	1.00	"	"	"	"	
4-Methyl-2-pentanone (MiBK)	ND	---	10.0	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	"	"	"	"	
Methylene chloride	ND	---	5.00	"	"	"	"	
Naphthalene	ND	---	2.00	"	"	"	"	
n-Propylbenzene	ND	---	0.500	"	"	"	"	
Styrene	ND	---	1.00	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	---	0.500	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	---	0.500	"	"	"	"	
Tetrachloroethene (PCE)	ND	---	0.500	"	"	"	"	
Toluene	ND	---	1.00	"	"	"	"	
1,2,3-Trichlorobenzene	ND	---	2.00	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	2.00	"	"	"	"	
1,1,1-Trichloroethane	ND	---	0.500	"	"	"	"	
1,1,2-Trichloroethane	ND	---	0.500	"	"	"	"	
Trichloroethene (TCE)	ND	---	0.500	"	"	"	"	
Trichlorofluoromethane	ND	---	2.00	"	"	"	"	
1,2,3-Trichloropropane	ND	---	1.00	"	"	"	"	
1,2,4-Trimethylbenzene	ND	---	1.00	"	"	"	"	
1,3,5-Trimethylbenzene	ND	---	1.00	"	"	"	"	
Vinyl chloride	ND	---	0.500	"	"	"	"	
m,p-Xylene	ND	---	1.00	"	"	"	"	
o-Xylene	ND	---	0.500	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 89 %*	*Limits: 80-120 %*	"	"	"	
1,4-Difluorobenzene (Surr)			*96 %*	*Limits: 80-120 %*	"	"	"	
Toluene-d8 (Surr)			*96 %*	*Limits: 80-120 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*98 %*	*Limits: 80-120 %*	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-6 (A3I0351-05)			**Matrix: Water**		**Batch: 3090436**			
Acetone	ND	---	20.0	ug/L	1	09/19/13 14:04	EPA 8260B	Q-31
Benzene	ND	---	0.250	"	"	"	"	
Bromobenzene	ND	---	0.500	"	"	"	"	
Bromochloromethane	ND	---	1.00	"	"	"	"	
Bromodichloromethane	ND	---	1.00	"	"	"	"	
Bromoform	ND	---	1.00	"	"	"	"	
Bromomethane	ND	---	5.00	"	"	"	"	
2-Butanone (MEK)	ND	---	10.0	"	"	"	"	Q-31
n-Butylbenzene	ND	---	1.00	"	"	"	"	
sec-Butylbenzene	ND	---	1.00	"	"	"	"	
tert-Butylbenzene	ND	---	1.00	"	"	"	"	
Carbon tetrachloride	ND	---	0.500	"	"	"	"	
Chlorobenzene	ND	---	0.500	"	"	"	"	
Chloroethane	ND	---	5.00	"	"	"	"	EST
Chloroform	ND	---	1.00	"	"	"	"	
Chloromethane	ND	---	5.00	"	"	"	"	
2-Chlorotoluene	ND	---	1.00	"	"	"	"	
4-Chlorotoluene	ND	---	1.00	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	---	5.00	"	"	"	"	
Dibromochloromethane	ND	---	1.00	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	---	0.500	"	"	"	"	
Dibromomethane	ND	---	1.00	"	"	"	"	
1,2-Dichlorobenzene	ND	---	0.500	"	"	"	"	
1,3-Dichlorobenzene	ND	---	0.500	"	"	"	"	
1,4-Dichlorobenzene	ND	---	0.500	"	"	"	"	
Dichlorodifluoromethane	ND	---	1.00	"	"	"	"	
1,1-Dichloroethane	ND	---	0.500	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	---	0.500	"	"	"	"	
1,1-Dichloroethene	ND	---	0.500	"	"	"	"	
cis-1,2-Dichloroethene	ND	---	0.500	"	"	"	"	
trans-1,2-Dichloroethene	ND	---	0.500	"	"	"	"	
1,2-Dichloropropane	ND	---	0.500	"	"	"	"	
1,3-Dichloropropane	ND	---	1.00	"	"	"	"	
2,2-Dichloropropane	ND	---	1.00	"	"	"	"	
1,1-Dichloropropene	ND	---	1.00	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-6 (A3I0351-05)			**Matrix: Water**		**Batch: 3090436**			
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	"	EPA 8260B	
trans-1,3-Dichloropropene	ND	---	1.00	"	"	"	"	
Ethylbenzene	ND	---	0.500	"	"	"	"	
Hexachlorobutadiene	ND	---	5.00	"	"	"	"	
2-Hexanone	ND	---	10.0	"	"	"	"	
Isopropylbenzene	ND	---	1.00	"	"	"	"	
4-Isopropyltoluene	ND	---	1.00	"	"	"	"	
4-Methyl-2-pentanone (MiBK)	ND	---	10.0	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	"	"	"	"	
Methylene chloride	ND	---	5.00	"	"	"	"	
Naphthalene	ND	---	2.00	"	"	"	"	
n-Propylbenzene	ND	---	0.500	"	"	"	"	
Styrene	ND	---	1.00	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	---	0.500	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	---	0.500	"	"	"	"	
Tetrachloroethene (PCE)	ND	---	0.500	"	"	"	"	
Toluene	ND	---	1.00	"	"	"	"	
1,2,3-Trichlorobenzene	ND	---	2.00	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	2.00	"	"	"	"	
1,1,1-Trichloroethane	ND	---	0.500	"	"	"	"	
1,1,2-Trichloroethane	ND	---	0.500	"	"	"	"	
Trichloroethene (TCE)	ND	---	0.500	"	"	"	"	
Trichlorofluoromethane	ND	---	2.00	"	"	"	"	
1,2,3-Trichloropropane	ND	---	1.00	"	"	"	"	
1,2,4-Trimethylbenzene	ND	---	1.00	"	"	"	"	
1,3,5-Trimethylbenzene	ND	---	1.00	"	"	"	"	
Vinyl chloride	ND	---	0.500	"	"	"	"	
m,p-Xylene	ND	---	1.00	"	"	"	"	
o-Xylene	ND	---	0.500	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 89 %*	*Limits: 80-120 %*	"	"	"	
1,4-Difluorobenzene (Surr)			*95 %*	*Limits: 80-120 %*	"	"	"	
Toluene-d8 (Surr)			*94 %*	*Limits: 80-120 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*99 %*	*Limits: 80-120 %*	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-9 (A3I0351-06)			**Matrix: Water**		**Batch: 3090436**			
Acetone	ND	---	20.0	ug/L	1	09/19/13 14:30	EPA 8260B	Q-31
Benzene	ND	---	0.250	"	"	"	"	
Bromobenzene	ND	---	0.500	"	"	"	"	
Bromochloromethane	ND	---	1.00	"	"	"	"	
Bromodichloromethane	ND	---	1.00	"	"	"	"	
Bromoform	ND	---	1.00	"	"	"	"	
Bromomethane	ND	---	5.00	"	"	"	"	Q-42
2-Butanone (MEK)	ND	---	10.0	"	"	"	"	Q-31
n-Butylbenzene	ND	---	1.00	"	"	"	"	
sec-Butylbenzene	ND	---	1.00	"	"	"	"	
tert-Butylbenzene	ND	---	1.00	"	"	"	"	
Carbon tetrachloride	ND	---	0.500	"	"	"	"	
Chlorobenzene	ND	---	0.500	"	"	"	"	
Chloroethane	ND	---	5.00	"	"	"	"	EST
Chloroform	ND	---	1.00	"	"	"	"	
Chloromethane	ND	---	5.00	"	"	"	"	
2-Chlorotoluene	ND	---	1.00	"	"	"	"	
4-Chlorotoluene	ND	---	1.00	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	---	5.00	"	"	"	"	
Dibromochloromethane	ND	---	1.00	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	---	0.500	"	"	"	"	
Dibromomethane	ND	---	1.00	"	"	"	"	
1,2-Dichlorobenzene	ND	---	0.500	"	"	"	"	
1,3-Dichlorobenzene	ND	---	0.500	"	"	"	"	
1,4-Dichlorobenzene	ND	---	0.500	"	"	"	"	
Dichlorodifluoromethane	ND	---	1.00	"	"	"	"	
1,1-Dichloroethane	ND	---	0.500	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	---	0.500	"	"	"	"	
1,1-Dichloroethene	ND	---	0.500	"	"	"	"	
cis-1,2-Dichloroethene	ND	---	0.500	"	"	"	"	
trans-1,2-Dichloroethene	ND	---	0.500	"	"	"	"	
1,2-Dichloropropane	ND	---	0.500	"	"	"	"	
1,3-Dichloropropane	ND	---	1.00	"	"	"	"	
2,2-Dichloropropane	ND	---	1.00	"	"	"	"	
1,1-Dichloropropene	ND	---	1.00	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-9 (A3I0351-06)			**Matrix: Water**		**Batch: 3090436**			
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	"	EPA 8260B	
trans-1,3-Dichloropropene	ND	---	1.00	"	"	"	"	
Ethylbenzene	ND	---	0.500	"	"	"	"	
Hexachlorobutadiene	ND	---	5.00	"	"	"	"	
2-Hexanone	ND	---	10.0	"	"	"	"	
Isopropylbenzene	ND	---	1.00	"	"	"	"	
4-Isopropyltoluene	ND	---	1.00	"	"	"	"	
4-Methyl-2-pentanone (MiBK)	ND	---	10.0	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	"	"	"	"	
Methylene chloride	ND	---	5.00	"	"	"	"	
Naphthalene	ND	---	2.00	"	"	"	"	
n-Propylbenzene	ND	---	0.500	"	"	"	"	
Styrene	ND	---	1.00	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	---	0.500	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	---	0.500	"	"	"	"	
Tetrachloroethene (PCE)	ND	---	0.500	"	"	"	"	
Toluene	ND	---	1.00	"	"	"	"	
1,2,3-Trichlorobenzene	ND	---	2.00	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	2.00	"	"	"	"	
1,1,1-Trichloroethane	ND	---	0.500	"	"	"	"	
1,1,2-Trichloroethane	ND	---	0.500	"	"	"	"	
Trichloroethene (TCE)	ND	---	0.500	"	"	"	"	
Trichlorofluoromethane	ND	---	2.00	"	"	"	"	
1,2,3-Trichloropropane	ND	---	1.00	"	"	"	"	
1,2,4-Trimethylbenzene	ND	---	1.00	"	"	"	"	
1,3,5-Trimethylbenzene	ND	---	1.00	"	"	"	"	
Vinyl chloride	ND	---	0.500	"	"	"	"	
m,p-Xylene	ND	---	1.00	"	"	"	"	
o-Xylene	ND	---	0.500	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 88 %*	*Limits: 80-120 %*	"	"	"	
1,4-Difluorobenzene (Surr)			*96 %*	*Limits: 80-120 %*	"	"	"	
Toluene-d8 (Surr)			*94 %*	*Limits: 80-120 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*98 %*	*Limits: 80-120 %*	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

ANALYTICAL SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-4 (A3I0351-03)			**Matrix: Water**		**Batch: 3090690**			**C-07**
Aroclor 1016	ND	---	0.0952	ug/L	1	09/30/13 14:53	EPA 8082A	
Aroclor 1221	ND	---	0.0952	"	"	"	"	
Aroclor 1232	ND	---	0.0952	"	"	"	"	
Aroclor 1242	ND	---	0.0952	"	"	"	"	
Aroclor 1248	ND	---	0.0952	"	"	"	"	
Aroclor 1254	ND	---	0.0952	"	"	"	"	
Aroclor 1260	ND	---	0.0952	"	"	"	"	
Surrogate: Decachlorobiphenyl (Surr)			*Recovery: 118 %*	*Limits: 40-135 %*	"	"	"	
SB-5 (A3I0351-04)			**Matrix: Water**		**Batch: 3090690**			**C-07**
Aroclor 1016	ND	---	0.101	ug/L	1	09/30/13 15:11	EPA 8082A	
Aroclor 1221	ND	---	0.101	"	"	"	"	
Aroclor 1232	ND	---	0.101	"	"	"	"	
Aroclor 1242	ND	---	0.101	"	"	"	"	
Aroclor 1248	ND	---	0.101	"	"	"	"	
Aroclor 1254	ND	---	0.101	"	"	"	"	
Aroclor 1260	ND	---	0.101	"	"	"	"	
Surrogate: Decachlorobiphenyl (Surr)			*Recovery: 106 %*	*Limits: 40-135 %*	"	"	"	
SB-6 (A3I0351-05)			**Matrix: Water**		**Batch: 3090690**			**C-07**
Aroclor 1016	ND	---	0.0952	ug/L	1	09/30/13 15:29	EPA 8082A	
Aroclor 1221	ND	---	0.0952	"	"	"	"	
Aroclor 1232	ND	---	0.0952	"	"	"	"	
Aroclor 1242	ND	---	0.0952	"	"	"	"	
Aroclor 1248	ND	---	0.0952	"	"	"	"	
Aroclor 1254	ND	---	0.0952	"	"	"	"	
Aroclor 1260	ND	---	0.0952	"	"	"	"	
Surrogate: Decachlorobiphenyl (Surr)			*Recovery: 118 %*	*Limits: 40-135 %*	"	"	"	
SB-9 (A3I0351-06)			**Matrix: Water**		**Batch: 3090690**			**C-07**
Aroclor 1016	ND	---	0.0952	ug/L	1	09/30/13 15:47	EPA 8082A	
Aroclor 1221	ND	---	0.0952	"	"	"	"	
Aroclor 1232	ND	---	0.0952	"	"	"	"	
Aroclor 1242	ND	---	0.0952	"	"	"	"	
Aroclor 1248	ND	---	0.0952	"	"	"	"	
Aroclor 1254	ND	---	0.0952	"	"	"	"	
Aroclor 1260	ND	---	0.0952	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

ANALYTICAL SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-9 (A3I0351-06)			**Matrix: Water**		**Batch: 3090690**			**C-07**
Surrogate: Decachlorobiphenyl (Surr)			*Recovery: 108 %*	*Limits: 40-135 %*	1	"	EPA 8082A	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-4 (A3I0351-03RE1)			**Matrix: Water**		**Batch: 3090545**			
Acenaphthene	ND	---	0.952	ug/L	1	09/24/13 15:56	EPA 8270D	
Acenaphthylene	ND	---	0.952	"	"	"	"	
Aniline	ND	---	0.952	"	"	"	"	
Anthracene	ND	---	0.952	"	"	"	"	
Azobenzene (1,2-DPH)	ND	---	0.952	"	"	"	"	
Benz(a)anthracene	ND	---	0.952	"	"	"	"	
Benzo(a)pyrene	ND	---	0.952	"	"	"	"	
Benzo(b)fluoranthene	ND	---	0.952	"	"	"	"	
Benzo(k)fluoranthene	ND	---	0.952	"	"	"	"	
Benzo(b+k)fluoranthene(s)	ND	---	1.90	"	"	"	"	
Benzo(g,h,i)perylene	ND	---	0.952	"	"	"	"	
Benzoic acid	ND	---	4.76	"	"	"	"	
Benzyl alcohol	ND	---	0.952	"	"	"	"	
Bis(2-Chloroethoxy) methane	ND	---	0.952	"	"	"	"	
Bis(2-Chloroethyl) ether	ND	---	0.952	"	"	"	"	
Bis(2-Chloroisopropyl) ether	ND	---	0.952	"	"	"	"	
Bis(2-Ethylhexyl) adipate	ND	---	0.952	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	---	1.90	"	"	"	"	
4-Bromophenyl phenyl ether	ND	---	0.952	"	"	"	"	
Butyl benzyl phthalate	ND	---	1.90	"	"	"	"	
Carbazole	ND	---	1.43	"	"	"	"	
4-Chloroaniline	ND	---	0.952	"	"	"	"	
4-Chloro-3-methylphenol	ND	---	0.952	"	"	"	"	
2-Chloronaphthalene	ND	---	0.952	"	"	"	"	
2-Chlorophenol	ND	---	0.952	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	---	0.952	"	"	"	"	
Chrysene	ND	---	0.952	"	"	"	"	
Dibenz(a,h)anthracene	ND	---	0.952	"	"	"	"	
Dibenzofuran	ND	---	0.952	"	"	"	"	
1,2-Dichlorobenzene	ND	---	0.952	"	"	"	"	Q-30
1,3-Dichlorobenzene	ND	---	0.952	"	"	"	"	
1,4-Dichlorobenzene	ND	---	0.952	"	"	"	"	
2,4-Dichlorophenol	ND	---	0.952	"	"	"	"	
Di-n-butylphthalate	ND	---	1.90	"	"	"	"	
Diethylphthalate	ND	---	1.90	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-4 (A3I0351-03RE1)			**Matrix: Water**		**Batch: 3090545**			
Dimethylphthalate	ND	---	1.90	ug/L	1	"	EPA 8270D	
2,4-Dimethylphenol	ND	---	0.952	"	"	"	"	
1,2-Dinitrobenzene	ND	---	0.952	"	"	"	"	
1,3-Dinitrobenzene	ND	---	0.952	"	"	"	"	
1,4-Dinitrobenzene	ND	---	0.952	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	---	1.90	"	"	"	"	
2,4-Dinitrophenol	ND	---	0.952	"	"	"	"	
2,4-Dinitrotoluene	ND	---	0.952	"	"	"	"	
2,6-Dinitrotoluene	ND	---	0.952	"	"	"	"	
Di-n-octyl phthalate	ND	---	1.90	"	"	"	"	
Fluoranthene	ND	---	0.952	"	"	"	"	
Fluorene	ND	---	0.952	"	"	"	"	
Hexachlorobenzene	ND	---	0.952	"	"	"	"	
Hexachlorobutadiene	ND	---	0.952	"	"	"	"	
Hexachlorocyclopentadiene	ND	---	0.952	"	"	"	"	
Hexachloroethane	ND	---	0.952	"	"	"	"	Q-30
Indeno(1,2,3-cd)pyrene	ND	---	0.952	"	"	"	"	
Isophorone	ND	---	0.952	"	"	"	"	
1-Methylnaphthalene	ND	---	0.952	"	"	"	"	
2-Methylnaphthalene	ND	---	0.952	"	"	"	"	
2-Methylphenol	ND	---	0.952	"	"	"	"	
3+4-Methylphenol(s)	ND	---	0.952	"	"	"	"	
Naphthalene	ND	---	0.952	"	"	"	"	
2-Nitroaniline	ND	---	1.90	"	"	"	"	
3-Nitroaniline	ND	---	1.90	"	"	"	"	
4-Nitroaniline	ND	---	0.952	"	"	"	"	
Nitrobenzene	ND	---	0.952	"	"	"	"	
2-Nitrophenol	ND	---	0.952	"	"	"	"	
4-Nitrophenol	ND	---	1.90	"	"	"	"	
N-Nitrosodimethylamine	ND	---	0.952	"	"	"	"	
N-Nitroso-di-n-propylamine	ND	---	0.952	"	"	"	"	
N-Nitrosodiphenylamine	ND	---	0.952	"	"	"	"	
Pentachlorophenol (PCP)	ND	---	1.90	"	"	"	"	
Phenanthrene	ND	---	0.952	"	"	"	"	
Phenol	ND	---	0.952	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-4 (A3I0351-03RE1)			**Matrix: Water**		**Batch: 3090545**			
Pyrene	ND	---	0.952	ug/L	1	"	EPA 8270D	
Pyridine	ND	---	1.90	"	"	"	"	
2,3,4,6-Tetrachlorophenol	ND	---	0.952	"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	---	0.952	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	0.952	"	"	"	"	
2,4,5-Trichlorophenol	ND	---	0.952	"	"	"	"	
2,4,6-Trichlorophenol	ND	---	0.952	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 75 %*	*Limits: 35-120 %*	"	"	"	
2-Fluorobiphenyl (Surr)			*66 %*	*Limits: 30-120 %*	"	"	"	
Phenol-d6 (Surr)			*28 %*	*Limits: 10-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*94 %*	*Limits: 30-125 %*	"	"	"	
2-Fluorophenol (Surr)			*39 %*	*Limits: 15-120 %*	"	"	"	
2,4,6-Tribromophenol (Surr)			*85 %*	*Limits: 35-125 %*	"	"	"	
SB-5 (A3I0351-04RE1)			**Matrix: Water**		**Batch: 3090545**			
Acenaphthene	ND	---	1.02	ug/L	1	09/24/13 16:34	EPA 8270D	
Acenaphthylene	ND	---	1.02	"	"	"	"	
Aniline	ND	---	1.02	"	"	"	"	
Anthracene	ND	---	1.02	"	"	"	"	
Azobenzene (1,2-DPH)	ND	---	1.02	"	"	"	"	
Benz(a)anthracene	ND	---	1.02	"	"	"	"	
Benzo(a)pyrene	ND	---	1.02	"	"	"	"	
Benzo(b)fluoranthene	ND	---	1.02	"	"	"	"	
Benzo(k)fluoranthene	ND	---	1.02	"	"	"	"	
Benzo(b+k)fluoranthene(s)	ND	---	2.04	"	"	"	"	
Benzo(g,h,i)perylene	ND	---	1.02	"	"	"	"	
Benzoic acid	ND	---	5.10	"	"	"	"	
Benzyl alcohol	ND	---	1.02	"	"	"	"	
Bis(2-Chloroethoxy) methane	ND	---	1.02	"	"	"	"	
Bis(2-Chloroethyl) ether	ND	---	1.02	"	"	"	"	
Bis(2-Chloroisopropyl) ether	ND	---	1.02	"	"	"	"	
Bis(2-Ethylhexyl) adipate	ND	---	1.02	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	---	2.04	"	"	"	"	
4-Bromophenyl phenyl ether	ND	---	1.02	"	"	"	"	
Butyl benzyl phthalate	ND	---	2.04	"	"	"	"	
Carbazole	ND	---	1.53	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-5 (A3I0351-04RE1)			**Matrix: Water**		**Batch: 3090545**			
4-Chloroaniline	ND	---	1.02	ug/L	1	"	EPA 8270D	
4-Chloro-3-methylphenol	ND	---	1.02	"	"	"	"	
2-Chloronaphthalene	ND	---	1.02	"	"	"	"	
2-Chlorophenol	ND	---	1.02	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	---	1.02	"	"	"	"	
Chrysene	ND	---	1.02	"	"	"	"	
Dibenz(a,h)anthracene	ND	---	1.02	"	"	"	"	
Dibenzofuran	ND	---	1.02	"	"	"	"	
1,2-Dichlorobenzene	ND	---	1.02	"	"	"	"	Q-30
1,3-Dichlorobenzene	ND	---	1.02	"	"	"	"	
1,4-Dichlorobenzene	ND	---	1.02	"	"	"	"	
2,4-Dichlorophenol	ND	---	1.02	"	"	"	"	
Di-n-butylphthalate	ND	---	2.04	"	"	"	"	
Diethylphthalate	ND	---	2.04	"	"	"	"	
Dimethylphthalate	ND	---	2.04	"	"	"	"	
2,4-Dimethylphenol	ND	---	1.02	"	"	"	"	
1,2-Dinitrobenzene	ND	---	1.02	"	"	"	"	
1,3-Dinitrobenzene	ND	---	1.02	"	"	"	"	
1,4-Dinitrobenzene	ND	---	1.02	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	---	2.04	"	"	"	"	
2,4-Dinitrophenol	ND	---	1.02	"	"	"	"	
2,4-Dinitrotoluene	ND	---	1.02	"	"	"	"	
2,6-Dinitrotoluene	ND	---	1.02	"	"	"	"	
Di-n-octyl phthalate	ND	---	2.04	"	"	"	"	
Fluoranthene	ND	---	1.02	"	"	"	"	
Fluorene	ND	---	1.02	"	"	"	"	
Hexachlorobenzene	ND	---	1.02	"	"	"	"	
Hexachlorobutadiene	ND	---	1.02	"	"	"	"	
Hexachlorocyclopentadiene	ND	---	1.02	"	"	"	"	
Hexachloroethane	ND	---	1.02	"	"	"	"	Q-30
Indeno(1,2,3-cd)pyrene	ND	---	1.02	"	"	"	"	
Isophorone	ND	---	1.02	"	"	"	"	
1-Methylnaphthalene	ND	---	1.02	"	"	"	"	
2-Methylnaphthalene	ND	---	1.02	"	"	"	"	
2-Methylphenol	ND	---	1.02	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

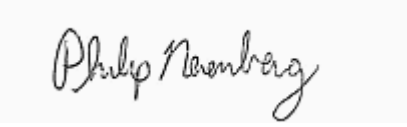
Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-5 (A3I0351-04RE1)			**Matrix: Water**		**Batch: 3090545**			
3+4-Methylphenol(s)	ND	---	1.02	ug/L	1	"	EPA 8270D	
Naphthalene	ND	---	1.02	"	"	"	"	
2-Nitroaniline	ND	---	2.04	"	"	"	"	
3-Nitroaniline	ND	---	2.04	"	"	"	"	
4-Nitroaniline	ND	---	1.02	"	"	"	"	
Nitrobenzene	ND	---	1.02	"	"	"	"	
2-Nitrophenol	ND	---	1.02	"	"	"	"	
4-Nitrophenol	ND	---	2.04	"	"	"	"	
N-Nitrosodimethylamine	ND	---	1.02	"	"	"	"	
N-Nitroso-di-n-propylamine	ND	---	1.02	"	"	"	"	
N-Nitrosodiphenylamine	ND	---	1.02	"	"	"	"	
Pentachlorophenol (PCP)	ND	---	2.04	"	"	"	"	
Phenanthrene	ND	---	1.02	"	"	"	"	
Phenol	ND	---	1.02	"	"	"	"	
Pyrene	ND	---	1.02	"	"	"	"	
Pyridine	ND	---	2.04	"	"	"	"	
2,3,4,6-Tetrachlorophenol	ND	---	1.02	"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	---	1.02	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	1.02	"	"	"	"	
2,4,5-Trichlorophenol	ND	---	1.02	"	"	"	"	
2,4,6-Trichlorophenol	ND	---	1.02	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 111 %*	*Limits: 35-120 %*	"	"	"	
2-Fluorobiphenyl (Surr)			*91 %*	*Limits: 30-120 %*	"	"	"	
Phenol-d6 (Surr)			*41 %*	*Limits: 10-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*103 %*	*Limits: 30-125 %*	"	"	"	
2-Fluorophenol (Surr)			*60 %*	*Limits: 15-120 %*	"	"	"	
2,4,6-Tribromophenol (Surr)			*100 %*	*Limits: 35-125 %*	"	"	"	

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-6 (A3I0351-05)			**Matrix: Water**		**Batch: 3090545**			
Acenaphthene	ND	---	0.952	ug/L	1	09/24/13 16:01	EPA 8270D	
Acenaphthylene	ND	---	0.952	"	"	"	"	
Aniline	ND	---	0.952	"	"	"	"	
Anthracene	ND	---	0.952	"	"	"	"	
Azobenzene (1,2-DPH)	ND	---	0.952	"	"	"	"	
Benz(a)anthracene	ND	---	0.952	"	"	"	"	
Benzo(a)pyrene	ND	---	0.952	"	"	"	"	
Benzo(b)fluoranthene	ND	---	0.952	"	"	"	"	
Benzo(k)fluoranthene	ND	---	0.952	"	"	"	"	
Benzo(b+k)fluoranthene(s)	ND	---	1.90	"	"	"	"	
Benzo(g,h,i)perylene	ND	---	0.952	"	"	"	"	
Benzoic acid	ND	---	4.76	"	"	"	"	
Benzyl alcohol	ND	---	0.952	"	"	"	"	
Bis(2-Chloroethoxy) methane	ND	---	0.952	"	"	"	"	
Bis(2-Chloroethyl) ether	ND	---	0.952	"	"	"	"	
Bis(2-Chloroisopropyl) ether	ND	---	0.952	"	"	"	"	
Bis(2-Ethylhexyl) adipate	ND	---	0.952	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	---	1.90	"	"	"	"	
4-Bromophenyl phenyl ether	ND	---	0.952	"	"	"	"	
Butyl benzyl phthalate	ND	---	1.90	"	"	"	"	
Carbazole	ND	---	1.43	"	"	"	"	
4-Chloroaniline	ND	---	0.952	"	"	"	"	
4-Chloro-3-methylphenol	ND	---	0.952	"	"	"	"	
2-Chloronaphthalene	ND	---	0.952	"	"	"	"	
2-Chlorophenol	ND	---	0.952	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	---	0.952	"	"	"	"	
Chrysene	ND	---	0.952	"	"	"	"	
Dibenz(a,h)anthracene	ND	---	0.952	"	"	"	"	
Dibenzofuran	ND	---	0.952	"	"	"	"	
1,2-Dichlorobenzene	ND	---	0.952	"	"	"	"	Q-30
1,3-Dichlorobenzene	ND	---	0.952	"	"	"	"	
1,4-Dichlorobenzene	ND	---	0.952	"	"	"	"	
2,4-Dichlorophenol	ND	---	0.952	"	"	"	"	
Di-n-butylphthalate	ND	---	1.90	"	"	"	"	
Diethylphthalate	ND	---	1.90	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-6 (A3I0351-05)			**Matrix: Water**		**Batch: 3090545**			
Dimethylphthalate	ND	---	1.90	ug/L	1	"	EPA 8270D	
2,4-Dimethylphenol	ND	---	0.952	"	"	"	"	
1,2-Dinitrobenzene	ND	---	0.952	"	"	"	"	
1,3-Dinitrobenzene	ND	---	0.952	"	"	"	"	
1,4-Dinitrobenzene	ND	---	0.952	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	---	1.90	"	"	"	"	
2,4-Dinitrophenol	ND	---	0.952	"	"	"	"	
2,4-Dinitrotoluene	ND	---	0.952	"	"	"	"	
2,6-Dinitrotoluene	ND	---	0.952	"	"	"	"	
Di-n-octyl phthalate	ND	---	1.90	"	"	"	"	
Fluoranthene	ND	---	0.952	"	"	"	"	
Fluorene	ND	---	0.952	"	"	"	"	
Hexachlorobenzene	ND	---	0.952	"	"	"	"	
Hexachlorobutadiene	ND	---	0.952	"	"	"	"	
Hexachlorocyclopentadiene	ND	---	0.952	"	"	"	"	
Hexachloroethane	ND	---	0.952	"	"	"	"	Q-30
Indeno(1,2,3-cd)pyrene	ND	---	0.952	"	"	"	"	
Isophorone	ND	---	0.952	"	"	"	"	
1-Methylnaphthalene	ND	---	0.952	"	"	"	"	
2-Methylnaphthalene	ND	---	0.952	"	"	"	"	
2-Methylphenol	ND	---	0.952	"	"	"	"	
3+4-Methylphenol(s)	ND	---	0.952	"	"	"	"	
Naphthalene	ND	---	0.952	"	"	"	"	
2-Nitroaniline	ND	---	1.90	"	"	"	"	
3-Nitroaniline	ND	---	1.90	"	"	"	"	
4-Nitroaniline	ND	---	0.952	"	"	"	"	
Nitrobenzene	ND	---	0.952	"	"	"	"	
2-Nitrophenol	ND	---	0.952	"	"	"	"	
4-Nitrophenol	ND	---	1.90	"	"	"	"	
N-Nitrosodimethylamine	ND	---	0.952	"	"	"	"	
N-Nitroso-di-n-propylamine	ND	---	0.952	"	"	"	"	
N-Nitrosodiphenylamine	ND	---	0.952	"	"	"	"	
Pentachlorophenol (PCP)	ND	---	1.90	"	"	"	"	
Phenanthrene	ND	---	0.952	"	"	"	"	
Phenol	ND	---	0.952	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-6 (A3I0351-05)			**Matrix: Water**		**Batch: 3090545**			
Pyrene	ND	---	0.952	ug/L	1	"	EPA 8270D	
Pyridine	ND	---	1.90	"	"	"	"	
2,3,4,6-Tetrachlorophenol	ND	---	0.952	"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	---	0.952	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	0.952	"	"	"	"	
2,4,5-Trichlorophenol	ND	---	0.952	"	"	"	"	
2,4,6-Trichlorophenol	ND	---	0.952	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 93 %*	*Limits: 35-120 %*	"	"	"	
2-Fluorobiphenyl (Surr)			*85 %*	*Limits: 30-120 %*	"	"	"	
Phenol-d6 (Surr)			*36 %*	*Limits: 10-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*101 %*	*Limits: 30-125 %*	"	"	"	
2-Fluorophenol (Surr)			*57 %*	*Limits: 15-120 %*	"	"	"	
2,4,6-Tribromophenol (Surr)			*92 %*	*Limits: 35-125 %*	"	"	"	
SB-9 (A3I0351-06)			**Matrix: Water**		**Batch: 3090545**			
Acenaphthene	ND	---	0.952	ug/L	1	09/24/13 16:37	EPA 8270D	
Acenaphthylene	ND	---	0.952	"	"	"	"	
Aniline	ND	---	0.952	"	"	"	"	
Anthracene	ND	---	0.952	"	"	"	"	
Azobenzene (1,2-DPH)	ND	---	0.952	"	"	"	"	
Benz(a)anthracene	ND	---	0.952	"	"	"	"	
Benzo(a)pyrene	ND	---	0.952	"	"	"	"	
Benzo(b)fluoranthene	ND	---	0.952	"	"	"	"	
Benzo(k)fluoranthene	ND	---	0.952	"	"	"	"	
Benzo(b+k)fluoranthene(s)	ND	---	1.90	"	"	"	"	
Benzo(g,h,i)perylene	ND	---	0.952	"	"	"	"	
Benzoic acid	ND	---	4.76	"	"	"	"	
Benzyl alcohol	ND	---	0.952	"	"	"	"	
Bis(2-Chloroethoxy) methane	ND	---	0.952	"	"	"	"	
Bis(2-Chloroethyl) ether	ND	---	0.952	"	"	"	"	
Bis(2-Chloroisopropyl) ether	ND	---	0.952	"	"	"	"	
Bis(2-Ethylhexyl) adipate	ND	---	0.952	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	---	1.90	"	"	"	"	
4-Bromophenyl phenyl ether	ND	---	0.952	"	"	"	"	
Butyl benzyl phthalate	ND	---	1.90	"	"	"	"	
Carbazole	ND	---	1.43	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-9 (A3I0351-06)			**Matrix: Water**		**Batch: 3090545**			
4-Chloroaniline	ND	---	0.952	ug/L	1	"	EPA 8270D	
4-Chloro-3-methylphenol	ND	---	0.952	"	"	"	"	
2-Chloronaphthalene	ND	---	0.952	"	"	"	"	
2-Chlorophenol	ND	---	0.952	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	---	0.952	"	"	"	"	
Chrysene	ND	---	0.952	"	"	"	"	
Dibenz(a,h)anthracene	ND	---	0.952	"	"	"	"	
Dibenzofuran	ND	---	0.952	"	"	"	"	
1,2-Dichlorobenzene	ND	---	0.952	"	"	"	"	Q-30
1,3-Dichlorobenzene	ND	---	0.952	"	"	"	"	
1,4-Dichlorobenzene	ND	---	0.952	"	"	"	"	
2,4-Dichlorophenol	ND	---	0.952	"	"	"	"	
Di-n-butylphthalate	ND	---	1.90	"	"	"	"	
Diethylphthalate	ND	---	1.90	"	"	"	"	
Dimethylphthalate	ND	---	1.90	"	"	"	"	
2,4-Dimethylphenol	ND	---	0.952	"	"	"	"	
1,2-Dinitrobenzene	ND	---	0.952	"	"	"	"	
1,3-Dinitrobenzene	ND	---	0.952	"	"	"	"	
1,4-Dinitrobenzene	ND	---	0.952	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	---	1.90	"	"	"	"	
2,4-Dinitrophenol	ND	---	0.952	"	"	"	"	
2,4-Dinitrotoluene	ND	---	0.952	"	"	"	"	
2,6-Dinitrotoluene	ND	---	0.952	"	"	"	"	
Di-n-octyl phthalate	ND	---	1.90	"	"	"	"	
Fluoranthene	ND	---	0.952	"	"	"	"	
Fluorene	ND	---	0.952	"	"	"	"	
Hexachlorobenzene	ND	---	0.952	"	"	"	"	
Hexachlorobutadiene	ND	---	0.952	"	"	"	"	
Hexachlorocyclopentadiene	ND	---	0.952	"	"	"	"	
Hexachloroethane	ND	---	0.952	"	"	"	"	Q-30
Indeno(1,2,3-cd)pyrene	ND	---	0.952	"	"	"	"	
Isophorone	ND	---	0.952	"	"	"	"	
1-Methylnaphthalene	ND	---	0.952	"	"	"	"	
2-Methylnaphthalene	ND	---	0.952	"	"	"	"	
2-Methylphenol	ND	---	0.952	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

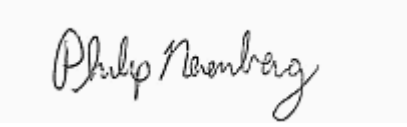
Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-9 (A3I0351-06)			**Matrix: Water**		**Batch: 3090545**			
3+4-Methylphenol(s)	ND	---	0.952	ug/L	1	"	EPA 8270D	
Naphthalene	ND	---	0.952	"	"	"	"	
2-Nitroaniline	ND	---	1.90	"	"	"	"	
3-Nitroaniline	ND	---	1.90	"	"	"	"	
4-Nitroaniline	ND	---	0.952	"	"	"	"	
Nitrobenzene	ND	---	0.952	"	"	"	"	
2-Nitrophenol	ND	---	0.952	"	"	"	"	
4-Nitrophenol	ND	---	1.90	"	"	"	"	
N-Nitrosodimethylamine	ND	---	0.952	"	"	"	"	
N-Nitroso-di-n-propylamine	ND	---	0.952	"	"	"	"	
N-Nitrosodiphenylamine	ND	---	0.952	"	"	"	"	
Pentachlorophenol (PCP)	ND	---	1.90	"	"	"	"	
Phenanthrene	ND	---	0.952	"	"	"	"	
Phenol	ND	---	0.952	"	"	"	"	
Pyrene	ND	---	0.952	"	"	"	"	
Pyridine	ND	---	1.90	"	"	"	"	
2,3,4,6-Tetrachlorophenol	ND	---	0.952	"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	---	0.952	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	0.952	"	"	"	"	
2,4,5-Trichlorophenol	ND	---	0.952	"	"	"	"	
2,4,6-Trichlorophenol	ND	---	0.952	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 56 %*	*Limits: 35-120 %*	"	"	"	
2-Fluorobiphenyl (Surr)			*54 %*	*Limits: 30-120 %*	"	"	"	
Phenol-d6 (Surr)			*24 %*	*Limits: 10-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*98 %*	*Limits: 30-125 %*	"	"	"	
2-Fluorophenol (Surr)			*35 %*	*Limits: 15-120 %*	"	"	"	
2,4,6-Tribromophenol (Surr)			*84 %*	*Limits: 35-125 %*	"	"	"	

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-1 (A3I0351-01)			**Matrix: Water**					
Batch: 3090670								
Lead	**105**	---	2.00	ug/L	10	10/01/13 12:34	EPA 6020A	
SB-2 (A3I0351-02)			**Matrix: Water**					
Batch: 3090670								
Lead	**72.4**	---	2.00	ug/L	10	10/01/13 12:37	EPA 6020A	
SB-4 (A3I0351-03)			**Matrix: Water**					
Batch: 3090670								
Arsenic	**6.14**	---	1.00	ug/L	1	09/30/13 13:16	EPA 6020A	
Barium	**351**	---	1.00	"	"	"	"	
Cadmium	**0.956**	---	0.200	"	"	"	"	
Lead	**26.3**	---	0.200	"	"	"	"	
Mercury	ND	---	0.0800	"	"	"	"	
Selenium	**1.17**	---	1.00	"	"	"	"	
Silver	ND	---	0.200	"	"	"	"	
SB-4 (A3I0351-03RE1)			**Matrix: Water**					
Batch: 3100020								
Chromium	**30.3**	---	10.0	ug/L	10	10/01/13 15:24	EPA 6020A	
SB-5 (A3I0351-04)			**Matrix: Water**					
Batch: 3090670								
Arsenic	**36.5**	---	1.00	ug/L	1	09/30/13 12:20	EPA 6020A	
Barium	**2200**	---	10.0	"	10	09/30/13 13:00	"	
Cadmium	**5.56**	---	0.200	"	1	09/30/13 12:20	"	
Lead	**172**	---	2.00	"	10	09/30/13 13:00	"	Q-42
Mercury	ND	---	0.800	"	"	"	"	R-04
Selenium	**4.77**	---	1.00	"	1	09/30/13 12:20	"	Q-42
Silver	**0.722**	---	0.200	"	"	"	"	
SB-5 (A3I0351-04RE1)			**Matrix: Water**					
Batch: 3100020								
Chromium	**124**	---	10.0	ug/L	10	10/01/13 15:26	EPA 6020A	
SB-6 (A3I0351-05)			**Matrix: Water**					
Batch: 3090670								
Arsenic	**6.11**	---	1.00	ug/L	1	09/30/13 13:19	EPA 6020A	
Barium	**121**	---	1.00	"	"	"	"	
Cadmium	ND	---	0.200	"	"	"	"	
Lead	**4.86**	---	0.200	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

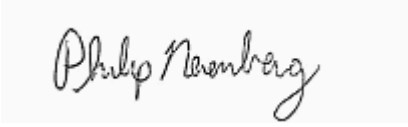
Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-6 (A3I0351-05)			**Matrix: Water**					
Mercury	ND	---	0.0800	ug/L	1	"	EPA 6020A	
Selenium	ND	---	1.00	"	"	"	"	
Silver	ND	---	0.200	"	"	"	"	
SB-6 (A3I0351-05RE1)			**Matrix: Water**					
Batch: 3100020								
Chromium	**7.16**	---	1.00	ug/L	1	10/01/13 15:29	EPA 6020A	
SB-9 (A3I0351-06)			**Matrix: Water**					
Batch: 3090670								
Arsenic	**42.3**	---	10.0	ug/L	10	10/01/13 12:46	EPA 6020A	
Barium	**3800**	---	10.0	"	"	"	"	
Cadmium	**8.22**	---	2.00	"	"	"	"	
Lead	**263**	---	2.00	"	"	"	"	
Mercury	ND	---	1.60	"	"	"	"	R-04
Selenium	ND	---	10.0	"	"	"	"	R-04
Silver	ND	---	2.00	"	"	"	"	R-04
SB-9 (A3I0351-06RE1)			**Matrix: Water**					
Batch: 3100020								
Chromium	**146**	---	10.0	ug/L	10	10/01/13 15:45	EPA 6020A	Q-42

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

ANALYTICAL SAMPLE RESULTS

Dissolved Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-1 (A3I0351-01)			**Matrix: Water**					
Batch: 3090603								
Lead	ND	---	0.200	ug/L	1	09/27/13 11:53	EPA 6020A (Diss)	FILT1
SB-2 (A3I0351-02)			**Matrix: Water**					
Batch: 3090603								
Lead	ND	---	0.200	ug/L	1	09/27/13 11:59	EPA 6020A (Diss)	FILT1

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

QUALITY CONTROL (QC) SAMPLE RESULTS

Hydrocarbon Identification Screen by NWTPH-HCID

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090437 - EPA 3510C (Acid Extraction)							**Water**					
Blank (3090437-BLK1)						Prepared: 09/19/13 10:30	Analyzed: 09/19/13 20:59					
NWTPH-HCID												
Gasoline Range Organics	ND	---	0.0909	mg/L	1	---	---	---	---	---	---	
Diesel Range Organics	ND	---	0.227	"	"	---	---	---	---	---	---	
Oil Range Organics	ND	---	0.227	"	"	---	---	---	---	---	---	

Surr: o-Terphenyl (Surr) *Recovery: 90 %* *Limits: 50-150 %* *Dilution: 1x*

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

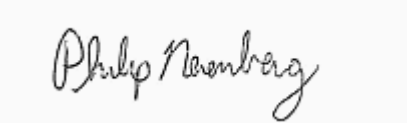
Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

QUALITY CONTROL (QC) SAMPLE RESULTS

Gasoline Range Hydrocarbons (Benzene to Naphthalene) by NWTPH-Gx

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090404 - EPA 5030B							**Water**					
Blank (3090404-BLK1)					Prepared: 09/18/13 09:00		Analyzed: 09/18/13 12:38					
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	---	0.100	mg/L	1	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 86 %*	*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*95 %*	*50-150 %*			*"*					
LCS (3090404-BS2)					Prepared: 09/18/13 09:00		Analyzed: 09/18/13 12:12					
NWTPH-Gx (MS)												
Gasoline Range Organics	0.470	---	0.100	mg/L	1	0.500	---	94	70-130%	---	---	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 89 %*	*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*96 %*	*50-150 %*			*"*					
Duplicate (3090404-DUP1)					Prepared: 09/18/13 12:00		Analyzed: 09/18/13 15:12					
QC Source Sample: SB-1 (A3I0351-01)												
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	---	0.100	mg/L	1	---	ND	---	---	---	30%	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 91 %*	*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*92 %*	*50-150 %*			*"*					

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

QUALITY CONTROL (QC) SAMPLE RESULTS

RBCA Compounds (BTEX+) by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090404 - EPA 5030B							**Water**					
Blank (3090404-BLK1)					Prepared: 09/18/13 09:00		Analyzed: 09/18/13 12:38					
EPA 8260B												
Benzene	ND	---	0.250	ug/L	1	---	---	---	---	---	---	
Toluene	ND	---	1.00	"	"	---	---	---	---	---	---	
Ethylbenzene	ND	---	0.500	"	"	---	---	---	---	---	---	
Xylenes, total	ND	---	1.50	"	"	---	---	---	---	---	---	
Naphthalene	ND	---	2.00	"	"	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	"	"	---	---	---	---	---	---	
Isopropylbenzene	ND	---	1.00	"	"	---	---	---	---	---	---	
n-Propylbenzene	ND	---	0.500	"	"	---	---	---	---	---	---	
1,2,4-Trimethylbenzene	ND	---	1.00	"	"	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	---	1.00	"	"	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	"	"	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.500	"	"	---	---	---	---	---	---	

Surr: Dibromofluoromethane (Surr)	*Recovery: 92 %*	*Limits: 80-120 %*	*Dilution: 1x*
1,4-Difluorobenzene (Surr)	*100 %*	*80-120 %*	*"*
Toluene-d8 (Surr)	*93 %*	*80-120 %*	*"*
4-Bromofluorobenzene (Surr)	*98 %*	*80-120 %*	*"*

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS (3090404-BS1)					Prepared: 09/18/13 09:00		Analyzed: 09/18/13 11:46					
EPA 8260B												
Benzene	19.4	---	0.250	ug/L	1	20.0	---	97	70-130%	---	---	
Toluene	20.2	---	1.00	"	"	"	---	101	"	---	---	
Ethylbenzene	20.2	---	0.500	"	"	"	---	101	"	---	---	
Xylenes, total	62.4	---	1.50	"	"	60.0	---	104	"	---	---	
Naphthalene	21.0	---	2.00	"	"	20.0	---	105	"	---	---	
Methyl tert-butyl ether (MTBE)	19.5	---	1.00	"	"	"	---	97	"	---	---	
Isopropylbenzene	20.6	---	1.00	"	"	"	---	103	"	---	---	
n-Propylbenzene	20.6	---	0.500	"	"	"	---	103	"	---	---	
1,2,4-Trimethylbenzene	21.2	---	1.00	"	"	"	---	106	"	---	---	
1,3,5-Trimethylbenzene	21.0	---	1.00	"	"	"	---	105	"	---	---	
1,2-Dibromoethane (EDB)	21.2	---	0.500	"	"	"	---	106	"	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

QUALITY CONTROL (QC) SAMPLE RESULTS

RBCA Compounds (BTEX+) by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090404 - EPA 5030B							**Water**					
LCS (3090404-BS1)					Prepared: 09/18/13 09:00		Analyzed: 09/18/13 11:46					
1,2-Dichloroethane (EDC)	18.2	---	0.500	ug/L	"	"	---	91	"	---	---	
Surr: Dibromofluoromethane (Surr)			*Recovery: 91 %*		*Limits: 80-120 %*		*Dilution: 1x*					
1,4-Difluorobenzene (Surr)			*99 %*		*80-120 %*		*"*					
Toluene-d8 (Surr)			*95 %*		*80-120 %*		*"*					
4-Bromofluorobenzene (Surr)			*96 %*		*80-120 %*		*"*					
Duplicate (3090404-DUP1)					Prepared: 09/18/13 12:00		Analyzed: 09/18/13 15:12					
QC Source Sample: SB-1 (A3I0351-01)												
EPA 8260B												
Benzene	ND	---	0.250	ug/L	1	---	ND	---	---	---	30%	
Toluene	ND	---	1.00	"	"	---	ND	---	---	---	30%	
Ethylbenzene	ND	---	0.500	"	"	---	ND	---	---	---	30%	
Xylenes, total	ND	---	1.50	"	"	---	ND	---	---	---	30%	
Naphthalene	ND	---	2.00	"	"	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	"	"	---	ND	---	---	---	30%	
Isopropylbenzene	ND	---	1.00	"	"	---	ND	---	---	---	30%	
n-Propylbenzene	ND	---	0.500	"	"	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	---	1.00	"	"	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	---	1.00	"	"	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	0.500	"	"	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	0.500	"	"	---	ND	---	---	---	30%	
Surr: Dibromofluoromethane (Surr)			*Recovery: 93 %*		*Limits: 80-120 %*		*Dilution: 1x*					
1,4-Difluorobenzene (Surr)			*101 %*		*80-120 %*		*"*					
Toluene-d8 (Surr)			*96 %*		*80-120 %*		*"*					
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*		*"*					
Matrix Spike (3090404-MS1)					Prepared: 09/18/13 12:00		Analyzed: 09/18/13 16:04					
QC Source Sample: SB-2 (A3I0351-02)												
EPA 8260B												
Benzene	22.0	---	0.250	ug/L	1	20.0	ND	110	70-130%	---	---	
Toluene	21.7	---	1.00	"	"	"	ND	109	"	---	---	
Ethylbenzene	22.5	---	0.500	"	"	"	ND	113	"	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

QUALITY CONTROL (QC) SAMPLE RESULTS

RBCA Compounds (BTEX+) by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090404 - EPA 5030B							**Water**					
Matrix Spike (3090404-MS1)						Prepared: 09/18/13 12:00	Analyzed: 09/18/13 16:04					
QC Source Sample: SB-2 (A3I0351-02)												
Xylenes, total	67.8	---	1.50	ug/L	"	60.0	ND	113	"	---	---	
Naphthalene	22.2	---	2.00	"	"	20.0	ND	111	"	---	---	
Methyl tert-butyl ether (MTBE)	21.1	---	1.00	"	"	"	ND	106	"	---	---	
Isopropylbenzene	23.0	---	1.00	"	"	"	ND	115	"	---	---	
n-Propylbenzene	22.7	---	0.500	"	"	"	ND	113	"	---	---	
1,2,4-Trimethylbenzene	22.0	---	1.00	"	"	"	ND	110	"	---	---	
1,3,5-Trimethylbenzene	22.6	---	1.00	"	"	"	ND	113	"	---	---	
1,2-Dibromoethane (EDB)	21.9	---	0.500	"	"	"	ND	109	"	---	---	
1,2-Dichloroethane (EDC)	20.7	---	0.500	"	"	"	ND	103	"	---	---	

Surr: Dibromofluoromethane (Surr)	*Recovery: 93 %*	*Limits: 80-120 %*	*Dilution: 1x*
1,4-Difluorobenzene (Surr)	*100 %*	*80-120 %*	*"*
Toluene-d8 (Surr)	*94 %*	*80-120 %*	*"*
4-Bromofluorobenzene (Surr)	*96 %*	*80-120 %*	*"*

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

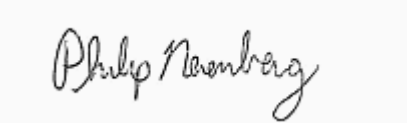
Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090436 - EPA 5030B							**Water**					
Blank (3090436-BLK1)						Prepared: 09/19/13 09:00	Analyzed: 09/19/13 12:21					
EPA 8260B												
Acetone	ND	---	20.0	ug/L	1	---	---	---	---	---	---	Q-31
Benzene	ND	---	0.250	"	"	---	---	---	---	---	---	
Bromobenzene	ND	---	0.500	"	"	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	"	"	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	"	"	---	---	---	---	---	---	
Bromoform	ND	---	1.00	"	"	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	"	"	---	---	---	---	---	---	
2-Butanone (MEK)	ND	---	10.0	"	"	---	---	---	---	---	---	Q-31
n-Butylbenzene	ND	---	1.00	"	"	---	---	---	---	---	---	
sec-Butylbenzene	ND	---	1.00	"	"	---	---	---	---	---	---	
tert-Butylbenzene	ND	---	1.00	"	"	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	0.500	"	"	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	"	"	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	"	"	---	---	---	---	---	---	EST
Chloroform	ND	---	1.00	"	"	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	"	"	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	"	"	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	"	"	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	"	"	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	"	"	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	"	"	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	"	"	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	"	"	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	"	"	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	"	"	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	"	"	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.500	"	"	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.500	"	"	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.500	"	"	---	---	---	---	---	---	

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090436 - EPA 5030B							**Water**					
Blank (3090436-BLK1)					Prepared: 09/19/13 09:00 Analyzed: 09/19/13 12:21							
cis-1,2-Dichloroethene	ND	---	0.500	ug/L	"	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.500	"	"	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	"	"	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	"	"	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	"	"	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	"	"	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	"	"	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	"	"	---	---	---	---	---	---	
Ethylbenzene	ND	---	0.500	"	"	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	"	"	---	---	---	---	---	---	
2-Hexanone	ND	---	10.0	"	"	---	---	---	---	---	---	
Isopropylbenzene	ND	---	1.00	"	"	---	---	---	---	---	---	
4-Isopropyltoluene	ND	---	1.00	"	"	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	---	10.0	"	"	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	"	"	---	---	---	---	---	---	
Methylene chloride	ND	---	5.00	"	"	---	---	---	---	---	---	
Naphthalene	ND	---	2.00	"	"	---	---	---	---	---	---	
n-Propylbenzene	ND	---	0.500	"	"	---	---	---	---	---	---	
Styrene	ND	---	1.00	"	"	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	---	0.500	"	"	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	"	"	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.500	"	"	---	---	---	---	---	---	
Toluene	ND	---	1.00	"	"	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	"	"	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	"	"	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.500	"	"	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	"	"	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.500	"	"	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	"	"	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	"	"	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090436 - EPA 5030B							**Water**					
Blank (3090436-BLK1)					Prepared: 09/19/13 09:00	Analyzed: 09/19/13 12:21						
1,2,4-Trimethylbenzene	ND	---	1.00	"	"	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	---	1.00	"	"	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.500	"	"	---	---	---	---	---	---	
m,p-Xylene	ND	---	1.00	"	"	---	---	---	---	---	---	
o-Xylene	ND	---	0.500	"	"	---	---	---	---	---	---	
Surr: Dibromofluoromethane (Surr)			*Recovery: 89 %*		*Limits: 80-120 %*		*Dilution: 1x*					
1,4-Difluorobenzene (Surr)			*96 %*		*80-120 %*		*"*					
Toluene-d8 (Surr)			*96 %*		*80-120 %*		*"*					
4-Bromofluorobenzene (Surr)			*98 %*		*80-120 %*		*"*					
LCS (3090436-BS1)					Prepared: 09/19/13 09:00	Analyzed: 09/19/13 11:29						
EPA 8260B												
Acetone	41.0	---	20.0	ug/L	1	40.0	---	103	70-130%	---	---	Q-31
Benzene	19.9	---	0.250	"	"	20.0	---	99	"	---	---	
Bromobenzene	24.4	---	0.500	"	"	"	---	122	"	---	---	
Bromochloromethane	18.8	---	1.00	"	"	"	---	94	"	---	---	
Bromodichloromethane	19.0	---	1.00	"	"	"	---	95	"	---	---	
Bromoform	21.6	---	1.00	"	"	"	---	108	"	---	---	
Bromomethane	17.0	---	5.00	"	"	"	---	85	"	---	---	
2-Butanone (MEK)	36.4	---	10.0	"	"	40.0	---	91	"	---	---	Q-31
n-Butylbenzene	24.0	---	1.00	"	"	20.0	---	120	"	---	---	
sec-Butylbenzene	23.5	---	1.00	"	"	"	---	118	"	---	---	
tert-Butylbenzene	23.1	---	1.00	"	"	"	---	115	"	---	---	
Carbon tetrachloride	19.9	---	0.500	"	"	"	---	100	"	---	---	
Chlorobenzene	23.5	---	0.500	"	"	"	---	117	"	---	---	
Chloroethane	9.64	---	5.00	"	"	"	---	48	"	---	---	EST
Chloroform	20.1	---	1.00	"	"	"	---	101	"	---	---	
Chloromethane	17.8	---	5.00	"	"	"	---	89	"	---	---	
2-Chlorotoluene	24.3	---	1.00	"	"	"	---	122	"	---	---	
4-Chlorotoluene	22.6	---	1.00	"	"	"	---	113	"	---	---	
1,2-Dibromo-3-chloropropane	20.5	---	5.00	"	"	"	---	102	"	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090436 - EPA 5030B							**Water**					
LCS (3090436-BS1)					Prepared: 09/19/13 09:00 Analyzed: 09/19/13 11:29							
Dibromochloromethane	22.1	---	1.00	ug/L	"	"	---	110	"	---	---	
1,2-Dibromoethane (EDB)	23.0	---	0.500	"	"	"	---	115	"	---	---	
Dibromomethane	20.0	---	1.00	"	"	"	---	100	"	---	---	
1,2-Dichlorobenzene	23.6	---	0.500	"	"	"	---	118	"	---	---	
1,3-Dichlorobenzene	24.3	---	0.500	"	"	"	---	121	"	---	---	
1,4-Dichlorobenzene	23.4	---	0.500	"	"	"	---	117	"	---	---	
Dichlorodifluoromethane	17.7	---	1.00	"	"	"	---	89	"	---	---	
1,1-Dichloroethane	19.3	---	0.500	"	"	"	---	97	"	---	---	
1,2-Dichloroethane (EDC)	17.8	---	0.500	"	"	"	---	89	"	---	---	
1,1-Dichloroethene	18.2	---	0.500	"	"	"	---	91	"	---	---	
cis-1,2-Dichloroethene	20.9	---	0.500	"	"	"	---	104	"	---	---	
trans-1,2-Dichloroethene	19.7	---	0.500	"	"	"	---	99	"	---	---	
1,2-Dichloropropane	19.8	---	0.500	"	"	"	---	99	"	---	---	
1,3-Dichloropropane	22.3	---	1.00	"	"	"	---	112	"	---	---	
2,2-Dichloropropane	19.4	---	1.00	"	"	"	---	97	"	---	---	
1,1-Dichloropropene	17.5	---	1.00	"	"	"	---	87	"	---	---	
cis-1,3-Dichloropropene	20.6	---	1.00	"	"	"	---	103	"	---	---	
trans-1,3-Dichloropropene	21.1	---	1.00	"	"	"	---	105	"	---	---	
Ethylbenzene	22.8	---	0.500	"	"	"	---	114	"	---	---	
Hexachlorobutadiene	23.4	---	5.00	"	"	"	---	117	"	---	---	
2-Hexanone	40.9	---	10.0	"	"	40.0	---	102	"	---	---	
Isopropylbenzene	23.4	---	1.00	"	"	20.0	---	117	"	---	---	
4-Isopropyltoluene	24.4	---	1.00	"	"	"	---	122	"	---	---	
4-Methyl-2-pentanone (MiBK)	41.3	---	10.0	"	"	40.0	---	103	"	---	---	
Methyl tert-butyl ether (MTBE)	18.8	---	1.00	"	"	20.0	---	94	"	---	---	
Methylene chloride	19.7	---	5.00	"	"	"	---	99	"	---	---	
Naphthalene	22.2	---	2.00	"	"	"	---	111	"	---	---	
n-Propylbenzene	23.1	---	0.500	"	"	"	---	115	"	---	---	
Styrene	22.8	---	1.00	"	"	"	---	114	"	---	---	
1,1,1,2-Tetrachloroethane	21.7	---	0.500	"	"	"	---	108	"	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

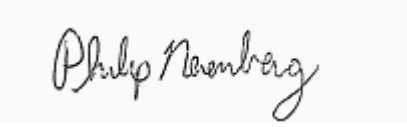
Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090436 - EPA 5030B							**Water**					
LCS (3090436-BS1)					Prepared: 09/19/13 09:00		Analyzed: 09/19/13 11:29					
1,1,2,2-Tetrachloroethane	22.5	---	0.500	"	"	"	---	112	"	---	---	
Tetrachloroethene (PCE)	24.3	---	0.500	"	"	"	---	121	"	---	---	
Toluene	22.4	---	1.00	"	"	"	---	112	"	---	---	
1,2,3-Trichlorobenzene	22.6	---	2.00	"	"	"	---	113	"	---	---	
1,2,4-Trichlorobenzene	22.9	---	2.00	"	"	"	---	114	"	---	---	
1,1,1-Trichloroethane	20.2	---	0.500	"	"	"	---	101	"	---	---	
1,1,2-Trichloroethane	22.4	---	0.500	"	"	"	---	112	"	---	---	
Trichloroethene (TCE)	20.5	---	0.500	"	"	"	---	103	"	---	---	
Trichlorofluoromethane	15.9	---	2.00	"	"	"	---	79	"	---	---	
1,2,3-Trichloropropane	21.5	---	1.00	"	"	"	---	108	"	---	---	
1,2,4-Trimethylbenzene	23.3	---	1.00	"	"	"	---	117	"	---	---	
1,3,5-Trimethylbenzene	23.6	---	1.00	"	"	"	---	118	"	---	---	
Vinyl chloride	19.6	---	0.500	"	"	"	---	98	"	---	---	
m,p-Xylene	46.9	---	1.00	"	"	40.0	---	117	"	---	---	
o-Xylene	22.9	---	0.500	"	"	20.0	---	114	"	---	---	
Surr: Dibromofluoromethane (Surr)			*Recovery: 86 %*		*Limits: 80-120 %*			*Dilution: 1x*				
1,4-Difluorobenzene (Surr)			*94 %*		*80-120 %*			*"*				
Toluene-d8 (Surr)			*95 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*96 %*		*80-120 %*			*"*				
Duplicate (3090436-DUP1)					Prepared: 09/19/13 12:00		Analyzed: 09/19/13 13:13					
QC Source Sample: SB-4 (A3I0351-03)												
EPA 8260B												
Acetone	ND	---	20.0	ug/L	1	---	ND	---	---	---	30%	Q-31
Benzene	ND	---	0.250	"	"	---	ND	---	---	---	30%	
Bromobenzene	ND	---	0.500	"	"	---	ND	---	---	---	30%	
Bromochloromethane	ND	---	1.00	"	"	---	ND	---	---	---	30%	
Bromodichloromethane	ND	---	1.00	"	"	---	ND	---	---	---	30%	
Bromoform	ND	---	1.00	"	"	---	ND	---	---	---	30%	
Bromomethane	ND	---	5.00	"	"	---	ND	---	---	---	30%	
2-Butanone (MEK)	ND	---	10.0	"	"	---	ND	---	---	---	30%	Q-31
n-Butylbenzene	ND	---	1.00	"	"	---	ND	---	---	---	30%	

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090436 - EPA 5030B							**Water**					
Duplicate (3090436-DUP1)					Prepared: 09/19/13 12:00 Analyzed: 09/19/13 13:13							
QC Source Sample: SB-4 (A3I0351-03)												
sec-Butylbenzene	ND	---	1.00	ug/L	"	---	ND	---	---	---	30%	
tert-Butylbenzene	ND	---	1.00	"	"	---	ND	---	---	---	30%	
Carbon tetrachloride	ND	---	0.500	"	"	---	ND	---	---	---	30%	
Chlorobenzene	ND	---	0.500	"	"	---	ND	---	---	---	30%	
Chloroethane	ND	---	5.00	"	"	---	ND	---	---	---	30%	EST
Chloroform	ND	---	1.00	"	"	---	ND	---	---	---	30%	
Chloromethane	ND	---	5.00	"	"	---	ND	---	---	---	30%	
2-Chlorotoluene	ND	---	1.00	"	"	---	ND	---	---	---	30%	
4-Chlorotoluene	ND	---	1.00	"	"	---	ND	---	---	---	30%	
1,2-Dibromo-3-chloropropane	ND	---	5.00	"	"	---	ND	---	---	---	30%	
Dibromochloromethane	ND	---	1.00	"	"	---	ND	---	---	---	30%	
1,2-Dibromoethane (EDB)	ND	---	0.500	"	"	---	ND	---	---	---	30%	
Dibromomethane	ND	---	1.00	"	"	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	0.500	"	"	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	0.500	"	"	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	0.500	"	"	---	ND	---	---	---	30%	
Dichlorodifluoromethane	ND	---	1.00	"	"	---	ND	---	---	---	30%	
1,1-Dichloroethane	ND	---	0.500	"	"	---	ND	---	---	---	30%	
1,2-Dichloroethane (EDC)	ND	---	0.500	"	"	---	ND	---	---	---	30%	
1,1-Dichloroethene	ND	---	0.500	"	"	---	ND	---	---	---	30%	
cis-1,2-Dichloroethene	ND	---	0.500	"	"	---	ND	---	---	---	30%	
trans-1,2-Dichloroethene	ND	---	0.500	"	"	---	ND	---	---	---	30%	
1,2-Dichloropropane	ND	---	0.500	"	"	---	ND	---	---	---	30%	
1,3-Dichloropropane	ND	---	1.00	"	"	---	ND	---	---	---	30%	
2,2-Dichloropropane	ND	---	1.00	"	"	---	ND	---	---	---	30%	
1,1-Dichloropropene	ND	---	1.00	"	"	---	ND	---	---	---	30%	
cis-1,3-Dichloropropene	ND	---	1.00	"	"	---	ND	---	---	---	30%	
trans-1,3-Dichloropropene	ND	---	1.00	"	"	---	ND	---	---	---	30%	
Ethylbenzene	ND	---	0.500	"	"	---	ND	---	---	---	30%	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090436 - EPA 5030B							**Water**					
Duplicate (3090436-DUP1)					Prepared: 09/19/13 12:00 Analyzed: 09/19/13 13:13							
QC Source Sample: SB-4 (A3I0351-03)												
Hexachlorobutadiene	ND	---	5.00	ug/L	"	---	ND	---	---	---	30%	
2-Hexanone	ND	---	10.0	"	"	---	ND	---	---	---	30%	
Isopropylbenzene	ND	---	1.00	"	"	---	ND	---	---	---	30%	
4-Isopropyltoluene	ND	---	1.00	"	"	---	ND	---	---	---	30%	
4-Methyl-2-pentanone (MiBK)	ND	---	10.0	"	"	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	"	"	---	ND	---	---	---	30%	
Methylene chloride	ND	---	5.00	"	"	---	ND	---	---	---	30%	
Naphthalene	ND	---	2.00	"	"	---	ND	---	---	---	30%	
n-Propylbenzene	ND	---	0.500	"	"	---	ND	---	---	---	30%	
Styrene	ND	---	1.00	"	"	---	ND	---	---	---	30%	
1,1,1,2-Tetrachloroethane	ND	---	0.500	"	"	---	ND	---	---	---	30%	
1,1,2,2-Tetrachloroethane	ND	---	0.500	"	"	---	ND	---	---	---	30%	
Tetrachloroethene (PCE)	ND	---	0.500	"	"	---	ND	---	---	---	30%	
Toluene	ND	---	1.00	"	"	---	ND	---	---	---	30%	
1,2,3-Trichlorobenzene	ND	---	2.00	"	"	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	2.00	"	"	---	ND	---	---	---	30%	
1,1,1-Trichloroethane	ND	---	0.500	"	"	---	ND	---	---	---	30%	
1,1,2-Trichloroethane	ND	---	0.500	"	"	---	ND	---	---	---	30%	
Trichloroethene (TCE)	ND	---	0.500	"	"	---	ND	---	---	---	30%	
Trichlorofluoromethane	ND	---	2.00	"	"	---	ND	---	---	---	30%	
1,2,3-Trichloropropane	ND	---	1.00	"	"	---	ND	---	---	---	30%	
1,2,4-Trimethylbenzene	ND	---	1.00	"	"	---	ND	---	---	---	30%	
1,3,5-Trimethylbenzene	ND	---	1.00	"	"	---	ND	---	---	---	30%	
Vinyl chloride	ND	---	0.500	"	"	---	ND	---	---	---	30%	
m,p-Xylene	ND	---	1.00	"	"	---	ND	---	---	---	30%	
o-Xylene	ND	---	0.500	"	"	---	ND	---	---	---	30%	

Surr:	*Dibromofluoromethane (Surr)*	*Recovery:*	*89 %*	*Limits:*	*80-120 %*	*Dilution: 1x*
	1,4-Difluorobenzene (Surr)		*96 %*		*80-120 %*	*"*
	Toluene-d8 (Surr)		*95 %*		*80-120 %*	*"*

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090436 - EPA 5030B							**Water**					
Duplicate (3090436-DUP1)					Prepared: 09/19/13 12:00 Analyzed: 09/19/13 13:13							
QC Source Sample: SB-4 (A3I0351-03)												
Surr: 4-Bromofluorobenzene (Surr)			*Recovery: 96 %*	*Limits: 80-120 %*			*Dilution: 1x*					
Matrix Spike (3090436-MS1)					Prepared: 09/19/13 12:00 Analyzed: 09/19/13 14:56							
QC Source Sample: SB-9 (A3I0351-06)												
EPA 8260B												
Acetone	ND	---	20.0	ug/L	1	40.0	ND	47	70-130%	---	---	Q-31
Benzene	19.2	---	0.250	"	"	20.0	ND	96	"	---	---	
Bromobenzene	23.4	---	0.500	"	"	"	ND	117	"	---	---	
Bromochloromethane	17.3	---	1.00	"	"	"	ND	86	"	---	---	
Bromodichloromethane	18.2	---	1.00	"	"	"	ND	91	"	---	---	
Bromoform	20.9	---	1.00	"	"	"	ND	105	"	---	---	
Bromomethane	11.3	---	5.00	"	"	"	ND	57	"	---	---	Q-01
2-Butanone (MEK)	22.0	---	10.0	"	"	40.0	ND	55	"	---	---	Q-31
n-Butylbenzene	23.5	---	1.00	"	"	20.0	ND	118	"	---	---	
sec-Butylbenzene	23.0	---	1.00	"	"	"	ND	115	"	---	---	
tert-Butylbenzene	22.4	---	1.00	"	"	"	ND	112	"	---	---	
Carbon tetrachloride	19.5	---	0.500	"	"	"	ND	97	"	---	---	
Chlorobenzene	22.4	---	0.500	"	"	"	ND	112	"	---	---	
Chloroethane	10.3	---	5.00	"	"	"	ND	52	"	---	---	EST
Chloroform	19.0	---	1.00	"	"	"	ND	95	"	---	---	
Chloromethane	15.5	---	5.00	"	"	"	ND	77	"	---	---	
2-Chlorotoluene	22.7	---	1.00	"	"	"	ND	114	"	---	---	
4-Chlorotoluene	22.0	---	1.00	"	"	"	ND	110	"	---	---	
1,2-Dibromo-3-chloropropane	22.1	---	5.00	"	"	"	ND	111	"	---	---	
Dibromochloromethane	20.7	---	1.00	"	"	"	ND	104	"	---	---	
1,2-Dibromoethane (EDB)	22.1	---	0.500	"	"	"	ND	110	"	---	---	
Dibromomethane	18.7	---	1.00	"	"	"	ND	93	"	---	---	
1,2-Dichlorobenzene	23.1	---	0.500	"	"	"	ND	115	"	---	---	
1,3-Dichlorobenzene	23.5	---	0.500	"	"	"	ND	118	"	---	---	
1,4-Dichlorobenzene	22.4	---	0.500	"	"	"	ND	112	"	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090436 - EPA 5030B							**Water**					
Matrix Spike (3090436-MS1)					Prepared: 09/19/13 12:00		Analyzed: 09/19/13 14:56					
QC Source Sample: SB-9 (A3I0351-06)												
Dichlorodifluoromethane	17.0	---	1.00	ug/L	"	"	ND	85	"	---	---	
1,1-Dichloroethane	18.3	---	0.500	"	"	"	ND	91	"	---	---	
1,2-Dichloroethane (EDC)	16.8	---	0.500	"	"	"	ND	84	"	---	---	
1,1-Dichloroethene	17.2	---	0.500	"	"	"	ND	86	"	---	---	
cis-1,2-Dichloroethene	19.4	---	0.500	"	"	"	ND	97	"	---	---	
trans-1,2-Dichloroethene	18.5	---	0.500	"	"	"	ND	92	"	---	---	
1,2-Dichloropropane	18.5	---	0.500	"	"	"	ND	93	"	---	---	
1,3-Dichloropropane	21.1	---	1.00	"	"	"	ND	106	"	---	---	
2,2-Dichloropropane	18.7	---	1.00	"	"	"	ND	93	"	---	---	
1,1-Dichloropropene	17.1	---	1.00	"	"	"	ND	86	"	---	---	
cis-1,3-Dichloropropene	19.0	---	1.00	"	"	"	ND	95	"	---	---	
trans-1,3-Dichloropropene	19.8	---	1.00	"	"	"	ND	99	"	---	---	
Ethylbenzene	21.9	---	0.500	"	"	"	ND	110	"	---	---	
Hexachlorobutadiene	25.0	---	5.00	"	"	"	ND	125	"	---	---	
2-Hexanone	29.4	---	10.0	"	"	40.0	ND	73	"	---	---	
Isopropylbenzene	22.8	---	1.00	"	"	20.0	ND	114	"	---	---	
4-Isopropyltoluene	23.4	---	1.00	"	"	"	ND	117	"	---	---	
4-Methyl-2-pentanone (MiBK)	39.5	---	10.0	"	"	40.0	ND	99	"	---	---	
Methyl tert-butyl ether (MTBE)	17.4	---	1.00	"	"	20.0	ND	87	"	---	---	
Methylene chloride	18.5	---	5.00	"	"	"	ND	92	"	---	---	
Naphthalene	22.9	---	2.00	"	"	"	ND	114	"	---	---	
n-Propylbenzene	22.3	---	0.500	"	"	"	ND	112	"	---	---	
Styrene	21.1	---	1.00	"	"	"	ND	106	"	---	---	
1,1,1,2-Tetrachloroethane	21.3	---	0.500	"	"	"	ND	107	"	---	---	
1,1,2,2-Tetrachloroethane	22.6	---	0.500	"	"	"	ND	113	"	---	---	
Tetrachloroethene (PCE)	23.9	---	0.500	"	"	"	ND	119	"	---	---	
Toluene	21.6	---	1.00	"	"	"	ND	108	"	---	---	
1,2,3-Trichlorobenzene	22.2	---	2.00	"	"	"	ND	111	"	---	---	
1,2,4-Trichlorobenzene	22.7	---	2.00	"	"	"	ND	113	"	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090436 - EPA 5030B							**Water**					
Matrix Spike (3090436-MS1)						Prepared: 09/19/13 12:00	Analyzed: 09/19/13 14:56					
QC Source Sample: SB-9 (A3I0351-06)												
1,1,1-Trichloroethane	19.8	---	0.500	"	"	"	ND	99	"	---	---	
1,1,2-Trichloroethane	21.3	---	0.500	"	"	"	ND	107	"	---	---	
Trichloroethene (TCE)	19.4	---	0.500	"	"	"	ND	97	"	---	---	
Trichlorofluoromethane	15.7	---	2.00	"	"	"	ND	79	"	---	---	
1,2,3-Trichloropropane	21.4	---	1.00	"	"	"	ND	107	"	---	---	
1,2,4-Trimethylbenzene	22.1	---	1.00	"	"	"	ND	110	"	---	---	
1,3,5-Trimethylbenzene	22.1	---	1.00	"	"	"	ND	110	"	---	---	
Vinyl chloride	17.9	---	0.500	"	"	"	ND	90	"	---	---	
m,p-Xylene	44.0	---	1.00	"	"	40.0	ND	110	"	---	---	
o-Xylene	21.3	---	0.500	"	"	20.0	ND	106	"	---	---	

Surr:	*Dibromofluoromethane (Surr)*	*Recovery:*	*85 %*	*Limits:*	*80-120 %*	*Dilution: 1x*
	1,4-Difluorobenzene (Surr)		*93 %*		*80-120 %*	*"*
	Toluene-d8 (Surr)		*95 %*		*80-120 %*	*"*
	4-Bromofluorobenzene (Surr)		*96 %*		*80-120 %*	*"*

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

QUALITY CONTROL (QC) SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090690 - EPA 3510C (Neutral pH)							**Water**					
Blank (3090690-BLK1)					Prepared: 09/30/13 07:02	Analyzed: 09/30/13 13:19						**C-07**
EPA 8082A												
Aroclor 1016	ND	---	0.0909	ug/L	1	---	---	---	---	---	---	
Aroclor 1221	ND	---	0.0909	"	"	---	---	---	---	---	---	
Aroclor 1232	ND	---	0.0909	"	"	---	---	---	---	---	---	
Aroclor 1242	ND	---	0.0909	"	"	---	---	---	---	---	---	
Aroclor 1248	ND	---	0.0909	"	"	---	---	---	---	---	---	
Aroclor 1254	ND	---	0.0909	"	"	---	---	---	---	---	---	
Aroclor 1260	ND	---	0.0909	"	"	---	---	---	---	---	---	
Surr: Decachlorobiphenyl (Surr)			*Recovery: 111 %*	*Limits: 40-135 %*			*Dilution: 1x*					
LCS (3090690-BS1)					Prepared: 09/30/13 07:02	Analyzed: 09/30/13 13:37						**C-07**
EPA 8082A												
Aroclor 1016	2.13	---	0.100	ug/L	1	2.50	---	85	40-140%	---	---	
Aroclor 1260	2.09	---	0.100	"	"	"	---	84	"	---	---	
Surr: Decachlorobiphenyl (Surr)			*Recovery: 102 %*	*Limits: 40-135 %*			*Dilution: 1x*					
LCS Dup (3090690-BSD1)					Prepared: 09/30/13 07:03	Analyzed: 09/30/13 13:54						**C-07**
EPA 8082A												
Aroclor 1016	2.28	---	0.100	ug/L	1	2.50	---	91	40-140%	7	30%	
Aroclor 1260	2.16	---	0.100	"	"	"	---	86	"	3	30%	
Surr: Decachlorobiphenyl (Surr)			*Recovery: 105 %*	*Limits: 40-135 %*			*Dilution: 1x*					

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090545 - EPA 3510C (Acid/Base Neutral)							**Water**					
Blank (3090545-BLK1)					Prepared: 09/24/13 08:11 Analyzed: 09/24/13 14:12							
EPA 8270D												
Acenaphthene	ND	---	0.909	ug/L	1	---	---	---	---	---	---	
Acenaphthylene	ND	---	0.909	"	"	---	---	---	---	---	---	
Aniline	ND	---	0.909	"	"	---	---	---	---	---	---	
Anthracene	ND	---	0.909	"	"	---	---	---	---	---	---	
Azobenzene (1,2-DPH)	ND	---	0.909	"	"	---	---	---	---	---	---	
Benz(a)anthracene	ND	---	0.909	"	"	---	---	---	---	---	---	
Benzo(a)pyrene	ND	---	0.909	"	"	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	---	0.909	"	"	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	---	0.909	"	"	---	---	---	---	---	---	
Benzo(b+k)fluoranthene(s)	ND	---	1.82	"	"	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	---	0.909	"	"	---	---	---	---	---	---	
Benzoic acid	ND	---	4.55	"	"	---	---	---	---	---	---	
Benzyl alcohol	ND	---	0.909	"	"	---	---	---	---	---	---	
Bis(2-Chloroethoxy) methane	ND	---	0.909	"	"	---	---	---	---	---	---	
Bis(2-Chloroethyl) ether	ND	---	0.909	"	"	---	---	---	---	---	---	
Bis(2-Chloroisopropyl) ether	ND	---	0.909	"	"	---	---	---	---	---	---	
Bis(2-Ethylhexyl) adipate	ND	---	0.909	"	"	---	---	---	---	---	---	
Bis(2-ethylhexyl)phthalate	ND	---	1.82	"	"	---	---	---	---	---	---	
4-Bromophenyl phenyl ether	ND	---	0.909	"	"	---	---	---	---	---	---	
Butyl benzyl phthalate	ND	---	1.82	"	"	---	---	---	---	---	---	
Carbazole	ND	---	1.36	"	"	---	---	---	---	---	---	
4-Chloroaniline	ND	---	0.909	"	"	---	---	---	---	---	---	
4-Chloro-3-methylphenol	ND	---	0.909	"	"	---	---	---	---	---	---	
2-Chloronaphthalene	ND	---	0.909	"	"	---	---	---	---	---	---	
2-Chlorophenol	ND	---	0.909	"	"	---	---	---	---	---	---	
4-Chlorophenyl phenyl ether	ND	---	0.909	"	"	---	---	---	---	---	---	
Chrysene	ND	---	0.909	"	"	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	---	0.909	"	"	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090545 - EPA 3510C (Acid/Base Neutral)							**Water**					
Blank (3090545-BLK1)					Prepared: 09/24/13 08:11 Analyzed: 09/24/13 14:12							
Dibenzofuran	ND	---	0.909	"	"	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.909	"	"	---	---	---	---	---	---	Q-30
1,3-Dichlorobenzene	ND	---	0.909	"	"	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.909	"	"	---	---	---	---	---	---	
2,4-Dichlorophenol	ND	---	0.909	"	"	---	---	---	---	---	---	
Di-n-butylphthalate	ND	---	1.82	"	"	---	---	---	---	---	---	
Diethylphthalate	ND	---	1.82	"	"	---	---	---	---	---	---	
Dimethylphthalate	ND	---	1.82	"	"	---	---	---	---	---	---	
2,4-Dimethylphenol	ND	---	0.909	"	"	---	---	---	---	---	---	
1,2-Dinitrobenzene	ND	---	0.909	"	"	---	---	---	---	---	---	
1,3-Dinitrobenzene	ND	---	0.909	"	"	---	---	---	---	---	---	
1,4-Dinitrobenzene	ND	---	0.909	"	"	---	---	---	---	---	---	
4,6-Dinitro-2-methylphenol	ND	---	1.82	"	"	---	---	---	---	---	---	
2,4-Dinitrophenol	ND	---	0.909	"	"	---	---	---	---	---	---	
2,4-Dinitrotoluene	ND	---	0.909	"	"	---	---	---	---	---	---	
2,6-Dinitrotoluene	ND	---	0.909	"	"	---	---	---	---	---	---	
Di-n-octyl phthalate	ND	---	1.82	"	"	---	---	---	---	---	---	
Fluoranthene	ND	---	0.909	"	"	---	---	---	---	---	---	
Fluorene	ND	---	0.909	"	"	---	---	---	---	---	---	
Hexachlorobenzene	ND	---	0.909	"	"	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	0.909	"	"	---	---	---	---	---	---	
Hexachlorocyclopentadiene	ND	---	0.909	"	"	---	---	---	---	---	---	
Hexachloroethane	ND	---	0.909	"	"	---	---	---	---	---	---	Q-30
Indeno(1,2,3-cd)pyrene	ND	---	0.909	"	"	---	---	---	---	---	---	
Isophorone	ND	---	0.909	"	"	---	---	---	---	---	---	
1-Methylnaphthalene	ND	---	0.909	"	"	---	---	---	---	---	---	
2-Methylnaphthalene	ND	---	0.909	"	"	---	---	---	---	---	---	
2-Methylphenol	ND	---	0.909	"	"	---	---	---	---	---	---	
3+4-Methylphenol(s)	ND	---	0.909	"	"	---	---	---	---	---	---	
Naphthalene	ND	---	0.909	"	"	---	---	---	---	---	---	
2-Nitroaniline	ND	---	1.82	"	"	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090545 - EPA 3510C (Acid/Base Neutral)							**Water**					
Blank (3090545-BLK1)					Prepared: 09/24/13 08:11 Analyzed: 09/24/13 14:12							
3-Nitroaniline	ND	---	1.82	ug/L	"	---	---	---	---	---	---	
4-Nitroaniline	ND	---	0.909	"	"	---	---	---	---	---	---	
Nitrobenzene	ND	---	0.909	"	"	---	---	---	---	---	---	
2-Nitrophenol	ND	---	0.909	"	"	---	---	---	---	---	---	
4-Nitrophenol	ND	---	1.82	"	"	---	---	---	---	---	---	
N-Nitrosodimethylamine	ND	---	0.909	"	"	---	---	---	---	---	---	
N-Nitroso-di-n-propylamine	ND	---	0.909	"	"	---	---	---	---	---	---	
N-Nitrosodiphenylamine	ND	---	0.909	"	"	---	---	---	---	---	---	
Pentachlorophenol (PCP)	ND	---	1.82	"	"	---	---	---	---	---	---	
Phenanthrene	ND	---	0.909	"	"	---	---	---	---	---	---	
Phenol	ND	---	0.909	"	"	---	---	---	---	---	---	
Pyrene	ND	---	0.909	"	"	---	---	---	---	---	---	
Pyridine	ND	---	1.82	"	"	---	---	---	---	---	---	
2,3,4,6-Tetrachlorophenol	ND	---	0.909	"	"	---	---	---	---	---	---	
2,3,5,6-Tetrachlorophenol	ND	---	0.909	"	"	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	0.909	"	"	---	---	---	---	---	---	
2,4,5-Trichlorophenol	ND	---	0.909	"	"	---	---	---	---	---	---	
2,4,6-Trichlorophenol	ND	---	0.909	"	"	---	---	---	---	---	---	

Surr: Nitrobenzene-d5 (Surr)	*Recovery: 94 %*	*Limits: 35-120 %*	*Dilution: 1x*
2-Fluorobiphenyl (Surr)	*88 %*	*30-120 %*	*"*
Phenol-d6 (Surr)	*39 %*	*10-120 %*	*"*
p-Terphenyl-d14 (Surr)	*106 %*	*30-125 %*	*"*
2-Fluorophenol (Surr)	*60 %*	*15-120 %*	*"*
2,4,6-Tribromophenol (Surr)	*96 %*	*35-125 %*	*"*

LCS (3090545-BS1)					Prepared: 09/24/13 08:11 Analyzed: 09/24/13 14:48							
EPA 8270D												
Acenaphthene	6.62	---	1.00	ug/L	1	8.00	---	83	45-125%	---	---	
Acenaphthylene	6.95	---	1.00	"	"	"	---	87	50-125%	---	---	
Aniline	5.70	---	1.00	"	"	"	---	71	40-120%	---	---	
Anthracene	8.31	---	1.00	"	"	"	---	104	55-125%	---	---	
Azobenzene (1,2-DPH)	8.14	---	1.00	"	"	"	---	102	25-120%	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

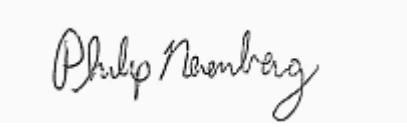
Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090545 - EPA 3510C (Acid/Base Neutral)							**Water**					
LCS (3090545-BS1)					Prepared: 09/24/13 08:11	Analyzed: 09/24/13 14:48						
Benz(a)anthracene	8.59	---	1.00	ug/L	"	"	---	107	55-125%	---	---	
Benzo(a)pyrene	8.56	---	1.00	"	"	"	---	107	"	---	---	
Benzo(b)fluoranthene	8.62	---	1.00	"	"	"	---	108	45-125%	---	---	
Benzo(k)fluoranthene	8.50	---	1.00	"	"	"	---	106	"	---	---	
Benzo(b+k)fluoranthene(s)	17.1	---	2.00	"	"	16.0	---	107	"	---	---	
Benzo(g,h,i)perylene	8.00	---	1.00	"	"	8.00	---	100	40-125%	---	---	
Benzoic acid	6.50	---	5.00	"	"	16.0	---	41	10-120%	---	---	
Benzyl alcohol	6.04	---	1.00	"	"	8.00	---	76	30-125%	---	---	
Bis(2-Chloroethoxy) methane	7.47	---	1.00	"	"	"	---	93	45-125%	---	---	
Bis(2-Chloroethyl) ether	6.30	---	1.00	"	"	"	---	79	35-125%	---	---	
Bis(2-Chloroisopropyl) ether	5.57	---	1.00	"	"	"	---	70	25-125%	---	---	
Bis(2-Ethylhexyl) adipate	8.82	---	1.00	"	"	"	---	110	40-125%	---	---	
Bis(2-ethylhexyl)phthalate	9.00	---	2.00	"	"	"	---	112	"	---	---	
4-Bromophenyl phenyl ether	7.64	---	1.00	"	"	"	---	95	50-120%	---	---	
Butyl benzyl phthalate	9.56	---	2.00	"	"	"	---	120	45-125%	---	---	
Carbazole	8.72	---	1.50	"	"	"	---	109	50-125%	---	---	
4-Chloroaniline	6.05	---	1.00	"	"	"	---	76	15-120%	---	---	
4-Chloro-3-methylphenol	7.49	---	1.00	"	"	"	---	94	45-120%	---	---	
2-Chloronaphthalene	5.86	---	1.00	"	"	"	---	73	50-120%	---	---	
2-Chlorophenol	6.86	---	1.00	"	"	"	---	86	35-120%	---	---	
4-Chlorophenyl phenyl ether	7.33	---	1.00	"	"	"	---	92	50-120%	---	---	
Chrysene	8.24	---	1.00	"	"	"	---	103	55-125%	---	---	
Dibenz(a,h)anthracene	8.64	---	1.00	"	"	"	---	108	40-125%	---	---	
Dibenzofuran	7.08	---	1.00	"	"	"	---	88	55-125%	---	---	
1,2-Dichlorobenzene	2.71	---	1.00	"	"	"	---	34	35-120%	---	---	Q-30
1,3-Dichlorobenzene	2.48	---	1.00	"	"	"	---	31	30-120%	---	---	
1,4-Dichlorobenzene	2.57	---	1.00	"	"	"	---	32	"	---	---	
2,4-Dichlorophenol	7.02	---	1.00	"	"	"	---	88	50-120%	---	---	
Di-n-butylphthalate	8.95	---	2.00	"	"	"	---	112	55-125%	---	---	

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090545 - EPA 3510C (Acid/Base Neutral)							**Water**					
LCS (3090545-BS1)					Prepared: 09/24/13 08:11	Analyzed: 09/24/13 14:48						
Diethylphthalate	8.60	---	2.00	"	"	"	---	108	40-125%	---	---	
Dimethylphthalate	8.02	---	2.00	"	"	"	---	100	25-125%	---	---	
2,4-Dimethylphenol	7.60	---	1.00	"	"	"	---	95	30-120%	---	---	
1,2-Dinitrobenzene	7.30	---	1.00	"	"	"	---	91	40-120%	---	---	
1,3-Dinitrobenzene	7.26	---	1.00	"	"	"	---	91	"	---	---	
1,4-Dinitrobenzene	7.23	---	1.00	"	"	"	---	90	"	---	---	
4,6-Dinitro-2-methylphenol	7.27	---	2.00	"	"	"	---	91	40-135%	---	---	
2,4-Dinitrophenol	7.38	---	1.00	"	"	"	---	92	15-130%	---	---	
2,4-Dinitrotoluene	7.56	---	1.00	"	"	"	---	95	50-120%	---	---	
2,6-Dinitrotoluene	7.33	---	1.00	"	"	"	---	92	"	---	---	
Di-n-octyl phthalate	9.45	---	2.00	"	"	"	---	118	35-125%	---	---	
Fluoranthene	8.31	---	1.00	"	"	"	---	104	55-125%	---	---	
Fluorene	7.47	---	1.00	"	"	"	---	93	50-125%	---	---	
Hexachlorobenzene	7.50	---	1.00	"	"	"	---	94	50-120%	---	---	
Hexachlorobutadiene	2.48	---	1.00	"	"	"	---	31	25-120%	---	---	
Hexachlorocyclopentadiene	3.77	---	1.00	"	"	"	---	47	30-120%	---	---	
Hexachloroethane	2.25	---	1.00	"	"	"	---	28	"	---	---	Q-30
Indeno(1,2,3-cd)pyrene	8.34	---	1.00	"	"	"	---	104	45-125%	---	---	
Isophorone	7.60	---	1.00	"	"	"	---	95	45-120%	---	---	
1-Methylnaphthalene	5.20	---	1.00	"	"	"	---	65	"	---	---	
2-Methylnaphthalene	5.16	---	1.00	"	"	"	---	64	"	---	---	
2-Methylphenol	5.93	---	1.00	"	"	"	---	74	40-120%	---	---	
3+4-Methylphenol(s)	5.83	---	1.00	"	"	"	---	73	30-120%	---	---	
Naphthalene	4.19	---	1.00	"	"	"	---	52	40-125%	---	---	
2-Nitroaniline	7.32	---	2.00	"	"	"	---	91	50-120%	---	---	
3-Nitroaniline	7.01	---	2.00	"	"	"	---	88	20-120%	---	---	
4-Nitroaniline	6.72	---	1.00	"	"	"	---	84	35-120%	---	---	
Nitrobenzene	6.94	---	1.00	"	"	"	---	87	45-120%	---	---	
2-Nitrophenol	7.07	---	1.00	"	"	"	---	88	40-120%	---	---	
4-Nitrophenol	2.94	---	2.00	"	"	"	---	37	10-140%	---	---	
N-Nitrosodimethylamine	4.32	---	1.00	"	"	"	---	54	25-120%	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090545 - EPA 3510C (Acid/Base Neutral)							**Water**					
LCS (3090545-BS1)					Prepared: 09/24/13 08:11		Analyzed: 09/24/13 14:48					
N-Nitroso-di-n-propylamine	6.84	---	1.00	ug/L	"	"	---	86	35-120%	---	---	
N-Nitrosodiphenylamine	8.29	---	1.00	"	"	"	---	104	50-120%	---	---	
Pentachlorophenol (PCP)	7.32	---	2.00	"	"	"	---	91	40-125%	---	---	
Phenanthrene	7.58	---	1.00	"	"	"	---	95	50-125%	---	---	
Phenol	3.62	---	1.00	"	"	"	---	45	10-120%	---	---	Q-41
Pyrene	8.07	---	1.00	"	"	"	---	101	50-125%	---	---	
Pyridine	3.59	---	2.00	"	"	"	---	45	20-120%	---	---	
2,3,4,6-Tetrachlorophenol	7.14	---	1.00	"	"	"	---	89	40-120%	---	---	
2,3,5,6-Tetrachlorophenol	7.14	---	1.00	"	"	"	---	89	"	---	---	
1,2,4-Trichlorobenzene	3.32	---	1.00	"	"	"	---	41	35-120%	---	---	
2,4,5-Trichlorophenol	7.32	---	1.00	"	"	"	---	92	50-120%	---	---	
2,4,6-Trichlorophenol	7.13	---	1.00	"	"	"	---	89	"	---	---	

Surr: Nitrobenzene-d5 (Surr)	*Recovery: 91 %*	*Limits: 35-120 %*	*Dilution: 1x*
2-Fluorobiphenyl (Surr)	*83 %*	*30-120 %*	*"*
Phenol-d6 (Surr)	*40 %*	*10-120 %*	*"*
p-Terphenyl-d14 (Surr)	*107 %*	*30-125 %*	*"*
2-Fluorophenol (Surr)	*60 %*	*15-120 %*	*"*
2,4,6-Tribromophenol (Surr)	*97 %*	*35-125 %*	*"*

LCS Dup (3090545-BSD1)					Prepared: 09/24/13 08:11		Analyzed: 09/24/13 15:25					**Q-19**
EPA 8270D												
Acenaphthene	7.14	---	1.00	ug/L	1	8.00	---	89	45-125%	8	30%	
Acenaphthylene	7.51	---	1.00	"	"	"	---	94	50-125%	8	30%	
Aniline	6.21	---	1.00	"	"	"	---	78	40-120%	9	30%	
Anthracene	8.01	---	1.00	"	"	"	---	100	55-125%	4	30%	
Azobenzene (1,2-DPH)	8.17	---	1.00	"	"	"	---	102	25-120%	0.4	30%	
Benz(a)anthracene	8.65	---	1.00	"	"	"	---	108	55-125%	0.7	30%	
Benzo(a)pyrene	8.49	---	1.00	"	"	"	---	106	"	0.8	30%	
Benzo(b)fluoranthene	8.59	---	1.00	"	"	"	---	107	45-125%	0.3	30%	
Benzo(k)fluoranthene	8.52	---	1.00	"	"	"	---	106	"	0.2	30%	
Benzo(b+k)fluoranthene(s)	17.1	---	2.00	"	"	16.0	---	107	"	0.1	30%	
Benzo(g,h,i)perylene	8.00	---	1.00	"	"	8.00	---	100	40-125%	0.03	30%	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090545 - EPA 3510C (Acid/Base Neutral)							**Water**					
LCS Dup (3090545-BSD1)					Prepared: 09/24/13 08:11	Analyzed: 09/24/13 15:25						**Q-19**
Benzoic acid	6.86	---	5.00	ug/L	"	16.0	---	43	10-120%	5	30%	
Benzyl alcohol	6.37	---	1.00	"	"	8.00	---	80	30-125%	5	30%	
Bis(2-Chloroethoxy) methane	7.77	---	1.00	"	"	"	---	97	45-125%	4	30%	
Bis(2-Chloroethyl) ether	6.49	---	1.00	"	"	"	---	81	35-125%	3	30%	
Bis(2-Chloroisopropyl) ether	6.27	---	1.00	"	"	"	---	78	25-125%	12	30%	
Bis(2-Ethylhexyl) adipate	8.97	---	1.00	"	"	"	---	112	40-125%	2	30%	
Bis(2-ethylhexyl)phthalate	8.97	---	2.00	"	"	"	---	112	"	0.3	30%	
4-Bromophenyl phenyl ether	7.74	---	1.00	"	"	"	---	97	50-120%	1	30%	
Butyl benzyl phthalate	9.43	---	2.00	"	"	"	---	118	45-125%	1	30%	
Carbazole	8.69	---	1.50	"	"	"	---	109	50-125%	0.4	30%	
4-Chloroaniline	6.47	---	1.00	"	"	"	---	81	15-120%	7	30%	
4-Chloro-3-methylphenol	7.56	---	1.00	"	"	"	---	94	45-120%	0.8	30%	
2-Chloronaphthalene	6.97	---	1.00	"	"	"	---	87	50-120%	17	30%	
2-Chlorophenol	7.10	---	1.00	"	"	"	---	89	35-120%	4	30%	
4-Chlorophenyl phenyl ether	7.49	---	1.00	"	"	"	---	94	50-120%	2	30%	
Chrysene	8.30	---	1.00	"	"	"	---	104	55-125%	0.7	30%	
Dibenz(a,h)anthracene	8.60	---	1.00	"	"	"	---	107	40-125%	0.5	30%	
Dibenzofuran	7.39	---	1.00	"	"	"	---	92	55-125%	4	30%	
1,2-Dichlorobenzene	4.99	---	1.00	"	"	"	---	62	35-120%	59	30%	Q-01
1,3-Dichlorobenzene	4.80	---	1.00	"	"	"	---	60	30-120%	64	30%	Q-24
1,4-Dichlorobenzene	4.85	---	1.00	"	"	"	---	61	"	61	30%	Q-24
2,4-Dichlorophenol	7.30	---	1.00	"	"	"	---	91	50-120%	4	30%	
Di-n-butylphthalate	8.77	---	2.00	"	"	"	---	110	55-125%	2	30%	
Diethylphthalate	8.61	---	2.00	"	"	"	---	108	40-125%	0.09	30%	
Dimethylphthalate	7.93	---	2.00	"	"	"	---	99	25-125%	1	30%	
2,4-Dimethylphenol	7.53	---	1.00	"	"	"	---	94	30-120%	0.9	30%	
1,2-Dinitrobenzene	7.22	---	1.00	"	"	"	---	90	40-120%	1	30%	
1,3-Dinitrobenzene	7.22	---	1.00	"	"	"	---	90	"	0.5	30%	
1,4-Dinitrobenzene	7.31	---	1.00	"	"	"	---	91	"	1	30%	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090545 - EPA 3510C (Acid/Base Neutral)							**Water**					
LCS Dup (3090545-BSD1)					Prepared: 09/24/13 08:11	Analyzed: 09/24/13 15:25						**Q-19**
4,6-Dinitro-2-methylphenol	7.33	---	2.00	"	"	"	---	92	40-135%	0.7	30%	
2,4-Dinitrophenol	7.63	---	1.00	"	"	"	---	95	15-130%	3	30%	
2,4-Dinitrotoluene	7.49	---	1.00	"	"	"	---	94	50-120%	0.9	30%	
2,6-Dinitrotoluene	7.34	---	1.00	"	"	"	---	92	"	0.2	30%	
Di-n-octyl phthalate	9.49	---	2.00	"	"	"	---	119	35-125%	0.4	30%	
Fluoranthene	8.26	---	1.00	"	"	"	---	103	55-125%	0.7	30%	
Fluorene	7.70	---	1.00	"	"	"	---	96	50-125%	3	30%	
Hexachlorobenzene	7.59	---	1.00	"	"	"	---	95	50-120%	1	30%	
Hexachlorobutadiene	5.41	---	1.00	"	"	"	---	68	25-120%	74	30%	Q-24
Hexachlorocyclopentadiene	6.19	---	1.00	"	"	"	---	77	30-120%	48	30%	Q-24
Hexachloroethane	4.92	---	1.00	"	"	"	---	62	"	75	30%	Q-01
Indeno(1,2,3-cd)pyrene	8.45	---	1.00	"	"	"	---	106	45-125%	1	30%	
Isophorone	7.73	---	1.00	"	"	"	---	97	45-120%	2	30%	
1-Methylnaphthalene	6.79	---	1.00	"	"	"	---	85	"	27	30%	
2-Methylnaphthalene	6.88	---	1.00	"	"	"	---	86	"	29	30%	
2-Methylphenol	6.05	---	1.00	"	"	"	---	76	40-120%	2	30%	
3+4-Methylphenol(s)	6.08	---	1.00	"	"	"	---	76	30-120%	4	30%	
Naphthalene	6.09	---	1.00	"	"	"	---	76	40-125%	37	30%	Q-24
2-Nitroaniline	7.35	---	2.00	"	"	"	---	92	50-120%	0.4	30%	
3-Nitroaniline	7.04	---	2.00	"	"	"	---	88	20-120%	0.4	30%	
4-Nitroaniline	7.01	---	1.00	"	"	"	---	88	35-120%	4	30%	
Nitrobenzene	7.42	---	1.00	"	"	"	---	93	45-120%	7	30%	
2-Nitrophenol	7.39	---	1.00	"	"	"	---	92	40-120%	4	30%	
4-Nitrophenol	2.99	---	2.00	"	"	"	---	37	10-140%	2	30%	
N-Nitrosodimethylamine	4.51	---	1.00	"	"	"	---	56	25-120%	4	30%	
N-Nitroso-di-n-propylamine	7.16	---	1.00	"	"	"	---	89	35-120%	5	30%	
N-Nitrosodiphenylamine	8.15	---	1.00	"	"	"	---	102	50-120%	2	30%	
Pentachlorophenol (PCP)	7.45	---	2.00	"	"	"	---	93	40-125%	2	30%	
Phenanthrene	7.52	---	1.00	"	"	"	---	94	50-125%	0.8	30%	
Phenol	3.73	---	1.00	"	"	"	---	47	10-120%	3	30%	Q-41

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

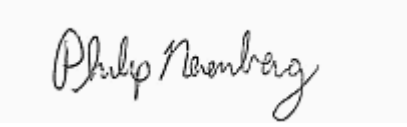
QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090545 - EPA 3510C (Acid/Base Neutral)							**Water**					
LCS Dup (3090545-BSD1)					Prepared: 09/24/13 08:11	Analyzed: 09/24/13 15:25						**Q-19**
Pyrene	7.89	---	1.00	ug/L	"	"	---	99	50-125%	2	30%	
Pyridine	4.04	---	2.00	"	"	"	---	50	20-120%	12	30%	
2,3,4,6-Tetrachlorophenol	7.30	---	1.00	"	"	"	---	91	40-120%	2	30%	
2,3,5,6-Tetrachlorophenol	7.27	---	1.00	"	"	"	---	91	"	2	30%	
1,2,4-Trichlorobenzene	5.72	---	1.00	"	"	"	---	72	35-120%	53	30%	Q-24
2,4,5-Trichlorophenol	7.40	---	1.00	"	"	"	---	92	50-120%	1	30%	
2,4,6-Trichlorophenol	7.21	---	1.00	"	"	"	---	90	"	1	30%	

Surr: Nitrobenzene-d5 (Surr)	*Recovery: 93 %*	*Limits: 35-120 %*	*Dilution: 1x*	
2-Fluorobiphenyl (Surr)	*88 %*	*30-120 %*	*"*	
Phenol-d6 (Surr)	*40 %*	*10-120 %*	*"*	
p-Terphenyl-d14 (Surr)	*108 %*	*30-125 %*	*"*	
2-Fluorophenol (Surr)	*61 %*	*15-120 %*	*"*	
2,4,6-Tribromophenol (Surr)	*95 %*	*35-125 %*	*"*	

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090670 - EPA 3015A							**Water**					
Blank (3090670-BLK1)					Prepared: 09/27/13 12:57		Analyzed: 09/30/13 11:42					
EPA 6020A												
Arsenic	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Barium	ND	---	1.00	"	"	---	---	---	---	---	---	
Cadmium	ND	---	0.200	"	"	---	---	---	---	---	---	
Lead	ND	---	0.200	"	"	---	---	---	---	---	---	
Mercury	ND	---	0.0800	"	"	---	---	---	---	---	---	
Selenium	ND	---	1.00	"	"	---	---	---	---	---	---	
Silver	ND	---	0.200	"	"	---	---	---	---	---	---	
LCS (3090670-BS1)					Prepared: 09/27/13 12:57		Analyzed: 09/30/13 11:44					
EPA 6020A												
Arsenic	53.4	---	1.00	ug/L	1	55.6	---	96	85-115%	---	---	
Barium	54.8	---	1.00	"	"	"	---	99	80-120%	---	---	
Cadmium	55.0	---	0.200	"	"	"	---	99	"	---	---	
Lead	55.5	---	0.200	"	"	"	---	100	"	---	---	
Mercury	1.09	---	0.0800	"	"	1.11	---	98	"	---	---	
Selenium	26.8	---	1.00	"	"	27.8	---	96	"	---	---	
Silver	27.8	---	0.200	"	"	"	---	100	"	---	---	
Duplicate (3090670-DUP1)					Prepared: 09/27/13 12:57		Analyzed: 09/30/13 12:23					
QC Source Sample: SB-5 (A3I0351-04)												
EPA 6020A												
Arsenic	**44.1**	---	1.00	ug/L	1	---	36.5	---	---	19	20%	
Cadmium	**5.64**	---	0.200	"	"	---	5.56	---	---	2	20%	
Selenium	**4.62**	---	1.00	"	"	---	4.77	---	---	3	20%	
Silver	**0.778**	---	0.200	"	"	---	0.722	---	---	7	20%	
Duplicate (3090670-DUP2)					Prepared: 09/27/13 12:57		Analyzed: 09/30/13 13:04					
QC Source Sample: SB-5 (A3I0351-04)												
EPA 6020A												
Barium	**2280**	---	10.0	ug/L	10	---	2200	---	---	4	20%	Q-16
Lead	**181**	---	2.00	"	"	---	172	---	---	5	20%	Q-16

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

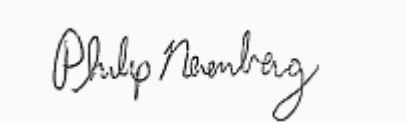
Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090670 - EPA 3015A							**Water**					
Duplicate (3090670-DUP2)					Prepared: 09/27/13 12:57		Analyzed: 09/30/13 13:04					
QC Source Sample: SB-5 (A3I0351-04)												
Mercury	ND	---	0.800	ug/L	"	---	0.490	---	---	***	20%	Q-16
Matrix Spike (3090670-MS1)					Prepared: 09/27/13 12:57		Analyzed: 09/30/13 12:26					
QC Source Sample: SB-5 (A3I0351-04)												
EPA 6020A												
Arsenic	81.6	---	1.00	ug/L	1	55.6	36.5	81	70-130%	---	---	
Cadmium	59.3	---	0.200	"	"	"	5.56	97	75-125%	---	---	
Selenium	18.6	---	1.00	"	"	27.8	4.77	50	"	---	---	Q-01
Silver	27.7	---	0.200	"	"	"	0.722	97	"	---	---	
Matrix Spike (3090670-MS3)					Prepared: 09/27/13 12:57		Analyzed: 09/30/13 13:07					
QC Source Sample: SB-5 (A3I0351-04)												
EPA 6020A												
Barium	2480	---	10.0	ug/L	10	55.6	2200	504	75-125%	---	---	Q-03, Q-16
Lead	246	---	2.00	"	"	"	172	134	"	---	---	Q-01, Q-16
Mercury	1.46	---	0.800	"	"	1.11	0.490	88	"	---	---	Q-16
Post Spike (3090670-PS1)					Prepared: 10/02/13 11:02		Analyzed: 10/02/13 12:00					
QC Source Sample: SB-5 (A3I0351-04)												
EPA 6020A												
Lead	347	---		ug/L	10	192	149	103	80-120%		---	
Selenium	218	---		"	"	"	4.12	111	"		---	
Post Spike (3090670-PS2)					Prepared: 10/02/13 11:02		Analyzed: 10/02/13 12:03					
QC Source Sample: SB-5 (A3I0351-04)												
EPA 6020A												
Barium	4170	---		ug/L	10	2940	1160	102	80-120%		---	
Post Spike (3090670-PS3)					Prepared: 10/02/13 11:02		Analyzed: 10/02/13 12:09					
Chromium	736	---		ug/L	10	377	362	99	80-120%		---	
Selenium	210	---		"	"	189	7.26	107	"		---	

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

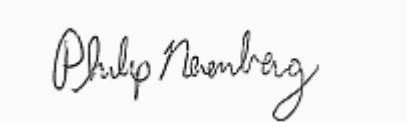
Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3100020 - EPA 3015A							**Water**					
Blank (3100020-BLK1)					Prepared: 10/01/13 10:47		Analyzed: 10/01/13 15:08					
EPA 6020A												
Chromium	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
LCS (3100020-BS1)					Prepared: 10/01/13 10:47		Analyzed: 10/01/13 15:11					
EPA 6020A												
Chromium	55.2	---	1.00	ug/L	1	55.6	---	99	80-120%	---	---	
Duplicate (3100020-DUP1)					Prepared: 10/01/13 10:47		Analyzed: 10/01/13 15:48					
QC Source Sample: SB-9 (A3I0351-06RE1)												
EPA 6020A												
Chromium	**228**	---	10.0	ug/L	10	---	146	---	---	44	20%	Q-17
Matrix Spike (3100020-MS1)					Prepared: 10/01/13 10:47		Analyzed: 10/01/13 15:57					
QC Source Sample: SB-9 (A3I0351-06RE1)												
EPA 6020A												
Chromium	278	---	10.0	ug/L	10	55.6	146	237	75-125%	---	---	Q-01
Post Spike (3100020-PS1)					Prepared: 10/02/13 12:00		Analyzed: 10/02/13 12:06					
QC Source Sample: SB-9 (A3I0351-06RE1)												
EPA 6020A												
Chromium	332	---		ug/L	5	196	129	104	80-120%		---	

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

QUALITY CONTROL (QC) SAMPLE RESULTS

Dissolved Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090603 - Matrix Matched Direct Inject							**Water**					
Blank (3090603-BLK1)					Prepared: 09/25/13 16:43		Analyzed: 09/27/13 11:47					
EPA 6020A (Diss)												
Lead	ND	---	0.200	ug/L	1	---	---	---	---	---	---	FILT3
LCS (3090603-BS1)					Prepared: 09/25/13 16:43		Analyzed: 09/27/13 11:50					
EPA 6020A (Diss)												
Lead	58.2	---	0.200	ug/L	1	55.6	---	105	80-120%	---	---	
Duplicate (3090603-DUP1)					Prepared: 09/25/13 16:43		Analyzed: 09/27/13 11:56					
QC Source Sample: SB-1 (A3I0351-01)												
EPA 6020A (Diss)												
Lead	ND	---	0.200	ug/L	1	---	ND	---	---	---	20%	
Matrix Spike (3090603-MS1)					Prepared: 09/25/13 16:43		Analyzed: 09/27/13 12:11					
QC Source Sample: SB-2 (A3I0351-02)												
EPA 6020A (Diss)												
Lead	56.6	---	0.200	ug/L	1	55.6	ND	102	75-125%	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

SAMPLE PREPARATION INFORMATION

Hydrocarbon Identification Screen by NWTPH-HCID

Prep: EPA 3510C (Acid Extraction)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3090437							
A3I0351-03	Water	NWTPH-HCID	09/17/13 10:40	09/19/13 10:30	1020mL/5mL	1000mL/5mL	0.98
A3I0351-04	Water	NWTPH-HCID	09/17/13 11:40	09/19/13 10:30	1000mL/5mL	1000mL/5mL	1.00
A3I0351-05	Water	NWTPH-HCID	09/17/13 13:10	09/19/13 10:30	1050mL/5mL	1000mL/5mL	0.95
A3I0351-06	Water	NWTPH-HCID	09/17/13 14:00	09/19/13 10:30	1020mL/5mL	1000mL/5mL	0.98

Gasoline Range Hydrocarbons (Benzene to Naphthalene) by NWTPH-Gx

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3090404							
A3I0351-01	Water	NWTPH-Gx (MS)	09/17/13 09:00	09/18/13 12:00	5mL/5mL	5mL/5mL	1.00
A3I0351-02	Water	NWTPH-Gx (MS)	09/17/13 09:45	09/18/13 12:00	5mL/5mL	5mL/5mL	1.00

RBCA Compounds (BTEX+) by EPA 8260B

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3090404							
A3I0351-01	Water	EPA 8260B	09/17/13 09:00	09/18/13 12:00	5mL/5mL	5mL/5mL	1.00
A3I0351-02	Water	EPA 8260B	09/17/13 09:45	09/18/13 12:00	5mL/5mL	5mL/5mL	1.00

Volatile Organic Compounds by EPA 8260B

Prep: EPA 5030B

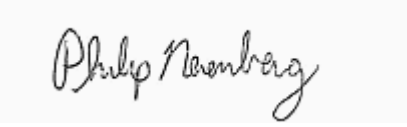
Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3090436							
A3I0351-03	Water	EPA 8260B	09/17/13 10:40	09/19/13 12:00	5mL/5mL	5mL/5mL	1.00
A3I0351-04	Water	EPA 8260B	09/17/13 11:40	09/19/13 12:00	5mL/5mL	5mL/5mL	1.00
A3I0351-05	Water	EPA 8260B	09/17/13 13:10	09/19/13 12:00	5mL/5mL	5mL/5mL	1.00
A3I0351-06	Water	EPA 8260B	09/17/13 14:00	09/19/13 12:00	5mL/5mL	5mL/5mL	1.00

Polychlorinated Biphenyls by EPA 8082A

Prep: EPA 3510C (Neutral pH)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3090690							

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

SAMPLE PREPARATION INFORMATION

Polychlorinated Biphenyls by EPA 8082A

Prep: EPA 3510C (Neutral pH)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A3I0351-03	Water	EPA 8082A	09/17/13 10:40	09/30/13 07:02	1050mL/5mL	1000mL/5mL	0.95
A3I0351-04	Water	EPA 8082A	09/17/13 11:40	09/30/13 07:02	990mL/5mL	1000mL/5mL	1.01
A3I0351-05	Water	EPA 8082A	09/17/13 13:10	09/30/13 07:02	1050mL/5mL	1000mL/5mL	0.95
A3I0351-06	Water	EPA 8082A	09/17/13 14:00	09/30/13 07:02	1050mL/5mL	1000mL/5mL	0.95

Semivolatile Organic Compounds by EPA 8270D

Prep: EPA 3510C (Acid/Base Neutral)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3090545							
A3I0351-03RE1	Water	EPA 8270D	09/17/13 10:40	09/24/13 08:11	1050mL/2mL	1000mL/2mL	0.95
A3I0351-04RE1	Water	EPA 8270D	09/17/13 11:40	09/24/13 08:11	980mL/2mL	1000mL/2mL	1.02
A3I0351-05	Water	EPA 8270D	09/17/13 13:10	09/24/13 08:11	1050mL/2mL	1000mL/2mL	0.95
A3I0351-06	Water	EPA 8270D	09/17/13 14:00	09/24/13 08:11	1050mL/2mL	1000mL/2mL	0.95

Total Metals by EPA 6020 (ICPMS)

Prep: EPA 3015A

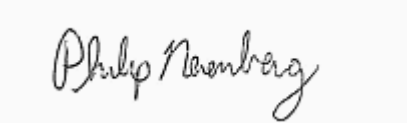
Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3090670							
A3I0351-01	Water	EPA 6020A	09/17/13 09:00	09/27/13 12:57	45mL/50mL	45mL/50mL	1.00
A3I0351-02	Water	EPA 6020A	09/17/13 09:45	09/27/13 12:57	45mL/50mL	45mL/50mL	1.00
A3I0351-03	Water	EPA 6020A	09/17/13 10:40	09/27/13 12:57	45mL/50mL	45mL/50mL	1.00
A3I0351-04	Water	EPA 6020A	09/17/13 11:40	09/27/13 12:57	45mL/50mL	45mL/50mL	1.00
A3I0351-05	Water	EPA 6020A	09/17/13 13:10	09/27/13 12:57	45mL/50mL	45mL/50mL	1.00
A3I0351-06	Water	EPA 6020A	09/17/13 14:00	09/27/13 12:57	45mL/50mL	45mL/50mL	1.00
Batch: 3100020							
A3I0351-03RE1	Water	EPA 6020A	09/17/13 10:40	10/01/13 10:47	45mL/50mL	45mL/50mL	1.00
A3I0351-04RE1	Water	EPA 6020A	09/17/13 11:40	10/01/13 10:47	45mL/50mL	45mL/50mL	1.00
A3I0351-05RE1	Water	EPA 6020A	09/17/13 13:10	10/01/13 10:47	45mL/50mL	45mL/50mL	1.00
A3I0351-06RE1	Water	EPA 6020A	09/17/13 14:00	10/01/13 10:47	45mL/50mL	45mL/50mL	1.00

Dissolved Metals by EPA 6020 (ICPMS)

Prep: Matrix Matched Direct Inject

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

SAMPLE PREPARATION INFORMATION

Dissolved Metals by EPA 6020 (ICPMS)

Prep: Matrix Matched Direct Inject

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3090603							
A3I0351-01	Water	EPA 6020A (Diss)	09/17/13 09:00	09/25/13 16:43	45mL/50mL	45mL/50mL	1.00
A3I0351-02	Water	EPA 6020A (Diss)	09/17/13 09:45	09/25/13 16:43	45mL/50mL	45mL/50mL	1.00

Lab Filtration

Prep: Lab Filtration

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3090420							
A3I0351-01	Water	NA	09/17/13 09:00	09/18/13 16:45	150mL/150mL		NA
A3I0351-02	Water	NA	09/17/13 09:45	09/18/13 16:58	150mL/150mL		NA

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

Notes and Definitions

Qualifiers:

C-07	Extract has undergone Sulfuric Acid Cleanup by EPA 3665A, Sulfur Cleanup by EPA 3660B, and Florisil Cleanup by EPA 3620B in order to minimize matrix interference.
EST	Result reported as an Estimated Value. Recovery for Lab Control Spike (LCS) is below the lower control limit. Data may be biased low.
FILT1	Sample was lab filtered and acid preserved prior to analysis. See sample preparation section of report for date and time of filtration.
FILT3	This is a laboratory filtration blank, associated with filtration batch 3090420.
Q-01	Spike recovery and/or RPD is outside acceptance limits.
Q-03	Spike recovery and/or RPD is outside control limits due to the high concentration of analyte present in the sample.
Q-16	Reanalysis of an original Batch QC sample.
Q-17	RPD between original and duplicate sample is outside of established control limits.
Q-19	Blank Spike Duplicate (BSD) sample analyzed in place of Matrix Spike/Duplicate samples due to limited sample amount available for analysis.
Q-24	RPD for spike and spike duplicate is above established control limit. Recoveries for both spike and spike duplicate are within control limits.
Q-30	Recovery for Lab Control Spike (LCS) is below the lower control limit. Data may be biased low.
Q-31	Estimated Results. Recovery of Continuing Calibration Verification sample below lower control limit for this analyte. Results are likely biased low.
Q-41	Estimated Results. Recovery of Continuing Calibration Verification sample above upper control limit for this analyte. Results are likely biased high.
Q-42	Matrix Spike and/or Duplicate analysis was performed on this sample. % Recovery or RPD for this analyte is outside laboratory control limits. (Refer to the QC Section of Analytical Report.)
R-04	Reporting levels elevated due to dilution necessary for analysis.

Notes and Conventions:

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis. Results listed as 'wet' or without 'dry'designation are not dry weight corrected.
RPD	Relative Percent Difference
MDL	If MDL is not listed, data has been evaluated to the Method Reporting Limit only.
WMSC	Water Miscible Solvent Correction has been applied to Results and MRLs for volatiles soil samples per EPA 8000C.
Batch QC	Unless specifically requested, this report contains only results for Batch QC derived from client samples included in this report. All analyses were performed with the appropriate Batch QC (including Sample Duplicates, Matrix Spikes and/or Matrix Spike Duplicates) in order to meet or exceed method and regulatory requirements. Any exceptions to this will be qualified in this report. Complete Batch QC results are available upon request. In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) is analyzed to demonstrate accuracy and precision of the extraction and analysis.

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:32

Blank Policy

Apex assesses blank data for potential high bias down to a level equal to ½ the method reporting limit (MRL), except for conventional chemistry and HCID analyses which are assessed only to the MRL. Sample results flagged with a B or B-02 qualifier are potentially biased high if they are less than ten times the level found in the blank for inorganic analyses or less than five times the level found in the blank for organic analyses.

For accurate comparison of volatile results to the level found in the blank; water sample results should be divided by the dilution factor, and soil sample results should be divided by 1/50 of the sample dilution to account for the sample prep factor.

Results qualified as reported below the MRL may include a potential high bias if associated with a B or B-02 qualified blank. B and B-02 qualifications are not applied to J qualified results reported below the MRL.

--- QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

*** Used to indicate a possible discrepency with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Apex Laboratories

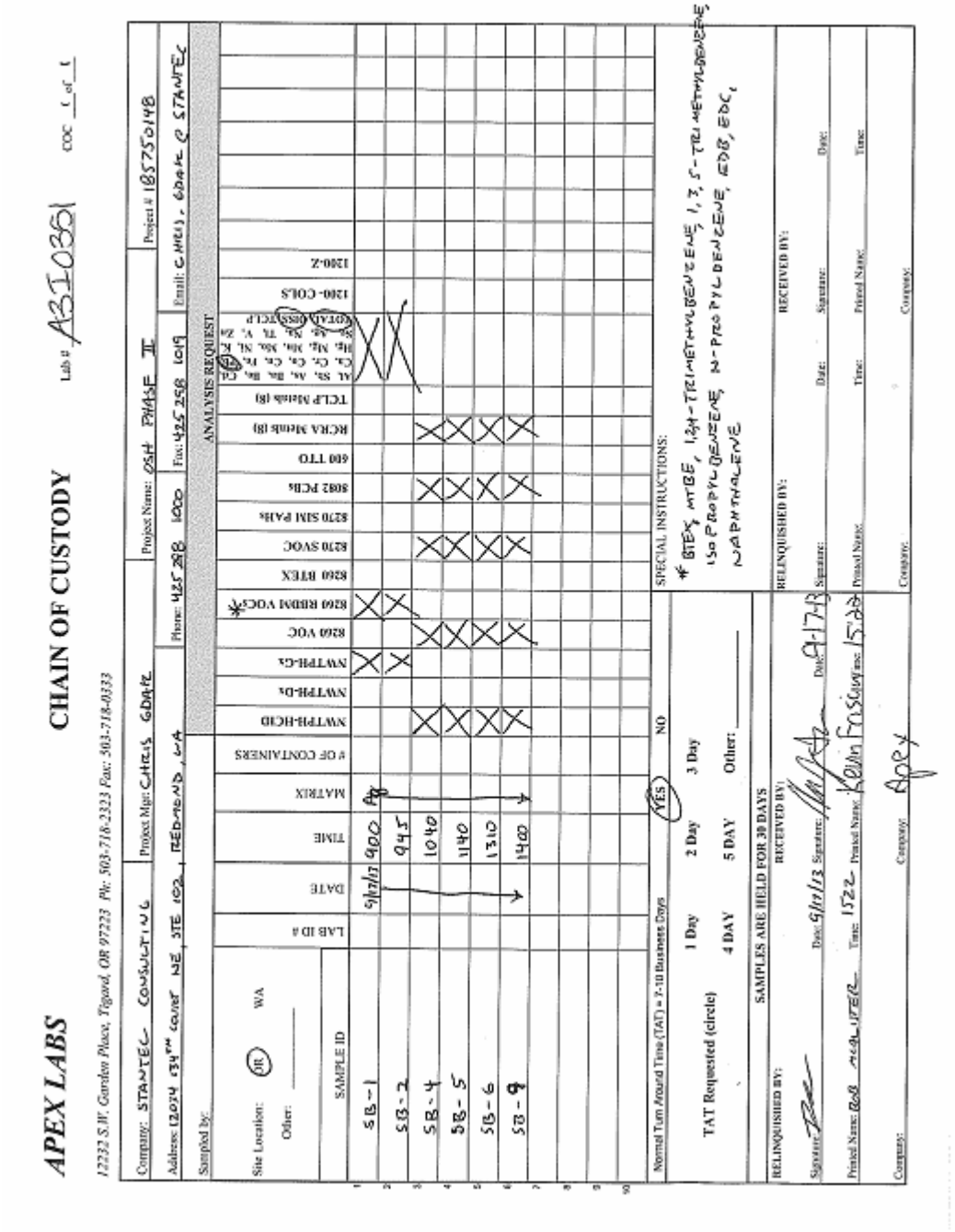
Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec 9400 SW Barnes Rd Ste 200 Portland, OR 97225	Project: **OSH Phase II** Project Number: 185750148 Project Manager: Chris Gdak	**Reported:** 10/04/13 11:32



APEX LABS

12232 S.W. Garden Place, Tigard, OR 97223 Ph: 503-718-2323 Fax: 503-718-0333

CHAIN OF CUSTODY

Lab # A31036 COC 1 of 1

Company: STANTEC CONSULTING | Project Mgr: CHRIS GDAK | Project Name: OSH PHASE II | Project # 185750148

Address: 12004 134TH COURT NE, STE 102, REDMOND, WA | Phone: 425 298 1000 | Fax: 425 258 1019 | Email: CHRIS_GDAK@STANTEC

Sampled by:

Site Location: OR WA Other: _____

SAMPLE ID	LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 VOC	8260 RBDM VOCs*	8260 BTEX	8270 SVOC	8270 SIM PAHs	8082 PCBs	600 TTO	RCRA Metals (8)	TCLP Metals (8)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Ag, Na, Tl, V, Zn (TOTAL MOSS TCLP)	1200-COLS	1200-Z
SB-1		9/27/13	900	Ag				X		X										
SB-2			945					X										X		
SB-4			1040			X			X		X	X		X		X				
SB-5			1140			X			X		X	X		X		X				
SB-6			1310			X			X		X	X		X		X				
SB-9			1400			X			X		X	X		X		X				

Normal Turn Around Time (TAT) = 7-10 Business Days YES NO

TAT Requested (circle): 1 Day 2 Day 3 Day 4 DAY 5 DAY Other: _____

SPECIAL INSTRUCTIONS:
* BTEX, MTBE, 1,2,4-TRIMETHYLBENZENE, 1,3,5-TRIMETHYLBENZENE, ISOPROPYLBENZENE, N-PROPYLBENZENE, EDB, EDC, NAPHTHALENE

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY: Signature: [illegible] Date: 9/27/13 Time: 1522 Printed Name: BOB MCALISTER Company: [illegible]

RECEIVED BY: Signature: [illegible] Date: 9-27-13 Time: 15:22 Printed Name: KEVIN FRISCHMUTH Company: APEX

RELINQUISHED BY: Signature: [illegible] Date: 9-27-13 Time: Printed Name: Company:

RECEIVED BY: Signature: Date: Time: Printed Name: Company:

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Friday, October 4, 2013

Chris Gdak
Stantec
9400 SW Barnes Rd Ste 200
Portland, OR 97225

RE: OSH Phase II / 185750148

Enclosed are the results of analyses for work order A3I0385, which was received by the laboratory on 9/18/2013 at 4:15:00PM.

Thank you for using Apex Labs. We appreciate your business and strive to provide the highest quality services to the environmental industry.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

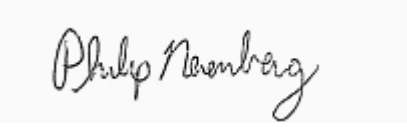
Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:40

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB-3	A3I0385-01	Water	09/18/13 12:00	09/18/13 16:15
SB-7	A3I0385-02	Water	09/18/13 10:00	09/18/13 16:15
SB-8	A3I0385-03	Water	09/18/13 09:00	09/18/13 16:15
SB-12	A3I0385-04	Water	09/18/13 11:00	09/18/13 16:15
SB-16	A3I0385-05	Water	09/18/13 13:15	09/18/13 16:15
SB-17	A3I0385-06	Water	09/18/13 14:45	09/18/13 16:15

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:40

ANALYTICAL SAMPLE RESULTS

Hydrocarbon Identification Screen by NWTPH-HCID

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-7 (A3I0385-02)			**Matrix: Water**		**Batch: 3090437**			
Gasoline Range Organics	ND	---	0.100	mg/L	1	09/19/13 23:07	NWTPH-HCID	
Diesel Range Organics	ND	---	0.250	"	"	"	"	
Oil Range Organics	ND	---	0.250	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 94 %*	*Limits: 50-150 %*	"	"	"	
SB-8 (A3I0385-03)			**Matrix: Water**		**Batch: 3090437**			
Gasoline Range Organics	ND	---	0.0962	mg/L	1	09/19/13 23:25	NWTPH-HCID	
Diesel Range Organics	ND	---	0.240	"	"	"	"	
Oil Range Organics	ND	---	0.240	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 96 %*	*Limits: 50-150 %*	"	"	"	
SB-16 (A3I0385-05)			**Matrix: Water**		**Batch: 3090437**			
Gasoline Range Organics	ND	---	0.109	mg/L	1	09/19/13 23:44	NWTPH-HCID	
Diesel Range Organics	ND	---	0.272	"	"	"	"	
Oil Range Organics	ND	---	0.272	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 98 %*	*Limits: 50-150 %*	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:40

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-3 (A3I0385-01)			**Matrix: Water**		**Batch: 3090436**			
Acetone	ND	---	20.0	ug/L	1	09/19/13 17:31	EPA 8260B	Q-31
Benzene	ND	---	0.250	"	"	"	"	
Bromobenzene	ND	---	0.500	"	"	"	"	
Bromochloromethane	ND	---	1.00	"	"	"	"	
Bromodichloromethane	ND	---	1.00	"	"	"	"	
Bromoform	ND	---	1.00	"	"	"	"	
Bromomethane	ND	---	5.00	"	"	"	"	
2-Butanone (MEK)	ND	---	10.0	"	"	"	"	Q-31
n-Butylbenzene	ND	---	1.00	"	"	"	"	
sec-Butylbenzene	ND	---	1.00	"	"	"	"	
tert-Butylbenzene	ND	---	1.00	"	"	"	"	
Carbon tetrachloride	ND	---	0.500	"	"	"	"	
Chlorobenzene	ND	---	0.500	"	"	"	"	
Chloroethane	ND	---	5.00	"	"	"	"	EST
Chloroform	ND	---	1.00	"	"	"	"	
Chloromethane	ND	---	5.00	"	"	"	"	
2-Chlorotoluene	ND	---	1.00	"	"	"	"	
4-Chlorotoluene	ND	---	1.00	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	---	5.00	"	"	"	"	
Dibromochloromethane	ND	---	1.00	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	---	0.500	"	"	"	"	
Dibromomethane	ND	---	1.00	"	"	"	"	
1,2-Dichlorobenzene	ND	---	0.500	"	"	"	"	
1,3-Dichlorobenzene	ND	---	0.500	"	"	"	"	
1,4-Dichlorobenzene	ND	---	0.500	"	"	"	"	
Dichlorodifluoromethane	ND	---	1.00	"	"	"	"	
1,1-Dichloroethane	ND	---	0.500	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	---	0.500	"	"	"	"	
1,1-Dichloroethene	ND	---	0.500	"	"	"	"	
cis-1,2-Dichloroethene	ND	---	0.500	"	"	"	"	
trans-1,2-Dichloroethene	ND	---	0.500	"	"	"	"	
1,2-Dichloropropane	ND	---	0.500	"	"	"	"	
1,3-Dichloropropane	ND	---	1.00	"	"	"	"	
2,2-Dichloropropane	ND	---	1.00	"	"	"	"	
1,1-Dichloropropene	ND	---	1.00	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:40

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-3 (A3I0385-01)			**Matrix: Water**		**Batch: 3090436**			
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	"	EPA 8260B	
trans-1,3-Dichloropropene	ND	---	1.00	"	"	"	"	
Ethylbenzene	ND	---	0.500	"	"	"	"	
Hexachlorobutadiene	ND	---	5.00	"	"	"	"	
2-Hexanone	ND	---	10.0	"	"	"	"	
Isopropylbenzene	ND	---	1.00	"	"	"	"	
4-Isopropyltoluene	ND	---	1.00	"	"	"	"	
4-Methyl-2-pentanone (MiBK)	ND	---	10.0	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	"	"	"	"	
Methylene chloride	ND	---	5.00	"	"	"	"	
Naphthalene	ND	---	2.00	"	"	"	"	
n-Propylbenzene	ND	---	0.500	"	"	"	"	
Styrene	ND	---	1.00	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	---	0.500	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	---	0.500	"	"	"	"	
Tetrachloroethene (PCE)	ND	---	0.500	"	"	"	"	
Toluene	ND	---	1.00	"	"	"	"	
1,2,3-Trichlorobenzene	ND	---	2.00	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	2.00	"	"	"	"	
1,1,1-Trichloroethane	ND	---	0.500	"	"	"	"	
1,1,2-Trichloroethane	ND	---	0.500	"	"	"	"	
Trichloroethene (TCE)	ND	---	0.500	"	"	"	"	
Trichlorofluoromethane	ND	---	2.00	"	"	"	"	
1,2,3-Trichloropropane	ND	---	1.00	"	"	"	"	
1,2,4-Trimethylbenzene	ND	---	1.00	"	"	"	"	
1,3,5-Trimethylbenzene	ND	---	1.00	"	"	"	"	
Vinyl chloride	ND	---	0.500	"	"	"	"	
m,p-Xylene	ND	---	1.00	"	"	"	"	
o-Xylene	ND	---	0.500	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 88 %*	*Limits: 80-120 %*	"	"	"	
1,4-Difluorobenzene (Surr)			*96 %*	*Limits: 80-120 %*	"	"	"	
Toluene-d8 (Surr)			*96 %*	*Limits: 80-120 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*99 %*	*Limits: 80-120 %*	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:40

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-7 (A3I0385-02)			**Matrix: Water**		**Batch: 3090436**			
Acetone	ND	---	20.0	ug/L	1	09/19/13 17:57	EPA 8260B	Q-31
Benzene	ND	---	0.250	"	"	"	"	
Bromobenzene	ND	---	0.500	"	"	"	"	
Bromochloromethane	ND	---	1.00	"	"	"	"	
Bromodichloromethane	ND	---	1.00	"	"	"	"	
Bromoform	ND	---	1.00	"	"	"	"	
Bromomethane	ND	---	5.00	"	"	"	"	
2-Butanone (MEK)	ND	---	10.0	"	"	"	"	Q-31
n-Butylbenzene	ND	---	1.00	"	"	"	"	
sec-Butylbenzene	ND	---	1.00	"	"	"	"	
tert-Butylbenzene	ND	---	1.00	"	"	"	"	
Carbon tetrachloride	ND	---	0.500	"	"	"	"	
Chlorobenzene	ND	---	0.500	"	"	"	"	
Chloroethane	ND	---	5.00	"	"	"	"	EST
Chloroform	ND	---	1.00	"	"	"	"	
Chloromethane	ND	---	5.00	"	"	"	"	
2-Chlorotoluene	ND	---	1.00	"	"	"	"	
4-Chlorotoluene	ND	---	1.00	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	---	5.00	"	"	"	"	
Dibromochloromethane	ND	---	1.00	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	---	0.500	"	"	"	"	
Dibromomethane	ND	---	1.00	"	"	"	"	
1,2-Dichlorobenzene	ND	---	0.500	"	"	"	"	
1,3-Dichlorobenzene	ND	---	0.500	"	"	"	"	
1,4-Dichlorobenzene	ND	---	0.500	"	"	"	"	
Dichlorodifluoromethane	ND	---	1.00	"	"	"	"	
1,1-Dichloroethane	ND	---	0.500	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	---	0.500	"	"	"	"	
1,1-Dichloroethene	ND	---	0.500	"	"	"	"	
cis-1,2-Dichloroethene	ND	---	0.500	"	"	"	"	
trans-1,2-Dichloroethene	ND	---	0.500	"	"	"	"	
1,2-Dichloropropane	ND	---	0.500	"	"	"	"	
1,3-Dichloropropane	ND	---	1.00	"	"	"	"	
2,2-Dichloropropane	ND	---	1.00	"	"	"	"	
1,1-Dichloropropene	ND	---	1.00	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

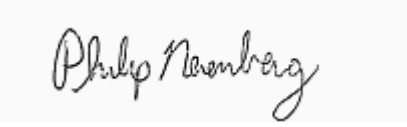
Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:40

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-7 (A3I0385-02)			**Matrix: Water**		**Batch: 3090436**			
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	"	EPA 8260B	
trans-1,3-Dichloropropene	ND	---	1.00	"	"	"	"	
Ethylbenzene	ND	---	0.500	"	"	"	"	
Hexachlorobutadiene	ND	---	5.00	"	"	"	"	
2-Hexanone	ND	---	10.0	"	"	"	"	
Isopropylbenzene	ND	---	1.00	"	"	"	"	
4-Isopropyltoluene	ND	---	1.00	"	"	"	"	
4-Methyl-2-pentanone (MiBK)	ND	---	10.0	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	"	"	"	"	
Methylene chloride	ND	---	5.00	"	"	"	"	
Naphthalene	ND	---	2.00	"	"	"	"	
n-Propylbenzene	ND	---	0.500	"	"	"	"	
Styrene	ND	---	1.00	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	---	0.500	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	---	0.500	"	"	"	"	
Tetrachloroethene (PCE)	ND	---	0.500	"	"	"	"	
Toluene	ND	---	1.00	"	"	"	"	
1,2,3-Trichlorobenzene	ND	---	2.00	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	2.00	"	"	"	"	
1,1,1-Trichloroethane	ND	---	0.500	"	"	"	"	
1,1,2-Trichloroethane	ND	---	0.500	"	"	"	"	
Trichloroethene (TCE)	ND	---	0.500	"	"	"	"	
Trichlorofluoromethane	ND	---	2.00	"	"	"	"	
1,2,3-Trichloropropane	ND	---	1.00	"	"	"	"	
1,2,4-Trimethylbenzene	ND	---	1.00	"	"	"	"	
1,3,5-Trimethylbenzene	ND	---	1.00	"	"	"	"	
Vinyl chloride	ND	---	0.500	"	"	"	"	
m,p-Xylene	ND	---	1.00	"	"	"	"	
o-Xylene	ND	---	0.500	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 87 %*	*Limits: 80-120 %*	"	"	"	
1,4-Difluorobenzene (Surr)			*95 %*	*Limits: 80-120 %*	"	"	"	
Toluene-d8 (Surr)			*96 %*	*Limits: 80-120 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*100 %*	*Limits: 80-120 %*	"	"	"	

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:40

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-8 (A3I0385-03)			**Matrix: Water**		**Batch: 3090436**			
Acetone	ND	---	20.0	ug/L	1	09/19/13 18:23	EPA 8260B	Q-31
Benzene	ND	---	0.250	"	"	"	"	
Bromobenzene	ND	---	0.500	"	"	"	"	
Bromochloromethane	ND	---	1.00	"	"	"	"	
Bromodichloromethane	ND	---	1.00	"	"	"	"	
Bromoform	ND	---	1.00	"	"	"	"	
Bromomethane	ND	---	5.00	"	"	"	"	
2-Butanone (MEK)	ND	---	10.0	"	"	"	"	Q-31
n-Butylbenzene	ND	---	1.00	"	"	"	"	
sec-Butylbenzene	ND	---	1.00	"	"	"	"	
tert-Butylbenzene	ND	---	1.00	"	"	"	"	
Carbon tetrachloride	ND	---	0.500	"	"	"	"	
Chlorobenzene	ND	---	0.500	"	"	"	"	
Chloroethane	ND	---	5.00	"	"	"	"	EST
Chloroform	ND	---	1.00	"	"	"	"	
Chloromethane	ND	---	5.00	"	"	"	"	
2-Chlorotoluene	ND	---	1.00	"	"	"	"	
4-Chlorotoluene	ND	---	1.00	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	---	5.00	"	"	"	"	
Dibromochloromethane	ND	---	1.00	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	---	0.500	"	"	"	"	
Dibromomethane	ND	---	1.00	"	"	"	"	
1,2-Dichlorobenzene	ND	---	0.500	"	"	"	"	
1,3-Dichlorobenzene	ND	---	0.500	"	"	"	"	
1,4-Dichlorobenzene	ND	---	0.500	"	"	"	"	
Dichlorodifluoromethane	ND	---	1.00	"	"	"	"	
1,1-Dichloroethane	ND	---	0.500	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	---	0.500	"	"	"	"	
1,1-Dichloroethene	ND	---	0.500	"	"	"	"	
cis-1,2-Dichloroethene	ND	---	0.500	"	"	"	"	
trans-1,2-Dichloroethene	ND	---	0.500	"	"	"	"	
1,2-Dichloropropane	ND	---	0.500	"	"	"	"	
1,3-Dichloropropane	ND	---	1.00	"	"	"	"	
2,2-Dichloropropane	ND	---	1.00	"	"	"	"	
1,1-Dichloropropene	ND	---	1.00	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:40

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-8 (A3I0385-03)			**Matrix: Water**		**Batch: 3090436**			
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	"	EPA 8260B	
trans-1,3-Dichloropropene	ND	---	1.00	"	"	"	"	
Ethylbenzene	ND	---	0.500	"	"	"	"	
Hexachlorobutadiene	ND	---	5.00	"	"	"	"	
2-Hexanone	ND	---	10.0	"	"	"	"	
Isopropylbenzene	ND	---	1.00	"	"	"	"	
4-Isopropyltoluene	ND	---	1.00	"	"	"	"	
4-Methyl-2-pentanone (MiBK)	ND	---	10.0	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	"	"	"	"	
Methylene chloride	ND	---	5.00	"	"	"	"	
Naphthalene	ND	---	2.00	"	"	"	"	
n-Propylbenzene	ND	---	0.500	"	"	"	"	
Styrene	ND	---	1.00	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	---	0.500	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	---	0.500	"	"	"	"	
Tetrachloroethene (PCE)	ND	---	0.500	"	"	"	"	
Toluene	ND	---	1.00	"	"	"	"	
1,2,3-Trichlorobenzene	ND	---	2.00	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	2.00	"	"	"	"	
1,1,1-Trichloroethane	ND	---	0.500	"	"	"	"	
1,1,2-Trichloroethane	ND	---	0.500	"	"	"	"	
Trichloroethene (TCE)	ND	---	0.500	"	"	"	"	
Trichlorofluoromethane	ND	---	2.00	"	"	"	"	
1,2,3-Trichloropropane	ND	---	1.00	"	"	"	"	
1,2,4-Trimethylbenzene	ND	---	1.00	"	"	"	"	
1,3,5-Trimethylbenzene	ND	---	1.00	"	"	"	"	
Vinyl chloride	ND	---	0.500	"	"	"	"	
m,p-Xylene	ND	---	1.00	"	"	"	"	
o-Xylene	ND	---	0.500	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 89 %*	*Limits: 80-120 %*	"	"	"	
1,4-Difluorobenzene (Surr)			*94 %*	*Limits: 80-120 %*	"	"	"	
Toluene-d8 (Surr)			*95 %*	*Limits: 80-120 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*99 %*	*Limits: 80-120 %*	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:40

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-12 (A3I0385-04)			**Matrix: Water**		**Batch: 3090436**			
Acetone	ND	---	20.0	ug/L	1	09/19/13 18:49	EPA 8260B	Q-31
Benzene	ND	---	0.250	"	"	"	"	
Bromobenzene	ND	---	0.500	"	"	"	"	
Bromochloromethane	ND	---	1.00	"	"	"	"	
Bromodichloromethane	ND	---	1.00	"	"	"	"	
Bromoform	ND	---	1.00	"	"	"	"	
Bromomethane	ND	---	5.00	"	"	"	"	
2-Butanone (MEK)	ND	---	10.0	"	"	"	"	Q-31
n-Butylbenzene	ND	---	1.00	"	"	"	"	
sec-Butylbenzene	ND	---	1.00	"	"	"	"	
tert-Butylbenzene	ND	---	1.00	"	"	"	"	
Carbon tetrachloride	ND	---	0.500	"	"	"	"	
Chlorobenzene	ND	---	0.500	"	"	"	"	
Chloroethane	ND	---	5.00	"	"	"	"	EST
Chloroform	ND	---	1.00	"	"	"	"	
Chloromethane	ND	---	5.00	"	"	"	"	
2-Chlorotoluene	ND	---	1.00	"	"	"	"	
4-Chlorotoluene	ND	---	1.00	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	---	5.00	"	"	"	"	
Dibromochloromethane	ND	---	1.00	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	---	0.500	"	"	"	"	
Dibromomethane	ND	---	1.00	"	"	"	"	
1,2-Dichlorobenzene	ND	---	0.500	"	"	"	"	
1,3-Dichlorobenzene	ND	---	0.500	"	"	"	"	
1,4-Dichlorobenzene	ND	---	0.500	"	"	"	"	
Dichlorodifluoromethane	ND	---	1.00	"	"	"	"	
1,1-Dichloroethane	ND	---	0.500	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	---	0.500	"	"	"	"	
1,1-Dichloroethene	ND	---	0.500	"	"	"	"	
cis-1,2-Dichloroethene	ND	---	0.500	"	"	"	"	
trans-1,2-Dichloroethene	ND	---	0.500	"	"	"	"	
1,2-Dichloropropane	ND	---	0.500	"	"	"	"	
1,3-Dichloropropane	ND	---	1.00	"	"	"	"	
2,2-Dichloropropane	ND	---	1.00	"	"	"	"	
1,1-Dichloropropene	ND	---	1.00	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:40

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-12 (A3I0385-04)			**Matrix: Water**		**Batch: 3090436**			
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	"	EPA 8260B	
trans-1,3-Dichloropropene	ND	---	1.00	"	"	"	"	
Ethylbenzene	ND	---	0.500	"	"	"	"	
Hexachlorobutadiene	ND	---	5.00	"	"	"	"	
2-Hexanone	ND	---	10.0	"	"	"	"	
Isopropylbenzene	ND	---	1.00	"	"	"	"	
4-Isopropyltoluene	ND	---	1.00	"	"	"	"	
4-Methyl-2-pentanone (MiBK)	ND	---	10.0	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	"	"	"	"	
Methylene chloride	ND	---	5.00	"	"	"	"	
Naphthalene	ND	---	2.00	"	"	"	"	
n-Propylbenzene	ND	---	0.500	"	"	"	"	
Styrene	ND	---	1.00	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	---	0.500	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	---	0.500	"	"	"	"	
Tetrachloroethene (PCE)	ND	---	0.500	"	"	"	"	
Toluene	ND	---	1.00	"	"	"	"	
1,2,3-Trichlorobenzene	ND	---	2.00	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	2.00	"	"	"	"	
1,1,1-Trichloroethane	ND	---	0.500	"	"	"	"	
1,1,2-Trichloroethane	ND	---	0.500	"	"	"	"	
Trichloroethene (TCE)	ND	---	0.500	"	"	"	"	
Trichlorofluoromethane	ND	---	2.00	"	"	"	"	
1,2,3-Trichloropropane	ND	---	1.00	"	"	"	"	
1,2,4-Trimethylbenzene	ND	---	1.00	"	"	"	"	
1,3,5-Trimethylbenzene	ND	---	1.00	"	"	"	"	
Vinyl chloride	ND	---	0.500	"	"	"	"	
m,p-Xylene	ND	---	1.00	"	"	"	"	
o-Xylene	ND	---	0.500	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 88 %*	*Limits: 80-120 %*	"	"	"	
1,4-Difluorobenzene (Surr)			*96 %*	*Limits: 80-120 %*	"	"	"	
Toluene-d8 (Surr)			*95 %*	*Limits: 80-120 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*99 %*	*Limits: 80-120 %*	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:40

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-16 (A3I0385-05)			**Matrix: Water**		**Batch: 3090436**			
Acetone	ND	---	20.0	ug/L	1	09/19/13 19:15	EPA 8260B	Q-31
Benzene	ND	---	0.250	"	"	"	"	
Bromobenzene	ND	---	0.500	"	"	"	"	
Bromochloromethane	ND	---	1.00	"	"	"	"	
Bromodichloromethane	ND	---	1.00	"	"	"	"	
Bromoform	ND	---	1.00	"	"	"	"	
Bromomethane	ND	---	5.00	"	"	"	"	
2-Butanone (MEK)	ND	---	10.0	"	"	"	"	Q-31
n-Butylbenzene	ND	---	1.00	"	"	"	"	
sec-Butylbenzene	ND	---	1.00	"	"	"	"	
tert-Butylbenzene	ND	---	1.00	"	"	"	"	
Carbon tetrachloride	ND	---	0.500	"	"	"	"	
Chlorobenzene	ND	---	0.500	"	"	"	"	
Chloroethane	ND	---	5.00	"	"	"	"	EST
Chloroform	ND	---	1.00	"	"	"	"	
Chloromethane	ND	---	5.00	"	"	"	"	
2-Chlorotoluene	ND	---	1.00	"	"	"	"	
4-Chlorotoluene	ND	---	1.00	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	---	5.00	"	"	"	"	
Dibromochloromethane	ND	---	1.00	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	---	0.500	"	"	"	"	
Dibromomethane	ND	---	1.00	"	"	"	"	
1,2-Dichlorobenzene	ND	---	0.500	"	"	"	"	
1,3-Dichlorobenzene	ND	---	0.500	"	"	"	"	
1,4-Dichlorobenzene	ND	---	0.500	"	"	"	"	
Dichlorodifluoromethane	ND	---	1.00	"	"	"	"	
1,1-Dichloroethane	ND	---	0.500	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	---	0.500	"	"	"	"	
1,1-Dichloroethene	ND	---	0.500	"	"	"	"	
cis-1,2-Dichloroethene	ND	---	0.500	"	"	"	"	
trans-1,2-Dichloroethene	ND	---	0.500	"	"	"	"	
1,2-Dichloropropane	ND	---	0.500	"	"	"	"	
1,3-Dichloropropane	ND	---	1.00	"	"	"	"	
2,2-Dichloropropane	ND	---	1.00	"	"	"	"	
1,1-Dichloropropene	ND	---	1.00	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:40

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-16 (A3I0385-05)			**Matrix: Water**		**Batch: 3090436**			
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	"	EPA 8260B	
trans-1,3-Dichloropropene	ND	---	1.00	"	"	"	"	
Ethylbenzene	ND	---	0.500	"	"	"	"	
Hexachlorobutadiene	ND	---	5.00	"	"	"	"	
2-Hexanone	ND	---	10.0	"	"	"	"	
Isopropylbenzene	ND	---	1.00	"	"	"	"	
4-Isopropyltoluene	ND	---	1.00	"	"	"	"	
4-Methyl-2-pentanone (MiBK)	ND	---	10.0	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	"	"	"	"	
Methylene chloride	ND	---	5.00	"	"	"	"	
Naphthalene	ND	---	2.00	"	"	"	"	
n-Propylbenzene	ND	---	0.500	"	"	"	"	
Styrene	ND	---	1.00	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	---	0.500	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	---	0.500	"	"	"	"	
Tetrachloroethene (PCE)	ND	---	0.500	"	"	"	"	
Toluene	ND	---	1.00	"	"	"	"	
1,2,3-Trichlorobenzene	ND	---	2.00	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	2.00	"	"	"	"	
1,1,1-Trichloroethane	ND	---	0.500	"	"	"	"	
1,1,2-Trichloroethane	ND	---	0.500	"	"	"	"	
Trichloroethene (TCE)	ND	---	0.500	"	"	"	"	
Trichlorofluoromethane	ND	---	2.00	"	"	"	"	
1,2,3-Trichloropropane	ND	---	1.00	"	"	"	"	
1,2,4-Trimethylbenzene	ND	---	1.00	"	"	"	"	
1,3,5-Trimethylbenzene	ND	---	1.00	"	"	"	"	
Vinyl chloride	ND	---	0.500	"	"	"	"	
m,p-Xylene	ND	---	1.00	"	"	"	"	
o-Xylene	ND	---	0.500	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 87 %*	*Limits: 80-120 %*	"	"	"	
1,4-Difluorobenzene (Surr)			*96 %*	*Limits: 80-120 %*	"	"	"	
Toluene-d8 (Surr)			*95 %*	*Limits: 80-120 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*100 %*	*Limits: 80-120 %*	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:40

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-17 (A3I0385-06)			**Matrix: Water**		**Batch: 3090436**			
Acetone	ND	---	20.0	ug/L	1	09/19/13 19:40	EPA 8260B	Q-31
Benzene	ND	---	0.250	"	"	"	"	
Bromobenzene	ND	---	0.500	"	"	"	"	
Bromochloromethane	ND	---	1.00	"	"	"	"	
Bromodichloromethane	ND	---	1.00	"	"	"	"	
Bromoform	ND	---	1.00	"	"	"	"	
Bromomethane	ND	---	5.00	"	"	"	"	
2-Butanone (MEK)	ND	---	10.0	"	"	"	"	Q-31
n-Butylbenzene	ND	---	1.00	"	"	"	"	
sec-Butylbenzene	ND	---	1.00	"	"	"	"	
tert-Butylbenzene	ND	---	1.00	"	"	"	"	
Carbon tetrachloride	ND	---	0.500	"	"	"	"	
Chlorobenzene	ND	---	0.500	"	"	"	"	
Chloroethane	ND	---	5.00	"	"	"	"	EST
Chloroform	ND	---	1.00	"	"	"	"	
Chloromethane	ND	---	5.00	"	"	"	"	
2-Chlorotoluene	ND	---	1.00	"	"	"	"	
4-Chlorotoluene	ND	---	1.00	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	---	5.00	"	"	"	"	
Dibromochloromethane	ND	---	1.00	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	---	0.500	"	"	"	"	
Dibromomethane	ND	---	1.00	"	"	"	"	
1,2-Dichlorobenzene	ND	---	0.500	"	"	"	"	
1,3-Dichlorobenzene	ND	---	0.500	"	"	"	"	
1,4-Dichlorobenzene	ND	---	0.500	"	"	"	"	
Dichlorodifluoromethane	ND	---	1.00	"	"	"	"	
1,1-Dichloroethane	ND	---	0.500	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	---	0.500	"	"	"	"	
1,1-Dichloroethene	ND	---	0.500	"	"	"	"	
cis-1,2-Dichloroethene	ND	---	0.500	"	"	"	"	
trans-1,2-Dichloroethene	ND	---	0.500	"	"	"	"	
1,2-Dichloropropane	ND	---	0.500	"	"	"	"	
1,3-Dichloropropane	ND	---	1.00	"	"	"	"	
2,2-Dichloropropane	ND	---	1.00	"	"	"	"	
1,1-Dichloropropene	ND	---	1.00	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:40

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-17 (A3I0385-06)			**Matrix: Water**		**Batch: 3090436**			
cis-1,3-Dichloropropene	ND	---	1.00	ug/L	1	"	EPA 8260B	
trans-1,3-Dichloropropene	ND	---	1.00	"	"	"	"	
Ethylbenzene	ND	---	0.500	"	"	"	"	
Hexachlorobutadiene	ND	---	5.00	"	"	"	"	
2-Hexanone	ND	---	10.0	"	"	"	"	
Isopropylbenzene	ND	---	1.00	"	"	"	"	
4-Isopropyltoluene	ND	---	1.00	"	"	"	"	
4-Methyl-2-pentanone (MiBK)	ND	---	10.0	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	"	"	"	"	
Methylene chloride	ND	---	5.00	"	"	"	"	
Naphthalene	ND	---	2.00	"	"	"	"	
n-Propylbenzene	ND	---	0.500	"	"	"	"	
Styrene	ND	---	1.00	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	---	0.500	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	---	0.500	"	"	"	"	
Tetrachloroethene (PCE)	ND	---	0.500	"	"	"	"	
Toluene	ND	---	1.00	"	"	"	"	
1,2,3-Trichlorobenzene	ND	---	2.00	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	2.00	"	"	"	"	
1,1,1-Trichloroethane	ND	---	0.500	"	"	"	"	
1,1,2-Trichloroethane	ND	---	0.500	"	"	"	"	
Trichloroethene (TCE)	ND	---	0.500	"	"	"	"	
Trichlorofluoromethane	ND	---	2.00	"	"	"	"	
1,2,3-Trichloropropane	ND	---	1.00	"	"	"	"	
1,2,4-Trimethylbenzene	ND	---	1.00	"	"	"	"	
1,3,5-Trimethylbenzene	ND	---	1.00	"	"	"	"	
Vinyl chloride	ND	---	0.500	"	"	"	"	
m,p-Xylene	ND	---	1.00	"	"	"	"	
o-Xylene	ND	---	0.500	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 88 %*	*Limits: 80-120 %*	"	"	"	
1,4-Difluorobenzene (Surr)			*95 %*	*Limits: 80-120 %*	"	"	"	
Toluene-d8 (Surr)			*94 %*	*Limits: 80-120 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*99 %*	*Limits: 80-120 %*	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

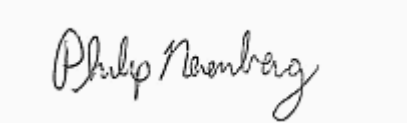
Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:40

ANALYTICAL SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-7 (A3I0385-02)			**Matrix: Water**		**Batch: 3090690**			**C-07**
Aroclor 1016	ND	---	0.100	ug/L	1	09/30/13 16:41	EPA 8082A	
Aroclor 1221	ND	---	0.100	"	"	"	"	
Aroclor 1232	ND	---	0.100	"	"	"	"	
Aroclor 1242	ND	---	0.100	"	"	"	"	
Aroclor 1248	ND	---	0.100	"	"	"	"	
Aroclor 1254	ND	---	0.100	"	"	"	"	
Aroclor 1260	ND	---	0.100	"	"	"	"	
Surrogate: Decachlorobiphenyl (Surr)			*Recovery: 115 %*	*Limits: 40-135 %*	"	"	"	*Q-23*
SB-8 (A3I0385-03)			**Matrix: Water**		**Batch: 3090690**			**C-07**
Aroclor 1016	ND	---	0.0962	ug/L	1	09/30/13 16:59	EPA 8082A	
Aroclor 1221	ND	---	0.0962	"	"	"	"	
Aroclor 1232	ND	---	0.0962	"	"	"	"	
Aroclor 1242	ND	---	0.0962	"	"	"	"	
Aroclor 1248	ND	---	0.0962	"	"	"	"	
Aroclor 1254	ND	---	0.0962	"	"	"	"	
Aroclor 1260	ND	---	0.0962	"	"	"	"	
Surrogate: Decachlorobiphenyl (Surr)			*Recovery: 112 %*	*Limits: 40-135 %*	"	"	"	*Q-23*
SB-16 (A3I0385-05)			**Matrix: Water**		**Batch: 3090690**			**C-07**
Aroclor 1016	ND	---	0.110	ug/L	1	09/30/13 17:17	EPA 8082A	
Aroclor 1221	ND	---	0.110	"	"	"	"	
Aroclor 1232	ND	---	0.110	"	"	"	"	
Aroclor 1242	ND	---	0.110	"	"	"	"	
Aroclor 1248	ND	---	0.110	"	"	"	"	
Aroclor 1254	ND	---	0.110	"	"	"	"	
Aroclor 1260	ND	---	0.110	"	"	"	"	
Surrogate: Decachlorobiphenyl (Surr)			*Recovery: 112 %*	*Limits: 40-135 %*	"	"	"	*Q-23*

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:40

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-7 (A3I0385-02RE1)			**Matrix: Water**		**Batch: 3090576**			
Acenaphthene	ND	---	1.00	ug/L	1	09/26/13 19:02	EPA 8270D	
Acenaphthylene	ND	---	1.00	"	"	"	"	
Aniline	ND	---	1.00	"	"	"	"	
Anthracene	ND	---	1.00	"	"	"	"	
Azobenzene (1,2-DPH)	ND	---	1.00	"	"	"	"	
Benz(a)anthracene	ND	---	1.00	"	"	"	"	
Benzo(a)pyrene	ND	---	1.00	"	"	"	"	
Benzo(b)fluoranthene	ND	---	1.00	"	"	"	"	
Benzo(k)fluoranthene	ND	---	1.00	"	"	"	"	
Benzo(b+k)fluoranthene(s)	ND	---	2.00	"	"	"	"	
Benzo(g,h,i)perylene	ND	---	1.00	"	"	"	"	
Benzoic acid	ND	---	5.00	"	"	"	"	
Benzyl alcohol	ND	---	1.00	"	"	"	"	
Bis(2-Chloroethoxy) methane	ND	---	1.00	"	"	"	"	
Bis(2-Chloroethyl) ether	ND	---	1.00	"	"	"	"	
Bis(2-Chloroisopropyl) ether	ND	---	1.00	"	"	"	"	
Bis(2-Ethylhexyl) adipate	ND	---	1.00	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	---	2.00	"	"	"	"	
4-Bromophenyl phenyl ether	ND	---	1.00	"	"	"	"	
Butyl benzyl phthalate	ND	---	2.00	"	"	"	"	
Carbazole	ND	---	1.50	"	"	"	"	
4-Chloroaniline	ND	---	1.00	"	"	"	"	
4-Chloro-3-methylphenol	ND	---	1.00	"	"	"	"	
2-Chloronaphthalene	ND	---	1.00	"	"	"	"	
2-Chlorophenol	ND	---	1.00	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	---	1.00	"	"	"	"	
Chrysene	ND	---	1.00	"	"	"	"	
Dibenz(a,h)anthracene	ND	---	1.00	"	"	"	"	
Dibenzofuran	ND	---	1.00	"	"	"	"	
1,2-Dichlorobenzene	ND	---	1.00	"	"	"	"	
1,3-Dichlorobenzene	ND	---	1.00	"	"	"	"	
1,4-Dichlorobenzene	ND	---	1.00	"	"	"	"	
2,4-Dichlorophenol	ND	---	1.00	"	"	"	"	
Di-n-butylphthalate	ND	---	2.00	"	"	"	"	
Diethylphthalate	ND	---	2.00	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:40

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-7 (A3I0385-02RE1)			**Matrix: Water**		**Batch: 3090576**			
Dimethylphthalate	ND	---	2.00	ug/L	1	"	EPA 8270D	
2,4-Dimethylphenol	ND	---	1.00	"	"	"	"	
1,2-Dinitrobenzene	ND	---	1.00	"	"	"	"	
1,3-Dinitrobenzene	ND	---	1.00	"	"	"	"	
1,4-Dinitrobenzene	ND	---	1.00	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	---	2.00	"	"	"	"	
2,4-Dinitrophenol	ND	---	1.00	"	"	"	"	
2,4-Dinitrotoluene	ND	---	1.00	"	"	"	"	
2,6-Dinitrotoluene	ND	---	1.00	"	"	"	"	
Di-n-octyl phthalate	ND	---	2.00	"	"	"	"	
Fluoranthene	ND	---	1.00	"	"	"	"	
Fluorene	ND	---	1.00	"	"	"	"	
Hexachlorobenzene	ND	---	1.00	"	"	"	"	
Hexachlorobutadiene	ND	---	1.00	"	"	"	"	
Hexachlorocyclopentadiene	ND	---	1.00	"	"	"	"	
Hexachloroethane	ND	---	1.00	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	---	1.00	"	"	"	"	
Isophorone	ND	---	1.00	"	"	"	"	
1-Methylnaphthalene	ND	---	1.00	"	"	"	"	
2-Methylnaphthalene	ND	---	1.00	"	"	"	"	
2-Methylphenol	ND	---	1.00	"	"	"	"	
3+4-Methylphenol(s)	ND	---	1.00	"	"	"	"	
Naphthalene	ND	---	1.00	"	"	"	"	
2-Nitroaniline	ND	---	2.00	"	"	"	"	
3-Nitroaniline	ND	---	2.00	"	"	"	"	
4-Nitroaniline	ND	---	1.00	"	"	"	"	
Nitrobenzene	ND	---	1.00	"	"	"	"	
2-Nitrophenol	ND	---	1.00	"	"	"	"	
4-Nitrophenol	ND	---	2.00	"	"	"	"	
N-Nitrosodimethylamine	ND	---	1.00	"	"	"	"	
N-Nitroso-di-n-propylamine	ND	---	1.00	"	"	"	"	
N-Nitrosodiphenylamine	ND	---	1.00	"	"	"	"	
Pentachlorophenol (PCP)	ND	---	2.00	"	"	"	"	
Phenanthrene	ND	---	1.00	"	"	"	"	
Phenol	ND	---	1.00	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:40

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-7 (A3I0385-02RE1)			**Matrix: Water**		**Batch: 3090576**			
Pyrene	ND	---	1.00	ug/L	1	"	EPA 8270D	
Pyridine	ND	---	2.00	"	"	"	"	
2,3,4,6-Tetrachlorophenol	ND	---	1.00	"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	---	1.00	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	1.00	"	"	"	"	
2,4,5-Trichlorophenol	ND	---	1.00	"	"	"	"	
2,4,6-Trichlorophenol	ND	---	1.00	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 91 %*	*Limits: 35-120 %*	"	"	"	
2-Fluorobiphenyl (Surr)			*87 %*	*Limits: 30-120 %*	"	"	"	
Phenol-d6 (Surr)			*36 %*	*Limits: 10-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*100 %*	*Limits: 30-125 %*	"	"	"	
2-Fluorophenol (Surr)			*57 %*	*Limits: 15-120 %*	"	"	"	
2,4,6-Tribromophenol (Surr)			*94 %*	*Limits: 35-125 %*	"	"	"	
SB-8 (A3I0385-03RE1)			**Matrix: Water**		**Batch: 3090576**			
Acenaphthene	ND	---	0.962	ug/L	1	09/26/13 19:38	EPA 8270D	
Acenaphthylene	ND	---	0.962	"	"	"	"	
Aniline	ND	---	0.962	"	"	"	"	
Anthracene	ND	---	0.962	"	"	"	"	
Azobenzene (1,2-DPH)	ND	---	0.962	"	"	"	"	
Benz(a)anthracene	ND	---	0.962	"	"	"	"	
Benzo(a)pyrene	ND	---	0.962	"	"	"	"	
Benzo(b)fluoranthene	ND	---	0.962	"	"	"	"	
Benzo(k)fluoranthene	ND	---	0.962	"	"	"	"	
Benzo(b+k)fluoranthene(s)	ND	---	1.92	"	"	"	"	
Benzo(g,h,i)perylene	ND	---	0.962	"	"	"	"	
Benzoic acid	ND	---	4.81	"	"	"	"	
Benzyl alcohol	ND	---	0.962	"	"	"	"	
Bis(2-Chloroethoxy) methane	ND	---	0.962	"	"	"	"	
Bis(2-Chloroethyl) ether	ND	---	0.962	"	"	"	"	
Bis(2-Chloroisopropyl) ether	ND	---	0.962	"	"	"	"	
Bis(2-Ethylhexyl) adipate	ND	---	0.962	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	---	1.92	"	"	"	"	
4-Bromophenyl phenyl ether	ND	---	0.962	"	"	"	"	
Butyl benzyl phthalate	ND	---	1.92	"	"	"	"	
Carbazole	ND	---	1.44	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:40

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-8 (A3I0385-03RE1)			**Matrix: Water**		**Batch: 3090576**			
4-Chloroaniline	ND	---	0.962	ug/L	1	"	EPA 8270D	
4-Chloro-3-methylphenol	ND	---	0.962	"	"	"	"	
2-Chloronaphthalene	ND	---	0.962	"	"	"	"	
2-Chlorophenol	ND	---	0.962	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	---	0.962	"	"	"	"	
Chrysene	ND	---	0.962	"	"	"	"	
Dibenz(a,h)anthracene	ND	---	0.962	"	"	"	"	
Dibenzofuran	ND	---	0.962	"	"	"	"	
1,2-Dichlorobenzene	ND	---	0.962	"	"	"	"	
1,3-Dichlorobenzene	ND	---	0.962	"	"	"	"	
1,4-Dichlorobenzene	ND	---	0.962	"	"	"	"	
2,4-Dichlorophenol	ND	---	0.962	"	"	"	"	
Di-n-butylphthalate	ND	---	1.92	"	"	"	"	
Diethylphthalate	ND	---	1.92	"	"	"	"	
Dimethylphthalate	ND	---	1.92	"	"	"	"	
2,4-Dimethylphenol	ND	---	0.962	"	"	"	"	
1,2-Dinitrobenzene	ND	---	0.962	"	"	"	"	
1,3-Dinitrobenzene	ND	---	0.962	"	"	"	"	
1,4-Dinitrobenzene	ND	---	0.962	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	---	1.92	"	"	"	"	
2,4-Dinitrophenol	ND	---	0.962	"	"	"	"	
2,4-Dinitrotoluene	ND	---	0.962	"	"	"	"	
2,6-Dinitrotoluene	ND	---	0.962	"	"	"	"	
Di-n-octyl phthalate	ND	---	1.92	"	"	"	"	
Fluoranthene	ND	---	0.962	"	"	"	"	
Fluorene	ND	---	0.962	"	"	"	"	
Hexachlorobenzene	ND	---	0.962	"	"	"	"	
Hexachlorobutadiene	ND	---	0.962	"	"	"	"	
Hexachlorocyclopentadiene	ND	---	0.962	"	"	"	"	
Hexachloroethane	ND	---	0.962	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	---	0.962	"	"	"	"	
Isophorone	ND	---	0.962	"	"	"	"	
1-Methylnaphthalene	ND	---	0.962	"	"	"	"	
2-Methylnaphthalene	ND	---	0.962	"	"	"	"	
2-Methylphenol	ND	---	0.962	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

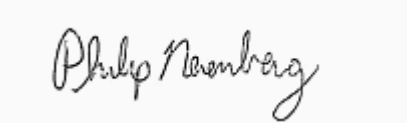
Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:40

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-8 (A3I0385-03RE1)			**Matrix: Water**		**Batch: 3090576**			
3+4-Methylphenol(s)	ND	---	0.962	ug/L	1	"	EPA 8270D	
Naphthalene	ND	---	0.962	"	"	"	"	
2-Nitroaniline	ND	---	1.92	"	"	"	"	
3-Nitroaniline	ND	---	1.92	"	"	"	"	
4-Nitroaniline	ND	---	0.962	"	"	"	"	
Nitrobenzene	ND	---	0.962	"	"	"	"	
2-Nitrophenol	ND	---	0.962	"	"	"	"	
4-Nitrophenol	ND	---	1.92	"	"	"	"	
N-Nitrosodimethylamine	ND	---	0.962	"	"	"	"	
N-Nitroso-di-n-propylamine	ND	---	0.962	"	"	"	"	
N-Nitrosodiphenylamine	ND	---	0.962	"	"	"	"	
Pentachlorophenol (PCP)	ND	---	1.92	"	"	"	"	
Phenanthrene	ND	---	0.962	"	"	"	"	
Phenol	ND	---	0.962	"	"	"	"	
Pyrene	ND	---	0.962	"	"	"	"	
Pyridine	ND	---	1.92	"	"	"	"	
2,3,4,6-Tetrachlorophenol	ND	---	0.962	"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	---	0.962	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	0.962	"	"	"	"	
2,4,5-Trichlorophenol	ND	---	0.962	"	"	"	"	
2,4,6-Trichlorophenol	ND	---	0.962	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 78 %*	*Limits: 35-120 %*	"	"	"	
2-Fluorobiphenyl (Surr)			*71 %*	*Limits: 30-120 %*	"	"	"	
Phenol-d6 (Surr)			*29 %*	*Limits: 10-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*97 %*	*Limits: 30-125 %*	"	"	"	
2-Fluorophenol (Surr)			*45 %*	*Limits: 15-120 %*	"	"	"	
2,4,6-Tribromophenol (Surr)			*84 %*	*Limits: 35-125 %*	"	"	"	

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:40

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-16 (A3I0385-05)			**Matrix: Water**		**Batch: 3090576**			
Acenaphthene	ND	---	1.00	ug/L	1	09/26/13 20:13	EPA 8270D	
Acenaphthylene	ND	---	1.00	"	"	"	"	
Aniline	ND	---	1.00	"	"	"	"	
Anthracene	ND	---	1.00	"	"	"	"	
Azobenzene (1,2-DPH)	ND	---	1.00	"	"	"	"	
Benz(a)anthracene	ND	---	1.00	"	"	"	"	
Benzo(a)pyrene	ND	---	1.00	"	"	"	"	
Benzo(b)fluoranthene	ND	---	1.00	"	"	"	"	
Benzo(k)fluoranthene	ND	---	1.00	"	"	"	"	
Benzo(b+k)fluoranthene(s)	ND	---	2.00	"	"	"	"	
Benzo(g,h,i)perylene	ND	---	1.00	"	"	"	"	
Benzoic acid	ND	---	5.00	"	"	"	"	
Benzyl alcohol	ND	---	1.00	"	"	"	"	
Bis(2-Chloroethoxy) methane	ND	---	1.00	"	"	"	"	
Bis(2-Chloroethyl) ether	ND	---	1.00	"	"	"	"	
Bis(2-Chloroisopropyl) ether	ND	---	1.00	"	"	"	"	
Bis(2-Ethylhexyl) adipate	ND	---	1.00	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	---	2.00	"	"	"	"	
4-Bromophenyl phenyl ether	ND	---	1.00	"	"	"	"	
Butyl benzyl phthalate	ND	---	2.00	"	"	"	"	
Carbazole	ND	---	1.50	"	"	"	"	
4-Chloroaniline	ND	---	1.00	"	"	"	"	
4-Chloro-3-methylphenol	ND	---	1.00	"	"	"	"	
2-Chloronaphthalene	ND	---	1.00	"	"	"	"	
2-Chlorophenol	ND	---	1.00	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	---	1.00	"	"	"	"	
Chrysene	ND	---	1.00	"	"	"	"	
Dibenz(a,h)anthracene	ND	---	1.00	"	"	"	"	
Dibenzofuran	ND	---	1.00	"	"	"	"	
1,2-Dichlorobenzene	ND	---	1.00	"	"	"	"	
1,3-Dichlorobenzene	ND	---	1.00	"	"	"	"	
1,4-Dichlorobenzene	ND	---	1.00	"	"	"	"	
2,4-Dichlorophenol	ND	---	1.00	"	"	"	"	
Di-n-butylphthalate	ND	---	2.00	"	"	"	"	
Diethylphthalate	ND	---	2.00	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:40

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-16 (A3I0385-05)			**Matrix: Water**		**Batch: 3090576**			
Dimethylphthalate	ND	---	2.00	ug/L	1	"	EPA 8270D	
2,4-Dimethylphenol	ND	---	1.00	"	"	"	"	
1,2-Dinitrobenzene	ND	---	1.00	"	"	"	"	
1,3-Dinitrobenzene	ND	---	1.00	"	"	"	"	
1,4-Dinitrobenzene	ND	---	1.00	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	---	2.00	"	"	"	"	
2,4-Dinitrophenol	ND	---	1.00	"	"	"	"	
2,4-Dinitrotoluene	ND	---	1.00	"	"	"	"	
2,6-Dinitrotoluene	ND	---	1.00	"	"	"	"	
Di-n-octyl phthalate	ND	---	2.00	"	"	"	"	
Fluoranthene	ND	---	1.00	"	"	"	"	
Fluorene	ND	---	1.00	"	"	"	"	
Hexachlorobenzene	ND	---	1.00	"	"	"	"	
Hexachlorobutadiene	ND	---	1.00	"	"	"	"	
Hexachlorocyclopentadiene	ND	---	1.00	"	"	"	"	
Hexachloroethane	ND	---	1.00	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	---	1.00	"	"	"	"	
Isophorone	ND	---	1.00	"	"	"	"	
1-Methylnaphthalene	ND	---	1.00	"	"	"	"	
2-Methylnaphthalene	ND	---	1.00	"	"	"	"	
2-Methylphenol	ND	---	1.00	"	"	"	"	
3+4-Methylphenol(s)	ND	---	1.00	"	"	"	"	
Naphthalene	ND	---	1.00	"	"	"	"	
2-Nitroaniline	ND	---	2.00	"	"	"	"	
3-Nitroaniline	ND	---	2.00	"	"	"	"	
4-Nitroaniline	ND	---	1.00	"	"	"	"	
Nitrobenzene	ND	---	1.00	"	"	"	"	
2-Nitrophenol	ND	---	1.00	"	"	"	"	
4-Nitrophenol	ND	---	2.00	"	"	"	"	
N-Nitrosodimethylamine	ND	---	1.00	"	"	"	"	
N-Nitroso-di-n-propylamine	ND	---	1.00	"	"	"	"	
N-Nitrosodiphenylamine	ND	---	1.00	"	"	"	"	
Pentachlorophenol (PCP)	ND	---	2.00	"	"	"	"	
Phenanthrene	ND	---	1.00	"	"	"	"	
Phenol	ND	---	1.00	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:40

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-16 (A3I0385-05)			**Matrix: Water**		**Batch: 3090576**			
Pyrene	ND	---	1.00	ug/L	1	"	EPA 8270D	
Pyridine	ND	---	2.00	"	"	"	"	
2,3,4,6-Tetrachlorophenol	ND	---	1.00	"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	---	1.00	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	1.00	"	"	"	"	
2,4,5-Trichlorophenol	ND	---	1.00	"	"	"	"	
2,4,6-Trichlorophenol	ND	---	1.00	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 61 %*	*Limits: 35-120 %*	"	"	"	
2-Fluorobiphenyl (Surr)			*54 %*	*Limits: 30-120 %*	"	"	"	
Phenol-d6 (Surr)			*24 %*	*Limits: 10-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*89 %*	*Limits: 30-125 %*	"	"	"	
2-Fluorophenol (Surr)			*37 %*	*Limits: 15-120 %*	"	"	"	
2,4,6-Tribromophenol (Surr)			*68 %*	*Limits: 35-125 %*	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:40

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-7 (A3I0385-02)			**Matrix: Water**					
Batch: 3090670								
Arsenic	**144**	---	10.0	ug/L	10	10/01/13 13:00	EPA 6020A	
Barium	**6290**	---	10.0	"	"	"	"	
Cadmium	**15.9**	---	2.00	"	"	"	"	
Lead	**468**	---	2.00	"	"	"	"	
Mercury	ND	---	1.60	"	"	"	"	R-04
Selenium	ND	---	50.0	"	50	10/01/13 15:03	"	R-04
Silver	**2.67**	---	2.00	"	10	10/01/13 13:00	"	
SB-7 (A3I0385-02RE1)			**Matrix: Water**					
Batch: 3100020								
Chromium	**166**	---	10.0	ug/L	10	10/01/13 16:11	EPA 6020A	
SB-8 (A3I0385-03)			**Matrix: Water**					
Batch: 3090670								
Arsenic	**15.0**	---	10.0	ug/L	10	10/01/13 13:06	EPA 6020A	
Barium	**1410**	---	10.0	"	"	"	"	
Cadmium	**2.78**	---	2.00	"	"	"	"	
Lead	**89.2**	---	2.00	"	"	"	"	
Mercury	ND	---	1.60	"	"	"	"	R-04
Selenium	ND	---	10.0	"	"	"	"	R-04
Silver	ND	---	2.00	"	"	"	"	R-04
SB-8 (A3I0385-03RE1)			**Matrix: Water**					
Batch: 3100020								
Chromium	**73.8**	---	10.0	ug/L	10	10/01/13 16:14	EPA 6020A	
SB-16 (A3I0385-05)			**Matrix: Water**					
Batch: 3090670								
Arsenic	**114**	---	10.0	ug/L	10	10/01/13 13:09	EPA 6020A	
Barium	**4530**	---	10.0	"	"	"	"	
Cadmium	**9.89**	---	2.00	"	"	"	"	
Lead	**377**	---	2.00	"	"	"	"	
Mercury	ND	---	1.60	"	"	"	"	R-04
Selenium	ND	---	10.0	"	"	"	"	Q-42, R-04
Silver	ND	---	2.00	"	"	"	"	R-04
SB-16 (A3I0385-05RE1)			**Matrix: Water**					
Batch: 3100020								
Chromium	**194**	---	10.0	ug/L	10	10/01/13 16:17	EPA 6020A	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:40

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:40

QUALITY CONTROL (QC) SAMPLE RESULTS

Hydrocarbon Identification Screen by NWTPH-HCID

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090437 - EPA 3510C (Acid Extraction)							**Water**					
Blank (3090437-BLK1)						Prepared: 09/19/13 10:30	Analyzed: 09/19/13 20:59					
NWTPH-HCID												
Gasoline Range Organics	ND	---	0.0909	mg/L	1	---	---	---	---	---	---	
Diesel Range Organics	ND	---	0.227	"	"	---	---	---	---	---	---	
Oil Range Organics	ND	---	0.227	"	"	---	---	---	---	---	---	

Surr: o-Terphenyl (Surr) *Recovery: 90 %* *Limits: 50-150 %* *Dilution: 1x*

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

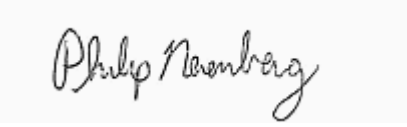
Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:40

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090436 - EPA 5030B							**Water**					
Blank (3090436-BLK1)						Prepared: 09/19/13 09:00	Analyzed: 09/19/13 12:21					
EPA 8260B												
Acetone	ND	---	20.0	ug/L	1	---	---	---	---	---	---	Q-31
Benzene	ND	---	0.250	"	"	---	---	---	---	---	---	
Bromobenzene	ND	---	0.500	"	"	---	---	---	---	---	---	
Bromochloromethane	ND	---	1.00	"	"	---	---	---	---	---	---	
Bromodichloromethane	ND	---	1.00	"	"	---	---	---	---	---	---	
Bromoform	ND	---	1.00	"	"	---	---	---	---	---	---	
Bromomethane	ND	---	5.00	"	"	---	---	---	---	---	---	
2-Butanone (MEK)	ND	---	10.0	"	"	---	---	---	---	---	---	Q-31
n-Butylbenzene	ND	---	1.00	"	"	---	---	---	---	---	---	
sec-Butylbenzene	ND	---	1.00	"	"	---	---	---	---	---	---	
tert-Butylbenzene	ND	---	1.00	"	"	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	0.500	"	"	---	---	---	---	---	---	
Chlorobenzene	ND	---	0.500	"	"	---	---	---	---	---	---	
Chloroethane	ND	---	5.00	"	"	---	---	---	---	---	---	EST
Chloroform	ND	---	1.00	"	"	---	---	---	---	---	---	
Chloromethane	ND	---	5.00	"	"	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	1.00	"	"	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	1.00	"	"	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	5.00	"	"	---	---	---	---	---	---	
Dibromochloromethane	ND	---	1.00	"	"	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	0.500	"	"	---	---	---	---	---	---	
Dibromomethane	ND	---	1.00	"	"	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.500	"	"	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.500	"	"	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.500	"	"	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	1.00	"	"	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	0.500	"	"	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	0.500	"	"	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	0.500	"	"	---	---	---	---	---	---	

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:40

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090436 - EPA 5030B							**Water**					
Blank (3090436-BLK1)					Prepared: 09/19/13 09:00 Analyzed: 09/19/13 12:21							
cis-1,2-Dichloroethene	ND	---	0.500	ug/L	"	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	0.500	"	"	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	0.500	"	"	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	1.00	"	"	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	1.00	"	"	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	1.00	"	"	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	1.00	"	"	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	1.00	"	"	---	---	---	---	---	---	
Ethylbenzene	ND	---	0.500	"	"	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	5.00	"	"	---	---	---	---	---	---	
2-Hexanone	ND	---	10.0	"	"	---	---	---	---	---	---	
Isopropylbenzene	ND	---	1.00	"	"	---	---	---	---	---	---	
4-Isopropyltoluene	ND	---	1.00	"	"	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	---	10.0	"	"	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	"	"	---	---	---	---	---	---	
Methylene chloride	ND	---	5.00	"	"	---	---	---	---	---	---	
Naphthalene	ND	---	2.00	"	"	---	---	---	---	---	---	
n-Propylbenzene	ND	---	0.500	"	"	---	---	---	---	---	---	
Styrene	ND	---	1.00	"	"	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	---	0.500	"	"	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	0.500	"	"	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	0.500	"	"	---	---	---	---	---	---	
Toluene	ND	---	1.00	"	"	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	2.00	"	"	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	2.00	"	"	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	0.500	"	"	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	0.500	"	"	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	0.500	"	"	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	2.00	"	"	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	1.00	"	"	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:40

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090436 - EPA 5030B							**Water**					
Blank (3090436-BLK1)					Prepared: 09/19/13 09:00	Analyzed: 09/19/13 12:21						
1,2,4-Trimethylbenzene	ND	---	1.00	"	"	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	---	1.00	"	"	---	---	---	---	---	---	
Vinyl chloride	ND	---	0.500	"	"	---	---	---	---	---	---	
m,p-Xylene	ND	---	1.00	"	"	---	---	---	---	---	---	
o-Xylene	ND	---	0.500	"	"	---	---	---	---	---	---	
Surr: Dibromofluoromethane (Surr)			*Recovery: 89 %*		*Limits: 80-120 %*		*Dilution: 1x*					
1,4-Difluorobenzene (Surr)			*96 %*		*80-120 %*		*"*					
Toluene-d8 (Surr)			*96 %*		*80-120 %*		*"*					
4-Bromofluorobenzene (Surr)			*98 %*		*80-120 %*		*"*					
LCS (3090436-BS1)					Prepared: 09/19/13 09:00	Analyzed: 09/19/13 11:29						
EPA 8260B												
Acetone	41.0	---	20.0	ug/L	1	40.0	---	103	70-130%	---	---	Q-31
Benzene	19.9	---	0.250	"	"	20.0	---	99	"	---	---	
Bromobenzene	24.4	---	0.500	"	"	"	---	122	"	---	---	
Bromochloromethane	18.8	---	1.00	"	"	"	---	94	"	---	---	
Bromodichloromethane	19.0	---	1.00	"	"	"	---	95	"	---	---	
Bromoform	21.6	---	1.00	"	"	"	---	108	"	---	---	
Bromomethane	17.0	---	5.00	"	"	"	---	85	"	---	---	
2-Butanone (MEK)	36.4	---	10.0	"	"	40.0	---	91	"	---	---	Q-31
n-Butylbenzene	24.0	---	1.00	"	"	20.0	---	120	"	---	---	
sec-Butylbenzene	23.5	---	1.00	"	"	"	---	118	"	---	---	
tert-Butylbenzene	23.1	---	1.00	"	"	"	---	115	"	---	---	
Carbon tetrachloride	19.9	---	0.500	"	"	"	---	100	"	---	---	
Chlorobenzene	23.5	---	0.500	"	"	"	---	117	"	---	---	
Chloroethane	9.64	---	5.00	"	"	"	---	48	"	---	---	EST
Chloroform	20.1	---	1.00	"	"	"	---	101	"	---	---	
Chloromethane	17.8	---	5.00	"	"	"	---	89	"	---	---	
2-Chlorotoluene	24.3	---	1.00	"	"	"	---	122	"	---	---	
4-Chlorotoluene	22.6	---	1.00	"	"	"	---	113	"	---	---	
1,2-Dibromo-3-chloropropane	20.5	---	5.00	"	"	"	---	102	"	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:40

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090436 - EPA 5030B							**Water**					
LCS (3090436-BS1)					Prepared: 09/19/13 09:00 Analyzed: 09/19/13 11:29							
Dibromochloromethane	22.1	---	1.00	ug/L	"	"	---	110	"	---	---	
1,2-Dibromoethane (EDB)	23.0	---	0.500	"	"	"	---	115	"	---	---	
Dibromomethane	20.0	---	1.00	"	"	"	---	100	"	---	---	
1,2-Dichlorobenzene	23.6	---	0.500	"	"	"	---	118	"	---	---	
1,3-Dichlorobenzene	24.3	---	0.500	"	"	"	---	121	"	---	---	
1,4-Dichlorobenzene	23.4	---	0.500	"	"	"	---	117	"	---	---	
Dichlorodifluoromethane	17.7	---	1.00	"	"	"	---	89	"	---	---	
1,1-Dichloroethane	19.3	---	0.500	"	"	"	---	97	"	---	---	
1,2-Dichloroethane (EDC)	17.8	---	0.500	"	"	"	---	89	"	---	---	
1,1-Dichloroethene	18.2	---	0.500	"	"	"	---	91	"	---	---	
cis-1,2-Dichloroethene	20.9	---	0.500	"	"	"	---	104	"	---	---	
trans-1,2-Dichloroethene	19.7	---	0.500	"	"	"	---	99	"	---	---	
1,2-Dichloropropane	19.8	---	0.500	"	"	"	---	99	"	---	---	
1,3-Dichloropropane	22.3	---	1.00	"	"	"	---	112	"	---	---	
2,2-Dichloropropane	19.4	---	1.00	"	"	"	---	97	"	---	---	
1,1-Dichloropropene	17.5	---	1.00	"	"	"	---	87	"	---	---	
cis-1,3-Dichloropropene	20.6	---	1.00	"	"	"	---	103	"	---	---	
trans-1,3-Dichloropropene	21.1	---	1.00	"	"	"	---	105	"	---	---	
Ethylbenzene	22.8	---	0.500	"	"	"	---	114	"	---	---	
Hexachlorobutadiene	23.4	---	5.00	"	"	"	---	117	"	---	---	
2-Hexanone	40.9	---	10.0	"	"	40.0	---	102	"	---	---	
Isopropylbenzene	23.4	---	1.00	"	"	20.0	---	117	"	---	---	
4-Isopropyltoluene	24.4	---	1.00	"	"	"	---	122	"	---	---	
4-Methyl-2-pentanone (MiBK)	41.3	---	10.0	"	"	40.0	---	103	"	---	---	
Methyl tert-butyl ether (MTBE)	18.8	---	1.00	"	"	20.0	---	94	"	---	---	
Methylene chloride	19.7	---	5.00	"	"	"	---	99	"	---	---	
Naphthalene	22.2	---	2.00	"	"	"	---	111	"	---	---	
n-Propylbenzene	23.1	---	0.500	"	"	"	---	115	"	---	---	
Styrene	22.8	---	1.00	"	"	"	---	114	"	---	---	
1,1,1,2-Tetrachloroethane	21.7	---	0.500	"	"	"	---	108	"	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:40

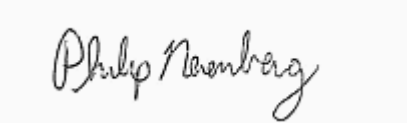
QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090436 - EPA 5030B							**Water**					
LCS (3090436-BS1)					Prepared: 09/19/13 09:00		Analyzed: 09/19/13 11:29					
1,1,2,2-Tetrachloroethane	22.5	---	0.500	"	"	"	---	112	"	---	---	
Tetrachloroethene (PCE)	24.3	---	0.500	"	"	"	---	121	"	---	---	
Toluene	22.4	---	1.00	"	"	"	---	112	"	---	---	
1,2,3-Trichlorobenzene	22.6	---	2.00	"	"	"	---	113	"	---	---	
1,2,4-Trichlorobenzene	22.9	---	2.00	"	"	"	---	114	"	---	---	
1,1,1-Trichloroethane	20.2	---	0.500	"	"	"	---	101	"	---	---	
1,1,2-Trichloroethane	22.4	---	0.500	"	"	"	---	112	"	---	---	
Trichloroethene (TCE)	20.5	---	0.500	"	"	"	---	103	"	---	---	
Trichlorofluoromethane	15.9	---	2.00	"	"	"	---	79	"	---	---	
1,2,3-Trichloropropane	21.5	---	1.00	"	"	"	---	108	"	---	---	
1,2,4-Trimethylbenzene	23.3	---	1.00	"	"	"	---	117	"	---	---	
1,3,5-Trimethylbenzene	23.6	---	1.00	"	"	"	---	118	"	---	---	
Vinyl chloride	19.6	---	0.500	"	"	"	---	98	"	---	---	
m,p-Xylene	46.9	---	1.00	"	"	40.0	---	117	"	---	---	
o-Xylene	22.9	---	0.500	"	"	20.0	---	114	"	---	---	

Surr:	*Dibromofluoromethane (Surr)*	*Recovery:*	*86 %*	*Limits:*	*80-120 %*	*Dilution:* *1x*
	1,4-Difluorobenzene (Surr)		*94 %*		*80-120 %*	*"*
	Toluene-d8 (Surr)		*95 %*		*80-120 %*	*"*
	4-Bromofluorobenzene (Surr)		*96 %*		*80-120 %*	*"*

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:40

QUALITY CONTROL (QC) SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090690 - EPA 3510C (Neutral pH)							**Water**					
Blank (3090690-BLK1)					Prepared: 09/30/13 07:02	Analyzed: 09/30/13 13:19						**C-07**
EPA 8082A												
Aroclor 1016	ND	---	0.0909	ug/L	1	---	---	---	---	---	---	
Aroclor 1221	ND	---	0.0909	"	"	---	---	---	---	---	---	
Aroclor 1232	ND	---	0.0909	"	"	---	---	---	---	---	---	
Aroclor 1242	ND	---	0.0909	"	"	---	---	---	---	---	---	
Aroclor 1248	ND	---	0.0909	"	"	---	---	---	---	---	---	
Aroclor 1254	ND	---	0.0909	"	"	---	---	---	---	---	---	
Aroclor 1260	ND	---	0.0909	"	"	---	---	---	---	---	---	
Surr: Decachlorobiphenyl (Surr)		*Recovery: 111 %*		*Limits: 40-135 %*			*Dilution: 1x*					
LCS (3090690-BS1)					Prepared: 09/30/13 07:02	Analyzed: 09/30/13 13:37						**C-07**
EPA 8082A												
Aroclor 1016	2.13	---	0.100	ug/L	1	2.50	---	85	40-140%	---	---	
Aroclor 1260	2.09	---	0.100	"	"	"	---	84	"	---	---	
Surr: Decachlorobiphenyl (Surr)		*Recovery: 102 %*		*Limits: 40-135 %*			*Dilution: 1x*					
LCS Dup (3090690-BSD1)					Prepared: 09/30/13 07:03	Analyzed: 09/30/13 13:54						**C-07**
EPA 8082A												
Aroclor 1016	2.28	---	0.100	ug/L	1	2.50	---	91	40-140%	7	30%	
Aroclor 1260	2.16	---	0.100	"	"	"	---	86	"	3	30%	
Surr: Decachlorobiphenyl (Surr)		*Recovery: 105 %*		*Limits: 40-135 %*			*Dilution: 1x*					

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:40

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090576 - EPA 3510C (Acid/Base Neutral)							**Water**					
Blank (3090576-BLK1)					Prepared: 09/25/13 11:30 Analyzed: 09/26/13 17:16							
EPA 8270D												
Acenaphthene	ND	---	0.909	ug/L	1	---	---	---	---	---	---	
Acenaphthylene	ND	---	0.909	"	"	---	---	---	---	---	---	
Aniline	ND	---	0.909	"	"	---	---	---	---	---	---	
Anthracene	ND	---	0.909	"	"	---	---	---	---	---	---	
Azobenzene (1,2-DPH)	ND	---	0.909	"	"	---	---	---	---	---	---	
Benz(a)anthracene	ND	---	0.909	"	"	---	---	---	---	---	---	
Benzo(a)pyrene	ND	---	0.909	"	"	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	---	0.909	"	"	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	---	0.909	"	"	---	---	---	---	---	---	
Benzo(b+k)fluoranthene(s)	ND	---	1.82	"	"	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	---	0.909	"	"	---	---	---	---	---	---	
Benzoic acid	ND	---	4.55	"	"	---	---	---	---	---	---	
Benzyl alcohol	ND	---	0.909	"	"	---	---	---	---	---	---	
Bis(2-Chloroethoxy) methane	ND	---	0.909	"	"	---	---	---	---	---	---	
Bis(2-Chloroethyl) ether	ND	---	0.909	"	"	---	---	---	---	---	---	
Bis(2-Chloroisopropyl) ether	ND	---	0.909	"	"	---	---	---	---	---	---	
Bis(2-Ethylhexyl) adipate	ND	---	0.909	"	"	---	---	---	---	---	---	
Bis(2-ethylhexyl)phthalate	ND	---	1.82	"	"	---	---	---	---	---	---	
4-Bromophenyl phenyl ether	ND	---	0.909	"	"	---	---	---	---	---	---	
Butyl benzyl phthalate	ND	---	1.82	"	"	---	---	---	---	---	---	
Carbazole	ND	---	1.36	"	"	---	---	---	---	---	---	
4-Chloroaniline	ND	---	0.909	"	"	---	---	---	---	---	---	
4-Chloro-3-methylphenol	ND	---	0.909	"	"	---	---	---	---	---	---	
2-Chloronaphthalene	ND	---	0.909	"	"	---	---	---	---	---	---	
2-Chlorophenol	ND	---	0.909	"	"	---	---	---	---	---	---	
4-Chlorophenyl phenyl ether	ND	---	0.909	"	"	---	---	---	---	---	---	
Chrysene	ND	---	0.909	"	"	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	---	0.909	"	"	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:40

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090576 - EPA 3510C (Acid/Base Neutral)							**Water**					
Blank (3090576-BLK1)					Prepared: 09/25/13 11:30 Analyzed: 09/26/13 17:16							
Dibenzofuran	ND	---	0.909	"	"	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	0.909	"	"	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	0.909	"	"	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	0.909	"	"	---	---	---	---	---	---	
2,4-Dichlorophenol	ND	---	0.909	"	"	---	---	---	---	---	---	
Di-n-butylphthalate	ND	---	1.82	"	"	---	---	---	---	---	---	
Diethylphthalate	ND	---	1.82	"	"	---	---	---	---	---	---	
Dimethylphthalate	ND	---	1.82	"	"	---	---	---	---	---	---	
2,4-Dimethylphenol	ND	---	0.909	"	"	---	---	---	---	---	---	
1,2-Dinitrobenzene	ND	---	0.909	"	"	---	---	---	---	---	---	
1,3-Dinitrobenzene	ND	---	0.909	"	"	---	---	---	---	---	---	
1,4-Dinitrobenzene	ND	---	0.909	"	"	---	---	---	---	---	---	
4,6-Dinitro-2-methylphenol	ND	---	1.82	"	"	---	---	---	---	---	---	
2,4-Dinitrophenol	ND	---	0.909	"	"	---	---	---	---	---	---	
2,4-Dinitrotoluene	ND	---	0.909	"	"	---	---	---	---	---	---	
2,6-Dinitrotoluene	ND	---	0.909	"	"	---	---	---	---	---	---	
Di-n-octyl phthalate	ND	---	1.82	"	"	---	---	---	---	---	---	
Fluoranthene	ND	---	0.909	"	"	---	---	---	---	---	---	
Fluorene	ND	---	0.909	"	"	---	---	---	---	---	---	
Hexachlorobenzene	ND	---	0.909	"	"	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	0.909	"	"	---	---	---	---	---	---	
Hexachlorocyclopentadiene	ND	---	0.909	"	"	---	---	---	---	---	---	
Hexachloroethane	ND	---	0.909	"	"	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	---	0.909	"	"	---	---	---	---	---	---	
Isophorone	ND	---	0.909	"	"	---	---	---	---	---	---	
1-Methylnaphthalene	ND	---	0.909	"	"	---	---	---	---	---	---	
2-Methylnaphthalene	ND	---	0.909	"	"	---	---	---	---	---	---	
2-Methylphenol	ND	---	0.909	"	"	---	---	---	---	---	---	
3+4-Methylphenol(s)	ND	---	0.909	"	"	---	---	---	---	---	---	
Naphthalene	ND	---	0.909	"	"	---	---	---	---	---	---	
2-Nitroaniline	ND	---	1.82	"	"	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:40

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090576 - EPA 3510C (Acid/Base Neutral)							**Water**					
Blank (3090576-BLK1)					Prepared: 09/25/13 11:30 Analyzed: 09/26/13 17:16							
3-Nitroaniline	ND	---	1.82	ug/L	"	---	---	---	---	---	---	
4-Nitroaniline	ND	---	0.909	"	"	---	---	---	---	---	---	
Nitrobenzene	ND	---	0.909	"	"	---	---	---	---	---	---	
2-Nitrophenol	ND	---	0.909	"	"	---	---	---	---	---	---	
4-Nitrophenol	ND	---	1.82	"	"	---	---	---	---	---	---	
N-Nitrosodimethylamine	ND	---	0.909	"	"	---	---	---	---	---	---	
N-Nitroso-di-n-propylamine	ND	---	0.909	"	"	---	---	---	---	---	---	
N-Nitrosodiphenylamine	ND	---	0.909	"	"	---	---	---	---	---	---	
Pentachlorophenol (PCP)	ND	---	1.82	"	"	---	---	---	---	---	---	
Phenanthrene	ND	---	0.909	"	"	---	---	---	---	---	---	
Phenol	ND	---	0.909	"	"	---	---	---	---	---	---	
Pyrene	ND	---	0.909	"	"	---	---	---	---	---	---	
Pyridine	ND	---	1.82	"	"	---	---	---	---	---	---	
2,3,4,6-Tetrachlorophenol	ND	---	0.909	"	"	---	---	---	---	---	---	
2,3,5,6-Tetrachlorophenol	ND	---	0.909	"	"	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	0.909	"	"	---	---	---	---	---	---	
2,4,5-Trichlorophenol	ND	---	0.909	"	"	---	---	---	---	---	---	
2,4,6-Trichlorophenol	ND	---	0.909	"	"	---	---	---	---	---	---	

Surr: Nitrobenzene-d5 (Surr)	*Recovery: 91 %*	*Limits: 35-120 %*	*Dilution: 1x*
2-Fluorobiphenyl (Surr)	*83 %*	*30-120 %*	*"*
Phenol-d6 (Surr)	*33 %*	*10-120 %*	*"*
p-Terphenyl-d14 (Surr)	*103 %*	*30-125 %*	*"*
2-Fluorophenol (Surr)	*51 %*	*15-120 %*	*"*
2,4,6-Tribromophenol (Surr)	*88 %*	*35-125 %*	*"*

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS (3090576-BS1)					Prepared: 09/25/13 11:30 Analyzed: 09/26/13 17:51							
EPA 8270D												
Acenaphthene	7.09	---	1.00	ug/L	1	8.00	---	89	45-125%	---	---	
Acenaphthylene	7.39	---	1.00	"	"	"	---	92	50-125%	---	---	
Aniline	5.18	---	1.00	"	"	"	---	65	40-120%	---	---	
Anthracene	8.00	---	1.00	"	"	"	---	100	55-125%	---	---	
Azobenzene (1,2-DPH)	7.77	---	1.00	"	"	"	---	97	25-120%	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:40

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090576 - EPA 3510C (Acid/Base Neutral)							**Water**					
LCS (3090576-BS1)					Prepared: 09/25/13 11:30 Analyzed: 09/26/13 17:51							
Benz(a)anthracene	8.15	---	1.00	ug/L	"	"	---	102	55-125%	---	---	
Benzo(a)pyrene	8.15	---	1.00	"	"	"	---	102	"	---	---	
Benzo(b)fluoranthene	8.24	---	1.00	"	"	"	---	103	45-125%	---	---	
Benzo(k)fluoranthene	8.06	---	1.00	"	"	"	---	101	"	---	---	
Benzo(b+k)fluoranthene(s)	16.2	---	2.00	"	"	16.0	---	101	"	---	---	
Benzo(g,h,i)perylene	7.52	---	1.00	"	"	8.00	---	94	40-125%	---	---	
Benzoic acid	6.27	---	5.00	"	"	16.0	---	39	10-120%	---	---	Q-31
Benzyl alcohol	5.79	---	1.00	"	"	8.00	---	72	30-125%	---	---	
Bis(2-Chloroethoxy) methane	7.51	---	1.00	"	"	"	---	94	45-125%	---	---	
Bis(2-Chloroethyl) ether	6.19	---	1.00	"	"	"	---	77	35-125%	---	---	
Bis(2-Chloroisopropyl) ether	6.11	---	1.00	"	"	"	---	76	25-125%	---	---	
Bis(2-Ethylhexyl) adipate	8.29	---	1.00	"	"	"	---	104	40-125%	---	---	
Bis(2-ethylhexyl)phthalate	9.02	---	2.00	"	"	"	---	113	"	---	---	
4-Bromophenyl phenyl ether	7.55	---	1.00	"	"	"	---	94	50-120%	---	---	
Butyl benzyl phthalate	8.89	---	2.00	"	"	"	---	111	45-125%	---	---	
Carbazole	7.33	---	1.50	"	"	"	---	92	50-125%	---	---	
4-Chloroaniline	4.90	---	1.00	"	"	"	---	61	15-120%	---	---	
4-Chloro-3-methylphenol	7.62	---	1.00	"	"	"	---	95	45-120%	---	---	
2-Chloronaphthalene	6.93	---	1.00	"	"	"	---	87	50-120%	---	---	
2-Chlorophenol	6.55	---	1.00	"	"	"	---	82	35-120%	---	---	
4-Chlorophenyl phenyl ether	7.37	---	1.00	"	"	"	---	92	50-120%	---	---	
Chrysene	7.88	---	1.00	"	"	"	---	99	55-125%	---	---	
Dibenz(a,h)anthracene	7.97	---	1.00	"	"	"	---	100	40-125%	---	---	
Dibenzofuran	7.32	---	1.00	"	"	"	---	91	55-125%	---	---	
1,2-Dichlorobenzene	5.56	---	1.00	"	"	"	---	69	35-120%	---	---	
1,3-Dichlorobenzene	5.43	---	1.00	"	"	"	---	68	30-120%	---	---	
1,4-Dichlorobenzene	5.45	---	1.00	"	"	"	---	68	"	---	---	
2,4-Dichlorophenol	7.09	---	1.00	"	"	"	---	89	50-120%	---	---	
Di-n-butylphthalate	8.83	---	2.00	"	"	"	---	110	55-125%	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:40

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090576 - EPA 3510C (Acid/Base Neutral)							**Water**					
LCS (3090576-BS1)					Prepared: 09/25/13 11:30	Analyzed: 09/26/13 17:51						
Diethylphthalate	8.35	---	2.00	"	"	"	---	104	40-125%	---	---	
Dimethylphthalate	7.77	---	2.00	"	"	"	---	97	25-125%	---	---	
2,4-Dimethylphenol	7.44	---	1.00	"	"	"	---	93	30-120%	---	---	
1,2-Dinitrobenzene	7.08	---	1.00	"	"	"	---	89	40-120%	---	---	
1,3-Dinitrobenzene	7.16	---	1.00	"	"	"	---	90	"	---	---	
1,4-Dinitrobenzene	7.12	---	1.00	"	"	"	---	89	"	---	---	
4,6-Dinitro-2-methylphenol	7.17	---	2.00	"	"	"	---	90	40-135%	---	---	
2,4-Dinitrophenol	7.61	---	1.00	"	"	"	---	95	15-130%	---	---	
2,4-Dinitrotoluene	7.52	---	1.00	"	"	"	---	94	50-120%	---	---	
2,6-Dinitrotoluene	7.23	---	1.00	"	"	"	---	90	"	---	---	
Di-n-octyl phthalate	8.96	---	2.00	"	"	"	---	112	35-125%	---	---	
Fluoranthene	8.23	---	1.00	"	"	"	---	103	55-125%	---	---	
Fluorene	7.68	---	1.00	"	"	"	---	96	50-125%	---	---	
Hexachlorobenzene	7.24	---	1.00	"	"	"	---	90	50-120%	---	---	
Hexachlorobutadiene	6.07	---	1.00	"	"	"	---	76	25-120%	---	---	
Hexachlorocyclopentadiene	6.55	---	1.00	"	"	"	---	82	30-120%	---	---	
Hexachloroethane	5.84	---	1.00	"	"	"	---	73	"	---	---	
Indeno(1,2,3-cd)pyrene	8.02	---	1.00	"	"	"	---	100	45-125%	---	---	
Isophorone	7.65	---	1.00	"	"	"	---	96	45-120%	---	---	
1-Methylnaphthalene	6.89	---	1.00	"	"	"	---	86	"	---	---	
2-Methylnaphthalene	7.15	---	1.00	"	"	"	---	89	"	---	---	
2-Methylphenol	5.55	---	1.00	"	"	"	---	69	40-120%	---	---	
3+4-Methylphenol(s)	5.37	---	1.00	"	"	"	---	67	30-120%	---	---	
Naphthalene	6.34	---	1.00	"	"	"	---	79	40-125%	---	---	
2-Nitroaniline	7.06	---	2.00	"	"	"	---	88	50-120%	---	---	
3-Nitroaniline	5.95	---	2.00	"	"	"	---	74	20-120%	---	---	
4-Nitroaniline	5.76	---	1.00	"	"	"	---	72	35-120%	---	---	
Nitrobenzene	7.21	---	1.00	"	"	"	---	90	45-120%	---	---	
2-Nitrophenol	7.28	---	1.00	"	"	"	---	91	40-120%	---	---	
4-Nitrophenol	2.71	---	2.00	"	"	"	---	34	10-140%	---	---	
N-Nitrosodimethylamine	3.60	---	1.00	"	"	"	---	45	25-120%	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:40

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090576 - EPA 3510C (Acid/Base Neutral)							**Water**					
LCS (3090576-BS1)					Prepared: 09/25/13 11:30		Analyzed: 09/26/13 17:51					
N-Nitroso-di-n-propylamine	6.77	---	1.00	ug/L	"	"	---	85	35-120%	---	---	
N-Nitrosodiphenylamine	7.95	---	1.00	"	"	"	---	99	50-120%	---	---	
Pentachlorophenol (PCP)	7.19	---	2.00	"	"	"	---	90	40-125%	---	---	
Phenanthrene	7.41	---	1.00	"	"	"	---	93	50-125%	---	---	
Phenol	3.11	---	1.00	"	"	"	---	39	10-120%	---	---	Q-41
Pyrene	8.01	---	1.00	"	"	"	---	100	50-125%	---	---	
Pyridine	3.40	---	2.00	"	"	"	---	43	20-120%	---	---	
2,3,4,6-Tetrachlorophenol	7.17	---	1.00	"	"	"	---	90	40-120%	---	---	
2,3,5,6-Tetrachlorophenol	7.16	---	1.00	"	"	"	---	89	"	---	---	
1,2,4-Trichlorobenzene	6.26	---	1.00	"	"	"	---	78	35-120%	---	---	
2,4,5-Trichlorophenol	7.11	---	1.00	"	"	"	---	89	50-120%	---	---	
2,4,6-Trichlorophenol	7.05	---	1.00	"	"	"	---	88	"	---	---	
Surr: Nitrobenzene-d5 (Surr)			*Recovery: 93 %*		*Limits: 35-120 %*		*Dilution: 1x*					
2-Fluorobiphenyl (Surr)			*88 %*		*30-120 %*		*"*					
Phenol-d6 (Surr)			*34 %*		*10-120 %*		*"*					
p-Terphenyl-d14 (Surr)			*102 %*		*30-125 %*		*"*					
2-Fluorophenol (Surr)			*53 %*		*15-120 %*		*"*					
2,4,6-Tribromophenol (Surr)			*96 %*		*35-125 %*		*"*					
LCS Dup (3090576-BSD1)					Prepared: 09/25/13 11:30		Analyzed: 09/26/13 18:27					**Q-19**
EPA 8270D												
Acenaphthene	7.13	---	1.00	ug/L	1	8.00	---	89	45-125%	0.5	30%	
Acenaphthylene	7.49	---	1.00	"	"	"	---	94	50-125%	1	30%	
Aniline	5.57	---	1.00	"	"	"	---	70	40-120%	7	30%	
Anthracene	8.17	---	1.00	"	"	"	---	102	55-125%	2	30%	
Azobenzene (1,2-DPH)	8.05	---	1.00	"	"	"	---	101	25-120%	3	30%	
Benz(a)anthracene	8.29	---	1.00	"	"	"	---	104	55-125%	2	30%	
Benzo(a)pyrene	8.32	---	1.00	"	"	"	---	104	"	2	30%	
Benzo(b)fluoranthene	8.35	---	1.00	"	"	"	---	104	45-125%	1	30%	
Benzo(k)fluoranthene	8.29	---	1.00	"	"	"	---	104	"	3	30%	
Benzo(b+k)fluoranthene(s)	16.6	---	2.00	"	"	16.0	---	104	"	2	30%	
Benzo(g,h,i)perylene	7.62	---	1.00	"	"	8.00	---	95	40-125%	1	30%	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

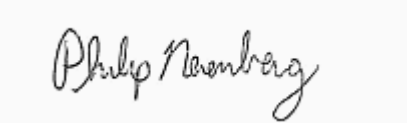
Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:40

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090576 - EPA 3510C (Acid/Base Neutral)							**Water**					
LCS Dup (3090576-BSD1)					Prepared: 09/25/13 11:30	Analyzed: 09/26/13 18:27						**Q-19**
Benzoic acid	6.17	---	5.00	ug/L	"	16.0	---	39	10-120%	2	30%	Q-31
Benzyl alcohol	6.09	---	1.00	"	"	8.00	---	76	30-125%	5	30%	
Bis(2-Chloroethoxy) methane	7.67	---	1.00	"	"	"	---	96	45-125%	2	30%	
Bis(2-Chloroethyl) ether	6.69	---	1.00	"	"	"	---	84	35-125%	8	30%	
Bis(2-Chloroisopropyl) ether	6.43	---	1.00	"	"	"	---	80	25-125%	5	30%	
Bis(2-Ethylhexyl) adipate	8.20	---	1.00	"	"	"	---	102	40-125%	1	30%	
Bis(2-ethylhexyl)phthalate	9.75	---	2.00	"	"	"	---	122	"	8	30%	
4-Bromophenyl phenyl ether	7.83	---	1.00	"	"	"	---	98	50-120%	4	30%	
Butyl benzyl phthalate	8.84	---	2.00	"	"	"	---	111	45-125%	0.5	30%	
Carbazole	7.88	---	1.50	"	"	"	---	98	50-125%	7	30%	
4-Chloroaniline	5.18	---	1.00	"	"	"	---	65	15-120%	6	30%	
4-Chloro-3-methylphenol	7.35	---	1.00	"	"	"	---	92	45-120%	4	30%	
2-Chloronaphthalene	7.08	---	1.00	"	"	"	---	88	50-120%	2	30%	
2-Chlorophenol	7.01	---	1.00	"	"	"	---	88	35-120%	7	30%	
4-Chlorophenyl phenyl ether	7.55	---	1.00	"	"	"	---	94	50-120%	2	30%	
Chrysene	8.03	---	1.00	"	"	"	---	100	55-125%	2	30%	
Dibenz(a,h)anthracene	8.22	---	1.00	"	"	"	---	103	40-125%	3	30%	
Dibenzofuran	7.34	---	1.00	"	"	"	---	92	55-125%	0.3	30%	
1,2-Dichlorobenzene	5.19	---	1.00	"	"	"	---	65	35-120%	7	30%	
1,3-Dichlorobenzene	4.99	---	1.00	"	"	"	---	62	30-120%	8	30%	
1,4-Dichlorobenzene	5.03	---	1.00	"	"	"	---	63	"	8	30%	
2,4-Dichlorophenol	7.27	---	1.00	"	"	"	---	91	50-120%	3	30%	
Di-n-butylphthalate	8.81	---	2.00	"	"	"	---	110	55-125%	0.2	30%	
Diethylphthalate	8.40	---	2.00	"	"	"	---	105	40-125%	0.6	30%	
Dimethylphthalate	7.86	---	2.00	"	"	"	---	98	25-125%	1	30%	
2,4-Dimethylphenol	7.53	---	1.00	"	"	"	---	94	30-120%	1	30%	
1,2-Dinitrobenzene	7.19	---	1.00	"	"	"	---	90	40-120%	1	30%	
1,3-Dinitrobenzene	7.29	---	1.00	"	"	"	---	91	"	2	30%	
1,4-Dinitrobenzene	7.37	---	1.00	"	"	"	---	92	"	3	30%	

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:40

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090576 - EPA 3510C (Acid/Base Neutral)							**Water**					
LCS Dup (3090576-BSD1)					Prepared: 09/25/13 11:30	Analyzed: 09/26/13 18:27						**Q-19**
4,6-Dinitro-2-methylphenol	7.13	---	2.00	"	"	"	---	89	40-135%	0.5	30%	
2,4-Dinitrophenol	7.59	---	1.00	"	"	"	---	95	15-130%	0.2	30%	
2,4-Dinitrotoluene	7.42	---	1.00	"	"	"	---	93	50-120%	1	30%	
2,6-Dinitrotoluene	7.32	---	1.00	"	"	"	---	91	"	1	30%	
Di-n-octyl phthalate	9.02	---	2.00	"	"	"	---	113	35-125%	0.7	30%	
Fluoranthene	8.41	---	1.00	"	"	"	---	105	55-125%	2	30%	
Fluorene	7.68	---	1.00	"	"	"	---	96	50-125%	0.05	30%	
Hexachlorobenzene	7.61	---	1.00	"	"	"	---	95	50-120%	5	30%	
Hexachlorobutadiene	5.36	---	1.00	"	"	"	---	67	25-120%	12	30%	
Hexachlorocyclopentadiene	6.35	---	1.00	"	"	"	---	79	30-120%	3	30%	
Hexachloroethane	5.13	---	1.00	"	"	"	---	64	"	13	30%	
Indeno(1,2,3-cd)pyrene	8.00	---	1.00	"	"	"	---	100	45-125%	0.3	30%	
Isophorone	7.70	---	1.00	"	"	"	---	96	45-120%	0.6	30%	
1-Methylnaphthalene	6.66	---	1.00	"	"	"	---	83	"	3	30%	
2-Methylnaphthalene	6.95	---	1.00	"	"	"	---	87	"	3	30%	
2-Methylphenol	5.86	---	1.00	"	"	"	---	73	40-120%	5	30%	
3+4-Methylphenol(s)	5.71	---	1.00	"	"	"	---	71	30-120%	6	30%	
Naphthalene	6.19	---	1.00	"	"	"	---	77	40-125%	2	30%	
2-Nitroaniline	7.21	---	2.00	"	"	"	---	90	50-120%	2	30%	
3-Nitroaniline	6.19	---	2.00	"	"	"	---	77	20-120%	4	30%	
4-Nitroaniline	6.07	---	1.00	"	"	"	---	76	35-120%	5	30%	
Nitrobenzene	7.61	---	1.00	"	"	"	---	95	45-120%	5	30%	
2-Nitrophenol	7.48	---	1.00	"	"	"	---	93	40-120%	3	30%	
4-Nitrophenol	2.81	---	2.00	"	"	"	---	35	10-140%	4	30%	
N-Nitrosodimethylamine	3.90	---	1.00	"	"	"	---	49	25-120%	8	30%	
N-Nitroso-di-n-propylamine	7.02	---	1.00	"	"	"	---	88	35-120%	4	30%	
N-Nitrosodiphenylamine	8.27	---	1.00	"	"	"	---	103	50-120%	4	30%	
Pentachlorophenol (PCP)	7.29	---	2.00	"	"	"	---	91	40-125%	1	30%	
Phenanthrene	7.55	---	1.00	"	"	"	---	94	50-125%	2	30%	
Phenol	3.41	---	1.00	"	"	"	---	43	10-120%	9	30%	Q-41

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:40

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090576 - EPA 3510C (Acid/Base Neutral)							**Water**					
LCS Dup (3090576-BSD1)					Prepared: 09/25/13 11:30	Analyzed: 09/26/13 18:27						**Q-19**
Pyrene	8.14	---	1.00	ug/L	"	"	---	102	50-125%	2	30%	
Pyridine	3.50	---	2.00	"	"	"	---	44	20-120%	3	30%	
2,3,4,6-Tetrachlorophenol	7.26	---	1.00	"	"	"	---	91	40-120%	1	30%	
2,3,5,6-Tetrachlorophenol	7.21	---	1.00	"	"	"	---	90	"	0.7	30%	
1,2,4-Trichlorobenzene	5.73	---	1.00	"	"	"	---	72	35-120%	9	30%	
2,4,5-Trichlorophenol	7.44	---	1.00	"	"	"	---	93	50-120%	5	30%	
2,4,6-Trichlorophenol	7.35	---	1.00	"	"	"	---	92	"	4	30%	

Surr: Nitrobenzene-d5 (Surr)	*Recovery: 94 %*	*Limits: 35-120 %*	*Dilution: 1x*
2-Fluorobiphenyl (Surr)	*88 %*	*30-120 %*	*"*
Phenol-d6 (Surr)	*35 %*	*10-120 %*	*"*
p-Terphenyl-d14 (Surr)	*99 %*	*30-125 %*	*"*
2-Fluorophenol (Surr)	*55 %*	*15-120 %*	*"*
2,4,6-Tribromophenol (Surr)	*95 %*	*35-125 %*	*"*

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:40

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090670 - EPA 3015A							**Water**					
Blank (3090670-BLK1)					Prepared: 09/27/13 12:57		Analyzed: 09/30/13 11:42					
EPA 6020A												
Arsenic	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
Barium	ND	---	1.00	"	"	---	---	---	---	---	---	
Cadmium	ND	---	0.200	"	"	---	---	---	---	---	---	
Lead	ND	---	0.200	"	"	---	---	---	---	---	---	
Mercury	ND	---	0.0800	"	"	---	---	---	---	---	---	
Selenium	ND	---	1.00	"	"	---	---	---	---	---	---	
Silver	ND	---	0.200	"	"	---	---	---	---	---	---	
LCS (3090670-BS1)					Prepared: 09/27/13 12:57		Analyzed: 09/30/13 11:44					
EPA 6020A												
Arsenic	53.4	---	1.00	ug/L	1	55.6	---	96	85-115%	---	---	
Barium	54.8	---	1.00	"	"	"	---	99	80-120%	---	---	
Cadmium	55.0	---	0.200	"	"	"	---	99	"	---	---	
Lead	55.5	---	0.200	"	"	"	---	100	"	---	---	
Mercury	1.09	---	0.0800	"	"	1.11	---	98	"	---	---	
Selenium	26.8	---	1.00	"	"	27.8	---	96	"	---	---	
Silver	27.8	---	0.200	"	"	"	---	100	"	---	---	
Matrix Spike (3090670-MS2)					Prepared: 09/27/13 12:57		Analyzed: 10/01/13 13:11					
QC Source Sample: SB-16 (A3I0385-05)												
EPA 6020A												
Arsenic	159	---	10.0	ug/L	10	55.6	114	81	70-130%	---	---	
Barium	4600	---	10.0	"	"	"	4530	114	75-125%	---	---	
Cadmium	65.4	---	2.00	"	"	"	9.89	100	"	---	---	
Lead	426	---	2.00	"	"	"	377	88	"	---	---	
Mercury	ND	---	1.60	"	"	1.11	0.592	87	"	---	---	
Selenium	24.3	---	10.0	"	"	27.8	8.56	57	"	---	---	Q-01
Silver	28.8	---	2.00	"	"	"	1.33	99	"	---	---	
Post Spike (3090670-PS1)					Prepared: 10/02/13 11:02		Analyzed: 10/02/13 12:00					
Lead	347	---		ug/L	10	192	149	103	80-120%		---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:40

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090670 - EPA 3015A							**Water**					
Post Spike (3090670-PS1)					Prepared: 10/02/13 11:02		Analyzed: 10/02/13 12:00					
Selenium	218	---		ug/L	"	"	4.12	111	"		---	
Post Spike (3090670-PS2)					Prepared: 10/02/13 11:02		Analyzed: 10/02/13 12:03					
Barium	4170	---		ug/L	10	2940	1160	102	80-120%		---	
Post Spike (3090670-PS3)					Prepared: 10/02/13 11:02		Analyzed: 10/02/13 12:09					
QC Source Sample: SB-16 (A3I0385-05)												
EPA 6020A												
Chromium	736	---		ug/L	10	377	362	99	80-120%		---	
Selenium	210	---		"	"	189	7.26	107	"		---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

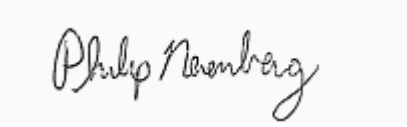
Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:40

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3100020 - EPA 3015A							**Water**					
Blank (3100020-BLK1)					Prepared: 10/01/13 10:47		Analyzed: 10/01/13 15:08					
EPA 6020A												
Chromium	ND	---	1.00	ug/L	1	---	---	---	---	---	---	
LCS (3100020-BS1)					Prepared: 10/01/13 10:47		Analyzed: 10/01/13 15:11					
EPA 6020A												
Chromium	55.2	---	1.00	ug/L	1	55.6	---	99	80-120%	---	---	
Post Spike (3100020-PS1)					Prepared: 10/02/13 12:00		Analyzed: 10/02/13 12:06					
Chromium	332	---		ug/L	5	196	129	104	80-120%		---	

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:40

SAMPLE PREPARATION INFORMATION

Hydrocarbon Identification Screen by NWTPH-HCID

Prep: EPA 3510C (Acid Extraction)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3090437							
A3I0385-02	Water	NWTPH-HCID	09/18/13 10:00	09/19/13 14:17	1000mL/5mL	1000mL/5mL	1.00
A3I0385-03	Water	NWTPH-HCID	09/18/13 09:00	09/19/13 14:17	1040mL/5mL	1000mL/5mL	0.96
A3I0385-05	Water	NWTPH-HCID	09/18/13 13:15	09/19/13 14:17	920mL/5mL	1000mL/5mL	1.09

Volatile Organic Compounds by EPA 8260B

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3090436							
A3I0385-01	Water	EPA 8260B	09/18/13 12:00	09/19/13 15:30	5mL/5mL	5mL/5mL	1.00
A3I0385-02	Water	EPA 8260B	09/18/13 10:00	09/19/13 15:30	5mL/5mL	5mL/5mL	1.00
A3I0385-03	Water	EPA 8260B	09/18/13 09:00	09/19/13 15:30	5mL/5mL	5mL/5mL	1.00
A3I0385-04	Water	EPA 8260B	09/18/13 11:00	09/19/13 15:30	5mL/5mL	5mL/5mL	1.00
A3I0385-05	Water	EPA 8260B	09/18/13 13:15	09/19/13 15:30	5mL/5mL	5mL/5mL	1.00
A3I0385-06	Water	EPA 8260B	09/18/13 14:45	09/19/13 15:30	5mL/5mL	5mL/5mL	1.00

Polychlorinated Biphenyls by EPA 8082A

Prep: EPA 3510C (Neutral pH)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3090690							
A3I0385-02	Water	EPA 8082A	09/18/13 10:00	09/30/13 07:02	1000mL/5mL	1000mL/5mL	1.00
A3I0385-03	Water	EPA 8082A	09/18/13 09:00	09/30/13 07:02	1040mL/5mL	1000mL/5mL	0.96
A3I0385-05	Water	EPA 8082A	09/18/13 13:15	09/30/13 07:02	910mL/5mL	1000mL/5mL	1.10

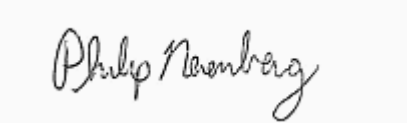
Semivolatile Organic Compounds by EPA 8270D

Prep: EPA 3510C (Acid/Base Neutral)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3090576							
A3I0385-02RE1	Water	EPA 8270D	09/18/13 10:00	09/25/13 11:30	1000mL/2mL	1000mL/2mL	1.00
A3I0385-03RE1	Water	EPA 8270D	09/18/13 09:00	09/25/13 11:30	1040mL/2mL	1000mL/2mL	0.96
A3I0385-05	Water	EPA 8270D	09/18/13 13:15	09/25/13 11:30	1000mL/2mL	1000mL/2mL	1.00

Total Metals by EPA 6020 (ICPMS)

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:40

SAMPLE PREPARATION INFORMATION

Total Metals by EPA 6020 (ICPMS)

Prep: EPA 3015A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3090670							
A3I0385-02	Water	EPA 6020A	09/18/13 10:00	09/27/13 12:57	45mL/50mL	45mL/50mL	1.00
A3I0385-03	Water	EPA 6020A	09/18/13 09:00	09/27/13 12:57	45mL/50mL	45mL/50mL	1.00
A3I0385-05	Water	EPA 6020A	09/18/13 13:15	09/27/13 12:57	45mL/50mL	45mL/50mL	1.00
Batch: 3100020							
A3I0385-02RE1	Water	EPA 6020A	09/18/13 10:00	10/01/13 10:47	45mL/50mL	45mL/50mL	1.00
A3I0385-03RE1	Water	EPA 6020A	09/18/13 09:00	10/01/13 10:47	45mL/50mL	45mL/50mL	1.00
A3I0385-05RE1	Water	EPA 6020A	09/18/13 13:15	10/01/13 10:47	45mL/50mL	45mL/50mL	1.00

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:40

Notes and Definitions

Qualifiers:

C-07	Extract has undergone Sulfuric Acid Cleanup by EPA 3665A, Sulfur Cleanup by EPA 3660B, and Florisil Cleanup by EPA 3620B in order to minimize matrix interference.
EST	Result reported as an Estimated Value. Recovery for Lab Control Spike (LCS) is below the lower control limit. Data may be biased low.
Q-01	Spike recovery and/or RPD is outside acceptance limits.
Q-19	Blank Spike Duplicate (BSD) sample analyzed in place of Matrix Spike/Duplicate samples due to limited sample amount available for analysis.
Q-23	Recovery of Continuing Calibration Verification sample above upper control limit for this analyte. Data is likely biased high.
Q-31	Estimated Results. Recovery of Continuing Calibration Verification sample below lower control limit for this analyte. Results are likely biased low.
Q-41	Estimated Results. Recovery of Continuing Calibration Verification sample above upper control limit for this analyte. Results are likely biased high.
Q-42	Matrix Spike and/or Duplicate analysis was performed on this sample. % Recovery or RPD for this analyte is outside laboratory control limits. (Refer to the QC Section of Analytical Report.)
R-04	Reporting levels elevated due to dilution necessary for analysis.

Notes and Conventions:

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis. Results listed as 'wet' or without 'dry'designation are not dry weight corrected.
RPD	Relative Percent Difference
MDL	If MDL is not listed, data has been evaluated to the Method Reporting Limit only.
WMSC	Water Miscible Solvent Correction has been applied to Results and MRLs for volatiles soil samples per EPA 8000C.
Batch QC	Unless specifically requested, this report contains only results for Batch QC derived from client samples included in this report. All analyses were performed with the appropriate Batch QC (including Sample Duplicates, Matrix Spikes and/or Matrix Spike Duplicates) in order to meet or exceed method and regulatory requirements. Any exceptions to this will be qualified in this report. Complete Batch QC results are available upon request. In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) is analyzed to demonstrate accuracy and precision of the extraction and analysis.
Blank Policy	Apex assesses blank data for potential high bias down to a level equal to ½ the method reporting limit (MRL), except for conventional chemistry and HCID analyses which are assessed only to the MRL. Sample results flagged with a B or B-02 qualifier are potentially biased high if they are less than ten times the level found in the blank for inorganic analyses or less than five times the level found in the blank for organic analyses. For accurate comparison of volatile results to the level found in the blank; water sample results should be divided by the dilution factor, and soil sample results should be divided by 1/50 of the sample dilution to account for the sample prep factor. Results qualified as reported below the MRL may include a potential high bias if associated with a B or B-02 qualified blank. B and B-02 qualifications are not applied to J qualified results reported below the MRL.

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:40

--- QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

*** Used to indicate a possible discrepency with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Apex Laboratories

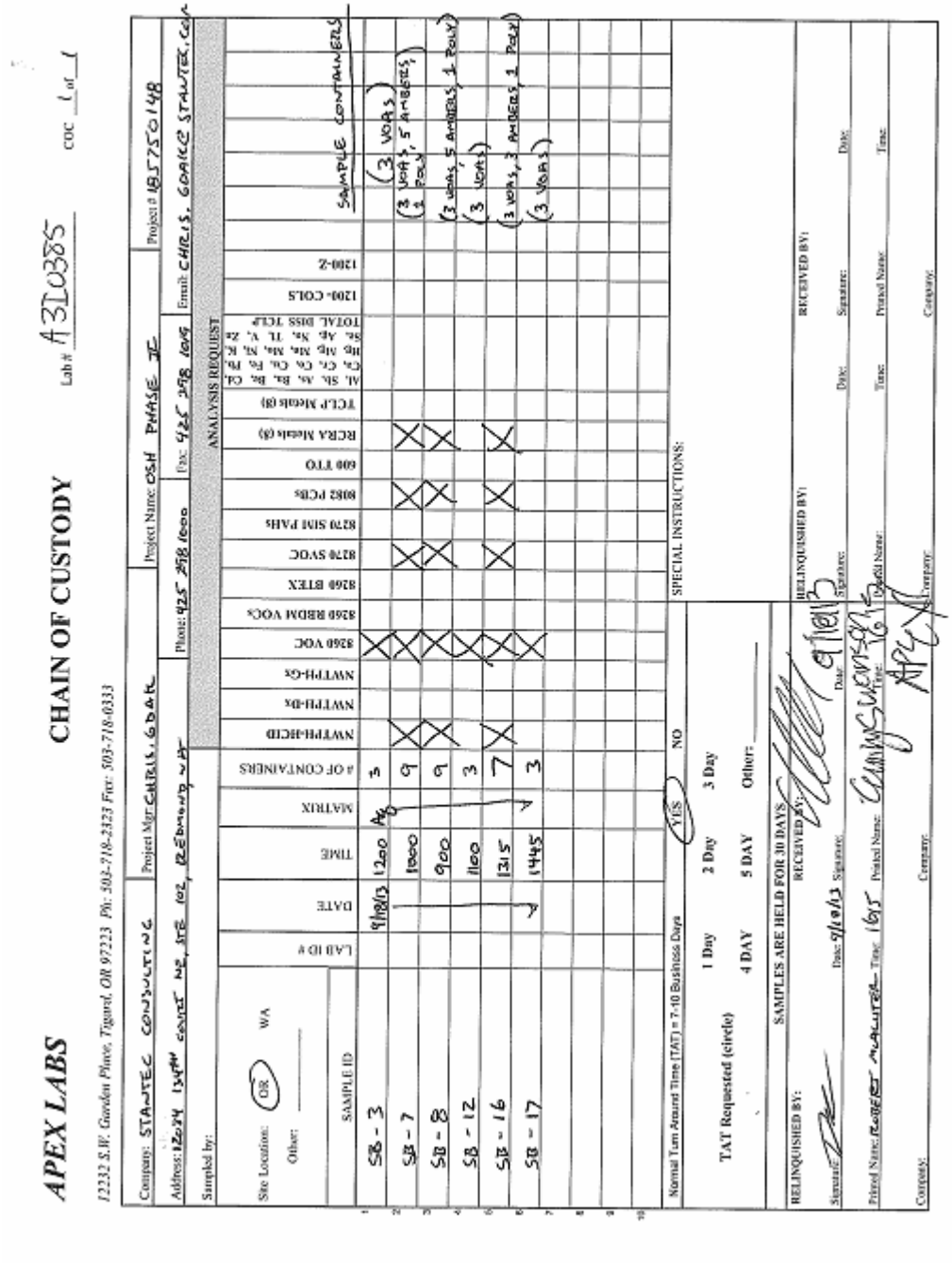
Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/04/13 11:40



APEX LABS

12232 S.W. Garden Place, Tigard, OR 97223 Ph: 503-718-2323 Fax: 503-718-0333

CHAIN OF CUSTODY

Lab # A3L0385 COC 1 of 1

Company: STANTEC CONSULTING | Project Mgr: CHRIS GDAK | Project Name: OSH PHASE II | Project # 185750148

Address: 12524 NW CORNET NE, STE 102, REDMOND, WA | Phone: 425 258 1000 | Fax: 425 258 1009 | Email: CHRIS.GDAKE@STANTEC.COM

Sampled by:

Site Location: OR WA Other: ____

ANALYSIS REQUEST

SAMPLE ID	LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 VOC	8260 RBDM VOCs	8260 BTEX	8270 SVOC	8270 SIM PAHs	8082 PCBs	608 TTO	RCRA Metals (8)	TCLP Metals (8)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS TCLP	1200- COLS	1200-Z	SAMPLE CONTAINERS
SB-3		9/18/13	1200	AQ	3				X												(3 VOAs)
SB-7			1000		9	X			X			X		X		X					(3 VOAs, 5 Amber, 1 Poly)
SB-8			900		9	X			X			X		X		X					(3 VOAs, 5 Amber, 1 Poly)
SB-12			1100		3				X												(3 VOAs)
SB-16			1315		7	X			X			X		X		X					(3 VOAs, 3 Amber, 1 Poly)
SB-17			1445		3				X												(3 VOAs)

Normal Turn Around Time (TAT) = 7-10 Business Days YES NO

SPECIAL INSTRUCTIONS:

TAT Requested (circle): 1 Day 2 Day 3 Day 4 DAY 5 DAY Other: ____

SAMPLES ARE HELD FOR 30 DAYS

RECEIVED BY: Date: 9/18/13 Signature: ____

RELINQUISHED BY: Signature: ____ Date: 9/18/13 Time: 1615 Printed Name: ROBERT MCALISTER Company: ____

RELINQUISHED BY: Signature: ____ Date: 9/18/13 Time: 1615 Printed Name: CHRIS GUENTHER Company: APEX

RECEIVED BY: Signature: ____ Date: ____ Time: ____ Printed Name: ____ Company: ____

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Monday, October 7, 2013

Chris Gdak
Stantec
9400 SW Barnes Rd Ste 200
Portland, OR 97225

RE: OSH Phase II / 185750148

Enclosed are the results of analyses for work order A3I0375, which was received by the laboratory on 9/18/2013 at 4:15:00PM.

Thank you for using Apex Labs. We appreciate your business and strive to provide the highest quality services to the environmental industry.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
SB-3-12.5'	A3I0375-01	Soil	09/18/13 11:30	09/18/13 16:15
SB-7-12.5'	A3I0375-02	Soil	09/18/13 09:40	09/18/13 16:15
SB-8-12.5'	A3I0375-03	Soil	09/18/13 08:35	09/18/13 16:15
SB-12-12.5'	A3I0375-04	Soil	09/18/13 10:45	09/18/13 16:15
SB-16-12.5'	A3I0375-05	Soil	09/18/13 12:55	09/18/13 16:15
SB-17-12.5'	A3I0375-06	Soil	09/18/13 14:15	09/18/13 16:15

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

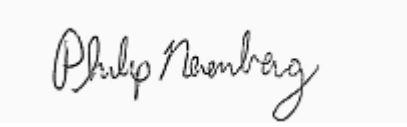
Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

ANALYTICAL SAMPLE RESULTS

Hydrocarbon Identification Screen by NWTPH-HCID

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-3-12.5' (A3I0375-01)			**Matrix: Soil**		**Batch: 3090455**			
Gasoline Range Organics	ND	---	26.5	mg/kg dry	1	09/19/13 21:22	NWTPH-HCID	
Diesel Range Organics	ND	---	66.2	"	"	"	"	
Oil Range Organics	ND	---	132	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 105 %*	*Limits: 50-150 %*	"	"	"	
SB-7-12.5' (A3I0375-02)			**Matrix: Soil**		**Batch: 3090455**			
Gasoline Range Organics	ND	---	24.9	mg/kg dry	1	09/19/13 22:10	NWTPH-HCID	
Diesel Range Organics	ND	---	62.2	"	"	"	"	
Oil Range Organics	ND	---	124	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 100 %*	*Limits: 50-150 %*	"	"	"	
SB-8-12.5' (A3I0375-03)			**Matrix: Soil**		**Batch: 3090455**			
Gasoline Range Organics	ND	---	26.4	mg/kg dry	1	09/19/13 22:33	NWTPH-HCID	
Diesel Range Organics	ND	---	65.9	"	"	"	"	
Oil Range Organics	ND	---	132	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 105 %*	*Limits: 50-150 %*	"	"	"	
SB-12-12.5' (A3I0375-04)			**Matrix: Soil**		**Batch: 3090455**			
Gasoline Range Organics	ND	---	27.4	mg/kg dry	1	09/19/13 22:57	NWTPH-HCID	
Diesel Range Organics	ND	---	68.5	"	"	"	"	
Oil Range Organics	ND	---	137	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 108 %*	*Limits: 50-150 %*	"	"	"	
SB-16-12.5' (A3I0375-05)			**Matrix: Soil**		**Batch: 3090455**			
Gasoline Range Organics	ND	---	26.8	mg/kg dry	1	09/19/13 23:21	NWTPH-HCID	
Diesel Range Organics	ND	---	66.9	"	"	"	"	
Oil Range Organics	ND	---	134	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 105 %*	*Limits: 50-150 %*	"	"	"	
SB-17-12.5' (A3I0375-06)			**Matrix: Soil**		**Batch: 3090455**			
Gasoline Range Organics	ND	---	25.8	mg/kg dry	1	09/19/13 23:45	NWTPH-HCID	
Diesel Range Organics	ND	---	64.5	"	"	"	"	
Oil Range Organics	ND	---	129	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 98 %*	*Limits: 50-150 %*	"	"	"	

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-3-12.5' (A3I0375-01)			**Matrix: Soil**		**Batch: 3090434**			**V-15**
Acetone	ND	---	1390	ug/kg dry	50	09/19/13 16:14	5035/8260B	
Benzene	ND	---	17.4	"	"	"	"	
Bromobenzene	ND	---	34.7	"	"	"	"	
Bromochloromethane	ND	---	69.4	"	"	"	"	
Bromodichloromethane	ND	---	69.4	"	"	"	"	
Bromoform	ND	---	69.4	"	"	"	"	
Bromomethane	ND	---	694	"	"	"	"	
2-Butanone (MEK)	ND	---	694	"	"	"	"	
n-Butylbenzene	ND	---	69.4	"	"	"	"	
sec-Butylbenzene	ND	---	69.4	"	"	"	"	
tert-Butylbenzene	ND	---	69.4	"	"	"	"	
Carbon tetrachloride	ND	---	34.7	"	"	"	"	
Chlorobenzene	ND	---	34.7	"	"	"	"	
Chloroethane	ND	---	694	"	"	"	"	
Chloroform	ND	---	69.4	"	"	"	"	
Chloromethane	ND	---	347	"	"	"	"	
2-Chlorotoluene	ND	---	69.4	"	"	"	"	
4-Chlorotoluene	ND	---	69.4	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	---	347	"	"	"	"	
Dibromochloromethane	ND	---	139	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	---	34.7	"	"	"	"	
Dibromomethane	ND	---	69.4	"	"	"	"	
1,2-Dichlorobenzene	ND	---	34.7	"	"	"	"	
1,3-Dichlorobenzene	ND	---	34.7	"	"	"	"	
1,4-Dichlorobenzene	ND	---	34.7	"	"	"	"	
Dichlorodifluoromethane	ND	---	139	"	"	"	"	
1,1-Dichloroethane	ND	---	34.7	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	---	34.7	"	"	"	"	
1,1-Dichloroethene	ND	---	34.7	"	"	"	"	
cis-1,2-Dichloroethene	ND	---	34.7	"	"	"	"	
trans-1,2-Dichloroethene	ND	---	34.7	"	"	"	"	
1,2-Dichloropropane	ND	---	34.7	"	"	"	"	
1,3-Dichloropropane	ND	---	34.7	"	"	"	"	
2,2-Dichloropropane	ND	---	69.4	"	"	"	"	
1,1-Dichloropropene	ND	---	69.4	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

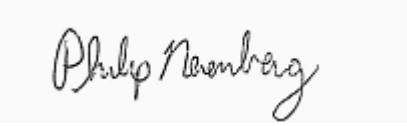
Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-3-12.5' (A3I0375-01)			**Matrix: Soil**		**Batch: 3090434**			**V-15**
cis-1,3-Dichloropropene	ND	---	69.4	ug/kg dry	50	"	5035/8260B	
trans-1,3-Dichloropropene	ND	---	69.4	"	"	"	"	
Ethylbenzene	ND	---	34.7	"	"	"	"	
Hexachlorobutadiene	ND	---	139	"	"	"	"	
2-Hexanone	ND	---	694	"	"	"	"	
Isopropylbenzene	ND	---	69.4	"	"	"	"	
4-Isopropyltoluene	ND	---	69.4	"	"	"	"	
4-Methyl-2-pentanone (MiBK)	ND	---	694	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	---	69.4	"	"	"	"	
Methylene chloride	ND	---	347	"	"	"	"	
Naphthalene	ND	---	139	"	"	"	"	
n-Propylbenzene	ND	---	34.7	"	"	"	"	
Styrene	ND	---	69.4	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	---	69.4	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	---	34.7	"	"	"	"	
Tetrachloroethene (PCE)	ND	---	34.7	"	"	"	"	
Toluene	ND	---	69.4	"	"	"	"	
1,2,3-Trichlorobenzene	ND	---	347	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	347	"	"	"	"	
1,1,1-Trichloroethane	ND	---	34.7	"	"	"	"	
1,1,2-Trichloroethane	ND	---	34.7	"	"	"	"	
Trichloroethene (TCE)	ND	---	34.7	"	"	"	"	
Trichlorofluoromethane	ND	---	139	"	"	"	"	
1,2,3-Trichloropropane	ND	---	69.4	"	"	"	"	
1,2,4-Trimethylbenzene	ND	---	69.4	"	"	"	"	
1,3,5-Trimethylbenzene	ND	---	69.4	"	"	"	"	
Vinyl chloride	ND	---	34.7	"	"	"	"	
m,p-Xylene	ND	---	69.4	"	"	"	"	
o-Xylene	ND	---	34.7	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 101 %*	*Limits: 70-130 %*	1	"	"	
1,4-Difluorobenzene (Surr)			*97 %*	*Limits: 70-130 %*	"	"	"	
Toluene-d8 (Surr)			*96 %*	*Limits: 70-130 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*97 %*	*Limits: 70-130 %*	"	"	"	

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-7-12.5' (A3I0375-02)			**Matrix: Soil**		**Batch: 3090434**			**V-15**
Acetone	ND	---	1340	ug/kg dry	50	09/19/13 16:40	5035/8260B	
Benzene	ND	---	16.8	"	"	"	"	
Bromobenzene	ND	---	33.5	"	"	"	"	
Bromochloromethane	ND	---	67.0	"	"	"	"	
Bromodichloromethane	ND	---	67.0	"	"	"	"	
Bromoform	ND	---	67.0	"	"	"	"	
Bromomethane	ND	---	670	"	"	"	"	
2-Butanone (MEK)	ND	---	670	"	"	"	"	
n-Butylbenzene	ND	---	67.0	"	"	"	"	
sec-Butylbenzene	ND	---	67.0	"	"	"	"	
tert-Butylbenzene	ND	---	67.0	"	"	"	"	
Carbon tetrachloride	ND	---	33.5	"	"	"	"	
Chlorobenzene	ND	---	33.5	"	"	"	"	
Chloroethane	ND	---	670	"	"	"	"	
Chloroform	ND	---	67.0	"	"	"	"	
Chloromethane	ND	---	335	"	"	"	"	
2-Chlorotoluene	ND	---	67.0	"	"	"	"	
4-Chlorotoluene	ND	---	67.0	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	---	335	"	"	"	"	
Dibromochloromethane	ND	---	134	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	---	33.5	"	"	"	"	
Dibromomethane	ND	---	67.0	"	"	"	"	
1,2-Dichlorobenzene	ND	---	33.5	"	"	"	"	
1,3-Dichlorobenzene	ND	---	33.5	"	"	"	"	
1,4-Dichlorobenzene	ND	---	33.5	"	"	"	"	
Dichlorodifluoromethane	ND	---	134	"	"	"	"	
1,1-Dichloroethane	ND	---	33.5	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	---	33.5	"	"	"	"	
1,1-Dichloroethene	ND	---	33.5	"	"	"	"	
cis-1,2-Dichloroethene	ND	---	33.5	"	"	"	"	
trans-1,2-Dichloroethene	ND	---	33.5	"	"	"	"	
1,2-Dichloropropane	ND	---	33.5	"	"	"	"	
1,3-Dichloropropane	ND	---	33.5	"	"	"	"	
2,2-Dichloropropane	ND	---	67.0	"	"	"	"	
1,1-Dichloropropene	ND	---	67.0	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-7-12.5' (A3I0375-02)			**Matrix: Soil**		**Batch: 3090434**			**V-15**
cis-1,3-Dichloropropene	ND	---	67.0	ug/kg dry	50	"	5035/8260B	
trans-1,3-Dichloropropene	ND	---	67.0	"	"	"	"	
Ethylbenzene	ND	---	33.5	"	"	"	"	
Hexachlorobutadiene	ND	---	134	"	"	"	"	
2-Hexanone	ND	---	670	"	"	"	"	
Isopropylbenzene	ND	---	67.0	"	"	"	"	
4-Isopropyltoluene	ND	---	67.0	"	"	"	"	
4-Methyl-2-pentanone (MiBK)	ND	---	670	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	---	67.0	"	"	"	"	
Methylene chloride	ND	---	335	"	"	"	"	
Naphthalene	ND	---	134	"	"	"	"	
n-Propylbenzene	ND	---	33.5	"	"	"	"	
Styrene	ND	---	67.0	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	---	67.0	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	---	33.5	"	"	"	"	
Tetrachloroethene (PCE)	ND	---	33.5	"	"	"	"	
Toluene	ND	---	67.0	"	"	"	"	
1,2,3-Trichlorobenzene	ND	---	335	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	335	"	"	"	"	
1,1,1-Trichloroethane	ND	---	33.5	"	"	"	"	
1,1,2-Trichloroethane	ND	---	33.5	"	"	"	"	
Trichloroethene (TCE)	ND	---	33.5	"	"	"	"	
Trichlorofluoromethane	ND	---	134	"	"	"	"	
1,2,3-Trichloropropane	ND	---	67.0	"	"	"	"	
1,2,4-Trimethylbenzene	ND	---	67.0	"	"	"	"	
1,3,5-Trimethylbenzene	ND	---	67.0	"	"	"	"	
Vinyl chloride	ND	---	33.5	"	"	"	"	
m,p-Xylene	ND	---	67.0	"	"	"	"	
o-Xylene	ND	---	33.5	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 104 %*	*Limits: 70-130 %*	1	"	"	
1,4-Difluorobenzene (Surr)			*96 %*	*Limits: 70-130 %*	"	"	"	
Toluene-d8 (Surr)			*94 %*	*Limits: 70-130 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*93 %*	*Limits: 70-130 %*	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

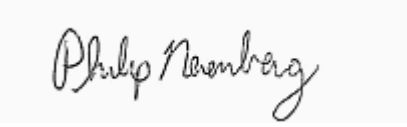
Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-8-12.5' (A3I0375-03)			**Matrix: Soil**		**Batch: 3090434**			**V-15**
Acetone	ND	---	1240	ug/kg dry	50	09/19/13 17:06	5035/8260B	
Benzene	ND	---	15.6	"	"	"	"	
Bromobenzene	ND	---	31.1	"	"	"	"	
Bromochloromethane	ND	---	62.2	"	"	"	"	
Bromodichloromethane	ND	---	62.2	"	"	"	"	
Bromoform	ND	---	62.2	"	"	"	"	
Bromomethane	ND	---	622	"	"	"	"	
2-Butanone (MEK)	ND	---	622	"	"	"	"	
n-Butylbenzene	ND	---	62.2	"	"	"	"	
sec-Butylbenzene	ND	---	62.2	"	"	"	"	
tert-Butylbenzene	ND	---	62.2	"	"	"	"	
Carbon tetrachloride	ND	---	31.1	"	"	"	"	
Chlorobenzene	ND	---	31.1	"	"	"	"	
Chloroethane	ND	---	622	"	"	"	"	
Chloroform	ND	---	62.2	"	"	"	"	
Chloromethane	ND	---	311	"	"	"	"	
2-Chlorotoluene	ND	---	62.2	"	"	"	"	
4-Chlorotoluene	ND	---	62.2	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	---	311	"	"	"	"	
Dibromochloromethane	ND	---	124	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	---	31.1	"	"	"	"	
Dibromomethane	ND	---	62.2	"	"	"	"	
1,2-Dichlorobenzene	ND	---	31.1	"	"	"	"	
1,3-Dichlorobenzene	ND	---	31.1	"	"	"	"	
1,4-Dichlorobenzene	ND	---	31.1	"	"	"	"	
Dichlorodifluoromethane	ND	---	124	"	"	"	"	
1,1-Dichloroethane	ND	---	31.1	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	---	31.1	"	"	"	"	
1,1-Dichloroethene	ND	---	31.1	"	"	"	"	
cis-1,2-Dichloroethene	ND	---	31.1	"	"	"	"	
trans-1,2-Dichloroethene	ND	---	31.1	"	"	"	"	
1,2-Dichloropropane	ND	---	31.1	"	"	"	"	
1,3-Dichloropropane	ND	---	31.1	"	"	"	"	
2,2-Dichloropropane	ND	---	62.2	"	"	"	"	
1,1-Dichloropropene	ND	---	62.2	"	"	"	"	

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-8-12.5' (A3I0375-03)			**Matrix: Soil**		**Batch: 3090434**			**V-15**
cis-1,3-Dichloropropene	ND	---	62.2	ug/kg dry	50	"	5035/8260B	
trans-1,3-Dichloropropene	ND	---	62.2	"	"	"	"	
Ethylbenzene	ND	---	31.1	"	"	"	"	
Hexachlorobutadiene	ND	---	124	"	"	"	"	
2-Hexanone	ND	---	622	"	"	"	"	
Isopropylbenzene	ND	---	62.2	"	"	"	"	
4-Isopropyltoluene	ND	---	62.2	"	"	"	"	
4-Methyl-2-pentanone (MiBK)	ND	---	622	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	---	62.2	"	"	"	"	
Methylene chloride	ND	---	311	"	"	"	"	
Naphthalene	ND	---	124	"	"	"	"	
n-Propylbenzene	ND	---	31.1	"	"	"	"	
Styrene	ND	---	62.2	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	---	62.2	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	---	31.1	"	"	"	"	
Tetrachloroethene (PCE)	ND	---	31.1	"	"	"	"	
Toluene	ND	---	62.2	"	"	"	"	
1,2,3-Trichlorobenzene	ND	---	311	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	311	"	"	"	"	
1,1,1-Trichloroethane	ND	---	31.1	"	"	"	"	
1,1,2-Trichloroethane	ND	---	31.1	"	"	"	"	
Trichloroethene (TCE)	ND	---	31.1	"	"	"	"	
Trichlorofluoromethane	ND	---	124	"	"	"	"	
1,2,3-Trichloropropane	ND	---	62.2	"	"	"	"	
1,2,4-Trimethylbenzene	ND	---	62.2	"	"	"	"	
1,3,5-Trimethylbenzene	ND	---	62.2	"	"	"	"	
Vinyl chloride	ND	---	31.1	"	"	"	"	
m,p-Xylene	ND	---	62.2	"	"	"	"	
o-Xylene	ND	---	31.1	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 104 %*	*Limits: 70-130 %*	1	"	"	
1,4-Difluorobenzene (Surr)			*100 %*	*Limits: 70-130 %*	"	"	"	
Toluene-d8 (Surr)			*97 %*	*Limits: 70-130 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*95 %*	*Limits: 70-130 %*	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-12-12.5' (A3I0375-04)			**Matrix: Soil**		**Batch: 3090434**			**V-15**
Acetone	ND	---	1480	ug/kg dry	50	09/19/13 17:32	5035/8260B	
Benzene	ND	---	18.5	"	"	"	"	
Bromobenzene	ND	---	37.1	"	"	"	"	
Bromochloromethane	ND	---	74.1	"	"	"	"	
Bromodichloromethane	ND	---	74.1	"	"	"	"	
Bromoform	ND	---	74.1	"	"	"	"	
Bromomethane	ND	---	741	"	"	"	"	
2-Butanone (MEK)	ND	---	741	"	"	"	"	
n-Butylbenzene	ND	---	74.1	"	"	"	"	
sec-Butylbenzene	ND	---	74.1	"	"	"	"	
tert-Butylbenzene	ND	---	74.1	"	"	"	"	
Carbon tetrachloride	ND	---	37.1	"	"	"	"	
Chlorobenzene	ND	---	37.1	"	"	"	"	
Chloroethane	ND	---	741	"	"	"	"	
Chloroform	ND	---	74.1	"	"	"	"	
Chloromethane	ND	---	371	"	"	"	"	
2-Chlorotoluene	ND	---	74.1	"	"	"	"	
4-Chlorotoluene	ND	---	74.1	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	---	371	"	"	"	"	
Dibromochloromethane	ND	---	148	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	---	37.1	"	"	"	"	
Dibromomethane	ND	---	74.1	"	"	"	"	
1,2-Dichlorobenzene	ND	---	37.1	"	"	"	"	
1,3-Dichlorobenzene	ND	---	37.1	"	"	"	"	
1,4-Dichlorobenzene	ND	---	37.1	"	"	"	"	
Dichlorodifluoromethane	ND	---	148	"	"	"	"	
1,1-Dichloroethane	ND	---	37.1	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	---	37.1	"	"	"	"	
1,1-Dichloroethene	ND	---	37.1	"	"	"	"	
cis-1,2-Dichloroethene	ND	---	37.1	"	"	"	"	
trans-1,2-Dichloroethene	ND	---	37.1	"	"	"	"	
1,2-Dichloropropane	ND	---	37.1	"	"	"	"	
1,3-Dichloropropane	ND	---	37.1	"	"	"	"	
2,2-Dichloropropane	ND	---	74.1	"	"	"	"	
1,1-Dichloropropene	ND	---	74.1	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-12-12.5' (A3I0375-04)			**Matrix: Soil**		**Batch: 3090434**			**V-15**
cis-1,3-Dichloropropene	ND	---	74.1	ug/kg dry	50	"	5035/8260B	
trans-1,3-Dichloropropene	ND	---	74.1	"	"	"	"	
Ethylbenzene	ND	---	37.1	"	"	"	"	
Hexachlorobutadiene	ND	---	148	"	"	"	"	
2-Hexanone	ND	---	741	"	"	"	"	
Isopropylbenzene	ND	---	74.1	"	"	"	"	
4-Isopropyltoluene	ND	---	74.1	"	"	"	"	
4-Methyl-2-pentanone (MiBK)	ND	---	741	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	---	74.1	"	"	"	"	
Methylene chloride	ND	---	371	"	"	"	"	
Naphthalene	ND	---	148	"	"	"	"	
n-Propylbenzene	ND	---	37.1	"	"	"	"	
Styrene	ND	---	74.1	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	---	74.1	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	---	37.1	"	"	"	"	
Tetrachloroethene (PCE)	ND	---	37.1	"	"	"	"	
Toluene	ND	---	74.1	"	"	"	"	
1,2,3-Trichlorobenzene	ND	---	371	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	371	"	"	"	"	
1,1,1-Trichloroethane	ND	---	37.1	"	"	"	"	
1,1,2-Trichloroethane	ND	---	37.1	"	"	"	"	
Trichloroethene (TCE)	ND	---	37.1	"	"	"	"	
Trichlorofluoromethane	ND	---	148	"	"	"	"	
1,2,3-Trichloropropane	ND	---	74.1	"	"	"	"	
1,2,4-Trimethylbenzene	ND	---	74.1	"	"	"	"	
1,3,5-Trimethylbenzene	ND	---	74.1	"	"	"	"	
Vinyl chloride	ND	---	37.1	"	"	"	"	
m,p-Xylene	ND	---	74.1	"	"	"	"	
o-Xylene	ND	---	37.1	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 103 %*	*Limits: 70-130 %*	1	"	"	
1,4-Difluorobenzene (Surr)			*97 %*	*Limits: 70-130 %*	"	"	"	
Toluene-d8 (Surr)			*100 %*	*Limits: 70-130 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*93 %*	*Limits: 70-130 %*	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-16-12.5' (A3I0375-05)			**Matrix: Soil**		**Batch: 3090434**			**V-15**
Acetone	ND	---	1420	ug/kg dry	50	09/19/13 17:58	5035/8260B	
Benzene	ND	---	17.7	"	"	"	"	
Bromobenzene	ND	---	35.4	"	"	"	"	
Bromochloromethane	ND	---	70.8	"	"	"	"	
Bromodichloromethane	ND	---	70.8	"	"	"	"	
Bromoform	ND	---	70.8	"	"	"	"	
Bromomethane	ND	---	708	"	"	"	"	
2-Butanone (MEK)	ND	---	708	"	"	"	"	
n-Butylbenzene	ND	---	70.8	"	"	"	"	
sec-Butylbenzene	ND	---	70.8	"	"	"	"	
tert-Butylbenzene	ND	---	70.8	"	"	"	"	
Carbon tetrachloride	ND	---	35.4	"	"	"	"	
Chlorobenzene	ND	---	35.4	"	"	"	"	
Chloroethane	ND	---	708	"	"	"	"	
Chloroform	ND	---	70.8	"	"	"	"	
Chloromethane	ND	---	354	"	"	"	"	
2-Chlorotoluene	ND	---	70.8	"	"	"	"	
4-Chlorotoluene	ND	---	70.8	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	---	354	"	"	"	"	
Dibromochloromethane	ND	---	142	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	---	35.4	"	"	"	"	
Dibromomethane	ND	---	70.8	"	"	"	"	
1,2-Dichlorobenzene	ND	---	35.4	"	"	"	"	
1,3-Dichlorobenzene	ND	---	35.4	"	"	"	"	
1,4-Dichlorobenzene	ND	---	35.4	"	"	"	"	
Dichlorodifluoromethane	ND	---	142	"	"	"	"	
1,1-Dichloroethane	ND	---	35.4	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	---	35.4	"	"	"	"	
1,1-Dichloroethene	ND	---	35.4	"	"	"	"	
cis-1,2-Dichloroethene	ND	---	35.4	"	"	"	"	
trans-1,2-Dichloroethene	ND	---	35.4	"	"	"	"	
1,2-Dichloropropane	ND	---	35.4	"	"	"	"	
1,3-Dichloropropane	ND	---	35.4	"	"	"	"	
2,2-Dichloropropane	ND	---	70.8	"	"	"	"	
1,1-Dichloropropene	ND	---	70.8	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-16-12.5' (A3I0375-05)			**Matrix: Soil**		**Batch: 3090434**			**V-15**
cis-1,3-Dichloropropene	ND	---	70.8	ug/kg dry	50	"	5035/8260B	
trans-1,3-Dichloropropene	ND	---	70.8	"	"	"	"	
Ethylbenzene	ND	---	35.4	"	"	"	"	
Hexachlorobutadiene	ND	---	142	"	"	"	"	
2-Hexanone	ND	---	708	"	"	"	"	
Isopropylbenzene	ND	---	70.8	"	"	"	"	
4-Isopropyltoluene	ND	---	70.8	"	"	"	"	
4-Methyl-2-pentanone (MiBK)	ND	---	708	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	---	70.8	"	"	"	"	
Methylene chloride	ND	---	354	"	"	"	"	
Naphthalene	ND	---	142	"	"	"	"	
n-Propylbenzene	ND	---	35.4	"	"	"	"	
Styrene	ND	---	70.8	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	---	70.8	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	---	35.4	"	"	"	"	
Tetrachloroethene (PCE)	ND	---	35.4	"	"	"	"	
Toluene	ND	---	70.8	"	"	"	"	
1,2,3-Trichlorobenzene	ND	---	354	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	354	"	"	"	"	
1,1,1-Trichloroethane	ND	---	35.4	"	"	"	"	
1,1,2-Trichloroethane	ND	---	35.4	"	"	"	"	
Trichloroethene (TCE)	ND	---	35.4	"	"	"	"	
Trichlorofluoromethane	ND	---	142	"	"	"	"	
1,2,3-Trichloropropane	ND	---	70.8	"	"	"	"	
1,2,4-Trimethylbenzene	ND	---	70.8	"	"	"	"	
1,3,5-Trimethylbenzene	ND	---	70.8	"	"	"	"	
Vinyl chloride	ND	---	35.4	"	"	"	"	
m,p-Xylene	ND	---	70.8	"	"	"	"	
o-Xylene	ND	---	35.4	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 109 %*	*Limits: 70-130 %*	1	"	"	
1,4-Difluorobenzene (Surr)			*101 %*	*Limits: 70-130 %*	"	"	"	
Toluene-d8 (Surr)			*99 %*	*Limits: 70-130 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*93 %*	*Limits: 70-130 %*	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-17-12.5' (A3I0375-06)			**Matrix: Soil**		**Batch: 3090434**			**V-15**
Acetone	ND	---	1320	ug/kg dry	50	09/19/13 18:23	5035/8260B	
Benzene	ND	---	16.5	"	"	"	"	
Bromobenzene	ND	---	33.0	"	"	"	"	
Bromochloromethane	ND	---	66.0	"	"	"	"	
Bromodichloromethane	ND	---	66.0	"	"	"	"	
Bromoform	ND	---	66.0	"	"	"	"	
Bromomethane	ND	---	660	"	"	"	"	
2-Butanone (MEK)	ND	---	660	"	"	"	"	
n-Butylbenzene	ND	---	66.0	"	"	"	"	
sec-Butylbenzene	ND	---	66.0	"	"	"	"	
tert-Butylbenzene	ND	---	66.0	"	"	"	"	
Carbon tetrachloride	ND	---	33.0	"	"	"	"	
Chlorobenzene	ND	---	33.0	"	"	"	"	
Chloroethane	ND	---	660	"	"	"	"	
Chloroform	ND	---	66.0	"	"	"	"	
Chloromethane	ND	---	330	"	"	"	"	
2-Chlorotoluene	ND	---	66.0	"	"	"	"	
4-Chlorotoluene	ND	---	66.0	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	---	330	"	"	"	"	
Dibromochloromethane	ND	---	132	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	---	33.0	"	"	"	"	
Dibromomethane	ND	---	66.0	"	"	"	"	
1,2-Dichlorobenzene	ND	---	33.0	"	"	"	"	
1,3-Dichlorobenzene	ND	---	33.0	"	"	"	"	
1,4-Dichlorobenzene	ND	---	33.0	"	"	"	"	
Dichlorodifluoromethane	ND	---	132	"	"	"	"	
1,1-Dichloroethane	ND	---	33.0	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	---	33.0	"	"	"	"	
1,1-Dichloroethene	ND	---	33.0	"	"	"	"	
cis-1,2-Dichloroethene	ND	---	33.0	"	"	"	"	
trans-1,2-Dichloroethene	ND	---	33.0	"	"	"	"	
1,2-Dichloropropane	ND	---	33.0	"	"	"	"	
1,3-Dichloropropane	ND	---	33.0	"	"	"	"	
2,2-Dichloropropane	ND	---	66.0	"	"	"	"	
1,1-Dichloropropene	ND	---	66.0	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

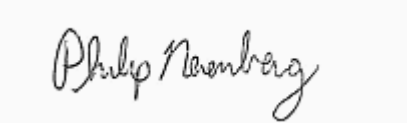
Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

ANALYTICAL SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-17-12.5' (A3I0375-06)			**Matrix: Soil**		**Batch: 3090434**			**V-15**
cis-1,3-Dichloropropene	ND	---	66.0	ug/kg dry	50	"	5035/8260B	
trans-1,3-Dichloropropene	ND	---	66.0	"	"	"	"	
Ethylbenzene	ND	---	33.0	"	"	"	"	
Hexachlorobutadiene	ND	---	132	"	"	"	"	
2-Hexanone	ND	---	660	"	"	"	"	
Isopropylbenzene	ND	---	66.0	"	"	"	"	
4-Isopropyltoluene	ND	---	66.0	"	"	"	"	
4-Methyl-2-pentanone (MiBK)	ND	---	660	"	"	"	"	
Methyl tert-butyl ether (MTBE)	ND	---	66.0	"	"	"	"	
Methylene chloride	ND	---	330	"	"	"	"	
Naphthalene	ND	---	132	"	"	"	"	
n-Propylbenzene	ND	---	33.0	"	"	"	"	
Styrene	ND	---	66.0	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	---	66.0	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	---	33.0	"	"	"	"	
Tetrachloroethene (PCE)	ND	---	33.0	"	"	"	"	
Toluene	ND	---	66.0	"	"	"	"	
1,2,3-Trichlorobenzene	ND	---	330	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	330	"	"	"	"	
1,1,1-Trichloroethane	ND	---	33.0	"	"	"	"	
1,1,2-Trichloroethane	ND	---	33.0	"	"	"	"	
Trichloroethene (TCE)	ND	---	33.0	"	"	"	"	
Trichlorofluoromethane	ND	---	132	"	"	"	"	
1,2,3-Trichloropropane	ND	---	66.0	"	"	"	"	
1,2,4-Trimethylbenzene	ND	---	66.0	"	"	"	"	
1,3,5-Trimethylbenzene	ND	---	66.0	"	"	"	"	
Vinyl chloride	ND	---	33.0	"	"	"	"	
m,p-Xylene	ND	---	66.0	"	"	"	"	
o-Xylene	ND	---	33.0	"	"	"	"	
Surrogate: Dibromofluoromethane (Surr)			*Recovery: 103 %*	*Limits: 70-130 %*	1	"	"	
1,4-Difluorobenzene (Surr)			*97 %*	*Limits: 70-130 %*	"	"	"	
Toluene-d8 (Surr)			*95 %*	*Limits: 70-130 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*95 %*	*Limits: 70-130 %*	"	"	"	

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

ANALYTICAL SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-3-12.5' (A3I0375-01)			**Matrix: Soil**		**Batch: 3100002**			**C-07**
Aroclor 1016	ND	---	11.8	ug/kg dry	1	10/01/13 14:36	EPA 8082A	
Aroclor 1221	ND	---	11.8	"	"	"	"	
Aroclor 1232	ND	---	11.8	"	"	"	"	
Aroclor 1242	ND	---	11.8	"	"	"	"	
Aroclor 1248	ND	---	11.8	"	"	"	"	
Aroclor 1254	ND	---	11.8	"	"	"	"	
Aroclor 1260	ND	---	11.8	"	"	"	"	
Surrogate: Decachlorobiphenyl (Surr)			*Recovery: 46 %*	*Limits: 60-125 %*	"	"	"	*S-03*
SB-7-12.5' (A3I0375-02RE1)			**Matrix: Soil**		**Batch: 3100052**			**C-07**
Aroclor 1016	ND	---	12.2	ug/kg dry	1	10/02/13 15:54	EPA 8082A	
Aroclor 1221	ND	---	12.2	"	"	"	"	
Aroclor 1232	ND	---	12.2	"	"	"	"	
Aroclor 1242	ND	---	12.2	"	"	"	"	
Aroclor 1248	ND	---	12.2	"	"	"	"	
Aroclor 1254	ND	---	12.2	"	"	"	"	
Aroclor 1260	ND	---	12.2	"	"	"	"	
Surrogate: Decachlorobiphenyl (Surr)			*Recovery: 33 %*	*Limits: 60-125 %*	"	"	"	*S-03*
SB-8-12.5' (A3I0375-03RE1)			**Matrix: Soil**		**Batch: 3100052**			**C-07**
Aroclor 1016	ND	---	12.2	ug/kg dry	1	10/02/13 16:30	EPA 8082A	
Aroclor 1221	ND	---	12.2	"	"	"	"	
Aroclor 1232	ND	---	12.2	"	"	"	"	
Aroclor 1242	ND	---	12.2	"	"	"	"	
Aroclor 1248	ND	---	12.2	"	"	"	"	
Aroclor 1254	ND	---	12.2	"	"	"	"	
Aroclor 1260	ND	---	12.2	"	"	"	"	
Surrogate: Decachlorobiphenyl (Surr)			*Recovery: 40 %*	*Limits: 60-125 %*	"	"	"	*S-03*
SB-12-12.5' (A3I0375-04RE1)			**Matrix: Soil**		**Batch: 3100052**			**C-07**
Aroclor 1016	ND	---	13.2	ug/kg dry	1	10/02/13 16:48	EPA 8082A	
Aroclor 1221	ND	---	13.2	"	"	"	"	
Aroclor 1232	ND	---	13.2	"	"	"	"	
Aroclor 1242	ND	---	13.2	"	"	"	"	
Aroclor 1248	ND	---	13.2	"	"	"	"	
Aroclor 1254	ND	---	13.2	"	"	"	"	
Aroclor 1260	ND	---	13.2	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

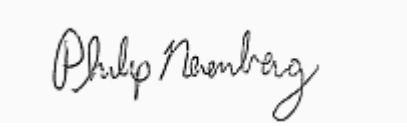
Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

ANALYTICAL SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-12-12.5' (A3I0375-04RE1)			**Matrix: Soil**		**Batch: 3100052**			**C-07**
Surrogate: Decachlorobiphenyl (Surr)			*Recovery: 33 %*	*Limits: 60-125 %*	1	"	EPA 8082A	*S-03*
SB-16-12.5' (A3I0375-05RE1)			**Matrix: Soil**		**Batch: 3100052**			**C-07**
Aroclor 1016	ND	---	12.8	ug/kg dry	1	10/02/13 17:06	EPA 8082A	
Aroclor 1221	ND	---	12.8	"	"	"	"	
Aroclor 1232	ND	---	12.8	"	"	"	"	
Aroclor 1242	ND	---	12.8	"	"	"	"	
Aroclor 1248	ND	---	12.8	"	"	"	"	
Aroclor 1254	ND	---	12.8	"	"	"	"	
Aroclor 1260	ND	---	12.8	"	"	"	"	
Surrogate: Decachlorobiphenyl (Surr)			*Recovery: 41 %*	*Limits: 60-125 %*	"	"	"	*S-03*
SB-17-12.5' (A3I0375-06RE1)			**Matrix: Soil**		**Batch: 3100052**			**C-07**
Aroclor 1016	ND	---	12.2	ug/kg dry	1	10/02/13 17:25	EPA 8082A	
Aroclor 1221	ND	---	12.2	"	"	"	"	
Aroclor 1232	ND	---	12.2	"	"	"	"	
Aroclor 1242	ND	---	12.2	"	"	"	"	
Aroclor 1248	ND	---	12.2	"	"	"	"	
Aroclor 1254	ND	---	12.2	"	"	"	"	
Aroclor 1260	ND	---	12.2	"	"	"	"	
Surrogate: Decachlorobiphenyl (Surr)			*Recovery: 68 %*	*Limits: 60-125 %*	"	"	"	

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-3-12.5' (A3I0375-01RE1)			**Matrix: Soil**		**Batch: 3090616**			
Acenaphthene	ND	---	292	ug/kg dry	1	09/27/13 16:53	EPA 8270D	
Acenaphthylene	ND	---	292	"	"	"	"	
Aniline	ND	---	292	"	"	"	"	
Anthracene	ND	---	292	"	"	"	"	
Azobenzene (1,2-DPH)	ND	---	292	"	"	"	"	
Benz(a)anthracene	ND	---	292	"	"	"	"	
Benzo(a)pyrene	ND	---	292	"	"	"	"	
Benzo(b)fluoranthene	ND	---	292	"	"	"	"	
Benzo(k)fluoranthene	ND	---	292	"	"	"	"	
Benzo(g,h,i)perylene	ND	---	292	"	"	"	"	
Benzoic acid	ND	---	1460	"	"	"	"	
Benzyl alcohol	ND	---	292	"	"	"	"	
Bis(2-Chloroethoxy) methane	ND	---	292	"	"	"	"	
Bis(2-Chloroethyl) ether	ND	---	292	"	"	"	"	
Bis(2-Chloroisopropyl) ether	ND	---	292	"	"	"	"	
Bis(2-Ethylhexyl) adipate	ND	---	292	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	---	292	"	"	"	"	
4-Bromophenyl phenyl ether	ND	---	292	"	"	"	"	
Butyl benzyl phthalate	ND	---	292	"	"	"	"	
Carbazole	ND	---	292	"	"	"	"	
4-Chloroaniline	ND	---	292	"	"	"	"	
4-Chloro-3-methylphenol	ND	---	292	"	"	"	"	
2-Chloronaphthalene	ND	---	292	"	"	"	"	
2-Chlorophenol	ND	---	292	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	---	292	"	"	"	"	
Chrysene	ND	---	292	"	"	"	"	
Dibenz(a,h)anthracene	ND	---	292	"	"	"	"	
Dibenzofuran	ND	---	292	"	"	"	"	
1,2-Dichlorobenzene	ND	---	292	"	"	"	"	
1,3-Dichlorobenzene	ND	---	292	"	"	"	"	
1,4-Dichlorobenzene	ND	---	292	"	"	"	"	
2,4-Dichlorophenol	ND	---	292	"	"	"	"	
Di-n-butylphthalate	ND	---	292	"	"	"	"	
Diethylphthalate	ND	---	292	"	"	"	"	
Dimethylphthalate	ND	---	292	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-3-12.5' (A3I0375-01RE1)			**Matrix: Soil**		**Batch: 3090616**			
2,4-Dimethylphenol	ND	---	292	ug/kg dry	1	"	EPA 8270D	
1,2-Dinitrobenzene	ND	---	292	"	"	"	"	
1,3-Dinitrobenzene	ND	---	292	"	"	"	"	
1,4-Dinitrobenzene	ND	---	292	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	---	701	"	"	"	"	
2,4-Dinitrophenol	ND	---	292	"	"	"	"	
2,4-Dinitrotoluene	ND	---	292	"	"	"	"	
2,6-Dinitrotoluene	ND	---	292	"	"	"	"	
Di-n-octyl phthalate	ND	---	292	"	"	"	"	
Fluoranthene	ND	---	292	"	"	"	"	
Fluorene	ND	---	292	"	"	"	"	
Hexachlorobenzene	ND	---	292	"	"	"	"	
Hexachlorobutadiene	ND	---	292	"	"	"	"	
Hexachlorocyclopentadiene	ND	---	292	"	"	"	"	
Hexachloroethane	ND	---	292	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	---	292	"	"	"	"	
Isophorone	ND	---	292	"	"	"	"	
1-Methylnaphthalene	ND	---	292	"	"	"	"	
2-Methylnaphthalene	ND	---	292	"	"	"	"	
2-Methylphenol	ND	---	292	"	"	"	"	
3+4-Methylphenol(s)	ND	---	292	"	"	"	"	
Naphthalene	ND	---	292	"	"	"	"	
2-Nitroaniline	ND	---	292	"	"	"	"	
3-Nitroaniline	ND	---	292	"	"	"	"	
4-Nitroaniline	ND	---	292	"	"	"	"	
Nitrobenzene	ND	---	292	"	"	"	"	
2-Nitrophenol	ND	---	292	"	"	"	"	
4-Nitrophenol	ND	---	292	"	"	"	"	
N-Nitrosodimethylamine	ND	---	292	"	"	"	"	
N-Nitroso-di-n-propylamine	ND	---	292	"	"	"	"	
N-Nitrosodiphenylamine	ND	---	292	"	"	"	"	
Pentachlorophenol (PCP)	ND	---	292	"	"	"	"	
Phenanthrene	ND	---	292	"	"	"	"	
Phenol	ND	---	292	"	"	"	"	
Pyrene	ND	---	292	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-3-12.5' (A3I0375-01RE1)			**Matrix: Soil**		**Batch: 3090616**			
Pyridine	ND	---	585	ug/kg dry	1	"	EPA 8270D	
2,3,4,6-Tetrachlorophenol	ND	---	292	"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	---	292	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	292	"	"	"	"	
2,4,5-Trichlorophenol	ND	---	292	"	"	"	"	
2,4,6-Trichlorophenol	ND	---	292	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 76 %*	*Limits: 35-120 %*	"	"	"	
2-Fluorobiphenyl (Surr)			*67 %*	*Limits: 45-120 %*	"	"	"	
Phenol-d6 (Surr)			*75 %*	*Limits: 40-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*57 %*	*Limits: 30-125 %*	"	"	"	
2-Fluorophenol (Surr)			*73 %*	*Limits: 35-120 %*	"	"	"	
2,4,6-Tribromophenol (Surr)			*55 %*	*Limits: 35-125 %*	"	"	"	
SB-7-12.5' (A3I0375-02RE2)			**Matrix: Soil**		**Batch: 3090616**			
Acenaphthene	ND	---	310	ug/kg dry	1	09/30/13 10:46	EPA 8270D	
Acenaphthylene	ND	---	310	"	"	"	"	
Aniline	ND	---	310	"	"	"	"	
Anthracene	ND	---	310	"	"	"	"	
Azobenzene (1,2-DPH)	ND	---	310	"	"	"	"	
Benz(a)anthracene	ND	---	310	"	"	"	"	
Benzo(a)pyrene	ND	---	310	"	"	"	"	
Benzo(b)fluoranthene	ND	---	310	"	"	"	"	
Benzo(k)fluoranthene	ND	---	310	"	"	"	"	
Benzo(g,h,i)perylene	ND	---	310	"	"	"	"	
Benzoic acid	ND	---	1550	"	"	"	"	
Benzyl alcohol	ND	---	310	"	"	"	"	
Bis(2-Chloroethoxy) methane	ND	---	310	"	"	"	"	
Bis(2-Chloroethyl) ether	ND	---	310	"	"	"	"	
Bis(2-Chloroisopropyl) ether	ND	---	310	"	"	"	"	
Bis(2-Ethylhexyl) adipate	ND	---	310	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	---	310	"	"	"	"	
4-Bromophenyl phenyl ether	ND	---	310	"	"	"	"	
Butyl benzyl phthalate	ND	---	310	"	"	"	"	
Carbazole	ND	---	310	"	"	"	"	
4-Chloroaniline	ND	---	310	"	"	"	"	
4-Chloro-3-methylphenol	ND	---	310	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-7-12.5' (A3I0375-02RE2)			**Matrix: Soil**		**Batch: 3090616**			
2-Chloronaphthalene	ND	---	310	ug/kg dry	1	"	EPA 8270D	
2-Chlorophenol	ND	---	310	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	---	310	"	"	"	"	
Chrysene	ND	---	310	"	"	"	"	
Dibenz(a,h)anthracene	ND	---	310	"	"	"	"	
Dibenzofuran	ND	---	310	"	"	"	"	
1,2-Dichlorobenzene	ND	---	310	"	"	"	"	
1,3-Dichlorobenzene	ND	---	310	"	"	"	"	
1,4-Dichlorobenzene	ND	---	310	"	"	"	"	
2,4-Dichlorophenol	ND	---	310	"	"	"	"	
Di-n-butylphthalate	ND	---	310	"	"	"	"	
Diethylphthalate	ND	---	310	"	"	"	"	
Dimethylphthalate	ND	---	310	"	"	"	"	
2,4-Dimethylphenol	ND	---	310	"	"	"	"	
1,2-Dinitrobenzene	ND	---	310	"	"	"	"	
1,3-Dinitrobenzene	ND	---	310	"	"	"	"	
1,4-Dinitrobenzene	ND	---	310	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	---	743	"	"	"	"	
2,4-Dinitrophenol	ND	---	310	"	"	"	"	
2,4-Dinitrotoluene	ND	---	310	"	"	"	"	
2,6-Dinitrotoluene	ND	---	310	"	"	"	"	
Di-n-octyl phthalate	ND	---	310	"	"	"	"	
Fluoranthene	ND	---	310	"	"	"	"	
Fluorene	ND	---	310	"	"	"	"	
Hexachlorobenzene	ND	---	310	"	"	"	"	
Hexachlorobutadiene	ND	---	310	"	"	"	"	
Hexachlorocyclopentadiene	ND	---	310	"	"	"	"	
Hexachloroethane	ND	---	310	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	---	310	"	"	"	"	
Isophorone	ND	---	310	"	"	"	"	
1-Methylnaphthalene	ND	---	310	"	"	"	"	
2-Methylnaphthalene	ND	---	310	"	"	"	"	
2-Methylphenol	ND	---	310	"	"	"	"	
3+4-Methylphenol(s)	ND	---	310	"	"	"	"	
Naphthalene	ND	---	310	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

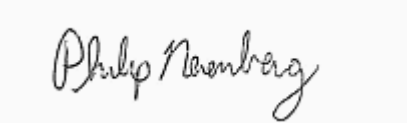
Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-7-12.5' (A3I0375-02RE2)			**Matrix: Soil**		**Batch: 3090616**			
2-Nitroaniline	ND	---	310	ug/kg dry	1	"	EPA 8270D	
3-Nitroaniline	ND	---	310	"	"	"	"	
4-Nitroaniline	ND	---	310	"	"	"	"	
Nitrobenzene	ND	---	310	"	"	"	"	
2-Nitrophenol	ND	---	310	"	"	"	"	
4-Nitrophenol	ND	---	310	"	"	"	"	
N-Nitrosodimethylamine	ND	---	310	"	"	"	"	
N-Nitroso-di-n-propylamine	ND	---	310	"	"	"	"	
N-Nitrosodiphenylamine	ND	---	310	"	"	"	"	
Pentachlorophenol (PCP)	ND	---	310	"	"	"	"	
Phenanthrene	ND	---	310	"	"	"	"	
Phenol	ND	---	310	"	"	"	"	
Pyrene	ND	---	310	"	"	"	"	
Pyridine	ND	---	619	"	"	"	"	
2,3,4,6-Tetrachlorophenol	ND	---	310	"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	---	310	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	310	"	"	"	"	
2,4,5-Trichlorophenol	ND	---	310	"	"	"	"	
2,4,6-Trichlorophenol	ND	---	310	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 70 %*	*Limits: 35-120 %*	"	"	"	
2-Fluorobiphenyl (Surr)			*70 %*	*Limits: 45-120 %*	"	"	"	
Phenol-d6 (Surr)			*72 %*	*Limits: 40-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*56 %*	*Limits: 30-125 %*	"	"	"	
2-Fluorophenol (Surr)			*74 %*	*Limits: 35-120 %*	"	"	"	
2,4,6-Tribromophenol (Surr)			*45 %*	*Limits: 35-125 %*	"	"	"	

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-8-12.5' (A3I0375-03RE1)			**Matrix: Soil**		**Batch: 3090616**			
Acenaphthene	ND	---	284	ug/kg dry	1	09/30/13 11:21	EPA 8270D	
Acenaphthylene	ND	---	284	"	"	"	"	
Aniline	ND	---	284	"	"	"	"	
Anthracene	ND	---	284	"	"	"	"	
Azobenzene (1,2-DPH)	ND	---	284	"	"	"	"	
Benz(a)anthracene	ND	---	284	"	"	"	"	
Benzo(a)pyrene	ND	---	284	"	"	"	"	
Benzo(b)fluoranthene	ND	---	284	"	"	"	"	
Benzo(k)fluoranthene	ND	---	284	"	"	"	"	
Benzo(g,h,i)perylene	ND	---	284	"	"	"	"	
Benzoic acid	ND	---	1420	"	"	"	"	
Benzyl alcohol	ND	---	284	"	"	"	"	
Bis(2-Chloroethoxy) methane	ND	---	284	"	"	"	"	
Bis(2-Chloroethyl) ether	ND	---	284	"	"	"	"	
Bis(2-Chloroisopropyl) ether	ND	---	284	"	"	"	"	
Bis(2-Ethylhexyl) adipate	ND	---	284	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	---	284	"	"	"	"	
4-Bromophenyl phenyl ether	ND	---	284	"	"	"	"	
Butyl benzyl phthalate	ND	---	284	"	"	"	"	
Carbazole	ND	---	284	"	"	"	"	
4-Chloroaniline	ND	---	284	"	"	"	"	
4-Chloro-3-methylphenol	ND	---	284	"	"	"	"	
2-Chloronaphthalene	ND	---	284	"	"	"	"	
2-Chlorophenol	ND	---	284	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	---	284	"	"	"	"	
Chrysene	ND	---	284	"	"	"	"	
Dibenz(a,h)anthracene	ND	---	284	"	"	"	"	
Dibenzofuran	ND	---	284	"	"	"	"	
1,2-Dichlorobenzene	ND	---	284	"	"	"	"	
1,3-Dichlorobenzene	ND	---	284	"	"	"	"	
1,4-Dichlorobenzene	ND	---	284	"	"	"	"	
2,4-Dichlorophenol	ND	---	284	"	"	"	"	
Di-n-butylphthalate	ND	---	284	"	"	"	"	
Diethylphthalate	ND	---	284	"	"	"	"	
Dimethylphthalate	ND	---	284	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-8-12.5' (A3I0375-03RE1)			**Matrix: Soil**		**Batch: 3090616**			
2,4-Dimethylphenol	ND	---	284	ug/kg dry	1	"	EPA 8270D	
1,2-Dinitrobenzene	ND	---	284	"	"	"	"	
1,3-Dinitrobenzene	ND	---	284	"	"	"	"	
1,4-Dinitrobenzene	ND	---	284	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	---	681	"	"	"	"	
2,4-Dinitrophenol	ND	---	284	"	"	"	"	
2,4-Dinitrotoluene	ND	---	284	"	"	"	"	
2,6-Dinitrotoluene	ND	---	284	"	"	"	"	
Di-n-octyl phthalate	ND	---	284	"	"	"	"	
Fluoranthene	ND	---	284	"	"	"	"	
Fluorene	ND	---	284	"	"	"	"	
Hexachlorobenzene	ND	---	284	"	"	"	"	
Hexachlorobutadiene	ND	---	284	"	"	"	"	
Hexachlorocyclopentadiene	ND	---	284	"	"	"	"	
Hexachloroethane	ND	---	284	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	---	284	"	"	"	"	
Isophorone	ND	---	284	"	"	"	"	
1-Methylnaphthalene	ND	---	284	"	"	"	"	
2-Methylnaphthalene	ND	---	284	"	"	"	"	
2-Methylphenol	ND	---	284	"	"	"	"	
3+4-Methylphenol(s)	ND	---	284	"	"	"	"	
Naphthalene	ND	---	284	"	"	"	"	
2-Nitroaniline	ND	---	284	"	"	"	"	
3-Nitroaniline	ND	---	284	"	"	"	"	
4-Nitroaniline	ND	---	284	"	"	"	"	
Nitrobenzene	ND	---	284	"	"	"	"	
2-Nitrophenol	ND	---	284	"	"	"	"	
4-Nitrophenol	ND	---	284	"	"	"	"	
N-Nitrosodimethylamine	ND	---	284	"	"	"	"	
N-Nitroso-di-n-propylamine	ND	---	284	"	"	"	"	
N-Nitrosodiphenylamine	ND	---	284	"	"	"	"	
Pentachlorophenol (PCP)	ND	---	284	"	"	"	"	
Phenanthrene	ND	---	284	"	"	"	"	
Phenol	ND	---	284	"	"	"	"	
Pyrene	ND	---	284	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-8-12.5' (A3I0375-03RE1)			**Matrix: Soil**		**Batch: 3090616**			
Pyridine	ND	---	568	ug/kg dry	1	"	EPA 8270D	
2,3,4,6-Tetrachlorophenol	ND	---	284	"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	---	284	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	284	"	"	"	"	
2,4,5-Trichlorophenol	ND	---	284	"	"	"	"	
2,4,6-Trichlorophenol	ND	---	284	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 84 %*	*Limits: 35-120 %*	"	"	"	
2-Fluorobiphenyl (Surr)			*81 %*	*Limits: 45-120 %*	"	"	"	
Phenol-d6 (Surr)			*97 %*	*Limits: 40-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*87 %*	*Limits: 30-125 %*	"	"	"	
2-Fluorophenol (Surr)			*95 %*	*Limits: 35-120 %*	"	"	"	
2,4,6-Tribromophenol (Surr)			*74 %*	*Limits: 35-125 %*	"	"	"	
SB-12-12.5' (A3I0375-04RE2)			**Matrix: Soil**		**Batch: 3090616**			
Acenaphthene	ND	---	324	ug/kg dry	1	09/27/13 09:49	EPA 8270D	
Acenaphthylene	ND	---	324	"	"	"	"	
Aniline	ND	---	324	"	"	"	"	
Anthracene	ND	---	324	"	"	"	"	
Azobenzene (1,2-DPH)	ND	---	324	"	"	"	"	
Benz(a)anthracene	ND	---	324	"	"	"	"	
Benzo(a)pyrene	ND	---	324	"	"	"	"	
Benzo(b)fluoranthene	ND	---	324	"	"	"	"	
Benzo(k)fluoranthene	ND	---	324	"	"	"	"	
Benzo(g,h,i)perylene	ND	---	324	"	"	"	"	
Benzoic acid	ND	---	1620	"	"	"	"	
Benzyl alcohol	ND	---	324	"	"	"	"	
Bis(2-Chloroethoxy) methane	ND	---	324	"	"	"	"	
Bis(2-Chloroethyl) ether	ND	---	324	"	"	"	"	
Bis(2-Chloroisopropyl) ether	ND	---	324	"	"	"	"	
Bis(2-Ethylhexyl) adipate	ND	---	324	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	---	324	"	"	"	"	
4-Bromophenyl phenyl ether	ND	---	324	"	"	"	"	
Butyl benzyl phthalate	ND	---	324	"	"	"	"	
Carbazole	ND	---	324	"	"	"	"	
4-Chloroaniline	ND	---	324	"	"	"	"	
4-Chloro-3-methylphenol	ND	---	324	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-12-12.5' (A3I0375-04RE2)			**Matrix: Soil**		**Batch: 3090616**			
2-Chloronaphthalene	ND	---	324	ug/kg dry	1	"	EPA 8270D	
2-Chlorophenol	ND	---	324	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	---	324	"	"	"	"	
Chrysene	ND	---	324	"	"	"	"	
Dibenz(a,h)anthracene	ND	---	324	"	"	"	"	
Dibenzofuran	ND	---	324	"	"	"	"	
1,2-Dichlorobenzene	ND	---	324	"	"	"	"	
1,3-Dichlorobenzene	ND	---	324	"	"	"	"	
1,4-Dichlorobenzene	ND	---	324	"	"	"	"	
2,4-Dichlorophenol	ND	---	324	"	"	"	"	
Di-n-butylphthalate	ND	---	324	"	"	"	"	
Diethylphthalate	ND	---	324	"	"	"	"	
Dimethylphthalate	ND	---	324	"	"	"	"	
2,4-Dimethylphenol	ND	---	324	"	"	"	"	
1,2-Dinitrobenzene	ND	---	324	"	"	"	"	
1,3-Dinitrobenzene	ND	---	324	"	"	"	"	
1,4-Dinitrobenzene	ND	---	324	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	---	778	"	"	"	"	
2,4-Dinitrophenol	ND	---	324	"	"	"	"	
2,4-Dinitrotoluene	ND	---	324	"	"	"	"	
2,6-Dinitrotoluene	ND	---	324	"	"	"	"	
Di-n-octyl phthalate	ND	---	324	"	"	"	"	
Fluoranthene	ND	---	324	"	"	"	"	
Fluorene	ND	---	324	"	"	"	"	
Hexachlorobenzene	ND	---	324	"	"	"	"	
Hexachlorobutadiene	ND	---	324	"	"	"	"	
Hexachlorocyclopentadiene	ND	---	324	"	"	"	"	
Hexachloroethane	ND	---	324	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	---	324	"	"	"	"	
Isophorone	ND	---	324	"	"	"	"	
1-Methylnaphthalene	ND	---	324	"	"	"	"	
2-Methylnaphthalene	ND	---	324	"	"	"	"	
2-Methylphenol	ND	---	324	"	"	"	"	
3+4-Methylphenol(s)	ND	---	324	"	"	"	"	
Naphthalene	ND	---	324	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

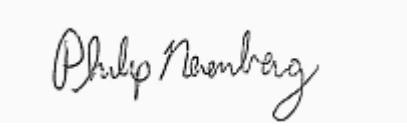
Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-12-12.5' (A3I0375-04RE2)			**Matrix: Soil**		**Batch: 3090616**			
2-Nitroaniline	ND	---	324	ug/kg dry	1	"	EPA 8270D	
3-Nitroaniline	ND	---	324	"	"	"	"	
4-Nitroaniline	ND	---	324	"	"	"	"	
Nitrobenzene	ND	---	324	"	"	"	"	
2-Nitrophenol	ND	---	324	"	"	"	"	
4-Nitrophenol	ND	---	324	"	"	"	"	
N-Nitrosodimethylamine	ND	---	324	"	"	"	"	
N-Nitroso-di-n-propylamine	ND	---	324	"	"	"	"	
N-Nitrosodiphenylamine	ND	---	324	"	"	"	"	
Pentachlorophenol (PCP)	ND	---	324	"	"	"	"	
Phenanthrene	ND	---	324	"	"	"	"	
Phenol	ND	---	324	"	"	"	"	
Pyrene	ND	---	324	"	"	"	"	
Pyridine	ND	---	649	"	"	"	"	
2,3,4,6-Tetrachlorophenol	ND	---	324	"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	---	324	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	324	"	"	"	"	
2,4,5-Trichlorophenol	ND	---	324	"	"	"	"	
2,4,6-Trichlorophenol	ND	---	324	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 84 %*	*Limits: 35-120 %*	"	"	"	
2-Fluorobiphenyl (Surr)			*82 %*	*Limits: 45-120 %*	"	"	"	
Phenol-d6 (Surr)			*97 %*	*Limits: 40-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*87 %*	*Limits: 30-125 %*	"	"	"	
2-Fluorophenol (Surr)			*93 %*	*Limits: 35-120 %*	"	"	"	
2,4,6-Tribromophenol (Surr)			*68 %*	*Limits: 35-125 %*	"	"	"	

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-16-12.5' (A3I0375-05RE1)			**Matrix: Soil**		**Batch: 3090616**			
Acenaphthene	ND	---	289	ug/kg dry	1	09/27/13 18:04	EPA 8270D	
Acenaphthylene	ND	---	289	"	"	"	"	
Aniline	ND	---	289	"	"	"	"	
Anthracene	ND	---	289	"	"	"	"	
Azobenzene (1,2-DPH)	ND	---	289	"	"	"	"	
Benz(a)anthracene	ND	---	289	"	"	"	"	
Benzo(a)pyrene	ND	---	289	"	"	"	"	
Benzo(b)fluoranthene	ND	---	289	"	"	"	"	
Benzo(k)fluoranthene	ND	---	289	"	"	"	"	
Benzo(g,h,i)perylene	ND	---	289	"	"	"	"	
Benzoic acid	ND	---	1450	"	"	"	"	
Benzyl alcohol	ND	---	289	"	"	"	"	
Bis(2-Chloroethoxy) methane	ND	---	289	"	"	"	"	
Bis(2-Chloroethyl) ether	ND	---	289	"	"	"	"	
Bis(2-Chloroisopropyl) ether	ND	---	289	"	"	"	"	
Bis(2-Ethylhexyl) adipate	ND	---	289	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	---	289	"	"	"	"	
4-Bromophenyl phenyl ether	ND	---	289	"	"	"	"	
Butyl benzyl phthalate	ND	---	289	"	"	"	"	
Carbazole	ND	---	289	"	"	"	"	
4-Chloroaniline	ND	---	289	"	"	"	"	
4-Chloro-3-methylphenol	ND	---	289	"	"	"	"	
2-Chloronaphthalene	ND	---	289	"	"	"	"	
2-Chlorophenol	ND	---	289	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	---	289	"	"	"	"	
Chrysene	ND	---	289	"	"	"	"	
Dibenz(a,h)anthracene	ND	---	289	"	"	"	"	
Dibenzofuran	ND	---	289	"	"	"	"	
1,2-Dichlorobenzene	ND	---	289	"	"	"	"	
1,3-Dichlorobenzene	ND	---	289	"	"	"	"	
1,4-Dichlorobenzene	ND	---	289	"	"	"	"	
2,4-Dichlorophenol	ND	---	289	"	"	"	"	
Di-n-butylphthalate	ND	---	289	"	"	"	"	
Diethylphthalate	ND	---	289	"	"	"	"	
Dimethylphthalate	ND	---	289	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-16-12.5' (A3I0375-05RE1)			**Matrix: Soil**		**Batch: 3090616**			
2,4-Dimethylphenol	ND	---	289	ug/kg dry	1	"	EPA 8270D	
1,2-Dinitrobenzene	ND	---	289	"	"	"	"	
1,3-Dinitrobenzene	ND	---	289	"	"	"	"	
1,4-Dinitrobenzene	ND	---	289	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	---	694	"	"	"	"	
2,4-Dinitrophenol	ND	---	289	"	"	"	"	
2,4-Dinitrotoluene	ND	---	289	"	"	"	"	
2,6-Dinitrotoluene	ND	---	289	"	"	"	"	
Di-n-octyl phthalate	ND	---	289	"	"	"	"	
Fluoranthene	ND	---	289	"	"	"	"	
Fluorene	ND	---	289	"	"	"	"	
Hexachlorobenzene	ND	---	289	"	"	"	"	
Hexachlorobutadiene	ND	---	289	"	"	"	"	
Hexachlorocyclopentadiene	ND	---	289	"	"	"	"	
Hexachloroethane	ND	---	289	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	---	289	"	"	"	"	
Isophorone	ND	---	289	"	"	"	"	
1-Methylnaphthalene	ND	---	289	"	"	"	"	
2-Methylnaphthalene	ND	---	289	"	"	"	"	
2-Methylphenol	ND	---	289	"	"	"	"	
3+4-Methylphenol(s)	ND	---	289	"	"	"	"	
Naphthalene	ND	---	289	"	"	"	"	
2-Nitroaniline	ND	---	289	"	"	"	"	
3-Nitroaniline	ND	---	289	"	"	"	"	
4-Nitroaniline	ND	---	289	"	"	"	"	
Nitrobenzene	ND	---	289	"	"	"	"	
2-Nitrophenol	ND	---	289	"	"	"	"	
4-Nitrophenol	ND	---	289	"	"	"	"	
N-Nitrosodimethylamine	ND	---	289	"	"	"	"	
N-Nitroso-di-n-propylamine	ND	---	289	"	"	"	"	
N-Nitrosodiphenylamine	ND	---	289	"	"	"	"	
Pentachlorophenol (PCP)	ND	---	289	"	"	"	"	
Phenanthrene	ND	---	289	"	"	"	"	
Phenol	ND	---	289	"	"	"	"	
Pyrene	ND	---	289	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-16-12.5' (A3I0375-05RE1)			**Matrix: Soil**		**Batch: 3090616**			
Pyridine	ND	---	578	ug/kg dry	1	"	EPA 8270D	
2,3,4,6-Tetrachlorophenol	ND	---	289	"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	---	289	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	289	"	"	"	"	
2,4,5-Trichlorophenol	ND	---	289	"	"	"	"	
2,4,6-Trichlorophenol	ND	---	289	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 70 %*	*Limits: 35-120 %*	"	"	"	
2-Fluorobiphenyl (Surr)			*68 %*	*Limits: 45-120 %*	"	"	"	
Phenol-d6 (Surr)			*68 %*	*Limits: 40-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*60 %*	*Limits: 30-125 %*	"	"	"	
2-Fluorophenol (Surr)			*68 %*	*Limits: 35-120 %*	"	"	"	
2,4,6-Tribromophenol (Surr)			*49 %*	*Limits: 35-125 %*	"	"	"	
SB-17-12.5' (A3I0375-06RE1)			**Matrix: Soil**		**Batch: 3090616**			
Acenaphthene	ND	---	300	ug/kg dry	1	09/27/13 10:24	EPA 8270D	
Acenaphthylene	ND	---	300	"	"	"	"	
Aniline	ND	---	300	"	"	"	"	
Anthracene	ND	---	300	"	"	"	"	
Azobenzene (1,2-DPH)	ND	---	300	"	"	"	"	
Benz(a)anthracene	ND	---	300	"	"	"	"	
Benzo(a)pyrene	ND	---	300	"	"	"	"	
Benzo(b)fluoranthene	ND	---	300	"	"	"	"	
Benzo(k)fluoranthene	ND	---	300	"	"	"	"	
Benzo(g,h,i)perylene	ND	---	300	"	"	"	"	
Benzoic acid	ND	---	1500	"	"	"	"	
Benzyl alcohol	ND	---	300	"	"	"	"	
Bis(2-Chloroethoxy) methane	ND	---	300	"	"	"	"	
Bis(2-Chloroethyl) ether	ND	---	300	"	"	"	"	
Bis(2-Chloroisopropyl) ether	ND	---	300	"	"	"	"	
Bis(2-Ethylhexyl) adipate	ND	---	300	"	"	"	"	
Bis(2-ethylhexyl)phthalate	ND	---	300	"	"	"	"	
4-Bromophenyl phenyl ether	ND	---	300	"	"	"	"	
Butyl benzyl phthalate	ND	---	300	"	"	"	"	
Carbazole	ND	---	300	"	"	"	"	
4-Chloroaniline	ND	---	300	"	"	"	"	
4-Chloro-3-methylphenol	ND	---	300	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-17-12.5' (A3I0375-06RE1)			**Matrix: Soil**		**Batch: 3090616**			
2-Chloronaphthalene	ND	---	300	ug/kg dry	1	"	EPA 8270D	
2-Chlorophenol	ND	---	300	"	"	"	"	
4-Chlorophenyl phenyl ether	ND	---	300	"	"	"	"	
Chrysene	ND	---	300	"	"	"	"	
Dibenz(a,h)anthracene	ND	---	300	"	"	"	"	
Dibenzofuran	ND	---	300	"	"	"	"	
1,2-Dichlorobenzene	ND	---	300	"	"	"	"	
1,3-Dichlorobenzene	ND	---	300	"	"	"	"	
1,4-Dichlorobenzene	ND	---	300	"	"	"	"	
2,4-Dichlorophenol	ND	---	300	"	"	"	"	
Di-n-butylphthalate	ND	---	300	"	"	"	"	
Diethylphthalate	ND	---	300	"	"	"	"	
Dimethylphthalate	ND	---	300	"	"	"	"	
2,4-Dimethylphenol	ND	---	300	"	"	"	"	
1,2-Dinitrobenzene	ND	---	300	"	"	"	"	
1,3-Dinitrobenzene	ND	---	300	"	"	"	"	
1,4-Dinitrobenzene	ND	---	300	"	"	"	"	
4,6-Dinitro-2-methylphenol	ND	---	719	"	"	"	"	
2,4-Dinitrophenol	ND	---	300	"	"	"	"	
2,4-Dinitrotoluene	ND	---	300	"	"	"	"	
2,6-Dinitrotoluene	ND	---	300	"	"	"	"	
Di-n-octyl phthalate	ND	---	300	"	"	"	"	
Fluoranthene	ND	---	300	"	"	"	"	
Fluorene	ND	---	300	"	"	"	"	
Hexachlorobenzene	ND	---	300	"	"	"	"	
Hexachlorobutadiene	ND	---	300	"	"	"	"	
Hexachlorocyclopentadiene	ND	---	300	"	"	"	"	
Hexachloroethane	ND	---	300	"	"	"	"	
Indeno(1,2,3-cd)pyrene	ND	---	300	"	"	"	"	
Isophorone	ND	---	300	"	"	"	"	
1-Methylnaphthalene	ND	---	300	"	"	"	"	
2-Methylnaphthalene	ND	---	300	"	"	"	"	
2-Methylphenol	ND	---	300	"	"	"	"	
3+4-Methylphenol(s)	ND	---	300	"	"	"	"	
Naphthalene	ND	---	300	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

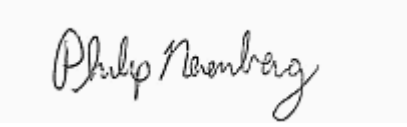
Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

ANALYTICAL SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-17-12.5' (A3I0375-06RE1)			**Matrix: Soil**		**Batch: 3090616**			
2-Nitroaniline	ND	---	300	ug/kg dry	1	"	EPA 8270D	
3-Nitroaniline	ND	---	300	"	"	"	"	
4-Nitroaniline	ND	---	300	"	"	"	"	
Nitrobenzene	ND	---	300	"	"	"	"	
2-Nitrophenol	ND	---	300	"	"	"	"	
4-Nitrophenol	ND	---	300	"	"	"	"	
N-Nitrosodimethylamine	ND	---	300	"	"	"	"	
N-Nitroso-di-n-propylamine	ND	---	300	"	"	"	"	
N-Nitrosodiphenylamine	ND	---	300	"	"	"	"	
Pentachlorophenol (PCP)	ND	---	300	"	"	"	"	
Phenanthrene	ND	---	300	"	"	"	"	
Phenol	ND	---	300	"	"	"	"	
Pyrene	ND	---	300	"	"	"	"	
Pyridine	ND	---	599	"	"	"	"	
2,3,4,6-Tetrachlorophenol	ND	---	300	"	"	"	"	
2,3,5,6-Tetrachlorophenol	ND	---	300	"	"	"	"	
1,2,4-Trichlorobenzene	ND	---	300	"	"	"	"	
2,4,5-Trichlorophenol	ND	---	300	"	"	"	"	
2,4,6-Trichlorophenol	ND	---	300	"	"	"	"	
Surrogate: Nitrobenzene-d5 (Surr)			*Recovery: 82 %*	*Limits: 35-120 %*	"	"	"	
2-Fluorobiphenyl (Surr)			*82 %*	*Limits: 45-120 %*	"	"	"	
Phenol-d6 (Surr)			*98 %*	*Limits: 40-120 %*	"	"	"	
p-Terphenyl-d14 (Surr)			*91 %*	*Limits: 30-125 %*	"	"	"	
2-Fluorophenol (Surr)			*95 %*	*Limits: 35-120 %*	"	"	"	
2,4,6-Tribromophenol (Surr)			*67 %*	*Limits: 35-125 %*	"	"	"	

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-3-12.5' (A3I0375-01)			**Matrix: Soil**					
Batch: 3090712								
Arsenic	**5.77**	---	1.34	mg/kg dry	10	10/02/13 11:05	EPA 6020A	
Barium	**175**	---	1.34	"	"	"	"	
Cadmium	**0.376**	---	0.269	"	"	"	"	
Chromium	**18.8**	---	1.34	"	"	"	"	
Lead	**9.48**	---	0.269	"	"	"	"	
Mercury	ND	---	0.108	"	"	"	"	
Selenium	ND	---	1.34	"	"	"	"	
Silver	ND	---	0.269	"	"	"	"	
SB-7-12.5' (A3I0375-02)			**Matrix: Soil**					
Batch: 3090712								
Arsenic	**4.34**	---	1.44	mg/kg dry	10	10/02/13 11:08	EPA 6020A	
Barium	**140**	---	1.44	"	"	"	"	
Cadmium	**0.359**	---	0.287	"	"	"	"	
Chromium	**16.2**	---	1.44	"	"	"	"	
Lead	**8.56**	---	0.287	"	"	"	"	
Mercury	ND	---	0.115	"	"	"	"	
Selenium	ND	---	1.44	"	"	"	"	
Silver	ND	---	0.287	"	"	"	"	
SB-8-12.5' (A3I0375-03)			**Matrix: Soil**					
Batch: 3090712								
Arsenic	**4.09**	---	1.36	mg/kg dry	10	10/02/13 10:56	EPA 6020A	
Barium	**145**	---	1.36	"	"	"	"	
Cadmium	**0.313**	---	0.273	"	"	"	"	
Chromium	**15.8**	---	1.36	"	"	"	"	
Lead	**9.32**	---	0.273	"	"	"	"	
Mercury	ND	---	0.109	"	"	"	"	
Selenium	ND	---	1.36	"	"	"	"	
Silver	ND	---	0.273	"	"	"	"	
SB-12-12.5' (A3I0375-04)			**Matrix: Soil**					
Batch: 3090712								
Arsenic	**6.53**	---	1.48	mg/kg dry	10	10/02/13 11:10	EPA 6020A	
Barium	**176**	---	1.48	"	"	"	"	
Cadmium	**0.386**	---	0.297	"	"	"	"	
Chromium	**21.8**	---	1.48	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-12-12.5' (A3I0375-04)			**Matrix: Soil**					
Lead	**10.5**	---	0.297	mg/kg dry	10	"	EPA 6020A	
Mercury	ND	---	0.119	"	"	"	"	
Selenium	ND	---	1.48	"	"	"	"	
Silver	ND	---	0.297	"	"	"	"	
SB-16-12.5' (A3I0375-05)			**Matrix: Soil**					
Batch: 3090712								
Arsenic	**5.37**	---	1.34	mg/kg dry	10	10/02/13 11:19	EPA 6020A	
Barium	**154**	---	1.34	"	"	"	"	
Cadmium	**0.428**	---	0.268	"	"	"	"	
Chromium	**19.2**	---	1.34	"	"	"	"	
Lead	**9.75**	---	0.268	"	"	"	"	
Mercury	ND	---	0.107	"	"	"	"	
Selenium	ND	---	1.34	"	"	"	"	
Silver	ND	---	0.268	"	"	"	"	
SB-17-12.5' (A3I0375-06)			**Matrix: Soil**					
Batch: 3090712								
Arsenic	**4.42**	---	1.23	mg/kg dry	10	10/02/13 11:22	EPA 6020A	
Barium	**158**	---	1.23	"	"	"	"	
Cadmium	**0.307**	---	0.245	"	"	"	"	
Chromium	**16.5**	---	1.23	"	"	"	"	
Lead	**10.5**	---	0.245	"	"	"	"	
Mercury	ND	---	0.0981	"	"	"	"	
Selenium	ND	---	1.23	"	"	"	"	
Silver	ND	---	0.245	"	"	"	"	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
SB-3-12.5' (A3I0375-01)			**Matrix: Soil**		**Batch: 3090456**			
% Solids	**75.9**	---	1.00	% by Weight	1	09/20/13 12:03	NWTPH-Dx	
SB-7-12.5' (A3I0375-02)			**Matrix: Soil**		**Batch: 3090456**			
% Solids	**74.2**	---	1.00	% by Weight	1	09/20/13 12:03	NWTPH-Dx	
SB-8-12.5' (A3I0375-03)			**Matrix: Soil**		**Batch: 3090456**			
% Solids	**78.9**	---	1.00	% by Weight	1	09/20/13 12:03	NWTPH-Dx	
SB-12-12.5' (A3I0375-04)			**Matrix: Soil**		**Batch: 3090456**			
% Solids	**74.2**	---	1.00	% by Weight	1	09/20/13 12:03	NWTPH-Dx	
SB-16-12.5' (A3I0375-05)			**Matrix: Soil**		**Batch: 3090456**			
% Solids	**74.4**	---	1.00	% by Weight	1	09/20/13 12:03	NWTPH-Dx	
SB-17-12.5' (A3I0375-06)			**Matrix: Soil**		**Batch: 3090456**			
% Solids	**78.4**	---	1.00	% by Weight	1	09/20/13 12:03	NWTPH-Dx	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

QUALITY CONTROL (QC) SAMPLE RESULTS

Hydrocarbon Identification Screen by NWTPH-HCID

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090455 - NWTPH-HCID (Soil)							**Soil**					
Blank (3090455-BLK1)						Prepared: 09/19/13 15:27	Analyzed: 09/19/13 20:58					
NWTPH-HCID												
Gasoline Range Organics	ND	---	18.2	mg/kg wet	1	---	---	---	---	---	---	
Diesel Range Organics	ND	---	45.5	"	"	---	---	---	---	---	---	
Oil Range Organics	ND	---	90.9	"	"	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)			*Recovery: 107 %*	*Limits: 50-150 %*			*Dilution: 1x*					
Duplicate (3090455-DUP1)						Prepared: 09/19/13 15:27	Analyzed: 09/19/13 21:46					
QC Source Sample: SB-3-12.5' (A3I0375-01)												
NWTPH-HCID												
Gasoline Range Organics	ND	---	27.6	mg/kg dry	1	---	ND	---	---	---	30%	
Diesel Range Organics	ND	---	69.1	"	"	---	ND	---	---	---	30%	
Oil Range Organics	ND	---	138	"	"	---	ND	---	---	---	30%	
Surr: o-Terphenyl (Surr)			*Recovery: 105 %*	*Limits: 50-150 %*			*Dilution: 1x*					

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

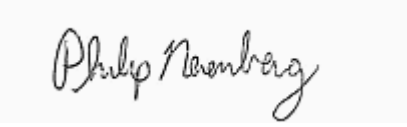
Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090434 - EPA 5035A							**Soil**					
Blank (3090434-BLK1)						Prepared: 09/19/13 09:00	Analyzed: 09/19/13 11:01					
5035/8260B												
Acetone	ND	---	667	ug/kg wet	50	---	---	---	---	---	---	
Benzene	ND	---	8.33	"	"	---	---	---	---	---	---	
Bromobenzene	ND	---	16.7	"	"	---	---	---	---	---	---	
Bromochloromethane	ND	---	33.3	"	"	---	---	---	---	---	---	
Bromodichloromethane	ND	---	33.3	"	"	---	---	---	---	---	---	
Bromoform	ND	---	33.3	"	"	---	---	---	---	---	---	
Bromomethane	ND	---	333	"	"	---	---	---	---	---	---	
2-Butanone (MEK)	ND	---	333	"	"	---	---	---	---	---	---	
n-Butylbenzene	ND	---	33.3	"	"	---	---	---	---	---	---	
sec-Butylbenzene	ND	---	33.3	"	"	---	---	---	---	---	---	
tert-Butylbenzene	ND	---	33.3	"	"	---	---	---	---	---	---	
Carbon tetrachloride	ND	---	16.7	"	"	---	---	---	---	---	---	
Chlorobenzene	ND	---	16.7	"	"	---	---	---	---	---	---	
Chloroethane	ND	---	333	"	"	---	---	---	---	---	---	
Chloroform	ND	---	33.3	"	"	---	---	---	---	---	---	
Chloromethane	ND	---	167	"	"	---	---	---	---	---	---	
2-Chlorotoluene	ND	---	33.3	"	"	---	---	---	---	---	---	
4-Chlorotoluene	ND	---	33.3	"	"	---	---	---	---	---	---	
1,2-Dibromo-3-chloropropane	ND	---	167	"	"	---	---	---	---	---	---	
Dibromochloromethane	ND	---	66.7	"	"	---	---	---	---	---	---	
1,2-Dibromoethane (EDB)	ND	---	16.7	"	"	---	---	---	---	---	---	
Dibromomethane	ND	---	33.3	"	"	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	16.7	"	"	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	16.7	"	"	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	16.7	"	"	---	---	---	---	---	---	
Dichlorodifluoromethane	ND	---	66.7	"	"	---	---	---	---	---	---	
1,1-Dichloroethane	ND	---	16.7	"	"	---	---	---	---	---	---	
1,2-Dichloroethane (EDC)	ND	---	16.7	"	"	---	---	---	---	---	---	
1,1-Dichloroethene	ND	---	16.7	"	"	---	---	---	---	---	---	

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090434 - EPA 5035A							**Soil**					
Blank (3090434-BLK1)					Prepared: 09/19/13 09:00 Analyzed: 09/19/13 11:01							
cis-1,2-Dichloroethene	ND	---	16.7	ug/kg wet	"	---	---	---	---	---	---	
trans-1,2-Dichloroethene	ND	---	16.7	"	"	---	---	---	---	---	---	
1,2-Dichloropropane	ND	---	16.7	"	"	---	---	---	---	---	---	
1,3-Dichloropropane	ND	---	16.7	"	"	---	---	---	---	---	---	
2,2-Dichloropropane	ND	---	33.3	"	"	---	---	---	---	---	---	
1,1-Dichloropropene	ND	---	33.3	"	"	---	---	---	---	---	---	
cis-1,3-Dichloropropene	ND	---	33.3	"	"	---	---	---	---	---	---	
trans-1,3-Dichloropropene	ND	---	33.3	"	"	---	---	---	---	---	---	
Ethylbenzene	ND	---	16.7	"	"	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	66.7	"	"	---	---	---	---	---	---	
2-Hexanone	ND	---	333	"	"	---	---	---	---	---	---	
Isopropylbenzene	ND	---	33.3	"	"	---	---	---	---	---	---	
4-Isopropyltoluene	ND	---	33.3	"	"	---	---	---	---	---	---	
4-Methyl-2-pentanone (MiBK)	ND	---	333	"	"	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	---	33.3	"	"	---	---	---	---	---	---	
Methylene chloride	ND	---	167	"	"	---	---	---	---	---	---	
Naphthalene	ND	---	66.7	"	"	---	---	---	---	---	---	
n-Propylbenzene	ND	---	16.7	"	"	---	---	---	---	---	---	
Styrene	ND	---	33.3	"	"	---	---	---	---	---	---	
1,1,1,2-Tetrachloroethane	ND	---	33.3	"	"	---	---	---	---	---	---	
1,1,2,2-Tetrachloroethane	ND	---	16.7	"	"	---	---	---	---	---	---	
Tetrachloroethene (PCE)	ND	---	16.7	"	"	---	---	---	---	---	---	
Toluene	ND	---	33.3	"	"	---	---	---	---	---	---	
1,2,3-Trichlorobenzene	ND	---	167	"	"	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	167	"	"	---	---	---	---	---	---	
1,1,1-Trichloroethane	ND	---	16.7	"	"	---	---	---	---	---	---	
1,1,2-Trichloroethane	ND	---	16.7	"	"	---	---	---	---	---	---	
Trichloroethene (TCE)	ND	---	16.7	"	"	---	---	---	---	---	---	
Trichlorofluoromethane	ND	---	66.7	"	"	---	---	---	---	---	---	
1,2,3-Trichloropropane	ND	---	33.3	"	"	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090434 - EPA 5035A							**Soil**					
Blank (3090434-BLK1)					Prepared: 09/19/13 09:00		Analyzed: 09/19/13 11:01					
1,2,4-Trimethylbenzene	ND	---	33.3	"	"	---	---	---	---	---	---	
1,3,5-Trimethylbenzene	ND	---	33.3	"	"	---	---	---	---	---	---	
Vinyl chloride	ND	---	16.7	"	"	---	---	---	---	---	---	
m,p-Xylene	ND	---	33.3	"	"	---	---	---	---	---	---	
o-Xylene	ND	---	16.7	"	"	---	---	---	---	---	---	
Surr: Dibromofluoromethane (Surr)			*Recovery: 93 %*	*Limits: 70-130 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Surr)			*96 %*	*70-130 %*			*"*					
Toluene-d8 (Surr)			*93 %*	*70-130 %*			*"*					
4-Bromofluorobenzene (Surr)			*95 %*	*70-130 %*			*"*					
LCS (3090434-BS1)					Prepared: 09/19/13 09:00		Analyzed: 09/19/13 10:10					
5035/8260B												
Acetone	2170	---	1000	ug/kg wet	50	2000	---	109	65-135%	---	---	
Benzene	1070	---	12.5	"	"	1000	---	107	"	---	---	
Bromobenzene	1000	---	25.0	"	"	"	---	100	"	---	---	
Bromochloromethane	1190	---	50.0	"	"	"	---	119	"	---	---	
Bromodichloromethane	971	---	50.0	"	"	"	---	97	"	---	---	
Bromoform	1170	---	50.0	"	"	"	---	117	"	---	---	
Bromomethane	1680	---	500	"	"	"	---	168	"	---	---	EST
2-Butanone (MEK)	2220	---	500	"	"	2000	---	111	"	---	---	
n-Butylbenzene	1090	---	50.0	"	"	1000	---	109	"	---	---	
sec-Butylbenzene	1020	---	50.0	"	"	"	---	102	"	---	---	
tert-Butylbenzene	970	---	50.0	"	"	"	---	97	"	---	---	
Carbon tetrachloride	1120	---	25.0	"	"	"	---	112	"	---	---	
Chlorobenzene	1080	---	25.0	"	"	"	---	108	"	---	---	
Chloroethane	1270	---	500	"	"	"	---	127	"	---	---	
Chloroform	1060	---	50.0	"	"	"	---	106	"	---	---	
Chloromethane	846	---	250	"	"	"	---	85	"	---	---	
2-Chlorotoluene	976	---	50.0	"	"	"	---	98	"	---	---	
4-Chlorotoluene	1070	---	50.0	"	"	"	---	107	"	---	---	
1,2-Dibromo-3-chloropropane	1100	---	250	"	"	"	---	110	"	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090434 - EPA 5035A							**Soil**					
LCS (3090434-BS1)					Prepared: 09/19/13 09:00		Analyzed: 09/19/13 10:10					
Dibromochloromethane	1010	---	100	ug/kg wet	"	"	---	101	"	---	---	
1,2-Dibromoethane (EDB)	1140	---	25.0	"	"	"	---	114	"	---	---	
Dibromomethane	1080	---	50.0	"	"	"	---	108	"	---	---	
1,2-Dichlorobenzene	1070	---	25.0	"	"	"	---	107	"	---	---	
1,3-Dichlorobenzene	1100	---	25.0	"	"	"	---	110	"	---	---	
1,4-Dichlorobenzene	992	---	25.0	"	"	"	---	99	"	---	---	
Dichlorodifluoromethane	1130	---	100	"	"	"	---	113	"	---	---	
1,1-Dichloroethane	964	---	25.0	"	"	"	---	96	"	---	---	
1,2-Dichloroethane (EDC)	1130	---	25.0	"	"	"	---	113	"	---	---	
1,1-Dichloroethene	1130	---	25.0	"	"	"	---	113	"	---	---	
cis-1,2-Dichloroethene	1050	---	25.0	"	"	"	---	105	"	---	---	
trans-1,2-Dichloroethene	1040	---	25.0	"	"	"	---	104	"	---	---	
1,2-Dichloropropane	1060	---	25.0	"	"	"	---	106	"	---	---	
1,3-Dichloropropane	1110	---	25.0	"	"	"	---	111	"	---	---	
2,2-Dichloropropane	1190	---	50.0	"	"	"	---	119	"	---	---	
1,1-Dichloropropene	886	---	50.0	"	"	"	---	89	"	---	---	
cis-1,3-Dichloropropene	868	---	50.0	"	"	"	---	87	"	---	---	
trans-1,3-Dichloropropene	1100	---	50.0	"	"	"	---	110	"	---	---	
Ethylbenzene	1070	---	25.0	"	"	"	---	107	"	---	---	
Hexachlorobutadiene	1080	---	100	"	"	"	---	108	"	---	---	
2-Hexanone	2220	---	500	"	"	2000	---	111	"	---	---	
Isopropylbenzene	1080	---	50.0	"	"	1000	---	108	"	---	---	
4-Isopropyltoluene	942	---	50.0	"	"	"	---	94	"	---	---	
4-Methyl-2-pentanone (MiBK)	2330	---	500	"	"	2000	---	117	"	---	---	
Methyl tert-butyl ether (MTBE)	958	---	50.0	"	"	1000	---	96	"	---	---	
Methylene chloride	1080	---	250	"	"	"	---	108	"	---	---	
Naphthalene	990	---	100	"	"	"	---	99	"	---	---	
n-Propylbenzene	1020	---	25.0	"	"	"	---	102	"	---	---	
Styrene	1110	---	50.0	"	"	"	---	111	"	---	---	
1,1,1,2-Tetrachloroethane	1080	---	50.0	"	"	"	---	108	"	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

QUALITY CONTROL (QC) SAMPLE RESULTS

Volatile Organic Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090434 - EPA 5035A							**Soil**					
LCS (3090434-BS1)					Prepared: 09/19/13 09:00		Analyzed: 09/19/13 10:10					
1,1,2,2-Tetrachloroethane	1110	---	25.0	"	"	"	---	111	"	---	---	
Tetrachloroethene (PCE)	1150	---	25.0	"	"	"	---	115	"	---	---	
Toluene	1020	---	50.0	"	"	"	---	102	"	---	---	
1,2,3-Trichlorobenzene	1060	---	250	"	"	"	---	106	"	---	---	
1,2,4-Trichlorobenzene	1160	---	250	"	"	"	---	116	"	---	---	
1,1,1-Trichloroethane	1070	---	25.0	"	"	"	---	107	"	---	---	
1,1,2-Trichloroethane	1130	---	25.0	"	"	"	---	113	"	---	---	
Trichloroethene (TCE)	992	---	25.0	"	"	"	---	99	"	---	---	
Trichlorofluoromethane	1240	---	100	"	"	"	---	124	"	---	---	
1,2,3-Trichloropropane	1130	---	50.0	"	"	"	---	113	"	---	---	
1,2,4-Trimethylbenzene	1020	---	50.0	"	"	"	---	102	"	---	---	
1,3,5-Trimethylbenzene	1020	---	50.0	"	"	"	---	102	"	---	---	
Vinyl chloride	1120	---	25.0	"	"	"	---	112	"	---	---	
m,p-Xylene	2200	---	50.0	"	"	2000	---	110	"	---	---	
o-Xylene	1010	---	25.0	"	"	1000	---	101	"	---	---	

Surr:	*Dibromofluoromethane (Surr)*	*Recovery:*	*90 %*	*Limits:*	*70-130 %*	*Dilution:* *1x*
	1,4-Difluorobenzene (Surr)		*94 %*		*70-130 %*	*"*
	Toluene-d8 (Surr)		*89 %*		*70-130 %*	*"*
	4-Bromofluorobenzene (Surr)		*89 %*		*70-130 %*	*"*

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

QUALITY CONTROL (QC) SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3100002 - EPA 3546							**Soil**					
Blank (3100002-BLK1)					Prepared: 10/01/13 07:47		Analyzed: 10/01/13 12:57					**C-07**
EPA 8082A												
Aroclor 1016	ND	---	8.33	ug/kg wet	1	---	---	---	---	---	---	
Aroclor 1221	ND	---	8.33	"	"	---	---	---	---	---	---	
Aroclor 1232	ND	---	8.33	"	"	---	---	---	---	---	---	
Aroclor 1242	ND	---	8.33	"	"	---	---	---	---	---	---	
Aroclor 1248	ND	---	8.33	"	"	---	---	---	---	---	---	
Aroclor 1254	ND	---	8.33	"	"	---	---	---	---	---	---	
Aroclor 1260	ND	---	8.33	"	"	---	---	---	---	---	---	
Surr: Decachlorobiphenyl (Surr)			*Recovery: 104 %*	*Limits: 60-125 %*			*Dilution: 1x*					
LCS (3100002-BS1)					Prepared: 10/01/13 07:47		Analyzed: 10/01/13 13:15					**C-07, Q-18**
EPA 8082A												
Aroclor 1016	197	---	10.0	ug/kg wet	1	250	---	79	40-140%	---	---	
Aroclor 1260	196	---	10.0	"	"	"	---	78	60-130%	---	---	
Surr: Decachlorobiphenyl (Surr)			*Recovery: 98 %*	*Limits: 60-125 %*			*Dilution: 1x*					
Duplicate (3100002-DUP1)					Prepared: 10/01/13 07:47		Analyzed: 10/01/13 14:55					**C-07**
QC Source Sample: SB-3-12.5' (A3I0375-01)												
EPA 8082A												
Aroclor 1016	ND	---	11.8	ug/kg dry	1	---	ND	---	---	---	30%	
Aroclor 1221	ND	---	11.8	"	"	---	ND	---	---	---	30%	
Aroclor 1232	ND	---	11.8	"	"	---	ND	---	---	---	30%	
Aroclor 1242	ND	---	11.8	"	"	---	ND	---	---	---	30%	
Aroclor 1248	ND	---	11.8	"	"	---	ND	---	---	---	30%	
Aroclor 1254	ND	---	11.8	"	"	---	ND	---	---	---	30%	
Aroclor 1260	ND	---	11.8	"	"	---	ND	---	---	---	30%	
Surr: Decachlorobiphenyl (Surr)			*Recovery: 41 %*	*Limits: 60-125 %*			*Dilution: 1x*					*S-03*

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

QUALITY CONTROL (QC) SAMPLE RESULTS

Polychlorinated Biphenyls by EPA 8082A

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3100052 - EPA 3546							**Soil**					
Blank (3100052-BLK1)					Prepared: 10/02/13 08:21		Analyzed: 10/02/13 15:54					**C-07**
EPA 8082A												
Aroclor 1016	ND	---	8.33	ug/kg wet	1	---	---	---	---	---	---	
Aroclor 1221	ND	---	8.33	"	"	---	---	---	---	---	---	
Aroclor 1232	ND	---	8.33	"	"	---	---	---	---	---	---	
Aroclor 1242	ND	---	8.33	"	"	---	---	---	---	---	---	
Aroclor 1248	ND	---	8.33	"	"	---	---	---	---	---	---	
Aroclor 1254	ND	---	8.33	"	"	---	---	---	---	---	---	
Aroclor 1260	ND	---	8.33	"	"	---	---	---	---	---	---	
Surr: Decachlorobiphenyl (Surr)			*Recovery: 105 %*	*Limits: 60-125 %*			*Dilution: 1x*					*Q-23*
LCS (3100052-BS1)					Prepared: 10/02/13 08:21		Analyzed: 10/02/13 16:12					**C-07**
EPA 8082A												
Aroclor 1016	224	---	10.0	ug/kg wet	1	250	---	90	40-140%	---	---	
Aroclor 1260	238	---	10.0	"	"	"	---	95	60-130%	---	---	
Surr: Decachlorobiphenyl (Surr)			*Recovery: 110 %*	*Limits: 60-125 %*			*Dilution: 1x*					*Q-23*
Duplicate (3100052-DUP1)					Prepared: 10/02/13 08:21		Analyzed: 10/02/13 16:12					**C-07**
QC Source Sample: SB-7-12.5' (A3I0375-02RE1)												
EPA 8082A												
Aroclor 1016	ND	---	13.1	ug/kg dry	1	---	ND	---	---	---	30%	
Aroclor 1221	ND	---	13.1	"	"	---	ND	---	---	---	30%	
Aroclor 1232	ND	---	13.1	"	"	---	ND	---	---	---	30%	
Aroclor 1242	ND	---	13.1	"	"	---	ND	---	---	---	30%	
Aroclor 1248	ND	---	13.1	"	"	---	ND	---	---	---	30%	
Aroclor 1254	ND	---	13.1	"	"	---	ND	---	---	---	30%	
Aroclor 1260	ND	---	13.1	"	"	---	ND	---	---	---	30%	
Surr: Decachlorobiphenyl (Surr)			*Recovery: 44 %*	*Limits: 60-125 %*			*Dilution: 1x*					*S-03*

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090616 - EPA 3546							**Soil**					
Blank (3090616-BLK1)						Prepared: 09/26/13 08:46	Analyzed: 09/26/13 21:25					
EPA 8270D												
Acenaphthene	ND	---	208	ug/kg wet	1	---	---	---	---	---	---	
Acenaphthylene	ND	---	208	"	"	---	---	---	---	---	---	
Aniline	ND	---	208	"	"	---	---	---	---	---	---	
Anthracene	ND	---	208	"	"	---	---	---	---	---	---	
Azobenzene (1,2-DPH)	ND	---	208	"	"	---	---	---	---	---	---	
Benz(a)anthracene	ND	---	208	"	"	---	---	---	---	---	---	
Benzo(a)pyrene	ND	---	208	"	"	---	---	---	---	---	---	
Benzo(b)fluoranthene	ND	---	208	"	"	---	---	---	---	---	---	
Benzo(k)fluoranthene	ND	---	208	"	"	---	---	---	---	---	---	
Benzo(b+k)fluoranthene(s)	ND	---	417	"	"	---	---	---	---	---	---	
Benzo(g,h,i)perylene	ND	---	208	"	"	---	---	---	---	---	---	
Benzoic acid	ND	---	1040	"	"	---	---	---	---	---	---	
Benzyl alcohol	ND	---	208	"	"	---	---	---	---	---	---	
Bis(2-Chloroethoxy) methane	ND	---	208	"	"	---	---	---	---	---	---	
Bis(2-Chloroethyl) ether	ND	---	208	"	"	---	---	---	---	---	---	
Bis(2-Chloroisopropyl) ether	ND	---	208	"	"	---	---	---	---	---	---	
Bis(2-Ethylhexyl) adipate	ND	---	208	"	"	---	---	---	---	---	---	
Bis(2-ethylhexyl)phthalate	ND	---	208	"	"	---	---	---	---	---	---	
4-Bromophenyl phenyl ether	ND	---	208	"	"	---	---	---	---	---	---	
Butyl benzyl phthalate	ND	---	208	"	"	---	---	---	---	---	---	
Carbazole	ND	---	208	"	"	---	---	---	---	---	---	
4-Chloroaniline	ND	---	208	"	"	---	---	---	---	---	---	
4-Chloro-3-methylphenol	ND	---	208	"	"	---	---	---	---	---	---	
2-Chloronaphthalene	ND	---	208	"	"	---	---	---	---	---	---	
2-Chlorophenol	ND	---	208	"	"	---	---	---	---	---	---	
4-Chlorophenyl phenyl ether	ND	---	208	"	"	---	---	---	---	---	---	
Chrysene	ND	---	208	"	"	---	---	---	---	---	---	
Dibenz(a,h)anthracene	ND	---	208	"	"	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090616 - EPA 3546							**Soil**					
Blank (3090616-BLK1)					Prepared: 09/26/13 08:46 Analyzed: 09/26/13 21:25							
Dibenzofuran	ND	---	208	"	"	---	---	---	---	---	---	
1,2-Dichlorobenzene	ND	---	208	"	"	---	---	---	---	---	---	
1,3-Dichlorobenzene	ND	---	208	"	"	---	---	---	---	---	---	
1,4-Dichlorobenzene	ND	---	208	"	"	---	---	---	---	---	---	
2,4-Dichlorophenol	ND	---	208	"	"	---	---	---	---	---	---	
Di-n-butylphthalate	ND	---	208	"	"	---	---	---	---	---	---	
Diethylphthalate	ND	---	208	"	"	---	---	---	---	---	---	
Dimethylphthalate	ND	---	208	"	"	---	---	---	---	---	---	
2,4-Dimethylphenol	ND	---	208	"	"	---	---	---	---	---	---	
1,2-Dinitrobenzene	ND	---	208	"	"	---	---	---	---	---	---	
1,3-Dinitrobenzene	ND	---	208	"	"	---	---	---	---	---	---	
1,4-Dinitrobenzene	ND	---	208	"	"	---	---	---	---	---	---	
4,6-Dinitro-2-methylphenol	ND	---	500	"	"	---	---	---	---	---	---	
2,4-Dinitrophenol	ND	---	208	"	"	---	---	---	---	---	---	
2,4-Dinitrotoluene	ND	---	208	"	"	---	---	---	---	---	---	
2,6-Dinitrotoluene	ND	---	208	"	"	---	---	---	---	---	---	
Di-n-octyl phthalate	ND	---	208	"	"	---	---	---	---	---	---	
Fluoranthene	ND	---	208	"	"	---	---	---	---	---	---	
Fluorene	ND	---	208	"	"	---	---	---	---	---	---	
Hexachlorobenzene	ND	---	208	"	"	---	---	---	---	---	---	
Hexachlorobutadiene	ND	---	208	"	"	---	---	---	---	---	---	
Hexachlorocyclopentadiene	ND	---	208	"	"	---	---	---	---	---	---	
Hexachloroethane	ND	---	208	"	"	---	---	---	---	---	---	
Indeno(1,2,3-cd)pyrene	ND	---	208	"	"	---	---	---	---	---	---	
Isophorone	ND	---	208	"	"	---	---	---	---	---	---	
1-Methylnaphthalene	ND	---	208	"	"	---	---	---	---	---	---	
2-Methylnaphthalene	ND	---	208	"	"	---	---	---	---	---	---	
2-Methylphenol	ND	---	208	"	"	---	---	---	---	---	---	
3+4-Methylphenol(s)	ND	---	208	"	"	---	---	---	---	---	---	
Naphthalene	ND	---	208	"	"	---	---	---	---	---	---	
2-Nitroaniline	ND	---	208	"	"	---	---	---	---	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

QUALITY CONTROL (QC) SAMPLE RESULTS

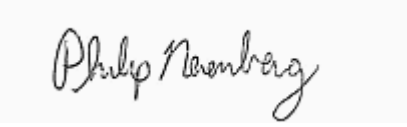
Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090616 - EPA 3546							**Soil**					
Blank (3090616-BLK1)					Prepared: 09/26/13 08:46 Analyzed: 09/26/13 21:25							
3-Nitroaniline	ND	---	208	ug/kg wet	"	---	---	---	---	---	---	
4-Nitroaniline	ND	---	208	"	"	---	---	---	---	---	---	
Nitrobenzene	ND	---	208	"	"	---	---	---	---	---	---	
2-Nitrophenol	ND	---	208	"	"	---	---	---	---	---	---	
4-Nitrophenol	ND	---	208	"	"	---	---	---	---	---	---	
N-Nitrosodimethylamine	ND	---	208	"	"	---	---	---	---	---	---	
N-Nitroso-di-n-propylamine	ND	---	208	"	"	---	---	---	---	---	---	
N-Nitrosodiphenylamine	ND	---	208	"	"	---	---	---	---	---	---	
Pentachlorophenol (PCP)	ND	---	208	"	"	---	---	---	---	---	---	
Phenanthrene	ND	---	208	"	"	---	---	---	---	---	---	
Phenol	ND	---	208	"	"	---	---	---	---	---	---	
Pyrene	ND	---	208	"	"	---	---	---	---	---	---	
Pyridine	ND	---	417	"	"	---	---	---	---	---	---	
2,3,4,6-Tetrachlorophenol	ND	---	208	"	"	---	---	---	---	---	---	
2,3,5,6-Tetrachlorophenol	ND	---	208	"	"	---	---	---	---	---	---	
1,2,4-Trichlorobenzene	ND	---	208	"	"	---	---	---	---	---	---	
2,4,5-Trichlorophenol	ND	---	208	"	"	---	---	---	---	---	---	
2,4,6-Trichlorophenol	ND	---	208	"	"	---	---	---	---	---	---	

Surr: Nitrobenzene-d5 (Surr)	*Recovery: 91 %*	*Limits: 35-120 %*	*Dilution: 1x*
2-Fluorobiphenyl (Surr)	*88 %*	*45-120 %*	*"*
Phenol-d6 (Surr)	*105 %*	*40-120 %*	*"*
p-Terphenyl-d14 (Surr)	*100 %*	*30-125 %*	*"*
2-Fluorophenol (Surr)	*101 %*	*35-120 %*	*"*
2,4,6-Tribromophenol (Surr)	*75 %*	*35-125 %*	*"*

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
LCS (3090616-BS1)					Prepared: 09/26/13 08:46 Analyzed: 09/26/13 22:00							
EPA 8270D												
Acenaphthene	773	---	250	ug/kg wet	1	800	---	97	45-125%	---	---	
Acenaphthylene	801	---	250	"	"	"	---	100	"	---	---	
Aniline	694	---	250	"	"	"	---	87	40-120%	---	---	
Anthracene	818	---	250	"	"	"	---	102	55-125%	---	---	
Azobenzene (1,2-DPH)	799	---	250	"	"	"	---	100	25-120%	---	---	

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090616 - EPA 3546							**Soil**					
LCS (3090616-BS1)					Prepared: 09/26/13 08:46 Analyzed: 09/26/13 22:00							
Benz(a)anthracene	814	---	250	ug/kg wet	"	"	---	102	50-125%	---	---	
Benzo(a)pyrene	873	---	250	"	"	"	---	109	"	---	---	
Benzo(b)fluoranthene	872	---	250	"	"	"	---	109	45-125%	---	---	
Benzo(k)fluoranthene	846	---	250	"	"	"	---	106	"	---	---	
Benzo(b+k)fluoranthene(s)	1700	---	500	"	"	1600	---	106	"	---	---	
Benzo(g,h,i)perylene	795	---	250	"	"	800	---	99	40-125%	---	---	
Benzoic acid	1420	---	1250	"	"	1600	---	89	10-120%	---	---	Q-31
Benzyl alcohol	762	---	250	"	"	800	---	95	20-125%	---	---	
Bis(2-Chloroethoxy) methane	813	---	250	"	"	"	---	102	45-120%	---	---	
Bis(2-Chloroethyl) ether	718	---	250	"	"	"	---	90	40-120%	---	---	
Bis(2-Chloroisopropyl) ether	725	---	250	"	"	"	---	91	20-120%	---	---	
Bis(2-Ethylhexyl) adipate	825	---	250	"	"	"	---	103	40-120%	---	---	
Bis(2-ethylhexyl)phthalate	826	---	250	"	"	"	---	103	45-125%	---	---	
4-Bromophenyl phenyl ether	752	---	250	"	"	"	---	94	45-120%	---	---	
Butyl benzyl phthalate	851	---	250	"	"	"	---	106	50-125%	---	---	
Carbazole	833	---	250	"	"	"	---	104	45-125%	---	---	
4-Chloroaniline	540	---	250	"	"	"	---	67	10-120%	---	---	
4-Chloro-3-methylphenol	804	---	250	"	"	"	---	100	45-120%	---	---	
2-Chloronaphthalene	786	---	250	"	"	"	---	98	"	---	---	
2-Chlorophenol	819	---	250	"	"	"	---	102	"	---	---	
4-Chlorophenyl phenyl ether	778	---	250	"	"	"	---	97	"	---	---	
Chrysene	791	---	250	"	"	"	---	99	55-125%	---	---	
Dibenz(a,h)anthracene	797	---	250	"	"	"	---	100	40-125%	---	---	
Dibenzofuran	790	---	250	"	"	"	---	99	50-125%	---	---	
1,2-Dichlorobenzene	719	---	250	"	"	"	---	90	45-120%	---	---	
1,3-Dichlorobenzene	734	---	250	"	"	"	---	92	40-120%	---	---	
1,4-Dichlorobenzene	725	---	250	"	"	"	---	91	35-120%	---	---	
2,4-Dichlorophenol	754	---	250	"	"	"	---	94	45-120%	---	---	
Di-n-butylphthalate	744	---	250	"	"	"	---	93	55-120%	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090616 - EPA 3546							**Soil**					
LCS (3090616-BS1)					Prepared: 09/26/13 08:46 Analyzed: 09/26/13 22:00							
Diethylphthalate	842	---	250	"	"	"	---	105	50-120%	---	---	
Dimethylphthalate	798	---	250	"	"	"	---	100	"	---	---	
2,4-Dimethylphenol	836	---	250	"	"	"	---	105	30-120%	---	---	
1,2-Dinitrobenzene	721	---	250	"	"	"	---	90	40-120%	---	---	
1,3-Dinitrobenzene	750	---	250	"	"	"	---	94	"	---	---	
1,4-Dinitrobenzene	749	---	250	"	"	"	---	94	"	---	---	
4,6-Dinitro-2-methylphenol	708	---	600	"	"	"	---	89	30-135%	---	---	
2,4-Dinitrophenol	716	---	250	"	"	"	---	89	15-130%	---	---	
2,4-Dinitrotoluene	759	---	250	"	"	"	---	95	50-120%	---	---	
2,6-Dinitrotoluene	745	---	250	"	"	"	---	93	"	---	---	
Di-n-octyl phthalate	885	---	250	"	"	"	---	111	40-130%	---	---	
Fluoranthene	813	---	250	"	"	"	---	102	55-125%	---	---	
Fluorene	801	---	250	"	"	"	---	100	50-125%	---	---	
Hexachlorobenzene	722	---	250	"	"	"	---	90	45-120%	---	---	
Hexachlorobutadiene	749	---	250	"	"	"	---	94	40-120%	---	---	
Hexachlorocyclopentadiene	760	---	250	"	"	"	---	95	"	---	---	
Hexachloroethane	735	---	250	"	"	"	---	92	35-120%	---	---	
Indeno(1,2,3-cd)pyrene	793	---	250	"	"	"	---	99	40-125%	---	---	
Isophorone	800	---	250	"	"	"	---	100	45-120%	---	---	
1-Methylnaphthalene	790	---	250	"	"	"	---	99	45-125%	---	---	
2-Methylnaphthalene	816	---	250	"	"	"	---	102	"	---	---	
2-Methylphenol	743	---	250	"	"	"	---	93	40-120%	---	---	
3+4-Methylphenol(s)	801	---	250	"	"	"	---	100	"	---	---	
Naphthalene	763	---	250	"	"	"	---	95	40-125%	---	---	
2-Nitroaniline	760	---	250	"	"	"	---	95	45-120%	---	---	
3-Nitroaniline	584	---	250	"	"	"	---	73	25-120%	---	---	
4-Nitroaniline	699	---	250	"	"	"	---	87	35-120%	---	---	
Nitrobenzene	798	---	250	"	"	"	---	100	40-120%	---	---	
2-Nitrophenol	830	---	250	"	"	"	---	104	"	---	---	
4-Nitrophenol	750	---	250	"	"	"	---	94	15-140%	---	---	
N-Nitrosodimethylamine	733	---	250	"	"	"	---	92	20-120%	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090616 - EPA 3546							**Soil**					
LCS (3090616-BS1)					Prepared: 09/26/13 08:46		Analyzed: 09/26/13 22:00					
N-Nitroso-di-n-propylamine	684	---	250	ug/kg wet	"	"	---	86	40-120%	---	---	
N-Nitrosodiphenylamine	806	---	250	"	"	"	---	101	50-120%	---	---	
Pentachlorophenol (PCP)	658	---	250	"	"	"	---	82	25-120%	---	---	
Phenanthrene	775	---	250	"	"	"	---	97	50-125%	---	---	
Phenol	914	---	250	"	"	"	---	114	40-120%	---	---	Q-41
Pyrene	778	---	250	"	"	"	---	97	45-125%	---	---	
Pyridine	656	---	500	"	"	"	---	82	40-120%	---	---	
2,3,4,6-Tetrachlorophenol	701	---	250	"	"	"	---	88	"	---	---	
2,3,5,6-Tetrachlorophenol	727	---	250	"	"	"	---	91	"	---	---	
1,2,4-Trichlorobenzene	755	---	250	"	"	"	---	94	45-120%	---	---	
2,4,5-Trichlorophenol	754	---	250	"	"	"	---	94	50-120%	---	---	
2,4,6-Trichlorophenol	738	---	250	"	"	"	---	92	45-120%	---	---	

Surr: Nitrobenzene-d5 (Surr)	*Recovery: 95 %*	*Limits: 35-120 %*	*Dilution: 1x*
2-Fluorobiphenyl (Surr)	*94 %*	*45-120 %*	*"*
Phenol-d6 (Surr)	*111 %*	*40-120 %*	*"*
p-Terphenyl-d14 (Surr)	*100 %*	*30-125 %*	*"*
2-Fluorophenol (Surr)	*108 %*	*35-120 %*	*"*
2,4,6-Tribromophenol (Surr)	*94 %*	*35-125 %*	*"*

Duplicate (3090616-DUP2)					Prepared: 09/26/13 08:46		Analyzed: 09/27/13 17:29					
QC Source Sample: SB-3-12.5' (A3I0375-01RE1)												
EPA 8270D												
Acenaphthene	ND	---	281	ug/kg dry	1	---	ND	---	---	---	30%	
Acenaphthylene	ND	---	281	"	"	---	ND	---	---	---	30%	
Aniline	ND	---	281	"	"	---	ND	---	---	---	30%	
Anthracene	ND	---	281	"	"	---	ND	---	---	---	30%	
Azobenzene (1,2-DPH)	ND	---	281	"	"	---	ND	---	---	---	30%	
Benz(a)anthracene	ND	---	281	"	"	---	ND	---	---	---	30%	
Benzo(a)pyrene	ND	---	281	"	"	---	ND	---	---	---	30%	
Benzo(b)fluoranthene	ND	---	281	"	"	---	ND	---	---	---	30%	
Benzo(k)fluoranthene	ND	---	281	"	"	---	ND	---	---	---	30%	
Benzo(b+k)fluoranthene(s)	ND	---	562	"	"	---	ND	---	---	---	30%	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090616 - EPA 3546							**Soil**					
Duplicate (3090616-DUP2)					Prepared: 09/26/13 08:46 Analyzed: 09/27/13 17:29							
QC Source Sample: SB-3-12.5' (A3I0375-01RE1)												
Benzo(g,h,i)perylene	ND	---	281	"	"	---	ND	---	---	---	30%	
Benzoic acid	ND	---	1400	"	"	---	ND	---	---	---	30%	
Benzyl alcohol	ND	---	281	"	"	---	ND	---	---	---	30%	
Bis(2-Chloroethoxy) methane	ND	---	281	"	"	---	ND	---	---	---	30%	
Bis(2-Chloroethyl) ether	ND	---	281	"	"	---	ND	---	---	---	30%	
Bis(2-Chloroisopropyl) ether	ND	---	281	"	"	---	ND	---	---	---	30%	
Bis(2-Ethylhexyl) adipate	ND	---	281	"	"	---	ND	---	---	---	30%	
Bis(2-ethylhexyl)phthalate	ND	---	281	"	"	---	ND	---	---	---	30%	
4-Bromophenyl phenyl ether	ND	---	281	"	"	---	ND	---	---	---	30%	
Butyl benzyl phthalate	ND	---	281	"	"	---	ND	---	---	---	30%	
Carbazole	ND	---	281	"	"	---	ND	---	---	---	30%	
4-Chloroaniline	ND	---	281	"	"	---	ND	---	---	---	30%	
4-Chloro-3-methylphenol	ND	---	281	"	"	---	ND	---	---	---	30%	
2-Chloronaphthalene	ND	---	281	"	"	---	ND	---	---	---	30%	
2-Chlorophenol	ND	---	281	"	"	---	ND	---	---	---	30%	
4-Chlorophenyl phenyl ether	ND	---	281	"	"	---	ND	---	---	---	30%	
Chrysene	ND	---	281	"	"	---	ND	---	---	---	30%	
Dibenz(a,h)anthracene	ND	---	281	"	"	---	ND	---	---	---	30%	
Dibenzofuran	ND	---	281	"	"	---	ND	---	---	---	30%	
1,2-Dichlorobenzene	ND	---	281	"	"	---	ND	---	---	---	30%	
1,3-Dichlorobenzene	ND	---	281	"	"	---	ND	---	---	---	30%	
1,4-Dichlorobenzene	ND	---	281	"	"	---	ND	---	---	---	30%	
2,4-Dichlorophenol	ND	---	281	"	"	---	ND	---	---	---	30%	
Di-n-butylphthalate	ND	---	281	"	"	---	ND	---	---	---	30%	
Diethylphthalate	ND	---	281	"	"	---	ND	---	---	---	30%	
Dimethylphthalate	ND	---	281	"	"	---	ND	---	---	---	30%	
2,4-Dimethylphenol	ND	---	281	"	"	---	ND	---	---	---	30%	
1,2-Dinitrobenzene	ND	---	281	"	"	---	ND	---	---	---	30%	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090616 - EPA 3546							**Soil**					
Duplicate (3090616-DUP2)					Prepared: 09/26/13 08:46 Analyzed: 09/27/13 17:29							
QC Source Sample: SB-3-12.5' (A3I0375-01RE1)												
1,3-Dinitrobenzene	ND	---	281	"	"	---	ND	---	---	---	30%	
1,4-Dinitrobenzene	ND	---	281	"	"	---	ND	---	---	---	30%	
4,6-Dinitro-2-methylphenol	ND	---	674	"	"	---	ND	---	---	---	30%	
2,4-Dinitrophenol	ND	---	281	"	"	---	ND	---	---	---	30%	
2,4-Dinitrotoluene	ND	---	281	"	"	---	ND	---	---	---	30%	
2,6-Dinitrotoluene	ND	---	281	"	"	---	ND	---	---	---	30%	
Di-n-octyl phthalate	ND	---	281	"	"	---	ND	---	---	---	30%	
Fluoranthene	ND	---	281	"	"	---	ND	---	---	---	30%	
Fluorene	ND	---	281	"	"	---	ND	---	---	---	30%	
Hexachlorobenzene	ND	---	281	"	"	---	ND	---	---	---	30%	
Hexachlorobutadiene	ND	---	281	"	"	---	ND	---	---	---	30%	
Hexachlorocyclopentadiene	ND	---	281	"	"	---	ND	---	---	---	30%	
Hexachloroethane	ND	---	281	"	"	---	ND	---	---	---	30%	
Indeno(1,2,3-cd)pyrene	ND	---	281	"	"	---	ND	---	---	---	30%	
Isophorone	ND	---	281	"	"	---	ND	---	---	---	30%	
1-Methylnaphthalene	ND	---	281	"	"	---	ND	---	---	---	30%	
2-Methylnaphthalene	ND	---	281	"	"	---	ND	---	---	---	30%	
2-Methylphenol	ND	---	281	"	"	---	ND	---	---	---	30%	
3+4-Methylphenol(s)	ND	---	281	"	"	---	ND	---	---	---	30%	
Naphthalene	ND	---	281	"	"	---	ND	---	---	---	30%	
2-Nitroaniline	ND	---	281	"	"	---	ND	---	---	---	30%	
3-Nitroaniline	ND	---	281	"	"	---	ND	---	---	---	30%	
4-Nitroaniline	ND	---	281	"	"	---	ND	---	---	---	30%	
Nitrobenzene	ND	---	281	"	"	---	ND	---	---	---	30%	
2-Nitrophenol	ND	---	281	"	"	---	ND	---	---	---	30%	
4-Nitrophenol	ND	---	281	"	"	---	ND	---	---	---	30%	
N-Nitrosodimethylamine	ND	---	281	"	"	---	ND	---	---	---	30%	
N-Nitroso-di-n-propylamine	ND	---	281	"	"	---	ND	---	---	---	30%	
N-Nitrosodiphenylamine	ND	---	281	"	"	---	ND	---	---	---	30%	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090616 - EPA 3546							**Soil**					
Duplicate (3090616-DUP2)					Prepared: 09/26/13 08:46 Analyzed: 09/27/13 17:29							
QC Source Sample: SB-3-12.5' (A3I0375-01RE1)												
Pentachlorophenol (PCP)	ND	---	281	ug/kg dry	"	---	ND	---	---	---	30%	
Phenanthrene	ND	---	281	"	"	---	ND	---	---	---	30%	
Phenol	ND	---	281	"	"	---	ND	---	---	---	30%	
Pyrene	ND	---	281	"	"	---	ND	---	---	---	30%	
Pyridine	ND	---	562	"	"	---	ND	---	---	---	30%	
2,3,4,6-Tetrachlorophenol	ND	---	281	"	"	---	ND	---	---	---	30%	
2,3,5,6-Tetrachlorophenol	ND	---	281	"	"	---	ND	---	---	---	30%	
1,2,4-Trichlorobenzene	ND	---	281	"	"	---	ND	---	---	---	30%	
2,4,5-Trichlorophenol	ND	---	281	"	"	---	ND	---	---	---	30%	
2,4,6-Trichlorophenol	ND	---	281	"	"	---	ND	---	---	---	30%	

Surr: Nitrobenzene-d5 (Surr)	*Recovery: 64 %*	*Limits: 35-120 %*	*Dilution: 1x*
2-Fluorobiphenyl (Surr)	*58 %*	*45-120 %*	*"*
Phenol-d6 (Surr)	*66 %*	*40-120 %*	*"*
p-Terphenyl-d14 (Surr)	*53 %*	*30-125 %*	*"*
2-Fluorophenol (Surr)	*61 %*	*35-120 %*	*"*
2,4,6-Tribromophenol (Surr)	*43 %*	*35-125 %*	*"*

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Matrix Spike (3090616-MS1)					Prepared: 09/26/13 08:46 Analyzed: 09/27/13 11:00							
QC Source Sample: SB-17-12.5' (A3I0375-06)												
EPA 8270D												
Acenaphthene	826	---	298	ug/kg dry	1	954	ND	87	45-120%	---	---	
Acenaphthylene	862	---	298	"	"	"	ND	90	"	---	---	
Aniline	711	---	298	"	"	"	ND	75	40-120%	---	---	
Anthracene	870	---	298	"	"	"	ND	91	55-120%	---	---	
Azobenzene (1,2-DPH)	876	---	298	"	"	"	ND	92	25-120%	---	---	
Benz(a)anthracene	854	---	298	"	"	"	ND	90	50-120%	---	---	
Benzo(a)pyrene	914	---	298	"	"	"	ND	96	"	---	---	
Benzo(b)fluoranthene	904	---	298	"	"	"	ND	95	45-120%	---	---	
Benzo(k)fluoranthene	866	---	298	"	"	"	ND	91	45-125%	---	---	
Benzo(b+k)fluoranthene(s)	1760	---	596	"	"	1910	ND	92	"	---	---	
Benzo(g,h,i)perylene	814	---	298	"	"	954	ND	85	40-125%	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090616 - EPA 3546							**Soil**					
Matrix Spike (3090616-MS1)						Prepared: 09/26/13 08:46	Analyzed: 09/27/13 11:00					
QC Source Sample: SB-17-12.5' (A3I0375-06)												
Benzoic acid	1590	---	1490	ug/kg dry	"	1910	ND	84	10-120%	---	---	
Benzyl alcohol	835	---	298	"	"	954	ND	88	20-125%	---	---	
Bis(2-Chloroethoxy) methane	881	---	298	"	"	"	ND	92	45-120%	---	---	
Bis(2-Chloroethyl) ether	767	---	298	"	"	"	ND	80	40-120%	---	---	
Bis(2-Chloroisopropyl) ether	766	---	298	"	"	"	ND	80	20-120%	---	---	
Bis(2-Ethylhexyl) adipate	856	---	298	"	"	"	ND	90	40-120%	---	---	
Bis(2-ethylhexyl)phthalate	856	---	298	"	"	"	ND	90	45-125%	---	---	
4-Bromophenyl phenyl ether	799	---	298	"	"	"	ND	84	45-120%	---	---	
Butyl benzyl phthalate	881	---	298	"	"	"	ND	92	50-125%	---	---	
Carbazole	907	---	298	"	"	"	ND	95	45-120%	---	---	
4-Chloroaniline	697	---	298	"	"	"	ND	73	10-120%	---	---	
4-Chloro-3-methylphenol	855	---	298	"	"	"	ND	90	45-120%	---	---	
2-Chloronaphthalene	841	---	298	"	"	"	ND	88	"	---	---	
2-Chlorophenol	860	---	298	"	"	"	ND	90	"	---	---	
4-Chlorophenyl phenyl ether	825	---	298	"	"	"	ND	87	"	---	---	
Chrysene	827	---	298	"	"	"	ND	87	55-120%	---	---	
Dibenz(a,h)anthracene	841	---	298	"	"	"	ND	88	40-125%	---	---	
Dibenzofuran	845	---	298	"	"	"	ND	89	50-120%	---	---	
1,2-Dichlorobenzene	763	---	298	"	"	"	ND	80	45-120%	---	---	
1,3-Dichlorobenzene	775	---	298	"	"	"	ND	81	40-120%	---	---	
1,4-Dichlorobenzene	771	---	298	"	"	"	ND	81	35-120%	---	---	
2,4-Dichlorophenol	823	---	298	"	"	"	ND	86	45-120%	---	---	
Di-n-butylphthalate	791	---	298	"	"	"	ND	83	55-120%	---	---	
Diethylphthalate	898	---	298	"	"	"	ND	94	50-120%	---	---	
Dimethylphthalate	855	---	298	"	"	"	ND	90	"	---	---	
2,4-Dimethylphenol	893	---	298	"	"	"	ND	94	30-120%	---	---	
1,2-Dinitrobenzene	782	---	298	"	"	"	ND	82	40-120%	---	---	
1,3-Dinitrobenzene	802	---	298	"	"	"	ND	84	"	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090616 - EPA 3546							**Soil**					
Matrix Spike (3090616-MS1)					Prepared: 09/26/13 08:46		Analyzed: 09/27/13 11:00					
QC Source Sample: SB-17-12.5' (A3I0375-06)												
1,4-Dinitrobenzene	792	---	298	"	"	"	ND	83	"	---	---	
4,6-Dinitro-2-methylphenol	746	---	715	"	"	"	ND	78	30-135%	---	---	
2,4-Dinitrophenol	782	---	298	"	"	"	ND	82	15-130%	---	---	
2,4-Dinitrotoluene	806	---	298	"	"	"	ND	85	50-120%	---	---	
2,6-Dinitrotoluene	803	---	298	"	"	"	ND	84	"	---	---	
Di-n-octyl phthalate	891	---	298	"	"	"	ND	93	40-130%	---	---	
Fluoranthene	869	---	298	"	"	"	ND	91	55-120%	---	---	
Fluorene	866	---	298	"	"	"	ND	91	50-120%	---	---	
Hexachlorobenzene	772	---	298	"	"	"	ND	81	45-120%	---	---	
Hexachlorobutadiene	799	---	298	"	"	"	ND	84	40-120%	---	---	
Hexachlorocyclopentadiene	867	---	298	"	"	"	ND	91	"	---	---	
Hexachloroethane	776	---	298	"	"	"	ND	81	35-120%	---	---	
Indeno(1,2,3-cd)pyrene	817	---	298	"	"	"	ND	86	40-120%	---	---	
Isophorone	858	---	298	"	"	"	ND	90	45-120%	---	---	
1-Methylnaphthalene	858	---	298	"	"	"	ND	90	"	---	---	
2-Methylnaphthalene	894	---	298	"	"	"	ND	94	"	---	---	
2-Methylphenol	787	---	298	"	"	"	ND	82	40-120%	---	---	
3+4-Methylphenol(s)	874	---	298	"	"	"	ND	92	"	---	---	
Naphthalene	802	---	298	"	"	"	ND	84	"	---	---	
2-Nitroaniline	819	---	298	"	"	"	ND	86	45-120%	---	---	
3-Nitroaniline	725	---	298	"	"	"	ND	76	25-120%	---	---	
4-Nitroaniline	772	---	298	"	"	"	ND	81	35-120%	---	---	
Nitrobenzene	857	---	298	"	"	"	ND	90	40-120%	---	---	
2-Nitrophenol	879	---	298	"	"	"	ND	92	"	---	---	
4-Nitrophenol	809	---	298	"	"	"	ND	85	15-140%	---	---	
N-Nitrosodimethylamine	776	---	298	"	"	"	ND	81	20-120%	---	---	
N-Nitroso-di-n-propylamine	753	---	298	"	"	"	ND	79	40-120%	---	---	
N-Nitrosodiphenylamine	863	---	298	"	"	"	ND	90	50-120%	---	---	
Pentachlorophenol (PCP)	719	---	298	"	"	"	ND	75	25-120%	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

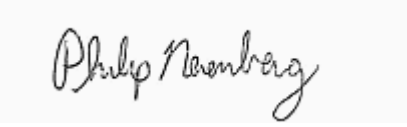
QUALITY CONTROL (QC) SAMPLE RESULTS

Semivolatile Organic Compounds by EPA 8270D

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090616 - EPA 3546							**Soil**					
Matrix Spike (3090616-MS1)						Prepared: 09/26/13 08:46	Analyzed: 09/27/13 11:00					
QC Source Sample: SB-17-12.5' (A3I0375-06)												
Phenanthrene	816	---	298	ug/kg dry	"	"	ND	86	50-120%	---	---	
Phenol	976	---	298	"	"	"	ND	102	40-120%	---	---	Q-41
Pyrene	842	---	298	"	"	"	ND	88	45-120%	---	---	
Pyridine	ND	---	596	"	"	"	ND	61	40-120%	---	---	
2,3,4,6-Tetrachlorophenol	769	---	298	"	"	"	ND	81	"	---	---	
2,3,5,6-Tetrachlorophenol	765	---	298	"	"	"	ND	80	"	---	---	
1,2,4-Trichlorobenzene	827	---	298	"	"	"	ND	87	45-120%	---	---	
2,4,5-Trichlorophenol	808	---	298	"	"	"	ND	85	50-120%	---	---	
2,4,6-Trichlorophenol	782	---	298	"	"	"	ND	82	45-120%	---	---	

Surr: Nitrobenzene-d5 (Surr)	*Recovery: 86 %*	*Limits: 35-120 %*	*Dilution: 1x*
2-Fluorobiphenyl (Surr)	*84 %*	*45-120 %*	*"*
Phenol-d6 (Surr)	*99 %*	*40-120 %*	*"*
p-Terphenyl-d14 (Surr)	*87 %*	*30-125 %*	*"*
2-Fluorophenol (Surr)	*95 %*	*35-120 %*	*"*
2,4,6-Tribromophenol (Surr)	*82 %*	*35-125 %*	*"*

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

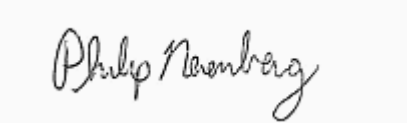
Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090712 - EPA 3051A							**Soil**					
Blank (3090712-BLK1)					Prepared: 09/30/13 13:54		Analyzed: 10/02/13 10:37					
EPA 6020A												
Arsenic	ND	---	1.00	mg/kg wet	10	---	---	---	---	---	---	
Barium	ND	---	1.00	"	"	---	---	---	---	---	---	
Cadmium	ND	---	0.200	"	"	---	---	---	---	---	---	
Chromium	ND	---	1.00	"	"	---	---	---	---	---	---	
Lead	ND	---	0.200	"	"	---	---	---	---	---	---	
Mercury	ND	---	0.0800	"	"	---	---	---	---	---	---	
Selenium	ND	---	1.00	"	"	---	---	---	---	---	---	
Silver	ND	---	0.200	"	"	---	---	---	---	---	---	
LCS (3090712-BS1)					Prepared: 09/30/13 13:54		Analyzed: 10/02/13 10:45					
EPA 6020A												
Arsenic	55.3	---	1.00	mg/kg wet	10	50.0	---	111	80-120%	---	---	
Barium	54.5	---	1.00	"	"	"	---	109	"	---	---	
Cadmium	54.8	---	0.200	"	"	"	---	109	"	---	---	
Chromium	53.4	---	1.00	"	"	"	---	107	"	---	---	
Lead	56.5	---	0.200	"	"	"	---	113	"	---	---	
Mercury	1.14	---	0.0800	"	"	1.00	---	114	"	---	---	
Selenium	28.6	---	1.00	"	"	25.0	---	115	"	---	---	
Silver	27.2	---	0.200	"	"	"	---	109	"	---	---	
Duplicate (3090712-DUP1)					Prepared: 09/30/13 13:54		Analyzed: 10/02/13 10:59					
QC Source Sample: SB-8-12.5' (A3I0375-03)												
EPA 6020A												
Arsenic	**4.14**	---	1.31	mg/kg dry	10	---	4.09	---	---	1	40%	
Barium	**142**	---	1.31	"	"	---	145	---	---	2	40%	
Cadmium	**0.327**	---	0.262	"	"	---	0.313	---	---	4	40%	
Chromium	**16.4**	---	1.31	"	"	---	15.8	---	---	4	40%	
Lead	**10.4**	---	0.262	"	"	---	9.32	---	---	11	40%	
Mercury	ND	---	0.105	"	"	---	ND	---	---	---	40%	
Selenium	ND	---	1.31	"	"	---	ND	---	---	---	40%	
Silver	ND	---	0.262	"	"	---	ND	---	---	---	40%	

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090712 - EPA 3051A							**Soil**					
Matrix Spike (3090712-MS1)						Prepared: 09/30/13 13:54	Analyzed: 10/02/13 11:02					
QC Source Sample: SB-8-12.5' (A3I0375-03)												
EPA 6020A												
Arsenic	72.0	---	1.29	mg/kg dry	10	64.3	4.09	106	75-125%	---	---	
Barium	217	---	1.29	"	"	"	145	112	"	---	---	
Cadmium	68.6	---	0.257	"	"	"	0.313	106	"	---	---	
Chromium	84.5	---	1.29	"	"	"	15.8	107	"	---	---	
Lead	77.0	---	0.257	"	"	"	9.32	105	"	---	---	
Mercury	1.33	---	0.103	"	"	1.29	ND	104	"	---	---	
Selenium	35.2	---	1.29	"	"	32.1	ND	110	"	---	---	
Silver	33.5	---	0.257	"	"	"	ND	104	"	---	---	

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

QUALITY CONTROL (QC) SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 3090456 - Total Solids (Dry Weight)							**Soil**					
Duplicate (3090456-DUP1)					Prepared: 09/19/13 15:39		Analyzed: 09/20/13 12:03					
QC Source Sample: SB-17-12.5' (A3I0375-06)												
NWTPH-Dx												
% Solids	**78.2**	---	1.00	% by Weight	1	---	78.4	---	---	0.3	20%	

No Client related Batch QC samples analyzed for this batch. See notes page for more information.

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

SAMPLE PREPARATION INFORMATION

Hydrocarbon Identification Screen by NWTPH-HCID

Prep: NWTPH-HCID (Soil)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3090455							
A3I0375-01	Soil	NWTPH-HCID	09/18/13 11:30	09/19/13 15:27	9.95g/10mL	10g/10mL	1.01
A3I0375-02	Soil	NWTPH-HCID	09/18/13 09:40	09/19/13 15:27	10.84g/10mL	10g/10mL	0.92
A3I0375-03	Soil	NWTPH-HCID	09/18/13 08:35	09/19/13 15:27	9.61g/10mL	10g/10mL	1.04
A3I0375-04	Soil	NWTPH-HCID	09/18/13 10:45	09/19/13 15:27	9.84g/10mL	10g/10mL	1.02
A3I0375-05	Soil	NWTPH-HCID	09/18/13 12:55	09/19/13 15:27	10.04g/10mL	10g/10mL	1.00
A3I0375-06	Soil	NWTPH-HCID	09/18/13 14:15	09/19/13 15:27	9.89g/10mL	10g/10mL	1.01

Volatile Organic Compounds by EPA 8260B

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3090434							
A3I0375-01	Soil	5035/8260B	09/18/13 11:30	09/18/13 17:45	12.3g/10mL	10g/10mL	0.81
A3I0375-02	Soil	5035/8260B	09/18/13 09:40	09/18/13 17:45	13.58g/10mL	10g/10mL	0.74
A3I0375-03	Soil	5035/8260B	09/18/13 08:35	09/18/13 17:45	12.97g/10mL	10g/10mL	0.77
A3I0375-04	Soil	5035/8260B	09/18/13 10:45	09/18/13 17:45	11.88g/10mL	10g/10mL	0.84
A3I0375-05	Soil	5035/8260B	09/18/13 12:55	09/18/13 17:45	12.55g/10mL	10g/10mL	0.80
A3I0375-06	Soil	5035/8260B	09/18/13 14:15	09/18/13 17:45	12.21g/10mL	10g/10mL	0.82

Polychlorinated Biphenyls by EPA 8082A

Prep: EPA 3546

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3100002							
A3I0375-01	Soil	EPA 8082A	09/18/13 11:30	10/01/13 07:47	11.2g/5mL	10g/5mL	0.89
Batch: 3100052							
A3I0375-02RE1	Soil	EPA 8082A	09/18/13 09:40	10/02/13 08:21	11.02g/5mL	10g/5mL	0.91
A3I0375-03RE1	Soil	EPA 8082A	09/18/13 08:35	10/02/13 08:21	10.35g/5mL	10g/5mL	0.97
A3I0375-04RE1	Soil	EPA 8082A	09/18/13 10:45	10/02/13 08:21	10.22g/5mL	10g/5mL	0.98
A3I0375-05RE1	Soil	EPA 8082A	09/18/13 12:55	10/02/13 08:21	10.48g/5mL	10g/5mL	0.95
A3I0375-06RE1	Soil	EPA 8082A	09/18/13 14:15	10/02/13 08:21	10.43g/5mL	10g/5mL	0.96

Semivolatile Organic Compounds by EPA 8270D

Prep: EPA 3546

Sample	Default	RL Prep

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

SAMPLE PREPARATION INFORMATION

Semivolatile Organic Compounds by EPA 8270D

Lab Number	Matrix	Method	Sampled	Prepared	Initial/Final	Initial/Final	Factor
Batch: 3090616							
A3I0375-01RE1	Soil	EPA 8270D	09/18/13 11:30	09/26/13 08:46	11.27g/5mL	10g/5mL	0.89
A3I0375-02RE2	Soil	EPA 8270D	09/18/13 09:40	09/26/13 08:46	10.88g/5mL	10g/5mL	0.92
A3I0375-03RE1	Soil	EPA 8270D	09/18/13 08:35	09/26/13 08:46	11.16g/5mL	10g/5mL	0.90
A3I0375-04RE2	Soil	EPA 8270D	09/18/13 10:45	09/26/13 08:46	10.39g/5mL	10g/5mL	0.96
A3I0375-05RE1	Soil	EPA 8270D	09/18/13 12:55	09/26/13 08:46	11.62g/5mL	10g/5mL	0.86
A3I0375-06RE1	Soil	EPA 8270D	09/18/13 14:15	09/26/13 08:46	10.64g/5mL	10g/5mL	0.94

Total Metals by EPA 6020 (ICPMS)

Prep: EPA 3051A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3090712							
A3I0375-01	Soil	EPA 6020A	09/18/13 11:30	09/30/13 13:54	0.49g/50mL	0.5g/50mL	1.02
A3I0375-02	Soil	EPA 6020A	09/18/13 09:40	09/30/13 13:54	0.469g/50mL	0.5g/50mL	1.07
A3I0375-03	Soil	EPA 6020A	09/18/13 08:35	09/30/13 13:54	0.465g/50mL	0.5g/50mL	1.08
A3I0375-04	Soil	EPA 6020A	09/18/13 10:45	09/30/13 13:54	0.454g/50mL	0.5g/50mL	1.10
A3I0375-05	Soil	EPA 6020A	09/18/13 12:55	09/30/13 13:54	0.502g/50mL	0.5g/50mL	1.00
A3I0375-06	Soil	EPA 6020A	09/18/13 14:15	09/30/13 13:54	0.52g/50mL	0.5g/50mL	0.96

Percent Dry Weight

Prep: Total Solids (Dry Weight)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 3090456							
A3I0375-01	Soil	NWTPH-Dx	09/18/13 11:30	09/19/13 15:39	1N/A/1N/A	1N/A/1N/A	NA
A3I0375-02	Soil	NWTPH-Dx	09/18/13 09:40	09/19/13 15:39	1N/A/1N/A	1N/A/1N/A	NA
A3I0375-03	Soil	NWTPH-Dx	09/18/13 08:35	09/19/13 15:39	1N/A/1N/A	1N/A/1N/A	NA
A3I0375-04	Soil	NWTPH-Dx	09/18/13 10:45	09/19/13 15:39	1N/A/1N/A	1N/A/1N/A	NA
A3I0375-05	Soil	NWTPH-Dx	09/18/13 12:55	09/19/13 15:39	1N/A/1N/A	1N/A/1N/A	NA
A3I0375-06	Soil	NWTPH-Dx	09/18/13 14:15	09/19/13 15:39	1N/A/1N/A	1N/A/1N/A	NA

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

Notes and Definitions

Qualifiers:

C-07	Extract has undergone Sulfuric Acid Cleanup by EPA 3665A, Sulfur Cleanup by EPA 3660B, and Florisil Cleanup by EPA 3620B in order to minimize matrix interference.
EST	Result reported as an Estimated Value. Recovery for Lab Control Spike (LCS) is above the upper control limit. Data may be biased high.
Q-18	Matrix Spike results for this extraction batch are not reported due to the high dilution necessary for analysis of the source sample.
Q-23	Recovery of Continuing Calibration Verification sample above upper control limit for this analyte. Data is likely biased high.
Q-31	Estimated Results. Recovery of Continuing Calibration Verification sample below lower control limit for this analyte. Results are likely biased low.
Q-41	Estimated Results. Recovery of Continuing Calibration Verification sample above upper control limit for this analyte. Results are likely biased high.
S-03	Reextraction and analysis, or analysis of laboratory duplicate, confirms surrogate failure due to sample matrix effect.
V-15	Sample aliquot was subsampled from the sample container. The subsampled aliquot was preserved in the laboratory within 48 hours of sampling.

Notes and Conventions:

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis. Results listed as 'wet' or without 'dry'designation are not dry weight corrected.
RPD	Relative Percent Difference
MDL	If MDL is not listed, data has been evaluated to the Method Reporting Limit only.
WMSC	Water Miscible Solvent Correction has been applied to Results and MRLs for volatiles soil samples per EPA 8000C.
Batch QC	Unless specifically requested, this report contains only results for Batch QC derived from client samples included in this report. All analyses were performed with the appropriate Batch QC (including Sample Duplicates, Matrix Spikes and/or Matrix Spike Duplicates) in order to meet or exceed method and regulatory requirements. Any exceptions to this will be qualified in this report. Complete Batch QC results are available upon request. In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) is analyzed to demonstrate accuracy and precision of the extraction and analysis.
Blank Policy	Apex assesses blank data for potential high bias down to a level equal to ½ the method reporting limit (MRL), except for conventional chemistry and HCID analyses which are assessed only to the MRL. Sample results flagged with a B or B-02 qualifier are potentially biased high if they are less than ten times the level found in the blank for inorganic analyses or less than five times the level found in the blank for organic analyses. For accurate comparison of volatile results to the level found in the blank; water sample results should be divided by the dilution factor, and soil sample results should be divided by 1/50 of the sample dilution to account for the sample prep factor. Results qualified as reported below the MRL may include a potential high bias if associated with a B or B-02 qualified blank. B and B-02 qualifications are not applied to J qualified results reported below the MRL.
---	QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

*** Used to indicate a possible discrepency with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Apex Laboratories

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Stantec	Project: **OSH Phase II**	
9400 SW Barnes Rd Ste 200	Project Number: 185750148	**Reported:**
Portland, OR 97225	Project Manager: Chris Gdak	10/07/13 13:55

APEX LABS — 12232 S.W. Garden Place, Tigard, OR 97223 Ph: 503-718-2323 Fax: 503-718-0333

CHAIN OF CUSTODY

Lab # A310370 Box 1 of 1

Company: STANTEC CONSULTING — Project Mgr: CHRIS GDAK — Project Name: OSH PHASE II — Project # 185750148

Address: 12014 134TH COURT NE, STE 102, REDMOND WA — Phone: 425 298 9000 — Fax: 425 298 1019 — Email: CHRIS.GDAK@STANTEC.COM

Sampled by:

Site Location: (OR) WA — Other: _____

ANALYSIS REQUEST

SAMPLE ID	LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 VOC	8260 RBDM VOCs	8260 BTEX	8270 SVOC	8270 SIM PAHs	8082 PCBs	600 TTO	RCRA Metals (8)	TCLP Metals (8)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL MISS TCLP	1200- COLS	1200-Z
SB-3-12.5'		9/18/13	1130	SOIL	2	X			X			X		X		X				
SB-7-12.5'			940			X			X			X		X		X				
SB-8-12.5'			835			X			X			X		X		X				
SB-12-12.5'			1045			X			X			X		X		X				
SB-16-12.5'			1255			X			X			X		X		X				
SB-17-12.5'			1445		4	X			X			X		X		X				

Normal Turn Around Time (TAT) = 7-10 Business Days — YES / NO

SPECIAL INSTRUCTIONS:

TAT Requested (circle): 1 Day, 2 Day, 3 Day, 4 DAY, 5 DAY, Other: _____

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY: Signature: _____ Date: 9/18/13 Printed Name: ROBERT MCALISTER Time: 1615 Company: APEX

RECEIVED BY: Signature: _____ Date: 9/18/13 Printed Name: _____ Time: 1615 Company: APEX

RELINQUISHED BY: Signature: _____ Date: 9/18/13 Printed Name: _____ Time: 1615 Company: APEX

RECEIVED BY: Signature: _____ Date: _____ Printed Name: _____ Time: _____ Company: _____

Apex Laboratories

Philip Nerenberg

Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Appendix D

Leaking Underground Storage Tank and Environmental Site Cleanup Information Documentation

Oregon Department of Environmental Quality

Heating Oil Tank

Summary Information

General Site Information

24-99-4016		**Basic Incident Information**	
Site Name:	Heating Oil Tank	**Received Date:**	02/10/1999
Address:	2600 CENTER ST NE	**Status:**	CLOSED
	SALEM, 97310	**Tank Type**:	Home Heating Oil Tank
County:	MARION	**File Status:**	No Further Action
Site Type:	Generic Remedy	**UST Facility Id:**	10761
Project Manager	N/A - Project Completed.		

Assessment Information

Cause of Release:	NOT REPORTED	**Source of Release:**	PIPING	**Discovery Method:**	DECOMMISSIONING
Media Effected		**Contaminants Released**			
>Soil		>OtherPetro >Heating Oil			

Delineate Soil	YES	**Delineate Ground Water**	YES	**Soil Delineated**	YES
Groundwater Delineated	YES				

Management Information

Release Stopped Date:	02/09/1999	**Cleanup Start Date:**	02/17/1999	**Cleanup End Date:**	09/11/2000

Work Reported Information

Work Reported	**Reported Date**
Soil Matrix Cleanup	7/28/1999
Tank Decommissioning	7/28/1999
20 DAY REPORT	3/18/1999
Initial Response	2/10/1999
Soil Matrix Cleanup	1/21/1999
Tank Decommissioning	1/21/1999

Oregon Department of Environmental Quality
Headquarters: 811 Sixth Ave., Portland, OR 97204-1390
phone: 503-229-5696 or toll free in Oregon 800-425-4011
TTY: 503-229-6993 FAX: 503-229-6124

The Oregon Department of Environmental Quality is a regulatory agency authorized to protect

Oregon's environment by
the State of Oregon and the Environmental Protection Agency.

DEQ Web site privacy notice

Oregon Department of Environmental Quality

OREGON STATE HOSPITAL

Summary Information

General Site Information

24-89-4017

Basic Incident Information

Site Name:	OREGON STATE HOSPITAL	**Received Date:**	03/13/1989
Address:	2600 CENTER ST NE	**Status:**	CLOSED
	SALEM, 97310	**Tank Type**:	Regulated Tank
County:	MARION	**File Status:**	No Further Action
Site Type:	Generic Remedy	**UST Facility Id:**	10761
Project Manager	N/A - Project Completed.		

Assessment Information

Cause of Release:	NOT REPORTED	**Source of Release:**	TANK	**Discovery Method:**	DECOMMISSIONING

Media Effected

>Soil >FreeVapor >FreeProduct

Contaminants Released

>LeadedGas

Free Product Removed	YES	**Free Vapor Removed**	YES	**Delineate Soil**	YES
Delineate Ground Water	YES	**Soil Delineated**	YES	**Groundwater Delineated**	YES
Compliance Monitoring	YES	**CAP Requested**	YES	**CAP Submitted**	YES

Management Information

Release Stopped Date:	03/14/1989	**Cleanup Start Date:**	03/08/1992	**Cleanup End Date:**	07/20/2000

Work Reported Information

Work Reported	Reported Date
Low Impact Evaluation	3/21/2000
Site Assessment	7/15/1999
Groundwater Investigation	6/23/1999
Other	10/27/1994
Corrective Action Plan	10/27/1994
Groundwater Monitoring	5/23/1994
Groundwater Monitoring	2/25/1994
Groundwater Monitoring	7/6/1993
Site Assessment	4/15/1993
Groundwater Monitoring	2/17/1993
Groundwater Monitoring	9/3/1992
Site Assessment	2/14/1992
Groundwater Monitoring	2/14/1992
Site Assessment	10/16/1989

Work Reported Information

Site Assessment	3/14/1989
Tank Decommissioning	3/14/1989
Initial Response	3/13/1989

Oregon Department of Environmental Quality
Headquarters: 811 Sixth Ave., Portland, OR 97204-1390
phone: 503-229-5696 or toll free in Oregon 800-425-4011
TTY: 503-229-6993 FAX: 503-229-6124

The Oregon Department of Environmental Quality is a regulatory agency authorized to protect Oregon's environment by
the State of Oregon and the Environmental Protection Agency.

DEQ Web site privacy notice

Oregon Department of Environmental Quality

Oregon State Hospital II

Summary Information

General Site Information

24-99-4050		**Basic Incident Information**	
Site Name:	Oregon State Hospital II	**Received Date:**	04/14/1999
Address:	2600 CENTER ST NE	**Status:**	CLOSED
	SALEM, 97310	**Tank Type**:	Regulated Tank
County:	MARION	**File Status:**	No Further Action
Site Type:	Soil Matrix Cleanup	**UST Facility Id:**	10761
Project Manager	N/A - Project Completed.		

Assessment Information

Cause of Release:	OVERFILL	**Source of Release:**	NOT REPORTED	**Discovery Method:**	DECOMMISSIONING
Media Effected			**Contaminants Released**		
>Soil			>Diesel		

Delineate Soil YES **Soil Delineated** YES

Management Information

Release Stopped Date:	04/13/1999	**Cleanup Start Date:**	04/19/1999	**Cleanup End Date:**	06/26/2000

Work Reported Information

Work Reported	**Reported Date**
Tank Decommissioning	8/9/1999
Initial Response	4/14/1999
Soil Matrix Cleanup	4/13/1999
Tank Decommissioning	4/13/1999

Oregon Department of Environmental Quality
Headquarters: 811 Sixth Ave., Portland, OR 97204-1390
phone: 503-229-5696 or toll free in Oregon 800-425-4011
TTY: 503-229-6993 FAX: 503-229-6124

The Oregon Department of Environmental Quality is a regulatory agency authorized to protect Oregon's environment by
the State of Oregon and the Environmental Protection Agency.

DEQ Web site privacy notice

Oregon Department of Environmental Quality

Oregon State Hospital

General Site Information

Site:	**Oregon State Hospital (ECSI Site ID: 1894)**	**CERCLIS (EPA) Id**	
Project Manager:	**N/A - Project Completed.**	**Investigative Status:**	**No Further Action needed**
PM Phone:		**NPL(National Priority Listing):**	**No**
Address:	**2600 Center Street NE**	**Is this site an Orphan?**	**No**
	Salem, 97301	**Is this site a brownfield?**	**No**
County:	**MARION**	**Action Underway or Needed:**	**NO FURTHER STATE ACTION REQUIRED**
Region:	**Western Region**	**Click for more details ...**	

Site Documents

Click the link to view the document.

File Name	Category	File Size MB	Upload Date
1894_NFA_04-06-2009.pdf	Signed NFA letters	0.0575	4/6/2009

Oregon Department of Environmental Quality
Headquarters: 811 Sixth Ave., Portland, OR 97204-1390
phone: 503-229-5696 or toll free in Oregon 800-425-4011
TTY: 503-229-6993 FAX: 503-229-6124

The Oregon Department of Environmental Quality is a regulatory agency authorized to protect Oregon's environment by the State of Oregon and the Environmental Protection Agency.

DEQ Web site privacy notice

Oregon

DEPARTMENT OF
ENVIRONMENTAL
QUALITY

WESTERN REGION

June 11, 1997

Mr. Doug Suchy
Oregon State Hospital
2600 Center Street NE
Salem, OR 97310

Re: Building 33, Oregon State Hospital
Salem, Oregon
Marion County
ECSI ID # 1894

Dear Mr. Suchy:

The Oregon Department of Environmental Quality (DEQ) has completed a review of the spill investigation for the elevator shaft located at Building 33, Oregon State Hospital, Salem.

Based on the information presented, DEQ has determined that under the Oregon Environmental Cleanup Law, Oregon Revised Statutes (ORS) 465.200, no further action is required for this site at this time. Furthermore, DEQ's determination will not be applicable if new or undisclosed facts show that the cleanup does not comply with the referenced rules. DEQ's determination also does not apply to any conditions at the site other than the release of the petroleum product specifically addressed in your report.

We will update the Environmental Cleanup Site Information (ECSI) database to reflect this decision.

If you have questions regarding this site, please contact me at (541) 776-6010 ext. 228.

Sincerely,

Claudia P. Johansen

Claudia P. Johansen, Project Manager
Voluntary Cleanup Program
DEQ Western Region

201 W Main, Suite 2-D
Medford, OR 97501
(541) 776-6010
FAX (541) 776-6262

DEQ/SWR 103

cc: Voluntary Cleanup Program - Eugene
Ms. Susan Riley, OSH
ECSI file # 1894

Appendix E

Irrigation Well Abandonment Cost Estimate

Stantec Consulting Services, Inc.
900 SW Barnes Road, Suite 200
Portland, Oregon 97225
(503)297-1631

Site: Oregon State Hospital - North Campus

Contact: Mr. Darrin Brightman, AICP
Planner 3, Real Estate Services
Oregon Department of Administrative Services
1225 Ferry Street SE, U100
Salem, Oregon 97301

Description: Irrigation Well Abandonment

Task	Quantity	Unit Rate		Cost
1. Pump truck to remove mechanical components from well				
Subcontractor (Pump truck and operator, 8-hour day)	1	$1,400		$1,400
Project Geologist	8	$109		$872
			Total:	**$2,272.00**
2. Video inspection of well casing				
Subcontractor (Flat rate, per day)	1	$800		$800.00
Project Geologist	8	$109		$872.00
			Total:	**$1,672.00**
3. Well abandonment				
Drill rig and crew (4 days)	4	$6,000		$24,000.00
Concrete pump truck (1 day)	1	$1,400		$1,400.00
Cement grout ($325/yard)	90	$325		$29,250.00
Project Geologist (5 days)	50	$109		$5,450.00
			Total:	**$60,100.00**
5. Preparation of technical memo				
Project Geologist	8	$109		$872.00
Senior Engineer	3	$136		$408.00
Drafting	2	$100		$200.00
			Total:	**$1,480.00**
			Total proposed costs:	**$65,524.00**