

July 11, 2005 File No.: 56130

Mr. Don Mellott Director of Civil Engineering BCRA 2106 Pacific Avenue, Suite 300 Tacoma, WA 98402

SUBJECT: Reliance Letter Limited Phase II Environmental Site Assessment Report Proposed Retail Site (No. 4265-00) 2119 Mildred Street West Fircrest, Washington

Dear Mr. Mellott:

Per your request, Kleinfelder, Inc. (Kleinfelder) is pleased to provide this reliance letter to Wal-Mart Stores, Inc. (Wal-Mart) for the June 24, 2005 Limited Phase II Environmental Site Assessment (ESA) report prepared by Kleinfelder, Inc. for the above-referenced project. The report was prepared under contract between BCRA and Kleinfelder.

The following report may be relied upon by Wal-Mart, however, by accepting, Wal-Mart agrees that any use or reliance it places on the report shall be limited to the qualifications and limitations stated within the report and to the Terms and Conditions of the applicable project specific subconsultant agreement between Kleinfelder and BCRA:

 Limited Phase II Environmental Site Assessment, Proposed Retail Site (No. 4265-00), 2119 Mildred Street West, Fircrest, Washington. Kleinfelder Project No. 56130, dated June 24, 2005.

Wal-Mart shall also acknowledge that actual site conditions may change with time; that hidden conditions, not discoverable within the scope of the project, may exist at the site; and that the scope of the investigation was limited by time, budget and other constraints outlined in the report. Regardless of the findings of Kleinfelder's assessment, Kleinfelder makes no warranty that the site is free from existing or threatened pollution and Kleinfelder is not responsible for consequences or conditions arising from facts that were concealed, withheld or not fully disclosed at the time the project was conducted.

In the preparation of the report and in the assembling of data and information related thereto, Kleinfelder represents to Wal-Mart that it has used the degree of care and skill ordinarily exercised by geotechnical and environmental consultants. No other warranties, expressed or implied, are made.

Kleinfelder appreciates the opportunity to be of service to you in this matter. Please do not hesitate to contact us at (425) 562-4200 or John Mancini, Kleinfelder's Client Service Manager for BCRA at (801) 261-3336, if you have any questions or require further information.

Sincerely,

KLEINFELDER, INC.

Joel Carson, Senior Associate Washington Area Manager

cc: John Mancini, Kleinfelder, Salt Lake City, UT



June 24, 2005 Kleinfelder Project No.: 56130

Mr. Don Mellott, P.E. Director of Civil Engineering BCRA 2106 Pacific Avenue, Suite 300 Tacoma, WA 98402

Subject: Limited Phase II Environmental Site Assessment Proposed Retail Site (No. 4265-00) 2119 Mildred Street West Fircrest, Washington

Dear Mr. Mellott:

This letter presents the results of our Limited Phase II Environmental Site Assessment (ESA) performed at the above-referenced property located in Fircrest, Washington (see attached Figures 1 and 2). This limited investigation was performed to assess the potential presence of shallow soil and groundwater contamination from past site operations.

Our site assessment included collecting 29 discreet soil samples from 20 borings advanced along the northwest, central, and eastern portions of the property (see Figure 2 for boring locations). Three perched water samples were also collected from three soil borings completed along the central portion of the site. Following soil and perched water sampling activities, groundwater monitoring wells were installed within five soil borings completed along the eastern end of the site (see Figure 2 for monitoring well locations). Once the wells were installed and developed, one water sample was collected from each of the monitoring wells. Soil and water samples collected during this assessment were analyzed at a State Certified laboratory for the presence of volatile organic compounds (VOCs), total and dissolved metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver), and total petroleum hydrocarbons (TPH as gasoline, diesel, and heavy oil).

In summary, the analytical results of the shallow soil and water samples indicate that the concentrations of TPH (as heavy oil) in three soil samples collected at the site and one VOC constituent (tetrachloroethene (PCE)) in two soil samples collected at the site exceeded Washington Department of Ecology's Model Toxics Control Act (MTCA) Method A soil

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cleanup levels. Isopropyltoluene, lead, chromium, and arsenic were also detected in several soil samples collected at the site, but not at concentrations exceeding MTCA Method A soil cleanup levels. Dissolved metals (arsenic, barium, chromium, and selenium) and one VOC constituent (acetone) were detected in some or all of the shallow groundwater samples collected at the site, but only the arsenic concentrations from two groundwater samples collected at the site exceeded the MTCA Method A groundwater cleanup level for arsenic. No other VOCs or TPH (as gasoline, diesel, and heavy oil) were detected above the laboratory reporting limits in shallow groundwater samples collected from the site. Analytical results are summarized in Tables 3 through 8 (see attached).

PREVIOUS SITE INVESTIGATION

A Phase I Environmental Site Assessment (ESA) report completed for the subject site (Kleinfelder, May 25, 2005) indicated that the northwest portion of the property is developed with a large industrial building and two smaller detached structures (a spray painting shed and a paint storage shed). The remainder of the property is undeveloped and was previously used as a depository for fill material. The industrial building and sheds are unoccupied and were observed storing the site owner's personal property, as well as an assortment of equipment, tools, machinery, and supplies that were formerly used in conjunction with the manufacturing of marine automatic pilots when the site was occupied by Metal Marine Pilot, Inc. Reportedly, Metal Marine Pilot had occupied the site from 1959 and ceased operations sometime during 2000. Hazardous materials used by Metal Marine Pilot in conjunction with their site operations included detergents, kerosene, paints, thinners, varnishes, stains, acids, glues, alcohols, aluminum coatings, hydraulic oil, and an assortment of cleaning solvents (PCE, methyl ethyl ketone, etc.).

Hazardous wastes formerly generated at the site included spent solvents, scrap metal, and sludge mixtures derived from washing and cleaning marine automatic pilot parts. During the course of Metal Marine Pilot's use at the site (1959 to 2000), there were several instances where hazardous materials were reportedly discharged or buried along the central and eastern portions of the site. There were also records indicating that four underground storage tanks (USTs) were removed and PCE impacted soil located in the central portion of the site was remediated during the late 1990s.

Kleinfelder's Phase I ESA report concluded that a recognized environmental condition was found to exist at the subject property. In summary, the site has had a long history of industrial use, which included the use and reported disposal of hazardous materials on the property.

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Previous environmental investigation and remediation reports completed for the site indicated that some of the past environmental issues were successfully addressed at the site. However, some areas were not adequately addressed (see Section 6.2 in the Phase I ESA report for details).

Recommendations contained in the Phase I ESA report included performing a limited subsurface investigation at the site to address the potential presence of shallow soil and groundwater contamination from Metal Marine Pilot's use of the property. Analytical results generated during the limited subsurface investigation could then be evaluated as to whether (or not) a more extensive investigation (i.e. the collection of additional soil and/or groundwater samples) should be performed at the site.

SOIL LITHOLOGY AND DEPTH TO GROUNDWATER

The near surface geology at the site consists of glacial till, which includes medium dense to very dense silty sand with some fine to coarse gravel. The glacial till extends to at least 40 feet below ground surface (bgs).

Fill material overlies the glacial till on most of the property east of the buildings. The depth of fill reported ranges between 1 to 25 feet bgs and consists of loose to medium dense silty sand, concrete rubble, and vegetation debris.

Perched water encountered at the site ranged in depths from approximately 16.6 to 19.6 feet bgs. Based on the subsurface drilling performed during this assessment and based on the results of Kleinfelder's geotechnical investigation of the site, it appears that perched water at the site is intermittent. The thickness of perched water is also variable. Of the five wells installed at the site during the course of this investigation, one well was dry (MW-67) and another had eight feet of water standing in the casing at the time of sampling (see Table 2 attached).

FIELD ACTIVITIES

Field activities involved with completing this Limited Phase II ESA were performed during May and June 2005. The field activities included collecting soil samples from 20 borings completed along the northwest, central, and eastern portions of the site. Perched groundwater samples were collected from three of the borings advanced along the central portion of the property. Field activities also included the installation of five temporary perched groundwater monitoring wells and the collection of water samples from each of the wells.

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Drilling and Soil Sampling Activities

Between May 26 and May 31, 2005, twenty soil borings (B-58 through B-77) were completed along the northwest, central, and eastern portions of the site using a tuck-mounted drill rig supplied and operated by Boart Longyear/Holt Drilling, Inc. Five of the 20 borings (B-72 through B-76) were completed inside the main industrial building located along the northwest end of the property. Borings B-72 through B-76 were drilled using a small portable Taskmaster drill rig. Boring locations are depicted on Figure 2.

Soil borings advanced along the central and eastern portions of the site (outside of the industrial building) ranged in depths of approximately 6 to 24 feet bgs. Soil borings advanced within the industrial building ranged in depths of approximately 1.5 to 6 feet bgs. Soil samples for logging purposes were collected from each boring at a minimum depth interval of every 2.5 feet using a PVC sampling sleeve. Soil samples collected during this investigation were visually inspected for signs of chemical staining and field screened using a photoionization detector (PID). Soil samples were described using the Unified Soil Classification System (USCS). Prior to arrival at the site and between boring locations, the drilling equipment was cleaned using a steam cleaner.

Up to two soil samples per boring were selected for laboratory analysis based on field screening results. Perched water samples collected from borings B-59, B-63, and B-65 were also selected for laboratory analysis. Table 1 (attached) lists the soil and perched water samples collected during this Limited Phase II ESA investigation.

Nitrile type gloves were worn during sampling activities at each boring location. All soil samples selected for TPH and total metals analysis were transferred in the field from the sampling sleeves into four-ounce glass jars supplied by the laboratory. Soil samples selected to be analyzed for VOCs were collected directly from the sampling sleeves using plastic syringes in accordance with EPA's soil sampling method 5035A. A new syringe was used for every soil sample collected. Perched water samples collected from the bottoms of borings B-59, B-63, and B-65 were transferred into plastic and glass containers supplied by the laboratory using a peristaltic pump.

The jars containing the soil and perched water samples were sealed, labeled, and stored on ice in a cooler (and in a refrigerator) until delivery to the laboratory. The samples were delivered to ESN Northwest, a State Certified laboratory in Bellevue, Washington, to be analyzed for one or more of the following:

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- VOCs, including gasoline components: benzene, toluene, ethylbenzene, and xylenes (BTEX) using procedures based on U.S. Environmental Protection Agency's (EPA's) Method 8260.
- TPH (as gasoline), by Ecology Method NWTPH-Gx. .
- TPH (as diesel and heavy oil), by Ecology Method NWTPH-Dx.
- Total (soil) and dissolved (water) metals (eight priority pollutant metals: arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver), by EPA 6000 and 7000 Series Methods.

Monitoring Well Installation

After completing the borings and collecting the soil and perched water samples, temporary groundwater monitoring wells were installed immediately adjacent to boreholes B-66, B-67, B-68, B-69, and B-70 on May 29, 2005 (Figure 2). The monitoring wells were installed in accordance with Washington Administrative Code (WAC) 173-160 Minimum Standards for Construction and Maintenance of Wells.

The monitoring wells were constructed of 0.75-inch diameter, flush-thread Schedule 40 PVC casing and 5 feet of pre-packed 0.010-inch slot well screens manufactured by GeoInsights. The well screen for MW-66 was installed at approximately 15.6 to 20.5 feet bgs. The well screens for MW-67 and MW-68 were installed at approximately 19.3 to 24.3 feet bgs. The well screens for MW-69 and MW-70 were installed at approximately 20.0 to 25.0 feet bgs. The base of each well screen was sealed with a flush PVC bottom screw cap. A filter pack consisting of silica sand was placed around the wells to a depth of approximately ten feet below the ground surface. The annular space above the filter pack was sealed with approximately 10 feet of bentonite granules. A plastic end cap was placed on top of the PVC well casings and a protective flushmount steel well cover was installed and sealed over the wells at ground surface.

The boring logs and well completion details are included as an attachment to this report.

Monitoring Well Development

On May 31, 2005, the monitoring wells were developed by Kleinfelder by pumping the wells with a peristaltic pump until dry, except in the case of monitoring well MW-70, which was pumped until the water became clear.

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Survey of Monitoring Well Locations and Elevations

On June 14, 2005, the monitoring wells were surveyed by Sitts & Hill Engineers. The basis of bearing for the survey was the Washington State Plane coordinate system, South zone, NAD 83/91 US foot, with a vertical datum of NGVD 29. The vertical, horizontal and ground surface survey controls of the well casings were measured to the nearest one-hundredth of a foot (0.01).

The well elevations, depth to water, and perched water elevations are summarized in Table 2. Perched water elevations varied depending on the quantity of water encountered within each of the wells. Although the perched water gradient could not be accurately calculated, the inferred groundwater flow direction is estimated to be towards the east and southeast, generally following surface topography.

Groundwater Sampling

On June 1, 2005, Kleinfelder collected groundwater samples from four of the five newly installed monitoring wells (MW-66, MW-68, MW-69 and MW-70). MW-67 was dry at the time of sampling. MW-66, MW-68, and MW-69 were purged dry using a peristaltic pump on May 31, 2005, and again on June 1, 2005 during sampling. A full sample volume was obtained from MW-68, MW-69, and MW-70. Partial sample volume was obtained from MW-66. Groundwater samples were obtained using a peristaltic pump and dedicated tubing.

Accurate documentation of field activities and measurements was recorded on Field Sampling Data Sheets (FSDS). Recorded data included sample collection information, as well as field measurements of pH and temperature when sufficient sample volume was available.

Nitrile gloves were worn during sampling activities at each well location. All samples were transferred into containers previously prepared by the laboratory. The sample containers were sealed, labeled, and stored on ice in a cooler (and in a refrigerator) until delivery to the analytical laboratory.

The groundwater samples were submitted to ESN Northwest for the following analysis:

- VOCs, including gasoline components: benzene, toluene, ethylbenzene, and xylenes (BTEX) using procedures based on U.S. Environmental Protection Agency's (EPA's) Method 8260.
- TPH (as gasoline), by Ecology Method NWTPH-Gx.
- TPH (as diesel and heavy oil), by Ecology Method NWTPH-Dx.

Dissolved metals (eight priority pollutant metals: arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver), by EPA 6000 and 7000 Series Methods.

RESULTS

Applicable Regulatory Standards – Soil and Groundwater

The rules that guide the cleanup process at sites within Washington are incorporated into the Model Toxics Control Act (MTCA) administered by Ecology, as defined in WAC 173-340. For this report, VOCs, metals, and TPH analytical laboratory results are compared to MTCA Method A cleanup levels for soil and groundwater. The Method A cleanup levels are conservative and are for sites with relatively few hazardous substances, which may be inappropriate for all sites. The regulations state that Method A should not automatically be used to define cleanup levels that must be met for financial, real estate, insurance coverage, or similar purposes. Additionally, exceedances of Method A cleanup levels do not necessarily mandate a cleanup action for a site. The applicable MTCA Method A soil and groundwater cleanup levels are presented in Tables 3 through 8, alongside the soil and perched water sample analytical results, for comparison.

The detected constituents that were reported by the laboratory as exceeding MTCA Method A soil and groundwater cleanup levels (i.e. TPH (as heavy oil), PCE, and arsenic) are discussed in detail below.

Soil Sample Analytical Results—Heavy Oil

TPH (as heavy oil) was detected in the following eight soil samples: B58-4 (850 mg/kg), B58-5 (740 mg/kg), B59-2 (6,500 mg/kg), B63-6 (6,200 mg/kg), B64-4 (1,400 mg/kg), B64-6 (170 mg/kg), B67-6 (6,600 mg/kg), and B69-4 (940 mg/kg). The MTCA Method A soil cleanup level for TPH (as heavy oil) is 2,000 mg/kg (see Table 3). Therefore, TPH (as heavy oil) concentrations in samples B59-2, B63-6, and B67-6 (see above) exceed the MTCA Method A soil cleanup level for TPH (as heavy oil). The soil samples impacted with heavy oil were either stained, produced an elevated PID reading, or had a distinct petroleum odor. Visual signs of stained soil where elevated levels of TPH (as heavy oil) were identified occurred intermittently and varied in depths ranging between 5 to 15 feet bgs (see Table 3). The source of the TPH (as heavy oil) in soil samples collected at the site is unknown, but may have potentially originated from historic spills and/or possibly from the fill material imported onto the property. In either case, the source of the heavy oil does not appear to have originated from a localized source, such as an aboveground or underground storage tank.

Soil Sample Analytical Results—Tetrachloroethene (PCE)

One VOC constituent (tetrachloroethene (PCE)) was detected in the following three soil samples: B60-2 (0.02 mg/kg), B61-2 (0.2 mg/kg), and B62-2 (0.1 mg/kg). The MTCA Method A soil cleanup level for PCE is 0.05 mg/kg (see Table 4). Therefore, PCE concentrations in samples B61-2 and B62-2 (see above) exceed the MTCA Method A soil cleanup level for PCE. Samples B60-2, B61-2, and B62-2 were collected at a depth of approximately five feet bgs from three borings (B-60, B-61, and B-62) advanced within a sink drainage/discharge field associated with the former Material Preparation Shed (removed from the site approximately four years ago). PCE (as well as other solvents) were reportedly used by Metal Marine Pilot to clean navigational parts and other equipment. This cleaning process also included rinsing the parts with water (after cleaning them with solvents) in a sink located within the Material Preparation Shed prior to being painted within the Spray Painting Shed. Reportedly, between 1960 and 1992, the waste water accumulated during this cleaning process was routinely discharged onto the undeveloped central portion of the site via a concrete drain pipe connected to the sink drain located within the Material Preparation Shed. This practice stopped after 1992 when Metal Marine Pilot began transferring the waste water into an evaporator.

Based on Metal Marine Pilot's historic waste water discharge activities, the sink drain within the former Material Preparation Shed is the likely source of the PCE contamination, given that PCE was not detected in any other soil samples collected at the site.

Groundwater Sample Analytical Results--Arsenic

Arsenic was detected in a perched groundwater sample collected from borehole B-63 (17.9 ug/L), and from water samples collected from monitoring wells MW-68 (9.47 ug/L), MW-69 (4.11 ug/L), and MW-70 (2.67 ug/L). The MTCA Method A groundwater cleanup level for arsenic in water is 5.0 ug/L (Table 8). Arsenic analytical results from water samples obtained from B-63 and MW-70 exceed the MTCA Method A groundwater cleanup level for arsenic. The source(s) of the arsenic identified in the perched water at the site is currently unknown.

Isopropyltoluene, lead, chromium, and arsenic were also detected in several soil samples collected at the site, but not at concentrations exceeding MTCA Method A soil cleanup levels. Acetone and dissolved arsenic, barium, chromium, and selenium were detected in some or all of the groundwater samples, but only the arsenic concentrations (see above) exceeded the MTCA Method A groundwater cleanup level. Laboratory analytical reports indicated that no other VOCs or total petroleum hydrocarbons (as gasoline, diesel, and heavy oil) were detected above the laboratory reporting limits in water samples collected from the site.

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SUMMARY AND CONCLUSIONS

Consistent with BCRA's request, Kleinfelder completed a Limited Phase II ESA at the subject site. This investigation included (1) collecting 29 discreet soil samples from 20 borings advanced along the northwest, central, and eastern portions of the site; (2) collecting shallow water samples from boreholes where perched water was encountered; (3) installing five groundwater monitoring wells along the eastern portion of the site; (4) collecting groundwater samples from the monitoring wells; and (5) submitting the soil and groundwater samples to a State Certified laboratory to be analyzed for the presence of VOCs, TPH (as gasoline, diesel, and heavy oil), and metals.

Analytical results of soil samples collected at the site indicate elevated levels of PCE and TPH (as heavy oil) in soil located along the central and eastern portions of the site. Additionally, elevated levels of arsenic were identified in two perched water samples collected at the site. The extent of the PCE and TPH (as heavy oil) in soil was not fully characterized during this assessment. Similarly, the source and distribution of arsenic in perched water at the site was also not fully characterized.

RECOMMENDATIONS

As discussed above, analytical results of soil and perched water samples collected at the site revealed the presence of PCE, TPH (as heavy oil), and arsenic at concentrations above the corresponding MTCA Method A cleanup levels. The extent of PCE, heavy oil, and arsenic contamination to soil and perched groundwater has not been fully characterized. Therefore, based on the findings of this assessment, Kleinfelder recommends that additional soil and water sampling be conducted at the site to further assess the extent of PCE, TPH (heavy oil), and arsenic levels. This supplemental investigation should include the following:

- 1. Collect up to 14 soil samples from seven borings advanced along the central undeveloped portion of the property, adjacent to the areas where elevated levels of PCE and TPH (as heavy oil) were identified.
- 2. Re-sample perched water within the four water-bearing monitoring wells located along the eastern portion of the site. Additionally, advance one boring down to perched groundwater near the site's eastern boundary and collect another perched water sample. Analyze up to 5 perched water samples for the presence of arsenic and compare laboratory analytical results with the previous arsenic results. Analyzing perched water samples for the presence of VOCs and TPH (as heavy oil) should also be conducted.

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LIMITATIONS

The work described herein was performed to address environmental concerns expressed in Kleinfelder's May 25, 2005 Phase I ESA report concerning the subject site. The findings and recommendations in this report are made based upon the analytical results, field observations, and our best professional judgment. It is possible that unforeseen events could occur that may limit the effectiveness of the assessment. Although risk can never be eliminated, more detailed and extensive sampling and testing would yield better management of site risks. Since such extensive services involve greater expense, we ask our clients to participate in identifying the level of service that will provide them with an acceptable level of risk. Please contact the signatories of this report if you would like to discuss this issue of risk further.

The scope of work on this project was presented in our Contract Modification No.1 (dated May 20, 2005) and subsequently approved by BCRA as out client. Please be aware our scope of work was limited to those items specifically identified in the proposal. Other activities not specifically included in the presented scope of work (in the Contract Modification, correspondence, or this report) are excluded and should not be considered to be a part of our scope of services.

Land use, site conditions (both on-site and off-site) and other factors will change over time. Since site activities and regulations beyond our control could change at any time after the completion of this report, our observations, findings and opinions can be considered valid only as of the date of the site visit.

This report may be used by BCRA and their client (The Client) and only for the purposes stated within a reasonable time from its issuance, but in no event later than one year from the date of this report.

Any party other than BCRA and The Client who would like to use this report shall notify Kleinfelder of such intended use (see attached "Third Party Reliance Letter" template). Based on the intended use of this report, Kleinfelder may require that additional work be performed and that a revised report be issued. Non-compliance with any of these requirements by BCRA, The Client, or anyone else will release Kleinfelder from any liability resulting from the use of this letter report by any unauthorized party.

No warranty, either express, or implied is made.

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CLOSING

We trust this report meets your needs at this time and appreciate the opportunity to provide our consulting services to BCRA. Please contact the undersigned at (425) 562-4200 or John Mancini (Kleinfelder's Senior Client Service Manager to BCRA) at (801) 261-3336 if you have questions or require additional information.

Sincerely,

KLEINFELDER, INC.

| 0R Dana P. Divine

Staff Hydrogeologist

Ted W. Sykes Project Manager



Kevin G. Lakey, PE, LHG Environmental Services Manager

Cc: John Mancini, Senior Client Service Manager

Attachments: Figure 1 – Site Vicinity Map

Figure 2 - Soil Borings/Monitoring Well Locations Map

- Table 1 Log of Soil and Water Samples Collected
- Table 2 Well Installation Details

Table 3 – Soil Sample Analytical Results: TPH-Gx and TPH-Dx

Table 4 – Soil Sample Analytical Results: VOCs

Table 5 - Soil Sample Analytical Results: Total Metal Concentrations

Table 6 – Water Sample Analytical Results: TPH-Gx and TPH-Dx

Table 7 – Water Sample Analytical Results: VOCs

Table 8 - Water Sample Analytical Results: Dissolved Metal Concentrations

Boring Logs/Monitoring Well Installation Details

Analytical Laboratory Reports and Chain-of-Custody

Third Party Reliance Letter Template

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Legend Boring Location -**H** B-59 - MW-66 Monitoring Well Location

Boring/Monitoring Well Locations Plan

FIGURE

2

Table 1Log of Soil and Water Samples Collected

Borehole	Soil Sample Name	Detections ?	Water Sample Name	Detections ?
B-58	B58-4 @ 10'	Y		
	B58-5 @ 12.5'	Y		
B-59	B59-2 @ 5'	Y	B-59	
B-60	B60-2 @ 5'	Y		
B-61	B61-2 @ 5'	Y		
B-62	B62-2 @ 5'	Y		
B-63	B63-2 @ 5'		B-63	Y
	B63-6 @ 15'	Y		
B-64	B64-4 @ 8.5'	Y		
	B64-6 @ 15'	Y		
B-65	B65-1 @ 2.5'		B-65	Y
	B65-7 @ 15'	Y		
B-66	B66-2 @ 5'		MW-66	Y
	B66-9 @ 22.5'			
B-67	B67-4 @ 12'			
	B67-6 @ 15'	Y		
B-68	B68-2 @ 5'	Y	MW-68	Y
	B68-8 @ 20'			
B-69	B69-4 @ 11.5'	Y	MW-69	Y
	B69-9 @ 22.5'	Y		
B-70	B70-2 @ 5'	Y	MW-70	Y
	B70-9 @ 22.5'	Y		
B-71	B71-2 @ 5'			
B-72	B72-1 @ 1'			
B-73	B73-1 @1			
B-7 4	B74-1 @ 1'			
B-75	B75-1 @ 1'	Y		
B-76	B76-1 @ 1'			
B-77	B57-2 @ 5'			
Notes: "MW-" wate	er samples are nam ' refer to any detec	ed "B-" on Chair	n-of-custody and lab	reports.

"Detections" refer to any detection above the reporting limit. "-- "indicates no detections above the reporting limit for the compounds analyzed.

Table 2 Well Installation Details

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Well	Top of Screen (feet bgs)	(Joseph Contraction of the second se	Sottom of Screen Top of Sand Pack PVC Elevation (feet bgs) (feet bgs) (feet NGVD 29)	PVC Elevation (feet NGVD 29)	Depth to Water (feet bgs)	Water Elevation (feet NGVD 29)
MW-66	15.6	20.6	10	337.44	17.51	319.93
MW-67	19.3	24.3	10	337.23	١	1
MW-68	19.3	24.3	10	337.21	16.55	320.66
69-MM	20.0	25.0	10	337.46	19.60	317.86
MW-70	20.0	25.0	10	337.29	17.00	320.29

Table 3Soil Sample Analytical ResultsTPH-G and TPH-Dx

MTCA A B58-4 @ 10' B58-5 @ 12.5' B59-2 @ 5' B60-2 @ 5' B61-2 @ 5' B63-2 @ 5' B63-6 @ 15' B64-4 @ 8.5'	100 <5.0 <5.0 <5.0 <5.0 <5.0 <5.0 <5.0 <5.0 <5.0 <5.0 <5.0 <5.0 <5.0	2,000 <20 <20 <20 <20 <20 <20 <20 <20	2,000 850 740 6,500 <50 <50 <50 <50	 <20 <20 <20 <20 <20 <20 <20
B58-5 @ 12.5' B59-2 @ 5' B60-2 @ 5' B61-2 @ 5' B62-2 @ 5' B63-2 @ 5' B63-6 @ 15' B64-4 @ 8.5'	<5.0 <5.0 <5.0 <5.0 <5.0 <5.0	<20 <20 <20 <20 <20 <20	740 6,500 <50 <50 <50	<20 <20 <20 <20 <20
B58-5 @ 12.5' B59-2 @ 5' B60-2 @ 5' B61-2 @ 5' B62-2 @ 5' B63-2 @ 5' B63-6 @ 15' B64-4 @ 8.5'	<5.0 <5.0 <5.0 <5.0 <5.0	<20 <20 <20 <20 <20	6,500 <50 <50 <50	<20 <20 <20 <20
B59-2 @ 5' B60-2 @ 5' B61-2 @ 5' B62-2 @ 5' B63-2 @ 5' B63-6 @ 15' B64-4 @ 8.5'	<5.0 <5.0 <5.0 <5.0 <5.0	<20 <20 <20	<50 <50 <50	<20 <20 <20
B60-2 @ 5' B61-2 @ 5' B62-2 @ 5' B63-2 @ 5' B63-6 @ 15' B64-4 @ 8.5'	<5.0 <5.0 <5.0 <5.0	<20 <20	<50 <50	<20 <20
B61-2 @ 5' B62-2 @ 5' B63-2 @ 5' B63-6 @ 15' B64-4 @ 8.5'	<5.0 <5.0	<20	<50	<20
B62-2 @ 5' B63-2 @ 5' B63-6 @ 15' B64-4 @ 8.5'	<5.0			
B63-2 @ 5' B63-6 @ 15' B64-4 @ 8.5'		<20		
B63-6 @ 15' B64-4 @ 8.5'	<5.0		<50	<20
B64-4 @ 8.5'		<20	6,200	<20
	<5.0	<20	1,400	<20
B64-6 @ 15'	<5.0	<20	170	<20
B65-1 @ 2.5'	<5.0	<20	<50	<20
B65-7 @ 15'	<5.0	<20	<50	<20
B66-2 @ 5'	<5.0	<20	<50	<20
B66-9 @ 22.5'	<5.0	<20	<50	<20
B67-4 @ 12'	<5.0	<20	<50	<20
B67-6 @ 15'	<5.0	<20	6,600	<20
B68-2 @ 5'	<5.0	<20	<50	<20
B68-8 @ 20'	<5.0	<20	<50	<20
B69-4 @ 11.5'	<5.0	<20	940	<20
B69-9 @ 22.5'	<5.0	<20	<50	<20
B70-2 @ 5'	<5.0	<20	<50	<20
B70-9 @ 22.5'	<5.0	<20	<50	<20
B71-2 @ 5'	<5.0	<20	<50	<20
B72-1 @ 1'	<5.0	<20	<50	<20
B73-1 @ 1'	<5.0	<20	<50	<20
B74-1 @ 1'	<5.0	<20	<50	<20
B75-1 @ 1'	<5.0	<20	<50	<20
B76-1 @ 1'	<5.0	<20	<50	<20
B77-2 @ 5'	<5.0	<20	<50	<20

TPH-G indicates Total Petroleum Hydrocarbons-Gasoline Range. TPH-D indicates Total Petroleum Hydrocarbons-Diesel Range. The gasoline MTCA A level is applicable in the absence of benzene. Bold indicates detection above laboratory reporting limit. Shaded indicates value exceeds MTCA A level.

Kerosene does not have a MTCA A level.

B77-2 @ 5' is listed as B57-2 @ 5' on Chain-of-custody and lab reports.

Table 4Soil Sample Analytical ResultsVOCs

Soil Sample Name	PCE (mg/kg)	Isopropyltoluene (mg/kg)
MTCA A	0.05	
B58-4 @ 10'	< 0.02	< 0.05
B58-5 @ 12.5'	< 0.02	<0.05
B59-2 @ 5'	< 0.02	<0.05
B60-2 @ 5'	0.02	<0.05
B61-2 @ 5'	0.2	<0.05
B62-2 @ 5'	0.1	<0.05
363-2 @ 5'	< 0.02	<0.05
363-6 @ 15'	< 0.02	0.06
B64-4 @ 8.5'	< 0.02	<0.05
B64-6 @ 15'	< 0.02	<0.05
B65-1 @ 2.5'	< 0.02	<0.05
B65-7 @ 15'	< 0.02	<0.05
B66-2 @ 5'	< 0.02	< 0.05
B66-9 @ 22.5'	< 0.02	<0.05
B67-4 @ 12'	< 0.02	< 0.05
B67-6 @ 15'	< 0.02	< 0.05
B68-2 @ 5'	< 0.02	< 0.05
B68-8 @ 20'	< 0.02	< 0.05
B69-4 @ 11.5'	< 0.02	< 0.05
B69-9 @ 22.5'	< 0.02	< 0.05
B70-2 @ 5'	< 0.02	< 0.05
B70-9 @ 22.5'	< 0.02	< 0.05
B71-2 @ 5'	< 0.02	< 0.05
B72-1 @ 1'	< 0.02	< 0.05
B73-1 @ 1'	< 0.02	< 0.05
B74-1 @ 1'	< 0.02	< 0.05
B75-1 @ 1'	< 0.02	< 0.05
B76-1 @ 1'	< 0.02	< 0.05
B57-2 @ 5'	< 0.02	< 0.05

Only compounds having detections are listed. Bolded values indicate detections above the laboratory detection limit. Shaded values indicate detections above MTCA A level.

Isopropyltoluene does not have a MTCA A level.

Table 5Soil Sample Analytical ResultsTotal Metals

Soil Sample Name	Lead (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Arsenic (mg/kg)	Silver (mg/kg)	Barium (mg/kg)	Selenium (mg/kg)	Mercury (mg/kg)
MTCA A	250	2	(_E / _E)	20				2 2
B58-4 @ 10'	<5	<1	<5	<5	<20	<500	<50	< 0.5
B58-5 @ 12.5'	14	<1	8.4	<5	<20	<500	<50	< 0.5
B59-2 @ 5'	15	<1	7.9	<5	<20	<500	<50	< 0.5
B60-2 @ 5'	<5	<1	<5	<5	<20	<500	<50	<0.5
B61-2 @ 5'	<5	<1	6.7	<5	<20	<500	<50	< 0.5
B62-2 @ 5'	8	<1	<5	<5	<20	<500	<50	< 0.5
B63-2 @ 5'	<5	<1	<5	<5	<20	<500	<50	< 0.5
B63-6 @ 15'	<5	<1	<5	<5	<20	<500	<50	< 0.5
B64-4 @ 8.5'	12	<1	5.3	<5	<20	<500	<50	< 0.5
B64-6 @ 15'	15	<1	5.9	<5	<20	<500	<50	< 0.5
B65-1 @ 2.5'	<5	<1	<5	<5	<20	<500	<50	<0.5
B65-7 @ 15'	12	<1	6.5	<5	<20	<500	<50	< 0.5
B66-2 @ 5'	<5	<1	<5	<5	<20	<500	<50	< 0.5
B66-9 @ 22.5'	<5	<1	<5	<5	<20	<500	<50	< 0.5
B67-4 @ 12'	<5	<1	<5	<5	<20	<500	<50	< 0.5
B67-6 @ 15'	<5	<1	<5	<5	<20	<500	<50	< 0.5
B68-2 @ 5'	13	<1	<5	<5	<20	<500	<50	< 0.5
B68-8 @ 20'	<5	<1	<5	<5	<20	<500	<50	< 0.5
B69-4 @ 11.5'	26	<1	<5	<5	<20	<500	<50	< 0.5
B69-9 @ 22.5'	60	<1	<5	15	<20	<500	<50	< 0.5
B70-2 @ 5'	<5	<1	5.5	<5	<20	<500	<50	< 0.5
B70-9 @ 22.5'	8	<1	<5	<5	<20	<500	<50	< 0.5
B71-2 @ 5'	<5	<1	<5	<5	<20	<500	<50	< 0.5
B72-1 @ 1'	<5	<1	<5	<5	<20	<500	<50	< 0.5
B73-1 @ 1 '	<5	<1	<5	<5	<20	<500	<50	< 0.5
B74-1 @ 1'	<5	<1	<5	<5	<20	<500	<50	< 0.5
B75-1 @ 1'	8.7	<1	<5	<5	<20	<500	<50	< 0.5
B76-1 @ 1'	<5	<1	<5	<5	<20	<500	<50	< 0.5
B77-2 @ 5'	<5	<1	<5	<5	<20	<500	<50	< 0.5

Notes:

Bold indicates detection above the laboratory reporting limit.

B77-2 @ 5' is listed as B57-2 @ 5' on Chain-of-custody and laboratory reports.

No MTCA A cleanup level for total chromium is defined. The chromium (III) limit is 2,000 mg/kg.

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The chromium (VI) limit is 19 mg/kg.

Table 6 Water Sample Analytical Results TPH-G and TPH-Dx

TPH-G (ug/L)	TPH-D (ug/L)	Heavy Oil (ug/L)	Kerosene (ug/L)
1,000	500	500	
< 0.10	<0.2	<0.5	<0.2
< 0.10	<0.2	< 0.5	<0.2
< 0.10	<0.2	<0.5	<0.2
< 0.10	<0.2	< 0.5	< 0.2
< 0.10	<0.2	< 0.5	<0.2
< 0.10	<0.2	<0.5	< 0.2
< 0.10	<0.2	<0.5	<0.2
	(ug/L) <0.10 <0.10 <0.10 <0.10 <0.10 <0.10 <0.10	(ug/L) (ug/L) 1,000 500 <0.10	(ug/L) (ug/L) (ug/L) 1,000 500 500 <0.10

TPH-G indicates Total Petroleum Hydrocarbons-Gasoline Range. TPH-D indicates Total Petroleum Hydrocarbons-Diesel Range. Kerosene does not have a MTCA A level.

Table 7 Water Sample Analytical Results VOCs

Water Sample Name	Acetone (ug/L)
MTCA A	
B59	34
B65	<10
B59	<10
MW-66	<10
MW-68	<10
MW-69	<10
MW-70	<10
Notes:	
Only compounds having de	etections are listed.

Only compounds having detections are listed. Acetone does not have a MTCA A level.

Table 8 Water Sample Analytical Results **Dissolved Metals**

Soil Sample Name	Arsenic (ug/L)	Barium (ug/L)	Cadmium (ug/L)	Chromium (ug/L)	Lead (ug/L)	Selenium (ug/L)	Silver (ug/L)	Mercury (ug/L)
MTCA A	5	18 - 19 A	5	50	15			2
B63	17.9	132	<2.5	3.59	<2.5	3.65	<2.5	< 0.2
B65	<2.5	22	<2.5	<2.5	<2.5	<2.5	<2.5	<0.2
MW-66	<2.5	109	<2.5	<2.5	<2.5	2.59	<2.5	<0.2
MW-68	2.67	155	<2.5	5.05	<2.5	<2.5	<2.5	<0.2
MW-69	4.11	214	<2.5	<2.5	<2.5	<2.5	<2.5	<0.2
MW-70	9.47	151	<2.5	<2.5	<2.5	<2.5	<2.5	<0.2
Notes:								

Bold indicates detections above the laboratory reporting limit. Shaded indicates value is above MTCA A limits. "MW-" water samples are named "B-" on Chain-of-custody and laboratory reports.



					ABO	RATC	ROGR DRY		IELD			U.S.	c.s.			
DEPTH (feet)		L/PIEZO RUCTION	WATER LEVEL	MOISTURE CONTENT(%)	PLASTIC LIMIT(%)	(%)LIMIT (%)	% PASSING No. 200 SIEVE	OTHER TESTS	PID (ppm)	BLOWS/6 in** (uncorrected) SAMPLED *		NAME	SYMBOL	SOIL DESCRIPTION	ON	
0-			₩	CON	PLAST	ndn	% P No. 2	OTHI		B B	2					
0-												SM				
	-		-							-	1			SILTY SAND (SM): brown, dr fine to medium sand, trace fine gravel, trace organics (roots, wo	to coarse	
5 -	-										2			(FILL)		1
	-		-							- market	3			SILTY SAND (SM): brown, mo medium sand, some coarse grav piece in shoe	oist, fine to el, cobble	-
0-	-							0.0010010010000000000000000000000000000		and the state	4			SILTY SAND (SM): brown, mo medium sand, trace fine gravel, staining	ist, fine to possible	
	-						A WEAR ALL AND A LOCAL			- Thattatter	5			(FILL) SILTY SAND (SM): olive-gray moist, fine to medium sand, trac gravel	to brown, e fine	
15-	-						a takin a daha takin a kana s				6			(FILL)	8	
										1	7			SILTY SAND (SM): olive-gray moist, fine to medium sand, trac sand, trace fine gravel	to brown, e coarse	ALL OLI D
														(FILL)		
LO	GGED I	LLED: 5-27 3Y: D. Divir D BY: T. Sy	ıe				тота	L DE	PTH (ATION (feet): 24 BORING	.0	<u> </u>	1.45	DRILLING METHOD: Probe DRILLER: Boart Longyear CASING SIZE: N/A		
												Propo		l Retail Development Fircrest, WA	Appendix	1
	GEOTH	ECHNICAL SOILS	ANI AND	D ENV	IRO	NMEN	LDE ITAL I ESTIN	ENGI	NEEF	s				DRING LOG	A - a	
PRO.	JECT N	UMBER:	5613	0										B-58	PAGE 1 of 2	

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	LABOR	G PROGRAM ATORY FIELD		U.S.C.S.	
WELL/PIEZO CONSTRUCTION	WATER LEVEL MOISTURE CONTENT(%) PLASTIC LIMIT(%)	LIQUID LIMIT(%) % PASSING No. 200 SIEVE OTHER TESTS PID (ppm) BID (ppm)	BLOWS/0 In (uncorrected) SAMPLER * SAMPLE NUMBER	SOIL DESCRIPTIO	
20			9	SILTY SAND (SM): olive-gray, to medium sand, trace fine gravel piece in shoe, driller said harder a (TILL) Refusal at 24 feet. No water enco	l, rock at 23'
* SAMPLE TYPE **HAMME			f (2" OD) C it Spoon Sa Ibs ' Drop)	ore Shelby Grab O	No Recovery
GEOTECHNICAL		FELDER 1Ental engineers	P	roposed Retail Development Fircrest, WA BORING LOG	Appendix A - b
ROJECT NUMBER:		S LEGILING		B-58	PAGE 2 of 2

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		دے	LABO	ORATO	ROGR DRY		IELD			U.S.	.c.s.		
DEPTH (feet)	WELL/PIEZO CONSTRUCTION	WATER LEVEL	MOISTURE CONTENT(%) PLASTIC LIMIT(%)	LIQUID LIMIT(%)	% PASSING No. 200 SIEVE	OTHER TESTS	PID (ppm)	BLOWS/6 in** (uncorrected) SAMPLER *	SAMPLE NUMBER	NAME	SYMBOL	SOIL DESCRIPTION	ON
Ð		WA'	MOI CONT	ndni	% P/ No. 20	OTHE	Ч	BL S/			1	Surface conditions: grass	
0 -			A							SM			
	-								1			SILTY SAND (SM): light gray light brown, moist, fine to medi trace fine to coarse gravel (FILL)	grading to ium sand,
5 -	-	1 1						ALC: NOT THE REAL PROPERTY.	2			SILTY SAND (SM): light brow fine to medium sand, trace fine gravel, possible odor at ~6.5' fo having darker color	to coarse
		- 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900 - 1900						CT I I	3			(FILL) SILTY SAND (SM): light gray, moist, fine to medium sand, trac gravel	dry to ce fine
10-	-							-	4			(FILL) SILTY SAND (SM): brown, mo medium sand, trace coarse sand coarse gravel	
		16 G G							5		į	(FILL) SILTY SAND (SM): light gray greenish-gray, fine to medium s trace rounded fine gravel	to and, moist,
.5-									6			(TILL) SILTY SAND (SM): light gray to greenish-gray, moist, fine to me moist	to dium sand,
								11 TO TALLA	7			(TILL) SILTY SAND (SM): light gray of red-orange, wet, fine to mediu trace organics, trace fine gravel	um sand,
19												Refusal at 19 feet, granite piece of shoe. Water sample collected	
LO	TE DRILLED: 5-26 GGED BY: D. Divit VIEWED BY: T. Sy	ne			ΤΟΤΑ	L DE	РТН	ATION (feet): 19 BORING	.0			DRILLING METHOD: Probe DRILLER: Boart Longyear CASING SIZE: N/A	
										Prop		d Retail Development Fircrest, WA	Appendix
PRO	GEOTECHNICAL SOILS	ANI	D ENVIR MATER	ONME		ENGI	NEEI	RS				ORING LOG B-59	A - PAGE 1 of 1

DEPTH (feet)	WELL/PIEZO CONSTRUCTION	WATER LEVEL	LA	PLASTIC LIMIT(%)	G P ON A CONTRACT (%) LIWIT GINDIT	% PASSING % PASS	OTHER TESTS	IELD (mdd) QIA	BLOWS/6 in** (uncorrected)	SAMPLER *	SAMPLE NUMBER	U.S.	SYMBOL		N	FER
5 6											1	SM		SILTY SAND (SM): greenish-gra olive-gray, dry to moist, fine to m sand, trace fine gravel, trace orga (roots) (FILL) SILTY SAND (SM): olive-gray, n to medium sand, trace fine gravel Refusal at 6 feet. No water encou	noist, fine	LY AT THIS LOCATION AND AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER MAY CHANCE AT THIS I OCATION WITH TIME DATA DEFENTED IS A SIMPLIFICATION
														A DE ALE SOCIA	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	HIS LOCATION AND AT THE TIMI
																THIS SUMMARY APPLIES ONLY AT T AT OTHER LOCATIONS AND MAY CH
LC	ATE DRILLED: 5-26 DGGED BY: D. Divin EVIEWED BY: T. Sy	ne				SURF TOTA DIAM	L DE	PTH	(feet):	6.0				DRILLING METHOD: Probe DRILLER: Boart Longyear CASING SIZE: N/A		APPROV: AT OT
	GEOTECHNICAL		ENV	IRON	IME	LDE		NEE	De			Prop	ose	d Retail Development Fircrest, WA	Appendix A -	BY:

	/PIEZO RUCTION	WATER LEVEL			NG AT (%)LIWIT GINDIT	% PASSING No. 200 SIEVE		ELD (mdd) UIT	BLOWS/6 in ** (uncorrected) SAMPLED *	SAMPLE NIIMBER	NAME		SOIL DESCRIPTIO	DN
5 - 10 - 12										1	SM		SILTY SAND (SM): light gray, to medium sand, trace fine to co (FILL) SILTY SAND (SM): light brown fine to medium sand grading to moist, silty sand at ~6' (TILL) SILTY SAND (SM): light gray, gravel (TILL) SILTY SAND (SM): light gray t greenish-gray, dry to moist, fine sand, trace fine gravel (TILL) Refusal at 12 feet. No water enco	arse gravel. n, moist, green-gray, trace fine o to medium
DATE DRII LOGGED B REVIEWEI	Y: D. Divin	e				ГОТА	L DEI) HTS	ATION (feet): 12 30RING	.0			DRILLING METHOD: Probe DRILLER: Boart Longyear CASING SIZE: N/A	
GEOTE PROJECT NI	CHNICAL SOILS A	AND) ENV MAT	IRON	IMEN	LDF tal 1 stin	ENGIN	VEER	2S		Prop	F	Retail Development Fircrest, WA PRING LOG B-61	Appendix A - PAGE 1 of 1

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AE. DATA PRESENTED IS A SIMPLIFICATION.

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	WELL/PIEZO CONSTRUCTION No. 200 SIEVE OTHER TESTS MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTURE MOISTUR								SAMPLER *	SAMPLE NUMBER			S.C.S. SOIL DESCRIPTION Surface conditions: grass	
5 - 10 - 13										1 2 3 4 5	SM		SILTY SAND (SM): light gray, to medium sand, trace fine grave light brown (SM), trace organics (FILL) SILTY SAND (SM): light brown fine- to medium sand, trace fine gravel (FILL) SILTY SAND (SM): green-gray fine to medium sand, some fine gravel (TILL) as above SILTY SAND (SM): olive-gray, to medium sand, trace fine grave Refusal at 13 feet. No water enco	moist, fine
DATE DRILLED: 5 LOGGED BY: D. D REVIEWED BY: T.	ivine]	ГОТА	L DEI	PTH (ATIOI feet): 30RIN	13.0				DRILLING METHOD: Probe DRILLER: Boart Longyear CASING SIZE: N/A	
GEOTECHNIC/ SOIL PROJECT NUMBER	LS AND	D ENV MAT	IRON	NFE MEN LS TE	TAL E	ENGI	NEER	25			Propo	I	l Retail Development Fircrest, WA DRING LOG B-62	Appendix A - PAGE 1 of 1

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	TESTING PROGRAM LABORATORY FIEL								1 L.			U.S.C.S.			
DEPTH (feet)	WELL/PIEZO CONSTRUCTION	WATER LEVEL	MOISTURE CONTENT(%)	PLASTIC LIMIT(%)	LIQUID LIMIT(%)	% PASSING No. 200 SIEVE	OTHER TESTS	PID (ppm)	BLOWS/6 in** (uncorrected)	SAMPLER *	SAMPLE NUMBER	NAME	SYMBOL	SOIL DESCRIPTIO	ON
DE		WA	MOL	LASTI	LIQUII	% PA No. 20	OTHE	Р	(ui BL	SA	9.Z		5	Surface conditions: grass	
0 -				P						+		SM			
	-	1900 - 1910 - 1910 - 1910 - 1910 - 1910 - 1910 - 1910 - 1910 - 1910 - 1910 - 1910 - 1910 - 1910 - 1910 - 1910 -									1			SILTY SAND (SM): olive-gray moist, fine to medium sand, trad	, dry to
	-								10.11					(FILL)	
5 -	-		0) (1 () () () () () () () () () () () () ()								2			SILTY SAND (SM): olive-gray to medim sand, trace fine grave (FILL)	, moist, fine l,
	-	-							1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	- II SALANIA	3				
10								4			SILTY SAND (SM): brown mo gray, moist, fine to medium sand small to coarse gravel, trace org chips)	d, some			
	-		*********				1				5			(FILL) probe advancement slowed SILTY SAND (SM): brown to c	blive-gray,
	-									11-11-11-11-				moist, fine to medium sand, trac gravel (TILL)	e fine
5-									werne ber	array ber	6			SILTY SAND (SM): dark brown medium sand, some fine to coar stained	n, fine to se gravel,
					· · · · · · · · · · · · · · · · · · ·		2				7			(TILL) SILTY SAND (SM): light gray g olive-gray, fine to medium sand, gravel	grading to , trace fine
19	L								11	12			1 1	Refusal at 19 feet. Water sample	collected.
DATE DRILLED: 5-26-05SURFACE ELEVATIOLOGGED BY: D. DivineTOTAL DEPTH (feet):REVIEWED BY: T. SykesDIAMETER OF BORD						(feet): 1	19.0				DRILLING METHOD: Probe DRILLER: Boart Longyear CASING SIZE: N/A				
		Ĥ	177								ł	Propo		l Retail Development Fircrest, WA	Appendix
GEOTECHNICAL AND ENVIRONMENTAL ENGINEERS SOILS AND MATERIALS TESTING										BC	DRING LOG	A -			
RO	JECT NUMBER:	5613	0	_		_		_		B-63 PAGE 1 of					

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		TESTING PROGRAM LABORATORY FIELD										C.S.			٦
DEPTH (feet)	WELL/PIEZO CONSTRUCTION	WATER LEVEL	MOISTURE CONTENT(%)	PLASTIC LIMIT(%)	LIQUID LIMIT(%)	% PASSING No. 200 SIEVE	OTHER TESTS	PID (ppm)	BLOWS/6 in** (uncorrected)	SAMPLE NUMBER	NAME	SYMBOL	SOIL DESCRIPTI	ON	
IQ		WA'	MOI	PLASTI	LIQUI	% P/ No. 20	OTHE	ď	BL BL			S	Surface conditions: grass		- 40
0 -	-	10.0									SM				HONO X Y Y MICH
	-	-							hanna na	1			SILTY SAND (SM): olive-gra to medium sand, trace fine gra (FILL)	y, moist, fine vel	
5 -	-	-	an a							2			SILTY SAND (SM): greenish- 12", then olive-gray, moist to v medium sand, some fine grave (FILL)	vet, fine to	THE TIME OF LOCA
10-										3			SILTY SAND (SM): olive-gra; moist, fine to medium sand wit coarse gravel at 8.5', staining and slight odor	h fine to	
									5			SILTY SAND (SM): greenish- fine to medium sand, trace coar (TILL)	gray, wet, se sand		
15- 16										6			SILTY SAND (SM): olive-gray to medium sand, trace fine gray (TILL)	y, moist, fine	THIS SUMMARY ABILITS OF
LO	TE DRILLED: 5-26 GGED BY: D. Divin VIEWED BY: T. Sy	e				тота	L DE	PTH (ATION (feet): 10 30RIN(DRILLING METHOD: Probe DRILLER: Boart Longyear CASING SIZE: N/A		THT
	K	F				LDE					Propo		l Retail Development Fircrest, WA	Appendix A -	
	GEOTECHNICAL SOILS A	ND	MAT	ERIA	LS TI	ESTIN	G	NEER	19			BC	DRING LOG B-64	PAGE 1 of 1	

 5 6 7 8 7 8 7 8 7 8 8 9 10 2 10 3 10 4 110 11		TESTING P LABORATO	RY FIELD	U.S.C.S.
0 I SM SILTY SAND (SM): light gray to olive-gray, wet, fine to medium sand, tr fine to carse gravel 5 I I I If the to model in the to medium sand, tr fine to carse gravel 6 I I If the to model in the to medium sand, tr fine to carse gravel 6 I If the to model in the to medium sand, tr fine to carse gravel 6 If the to model in the to medium sand, tr fine to carse gravel 6 If the to model is the to medium sand, tr fine gravel 7 If the to medium sand, tr fine gravel 8 If the to medium sand, tr fine gravel 8 If the to medium sand, tr fine gravel	WELL/PIEZO CONSTRUCTION	TTER LEVEL LENT(%) CC LIMIT(%) D LIMIT(%)	ASSING 00 SIEVE ER TESTS PID (ppm) OWS/6 in ** incorrected) AMPLER *	* AMPLIER * SOIL DESCRIPTION
S → S → S → S → S → S → S → S → S → S →	2	WA MOI CON PLASTI LIQUI	No. 20 No. 20 OTHF BI (u (u) S.	Surface conditions: grass
5 - Constraints of the second	5			1 SILTY SAND (SM): light gray to olive-gray, wet, fine to medium sand, trace fine to coarse gravel (FILL) 2 as above 3 dry to moist 8'-10', wet at 10', probe advancement slowed at 8' (TILL) 4 (TILL) 5 SILTY SAND (SM): light gray grading to olive-gray, wet, fine to medium sand, trace
Fircrest, WA	8 DATE DRILLED: 5-2		TOTAL DEPTH (feet): 18. DIAMETER OF BORING	Image: Constraint of the state of the s
KLEINFELDER GEOTECHNICAL AND ENVIRONMENTAL ENGINEERS SOILS AND MATERIALS TESTINGAROJECT NUMBER: 56130B-65	GEOTECHNICA SOILS	TECHNICAL AND ENVIRONMEN SOILS AND MATERIALS TH	TAL ENGINEERS	A - BORING LOG

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	L	LA	BORA	G PROGE		ELD			U.S.	C.S.		
(1993) WELL/PIEZO CONSTRUCTION	WATER LEVEL	MOISTURE CONTENT(%)	PLASTIC LIMIT(%)	LIQUID LIMIT(%) % PASSING No. 200 SIEVE	OTHER TESTS	PID (ppm)	BLOWS/6 in** (uncorrected) SAMPLER *	SAMPLE NUMBER	NAME	SYMBOL	SOIL DESCRIPTIC	DN
0-88		-0	PLA		Ó				SM	117	1	
								1			SILTY SAND (SM): olive-gray moist, fine to medium sand, trac gravel	to brown, e fine
5	-	5 						2			(FILL) as above	
		e) 						3			SILTY SAND (SM): olive-gray, to medium sand, trace fine grave (FILL)	moist, fine l
0								4			as above	
								5			no recovery	
5-							معد المراجع من المراجع	6			SILTY SAND (SM): olive-gray, to medium sand, trace fine grave of dark gray, fine to medium sand (FILL)	l, 1" lens
								7			SILTY SAND (SM): olive-gray, to medium sand, trace fine grave (FILL) easy advancement of probe	moist, fine
20 DATE DRILLED: 5-27-05 LOGGED BY: D. Divine REVIEWED BY: T. Sykes DIAMETER OF BORING						feet): 23.	5 (in): 2]	DRILLING METHOD: Probe DRILLER: Boart Longyear CASING SIZE: N/A		
]	Propo	sed F	Retail Development ircrest, WA	Appendix
GEOTECHNICAL SOILS	AND AND	ENVE	RONM	F ELDH 1ental 1 s testin	ENGIN	VEER	s			BO	RING LOG	A - a
ROJECT NUMBER:	56130										B-66	PAGE 1 of 2

	LABOR	NG PROGRAM RATORY FIEL	D		U.S.C.S.									
(199) WELL/PIEZO CONSTRUCTION	WATER LEVEL MOISTURE CONTENT(%)	LIQUID LIMIT(%) % PASSING No. 200 SIEVE OTHER TESTS PID (ppm)	* *	SAMPLE NUMBER	NAME SYMBOL	SOIL DESCRIPTIO	DN							
				9		SILTY SAND (SM): olive-gray, wet, fine to medium sand, trace coarse gravel, 1" lens of poorly a medium sand (SP) SILTY SAND (SM): light gray, dry, fine to medium sand, trace f (TILL) Refusal at 23.5 feet, till in shoe COMPLETION DETAILS: 0-15.6 feet: 0.75-inch diameter, flush-threaded Schdule 40 PVC pipe. 15.6-20.6 feet: 0.75-inch diameter flush-threaded Schedule 40 PVC screen with 0.010-inch machine pre-pack sand pack. 0-1 feet: concrete flush mount m 1-10 feet: bentonite granules. 10-20.6 feet: 10x20 Colorado Sii (in addition to prepack).	fine to graded moist to ine gravel blank riser er, well slots and onument.							
* SAMPLEF TYPE	_	300 lbs	SPT (2" O Split Spool 140 lbs		Core ample	Shelby Tube Grab	No Recovery							
**HAMME	K WEIGHT	(30" Drop)	(30" Drop)			Retail Development	Appendix							
KLEINFELDER GEOTECHNICAL AND ENVIRONMENTAL ENGINEERS SOILS AND MATERIALS TESTINGFircrest, WAA - bROJECT NUMBER: 56130B-66PAGE 2 of 2														
	_	LA	ABOR	RATO	ROGR RY		IELD				U.S.	c.s.		
------------------------------------------------------------------	----------------------------------------------------------------------	------------------------	------------------	-----------------	----------------------------	-------------	-----------	-------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------	------	--------	----------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------
(1990) WELL/PIEZO CONSTRUCTION	WATER LEVEL	MOISTURE CONTENT(%)	PLASTIC LIMIT(%)	LIQUID LIMIT(%)	% PASSING No. 200 SIEVE	OTHER TESTS	PID (ppm)	BLOWS/6 in** (uncorrected)	SAMPLER *	SAMPLE NUMBER	NAME	SYMBOL	SOIL DESCRIPTIO	ON
D	WA	CON	PLASTI	Indiri	% P. No. 2(OTHE	I	BI	Š			\$	Surface conditions: grass	
0	-		-								SM			
-	-								A SAMPAGE AND	1			SILTY SAND (SM): light gray, medium sand, trace fine gravel	dry, fine to
5 -									TEAL STRATES	2			SILTY SAND (SM): olive-gray brown, moist, fine to medium s fine gravel	to light and, trace
									TINTING PROPERTY.	3			SILTY SAND (SM): olive-gray wet, fine to medium sand, some	, moist to fine gravel
10-									1131173137717777777777777	4			SILTY SAND (SM): olive-gray grading to dark gray in shoe, mo grading to moist, fine to mediu trace fine gravel, possible petrol wood in shoe	bist to wet m sand,
										5			(FILL)	
15-													SILTY SAND (SM): olive-gray to medium sand, trace fine grav at 15'	
										6 7			olive-gray, moist to wet, fine to sand, trace fine to coarse gravel	medium
20														
DATE DRILLED: 5-27- LOGGED BY: D. Divin REVIEWED BY: T. Sy									20.	0			DRILLING METHOD: Probe DRILLER: Boart Longyear CASING SIZE: N/A	
											Prop	ose	d Retail Development Fircrest, WA	Appendix
	EOTECHNICAL AND ENVIRONMENTAL ENGINER SOILS AND MATERIALS TESTING												ORING LOG	A - a
PROJECT NUMBER: 5	SOILS AND MATERIALS TESTING												B-67	PAGE 1 of 2

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		L	T L	ABOR	ATO	ROGR RY		IELD	-			U.S	.C.S.	40	
DEPTH (feet)	/PIEZO RUCTION	WATER LEVEL	MOISTURE CONTENT(%)	PLASTIC LIMIT(%)	LIQUID LIMIT(%)	% PASSING No. 200 SIEVE	OTHER TESTS	PID (ppm)	BLOWS/6 in** (uncorrected)	SAMPLER *	SAMPLE NUMBER	NAME	SYMBOL	SOIL DESCRIPTIO	PN
20-				Ы			-				8			Refusal at 20 feet, rock in shoe.	
														COMPLETION DETAILS: 0-19.3 feet: 0.75-inch diameter,	
														flush-threaded Schedule 40 PVC pipe. 19.3-24.3 feet: 0.75-inch diameter flush-threaded, Schedule 40 PVC screen with 0.010-inch machine s	er, 2 well
														pre-pack sand pack. 0-1 feet: flush mount monument. 1-10 feet: bentonite granules. 10-24.3 feet: 10x20 Colorado Sil (in addition to pre-pack).	
_	* SAMPLI TYPE **HAMMI		'EIGH	T		. (3"O] it Spoo lbs ' Drop		1	PT (2 plit Sj 40 lbs 30'' Di)	Core Sampl	e	Shelby Grab	No Recovery
			KI			LDF		(.				Prop	osed F	l Retail Development Fircrest, WA	Append A - b
PRO	TECHNICAL AND ENVIRONMENTAL ENGINEER SOILS AND MATERIALS TESTING NUMBER: 56130												BC	DRING LOG B-67	A - D PAGE 2 o

		T L	ABOI	NG PI RATO	ROGR RY		IELD				U.S.	C.S.		
WELL/PIEZO CONSTRUCTION	WATER LEVEL	MOISTURE CONTENT(%)	PLASTIC LIMIT(%)	LIQUID LIMIT(%)	% PASSING No. 200 SIEVE	OTHER TESTS	PID (ppm)	BLOWS/6 in ** (uncorrected)	SAMPLER *	SAMPLE NUMBER	NAME	SYMBOL	SOIL DESCRIPTIO	N
	W	CON	PLAS	LIQU	No.%	ОТН		m ·				S	urface conditions: grass	
0											SM			
								Latter tra	211211212	1			SILTY SAND (SM): olive-gray, moist, fine to medium sand, trace sand, trace fine gravel	dry to coarse
	-							H	1				(FILL)	
5 -								all all all all all	ALLALLAR LA	2			SILTY SAND (SM): light gray, r to medium sand, trace fine gravel (FILL)	noist, fine , wood
-	1									3			SILTY SAND (SM): dark brown wet, fine to medium sand, trace f	, moist to ine gravel
10	3 T 8								A SAME A LABOR DALLA LA CAMPANYA	4			(FILL) SILTY SAND (SM): greenish-gra olive-gray, wet, fine to medium s fine gravel at 11' turns dark gray, moist, dens fine-grained gravel, rootlets in sh	and, trace
									111 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	5			SILTY SAND (SM): olive-gray to moist to wet, fine to medium sand fine gravel	o brown, d, trace
15-	-							2112112	A	6			SILTY SAND (SM): dark gray w mats of rootlets, moist, fine to me sand, trace fine gravel with organ	dium
	-												(FILL)	
										7			SILTY SAND (SM): dark gray an moist to wet, fine to medium sand fine gravel	id brown, l, trace
20————————————————————————————————————					0.00									
DATE DRILLED: 5-27 LOGGED BY: D. Divin REVIEWED BY: T. Sy	пе				ΤΟΤΑ	L DE	PTH	ATION (feet): 2 BORIN	23.0				DRILLING METHOD: Probe DRILLER: Boart Longyear CASING SIZE: N/A	
]	Prop		l Retail Development Fircrest, WA	Appendix
		D ENV	TRO I		TAL	ENGI	NEEF	RS					DRING LOG	A - a
	GEOTECHNICAL AND ENVIRONMENTAL ENGINEER SOILS AND MATERIALS TESTING ECT NUMBER: 56130												B-68	PAGE 1 of 2

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VD MAY CHANGE AT THIS LOCATION WITH TIME. DATA PRESENTED IS A SIMPLIFICATION. 1 5 2 5

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					NG P RATO	ROGR RY		ELD				U.S.	.c.s.	
	LL/PIEZO STRUCTION	WATER LEVEL	MOISTURE CONTENT(%)	PLASTIC LIMIT(%)	LIQUID LIMIT(%)	% PASSING No. 200 SIEVE	OTHER TESTS	PID (ppm)	* -	SAMPLER *	SAMPLE NUMBER	NAME	SYMBOL	SOIL DESCRIPTION
		W	NO SK	PLAS	ndr	No.	OTH							
											8			SILTY SAND (SM): light gray and brown, moist, fine to medium sand, trace rootlets and fine gravel, dark staining in shoe
														SILTY SAND (SM): light gray to olive-gray, moist to wet, fine to medium sand, trace fine gravel, rootlets in shoe COMPLETION DETAILS: 0-19.3 feet: 0.75-inch diameter,
														flush-threaded Schedule 40 PVC blank riser pipe. 19.3-24.3 feet: 0.75-inch diameter.
														flush-threaded Schedule 40 PVC well screen with 0.010-inch machine slots and pre-pack and pack.
														0-1 feet: flush mount monument. 1-10 feet: bentonite granules. 10-24.3: 10x20 Colorado Silica Sand (in addition to pre-pack).
	* SAMPLE TYPE			X		l. (3''O it Spoo lbs			PT (2' plit Sp 40 lbs)	Core Sampl	e	Shelby Tube Grab O No Recovery
	**HAMMF	LR V	VEIGH	I.	(30	lbs " Drop)	(3	40 lbs 30'' Dr	op)		Prop	osed	Retail Development
			177	TATA		יתדי						- roh		Fircrest, WA
GEO	TECHNICAL			IRO	NME		ENGIN	NEEF	RS				DO	ORING LOG
0.000	SOILS			ERIA	LS T	ESTIN	G						ЪU	B-68 PAGE 2 of 2

THIS LOCATION WITH TIME. DATA PRESENTED IS A SIMPLIFICATION. CUANGE ٦ 7

			ABO	RATO	ROGR		TELD	-			U.S.	C.S.		
(1993) WELL/PIEZO H CONSTRUCTION	WATER LEVEL	MOISTURE CONTENT(%)	PLASTIC LIMIT(%)	LIQUID LIMIT(%)	% PASSING No. 200 SIEVE	OTHER TESTS	PID (ppm)	BLOWS/6 in** (uncorrected)	SAMPLER *	SAMPLE NUMBER	NAME	SYMBOL	SOIL DESCRIPTI	ON
0		-0	PLA	rı	z	<u>``</u>					SM			
										1			SILTY SAND (SM): light gray moist, fine to medium sand, tra	, dry to ce fine
-	_	0.000.00											(FILL)	
5 -	-									2			SILTY SAND (SM): light gray greenish-gray, moist, fine to me trace fine gravel (FILL)	to edium sand,
								111	TT	3			SILTY SAND (SM): dark brow fine to medium sand, trace fine rootlets	m, moist, gravel, trace
0	_								A STREET STREET STREET	4			SILTY SAND (SM): light gray brown, moist, fine to medium si dark gray, poorly graded sand, s 11.5'	and, shoe is
										5			SILTY SAND (SM): olive-gray wet, fine to medium sand	, moist to
5-									LUCINGUE	6			SILTY SAND (SM): olive-gray moist, fine to medium sand, trac gravel, shoe is dark gray, poorly medium sand	e fine
								1	A MUNICIPALITY OF	7			SILTY SAND (SM): olive-gray, to medium sand, trace fine grave	, wet, fine el
0 DATE DRILLED: 5-2' LOGGED BY: D. Divi REVIEWED BY: T. Sy	ne		10441		тота	L DE	PTH	ATION (feet): 2 BORIN	24.0)			DRILLING METHOD: Probe DRILLER: Boart Longyear CASING SIZE: N/A	
	EOTECHNICAL AND ENVIRONMENTAL ENGINEER										Propo)sec]	d Retail Development Fircrest, WA	Appendix
SOILS	AND	D ENV MAT	IRO	NMEN	TAL I	ENGI	NEEF	RS				BC	DRING LOG B-69	A - a PAGE 1 of 2
ROJECT NUMBER:	3013	V	_		_	_	_		1		_		D-07	

					G PROGE	AM FIEL	D		U.	s.c.s.		
	LL/PIEZO TRUCTION	WATER LEVEL	CONTENT(%)	PLASTIC LIMIT(%)	LIQUID LIMIT(%) % PASSING No. 200 SIEVE	OTHER TESTS PID (ppm)	BLOWS/6 in** (uncorrected)	SAMPLER *	NAME	SYMBOL	SOIL DESCRIPTIO	
		M	CO	PLAS	LIQI Nº.	OTH						
20		-						9			SILTY SAND (SM): gray to bro to wet, fine to medium sand with matter (wood chips). Shoe is gra graded medium sand	organic
											SILTY SAND (SM): olive-gray, to medium sand grading into 3" t layer grading into dark brown, m to medium sand, some organic m (wood and roots), trace fine grav COMPLETION DETAILS:	wet, fine fine gravel oist, fine hatter el
											0-20 feet: 0.75-inch diameter, flush-threaded Schedule 40 PVC pipe.	blank riser
											20-25 feet: 0.75-inch diamter, flush-threaded Schedule 40 PVC screen with 0.010-inch machine : pre-pack sand pack.	
											0-1 feet: flush mounted monume 1-10 feet: bentonite granules. 10-25 feet: 10x20 Colorado Silic addition to pre-pack).	
												-
												-
												-
												2
		_ 1										
	* SAMPLE TYPE	R			Cal. (3"O Split Spoo		SPT (2" Split Spc		Core Samj	ole	Shelby Grab	No Recovery
	**HAMME	CR WE	IGHT		300 lbs (30" Drop)	140 lbs (30" Dro	ep)	Duc	nosod	Patail Development	
			1/1 -	יראדוריק	ית דקוקו				F LO		l Retail Development Fircrest, WA	Appendix
GEO	TECHNICAL	AND I	ENVI	RONI	FELDI MENTAL	ENGINEE	CRS			Rſ	ORING LOG	A - b
ROJECT	SOILS . NUMBER:		IATE	KIAL	S TESTIN	G				DC	B-69	PAGE 2 of 2

LABORAT				U.S.C.S.		
DEPTH (feet) MATER LEVEL MOISTURE CONTENT(%) PLASTIC LIMIT(%)	% PASSING No. 200 SIEVE OTHER TESTS PID (ppm) BLOWS/6 in***	(uncorrected) SAMPLER *	SAMPLE NUMBER	NAME SYMBOL	SOIL DESCRIPTIO	N
DI WA CONJ LIQUI	No. 20 No. 20 I	° (n		s	urface conditions: grass	
5			1	SM	SILTY SAND (SM): olive-gray t moist, fine to medium sand, trace coarse gravel (FILL) SILTY SAND (SM): olive-gray, 1 to medium sand, trace fine to coa wood debris at ~6', red-orange m ~6.5'	e fine to moist, fine rse gravel,
			3		(FILL) as above, slightly wet (FILL)	
10			4		SILTY SAND (SM): olive-gray, to medium sand, some fine grave (FILL)	wet, fine l
			5		SILTY SAND (SM): light gray to olive-gray, wet, fine to medium s dark gray sand lense at 13.5', woo directly below	and. 1"
15		4_14	6		(FILL) SILTY SAND (SM): light gray to olive-gray, wet, fine to medium s	and
			7		no recovery	
20- DATE DRILLED: 5-27-05 LOGGED BY: D. Divine REVIEWED BY: T. Sykes	SURFACE ELEVAT TOTAL DEPTH (fee DIAMETER OF BO	et): 24.()		DRILLING METHOD: Probe DRILLER: Boart Longyear CASING SIZE: N/A	
KLEINF	ELDER]		l Retail Development Fircrest, WA	Appendix A - a
GEOTECHNICAL AND ENVIRONM SOILS AND MATERIALS PROJECT NUMBER: 56130	ENTAL ENGINEERS			BC	DRÍNG LOG B-70	A - a PAGE 1 of 2

				ESTI: ABOR		ROGF RY		TELD				U.S.	C.S.		
	/PIEZO RUCTION	WATER LEVEL	MOISTURE CONTENT(%)	PLASTIC LIMIT(%)	LIQUID LIMIT(%)	% PASSING No. 200 SIEVE	OTHER TESTS	PID (ppm)	BLOWS/6 in** (uncorrected)	SAMPLER *	SAMPLE NUMBER	NAME	SYMBOL	SOIL DESCRIPTIO	N
		WA	CON	PLASTI	LIQUI	% P. No. 2(OTHE		(n BI	Š				I	
				1				一日,一日,一日,一日,一日,一日,一日,一日,一日,一日,一日,一日,一日,一			8 9			SILTY SAND (SM): brown to ol wet, fine to medium sand	ive-gray,
														 SILTY SAND (SM): olive-gray, , wet, fine to medium, trace fine to gravel, trace rootlets (FILL) COMPLETION DETAILS: 0-20 feet: 0.75-inch diameter, flush-threaded Schedule 40 PVC pipe. 20-25 feet: 0.75-inch diameter, flush-threaded Schedule 40 PVC screen with 0.010-inch machine spre-pack sand pack. 0-1 feet: flush mount monument. 1-10 feet: bentonite granules. 10-25 feet: 10x20 Colorado Silica addition to pre-pack). 	blank riser well lots and
	* SAMPLE TYPE **HAMMI		/EIGH	Т		l. (3"O it Spoo Ibs "Drop			PT (2' plit Sp 40 lbs 30'' Dr			Core Sample	e	Shelby Grab	No Recovery
												Prop		Retail Development ircrest, WA	Appendix
GEOTI	ECHNICAI SOILS			'IRON	IME		ENG	INEEI	RS				BO	RING LOG	A - b
OJECT N	UMBER:				a contra									B-70	PAGE 2 of 2

OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH TIME. DATA PRESENTED IS A SIMPLIFICATION.

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o DEPTH (feet)	WELL/PIEZO CONSTRUCTION	WATER LEVEL	MOISTURE CONTENT(%)	PLASTIC LIMIT(%)	NG TO NG TO (%)LIWIT DIADIT	% PASSING %		EL (mdd) (IIA	BLOWS/6 in** (uncorrected)	SAMPLER *	SAMPLE NUMBER	U.S. NAME SM	SYMBOL	SOIL DESCRIPTIO	DN	4FER
	-										1	5.00		SILTY SAND (SM): brown, mo medium sand with coarse sand	ist, fine to	CONDITIONS MAY DI
5										antattattattattattattattattattattattatta	2			SILTY SAND (SM): light gray, dry, fine sand, trace coarse sand	moist to	E TIME OF LOCCINC
8														Medium sand, some fine to coars Refusal at 8 feet, rock in shoe	e gravel	THIS SUMMARY APPLIES ONLY AT THIS LOCATION AND AT THE TIME OF LOCCING. CONDITIONS MAY DIFFEED
LO	TE DRILLED: 5-31 GGED BY: D. Divir VIEWED BY: T. Sy	ie				SURF. TOTA DIAM	L DE	PTH ((feet):	8.0				DRILLING METHOD: Probe DRILLER: Boart Longyear CASING SIZE: N/A		-
PRO	GEOTECHNICAL SOILS / JECT NUMBER:	AND	D ENV MAT	/IRON	NMEN	LDF NTAL 3 ESTIN	ENGI	NEEF	RS			Prop	F	l Retail Development Fircrest, WA DRING LOG B-71	Appendix A - PAGE 1 of 1	

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() WELL/PIEZO CONSTRUCTION 0	WATER LEVEL MOISTURE CONTENT(%) PLASTIC LIMIT(%) LIOUID LIMIT(%)	We be a served with the served of the served with the served of the serv	(uncorrected) SAMPLER * SAMPLE	NUMBER NAME SYMBOL	SOIL DESCRIPTIO	DN
5 - 6				SM	SILTY SAND (SM): light brow light gray, dry to moist, fine san to coarse gravel SILTY SAND (SM): light gray, moist, fine-grained sand, trace fi coarse-grained gravel Refusal at 6 feet	d, trace fine
						-
DATE DRILLED: 5-31		SURFACE ELEVAT			DRILLING METHOD: Probe	
LOGGED BY: D. Divin REVIEWED BY: T. Sy		TOTAL DEPTH (fee DIAMETER OF BO		Propose	DRILLER: Boart Longyear CASING SIZE: N/A d Retail Development Fircrest, WA	Appendix
	AND ENVIRONMI AND MATERIALS	ELDER ENTAL ENGINEERS TESTING			DRING LOG B-72	A - PAGE 1 of 1

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	WELL/PIEZO CONSTRUCTION	WATER LEVEL			ING P RATC (%)LIWIT GINÒIT	% PASSING No. 200 SIEVE		EL (mdd) (IIA	BLOWS/6 in** (uncorrected) SAMPLER *	SAMPLE NUMBER	U.S.C.S. HVV SOIL DESCRIPTION Surface conditions: concrete, cored	TER FICATION
2	2.5	0			9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9					1	SM SILTY SAND (SM): dark brown grading light brown grading to gray, moist to dry, fine sand with fine to coarse gravel in bottom 1'	THIS SUMMARY APPLIES ONLY AT THIS LOCATION AND AT THE TIME OF LOGGING. CONDITIONS MAY DIFFER AT OTHER LOCATIONS AND MAY CHANGE AT THIS LOCATION WITH TIME. DATA PRESENTED IS A SIMPLIFICATION
											Refusal at 2.5'	ING. CONDIT
												IME OF LOGG
												AND AT THE T OCATION WI
												S LOCATION / GE AT THIS I
											14	ONLY AT THU D MAY CHAN
												RY APPLIES OCATIONS AI
15/05												THIS SUMMA AT OTHER LO
2002 STAN INPUTIALL OUTPUT 56130.GPJ 2000REV.GDT 6/15/05												
UTPUT 56130.GP	DATE DRILLED: 5-31 LOGGED BY: D. Divin REVIEWED BY: T. Sy	e				тота	L DEI	PTH (ATION (1 feet): 2.5 BORING		DRILLING METHOD: Probe DRILLER: Boart Longyear CASING SIZE: N/A	APPROV:
N. INPUT/ALL OI	GEOTECHNICAL					LDE			0		Proposed Retail Development Fircrest, WA A -	
2002 STA	GEOTECHNICAL SOILS A	AND	MAT	ERIA	LS TI		G	NEEK	.5		BORING LOG B-74 PAGE 1	of 1

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DEPTH (feet)	WELL/PIEZO CONSTRUCTION	WATER LEVEL		PLASTIC LIMIT(%)				IEL (mdd) (IIA	*	SAMPLER *	SAMPLE NUMBER	U.S. NAME	SYMBOL	SOIL DESCRIPTIC	DN	04
0.	-	2 2 2								ALCOLOUR TRAILE	1	SM		SILTY SAND (SM): dark brown light brown, dry to moist, fine sa fine to coarse gravel	n grading to ind, trace	CONDITIONS MAV DIFF
5	-										2			as above Refusal at 5 feet		DUCCINC
– DA LO RE																THIS SUMMARY APPLIES ONLY AT THIS LOCATION AND AT THE TIME OF LOCCING COMPARIANCE WAY NAMED
LO	ATE DRILLED: 5-31 DGGED BY: D. Divin EVIEWED BY: T. Sy	ie				ΤΟΤΑ	L DE	PTH (ATIO (feet): BORIN	5.0			I	DRILLING METHOD: Probe DRILLER: Boart Longyear CASING SIZE: N/A		-
	GEOTECHNICAL SOILS A	AND	MAT	VIRON	NMEN	LDI TAL ESTIN	ENGL	NEEF	RS]		Fi	Retail Development ircrest, WA RING LOG B-75	Appendix A - PAGE 1 of 1	

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KESENTED IS A SIMPLIFICATION.

	TESTING PROGRAM U.S.C.S. LABORATORY FIELD													
DEPTH (feet)	WELL/PIEZO CONSTRUCTION	WATER LEVEL	MOISTURE CONTENT(%)	PLASTIC LIMIT(%)	LIQUID LIMIT(%)	% PASSING No. 200 SIEVE	OTHER TESTS	PID (ppm)	BLOWS/6 in** (uncorrected) SAMPLER *	SAMPLE NUMBER	NAME	SYMBOL	SOIL DESCRIPTIO	DN
Đ		WAJ	MOI	PLASTIC	IIIQUII	% PA No. 20	OTHE	Ч	BL((ur		5	S	urface conditions: concrete, cored	
0 -	-									1	SM	<u>x</u> 4.5	SILTY SAND (SM): brown, mo fine sand, trace fine gravel in top sample is pea gravel, the bottom which is possibly stained	1'. rest of
5	-	-								2			SILTY SAND (SM): brown, moi fine sand, trace fine gravel	ist to dry,
LO	TE DRILLED: 5-31 GGED BY: D. Divir VIEWED BY: T. Sy	ne				тота	L DE	PTH	7ATION (feet): 5. BORING	5	Prop		DRILLING METHOD: Probe DRILLER: Boart Longyear CASING SIZE: N/A I Retail Development	Appendix

GESENTED IS A SIMPLIFICATION. TON WITH TIME. DATA P

0 DEPTH (feet)	WELL/PIEZO CONSTRUCTION	WATER LEVEL			NG P RATC (%)LIWIT QINDIT	% PASSING % PASSING No. 200 SIEVE		IELD (mqq) UIA	BLOWS/6 in** (uncorrected) SAMPLER *	SAMPLE NUMBER	U.S. NAME SM	SYMBOL	SOIL DESCRIPTI	ON	FFR
5 -										1			SILTY SAND (SM): light gray dry to moist, fine to medium sa fine to coarse gravel (FILL) SILTY SAND (SM): light gray moist, fine to red sand, trace fri gravel (FILL) SILTY SAND (SM): light gray moist, fine to medium sand, tra gravel (FILL) Refusal at 11 feet. No water en	nd, trace to brown, ne to coarse dry to ce fine	THIS SUMMARY APPLIES ONLY AT THIS LOCATION AND AT THE TIME OF LOCCING. CONDITIONS MAY DIFFERD
LOG	E DRILLED: 5-27 GED BY: D. Divin IEWED BY: T. Sy	e				тота	L DE) HT9	ATION feet): 11 30RING	.0			DRILLING METHOD: Probe DRILLER: Boart Longyear CASING SIZE: N/A		-
	GEOTECHNICAL SOILS A ECT NUMBER: 5	ND) ENV MAT	IRON	MEN	LDE ITAL I ESTIN	ENGI	NEER	.S	I	_	F	Retail Development Fircrest, WA DRING LOG B-77	Appendix A - PAGE 1 of 1	

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Environmental Services Network

June 13, 2005

Ted Sykes Kleinfelder 2405 140th Avenue NE Suite A101 Bellevue, WA 98005-1877

Dear Mr. Sykes:

Please find enclosed the analytical data report from the Fircrest, Retail Project site in Washington. Soil and water samples were analyzed for Diesel and Oil by NWTPH-Dx/Dx Extended, Gasoline by NWTPH-Gx, VOC's by Method 8260, and RCRA 8 Metals by Method 6000 & 7000 series on June 3 - 6, 2005.

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

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

Sincerely,

Midual a Koran

Michael A. Korosec *President*

1210 Eastside Street SE, Suite 200 📽 Olympia, Washington 98501 🕿 360.459.4670 📽 FAX 360.459.3432

ESN Job Number:	S50531-1
Client:	KLEINFELDER
Client Job Name:	FIRCREST, RETAIL
Client Job Number:	56130

Analytical Results

NWTPH-Dx, mg/kg		MTH BLK	B59-2@5'	B61-2@5'	B62-2@5'	B60-2@5'	B65-1@2.5'	B65-7@15'	B64-4@8.5'	B64-6@15
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	06/01/05	06/01/05	06/01/05	06/01/05	06/01/05	06/01/05	06/01/05	06/01/05	06/01/05
Date analyzed	Limits	06/03/05	06/03/05	06/03/05	06/03/05	06/03/05	06/03/05	06/03/05	06/03/05	06/03/05
Moisture, %			8%	16%	14%	10%	10%	15%	11%	14%
Kerosene/Jet fuel	20	nd	nd	nd	nd	nd	nd	nd	nd	nd
Diesel/Fuel oil	20	nd	nd	nd	nd	nd	nd	nd	nd	nd
Heavy oil	50	nd	6,500	nd	nd	nd	nd	nd	1,400	170
Surrogate recoveries:										
Fluorobiphenyl		104%	101%	102%	97%	100%	100%	100%	101%	107%
o-Terphenyl		84%	110%	100%	95%	97%	99%	93%	104%	109%

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Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

na - not analyzed

C - coelution with sample peaks

M - matrix interference

J - estimated value

Results reported on dry-weight basis

Acceptable Recovery limits: 65% TO 135%

ESN Job Number:	S50531-1
Client:	KLEINFELDER
Client Job Name:	FIRCREST, RETAIL
Client Job Number:	56130

Analytical Results

NWTPH-Dx, mg/kg		B63-2@5'	B63-6@15'	B57-2@5'	B58-4@10'	B58-5@12.5'	B70-2@5'	B70-9@22.5'	B69-4@11.5
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	
Date extracted	Reporting	06/01/05	06/01/05	06/01/05	06/01/05	06/01/05	06/01/05		Soil
Date analyzed	Limits	06/03/05	06/03/05	06/03/05	06/03/05	2010.00.00.00.00.00.00		06/01/05	06/01/05
Moisture, %		10%			and the second se	06/06/05	06/03/05	06/03/05	06/03/05
		1078	5%	9%	8%	12%	11%	13%	17%
Kerosene/Jet fuel	20	nd	nd	nd	nd	nd	nd	nd	nd
Diesel/Fuel oil	20	nd	nd	nd	nd	nd	nd	nd	nd
Heavy oil	50	nd	6,200	nd	850	740	nd	nd	940
Surrogate recoveries:									
Fluorobiphenyl		100%	101%	102%	100%	106%	101%	104%	101%
o-Terphenyl		97%	105%	101%	98%	107%	101%	104%	100%

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Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

na - not analyzed

C - coelution with sample peaks

M - matrix interference

J - estimated value

Results reported on dry-weight basis

Acceptable Recovery limits: 65% TO 135%

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ESN Job Number:	S50531-1
Client:	KLEINFELDER
Client Job Name:	FIRCREST, RETAIL
Client Job Number:	56130

Analytical Results						DUP			
NWTPH-Dx, mg/kg		B69-9@22.5'	B68-8@20'	B68-2@5'	B67-4@12'	B67-4@12'	B67-6@15'	B66-2@5'	B66-9@22.5'
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	06/01/05	06/01/05	06/01/05	06/01/05	06/01/05	06/01/05	06/01/05	06/01/05
Date analyzed	Limits	06/03/05	06/03/05	06/03/05	06/03/05	06/03/05	06/03/05	06/03/05	06/03/05
Moisture, %		20%	17%	13%	10%	10%	6%	13%	12%
Kerosene/Jet fuel	20	nd	nd	nd	nd	nd	nd	nd	nd
Diesel/Fuel oil	20	nd	nd	nd	nd	nd	nd	nd	nd
Heavy oil	50	nd	nd	nd	nd	nd	6,600	nd	nd
Surrogate recoveries:									
Fluorobiphenyl		104%	104%	103%	107%	106%	102%	103%	106%
o-Terphenyl		106%	100%	100%	100%	102%	107%	99%	99%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

na - not analyzed

C - coelution with sample peaks

M - matrix interference

J - estimated value

Results reported on dry-weight basis Acceptable Recovery limits: 65% TO 135%

ESN Job Number:	S50531-1
Client:	KLEINFELDER
Client Job Name:	FIRCREST, RETAIL
Client Job Number:	56130

Analytical Results			DUP
NWTPH-Dx, mg/kg		QC SAMPLE	QC SAMPLE
Matrix	Soil	Soil	Soil
Date extracted	Reporting	06/01/05	06/01/05
Date analyzed	Limits	06/03/05	06/03/05
Moisture, %			00/00/00
Kerosene/Jet fuel	20	nd	nd
Diesel/Fuel oil	20	nd	nd
Heavy oil	50	nd	nd
Surrogate recoveries:			
Fluorobiphenyl		104%	103%
o-Terphenyl		98%	99%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

na - not analyzed

C - coelution with sample peaks

M - matrix interference

J - estimated value

Results reported on dry-weight basis

Acceptable Recovery limits: 65% TO 135%

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ESN Job Number:	S50531-1
Client:	KLEINFELDER
Client Job Name:	FIRCREST, RETAIL
Client Job Number:	56130

Analytical Results							DUP
NWTPH-Dx, mg/l		MTH BLK	B65	B63	B59	QC SAMPLE	OC SAMPLE
Matrix	Water	Water	Water	Water	Water	Water	Water
Date extracted	Reporting	06/01/05	06/01/05	06/01/05	06/01/05	06/01/05	06/01/05
Date analyzed	Limits	06/03/05	06/03/05	06/03/05	06/03/05	06/03/05	06/03/05
Kerosene/Jet fuel	0.20	nd	nd	nd	nd	nd	nd
Diesel/Fuel oil	0.20	nd	nd	nd	nd	nd	nd
Heavy oil	0.50	nd	nd	nd	nd	nd	nd
Surrogate recoveries:							
Fluorobiphenyl		109%	108%	104%	105%	110%	105%
o-Terphenyl		107%	103%	109%	105%	109%	105%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

na - not analyzed

C - coelution with sample peaks

M - matrix interference

J - estimated value

Acceptable Recovery limits: 65% TO 135%

ESN Job Number:	S50531-1
Client:	KLEINFELDER
Client Job Name:	FIRCREST, RETAIL
Client Job Number:	56130

Analytical Results

NWTPH-Gx, mg/kg		MTH BLK	B59-2@5'	B61-2@5'	B62-2@5'	B60-2@5'	B65-1@2.5'	B65-7@15'	B64-4@8.5'
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	06/01/05	06/01/05	06/01/05	06/01/05	06/01/05	06/01/05	06/01/05	06/01/05
Date analyzed	Limits	06/03/05	06/03/05	06/03/05	06/03/05	06/03/05	06/03/05	06/03/05	06/03/05
Moisture, %			8%	16%	14%	10%	10%	15%	11%
Mineral spirits/Stoddard solvent	5.0	nd	nd	nd	nd	nd	nd	nd	nd
Gasoline	5.0	nđ	nd	nd	nd	nd	nd	nd	nd
Surrogate recoveries:									
Fluorobiphenyl		104%	101%	102%	97%	100%	100%	100%	101%
o-Terphenyl		84%	110%	100%	95%	97%	99%	93%	101%

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Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

na - not analyzed

C - coelution with sample peaks

M - matrix interference

J - estimated value

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Results reported on dry-weight basis

Acceptable Recovery limits: 65% TO 135%

ESN Job Number:	S50531-1
Client:	KLEINFELDER
Client Job Name:	FIRCREST, RETAIL
Client Job Number:	56130

Analytical Results

NWTPH-Gx, mg/kg		B64-6@15'	B63-2@5'	B63-6@15'	B57-2@5'	B58-4@10'	B58-5@12.5'	B70-2@5'	B70-9@22.5'
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	06/01/05	06/01/05	06/01/05	06/01/05	06/01/05	06/01/05	06/01/05	06/01/05
Date analyzed	Limits	06/03/05	06/03/05	06/03/05	06/03/05	06/03/05	06/06/05	06/03/05	06/03/05
Moisture, %		14%	10%	5%	9%	8%	12%	11%	13%
Mineral spirits/Stoddard solvent	5.0	nd	nd	nd	nd	nd	nd	nd	nd
Gasoline	5.0	nd	nd	nd	nd	nd	nd	nd	nd
Surrogate recoveries:									
Fluorobiphenyl		107%	100%	101%	102%	100%	106%	101%	104%
o-Terphenyl		109%	97%	105%	101%	98%	107%	101%	102%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

na - not analyzed

C - coelution with sample peaks

M - matrix interference

J - estimated value

Results reported on dry-weight basis

Acceptable Recovery limits: 65% TO 135%

ESN Job Number:	S50531-1
Client:	KLEINFELDER
Client Job Name:	FIRCREST, RETAIL
Client Job Number:	56130

Analytical Results

MM/TDULO #							DUP		
NWTPH-Gx, mg/kg		B69-4@11.5'	B69-9@22.5'	B68-8@20'	B68-2@5'	B67-4@12'	B67-4@12'	B67-6@15'	B66-2@5'
Matrix	Soil	Soil	Soil	Soil	Soil	Soil			
Date extracted	Reporting	06/01/05	06/01/05	06/01/05	06/01/05		Soil	Soil	Soil
Date analyzed	Limits	06/03/05	06/03/05			06/01/05	06/01/05	06/01/05	06/01/05
Moisture, %	Linito	and the second		06/03/05	06/03/05	06/03/05	06/03/05	06/03/05	06/03/05
Molsture, 78		17%	20%	17%	13%	10%	10%	6%	13%
Mineral spirits/Stoddard solvent	5.0	nd	nd	nd	nd	nd	nd	nd	nd
Gasoline	5.0	nd	nd	nd	nd	nd	nd	nd	nd
Surrogate recoveries:									
Fluorobiphenyl		101%	104%	104%	103%	107%	106%	102%	103%
o-Terphenyl		100%	106%	100%	100%	100%	102%	107%	99%

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Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

na - not analyzed

C - coelution with sample peaks

M - matrix interference

J - estimated value

Results reported on dry-weight basis

Acceptable Recovery limits: 65% TO 135%

ESN Job Number:	S50531-1
Client:	KLEINFELDER
Client Job Name:	FIRCREST, RETAIL
Client Job Number:	56130

Analytical Results				DUP
NWTPH-Gx, mg/kg		B66-9@22.5'	QC SAMPLE	QC SAMPLE
Matrix	Soil	Soil	Soil	Soil
Date extracted	Reporting	06/01/05	06/01/05	06/01/05
Date analyzed	Limits	06/03/05	06/03/05	06/03/05
Moisture, %		12%		
Mineral spirits/Stoddard solvent	5.0	nd	nd	nd
Gasoline	5.0	nd	nď	nd
Surrogate recoveries:				
Fluorobiphenyl		106%	104%	103%
o-Terphenyl		99%	98%	99%

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Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

na - not analyzed

C - coelution with sample peaks

M - matrix interference

J - estimated value

Results reported on dry-weight basis

Acceptable Recovery limits: 65% TO 135%

1,4-Dichlorobenzene

ESN Job Number:	S50531-1
Client:	KLEINFELDER
Client Job Name:	FIRCREST, RETAIL
Client Job Number.	56130

Analytical Results MTH BLK LCS B59-2@5' B61-2@5' B62-2@5' B60-2@5 MS 8260, mg/kg Malrix Soil Soil Soil Soil Soll Soil Soil Soil 05/31/05 05/31/05 05/31/05 05/31/05 05/31/05 05/31/05 Date extracted Reporting Date analyzed Limits 06/03/05 06/03/05 06/03/05 06/03/05 06/03/05 06/03/05 06/03/05 06/03/05 Moisture, % 16% 14% 10% 8% Dichlorodifluoromethane 0.05 nđ nd nđ nd nd Chloromethane 0.05 nd nđ nd nd nd Vinyl chloride 0.01 nd nd nd nd nd Bromomethane 0.05 nd nd nd nđ nd Chloroethane 0.05 nd nd nď nd nđ Trichlorofluoromethane 0.05 nd nď nd nd nd Acetone 0.50 nd nd nd nd nd 93% 0.05 88% 1.1-Dichloroethene nd nd nd nđ nd Methylene chloride 0.50 nd nd nd nd nd Methyl-t-butyl ether (MTBE) 0.05 nď nd nd nd nđ trans-1,2-Dichloroethene 0.05 nd nd nd nd nd 1,1-Dichloroelhane 0.05 nd nd nd nd nd 2-Butanone (MEK) 0.50 nd nd nd nđ nd cis-1,2-Dichloroethene 0.05 nd nd nd nd nd 0.05 2,2-Dichloropropane nd nd nd nd nd Chloroform 0.05 nd nd nd nd nd Bromochloromethane 0.05 nd nđ nd nd nd 0.05 nd nd 1,1,1-Trichloroethane nd nd nd 1,2-Dichloroethane 0.05 nd nd nd nd nd 1,1-Dichloropropene 0.05 nd nd nd nd nd 0.05 Carbon letrachloride nd nd nd nd nd Benzene 0.02 nd 107% nd nd nd nd 106% 0.02 105% Trichloroethene (TCE) 102% nd nd nd nd nd 0.05 1,2-Dichloropropane nd nd nd nd nđ Dibromomethane 0.05 nd nd nd nd nd 0.05 Bromodichloromethane nd nd nd nd nd 0.05 4-Methyl-2-pentanone лd nđ nđ nd nđ cis-1,3-Dichloropropene 0.05 nd nd nd nd nd Toluene 0.05 nd 118% nd nd nd nd 114% trans-1,3-Dichloropropene 0.05 nd nd nd nd nd 1,1,2-Trichloroethane 0.05 nđ nd nd nd nd 0.05 2-Hexanone nd nd nd nd nd 1,3-Dichloropropane 0.05 nd nd nd nd nd Dibromochloromethane 0.05 nd nd nď nd nd

MSD RPD

Soil

85% 3%

102%

99%

109%

4%

3%

4%

5%

Tetrachloroethene (PCE)	0.02	nd		nď	0.20	0.10	0.02			
1,2-Dibromoethane (EDB)(*)	0.005	nd		nd	nd	nd	nd			
Chlorobenzene	0.05	nd	117%	nd	nd	nd	nd	116%	110%	
1,1,1,2-Tetrachloroethane	0.05	nd		nd	nd	nd	nd			
Ethylbenzene	0.05	nd		nd	nd	nd	nd			
Xylenes	0.05	nd		nd	nď	nd	nd			
Styrene	0.05	nd		nd	nd	nd	nd			
Bromoform	0.05	nd		nd	nd	nd	nd			
1,1,2,2-Tetrachloroethane	0.05	nd		nd	nd	nd	nd			
lsopropylbenzene	0.05	nd		nd	nd	nď	nd			
1,2,3-Trichloropropane	0.05	nd		nd	nď	nd	nd			
Bromobenzene	0.05	nd		nd	nd	nd	nd			
n-Propylbenzene	0.05	nđ		nd	nd	nd	nd			
2-Chlorotoluene	0.05	nd		nd	nd	nd	nd			
4-Chlorotoluene	0.05	nd		nd	nd	nd	nd			
1,3,5-Trimethylbenzene	0.05	nd		nd	nd	nd	nd			
tert-Butylbenzene	0.05	nd		nd	nd	nd	nd			
1,2,4-Trimethylbenzene	0.05	nd		nđ	nd	nd	nd			
sec-Butylbenzene	0.05	nd		nd	nd	nd	nd			
1,3-Dichlorobenzene	0.05	nd		nd	nd	nd	nd			

0.05

nd

nd

nd

nd

nd

ESN Job Number:	S50531-1
Client:	KLEINFELDER
Client Job Name:	FIRCREST, RETAIL
Client Job Number:	56130

Analytical Results

8260, mg/kg		MTH BLK	LCS	B59-2@5'	B61-2@5'	B62-2@5'	B60-2@5'	MS	MSD	RPD
Matrix	Soil	Soil	Soll	Soll	Soil	Soil	Soil	Soil	Soil	
Date extracted	Reporting			05/31/05	05/31/05	05/31/05	05/31/05	05/31/05	05/31/05	
Date analyzed	Limits	06/03/05	06/03/05	06/03/05	06/03/05	06/03/05	06/03/05	06/03/05	06/03/05	
Moisture, %				8%	16%	14%	10%			
Isopropyitoluene	0.05	nd		nd	nd	nd	nd			
1,2-Dichlorobenzene	0.05	nd		nd	nd	nd	nd			
n-Butylbenzene	0.05	nd		nd	nd	nd	nd			
1,2-Dibromo-3-Chloropropane	0.05	nd		nd	nd	nd	nd			
1,2,4-Trichlorobenzene	0.05	nd		nd	nd	nd	nd			
Naphthalene	0.05	nd		nd	nd	nd	nd			
Hexachloro-1,3-butadiene	0.05	nd		nd	nd	nd	nd			
1,2,3-Trichlorobenzene	0.05	nd		nd	nd	nd	nd			
*-instrument detection limits										
Surrogate recoveries:										
Dibromofluoromethane		94%	95%	94%	95%	95%	95%	94%	94%	
Toluene-d8		104%	105%	105%	106%	106%	105%	103%	104%	
4-Bromofluorobenzene		102%	105%	105%	103%	104%	106%	105%	106%	

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

J - estimated quantitation, below listed reporting limits

Acceptable Recovery limits: 65% TO 135%

Acceptable RPD limit: 35%

.

ESN Job Number:	S50531-1
Client:	KLEINFELDER
Client Job Name:	FIRCREST, RETAIL
Client Job Number:	56130

8260, mg/kg		MTH BLK	LCS	B65-1@2.5'	B65-7@15'	B64-4@8.5'	B64-6@15'	B63-2@5'	B63-6@15'
Matrix	Soil	Soil	Soll	Soil	Soil	Soil	Soil	Soil	Soll
Date extracted	Reporting			05/31/05	05/31/05	05/31/05	05/31/05	05/31/05	05/31/05
Date analyzed	Limits	06/05/05	06/05/05	06/05/05	06/05/05	06/05/05	06/05/05	06/05/05	06/05/05
Moisture, %				10%	15%	11%	14%	10%	5%
Dichlorodifluoromethane	0.05	nd		nd	nd	nd	nd	nd	nd
Chloromethane	0.05	nd		nd	nd	nd	nd	nd	nd
Vinyl chloride	0.01	nd		nd	nd	лd	nd	nd	nd
Bromomethane	0.05	nd		nd	nd	nd	nd	nd	nd
Chloroethane	0.05	nd		nd	nd	nd	nd	nd	nď
Trichlorofluoromethane	0.05	nd		nd	nd	nd	nd	nd	nd
Acetone	0.50	nd		nd	nd	nd	nd	nd	nd
1,1-Dichloroethene	0.05	nd	79%	nd	nd	nd	nd	nd	nd
Methylene chloride	0.50	nd		nd	nd	nd	nd	nd	nd
Methyl-t-butyl ether (MTBE)	0.05	nd		nd	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	0.05	nd		nd	nd	nd	nd	nd	nd
1,1-Dichloroethane	0.05	nd		nd	nd	nd	nd	nd	nd
2-Butanone (MEK)	0.50	nd		nd	nd	nd	nd	nd	nd
cis-1,2-Dichloroethene	0.05	nd		nd	nd	nd	nd	nd	nd
2,2-Dichloropropane	0,05	nd		nd	nd	nd	nd	nd	nd
Chloroform	0.05	nđ		nd	nd .	nd	nd	nd	nd
Bromochloromethane	0.05	nd		nd	nd	nd	nd	nd	nd
1,1,1-Trichloroethane	0.05	nd		nd	nd	nd	nd	nd	nd
1,2-Dichloroethane	0.05	nd		nd	nd	bn br	nd	nd	nd
1,1-Dichloropropene	0.05	nd		nd	nd	nd	nd	nd	nd
Carbon tetrachloride	0.05	nd nd	94%	nd nd	nd	nd	nd	nd	nd
Benzene Trichloroothono (TCE)	0.02 0.02	nd	94% 90%	nd nd	nd ndi	nđ nđ	nd	nd	nd
Trichloroethene (TCE) 1,2-Dichloropropane	0.02	nd	90 %	nd	nd	nd	nd nd	nd nd	nd nd
Dibromomethane	0.05	nd		nd	nd	nd	nd	nd	nd
Bromodichloromethane	0.05	nd		nd	nd	nd	nd	nd	nd
4-Methyl-2-pentanone	0.05	nd		nd	nd	nd	nd	nd	nd
cis-1,3-Dichloropropene	0.05	nd		nd	nd	nd	nd	nd	nd
Toluene	0.05	ें nd	96%	nd	nd	nd	nd	nd	nd
trans-1,3-Dichloropropene	0.05	nd	0070	nd	nd	nd	nd	nd	nd
1,1,2-Trichloroethane	0.05	nd		nd	nd	nd	nd	nd	nd
2-Hexanone	0.05	nd		nd	nď	nd	nd	nd	nd
1,3-Dichloropropane	0.05	nd		nd	nd	nd	nd	nd	nd
Dibromochloromethane	0.05	nd		nd	nd	nd	nď	nd	nd
Tetrachloroethene (PCE)	0.02	nd		nd	nd	nđ	nď	nd	nd
1,2-Dibromoethane (EDB)(*)	0.005	nd		nđ	nd	nd	nđ	nd	nd
Chlorobenzene	0.05	nd	96%	nd	nd	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	0.05	nd		nd	nd	nd	nd	nd	nd
Ethylbenzene	0.05	nd		nd	nd	nd	nd	nd	nd
Xylenes	0.05	nd		nd	nd	nd	nd	nd	nd
Styrene	0.05	nđ		nd	nd	nd	nd	nd	nd
Bromoform	0.05	nd		nd	nd	nd	nd	nđ	nd
1,1,2,2-Tetrachloroethane	0.05	nd		nd	nd	ndi	nd	nd	nd
Isopropylbenzene	0.05	nd		nđ	nd	nđ	nd	nd	nd
1,2,3-Trichloropropane	0.05	nd		nd	nd	nd	nd	nd	nd
Bromobenzene	0.05	nd		nd	nd	nd	nđ	nd	nd
n-Propylbenzene	0.05	nd		nd	nd	nd	nđ	nd	nđ
2-Chlorotoluene	0.05	nd		nd	nd	nd	nd	nd	nd
4-Chlorotoluene	0.05	nd		nd	nđ	nd	nd	nd	nd
1,3,5-Trimethylbenzene	0.05	nd		nd	nd	nd	nd	nd	nd
ert-Butylbenzene	0.05	nd		nd	nd	nd	nd	nd	nd
1,2,4-Trimethylbenzene	0.05	nd		nd	nd	nd	nd	nd	nđ
sec-Butylbenzene	0,05	nd		nd	nd	nd	nd	nđ	nd
1,3-Dichlorobenzene	0.05	nd		nd	nd	nd	nd	nd	nd
1,4-Dichlorobenzene	0.05	nd		nd	nd	nd	ndi	nd	nd

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ESN Job Number:	S50531-1
Client:	KLEINFELDER
Client Job Name:	FIRCREST, RETAIL
Client Job Number:	56130

8260, mg/kg	44	MTH BLK	LCS	B65-1@2.5'	B65-7@15'	B64-4@8.5'	B64-6@15'	B63-2@5'	B63-6@15
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soll	So
Date extracted	Reporting			05/31/05	05/31/05	05/31/05	05/31/05	05/31/05	05/31/0
Date analyzed	Limits	06/05/05	06/05/05	06/05/05	06/05/05	06/05/05	06/05/05	06/05/05	06/05/0
Moisture, %				10%	15%	11%	14%	10%	5%
Isopropylloluene	0.05	nd		nd	nd	nd	nd	nd	0.0
1,2-Dichlorobenzene	0.05	nd		nd	nd	nd	nd	nd	n
n-Butylbenzene	0.05	nd		nd	nd	nd	nd	nd	n
1,2-Dibromo-3-Chloropropane	0.05	nd		nd	nd	nd	nd	nd	n
1,2,4-Trichlorobenzene	0.05	nd		nd	nd	nd	nd	nd	n
Naphthalene	0.05	nd		nd	nd	nd	nđ	nd	n
Hexachloro-1,3-butadiene	0.05	nd		nd	nd	nd	nd	nd	n
1,2,3-Trichlorobenzene	0.05	nď		nd	nd	nd	nd	nd	n
*-instrument detection limits									
Surrogate recoveries:									
Dibromofluoromethane		97%	98%	97%	97%	96%	95%	97%	95%
Toluene-d8		98%	100%	100%	98%	100%	99%	100%	98%
4-Bromofluorobenzene		98%	98%	98%	96%	96%	99%	98%	99%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

J - estimated quantitation, below listed reporting limits

Acceptable Recovery limits: 65% TO 135%

Acceptable RPD limit: 35%

.

ESN Job Number:	S50531-1
Client:	KLEINFELDER
Client Job Name:	FIRCREST, RETAIL
Client Job Number:	56130

8260, mg/kg		B57-2@5'	B58-4@10'	B58-5@12.5'	B70-2@5'	B70-9@22.5'	B69-4@11.5'	B69-9@22.5
Matrix	Soil	Soil	Soll	Soll	Soil	Soil	Soil	Soi
Date extracted	Reporting	05/31/05	05/31/05	05/31/05	05/31/05	05/31/05	05/31/05	05/31/05
Date analyzed	Limits	06/05/05	06/05/05	06/05/05	06/05/05	06/05/05	06/05/05	06/05/05
Moisture, %		9%	8%	12%	11%	13%	17%	20%
Dichlorodifluoromethane	0.05	nd	nd	nd	nd	nd	nd	nc
Chloromethane	0.05	nd	nd	nd	nd	nd	nd	nc
/inyl chloride	0.01	nď	nd	nd	лd	nd	nd	nc
Bromomethane	0.05	nd	nd	nd	nd	nd	nd	nd
Chloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
richlorofluoromethane	0.05	nd	nd	nd	nd	nd	nd	nd
cetone	0.50	nd	nd	лđ	nd	nd	nd	nd
,1-Dichloroethene	0.05	nd	nd	nd	nd	nď	nd	nd
lelhylene chloride	0.50	nd	nd	nd	nd	nd	nd	nd
lethyi-t-butyl ether (MTBE)	0.05	nđ	nd	nd	nd	nd	nd	nd
ans-1,2-Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
,1-Dichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
-Butanone (MEK)	0.50	nđ	nd	nd	nd	nd	nd	nd
is-1,2-Dichloroethene	0.05	nd	nd	nd	nd	nd	nd	nd
,2-Dichloropropane	0.05	nd	nd	nd	nd	nd	nd	nd
hloroform	0.05	nđ	nd	nď	nd	nd	nd	nd
romochloromethane	0.05	nd	nd	nd	nd	nd	nd	nd
1,1-Trichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
,2-Dichloroethane	0.05	nd	nd	nd	nd	nd	nd	nd
1-Dichloropropene	0.05	nd	nd	nd	nd	nd	nd	nd
arbon tetrachloride	0.05	nd	nd	nd	nd	nd	nd	nd
enzene	0.02	nd	nd	nd	nd	nd	nd	nd
richloroethene (TCE)	0.02	nd	nd	nd	nd	nd	nd	nď
2-Dichloropropane	0.05	nd	nd	nd	nd	nd	nd	nd
ibromomethane	0.05	nd	nd	nď	nd	nd	nd	nd
romodichloromethane	0.05	nd	nd	nd	nd	nd	nd	nd
Methyl-2-pentanone	0.05	nd	nd	nd	nd	nd	nd	nd
s-1,3-Dichloropropene	0.05	nd	nd	nd	nd	nd	nd	nd
bluene	0.05	nd	nd	nd	nd	nď	nd	nd
ans-1,3-Dichloropropene	0.05	nd	nd	nd	nď	nd	nd	nd
1,2-Trichloroethane	0.05	nd	nd	nd	nd	nd	nd	лd
Hexanone	0.05	nď	nd	nd	nd	nd	nd	nd
3-Dichloropropane	0.05	лd	nd	nď	nd	nd	nd	nd
bromochloromethane	0.05	nď	nd	nd	nd	nd	nd	nd
etrachloroethene (PCE)	0.02	nd	nd	nd	nď	nd	nd	nd
2-Dibromoethane (EDB)(*)	0.005	nd	nd	nd	nd	nď	nd	nd
lorobenzene	0.05	nd	nd	nd	nd	nd	nd	nd
1,1,2-Tetrachloroethane	0.05	nd	nd	nd	nd	nd	nd	
hylbenzene	0.05	nd	nd	nd	nd			nd
lenes	0.05	nd	nd	nd	nď	na nd	nd	nd
yrene	0.05	nd	nd	nd	nd	nd	nd nd	nd
omoform	0.05	nd	nd	nd	nd	nd	nd	nd
1,2,2-Tetrachloroethane	0.05	nd	nd	nd	nd	nd		nd
propylbenzene	0.05	nd	nd	nd	nd	nd	nd	nd
2,3-Trichloropropane	0.05	nd	nd	nd	nd	nd	nd	nd
omobenzene	0.05	nd	nd	nd	nd	nd	nđ	nd
Propylbenzene	0.05	nd	nd	nd	nd		nd	nđ
Chlorololuene	0.05	nd	nd	nd	nd	nd	nd	nd
Chlorotoluene	0.05	nd	nd			nd	nd	nd
3,5-Trimethylbenzene	0.05	nd		nd	nd	nd	nd	nd
t-Butylbenzene	0.05	nd	nđ	nď	nd	nd	nd	nd
,4-Trimelhylbenzene			nd	nd	nd	nď	nd	nd
c-Butylbenzene	0.05	nd	nd	nd	nd	nd	nd	nd
	0.05	nd	nd	nd	nd	nď	nd	nd
-Dichlorobenzene	0.05	nd	nd	nd	nd	nd	nd	nd

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ESN Job Number:	S50531-1
Client:	KLEINFELDER
Client Job Name:	FIRCREST, RETAIL
Client Job Number:	56130

Analytical Results

8260, mg/kg		B57-2@5'	B58-4@10'	B58-5@12.5'	B70-2@5'	B70-9@22.5'	B69-4@11.5'	B69-9@22.5
Matrix	Soil	Soil	Soil	Soll	Soil	Soll	Soil	So
Date extracted	Reporting	05/31/05	05/31/05	05/31/05	05/31/05	05/31/05	05/31/05	05/31/0
Date analyzed	Limits	06/05/05	06/05/05	06/05/05	06/05/05	06/05/05	06/05/05	06/05/05
Moisture, %		9%	8%	12%	11%	13%	17%	20%
Isopropyltoluene	0.05	nd	nd	nd	nď	nd	nd	n
1,2-Dichlorobenzene	0.05	nd	nd	nd	nd	nd	nd	n
n-Butylbenzene	0.05	nd	nd	nd	nd	nd	nd	na
1,2-Dibromo-3-Chloropropane	0.05	nd	nď	nd	nd	nd	nd	nc
1,2,4-Trichlorobenzene	0.05	nd	nd	nd	nd	nd	nd	nc
Naphthalene	0.05	nd	nd	nd	nd	nd	nd	nc
Hexachloro-1,3-butadiene	0.05	nd	nd	nd	nd	nd	nd	nc
1,2,3-Trichlorobenzene	0.05	nd	nd	nd	nd	nd	nd	nc
*-instrument detection limits								
Surrogate recoveries:								
Dibromofluoromethane		96%	94%	95%	95%	97%	97%	97%
Toluene-d8		99%	99%	99%	100%	99%	99%	97%
4-Bromofluorobenzene		98%	96%	98%	97%	97%	96%	97%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

J - estimated quantitation, below listed reporting limits

Acceptable Recovery limits: 65% TO 135%

ESN Job Number:	S50531-1
Client:	KLEINFELDER
Client Job Name:	FIRCREST, RETAIL
Client Job Number:	56130

Analytical Results

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8260, mg/kg		B68-8@20'	B68-2@5'	MTH BLK	LCS	B67-4@12'	B67-6@15'	B66-2@5'	B66-9@22.5
Matrix	Soil	Soil	Soll	Soil	Soil	Soil	Soil	Soil	Soi
Date extracted	Reporting	05/31/05	05/31/05			05/31/05	05/31/05	05/31/05	05/31/05
Date analyzed	Limits	06/05/05	06/05/05	06/06/05	06/06/05	06/06/05	06/06/05	06/06/05	06/06/05
Moisture, %		17%	13%			10%	6%	13%	12%
Disklass dataset	0.05								
Dichlorodifluoromethane	0.05	nd	nď	nd		nd	nd	nd	nc
Chloromethane	0.05	nd	nd	nđ		nd	nd	nd	nd
/inyl chloride	0.01	nd	nd	nd		nd	nd	nd	nd
Bromomelhane	0.05	nd	nd	nd		nd	nd	nd	nd
Chloroethane	0.05	nd	nd	nd		nd	nd	nd	nd
Trichlorofluoromethane	0.05	nd	nd	nd		nd	nd	nd	nd
Acetone	0.50	nd	nd	nd		nđ	nd	nd	nd
1,1-Dichloroethene Methylene chloride	0.05	nd	nď	nd	83%	nd	nd	nd	nd
	0.50	nd	nd	nd		nd	μų	nd	nd
Methyl-t-butyl ether (MTBE) Irans-1,2-Dichloroethene	0.05	nd	nd	nd		nď	nd	nd	nd
	0.05	nd	nd	nd		nd	nd	nd	nd
1,1-Dichloroethane	0.05	nd	nd	nd		nd	nd	nd	nd
2-Butanone (MEK)	0.50	nd	nd	nd		nd	nd	nd	nd
cis-1,2-Dichloroethene	0.05	nd	nd	nd		nd	nd	nd	nd
2,2-Dichloropropane	0.05	nď	nd	nd		nd	nd	nd	nd
Chloroform	0.05	nd	nd	nd		nd	nd	nđ	nd
Bromochloromethane	0.05	nd	nd	nd		nd	nd	nd	nd
1,1,1-Trichloroethane	0.05	nd	nď	nd		nd	nd	nd	nd
1,2-Dichloroethane	0.05	nd	nd	nd		nd	nd	nd	nd
1,1-Dichloropropene	0.05	nd	nd	nď		nd	nd	nd	nd
Carbon telrachloride	0.05	nd	nd	nd		nd	nd	nd	nd
Benzene (TOT)	0.02	nd	nd	nď	93%	nd	nd	nd	nd
richloroethene (TCE)	0.02	nd	nd	nd	93%	nd	nd	nd	nd
,2-Dichloropropane	0.05	nd	nd	nd		nď	nd	nd	nd
Dibromomethane	0.05	nd	nd	nd		nd	nd	nd	nd
Bromodichloromethane	0.05	nd	nd	nd		nd	nd	nd	nd
-Methyl-2-pentanone	0.05	nd	nđ	nd		nd	nď	nd	nd
sis-1,3-Dichloropropene	0.05	nd	nd	nd		nď	nd	nd	nd
oluene	0.05	nď	nd	nd	95%	nd	nď	nd	nd
rans-1,3-Dichloropropene	0.05	nd	nd	nď		nđ	nd	nd	nd
,1,2-Trichloroethane	0.05	nd	nd	nd		nd	nd	nd	nd
-Hexanone	0.05	nď	กป	nd		nd	nd	nd	nd
,3-Dichloropropane	0.05	nd	nd	nđ		nď	nd	nd	nd
Dibromochloromethane	0.05	nd	nd	nd		nd	nd	nđ	nd
etrachloroethene (PCE)	0.02	nd	nd	nd		nđ	nd	nd	nd
,2-Dibromoethane (EDB)(*)	0.005	nd	nd	nd		nd	nd	nd	nd
hlorobenzene	0.05	nd	nđ	nd	96%	nd	nd	nd	nd
,1,1,2-Tetrachloroethane	0.05	nd	nd	nd		nd	nd	nd	nd
thylbenzene	0.05	nd	nd	nd		nd	nd	nd	nd
ylenes	0.05	nd	nd	nd		nd	nd	nd	nđ
tyrene	0.05	nd	nd	nd		nd	nd	nd	nd
romoform	0.05	nd	nd	nd		nd	nd	nd	nd
1,2,2-Tetrachloroethane	0.05	nd	nd	nd		nď	nd	nd	nd
opropylbenzene	0.05	nd	лd	nd		nd	nd	nd	nd
2,3-Trichloropropane	0.05	nd	nd	nd		nd	nd	nd	nd
romobenzene	0.05	nd	nd	nd		nd	nd	nd	nd
Propylbenzene	0.05	nd	nd	nd		nd	nd	nd	nd
Chlorotoluene	0.05	nd	nd	nd		nd	nď	nđ	nd
Chlorotoluene	0.05	nd	nd	nd		nd	nd	nd	nd
3,5-Trimethylbenzene	0.05	nd	nd	лd		nd	nd	nd	nd
rt-Butylbenzene	0.05	nd	nd	nd		nď	nd	nd	nd
2,4-Trimethylbenzene	0.05	nd	nd	nd		nd	nď	nd	nd
c-Butylbenzene	0.05	nd	nd	nď		nd	กต่	nd	nd
3-Dichlorobenzene	0.05	nd	nd	nd		nd	nd	nd	nd

ESN Job Number:	S50531-1
Client:	KLEINFELDER
Client Job Name:	FIRCREST, RETAIL
Client Job Number:	56130

Analytical Results

8260, mg/kg		B68-8@20'	B68-2@5'	MTH BLK	LCS	B67-4@12'	B67-6@15'	B66-2@5'	B66-9@22.5
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soll	Soil	So
Date extracted	Reporting	05/31/05	05/31/05			05/31/05	05/31/05	05/31/05	05/31/0
Date analyzed	Limits	06/05/05	06/05/05	06/06/05	06/06/05	06/06/05	06/06/05	06/06/05	06/06/05
Moisture, %		17%	13%			10%	6%	13%	12%
Isopropylloluene	0.05	nd	nd	nd		nd	nd	nd	no
1,2-Dichlorobenzene	0.05	nd	nd	nd		nd	nd	nd	nc
n-Butylbenzene	0.05	nd	nd	nd		nd	nd	nd	no
1,2-Dibromo-3-Chloropropane	0.05	nd	nd	nd		nď	nd	nd	กด
1,2,4-Trichlorobenzene	0.05	nd	nd	nď		nd	nđ	nd	no
Naphthalene	0.05	nd	nd	nd		nd	nd	nd	nc
Hexachloro-1,3-butadiene	0.05	nd	nd	nd		nd	nd	nd	nc
1,2,3-Trichlorobenzene	0.05	nd	nd	nd		nd	nd	nd	nc
*-instrument detection limits									
Surrogate recoveries:									
Dibromofluoromethane		96%	99%	96%	98%	97%	95%	95%	96%
Toluene-d8		99%	100%	100%	99%	99%	100%	100%	100%
4-Bromofluorobenzene		98%	98%	98%	99%	97%	96%	96%	99%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

J - estimated quantitation, below listed reporting limits

Acceptable Recovery limits: 65% TO 135%

ESN Job Number:	S50531-1
Client:	KLEINFELDER
Client Job Name:	FIRCREST, RETAIL
Client Job Number:	56130

8260, mg/kg		MS	MSD	RPD
Matrix	Soil	Soil	Soil	
Date extracted	Reporting	05/31/05	05/31/05	
Date analyzed	Limits	06/06/05	06/06/05	
Moisture, %				
Dichlorodifluoromethane	0.05			
Chloromelhane	0.05			
√inyl chloride	0.01			
Bromomethane	0.05			
Chloroethane	0.05			
Trichlorofluoromethane	0.05			
Acetone	0.50			
1,1-Dichloroethene	0.05	86%	84%	2%
Viethylene chloride	0.50			
Methyl-t-butyl ether (MTBE)	0.05			
rans-1,2-Dichloroethene	0.05			
1,1-Dichloroethane	0.05			
2-Butanone (MEK)	0.50			
cis-1,2-Dichloroethene	0.05			
2,2-Dichloropropane	0.05			
Chloroform	0.05			
Bromochloromethane	0.05			
1,1,1-Trichloroelhane	0.05			
1,2-Dichloroethane	0.05			
1,1-Dichloropropene	0.05			
Carbon tetrachloride	0.05			
Benzene	0.02	84%	88%	5%
Trichloroethene (TCE)	0.02	83%	87%	5%
,2-Dichloropropane	0.05			
Dibromomethane	0.05			
Bromodichloromethane	0.05			
1-Methyl-2-pentanone	0.05			
cis-1,3-Dichloropropene	0.05			
Foluene	0.05	85%	88%	3%
rans-1,3-Dichloropropene	0.05			
1,1,2-Trichloroethane	0.05			
2-Hexanone	0.05			
1,3-Dichloropropane	0.05			
Dibromochloromethane	0.05			
Tetrachloroethene (PCE)	0.02			
1,2-Dibromoethane (EDB)(*)	0.005			
Chlorobenzene	0.05	87%	91%	4%
1,1,1,2-Tetrachloroethane	0.05			
Ethylbenzene	0.05			
Kylenes	0.05			
Styrene	0.05			
Bromoform	0.05			
i,1,2,2-Tetrachloroethane	0.05			
sopropylbenzene	0.05			
2,3-Trichloropropane	0.05			
Bromobenzene	0.05			
n-Propylbenzene	0.05			
-Chlorololuene	0.05			
-Chlorotoluene	0.05			
1,3,5-Trimethylbenzene	0.05			
ert-Butylbenzene	0.05			
I,2,4-Trimethylbenzene	0.05			
sec-Butylbenzene	0.05			
I,3-Dichlorobenzene	0.05			
,4-Dichlorobenzene	0.05			

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ESN Job Number:	S50531-1
Client:	KLEINFELDER
Client Job Name:	FIRCREST, RETAIL
Client Job Number:	56130

Analytical Results

8260, mg/kg		MS	MSD	RPD
Matrix	Soll	Soil	Soil	
Date extracted	Reporting	05/31/05	05/31/05	
Date analyzed	Limits	06/06/05	06/06/05	
Moisture, %				_
Isopropyitoluene	0.05			
1,2-Dichlorobenzene	0.05			
n-Butylbenzene	0.05			
1,2-Dibromo-3-Chloropropane	0.05			
1,2,4-Trichlorobenzene	0.05			
Naphthalene	0.05			
Hexachloro-1,3-butadiene	0.05			
1,2,3-Trichlorobenzene	0.05			
*-instrument detection limits	34 			
Surrogate recoveries:				
Dibromofluoromethane		93%	96%	
Toluene_d8		100%	0804	

			_
4-Bromofluorobenzene	98%	97%	
Toluene-d8	100%	98%	

Data Qualifiers and Analytical Comments

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nd - not detected at listed reporting limits

J - estimated quantitation, below listed reporting limits Acceptable Recovery limits: 65% TO 135% Acceptable RPD limit: 35%
ESN Job Number:	S50531-1
Client:	KLEINFELDER
Client Job Name:	FIRCREST, RETAIL
Client Job Number:	56130

Analytical Results

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Matrix	Water		NAME OF A DESCRIPTION OF A			B59	MS		RPD
		Water	Water	Water	Water	Water	Water	Water	
Date analyzed	Reporting	05/21/05	05/04/05	05/31/05	05/04/05	05/04/05	05/04/05	05/04/08	
	Limits	05/31/05	05/31/05	05/31/05	05/31/05	05/31/05	05/31/05	05/31/05	-
Dichlorodifluoromethane	1.0	nd		nd	nđ	nd			
Chloromethane	1.0	nd		nd	nd	nd			
Vinyl chloride	0.2	nd		nd	nd	nd			
Bromomethane	1.0	nd		nd	nd	nd			
Chloroethane	1.0	nd		nd	nd	nd			
Trichlorofluoromethane	1.0	nd		nd	nd	nd			
Acetone	10.0	nd		nd	nđ	34			
1,1-Dichloroethene	1.0	nd	77%	nd	nd	nď	76%	75%	1%
Methylene chloride	10.0	nd		nd	nd	nd			
Methyl-t-butyl ether (MTBE)	1.0	nd		nd	nd	nd			
trans-1,2-Dichloroethene	1.0	nd		nd	nd	nd			
1,1-Dichloroethane	1.0	nd		nd	nď	nd			
2-Butanone (MEK)	10.0	nď		nd	nd	nd			
cis-1,2-Dichloroethene	1.0	nd		nd	nd	nd			
2,2-Dichloropropane	1.0	nd		nd	nd	nd			
Chloroform	1.0	nd		nd	nd	nd			
Bromochloromethane	1.0	nd		nd	nd	nd			
1,1,1-Trichloroethane	1.0	nd		nd	nď	nd			
1,2-Dichloroethane	1.0	nd		nd	nd	nd			
1,1-Dichloropropene	1.0	nd		nd	nd	nd			
Carbon tetrachloride	1.0	nd		nd	nd	nd			
Benzene	1.0	nd	94%	nd	nđ	nd	95%	92%	3%
Trichloroethene (TCE)	1.0	nd	91%	nd	nd	nd	92%	90%	2%
1,2-Dichloropropane	1.0	nd		nd	nd	nd			
Dibromomethane	1.0	nd		nď	nd	nd			
Bromodichloromethane	1.0	nđ		nd	nd	nd			
4-Methyl-2-pentanone	1.0	nd		nd	nd	nd			
cis-1,3-Dichloropropene	1.0	nď	0.544	nd	nd	nd			
	1.0	nd	95%	nd	nd	nd	94%	94%	0%
rans-1,3-Dichloropropene	1,0	nd		nď	nď	nd			
I,1,2-Trichloroethane	1.0	nd		nd	nd	nd			
2-Hexanone	1.0	nd		nd	nd	nd			
I,3-Dichloropropane Dibromochloromethane	1.0	nd		nd	nd	nd			
Fetrachloroelhene (PCE)	1.0 1.0	nd		nd	nd	nd			
I,2-Dibromoethane (EDB)(*)	0.10	nd		nd	nd	nd			
Chlorobenzene	1.0	nd	089/	nd	nd	nd	000/		
1,1,2-Tetrachloroethane	1.0	nd	98%	nd	nd	nd	98%	98%	0%
Ethylbenzene	1.0	nd nd		nd	nd	nd			
(ylenes	1.0	nd		nd nd	nd nd	nd			
Styrene	1.0	nd		nd	nd	nd			
Bromoform	1.0	nd		nď	nd	nd nd			
,1,2,2-Tetrachloroethane	1.0	nd		nd	nd	nd			
sopropylbenzene	1,0	nd		nd	nd	nd			
,2,3-Trichloropropane	1.0	nd		nd	nd	nd			
romobenzene	1.0	nd		nd	nd	nd			
-Propylbenzene	1.0	nd		nd	nd	nd			
-Chlorotoluene	1.0	nd		nđ	nd	nď			
-Chlorotoluene	1.0	nd		nd	лd	nd			
,3,5-Trimethylbenzene	1.0	nd		nd	nd	nd			
ert-Butylbenzene	1.0	nd		nd	nd	nd			
2,4-Trimethylbenzene	1.0	nd		nd	nd	nd			
ec-Butylbenzene	1.0	nd		nd	nd	nd			
,3-Dichlorobenzene	1.0	nd		nd	nd	nd			
,4-Dichlorobenzene	1.0	nd		nd	nđ	nd			
sopropyltoluene	1.0	nd		nd	nd	nd			
2-Dichlorobenzene	1.0	nd		nd	nd	nd			
Butylbenzene	1.0	nd		nd	nd	nd			
	1.0	nd		nd	nd	nd			
,2-Dibromo-3-Chloropropane		nd		nd	nđ	nd			
2-Dibromo-3-Chioropropane 2,4-Trichlorobenzene	1.0	10							
	1.0 1.0	nd							
2,4-Trichlorobenzene				nd	nd	nd			

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*-instrument detection limits

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ESN Job Number:	S50531-1
Client:	KLEINFELDER
Client Job Name:	FIRCREST, RETAIL
Client Job Number:	56130

Analytical Results

8260, µg/L		MTH BLK	LCS	B65	B63	B59	MS	MSD	RPD
Matrix	Water	Water	Water	Water	Water	Water	Water	Water	
	Reporting								
Date analyzed	Limits	05/31/05	05/31/05	05/31/05	05/31/05	05/31/05	05/31/05	05/31/05	

101%	100%	102%	100%	101%	98%	070/
			10070	10170	9076	97%
101%	100%	98%	99%	99%	98%	99%
98%	98%	97%	96%	95%	96%	98%
r						

Data Qualifiers and Analytical Comments nd - not detected at listed reporting limits J - estimated quantitation, below listed reporting limits Acceptable Recovery limits: 65% TO 135% Acceptable RPD limit: 35%

FIRCREST RETAIL PROJECT 2119 Mildred, Washington Kleinfelder

Heavy Metals in Soil by EPA-7000 Series

		Lead (Pb)	Cadmium (Cd)	Chromium (Cr)	Arsenic (As)	Silver (Ag)	Barium (Ba)	Selenium (Se)	Mercury (Hg)
Sample	Date	EPA 7420	EPA 7130	EPA 7190	EPA 7061	EPA 7760	EPA 7080	EPA 7741	EPA 7471
Number	Analyzed	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Method Blank	6/4/05	nd	nd	nd	nd	nd	nd	nd	nd
B59-2@5'	6/4/05	15	nd	7.9	nd	nd	nd	nd	nd
B61-2@5'	6/4/05	nd	nd	6.7	nd	nd	nd	nd	nd
B62-2@5'	6/4/05	8.0	nd	nd	nd	nd	nd	nd	nd
B60-2@5'	6/4/05	nd	nd	nd	nd	nd	nd	nd	nd
B65-1@2.5'	6/4/05	nd	nd	nd	nd	nd	nd	nd	nd
B65-7@15'	6/4/05	12	nd	6.5	nd	nd	nd	nd	nd
B64-4@8.5'	6/4/05	12	nd	5.3	nd	nd	nd	nd	nd
B64-6@15'	6/4/05	15	nd	5.9	nd	nd	nd	nd	nd
B63-2@5'	6/4/05	nd	nd	nd	nd	nd	nd	nd	nd
B63-6@15'	6/4/05	nd	nd	nd	nd	nd	nd	nd	nd
B57-2@5'	6/4/05	nd	nd	nd	nd	nd	nd	nd	nd
B58-4@10'	6/4/05	nd	nd	nd	nd	nd	nd	nd	nd
Method Detection Lin	uits	5	1	5	5	20	500	50	0.5

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"nd" Indicates not detected at listed detection limits.

FIRCREST RETAIL PROJECT 2119 Mildred, Washington Kleinfelder

Heavy Metals in Soil by EPA-7000 Series

Sample Number	Date Analyzed	Lead (Pb) EPA 7420 (mg/kg)	Cadmium (Cd) EPA 7130 (mg/kg)	Chromium (Cr) EPA 7190 (mg/kg)	Arsenic (As) EPA 7061 (mg/kg)	Silver (Ag) EPA 7760 (mg/kg)	Barium (Ba) EPA 7080 (mg/kg)	Selenium (Se) EPA 7741 (mg/kg)	Mercury (Hg EPA 7471 (mg/kg)
Method Blank	6/4/05	nd	nd	nd 🦂	nd	nd	nd	nd	nd
B58-5@12.5	6/4/05	14	nd	8.4	nd	nd	nd	nd	nd
B70-2@5.0	6/4/05	nd	nd	5.5	nd	nd	nd	nd	nd
B70-9@22.5	6/4/05	8.0	nd	nd	nd	nd	nd	nd	nd
B69-4@11.5	6/4/05	26	nd	nd	nd	nd	nd	nd	nd
B69-9@22.5	6/4/05	60	nd	nd	15	nd	nd	nd	nd
B68-8@20	6/4/05	nd	nd	nd	nd	nd	nd	nd	nd
B68-8@20 Dup.	6/4/05	nd	nd	nd	nd	nd	nd	nd	nd
B68-2@5'	6/4/05	13	nd	nd	nd	nd	nd	nd	nd
B68-2@5' Dup.	6/4/05	11	nd	nd	nd	nd	nd	nd	nd
B67-4@12'	6/4/05	nd	nd	nd	nd	nd	nd	nd	nd
B67-6@15'	6/4/05	nd	nd	nd	nd	nd	nd	nd	nd
B66-2@5'	6/4/05	nd	nd	nd	nd	nd	nd	nd	nd
B66-9@22.5	6/4/05	nd	nd	nd	nd	nd	nd	nd	nd
866-9@22.5 Dup.	6/4/05	nd	nd	nd	nd	nd	nd	nd	nd
Method Detection Lin	nits	5	1	5	5	20	500	50	0.5

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"nd" Indicates not detected at listed detection limits.

FIRCREST RETAIL PROJECT 2119 Mildred, Washington Kleinfelder

QA/QC Data - Total Metals EPA-7000 Series Analyses

14

			Sample Number:	B66-9@22.5				
		Matrix Spik	e	Mat	Matrix Spike Duplicate			
	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)	(%)	
т 1	250	240	100	•	2(2	105	6.00	
Lead	250	249	100	250	262	105	5.09	
Cadmium	25.0	24.4	98	25.0	23.4	94	4.18	
Chromium Arsenic	250 250	206 219	82 88	250 250	199 228	80 91	3.46 4.03	

	Laboratory Control Sample						
	Spiked	Measured	Spike				
	Conc.	Conc.	Recovery				
	(mg/kg)	(mg/kg)	(%)				
Lead	250	246	98				
Cadmium	25.0	23.6	94				
Chromium	250	244	98				
Arsenic	250	248	99				

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 65%-135% ACCEPTABLE RPD IS 35%

Sample Identification:

<u>Lab. No.</u>	Client ID	Date/Time Sampled	<u>Matrix</u>
128149-1	B65	05-26-05 11:45	Liquid
128149-2	B63	05-26-05 15:00	Liquid

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Client Name	ESN Northwest, Inc.
Client ID:	B65
Lab ID:	128149-01
Date Received:	6/1/2005
Date Prepared:	6/3/2005
Date Analyzed:	6/3/2005
Dilution Factor	5

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Dissolved Metals by ICP-MS - USEPA Method 6020

	Result		
Analyte	(mg/L)	RL FI	ags
Arsenic	ND	0.0025	
Barium	0.022	0.0025	
Cadmium	ND	0.0025	
Chromium	ND	0.0025	
Lead	ND	0.0025	
Selenium	ND	0.0025	
Silver	ND	0.0025	

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Client Name Client ID: Lab ID: Date Received: Date Prepared: Date Analyzed: Dilution Factor ESN Northwest, Inc. B65 128149-01 6/1/2005 6/3/2005 6/3/2005 1

Dissolved Mercury by CVAA - USEPA Method 7470

Analyte Mercury Result (mg/L) ND

RL 0.0002 Flags

Client Name	ESN Northwest, Inc.
Client ID:	B63
Lab ID:	128149-02
Date Received:	6/1/2005
Date Prepared:	6/3/2005
Date Analyzed:	6/3/2005
Dilution Factor	5

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Dissolved Metals by ICP-MS - USEPA Method 6020

	Result		
Analyte	(mg/L)	RL	Flags
Arsenic	0.0179	0.0025	
Barium	0.132	0.0025	
Cadmium	ND	0.0025	
Chromium	0.00359	0.0025	
Lead	ND	0.0025	
Selenium	0.00365	0.0025	
Silver	ND	0.0025	

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Client Name Client ID: Lab ID: Date Received: Date Prepared: Date Analyzed: Dilution Factor ESN Northwest, Inc. B63 128149-02 6/1/2005 6/3/2005 6/3/2005 1

Dissolved Mercury by CVAA - USEPA Method 7470

Analyte Mercury Result (mg/L) ND

RL 0.0002 Flags

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Lab ID: Date Received: Date Prepared: Date Analyzed: Dilution Factor Method Blank - DP1286

6/3/2005 6/3/2005 1

Dissolved Metals by ICP-MS - USEPA Method 6020

	Result		
Analyte	(mg/L)	RL	Flags
Arsenic	ND	0.0005	
Barium	ND	0.0005	
Cadmium	ND	0.0005	
Chromium	ND	0.0005	
Lead	ND	0.0005	
Selenium	ND	0.0005	
Silver	ND	0.0005	

Lab ID: Date Received: Date Prepared: Date Analyzed: Dilution Factor Method Blank - ZD372

6/3/2005 6/3/2005 1

Dissolved Mercury by CVAA - USEPA Method 7470

Analyte Mercury Result (mg/L) ND

RL 0.0002 Flags

Matrix Spike Report

Client Sample ID:	TMW-4
Lab ID:	128154-01
Date Prepared:	6/3/2005
Date Analyzed:	6/3/2005
QC Batch ID:	DP1286

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Dissolved Metals by ICP-MS - USEPA Method 6020

Parameter Name Arsenic	Sample Result (mg/L) 0.0143	Spike Amount (mg/L) 4	MS Result (mg/L) 3.98	MS % Rec. 99	Flag
Barium	0.013	4	4.11	103	
Cadmium	0	0.1	0.103	103	
Chromium	0	0.4	0.408	102	
Lead	0	1	1.07	107	
Selenium	0	4	3.84	96	
Silver	0	0.6	0.562	94	

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Matrix Spike Report

Client Sample ID: Lab ID: Date Prepared: Date Analyzed: QC Batch ID:

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B70 128179-04 6/3/2005 6/3/2005 ZD372

Dissolved Mercury by CVAA - USEPA Method 7470

	Sample Result	Spike Amount	MS Result	MS	
Parameter Name	(mg/L)	(mg/L)	(mg/L)	% Rec.	Flag
Mercury	0	0.002	0.00178	89	

Duplicate Report

Client Sample ID:	TMW-4
Lab ID:	128154-01
Date Prepared:	6/3/2005
Date Analyzed:	6/3/2005
QC Batch ID:	DP1286

Dissolved Metals by ICP-MS - USEPA Method 6020

	Sample Result	Duplicate Result	RPD	
Parameter Name	(mg/L)	(mg/L)	%	Flag
Arsenic	0.014	0.014	0.0	
Barium	0.013	0.013	0.0	
Cadmium	0	0	NC	
Chromium	0	0	NC	
Lead	0	0	NC	
Selenium	0	0	NC	
Silver	0	0	NC	

Duplicate Report

Client Sample ID: Lab ID: Date Prepared: Date Analyzed: QC Batch ID:

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B70 128179-04 6/3/2005 6/3/2005 ZD372

Dissolved Mercury by CVAA - USEPA Method 7470

	Sample	Duplicate		
	Result	Result	RPD	
Parameter Name	(mg/L)	(mg/L)	%	Flag
Mercury	0	0	NC	

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STL Seattle 5755 8th Street East Tacoma, WA 98424

Tel: 253 922 2310 Fax: 253 922 5047 www.stl-inc.com

DATA QUALIFIERS AND ABBREVIATIONS

- B1: This analyte was detected in the associated method blank. The analyte concentration was determined not to be significantly higher than the associated method blank (less than ten times the concentration reported in the blank).
- B2: This analyte was detected in the associated method blank. The analyte concentration in the sample was determined to be significantly higher than the method blank (greater than ten times the concentration reported in the blank).
- C1: Second column confirmation was performed. The relative percent difference value (RPD) between the results on the two columns was evaluated and determined to be < 40%.
- C2: Second column confirmation was performed. The RPD between the results on the two columns was evaluated and determined to be > 40%. The higher result was reported unless anomalies were noted.
- C3: Second analysis confirmation was performed. The relative percent difference value (RPD) between the results on the two columns was evaluated and determined to be \leq 30%.
- C4: Second analysis confirmation was performed. The RPD between the results on the two columns was evaluated and determined to be > 30%. The original analysis was reported unless anomalies were noted.
- M: GC/MS confirmation was performed. The result derived from the original analysis was reported.
- D: The reported result for this analyte was calculated based on a secondary dilution factor.
- E: The concentration of this analyte exceeded the instrument calibration range and should be considered an estimated quantity.
- J: The analyte was analyzed for and positively identified, but the associated numerical value is an estimated quantity.
- MCL: Maximum Contaminant Level
- MDL: Method Detection Limit
- RL: Reporting Limit
- N: See analytical narrative
- ND: Not Detected
- X1: Contaminant does not appear to be "typical" product. Elution pattern suggests it may be _____
- X2: Contaminant does not appear to be "typical" product.
- X3: Identification and quantitation of the analyte or surrogate was complicated by matrix interference.
- X4: RPD for duplicates was outside advisory QC limits. The sample was re-analyzed with similar results. The sample matrix may be nonhomogeneous.
- X4a: RPD for duplicates outside advisory QC limits due to analyte concentration near the method practical quantitation limit/detection limit.
- X5: Matrix spike recovery was not determined due to the required dilution.
- X6: Recovery and/or RPD values for matrix spike(/matrix spike duplicate) outside advisory QC limits. Sample was re-analyzed with similar results.
- X7: Recovery and/or RPD values for matrix spike(/matrix spike duplicate) outside advisory QC limits. Matrix interference may be indicated based on acceptable blank spike recovery and/or RPD.
- X7a: Recovery and/or RPD values for this spiked analyte outside advisory QC limits due to high concentration of the analyte in the original sample.
- X8: Surrogate recovery was not determined due to the required dilution.
- X9: Surrogate recovery outside advisory QC limits due to matrix interference.

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CHAIN-OF-CUSTODY RECORD	PAGE /	retail	red	DVIJE	NOTES																			Mig Halos	AS Cr		Cd Hg	Turn Around Time:
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CHA	5/2710	PROJECT NAME:	NO.	CTOR:	102 110			η X					_		_						_			SAMPLE RECEIPT	CHAIN OF CLISTODY SEALS YAWA	A	RECEIVED GOOD COND/COLD	
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L.J.		ADDRESS: 1405		CLIENT PROJECT #: 54130	Sample Number	5	5	6															RELINQUISHED BY (Signature)	Z	RELINOUISHED BY (Signature)	-		
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CHAIN-OF-CUSTODY RECORD	PAGE 3	vetail	kuldred	0,	Level Motes	+		-																LABORATORY NOTES:		Bar Pb Ag	CA Ha	ä
CHAIN-OF-	DATE: 5/27/05	PROJECT NAME: Fixeecs4.	61	Darg	2012 2012 2012 2012 2012 2012 2012 2012		7 7			\ 														SAMPLE RECEIPT		STOUT SEALS TINNA	RECEIVED GOOD COND /COLD	
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2.9. 2.9		NE Bellows WA	FAX: 425 56 2	. PROJECT MANAGER: Ted Sykes	A A K Container Type Container Type CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAINER CONTAI	5/22/05				7													DECEMENDATION DECEMENT	Man Tan La	- Whallal	AECEIVED BY (Signature)	SAMPLE DISPOSAL INSTRUCTIONS	
mental Network	er	140th Are N	0	<u>د3</u> م	Sample Type	1500 5	1 0hh1	54	1345	IYIS V									_				DATE/TUNE		~ ×151/05		E DISPOSAL	
Services Network	Kleinfilder	2405 14	562 4200	ECT #: 5613	Depth	51	1 121 1	1	_	5 22.5													lenitor.		Ś		SAMP	D ESN DISPOSAL
E.S.V.	CLIENT: KI	ADDRESS:	PHONE: 425	CLIENT PROJECT #:	Sample Number	1. 868-205'	2. Bb7-4012	100	4. BPU-205'	5. 366-90.22	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	PELINOLIISHED DV / Sincoliure)		CUAR A	KELINGUISHEU BT (Signalure)	3	



Services Network

June 14, 2005

Ted Sykes Kleinfelder 2405 140th Avenue NE Suite A101 Bellevue, WA 98005-1877

Dear Mr. Sykes:

Please find enclosed the analytical data report from the Fircrest Retail Project site in Washington. Soil samples were analyzed for Diesel and Oil by NWTPH-Dx/Dx Extended, Gasoline by NWTPH-Gx, VOC's by Method 8260, and RCRA 8 Metals by Method 7000 series on June 3 - 6, 2005.

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

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

Sincerely,

Michael a Kain

Michael A. Korosec President

1210 Eastside Street SE, Suite 200 🗷 Olympia, Washington 98501 🕫 360.459.4670 🖷 FAX 360.459.3432 1 Mail: info@esnnw.com Web Site: www.esnnw.com

ESN Job Number:	S50601-2
Client:	KLEINFELDER
Client Job Name:	FIRCREST, RETAIL
Client Job Number:	56130

Analytical Results									DUP
NWTPH-Dx, mg/kg		MTH BLK	B71-2@5'	B72-1@1'	B73-1@1'	B74-1@1'	B75-1@1'	B76-1@1'	B76-1@1
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soi
Date extracted	Reporting		06/01/05	06/01/05	06/01/05	06/01/05	06/01/05	06/01/05	06/01/05
Date analyzed	Limits	06/03/05	06/03/05	06/03/05	06/03/05	06/03/05	06/03/05	06/03/05	06/03/05
Moisture, %			7%	11%	9%	8%	11%	5%	5%
Kerosene/Jet fuel	20	nd	nc						
Diesel/Fuel oil	20	nd	nc						
Heavy oil	50	nd	nc						
Surrogate recoveries:									
Fluorobiphenyl		104%	103%	101%	100%	102%	102%	104%	103%
o-Terphenyl		84%	97%	98%	101%	100%	99%	98%	99%

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Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

na - пot analyzed

C - coelution with sample peaks

M - matrix interference

J - estimated value

Results reported on dry-weight basis Acceptable Recovery limits: 65% TO 135%

Acceptable RPD limit: 35%

ESN Job Number:	S50601-2
Client:	KLEINFELDER
Client Job Name:	FIRCREST, RETAIL
Client Job Number:	56130

NWTPH-Gx, mg/kg		MTH BLK	B71-2@5'	B72-1@1'	B73-1@1'	B74-1@1'	B75-1@1'	B76-1@1'	DUP B76-1@1
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soi
Date extracted	Reporting		06/01/05	06/01/05	06/01/05	06/01/05	06/01/05	06/01/05	
Date analyzed	Limits	06/03/05	06/03/05	06/03/05	06/03/05	06/03/05	and the second second second		06/01/05
Moisture, %		00,00,00	7%	11%	9%	8%	06/03/05	06/03/05	06/03/05
Mineral spirits/Stoddard solvent	5.0	nd	nd	nd	nd	nd	nd	nd	nd
Gasoline	5.0	nd	nd	nd	nd	nd	nd	nd	nd
Surrogate recoveries:									
Fluorobiphenyl		104%	103%	101%	100%	102%	102%	104%	103%
o-Terphenyl		84%	97%	98%	101%	100%	99%	98%	99%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

na - not analyzed

C - coelution with sample peaks

M - matrix interference

J - estimated value

Results reported on dry-weight basis

Acceptable Recovery limits: 65% TO 135%

Acceptable RPD limit: 35%

ESN Job Number:	S50601-2
Client:	KLEINFELDER
Client Job Name:	FIRCREST, RETAIL
Client Job Number:	56130

Analytical Results

8260, mg/kg		MTH BLK	LCS	B71-2@5'	B72-1@1'	B73-1@1'	B74-1@1'	B75-1@1'	B76-1@1'
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting	06/06/05	06/06/05	06/01/05	06/01/05	06/01/05	06/01/05	06/01/05	06/01/05
Date analyzed Moisture, %	Limits	06/06/05	06/06/05	7%	11%	9%	06/06/05	06/06/05	06/06/05
the sector of the									
Dichlorodifluoromelhane	0.05	nd		nd	nd	nd	nd	nd	nd
Chloromethane	0.05	nd		nd	nd	nd	nd	nđ	nd
Vinyl chloride	0.01	nd		nd	nd	nd	nd	nd	nd
Bromomethane	0.05	nđ		nd	nd	nd	nd	nd	nd
Chloroethane Trichlorofluoromethane	0.05 0.05	nd nd		nd nd	nd	nd nd	bn bn	nd	nd
Acelone	0.00	nd		nd	nd nd	nd	nd nd	nd nđ	nd nd
1,1-Dichloroethene	0.05	лd	83%	nd	nd	nd	nd	nd	nd
Methylene chloride	0.50	nd		nd	nd	nd	nd	nd	nd
Methyl-t-butyl ether (MTBE)	0.05	nd		nd	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	0.05	nd		nd	nd	nd	nd	nd	nd
1,1-Dichloroethane	0.05	nd		nd	nd	nd	nď	nd	nd
2-Butanone (MEK)	0.50 0.05	nd nd		nd	nd	nd nd	nd	nd	nd
cls-1,2-Dichloroethene 2,2-Dichloropropane	0.05	nd		nd nd	nd nd	nd	nd nd	nd nd	nd nd
Chloroform	0.05	nd		nd	nd	nd	nd	nd	nd
Bromochloromethane	0.05	nd		nd	nd	nd	nd	nd	nd
1,1,1-Trichloroethane	0.05	nd		nd	nd	nd	nd	nd	nd
1,2-Dichloroethane	0.05	nd		nd	nđ	nđ	nd	nd	nd
1,1-Dichloropropene	0.05	nd		nd	nd	nd	nd	nď	nd
Carbon tetrachloride	0.05	nd	0.00/	nd	nd	nd	nd	nd	nd
Benzene Trichloroelhene (TCE)	0.02	nd nd	93% 93%	, nd nd	nd nd	nd nd	nd nd	nd nd	nd nd
1,2-Dichloropropane	0.05	nd	0070	nď	nd	nd	nd	nď	nđ
Dibromomethane	0.05	nd		nd	nd	nd	nd	nd	nd
Bromodichloromethane	0.05	nd		nd	nd	nd	nd	nd	nd
4-Methyl-2-pentanone	0.05	nd		nd	nd	nd	nd	nd	nd
cis-1,3-Dichloropropene	0.05	nd		nd	nd	nd	nd	nd	nd
	0.05	nd	95%	nd	nd	nd	nd	nđ	nd
trans-1,3-Dichloropropene 1,1,2-Trichloroethane	0.05 0.05	nd nd		nd nd	nd nd	nd nd	nd nd	nd	nd
2-Hexanone	0.05	nd		nd	nd	nd	nd	nd nd	nd nd
1,3-Dichloropropane	0.05	nd		nď	nd	nd	nd	nd	nd
Dibromochloromethane	0.05	nd		nd	nd	nd	nd	nd	nd
Tetrachloroethene (PCE)	0.02	nd		nd	nd	nd	nd	nd	nd
1,2-Dibromoethane (EDB)(*)	0.005	nd	12327	nd	nd	nd	nd	nd	nd
Chlorobenzene	0.05	nd	96%	nd	nd	nd	nd	nď	nd
1,1,1,2-Tetrachloroethane Ethylbenzene	0.05 0.05	nd nd		nd nd	nd nd	nd nd	nd nd	nd	nd
Xylenes	0.05	nd		nd	nd	nd	nd	nd nd	nd nd
Styrene	0.05	nd		nd	nd	nd	nd	nd	nd
Bromoform	0.05	nd		nd	nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	0.05	nd		nd	nd	nd	nd	nd	nd
Isopropylbenzene	0.05	nd		nd	nd	nđ	nd	nd	nd
1,2,3-Trichloropropane	0.05	nd		nd	nd	nd	nd	nd	nd
Bromobenzene n-Propylbenzene	0.05 0.05	nd nd		nd nd	nd nd	ndi	nd nd	nd nd	nd
2-Chlorotoluene	0.05	nd		nd	nd	nd	nd	nđ	nd nd
4-Chlorotoluene	0.05	nd		nd	nd	nd	nd	nd	nd
1,3,5-Trimethylbenzene	0.05	nđ		nd	nd	nd	nd	nd	nd
tert-Butylbenzene	0.05	nd		nd	nd	nd	nd	nd	nd
1,2,4-Trimethylbenzene	0.05	nd		nd	nd	nd	nd	nd	nd
sec-Butylbenzene	0.05	nd		nd	nď	nd	nd	nd	nd
1,3-Dichlorobenzene	0.05 0.05	nd nd		nd	nd	nd	nd	nd	nd
1,4-Dichlorobenzene Isopropyltoluene	0.05	na nd		nd nd	nd nd	nd nd	nd nd	nd nd	nd nd
1,2-Dichlorobenzene	0.05	nd		nd	nd	nď	nd	nd	nd
n-Butylbenzene	0.05	nd		nd	nd	nd	nd	nd	nd
1,2-Dibromo-3-Chloropropane	0.05	nd		nd	nd	nd	nd	nd	nd
1,2,4-Trichlorobenzene	0.05	nd		nđ	nd	nd	nd	nd	nd
Naphthalene	0.05	nd		nđ	nd	nd	nd	nd	nd
Hexachloro-1,3-butadiene	0.05	nd		nd	nd	nd	nd	nd	nd
1,2,3-Trichlorobenzene *-instrument detection limits	0.05	nd		nd	nd	nd	nd	nd	nd

ESN Job Number.	S50601-2
Client:	KLEINFELDER
Client Job Name:	FIRCREST, RETAIL
Client Job Number:	56130

Analytical Results

8260, mg/kg		MTH BLK	LCS	B71-2@5'	B72-1@1'	B73-1@1'	B74-1@1'	B75-1@1'	B76-1@1'
Matrix	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil	Soil
Date extracted	Reporting			06/01/05	06/01/05	06/01/05	06/01/05	06/01/05	06/01/05
Date analyzed	Limits	06/06/05	06/06/05	06/07/05	06/06/05	06/06/05	06/06/05	06/06/05	06/06/05
Moisture, %				7%	11%	9%	8%	11%	5%

Dibromofluoromethane	96%	98%	95%	96%	95%	96%	95%	92%
Toluene-d8	100%	99%	100%	98%	99%	99%	100%	102%
4-Bromofluorobenzene	98%	99%	97%	98%	98%	98%	99%	100%

Data Qualifiers and Analylical Comments nd - not detected at listed reporting limits J - estimated quantitation, below listed reporting limits Acceptable Recovery limits: 65% TO 135% Acceptable RPD limit: 35%

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ESN Job Number:	S50601-2
Client:	KLEINFELDER
Client Job Name:	FIRCREST, RETAIL
Client Job Number:	56130

8260, mg/kg		MS	MSD	RPD
Matrix	Soil	Soil	Soil	
Date extracted	Reporting	06/01/05	06/01/05	
Date analyzed	Limits	06/06/05	06/06/05	
Moisture, %				_
District of the second states	0.05			
Dichlorodifluoromethane	0.05			
Chloromethane Vinyl chloride	0.05			
Bromomethane	0.01 0.05			
Chloroethane	0.05			
Trichlorofluoromethane	0.05			
Acetone	0.50			
1,1-Dichloroethene	0.05	86%	84%	2%
Methylene chloride	0.50			
Methyl-t-butyl ether (MTBE)	0.05			
trans-1,2-Dichloroethene	0.05			
1,1-Dichloroethane	0.05			
2-Butanone (MEK)	0.50			
cis-1,2-Dichloroethene	0.05			
2,2-Dichloropropane	0.05			
Chloroform	0.05			
Bromochloromethane	0.05			
1,1,1-Trichloroethane	0.05			
1,2-Dichloroethane	0.05			
1,1-Dichloropropene	0.05			
Carbon tetrachloride	0.05			
	0.02	84%	88%	5%
Trichloroethene (TCE)	0.02	83%	87%	5%
1,2-Dichloropropane Dibromomethane	0.05			
Bromodichloromethane	0.05 0.05			
4-Methyl-2-pentanone	0.05			
cis-1,3-Dichloropropene	0.05			
Toluene	0.05	85%	88%	3%
trans-1,3-Dichloropropene	0.05	0070	0070	0.0
1,1,2-Trichloroethane	0.05			
2-Hexanone	0.05			
1,3-Dichloropropane	0.05			
Dibromochloromethane	0.05			
Tetrachloroethene (PCE)	0.02			
1,2-Dibromoethane (EDB)(*)	0.005			
Chlorobenzene	0.05	87%	91%	4%
1,1,1,2-Tetrachloroethane	0.05			
Ethylbenzene	0.05			
Xylenes	0.05			
Styrene	0.05			
Bromoform	0.05			
1,1,2,2-Tetrachloroethane	0.05			
sopropylbenzene	0.05			
1,2,3-Trichloropropane Bromobenzene	0.05			
Bromobenzene 1-Propylbenzene	0.05 0.05			
2-Chlorotoluene	0.05			
	0.05			
I,3,5-Trimethylbenzene	0.05			
ert-Butylbenzene	0.05			
1,2,4-Trimethylbenzene	0.05			
sec-Butylbenzene	0.05			
I,3-Dichlorobenzene	0.05			
,4-Dichlorobenzene	0.05			
sopropyltoluene	0.05			
,2-Dichlorobenzene	0.05			
-Bulylbenzene	0.05			
,2-Dibromo-3-Chloropropane	0.05			
,2,4-Trichlorobenzene	0.05			
laphthalene	0.05			
lexachloro-1,3-butadiene	0.05			
2,3-Trichlorobenzene	0.05			

ESN Job Number:	S50601-2
Client:	KLEINFELDER
Client Job Name:	FIRCREST, RETAIL
Client Job Number:	56130

Analytical Results		B76-1@1'	B76-1@1'	
8260, mg/kg		MS	MSD	RPD
Matrix	Soil	Soil	Soil	
Date extracted	Reporting	06/01/05	06/01/05	
Date analyzed	Limits	06/06/05	06/06/05	
Moisture, %				_

Surrogate recoveries:

			_
Dibromofluoromethane	93%	96%	_
Toluene-d8	100%	98%	
4-Bromofluorobenzene	98%	97%	_

Data Qualifiers and Analytical Comments nd - not detected at listed reporting limits

J - estimated quantitation, below listed reporting limits Acceptable Recovery limits: 65% TO 135% Acceptable RPD limit: 35%

FIRCREST RETAIL PROJECT 2119 Mildred, Washington Kleinfelder

Heavy Metals in Soil by EPA-7000 Series

		Lead (Pb)	Cadmium (Cd)	Chromium (Cr)	Arsenic (As)	Silver (Ag)	Barium (Ba)	Selenium (Se)	Mercury (Hg)
Sample	Date	EPA 7420	EPA 7130	EPA 7190	EPA 7061	EPA 7760	EPA 7080	EPA 7741	EPA 7471
Number	Analyzed	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Method Blank	6/4/05	nd	nd	nd	nd	nd	nd	nd	nđ
B71-2@5'	6/4/05	nd	nd	nd	nd	nd	nd	nd	nd
B72-1@1'	6/4/05	nd	nd	nd	nd	nd	nd	nd	nd
B73-1@1'	6/4/05	nd	nd	nd	nd	nd	nd	nd	nd
B74-1@1'	6/4/05	nd	nd	nd	nd	nd	nd	nd	nd
B75-1@1'	6/4/05	8.7	nd	nd	nd	nd	nd	nd	nd
B75-1@1' Dup.	6/4/05	13	nd	nd	nd	nd	nd	nd	nd
B76-1@1'	6/4/05	nd	nd	nd	nd	nd	nd	nd	nd
Method Detection L	imits	5	1	5	5	20	500	50	0.5

"nd" Indicates not detected at listed detection limits.

FIRCREST RETAIL PROJECT 2119 Mildred, Washington Kleinfelder

QA/QC Data - Total Metals EPA-7000 Series Analyses

			Sample Number:	B75-1@1'			
		Matrix Spike	e	Mat	trix Spike Duplicate		RPD
	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)	(%)
Lead	250	259	104	250	261	104	0.77
Cadmium	25.0	21.9	88	25.0	23.3	93	6.19
Chromium	250	185	74	250	204	82	9.77
Arsenic	250	218	87	250	216	86	0.92

	Laboratory Control Sample					
	Spiked Conc.	Measured Conc.	Spike Recovery			
	(mg/kg)	(mg/kg)	(%)			
Lead	250	246	98			
Cadmium	25.0	22,9	92			
Chromium	250	230	92			
Arsenic	250	250	100			

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 65%-135% ACCEPTABLE RPD IS 35%

LIENT: Kleinfelder DDRESS: 2405 140 th Arr NF Belkuru wa 98005 HONE: 425-562-4200 FAX: 425-562 4201 LIENT PROJECT #: 56/201 Feel Superior LIENT PROJECT #: 56/201 Feel Superior B31 - 205 5 11/0 5 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
ADDRESS: 2405 140 th Arr NE Belkuru wa 98005 PHONE: 425-562-4200 FAX: 425-562 4201 CLIENT PROJECT #: 26/30 FAX: 425-562 4201 CLIENT PROJECT #: 26/30 PROJECT MANAGER: Ted 54 est Sample Number Doppin Time Sample Number Doppin Time B31 - 205 5 1110 Sample Number Doppin Time B32 - 101 1 1245 B32 - 101 1 1330 B35 1 1	PROJECT NAME: FILLING LETAIL LOCATION: 2119 MILLIC LOCATION: 2119 MILLIC COLLECTOR: D. D. UNC COLLECTOR: D. D. UNC COLLECTOR: D. D. UNC	S Containers
PHONE: 425 - 52 - 42 0.0 FAX: 425 - 52 - 42 0.0 CLIENT PROJECT #: 59/3 PROJECT #: 59/3 PROJECT #: 59/3 Sample Number Depth Time Type Container Type 50/3 B71 - 3 e 5' 5' B72 - 1e 1 1' 1' 129/5 B72 - 1e 1 1' 1' 1330 B74 - 1 - 1' 1' B75 - 1e 1 1' B74 - 1 - 1' 1' </td <td>LOCATION: 2119 Mildred COLLECTOR: D. WinC. COLLECTOR: D. WinC.</td> <td>C A A A A A A Containers</td>	LOCATION: 2119 Mildred COLLECTOR: D. WinC. COLLECTOR: D. WinC.	C A A A A A A Containers
CLIENT PROJECT #: 50/30 PROJECT MANAGER: 1/c/ 5/4 c.d. Sample Number Depth Time Sample Number Depth Time B71 - 3 e 5' 5'<1110	COLLECTOR: D. W.M.C. C. C. C	S Containers
Sample Number Depth Time Sample Container Type Sample Container Type Container		Laboratory Laboratory
$B31 - 3r5' 5' 110 5$ $V - 1 - 1 - 1$ $B72 \cdot 1610 1'$ $V - 1 - 1$ $B72 \cdot 161' 1' 1245 5$ $V - 1 - 1 - 1$ $B73 \cdot 161' 1' 1330 5$ $V - 1 - 1 - 1$ $B74 - 1 - 1' 1' 1330 5$ $V - 1 - 1 - 1$ $B75 - 101' 1' 1330 5$ $V - 1 - 1 - 1$ $B75 - 101 1' 1 330 5$ $V - 1 - 1 - 1$ $B75 - 101 1' 1 330 5$ $V - 1 - 1 - 1$ $B75 - 101 1' 1 350 5$ $V - 1 - 1 - 1$ $B75 - 101 1' 1 350 5$ $V - 1 - 1 - 1$ $B75 - 101 1' 1 350 5$ $V - 1 - 1 - 1$ $B75 - 101 1' 1 350 5$ $V - 1 - 1 - 1$ $V - 101 1' 1 1 350 5$ $V - 1 - 1 - 1$		
B72. 101.0 1' 1145 5 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -		A A A A A
B73.101' 1'1245 5 B74.1-1' 1' 1320 5 B74.101' 1' 1330 5 B76-1010 1' 1350 5 B76-1010 1' 1350 5 C C C C C		0 4 4 0
B74-1-1' 1' 1320 S C C C C C C C C C C C C C C C C C C		n n n
B75-101'1' 1330 S C C C C C C C C C C C C C C C C C C		* 11
1. 1350 S		0
8. 9. 10.		
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14.		
18.		
RELINQUISHED BY (Signature) DATE/TIME RECEIVED BY (Signature) DATE/TIME SA	IE SAMPLE RECEIPT LABORATORY NOTES:	
bling & Junin 6/1105 Mrs. R. 1/1/07 955 TOTA NUMBE		
DATE/TIME RECEIVED BY (Signature) DATE/TIME	IE CHAIN OF CUSTODY SEALS YANNA	
SEALS INTACT	SEALS INTACT? YINUNA	
SAMPLE DISPOSAL INSTRUCTIONS RECEIVED GO	RECEIVED GOOD COND./COLD	(
DESN DISPOSAL @ 52.00 each D Return D Pickup NOTES:	Turn Around Time: 24 HR	48 HR & DAY

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Envitonmental

Services Network

June 14, 2005

Ted Sykes Kleinfelder 2405 140th Avenue NE Suite A101 Bellevue, WA 98005-1877

Dear Mr. Sykes:

Please find enclosed the analytical data report from the Fircrest Retail Project site in Washington. Water samples were analyzed for Diesel and Oil by NWTPH-Dx/Dx Extended, Gasoline by NWTPH-Gx, VOC's by Method 8260, and RCRA 8 Metals by Method 6000 & 7000 series on June 3 - 7, 2005.

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

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

Sincerely,

Michael a Korone

Michael A. Korosec President

ESN Job Number:	S50602-1
Client:	KLEINFELDER
Client Job Name:	FIRCREST PHASE II
Client Job Number:	56130

Analytical Results								DUP
NWTPH-Dx, mg/l		MTH BLK	B66	B68	B69	B70	QC SAMPLE	QC SAMPLE
Matrix	Water	Water	Water	Water	Water	Water	Water	Water
Date extracted	Reporting	06/03/05	06/03/05	06/03/05	06/03/05	06/03/05	06/03/05	06/03/05
Date analyzed	Limits	06/03/05	06/03/05	06/03/05	06/03/05	06/03/05	06/03/05	06/03/05
Kerosene/Jet fuel	0.20	nd	nd	nd	nd	nd	nd	nd
Diesel/Fuel oil	0.20	nd	nd	nd	nd	nd	nd	nd
Heavy oil	0.50	nd	nd	nd	nd	nd	nd	nd
Surrogate recoveries:								
Fluorobiphenyl	100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100	103%	100%	100%	98%	99%	110%	105%
o-Terphenyl		101%	99%	99%	101%	99%	109%	105%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

na - not analyzed

C - coelution with sample peaks

M - matrix interference

J - estimated value

Acceptable Recovery limits: 65% TO 135%

Acceptable RPD limit: 35%

ESN Job Number:	S50602-1
Client:	KLEINFELDER
Client Job Name:	FIRCREST PHASE II
Client Job Number:	56130

Analytical Results								DUP
NWTPH-Gx, mg/l		MTH BLK	B66	B68	B69	B70	QC SAMPLE	QC SAMPLE
Matrix	Water	Water	Water	Water	Water	Water	Water	Water
Date extracted	Reporting	06/03/05	06/03/05	06/03/05	06/03/05	06/03/05	06/03/05	06/03/05
Date analyzed	Limits	06/03/05	06/03/05	06/03/05	06/03/05	06/03/05	06/03/05	06/03/05
Mineral spirits/Stoddard solvent	0.10	nd	nd	nd	nď	nd	nd	nd
Gasoline	0.10	nd	nd	nd	nd	nd	nd	nd
Surrogate recoveries:								
Fluorobiphenyl		103%	100%	100%	98%	99%	110%	105%
o-Terphenyl		101%	99%	99%	101%	99%	109%	105%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

na - not analyzed

C - coelution with sample peaks

M - matrix interference

J - estimated value

Acceptable Recovery limits: 65% TO 135%

Acceptable RPD limit: 35%

ESN Job Number:	S50602-1
Client:	KLEINFELDER
Client Job Name:	FIRCREST PHASE II
Client Job Number,	56130

Analytical Results

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8260, µg/L	<u>14</u>	MTH BLK	LCS	B66	B68	B69	B70
Matrix	Water	Water	Water	Water	Water	Water	Water
Date analyzed	Reporting	06/07/05	00/07/05	00/07/05	00/07/05	00/07/05	00/07/05
	Limits	06/07/05	06/07/05	06/07/05	06/07/05	06/07/05	06/07/05
Dichlorodifluoromethane	1.0	nd		nd	nd	nď	nd
Chloromethane	1.0	nd		nd	nd	nd	nd
Vinyl chloride	0.2	nd		nd	nd	nd	nd
Bromomethane	1.0	nd		nd	nd	nd	nd
Chloroethane	1.0	nd		nd	nd	nd	nd
Trichlorofluoromethane	1.0	nd		nd	nd	nd	nd
Acetone	10.0	nd		nd	nd	nd	nd
1,1-Dichloroethene	1.0	nd	85%	nd	nd	nd	nd
Methylene chloride	10.0	nd		nd	nd	nd	nd
Methyl-t-butyl ether (MTBE) trans-1,2-Dichloroethene	1.0 1.0	nd nd		nd	nd	nd	nd
1,1-Dichloroethane	1.0	na		nd nd	nd nd	nd nd	nd nd
2-Butanone (MEK)	10.0	nd		nd	nd	nd	nd nd
cis-1,2-Dichloroethene	1.0	nd		nd	nd	nd	nd
2,2-Dichloropropane	1.0	nd		nd	nd	nd	nd
Chloroform	1.0	nd		nd	nd	nd	nd
Bromochloromethane	1.0	nd		nd	nd	nd	nd
1,1,1-Trichloroethane	1.0	nd		nd	nd	nd	nd
1,2-Dichloroethane	1.0	nd		nd	nd	nd	nd
1,1-Dichloropropene	1.0	nd		nd	nd	nd	nd
Carbon tetrachloride	1.0	nd		nd	nd	nd	nd
Benzene	1.0	nd	88%	nd	nd	nd	nd
Trichloroelhene (TCE)	1.0	nd	86%	nđ	nd	nd	nd
1,2-Dichloropropane	1.0	nd		nd	nd	nd	nd
Dibromomethane	1.0	nd		nd	nd	nd	nd
Bromodichloromethane	1.0	nd		nd	nd	nd	nd
4-Methyl-2-pentanone	1.0	nd		nd	nd	nd	nd
cis-1,3-Dichloropropene Toluene	1.0 1.0	nd	0404	nd	nd	nd	nd
trans-1,3-Dichloropropene	1.0	nd nd	91%	nd nd	nd nd	nd	nď
1,1,2-Trichloroethane	1.0	nd		nd	nd	nd nd	nd nd
2-Hexanone	1.0	nd		nd	nd	nd	nd
1,3-Dichloropropane	1.0	nd		nd	nd	nd	nd
Dibromochloromethane	1.0	nd		nd	nd	nd	nd
Tetrachloroethene (PCE)	1.0	nd		nd	nd	nd	nd
1,2-Dibromoethane (EDB)(*)	0.10	nd		nd	лd	nd	nd
Chlorobenzene	1.0	nd	92%	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	1.0	nd		nd	nđ	nd	nd
Elhylbenzene	1.0	nd		nd	nd	nd	nd
Xylenes	1.0	nd		nd	nd	nd	nd
Styrene	1.0	nd		nd	nd	nd	nd
Bromoform	1.0	nd		nd	nd	nd	nď
1,1,2,2-Tetrachioroethane Isopropylbenzene	1.0	nd		nd nd	nd	nd	nd
1,2,3-Trichloropropane	1.0 1.0	nd nd		nd	nd	nd	nd
Bromobenzene	1.0	nd		nd nd	nd nd	nd nd	nd nd
n-Propylbenzene	1.0	nd		nd	nd	nd	nd
2-Chlorotoluene	1.0	nd		nd	nd	nd	nd
4-Chiorotoluene	1.0	nď		nd	nd	nd	nd
1,3,5-Trimelhylbenzene	1.0	nd		nd	nd	nd	nd
ert-Butylbenzene	1.0	nđ		nd	nd	nd	nd
1,2,4-Trimethylbenzene	1.0	nd		nd	nd	nd	nd
sec-Butylbenzene	1.0	nd		nd	nd	nd	nd
1,3-Dichlorobenzene	1.0	nd		nd	nd	nd	nd
1,4-Dichlorobenzene	1.0	nd		nd	nd	nd	nd
sopropyltoluene	1.0	nd		nd	nđ	nd	nd
1,2-Dichlorobenzene	1.0	nd		nd	nd	nd	nd
n-Butylbenzene	1.0	nd		nd	nd	nd	nd
I.2-Dibromo-3-Chloropropane	1.0	nd		nd	nd	nđ	nd
I,2,4-Trichlorobenzene	1.0	nd		nd	nd	nd	nd
Naphthalene	1.0	nd		nd	nd	nd	nd
Hexachloro-1,3-butadiene	1.0	nd		nd	nd	nd	nd
,2,3-Trichlorobenzene	1.0	nd		nd	nd	nd	nd

*-Instrument detection limits

ESN Job Number:	S50602-1
Client:	KLEINFELDER
Client Job Name:	FIRCREST PHASE II
Client Job Number:	56130

Analytical Results

8260, µg/L	Sec	MTH BLK	LCS	B66	B68	B69	B70
Matrix	Water	Water	Water	Water	Water	Water	Water
· · · · · · · · · · · · · · · · · · ·	Reporting						-
Date analyzed	Limits	06/07/05	06/07/05	06/07/05	06/07/05	06/07/05	06/07/05

100% 100% 98%

Surrogate recoveries:					
Dibromofluoromethane	99%	98%	101%	100%	102%
Toluene-d8	100%	99%	100%	99%	99%
4-Bromofluorobenzene	98%	98%	100%	98%	97%
4					

Data Qualifiers and Analytical Comments nd - not detected at listed reporting limits J - estimated quantitation, below listed reporting limits Acceptable Recovery limits: 65% TO 135% Acceptable RPD limit: 35%

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ESN Job Number:	S50602-1
Client:	KLEINFELDER
Client Job Name:	FIRCREST PHASE II
Client Job Number:	56130

8260, µg/L		MS	MSD	RPE
Matrix	Water	Water	Water	
	Reporting			
Date analyzed	Limits	06/07/05	06/07/05	
Dichlorodifluoromethane	1.0			
Chloromethane	1.0			
Vinyl chloride	0.2			
Bromomethane	1.0			
Chloroethane	1.0			
Trichlorofluoromethane	1.0			
Acetone	10.0			
1,1-Dichloroethene	1.0	90%	92%	2%
Methylene chloride	10.0			
Methyl-t-butyl ether (MTBE)	1.0			
trans-1,2-Dichloroethene	1.0			
1,1-Dichloroethane	1.0			
2-Butanone (MEK)	10.0			
cis-1,2-Dichloroethene	1.0			
2,2-Dichloropropane	1.0			
Chloroform	1.0			
Bromochloromethane	1.0			
1,1,1-Trichloroethane	1.0			
1,2-Dichloroethane	1.0			
1,1-Dichloropropene	1.0			
Carbon tetrachloride	1.0			
Benzene	1.0	93%	95%	2%
Trichloroethene (TCE)	1.0	90%	90%	0%
1,2-Dichloropropane	1.0			
Dibromomethane	1.0			
Bromodichloromethane	1.0			
4-Methyl-2-pentanone	1.0			
cis-1,3-Dichloropropene	1.0			
Toluene	1.0	95%	95%	0%
trans-1,3-Dichloropropene	1.0			
1,1,2-Trichloroethane	1.0			
2-Hexanone	1.0 1.0			
1,3-Dichloropropane Dibromochloromethane	1.0			
Tetrachloroethene (PCE)	1.0			
1,2-Dibromoethane (EDB)(*)	0.10			
Chlorobenzene	1.0	96%	97%	1%
1,1,1,2-Tetrachloroethane	1.0	0070	0170	
Ethylbenzene	1.0			
Xylenes	1.0			
Styrene	1.0			
Bromoform	1.0			
1,1,2,2-Tetrachloroethane	1.0			
Isopropyibenzene	1.0			
1,2,3-Trichloropropane	1.0			
Bromobenzene	1.0			
n-Propylbenzene	1.0			
2-Chlorotoluene	1.0			
4-Chlorotoluene	1.0			
1,3,5-Trimethylbenzene	1.0			
ert-Butylbenzene	1.0			
1,2,4-Trimethylbenzene	1.0			
sec-Butylbenzene	1.0			
1,3-Dichlorobenzene	1.0			
1,4-Dichlorobenzene	1.0			
sopropyltoluene	1.0			
1,2-Dichlorobenzene	1.0			
n-Butylbenzene	1.0			
1,2-Dibromo-3-Chloropropane	1.0			
1,2,4-Trichlorobenzene	1.0			
Naphthalene	1.0			
lexachloro-1,3-butadiene	1,0			
1,2,3-Trichlorobenzene	1.0			

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ESN SEATTLE CHEMISTRY LABORATORY (425) 957-9872, fax (425) 957-9904

ESN Job Number:	S50602-1
Client:	KLEINFELDER
Client Job Name:	FIRCREST PHASE II
Client Job Number:	56130

Analytical Results		B70	B70	
8260, µg/L		MS	MSD	RPD
Matrix	Water	Water	Water	
	Reporting			
Date analyzed	Limits	06/07/05	06/07/05	

Surrogate recoveries:		
Dibromofluoromethane	99%	101%
Toluene-d8	100%	98%
4-Bromofluorobenzene	98%	98%

Data Qualifiers and Analytical Comments nd - not detected at listed reporting limits J - estimated quantitation, below listed reporting limits Acceptable Recovery limits: 65% TO 135% Acceptable RPD limit: 35%

Sample Identification:

Lab. No.	<u>Client ID</u>	Date/Time Sampled	<u>Matrix</u>
128179-1	B66	06-01-05 14:15	Liquid
128179-2	B68	06-01-05 14:30	Liquid
128179-3	B69	06-01-05 15:40	Liquid
128179-4	B70	06-01-05 15:00	Liquid

STL Seattle is a part of Severn Trent Laboratories, Inc.

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Client Name	ESN Northwest, Inc.
Client ID:	B66
Lab ID:	128179-01
Date Received:	6/2/2005
Date Prepared:	6/3/2005
Date Analyzed:	6/3/2005
Dilution Factor	5

Dissolved Metals by ICP-MS - USEPA Method 6020

	Result		
Analyte	(mg/L)	RL Flags	
Arsenic	ND	0.0025	
Barium	0.109	0.0025	
Cadmium	ND	0.0025	
Chromium	ND	0.0025	
Lead	ND	0.0025	
Selenium	0.00259	0.0025	
Silver	ND	0.0025	

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Client Name Client ID: Lab ID: Date Received: Date Prepared: Date Analyzed: Dilution Factor ESN Northwest, Inc. B66 128179-01 6/2/2005 6/3/2005 6/3/2005 1

Dissolved Mercury by CVAA - USEPA Method 7470

Analyte Mercury Result (mg/L) ND

RL 0.0002

Client Name Client ID: Lab ID: Date Received: Date Prepared: Date Analyzed: Dilution Factor ESN Northwest, Inc. B68 128179-02 6/2/2005 6/3/2005 6/3/2005 5

	Result		
Analyte	(mg/L)	RL	Flags
Arsenic	0.00267	0.0025	
Barium	0.155	0.0025	
Cadmium	ND	0.0025	
Chromium	0.00505	0.0025	
Lead	ND	0.0025	
Selenium	ND	0.0025	
Silver	ND	0.0025	

Client Name Client ID: Lab ID: Date Received: Date Prepared: Date Analyzed: Dilution Factor ESN Northwest, Inc. B68 128179-02 6/2/2005 6/3/2005 6/3/2005 1

Dissolved Mercury by CVAA - USEPA Method 7470

Analyte Mercury

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Result (mg/L) ND

RL 0.0002

Client Name Client ID: Lab ID: Date Received: Date Prepared: Date Analyzed: Dilution Factor

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ESN Northwest, Inc. B69 128179-03 6/2/2005 6/3/2005 6/3/2005 5

	Result		
Analyte	(mg/L)	RL F	lags
Arsenic	0.00411	0.0025	
Barium	0.214	0.0025	
Cadmium	ND	0.0025	
Chromium	ND	0.0025	
Lead	ND	0.0025	
Selenium	ND	0.0025	
Silver	ND	0.0025	

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Client Name Client ID: Lab ID: Date Received: Date Prepared: Date Analyzed: Dilution Factor ESN Northwest, Inc. B69 128179-03 6/2/2005 6/3/2005 6/3/2005 1

Dissolved Mercury by CVAA - USEPA Method 7470

Analyte Mercury Result (mg/L) ND

RL 0.0002

Client Name Client ID: Lab ID: Date Received: Date Prepared: Date Analyzed: Dilution Factor ESN Northwest, Inc. B70 128179-04 6/2/2005 6/3/2005 6/3/2005 5

	Result		
Analyte	(mg/L)	RL FI	ags
Arsenic	0.00947	0.0025	
Barium	0.151	0.0025	
Cadmium	ND	0.0025	
Chromium	ND	0.0025	
Lead	ND	0.0025	
Selenium	ND	0.0025	
Silver	ND	0.0025	

Client Name Client ID: Lab ID: Date Received: Date Prepared: Date Analyzed: Dilution Factor ESN Northwest, Inc. B70 128179-04 6/2/2005 6/3/2005 6/3/2005 1

Dissolved Mercury by CVAA - USEPA Method 7470

Analyte Mercury Result (mg/L) ND

RL 0.0002

Lab ID: Date Received: Date Prepared: Date Analyzed: Dilution Factor Method Blank - DP1286

6/3/2005 6/3/2005 1

Dissolved Metals by ICP-MS - USEPA Method 6020

	Result		
Analyte	(mg/L)	RL	Flags
Arsenic	ND	0.0005	
Barium	ND	0.0005	
Cadmium	ND	0.0005	
Chromium	ND	0.0005	
Lead	ND	0.0005	
Selenium	ND	0.0005	
Silver	ND	0.0005	

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Lab ID: Date Received: Date Prepared: Date Analyzed: Dilution Factor Method Blank - ZD372

6/3/2005 6/3/2005 1

Dissolved Mercury by CVAA - USEPA Method 7470

Analyte Mercury Result (mg/L) ND

RL 0.0002

Matrix Spike Report

 Client Sample ID:
 TMW-4

 Lab ID:
 128154-01

 Date Prepared:
 6/3/2005

 Date Analyzed:
 6/3/2005

 QC Batch ID:
 DP1286

Dissolved Metals by ICP-MS - USEPA Method 6020

Parameter Name Arsenic	Sample Result (mg/L) 0.0143	Spike Amount (mg/L) 4	MS Result (mg/L) 3.98	MS % Rec. 99	Flag
Barium	0.013	4	4.11	103	
Cadmium	0	0.1	0.103	103	
Chromium	0	0.4	0.408	102	
Lead	0	1	1.07	107	
Selenium	0	4	3.84	96	
Silver	0	0.6	0.562	94	

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Matrix Spike Report

Client Sample ID: Lab ID: Date Prepared: Date Analyzed: QC Batch ID: B70 128179-04 6/3/2005 6/3/2005 ZD372

Dissolved Mercury by CVAA - USEPA Method 7470

	Sample Result	Spike Amount	MS Result	MS	
Parameter Name	(mg/L)	(mg/L)	(mg/L)	% Rec.	Flag
Mercury	0	0.002	0.00178	89	

Duplicate Report

Client Sample ID: Lab ID: Date Prepared: Date Analyzed: QC Batch ID:

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TMW-4 128154-01 6/3/2005 6/3/2005 DP1286

	Sample	Duplicate		
	Result	Result	RPD	
Parameter Name	(mg/L)	(mg/L)	%	Flag
Arsenic	0.014	0.014	0.0	
Barium	0.013	0.013	0.0	
Cadmium	0	0	NC	
Chromium	0	0	NC	
Lead	0	0	NC	
Selenium	0	0	NC	
Silver	0	0	NC	

Duplicate Report

Client Sample ID:Lab ID:12Date Prepared:6/Date Analyzed:6/QC Batch ID:2

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B70 128179-04 6/3/2005 6/3/2005 ZD372

Dissolved Mercury by CVAA - USEPA Method 7470

	Sample Result	Duplicate Result	RPD	
Parameter Name	(mg/L)	(mg/L)	%	Flag
Mercury	0	0	NC	



STL Seattle 5755 8th Street East Tacoma, WA 98424

Tel: 253 922 2310 Fax: 253 922 5047 www.stl-inc.com

DATA QUALIFIERS AND ABBREVIATIONS

- B1: This analyte was detected in the associated method blank. The analyte concentration was determined not to be significantly higher than the associated method blank (less than ten times the concentration reported in the blank).
- B2: This analyte was detected in the associated method blank. The analyte concentration in the sample was determined to be significantly higher than the method blank (greater than ten times the concentration reported in the blank).
- C1: Second column confirmation was performed. The relative percent difference value (RPD) between the results on the two columns was evaluated and determined to be < 40%.
- C2: Second column confirmation was performed. The RPD between the results on the two columns was evaluated and determined to be > 40%. The higher result was reported unless anomalies were noted.
- C3: Second analysis confirmation was performed. The relative percent difference value (RPD) between the results on the two columns was evaluated and determined to be \leq 30%.
- C4: Second analysis confirmation was performed. The RPD between the results on the two columns was evaluated and determined to be > 30%. The original analysis was reported unless anomalies were noted.
- M: GC/MS confirmation was performed. The result derived from the original analysis was reported.
- D: The reported result for this analyte was calculated based on a secondary dilution factor.
- E: The concentration of this analyte exceeded the instrument calibration range and should be considered an estimated quantity.
- J: The analyte was analyzed for and positively identified, but the associated numerical value is an estimated quantity.
- MCL: Maximum Contaminant Level
- MDL: Method Detection Limit
- RL: Reporting Limit
- N: See analytical narrative
- ND: Not Detected
- X1: Contaminant does not appear to be "typical" product. Elution pattern suggests it may be
- X2: Contaminant does not appear to be "typical" product.
- X3: Identification and quantitation of the analyte or surrogate was complicated by matrix interference.
- X4: RPD for duplicates was outside advisory QC limits. The sample was re-analyzed with similar results. The sample matrix may be nonhomogeneous.
- X4a: RPD for duplicates outside advisory QC limits due to analyte concentration near the method practical quantitation limit/detection limit.
- X5: Matrix spike recovery was not determined due to the required dilution.
- X6: Recovery and/or RPD values for matrix spike(/matrix spike duplicate) outside advisory QC limits. Sample was re-analyzed with similar results.
- X7: Recovery and/or RPD values for matrix spike(/matrix spike duplicate) outside advisory QC limits. Matrix interference may be indicated based on acceptable blank spike recovery and/or RPD.
- X7a: Recovery and/or RPD values for this spiked analyte outside advisory QC limits due to high concentration of the analyte in the original sample.
- X8: Surrogate recovery was not determined due to the required dilution.
- X9: Surrogate recovery outside advisory QC limits due to matrix interference.

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[Date]

[Name of Third-Party Representative] [Third-Party's Full and Formal Name] [Third-Party's Address]

Re: Agreement Concerning Release of Report Report Number [Report Number]

Dear [Name of Third-Party Representative]:

The attached report was prepared pursuant to a specific scope of service and written contract between [Name of Kleinfelder's Client], (Client) and Kleinfelder, Inc., (Kleinfelder) dated [Date of Contract]. Client has given us permission to release the report to you. You may rely on this report as though it were addressed to you at the time of the issuance for a period of six months from the date of issuance, with the express understanding that Kleinfelder shall not be responsible for problems arising from events or changes that may have occurred subsequent to our preparation of said report.

This reliance letter is expressly contingent upon your acceptance of the General Terms and Conditions attached hereto and actual payment of \$[Amount]. Your payment shall also indicate your acceptance of the attached General Terms and Conditions which include a provision limiting Kleinfelder's liability, whether such liability arises in breach of contract or warranty, tort (including negligence), strict or statutory liability, or any other cause of action, to the maximum extent permitted by law. This reliance letter shall be void in the event your acceptance and said consideration is not received within seven days of the above date.

Sincerely,

Kleinfelder, Inc.

[Name of Kleinfelder Representative] [Representative's Title]

Attachments: Report General Terms and Conditions

[Name of Third-Party Representative] [Third-Party's Full and Formal Name] [Third-Party's Address]

56130/SEA5R073.doc Copyright 2005 Kleinfelder, Inc. I acknowledge and accept the Letter Agreement Concerning Release of Report dated ______ regarding Report No. ______, including the attached General Terms and Conditions, and remit payment of the consideration in the amount of \$______.

[Name and Title]

Date