Subsurface Investigation Report

JH Kelly
821 3rd Avenue, Longview, WA

Prepared for:
Mr. Mark Fleischauer
JH Kelly Holdings, LLC
Seattle, Washington

November 27, 2017

Prepared by:

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1.0 INTRODUCTION

1.1 Description of Property

The J.H. Kelly, Inc. (J.H. Kelly) subject site is located at 821 3rd Avenue in Longview, Washington. The site is located in a mixed use area and is surrounded by industrial, commercial, residential, and recreational properties (Figure 1). The Cowlitz River is located approximately 1,060 feet east of the site and Cowlitz County Diking District drainage Ditch Number Five is located along the western property boundary of the site. The site is made up of several large buildings and is mostly paved with asphalt. The property is used for fabrication of pipe and storage of finished and stock materials.

A fueling system for J.H. Kelly vehicles was located near the center of the site. The fueling system consisted of two underground storage tanks (USTs), one 10,000 gallon gasoline UST, and one 4,000 gallon diesel UST. The fuel dispensers were located on the western edge of the UST nest. The UST system was removed in 1989 and is discussed in more detail in the following sections. Figure 2 shows the current site layout and approximate location of the former UST system.

1.2 Site History

Pre-Tank Removal (July & September 1989)

On July 15, 1989, JH Kelly had a pressure test conducted on the USTs (one 10,000 gallon unleaded fuel tank, and one 4,000 gallon diesel tank) and both tanks passed the tightness test. A subsurface investigation was conducted by SRH Environmental Management on August 23, 1989. The test pit was located north of the fuel dispenser island and excavated to a depth of 18 feet below ground surface (bgs). Two soil samples were taken from the test pit and were composited by the lab into one sample for analysis. BTEX and TPH (EPA Method 418.1) were analyzed. BTEX constituents were below laboratory detection limits. A total TPH of 58 mg/Kg was reported. Only benzene had a detection limit greater than the Ecology cleanup level (CUL). The detection limit for benzene was 0.04 mg/Kg. Reportedly, the excavation location was chosen based on a soil gas survey. The soil gas survey was not provided for review.

UST Removal (November 1991)

The USTs were decommissioned in November of 1991 by Pacific Northern Environmental (PNE). Fuel dispensers, USTs, and ancillary equipment were removed. Field screening with a photo-ionization detector (PID) indicated petroleum contaminated soil (PCS) below the dispensers. PCS was also noted around each of the USTs as they were removed. A water sample was taken from the excavation had MTCA Method A cleanup level (CUL) exceedances for diesel range petroleum hydrocarbons (DRPH) (24,000 ug/L), gasoline range petroleum hydrocarbons (GRPH) (130,000 ug/L), benzene (4,100 ug/L), toluene (18,000 ug/L), ethylbenzene (5,300 ug/L), and xylenes (32,000 ug/L).

Four soil samples (one sample from each end of the two USTs) were collected from the soil/groundwater interface and analyzed for total petroleum hydrocarbons (TPH) by EPA Method 3550/8015 Modified. One of the samples (JHK-SS3-12.5') had a oil range petroleum hydrocarbons (ORPH) concentration of 480 mg/Kg which exceeded the CUL at the time of 200 mg/Kg. Two of the four samples were analyzed for BTEX. One of the samples (JHK-SS5-12.5') had a benzene concentration of 1.10 mg/Kg which exceeded the CUL. The area with ORPH exceedance (west end of the UST) and the area with the benzene exceedance (east end of the USTs) were over excavated. Following over excavation activities a sample was taken from the area with the ORPH exceedance (JHK-SS5-12.5'). The sample had DRPH concentration of 120 mg/Kg and a ORPH concentration of 120 mg/Kg. The sample taken for the area with the benzene exceedance was below the laboratory detection limit for all BTEX constituents. The laboratory detection limit was 0.1 mg/Kg, which is greater than the current CUL of 0.03 mg/Kg. Historic soil sample results and sample locations are shown on Figures and Tables in Appendix A.

Groundwater Monitoring (December 1991 to present)

Prior to backfilling, a monitoring well was installed in the UST excavation the week of November 22, 1991. The monitoring well consists of a 30 inch diameter steel pipe to a depth of 10 feet bgs with a 24 inch slotted PVC casing inserted inside the steel casing from 9 to 12 feet bgs. The monitoring well location is shown on Figure 2. It should be noted that this well construction does not comply with current Ecology specifications.

The initial sampling results from December 1991 showed exceedances of GRPH (1,010 ug/L), ORPH (3,340 ug/L), and benzene (30 ug/L). Follow up sampling in May 1992 showed no detectible TPH but showed an exceedance for benzene (11.1 ug/L). The next sampling event in June of 1993 detected an exceedance of DRPH (270,000 ug/L) and a quantity of TPH designated as "Other" that was 6,000 ug/L. The DRPH concentration is reported to be flagged as not matching the typical diesel fingerprint chromatogram. "Other" is not defined in the laboratory report. There is also no oil range results reported for TPH. It is not clear from the report if TPHO was not detected, or not analyzed. None of the BTEX constituents exceeded the CUL.

Groundwater sampling was suspended until April 1996. All TPH was below laboratory detection limits except for something designated as "Other". The "Other" result (279 ug/L) is flagged as eluting in the diesel range, but not matching the typical diesel fingerprint chromatogram. All BTEX constituents were below the laboratory detection limits.

Groundwater sampling was suspended again until April 2006. The well and ditch behind the site were analyzed for GRPH and BTEX only. All results were below the laboratory detection limits. Groundwater sampling was again suspended until 2016. The well and ditch were sampled in April and July for BTEX only. All samples were below laboratory detection limits. Groundwater results from the site monitoring well are summarized on a Table in Appendix A.

1.3 Regional Geology and Hydrogeology

The geology of southwestern Cowlitz County is characterized by sedimentary and volcanic deposits laid down or extruded during the Tertiary and Quaternary periods (Livingston, 1966). The oldest formations (Cowlitz Formation and Goble Volcanics) include Eocene basaltic andesite and volcanoclastic deposits which were deposited 45 to 32 million years ago (Phillips, 1987). Lava flows of the Columbia River Basalt Group overlie the older formations. The next youngest rocks exposed in the area are the Upper Miocene to Lower Pleistocene sand, silt, gravel, and conglomerate of the Troutdale Formation. The valley fill material represents deposits of the ancestral Columbia River. The dissected upland that bound the Columbia River valley is composed of these older Formations. The youngest material exposed in the region is the outburst deposits of glacial Lake Missoula, landslide deposits, and recent alluvium.

Regional hydrogeology in the vicinity of the site is characterized by recharge to bedrock in the upland areas and discharge into the Columbia River. Groundwater flows from the regional bedrock through the thick alluvial sequence in the river valley before discharging into the rivers (Meyers, 1970). Precipitation also infiltrates the surface of the alluvium, recharging local flow systems in the river's floodplain.

1.4 Local Geology and Hydrogeology

Locally the geology consists of fill material down to approximately 9 to 10 feet bgs. The fill consisted of chunks of wood, asphalt, concrete, rebar, and bricks in a matrix of silt, sand, and gravel[1]. Below the fill material is native sands and silts. A layer of grass and reeds was observed at the top of the native soils indicating the area had once been ground surface. Groundwater flow direction was to the southwest toward Ditch Number Five but may fluctuate seasonally between the ditch and the Cowlitz River to the east. Flow direction was estimated using water levels collected on October 11, 2017 from temporary borings in relation to a ground surface elevation survey conducted upon completion of drilling activities. The well lid of the existing monitoring well (MW) was used as the site datum. The datum was assigned an elevation of 100 feet. Groundwater elevations are provided on Table 1 and presented on Figure 3.

1.5 Purpose of Investigation

The Phase II ESA was completed based on correspondence from the Washington State Department of Ecology (Ecology) dated October 31, 2016, in response to a request by the property owner for a determination of No Further Action (NFA) for the subject property. On September 26, 2017, Ecology Project Manager for the site, Aaron Fiedler, was contacted to discuss a proposed scope of work for the subject property the could result in a no further action determination (NFA) being issued if no petroleum contamination is identified above MTCA Method A CULs. The scope of work for this Phase II ESA was

[1] SRH Environmental Management, *Report on Soil Sampling and Analysis* (September 1, 1989)

approved by Ecology and would be sufficient to justify a NFA determination if all conditions were achieved.

2.0 PERMITING AND HEALTH AND SAFETY

2.1 Permits

No permits were required for the safe completion of field activities for this scope of work.

2.2 Health and Safety Plan

HydroCon prepared a site specific health and safety plan (HASP) to govern health and safety protocols used during this investigation. Work was performed using Occupational Safety and Health Administration (OSHA) Level D work attire consisting of hard hats, safety glasses, protective gloves, and protective boots.

2.3 Underground Utility Locates

Prior to the commencement of subsurface activities public utility notification was requested through the Washington One Call service (Locate Ticket Number 17395871). In addition, a private locating company was retained to clear the specific borings locations of potential utility conflicts.

3.0 SUBSURFACE INVESTIGATION

This section provides a discussion of the fieldwork procedures used to complete the subsurface investigation.

3.1 Temporary Borings

Pacific Soil & Water (PSW) was subcontracted to perform the drilling services. A total of five direct push borings (HC01 through HC05) were advanced to a maximum depth of 15 feet bgs at the site on October 11, 2017 in an effort to evaluate current soil and groundwater conditions. Borings were advanced at the following locations:

- HC01 was located 4 feet north of an unknown existing monitoring well in the center of a former UST excavation.
- HC02 was located along the eastern edge of a former UST excavation boundary.
- HC03 was located along the northern former UST excavation boundary.
- HC04 was located along the western boundary of the former UST excavation.
- HC05 was located along the southern boundary of the former UST Excavation.

The boring locations are illustrated on Figure 2.

Each boring was advanced in five-foot intervals to a completion depth of approximately 15 feet bgs. Continuous soil samples were collected using a five-foot long “macro” core tube sampler equipped with new, clear polyethylene liners. Each sample core was inspected for lithologic composition, presence of water, and field screened for the presence of petroleum hydrocarbons (stain, odor, and organic vapors with a PID). Boring logs detailing the lithology, field screening results, and sample depths are included as Appendix B. Selected soil samples were submitted to the laboratory boring based on sampling objectives (i.e., depth, soil type) and field screening results. The selected soil samples were removed from the polyethylene tubing using a new pair of disposable gloves and placed directly into labeled laboratory prepared jars and sealed with Teflon-lined lids. Soil samples were placed into laboratory supplied containers and immediately placed in an ice filled cooler along with chain-of-custody documentation for shipment to Apex Labs in Tigard, Oregon. A total of five soil samples were collected for laboratory analysis.

After the completion of soil sampling, borings HC01 through HC05 were fitted with temporary wells constructed with a new 10-foot section of slotted PVC well screen and blank PVC casing for the collection of groundwater samples. Groundwater was purged until clear from each temporary well prior to sample collection; however some fine sediments were entrained in the water column during sampling. The groundwater samples were collected from each temporary well using a peristaltic pump and new, low density polyethylene (LDPE) tubing. Groundwater samples were placed in laboratory supplied containers.

All drilling and sampling tools were decontaminated between boring locations using a hot water pressure washer. All water generated during purging and decontamination procedures was placed in a labeled 55-gallon drum and stored on site pending disposal to a licensed disposal facility.

3.2 Field Screening

Field screening consisted of volatile organic vapor measurements using a photoionization detector (PID), sheen testing, visual observations (staining, etc.), and olfactory observations. A portion of each soil sample was placed in a sealable plastic baggie. The tip of the PID was inserted into the plastic bag in the airspace above the soil sample and the PID measurement was recorded. The PID was calibrated before use at the site to a test gas standard consisting of 100 ppmv isobutylene. Sheen testing consisted of placing a small portion of soil in clear water and observing the water for the presence of hydrocarbon sheen. Because several factors can affect PID readings (e.g. moisture, temperature, and background conditions), HydroCon determined that a value of 2 ppm or greater may indicate the presence of organic vapors originating from contaminants at the site.

3.3 Laboratory Analysis

A total of 5 soil samples and 5 groundwater samples were collected for laboratory analysis. Each sample was analyzed for the following set of parameters:

- GPRH by Northwest Method NWTPH-Gx.
- DPRH and ORPH by Northwest Method NWTPH-Dx.
- BTEX by EPA Method 8260.

Upon receipt of the analytical data one soil and groundwater sample was analyzed for the following parameters:

- EDB, EDC, and MTBE by EPA Method 8260.
- Lead by EPA Method 200.8.

3.4 Management of Investigation Derived Waste

Soil and water generated during the investigation were placed in a labeled 55-gallon drum. The drum is being temporarily stored at the northwest corner of the building south of the investigation area.

4.0 INVESTIGATION RESULTS

4.1 Subsurface Conditions

A large portion of the subject site is paved with asphalt and or concrete. Below the pavement is fill material to approximately 9 to 10 feet bgs. The fill consisted of wood, asphalt, concrete, rebar, and bricks in a matrix of silt, sand, and gravel. Below the fill material is native and sands and silts. A layer of grass and reeds was observed at the top of the native soils indicating the area had once been the ground surface. Groundwater flow direction was to the southwest toward Ditch Number Five but may fluctuate seasonally between the ditch and the Cowlitz River to the east. Flow direction was determined using water levels collected from temporary borings in relation to a ground surface elevation survey conducted upon completion of drilling activities. Groundwater was first observed in the borings at a depth ranging from 9.5 to 10.5 feet bgs.

4.2 Field Screening Results

The field screening results are summarized on the attached boring logs. There were no elevated PID readings (i.e. above 2.0 ppm) detected in any of the soil borings. There was no visible petroleum soil staining, hydrocarbon odor, or visible sheen observed in any of the soil samples collected.

4.3 Analytical Results

Summary analytical tables and the laboratory analytical report and chain-of-custody record are attached. The laboratory results were compared to the Ecology Model Toxics Cleanup Act (MTCA)

Method A Cleanup Levels. The following sections describe the results of the testing. The complete laboratory report is included as Appendix C.

4.3.1 Soil Analytical Results

Soil analytical results are reported as milligrams per kilograms (mg/kg) and are summarized in Table 2 and Figure 4. The results indicated that none of the samples had a detection of a constituent of concern (COC) above the MTCA Method A cleanup level and only the following samples had detections above the method reporting limit (MRL):

- The sample collected from HC01-10 had ORPH at a concentration of 621 mg/kg.
- The sample collected from HC02-10 had ORPH at a concentration of 65.2 mg/kg.

4.3.2 Groundwater Analytical Results

Groundwater analytical results are reported as micrograms per liter (ug/L) and are summarized in Table 3 and Figure 5. The results indicated that three of the samples had detections of COCs above their respective MTCA Method A cleanup level.

- The sample collected from HC01 had DRPH at a concentration of 538 ug/L.
- The sample collected from HC03 had DRPH at a concentration of 636 ug/L.
- The sample collected from HC04 had DRPH at a concentration of 1,370 ug/L.
- The sample collected from HC04 had MTBE at a concentration of 35.5 ug/L.

5.0 DISCUSSION

5.1 Soil Conditions

Based on the results of field screening and laboratory analysis, a low concentration of ORPH was observed in the soil samples collected at 10 feet bgs at HC01 and HC02. The location of these samples are centrally located and along the eastern boundary of the former UST excavation. Based on the absence of field screening evidence of impacted soil in any of the five borings advanced and the depth of this sample (i.e., just above static water levels observed at the site) it does not appear as though there is an ongoing source of contamination located up-gradient of the monitoring well. It's HydroCon's opinion that the likely source of the ORPH in the HC01-10 and HC02-10 samples is from the imported fill material used at the site and not from the release of the former UST system.

5.2 Groundwater Conditions

Based on the results of laboratory analysis, concentrations of DRPH were detected in the groundwater samples collected from HC01, HC02, and HC04 above the MTCA Method A cleanup level. In addition, MTBE was detected above the MTCA Method A cleanup level in HC04.

It should be noted that water samples collected from temporary borings are screening level quality only and should not be solely relied upon for site characterization purposes. The drilling and sampling method used (direct push) produces disturbed (turbid) samples and may not represent groundwater conditions. Groundwater samples collected from properly constructed and developed monitoring wells produces relatively non turbid samples. It's possible that the concentrations of contaminants will be significantly lower in groundwater samples collected from properly constructed and developed monitoring wells than from temporary borings.

Based on historic and current groundwater data, it's HydroCon's opinion that the remaining groundwater contamination has decreased significantly over time and will naturally attenuate to concentrations below the MTCA Method A cleanup level in time. Several cleanup technologies are available to accelerate the cleanup process, if desired.

6.0 RECOMMENDATIONS

Based on the results of the soil and groundwater sampling, HydroCon makes the following recommendations:

- Decommission the current monitoring well.
- Install new monitoring wells and collect soil and groundwater samples for site COCs.
- Assess the concentration of the COCs in the samples collected from the wells and compare them to their respective MTCA Method A cleanup level.
- Perform quarterly groundwater monitoring to monitor natural attenuation of the remaining groundwater contamination and verify that the remaining groundwater plume is stable or shrinking.
- Consider using MTCA Model Remedies for site closure, if warranted.

7.0 QUALIFICATIONS

HydroCon's services were performed in a manner consistent with generally accepted practices of the profession undertaken in similar studies in the same geographical area during the same time period. HydroCon makes no warranties, either expressed or implied, regarding the findings, conclusions or recommendations. Please note that HydroCon does not warrant the work of laboratories, regulatory agencies, or other third parties supplying information used in the preparation of the report.

Findings and conclusions resulting from these services are based upon information derived from the on-site activities and other services performed under this scope of work; such information is subject to change over time. Certain indicators of the presence of hazardous substances, petroleum products, or other constituents may have been latent, inaccessible, unobservable, nondetectable or not present during these services, and we cannot represent that the site contains no hazardous substances, toxic materials, petroleum products, or other latent conditions beyond those identified during this monitoring. Subsurface conditions may vary from those encountered at specific sampling locations or during other

surveys, tests, assessments, investigations, or exploratory services; the data, interpretations and findings are based solely upon data obtained at the time and within the scope of these services.

This report is intended for the sole use of JH Kelly. This report may not be used or relied upon by any other party without the written consent of HydroCon. The scope of services performed in execution of this evaluation may not be appropriate to satisfy the needs of other users, and use or re-use of this document or the findings, conclusions, or recommendations is at the risk of said user.

The conclusions presented in this report are, in part, based upon subsurface sampling performed at selected locations and depths. There may be conditions between borings or samples that differ significantly from those presented in this report and which cannot be predicted by this study.

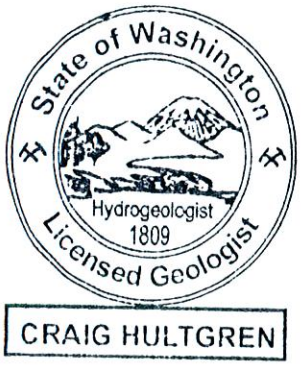
Signature:

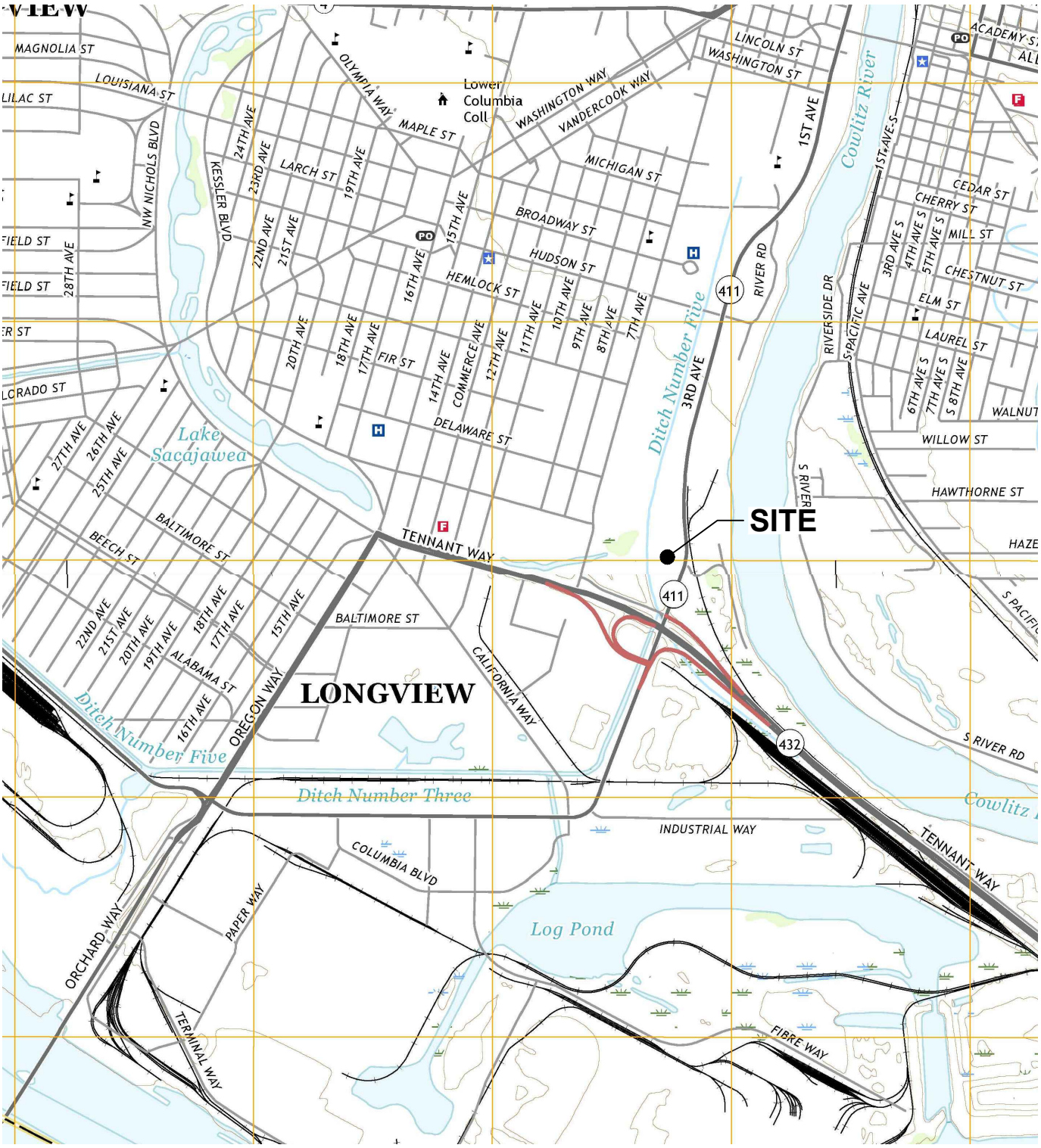
Report Prepared By:

Brian Pletcher
Project Manager

Report Reviewed By:

Craig Hultgren, LHG
Principal Geologist





NOTE(S):

USGS, KELSO QUADRANGLE
WASHINGTON-OREGON
7.5 MINUTE SERIES (TOPOGRAPHIC)

0 2000 4000

SCALE IN FEET
1" = 2000'

N
W E
S

HydroCon
510 Allen St. Suite B Kelso, Wa 98626, Ph(360)-703-6086

DATE: 10-23-17
DWN: JJT
CHK: RH
APPROVED: RH
PRJ. MGR: CH
PROJECT NO: 2017-055

FIGURE 1
SITE LOCATION MAP

JH KELLY
821 3RD AVE.
LONGVIEW, WA.

C:\Users\Josh\Desktop\Autocad Files\Hydrocon-Autocad\2017-055\2017\Oct 2017\2017-055_BM-102317.dwg 2.17.2014

Legend

HC01 ⊕ Boring Locations

o Monitoring Well

Former UST Excavation

N

W E

0 20 40

SCALE IN FEET

1" = 20'

HydroCon

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DATE: 10-23-17
DWN: JJT
CHK: RH
APPROVED: RH
PRJ. MGR: CH
PROJECT NO: 2017-055

FIGURE 2

SITE FEATURES

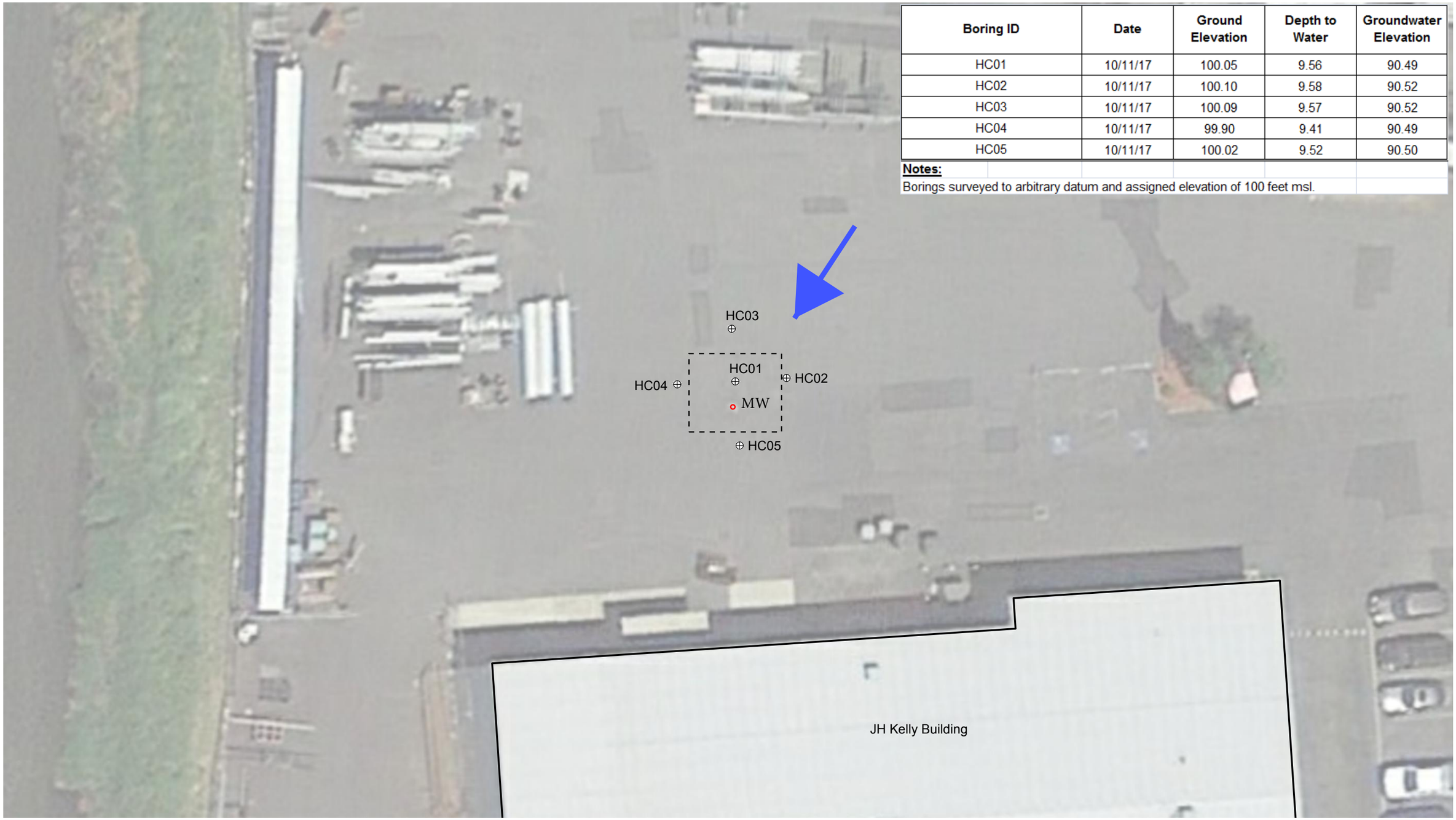
JH KELLY
821 3RD AVE.
LONGVIEW, WA.

C:\Users\Josh\Desktop\Autocad Files\Hydrocon-Autocad\2017-055\2017\Oct 2017\2017-055_BM-102317.dwg 2.17.2014

Boring ID	Date	Ground Elevation	Depth to Water	Groundwater Elevation
HC01	10/11/17	100.05	9.56	90.49
HC02	10/11/17	100.10	9.58	90.52
HC03	10/11/17	100.09	9.57	90.52
HC04	10/11/17	99.90	9.41	90.49
HC05	10/11/17	100.02	9.52	90.50

Notes:

Borings surveyed to arbitrary datum and assigned elevation of 100 feet msl.



Legend

HC01 ⊕ Boring Locations

o Monitoring Well

Former UST Excavation

Groundwater Flow Direction →

N

0 20 40

SCALE IN FEET

1" = 20'

HydroCon

510 Allen St. Suite B Kelso, Wa 98626, Ph(360)-703-6086

DATE: 10-23-17
DWN: JJT
CHK: RH
APPROVED: RH
PRJ. MGR: CH
PROJECT NO: 2017-055

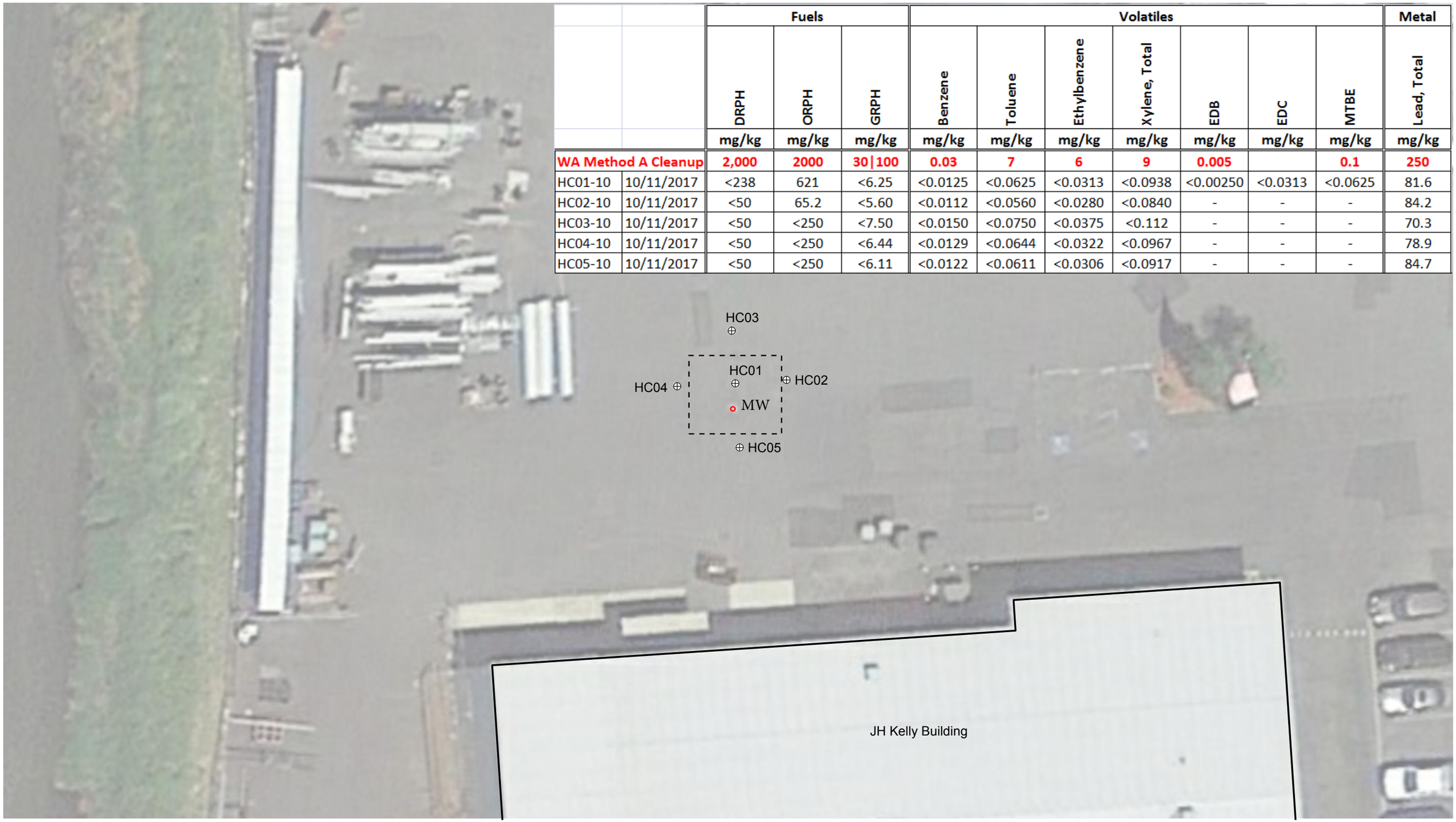
FIGURE 3

GROUNDWATER ELEVATIONS

JH KELLY
821 3RD AVE.
LONGVIEW, WA.

C:\Users\Josh\Desktop\Autocad Files\Hydrocon-Autocad\2017-055\2017\Oct 2017\2017-055_BM-102317.dwg 2.17.2014

		Fuels			Volatiles							Metal
		DRPH	ORPH	GRPH	Benzene	Toluene	Ethylbenzene	Xylene, Total	EDB	EDC	MTBE	Lead, Total
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
WA Method A Cleanup		**2,000**	**2000**	**30|100**	**0.03**	**7**	**6**	**9**	**0.005**		**0.1**	**250**
HC01-10	10/11/2017	<238	621	<6.25	<0.0125	<0.0625	<0.0313	<0.0938	<0.00250	<0.0313	<0.0625	81.6
HC02-10	10/11/2017	<50	65.2	<5.60	<0.0112	<0.0560	<0.0280	<0.0840	-	-	-	84.2
HC03-10	10/11/2017	<50	<250	<7.50	<0.0150	<0.0750	<0.0375	<0.112	-	-	-	70.3
HC04-10	10/11/2017	<50	<250	<6.44	<0.0129	<0.0644	<0.0322	<0.0967	-	-	-	78.9
HC05-10	10/11/2017	<50	<250	<6.11	<0.0122	<0.0611	<0.0306	<0.0917	-	-	-	84.7



Legend

HC01 ⊕ Boring Locations

Monitoring Well

Former UST Excavation

N

0 20 40

SCALE IN FEET
1" = 20'

Hydro Con
510 Allen St. Suite B Kelso, Wa 98626, Ph(360)-703-6086

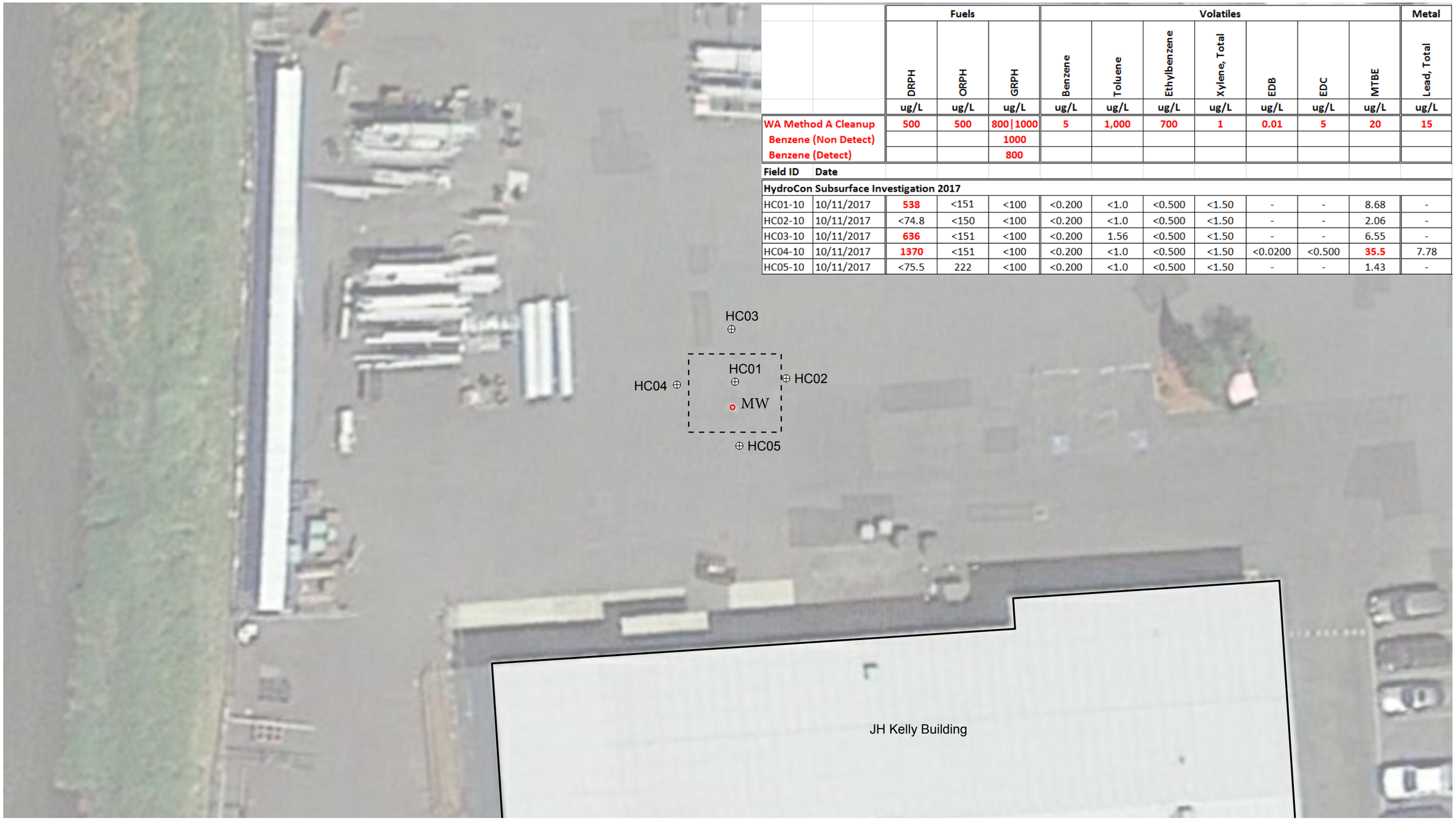
DATE: 10-23-17
DWN: JJT
CHK: RH
APPROVED: RH
PRJ. MGR: CH
PROJECT NO: 2017-055

FIGURE 4
SUMMARY OF SOIL ANALYTICAL RESULTS

JH KELLY
821 3RD AVE.
LONGVIEW, WA.

C:\Users\Josh\Desktop\Autocad Files\Hydrocon-Autocad\2017-055\2017\Oct 2017\2017-055_BM-102317.dwg 2.17.2014

		Fuels			Volatiles							Metal
		DRPH	ORPH	GRPH	Benzene	Toluene	Ethylbenzene	Xylene, Total	EDB	EDC	MTBE	Lead, Total
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
WA Method A Cleanup		500	500	800|1000	5	1,000	700	1	0.01	5	20	15
Benzene (Non Detect)				1000								
Benzene (Detect)				800								
Field ID	**Date**											
HydroCon Subsurface Investigation 2017												
HC01-10	10/11/2017	538	<151	<100	<0.200	<1.0	<0.500	<1.50	-	-	8.68	-
HC02-10	10/11/2017	<74.8	<150	<100	<0.200	<1.0	<0.500	<1.50	-	-	2.06	-
HC03-10	10/11/2017	636	<151	<100	<0.200	1.56	<0.500	<1.50	-	-	6.55	-
HC04-10	10/11/2017	1370	<151	<100	<0.200	<1.0	<0.500	<1.50	<0.0200	<0.500	35.5	7.78
HC05-10	10/11/2017	<75.5	222	<100	<0.200	<1.0	<0.500	<1.50	-	-	1.43	-



Legend

HC01 ⊕ Boring Locations

Monitoring Well

Former UST Excavation

N

0 20 40

SCALE IN FEET
1" = 20'

HydroCon
510 Allen St. Suite B Kelso, Wa 98626, Ph(360)-703-6086

DATE: 10-23-17
DWN: JJT
CHK: RH
APPROVED: RH
PRJ. MGR: CH
PROJECT NO: 2017-055

FIGURE 5

SUMMARY OF GROUNDWATER ANALYTICAL RESULTS

JH KELLY
821 3RD AVE.
LONGVIEW, WA.

C:\Users\Josh\Desktop\Autocad Files\Hydrocon-Autocad\2017-055\2017\Oct 2017\2017-055_BM-102317.dwg 2.17.2014

Table 1
Summary of Groundwater Elevations
JH Kelly
Longview, Washington
HydroCon Project Number 2017-057

Boring ID	Date	Ground Elevation	Depth to Water	Groundwater Elevation
HC01	10/11/17	100.05	9.56	90.49
HC02	10/11/17	100.10	9.58	90.52
HC03	10/11/17	100.09	9.57	90.52
HC04	10/11/17	99.90	9.41	90.49
HC05	10/11/17	100.02	9.52	90.50

Notes:
Borings surveyed to arbitrary datum and assigned elevation of 100 feet msl.

Table 2
JH Kelly Soil Analytical Results
821 3rd Aveneue, Longview, WA

		Fuels			Volatiles							Metal
		DRPH	ORPH	GRPH	Benzene	Toluene	Ethylbenzene	Xylene, Total	EDB	EDC	MTBE	Lead, Total
		mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
WA Method A Cleanup		**2,000**	**2000**	**30|100**	**0.03**	**7**	**6**	**9**	**0.005**		**0.1**	**250**
HC01-10	10/11/2017	<238	621 s-05	<6.25	<0.0125	<0.0625	<0.0313	<0.0938	<0.00250	<0.0313	<0.0625	81.6
HC02-10	10/11/2017	<50	65.2	<5.60	<0.0112	<0.0560	<0.0280	<0.0840	-	-	-	84.2
HC03-10	10/11/2017	<50	<250	<7.50	<0.0150	<0.0750	<0.0375	<0.112	-	-	-	70.3
HC04-10	10/11/2017	<50	<250	<6.44	<0.0129	<0.0644	<0.0322	<0.0967	-	-	-	78.9
HC05-10	10/11/2017	<50	<250	<6.11	<0.0122	<0.0611	<0.0306	<0.0917	-	-	-	84.7

Notes

Red denotes concentration exceeds MTCA Method A cleanup level.

MTCA Method A Cleanup Levels, Table 740-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, revised November 2007.

GRPH analyzed by Method NWTPH-Gx.

DRPH and ORPH analyzed by Method NWTPH-Dx.

Volatiles analyzed by EPA 8260B, 8260C or 8021B.

Metals analyzed by EPA Method 6010B, 6010C or 200.8.

ec - Method reporting limit exceeds Clean Up Level shown.

J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

x - The sample chromatographic pattern does not resemble the fuel standard used for quanititation.

s-05 Surrogate recovery is estimated do to sample dilution required for high analyite concentration and / or matrix interference.

Table 3
JH Kelly Groundwater Analytical Results
821 3rd Aveneue, Longview, WA

		Fuels			Volatiles							Metal
		DRPH	ORPH	GRPH	Benzene	Ethylbenzene	Toluene	Xylene, Total	EDB	EDC	MTBE	Lead, Total
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
WA Method A Cleanup		**500**	**500**	**800|1000**	**5**	**700**	**1,000**	**1**	**0.01**	**5**	**20**	**15**
Benzene (Non Detect)				**1000**								
Benzene (Detect)				**800**								
Field ID	**Date**											
HydroCon Subsurface Investigation 2017												
HC01-10	10/11/2017	**538** F13	<151	<100	<0.200	<0.500	<1.0	<1.50	-	-	8.68	-
HC02-10	10/11/2017	<74.8	<150	<100	<0.200	<0.500	<1.0	<1.50	-	-	2.06	-
HC03-10	10/11/2017	**636** F11	<151	<100	<0.200	<0.500	1.56	<1.50	-	-	6.55	-
HC04-10	10/11/2017	**1370** F13	<151	<100	<0.200	<0.500	<1.0	<1.50	<0.0200	<0.500	**35.5**	7.78
HC05-10	10/11/2017	<75.5	222 F13	<100	<0.200	<0.500	<1.0	<1.50	-	-	1.43	-

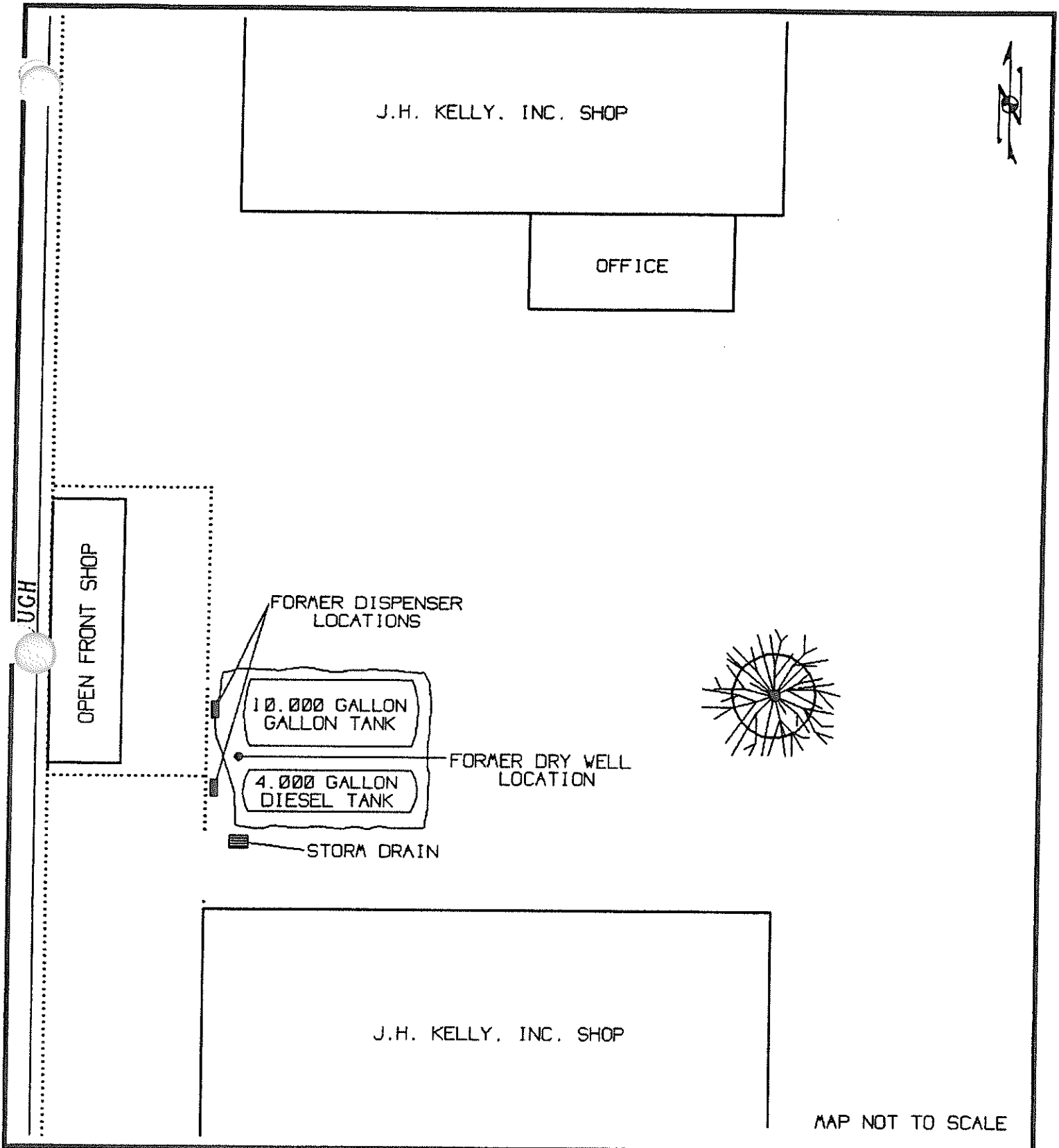
Notes

Red denotes concentration exceeds MTCA Method A cleanup level.
MTCA Method A Cleanup Levels, Table 740-1 of Section 900 of Chapter 173-340 of the Washington Administrative Code, revised November 2007.
GRPH analyzed by Method NWTPH-Gx.
DRPH and ORPH analyzed by Method NWTPH-Dx.
Volatiles analyzed by EPA 8260B, 8260C or 8021B.
Metals analyzed by EPA Method 6010B, 6010C or 200.8.

ec - Method reporting limit exceeds Clean Up Level shown.
F11 - The hydrocarbon pattern indicates possible weathered diesel, or a contribution from a related component.
F13 - The sample chromatographic pattern does not resemble the fuel standard used for quanititation.
s-05 Surrogate recovery is estimated do to sample dilution required for high analyite concentration and / or matrix interference.

- = not measured/not analyzed
< = not detected at a concentration exceeding the laboratory reporting limit
mg/kg = milligrams per kilogram
DRPH = Diesel Range Petroleum Hydrocarbons
EDB = 1,2-dibromoethane (ethylene dibromide)
EDC = 1,2-dichloroethylene (ethylene dichloride)
EPA = U.S. Environmental Protection Agency
GRPH = Gasoline Range Petroleum Hydrocarbons
MTBE = methyl tertiary-butyl ether
MTCA = Washington State Model Toxics Control Act
NWVPH = Northwest Volatile Petroleum Hydrocarbons
ORPH = Oil Range Petroleum Hydrocarbons

APPENDIX A
HISTORIC DATA AND FIGURES

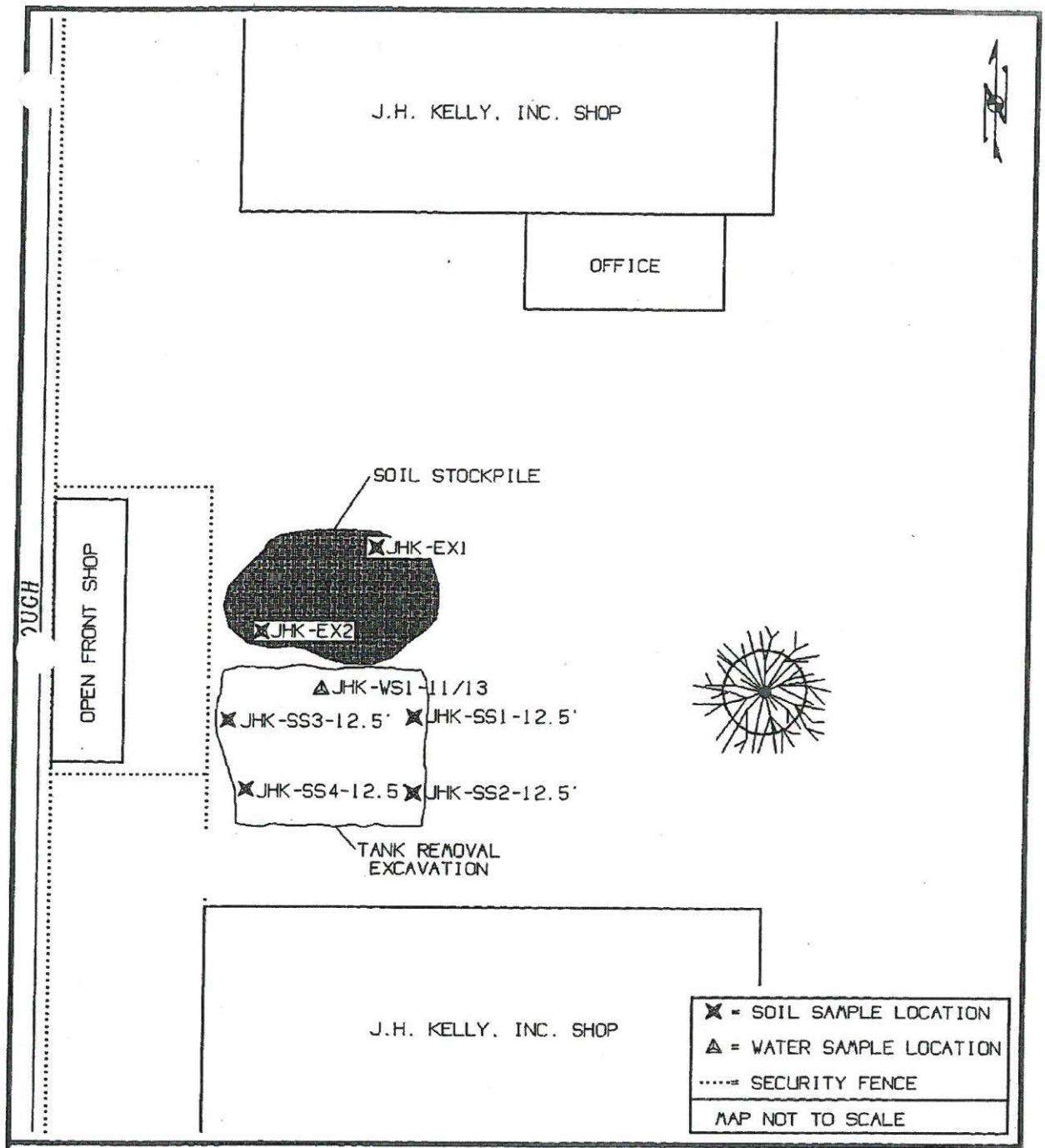


J.H. KELLY. INC.
21 THIRD AVENUE
LONGVIE WASHINGTON 98632

FIGURE 2

SITE FACILTY MAP

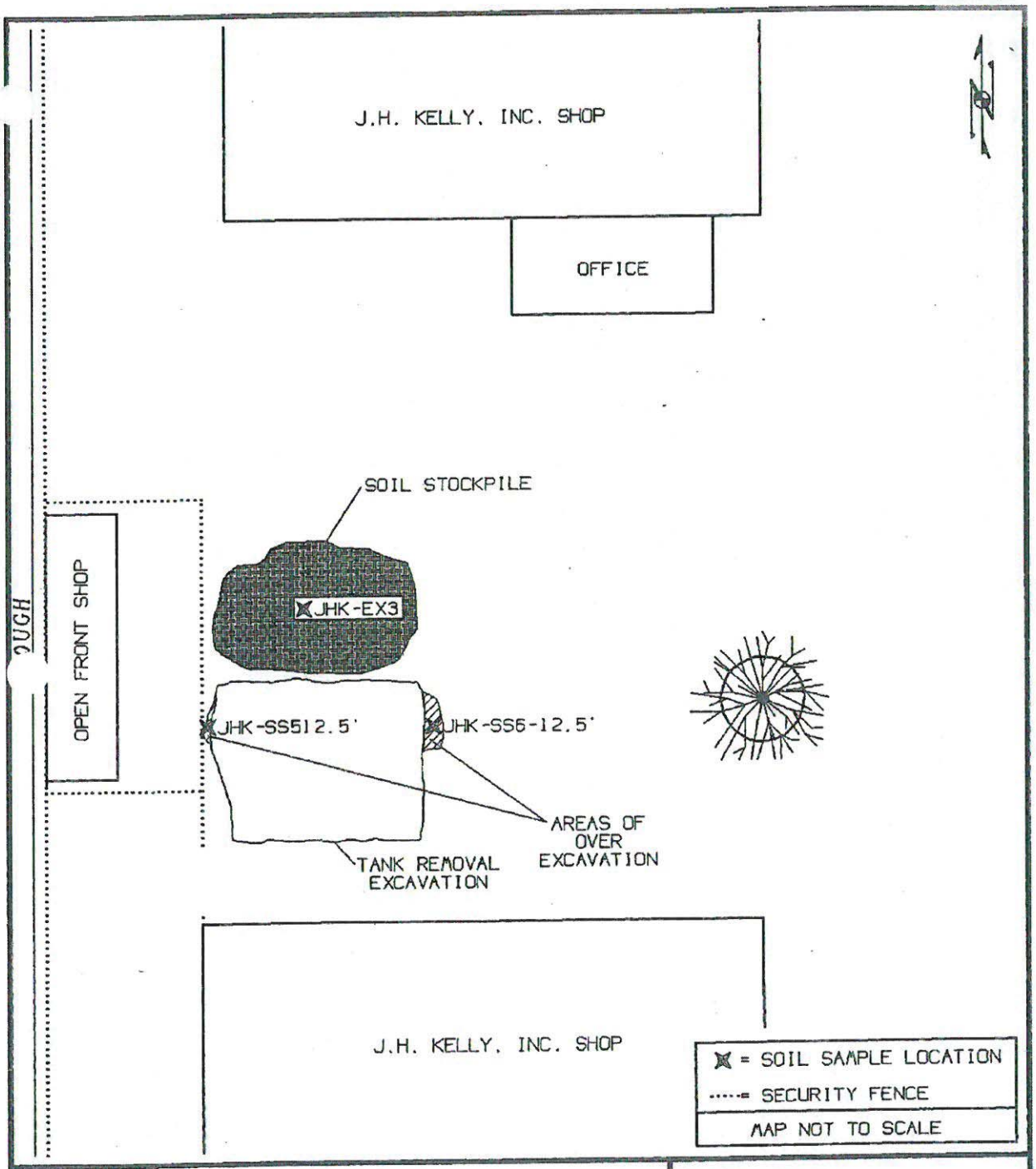
PACIFIC NORTHERN ENVIRONMENTAL



J.H. KELLY, INC.
21 THIRD AVENUE
LONGVIE WASHINGTON 98632

FIGURE 3
11/13/91
SAMPLE LOCATIONS

PACIFIC NORTHERN ENVIRONMENTAL



J.H. KELLY, INC.
21 THIRD AVENUE
LONGVIE WASHINGTON 98632

FIGURE 4

11/22/91
SAMPLE LOCATIONS

PACIFIC NORTHERN ENVIRONMENTAL

Tables

Table 1
Soil Analytical Results for
Excavation Confirmation Samples

	Units	Method A CUL [1991]	Method A CUL [Current]	Sample ID: JHK-SS1-12.5'	JHK-SS6-12.5' (SS1 Over Excavation)	JHK-SS2-12.5'	JHK-SS3-12.5'	JHK-SS5-12.5' (SS3 Over Excavation)	JHK-SS4-12.5'
TPH-D	mg/Kg	200	2,000	<10	--	<10	<10	<10	<10
TPH-G	mg/Kg	100	30	<10	--	<10	<10	<10	<10
TPH-O	mg/Kg	200	2,000	**70**	--	**130**	**480**	**70**	**140**
Benzene	mg/Kg	0.5	0.03	**1.10**	<0.05	--	**0.14**	--	--
Toluene	mg/Kg	40	7	<0.10	<0.05	--	<0.05	--	--
Ethylbenzene	mg/Kg	20	6	<0.10	<0.05	--	<0.05	--	--
Xylenes	mg/Kg	20	9	<0.10	<0.05	--	**0.07**	--	--

Orange — Indicates a result in exceedance of the 1991 MTCA Method A CUL, but below the current MTCA Method A CUL

Red — Indicates a result in exceedance of the current MTCA Method A CUL

Bold — Indicates a result above the laboratory detection limit

-- — Analyte Not Analyzed

Table 2

Groundwater Monitoring Analytical Results

	Units	Method A CUL [Current]	Monitoring Well (12/10/91)	Monitoring Well (05/14/92)	Monitoring Well (06/30/93)	Monitoring Well (04/04/96)	Monitoring Well (04/27/06)	Monitoring Well (04/12/16)	Monitoring Well (07/11/16)
TPH-G	µg/L	1,000/800	**1,010**	<50	<1,000	<50	<250	--	--
TPH-D	µg/L	500	<50	<50	**270,000 (b)**	<50	--	--	--
TPH-O	µg/L	500	**3,340**	<50	NR	NR	--	--	--
Other* (TPH)	µg/L	NR	**NR**	NR	**6,000**	**279 (b)**	--	--	--
Benzene	µg/L	5	**30**	**11.1**	**3.7**	<0.5	<0.50	<0.50	<0.50
Toluene	µg/L	1,000	**30**	<1	<1	<1	<1.0	<0.50	<0.50
Ethylbenzene	µg/L	700	**16**	**12**	**1**	<1	<1.0	<0.50	<0.50
Xylenes	µg/L	1,000	**200**	**37**	**1**	<1	<1.0	<0.50	<0.50

Red	Indicates a result in exceedance of the current MTCA Method A CUL
Bold	Indicates a result above the laboratory detection limit
(b)	Quantified as diesel. The Sample contained components that eluted in the diesel range, but the chromatogram did not match the typical diesel fingerprint
*	'Other' is not defined in the laboratory reports
NR	TPH in this range was not reported in the laboratory results
--	Analyte Not Analyzed

APPENDIX B
BORING LOGS

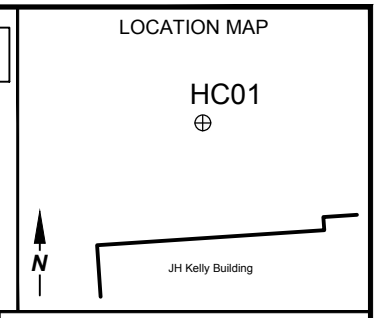
HydroCon

510 Allen Street
Kelso, WA 98626
Phone: 360-703-6079

WELL/BORING NUMBER: HC01

PROJECT NAME: JH Kelly-Longview
PROJECT NUMBER: 2017-055
PROJECT LOCATION: Longview, WA
LOGGED BY: R. Honsberger
REVIEWED BY: C. Hultgren
DATE: 10-11-17

LOCATION MAP



DESCRIPTION (USCS Classification, Depth Interval, Color, Grain Size, Plasticity, Shapes, Mineral Composition, Density or Consistency, Moisture, Odor, Geological Interpretation)	DEPTH (FT.)	SYMBOL	WELL DETAILS	SAMPLE ID	PID	FIRST WATER	BLOW COUNTS	BOREHOLE/WELL CONSTRUCTION DETAILS
Concrete 6" thick.	0							
SAND (SP), Brown, 90% medium to fine sand, 5% fine subrounded gravel up to 3/8", and 5% low plastic fines, no hydrocarbon odor, dry.					0.1			
					0.1			
	5				0.1			
					0.1			
					0.2			
Becomes wet at 10'bgs.	10			HC01-10	0.2	▽		
					0.2			
SILTY SAND (SM), Dark brown, 75% fine sand and 25% non plastic fines, organic material included in sample, reeds, no hydrocarbon odor, wet.					0.2			
	15				0.2			
BOTTOM OF BORING AT 15' B.G.S.								
Water sample HC01 collected from temp boring.								
Temporary screen placed from 5 to 15' bgs.								
Boring backfilled with hydrated bentonite upon completion.	20							
	25							
	30							

LEGEND:

- FILTER PACK
- BENTONITE
- CEMENT GROUT
- CUTTINGS/BACKFILL
- ▽ WATER LEVEL DURING DRILLING
- ▼ WATER LEVEL AFTER DRILLING

DRILLING CONTRACTOR: Pacific Soil and Water
DRILLING METHOD: Direct Push
BOREHOLE DIAMETER: 2-Inch
SAMPLING METHOD: Continuous Core
WELL TAG ID: --

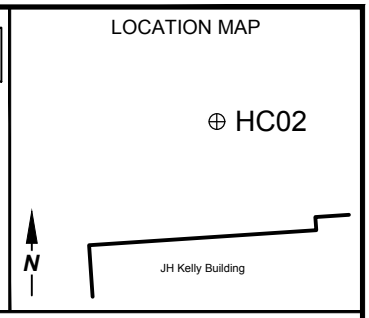
CASING ELEVATION: --
GROUND SURFACE ELEVATION: 100.05
NORTHING: 8494.27
EASTING: 52423.87
DATUM: Surveyed to arbitrary site datum of 100 feet MSL.

HydroCon
510 Allen Street
Kelso, WA 98626
Phone: 360-703-6079

WELL/BORING NUMBER: HC02

PROJECT NAME: JH Kelly-Longview
PROJECT NUMBER: 2017-055
PROJECT LOCATION: Longview, WA
LOGGED BY: R. Honsberger
REVIEWED BY: C. Hultgren
DATE: 10-11-17

LOCATION MAP



DESCRIPTION (USCS Classification, Depth Interval, Color, Grain Size, Plasticity, Shapes, Mineral Composition, Density or Consistency, Moisture, Odor, Geological Interpretation)	DEPTH (FT.)	SYMBOL	WELL DETAILS	SAMPLE ID	PID	FIRST WATER	BLOW COUNTS	BOREHOLE/WELL CONSTRUCTION DETAILS
Concrete 6" thick.	0							
SAND (SP), Brown, 90% medium to fine sand, 5% fine subrounded gravel up to 3/8", and 5% low plastic fines, no hydrocarbon odor, dry.					0.2			
					0.2			
	5				0.1			
					0.1			
					0.1			
Becomes wet at 10'bgs.	10			HC02-10	0.1	▽		
					0.1			
SILTY SAND (SM), Dark brown, 75% fine sand and 25% non plastic fines, organic material included in sample, reeds, no hydrocarbon odor, wet.					0.1			
	15				0.1			
BOTTOM OF BORING AT 15' B.G.S.								
Water sample HC02 collected from temp boring.								
Temporary screen placed from 5 to 15' bgs.								
Boring backfilled with hydrated bentonite upon completion.	20							
	25							
	30							

LEGEND:
- FILTER PACK
- BENTONITE
- CEMENT GROUT
- CUTTINGS/BACKFILL
- ▽ WATER LEVEL DURING DRILLING
- ▼ WATER LEVEL AFTER DRILLING

DRILLING CONTRACTOR: Pacific Soil and Water
DRILLING METHOD: Direct Push
BOREHOLE DIAMETER: 2-Inch
SAMPLING METHOD: Continuous Core
WELL TAG ID: --

CASING ELEVATION: --
GROUND SURFACE ELEVATION: 100.1
NORTHING: 8494.99
EASTING: 52434.86
DATUM: Surveyed to arbitrary site datum of 100 feet MSL.

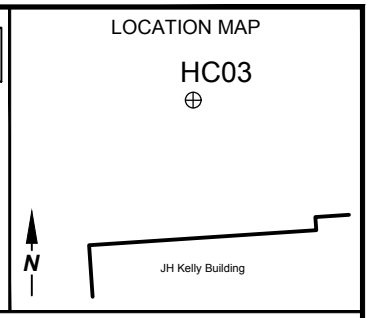
Hydro Con

510 Allen Street
Kelso, WA 98626
Phone: 360-703-6079

WELL/BORING NUMBER: HC03

PROJECT NAME: JH Kelly-Longview
PROJECT NUMBER: 2017-055
PROJECT LOCATION: Longview, WA
LOGGED BY: R. Honsberger
REVIEWED BY: C. Hultgren
DATE: 10-11-17

LOCATION MAP



DESCRIPTION (USCS Classification, Depth Interval, Color, Grain Size, Plasticity, Shapes, Mineral Composition, Density or Consistency, Moisture, Odor, Geological Interpretation)	DEPTH (FT.)	SYMBOL	WELL DETAILS	SAMPLE ID	PID	FIRST WATER	BLOW COUNTS	BOREHOLE/WELL CONSTRUCTION DETAILS
Concrete 6" thick.	0							
Sandy Gravel (GP), Dark brown, 50% fine subrounded gravel up to 5/8' in diameter, 45% fine sand, and 5% low plastic fines, asphalt debris throughout sample, no hydrocarbon odor, dry.					0.3			
					0.3			
	5				0.2			
					0.2			
					0.2			
SAND with SILT (SP/SM), Dark brown, 90% fine sand and 10% non plastic fines, no hydrocarbon odor, becomes wet at 10" bgs.	10			HC03-10	0.2	▽		
					0.2			
					0.2			
	15				0.2			
BOTTOM OF BORING AT 15' B.G.S. Water sample HC03 collected from temp boring. Temporary screen placed from 5 to 15' bgs. Boring backfilled with hydrated bentonite upon completion.	20							
	25							
	30							

LEGEND:
- FILTER PACK
- BENTONITE
- CEMENT GROUT
- CUTTINGS/BACKFILL
- WATER LEVEL DURING DRILLING
- WATER LEVEL AFTER DRILLING

DRILLING CONTRACTOR: Pacific Soil and Water
DRILLING METHOD: Direct Push
BOREHOLE DIAMETER: 2-Inch
SAMPLING METHOD: Continuous Core
WELL TAG ID: --

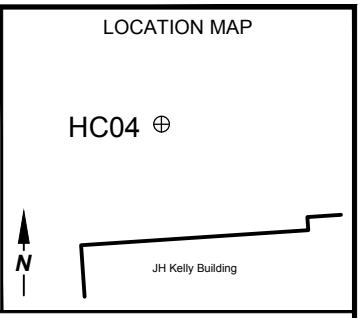
CASING ELEVATION: --
GROUND SURFACE ELEVATION: 100.09
NORTHING: 8505.57
EASTING: 52423.10
DATUM: Surveyed to arbitrary site datum of 100 feet MSL.

HydroCon
510 Allen Street
Kelso, WA 98626
Phone: 360-703-6079

WELL/BORING NUMBER: HC04

PROJECT NAME: JH Kelly-Longview
PROJECT NUMBER: 2017-055
PROJECT LOCATION: Longview, WA
LOGGED BY: R. Honsberger
REVIEWED BY: C. Hultgren
DATE: 10-11-17

LOCATION MAP



DESCRIPTION (USCS Classification, Depth Interval, Color, Grain Size, Plasticity, Shapes, Mineral Composition, Density or Consistency, Moisture, Odor, Geological Interpretation)	DEPTH (FT.)	SYMBOL	WELL DETAILS	SAMPLE ID	PID	FIRST WATER	BLOW COUNTS	BOREHOLE/WELL CONSTRUCTION DETAILS
Concrete 6" thick.	0							
Sandy Gravel (GP), Dark brown, 50% fine subrounded gravel up to 5/8' in diameter, 45% fine sand, and 5% low plastic fines, asphalt debris throughout sample, no hydrocarbon odor, dry.					2.0			
					2.0			
	5				0.2			
SAND with SILT (SP/SM), Dark brown, 90% fine sand and 10% non plastic fines, no hydrocarbon odor, becomes wet at 10" bgs.					0.5			
					0.3			
	10			HC04-10	0.3	▽		
SILTY SAND (SM), Dark brown, 75% fine sand and 25% non plastic fines, organic material included in sample, reeds, no hydrocarbon odor, wet.					0.2			
					0.2			
	15				0.2			
BOTTOM OF BORING AT 15' B.G.S.								
Water sample HC04 collected from temp boring.								
Temporary screen placed from 5 to 15' bgs.								
Boring backfilled with hydrated bentonite upon completion.	20							
	25							
	30							

LEGEND:
- FILTER PACK
- BENTONITE
- CEMENT GROUT
- CUTTINGS/BACKFILL
- WATER LEVEL DURING DRILLING
- WATER LEVEL AFTER DRILLING

DRILLING CONTRACTOR: Pacific Soil and Water
DRILLING METHOD: Direct Push
BOREHOLE DIAMETER: 2-Inch
SAMPLING METHOD: Continuous Core
WELL TAG ID: --

CASING ELEVATION: --
GROUND SURFACE ELEVATION: 99.9
NORTHING: 8493.64
EASTING: 52411.38
DATUM: Surveyed to arbitrary site datum of 100 feet MSL.

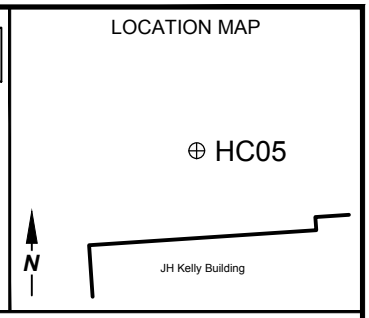
Hydro Con

510 Allen Street
Kelso, WA 98626
Phone: 360-703-6079

WELL/BORING NUMBER: HC05

PROJECT NAME: JH Kelly-Longview
PROJECT NUMBER: 2017-055
PROJECT LOCATION: Longview, WA
LOGGED BY: R. Honsberger
REVIEWED BY: C. Hultgren
DATE: 10-11-17

LOCATION MAP



DESCRIPTION (USCS Classification, Depth Interval, Color, Grain Size, Plasticity, Shapes, Mineral Composition, Density or Consistency, Moisture, Odor, Geological Interpretation)	DEPTH (FT.)	SYMBOL	WELL DETAILS	SAMPLE ID	PID	FIRST WATER	BLOW COUNTS	BOREHOLE/WELL CONSTRUCTION DETAILS
Concrete 6" thick.	0							
SAND (SP), Brown, 90% medium to fine sand, 5% fine subrounded gravel up to 3/8", and 5% low plastic fines, no hydrocarbon odor, dry.					0.1			
					0.1			
	5				0.1			
					0.2			
					0.2			
Becomes wet at 10'bgs.	10			HC05-10	0.2	▽		
					0.2			
SILTY SAND (SM), Dark brown, 75% fine sand and 25% non plastic fines, organic material included in sample, reeds, no hydrocarbon odor, wet.					0.2			
	15				0.2			
BOTTOM OF BORING AT 15' B.G.S.								
Water sample HC04 collected from temp boring.								
Temporary screen placed from 5 to 15' bgs.								
Boring backfilled with hydrated bentonite upon completion.	20							
	25							
	30							

LEGEND:
- FILTER PACK
- BENTONITE
- CEMENT GROUT
- CUTTINGS/BACKFILL
- ▽ WATER LEVEL DURING DRILLING
- ▼ WATER LEVEL AFTER DRILLING

DRILLING CONTRACTOR: Pacific Soil and Water
DRILLING METHOD: Direct Push
BOREHOLE DIAMETER: 2-Inch
SAMPLING METHOD: Continuous Core
WELL TAG ID: --

CASING ELEVATION: --
GROUND SURFACE ELEVATION: 100.02
NORTHING: 8480.50
EASTING: 52424.78
DATUM: Surveyed to arbitrary site datum of 100 feet MSL.

APPENDIX C
LABORATORY REPORT AND CHAIN-OF-CUSTODY DOCUMENTATION

Apex Labs

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

Monday, October 23, 2017

Dave Borys
HydroCon LLC
510 Allen St. Suite B
Kelso, WA 98626

RE: JH Kelly / [none]

Enclosed are the results of analyses for work order A7J0399, which was received by the laboratory on 10/12/2017 at 11:15:00AM.

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

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

Apex Laboratories

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

Lisa A Domenighini

Lisa Domenighini, Client Services Manager

Apex Labs

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

HydroCon LLC	Project: **JH Kelly**	
510 Allen St. Suite B	Project Number: [none]	**Reported:**
Kelso, WA 98626	Project Manager: Dave Borys	10/23/17 13:41

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HC01-10	A7J0399-01	Soil	10/11/17 09:05	10/12/17 11:15
HC02-10	A7J0399-02	Soil	10/11/17 09:25	10/12/17 11:15
HC03-10	A7J0399-03	Soil	10/11/17 09:55	10/12/17 11:15
HC04-10	A7J0399-04	Soil	10/11/17 10:40	10/12/17 11:15
HC05-10	A7J0399-05	Soil	10/11/17 10:55	10/12/17 11:15

Apex Laboratories

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

Lisa A Domenighini

Lisa Domenighini, Client Services Manager

Apex Labs

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

HydroCon LLC	Project: **JH Kelly**	
510 Allen St. Suite B	Project Number: [none]	**Reported:**
Kelso, WA 98626	Project Manager: Dave Borys	10/23/17 13:41

ANALYTICAL CASE NARRATIVE

Work Order: A7J0399

Per the client's request Method 8260- EDB/EDC/MTBE was added to sample HC01-10, prior to final reporting.

Lisa Domenighini
Client Services Manager
10/23/17

Apex Labs

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

HydroCon LLC	Project: **JH Kelly**	
510 Allen St. Suite B	Project Number: [none]	**Reported:**
Kelso, WA 98626	Project Manager: Dave Borys	10/23/17 13:41

ANALYTICAL SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
HC01-10 (A7J0399-01)			**Matrix: Soil**		**Batch: 7100733**			
Diesel	ND	---	238	mg/kg dry	10	10/13/17 22:49	NWTPH-Dx	
Oil	**621**	---	477	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 96 %*	*Limits: 50-150 %*	"	"	"	*S-05*
HC02-10 (A7J0399-02)			**Matrix: Soil**		**Batch: 7100733**			
Diesel	ND	---	25.0	mg/kg dry	1	10/13/17 23:31	NWTPH-Dx	
Oil	**65.2**	---	50.0	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 88 %*	*Limits: 50-150 %*	"	"	"	
HC03-10 (A7J0399-03)			**Matrix: Soil**		**Batch: 7100733**			
Diesel	ND	---	26.0	mg/kg dry	1	10/13/17 23:52	NWTPH-Dx	
Oil	ND	---	52.1	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 75 %*	*Limits: 50-150 %*	"	"	"	
HC04-10 (A7J0399-04)			**Matrix: Soil**		**Batch: 7100733**			
Diesel	ND	---	25.0	mg/kg dry	1	10/14/17 00:13	NWTPH-Dx	
Oil	ND	---	50.0	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 78 %*	*Limits: 50-150 %*	"	"	"	
HC05-10 (A7J0399-05)			**Matrix: Soil**		**Batch: 7100733**			
Diesel	ND	---	25.0	mg/kg dry	1	10/14/17 00:34	NWTPH-Dx	
Oil	ND	---	50.0	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 90 %*	*Limits: 50-150 %*	"	"	"	

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HydroCon LLC	Project: **JH Kelly**	
510 Allen St. Suite B	Project Number: [none]	**Reported:**
Kelso, WA 98626	Project Manager: Dave Borys	10/23/17 13:41

ANALYTICAL SAMPLE RESULTS

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

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
HC01-10 (A7J0399-01)			**Matrix: Soil**		**Batch: 7100726**			
Gasoline Range Organics	ND	---	6.25	mg/kg dry	50	10/13/17 14:17	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 106 %*	*Limits: 50-150 %*	1	"	"	
1,4-Difluorobenzene (Sur)			*99 %*	*Limits: 50-150 %*	"	"	"	
HC02-10 (A7J0399-02)			**Matrix: Soil**		**Batch: 7100726**			
Gasoline Range Organics	ND	---	5.60	mg/kg dry	50	10/13/17 14:44	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 104 %*	*Limits: 50-150 %*	1	"	"	
1,4-Difluorobenzene (Sur)			*99 %*	*Limits: 50-150 %*	"	"	"	
HC03-10 (A7J0399-03)			**Matrix: Soil**		**Batch: 7100726**			
Gasoline Range Organics	ND	---	7.50	mg/kg dry	50	10/13/17 15:37	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 105 %*	*Limits: 50-150 %*	1	"	"	
1,4-Difluorobenzene (Sur)			*99 %*	*Limits: 50-150 %*	"	"	"	
HC04-10 (A7J0399-04)			**Matrix: Soil**		**Batch: 7100726**			
Gasoline Range Organics	ND	---	6.44	mg/kg dry	50	10/13/17 16:03	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 105 %*	*Limits: 50-150 %*	1	"	"	
1,4-Difluorobenzene (Sur)			*99 %*	*Limits: 50-150 %*	"	"	"	
HC05-10 (A7J0399-05)			**Matrix: Soil**		**Batch: 7100726**			
Gasoline Range Organics	ND	---	6.11	mg/kg dry	50	10/13/17 16:30	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 105 %*	*Limits: 50-150 %*	1	"	"	
1,4-Difluorobenzene (Sur)			*98 %*	*Limits: 50-150 %*	"	"	"	

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HydroCon LLC	Project: **JH Kelly**	
510 Allen St. Suite B	Project Number: [none]	**Reported:**
Kelso, WA 98626	Project Manager: Dave Borys	10/23/17 13:41

ANALYTICAL SAMPLE RESULTS

BTEX Compounds by EPA 8260C

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
HC01-10 (A7J0399-01)			**Matrix: Soil**		**Batch: 7100726**			
Benzene	ND	---	0.0125	mg/kg dry	50	10/13/17 14:17	5035A/8260C	
Ethylbenzene	ND	---	0.0313	"	"	"	"	
Toluene	ND	---	0.0625	"	"	"	"	
Xylenes, total	ND	---	0.0938	"	"	"	"	
Surrogate: 1,4-Difluorobenzene (Surr)			*Recovery: 105 %*	*Limits: 80-120 %*	1	"	"	
Toluene-d8 (Surr)			*101 %*	*Limits: 80-120 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*98 %*	*Limits: 80-120 %*	"	"	"	
HC02-10 (A7J0399-02)			**Matrix: Soil**		**Batch: 7100726**			
Benzene	ND	---	0.0112	mg/kg dry	50	10/13/17 14:44	5035A/8260C	
Ethylbenzene	ND	---	0.0280	"	"	"	"	
Toluene	ND	---	0.0560	"	"	"	"	
Xylenes, total	ND	---	0.0840	"	"	"	"	
Surrogate: 1,4-Difluorobenzene (Surr)			*Recovery: 105 %*	*Limits: 80-120 %*	1	"	"	
Toluene-d8 (Surr)			*102 %*	*Limits: 80-120 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*98 %*	*Limits: 80-120 %*	"	"	"	
HC03-10 (A7J0399-03)			**Matrix: Soil**		**Batch: 7100726**			
Benzene	ND	---	0.0150	mg/kg dry	50	10/13/17 15:37	5035A/8260C	
Ethylbenzene	ND	---	0.0375	"	"	"	"	
Toluene	ND	---	0.0750	"	"	"	"	
Xylenes, total	ND	---	0.112	"	"	"	"	
Surrogate: 1,4-Difluorobenzene (Surr)			*Recovery: 105 %*	*Limits: 80-120 %*	1	"	"	
Toluene-d8 (Surr)			*102 %*	*Limits: 80-120 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*99 %*	*Limits: 80-120 %*	"	"	"	
HC04-10 (A7J0399-04)			**Matrix: Soil**		**Batch: 7100726**			
Benzene	ND	---	0.0129	mg/kg dry	50	10/13/17 16:03	5035A/8260C	
Ethylbenzene	ND	---	0.0322	"	"	"	"	
Toluene	**0.151**	---	0.0644	"	"	"	"	
Xylenes, total	ND	---	0.0967	"	"	"	"	
Surrogate: 1,4-Difluorobenzene (Surr)			*Recovery: 106 %*	*Limits: 80-120 %*	1	"	"	
Toluene-d8 (Surr)			*102 %*	*Limits: 80-120 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*98 %*	*Limits: 80-120 %*	"	"	"	
HC05-10 (A7J0399-05)			**Matrix: Soil**		**Batch: 7100726**			
Benzene	ND	---	0.0122	mg/kg dry	50	10/13/17 16:30	5035A/8260C	

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HydroCon LLC	Project: **JH Kelly**	
510 Allen St. Suite B	Project Number: [none]	**Reported:**
Kelso, WA 98626	Project Manager: Dave Borys	10/23/17 13:41

ANALYTICAL SAMPLE RESULTS

BTEX Compounds by EPA 8260C

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
HC05-10 (A7J0399-05)			**Matrix: Soil**		**Batch: 7100726**			
Ethylbenzene	ND	---	0.0306	mg/kg dry	50	"	5035A/8260C	
Toluene	ND	---	0.0611	"	"	"	"	
Xylenes, total	ND	---	0.0917	"	"	"	"	
Surrogate: 1,4-Difluorobenzene (Surr)			*Recovery: 105 %*	*Limits: 80-120 %*	1	"	"	
Toluene-d8 (Surr)			*101 %*	*Limits: 80-120 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*99 %*	*Limits: 80-120 %*	"	"	"	

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510 Allen St. Suite B	Project Number: [none]	**Reported:**
Kelso, WA 98626	Project Manager: Dave Borys	10/23/17 13:41

ANALYTICAL SAMPLE RESULTS

Select Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
HC01-10 (A7J0399-01)			**Matrix: Soil**		**Batch: 7100726**			
1,2-Dichloroethane (EDC)	ND	---	0.0313	mg/kg dry	50	10/13/17 14:17	5035A/8260C	
Methyl tert-butyl ether (MTBE)	ND	---	0.0625	"	"	"	"	
Surrogate: 1,4-Difluorobenzene (Surr)			*Recovery: 105 %*	*Limits: 80-120 %*	1	"	"	
Toluene-d8 (Surr)			*101 %*	*Limits: 80-120 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*98 %*	*Limits: 80-120 %*	"	"	"	

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510 Allen St. Suite B	Project Number: [none]	**Reported:**
Kelso, WA 98626	Project Manager: Dave Borys	10/23/17 13:41

ANALYTICAL SAMPLE RESULTS

1,2-Dibromoethane (EDB) by EPA 8260C SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
HC01-10 (A7J0399-01)			**Matrix: Soil**		**Batch: 7100942**			
1,2-Dibromoethane (EDB)	ND	---	0.00250	mg/kg dry	100	10/19/17 14:01	5035A/8260C SIM	
Surrogate: 1,4-Difluorobenzene (Surr)			*Recovery: 95 %*	*Limits: 70-130 %*	1	"	"	
Toluene-d8 (Surr)			*104 %*	*Limits: 70-130 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*108 %*	*Limits: 70-130 %*	"	"	"	

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510 Allen St. Suite B	Project Number: [none]	**Reported:**
Kelso, WA 98626	Project Manager: Dave Borys	10/23/17 13:41

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
HC01-10 (A7J0399-01)			**Matrix: Soil**		**Batch: 7100749**			
% Solids	**81.6**	---	1.00	% by Weight	1	10/16/17 08:09	EPA 8000C	
HC02-10 (A7J0399-02)			**Matrix: Soil**		**Batch: 7100749**			
% Solids	**84.2**	---	1.00	% by Weight	1	10/16/17 08:09	EPA 8000C	
HC03-10 (A7J0399-03)			**Matrix: Soil**		**Batch: 7100749**			
% Solids	**70.3**	---	1.00	% by Weight	1	10/16/17 08:09	EPA 8000C	
HC04-10 (A7J0399-04)			**Matrix: Soil**		**Batch: 7100749**			
% Solids	**78.9**	---	1.00	% by Weight	1	10/16/17 08:09	EPA 8000C	
HC05-10 (A7J0399-05)			**Matrix: Soil**		**Batch: 7100749**			
% Solids	**84.7**	---	1.00	% by Weight	1	10/16/17 08:09	EPA 8000C	

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HydroCon LLC	Project: **JH Kelly**	
510 Allen St. Suite B	Project Number: [none]	**Reported:**
Kelso, WA 98626	Project Manager: Dave Borys	10/23/17 13:41

QUALITY CONTROL (QC) SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7100733 - EPA 3546 (Fuels)							**Soil**					
Blank (7100733-BLK1)					Prepared: 10/13/17 09:31 Analyzed: 10/13/17 11:01							
NWTPH-Dx												
Diesel	ND	---	25.0	mg/kg wet	1	---	---	---	---	---	---	
Oil	ND	---	50.0	"	"	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)			*Recovery: 89 %*	*Limits: 50-150 %*			*Dilution: 1x*					
LCS (7100733-BS1)					Prepared: 10/13/17 09:31 Analyzed: 10/13/17 11:23							
NWTPH-Dx												
Diesel	109	---	25.0	mg/kg wet	1	125	---	87	76-115%	---	---	
Surr: o-Terphenyl (Surr)			*Recovery: 98 %*	*Limits: 50-150 %*			*Dilution: 1x*					

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HydroCon LLC	Project: **JH Kelly**	
510 Allen St. Suite B	Project Number: [none]	**Reported:**
Kelso, WA 98626	Project Manager: Dave Borys	10/23/17 13:41

QUALITY CONTROL (QC) SAMPLE RESULTS

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

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7100726 - EPA 5035A									**Soil**			
Blank (7100726-BLK1)					Prepared: 10/13/17 09:23		Analyzed: 10/13/17 10:43					
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	---	3.33	mg/kg wet	50	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 102 %*	*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*97 %*	*50-150 %*			*"*					
LCS (7100726-BS2)					Prepared: 10/13/17 09:23		Analyzed: 10/13/17 10:16					
NWTPH-Gx (MS)												
Gasoline Range Organics	25.6	---	5.00	mg/kg wet	50	25.0	---	103	80-120%	---	---	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 103 %*	*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*101 %*	*50-150 %*			*"*					
Duplicate (7100726-DUP2)					Prepared: 10/11/17 09:25		Analyzed: 10/13/17 15:10					
QC Source Sample: HC02-10 (A7J0399-02)												
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	---	5.55	mg/kg dry	50	---	ND	---	---	---	30%	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 105 %*	*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*99 %*	*50-150 %*			*"*					

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HydroCon LLC	Project: **JH Kelly**	
510 Allen St. Suite B	Project Number: [none]	**Reported:**
Kelso, WA 98626	Project Manager: Dave Borys	10/23/17 13:41

QUALITY CONTROL (QC) SAMPLE RESULTS

BTEX Compounds by EPA 8260C

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7100726 - EPA 5035A							**Soil**					
Blank (7100726-BLK1)					Prepared: 10/13/17 09:23 Analyzed: 10/13/17 10:43							
5035A/8260C												
Benzene	ND	---	0.00667	mg/kg wet	50	---	---	---	---	---	---	
Ethylbenzene	ND	---	0.0167	"	"	---	---	---	---	---	---	
Toluene	ND	---	0.0333	"	"	---	---	---	---	---	---	
Xylenes, total	ND	---	0.0500	"	"	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 104 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*102 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*98 %*		*80-120 %*			*"*				
LCS (7100726-BS1)					Prepared: 10/13/17 09:23 Analyzed: 10/13/17 09:50							
5035A/8260C												
Benzene	1.03	---	0.0100	mg/kg wet	50	1.00	---	103	80-120%	---	---	
Ethylbenzene	0.984	---	0.0250	"	"	"	---	98	"	---	---	
Toluene	0.976	---	0.0500	"	"	"	---	98	"	---	---	
Xylenes, total	2.98	---	0.0750	"	"	3.00	---	99	"	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 103 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*101 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*			*"*				
Duplicate (7100726-DUP2)					Prepared: 10/11/17 09:25 Analyzed: 10/13/17 15:10							
QC Source Sample: HC02-10 (A7J0399-02)												
5035A/8260C												
Benzene	ND	---	0.0111	mg/kg dry	50	---	ND	---	---	---	30%	
Ethylbenzene	ND	---	0.0277	"	"	---	ND	---	---	---	30%	
Toluene	ND	---	0.0555	"	"	---	ND	---	---	---	30%	
Xylenes, total	ND	---	0.0832	"	"	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 106 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*101 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*98 %*		*80-120 %*			*"*				

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Kelso, WA 98626	Project Manager: Dave Borys	10/23/17 13:41

QUALITY CONTROL (QC) SAMPLE RESULTS

Select Volatile Organic Compounds by EPA 5035A/8260C

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7100726 - EPA 5035A									Soil			
Blank (7100726-BLK1)					Prepared: 10/13/17 09:23 Analyzed: 10/13/17 10:43							
5035A/8260C												
1,2-Dichloroethane (EDC)	ND	---	0.0167	mg/kg wet	50	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	---	0.0333	"	"	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 104 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*102 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*98 %*		*80-120 %*			*"*				
LCS (7100726-BS1)					Prepared: 10/13/17 09:23 Analyzed: 10/13/17 09:50							
5035A/8260C												
1,2-Dichloroethane (EDC)	1.09	---	0.0250	mg/kg wet	50	1.00	---	109	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	1.05	---	0.0500	"	"	"	---	105	"	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 103 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*101 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*			*"*				
Duplicate (7100726-DUP2)					Prepared: 10/11/17 09:25 Analyzed: 10/13/17 15:10							
QC Source Sample: HC02-10 (A7J0399-02)												
5035A/8260C												
1,2-Dichloroethane (EDC)	ND	---	0.0277	mg/kg dry	50	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	ND	---	0.0555	"	"	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 106 %*		*Limits: 80-120 %*			*Dilution: 1x*				
Toluene-d8 (Surr)			*101 %*		*80-120 %*			*"*				
4-Bromofluorobenzene (Surr)			*98 %*		*80-120 %*			*"*				

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Lisa Domenighini, Client Services Manager

Apex Labs

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

HydroCon LLC	Project: **JH Kelly**	
510 Allen St. Suite B	Project Number: [none]	**Reported:**
Kelso, WA 98626	Project Manager: Dave Borys	10/23/17 13:41

QUALITY CONTROL (QC) SAMPLE RESULTS

1,2-Dibromoethane (EDB) by EPA 8260C SIM

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7100942 - EPA 5035A									Soil			
Blank (7100942-BLK1)					Prepared: 10/19/17 12:00 Analyzed: 10/19/17 13:32							
5035A/8260C SIM												
1,2-Dibromoethane (EDB)	ND	---	0.00133	mg/kg wet	100	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 98 %*	*Limits: 70-130 %*			*Dilution: 1x*					
Toluene-d8 (Surr)			*103 %*	*70-130 %*			*"*					
4-Bromofluorobenzene (Surr)			*105 %*	*70-130 %*			*"*					
LCS (7100942-BS1)					Prepared: 10/19/17 12:00 Analyzed: 10/19/17 13:05							
5035A/8260C SIM												
1,2-Dibromoethane (EDB)	0.0230	---	0.00200	mg/kg wet	100	0.0200	---	115	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 98 %*	*Limits: 70-130 %*			*Dilution: 1x*					
Toluene-d8 (Surr)			*103 %*	*70-130 %*			*"*					
4-Bromofluorobenzene (Surr)			*99 %*	*70-130 %*			*"*					
LCS (7100942-BS2)					Prepared: 10/19/17 12:00 Analyzed: 10/20/17 09:40							
5035A/8260C SIM												
1,2-Dibromoethane (EDB)	0.0201	---	0.00200	mg/kg wet	100	0.0200	---	100	80-120%	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 97 %*	*Limits: 70-130 %*			*Dilution: 1x*					
Toluene-d8 (Surr)			*103 %*	*70-130 %*			*"*					
4-Bromofluorobenzene (Surr)			*105 %*	*70-130 %*			*"*					

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HydroCon LLC	Project: **JH Kelly**	
510 Allen St. Suite B	Project Number: [none]	**Reported:**
Kelso, WA 98626	Project Manager: Dave Borys	10/23/17 13:41

QUALITY CONTROL (QC) SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7100749 - Total Solids (Dry Weight)												**Soil**
Duplicate (7100749-DUP6)						Prepared: 10/13/17 12:32		Analyzed: 10/16/17 08:09				
QC Source Sample: HC05-10 (A7J0399-05)												
EPA 8000C												
% Solids	**84.3**	---	1.00	% by Weight	1	---	84.7	---	---	0.4	10%	

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HydroCon LLC	Project: **JH Kelly**	
510 Allen St. Suite B	Project Number: [none]	**Reported:**
Kelso, WA 98626	Project Manager: Dave Borys	10/23/17 13:41

SAMPLE PREPARATION INFORMATION

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Prep: EPA 3546 (Fuels)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 7100733							
A7J0399-01	Soil	NWTPH-Dx	10/11/17 09:05	10/13/17 13:25	10.29g/5mL	10g/5mL	0.97
A7J0399-02	Soil	NWTPH-Dx	10/11/17 09:25	10/13/17 13:25	10.91g/5mL	10g/5mL	0.92
A7J0399-03	Soil	NWTPH-Dx	10/11/17 09:55	10/13/17 13:25	10.93g/5mL	10g/5mL	0.92
A7J0399-04	Soil	NWTPH-Dx	10/11/17 10:40	10/13/17 13:25	10.4g/5mL	10g/5mL	0.96
A7J0399-05	Soil	NWTPH-Dx	10/11/17 10:55	10/13/17 13:25	10.42g/5mL	10g/5mL	0.96

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

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 7100726							
A7J0399-01	Soil	NWTPH-Gx (MS)	10/11/17 09:05	10/11/17 09:05	5.98g/5mL	5g/5mL	0.84
A7J0399-02	Soil	NWTPH-Gx (MS)	10/11/17 09:25	10/11/17 09:25	6.37g/5mL	5g/5mL	0.79
A7J0399-03	Soil	NWTPH-Gx (MS)	10/11/17 09:55	10/11/17 09:55	6.61g/5mL	5g/5mL	0.76
A7J0399-04	Soil	NWTPH-Gx (MS)	10/11/17 10:40	10/11/17 10:40	6.21g/5mL	5g/5mL	0.81
A7J0399-05	Soil	NWTPH-Gx (MS)	10/11/17 10:55	10/11/17 10:55	5.67g/5mL	5g/5mL	0.88

BTEX Compounds by EPA 8260C

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 7100726							
A7J0399-01	Soil	5035A/8260C	10/11/17 09:05	10/11/17 09:05	5.98g/5mL	5g/5mL	0.84
A7J0399-02	Soil	5035A/8260C	10/11/17 09:25	10/11/17 09:25	6.37g/5mL	5g/5mL	0.79
A7J0399-03	Soil	5035A/8260C	10/11/17 09:55	10/11/17 09:55	6.61g/5mL	5g/5mL	0.76
A7J0399-04	Soil	5035A/8260C	10/11/17 10:40	10/11/17 10:40	6.21g/5mL	5g/5mL	0.81
A7J0399-05	Soil	5035A/8260C	10/11/17 10:55	10/11/17 10:55	5.67g/5mL	5g/5mL	0.88

Select Volatile Organic Compounds by EPA 5035A/8260C

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 7100726							
A7J0399-01	Soil	5035A/8260C	10/11/17 09:05	10/11/17 09:05	5.98g/5mL	5g/5mL	0.84

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Lisa A Domenighini

Lisa Domenighini, Client Services Manager

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HydroCon LLC	Project: **JH Kelly**	
510 Allen St. Suite B	Project Number: [none]	**Reported:**
Kelso, WA 98626	Project Manager: Dave Borys	10/23/17 13:41

SAMPLE PREPARATION INFORMATION

1,2-Dibromoethane (EDB) by EPA 8260C SIM

Prep: EPA 5035A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 7100942							
A7J0399-01	Soil	5035A/8260C SIM	10/11/17 09:05	10/11/17 09:05	5.98g/5mL	5g/5mL	0.84

Percent Dry Weight

Prep: Total Solids (Dry Weight)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 7100749							
A7J0399-01	Soil	EPA 8000C	10/11/17 09:05	10/13/17 12:32	1N/A/1N/A	1N/A/1N/A	NA
A7J0399-02	Soil	EPA 8000C	10/11/17 09:25	10/13/17 12:32	1N/A/1N/A	1N/A/1N/A	NA
A7J0399-03	Soil	EPA 8000C	10/11/17 09:55	10/13/17 12:32	1N/A/1N/A	1N/A/1N/A	NA
A7J0399-04	Soil	EPA 8000C	10/11/17 10:40	10/13/17 12:32	1N/A/1N/A	1N/A/1N/A	NA
A7J0399-05	Soil	EPA 8000C	10/11/17 10:55	10/13/17 12:32	1N/A/1N/A	1N/A/1N/A	NA

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HydroCon LLC	Project: **JH Kelly**	
510 Allen St. Suite B	Project Number: [none]	**Reported:**
Kelso, WA 98626	Project Manager: Dave Borys	10/23/17 13:41

Notes and Definitions

Qualifiers:

S-05	Surrogate recovery is estimated due to sample dilution required for high analyte concentration and/or matrix interference.

Notes and Conventions:

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

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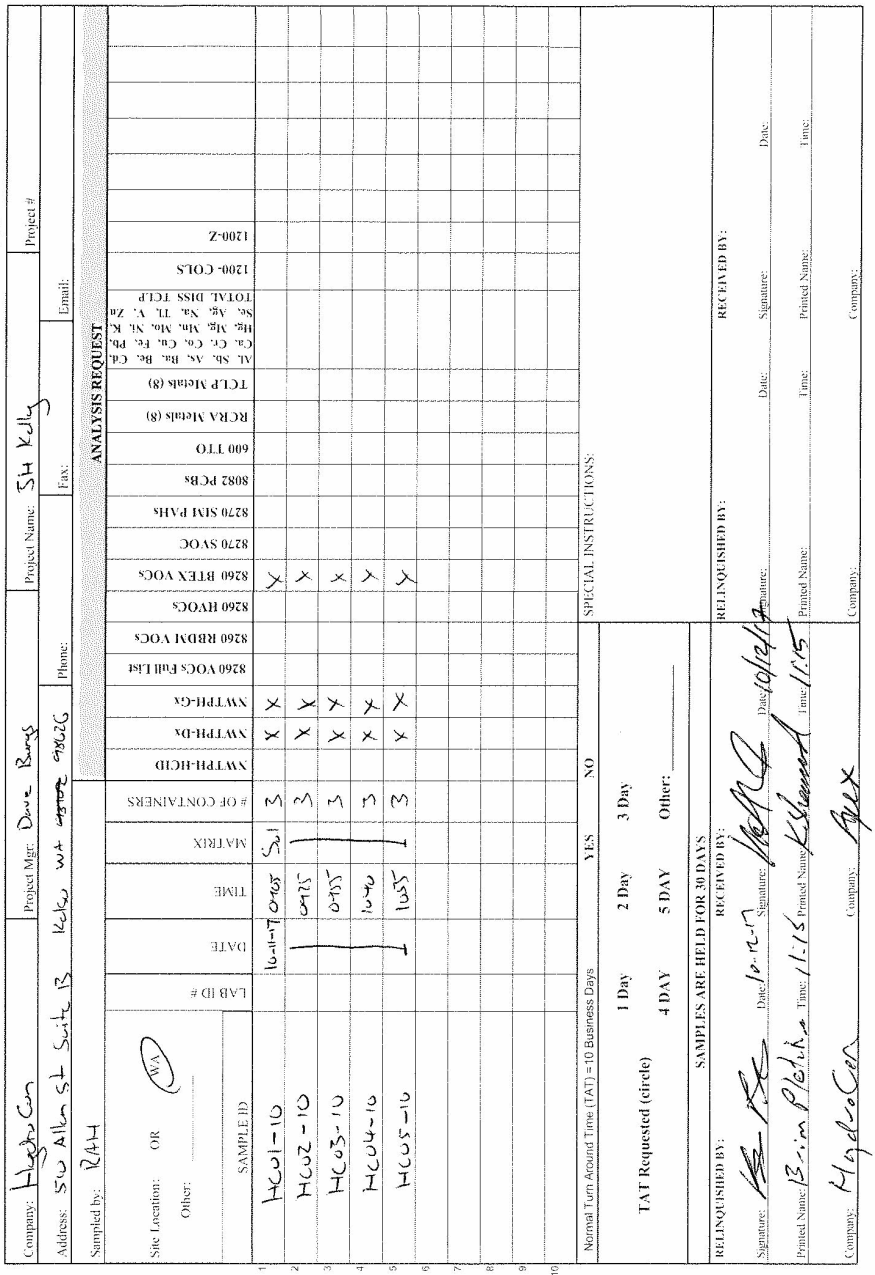
HydroCon LLC	Project: **JH Kelly**	
510 Allen St. Suite B	Project Number: [none]	**Reported:**
Kelso, WA 98626	Project Manager: Dave Borys	10/23/17 13:41



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

CHAIN OF CUSTODY

Lab # A7J0390

COC 1 of 1

PO#

Company: HydroCon | Project Mgr: Dave Borys | Project Name: JH Kelly | Project #

Address: 510 Allen St Suite B Kelso WA 98626 | Phone: | Fax: | Email:

Sampled by: RAH

ANALYSIS REQUEST

Site Location: OR WA
Other:

	SAMPLE ID	LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 VOCs Full List	8260 RBDM VOCs	8260 HVOCs	8260 BTEX VOCs	8270 SVOC	8270 SIM PAHs	8082 PCBs	600 TTO	RCRA Metals (8)	TCLP Metals (8)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS TCLP	1200- COLS	1200-Z
1	HC01-10		10-11-17	0945	Soil	3		X	X				X									
2	HC02-10			0925		3		X	X				X									
3	HC03-10			0955		3		X	X				X									
4	HC04-10			1030		3		X	X				X									
5	HC05-10			1035		3		X	X				X									
6																						
7																						
8																						
9																						
10																						

Normal Turn Around Time (TAT) = 10 Business Days — YES / NO

SPECIAL INSTRUCTIONS:

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

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY: RECEIVED BY:
Signature: Date: 10-12-17 Signature: Date: 10/12/17
Printed Name: Brian Plotkin Time: 1715 Printed Name: Time: 1715
Company: HydroCon Company: Apex

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

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HydroCon LLC	Project: **JH Kelly**	
510 Allen St. Suite B	Project Number: [none]	**Reported:**
Kelso, WA 98626	Project Manager: Dave Borys	10/23/17 13:41

APEX LABS COOLER RECEIPT FORM

Client: HydroCon Element WO#: A7 J0399

Project/Project #: JH Kelly

Delivery info:

Date/Time Received: 10/12/17 @ 11:15 By: MS

Delivered by: Apex ___ Client X ESS ___ FedEx ___ UPS ___ Swift ___ Senvoy ___ SDS ___ Other ___

Cooler Inspection Inspected by: MS : 10/12/17 @ 11:16

Chain of Custody Included? Yes X No ___ Custody Seals? Yes ___ No X

Signed/Dated by Client? Yes X No ___

Signed/Dated by Apex? Yes X No ___

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (deg. C)	1.6						
Received on Ice? (Y/N)							
Temp. Blanks? (Y/N)							
Ice Type: (Gel/Real/Other)							
Condition:	Good						

Cooler out of temp? (Y/N) Possible reason why: ___

If some coolers are in temp and some out, were green dot applied to out of temperature samples? Yes/No/NA

Samples Inspection: Inspected by: AKK : 10/12/17 @ 2410

All Samples Intact? Yes X No ___ Comments: ___

Bottle Labels/COCs agree? Yes ___ No X Comments: Trip Blank #1651 provided not on COC no info on Cont.

Containers/Volumes Received Appropriate for Analysis? Yes X No ___ Comments:

Do VOA Vials have Visible Headspace? Yes ___ No ___ NA X

Comments ___

Water Samples: pH Checked and Appropriate (except VOAs): Yes ___ No ___ NA X

Comments: ___

Additional Information: ___

Labeled by: AKK Witness: MS Cooler Inspected by: AKK See Project Contact Form: (Y)

Apex Labs

AMENDED REPORT

12232 S.W. Garden Place
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503-718-2323 Phone
503-718-0333 Fax

Tuesday, November 7, 2017

Dave Borys
HydroCon LLC
510 Allen St. Suite B
Kelso, WA 98626

RE: JH Kelly / [none]

Enclosed are the results of analyses for work order A7J0429, which was received by the laboratory on 10/13/2017 at 3:42:00PM.

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

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

Apex Laboratories

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Lisa A Domenighini

Lisa Domenighini, Client Services Manager

Apex Labs

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AMENDED REPORT

HydroCon LLC	Project: **JH Kelly**	
510 Allen St. Suite B	Project Number: [none]	**Reported:**
Kelso, WA 98626	Project Manager: Dave Borys	11/07/17 16:46

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
HC01	A7J0429-01	Water	10/11/17 09:15	10/13/17 15:42
HC02	A7J0429-02	Water	10/11/17 09:40	10/13/17 15:42
HC03	A7J0429-03	Water	10/11/17 10:45	10/13/17 15:42
HC04	A7J0429-04	Water	10/11/17 11:05	10/13/17 15:42
HC05	A7J0429-05	Water	10/11/17 11:20	10/13/17 15:42

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AMENDED REPORT

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HydroCon LLC	Project: **JH Kelly**	
510 Allen St. Suite B	Project Number: [none]	**Reported:**
Kelso, WA 98626	Project Manager: Dave Borys	11/07/17 16:46

ANALYTICAL CASE NARRATIVE

Work Order: A7J0429

Amended Report Revison 2

Additional Data-

At the request of the client, MTBE by EPA Method was added to the samples included in this report.

Lisa Domenighini
Client Services Manager
11/7/17

Amended Report Revision 1:

Additional Analysis-

This report supersedes all previous reports.

The final report has been amended to include additional lead (Pb) by EPA method 6020.

Lisa Domenighini
Client Services Manager
11/2/17

Apex Labs

AMENDED REPORT

12232 S.W. Garden Place
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HydroCon LLC	Project: **JH Kelly**	
510 Allen St. Suite B	Project Number: [none]	**Reported:**
Kelso, WA 98626	Project Manager: Dave Borys	11/07/17 16:46

ANALYTICAL SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
HC01 (A7J0429-01)			**Matrix: Water**		**Batch: 7100788**			
Diesel	**583**	---	75.5	ug/L	1	10/16/17 23:08	NWTPH-Dx	F-13
Oil	ND	---	151	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 92 %*	*Limits: 50-150 %*	"	"	"	
HC02 (A7J0429-02)			**Matrix: Water**		**Batch: 7100788**			
Diesel	ND	---	74.8	ug/L	1	10/16/17 23:28	NWTPH-Dx	
Oil	ND	---	150	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 83 %*	*Limits: 50-150 %*	"	"	"	
HC03 (A7J0429-03)			**Matrix: Water**		**Batch: 7100788**			
Diesel	**636**	---	75.5	ug/L	1	10/16/17 23:50	NWTPH-Dx	F-11
Oil	ND	---	151	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 60 %*	*Limits: 50-150 %*	"	"	"	
HC04 (A7J0429-04)			**Matrix: Water**		**Batch: 7100788**			
Diesel	**1370**	---	75.5	ug/L	1	10/17/17 01:35	NWTPH-Dx	F-13
Oil	ND	---	151	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 85 %*	*Limits: 50-150 %*	"	"	"	
HC05 (A7J0429-05)			**Matrix: Water**		**Batch: 7100788**			
Diesel	ND	---	75.5	ug/L	1	10/17/17 01:56	NWTPH-Dx	F-13
Oil	**222**	---	151	"	"	"	"	
Surrogate: o-Terphenyl (Surr)			*Recovery: 87 %*	*Limits: 50-150 %*	"	"	"	

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HydroCon LLC	Project: **JH Kelly**	
510 Allen St. Suite B	Project Number: [none]	**Reported:**
Kelso, WA 98626	Project Manager: Dave Borys	11/07/17 16:46

ANALYTICAL SAMPLE RESULTS

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

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
HC01 (A7J0429-01)			**Matrix: Water**		**Batch: 7100769**			
Gasoline Range Organics	ND	---	100	ug/L	1	10/16/17 17:03	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 95 %*	*Limits: 50-150 %*	"	"	"	
1,4-Difluorobenzene (Sur)			*102 %*	*Limits: 50-150 %*	"	"	"	
HC02 (A7J0429-02)			**Matrix: Water**		**Batch: 7100769**			
Gasoline Range Organics	ND	---	100	ug/L	1	10/16/17 17:31	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 97 %*	*Limits: 50-150 %*	"	"	"	
1,4-Difluorobenzene (Sur)			*102 %*	*Limits: 50-150 %*	"	"	"	
HC03 (A7J0429-03)			**Matrix: Water**		**Batch: 7100769**			
Gasoline Range Organics	ND	---	100	ug/L	1	10/16/17 17:58	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 98 %*	*Limits: 50-150 %*	"	"	"	
1,4-Difluorobenzene (Sur)			*103 %*	*Limits: 50-150 %*	"	"	"	
HC04 (A7J0429-04)			**Matrix: Water**		**Batch: 7100769**			
Gasoline Range Organics	ND	---	100	ug/L	1	10/16/17 18:25	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 97 %*	*Limits: 50-150 %*	"	"	"	
1,4-Difluorobenzene (Sur)			*103 %*	*Limits: 50-150 %*	"	"	"	
HC05 (A7J0429-05)			**Matrix: Water**		**Batch: 7100769**			
Gasoline Range Organics	ND	---	100	ug/L	1	10/16/17 18:52	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 100 %*	*Limits: 50-150 %*	"	"	"	
1,4-Difluorobenzene (Sur)			*102 %*	*Limits: 50-150 %*	"	"	"	

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Lisa Domenighini, Client Services Manager

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AMENDED REPORT

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503-718-0333 Fax

HydroCon LLC	Project: **JH Kelly**	
510 Allen St. Suite B	Project Number: [none]	**Reported:**
Kelso, WA 98626	Project Manager: Dave Borys	11/07/17 16:46

ANALYTICAL SAMPLE RESULTS

BTEX Compounds by EPA 8260C

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
HC01 (A7J0429-01)			**Matrix: Water**		**Batch: 7100769**			
Benzene	ND	---	0.200	ug/L	1	10/16/17 17:03	EPA 8260C	
Ethylbenzene	ND	---	0.500	"	"	"	"	
Toluene	ND	---	1.00	"	"	"	"	
Xylenes, total	ND	---	1.50	"	"	"	"	
Surrogate: 1,4-Difluorobenzene (Surr)			*Recovery: 102 %*	*Limits: 80-120 %*	"	"	"	
Toluene-d8 (Surr)			*97 %*	*Limits: 80-120 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*98 %*	*Limits: 80-120 %*	"	"	"	
HC02 (A7J0429-02)			**Matrix: Water**		**Batch: 7100769**			
Benzene	ND	---	0.200	ug/L	1	10/16/17 17:31	EPA 8260C	
Ethylbenzene	ND	---	0.500	"	"	"	"	
Toluene	ND	---	1.00	"	"	"	"	
Xylenes, total	ND	---	1.50	"	"	"	"	
Surrogate: 1,4-Difluorobenzene (Surr)			*Recovery: 102 %*	*Limits: 80-120 %*	"	"	"	
Toluene-d8 (Surr)			*97 %*	*Limits: 80-120 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*95 %*	*Limits: 80-120 %*	"	"	"	
HC03 (A7J0429-03)			**Matrix: Water**		**Batch: 7100769**			
Benzene	ND	---	0.200	ug/L	1	10/16/17 17:58	EPA 8260C	
Ethylbenzene	ND	---	0.500	"	"	"	"	
Toluene	**1.56**	---	1.00	"	"	"	"	
Xylenes, total	ND	---	1.50	"	"	"	"	
Surrogate: 1,4-Difluorobenzene (Surr)			*Recovery: 103 %*	*Limits: 80-120 %*	"	"	"	
Toluene-d8 (Surr)			*97 %*	*Limits: 80-120 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*96 %*	*Limits: 80-120 %*	"	"	"	
HC04 (A7J0429-04)			**Matrix: Water**		**Batch: 7100769**			
Benzene	ND	---	0.200	ug/L	1	10/16/17 18:25	EPA 8260C	
Ethylbenzene	ND	---	0.500	"	"	"	"	
Toluene	ND	---	1.00	"	"	"	"	
Xylenes, total	ND	---	1.50	"	"	"	"	
Surrogate: 1,4-Difluorobenzene (Surr)			*Recovery: 104 %*	*Limits: 80-120 %*	"	"	"	
Toluene-d8 (Surr)			*96 %*	*Limits: 80-120 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*96 %*	*Limits: 80-120 %*	"	"	"	
HC05 (A7J0429-05)			**Matrix: Water**		**Batch: 7100769**			
Benzene	ND	---	0.200	ug/L	1	10/16/17 18:52	EPA 8260C	

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AMENDED REPORT

12232 S.W. Garden Place
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HydroCon LLC	Project: **JH Kelly**	
510 Allen St. Suite B	Project Number: [none]	**Reported:**
Kelso, WA 98626	Project Manager: Dave Borys	11/07/17 16:46

ANALYTICAL SAMPLE RESULTS

BTEX Compounds by EPA 8260C

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
HC05 (A7J0429-05)			**Matrix: Water**		**Batch: 7100769**			
Ethylbenzene	ND	---	0.500	ug/L	1	"	EPA 8260C	
Toluene	ND	---	1.00	"	"	"	"	
Xylenes, total	ND	---	1.50	"	"	"	"	
Surrogate: 1,4-Difluorobenzene (Surr)			*Recovery: 102 %*	*Limits: 80-120 %*	"	"	"	
Toluene-d8 (Surr)			*96 %*	*Limits: 80-120 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*97 %*	*Limits: 80-120 %*	"	"	"	

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HydroCon LLC	Project: **JH Kelly**	
510 Allen St. Suite B	Project Number: [none]	**Reported:**
Kelso, WA 98626	Project Manager: Dave Borys	11/07/17 16:46

ANALYTICAL SAMPLE RESULTS

Select Volatile Organic Compounds by EPA 8260C

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
HC01 (A7J0429-01)			**Matrix: Water**		**Batch: 7100769**			
Methyl tert-butyl ether (MTBE)	**8.68**	---	1.00	ug/L	1	10/16/17 17:03	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)			*Recovery: 102 %*	*Limits: 80-120 %*	"	"	"	
Toluene-d8 (Surr)			*97 %*	*Limits: 80-120 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*98 %*	*Limits: 80-120 %*	"	"	"	
HC02 (A7J0429-02)			**Matrix: Water**		**Batch: 7100769**			
Methyl tert-butyl ether (MTBE)	**2.06**	---	1.00	ug/L	1	10/16/17 17:31	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)			*Recovery: 102 %*	*Limits: 80-120 %*	"	"	"	
Toluene-d8 (Surr)			*97 %*	*Limits: 80-120 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*95 %*	*Limits: 80-120 %*	"	"	"	
HC03 (A7J0429-03)			**Matrix: Water**		**Batch: 7100769**			
Methyl tert-butyl ether (MTBE)	**6.55**	---	1.00	ug/L	1	10/16/17 17:58	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)			*Recovery: 103 %*	*Limits: 80-120 %*	"	"	"	
Toluene-d8 (Surr)			*97 %*	*Limits: 80-120 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*96 %*	*Limits: 80-120 %*	"	"	"	
HC04 (A7J0429-04)			**Matrix: Water**		**Batch: 7100769**			
1,2-Dichloroethane (EDC)	ND	---	0.500	ug/L	1	10/16/17 18:25	EPA 8260C	
Methyl tert-butyl ether (MTBE)	**35.5**	---	1.00	"	"	"	"	
Surrogate: 1,4-Difluorobenzene (Surr)			*Recovery: 104 %*	*Limits: 80-120 %*	"	"	"	
Toluene-d8 (Surr)			*96 %*	*Limits: 80-120 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*96 %*	*Limits: 80-120 %*	"	"	"	
HC05 (A7J0429-05)			**Matrix: Water**		**Batch: 7100769**			
Methyl tert-butyl ether (MTBE)	**1.43**	---	1.00	ug/L	1	10/16/17 18:52	EPA 8260C	
Surrogate: 1,4-Difluorobenzene (Surr)			*Recovery: 102 %*	*Limits: 80-120 %*	"	"	"	
Toluene-d8 (Surr)			*96 %*	*Limits: 80-120 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*97 %*	*Limits: 80-120 %*	"	"	"	

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HydroCon LLC	Project: **JH Kelly**	
510 Allen St. Suite B	Project Number: [none]	**Reported:**
Kelso, WA 98626	Project Manager: Dave Borys	11/07/17 16:46

ANALYTICAL SAMPLE RESULTS

1,2-Dibromoethane (EDB) by EPA 8260C SIM

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
HC04 (A7J0429-04)			**Matrix: Water**		**Batch: 7101134**			
1,2-Dibromoethane (EDB)	ND	---	0.0200	ug/L	1	10/25/17 11:51	EPA 8260C SIM	
Surrogate: 1,4-Difluorobenzene (Surr)			*Recovery: 88 %*	*Limits: 70-130 %*	"	"	"	
Toluene-d8 (Surr)			*102 %*	*Limits: 70-130 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*102 %*	*Limits: 70-130 %*	"	"	"	

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510 Allen St. Suite B	Project Number: [none]	**Reported:**
Kelso, WA 98626	Project Manager: Dave Borys	11/07/17 16:46

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
HC04 (A7J0429-04)			**Matrix: Water**					
Batch: 7101349								
Lead	**7.78**	---	1.00	ug/L	5	11/01/17 22:41	EPA 6020A	

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510 Allen St. Suite B	Project Number: [none]	**Reported:**
Kelso, WA 98626	Project Manager: Dave Borys	11/07/17 16:46

QUALITY CONTROL (QC) SAMPLE RESULTS

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7100788 - EPA 3510C (Fuels/Acid Ext.)									**Water**			
Blank (7100788-BLK1)					Prepared: 10/16/17 11:53 Analyzed: 10/16/17 21:01							
NWTPH-Dx												
Diesel	ND	---	72.7	ug/L	1	---	---	---	---	---	---	
Oil	ND	---	145	"	"	---	---	---	---	---	---	
Surr: o-Terphenyl (Surr)			*Recovery: 97 %*	*Limits: 50-150 %*			*Dilution: 1x*					
LCS (7100788-BS1)					Prepared: 10/16/17 11:53 Analyzed: 10/16/17 21:22							
NWTPH-Dx												
Diesel	409	---	80.0	ug/L	1	500	---	82	52-120%	---	---	
Surr: o-Terphenyl (Surr)			*Recovery: 99 %*	*Limits: 50-150 %*			*Dilution: 1x*					
LCS Dup (7100788-BSD1)					Prepared: 10/16/17 11:53 Analyzed: 10/16/17 21:43							Q-19
NWTPH-Dx												
Diesel	400	---	80.0	ug/L	1	500	---	80	52-120%	2	20%	
Surr: o-Terphenyl (Surr)			*Recovery: 96 %*	*Limits: 50-150 %*			*Dilution: 1x*					

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HydroCon LLC	Project: **JH Kelly**	
510 Allen St. Suite B	Project Number: [none]	**Reported:**
Kelso, WA 98626	Project Manager: Dave Borys	11/07/17 16:46

QUALITY CONTROL (QC) SAMPLE RESULTS

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

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7100769 - EPA 5030B									**Water**			
Blank (7100769-BLK1)					Prepared: 10/16/17 09:24 Analyzed: 10/16/17 10:44							
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	---	100	ug/L	1	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 92 %*	*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*101 %*	*50-150 %*			*"*					
LCS (7100769-BS2)					Prepared: 10/16/17 09:24 Analyzed: 10/16/17 10:18							
NWTPH-Gx (MS)												
Gasoline Range Organics	441	---	100	ug/L	1	500	---	88	80-120%	---	---	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 98 %*	*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*102 %*	*50-150 %*			*"*					
Duplicate (7100769-DUP2)					Prepared: 10/16/17 10:44 Analyzed: 10/16/17 19:19							
QC Source Sample: HC05 (A7J0429-05)												
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	---	100	ug/L	1	---	ND	---	---	---	30%	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 96 %*	*Limits: 50-150 %*			*Dilution: 1x*					
1,4-Difluorobenzene (Sur)			*103 %*	*50-150 %*			*"*					

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HydroCon LLC	Project: **JH Kelly**	
510 Allen St. Suite B	Project Number: [none]	**Reported:**
Kelso, WA 98626	Project Manager: Dave Borys	11/07/17 16:46

QUALITY CONTROL (QC) SAMPLE RESULTS

BTEX Compounds by EPA 8260C

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7100769 - EPA 5030B									**Water**			
Blank (7100769-BLK1)					Prepared: 10/16/17 09:24 Analyzed: 10/16/17 10:44							
EPA 8260C												
Benzene	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Ethylbenzene	ND	---	0.500	"	"	---	---	---	---	---	---	
Toluene	ND	---	1.00	"	"	---	---	---	---	---	---	
Xylenes, total	ND	---	1.50	"	"	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 101 %*		*Limits: 80-120 %*				*Dilution: 1x*			
Toluene-d8 (Surr)			*99 %*		*80-120 %*				*"*			
4-Bromofluorobenzene (Surr)			*96 %*		*80-120 %*				*"*			
LCS (7100769-BS1)					Prepared: 10/16/17 09:24 Analyzed: 10/16/17 09:51							
EPA 8260C												
Benzene	21.3	---	0.200	ug/L	1	20.0	---	107	80-120%	---	---	
Ethylbenzene	20.6	---	0.500	"	"	"	---	103	"	---	---	
Toluene	20.6	---	1.00	"	"	"	---	103	"	---	---	
Xylenes, total	62.5	---	1.50	"	"	60.0	---	104	"	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 101 %*		*Limits: 80-120 %*				*Dilution: 1x*			
Toluene-d8 (Surr)			*99 %*		*80-120 %*				*"*			
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*				*"*			
Duplicate (7100769-DUP2)					Prepared: 10/16/17 10:44 Analyzed: 10/16/17 19:19							
QC Source Sample: HC05 (A7J0429-05)												
EPA 8260C												
Benzene	ND	---	0.200	ug/L	1	---	ND	---	---	---	30%	
Ethylbenzene	ND	---	0.500	"	"	---	ND	---	---	---	30%	
Toluene	ND	---	1.00	"	"	---	0.520	---	---	27	30%	
Xylenes, total	ND	---	1.50	"	"	---	ND	---	---	---	30%	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 103 %*		*Limits: 80-120 %*				*Dilution: 1x*			
Toluene-d8 (Surr)			*99 %*		*80-120 %*				*"*			
4-Bromofluorobenzene (Surr)			*97 %*		*80-120 %*				*"*			

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AMENDED REPORT

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HydroCon LLC	Project: **JH Kelly**	
510 Allen St. Suite B	Project Number: [none]	**Reported:**
Kelso, WA 98626	Project Manager: Dave Borys	11/07/17 16:46

QUALITY CONTROL (QC) SAMPLE RESULTS

Select Volatile Organic Compounds by EPA 8260C

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7100769 - EPA 5030B									**Water**			
Blank (7100769-BLK1)					Prepared: 10/16/17 09:24 Analyzed: 10/16/17 10:44							
EPA 8260C												
1,2-Dichloroethane (EDC)	ND	---	0.500	ug/L	1	---	---	---	---	---	---	
Methyl tert-butyl ether (MTBE)	ND	---	1.00	"	"	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 101 %*		*Limits: 80-120 %*		*Dilution: 1x*					
Toluene-d8 (Surr)			*99 %*		*80-120 %*		*"*					
4-Bromofluorobenzene (Surr)			*96 %*		*80-120 %*		*"*					
LCS (7100769-BS1)					Prepared: 10/16/17 09:24 Analyzed: 10/16/17 09:51							
EPA 8260C												
1,2-Dichloroethane (EDC)	20.2	---	0.500	ug/L	1	20.0	---	101	80-120%	---	---	
Methyl tert-butyl ether (MTBE)	19.3	---	1.00	"	"	"	---	96	"	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 101 %*		*Limits: 80-120 %*		*Dilution: 1x*					
Toluene-d8 (Surr)			*99 %*		*80-120 %*		*"*					
4-Bromofluorobenzene (Surr)			*99 %*		*80-120 %*		*"*					
Duplicate (7100769-DUP2)					Prepared: 10/16/17 10:44 Analyzed: 10/16/17 19:19							
QC Source Sample: HC05 (A7J0429-05)												
EPA 8260C												
1,2-Dichloroethane (EDC)	ND	---	0.500	ug/L	1	---	ND	---	---	---	30%	
Methyl tert-butyl ether (MTBE)	**1.43**	---	1.00	"	"	---	1.43	---	---	0	30%	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 103 %*		*Limits: 80-120 %*		*Dilution: 1x*					
Toluene-d8 (Surr)			*99 %*		*80-120 %*		*"*					
4-Bromofluorobenzene (Surr)			*97 %*		*80-120 %*		*"*					

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HydroCon LLC	Project: **JH Kelly**	
510 Allen St. Suite B	Project Number: [none]	**Reported:**
Kelso, WA 98626	Project Manager: Dave Borys	11/07/17 16:46

QUALITY CONTROL (QC) SAMPLE RESULTS

1,2-Dibromoethane (EDB) by EPA 8260C SIM

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7101134 - EPA 5030B									**Water**			
Blank (7101134-BLK1)					Prepared: 10/25/17 09:00 Analyzed: 10/25/17 10:31							
EPA 8260C SIM												
1,2-Dibromoethane (EDB)	ND	---	0.0200	ug/L	1	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 96 %*		*Limits: 70-130 %*				*Dilution: 1x*			
Toluene-d8 (Surr)			*99 %*		*70-130 %*				*"*			
4-Bromofluorobenzene (Surr)			*105 %*		*70-130 %*				*"*			
LCS (7101134-BS1)					Prepared: 10/25/17 09:00 Analyzed: 10/25/17 10:04							
EPA 8260C SIM												
1,2-Dibromoethane (EDB)	0.189	---	0.0200	ug/L	1	0.200	---	95	80-120%	---	---	

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HydroCon LLC	Project: **JH Kelly**	
510 Allen St. Suite B	Project Number: [none]	**Reported:**
Kelso, WA 98626	Project Manager: Dave Borys	11/07/17 16:46

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7101349 - EPA 3015A									Water			
Blank (7101349-BLK1)					Prepared: 10/31/17 12:42 Analyzed: 11/01/17 18:50							
EPA 6020A												
Lead	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
LCS (7101349-BS1)					Prepared: 10/31/17 12:42 Analyzed: 11/01/17 19:14							
EPA 6020A												
Lead	55.5	---	0.200	ug/L	1	55.6	---	100	80-120%	---	---	

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HydroCon LLC	Project: **JH Kelly**	
510 Allen St. Suite B	Project Number: [none]	**Reported:**
Kelso, WA 98626	Project Manager: Dave Borys	11/07/17 16:46

SAMPLE PREPARATION INFORMATION

Diesel and/or Oil Hydrocarbons by NWTPH-Dx

Prep: EPA 3510C (Fuels/Acid Ext.)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 7100788							
A7J0429-01	Water	NWTPH-Dx	10/11/17 09:15	10/16/17 11:53	1060mL/2mL	1000mL/2mL	0.94
A7J0429-02	Water	NWTPH-Dx	10/11/17 09:40	10/16/17 11:53	1070mL/2mL	1000mL/2mL	0.94
A7J0429-03	Water	NWTPH-Dx	10/11/17 10:45	10/16/17 11:53	1060mL/2mL	1000mL/2mL	0.94
A7J0429-04	Water	NWTPH-Dx	10/11/17 11:05	10/16/17 11:53	1060mL/2mL	1000mL/2mL	0.94
A7J0429-05	Water	NWTPH-Dx	10/11/17 11:20	10/16/17 11:53	1060mL/2mL	1000mL/2mL	0.94

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

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 7100769							
A7J0429-01	Water	NWTPH-Gx (MS)	10/11/17 09:15	10/16/17 10:44	5mL/5mL	5mL/5mL	1.00
A7J0429-02	Water	NWTPH-Gx (MS)	10/11/17 09:40	10/16/17 10:44	5mL/5mL	5mL/5mL	1.00
A7J0429-03	Water	NWTPH-Gx (MS)	10/11/17 10:45	10/16/17 10:44	5mL/5mL	5mL/5mL	1.00
A7J0429-04	Water	NWTPH-Gx (MS)	10/11/17 11:05	10/16/17 10:44	5mL/5mL	5mL/5mL	1.00
A7J0429-05	Water	NWTPH-Gx (MS)	10/11/17 11:20	10/16/17 10:44	5mL/5mL	5mL/5mL	1.00

BTEX Compounds by EPA 8260C

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 7100769							
A7J0429-01	Water	EPA 8260C	10/11/17 09:15	10/16/17 10:44	5mL/5mL	5mL/5mL	1.00
A7J0429-02	Water	EPA 8260C	10/11/17 09:40	10/16/17 10:44	5mL/5mL	5mL/5mL	1.00
A7J0429-03	Water	EPA 8260C	10/11/17 10:45	10/16/17 10:44	5mL/5mL	5mL/5mL	1.00
A7J0429-04	Water	EPA 8260C	10/11/17 11:05	10/16/17 10:44	5mL/5mL	5mL/5mL	1.00
A7J0429-05	Water	EPA 8260C	10/11/17 11:20	10/16/17 10:44	5mL/5mL	5mL/5mL	1.00

Select Volatile Organic Compounds by EPA 8260C

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 7100769							
A7J0429-01	Water	EPA 8260C	10/11/17 09:15	10/16/17 10:44	5mL/5mL	5mL/5mL	1.00
A7J0429-02	Water	EPA 8260C	10/11/17 09:40	10/16/17 10:44	5mL/5mL	5mL/5mL	1.00

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Lisa A Domenighini

Lisa Domenighini, Client Services Manager

Apex Labs

AMENDED REPORT

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

HydroCon LLC	Project: **JH Kelly**	
510 Allen St. Suite B	Project Number: [none]	**Reported:**
Kelso, WA 98626	Project Manager: Dave Borys	11/07/17 16:46

SAMPLE PREPARATION INFORMATION

Select Volatile Organic Compounds by EPA 8260C

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A7J0429-03	Water	EPA 8260C	10/11/17 10:45	10/16/17 10:44	5mL/5mL	5mL/5mL	1.00
A7J0429-04	Water	EPA 8260C	10/11/17 11:05	10/16/17 10:44	5mL/5mL	5mL/5mL	1.00
A7J0429-05	Water	EPA 8260C	10/11/17 11:20	10/16/17 10:44	5mL/5mL	5mL/5mL	1.00

1,2-Dibromoethane (EDB) by EPA 8260C SIM

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 7101134							
A7J0429-04	Water	EPA 8260C SIM	10/11/17 11:05	10/25/17 10:27	5mL/5mL	5mL/5mL	1.00

Total Metals by EPA 6020 (ICPMS)

Prep: EPA 3015A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 7101349							
A7J0429-04	Water	EPA 6020A	10/11/17 11:05	10/31/17 12:42	45mL/50mL	45mL/50mL	1.00

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Kelso, WA 98626	Project Manager: Dave Borys	11/07/17 16:46

Notes and Definitions

Qualifiers:

F-11	The hydrocarbon pattern indicates possible weathered diesel, or a contribution from a related component.
F-13	The chromatographic pattern does not resemble the fuel standard used for quantitation
Q-19	Blank Spike Duplicate (BSD) sample analyzed in place of Matrix Spike/Duplicate samples due to limited sample amount available for analysis.

Notes and Conventions:

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

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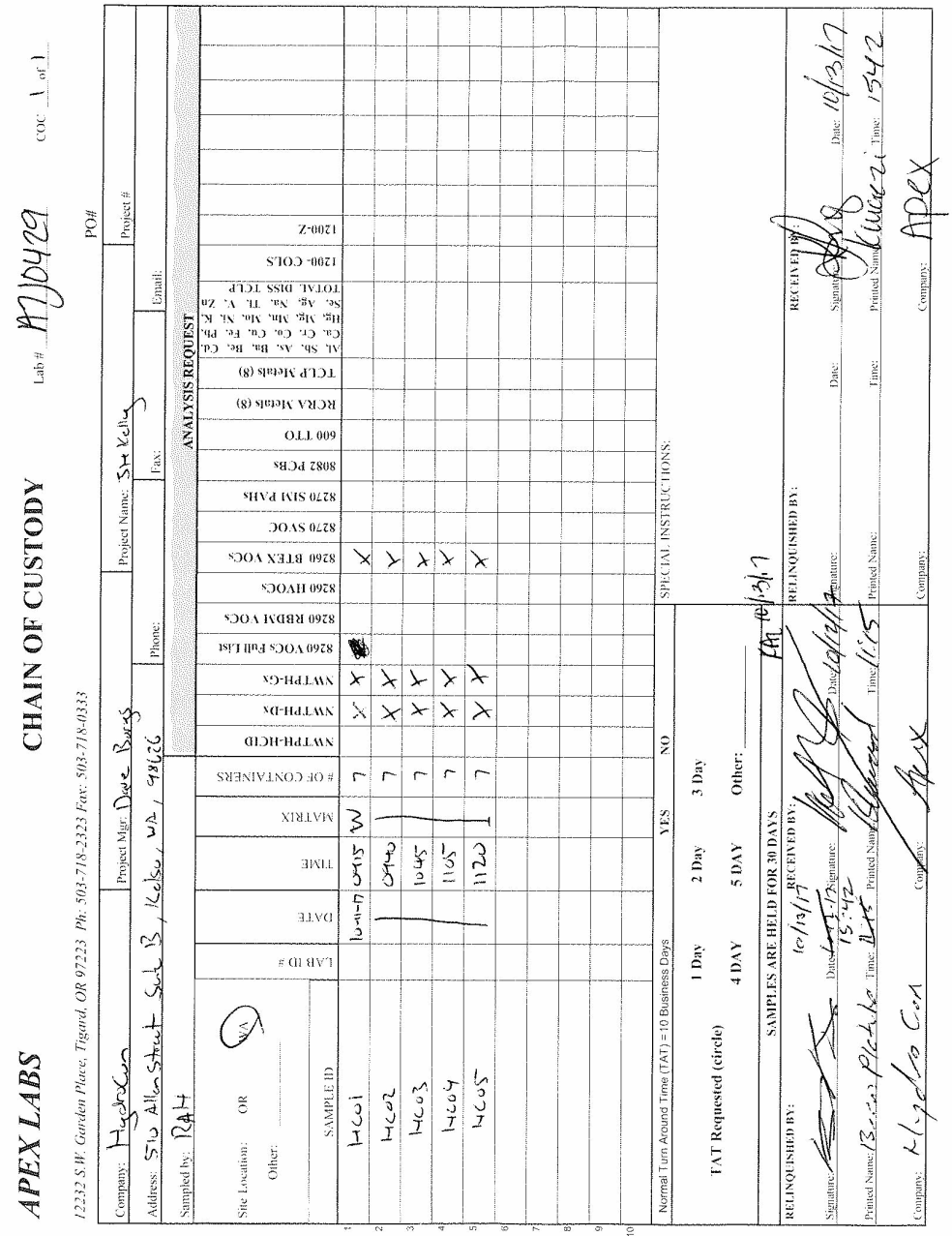
Kelso, WA 98626	Project Manager: Dave Borys	11/07/17 16:46



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HydroCon LLC	Project: **JH Kelly**	
510 Allen St. Suite B	Project Number: [none]	**Reported:**
Kelso, WA 98626	Project Manager: Dave Borys	11/07/17 16:46

APEX LABS COOLER RECEIPT FORM

Client: Hydrocon Element WO#: A7 J0429

Project/Project #: JH Kelly

Delivery info:

Date/Time Received: 10/13/17 @ 1542 By: KAZ

Delivered by: Apex___ Client X ESS___ FedEx___ UPS___ Swift___ Senvoy___ SDS___ Other___

Cooler Inspection Inspected by: KAZ : 10/13/17 @ 1542

Chain of Custody Included? Yes X No___ Custody Seals? Yes___ No X

Signed/Dated by Client? Yes X No___

Signed/Dated by Apex? Yes X No___

	Cooler #1	Cooler #2	Cooler #3	Cooler #4	Cooler #5	Cooler #6	Cooler #7
Temperature (deg. C)	1.8						
Received on Ice? (Y/N)							
Temp. Blanks? (Y/N)							
Ice Type: (Gel/Real/Other)							
Condition:	good						

Cooler out of temp? (Y/N) Possible reason why: good.

If some coolers are in temp and some out, were green dot applied to out of temperature samples? Yes/No/NA

Samples Inspection: Inspected by: KAZ : 10/13/17 @ 1645

All Samples Intact? Yes X No___ Comments:

Bottle Labels/COCs agree? Yes X No___ Comments:

Containers/Volumes Received Appropriate for Analysis? Yes X No___ Comments:

Do VOA Vials have Visible Headspace? Yes X No___ NA___

Comments HC01 1/5 HS

Water Samples: pH Checked and Appropriate (except VOAs): Yes X No___ NA___

Comments: HC03 HC04 HCl Ambers not preserved

Additional Information:

Labeled by: KAZ Witness: S Cooler Inspected by: KAZ See Project Contact Form: Y

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