TECHNICAL MEMORANDUM

To: Mr. Aaron Wilcox
From: Jonathan Horowitz, PE
Date: February 20, 2016
Subject: **Handy Mart** - **Groundwater Monitoring Results**

INTRODUCTION

HydroCon Environmental, LLC (HydroCon) is submitting this technical memorandum to Wilcox & Flegel to document the work completed at 1410 Ocean Beach Highway in Longview, Washington (the site) in February 2016. The work was conducted according to our Master Services Agreement (MSA), dated July 11, 2014.

FIELD ACTIVITIES

On February 2, 2106, HydroCon personnel mobilized to the site to perform the groundwater monitoring. Upon arrival at the site, the well cap on each well was removed and the water level was allowed to equilibrate prior to measuring the depth to water (DTW). The depth to water in each well was measured using a clean electronic water level indicator. Water levels were measured at the scribed reference mark (north end of the top of the PVC casing) at each well. A table detailing the groundwater levels and elevations and a figure indicating the groundwater flow direction are included in the attachments. Depth to water in the wells ranged from 6.12 to 7.52 feet below top of casing. Groundwater elevations were calculated based on an arbitrary measuring point. Based on the measured groundwater elevations, the groundwater flows towards the southwest at an approximate gradient of 0.003 feet/foot. This flow direction is consistent with the previous sampling event.

HydroCon purged monitoring wells MW-1 through MW-3 with a low flow peristaltic pump equipped with new length of LDPE tubing attached to a new length of silicone tubing. Field parameters (pH, temperature and specific conductivity) were measured and recorded on a Groundwater Sample Collection field form along with the depth to water measurements (included in the attachment). Purging was completed when the field parameters had stabilized.

Samples were collected immediately after purging and placed in labeled laboratory-prepared sample bottles. The samples were shipped in an iced cooler along with chain-of-custody documentation to the project laboratory for analysis.

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

- Gasoline Range Organics (GRPH) by Northwest Method NWTPH-Gx; and
- Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX) by EPA Method 8021B.

SAMPLING RESULTS

GRPH was detected at concentrations above the laboratory Method Reporting Limits (MRLs) in one of the samples (from MW-3) submitted; however, the detected concentration was below the applicable MTCA Method A Cleanup Level. Benzene was detected at a concentration of 6.6 micrograms per liter (µg/L) in the sample from MW-1. This concentration exceeds the MTCA Method A Cleanup Level of 5 µg/L. In addition, benzene (MW-2) and toluene (MW-3) were detected above the MRLs in two wells; however the detected concentrations were below the applicable MTCA Method A Cleanup Levels. A summary data table and the laboratory report are included in the attachments.

DISCUSSION

Based on the analytical results, HydroCon recommends the following:

- The next round of monitoring should be conducted during the second quarter of 2016.
- Based on the exceedance of benzene during this sampling event quarterly groundwater monitoring should continue until four consecutive quarters with no detected concentrations exceeding MTCA Method A Cleanup Levels have been achieved.

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 express 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 **Wilcox & Flegel**. 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.

CLOSING

We appreciate the opportunity to perform these services for Groat Brothers, Inc. Please contact the undersigned at (360) 703-6079 if you have any questions regarding the information provided in this letter report.

Sincerely,

Jonathan Horowitz, PE
Project Engineer

Figures
Figure 1 – Site Location Map
Figure 2 – Site Features Map
Figure 3 – Groundwater Analytical Results
Figure 4 – Groundwater Elevations and Contour Map
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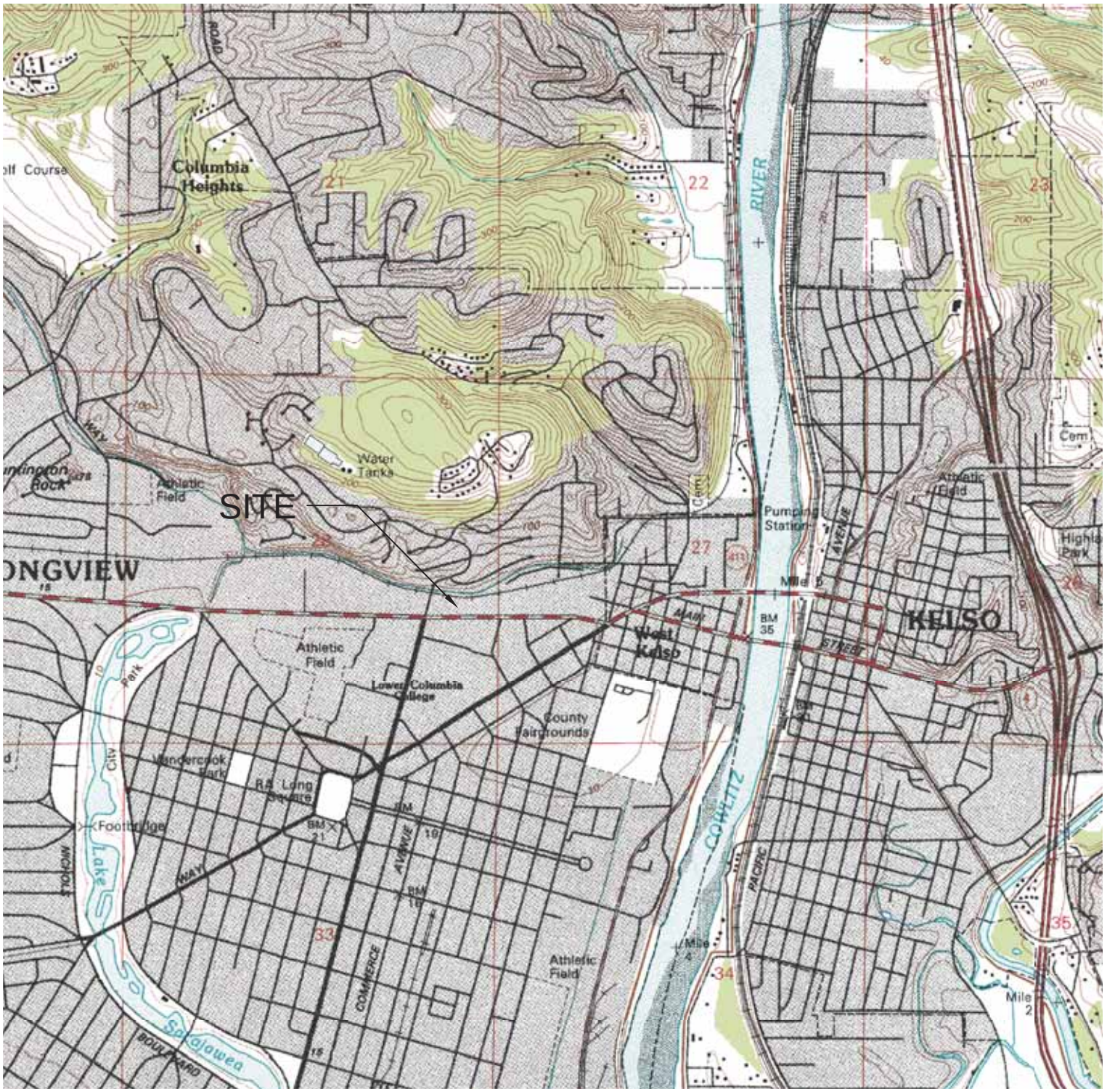
Table 2 – Summary of Current Groundwater Analytical Results
Table 3 – Summary of Historical Groundwater Analytical Results
Attachments
Attachment A - Groundwater Sample Collection Field Forms
Attachment B - Laboratory Report and Chain-of-Custody Documentation



NOTE(S):

1. USGS, KELSO QUADRANGLE
   WASHINGTON
   7.5 MINUTE SERIES (TOPOGRAPHIC)

N
W E
S

0 2000 4000
SCALE IN FEET
1" = 2000'

HydroCon
501 Allen St Suite B, Kelso WA Ph: (360) 706-6079

DATE: 02-17-16
DWN: JH
CHK: JH
APPROVED:
PRJ. MGR: DB
PROJECT NO: 2015-007-1

FIGURE 1
SITE LOCATION
HANDY MART
WILCOX & FLEGEL
1410 OCEAN BEACH HWY
LONGVIEW, WA

LEGEND

- PROPERTY BOUNDARY
- BUILDING
- MW-01 MONITORING WELL

N W E S

0 30 60

SCALE IN FEET
1" = 30'

HydroCon
510 Allen St. Suite B Kelso, WA 98626, Ph (360) 703-6079

DATE: 02-17-16
DWN: JH
CHK: JH
APPROVED:
PRJ. MGR: DB
PROJECT NO: 2015-007-01

FIGURE 2
SITE FEATURES
HANDY MART
WILCOX & FLEGEL
1410 OCEAN BEACH HWY
LONGVIEW, WA

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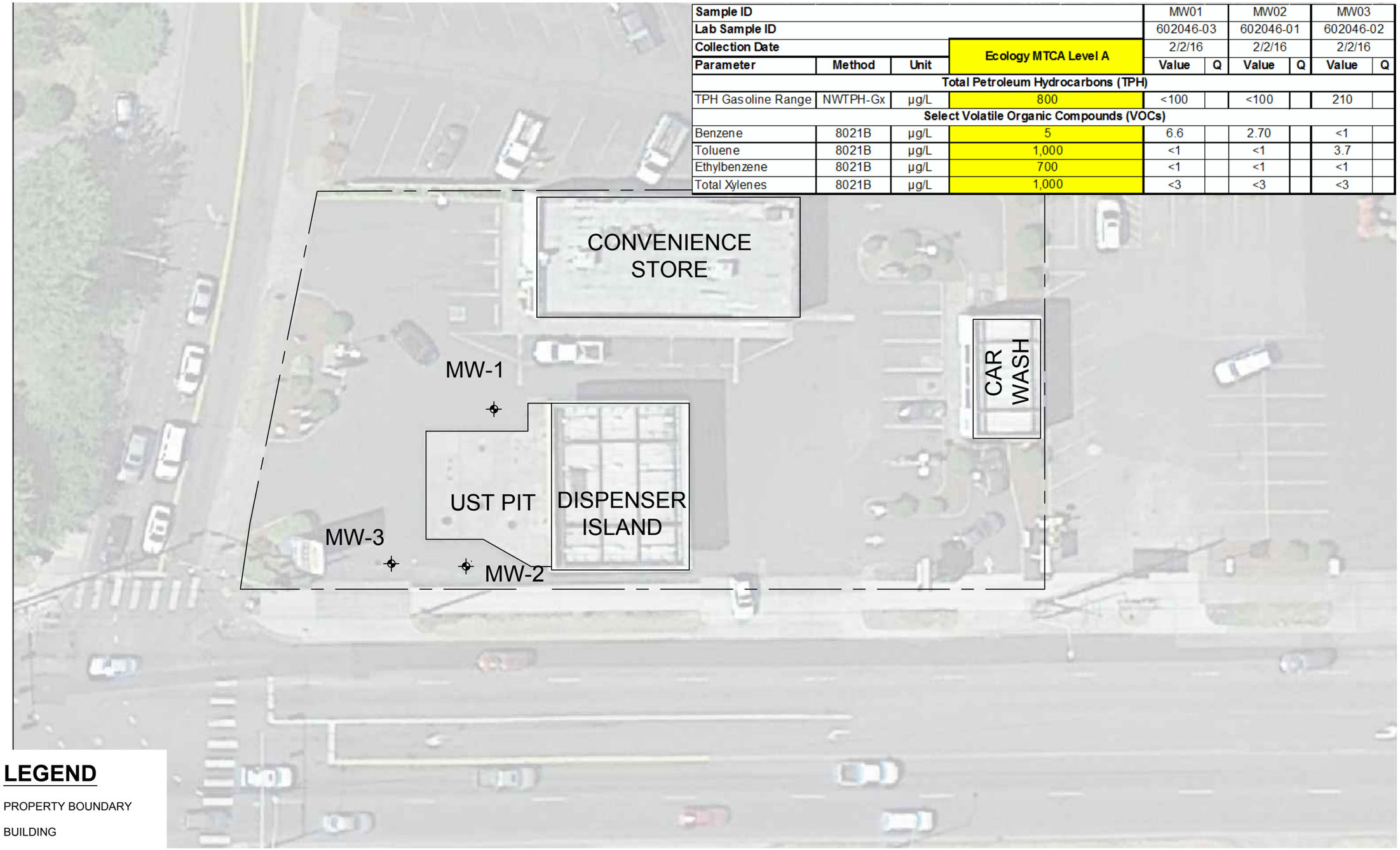
Sample ID				MW01		MW02		MW03	
Lab Sample ID				602046-03		602046-01		602046-02	
Collection Date			Ecology MTCA Level A	2/2/16		2/2/16		2/2/16	
Parameter	Method	Unit		Value	Q	Value	Q	Value	Q
Total Petroleum Hydrocarbons (TPH)									
TPH Gasoline Range	NWTPH-Gx	µg/L	800	<100		<100		210	
Select Volatile Organic Compounds (VOCs)									
Benzene	8021B	µg/L	5	6.6		2.70		<1	
Toluene	8021B	µg/L	1,000	<1		<1		3.7	
Ethylbenzene	8021B	µg/L	700	<1		<1		<1	
Total Xylenes	8021B	µg/L	1,000	<3		<3		<3	



LEGEND

- PROPERTY BOUNDARY
- BUILDING
- MW-01 MONITORING WELL

N W E S

0 30 60

SCALE IN FEET
1" = 30'

Hydro Con
510 Allen St. Suite B Kelso, WA 98626, Ph(360) 703-6079

DATE: 02-17-16
DWN: JH
CHK: JH
APPROVED:
PRJ. MGR: DB
PROJECT NO: 2015-007.1

FIGURE 3
GROUNDWATER ANALYTICAL RESULTS (FEB. 2016)
HANDY MART
WILCOX & FLEGEL
1410 OCEAN BEACH HWY
LONGVIEW, WA

C:\Users\jonathanh\Drafting Temp\2015-007.01\2015-007.1.dwg 2.17.2014

LEGEND

- PROPERTY BOUNDARY
- BUILDING
- MW-01 (XX.XX) — MONITORING WELL (GROUNDWATER ELEV.)
- APPROXIMATE DIRECTION OF GROUNDWATER FLOW

N W E S

0 30 60

SCALE IN FEET
1" = 30'

Hydro Con
510 Allen St. Suite B Kelso, WA 98626, Ph(360) 703-6079

DATE: 02-17-16
DWN: JH
CHK: JH
APPROVED:
PRJ. MGR: DB
PROJECT NO: 2015-007.1

FIGURE 4
GROUNDWATER ELEVATION AND CONTOUR MAP
(FEB. 2016) HANDY MART
WILCOX & FLEGEL
1410 OCEAN BEACH HWY
LONGVIEW, WA

C:\Users\jonathanh\Drafting Temp\2015-007.01\2015-007.1.dwg 2.17.2014

Table 1
Summary of Historical Groundwater Elevations
Handy Mart
Longview, Washington
HydroCon Project Number 2015-007.1

Monitoring Well ID	Date	TOC Elevation	Depth to Water	Groundwater Elevation
MW-01	9/24/2015	21.12	10.98	10.14
	2/2/2016	21.12	7.52	13.6
MW-02	9/24/2015	19.98	9.85	10.13
	2/2/2016	19.98	6.4	13.58
MW-03	9/24/2015	19.63	9.54	10.09
	2/2/2016	19.63	6.12	13.51

Notes:
TOC = Top of well casing

Table 2
Summary of Groundwater Analytical Results
Handy Mart, Longview, Washington
HydroCon Project Number 2014-007.01

Sample ID				MW01		MW02		MW03	
Lab Sample ID				602046-03		602046-01		602046-02	
Collection Date			Ecology MTCA Level A	2/2/16		2/2/16		2/2/16	
Parameter	Method	Unit		Value	Q	Value	Q	Value	Q
Total Petroleum Hydrocarbons (TPH)									
TPH Gasoline Range (G	NWTPH-Gx	µg/L	800	<100		<100		210	
Select Volatile Organic Compounds (VOCs)									
Benzene	8021B	µg/L	5	6.6		2.70		<1	
Toluene	8021B	µg/L	1,000	<1		<1		3.7	
Ethylbenzene	8021B	µg/L	700	<1		<1		<1	
Total Xylenes	8021B	µg/L	1,000	<3		<3		<3	

Notes and Qualifiers: (Q; only shown in Table if reported by laboratory)

* = Washington State Model Toxics Control Act (MTCA) Method A Cleanup Level for Groundwater (rev. October 12, 2007)

[1] = Gasoline Range Petroleum Hydrocarbons (GRPH) by Northwest Method NWTPH-Gx

[2] = Volatile Organic Compounds (VOCs) by EPA Methods 8021B

< = Indicates compound not detected above the laboratory Method Reporting Limit (MRL) shown.

All values shown are in micrograms per liter (µg/L) (parts per billion).

Highlighted cell indicates compound detected above cited MTCA Method A Cleanup Level.

Table 3
Summary of Groundwater Analytical Results
Handy Mart, Longview, Washington
HydroCon Project Number 2014-007.01

Parameter		GRPH [1]	Benzene [2]	Toluene [2]	Ethylbenzene [2]	Total Xylenes [2]
Cleanup Level*		**800**	**5**	**1,000**	**700**	**1,000**
Monitoring Well ID	Date Sampled					
MW-1	9/24/15	<100	6.1	<1	<1	<3
	2/2/16	<100	6.6	<1	<1	<3
MW-2	9/24/15	460	<1	4.4	<1	3.5
	2/2/16	<100	2.7	<1	<1	<3
MW-3	9/24/15	<100	<1	<1	<1	<3
	2/2/16	210	<1	3.7	<1	<3

Notes:
* = Washington State Model Toxics Control Act (MTCA) Method A Cleanup Level for Groundwater (rev. October 12, 2007)
[1] = Gasoline Range Petroleum Hydrocarbons (GRPH) by Northwest Method NWTPH-Gx
[2] = Volatile Organic Compounds (VOCs) by EPA Methods 8021B
< = Indicates compound not detected above the laboratory Method Reporting Limit (MRL) shown.
All values shown are in micrograms per liter (µg/L) (parts per billion).
Highlighted cell indicates compound detected above cited MTCA Method A Cleanup Level.

ATTACHMENT A
GROUNDWATER SAMPLE COLLECTION FIELD FORMS

GROUNDWATER PURGE AND SAMPLE COLLECTION

Hydro Con

Well I.D. Number: MW-1

Project Name (Number): Handy Mart
Hydrocon Project Number: 2015-07-01
Date: 2/2/16
Sample I.D.: MW-1 Time: 0952
Field Duplicate I.D.: Time:
Personnel: Mag

WELL INFORMATION

Monument condition: ☒ Good ☐ Needs repair: ☒ Water in Monument
Well cap condition: ☒ Good ☐ Replaced ☐ Needs Replacement ☐ Surface Water Well Infiltration
Headspace reading: ☒ Not measured PID Reading ____ ppm ☐ Odor:
Well diameter: ☐ 2-inch ☐ 4-inch ☐ 6-inch ☒ Other: 3/4"
Comments

PURGING INFORMATION

Total well depth: 15.71 ft Bottom: ☐ Hard ☒ Soft ☐ Not measured Screen Interval(s):
Depth to product: / ft
Depth to water: 6.40 ft Intake Depth (BTOC): Begin Purging Well:
Casing volume: ft (H_2O) X gal/ft = gal. X 3 = gal.
Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"= 1.47 gal/ft

PURGING/DISPOSAL METHOD

Pump type ☒ Peristaltic ~~☒ Centrifugal~~ ☐ Dedicated Bladder ☐ Non-Dedicated Bladder Other
Bailer type: Water Disposal: ☐ Drummed ☐ Remediation System ☐ Other

FIELD PARAMETERS

Odor and/or Sheen: None

Time	Water Level (BTOC)	Purge Rate (L/min)	Temp. (°C)	Sp. Cond. (mS/cm) (±3%)	Dissolved Oxygen (±10% or ≤1.00 ±0.2)	pH (SU) (±0.1)	ORP (mV)	Turbidity (NTU) (± 10% or ≤10)
0931	—		14.65	348 ×	2.47 ✓	7.84 ×	2.0	
0934	✓		14.63	359 ✓	2.36 ✓	7.57 ×	-3.1	
0937	✓		14.73	367 ✓	2.32 ✓	7.46 ✓	-5.2	
0940	✓		14.73	371 ✓	2.30 ✓	7.37 ✓	-15.9	
0943	✓		14.79	371 ✓	2.31 ✓	7.31 ✓	-22.8	
0946	✓		14.85	372	2.49	7.26	-32.8	
			Sample @ 0952					

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity and/or Dissolved Oxygen are recorded within their respective stabilization criteria. A minimum of six measurements should be recorded.
Purging Comments: Well size too small for congruent water level monitoring

3.5
3
10.5

SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis
40mL VOA	4	HCL	(No) 0.45 0.10	
			No 0.45 0.10	
			No 0.45 0.10	
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments:

GROUNDWATER PURGE AND SAMPLE COLLECTION

Well I.D. Number: MW-2

Project Name (Number): Handy Mart
Hydrocon Project Number: 2015-07-01
Date: 2/2/16
Sample I.D.: MW-2 Time: 1030
Field Duplicate I.D.: Time:
Personnel: MAG

WELL INFORMATION

Monument condition: ☒ Good ☐ Needs repair: ☒ Water in Monument
Well cap condition: ☒ Good ☐ Replaced ☐ Needs Replacement ☐ Surface Water Well Infiltration
Headspace reading: ☒ Not measured PID Reading ____ ppm ☐ Odor:
Well diameter: ☐ 2-inch ☐ 4-inch ☐ 6-inch ☒ Other: 3/4"
Comments

PURGING INFORMATION

Total well depth: 10.24 ft Bottom: ☐ Hard ☐ Soft ☐ Not measured Screen Interval(s):
Depth to product: / ft
Depth to water: 6.12 ft Intake Depth (BTOC): Begin Purging Well:
Casing volume: ft (H_2O) X gal/ft = gal. X 3 = gal.
Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"= 1.47 gal/ft

PURGING/DISPOSAL METHOD

Pump type ☒ Peristaltic ☐ Centrifugal ☐ Dedicated Bladder ☐ Non-Dedicated Bladder Other
Bailer type: Water Disposal: ☐ Drummed ☐ Remediation System ☐ Other

FIELD PARAMETERS

Odor and/or Sheen:

Time	Water Level (BTOC)	Purge Rate (L/min)	Temp. (°C)	Sp. Cond. (mS/cm) (±3%)	Dissolved Oxygen (±10% or ≤1.00 ±0.2)	pH (SU) (±0.1)	ORP (mV)	Turbidity (NTU) (± 10% or ≤10)
1008			13.62	152 ✗	2.86 ✓	7.51 ✗	-42.9	
1011			13.62	157 ✓	2.58 ✓	7.22 ✓	-35.7	
1014			13.68	159 ✓	2.47 ✓	7.16 ✓	-36.3	
1017			13.73	160 ✓	2.39 ✓	7.15 ✓	-39.1	
1020			13.83	161 ✓	2.33 ✓	7.15 ✓	-42.5	
1023			13.83	163 ✓	2.29 ✓	7.17 ✓	-46.4	
			Sample @ 1030					

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity and/or Dissolved Oxygen are recorded within their respective stabilization criteria. A minimum of six measurements should be recorded.
Purging Comments: Well size too small for congruent water level monitoring

SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis
40mL VOA	4	HCL	(No) 0.45 0.10	
			No 0.45 0.10	
			No 0.45 0.10	
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments:

GROUNDWATER PURGE AND SAMPLE COLLECTION

Hydro Con

Well I.D. Number: MW-3

Project Name (Number): Handy Mart
Hydrocon Project Number: 2015-007-01
Date: 2/2/16
Sample I.D.: MW-3 Time: 1110
Field Duplicate I.D.: Time:
Personnel: MAG

WELL INFORMATION

Monument condition: ☒ Good ☐ Needs repair: ☒ Water in Monument
Well cap condition: ☒ Good ☐ Replaced ☐ Needs Replacement ☐ Surface Water Well Infiltration
Headspace reading: ☒ Not measured PID Reading ____ ppm ☐ Odor:
Well diameter: ☐ 2-inch ☐ 4-inch ☐ 6-inch ☒ Other: 3/4"
Comments

PURGING INFORMATION

Total well depth: 19.2 ft Bottom: ☒ Hard ☐ Soft ☐ Not measured Screen Interval(s):
Depth to product: ft
Depth to water: 7.92 ft Intake Depth (BTOC): Begin Purging Well:
Casing volume: ft (H_2O) X gal/ft = gal. X 3 = gal.
Volume Conversion Factors: 3/4"=0.02 gal/ft 1"=0.04 gal/ft 2"=0.16 gal/ft 4"=0.65 gal/ft 6"= 1.47 gal/ft

PURGING/DISPOSAL METHOD

Pump type ☒ Peristaltic ☐ Centrifugal ☐ Dedicated Bladder ☐ Non-Dedicated Bladder Other
Bailer type: Water Disposal: ☐ Drummed ☐ Remediation System ☐ Other

FIELD PARAMETERS

Odor and/or Sheen:

Time	Water Level (BTOC)	Purge Rate (L/min)	Temp. (°C)	Sp. Cond. (mS/cm) (±3%)	Dissolved Oxygen (±10% or ≤1.00 ±0.2)	pH (SU) (±0.1)	ORP (mV)	Turbidity (NTU) (± 10% or ≤10)
1050			15.17	410	2.84 ✓	6.72 ✓	-11.7	
1053			13.26	429 ×	2.57 ✓	6.77 ✓	-22.8	
1056			15.41	449 ×	2.46 ✓	6.81 ✓	-33.2	
1059			15.50	461 ✓	2.35 ✓	6.85 ✓	-46.4	
1102			15.60	469 ✓	2.37 ✓	6.88 ✓	-55.1	
1105			15.66	473	2.38	6.91	-66.3	
			Sample @	1110				

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity and/or Dissolved Oxygen are recorded within their respective stabilization criteria. A minimum of six measurements should be recorded.
Purging Comments: Well Size too small for congruent water level monitoring

4.2 4.1
15.6 13.0

SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis
40 mL VOA	4	HCL	(No) 0.45 0.10	
			No 0.45 0.10	
			No 0.45 0.10	
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments:

ATTACHMENT B
LABORATORY REPORT AND CHAIN-OF-CUSTODY DOCUMENTATION

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Arina Podnozova, B.S.
Eric Young, B.S.

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Seattle, WA 98119-2029
(206) 285-8282
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www.friedmanandbruya.com

February 5, 2016

Jonathan Horowitz, Project Manager
HydroCon
510 Allen St, Suite B
Kelso, WA 98626

Dear Mr. Horowitz:

Included are the results from the testing of material submitted on February 3, 2016 from the Handy-Mart, PO 2015-007-01, F&BI 602046 project. There are 4 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
HDC0205R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on February 3, 2016 by Friedman & Bruya, Inc. from the HydroCon Handy-Mart, PO 2015-007-01, F&BI 602046 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	HydroCon	PDF Amended
602046 -01	MW-1	= MW2
602046 -02	MW-2	= MW3
602046 -03	MW-3	= MW1

All quality control requirements were acceptable.

Date of Report: 02/05/16
Date Received: 02/03/16
Project: Handy-Mart, PO 2015-007-01, F&BI 602046
Date Extracted: 02/03/16
Date Analyzed: 02/03/16

RESULTS FROM THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES AND TPH AS GASOLINE USING METHODS 8021B AND NWTPH-Gx

Results Reported as ug/L (ppb)

Sample ID Laboratory ID	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Gasoline Range	Surrogate (% Recovery) (Limit 52-124)
MW-1 602046-01	2.7	<1	<1	<3	<100	90
MW-2 602046-02	<1	3.7	<1	<3	210	91
MW-3 602046-03	6.6	<1	<1	<3	<100	91
Method Blank 06-186 MB	<1	<1	<1	<3	<100	87

Date of Report: 02/05/16
Date Received: 02/03/16
Project: Handy-Mart, PO 2015-007-01, F&BI 602046

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, AND TPH AS GASOLINE USING EPA METHOD 8021B AND NWTPH-Gx

Laboratory Code: 602034-04 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	RPD (Limit 20)
Benzene	ug/L (ppb)	<1	<1	nm
Toluene	ug/L (ppb)	<1	<1	nm
Ethylbenzene	ug/L (ppb)	<1	<1	nm
Xylenes	ug/L (ppb)	<3	<3	nm
Gasoline	ug/L (ppb)	<100	<100	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Acceptance Criteria
Benzene	ug/L (ppb)	50	93	65-118
Toluene	ug/L (ppb)	50	93	72-122
Ethylbenzene	ug/L (ppb)	50	95	73-126
Xylenes	ug/L (ppb)	150	92	74-118
Gasoline	ug/L (ppb)	1,000	99	69-134

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The compound is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits. Compounds in the sample matrix interfered with the quantitation of the analyte.

j - The analyte concentration is reported below the lowest calibration standard. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

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

602046

SAMPLE CHAIN OF CUSTODY

ME02-03-16 V3

Page # 1 of 1

Send Report To Jonathan Horowitz

Company HEC

Address

City, State, ZIP

Phone # Fax #

SAMPLERS (signature)

PROJECT NAME/NO. Handy Mart 2015-007-01

PO#

REMARKS

TURNAROUND TIME
- ☐ Standard (2 Weeks)
- ☐ RUSH
- Rush charges authorized by

SAMPLE DISPOSAL
- ☐ Dispose after 30 days
- ☐ Return samples
- ☐ Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8021B	VOCs by8260	SVOCs by 8270	HFS						Notes
MW-1	01A-D	2/2/16	0952	Water	4		X	X									
MW-2	02		1030														
MW-3	03		1110														
												Samples received at 4 °C					

ANALYSES REQUESTED

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	Max A. Gammer	HEC	2/2/16	1400
Received by:	Nhan Pham	FEBI	2/3/16	1020
Relinquished by:				
Received by:				

...nan & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044