TECHNICAL MEMORANDUM

To: Mr. Aaron Wilcox
From: David Borys
Date: July 12, 2017
Subject: **Handy Mart – June 2017 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 June 2017. The work was conducted according to our Master Services Agreement (MSA), dated July 11, 2014.

FIELD ACTIVITIES

On June 30, 2017, 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 (Table 1 and Figure 4).

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, dissolved oxygen, turbidity, and specific conductivity) and depth to water were measured and recorded on a Groundwater Sample Collection field form (Attachment A). 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 Apex Laboratory in Tigard, Oregon 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 Petroleum Hydrocarbons (GRPH) by Northwest Method NWTPH-Gx
- Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX) by EPA Method 8260B.

GROUNDWATER CONDITIONS

Depth to water in the wells ranged from 6.73 to 8.01 feet below top of casing. Groundwater flows towards the west at an approximate gradient of 0.011 feet/foot between MW-2 and MW-3.

SAMPLING RESULTS

GRPH and the remaining BTEX constituents were not detected at concentrations above their respective laboratory method reporting limits (MRLs) in any of the submitted samples. A summary data table and the laboratory report are included in Table 2 and Attachment B, respectively.

DISCUSSION

The results of this quarterly groundwater monitoring indicate that all contaminants of concern at all site monitoring wells are below their respective MTCA Method A cleanup level. This is the fifth consecutive quarter where this condition has been observed and the second consecutive quarter where none of contaminants were detected above laboratory MRLs. Ecology requires four consecutive quarters before a site may be considered for No Further Action (NFA) determination.

Based on the analytical results, HydroCon recommends the following:

- Enter into the Ecology Voluntary Cleanup Program and submit a formal request to Ecology to review site reports and issue an NFA determination for the site.

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 Wilcox & Flagel. Please contact the undersigned at (360) 703-6079 if you have any questions regarding the information provided in this letter report.

Sincerely,

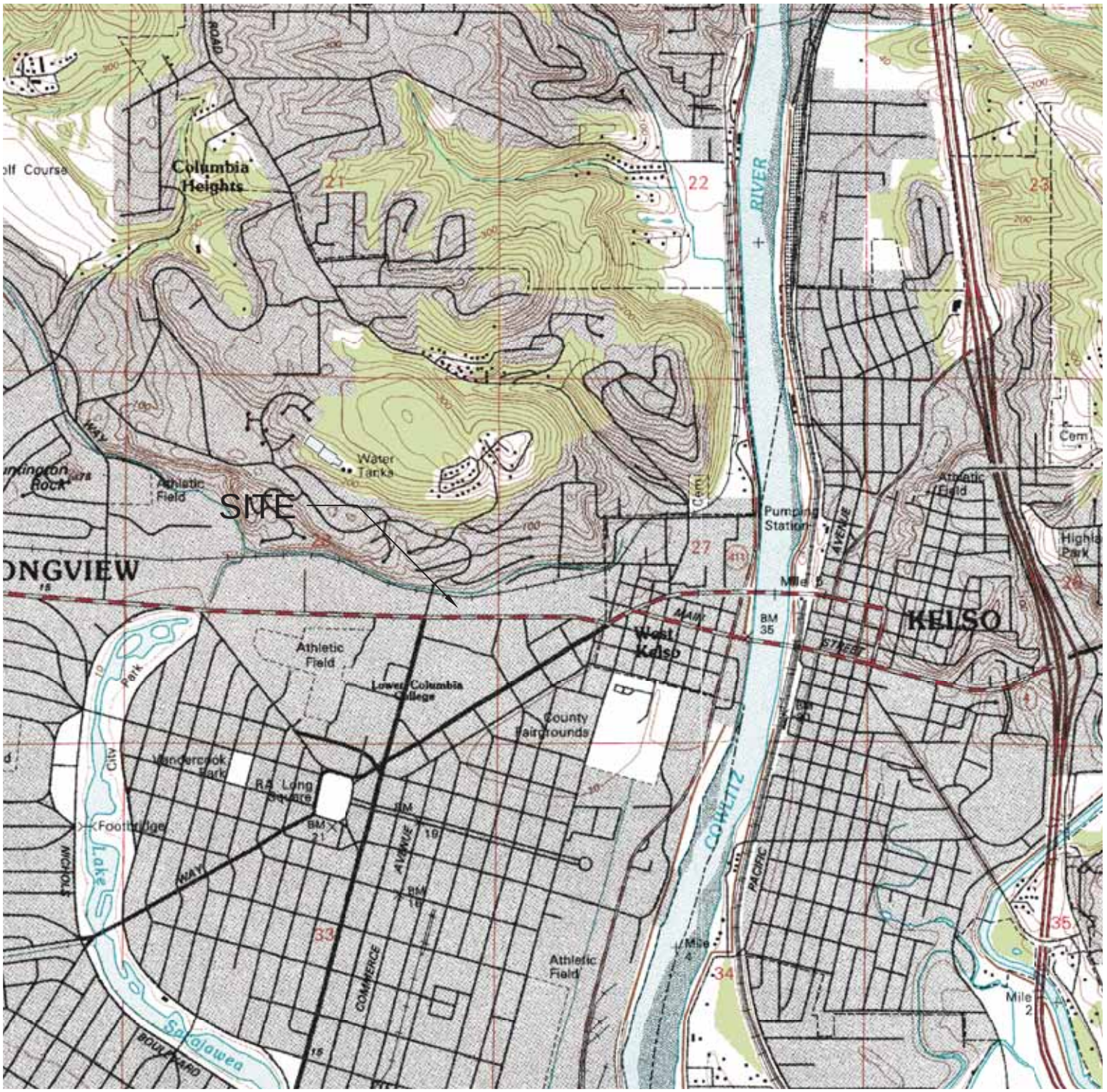
HydroCon

Brian J Pletcher
Senior Geologist/Project Manager

Craig Hultgren, LHG
Principal Geologist

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

State of Washington
Hydrogeologist
1809
Licensed Geologist
CRAIG HULTGREN



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: 03-20-17
DWN: JH
CHK: JH
APPROVED:
PRJ. MGR: DB
PROJECT NO: 2015-007-01

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'

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

DATE: 07-12-17
DWN: JH
CHK: CD
APPROVED:
PRJ. MGR: DB
PROJECT NO: 2015-007-01

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

C:\Users\jonathanh\Drafting Temp\2015-007.012015-007.1.dwg 2.17.2014

Sample ID				MW01		MW02		MW03	
Lab Sample ID				A7G0010-02		A7G0010-03		A7G0010-01	
Collection Date			Ecology MTCA Level A	6/30/17		6/30/17		6/30/17	
Parameter	Method	Unit		Value	Q	Value	Q	Value	Q
Total Petroleum Hydrocarbons (TPH)									
TPH Gasoline Range	NWTPH-Gx	µg/L	800	<100		<100		<100	
Select Volatile Organic Compounds (VOCs)									
Benzene	8021B	µg/L	5	<0.2		<0.2		<0.2	
Toluene	8021B	µg/L	1,000	<1		<1		<1	
Ethylbenzene	8021B	µg/L	700	<0.5		<0.5		<0.5	
Total Xylenes	8021B	µg/L	1,000	<1.5		<1.5		<1.5	

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: 07-12-17
DWN: JH
CHK: CD
APPROVED: BP
PRJ. MGR: DB
PROJECT NO: 2015-007-01

FIGURE 3
SUMMARY OF GROUNDWATER ANALYTICAL RESULTS
JUNE 2017
WILCOX & FLEGEL - HANDY MART
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 ELEVATION)
- GROUNDWATER FLOW DIRECTION
- GROUNDWATER CONTOUR ELEVATION

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: 07-12-17
DWN: JH
CHK: CD
APPROVED: BP
PRJ. MGR: DB
PROJECT NO: 2015-007-01

FIGURE 4.0
GROUNDWATER ELEVATIONS AND CONTOUR MAP
JUNE 2017
WILCOX & FLEGEL - HANDY MART
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-1	4/14/16	21.12	8.03	13.09
	8/10/16		10.45	10.67
	11/17/16		7.93	13.19
	3/15/17		6.78	14.34
	6/30/17		8.01	13.11
MW-2	4/14/16	19.98	6.79	13.19
	8/10/16		8.41	11.57
	11/17/16		6.83	13.15
	3/15/17		5.58	14.40
	6/30/17		6.77	13.21
MW-3	4/14/16	19.63	6.41	13.22
	8/10/16		8.02	11.61
	11/17/16		6.37	13.26
	3/15/17		5.13	14.50
	6/30/17		6.73	12.90

Notes:
TOC = Top of well casing

Table 2
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					
MW01	9/24/15	<100	6.1	<1	<1	<3
	2/2/16	<100	6.6	<1	<1	<3
	4/14/16	<100	3.7	<1	<0.5	<1.5
	8/10/16	<100	2.2	<1	<0.5	<1.5
	11/17/16	<100	0.314	<1	<0.5	<1.5
	3/15/17	<100	<0.2	<1	<0.5	<1.5
	6/30/17	<100	<0.2	<1	<0.5	<1.5
MW02	9/24/15	460	<1	4.4	<1	3.5
	2/2/16	<100	2.7	<1	<1	<3
	4/14/16	<100	1.41	<1	<0.5	<1.5
	8/10/16	<100	<0.2	<1	<0.5	<1.5
	11/17/16	<100	<0.2	<1	<0.5	<1.5
	3/15/17	<100	<0.2	<1	<0.5	<1.5
	6/30/17	<100	<0.2	<1	<0.5	<1.5
MW03	9/24/15	<100	<1	<1	<1	<3
	2/2/16	210	<1	3.7	<1	<3
	4/14/16	310	<0.2	<1	<0.5	<1.5
	8/10/16	326	<0.2	<1	<0.5	<1.5
	11/17/16	329	<0.2	<1	<0.5	<1.5
	3/15/17	<100	<0.2	<1	<0.5	<1.5
	6/30/17	<100	<0.2	<1	<0.5	<1.5

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 8260B
< = 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 SAMPLE COLLECTION FORM

Well I.D. Number: MW01

Project Name: Handy Mart
Hydrocon Project #: 2015-007-01
Date 30 June 2017

Sample I.D. MW01 Time: 1245
Field Duplicate I.D. – Time: –
Personnel: Chris Dorchel

WELL INFORMATION

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

PURGING INFORMATION

Total well depth NM ft Bottom: ☐ Hard ☐ Soft ☒ Not measured Screen Interval(s): ____
Depth to product NM ft
Depth to water 6.77 ft Intake Depth (BTOC) 12' Begin Purging Well: 1213
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: light petro odor

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)
1215	–		18.9	.450	1.48	6.19	-76.4	+
1228	–		17.2	.452	3.47	6.24	-56.4	403
1231	–		17.5	.464	1.61	6.21	-63.0	236
1234	–		17.2	.462	1.48	6.21	-68.2	311
1237	–		17.2	.468	0.89	6.22	-74.4	337
1240	–		17.2	.467	0.75	6.21	-76.3	291
1243			17.1	.468	0.59	6.20	-77.1	157
			Sample @ 1245					

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity or Dissolved Oxygen are recorded within their perspective stabilization criteria. A minimum of six measurements should be recorded.
Purging Comments: Abundant orange algae in purge water purged 1 gallon prior to taking parameters

SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis
40 ml VOA	3	HCl	(No) 0.45 0.10	Gx/BTEX
			No 0.45 0.10	
			No 0.45 0.10	
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments: ____

GROUNDWATER SAMPLE COLLECTION FORM

Well I.D. Number: MW02

Project Name: Handy Mart
Hydrocon Project #: 2015-007-01
Date: 30 June 2017

Sample I.D. MW02 Time: 1325
Field Duplicate I.D. - Time: -
Personnel:

WELL INFORMATION

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

PURGING INFORMATION

Total well depth NM ft Bottom: ☐ Hard ☐ Soft ☒ Not measured Screen Interval(s):
Depth to product NM ft
Depth to water 6.73 ft Intake Depth (BTOC) 12' Begin Purging Well: 1306
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: very faint

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)
1310	-	0.10	16.9	.179	2.24	6.38	-23.0	97.9
1313	-		16.7	.184	0.83	6.29	-36.9	34.2
1316	-		16.6	.189	0.58	6.23	-41.3	7.83
1319	-		16.6	.191	0.53	6.20	-41.4	4.55
1322	-		16.4	.192	0.51	6.17	-41.4	3.17
1325	-		16.5	.194	0.48	6.14	-41.5	✓

Sample @ 1325

Stabilization achieved if three successive measurements for pH, Conductivity and Turbidity or Dissolved Oxygen are recorded within their perspective stabilization criteria. A minimum of six measurements should be recorded.
Purging Comments:

SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis
40 ml VOA	3	HCl	(No) 0.45 0.10	Gx / BTEX
			No 0.45 0.10	
			No 0.45 0.10	
			No 0.45 0.10	
			No 0.45 0.10	

Sampling Comments:

GROUNDWATER SAMPLE COLLECTION FORM

Well I.D. Number: MW03

Project Name: Handy Mart
Hydrocon Project #: 2015-007-01
Date: 30 June 2017

Sample I.D.: MW03 Time: 1410
Field Duplicate I.D.: - Time: -
Personnel: Chris Darshel

WELL INFORMATION

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

PURGING INFORMATION

Total well depth NM ft Bottom: ☐ Hard ☐ Soft ☒ Not measured Screen Interval(s):
Depth to product NM ft
Depth to water 8.01 ft Intake Depth (BTOC) 12' Begin Purging Well: 1341
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)
1351	-	0.04	17.3	0.59	2.20	6.07	-51.1	134
1354	-		17.1	0.61	1.17	6.12	-72.3	50.7
1357	-		17.0	0.63	0.86	6.14	-82.0	24.8
1400	-		17.0	0.65	0.63	6.14	-96.4	6.76
1403	-		16.9	0.67	0.54	6.14	-102.4	2.74
1406	-		16.9	0.67	0.47	6.14	-103.6	3.56

Sample @ 1410

Stabilization achieved if three successive measurements ~~for pH, Conductivity and Turbidity~~ or Dissolved Oxygen are recorded within their perspective stabilization criteria. A minimum of six measurements should be recorded.
Purging Comments: Suspended orange algae in purge water

SAMPLE INFORMATION

Container Type	Bottle Count	Preservative	Field Filtered?	Analysis
40 ml VOA	3	HCl	(No) 0.45 0.10	GX / BTEX
			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

Apex Labs

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

Thursday, July 6, 2017

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

RE: Handy Mart / 2015-007-01

Enclosed are the results of analyses for work order A7G0010, which was received by the laboratory on 7/3/2017 at 1:15:00PM.

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

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

Apex Laboratories

Lisa A Domenighini

Lisa Domenighini, Client Services Manager

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

Apex Labs

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

HydroCon LLC	Project: **Handy Mart**	
510 Allen St. Suite B	Project Number: 2015-007-01	**Reported:**
Kelso, WA 98626	Project Manager: Dave Borys	07/06/17 10:20

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Sample ID	PDF Amended	Laboratory ID	Matrix	Date Sampled	Date Received
MW01	= MW2	A7G0010-01	Water	06/30/17 12:45	07/03/17 13:15
MW02	= MW3	A7G0010-02	Water	06/30/17 13:25	07/03/17 13:15
MW03	= MW1	A7G0010-03	Water	06/30/17 14:10	07/03/17 13:15

Apex Laboratories

Lisa A Domenighini

Lisa Domenighini, Client Services Manager

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

Apex Labs

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

HydroCon LLC	Project: **Handy Mart**	
510 Allen St. Suite B	Project Number: 2015-007-01	**Reported:**
Kelso, WA 98626	Project Manager: Dave Borys	07/06/17 10:20

ANALYTICAL SAMPLE RESULTS

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

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
MW01 (A7G0010-01)			**Matrix: Water**		**Batch: 7070223**			
Gasoline Range Organics	ND	---	100	ug/L	1	07/03/17 18:24	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 101 %*	*Limits: 50-150 %*	"	"	"	
1,4-Difluorobenzene (Sur)			*103 %*	*Limits: 50-150 %*	"	"	"	
MW02 (A7G0010-02)			**Matrix: Water**		**Batch: 7070223**			
Gasoline Range Organics	ND	---	100	ug/L	1	07/03/17 18:51	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 99 %*	*Limits: 50-150 %*	"	"	"	
1,4-Difluorobenzene (Sur)			*102 %*	*Limits: 50-150 %*	"	"	"	
MW03 (A7G0010-03)			**Matrix: Water**		**Batch: 7070223**			
Gasoline Range Organics	ND	---	100	ug/L	1	07/03/17 19:18	NWTPH-Gx (MS)	
Surrogate: 4-Bromofluorobenzene (Sur)			*Recovery: 101 %*	*Limits: 50-150 %*	"	"	"	
1,4-Difluorobenzene (Sur)			*105 %*	*Limits: 50-150 %*	"	"	"	

Apex Laboratories

Lisa A Domenighini

Lisa Domenighini, Client Services Manager

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

Apex Labs

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

HydroCon LLC	Project: **Handy Mart**	
510 Allen St. Suite B	Project Number: 2015-007-01	**Reported:**
Kelso, WA 98626	Project Manager: Dave Borys	07/06/17 10:20

ANALYTICAL SAMPLE RESULTS

BTEX Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
MW01 (A7G0010-01)			**Matrix: Water**		**Batch: 7070223**			
Benzene	ND	---	0.200	ug/L	1	07/03/17 18:24	EPA 8260B	
Toluene	ND	---	1.00	"	"	"	"	
Ethylbenzene	ND	---	0.500	"	"	"	"	
Xylenes, total	ND	---	1.50	"	"	"	"	
Surrogate: 1,4-Difluorobenzene (Surr)			*Recovery: 104 %*	*Limits: 80-120 %*	"	"	"	
Toluene-d8 (Surr)			*100 %*	*Limits: 80-120 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*100 %*	*Limits: 80-120 %*	"	"	"	
MW02 (A7G0010-02)			**Matrix: Water**		**Batch: 7070223**			
Benzene	ND	---	0.200	ug/L	1	07/03/17 18:51	EPA 8260B	
Toluene	ND	---	1.00	"	"	"	"	
Ethylbenzene	ND	---	0.500	"	"	"	"	
Xylenes, total	ND	---	1.50	"	"	"	"	
Surrogate: 1,4-Difluorobenzene (Surr)			*Recovery: 102 %*	*Limits: 80-120 %*	"	"	"	
Toluene-d8 (Surr)			*100 %*	*Limits: 80-120 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*100 %*	*Limits: 80-120 %*	"	"	"	
MW03 (A7G0010-03)			**Matrix: Water**		**Batch: 7070223**			
Benzene	ND	---	0.200	ug/L	1	07/03/17 19:18	EPA 8260B	
Toluene	ND	---	1.00	"	"	"	"	
Ethylbenzene	ND	---	0.500	"	"	"	"	
Xylenes, total	ND	---	1.50	"	"	"	"	
Surrogate: 1,4-Difluorobenzene (Surr)			*Recovery: 105 %*	*Limits: 80-120 %*	"	"	"	
Toluene-d8 (Surr)			*99 %*	*Limits: 80-120 %*	"	"	"	
4-Bromofluorobenzene (Surr)			*100 %*	*Limits: 80-120 %*	"	"	"	

Apex Laboratories

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

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: **Handy Mart**	
510 Allen St. Suite B	Project Number: 2015-007-01	**Reported:**
Kelso, WA 98626	Project Manager: Dave Borys	07/06/17 10:20

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 7070223 - EPA 5030B									Water			
Blank (7070223-BLK1)					Prepared: 07/03/17 09:22 Analyzed: 07/03/17 11:37							
NWTPH-Gx (MS)												
Gasoline Range Organics	ND	---	100	ug/L	1	---	---	---	---	---	---	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 101 %*		*Limits: 50-150 %*			*Dilution: 1x*				
1,4-Difluorobenzene (Sur)			*105 %*		*50-150 %*			*"*				
LCS (7070223-BS2)					Prepared: 07/03/17 09:22 Analyzed: 07/03/17 11:10							
NWTPH-Gx (MS)												
Gasoline Range Organics	435	---	100	ug/L	1	500	---	87	70-130%	---	---	
Surr: 4-Bromofluorobenzene (Sur)			*Recovery: 100 %*		*Limits: 50-150 %*			*Dilution: 1x*				
1,4-Difluorobenzene (Sur)			*100 %*		*50-150 %*			*"*				

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: **Handy Mart**	
510 Allen St. Suite B	Project Number: 2015-007-01	**Reported:**
Kelso, WA 98626	Project Manager: Dave Borys	07/06/17 10:20

QUALITY CONTROL (QC) SAMPLE RESULTS

BTEX Compounds by EPA 8260B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 7070223 - EPA 5030B									**Water**			
Blank (7070223-BLK1)					Prepared: 07/03/17 09:22 Analyzed: 07/03/17 11:37							
EPA 8260B												
Benzene	ND	---	0.200	ug/L	1	---	---	---	---	---	---	
Toluene	ND	---	1.00	"	"	---	---	---	---	---	---	
Ethylbenzene	ND	---	0.500	"	"	---	---	---	---	---	---	
Xylenes, total	ND	---	1.50	"	"	---	---	---	---	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 106 %*		*Limits: 80-120 %*				*Dilution: 1x*			
Toluene-d8 (Surr)			*100 %*		*80-120 %*				*"*			
4-Bromofluorobenzene (Surr)			*100 %*		*80-120 %*				*"*			
LCS (7070223-BS1)					Prepared: 07/03/17 09:22 Analyzed: 07/03/17 10:43							
EPA 8260B												
Benzene	20.0	---	0.200	ug/L	1	20.0	---	100	70-130%	---	---	
Toluene	20.4	---	1.00	"	"	"	---	102	"	---	---	
Ethylbenzene	20.4	---	0.500	"	"	"	---	102	"	---	---	
Xylenes, total	62.4	---	1.50	"	"	60.0	---	104	"	---	---	
Surr: 1,4-Difluorobenzene (Surr)			*Recovery: 101 %*		*Limits: 80-120 %*				*Dilution: 1x*			
Toluene-d8 (Surr)			*96 %*		*80-120 %*				*"*			
4-Bromofluorobenzene (Surr)			*95 %*		*80-120 %*				*"*			

Apex Laboratories

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

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: **Handy Mart**	
510 Allen St. Suite B	Project Number: 2015-007-01	**Reported:**
Kelso, WA 98626	Project Manager: Dave Borys	07/06/17 10:20

SAMPLE PREPARATION INFORMATION

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: 7070223							
A7G0010-01	Water	NWTPH-Gx (MS)	06/30/17 12:45	07/03/17 11:02	5mL/5mL	5mL/5mL	1.00
A7G0010-02	Water	NWTPH-Gx (MS)	06/30/17 13:25	07/03/17 11:02	5mL/5mL	5mL/5mL	1.00
A7G0010-03	Water	NWTPH-Gx (MS)	06/30/17 14:10	07/03/17 11:02	5mL/5mL	5mL/5mL	1.00

BTEX Compounds by EPA 8260B

Prep: EPA 5030B

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 7070223							
A7G0010-01	Water	EPA 8260B	06/30/17 12:45	07/03/17 11:02	5mL/5mL	5mL/5mL	1.00
A7G0010-02	Water	EPA 8260B	06/30/17 13:25	07/03/17 11:02	5mL/5mL	5mL/5mL	1.00
A7G0010-03	Water	EPA 8260B	06/30/17 14:10	07/03/17 11:02	5mL/5mL	5mL/5mL	1.00

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: **Handy Mart**	
510 Allen St. Suite B	Project Number: 2015-007-01	**Reported:**
Kelso, WA 98626	Project Manager: Dave Borys	07/06/17 10:20

Notes and Definitions

Qualifiers:

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).

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: **Handy Mart**	
510 Allen St. Suite B	Project Number: 2015-007-01	**Reported:**
Kelso, WA 98626	Project Manager: Dave Borys	07/06/17 10:20

APEX LABS — **CHAIN OF CUSTODY** — Lab # A7G0010 — COC 1 of 1

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

PO#

Company: HydroCon | Project Mgr: David Borys | Project Name: Handy Mart | Project # 2015-007-01

Address: 510 Allen Street Suite B Kelso, WA 98626 | Phone: (360) 703-6079 | Fax: | Email: davidb@hydroconllc.net, Chris d@ "

Sampled by: Chris Daschel

Site Location: OR (WA circled) Other: ______

ANALYSIS REQUEST

	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	MW01		6/30/17	1245	H2O	3			X				X									
2	MW02		↓	1325	↓	↓			↓				↓									
3	MW03		↓	1410	↓	↓			↓				↓									
4																						
5																						
6																						
7																						
8																						
9																						
10																						

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

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

SAMPLES ARE HELD FOR 30 DAYS

SPECIAL INSTRUCTIONS:

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature: [signature] Date: 7/3/17	Signature: [signature] Date: 7/3/17	Signature: Date:	Signature: Date:
Printed Name: Chris Daschel Time: 1315	Printed Name: [illegible] Time: 1315	Printed Name: Time:	Printed Name: Time:
Company: HydroCon	Company: Apex	Company:	Company:

Apex Labs

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

HydroCon LLC	Project: **Handy Mart**	
510 Allen St. Suite B	Project Number: 2015-007-01	**Reported:**
Kelso, WA 98626	Project Manager: Dave Borys	07/06/17 10:20

APEX LABS COOLER RECEIPT FORM

Client: Hydrocon Element WO#: A7 GD010

Project/Project #: Handy Mart

Delivery info:

Date/Time Received: 7/3/17 @ 1315 By: KM

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

Cooler Inspection Inspected by: KM : 07/3/17 @ 1320

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

Signed/Dated by Client? Yes X No___

Signed/Dated by Apex? Yes___ 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:

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: KM : 7/3/17 @ 1325

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___ No Y NA___

Comments

Water Samples: pH Checked and Appropriate (except VOAs): Yes___ No___ NA V

Comments:

Additional Information:

Labeled by: KM Witness: SO Cooler Inspected by: KM See Project Contact Form: Y

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