

February 25, 2020

Mr. Steve Teel
Washington State Department of Ecology
Toxics Cleanup Program, Southwest Regional Office
P.O. Box 47775
Olympia, Washington 98504-7775
stee461@ecy.wa.gov

RE: ***Annual Groundwater Compliance Monitoring Data Summary Report (2018 & 2019)***
Former Olympia Dry Cleaners
606 Union Avenue SE
Olympia, Washington 98501-1430
Ecology Facility/Site ID: 1446

Dear Mr. Teel:

Associated Environmental Group, LLC (AEG) has prepared the enclosed ***Annual Groundwater Compliance Monitoring Data Summary Report*** on behalf of the Estate of Katherine Burleson and Frank G. Burleson & Steve C. Marshall, co-Executors, to meet the reporting requirements of Consent Decree No. 14-2-02104-3 (State of Washington; 2014) and the Cleanup Action Plan (Ecology; 2014). Groundwater monitoring of wells MW-6, MW-9, MW-11, MW-13, and MW-14 is currently to be conducted semi-annually, and seep monitoring is to be conducted quarterly. However, a gap in monitoring occurred, and the wells have not been sampled since March 2018. Monitoring of the wells is scheduled to resume in March 2020. Activities performed in 2018 and 2019, and planned for 2020, are as follows:

WORK PERFORMED [June & September 2018, and March, July, & December 2019]:

- Collected surface water samples at the seep and downstream of the carbon filter sock (denoted as SEEP and SEEP-POST, respectively, in attached Table 1, *Summary of Groundwater Seep Analytical Results*).
- Submitted samples to Libby Environmental, Inc. laboratory in Olympia for analysis.

WORK PLANNED FOR 2020:

March, June, September, and December 2020:

- Collect surface water samples at the seep and downstream of the carbon filter sock.
- Submit samples to Libby Environmental, Inc. laboratory in Olympia for analysis of tetrachloroethylene (PCE) and daughter products via EPA Method 8260.

March and September 2020:

- Inspect the condition of each monitoring well, and document any abnormalities with the well monuments or casing.
- Measure the headspace of each well for volatiles using a photoionization detector (PID) upon opening each well.
- Obtain depth to groundwater data from five groundwater wells (MW-6, MW-9, MW-11, MW-13, and MW-14).
- Purge and sample five groundwater monitoring wells (MW-6, MW-9, MW-11, MW-13, and MW-14).
- Submit samples to Libby Environmental, Inc. laboratory in Olympia for analysis of PCE and daughter products via EPA Method 8260.

SEEP TREATMENT

As discussed in previous compliance monitoring reports by Floyd|Snider, a carbon filter sock has been installed at the point of the seep expression and directly downgradient since September 2016. A second carbon sock was installed north of the primary sock along the curb line in March 2017 to provide more contact time to improve removal efficiency. During each quarterly monitoring event, the downgradient carbon sock was rotated and moved to the upgradient position and a new carbon sock was placed in the downgradient position. Both carbon socks are held in place by concrete screws in the curb with a hydraulic cement barrier on the upgradient edge to divert stormwater.

Filtered seep water samples collected since installation of the sock have generally demonstrated that the filter sock is effective at reducing PCE, trichloroethylene (TCE), and vinyl chloride concentrations in seep water. During each sampling event, the sock was rotated over and lengthwise, then re-bolted to the curb on either end of the sock.

SEEP WATER SAMPLE COLLECTION AND RESULTS

The groundwater seep was observed to be flowing between curb sections along the curb line of Cherry Street SE, north of the main excavation area and the former seep area, and between the concrete curb and the asphalt roadway (Figure 2, *Source Removal Areas and Compliance Monitoring Locations*). The seep is being expressed through a small void in the asphalt under the curb at a relatively low flow rate (slow trickle). Grab samples were collected from the seep (SEEP) on June 23 and September 30, 2018, and on March 20, July 3, and December 7, 2019. Grab samples were also collected from the discharge of the filter sock after rotating and re-installing the activated carbon filter sock (SEEP-POST) during each event. Previously, samples were also

collected downhill of the seep at the point of discharge on the southern end of the catch basin on the west side of Cherry Street SE (SEEP-CB) per Ecology's request. However, no samples were collected from that location during the time period covered by this report. Analytical results of all seep samples collected to date are presented in Table 1, *Summary of Groundwater Seep Analytical Results*. Copies of laboratory reports for the monitoring events are included in Appendix A, Laboratory Datasheets.

The unfiltered seep water samples collected from the curb line (SEEP) had COC concentrations exceeding their respective cleanup levels during the June and September 2018 monitoring events. However, concentrations show a declining trend, and no COCs exceeded cleanup levels in the last three monitoring events (March, July, and December 2019).

The water samples collected from the seep discharge immediately downstream of the carbon filter sock (SEEP-POST) demonstrated a significant improvement in water quality and results from all monitoring events confirm that the carbon filter sock is providing adequate treatment of seep water at the point of discharge from the carbon sock. While PCE and vinyl chloride exceeded cleanup levels in March 2019, concentrations went back down in July and December 2019. Also, these detections would be considered statistically compliant given these exceedances are less than twice the cleanup level, and occurred in less than 10% of the last 11 monitoring events.

Water samples historically collected at the point of compliance (POC), which is the point of discharge at the catch basin (SEEP-CB), have been either non-detect or below cleanup levels, which demonstrates compliance with water quality standards and Site cleanup levels at the POC.

RECOMMENDATIONS:

The seep data collected to date since the implementation of the cleanup action indicates concentrations of COCs have dropped below cleanup levels. As such, it is AEG's professional opinion that sampling of the seep is no longer needed. AEG requests that seep sampling be discontinued, and the filter sock be removed from the street.

With respect to the monitoring wells at the Site, since they have not been sampled since March 2018, AEG intends to perform a round of sampling next month (March 2020). However, only two wells (MW-9 and MW-14) have indicated the presence of Site COCs above cleanup levels. AEG recommends limiting future sampling to those two wells only (while still measuring water levels at all five wells), and reducing the sampling frequency to every 18 months, which would still account for any seasonal variation. With environmental covenants in place (currently being drafted for the source property and the Q-Tip Trust building), exposure pathways to impacted groundwater would no longer be complete.

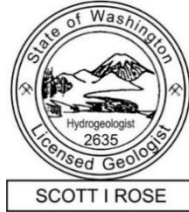
Should you have questions or require additional information, please contact our office at 360-352-9835.

Sincerely,

Associated Environmental Group, LLC



Scott Rose, L.H.G.
Senior Hydrogeologist



Attachments: Figure 1 – *Site Vicinity Map*

Figure 2 – *Source Removal Areas and Compliance Monitoring Locations*

Table 1 – *Summary of Groundwater Seep Analytical Results*

Table 2 – *Summary of Groundwater Analytical Results*

Table 3 – *Summary of Groundwater Elevations*

Appendix A – Laboratory Datasheets



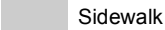
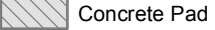
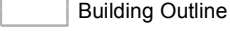

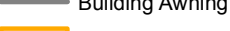
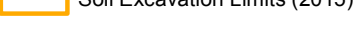
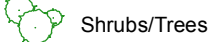
REFERENCES

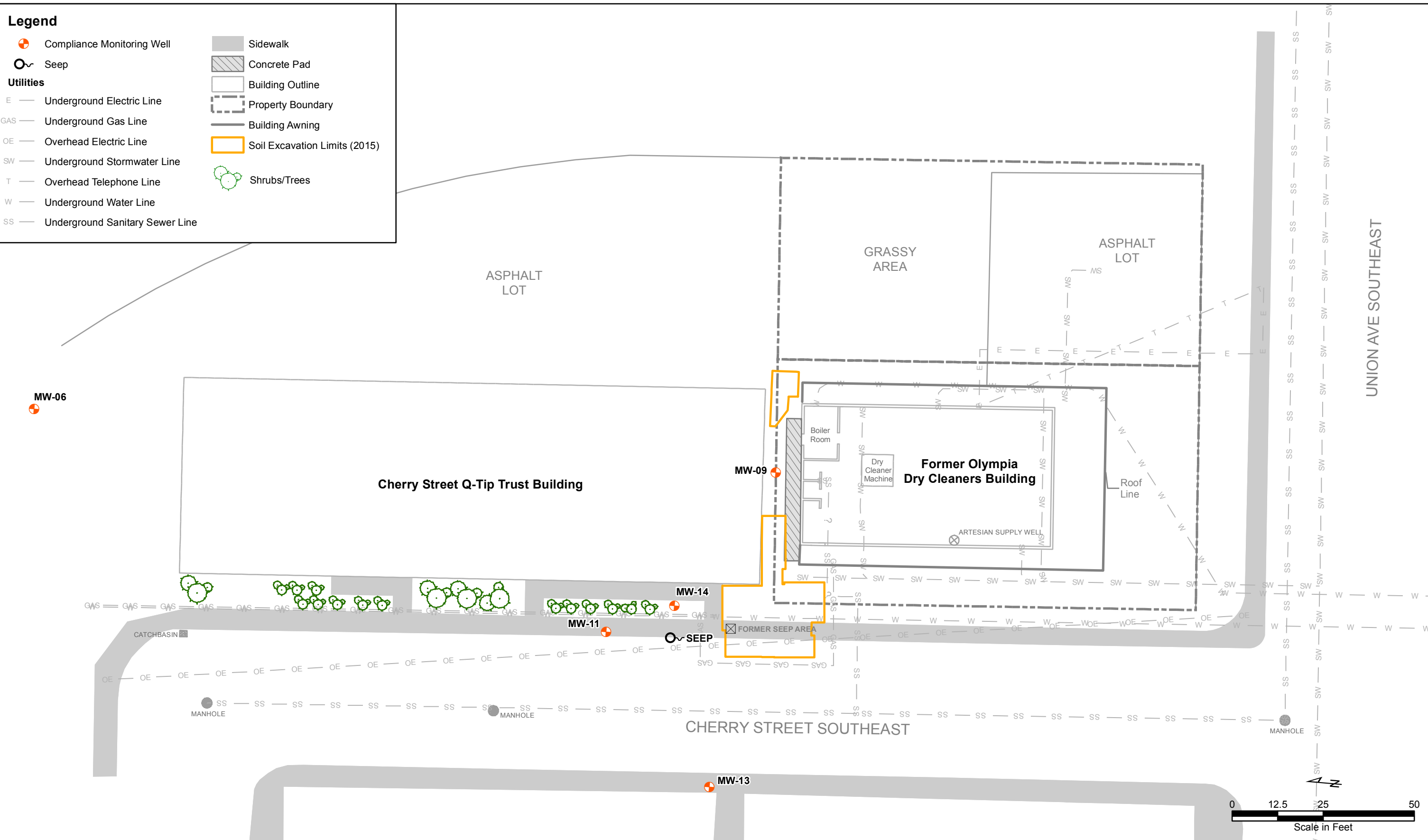
- Floyd|Snider. 2015a. *Former Olympia Dry Cleaners Site Remedial Action Work Plan*. Prepared for Washington State Department of Ecology. 15 April.
- Floyd|Snider. 2015b. *Memorandum Re: Remedial Action Work Plan Addendum, Former Olympia Dry Cleaners Site*. Prepared for Steve Teel, Washington State Department of Ecology. 22 June.
- Floyd|Snider. 2016. *Former Olympia Dry Cleaners Site Compliance Monitoring Plan*. Prepared for Washington State Department of Ecology. 28 January.
- Floyd|Snider. 2018. *2017 Annual Summary Report for Groundwater Compliance Monitoring, Former Olympia Dry Cleaners Site*. Prepared for Washington State Department of Ecology. 30 April.
- SoundEarth Strategies, Inc. (SES). 2013. Groundwater Monitoring Data (obtained from Washington State Department of Ecology Environmental Information Management Database). 13 August.
- State of Washington. 2014. *Consent Decree No. 14-2-02104-3, State of Washington, Department of Ecology v. The Estate of Katherine Burleson and GJG, LLC*. Thurston County Superior Court. 31 October.
- U.S. Environmental Protection Agency (USEPA). 2017. *National Functional Guidelines for Organic Superfund Methods Data Review*. EPA-540-R-2017-002/OLEM 9355.0-136. Office of Superfund Remediation and Technology Innovation. Washington, D.C. January.
- Washington State Department of Ecology (Ecology). 2014. *Former Olympia Dry Cleaners Site Cleanup Action Plan*. 29 October.

FIGURES



Legend

-  Compliance Monitoring Well
-  Seep
- Utilities**
 - E — Underground Electric Line
 - GAS — Underground Gas Line
 - OE — Overhead Electric Line
 - SW — Underground Stormwater Line
 - T — Overhead Telephone Line
 - W — Underground Water Line
 - SS — Underground Sanitary Sewer Line
-  Sidewalk
-  Concrete Pad
-  Building Outline
-  Property Boundary
-  Building Awning
-  Soil Excavation Limits (2015)
-  Shrubs/Trees



Associated
Environmental
Group, LLC

2018-2019 Annual Summary Report for
Groundwater Compliance Monitoring
Former Olympia Dry Cleaners Site
Olympia, Washington

Figure 2
Source Removal Areas and
Compliance Monitoring Locations

TABLES

Table 1 - Summary of Groundwater Seep Analytical Results
Olympia Dry Cleaners
Olympia, Washington

Sample Location	Status	Date Collected	Halogenated Volatile Organic Compounds				
			PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	Vinyl Chloride
SEEP	Pre-Remediation ¹	7/10/2008	390	580	2,500	12	190
	Post-Remediation	3/8/2016	33	15	110	<1.0	15
		3/30/2016	23	17	160	<1.0	22
		6/9/2016	16	18	170	1.3	20
		9/29/2016	16	30	180	<1.0	16
		12/20/2016	56	44	110	<1.0	10
		3/10/2017	13	7.6	19	<1.0	1.8 J
		6/21/2017	12	8.5	57	<1.0	6.2
		10/31/2017	14	19	74	<1.0	12
		1/4/2018	20	34	138	<1.0	7.6
		3/22/2018	23	17	52	<1.0	2.45
		3/30/2018	19	16	60	<1.0	1.9
		6/23/2018	5.4	5.4	34	<1.0	4.7
		9/30/2018	1.7	5.3	45.7	<1.0	3.6
		3/20/2019	0.96 J	3.4	48	<1.0	1.4
		7/3/2019	<1.0	0.68	8.5	<1.0	0.89
		12/7/2019	2.8	4.0	49.3	<1.0	1.6
SEEP-CB ²	Pre-Remediation	10/15/2008	<2.0	<1.0	<1.0	<1.0	<1.0
	Post-Remediation	6/9/2016	<1.0	<0.50	1.8	<1.0	<0.20
		3/22/2017	<1.0	0.72	1.3	<1.0	<0.20
		3/30/2018	<1.0	<0.50	<1.0	<1.0	<0.20
SEEP-POST ³	Post-Remediation	9/29/2016	<1.0	0.55	2.3	<1.0	0.62
		12/20/2016	10	8.0	19	<1.0	2.2
		3/10/2017	3.4 J	2.5	6.3	<1.0	1.3
		3/22/2017	4.8	4.1	10	<1.0	1.3
		3/30/2017	<1.0	<0.50	<1.0	<1.0	<0.20
		6/21/2017	<1.0	<0.50	<1.0	<1.0	<0.20
		10/31/2017	<1.0	0.58	2.5	<1.0	<0.20
		1/8/2018	<1.0	0.76	2.8	<1.0	<0.20
		3/22/2018	<1.0	0.6	2.6	<1.0	<0.20
		3/30/2018	<1.0	<0.50	<1.0	<1.0	<0.20
		6/23/2018	<1.0	<0.50	2.0	<1.0	<0.20
		9/30/2018	<1.0	1.6	14.4	<1.0	1.5
		3/20/2019	4.8	12	112.0	<1.0	3.6
		7/3/2019	<1.0	0.45	6.8	<1.0	0.61
		12/7/2019	0.55 J	1.1	14.5	<1.0	0.43
PQL			1.0	1.0	1.0	1.0	0.2
Surface Water Cleanup Levels			3.3	30	NA	10,000	2.4

Notes:

All values reported in micrograms per liter (µg/L)
-- = Not analyzed for constituent
< = Not detected at the listed laboratory detection limits
PQL = Practical Quantification Limit (laboratory detection limit)
Red Bold indicates the detected concentration exceeds Ecology MTCA Method A cleanup level
Bold indicates the detected concentration is below Ecology MTCA Method A cleanup levels
* MTCA Method B cleanup level; Method A cleanup level not established

¹Pre-remediation seep samples were collected approximately 16 feet south of the current seep sampling location. However, both pre- and post-remediation samples are representative of the same source of seep water.
²Sample collected at the downstream catch basin. Pre-remediation sample was collected by the Washington State Department of Ecology from approximately the same location and named "Street - 2."
³Sample collected downstream of the carbon filter sock to demonstrate treatment efficiency.

J = The analyte was detected; the concentration is considered to be an estimate.
NA = Not Applicable; no cleanup level has been established for this constituent.

Table 2 - Summary of Groundwater Analytical Results
Olympia Dry Cleaners
Olympia, Washington

Sample Location	Status ¹	Date Collected	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	1,1-DCE	Vinyl Chloride
MW-06	Pre-Remediation ¹	8/13/2013	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20
	Post-Remediation	3/12/2016	<1.0	<0.50	<1.0	<1.0	<1.0	<0.20
		6/9/2016	<1.0	<0.50	<1.0	<1.0	<1.0	<0.20
		9/29/2016	<1.0	<0.50	<1.0	<1.0	<1.0	<0.20
		12/20/2016	<1.0	<0.50	<1.0	<1.0	<1.0	<0.20
		3/10/2017	<1.0	<0.50	<1.0	<1.0	<1.0	<0.20
		10/31/2017	<1.0	<0.50	<1.0	<1.0	<1.0	<0.20
		3/30/2018	<1.0	<0.50	<1.0	<1.0	<1.0	<0.20
MW-09	Pre-Remediation	8/13/2013	<1.0	<1.0	4.1	<1.0	<1.0	2.7
	Post-Remediation	3/12/2016	<1.0	2.2	11	<1.0	<1.0	5.0
		6/9/2016	<1.0	3.2	26	<1.0	<1.0	9.8
		9/29/2016	<1.0	2.8	27	<1.0	<1.0	11
		12/20/2016	<1.0	0.69	10	<1.0	<1.0	6.9
		3/10/2017	<1.0	0.61	6.2	<1.0	<1.0	2.6
		10/31/2017	<1.0	1.7	12	<1.0	<1.0	6.0
		3/30/2018	<1.0	2.1	6.2	<1.0	<1.0	<0.20
MW-11	Pre-Remediation	8/13/2013	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20
	Post-Remediation	3/12/2016	<1.0	<0.50	<1.0	<1.0	<1.0	<0.20
		6/9/2016	<1.0	<0.50	<1.0	<1.0	<1.0	<0.20
		9/29/2016	<1.0	<0.50	<1.0	<1.0	<1.0	<0.20
		12/20/2016	<1.0	<0.50	<1.0	<1.0	<1.0	<0.20
		3/10/2017	<1.0	<0.50	<1.0	<1.0	<1.0	<0.20
		10/31/2017	<1.0	<0.50	<1.0	<1.0	<1.0	<0.20
		3/30/2018	<1.0	0.60	<1.0	<1.0	<1.0	<0.20
MW-13	Pre-Remediation	8/13/2013	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20
	Post-Remediation	3/12/2016	<1.0	<0.50	<1.0	<1.0	<1.0	<0.20
		6/9/2016	<1.0	<0.50	<1.0	<1.0	<1.0	<0.20
		9/29/2016	<1.0	<0.50	<1.0	<1.0	<1.0	<0.20
		12/20/2016	<1.0	<0.50	<1.0	<1.0	<1.0	<0.20
		3/10/2017	<1.0	<0.50	<1.0	<1.0	<1.0	<0.20
		10/31/2017	<1.0	<0.50	<1.0	<1.0	<1.0	<0.20
		3/30/2018	<1.0	<0.50	<1.0	<1.0	<1.0	<0.20

Table 2 - Summary of Groundwater Analytical Results
Olympia Dry Cleaners
Olympia, Washington

Sample Location	Status ¹	Date Collected	PCE	TCE	cis-1,2-DCE	trans-1,2-DCE	1,1-DCE	Vinyl Chloride
MW-14	Pre-Remediation	8/13/2013	<1.0	<1.0	<1.0	<1.0	<1.0	<0.20
	Post-Remediation	3/8/2016	52	17	23	<1.0	<1.0	2.4
		6/9/2016 ²	99	34	33	<1.0	<1.0	2.8
		9/29/2016	96	40	42	<1.0	<1.0	<0.20
		12/20/2016 ²	23	11	7.3	<1.0	<1.0	0.79
		3/10/2017	38	24	14	<1.0	<1.0	<0.20
		10/31/2017	32	24	15	<1.0	<1.0	2.2
		3/30/2018	1.2	2.0	2.2	<1.0	<1.0	<0.20
PQL			1.0	0.50	1.0	1.0	1.0	0.20
MTCA Method A Cleanup Level			5	5	16*	160*	7.7*	0.2

Notes:

All values reported in micrograms per liter (µg/L)

-- = Not analyzed for constituent

< = Not detected at the listed laboratory detection limits

PQL = Practical Quantification Limit (laboratory detection limit)

Red Bold indicates the detected concentration exceeds Ecology MTCA Method A cleanup level

Bold indicates the detected concentration is below Ecology MTCA Method A cleanup levels

* MTCA Method B cleanup level; Method A cleanup level not established

¹Pre-remediation groundwater monitoring data collected by SoundEarth Strategies, Inc.

²Field duplicate taken at this location on this date; the greatest concentration between the two samples is shown.

³Sample collected downstream of the carbon filter sock to demonstrate treatment efficiency.

PCE = Tetrachloroethylene

TCE = Trichloroethylene

DCE = Dichloroethylene

Table 3 - Summary of Groundwater Elevations

Olympia Dry Cleaners

Olympia, Washington

Well No./ TOC Elevation ^{1,2}	Date	Depth to Water	Actual Groundwater Elevation	Change in Elevation
MW-06	3/12/2016	1.46	18.66	--
20.12	6/9/2016	0.86	19.26	0.60
	9/29/2016	0.20	19.92	0.66
	12/20/2016	1.38	18.74	-1.18
	3/10/2017	0.65	19.47	0.73
	10/31/2017	3.83	16.29	-3.18
	3/30/2018	1.62	18.50	2.21
MW-09	3/12/2016	2.32	17.80	--
30.56	6/9/2016	3.41	27.15	9.35
	9/29/2016	3.44	27.12	-0.03
	12/20/2016	3.40	27.16	0.04
	3/10/2017	3.22	27.34	0.18
	10/31/2017	3.34	27.22	-0.12
	3/30/2018	3.31	27.25	0.03
MW-11 ³	3/12/2016	0.00	20.12	--
24.66	6/9/2016	0.00	20.12	0.00
	9/29/2016	0.00	24.66	4.54
	12/20/2016	0.50	24.16	-0.50
	3/10/2017	0.38	24.28	0.12
	10/31/2017	0.34	24.32	0.04
	3/30/2018	0.39	24.27	-0.05
MW-13	3/12/2016	0.07	20.05	--
26.38	6/9/2016	0.17	19.95	-0.10
	9/29/2016	0.42	25.96	6.01
	12/20/2016	0.20	26.18	0.22
	3/10/2017	0.16	26.22	0.04
	10/31/2017	1.33	25.05	-1.17
	3/30/2018	0.18	26.20	1.15
MW-14 ³	3/12/2016	0.00	26.00	--
26.00	6/9/2016	0.00	26.00	0.00
	9/29/2016	0.00	26.00	0.00
	12/20/2016	0.00	26.00	0.00
	3/10/2017	0.00	26.00	0.00
	10/31/2017	0.00	26.00	0.00
	3/30/2018	0.00	26.00	0.00

Table 3 - Summary of Groundwater Elevations

Olympia Dry Cleaners

Olympia, Washington

Well No./ TOC Elevation ^{1,2}	Date	Depth to Water	Actual Groundwater Elevation	Change in Elevation
----------------------------------------------	------	-------------------	---------------------------------	---------------------

Notes:

All values reported in feet

TOC = Top of casing elevation relative to assigned benchmark.

-- = Not measured, not available, or not applicable

¹ Top of well casing survey information from SoundEarth Strategies, Inc.

² Elevations reported in North American Vertical Datum of 1988.

³ Depth to water values of 0.00 indicate a location with artesian groundwater; reported groundwater elevations are considered estimates.

APPENDIX A
LABORATORY DATASHEETS



Libby Environmental, Inc.

4139 Libby Road NE • Olympia, WA 98506-2518

July 5, 2018

Steve Marshall
GJG, LLC
8150 West Mercer Way
Mercer Island, WA 98040

Dear Mr. Marshall:

Please find enclosed the analytical data report for the Former Olympia Dry Cleaner Project located in Olympia, Washington.

The results of the analyses are summarized in the attached tables. Applicable detection limits and QA/QC data are included. The sample(s) will be disposed of within 30 days unless we are contacted to arrange long term storage.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Sherry L. Chilcutt".

Sherry L. Chilcutt
Senior Chemist
Libby Environmental, Inc.

Libby Environmental, Inc.

FORMER OLYMPIA DRY CLEANERS PROJECT
GJG, LLC
Olympia, Washington
Libby Project # L180625-1

4139 Libby Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@aol.com

Specific Halogenated Hydrocarbons (EPA 8260C) in Water

Sample Description		Method Blank	#1	#2	#2 Dup
Date Sampled		n/a	6/23/18	6/23/18	6/23/18
Date Analyzed	PQL (µg/L)	6/26/18 (µg/L)	6/26/18 (µg/L)	6/26/18 (µg/L)	6/26/18 (µg/L)
Vinyl Chloride (VC)	0.2	nd	4.7	nd	nd
1,1-Dichloroethene	0.5	nd	nd	nd	nd
trans-1,2-Dichloroethene	1.0	nd	nd	nd	nd
cis-1,2-Dichloroethene	1.0	nd	34	2.5	2.0
Trichloroethene (TCE)	1.0	nd	5.4	nd	nd
Tetrachloroethene (PCE)	1.0	nd	5.4	nd	nd
Surrogate Recovery					
Dibromofluoromethane		109	107	108	104
1,2-Dichloroethane-d4		127	106	122	117
Toluene-d8		133	113	130	126
4-Bromofluorobenzene		93	90	94	92

"nd" Indicates not detected at listed detection limit.

"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: Kodey Eley

Libby Environmental, Inc.

FORMER OLYMPIA DRY CLEANERS PROJECT
GJG, LLC
Olympia, Washington
Libby Project # L180625-1

4139 Libby Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@aol.com

QA/QC Data - EPA 8260C Analyses

Sample Identification: #2							
Matrix Spike			Matrix Spike Dup			RPD	
	Spiked Conc. (µg/L)	Measured Conc. (µg/L)	Spike Recovery (%)	Spiked Conc. (µg/L)	Measured Conc. (µg/L)	Spike Recovery (%)	
1,1-Dichloroethene	10	10.3	103	10	10.2	102	1.0
Chlorobenzene	10	12.0	120	10	12.4	124	3.3
Trichloroethene (TCE)	10	11.1	111	10	10.9	109	1.8

Surrogate Recovery

Dibromofluoromethane	111	107
1,2-Dichloroethane-d4	135	111
Toluene-d8	122	127
4-Bromofluorobenzene	91	92

Laboratory Control Sample

	Spiked Conc. (µg/L)	Measured Conc. (µg/L)	Spike Recovery (%)
1,1-Dichloroethene	10	9.1	91
Chlorobenzene	10	12.9	129
Trichloroethene (TCE)	10	9.1	91

Surrogate Recovery

Dibromofluoromethane	90
1,2-Dichloroethane-d4	130
Toluene-d8	107
4-Bromofluorobenzene	90

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

ANALYSES PERFORMED BY: Kodey Eley

Libby Environmental, Inc.

FORMER OLYMPIA DRY CLEANERS PROJECT
GJG, LLC

Libby Project # L180625-1

Date Received 6/25/2018

Time Received 9:01 AM

4139 Libby Road NE

Olympia, WA 98506

Phone: (360) 352-2110

FAX: (360) 352-4154

Email: libbyenv@aol.com

Received By HL

Sample Receipt Checklist

Chain of Custody

1. Is the Chain of Custody is complete? ☒ Yes ☐ No
2. How was the sample delivered? ☒ Hand Delivered ☐ Picked Up ☐ Shipped

Log In

3. Cooler or Shipping Container is present. ☐ Yes ☒ No ☐ N/A
4. Cooler or Shipping Container is in good condition. ☐ Yes ☐ No ☒ N/A
5. Cooler or Shipping Container has Custody Seals present. ☐ Yes ☐ No ☒ N/A
6. Was an attempt made to cool the samples? ☐ Yes ☒ No ☐ N/A
7. Temperature of cooler (0°C to 8°C recommended) N/A °C
8. Temperature of sample(s) (0°C to 8°C recommended) 3.0 °C
9. Did all containers arrive in good condition (unbroken)? ☒ Yes ☐ No
10. Is it clear what analyses were requested? ☒ Yes ☐ No
11. Did container labels match Chain of Custody? ☒ Yes ☐ No
12. Are matrices correctly identified on Chain of Custody? ☒ Yes ☐ No
13. Are correct containers used for the analysis indicated? ☒ Yes ☐ No
14. Is there sufficient sample volume for indicated analysis? ☒ Yes ☐ No
15. Were all containers properly preserved per each analysis? ☒ Yes ☐ No
16. Were VOA vials collected correctly (no headspace)? ☒ Yes ☐ No ☐ N/A
17. Were all holding times able to be met? ☒ Yes ☐ No

Discrepancies/ Notes

18. Was client notified of all discrepancies? ☐ Yes ☐ No ☒ N/A

Person Notified: _____

Date: _____

By Whom: _____

Via: _____

Regarding: _____

19. Comments.

Libby Environmental, Inc.

Chain of Custody Record

www.LibbyEnvironmental.com

4139 Libby Road NE
Olympia, WA 98506

Ph: 360-352-2110
Fax: 360-352-4154

Client: GIG LLC

Address: 8150 West Mercer Way

City: Mercer Island State: WA Zip: 98040

Phone: (206) 399-8987 Fax:

Client Project #

Date: 6/23/2018

Page: 1 of 1


Project Manager: Steve Marshall

Project Name: Former Olympia Dry Cleaners

Location: Olympia City, State: WA

Collector: G. Byrleson Date of Collection: 6/23/2018

Email: marshallsj@comcast.net

																			
Sample Number	Depth	Time	Sample Type	Container Type	VOC 8260	NWTPH-Gx	BTEX 8021	NWTPH-HCID	NWTPH-Dx	NWTPH-Dx/Dx	c PAH 8270	PAH 8270	Semi Vol 8270	PCB 8082	MTCA 5 Metals	RCRA 8 Metals	PCE + Breakdown	Field Notes	
1 #1		9:45 AM	H ₂ O	40 VOA													✓		
2 #2		10:45 AM	H ₂ O	40 VOA													✓		
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			
13																			
14																			
15																			
16																			
17																			

Relinquished by: J. Burham Date / Time: 6/25/18 9:01 AM

Received by: Libby Date / Time: 6/25/18 9:01

Relinquished by:

Received by:

Relinquished by:

Received by:

Sample Receipt

Good Condition? (Y) N
Temp. 3 °C
Seals Intact? (Y) N N/A
Total Number of Containers 6

Remarks:

std.

TAT: 24HR 48HR 5-DAY



Libby Environmental, Inc.

4139 Libby Road NE • Olympia, WA 98506-2518

October 5, 2018

Steve Marshall
GJG, LLC
8150 West Mercer Way
Mercer Island, WA 98040

Dear Mr. Marshall:

Please find enclosed the analytical data report for the Former Olympia Dry Cleaner Project located in Olympia, Washington.

The results of the analyses are summarized in the attached tables. Applicable detection limits and QA/QC data are included. The sample(s) will be disposed of within 30 days unless we are contacted to arrange long term storage.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Sherry L. Chilcutt".

Sherry L. Chilcutt
Senior Chemist
Libby Environmental, Inc.

Libby Environmental, Inc.

FORMER OLYMPIA DRY CLEANERS PROJECT
GJG, LLC
Olympia, Washington
Libby Project # L181001-5

4139 Libby Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@aol.com

Specific Halogenated Hydrocarbons (EPA 8260C) in Water

Sample Description		Method	#1	#2	#2 Dup
		Blank			
Date Sampled		n/a	9/30/18	9/30/18	9/30/18
Date Analyzed	PQL	10/3/18	10/3/18	10/3/18	10/3/18
	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
Vinyl Chloride (VC)	0.2	nd	3.6	1.5	1.2
1,1-Dichloroethene	0.5	nd	nd	nd	nd
trans-1,2-Dichloroethene	1.0	nd	nd	nd	nd
cis-1,2-Dichloroethene	1.0	nd	45.7	14.4	12.8
Trichloroethene (TCE)	1.0	nd	5.3	1.6	1.5
Tetrachloroethene (PCE)	1.0	nd	1.7	nd	nd
Surrogate Recovery					
Dibromofluoromethane		99	91	86	88
1,2-Dichloroethane-d4		130	112	95	94
Toluene-d8		76	92	79	73
4-Bromofluorobenzene		88	84	81	81

"nd" Indicates not detected at listed detection limit.

"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: Paul Burke

Libby Environmental, Inc.

FORMER OLYMPIA DRY CLEANERS PROJECT
GJG, LLC
Olympia, Washington
Libby Project # L181001-5

4139 Libby Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@aol.com

QA/QC Data - EPA 8260C Analyses

Sample Identification: #1						
Matrix Spike			Matrix Spike Dup			RPD
	Spiked Conc. (µg/L)	Measured Conc. (µg/L)	Spike Recovery (%)	Spiked Conc. (µg/L)	Measured Conc. (µg/L)	Spike Recovery (%)
1,1-Dichloroethene	10	9.6	96	10	9.8	98
Chlorobenzene	10	8.5	85	10	8.2	82
Trichloroethene (TCE)	10	9.7	97	10	10.0	100

Surrogate Recovery						
Dibromofluoromethane			int			72
1,2-Dichloroethane-d4			106			104
Toluene-d8			92			93
4-Bromofluorobenzene			83			82

Laboratory Control Sample			
	Spiked Conc. (µg/L)	Measured Conc. (µg/L)	Spike Recovery (%)
1,1-Dichloroethene	10	9.1	91
Chlorobenzene	10	8.4	84
Trichloroethene (TCE)	10	9.9	99

Surrogate Recovery			
Dibromofluoromethane			101
1,2-Dichloroethane-d4			119
Toluene-d8			78
4-Bromofluorobenzene			86

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

ANALYSES PERFORMED BY: Paul Burke

Libby Environmental, Inc.

FORMER OLYMPIA DRY CLEANERS PROJECT
GJG, LLC

Libby Project # L181001-5

Date Received 10/1/2018

Time Received 11:34 AM

4139 Libby Road NE

Olympia, WA 98506

Phone: (360) 352-2110

FAX: (360) 352-4154

Email: libbyenv@aol.com

Received By KE

Sample Receipt Checklist

Chain of Custody

1. Is the Chain of Custody is complete? ☒ Yes ☐ No
2. How was the sample delivered? ☒ Hand Delivered ☐ Picked Up ☐ Shipped

Log In

3. Cooler or Shipping Container is present. ☐ Yes ☒ No ☐ N/A
4. Cooler or Shipping Container is in good condition. ☐ Yes ☐ No ☒ N/A
5. Cooler or Shipping Container has Custody Seals present. ☐ Yes ☐ No ☒ N/A
6. Was an attempt made to cool the samples? ☐ Yes ☒ No ☐ N/A
7. Temperature of cooler (0°C to 8°C recommended) N/A °C
8. Temperature of sample(s) (0°C to 8°C recommended) 7.0 °C
9. Did all containers arrive in good condition (unbroken)? ☒ Yes ☐ No
10. Is it clear what analyses were requested? ☒ Yes ☐ No
11. Did container labels match Chain of Custody? ☒ Yes ☐ No
12. Are matrices correctly identified on Chain of Custody? ☒ Yes ☐ No
13. Are correct containers used for the analysis indicated? ☒ Yes ☐ No
14. Is there sufficient sample volume for indicated analysis? ☒ Yes ☐ No
15. Were all containers properly preserved per each analysis? ☒ Yes ☐ No
16. Were VOA vials collected correctly (no headspace)? ☒ Yes ☐ No ☐ N/A
17. Were all holding times able to be met? ☒ Yes ☐ No

Discrepancies/ Notes

18. Was client notified of all discrepancies? ☐ Yes ☐ No ☒ N/A

Person Notified: _____

Date: _____

By Whom: _____

Via: _____

Regarding: _____

19. Comments.

Libby Environmental, Inc.

Chain of Custody Record

www.LibbyEnvironmental.com

4139 Libby Road NE

Ph: 360-352-2110

Olympia, WA 98506

Fax: 360-352-4154

Client: DLG LLC

Address: 8150 West Mercer WAY

City: Mercer Island State: WA Zip: 98040

Phone: (206) 399-8987 Fax:

Client Project #

Date: 9/30/2018

Page: 1 of 1


Project Manager: Steve Marshall

Project Name: Former Olympia Dry Cleaners

Location: Olympia City, State: WA

Collector: G. Burleson Date of Collection: 9/30/2018

Email: marshallsj@comcast.net

<div></div> <div>Sample Number</div>	Depth	Time	Sample Type	Container Type	VOC 8260	NWTPH-Gx	BTEX 8021	NWTPH-HCID	NWTPH-Dx	NWTPH-Dx/Dx	c PAH 8270	PAH 8270	Semi Vol 8270	PCB 8082	MTCA 5 Metals	RCRA 8 Metals	PCE + Breakdown	Field Notes	
1 # 1		5:10 PM	H ₂ O	40 VOA														✓	
2 # 2		6:40 PM	H ₂ O	40 VOA														✓	
3																			
4																			
5																			
6																			
7																			
8																			
9																			
10																			
11																			
12																			
13																			
14																			
15																			
16																			
17																			

Relinquished by: 10/1/2018 Date / Time

A. Burleson 4:34 PM

Relinquished by: Date / Time

Relinquished by: Date / Time

Received by: Date / Time

Thoday Elay 10/1/18 1:34 PM

Received by: Date / Time

Received by: Date / Time

Sample Receipt

Good Condition? ☒ Y ☐ N

Temp. 7 °C

Seals Intact? ☒ Y ☐ N ☐ N/A

Total Number of Containers 6

Remarks:

TAT: 24HR 48HR 5-DAY



Libby Environmental, Inc.

4139 Libby Road NE • Olympia, WA 98506-2518

March 22, 2019

Steve Marshall
GJG, LLC
8150 West Mercer Way
Mercer Island, WA 98040

Dear Mr. Marshall:

Please find enclosed the analytical data report for the Former Olympia Dry Cleaners Project located in Olympia, Washington.

The results of the analyses are summarized in the attached tables. Applicable detection limits and QA/QC data are included. The sample(s) will be disposed of within 30 days unless we are contacted to arrange long term storage.

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

Sincerely,

Sherry L. Chilcutt
Senior Chemist
Libby Environmental, Inc.

Libby Environmental, Inc.

FORMER OLYMPIA DRY CLEANERS PROJECT
GJG, LLC
Olympia, Washington
Libby Project # L190320-8

4139 Libby Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@gmail.com

Specific Halogenated and Aromatic Hydrocarbons (EPA 8260C) in Water

Sample Description		Method	#1	#2
		Blank		
Date Sampled		n/a	3/19/19	3/19/19
Date Analyzed	PQL	3/20/19	3/20/19	3/20/19
	(µg/L)	(µg/L)	(µg/L)	(µg/L)
Vinyl Chloride (VC)	0.2	nd	1.4	3.6
1,1-Dichloroethene	0.5	nd	nd	nd
trans-1,2-Dichloroethene	1.0	nd	nd	nd
cis-1,2-Dichloroethene	1.0	nd	48	112
Trichloroethene (TCE)	1.0	nd	3.4	12
Tetrachloroethene (PCE)	1.0	nd	0.96 J	4.8
Surrogate Recovery				
Dibromofluoromethane		124	124	126
1,2-Dichloroethane-d4		122	121	132
Toluene-d8		103	94	87
4-Bromofluorobenzene		107	109	115

"J" Analyte was positively identified. The reported result is an estimate.

"nd" Indicates not detected at listed detection limit.

"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: Kodey Eley

Libby Environmental, Inc.

FORMER OLYMPIA DRY CLEANERS PROJECT
GJG, LLC
Olympia, Washington
Libby Project # L190320-8

4139 Libby Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@gmail.com

QA/QC Data - EPA 8260C Analyses

Sample Identification: L190318-7							
Matrix Spike				Matrix Spike Dup			RPD
	Spiked Conc. (µg/L)	Measured Conc. (µg/L)	Spike Recovery (%)	Spiked Conc. (µg/L)	Measured Conc. (µg/L)	Spike Recovery (%)	
1,1-Dichloroethene	10	13.2	132	10	13.2	132	0.0
Chlorobenzene	10	10.9	109	10	9.6	96	12.7
Trichloroethene (TCE)	10	12.1	121	10	12.2	122	0.8

Surrogate Recovery			
Dibromofluoromethane		117	117
1,2-Dichloroethane-d4		109	111
Toluene-d8		93	92
4-Bromofluorobenzene		123	110

Laboratory Control Sample			
	Spiked Conc. (µg/L)	Measured Conc. (µg/L)	Spike Recovery (%)
1,1-Dichloroethene	10	10.8	108
Chlorobenzene	10	9.5	95
Trichloroethene (TCE)	10	11.7	117

Surrogate Recovery		
Dibromofluoromethane		104
1,2-Dichloroethane-d4		131
Toluene-d8		97
4-Bromofluorobenzene		111

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

ANALYSES PERFORMED BY: Kodey Eley

Libby Environmental, Inc.

4139 Libby Road NE

Olympia, WA 98506

FORMER OLYMPIA DRY CLEANERS PROJECT
GJG, LLC

Phone: (360) 352-2110

FAX: (360) 352-4154

Libby Project # L190320-8

Email: libbyenv@gmail.com

Date Received 3/20/2019

Time Received 4:36 PM

Received By JO

Sample Receipt Checklist

Chain of Custody

1. Is the Chain of Custody is complete? ☒ Yes ☐ No
2. How was the sample delivered? ☒ Hand Delivered ☐ Picked Up ☐ Shipped

Log In

3. Cooler or Shipping Container is present. ☐ Yes ☒ No ☐ N/A
4. Cooler or Shipping Container is in good condition. ☐ Yes ☐ No ☒ N/A
5. Cooler or Shipping Container has Custody Seals present. ☐ Yes ☐ No ☒ N/A
6. Was an attempt made to cool the samples? ☐ Yes ☒ No ☐ N/A
7. Temperature of cooler (0°C to 8°C recommended) N/A °C
8. Temperature of sample(s) (0°C to 8°C recommended) 10.5 °C
9. Did all containers arrive in good condition (unbroken)? ☒ Yes ☐ No
10. Is it clear what analyses were requested? ☒ Yes ☐ No
11. Did container labels match Chain of Custody? ☒ Yes ☐ No
12. Are matrices correctly identified on Chain of Custody? ☒ Yes ☐ No
13. Are correct containers used for the analysis indicated? ☒ Yes ☐ No
14. Is there sufficient sample volume for indicated analysis? ☒ Yes ☐ No
15. Were all containers properly preserved per each analysis? ☒ Yes ☐ No
16. Were VOA vials collected correctly (no headspace)? ☒ Yes ☐ No ☐ N/A
17. Were all holding times able to be met? ☒ Yes ☐ No

Discrepancies/ Notes

18. Was client notified of all discrepancies? ☐ Yes ☐ No ☒ N/A

Person Notified: _____

Date: _____

By Whom: _____

Via: _____

Regarding: _____

19. Comments.

Libby Environmental, Inc.

Chain of Custody Record

www.LibbyEnvironmental.com

4139 Libby Road NE

Ph: 360-352-2110

Olympia, WA 98506

Fax: 360-352-4154

Client: GJG LLC

Address: 8150 West Mercer Way

City: Mercer Island State: WA Zip: 98040

Phone: (206) 399-8987 Fax:

Client Project #

Date: 3/20/19

Page: 1 of 1

Project Manager: Steve Marshall


Project Name: Former Olympia Dry Cleaners

Location: Olympia City, State: WA

Collector: G. Burleson

Date of Collection: 3/19/19

Email:

																				
Sample Number	Depth	Time	Sample Type	Container Type	VOC 8260	NWTPH-Gx	BTEX 8021	NWTPH-HCID	NWTPH-Dx	NWTPH-Dx/Dx	c PAH 8270	PAH 8270	Semi Vol 8270	PCB 8082	MTCA 5 Metals	RCRA 8 Metals	PCE & Bred	PCE & Bred	Field Notes	
1 #1		7:25	H ₂ O	40V0A														✓		
2 #2		7:40	H ₂ O	40V0A														✓		
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				
13																				
14																				
15																				
16																				
17																				

Relinquished by:	Date / Time:	Received by:	Date / Time:	Sample Receipt Good Condition? Y N Temp. °C Seals Intact? Y N N/A Total Number of Containers	Remarks:
<u>G. Burleson</u>	<u>3/20/19 4:36 PM</u>	<u>[Signature]</u>	<u>3/20/18 10:30</u>		
Relinquished by:	Date / Time:	Received by:	Date / Time:		
Relinquished by:	Date / Time:	Received by:	Date / Time:		



Libby Environmental, Inc.

3322 South Bay Road NE • Olympia, WA 98506-2957

July 9, 2019

Steve Marshall
GJG, LLC
8150 West Mercer Way
Mercer Island, WA 98040

Dear Mr. Marshall:

Please find enclosed the analytical data report for the Former Olympia Dry Cleaners Project located in Olympia, Washington.

The results of the analyses are summarized in the attached tables. Applicable detection limits and QA/QC data are included. The sample(s) will be disposed of within 30 days unless we are contacted to arrange long term storage.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Sherry L. Chilcutt".

Sherry L. Chilcutt
Senior Chemist
Libby Environmental, Inc.

Libby Environmental, Inc.

FORMER OLYMPIA DRY CLEANER PROJECT
GJG, LLC
Olympia, Washington
Libby Project # L190703-1

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@gmail.com

Specific Halogenated and Aromatic Hydrocarbons (EPA 8260C) in Water

Sample Description		Method	#1	#2
		Blank		
Date Sampled		n/a	7/2/19	7/2/19
Date Analyzed	PQL	7/5/19	7/5/19	7/5/19
	(µg/L)	(µg/L)	(µg/L)	(µg/L)
Vinyl Chloride (VC)	0.2	nd	0.89	0.61
1,1-Dichloroethene	0.5	nd	nd	nd
trans-1,2-Dichloroethene	1.0	nd	nd	nd
cis-1,2-Dichloroethene	1.0	nd	8.5	6.8
Trichloroethene (TCE)	0.4	nd	0.68	0.45
Tetrachloroethene (PCE)	1.0	nd	nd	nd
Surrogate Recovery				
Dibromofluoromethane		121	128	127
1,2-Dichloroethane-d4		125	112	133
Toluene-d8		94	82	108
4-Bromofluorobenzene		85	77	78

"nd" Indicates not detected at listed detection limit.

"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: Paul Burke

Libby Environmental, Inc.

FORMER OLYMPIA DRY CLEANER PROJECT
GJG, LLC
Olympia, Washington
Libby Project # L190703-1

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@gmail.com

QA/QC Data - EPA 8260C Analyses

	Matrix Spike			Matrix Spike Duplicate			RPD (%)
	Spiked Conc. (µg/L)	Measured Conc. (µg/L)	Spike Recovery (%)	Spiked Conc. (µg/L)	Measured Conc. (µg/L)	Spike Recovery (%)	
1,1-Dichloroethene	10	7.7	77	10	7.3	73	1.6
Chlorobenzene	10	12.8	128	10	12.6	126	3.5
Trichloroethene (TCE)	10	8.5	85	10	8.8	88	3.5

Surrogate Recovery

Dibromofluoromethane	93	108
1,2-Dichloroethane-d4	96	100
Toluene-d8	100	100
4-Bromofluorobenzene	69	67

Laboratory Control Sample

	Spiked Conc. (µg/L)	Measured Conc. (µg/L)	Spike Recovery (%)
1,1-Dichloroethene	10	8.4	84
Chlorobenzene	10	7.8	78
Trichloroethene (TCE)	10	8.0	80

Surrogate Recovery

Dibromofluoromethane	124
1,2-Dichloroethane-d4	121
Toluene-d8	93
4-Bromofluorobenzene	

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

ANALYSES PERFORMED BY: Paul Burke

Libby Environmental, Inc.

3322 South Bay Road NE

Olympia, WA 98506

FORMER OLYMPIA DRY CLEANER PROJECT
GJG, LLC

Phone: (360) 352-2110

FAX: (360) 352-4154

Libby Project # L190703-1

Email: libbyenv@gmail.com

Date Received 7/3/2019

Time Received 9:29 AM

Received By KD

Sample Receipt Checklist

Chain of Custody

- | | | | |
|--------------------------------------|----------------------------------------------------|------------------------------------|----------------------------------|
| 1. Is the Chain of Custody complete? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | |
| 2. How was the sample delivered? | <input checked="" type="checkbox"/> Hand Delivered | <input type="checkbox"/> Picked Up | <input type="checkbox"/> Shipped |

Log In

- | | | | |
|---------------------------------------------------------------|-----------------------------------------|----------------------------------------|------------------------------|
| 3. Cooler or Shipping Container is present. | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A |
| 4. Cooler or Shipping Container is in good condition. | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A |
| 5. Cooler or Shipping Container has Custody Seals present. | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | <input type="checkbox"/> N/A |
| 6. Was an attempt made to cool the samples? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A |
| 7. Temperature of cooler (0°C to 8°C recommended) | <u>0.0 °C</u> | | |
| 8. Temperature of sample(s) (0°C to 8°C recommended) | <u>6.1 °C</u> | | |
| 9. Did all containers arrive in good condition (unbroken)? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | |
| 10. Is it clear what analyses were requested? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | |
| 11. Did container labels match Chain of Custody? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | |
| 12. Are matrices correctly identified on Chain of Custody? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | |
| 13. Are correct containers used for the analysis indicated? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | |
| 14. Is there sufficient sample volume for indicated analysis? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | |
| 15. Were all containers properly preserved per each analysis? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | |
| 16. Were VOA vials collected correctly (no headspace)? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A |
| 17. Were all holding times able to be met? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | |

Discrepancies/ Notes

- | | | | |
|-----------------------------------------------|------------------------------|-----------------------------|-----------------------------------------|
| 18. Was client notified of all discrepancies? | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input checked="" type="checkbox"/> N/A |
|-----------------------------------------------|------------------------------|-----------------------------|-----------------------------------------|

Person Notified: _____

Date: _____

By Whom: _____

Via: _____

Regarding: _____

19. Comments.

Libby Environmental, Inc.

Chain of Custody Record

www.LibbyEnvironmental.com

4139 Libby Road NE
Olympia, WA 98506

Ph: 360-352-2110
Fax: 360-352-4154

Client: GUG LLC

Address: 8150 West Mercer Way

City: Mercer Island State: WA Zip: 98040

Phone: (206) 399-8987 Fax:

Client Project #

Date: July 3, 2019 Page: 1 of 1

Project Manager: Steve Marshall

Project Name: Former Olympia Dry Cleaners

Location: Olympia City, State: WA

Collector: Greg Backson Date of Collection: 7/3/2019

Email:



Sample Number	Depth	Time	Sample Type	Container Type	VOC 8260	NWTPH-Gx	BTEX 8021	NWTPH-HCID	NWTPH-Dx	NWTPH-Dx/Dx	c PAH 8270	PAH 8270	Semi Vol 8270	PCB 8082	MTCA 5 Metals	RCRA 8 Metals	PCET Breakdown	Field Notes
1 #1		9:05 PM	H ₂ O	40 VOA														
2 #2		9:35 PM	H ₂ O	40 VOA														
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		
11																		
12																		
13																		
14																		
15																		
16																		
17																		

Relinquished by: A. Baker Date / Time: 7/3/2019 9:29 AM

Received by: Greg Backson Date / Time: 7-3-19 9:29

Sample Receipt

Remarks:

Relinquished by: Date / Time

Received by: Date / Time

Good Condition? Y N

Temp. °C

Seals Intact? Y N N/A

Relinquished by: Date / Time

Received by: Date / Time

Total Number of Containers

TAT: 24HR 48HR 5-DAY

LEGAL ACTION CLAUSE: In the event of default of payment and/or failure to pay, Client agrees to pay the costs of collection including court costs and reasonable attorney fees to be determined by a court of law.

Distribution: White - Lab, Yellow - File, Pink - Originator



Libby Environmental, Inc.

3322 South Bay Road NE • Olympia, WA 98506-2957

December 11, 2019

Steve Marshall
GJG, LLC
8150 West Mercer Way
Mercer Island, WA 98040

Dear Mr. Marshall:

Please find enclosed the analytical data report for the Former Olympia Dry Cleaners Project located in Olympia, Washington.

The results of the analyses are summarized in the attached tables. Applicable detection limits and QA/QC data are included. The sample(s) will be disposed of within 30 days unless we are contacted to arrange long term storage.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Sherry L. Chilcutt".

Sherry L. Chilcutt
Senior Chemist
Libby Environmental, Inc.

Libby Environmental, Inc.

FORMER OLYMPIA DRY CLEANERS PROJECT
GJG, LLC
Olympia, Washington
Libby Project # L191209-2

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@gmail.com

Volatile Organic Compounds by EPA Method 8260D in Water

Sample Description		Method	#1	#2	#2 Dup
		Blank			
Date Sampled		N/A	12/7/19	12/7/19	12/7/19
Date Analyzed	PQL	12/10/19	12/10/19	12/10/19	12/10/19
	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
Vinyl Chloride (VC)	0.2	nd	1.6	0.43	0.43
1,1-Dichloroethene	0.5	nd	nd	nd	nd
trans-1,2-Dichloroethene	1.0	nd	nd	nd	nd
cis-1,2-Dichloroethene	1.0	nd	49.3	14.5	13.1
Trichloroethene (TCE)	0.4	nd	4.0	1.1	1.1
Tetrachloroethene (PCE)	1.0	nd	2.8	0.55 J	0.52 J
Surrogate Recovery					
Dibromofluoromethane		114	113	112	98
1,2-Dichloroethane-d4		119	110	107	86
Toluene-d8		91	96	96	90
4-Bromofluorobenzene		97	86	95	86

"J" Analyte detected below Reporting Limit.

"nd" Indicates not detected at listed detection limit.

"int" Indicates that interference prevents determination.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

ANALYSES PERFORMED BY: Sherry Chilcutt

Libby Environmental, Inc.

FORMER OLYMPIA DRY CLEANERS PROJECT
GJG, LLC
Olympia, Washington
Libby Project # L191209-2

3322 South Bay Road NE
Olympia, WA 98506
Phone: (360) 352-2110
FAX: (360) 352-4154
Email: libbyenv@gmail.com

QA/QC for Volatile Organic Compounds by EPA Method 8260D in Water

Matrix Spike Sample Identification: #2								
	Spiked Conc. (µg/L)	MS Response (µg/L)	MSD Response (µg/L)	MS Recovery (%)	MSD Recovery (%)	RPD (%)	Limits Recovery (%)	Data Flag
Vinyl Chloride (VC)	5.0	3.6	4.0	72	80	10.5	65-135	
1,1-Dichloroethene	5.0	4.3	4.4	86	88	2.3	65-135	
trans-1,2-Dichloroethene	5.0	4.3	4.5	86	90	4.5	65-135	
cis-1,2-Dichloroethene	5.0	5.7	6.6	114	132	14.6	65-135	
Trichloroethene (TCE)	5.0	4.7	4.7	94	94	0.0	65-135	
Tetrachloroethene (PCE)	5.0	5.1	5.1	102	102	0.0	65-135	
Surrogate Recovery (%)				MS	MSD			
Dibromofluoromethane				116	121		65-135	
1,2-Dichloroethane-d4				111	114		65-135	
Toluene-d8				99	101		65-135	
4-Bromofluorobenzene				106	103		65-135	

ACCEPTABLE RPD IS 35%

ANALYSES PERFORMED BY: Sherry Chilcutt

Laboratory Control Sample

	Spiked Conc. (µg/L)	LCS Response (µg/L)	LCS Recovery (%)	LCS Recovery Limits (%)	Data Flag
Vinyl Chloride (VC)	5.0	4.2	84	80-120	
1,1-Dichloroethene	5.0	4.7	93	80-120	
trans-1,2-Dichloroethene	5.0	4.6	92	80-120	
cis-1,2-Dichloroethene	5.0	5.3	106	80-120	
Trichloroethene (TCE)	5.0	4.7	94	80-120	
Tetrachloroethene (PCE)	5.0	4.8	96	80-120	
Surrogate Recovery					
Dibromofluoromethane			113	65-135	
1,2-Dichloroethane-d4			109	65-135	
Toluene-d8			93	65-135	
4-Bromofluorobenzene			101	65-135	

ANALYSES PERFORMED BY: Sherry Chilcutt

Libby Environmental, Inc.

3322 South Bay Road NE

Olympia, WA 98506

FORMER OLYMPIA DRY CLEANERS PROJECT

Phone: (360) 352-2110

GJG, LLC

FAX: (360) 352-4154

Libby Project # L191209-2

Email: libbyenv@gmail.com

Date Received 12/9/2019

Time Received 9:50 AM

Received By EN

Sample Receipt Checklist

Chain of Custody

- | | | | |
|--------------------------------------|----------------------------------------------------|------------------------------------|----------------------------------|
| 1. Is the Chain of Custody complete? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | |
| 2. How was the sample delivered? | <input checked="" type="checkbox"/> Hand Delivered | <input type="checkbox"/> Picked Up | <input type="checkbox"/> Shipped |

Log In

- | | | | |
|---------------------------------------------------------------|-----------------------------------------|----------------------------------------|------------------------------|
| 3. Cooler or Shipping Container is present. | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A |
| 4. Cooler or Shipping Container is in good condition. | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A |
| 5. Cooler or Shipping Container has Custody Seals present. | <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | <input type="checkbox"/> N/A |
| 6. Was an attempt made to cool the samples? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A |
| 7. Temperature of cooler (0°C to 8°C recommended) | <u>7.6 °C</u> | | |
| 8. Temperature of sample(s) (0°C to 8°C recommended) | <u>3.2 °C</u> | | |
| 9. Did all containers arrive in good condition (unbroken)? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | |
| 10. Is it clear what analyses were requested? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | |
| 11. Did container labels match Chain of Custody? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | |
| 12. Are matrices correctly identified on Chain of Custody? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | |
| 13. Are correct containers used for the analysis indicated? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | |
| 14. Is there sufficient sample volume for indicated analysis? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | |
| 15. Were all containers properly preserved per each analysis? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | |
| 16. Were VOA vials collected correctly (no headspace)? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> N/A |
| 17. Were all holding times able to be met? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | |

Discrepancies/ Notes

- | | | | |
|-----------------------------------------------|------------------------------|-----------------------------|-----------------------------------------|
| 18. Was client notified of all discrepancies? | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input checked="" type="checkbox"/> N/A |
|-----------------------------------------------|------------------------------|-----------------------------|-----------------------------------------|

Person Notified: _____

Date: _____

By Whom: _____

Via: _____

Regarding: _____

19. Comments.

Libby Environmental, Inc.

Chain of Custody Record

www.LibbyEnvironmental.com

4139 Libby Road NE
Olympia, WA 98506

Ph: 360-352-2110
Fax: 360-352-4154

Date: 12/7/2019

Page: 1 of 1

Client: GJG LLC

Project Manager: Steve Marshall

Address: 8150 West Mercer Way

Project Name: Former Olympia Dry Cleaners

City: Mercer Island State: WA Zip: 98040

Location: Olympia City, State: WA

Phone: (206) 399-8987 Fax:

Collector: G. Burleson Date of Collection: 12/7/2019

Client Project #

Email: marshall.s.j@comcast.net



Sample Number	Depth	Time	Sample Type	Container Type	VOC 8260	NWTPH-Gx	BTEX 8021	NWTPH-HCID	NWTPH-Dx	c PAH 8270	PAH 8270	Semi Vol 8270	PCB 8082	MTCA 5 Metals	RCRA 8 Metals	Field Notes
1 #1		3:10 PM	H ₂ O	40 VOA												
2 #2		3:38 PM	H ₂ O	40 VOA												
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																
17																

Relinquished by: <i>A. Burleson</i>	Date / Time: 12/9/19 9:48 am	Received by: <i>[Signature]</i>	Date / Time: 12/9/19 9:50	Sample Receipt Good Condition? Y N Temp. °C Seals Intact? Y N N/A Total Number of Containers	Remarks: TAT: 24HR 48HR 5-DAY
Relinquished by:	Date / Time:	Received by:	Date / Time:		
Relinquished by:	Date / Time:	Received by:	Date / Time:		
Relinquished by:	Date / Time:	Received by:	Date / Time:		