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RECEIVED

OCT 3 '2022

July 29, 2022

Washington State Department of Ecology Toxics Cleanup Program

Mr. Shad Bernhoft Walls Property Management 5210 Russell Avenue NW #100 Seattle, Washington 98107-3921 shad@wallspropertymanagement.com

RE: Monitoring Well Installation and July 2022 Groundwater Monitoring Report Chinook Development 1446 NW 53rd Street Seattle, Washington 98107-3737 AEG Project No. 21-101

Dear Mr. Bernhoft:

Associated Environmental Group (AEG) has prepared the enclosed report presenting the results of recent sampling activities and well decommissioning/installation performed at the above-referenced Site in Seattle, King County, Washington (Figure 1, *Site Vicinity Map*). Figure 2, *Site Map*, shows the locations of Site features, sampling locations, and monitoring wells.

WORK PERFORMED [June-July 2022]:

- Decommissioned wells MW-1 through MW-5.
- Installed two replacement groundwater monitoring wells (MW-4R and MW-5R).
- Obtained depth to groundwater data in two groundwater wells (MW-4R and MW-5R).
- Purged and sampled two groundwater monitoring wells (MW-4R and MW-5R).

WORK PROPOSED FOR NEXT EVENT [October 2022]:

- Obtain depth to groundwater data in two groundwater wells (MW-4R and MW-5R).
- Purge and sample two groundwater monitoring wells (MW-4R and MW-5R).

WELL INSTALLATION

The five on-Site wells were decommissioned during the initial stages of the construction of the on-Site building. Following installation of the building foundation, two groundwater wells (MW-4R and MW-5R) were installed in the same locations as previous wells MW-4 and MW-5, respectively, on June 24, 2022. No other locations were accessible to be able to install a third well. However, previous gradient measurements at the Site noted that the direction of groundwater flow is to the south-southeast, which is consistent with the surrounding topography and the distribution

of data from upgradient cleanup sites. As such, the locations of MW-4R and MW-5R are on the downgradient side of the property.

GROUNDWATER SUMMARY:

Sampling Event:	July 2022	Values
Range of Depths to Groundwater:	9.27 to 9.78	Feet below top of well casing (Table 1, Summary of Groundwater Elevations)
Range of Groundwater Elevations:	N/A	Feet above Mean Sea Level (Table 1, Summary of Groundwater Elevations)
Groundwater Gradient: (Direction / Magnitude)	N/A	Feet per foot (ft/ft), determined using data from MW-4R, and MW-5R.
Measurable NAPL Detected:	No	
Measurable NAPL Thickness:	N/A	
Current Remedial Action:	N/A	

DISCUSSION:

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Constituents of concern (COCs) were detected in monitoring well MW-5R. Detected concentrations are summarized below. Analytical results for this sampling event, and historical analytical results, are presented in the attached Table 2, *Summary of Groundwater Analytical Results*.

	July 2022													
Well ID	PCE	TCE	cis-1,2- DCE	trans- 1,2-DCE	Vinyl Chloride									
MW-5R	3.0	< 0.4	<1.0	<1.0	< 0.2									
MTCA Method A Cleanup Levels	5	5	16*	160*	0.2									

All results are in micrograms per liter (μ g/L)

< = Indicates constituent was not detected at the listed detection limit.

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

- PCE = Tetrachloroethylene
- TCE = Trichloroethylene

DCE = Dichloroethylene

*Method B cleanup level; no Method A value has been established for this constituent.

No COCs were detected above the laboratory detection limits in monitoring well MW-4R.

Monitoring Well Installation and July 2022 Groundwater Monitoring Report Chinook Development, Seattle, Washington AEG Project No. 21-101 July 29, 2022

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CLOSING:

AEG has completed this monitoring event at the Site. The next monitoring event is planned for October 2022, and will also include analysis for petroleum hydrocarbon (TPH) constituents.

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

Sincerely,

Associated Environmental Group

Scott Rose, L.H.G. Senior Hydrogeologist



Attachments: Figure 1 – Site Vicinity Map Figure 2 – Site Map

Table 1 – Summary of Groundwater ElevationsTable 2 – Summary of Groundwater Analytical Results

Appendix A – Supporting Documents Well logs Laboratory Datasheets

FIGURES

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2633 Parkmont Lane SW, Suite A • Olympia, WA • 98502 Phone: 360-352-9835 • Fax: 360-352-8164 • Email: admin@aegwa.com









1446 NW 53RD STREET SEATTLE, WASHINGTON

TABLES

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2633 Parkmont Lane SW, Suite A • Olympia, WA • 98502 Phone: 360-352-9835 • Fax: 360-352-8164 • Email: admin@aegwa.com

Table 1 - Summary of Groundwater ElevationsChinook Development (21-101)

Seattle, Washington

Well No./ TOC Elevation	Date	Depth to Water	Depth to Free Product	Free Product Thickness	Apparent Groundwater Elevation	Actual Groundwater Elevation	Change in Elevation
MW-1	8/23/2021	11.34				50.32	
61.66			1		_	and the state	
MW-2	8/23/2021	11.94			-	49.60	
61.54							
MW-3	8/23/2021	12.92				48.94	
61.86							
MW-4	8/23/2021	11.67				48.38	
60.05			-		_		
MW-5	8/23/2021	9.83				47.68	
57.51			+				
MW-4R	7/21/2022	9.78					
-						The Address	
MW-5R	7/21/2022	9.27				/ 	
H							

Notes:

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All values reported in feet

TOC = Top of casing elevation relative to assigned benchmark.

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

* = Well decommissioned; ceased groundwater monitoring/sampling activities at this well

Table 2 - Summary of Groundwater Analytical Results

Chinook Development (21-101) Seattle, Washington

		and the state of the state of the	al Petrole drocarbo						Se	lected \	/olatile C	rganic Compou	nds				
Sample Number	Date Collected			EDC	MTBE	Total Naphthalenes	PCE	TCE	cis-1,2- DCE	trans-1,2- DCE	Vinyl Chloride						
	time of the	San San Sa					Earth	Solutions	NW, L	LC		Second States			a see the		
B1-W	5/6/2021	<100	610	350	0.47	<1.0	< 0.2	<0.2	<0.2	< 0.2	<0.2	<1.0	1.1	0.89	0.8	<0.2	0.27
B2-W	5/6/2021	<100	370	<240	<0.2	<1.0	<0.2	<0.2	<0.2	<0.2	<0.2	<1.0	0.49	<0.2	<0.2	<0.2	<0.2
B3-W	5/6/2021	<100	<210	<210	<0.2	<1.0	<0.2	<0.2	<0.2	< 0.2	<0.2	<1.0	4.2	<0.2	<0.2	<0.2	<0.2
B4-W	5/7/2021	<100	<210	250	<0.2	<1.0	<0.2	<0.4	<0.2	< 0.2	<0.2	<1.0	17	0.75	0.68	<0.2	<0.2
B5-W	5/7/2021	<100	<240	420	<0.2	<1.0	< 0.2	<0.2	< 0.2	< 0.2	<0.2	<1.0	0.66	<0.2	<0.2	<0.2	<0.2
B6-W	5/7/2021	<100	<240	610	<0.2	<1.0	<0.2	<0.2	<0.2	<0.2	<0.2	<1.0	18	0.28	0.5	<0.2	<0.2
B7-W	5/7/2021	<100	<240	320	<0.2	<1.0	< 0.2	<0.2	<0.2	< 0.2	<0.2	<1.0	24	0.27	0.29	<0.2	<0.2
B8-W	5/7/2021	170	320	320	<0.2	<1.0	<0.2	<0.4	<0.2	< 0.2	<0.2	<1.0	44	1.1	1.5	<0.2	<0.2
								AEG							Sec. Sec.		
MW-1	8/23/2021	<100	<200	<400	<1.0	<2.0	<1.0	<2.0					16	<0.4	<1.0	<1.0	<0.2
MW-2	8/23/2021	<100	<200	<400	<1.0	<2.0	<1.0	<2.0	-		-		4.9	4.6	2.2	<1.0	1.1
MW-3	8/23/2021	<100	<200	<400	<1.0	<2.0	<1.0	<2.0					11	0.49	<1.0	<1.0	<0.2
MW-4	8/23/2021	<100	<200	<400	<1.0	<2.0	<1.0	<2.0	- 2	-	-	-	0.84 J	<0.4	<1.0	<1.0	<0.2
MW-5	8/23/2021	<100	<200	<400	<1.0	<2.0	<1.0	<2.0	-		-		31	0.40	<1.0	<1.0	<0.2
MW-4R	7/21/2022			1							-	-	<1.0	<0.4	<1.0	<1.0	<0.2
MW-5R	7/21/2022	-	-			1	-	-	-	-	-	-	3.0	<0.4	<1.0	<1.0	<0.2
P	QL	100	210	210	1.0	1.0	1.0	1.0	0.2	0.20	0.20	0.1	0.2/1.0	0.2/0.4	0.2/1.0	0.2/1.0	0.2
	Method A p Levels	800*	50	0**	5	1,000	700	1,000	0.01	5	20	160	5	5	NE	NE	0.2
	Method B Levels***	NE	NE	NE	0.8	640	800	1,600	0.022	0.48	24	160	21	0.54	16	160	0.029

Notes:

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

-- = Not analyzed for constituent

< = Not detected at the listed laboratory detection limits

- 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
- \ast TPH-Gasoline Cleanup Level with the presence of Benzene anywhere at the Site
- ** Cleanup level is for the combined concentration of diesel and oil
- *** Method B cleanup level; most stringent value (cancer vs. non-cancer) is shown.
- J = Result is less than the PQL but greater than the MDL. Reported value is approximate.
- NE = Not established; no Cleanup Level has been established for this constituent.

- EDC = 1,2-Dichloroethane
- EDB = Ethylene Dibromide
- MTBE = Methyl Tert-Butyl Ether
- PCE = Tetrachloroethylene
- TCE = Trichloroethylene
- DCE = Dichloroethylene
- PQL = Practical Quantification Limit (laboratory detection limit)

APPENDIX A

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Supporting Documents: Well Logs Laboratory Datasheets

2633 Parkmont Lane SW, Suite A• Olympia, WA • 98502 Phone: 360-352-9835 • Fax: 360-352-8164 • Email: admin@aegwa.com

Image: Section of the sectio	AEG	Pr	ent: AEG-CLIENTS WELL oject: 21-101 Well No. MW-4F dress: 1446 NW 53rd Street, Seattle, WA Page: 1 of 1		
Image: Section of the section of t	Drilling End Date: 06/24/2022 13:34 Drilling Company: Cascade Drilling Method: Direct Push Drilling Equipment: Track Mounted Geo Driller:	obe	Boring Diameter (in):3.00Well Diameter (in):2.0Sampling Method(s):Direct PushScreen Slot (in):0.010DTW During Drilling (ft):13.0Riser Material:Sch 40 PVDTW After Drilling (ft):N/AScreen Material:PVC PrepaGround Surface Elev. (ft):Seal Material(s):Bent. Chip	ck	
3.00 (0') Concrete (0.5) Fill 0 10 0 10 10 10 10 10 10 11 10 10 10 10 11 12 13.32 4.00 (6') Poorly graded SAND with silt (SP-SM); medium-coarse grained, trace 10 10 10 10 11 12 13.32 4.00		Recovery (ft)	SOIL/ROCK VISUAL DESCRIPTION		
	DP 13:20 DP 13:20 DP 13:22 DP 13:22 DP 13:22 DP 13:32 DP 13:32 DP 13:32	4.00 (9 4.00	5) Fill () Poorly graded SAND with silt (SP-SM); medium-coarse grained, trace ne-coarse gravel, some silt, dense, moist, light bluish-gray		

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AEG	Client: AEG-CLIENTS Project: 21-101 Address: 1446 NW 53rd Street, Seattle, WA	WELL LOG Well No. MW-5R Page: 1 of 1
Drilling Start Date:06/24/2022 08:11Drilling End Date:06/24/2022 08:44Drilling Company:CascadeDrilling Method:Direct PushDrilling Equipment:Track Mounted GeoprobeDriller:Logged By:K. Vendehey	Boring Diameter (in):3.00WeSampling Method(s):Direct PushScrDTW During Drilling (ft):N/ARiseDTW After Drilling (ft):N/AScrGround Surface Elev. (ft):Ser	I Depth (ft):15.0I Diameter (in):2.0een Slot (in):0.010er Material:Sch 40 PVCeen Material:PVC PrepackI Material(s):Bent. Chipser Type:Sand
DEPTH (ft) LITHOLOGY WATER LEVEL COMPLETION Sample Type Sample Type Time Blow Counts Recovery (ft)	SOIL/ROCK VISUAL DESCRIPTION	PID (ppm) MEA2 Lab Sample DEPTH (ft)
DP 10:47 3.00 	(0.5') SILT with sand (ML); trace fine gravel, trace fine sand, r moist, dark reddish-brown (5') Poorly graded SAND with silt (SP-SM); medium-coarse gr fine-coarse gravel, some silt, dense, moist, light bluish-gray	rained, trace

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

July 26, 2022

Scott Rose Associated Environmental Group, LLC 2633 Parkmont Lane SW, Suite A Olympia, WA 98502

Dear Mr. Rose:

Please find enclosed the analytical data report for the Chinook Development project located in Seattle, 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,

Shy I Unit

Sherry L. Chilcutt Senior Chemist Libby Environmental, Inc.

Phone (360) 352-2110 • Fax (360) 352-4154 • libbyenv@gmail.com

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CHINOOK DEVELOPMENT PROJECT AEG, LLC Seattle, Washington Libby Project # L22G070 Client Project # 21-101 3322 South Bay Road NE Olympia, WA 98506 Phone: (360) 352-2110 FAX: (360) 352-4154 Email: libbyenv@gmail.com

Sample Description		Method	MW-4R	MW-5R		
		Blank				
Date Sampled		N/A	7/21/2022	7/21/2022	,	
Date Analyzed	PQL	7/21/2022	7/21/2022	7/22/2022		
	(µg/L)	(µg/L)	(µg/L)	(µg/L)		
Vinyl Chloride (VC)	0.2	nd	nd	nd		
1,1-Dichloroethene	0.5	nd	nd	nd		
trans-1,2-Dichloroethene	1.0	nđ	nd	nd		
cis -1,2-Dichloroethene	1.0	nd	nd	nd		
Trichloroethene (TCE)	0.4	nd	nd	nd		
Tetrachloroethene (PCE)	1.0	nd	nd	3.0		
Surrogate Recovery						
Dibromofluoromethane		129	129	129		
1,2-Dichloroethane-d4		130	120	121		
Toluene-d8		82	93	82		
4-Bromofluorobenzene		86	95	113		
"nd" Indicates not detec	ted at liste	d detection li	mit.			
"int" Indicates that inter	ference pro	events determ	ination.		·	

Volatile Organic Compounds by EPA Method 8260D_iin Water

ANALYSES PERFORMED BY: Paul Burke

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE : 65% TO 135%

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CHINOOK DEVELOPMENT PROJECT AEG, LLC Seattle, Washington Libby Project # L22G070 Client Project # 21-101 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 S	pike Sample I	dentification:	L22G065				
		Da	ate Analyzed:	7/21/2022				
	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	4.3	4.3	87	87	0.0	65-135	
1,1-Dichloroethene	5.0	5.4	5.2	108	104	3.2	65-135	
trans-1,2-Dichloroethene	5.0	6.0	5.6	119	112	5.7	65-135	
cis -1,2-Dichloroethene	5.0	6.9	6.0	138	120	13.6	65-135	S
Trichloroethene (TCE)	5.0	5.3	4.8	106	96	10.3	65-135	
Tetrachloroethene (PCE)	5.0	5.8	5.5	116	109	5.7	65-135	
Surrogate Recovery (%)		······································		MS	MSD	<u>. </u>	<u> </u>	
Dibromofluoromethane				133	132		65-135	
1,2-Dichloroethane-d4				132	124		65-135	
Toluene-d8				90	84		65-135	
4-Bromofluorobenzene				123	119		65-135	

"S" Spike compound recovery is outside acceptance limits.

ACCEPTABLE RPD IS 35%

ANALYSES PERFORMED BY: Paul Burke

Laboratory Control Sample

	Spiked	LCS	LCS	LCS	Data
	Conc. (µg/L)	Response (µg/L)	Recovery (%)	Recovery Limits (%)	Flag
Vinyl Chloride (VC)	5.0	5.0	100	80-120	
1,1-Dichloroethene	5.0	5.5	110	80-120	
trans-1,2-Dichloroethene	5.0	5.7	113	80-120	
cis -1,2-Dichloroethene	5.0	6.0	119	80-120	
Trichloroethene (TCE)	5.0	5.0	100	80-120	
Tetrachloroethene (PCE)	5.0	5.9	118	80-120	
Surrogate Recovery		-			
Dibromofluoromethane			119	65-135	
1,2-Dichloroethane-d4			123	65-135	
Toluene-d8			81	65-135	
4-Bromofluorobenzene			122	65-135	

ANALYSES PERFORMED BY: Paul Burke

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CHINOOK DEVELOPMENT PROJECT AEG, LLC Libby Project # L22G070 Date Received 7/21/22 13:57 3322 South Bay Road NE Olympia, WA 98506 Phone: (360) 352-2110 FAX: (360) 352-4154 Email: libbyenv@gmail.com

Received By JC

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Sample Receipt Checklist

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Phone: (360) 352-9835		Fax:	(360) 352-	-8164			Coll	ector	Jo	nat	6	bi	15				Date	e of (Collec	tion: 7/	21/	22
Client Project # 21-101			Ema	ail:	Sros	e@A	EGW	A.co	om													
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