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STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
Northwest Region Office
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August 15, 2022

Ryan Roberts
Project Engineer
Public Works Department
City Hall
18415 101st NE
Bothell, WA 98011
(Ryan.Roberts@bothellwa.gov)

Re: Proposal for a path toward next steps:

- **Site Name**: Bothell Former Hertz Facility AKA AARENCO
- **Address**: 18030 Bothell Way NE, Bothell 98011
- **Facility/Site No**.: 11687976 (UST/LUST database)
- **Agreed Order No**. DE 15747

Dear Mr. Roberts:

The City of Bothell (City) is the "potentially liable person" or "PLP" for the Bothell Former Hertz site (Site). Under Agreed Order No. DE 15747, the City has been cleaning up the site and recently concluded a program of quarterly groundwater monitoring as required in the Cleanup Action Plan (CAP) for the Site.

Based on the remedial actions that addressed the soil and groundwater contamination documented at the Site in the August 10, 2017 Remedial Investigation/Feasibility Study (RI/FS), May 29, 2018 Final Cleanup Action Plan (CAP), and subsequent groundwater monitoring results, the Department of Ecology (Ecology) proposes a path forward to completing the regulatory requirements for cleaning up the Site.

Completed remedial actions

The City conducted interim action soil cleanups in September 2010, March 2012, and March 2013. Following the excavations, confirmation samples were taken. Oxygen Release Compound (ORC) was placed in the 2010 excavation.

Residual soil and groundwater contamination

Based on the studies before the interim cleanups, chemicals of potential concern (COPCs) in Site soil were:

- Total petroleum hydrocarbons (gasoline-, diesel- and motor oil-range)
- BTEX (benzene, toluene, ethylbenzene, and xylenes)
- HVOCs from an upgradient source at the Bothell Service Center Simon & Son Site.

Following the interim action soil cleanups, no samples representing soils remaining on Site had concentrations exceeding Site cleanup levels for TPH and BTEX. Thus, there are no soil contaminants of concern (COCs) remaining on Site other than HVOCs from the Bothell Service Center Simon & Son Site.

Ground water monitoring data following the soil cleanups (Table 3 of the RI/FS) indicated the following COCs remained above cleanup levels on Site at the completion of the RI in 2017:

- Total petroleum hydrocarbons (gasoline-, diesel- and motor oil-range)
- Arsenic
- HVOCs from the Bothell Service Center Simon & Son Site.

Groundwater compliance monitoring and silica gel cleanup results

The CAP and January 2, 2018 Compliance Monitoring Plan (CMP) required extended monitoring to determine if TPH concentrations would decrease below cleanup levels and if the arsenic concentrations can be determined to be a natural occurrence or induced by the dissolved petroleum contamination (TPH).

The CAP requires 5-7 years monitoring and estimated 5-7 years restoration time frame. It allows a modified sampling frequency after 2 years of quarterly monitoring.

Ecology has reviewed data from two years (2019 to 2020) of quarterly monitoring and notes the following:

1. Arsenic has decreased or remained below cleanup levels in most wells except for BLMW-8R.
2. Arsenic does not appear to correlate with TPH contamination due to non-detects in wells that contain dissolved diesel and heavy oil such as HZ-MW-19 and BC-16.
3. BLMW-8R shows no pattern of elevated arsenic correlating with dissolved petroleum hydrocarbons although latest results show high arsenic (see Attachment 1).
4. No apparent regional high groundwater arsenic background is evidenced in these monitoring results.
5. TPH-O in wells BC-16, HZ-MW-19, and BLMW-8R appear to have recently increased concentrations above cleanup levels.

6. TPH-D appears to have recent concentrations above cleanup levels in BC-16, below cleanup levels in BLMW-8R, and fluctuating concentrations slightly above or below cleanup in HZ-MW-19.

Dissolved petroleum contamination does not appear to appreciably extend or migrate further down gradient of BLMW-8R (southeast or east depending on groundwater flow direction in this area). This is based on the results from sampling nearby well HZ-MW-33 and a pump test using BLMW-8R and HZ-MW-33 that demonstrated hydraulic connection to each other (Memorandum to Ecology Re: Update to March 31, Memorandum Bothell Service Center Simon & Son (BSCSS) & Hertz Site dated June 17, 2021)

As reported in a January 18, 2022 memorandum to Ecology by Kane Environmental, two additional rounds of groundwater monitoring were conducted in August-September 2021 and December 2021. In these rounds, groundwater samples were analyzed for diesel and heavy oil range petroleum hydrocarbons, both with and without a silica gel cleanup (SGC), to "assess whether biogenic organics were contributing to the diesel and heavy oil concentrations in groundwater." In this case, the difference between SGC treated and non-treated analysis is interpreted to indicate degradation of the heavy dissolved petroleum hydrocarbons in groundwater as the silica gel adsorbs the polar non-hydrocarbons from the sample (polar metabolites). The analytical concentrations after SGC would therefore indicate residual primary dissolved petroleum hydrocarbon compounds that can be compared to Site cleanup levels to assess risk and compliance to cleanup standards.

The memorandum reported that samples taken at the Site were either non-detect or below Site cleanup levels (500 µg/L for TPH-Diesel and 500 µg/L for TPH-Oil) after SGC, despite TPH-Oil detections of up to 1000 µg/L:

	TPH-Diesel				**TPH-Oil**			
	Sept 2021		**Dec 2021**		**Sept 2021**		**Dec 2021**	
Well	***Result***	***Result with SGC***	***Result***	***Result with SGC***	***Result***	***Result with SGC***	***Result***	***Result with SGC***
HZ-MW-12	**260**	<210	**350**	<210	<210	<210	**560**	<210
BC-16	**370**	<210	**350**	<210	**450**	<210	**530**	<210
BLMW-8R	**380**	<210	**260**	<210	**1000**	**280**	**550**	<210

Concentrations in µg/L.

Ecology has determined that the non-detect results indicate that observed concentrations of TPH-Diesel and TPH-Oil at these wells constitute polar metabolites produced from dissolved petroleum hydrocarbon compounds that naturally degraded in the environment.

TPH-Diesel concentrations in HZ-MW-12, BC-16, and BLMW-8R were non-detects after SGC, implying that this contaminant of concern should be in compliance at these wells. However, compliance remains unknown in HZ-MW-19. Monitoring well HZ-MW-19 is located at the northwest corner of the network (see Attachment 1) and was not sampled for comparative SGC analysis. TPH-Diesel was

detected above cleanup levels at 610 µg/L on 7/15/2020. Although this well appears to be located upgradient of the former petroleum contaminated source area, monitoring results indicate dissolved diesel and oil detections and exceedances persist in this well.

For wells BC-16 and BLMW-8R, TPH-Oil concentrations were detected after SGC, implying that primary petroleum hydrocarbons remain, but were below cleanup levels. HZ-MW-19 still contains relatively high concentrations of TPH-Oil, for example, 2,100 µg/L (10/12/2020). It is not possible to establish compliance for TPH-Oil because SGC was not tested at this well.

Institutional Controls

Lot D comprises the northern portion of the original Bothell Former Hertz parcel and parcels formerly associated with the BSCSS Site as well as the Wexler Site parcel (now part of the BSCSS Site). It is under a May 13, 2020 environmental covenant (Lot D) (Instrument Number 20200513000357), available here:
https://apps.ecology.wa.gov/gsp/DocViewer.ashx?did=96428

The SR 522 ROW portion passing through the Site follows institutional controls established under the Memorandum of Agreement (MOA) between Ecology and the City on Right of Ways at its downtown MTCA sites.

South of SR 522, the southern half of Bothell Former Hertz and Bothell Landing sites are under a May 13, 2021 environmental covenant (Parcel 4) (Instrument Number 20200513000357) available here:
https://apps.ecology.wa.gov/gsp/DocViewer.ashx?did=101090

The environmental covenants address remaining groundwater contamination at the Site (petroleum hydrocarbon and arsenic) and specific requirements such as prohibitions on groundwater withdrawal and use, preservation of monitoring wells, and vapor controls.

Site status conclusion

All petroleum contaminated sources were removed at the Site. Extended groundwater monitoring indicate localized and naturally high arsenic in some groundwater wells at the Site. Petroleum hydrocarbon impacts (heavy oil) are sporadic and slightly in exceedance with cleanup levels at Site wells, but appear to be detections of TPH-Oil due to degradation products (polar metabolites) of petroleum hydrocarbons in groundwater.

Continuing activities in cleanup action plan

The recent increase in dissolved petroleum hydrocarbon (TPH-Oil and TPH-Diesel) are a newer development from the 2018 data on which the remedy in the CAP was based on.

The CAP requires groundwater monitoring for monitored natural attenuation (MNA) for a period of five to seven years, or until cleanup levels are met for eight consecutive quarters.

However, based on extended groundwater monitoring from 2019 to 2020 and additional sampling rounds using SGC, Ecology proposes the following:

1. If the City so desires, submit a request to terminate and remove the environmental covenant (Parcel 4) for the southern half of the Bothell Former Hertz and Bothell Landing sites (Instrument Number 2020051356).

2. Decommission HZ-MW-12 and BC-16 located at the southern half of Bothell Former Hertz site. Decommissioning shall follow state regulations, including submitting a NOI (Notice of Intent) with required fees to Ecology's Water Resources Program, and complying with WAC 173-160-460. Ecology Publication Number 09-11-011 provides answers to Frequently Asked Questions on resource protection wells.

3. Potential risk from arsenic exceedances in BLMW-8R will be addressed under the institutional controls (environmental covenant Instrument Number 20200513000357) for the Bothell Service Center Simon & Son Site at Lot D.

4. Sample HZ-MW-19R (replacement well for HZ-MW-19) for TPH-Diesel and TPH-Oil with and without SGC. Evaluate if SGC results establish compliance with site cleanup levels. If results after SGC still exceed cleanup levels, meet with Ecology to discuss next steps to address the exceedance.

5. Continue to use HZ-MW-1 only for HVOC monitoring in connection with the BSCSS Site.

Next Steps in Cleanup Process

Please reply in writing with your response to the proposed path forward for the Site.

If you have any questions regarding this letter, please do not hesitate to contact me at sunny.becker@ecy.wa.gov or by phone at (425) 457-3842.

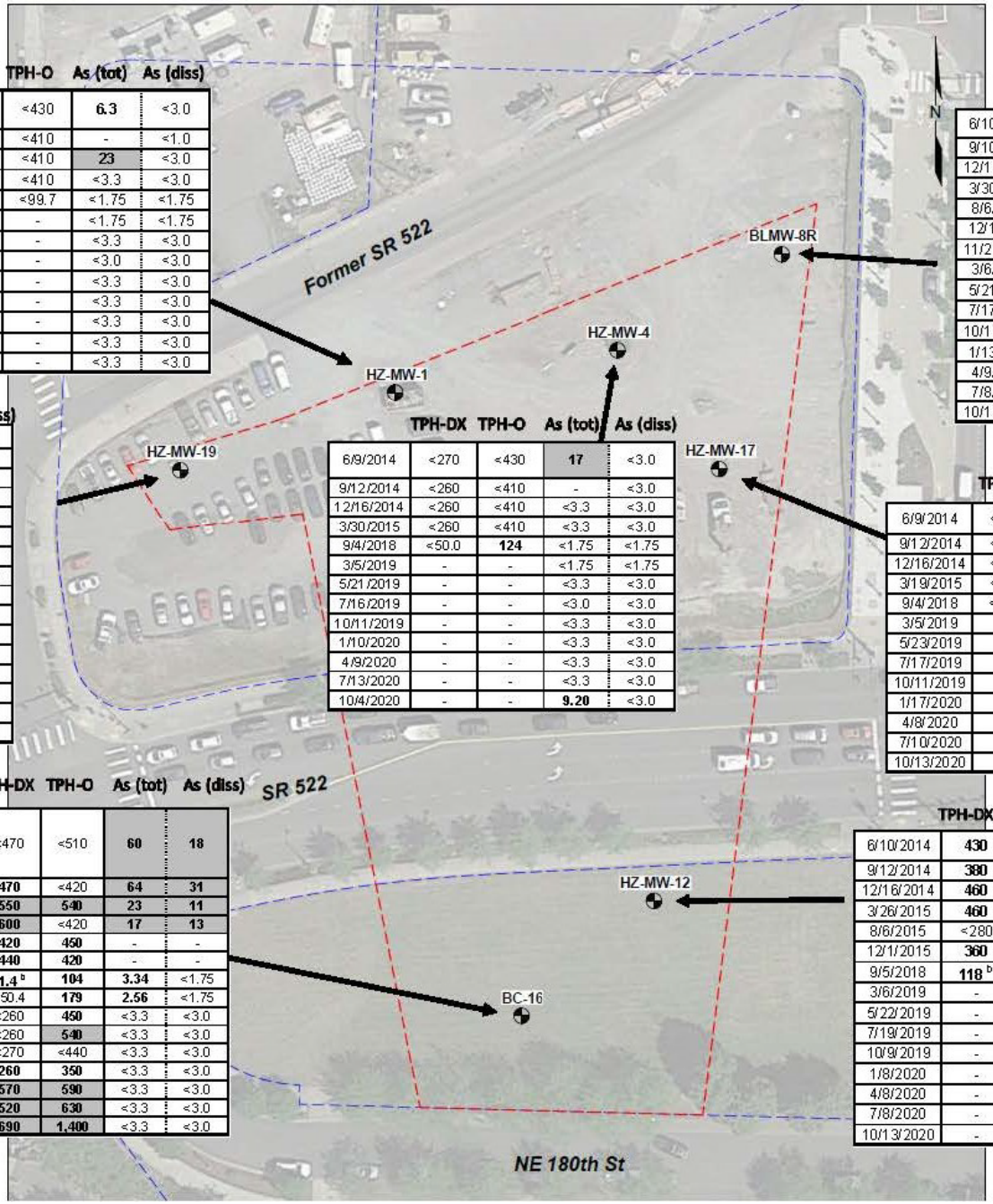
Sincerely,

Sunny Becker

Sunny Becker
Site Manager
Toxics Cleanup Program, NWRO

Enclosures: 1

ATTACHMENT 1



	TPH-DX	TPH-O	As (tot)	As (diss)
5/30/2014	<270	<430	6.3	<3.0
9/12/2014	<260	<410	-	<1.0
12/15/2014	<260	<410	23	<3.0
3/19/2015	<260	<410	<3.3	<3.0
9/4/2018	<49.8	<99.7	<1.75	<1.75
9/5/2019	-	-	<1.75	<1.75
5/21/2019	-	-	<3.3	<3.0
7/16/2019	-	-	<3.0	<3.0
10/16/2019	-	-	<3.3	<3.0
1/10/2020	-	-	<3.3	<3.0
4/9/2020	-	-	<3.3	<3.0
7/13/2020	-	-	<3.3	<3.0
10/12/2020	-	-	<3.3	<3.0

	TPH-DX	TPH-O	As (tot)	As (diss)
6/10/2014	-	-	-	-
9/10/2014	280	540	<1.0	<3.0
12/16/2014	<260	630	<3.3	<3.0
3/30/2015	300	560	<3.3	<3.0
8/6/2015	<300	<440	-	-
12/1/2015	320	510	-	-
11/21/2018	879 [b]	1,680	6.63	2.12
3/6/2019	<49.5	234	-	-
5/21/2019	400	720	7.10	5.60
7/17/2019	470	1,000	8.10	6.50
10/11/2019	<270	720	27	16
1/13/2020	220	540	26	18
4/9/2020	300	760	31	19
7/8/2020	<210	870	58	52
10/12/2020	<220	750	84	21

	TPH-DX	TPH-O	As (tot)	As (diss)
5/30/2014	<100	<410	<3.3	<3.0
6/9/2014	<640	<410	<3.3	<3.0
9/12/2014	680	430	-	<3.0
12/16/2014	<260	<410	<3.3	<3.0
3/19/2015	<260	<410	<3.3	<3.0
8/6/2015	<370	580	-	-
12/11/2015	<260	<410	-	-
9/5/2018	125 [b]	150	<1.75	<1.75
3/5/2019	210 [b]	<98.5	-	-
5/21/2019	410	<420	<3.3	<3.0
7/16/2019	<260	<420	<3.0	<3.0
10/16/2019	340	950	<3.3	<3.0
1/10/2020	510	<210	<3.3	<3.0
4/9/2020	430	370	<3.3	<3.0
7/15/2020	610	530	<3.3	<3.0
10/12/2020	370	2,100	<3.3	<3.0

	TPH-DX	TPH-O	As (tot)	As (diss)
6/9/2014	<270	<430	17	<3.0
9/12/2014	<260	<410	-	<3.0
12/16/2014	<260	<410	<3.3	<3.0
3/30/2015	<260	<410	<3.3	<3.0
9/4/2018	<50.0	124	<1.75	<1.75
3/5/2019	-	-	<1.75	<1.75
5/21/2019	-	-	<3.3	<3.0
7/16/2019	-	-	<3.0	<3.0
10/11/2019	-	-	<3.3	<3.0
1/10/2020	-	-	<3.3	<3.0
4/9/2020	-	-	<3.3	<3.0
7/13/2020	-	-	<3.3	<3.0
10/4/2020	-	-	9.20	<3.0

	TPH-DX	TPH-O	As (tot)	As (diss)
6/9/2014	<260	<410	<3.3	<3.0
9/12/2014	<260	<410		<3.0
12/16/2014	<260	<410	5.10	<3.0
3/19/2015	<260	<410	8.70	<3.0
9/4/2018	<50.0	<99.9	<1.75	<1.75
3/5/2019	-	-	<1.75	<1.75
5/23/2019	-	-	<3.3	<3.0
7/17/2019	-	-	<3.0	<3.0
10/11/2019	-	-	<3.3	<3.0
1/17/2020	-	-	<3.3	<3.0
4/8/2020	-	-	<3.3	<3.0
7/10/2020	-	-	<3.3	<3.0
10/13/2020	-	-	<3.3	<3.0

	TPH-DX	TPH-O	As (tot)	As (diss)
6/10/2014	<470	<510	60	18
9/13/2014	470	<420	64	31
12/16/2014	550	540	23	11
3/26/2015	600	<420	17	13
8/6/2015	420	450	-	-
12/2/2015	440	420	-	-
9/5/2018	91.4 [b]	104	3.34	<1.75
3/6/2019	<50.4	179	2.56	<1.75
5/22/2019	<260	450	<3.3	<3.0
7/19/2019	<260	540	<3.3	<3.0
10/11/2019	<270	<440	<3.3	<3.0
1/8/2020	260	350	<3.3	<3.0
4/8/2020	570	590	<3.3	<3.0
7/8/2020	520	630	<3.3	<3.0
10/13/2020	690	1,400	<3.3	<3.0

	TPH-DX	TPH-O	As (tot)	As (diss)
6/10/2014	430	550	14	13
9/12/2014	380	<410	12	12
12/16/2014	460	<410	14	15
3/26/2015	460	<410	12	11
8/6/2015	<280	<440	-	-
12/1/2015	360	<410	-	-
9/5/2018	118 [b]	253	4.84	5.54
3/6/2019	-	-	2.89	<1.75
5/22/2019	-	-	4.20	3.20
7/19/2019	-	-	4.60	3.90
10/9/2019	-	-	4.40	3.80
1/8/2020	-	-	5.20	4.50
4/8/2020	-	-	3.60	<3.0
7/8/2020	-	-	<3.3	<3.0
10/13/2020	-	-	3.60	3.70