

Sager, John E - DNR

From: Matthew Turner <Matthew.Turner@huskyenergy.com>
Sent: Tuesday, August 20, 2019 8:00 AM
To: Sager, John E - DNR
Cc: David Beattie
Subject: Latest Newton Creek Sample Results
Attachments: SW Results (Husky Only)_07262019.pdf; SW Results (Husky Only)_07262019.xlsx

Privileged and Confidential - Prepared at the Request of Counsel

John,

Attached is a pdf table for our water sampling results from Newton Creek received through 7/26/19 and an excel sheet with the wider range of analytes through 7/22/19.

Let me know if you have any questions.

Thanks,

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TABLE 1
2018 SUPERIOR REFINERY FIRE
SUMMARY OF WATER SAMPLING RESULTS FOR ONGOING MONITORING
(Results received through 7/26/2019)

Table with columns: Parameter Units, Benzene ug/l, Ethyl benzene ug/l, Toluene ug/l, Xylene, total ug/l, Methyl tertiary butyl ether (MTBE) ug/l, 1,2,4-Trimethyl benzene ug/l, 1,3,5-Trimethyl benzene ug/l, Naphthalene ug/l, Total PAHs ug/l, GRO ug/l, DRO mg/l, ORO mg/l, Oil and Grease mg/l, Perfluorooctane sulfonic acid (PFOS) ng/l, Perfluorooctanoic acid (PFOA) ng/l. Rows include locations like Aquatic Life Protection Screening Level, Human Health Screening Level, 21st St. Impoundment Start, 21st St. Impoundment Upstream of Weir, 21st St. Impoundment Plunge Pool, 11th St - Newton Creek, and 3rd St - Newton Creek, with various dates and sample types.

TABLE 1
2018 SUPERIOR REFINERY FIRE
SUMMARY OF WATER SAMPLING RESULTS FOR ONGOING MONITORING
 (Results recieved through 7/26/2019)

Parameter Units	Benzene ug/l	Ethyl benzene ug/l	Toluene ug/l	Xylene, total ug/l	Methyl tertiary butyl ether (MTBE) ug/l	1,2,4-Trimethyl benzene ug/l	1,3,5-Trimethyl benzene ug/l	Naphthalene ug/l	Total PAHs ug/l	GRO ug/l	DRO mg/l	ORO mg/l	Oil and Grease mg/l	Perfluorooctane sulfonic acid (PFOS) ng/l	Perfluorooctanoic acid (PFOA) ng/l		
Aquatic Life Protection Screening Level	None	None	None	None	None	None	None	None	None	None	None	None	30	None ^a	None ^a		
Human Health Screening Level	610	2920	15359	8300	None	330	4200	1200	None	None	None	None	None	None ^a	None ^a		
Location	Date	Sample Type															
Newton Creek Mouth SW-1 Ongoing (PFAS Only after 6/18/18) Faxon Creek	4/27/2018		7.5	1.3	9.9	8.1	< 0.40	4.6	1.2	2.9 j	ND	182	--	--	1.6 j	--	--
	4/28/2018		2.1	0.37 j	2.5	< 0.24	< 0.40	< 1.2	0.40 j	0.95 j	ND	66.7 j	--	--	< 1.4	--	--
	4/29/2018		< 0.34	< 0.14	0.32 j	< 0.24	< 0.40	0.22 j	< 0.18	< 0.42	ND	15.6 j	0.74	0.25	< 1.5	220	230
	4/30/2018		< 0.34	< 0.14	< 0.17	< 0.24	< 0.40	< 0.14	< 0.18	< 0.42	ND	< 8.9	0.73	0.53	< 1.4	50	160
	5/02/2018		< 0.34	< 0.14	< 0.17	< 0.24	< 0.40	< 0.14	< 0.18	< 0.42	ND	< 8.9	0.15	0.096	< 1.4	30	60
	5/04/2018		< 0.34	< 0.14	< 0.17	< 0.24	< 0.40	< 0.14	< 0.18	< 0.42	ND	< 8.9	0.11 b	0.079	< 1.5	< 10	20
	5/06/2018		< 0.34	< 0.14	< 0.17	< 0.24	< 0.40	< 0.14	< 0.18	< 0.42	ND	15.6 j b	0.098	0.11	< 1.4	10	20
	5/06/2018	Duplicate	< 0.34	< 0.14	< 0.17	< 0.24	< 0.40	< 0.14	< 0.18	< 0.42	ND	< 8.9	0.11	0.12	< 1.5	10	10
	5/08/2018		< 0.34	< 0.14	< 0.17	< 0.24	< 0.40	< 0.14	< 0.18	< 0.42	ND	23.6 j	0.15	0.11	< 1.4	10	20
	5/10/2018		< 0.34	< 0.14	< 0.17	< 0.24	< 0.40	< 0.14	< 0.18	< 0.42	ND	< 8.9	0.14	0.13	< 1.5	50	30
	5/15/2018		< 0.34	< 0.14	< 0.17	< 0.24	< 0.40	< 0.14	< 0.18	< 0.42	ND	26.2 j b	0.14 b	0.12 b	--	40	40
	5/21/2018		< 0.34	< 0.14	< 0.17	< 0.24	< 0.40	< 0.14	< 0.18	< 0.42	--	9.2 j b	0.073 b	0.082 b	--	< 10	< 10
	5/21/2018	Duplicate	< 0.34	< 0.14	< 0.17	< 0.24	< 0.40	< 0.14	< 0.18	< 0.42	--	11.0 j	0.075	0.085	--	< 10	< 10
	5/23/2018		--	--	--	--	--	--	--	--	ND	--	--	--	--	--	--
	5/29/2018		< 0.34 h	< 0.14 h	< 0.17 h	< 0.24 h	< 0.40 h	< 0.14 h	< 0.18 h	< 0.42 h	ND	16.2 j h	0.12 b h	0.11 b h	--	80	30
	5/29/2018	Duplicate	< 0.34 h	< 0.14 h	< 0.17 h	< 0.24 h	< 0.40 h	< 0.14 h	< 0.18 h	< 0.42 h	ND	15.8 j h	0.12 b h	0.11 b h	--	60	20
	6/04/2018		< 0.10	< 0.14	< 0.083	< 0.31	< 0.16	< 0.20	< 0.12	< 0.48	ND	< 8.9	0.081 b	0.072	--	130	20
	6/04/2018	Duplicate	< 0.10	< 0.14	< 0.083	< 0.31	< 0.16	< 0.20	< 0.12	< 0.48	ND	< 8.9	0.088 b	0.083	--	140	10
	6/12/2018		< 0.10	< 0.14	< 0.083	< 0.31	< 0.16	< 0.20	< 0.12	< 0.48	ND	10.7 j b	0.062 b	0.085 b	--	< 10	< 10
	6/18/2018		< 0.10	< 0.14	0.10 j b	< 0.31	< 0.16	< 0.20	< 0.12	< 0.48	ND	< 8.9	0.063 b	0.074	--	50	10
	7/23/2018		--	--	--	--	--	--	--	--	--	--	--	--	--	< 10	< 10
	7/30/2018		--	--	--	--	--	--	--	--	--	--	--	--	--	< 10	< 10
	8/06/2018		--	--	--	--	--	--	--	--	--	--	--	--	--	< 10	< 10
	8/13/2018		--	--	--	--	--	--	--	--	--	--	--	--	--	< 10 *	< 10
	8/20/2018		--	--	--	--	--	--	--	--	--	--	--	--	--	< 10	< 10
	9/04/2018		--	--	--	--	--	--	--	--	--	--	--	--	--	< 10	< 10
	9/17/2018		--	--	--	--	--	--	--	--	--	--	--	--	--	50	< 10
	10/01/2018		--	--	--	--	--	--	--	--	--	--	--	--	--	20	< 10
	10/15/2018		--	--	--	--	--	--	--	--	--	--	--	--	--	150	10
	10/29/2018		--	--	--	--	--	--	--	--	--	--	--	--	--	60	< 10
	11/12/2018		--	--	--	--	--	--	--	--	--	--	--	--	--	10	< 10
	12/03/2018		--	--	--	--	--	--	--	--	--	--	--	--	--	< 10	< 10
	3/25/2019		--	--	--	--	--	--	--	--	--	--	--	--	--	43	13
4/01/2019		--	--	--	--	--	--	--	--	--	--	--	--	--	48	< 9.8	
5/06/2019		--	--	--	--	--	--	--	--	--	--	--	--	--	67	< 9.8	
6/03/2019		--	--	--	--	--	--	--	--	--	--	--	--	--	12	< 9.9	
7/01/2019		--	--	--	--	--	--	--	--	--	--	--	--	--	76	13	
Faxon Creek	4/29/2018		< 0.34	< 0.14	< 0.17	< 0.24	< 0.40	< 0.14	< 0.18	< 0.42	ND	< 8.9	0.069 b	0.12	< 1.5	< 10	< 10

None^a = No state of Wisconsin PFOS and/or PFOA human health or aquatic life protection screening levels currently established.

Bar Standard Footnotes and Qualifiers

--	Not analyzed/Not available.
ND	Not detected.
*	Estimated value, QA/QC criteria not met.
a	Estimated value, calculated using some or all values that are estimates.
b	Potential false positive value based on blank data validation procedures. Concentrations identified as potential false positive are excluded from calculations.
h	EPA recommended sample preservation, extraction or analysis holding time was exceeded.
j	Estimated detected value. The reported value is less than the stated laboratory quantitation limit but greater than the laboratory method detection limit.