



2019 Annual Groundwater Monitoring Report

Jacksons Food Store No. 616
11700 Northeast 160th Street
Bothell, Washington

Jacksons Food Stores





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1. Introduction

GHD Services, Inc. (GHD) prepared this report on behalf of Jacksons Food Stores. This annual report includes all groundwater monitoring data collected in 2019.

1.1 Site Information

Site Address	11700 Northeast 160 th Street, Bothell, WA
Site Use	Jacksons Food Store No. 616
GHD Project Manager	Brian Peters
Lead Agency	Washington State Department of Ecology
Agency Case No.	63265631

2. Site Activities and Findings

2.1 Current Activities

GHD gauged and sampled wells according to the established monitoring program during 2018.

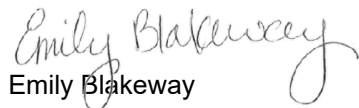
GHD prepared a vicinity map (Figure 1) and a groundwater elevation and chemical concentration map (Figure 2). GHD prepared Table 1 summarizing groundwater monitoring data and laboratory analytical results. Field forms and the laboratory analytical reports are included as Appendices A and B, respectively.

2.2 Findings

Quarter/Date	3 rd /August 26, 2019
Groundwater Flow Direction	Not estimated
Hydraulic Gradient	Not calculated
Depth to Water	11.40 to 52.08 feet below top of well casing

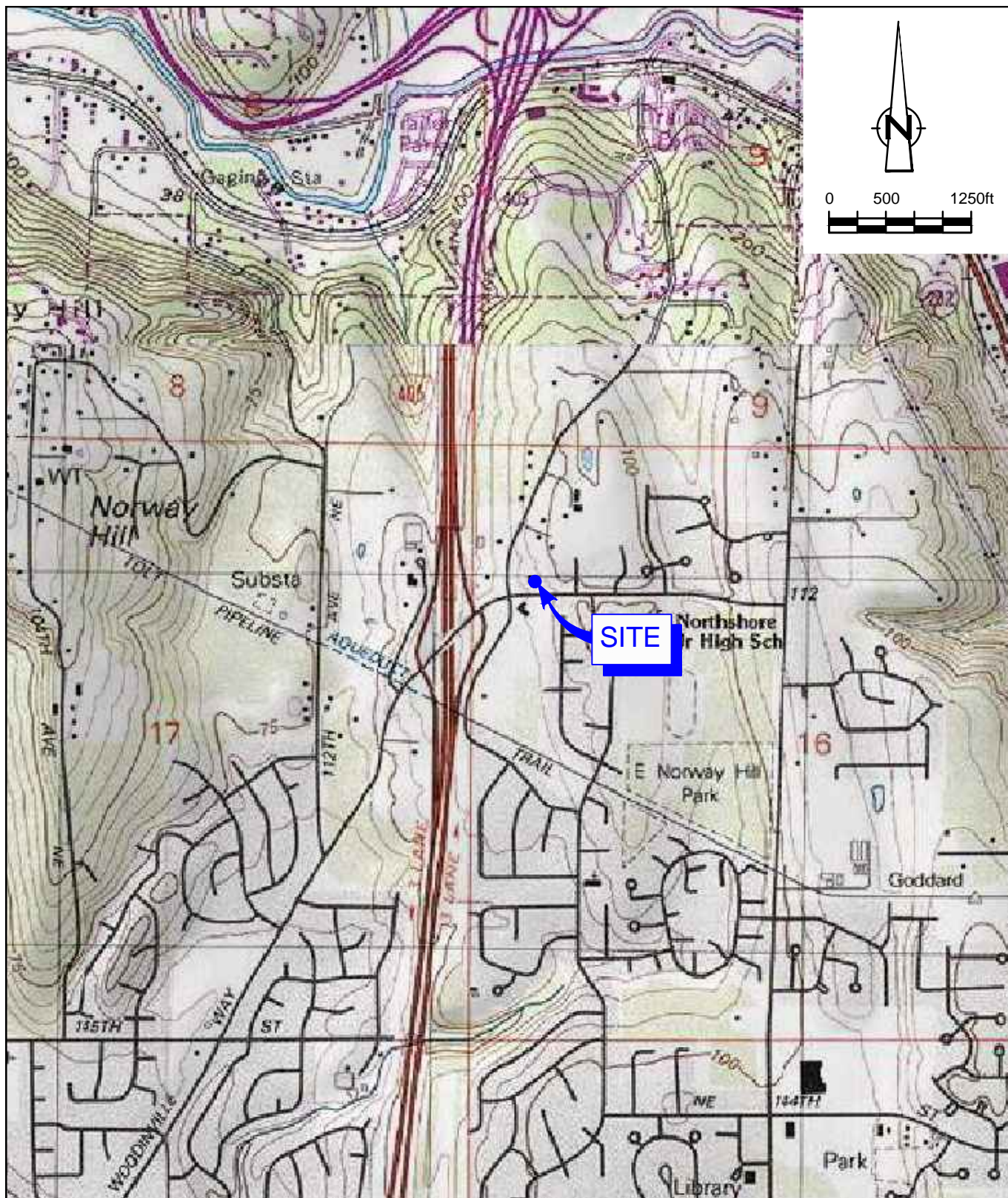
All of Which is Respectfully Submitted,

GHD


Emily Blakeway


Brian Peters, LG

Figures



SOURCE: TOPO! MAPS.

figure 1

VICINITY MAP
 JACKSONS FOOD STORE NO. 616
 11700 NORTHEAST 160TH STREET
Bothell, Washington



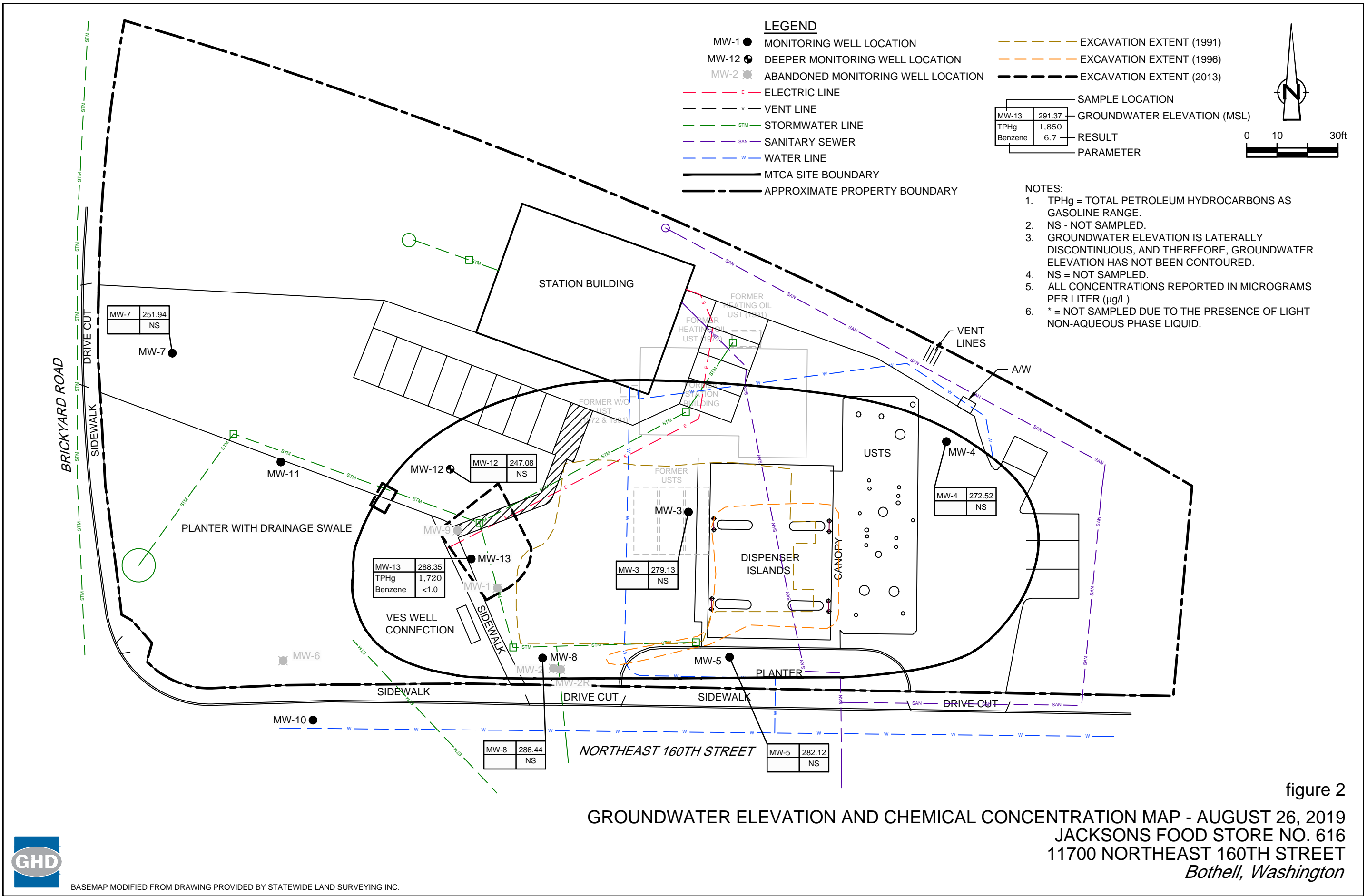


figure 2

GROUNDWATER ELEVATION AND CHEMICAL CONCENTRATION MAP - AUGUST 26, 2019
 JACKSONS FOOD STORE NO. 616
 11700 NORTHEAST 160TH STREET
Bothell, Washington

Tables

TABLE 2

SUMMARY OF GROUNDWATER MONITORING DATA
JACKSONS FOOD STORE NO. 616
11700 NORTHEAST 160TH STREET, BOTHELL, WASHINGTON

Sample ID	Date	TOC	DTW	SPH ¹	GWE	HYDROCARBONS			PRIMARY VOCs						OXYGENATES					LEAD		PAHs	
						TPHg	TPHd	TPHo	B	T	E	X	EDB	EDC	MTBE	TBA	DIPE	ETBE	TAME	Total	Dissolved	Naphthalene	cPAHs
MTCA Method A Cleanup Levels						800	500	500	5	1000	700	1000	0.01	5	20	NE	NE	NE	NE	15	15	160	0.1
Site-Specific Cleanup Levels (MTCA Method B)							11,000		1,700	78,000	110,000	22,000											
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	
MW-1	02/07/94	94.91	13.45	---	81.46	17,000	---	---	850	1,600	460	3,800	---	---	---	---	---	---	---	5.3	---	---	
MW-1 ^c	02/07/94	94.91	13.45	---	81.46	18,000	---	---	860	1,700	470	3,900	---	---	---	---	---	---	---	---	---	---	
MW-1	06/22/94	94.91	21.78	---	73.13	55,000	---	---	1,200	7,100	2,800	13,000	---	---	---	---	---	---	---	5.6	---	---	
MW-1	09/19/94	94.91	17.64	---	77.27	76,700	---	---	1,137	7,650	2,740	12,200	---	---	---	---	---	---	---	3	---	---	
MW-1	01/05/94	94.91	14.11	---	80.80	27,000	---	---	240	980	1,400	6,000	---	---	---	---	---	---	---	ND	---	---	
MW-1 ^c	01/05/94	94.91	14.11	---	80.80	44,000	---	---	210	1,500	1,900	7,500	---	---	---	---	---	---	---	---	---	---	
MW-1	03/23/95	94.91	11.9	---	83.01	26,000	---	---	190	1,200	1,600	5,500	---	---	---	---	---	---	---	ND	---	---	
MW-1	06/06/95	94.91	16.93	---	77.98	40,000	---	---	730	3,800	2,700	11,000	---	---	---	---	---	---	---	ND	---	---	
MW-1	09/12/95	94.91	17.76	---	77.15	86,000	---	---	1,000	6,500	3,100	13,000	---	---	---	---	---	---	---	7	---	---	
MW-1	12/05/95	94.91	10.48	---	84.43	46,000	---	---	200	1,400	1,800	7,400	---	---	---	---	---	---	---	3	---	---	
MW-1	03/21/96	94.91	13.49	---	81.42	64,000	---	---	340	2,800	2,600	9,800	---	---	---	---	---	---	---	---	---	---	
MW-1 ^c	03/21/96	94.91	13.49	---	81.42	64,000	---	---	300	2,600	2,500	9,300	---	---	---	---	---	---	---	---	---	---	
MW-1	06/17/96								Well inadvertently buried during site construction -- not measured														
MW-1	09/23/96								Well inadvertently buried during site construction -- not measured														
MW-1	12/16/96								Well inadverently buried during site construction -- not measured														
MW-1	06/27/97	91.10	15.15	---	75.95	59,100	---	---	126	1,400	2,670	6,940	---	---	---	---	---	---	---	---	---	---	
MW-1 ^c	06/27/97	91.10	15.15	---	75.95	58,700	---	---	124	1,460	2,880	8,880	---	---	---	---	---	---	---	---	---	---	
MW-1	09/16/97	91.10	18.45	---	72.65	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-1	01/06/98	91.10	18.26	---	72.84	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-1	03/23/98	91.10	14.95	---	76.15	47,300	---	---	160	1,000	1,660	6,260	---	---	---	---	---	---	---	---	---	---	
MW-1	06/20/98	91.10	16.52	---	74.58	43,000	---	---	110	474	2,120	7,310	---	---	---	---	---	---	---	---	---	---	
MW-1	09/21/98	91.10	22.49	---	68.61	37,200	---	---	678	923	2,150	7,120	---	---	---	---	---	---	---	---	---	---	
MW-1	12/16/98	91.10	15.08	---	76.02	37,300	---	---	221	790	1,950	6,270	---	---	---	---	---	---	---	---	---	---	
MW-1	04/08/99	91.10	16.07	---	75.03	33,200	---	---	86.9	478	1,650	5,600	---	---	<500 e	---	---	---	---	---	---	---	
MW-1	10/07/99	91.10	22.27	---	68.83	42,200	---	---	586	1,690	2,210	6,880	---	---	---	---	---	---	---	---	---	---	
MW-1	03/21/00	91.10	16.74	---	74.36	30,000	---	---	104	310	1,850	5,490	---	---	---	---	---	---	---	---	---	---	
MW-1	09/30/00	91.10	22.88	---	68.22	22,700	---	---	590	227	1,760	3,500	---	---	---	---	---	---	---	---	---	---	
MW-1	02/03/01	91.10	18.57	---	72.53	17,100	---	---	88.6	143	1,730	3,940	---	---	<40.0 e	---	---	---	---	---	---	---	
MW-1	07/10/01	91.10	18.92	---	72.18	30,000	---	---	209	309	2,050	4,710	---	---	<5.00	---	---	---	---	---	---	---	
MW-1	02/25/02	91.10	14.35	---	76.75	17,900	---	---	78.0	84.1	1,240	3,150	---	---	---	---	---	---	---	---	---	---	
MW-1	07/11/02	91.10	17.30	---	73.80	32,000	---	---	92	130	1,700	2,800	---	---	---	---	---	---	---	---	---	---	
MW-1	01/02/03	91.10	21.07	---	70.03	46,000	---	---	240	180	2,500	5,460	---	---	---	---	---	---	---	---	---	ug/L	
MW-1	07/14/03	91.10	20.41	---	70.69	38,000	---	---	320	350	2,200	5,550	---	---	---	---	---	---	---	---	---	---	
MW-1	01/23/04	91.10	16.45	---	74.65	19,000	---	---	77	<1	880	1,855	---	---	---	---	---	---	---	---	---	---	
MW-1	07/23/04	91.10	20.84	---	70.26	24,000	---	---	180	250	2,100	5,030	---	---	---	---	---	---	---	---	---	---	
MW-1	01/10/05	91.10	18.02	---	73.08	12,000	---	---	76	54	880	1,638	---	---	---	---	---	---	---	---	---	---	
MW-1	07/15/05	91.10	17.20	---	73.90	18,000	---	---	99	66	1,300	2,358	---	---	---	---	---	---	---	---	---	---	
MW-1	01/11/06	91.10	12.81	---	78.29	11,800	---	---	74	17.7	406	742	---	---	---	---	---	---	---	---	---	---	
MW-1	02/15/07	91.10	16.00	---	75.10	1,050	---	---	5.44	4.09	28.2	83.4	---	---	<5.00	<50.0	<1.00	<1.00	<1.00	---	---	---	
MW-1	09/11/07	91.10	17.44	---	73.66	10,900 a,b	---	---	122	144	1,160	2,900	---	---	---	---	---	---	---	---	---	---	
MW-1	02/20/08	91.10	15.81	---	75.29	15,500	---	---	59.4	685	38.4	1,360	---	---	<5.00	<50.0	<1.00	<1.00	<1.00	---	---	---	
MW-1	08/12/08	91.10	18.79	---	72.31	14,000	---	---	170	170	2,100	6,350	---	---	---	---	---	---	---	---	---	---	
MW-1	02/04/09	91.10	15.11	---	75.99	10,000	---	---	58	42	630	1,400	---	---	<25 e	<250	<50	<50	<50	---	---	---	
MW-1 *	08/13/09	299.53	18.80	---	280.73	15,000	5,300 d	<100	190	100	900	2,500	<0.010	<1.6	<10	<200	<10	<10	<10	1.71	---	360	<0.1
MW-1 g	02/05/10	299.53	14.14	---	285.39	11,000	5,100 d	<100	60	28	460	830	---	---	<1.0	<10	<2.0	<2.0	<2.0	---	---	200	---
MW-1 g	08/04/10	299.53	15.68	---	283.85	10,000	6,200 d	<100	45	22	200	430	---	---	---	---	---	---	---	---	---	210	---
MW-1	03/23/11	299.53	11.58	---	287.95	10,100	1,780	201	41.0	11.5	206	333	---	---	<1.00	<20.0	<1.00	<1.00	<1.00	---	---	47.9	---

TABLE 2

SUMMARY OF GROUNDWATER MONITORING DATA
JACKSONS FOOD STORE NO. 616
11700 NORTHEAST 160TH STREET, BOTHELL, WASHINGTON

Sample ID	Date	TOC	DTW	SPH ¹	GWE	HYDROCARBONS			PRIMARY VOCs						OXYGENATES					LEAD		PAHs				
						TPHg	TPHd	TPHo	B	T	E	X	EDB	EDC	MTBE	TBA	DIPE	ETBE	TAME	Total	Dissolved	Naphthalene	cPAHs			
MTCA Method A Cleanup Levels						800	500	500	5	1000	700	1000	0.01	5	20	NE	NE	NE	NE	15	15	160	0.1			
Site-Specific Cleanup Levels (MTCA Method B)							11,000		1,700	78,000	110,000	22,000	---	---	---	---	---	---	---	---	---	---	---			
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L			
MW-1	09/12/11	299.53	15.42	---	284.11	10,100	2,290	<248	138	33.4	255	686	---	---	---	---	---	---	---	---	---	58.5	---			
MW-1	03/07/12	299.53	11.28	---	288.25	6,850	2,830 h	105	55.6	12.2	162	235	---	---	<1.00	<10.0	<1.00	<1.00	<1.00	---	---	38.4	---			
MW-1	09/12/12	299.53	13.69	---	285.84	14,700	2,920	<95.2	97.6	24.1	588	947	---	---	---	---	---	---	---	---	156	---				
MW-1	12/14/12	299.53	10.03	---	289.50	5,100	1,100	<96.2	53.3	6.74	88.9	98.6	---	---	---	---	---	---	---	---	---	---				
Well Decommissioned during 2013 excavation																										
MW-2	02/07/94	94.63	17.87	---	76.76	4,200	---	---	230	16	400	870	---	---	---	---	---	---	---	ND	---	---	---			
MW-2	06/22/94	94.63	14.71	---	79.92	4,300	---	---	180	15	370	670	---	---	---	---	---	---	---	---	ND	---	---			
MW-2	09/19/94	94.63	16.12	---	78.51	1,650	---	---	79	4.1	128	201	---	---	---	---	---	---	---	---	ND	---	---			
MW-2	01/05/95	94.63	13.58	---	81.05	1,900	---	---	85	6.4	220	320	---	---	---	---	---	---	---	---	ND	---	---			
MW-2	03/23/95	94.63	11.60	---	83.03	1,500	---	---	74	5.9	160	280	---	---	---	---	---	---	---	---	ND	---	---			
MW-2	06/06/95	94.63	15.65	---	78.98	2,800	---	---	154	15	330	520	---	---	---	---	---	---	---	---	ND	---	---			
MW-2	09/12/95	94.63	17.33	---	77.30	2,300	---	---	70	11	180	280	---	---	---	---	---	---	---	---	ND	---	---			
MW-2	12/05/95	94.63	11.10	---	83.53	1,300	---	---	41	3.5	130	150	---	---	---	---	---	---	---	---	ND	---	---			
MW-2	03/21/96	94.63	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---			
MW-2	06/17/96	94.63							Well Destroyed During Widening of Northeast 160th Street																	
MW-3	02/07/94	99.57	21.68	---	77.89	2,500	---	---	220	12	220	280.0	---	---	---	---	---	---	---	ND	---	---	---			
MW-3	06/22/94	99.57	22.16	---	77.41	5,300	---	---	270	26	400	270.0	---	---	---	---	---	---	---	---	ND	---	---			
MW-3 ^c	06/22/94	99.57	22.16	---	77.41	4,900	---	---	260	23	400	250.0	---	---	---	---	---	---	---	---	---	---	---			
MW-3	09/19/94	99.57	23.46	---	76.11	1,340	---	---	158	5.2	118	32.0	---	---	---	---	---	---	---	---	5	---	---			
MW-3 ^c	09/19/94	99.57	23.46	---	76.11	1,300	---	---	150	7.4	116	35.0	---	---	---	---	---	---	---	---	---	---	---			
MW-3	01/05/95	99.57	22.72	---	76.85	2,500	---	---	160	15	180	120.0	---	---	---	---	---	---	---	---	ND	---	---			
MW-3 ^c	01/05/95	99.57	22.72	---	76.85	2,000	---	---	130	8	150	77.0	---	---	---	---	---	---	---	---	---	---	---			
MW-3	03/23/95	99.57	21.82	---	77.75	2,100	---	---	120	13	150	84.0	---	---	---	---	---	---	---	---	ND	---	---			
MW-3 ^c	03/23/95	99.57	21.82	---	77.75	2,200	---	---	120	12	160	110.0	---	---	---	---	---	---	---	---	---	---	---			
MW-3	06/06/95	99.57	22.20	---	77.37	2,900	---	---	120	34	190	210.0	---	---	---	---	---	---	---	---	ND	---	---			
MW-3 ^c	06/06/95	99.57	22.20	---	77.37	3,100	---	---	130	41	220	260.0	---	---	---	---	---	---	---	---	ND	---	---			
MW-3	09/12/95	99.57	23.06	---	76.51	1,300	---	---	62	8.1	98	86.0	---	---	---	---	---	---	---	---	56	---	---			
MW-3 ^c	09/12/95	99.57	23.06	---	76.51	1,300	---	---	61	8.8	94	96.0	---	---	---	---	---	---	---	---	---	---	---			
MW-3	12/05/95	99.57	22.24	---	77.33	1,800	---	---	65	7.7	95	90.0	---	---	---	---	---	---	---	---	---	---	---			
MW-3	03/21/96	99.57	21.22	---	78.35	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---			
MW-3	06/17/96	99.57	21.25	---	78.32	3,920	---	---	121	7.19	238	87.4	---	---	---	---	---	---	---	---	---	---	---			
MW-3 ^c	06/17/96	99.57	21.25	---	78.32	4,290	---	---	87.5	6.58	211	115.0	---	---	---	---	---	---	---	---	---	---	---			
MW-3	09/23/96	99.57	22.83	---	76.74	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---			
MW-3	12/16/96	99.57	22.66	---	76.91	878	---	---	29.8	1.1	49.5	7.6	---	---	---	---	---	---	---	---	---	---	---			
MW-3 ^c	12/16/96	99.57	22.66	---	76.91	580	---	---	29.4	1.6	41.9	7.3	---	---	---	---	---	---	---	---	---	---	---			
MW-3	06/27/97	99.57	21.01	---	78.56	3,580	---	---	42.5	3.64	135	51.4	---	---	---	---	---	---	---	---	---	---	---			
MW-3	09/16/97	99.57	21.80	---	77.77	4,010	---	---	63.3	4.06	171	74.6	---	---	---	---	---	---	---	---	---	---	---			
MW-3	01/06/98	99.57	21.65	---	77.92	1,160	---	---	30.3	1.6	58.8	16.4	---	---	---	---	---	---	---	---	---	---	---			
MW-3	03/23/98	99.57	26.65	---	72.92	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---			
MW-3	06/20/98	99.57	21.65	---	77.92	1,380	---	---	37.7	2.86	67.6	18.4	---	---	---	---	---	---	---	---	---	---	---			
MW-3	09/21/98	99.57	23.05	---	76.52	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---			
MW-3	12/16/98	99.57	23.65	---	75.92	ND	---	---	8.96	0.907	ND	ND	---	---	---	---	---	---	---	---	---	---	---			
MW-3	04/08/99	99.57	22.66	---	76.91	959	---	---	12.7	<1.40	19.0	15.1	---	---	<8.20	---	---	---	---	---	---	---	---			
MW-3	10/07/99	99.57	24.27	---	75.30	<50.0	---	---	2.87	<0.5	<0.5	<1.0	---	---	---	---	---	---	---	---	---	---	---			
MW-3	03/21/00	99.57	23.41	---	76.16	262	---	---	3.42	<0.5	1.8	1.6	---	---	---	---	---	---	---	---	---	---	---			

TABLE 2

SUMMARY OF GROUNDWATER MONITORING DATA
JACKSONS FOOD STORE NO. 616
11700 NORTHEAST 160TH STREET, BOTHELL, WASHINGTON

Sample ID	Date	TOC	DTW	SPH ¹	GWE	HYDROCARBONS			PRIMARY VOCs						OXYGENATES					LEAD		PAHs		
						TPHg	TPHd	TPHo	B	T	E	X	EDB	EDC	MTBE	TBA	DIPE	ETBE	TAME	Total	Dissolved	Naphthalene	cPAHs	
MTCA Method A Cleanup Levels						800	500	500	5	1000	700	1000	0.01	5	20	NE	NE	NE	NE	15	15	160	0.1	
Site-Specific Cleanup Levels (MTCA Method B)						ug/L	11,000	ug/L	1,700	78,000	110,000	22,000	---	---	---	---	---	---	---	---	ug/L	ug/L	ug/L	ug/L
MW-3	09/30/00	99.57	23.66	---	75.91	8,360	---	---	189	69.3	32.7	1,200	---	---	---	---	---	---	---	---	---	---	---	
MW-3	02/03/01	99.57	24.11	---	75.46	430	---	---	62.0	5.26	7.10	15.7	---	---	---	---	---	---	---	---	---	---	---	
MW-3	07/10/01	99.57	23.33	---	76.24	<80	---	---	12.1	<0.500	<0.500	<1.00	---	---	---	---	---	---	---	---	---	---	---	
MW-3	02/25/02	99.57	23.13	---	76.44	688	---	---	13.8	0.795	7.39	6.63	---	---	---	---	---	---	---	---	---	---	---	
MW-3	07/11/02	99.57	22.56	---	77.01	300	---	---	2.2	<1	3.8	1.7	---	---	---	---	---	---	---	---	---	---	---	
MW-3	01/02/03	99.57	24.67	---	74.90	<250	---	---	41	<1	<1	<1	---	---	---	---	---	---	---	---	---	---	---	
MW-3	07/14/03	99.57	23.73	---	75.84	<250	---	---	6.9	<1	<1	1.7	---	---	---	---	---	---	---	---	---	---	---	
MW-3	01/23/04	99.57	23.82	---	75.75	<250	---	---	170	<1	<1	1.5	---	---	---	---	---	---	---	---	---	---	---	
MW-3	07/23/04	99.57	23.98	---	75.59	<250	---	---	<1	<1	<1	<1	---	---	---	---	---	---	---	---	---	---	---	
MW-3	01/10/05	99.57	24.25	---	75.32	<250	---	---	<1	<1	<1	<1	---	---	---	---	---	---	---	---	---	---	---	
MW-3	07/15/05	99.57	22.99	---	76.58	<50	---	---	<1	<1	<1	<1	---	---	---	---	---	---	---	---	---	---	---	
MW-3	01/11/06	99.57	23.47	---	76.10	<50	---	---	<0.500	<0.500	<0.500	<0.1	---	---	---	---	---	---	---	---	---	---	---	
MW-3	02/15/07	99.57	23.05	---	76.52	1,230	---	---	1.96	<0.500	<0.500	<3.00	---	---	<5.00	<50.0	<1.00	<1.00	<1.00	---	---	---	---	
MW-3	09/11/07	99.57	24.63	---	74.94	<50.0	---	---	<0.500	<0.500	<0.500	<3.00	---	---	---	---	---	---	---	---	---	---	---	
MW-3	02/20/08	99.57	22.73	---	76.84	722	---	---	1.23	<0.500	<0.500	<3.00	---	---	<5.00	<50.0	<1.00	<1.00	<1.00	---	---	---	---	
MW-3	08/12/08	99.57	23.10	---	76.47	<100	---	---	<0.5	<1	<1	<1	---	---	---	---	---	---	---	---	---	---	---	
MW-3	02/04/09	99.57	23.11	---	76.46	640	---	---	0.85	<1.400	<1.0	<1.0	---	---	<1.0	14.0	<2.0	<2.0	<2.0	---	---	---	---	
MW-3 *	08/13/09	303.37	23.33	---	280.04	<100	170 d	<100	<0.50	<0.50	<0.50	<0.50	<0.010	<0.50	<0.50	4.0	<0.50	<0.50	<0.50	2.93	---	0.14	<0.1	
MW-3	02/05/10	303.37	21.52	---	281.85	430	180 d	<100	<0.50	<1.0	<1.0	<1.0	---	---	<1.0	<10	<2.0	<2.0	<2.0	---	---	---	---	
MW-3	08/04/10	303.37	20.10	---	283.27	<100	<100	<100	<0.50	<1.0	<1.0	<1.0	---	---	---	---	---	---	---	---	---	---	---	
MW-3	03/23/11	303.37	15.55	---	287.82	<100	<97.1	160	<1.00	<1.00	<1.00	<3.00	---	---	<1.00	<20.0	<1.00	<1.00	<1.00	---	---	---	---	
MW-3	09/12/11	303.37	11.34	---	292.03	<100	<98.0	<245	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---	---	---	---	---	---	---	
MW-3	03/07/12	303.37	11.45	0.04	291.95	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-3	03/23/12	303.37	11.22	---	292.15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-3	04/03/12	303.37	11.15	---	292.22	423	<97.1	288	<1.00	<1.00	<1.00	7.56	---	---	<1.00	17.5	<1.00	<1.00	<1.00	---	---	---	---	
MW-3	09/12/12	303.37	11.50	---	291.87	294	32,600	520	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---	---	---	---	---	---	---	
MW-3	11/05/12	303.37	11.51	---	291.86	251	1,860	97.2	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---	---	---	---	---	0.384	---	
MW-3	09/04/13	303.37	22.24	0.02	281.15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-3	12/05/13	303.37	23.30	---	280.07	<100	3,280	295	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---	---	---	---	---	---	---	
MW-3	03/26/14	303.37	21.13	---	282.24	437	3,120	323	<1.00	<1.00	<1.00	<3.00	---	---	<1.00	<10.0	<2.00	<1.00	<1.00	---	---	---	---	
MW-3	06/03/14	303.37	20.63	---	282.74	151	1,100	<93.9	<1.00	<1.00	<1.00	<2.00	---	---	---	---	---	---	---	---	---	---	---	
MW-3	09/04/14	303.37	22.71	---	280.66	<100	148	<95.7	<1.00	<1.00	<1.00	<2.00	---	---	---	---	---	---	---	---	---	---	ug/L	
MW-3	12/18/14	303.37	22.23	---	281.14	<100	<93.9	<93.9	<1.00	<1.00	<1.00	<2.00	---	---	---	---	---	---	---	---	---	---	---	
MW-3	03/10/15	303.37	19.38	---	283.99	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-3	06/18/15	303.37	22.25	---	281.12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-3	09/18/15	303.37	23.48	---	279.89	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-3	02/19/16	303.37	14.32	---	289.05	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-3	05/12/16	303.37	20.59	---	282.78	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-3	09/16/16	303.37	23.75	---	279.62	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-3	12/12/16	303.37	16.25	---	287.12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-3	03/13/17	303.37	11.76	---	291.61	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-3	06/07/17	303.37	15.44	---	287.93	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-3	12/21/18	303.37	23.39	0.02	280.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-3	08/26/19	303.37	24.24	---	279.13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-4	02/07/94	102.75	31.42	---	71.33	ND	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---	ND	---	---	---	
MW-4	06/22/94	102.75	31.80	---	70.95	ND	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---	---	ND	---	---	

TABLE 2

SUMMARY OF GROUNDWATER MONITORING DATA
JACKSONS FOOD STORE NO. 616
11700 NORTHEAST 160TH STREET, BOTHELL, WASHINGTON

Sample ID	Date	TOC	DTW	SPH ¹	GWE	HYDROCARBONS			PRIMARY VOCs						OXYGENATES					LEAD		PAHs	
						TPHg	TPHd	TPHo	B	T	E	X	EDB	EDC	MTBE	TBA	DIPE	ETBE	TAME	Total	Dissolved	Naphthalene	cPAHs
MTCA Method A Cleanup Levels						800	500	500	5	1000	700	1000	0.01	5	20	NE	NE	NE	NE	15	15	160	0.1
Site-Specific Cleanup Levels (MTCA Method B)						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-4	09/19/94	102.75	32.95	---	69.80	ND	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---	---	ND	---	---
MW-4	01/05/94	102.75	32.84	---	69.91	ND	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---	---	ND	---	---
MW-4	03/23/95	102.75	31.60	---	71.15	ND	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---	---	ND	---	---
MW-4	06/06/95	102.75	31.90	---	70.85	ND	---	---	ND	ND	ND	0.89	---	---	---	---	---	---	---	---	ND	---	---
MW-4	09/12/95	102.75	32.72	---	70.03	ND	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---	---	ND	---	---
MW-4	12/05/95	102.75	32.85	---	69.90	ND	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---	---	ND	---	---
MW-4	03/21/96	102.75	31.20	---	71.55	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	06/17/96	102.75	31.30	---	71.45	ND	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	---	---
MW-4	09/23/96	102.75	32.62	---	70.13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	12/16/96	102.75	32.95	---	69.80	ND	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	---	---
MW-4	06/27/97	102.75	35.35	---	67.40	ND	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	---	---
MW-4	09/16/97	102.75	31.74	---	71.01	ND	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	---	---
MW-4	01/06/98	102.75	31.25	---	71.50	ND	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	---	---
MW-4	03/23/98	102.75	30.61	---	72.14	--	---	---	--	--	--	--	---	---	---	---	---	---	---	---	---	---	---
MW-4	06/20/98	102.75	31.92	---	70.83	ND	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	---	---
MW-4	09/21/98	102.75	32.88	---	69.87	--	---	---	--	--	--	--	---	---	---	---	---	---	---	---	---	---	---
MW-4	12/16/98	102.75	33.50	---	69.25	ND	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	---	---
MW-4	04/08/99	102.75	32.82	---	69.93	--	---	---	--	--	--	--	---	---	---	---	---	---	---	---	---	---	---
MW-4	10/07/99	102.75	33.97	---	68.78	--	---	---	--	--	--	--	---	---	---	---	---	---	---	---	---	---	---
MW-4	03/21/00	102.75	33.07	---	69.68	--	---	---	--	--	--	--	---	---	---	---	---	---	---	---	---	---	---
MW-4	09/30/00	102.75	33.39	---	69.36	--	---	---	--	--	--	--	---	---	---	---	---	---	---	---	---	---	---
MW-4	02/03/01	102.75	33.60	---	69.15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	07/10/01	102.75	32.83	---	69.92	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	02/25/02	102.75	32.41	---	70.34	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	07/11/02	102.75	32.45	---	70.30	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	01/02/03	102.75	34.33	---	68.42	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	07/14/03	102.75	33.37	---	69.38	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	01/23/04	102.75	33.68	---	69.07	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	07/23/04	102.75	33.87	---	68.88	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	01/10/05	102.75	33.94	---	68.81	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	07/15/05	102.75	32.85	---	69.90	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	01/11/06	102.75	33.62	---	69.13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	02/15/07	102.75	33.16	---	69.59	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	09/11/07	102.75	34.77	---	67.98	<50.0	---	---	<0.500	<0.500	<0.500	<3.00	---	---	---	---	---	---	---	---	---	---	---
MW-4	02/20/08	102.75	32.90	---	69.85	<50.0	---	---	<0.500	<0.500	<0.500	<3.00	---	---	<5.00	---	---	---	---	---	---	---	---
MW-4	08/12/08	102.75	33.03	---	69.72	<100.0	---	---	<0.5	<1	<1	<1	---	---	---	---	---	---	---	---	---	---	---
MW-4	02/04/09	102.75	33.13	---	69.62	<100	---	---	<0.50	<1.0	<1.0	<1.0	---	---	<1.0	<10	<2.0	<2.0	<2.0	---	---	---	---
MW-4	08/13/09	306.58	33.20	---	273.38	---	<100	<100	---	---	---	---	---	---	---	---	---	---	---	4.91	---	---	---
MW-4	02/05/10	306.58	32.76	---	273.82	<100	<100	<100	<0.50	<1.0	<1.0	<1.0	---	---	<1.0	<10	<2.0	<2.0	<2.0	---	---	---	---
MW-4	08/04/10	306.58	32.67	---	273.91	<100	<100	<100	<0.50	<1.0	<1.0	<1.0	---	---	---	---	---	---	---	---	---	---	---
MW-4	03/23/11	306.58	31.60	---	274.98	<100	<98.0	<98.0	<1.00	<1.00	<1.00	<3.00	---	---	<1.00	<20.0	<1.00	<1.00	<1.00	---	---	---	---
MW-4	09/12/11	306.58	32.12	---	274.46	<100	<96.2	<240	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---	---	---	---	---	---	---
MW-4	03/07/12	306.58	31.95	---	274.63	<100	<94.3	<94.3	<1.00	<1.00	<1.00	<3.00	---	---	<1.00	<10.0	<1.00	<1.00	<1.00	---	---	---	---
MW-4	09/12/12	306.58	31.86	---	274.72	<100	<95.2	<95.2	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---	---	---	---	---	---	---
MW-4	09/04/13	306.58	32.51	---	274.07	<100	<93.5	213	<1.00	<1.00	<1.00	<2.00	---	---	---	---	---	---	---	---	---	---	---
MW-4	12/05/13	306.58	33.95	---	272.63	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-4	03/26/14	306.58	32.12	---	274.46	<100	<94.3	235	<1.00	<1.00	<1.00	<3.00	---	---	<1.00	<10.0	<2.00	<1.00	<1.00	---	---	---	---

TABLE 2

SUMMARY OF GROUNDWATER MONITORING DATA
JACKSONS FOOD STORE NO. 616
11700 NORTHEAST 160TH STREET, BOTHELL, WASHINGTON

Sample ID	Date	TOC	DTW	SPH ¹	GWE	HYDROCARBONS			PRIMARY VOCs						OXYGENATES					LEAD		PAHs	
						TPHg	TPHd	TPHo	B	T	E	X	EDB	EDC	MTBE	TBA	DIPE	ETBE	TAME	Total	Dissolved	Naphthalene	cPAHs
MTCA Method A Cleanup Levels						800	500	500	5	1000	700	1000	0.01	5	20	NE	NE	NE	NE	15	15	160	0.1
Site-Specific Cleanup Levels (MTCA Method B)							11,000		1,700	78,000	110,000	22,000	---	---	---	---	---	---	---	---	---	---	---
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	
MW-4	06/03/14	306.58	32.07	---	274.51	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-4	09/04/14	306.58	33.05	---	273.53	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-4	12/18/14	306.58	32.80	---	273.78	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-4	03/10/15	306.58	31.91	---	274.67	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-4	06/18/15	306.58	32.80	---	273.78	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-4	09/18/15	306.58	33.55	---	273.03	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-4	02/19/16	306.58	32.16	---	274.42	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-4	05/12/16	306.58	32.52	---	274.06	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-4	09/16/16	306.58	33.64	---	272.94	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-4	12/12/16	306.58	33.22	---	273.36	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-4	03/13/17	306.58	32.28	---	274.30	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-4	06/07/17	306.58	31.95	---	274.63	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-4	12/21/18	306.58	33.50	---	273.08	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-4	08/26/19	306.58	34.06	---	272.52	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-5	03/21/96	94.76	20.79	---	73.97	ND	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	---	
MW-5	06/17/96	94.76	20.69	---	74.07	ND	---	---	ND	0.647	ND	ND	---	---	---	---	---	---	---	---	---	---	
MW-5	09/23/96	94.76	22.87	---	71.89	ND	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	---	
MW-5 ^c	09/23/96	94.76	22.87	---	71.89	ND	---	---	ND	0.633	ND	ND	---	---	---	---	---	---	---	---	---	---	
MW-5	12/16/96	94.76	21.90	---	72.86	ND	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	---	
MW-5	06/27/97	94.76	20.87	---	73.89	ND	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	---	
MW-5	09/16/97	94.76	21.84	---	72.92	ND	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	---	
MW-5 ^c	09/16/97	94.76	21.84	---	72.92	ND	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	---	
MW-5	01/06/98	94.76	21.65	---	73.11	ND	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	---	
MW-5	03/23/98	94.76	20.90	---	73.86	ND	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	---	
MW-5	06/20/98	94.76	21.53	---	73.23	ND	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	---	
MW-5	09/21/98	94.76	23.46	---	71.30	ND	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	---	
MW-5	12/16/98	94.76	22.96	---	71.80	ND	---	---	ND	ND	ND	ND	---	---	---	---	---	---	---	---	---	---	
MW-5	04/08/99	94.76	21.63	---	73.13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-5	10/07/99	94.76	24.21	---	70.55	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-5	03/21/00	94.76	22.69	---	72.07	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-5	09/30/00	94.76	24.12	---	70.64	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-5	02/03/01	94.76	23.58	---	71.18	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-5	07/10/01	94.76	22.56	---	72.20	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-5	02/25/02	94.76	21.54	---	73.22	<50	---	---	<0.500	<0.500	<0.500	<1.00	---	---	---	---	---	---	---	---	---	---	
MW-5	07/11/02	94.76	22.14	---	72.62	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-5	01/02/03	94.76	24.68	---	70.08	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-5	07/14/03	94.76	23.15	---	71.61	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-5	01/23/04	94.76	21.73	---	73.03	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-5	07/23/04	94.76	21.87	---	72.89	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-5	01/10/05	94.76	22.95	---	71.81	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-5	07/15/05	94.76	22.04	---	72.72	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-5	01/11/06	94.76	19.80	---	74.96	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-5	02/15/07	94.76	21.54	---	73.22	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-5	09/11/07	94.76	23.03	---	71.73	<50.0	---	---	<0.500	<0.500	<0.500	<3.00	---	---	---	---	---	---	---	---	---	---	
MW-5	02/20/08	94.76	20.70	---	74.06	<50.0	---	---	<0.500	<0.500	<0.500	<3.00	---	---	<5.00	---	---	---	---	---	---	---	
MW-5	08/12/08	94.76	22.18	---	72.58	<100	---	---	<0.5	<1	<1	<1	---	---	---	---	---	---	---	---	---	---	

TABLE 2

SUMMARY OF GROUNDWATER MONITORING DATA
JACKSONS FOOD STORE NO. 616
11700 NORTHEAST 160TH STREET, BOTHELL, WASHINGTON

Sample ID	Date	TOC	DTW	SPH ¹	GWE	HYDROCARBONS			PRIMARY VOCs						OXYGENATES					LEAD		PAHs	
						TPHg	TPHd	TPHo	B	T	E	X	EDB	EDC	MTBE	TBA	DIPE	ETBE	TAME	Total	Dissolved	Naphthalene	cPAHs
						800	500	500	5	1000	700	1000	0.01	5	20	NE	NE	NE	NE	15	15	160	0.1
MTCA Method A Cleanup Levels							11,000		1,700	78,000	110,000	22,000	---	---	---	---	---	---	---	---	---	---	---
Site-Specific Cleanup Levels (MTCA Method B)						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-5	02/04/09	94.76	20.68	---	74.08	<100	---	---	<0.50	<1.0	<1.0	<1.0	---	---	<1.0	<10	<2.0	<2.0	<2.0	---	---	---	---
MW-5 *	08/13/09	303.22	21.89	---	281.33	<100	<100	<100	<0.50	<0.50	<0.50	<0.50	<0.010	<0.50	<0.50	<10	<0.50	<0.50	<0.50	3.93	---	<0.1	<0.1
MW-5	02/05/10	303.22	20.36	---	282.86	<100	<100	<100	<0.50	<1.0	<1.0	<1.0	---	---	<1.0	<10	<2.0	<2.0	<2.0	---	---	---	---
MW-5	08/04/10	303.22	21.15	---	282.07	<100	<100	<100	<0.50	<1.0	<1.0	<1.0	---	---	---	---	---	---	---	---	---	---	---
MW-5	03/23/11	303.22	17.52	---	285.70	<100	<94.3	117	<1.00	<1.00	<1.00	<3.00	---	---	<1.00	<20.0	<1.00	<1.00	<1.00	---	---	---	---
MW-5	09/12/11	303.22	18.73	---	284.49	<100	<98.0	<245	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---	---	---	---	---	---	---
MW-5	03/07/12	303.22	17.73	---	285.49	<100	<94.3	<94.3	<1.00	<1.00	<1.00	<3.00	---	---	<1.00	<10.0	<1.00	<1.00	<1.00	---	---	---	---
MW-5	09/12/12	303.22	18.03	---	285.19	<100	<95.2	<95.2	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---	---	---	---	---	---	---
MW-5	09/04/13	303.22	21.78	---	281.44	<100	<93.5	<93.5	<1.00	<1.00	<1.00	<2.00	---	---	---	---	---	---	---	---	---	---	---
MW-5	12/05/13	303.22	22.20	---	281.02	---	---	---	<1.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	03/26/14	303.22	19.12	---	284.10	<100	<94.3	<94.3	<1.00	<1.00	<1.00	<3.00	---	---	<1.00	<10.0	<2.00	<1.00	<1.00	---	---	---	---
MW-5	06/03/14	303.22	20.65	---	282.57	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	09/04/14	303.22	21.81	---	281.41	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	12/18/14	303.22	20.73	---	282.49	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	03/10/15	303.22	20.64	---	282.58	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	06/18/15	303.22	21.68	---	281.54	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	09/18/15	303.22	21.63	---	281.59	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	02/19/16	303.22	17.71	---	285.51	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	05/12/16	303.22	21.28	---	281.94	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	09/16/16	303.22	22.31	---	280.91	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	12/12/16	303.22	18.62	---	284.60	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	03/13/17	303.22	18.28	---	284.94	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	06/07/17	303.22	20.80	---	282.42	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	12/21/18	303.22	21.40	---	281.82	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-5	08/26/19	303.22	21.10	---	282.12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-6	03/21/96	Not surveyed	Dry	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-6	06/17/96	Well Destroyed During Widening of Northeast 160th Street																				---	---
MW-7	05/21/97	Not surveyed	Dry	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-7	08/13/09	291.70	39.80	---	251.90	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-7	03/23/11	291.70	Dry	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-7	09/12/11	291.70	39.63	---	252.07	<100	---	---	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---	---	---	---	---	---	---
MW-7	03/07/12	291.70	Dry	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-7	09/12/12	291.70	39.91	---	251.79	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-7	09/04/13	291.70	39.83	---	251.87	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-7	12/05/13	291.70	39.88	---	251.82	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-7	03/26/14	291.70	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-7	06/03/14	291.70	39.81	---	251.89	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-7	09/04/14	291.70	39.81	---	251.89	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-7	12/18/14	291.70	39.81	---	251.89	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-7	03/10/15	291.70	39.87	---	251.83	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-7	06/18/15	291.70	39.84	---	251.86	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-7	09/18/15	291.70	39.90	---	251.80	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-7	02/19/16	291.70	39.84	---	251.86	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-7	05/12/16	291.70	39.80	---	251.90	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-7	09/16/16	291.70	39.78	---	251.92	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

TABLE 2

SUMMARY OF GROUNDWATER MONITORING DATA
JACKSONS FOOD STORE NO. 616
11700 NORTHEAST 160TH STREET, BOTHELL, WASHINGTON

Sample ID	Date	TOC	DTW	SPH ¹	GWE	HYDROCARBONS			PRIMARY VOCs						OXYGENATES					LEAD		PAHs	
						TPHg	TPHd	TPHo	B	T	E	X	EDB	EDC	MTBE	TBA	DIPE	ETBE	TAME	Total	Dissolved	Naphthalene	cPAHs
						800	500	500	5	1000	700	1000	0.01	5	20	NE	NE	NE	NE	15	15	160	0.1
						Site-Specific Cleanup Levels (MTCA Method B)			1,700	78,000	110,000	22,000	---	---	---	---	---	---	---	---	---	---	---
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-7	12/12/16	291.70	39.82	---	251.88	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-7	03/13/17	291.70	39.81	---	251.89	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-7	06/07/17	291.70	39.80	---	251.90	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-7	12/21/18	291.70	39.86	---	251.84	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-7	08/26/19	291.70	39.76	---	251.94	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-8 *	08/13/09	299.31	15.33	---	283.98	<100	<100	<100	<0.50	<0.50	<0.50	<0.50	<0.010	<0.50	<0.50	<10	<0.50	<0.50	<0.50	<1.00	---	<0.1	<0.1
MW-8	02/05/10	299.31	9.95	---	289.36	13,000	6,000 d	<100	40	46	580	1,500	---	---	<2.0	<20	<4.0	<4.0	<4.0	---	---	---	---
MW-8f	03/11/10	299.31	13.30	---	286.01	<100	<100	<100	<0.50	<1.0	<1.0	<1.0	---	---	<1.0	<10	<2.0	<2.0	<2.0	---	---	---	---
MW-8	08/04/10	299.31	12.96	---	286.35	<100	<100	<100	<0.50	<1.0	<1.0	<1.0	---	---	---	---	---	---	---	---	---	---	---
MW-8	03/23/11	299.31	9.12	---	290.19	<100	<98.0	193	<1.00	<1.00	<1.00	<3.00	---	---	<1.00	<20.0	<1.00	<1.00	<1.00	---	---	---	---
MW-8	09/12/11	299.31	9.91	---	289.40	<100	<99.0	<248	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---	---	---	---	---	---	---
MW-8	03/07/12	299.31	8.47	---	290.84	<100	<94.3	<94.3	<1.00	<1.00	<1.00	<3.00	---	---	<1.00	<10.0	<1.00	<1.00	<1.00	---	---	---	---
MW-8	09/12/12	299.31	7.31	---	292.00	<100	96.2	<95.2	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---	---	---	---	---	---	---
MW-8	09/04/13	299.31	13.43	---	285.88	<100	<93.5	<93.5	<1.00	<1.00	<1.00	<2.00	---	---	---	---	---	---	---	---	---	---	---
MW-8	12/05/13	299.31	13.50	---	285.81	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-8	03/26/14	299.31	10.11	---	289.20	<100	<94.3	<94.3	<1.00	<1.00	<1.00	<3.00	---	---	<1.00	<10.0	<2.00	<1.00	<1.00	---	---	---	---
MW-8	06/03/14	299.31	11.31	---	288.00	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-8	09/04/14	299.31	13.26	---	286.05	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-8	12/18/14	299.31	11.59	---	287.72	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-8	03/10/15	299.31	12.18	---	287.13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-8	06/18/15	299.31	13.47	---	285.84	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-8	09/18/15	299.31	13.18	---	286.13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-8	02/19/16	299.31	9.05	---	290.26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-8	05/12/16	299.31	12.68	---	286.63	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-8	09/16/16	299.31	14.18	---	285.13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-8	12/12/16	299.31	8.80	---	290.51	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-8	03/13/17	299.31	8.50	---	290.81	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-8	06/07/17	299.31	12.32	---	286.99	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-8	12/21/18	299.31	13.04	---	286.27	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-8	08/26/19	299.31	12.87	---	286.44	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-9 *	08/13/09	299.13	19.30	---	279.83	37,000	21,000 d	<500	34	530	1,600	10,000	<0.010	<2.0	<12	<250	<12	<12	<12	1.64	---	570	<0.1
MW-9 g	02/05/10	299.13	12.50	---	286.63	<100	<100	<100	<0.50	<0.50	<0.50	<0.50	<0.010	<0.50	<1.0	<10	<2.0	<10	<10	---	---	<10	---
MW-9 f, g	03/11/10	299.13	10.73	---	288.40	14,000	6,300	<100	22	28	380	890	---	---	<1.0	<10	<2.0	<2.0	<2.0	---	---	79	---
MW-9 g	08/04/10	299.13	16.10	---	283.03	41,000	22,000 d	<500	32	290	1,700	7,000	---	---	---	---	---	---	---	---	---	380	---
MW-9	03/23/11	299.13	9.26	---	289.87	19,000	2,890	191	51.8	30.5	551	857	---	---	<1.00	<20.0	<1.00	<1.00	<1.00	---	---	42.0	---
MW-9	09/12/11	299.13	18.02	---	281.11	59,800	5,440	271	94.8	424	2,380	12,200	---	---	---	---	---	---	---	---	---	51.3	---
MW-9	03/07/12	299.13	9.46	---	289.67	15,700 j	5,030 i	238	169	46.0	513	971	---	---	27.0	<10.0	<1.00	<1.00	<1.00	---	---	75.4	---
MW-9	09/12/12	299.13	15.01	---	284.12	40,700	8,670	<95.2	119	151	1,260	4,850	---	---	---	---	---	---	---	---	---	128	---
MW-9	12/14/12	299.13	8.70	---	290.43	11,700	2,960	<96.2	111	32.8	333	444	---	---	---	---	---	---	---	---	---	---	---
Well Decommissioned during 2013 excavation																							
MW-10	01/29/10	294.78	Dry	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-10	02/05/10	294.78	24.30	---	270.48	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-10	08/04/10	294.78	24.40	---	270.38	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-10	03/23/11	294.78	23.63	---	271.15	<100	<97.1	<97.1	<1.00	<1.00	<1.00	<3.00	---	---	<1.00	<20.0	<1.00	<1.00	<1.00	---	---	---	---

TABLE 2

SUMMARY OF GROUNDWATER MONITORING DATA
JACKSONS FOOD STORE NO. 616
11700 NORTHEAST 160TH STREET, BOTHELL, WASHINGTON

Sample ID	Date	TOC	DTW	SPH ¹	GWE	HYDROCARBONS			PRIMARY VOCs						OXYGENATES					LEAD		PAHs	
						TPHg	TPHd	TPHo	B	T	E	X	EDB	EDC	MTBE	TBA	DIPE	ETBE	TAME	Total	Dissolved	Naphthalene	cPAHs
MTCA Method A Cleanup Levels						800	500	500	5	1000	700	1000	0.01	5	20	NE	NE	NE	NE	15	15	160	0.1
Site-Specific Cleanup Levels (MTCA Method B)						ug/L	11,000	ug/L	1,700	78,000	110,000	22,000	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
MW-10	09/12/11	294.78	Dry	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-10	03/07/12	294.78	Dry	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-10	09/12/12	294.78	24.55	---	270.23	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-10	09/04/13	294.78	Dry	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-10	12/05/13	294.78	Dry	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-10	03/26/14	294.78	24.68	---	270.10	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-10	06/03/14	294.78	24.65	---	270.13	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-10	09/04/14	294.78	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-10	12/18/14	294.78	24.24	---	270.54	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-10	09/18/15	294.78	Unable to access	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-11	01/29/10	293.07	14.04	---	279.03	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-11 g	02/05/10	293.07	12.32	---	280.75	810	420d	<100	1.0	2.3	<1.0	4.5	---	---	<1.0	<10	<2.0	<10	<10	---	---	12	
MW-11	08/04/10	293.07	19.90	---	273.17	Insufficient Water - No Sample			---	---	---	---	---	---	---	---	---	---	---	---	---		
MW-11	03/23/11	293.07	13.53	---	279.54	665	155	<105	1.14	<1.00	<1.00	<3.00	---	---	<1.00	<20.0	<1.00	<1.00	<1.00	---	---	0.814	
MW-11	09/12/11	293.07	Dry	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-11	03/07/12	293.07	Dry	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-11	09/12/12	293.07	11.76	---	281.31	213	162	<95.2	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---	---	---	---	---	0.456	
MW-11	09/04/13	293.07	12.26	---	280.81	174	<93.5	<93.5	<1.00	<1.00	<1.00	<2.00	---	---	---	---	---	---	---	---	---	0.802	
MW-11	12/05/13	293.07	13.95	---	279.12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-11	03/26/14	293.07	9.83	---	283.24	595	161	<94.8	<1.00	1.26	<1.00	<3.00	---	---	<1.00	<10.0	<2.00	<1.00	<1.00	---	---	---	
MW-11	06/03/14	293.07	13.81	---	279.26	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-11	09/04/14	293.07	12.01	---	281.06	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-11	12/18/14	293.07	13.42	---	279.65	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-11	03/10/15	293.07	13.71	---	279.36	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-11	06/18/15	293.07	14.05	---	279.02	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-11	09/18/15	293.07	11.70	---	281.37	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-11	02/19/16	293.07	12.49	---	280.58	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-11	05/12/16	293.07	13.41	---	279.66	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-11	09/16/16	293.07	13.50	---	279.57	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-11	12/12/16	293.07	12.88	---	280.19	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-11	03/13/17	293.07	12.88	---	280.19	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-11	06/07/17	293.07	13.78	---	279.29	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-11	12/21/18	293.07	11.61	---	281.46	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-11	08/26/19	293.07	Unable to locate	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-12	10/12/10	299.16	50.20	---	248.96	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-12	10/19/10	299.16	50.09	---	249.07	<100	<100	<100	<0.50	<1.0	<1.0	<1.0	---	---	---	---	---	---	---	---	---	<10	
MW-12	03/23/11	299.16	49.24	---	249.92	<100	<98.0	<98.0	<1.00	<1.00	<1.00	<3.00	---	---	<1.00	<20.0	<1.00	<1.00	<1.00	---	---	<0.0990	
MW-12	09/12/11	299.16	49.61	---	249.55	<100	<98.0	<245	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---	---	---	---	---	1.43	
MW-12	03/07/12	299.16	49.73	---	249.43	<100	<94.3	<94.3	<1.00	<1.00	<1.00	<3.00	---	---	<1.00	<10.0	<1.00	<1.00	<1.00	---	---	<0.0943	
MW-12	09/12/12	299.16	49.80	---	249.36	<100	<95.2	<95.2	<1.00	<1.00	<1.00	<3.00	---	---	---	---	---	---	---	---	---	<0.100	
MW-12	09/04/13	299.16	49.47	---	249.69	<100	<93.5	<93.5	<1.00	<1.00	<1.00	<2.00	---	---	---	---	---	---	---	---	---	<0.0935	
MW-12	12/05/13	299.16	50.20	---	248.96	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-12	03/26/14	299.16	49.03	---	250.13	<100	<93.9	<93.9	<1.00	<1.00	<1.00	<3.00	---	---	<1.00	<10.0	<2.00	<1.00	<1.00	---	---	---	
MW-12	06/03/14	299.16	49.37	---	249.79	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-12	09/04/14	299.16	50.31	---	248.85	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	

TABLE 2

SUMMARY OF GROUNDWATER MONITORING DATA
JACKSONS FOOD STORE NO. 616
11700 NORTHEAST 160TH STREET, BOTHELL, WASHINGTON

Sample ID	Date	TOC	DTW	SPH ¹	GWE	HYDROCARBONS			PRIMARY VOCs						OXYGENATES					LEAD		PAHs	
						TPHg	TPHd	TPHo	B	T	E	X	EDB	EDC	MTBE	TBA	DIPE	ETBE	TAME	Total	Dissolved	Naphthalene	cPAHs
MTCA Method A Cleanup Levels						800	500	500	5	1000	700	1000	0.01	5	20	NE	NE	NE	NE	15	15	160	0.1
Site-Specific Cleanup Levels (MTCA Method B)							11,000		1,700	78,000	110,000	22,000	---	---	---	---	---	---	---	---	---	---	---
						ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	
MW-12	12/18/14	299.16	50.48	---	248.68	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-12	03/10/15	299.16	50.64	---	248.52	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-12	06/18/15	299.16	51.01	---	248.15	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-12	09/18/15	299.16	51.60	---	247.56	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-12	02/19/16	299.16	51.14	---	248.02	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-12	05/12/16	299.16	51.31	---	247.85	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-12	09/16/16	299.16	51.81	---	247.35	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-12	12/12/16	299.16	51.59	---	247.57	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-12	03/13/17	299.16	51.24	---	247.92	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-12	06/07/17	299.16	50.79	---	248.37	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-12	12/21/18	299.16	51.50	---	247.66	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-12	08/26/19	299.16	52.08	---	247.08	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-13	08/28/13	299.77	14.45	---	285.32	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-13	09/04/13	299.77	14.36	---	285.41	11,600	3,760	<93.5	106	52.3	180	1,060	---	---	---	---	---	---	---	---	77.1	---	
MW-13	12/05/13	299.77	13.06	---	286.71	14,900	3,400	<106	162	21.1	339	738	---	---	---	---	---	---	---	---	93.4	---	
MW-13	03/26/14	299.77	11.59	---	288.18	5,670	1,040	142	55.6	16.2	21.2	227	---	---	<1.00	<10.0	<2.00	<1.00	<1.00	---	---	---	
MW-13	06/03/14	299.77	11.73	---	288.04	8,300	3,150	<93.9	87.7	16.7	95.2	199	---	---	---	---	---	---	---	---	66.8	---	
MW-13	09/04/14	299.77	9.81	---	289.96	5,110	2,980	<96.2	39.4	12.5	78.7	244	---	---	---	---	---	---	---	---	---	---	
MW-13	12/18/14	299.77	8.79	---	290.98	3,660	802	<93.9	3.96	3.21	5.06	42.5	---	---	---	---	---	---	---	---	---	---	
MW-13	03/10/15	299.77	9.81	---	289.96	3,380	737	<94.3	2.99	2.69	5.23	45.0	---	---	<1.00	<10.0	<2.00	<1.00	<1.00	---	---	---	
MW-13	06/18/15	299.77	13.29	---	286.48	11,500	1,630	<93.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-13	09/18/15	299.77	9.89	---	289.88	2,490	707	<100	---	---	---	---	---	---	---	---	---	---	---	---	---	---	
MW-13	02/19/16	299.77	8.65	---	291.12	1,370	440	<400	8.6	3.6	3.6	9.7	---	---	---	---	---	---	---	---	---	---	
MW-13	05/12/16	299.77	10.64	---	289.13	1,310	510	<380	7.2	5.9	10	26.4	---	---	---	---	---	---	---	---	---	---	
MW-13	09/16/16	299.77	11.35	---	288.42	3,780	710	<270	4.7	4.3	36.2	56.9	---	---	---	---	---	---	---	---	---	---	
MW-13	12/12/16	299.77	8.47	---	291.30	1,800	<380	<380	4.4	3.1	5.9	10.1	---	---	---	---	---	---	---	---	---	---	
MW-13	03/13/17	299.77	8.40	---	291.37	1,850	580	<410	6.7	4.8	6.3	10.3	---	---	---	---	---	---	---	---	---	---	
MW-13	06/07/17	299.77	10.84	---	288.93	2,470	750	<380	5.8	7.2	14.1	18.5	---	---	---	---	---	---	---	---	---	---	
MW-13	12/21/18	299.77	9.72	---	290.05	1,490	<400	<400	<1.0	1.5	1.2	<3.0	---	---	---	---	---	---	---	---	---	---	
MW-13	08/26/19	299.77	11.42	---	288.35	1,720	<385	<385	<1.0	<1.0	12.7	10.3	---	---	---	---	---	---	---	---	---	---	

Notes:

Model Toxics Control Act (MTCA) Method A cleanup level not established per Department of Ecology Cleanup Levels and Risk Calculation (CLARC) data tables (August 2015).

All results are in micrograms per liter (µg/L) unless otherwise indicated

Results in bold indicate an exceedance of the MTCA Method A cleanup levels.

DTW = Depth to Water in feet

GWE = Groundwater Elevation in feet above mean sea level; before August 13, 2009, relative to arbitrary benchmarks

SPH = Separate phase hydrocarbons

TOC = Top of Casing in feet above mean sea level; before August 13, 2009, relative to arbitrary benchmarks

TPHg = Total petroleum hydrocarbons as gasoline analyzed by NWTPH-Gx unless otherwise noted.

TPHd = Total petroleum hydrocarbons as diesel, analyzed by NWTPH-Dx with silica gel cleanup unless otherwise noted.

TPHo = Total petroleum hydrocarbons as oil, analyzed by NWTPH-Dx with silica gel cleanup unless otherwise noted.

VOCs = Volatile organic compounds

BTEX = Benzene, toluene, ethylbenzene, and xylenes analyzed by EPA Method 8260B unless otherwise noted.

Total Xylenes = o-xylene + m,p-xylene

EDB = 1,2-Dibromoethane analyzed by EPA Method 8011

**SUMMARY OF GROUNDWATER MONITORING DATA
JACKSONS FOOD STORE NO. 616
11700 NORTHEAST 160TH STREET, BOTHELL, WASHINGTON**

EDC = 1,2-Dichloroethane analyzed by EPA Method 8260B

MTBE = Methyl tertiary-butyl ether analyzed by EPA Method 8260B

TBA = Tertiary-butanol analyzed by EPA Method 8260B

DIPE = Di-isopropyl ether analyzed by EPA Method 8260B

ETBE = Ethyl tertiary-butyl ether analyzed by EPA Method 8260B

TAME = Tertiary-amyl methyl ether analyzed by EPA Method 8260B

Total Lead analyzed by EPA Method 6020 unless otherwise noted.

PAH = polycyclic aromatic hydrocarbons analyzed by EPA Method 8270C-SIM

cPAHs = carcinogenic polycyclic aromatic hydrocarbons analyzed by EPA Method 8270C-SIM

NE = Not established

< = Less than the stated laboratory reporting limit

ND = Not detected above the laboratory reportin limit

--- = Not analyzed

* = Sample also analyzed for one or more of the following: carcinogenic polycyclic aromatic hydrocarbons (cPAHs) by 8270C-SIM, polychlorinated biphenyls (PCBs) by EPA Method 8082, and halogenated volatile organic compounds (HVOCs) by EPA Method 8260B. For those constituents analyzed, no concentrations exceeded the laboratory method detection limits. Please see applicable laboratory report(s) for more information.

a = Initial analysis within holding time. Re-analysis for the required dilution was past holding time.

b = Sample container contained headspace

c = duplicate sample

d = The sample chromatographic pattern for TPH does not match the specified standard. Quantitation of the unknown hydrocarbon was based upon the specified standard.

e = Laboratory reporting limit (RL) in excess of the MTCA Method A cleanup level.

f = Monitoring well was re-sampled due to a suspected field error

g = Naphthalene analyzed by EPA Method 8260B

h = The hydrocarbon pattern most closely resembles a gasoline & diesel product.

i = The contamination did not match any standards in our library.

j = The hydrocarbon pattern most closely resembles a gasoline product.

¹ If SPH is measured, the depth to water is corrected using the standard SPH density of 0.8 gram per cubic centimeter.

Appendices

Appendix A

Field Forms

WELL GAUGING DATA

Project: JFS 616, 11119023 **Date:** 8/25/19 **Client:** GHD

Site: Jackson Food Store – Bothell, WA

[illegible]

Sealaska Environmental Services, LLC / Sealaska Remediation Solutions, LLC

Marine Science Center, PO Box 869

18743 Front Street NE, Suite 201, Poulsbo, WA 98370

LOW FLOW GROUNDWATER WELL MONITORING DATA SHEET

Project#: JFS 616, 11119023	Client: GHD
Samplers: Mitch Brooks / Kylan Hopper	Date: 8/25/19 08/26/19
Well ID: MW-13	Well Diameter (in.): 2
Total Well Depth (ft.): 24.66	Depth to Water (ft.): 11.42
Depth to Product (ft.): NA	Product Thickness (ft.): NA
Referenced to: PVC Grade	Flow Cell Type: Horiba U-5000

Purge Method: Peristaltic Pump Bladder Pump

Sampling Method: Dedicated Pump Tubing New Tubing

Start Purge Time 0052 Flow Rate 100 ml/min Pump Depth 18 ft.

Time	Temp °C	pH	Cond. (mS/cm or µS/cm)	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed (mL)	DTW (ft.)
0057	13.60	6.75	0.517	0.0	6.12	-39	500	11.72
0100	13.71	6.53	0.514	69.9	4.63	-54	800	11.80
0103	13.79	6.58	0.522	84.0	4.21	-60	1100	11.84
0106	13.86	6.56	0.522	51.7	3.97	-63	1400	11.92
0109	13.91	6.58	0.521	41.3	3.68	-66	1700	12.01
0112	13.93	6.59	0.521	28.7	3.20	-68	2000	12.10
0115	13.94	6.59	0.521	15.4	3.06	-69	2300	12.20
0118	13.93	6.56	0.520	11.6	2.89	-71	2600	

Did the well dewater: Yes No Amount of Purge Water Removed: 2.6 liters

Sample Time: 0120 Sample Date: ~~8/25/19~~ 08/26/19

Sample ID: GW-11159110-620-082519-MW-13 Laboratory: Pace, Minneapolis, MN

Analyzed for: NWT PH-Gx, NWT PH-Dx, BTEX (8260)

Sealaska Environmental Services, LLC / Sealaska Remediation Solutions, LLC

Marine Science Center, PO Box 869
18743 Front Street NE, Suite 201, Poulsbo, WA 98370

Appendix B

Laboratory Analytical Reports

September 05, 2019

Brian Peters
GHD Services, Inc.
20818 44th Avenue W
Suite 190
Lynnwood, WA 98036

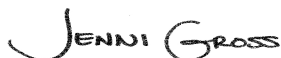
RE: Project: Jackson Food Stores- JFS 616
Pace Project No.: 10489132

Dear Brian Peters:

Enclosed are the analytical results for sample(s) received by the laboratory on August 27, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Jennifer Gross
jennifer.gross@pacelabs.com
(206)957-2426
Project Manager

Enclosures

cc: Emily Blakeway, GHD
Rosemarie Borths, GHD Services Inc.
Jeffrey Cloud, GHD Services Inc.



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Jackson Food Stores- JFS 616

Pace Project No.: 10489132

Minnesota Certification IDs

1700 Elm Street SE, Minneapolis, MN 55414-2485
A2LA Certification #: 2926.01
Alabama Certification #: 40770
Alaska Contaminated Sites Certification #: 17-009
Alaska DW Certification #: MN00064
Arizona Certification #: AZ0014
Arkansas DW Certification #: MN00064
Arkansas WW Certification #: 88-0680
California Certification #: 2929
CNMI Saipan Certification #: MP0003
Colorado Certification #: MN00064
Connecticut Certification #: PH-0256
EPA Region 8+Wyoming DW Certification #: via MN 027-053-137
Florida Certification #: E87605
Georgia Certification #: 959
Guam EPA Certification #: MN00064
Hawaii Certification #: MN00064
Idaho Certification #: MN00064
Illinois Certification #: 200011
Indiana Certification #: C-MN-01
Iowa Certification #: 368
Kansas Certification #: E-10167
Kentucky DW Certification #: 90062
Kentucky WW Certification #: 90062
Louisiana DEQ Certification #: 03086
Louisiana DW Certification #: MN00064
Maine Certification #: MN00064
Maryland Certification #: 322
Massachusetts Certification #: M-MN064
Michigan Certification #: 9909
Minnesota Certification #: 027-053-137

Minnesota Dept of Ag Certification #: via MN 027-053-137
Minnesota Petrofund Certification #: 1240
Mississippi Certification #: MN00064
Missouri Certification #: 10100
Montana Certification #: CERT0092
Nebraska Certification #: NE-OS-18-06
Nevada Certification #: MN00064
New Hampshire Certification #: 2081
New Jersey Certification #: MN002
New York Certification #: 11647
North Carolina DW Certification #: 27700
North Carolina WW Certification #: 530
North Dakota Certification #: R-036
Ohio DW Certification #: 41244
Ohio VAP Certification #: CL101
Oklahoma Certification #: 9507
Oregon Primary Certification #: MN300001
Oregon Secondary Certification #: MN200001
Pennsylvania Certification #: 68-00563
Puerto Rico Certification #: MN00064
South Carolina Certification #: 74003001
Tennessee Certification #: TN02818
Texas Certification #: T104704192
Utah Certification #: MN00064
Vermont Certification #: VT-027053137
Virginia Certification #: 460163
Washington Certification #: C486
West Virginia DEP Certification #: 382
West Virginia DW Certification #: 9952 C
Wisconsin Certification #: 999407970
Wyoming UST Certification #: via A2LA 2926.01

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Jackson Food Stores- JFS 616

Pace Project No.: 10489132

Lab ID	Sample ID	Matrix	Date Collected	Date Received
10489132001	GW-11119023-616-082619-MW-13	Water	08/26/19 01:20	08/27/19 08:40
10489132002	TB-11119023-616-082619	Water	08/26/19 01:25	08/27/19 08:40

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Jackson Food Stores- JFS 616

Pace Project No.: 10489132

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
10489132001	GW-11119023-616-082619-MW-13	NWTPH-Dx	EC2	4	PASI-M
		NWTPH-Gx	MJD	2	PASI-M
		EPA 8260B	ML4	7	PASI-M
10489132002	TB-11119023-616-082619	NWTPH-Gx	MJD	2	PASI-M
		EPA 8260B	ML4	7	PASI-M

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PROJECT NARRATIVE

Project: Jackson Food Stores- JFS 616

Pace Project No.: 10489132

Method: NWTPH-Dx

Description: NWTPH-Dx GCS LV

Client: GHD Services Inc

Date: September 05, 2019

General Information:

1 sample was analyzed for NWTPH-Dx. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA Mod. 3510C with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: Jackson Food Stores- JFS 616

Pace Project No.: 10489132

Method: NWTPH-Gx

Description: NWTPH-Gx GCV

Client: GHD Services Inc

Date: September 05, 2019

General Information:

2 samples were analyzed for NWTPH-Gx. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: Jackson Food Stores- JFS 616

Pace Project No.: 10489132

Method: EPA 8260B

Description: 8260B MSV UST

Client: GHD Services Inc

Date: September 05, 2019

General Information:

2 samples were analyzed for EPA 8260B. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Jackson Food Stores- JFS 616

Pace Project No.: 10489132

Sample: GW-11119023-616-082619-
MW-13 **Lab ID:** 10489132001 Collected: 08/26/19 01:20 Received: 08/27/19 08:40 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Dx GCS LV Analytical Method: NWTPH-Dx Preparation Method: EPA Mod. 3510C								
Diesel Fuel Range	ND	ug/L	385	1	08/27/19 17:06	08/29/19 21:54	68334-30-5	
Motor Oil Range	ND	ug/L	385	1	08/27/19 17:06	08/29/19 21:54		
Surrogates								
o-Terphenyl (S)	56	%.	50-150	1	08/27/19 17:06	08/29/19 21:54	84-15-1	
n-Triacontane (S)	61	%.	50-150	1	08/27/19 17:06	08/29/19 21:54	638-68-6	
NWTPH-Gx GCV Analytical Method: NWTPH-Gx								
TPH as Gas	1720	ug/L	100	1		09/03/19 18:40		
Surrogates								
a,a,a-Trifluorotoluene (S)	97	%.	50-150	1		09/03/19 18:40	98-08-8	
8260B MSV UST Analytical Method: EPA 8260B								
Benzene	ND	ug/L	1.0	1		08/31/19 17:30	71-43-2	
Ethylbenzene	12.7	ug/L	1.0	1		08/31/19 17:30	100-41-4	
Toluene	ND	ug/L	1.0	1		08/31/19 17:30	108-88-3	
Xylene (Total)	10.3	ug/L	3.0	1		08/31/19 17:30	1330-20-7	
Surrogates								
1,2-Dichloroethane-d4 (S)	99	%.	75-125	1		08/31/19 17:30	17060-07-0	
Toluene-d8 (S)	99	%.	75-125	1		08/31/19 17:30	2037-26-5	
4-Bromofluorobenzene (S)	100	%.	75-125	1		08/31/19 17:30	460-00-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Jackson Food Stores- JFS 616

Pace Project No.: 10489132

Sample: TB-11119023-616-082619		Lab ID: 10489132002		Collected: 08/26/19 01:25		Received: 08/27/19 08:40		Matrix: Water	
Parameters		Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
NWTPH-Gx GCV		Analytical Method: NWTPH-Gx							
TPH as Gas		ND	ug/L	100	1		09/03/19 19:30		
Surrogates									
a,a,a-Trifluorotoluene (S)		76	%.	50-150	1		09/03/19 19:30	98-08-8	
8260B MSV UST		Analytical Method: EPA 8260B							
Benzene		ND	ug/L	1.0	1		08/31/19 13:17	71-43-2	
Ethylbenzene		ND	ug/L	1.0	1		08/31/19 13:17	100-41-4	
Toluene		ND	ug/L	1.0	1		08/31/19 13:17	108-88-3	
Xylene (Total)		ND	ug/L	3.0	1		08/31/19 13:17	1330-20-7	
Surrogates									
1,2-Dichloroethane-d4 (S)		98	%.	75-125	1		08/31/19 13:17	17060-07-0	
Toluene-d8 (S)		98	%.	75-125	1		08/31/19 13:17	2037-26-5	
4-Bromofluorobenzene (S)		101	%.	75-125	1		08/31/19 13:17	460-00-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Jackson Food Stores- JFS 616

Pace Project No.: 10489132

QC Batch: 629968 Analysis Method: NWTPH-Gx
QC Batch Method: NWTPH-Gx Analysis Description: NWTPH-Gx Water
Associated Lab Samples: 10489132001, 10489132002

METHOD BLANK: 3397650 Matrix: Water

Associated Lab Samples: 10489132001, 10489132002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH as Gas	ug/L	ND	100	09/03/19 16:59	
a,a,a-Trifluorotoluene (S)	%.	77	50-150	09/03/19 16:59	

METHOD BLANK: 3397651 Matrix: Water

Associated Lab Samples: 10489132001, 10489132002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
TPH as Gas	ug/L	ND	100	09/03/19 20:21	
a,a,a-Trifluorotoluene (S)	%.	78	50-150	09/03/19 20:21	

LABORATORY CONTROL SAMPLE & LCSD: 3397652 3397653

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
TPH as Gas	ug/L	1000	1010	851	101	85	75-125	17	20	
a,a,a-Trifluorotoluene (S)	%.				89	90	50-150			

SAMPLE DUPLICATE: 3397718

Parameter	Units	10489131009 Result	Dup Result	RPD	Max RPD	Qualifiers
TPH as Gas	ug/L	ND	ND		30	
a,a,a-Trifluorotoluene (S)	%.	80	74			

SAMPLE DUPLICATE: 3397734

Parameter	Units	10489131010 Result	Dup Result	RPD	Max RPD	Qualifiers
TPH as Gas	ug/L	ND	ND		30	
a,a,a-Trifluorotoluene (S)	%.	76	75			

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QUALITY CONTROL DATA

Project: Jackson Food Stores- JFS 616

Pace Project No.: 10489132

QC Batch:	629721	Analysis Method:	EPA 8260B
QC Batch Method:	EPA 8260B	Analysis Description:	8260B MSV UST-WATER
Associated Lab Samples:	10489132001, 10489132002		

METHOD BLANK: 3396693 Matrix: Water

Associated Lab Samples: 10489132001, 10489132002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Benzene	ug/L	ND	1.0	08/31/19 13:00	
Ethylbenzene	ug/L	ND	1.0	08/31/19 13:00	
Toluene	ug/L	ND	1.0	08/31/19 13:00	
Xylene (Total)	ug/L	ND	3.0	08/31/19 13:00	
1,2-Dichloroethane-d4 (S)	%	97	75-125	08/31/19 13:00	
4-Bromofluorobenzene (S)	%	101	75-125	08/31/19 13:00	
Toluene-d8 (S)	%	97	75-125	08/31/19 13:00	

LABORATORY CONTROL SAMPLE: 3396694

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Benzene	ug/L	20	19.5	97	75-125	
Ethylbenzene	ug/L	20	20.1	100	75-125	
Toluene	ug/L	20	19.2	96	75-125	
Xylene (Total)	ug/L	60	61.8	103	75-125	
1,2-Dichloroethane-d4 (S)	%			101	75-125	
4-Bromofluorobenzene (S)	%			101	75-125	
Toluene-d8 (S)	%			100	75-125	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 3396991 3396992

Parameter	Units	10489131001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
Benzene	ug/L	ND	20	20	17.7	18.7	88	93	30-150	5	30
Ethylbenzene	ug/L	ND	20	20	17.4	19.2	87	96	30-150	10	30
Toluene	ug/L	ND	20	20	16.7	18.1	83	90	30-150	8	30
Xylene (Total)	ug/L	ND	60	60	52.7	58.1	88	97	30-150	10	30
1,2-Dichloroethane-d4 (S)	%						99	98	75-125		
4-Bromofluorobenzene (S)	%						103	101	75-125		
Toluene-d8 (S)	%						103	102	75-125		

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QUALITY CONTROL DATA

Project: Jackson Food Stores- JFS 616
Pace Project No.: 10489132

QC Batch: 628900 Analysis Method: NWTPH-Dx
QC Batch Method: EPA Mod. 3510C Analysis Description: NWTPH-Dx GCS LV
Associated Lab Samples: 10489132001

METHOD BLANK: 3392623 Matrix: Water
Associated Lab Samples: 10489132001

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Diesel Fuel Range	ug/L	ND	400	08/29/19 17:46	
Motor Oil Range	ug/L	ND	400	08/29/19 17:46	
n-Triacontane (S)	%.	83	50-150	08/29/19 17:46	
o-Terphenyl (S)	%.	79	50-150	08/29/19 17:46	

LABORATORY CONTROL SAMPLE & LCSD: 3392624			3392625							
Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Diesel Fuel Range	ug/L	2000	1690	1740	85	87	50-150	3	20	
Motor Oil Range	ug/L	2000	1690	1750	85	88	50-150	3	20	
n-Triacontane (S)	%.				87	86	50-150			
o-Terphenyl (S)	%.				87	91	50-150			

SAMPLE DUPLICATE: 3392626

Parameter	Units	10489124001 Result	Dup Result	RPD	Max RPD	Qualifiers
Diesel Fuel Range	ug/L	654	632	3	30	
Motor Oil Range	ug/L	ND	336J		30	
n-Triacontane (S)	%.	84	87			
o-Terphenyl (S)	%.	76	77			

SAMPLE DUPLICATE: 3392627

Parameter	Units	10489131007 Result	Dup Result	RPD	Max RPD	Qualifiers
Diesel Fuel Range	ug/L	ND	126J		30	
Motor Oil Range	ug/L	ND	ND		30	
n-Triacontane (S)	%.	69	54			
o-Terphenyl (S)	%.	69	50			

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QUALIFIERS

Project: Jackson Food Stores- JFS 616
Pace Project No.: 10489132

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-M Pace Analytical Services - Minneapolis

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METHOD CROSS REFERENCE TABLE

Project: Jackson Food Stores- JFS 616

Pace Project No.: 10489132

Parameter	Matrix	Analytical Method	Preparation Method
8260B MSV UST	Water	SW-846 8260B/5030B	N/A

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Jackson Food Stores- JFS 616

Pace Project No.: 10489132

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
10489132001	GW-11119023-616-082619-MW-13	EPA Mod. 3510C	628900	NWTPH-Dx	629384
10489132001	GW-11119023-616-082619-MW-13	NWTPH-Gx	629968		
10489132002	TB-11119023-616-082619	NWTPH-Gx	629968		
10489132001	GW-11119023-616-082619-MW-13	EPA 8260B	629721		
10489132002	TB-11119023-616-082619	EPA 8260B	629721		

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A		Section B		Section C	
Required Client Information: Company: GHD Services, Inc. Address: 20818 44th Ave W Lynnwood, WA 98036 Email To: Brian Peters Phone: 425-563-6506 Requested Due Date/TAT: 10 Day (Standard)		Required Project Information: Report To: boeters@ghd.com; emily.blakeway@ghd.com Copy To: rosemare.borths@ghd.com jeffrey.cloud@ghd.com Purchase Order No. Client Project ID: Jackson Food Stores-JFS-666666 Container Order Number		Invoice Information: Attention: Jeffrey Cloud Apinvoices-340@ghd.com Company Name: GHD Services, Inc. - 340 Address: 2055 Niagara Falls, Blvd. NY 14304 Pace Project Manager: Jenni Gross Pace Profile #: 36122 / 1	
Regulatory Agency State / Location WA / Bothell		Page: 1 of 1			

ITEM#	COLLECTED		DATE	TIME	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS	TEMP in C	Received or Not (Y/N)	Custody Sealed (Y/N)	Samples Intact (Y/N)
	START	END												
1	GW-11115205-631-082519	AW-5	8/25	0905	8									
2	FB-11115205-631-082519	WT	8/25	0905	2									
3	GW-11115205-631-082519	MW-13	8/25	0930	8									
4	GW-11119023-616-082619	MW-13	8/26	0120	6									
5	FB-11119023-616-082619	WT	8/26	0125	6									
6														
7														
8														
9														
10														
11														
12														

W0# : 10489132

10489132

8260 BTEX

NWTPH-Dx

NWTPH-Gx

Analyses Test

Y/N

Preservatives

Unpreserved

H2SO4

HNO3

HCl

NaOH

Na2S2O3

Methanol

Other

OF CONTAINERS

8

SAMPLE TEMP AT COLLECTION

8

MATRIX CODE (see valid codes to left)

WT

SAMPLE TYPE (G=GRAB C=COMB)

WT

DATE


8/25

TIME

0905

Mr PACE 8-27-19 0840066
1.2 Y Y Y

SAMPLER NAME AND SIGNATURE	
PRINT Name of SAMPLER: Mitch Brooks	DATE Signed: 8/26/19
SIGNATURE of SAMPLER: Mitch Brooks	

	Document Name:	Document Revised: 23Aug2019
	Sample Condition Upon Receipt Form	Page 1 of 1
	Document No.: F-MN-L-213-rev.29	Issuing Authority: Pace Minnesota Quality Office

Sample Condition Upon Receipt **Client Name:** GHD Services Inc. **Project #:** WO# 10489132

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client
☐ Pace ☐ Speedee ☐ Commercial ☐ See Exceptions

Tracking Number: 747593994707

Custody Seal on Cooler/Box Present? ☒ Yes ☐ No **Seals Intact?** ☒ Yes ☐ No **Biological Tissue Frozen?** ☐ Yes ☐ No ☒ N/A

Packing Material: ☐ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other: _____ **Temp Blank?** ☒ Yes ☐ No

Thermometer: ☐ T1(0461) ☐ T2(1336) ☒ T3(0459) ☐ T4(0254) ☐ T5(0489) **Type of Ice:** ☒ Wet ☐ Blue ☐ None ☐ Dry ☐ Melted

Note: Each West Virginia Sample must have temp taken (no temp blanks)

Temp should be above freezing to 6°C **Cooler Temp Read w/temp blank:** 0.5 , 1.1 °C **Average Corrected Temp (no temp blank only):** ☐ See Exceptions ☐ 1 Container

Correction Factor: 0.1 **Cooler Temp Corrected w/temp blank:** 0.6 , 1.2 °C

USDA Regulated Soil: ☒ N/A, water sample/Other: _____

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX or VA (check maps)? ☐ Yes ☐ No

Date/Initials of Person Examining Contents: RNC 8.27.19

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? ☐ Yes ☐ No

If Yes to either question, fill out a Regulated Soil Checklist (F-MN-Q-338) and include with SCUR/COC paperwork.

	COMMENTS:
Chain of Custody Present and Filled Out? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	1.
Chain of Custody Relinquished? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	2.
Sampler Name and/or Signature on COC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	3.
Samples Arrived within Hold Time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	4.
Short Hold Time Analysis (<72 hr)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	5. <input type="checkbox"/> Fecal Coliform <input type="checkbox"/> HPC <input type="checkbox"/> Total Coliform/E coli <input type="checkbox"/> BOD/cBOD <input type="checkbox"/> Hex Chrome <input type="checkbox"/> Turbidity <input type="checkbox"/> Nitrate <input type="checkbox"/> Nitrite <input type="checkbox"/> Orthophos <input type="checkbox"/> Other
Rush Turn Around Time Requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6.
Sufficient Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	7.
Correct Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	8.
-Pace Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Containers Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	9.
Field Filtered Volume Received for Dissolved Tests? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10. Is sediment visible in the dissolved container? <input type="checkbox"/> Yes <input type="checkbox"/> No
Is sufficient information available to reconcile the samples to the COC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	11. If no, write ID/ Date/Time on Container Below: <input type="checkbox"/> See Exception
Matrix: <input checked="" type="checkbox"/> Water <input type="checkbox"/> Soil <input type="checkbox"/> Oil <input type="checkbox"/> Other	
All containers needing acid/base preservation have been checked? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	12. Sample # <input type="checkbox"/> NaOH <input type="checkbox"/> HNO ₃ <input type="checkbox"/> H ₂ SO ₄ <input type="checkbox"/> Zinc Acetate
All containers needing preservation are found to be in compliance with EPA recommendation? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A (HNO ₃ , H ₂ SO ₄ , <2pH, NaOH >9 Sulfide, NaOH >12 Cyanide)	Positive for Res. <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> See Exception
Exceptions: VOA Coliform, TOC/DOC Oil and Grease, DRO/8015 (water) and Dioxin/PFAS <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Chlorine? <input type="checkbox"/> Yes <input type="checkbox"/> No pH Paper Lot# <input type="checkbox"/> See Exception
	Res. Chlorine 0-6 Roll 0-6 Strip 0-14 Strip
Headspace in VOA Vials (greater than 6mm)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	13. <input type="checkbox"/> See Exception
Trip Blank Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	14. <input checked="" type="checkbox"/>
Trip Blank Custody Seals Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	Pace Trip Blank Lot # (if purchased):

CLIENT NOTIFICATION/RESOLUTION

Person Contacted: _____ Date/Time: _____ Field Data Required? ☐ Yes ☐ No

Comments/Resolution: _____

Project Manager Review: _____

JENNI GROSS

Date: 08/27/19

Note: Whenever there is a discrepancy affecting North Carolina samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers).

Labeled by: CEG

During sample triage, this form is to be placed in each cooler that arrives above 6.0 degrees Celsius

SCUR Exceptions:


Workorder #: 10489132

SECN Exceptions:			PM Notified? <input type="checkbox"/> Yes <input type="checkbox"/> No																		
Out of Temp Sample IDs	Container Type	# of Containers																			
			If yes, indicate who was contacted/date/time. If no, indicate reason why.																		
			Multiple Cooler Project? <input type="checkbox"/> Yes <input type="checkbox"/> No If you answered yes, fill out information to the left.																		
			<table border="1"> <thead> <tr> <th colspan="3">No Temp Blank</th> </tr> <tr> <th>Read Temp</th> <th>Corrected Temp</th> <th>Average Temp</th> </tr> </thead> <tbody> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> <tr><td></td><td></td><td></td></tr> </tbody> </table>	No Temp Blank			Read Temp	Corrected Temp	Average Temp												
No Temp Blank																					
Read Temp	Corrected Temp	Average Temp																			
			Other Issues																		

[illegible][illegible]

pH Adjustment Log for Preserved Samples

Sample ID	Type of Preserv.	pH Upon Receipt	Date Adjusted	Time Adjusted	Amount Added (mL)	Lot # Added	pH After	In Compliance after addition?	Initials
								<input type="checkbox"/> Yes <input type="checkbox"/> No	
								<input type="checkbox"/> Yes <input type="checkbox"/> No	
								<input type="checkbox"/> Yes <input type="checkbox"/> No	
								<input type="checkbox"/> Yes <input type="checkbox"/> No	

	Document Name: Headspace Exception	Document Revised: 17Dec2018 Page 1 of 1
	Document No.: F-MN-C-276-Rev.01	Issuing Authority: Pace Minnesota Quality Office

Sample ID	Headspace greater than 6mm	Headspace less than 6mm	No Headspace	Total Vials	Sediment Present?
GW-11119023- 616-082619-mw 13	0	1	5	6	Y
TB	0	0	6	6	N



about GHD

GHD is one of the world's leading professional services companies operating in the global markets of water, energy and resources, environment, property and buildings, and transportation. We provide engineering, environmental, and construction services to private and public sector clients.

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