GROUNDWATER MONITORING REPORT:
8th Quarterly Sampling

Performed at:
Fife RV Center
3410 Pacific Highway East
Fife, Washington 98424

AEROTECH
Environmental Consulting Inc.

October 12, 2018

Anchorage Seattle Portland

Cost-effective environmental solutions
for the western United States and Alaska

www.AerotechEnvironmental.com

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December 26, 2018

Mr. Chris LaVerdiere
Fife RV Center
3410 Pacific Highway East
Fife, Washington 98424

RE: Groundwater Monitoring Report – 8th Quarterly Sampling
Fife RV Center
3410 Pacific Highway East, Fife, Washington
Fife, Washington 98424

Dear Mr. LaVerdiere,

As you are aware, Aerotech Environmental Consulting, Inc. ("Aerotech") has been retained to collect quarterly groundwater samples from twelve groundwater monitoring wells previously installed at Fife RV Center in Fife, Washington. Aerotech conducted the last round of groundwater monitoring and sampling activities on October 12, 2018. Enclosed, please find the associated tabulated analytical results, site drawings, laboratory analytical report, and standard operating procedure document.

Petroleum Hydrocarbon concentrations were below the MTCA Method A Cleanup Levels in samples collected from groundwater monitoring wells MW6 and MW11. Total Petroleum Hydrocarbons as Gasoline ("TPHg") and Benzene was present at concentrations above the MTCA Method A Cleanup Level in samples collected from groundwater monitoring wells MW10 and MW12. Groundwater Monitoring Wells MW1 and MW5 were pumped dry during Low-Flow Sample Procedures and MW2, MW3, MW4, MW7, MW8, and MW9 has insufficient water for sampling due to Construction Dewatering occurring on the I-5 Off-Ramp to the Southwest.

Please feel free to contact the Aerotech Geologist, Mr. Justin Foslien, at (206) 257-4211, or the Aerotech Field Sampling Coordinator, Mr. Nicholas Gerkin at (206) 482-2287 if you have any questions regarding work completed at this Site.

Sincerely,

JUSTIN FRANCIS FOSLIEN

Justin Foslien
State of Washington
Licensed Geologist No. 2540

Nick Gerkin
Vice President
Principal Environmental Scientist

APPENDIX

- Tables & Figures
- Project Contract Documents
- Laboratory Analytical Report and Chain of Custody
- Standard Operating Procedure
- Field Documentation

- Tables & Figures

TABLE 1
WELL CONSTRUCTION DETAILS
Fife RV Center
3410 Pacific Highway East
Fife, Washington

Well ID	Ecology Well ID	Installation Date	Elevation (TOC north)	Screen Interval	Diameter	Slot Size	Construction Material
			Feet Above MSL	Feet BGS	Inches	Inches	
MW1	BIS683	11/10/16	8.37	4 - 14	2	0.010	Flush - Sched 40 PVC
MW2	BIS684	11/10/16	9.57	4 - 14	2	0.010	Flush - Sched 40 PVC
MW3	BIS685	11/10/16	9.43	4 - 14	2	0.010	Flush - Sched 40 PVC
MW4	BIS686	11/10/16	10.12	4 - 14	2	0.010	Flush - Sched 40 PVC
MW5	BIT785	11/10/16	11.27	4 - 14	2	0.010	Bollard - Sched 40 PVC
MW6	BIT786	11/10/16	11.40	4 - 14	2	0.010	Bollard - Sched 40 PVC
MW7	BJP689	07/14/17	10.09	4 - 14	1	0.010	Flush - Sched 80 PVC
MW8	BJP688	07/14/17	10.26	4 - 14	1	0.010	Flush - Sched 80 PVC
MW9	BJP687	07/14/17	8.84	4 - 14	1	0.010	Flush - Sched 80 PVC
MW10	BJN085	02/23/18	12.94	4 - 14	2	0.020	Bollard - Sched 40 PVC
MW11	--*	02/23/18	9.12	2.5 - 9.5	2	0.020	Flush - Sched 40 PVC
MW12	BJN086	02/23/18	11.74	4 - 14	2	0.020	Bollard - Sched 40 PVC

* = Groundwater Monitoring Well MW11 does not have an Ecology Well ID since the Total Depth of the Well in less than 10 feet below ground surface (Feet BGS)

TABLE 2
GROUNDWATER ANALYTICAL RESULTS
Fife RV Center
3410 Pacific Highway East
Fife, Washington

MW1

Well Depth	Sampling Date	Ground Water Level	Elevation (TOC north)	Water Level Elevation	TPHg	TPHd	TPHo	Benzene	Toluene	Ethyl-benzene	Xylenes	EDB	EDC	MTBE	HVOCs	Naph-thalene	cPAHs*	Dissolved Lead	Total Lead
Feet		Feet Below TOC	Feet Above MSL	Feet Above MSL	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
14.4	11/18/16	1.37	8.37	7.00	<100	<200	<500	<1.0	<1.0	<1.0	<1.0	<0.01	<1.0	<5.0	--	--	--	<2.0	<2.0
	02/20/17	1.19	8.37	7.18	<100	<200	<500	<1.0	<1.0	<1.0	<1.0	<0.01	<1.0	<5.0	--	--	--	<2.0	<2.0
	05/23/17	1.72	8.37	6.65	<100	<200	<500	<1.0	<1.0	<1.0	<1.0	<0.01	<1.0	<5.0	--	--	--	<2.0	<2.0
	08/01/17	2.92	8.37	5.45	<100	<200	<500	<1.0	<1.0	<1.0	<1.0	<0.01	<1.0	<5.0	ND	<0.1	<0.1	--	<2.0
	11/30/17	1.37	8.37	7.00	<100	<200	<500	<1.0	<1.0	<1.0	<1.0	--	--	--	--	--	--	--	<2.0
	04/03/18	1.97	8.37	6.40	<100	<200	<500	<1.0	<1.0	<1.0	<1.0	--	--	--	--	--	--	--	<2.0
	07/03/18	2.71	8.37	5.66	<100	<200	<500	<1.0	<1.0	<1.0	<1.0	--	--	--	--	--	--	--	<2.0
	10/12/18	12.21	8.37	-3.84	Pumped Dry During Low-Flow Sampling Procedures - Site Dewatered from DOT Off-Ramp Construction Activities														
		MTCA Method A Cleanup Levels			800	500	500	5	1,000	700	1,000	0.01	5	20	Variable	160	0.1	15	15

MW2

Well Depth	Sampling Date	Ground Water Level	Elevation (TOC north)	Water Level Elevation	TPHg	TPHd	TPHo	Benzene	Toluene	Ethyl-benzene	Xylenes	EDB	EDC	MTBE	HVOCs	Naph-thalene	cPAHs*	Dissolved Lead	Total Lead
Feet		Feet Below TOC	Feet Above MSL	Feet Above MSL	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
14.2	11/18/16	2.53	9.40	6.87	**18,000**	<200	<500	**470**	18	210	200	<0.01	<1.0	<5.0	--	--	--	<2.0	<2.0
	02/20/17	2.25	9.40	7.15	**29,000**	<200	<500	**720**	26	490	700	<0.01	<1.0	<5.0	--	--	--	<2.0	<2.0
	05/23/17	3.02	9.40	6.38	**10,000**	<200	<500	**300**	18	93	400	<0.01	<1.0	<5.0	--	--	--	<2.0	<2.0
	08/01/17	4.40	9.40	5.00	**25,000**	<200	<500	**980**	62	540	**1,300**	<0.01	<1.0	<5.0	ND	4.3	<0.1	--	<2.0
	11/30/17	2.43	9.40	6.97	**64,000**	<200	<500	**2,800**	94	**1,800**	**3,000**	<0.01	<1.0	<5.0	ND	25	<0.1	--	<2.0
	04/03/18[1]	3.32	9.57	6.25	**2,000**	<200	<500	**65**	1	<1.0	120	<0.01	<1.0	<5.0	ND	1.1	<0.1	--	<2.0
	07/03/18	4.21	9.57	5.36	**1,100**	<200	<500	**35**	<1.0	<1.0	28	<0.01	<1.0	<5.0	ND	0.28	<0.1	--	<2.0
	10/12/18	13.48	9.57	-3.91	Insufficient Water Volume for Low-Flow Sampling - Site Dewatered from DOT Off-Ramp Construction Activities														
		MTCA Method A Cleanup Levels			800	500	500	5	1,000	700	1,000	0.01	5	20	Variable	160*	0.1	15	15

MW3

Well Depth	Sampling Date	Ground Water Level	Elevation (TOC north)	Water Level Elevation	TPHg	TPHd	TPHo	Benzene	Toluene	Ethyl-benzene	Xylenes	EDB	EDC	MTBE	HVOCs	Naph-thalene	cPAHs*	Dissolved Lead	Total Lead
Feet		Feet Below TOC	Feet Above MSL	Feet Above MSL	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
14.6	11/18/16	2.19	9.43	7.24	**42,000**	<200	<500	**130**	16	**2,800**	120	<0.01	<1.0	<5.0	--	--	--	<2.0	<2.0
	02/20/17	2.02	9.43	7.41	**10,000**	<200	<500	**28**	<1,000	620	92	<0.01	<1.0	<5.0	--	--	--	<2.0	<2.0
	05/23/17	2.65	9.43	6.78	**6,700**	<200	<500	**21**	1.4	210	57	<0.01	<1.0	<5.0	--	--	--	<2.0	<2.0
	08/01/17	4.05	9.43	5.38	620	<200	<500	<1.0	<1.0	2.4	1.3	<0.01	<1.0	<5.0	ND	0.60	<0.1	--	<2.0
	11/30/17	2.22	9.43	7.21	**830**	<200	<500	<1.0	<1.0	3.9	1.7	<0.01	<1.0	<5.0	ND	0.62	<0.1	--	<2.0
	04/03/18	2.85	9.43	6.58	210	<200	<500	<1.0	<1.0	<1.0	<1.0	<0.01	<1.0	<5.0	ND	1.4	<0.1	--	<2.0
	07/03/18	3.78	9.43	5.65	240	<200	<500	<1.0	<1.0	<1.0	2.1	<0.01	<1.0	<5.0	ND	<0.1	<0.1	--	<2.0
	10/12/18	12.60	9.43	-3.17	Insufficient Water Volume for Low-Flow Sampling - Site Dewatered from DOT Off-Ramp Construction Activities														
		MTCA Method A Cleanup Levels			800	500	500	5	1,000	700	1,000	0.01	5	20	Variable	160*	0.1	15	15

MW4

Well Depth	Sampling Date	Ground Water Level	Elevation (TOC north)	Water Level Elevation	TPHg	TPHd	TPHo	Benzene	Toluene	Ethyl-benzene	Xylenes	EDB	EDC	MTBE	HVOCs	Naph-thalene	cPAHs*	Dissolved Lead	Total Lead
Feet		Feet Below TOC	Feet Above MSL	Feet Above MSL	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
14.5	11/18/16	3.31	10.12	6.81	**1,900**	<200	<500	**140**	<1.0	13	7.70	<0.01	<1.0	<5.0	--	--	--	<2.0	<2.0
	02/20/17	3.08	10.12	7.04	**6,800**	<200	<500	**220**	35	340	22	<0.01	<1.0	<5.0	--	--	--	<2.0	<2.0
	05/23/17	3.88	10.12	6.24	**1,600**	<200	<500	**120**	6.0	12	3.8	<0.01	<1.0	<5.0	--	--	--	<2.0	<2.0
	08/01/17	5.61	10.12	4.51	**2,100**	<200	<500	**94**	4.4	170	1.0	<0.01	<1.0	<5.0	ND	<0.1	<0.1	--	<2.0
	11/30/17	3.15	10.12	6.97	**6,400**	<200	<500	**320**	17	370	58	<0.01	<1.0	<5.0	ND	9.90	<0.1	--	<2.0
	04/03/18	4.10	10.12	6.02	**4,100**	<200	<500	**130**	6.3	270	1.0	<0.01	<1.0	<5.0	ND	13	<0.1	--	<2.0
	07/03/18	5.23	10.12	4.89	**1,000**	<200	<500	**16**	1.2	<1.0	1.6	<0.01	<1.0	<5.0	ND	10	<0.1	--	<2.0
	10/12/18	14.27	10.12	-4.15	Insufficient Water Volume for Low-Flow Sampling - Site Dewatered from DOT Off-Ramp Construction Activities														
		MTCA Method A Cleanup Levels			800	500	500	5	1,000	700	i	0.01	5	20	Variable	160*	0.1	15	15

TABLE 2
GROUNDWATER ANALYTICAL RESULTS
Fife RV Center
3410 Pacific Highway East
Fife, Washington

MW5 (TOC Elevated 2.5' Above Ground Surface)

Well Depth	Sampling Date	Ground Water Level	Elevation (TOC north)	Water Level Elevation	TPHg	TPHd	TPHo	Benzene	Toluene	Ethyl-benzene	Xylenes	EDB	EDC	MTBE	HVOCs	Naph-thalene	cPAHs*	Dissolved Lead	Total Lead
Feet		Feet Below TOC	Feet Above MSL	Feet Above MSL	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
17.5	11/18/16	5.17	11.27	6.10	2,100	<200	<500	250	1.6	5.6	2.1	<0.01	<1.0	<5.0	--	--	--	<2.0	<2.0
	02/20/17	5.16	11.27	6.11	700	<200	<500	52	<1.0	2.2	2.4	<0.01	<1.0	<5.0	--	--	--	<2.0	<2.0
	05/23/17	6.34	11.27	4.93	<100	<200	<500	<1.0	<1.0	<1.0	<1.0	<0.01	<1.0	<5.0	--	--	--	<2.0	<2.0
	08/01/17	8.31	11.27	2.96	<100	<200	<500	<1.0	<1.0	<1.0	<1.0	<0.01	<1.0	<5.0	ND	<0.1	<0.1	--	<2.0
	11/30/17	5.07	11.27	6.20	<100	<200	<500	<1.0	<1.0	<1.0	<1.0	<0.01	<1.0	<5.0	ND	<0.1	<0.1	--	<2.0
	04/03/18	6.13	11.27	5.14	110	<200	<500	3.2	<1.0	<1.0	<1.0	<0.01	<1.0	<5.0	ND	2.5	<0.1	--	<2.0
	07/03/18	7.90	11.27	3.37	<100	<200	<500	<1.0	<1.0	<1.0	<1.0	<0.01	<1.0	<5.0	ND	1.9	<0.1	--	<2.0
	10/12/18	15.02	11.27	-3.75	Pumped Dry During Low-Flow Sampling Procedures - Site Dewatered from DOT Off-Ramp Construction Activities														
		MTCA Method A Cleanup Levels			800	500	500	5	1,000	700	1,000	0.01	5	20	Variable	160*	0.1	15	15

MW6 (TOC Elevated 2.5' Above Ground Surface)

Well Depth	Sampling Date	Ground Water Level	Elevation (TOC north)	Water Level Elevation	TPHg	TPHd	TPHo	Benzene	Toluene	Ethyl-benzene	Xylenes	EDB	EDC	MTBE	HVOCs	Naph-thalene	cPAHs*	Dissolved Lead	Total Lead
Feet		Feet Below TOC	Feet Above MSL	Feet Above MSL	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
17.5	11/18/16	4.72	11.40	6.68	<100	<200	<500	<1.0	<1.0	<1.0	<1.0	<0.01	<1.0	<5.0	--	--	--	<2.0	<2.0
	02/20/17	4.69	11.40	6.71	<100	<200	<500	<1.0	<1.0	<1.0	<1.0	<0.01	<1.0	<5.0	--	--	--	<2.0	<2.0
	05/23/17	5.85	11.40	5.55	<100	<200	<500	<1.0	<1.0	<1.0	<1.0	<0.01	<1.0	<5.0	--	--	--	<2.0	<2.0
	08/01/17	7.32	11.40	4.08	<100	<200	<500	<1.0	<1.0	<1.0	<1.0	<0.01	<1.0	<5.0	ND	<0.1	<0.1	--	<2.0
	11/30/17	6.72	11.40	4.68	<100	<200	<500	<1.0	<1.0	<1.0	<1.0	<0.01	<1.0	<5.0	--	--	--	--	<2.0
	04/03/18	5.67	11.40	5.73	<100	<200	<500	<1.0	<1.0	<1.0	<1.0	<0.01	<1.0	<5.0	ND	<0.1	<0.1	--	<2.0
	07/03/18	6.91	11.40	4.49	<100	<200	<500	<1.0	<1.0	<1.0	<1.0	<0.01	<1.0	<5.0	ND	<0.1	<0.1	--	<2.0
	10/12/18	15.30	11.40	-3.90	<100	--	--	<1.0	<1.0	<1.0	<1.0	--	--	--	--	--	--	--	--
		MTCA Method A Cleanup Levels			800	500	500	5	1,000	700	1,000	0.01	5	20	Variable	160*	0.1	15	15

MW7

Well Depth	Sampling Date	Ground Water Level	Elevation (TOC north)	Water Level Elevation	TPHg	TPHd	TPHo	Benzene	Toluene	Ethyl-benzene	Xylenes	EDB	EDC	MTBE	HVOCs	Naph-thalene	cPAHs*	Dissolved Lead	Total Lead
Feet		Feet Below TOC	Feet Above MSL	Feet Above MSL	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
14.2	08/01/17	5.83	10.09	4.26	<100	<200	<500	<1.0	<1.0	<1.0	<1.0	<0.01	<1.0	<5.0	ND	<0.1	<0.1	--	<2.0
	11/30/17	3.12	10.09	6.97	<100	<200	<500	<1.0	<1.0	<1.0	<1.0	<0.01	<1.0	<5.0	--	--	--	--	<2.0
	04/03/18	4.12	10.09	5.97	<100	<200	<500	<1.0	<1.0	<1.0	<1.0	--	--	--	--	--	--	--	<2.0
	07/03/18	5.28	10.09	4.81	<100	<200	<500	<1.0	<1.0	<1.0	<1.0	--	--	--	--	--	--	--	<2.0
	10/12/18	12.51	10.09	-2.42	Insufficient Water Volume for Low-Flow Sampling - Site Dewatered from DOT Off-Ramp Construction Activities														
		MTCA Method A Cleanup Levels			800	500	500	5	1,000	700	1,000	0.01	5	20	Variable	160*	0.1	15	15

MW8

Well Depth	Sampling Date	Ground Water Level	Elevation (TOC north)	Water Level Elevation	TPHg	TPHd	TPHo	Benzene	Toluene	Ethyl-benzene	Xylenes	EDB	EDC	MTBE	HVOCs	Naph-thalene	cPAHs*	Dissolved Lead	Total Lead
Feet		Feet Below TOC	Feet Above MSL	Feet Above MSL	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
14.1	08/01/17	5.26	10.26	5.00	<100	<200	<500	<1.0	<1.0	<1.0	<1.0	<0.01	<1.0	<5.0	ND	<0.1	<0.1	--	<2.0
	11/30/17	3.16	10.26	7.10	<100	<200	<500	<1.0	<1.0	<1.0	<1.0	<0.01	<1.0	<5.0	--	--	--	--	<2.0
	04/03/18	3.78	10.26	6.48	<100	<200	<500	<1.0	<1.0	<1.0	<1.0	--	--	--	--	--	--	--	<2.0
	07/03/18	4.92	10.26	5.34	<100	<200	<500	<1.0	<1.0	<1.0	<1.0	--	--	--	--	--	--	--	<2.0
	10/12/18	12.46	10.26	-2.20	Insufficient Water Volume for Low-Flow Sampling - Site Dewatered from DOT Off-Ramp Construction Activities														
		MTCA Method A Cleanup Levels			800	500	500	5	1,000	700	1,000	0.01	5	20	Variable	160*	0.1	15	15

TABLE 2
GROUNDWATER ANALYTICAL RESULTS
Fife RV Center
3410 Pacific Highway East
Fife, Washington

MW9

Well Depth	Sampling Date	Ground Water Level	Elevation (TOC north)	Water Level Elevation	TPHg	TPHd	TPHo	Benzene	Toluene	Ethyl-benzene	Xylenes	EDB	EDC	MTBE	HVOCs	Naph-thalene	cPAHs*	Dissolved Lead	Total Lead
Feet		Feet Below TOC	Feet Above MSL	Feet Above MSL	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
14.3	08/01/17	3.57	8.84	5.27	<100	<200	<500	<1.0	<1.0	<1.0	<1.0	<0.01	<1.0	<5.0	ND	<0.1	<0.1	--	<2.0
	11/30/17	1.58	8.84	7.26	<100	<200	<500	<1.0	<1.0	<1.0	<1.0	<0.01	<1.0	<5.0	--	--	--	--	<2.0
	04/03/18	3.25	8.84	5.59	<100	<200	<500	<1.0	<1.0	<1.0	<1.0	--	--	--	--	--	--	--	<2.0
	07/03/18	3.47	8.84	5.37	<100	<200	<500	<1.0	<1.0	<1.0	<1.0	--	--	--	--	--	--	--	<2.0
	10/12/18	11.50	8.84	-2.66	Insufficient Water Volume for Low-Flow Sampling - Site Dewatered from DOT Off-Ramp Construction Activities														
	MTCA Method A Cleanup Levels				800	500	500	5	1,000	700	1,000	0.01	5	20	Variable	160	0.1	15	15

MW10

(TOC Elevated 2.5' Above Ground Surface)

Well Depth	Sampling Date	Ground Water Level	Elevation (TOC north)	Water Level Elevation	TPHg	TPHd	TPHo	Benzene	Toluene	Ethyl-benzene	Xylenes	EDB	EDC	MTBE	HVOCs	Naph-thalene	cPAHs*	Dissolved Lead	Total Lead
Feet		Feet Below TOC	Feet Above MSL	Feet Above MSL	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	04/03/18	7.01	12.94	5.93	530	<200	<500	**17**	2.30	<1.0	1.20	<0.01	<1.0	<5.0	ND	0.40	<0.1	--	<2.0
	07/03/18	7.90	12.94	5.04	610	<200	<500	**42**	1.0	<1.0	<1.0	<0.01	<1.0	<5.0	ND	0.94	<0.1	--	<2.0
	10/12/18	11.42	12.94	1.52	**15,000**	--	--	**190**	7.5	570	77	--	--	--	--	--	--	--	--
	MTCA Method A Cleanup Levels				800	500	500	5	1,000	700	1,000	0.01	5	20	Variable	160*	0.1	15	15

MW11

Well Depth	Sampling Date	Ground Water Level	Elevation (TOC north)	Water Level Elevation	TPHg	TPHd	TPHo	Benzene	Toluene	Ethyl-benzene	Xylenes	EDB	EDC	MTBE	HVOCs	Naph-thalene	cPAHs*	Dissolved Lead	Total Lead
Feet		Feet Below TOC	Feet Above MSL	Feet Above MSL	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	04/03/18	4.59	9.12	4.53	<100	<200	<500	<1.0	<1.0	<1.0	<1.0	<0.01	<1.0	<5.0	ND	<0.1	<0.1	--	<2.0
	07/03/18	5.94	9.12	3.18	120	<200	<500	<1.0	<1.0	<1.0	<1.0	<0.01	<1.0	<5.0	ND	<0.1	<0.1	--	<2.0
	10/12/18	7.18	9.12	1.94	120	--	--	<1.0	<1.0	<1.0	<1.0	--	--	--	--	--	--	--	--
	MTCA Method A Cleanup Levels				800	500	500	5	1,000	700	1,000	0.01	5	20	Variable	160*	0.1	15	15

MW12

Well Depth	Sampling Date	Ground Water Level	Elevation (TOC north)	Water Level Elevation	TPHg	TPHd	TPHo	Benzene	Toluene	Ethyl-benzene	Xylenes	EDB	EDC	MTBE	HVOCs	Naph-thalene	cPAHs*	Dissolved Lead	Total Lead
Feet		Feet Below TOC	Feet Above MSL	Feet Above MSL	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	04/03/18	7.05	11.74	4.69	240	<200	<500	**60**	<1.0	<1.0	<1.0	<0.01	<1.0	<5.0	ND	<0.1	<0.1	--	<2.0
	07/03/18	8.46	11.74	3.28	790	<200	<500	**170**	1.3	<1.0	4.0	<0.01	<1.0	<5.0	ND	<0.1	<0.1	--	<2.0
	10/12/18	11.04	11.74	0.70	**1,100**	--	--	**64**	1.4	<1.0	2.1	--	--	--	--	--	--	--	--
	MTCA Method A Cleanup Levels				800	500	500	5	1,000	700	1,000	0.01	5	20	Variable	160	0.1	15	15

EXPLANATION

MTCA = Model Toxic Control Act Cleanup Level (WAC173-340-900)

TOC = Top of Casing MSL = Mean Sea Level

< = not detected at indicated Laboratory Detection Limits -- not analyzed NM = Not Measured

TPHg - Total Petroleum Hydrocarbons - Gasoline by Method NWTPH-Gx

TPHd - Total Petroleum Hydrocarbons - Diesel by Method NWTPH-Dx TPHmo - Total Petroleum Hydrocarbons - Motor Oil by Method NWTPH-Dx extended

Benzene, Toluene, Ethylbenzene and Xylenes by EPA Method 8021B

MTBE = Methyl-tert-butyl-ether EDC = 1,2-Dichloroethane EDB = 1,2-Dibromoethane HVOCs = Halogenated Volatile Organic Compounds; by EPA Method 8260B

PAHs (including Naphthalene) by EPA Method 8270

Total and Dissolved Lead by EPA Method 7010

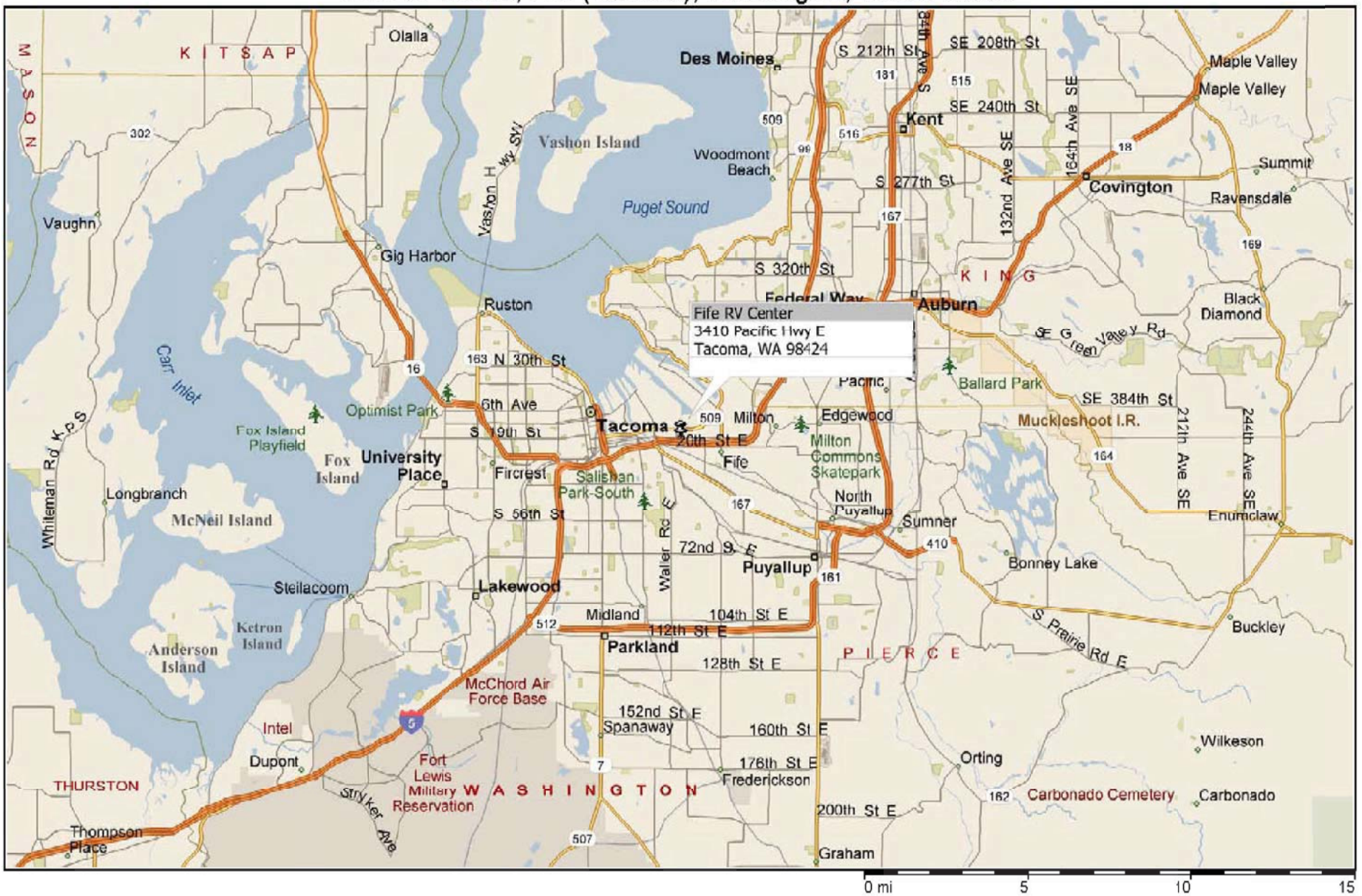
* = Effective concentration using Toxic Equivalency Factor per WAC 173-340-708{e}: SUM(Benzo(a)pyrene (x1), Benzo(a)anthracine (x0.1), Benzo(b)fluoranthene (x0.1), Benzo(k)fluoranthene (x0.1), Chrysene (x0.01), Dibenz(a,h)anthracene (x0.1), Indeno(1,2,3-cd)pyrene (x0.1)

1 = Wells surveyed/resurveyed on 02/28/18

ND = Not Detected above Laboratory Minimum Reporting Limits or applicable cleanup levels (see laboratory report for further detail)

Bolded numbers and red-shaded cells denote concentrations above the MTCA Cleanup Levels for groundwater

Fife RV Center, Fife (Tacoma), Washington, United States



AEROTECH ENVIRONMENTAL CONSULTING

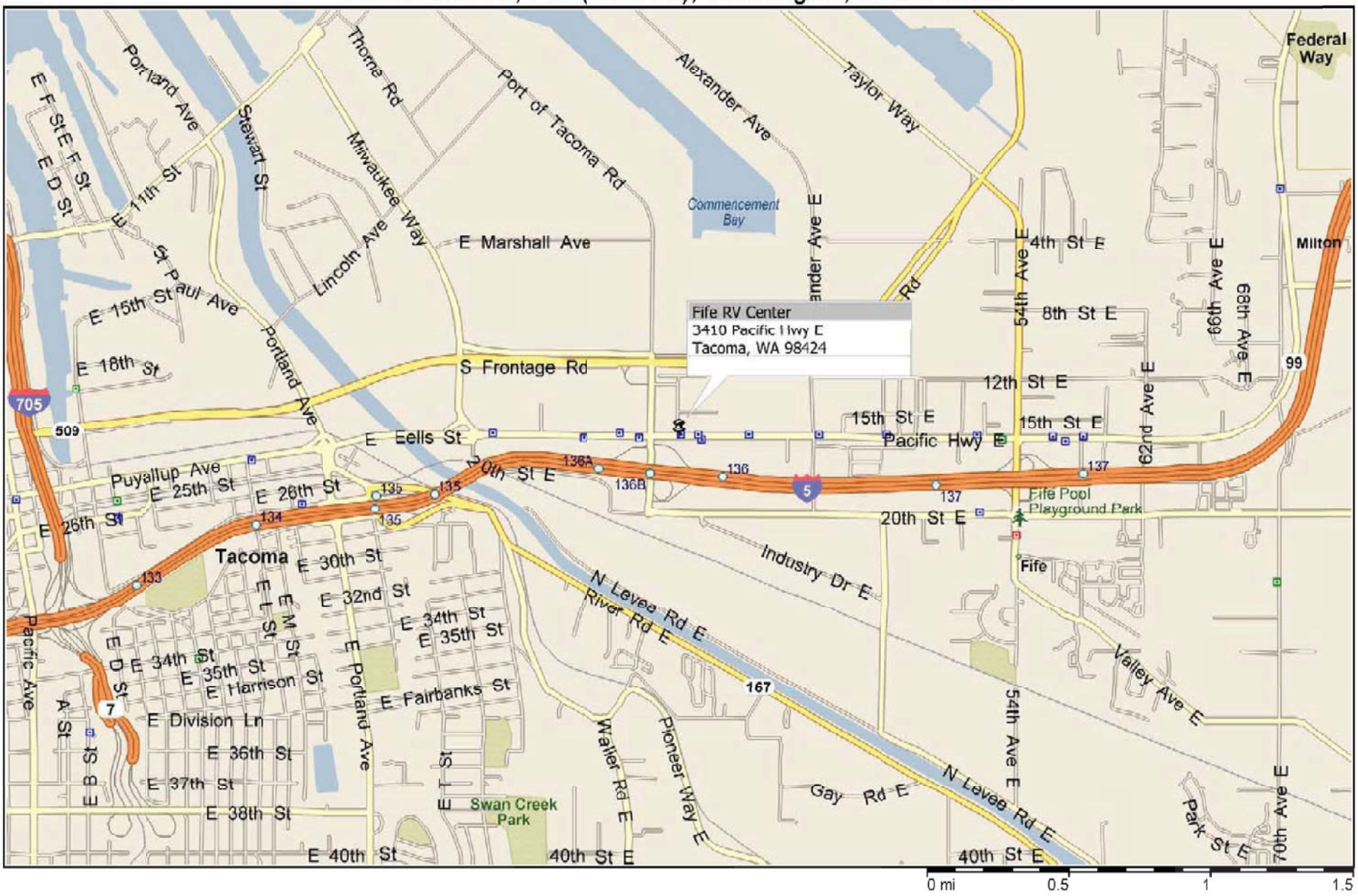
REGIONAL MAP

Fife RV Center
3410 Pacific Highway East
Fife, Washington

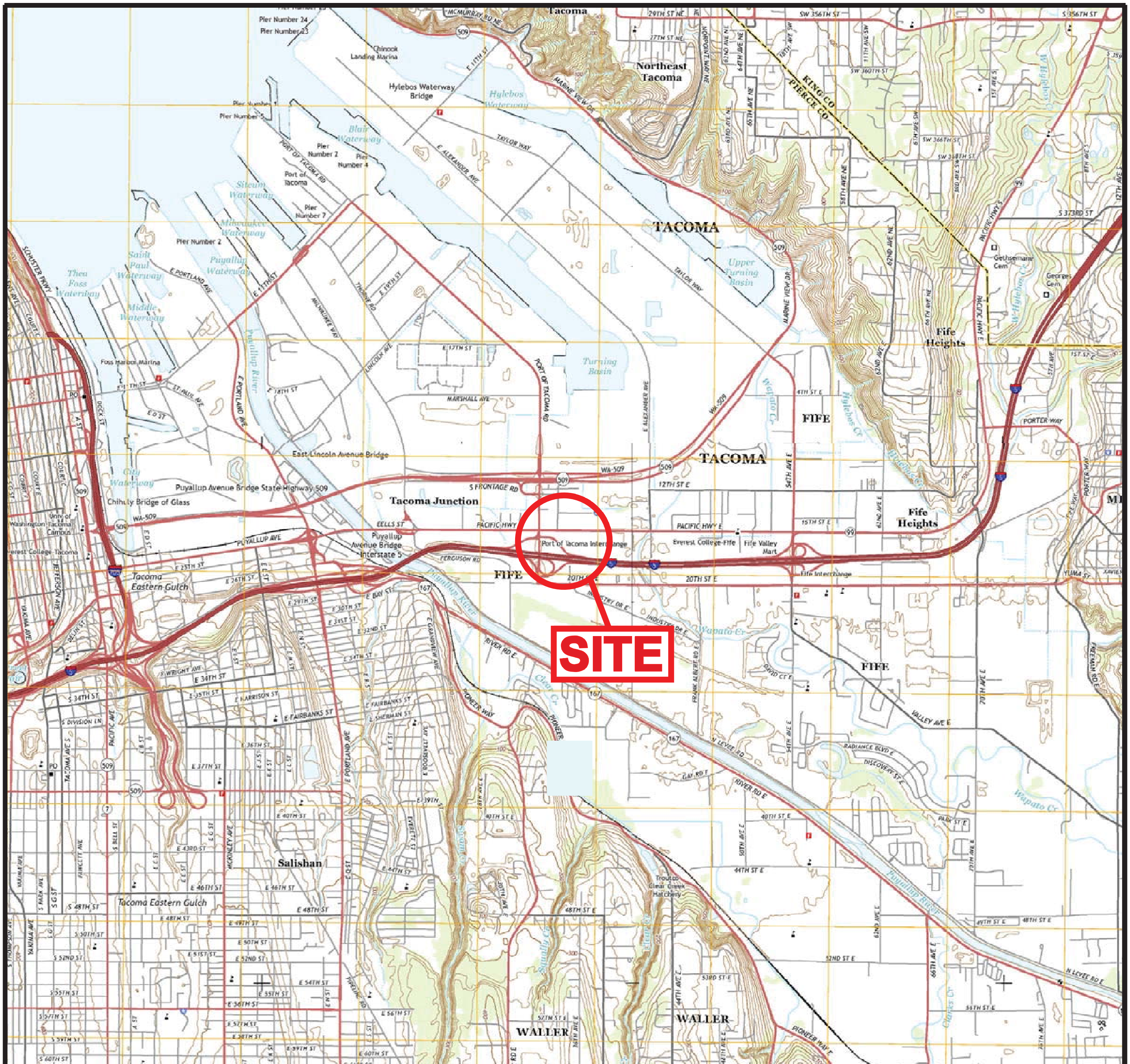
Date: 12/08/16
By: Nick Gerkin
Figure: 1

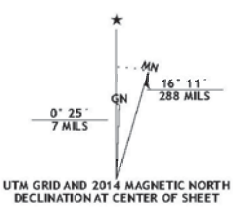
N

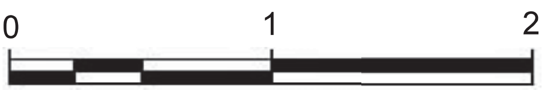
Fife RV Center, Fife (Tacoma), Washington, United States



AEROTECH ENVIRONMENTAL CONSULTING	**NEIGHBORHOOD STREET MAP**	**Fife RV Center** **3410 Pacific Highway East** **Fife, Washington**		**Date:** 12/08/16 **By:** Nick Gerkin **Figure:** 2







SCALE (mile)

CONTOUR INTERVAL 20 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

AEROTECH
ENVIRONMENTAL CONSULTING

USGS TOPOGRAPHIC MAP

Fife RV Center
3410 Pacific Highway East
Fife, Washington

Date: 10/30/16
By: Nick Gerkin
Figure: 3

EXPLANATION

Extents of Site Remedial Excavation Figures

Property Boundary

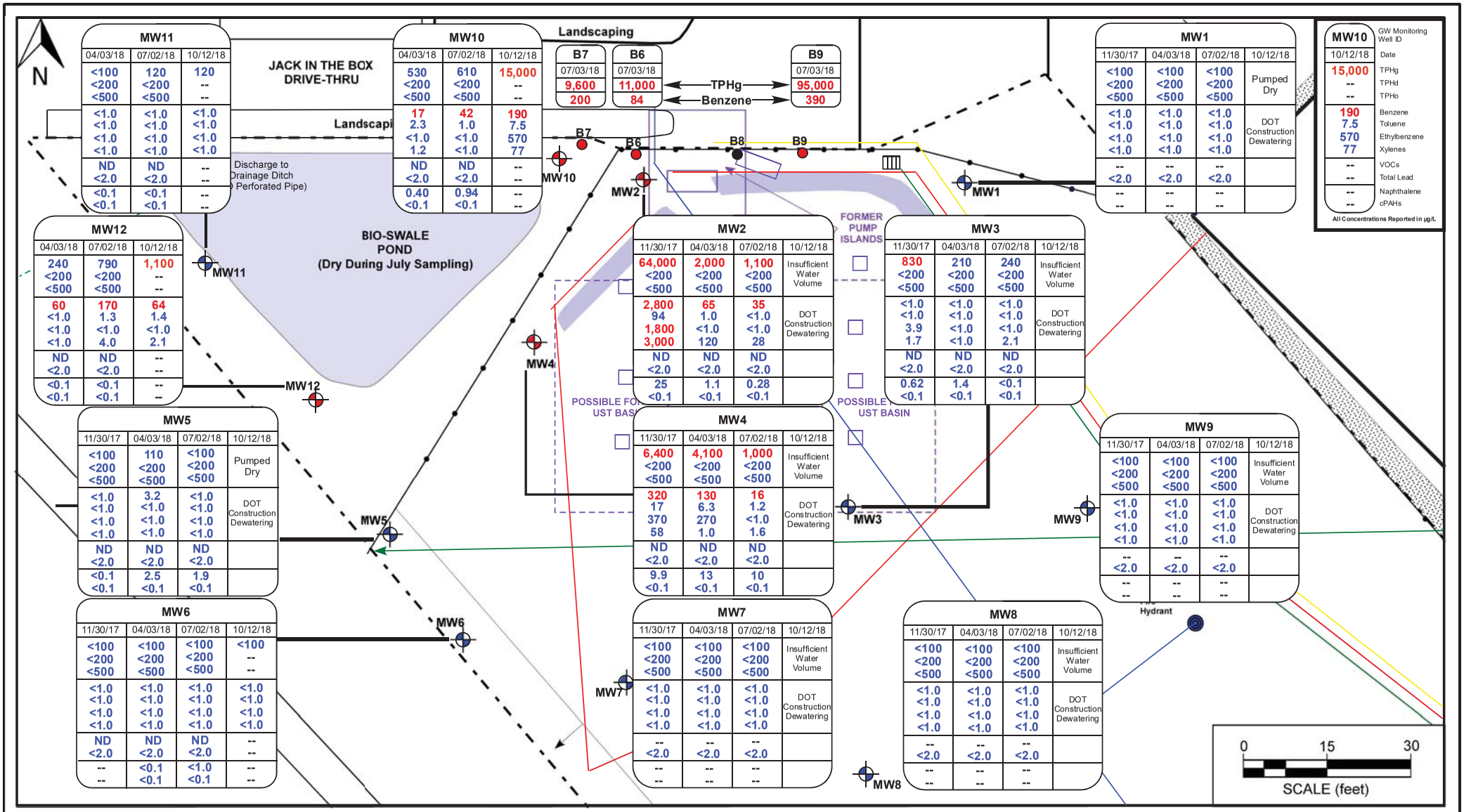
AEROTECH ENVIRONMENTAL CONSULTING

SITE VICINITY MAP

Fife RV Center
3410 Pacific Highway East
Fife, Washington

0 150 300
SCALE (feet)

Date: 04/27/18
By: Nick Gerkin
Figure: 4



MW11		
04/03/18	07/02/18	10/12/18
<100	120	120
<200	<200	--
<500	<500	--
<1.0	<1.0	<1.0
<1.0	<1.0	<1.0
<1.0	<1.0	<1.0
<1.0	<1.0	<1.0
ND	ND	--
<2.0	<2.0	--
<0.1	<0.1	--
<0.1	<0.1	--

MW10		
04/03/18	07/02/18	10/12/18
530	610	15,000
<200	<200	--
<500	<500	--
17	42	190
2.3	1.0	7.5
<1.0	<1.0	570
1.2	<1.0	77
ND	ND	--
<2.0	<2.0	--
0.40	0.94	--
<0.1	<0.1	--

B7	B6	B9
07/03/18	07/03/18	07/03/18
9,600	11,000	95,000
200	84	390

MW1			
11/30/17	04/03/18	07/02/18	10/12/18
<100	<100	<100	Pumped Dry
<200	<200	<200	
<500	<500	<500	
<1.0	<1.0	<1.0	DOT Construction Dewatering
<1.0	<1.0	<1.0	
<1.0	<1.0	<1.0	
<1.0	<1.0	<1.0	
--	--	--	
<2.0	<2.0	<2.0	
--	--	--	
--	--	--	

MW10	GW Monitoring Well ID
10/12/18	Date
15,000	TPHg
--	TPHd
--	TPHo
190	Benzene
7.5	Toluene
570	Ethylbenzene
77	Xylenes
--	VOCs
--	Total Lead
--	Naphthalene
--	cPAHs

All Concentrations Reported in µg/L

MW12		
04/03/18	07/02/18	10/12/18
240	790	1,100
<200	<200	--
<500	<500	--
60	170	64
<1.0	1.3	1.4
<1.0	<1.0	<1.0
<1.0	4.0	2.1
ND	ND	--
<2.0	<2.0	--
<0.1	<0.1	--
<0.1	<0.1	--

MW2			
11/30/17	04/03/18	07/02/18	10/12/18
64,000	2,000	1,100	Insufficient Water Volume
<200	<200	<200	
<500	<500	<500	
2,800	65	35	DOT Construction Dewatering
94	1.0	<1.0	
1,800	<1.0	<1.0	
3,000	120	28	
ND	ND	ND	
<2.0	<2.0	<2.0	
25	1.1	0.28	
<0.1	<0.1	<0.1	

MW3			
11/30/17	04/03/18	07/02/18	10/12/18
830	210	240	Insufficient Water Volume
<200	<200	<200	
<500	<500	<500	
<1.0	<1.0	<1.0	DOT Construction Dewatering
<1.0	<1.0	<1.0	
3.9	<1.0	<1.0	
1.7	<1.0	2.1	
ND	ND	ND	
<2.0	<2.0	<2.0	
0.62	1.4	<0.1	
<0.1	<0.1	<0.1	

MW4			
11/30/17	04/03/18	07/02/18	10/12/18
6,400	4,100	1,000	Insufficient Water Volume
<200	<200	<200	
<500	<500	<500	
320	130	16	DOT Construction Dewatering
17	6.3	1.2	
370	270	<1.0	
58	1.0	1.6	
ND	ND	ND	
<2.0	<2.0	<2.0	
9.9	13	10	
<0.1	<0.1	<0.1	

MW5			
11/30/17	04/03/18	07/02/18	10/12/18
<100	110	<100	Pumped Dry
<200	<200	<200	
<500	<500	<500	
<1.0	3.2	<1.0	DOT Construction Dewatering
<1.0	<1.0	<1.0	
<1.0	<1.0	<1.0	
<1.0	<1.0	<1.0	
ND	ND	ND	
<2.0	<2.0	<2.0	
<0.1	2.5	1.9	
<0.1	<0.1	<0.1	

MW9			
11/30/17	04/03/18	07/02/18	10/12/18
<100	<100	<100	Insufficient Water Volume
<200	<200	<200	
<500	<500	<500	
<1.0	<1.0	<1.0	DOT Construction Dewatering
<1.0	<1.0	<1.0	
<1.0	<1.0	<1.0	
<1.0	<1.0	<1.0	
--	--	--	
<2.0	<2.0	<2.0	
--	--	--	
--	--	--	

MW6			
11/30/17	04/03/18	07/02/18	10/12/18
<100	<100	<100	<100
<200	<200	<200	--
<500	<500	<500	--
<1.0	<1.0	<1.0	<1.0
<1.0	<1.0	<1.0	<1.0
<1.0	<1.0	<1.0	<1.0
<1.0	<1.0	<1.0	<1.0
ND	ND	ND	--
<2.0	<2.0	<2.0	--
--	<0.1	<1.0	--
--	<0.1	<0.1	--

MW7			
11/30/17	04/03/18	07/02/18	10/12/18
<100	<100	<100	Insufficient Water Volume
<200	<200	<200	
<500	<500	<500	
<1.0	<1.0	<1.0	DOT Construction Dewatering
<1.0	<1.0	<1.0	
<1.0	<1.0	<1.0	
<1.0	<1.0	<1.0	
--	--	--	
<2.0	<2.0	<2.0	
--	--	--	
--	--	--	

MW8			
11/30/17	04/03/18	07/02/18	10/12/18
<100	<100	<100	Insufficient Water Volume
<200	<200	<200	
<500	<500	<500	
<1.0	<1.0	<1.0	DOT Construction Dewatering
<1.0	<1.0	<1.0	
<1.0	<1.0	<1.0	
<1.0	<1.0	<1.0	
--	--	--	
<2.0	<2.0	<2.0	
--	--	--	
--	--	--	

Blue numbers and symbols indicate concentrations below the MTCA Method A Cleanup Levels

Red numbers and symbols indicate concentrations above the MTCA Method A Cleanup Levels

AEROTECH ENVIRONMENTAL CONSULTING

EXPLANATION

MW12 — Groundwater Monitoring Well

Property Boundary

Fencing

Cool Guard HRL36 Liner Installed to 10-Foot Depth

All other analytes were not detected at or above the Laboratory Minimum Reporting Limits

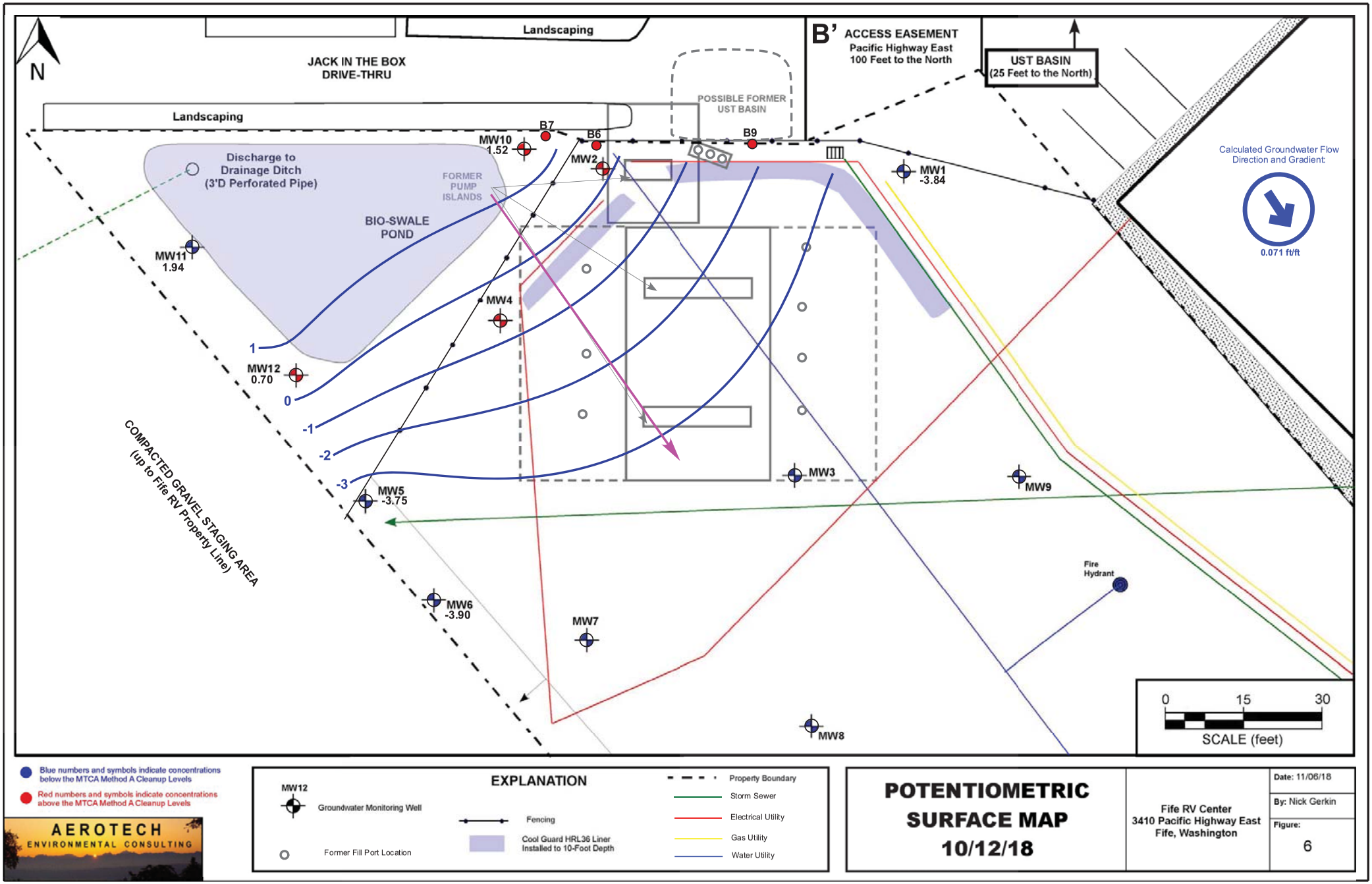
GROUNDWATER ANALYTICAL RESULTS MAP - 10/12/18

Fife RV Center
3410 Pacific Highway East
Fife, Washington

Date: 12/27/18

By: Nick Gerkin

Figure: 5



Blue numbers and symbols indicate concentrations below the MTCA Method A Cleanup Levels

Red numbers and symbols indicate concentrations above the MTCA Method A Cleanup Levels

AEROTECH
ENVIRONMENTAL CONSULTING

EXPLANATION

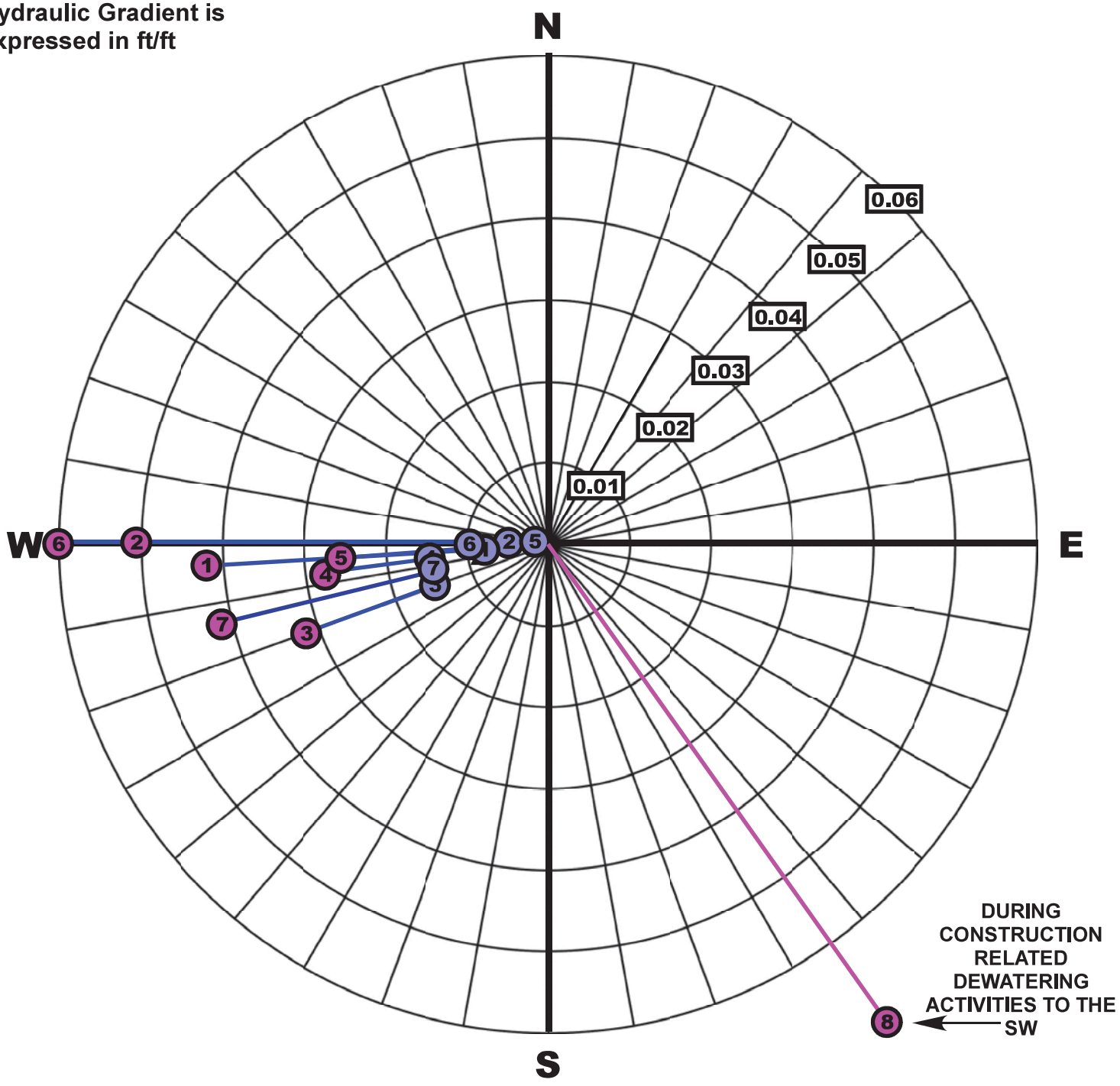
- MW12 — Groundwater Monitoring Well
- Former Fill Port Location
- Fencing
- Cool Guard HRL36 Liner Installed to 10-Foot Depth
- Property Boundary
- Storm Sewer
- Electrical Utility
- Gas Utility
- Water Utility

POTENTIOMETRIC SURFACE MAP 10/12/18

Fife RV Center
3410 Pacific Highway East
Fife, Washington

Date: 11/06/18
By: Nick Gerkin
Figure: 6

Hydraulic Gradient is expressed in ft/ft



HYDRAULIC GRADIENT RANGE AND SHALLOW GROUNDWATER FLOW DIRECTION

1	11/18/16	5	11/30/17
2	02/20/17	6	04/03/18
3	05/23/17	7	07/02/18
4	08/01/17	8	10/12/18

2 Maximum Calculated Gradient

2 Minimum Calculated Gradient

AEROTECH ENVIRONMENTAL CONSULTING

ROSE DIAGRAM

Fife RV Center
3410 Pacific Highway East
Fife, Washington

Date: 11/06/18
By: Nick Gerkin
Figure: 7

- Project Contract Documents

ENVIRONMENTAL CONTRACTOR'S CERTIFICATION

Fife RV Center
3410 Pacific Highway East
Fife, Washington 98424

1. Contractor's Name: Aerotech Environmental Consulting, Inc.

2. Contractor's Address: 13925 Interurban Avenue South, Ste. 210, Seattle, Washington 98168

3. Name and title of person completing this certification: Alan T. Blotch / President

4. Answer the following questions about each employee that contractor will have perform the assessment or prepare the report showing the results of the inspection:

   a. Name and Title of Employee: Alan T. Blotch – Environmental Professional

   b. Length of experience doing environmental assessments: 31 years

   c. Education degrees received: Masters of Business Administration
   Juris Doctor – Environmental Law

   d. Relevant training received: ASTM E50 Environmental Assessment Committee Meetings

5. Identify any certifications and approvals issued to contractor pursuant to an official Federal, State of local program or policy to conduct environmental assessments: Registered Environmental Assessor
   Issued by State of California

6. Describe the generally recognized standards which the contractor will use to perform the assessment. *Standard Practice for Environmental Site Assessments: Phase II Environmental Site Assessment Process* (ASTM E 1903)

7. Disclose the nature of any previous environmental inspections contractor has ever performed for the Owner of the property: Phase I Environmental Site Assessment

8. Disclose the nature of any affiliation or association contractor now has, or ever had, with the above referenced seller of the property, of the above referenced buyer of the property: N/A

9. Describe the liability insurance carried by contractor to cover claims in the event that ir fails to discover adverse environmental conditions during an environmental inspection.
   Professional Errors & Omissions Coverage $1,000,000 / claim and $1,000,000 aggregate liability

THE UNDERSIGNED HEREBY CERTIFIES, UNDER PENALTY OF THE CRIMINAL AND/OR CIVIL PENALTIES IN 18 U.S.C. § 1001 FOR FALSE STATEMENTS TO THE UNITED STATES GOVERNMENT, THAT THE ABOVE INFORMATION IS TRUE AND CORRECT.

Signature

12-26-18
Date

- Laboratory Analytical Report and Chain of Custody

ADVANCED ANALYTICAL

Environmental Testing Laboratory

October 18, 2018

Nick Gerkin
Aerotech Environmental, Inc.
13925 Interurban Avenue South, Suite 210
Seattle, WA 98168

Dear Mr. Gerkin:

Please find enclosed the analytical data report for the *Fife RV Center (**C81015-2**)* Project.

Samples were received *October 15, 2018.* The results of the analyses are presented in the attached tables. Applicable reporting limits, QA/QC data and data qualifiers are included. A copy of the chain-of-custody and an invoice for the work is also enclosed.

ADVANCED ANALYTICAL LABORATORY appreciates the opportunity to provide analytical services for this project. Should there be any questions regarding this report, please contact me at (425) 702-8571.

It was a pleasure working with you, and we are looking forward to the next opportunity to work together.

Sincerely,

V. Ivanov

Val G. Ivanov, Ph.D.
Laboratory Manager

4078 148 Ave NE■ Redmond, WA 98052
425.702-8571
E-mail: aachemlab@yahoo.com

Advanced Analytical Laboratory
(425) 702-8571

AAL Job Number:	C81015-2
Client:	Aerotech Environmental
Project Manager:	Nick Gerkin
Client Project Name:	Fife RV Center
Client Project Number:	na
Date received:	10/15/18

Advanced Analytical Laboratory
(425) 702-8571

AAL Job Number: C81015-2
Client: Aerotech Environmental
Project Manager: Nick Gerkin
Client Project Name: Fife RV Center
Client Project Number: na
Date received: 10/15/18

Analytical Results

NWTPH-Gx/BTEX		MTH BLK	LCS	W-MW6	W-MW10	W-MW11	W-MW12
Matrix	Water	Water	Water	Water	Water	Water	Water
Date analyzed	Reporting Limits	10/17/18	10/17/18	10/17/18	10/17/18	10/17/18	10/17/18
NWTPH-Gx, ug/L							
Mineral spirits/Stoddard	100	nd		nd	nd	nd	nd
Gasoline	100	nd		nd	15,000	120	1,100
BTEX 8021B, µg/L							
Benzene	1.0	nd	117%	nd	190	nd	64
Toluene	1.0	nd	76%	nd	7.5	nd	1.4
Ethylbenzene	1.0	nd		nd	570	nd	nd
Xylenes	1.0	nd		nd	77	nd	2.1
Surrogate recoveries:							
Trifluorotoluene		129%	128%	122%	C	109%	C
Bromofluorobenzene		93%	92%	96%	C	88%	101%

Data Qualifiers and Analytical Comments
nd - not detected at listed reporting limits
na - not analyzed
C - coelution with sample peaks
Acceptable Recovery limits: 70% TO 130%
Acceptable RPD limit: 30%

Advanced Analytical Laboratory
(425) 702-8571

AAL Job Number: C81015-2
Client: Aerotech Environmental
Project Manager: Nick Gerkin
Client Project Name: Fife RV Center
Client Project Number: na
Date received: 10/15/18

Analytical Results		Dupl	RPD			
NWTPH-Gx/BTEX		**W-MW12**	**W-MW12**	**MS**	**MSD**	**RPD**
Matrix	Water	Water	Water	Water	Water	Water
Date analyzed	Reporting Limits	10/17/18	10/17/18	10/17/18	10/17/18	10/17/18
NWTPH-Gx, ug/L						
Mineral spirits/Stoddard	100	nd				
Gasoline	100	1,000	10%			
BTEX 8021B, µg/L						
Benzene	1.0	68	6%	115%	115%	0%
Toluene	1.0	1.7	19%	73%	70%	4%
Ethylbenzene	1.0	nd				
Xylenes	1.0	2.3	9%			
Surrogate recoveries:						
Trifluorotoluene		C		118%	127%	
Bromofluorobenzene		101%		77%	93%	

Data Qualifiers and Analytical Comments
nd - not detected at listed reporting limits
na - not analyzed
C - coelution with sample peaks
Acceptable Recovery limits: 70% TO 130%
Acceptable RPD limit: 30%

ADVANCED ANALYTICAL

Chain of Custody Record

Page of

Laboratory Job #: C81015-2

4078 148 Avenue NE
Redmond, WA 98052
(425) 702-8571
aachemlab@yahoo.com

Client: Aerotech

Project Name: Fife RV Center

Project Manager: Nick Gerkin

Project Number: —

Address: 13925 Interurban Ave S, Tukwila, WA

Collector: Nick Gerkin

Phone: 206 482 2287 Fax:

Date of collection: 10/12/18

	Sample ID	Time	Matrix	Container type	8260 Volatiles	HVOC 8260	BTEX	BTEX/NWTPH-Gx	NWTPH-Gx	NWTPH-Dx	NWTPH-HCID	8270 Semivolatiles	8270 PAH	8082 PCBs	8081 Pesticides	RCRA 8 Metals	Lead	MTCA5 Metals	Notes, comments	# of containers
1	W-mw6	1325	W	2VOA				X												2
2	W-mw10	1330	W	2VOA				X												2
3	W-mw11	1430	W	2VOA				X												2
4	W-mw12	1500	W	2VOA				X												2
5			~~W~~	~~2VOA~~				X	NAG											
6																				
7																				
8																				
9																				
10																				
11																				
12																				

Relinquished by:	Date/Time	Received by:	Date/Time
	10/15/18 1400		10/16/18 8:35
Relinquished by:	Date/Time	Received by:	Date/Time
	10/16/18 0430	V. Nauer 10/15/18	16:30

Sample receipt info:

Total # of containers:

Condition (temp, °C)

Seals (intact?, Y/N)

Comments:

Turnaround time:

Same day O

24 hr O

48 hr O

Standard X

- Standard Operating Procedure

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LOW-FLOW GROUNDWATER SAMPLING STANDARD OPERATING PROCEDURE

The following protocol and sampling procedures were designed to meet or exceed standards for groundwater monitoring well sampling, as specified by the State of Washington Department of Ecology *"Standard Operating Procedures for Purging and Sampling Monitoring Wells, Version 1.0,"* dated and approved on October 4, 2011. These procedures are strictly adhered to by Aerotech field staff:

Cross-Contamination Mitigation Protocol

A sampling table is set up adjacent to the well head in order to protect field equipment from contact with the ground, to prevent or minimize the possible introduction of foreign materials into the wells, and in general in order to mitigate the possibility of cross-contamination. Where previous laboratory data is available, or where visual of olfactory indicators provide initial evidence, well sampling order is arranged to proceed with the least contaminated well, often the upgradient groundwater monitoring wells, and sampling order proceeds by sampling wells associated with successively higher contamination levels. Thus, the wells exhibiting the highest contamination levels are sampled last, in order to minimize the possibility of cross contamination.

A fresh pair of disposable Nitrile gloves is worn at each well. Equipment neither disposable nor dedicated to wells, is washed in a dedicated container prepared with non-phosphate Alconox detergent and triple rinsed in a second container prepared with distilled and/or deionized water. Surfaces that cannot be readily submerged for the purpose of decontamination, are sprayed with wash water followed by rinse water, and wiped with a fresh disposable paper towel. For shallow wells that require a peristaltic pump, dedicated tubing is left in each well after sampling, however, for deeper wells that require a submersible pump, dedicated tubing is recovered from wells after each use, and deployed to a designated dedicated clean plastic bag, bearing a label indicating well identification information.

Water Level Measurement

Prior to the well purge process and the collection of groundwater samples, groundwater levels are measured at the north side of the ("TOC") with a piezometer/water level indicator, by slowly lowering the sensor into wells prior to purging, in order to minimize disturbances. The water levels are measured twice, with tape marked in 0.01 foot increments, in order to reduce possible reading error. Where appropriate, free product thickness is measured with gas level indicator paste or an interface indicator. Upon arrival at the well and visual inspection, the condition of the well and well head.

Groundwater Monitoring Well Purge and Sampling Methodologies

Prior to groundwater sample collection, A dedicated length of high density polyethylene tubing is lowered into each well to a level near the middle of the screened interval. A dedicated

length of clean silicone tubing is utilized within the pump mechanism. The wells are purged by means of low flow techniques, during which time groundwater is monitored for physical parameters, including temperature, pH, specific conductivity, dissolved oxygen (DO), and oxidation-reduction potential (ORP), by means of a multi-parameter device mounted upon a flow cell, until such time as values recorded have stabilized and equilibrium conditions are verified according to State guidelines. This protocol ensures that collected groundwater samples are representative of in-situ groundwater conditions. Readings are recorded once every 2 to 5 minutes, including water level measurement. The pumping rate shall remain below 1 L/min during monitoring and sampling procedures. This is verified by periodically filling a one-Liter graduated cylinder and recording the rate, adjusting the pump as necessary. The water column within the well should remain within 5% of the static height during the purge and sample process, if this cannot be achieved, the pump rate will be reduced until the water level stabilizes. The following conditions must be met in three consecutive readings prior to sampling:

- pH +/- 0.1 standard units
- Specific Conductivity +/- 10.0 µmhos/cm for values < 1,000 µmhos/cm
+/- 20.0 µmhos/cm for values > 1,000 µmhos/cm
- DO +/- 0.05 mg/L for values < 1 mg/L
+/- 0.2 mg/L for values > 1 mg/L
- Temperature +/- 0.1 degrees Celsius
- ORP +/- 10 mV

Groundwater samples are collected in containers specified by the laboratory for the analyses established at the Site, and in accordance with State of Washington regulations or guidelines. Sample containers are labeled with site name, well identification, and date of collection information. Each sample is documented on a *Chain of Custody* (“”COC”) form, and immediately placed in an iced cooler (maintained at 4 degrees Celsius or less) for transport to a certified laboratory for analysis. Please note that any purge water suspected or confirmed to contain concentrations above the MTCA Cleanup Levels is drummed and left on Site.

Please feel free to contact the Aerotech Geologist Mr. Simon Payne at (206) 741-1651, or the Aerotech Environmental Scientist/Field Sampling Coordinator, Mr. Nicholas Gerkin, at (206) 257-4211, if you have questions regarding work completed at this Site.

- Field Documentation

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GROUNDWATER MONITORING WELL GAUGING RECORD

FIELD CREW: NAG	**PROJECT NAME:** Fife RV Center
DATE: 10/12/18	**PROJECT ADDRESS:** 3410 Pacific Highway East, Fife, WA

Well ID	Time	Wellhead Elevation	Depth to Water	Groundwater Elevation	Depth of Well	Well Diameter	Comments
--	hh:mm	Feet Above MSL	Feet Below TOC	Feet Above MSL	Feet Below TOC	Inches	--
MW1	7:13	8.37	12.21	-3.84	14.4	2	Well vaults, seals, bolts and plugs are in adequate condition.
MW2	7:55	9.40	13.48	-4.08	14.2	2	Well vaults, seals, bolts and plugs are in adequate condition.
MW3	7:17	9.43	12.60	-3.17	14.6	2	Well vaults, seals, bolts and plugs are in adequate condition.
MW4	7:58	10.12	14.27	-4.15	14.5	2	Well vaults, seals, bolts and plugs are in adequate condition.
MW5	7:47	11.27	15.02	-3.75	17.5	2	Well vaults, seals, bolts and plugs are in great condition.
MW6	7:45	11.40	15.30	-3.90	17.5	2	Well vaults, seals, bolts and plugs are in great condition.
MW7	7:22	10.09	12.51	-2.42	14.2	1	Well vaults, seals, bolts and plugs are in adequate condition.
MW8	7:19	10.26	12.46	-2.20	14.1	1	Well vaults, seals, bolts and plugs are in adequate condition.
MW9	7:15	8.84	11.50	-2.66	14.3	1	Well vaults, seals, bolts and plugs are in adequate condition.
MW10	7:56	12.94	11.42	1.52	17.4	2	Well vaults, seals, bolts and plugs are in new condition.
MW11	7:50	9.12	7.18	1.94	9.8	2	Well vaults, seals, bolts and plugs are in new condition.
MW12	7:49	11.74	11.04	0.70	17.2	2	Well vaults, seals, bolts and plugs are in new condition.

EXPLANATION
MSL = Mean Sea Level
TOC - Top of Casing

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GROUNDWATER MONITORING WELL LOW FLOW SAMPLING FIELD LOG

FIELD CREW: NAG	**PROJECT NAME:** Fife RV Center
DATE: 10/12/18	**PROJECT ADDRESS:** 3410 Pacific Highway East, Fife, WA

MW1		Purge Start:	12:28	Purge Stop:	12:45	Purge V (L):	**2.55**
Time	**DTW**	**Purge Rate**	**Temperature**	**Specific Conductivity**	**DO**	**pH**	**ORP**
hr:min	feet	mL/min	°C	mS/cm	mg/L	unit	mV
	12.21	--	--	--	--	--	--
12:35	12.73	150	16.1	726	1.18	7.18	48.7
12:37	12.87	150	16.1	727	1.04	7.14	-2.7
12:39	13.02	150	16.0	730	0.96	7.11	-28.7
12:41	13.19	150	16.0	729	0.79	7.09	-46.0
12:43	13.35	150	16.1	728	0.75	7.08	-57.1
12:45	--	150	--	--	--	--	--
Ecology Parameter Limits (3 Consecutive Readings)			**+/- 0.1**	**+/- 10**	**+/- 0.20**	**+/- 0.1**	**+/- 10**
--	**SAMPLE**	--	--	--	--	--	--

Comments: Well dewatered at 12:45

MW5		Purge Start:	13:43	Purge Stop:	13:59	Purge V (L):	**2.40**
Time	**DTW**	**Purge Rate**	**Temperature**	**Specific Conductivity**	**DO**	**pH**	**ORP**
hr:min	feet	mL/min	°C	mS/cm	mg/L	unit	mV
	15.02	--	--	--	--	--	--
13:49	15.50	150	16.8	699	2.85	7.08	-55.4
13:51	15.68	150	16.9	701	2.09	7.06	-62.0
13:53	15.88	150	16.8	702	1.70	7.06	-68.0
13:55	16.11	150	16.7	700	1.37	7.06	-75.0
13:57	16.20	150	16.3	698	1.46	7.01	-80.0
13:59	16.11	150	17.3	698	1.15	7.08	-88.2
Ecology Parameter Limits (3 Consecutive Readings)			**+/- 0.1**	**+/- 10**	**+/- 0.05**	**+/- 0.1**	**+/- 10**
--	**SAMPLE**	--	--	--	--	--	--

Comments: Well dewatered at 13:59

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GROUNDWATER MONITORING WELL LOW FLOW SAMPLING FIELD LOG

FIELD CREW: NAG	**PROJECT NAME:** Fife RV Center
DATE: 10/12/18	**PROJECT ADDRESS:** 3410 Pacific Highway East, Fife, WA

MW6		Purge Start:	13:04	Purge Stop:	13:25	Purge V (L):	**3.78**
Time	**DTW**	**Purge Rate**	**Temperature**	**Specific Conductivity**	**DO**	**pH**	**ORP**
hr:min	feet	mL/min	°C	mS/cm	mg/L	unit	mV
	15.30	--	--	--	--	--	--
13:09	16.06	180	15.9	480.5	3.19	7.19	-54.6
13:11	16.24	180	15.8	484.2	2.60	7.17	-55.3
13:13	16.39	180	15.6	490.6	2.17	7.15	-57.0
13:15	16.39	180	16.0	496.6	3.22	7.16	-63.2
13:17	16.39	180	16.0	500.1	3.22	7.15	-65.3
13:19	16.43	180	16.0	500.0	7.55	7.18	-69.5
13:21	16.43	180	16.0	501.4	5.63	7.20	-73.4
Ecology Parameter Limits (3 Consecutive Readings)			**+/- 0.1**	**+/- 10**	**+/- 0.05**	**+/- 0.1**	**+/- 10**
13:25	**SAMPLE**	--	--	--	--	--	--

Comments:

MW10		Purge Start:	15:10	Purge Stop:	15:30	Purge V (L):	**3.20**
Time	**DTW**	**Purge Rate**	**Temperature**	**Specific Conductivity**	**DO**	**pH**	**ORP**
hr:min	feet	mL/min	°C	mS/cm	mg/L	unit	mV
	11.42	--	--	--	--	--	--
15:16	11.52	160	16.9	339.2	1.48	6.88	-55.0
15:18	11.55	160	16.9	322.0	1.25	6.90	-62.6
15:20	11.55	160	16.9	311.2	1.10	6.92	-68.0
15:22	11.56	160	16.8	302.7	1.08	6.95	-73.4
15:24	11.56	160	16.9	300.5	1.01	6.96	-76.3
15:26	11.57	160	16.8	301.4	1.00	6.97	-80.0
Ecology Parameter Limits (3 Consecutive Readings)			**+/- 0.1**	**+/- 10**	**+/- 0.05**	**+/- 0.1**	**+/- 10**
15:30	**SAMPLE**	--	--	--	--	--	--

Comments:

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GROUNDWATER MONITORING WELL LOW FLOW SAMPLING FIELD LOG

FIELD CREW: NAG	**PROJECT NAME:** Fife RV Center
DATE: 10/12/18	**PROJECT ADDRESS:** 3410 Pacific Highway East, Fife, WA

MW11		Purge Start:	14:12	Purge Stop:	14:30	Purge V (L):	**4.05**
Time	**DTW**	**Purge Rate**	**Temperature**	**Specific Conductivity**	**DO**	**pH**	**ORP**
hr:min	feet	mL/min	°C	mS/cm	mg/L	unit	mV
	7.18	--	--	--	--	--	--
14:18	7.50	225	150.0	16.9	338.9	6.69	-30.5
14:20	7.51	225	150.0	16.8	347.7	6.61	-28.1
14:22	7.52	225	150.0	16.8	355.7	6.58	-27.3
14:24	7.54	225	150.0	16.7	358.2	6.56	-26.2
14:26	7.56	225	150.0	16.7	361.6	6.56	-26.6
14:28	7.56	225	150.0	16.7	363.8	6.56	-26.5
Ecology Parameter Limits (3 Consecutive Readings)			**+/- 0.1**	**+/- 10**	**+/- 0.20**	**+/- 0.1**	**+/- 10**
14:30	**SAMPLE**	--	--	--	--	--	--

Comments:

MW12		Purge Start:	14:37	Purge Stop:	15:00	Purge V (L):	**3.45**
Time	**DTW**	**Purge Rate**	**Temperature**	**Specific Conductivity**	**DO**	**pH**	**ORP**
hr:min	feet	mL/min	°C	mS/cm	mg/L	unit	mV
14:45	11.24	150	16.7	594.0	1.33	6.80	-35.7
14:47	11.28	150	16.6	594.2	1.38	6.83	-43.5
14:49	11.33	150	16.7	593.2	1.13	6.86	-51.5
14:51	11.40	150	16.7	597.0	1.14	6.90	-57.3
14:53	11.45	150	16.6	594.0	1.08	6.92	-63.3
14:55	11.48	150	16.7	597.0	1.01	6.91	-66.4
Ecology Parameter Limits (3 Consecutive Readings)			**+/- 0.1**	**+/- 10**	**+/- 0.05**	**+/- 0.1**	**+/- 10**
15:00	**SAMPLE**	--	--	--	--	--	--

Comments: