GROUNDWATER MONITORING REPORT: 6th Quarterly Sampling

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

AEROTECH Environmental Consulting Inc.

April 3, 2018

Anchorage Seattle Portland

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

AEROTECH

Environmental Consulting Inc.

13925 Interurban Avenue South, Suite 210 Seattle, Washington 98168 (360) 710-5899

512 W. International Airport Road, Suite 201 Anchorage, Alaska 99518 (907) 575-6661

April 17, 2018

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

> RE: Groundwater Monitoring Report – 6th Quarter 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 nine groundwater monitoring wells previously installed at Fife RV Center in Fife, Washington. Aerotech conducted the last round of groundwater monitoring and sampling activities on April 3, 2018. Enclosed, please find the associated tabulated analytical results, site drawings, laboratory analytical report, and standard operating procedure document.

Petroleum Hydrocarbon and Lead concentrations were below the MTCA Method A Cleanup Levels in samples collected from groundwater monitoring wells MW1, MW5, MW6, MW7, MW8, MW9, AND MW11. Total Petroleum Hydrocarbons as Gasoline ("TPHg") was present at concentrations above the MTCA Method A Cleanup Levels in samples collected from groundwater monitoring wells MW2 and MW4. Benzene was present at concentrations above the MTCA Method A Cleanup Levels in samples collected from groundwater monitoring wells MW2, MW4, MW10, and MW12.

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.

Consed Geology

JUSTIN FRANCIS FOSLIEN

Sincerely,

Justin F. 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



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	МТВЕ	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
		MTCA I	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	ТРНо	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
		MTCA I	Method A Cleanuյ	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	ТРНо	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
		MTCA	Method A Cleanu	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	ТРНо	Benzene	Toluene	Ethyl- benzene	Xylenes	EDB	EDC	МТВЕ	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
		MTCA	Method A Cleanu	Levels	800	500	500	5	1,000	700	1,000	0.01	5	20	Variable	160*	0.1	15	15

GROUNDWATER ANALYTICAL RESULTS

Fife RV Center 3410 Pacific Highway East Fife, Washington

MW5

Well Depth	Sampling Date	Ground Water Level	Elevation (TOC north)	Water Level Elevation	TPHg	TPHd	ТРНо	Benzene	Toluene	Ethyl- benzene	Xylenes	EDB	EDC	МТВЕ	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
		MTCA I	Method A Cleanup	Levels	800	500	500	5	1,000	700	1,000	0.01	5	20	Variable	160*	0.1	15	15

MW6

Well Depth	Sampling Date	Ground Water Level	Elevation (TOC north)	Water Level Elevation	TPHg	TPHd	ТРНо	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
		MTCA I	Method A Cleanu	Levels	800	500	500	5	1.000	700	1.000	0.01	5	20	Variable	160*	0.1	15	15

MW7

Well	Sampling Date	Ground Water Level	Elevation (TOC north)	Water Level Elevation	TPHg	TPHd	ТРНо	Benzene	Toluene	Ethyl- benzene	Xylenes	EDB	EDC	МТВЕ	HVOCs	Naph- thalene	cPAHs*	Dissolved Lead	Total Lead
Depth		Level	(TOC HOTTH)	Elevation						benzene						thalene		Leau	Leau
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	1	1						<2.0
		MTCA I	Method A Cleanu) 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
		MTCA I	Method A Cleanu	p Levels	800	500	500	5	1.000	700	1.000	0.01	5	20	Variable	160*	0.1	15	15

MW9

Well	Sampling Date	Ground Water	Elevation	Water Level	TPHg	TPHd	TPHo	Benzene	Toluene	Ethyl-	Xylenes	EDB	EDC	MTBE	HVOCs	Naph-	cPAHs*	Dissolved	Total
Depth	Sampling Date	Level	(TOC north)	Elevation	irng	IPHU	IPHO	Benzene	Toluelle	benzene	Aylelles	EDB	EDC	IVITE	HVUCS	thalene	CPARS	Lead	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
		MTCA I	Method A Cleanu	Levels	800	500	500	5	1,000	700	1,000	0.01	5	20	Variable	160	0.1	15	15

GROUNDWATER ANALYTICAL RESULTS

Fife RV Center 3410 Pacific Highway East Fife, Washington

MW10

Well Depth	Sampling Date	Ground Water Level	Elevation (TOC north)	Water Level Elevation	TPHg	TPHd	ТРНо	Benzene	Toluene	Ethyl- benzene	Xylenes	EDB	EDC	МТВЕ	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	2.3	<1.0	1.2	<0.01	<1.0	<5.0	ND	0.40	<0.1		<2.0
		MTCA N	Method A Cleanu	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	МТВЕ	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
		MTCA I	Method A Cleanu	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	МТВЕ	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
		MTCA I	Method A Cleanu	Levels	800	500	500	5	1,000	700	1,000	0.01	5	20	Variable	160	0.1	15	15

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 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



AEROTECH

REGIONAL MAP

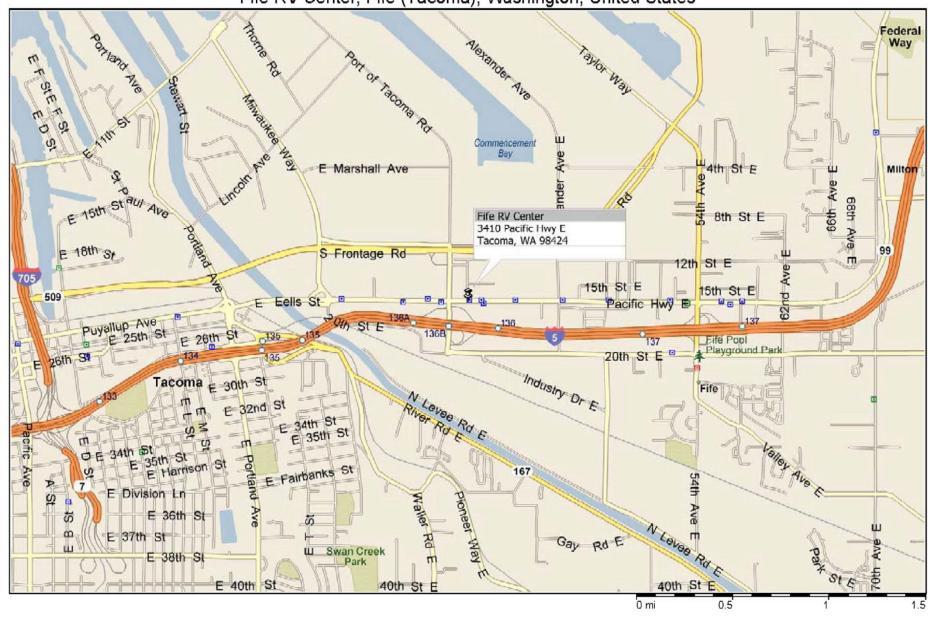
Fife RV Center 3410 Pacific Highway East Fife, Washington

By: Nick Gerkin

Figure:

N

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

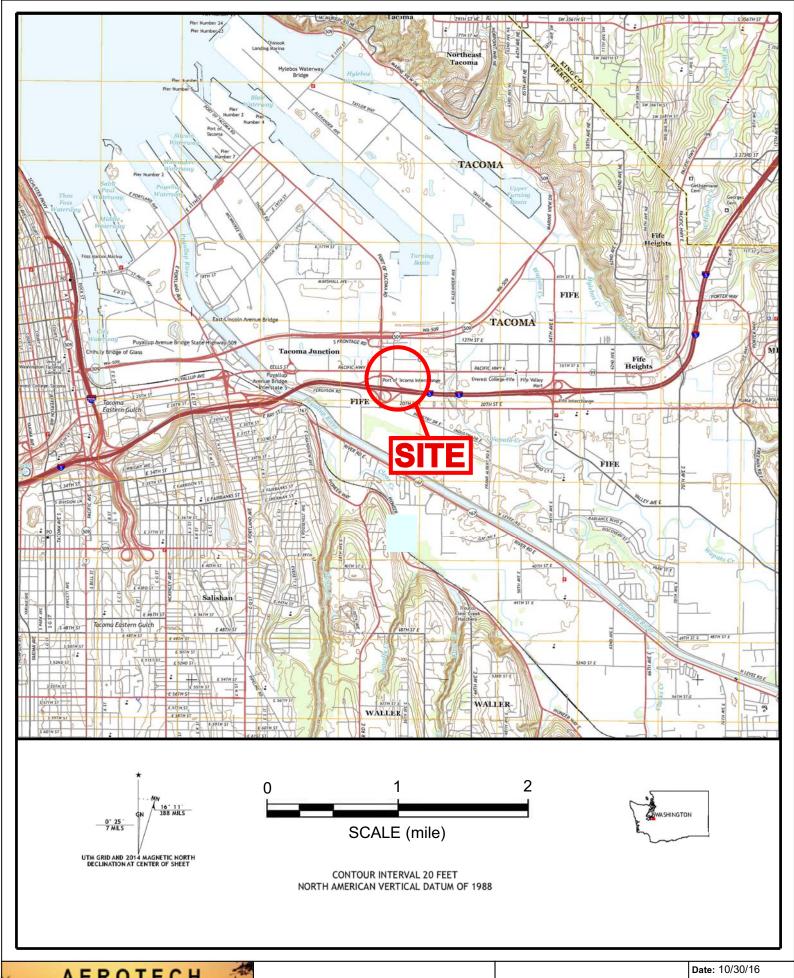




Fife RV Center 3410 Pacific Highway East Fife, Washington Date: 12/08/16

By: Nick Gerkin

Figure:

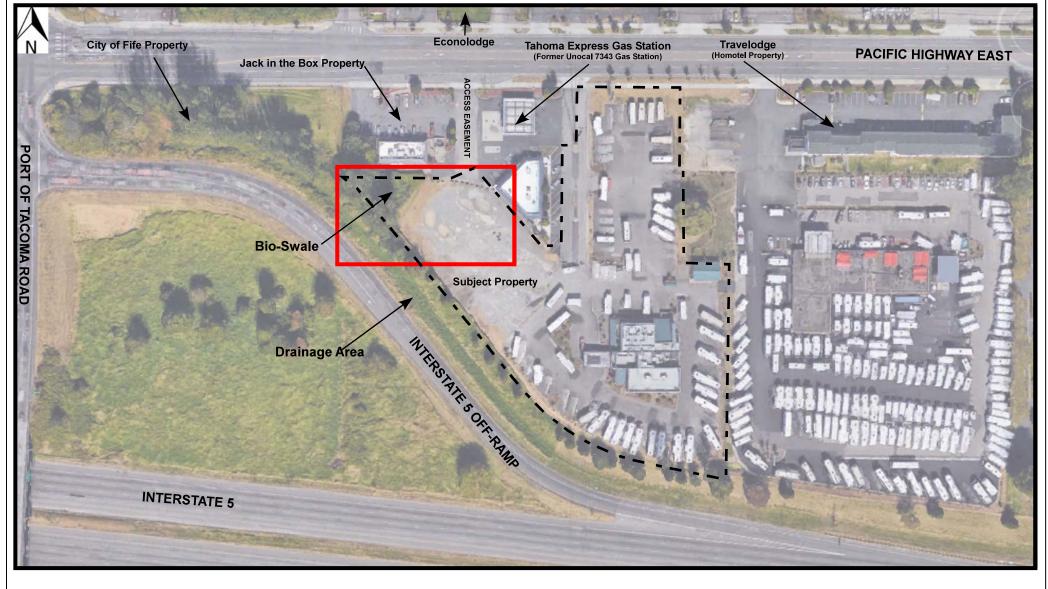


AEROTECH ENVIRONMENTAL CONSULTING

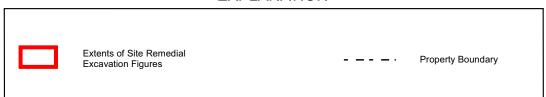
USGS TOPOGRAPHIC MAP

Fife RV Center 3410 Pacific Highway East Fife, Washington By: Nick Gerkin

Figure:



EXPLANATION



AEROTECH ENVIRONMENTAL CONSULTING

SITE VICINITY MAP

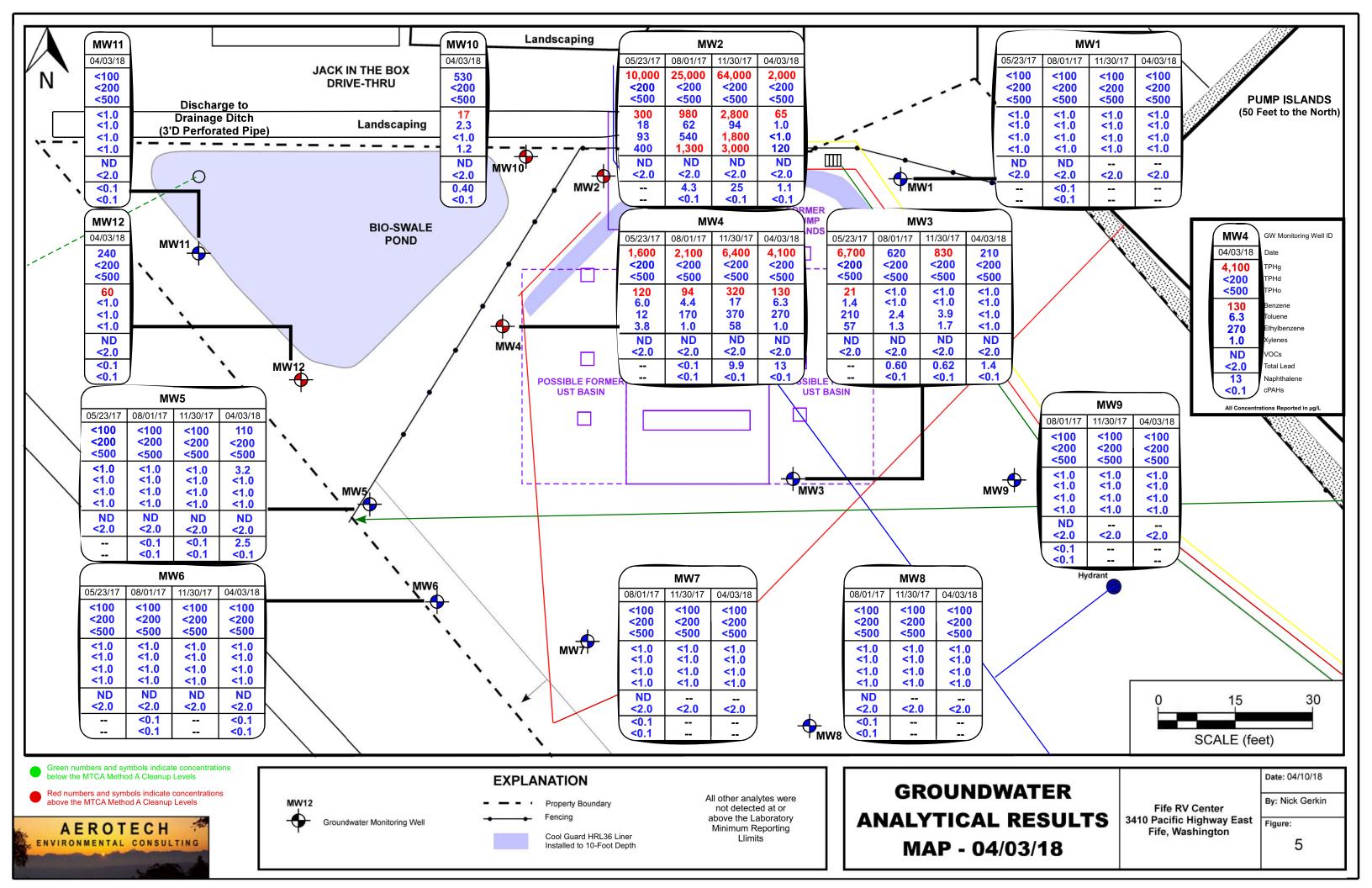
Fife RV Center 3410 Pacific Highway East Fife, Washington

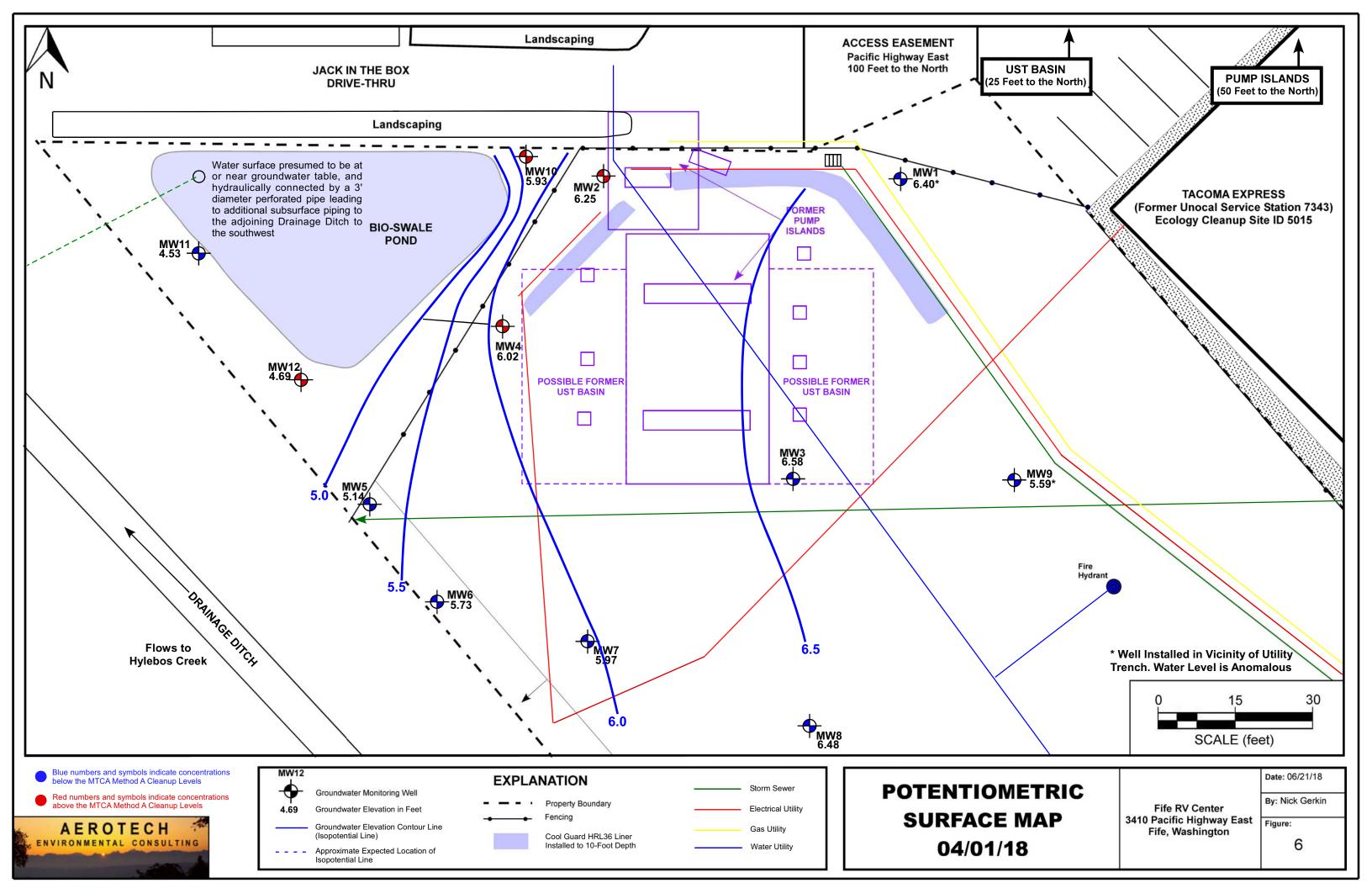


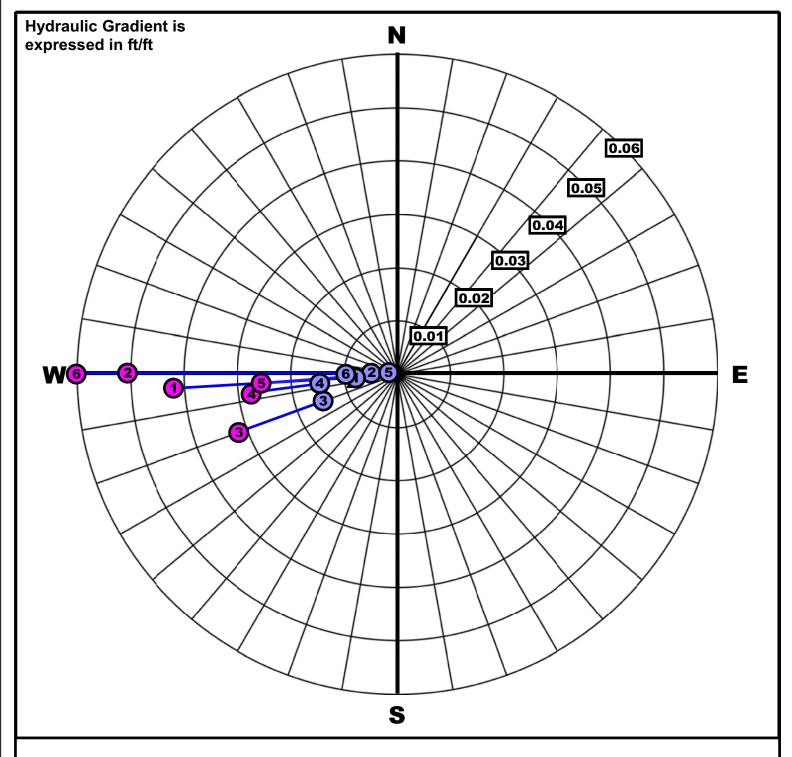
Date: 04/27/18

By: Nick Gerkin

Figure:



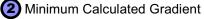




HYDRAULIC GRADIENT RANGE AND SHALLOW GROUNDWATER FLOW DIRECTION FROM MW3

- 1 11/18/16 5 11/30/17
- 2 02/20/17 6 04/03/18
- 3 05/23/17
- 4 08/01/17

2 Maximum Calculated Gradient





ROSE DIAGRAM

Fife RV Center 3410 Pacific Highway East Fife, Washington Date: 04/10/18

By: Nick Gerkin

Figure:



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

Education degrees received: c.

Masters of Business Administration

Juris Doctor - Environmental Law

d. Relevant training received:

ASTM E50 Environmental Assessment Committee Meetings

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

- Describe the generally recognized standards which the contractor will use to perform the assessment. 6. 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
- Disclose the nature of any affiliation or association contractor now has, or ever had, with the above referenced 8. seller of the property, of the above referenced buyer of the property: N/A
- Describe the liability insurance carried by contractor to cover claims in the event that ir fails to discover adverse 9. 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

Laboratory Analytical	Report and Chain of Cu	stody	



April 10, 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 (C80404-1) Project.

Samples were received on *April 04, 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,

Val G. Ivanov, Ph.D. Laboratory Manager

Advanced Analytical Laboratory (425) 702-8571

AAL Job Number: C80404-1

Client: Aerotech Environmental

Project Manager:
Client Project Name:
Client Project Number:
Date received: Nick Gerkin Fife RV Center

na 04/04/18

Client: Aerotech Environmental

Project Manager: Nick Gerkin Client Project Number: Fife RV Center

Date received: 04/04/18

Analytical Results

8260B, μg/L		MTH BLK	LCS	W-MW2	W-MW3	W-MW4
Matrix	Water	Water	Water	Water	Water	Water
Date analyzed	Reporting Limits	04/04/18 0	04/04/18	04/04/18	04/04/18	04/04/18
MTBE	5.0	nd		nd	nd	nd
Chloromethane	1.0	nd		nd	nd	nd
Vinyl chloride(*)	0.2	nd		nd	nd	nd
Bromomethane	1.0	nd		nd	nd	nd
Chloroethane	1.0	nd		nd	nd	nd
Trichlorofluoromethane	1.0	nd		nd	nd	nd
1,1-Dichloroethene	1.0	nd		nd	nd	nd
Methylene chloride	1.0	nd		nd	nd	nd
trans-1,2-Dichloroethene	1.0	nd		nd	nd	nd
1,1-Dichloroethane	1.0	nd		nd	nd	nd
2,2-Dichloropropane	1.0	nd		nd	nd	nd
cis-1,2-Dichloroethene	1.0	nd		nd	nd	nd
Chloroform	1.0	nd		nd	nd	nd
1,1,1-Trichloroethane	1.0	nd		nd	nd	nd
Carbontetrachloride	1.0	nd		nd	nd	nd
1,1-Dichloropropene	1.0	nd		nd	nd	nd
1,2-Dichloroethane (EDC)	1.0	nd		nd	nd	nd
Trichloroethene	1.0	nd	113%	nd	nd	nd
1,2-Dichloropropane	1.0	nd		nd	nd	nd
Dibromomethane	1.0	nd		nd	nd	nd
Bromodichloromethane	1.0	nd		nd	nd	nd
cis-1,3-Dichloropropene	1.0	nd		nd	nd	nd
trans-1,3-Dichloropropene	1.0	nd		nd	nd	nd
1,1,2-Trichloroethane	1.0	nd		nd	nd	nd
Tetrachloroethene	1.0	nd		nd	nd	nd
1,3-Dichloropropane	1.0	nd		nd	nd	nd
Dibromochloromethane	1.0	nd		nd	nd	nd
1,2-Dibromoethane (EDB)*	0.01	nd		nd	nd	nd
Chlorobenzene	1.0	nd	122%	nd	nd	nd
1,1,1,2-Tetrachloroethane	1.0	nd		nd	nd	nd
Bromoform	1.0	nd		nd	nd	nd
1,2,3-Trichloropropane	1.0	nd		nd	nd	nd
Bromobenzene	1.0	nd		nd	nd	nd
1,1,2,2-Tetrachloroethane	1.0	nd		nd	nd	nd
2-Chlorotoluene	1.0	nd		nd	nd	nd
4-Chlorotoluene	1.0	nd		nd	nd	nd
1,3,5-Trimethylbenzene	1.0	nd		nd	nd	nd
1,2,4-Trimethylbenzene	1.0	nd		nd	nd	nd
1,3-Dichlorobenzene	1.0	nd		nd	nd	nd
1,4-Dichlorobenzene	1.0	nd		nd	nd	nd
1,2-Dichlorobenzene	1.0	nd		nd	nd	nd
1,2-Dibromo-3-Chloropropane	1.0	nd		nd	nd	nd
1,2,4-Trichlorobenzene	1.0	nd		nd	nd	nd
1,2,3-Trichlorobenzene	1.0	nd		nd	nd	nd
.,_,	110	i i u		.iu	iiu	u

^{*-}instrument detection limits

Client: Aerotech Environmental

Project Manager: Nick Gerkin
Client Project Name: Fife RV Center

Client Project Number: na
Date received: 04/04/18

Analytical Results

Analytical Nesults						
8260B, μg/L		MTH BLK	LCS	W-MW2	W-MW3	W-MW4
Matrix	Water	Water	Water	Water	Water	Water
Date analyzed	Reporting Limits	04/04/18 (04/04/18	04/04/18	04/04/18	04/04/18
Surrogate recoveries						
Dibromofluoromethane		110%	111%	111%	106%	97%
1.2-Dichloroethane-d4		111%	107%	104%	107%	103%

<u>Data Qualifiers and Analytical Comments</u> nd - not detected at listed reporting limits Acceptable Recovery limits: 70% TO 130%

Client: Aerotech Environmental

Project Manager: Nick Gerkin Client Project Number: Fife RV Center

Date received: 04/04/18

Analytical Results

8260B, μg/L		W-MW5	W-MW6	W-MW10	W-MW11	W-MW12
Matrix	Water	Water	Water	Water	Water	Water
Date analyzed	Reporting Limits	04/04/18	04/04/18	04/04/18	04/04/18	04/04/18
MTBE	5.0	nd	nd	nd	nd	nd
Chloromethane	1.0	nd	nd	nd	nd	nd
Vinyl chloride(*)	0.2	nd	nd	nd	nd	nd
Bromomethane	1.0	nd	nd	nd	nd	nd
Chloroethane	1.0	nd	nd	nd	nd	nd
Trichlorofluoromethane	1.0	nd	nd	nd	nd	nd
1,1-Dichloroethene	1.0	nd	nd	nd	nd	nd
Methylene chloride	1.0	nd	nd	nd	nd	nd
trans-1,2-Dichloroethene	1.0	nd	nd	nd	nd	nd
1,1-Dichloroethane	1.0	nd	nd	nd	nd	nd
2,2-Dichloropropane	1.0	nd	nd	nd	nd	nd
cis-1,2-Dichloroethene	1.0	nd	nd	nd	nd	nd
Chloroform	1.0	nd	nd	nd	nd	nd
1,1,1-Trichloroethane	1.0	nd	nd	nd	nd	nd
Carbontetrachloride	1.0	nd	nd	nd	nd	nd
1,1-Dichloropropene	1.0	nd	nd	nd	nd	nd
1,2-Dichloroethane (EDC)	1.0	nd	nd	nd	nd	nd
Trichloroethene	1.0	nd	nd	nd	nd	nd
1,2-Dichloropropane	1.0	nd	nd	nd	nd	nd
Dibromomethane	1.0	nd	nd	nd	nd	nd
Bromodichloromethane	1.0	nd	nd	nd	nd	nd
cis-1,3-Dichloropropene	1.0	nd	nd	nd	nd	nd
trans-1,3-Dichloropropene	1.0	nd	nd	nd	nd	nd
1,1,2-Trichloroethane	1.0	nd	nd	nd	nd	nd
Tetrachloroethene	1.0	nd	nd	nd	nd	nd
1,3-Dichloropropane	1.0	nd	nd	nd	nd	nd
Dibromochloromethane	1.0	nd	nd	nd	nd	nd
1,2-Dibromoethane (EDB)*	0.01	nd	nd	nd	nd	nd
Chlorobenzene	1.0	nd	nd	nd	nd	nd
1,1,1,2-Tetrachloroethane	1.0	nd	nd	nd	nd	nd
Bromoform	1.0	nd	nd	nd	nd	nd
1,2,3-Trichloropropane	1.0	nd	nd	nd	nd	nd
Bromobenzene	1.0	nd	nd	nd	nd	nd
1,1,2,2-Tetrachloroethane	1.0	nd	nd	nd	nd	nd
2-Chlorotoluene	1.0	nd	nd	nd	nd	nd
4-Chlorotoluene	1.0	nd	nd	nd	nd	nd
1,3,5-Trimethylbenzene	1.0	nd	nd	nd	nd	nd
1,2,4-Trimethylbenzene	1.0	nd	nd	nd	nd	nd
1,3-Dichlorobenzene	1.0	nd	nd	nd	nd	nd
1,4-Dichlorobenzene	1.0	nd	nd	nd	nd	nd
1,2-Dichlorobenzene	1.0	nd	nd	nd	nd	nd
1,2-Dichioroberizerie 1,2-Dibromo-3-Chloropropane	1.0	nd	nd	nd	nd	nd
1,2,4-Trichlorobenzene	1.0		nd			
• •		nd nd		nd nd	nd nd	nd nd
1,2,3-Trichlorobenzene	1.0	nd	nd	nd	nd	nd

^{*-}instrument detection limits

Client: Aerotech Environmental

Project Manager: Nick Gerkin
Client Project Name: Fife RV Center

Client Project Number: na
Date received: 04/04/18

Analytical Results

8260B, μg/L		W-MW5	W-MW6	W-MW10	W-MW11	W-MW12
Matrix	Water	Water	Water	Water	Water	Water
Date analyzed	Reporting Limits	04/04/18	04/04/18	04/04/18	04/04/18	04/04/18
Surrogate recoveries						
Dibromofluoromethane		94%	98%	91%	99%	101%
1.2-Dichloroethane-d4		98%	99%	96%	97%	108%

<u>Data Qualifiers and Analytical Comments</u> nd - not detected at listed reporting limits Acceptable Recovery limits: 70% TO 130%

Client: Aerotech Environmental

Project Manager: Nick Gerkin Client Project Number: Fife RV Center

Date received: 04/04/18

Analytical Results

8260B, µg/L		MS	MSD	RPD
Matrix	Water	Water	Water	
Date analyzed	Reporting Limits			04/04/18
	, ,			
MTBE	5.0			
Chloromethane	1.0			
Vinyl chloride(*)	0.2			
Bromomethane	1.0			
Chloroethane	1.0			
Trichlorofluoromethane	1.0			
1,1-Dichloroethene	1.0			
Methylene chloride	1.0			
trans-1,2-Dichloroethene	1.0			
1,1-Dichloroethane	1.0			
2,2-Dichloropropane	1.0			
cis-1,2-Dichloroethene	1.0			
Chloroform	1.0			
1,1,1-Trichloroethane	1.0			
Carbontetrachloride	1.0			
1,1-Dichloropropene	1.0			
1,2-Dichloroethane (EDC)	1.0			
Trichloroethene	1.0	120%	119%	1%
1,2-Dichloropropane	1.0			
Dibromomethane	1.0			
Bromodichloromethane	1.0			
cis-1,3-Dichloropropene	1.0			
trans-1,3-Dichloropropene	1.0			
1,1,2-Trichloroethane	1.0			
Tetrachloroethene	1.0			
1,3-Dichloropropane	1.0			
Dibromochloromethane	1.0			
1,2-Dibromoethane (EDB)*	0.01			
Chlorobenzene	1.0	126%	127%	0%
1,1,1,2-Tetrachloroethane	1.0			
Bromoform	1.0			
1,2,3-Trichloropropane	1.0			
Bromobenzene	1.0			
1,1,2,2-Tetrachloroethane	1.0			
2-Chlorotoluene	1.0			
4-Chlorotoluene	1.0			
1,3,5-Trimethylbenzene	1.0			
1,2,4-Trimethylbenzene	1.0			
1,3-Dichlorobenzene	1.0			
1,4-Dichlorobenzene	1.0			
1,2-Dichlorobenzene	1.0			
1,2-Dibromo-3-Chloropropane	1.0			
1,2,4-Trichlorobenzene	1.0			
1,2,3-Trichlorobenzene	1.0			•
*-instrument detection limits		· · · · · · · · · · · · · · · · · · ·	·	

^{*-}instrument detection limits

Client: Aerotech Environmental

Project Manager: Nick Gerkin
Client Project Name: Fife RV Center

Client Project Number: na
Date received: 04/04/18

Analytical Results

8260B, μg/L		MS	MSD	RPD
Matrix	Water	Water	Water	Water
Date analyzed	Reporting Limits	04/04/18	04/04/18	04/04/18

Surrogate recoveries

Dibromofluoromethane	117%	119%
1,2-Dichloroethane-d4	113%	118%

<u>Data Qualifiers and Analytical Comments</u> nd - not detected at listed reporting limits Acceptable Recovery limits: 70% TO 130%

Client: Aerotech Environmental

Project Manager: Nick Gerkin
Client Project Name: Fife RV Center

Client Project Number: na Date received: 04/04/18

Analytical Results

NWTPH-Gx/BTEX		MTH BLK	LCS	W-MW1	W-MW2	W-MW3	W-MW4
Matrix	Water	Water	Water	Water	Water	Water	Water
Date analyzed	Reporting Limits	04/05/18	04/05/18	04/05/18	04/05/18	04/05/18	04/05/18
NWTPH-Gx, ug/L							
Mineral spirits/Stoddard	100	nd		nd	nd	nd	nd
Gasoline	100	nd		nd	2,000	210	4,100
BTEX 8021B, μg/L Benzene Toluene Ethylbenzene Xylenes	1.0 1.0 1.0 1.0	nd nd nd nd	73% 88%	nd nd nd nd	65 1.0 nd 120	nd nd nd nd	130 6.3 270 1.0
Surrogate recoveries:		89%	108%	108%	99%	86%	С
Bromofluorobenzene		92%	99%	105%	105%	95%	118%

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%

Client: Aerotech Environmental

Project Manager: Nick Gerkin
Client Project Name: Fife RV Center

Client Project Number: na Date received: 04/04/18

Analytical Results

NWTPH-Gx/BTEX		W-MW5	W-MW6	W-MW7	W-MW8	W-MW9	W-MW10
Matrix	Water	Water	Water	Water	Water	Water	Water
Date analyzed	Reporting Limits	04/05/18	04/05/18	04/05/18	04/05/18	04/05/18	04/05/18
NWTPH-Gx, ug/L							
Mineral spirits/Stoddard	100	nd	nd	nd	nd	nd	nd
Gasoline	100	110	nd	nd	nd	nd	530
BTEX 8021B, μg/L							
Benzene	1.0	3.2	nd	nd	nd	nd	17
Toluene	1.0	nd	nd	nd	nd	nd	2.3
Ethylbenzene	1.0	nd	nd	nd	nd	nd	nd
Xylenes	1.0	nd	nd	nd	nd	nd	1.2
Surrogate recoveries:							
Trifluorotoluene		91%	98%	90%	97%	99%	121%
Bromofluorobenzene		102%	96%	89%	100%	96%	116%

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%

Client: Aerotech Environmental

Project Manager: Nick Gerkin
Client Project Name: Fife RV Center

Client Project Number: na Date received: 04/04/18

Analytical Results

NWTPH-Gx/BTEX		W-MW11	W-MW12	MS	MSD	RPD
Matrix	Water	Water	Water	Water	Water	Water
Date analyzed	Reporting Limits	04/05/18	04/05/18	04/05/18	04/05/18	04/05/18
NWTPH-Gx, ug/L						
Mineral spirits/Stoddard	100	nd	nd			
Gasoline	100	nd	240			
DTEV 0001D/l						
BTEX 8021B, μg/L	1.0	ام م	60	710/	720/	20/
Benzene	1.0	nd	60	71%		2%
Toluene	1.0	nd	nd	89%	73%	20%
Ethylbenzene	1.0	nd	nd			
Xylenes	1.0	nd	nd			
Surrogate recoveries:						
Trifluorotoluene		99%	109%	95%	97%	
Bromofluorobenzene		118%	111%	96%	94%	

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%

Client: Aerotech Environmental

Project Manager: Nick Gerkin
Client Project Name: Fife RV Center

Client Project Number: na
Date received: 04/04/18

Analytical Results

NWTPH-Dx, mg/L		MTH BLK	W-MW1	W-MW2	W-MW3	W-MW4	W-MW5
Matrix	Water	Water	Water	Water	Water	Water	Water
Date extracted	Reporting	04/05/18	04/05/18	04/05/18	04/05/18	04/05/18	04/05/18
Date analyzed	Limits	04/05/18	04/05/18	04/05/18	04/05/18	04/05/18	04/05/18
Kerosene/Jet fuel	0.20	nd	nd	nd	nd	nd	nd
Diesel/Fuel oil	0.20	nd	nd	nd	nd	nd	nd
Heavy oil	0.50	nd	nd	nd	nd	nd	nd
Surrogate recoveries:							
Fluorobiphenyl		119%	127%	119%	117%	113%	115%
o-Terphenyl		124%	129%	122%	128%	124%	127%

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%

Client: Aerotech Environmental

Project Manager: Nick Gerkin
Client Project Name: Fife RV Center

Client Project Number: na
Date received: 04/04/18

Analytical Results

NWTPH-Dx, mg/L		W-MW6	W-MW7	W-MW8	W-MW9	W-MW10	W-MW11
Matrix	Water	Water	Water	Water	Water	Water	Water
Date extracted	Reporting	04/05/18	04/05/18	04/05/18	04/05/18	04/05/18	04/05/18
Date analyzed	Limits	04/05/18	04/05/18	04/05/18	04/05/18	04/05/18	04/05/18
Kerosene/Jet fuel	0.20	nd	nd	nd	nd	nd	nd
Diesel/Fuel oil	0.20	nd	nd	nd	nd	nd	nd
Heavy oil	0.50	nd	nd	nd	nd	nd	nd
Surrogate recoveries:							
Fluorobiphenyl		115%	117%	116%	118%	115%	114%
o-Terphenyl		127%	130%	129%	130%	127%	126%

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%

Client: Aerotech Environmental

Project Manager: Nick Gerkin
Client Project Name: Fife RV Center

Client Project Number: na
Date received: 04/04/18

Analytical Results

NWTPH-Dx, mg/L		W-MW12
Matrix	Water	Water
Date extracted	Reporting	04/05/18
Date analyzed	Limits	04/05/18
Kerosene/Jet fuel	0.20	nd
Diesel/Fuel oil	0.20	nd
Heavy oil	0.50	nd
Surrogate recoveries:		
Fluorobiphenyl		116%
o-Terphenyl		128%

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%

Client: Aerotech Environmental

Project Manager: Nick Gerkin
Client Project Name: Fife RV Center

Client Project Number: na Date received: 04/04/18

Analytical Results

PAH(8270), ug/L		MTH BLK	LCS	W-MW2	W-MW3	W-MW4	W-MW5	W-MW6
Matrix	Water	Water	Water	Water	Water	Water	Water	Water
Date extracted	Reporting	04/06/18 0	4/06/18	04/06/18	04/06/18	04/06/18	04/06/18	04/06/18
Date analyzed	Limits	04/06/18 0	4/06/18	04/06/18	04/06/18	04/06/18	04/06/18	04/06/18
Naphthalene	0.1	nd		1.1	1.4	13	2.5	nd
1-MethylNaphthalene	0.1	nd		0.92	1.0	5.2	1.7	nd
2-MethylNaphthalene	0.1	nd		1.0	0.58	9.5	2.3	nd
Acenaphthylene	0.1	nd		nd	nd	nd	nd	nd
Acenaphthene	0.1	nd	114%	nd	nd	nd	nd	nd
Fluorene	0.1	nd		nd	nd	nd	nd	nd
Phenanthrene	0.1	nd		0.32	0.22	0.16	nd	nd
Anthracene	0.1	nd		nd	nd	nd	nd	nd
Fluoranthene	0.1	nd		nd	nd	nd	nd	nd
Pyrene	0.1	nd	105%	nd	nd	nd	nd	nd
Benzo(a)anthracene	0.1	nd		nd	nd	nd	nd	nd
Chrysene	0.1	nd		nd	nd	nd	nd	nd
Benzo(b)fluoranthene	0.1	nd		nd	nd	nd	nd	nd
Benzo(k)fluoranthene	0.1	nd		nd	nd	nd	nd	nd
Benzo(a)pyrene	0.1	nd		nd	nd	nd	nd	nd
Indeno(1,2,3-cd)pyrene	0.1	nd		nd	nd	nd	nd	nd
Dibenzo(ah)anthracene	0.1	nd		nd	nd	nd	nd	nd
Benzo(ghi)perylene	0.1	nd		nd	nd	nd	nd	nd

Surrogate recoveries:

Curregate recevenes.							
Fluorobiphenyl	64%	53%	51%	52%	50%	54%	57%
o-Terphenyl	100%	101%	101%	102%	101%	99%	92%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

na - not analyzed

Acceptable Recovery limits: 50% TO 150%

Client: Aerotech Environmental

Project Manager: Nick Gerkin
Client Project Name: Fife RV Center

Client Project Number: na Date received: 04/04/18

Analytical Results

PAH(8270), ug/L		W-MW10	W-MW11	W-MW12	MS	MSD	RPD
Matrix	Water	Water	Water	Water	Water	Water	Water
Date extracted	Reporting	04/06/18	04/06/18	04/06/18	04/06/18	04/06/18	04/06/18
Date analyzed	Limits	04/06/18	04/06/18	04/06/18	04/06/18	04/06/18	04/06/18
Naphthalene	0.1	0.40	nd	nd			
1-MethylNaphthalene	0.1	0.64	nd	nd			
2-MethylNaphthalene	0.1	0.78	nd	nd			
Acenaphthylene	0.1	nd	nd	nd			
Acenaphthene	0.1	nd	nd	nd	113%	115%	2%
Fluorene	0.1	nd	nd	nd			
Phenanthrene	0.1	nd	nd	nd			
Anthracene	0.1	nd	nd	nd			
Fluoranthene	0.1	nd	nd	nd			
Pyrene	0.1	nd	nd	nd	100%	103%	2%
Benzo(a)anthracene	0.1	nd	nd	nd			
Chrysene	0.1	nd	nd	nd			
Benzo(b)fluoranthene	0.1	nd	nd	nd			
Benzo(k)fluoranthene	0.1	nd	nd	nd			
Benzo(a)pyrene	0.1	nd	nd	nd			
Indeno(1,2,3-cd)pyrene	0.1	nd	nd	nd			
Dibenzo(ah)anthracene	0.1	nd	nd	nd			
Benzo(ghi)perylene	0.1	nd	nd	nd			

Surrogate recoveries:

Fluorobiphenyl	50%	54%	64%	54%	54%	
o-Terphenyl	101%	98%	99%	101%	98%	

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

na - not analyzed

Acceptable Recovery limits: 50% TO 150%

Client: Aerotech Environmental

Project Manager: Nick Gerkin Client Project Name: Fife RV Center

Client Project Number: na Date received: 04/04/18

Analytical Results

8082 (PCBs), μg/l		MTH BLK	LCS	W-MW10	MS	MSD	RPD
Matrix	Water	Water	Water	Water	Water	Water	Water
Date extracted	Reporting	04/09/18	04/09/18	04/09/18	04/09/18	04/09/18	04/09/18
Date analyzed	Limits	04/09/18	04/09/18	04/09/18	04/09/18	04/09/18	04/09/18
A1221	0.1*	nd		nd			
A1232	0.1*	nd		nd			
A1242 (A1016)	0.1*	nd		nd			
A1248	0.1*	nd		nd			
A1254	0.1*	nd		nd			
A1260	0.1*	nd	105%	nd	91%	86%	
Surrogate recoveries:							
Tetrachloro-m-xylene		79%	91%	78%	98%	102%	
Decachlorobiphenyl		103%	127%	101%	122%	119%	

^{*-} instrument detection limits

<u>Data Qualifiers and Analytical Comments</u> nd - not detected at listed reporting limits

na - not analyzed

Acceptable Recovery limits: 70% TO 130%

Client: Aerotech Environmental

Project Manager: Nick Gerkin
Client Project Name: Fife RV Center

Client Project Number: na Date received: 04/04/18

Analytical Results

Metals Total (7010), mg/	L	MTH BLK	LCS	W-MW1	W-MW2	W-MW3	W-MW4	W-MW5
Matrix	Water	Water	Water	Water	Water	Water	Water	Water
Date extracted	Reporting	04/10/18 0)4/10/18	04/10/18	04/10/18	04/10/18	04/10/18	04/10/18
Date analyzed	Limits	04/10/18 0	04/10/18	04/10/18	04/10/18	04/10/18	04/10/18	04/10/18
Lead Total (Pb)	0.002	nd	94%	nd	nd	nd	nd	nd

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

na - not analyzed

Acceptable Recovery limits: 65% TO 135%

AAL Job Number: C80404-1

Client: Aerotech Environmental

Project Manager: Nick Gerkin
Client Project Name: Fife RV Center

Client Project Number: na Date received: 04/04/18

Analytical Results

Metals Total (7010), mg/L		W-MW6	W-MW7	W-MW8	W-MW9	W-MW10	W-MW11
Matrix	Water	Water	Water	Water	Water	Water	Water
Date extracted	Reporting	04/10/18	04/10/18	04/10/18	04/10/18	04/10/18	04/10/18
Date analyzed	Limits	04/10/18	04/10/18	04/10/18	04/10/18	04/10/18	04/10/18
Lead Total (Pb)	0.002	nd	nd	nd	nd	nd	nd

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

na - not analyzed

Acceptable Recovery limits: 65% TO 135%

Acceptable RPD limit: 30%

AAL Job Number: C80404-1

Client: Aerotech Environmental

Project Manager: Nick Gerkin
Client Project Name: Fife RV Center

Client Project Number: na Date received: 04/04/18

Analytical Results

Metals Total (7010), mg	g/L	W-MW12	MS	MSD	RPD
Matrix	Water	Water	Water	Water	Water
Date extracted	Reporting	04/10/18	04/10/18	04/10/18	04/10/18
Date analyzed	Limits	04/10/18	04/10/18	04/10/18	04/10/18
Lead Total (Pb)	0.002	nd	102%	96%	6%

Data Qualifiers and Analytical Comments

nd - not detected at listed reporting limits

na - not analyzed

Acceptable Recovery limits: 65% TO 135%

Acceptable RPD limit: 30%

ADVANCED / ANALYTICAL

Laboratory Job #: C80404-1

4078 148 Avenue NE Redmond, WA 98052 (425) 702-8571

Λ , Λ				aachemab@yanoo.com	,
Client: Herotech			Project Nam	e: FIRRY Ce	ster
Project Manager: Nick Grenk	:~/ 		Project Num	ber:	
Address: 13925 Interurba	JAve S	Tikwila WA	Collector: /	Vick Gerkin	
Phone: 206 482 2287	Fax:	, , , , , , , , , , , , , , , , , , , 	Date of colle	ection: $4/3/8$	
			777		
		Container type Contai	RI AND SO SO SO		Notes, comments #
		Container type	THE ST		Cont
Sample ID	Time Matrix	8 8 × × × × × × × × × × × × × × × × × ×	\xu\8\\8\\\	\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Notes, comments o
1 /1-MW1		TAME X			4
2 W-MWZ	1				5
3 W-MW3					5
4 W-MWH					5
· _					5
5 W-MW5					5
6 W-MW6		\$\frac{1}{2}			<u>L</u>
7 W-MW7		THE YEAR OF THE PERSON OF THE			
8 W-MW8					
9 (W-MW9					<u> </u>
10 W-MWIC		等院 X X X			6
11 W-MWI					5
12 W-MWIZ	V				5
				Sample receipt info:	Turnaround time:
Relinguished by:	Date/Time	Received by:	Date/Time	Total # of containers:	Same day ${\sf O}$
2000	4/1/18/140	and Toll	41/1/1700	Condition (temp, °C)	24 hr O
Relinguished by:	Date/Time	Received by:	Date/Time	Seals (intact?, Y/N)	48 hr O
Lite Took	4/4/16 M32		18 14 32	Comments:	Standard
		▼			·





Environmental Consulting Inc.

13925 Interurban Avenue South, Suite No.210 Seattle, Washington 98168 (360)710-5899 512 W. International Airport Road, Suite 201 Anchorage, Alaska 99518 (907) 575-6661

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

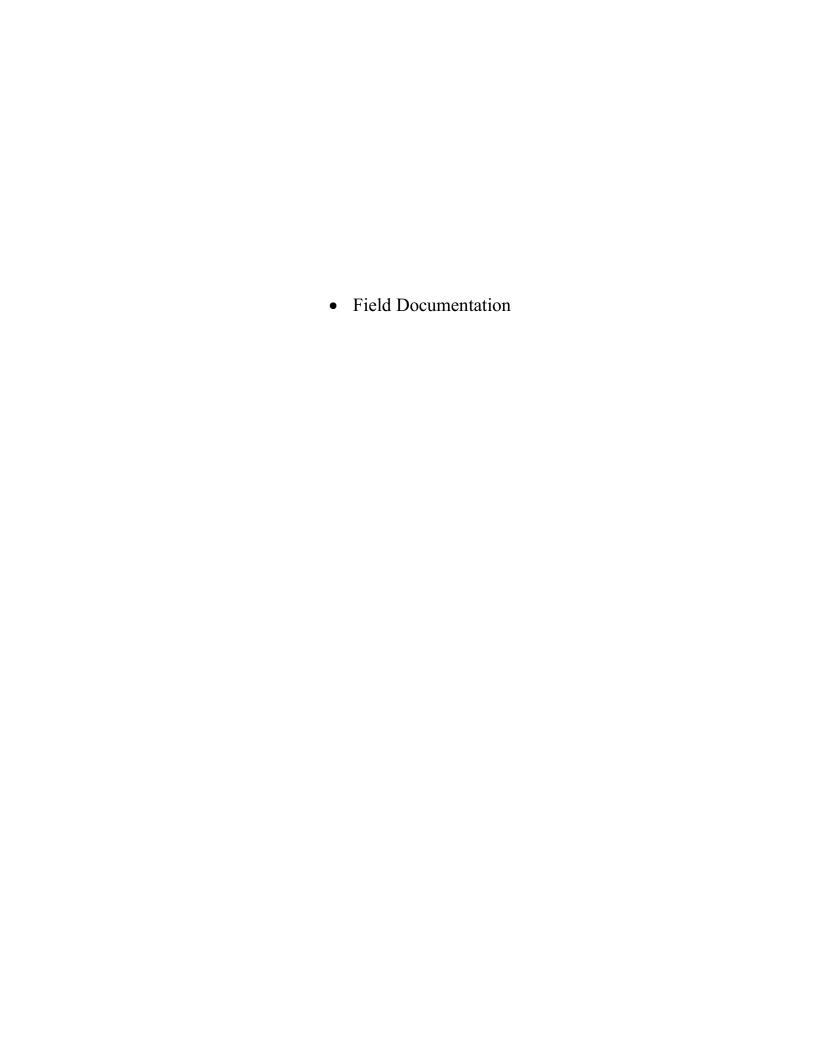
Prior to groundwater sample collection, A dedicated length of high density polyethylene tubing is lowered into each well to a level near the middle of the screened interval. A dedicated

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.





GROUNDWATER MONITORING WELL GAUGING RECORD

PROJECT NAME: Fife RV Center

DATE: 04/03/18

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	8:22	8.37	1.97	6.40	14.4	2	Well vaults, seals, bolts and plugs are in adequate condition.
MW2	8:39	9.40	3.32	6.08	14.2	2	Well vaults, seals, bolts and plugs are in adequate condition.
MW3	8:35	9.43	2.85	6.58	14.6	2	Well vaults, seals, bolts and plugs are in adequate condition.
MW4	8:36	10.12	4.10	6.02	14.5	2	Well vaults, seals, bolts and plugs are in adequate condition.
MW5	8:29	11.27	6.13	5.14	17.5	2	Well vaults, seals, bolts and plugs are in great condition.
MW6	8:27	11.40	5.67	5.73	17.5	2	Well vaults, seals, bolts and plugs are in great condition.
MW7	8:26	10.09	4.12	5.97	14.2	1	Well vaults, seals, bolts and plugs are in adequate condition.
MW8	8:25	10.26	3.78	6.48	14.1	1	Well vaults, seals, bolts and plugs are in adequate condition.
MW9	8:23	8.84	3.25	5.59	14.3	1	Well vaults, seals, bolts and plugs are in adequate condition.
MW10	8:38	12.94	7.01	5.93	17.4	2	Well vaults, seals, bolts and plugs are in new condition.
MW11	8:30	9.12	4.59	4.53	9.8	2	Well vaults, seals, bolts and plugs are in new condition.
MW12	8:33	11.74	7.05	4.69	17.2	2	Well vaults, seals, bolts and plugs are in new condition.

EXPLANATION

MSL = Mean Sea Level TOC - Top of Casing



GROUNDWATER MONITORING WELL LOW FLOW SAMPLING FIELD LOG

FIELD CREW: NAG

PROJECT NAME: Fife RV Center

DATE: 04/03/18

PROJECT ADDRESS:

3410 Pacific Highway East, Fife, WA

M	W1	Purge Start:	8:46	Purge Stop:	8:59	Purge V (L):	1.95
Time	DTW	Purge Rate	Temperature	Specific Conductivity	DO	рН	ORP
hr:min	feet	mL/min	°C	mS/cm	mg/L	unit	mV
8:22	1.97						
8:51	2.31	150	11.3	623.0	3.00	7.10	-71.9
8:53	2.37	150	11.3	606.2	1.79	1.07	-81.1
8:55	2.40	150	11.4	610.5	1.26	7.05	-88.9
8:57	2.41	150	11.4	608.5	1.29	7.04	-91.6
8:59	2.42	150	11.4	607.0	1.15	7.05	-94.0
Ecology Parame	Ecology Parameter Limits (3 Consecutive Readings)		+/- 0.1	+/- 10	+/- 0.20	+/- 0.1	+/- 10
9:00	SAMPLE						

Comments:

M۱	W 2	Purge Start:	14:18	Purge Stop:	14:32	Purge V (L):	2.66
Time	DTW	Purge Rate	Temperature	Specific Conductivity	DO	рН	ORP
hr:min	feet	mL/min	°C	mS/cm	mg/L	unit	mV
8:39	3.32						
14:24	3.86	190	11.2	587.0	0.94	7.12	-58.5
14:26	3.95	190	11.0	586.6	0.77	7.13	-61.6
14:28	4.00	190	11.0	587.0	0.69	7.11	-64.2
14:30	4.04	190	11.1	586.6	0.58	7.12	-66.5
14:32	4.07	190	11.1	586.8	0.58	7.13	-68.5
14:34	4.09	190	11.0	586.7	0.57	7.12	-69.8
Ecology Parame	eter Limits (3 Conse	cutive Readings)	+/- 0.1	+/- 10	+/- 0.05	+/- 0.1	+/- 10
14:35	SAMPLE						



GROUNDWATER MONITORING WELL LOW FLOW SAMPLING FIELD LOG

FIELD CREW: NAG PROJECT NAME: Fife RV Center

DATE: 04/03/18 PROJECT ADDRESS:

3410 Pacific Highway East, Fife, WA

M	W3	Purge Start:	13:19	Purge Stop:	13:33	Purge V (L):	3.15
Time	DTW	Purge Rate	Temperature	Specific Conductivity	DO	рН	ORP
hr:min	feet	mL/min	°C	mS/cm	mg/L	unit	mV
8:35	2.85						
13:25	3.27	225	11.1	526.9	1.15	7.09	-25.2
13:27	3.28	225	11.1	528.0	0.81	7.05	-31.0
13:29	3.29	225	11.1	528.0	0.74	7.06	-36.1
13:31	3.30	225	11.2	528.5	0.64	7.08	-41.6
13:33	3.31	225	11.1	528.7	0.61	7.07	-45.4
13:35	3.32	225	11.1	528.5	0.59	7.07	-49.0
Ecology Parameter Limits (3 Consecutive Readings)		+/- 0.1	+/- 10	+/- 0.05	+/- 0.1	+/- 10	
13:40	SAMPLE						

Comments:

M	W4	Purge Start:	13:48	Purge Stop:	14:04	Purge V (L):	3.20
Time	DTW	Purge Rate	Temperature	Specific Conductivity	DO	рН	ORP
hr:min	feet	mL/min	°C	mS/cm	mg/L	unit	mV
8:36	4.10			-			
13:54	4.54	200	10.6	622.4	0.96	6.96	-40.8
13:56	4.64	200	10.6	622.9	0.77	6.96	-45.8
13:58	4.71	200	10.5	625.5	0.66	6.95	-49.5
14:00	4.78	200	10.5	625.3	0.58	6.95	-53.1
14:02	4.83	200	10.6	625.2	0.58	6.96	-56.1
14:04	4.87	200	10.5	627.1	0.58	6.95	-59.0
Ecology Param	eter Limits (3 Conse	cutive Readings)	+/- 0.1	+/- 10	+/- 0.05	+/- 0.1	+/- 10
14:05	SAMPLE						



GROUNDWATER MONITORING WELL LOW FLOW SAMPLING FIELD LOG

FIELD CREW: NAG PROJECT NAME: Fife RV Center

DATE: 04/03/18 PROJECT ADDRESS:

3410 Pacific Highway East, Fife, WA

M۱	MW5		12:28	Purge Stop:	12:41	Purge V (L):	2.60
Time	DTW	Purge Rate	Temperature	Specific Conductivity	DO	pH	ORP
hr:min	feet	mL/min	°C	mS/cm	mg/L	unit	mV
8:29	6.13						
12:35	6.90	200	10.9	508.9	0.79	7.07	-56.0
12:37	7.02	200	10.9	509.0	0.72	7.07	-57.6
12:39	7.09	200	10.9	509.0	0.73	7.06	-58.8
12:41	7.14	200	10.9	508.9	0.75	7.07	-60.0
Ecology Parame	Ecology Parameter Limits (3 Consecutive Readings)		+/- 0.1	+/- 10	+/- 0.05	+/- 0.1	+/- 10
12:45	SAMPLE						

Comments:

M۱	W6	Purge Start:	10:56	Purge Stop:	11:09	Purge V (L):	2.60
Time	DTW	Purge Rate	Temperature	Specific Conductivity	DO	рН	ORP
hr:min	feet	mL/min	°C	mS/cm	mg/L	unit	mV
8:27	5.67						
11:01	6.29	200	11.7	414.1	2.59	7.21	-28.9
1:03	6.41	200	11.6	413.4	2.25	7.20	-35.0
11:05	6.45	200	11.7	413.2	2.10	7.19	-39.9
11:07	6.49	200	11.7	413.3	1.97	7.20	-43.7
11:09	6.52	200	11.7	413.2	1.92	7.18	-46.3
Ecology Parame	Ecology Parameter Limits (3 Consecutive Readings)		+/- 0.1	+/- 10	+/- 0.05	+/- 0.1	+/- 10
11:10	SAMPLE				-		



GROUNDWATER MONITORING WELL LOW FLOW SAMPLING FIELD LOG

FIELD CREW: NAG PROJECT NAME: Fife RV Center

DATE: 04/03/18 PROJECT ADDRESS:

3410 Pacific Highway East, Fife, WA

M۱	N 7	Purge Start:	9:40	Purge Stop:	9:53	Purge V (L):	1.95
Time	DTW	Purge Rate	Temperature	Specific Conductivity	DO	pН	ORP
hr:min	feet	mL/min	°C	mS/cm	mg/L	unit	mV
8:26	4.12						
9:45	6.70	150	10.0	461.3	2.53	7.10	-63.4
9:47	7.93	150	10.2	464.6	1.62	7.09	-65.3
9:49	9.08	150	10.4	465.7	1.27	7.09	-68.8
9:51	10.35	150	10.6	466.2	1.34	7.11	-73.5
9:53	11.71	150	10.7	473.5	1.29	7.12	-77.0
Ecology Parame	eter Limits (3 Conse	cutive Readings)	+/- 0.1	+/- 10	+/- 0.20	+/- 0.1	+/- 10
15:25	SAMPLE						

Comments: Well pumped Dry at 09:54, Sampled at 15:25, DTW = 4.20

M	W8	Purge Start:	9:10	Purge Stop:	9:21	Purge V (L):	1.65
Time	DTW	Purge Rate	Temperature	Specific Conductivity	DO	рН	ORP
hr:min	feet	mL/min	°C	mS/cm	mg/L	unit	mV
8:25	3.78						
9:15	5.25	150	10.5	769	1.73	7.14	-84.8
9:17	5.63	150	10.4	774	1.35	7.14	-89.1
9:19	5.92	150	10.4	773	1.23	7.15	-92.6
9:21	6.02	150	10.4	769	1.18	7.14	-95.0
Ecology Param	Ecology Parameter Limits (3 Consecutive Readings)		+/- 0.1	+/- 10	+/- 0.20	+/- 0.1	+/- 10
9:25	SAMPLE						
Camananta			·		·	·	



GROUNDWATER MONITORING WELL LOW FLOW SAMPLING FIELD LOG

FIELD CREW: NAG PROJECT NAME: Fife RV Center

DATE: 04/03/18 PROJECT ADDRESS:

3410 Pacific Highway East, Fife, WA

MW9		Purge Start:	10:00	Purge Stop:	10:17	Purge V (L):	2.97
Time	DTW	Purge Rate	Temperature	Specific Conductivity	DO	рН	ORP
hr:min	feet	mL/min	°C	mS/cm	mg/L	unit	mV
8:23	3.25						
10:05	3.28	175	11.2	746	2.38	7.08	-84.6
10:07	3.30	175	11.1	737	1.28	7.11	-94.8
10:09	3.30	175	11.2	713	1.13	7.11	-97.5
10:11	3.30	175	11.2	699	1.00	7.11	-100.3
10:13	3.30	175	11.3	709	0.84	7.11	-102.7
10:15	3.30	175	11.3	711	0.81	7.11	-104.1
10:17	3.30	175	11.3	708	0.79	7.11	-106.7
Ecology Parameter Limits (3 Consecutive Readings)		+/- 0.1	+/- 10	+/- 0.05	+/- 0.1	+/- 10	
10:20	SAMPLE						

Comments:

MW10		Purge Start:	14:48	Purge Stop:	15:04	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
8:38	7.01						
14:54	7.13	200	11.0	637.8	1.50	7.04	-80.6
14:56	7.15	200	11.0	635.3	1.18	7.04	-88.4
14:58	7.16	200	11.1	631.4	0.91	7.05	-94.5
15:00	7.17	200	11.1	632.7	0.81	7.05	-98.7
15:02	7.18	200	11.1	633.4	0.78	7.07	-102.7
15:04	7.18	200	11.1	633.0	0.77	7.05	-105.0
Ecology Parame	Ecology Parameter Limits (3 Consecutive Readings)		+/- 0.1	+/- 10	+/- 0.05	+/- 0.1	+/- 10
15:05	SAMPLE						



GROUNDWATER MONITORING WELL LOW FLOW SAMPLING FIELD LOG

FIELD CREW: NAG PROJECT NAME: Fife RV Center

DATE: 04/03/18 PROJECT ADDRESS:

3410 Pacific Highway East, Fife, WA

MW11		Purge Start:	11:20	Purge Stop:	11:37	Purge V (L):	4.25
Time	DTW	Purge Rate	Temperature	Specific Conductivity	DO	рН	ORP
hr:min	feet	mL/min	°C	mS/cm	mg/L	unit	mV
8:30	4.59						
11:31	4.96	250	9.2	298.2	1.70	6.70	-10.8
11:33	4.98	250	9.2	299.5	1.39	6.69	-13.6
11:35	5.00	250	9.2	301.7	1.28	6.67	-16.3
11:37	5.02	250	9.2	302.1	1.25	6.67	-19.4
Ecology Parame	Ecology Parameter Limits (3 Consecutive Readings)		+/- 0.1	+/- 10	+/- 0.20	+/- 0.1	+/- 10
11:40	SAMPLE						

Comments:

MW12		Purge Start:	11:52	Purge Stop:	12:13	Purge V (L):	4.20
Time	DTW	Purge Rate	Temperature	Specific Conductivity	DO	pH	ORP
hr:min	feet	mL/min	°C	mS/cm	mg/L	unit	mV
8:33	7.05						
11:59	7.38	200	10.6	761	3.51	6.86	-41.8
12:01	7.40	200	10.5	761	2.43	6.89	-42.8
12:03	7.42	200	10.6	762	1.81	6.90	-43.5
12:05	7.43	200	10.5	758	1.49	6.90	-44.2
12:07	7.44	200	10.5	755	1.33	6.90	-44.6
12:09	7.45	200	10.4	750	0.77	6.89	-44.2
12:11	7.45	200	10.4	743	0.74	6.89	-45.2
12:13	7.45	200	10.5	741	0.72	6.88	-46.2
Ecology Parame	Ecology Parameter Limits (3 Consecutive Readings)		+/- 0.1	+/- 10	+/- 0.05	+/- 0.1	+/- 10
12:15	SAMPLE				-		