GROUNDWATER MONITORING REPORT:
Fourth Quarter

Performed at:
Swindahl Properties LLC
2218 Marine View Drive
Tacoma, Washington 98422

AEROTECH
Environmental Consulting Inc.

January 10, 2019

Anchorage Seattle Portland

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

www.AerotechEnvironmental.com

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

January 21, 2019

Mr. Carl Swindahl
Swindahl Properties LLC
2218 Marine View Drive
Tacoma, Washington 98422

RE: Groundwater Monitoring Report – Fourth Quarter
Swindahl Properties LLC
2218 Marine View Drive
Tacoma, Washington 98422

Dear Mr. Swindahl,

As you are aware, Aerotech Environmental Consulting, Inc. ("Aerotech") has been retained to collect quarterly groundwater samples from four groundwater monitoring wells previously installed at Swindahl Properties LLC in Tacoma, Washington. Aerotech conducted groundwater monitoring and sampling activities on January 10, 2019. Enclosed, please find the associated tabulated analytical results, site figures, laboratory analytical report, field data and standard operating procedure document.

Total and Dissolved Arsenic and Lead were not detected above the MTCA Method A Cleanup Levels in samples collected from groundwater monitoring wells MW1, MW2, MW3 and MW4. Due to the exceedance of Total Arsenic in groundwater monitoring well MW1 during October 2018, Washington State Department of Ecology requested that Total Dissolved Solids ("TDS") analysis be run on all groundwater samples. The results can be found in Table 1. Aerotech recommends the continuation of quarterly groundwater monitoring and sampling.

Please feel free to contact the Aerotech Geologist, Mr. Simon Payne, or the Aerotech Principal Environmental Scientist, Mr. Nicholas Gerkin at (206) 482-2287 if you have any questions regarding work completed at this Site.

Sincerely,

Simon Payne
State of Washington
Licensed Geologist No. 2712

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

GROUNDWATER ANALYTICAL RESULTS

Swindahl Properties LLC
2218 Marine View Drive
Tacoma, Washington 98422

MW1

Well Depth	Sampling Date	Ground Water Level	Elevation (TOC north)*	Water Level Elevation	TPHd	TPHo	Benzene	Toluene	Ethyl-benzene	Xylenes	cPAHs	Dissolved Arsenic	Total Arsenic	Dissolved Lead	Total Lead	Total Dissolved Solids
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	mg/L
18.5	04/11/18	2.41	11.75	9.34	--	--	--	--	--	--	--	<2.0	3.0	<2.0	<2.0	--
	07/13/18	5.01	11.75	6.74	--	--	--	--	--	--	--	<2.0	3.0	<2.0	<2.0	--
	10/09/18	4.81	11.75	6.94	--	--	--	--	--	--	<0.1	<2.0	**8.0**	<2.0	<2.0	--
	10/09/18	2.42	11.75	9.33	--	--	--	--	--	--	--	<2.0	2.0	<2.0	<2.0	220
		MTCA Method A Cleanup Levels			500	500	5	1,000	700	1,000	0.1*	5	5	15	15	--

MW2

Well Depth	Sampling Date	Ground Water Level	Elevation (TOC north)*	Water Level Elevation	TPHd	TPHo	Benzene	Toluene	Ethylbenzene	Xylenes	cPAHs	Dissolved Arsenic	Total Arsenic	Dissolved Lead	Total Lead	Total Dissolved Solids
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	mg/L
18.9	04/11/18	8.70	10.27	1.57	--	--	--	--	--	--	--	<2.0	<2.0	<2.0	<2.0	--
	07/13/18	9.35	10.27	0.92	--	--	--	--	--	--	--	<2.0	<2.0	<2.0	<2.0	--
	10/09/18	5.20	10.27	5.07	--	--	--	--	--	--	--	<2.0	<2.0	<2.0	<2.0	--
	10/09/18	3.29	10.27	6.98	--	--	--	--	--	--	--	<2.0	<2.0	<2.0	<2.0	20,000
		MTCA Method A Cleanup Levels			500	500	5	1,000	700	1,000	0.1*	5	5	15	15	--

MW3

Well Depth	Sampling Date	Ground Water Level	Elevation (TOC north)*	Water Level Elevation	TPHd	TPHo	Benzene	Toluene	Ethylbenzene	Xylenes	cPAHs	Dissolved Arsenic	Total Arsenic	Dissolved Lead	Total Lead	Total Dissolved Solids
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	mg/L
19.3	04/11/18	9.00	10.72	1.72	--	--	--	--	--	--	--	<2.0	<2.0	<2.0	<2.0	--
	07/13/18	8.95	10.72	1.77	--	--	--	--	--	--	--	<2.0	<2.0	<2.0	<2.0	--
	10/09/18	5.57	10.72	5.15	--	--	--	--	--	--	<0.1	<2.0	<2.0	<2.0	<2.0	--
	10/09/18	3.98	10.72	6.74	--	--	--	--	--	--	--	<2.0	<2.0	<2.0	<2.0	20,000
		MTCA Method A Cleanup Levels			500	500	5	1,000	700	1,000	0.1*	5	5	15	15	--

MW4

Well Depth	Sampling Date	Ground Water Level	Elevation (TOC north)*	Water Level Elevation	TPHd	TPHo	Benzene	Toluene	Ethylbenzene	Xylenes	cPAHs	Dissolved Arsenic	Total Arsenic	Dissolved Lead	Total Lead	Total Dissolved Solids
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	mg/L
19.6	04/11/18	6.90	11.02	4.12	--	--	--	--	--	--	--	<2.0	<2.0	<2.0	<2.0	--
	07/13/18	7.10	11.02	3.92	<200	<500	<1.0	<1.0	<1.0	<1.0	<0.1	<2.0	<2.0	<2.0	<2.0	--
	10/09/18	7.79	11.02	3.23	<200	<500	--	--	--	--	<0.1	<2.0	<2.0	<2.0	<2.0	--
	10/09/18	5.30	11.02	5.72	--	--	--	--	--	--	--	<2.0	<2.0	<2.0	<2.0	11,000
		MTCA Method A Cleanup Levels			500	500	5	1,000	700	1,000	0.1*	5	5	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

TPHd - Total Petroleum Hydrocarbons as Diesel and TPHo - Total Petroleum Hydrocarbons as Oil by NWTPH-Dx extended

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

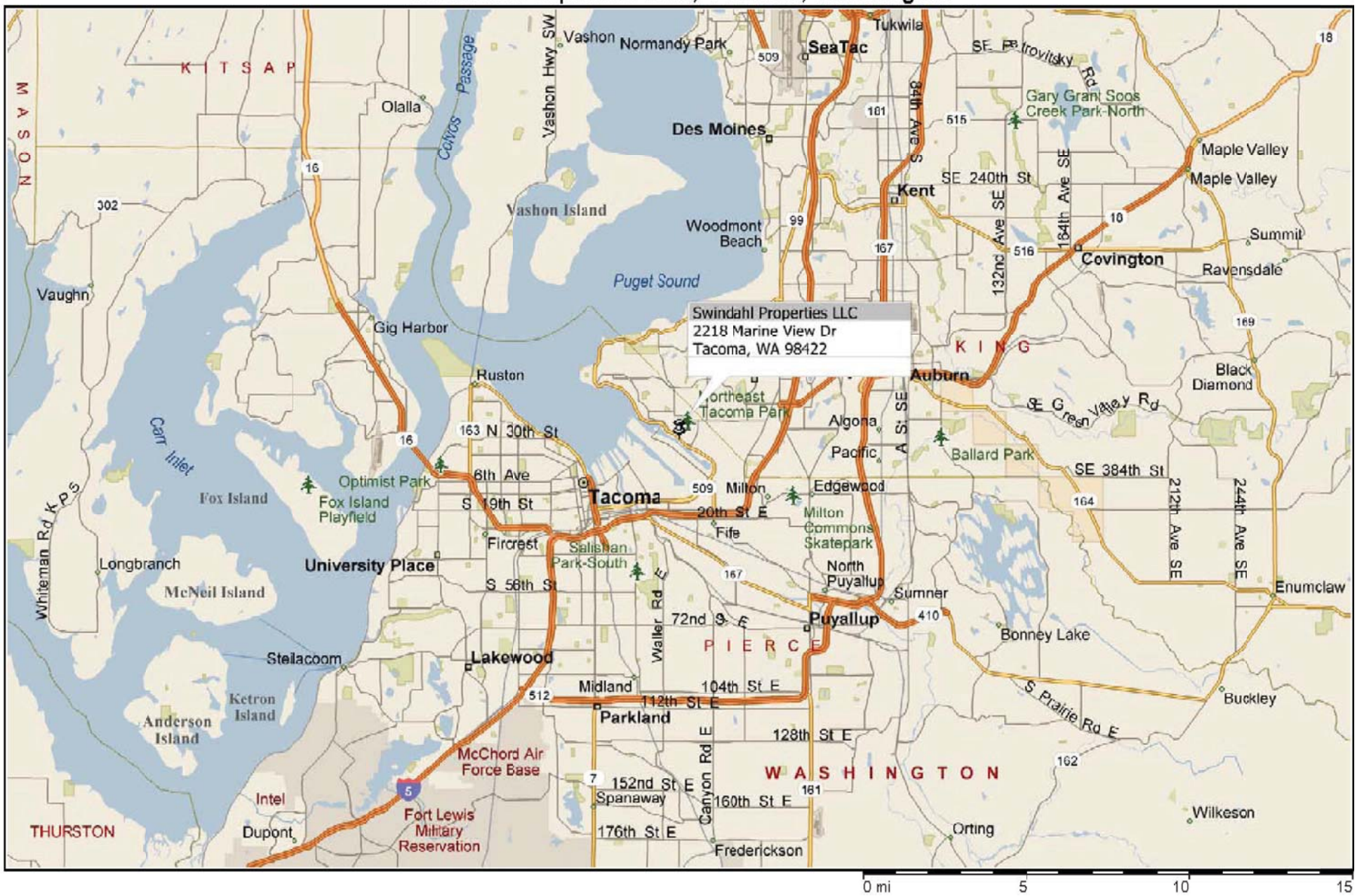
* = Effective concentration using Toxic Equivalency Factor per WAC 173-340-708{e}: SUM(Benzo(a)pyrene (x1), Benzo(a)anthracine (x0.1), Benzo(b)fluoranthene (x0.1), Benzo(k)fluoranthene (x0.1), Chrysene (x0.01), Dibenz(a,h)anthracene (x0.1), Indeno(1,2,3-cd)pyrene (x0.1)

cPAHs by EPA Method 8270 SIM Arsenic and Lead by EPA Method 7010

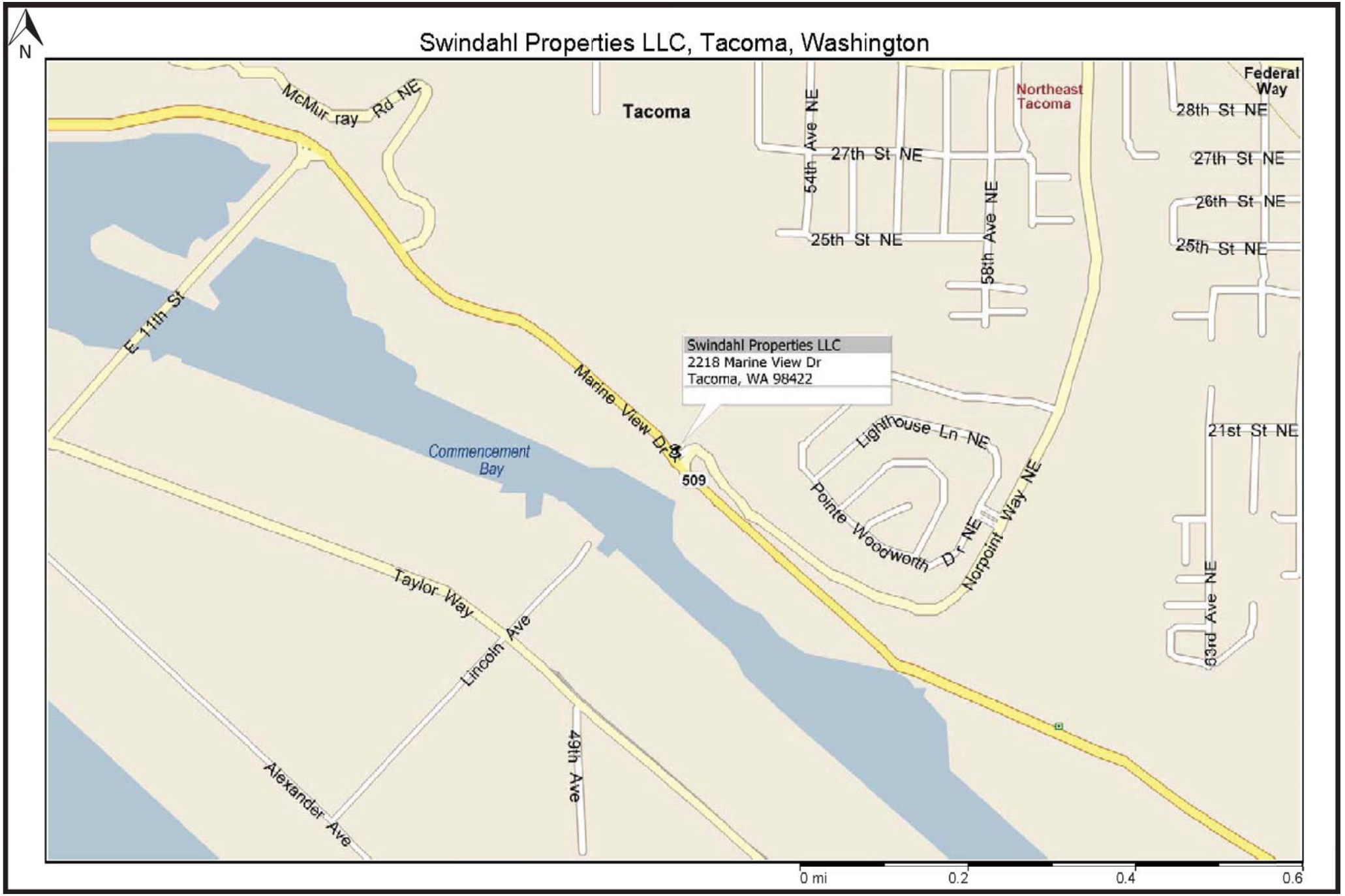
Bolded numbers and red-shaded cells denote concentrations above the MTCA Method A Cleanup Levels for groundwater

Bolded numbers and gray-shaded cells denote total concentrations above the MTCA Method A Cleanup Levels for groundwater, but dissolved concentrations below the MTCA Method A Cleanup Levels

Swindahl Properties LLC, Tacoma, Washington



AEROTECH ENVIRONMENTAL CONSULTING	**REGIONAL MAP**	**Swindahl Properties LLC** **2218 Marine View Drive** **Tacoma, Washington**	**Date:** 04/19/18 **By:** Nick Gerkin **Figure:** 1

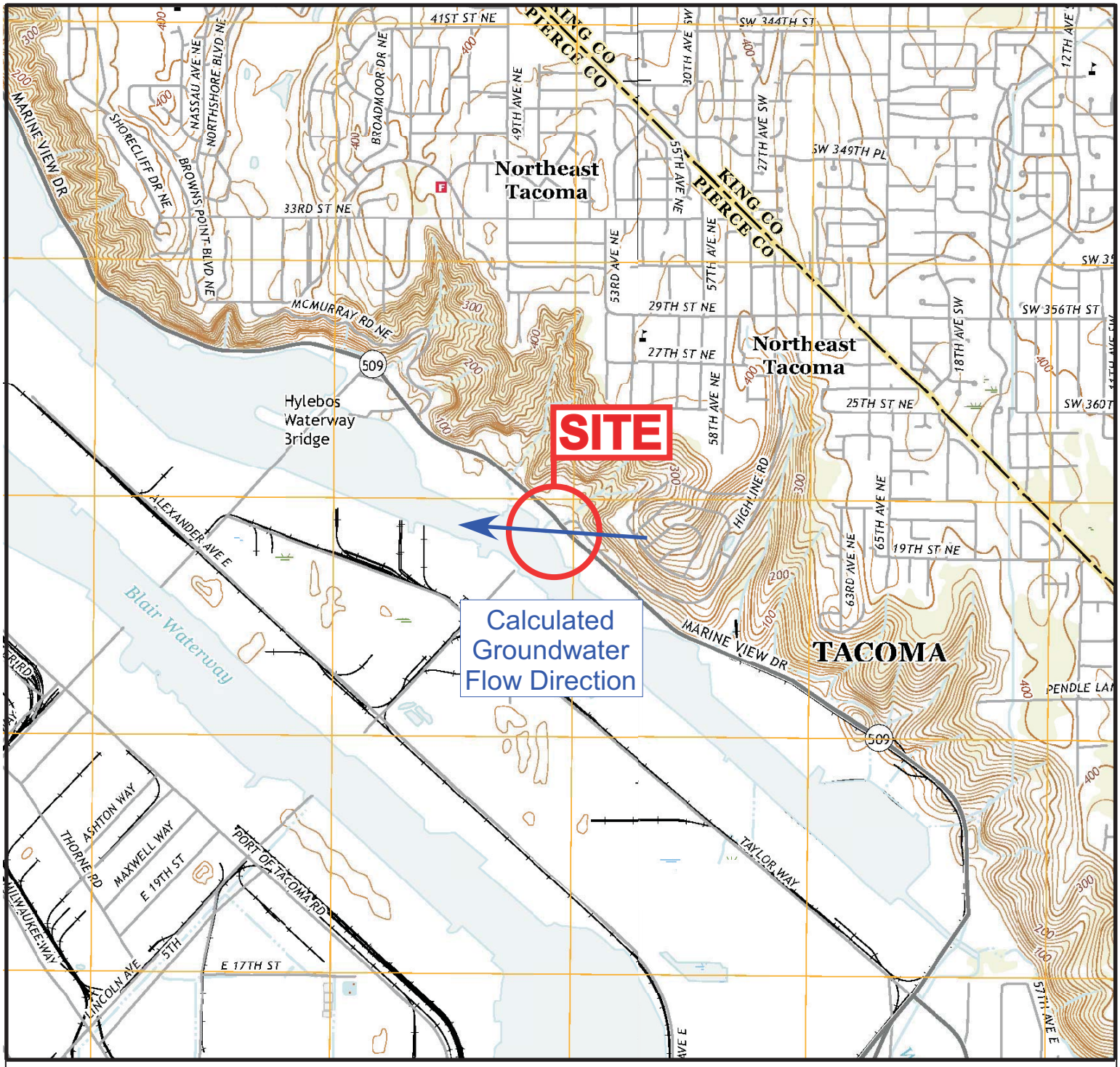


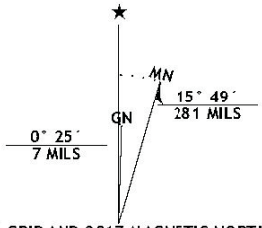
AEROTECH ENVIRONMENTAL CONSULTING

NEIGHBORHOOD MAP

Swindahl Properties LLC
2218 Marine View Drive
Tacoma, Washington

Date: 04/19/18
By: Nick Gerkin
Figure: 2





UTM GRID AND 2017 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

0 0.5 1

SCALE (mile)

CONTOUR INTERVAL 20 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

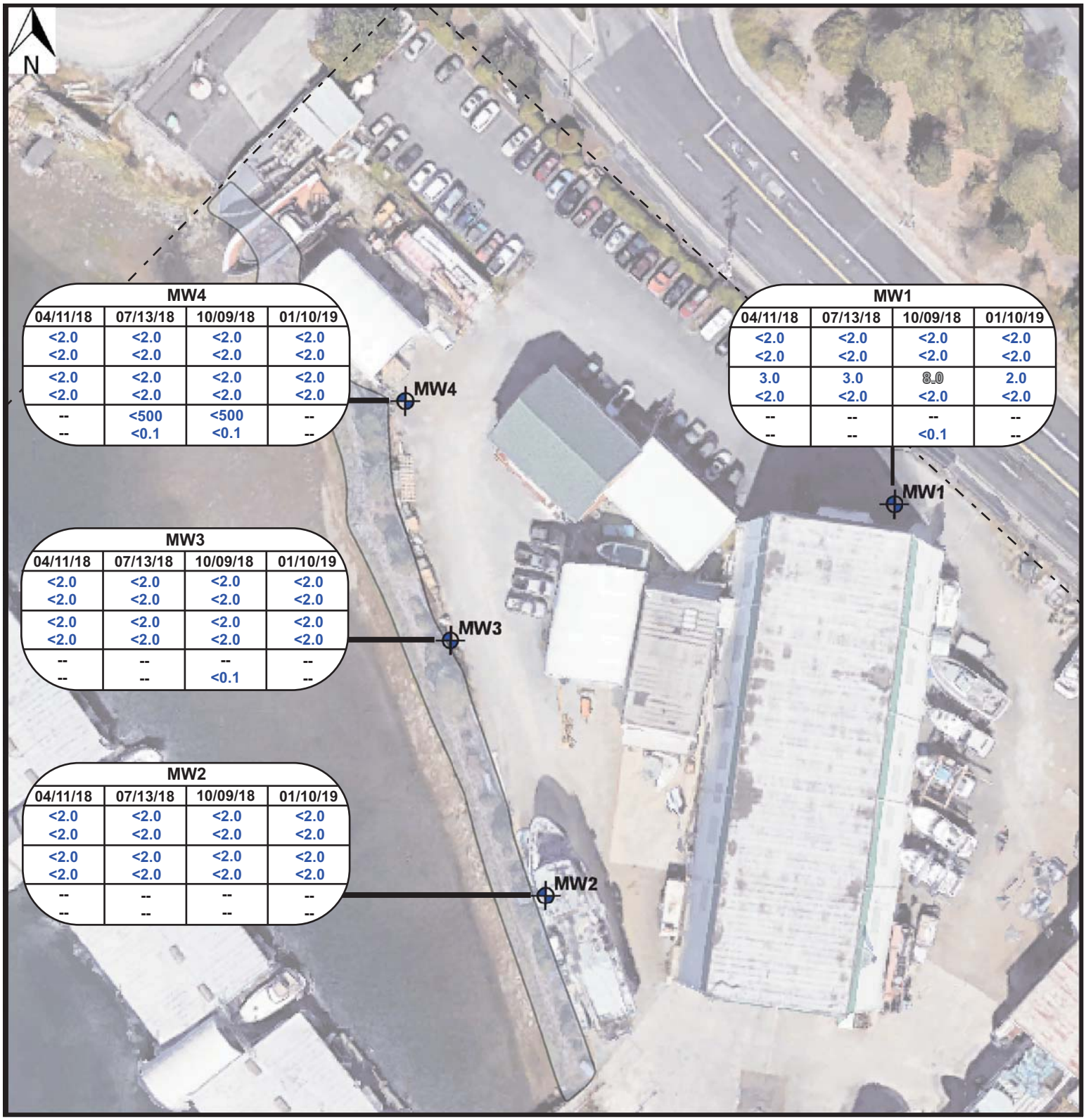
QUADRANGLE LOCATION

AEROTECH ENVIRONMENTAL CONSULTING

USGS TOPOGRAPHIC MAP

Swindahl Properties LLC
2218 Marine View Drive
Tacoma, Washington

Date: 01/18/19
By: Nick Gerkin
Figure: 3



EXPLANATION

MW4 Groundwater Monitoring Well

Concrete Shoreline Fill

Property Line

0 25 50 100
SCALE (feet)

MW1	Well ID
01/10/19	Date
<2.0	Total Lead
<2.0	Dissolved Lead
2.0	Total Arsenic
<2.0	Dissolved Arsenic
--	TPHo (Oil)
--	cPAHs

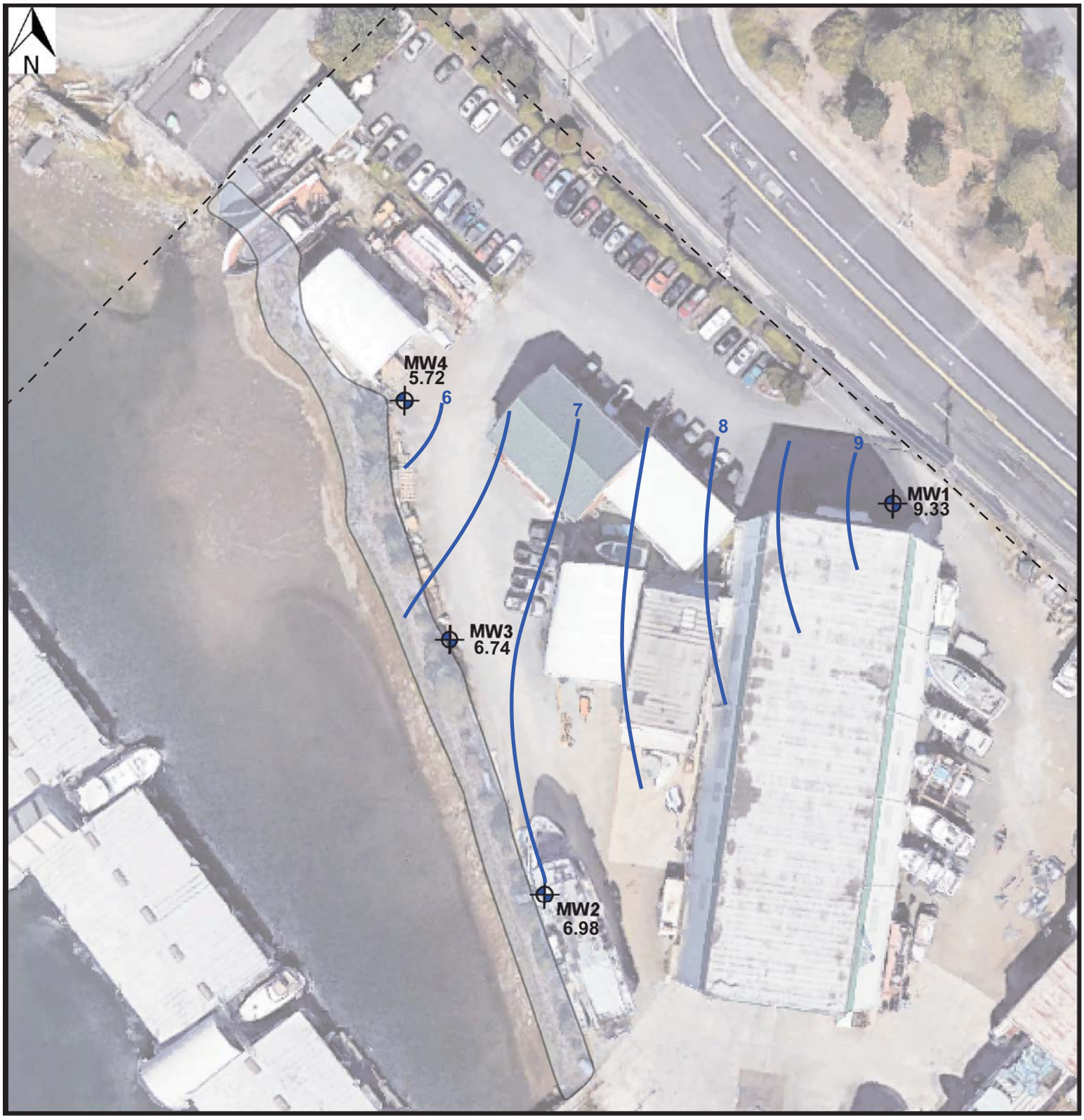
All Concentrations are reported in µg/kg

AEROTECH ENVIRONMENTAL CONSULTING

GROUNDWATER ANALYTICAL RESULTS 01/10/19

Swindahl Properties LLC
2218 Marine View Drive
Tacoma, Washington

Date: 01/21/19
By: Nick Gerkin
Figure: 4



EXPLANATION

MW4
Groundwater Monitoring Well

5.72
Groundwater Elevation (Feet Above MSL)

Water Elevation Countour

Concrete Shoreline Fill

Property Line

0 25 50 100
SCALE (feet)

Calculated Groundwater Flow Direction and Gradient:

0.015 ft/ft

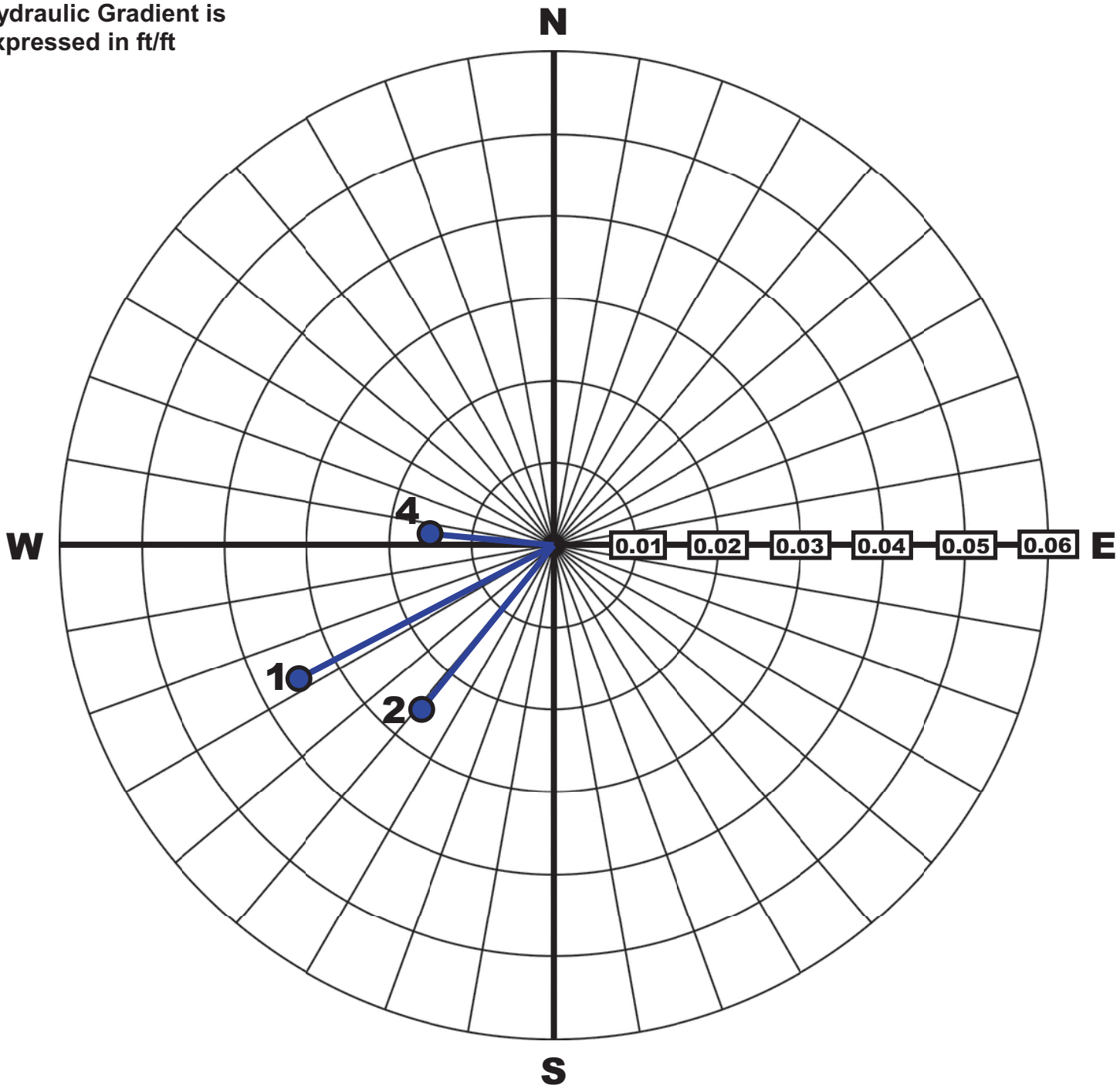
AEROTECH
ENVIRONMENTAL CONSULTING

POTENTIOMETRIC SURFACE MAP 01/10/19

Swindahl Properties LLC
2218 Marine View Drive
Tacoma, Washington

Date: 01/18/19
By: Nick Gerkin
Figure: 5

Hydraulic Gradient is expressed in ft/ft



GAUGING EVENTS

1 04/11/18

2 07/13/18

3 10/09/18 (Not Plotted Due to Variable Direction)

4 01/10/19

10/09/18 is Omitted form the Rose Diagram due to Drastic Flow Direction and Gradient Variation Across the Site

AEROTECH ENVIRONMENTAL CONSULTING	**ROSE DIAGRAM**	**Swindahl Properties LLC** **2218 Marine View Drive** **Tacoma, Washington**	**Date:** 01/18/19 **By:** Nick Gerkin **Figure:** 6

- Project Contract Documents

ENVIRONMENTAL CONTRACTOR'S CERTIFICATION

Swindahl Properties LLC
2218 Marine View Drive
Tacoma, Washington 98422

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 it 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

1-21-19
Date

- Laboratory Analytical Report and Chain of Custody

ADVANCED ANALYTICAL

Environmental Testing Laboratory

January 15, 2019

Devin Melville
Aerotech Environmental, Inc.
13925 Interurban Avenue South, Suite 210
Seattle, WA 98168

Dear Ms. Melville:

Please find enclosed the analytical data report for the *Swindahl/Modutech* ***(C90110-1)*** Project.

Samples were received on *January 10, 2019.* 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:	C90110-1
Client:	Aerotech Environmental
Project Manager:	Devin Melville/Nick Gerkin
Client Project Name:	Modutech Marine (Swindahl Properties)
Client Project Number:	na
Date received:	01/10/19

AAL Job Number: C90110-1
Client: Aerotech Environmental
Project Manager: Devin Melville/Nick Gerkin
Client Project Name: Modutech Marine (Swindahl Properties)
Client Project Number: na
Date received: 01/10/19

Analytical Results

Metals Total (7010), ug/L		MTH BLK	LCS	W-MW1	W-MW2	W-MW3	W-MW4
Matrix	Water	Water	Water	Water	Water	Water	Water
Date extracted	Reporting	01/15/19	01/15/19	01/15/19	01/15/19	01/15/19	01/15/19
Date analyzed	Limits	01/15/19	01/15/19	01/15/19	01/15/19	01/15/19	01/15/19
Lead Total (Pb)	2.0	nd	76%	nd	nd	nd	nd
Arsenic Total (Pb)	2.0	nd	99%	2.0	nd	nd	nd

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

Advanced Analytical Laboratory
(425) 702-8571

AAL Job Number:	C90110-1
Client:	Aerotech Environmental
Project Manager:	Devin Melville/Nick Gerkin
Client Project Name:	Modutech Marine (Swindal
Client Project Number:	na
Date received:	01/10/19

Analytical Results

Metals Total (7010), ug/L		MS	MSD	RPD
Matrix	Water	Water	Water	Water
Date extracted	Reporting	01/15/19	01/15/19	01/15/19
Date analyzed	Limits	01/15/19	01/15/19	01/15/19
Lead Total (Pb)	2.0	101%	97%	4%
Arsenic Total (Pb)	2.0	87%	92%	5%

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

Advanced Analytical Laboratory
(425) 702-8571

AAL Job Number: C90110-1
Client: Aerotech Environmental
Project Manager: Devin Melville/Nick Gerkin
Client Project Name: Modutech Marine (Swindahl Properties)
Client Project Number: na
Date received: 01/10/19

Analytical Results

Metals Dissolved (7010), ug/L		MTH BLK	LCS	W-MW1	W-MW2	W-MW3	W-MW4
Matrix	Water	Water	Water	Water	Water	Water	Water
Date extracted	Reporting	01/15/19	01/15/19	01/15/19	01/15/19	01/15/19	01/15/19
Date analyzed	Limits	01/15/19	01/15/19	01/15/19	01/15/19	01/15/19	01/15/19
Lead Dissolved (Pb)	2.0	nd	76%	nd	nd	nd	nd
Arsenic Dissolved (Pb)	2.0	nd	99%	nd	nd	nd	nd

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

Advanced Analytical Laboratory
(425) 702-8571

AAL Job Number:	C90110-1
Client:	Aerotech Environmental
Project Manager:	Devin Melville/Nick Gerki
Client Project Name:	Modutech Marine (Swind
Client Project Number:	na
Date received:	01/10/19

Analytical Results

Metals Dissolved (7010), ug/L		MS	MSD	RPD
Matrix	Water	Water	Water	Water
Date extracted	Reporting	01/15/19	01/15/19	01/15/19
Date analyzed	Limits	01/15/19	01/15/19	01/15/19
Lead Dissolved (Pb)	2.0	101%	97%	4%
Arsenic Dissolved (Pb)	2.0	87%	92%	5%

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

ADVANCED ANALYTICAL

Chain of Custody Record

Page of

Laboratory Job #: C90110-1

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

Client: Aztech Environmental

Project Name: Swindahl / Medtech

Project Manager: Devin Melville + Nick Eckin

Project Number: —

Address: 13925 Interurban Ave S, Seattle, WA

Collector: Devin Melville

Phone: (206) 799-4641 Fax:

Date of collection: 1-10-19

	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 total + Arsenic	MTCA5 Metals	Lead + Arsenic only	Notes, comments	# of containers
1	W-MW1	0912	W	1 Poly												X		X			1
2	W-MW2	0941														X		X			1
3	W-MW3	1003														X		X			1
4	W-MW4	1040														X		X			1
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

Relinquished by:	Date/Time	Received by:	Date/Time
Devin Melville	1-10-19	V. Ivanov	01/10/19 12:30
Relinquished by:	Date/Time	Received by:	Date/Time

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Seattle
5755 8th Street East
Tacoma, WA 98424
Tel: (253)922-2310

TestAmerica Job ID: 580-83217-1
Client Project/Site: Swindahl Properties LLC/Modutech

For:
Aerotech Environmental Consulting, Inc.
13925 Interurban Ave South
Suite 210
Seattle, Washington 98168

Attn: Nick Gerkin

Kristine D. Allen

Authorized for release by:
1/21/2019 12:04:21 PM
Kristine Allen, Manager of Project Management
(253)248-4970
kristine.allen@testamericainc.com

Designee for

Nathan Lewis, Project Manager I
(253)922-2310
nathan.lewis@testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

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Job ID: 580-83217-1

Laboratory: TestAmerica Seattle

Narrative

Job Narrative
580-83217-1

Comments
No additional comments.

Receipt
The samples were received on 1/10/2019 11:11 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 10.8º C.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Client: Aerotech Environmental Consulting, Inc.
Project/Site: Swindahl Properties LLC/Modutech

TestAmerica Job ID: 580-83217-1

Client Sample ID: W-MW1
Date Collected: 01/10/19 09:21
Date Received: 01/10/19 11:11

Lab Sample ID: 580-83217-1
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	220		10	10	mg/L			01/17/19 09:31	1

Client: Aerotech Environmental Consulting, Inc.
Project/Site: Swindahl Properties LLC/Modutech

TestAmerica Job ID: 580-83217-1

Client Sample ID: W-MW2
Date Collected: 01/10/19 09:44
Date Received: 01/10/19 11:11

Lab Sample ID: 580-83217-2
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	20000		1000	1000	mg/L			01/17/19 09:31	1

Client: Aerotech Environmental Consulting, Inc.
Project/Site: Swindahl Properties LLC/Modutech

TestAmerica Job ID: 580-83217-1

Client Sample ID: W-MW3
Date Collected: 01/10/19 10:08
Date Received: 01/10/19 11:11

Lab Sample ID: 580-83217-3
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	20000		1000	1000	mg/L			01/17/19 09:31	1

Client: Aerotech Environmental Consulting, Inc.
Project/Site: Swindahl Properties LLC/Modutech

TestAmerica Job ID: 580-83217-1

Client Sample ID: W-MW4
Date Collected: 01/10/19 10:40
Date Received: 01/10/19 11:11

Lab Sample ID: 580-83217-4
Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	11000		500	500	mg/L			01/17/19 09:31	1

Method: 160.1 - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 580-293246/1
Matrix: Water
Analysis Batch: 293246

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids	ND		10	10	mg/L			01/17/19 09:31	1

Lab Sample ID: LCS 580-293246/2
Matrix: Water
Analysis Batch: 293246

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Total Dissolved Solids			1000	1010		mg/L		101	80 - 120		

Lab Sample ID: 580-83217-1 DU
Matrix: Water
Analysis Batch: 293246

Client Sample ID: W-MW1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Total Dissolved Solids	220			237		mg/L				8	20

Lab Chronicle

Client: Aerotech Environmental Consulting, Inc.
Project/Site: Swindahl Properties LLC/Modutech

TestAmerica Job ID: 580-83217-1

Client Sample ID: W-MW1

Lab Sample ID: 580-83217-1

Date Collected: 01/10/19 09:21

Matrix: Water

Date Received: 01/10/19 11:11

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	160.1		1	293246	01/17/19 09:31	R1K	TAL SEA

Client Sample ID: W-MW2

Lab Sample ID: 580-83217-2

Date Collected: 01/10/19 09:44

Matrix: Water

Date Received: 01/10/19 11:11

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	160.1		1	293246	01/17/19 09:31	R1K	TAL SEA

Client Sample ID: W-MW3

Lab Sample ID: 580-83217-3

Date Collected: 01/10/19 10:08

Matrix: Water

Date Received: 01/10/19 11:11

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	160.1		1	293246	01/17/19 09:31	R1K	TAL SEA

Client Sample ID: W-MW4

Lab Sample ID: 580-83217-4

Date Collected: 01/10/19 10:40

Matrix: Water

Date Received: 01/10/19 11:11

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	160.1		1	293246	01/17/19 09:31	R1K	TAL SEA

Laboratory References:

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Accreditation/Certification Summary

Client: Aerotech Environmental Consulting, Inc.
Project/Site: Swindahl Properties LLC/Modutech

TestAmerica Job ID: 580-83217-1

Laboratory: TestAmerica Seattle

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska (UST)	State Program	10	17-024	01-19-19
ANAB	DoD ELAP		L2236	01-19-22
ANAB	ISO/IEC 17025		L2236	01-19-22
California	State Program	9	2901	11-05-19
Montana (UST)	State Program	8	N/A	04-30-20
Nevada	State Program	9	WA000502019-1	07-31-19
Oregon	NELAP	10	WA100007	11-05-19
US Fish & Wildlife	Federal		LE058448-0	07-31-19
USDA	Federal		P330-14-00126	02-10-20
Washington	State Program	10	C553	02-17-19

Sample Summary

Client: Aerotech Environmental Consulting, Inc.
Project/Site: Swindahl Properties LLC/Modutech

TestAmerica Job ID: 580-83217-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-83217-1	W-MW1	Water	01/10/19 09:21	01/10/19 11:11
580-83217-2	W-MW2	Water	01/10/19 09:44	01/10/19 11:11
580-83217-3	W-MW3	Water	01/10/19 10:08	01/10/19 11:11
580-83217-4	W-MW4	Water	01/10/19 10:40	01/10/19 11:11

TestAmerica Seattle
5755 8th Street East

Tacoma, WA 98424-1317
phone 253.922.2310 fax 253.922.5047

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Regulatory Program: ☐ DW ☐ NPDES ☑ RCRA ☐ Other:

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Nick Gerkin	Site Contact:	Date:	COC No:
Aerotech Environmental Consulting, Inc.	Tel/Fax: 206 482 2287	Lab Contact:	Carrier:	_____ of _____ COCs
13925 Interurban Avenue South #210	Analysis Turnaround Time			Sampler:
Tukwila, Washington 98168	☐ CALENDAR DAYS ☐ WORKING DAYS			For Lab Use Only:
206 482 2287 Phone	TAT if different from Below _____			Walk-in Client:
nick@dirtydirt.us	☑ 2 weeks			Lab Sampling:
Project Name: Swindahl Properties LLC / modutech	☐ 1 week			
Site: As above	☐ 2 days			Job / SDG No.:
P O # As above	☐ 1 day			

Loc: 580
83217

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)	Perform MS / MSD (Y / N)	Total Dissolved Solids	Sample Specific Notes:
W-MW1	1-10-19	0921	G	W	1	N		X	
W-MW2	1-10-19	0944	G	W	1	N		X	
W-MW3	1-10-19	1008	G	W	1	N		X	
W-MW4	1-10-19	1040	G	W	1	N		X	

Therm. ID: 5 Cor: 10.8 ° Unc: 10.8 °
Cooler Dsc: 5 Rad
Packing: _____
Cust. Seal: Yes ___ No X
Blue Ice, Wet, Dry, None
FedEx: _____
UPS: _____
Lab Cour: _____
Other: CP

580-83217 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☑ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:

Please send data to nick@dirtydirt.us Please send billing information to laura@dirtydirt.us

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ Therm ID No.: _____

	Company:	Date/Time:		Company:	Date/Time:
Relinquished by: Nick Gerkin	Aerotech	1-10-19 1110	Received by:	TASea	1-16-19 1111
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

Form No. CA-C-WI-002, Rev. 4.18, dated 9/5/2018

1/21/2019

Login Sample Receipt Checklist

Client: Aerotech Environmental Consulting, Inc.

Job Number: 580-83217-1

Login Number: 83217

List Source: TestAmerica Seattle

List Number: 1

Creator: Hobbs, Kenneth F

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	N/A	Not present
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

- Standard Operating Procedure

AEROTECH
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.

- Field Documentation

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www. AerotechEnvironmental.com

GROUNDWATER MONITORING WELL GAUGING RECORD

FIELD CREW: DRM	**PROJECT NAME:** Swindahl Properties LLC
DATE: 01/10/19	**PROJECT ADDRESS:** 2218 Marine View Drive, Tacoma, Washington

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	8:53	11.75	2.42	9.33	18.5	2	Well is new and in great condition
MW2	9:00	10.27	3.29	6.98	18.9	2	Well is new and in great condition
MW3	8:58	10.72	3.98	6.74	19.3	2	Well is new and in great condition
MW4	8:56	11.02	5.30	5.72	19.6	2	Well is new and in great condition

EXPLANATION

MSL = Mean Sea Level

TOC = Top of Casing

-- = Not Measured or Not Calculated

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GROUNDWATER MONITORING WELL
LOW FLOW SAMPLING FIELD LOG

FIELD CREW: DRM	**PROJECT NAME:** Swindahl Properties LLC
DATE: 01/10/19	**PROJECT ADDRESS:** 2218 Marine View Drive, Tacoma, Washington

MW1		Purge Start:	9:05	Purge Stop:	9:21	Purge V (L):	**3.60**
Time	**DTW**	**Purge Rate**	**Temperature**	**Specific Conductivity**	**DO**	**pH**	**ORP**
hr:min	feet	mL/min	°C	mS/cm	mg/L	unit	mV
08:53	2.42	--	--	--	--	--	--
09:11	2.50	225	9.2	432.9	0.40	6.70	-83.6
09:13	2.50	225	9.2	416.2	0.3	6.70	-88.9
09:15	2.50	225	9.2	415.3	0.27	6.70	-91.0
09:17	2.50	225	9.2	421.5	0.24	6.69	-93.1
09:19	2.50	225	9.2	425.6	0.22	6.69	-94.9
09:21	2.50	225	9.2	427.6	0.22	6.69	-96.3
Ecology Parameter Limits (3 Consecutive Readings)			**+/- 0.1**	**+/- 10**	**+/- 0.05**	**+/- 0.1**	**+/- 10**
09:21	**SAMPLE**	--	--	--	--	--	--
Comments:							

MW2		Purge Start:	9:31	Purge Stop:	9:44	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
09:00	3.29	--	--	--	--	--	--
09:36	3.46	200	9.7	33,925	9.02	7.5	52.2
09:38	3.51	200	9.6	33,971	8.84	7.52	59.7
09:40	3.54	200	9.6	33,957	8.86	7.52	64.8
09:42	3.57	200	9.6	33,957	8.71	7.53	68.2
09:44	3.57	200	9.7	33,932	8.70	7.53	70.5
Ecology Parameter Limits (3 Consecutive Readings)			**+/- 0.1**	**+/- 20**	**+/- 0.2**	**+/- 0.1**	**+/- 10**
09:44	**SAMPLE**	--	--	--	--	--	--
Comments:							

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GROUNDWATER MONITORING WELL
LOW FLOW SAMPLING FIELD LOG

FIELD CREW: DRM	**PROJECT NAME:** Swindahl Properties LLC
DATE: 01/10/19	**PROJECT ADDRESS:** 2218 Marine View Drive, Tacoma, Washington

MW3		Purge Start:	9:57	Purge Stop:	10:08	Purge V (L):	**1.93**
Time	**DTW**	**Purge Rate**	**Temperature**	**Specific Conductivity**	**DO**	**pH**	**ORP**
hr:min	feet	mL/min	°C	mS/cm	mg/L	unit	mV
08:58	3.98	--	--	--	--	--	--
10:02	4.38	175	9.0	38,395	7.54	7.60	76.1
10:04	4.41	175	9.0	38,381	7.60	7.61	77.9
10:06	4.45	175	9.0	38,384	7.55	7.61	79.8
10:08	4.45	175	9.0	38,383	7.55	7.61	82.7
Ecology Parameter Limits (3 Consecutive Readings)			**+/- 0.1**	**+/- 20**	**+/- 0.2**	**+/- 0.1**	**+/- 10**
10:08	**SAMPLE**	--	--	--	--	--	--
Comments:							

MW4		Purge Start:	10:18	Purge Stop:	10:40	Purge V (L):	**4.40**
Time	**DTW**	**Purge Rate**	**Temperature**	**Specific Conductivity**	**DO**	**pH**	**ORP**
hr:min	feet	mL/min	°C	mS/cm	mg/L	unit	mV
08:56	5.30	--	--	--	--	--	--
10:24	5.57	200	13.0	18789	0.40	6.71	-45.5
10:26	5.69	200	13.0	18769	0.30	6.71	-49.2
10:28	5.73	200	13.1	18783	0.23	6.70	-52.1
10:30	5.81	200	13.1	18798	0.21	6.70	-55.1
10:32	5.81	200	13.2	18822	0.19	6.70	-57.3
10:34	5.90	200	13.2	18848	0.19	6.70	-59.5
10:36	5.90	200	13.2	18868	0.18	6.69	-61.5
10:38	5.98	200	13.2	18874	0.17	6.69	-63.0
10:40	5.98	200	13.2	18865	0.17	6.69	-65.5
Ecology Parameter Limits (3 Consecutive Readings)			**+/- 0.1**	**+/- 20**	**+/- 0.05**	**+/- 0.1**	**+/- 10**
10:40	**SAMPLE**	--	--	--	--	--	--
Comments:							