2020 Groundwater Monitoring Report
Superlon Plastics Property

Prepared for:

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and

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Table of Contents

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Tables

Figures

Appendices

Acronyms and Abbreviations

Acronym/Abbreviation	Description
Chemours	The Chemours Company FC, LLC
COC	Constituent of Concern
Ecology	Washington State Department of Ecology
MTCA	Model Toxics Control Act
MW	Monitoring Well
PERC	Pacific Environmental and Redevelopment Corporation
PIONEER	PIONEER Technologies Corporation
Property	Superlon Plastics Property
QA/QC	Quality Assurance / Quality Control
RI	Remedial Investigation
SAP/QAPP	Sampling and Analytical Plan / Quality Assurance Project Plan
USEPA	United States Environmental Protection Agency
White Birch	White Birch Group LLC

1. Introduction

1.1 Overview

Annual groundwater monitoring has been completed at the Superlon Plastics Property (Property) as part of the remedial investigation (RI) for the Property. The RI is a requirement of the Washington State Department of Ecology (Ecology)-approved Agree Order (No. DE 5940) between White Birch Group LLC (White Birch) and the Chemours Company FC, LLC (Chemours). All RI-associated activities are being conducted in accordance with Washington State Model Toxics Control Act (MTCA), Chapter 173-340 of the Washington Administrative Code.

Groundwater monitoring was conducted quarterly from third quarter 2011 until fourth quarter 2015, when the sampling frequency was reduce to one event per year (Ecology 2015). The results of the 2015-2019 groundwater monitoring events were documented in the 2015, 2016, 2017, 2018, and 2019 Groundwater Monitoring Reports. Based on the results of the 2015, 2016, 2017, 2018, and 2019 groundwater monitoring events, constituent concentrations were generally consistent with historical concentrations (Pacific Environmental and Redevelopment Corporation [PERC] and PIONEER Technologies Corporation [PIONEER] 2015, 2016, 2017, 2018, 2019).

The 2020 groundwater monitoring sampling event was conducted on August 5th, 2020. The purpose of this report is to document the results of the 2020 groundwater monitoring event. Two new monitoring wells (MW-13S and MW-13I) were installed in November 2019 following the completion of soil remediation in the proximate area of the previously decommissioned MW-3S and MW-3I. These wells were installed for additional groundwater characterization following the completion of soil remediation in that area. Once soil and perched water remediation activities are completed, new monitoring wells will be installed and will be included in the annual groundwater monitoring program.

1.2 Property Location and Description

The Property is located at 2116 Taylor Way in Tacoma, Washington in a highly industrialized area of the Tacoma tidal flats between the Blair and Hylebos Waterways (see Figure 1). The Property is currently owned by White Birch and operated by Superlon Plastics Incorporated, an extruded plastic pipe manufacturer. The Property is boarded by Taylor Way to the north-northeast, Lincoln Avenue to the north-northwest, the former Holbrook Log Yard to the southwest, and Gardner-Fields to the southeast (see Figure 2).

1.3 Report Organization

The remainder of this report is organized as follows:

- Section 2: Summary of Groundwater Monitoring
- Section 3: Groundwater Monitoring Results
- Section 4: Conclusions
- Section 5: References

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2. Summary of Groundwater Monitoring

2.1 Monitoring Well Locations and Installation Chronology

Twenty-six shallow and intermediate co-located monitoring wells (MWs) have been installed at 13 locations on and off of the Property. Sixteen of the MWs were installed between 2011 and 2012 and eight additional wells were installed in 2014. As of August 30, 2017, 16 shallow and intermediate co-located MWs were decommissioned and only 8 wells remained in-place (see Figure 3). In 2019, for groundwater characterization purposes, two additional monitoring wells were installed and included as part of the groundwater monitoring event. A brief history of MW locations is presented below:

- Seven shallow aquifer MWs (MW-1S – MW-7S) were installed during Phase I RI activities in 2011, in accordance with the Phase I RI Work Plan (PERC 2020).
- One shallow aquifer MW (MW-8S) and eight intermediate aquifer MWs (MW-1I – MW-8I) were installed during Phase III RI activities in 2012, in accordance with the Phase III RI Work Plan (PERC 2012).
- Four shallow aquifer MWs (MW-9S – MW-12S) and four intermediate aquifer MWs (MW9I – MW12I) were installed during Phase IV RI activities in 2014, in accordance with the Phase IV RI Work Plan (PERC 2014).
- Sixteen wells were decommissioned in 2017 and included MW-1I, MW-1S, MW-3I, MW-3S, MW-5I, MW-5S, MW-6I, MW-6S, MW-7I, MW-7S, MW-8I, MW-8S, MW-11I, MW-11S, MW-12I, and MW-12S[1] (see Figure 3 and Appendix C).
- One shallow aquifer MW (MW-13S) and one intermediate aquifer MW (MW-13I) were installed in November 2019 for characterizing current groundwater conditions.[2]

2.2 Sampling Methods and Procedures

Groundwater sampling methodology and field quality controls were performed in accordance with the Project Sampling and Analytical Plan (SAP) & Quality Assurance Project Plan (QAPP) for the Superlon Plastics Property (PERC 2019). All samples were sent to a Washington State-certified laboratory in accordance with the SAP/QAPP (PERC 2019). Groundwater sampling field notes are presented in Appendix A.

2.3 QA/QC Methods

Laboratory results were verified for usability by performing Quality Assurance/Quality Control (QA/QC) data validation. QA/QC data validation generally followed the applicable guidance and requirements specified in the following:

- Guidance on Environmental Data Verification and Data Validation (United State Environmental Protection Agency [USEPA] 2002);

[1] The well decommissioning report in Appendix C presents the detail of the sixteen decommissioned wells. MW-2S and MW-2I were mistakenly identified as decommissioned. MW-1S and MW-1I were decommissioned and MW-2S and MW-2I are still in-place.
[2] MW-13S and MW-13I were installed in the proximate location of MW-3S and MW-3I which were abandoned in 2017 to allow for soil remediation.

- USEPA Contract Laboratory Program, National Functional Guidelines for Superfund Organic Methods Data Review. Final. OSWER 9240.1-45. USEPA/540/R-08/01 (USEPA 2016a);
- USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Superfund Data Review. Final. OSWER 8240.1-51. EPA 540-R-10-011 (USEPA 2016b); and
- Method-specific and laboratory-established QA requirements, as applicable.

QA/QC data validation procedures were performed in accordance with the SAP/QAPP (PERC 2019). The data validation reports are presented with laboratory reports in Appendix B. It should be noted that dissolved arsenic results in MW-9I were qualified as estimates because one dissolved arsenic sample was reported as detected and the corresponding field duplicate was reported as undetected (see Appendix B). No results required restatement and no results were rejected.

2.4 Constituent Analyses

The 2020 groundwater samples were analyzed for dissolved arsenic and dissolved lead only (Ecology 2015). The number of constituents evaluated during the monitoring events has been reduced since sampling was initiated in 2011 as other constituents were consistently not detected or were below screening levels (PERC 2015; PERC and PIONEER 2013, 2015).[3]

[3] The constituent list was reduced to focus the monitoring on constituents of concern (COPCs) and eliminate the analyses of constituents not detected or infrequently detected during consecutive sampling events.

3. Groundwater Monitoring Results

Shallow and intermediate groundwater samples were collected from ten MWs and analyzed for dissolved arsenic and dissolved lead. The laboratory reports and associated QA/QC data validation reports for the 2020 monitoring event are presented in Appendix B. Data quality review indicated the data were of good quality and required no additional qualification.

Constituent concentrations are presented by well and groundwater monitoring event for dissolved arsenic and dissolved lead in Table 1 and 2, respectively. Concentration trends for dissolved arsenic and dissolved lead are presented on Figures 4 and 5, respectively. Historical groundwater monitoring data are included on tables and figures for content.

3.1 Arsenic

The 2020 dissolved arsenic concentrations were consistent with historic dissolved arsenic concentrations (see Table 1 and Figure 4). The arsenic concentration in MW-10S remained elevated, compared to the historic concentrations, similarly to the arsenic concentrations reported in 2018 and 2019. The arsenic concentration at MW-9S was 19 mg/L which decreased from the 2019 concentration of 38 mg/L and the 2018 concentration of 79 mg/L. Dissolved arsenic was not detected in MW-10I.

The arsenic concentration in MW-13S was 9.1 mg/L which is consistent with the historic concentrations ranging from 4.0 mg/L to 20 mg/L reported in MW-3S (decommissioned in 2017). The arsenic concentration in MW-13I was 0.30 mg/L which is consistent with the historic concentrations ranging from 0.10 mg/L to 1.6 mg/L reported in MW-3I (decommissioned in 2017).

3.2 Lead

The 2020 dissolved lead concentrations were consistent with historic dissolved lead concentrations (see Table 2 and Figure 5). Dissolved lead was not detected in seven of the ten MWs. The lead concentration in MW-10S was 0.25 mg/L, which is slightly elevated compared to historic concentrations, at about 60% higher than the 2019 reported concentration.

The lead concentration in MW-13S was 0.28 mg/L which is consistent with the historic concentrations ranging from 0.0052 mg/L to 0.30 mg/L reported in MW-3S (decommissioned in 2017). The lead concentration in MW-13I was 0.0067 mg/L which is consistent with the historic concentrations ranging from 0.00026 mg/L to 0.080 mg/L reported in MW-3I (decommissioned in 2017).

4. Conclusions

The 2020 dissolved arsenic and dissolved lead concentrations were consistent with historical concentrations at the Property.

Following the 2017 groundwater monitoring event, many of the on-Property groundwater monitoring wells were decommissioned for ongoing soil and perched water remediation activities. As part of the soil and perched water remediation activities, MW-3S and MW-3I were decommissioned, however, in November 2019, these wells were re-installed (identified as MW-13S and MW-13I, respectively). The arsenic and lead concentrations in MW-13S and MW-13I were consistent with historic concentrations reported in MW-3S and MW-3I.

All monitoring wells will continue to be sampled annually. Once soil and perched water remediation action activities are completed, new monitoring wells will be installed and be included in the annual groundwater monitoring program.

5. References

Ecology. 2015. Electronic mail from Marv Coleman to Jeff King with the subject "Reduction in groundwater monitoring." November 12.

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PERC. 2012. Phase III Remedial Investigation Work Plan, for the Superlon Plastics Site, Tacoma, Washington. July.

PERC. 2014. Work Plan: Remedial Investigation for Groundwater – Phase IV. February 20.

PERC. 2015. Letter from Jeff King (PERC) to Marv Coleman (Ecology) regarding Proposed Revisions to the Current Groundwater Monitoring Program at the Superlon Plastics Property. September 14.

PERC. 2019. Sampling and Analytical Plan & Quality Assurance Project Plan for the Superlon Plastics Site, Tacoma, Washington. May 2019.

PERC and PIONEER. 2013. Proposed Reduction in Analysis – Groundwater Monitoring at the Superlon Plastics Site. September 16.

PERC and PIONEER. 2015. 2015 Groundwater Monitoring Report Superlon Plastics Property. March 9.

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USEPA. 2002. Guidance on Environmental Data Verification and Data Validation. EPA QA/G-8. EPA/240/R-02/004. November 2002.

USEPA. 2016a. USEPA Contract Laboratory Program, National Functional Guidelines for Superfund Organic Methods Data Review. Final. OSWER 9240.1-45. USEPA/540/R-08/01. September 2016.

USEPA. 2016b. USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Superfund Data Review. Final. OSWER 9240.1-51. EPA 540-R-10-011. September 2016.

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Tables

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Table 1: Dissolved Arsenic Concentrations by Well and Groundwater Monitoring Event

Well Location	3Q 2011	Qual	4Q 2011	Qual	2Q 2012	Qual	3Q 2012	Qual	4Q 2012	Qual	1Q 2013	Qual	2Q 2013	Qual	3Q 2013	Qual	4Q 2013	Qual	1Q 2014	Qual	2Q 2014	Qual	3Q 2014	Qual	4Q 2014	Qual	1Q 2015	Qual	2Q 2015	Qual	3Q 2015	Qual	4Q 2015	Qual	3Q 2016	Qual	3Q 2017	Qual	3Q 2018	Qual	3Q 2019	Qual	3Q 2020	Qual
MW-1S	0.0052	J	0.0063	J	0.0026	J	0.0071	J	0.013	UB	0.0093	B	0.0060	UB	0.019		0.010		0.0083		0.011		0.037		0.044		0.057		0.13		0.11		1.2		44		57		NS		NS		NS	
MW-2S	0.049		0.11		0.0063	J	0.0095	J	0.052	UB	0.028	B	0.021	B	0.020		0.075		0.058		0.053		0.040		0.067		0.079		0.24		0.13		0.13		0.18		0.13		0.24		0.16		0.17	
MW-3S	4.0		15		11		4.9		5.8	B	5.0	B	4.6	B	4.9		7.8		12		16		16		14		13		14		15		13		14		20		NS		NS		NS	
MW-4S	0.013	J	0.026		0.0057	J	0.0069	J	0.015	UB	0.0072	UB	0.027	B	0.0073		0.011		0.024		0.028		0.045		0.050		0.055		0.061		0.083		0.073		0.093		0.15		0.10	U	0.16		0.10	
MW-5S	0.36		0.28		0.41		0.51		0.45	B	0.48	B	0.32	B	0.37		0.54		0.34		0.24		0.28		0.40		0.40		0.50		0.49		0.50		1.1		0.86		NS		NS		NS	
MW-6S	1.3		2.0		1.8		1.7		1.8	B	1.8	B	1.4	B	1.9		1.9		1.7		1.6		0.50		1.9		1.8		1.5		1.6		1.4		1.6		1.1		NS		NS		NS	
MW-7S	0.0032	J	0.0041	J	0.020	U	0.0032	J	0.0025	UB	0.0020	UB	0.0016	UB	0.0014		0.0030		0.0019		0.0022		0.0025		0.0047		0.0021		0.0019		0.0019		0.0023		0.0050	U	0.10	U	NS		NS		NS	
MW-8S	NS		NS		NS		NS		21	B	13	B	21	B	7.7		8.9		27		0.66		13		25		5.5		40		32		32		40		41		NS		NS		NS	
MW-9S	NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		5.8		7.4		6.0		12		23		80		88		79		38		19	
MW-10S	NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		0.42		0.49		0.50		0.64		0.61		0.59		0.61		1.1		0.95		3.3	
MW-11S	NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		1.4		2.2		2.2		2.5		1.8		3.6		9.7		NS		NS		NS	
MW-12S	NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		100.0		71.0		90.0		120.0		110.0		67.0		59.0		NS		NS		NS	
MW-13S	NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		9.1	
MW-1I	NS		NS		NS		NS		0.0042	UB	0.0011	UB	0.0031	UB	0.0028		0.0025		0.0024		0.0018		0.0026		0.0011		0.0015		0.0010		0.0012		0.0025		0.83		0.13		NS		NS		NS	
MW-2I	NS		NS		NS		NS		0.0018	UB	0.0010	UB	0.0016	UB	0.00064		0.0027		0.0018		0.0018		0.0024		0.0013		0.0015		0.0012		0.0014		0.0010		0.58		0.10	U	0.019		0.012		0.0069	
MW-3I	NS		NS		NS		NS		1.6	B	0.91	B	0.86	B	0.69		0.56		0.54		0.42		0.48		0.49		0.45		0.32		0.39		0.39		0.38		0.10	U	NS		NS		NS	
MW-4I	NS		NS		NS		NS		0.0078	UB	0.0019	UB	0.0052	B	0.0012		0.0040		0.0023		0.0022		0.0030		0.0021		0.0024		0.0017		0.0017		0.0029		0.015		0.10	U	0.12		0.005	U	0.055	
MW-5I	NS		NS		NS		NS		0.0047	UB	0.0034	UB	0.0049	B	0.00009		0.0027		0.0017		0.0017		0.0026		0.0013		0.0014		0.0016		0.0014		0.0025		0.0050	U	0.10	U	NS		NS		NS	
MW-6I	NS		NS		NS		NS		0.0075	UB	0.0013	UB	0.0023	UB	0.0020		0.0033		0.0021		0.0020		0.0012		0.0014		0.0016		0.0011		0.0015		0.0028		0.0050	U	0.13		NS		NS		NS	
MW-7I	NS		NS		NS		NS		0.0017	UB	0.00073	UB	0.0011	UB	0.00070		0.0029		0.0018		0.0017		0.0027		0.0019		0.0013		0.0010	U	0.0012		0.0026		0.0059		0.10	U	NS		NS		NS	
MW-8I	NS		NS		NS		NS		0.021	UB	0.0027	UB	0.0040	UB	0.0017		0.0043		0.0026		0.0023		0.012		0.0063		0.0016		0.0048		0.011		0.0012		0.0050	U	0.10	U	NS		NS		NS	
MW-9I	NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		0.0020		0.0023		0.0028		0.0061		0.0010		0.18		0.10	U	0.0010	U	0.005	U	0.019	
MW-10I	NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		0.0027		0.0030		0.0018		0.0023		0.0038		0.0050	U	0.10	U	0.0010	U	0.005	U	0.0050	U
MW-11I	NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		0.0025		0.086		0.097		0.067		0.025		0.12		0.80		NS		NS		NS	
MW-12I	NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		0.2900		0.220		0.150		0.130		0.220		0.10		1.00		NS		NS		NS	
MW-13I	NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		0.30	

Notes:
Results shown are in mg/L.
Detection limit changed in 3Q17 event due to the analytical laboratory changing the analytical method for testing.
NS: Not sampled
Data Qualifiers:
U: Constituent was not detected, reporting limit is shown
J: Constituent was detected, concentration is estimated
B: Constituent was detected in an associated blank sample

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Table 2: Dissolved Lead Concentrations by Well and Groundwater Monitoring Event

Well Location	3Q 2011	Qual	4Q 2011	Qual	2Q 2012	Qual	3Q 2012	Qual	4Q 2012	Qual	1Q 2013	Qual	2Q 2013	Qual	3Q 2013	Qual	4Q 2013	Qual	1Q 2014	Qual	2Q 2014	Qual	3Q 2014	Qual	4Q 2014	Qual	1Q 2015	Qual	2Q 2015	Qual	3Q 2015	Qual	4Q 2015	Qual	3Q 2016	Qual	3Q 2017	Qual	3Q 2018	Qual	3Q 2019	Qual	3Q 2020	Qual
MW-1S	0.010	U	0.010	U	0.010	U	0.010	U	0.0010	U	0.00010	U	0.00010	U	0.00010	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.0020	U	0.080	U	NS		NS		NS	
MW-2S	0.010	U	0.010	U	0.010	U	0.010	U	0.0010	U	0.00010	U	0.00010	U	0.00010	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.0020	U	0.080	U	0.0010	U	0.004	U	0.004	U
MW-3S	0.0052	J	0.30		0.28		0.034		0.13		0.11	B	0.15	B	0.090		0.18		0.13		0.083		0.094		0.14		0.15		0.14		0.083		0.14		0.10		0.11		NS		NS		NS	
MW-4S	0.010	U	0.0022	J	0.0020	J	0.010	U	0.0010	U	0.00010	U	0.00072	UB	0.00015		0.00040	U	0.00040	U	0.00044		0.00053		0.00097		0.00061		0.00072		0.00080		0.00070		0.0020	U	0.080	U	0.10	U	0.004	U	0.004	U
MW-5S	0.010	U	0.010	U	0.010	U	0.010	U	0.0010	U	0.00010	U	0.00010	U	0.00010	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.0020	U	0.080	U	NS		NS		NS	
MW-6S	0.022		0.0032	J	0.010	U	0.010	U	0.0031		0.00062	UB	0.00081	B	0.00037		0.00040	U	0.00040	U	0.00064		0.0013		0.00092		0.0012		0.00042		0.0013		0.0012		0.0020	U	0.080	U	NS		NS		NS	
MW-7S	0.012		0.010	U	0.010	U	0.010	U	0.0010	U	0.00010	U	0.00010	U	0.00010	U	0.00040	U	0.00040	U	0.00040	U	0.00065		0.00040	U	0.0012		0.00040	U	0.00040	U	0.00040	U	0.0020	U	0.080	U	NS		NS		NS	
MW-8S	NS		NS		NS		NS		0.0012		0.00010	U	0.00010	U	0.00024		0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.0020	U	0.080	U	NS		NS		NS	
MW-9S	NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.0020	U	0.080	U	0.0010	U	0.004	U	0.004	U
MW-10S	NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		0.017		0.023		0.027		0.042		0.031		0.018		0.080	U	0.077		0.096		0.25	
MW-11S	NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		0.027		0.052		0.047		0.058		0.087		0.15		0.27		NS		NS		NS	
MW-12S	NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		0.087		0.010		0.019		0.060		0.051		0.00	U	0.08	U	NS		NS		NS	
MW-13S	NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		0.28	
MW-1I	NS		NS		NS		NS		0.0010	U	0.00010	U	0.00010	U	0.00010	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.0020	U	0.080	U	NS		NS		NS	
MW-2I	NS		NS		NS		NS		0.0010	U	0.00010	U	0.00010	U	0.00010	U	0.00043		0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.0020	U	0.080	U	0.0010	U	0.004	U	0.004	U
MW-3I	NS		NS		NS		NS		0.014		0.00084	UB	0.0010	UB	0.00026		0.00040	U	0.00040	U	0.0011		0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.0020	U	0.080	U	NS		NS		NS	
MW-4I	NS		NS		NS		NS		0.0010	U	0.00010	U	0.00010	U	0.00010	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.0020	U	0.080	U	0.0010	U	0.004	U	0.004	U
MW-5I	NS		NS		NS		NS		0.0010	U	0.00010	UB	0.00011	UB	0.00010	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.0020	U	0.080	U	NS		NS		NS	
MW-6I	NS		NS		NS		NS		0.0010	U	0.00010	U	0.00010	U	0.00010	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.0020	U	0.080	U	NS		NS		NS	
MW-7I	NS		NS		NS		NS		0.0010	U	0.00010	U	0.00010	U	0.00010	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.0020	U	0.080	U	NS		NS		NS	
MW-8I	NS		NS		NS		NS		0.0010	U	0.00050	U	0.00010	UB	0.00010	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.0020	U	0.080	U	NS		NS		NS	
MW-9I	NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		0.0031		0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.0020	U	0.080	U	0.0010	U	0.004	U	0.004	U
MW-10I	NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.00040	U	0.0020	U	0.080	U	0.0010	U	0.004	U	0.004	U
MW-11I	NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		0.00040	U	0.015		0.023		0.014		0.0040		0.042		0.12		NS		NS		NS	
MW-12I	NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		0.00097		0.000	U	0.000	U	0.000	U	0.0011		0.002	U	0.08	U	NS		NS		NS	
MW-13I	NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		NS		0.0067	

Notes:
Results shown are in mg/L.
Detection limit changed in 3Q17 event due to the analytical laboratory changing the analytical method for testing.
NS: Not sampled
Data Qualifiers:
U: Constituent was not detected, reporting limit is shown
J: Constituent was detected, concentration is estimated
B: Constituent was detected in an associated blank sample

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Figures

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Legend

Superlon Property Boundary

0 400 800 1,200 Feet

PIONEER TECHNOLOGIES CORPORATION

Superlon Property Location
2020 Groundwater Monitoring Report
Superlon Plastics Property, Tacoma, Washington

Figure 1

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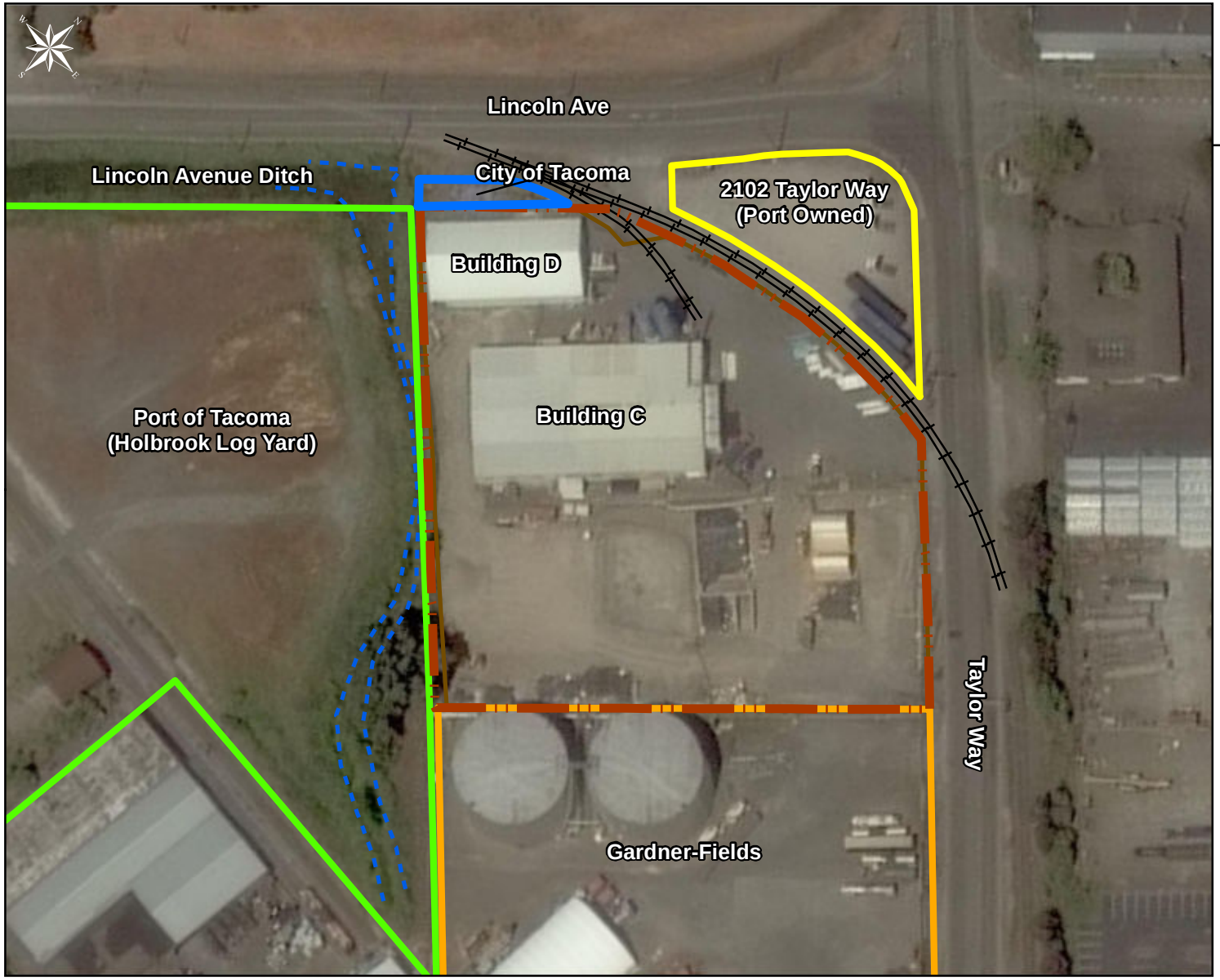

Legend

- Superlon Property Boundary
- City of Tacoma
- Gardner-Fields
- Port of Tacoma
- 2102 Taylor Way (Port Owned)
- Railroad
- Fence
- Ditch

0 50 100 150 200 Feet

PIONEER TECHNOLOGIES CORPORATION

Property Features
2020 Groundwater Monitoring Report
Superlon Plastics Property, Tacoma, Washington

Figure 2

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Legend

Monitoring Wells
- Shallow Aquifer
- Intermediate Aquifer
- Decommissioned Well

Property Features
- Railroad
- Fence
- Ditch
- Property Boundary

0 50 100 Feet

PIONEER TECHNOLOGIES CORPORATION

Monitoring Well Locations
2020 Groundwater Monitoring Report
Superlon Plastics Site, Tacoma, Washington

Figure 3

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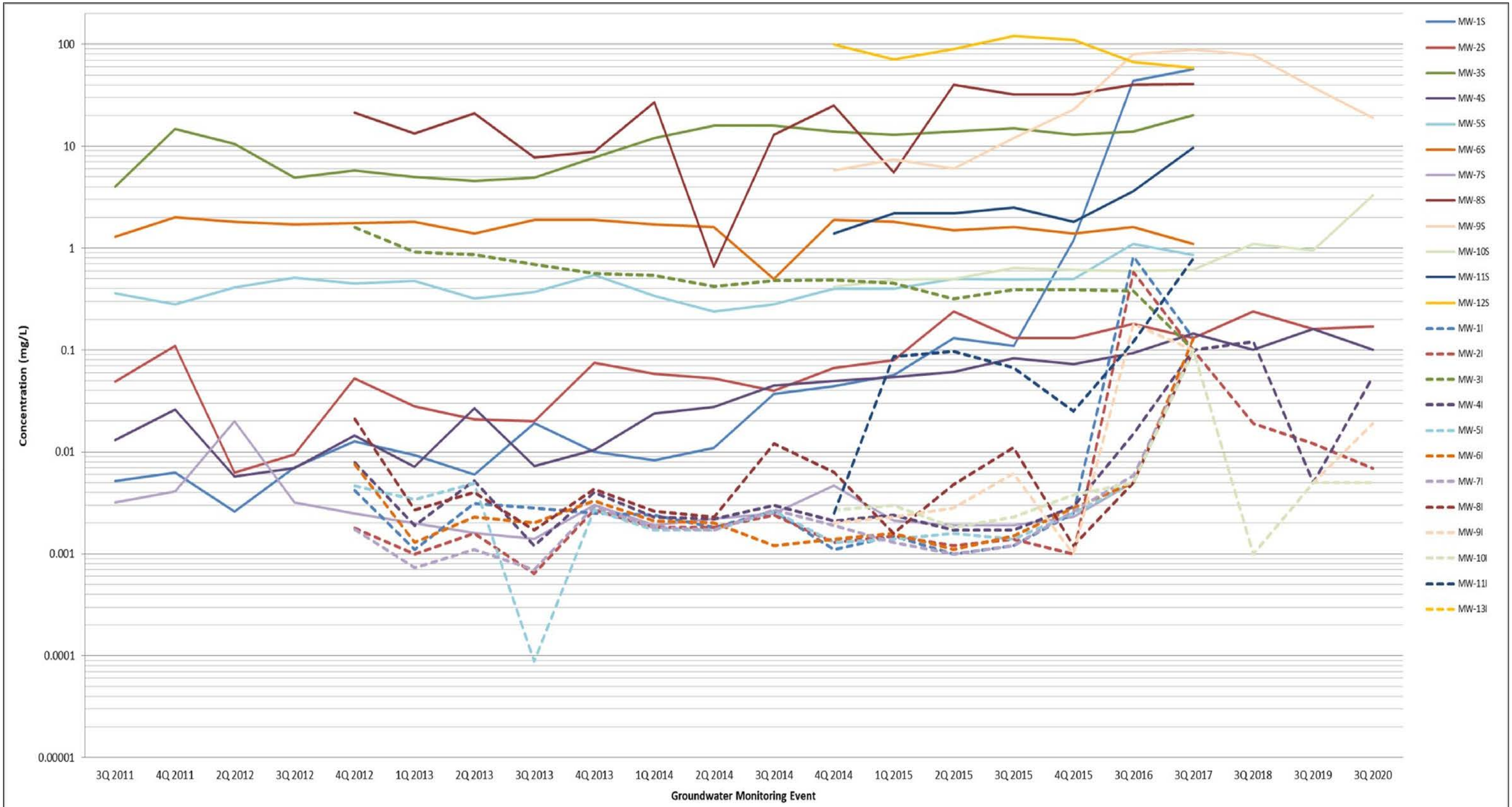

PIONEER TECHNOLOGIES CORPORATION

Dissolved Arsenic Trend in the Shallow and Intermediate Aquifers
2020 Groundwater Monitoring Report
Superlon Plastics Property, Tacoma, Washington

Figure 4

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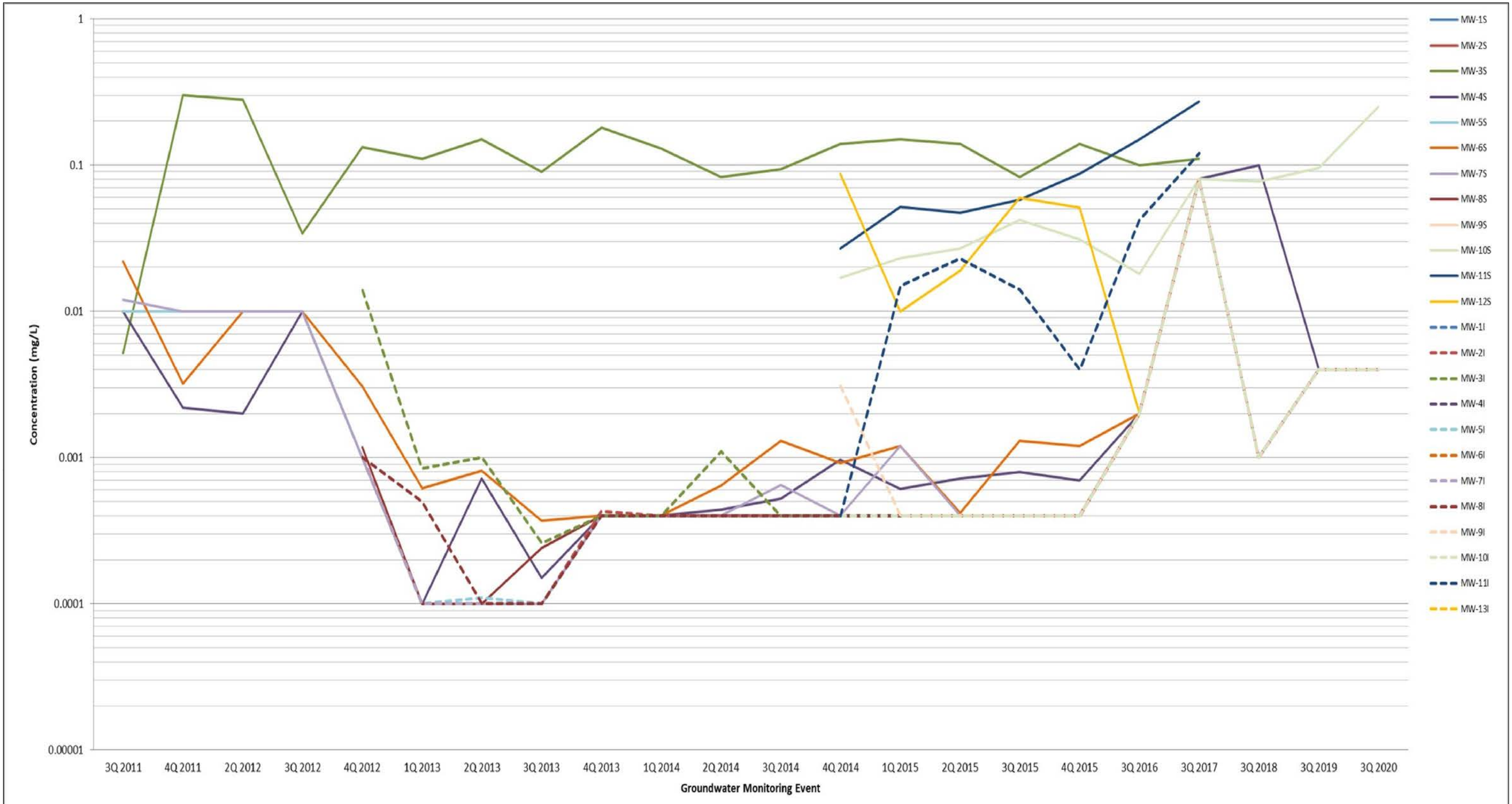

PIONEER TECHNOLOGIES CORPORATION

Dissolved Lead Trend in the Shallow and Intermediate Aquifers
2020 Groundwater Monitoring Report
Superlon Plastics Property, Tacoma, Washington

Figure 5

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Appendix A

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PIONEER TECHNOLOGIES CORPORATION (PIONEER)
GROUNDWATER MONITORING FORM

Stabilization:
SWL < 0.33 ft | Turb ± 10%
pH ± 0.1 | DO ± 0.3 mg/L
SC, Temp ± 3% | ORP ± 10 mV

SITE NAME: Superlon **FIELD TECHNICIAN(S):** Melisa Regans / Hannah B. **DATE:** 08/05/20

Ecology ID	WELL INFO				DTW				PURGING												SAMPLE COLLECTION		PURGE WATER	
											Stabilization													
	Well ID	Total Depth (ft)	Screen Interval (ft)	Current Condition (e.g., seal, cover, cap, casing, lock)	Time	Depth to NAPL (ft)	Depth to Water (ft)	NAPL Thick. (ft)	Pump Type	Intake Depth (ft)	Elaps. Time (min)	Flow Rate (L/min)	SWL (ft)	pH	Spec. Cond. (mS/cm)	Turb (NTU)	D.O. (mg/L)	Temp (°C)	ORP (mV)	Time	Field Kit Results / General Comments	Vol (gal)	Disposal / Storage Comments
BHS 401	MW-2S	29.65		-good condition	08:25	—	9.06	—	Peri	22.06	8:25	~100	9.06	6.53	0.776	70.13	1.48	14.2	-35.0				
											8:28	↓	9.05	6.43	0.778	56.41	0.78	13.9	-40				
											8:31		9.05	6.40	0.779	46.2	0.58	13.8	-43.6				
											8:34		9.06	6.37	0.781	41.60	0.48	13.8	-47.0				
											8:37		9.06	6.36	0.784	36.9	0.44	13.8	-48.9				
											8:40		9.06	6.36	0.787	36.7	0.40	14.0	-50.7				
											8:43	↓	9.05	6.36	0.790	54.3	0.39	14.0	-53.0	8:43	SLON-MW2S-GW-080520	~1	
BHS 526	MW-13S			-good condition	09:55	—	5.88	—	Peri	7.56	9:55	~100	5.88	11.66	1.630	4,182	0.33	15.5	-131.1				
											9:58		5.86	11.66	1.627	4,10.13	0.29	15.6	-145.5				
											10:01		5.89	11.65	1.606	333.18	0.25	15.5	-160.3	10:10	SLON-MW13S-GW-080520	~4	
											10:04		5.89	11.66	1.607	356.45	0.23	15.4	-169.4				
											10:07		5.88	11.65	1.594	340.51	0.22	15.4	-172.3				
											10:10	↓	5.98	1164	1.581	335.21	0.20	154	-175.3				
BHS 392	MW-4I	30.51		-good condition -sensor installed	11:25	—	5.10	—	Peri	7.10	11:25	~100	5.10	8.11	1.868	8.64	0.78	15.1	-57.9				
											11:28		5.10	7.72	1869	12.60	0.49	15.0	-74.5				
											11:31		5.11	7.53	1.879	14.50	0.42	14.9	-79.6				
											11:34		5.11	7.49	1.891	13.16	0.34	14.8	-84.9				
											11:37		5.10	7.46	1.906	15.30	0.30	14.5	-86.4				
											11:40		5.11	7.46	1.911	12.52	0.27	14.4	-87.7				
[illegible]				[illegible]							11:43	↓	5.11	7.45	1.920	12.36	0.25	14.5	-90.2	11:43	SLON-MW4I-GW-080520	~1.5	
	MW-9I			-no lock	12:47	—	11.22	—	Peri	13.22	12:47	~100	11.22	8.09	6.462	15.50	0.49	16.6	-157.1				
											12:50		11.22	8.10	6.479	14.89	0.25	16.6	-175.5				
											12:53		11.23	8.09	6.493	14.40	0.25	16.4	-187.4	12:56	SLON-MW9I-GW-080520 SLON-MW9I-GW-080520-D	~1.5	
											12:56	↓	11.22	8.10	6.513	13.89	0.24	16.5	-188.9				

PIONEER TECHNOLOGIES CORPORATION (PIONEER)
GROUNDWATER MONITORING FORM

Stabilization:
SWL < 0.33 ft | Turb ± 10%
pH ± 0.1 | DO ± 0.3 mg/L
SC, Temp ± 3% | ORP ± 10 mV

SITE NAME: Superior **FIELD TECHNICIAN(S):** Melisa Kegans / Hannah B. **DATE:** 08/05/20

Ecology ID

BID 702

WELL INFO				DTW				PURGING											SAMPLE COLLECTION		PURGE WATER	
										Stabilization												
Well ID	Total Depth (ft)	Screen Interval (ft)	Current Condition (e.g., seal, cover, cap, casing, lock)	Time	Depth to NAPL (ft)	Depth to Water (ft)	NAPL Thick. (ft)	Pump Type	Intake Depth (ft)	Elaps. Time (min)	Flow Rate (L/min)	SWL (ft)	pH	Spec. Cond. (mS/cm)	Turb (NTU)	D.O. (mg/L)	Temp (°C)	ORP (mV)	Time	Field Kit Results / General Comments	Vol (gal)	Disposal / Storage Comments
MW-10I			- no lock - good condition	14:20	–	9.89	–	Peri.	11.89	14:20	~100	9.89	7.24	8.852	16.12	0.30	18.9	-110.1	14:29	SLOW - MW10I - GW - 080520	~1	
										14:23	↓	9.89	7.25	8.822	17.52	0.11	18.4	-111.2				
										14:26		9.91	7.27	8.813	17.43	0.09	18.2	-112.4				
										14:29	↓	9.91	7.27	8.805	17.62	0.08	18.0	-112.6				

2/2

PIONEER TECHNOLOGIES CORPORATION (PIONEER)
GROUNDWATER MONITORING FORM

Stabilization:	
SWL < 0.33 ft	Turb ± 10%
pH ± 0.1	DO ± 0.3 mg/L
SC, Temp ± 3%	ORP ± 10 mV

SITE NAME: Superion **FIELD TECHNICIAN(S):** Hannah Briley **DATE:**

WELL INFO				DTW				PURGING													SAMPLE COLLECTION		PURGE WATER	
										Stabilization														
Well ID	Total Depth (ft)	Screen Interval (ft)	Current Condition (e.g., seal, cover, cap, casing, lock)	Time	Depth to NAPL (ft)	Depth to Water (ft)	NAPL Thick. (ft)	Pump Type	Intake Depth (ft)	Elaps. Time (min)	Flow Rate (L/min)	SWL (ft)	pH	Spec. Cond. (mS/cm)	Turb (NTU)	D.O. (mg/L)	Temp (°C)	ORP (mV)	Time	Field Kit Results / General Comments	Vol (gal)	Disposal / Storage Comments
2I	47.18		No lock on cap; Good Cond.	7:09	/	9.47	/	Peri	11.47	738	100	9.59	7.10	1.771	4.07	0.79	14.0	99.1				
										741		9.59	7.27	1.763	6.42	0.70	14.9	101.6				
										744		9.60	7.36	1.768	6.52	0.68	14.9	115.6	755	SLON-MW2I GW-08052020	1	
										748		9.60	7.39	1.772	7.35	0.42	14.6	129.9				
										751		9.59	7.39	1.771	7.39	0.31	14.6	133.9				
										754		9.55	7.40	1.771	7.07	0.26	14.4	139.8				
13I	49.20		Good Cond.	900	/	6.21	/	Peri	8.21	927		6.23	7.55	2.567	145.60	1.09	14.4	137.6				
										930		6.23	7.51	3.048	124.30	0.52	14.2	37.4				
										933		6.22	7.51	3.669	104.31	0.27	14.3	40.9				
										936		6.22	7.51	3.890	101.26	0.23	14.8	-70.9	946	Clear; no odor SLON-MW13I GW-08052020	3	
										939		6.23	7.53	4.292	99.82	0.19	15.2	-86.8				
										941		6.23	7.54	4.896	96.47	0.17	15.4	-91.8				
										944		6.23	7.54	4.576	90.85	0.16	15.3	-98.7				
										947		6.22	7.53	5.139	87.61	0.14	15.2	-101.3				
												/	/	/	/	/	/	/				
4S	22.79		Water level sensor; Bottson Cap wrong size	1108	/	4.48	/	Peri	6.48	1125		4.43	7.03	3.223	9.94	0.50	16.4	-106.8				
										1128		4.44	6.99	3.229	8.12	0.19	15.6	-112.9				
										1131		4.50	6.99	3.227	12.83	0.09	15.1	-115.3				
										1134		4.49	6.99	3.230	11.82	0.06	14.9	-116.7	1143	SLON-MW4S GW-08052020	2.5	
										1137		4.49	7.01	3.226	9.96	0.03	14.7	-118.9				
										1140		4.49	7.02	3.224	9.72	0.02	14.7	-120.5				
										1143		4.49	7.00	3.230	9.10	0.02	14.7	-121.0				
												/	/	/	/	/	/	/				
9S	31.73		Vegetation covering the well; Pressure in well; No lock	1227	/	10.45	/	Peri	12.45	1255		10.57	7.00	4.003	804.73	0.40	17.1	-128.3				
										1258		10.57	6.97	3.890	727.43	0.18	17.0	-131.6				
										1301		10.58	6.96	3.769	544.91	0.06	17.0	-133.2				
										1304		10.58	6.96	3.678	507.61	0.04	17.0	-133.8	1307	Purged over 20 min Brown water SLON-MW9S GW-08052020	3	
										1307		10.60	6.97	3.588	561.22	0.04	17.0	-134.8				

PIONEER TECHNOLOGIES CORPORATION (PIONEER)
GROUNDWATER MONITORING FORM

Stabilization	
SWL < 0.33 ft	Turb ± 10%
pH ± 0.1	DO ± 0.3 mg/L
SC, Temp ± 3%	ORP ± 10 mV

SITE NAME: Superlon **FIELD TECHNICIAN(S):** Hannah Briley **DATE:**

WELL INFO				DTW				PURGING													SAMPLE COLLECTION		PURGE WATER	
										Stabilization														
Well ID	Total Depth (ft)	Screen Interval (ft)	Current Condition (e.g., seal, cover, cap, casing, lock)	Time	Depth to NAPL (ft)	Depth to Water (ft)	NAPL Thick. (ft)	Pump Type	Intake Depth (ft)	Elaps. Time (min)	Flow Rate (L/min)	SWL (ft)	pH	Spec. Cond. (mS/cm)	Turb (NTU)	D.O. (mg/L)	Temp (°C)	ORP (mV)	Time	Field Kit Results / General Comments	Vol (gal)	Disposal / Storage Comments
10S	21.32		No lock; Good Condition	1356	/	9.25	/	Peri	11.25	1413	100	9.23	7.50	2.903	6.43	0.77	19.8	-141	1419	Murky water, strong odor	3	
										1416	↓	9.23	7.47	2.885	18.63	0.46	19.6	-144	1426			
										1419		9.31	6.99	3.133	29.11	0.33	19.4	-136	1436	SLON-MW10S GW-08052020		
										1423		9.31	6.97	3.146	51.04	0.22	19.6	-126	1446			
										1426		9.38	7.01	3.070	52.54	0.31	19.4	-130	1456			
										1429		9.38	6.96	3.162	51.78	0.20	19.3	-122	1506			
10I	45.36		~~No lock;~~ Good Condit.																					

Appendix B

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QA/QC SOLUTIONS, LLC

James J. Mc Ateer, Jr., BS, MRSC
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Salem, Oregon 97306
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August 30, 2020

Jeff King, L.G.
Pacific Environmental and Redevelopment (PERC-NW)
8424 East Meadow Lake Drive
Snohomish, WA 98290

Subject: Data Validation Review for the Superlon Plastics Site Annual 2020
Groundwater Monitoring Well Sampling Event
Task Order No.: 20-1
QA/QC Solutions, LLC Project No.: 081220.1

Sent via e-mail to jking@perc-nw.com on August 30, 2020

Dear Jeff:

This letter documents the results of the data validation review for the analysis of dissolved arsenic and dissolved lead completed on groundwater samples associated with Superlon Plastic Site Annual 2020 groundwater monitoring well sampling event.

The data reported were validated to verify applicable laboratory quality assurance and quality control (QA/QC) procedures were documented and of sufficient quality to support its intended purpose(s). A summary of the overall assessment of data quality, the data set, a summary of the analytical methods used to complete the chemical analyses, a summary of the data validation procedures used, and a summary of the reasons why data were qualified (including other items noted during data validation) is presented below.

Overall Assessment of Data Quality

Overall, the data reported are of good quality and the results for the applicable QA/QC procedures that were used by the laboratory during the analysis of the samples were acceptable. During data validation the dissolved arsenic result reported for Sample SLON-MW9I-GW-08052020 and its associated field replicate Sample SLON-MW9I-GW-08052020-D required qualification as estimated (*J*). No sample results required restatement as undetected (*U*) or rejection (*R*).

Data Set

The data set consisted of 11 groundwater samples, (10 filtered samples and 1 filtered field duplicate sample) which were collected on August 5, 2020. A summary of the samples collected and the analyses completed is presented in Table 1. Analyses were completed by Eurofins TestAmerica Seattle located in Tacoma, Washington under Laboratory Job ID 580-96555-1.

QA/QC Solutions, LLC received an abbreviated (Level 2) data summary but no electronic data deliverable (EDD from Pioneer Technologies, Inc.

Analytical Methods

Analysis of dissolved arsenic and lead was completed by filtration through 0.45-µm filter at the laboratory, digestion using nitric and hydrochloric acids, and analysis by inductively coupled plasma-mass spectrometry (ICP-MS) using U.S. EPA SW-846 Methods 3005A and 6020B (U.S. EPA 2020). Data users should note that filtration through 0.45-µm filter in not indicative of a "truly dissolved" water fraction.

Data Validation Procedures

Data validation procedures included evaluating a summary of the sample results and applicable quality control results reported by the laboratory. This level of validation is also referred to as an abbreviated data review. The analytical data were validated generally following the applicable guidance and requirements specified in:

- *Guidance on Environmental Data Verification and Validation* (U.S. EPA 2002).
- *Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use*. OSWER No. 9200.1-85. EPA 540-R-08-005. (U.S. EPA 2009).
- National Functional Guidelines for Inorganic Data Superfund Data Review. Final. OLEM 9355.0-135. EPA-540-R-2017-001. January 2017. U.S. Environmental Protection Agency (EPA), Office of Superfund Remediation and Technology Innovation (OSRTI), Washington, DC. (U.S. EPA 2017).
- Method-specific and laboratory-established quality control requirements, as applicable.

The laboratory data deliverables that were validated included the following:

- Case narrative discussing analytical problems (if any) and procedures.
- Chain-of-custody (COC) documentation to verify completeness of the data set.
- Sample preparation logs or laboratory summary result forms to verify analytical holding times were met.
- Results for the method blank to determine whether an analyte that was reported as detected in any sample was the result of possible contamination introduced at the laboratory.
- Results for laboratory control sample (LCS) (i.e., blank spike), duplicate LCS, matrix spike (MS), and matrix spike duplicate (MSD) recoveries to assess analytical accuracy.
- Results for applicable laboratory duplicate sample, duplicate LCS, and MSD analyses to assess analytical precision.
- Results for the field duplicate sample to provide additional information in support of the quality assurance review.
- Laboratory summaries of analytical results.

Verification and validation of 100-percent of all applicable laboratory calculations, transcriptions, review of instrument printouts, and review of bench sheets were not completed during the data validation review. There may be analytical problems that could only be identified by reviewing every instrument printouts and associated analytical quality control results. Verification of all possible factors that could result in the degradation of data quality was not completed nor should be inferred at this time. The laboratory case

narrative did not indicate any significant problems with data that were not reviewed during data validation. The adequacy of the sampling procedures was not completed during the data validation.

Performance based control limits established by the laboratory, applicable control limits specified in the analytical methods, and best professional judgement were used to evaluate data quality and to determine if specific data required qualification. Data qualifiers were assigned during data validation following guidance specified by U.S. EPA (2002 and 2017) to the EDD when applicable QC measurement criteria were not met and qualification of the data was warranted.

Reasons for Data Qualification

During data validation the dissolved arsenic result reported for Sample SLON-MW9I-GW-08052020 (dissolved arsenic at 19 ug/L) and its associated field duplicate Sample SLON-MW9I-GW-08052020-D (dissolved arsenic not detected (*U*) at 1 ug/L) required qualification as estimated (*J*). These results required qualification because dissolved arsenic was reported as detected at a concentration well above the method detection limit of 1.0 ug/L and the reporting limit of 4 ug/L in the primary sample, but not detected in the associated field duplicate. No explanation for such differences in concentrations for these two samples can be provided at this time

General Comments:

- In some instances, selected samples required dilution prior to analysis (as is required by the analytical methods) to obtain concentrations that were within the linear range of the instrument or to minimize the effects of matrix interferences to obtain reportable results.

This concludes the data validation review. Should you have any questions regarding the information presented herein, please contact me by telephone at 503.763.6948 or by e-mail at jjmcateer@msn.com.

Cordially,

James J. Mc Ateer, Jr., BS, MRSC
Managing Member

cc: Brad Grimsted, Pioneer Technologies Corporation via email at GrimstedB@uspioneer.com
Hannah Briley, Pioneer Technologies Corporation via email at BrileyH@uspioneer.com

Attachment

References

U.S. EPA 2002. Guidance on Environmental Data Verification and Data Validation. EPA QA/G-8. EPA/240/R-02/004. November 2002. U.S. Environmental Protection Agency, Office of Environmental Information, Washington DC.

U.S. EPA 2009. Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use. OSWER No. 9200.1-85. EPA 540-R-08-005. January 13, 2009. U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response, Washington, DC.

U.S. EPA 2017. National Functional Guidelines for Inorganic Data Superfund Data Review. Final. OLEM 9355.0-135. EPA-540-R-2017-001. January 2017. U.S. Environmental Protection Agency (EPA), Office of Superfund Remediation and Technology Innovation (OSRTI), Washington, DC.

U.S. EPA 2020. SW-846 on-line. Test methods for evaluating solid wastes, physical/chemical methods. https://www.epa.gov/hw-sw846/sw-846-compendium (last updated on April 16, 2020). U.S. Environmental Protection Agency, Office of Solid Waste, Washington, DC.

Table 1. Summary of Samples Collected and Analyses Completed

Sample Number	Laboratory Sample Number	Sample Date	Dissolved Arsenic and Lead by 6020B
SLON-MW2I-GW-08052020	580-96555-1	08/05/20	✓
SLON-MW2S-GW-08052020	580-96555-2	08/05/20	✓
SLON-MW13I-GW-08052020	580-96555-3	08/05/20	✓
SLON-MW13S-GW-08052020	580-96555-4	08/05/20	✓
SLON-MW4S-GW-08052020	580-96555-5	08/05/20	✓
SLON-MW4I-GW-08052020	580-96555-6	08/05/20	✓
SLON-MW9S-GW-08052020	580-96555-7	08/05/20	✓
SLON-MW9I-GW-08052020	580-96555-8	08/05/20	✓
SLON-MW9I-GW-08052020-D	580-87870-9	08/05/20	✓
SLON-MW10S-GW-08052020	580-96555-10	08/05/20	✓
SLON-MW10I-GW-08052020	580-96555-11	08/05/20	✓

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eurofins | Environment Testing America

ANALYTICAL REPORT

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

Laboratory Job ID: 580-96555-1
Client Project/Site: Superlon

For:
Pioneer Technologies Corporation
5205 Corporate Ctr. Ct. SE
Ste A
Olympia, Washington 98503

Attn: Brad Grimsted

Authorized for release by:
8/14/2020 10:51:32 AM
Sheri Cruz, Project Manager I
(253)922-2310
Sheri.Cruz@Eurofinset.com

Designee for

Elaine Walker, Project Manager II
(253)248-4972
m.elaine.walker@eurofinset.com

Table of Contents

Job ID: 580-96555-1

Laboratory: Eurofins TestAmerica, Seattle

Narrative

Job Narrative
580-96555-1

Comments
No additional comments.

Receipt
The samples were received on 8/5/2020 3:00 PM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 13.3º C.

Receipt Exceptions
The following samples were received at the laboratory outside the required temperature criteria: SLON-MW2I-GW-08052020 (580-96555-1), SLON-MW2S-GW-08052020 (580-96555-2), SLON-MW13I-GW-08052020 (580-96555-3), SLON-MW13S-GW-08052020 (580-96555-4), SLON-MW4S-GW-08052020 (580-96555-5), SLON-MW4I-GW-08052020 (580-96555-6), SLON-MW9S-GW-08052020 (580-96555-7), SLON-MW9I-GW-08052020 (580-96555-8), SLON-MW9I-08052020-D (580-96555-9), SLON-MW10S-GW-08052020 (580-96555-10) and SLON-MW-10I-GW-08052020 (580-96555-11). The sample(s) is considered acceptable since it was collected and submitted to the laboratory on the same day and there is evidence that the chilling process has begun.

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

Definitions/Glossary

Client: Pioneer Technologies Corporation
Project/Site: Superlon

Job ID: 580-96555-1

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
CFU	Colony Forming Unit
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)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
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)
TNTC	Too Numerous To Count

Client Sample Results

Client: Pioneer Technologies Corporation
Project/Site: Superlon

Job ID: 580-96555-1

Client Sample ID: SLON-MW2I-GW-08052020
Date Collected: 08/05/20 07:54
Date Received: 08/05/20 15:00

Lab Sample ID: 580-96555-1
Matrix: Water

Method: 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**6.9**		5.0	1.0	ug/L		08/11/20 08:09	08/12/20 20:16	5
Lead	ND		4.0	1.0	ug/L		08/11/20 08:09	08/12/20 20:16	5

Client Sample Results

Client: Pioneer Technologies Corporation
Project/Site: Superlon

Job ID: 580-96555-1

Client Sample ID: SLON-MW2S-GW-08052020
Date Collected: 08/05/20 08:43
Date Received: 08/05/20 15:00

Lab Sample ID: 580-96555-2
Matrix: Water

Method: 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**170**		5.0	1.0	ug/L		08/11/20 08:09	08/12/20 20:57	5
Lead	ND		4.0	1.0	ug/L		08/11/20 08:09	08/12/20 20:57	5

Client Sample Results

Client: Pioneer Technologies Corporation
Project/Site: Superlon

Job ID: 580-96555-1

Client Sample ID: SLON-MW13I-GW-08052020
Date Collected: 08/05/20 09:46
Date Received: 08/05/20 15:00

Lab Sample ID: 580-96555-3
Matrix: Water

Method: 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	300		5.0	1.0	ug/L		08/11/20 08:09	08/12/20 20:12	5
Lead	6.7		4.0	1.0	ug/L		08/11/20 08:09	08/12/20 20:12	5

Client Sample Results

Client: Pioneer Technologies Corporation
Project/Site: Superlon

Job ID: 580-96555-1

Client Sample ID: SLON-MW13S-GW-08052020

Lab Sample ID: 580-96555-4

Date Collected: 08/05/20 10:10

Matrix: Water

Date Received: 08/05/20 15:00

Method: 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	9100		5.0	1.0	ug/L		08/11/20 08:09	08/12/20 21:08	5
Lead	280		4.0	1.0	ug/L		08/11/20 08:09	08/12/20 21:08	5

Client Sample Results

Client: Pioneer Technologies Corporation
Project/Site: Superlon

Job ID: 580-96555-1

Client Sample ID: SLON-MW4S-GW-08052020
Date Collected: 08/05/20 11:43
Date Received: 08/05/20 15:00

Lab Sample ID: 580-96555-5
Matrix: Water

Method: 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**100**		5.0	1.0	ug/L		08/11/20 08:09	08/12/20 21:12	5
Lead	ND		4.0	1.0	ug/L		08/11/20 08:09	08/12/20 21:12	5

Client Sample Results

Client: Pioneer Technologies Corporation
Project/Site: Superlon

Job ID: 580-96555-1

Client Sample ID: SLON-MW4I-GW-08052020

Lab Sample ID: 580-96555-6

Date Collected: 08/05/20 11:43

Matrix: Water

Date Received: 08/05/20 15:00

Method: 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**55**		5.0	1.0	ug/L		08/11/20 08:09	08/12/20 21:04	5
Lead	ND		4.0	1.0	ug/L		08/11/20 08:09	08/12/20 21:04	5

Client Sample Results

Client: Pioneer Technologies Corporation
Project/Site: Superlon

Job ID: 580-96555-1

Client Sample ID: SLON-MW9S-GW-08052020
Date Collected: 08/05/20 13:07
Date Received: 08/05/20 15:00

Lab Sample ID: 580-96555-7
Matrix: Water

Method: 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**19000**		5.0	1.0	ug/L		08/11/20 08:09	08/12/20 21:01	5
Lead	ND		4.0	1.0	ug/L		08/11/20 08:09	08/12/20 21:01	5

Client Sample Results

Client: Pioneer Technologies Corporation
Project/Site: Superlon

Job ID: 580-96555-1

Client Sample ID: SLON-MW9I-GW-08052020

Lab Sample ID: 580-96555-8

Date Collected: 08/05/20 12:56

Matrix: Water

Date Received: 08/05/20 15:00

Method: 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**19**		5.0	1.0	ug/L		08/11/20 08:09	08/12/20 21:27	5
Lead	ND		4.0	1.0	ug/L		08/11/20 08:09	08/12/20 21:27	5

Client Sample Results

Client: Pioneer Technologies Corporation
Project/Site: Superlon

Job ID: 580-96555-1

Client Sample ID: SLON-MW9I-08052020-D

Date Collected: 08/05/20 12:56
Date Received: 08/05/20 15:00

Lab Sample ID: 580-96555-9

Matrix: Water

Method: 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	1.0	ug/L		08/11/20 08:09	08/12/20 21:23	5
Lead	ND		4.0	1.0	ug/L		08/11/20 08:09	08/12/20 21:23	5

Client Sample Results

Client: Pioneer Technologies Corporation
Project/Site: Superlon

Job ID: 580-96555-1

Client Sample ID: SLON-MW10S-GW-08052020

Lab Sample ID: 580-96555-10

Date Collected: 08/05/20 14:29
Matrix: Water
Date Received: 08/05/20 15:00

Method: 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3300		5.0	1.0	ug/L		08/11/20 08:09	08/12/20 21:16	5
Lead	250		4.0	1.0	ug/L		08/11/20 08:09	08/12/20 21:16	5

Client Sample Results

Client: Pioneer Technologies Corporation
Project/Site: Superlon

Job ID: 580-96555-1

Client Sample ID: SLON-MW-10I-GW-08052020

Date Collected: 08/05/20 14:29
Date Received: 08/05/20 15:00

Lab Sample ID: 580-96555-11

Matrix: Water

Method: 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	1.0	ug/L		08/11/20 08:09	08/12/20 21:19	5
Lead	ND		4.0	1.0	ug/L		08/11/20 08:09	08/12/20 21:19	5

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 580-335200/20-C
Matrix: Water
Analysis Batch: 335533

Client Sample ID: Method Blank
Prep Type: Dissolved
Prep Batch: 335255

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		5.0	1.0	ug/L		08/11/20 08:11	08/12/20 20:09	5
Lead	ND		4.0	1.0	ug/L		08/11/20 08:11	08/12/20 20:09	5

Lab Sample ID: LCS 580-335200/21-C
Matrix: Water
Analysis Batch: 335533

Client Sample ID: Lab Control Sample
Prep Type: Dissolved
Prep Batch: 335255

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Arsenic			1000	993		ug/L		99	80 - 120		
Lead			1000	1010		ug/L		101	80 - 120		

Lab Sample ID: LCSD 580-335200/22-C
Matrix: Water
Analysis Batch: 335533

Client Sample ID: Lab Control Sample Dup
Prep Type: Dissolved
Prep Batch: 335255

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic			1000	977		ug/L		98	80 - 120	2	20
Lead			1000	991		ug/L		99	80 - 120	2	20

Lab Sample ID: 580-96555-1 MS
Matrix: Water
Analysis Batch: 335533

Client Sample ID: SLON-MW2I-GW-08052020
Prep Type: Dissolved
Prep Batch: 335255

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Arsenic	6.9		1000	1010		ug/L		100	80 - 120		
Lead	ND		1000	1010		ug/L		101	80 - 120		

Lab Sample ID: 580-96555-1 MSD
Matrix: Water
Analysis Batch: 335533

Client Sample ID: SLON-MW2I-GW-08052020
Prep Type: Dissolved
Prep Batch: 335255

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	6.9		1000	977		ug/L		97	80 - 120	3	20
Lead	ND		1000	995		ug/L		99	80 - 120	2	20

Lab Sample ID: 580-96555-1 DU
Matrix: Water
Analysis Batch: 335533

Client Sample ID: SLON-MW2I-GW-08052020
Prep Type: Dissolved
Prep Batch: 335255

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Arsenic	6.9			6.74		ug/L				2	20
Lead	ND			ND		ug/L				NC	20

Lab Chronicle

Client: Pioneer Technologies Corporation
Project/Site: Superlon

Job ID: 580-96555-1

Client Sample ID: SLON-MW2I-GW-08052020

Lab Sample ID: 580-96555-1
Date Collected: 08/05/20 07:54
Matrix: Water
Date Received: 08/05/20 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	FILTRATION			335200	08/10/20 13:11	TMH	TAL SEA
Dissolved	Prep	3005A			335255	08/11/20 08:09	ART	TAL SEA
Dissolved	Analysis	6020B		5	335533	08/12/20 20:16	FCW	TAL SEA

Client Sample ID: SLON-MW2S-GW-08052020

Lab Sample ID: 580-96555-2
Date Collected: 08/05/20 08:43
Matrix: Water
Date Received: 08/05/20 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	FILTRATION			335200	08/10/20 13:11	TMH	TAL SEA
Dissolved	Prep	3005A			335255	08/11/20 08:09	ART	TAL SEA
Dissolved	Analysis	6020B		5	335533	08/12/20 20:57	FCW	TAL SEA

Client Sample ID: SLON-MW13I-GW-08052020

Lab Sample ID: 580-96555-3
Date Collected: 08/05/20 09:46
Matrix: Water
Date Received: 08/05/20 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	FILTRATION			335200	08/10/20 13:11	TMH	TAL SEA
Dissolved	Prep	3005A			335255	08/11/20 08:09	ART	TAL SEA
Dissolved	Analysis	6020B		5	335533	08/12/20 20:12	FCW	TAL SEA

Client Sample ID: SLON-MW13S-GW-08052020

Lab Sample ID: 580-96555-4
Date Collected: 08/05/20 10:10
Matrix: Water
Date Received: 08/05/20 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	FILTRATION			335200	08/10/20 13:11	TMH	TAL SEA
Dissolved	Prep	3005A			335255	08/11/20 08:09	ART	TAL SEA
Dissolved	Analysis	6020B		5	335533	08/12/20 21:08	FCW	TAL SEA

Client Sample ID: SLON-MW4S-GW-08052020

Lab Sample ID: 580-96555-5
Date Collected: 08/05/20 11:43
Matrix: Water
Date Received: 08/05/20 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	FILTRATION			335200	08/10/20 13:11	TMH	TAL SEA
Dissolved	Prep	3005A			335255	08/11/20 08:09	ART	TAL SEA
Dissolved	Analysis	6020B		5	335533	08/12/20 21:12	FCW	TAL SEA

Lab Chronicle

Client: Pioneer Technologies Corporation
Project/Site: Superlon

Job ID: 580-96555-1

Client Sample ID: SLON-MW4I-GW-08052020

Lab Sample ID: 580-96555-6

Date Collected: 08/05/20 11:43

Matrix: Water

Date Received: 08/05/20 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	FILTRATION			335200	08/10/20 13:11	TMH	TAL SEA
Dissolved	Prep	3005A			335255	08/11/20 08:09	ART	TAL SEA
Dissolved	Analysis	6020B		5	335533	08/12/20 21:04	FCW	TAL SEA

Client Sample ID: SLON-MW9S-GW-08052020

Lab Sample ID: 580-96555-7

Date Collected: 08/05/20 13:07

Matrix: Water

Date Received: 08/05/20 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	FILTRATION			335200	08/10/20 13:11	TMH	TAL SEA
Dissolved	Prep	3005A			335255	08/11/20 08:09	ART	TAL SEA
Dissolved	Analysis	6020B		5	335533	08/12/20 21:01	FCW	TAL SEA

Client Sample ID: SLON-MW9I-GW-08052020

Lab Sample ID: 580-96555-8

Date Collected: 08/05/20 12:56

Matrix: Water

Date Received: 08/05/20 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	FILTRATION			335200	08/10/20 13:11	TMH	TAL SEA
Dissolved	Prep	3005A			335255	08/11/20 08:09	ART	TAL SEA
Dissolved	Analysis	6020B		5	335533	08/12/20 21:27	FCW	TAL SEA

Client Sample ID: SLON-MW9I-08052020-D

Lab Sample ID: 580-96555-9

Date Collected: 08/05/20 12:56

Matrix: Water

Date Received: 08/05/20 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	FILTRATION			335200	08/10/20 13:11	TMH	TAL SEA
Dissolved	Prep	3005A			335255	08/11/20 08:09	ART	TAL SEA
Dissolved	Analysis	6020B		5	335533	08/12/20 21:23	FCW	TAL SEA

Client Sample ID: SLON-MW10S-GW-08052020

Lab Sample ID: 580-96555-10

Date Collected: 08/05/20 14:29

Matrix: Water

Date Received: 08/05/20 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	FILTRATION			335200	08/10/20 13:11	TMH	TAL SEA
Dissolved	Prep	3005A			335255	08/11/20 08:09	ART	TAL SEA
Dissolved	Analysis	6020B		5	335533	08/12/20 21:16	FCW	TAL SEA

Lab Chronicle

Client: Pioneer Technologies Corporation
Project/Site: Superlon

Job ID: 580-96555-1

Client Sample ID: SLON-MW-10I-GW-08052020

Date Collected: 08/05/20 14:29
Date Received: 08/05/20 15:00

Lab Sample ID: 580-96555-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Filtration	FILTRATION			335200	08/10/20 13:11	TMH	TAL SEA
Dissolved	Prep	3005A			335255	08/11/20 08:09	ART	TAL SEA
Dissolved	Analysis	6020B		5	335533	08/12/20 21:19	FCW	TAL SEA

Laboratory References:

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

Accreditation/Certification Summary

Client: Pioneer Technologies Corporation
Job ID: 580-96555-1
Project/Site: Superlon

Laboratory: Eurofins TestAmerica, Seattle

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Oregon	NELAP	WA100007	11-06-20
Washington	State	C553	02-18-21

Sample Summary

Client: Pioneer Technologies Corporation
Project/Site: Superlon

Job ID: 580-96555-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
580-96555-1	SLON-MW2I-GW-08052020	Water	08/05/20 07:54	08/05/20 15:00	
580-96555-2	SLON-MW2S-GW-08052020	Water	08/05/20 08:43	08/05/20 15:00	
580-96555-3	SLON-MW13I-GW-08052020	Water	08/05/20 09:46	08/05/20 15:00	
580-96555-4	SLON-MW13S-GW-08052020	Water	08/05/20 10:10	08/05/20 15:00	
580-96555-5	SLON-MW4S-GW-08052020	Water	08/05/20 11:43	08/05/20 15:00	
580-96555-6	SLON-MW4I-GW-08052020	Water	08/05/20 11:43	08/05/20 15:00	
580-96555-7	SLON-MW9S-GW-08052020	Water	08/05/20 13:07	08/05/20 15:00	
580-96555-8	SLON-MW9I-GW-08052020	Water	08/05/20 12:56	08/05/20 15:00	
580-96555-9	SLON-MW9I-08052020-D	Water	08/05/20 12:56	08/05/20 15:00	
580-96555-10	SLON-MW10S-GW-08052020	Water	08/05/20 14:29	08/05/20 15:00	
580-96555-11	SLON-MW-10I-GW-08052020	Water	08/05/20 14:29	08/05/20 15:00	

Eurofins TestAmerica, Seattle
5755 8th Street East
Tacoma, WA 98424
Phone: 253-922-2310 Fax: 253-922-5047

Chain of Custody Record

eurofins Environment Testing America

Client Information	Sampler: Hannah Briley	Lab PM: Walker, Elaine M	Carrier Tracking No(s):	COC No: 580-39554-12635.1
Client Contact: Hannah Briley	Phone: 360 556 7642	E-Mail: elaine.walker@testamericainc.com		Page: Page 1 of 1
Company: Pioneer Technologies Corporation				Job #:
Address: 5205 Corporate Ctr. Ct. SE Ste A	Due Date Requested:			
City: Olympia	TAT Requested (days):			
State, Zip: WA, 98503				
Phone: 360-570-1700(Tel)	PO #: Pay by Credit Card			
Email: brileyh@uspioneer.com	WO #:			
Project Name: Superion	Project #: 58010637			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020B - (MOD) Arsenic, Iron & Lead by ICPMS (wat	Dissolved Arsenic	Dissolved Lead	Total Number of containers	Special Instructions/Note:
			Preservation Code:		N						
SLON-MW2I-GW-05052020	08052020	754	G	Water	N			X	X		
SLON-MW2S-GW-08052020	08052020	843		Water	N			X	X		
SLON-MW13I-GW-08052020	08052020	946		Water	N			X	X		
SLON-MW13S-GW-08052020	08052020	1010		Water	N			X	X		
SLON-MW4S-GW-08052020	08052020	1143		Water	N			X	X		
SLON-MW4I-GW-08052020	08052020	1143		Water	N			X	X		
SLON-MW9S-GW-08052020	08052020	107 PM		Water	N			X	X		
SLON-MW-9I-GW-08052020	08052020	1256		Water	N			X	X		
SLON-MW-9I-GW-08052020-D	08052020	1256		Water	N			X	X		
SLON-MW-10S-GW-08052020	08052020	229 PM		Water	N			X	X		
SLON-MW-10I-GW-08052020	08052020	229 PM		Water	N			X	X		

580-96555 Chain of Custody

Therm ID: 6 Cor: 13.3 Unc: 13.3
Cooler Dsc: SB
Packing:
Cust. Seal: Yes No
Blue Ice, Wet, Dry, None
FedEx:
UPS:
Lab Cour:
Other: CD

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	8/5/2020 15:00	PTC		8.5.20 1500	TAS23
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: Pioneer Technologies Corporation

Job Number: 580-96555-1

Login Number: 96555
List Number: 1
Creator: Vallelunga, Diana L

List Source: Eurofins TestAmerica, Seattle

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
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.	N/A	Received same day of collection; chilling process has begun.
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.	True	
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	

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Appendix C

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RESOURCE PROTECTION WELL REPORT
(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT
Notice of Intent No. AE44817

Construction/Decommission

☐ Construction
☒ Decommission *ORIGINAL INSTALLATION Notice of Intent Number* ____

Type of Well

☒ Resource Protection
☐ Geotechnical Soil Boring

Property Owner: **White Birch**
Site Address: **2116 Taylor Way**
City: **Tacoma** County: **Pierce**

Consulting Firm: **Pacific Environmental**

Unique Ecology Well ID Tag No. ____

Location: 1/4 NW 1/4 NE Sec 35 TWN 21N R 3E ☒ EWM or WWM

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards Materials used and the information reported above are true to my best knowledge and belief

Lat/Long (s,t,r still Required): Lat Deg n/a Lat Min/Sec n/a
Long Deg n/a Long Min/Sec n/a

☒ Driller ☐ Trainee Name (Print) **Tim Watson**
Driller/Trainee Signature: Tim Watson
Driller/Trainee License No. 3203

Tax Parcel No. 03213561042

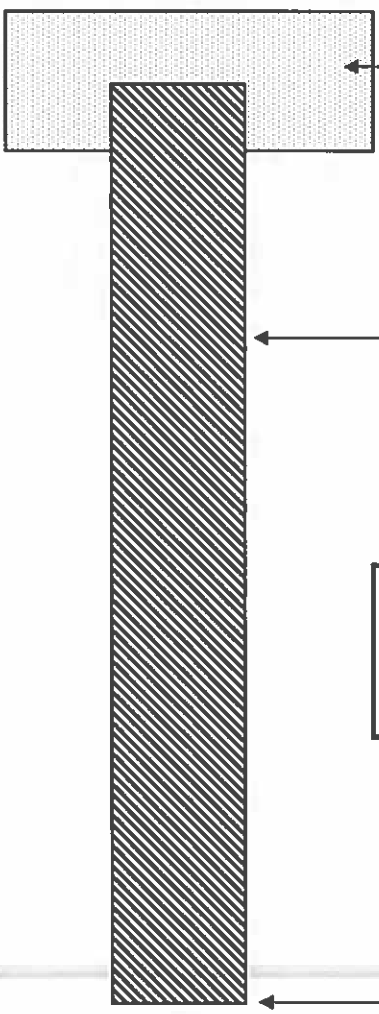
Cased or Uncased Diameter: grout 2" well Static Level: 5

Work/Decommision Start Date: 8/29/17

If trainee, licensed drillers' Signature and License No. ____

Work/Decommission Completed Date: 8/29/17

Construction/Design | Well Data 103-17-1371 | Formation Description



CONCRETE SURFACE SEAL 3 FT

0 - 50' FT
grout in place 2" well

BACKFILL 48 FT

0 - FT

BENTONITE grout

REQUIRED INFORMATION
(Must get one or both if available)

DEPT OF ECOLOGY WELL TAG # : BHS 237

CLIENT WELL ID #: ____

DEPTH OF BORING 50 FT

Scale 1" = ____ Page ____ of ____

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT
Notice of Intent No. AE44817

Construction/Decommission

☐ Construction

☒ Decommission *ORIGINAL INSTALLATION Notice of Intent Number* _____

Type of Well

☒ Resource Protection

☐ Geotechnical Soil Boring

Consulting Firm: **Pacific Environmental**

Property Owner: **White Birch**

Site Address: **2116 Taylor Way**

City: **Tacoma** County: **Pierce**

Unique Ecology Well ID
Tag No. BHS 236

Location: 1/4 **NW** 1/4 **NE** Sec **35** TWN **21N** R **3E** ☐ EWM ☐ WWM

Lat/Long (s,t,r still Required): Lat Deg **n/a** Lat Min/Sec **n/a** Long Deg **n/a** Long Min/Sec **n/a**

Tax Parcel No. **03213561042**

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

☒ Driller ☐ Trainee Name (Print) **Tim Watson**

Driller/Trainee Signature: Tim Watson

Driller/Trainee License No. **3203**

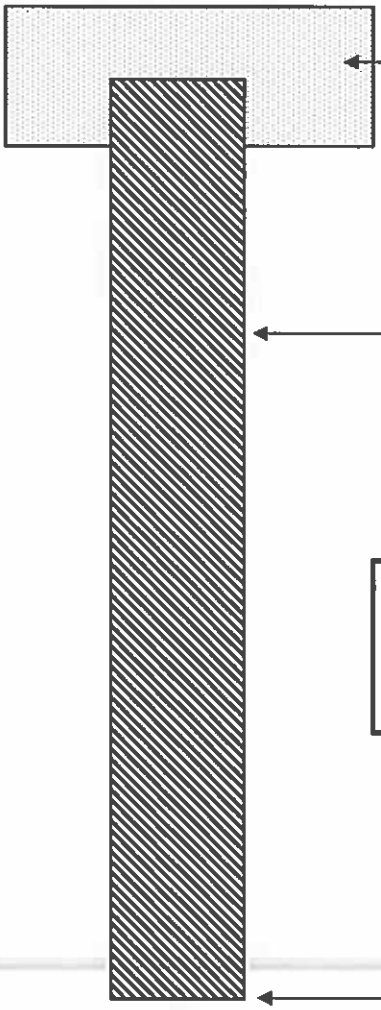
Cased or Uncased Diameter: grout 2" well pvc Static Level: 5

Work/Decommision Start Date: 8/29/17

If trainee, licensed drillers' Signature and License No. _____

Work/Decommision Completed Date: 8/29/17

Construction/Design — Well Data 103-17-1371 — Formation Description



CONCRETE SURFACE SEAL — 3 FT — Formation: 0 - 3' FT — grout in place 2" well

BACKFILL — 28 FT — Formation: 0 - _____ FT — BENTONITE GROUT

DEPTH OF BORING — 31' FT

REQUIRED INFORMATION
(Must get one or both if available)

DEPT OF ECOLOGY WELL TAG # : BHS 236

CLIENT WELL ID #: _____

Scale 1" = _____ Page _____ of _____

ECY 050-12 (Rev 2/01)

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT
Notice of Intent No. AE44817

Construction/Decommission

☐ Construction

☒ Decommission *ORIGINAL INSTALLATION Notice of Intent Number* _____

Type of Well

☒ Resource Protection

☐ Geotechnical Soil Boring

Consulting Firm: **Pacific Environmental**

Property Owner: **White Birch**

Site Address: **2116 Taylor Way**

City: **Tacoma** County: **Pierce**

Unique Ecology Well ID
Tag No. _____

Location: 1/4 **NW** 1/4 **NE** Sec **35** TWN **21N** R **3E** or **EWM** WWM

Lat/Long (s,t,r still Required): Lat Deg **n/a** Lat Min/Sec **n/a** Long Deg **n/a** Long Min/Sec **n/a**

Tax Parcel No.: **03213561042**

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

☒ Driller ☐ Trainee Name (Print) ~~Tim~~ **Watson**

Driller/Trainee Signature _____

Driller/Trainee License No. **3203**

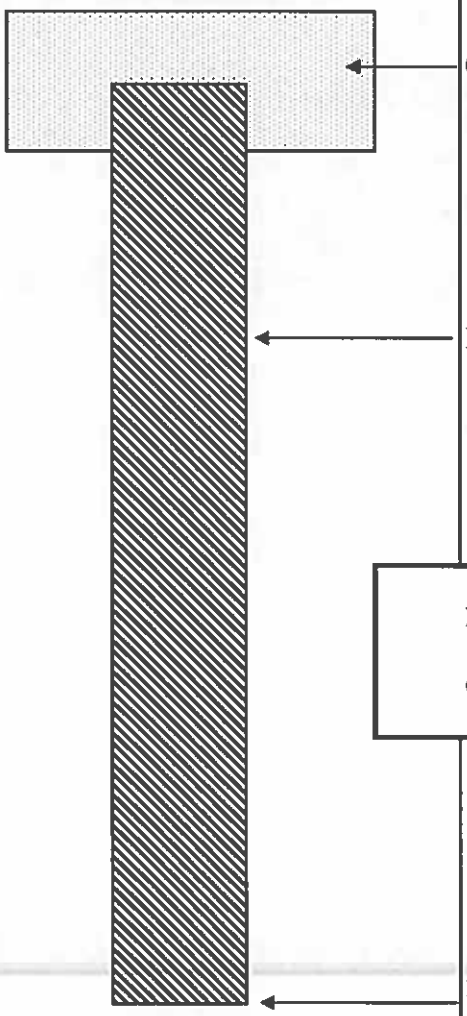
If trainee, licensed drillers' Signature and License No. _____

Cased or Uncased Diameter: grout 2" pvc well Static Level: 5

Work/Decommision Start Date: 8/29/17

Work/Decommision Completed Date: 8/29/17

Construction/Design | Well Data 103-17-1371 | Formation Description



CONCRETE SURFACE SEAL — 3 FT — 0 - 26 FT — grout in place 2" pvc well

BACKFILL — 23 FT — 0 - _____ FT — Bentonite grout

DEPTH OF BORING — 26' FT

REQUIRED INFORMATION
(Must get one or both if available)

DEPT OF ECOLOGY WELL TAG # : BHB402

CLIENT WELL ID #: _____

Scale 1" = _____ Page _____ of _____

ECY 050-12 (Rev 2/01)

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT
Notice of Intent No. AE44817

Construction/Decommission

☐ Construction

☒ Decommission *ORIGINAL INSTALLATION Notice of Intent Number* _____

Type of Well

☒ Resource Protection

☐ Geotechnical Soil Boring

Consulting Firm: **Pacific Environmental**

Property Owner: **White Birch**

Site Address: **2116 Taylor Way**

City: **Tacoma** County: **Pierce**

EWM

Unique Ecology Well ID
Tag No. _____

Location 1/4 **NW** 1/4 **NE** Sec **35** TWN **21N** R **3E** or WWM

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief

Lat/Long (s,t,r still Required) Lat Deg **n/a** Lat Min/Sec **n/a** Long Deg **n/a** Long Min/Sec **n/a**

Tax Parcel No. **03213561042**

☒ Driller ☐ Trainee Name (Print) **Tim Watson**

Driller/Trainee Signature _____

Driller/Trainee License No. **3203**

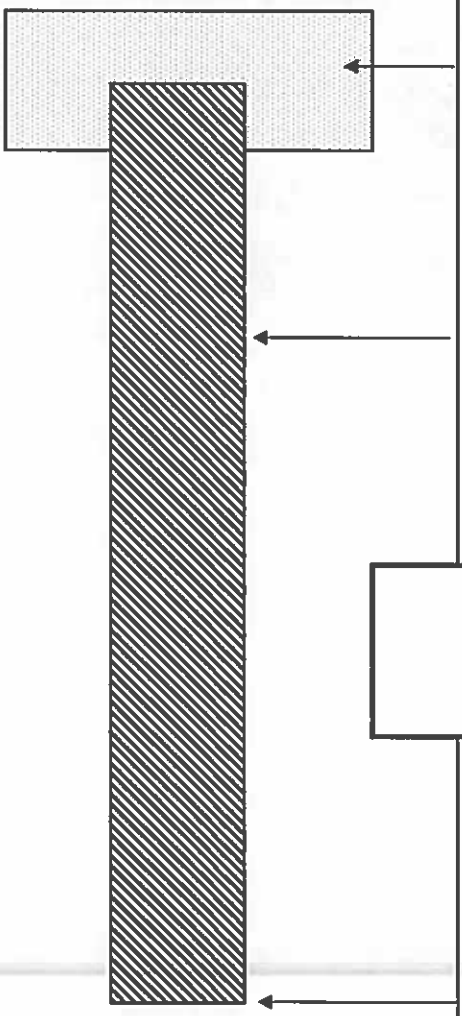
Cased or Uncased Diameter 2" prc well Static Level _____

Work/Decommision Start Date 8/29/17

If trainee, licensed drillers' Signature and License No. _____

Work/Decommision Completed Date 8/29/17

Construction/Design — Well Data 103-17-1371 — Formation Description



CONCRETE SURFACE SEAL 3 FT — 0 - 50 FT — GROUT IN PLACE 2" prc well

BACKFILL 47 FT — 0 - FT

BENTONITE GROUT

DEPTH OF BORING 50 FT

REQUIRED INFORMATION
(Must get one or both if available)

DEPT OF ECOLOGY WELL TAG # : BHS 235

CLIENT WELL ID #: _____

Scale 1" = _____ Page _____ of _____

ECY 050-12 (Rev 2/01)

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT
Notice of Intent No. AE44817

Construction/Decommission

☐ Construction

☒ Decommission *ORIGINAL INSTALLATION Notice of Intent Number* _____

Type of Well

☒ Resource Protection

☐ Geotechnical Soil Boring

Property Owner: **White Birch**

Site Address: **2116 Taylor Way**

Consulting Firm: **Pacific Environmental**

City: **Tacoma** County: **Pierce**

EWM

Unique Ecology Well ID
Tag No. _____

Location 1/4 **NW** 1/4 **NE** Sec **35** TWN **21N** R **3E** or WWM

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

Lat/Long (s,t,r still Required) Lat Deg **n/a** Lat Min/Sec **n/a** Long Deg **n/a** Long Min/Sec **n/a**

☒ Driller ☐ Trainee Name (Print) **Tim Watson**

Driller/Trainee Signature _____

Driller/Trainee License No. **3203**

Tax Parcel No. **03213561042**

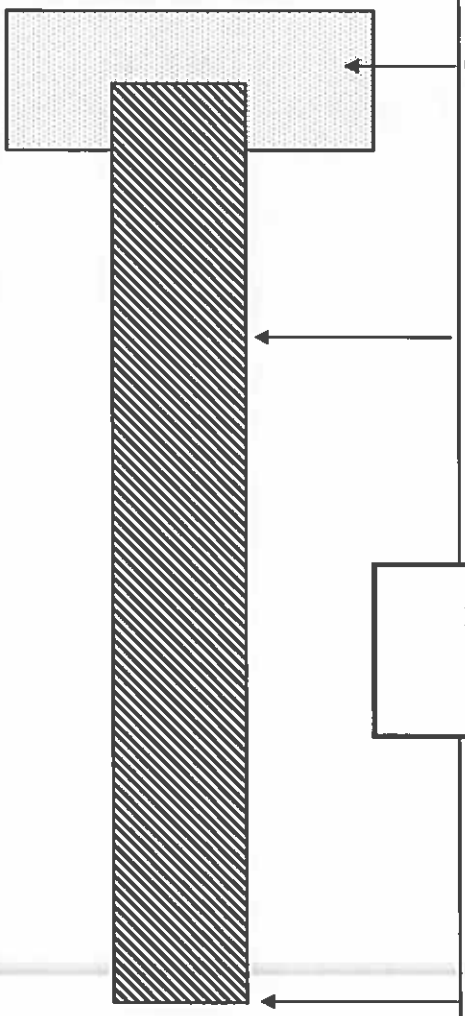
Cased or Uncased Diameter 2" pvc well Static Level 5

Work/Decommision Start Date 8/29/17

If trainee, licensed drillers' Signature and License No. _____

Work/Decommision Completed Date 8/29/17

Construction/Design — **Well Data** 103-17-1371 — **Formation Description**



CONCRETE SURFACE SEAL — 3 FT — 0 - 53 FT — grout in place 2" pvc well

BACKFILL — 50 FT — 0 - FT — Bentenite grout

DEPTH OF BORING — 53' FT

REQUIRED INFORMATION
(Must get one or both if available)

DEPT OF ECOLOGY WELL TAG # : BZD 704

CLIENT WELL ID #: _____

Scale 1" = _____ Page _____ of _____

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT
Notice of Intent No. AE44817

Construction/Decommission

☐ Construction

☒ Decommission *ORIGINAL INSTALLATION Notice of Intent Number* _____

Type of Well

☒ Resource Protection

☐ Geotechnical Soil Boring

Consulting Firm: **Pacific Environmental**

Property Owner: **White Birch**

Site Address: **2116 Taylor Way**

City: **Tacoma** County: **Pierce**

Unique Ecology Well ID Tag No. _____

Location: 1/4 **NW** 1/4 **NE** Sec **35** TWN **21N** R **3E** ☐ EWM ☐ WWM

Lat/Long (s,t,r still Required): Lat Deg **n/a** Lat Min/Sec **n/a** Long Deg **n/a** Long Min/Sec **n/a**

Tax Parcel No. **03213561042**

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

☒ Driller ☐ Trainee Name (Print) **Tim Watson**

Driller/Trainee Signature: Tim Watson

Driller/Trainee License No. **3203**

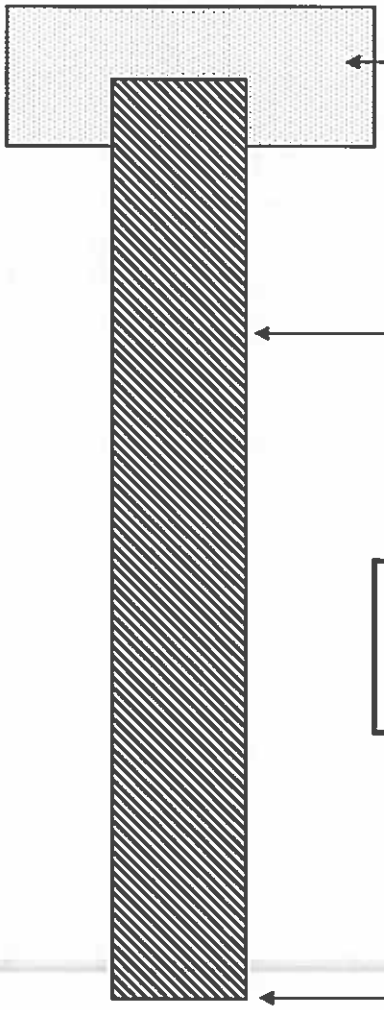
If trainee, licensed drillers' Signature and License No. _____

Cased or Uncased Diameter: 2" pvc well Static Level: 5

Work/Decommision Start Date: 8/29/17

Work/Decommision Completed Date: 8/29/17

Construction/Design | Well Data 103-17-1371 | Formation Description



CONCRETE SURFACE SEAL	3 FT	0 - 23 FT	GROUT IN PLACE
BACKFILL	20 FT	0 - FT	BENTONITE GROUT
DEPTH OF BORING	23 FT		

REQUIRED INFORMATION
(Must get one or both if available)

DEPT OF ECOLOGY WELL TAG # : BJD 859

CLIENT WELL ID #: _____

Scale 1" = _____ Page _____ of _____

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT
Notice of Intent No. AE44817

Construction/Decommission

☐ Construction

☒ Decommission *ORIGINAL INSTALLATION Notice of Intent Number* _____

Type of Well

☒ Resource Protection

☐ Geotechnical Soil Boring

Consulting Firm: **Pacific Environmental**

Property Owner: **White Birch**

Site Address: **2116 Taylor Way**

City: **Tacoma** County: **Pierce**

Unique Ecology Well ID
Tag No. _____

Location: 1/4 **NW** 1/4 **NE** Sec **35** TWN **21N** R **3E** ☐ EWM ☐ WWM

Lat/Long (s,t,r still Required): Lat Deg **n/a** Lat Min/Sec **n/a** Long Deg **n/a** Long Min/Sec **n/a**

Tax Parcel No. **03213561042**

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

☒ Driller ☐ Trainee Name (Print) **Tim Watson**

Driller/Trainee Signature _____

Driller/Trainee License No. **3203**

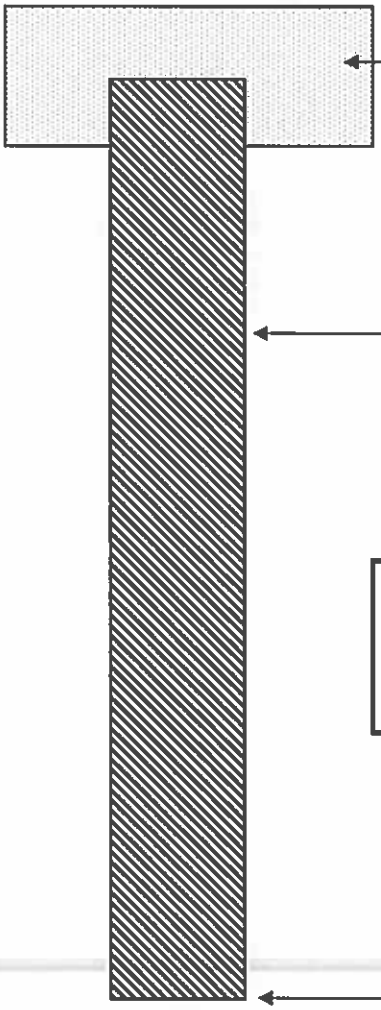
If trainee, licensed drillers' Signature and License No. _____

Cased or Uncased Diameter 2" pvc well Static Level 5

Work/Decommision Start Date 8/29/17

Work/Decommision Completed Date 8/29/17

Construction/Design — Well Data 103-17-1371 — Formation Description



CONCRETE SURFACE SEAL	3 FT	0 - 5	FT
		GROUT IN PLACE	
BACKFILL	51 FT	0 -	FT
	BENTONITE GROUT		
DEPTH OF BORING	54 FT		

REQUIRED INFORMATION
(Must get one or both if available)

DEPT OF ECOLOGY WELL TAG # : BID 682

CLIENT WELL ID #: _____

Scale 1" = _____ Page _____ of _____

ECY 050-12 (Rev 2/01)

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT
Notice of Intent No. AE44817

Construction/Decommission

☐ Construction

☒ Decommission *ORIGINAL INSTALLATION Notice of Intent Number* _____

Type of Well

☒ Resource Protection

☐ Geotechnical Soil Boring

Property Owner: **White Birch**

Site Address: **2116 Taylor Way**

Consulting Firm: **Pacific Environmental**

City: **Tacoma** County: **Pierce**

Unique Ecology Well ID
Tag No. _____

Location: 1/4 **NW** 1/4 **NE** Sec **35** TWN **21N** R **3E** ☐ EWM ☐ WWM

Lat/Long (s,t,r still Required): Lat Deg **n/a** Lat Min/Sec **n/a** Long Deg **n/a** Long Min/Sec **n/a**

Tax Parcel No.: **03213561042**

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

☒ Driller ☐ Trainee Name (Print) **Tim Watson**

Driller/Trainee Signature _____

Driller/Trainee License No. **3203**

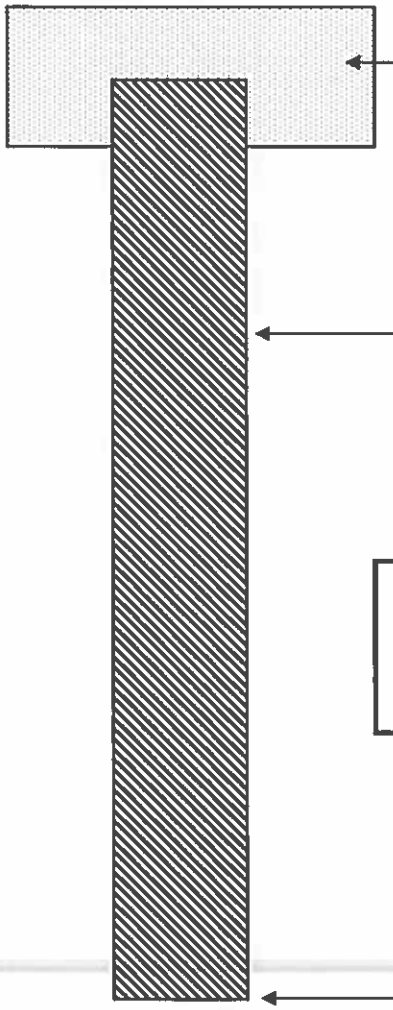
Cased or Uncased Diameter: 2" PVC well Static Level: 5

Work/Decommision Start Date: 8/29/17

If trainee, licensed drillers' Signature and License No. _____

Work/Decommision Completed Date: 8/29/17

Construction/Design | Well Data 103-17-1371 | Formation Description



Construction/Design	Well Data 103-17-1371	Formation Description
CONCRETE SURFACE SEAL	3 FT	0 - 30 FT grout in place
BACKFILL	27 FT	0 - FT
	Bentonite grout	
DEPTH OF BORING	30 FT	

REQUIRED INFORMATION
(Must get one or both if available)

DEPT OF ECOLOGY WELL TAG # : BFD 683

CLIENT WELL ID #: _____

Scale 1" = _____ Page _____ of _____

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT
Notice of Intent No. AE44817

Construction/Decommission

☐ Construction

☒ Decommission *ORIGINAL INSTALLATION Notice of Intent Number* _____

Type of Well

☒ Resource Protection

☐ Geotechnical Soil Boring

Consulting Firm: **Pacific Environmental**

Property Owner: **White Birch**

Site Address: **2116 Taylor Way**

City: **Tacoma** County: **Pierce**

Unique Ecology Well ID
Tag No. _____

Location: 1/4 **NW** 1/4 **NE** Sec **35** TWN **21N** R **3E** ☐ EWM ☐ WWM

Lat/Long (s,t,r still Required): Lat Deg **n/a** Lat Min/Sec **n/a** Long Deg **n/a** Long Min/Sec **n/a**

Tax Parcel No. **03213561042**

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

☒ Driller ☐ Trainee Name (Print) **Tim Watson**

Driller/Trainee Signature _____

Driller/Trainee License No. **3203**

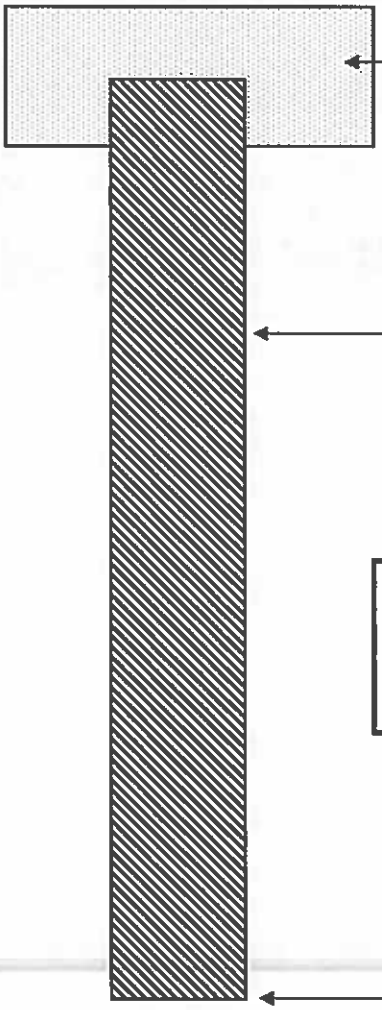
If trainee, licensed drillers' Signature and License No. _____

Cased or Uncased Diameter: 2" pvc well Static Level: 5

Work/Decommision Start Date: 8/29/17

Work/Decommision Completed Date: 8/29/17

Construction/Design — Well Data 103-17-1371 — Formation Description



CONCRETE SURFACE SEAL: 3 FT — Formation: 0 - 25 FT GROUT IN PLACE

BACKFILL: 22 FT — Formation: 0 - FT

BENTONITE GROUT

DEPTH OF BORING: 25 FT

REQUIRED INFORMATION
(Must get one or both if available)

DEPT OF ECOLOGY WELL TAG # : BHB 403

CLIENT WELL ID #: _____

Scale 1" = _____

Page _____ of _____

ECY 050-12 (Rev 2/01)

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT
Notice of Intent No. AE44817

Construction/Decommission

[ ] Construction

[X] Decommission *ORIGINAL INSTALLATION Notice of Intent Number* _____

Type of Well

[X] Resource Protection

[ ] Geotechnical Soil Boring

Consulting Firm: **Pacific Environmental**

Property Owner: **White Birch**

Site Address: **2116 Taylor Way**

City: **Tacoma** County: **Pierce**

EWM

Unique Ecology Well ID
Tag No. _____

Location 1/4 **NW** 1/4 **NE** Sec **35** TWN **21N** R **3E** or WWM

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

Lat/Long (s,t,r still Required) Lat Deg **n/a** Lat Min/Sec **n/a** Long Deg **n/a** Long Min/Sec **n/a**

[X] Driller [ ] Trainee Name (Print) **Tim Watson**

Driller/Trainee Signature _____

Driller/Trainee License No. **3203**

Tax Parcel No. **03213561042**

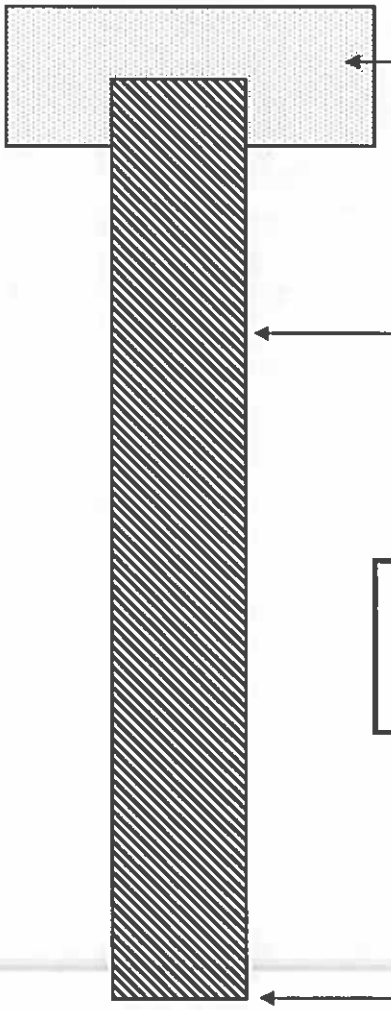
Cased or Uncased Diameter 2" pvc well Static Level 5

Work/Decommision Start Date 8/29/17

If trainee, licensed drillers' Signature and License No. _____

Work/Decommision Completed Date 8/29/17

Construction/Design — Well Data 103-17-1371 — Formation Description



CONCRETE SURFACE SEAL 3 FT — 0 - 50 FT grout in place

BACKFILL 47 FT — 0 - FT

Bentonite grout

DEPTH OF BORING 50 FT

REQUIRED INFORMATION
(Must get one or both if available)

DEPT OF ECOLOGY WELL TAG # : BHS 393

CLIENT WELL ID #: _____

Scale 1" = _____ Page _____ of _____

ECY 050-12 (Rev 2/01)

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT
Notice of Intent No. AE44817

Construction/Decommission

☐ Construction

☒ Decommission *ORIGINAL INSTALLATION Notice of Intent Number* _____

Type of Well

☒ Resource Protection

☐ Geotechnical Soil Boring

Consulting Firm: **Pacific Environmental**

Property Owner: **White Birch**

Site Address: **2116 Taylor Way**

City: **Tacoma** County: **Pierce**

Unique Ecology Well ID
Tag No. _____

Location: 1/4 **NW** 1/4 **NE** Sec **35** TWN **21N** R **3E** **EWM** or WWM

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

Lat/Long (s,t,r still Required) Lat Deg **n/a** Lat Min/Sec **n/a** Long Deg **n/a** Long Min/Sec **n/a**

Tax Parcel No. **03213561042**

☒ Driller ☐ Trainee Name (Print) **Tim Watson**

Driller/Trainee Signature _____

Driller/Trainee License No. **3203**

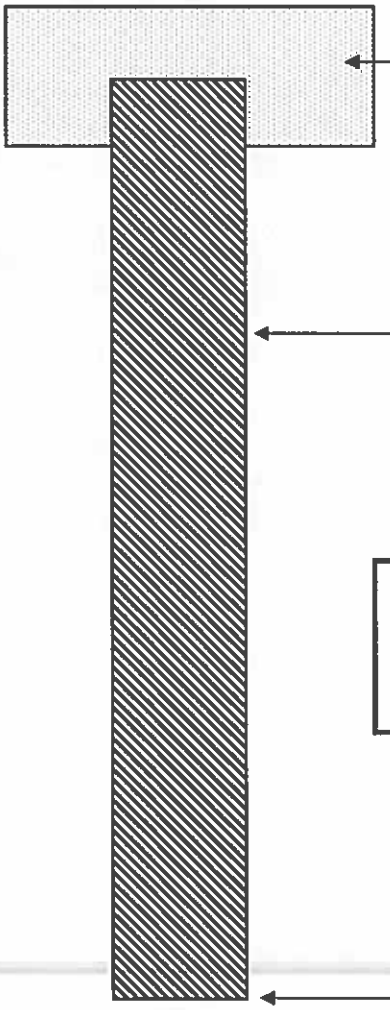
Cased or Uncased Diameter PVC 2" well Static Level 5

Work/Decommision Start Date 8/30/17

If trainee, licensed drillers' Signature and License No. _____

Work/Decommision Completed Date 8/30/17

Construction/Design — Well Data 103-17-1371 — Formation Description



CONCRETE SURFACE SEAL 3 FT — 0 - 52 FT grout in place

BACKFILL 49 FT — 0 - FT

Bentonite grout

DEPTH OF BORING 52 FT

REQUIRED INFORMATION
(Must get one or both if available)

DEPT OF ECOLOGY WELL TAG # : BHS 394

CLIENT WELL ID #: _____

Scale 1" = _____ Page _____ of _____

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT
Notice of Intent No. AE44817

Construction/Decommission

☐ Construction

☒ Decommission *ORIGINAL INSTALLATION Notice of Intent Number* _____

Type of Well

☒ Resource Protection

☐ Geotechnical Soil Boring

Consulting Firm: **Pacific Environmental**

Property Owner: **White Birch**

Site Address: **2116 Taylor Way**

City: **Tacoma** County: **Pierce**

Unique Ecology Well ID _____

Tag No. _____

Location: 1/4 **NW** 1/4 **NE** Sec **35** TWN **21N** R **3E** or EWM WWM

WELL CONSTRUCTION CERTIFICATION I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

Lat/Long (s,t,r still Required) Lat Deg **n/a** Lat Min/Sec **n/a** Long Deg **n/a** Long Min/Sec **n/a**

☒ Driller ☐ Trainee Name (Print) **Tim Watson**

Driller/Trainee Signature _____

Driller/Trainee License No. **3203**

Tax Parcel No. **03213561042**

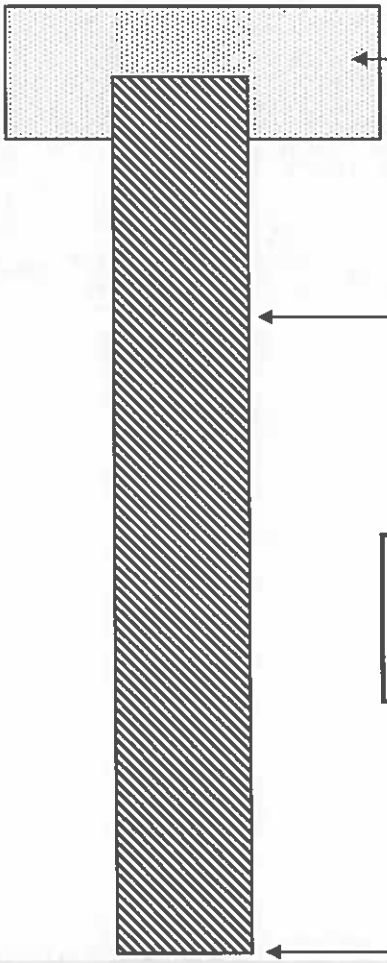
Cased or Uncased Diameter 2" Static Level 0

Work/Decommision Start Date 8-30-17

If trainee, licensed drillers' Signature and License No. _____

Work/Decommision Completed Date 8-30-17

Construction/Design — Well Data 103-17-1371 — Formation Description



CONCRETE SURFACE SEAL _____ FT — 0 - _____ FT

BACKFILL 30' FT — 0 - _____ FT

Bent. Grout

REQUIRED INFORMATION
(Must get one or both if available)

DEPT OF ECOLOGY WELL TAG # : BHB-498

CLIENT WELL ID #: _____

DEPTH OF BORING 30' FT

Scale 1" = _____

Page _____ of _____

ECY 050-12 (Rev 2/01)

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT
Notice of Intent No. AE44817

Construction/Decommission

☐ Construction

☒ Decommission *ORIGINAL INSTALLATION Notice of Intent Number* _____

Type of Well

☒ Resource Protection

☐ Geotechnical Soil Boring

Consulting Firm: **Pacific Environmental**

Property Owner: **White Birch**

Site Address: **2116 Taylor Way**

City: **Tacoma** County: **Pierce**

EWM

Unique Ecology Well ID
Tag No. _____

Location 1/4 **NW** 1/4 **NE** Sec **35** TWN **21N** R **3E** or WWM

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

Lat/Long (s,t,r still Required) Lat Deg **n/a** Lat Min/Sec **n/a** Long Deg **n/a** Long Min/Sec **n/a**

Tax Parcel No. **03213561042**

☒ Driller ☐ Trainee Name (Print) **Tim Watson**

Driller/Trainee Signature Tim Watson

Driller/Trainee License No. **3203**

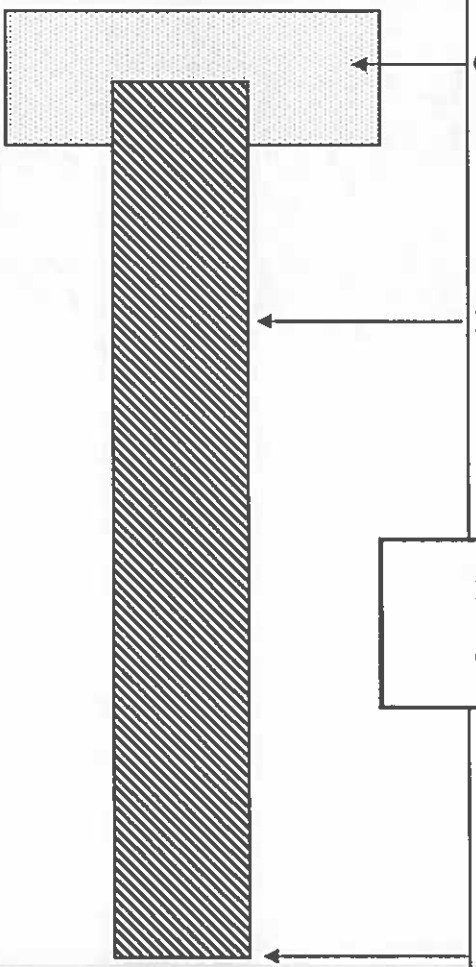
Cased or Uncased Diameter 2" Static Level 0

Work/Decommision Start Date 8-30-17

If trainee, licensed drillers' Signature and License No. _____

Work/Decommision Completed Date 8-30-17

Construction/Design | Well Data 103-17-1371 | Formation Description



CONCRETE SURFACE SEAL _____ FT — Formation: 0 - _____ FT

BACKFILL 28' FT — Formation: 0 - _____ FT

Bent. Grout

REQUIRED INFORMATION
(Must get one or both if available)

DEPT OF ECOLOGY WELL TAG # : BHB-497

CLIENT WELL ID #: _____

DEPTH OF BORING 28' FT

Scale 1" = _____

ECY 050-12 (Rev 2/01)

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT
Notice of Intent No. AE44817

Construction/Decommission

☐ Construction

☒ Decommission *ORIGINAL INSTALLATION Notice of Intent Number* _____

Type of Well

☒ Resource Protection

☐ Geotechnical Soil Boring

Consulting Firm: **Pacific Environmental**

Property Owner: **White Birch**

Site Address: **2116 Taylor Way**

City: **Tacoma** County: **Pierce**

Unique Ecology Well ID
Tag No. _____

Location: 1/4 **NW** 1/4 **NE** Sec **35** TWN **21N** R **3E** ☐ EWM ☐ or WWM

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

Lat/Long (s,t,r still Required): Lat Deg **n/a** Lat Min/Sec **n/a** Long Deg **n/a** Long Min/Sec **n/a**

Tax Parcel No.: **03213561042**

☒ Driller ☐ Trainee Name (Print): **Tim Watson**

Driller/Trainee Signature: Tim Watson

Driller/Trainee License No.: **3203**

Cased or Uncased Diameter: 2"

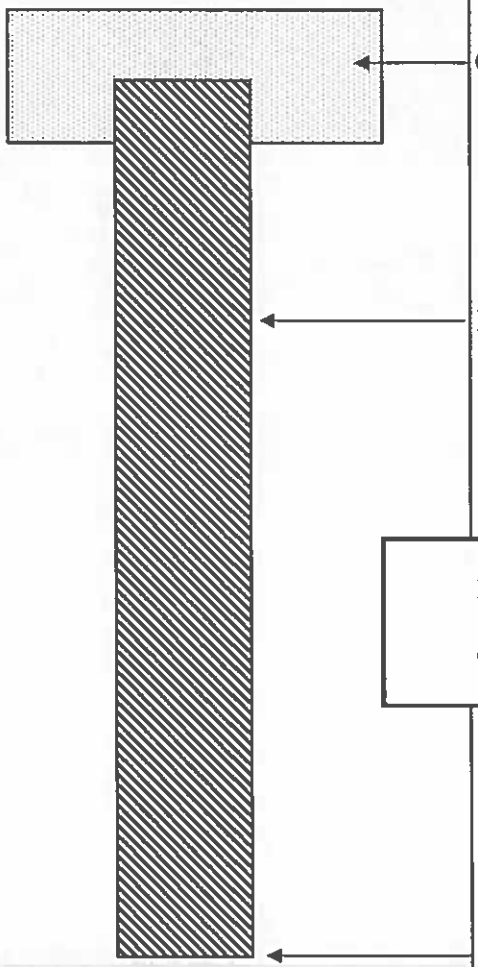
Static Level: 0

Work/Decommision Start Date: 8-30-17

If trainee, licensed drillers' Signature and License No. _____

Work/Decommision Completed Date: 8-30-17

Construction/Design — **Well Data** 103-17-1371 — **Formation Description**



CONCRETE SURFACE SEAL — _____ FT — 0 - _____ FT

BACKFILL — 56' FT — 0 - _____ FT

Bent. Grout

REQUIRED INFORMATION
(Must get one or both if available)

DEPT OF ECOLOGY WELL TAG # : BHS-240

CLIENT WELL ID #: _____

DEPTH OF BORING — 56' FT

Scale 1" = _____

Page _____ of _____

ECY 050-12 (Rev 2/01)

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT
Notice of Intent No. AE44817

Construction/Decommission

☐ Construction

☒ Decommission *ORIGINAL INSTALLATION Notice of Intent Number* _____

Type of Well

☒ Resource Protection

☐ Geotechnical Soil Boring

Consulting Firm: **Pacific Environmental**

Property Owner: **White Birch**

Site Address: **2116 Taylor Way**

City: **Tacoma** County: **Pierce**

EWM

Unique Ecology Well ID
Tag No. _____

Location 1/4 **NW** 1/4 **NE** Sec **35** TWN **21N** R **3E** or WWM

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

Lat/Long (s,t,r still Required) Lat Deg **n/a** Lat Min/Sec **n/a** Long Deg **n/a** Long Min/Sec **n/a**

Tax Parcel No. **03213561042**

☒ Driller ☐ Trainee Name (Print) **Tim Watson**

Driller/Trainee Signature Tim Watson

Driller/Trainee License No. **3203**

Cased or Uncased Diameter 2"

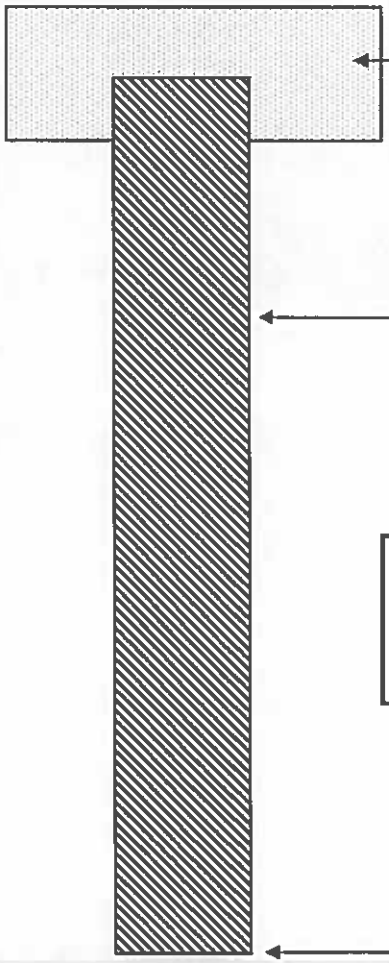
Static Level 0

Work/Decommision Start Date 8-30-17

If trainee, licensed drillers' Signature and License No. _____

Work/Decommision Completed Date 8-30-17

Construction/Design — **Well Data** 103-17-1371 — **Formation Description**



CONCRETE SURFACE SEAL _____ FT — 0 - _____ FT

BACKFILL 56' FT — 0 - _____ FT

Bent. Grout

REQUIRED INFORMATION
(Must get one or both if available)

DEPT OF ECOLOGY WELL TAG # : BHS-239

CLIENT WELL ID #: _____

DEPTH OF BORING 56' FT

Scale 1" = _____ Page _____ of _____

ECY 050-12 (Rev 2/01)

RESOURCE PROTECTION WELL REPORT

(SUBMIT ONE WELL REPORT PER WELL INSTALLED)

CURRENT
Notice of Intent No. AE44817

Construction/Decommission

☐ Construction

☒ Decommission *ORIGINAL INSTALLATION Notice of Intent Number* _____

Type of Well

☒ Resource Protection

☐ Geotechnical Soil Boring

Consulting Firm: **Pacific Environmental**

Property Owner: **White Birch**

Site Address: **2116 Taylor Way**

City: **Tacoma** County: **Pierce**

EWM

Unique Ecology Well ID
Tag No. _____

Location 1/4 **NW** 1/4 **NE** Sec **35** TWN **21N** R **3E** or WWM

WELL CONSTRUCTION CERTIFICATION: I constructed and/or accept responsibility for construction of this well, and its compliance with all Washington well construction standards. Materials used and the information reported above are true to my best knowledge and belief.

Lat/Long (s,t,r still Required) Lat Deg **n/a** Lat Min/Sec **n/a** Long Deg **n/a** Long Min/Sec **n/a**

Tax Parcel No. **03213561042**

☒ Driller ☐ Trainee Name (Print) **Tim Watson**

Driller/Trainee Signature: Tim Watson

Driller/Trainee License No. **3203**

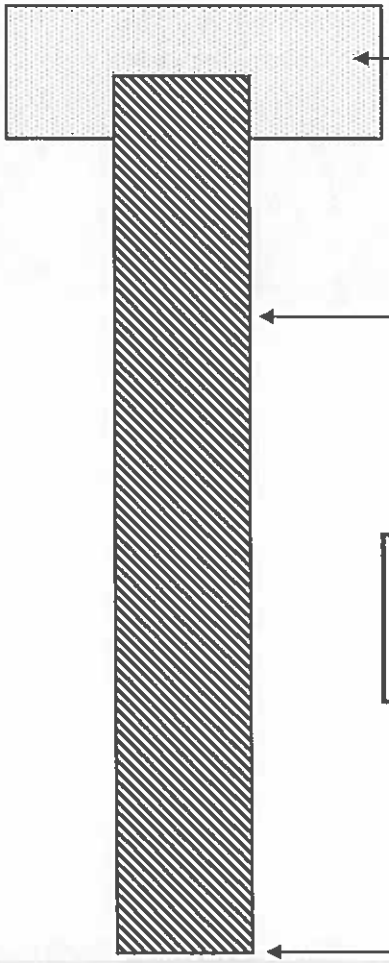
Cased or Uncased Diameter 2" Static Level 0

Work/Decommision Start Date 8-30-17

If trainee, licensed drillers' Signature and License No. _____

Work/Decommision Completed Date 8-30-17

Construction/Design — Well Data 103-17-1371 — Formation Description



CONCRETE SURFACE SEAL _____ FT — 0 - _____ FT

BACKFILL 28 FT — 0 - _____ FT

Bent. Grout

REQUIRED INFORMATION
(Must get one or both if available)

DEPT OF ECOLOGY WELL TAG # : BHB-499

CLIENT WELL ID #: _____

DEPTH OF BORING 28 FT

Scale 1" = _____ Page _____ of _____