

Appendix A

Summary of Historical Groundwater Analytical Results

Appendix A
Summary of Historical Groundwater Analytical Results
D Street Petroleum Site

WELL ID	DATE	CONCENTRATION (mg/L)								
		TPH-G	TPH-O&G	TPH-D	Heavy Oil TPH	B	T	E	X	Naphtalene
Upper Sand Unit										
B-1A	1/29/2003	NS	5.10 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-1A	4/29/2003	0.0500 U	4.72 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-1A	8/25/2003	0.100 U	5.62 U	NA	-	0.000500 U	0.00200 U	0.00100 U	0.00150 U	-
B-1A	10/30/2003	0.0800 U	5.00 U	NA	-	0.000892	0.000500 U	0.000500 U	0.00150 U	-
B-1A	1/27/2004	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-1A	5/5/2004	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-1A	8/10/2004	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-1A	10/27/2004	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-1A	2/8/2005	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-1A	5/18/2005	NS	NS	NS	-	NS	NS	NS	NS	-
B-1A	8/2/2005	0.0500 U	5.00 U	0.271	-	0.000500 U	0.000500 U	0.000500 U	-0.99900 U	-
B-1A	11/9/2005	NS	NS	NS	-	NS	NS	NS	NS	-
B-1A	2/7/2006	0.0500 U	4.72 U	0.236 U	-	0.000500 U	0.000500 U	0.000500 U	-0.99900 U	-
B-1A	5/2/2006	NS	NS	NS	-	NS	NS	NS	NS	-
B-1A	8/2/2006	0.100 U	5.00 U	0.250 U	-	0.000500 U	0.00200 U	0.00100 U	-0.99850 U	-
B-1A	12/19/2006	NS	NS	NS	-	NS	NS	NS	NS	-
B-1A	2/6/2007	0.0500 U	4.72 U	0.240 U	0.481 U	0.000500 U	0.000500 U	0.000500 U	-0.99900 U	-
B-1A	5/7/2007	NS	NS	NS	NS	NS	NS	NS	NS	-
B-1A	7/31/2007	0.0500 U	4.72 U	0.240 U	0.481 U	0.000500 U	0.000500 U	0.000500 U	-0.99900 U	-
B-1A	11/5/2007	NS	NS	NS	NS	NS	NS	NS	NS	-
B-1A	2/12/2008	0.0500 U	0.472 U	0.236	0.472 U	0.000500 U	0.000500 U	0.000500 U	-0.99900 U	-
B-1A	5/5/2008	NS	NS	NS	NS	NS	NS	NS	NS	-
B-1A	8/12/2008	0.0500 U	5.21 U	0.240 U	0.481 U	0.000500 U	0.000500 U	0.000500 U	-0.99900 U	-
B-1A	11/11/2008	NS	NS	NS	NS	NS	NS	NS	NS	-
B-1A	2/24/2009	0.0500 U	NS	0.236 U	0.472 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-1A	8/10/2009	0.0500 U	5.00 U	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
B-1A	03/30/2010	0.0500 U	5.00 U	0.120 U	0.250 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
B-2	3/21/2005	0.0500 U	NA	0.275	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-2	5/10/2005	0.0500 U	NA	0.250 U	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-2	8/2/2005	0.0500 U	NA	0.250 U	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-2	11/8/2005	0.0500 U	NA	0.245 U	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-2	2/7/2006	0.0500 U	NA	0.236 U	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-2	5/2/2006	0.0500 U	NA	0.243 U	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-2	8/2/2006	0.100 U	NA	0.250 U	-	0.000500 U	0.00200 U	0.00100 U	0.0150 U	-
B-2	12/18/2006	0.0500 U	NA	0.240 U	0.481 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-2	2/5/2007	0.0500 U	NA	0.243 U	0.485 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-2	5/7/2007	0.0500 U	NA	0.236 U	0.472 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-2	7/31/2007	0.0500 U	NA	0.238 U	0.476 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-2	11/5/2007	0.0500 U	NA	0.236 U	0.658 J	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-2	2/13/2008	0.0500 U	NA	0.240 U	0.481 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-2	5/8/2008	0.0500 U	NA	0.238 U	0.476 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-2	8/12/2008	0.0500 U	NA	0.240 U	0.481 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-2	11/11/2008	0.0500 U	NA	0.236 U	0.472 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-2	2/24/2009	0.0500 U	NA	0.236 U	0.472 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-2	5/11/2009	0.0500 U	NA	0.240 U	0.481 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-2	8/10/2009	0.0500 U	NA	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
B-2	11/10/2009	0.0500 U	NA	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00100 U	-
B-2	03/29/2010	0.0500 U	NA	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
B-2	06/11/2010	0.0500 U	NA	0.120 U	0.390	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
B-6	1/29/2003	NS	4.72 U	NA	-	0.115	0.0151	0.410	0.0900 J	-
B-6	4/29/2003	9.00 J	5.00 U	NA	-	0.115 J	0.0248 J	0.649 J	0.0646 J	-
B-6	8/25/2003	5.19	12.6	NA	-	0.142	0.0171	0.320	0.0176	-
B-6	10/30/2003	8.17	10.5	NA	-	0.242	0.0965	0.280	0.154	-
B-6	1/27/2004	10.5	5.00 U	NA	-	0.0554	0.00781	0.309	0.0741	-
B-6	5/5/2004	10.0	5.00 U	NA	-	0.0726	0.0121	0.504	0.179	-

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		TPH-G	TPH-O&G	TPH-D	Heavy Oil TPH	B	T	E	X	Naphtalene
B-6	8/9/2004	9.07 J	5.00 U	NA	-	0.0691 J	0.0101 J	0.435 J	0.0863 J	-
B-6	10/27/2004	6.77 J	5.00 U	NA	-	0.0697 J	0.00678 J	0.230 J	0.0387 J	-
B-6	2/10/2005	7.95 J	16.1	NA	-	0.0681 J	0.0109 J	0.230 J	0.0464 J	-
B-6	5/10/2005	10.5	6.30	NA	-	0.0714	0.0114	0.234	0.0365	-
B-6	8/4/2005	6.11	5.77	10.3	-	0.0692 J	0.0117 J	0.191 J	0.0230 J	-
B-6	11/8/2005	6.22	4.81 U	10.9	-	0.0620	0.00732	0.0914	0.0192	-
B-6	2/9/2006	8.97	5.71	22.8	-	0.361	0.00584	0.0451	0.0299	-
B-6	5/2/2006	1.34	4.72 U	0.347	-	0.00390	0.000627	0.0185	0.00525	-
B-6	8/2/2006	0.402	5.00 U	0.843	-	0.00595	0.00200 U	0.00847	0.00150 U	-
B-6	12/20/2006	0.546	4.76 U	7.63	0.476 U	0.00155	0.000500 U	0.00287	0.00495	-
B-6	2/6/2007	1.50	5.28	1.02	0.476 U	0.000711	0.00108	0.0273	0.00835	-
B-6	5/8/2007	0.251	4.81 U	2.11	0.522	0.00118	0.000500 U	0.00810	0.00138	-
B-6	7/31/2007	0.0662	5.32 U	1.80	0.810	0.00111	0.000500 U	0.000537	0.00100 U	-
B-6	11/5/2007	NS	NS	NS	NS	NS	NS	NS	NS	-
B-6	2/13/2008	0.0756	4.72 U	0.236 U	0.472 U	0.00161	0.000500 U	0.000500 U	0.00100 U	-
B-6	5/5/2008	0.0766	4.72 U	0.236 U	0.472 U	0.00144	0.000500 U	0.000500 U	0.00100 U	-
B-6	8/12/2008	0.0500	5.21 U	1.97	1.02	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-6	11/11/2008	0.845	4.90 U	0.236 U	0.472 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-6	2/24/2009	0.134	4.72 U	0.236 U	0.472 U	0.00281 U	0.000500 U	0.000500 U	0.00100 U	-
B-6	5/12/2009	0.0699	4.81 U	0.248 U	0.495 U	0.00103	0.000500 U	0.000500 U	0.00100 U	-
B-6	8/11/2009	0.0800	5.00 U	0.120 U	0.360	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
B-6	11/10/2009	0.140	5.00 U	0.610	0.240 U	0.00200	0.00100 U	0.00100 U	0.00100 U	-
B-6	03/29/2010	0.0500 U	5.00 U	2.90	1.20	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
B-6	06/11/2010	0.200	NA	11.0 Y	1.50	0.00100 U	0.00100 U	0.00110	0.00200 U	-
B-12	11/6/2007	1.77 J	NA	0.319	0.510 U	0.00159 J	0.000500 U	0.0231 J	0.00100 U	-
B-12	2/13/2008	0.989 J	NA	0.236 U	0.472 U	0.00121	0.000500 U	0.0119	0.00100 U	-
B-12	5/7/2008	0.950 J	NA	0.378	0.472 U	0.00109 J	0.000500 U	0.00922 J	0.00100 U	-
B-12	8/13/2008	1.70 J	NA	0.306	0.472 U	0.00193	0.000500 U	0.00330 J	0.00100 U	-
B-12	11/11/2008	1.72 J	NA	0.236 U	0.472 U	0.00159 J	0.000500 U	0.00510 J	0.00100 U	-
B-12	2/25/2009	4.37 J	NA	0.391	0.472 U	0.00207 J	0.000559 J	0.0407 J	0.00806 J	-
B-12	5/14/2009	3.54 J	NA	0.618	0.485 U	0.00178 J	0.00192 J	0.0385 J	0.00577 J	-
B-12	8/12/2009	4.70 J	NA	1.50	0.240 U	0.00100 U	0.00100 U	0.0120	0.00360	-
B-12	11/10/2009	3.70	NA	1.10	0.250 U	0.00110 U	0.00100 U	0.00840	0.00280	-
B-12	03/25/2010	0.910	NA	0.440	0.250 U	0.00100 U	0.00100 U	0.00410	0.00200 U	-
B-12	06/15/2010	1.90	NA	0.580 Y	0.340	0.00100 U	0.00100 U	0.00200	0.00200 U	-
B-16	1/29/2003	NS	4.81	NA	-	6.47	0.0371	0.0180	0.0901 J	-
B-16	4/29/2003	16.4	4.76 U	NA	-	7.81	0.105	0.117	0.134	-
B-16	8/25/2003	8.90	4.85 U	NA	-	0.760	0.0396	0.0469	0.0758	-
B-16	10/30/2003	2.20	5.00 U	NA	-	7.41	0.0648	0.0479	0.159	-
B-16	1/27/2004	28.9	5.00	NA	-	14.1	0.116	0.169	0.175	-
B-16	5/5/2004	13.8	5.00 U	NA	-	7.41	0.0776	0.0885	0.0594	-
B-16	8/10/2004	11.8	5.00 U	NA	-	2.76	0.0272	0.0197	0.0428	-
B-16	10/27/2004	13.7	5.00 U	NA	-	5.74	0.0325	0.0176	0.0609	-
B-16	2/10/2005	19.4	5.00 U	NA	-	11.3	0.0461	0.0350	0.0432	-
B-16	5/10/2005	13.3	5.00 U	NA	-	4.75	0.0250 U	0.0250 U	0.0500 U	-
B-16	8/4/2005	6.81	5.00 U	0.250 U	-	3.62	0.0345 J	0.0142 J	0.0500 J	-
B-16	11/8/2005	12.4	5.26 U	0.243 U	-	4.97	0.0178	0.0107	0.0337	-
B-16	2/9/2006	18.8	4.81 U	0.273	-	8.76	0.0582	0.150	0.100 U	-
B-16	5/2/2006	2.99	4.81 U	0.245 U	-	0.762	0.0106	0.0477	0.0233	-
B-16	8/2/2006	3.14	U	0.273	-	1.18	0.0200 U	0.0110	0.0150 U	-
B-16	12/20/2006	1.08	5.00 U	0.253 U	0.505 U	0.259 J	0.00156	0.00118	0.00573	-
B-16	2/6/2007	0.323	4.72 U	0.236 U	0.472 U	0.0422	0.000500 U	0.000500 U	0.00103	-
B-16	5/9/2007	0.205	4.85 U	0.236 U	0.472 U	0.0147	0.000500 U	0.000500 U	0.00100 U	-
B-16	7/31/2007	0.171	4.95 U	0.250 U	0.500 U	0.00935	0.000500 U	0.000500 U	0.00100 U	-
B-16	11/6/2007	0.129	5.00 U	0.250 U	0.500 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-16	2/13/2008	0.0500 U	4.76 U	0.238 U	0.476 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-16	5/5/2008	0.465	4.76 U	0.238 U	0.476 U	0.0337	0.000500 U	0.00104 U	0.00186	-

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B-16	8/11/2008	0.0500 U	5.21 U	0.236 U	0.472 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-16	11/11/2008	0.0500 U	4.76 U	0.238 U	0.476 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-16	2/24/2009	0.0500 U	4.72 U	0.236 U	0.472 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-16	5/12/2009	0.0500 U	4.81 U	0.240 U	0.481 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-16	8/10/2009	0.0500 U	5.00 U	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
B-16	11/10/2009	0.0500 U	5.00 U	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00100 U	-
B-16	03/30/2010	0.0500 U	5.00 U	0.120 U	0.250 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
B-16	06/15/2010	0.0500 U	5.40 U	0.120 U	0.250 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
B-17B	8/24/1992	0.0500 U	NA	NA	-	0.00330	0.000500 U	0.000500 U	0.00100 U	-
B-17B	3/23/1993	NS	NS	NS	-	NS	NS	NS	NS	-
B-17B	6/13/1993	0.0500 U	NA	NA	-	0.200	0.00270	0.000500 U	-0.99900 U	-
B-17B	9/16/1993	NS	NS	NS	-	NS	NS	NS	NS	-
B-17B	12/15/1993	0.0500 U	NA	NA	-	0.00140	0.000500 U	0.000500 U	-0.99900 U	-
B-17B	2/1/1994	NS	NS	NS	-	NS	NS	NS	NS	-
B-17B	6/21/1994	NS	NS	NS	-	NS	NS	NS	NS	-
B-17B	8/18/1994	0.0500 U	NA	NA	-	0.00220	0.000500 U	0.000500 U	-0.99900 U	-
B-17B	12/7/1994	NS	NS	NS	-	NS	NS	NS	NS	-
B-17B	2/21/1995	0.100	NA	NA	-	0.170	0.00210	0.00370	-0.99420	-
B-17B	6/21/1995	NS	NS	NS	-	NS	NS	NS	NS	-
B-17B	9/18/1995	0.0500 U	NA	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-17B	12/12/1995	0.180	NA	NA	-	0.370	0.00200	0.000500 U	0.00140	-
B-17B	3/5/1996	0.0500 U	NA	NA	-	0.230	0.00850 U	0.000770	0.00140	-
B-17B	6/5/1996	0.119	NA	NA	-	0.0727	0.00290	0.00593	0.00542	-
B-17B	8/22/1996	0.100 U	NA	NA	-	0.147	0.00466	0.00191	0.0136	-
B-17B	12/4/1996	0.500 U	NA	NA	-	0.668	0.00850	0.000500 U	0.0225	-
B-17B	2/24/1997	0.0590	NA	NA	-	0.0510	0.00210	0.00320	0.00520	-
B-17B	5/28/1997	0.0500 U	NA	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-17B	8/8/1997	0.0500 U	NA	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-17B	12/11/1997	0.0500 U	14.0 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-17B	3/3/1998	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-17B	6/3/1998	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-17B	9/4/1998	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-17B	12/3/1998	0.0500 U	14.0 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-17B	3/1/1999	0.0720	5.00 U	NA	-	0.0270	0.00100	0.00900	0.00600	-
B-17B	6/9/1999	NS	NS	NS	-	NS	NS	NS	NS	-
B-17B	8/24/1999	0.0480 U	4.00 U	NA	-	0.000200 U	0.000300	0.000210 U	0.000600 U	-
B-17B	11/18/1999	0.0480 U	4.00 U	NA	-	0.000200 U	0.000300	0.000210 U	0.000600 U	-
B-17B	2/16/2000	0.0480 U	1.90	NA	-	0.00430	0.000210	0.000210 U	0.000600 U	-
B-17B	5/16/2000	0.110	2.80 U	NA	-	0.220	0.00200	0.0100	0.00200	-
B-17B	8/23/2000	0.250 U	5.00 U	NA	-	0.00100 U	0.00100 U	0.00100 U	0.00300 U	-
B-17B	11/20/2000	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-17B	2/14/2001	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-17B	5/9/2001	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-17B	8/8/2001	0.0500 U	5.00 U	NA	-	0.000800 U	0.000500 U	0.000500	0.00100 U	-
B-17B	11/6/2001	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500	0.00100 U	-
B-17B	2/20/2002	0.530	5.00 U	NA	-	0.260	0.00370 U	0.0300	0.0330	-
B-17B	4/1/2002	NS	NS	NS	-	NS	NS	NS	NS	-
B-17B	8/20/2002	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-17B	11/20/2002	0.0500 U	4.70 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-17B	1/29/2003	0.0500 U	4.72 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-17B	4/29/2003	0.0500 U	4.72 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-17B	8/25/2003	0.100 U	5.05 U	NA	-	0.000500 U	0.00200 U	0.00100 U	0.00150 U	-
B-17B	10/30/2003	0.0800 U	5.00 U	NA	-	0.000548	0.00128	0.000500 U	0.00236	-
B-17B	1/27/2004	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-17B	5/5/2004	0.300	5.00 U	NA	-	0.135	0.00464	0.00965	0.00652	-
B-17B	8/10/2004	0.0500 U	5.00 U	NA	-	0.000500 U	0.000842	0.000500 U	0.00100 U	-
B-17B	10/27/2004	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-17B	2/8/2005	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-

Appendix A
Summary of Historical Groundwater Analytical Results
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WELL ID	DATE	CONCENTRATION (mg/L)								
		TPH-G	TPH-O&G	TPH-D	TPH	B	T	E	X	Naphtalene
B-17B	5/10/2005	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-17B	8/2/2005	0.0500 U	5.00 U	0.250 U	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-17B	11/9/2005	0.0500 U	4.76 U	0.238 U	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-17B	2/7/2006	0.0500 U	4.72 U	0.236 U	-	0.00403	0.000500 U	0.000500 U	0.00100 U	-
B-17B	5/2/2006	0.0500 U	4.81 U	0.236 U	-	0.000513	0.000500 U	0.000500 U	0.00100 U	-
B-17B	8/2/2006	0.100 U	5.00 U	0.250 U	-	0.000500 U	0.00200 U	0.00100 U	0.00150 U	-
B-17B	12/18/2006	0.0500 U	4.72 U	0.236 U	0.472 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-17B	2/5/2007	0.252	4.72 U	0.236 U	0.472 U	0.0560	0.00198	0.00961	0.00973	-
B-17B	5/7/2007	0.0500 U	4.72 U	0.236 U	0.472 U	0.00262	0.000500 U	0.000500 U	0.00100 U	-
B-17B	7/31/2007	0.0500 U	4.85 U	0.238 U	0.476 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-17B	11/5/2007	0.0500 U	4.72 U	0.236 U	0.472 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-17B	2/12/2008	0.0500 U	4.76 U	0.238 U	0.476 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-17B	5/5/2008	0.0500 U	4.76 U	0.238 U	0.476 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-17B	8/12/2008	0.0500 U	5.21 U	0.238 U	0.495 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-17B	11/11/2008	0.0500 U	4.76 U	0.236 U	0.472 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-17B	2/24/2009	0.0500 U	4.72 U	0.236 U	0.472 U	0.00986	0.000500 U	0.000500 U	0.00100 U	-
B-17B	5/11/2009	0.0500 U	4.72 U	0.238 U	0.476 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-17B	8/10/2009	0.0500 U	5.00 U	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
B-17B	11/10/2009	0.0500 U	5.00 U	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00100 U	-
B-17B	03/29/2010	0.0500 U	6.90	0.120 U	1.50	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
B-17B	06/11/2010	0.0630	NA	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
B-17B	09/15/2010	0.0500 U	5.00 U	0.120 U	0.300	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
B-17B	09/30/2011	0.0800 U	5.40 U	0.101 U	0.505 U	0.00209	0.000500 U	0.000500 U	0.00100 U	-
B-17B	9/13/2012	0.0500 U	NA	0.0890 J	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
B-17B	9/27/2013	0.0500 U	NA	0.120 U	0.240 U	0.000200 U	0.000500 U	0.000500 U	0.00100 U	-
B-17B	9/26/2014	0.05 U	NA	0.13 U	0.25 U	0.001 U	0.001 U	0.001 U	0.002 U	-
B-17B	9/24/2015	0.050 U	NA	0.11 U	0.25 U	0.0020 U	0.0020 U	0.0030 U	0.0030 U	-
B-17B	9/21/2016	0.10 U	NA	0.095 U	0.095 U	0.0010 UJ	0.0010 UJ	0.0010 UJ	0.0030 UJ	-
B-17B	9/20/2017	0.150 U	NA	0.26 U	0.43 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	-
B-17B	9/20/2018	0.150 U	NA	0.23 U	0.38 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	-
B-17B	9/12/2019	0.054 J	NA	0.27 U	0.13 U	0.00014 U	0.0001 U	0.0001 U	0.00031 U	-
B-19	6/13/1993	140	NA	NA	-	39.0	25.0	2.80	14.0	-
B-19	9/16/1993	110	NA	NA	-	36.0	26.0	1.70	16.0	-
B-19	12/15/1993	110	NA	NA	-	30.0	25.0	2.10	13.0	-
B-19	2/1/1994	84.0	NA	NA	-	30.0	18.0	2.80	14.0	-
B-19	6/21/1994	42.0	NA	NA	-	16.0	2.60	2.00	6.90	-
B-19	8/18/1994	41.0	NA	NA	-	20.0	2.90	1.70	6.80	-
B-19	12/7/1994	48.0	NA	NA	-	13.0	7.00	1.40	6.30	-
B-19	2/21/1995	47.0	NA	NA	-	11.0	4.90	1.40	7.20	-
B-19	6/21/1995	44.0	NA	NA	-	14.0	2.60	1.90	1.70	-
B-19	9/18/1995	43.0	NA	NA	-	14.0	2.60	1.70	7.70	-
B-19	12/12/1995	56.0	NA	NA	-	9.20	8.20	0.160	9.70	-
B-19	3/6/1996	59.0	NA	NA	-	4.80	5.40	1.80	11.0	-
B-19	6/5/1996	35.2	NA	NA	-	3.42	1.20	1.20	5.09	-
B-19	8/22/1996	21.5	NA	NA	-	4.29	0.0880	1.31	3.52	-
B-19	12/4/1996	NS	NS	NS	-	NS	NS	NS	NS	-
B-19	2/24/1997	17.0	NA	NA	-	0.905	0.173	0.894	2.22	-
B-19	5/28/1997	23.2	NA	NA	-	2.97	0.182	1.34	3.92	-
B-19	8/8/1997	18.6	NA	NA	-	2.10	0.0900	0.900	2.41	-
B-19	12/10/1997	39.6	14.0 U	NA	-	1.49	0.150	1.92	6.66	-
B-19	3/3/1998	26.7	5.00 U	NA	-	0.760	0.0800	1.38	4.36	-
B-19	6/3/1998	17.9	27.2	NA	-	1.27	0.0723	1.26	2.59	-
B-19	8/25/1998	13.9	5.00 U	NA	-	1.49	0.0460	1.03	1.03	-
B-19	12/2/1998	18.7	14.0 U	NA	-	0.377	0.0643	1.41	4.15	-
B-19	3/1/1999	21.4	5.00 U	NA	-	0.460	0.0940	1.85	4.90	-
B-19	6/9/1999	NS	NS	NS	-	NS	NS	NS	NS	-
B-19	8/24/1999	NS	NS	NS	-	NS	NS	NS	NS	-
B-19	11/19/1999	NS	NS	NS	-	NS	NS	NS	NS	-

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WELL ID	DATE	CONCENTRATION (mg/L)								
		TPH-G	TPH-O&G	TPH-D	Heavy Oil TPH	B	T	E	X	Naphtalene
B-19	2/16/2000	24.0	10.6	NA	-	0.0100 U	0.0540	1.10	4.70	-
B-19	5/17/2000	29.0	2.80 U	NA	-	0.0410	0.0530	1.40	6.20	-
B-19	8/24/2000	7.10	8.40 U	NA	-	0.360	0.0290	0.410	0.340	-
B-19	11/21/2000	6.02	5.00 U	NA	-	0.770	0.0260	0.600	0.0840	-
B-19	2/14/2001	8.35	5.00 U	NA	-	0.220	0.0120	1.09	1.04	-
B-19	5/9/2001	7.39	5.00 U	NA	-	0.430	0.0290	0.950	0.190	-
B-19	8/8/2001	5.17	5.00 U	NA	-	0.420	0.0300	0.480	0.0800	-
B-19	11/5/2001	5.03	5.00 U	NA	-	0.740	0.0150	0.480	0.0470	-
B-19	2/20/2002	11.7	5.00 U	NA	-	0.0450	0.0160	1.02	2.11	-
B-19	4/1/2002	NS	NS	NS	-	NS	NS	NS	NS	-
B-19	8/20/2002	8.34 J	5.00 U	NA	-	0.0379 J	0.0151 J	0.689 J	0.872 J	-
B-19	11/20/2002	7.72	4.90 U	NA	-	0.0424	0.0196	0.655	0.890	-
B-19	1/29/2003	1.16	5.00 U	NA	-	0.00371	0.00166	0.0852	0.0806	-
B-19	4/30/2003	6.52 J	4.95 U	NA	-	0.0123 J	0.00832 J	0.632 J	0.903 J	-
B-19	8/26/2003	2.06	5.15 U	NA	-	0.0813	0.0123	0.219	0.156	-
B-19	10/30/2003	2.52	5.00 U	NA	-	0.0339	0.0100 U	0.193	0.0629	-
B-19	1/27/2004	0.816	5.00 U	NA	-	0.00265	0.00216	0.0929	0.0588	-
B-19	5/5/2004	1.87	5.00 U	NA	-	0.0181	0.00572	0.0524	0.0129	-
B-19	8/11/2004	2.80	5.00 U	NA	-	0.0350	0.0132	0.0714	0.0151	-
B-19	10/29/2004	4.02 J	5.00 U	NA	-	0.0213 J	0.00491 J	0.329 J	0.0496 J	-
B-19	2/10/2005	3.67	5.00 U	NA	-	0.00939	0.00628	0.340	0.0408	-
B-19	5/10/2005	5.31	5.00 U	NA	-	0.0123	0.00290	0.314	0.0223	-
B-19	8/4/2005	3.32 J	5.60	0.507	-	0.0259 J	0.00685 J	0.0705 J	0.0139 J	-
B-19	11/10/2005	3.13	5.00 U	1.79	-	0.0392	0.0116	0.0754	0.0101	-
B-19	2/8/2006	0.892	4.81 U	0.236 U	-	0.00177	0.00203	0.0760	0.0157	-
B-19	5/3/2006	2.38	4.72 U	0.248 U	-	0.00318	0.00599	0.210	0.0196	-
B-19	8/1/2006	2.47	5.00 U	0.255	-	0.0557	0.0141	0.117	0.0362	-
B-19	12/21/2006	2.59	4.76 U	0.240 U	0.481 U	0.00404	0.00332	0.215	0.0431	-
B-19	2/7/2007	8.67 J	4.81 U	0.240 U	0.481 U	0.00516	0.00260	0.164	0.0211	-
B-19	5/9/2007	3.83 J	4.81 U	0.424	0.472 U	0.0187	0.00750	0.140	0.0252	-
B-19	8/2/2007	3.60	4.95 U	0.530	0.481 U	0.00765	0.00315	0.247	0.0131	-
B-19	11/7/2007	2.67	4.95 U	0.600	0.505 U	0.0207	0.00682	0.0422	0.0139	-
B-19	2/14/2008	2.96	0.472 U	0.282	0.472 U	0.00634	0.00199	0.197	0.0211	-
B-19	5/5/2008	3.26	4.76 U	1.41	0.481 U	0.0106	0.00330	0.109	0.137	-
B-19	8/14/2008	2.35	5.21 U	1.01	0.495 U	0.0129	0.00365	0.0723	0.00950	-
B-19	11/12/2008	2.79	4.81 U	0.620	0.481 U	0.00516	0.00250 U	0.189	0.00781	-
B-19	2/27/2009	1.80	4.81 U	0.364	0.481 U	0.00581	0.00115	0.192	0.00278	-
B-19	5/13/2009	3.02	4.72 U	0.603	0.476 U	0.0128	0.00250 U	0.320	0.00122	-
B-19	8/12/2009	3.00	5.00 U	0.980	0.240 U	0.00610	0.00170	0.120	0.0112	-
B-19	11/10/2009	2.70	5.00 U	1.20	0.240 U	0.00270	0.00100 U	0.120	0.00590	-
B-19	03/29/2010	1.50 J	5.00 U	0.610	0.250	0.00170	0.00100 U	0.0880	0.00200 U	-
B-19	06/09/2010	2.30	4.90 U	1.70 Y	0.270	0.00180	0.00150	0.0980	0.00270	-
B-19	6/15/2011	1.30	4.80 U	0.870	0.240 U	0.00100 U	0.00100 U	0.00670	0.00200 U	-
B-19	10/04/2011	1.75	5.00 U	1.20	0.250 U	0.00130	0.00100 U	0.0109	0.00338	-
B-19	12/5/2011	1.60	4.90 U	0.860	0.240 U	0.00100 U	0.00100 U	0.0230	0.00420	-
B-19	4/4/2012	1.30	5.10 U	1.30	0.600	0.00100 U	0.00100 U	0.0130	0.00280	-
B-19	6/13/2012	0.150 J	NA	0.800 J	0.240 UJ	0.0140 J	0.00100 UJ	0.00100 UJ	0.00200 UJ	-
B-19	9/12/2012	2.30	NA	1.30	0.240 U	0.00240	0.00100	0.00870	0.00402	-
B-19	3/13/2013	0.960	NA	0.960	0.310	0.00100 U	0.00100 U	0.00730	0.00200 U	-
B-19	6/11/2013	1.10	NA	0.750	0.140	0.00100 U	0.00100 U	0.00740	0.00200 U	-
B-19	9/24/2013	1.80	NA	1.20	0.240 U	0.00150	0.00100	0.00870	0.00200 U	-
B-19	12/3/2013	1.1	NA	0.59	0.24 U	0.0014	0.001 U	0.0088	0.002 U	-
B-19	3/5/2014	1.8	NA	0.82	0.24 U	0.0015	0.001 U	0.0084	0.002 U	-
B-19	6/9/2014	1.5	NA	0.85	0.25 U	0.001 U	0.001 U	0.0028	0.002 U	-
B-19	9/25/2014	1.4 J	NA	1.1	0.59	0.001 U	0.001 U	0.004	0.002 U	-
B-19	12/15/2014	1.7 J	NA	1.3	0.43	0.0010 U	0.0010 U	0.0077	0.0020 U	-
B-19	3/26/2015	1.5	NA	0.69	0.24 U	0.0020 U	0.0020 U	0.0036	0.0030 U	-
B-19	6/16/2015	1.3 J	NA	0.84	0.25 U	0.0020 U	0.0020 U	0.0030 U	0.0030 U	-
B-19	9/24/2015	2.2 J	NA	1.8	0.26 U	0.0022	0.0020 U	0.0037	0.0030 U	-

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WELL ID	DATE	CONCENTRATION (mg/L)								
		TPH-G	TPH-O&G	TPH-D	TPH	B	T	E	X	Naphtalene
B-19	12/21/2015	1.9	NA	1.5	0.61	0.0011 J	0.0010 U	0.0035	0.0030 U	-
B-19	3/23/2016	0.830	NA	0.665	0.38 U	0.00040 J	0.00052 J	0.0026	0.00079 J	-
B-19	6/22/2016	0.958 J	NA	1.59	1.01	0.00040 J	0.00048 J	0.0019	0.00081 J	-
B-19	9/22/2016	1.79	NA	1.01 J	0.154	0.0013	0.0012	0.0035	0.0015 J	-
B-19	12/7/2016	1.500	NA	1.10	0.13 J	0.00035	0.00040 J	0.0020	0.00091 J	-
B-19	3/20/2017	1.200	NA	0.89	0.15 J	0.00021 J	0.00037 J	0.0014	0.00062 J	-
B-19	6/20/2017	0.910	NA	0.79 J	0.16 J	0.00025 J	0.00052 J	0.0014	0.0013 J	-
B-19	9/21/2017	1.40	NA	1.3	0.18 J	0.00094	0.0011	0.0017	0.0023 J	-
B-19	3/20/2018	1.10	NA	1	0.19 J	0.00012 J	0.0010 U	0.0004 J	0.0030 U	-
B-19	9/20/2018	1.30	NA	1.4	0.67	0.00190	0.0011	0.0020	0.0021 J	-
B-19	3/12/2019	0.63	NA	0.85	0.35 J	0.00042	0.0006 J	0.0004 J	0.0006 J	-
B-19	9/11/2019	0.68 J	NA	0.89	0.13 U	0.00330	0.0019	0.0009 J	0.0013 J	-
B-20	12/12/1995	4.00 U	NA	NA	-	15.0	0.0800 U	0.120	0.160 U	-
B-20	3/6/1996	7.10	NA	NA	-	20.0	0.0140	0.230	0.0640	-
B-20	6/5/1996	5.00 U	NA	NA	-	6.75	0.0500 U	0.113	0.100 U	-
B-20	8/22/1996	3.18	NA	NA	-	2.58	0.0250 U	0.0332	0.0500 U	-
B-20	12/4/1996	3.36	NA	NA	-	6.17	0.0298	0.0449	0.0644	-
B-20	2/24/1997	5.01	NA	NA	-	7.21	0.00780	0.144	0.0640	-
B-20	5/28/1997	8.53	NA	NA	-	8.24	0.0500 U	0.210	0.133	-
B-20	8/11/1997	5.70	NA	NA	-	11.4	0.00900	0.110	0.0300	-
B-20	12/10/1997	4.99	14.0 U	NA	-	7.09	0.0500 U	0.0850	0.100 U	-
B-20	3/3/1998	3.07	5.00 U	NA	-	3.53	0.0250 U	0.0490	0.0500 U	-
B-20	6/3/1998	4.36	23.1	NA	-	2.85	0.0250 U	0.0430	0.0500 U	-
B-20	8/25/1998	NS	NS	NS	-	NS	NS	NS	NS	-
B-20	12/3/1998	2.50 U	14.0 U	NA	-	1.06	0.0250 U	0.0250 U	0.0500 U	-
B-20	3/1/1999	5.65	11.5	NA	-	4.65	0.0500 U	0.170	0.100 U	-
B-20	6/9/1999	2.00	4.00 U	NA	-	0.860	0.00600	0.0260	0.0500	-
B-20	8/24/1999	1.80	8.20	NA	-	0.780	0.00400	0.0100	0.00700	-
B-20	11/18/1999	NS	NS	NS	-	NS	NS	NS	NS	-
B-20	2/16/2000	1.30	9.60	NA	-	0.170	0.00410	0.00790	-0.99500 U	-
B-20	5/16/2000	NS	NS	NS	-	NS	NS	NS	NS	-
B-20	8/24/2000	2.00	8.40 U	NA	-	1.60	0.00470	0.0170	0.00600	-
B-20	11/21/2000	3.74	5.00 U	NA	-	1.41	0.0250 U	0.0380	0.0500 U	-
B-20	2/14/2001	5.71	5.00 U	NA	-	1.69	0.0250 U	0.0830	0.0500 U	-
B-20	5/9/2001	6.50	5.00 U	NA	-	1.35	0.0250 U	0.0860	0.0500 U	-
B-20	8/8/2001	3.15	5.00 U	NA	-	0.760	0.00400	0.0320	0.00400	-
B-20	11/5/2001	6.20	5.00 U	NA	-	1.45	0.0110	0.0960	0.00800	-
B-20	2/20/2002	4.54	5.00 U	NA	-	0.920	0.0100	0.0620	0.0110	-
B-20	4/1/2002	NS	NS	NS	-	NS	NS	NS	NS	-
B-20	8/20/2002	NS	NS	NS	-	NS	NS	NS	NS	-
B-20	11/20/2002	6.27	6.57	NA	-	1.32	0.0250 U	0.0936	0.0500 U	-
B-20	1/29/2003	6.91	4.81 U	NA	-	1.41	0.0100 U	0.185	0.0200	-
B-20	4/30/2003	5.49 J	5.00 U	NA	-	1.45	0.0117 J	0.156 J	0.0155 J	-
B-20	8/25/2003	NS	NS	NS	-	NS	NS	NS	NS	-
B-20	10/31/2003	2.17	9.60	NA	-	0.589	0.00614	0.0326	0.0275	-
B-20	1/27/2004	7.37	5.00 U	NA	-	1.20	0.0140	0.0743	0.0263	-
B-20	5/6/2004	0.138	NA	NA	-	0.00145	0.000802	0.000500 U	0.00196	-
B-20	8/11/2004	2.52	7.30	NA	-	0.716	0.00313	0.00757	0.00545	-
B-20	10/29/2004	2.09 J	5.00 U	NA	-	0.0807 J	0.00168 J	0.00637 J	0.00538 J	-
B-20	2/10/2005	6.20	8.88	NA	-	0.834	0.0148	0.0539	0.0161	-
B-20	5/11/2005	5.07	5.30	NA	-	0.651	0.0114	0.0318	0.0126	-
B-20	8/4/2005	4.41 J	7.35	7.89	-	0.692	0.00555 J	0.0177 J	0.00914 J	-
B-20	11/10/2005	5.39	5.21 U	4.82	-	0.394	0.00524	0.0246	0.00951	-
B-20	2/8/2006	5.85	4.90 U	1.79	-	0.424	0.00849	0.0544	0.00957	-
B-20	5/3/2006	4.29 J	4.81 U	1.10	-	0.299	0.00561 J	0.0226 J	0.00784 J	-
B-20	8/1/2006	0.880	5.00 U	0.407	-	0.0188	0.00200 U	0.00305	0.00404	-
B-20	12/19/2006	2.99 J	4.81 U	0.683	0.481 U	0.0823 J	0.00813 J	0.0490 J	0.00599 J	-
B-20	2/8/2007	3.30 J	4.72	0.729	0.472 U	0.0995	0.00992	0.0374	0.0122	-

Appendix A
Summary of Historical Groundwater Analytical Results
D Street Petroleum Site

WELL ID	DATE	CONCENTRATION (mg/L)								
		TPH-G	TPH-O&G	TPH-D	Heavy Oil TPH	B	T	E	X	Naphtalene
B-20	5/10/2007	2.54	4.76 U	0.730	0.472 U	0.196	0.00566	0.0140	0.00780	-
B-20	8/2/2007	2.65	4.72 U	1.57	0.521 U	0.159	0.00508	0.0212	0.00748	-
B-20	11/7/2007	2.10	5.68 U	0.893	1.04	0.0751	0.00326	0.00870	0.00530	-
B-20	2/14/2008	2.28	4.72 U	0.349	0.481 U	0.0674	0.00538	0.0150	0.00597	-
B-20	5/5/2008	1.88	4.76 U	1.41	0.472 U	0.0360	0.00285	0.00806	0.00806	-
B-20	8/14/2008	0.946	5.21 U	NS	2.45 U	0.0407	0.00312	0.00561	0.00554	-
B-20	11/12/2008	3.35	4.81 U	2.95	0.613	0.0689	0.00614	0.0143	0.0123	-
B-20	2/25/2009	2.73 J	5.05	1.84	0.472 U	0.0205 J	0.00141 J	0.0254 J	0.0166 J	-
B-20	5/13/2009	2.83 J	4.81 U	4.30	0.915	0.0170 J	0.00158 J	0.164 J	0.0597 J	-
B-20	8/13/2009	3.70	5.00 U	1.40	0.250 U	0.00940	0.00260	0.00880	0.0162	-
B-20	11/10/2009	3.50	5.00 U	2.20	0.240 U	0.0180	0.00290	0.00590	0.0111	-
B-20	03/29/2010	0.330	63.0	2.00	0.250 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
B-20	06/09/2010	1.50	5.10	2.20 Y	0.580	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
B-25	8/24/1992	53.0	NA	NA	-	0.370	0.0670	2.10	9.80	-
B-25	3/23/1993	NS	NS	NS	-	NS	NS	NS	NS	-
B-25	6/13/1993	60.0	NA	NA	-	0.290	0.0780	1.60	9.00	-
B-25	9/16/1993	25.0	NA	NA	-	0.500	0.0390	0.840	3.70	-
B-25	12/15/1993	17.0	NA	NA	-	0.750	0.0350	0.480	1.60	-
B-25	2/1/1994	25.0	NA	NA	-	0.400	0.0800	1.10	5.00	-
B-25	6/21/1994	NS	NS	NS	-	NS	NS	NS	NS	-
B-25	8/18/1994	23.0	NA	NA	-	1.40	0.0420	0.870	3.10	-
B-25	12/7/1994	10.0	NA	NA	-	0.890	U	0.320	1.10	-
B-25	2/21/1995	25.0	NA	NA	-	0.480	0.0160	0.420	3.10	-
B-25	6/21/1995	NS	NS	NS	-	NS	NS	NS	NS	-
B-25	9/18/1995	29.0	NA	NA	-	0.840	0.0210	1.20	3.10	-
B-25	12/12/1995	30.0	NA	NA	-	0.520	0.0170	0.460	2.80	-
B-25	3/6/1996	51.0	NA	NA	-	0.330	0.0130	0.980	5.80	-
B-25	6/5/1996	19.0	NA	NA	-	0.540	0.0178	0.430	1.49	-
B-25	8/22/1996	24.8	NA	NA	-	0.660	0.0500 U	0.805	2.56	-
B-25	12/4/1996	14.8	NA	NA	-	0.380	0.0159	0.288	0.843	-
B-25	2/24/1997	27.0	NA	NA	-	0.200	0.0130	0.580	2.28	-
B-25	5/28/1997	15.3	NA	NA	-	0.299	0.0254	0.437	1.55	-
B-25	8/8/1997	22.8	NA	NA	-	0.200	0.0190	0.610	2.29	-
B-25	12/10/1997	14.4	14.0 U	NA	-	0.170	0.0130	0.330	1.33	-
B-25	3/3/1998	8.77	5.00 U	NA	-	0.200	0.0160	0.160	0.670	-
B-25	6/3/1998	16.8	5.00 U	NA	-	0.162	0.0130 U	0.451	1.74	-
B-25	8/25/1998	15.5	5.00 U	NA	-	0.150	0.0140	0.450	1.78	-
B-25	12/2/1998	10.1	14.0 U	NA	-	1.96	0.0167	0.205	0.897	-
B-25	3/1/1999	7.49	5.00 U	NA	-	0.450	0.0150	0.120	0.430	-
B-25	6/9/1999	16.0	4.00 U	NA	-	0.240	0.0170	0.250	0.960	-
B-25	8/24/1999	14.0	4.10	NA	-	0.260	0.0180	0.190	0.640	-
B-25	11/19/1999	6.80	4.00 U	NA	-	2.20	0.0220	0.0940	0.280	-
B-25	2/16/2000	5.50	12.8	NA	-	0.490	0.0120	0.0540	0.160	-
B-25	5/17/2000	7.80	2.80 U	NA	-	0.540	0.0170	0.0900	0.320	-
B-25	8/24/2000	7.60	8.40 U	NA	-	0.540	0.0140	0.0800	0.260	-
B-25	11/21/2000	10.1	5.00 U	NA	-	1.90	0.0250 U	0.0790	0.220	-
B-25	2/14/2001	10.1	5.00 U	NA	-	0.970	0.0130 U	0.110	0.300	-
B-25	5/9/2001	7.44	5.00 U	NA	-	0.520	0.0110	0.0510	0.150	-
B-25	8/8/2001	7.71	5.00 U	NA	-	0.400	0.00900	0.0460	0.120	-
B-25	11/5/2001	6.78	5.00 U	NA	-	0.530	0.00900	0.0390	0.0950	-
B-25	2/20/2002	5.20	5.00 U	NA	-	0.570	0.01700	0.0320	0.0660	-
B-25	4/1/2002	NS	NS	NS	-	NS	NS	NS	NS	-
B-25	8/20/2002	10.3 J	5.00 U	NA	-	0.280 J	0.00692 J	0.0426 J	0.0981 J	-
B-25	11/19/2002	7.97	5.00 U	NA	-	0.220	0.00446	0.0372	0.0764	-
B-25	1/29/2003	8.01 J	4.85 U	NA	-	0.384	0.00843	0.0276	0.0656	-
B-25	4/30/2003	6.00 J	4.90 U	NA	-	0.286 J	0.0110 J	0.0255 J	0.0480 J	-
B-25	8/26/2003	6.52	5.00 U	NA	-	0.144	0.00347	0.0395	0.0692	-
B-25	11/4/2003	10.7	4.72 U	NA	-	0.149	0.00500 U	0.0278	0.0571	-

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WELL ID	DATE	CONCENTRATION (mg/L)								
		TPH-G	TPH-O&G	TPH-D	Heavy Oil TPH	B	T	E	X	Naphtalene
B-25	1/27/2004	6.34	5.00 U	NA	-	0.185	0.00370	0.0114	0.0232	-
B-25	5/6/2004	5.80	5.00 U	NA	-	0.210	0.00784	0.0143	0.0245	-
B-25	8/11/2004	8.32	5.00 U	NA	-	0.0730	0.00277	0.0209	0.0391	-
B-25	10/28/2004	9.80 J	5.00 U	NA	-	0.111 J	0.00318 J	0.0141 J	0.0253 J	-
B-25	2/10/2005	6.60	5.00 U	NA	-	0.159	0.00286	0.00934	0.0205	-
B-25	5/10/2005	6.50	5.00 U	NA	-	0.108	0.00490	0.00779	0.0135	-
B-25	8/4/2005	6.21	5.00 U	0.544	-	0.0750	0.00340	0.00957	0.0169	-
B-25	11/8/2005	7.29	4.85 U	0.486	-	0.105	0.00246	0.00688	0.0128	-
B-25	2/8/2006	3.80	4.76 U	0.314	-	0.0416	0.000966	0.00287	0.00650	-
B-25	5/3/2006	10.0	4.72 U	0.618	-	0.0652	0.00250 U	0.00655	0.0130	-
B-25	8/2/2006	7.95	5.00 U	2.02	-	0.105	0.0100 U	0.00798	0.00750 U	-
B-25	12/19/2006	6.54	4.72 U	0.346	0.481 U	0.101 J	0.00313	0.00390	0.00706	-
B-25	2/7/2007	2.23 J	4.72 U	0.379	0.472 U	0.0660 J	0.00302	0.00538 J	0.0102 J	-
B-25	5/9/2007	7.16 J	4.72 U	0.687	0.472 U	0.146 J	0.00590	0.0169 J	0.0195	-
B-25	8/1/2007	3.86 J	5.00 U	0.836	0.485 U	0.0156 J	0.00200 J	0.000777 J	0.00204 J	-
B-25	11/6/2007	12.4 J	4.81 U	0.856	0.481 U	0.0900 J	0.0311 J	0.0139 J	0.0458 J	-
B-25	2/14/2008	7.23	4.72 U	0.349	0.472 U	0.0451	0.00265	0.00250 U	0.00740	-
B-25	5/5/2008	5.66	4.72 U	0.784	0.472 U	0.0758	0.00420	0.00250 U	0.00986	-
B-25	8/13/2008	7.62	5.21 U	0.621	0.476 U	0.0380	0.00250 U	0.00333	0.00894	-
B-25	11/11/2008	7.31	4.90 U	0.687	0.481 U	0.0719	0.00316	0.00425	0.00820	-
B-25	2/24/2009	6.84	4.72 U	0.496	0.472 U	0.0384 J	0.00250 U	0.00250 U	0.00574	-
B-25	5/13/2009	6.14	4.72 U	0.563	0.481 U	0.0406	0.00250 U	0.00273	0.00552	-
B-25	8/11/2009	8.20	5.00 U	2.40	0.250 U	0.110	0.00190	0.00310	0.00460	-
B-25	11/11/2009	6.10	5.00 U	1.80	0.240 U	0.0720 J	0.00220	0.00190	0.00450	-
B-25	03/23/2010	8.80	5.00 U	3.20	0.250 U	0.00620	0.00100 U	0.00100 U	0.00240	-
B-25	06/09/2010	8.20	5.00 U	2.90 Y	0.240 U	0.0240	0.00100 U	0.00110	0.00220	-
B-25	09/15/2010	6.40	4.80 U	3.50 Y	0.310	0.0800	0.00200	0.00420	0.00320	-
B-25	12/20/2010	3.00	4.80 U	1.20	0.320	0.440	0.00530	0.00290	0.0120	-
B-25	3/11/2011	3.30	5.10 U	0.500	0.250 U	0.110	0.00400	0.00230	0.00940	-
B-25	6/16/2011	4.20	5.10 U	1.20	0.250 U	0.130	0.00500	0.00270	0.0110	-
B-25	09/30/2011	2.68	5.30 U	1.02	0.500 U	0.331	0.00825	0.00250 U	0.0163	-
B-25	12/6/2011	2.80	5.20 U	1.00	0.250 U	0.0810	0.00670	0.00380	0.0120	-
B-25	4/3/2012	2.30	5.30 U	1.50	0.240 U	0.500	0.00350	0.00290	0.00580	-
B-25	6/12/2012	2.90	NA	1.00	0.240 U	0.210	0.00500	0.00300	0.0110	-
B-25	9/13/2012	4.00	NA	1.10	0.240 U	0.200	0.00520	0.00230	0.0110	-
B-25	12/11/2012	2.10	NA	0.910	0.240 U	1.50	0.0110	0.00760	0.0150	-
B-25	3/14/2013	1.60	NA	0.760	0.260 U	0.540	0.00700	0.00250	0.0170	-
B-25	6/10/2013	2.00	NA	0.610	0.0500 U	0.410	0.00600	0.00170	0.0100	-
B-25	9/26/2013	3.50	NA	0.420	0.240 U	0.400	0.00660	0.00500 U	0.0110	-
B-25	12/5/2013	2.1	NA	0.46	0.24 U	0.42	0.0091	0.0033	0.0203	-
B-25	3/6/2014	2.6	NA	0.57	0.24 U	0.8	0.0064	0.0059	0.012	-
B-25	6/11/2014	2.5 J	NA	0.96 J	0.24 U	- R	- R	- R	-	-
B-25	9/24/2014	2.0 J	NA	1.4	0.24 U	0.45	0.0074	0.0019	0.0182	-
B-25	12/15/2014	1.9 J	NA	0.74	0.24 U	0.33	0.010 U	0.010 U	0.020 U	-
B-25	3/25/2015	2.2	NA	0.75	0.24 U	0.090	0.0054	0.0030 U	0.014	-
B-25	6/15/2015	2.8 J	NA	0.69	0.25 U	0.15	0.0080 U	0.012 U	0.012 U	-
B-25	9/24/2015	2.1 J	NA	0.87	0.26 U	- R	0.0040	0.0030 U	0.0074	-
B-25	12/21/2015	2.6	NA	0.97	0.39 U	0.530 J	0.0055	0.0032	0.0092	-
B-25	3/23/2016	1.05	NA	0.283	0.19 U	0.0711 J	0.0016 J	0.00084 J	0.0020 J	-
B-25	6/22/2016	2.68 J	NA	0.336 J	0.250 J	0.175 J	0.0036	0.0035	0.0075	-
B-25	9/22/2016	2.70	NA	0.478	0.0713 J	0.150 J	0.0027	0.00074 J	0.0033	-
B-25	12/8/2016	1.700	NA	0.59 J	0.12 U	0.130	0.0031 J	0.010 U	0.0055 J	-
B-25	3/21/2017	2.300	NA	0.94	0.40 U	0.310	0.0010 U	0.0010 U	0.0030 U	-
B-25	6/20/2017	2.20	NA	0.81	0.42 U	0.092	0.0029	0.0010	0.0089	-
B-25	9/19/2017	1.80	NA	0.69	0.44 U	0.067	0.00220	0.00072 J	0.0042	-
B-25	12/12/2017	2.50	NA	0.95	0.40 U	0.460	0.00350	0.00220	0.0068	-
B-25	3/21/2018	3.10	NA	1.20	0.14 J	0.450	0.00250	0.00310	0.0051	-
B-25	6/19/2018	2.00	NA	0.86	0.41 U	0.089	0.00200	0.00079 J	0.0044	-
B-25	9/17/2018	2.00	NA	1.10	0.24 J	0.220	0.00140	0.00079 J	0.0022 J	-

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		TPH-G	TPH-O&G	TPH-D	Heavy Oil TPH	B	T	E	X	Naphtalene
B-25	12/11/2018	4.00	NA	2.50	0.58	0.970	0.00530	0.00310	0.0071	-
B-25	3/14/2019	2.30	NA	0.72	0.11 J	0.120	0.00340 J	0.00200 U	0.0059 J	-
B-25	6/18/2019	1.40	NA	0.88	0.11 U	0.036	0.00140	0.00050 J	0.0023 J	-
B-25	9/12/2019	1.40	NA	0.78	0.12 U	0.092	0.00130	0.00048 J	0.0018 J	-
B-30	9/16/1993	0.000500 U	NA	NA	-	0.000650	0.000500 U	0.000500 U	0.000500 U	-
B-30	12/15/1993	NS	NS	NS	-	NS	NS	NS	NS	-
B-30	2/1/1994	0.000500 U	NA	NA	-	0.000500 U	0.000500 U	0.000500 U	0.000500 U	-
B-30	6/21/1994	0.000500 U	NA	NA	-	0.000500 U	0.000500 U	0.000500 U	0.000500 U	-
B-30	8/18/1994	NS	NS	NS	-	NS	NS	NS	NS	-
B-30	12/7/1994	0.000500 U	NA	NA	-	0.000500 U	0.000500 U	0.000500 U	0.000500 U	-
B-30	2/21/1995	0.000500 U	NA	NA	-	0.000500 U	0.000500 U	0.000500 U	0.000500 U	-
B-30	6/21/1995	0.000500 U	NA	NA	-	0.000500 U	0.000520	0.000500 U	0.000500 U	-
B-30	8/20/2002	NS	NS	NS	-	NS	NS	NS	NS	-
B-30	11/19/2002	NS	NS	NS	-	NS	NS	NS	NS	-
B-30	1/29/2003	NS	4.81 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-30	4/29/2003	0.0500 U	4.72 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-30	8/25/2003	0.100 U	1.04 U	NA	-	0.000500 U	0.00200 U	0.00100 U	0.00150 U	-
B-30	10/30/2003	0.0800 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00150 U	-
B-30	1/27/2004	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-30	5/5/2004	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-30	8/10/2004	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-30	10/27/2004	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-30	2/8/2005	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-30	5/10/2005	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-30	8/2/2005	0.0500 U	5.00 U	0.250 U	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-30	11/8/2005	0.0500 U	4.76 U	0.240 U	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-30	2/7/2006	0.0500 U	4.72 U	0.236 U	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-30	5/3/2006	0.0500 U	4.76 U	0.236 U	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-30	8/3/2006	0.0500 U	4.76 U	0.236 U	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-30	12/20/2006	0.0500 U	4.76 U	0.236 U	0.472 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-30	2/6/2007	0.0500 U	4.81 U	0.236 U	0.472 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-30	5/8/2007	0.0500 U	4.76 U	0.236 U	0.472 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-30	7/31/2007	0.0500 U	4.95 U	0.255 U	0.510 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-30	11/6/2007	0.0500 U	5.00 U	0.253 U	0.505 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-30	2/12/2008	0.0500 U	4.72 U	0.236 U	0.472 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-30	5/5/2008	0.0500 U	4.72 U	0.243 U	0.476 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-30	8/12/2008	0.0500 U	5.21 U	0.248 U	0.495 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-30	11/10/2008	0.0500 U	4.85 U	0.240 U	0.481 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-30	2/24/2009	0.0500 U	4.72 U	0.238 U	0.476 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-30	5/12/2009	0.0500 U	4.76 U	0.236 U	0.472 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-30	8/11/2009	0.0500 U	5.00 U	0.120 U	0.250 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
B-30	11/10/2009	0.0500 U	5.00 U	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00100 U	-
B-30	03/29/2010	0.0500 U	5.00 U	0.120 U	0.250 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
B-30	06/15/2010	0.0500 U	5.10 U	0.120 U	0.250 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
B-30	09/15/2010	0.0500 U	5.00 U	0.130 U	0.260 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
B-30	09/29/2011	0.0800 UJ	5.30 UJ	0.120 UJ	0.240 UJ	0.000200 UJ	0.000500 UJ	0.000500 UJ	0.00100 UJ	-
B-30	9/13/2012	0.0500 U	NA	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
B-30	9/26/2013	0.0500 U	NA	0.120 U	0.240 U	0.000200 U	0.000500 U	0.000500 U	0.00100 U	-
B-30	9/25/2014	0.05 U	NA	0.12 U	0.25 U	0.001 U	0.001 U	0.001 U	0.002 U	-
B-30	9/23/2015	0.050 U	NA	0.11 U	0.25 U	0.0020 U	0.0020 U	0.0030 U	0.0030 U	-
B-30	9/20/2016	0.10 U	NA	0.094 U	0.094 U	0.0010 U	0.0010 U	0.0010 U	0.0030 U	-
B-30	9/20/2017	0.150 U	NA	0.26 U	0.44 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	-
B-30	9/20/2018	0.150 U	NA	0.26 U	0.43 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	-
B-30	9/9/2019	0.048 U	NA	0.26 U	0.13 U	0.00014 U	0.0001 U	0.0001 U	0.0003 U	-
B-31	8/24/1992	0.880	NA	NA	-	0.120	0.0200	0.00610	0.0350	-
B-31	3/23/1993	NS	NS	NS	-	NS	NS	NS	NS	-
B-31	6/13/1993	0.0740	NA	NA	-	0.00800	0.00110	0.000100 U	-0.99760	-

Appendix A
Summary of Historical Groundwater Analytical Results
D Street Petroleum Site

WELL ID	DATE	CONCENTRATION (mg/L)								
		TPH-G	TPH-O&G	TPH-D	Heavy Oil TPH	B	T	E	X	Naphtalene
B-31	9/16/1993	NS	NS	NS	-	NS	NS	NS	NS	-
B-31	12/15/1993	1.20	NA	NA	-	0.180	0.0180	0.00990	-0.9730	-
B-31	2/1/1994	NS	NS	NS	-	NS	NS	NS	NS	-
B-31	6/21/1994	5.00 U	NA	NA	-	0.00200	0.000100 U	0.000100 U	-0.999900 U	-
B-31	8/18/1994	NS	NS	NS	-	NS	NS	NS	NS	-
B-31	12/7/1994	0.650	NA	NA	-	0.0480	0.00720	0.0360	0.0490	-
B-31	2/21/1995	0.0510	NA	NA	-	0.00450	U	0.000910	0.00110	-
B-31	6/21/1995	0.370	NA	NA	-	0.0100	0.00550	0.00220	0.00820	-
B-31	9/18/1995	1.30	NA	NA	-	0.0870	0.0110	0.00550	0.0220	-
B-31	12/12/1995	0.220	NA	NA	-	0.0140	0.00610	0.00330	0.0180	-
B-31	3/6/1996	3.90	NA	NA	-	0.150	0.0150	0.130	0.0230	-
B-31	6/5/1996	2.82	NA	NA	-	0.100	0.00621	0.0581	0.0248	-
B-31	8/21/1996	1.39	NA	NA	-	0.179	0.0127	0.0123	0.0506	-
B-31	12/3/1996	1.73	NA	NA	-	0.161	0.0133	0.0258	0.0539	-
B-31	2/20/1997	1.76	NA	NA	-	0.124	0.00670	0.0877	0.0124	-
B-31	5/28/1997	3.01	NA	NA	-	0.0780	0.00450	0.0905	0.00680	-
B-31	8/11/1997	1.91	NA	NA	-	0.140	0.0170	0.0160	0.0490	-
B-31	12/11/1997	0.490	14.0 U	NA	-	0.0610	0.00900	0.0120	0.0180	-
B-31	3/4/1998	1.31	5.00 U	NA	-	0.0670	0.00400	0.0300	0.0130	-
B-31	6/2/1998	1.90	5.00 U	NA	-	0.0745	0.0170	0.0157	0.0358	-
B-31	9/4/1998	1.20	5.00 U	NA	-	0.0400	0.00300	0.0150	0.0720	-
B-31	12/3/1998	0.279	14.0 U	NA	-	0.0245	0.00272	0.00205	0.0123	-
B-31	3/1/1999	2.51	5.00 U	NA	-	0.0920	0.0320	0.187	0.0250	-
B-31	6/9/1999	4.30	5.60	NA	-	0.130	0.100	0.0890	0.160	-
B-31	8/24/1999	2.70	4.00 U	NA	-	0.100	0.0290	0.0210	0.0580	-
B-31	11/18/1999	3.30	4.00	NA	-	0.200	0.0350	0.0440	0.0950	-
B-31	2/16/2000	1.10	7.30	NA	-	0.0410	0.00680	0.0430	0.00810	-
B-31	5/16/2000	1.20	2.80 U	NA	-	0.0450	0.0190	0.0190	0.0270	-
B-31	8/23/2000	0.940	8.40 U	NA	-	0.0550	0.0150	0.0110	0.0270	-
B-31	11/20/2000	2.73	5.00 U	NA	-	0.170	0.0330	0.0410	0.0760	-
B-31	2/15/2001	2.42	5.00 U	NA	-	0.0730	0.0350	0.0780	0.0610	-
B-31	5/9/2001	1.93	5.00 U	NA	-	0.0720	0.0480	0.0550	0.0700	-
B-31	8/8/2001	1.02	5.00 U	NA	-	0.0430	0.0220	0.0180	0.0330	-
B-31	11/5/2001	2.78	5.00 U	NA	-	0.0890	0.0290	0.0310	0.0630	-
B-31	2/20/2002	1.39	5.00 U	NA	-	0.0270	0.00400	0.0630	0.0200	-
B-31	4/1/2002	NS	NS	NS	-	NS	NS	NS	NS	-
B-31	8/20/2002	0.847 J	5.00 U	NA	-	0.0361 J	0.0223 J	0.00715 J	0.0205 J	-
B-31	11/20/2002	0.711	6.10 U	NA	-	0.0241	0.00692	0.00320	0.0108	-
B-31	1/29/2003	0.0737	4.72 U	NA	-	0.00310 U	0.000500 U	0.000500 U	0.00187 J	-
B-31	4/29/2003	0.300	5.00 U	NA	-	0.00452	0.000712 J	0.00274	0.00283 J	-
B-31	8/25/2003	NS	NS	NS	-	NS	NS	NS	NS	-
B-31	10/31/2003	0.204	5.00 U	NA	-	0.00822	0.00440	0.0115	0.0147	-
B-31	1/27/2004	0.390	5.00 U	NA	-	0.0125	0.00208	0.00829	0.00651	-
B-31	5/6/2004	0.179	5.00 U	NA	-	0.00132	0.000500 U	0.000500 U	0.00189	-
B-31	8/11/2004	0.237	5.00 U	NA	-	0.00772	0.00190	0.000798	0.00290	-
B-31	10/29/2004	0.518	5.00 U	NA	-	0.00847	0.00578	0.00234	0.00646	-
B-31	2/8/2005	0.139	5.00 U	NA	-	0.00244	0.00159	0.00165	0.00534	-
B-31	5/10/2005	0.362	5.00 U	NA	-	0.00647	0.00436	0.00553	0.0115	-
B-31	8/2/2005	0.158 J	5.56 U	0.305 U	-	0.0104	0.00410	0.00216	0.00139 J	-
B-31	11/9/2005	1.50	5.00 U	0.371 U	-	0.0211	0.00772	0.00663	0.0122	-
B-31	2/7/2006	3.35	4.76 U	2.04	-	0.0115	0.0258	0.198	0.286	-
B-31	5/2/2006	2.35	4.81 U	2.07	-	0.00916	0.00446	0.0892	0.0238	-
B-31	8/2/2006	0.850	5.00 U	0.296	-	0.0232	0.0100 U	0.00500 U	0.00750 U	-
B-31	12/20/2006	0.900	4.76 U	0.316	0.476 U	0.00735	0.00626	0.0325	0.0198	-
B-31	2/6/2007	1.97	4.76 U	0.240 U	0.481 U	0.00766	0.00704	0.0827	0.0129	-
B-31	5/8/2007	1.89 J	4.90 U	0.238 U	0.476 U	0.00665	0.00504	0.0302	0.00652	-
B-31	7/31/2007	0.540	5.21 U	0.266 U	0.532 U	0.00379	0.00144	0.00338	0.00239	-
B-31	11/8/2007	0.550	5.49 U	0.287 U	0.575 U	0.00175	0.000650	0.000500 U	0.00220	-
B-31	2/13/2008	0.302	4.76 U	0.238 U	0.476 U	0.00326	0.00164	0.00428	0.00254	-

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WELL ID	DATE	CONCENTRATION (mg/L)								
		TPH-G	TPH-O&G	TPH-D	Heavy Oil TPH	B	T	E	X	Naphtalene
B-31	5/5/2008	0.0500 U	4.72 U	0.236 U	0.476 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
B-31	8/12/2008	0.286	5.21 U	0.236 U	0.536	0.000770	0.000500 U	0.000500 U	0.00178	-
B-31	11/11/2008	0.331	4.95 U	0.240 U	0.481 U	0.00140	0.000500 U	0.000570	0.00263	-
B-31	2/24/2009	0.346	4.72 U	0.236 U	0.472 U	0.00209	0.000803	0.00258	0.00516	-
B-31	5/12/2009	0.337	4.72 U	0.359	0.472 U	0.00116	0.000500 U	0.00398	0.00314	-
B-31	8/11/2009	0.410	5.00 U	0.250	0.250 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
B-31	11/10/2009	0.550	5.00 U	0.310	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00100 U	-
B-31	03/29/2010	0.740	11.0	14.0	0.250 U	0.00200	0.00110	0.0260	0.00150	-
B-31	06/14/2010	1.80	5.20 U	10.0 Y	0.750	0.00240	0.00110	0.0440	0.00400	-
B-31	09/16/2010	0.910	5.20 U		NA	0.00130	0.00120	0.00140	0.00110	-
B-31	12/16/2010	0.880	4.90 U	2.10	0.240	0.00170	0.00100 U	0.00720	0.00650	-
B-31	3/10/2011	1.30	4.80 U	3.70	0.250 U	0.00130	0.00100 U	0.0190	0.00490	-
B-31	6/15/2011	0.620	5.00 U	1.20	0.280	0.00100 U	0.00100 U	0.0250	0.00200 U	-
B-31	09/29/2011	0.328 J	5.40 UJ	0.450 J	0.250 UJ	0.000200 UJ	0.000500 UJ	0.000500 UJ	0.00129 J	-
B-31	12/8/2011	0.220	4.80 U	0.130 U	0.260 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
B-31	4/4/2012	0.500	5.20 U	5.90	0.980	0.00100 U	0.00120	0.0160	0.00200 U	-
B-31	6/12/2012	1.20	NA	0.570	0.240 U	0.00100 U	0.00100 U	0.00280	0.00110	-
B-31	9/12/2012	0.670	NA	0.840	3.30	0.000820 J	0.000880 J	0.000360 J	0.00270	-
B-31	12/10/2012	0.0500 UJ	NA	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
B-31	3/13/2013	0.400	NA	4.00	0.620	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
B-31	6/10/2013	1.10	NA	8.30	1.70	0.00200	0.00330	0.0130	0.0115	-
B-31	9/26/2013	1.30	NA	0.480	0.240 U	0.00230	0.00490	0.00250 U	0.0160	-
B-31	12/5/2013	1.1	NA	0.31	0.24 U	0.0019	0.0041	0.0054	0.0133	-
B-31	3/5/2014	0.41	NA	0.84	0.24 U	0.001 U	0.001 U	0.0026	0.0099	-
B-31	6/11/2014	0.9	NA	1.9	0.31	0.001 U	0.001 U	0.0013	0.002 U	-
B-31	9/26/2014	1.5	NA	3.5	0.51	0.001 U	0.001 U	0.001 U	0.002 U	-
B-31	12/16/2014	0.39	NA	2.1	0.36	0.0010 U	0.0010 U	0.0024	0.0020 U	-
B-31	3/25/2015	0.81	NA	2.8	0.58	0.0020 U	0.0020 U	0.0030 U	0.0030 U	-
B-31	6/17/2015	0.58 J	NA	2.9	0.35	0.0020 U	0.0020 U	0.0031	0.0059	-
B-31	9/23/2015	1.5	NA	2.4	0.25 U	0.0020	0.0034	0.0043	0.0121	-
B-31	12/22/2015	0.43	NA	3.5	0.39 U	0.00065	0.0010 U	0.0073	0.0040 U	-
B-31	3/23/2016	0.694	NA	6.98	0.0019 U	0.00047 J	0.00035 J	0.0048	0.0020	-
B-31	6/22/2016	0.792 J	NA	1.20 J	0.0948 J	0.010 U	0.010 U	0.010 U	0.020 U	-
B-31	9/20/2016	1.53	NA	3.01	0.224 J	0.0022	0.0033	0.0067	0.0116	-
B-31	12/7/2016	0.086 J	NA	1.1	0.15 J	0.00034	0.0010 U	0.0010 U	0.0030 U	-
B-31	3/21/2017	0.240	NA	2.8	0.23 J	0.00019 J	0.0010 U	0.00069 J	0.0015 J	-
B-31	6/21/2017	0.470	NA	3.5	0.27 J	0.00026 J	0.0010 U	0.00068 J	0.00095 J	-
B-31	9/20/2017	0.530	NA	4.3	0.36 J	0.00038 J	0.00062 J	0.00079 J	0.0030	-
B-31	12/11/2017	0.110 J	NA	1.1	0.19 J	0.00016 J	0.00100 U	0.00026 J	0.0002 J	-
B-31	3/20/2018	0.380	NA	3	0.25 J	0.00020 J	0.00100 U	0.00035 J	0.0011 J	-
B-31	6/18/2018	0.670	NA	2.9	0.25 J	0.00073	0.00150	0.00520	0.0073	-
B-31	9/19/2018	1.100	NA	5.2	0.78	0.00110	0.00230	0.00400	0.0091	-
B-31	12/11/2018	0.890	NA	3.2	0.71	0.00092	0.00350	0.00660	0.0094	-
B-31	3/13/2019	0.070 U	NA	2	0.44	0.00009 U	0.00031 U	0.00020 U	0.0004 U	-
B-31	6/17/2019	0.500	NA	4.4	0.5	0.00068	0.00160	0.00300	0.0050	-
B-31	9/10/2019	0.820	NA	0.73	0.12 U	0.00340 J	0.00980	0.00950	0.0295	-
B-34	9/16/1993	NS	NS	NS	-	NS	NS	NS	NS	-
B-34	12/15/1993	3.10	NA	NA	-	9.40	0.0500 U	0.0160	0.100 U	-
B-34	2/1/1994	2.70	NA	NA	-	10.0	0.0500 U	0.260	0.100 U	-
B-34	6/21/1994	4.80	NA	NA	-	6.20	0.0360	0.290	0.0730	-
B-34	8/18/1994	5.10	NA	NA	-	4.90	0.0160	0.260	0.0280	-
B-34	12/7/1994	1.20	NA	NA	-	2.80	0.0500 U	0.0500 U	0.100 U	-
B-34	2/21/1995	0.530	NA	NA	-	0.140	0.0500 U	0.00350	0.00430	-
B-34	6/21/1995	3.10	NA	NA	-	7.40	0.0400 U	0.370	0.0400 U	-
B-34	9/18/1995	3.50	NA	NA	-	6.70	0.0200 U	0.200	0.0310	-
B-34	12/12/1995	3.00	NA	NA	-	4.60	0.0200 U	0.160	0.170	-
B-34	3/6/1996	6.60	NA	NA	-	5.50	0.0140	0.450	0.250	-
B-34	6/5/1996	3.57	NA	NA	-	3.85	0.0250 U	0.440	0.0535	-
B-34	8/21/1996	3.83	NA	NA	-	6.18	0.0183	0.376	0.0236	-

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		TPH-G	TPH-O&G	TPH-D	Heavy Oil TPH	B	T	E	X	Naphtalene
B-34	12/3/1996	2.50 U	NA	NA	-	3.70	0.0250 U	0.677	0.0500 U	-
B-34	2/20/1997	9.78	NA	NA	-	2.21	0.0100 U	0.548	0.519	-
B-34	5/28/1997	5.00 U	NA	NA	-	6.79	0.0500 U	0.380	0.100 U	-
B-34	8/11/1997	3.63	NA	NA	-	7.02	0.0180	0.350	0.0270	-
B-34	12/11/1997	3.06	14.0 U	NA	-	3.03	0.0250 U	0.0740	0.0500 U	-
B-34	3/4/1998	5.59	5.00 U	NA	-	2.44	0.0140	0.460	0.120	-
B-34	6/2/1998	5.00 U	5.00 U	NA	-	5.77	0.0500 U	0.149	0.100 U	-
B-34	9/4/1998	5.00 U	5.00 U	NA	-	4.09	0.0500 U	0.0500 U	0.100 U	-
B-34	12/3/1998	2.98	14.0 U	NA	-	3.12	0.0332	0.0934	0.0500 U	-
B-34	3/1/1999	4.25	5.00 U	NA	-	3.43	0.0250 U	0.544	0.0660	-
B-34	6/9/1999	2.80	4.00 U	NA	-	4.90	0.0180	0.120	0.0200 U	-
B-34	8/24/1999	2.50	4.00 U	NA	-	4.70	0.0240	0.0410	0.0140	-
B-34	11/18/1999	2.90	4.00 U	NA	-	4.60	0.0170	0.0720	0.0100	-
B-34	2/16/2000	2.30	5.50	NA	-	4.20	0.0150	0.120	0.0100 U	-
B-34	5/16/2000	2.20	2.80 U	NA	-	5.40	0.0190	0.0850	0.0110	-
B-34	8/23/2000	1.90	8.40 U	NA	-	5.30	0.0170	0.0320	0.0150 U	-
B-34	11/20/2000	15.0	5.00 U	NA	-	6.59	0.0100 U	0.100 U	0.200 U	-
B-34	2/15/2001	8.78	5.00 U	NA	-	3.23	0.0500 U	0.100	0.100 U	-
B-34	5/9/2001	10.5	5.00 U	NA	-	4.24	0.0500 U	0.0520	0.100 U	-
B-34	8/8/2001	10.1	5.00 U	NA	-	4.45	0.0170	0.0360	0.0200 U	-
B-34	11/5/2001	10.8	5.00 U	NA	-	4.92	0.0190	0.0550	0.0250 U	-
B-34	2/20/2002	11.0	5.00 U	NA	-	3.81	0.100 U	0.100 U	0.200 U	-
B-34	4/1/2002	NS	NS	NS	-	NS	NS	NS	NS	-
B-34	8/20/2002	NS	NS	NS	-	NS	NS	NS	NS	-
B-34	11/19/2002	6.06	5.00 U	NA	-	1.91	0.0125	0.0343	0.0250 U	-
B-34	1/29/2003	4.13	5.26 U	NA	-	0.813	0.0100	0.0735	0.0100 U	-
B-34	4/30/2003	3.67	4.72 U	NA	-	1.02	0.0129	0.0444	0.0100 U	-
B-34	8/26/2003	3.58	5.00 U	NA	-	1.48	0.00824	0.0100	0.00150 U	-
B-34	11/3/2003	3.87	4.72 U	NA	-	0.490	0.00896	0.0819	0.00748	-
B-34	1/27/2004	2.87	5.00 U	NA	-	0.309	0.00916	0.0619	0.0100 U	-
B-34	5/6/2004	2.77	5.00 U	NA	-	0.343	0.0129	0.0221	0.00600	-
B-34	8/11/2004	2.50	5.00 U	NA	-	0.250	0.00974	0.0318	0.00500 U	-
B-34	10/28/2004	3.96 J	5.00 U	NA	-	0.285 J	0.00918 J	0.0959 J	0.00706 J	-
B-34	2/8/2005	2.63 J	5.00 U	NA	-	0.215 J	0.0136 J	0.0196 J	0.00544 J	-
B-34	5/10/2005	3.73	5.00 U	NA	-	0.152	0.00934	0.0207	0.00500 U	-
B-34	8/4/2005	2.53	5.00 U	2.91	-	0.127	0.0112	0.0168	0.00500 U	-
B-34	11/8/2005	3.18	9.33	9.02	-	0.309	0.0110	0.0815	0.00999	-
B-34	2/8/2006	2.19	4.76 U	0.996	-	0.0574	0.00463	0.0962	0.00404	-
B-34	5/3/2006	3.35	4.72 U	1.31	-	0.104	0.00875	0.0255	0.00500 U	-
B-34	8/2/2006	2.75	5.00 U	1.69	-	0.156	0.0131	0.00546	0.00750 U	-
B-34	12/21/2006	2.40 J	4.76 U	1.44	0.472 U	0.0770 J	0.00496 J	0.0276 J	0.00404 J	-
B-34	2/8/2007	3.28 J	4.76 U	1.22	0.472 U	0.0816	0.00757	0.169	0.00888	-
B-34	5/9/2007	3.57 J	4.76 U	1.21	0.472 U	0.160	0.00667 J	0.192	0.00813 J	-
B-34	8/1/2007	3.50 J	4.95 U	2.49	0.490 U	0.0803 J	0.00648 J	0.0225 J	0.00400 J	-
B-34	11/6/2007	2.91	4.72 U	1.87	0.476 U	0.0593	0.00622	0.00744	0.00600	-
B-34	2/14/2008	2.58	4.72 U	1.01	0.472 U	0.0557	0.00480	0.0612	0.00582	-
B-34	5/5/2008	3.21	4.72 U	2.17	0.472 U	0.0545	0.00545	0.151	0.00907	-
B-34	8/14/2008	2.27	5.21 U	2.96	0.500 U	0.0430	0.00591	0.00708	0.00572	-
B-34	11/11/2008	3.49	4.81 U	2.06	0.476 U	0.0784	0.00714	0.00764	0.00696	-
B-34	2/24/2009	4.53 J	4.72 U	1.22	0.472 U	0.491 J	0.00644 J	0.0111 J	0.00616 J	-
B-34	5/11/2009	6.02	4.81 UJ	2.16	0.476 U	1.40	0.00793	0.0134	0.0100 U	-
B-34	8/12/2009	3.90	5.00 U	2.60	0.240 U	1.00	0.00580	0.0140	0.00200 U	-
B-34	11/11/2009	3.80	5.00 U	3.20	0.240 U	0.130	0.00680	0.0110	0.00100 U	-
B-34	03/23/2010	3.00	5.00 U	14.0	0.240 U	0.0630	0.00380	0.0100	0.00200 U	-
B-34	06/11/2010	2.90	5.10 U	4.30 Y,J	0.400	0.0340	0.00410	0.00440	0.00200 U	-
B-34	09/15/2010	2.70	5.00 U	6.10 Y	0.280	0.0390	0.00570	0.00330	0.00200 U	-
B-34	12/21/2010	1.50	5.10 U	2.00 J	1.40 J	0.590	0.00310	0.00270	0.00200 U	-
B-34	3/11/2011	2.00	5.30	4.30 J	0.240 U	0.490	0.00360	0.00510	0.00200 U	-
B-34	6/16/2011	1.70	5.30 U	3.00	0.310	0.720	0.00450	0.00640	0.00200 U	-

Appendix A
Summary of Historical Groundwater Analytical Results
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WELL ID	DATE	CONCENTRATION (mg/L)								
		TPH-G	TPH-O&G	TPH-D	Heavy Oil TPH	B	T	E	X	Naphtalene
B-34	10/06/2011	2.82	5.30 U	2.02	0.495 U	0.497	0.00500 U	0.00630	0.0100 U	-
B-34	12/5/2011	2.20	5.00 U	4.80 J	0.590	0.0730 J	0.00550	0.00540	0.00200 U	-
B-34	4/3/2012	1.40	5.10 U	9.70	1.30	0.510 J	0.00400	0.00330	0.00200 U	-
B-34	6/14/2012	2.40	NA	5.60	0.330	0.600	0.00440	0.00370	0.00200 U	-
B-34	9/13/2012	2.30	NA	2.20	0.240 U	0.560 J	0.00590	0.00560	1.90 J	-
B-34	12/12/2012	0.440	NA	2.90	0.300	0.130	0.00110	0.00100 U	0.00200 U	-
B-34	3/14/2013	1.70	NA	9.10 J	1.40	0.560	0.00510	0.0100	0.00200 U	-
B-34	6/11/2013	2.60	NA	5.30	0.510 J	0.430	0.00490	0.00600	0.00200 U	-
B-34	9/26/2013	3.50	NA	3.50 J	0.240 U	0.390	0.0100 U	0.0100 U	0.0200 U	-
B-34	12/4/2013	3.3	NA	1.5	0.24 U	0.900	0.0067	0.0078	0.002 U	-
B-34	3/5/2014	0.68	NA	5.8	0.65	0.390 J	0.0036	0.003	0.002 U	-
B-34	6/9/2014	2.5 J	NA	7.7	0.61	1.100	0.0054	0.0071	0.002 U	-
B-34	9/23/2014	2.1 J	NA	6.7	0.36	0.900	0.0083	0.02 U	0.01 U	-
B-34	12/15/2014	0.55	NA	12	1.2	0.13	0.0010 U	0.0010 U	0.0020 U	-
B-34	3/25/2015	3.0	NA	10	1.3	0.84	0.0062	0.010	0.0030 U	-
B-34	6/16/2015	0.26	NA	8.9	1.1	0.83	0.080 U	0.12 U	0.12 U	-
B-34	9/24/2015	2.0 J	NA	10	0.60	- R	0.0043	0.0050	0.0030 U	-
B-34	12/21/2015	0.32	NA	16	0.78	0.0015	0.0010 U	0.0010 U	0.0030 U	-
B-34	3/23/2016	0.207	NA	3.55	0.96 U	0.00060 J	0.0010 U	0.0010 U	0.0020 U	-
B-34	6/22/2016	1.87 J	NA	4.04	0.259 J	0.213 J	0.0030 J	0.0058 J	0.020	-
B-34	9/22/2016	1.49	NA	12.2	1.06	0.168	0.0056	0.0059	0.0019 J	-
B-34	12/7/2016	0.870	NA	6.9	0.43	0.150	0.0016	0.0022	0.00064 J	-
B-34	3/21/2017	0.130 J	NA	10	0.73	0.00023 J	0.0010 U	0.0010 U	0.0030 U	-
B-34	6/22/2017	2.20	NA	12	0.62	0.410	0.0056	0.0098	0.0022 J	-
B-34	9/20/2017	2.10	NA	22	0.94	0.230	0.0060 J	0.0071 J	0.0048 J	-
B-34	12/11/2017	1.40	NA	12	0.67	0.260	0.0031	0.0033	0.0008 J	-
B-34	3/21/2018	2.20	NA	8.9	0.45	0.430	0.0058	0.0086	0.0015 J	-
B-34	6/19/2018	2.50	NA	10	0.51	0.350	0.0053	0.0090	0.0020 J	-
B-34	9/18/2018	2.00	NA	23	3.60	0.190	0.0057	0.0060	0.0018 J	-
B-34	12/10/2018	2.50	NA	21	3.50	0.088	0.0051	0.0046	0.0011 J	-
B-34	3/14/2019	1.30	NA	7.4	0.62	0.130	0.0031	0.0043	0.0012 J	-
B-34	6/18/2019	1.90 J	NA	24	3.00	0.190	0.0062 U	0.0100 J	0.0088 U	-
B-34	9/10/2019	1.70 J	NA	2.8	0.31 J	0.110	0.0028 J	0.0066 J	0.0061 U	-
E-20	11/13/2008	0.0500 U	NA	0.240 U	0.481 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
E-20	2/24/2009	0.0500 U	NA	0.238 U	0.476 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
E-20	5/12/2009	0.0689	NA	0.236 U	0.472 U	0.000500	0.000500 U	0.000500 U	0.00100 U	-
E-20	8/11/2009	0.0860	NA	0.410	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
E-20	11/10/2009	0.170	NA	0.920	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00100 U	-
E-20	03/30/2010	0.0940	NA	4.40	0.820	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
E-20	06/15/2010	0.100	NA	4.70 Y	1.10	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
E-21	2/26/2008	2.56 J	NA	5.31	0.472 U	0.0128	0.00118	0.0766	0.0280	-
E-21	5/5/2008	1.39	NA	0.846	0.476 U	0.00211	0.000500 U	0.0432	0.0173	-
E-21	8/14/2008	1.20	NA	1.20	0.472 U	0.0138	0.000500 U	0.0448	0.0190	-
E-21	11/12/2008	0.944	NA	0.444	0.485 U	0.000500 U	0.000500 U	0.0150	0.00581	-
E-21	2/23/2009	0.538	NA	0.240 U	0.481 U	0.00231	0.000500 U	0.00422	0.00266	-
E-21	5/12/2009	0.824	NA	1.99	0.476 U	0.00170	0.000500 U	0.0101 U	0.00410 U	-
E-21	8/11/2009	1.20	NA	3.10	0.240 U	0.0120	0.00100 U	0.0180	0.00770	-
E-21	11/10/2009	0.600	NA	8.70	0.600	0.00310	0.00100 U	0.00510	0.00100 U	-
E-21	03/30/2010	0.0500 U	NA	0.870	0.680	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
E-21	06/15/2010	0.550	NA	16.0 Y	2.20	0.00530	0.00100 U	0.00180	0.00200 U	-
E-21	09/16/2010	1.40	6.10	24.0 Y	1.90	0.0130	0.00100 U	0.0140	0.00560	-
E-21	12/16/2010	0.0500 U	5.20 U	2.00	2.00	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
E-21	3/10/2011	0.0500 U	5.00 U	0.810	0.600	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
E-21	6/15/2011	0.160	8.60	4.80	2.80	0.00160	0.00100 U	0.00110	0.00200 U	-
E-21	09/29/2011	0.160 UJ	5.10 UJ	4.50 J	1.80 J	0.000620 J	0.00100 UJ	0.00100 UJ	0.00200 UJ	-
E-21	12/7/2011	0.200	4.90 U	3.80	0.960	0.00210	0.00100 U	0.00100	0.00200 U	-
E-21	4/4/2012	0.0500 U	5.20 U	3.00	3.00	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-

Appendix A
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WELL ID	DATE	CONCENTRATION (mg/L)								
		TPH-G	TPH-O&G	TPH-D	Heavy Oil TPH	B	T	E	X	Naphtalene
E-21	6/14/2012	0.530	NA	4.30 J	0.420	0.00100 U	0.00100 U	0.00260	0.00200 U	-
E-21	9/13/2012	0.0500 U	NA	0.590	0.240 U	0.00140	0.00100 U	0.00120	0.000150 J	-
E-21	12/10/2012	0.0500 U	NA	0.810	0.250	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
E-21	3/13/2013	0.170	NA	21.0	5.40	0.00190	0.00100 U	0.00140	0.00200 U	-
E-21	6/10/2013	0.230	NA	3.10	1.20	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
E-21	9/27/2013	0.250 U	NA	1.00	0.240	0.00130	0.00250 U	0.00250 U	0.00500 U	-
E-21	12/5/2013	0.21	NA	0.61	0.27	0.0044	0.001 U	0.001 U	0.002 U	-
E-21	3/5/2014	0.05 U	NA	0.58	0.38	0.001 U	0.001 U	0.001 U	0.002 U	-
E-21	6/11/2014	0.18	NA	11	1.7	0.001 U	0.001 U	0.001 U	0.002 U	-
E-21	9/26/2014	0.33	NA	8.8	3.5	0.012	0.001 U	0.0034	0.002 U	-
E-21	12/16/2014	0.050 U	NA	1.3	1.5	0.0010 U	0.0010 U	0.0010 U	0.0020 U	-
E-21	3/25/2015	0.050 U	NA	1.4	1.2	0.0020 U	0.0020 U	0.0030 U	0.0030 U	-
E-21	6/17/2015	0.052	NA	2.3	0.70	0.0020 UJ	0.0020 UJ	0.0030 UJ	0.0030 UJ	-
E-21	9/24/2015	0.59	NA	3.3	0.25 U	0.0083 J	0.0020 U	0.0030 U	0.0030 U	-
E-21	12/22/2015	0.45	NA	1.3	0.74	0.00020 U	0.0010 U	0.0010 U	0.0030 U	-
E-21	3/23/2016	0.100 U	NA	0.309	0.170 J	0.0010 U	0.0010 U	0.0010 U	0.0020 U	-
E-21	6/22/2016	0.100 U	NA	1.27	0.201 J	0.010 U	0.010 U	0.010 U	0.020 U	-
E-21	9/20/2016	0.321	NA	8.77	0.686 J	0.0087	0.00083 J	0.00041 J	0.0013 J	-
E-21	12/7/2016	0.100 U	NA	1.6	0.66	0.00020 U	0.0010 U	0.0010 U	0.0030 U	-
E-21	3/22/2017	0.150 U	NA	0.69	0.43	0.00040 U	0.0010 U	0.0010 U	0.0030 U	-
E-21	6/21/2017	0.150 U	NA	2.5	0.57	0.00040 U	0.0010 U	0.0010 U	0.0030 U	-
E-21	9/19/2017	0.260	NA	14	1.0	0.0018	0.00033 J	0.00046 J	0.0016 J	-
E-21	3/19/2018	0.150 U	NA	2.1	0.6	0.0004 U	0.00100 U	0.00100 U	0.0030 U	-
E-21	9/17/2018	0.210	NA	17	4.7	0.0024	0.00036 J	0.00021 J	0.0015 J	-
E-21	3/13/2019	0.070 U	NA	2.5	2.0	0.0001 U	0.00031 U	0.00020 U	0.0004 U	-
E-21	9/10/2019	0.260	NA	1.8	0.2 J	0.0005 J	0.00013 U	0.00014 U	0.0003 U	-
E-22	4/2/2012	0.410	5.40 U	1.20	0.350	0.00150	0.00100 U	0.00100 U	0.00200 U	-
E-22	9/11/2012	0.200	NA	0.500	0.0670 J	0.000880 J	0.000210 J	0.000350 J	0.00200 U	-
E-22	12/11/2012	0.190	NA	0.360	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
E-22	3/13/2013	0.180	NA	0.460	0.240 U	0.00100	0.00100 U	0.00290	0.00200 U	-
E-22	6/10/2013	0.220	NA	0.310	0.0490 U	0.00170	0.00100 U	0.00740	0.00200 U	-
E-22	9/24/2013	0.250	NA	0.280	0.240 U	0.00100 U	0.00100 U	0.00220	0.00200 U	-
E-22	12/2/2013	0.11	NA	0.12 U	0.24 U	0.0014	0.001 U	0.001 U	0.002 U	-
E-22	3/4/2014	0.081	NA	0.36	0.24 U	0.0017	0.001 U	0.001 U	0.002 U	-
E-22	6/10/2014	0.32	NA	0.68	0.25 U	0.0024	0.001 U	0.01	0.002 U	-
E-22	9/22/2014	0.44	NA	0.77	0.24 U	0.001 U	0.001 U	0.0056	0.002 U	-
E-22	12/17/2014	0.17	NA	1.2	0.24	0.0010 U	0.0010 U	0.0010 U	0.0020 U	-
E-22	3/25/2015	0.15	NA	2.8	0.56	0.0020 U	0.0020 U	0.0030 U	0.0030 U	-
E-22	6/16/2015	0.21	NA	0.68	0.25 U	0.0020 U	0.0020 U	0.0051	0.0030 U	-
E-22	9/22/2015	0.14	NA	0.43	0.25 U	- R	- R	- R	- R	-
E-22	11/19/2015	NA	NA	NA	NA	0.0020 U	0.0020 U	0.0030 U	0.0030 U	-
E-22	12/21/2015	0.10 U	NA	1.6	0.40 U	0.00020 U	0.0010 U	0.0010 U	0.0030 U	-
E-22	3/23/2016	0.0714 J	NA	0.793	0.106 J	0.00025 J	0.0010 U	0.00069 J	0.0020 U	-
E-22	6/21/2016	0.260	NA	0.637	0.0885 U	0.0012	0.00021 J	0.0075	0.00052 J	-
E-22	9/21/2016	0.386	NA	0.753	0.0644 J	0.0015	0.00030 J	0.0039	0.00058 J	-
E-22	12/6/2016	0.200	NA	2.6	0.25	0.0019	0.0010 U	0.0028	0.0030 U	-
E-22	3/20/2017	0.150 U	NA	1.4	0.25 J	0.00026 J	0.0010 U	0.0010 U	0.0030 U	-
E-22	6/20/2017	0.170	NA	1.6 J	0.18 J	0.00072	0.00058 J	0.0033	0.0030 U	-
E-22	9/25/2017	0.440	NA	1.0	0.25 J	0.00033 J	0.0010 U	0.00051 J	0.0030 U	-
FW-3	9/16/1993	5.30	NA	NA	-	1.10	0.0670	0.210	0.600	-
FW-3	12/15/1993	1.50	NA	NA	-	0.000800	0.00180	0.0160	0.0390	-
FW-3	2/1/1994	5.50	NA	NA	-	0.100	0.0260	0.130	0.430	-
FW-3	6/21/1994	5.10	NA	NA	-	0.210	0.0320	0.190	0.600	-
FW-3	8/18/1994	4.30	NA	NA	-	0.0860	0.0160	0.140	0.360	-
FW-3	12/7/1994	NS	NS	NS	-	NS	NS	NS	NS	-
FW-3	2/21/1995	0.280	NA	NA	-	0.00340	0.000820	0.00990	0.00250	-
FW-3	6/21/1995	1.50	NA	NA	-	0.0900	0.00630	0.0630	0.150	-

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FW-3	9/18/1995	1.40	NA	NA	-	0.0270	0.00600	0.0330	0.100	-
FW-3	12/12/1995	0.500	NA	NA	-	0.00140	0.000720	0.00440	0.0120	-
FW-3	3/6/1996	1.40	NA	NA	-	0.0180	0.00400 U	0.0210	0.0600	-
FW-3	6/4/1996	5.50	NA	NA	-	0.0503	0.0108	0.102	0.289	-
FW-3	8/22/1996	1.75	NA	NA	-	0.0216	0.00500 U	0.0226	0.0397	-
FW-3	12/20/1996	0.657	NA	NA	-	0.00358	0.00134	0.00767	0.0441	-
FW-3	2/24/1997	2.79	NA	NA	-	0.0278	0.00560	0.0542	0.148	-
FW-3	5/28/1997	0.846	NA	NA	-	0.00300	0.00200	0.0269	0.0940	-
FW-3	8/8/1997	1.18	NA	NA	-	0.0120	0.00800	0.0330	0.0540	-
FW-3	12/10/1997	0.330	14.0 U	NA	-	0.000900	0.000600	0.00200	0.00600	-
FW-3	3/3/1998	0.110	5.00 U	NA	-	0.00100	0.000500 U	0.00100	0.00200	-
FW-3	6/3/1998	1.42	9.14	NA	-	0.0135	0.00674	0.0200	0.0226	-
FW-3	8/24/1998	0.980	6.20	NA	-	0.0110	0.00900	0.0180	0.00500	-
FW-3	12/2/1998	0.0500 U	14.0 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-3	3/1/1999	0.260	21.0	NA	-	0.00100	0.000500 U	0.00300	0.00300	-
FW-3	6/10/1999	1.90	5.60	NA	-	0.0140	0.0160	0.0390	0.0290	-
FW-3	8/24/1999	0.540	4.00 U	NA	-	0.00100 U	0.00400	0.00500	0.00500	-
FW-3	11/18/1999	0.0670	4.00 U	NA	-	0.000900	0.00300	0.000600	0.00200	-
FW-3	2/16/2000	0.190	3.80	NA	-	0.00100 U	0.00100	0.00160	0.00130	-
FW-3	5/16/2000	0.490	6.50	NA	-	0.00200 U	0.00210	0.00300	0.00150	-
FW-3	8/23/2000	0.530	8.40 U	NA	-	0.00100 U	0.00710	0.00360	0.00300 U	-
FW-3	11/22/2000	0.240	5.00 U	NA	-	0.000800 U	0.00100	0.00100	0.00100	-
FW-3	2/14/2001	0.190	5.00 U	NA	-	0.000500 U	0.000500 U	0.00100	0.000100 U	-
FW-3	5/9/2001	0.360	5.00 U	NA	-	0.00140	0.000790	0.00170	0.00160	-
FW-3	8/8/2001	0.220	5.00 U	NA	-	0.000500 U	0.000500 U	0.000790	0.00100 U	-
FW-3	11/6/2001	0.250	5.00 U	NA	-	0.00200	0.000900	0.000700	0.00100 U	-
FW-3	2/20/2002	0.120	5.00 U	NA	-	0.000700	0.000700	0.000500 U	0.00100 U	-
FW-3	4/1/2002	NS	NS	NS	-	NS	NS	NS	NS	-
FW-3	8/20/2002	0.280 J	5.00 U	NA	-	0.00109 J	0.00102 J	0.000950 J	0.00176 J	-
FW-3	11/19/2002	0.323	5.00 U	NA	-	0.00105	0.000628	0.00105	0.00100 U	-
FW-3	1/28/2003	0.0500 U	4.90 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-3	4/29/2003	0.192 J	4.81 U	NA	-	0.000815 J	0.000500 U	0.000656 J	0.00100 U	-
FW-3	8/26/2003	0.240	5.21 U	NA	-	0.00137	0.00200 U	0.00100 U	0.00150 U	-
FW-3	11/3/2003	0.322	4.72 U	NA	-	0.000781	0.000500 U	0.00100	0.00115	-
FW-3	1/27/2004	0.0982	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-3	5/5/2004	0.590	5.00 U	NA	-	0.00175	0.000857	0.00116	0.00108	-
FW-3	8/11/2004	0.271	5.00 U	NA	-	0.000693	0.000500 U	0.000830	0.00104	-
FW-3	10/28/2004	0.0735	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-3	2/8/2005	0.0904	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-3	5/10/2005	NS	NS	NS	-	NS	NS	NS	NS	-
FW-3	8/3/2005	0.293 J	5.00 U	0.425	-	0.000809 J	0.000767 J	0.000596 J	-0.99900 UJ	-
FW-3	11/10/2005	NS	NS	NS	-	NS	NS	NS	NS	-
FW-3	2/7/2006	0.0500 U	4.85 U	0.459	-	0.000500 U	0.000500 U	0.000500 U	-0.99900 U	-
FW-3	5/2/2006	NS	NS	NS	-	NS	NS	NS	NS	-
FW-3	8/3/2006	0.203	5.10 U	-	-	0.000735	0.000500 U	0.000500 U	-0.99900 U	-
FW-3	12/19/2006	NS	NS	NS	-	NS	NS	NS	NS	-
FW-3	2/7/2007	0.280	4.81 U	0.243 U	0.485 U	0.000912	0.00120	0.00138	0.00100 U	-
FW-3	5/8/2007	0.0456	4.81 U	0.317	0.476 U	0.000690	0.00140	0.00114	0.00182	-
FW-3	7/31/2007	0.358	4.85 U	0.743	0.532 U	0.00103	0.00125	0.000500 U	0.00137	-
FW-3	11/7/2007	0.388	4.76 U	0.254	0.490 U	0.00161	0.000714	0.00104	0.00184	-
FW-3	2/13/2008	0.187	4.72 U	0.236 U	0.472 U	0.000635	0.000500 U	0.000500 U	0.00100 U	-
FW-3	5/5/2008	NS	NS	NS	NS	NS	NS	NS	NS	-
FW-3	8/14/2008	0.275	5.21 U	0.236 U	0.472 U	0.000864	0.000783	0.000500 U	0.00107	-
FW-3	11/13/2008	0.0776	4.76 U	0.238 U	0.476 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-3	2/25/2009	0.135	4.76 U	0.236 U	0.472 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-3	5/11/2009	NS	NS	NS	NS	NS	NS	NS	NS	-
FW-3	8/11/2009	0.280	5.00 U	0.360	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
FW-3	11/13/2009	0.0960	5.00 U	0.200	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00100 U	-
FW-3	03/23/2010	0.120	5.00 U	0.430	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-

Appendix A
Summary of Historical Groundwater Analytical Results
D Street Petroleum Site

WELL ID	DATE	CONCENTRATION (mg/L)								
		TPH-G	TPH-O&G	TPH-D	TPH	B	T	E	X	Naphtalene
FW-3	06/08/2010	0.370	6.00	2.60 Y	0.440	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
FW-3	09/14/2010	0.120	5.00 U	0.330 Y	1.00	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
FW-3	09/27/2011	0.0550	5.00 U	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
FW-3	9/10/2012	0.180	NA	0.310	0.740	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
FW-3	9/25/2013	0.410	NA	0.20	0.24 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
FW-3	9/24/2014	0.05 U	NA	0.26	0.24 U	0.001 U	0.001 U	0.001 U	0.002 U	-
FW-3	9/22/2015	0.15	NA	0.31	0.25 U	- R	- R	- R	- R	-
FW-3	11/19/2015	NA	NA	NA	NA	0.0020 U	0.0020 U	0.0030 U	-0.9970 U	-
FW-3	9/21/2016	0.10 U	NA	0.134	0.0338 J	0.0010 U	0.0010 U	0.0010 U	0.0030 U	-
FW-3	9/18/2017	0.110 J	NA	0.26	0.40 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	-
FW-3	9/19/2018	0.100 J	NA	0.55	0.45 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	-
FW-3	9/9/2019	0.120	NA	0.27 J	0.11 U	0.00014 U	0.0001 U	0.0001 U	0.0003 U	-
FW-4	8/24/1992	NS	NS	NS	-	NS	NS	NS	NS	-
FW-4	3/23/1993	2.60	NA	NA	-	0.480	0.130	U	-0.9840	-
FW-4	6/13/1993	NS	NS	NS	-	NS	NS	NS	NS	-
FW-4	9/16/1993	1.20	NA	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-4	12/15/1993	0.920	NA	NA	-	NA	0.00130	0.000500 U	0.00100 U	-
FW-4	2/1/1994	NS	NS	NS	-	NS	NS	NS	NS	-
FW-4	6/21/1994	NS	NS	NS	-	NS	NS	NS	NS	-
FW-4	8/18/1994	2.40	NA	NA	-	0.220	0.00330	0.000500 U	-0.99900 U	-
FW-4	12/7/1994	NS	NS	NS	-	NS	NS	NS	NS	-
FW-4	2/21/1995	NS	NS	NS	-	NS	NS	NS	NS	-
FW-4	6/21/1995	NS	NS	NS	-	NS	NS	NS	NS	-
FW-4	9/18/1995	0.710	NA	NA	-	0.110	0.00150	0.0100	0.00340	-
FW-4	12/12/1995	0.560	NA	NA	-	0.00210	0.000500 U	0.000500 U	0.00100 U	-
FW-4	3/6/1996	3.30	NA	NA	-	0.00800 U	0.00800 U	0.00800 U	0.00800 U	-
FW-4	6/4/1996	1.71	NA	NA	-	0.0172	0.000500 U	0.000500 U	0.00150 U	-
FW-4	8/22/1996	1.29	NA	NA	-	0.0553	0.00300 U	0.00300 U	0.00500 U	-
FW-4	12/20/1996	NS	NS	NS	-	NS	NS	NS	NS	-
FW-4	2/24/1997	0.737	NA	NA	-	0.00710	0.00100 U	0.00100 U	0.00200 U	-
FW-4	5/28/1997	0.258	NA	NA	-	0.0290	0.000600	0.000500 U	0.00130	-
FW-4	8/8/1997	0.540	NA	NA	-	0.0150	0.000600	0.000900	0.00200	-
FW-4	12/10/1997	0.290	15.2	NA	-	0.00100 U	0.00100 U	0.00100 U	0.00300 U	-
FW-4	3/3/1998	0.210	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00130 U	-
FW-4	6/3/1998	0.440	12.1	NA	-	0.00300 U	0.00300 U	0.00300 U	0.00500 U	-
FW-4	8/24/1998	0.680	5.00 U	NA	-	0.00300 U	0.00300 U	0.00300 U	0.00500 U	-
FW-4	12/2/1998	0.144	14.0 U	NA	-	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
FW-4	3/1/1999	0.370	9.20	NA	-	0.000900	0.000500 U	0.000500 U	0.00100	-
FW-4	6/10/1999	0.300	5.60	NA	-	0.00100 U	0.00100 U	0.00100 U	0.00300 U	-
FW-4	8/24/1999	0.220	4.00 U	NA	-	0.000400	0.000300	0.000300	0.000600 U	-
FW-4	11/18/1999	0.230	4.00 U	NA	-	0.00100	0.00200	0.000300	0.00200	-
FW-4	2/16/2000	0.160	12.5	NA	-	0.000600	0.000300	0.000200 U	0.000600 U	-
FW-4	5/16/2000	0.120	2.80 U	NA	-	0.000300	0.000500	0.000200 U	0.000700	-
FW-4	8/23/2000	0.250 U	8.40 U	NA	-	0.00100 U	0.00100 U	0.00100 U	0.00300 U	-
FW-4	11/22/2000	0.0590	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-4	2/14/2001	0.0540	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-4	5/9/2001	0.150	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-4	8/8/2001	0.0820	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-4	11/6/2001	0.110	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-4	2/20/2002	0.130	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-4	4/1/2002	NS	NS	NS	-	NS	NS	NS	NS	-
FW-4	8/20/2002	0.0738	NA	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-4	11/19/2002	0.117	4.70 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-4	1/28/2003	0.124	5.05 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-4	4/29/2003	0.0528	4.85 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-4	8/26/2003	0.100 U	4.76 U	NA	-	0.000500 U	0.00200 U	0.00100 U	0.00150 U	-
FW-4	11/3/2003	0.0825	4.72 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-4	1/27/2004	0.0861	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-

Appendix A
Summary of Historical Groundwater Analytical Results
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WELL ID	DATE	CONCENTRATION (mg/L)								
		TPH-G	TPH-O&G	TPH-D	Heavy Oil TPH	B	T	E	X	Naphtalene
FW-4	5/6/2004	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-4	8/11/2004	0.0500	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-4	10/28/2004	0.0608	5.00 U	NA	-	0.000500 U	0.000661	0.00101	0.00122	-
FW-4	2/8/2005	0.0556	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-4	5/10/2005	NS	NS	NS	-	NS	NS	NS	NS	-
FW-4	8/3/2005	0.0500 U	5.00 U	0.876	-	0.000500 U	0.000500 U	0.000500 U	-0.99900 U	-
FW-4	11/10/2005	NS	NS	NS	-	NS	NS	NS	NS	-
FW-4	2/7/2006	0.0500 U	5.05 U	0.257	-	0.000500 U	0.000500 U	0.000500 U	-0.99900 U	-
FW-4	5/2/2006	NS	NS	NS	-	NS	NS	NS	NS	-
FW-4	8/3/2006	0.0500 U	5.00 U	0.300	-	0.000500 U	0.000500 U	0.000500 U	-0.99900 U	-
FW-4	12/19/2006	NS	NS	NS	-	NS	NS	NS	NS	-
FW-4	2/7/2007	0.0500 U	4.85 U	0.776	0.490 U	0.000500 U	0.000500 U	0.000500 U	-0.99900 U	-
FW-4	5/8/2007	NS	NS	NS	NS	NS	NS	NS	NS	-
FW-4	7/31/2007	0.0500 U	4.85 U	0.914	0.495 U	0.000500 U	0.000500 U	0.000500 U	-0.99900 U	-
FW-4	11/5/2007	NS	NS	NS	NS	NS	NS	NS	NS	-
FW-4	2/13/2008	0.0500 U	4.76 U	0.271	0.476 U	0.000500 U	0.000500 U	0.000500 U	-0.99900 U	-
FW-4	5/5/2008	NS	NS	NS	NS	NS	NS	NS	NS	-
FW-4	8/13/2008	0.0500 U	5.21 U	0.526	0.472 U	0.000500 U	0.000500 U	0.000500 U	-0.99900 U	-
FW-4	11/11/2008	NS	NS	NS	NS	NS	NS	NS	NS	-
FW-4	2/27/2009	0.0500 U	5.00 U	0.883	0.500 U	0.000500 U	0.000500 U	0.000500 U	-0.99900 U	-
FW-4	5/11/2009	NS	NS	NS	NS	NS	NS	NS	NS	-
FW-4	8/11/2009	0.130	5.00 U	1.60	0.240 U	0.0170	0.00100 U	0.00100 U	0.00200 U	-
FW-4	03/23/2010	0.0500 U	5.00 U	0.660	0.310	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
FW-4	09/14/2010	0.0770	5.50 U	3.40 Y	0.620	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
FW-4	09/29/2011	0.160 UJ	4.80 UJ	0.770 J	0.250 UJ	0.000400 UJ	0.00100 UJ	0.00100 UJ	0.00200 UJ	-
FW-4	9/10/2012	0.0480 J	NA	0.230	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
FW-4	9/25/2013	0.0550	NA	0.240	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
FW-4	9/24/2014	0.05 U	NA	0.84	0.24 U	0.001 U	0.001 U	0.001 U	0.002 U	-
FW-4	9/22/2015	0.050 U	NA	0.43	0.25 U	- R	- R	- R	- R	-
FW-4	11/19/2015	NA	NA	NA	NA	0.0020 U	0.0020 U	0.0030 U	0.0030 U	-
FW-4	9/21/2016	0.10 U	NA	0.648	0.146	0.0010 U	0.0010 U	0.0010 U	0.0030 U	0.00095 U
FW-4	9/20/2017	0.150 U	NA	0.79	0.18 J	0.00040 U	0.0010 U	0.0010 U	0.0030 U	0.000048 J
FW-4	9/19/2018	0.150 U	NA	0.75	0.2 J	0.00040 U	0.0010 U	0.0010 U	0.0030 U	0.001 U
FW-4	9/9/2019	0.048 U	NA	0.36 J	0.11 U	0.00014 U	0.0001 U	0.0001 U	0.0003 U	0.000051 U
FW-5R	09/27/2011	0.160	5.30 U	4.30	0.250 U	0.00310	0.00100 U	0.00100 U	0.00200 U	-
FW-5R	12/8/2011	1.50	5.30 U	3.70	0.260 U	0.0210	0.00100 U	0.00120	0.00200 U	-
FW-5R	4/4/2012	1.20	5.30 U	6.30	1.30	0.0150	0.00100 U	0.00100 U	0.00200 U	-
FW-5R	6/13/2012	1.20 J	NA	6.80 J	0.600 J	0.0160 J	0.00100 UJ	0.00100 UJ	0.00200 UJ	-
FW-5R	9/11/2012	1.50	NA	3.10	0.0900 J	0.0210	0.000550 J	0.00110	0.00200 U	-
FW-5R	12/13/2012	1.10	NA	3.80	0.240 U	0.0120	0.00100 U	0.00100 U	0.00200 U	-
FW-5R	3/12/2013	0.970	NA	4.40	0.260 U	0.0160	0.00100 U	0.00100 U	0.00200 U	-
FW-5R	6/12/2013	2.40	NA	5.60	0.140	0.0140	0.00100 U	0.00110	0.00200 U	-
FW-5R	9/25/2013	3.10	NA	4.60	0.240 U	0.00950	0.00100 U	0.00100 U	0.00200 U	-
FW-5R	12/4/2013	2.6	NA	3.1	0.24	0.01	0.001 U	0.001	0.002 U	-
FW-5R	3/6/2014	3.7	NA	2.8	0.24 U	0.0071	0.005 U	0.005 U	0.005 U	-
FW-5R	6/9/2014	2.7	NA	5.4	0.43	0.012	0.001 U	0.001 U	0.002 U	-
FW-5R	9/24/2014	1.1	NA	5.9	0.76	0.0064	0.001 U	0.001 U	0.002 U	-
FW-5R	12/15/2014	1.2	NA	3.3	0.38	0.0028	0.0010 U	0.0010 U	0.0020 U	-
FW-5R	3/24/2015	3.2	NA	4.6	0.67	0.0053	0.0020 U	0.0030 U	0.0030 U	-
FW-5R	6/15/2015	3.4 J	NA	3.5	0.43	0.0060 J	0.0020 UJ	0.0030 UJ	0.0030 UJ	-
FW-5R	9/22/2015	1.6	NA	3.5 J	0.26	- R	- R	- R	- R	-
FW-5R	11/19/2015	NA	NA	NA	NA	0.0020 U	0.0020 U	0.0030 U	0.0030 U	-
FW-5R	12/22/2015	0.54	NA	3.0	0.39 U	0.0027	0.0010 U	0.0010 U	0.0030 U	-
FW-5R	3/21/2016	0.467	NA	4.61	0.95 U	0.0090	0.00032 J	0.00037 J	0.0020 U	-
FW-5R	6/22/2016	0.587 J	NA	3.55	0.173 J	0.0089 J	0.010 U	0.010 U	0.020 U	0.0011
FW-5R	9/21/2016	0.629	NA	4.23	0.194 J	0.0027	0.00041 J	0.00060 J	0.0030 U	0.00054 J
FW-5R	12/8/2016	0.720	NA	5.1 B	0.34 B	0.0047	0.00042 J	0.00058 J	0.0030 U	0.0012 J
FW-5R	3/21/2017	0.750	NA	5.5	0.36 J	0.0053	0.00048 J	0.00069 J	0.0030 U	0.0016

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WELL ID	DATE	CONCENTRATION (mg/L)								
		TPH-G	TPH-O&G	TPH-D	Heavy Oil TPH	B	T	E	X	Naphtalene
FW-5R	6/22/2017	0.800	NA	6.0	0.40 J	0.0043	0.00051 J	0.00056 J	0.0030 U	0.0020 U
FW-5R	9/18/2017	1.0	NA	4.3	0.19 J	0.0015	0.00050 J	0.00063 J	0.00053 J	0.0018
FW-5R	12/12/2017	0.7	NA	5.2	0.33 J	0.0018	0.00034 J	0.00036 J	0.00300 U	0.0015
FW-5R	3/19/2018	1.0	NA	5.5	0.34 J	0.0023	0.00045 J	0.00046 J	0.00300 U	0.0013 J
FW-5R	6/18/2018	0.6	NA	4.4	0.28 J	0.0012	0.00038 J	0.00042 J	0.00300 U	0.0011
FW-5R	9/19/2018	0.7	NA	5	0.52	0.0008	0.00034 J	0.00033 J	0.00300 U	0.0010
FW-5R	12/11/2018	0.6	NA	7	1.1	0.0008	0.00040 J	0.00052 J	0.00044 U	0.0010
FW-5R	3/12/2019	0.8	NA	6.3	0.99	0.0007	0.00049 J	0.00034 J	0.00044 U	0.0019 H
FW-5R	6/18/2019	0.8	NA	7	0.95	0.0008	0.00050 J	0.00040 J	0.00044 U	0.0023
FW-5R	9/9/2019	0.6	NA	4.3	0.24 J	0.0005 J	0.00035 J	0.00029 J	0.00031 U	0.0050 U
FW-14	6/13/2011	0.0500 U	4.80 U	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
FW-14	09/30/2011	0.0800 U	5.00 U	0.100 U	0.500 U	0.000400 U	0.00100 U	0.00100 U	0.00200 U	-
FW-14	12/6/2011	0.0500 U	4.90 U	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
FW-14	4/3/2012	0.0500 U	4.90 U	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
FW-14	6/13/2012	0.0500 UJ	NA	0.120 UJ	0.240 UJ	0.00100 UJ	0.00100 UJ	0.00100 UJ	0.00200 UJ	-
FW-14	9/10/2012	0.0500 U	NA	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
FW-14	12/11/2012	0.0500 U	NA	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
FW-14	3/12/2013	0.0500 U	NA	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
FW-14	6/12/2013	0.0500 U	NA	0.0410	0.0520	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
FW-14	9/25/2013	0.0580	NA	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
FW-14	12/4/2013	0.05 U	NA	0.12 U	0.24 U	0.001 U	0.001 U	0.001 U	0.002 U	-
FW-14	3/6/2014	0.05 U	NA	0.12 U	0.24 U	0.005 U	0.005 U	0.005 U	0.005 U	-
FW-14	6/9/2014	0.26	NA	0.12 U	0.24 U	0.001 U	0.001 U	0.001 U	0.002 U	-
FW-14	9/23/2014	0.05 U	NA	0.12 U	0.24 U	0.001 U	0.001 U	0.001 U	0.002 U	-
FW-14	12/15/2014	0.050 U	NA	0.12 U	0.24 U	0.0010 U	0.0010 U	0.0010 U	0.0020 U	-
FW-14	3/25/2015	0.097	NA	0.11 U	0.24 U	0.0020 U	0.0020 U	0.0030 U	0.0030 U	-
FW-14	6/15/2014	0.050 U	NA	0.11 U	0.25 U	0.0020 U	0.0020 U	0.0030 U	0.0030 U	-
FW-14	9/23/2015	0.050 U	NA	0.11 U	0.25 U	0.0020 U	0.0020 U	0.0030 U	0.0030 U	-
FW-14	12/22/2015	0.10 U	NA	0.24 U	0.40 U	0.00020 U	0.0010 U	0.0010 U	0.0030 U	-
FW-14	3/23/2016	0.100 U	NA	0.094 U	0.19 U	0.0010 U	0.0010 U	0.0010 U	0.0020 U	-
FW-14	6/22/2016	0.100 U	NA	0.0623 J	0.0942 J	0.0010 U	0.0010 U	0.0010 U	0.0020 U	0.000015 U
FW-14	9/20/2016	0.10 U	NA	0.095 U	0.095 U	0.0010 U	0.0010 U	0.0010 U	0.0030 U	0.00095 U
FW-14	12/8/2016	0.100 U	NA	0.060 J B	0.20 U	0.00020 U	0.0010 U	0.0010 U	0.0030 U	0.0020 U
FW-14	3/21/2017	0.150 U	NA	0.10 J	0.40 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	0.000084 U
FW-14	6/21/2017	0.150 U	NA	0.32 U	0.54 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	0.0020 U
FW-14	9/19/2017	0.150 U	NA	0.24 U	0.40 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	0.000082 U
FW-14	12/12/2017	0.150 U	NA	0.26 U	0.43 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	0.000098 U
FW-14	3/20/2018	0.150 U	NA	0.23 U	0.38 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	0.000038 UJ
FW-14	6/19/2018	0.150 U	NA	0.26 U	0.43 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	0.000093 U
FW-14	9/18/2018	0.150 U	NA	0.12 J	0.14 J	0.00040 U	0.0010 U	0.0010 U	0.0030 U	0.000099 U
FW-14	12/11/2018	0.070 U	NA	0.11 U	0.12 U	0.00009 U	0.0003 U	0.0002 U	0.0004 U	0.000054 U
FW-14	3/13/2019	0.070 U	NA	0.11 J	0.11 U	0.00009 U	0.0003 U	0.0002 U	0.0004 U	0.000050 U
FW-14	6/18/2019	0.070 U	NA	0.10 U	0.11 U	0.00009 U	0.0003 U	0.0002 U	0.0004 U	0.000050 U
FW-14	9/11/2019	0.048 U	NA	0.23 U	0.11 U	0.00014 U	0.0001 U	0.0001 U	0.0003 U	0.000050 U
FW-16	9/16/1993	NS	NS	NS	NS	NS	NS	NS	NS	-
FW-16	12/15/1993	ND	NA	NA	NA	ND	ND	ND	ND	-
FW-16	2/1/1994	ND	NA	NA	NA	ND	ND	ND	ND	-
FW-16	6/21/1994	NS	NS	NS	NS	NS	NS	NS	NS	-
FW-16	8/18/1994	0.150	NA	NA	NA	0.000670	ND	0.00120	-0.99600	-
FW-16	12/7/1994	NS	NS	NS	NS	NS	NS	NS	NS	-
FW-16	2/21/1995	0.600	NA	NA	NA	0.00330	ND	0.00710	-0.99730	-
FW-16	6/21/1995	NS	NS	NS	NS	NS	NS	NS	NS	-
FW-16	9/18/1995	NS	NS	NS	NS	NS	NS	NS	NS	-
FW-16	12/12/1995	NS	NS	NS	NS	NS	NS	NS	NS	-
FW-16	2/10/2005	0.0500 U	NA	NA	NA	0.000500 U	0.000500 U	0.000500 U	-0.99900 U	-
FW-16	5/9/2005	NS	NS	NS	NS	NS	NS	NS	NS	-
FW-16	8/1/2005	NS	NS	NS	NS	NS	NS	NS	NS	-

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WELL ID	DATE	CONCENTRATION (mg/L)								
		TPH-G	TPH-O&G	TPH-D	TPH	B	T	E	X	Naphtalene
FW-16	11/8/2005	NS	NS	NS	NS	NS	NS	NS	NS	-
FW-16	2/23/2009	NS	NS	NS	NS	NS	NS	NS	NS	-
FW-16	5/11/2009	NS	NS	NS	NS	NS	NS	NS	NS	-
G-1	8/24/1992	140	NA	NA	-	13.0	20.0	4.30	19.0	-
G-1	3/23/1992	NS	NS	NS	-	NS	NS	NS	NS	-
G-1	6/13/1993	93.0	NA	NA	-	0.990	1.30	2.20	15.0	-
G-1	9/16/1993	120	NA	NA	-	4.70	5.30	2.70	16.0	-
G-1	12/15/1993	79.0	NA	NA	-	3.10	3.20	2.50	14.0	-
G-1	2/1/1994	91.0	NA	NA	-	0.830	0.0250 U	1.30	7.40	-
G-1	6/21/1994	46.0	NA	NA	-	0.260	0.0250	0.550	2.80	-
G-1	8/18/1994	NS	NS	NS	-	NS	NS	NS	NS	-
G-1	12/7/1994	33.0	NA	NA	-	0.150	0.0140	0.230	1.40	-
G-1	2/21/1995	2.50	NA	NA	-	0.220	0.170	0.0390	0.440	-
G-1	6/21/1995	2.50	NA	NA	-	1.80	0.200	0.330	2.30	-
G-1	9/18/1995	14.0	NA	NA	-	3.10	0.200	0.270	1.10	-
G-1	12/12/1995	11.0	NA	NA	-	0.240	0.0620	0.100	0.740	-
G-1	3/6/1996	4.60	NA	NA	-	0.840	0.450	0.0500	510	-
G-1	6/5/1996	38.6	NA	NA	-	2.01	2.26	0.648	5.86	-
G-1	8/22/1996	13.8	NA	NA	-	0.321	0.0250 U	0.405	1.47	-
G-1	12/4/1996	12.1	NA	NA	-	0.0682	0.00840	0.0777	0.227	-
G-1	2/24/1997	4.60	NA	NA	-	0.252	0.0897	0.0317	0.268	-
G-1	5/28/1997	10.9	NA	NA	-	0.941	0.0236	0.240	0.669	-
G-1	8/11/1997	6.57	NA	NA	-	0.670	0.130	0.150	0.710	-
G-1	12/10/1997	3.92	14.0 U	NA	-	0.130	0.0380	0.0670	0.270	-
G-1	3/3/1998	2.76	5.00 U	NA	-	0.0640	0.0120	0.0350	0.160	-
G-1	6/3/1998	8.63	5.00 U	NA	-	0.322	0.0100 U	0.292	1.94	-
G-1	8/25/1998	4.97	5.00 U	NA	-	0.190	0.00500 U	0.230	0.410	-
G-1	12/2/1998	1.15	14.0 U	NA	-	0.00467	0.00232	0.0108	0.0105	-
G-1	3/1/1999	0.870	5.00 U	NA	-	0.00900	0.00300	0.00900	0.0220	-
G-1	6/9/1999	6.00	4.00 U	NA	-	0.210	0.0330	0.450	0.830	-
G-1	8/24/1999	1.10	4.00 U	NA	-	0.0350	0.00200	0.0750	0.0200	-
G-1	11/19/1999	0.930	4.00 U	NA	-	0.00400	0.00500	0.0190	0.0590	-
G-1	2/16/2000	0.220	4.80	NA	-	0.00140	0.00130	0.00430	0.0190	-
G-1	5/17/2000	2.50	2.80 U	NA	-	0.0480	0.0160	0.150	0.420	-
G-1	8/23/2000	0.800	8.40 U	NA	-	0.140	0.0130	0.0570	0.00740	-
G-1	11/22/2000	0.950	5.00 U	NA	-	0.230	0.00300 U	0.0130	0.00500 U	-
G-1	2/14/2001	1.47	5.00 U	NA	-	0.170	0.00300 U	0.00900	0.00500 U	-
G-1	5/9/2001	0.690	5.00 U	NA	-	0.0860	0.000500 U	0.0110	0.00770	-
G-1	8/8/2001	1.85	5.00 U	NA	-	0.630	0.00100	0.0160	0.00600	-
G-1	11/5/2001	0.710	5.00 U	NA	-	0.130	0.00100	0.00700	0.00600	-
G-1	2/19/2002	0.920	5.00 U	NA	-	0.0410	0.00300	0.0400	0.0770	-
G-1	4/1/2002	NS	NS	NS	-	NS	NS	NS	NS	-
G-1	8/20/2002	1.03 J	5.00 U	NA	-	0.0474 J	0.00116 J	0.0379 J	0.0684 J	-
G-1	11/20/2002	2.31	5.20 U	NA	-	0.0685 J	0.000728 J	0.0285 J	0.0700 J	-
G-1	1/28/2003	0.0500 U	5.15 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
G-1	4/30/2003	0.240	4.72 U	NA	-	0.00698	0.000629	0.0147	0.0310	-
G-1	8/26/2003	0.636	5.15 U	NA	-	0.0475	0.00200 U	0.0107	0.0105	-
G-1	10/30/2003	1.23	5.00 U	NA	-	0.0229	0.00282	0.0240	0.0633	-
G-1	1/27/2004	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
G-1	5/5/2004	0.988	5.00 U	NA	-	0.0579	0.000754	0.0292	0.0138	-
G-1	8/10/2004	1.25 J	5.00 U	NA	-	0.0400 J	0.000953 J	0.00591 J	0.00387 J	-
G-1	10/28/2004	1.18 J	5.00 U	NA	-	0.0184 J	0.000513 J	0.0136 J	0.0168 J	-
G-1	2/9/2005	0.478	5.00 U	NA	-	0.0223	0.000500 U	0.0141	0.0107	-
G-1	5/10/2005	0.280	5.00 U	NA	-	0.00555	0.000500 U	0.00408	0.00460	-
G-1	8/5/2005	1.25 J	5.00 U	0.250 U	-	0.0342	0.000910	0.00569	0.00370 J	-
G-1	11/8/2005	1.23	5.26 U	0.248 U	-	0.0217	0.000843	0.0130	0.00691	-
G-1	2/8/2006	0.0500 U	4.81 U	0.236 U	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
G-1	5/2/2006	0.211	4.90 U	0.245 U	-	0.00149	0.000500 U	0.00825	0.0113	-

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WELL ID	DATE	CONCENTRATION (mg/L)								
		TPH-G	TPH-O&G	TPH-D	Heavy Oil TPH	B	T	E	X	Naphtalene
G-1	8/1/2006	0.387	4.72 U	0.236 U	-	0.0196	0.00200 U	0.0112	0.00150 U	-
G-1	12/20/2006	0.0500 U	4.76 U	0.236 U	0.472 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
G-1	2/6/2007	0.123	4.72 U	0.240 U	0.481 U	0.00142	0.000500 U	0.00435	0.00100 U	-
G-1	5/8/2007	1.12 J	4.76 U	0.236 U	0.472 U	0.0125	0.000896	0.0681	0.00485	-
G-1	8/1/2007	0.731 J	4.90 U	0.240 U	0.481 U	0.0118	0.000772	0.00708	0.00100 U	-
G-1	11/6/2007	0.537	5.26 U	0.253 U	0.505 U	0.00154	0.000500 U	0.00192	0.00117	-
G-1	2/14/2008	0.419	4.72 U	0.236 U	0.472 U	0.00182	0.000500 U	0.00142	0.00100 U	-
G-1	5/5/2008	1.09	4.85 U	0.236 U	0.472 U	0.0273	0.000995	0.0164	0.00111	-
G-1	8/14/2008	0.846	5.21 U	0.243 U	0.485 U	0.0138	0.000751	0.00415	0.00110	-
G-1	11/11/2008	1.08	4.76 U	0.238 U	0.476 U	0.00700	0.000679	0.0124	0.00255	-
G-1	2/26/2009	0.293	4.72 U	0.236 U	0.472 U	0.00290	0.000500 U	0.00713	0.00100 U	-
G-1	5/13/2009	0.432	4.72 U	0.238 U	0.476 U	0.00514	0.000512	0.0144	0.00100 U	-
G-1	8/12/2009	1.10	5.00 U	0.380	0.240 U	0.00980	0.00100 U	0.00400	0.00200 U	-
G-1	11/10/2009	1.10	5.00 U	0.260	0.240 U	0.00110	0.00100 U	0.00250	0.00100 U	-
G-1	03/25/2010	0.0500 U	5.00 U	0.120 U	1.10	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
G-1	06/11/2010	0.430	5.40 U	0.830 Y	0.420	0.00150	0.00100 U	0.0110	0.00200 U	-
G-8	8/27/2003	20.5	NA	NA	-	0.404	0.200 U	2.41	1.93	-
G-8	10/31/2003	26.4	NA	NA	-	0.403	0.0716	2.42	2.44	-
G-8	1/27/2004	NS	NS	NS	-	NS	NS	NS	NS	-
G-8	5/6/2004	NS	NS	NS	-	NS	NS	NS	NS	-
G-8	8/12/2004	NS	NS	NS	-	NS	NS	NS	NS	-
G-8	10/28/2004	29.6	NA	NA	-	0.203	0.0721	3.00	1.35	-
G-8	2/9/2005	31.0	NA	NA	-	0.0798	0.314	3.54	4.82	-
G-8	5/12/2005	21.5	NA	NA	-	0.0852	0.200	2.78	2.57	-
G-8	8/3/2005	29.8 J	NA	13.0	-	0.0757 J	0.142 J	3.06 J	2.27 J	-
G-8	11/9/2005	31.1	NA	37.7	-	0.115	0.139	3.83	1.63	-
G-8	2/7/2006	22.3	NA	0.818	-	0.0128	0.123	2.17	2.54	-
G-8	5/2/2006	17.0	NA	NA	-	0.0699	0.0250 U	1.95	0.396	-
G-8	8/1/2006	45.4	NA	42.9	-	0.194	0.100 U	2.90	0.813	-
G-8	12/19/2006	18.8	NA	1.68	0.472 U	0.0198	0.0402	1.80	0.667	-
G-8	2/7/2007	14.1 J	NA	1.39	0.472 U	0.0164	0.0623	1.29	0.809	-
G-8	5/9/2007	14.4	NA	4.05	0.681	0.0202	0.0539	1.73	0.465	-
G-8	8/2/2007	17.1	NA	17.9	26.6 U	0.0369	0.0624	1.91	0.737	-
G-8	11/7/2007	22.7	NA	186	10.3	0.0457	0.0140	2.62	0.194	-
G-8	2/14/2008	17.6	NA	13.9	0.472 U	0.0191	0.0213	2.26	0.324	-
G-8	5/5/2008	17.8	NA	6.43	0.554	0.0250 U	0.0370	2.39	0.371	-
G-8	8/14/2008	17.5	NA	1.22	0.476 U	0.0250 U	0.0408	2.28	0.976	-
G-8	11/12/2008	16.0	NA	68.8	4.76 UJ	0.0250 U	0.0383	2.29	0.427	-
G-8	2/25/2009	14.1	NA	1.96	0.472 U	0.0125 U	0.0338	1.66	0.729	-
G-8	5/13/2009	11.3	NA	4.01	0.481 U	0.0376	0.0183	1.58	0.270	-
G-8	8/14/2009	10.0	NA	3.40	0.260 U	0.0370	0.00510	1.40	0.0950	-
G-8	11/12/2009	21.0	NA	33.0	2.70	0.0140	0.00530	1.90	0.116	-
G-8	03/24/2010	11.0	NA	8.50	1.00	0.0540	0.00430	3.00	0.0139	-
G-8	06/08/2010	14.0	NA	12.0 Y	0.960	0.0300	0.00550	2.60	0.0482	-
G-8	09/14/2010	17.0	11.0	560	19.0	0.0250	0.00590	2.80	0.0352	-
G-8	12/16/2010	7.70	7.00	2.90	0.770	0.00560	0.00250	1.30	0.0247	-
G-8	3/8/2011	6.80	5.10 U	2.30	0.240 U	0.00540	0.00470	1.00	0.0560	-
G-8	6/14/2011	9.10	5.40 U	2.70	0.260 U	0.00820	0.00380	1.10	0.0660	-
G-8	10/06/2011	5.21	5.30 U	2.39	0.490 U	0.0108	0.00250 U	1.23	0.00500 U	-
G-8	12/6/2011	6.60	5.10 U	2.10	0.240 U	0.00520	0.00190	1.30	0.00240	-
G-8	4/2/2012	4.00	5.50 U	2.20	0.280	0.00360	0.00130	0.540	0.00200 U	-
G-8	6/13/2012	6.00 J	NA	1.80 J	0.240 UJ	0.00350 J	0.00200 J	0.640 J	0.00650 J	-
G-8	9/11/2012	5.60	NA	2.50	0.730	0.00600	0.00210	0.460	0.00910	-
G-8	12/12/2012	1.70	NA	1.60	0.240 U	0.00200	0.00100 U	0.0640	0.00200 U	-
G-8	3/13/2013	2.40	NA	1.80	0.340	0.00180	0.00100	0.0660	0.00200 U	-
G-8	6/11/2013	4.00	NA	3.20	0.270	0.00340	0.00220	0.0860	0.0189	-
G-8	9/24/2013	3.20	NA	2.00	0.300	0.00190	0.00100 U	0.0380	0.00600	-
G-8	12/3/2013	2.2	NA	0.93	0.24	0.0019	0.0014	0.076	0.0149	-

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G-8	3/3/2014	0.73	NA	0.73	0.38	0.001 U	0.001 U	0.0034	0.002 U	-
G-8	6/10/2014	2.8 J	NA	1.5	0.25 U	0.0014	0.0016	0.19	0.0216	-
G-8	9/25/2014	1.6 J	NA	0.86	0.39	0.0013	0.001 U	0.037	0.002 U	-
G-8	12/16/2014	0.25	NA	0.55	0.34	0.0010 U	0.0010 U	0.0010 U	0.0020 U	-
G-8	3/24/2015	0.31	NA	0.46	0.25 U	0.0020 U	0.0020 U	0.0030 U	0.0030 U	-
G-8	6/16/2015	1.3	NA	1.0	0.27 U	0.0020 U	0.0020 U	0.041	0.0079	-
G-8	9/21/2015	0.97 J	NA	0.56	0.26 U	0.0020 U	0.0020 U	0.015	0.0030 U	-
G-8	12/21/2015	0.11	NA	0.61	0.39 U	0.00020 U	0.0010 U	0.0010 U	0.0030 U	-
G-8	3/21/2016	0.0806 J	NA	0.463	0.217	0.0010 U	0.0010 U	0.0010 U	0.0020 U	-
G-8	6/21/2016	0.868 J	NA	0.491	0.138 J	0.00063 J	0.00033 J	0.0107	0.0011 J	-
G-8	9/22/2016	0.888	NA	1.72	0.178 J	0.0013	0.00042 J	0.0484	0.0012 J	-
G-8	12/7/2016	0.820	NA	-	-	0.0007	0.00034 J	0.029	0.0046	-
G-8	6/20/2017	0.500	NA	0.74 J	0.21 J	0.00042	0.0010 U	0.0058	0.0016 J	-
G-8	9/19/2017	0.690	NA	0.0010	0.25 J	0.0010 J	0.0010 U	0.00071 J	0.00052 J	-
G-8	9/18/2018	0.510	NA	0.9700	0.55	0.0007	0.0010 U	0.00037 J	0.00091 J	-
G-8	9/11/2019	0.340	NA	0.4300	0.13 U	0.0004 J	0.0001 J	0.00059 J	0.00031 U	-
G-16	6/15/2011	0.0500 U	5.00 U	0.180	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
G-16	10/04/2011	0.0800 U	5.00 U	0.260	0.250 U	0.000400 U	0.00100 U	0.00100 U	0.00200 U	-
G-16	12/6/2011	0.0500 U	4.90 U	0.150	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
G-16	4/4/2012	0.0500 U	5.20 U	0.620	0.600	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
G-16	6/12/2012	0.0560	NA	0.170	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
G-16	9/10/2012	0.0500 U	NA	0.150	0.310	0.000770 J	0.00100 U	0.00100 U	0.00200 U	-
G-16	12/10/2012	0.0500 U	NA	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
G-16	3/14/2013	0.0500 U	NA	0.280	0.260 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
G-16	6/11/2013	0.0560	NA	0.0570	0.0520	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
G-16	9/27/2013	0.250 U	NA	0.250	0.240 U	0.00100 U	0.00250 U	0.00250 U	0.00500 U	-
G-16	9/25/2014	0.05 U	NA	1.5 J	1.3	0.001 U	0.001 U	0.001 U	0.002 U	-
G-16	9/23/2015	0.067	NA	0.93	0.25 U	0.0020 U	0.0020 U	0.0030 U	0.0030 U	-
G-16	9/22/2016	0.10 U	NA	1.05	0.174	0.00023 J	0.0010 U	0.0010 U	0.0030 U	-
G-16	9/21/2017	0.15 U	NA	0.52	0.20 J	0.00040 U	0.0010 U	0.0010 U	0.0030 U	-
G-16	9/18/2018	0.15 U	NA	0.93	1.10	0.00027 J	0.0010 U	0.0010 U	0.0030 U	-
G-16	9/10/2019	0.05 J	NA	0.21 J	0.12 U	0.00070 J	0.0001 U	0.0004 J	0.0003 U	-
G-18	6/21/1995	6.50	NA	NA	-	1.20	0.00800 U	0.190	0.0240	-
G-18	9/18/1995	13.0	NA	NA	-	1.30	0.0800	0.260	0.0430	-
G-18	12/12/1995	2.30	NA	NA	-	0.690	0.00400 U	0.130	0.0210	-
G-18	3/6/1996	3.80	NA	NA	-	1.00	0.00400 U	0.0990	0.0110	-
G-18	6/5/1996	3.16	NA	NA	-	0.542	0.00500 U	0.122	0.0177	-
G-18	8/22/1996	8.99	NA	NA	-	0.980	0.0100 U	0.332	0.0582	-
G-18	12/5/1996	3.42	NA	NA	-	0.393	0.00500 U	0.226	0.0391	-
G-18	2/24/1997	1.32	NA	NA	-	0.246	0.00300 U	0.0708	0.0136	-
G-18	5/28/1997	2.51	NA	NA	-	0.690	0.0100 U	0.152	0.0232	-
G-18	8/8/1997	4.08	NA	NA	-	0.880	0.0100 U	0.200	0.0240	-
G-18	12/10/1997	3.34	55.8	NA	-	1.16	0.0100 U	0.190	0.0240	-
G-18	3/3/1998	2.25	13.1	NA	-	0.260	0.00300 U	0.0970	0.0120	-
G-18	6/3/1998	5.17	25.2	NA	-	1.67	0.0250 U	0.258	0.0500 U	-
G-18	8/24/1998	5.98	21.7	NA	-	1.56	0.0190	0.280	0.0660	-
G-18	12/2/1998	3.52	19.3	NA	-	1.73	0.0100 U	0.299	0.0324	-
G-18	3/1/1999	2.37	6.20	NA	-	0.430	0.00500 U	0.130	0.0240	-
G-18	6/9/1999	2.60	4.40	NA	-	1.00	0.00300	0.260	0.0290	-
G-18	8/24/1999	3.40	4.00 U	NA	-	1.20	0.00400	0.290	0.0300	-
G-18	11/18/1999	2.10	4.00 U	NA	-	0.810	0.00600	0.180	0.0200	-
G-18	2/17/2000	2.30	10.0	NA	-	0.670	0.00190	0.190	0.0220	-
G-18	5/17/2000	1.70	2.80 U	NA	-	0.460	0.00210	0.160	0.0180	-
G-18	8/24/2000	2.10	8.40 U	NA	-	0.960	0.00270	0.180	0.0170	-

Appendix A
Summary of Historical Groundwater Analytical Results
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WELL ID	DATE	CONCENTRATION (mg/L)								
		TPH-G	TPH-O&G	TPH-D	Heavy Oil TPH	B	T	E	X	Naphtalene
G-18	11/21/2000	4.27	5.00 U	NA	-	1.28	0.0100 U	0.190	0.0250	-
G-18	2/14/2001	5.16	5.00 U	NA	-	0.610	0.00500 U	0.230	0.0280	-
G-18	5/9/2001	4.32	8.22	NA	-	0.820	0.0100 U	0.230	0.0240	-
G-18	8/8/2001	4.06	6.00	NA	-	0.470	0.0100 U	0.170	0.0200 U	-
G-18	11/6/2001	4.28	5.00 U	NA	-	0.950	0.0100 U	0.190	0.0200 U	-
G-18	2/19/2002	0.990	5.90	NA	-	0.130	0.00100 U	0.0730	0.00700	-
G-18	4/1/2002	NS	NS	NS	-	NS	NS	NS	NS	-
G-18	8/20/2002	NS	NS	NS	-	NS	NS	NS	NS	-
G-18	11/20/2002	2.65 J	6.06	NA	-	0.345	0.00105	0.124	0.00988	-
G-18	1/28/2003	0.0500 U	5.05 U	NA	-	0.00100	0.000500 U	0.00203	0.000100 U	-
G-18	4/30/2003	0.456	4.90 U	NA	-	0.0126	0.000500 U	0.0174	0.00209	-
G-18	8/26/2003	0.958	5.10 U	NA	-	0.0885	0.00200 U	0.0368	0.00150 U	-
G-18	11/4/2003	1.29	6.42	NA	-	0.0828	0.00250 U	0.0407	0.00922	-
G-18	1/27/2004	NS	NS	NS	-	NS	NS	NS	NS	-
G-18	5/6/2004	1.06	7.50	NA	-	0.171	0.00125 U	0.0422	0.00436	-
G-18	8/10/2004	1.54	5.00 U	NA	-	0.209	0.00250 U	0.0690	0.00630	-
G-18	10/29/2004	0.867	5.00 U	NA	-	0.0889	0.00250 U	0.0393	0.00500 U	-
G-18	2/10/2005	0.396	5.00 U	NA	-	0.0541	0.000500 U	0.0166	0.00213	-
G-18	5/11/2005	0.422	7.20	NA	-	0.0549	0.000500 U	0.0202	0.00234	-
G-18	8/4/2005	2.21	10.2	6.22	-	0.394	0.00105	0.0803	0.00840	-
G-18	11/9/2005	2.99	7.37	21.1	-	0.552	0.00277	0.139	0.0161	-
G-18	2/8/2006	0.0500 U	4.76 U	0.238 U	-	0.00135	0.000500 U	0.000793	0.00100 U	-
G-18	5/3/2006	0.705	4.72 U	0.508	-	0.0985	0.00250 U	0.0144	0.00500 U	-
G-18	8/2/2006	2.34	5.00 U	3.67	-	0.629	0.0100 U	0.0676	0.00750 U	-
G-18	12/21/2006	0.0646	4.90 U	0.243 U	0.485 U	0.00535	0.000500 U	0.00159	0.00100 U	-
G-18	2/6/2007	0.0664	4.76 U	0.236 U	0.472 U	0.00367	0.000500 U	0.00137	0.00100 U	-
G-18	5/8/2007	0.305	4.76 U	0.764	0.476 U	0.0288	0.000500 U	0.00598	0.00100 U	-
G-18	8/1/2007	1.27	5.21 U	1.57	0.500 U	0.267	0.000776	0.0317	0.00257	-
G-18	11/7/2007	1.48	4.95 U	2.39	0.505 U	0.214	0.00250 U	0.0457	0.00598	-
G-18	2/14/2008	0.315	4.81 U	0.386	0.481 U	0.0307	0.000500 U	0.0101	0.00172	-
G-18	5/5/2008	0.530	4.72 U	0.457	0.476 U	0.0723	0.000500 U	0.0176	0.00255	-
G-18	8/14/2008	0.549	5.21 U	0.798	0.495 U	0.0934	0.000500 U	0.0157	0.00275	-
G-18	11/13/2008	0.946	4.76 U	1.25	0.476 U	0.214	0.000637	0.0202	0.00371	-
G-18	2/27/2009	0.0500 U	4.81 U	0.238 U	0.476 U	0.00104	0.000500 U	0.000500 U	0.00100 U	-
G-18	5/12/2009	0.0706	4.72 U	0.240	0.472 U	0.00817	0.000500 U	0.000500 U	0.00100 U	-
G-18	8/12/2009	1.50	8.80	11.0	0.510	0.200	0.00140	0.0160	0.00330	-
G-18	11/11/09	0.780	5.00 U	0.970	0.240 U	0.150	0.00100 U	0.0120	0.00110	-
G-18	03/25/2010	0.0500 U	5.00 U	0.130	0.260	0.00220	0.00100 U	0.00100 U	0.00200 U	-
G-18	06/14/2010	0.200	5.30 U	1.40 Y	0.330	0.0350	0.00100 U	0.00220	0.00200 U	-
G-18	09/15/2010	0.570 J	5.00 U	1.80 Y,J	0.240 U	0.140	0.00100 U	0.0110	0.00200 U	-
G-18	3/7/2011	0.0970	5.70	0.280	0.240 U	0.0140 J	0.00100 U	0.00180	0.00200 U	-
G-18	6/15/2011	0.210	5.00 U	0.490	0.240 U	0.0490	0.00100 U	0.00560	0.00200 U	-
G-18	10/03/2011	0.403 J	5.70 UJ	0.845 J	0.485 UJ	0.0794 J	0.00250 UJ	0.00715 J	0.00500 UJ	-
G-18	12/5/2011	0.480	5.30 U	1.20	0.240 U	0.0820	0.00160	0.00660	0.00100	-
G-18	4/5/2012	0.0500 U	5.10 U	1.10	1.30	0.00190	0.00100 U	0.00100 U	0.00200 U	-
G-18	6/13/2012	1.60 J	NA	1.10 J	0.240 UJ	0.00100 UJ	0.00100 UJ	0.00570 J	0.00200 UJ	-
G-18	9/12/2012	0.870	NA	1.40	0.240 U	0.0750	0.00110	0.00200	0.00270	-
G-18	12/13/2012	0.0770	NA	0.290	0.270	0.00830	0.00100 U	0.00100 U	0.00200 U	-
G-18	3/14/2013	0.0800	NA	0.490	0.240 U	0.00640	0.00100 U	0.00100 U	0.00200 U	-
G-18	6/12/2013	0.350 J	NA	0.660 J	0.210	0.0160	0.00100 U	0.00100 U	0.00200 U	-
G-18	9/24/2013	0.750	NA	1.10	0.870	0.0270	0.00100 U	0.00100 U	0.00200 U	-
G-18	12/3/2013	0.18	NA	0.47	0.24 U	0.0061 J	0.001 U	0.001 U	0.002 U	-
G-18	3/5/2014	0.3	NA	1.2	0.58	0.0097	0.005 U	0.005 U	0.005 U	-
G-18	6/9/2014	0.21	NA	1.5	0.74	0.0011	0.001 U	0.001 U	0.002 U	-
G-18	9/25/2014	0.21	NA	1.9	1.1	0.0028	0.001 U	0.001 U	0.002 U	-
G-18	12/15/2014	0.18	NA	1.1 J	0.46	0.0050	0.0010 U	0.0010 U	0.0020 U	-
G-18	3/24/2015	0.060	NA	0.52	0.27	0.0020 U	0.0020 U	0.0030 U	0.0030 U	-
G-18	6/16/2015	0.26 J	NA	1.6	0.86	0.0021	0.0020 U	0.0030 U	0.0030 U	-
G-18	9/22/2015	0.49	NA	1.6	0.26 U	- R	- R	- R	- R	-

Appendix A
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WELL ID	DATE	CONCENTRATION (mg/L)									
		TPH-G	TPH-O&G	TPH-D	Heavy Oil		B	T	E	X	Naphtalene
					TPH						
G-18	12/22/2015	0.10 U	NA	0.92	0.56	0.0012		0.0010 U	0.0010 U	0.0030 U	-
G-18	3/23/2016	0.148	NA	0.951	0.538	0.00067 J		0.0010 U	0.0010 U	0.0020 U	-
G-18	6/22/2016	0.225 J	NA	0.840	0.319 J	0.0011		0.0010 U	0.0010 U	0.0020 U	-
G-18	9/22/2016	0.433	NA	1.85	0.298	0.0077		0.00041 J	0.00035 J	0.0030 U	-
G-18	12/7/2016	0.054 J	NA	0.75	0.28 U	0.00040		0.00100 U	0.00100 U	0.0030 U	-
G-18	3/20/2017	0.150 U	NA	0.34	0.35 J	0.00040 U		0.0010 U	0.0010 U	0.0030 U	-
G-18	6/22/2017	0.150 U	NA	1.4	0.78	0.00040 U		0.0010 U	0.0010 U	0.0030 U	-
G-18	9/18/2017	0.170	NA	1.1	0.20 J	0.0012		0.0010 U	0.00034 J	0.00058 J	-
G-18	3/19/2018	0.150 U	NA	1.1	0.45	0.0003 J		0.0010 U	0.00100 U	0.00300 U	-
G-18	9/18/2018	0.100 J	NA	2.4	1.60	0.0008		0.0010 U	0.00100 U	0.00052 J	-
G-18	3/12/2019	0.070 U	NA	0.88	0.92	0.0001 U		0.0003 U	0.00020 U	0.00044 U	-
G-18	9/11/2019	0.190	NA	0.61	0.14 U	0.0003 J		0.0003 J	0.00017 J	0.00043 J	-
G-20	9/16/1993	7.20	NA	NA	-	12.0		0.0250 U	0.870	0.110	-
G-20	12/15/1993	7.20	NA	NA	-	11.0		0.120	0.720	0.360	-
G-20	2/1/1994	8.00	NA	NA	-	15.0		0.0250 U	1.10	0.160	-
G-20	6/21/1994	13.0	NA	NA	-	8.80		0.0250 U	0.640	0.110	-
G-20	8/18/1994	16.0	NA	NA	-	13.0		0.0250 U	1.00	0.190	-
G-20	12/7/1994	7.30	NA	NA	-	5.90		0.0250 U	0.500	0.0620	-
G-20	2/21/1995	34.0	NA	NA	-	6.70		0.0250 U	0.640	0.200	-
G-20	6/21/1995	1.80	NA	NA	-	7.40		0.0400 U	0.190	0.0240	-
G-20	9/18/1995	97.0	NA	NA	-	5.10		0.0800 U	0.530	0.160 U	-
G-20	12/12/1995	15.0	NA	NA	-	3.70		0.0200 U	0.520	0.0760	-
G-20	3/6/1996	50.0	NA	NA	-	7.60		0.00800 U	0.810	0.170	-
G-20	6/5/1996	19.7	NA	NA	-	5.34		0.100 U	0.487	0.200 U	-
G-20	8/21/1996	12.3	NA	NA	-	2.86		0.0250 U	0.248	0.0500	-
G-20	12/3/1996	8.32	NA	NA	-	0.676		0.00500 U	0.0841	0.0135	-
G-20	2/24/1997	7.49	NA	NA	-	2.24		0.0130 U	0.210	0.0250 U	-
G-20	5/28/1997	27.1	NA	NA	-	1.56		0.0154	0.254	0.0363	-
G-20	8/8/1997	8.12	NA	NA	-	0.910		0.0100	0.230	0.0300	-
G-20	12/11/1997	8.71	77.4	NA	-	0.460		0.0100	0.190	0.0280	-
G-20	3/4/1998	8.69	88.3	NA	-	1.43		0.0130 U	0.260	0.0250 U	-
G-20	6/2/1998	9.66	19.3	NA	-	1.78		0.0250 U	0.280	0.0500 U	-
G-20	8/24/1998	4.92	25.2	NA	-	2.06		0.0250 U	0.230	0.0500 U	-
G-20	12/2/1998	4.55	16.2	NA	-	0.535		0.0250 U	0.0882	0.0500 U	-
G-20	3/1/1999	4.51	40.7	NA	-	2.69		0.0250 U	0.190	0.0500 U	-
G-20	6/9/1999	5.60	6.60	NA	-	3.20		0.0100	0.260	0.0200 U	-
G-20	8/24/1999	5.20	4.80	NA	-	4.30		0.00800	0.280	0.00600	-
G-20	11/19/1999	2.50	4.00 U	NA	-	0.840		0.00500	0.0610	0.00400	-
G-20	2/17/2000	3.00	5.70	NA	-	0.930		0.00330	0.0510	0.0100 U	-
G-20	5/18/2000	1.70	2.80 U	NA	-	4.70		0.00870	0.380	0.00770	-
G-20	8/24/2000	4.10	8.40 U	NA	-	4.40		0.00570	0.200	0.00620	-
G-20	11/20/2000	11.6	5.00 U	NA	-	4.83		0.0250 U	0.250	0.0500 U	-
G-20	2/14/2001	12.5	5.00 U	NA	-	4.13		0.0250 U	0.410	0.0500 U	-
G-20	5/9/2001	16.2	9.96	NA	-	6.21		0.0100	0.280	0.200 U	-
G-20	8/8/2001	12.1	5.00 U	NA	-	4.20		0.0100	0.110	0.0200 U	-
G-20	11/6/2001	10.5	5.00 U	NA	-	3.71		0.0100	0.120	0.0200 U	-
G-20	2/19/2002	13.7	5.00 U	NA	-	5.17		0.0100	0.270	0.0200 U	-
G-20	4/1/2002	NS	NS	NS	-	NS		NS	NS	NS	-
G-20	8/20/2002	14.7 J	5.00 U	NA	-	4.90 J		0.00778 J	0.166 J	0.0122 J	-
G-20	11/19/2002	7.83	4.90 U	NA	-	1.95		0.0250 U	0.0820	0.0500 U	-
G-20	1/29/2003	7.92	7.60	NA	-	1.83		0.0100 U	0.157	0.0200	-
G-20	4/30/2003	11.2	4.76 U	NA	-	4.43		0.0250 U	0.187	0.0500 U	-
G-20	8/26/2003	4.12	5.10 U	NA	-	1.36		0.00200	0.0403	0.00150 U	-
G-20	11/4/2003	6.60	10.8	NA	-	1.26		0.0250 U	0.153	0.0500 U	-
G-20	1/27/2004	6.28	5.00 U	NA	-	1.44		0.0100 U	0.0984	0.0200 U	-
G-20	5/6/2004	3.69	5.00	NA	-	0.907		0.00472	0.0758	0.00678	-
G-20	8/10/2004	5.43	5.00 U	NA	-	1.37		0.00500 U	0.238	0.0100 U	-
G-20	10/29/2004	5.53	5.00 U	NA	-	0.988		0.00500 U	0.208	0.0100 U	-

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Summary of Historical Groundwater Analytical Results
D Street Petroleum Site

WELL ID	DATE	CONCENTRATION (mg/L)								
		TPH-G	TPH-O&G	TPH-D	Heavy Oil TPH	B	T	E	X	Naphtalene
G-20	2/10/2005	5.49	5.00 U	NA	-	1.40	0.0100 U	0.226	0.0200 U	-
G-20	5/11/2005	5.15	5.00 U	NA	-	1.29	0.0100 U	0.193	0.0200 U	-
G-20	8/4/2005	6.59 J	5.00 U	7.68	-	1.48	0.00571 J	0.226	0.00593 J	-
G-20	11/9/2005	4.54	5.00 U	15.3	-	1.21	0.00567	0.177	0.00806	-
G-20	2/9/2006	6.11	4.81 U	0.238 U	-	1.59	0.0100 U	0.110	0.0200 U	-
G-20	5/3/2006	2.25 J	4.76	2.31	-	0.131	0.00250 U	0.00503	0.00500 U	-
G-20	8/8/2006	0.904	4.72 U	1.61	-	0.218	0.00250 U	0.00958	0.00500 U	-
G-20	12/21/2006	2.59	4.81 U	0.802	0.472 U	0.759	0.00500 U	0.0259	0.00100 U	-
G-20	2/8/2007	10.0 J	4.90 U	0.992	0.495 U	3.39	0.0250 U	0.0471	0.0500 U	-
G-20	5/10/2007	1.34	4.76 U	1.73	0.472 U	0.272	0.000970	0.00651	0.00320	-
G-20	8/1/2007	1.58	5.00 U	35.7	4.72 U	0.241	0.00306	0.00532	0.00500 U	-
G-20	11/7/2007	0.115	4.76 U	1.74	0.481 U	0.00224	0.000500 U	0.000500 U	0.00100 U	-
G-20	2/14/2008	0.584	4.76 U	1.84	0.476 U	0.0842	0.000609	0.00666	0.00168	-
G-20	5/5/2008	1.13	6.02 U	2.96	0.476 U	0.264	0.000619	0.0134	0.00179	-
G-20	8/15/2008	0.244	5.21 U	1.24	0.968	0.0340	0.00250 U	0.00523	0.00500 U	-
G-20	11/12/2008	0.719	5.00 U	1.11	0.490 U	0.0414	0.000102	0.000714	0.00159	-
G-20	2/26/2009	1.28	4.90 U	1.33	0.485 U	0.0952	0.00282	0.0998	0.00395	-
G-20	5/13/2009	1.23	4.76 U	1.04	0.472 U	0.0962	0.00337	0.0162	0.00383	-
G-20	8/12/2009	1.20	5.00 U	1.20	0.410	0.0380	0.00200 U	0.0990	0.00400 U	-
G-20	11/11/2009	2.20	5.00 U	2.10	0.380	0.0990	0.00310	0.0800	0.00520	-
G-20	03/29/2010	0.150	5.00 U	1.10	0.350	0.00560	0.00100 U	0.00160	0.00200 U	-
G-20	06/09/2010	0.280	4.90 U	2.70 Y	0.350	0.0200	0.00100 U	0.00410	0.00200 U	-
G-24	11/6/2007	5.77 J	NA	0.475	0.505 U	0.0147 J	0.00130 J	0.0218 J	0.00572 J	-
G-24	2/14/2008	4.06 J	NA	0.236 U	0.472 U	0.0110	0.00250 U	0.0305	0.0307	-
G-24	5/8/2008	6.22 J	NA	0.545	0.476 U	0.00892 J	0.00208 J	0.149 J	0.197 J	-
G-24	8/13/2008	4.78 J	NA	0.553	0.472 U	0.0142	0.00250 U	0.0212	0.00734	-
G-24	11/12/2008	5.80 J	NA	0.820	0.481 U	0.0283 J	0.00250 U	0.0230 J	0.00500 U	-
G-24	2/24/2009	2.80 J	NA	0.236 U	0.472 U	0.0114	0.00250 U	0.0344	0.00624	-
G-24	5/13/2009	3.69 J	NA	0.303	0.481 U	0.0131 J	0.00126 J	0.0572 J	0.0117 J	-
G-24	8/12/2009	7.70	NA	1.60	0.240 U	0.0130	0.00130	0.0670	0.00911	-
G-24	11/10/2009	7.90	NA	2.20	0.250 U	0.0160	0.00140	0.0220	0.00130	-
G-24	3/26/2010	0.380	NA	0.160	0.260 U	0.00100 U	0.00100 U	0.00760	0.0474	-
G-24	06/09/2010	3.40	NA	1.20 Y	0.240 U	0.00130	0.00100 U	0.210	0.250	-
HC-108	11/8/2007	7.02	NA	14.0	0.490 U	0.0210	0.0320	0.252	1.06	-
HC-108	2/15/2008	2.15	NA	2.26	0.472 U	0.00433	0.00337	0.178	0.332	-
HC-108	5/8/2008	7.62	NA	2.32	0.481 U	0.0124	0.0148	0.594	1.64	-
HC-108	8/15/2008	4.86	NA	1.33	0.476 U	0.0129	0.0158	0.321	1.02	-
HC-108	11/12/2008	4.97	NA	3.15	0.485 U	0.0114	0.0116	0.228	0.745	-
HC-108	2/27/2009	4.52	NA	2.40	0.476 U	0.00616	0.00630	0.457	0.841	-
HC-108	5/14/2009	6.79	NA	1.39	0.485 U	0.00872	0.00917	0.575	1.17	-
HC-108	8/14/2009	8.30	NA	3.10	0.340	0.0500 U	0.0100	0.580	0.990	-
HC-108	11/12/2009	8.80	NA	43.0	2.00	0.0120	0.0130	0.630	1.19	-
HC-108	3/26/2010	2.30	NA	4.80	0.370	0.00230	0.00180	0.150	0.169	-
HC-108	06/14/2010	2.00	NA	5.10 Y	0.350	0.00170	0.00170	0.140	0.191	-
HC-111	8/18/1994	260	NA	NA	-	15.0	49.0	7.00	31.0	-
HC-111	12/7/1994	NS	NS	NS	-	NS	NS	NS	NS	-
HC-111	2/21/1995	NS	NS	NS	-	NS	NS	NS	NS	-
HC-111	6/21/1995	NS	NS	NS	-	NS	NS	NS	NS	-
HC-111	9/18/1995	NS	NS	NS	-	NS	NS	NS	NS	-
HC-111	12/12/1995	NS	NS	NS	-	NS	NS	NS	NS	-
HC-111	3/6/1996	150	NA	NA	-	9.80	18.0	3.60	17.0	-
HC-111	6/5/1996	84.2	NA	NA	-	18.9	20.1	3.01	12.8	-
HC-111	8/22/1996	92.2	NA	NA	-	11.9	13.2	3.06	11.9	-
HC-111	12/5/1996	137	NA	NA	-	18.2	18.4	2.92	12.0	-
HC-111	2/24/1997	122	NA	NA	-	14.1	16.0	2.79	15.7	-
HC-111	5/28/1997	123	NA	NA	-	16.6	19.3	3.51	18.6	-

Appendix A
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		TPH-G	TPH-O&G	TPH-D	Heavy Oil TPH	B	T	E	X	Naphtalene
HC-111	8/8/1997	132	NA	NA	-	17.3	19.8	3.82	16.4	-
HC-111	12/10/1997	107	14.0 U	NA	-	18.6	12.4	3.39	15.2	-
HC-111	3/3/1998	110	5.00 U	NA	-	13.1	11.2	3.05	16.4	-
HC-111	6/3/1998	122	5.00 U	NA	-	18.8	13.6	3.75	15.3	-
HC-111	8/24/1998	NS	NS	NS	-	NS	NS	NS	NS	-
HC-111	12/2/1998	NS	NS	NS	-	NS	NS	NS	NS	-
HC-111	3/1/1999	NS	NS	NS	-	NS	NS	NS	NS	-
HC-111	6/9/1999	87.0	4.00 U	NA	-	19.0	7.00	3.70	13.0	-
HC-111	8/24/1999	62.0	4.00 U	NA	-	18.0	3.90	3.60	9.90	-
HC-111	11/18/1999	51.0	4.80	NA	-	23.0	3.90	3.80	9.30	-
HC-111	2/17/2000	87.0	7.70	NA	-	10.0	8.70	1.80	14.0	-
HC-111	5/17/2000	76.0	4.10	NA	-	20.0	11.0	4.10	12.0	-
HC-111	8/24/2000	44.0	8.40 U	NA	-	20.0	3.10	3.50	6.90	-
HC-111	11/21/2000	77.2	5.00 U	NA	-	25.4	1.90	4.05	6.16	-
HC-111	2/14/2001	81.2	5.00 U	NA	-	22.1	3.62	3.89	6.86	-
HC-111	5/9/2001	67.6	5.00 U	NA	-	20.0	4.46	4.13	7.93	-
HC-111	8/8/2001	64.8	5.00 U	NA	-	17.3	3.35	3.69	6.16	-
HC-111	11/6/2001	56.6	5.00 U	NA	-	17.6	1.16	3.45	4.51	-
HC-111	2/19/2002	95.6	0.500 U	NA	-	15.1	9.41	3.38	9.81	-
HC-111	4/1/2002	NS	NS	NS	-	NS	NS	NS	NS	-
HC-111	8/20/2002	81.2	5.00 U	NA	-	19.3	5.08	3.96	6.78	-
HC-111	11/20/2002	71.9	5.40 U	NA	-	17.0	3.71	3.03	5.21	-
HC-111	1/30/2003	89.7	5.00 U	NA	-	16.4	7.72	3.34	7.38	-
HC-111	4/30/2003	47.3	4.95 U	NA	-	8.35	2.29	1.25	9.46	-
HC-111	8/28/2003	52.5	5.00 U	NA	-	14.8	1.01	2.43	3.68	-
HC-111	11/3/2003	59.7	4.72 U	NA	-	15.9	1.28	2.69	4.33	-
HC-111	1/27/2004	41.4	5.00 U	NA	-	4.41	0.405	0.573	4.35	-
HC-111	5/4/2004	19.8	6.02 U	NA	-	3.78	0.119	0.330	0.989	-
HC-111	8/12/2004	25.4	5.00 U	NA	-	8.24	0.0820	1.02	0.282	-
HC-111	10/29/2004	52.5	5.00 U	NA	-	15.2	0.0720	2.83	0.483	-
HC-111	2/10/2005	34.7	5.00 U	NA	-	14.3	0.102	2.48	0.538	-
HC-111	5/11/2005	35.2	5.00 U	NA	-	10.9	0.328	2.42	1.52	-
HC-111	8/4/2005	16.4	6.49	1.01	-	5.52 J	0.00897	0.758	0.0250	-
HC-111	11/10/2005	19.0	12.3	3.86	-	4.65	0.0509	0.689	0.584	-
HC-111	2/9/2006	10.6	5.92	0.293	-	2.31	0.0816	0.317	0.696	-
HC-111	5/3/2006	17.5	4.72 U	24.8	-	3.75	0.370	0.677	0.790	-
HC-111	8/8/2006	4.62	5.10 U	0.771	-	1.50	0.00641	0.0943	0.195	-
HC-111	12/21/2006	4.77	9.33	0.240 U	0.481 U	0.983	0.0386	0.150	0.128	-
HC-111	2/8/2007	13.0	6.42	2.11	0.476 U	3.07	0.340	0.168	0.589	-
HC-111	5/10/2007	29.1	6.00	0.394	0.472 U	6.16	1.54	0.972	2.02	-
HC-111	8/1/2007	12.1	4.95 U	16.8 J	4.90 U	3.70	0.120	0.430	0.570	-
HC-111	11/8/2007	20.8	5.43 U	4.75	0.510 U	6.15	0.0500 U	0.597	0.549	-
HC-111	2/15/2008	7.89	4.72 U	0.236 U	0.472 U	1.76	0.0726	0.193	0.728	-
HC-111	5/5/2008	16.5	4.76 U	0.360	0.481 U	4.10	0.304	0.811	0.895	-
HC-111	8/15/2008	14.4	NA	2.25	4.72 U	4.55	0.0500 U	0.430	0.100 U	-
HC-111	11/12/2008	19.0	4.81 U	4.66	0.481 U	5.25	0.0500 U	1.17	0.411	-
HC-111	2/27/2009	3.86	4.76 U	15.0	2.38 U	0.719	0.00500 U	0.309	0.134	-
HC-111	5/14/2009	2.52	4.85 U	4.99	0.481 U	0.313	0.00500 U	0.274	0.0184	-
HC-111	8/14/2009	4.60	5.00 U	5.80	0.240 U	3.10	0.00270	0.790	0.0220	-
HC-111	11/12/2009	6.10	5.00 U	3.80	0.240 U	2.40	0.00930	0.910	0.186	-
HC-111	3/26/2010	0.620	53.0	7.20	0.470	0.0730	0.00100 U	0.00440	0.0130	-
HC-111	06/14/2010	2.30	5.30 U	27.0	1.10	0.830	0.00790	0.0820	0.218	-
HC-111	09/16/2010	6.70	5.00 U	47.0 Y	4.70	2.40	0.0640	0.320	0.990	-
HC-111	12/17/2010	5.70	5.30 U	21.0	5.00	1.30	0.0450	0.210	1.24	-
HC-111	3/10/2011	8.60	4.90 U	2.30	0.240 U	2.80	0.0200	0.670	1.69	-
HC-111	6/15/2011	10.0	5.00 U	3.80	0.890	2.70	0.0110	0.660	2.10	-
HC-111	10/03/2011	5.06	5.30 U	1.27	0.510 U	2.01	0.0120	0.101	0.122	-
HC-111	12/6/2011	1.70	5.30 U	1.60	0.250 U	0.760	0.00460	0.0830	0.0410	-
HC-111	4/2/2012	0.860	5.30 U	19.0	5.80	1.10	0.00340	0.0870	0.0770	-

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		TPH-G	TPH-O&G	TPH-D	TPH	B	T	E	X	Naphtalene
HC-111	6/13/2012	5.10 J	NA	9.20 J	1.70 J	1.80 J	0.0150 J	0.430 J	0.204 J	-
HC-111	9/13/2012	2.70	NA	0.900	0.240 U	2.00 J	0.00860	0.0880	0.0330	-
HC-111	12/13/2012	0.550	NA	0.320	0.240 U	0.300	0.00220	0.0200	0.0570	-
HC-111	3/14/2013	2.50	NA	3.30	0.340	1.10	0.00760	0.240	0.0600	-
HC-111	6/12/2013	3.10	NA	1.10	0.0560	1.20	0.0110	0.100	0.159	-
HC-111	9/26/2013	2.50	NA	0.390	0.240 U	0.610	0.00500 U	0.0300	0.0100 U	-
HC-111	12/5/2013	3.6	NA	0.74	0.24 U	1.70	0.0096	0.75	0.0549	-
HC-111	3/5/2014	0.12	NA	4.2	1.2	0.30 J	0.0014 J	0.001 U	0.002 U	-
HC-111	6/9/2014	1.6	NA	6.6	1.3	1.20	0.0042	0.24	0.1598	-
HC-111	9/23/2014	1.7 J	NA	3.7	0.5	0.79	0.0065	0.025	0.0078	-
HC-111	12/16/2014	0.063	NA	5.5	2.1	0.084	0.0010 U	0.0010 U	0.0020 U	-
HC-111	3/26/2015	0.65	NA	- R	- R	0.33	0.0020 U	0.057	0.021	-
HC-111	6/17/2015	2.7	NA	8.9	1.7	0.76	0.040 U	0.060 U	0.060 U	-
HC-111	9/22/2015	1.3 J	NA	3.7	0.25 U	0.380	- R	- R	- R	-
HC-111	12/22/2015	0.10 U	NA	0.70	0.40 U	0.018	0.0010 U	0.0010 U	0.0030 U	-
HC-111	3/21/2016	1.46	NA	8.23	0.642 J	0.276	0.0065	0.569a	0.159	-
HC-111	6/22/2016	2.10 J	NA	2.50 J	0.48 UJ	0.392	0.0022 J	0.128	0.0481	-
HC-111	9/21/2016	2.09 J	NA	5.55	0.387 J	0.385	0.0025 J	0.0188	0.0028 J	-
HC-111	12/8/2016	0.420	NA	8.7	0.12 U	0.130	0.00045 J	0.0075	0.0035	-
HC-111	3/20/2017	1.100 J	NA	4.9	0.36 J	0.300	0.0034 J	0.110	0.013 J	-
HC-111	6/21/2017	2.30	NA	6.1	0.45	0.380	0.0095	0.380	0.200	-
HC-111	9/19/2017	2.2	NA	8.5	0.51	0.370	0.0078	0.028	0.0071	-
HC-111	12/12/2017	1.2	NA	5.2	0.61	0.190	0.0033	0.051	0.0049	-
HC-111	3/19/2018	2.7	NA	5.3	0.39	0.350	0.0095	0.270	0.0700	-
HC-111	6/19/2018	1.2	NA	5.6	0.46	0.120	0.0040	0.033	0.0065	-
HC-111	9/17/2018	1.7	NA	6.3	0.61	0.230	0.0071	0.022	0.0039	-
HC-111	12/10/2018	1.2	NA	12	2.70	0.084	0.0040	0.020	0.0030	-
HC-111	3/13/2019	1.9 J	NA	4.5	0.52	0.150	0.0092 J	0.060	0.0091 J	-
HC-111	6/17/2019	2.2	NA	9.2	0.87	0.120	0.0055	0.096	0.0028 J	-
HC-111	9/11/2019	1.2 J	NA	1.4	0.12 U	0.095	0.0065 J	0.046	0.0031 U	-
RW-2	1/27/2004	2.85	NA	NA	-	0.183	0.00209	0.0564	0.0130	-
RW-2	5/6/2004	1.57	NA	NA	-	0.0462	0.000734	0.00688	0.00249	-
RW-2	8/11/2004	0.860	NA	NA	-	0.0205	0.000895	0.00164	0.00250	-
RW-2	10/29/2004	1.11 J	NA	NA	-	0.00548 J	0.000500 U	0.000922 J	0.00227 J	-
RW-2	2/9/2005	1.47 J	NA	NA	-	0.0739 J	0.000718 J	0.00519 J	0.00340 J	-
RW-2	5/10/2005	1.81	NA	NA	-	0.125	0.00170	0.0101	0.00383	-
RW-2	8/5/2005	2.51 J	NA	0.387	-	0.0449 J	0.00108 J	0.00369 J	0.00329 J	-
RW-2	11/9/2005	1.06	NA	0.253	-	0.00407	0.000556	0.000593	0.00200	-
RW-2	2/8/2006	1.17	NA	0.236 U	-	0.0347	0.000500 U	0.00402	0.00140	-
RW-2	5/3/2006	0.619	NA	0.250 U	-	0.00907	0.000500 U	0.000512	0.00100 U	-
RW-2	8/1/2006	0.463	NA	0.236 U	-	0.00317	0.00200 U	0.00100 U	0.00150 U	-
RW-2	12/21/2006	0.736 J	NA	0.245 U	0.629	0.0148	0.000500 U	0.000986	0.00106	-
RW-2	2/8/2007	0.947 J	NA	0.236 U	0.472 U	0.0248	0.000500 U	0.00189	0.00100 U	-
RW-2	5/9/2007	0.866 J	NA	0.245 U	0.490 U	0.0178	0.000500 U	0.00228	0.00100 U	-
RW-2	8/1/2007	0.602	NA	0.278 U	0.556 U	0.00530	0.000500 U	0.000802	0.00100 U	-
RW-2	11/6/2007	2.13 J	NA	0.318	0.510 U	0.0254 J	0.000678 J	0.00508 J	0.00181 J	-
RW-2	2/13/2008	0.695	NA	0.236 U	0.472 U	0.00644	0.000500 U	0.000937	0.00100 U	-
RW-2	5/5/2008	3.02	NA	0.420	0.476 U	0.0425	0.00130	0.0132	0.00118	-
RW-2	8/14/2008	0.479	NA	0.243 U	0.485 U	0.00152	0.000500 U	0.00183	0.00100 U	-
RW-2	11/13/2008	1.26	NA	0.747	0.547	0.00161	0.000500 U	0.00174	0.00137	-
RW-2	2/26/2009	0.426	NA	4.55 J	1.60 J	0.00232	0.000500 U	0.000500 U	0.00100 U	-
RW-2	5/14/2009	0.517 J	NA	0.238 U	0.476 U	0.00506 J	0.000500 U	0.000634 J	0.00100 U	-
RW-2	8/12/2009	1.40	NA	0.450	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RW-2	11/11/2009	1.60	NA	0.520	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00100 U	-
RW-2	03/25/2010	0.130	NA	0.120 U	0.610	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RW-2	06/08/2010	0.640	NA	0.710 Y	0.610	0.00170	0.00100 U	0.00120	0.00200 U	-
RW-2	09/15/2010	0.610	5.00 U	1.20 Y	2.80	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RW-2	12/21/2010	0.250	5.40 U	0.180	0.250 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-

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D Street Petroleum Site

WELL ID	DATE	CONCENTRATION (mg/L)								
		TPH-G	TPH-O&G	TPH-D	Heavy Oil TPH	B	T	E	X	Naphtalene
RW-2	3/9/2011	0.240	5.20 U	0.200	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RW-2	6/15/2011	0.890	5.00 U	0.600	0.240 U	0.00250	0.00100 U	0.00290	0.00200 U	-
RW-2	10/03/2011	0.540	4.80 U	0.776	0.505 U	0.000400 U	0.00100 U	0.00100 U	0.00200 U	-
RW-2	12/5/2011	1.10	4.90 U	0.640	0.240 U	0.00100	0.00100 U	0.00240	0.00200 U	-
RW-2	4/9/2012	0.250	5.20 U	0.250	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RW-2	6/14/2012	0.960	NA	0.410 J	0.240 UJ	0.00100 U	0.00100 U	0.00370	0.00200 U	-
RW-2	9/12/2012	2.70	NA	1.40	2.00	0.000770 J	0.000550 J	0.00870	0.00200 U	-
RW-2	12/12/2012	0.0630	NA	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RW-2	3/13/2013	1.80	NA	0.950	0.270 U	0.00620	0.00100 U	0.0240	0.00200 U	-
RW-2	6/12/2013	3.20	NA	0.900	0.0470 U	0.00450	0.00100 U	0.0130	0.00200 U	-
RW-2	9/27/2013	2.00	NA	0.810	0.240 U	0.00220	0.00500 U	0.00670	0.0100 U	-
RW-2	12/3/2013	1.8	NA	0.41	0.24 U	0.0012	0.001 U	0.0062	0.002 U	-
RW-2	3/5/2014	0.93	NA	0.45	0.24 U	0.001 U	0.001 U	0.001 U	0.002 U	-
RW-2	6/12/2014	0.66	NA	0.5	0.25 U	0.001 U	0.001 U	0.0028	0.002 U	-
RW-2	9/25/2014	1.6 J	NA	1.1	0.25 U	0.001 U	0.001 U	0.0043	0.002 U	-
RW-2	12/16/2014	0.51	NA	0.36	0.25 U	0.0010 U	0.0010 U	0.0010 U	0.0020 U	-
RW-2	3/24/2015	0.074	NA	0.12	0.25 U	0.0020 U	0.0020 U	0.0030 U	0.0030 U	-
RW-2	6/17/2015	1.9 J	NA	1.2	0.25 U	0.0021	0.0020 U	0.016	0.0030 U	-
RW-2	9/21/2015	1.8 J	NA	0.88	0.25 U	0.0020 U	0.0020 U	0.0032	0.0020 U	-
RW-2	12/21/2015	0.20	NA	0.47	0.40 U	0.00020 U	0.0010 U	0.0010 U	0.0030 U	-
RW-2	3/23/2016	0.100 U	NA	0.107	0.19 U	0.0010 U	0.0010 U	0.0010 U	0.0020 U	-
RW-2	6/22/2016	0.897 J	NA	0.454	0.135 J	0.0026	0.00020 J	0.0047	0.0020 U	-
RW-2	9/22/2016	1.12 J	NA	0.666	0.0634 J	0.00074 J	0.00041 J	0.0030	0.0030 U	-
RW-2	12/7/2016	0.029 J	NA	0.16	0.062 J	0.00020 U	0.0010 U	0.0010 U	0.0030 U	-
RW-2	3/21/2017	0.150 U	NA	0.11 J	0.42 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	-
RW-2	6/21/2017	0.590	NA	0.49	0.41 UJ	0.00074	0.0010 U	0.0022	0.0030 U	-
RW-2	9/20/2017	0.870	NA	1.0	0.35 J	0.00032 J	0.0010 U	0.0015	0.0030 U	-
RW-2	9/20/2018	0.930	NA	1.3	0.31 J	0.00049	0.0010 U	0.0023	0.0006 J	-
RW-2	9/10/2019	1.200 J	NA	0.8	0.12 U	0.00071 J	0.0004 J	0.0048	0.0003 J	-
RW-5	1/27/2004	6.01	NA	NA	NA	0.339	0.135	0.337	0.477	-
RW-5	5/6/2004	4.09	NA	NA	NA	0.225	0.00596	0.184	0.317	-
RW-5	8/10/2004	2.73 J	NA	NA	NA	0.0570	0.0109	0.0937	0.168	-
RW-5	10/29/2004	2.78 J	NA	NA	NA	0.0287	0.00334	0.0632	0.104	-
RW-5	2/9/2005	6.51 J	NA	NA	NA	0.393	0.0322 J	0.432	0.423	-
RW-5	5/18/2005	NS	NS	NS	NS	NS	NS	NS	NS	-
RW-5R	8/5/2005	40.4	NA	0.458	-	1.04	0.0639	2.34	8.13 J	-
RW-5R	11/8/2005	19.6	NA	2.01	-	0.805	0.0137	1.19	2.58	-
RW-5R	2/8/2006	8.74	NA	0.371	-	0.784	0.00830	0.0845	0.775	-
RW-5R	5/2/2006	18.9	NA	0.384	-	0.500	0.0141	1.17	2.45	-
RW-5R	8/1/2006	29.1	NA	0.514	-	1.20	0.100 U	2.48	5.21	-
RW-5R	12/19/2006	18.2	NA	0.359	0.481 U	0.823	0.0106	0.948	1.83	-
RW-5R	2/7/2007	8.89 J	NA	0.238 U	0.476 U	0.209	0.0250 U	0.585	0.800	-
RW-5R	5/9/2007	12.9	NA	0.378	0.472 U	0.213	0.0100 U	0.894	1.38	-
RW-5R	8/2/2007	21.7	NA	0.910	0.485 U	0.669	0.00938	1.55	2.12	-
RW-5R	11/7/2007	23.5	NA	1.29 J	0.510 U	0.565	0.0100 U	2.24	1.25	-
RW-5R	2/13/2008	10.3	NA	0.540	0.472 U	0.415	0.00500 U	1.19	0.426	-
RW-5R	5/5/2008	14.6	NA	0.666	0.472 U	0.253	0.0100 U	1.29	0.614	-
RW-5R	8/14/2008	14.0	NA	0.913	0.476 U	0.310	0.0100 U	0.968	0.381	-
RW-5R	11/12/2008	10.5	NA	1.07	0.481 U	0.329	0.0100 U	0.579	0.100	-
RW-5R	2/25/2009	9.95	NA	0.549	0.472 U	0.119	0.00500 U	0.869	0.852	-
RW-5R	5/12/2009	8.95	NA	0.880	0.476 U	0.135	0.00500 U	0.759	0.416	-
RW-5R	8/13/2009	8.10	NA	1.60	0.490	0.120	0.00160	1.30	0.0440	-
RW-5R	11/12/2009	7.30	NA	1.90	0.240 U	0.110	0.00190	0.400	0.0234	-
RW-5R	03/24/2010	1.40	NA	0.510	0.250 U	0.0100	0.00100 U	0.0500	0.00630	-
RW-5R	06/08/2010	4.90	NA	2.00 Y	0.240 U	0.0320	0.00110	0.240	0.0100	-
RW-5R	09/14/2010	3.00	4.70 U	1.80 Y	0.240 U	0.0550	0.00100	0.210	0.00200 U	-
RW-5R	12/16/2010	5.60	4.90 U	1.70	0.240 U	0.0400	0.00140	0.290	0.00200 U	-

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D Street Petroleum Site

WELL ID	DATE	CONCENTRATION (mg/L)								
		TPH-G	TPH-O&G	TPH-D	Heavy Oil TPH	B	T	E	X	Naphtalene
RW-5R	3/8/2011	1.30	5.00 U	0.470	0.240 U	0.0150	0.00100 U	0.0680	0.00200 U	-
RW-5R	6/14/2011	2.00	5.20 U	0.660	0.270 U	0.0240	0.00100 U	0.120	0.00200 U	-
RW-5R	10/06/2011	4.58	5.20 U	2.36	0.476 U	0.0388	0.00106	0.140	0.00200 U	-
RW-5R	12/6/2011	6.60	5.00 U	2.20	0.240 U	0.0280	0.00130	0.400	0.00200 U	-
RW-5R	4/2/2012	2.10	5.30 U	1.80	0.930	0.0260	0.00100 U	0.0740	0.00200 U	-
RW-5R	6/14/2012	2.20	NA	0.590	0.240 U	0.0230	0.00100 U	0.120	0.00200 U	-
RW-5R	9/11/2012	3.50	NA	1.20	0.520	0.0300	0.000720 J	0.180	0.00220	-
RW-5R	12/12/2012	3.90 J	NA	1.90	0.240 U	0.0940	0.00140	0.0780	0.00200 U	-
RW-5R	3/13/2013	1.10	NA	0.560	0.270 U	0.00880	0.00100 U	0.0230	0.00200 U	-
RW-5R	6/12/2013	1.50	NA	0.450	0.0640	0.0140	0.00100 U	0.0530	0.00200 U	-
RW-5R	9/24/2013	5.10	NA	1.50	0.270	0.0290	0.00100 U	0.0290	0.00200 U	-
RW-5R	12/2/2013	3.4	NA	0.78	0.24 U	0.019	0.001 U	0.026	0.002 U	-
RW-5R	3/4/2014	2.7	NA	1.4	0.41	0.007	0.001 U	0.01	0.002 U	-
RW-5R	6/11/2014	0.65	NA	0.33	0.25 U	0.005 J	0.001 U	0.018 J	0.002 U	-
RW-5R	9/24/2014	4.8 J	NA	1.4	0.28	0.015	0.0015	0.045	0.002 U	-
RW-5R	12/16/2014	6.3 J	NA	2.6	0.42	0.14	0.0013	0.039	0.0020 U	-
RW-5R	3/23/2015	1.0	NA	0.53	0.24 U	0.011	0.0020 U	0.017	0.0030 U	-
RW-5R	6/17/2015	1.9	NA	0.66	0.25 U	0.011	0.0020 U	0.034	0.0030 U	-
RW-5R	9/21/2015	5.6 J	NA	1.2	0.25 U	0.022	0.0020 U	0.020	0.0030 U	-
RW-5R	12/21/2015	3.5	NA	2.5	0.39 U	0.097	0.0012	0.044	0.0030 U	-
RW-5R	3/21/2016	0.498	NA	0.189	0.19 U	0.0014	0.00022 J	0.0081	0.00054 J	-
RW-5R	6/21/2016	0.817 J	NA	0.208	0.0538 J	0.0039	0.00038 J	0.0426	0.0018 J	-
RW-5R	9/21/2016	4.71	NA	0.904	0.0838 J	0.0090	0.00075 J	0.0419	0.00063 J	-
RW-5R	12/6/2016	1.900	NA	0.98	0.12 J	0.0037	0.00052 J	0.0082	0.00074 J	-
RW-5R	3/20/2017	0.450	NA	0.29	0.12 J	0.00040 U	0.0010 U	0.23 J	0.0030 U	-
RW-5R	6/20/2017	0.390	NA	0.31 J	0.13 J	0.00034 J	0.0010 U	0.014	0.00049 J	-
RW-5R	9/19/2017	1.8	NA	0.93	0.43 U	0.0044	0.00060 J	0.0068	0.0030 U	-
RW-5R	12/11/2017	1.4	NA	0.75	0.15 J	0.0006	0.00042 J	0.0012	0.0003 J	-
RW-5R	3/19/2018	0.3	NA	0.32	0.42 U	0.0001 J	0.00100 U	0.0010 U	0.0030 U	-
RW-5R	6/18/2018	0.9	NA	0.52	0.42 U	0.0045	0.00100 U	0.0081	0.0006 J	-
RW-5R	9/18/2018	2.3	NA	1.8	0.59	0.0020	0.00050 J	0.0064	0.0012 J	-
RW-5R	12/10/2018	3.7	NA	2.8	0.82	0.0780	0.00072 J	0.0170	0.0007 J	-
RW-5R	3/12/2019	0.5	NA	0.57	0.31 J	0.0002 J	0.00031 U	0.0002 U	0.0004 U	-
RW-5R	6/18/2019	0.8	NA	0.87	0.16 J	0.0027	0.00031 U	0.0180	0.0006 J	-
RW-5R	9/12/2019	2.1 J	NA	1.8	0.13 U	0.0210	0.00059 J	0.0062	0.0002 J	-
RW-8	1/27/2004	3.19	NA	NA	-	0.0954	0.0183	0.170	0.145	-
RW-8	5/6/2004	3.56	NA	NA	-	0.192	0.00941	0.137	0.114	-
RW-8	8/12/2004	7.43	NA	NA	-	0.217	0.0154	0.190	0.142	-
RW-8	10/29/2004	6.29	NA	NA	-	0.249	0.0135	0.159	0.0591	-
RW-8	2/9/2005	3.50 J	NA	NA	-	0.119	0.00924	0.103	0.0322	-
RW-8	5/11/2005	4.01	NA	NA	-	0.215	0.0231	0.0843	0.0577	-
RW-8	8/4/2005	3.97	NA	15.9	-	0.175	0.0166	0.0472	0.00780	-
RW-8	11/9/2005	4.16	NA	19.5	-	0.131	0.0135	0.0175	0.0316	-
RW-8	2/8/2006	5.12	NA	0.238 U	-	0.101	0.00902	0.0443	0.0304	-
RW-8	5/2/2006	3.49	NA	2.97	-	0.133	0.0104	0.0205	0.0251	-
RW-8	8/1/2006	1.68	NA	35.9	-	0.121	0.00407	0.00534	0.00701	-
RW-8	12/19/2006	3.32 J	NA	3.59	0.481 U	0.152	0.0123	0.0219	0.0198	-
RW-8	2/7/2007	2.15 J	NA	4.88	0.549 U	0.130	0.00956	0.0145	0.0174	-
RW-8	5/9/2007	2.62	NA	0.602	0.472 U	0.246	0.00988	0.0213	0.0333	-
RW-8	8/2/2007	2.37	NA	2.60	4.81 U	0.196	0.00728	0.0101	0.0182	-
RW-8	11/7/2007	2.12	NA	7.91	0.963	0.100	0.00782	0.00770	0.0137	-
RW-8	2/13/2008	2.91	NA	12.2	0.929	0.0981	0.0101	0.0146	0.0204	-
RW-8	5/5/2008	3.07	NA	3.15	0.472 U	0.115	0.0141	0.0164	0.0284	-
RW-8	8/15/2008	2.59	NA	4.08	0.481	0.0819	0.0117	0.0107	0.0246	-
RW-8	11/13/2008	1.84	NA	5.40	0.472 U	0.0834	0.00757	0.000500 U	0.0129	-
RW-8	2/25/2009	3.04 J	NA	1.15	0.472 U	0.0778 J	0.00688 J	0.0279 J	0.0227 J	-
RW-8	5/14/2009	2.77 J	NA	1.19	0.476 U	0.0773 J	0.00827 J	0.0311 J	0.0213 J	-
RW-8	8/12/2009	3.30	NA	1.50	0.240 U	0.0640	0.00470	0.0170	0.0173	-

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		TPH-G	TPH-O&G	TPH-D	Heavy Oil TPH	B	T	E	X	Naphtalene
RW-8	11/11/2009	3.80	NA	3.50	0.570	0.0580	0.00560	0.0120	0.0150	-
RW-8	03/24/2010	0.620	NA	2.40	0.250 U	0.00120	0.00100 U	0.00100 U	0.00200 U	-
RW-8	06/08/2010	0.320	NA	3.80 Y	0.710	0.00200	0.00100 U	0.00100 U	0.00200 U	-
RW-8	09/15/2010	0.860	5.00 U	2.20	0.290	0.0120	0.00100 U	0.00280	0.00200 U	-
RW-8	12/16/2010	0.490	5.10 U	2.10	0.470	0.00900	0.00100 U	0.00220	0.00200 U	-
RW-8	3/8/2011	1.30	5.20 U	1.00	0.240 U	0.0180	0.00100 U	0.0200	0.00780	-
RW-8	6/14/2011	1.40	4.90 U	1.90	0.250 U	0.0230	0.00140	0.0300	0.00800	-
RW-8	10/05/2011	0.848	5.20 U	43.8	3.91	0.0188	0.00250 U	0.00250 U	0.00500 U	-
RW-8	12/7/2011	1.10	5.30 U	1.90	0.240 U	0.0170	0.00100 U	0.00100 U	0.00210	-
RW-8	4/9/2012	0.860	5.20 U	0.990	0.240 U	0.0110	0.00100 U	0.00120	0.00200 U	-
RW-8	6/13/2012	2.30 J	NA	2.70 J	0.480 J	0.0250 J	0.00220 J	0.00540 J	0.00200 J	-
RW-8	9/11/2012	2.90	NA	1.80	0.600	0.0260	0.00300	0.00810	0.00350	-
RW-8	12/12/2012	1.00	NA	1.10	0.240 U	0.0270	0.00190	0.00150	0.00200	-
RW-8	3/13/2013	1.40	NA	2.00	0.270 U	0.0230	0.00240	0.00420	0.00240	-
RW-8	6/12/2013	3.10	NA	2.10	0.140	0.0250	0.00320	0.0120	0.00370	-
RW-8	9/24/2013	1.80	NA	1.60	0.240 U	0.0240	0.00230	0.00180	0.00200	-
RW-8	12/3/2013	1.5	NA	0.87	0.24 U	0.0190	0.0021	0.0026	0.0026	-
RW-8	3/4/2014	2.0	NA	2.1	0.42	0.0150	0.0016	0.0030	0.0028	-
RW-8	6/12/2014	2.0 J	NA	2.1	0.50	0.0076	0.0012	0.0035	0.0020	-
RW-8	9/25/2014	1.4 J	NA	1.7	0.78	0.0180	0.0014	0.0011	0.0020 U	-
RW-8	12/16/2014	1.8 J	NA	2.5	0.76	0.022	0.0021	0.0030	0.0030	-
RW-8	3/24/2015	1.8	NA	2.3	0.70	0.0088	0.002 U	0.0032	0.0030 U	-
RW-8	6/17/2015	1.5 J	NA	5.3	1.4	0.012	0.0020 U	0.0080	0.0032	-
RW-8	9/24/2015	2.6 J	NA	2.4	0.25 U	0.015	0.0020 U	0.0037	0.0030 U	-
RW-8	12/21/2015	1.3	NA	2.2	0.41	0.020	0.0018	0.0016	0.0036 U	-
RW-8	3/21/2016	0.933	NA	1.67	0.441	0.0056	0.0050 U	0.0050 U	0.010 U	-
RW-8	6/21/2016	0.831 J	NA	1.03	0.197 J	0.0076 J	0.0050 U	0.0050 U	0.010 U	-
RW-8	9/22/2016	0.633	NA	1.97	0.325	0.0109	0.0011	0.0014	0.0025 J	-
RW-8	12/6/2016	1.200	NA	2.3	0.34	0.011	0.00096 J	0.0011	0.0024 J	-
RW-8	3/20/2017	1.500	NA	2.5	0.35 J	0.0088	0.0010	0.0027	0.0026 J	-
RW-8	6/21/2017	1.20	NA	1.8	0.33 J	0.0062	0.00084 J	0.0058	0.0025 J	-
RW-8	9/20/2017	1.60	NA	2.9	0.46	0.0090	0.0011	0.0033	0.0028 J	-
RW-8	12/11/2017	1.70	NA	2.8	0.48	0.0057	0.0008 J	0.0013	0.0019 J	-
RW-8	3/20/2018	1.20	NA	2	0.32 J	0.0034	0.0005 J	0.0009 J	0.0012 J	-
RW-8	6/18/2018	1.20	NA	1.8	0.23 J	0.0063	0.0008 J	0.0012	0.0016 J	-
RW-8	9/20/2018	0.51	NA	2.9	1.2	0.0024	0.0010 U	0.0010 U	0.0018 J	-
RW-8	12/10/2018	0.78	NA	3.6	0.91	0.0100	0.0010	0.0007 J	0.0027 J	-
RW-8	3/12/2019	0.63	NA	3	1.2	0.0035	0.0006 J	0.0003 J	0.0013 J	-
RW-8	6/18/2019	0.82	NA	3.3	1.1	0.0050	0.0007 J	0.0006 J	0.0014 J	-
RW-8	9/10/2019	0.81 J	NA	1.3	0.14 J	0.0044	0.0005 U	0.0009 J	0.0012 U	-
RW-12	1/27/2004	0.0763	NA	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RW-12	5/6/2004	0.113	NA	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RW-12	8/11/2004	0.341	NA	NA	-	0.00142	0.000500 U	0.000997	0.00261	-
RW-12	10/29/2004	0.216	NA	NA	-	0.000753	0.000500 U	0.000500 U	0.00106	-
RW-12	2/10/2005	0.0746	NA	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RW-12	5/10/2005	0.0786	NA	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RW-12	8/4/2005	0.210	NA	4.23	-	0.0290	0.000500 U	0.000500 U	0.00100 U	-
RW-12	11/10/2005	0.259	NA	2.75	-	0.000504	0.000500 U	0.000500 U	0.00145	-
RW-12	2/8/2006	0.0557	NA	0.345	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RW-12	5/3/2006	0.200	NA	2.20	-	0.000838	0.000500 U	0.000500 U	0.00131	-
RW-12	8/8/2006	0.528	NA	NA	-	0.000500 U	0.000500 U	0.000886	0.00147	-
RW-12	12/20/2006	0.0626	NA	0.238 U	0.476 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RW-12	2/7/2007	0.0693 J	NA	0.289	0.472 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RW-12	5/8/2007	0.106	NA	2.39	1.07	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RW-12	8/1/2007	0.132	NA	2.29	0.495 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RW-12	11/6/2007	0.0500 U	NA	1.03	0.874	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RW-12	2/13/2008	0.110	NA	1.90	0.472 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RW-12	5/5/2008	0.0500 U	NA	0.584	0.472 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-

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WELL ID	DATE	CONCENTRATION (mg/L)								
		TPH-G	TPH-O&G	TPH-D	Heavy Oil TPH	B	T	E	X	Naphtalene
RW-12	8/14/2008	0.0905	NA	2.93	0.556 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RW-12	11/13/2008	0.0500 U	NA	0.240 U	0.481 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RW-12	2/27/2009	0.0575	NA	0.414	0.476 U	0.000500 U	0.000500 U	0.00494	0.00492	-
RW-12	5/12/2009	0.0655	NA	0.654	0.472 U	0.000500 U	0.000500 U	0.531	0.0787	-
RW-12	8/12/2009	0.210	NA	0.250	1.60	0.00100 U	0.00100 U	0.00980	0.00680	-
RW-12	11/11/2009	0.0960	NA	0.160	0.240 U	0.00100 U	0.00100 U	0.00180	0.00100 U	-
RW-12	06/08/2010	0.0500 U	NA	0.470 Y	0.320	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
T-2	12/20/2010	0.0500 U	4.80 U	0.120 U	0.250 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
T-2	6/14/2011	1.00	5.10 U	0.490	0.240 U	0.00100 U	0.00100 U	0.00190	0.00200 U	-
T-2	10/05/2011	0.357	5.10 U	0.196	0.500 U	0.000400 U	0.00100 U	0.00100 U	0.00200 U	-
T-2	12/5/2011	0.460	5.00 U	0.250	0.250 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
T-2	4/4/2012	0.780	5.40 U	0.450	0.240	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
T-2	6/13/2012	0.910 J	NA	0.430 J	0.240 UJ	0.00100 UJ	0.00100 UJ	0.00100 UJ	0.00200 UJ	-
T-2	9/12/2012	1.10	NA	0.610	0.800	0.000300 J	0.000180 J	0.000420 J	0.00200 U	-
T-2	12/13/2012	0.120	NA	0.130	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
T-2	3/12/2013	0.620	NA	0.240	0.340	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
T-2	6/10/2013	0.730	NA	0.410	0.210	0.00100 U	0.00100 U	0.00250	0.00200 U	-
T-2	9/24/2013	0.660	NA	0.250	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
T-2	12/3/2013	0.21	NA	0.12	0.24 U	0.001 U	0.001 U	0.001 U	0.002 U	-
T-2	3/4/2014	0.47	NA	0.30	0.24 U	0.0010 U	0.0010 U	0.0010 U	0.0020 U	-
T-2	6/10/2014	1.0 J	NA	0.48	0.25 U	0.0010 U	0.0010 U	0.0010 U	0.0020 U	-
T-2	9/22/2014	0.44	NA	0.41	0.24 U	0.0010 U	0.0010 U	0.0010 U	0.0020 U	-
T-2	12/16/2014	0.28	NA	0.22	0.24 U	0.0010 U	0.0010 U	0.0010 U	0.0020 U	-
T-2	3/26/2015	0.25	NA	0.13	0.24 U	0.0020 U	0.0020 U	0.0030 U	0.0030 U	-
T-2	6/16/2015	0.38	NA	0.31	0.25 U	0.0020 U	0.0020 U	0.0030 U	0.0030 U	-
T-2	9/21/2015	0.61	NA	0.26	0.24 U	0.0020 U	0.0020 U	0.0030 U	0.0030 U	-
T-2	12/22/2015	0.21	NA	0.33	0.39 U	0.00020 U	0.0010 U	0.0010 U	0.0030 U	-
T-2	3/21/2016	0.0752 J	NA	0.059 J	0.19 U	0.0010 U	0.0010 U	0.0010 U	0.0020 U	-
T-2	6/21/2016	0.581 J	NA	0.184	0.0369 U	0.0010 U	0.0010 U	0.0010 U	0.0020 U	-
T-2	9/21/2016	0.588	NA	0.238	0.0362 J	0.0010 U	0.0010 U	0.0010 U	0.0030 U	-
T-2	12/7/2016	0.160	NA	0.17	0.063 J	0.00020 U	0.0010 U	0.0010 U	0.0030 U	-
T-2	3/21/2017	0.110 J	NA	0.13 J	0.42 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	-
T-2	6/21/2017	0.250 J	NA	0.21 J	0.41 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	-
T-2	9/25/2017	0.130 J	NA	0.17 J	0.40 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	-
T-2	12/11/2017	0.140 J	NA	0.20 J	0.43 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	-
T-2	3/20/2018	0.130 J	NA	0.28	0.41 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	-
T-2	6/18/2018	0.150 U	NA	0.24 U	0.40 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	-
T-2	9/17/2018	0.210	NA	0.18 J	0.42 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	-
T-2	12/11/2018	0.070 U	NA	0.16 J	0.16 J	0.00009 U	0.0003 U	0.0002 U	0.0004 U	-
T-2	3/12/2019	0.070 U	NA	0.22	0.17 J	0.00009 U	0.0003 U	0.0002 U	0.0004 U	-
T-2	6/17/2019	0.099 J	NA	0.22 J	0.11 U	0.00009 U	0.0003 U	0.0002 U	0.0004 U	-
T-2	9/11/2019	0.120	NA	0.21 J	0.14 U	0.00014 J	0.0001 U	0.0001 U	0.0003 U	-
T-3	8/27/2003	12.6	NA	NA	-	0.0170	0.0200 U	0.664	0.867	-
T-3	10/31/2003	7.01	NA	NA	-	0.00500 U	0.00500 U	0.596	0.554	-
T-3	1/27/2004	7.42	NA	NA	-	0.00815	0.00299	0.503	0.501	-
T-3	5/5/2004	5.40	NA	NA	-	0.00835	0.00250 U	0.328	0.298	-
T-3	8/12/2004	4.62	NA	NA	-	0.00647	0.00250 U	0.344	0.268	-
T-3	10/28/2004	1.49 J	NA	NA	-	0.00857 J	0.00194 J	0.165 J	0.146 J	-
T-3	2/9/2005	3.31 J	NA	NA	-	0.00424	0.00103 J	0.306	0.288	-
T-3	5/10/2005	5.06	NA	NA	-	0.00673	0.00250 U	0.463	0.463	-
T-3	8/3/2005	4.72 J	NA	0.469	-	0.00422 J	0.00250 UJ	0.330 J	0.333 J	-
T-3	11/8/2005	3.76	NA	0.420	-	0.00290	0.00250 U	0.249	0.284	-
T-3	2/7/2006	4.30	NA	0.307	-	0.00250 U	0.00250 U	0.310	0.317	-
T-3	5/2/2006	3.10 J	NA	0.701	-	0.00523 J	0.00250 U	0.128	0.157	-
T-3	8/1/2006	3.37	NA	0.442	-	0.0167	0.0200 U	0.210	0.204	-
T-3	12/19/2006	2.31 J	NA	0.404	0.495 U	0.00476	0.00250 U	0.0940	0.0518	-
T-3	2/7/2007	1.90 J	NA	0.322	0.476 U	0.00734 J	0.00177 J	0.0372 J	0.0211 J	-

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T-3	5/9/2007	2.54 J	NA	4.38	0.623	0.0212 J	0.00250 U	0.0748 J	0.0185 J	-
T-3	8/2/2007	2.81	NA	0.612	0.476 U	0.0206	0.00500 U	0.112	0.0714	-
T-3	11/7/2007	1.96 J	NA	0.468	0.472 U	0.00701 J	0.000591 J	0.0564 J	0.0135 J	-
T-3	2/14/2008	2.14	NA	0.432	0.472 U	0.00727	0.00149	0.0590	0.0190	-
T-3	5/5/2008	1.92	NA	0.410	0.472 U	0.0101	0.00235	0.0212	0.00900	-
T-3	8/15/2008	1.30	NA	0.555	0.472 U	0.00489	0.000662	0.0138	0.00444	-
T-3	11/12/2008	1.36	NA	0.298	0.476 U	0.00454	0.000987	0.0147	0.00610	-
T-3	2/25/2009	1.89 J	NA	0.354	0.476 U	0.0455	0.00250 U	0.151	0.0348	-
T-3	5/13/2009	4.01 J	NA	0.556	0.476 U	0.0700 J	0.00193 J	0.531 J	0.0787 J	-
T-3	8/13/2009	5.10	NA	1.50	0.250 U	0.0450	0.00330	0.200	0.00200 U	-
T-3	11/12/2009	1.60	NA	0.570	0.240 U	0.00390	0.00100 U	0.0310	0.00100 U	-
T-3	03/24/2010	5.10	NA	1.40	0.240 U	0.0420	0.00210	0.890	0.0505	-
T-3	06/08/2010	6.00	NA	2.80 Y	1.60	0.0540	0.00260	0.660	0.00120	-
T-3	6/14/2011	3.20	5.00	1.30	0.250 U	0.0130	0.00110	0.0980	0.00200 U	-
T-3	10/06/2011	0.183	5.60 U	0.727	0.490 U	0.00816	0.000500 U	0.0117	0.00100 U	-
T-3	12/7/2011	0.520	5.20 U	0.320	0.250 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
T-3	4/2/2012	0.280	5.30 U	0.570	0.340	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
T-3	6/13/2012	0.720 J	NA	0.580 J	0.240 UJ	0.00100 J	0.00100 UJ	0.00100 UJ	0.00200 UJ	-
T-3	9/11/2012	0.330	NA	0.370	1.00	0.000210 J	0.00100 U	0.000280 J	0.00200 U	-
T-3	12/12/2012	0.0620	NA	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
T-3	3/13/2013	0.570	NA	0.410	0.250 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
T-3	6/11/2013	0.700	NA	0.400	0.0490 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
T-3	9/24/2013	0.800	NA	0.410	0.240 U	0.00100 U	0.00100 U	0.00160	0.00200 U	-
T-3	12/2/2013	1.6	NA	0.49	0.24 U	0.001 U	0.001 U	0.0017	0.002 U	-
T-3	3/5/2014	0.42	NA	0.28	0.24 U	0.001 U	0.001 U	0.0012	0.002 U	-
T-3	6/12/2014	1.2 J	NA	1.2	0.42	0.0028	0.001 U	0.0013	0.002 U	-
T-3	9/24/2014	1.2 J	NA	0.56	0.24 U	0.001 U	0.0013	0.001 U	0.002 U	-
T-3	12/16/2014	0.65 J	NA	0.49	0.24 U	0.0010 U	0.0010 U	0.0010 U	0.0020 U	-
T-3	3/23/2015	1.2	NA	0.86	0.28	0.0020 U	0.0020 U	0.0030 U	0.0030 U	-
T-3	6/17/2015	0.27	NA	0.28	0.25 U	0.0020 U	0.0020 U	0.0030 U	0.0030 U	-
T-3	9/21/2015	0.25	NA	0.15	0.25 U	0.0020 U	0.0020 U	0.0030 U	0.0030 U	-
T-3	12/21/2015	0.51	NA	0.47	0.38 U	0.00020 U	0.0010 U	0.0010 U	0.0030 U	-
T-3	3/21/2016	0.471	NA	0.641	0.213	0.0016 J	0.0050 U	0.0050 U	0.010 U	-
T-3	6/21/2016	0.414 J	NA	0.270	0.0752 J	0.0044 J	0.0050 U	0.0050 U	0.010 U	-
T-3	9/19/2016	0.482	NA	0.267	0.0376 J	0.0010 U	0.0010 U	0.0010 U	0.0030 U	-
T-3	12/7/2016	0.610	NA	0.43 B	0.10 JB	0.00020 U	0.0010 U	0.0010 U	0.0030 U	-
T-3	3/20/2017	0.390	NA	0.61	0.17 J	0.00023 J	0.0010 U	0.0010 U	0.0030 U	-
T-3	6/20/2017	1.10	NA	1.3 J	0.32 J	0.032	0.00048 J	0.00056 J	0.00080 J	-
T-3	9/19/2017	1.7	NA	1.2	0.16 J	0.023	0.00037 J	0.00078 J	0.00076 J	-
T-3	3/20/2018	1.0	NA	1.1	0.25 J	0.002	0.00100 U	0.00026 J	0.00300 U	-
T-3	9/20/2018	0.9	NA	0.73	0.18 J	0.000 J	0.00100 U	0.00028 J	0.00100 J	-
T-3	3/12/2019	0.5	NA	0.61	0.38 J	0.000 U	0.00031 U	0.00020 U	0.00044 U	-
T-3	9/10/2019	0.4 J	NA	0.43	0.14 U	0.000 U	0.00013 U	0.00014 U	0.00031 U	-
FW-15	6/16/1993	19.0	NA	NA	-	0.130	0.310	0.730	1.70	-
FW-15	9/16/1993	12.0	NA	NA	-	0.0210	0.160	0.490	1.00	-
FW-15	12/15/1993	27.0	NA	NA	-	0.160	2.90	0.630	3.80	-
FW-15	2/1/1994	45.0	NA	NA	-	ND	0.810	1.10	5.60	-
FW-15	6/21/1994	13.0	NA	NA	-	0.00890	0.0360	0.220	0.900	-
FW-15	8/18/1994	12.0	NA	NA	-	0.0130	0.0110	0.140	0.620	-
FW-15	12/6/1994	2.00	NA	NA	-	0.00160	ND	0.0110	0.0480	-
FW-15	2/21/1995	6.90	NA	NA	-	0.00440	0.000900	0.00110	0.0530	-
FW-15	6/21/1995	0.00290	NA	NA	-	0.0400	0.00250	0.00470	0.0120	-
FW-15	9/18/1995	2.10	NA	NA	-	0.00580	0.00180	0.00290	0.00300	-
FW-15	12/11/1995	1.90	NA	NA	-	0.000910	0.000550	0.00120	0.00300	-
FW-15	3/6/1996	2.00	NA	NA	-	0.000660	0.00320	0.0110	0.00370	-
FW-15	6/4/1996	0.629	NA	NA	-	0.0176	0.00564	0.747	0.518	-
FW-15	8/22/1996	0.425	NA	NA	-	0.00120	0.000590	0.000580	0.00230	-
FW-15	12/4/1996	0.323	NA	NA	-	0.000500 U	0.000630	0.000510	0.00100 U	-

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FW-15	2/24/1997	0.466	NA	NA	-	0.0450	0.000760	0.000770	0.00100	-
FW-15	5/22/1997	0.342	NA	NA	-	0.00320	0.000600	0.000500 U	0.00100 U	-
FW-15	8/12/1997	0.160	NA	NA	-	0.00100	0.000600	0.000600	0.00200	-
FW-15	12/5/1997	0.430	14.0 U	NA	-	0.00300	0.000900	0.000500 U	0.00200	-
FW-15	3/3/1998	0.130	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00200	-
FW-15	6/9/1998	0.0710	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-15	9/4/1998	0.150	5.00 U	NA	-	0.000500 U	0.00300 U	0.000500 U	0.00200 U	-
FW-15	12/3/1998	0.163	14.0 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00300 U	-
FW-15	3/5/1999	0.110	5.00 U	NA	-	0.00300	0.000500 U	0.000500 U	0.00100 U	-
FW-15	6/10/1999	0.250 U	4.00 U	NA	-	0.00100 U	0.00400	0.00100 U	0.00300 U	-
FW-15	8/25/1999	0.150	5.40	NA	-	0.000200	0.00400	0.000600	0.00180	-
FW-15	11/22/1999	0.140	6.90	NA	-	0.000400	0.00700	0.000500	0.00100	-
FW-15	2/16/2000	0.0670	5.10	NA	-	0.000200 U	0.00230	0.000200	0.000810	-
FW-15	5/17/2000	0.0640	3.60	NA	-	0.000200 U	0.00280	0.000300	0.000810	-
FW-15	8/16/2000	0.250 U	8.40 U	NA	-	0.00100 U	0.00100 U	0.00100 U	0.00300 U	-
FW-15	11/15/2000	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-15	2/13/2001	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-15	5/8/2001	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-15	8/8/2001	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-15	11/6/2001	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-15	2/18/2002	0.0500	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-15	4/1/2002	NS	NS	NS	-	NS	NS	NS	NS	-
FW-15	8/20/2002	0.0500 U	0.0500 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-15	11/19/2002	0.0500 U	7.80	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-15	1/28/2003	0.0500 U	4.90 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-15	4/29/2003	0.0500 U	5.05 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-15	8/26/2003	0.100 U	5.32 U	NA	-	0.000500 U	0.00200 U	0.00100 U	0.00150 U	-
FW-15	11/5/2003	0.0500 U	4.72 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-15	1/29/2004	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-15	5/6/2004	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-15	8/11/2004	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-15	10/28/2004	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-15	2/7/2005	NS	NS	NS	-	NS	NS	NS	NS	-
FW-15	5/9/2005	NS	NS	NS	-	NS	NS	NS	NS	-
FW-15	8/3/2005	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	-0.99900 U	-
FW-15	11/8/2005	NS	NS	NS	-	NS	NS	NS	NS	-
FW-15	2/6/2006	NS	NS	NS	-	NS	NS	NS	NS	-
FW-15	5/2/2006	NS	NS	NS	-	NS	NS	NS	NS	-
FW-15	8/2/2006	0.100 U	5.00 U	0.250 U	-	0.000500 U	0.00200 U	0.00100 U	-0.99850 U	-
FW-15	12/20/2006	NS	NS	NS	-	NS	NS	NS	NS	-
FW-15	2/7/2007	NS	NS	NS	-	NS	NS	NS	NS	-
FW-15	5/8/2007	NS	NS	NS	-	NS	NS	NS	NS	-
FW-15	8/1/2007	0.0500 U	4.95 U	0.240 U	0.481 U	0.000500 U	0.000500 U	0.000500 U	-0.99900 U	-
FW-15	11/5/2007	NS	NS	NS	NS	NS	NS	NS	NS	-
FW-15	2/13/2008	NS	NS	NS	NS	NS	NS	NS	NS	-
FW-15	5/5/2008	NS	NS	NS	NS	NS	NS	NS	NS	-
FW-15	8/13/2008	0.0500 U	5.21 U	0.236 U	0.472 U	0.000500 U	0.000500 U	0.000500 U	-0.99900 U	-
FW-15	11/10/2008	NS	NS	NS	NS	NS	NS	NS	NS	-
FW-15	2/23/2009	NS	NS	NS	NS	NS	NS	NS	NS	-
FW-15	5/11/2009	NS	NS	NS	NS	NS	NS	NS	NS	-
FW-15	8/13/2009	0.0670	5.00 U	0.120 U	0.240 U	0.00180	0.00100 U	0.00100 U	0.00200 U	-
FW-15	09/16/2010	0.0500 U	4.70 U		NS	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
FW-15	09/30/2011	0.160 U	4.70 U	0.0980 U	0.490 U	0.000400 U	0.00100 U	0.00100 U	0.00200 U	-
FW-15	9/10/2012	0.0500 U	NA	0.260	2.20	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
FW-15	9/25/2013	0.0500 U	NA	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
FW-15	9/23/2014	0.05 U	NA	0.130	0.240 U	0.001 U	0.001 U	0.001 U	0.002 U	-
FW-15	9/23/2015	0.050 U	NA	0.11 U	0.26 U	0.0020 U	0.0020 U	0.0030 U	0.0030 U	-
FW-15	9/20/2016	0.10 U	NA	0.178	0.0884 J	0.0010 U	0.0010 U	0.0010 U	0.0030 U	-
FW-15	9/25/2017	0.15 U	NA	0.16 J	0.40 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	-

Appendix A
Summary of Historical Groundwater Analytical Results
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WELL ID	DATE	CONCENTRATION (mg/L)								
		TPH-G	TPH-O&G	TPH-D	Heavy Oil TPH	B	T	E	X	Naphtalene
FW-15	9/20/2018	0.15 U	NA	0.41	0.45	0.00040 U	0.0010 U	0.0010 U	0.0030 U	-
FW-15	9/11/2019	0.05 U	NA	0.23 U	0.12 U	0.00014 U	0.0001 U	0.0001 U	0.0003 U	-
RR-1	8/24/1992	12.0	NA	NA	-	0.570	0.0100	1.10	0.740	-
RR-1	3/23/1993	17.0	NA	NA	-	0.180	U	0.590	1.30	-
RR-1	6/16/1993	12.0	NA	NA	-	0.160	0.0180	0.340	0.710	-
RR-1	9/16/1993	5.00	NA	NA	-	0.110	U	0.250	0.240	-
RR-1	12/15/1993	2.00	NA	NA	-	0.00120	0.000660	0.0130	0.0480	-
RR-1	2/1/1994	6.80	NA	NA	-	0.0360	U	0.110	0.330	-
RR-1	6/21/1994	5.10	NA	NA	-	0.0300	0.00180	0.0510	0.160	-
RR-1	8/18/1994	5.70	NA	NA	-	0.0380	0.00140	0.0780	0.130	-
RR-1	12/6/1994	0.550	NA	NA	-	0.00140	U	0.0110	0.0480	-
RR-1	2/21/1995	13.0	NA	NA	-	0.0440	0.00290	0.610	0.710	-
RR-1	6/21/1995	5.00	NA	NA	-	0.0200	0.00220	0.310	0.180	-
RR-1	9/18/1995	1.20	NA	NA	-	0.00460	0.000600	0.0300	0.00330	-
RR-1	12/11/1995	1.30	NA	NA	-	0.00200	0.000640	0.0360	0.0270	-
RR-1	3/6/1996	16.0	NA	NA	-	0.0460	0.00990	2.00	1.10	-
RR-1	6/4/1996	12.3	NA	NA	-	0.0160	0.00625	0.717	0.506	-
RR-1	8/22/1996	6.30	NA	NA	-	0.00800	0.00340	0.204	0.182	-
RR-1	12/4/1996	5.59	NA	NA	-	0.00600	0.00250	0.153	0.0850	-
RR-1	2/24/1997	8.69	NA	NA	-	0.0160	0.00900	0.616	0.397	-
RR-1	5/22/1997	6.89	NA	NA	-	0.00500 U	0.00550	0.648	0.512	-
RR-1	8/12/1997	2.60	NA	NA	-	0.00400	0.00400	0.150	0.110	-
RR-1	12/5/1997	2.26	14.0 U	NA	-	0.00300	0.00400	0.170	0.130	-
RR-1	3/3/1998	7.80	5.00 U	NA	-	0.00900	0.00700	0.780	0.440	-
RR-1	6/9/1998	2.94	5.00 U	NA	-	0.00982	0.00300 U	0.240	0.191	-
RR-1	9/4/1998	1.23	5.00 U	NA	-	0.00500	0.000600 U	0.0190	0.0210	-
RR-1	12/3/1998	0.327	14.0 U	NA	-	0.00181	0.000639	0.0113	0.00480	-
RR-1	3/5/1999	1.34	5.00 U	NA	-	0.00600	0.00200	0.0920	0.0280	-
RR-1	6/10/1999	2.20	6.30	NA	-	0.00300	0.00700	0.0410	0.0150	-
RR-1	8/25/1999	1.20	5.50	NA	-	0.00100	0.00500	0.0280	0.00400	-
RR-1	11/22/1999	0.830	4.00 U	NA	-	0.00200	0.00600	0.0150	0.00200	-
RR-1	2/16/2000	1.50	3.70	NA	-	0.00500 U	0.00700	0.0460	0.00440	-
RR-1	5/17/2000	0.950	5.30	NA	-	0.00110	0.00710	0.0260	0.00240	-
RR-1	8/16/2000	0.380	8.40 U	NA	-	0.00110 U	0.00100 U	0.00620	0.00300 U	-
RR-1	11/15/2000	0.460	5.00 U	NA	-	0.00100	0.000639 U	0.00700	0.00170	-
RR-1	2/13/2001	0.350	5.00 U	NA	-	0.000500 U	0.000500 U	0.00480	0.00130	-
RR-1	5/8/2001	0.360	5.00 U	NA	-	0.000790	0.000800	0.000860	0.00120	-
RR-1	8/8/2001	0.110	5.00 U	NA	-	0.000600	0.000500 U	0.000500 U	0.00100 U	-
RR-1	11/6/2001	0.230	5.00 U	NA	-	0.000500 U	0.000500 U	0.000600	0.00100 U	-
RR-1	2/18/2002	0.380	5.00 U	NA	-	0.000500	0.000500 U	0.00200 U	0.00300	-
RR-1	4/1/2002	NS	NS	NS	-	NS	NS	NS	NS	-
RR-1	8/20/2002	0.402 J	5.00 U	NA	-	0.000607 J	0.000500 J	0.000616 J	0.00109 J	-
RR-1	11/19/2002	0.0645	8.00	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-1	1/28/2003	0.0500 U	4.90 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-1	4/30/2003	0.323	4.90 U	NA	-	0.000594	0.000500 U	0.00212	0.00854	-
RR-1	8/27/2003	0.171	5.10 U	NA	-	0.000500 U	0.00200 U	0.00100 U	0.00150 U	-
RR-1	10/31/2003	0.155	5.00 U	NA	-	0.000500 U	0.00132	0.00155	0.00441	-
RR-1	1/29/2004	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-1	5/5/2004	0.265	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-1	8/10/2004	0.223	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-1	10/27/2004	0.218	5.00 U	NA	-	0.000508	0.000855	0.000500 U	0.00132	-
RR-1	2/7/2005	NS	NS	NS	-	NS	NS	NS	NS	-
RR-1	5/9/2005	NS	NS	NS	-	NS	NS	NS	NS	-
RR-1	8/3/2005	0.257	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	-0.99900 U	-
RR-1	11/8/2005	NS	NS	NS	-	NS	NS	NS	NS	-
RR-1	2/6/2006	NS	NS	NS	-	NS	NS	NS	NS	-
RR-1	5/2/2006	0.0500 U	NA	0.243 U	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-1	8/2/2006	0.101	5.00 U	0.250 U	-	0.000500 U	0.00200 U	0.00100 U	0.00150 U	-

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		TPH-G	TPH-O&G	TPH-D	Heavy Oil TPH	B	T	E	X	Naphtalene
RR-1	12/19/2006	0.0644	NA	0.240 U	0.481 U	0.000500 U	0.000500 U	0.0000500 U	0.00100 U	-
RR-1	2/7/2007	0.0607	NA	0.245 U	0.490 U	0.000500 U	0.000500 U	0.0000500 U	0.00100 U	-
RR-1	5/8/2007	0.241	NA	0.238 U	0.476 U	0.000500 U	0.000500 U	0.0000500 U	0.00100 U	-
RR-1	8/1/2007	0.198	5.00 U	0.240 U	0.481 U	0.000500 U	0.000500 U	0.0000500 U	0.00100 U	-
RR-1	11/7/2007	0.152	4.85 U	0.250 U	0.500 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-1	2/13/2008	0.0500 U	4.72 U	0.236 U	0.472 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-1	5/5/2008	0.0869	4.72 U	0.236 U	NS	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-1	8/13/2008	0.0558	5.21 U	0.245 U	0.490 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-1	11/13/2008	0.0500 U	4.72 U	0.238 U	0.476 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-1	2/25/2009	0.0500 U	4.72 U	0.236 U	0.472 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-1	5/12/2009	0.167	4.76 U	0.238 U	0.481 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-1	8/13/2009	0.150	5.00 U	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RR-1	11/12/2009	0.130	5.00 U	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00100 U	-
RR-1	03/24/2010	0.0500 U	5.00 U	0.120 U	0.260	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RR-1	06/08/2010	0.0520	4.70 U	0.210 Y	2.10	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RR-1	09/14/2010	0.0500 U	4.70 U	0.150 Y	0.700	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RR-1	12/20/2010	0.0500 U	4.90 U	0.120 U	0.310	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RR-1	3/8/2011	0.0500 U	9.00	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RR-1	6/14/2011	0.0500 U	5.00 U	0.140 U	0.270 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RR-1	10/05/2011	0.0800 U	5.10 U	0.0980 U	0.490 U	0.000200 U	0.000500 U	0.000500 U	0.00100 U	-
RR-1	12/6/2011	0.0500 U	4.80 U	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RR-1	4/6/2012	0.0500 U	5.00 U	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RR-1	6/13/2012	0.0500 UJ	NA	0.140 J	0.240 UJ	0.00100 UJ	0.00100 UJ	0.00100 UJ	0.00200 UJ	-
RR-1	9/12/2012	0.0610	NA	0.0880 J	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RR-1	12/12/2012	0.0500 U	NA	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RR-1	3/12/2013	0.140	NA	0.130 U	0.270 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RR-1	6/10/2013	0.0670	NA	0.100	0.0470 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RR-1	9/26/2013	0.0500 U	NA	0.120 U	0.240 U	0.000200 U	0.000500 U	0.000500 U	0.00100 U	-
RR-1	12/3/2013	0.061	NA	0.120 U	0.240 U	0.001 U	0.001 U	0.001 U	0.002 U	-
RR-1	3/3/2014	0.05 U	NA	0.120 U	0.240 U	0.001 U	0.001 U	0.001 U	0.002 U	-
RR-1	6/11/2014	0.055	NA	0.170	0.250 U	0.001 U	0.001 U	0.001 U	0.002 U	-
RR-1	9/22/2014	0.05 U	NA	0.120	0.240 U	0.001 U	0.001 U	0.001 U	0.002 U	-
RR-1	12/17/2014	0.050 U	NA	0.12 U	0.24 U	0.0010 U	0.0010 U	0.0010 U	0.0020 U	-
RR-1	3/23/2015	0.050 U	NA	0.10 U	0.24 U	0.0020 U	0.0020 U	0.0030 U	0.0030 U	-
RR-1	6/16/2015	0.050 U	NA	0.14	0.25 U	0.0020 U	0.0020 U	0.0030 U	0.0030 U	-
RR-1	9/22/2015	0.078	NA	0.12	0.25 U	- R	- R	- R	- R	-
RR-1	11/19/2015	NA	NA	NA	NA	0.0020 U	0.0020 U	0.0030 U	0.0030 U	-
RR-1	12/23/2015	0.10 U	NA	0.23 U	0.39 U	0.00020 U	0.0010 U	0.0010 U	0.0030 U	-
RR-1	3/21/2016	0.100 U	NA	0.0536 J	0.19 U	0.0010 U	0.0010 U	0.0010 U	0.0020 U	-
RR-1	6/21/2016	0.164 J	NA	0.124	0.095 U	0.0010 U	0.0010 U	0.0010 U	0.0020 U	-
RR-1	9/19/2016	0.10 U	NA	0.136	0.095 U	0.0010 U	0.0010 U	0.0010 U	0.0030 U	-
RR-1	12/6/2016	0.100 U	NA	0.071 J	0.20 U	0.00020 U	0.0010 U	0.0010 U	0.0030 U	-
RR-1	3/22/2017	0.150 U	NA	0.10 J	0.41 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	-
RR-1	6/21/2017	0.150 U	NA	0.10 J	0.41 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	-
RR-1	9/19/2017	0.150 U	NA	0.17 J	0.42 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	-
RR-1	12/12/2017	0.150 U	NA	0.11 J	0.41 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	-
RR-1	3/20/2018	0.150 U	NA	0.15 J	0.42 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	-
RR-1	6/19/2018	0.150 U	NA	0.24 U	0.40 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	-
RR-1	9/18/2018	0.150 U	NA	0.15 J	0.41 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	-
RR-1	12/11/2018	0.070 U	NA	0.27	0.14 U	0.00009 U	0.0003 U	0.0002 U	0.0004 U	-
RR-1	3/13/2019	0.070 U	NA	0.17 J	0.12 U	0.00009 U	0.0003 U	0.0002 U	0.0004 U	-
RR-1	6/17/2019	0.070 U	NA	0.22	0.11 U	0.00009 U	0.0003 U	0.0002 U	0.0004 U	-
RR-1	9/9/2019	0.076 J	NA	0.27 U	0.13 U	0.00014 U	0.0001 U	0.0001 U	0.0003 U	-
RR-2	9/16/1993	0.110	NA	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-2	12/15/1993	0.0500 U	NA	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-2	2/1/1994	0.0500 U	NA	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-2	6/21/1994	0.100	NA	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-2	8/18/1994	0.120	NA	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-

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		TPH-G	TPH-O&G	TPH-D	Heavy Oil TPH	B	T	E	X	Naphtalene
RR-2	12/6/1994	U	NA	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-2	2/21/1995	0.200	NA	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-2	6/21/1995	U	NA	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-2	9/18/1995	0.0510	NA	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-2	12/11/1995	0.0500 U	NA	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-2	3/6/1996	0.0200	NA	NA	-	0.000630	0.00130	0.000500 U	0.00100 U	-
RR-2	6/4/1996	0.0549	NA	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-2	8/22/1996	0.0500 U	NA	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-2	12/4/1996	0.0500 U	NA	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-2	2/24/1997	0.0500 U	NA	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-2	5/22/1997	0.0500 U	NA	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-2	8/12/1997	0.0500 U	NA	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-2	12/5/1997	0.0500 U	14.0 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-2	3/3/1998	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-2	6/9/1998	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-2	9/4/1998	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-2	12/3/1998	0.0500 U	14.0 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-2	3/5/1999	0.0660	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-2	6/10/1999	0.250 U	5.30	NA	-	0.00100 U	0.00300	0.00100 U	0.00300 U	-
RR-2	8/25/1999	0.0480 U	4.80	NA	-	0.000200 U	0.000900 U	0.000200 U	0.000600 U	-
RR-2	11/22/1999	0.0480 U	5.20	NA	-	0.000300	0.00100	0.000200 U	0.000600 U	-
RR-2	2/16/2000	0.0480 U	4.10	NA	-	0.000200 U	0.000700	0.000200 U	0.000600 U	-
RR-2	5/17/2000	0.0480 U	3.40	NA	-	0.000200 U	0.000800	0.000200 U	0.000600 U	-
RR-2	8/16/2000	0.250 U	8.40 U	NA	-	0.00100 U	0.00100 U	0.00100 U	0.00300 U	-
RR-2	11/15/2000	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-2	2/13/2001	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-2	5/8/2001	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-2	8/8/2001	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-2	11/6/2001	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-2	2/18/2002	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-2	4/1/2002	NS	NS	NS	-	NS	NS	NS	NS	-
RR-2	8/20/2002	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-2	11/19/2002	0.0500 U	4.70 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-2	1/28/2003	0.0500 U	4.81 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-2	4/29/2003	0.0500 U	5.26 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-2	8/26/2003	0.100 U	5.88	NA	-	0.000500 U	0.00200 U	0.00100 U	0.00150 U	-
RR-2	11/3/2003	0.0500 U	4.72 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-2	1/29/2004	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-2	5/5/2004	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-2	8/1/2004	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-2	10/27/2004	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-2	2/7/2005	NS	NS	NS	-	NS	NS	NS	NS	-
RR-2	5/9/2005	NS	NS	NS	-	NS	NS	NS	NS	-
RR-2	8/3/2005	0.0500 U	5.00 U	NA	-	0.00224	0.000500 U	0.000500 U	-0.99900 U	-
RR-2	11/8/2005	NS	NS	NS	-	NS	NS	NS	NS	-
RR-2	2/6/2006	NS	NS	NS	-	NS	NS	NS	NS	-
RR-2	5/2/2006	NS	NS	NS	-	NS	NS	NS	NS	-
RR-2	8/3/2006	0.0500 U	5.00 U	0.248 U	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-2	12/20/2006	0.0500 U	NA	0.238 U	0.476 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-2	2/7/2007	0.0500 U	NA	0.243 U	0.485 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-2	5/8/2007	0.0500	NA	0.238 U	0.476 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-2	7/31/2007	0.0500 U	4.85 U	0.250 U	0.500 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-2	11/7/2007	0.0500 U	4.72 U	0.248 U	0.495 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-2	2/13/2008	0.0500 U	4.72 U	0.236 U	0.472 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-2	5/5/2008	0.0500 U	4.72 U	0.236 U	NS	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-2	8/13/2008	0.0500 U	5.21 U	0.245 U	0.490 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-2	11/13/2008	0.0500 U	4.76 U	0.236 U	0.472 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-2	2/23/2009	NS	NS	NS	NS	NS	NS	NS	NS	-
RR-2	5/12/2009	0.154	4.72 U	0.236 U	0.472 U	0.000500 U	0.000616	0.00164	0.00120	-

Appendix A
Summary of Historical Groundwater Analytical Results
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WELL ID	DATE	CONCENTRATION (mg/L)										
		TPH-G	TPH-O&G	TPH-D	TPH	Heavy Oil		B	T	E	X	Naphtalene
RR-2	8/13/2009	0.110	5.00 U	0.120 U	0.240 U			0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RR-2	11/11/2009	0.0500 U	5.00 U	0.120 U	0.240 U			0.00100 U	0.00100 U	0.00100 U	0.00100 U	-
RR-2	03/23/2010	0.290	5.00 U	0.120 U	0.250 U			0.00100 U	0.00100 U	0.00290	0.00200 U	-
RR-2	06/08/2010	0.130	4.70 U	0.330 Y	0.240 U			0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RR-2	09/14/2010	0.0500 U	5.20 U	0.120 U	0.250 U			0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RR-2	12/20/2010	0.0500 U	4.70 U	0.120 U	0.370			0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RR-2	3/11/2011	0.110	5.20 U	0.120 U	0.240 U			0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RR-2	6/13/2011	0.0630	5.00 U	0.120 U	0.240 U			0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RR-2	09/27/2011	0.0500 U	5.10 U	0.120 U	0.240 U			0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RR-2	12/6/2011	0.0500 U	5.20 U	0.130 U	0.250 U			0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RR-2	4/4/2012	0.0500 U	5.30 U	0.120 U	0.240 U			0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RR-2	6/14/2012	0.130	NA	0.120 U	0.240 U			0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RR-2	9/11/2012	0.0500 U	NA	0.120 U	0.100 J			0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RR-2	12/11/2012	0.0500 U	NA	0.120 U	0.240 U			0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RR-2	3/12/2013	0.0500 U	NA	0.120 U	0.240 U			0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RR-2	6/11/2013	0.0500 U	NA	0.0240 U	0.0480 U			0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RR-2	9/25/2013	0.0500 U	NA	0.120 U	0.240 U			0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RR-2	12/4/2013	0.05 U	NA	0.12 U	0.24 U			0.001 U	0.001 U	0.001 U	0.002 U	-
RR-2	3/5/2014	0.05 U	NA	0.12 U	0.24 U			0.001 U	0.001 U	0.001 U	0.002 U	-
RR-2	6/10/2014	0.053	NA	0.14	0.24 U			0.001 U	0.001 U	0.001 U	0.002 U	-
RR-2	9/23/2014	0.05 U	NA	0.12 U	0.24 U			0.001 U	0.001 U	0.001 U	0.002 U	-
RR-2	12/17/2014	0.050 U	NA	0.12	0.24 U			0.0010 U	0.0010 U	0.0010 U	0.0020 U	-
RR-2	3/24/2015	0.050 U	NA	0.11 U	0.24 U			0.0020 U	0.0020 U	0.0030 U	0.0030 U	-
RR-2	6/16/2015	0.050 U	NA	0.11 U	0.25 U			0.0020 U	0.0020 U	0.0030 U	0.0030 U	-
RR-2	9/24/2015	0.050 U	NA	0.11 U	0.25 U		- R	- R	- R	- R	- R	-
RR-2	12/22/2015	0.10 U	NA	0.23 U	0.39 U		0.00020 U	0.0010 U	0.0010 U	0.0010 U	0.0030 U	-
RR-2	3/21/2016	0.0654 J	NA	0.088 J	0.20 U		0.0010 U	0.00029 J	0.0025	0.0014 J		-
RR-2	6/22/2016	0.100 U	NA	0.082 J	0.0921 U		0.0010 U	0.0010 U	0.0010 U	0.0020 U	0.000094 U	U
RR-2	9/20/2016	0.10 U	NA	0.0538 J	0.095 U		0.0010 U	0.0010 U	0.0010 U	0.0030 U	0.00095 U	U
RR-2	12/7/2016	0.100 U	NA	0.12 U	0.20 U		0.00020 U	0.0010 U	0.0010 U	0.0010 U	0.0030 U	0.0020 U
RR-2	3/21/2017	0.099 J	NA	0.21 J	0.40 U		0.00040 U	0.0010 U	0.0010 U	0.0010 U	0.0030 U	0.000082 U
RR-2	6/22/2017	0.150 U	NA	0.24 U	0.40 U		0.00040 U	0.0010 U	0.0010 U	0.0010 U	0.0030 U	0.0020 U
RR-2	9/19/2017	0.150 U	NA	0.090 J	0.40 U		0.00040 U	0.0010 U	0.0010 U	0.0010 U	0.0030 U	0.000019 J
RR-2	12/13/2017	0.085 J	NA	0.140 J	0.40 U		0.00040 U	0.0010 U	0.0010 U	0.0010 U	0.0030 U	0.000090 U
RR-2	3/19/2018	0.150 U	NA	0.120 J	0.38 U		0.00040 U	0.0010 U	0.0010 U	0.0010 U	0.0030 U	0.000038 UJ
RR-2	6/19/2018	0.150 U	NA	0.250 U	0.42 U		0.00040 U	0.0010 U	0.0010 U	0.0010 U	0.0030 U	0.000093 U
RR-2	9/19/2018	0.150 U	NA	0.260 U	0.43 U		0.00040 U	0.0010 U	0.0010 U	0.0010 U	0.0030 U	0.000097 U
RR-2	12/11/2018	0.070 U	NA	0.120 U	0.13 U		0.00009 U	0.0003 U	0.0002 U	0.0002 U	0.0004 U	0.000057 U
RR-2	3/12/2019	0.070 U	NA	0.150 J	0.11 U		0.00009 U	0.0003 U	0.0002 U	0.0002 U	0.0004 U	0.000050 UH
RR-2	6/18/2019	0.070 U	NA	0.100 U	0.11 U		0.00009 U	0.0003 U	0.0002 U	0.0002 U	0.0004 U	0.000049 U
RR-2	9/11/2019	0.048 U	NA	0.100 J	0.11 U		0.00014 U	0.0001 U	0.0001 U	0.0001 U	0.0003 U	0.000050 U
RR-3	9/16/1993	0.0500 U	NA	NA	-		0.000500 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-3	12/15/1993	0.0500 U	NA	NA	-		0.000500 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-3	2/1/1994	0.0500 U	NA	NA	-		0.000500 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-3	6/21/1994	0.0500 U	NA	NA	-		0.000500 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-3	8/18/1994	0.0500 U	NA	NA	-		0.000500 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-3	12/6/1994	0.0500 U	NA	NA	-		0.000500 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-3	2/21/1995	0.0500 U	NA	NA	-		0.000500 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-3	6/21/1995	0.0500 U	NA	NA	-		0.00110	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-3	9/18/1995	0.0500 U	NA	NA	-		0.000500 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-3	12/11/1995	0.0500 U	NA	NA	-		0.000500	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-3	3/6/1996	0.0500 U	NA	NA	-		0.000500	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-3	6/4/1996	0.0500 U	NA	NA	-		0.000500	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-3	8/22/1996	0.0500 U	NA	NA	-		0.000500	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-3	12/4/1996	0.0500 U	NA	NA	-		0.000500 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-3	2/24/1997	0.0600	NA	NA	-		0.000500	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-3	5/22/1997	0.0500 U	NA	NA	-		0.000500	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-3	8/12/1997	0.0500 U	NA	NA	-		0.000500	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-

Appendix A
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WELL ID	DATE	CONCENTRATION (mg/L)								
		TPH-G	TPH-O&G	TPH-D	Heavy Oil TPH	B	T	E	X	Naphtalene
RR-3	12/5/1997	0.0500 U	14.0 U	NA	-	0.000500	0.000500 U	0.000500 U	0.00100 U	-
RR-3	3/3/1998	0.0500 U	5.00 U	NA	-	0.000500	0.000500 U	0.000500 U	0.00100 U	-
RR-3	6/9/1998	0.0500 U	5.00 U	NA	-	0.000500	0.000500 U	0.000500 U	0.00100 U	-
RR-3	9/4/1998	0.0500 U	5.00 U	NA	-	0.000500	0.000500 U	0.000500 U	0.00100 U	-
RR-3	12/3/1998	0.0500 U	14.0 U	NA	-	0.000500	0.000500 U	0.000500 U	0.00100 U	-
RR-3	3/5/1999	0.0500 U	5.00 U	NA	-	0.000500	0.000500 U	0.000500 U	0.00100 U	-
RR-3	6/10/1999	0.250 U	4.20	NA	-	0.00100	0.00100 U	0.00100 U	0.00300 U	-
RR-3	8/25/1999	0.0480 U	4.00 U	NA	-	0.000200 U	0.000200 U	0.000200 U	0.000600 U	-
RR-3	11/22/1999	0.0480 U	4.00 U	NA	-	0.000200 U	0.000600	0.000200 U	0.000600 U	-
RR-3	2/16/2000	0.0480 U	4.80	NA	-	0.000200 U	0.000200 U	0.000200 U	0.000600 U	-
RR-3	5/17/2000	0.0480 U	2.80 U	NA	-	0.000200 U	0.000200 U	0.000200 U	0.000600 U	-
RR-3	8/16/2000	0.250 U	8.40 U	NA	-	0.00100 U	0.00100 U	0.00100 U	0.00300 U	-
RR-3	11/15/2000	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-3	2/13/2001	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-3	5/8/2001	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-3	8/8/2001	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-3	11/6/2001	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-3	2/18/2002	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-3	4/1/2002	NS	NS	NS	-	NS	NS	NS	NS	-
RR-3	8/20/2002	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-3	11/19/2002	0.0500 U	4.70 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-3	1/28/2003	0.0500 U	5.05 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-3	4/29/2003	0.0500 U	4.72 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-3	8/26/2003	0.100 U	5.15 U	NA	-	0.000500 U	0.00200 U	0.00100 U	0.00150 U	-
RR-3	11/3/2003	0.0500 U	4.72 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-3	1/29/2004	0.0500 U	5.00	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-3	5/5/2004	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-3	8/11/2004	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-3	10/27/2004	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-3	2/7/2005	NS	NS	NS	-	NS	NS	NS	NS	-
RR-3	5/9/2005	NS	NS	NS	-	NS	NS	NS	NS	-
RR-3	8/3/2005	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	-0.99900 U	-
RR-3	11/8/2005	NS	NS	NS	-	NS	NS	NS	NS	-
RR-3	2/6/2006	NS	NS	NS	-	NS	NS	NS	NS	-
RR-3	5/2/2006	NS	NS	NS	-	NS	NS	NS	NS	-
RR-3	8/3/2006	0.0500 U	5.15 U	0.278 U	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-3	12/20/2006	0.0500 U	NA	0.238 U	0.476 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-3	2/7/2007	0.0500 U	NA	0.243 U	0.485 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-3	5/8/2007	0.0500 U	NA	0.240 U	0.481 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-3	7/31/2007	0.0500 U	4.90 U	0.248 U	0.495 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-3	11/7/2007	0.0500 U	4.76 U	0.245 U	0.490 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-3	2/15/2008	0.0500 U	4.95 U	0.248 U	0.495 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-3	5/5/2008	0.0500 U	4.72 U	0.238 U	0.476 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-3	8/13/2008	0.0500 U	5.21 U	0.243 U	0.485 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-3	11/13/2008	0.0500 U	4.76 U	0.240 U	0.481 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
RR-3	2/23/2009	NS	NS	NS	NS	NS	NS	NS	NS	-
RR-3	5/12/2009	0.0500 U	4.76 U	0.238 U	0.476 U	0.000609	0.000500 U	0.000500 U	0.00100 U	-
RR-3	8/13/2009	0.0500 U	5.00 U	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RR-3	11/13/2009	0.0500 U	5.00 U	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00100 U	-
RR-3	03/23/2010	0.0530	5.00 U	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RR-3	06/08/2010	0.0500 U	4.80 U	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RR-3	09/14/2010	0.0500 U	4.60 U	0.130 U	0.820	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RR-3	12/20/2010	0.0500 U	5.10 U	0.120 U	0.560	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RR-3	3/11/2011	0.0500 U	4.90 U	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RR-3	6/13/2011	0.0500 U	4.90 U	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RR-3	09/27/2011	0.0500 U	4.70 U	0.120 U	0.250 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RR-3	12/6/2011	0.0500 U	5.30 U	0.130 U	0.260 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RR-3	4/4/2012	0.0500 U	4.70 U	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RR-3	6/14/2012	0.0500 U	NA	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-

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WELL ID	DATE	CONCENTRATION (mg/L)								
		TPH-G	TPH-O&G	TPH-D	TPH	B	T	E	X	Naphtalene
RR-3	9/11/2012	0.0500 U	NA	0.120 U	0.170 J	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RR-3	12/11/2012	0.0500 U	NA	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RR-3	3/12/2013	0.100	NA	0.120 U	0.230 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RR-3	6/11/2013	0.0500 U	NA	0.0240 U	0.0480 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RR-3	9/25/2013	0.0500 U	NA	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RR-3	12/4/2013	0.05 U	NA	0.12 U	0.24 U	0.001 U	0.001 U	0.001 U	0.002 U	-
RR-3	3/5/2014	0.05 U	NA	0.12 U	0.24 U	0.001 U	0.001 U	0.001 U	0.002 U	-
RR-3	6/10/2014	0.05 U	NA	0.12 U	0.24 U	0.001 U	0.001 U	0.001 U	0.002 U	-
RR-3	9/23/2014	0.05 U	NA	0.12 U	0.24 U	0.001 U	0.001 U	0.001 U	0.002 U	-
RR-3	12/17/2014	0.050 U	NA	0.12 U	0.24 U	0.0010 U	0.0010 U	0.0010 U	0.0020 U	-
RR-3	3/24/2015	0.050 U	NA	0.10 U	0.24 U	0.0020 U	0.0020 U	0.0030 U	0.0030 U	-
RR-3	6/16/2015	0.050 U	NA	0.11 U	0.25 U	0.0020 U	0.0020 U	0.0030 U	0.0030 U	-
RR-3	9/24/2015	0.050 U	NA	0.11 U	0.25 U	0.0020 U	0.0020 U	0.0030 U	0.0030 U	-
RR-3	12/22/2015	0.10 U	NA	0.23 U	0.39 U	0.00020 U	0.0010 U	0.0010 U	0.0030 U	-
RR-3	3/21/2016	0.100 U	NA	0.095 U	0.19 U	0.0010 U	0.0010 U	0.0010 U	0.0020 U	-
RR-3	6/22/2016	0.100 U	NA	0.100 U	0.0828 U	0.0010 U	0.0010 U	0.0010 U	0.0020 U	0.000015 U
RR-3	9/20/2016	0.10 U	NA	0.095 U	0.095 U	0.0010 U	0.0010 U	0.0010 U	0.0030 U	0.00095 U
RR-3	12/7/2016	0.100 U	NA	0.12 U	0.20 U	0.00020 U	0.0010 U	0.0010 U	0.0030 U	0.0020 U
RR-3	3/21/2017	0.150 U	NA	0.24 U	0.40 U	0.00040	0.0010 U	0.0010 U	0.0030 U	0.000083 U
RR-3	6/22/2017	0.087 J	NA	0.25 U	0.42 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	0.0020 U
RR-3	9/20/2017	0.150 U	NA	0.24 U	0.40 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	0.000045 J
RR-3	12/13/2017	--	NA	--	--	--	--	--	--	0.000090 U
RR-3	9/19/2018	0.150 U	NA	0.28 U	0.47 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	0.000098 U
RR-3	9/11/2019	0.048 U	NA	0.1 U	0.11 U	0.00014 U	0.0001 U	0.0001 U	0.0003 U	0.000050 U
RR-4	6/13/2012	0.0500 UJ	NA	0.120 UJ	0.240 UJ	0.00100 UJ	0.00100 UJ	0.00100 UJ	0.00200 UJ	-
RR-4	9/12/2012	0.190	NA	0.160	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RR-4	12/12/2012	0.0500 U	NA	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RR-4	3/14/2013	0.0630	NA	0.130 U	0.260 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RR-4	6/10/2013	0.0710	NA	0.0540	0.0490 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RR-4	9/26/2013	0.0500 U	NA	0.120 U	0.240 U	0.000200 U	0.000500 U	0.000500 U	0.00100 U	-
RR-4	12/3/2013	0.05 U	NA	0.12 U	0.24 U	0.001 U	0.001 U	0.001 U	0.002 U	-
RR-4	3/3/2014	0.05 U	NA	0.12 U	0.24 U	0.001 U	0.001 U	0.001 U	0.002 U	-
RR-4	6/11/2014	0.05 U	NA	0.12	0.24 U	0.001 U	0.001 U	0.001 U	0.002 U	-
RR-4	9/22/2014	0.05 U	NA	0.12 U	0.24 U	0.001 U	0.001 U	0.001 U	0.002 U	-
RR-4	12/17/2014	0.050 U	NA	0.12 U	0.24 U	0.0010 U	0.0010 U	0.0010 U	0.0020 U	-
RR-4	3/23/2015	0.050 U	NA	0.11 U	0.24 U	0.0020 U	0.0020 U	0.0030 U	0.0030 U	-
RR-4	6/16/2015	0.050 U	NA	0.11 U	0.25 U	0.0020 U	0.0020 U	0.0030 U	0.0030 U	-
RR-4	9/23/2015	0.050 U	NA	0.11 U	0.24 U	0.0020 U	0.0020 U	0.0030 U	0.0030 U	-
RR-4	12/22/2015	0.10 U	NA	0.23 U	0.39 U	0.00020 U	0.0010 U	0.0010 U	0.0030 U	-
RR-4	3/21/2016	0.100 U	NA	0.095 U	0.19 U	0.0010 U	0.0010 U	0.0010 U	0.0020 U	-
RR-4	6/21/2016	0.100 UJ	NA	0.110 UJ	0.110 U	0.0010 U	0.0010 U	0.0010 U	0.0020 U	-
RR-4	9/19/2016	0.10 U	NA	0.0799 J	0.095 U	0.0010 U	0.0010 U	0.0010 U	0.0030 U	-
RR-4	12/6/2016	0.100 U	NA	0.12 U	0.20 U	0.00020 U	0.0010 U	0.0010 U	0.0030 U	-
RR-4	3/22/2017	0.150 U	NA	0.24 U	0.40 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	-
RR-4	6/21/2017	0.150 U	NA	0.24 U	0.40 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	-
RR-4	9/18/2017	0.150 U	NA	0.24 U	0.39 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	-
RR-4	12/12/2017	0.150 U	NA	0.24 U	0.40 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	-
RR-4	3/20/2018	0.150 U	NA	0.22 U	0.37 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	-
RR-4	6/19/2018	0.150 U	NA	0.24 U	0.40 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	-
RR-4	9/18/2018	0.150 U	NA	0.13 J	0.39 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	-
RR-4	12/11/2018	0.070 U	NA	0.11 U	0.12 U	0.00009 U	0.0003 U	0.0002 U	0.0004 U	-
RR-4	3/12/2019	0.070 U	NA	0.12 U	0.13 U	0.00009 U	0.0003 U	0.0002 U	0.0004 U	-
RR-4	6/17/2019	0.070 U	NA	0.21 J	0.33 J	0.00009 U	0.0003 U	0.0002 U	0.0004 U	-
RR-4	9/9/2019	0.048 U	NA	0.23 U	0.11 U	0.00014 U	0.0001 U	0.0001 U	0.0003 U	-
RR-5	6/14/2012	0.530	NA	0.250	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RR-5	9/12/2012	1.10	NA	0.470	0.240 U	0.00100 U	0.00100 U	0.000370 J	0.000290 J	-
RR-5	12/13/2012	0.0500 U	NA	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-

Appendix A
Summary of Historical Groundwater Analytical Results
D Street Petroleum Site

WELL ID	DATE	CONCENTRATION (mg/L)								
		TPH-G	TPH-O&G	TPH-D	Heavy Oil TPH	B	T	E	X	Naphtalene
RR-5	3/14/2013	0.320	NA	0.370	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RR-5	6/11/2013	0.340	NA	0.170	0.0550	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RR-5	10/8/2013	0.380	NA	0.580	0.250 U	0.00100 U	0.0150	0.00100 U	0.00200 U	-
RR-5	12/2/2013	0.85	NA	0.29	0.24 U	0.001 U	0.001 U	0.001 U	0.002 U	-
RR-5	3/4/2014	0.62	NA	0.34	0.24 U	0.001 U	0.001 U	0.001 U	0.002 U	-
RR-5	6/11/2014	0.51	NA	0.49	0.24 U	0.001 U	0.001 U	0.001 U	0.002 U	-
RR-5	9/22/2014	0.05 U	NA	0.12	0.24 U	0.001 U	0.001 U	0.001 U	0.002 U	-
RR-5	12/17/2014	0.068	NA	0.25	0.24 U	0.0010 U	0.0010 U	0.0010 U	0.0020 U	-
RR-5	3/23/2015	0.050 U	NA	0.24	0.24 U	0.0020 U	0.0020 U	0.0030 U	0.0030 U	-
RR-5	6/16/2015	0.095	NA	0.15	0.25 U	0.0020 U	0.0020 U	0.0030 U	0.0030 U	-
RR-5	9/22/2015	0.26	NA	0.21	0.25 U	- R	- R	- R	- R	-
RR-5	11/19/2015	NA	NA	NA	NA	0.0020 U	0.010	0.0030 U	0.0030 U	-
RR-5	12/22/2015	0.10 U	NA	0.37	0.40 U	0.00020 U	0.0010 U	0.0010 U	0.0030 U	-
RR-5	3/21/2016	0.100 U	NA	0.0916 J	0.19 U	0.0010 U	0.0010 U	0.0010 U	0.0020 U	-
RR-5	6/22/2016	0.451	NA	0.342	0.150 J	0.00025 J	0.0010 U	0.00027	0.0020 U	-
RR-5	9/20/2016	0.256	NA	0.325	0.0419 J	0.0010 U	0.0010 U	0.0010 U	0.0030 U	-
RR-5	12/6/2016	0.100 U	NA	0.17	0.20 U	0.00020 U	0.0010 U	0.0010 U	0.0030 U	-
RR-5	3/21/2017	0.150 U	NA	0.20 J	0.42 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	-
RR-5	6/21/2017	0.088 J	NA	0.23 J	0.40 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	-
RR-5	9/20/2017	0.520	NA	0.53	0.43 U	0.00014 J	0.0010 U	0.0010 U	0.0030 U	-
RR-5	12/13/2017	0.150 U	NA	0.24	0.40 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	-
RR-5	3/19/2018	0.150 U	NA	0.19 J	0.42 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	-
RR-5	6/18/2018	0.150 U	NA	0.2 J	0.43 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	-
RR-5	9/19/2018	0.160	NA	0.54	0.13 J	0.00040 U	0.0010 U	0.0010 U	0.0030 U	-
RR-5	12/11/2018	0.130 J	NA	0.75	0.65	0.00009 U	0.0180	0.0002 U	0.0004 U	-
RR-5	3/13/2019	0.070 U	NA	0.32	0.17 J	0.00009 U	0.0003 U	0.0002 U	0.0004 U	-
RR-5	6/17/2019	0.180	NA	0.29	0.16 J	0.00009 U	0.0003 U	0.0002 U	0.0004 U	-
RR-5	9/10/2019	0.065 J	NA	0.23 J	0.14 U	0.00014 U	0.0001 U	0.0001 U	0.0003 U	-
RR-6	6/13/2012	0.0500 UJ	NA	0.120 UJ	0.240 UJ	0.00100 UJ	0.00100 UJ	0.00100 UJ	0.00200 UJ	-
RR-6	9/12/2012	0.0240 U	NA	0.120 U	0.590	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RR-6	12/13/2012	0.0500 U	NA	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RR-6	3/13/2013	0.0650	NA	0.130 U	0.260 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RR-6	6/10/2013	0.0500 U	NA	0.0240 U	0.0490 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
RR-6	9/27/2013	0.0500 U	NA	0.120 U	0.240 U	0.000200 U	0.000500 U	0.000500 U	0.00100 U	-
RR-6	12/4/2013	0.05 U	NA	0.12 U	0.24 U	0.001 U	0.001 U	0.001 U	0.002 U	-
RR-6	3/4/2014	0.05 U	NA	0.12 U	0.25 U	0.001 U	0.001 U	0.001 U	0.002 U	-
RR-6	6/11/2014	0.05 U	NA	0.12 U	0.25 U	0.001 U	0.001 U	0.001 U	0.002 U	-
RR-6	9/24/2014	0.05 U	NA	0.12 U	0.24 U	0.001 U	0.001 U	0.001 U	0.002 U	-
RR-6	12/17/2014	0.050 U	NA	0.12 U	0.24 U	0.0010 U	0.0010 U	0.0010 U	0.0020 U	-
RR-6	3/23/2015	0.073	NA	0.11 U	0.24 U	0.0020 U	0.0020 U	0.0030 U	0.0030 U	-
RR-6	6/16/2015	0.050 U	NA	0.11 U	0.25 U	0.0020 U	0.0020 U	0.0030 U	0.0030 U	-
RR-6	9/23/2015	0.050 U	NA	0.11 U	0.25 U	0.0020 U	0.0020 U	0.0030 U	0.0030 U	-
RR-6	12/23/2015	0.10 U	NA	0.23 U	0.39 U	0.00020 U	0.0010 U	0.0010 U	0.0030 U	-
RR-6	3/21/2016	0.100 U	NA	0.0526 J	0.20 U	0.0010 U	0.0010 U	0.0010 U	0.0020 U	-
RR-6	6/21/2016	0.100 UJ	NA	0.100 U	0.100 U	0.0010 U	0.0010 U	0.0010 U	0.0020 U	-
RR-6	9/19/2016	0.10 U	NA	0.095 U	0.095 U	0.0010 U	0.0010 U	0.0010 U	0.0030 U	-
RR-6	12/6/2016	0.100 U	NA	0.12 U	0.20 U	0.00020 U	0.0010 U	0.0010 U	0.0030 U	-
RR-6	3/21/2017	0.150 U	NA	0.25 U	0.41 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	-
RR-6	6/21/2017	0.150 U	NA	0.24 U	0.41 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	-
RR-6	9/18/2017	0.150 U	NA	0.25 U	0.41 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	-
DMW-1	8/26/2003	0.100 U	4.76 U	NA	-	0.000500 U	0.00200 U	0.00100 U	0.00150 U	-
DMW-1	11/3/2003	0.0521	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
DMW-1	1/28/2004	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
DMW-1	5/6/2004	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
DMW-1	8/11/2004	0.0500 U	9.30	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
DMW-1	10/28/2004	0.250 U	5.00 U	NA	-	0.00250 U	0.00250 U	0.00250 U	0.00500 U	-
DMW-1	2/7/2005	NS	NS	NS	-	NS	NS	NS	NS	-

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WELL ID	DATE	CONCENTRATION (mg/L)								
		TPH-G	TPH-O&G	TPH-D	TPH	B	T	E	X	Naphtalene
DMW-1	5/9/2005	NS	NS	NS	-	NS	NS	NS	NS	-
DMW-1	8/3/2005	0.0500 U	5.00 U	0.383	-	0.000500 U	0.000500 U	0.000500 U	-0.99900 U	-
DMW-1	11/10/2005	NS	NS	NS	-	NS	NS	NS	NS	-
DMW-1	2/7/2006	NS	NS	NS	-	NS	NS	NS	NS	-
DMW-1	5/2/2006	NS	NS	NS	-	NS	NS	NS	NS	-
DMW-1	8/3/2006	0.0500 U	5.56 U	0.275 U	-	0.000500 U	0.000500 U	0.000500 U	-0.99900 U	-
DMW-1	12/19/2006	NS	NS	NS	-	NS	NS	NS	NS	-
DMW-1	2/7/2007	NS	NS	NS	-	NS	NS	NS	NS	-
DMW-1	5/9/2007	NS	NS	NS	-	NS	NS	NS	NS	-
DMW-1	7/31/2007	0.0500 U	4.76 U	0.240 U	0.481 U	0.000500 U	0.000500 U	0.00154	-0.99900 U	-
DMW-1	11/5/2007	NS	NS	NS	NS	NS	NS	NS	NS	-
DMW-1	2/13/2008	NS	NS	NS	NS	NS	NS	NS	NS	-
DMW-1	5/5/2008	NS	NS	NS	NS	NS	NS	NS	NS	-
DMW-1	8/13/2008	0.0500 U	5.21 U	0.236 U	0.472 U	0.000500 U	0.000500 U	0.000500 U	-0.99900 U	-
DMW-1	11/10/2008	NS	NS	NS	NS	NS	NS	NS	NS	-
DMW-1	2/23/2009	NS	NS	N	NS	NS	NS	NS	NS	-
DMW-1	5/11/2009	NS	NS	NS	NS	NS	NS	NS	NS	-
DMW-1	8/14/2009	0.0810	5.00 U	0.140	0.240 U	0.00180	0.00100 U	0.00100 U	0.00200 U	-
DMW-1	09/14/2010	0.0570	5.40 U	0.800 Y	0.300	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
DMW-1	09/29/2011	0.160 UJ	5.40 UJ	0.430 J	0.250 UJ	0.000400 UJ	0.00100 UJ	0.00100 UJ	0.00200 UJ	-
DMW-1	9/10/2012	0.0290 J	NA	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
DMW-1	9/25/2013	0.0500 U	NA	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
DMW-1	9/24/2014	0.05 U	NA	0.79	0.24 U	0.001 U	0.001 U	0.001 U	0.002 U	-
DMW-1	9/22/2015	0.050 U	NA	0.60	0.25 U	- R	- R	- R	- R	-
DMW-1	11/19/2015	NA	NA	NA	NA	0.0020 U	0.0020 U	0.0030 U	0.0030 U	-
DMW-1	9/21/2016	0.10 U	NA	0.500	0.0674 J	0.0010 U	0.0010 U	0.0010 U	0.0030 U	-
DMW-1	9/20/2017	0.150 U	NA	0.91	0.40 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	-
DMW-1	9/19/2018	0.150 U	NA	1.20	0.28 J	0.00040 U	0.0010 U	0.0010 U	0.0030 U	-
DMW-1	9/9/2019	0.048 U	NA	0.22 U	0.11 U	0.00014 U	0.0001 U	0.0001 U	0.0003 U	-
DMW-2	11/19/2002	0.0565	5.00 U	NA	-	0.000500 U	0.000500 U	0.00110	0.00100 U	-
DMW-2	1/28/2003	0.0500 U	5.15 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
DMW-2	4/29/2003	0.0645	4.81 U	NA	-	0.00197	0.000500 U	0.000500 U	0.00159 J	-
DMW-2	8/25/2003	0.100 U	5.05 U	NA	-	0.000500 U	0.00200 U	0.00100 U	0.00150 U	-
DMW-2	11/4/2003	0.0500 U	5.00 U	NA	-	0.000500 U	0.000511	0.000500 U	0.00114	-
DMW-2	1/29/2004	0.0551	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
DMW-2	5/6/2004	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
DMW-2	8/11/2004	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
DMW-2	10/28/2004	0.0673	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
DMW-2	2/7/2005	NS	NS	NS	-	NS	NS	NS	NS	-
DMW-2	5/9/2005	NS	NS	NS	-	NS	NS	NS	NS	-
DMW-2	8/3/2005	0.0522	5.00 U	0.282	-	0.000500 U	0.000500 U	0.000500 U	-0.99900 U	-
DMW-2	11/10/2005	NS	NS	NS	-	NS	NS	NS	NS	-
DMW-2	2/7/2006	NS	NS	NS	-	NS	NS	NS	NS	-
DMW-2	5/2/2006	NS	NS	NS	-	NS	NS	NS	NS	-
DMW-2	8/2/2006	0.100 U	5.00 U	0.250 U	-	0.000500 U	0.00200 U	0.00100 U	-0.99850 U	-
DMW-2	12/19/2006	NS	NS	NS	-	NS	NS	NS	NS	-
DMW-2	2/7/2007	NS	NS	NS	-	NS	NS	NS	NS	-
DMW-2	5/9/2007	NS	NS	NS	-	NS	NS	NS	NS	-
DMW-2	7/31/2007	0.106	4.90 U	0.243 U	0.485 U	0.000500 U	0.000500 U	0.000500 U	-0.99900 U	-
DMW-2	11/5/2007	NS	NS	NS	NS	NS	NS	NS	NS	-
DMW-2	2/13/2008	NS	NS	NS	NS	NS	NS	NS	NS	-
DMW-2	5/5/2008	NS	NS	NS	NS	NS	NS	NS	NS	-
DMW-2	8/13/2008	0.0748	5.21 U	0.236 U	0.472 U	0.000500 U	0.000500 U	0.000500 U	-0.99900 U	-
DMW-2	11/10/2008	NS	NS	NS	NS	NS	NS	NS	NS	-
DMW-2	2/23/2009	NS	NS	NS	NS	NS	NS	NS	NS	-
DMW-2	5/11/2009	NS	NS	NS	NS	NS	NS	NS	NS	-
DMW-2	8/13/2009	0.0890	5.00 U	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
DMW-2	09/14/2010	0.0500 U	4.90 U	0.260 Y	1.50	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-

Appendix A
Summary of Historical Groundwater Analytical Results
D Street Petroleum Site

WELL ID	DATE	CONCENTRATION (mg/L)								
		TPH-G	TPH-O&G	TPH-D	Heavy Oil TPH	B	T	E	X	Naphtalene
DMW-2	09/30/2011	0.343	5.30 U	0.201	0.500 U	0.0814	0.00100 U	0.00100 U	0.00200 U	-
DMW-2	4/5/2012	0.600	NA	NA	NA	0.120	0.00100 U	0.00100 U	0.00200 U	-
DMW-2	6/14/2012	1.00	NA	0.840	0.240 U	0.150	0.00120	0.00100 U	0.00200 U	-
DMW-2	9/13/2012	0.710	NA	0.790	0.240 U	0.120	0.000960 J	0.000420 J	0.00150 J	-
DMW-2	12/13/2012	0.370	NA	0.430	0.240 U	0.0270	0.00100 U	0.00100 U	0.00200 U	-
DMW-2	3/12/2013	0.150	NA	0.380	0.240 U	0.00290	0.00100 U	0.00100 U	0.00200 U	-
DMW-2	6/12/2013	0.380	NA	0.350	0.0500 U	0.0200	0.00100 U	0.00100 U	0.00200 U	-
DMW-2	9/25/2013	0.500	NA	0.920	0.240 U	0.00210	0.00100 U	0.00100 U	0.00200 U	-
DMW-2	12/4/2013	0.31	NA	0.24	0.24 U	0.0046	0.001 U	0.001 U	0.002 U	-
DMW-2	3/6/2014	0.25	NA	0.8	0.24 U	0.005 U	0.005 U	0.005 U	0.005 U	-
DMW-2	6/9/2014	0.5	NA	2.2	0.39	0.017	0.001 U	0.001 U	0.002 U	-
DMW-2	9/23/2014	0.16	NA	1.4	0.24	0.005 U	0.005 U	0.005 U	0.01 U	-
DMW-2	12/15/2014	0.35	NA	2.1	0.54	0.0010 U	0.0010 U	0.0010 U	0.0020 U	-
DMW-2	3/25/2015	0.27	NA	1.4	0.36	0.0020 U	0.0020 U	0.0030 U	0.0030 U	-
DMW-2	6/15/2015	0.26	NA	2.2	0.53	0.0060	0.0020 U	0.0030 U	0.0030 U	-
DMW-2	9/23/2015	0.55	NA	1.6	0.25 U	0.0020 U	0.0020 U	0.0030 U	0.0030 U	-
DMW-2	12/22/2015	0.11	NA	1.3	0.39 U	0.00020 U	0.0010 U	0.0010 U	0.0030 U	-
DMW-2	3/23/2016	0.177	NA	1.10	0.115 J	0.00026 J	0.00023 J	0.0010 U	0.0020 U	-
DMW-2	6/22/2016	0.0717 J	NA	0.450	0.0818 J	0.001 U	0.0010 U	0.0010 U	0.0020 U	-
DMW-2	9/20/2016	0.133	NA	0.897	0.106	0.0111	0.0010 U	0.0010 U	0.0030 U	-
DMW-2	12/8/2016	0.790	NA	3.1	0.12 U	0.00037	0.00036 J	0.00023 J	0.0014 J	-
DMW-2	3/21/2017	0.390	NA	1.5	0.19 J	0.00025 J	0.0010 U	0.0010 U	0.00063 J	-
DMW-2	6/21/2017	0.340	NA	1.1	0.14 J	0.0013	0.0010 U	0.00023 J	0.00066 J	-
DMW-2	9/19/2017	0.190	NA	1.2	0.13 J	0.00066	0.0010 U	0.0010 U	0.0030 U	-
DMW-2	12/12/2017	0.150	NA	1.1	0.16 J	0.00040 U	0.0010 U	0.0010 U	0.0030 U	-
DMW-2	3/20/2018	0.290	NA	1.4	0.18 J	0.00014 J	0.0010 U	0.0010 U	0.0030 U	-
DMW-2	6/19/2018	0.074 J	NA	0.7	0.43 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	-
DMW-2	9/18/2018	0.140 J	NA	1.9	0.8	0.00180	0.0010 U	0.0010 U	0.0006 J	-
DMW-2	12/11/2018	0.070 U	NA	1.7	0.7	0.00009 U	0.0003 U	0.0002 U	0.0004 U	-
DMW-2	3/13/2019	0.083 J	NA	0.86	0.21 J	0.00009 U	0.0003 U	0.0002 U	0.0004 U	-
DMW-2	6/18/2019	0.073 J	NA	1.9	0.45	0.00009 U	0.0003 U	0.0002 U	0.0004 U	-
DMW-2	9/11/2019	0.150	NA	0.31 J	0.11 U	0.00014 U	0.0001 J	0.0001 U	0.0005 J	-
DMW-3	8/27/2003	0.386 U	5.00 U	NA	-	0.0285	0.00200 U	0.00100 U	0.00150 U	-
DMW-3	10/30/2003	0.0999	5.00 U	NA	-	0.00356	0.000850	0.000500 U	0.00223	-
DMW-3	1/28/2004	0.158	5.00 U	NA	-	0.000643	0.000548	0.000500 U	0.00190	-
DMW-3	5/5/2004	0.128	5.00 U	NA	-	0.000500 U	0.000726	0.000500 U	0.00266	-
DMW-3	8/10/2004	0.121	5.00 U	NA	-	0.000500 U	0.000615	0.000500 U	0.00139	-
DMW-3	10/29/2004	0.217	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00171	-
DMW-3	2/10/2005	0.152	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00169	-
DMW-3	5/11/2005	0.198	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00122 J	-
DMW-3	8/5/2005	0.169	5.00 U	0.250 U	-	0.000500 U	0.000500 U	0.000500 U	0.00106 J	-
DMW-3	11/10/2005	0.169	4.81 U	0.238 U	-	0.000500 U	0.000500 U	0.000500 U	0.00139	-
DMW-3	2/8/2006	0.149	4.76 U	0.243 U	-	0.000500 U	0.000500 U	0.000500 U	0.00106	-
DMW-3	5/3/2006	0.205	4.72 U	0.579	-	0.000524	0.000500 U	0.000500 U	0.00359	-
DMW-3	8/3/2006	0.151	4.72 U	0.238 U	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
DMW-3	12/21/2006	0.105	4.76 U	0.236 U	0.472 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
DMW-3	2/8/2007	0.168 J	4.90 U	0.245 U	0.490 U	0.00882	0.000500 U	0.000500 U	0.00138	-
DMW-3	5/10/2007	0.102	4.76 U	0.236 U	0.472 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
DMW-3	7/31/2007	0.0591	4.72 U	0.238 U	0.476 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
DMW-3	11/7/2007	0.0554	4.72 U	0.238 U	0.476 U	0.000500 U	0.000500 U	0.000631	0.00100 U	-
DMW-3	2/15/2008	0.0520	4.72 U	0.236 U	0.472 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
DMW-3	5/5/2008	0.0500 U	4.76 U	0.238 U	0.476 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
DMW-3	8/14/2008	0.0500 U	5.21 U	0.248 U	0.495 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
DMW-3	11/13/2008	0.0500 U	4.76 U	0.236 U	0.472 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
DMW-3	2/26/2009	0.0500 U	4.72 U	0.238 U	0.476 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
DMW-3	5/13/2009	0.0705	4.72 U	0.362	0.476 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
DMW-3	8/12/2009	0.0510	5.00 U	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
DMW-3	11/11/2009	0.0590	5.00 U	0.300	0.660	0.00100 U	0.00100 U	0.00100 U	0.00100 U	-

Appendix A
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WELL ID	DATE	CONCENTRATION (mg/L)								
		TPH-G	TPH-O&G	TPH-D	TPH	B	T	E	X	Naphtalene
DMW-3	3/26/2010	0.0670	5.00 U	0.270	0.250 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
DMW-3	06/11/2010	1.30	5.10 U	1.60 Y	0.250 U	0.0220	0.00100 U	0.0140	0.104	-
DMW-3	09/16/2010	0.0500 U	5.10 U	0.190 Y	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
DMW-3	10/04/2011	0.0800 U	5.00 U	0.140	0.250 U	0.000200 U	0.000500 U	0.000500 U	0.00100 U	-
DMW-3	9/10/2012	0.0500 U	NA	0.0870 J	0.0650 J	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
DMW-3	9/26/2013	0.0500 U	NA	0.120 U	0.240 U	0.000200 U	0.000500 U	0.000500 U	0.00100 U	-
DMW-3	9/25/2014	0.05 U	NA	1.1	0.47	0.001 U	0.001 U	0.001 U	0.002 U	-
DMW-3	9/23/2015	0.050 U	NA	0.35	0.25 U	0.0020 U	0.0020 U	0.0030 U	0.0030 U	-
DMW-3	9/26/2013	0.05 U	NA	0.12 U	0.24 U	0.0002 U	0.0005 U	0.0005 U	0.001 U	-
DMW-3	9/25/2014	0.050 U	NA	1.1	0.47	0.0010 U	0.0010 U	0.0010 U	0.0020 U	-
DMW-3	9/23/2015	0.050 U	NA	0.35	0.25 U	0.0020 U	0.0020 U	0.0030 U	0.0030 U	-
DMW-3	9/22/2016	0.10 U	NA	1.39	0.119	0.0010 U	0.0010 U	0.0010 U	0.0030 U	-
DMW-3	9/21/2017	0.110 J	NA	1.2	0.43 U	0.00040 U	0.0010 U	0.0010 U	0.00098 J	-
DMW-3	9/18/2018	0.084 J	NA	2.1	0.84	0.00040 U	0.0010 U	0.0010 U	0.00044 J	-
DMW-3	9/9/2019	0.310	NA	0.35 J	0.13 U	0.00014 U	0.0001 U	0.0001 U	0.00017 J	-
DMW-4	11/19/2002	0.628	5.00 U	NA	-	0.00191 J	0.000500 U	0.00800 J	0.0222 J	-
DMW-4	1/28/2003	0.461	5.10 U	NA	-	0.00220 J	0.000500 U	0.00124 J	0.00119 J	-
DMW-4	4/30/2003	0.462	4.85 U	NA	-	0.00239 J	0.000500 U	0.00170 J	0.00100 U	-
DMW-4	8/27/2003	0.267 U	5.00 U	NA	-	0.00603	0.00200 U	0.00100 U	0.00150 U	-
DMW-4	10/31/2003	1.49	5.00 U	NA	-	0.000994	0.000950	0.0621	0.118	-
DMW-4	1/28/2004	0.527	5.00 U	NA	-	0.00122	0.000500 U	0.00102	0.00100 U	-
DMW-4	5/5/2004	0.247 J	5.00 U	NA	-	0.000924	0.000500 U	0.00599	0.00200	-
DMW-4	8/11/2004	0.596 J	5.00 U	NA	-	0.00159 J	0.000500 UJ	0.000555 J	0.00100 UJ	-
DMW-4	10/28/2004	0.580 J	5.00 U	NA	-	0.000523 J	0.000500 U	0.0177 J	0.0494 J	-
DMW-4	2/9/2005	0.388	5.50	NA	-	0.000500 U	0.000500 U	0.000584	0.00100 U	-
DMW-4	5/10/2005	0.365	5.00 U	NA	-	0.000719	0.000500 U	0.000500 U	0.00100 U	-
DMW-4	8/3/2005	0.984 J	5.00 U	0.250 U	-	0.00109	0.000500 U	0.00327	0.00329	-
DMW-4	11/8/2005	1.03	4.85 U	0.240 U	-	0.00136	0.000500 U	0.00914	0.0219	-
DMW-4	2/8/2006	0.990	4.81 U	0.658 J	-	0.00175	0.000500 U	0.0151	0.0279	-
DMW-4	5/2/2006	0.390	4.76 U	0.236 U	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
DMW-4	8/1/2006	0.529	4.95 U	0.248 U	-	0.000500 U	0.00200 U	0.00100 U	0.00150 U	-
DMW-4	12/19/2006	0.486	4.76 U	0.238 U	0.476 U	0.000500 U	0.000601 J	0.00123 J	0.00138 J	-
DMW-4	2/7/2007	0.279	4.72 U	0.236 U	0.472 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
DMW-4	5/9/2007	0.218	4.76 U	0.236 U	0.472 U	0.000500 U	0.000500 U	0.00125	0.00100 U	-
DMW-4	8/1/2007	0.603	5.00 U	NA	NA	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
DMW-4	11/7/2007	0.362	5.26 U	0.253 U	0.505 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
DMW-4	2/15/2008	0.267	0.472 U	0.236 U	0.472 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
DMW-4	5/5/2008	0.495	4.72 U	0.236 U	0.472 U	0.000532	0.000500 U	0.00143	0.00100 U	-
DMW-4	8/13/2008	0.503	5.21 U	0.243 U	0.485 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
DMW-4	11/12/2008	0.318	4.81 U	0.238 U	0.476 U	0.000500 U	0.000500 U	0.000500 U	0.00118	-
DMW-4	2/25/2009	0.210	4.76 U	0.238 U	0.476 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
DMW-4	5/13/2009	0.321	4.76 U	0.243 U	0.476 U	0.000500	0.000500 U	0.00119	0.00100 U	-
DMW-4	8/11/2009	0.190	5.00 U	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
DMW-4	11/12/2009	0.170	5.00 UJ	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00100 U	-
DMW-4	03/24/2010	0.490	6.60	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
DMW-4	06/08/2010	0.540	5.10 U	0.390 Y	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
DMW-4	09/14/2010	0.280	4.70 U	0.280 Y	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
DMW-4	12/20/2010	0.270	4.80 U	0.130	0.270	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
DMW-4	3/8/2011	0.360	5.40 U	0.120	0.250 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
DMW-4	6/14/2011	0.530	5.00 U	0.200	0.240 U	0.00100 U	0.00100 U	0.00560	0.00200 U	-
DMW-4	10/05/2011	0.285	5.40 U	0.152	0.510 U	0.000400 U	0.00100 U	0.00100 U	0.00200 U	-
DMW-4	12/5/2011	0.210	5.00 U	0.370	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
DMW-4	4/5/2012	0.230	4.90 U	0.590	0.400	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
DMW-4	6/13/2012	0.160 J	NA	0.280 J	0.240 UJ	0.00100 UJ	0.00100 UJ	0.00100 UJ	0.00200 UJ	-
DMW-4	9/11/2012	0.160 U	NA	0.0950 J	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
DMW-4	12/12/2012	0.170	NA	0.140	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
DMW-4	3/12/2013	0.350	NA	0.140	0.270	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
DMW-4	6/11/2013	0.240	NA	0.120	0.0480 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-

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		TPH-G	TPH-O&G	TPH-D	Heavy Oil TPH	B	T	E	X	Naphtalene
DMW-4	9/23/2013	0.310	NA	0.210	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
DMW-4	12/4/2013	0.410	NA	0.13	0.24 U	0.001 U	0.001 U	0.001 U	0.002 U	-
DMW-4	3/3/2014	0.490	NA	0.25	0.24 U	0.001 U	0.001 U	0.001 U	0.002 U	-
DMW-4	6/10/2014	0.360	NA	0.44	0.24 U	0.001 U	0.001 U	0.001 U	0.002 U	-
DMW-4	9/24/2014	0.150	NA	0.31	0.24 U	0.001 U	0.001 U	0.001 U	0.002 U	-
DMW-4	12/16/2014	0.12	NA	0.26	0.24 U	0.0010 U	0.0010 U	0.0010 U	0.0020 U	-
DMW-4	3/23/2015	0.35	NA	0.26	0.24 U	0.0020 U	0.0020 U	0.0030 U	0.0030 U	-
DMW-4	6/16/2015	0.29	NA	0.26	0.25 U	0.0020 U	0.0020 U	0.0030 U	0.0030 U	-
DMW-4	9/21/2015	0.12	NA	0.11	0.26 U	0.0020 U	0.0020 U	0.0030 U	0.0030 U	-
DMW-4	12/21/2015	0.10 U	NA	0.59	1.9	0.00020 U	0.0010 U	0.0010 U	0.0030 U	-
DMW-4	3/21/2016	0.403	NA	0.255	0.130 J	0.0010 U	0.0010 U	0.0010 U	0.0020 U	-
DMW-4	6/21/2016	0.446 J	NA	0.157	0.0571 U	0.001 U	0.0010 U	0.00029 J	0.0020 U	-
DMW-4	9/22/2016	0.448	NA	0.294	0.124	0.0010 U	0.0010 U	0.0010 U	0.0030 U	-
DMW-4	12/7/2016	0.180	NA	0.26 J	0.12 U	0.00020 U	0.0010 U	0.0010 U	0.0030 U	-
DMW-4	3/20/2017	0.180	NA	0.22 J	0.41 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	-
DMW-4	6/20/2017	0.480	NA	0.30	0.41 U	0.00040 U	0.0010 U	0.0010 U	0.00046 J	-
DMW-4	9/20/2017	0.380	NA	0.31	0.45 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	-
DMW-4	12/11/2017	0.190	NA	0.28	0.42 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	-
DMW-4	3/20/2018	0.370	NA	0.37	0.23 J	0.00040 U	0.0010 U	0.0010 U	0.0030 U	-
DMW-4	6/18/2018	0.520	NA	0.36	0.42 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	-
DMW-4	9/17/2018	0.300	NA	0.24 J	0.41 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	-
DMW-4	12/11/2018	0.370	NA	0.44	0.27 J	0.00009 U	0.0003 U	0.0002 U	0.0004 U	-
DMW-4	3/12/2019	0.270	NA	0.54	0.21 J	0.00009 U	0.0003 U	0.0002 U	0.0004 U	-
DMW-4	6/17/2019	0.290	NA	0.36	0.13 U	0.00009 U	0.0003 U	0.0002 U	0.0004 U	-
DMW-4	9/11/2019	0.190	NA	0.35	0.13 U	0.00014 U	0.0001 U	0.0001 U	0.0003 U	-
FW-1	11/20/2002	0.0500 U	4.80 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-1	1/29/2003	0.0500 U	5.15 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-1	4/30/2003	0.0500 U	4.95 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-1	8/26/2003	0.100 U	5.15 U	NA	-	0.000500 U	0.00200 U	0.00100 U	0.00150 U	-
FW-1	10/31/2003	0.0800 U	5.00 U	NA	-	0.000562	0.000500 U	0.000500 U	0.00150 U	-
FW-1	1/29/2004	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-1	5/5/2004	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-1	8/10/2004	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-1	10/28/2004	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-1	2/7/2005	NS	NS	NS	-	NS	NS	NS	NS	-
FW-1	5/9/2005	NS	NS	NS	-	NS	NS	NS	NS	-
FW-1	8/3/2005	0.0500 U	5.00 U	0.250 U	-	0.000500 U	0.000500 U	0.000500 U	-0.99900 U	-
FW-1	11/8/2005	NS	NS	NS	-	NS	NS	NS	NS	-
FW-1	2/7/2006	NS	NS	NS	-	NS	NS	NS	NS	-
FW-1	5/2/2006	NS	NS	NS	-	NS	NS	NS	NS	-
FW-1	8/1/2006	0.100 U	4.72 U	0.236 U	-	0.000500 U	0.00200 U	0.00100 U	-0.99850 U	-
FW-1	12/19/2006	NS	NS	NS	-	NS	NS	NS	NS	-
FW-1	2/7/2007	NS	NS	NS	-	NS	NS	NS	NS	-
FW-1	5/9/2007	NS	NS	NS	-	NS	NS	NS	NS	-
FW-1	7/31/2007	0.0500 U	4.90 U	0.236 U	0.472 U	0.000500 U	0.000500 U	0.000500 U	-0.99900 U	-
FW-1	11/5/2007	NS	NS	NS	NS	NS	NS	NS	NS	-
FW-1	2/13/2008	NS	NS	NS	NS	NS	NS	NS	NS	-
FW-1	5/5/2008	NS	NS	NS	NS	NS	NS	NS	NS	-
FW-1	8/12/2008	0.0500 U	5.21 U	0.240 U	0.481 U	0.000500 U	0.000500 U	0.000500 U	-0.99900 U	-
FW-1	11/7/2008	NS	NS	NS	NS	NS	NS	NS	NS	-
FW-1	2/23/2009	NS	NS	NS	NS	NS	NS	NS	NS	-
FW-1	5/11/2009	NS	NS	NS	NS	NS	NS	NS	NS	-
FW-1	8/14/2009	0.0500 U	5.00 U	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
FW-1	6/7/2010	NS	NS	NS	NS	NS	NS	NS	NS	-
FW-1	9/13/2010	NS	NS	NS	NS	NS	NS	NS	NS	-
FW-1	12/15/2010	NS	NS	NS	NS	NS	NS	NS	NS	-

Appendix A
Summary of Historical Groundwater Analytical Results
D Street Petroleum Site

WELL ID	DATE	CONCENTRATION (mg/L)								
		TPH-G	TPH-O&G	TPH-D	Heavy Oil TPH	B	T	E	X	Naphtalene
FW-2	11/19/2002	0.0500 U	4.80 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-2	1/29/2003	0.0500 U	4.72 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-2	4/29/2003	0.0500 U	4.72 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-2	8/25/2003	0.100 U	4.85 U	NA	-	0.000500 U	0.00200 U	0.00100 U	0.00150 U	-
FW-2	10/30/2003	0.0800 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00150 U	-
FW-2	1/28/2004	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-2	5/5/2004	0.0500 U	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-2	8/10/2004	0.0500 U	5.00 U	NA	-	0.000500 U	0.000588	0.000500 U	0.00100 U	-
FW-2	10/27/2004	0.0500 U	5.00 U	NA	-	0.000500 U	0.000588	0.000500 U	0.00100 U	-
FW-2	2/7/2005	NS	NS	NS	-	NS	NS	NS	NS	-
FW-2	5/9/2005	NS	NS	NS	-	NS	NS	NS	NS	-
FW-2	8/1/2005	0.0500 U	5.00 U	0.250 U	-	0.000500 U	0.000500 U	0.000500 U	-0.99900 U	-
FW-2	11/8/2005	NS	NS	NS	-	NS	NS	NS	NS	-
FW-2	2/6/2006	NS	NS	NS	-	NS	NS	NS	NS	-
FW-2	5/1/2006	NS	NS	NS	-	NS	NS	NS	NS	-
FW-2	8/3/2006	0.0500 U	4.76 U	0.238 U	-	0.000500 U	0.000500 U	0.000500 U	-0.99900 U	-
FW-2	12/18/2006	NS	NS	NS	-	NS	NS	NS	NS	-
FW-2	2/5/2007	NS	NS	NS	-	NS	NS	NS	NS	-
FW-2	5/7/2007	NS	NS	NS	-	NS	NS	NS	NS	-
FW-2	7/31/2007	0.0500 U	4.81 U	0.240 U	0.481 U	0.000500 U	0.000500 U	0.000500 U	-0.99900 U	-
FW-2	11/5/2007	NS	NS	NS	NS	NS	NS	NS	NS	-
FW-2	2/11/2008	NS	NS	NS	NS	NS	NS	NS	NS	-
FW-2	5/5/2008	NS	NS	NS	NS	NS	NS	NS	NS	-
FW-2	8/12/2008	0.0500 U	5.21 U	0.248 U	0.495 U	0.000500 U	0.000500 U	0.000500 U	-0.99900 U	-
FW-2	11/7/2008	NS	NS	NS	NS	NS	NS	NS	NS	-
FW-2	2/23/2009	NS	NS	NS	NS	NS	NS	NS	NS	-
FW-2	5/11/2009	NS	NS	NS	NS	NS	NS	NS	NS	-
FW-2	8/11/2009	0.0500 U	5.00 U	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
FW-13	11/19/2002	0.0717	4.80 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-13	1/28/2003	0.0805 J	4.85 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-13	4/30/2003	0.150 J	4.95 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-13	8/26/2003	0.133 U	5.26 U	NA	-	0.000500 U	0.00200 U	0.00100 U	0.00150 U	-
FW-13	11/4/2003	0.0696	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-13	1/29/2004	0.0662	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-13	5/6/2004	0.0790	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00137	-
FW-13	8/11/2004	0.0911	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-13	10/28/2004	0.107	5.00	NA	-	0.000500	0.000500	0.000500	0.00100	-
FW-13	2/8/2005	0.184 J	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-13	5/10/2005	0.132	5.00 U	NA	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-13	8/3/2005	0.125 J	5.00 U	0.250 U	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-13	11/8/2005	0.150	5.00 U	0.243 U	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-13	2/8/2006	0.225	4.81 U	0.236 U	-	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-13	5/3/2006	0.317 J	4.72 U	0.236 U	-	0.000693 J	0.000500 U	0.000500 U	0.00100 U	-
FW-13	8/2/2006	0.309	5.00 U	0.250 U	-	0.00138	0.00200 U	0.00100 U	0.00150 U	-
FW-13	12/19/2006	0.187 J	4.72 U	0.238 U	0.476 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-13	2/6/2007	0.239	4.81 U	0.240 U	0.481 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-13	5/8/2007	0.405 J	4.76 U	0.238 U	0.476 U	0.000887	0.000500 U	0.000500 U	0.00100 U	-
FW-13	8/1/2007	0.225	5.00 U	0.260 U	0.521 U	0.000514	0.000500 U	0.000500 U	0.00100 U	-
FW-13	11/6/2007	0.378	4.90 U	0.253 U	0.505 U	0.00112	0.000500 U	0.000500 U	0.00100 U	-
FW-13	2/13/2008	0.387	4.72 U	0.236 U	0.472 U	0.00110	0.000500 U	0.000500 U	0.00100 U	-
FW-13	5/5/2008	0.376	4.72 U	0.238 U	0.476 U	0.00106	0.000500 U	0.000500 U	0.00100 U	-
FW-13	8/13/2008	0.228	5.21 U	0.245 U	0.490 U	0.000715	0.000500 U	0.000500 U	0.00100 U	-
FW-13	11/12/2008	0.0747	4.76 U	0.238 U	0.476 U	0.000500 U	0.000500 U	0.000500 U	0.00100 U	-
FW-13	2/26/2009	0.439	4.72 U	0.236 U	0.472 U	0.00154	0.000500 U	0.000500 U	0.00100 U	-
FW-13	5/13/2009	0.445 J	4.72 U	0.236 U	0.472 U	0.00247 J	0.000500 UJ	0.000500 UJ	0.00100 UJ	-
FW-13	8/12/2009	0.280	5.00 U	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
FW-13	11/11/2009	0.380	5.00 U	0.290	0.700	0.00100 U	0.00100 U	0.00100 U	0.00100 U	-
FW-13	3/26/2010	0.230	5.00 U	0.140	0.700	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-

Appendix A
Summary of Historical Groundwater Analytical Results
D Street Petroleum Site

WELL ID	DATE	CONCENTRATION (mg/L)								
		TPH-G	TPH-O&G	TPH-D	Heavy Oil TPH	B	T	E	X	Naphtalene
FW-13	06/09/2010	0.170	5.00 U	0.190 Y	0.550	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
FW-13	09/16/2010	0.140	4.80 U	0.140 Y	0.750	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
FW-13	12/20/2010	0.0760	4.90 U	0.120 U	0.580	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
FW-13	3/10/2011	0.140	5.00 U	0.120 U	0.410	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
FW-13	6/13/2011	0.150	4.90 U	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
FW-13	09/30/2011	0.0993	5.10 U	0.101 U	0.505 U	0.000200 U	0.000500 U	0.000500 U	0.00100 U	-
FW-13	12/7/2011	0.0770	4.90 U	0.120 U	0.250 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
FW-13	4/3/2012	0.0500 U	5.20 U	0.120 U	0.240	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
FW-13	6/12/2012	0.200	NA	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
FW-13	9/10/2012	0.0990 U	NA	0.120 U	0.130 J	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
FW-13	12/11/2012	0.0500 UJ	NA	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
FW-13	3/13/2013	0.0530	NA	0.120 U	0.240 U	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
FW-13	6/11/2013	0.0890	NA	0.0600	0.0730	0.00100 U	0.00100 U	0.00100 U	0.00200 U	-
FW-13	9/25/2013	0.097	NA	0.14	0.24 U	0.001 U	0.001 U	0.001 U	0.002 U	-
FW-13	12/4/2013	0.081	NA	0.12 U	0.24 U	0.001 U	0.001 U	0.001 U	0.002 U	-
FW-13	3/6/2014	0.280	NA	0.28	0.24 U	0.005 U	0.005 U	0.005 U	0.005 U	-
FW-13	6/9/2014	0.400	NA	0.41	0.24 U	0.001 U	0.001 U	0.001 U	0.002 U	-
FW-13	9/24/2014	0.076	NA	0.24	0.24 U	0.001 U	0.001 U	0.001 U	0.002 U	-
FW-13	12/15/2014	0.20	NA	0.57	0.24 U	0.0010 U	0.0010 U	0.0010 U	0.0020 U	-
FW-13	3/24/2015	0.42	NA	0.11	0.25 U	0.0020 U	0.0020 U	0.0030 U	0.0030 U	-
FW-13	6/15/2015	0.14	NA	0.46	0.25 U	0.0020 U	0.0020 U	0.0030 U	0.0030 U	-
FW-13	9/24/2015	0.12	NA	0.11 U	0.25 U	0.0020 U	0.0020 U	0.0030 U	0.0030 U	-
FW-13	12/23/2015	0.16	NA	0.58	0.39 U	0.00020 U	0.0010 U	0.0010 U	0.0030 U	-
FW-13	3/23/2016	0.131	NA	0.235	0.19 U	0.0010 U	0.0010 U	0.0010 U	0.0020 U	-
FW-13	6/22/2016	0.147 J	NA	0.247	0.128 J	0.0010 U	0.0010 U	0.0010 U	0.0020 U	-
FW-13	9/20/2016	0.132	NA	0.230	0.0441 J	0.0010 U	0.0010 U	0.0010 U	0.0030 U	-
FW-13	12/6/2016	0.100 U	NA	0.083 J	0.20 U	0.00020 U	0.0010 U	0.0010 U	0.0030 U	-
FW-13	3/22/2017	0.085 J	NA	0.26	0.43 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	-
FW-13	6/20/2017	0.150 U	NA	0.19 J	0.42 U	0.00040 U	0.0010 U	0.0010 U	0.0030 U	-
FW-13	9/18/2017	0.140 U	NA	0.37	0.41 U	0.00040 U	0.0010 U	0.0010 U	0.00050 J	-
FW-13	12/11/2017	0.150 U	NA	0.14 J	0.40 U	0.00040 U	0.0010 U	0.0010 U	0.00300 U	-
FW-13	3/20/2018	0.095 J	NA	0.40	0.42 U	0.00040 U	0.0010 U	0.0010 U	0.00300 U	-
FW-13	6/19/2018	0.150 U	NA	0.18 J	0.41 U	0.00040 U	0.0010 U	0.0010 U	0.00300 U	-
FW-13	9/19/2018	0.150 U	NA	0.33	0.16 J	0.00040 U	0.0010 U	0.0010 U	0.00300 U	-
FW-13	12/11/2018	0.070 U	NA	0.82	0.43	0.00009 U	0.0003 U	0.0002 U	0.00044 U	-
FW-13	3/13/2019	0.079 J	NA	0.34	0.13 U	0.00009 U	0.0003 U	0.0002 U	0.00044 U	-
FW-13	6/17/2019	0.070 U	NA	0.37	0.12 J	0.00009 U	0.0003 U	0.0002 U	0.00044 U	-
FW-13	9/10/2019	0.084 J	NA	0.14 J	0.13 U	0.00001 U	0.0001 U	0.0001 U	0.00031 U	-

NOTES:

NA - Not analyzed

NS - Not sampled

U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

J - Estimated concentration because the result was below the sample reporting limit or quality control criteria were not met.

UJ - The analyte was not detected at or above the sample reporting limit; however, the reporting limit is approximate because quality control criteria were not met.

R - The sample results are rejected. The presence or absence of the analyte cannot be verified.

Appendix B
Laboratory Analytical Data, Third
Quarter 2019

ANALYTICAL REPORT

Eurofins TestAmerica, Spokane
11922 East 1st Ave
Spokane, WA 99206
Tel: (509)924-9200

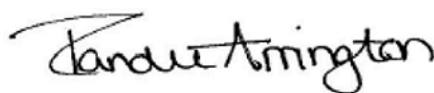
Laboratory Job ID: 590-11808-1

Client Project/Site: Tacoma D St Terminal-Phillips 66
Revision: 1

For:

AECOM
111 SW Columbia Street, Suite 1500
Portland, Oregon 97201

Attn: Mr. Tyler Hemry



Authorized for release by:
10/21/2019 10:44:48 AM

Randee Arrington, Project Manager II
(509)924-9200
randee.arrington@testamericainc.com

LINKS

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results through
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www.testamericainc.com

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

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

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Case Narrative

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11808-1

Job ID: 590-11808-1

Laboratory: Eurofins TestAmerica, Spokane

Narrative

Report Revision

Method 6020A: The MS/MSD/Dup were flagged 'F1' even though the recoveries were within limits. The qualifier has been removed.

Receipt

The samples were received on 9/10/2019 12:31 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 3.5° C and 3.6° C.

GC/MS VOA

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

GC/MS Semi VOA

8260C: Due to multiple runs and analysis of NWTPH-Gx there were no remaining voa vials to perform site specific MS/MSD on the following sample: DMW-3 (590-11808-8).

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

GC VOA

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

GC Semi VOA

Method 300.0: Reanalysis of the following samples were performed outside of the analytical holding time due to ending CCV failure : RR-4 (590-11808-1) and RR-1 (590-11808-2).

Method 300.0: The following samples were diluted due to the abundance of non-target analytes: RR-4 (590-11808-1), RR-1 (590-11808-2), DMW-1-DUP (590-11808-6), FW-4 (590-11808-7) and FW-3 (590-11808-9). Elevated reporting limits (RLs) are provided.

Method 300.0: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 590-24052 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method NWTPH-Dx: Detected hydrocarbons in the diesel range appear to be due to heavily weathered diesel in the following samples: RR-4 (590-11808-1), RR-1 (590-11808-2), B-30 (590-11808-4), DMW-1 (590-11808-5), DMW-1-DUP (590-11808-6), FW-4 (590-11808-7), DMW-3 (590-11808-8) and FW-3 (590-11808-9).

Method NWTPH-Dx: Detected hydrocarbons in the diesel range appear to be due to individual peaks as well as weathered diesel in the following sample: FW-5R (590-11808-3).

Method NWTPH-Dx: The method blank for preparation batch 590-24151 and analytical batch 590-24161 contained Diesel Range Organics (DRO) (C10-C25) above the method detection limit. This target analyte concentration was less than half the reporting limit (1/2RL); therefore, re-extraction and re-analysis of samples was not performed.

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

Metals

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

General Chemistry

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

Organic Prep

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

VOA Prep

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

Sample Summary

Client: AECOM

Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11808-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
590-11808-1	RR-4	Water	09/09/19 10:25	09/10/19 12:31	
590-11808-2	RR-1	Water	09/09/19 10:54	09/10/19 12:31	
590-11808-3	FW-5R	Water	09/09/19 12:20	09/10/19 12:31	
590-11808-4	B-30	Water	09/09/19 13:07	09/10/19 12:31	
590-11808-5	DMW-1	Water	09/09/19 13:30	09/10/19 12:31	
590-11808-6	DMW-1-DUP	Water	09/09/19 13:35	09/10/19 12:31	
590-11808-7	FW-4	Water	09/09/19 14:45	09/10/19 12:31	
590-11808-8	DMW-3	Water	09/09/19 15:17	09/10/19 12:31	
590-11808-9	FW-3	Water	09/09/19 15:50	09/10/19 12:31	
590-11808-10	TRIP BLANK	Water	09/09/19 10:25	09/10/19 12:31	

Method Summary

Client: AECOM

Job ID: 590-11808-1

Project/Site: Tacoma D St Terminal-Phillips 66

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	ECL 2
8270D SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL SPK
NWTPH-Gx	Northwest - Volatile Petroleum Products (GC)	NWTPH	ECL 2
NWTPH-Dx	Northwest - Semi-Volatile Petroleum Products (GC)	NWTPH	TAL SPK
300.0	Anions, Ion Chromatography	MCAWW	TAL SPK
6020A	Metals (ICP/MS)	SW846	TAL SEA
310.1	Alkalinity	MCAWW	TAL SEA
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL SEA
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL SPK
3510C SGC	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL SPK
5030C	Purge and Trap	SW846	ECL 2

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

NWTPH = Northwest Total Petroleum Hydrocarbon

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

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

TAL SPK = Eurofins TestAmerica, Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Detection Summary

Client: AECOM

Job ID: 590-11808-1

Project/Site: Tacoma D St Terminal-Phillips 66

Client Sample ID: RR-4

Lab Sample ID: 590-11808-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics (DRO) (C10-C25)	0.17	J B	0.23	0.10	mg/L	1		NWTPH-Dx	Silica Gel Cleanup
Sulfate	2000		50	13	mg/L	100		300.0	Total/NA
Manganese	0.018		0.010	0.0023	mg/L	5		6020A	Dissolved
Alkalinity	76		5.0	5.0	mg/L	1		310.1	Total/NA

Client Sample ID: RR-1

Lab Sample ID: 590-11808-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
TPH as Gasoline (C4-C13)	76	J	100	48	ug/L	1		NWTPH-Gx	Total/NA
Diesel Range Organics (DRO) (C10-C25)	0.18	J B	0.27	0.12	mg/L	1		NWTPH-Dx	Silica Gel Cleanup
Sulfate	1800		50	13	mg/L	100		300.0	Total/NA
Manganese	0.0092	J	0.010	0.0023	mg/L	5		6020A	Dissolved
Alkalinity	110		5.0	5.0	mg/L	1		310.1	Total/NA

Client Sample ID: FW-5R

Lab Sample ID: 590-11808-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.45	J	1.0	0.14	ug/L	1		8260C	Total/NA
Ethylbenzene	0.29	J	1.0	0.14	ug/L	1		8260C	Total/NA
Toluene	0.35	J	1.0	0.13	ug/L	1		8260C	Total/NA
2-Methylnaphthalene	670		8.6	4.2	ug/L	100		8270D SIM	Total/NA
1-Methylnaphthalene	450		8.6	2.2	ug/L	100		8270D SIM	Total/NA
TPH as Gasoline (C4-C13)	640	Z	100	48	ug/L	1		NWTPH-Gx	Total/NA
Diesel Range Organics (DRO) (C10-C25)	4.3		0.23	0.11	mg/L	1		NWTPH-Dx	Total/NA
Residual Range Organics (RRO) (C25-C36)	0.24	J	0.38	0.11	mg/L	1		NWTPH-Dx	Total/NA
Diesel Range Organics (DRO) (C10-C25)	3.7	B	0.23	0.11	mg/L	1		NWTPH-Dx	Silica Gel Cleanup
Sulfate	0.29	J	0.50	0.13	mg/L	1		300.0	Total/NA
Manganese	0.23		0.010	0.0023	mg/L	5		6020A	Dissolved
Alkalinity	290		5.0	5.0	mg/L	1		310.1	Total/NA

Client Sample ID: B-30

Lab Sample ID: 590-11808-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics (DRO) (C10-C25)	0.18	J B	0.26	0.12	mg/L	1		NWTPH-Dx	Silica Gel Cleanup
Sulfate	3.3		0.50	0.13	mg/L	1		300.0	Total/NA
Manganese	0.0049	J	0.010	0.0023	mg/L	5		6020A	Dissolved
Alkalinity	110		5.0	5.0	mg/L	1		310.1	Total/NA

Client Sample ID: DMW-1

Lab Sample ID: 590-11808-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics (DRO) (C10-C25)	0.20	J B	0.22	0.10	mg/L	1		NWTPH-Dx	Silica Gel Cleanup
Sulfate	550		250	64	mg/L	500		300.0	Total/NA
Manganese	0.25		0.010	0.0023	mg/L	5		6020A	Dissolved
Alkalinity	490		5.0	5.0	mg/L	1		310.1	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Spokane

Detection Summary

Client: AECOM

Job ID: 590-11808-1

Project/Site: Tacoma D St Terminal-Phillips 66

Client Sample ID: DMW-1-DUP

Lab Sample ID: 590-11808-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics (DRO) (C10-C25)	0.18	J B	0.22	0.10	mg/L	1		NWTPH-Dx	Silica Gel Cleanup
Sulfate	560		250	64	mg/L	500		300.0	Total/NA
Manganese	0.25		0.010	0.0023	mg/L	5		6020A	Dissolved
Alkalinity	500		5.0	5.0	mg/L	1		310.1	Total/NA

Client Sample ID: FW-4

Lab Sample ID: 590-11808-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics (DRO) (C10-C25)	0.36	B	0.22	0.10	mg/L	1		NWTPH-Dx	Silica Gel Cleanup
Sulfate	1500		250	64	mg/L	500		300.0	Total/NA
Manganese	0.010		0.010	0.0023	mg/L	5		6020A	Dissolved
Alkalinity	190		5.0	5.0	mg/L	1		310.1	Total/NA

Client Sample ID: DMW-3

Lab Sample ID: 590-11808-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
o-Xylene	0.17	J	1.0	0.15	ug/L	1		8260C	Total/NA
TPH as Gasoline (C4-C13)	310	Z	100	48	ug/L	1		NWTPH-Gx	Total/NA
Diesel Range Organics (DRO) (C10-C25)	0.35	B	0.26	0.12	mg/L	1		NWTPH-Dx	Silica Gel Cleanup
Sulfate	20		0.50	0.13	mg/L	1		300.0	Total/NA
Manganese	1.3		0.010	0.0023	mg/L	5		6020A	Dissolved
Alkalinity	440		5.0	5.0	mg/L	1		310.1	Total/NA

Client Sample ID: FW-3

Lab Sample ID: 590-11808-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
TPH as Gasoline (C4-C13)	120		100	48	ug/L	1		NWTPH-Gx	Total/NA
Diesel Range Organics (DRO) (C10-C25)	0.27	B	0.22	0.10	mg/L	1		NWTPH-Dx	Silica Gel Cleanup
Nitrate as N	68	J	200	57	mg/L	1000		300.0	Total/NA
Sulfate	1700		500	130	mg/L	1000		300.0	Total/NA
Manganese	0.012		0.010	0.0023	mg/L	5		6020A	Dissolved
Alkalinity	190		5.0	5.0	mg/L	1		310.1	Total/NA

Client Sample ID: TRIP BLANK

Lab Sample ID: 590-11808-10

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Spokane

Client Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11808-1

Client Sample ID: RR-4

Lab Sample ID: 590-11808-1

Date Collected: 09/09/19 10:25

Matrix: Water

Date Received: 09/10/19 12:31

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	ND		1.0	0.14	ug/L			09/21/19 00:37	1
o-Xylene	ND		1.0	0.15	ug/L			09/21/19 00:37	1
m,p-Xylene	ND		2.0	0.31	ug/L			09/21/19 00:37	1
Toluene	ND		1.0	0.13	ug/L			09/21/19 00:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		80 - 129		09/21/19 00:37	1
4-Bromofluorobenzene (Surr)	95		77 - 120		09/21/19 00:37	1
Dibromofluoromethane (Surr)	100		80 - 128		09/21/19 00:37	1
Toluene-d8 (Surr)	100		80 - 120		09/21/19 00:37	1

Method: 8260C - Volatile Organic Compounds by GC/MS - RA

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.14	ug/L	-		09/21/19 19:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		80 - 129					09/21/19 19:59	1
4-Bromofluorobenzene (Surr)	97		77 - 120					09/21/19 19:59	1
Dibromofluoromethane (Surr)	99		80 - 128					09/21/19 19:59	1
Toluene-d8 (Surr)	100		80 - 120					09/21/19 19:59	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline (C4-C13)	ND		100	48	ug/L			09/19/19 20:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		38 - 134					09/19/19 20:13	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	0.17	J B	0.23	0.10	mg/L	—	09/16/19 14:20	09/17/19 16:47	1
Residual Range Organics (RRO) (C25-C36)	ND		0.38	0.11	mg/L		09/16/19 14:20	09/17/19 16:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	89		50 - 150				09/16/19 14:20	09/17/19 16:47	1
n-Triacontane-d62	74		50 - 150				09/16/19 14:20	09/17/19 16:47	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND	H	20	5.7	mg/L			09/11/19 12:21	100
Sulfate	2000		50	13	mg/L			09/11/19 12:21	100

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L		09/21/19 09:08	09/24/19 23:52	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L		09/20/19 14:13	09/26/19 14:53	5
Manganese	0.018		0.010	0.0023	mg/L		09/20/19 14:13	09/26/19 14:53	5

Eurofins TestAmerica, Spokane

Client Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11808-1

Client Sample ID: RR-4

Date Collected: 09/09/19 10:25

Date Received: 09/10/19 12:31

Lab Sample ID: 590-11808-1

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	76		5.0	5.0	mg/L			09/22/19 14:00	1

Client Sample ID: RR-1

Date Collected: 09/09/19 10:54

Date Received: 09/10/19 12:31

Lab Sample ID: 590-11808-2

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.14	ug/L			09/21/19 01:03	1
Ethylbenzene	ND		1.0	0.14	ug/L			09/21/19 01:03	1
o-Xylene	ND		1.0	0.15	ug/L			09/21/19 01:03	1
m,p-Xylene	ND		2.0	0.31	ug/L			09/21/19 01:03	1
Toluene	ND		1.0	0.13	ug/L			09/21/19 01:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		80 - 129					09/21/19 01:03	1
4-Bromofluorobenzene (Surr)	95		77 - 120					09/21/19 01:03	1
Dibromofluoromethane (Surr)	100		80 - 128					09/21/19 01:03	1
Toluene-d8 (Surr)	101		80 - 120					09/21/19 01:03	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline (C4-C13)	76	J	100	48	ug/L			09/20/19 19:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		38 - 134					09/20/19 19:53	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	0.18	J B	0.27	0.12	mg/L		09/16/19 14:20	09/17/19 17:06	1
Residual Range Organics (RRO) (C25-C36)	ND		0.45	0.13	mg/L		09/16/19 14:20	09/17/19 17:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	95		50 - 150				09/16/19 14:20	09/17/19 17:06	1
n-Triacontane-d62	79		50 - 150				09/16/19 14:20	09/17/19 17:06	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND	H	20	5.7	mg/L			09/11/19 11:00	100
Sulfate	1800		50	13	mg/L			09/11/19 11:00	100

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L		09/21/19 09:08	09/24/19 23:56	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L		09/20/19 14:13	09/26/19 15:41	5
Manganese	0.0092	J	0.010	0.0023	mg/L		09/20/19 14:13	09/26/19 15:41	5

Eurofins TestAmerica, Spokane

Client Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11808-1

Client Sample ID: RR-1

Date Collected: 09/09/19 10:54

Date Received: 09/10/19 12:31

Lab Sample ID: 590-11808-2

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	110		5.0	5.0	mg/L	-		09/21/19 12:44	1

Client Sample ID: FW-5R

Date Collected: 09/09/19 12:20

Date Received: 09/10/19 12:31

Lab Sample ID: 590-11808-3

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.45	J	1.0	0.14	ug/L	-		09/21/19 01:29	1
Ethylbenzene	0.29	J	1.0	0.14	ug/L	-		09/21/19 01:29	1
o-Xylene	ND		1.0	0.15	ug/L	-		09/21/19 01:29	1
m,p-Xylene	ND		2.0	0.31	ug/L	-		09/21/19 01:29	1
Toluene	0.35	J	1.0	0.13	ug/L	-		09/21/19 01:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		80 - 129					09/21/19 01:29	1
4-Bromofluorobenzene (Surr)	100		77 - 120					09/21/19 01:29	1
Dibromofluoromethane (Surr)	99		80 - 128					09/21/19 01:29	1
Toluene-d8 (Surr)	101		80 - 120					09/21/19 01:29	1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		8.6	5.0	ug/L	-	09/13/19 08:26	09/13/19 16:19	100
2-Methylnaphthalene	670		8.6	4.2	ug/L	-	09/13/19 08:26	09/13/19 16:19	100
1-Methylnaphthalene	450		8.6	2.2	ug/L	-	09/13/19 08:26	09/13/19 16:19	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	81		36 - 126				09/13/19 08:26	09/13/19 16:19	100

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline (C4-C13)	640	Z	100	48	ug/L	-		09/20/19 01:51	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	123		38 - 134					09/20/19 01:51	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	4.3		0.23	0.11	mg/L	-	09/16/19 14:20	09/16/19 17:39	1
Residual Range Organics (RRO) (C25-C36)	0.24	J	0.38	0.11	mg/L	-	09/16/19 14:20	09/16/19 17:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	101		50 - 150				09/16/19 14:20	09/16/19 17:39	1
n-Triacontane-d62	76		50 - 150				09/16/19 14:20	09/16/19 17:39	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	3.7	B	0.23	0.11	mg/L	-	09/16/19 14:20	09/17/19 17:26	1
Residual Range Organics (RRO) (C25-C36)	ND		0.38	0.11	mg/L	-	09/16/19 14:20	09/17/19 17:26	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11808-1

Client Sample ID: FW-5R

Date Collected: 09/09/19 12:20

Date Received: 09/10/19 12:31

Lab Sample ID: 590-11808-3

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	111		50 - 150	09/16/19 14:20	09/17/19 17:26	1
<i>n</i> -Triacontane-d62	85		50 - 150	09/16/19 14:20	09/17/19 17:26	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.20	0.057	mg/L			09/11/19 11:11	1
Sulfate	0.29	J	0.50	0.13	mg/L			09/11/19 11:11	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L		09/21/19 09:08	09/25/19 00:00	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L		09/20/19 14:13	09/26/19 15:45	5
Manganese	0.23		0.010	0.0023	mg/L		09/20/19 14:13	09/26/19 15:45	5

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	290		5.0	5.0	mg/L			09/21/19 12:44	1

Client Sample ID: B-30

Date Collected: 09/09/19 13:07

Date Received: 09/10/19 12:31

Lab Sample ID: 590-11808-4

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.14	ug/L			09/21/19 01:55	1
Ethylbenzene	ND		1.0	0.14	ug/L			09/21/19 01:55	1
<i>o</i> -Xylene	ND		1.0	0.15	ug/L			09/21/19 01:55	1
<i>m,p</i> -Xylene	ND		2.0	0.31	ug/L			09/21/19 01:55	1
Toluene	ND		1.0	0.13	ug/L			09/21/19 01:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		80 - 129		09/21/19 01:55	1
4-Bromofluorobenzene (Surr)	95		77 - 120		09/21/19 01:55	1
Dibromofluoromethane (Surr)	100		80 - 128		09/21/19 01:55	1
Toluene-d8 (Surr)	100		80 - 120		09/21/19 01:55	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline (C4-C13)	ND		100	48	ug/L			09/19/19 20:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		38 - 134		09/19/19 20:41	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	0.18	J B	0.26	0.12	mg/L		09/16/19 14:20	09/17/19 17:45	1
Residual Range Organics (RRO) (C25-C36)	ND		0.43	0.13	mg/L		09/16/19 14:20	09/17/19 17:45	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11808-1

Client Sample ID: B-30

Date Collected: 09/09/19 13:07

Date Received: 09/10/19 12:31

Lab Sample ID: 590-11808-4

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	90		50 - 150	09/16/19 14:20	09/17/19 17:45	1
<i>n</i> -Triacontane-d62	78		50 - 150	09/16/19 14:20	09/17/19 17:45	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.20	0.057	mg/L	-		09/11/19 11:23	1
Sulfate	3.3		0.50	0.13	mg/L	-		09/11/19 11:23	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L	-	09/21/19 09:08	09/25/19 00:05	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L	-	09/20/19 14:13	09/26/19 15:49	5
Manganese	0.0049	J	0.010	0.0023	mg/L	-	09/20/19 14:13	09/26/19 15:49	5

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	110		5.0	5.0	mg/L	-		09/21/19 12:44	1

Client Sample ID: DMW-1

Date Collected: 09/09/19 13:30

Date Received: 09/10/19 12:31

Lab Sample ID: 590-11808-5

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.14	ug/L	-		09/21/19 20:25	1
Ethylbenzene	ND		1.0	0.14	ug/L	-		09/21/19 20:25	1
<i>o</i> -Xylene	ND		1.0	0.15	ug/L	-		09/21/19 20:25	1
<i>m,p</i> -Xylene	ND		2.0	0.31	ug/L	-		09/21/19 20:25	1
Toluene	ND		1.0	0.13	ug/L	-		09/21/19 20:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		80 - 129		09/21/19 20:25	1
4-Bromofluorobenzene (Surr)	94		77 - 120		09/21/19 20:25	1
Dibromofluoromethane (Surr)	99		80 - 128		09/21/19 20:25	1
Toluene-d8 (Surr)	102		80 - 120		09/21/19 20:25	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline (C4-C13)	ND		100	48	ug/L	-		09/20/19 20:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		38 - 134		09/20/19 20:21	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	0.20	J B	0.22	0.10	mg/L	-	09/16/19 14:20	09/17/19 18:05	1
Residual Range Organics (RRO) (C25-C36)	ND		0.37	0.11	mg/L	-	09/16/19 14:20	09/17/19 18:05	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11808-1

Client Sample ID: DMW-1

Date Collected: 09/09/19 13:30

Date Received: 09/10/19 12:31

Lab Sample ID: 590-11808-5

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	92		50 - 150	09/16/19 14:20	09/17/19 18:05	1
<i>n</i> -Triacontane-d62	84		50 - 150	09/16/19 14:20	09/17/19 18:05	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		100	29	mg/L			09/11/19 11:35	500
Sulfate	550		250	64	mg/L			09/11/19 11:35	500

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L		09/21/19 09:08	09/25/19 00:09	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L		09/20/19 14:13	09/26/19 15:54	5
Manganese	0.25		0.010	0.0023	mg/L		09/20/19 14:13	09/26/19 15:54	5

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	490		5.0	5.0	mg/L			09/21/19 12:44	1

Client Sample ID: DMW-1-DUP

Date Collected: 09/09/19 13:35

Date Received: 09/10/19 12:31

Lab Sample ID: 590-11808-6

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.14	ug/L			09/21/19 20:51	1
Ethylbenzene	ND		1.0	0.14	ug/L			09/21/19 20:51	1
<i>o</i> -Xylene	ND		1.0	0.15	ug/L			09/21/19 20:51	1
<i>m,p</i> -Xylene	ND		2.0	0.31	ug/L			09/21/19 20:51	1
Toluene	ND		1.0	0.13	ug/L			09/21/19 20:51	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		80 - 129		09/21/19 20:51	1
4-Bromofluorobenzene (Surr)	96		77 - 120		09/21/19 20:51	1
Dibromofluoromethane (Surr)	98		80 - 128		09/21/19 20:51	1
Toluene-d8 (Surr)	101		80 - 120		09/21/19 20:51	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline (C4-C13)	ND		100	48	ug/L			09/20/19 20:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		38 - 134		09/20/19 20:50	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	0.18	J B	0.22	0.10	mg/L		09/16/19 14:20	09/17/19 18:24	1
Residual Range Organics (RRO) (C25-C36)	ND		0.37	0.11	mg/L		09/16/19 14:20	09/17/19 18:24	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11808-1

Client Sample ID: DMW-1-DUP

Lab Sample ID: 590-11808-6

Date Collected: 09/09/19 13:35

Matrix: Water

Date Received: 09/10/19 12:31

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	88		50 - 150	09/16/19 14:20	09/17/19 18:24	1
<i>n</i> -Triacontane-d62	74		50 - 150	09/16/19 14:20	09/17/19 18:24	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		100	29	mg/L			09/11/19 11:46	500
Sulfate	560		250	64	mg/L			09/11/19 11:46	500

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L		09/21/19 09:08	09/25/19 00:13	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L		09/20/19 14:13	09/26/19 15:58	5
Manganese	0.25		0.010	0.0023	mg/L		09/20/19 14:13	09/26/19 15:58	5

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	500		5.0	5.0	mg/L			09/21/19 12:44	1

Client Sample ID: FW-4

Lab Sample ID: 590-11808-7

Date Collected: 09/09/19 14:45

Matrix: Water

Date Received: 09/10/19 12:31

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.14	ug/L			09/21/19 21:17	1
Ethylbenzene	ND		1.0	0.14	ug/L			09/21/19 21:17	1
<i>o</i> -Xylene	ND		1.0	0.15	ug/L			09/21/19 21:17	1
<i>m,p</i> -Xylene	ND		2.0	0.31	ug/L			09/21/19 21:17	1
Toluene	ND		1.0	0.13	ug/L			09/21/19 21:17	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		80 - 129		09/21/19 21:17	1
4-Bromofluorobenzene (Surr)	94		77 - 120		09/21/19 21:17	1
Dibromofluoromethane (Surr)	99		80 - 128		09/21/19 21:17	1
Toluene-d8 (Surr)	101		80 - 120		09/21/19 21:17	1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.087	0.051	ug/L		09/13/19 08:26	09/13/19 14:38	1
2-Methylnaphthalene	ND		0.087	0.043	ug/L		09/13/19 08:26	09/13/19 14:38	1
1-Methylnaphthalene	ND		0.087	0.022	ug/L		09/13/19 08:26	09/13/19 14:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	94		36 - 126	09/13/19 08:26	09/13/19 14:38	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline (C4-C13)	ND		100	48	ug/L			09/21/19 00:36	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11808-1

Client Sample ID: FW-4

Date Collected: 09/09/19 14:45

Date Received: 09/10/19 12:31

Lab Sample ID: 590-11808-7

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		38 - 134		09/21/19 00:36	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	0.36	B	0.22	0.10	mg/L		09/16/19 14:20	09/17/19 18:44	1
Residual Range Organics (RRO) (C25-C36)	ND		0.37	0.11	mg/L		09/16/19 14:20	09/17/19 18:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	92		50 - 150				09/16/19 14:20	09/17/19 18:44	1
n-Triacontane-d62	75		50 - 150				09/16/19 14:20	09/17/19 18:44	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		100	29	mg/L			09/11/19 11:58	500
Sulfate	1500		250	64	mg/L			09/11/19 11:58	500

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L		09/21/19 09:08	09/25/19 00:18	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L		09/20/19 14:13	09/26/19 16:03	5
Manganese	0.010		0.010	0.0023	mg/L		09/20/19 14:13	09/26/19 16:03	5

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	190		5.0	5.0	mg/L			09/21/19 12:44	1

Client Sample ID: DMW-3

Date Collected: 09/09/19 15:17

Date Received: 09/10/19 12:31

Lab Sample ID: 590-11808-8

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.14	ug/L			09/21/19 21:43	1
Ethylbenzene	ND		1.0	0.14	ug/L			09/21/19 21:43	1
o-Xylene	0.17	J	1.0	0.15	ug/L			09/21/19 21:43	1
m,p-Xylene	ND		2.0	0.31	ug/L			09/21/19 21:43	1
Toluene	ND		1.0	0.13	ug/L			09/21/19 21:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		80 - 129					09/21/19 21:43	1
4-Bromofluorobenzene (Surr)	97		77 - 120					09/21/19 21:43	1
Dibromofluoromethane (Surr)	99		80 - 128					09/21/19 21:43	1
Toluene-d8 (Surr)	101		80 - 120					09/21/19 21:43	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline (C4-C13)	310	Z	100	48	ug/L			09/19/19 18:38	1

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Client Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11808-1

Client Sample ID: DMW-3

Date Collected: 09/09/19 15:17

Date Received: 09/10/19 12:31

Lab Sample ID: 590-11808-8

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	122		38 - 134					09/19/19 18:38	1
Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - Silica Gel Cleanup									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	0.35	B	0.26	0.12	mg/L		09/16/19 14:20	09/17/19 19:23	1
Residual Range Organics (RRO) (C25-C36)	ND		0.44	0.13	mg/L		09/16/19 14:20	09/17/19 19:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	88		50 - 150				09/16/19 14:20	09/17/19 19:23	1
n-Triacontane-d62	76		50 - 150				09/16/19 14:20	09/17/19 19:23	1
Method: 300.0 - Anions, Ion Chromatography									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND	F1	0.20	0.057	mg/L			09/11/19 12:56	1
Sulfate	20		0.50	0.13	mg/L			09/11/19 12:56	1
Method: 6020A - Metals (ICP/MS) - Total Recoverable									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L		09/21/19 09:08	09/24/19 23:03	5
Method: 6020A - Metals (ICP/MS) - Dissolved									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L		09/30/19 14:33	10/01/19 09:27	5
Manganese	1.3		0.010	0.0023	mg/L		09/30/19 14:33	10/01/19 09:27	5
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	440		5.0	5.0	mg/L			09/21/19 12:44	1

Client Sample ID: FW-3

Date Collected: 09/09/19 15:50

Date Received: 09/10/19 12:31

Lab Sample ID: 590-11808-9

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.14	ug/L	-		09/21/19 22:09	1
Ethylbenzene	ND		1.0	0.14	ug/L			09/21/19 22:09	1
o-Xylene	ND		1.0	0.15	ug/L			09/21/19 22:09	1
m,p-Xylene	ND		2.0	0.31	ug/L			09/21/19 22:09	1
Toluene	ND		1.0	0.13	ug/L			09/21/19 22:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		80 - 129					09/21/19 22:09	1
4-Bromofluorobenzene (Surr)	90		77 - 120					09/21/19 22:09	1
Dibromofluoromethane (Surr)	98		80 - 128					09/21/19 22:09	1
Toluene-d8 (Surr)	102		80 - 120					09/21/19 22:09	1
Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline (C4-C13)	120		100	48	ug/L	-		09/20/19 21:18	1

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Client Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11808-1

Client Sample ID: FW-3

Date Collected: 09/09/19 15:50

Date Received: 09/10/19 12:31

Lab Sample ID: 590-11808-9

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		38 - 134					09/20/19 21:18	1
Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - Silica Gel Cleanup									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	0.27	B	0.22	0.10	mg/L		09/16/19 14:20	09/17/19 20:21	1
Residual Range Organics (RRO) (C25-C36)	ND		0.36	0.11	mg/L		09/16/19 14:20	09/17/19 20:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	97		50 - 150				09/16/19 14:20	09/17/19 20:21	1
n-Triacontane-d62	82		50 - 150				09/16/19 14:20	09/17/19 20:21	1
Method: 300.0 - Anions, Ion Chromatography									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	68	J	200	57	mg/L			09/11/19 12:10	1000
Sulfate	1700		500	130	mg/L			09/11/19 12:10	1000
Method: 6020A - Metals (ICP/MS) - Total Recoverable									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L		09/21/19 09:08	09/25/19 00:22	5
Method: 6020A - Metals (ICP/MS) - Dissolved									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L		09/20/19 14:13	09/26/19 16:11	5
Manganese	0.012		0.010	0.0023	mg/L		09/20/19 14:13	09/26/19 16:11	5
General Chemistry									
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	190		5.0	5.0	mg/L			09/21/19 12:44	1

Client Sample ID: TRIP BLANK

Date Collected: 09/09/19 10:25

Date Received: 09/10/19 12:31

Lab Sample ID: 590-11808-10

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.14	ug/L			09/19/19 21:38	1
Ethylbenzene	ND		1.0	0.14	ug/L			09/19/19 21:38	1
o-Xylene	ND		1.0	0.15	ug/L			09/19/19 21:38	1
m,p-Xylene	ND		2.0	0.31	ug/L			09/19/19 21:38	1
Toluene	ND		1.0	0.13	ug/L			09/19/19 21:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		80 - 129					09/19/19 21:38	1
4-Bromofluorobenzene (Surr)	97		77 - 120					09/19/19 21:38	1
Dibromofluoromethane (Surr)	98		80 - 128					09/19/19 21:38	1
Toluene-d8 (Surr)	102		80 - 120					09/19/19 21:38	1

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QC Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11808-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 570-20379/9

Matrix: Water

Analysis Batch: 20379

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.14	ug/L			09/19/19 19:30	1
Ethylbenzene	ND		1.0	0.14	ug/L			09/19/19 19:30	1
o-Xylene	ND		1.0	0.15	ug/L			09/19/19 19:30	1
m,p-Xylene	ND		2.0	0.31	ug/L			09/19/19 19:30	1
Toluene	ND		1.0	0.13	ug/L			09/19/19 19:30	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		80 - 129		09/19/19 19:30	1
4-Bromofluorobenzene (Surr)	95		77 - 120		09/19/19 19:30	1
Dibromofluoromethane (Surr)	101		80 - 128		09/19/19 19:30	1
Toluene-d8 (Surr)	101		80 - 120		09/19/19 19:30	1

Lab Sample ID: LCS 570-20379/4

Matrix: Water

Analysis Batch: 20379

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	49.0		ug/L		98	78 - 120
Ethylbenzene	50.0	50.1		ug/L		100	80 - 120
o-Xylene	50.0	49.3		ug/L		99	80 - 125
m,p-Xylene	100	96.9		ug/L		97	80 - 125
Toluene	50.0	50.1		ug/L		100	80 - 122

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		80 - 129
4-Bromofluorobenzene (Surr)	100		77 - 120
Dibromofluoromethane (Surr)	103		80 - 128
Toluene-d8 (Surr)	102		80 - 120

Lab Sample ID: LCSD 570-20379/5

Matrix: Water

Analysis Batch: 20379

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	50.0	46.8		ug/L		94	78 - 120	5	21
Ethylbenzene	50.0	48.0		ug/L		96	80 - 120	4	20
o-Xylene	50.0	47.5		ug/L		95	80 - 125	4	20
m,p-Xylene	100	92.2		ug/L		92	80 - 125	5	30
Toluene	50.0	48.1		ug/L		96	80 - 122	4	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	98		80 - 129
4-Bromofluorobenzene (Surr)	98		77 - 120
Dibromofluoromethane (Surr)	101		80 - 128
Toluene-d8 (Surr)	102		80 - 120

Eurofins TestAmerica, Spokane

QC Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11808-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 570-20520/9

Matrix: Water

Analysis Batch: 20520

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.14	ug/L			09/20/19 17:42	1
Ethylbenzene	ND		1.0	0.14	ug/L			09/20/19 17:42	1
o-Xylene	ND		1.0	0.15	ug/L			09/20/19 17:42	1
m,p-Xylene	ND		2.0	0.31	ug/L			09/20/19 17:42	1
Toluene	ND		1.0	0.13	ug/L			09/20/19 17:42	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		80 - 129		09/20/19 17:42	1
4-Bromofluorobenzene (Surr)	96		77 - 120		09/20/19 17:42	1
Dibromofluoromethane (Surr)	100		80 - 128		09/20/19 17:42	1
Toluene-d8 (Surr)	101		80 - 120		09/20/19 17:42	1

Lab Sample ID: LCS 570-20520/4

Matrix: Water

Analysis Batch: 20520

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	48.3		ug/L		97	78 - 120
Ethylbenzene	50.0	50.4		ug/L		101	80 - 120
o-Xylene	50.0	49.5		ug/L		99	80 - 125
m,p-Xylene	100	97.0		ug/L		97	80 - 125
Toluene	50.0	49.9		ug/L		100	80 - 122

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		80 - 129
4-Bromofluorobenzene (Surr)	98		77 - 120
Dibromofluoromethane (Surr)	102		80 - 128
Toluene-d8 (Surr)	101		80 - 120

Lab Sample ID: LCSD 570-20520/5

Matrix: Water

Analysis Batch: 20520

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	50.0	46.0		ug/L		92	78 - 120	5	21
Ethylbenzene	50.0	47.3		ug/L		95	80 - 120	6	20
o-Xylene	50.0	46.6		ug/L		93	80 - 125	6	20
m,p-Xylene	100	90.4		ug/L		90	80 - 125	7	30
Toluene	50.0	47.5		ug/L		95	80 - 122	5	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	98		80 - 129
4-Bromofluorobenzene (Surr)	101		77 - 120
Dibromofluoromethane (Surr)	101		80 - 128
Toluene-d8 (Surr)	103		80 - 120

Eurofins TestAmerica, Spokane

QC Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11808-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 570-20902/9

Matrix: Water

Analysis Batch: 20902

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.14	ug/L			09/21/19 18:15	1
Ethylbenzene	ND		1.0	0.14	ug/L			09/21/19 18:15	1
o-Xylene	ND		1.0	0.15	ug/L			09/21/19 18:15	1
m,p-Xylene	ND		2.0	0.31	ug/L			09/21/19 18:15	1
Toluene	ND		1.0	0.13	ug/L			09/21/19 18:15	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		80 - 129		09/21/19 18:15	1
4-Bromofluorobenzene (Surr)	95		77 - 120		09/21/19 18:15	1
Dibromofluoromethane (Surr)	96		80 - 128		09/21/19 18:15	1
Toluene-d8 (Surr)	101		80 - 120		09/21/19 18:15	1

Lab Sample ID: LCS 570-20902/4

Matrix: Water

Analysis Batch: 20902

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	49.3		ug/L		99	78 - 120
Ethylbenzene	50.0	49.8		ug/L		100	80 - 120
o-Xylene	50.0	49.4		ug/L		99	80 - 125
m,p-Xylene	100	96.3		ug/L		96	80 - 125
Toluene	50.0	50.2		ug/L		100	80 - 122

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	96		80 - 129
4-Bromofluorobenzene (Surr)	99		77 - 120
Dibromofluoromethane (Surr)	100		80 - 128
Toluene-d8 (Surr)	102		80 - 120

Lab Sample ID: LCSD 570-20902/5

Matrix: Water

Analysis Batch: 20902

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	50.0	46.7		ug/L		93	78 - 120	5	21
Ethylbenzene	50.0	46.7		ug/L		93	80 - 120	7	20
o-Xylene	50.0	45.9		ug/L		92	80 - 125	7	20
m,p-Xylene	100	89.5		ug/L		89	80 - 125	7	30
Toluene	50.0	47.4		ug/L		95	80 - 122	6	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	95		80 - 129
4-Bromofluorobenzene (Surr)	99		77 - 120
Dibromofluoromethane (Surr)	99		80 - 128
Toluene-d8 (Surr)	102		80 - 120

Eurofins TestAmerica, Spokane

QC Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11808-1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 590-24110/1-A

Matrix: Water

Analysis Batch: 24122

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 24110

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.090	0.053	ug/L		09/13/19 08:26	09/13/19 13:05	1
2-Methylnaphthalene	ND		0.090	0.044	ug/L		09/13/19 08:26	09/13/19 13:05	1
1-Methylnaphthalene	ND		0.090	0.023	ug/L		09/13/19 08:26	09/13/19 13:05	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	82		36 - 126				09/13/19 08:26	09/13/19 13:05	1

Lab Sample ID: LCS 590-24110/2-A

Matrix: Water

Analysis Batch: 24122

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 24110

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	1.60	0.835		ug/L		52	52 - 120
2-Methylnaphthalene	1.60	0.794		ug/L		50	44 - 120
1-Methylnaphthalene	1.60	0.813		ug/L		51	49 - 120
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
Nitrobenzene-d5	64		36 - 126				

Lab Sample ID: LCSD 590-24110/3-A

Matrix: Water

Analysis Batch: 24122

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 24110

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Naphthalene	1.60	0.932		ug/L		58	52 - 120	11	30
2-Methylnaphthalene	1.60	0.933		ug/L		58	44 - 120	16	35
1-Methylnaphthalene	1.60	0.950		ug/L		59	49 - 120	16	35
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
Nitrobenzene-d5	76		36 - 126						

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Lab Sample ID: MB 570-20377/6

Matrix: Water

Analysis Batch: 20377

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline (C4-C13)	ND		100	48	ug/L			09/19/19 17:50	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		38 - 134					09/19/19 17:50	1

Eurofins TestAmerica, Spokane

QC Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11808-1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC) (Continued)

Lab Sample ID: LCS 570-20377/3

Matrix: Water

Analysis Batch: 20377

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte		Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
TPH as Gasoline (C4-C13)		2000	2390		ug/L		120	78 - 120		
Surrogate	%Recovery	LCS Qualifier	LCS Limits							
4-Bromofluorobenzene (Surr)	108		38 - 134							

Lab Sample ID: LCSD 570-20377/4

Matrix: Water

Analysis Batch: 20377

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte		Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
TPH as Gasoline (C4-C13)		2000	2370		ug/L		119	78 - 120	1	10
Surrogate	%Recovery	LCSD Qualifier	LCSD Limits							
4-Bromofluorobenzene (Surr)	111		38 - 134							

Lab Sample ID: 590-11808-8 MS

Matrix: Water

Analysis Batch: 20377

Client Sample ID: DMW-3

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
TPH as Gasoline (C4-C13)	310	Z	2000	2530		ug/L		111	68 - 122		
Surrogate	%Recovery	MS Qualifier	MS Limits								
4-Bromofluorobenzene (Surr)	128		38 - 134								

Lab Sample ID: 590-11808-8 MSD

Matrix: Water

Analysis Batch: 20377

Client Sample ID: DMW-3

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
TPH as Gasoline (C4-C13)	310	Z	2000	2530		ug/L		111	68 - 122	0	18
Surrogate	%Recovery	MSD Qualifier	MSD Limits								
4-Bromofluorobenzene (Surr)	98		38 - 134								

Lab Sample ID: MB 570-20674/6

Matrix: Water

Analysis Batch: 20674

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline (C4-C13)	ND		100	48	ug/L			09/20/19 17:10	1
Surrogate	%Recovery	MB Qualifier	MB Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		38 - 134					09/20/19 17:10	1

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QC Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11808-1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC) (Continued)

Lab Sample ID: LCS 570-20674/3

Matrix: Water

Analysis Batch: 20674

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
TPH as Gasoline (C4-C13)	2000	2360		ug/L		118	78 - 120
Surrogate	%Recovery	LCS Qualifier	Limits				
4-Bromofluorobenzene (Surr)	118		38 - 134				

Lab Sample ID: LCSD 570-20674/4

Matrix: Water

Analysis Batch: 20674

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
TPH as Gasoline (C4-C13)	2000	2280		ug/L		114	78 - 120	3	10
Surrogate	%Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene (Surr)	109		38 - 134						

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Lab Sample ID: MB 590-24151/1-A

Matrix: Water

Analysis Batch: 24135

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 24151

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	ND		0.24	0.11	mg/L		09/16/19 14:20	09/16/19 16:02	1
Residual Range Organics (RRO) (C25-C36)	ND		0.40	0.12	mg/L		09/16/19 14:20	09/16/19 16:02	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	95		50 - 150				09/16/19 14:20	09/16/19 16:02	1
n-Triacontane-d62	66		50 - 150				09/16/19 14:20	09/16/19 16:02	1

Lab Sample ID: MB 590-24151/1-A

Matrix: Water

Analysis Batch: 24161

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 24151

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	0.125	J	0.24	0.11	mg/L		09/16/19 14:20	09/17/19 15:46	1
Residual Range Organics (RRO) (C25-C36)	ND		0.40	0.12	mg/L		09/16/19 14:20	09/17/19 15:46	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	106		50 - 150				09/16/19 14:20	09/17/19 15:46	1
n-Triacontane-d62	92		50 - 150				09/16/19 14:20	09/17/19 15:46	1

Eurofins TestAmerica, Spokane

QC Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11808-1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) (Continued)

Lab Sample ID: LCS 590-24151/2-A

Matrix: Water

Analysis Batch: 24135

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 24151

			Spike	LCS	LCS				
Analyte			Added	Result	Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics (DRO)			1.60	1.56		mg/L		97	50 - 150
(C10-C25)									
Residual Range Organics (RRO)			1.60	1.56		mg/L		98	50 - 150
(C25-C36)									
Surrogate	LCS	LCS							
	%Recovery	Qualifier	Limits						
o-Terphenyl	92		50 - 150						
n-Triacontane-d62	81		50 - 150						

Lab Sample ID: LCS 590-24151/2-A

Matrix: Water

Analysis Batch: 24161

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 24151

Analysis Data: 2-15-1				Trip Data: 2-15-1							
Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Diesel Range Organics (DRO) (C10-C25)			1.60	1.72		mg/L		108	50 - 150		
Residual Range Organics (RRO) (C25-C36)			1.60	1.80		mg/L		112	50 - 150		
Surrogate	LCS %Recovery	LCS Qualifier	Limits								
o-Terphenyl	97		50 - 150								
n-Triacontane-d62	94		50 - 150								

Lab Sample ID: LCSD 590-24151/3-A

Matrix: Water

Analysis Batch: 24135

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 24151

Rep Data: 2/1/03											
Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics (DRO) (C10-C25)			1.60	1.60		mg/L	-	100	50 - 150	3	25
Residual Range Organics (RRO) (C25-C36)			1.60	1.70		mg/L		107	50 - 150	9	25
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits								
o-Terphenyl	100		50 - 150								
n-Triacontane-d62	92		50 - 150								

Lab Sample ID: LCSD 590-24151/3-A

Matrix: Water

Analysis Batch: 24161

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 24151

Top Data: 2/1/01											
Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics (DRO) (C10-C25)			1.60	1.59		mg/L		99	50 - 150	8	25
Residual Range Organics (RRO) (C25-C36)			1.60	1.73		mg/L		108	50 - 150	4	25
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits								
o-Terphenyl	97		50 - 150								

Eurofins TestAmerica, Spokane

QC Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11808-1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) (Continued)

Lab Sample ID: LCSD 590-24151/3-A

Matrix: Water

Analysis Batch: 24161

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 24151

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
n-Triacontane-d62	100		50 - 150

Lab Sample ID: 590-11808-8 MS

Matrix: Water

Analysis Batch: 24161

Client Sample ID: DMW-3

Prep Type: Silica Gel Cleanup

Prep Batch: 24151

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics (DRO) (C10-C25)	0.35	B	1.60	2.08		mg/L		108	54.5 - 136
Residual Range Organics (RRO) (C25-C36)	ND		1.60	1.83		mg/L		114	50 - 150
Surrogate	MS %Recovery	MS Qualifier	Limits						
o-Terphenyl	105		50 - 150						
n-Triacontane-d62	96		50 - 150						

Lab Sample ID: 590-11808-8 MSD

Matrix: Water

Analysis Batch: 24161

Client Sample ID: DMW-3

Prep Type: Silica Gel Cleanup

Prep Batch: 24151

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics (DRO) (C10-C25)	0.35	B	1.76	1.94		mg/L		90	54.5 - 136	7	32.5
Residual Range Organics (RRO) (C25-C36)	ND		1.76	1.79		mg/L		102	50 - 150	2	25
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
o-Terphenyl	95		50 - 150								
n-Triacontane-d62	93		50 - 150								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 590-24052/1013

Matrix: Water

Analysis Batch: 24052

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.20	0.057	mg/L			09/11/19 12:45	1

Lab Sample ID: LCS 590-24052/1012

Matrix: Water

Analysis Batch: 24052

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	5.00	4.76		mg/L		95	90 - 110

Eurofins TestAmerica, Spokane

QC Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11808-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 590-11808-8 MS

Matrix: Water

Analysis Batch: 24052

Client Sample ID: DMW-3

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	ND	F1	4.55	0.425	F1	mg/L		9	80 - 120

Lab Sample ID: 590-11808-8 MSD

Matrix: Water

Analysis Batch: 24052

Client Sample ID: DMW-3

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	ND	F1	4.55	0.417	F1	mg/L		9	80 - 120	2	12.1

Lab Sample ID: 590-11808-8 DU

Matrix: Water

Analysis Batch: 24052

Client Sample ID: DMW-3

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Nitrate as N	ND	F1	ND		mg/L		NC	13.1

Lab Sample ID: MB 590-24053/1013

Matrix: Water

Analysis Batch: 24053

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		0.50	0.13	mg/L			09/11/19 12:45	1

Lab Sample ID: LCS 590-24053/1012

Matrix: Water

Analysis Batch: 24053

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	12.5	12.4		mg/L		99	90 - 110

Lab Sample ID: 590-11808-8 MS

Matrix: Water

Analysis Batch: 24053

Client Sample ID: DMW-3

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	20		11.4	30.6		mg/L		90	80 - 120

Lab Sample ID: 590-11808-8 MSD

Matrix: Water

Analysis Batch: 24053

Client Sample ID: DMW-3

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	20		11.4	30.5		mg/L		89	80 - 120	0	10

Lab Sample ID: 590-11808-8 DU

Matrix: Water

Analysis Batch: 24053

Client Sample ID: DMW-3

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sulfate	20		20.4		mg/L		0.3	15.7

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QC Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11808-1

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 580-311886/22-A
Matrix: Water
Analysis Batch: 312516

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 311886

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L		09/20/19 14:13	09/26/19 14:49	5
Manganese	ND		0.010	0.0023	mg/L		09/20/19 14:13	09/26/19 14:49	5

Lab Sample ID: LCS 580-311886/23-A
Matrix: Water
Analysis Batch: 312516

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 311886

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	1.00	0.875		mg/L		87	80 - 120
Manganese	1.00	0.926		mg/L		93	80 - 120

Lab Sample ID: LCSD 580-311886/24-A
Matrix: Water
Analysis Batch: 312516

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 311886

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	1.00	0.915		mg/L		92	80 - 120	5	20
Manganese	1.00	0.942		mg/L		94	80 - 120	2	20

Lab Sample ID: MB 580-311915/24-A
Matrix: Water
Analysis Batch: 312349

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 311915

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L		09/21/19 09:08	09/24/19 22:55	5

Lab Sample ID: LCS 580-311915/25-A
Matrix: Water
Analysis Batch: 312349

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 311915

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	1.00	0.965		mg/L		97	80 - 120

Lab Sample ID: LCSD 580-311915/26-A
Matrix: Water
Analysis Batch: 312349

Client Sample ID: Lab Control Sample Dup
Prep Type: Total Recoverable
Prep Batch: 311915

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	1.00	0.955		mg/L		96	80 - 120	1	20

Lab Sample ID: 590-11808-8 DU
Matrix: Water
Analysis Batch: 312349

Client Sample ID: DMW-3
Prep Type: Total Recoverable
Prep Batch: 311915

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lead	ND		ND		mg/L		NC	20

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QC Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11808-1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 590-11808-8 MS

Matrix: Water

Analysis Batch: 312349

Client Sample ID: DMW-3

Prep Type: Total Recoverable

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	ND		1.00	1.09		mg/L		109	80 - 120

Lab Sample ID: 590-11808-8 MSD

Matrix: Water

Analysis Batch: 312349

Client Sample ID: DMW-3

Prep Type: Total Recoverable

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	ND		1.00	1.10		mg/L		110	80 - 120	1	20

Lab Sample ID: MB 580-312783/20-A

Matrix: Water

Analysis Batch: 312902

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 312783

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L		09/30/19 14:33	10/01/19 09:22	5

Lab Sample ID: LCS 580-312783/21-A

Matrix: Water

Analysis Batch: 312902

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 312783

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	1.00	0.897		mg/L		90	80 - 120
Manganese	1.00	0.888		mg/L		89	80 - 120

Lab Sample ID: LCSD 580-312783/22-A

Matrix: Water

Analysis Batch: 312902

Client Sample ID: Lab Control Sample Dup

Prep Type: Total Recoverable

Prep Batch: 312783

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	1.00	0.893		mg/L		89	80 - 120	0	20
Manganese	1.00	0.897		mg/L		90	80 - 120	1	20

Lab Sample ID: 590-11808-1 DU

Matrix: Water

Analysis Batch: 312516

Client Sample ID: RR-4

Prep Type: Dissolved

Prep Batch: 311886

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lead	ND		ND		mg/L		NC	20
Manganese	0.018		0.0148		mg/L		20	20

Lab Sample ID: 590-11808-1 MS

Matrix: Water

Analysis Batch: 312516

Client Sample ID: RR-4

Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	ND		1.00	0.995		mg/L		99	80 - 120
Manganese	0.018		1.00	1.01		mg/L		99	80 - 120

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QC Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11808-1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 590-11808-1 MSD

Matrix: Water

Analysis Batch: 312516

Client Sample ID: RR-4

Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	ND		1.00	0.979		mg/L		98	80 - 120	2	20
Manganese	0.018		1.00	1.02		mg/L		100	80 - 120	1	20

Lab Sample ID: 590-11808-8 MS

Matrix: Water

Analysis Batch: 312902

Client Sample ID: DMW-3

Prep Type: Dissolved

Prep Batch: 312783

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	ND		1.00	0.925		mg/L		93	80 - 120		
Manganese	1.3		1.00	2.26		mg/L		100	80 - 120		

Lab Sample ID: 590-11808-8 MSD

Matrix: Water

Analysis Batch: 312902

Client Sample ID: DMW-3

Prep Type: Dissolved

Prep Batch: 312783

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	ND		1.00	0.924		mg/L		92	80 - 120	0	20
Manganese	1.3		1.00	2.22		mg/L		97	80 - 120	1	20

Lab Sample ID: 590-11808-8 DU

Matrix: Water

Analysis Batch: 312902

Client Sample ID: DMW-3

Prep Type: Dissolved

Prep Batch: 312783

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lead	ND		ND		mg/L		NC	20
Manganese	1.3		1.24		mg/L		2	20

Method: 310.1 - Alkalinity

Lab Sample ID: LCS 580-311956/2

Matrix: Water

Analysis Batch: 311956

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Alkalinity	100	99.6		mg/L		100	85 - 115		

Lab Sample ID: 590-11808-8 DU

Matrix: Water

Analysis Batch: 311956

Client Sample ID: DMW-3

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Alkalinity	440		435		mg/L		0.3	17

Lab Sample ID: LCS 580-311958/2

Matrix: Water

Analysis Batch: 311958

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Alkalinity	100	101		mg/L		101	85 - 115		

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QC Association Summary

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11808-1

GC/MS VOA

Analysis Batch: 20379

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11808-10	TRIP BLANK	Total/NA	Water	8260C	
MB 570-20379/9	Method Blank	Total/NA	Water	8260C	
LCS 570-20379/4	Lab Control Sample	Total/NA	Water	8260C	
LCSD 570-20379/5	Lab Control Sample Dup	Total/NA	Water	8260C	

Analysis Batch: 20520

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11808-1	RR-4	Total/NA	Water	8260C	
590-11808-2	RR-1	Total/NA	Water	8260C	
590-11808-3	FW-5R	Total/NA	Water	8260C	
590-11808-4	B-30	Total/NA	Water	8260C	
MB 570-20520/9	Method Blank	Total/NA	Water	8260C	
LCS 570-20520/4	Lab Control Sample	Total/NA	Water	8260C	
LCSD 570-20520/5	Lab Control Sample Dup	Total/NA	Water	8260C	

Analysis Batch: 20902

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11808-1 - RA	RR-4	Total/NA	Water	8260C	
590-11808-5	DMW-1	Total/NA	Water	8260C	
590-11808-6	DMW-1-DUP	Total/NA	Water	8260C	
590-11808-7	FW-4	Total/NA	Water	8260C	
590-11808-8	DMW-3	Total/NA	Water	8260C	
590-11808-9	FW-3	Total/NA	Water	8260C	
MB 570-20902/9	Method Blank	Total/NA	Water	8260C	
LCS 570-20902/4	Lab Control Sample	Total/NA	Water	8260C	
LCSD 570-20902/5	Lab Control Sample Dup	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 24110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11808-3	FW-5R	Total/NA	Water	3510C	
590-11808-7	FW-4	Total/NA	Water	3510C	
MB 590-24110/1-A	Method Blank	Total/NA	Water	3510C	
LCS 590-24110/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 590-24110/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 24122

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11808-3	FW-5R	Total/NA	Water	8270D SIM	24110
590-11808-7	FW-4	Total/NA	Water	8270D SIM	24110
MB 590-24110/1-A	Method Blank	Total/NA	Water	8270D SIM	24110
LCS 590-24110/2-A	Lab Control Sample	Total/NA	Water	8270D SIM	24110
LCSD 590-24110/3-A	Lab Control Sample Dup	Total/NA	Water	8270D SIM	24110

GC VOA

Analysis Batch: 20377

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11808-1	RR-4	Total/NA	Water	NWTPH-Gx	
590-11808-3	FW-5R	Total/NA	Water	NWTPH-Gx	
590-11808-4	B-30	Total/NA	Water	NWTPH-Gx	

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QC Association Summary

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11808-1

GC VOA (Continued)

Analysis Batch: 20377 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11808-8	DMW-3	Total/NA	Water	NWTPH-Gx	
MB 570-20377/6	Method Blank	Total/NA	Water	NWTPH-Gx	
LCS 570-20377/3	Lab Control Sample	Total/NA	Water	NWTPH-Gx	
LCSD 570-20377/4	Lab Control Sample Dup	Total/NA	Water	NWTPH-Gx	
590-11808-8 MS	DMW-3	Total/NA	Water	NWTPH-Gx	
590-11808-8 MSD	DMW-3	Total/NA	Water	NWTPH-Gx	

Analysis Batch: 20674

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11808-2	RR-1	Total/NA	Water	NWTPH-Gx	
590-11808-5	DMW-1	Total/NA	Water	NWTPH-Gx	
590-11808-6	DMW-1-DUP	Total/NA	Water	NWTPH-Gx	
590-11808-7	FW-4	Total/NA	Water	NWTPH-Gx	
590-11808-9	FW-3	Total/NA	Water	NWTPH-Gx	
MB 570-20674/6	Method Blank	Total/NA	Water	NWTPH-Gx	
LCS 570-20674/3	Lab Control Sample	Total/NA	Water	NWTPH-Gx	
LCSD 570-20674/4	Lab Control Sample Dup	Total/NA	Water	NWTPH-Gx	

GC Semi VOA

Analysis Batch: 24135

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11808-3	FW-5R	Total/NA	Water	NWTPH-Dx	24151
MB 590-24151/1-A	Method Blank	Total/NA	Water	NWTPH-Dx	24151
LCS 590-24151/2-A	Lab Control Sample	Total/NA	Water	NWTPH-Dx	24151
LCSD 590-24151/3-A	Lab Control Sample Dup	Total/NA	Water	NWTPH-Dx	24151

Prep Batch: 24151

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11808-1	RR-4	Silica Gel Cleanup	Water	3510C SGC	
590-11808-2	RR-1	Silica Gel Cleanup	Water	3510C SGC	
590-11808-3	FW-5R	Silica Gel Cleanup	Water	3510C SGC	
590-11808-3	FW-5R	Total/NA	Water	3510C SGC	
590-11808-4	B-30	Silica Gel Cleanup	Water	3510C SGC	
590-11808-5	DMW-1	Silica Gel Cleanup	Water	3510C SGC	
590-11808-6	DMW-1-DUP	Silica Gel Cleanup	Water	3510C SGC	
590-11808-7	FW-4	Silica Gel Cleanup	Water	3510C SGC	
590-11808-8	DMW-3	Silica Gel Cleanup	Water	3510C SGC	
590-11808-9	FW-3	Silica Gel Cleanup	Water	3510C SGC	
MB 590-24151/1-A	Method Blank	Total/NA	Water	3510C SGC	
LCS 590-24151/2-A	Lab Control Sample	Total/NA	Water	3510C SGC	
LCSD 590-24151/3-A	Lab Control Sample Dup	Total/NA	Water	3510C SGC	
590-11808-8 MS	DMW-3	Silica Gel Cleanup	Water	3510C SGC	
590-11808-8 MSD	DMW-3	Silica Gel Cleanup	Water	3510C SGC	

Analysis Batch: 24161

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11808-1	RR-4	Silica Gel Cleanup	Water	NWTPH-Dx	24151
590-11808-2	RR-1	Silica Gel Cleanup	Water	NWTPH-Dx	24151
590-11808-3	FW-5R	Silica Gel Cleanup	Water	NWTPH-Dx	24151
590-11808-4	B-30	Silica Gel Cleanup	Water	NWTPH-Dx	24151

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QC Association Summary

Client: AECOM

Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11808-1

GC Semi VOA (Continued)

Analysis Batch: 24161 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11808-5	DMW-1	Silica Gel Cleanup	Water	NWTPH-Dx	24151
590-11808-6	DMW-1-DUP	Silica Gel Cleanup	Water	NWTPH-Dx	24151
590-11808-7	FW-4	Silica Gel Cleanup	Water	NWTPH-Dx	24151
590-11808-8	DMW-3	Silica Gel Cleanup	Water	NWTPH-Dx	24151
590-11808-9	FW-3	Silica Gel Cleanup	Water	NWTPH-Dx	24151
MB 590-24151/1-A	Method Blank	Total/NA	Water	NWTPH-Dx	24151
LCS 590-24151/2-A	Lab Control Sample	Total/NA	Water	NWTPH-Dx	24151
LCSD 590-24151/3-A	Lab Control Sample Dup	Total/NA	Water	NWTPH-Dx	24151
590-11808-8 MS	DMW-3	Silica Gel Cleanup	Water	NWTPH-Dx	24151
590-11808-8 MSD	DMW-3	Silica Gel Cleanup	Water	NWTPH-Dx	24151

HPLC/IC

Analysis Batch: 24052

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11808-1	RR-4	Total/NA	Water	300.0	
590-11808-2	RR-1	Total/NA	Water	300.0	
590-11808-3	FW-5R	Total/NA	Water	300.0	
590-11808-4	B-30	Total/NA	Water	300.0	
590-11808-5	DMW-1	Total/NA	Water	300.0	
590-11808-6	DMW-1-DUP	Total/NA	Water	300.0	
590-11808-7	FW-4	Total/NA	Water	300.0	
590-11808-8	DMW-3	Total/NA	Water	300.0	
590-11808-9	FW-3	Total/NA	Water	300.0	
MB 590-24052/1013	Method Blank	Total/NA	Water	300.0	
LCS 590-24052/1012	Lab Control Sample	Total/NA	Water	300.0	
590-11808-8 MS	DMW-3	Total/NA	Water	300.0	
590-11808-8 MSD	DMW-3	Total/NA	Water	300.0	
590-11808-8 DU	DMW-3	Total/NA	Water	300.0	

Analysis Batch: 24053

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11808-1	RR-4	Total/NA	Water	300.0	
590-11808-2	RR-1	Total/NA	Water	300.0	
590-11808-3	FW-5R	Total/NA	Water	300.0	
590-11808-4	B-30	Total/NA	Water	300.0	
590-11808-5	DMW-1	Total/NA	Water	300.0	
590-11808-6	DMW-1-DUP	Total/NA	Water	300.0	
590-11808-7	FW-4	Total/NA	Water	300.0	
590-11808-8	DMW-3	Total/NA	Water	300.0	
590-11808-9	FW-3	Total/NA	Water	300.0	
MB 590-24053/1013	Method Blank	Total/NA	Water	300.0	
LCS 590-24053/1012	Lab Control Sample	Total/NA	Water	300.0	
590-11808-8 MS	DMW-3	Total/NA	Water	300.0	
590-11808-8 MSD	DMW-3	Total/NA	Water	300.0	
590-11808-8 DU	DMW-3	Total/NA	Water	300.0	

Metals

Prep Batch: 311886

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11808-1	RR-4	Dissolved	Water	3005A	

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QC Association Summary

Client: AECOM

Job ID: 590-11808-1

Project/Site: Tacoma D St Terminal-Phillips 66

Metals (Continued)

Prep Batch: 311886 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11808-2	RR-1	Dissolved	Water	3005A	
590-11808-3	FW-5R	Dissolved	Water	3005A	
590-11808-4	B-30	Dissolved	Water	3005A	
590-11808-5	DMW-1	Dissolved	Water	3005A	
590-11808-6	DMW-1-DUP	Dissolved	Water	3005A	
590-11808-7	FW-4	Dissolved	Water	3005A	
590-11808-9	FW-3	Dissolved	Water	3005A	
MB 580-311886/22-A	Method Blank	Total Recoverable	Water	3005A	
LCS 580-311886/23-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCSD 580-311886/24-A	Lab Control Sample Dup	Total Recoverable	Water	3005A	
590-11808-1 DU	RR-4	Dissolved	Water	3005A	

Prep Batch: 311915

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11808-1	RR-4	Total Recoverable	Water	3005A	
590-11808-2	RR-1	Total Recoverable	Water	3005A	
590-11808-3	FW-5R	Total Recoverable	Water	3005A	
590-11808-4	B-30	Total Recoverable	Water	3005A	
590-11808-5	DMW-1	Total Recoverable	Water	3005A	
590-11808-6	DMW-1-DUP	Total Recoverable	Water	3005A	
590-11808-7	FW-4	Total Recoverable	Water	3005A	
590-11808-8	DMW-3	Total Recoverable	Water	3005A	
590-11808-9	FW-3	Total Recoverable	Water	3005A	
MB 580-311915/24-A	Method Blank	Total Recoverable	Water	3005A	
LCS 580-311915/25-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCSD 580-311915/26-A	Lab Control Sample Dup	Total Recoverable	Water	3005A	
590-11808-8 DU	DMW-3	Total Recoverable	Water	3005A	

Analysis Batch: 312349

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11808-1	RR-4	Total Recoverable	Water	6020A	311915
590-11808-2	RR-1	Total Recoverable	Water	6020A	311915
590-11808-3	FW-5R	Total Recoverable	Water	6020A	311915
590-11808-4	B-30	Total Recoverable	Water	6020A	311915
590-11808-5	DMW-1	Total Recoverable	Water	6020A	311915
590-11808-6	DMW-1-DUP	Total Recoverable	Water	6020A	311915
590-11808-7	FW-4	Total Recoverable	Water	6020A	311915
590-11808-8	DMW-3	Total Recoverable	Water	6020A	311915
590-11808-9	FW-3	Total Recoverable	Water	6020A	311915
MB 580-311915/24-A	Method Blank	Total Recoverable	Water	6020A	311915
LCS 580-311915/25-A	Lab Control Sample	Total Recoverable	Water	6020A	311915
LCSD 580-311915/26-A	Lab Control Sample Dup	Total Recoverable	Water	6020A	311915
590-11808-8 MS	DMW-3	Total Recoverable	Water	6020A	
590-11808-8 MSD	DMW-3	Total Recoverable	Water	6020A	
590-11808-8 DU	DMW-3	Total Recoverable	Water	6020A	311915

Analysis Batch: 312516

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11808-1	RR-4	Dissolved	Water	6020A	311886
590-11808-2	RR-1	Dissolved	Water	6020A	311886
590-11808-3	FW-5R	Dissolved	Water	6020A	311886

Eurofins TestAmerica, Spokane

QC Association Summary

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11808-1

Metals (Continued)

Analysis Batch: 312516 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11808-4	B-30	Dissolved	Water	6020A	311886
590-11808-5	DMW-1	Dissolved	Water	6020A	311886
590-11808-6	DMW-1-DUP	Dissolved	Water	6020A	311886
590-11808-7	FW-4	Dissolved	Water	6020A	311886
590-11808-9	FW-3	Dissolved	Water	6020A	311886
MB 580-311886/22-A	Method Blank	Total Recoverable	Water	6020A	311886
LCS 580-311886/23-A	Lab Control Sample	Total Recoverable	Water	6020A	311886
LCSD 580-311886/24-A	Lab Control Sample Dup	Total Recoverable	Water	6020A	311886
590-11808-1 MS	RR-4	Dissolved	Water	6020A	
590-11808-1 MSD	RR-4	Dissolved	Water	6020A	
590-11808-1 DU	RR-4	Dissolved	Water	6020A	311886

Prep Batch: 312783

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11808-8	DMW-3	Dissolved	Water	3005A	
MB 580-312783/20-A	Method Blank	Total Recoverable	Water	3005A	
LCS 580-312783/21-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCSD 580-312783/22-A	Lab Control Sample Dup	Total Recoverable	Water	3005A	
590-11808-8 MS	DMW-3	Dissolved	Water	3005A	
590-11808-8 MSD	DMW-3	Dissolved	Water	3005A	
590-11808-8 DU	DMW-3	Dissolved	Water	3005A	

Analysis Batch: 312902

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11808-8	DMW-3	Dissolved	Water	6020A	312783
MB 580-312783/20-A	Method Blank	Total Recoverable	Water	6020A	312783
LCS 580-312783/21-A	Lab Control Sample	Total Recoverable	Water	6020A	312783
LCSD 580-312783/22-A	Lab Control Sample Dup	Total Recoverable	Water	6020A	312783
590-11808-8 MS	DMW-3	Dissolved	Water	6020A	312783
590-11808-8 MSD	DMW-3	Dissolved	Water	6020A	312783
590-11808-8 DU	DMW-3	Dissolved	Water	6020A	312783

General Chemistry

Analysis Batch: 311956

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11808-2	RR-1	Total/NA	Water	310.1	
590-11808-3	FW-5R	Total/NA	Water	310.1	
590-11808-4	B-30	Total/NA	Water	310.1	
590-11808-5	DMW-1	Total/NA	Water	310.1	
590-11808-6	DMW-1-DUP	Total/NA	Water	310.1	
590-11808-7	FW-4	Total/NA	Water	310.1	
590-11808-8	DMW-3	Total/NA	Water	310.1	
590-11808-9	FW-3	Total/NA	Water	310.1	
LCS 580-311956/2	Lab Control Sample	Total/NA	Water	310.1	
590-11808-8 DU	DMW-3	Total/NA	Water	310.1	

Analysis Batch: 311958

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11808-1	RR-4	Total/NA	Water	310.1	
LCS 580-311958/2	Lab Control Sample	Total/NA	Water	310.1	

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Lab Chronicle

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11808-1

Client Sample ID: RR-4

Date Collected: 09/09/19 10:25

Date Received: 09/10/19 12:31

Lab Sample ID: 590-11808-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	20520	09/21/19 00:37	MGX6	ECL 2
Total/NA	Analysis	8260C	RA	1	5 mL	5 mL	20902	09/21/19 19:59	MGX6	ECL 2
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	20377	09/19/19 20:13	CVA6	ECL 2
Silica Gel Cleanup	Prep	3510C SGC			262.7 mL	2 mL	24151	09/16/19 14:20	AMB	TAL SPK
Silica Gel Cleanup	Analysis	NWTPH-Dx		1			24161	09/17/19 16:47	NMI	TAL SPK
Total/NA	Analysis	300.0		100			24052	09/11/19 12:21	NMI	TAL SPK
Total/NA	Analysis	300.0		100			24053	09/11/19 12:21	NMI	TAL SPK
Dissolved	Prep	3005A			50 mL	50 mL	311886	09/20/19 14:13	A1B	TAL SEA
Dissolved	Analysis	6020A		5	50 mL	50 mL	312516	09/26/19 14:53	FCW	TAL SEA
Total Recoverable	Prep	3005A			50 mL	50 mL	311915	09/21/19 09:08	JCP	TAL SEA
Total Recoverable	Analysis	6020A		5	50 mL	50 mL	312349	09/24/19 23:52	FCW	TAL SEA
Total/NA	Analysis	310.1		1	30 mL	30 mL	311958	09/22/19 14:00	EMM	TAL SEA

Client Sample ID: RR-1

Date Collected: 09/09/19 10:54

Date Received: 09/10/19 12:31

Lab Sample ID: 590-11808-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	20520	09/21/19 01:03	MGX6	ECL 2
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	20674	09/20/19 19:53	W6MG	ECL 2
Silica Gel Cleanup	Prep	3510C SGC			223.3 mL	2 mL	24151	09/16/19 14:20	AMB	TAL SPK
Silica Gel Cleanup	Analysis	NWTPH-Dx		1			24161	09/17/19 17:06	NMI	TAL SPK
Total/NA	Analysis	300.0		100			24052	09/11/19 11:00	NMI	TAL SPK
Total/NA	Analysis	300.0		100			24053	09/11/19 11:00	NMI	TAL SPK
Dissolved	Prep	3005A			50 mL	50 mL	311886	09/20/19 14:13	A1B	TAL SEA
Dissolved	Analysis	6020A		5	50 mL	50 mL	312516	09/26/19 15:41	FCW	TAL SEA
Total Recoverable	Prep	3005A			50 mL	50 mL	311915	09/21/19 09:08	JCP	TAL SEA
Total Recoverable	Analysis	6020A		5	50 mL	50 mL	312349	09/24/19 23:56	FCW	TAL SEA
Total/NA	Analysis	310.1		1	30 mL	30 mL	311956	09/21/19 12:44	EMM	TAL SEA

Client Sample ID: FW-5R

Date Collected: 09/09/19 12:20

Date Received: 09/10/19 12:31

Lab Sample ID: 590-11808-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	20520	09/21/19 01:29	MGX6	ECL 2
Total/NA	Prep	3510C			262.5 mL	2 mL	24110	09/13/19 08:26	AMB	TAL SPK
Total/NA	Analysis	8270D SIM		100			24122	09/13/19 16:19	NMI	TAL SPK
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	20377	09/20/19 01:51	CVA6	ECL 2
Silica Gel Cleanup	Prep	3510C SGC			261.7 mL	2 mL	24151	09/16/19 14:20	AMB	TAL SPK
Silica Gel Cleanup	Analysis	NWTPH-Dx		1			24161	09/17/19 17:26	NMI	TAL SPK
Total/NA	Prep	3510C SGC			261.7 mL	2 mL	24151	09/16/19 14:20	AMB	TAL SPK
Total/NA	Analysis	NWTPH-Dx		1			24135	09/16/19 17:39	NMI	TAL SPK

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Lab Chronicle

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11808-1

Client Sample ID: FW-5R

Date Collected: 09/09/19 12:20

Date Received: 09/10/19 12:31

Lab Sample ID: 590-11808-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	300.0		1			24052	09/11/19 11:11	NMI	TAL SPK
Total/NA	Analysis	300.0		1			24053	09/11/19 11:11	NMI	TAL SPK
Dissolved	Prep	3005A			50 mL	50 mL	311886	09/20/19 14:13	A1B	TAL SEA
Dissolved	Analysis	6020A		5	50 mL	50 mL	312516	09/26/19 15:45	FCW	TAL SEA
Total Recoverable	Prep	3005A			50 mL	50 mL	311915	09/21/19 09:08	JCP	TAL SEA
Total Recoverable	Analysis	6020A		5	50 mL	50 mL	312349	09/25/19 00:00	FCW	TAL SEA
Total/NA	Analysis	310.1		1	30 mL	30 mL	311956	09/21/19 12:44	EMM	TAL SEA

Client Sample ID: B-30

Date Collected: 09/09/19 13:07

Date Received: 09/10/19 12:31

Lab Sample ID: 590-11808-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	20520	09/21/19 01:55	MGX6	ECL 2
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	20377	09/19/19 20:41	CVA6	ECL 2
Silica Gel Cleanup	Prep	3510C SGC			233.9 mL	2 mL	24151	09/16/19 14:20	AMB	TAL SPK
Silica Gel Cleanup	Analysis	NWTPH-Dx		1			24161	09/17/19 17:45	NMI	TAL SPK
Total/NA	Analysis	300.0		1			24052	09/11/19 11:23	NMI	TAL SPK
Total/NA	Analysis	300.0		1			24053	09/11/19 11:23	NMI	TAL SPK
Dissolved	Prep	3005A			50 mL	50 mL	311886	09/20/19 14:13	A1B	TAL SEA
Dissolved	Analysis	6020A		5	50 mL	50 mL	312516	09/26/19 15:49	FCW	TAL SEA
Total Recoverable	Prep	3005A			50 mL	50 mL	311915	09/21/19 09:08	JCP	TAL SEA
Total Recoverable	Analysis	6020A		5	50 mL	50 mL	312349	09/25/19 00:05	FCW	TAL SEA
Total/NA	Analysis	310.1		1	30 mL	30 mL	311956	09/21/19 12:44	EMM	TAL SEA

Client Sample ID: DMW-1

Date Collected: 09/09/19 13:30

Date Received: 09/10/19 12:31

Lab Sample ID: 590-11808-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	20902	09/21/19 20:25	MGX6	ECL 2
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	20674	09/20/19 20:21	W6MG	ECL 2
Silica Gel Cleanup	Prep	3510C SGC			268.1 mL	2 mL	24151	09/16/19 14:20	AMB	TAL SPK
Silica Gel Cleanup	Analysis	NWTPH-Dx		1			24161	09/17/19 18:05	NMI	TAL SPK
Total/NA	Analysis	300.0		500			24052	09/11/19 11:35	NMI	TAL SPK
Total/NA	Analysis	300.0		500			24053	09/11/19 11:35	NMI	TAL SPK
Dissolved	Prep	3005A			50 mL	50 mL	311886	09/20/19 14:13	A1B	TAL SEA
Dissolved	Analysis	6020A		5	50 mL	50 mL	312516	09/26/19 15:54	FCW	TAL SEA
Total Recoverable	Prep	3005A			50 mL	50 mL	311915	09/21/19 09:08	JCP	TAL SEA
Total Recoverable	Analysis	6020A		5	50 mL	50 mL	312349	09/25/19 00:09	FCW	TAL SEA
Total/NA	Analysis	310.1		1	30 mL	30 mL	311956	09/21/19 12:44	EMM	TAL SEA

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Lab Chronicle

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11808-1

Client Sample ID: DMW-1-DUP

Lab Sample ID: 590-11808-6

Date Collected: 09/09/19 13:35

Matrix: Water

Date Received: 09/10/19 12:31

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	20902	09/21/19 20:51	MGX6	ECL 2
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	20674	09/20/19 20:50	W6MG	ECL 2
Silica Gel Cleanup	Prep	3510C SGC			267.8 mL	2 mL	24151	09/16/19 14:20	AMB	TAL SPK
Silica Gel Cleanup	Analysis	NWTPH-Dx		1			24161	09/17/19 18:24	NMI	TAL SPK
Total/NA	Analysis	300.0		500			24052	09/11/19 11:46	NMI	TAL SPK
Total/NA	Analysis	300.0		500			24053	09/11/19 11:46	NMI	TAL SPK
Dissolved	Prep	3005A			50 mL	50 mL	311886	09/20/19 14:13	A1B	TAL SEA
Dissolved	Analysis	6020A		5	50 mL	50 mL	312516	09/26/19 15:58	FCW	TAL SEA
Total Recoverable	Prep	3005A			50 mL	50 mL	311915	09/21/19 09:08	JCP	TAL SEA
Total Recoverable	Analysis	6020A		5	50 mL	50 mL	312349	09/25/19 00:13	FCW	TAL SEA
Total/NA	Analysis	310.1		1	30 mL	30 mL	311956	09/21/19 12:44	EMM	TAL SEA

Client Sample ID: FW-4

Lab Sample ID: 590-11808-7

Date Collected: 09/09/19 14:45

Matrix: Water

Date Received: 09/10/19 12:31

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	20902	09/21/19 21:17	MGX6	ECL 2
Total/NA	Prep	3510C			258.6 mL	2 mL	24110	09/13/19 08:26	AMB	TAL SPK
Total/NA	Analysis	8270D SIM		1			24122	09/13/19 14:38	NMI	TAL SPK
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	20674	09/21/19 00:36	W6MG	ECL 2
Silica Gel Cleanup	Prep	3510C SGC			271.6 mL	2 mL	24151	09/16/19 14:20	AMB	TAL SPK
Silica Gel Cleanup	Analysis	NWTPH-Dx		1			24161	09/17/19 18:44	NMI	TAL SPK
Total/NA	Analysis	300.0		500			24052	09/11/19 11:58	NMI	TAL SPK
Total/NA	Analysis	300.0		500			24053	09/11/19 11:58	NMI	TAL SPK
Dissolved	Prep	3005A			50 mL	50 mL	311886	09/20/19 14:13	A1B	TAL SEA
Dissolved	Analysis	6020A		5	50 mL	50 mL	312516	09/26/19 16:03	FCW	TAL SEA
Total Recoverable	Prep	3005A			50 mL	50 mL	311915	09/21/19 09:08	JCP	TAL SEA
Total Recoverable	Analysis	6020A		5	50 mL	50 mL	312349	09/25/19 00:18	FCW	TAL SEA
Total/NA	Analysis	310.1		1	30 mL	30 mL	311956	09/21/19 12:44	EMM	TAL SEA

Client Sample ID: DMW-3

Lab Sample ID: 590-11808-8

Date Collected: 09/09/19 15:17

Matrix: Water

Date Received: 09/10/19 12:31

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	20902	09/21/19 21:43	MGX6	ECL 2
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	20377	09/19/19 18:38	CVA6	ECL 2
Silica Gel Cleanup	Prep	3510C SGC			228.4 mL	2 mL	24151	09/16/19 14:20	AMB	TAL SPK
Silica Gel Cleanup	Analysis	NWTPH-Dx		1			24161	09/17/19 19:23	NMI	TAL SPK
Total/NA	Analysis	300.0		1			24052	09/11/19 12:56	NMI	TAL SPK
Total/NA	Analysis	300.0		1			24053	09/11/19 12:56	NMI	TAL SPK

Eurofins TestAmerica, Spokane

Lab Chronicle

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11808-1

Client Sample ID: DMW-3

Date Collected: 09/09/19 15:17

Date Received: 09/10/19 12:31

Lab Sample ID: 590-11808-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	3005A			50 mL	50 mL	312783	09/30/19 14:33	A1B	TAL SEA
Dissolved	Analysis	6020A		5	50 mL	50 mL	312902	10/01/19 09:27	FCW	TAL SEA
Total Recoverable	Prep	3005A			50 mL	50 mL	311915	09/21/19 09:08	JCP	TAL SEA
Total Recoverable	Analysis	6020A		5	50 mL	50 mL	312349	09/24/19 23:03	FCW	TAL SEA
Total/NA	Analysis	310.1		1	30 mL	30 mL	311956	09/21/19 12:44	EMM	TAL SEA

Client Sample ID: FW-3

Date Collected: 09/09/19 15:50

Date Received: 09/10/19 12:31

Lab Sample ID: 590-11808-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	20902	09/21/19 22:09	MGX6	ECL 2
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	20674	09/20/19 21:18	W6MG	ECL 2
Silica Gel Cleanup	Prep	3510C SGC			275.7 mL	2 mL	24151	09/16/19 14:20	AMB	TAL SPK
Silica Gel Cleanup	Analysis	NWTPH-Dx		1			24161	09/17/19 20:21	NMI	TAL SPK
Total/NA	Analysis	300.0		1000			24052	09/11/19 12:10	NMI	TAL SPK
Total/NA	Analysis	300.0		1000			24053	09/11/19 12:10	NMI	TAL SPK
Dissolved	Prep	3005A			50 mL	50 mL	311886	09/20/19 14:13	A1B	TAL SEA
Dissolved	Analysis	6020A		5	50 mL	50 mL	312516	09/26/19 16:11	FCW	TAL SEA
Total Recoverable	Prep	3005A			50 mL	50 mL	311915	09/21/19 09:08	JCP	TAL SEA
Total Recoverable	Analysis	6020A		5	50 mL	50 mL	312349	09/25/19 00:22	FCW	TAL SEA
Total/NA	Analysis	310.1		1	30 mL	30 mL	311956	09/21/19 12:44	EMM	TAL SEA

Client Sample ID: TRIP BLANK

Date Collected: 09/09/19 10:25

Date Received: 09/10/19 12:31

Lab Sample ID: 590-11808-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	20379	09/19/19 21:38	MGX6	ECL 2

Laboratory References:

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

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

TAL SPK = Eurofins TestAmerica, Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Eurofins TestAmerica, Spokane

Definitions/Glossary

Client: AECOM

Job ID: 590-11808-1

Project/Site: Tacoma D St Terminal-Phillips 66

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
Z	The chromatographic response does not resemble a typical fuel pattern.

GC Semi VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
H	Sample was prepped or analyzed beyond the specified holding time
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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

Accreditation/Certification Summary

Client: AECOM

Job ID: 590-11808-1

Project/Site: Tacoma D St Terminal-Phillips 66

Laboratory: Eurofins TestAmerica, Spokane

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Washington	State Program	C569	01-06-20

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
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Laboratory: Eurofins Calscience LLC

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

Authority	Program	Identification Number	Expiration Date
Arizona	State	AZ0781	03-13-20
California	State	2944	09-29-20
Guam	State	19-004R	10-31-19
Hawaii	State	<cert No.>	07-02-20
Nevada	State	CA00111	07-31-20
Oregon	NELAP	CA300001	01-29-20
Washington	State	C916-18	10-11-19

Laboratory: Eurofins TestAmerica, Seattle

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

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	17-024	01-19-22
ANAB	Dept. of Defense ELAP	L2236	01-19-22
ANAB	ISO/IEC 17025	L2236	01-19-22
California	State	2901	11-05-19
Montana (UST)	State	NA	04-13-21
Oregon	NELAP	WA100007	11-05-19
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	US Federal Programs	P330-17-00039	02-10-20
Washington	State	C553	02-17-20

Spokane, WA 99206
phone 509.924.9200 fax

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

TestAmerica Laboratories, Inc.

Client Contact

Project Manager: Craig Riley
Tel/Fax: 503-478-2766

Site Contact: Mark Tauscher
Lab Contact: Randee Arrington

Date: 9/9/19

COC No: 1 of 1 COCs

111 SW Columbia, Suite 1500
Portland, Oregon 97201

Analysis Turnaround Time
☐ CALENDAR DAYS ☒ WORKING DAYS

Carrier:

Sampler: 1 of 1 COCs

503-222-7200 Phone

TAT if different from Below

For Lab Use Only:
Walk-in Client:
Lab Sampling:

Email: craig.riley@aeacom.com

☒ 2 weeks
☐ 1 week
☐ 2 days
☐ 1 day

Job / SDG No.:

Project Name: D Street Terminal Tacoma, WA

Site: P66 Terminal

Sample Specific Notes:

P O # 60483190

Sample Identification

Sample Date

Sample Time

Sample Type (C=Comp, G=Grab)

Matrix

of Cont.

Filtered Sample (Y / N)

RR-4

9/9/19

1025

C

W

6

1

RR-1

1034

C

W

6

1

FW-5R

1220

C

W

6

1

B-30

1307

C

W

6

1

DMW-1

1330

C

W

6

1

DMW-1-DUP

1335

C

W

6

1

FW-4

1445

C

W

6

1

DMW-3

1517

C

W

6

1

FW-3

1550

C

W

6

1

TRIP BLANK

-

-

W

1

N

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

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

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

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

Special Instructions/QC Requirements & Comments: Please Contact Craig Riley with questions

Cooler Temp. (C): Obs'd: 3.4 Cord: 3.5 Therm ID No: 3.6

Custody Seals Intact: ☐ Yes ☐ No

Custody Seal No.:

Date/Time:

Received by: Maria Groce

Company: WSPC

Date/Time: 12:31

9/10/19

Relinquished by:

Company:

Date/Time:

Received by:

Company:

Date/Time:

Relinquished by:

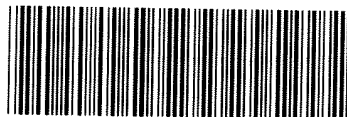
Company:

Date/Time:

Received in Laboratory by:

Company:

Date/Time:



590-11808 Waybill

ORIGIN ID:GEGA (509) 924-1200
TEST AMERICA

11922 E 1ST AVE

SPOKANE, WA 99206
UNITED STATES US

SH
ACI
CAD
DIMS
BILL

09:13
6294

10:30
1

649

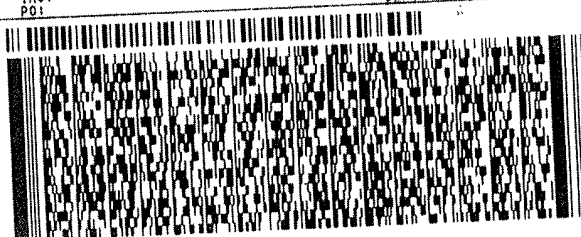
TO EUROFINS CAL SCIENCE, INC
ATTN SHIPPING
7440 LINCOLN WAY

GARDEN GROVE CA 92841

(714) 896-6484
INV:
PO:

REF:

DEPT:



FedEx
Express



J192019062401ev

TRK# 7897 7920 6294
0201

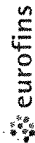
FRI - 13 SEP 10:30A
PRIORITY OVERNIGHT

XH APVA

92841
CA-US SNA



Chain of Custody Record



Polioepistix, "Polioepistix"

Client Information (Sub Contract Lab)				Lab PM: Arrington, Randee E E-Mail: randee.arrington@testamericainc.com		Carrier Tracking No(s): 590-4722.1							
Client Contact: Shipping/Receiving Company: Eurofins Calscience LLC				Phone: 7440 Lincoln Way,		State of Origin: Washington							
Address: 7440 Lincoln Way,				Accredited Required (See note): State Program - Washington		Page: Page 1 of 2							
City: Garden Grove State, Zip: CA, 92841				PO #:		Job #: 590-11808-1							
Phone: 714-894-7501(Fax) Email:				Project #: 59000882 SOW#:		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:							
Project Name: Tacoma D St Terminal-Phillips 66 Site:				Due Date Requested: 9/20/2019 TAT Requested (days):		Analysis Requested							
Sample Identification - Client ID (Lab ID)				Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Weather, Sealed, Overstabil, BT-Tissue, AAAT)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	NWTPH_GX/5030C TPH as Gasoline	8260C/5030C BTEX Volatiles	Total Number of Containers	Special Instructions/Note:
RR-4 (590-11808-1)				9/9/19	10:25 Pacific		Water			X	X	2	
RR-1 (590-11808-2)				9/9/19	10:54 Pacific		Water			X	X	2	
FW-5R (590-11808-3)				9/9/19	12:20 Pacific		Water			X	X	2	
B-30 (590-11808-4)				9/9/19	13:07 Pacific		Water			X	X	2	
DMW-1 (590-11808-5)				9/9/19	13:30 Pacific		Water			X	X	2	
DMW-1-DUP (590-11808-6)				9/9/19	13:35 Pacific		Water			X	X	2	
FW-4 (590-11808-7)				9/9/19	14:45 Pacific		Water			X	X	2	
DMW-3 (590-11808-8)				9/9/19	15:17 Pacific		Water			X	X	2	
DMW-3 (590-11808-8MS)				9/9/19	15:17 Pacific	MS	Water			X	X	2	

Possible Hazard Identification

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

Primary Deliverable Rank: 2

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

☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements:

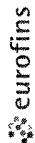
Date: _____ Time: _____		Method of Shipment:	
Relinquished by: Angela Dmng	Relinquished by: Angela Dmng	Received by: Angela Dmng	Date/Time: 09/13/19
Relinquished by:	Relinquished by:	Received by:	Date/Time:
Relinquished by:	Relinquished by:	Received by:	Date/Time:

Custody Seal No.: _____

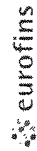
Custody Seals Intact: ☐ Yes ☐ No

Cooler Temperature(s) °C and Other Remarks:

Chain of Custody Record

[illegible]

Chain of Custody Record

Environmental Testing
TestAmerica

Client Information (Sub Contract Lab) Client Contact: _____ Shipping/Receiving: _____ Company: Eurofins Calscience LLC Address: 7440 Lincoln Way, City: Garden Grove State: CA, 92841 Phone: 714-895-5494(Tel) 714-894-7501(Fax) Email: _____		Sampler: _____ Lab PM: Arrington, Randee E E-Mail: randee.arrington@testamericainc.com Phone: _____ State of Origin: Washington Page: Page 1 of 2 Job #: 590-11808-1		Carrier Tracking No(s): _____ COC No: 590-4722.1 Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 X - other (specify)	
Due Date Requested: 9/20/2019 Accreditations Required (See note): State Program - Washington		Analysis Requested Perform MS/MSD (Yes or No) ☒ NMTPH, Gx/5030C TPH as Gasoline ☒ 8260C/5030C BTEX Volatiles ☒			
Project #: 59000882 Site: Tacoma D St Terminal-Phillips 66 SOW#: _____		Total Number of Containers: 2			
Sample Identification - Client ID (Lab ID)		Special Instructions/Note:			
RR-4 (590-11808-1)	Sample Date: 9/9/19	Sample Time: 10:25 Pacific	Sample Type (C=Comp, G=Grab):	Matrix (W=water, S=solid, O=waste/oil, BT=tissue, A=air)	Field Filtered Sample (Yes or No) ☒
RR-1 (590-11808-2)	9/9/19	10:54 Pacific		Water	☒
FW-5R (590-11808-3)	9/9/19	12:20 Pacific		Water	☒
B-30 (590-11808-4)	9/9/19	13:07 Pacific		Water	☒
DMW-1 (590-11808-5)	9/9/19	13:30 Pacific		Water	☒
DMW-1-DUP (590-11808-6)	9/9/19	13:35 Pacific		Water	☒
FW-4 (590-11808-7)	9/9/19	14:45 Pacific		Water	☒
DMW-3 (590-11808-8)	9/9/19	15:17 Pacific		Water	☒
DMW-3 (590-11808-8MS)	9/9/19	15:17 Pacific	MS	Water	☒

Note: Since laboratory accreditation is subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis of the matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditation are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify) _____ Primary Deliverable Rank: 2		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months	
Empty Kit Relinquished by: _____ Relinquished by: _____ Relinquished by: _____ Relinquished by: _____		Date: _____ Date/Time: 9/19/19 Date/Time: 10:25 Date/Time: 10:54 Date/Time: 12:20 Date/Time: 13:07 Date/Time: 13:30 Date/Time: 13:35 Date/Time: 14:45 Date/Time: 15:17 Date/Time: 15:17	
Relinquished by: _____ Relinquished by: _____ Relinquished by: _____ Relinquished by: _____		Date/Time: 9/19/19 Date/Time: 10:25 Date/Time: 10:54 Date/Time: 12:20 Date/Time: 13:07 Date/Time: 13:30 Date/Time: 13:35 Date/Time: 14:45 Date/Time: 15:17 Date/Time: 15:17	
Custody Seal No.: 214794 Yes Δ No		Cooler Temperature (°C and Other Remarks): 21/23 SEC	

[illegible]

Eurofins TestAmerica, Spokane

11922 East 1st Ave

Spokane, WA 99206

Phone: 509-924-9200 Fax: 509-924-9290

Chain of Custody Record

Environment Testing
TestAmerica

Client Information (Sub Contract Lab)		Sampler:		Lab PM: Arrington, Randee E		Carrier Tracking No(s):		COC No: 590-4711.1	
Client Contact:		Phone:		E-Mail: randee.arrington@testamericainc.com		State of Origin: Washington		Page: Page 1 of 2	
Shipping/Receiving									
Company: TestAmerica Laboratories, Inc.				Accreditations Required (See note): State Program - Washington				Job #: 590-11808-1	
Address: 5755 8th Street East.		Due Date Requested: 9/20/2019		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)	
City: Tacoma		TAT Requested (days):							
State, Zip: WA, 98424		PO #:		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		Total Number of containers	
Phone: 253-922-2310(Tel) 253-922-5047(Fax)		WO #:		6020A/3005A Total Lead		310-17 Alkalinity only		6020A/FIELD_FLTRD (MOD) Diss Pb & Mn	
Email:									
Project Name: Tacoma D St Terminal-Phillips 66/Quarter		Project #: 59000882							
Site:		SSOW#:							
Sample Identification - Client ID (Lab ID)		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	
RR-4 (590-11808-1)		9/9/19		10:25 Pacific		Water		X X X	
RR-1 (590-11808-2)		9/9/19		10:54 Pacific		Water		X X X	
FW-5R (590-11808-3)		9/9/19		12:20 Pacific		Water		X X X	
B-30 (590-11808-4)		9/9/19		13:07 Pacific		Water		X X X	
DMW-1 (590-11808-5)		9/9/19		13:30 Pacific		Water		X X X	
DMW-1-DUP (590-11808-6)		9/9/19		13:35 Pacific		Water		X X X	
FW-4 (590-11808-7)		9/9/19		14:45 Pacific		Water		X X X	
DMW-3 (590-11808-8)		9/9/19		15:17 Pacific		Water		X X X	
DMW-3 (590-11808-8MS)		9/9/19		15:17 Pacific		MS Water		X X X	
Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.									
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)				
Unconfirmed					☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months				
Deliverable Requested: I, II, III, IV, Other (specify)					Primary Deliverable Rank: 2				
					Special Instructions/QC Requirements:				
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:			
Relinquished by: Maria O'Boyle		Date/Time: 9/10/19 14:17		Company: TASC		Received by: [Signature]		Date/Time: 9-11-19 0930	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:	
Custody Seals Intact: ☐ Yes ☐ No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 5-5.5					

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Login Sample Receipt Checklist

Client: AECOM

Job Number: 590-11808-1

Login Number: 11808

List Number: 1

Creator: O'Toole, Maria C

List Source: Eurofins TestAmerica, Spokane

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	130270 128129
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	not present
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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.

Login Sample Receipt Checklist

Client: AECOM

Job Number: 590-11808-1

Login Number: 11808

List Number: 4

Creator: Cruise, Noel

List Source: Eurofins Calscience

List Creation: 09/13/19 10:54 AM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ 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.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: AECOM

Job Number: 590-11808-1

Login Number: 11808

List Number: 2

Creator: Valledlunga, Diana L

List Source: Eurofins TestAmerica, Seattle

List Creation: 09/11/19 06:43 PM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ 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.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	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 $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: AECOM

Job Number: 590-11808-1

Login Number: 11808

List Number: 3

Creator: Vallelunga, Diana L

List Source: Eurofins TestAmerica, Seattle

List Creation: 09/11/19 06:44 PM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ 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.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	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 $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins TestAmerica, Spokane
11922 East 1st Ave
Spokane, WA 99206
Tel: (509)924-9200

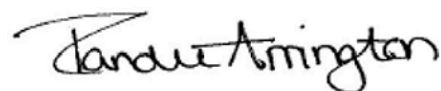
Laboratory Job ID: 590-11815-1

Client Project/Site: Tacoma D St Terminal-Phillips 66

For:

AECOM
111 SW Columbia Street, Suite 1500
Portland, Oregon 97201

Attn: Mr. Tyler Hemry



Authorized for release by:
9/27/2019 3:25:45 PM

Randee Arrington, Project Manager II
(509)924-9200
randee.arrington@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

www.testamericainc.com

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

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

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Case Narrative

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11815-1

Job ID: 590-11815-1

Laboratory: Eurofins TestAmerica, Spokane

Narrative

Receipt

The samples were received on 9/11/2019 11:38 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.4° C and 3.0° C.

GC/MS VOA

Method 8260C: The following volatiles samples were diluted due to foaming at the time of purging during the original sample analysis: B-31 (590-11815-4), RW-8 (590-11815-8) and B-34 (590-11815-9). Elevated reporting limits (RLs) are provided.

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

GC VOA

Method NWTPH-Gx: Surrogate recovery for the following samples were outside control limits: RW-2 (590-11815-7), RW-8 (590-11815-8) and B-34 (590-11815-9). Evidence of matrix interference due to high target analytes is present; therefore, re-extraction and/or re-analysis was not performed.

Method NWTPH-Gx: Surrogate recovery for the following sample was outside control limits: T-3 (590-11815-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA

Method 300.0: The following samples were diluted due to the abundance of non-target analytes: T-3 (590-11815-1), RR-5 (590-11815-3), G-16 (590-11815-5) and E-22 (590-11815-6). Elevated reporting limits (RLs) are provided.

Method 300.0: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 590-24052 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method NWTPH-Dx: Detected hydrocarbons in the diesel range appear to be due to weathered gasoline overlap as well as heavily weathered diesel in the following samples: T-3 (590-11815-1), RR-5 (590-11815-3), B-31 (590-11815-4), RW-2 (590-11815-7), RW-8 (590-11815-8) and B-34 (590-11815-9).

Method NWTPH-Dx: Detected hydrocarbons in the diesel range appear to be due to heavily weathered diesel in the following samples: E-21 (590-11815-2), G-16 (590-11815-5), FW-13 (590-11815-10) and FW-13-DUP (590-11815-11).

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

Metals

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

General Chemistry

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

Organic Prep

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

VOA Prep

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

Sample Summary

Client: AECOM

Job ID: 590-11815-1

Project/Site: Tacoma D St Terminal-Phillips 66

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
590-11815-1	T-3	Water	09/10/19 08:47	09/11/19 11:38	
590-11815-2	E-21	Water	09/10/19 09:00	09/11/19 11:38	
590-11815-3	RR-5	Water	09/10/19 10:16	09/11/19 11:38	
590-11815-4	B-31	Water	09/10/19 10:10	09/11/19 11:38	
590-11815-5	G-16	Water	09/10/19 11:25	09/11/19 11:38	
590-11815-6	E-22	Water	09/10/19 12:03	09/11/19 11:38	
590-11815-7	RW-2	Water	09/10/19 12:35	09/11/19 11:38	
590-11815-8	RW-8	Water	09/10/19 13:50	09/11/19 11:38	
590-11815-9	B-34	Water	09/10/19 15:05	09/11/19 11:38	
590-11815-10	FW-13	Water	09/10/19 15:09	09/11/19 11:38	
590-11815-11	FW-13-DUP	Water	09/10/19 15:09	09/11/19 11:38	
590-11815-12	Trip Blank	Water	09/10/19 00:00	09/11/19 11:38	

Method Summary

Client: AECOM

Job ID: 590-11815-1

Project/Site: Tacoma D St Terminal-Phillips 66

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	ECL 2
NWTPH-Gx	Northwest - Volatile Petroleum Products (GC)	NWTPH	ECL 2
NWTPH-Dx	Northwest - Semi-Volatile Petroleum Products (GC)	NWTPH	TAL SPK
300.0	Anions, Ion Chromatography	MCAWW	TAL SPK
6020A	Metals (ICP/MS)	SW846	TAL SEA
310.1	Alkalinity	MCAWW	TAL SEA
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL SEA
3510C SGC	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL SPK
5030C	Purge and Trap	SW846	ECL 2

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

NWTPH = Northwest Total Petroleum Hydrocarbon

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

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

TAL SPK = Eurofins TestAmerica, Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Detection Summary

Client: AECOM

Job ID: 590-11815-1

Project/Site: Tacoma D St Terminal-Phillips 66

Client Sample ID: T-3

Lab Sample ID: 590-11815-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
TPH as Gasoline (C4-C13)	380		100	48	ug/L	1		NWTPH-Gx	Total/NA
Diesel Range Organics (DRO) (C10-C25)	0.43		0.27	0.13	mg/L	1		NWTPH-Dx	Silica Gel Cleanup
Sulfate	2000		500	130	mg/L	1000		300.0	Total/NA
Manganese	0.026	B	0.010	0.0023	mg/L	5		6020A	Dissolved
Alkalinity	170		5.0	5.0	mg/L	1		310.1	Total/NA

Client Sample ID: E-21

Lab Sample ID: 590-11815-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.54	J	1.0	0.14	ug/L	1		8260C	Total/NA
TPH as Gasoline (C4-C13)	260	Z	100	48	ug/L	1		NWTPH-Gx	Total/NA
Diesel Range Organics (DRO) (C10-C25)	1.8		0.22	0.10	mg/L	1		NWTPH-Dx	Silica Gel Cleanup
Residual Range Organics (RRO) (C25-C36)	0.18	J	0.37	0.11	mg/L	1		NWTPH-Dx	Silica Gel Cleanup
Sulfate	24		0.50	0.13	mg/L	1		300.0	Total/NA
Manganese	0.24	B	0.010	0.0023	mg/L	5		6020A	Dissolved
Alkalinity	290		5.0	5.0	mg/L	1		310.1	Total/NA

Client Sample ID: RR-5

Lab Sample ID: 590-11815-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
TPH as Gasoline (C4-C13)	65	J Z	100	48	ug/L	1		NWTPH-Gx	Total/NA
Diesel Range Organics (DRO) (C10-C25)	0.23	J	0.27	0.13	mg/L	1		NWTPH-Dx	Silica Gel Cleanup
Sulfate	1400		250	64	mg/L	500		300.0	Total/NA
Manganese	0.064	B	0.010	0.0023	mg/L	5		6020A	Dissolved
Alkalinity	91		5.0	5.0	mg/L	1		310.1	Total/NA

Client Sample ID: B-31

Lab Sample ID: 590-11815-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	3.4	J	4.0	0.56	ug/L	4		8260C	Total/NA
Ethylbenzene	9.5		4.0	0.55	ug/L	4		8260C	Total/NA
o-Xylene	3.5	J	4.0	0.61	ug/L	4		8260C	Total/NA
m,p-Xylene	26		8.0	1.2	ug/L	4		8260C	Total/NA
Toluene	9.8		4.0	0.51	ug/L	4		8260C	Total/NA
TPH as Gasoline (C4-C13)	820	Z	100	48	ug/L	1		NWTPH-Gx	Total/NA
Diesel Range Organics (DRO) (C10-C25)	0.73		0.23	0.11	mg/L	1		NWTPH-Dx	Silica Gel Cleanup
Sulfate	0.56		0.50	0.13	mg/L	1		300.0	Total/NA
Lead	0.027		0.0040	0.0010	mg/L	5		6020A	Total Recoverable
Manganese	0.70	B	0.010	0.0023	mg/L	5		6020A	Dissolved
Alkalinity	260		5.0	5.0	mg/L	1		310.1	Total/NA

Client Sample ID: G-16

Lab Sample ID: 590-11815-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.70	J	1.0	0.14	ug/L	1		8260C	Total/NA
Ethylbenzene	0.38	J	1.0	0.14	ug/L	1		8260C	Total/NA
TPH as Gasoline (C4-C13)	53	J Z	100	48	ug/L	1		NWTPH-Gx	Total/NA
Diesel Range Organics (DRO) (C10-C25)	0.21	J	0.23	0.11	mg/L	1		NWTPH-Dx	Silica Gel Cleanup

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Spokane

Detection Summary

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11815-1

Client Sample ID: G-16 (Continued)

Lab Sample ID: 590-11815-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	210		50	13	mg/L	100		300.0	Total/NA
Manganese	0.14	B	0.010	0.0023	mg/L	5		6020A	Dissolved
Alkalinity	540		5.0	5.0	mg/L	1		310.1	Total/NA

Client Sample ID: E-22

Lab Sample ID: 590-11815-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.61	J	1.0	0.14	ug/L	1		8260C	Total/NA
Ethylbenzene	2.9		1.0	0.14	ug/L	1		8260C	Total/NA
m,p-Xylene	0.96	J	2.0	0.31	ug/L	1		8260C	Total/NA
Toluene	0.32	J	1.0	0.13	ug/L	1		8260C	Total/NA
TPH as Gasoline (C4-C13)	190		100	48	ug/L	1		NWTPH-Gx	Total/NA
Sulfate	250		50	13	mg/L	100		300.0	Total/NA
Manganese	0.068	B	0.010	0.0023	mg/L	5		6020A	Dissolved
Alkalinity	730		5.0	5.0	mg/L	1		310.1	Total/NA

Client Sample ID: RW-2

Lab Sample ID: 590-11815-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.71	J	1.0	0.14	ug/L	1		8260C	Total/NA
Ethylbenzene	4.8		1.0	0.14	ug/L	1		8260C	Total/NA
Toluene	0.38	J	1.0	0.13	ug/L	1		8260C	Total/NA
TPH as Gasoline (C4-C13)	1200	Z	100	48	ug/L	1		NWTPH-Gx	Total/NA
Diesel Range Organics (DRO) (C10-C25)	0.75		0.23	0.11	mg/L	1		NWTPH-Dx	Silica Gel Cleanup
Nitrate as N	0.53	F1	0.20	0.057	mg/L	1		300.0	Total/NA
Sulfate	1.5		0.50	0.13	mg/L	1		300.0	Total/NA
Manganese	1.5	B	0.010	0.0023	mg/L	5		6020A	Dissolved
Alkalinity	530		5.0	5.0	mg/L	1		310.1	Total/NA

Client Sample ID: RW-8

Lab Sample ID: 590-11815-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	4.4		4.0	0.56	ug/L	4		8260C	Total/NA
Ethylbenzene	0.89	J	4.0	0.55	ug/L	4		8260C	Total/NA
TPH as Gasoline (C4-C13)	810	Z	100	48	ug/L	1		NWTPH-Gx	Total/NA
Diesel Range Organics (DRO) (C10-C25)	1.3		0.23	0.11	mg/L	1		NWTPH-Dx	Silica Gel Cleanup
Residual Range Organics (RRO) (C25-C36)	0.14	J	0.39	0.12	mg/L	1		NWTPH-Dx	Silica Gel Cleanup
Sulfate	2.4		0.50	0.13	mg/L	1		300.0	Total/NA
Manganese	0.93	B	0.010	0.0023	mg/L	5		6020A	Dissolved
Alkalinity	400		5.0	5.0	mg/L	1		310.1	Total/NA

Client Sample ID: B-34

Lab Sample ID: 590-11815-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	110		20	2.8	ug/L	20		8260C	Total/NA
Ethylbenzene	6.6	J	20	2.8	ug/L	20		8260C	Total/NA
Toluene	2.8	J	20	2.6	ug/L	20		8260C	Total/NA
TPH as Gasoline (C4-C13)	1700	Z	100	48	ug/L	1		NWTPH-Gx	Total/NA
Diesel Range Organics (DRO) (C10-C25)	2.8		0.23	0.11	mg/L	1		NWTPH-Dx	Silica Gel Cleanup

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Spokane

Detection Summary

Client: AECOM

Job ID: 590-11815-1

Project/Site: Tacoma D St Terminal-Phillips 66

Client Sample ID: B-34 (Continued)

Lab Sample ID: 590-11815-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Residual Range Organics (RRO) (C25-C36)	0.31	J	0.38	0.11	mg/L	1		NWTPH-Dx	Silica Gel Cleanup
Sulfate	6.7		0.50	0.13	mg/L	1		300.0	Total/NA
Manganese	0.93	B	0.010	0.0023	mg/L	5		6020A	Dissolved
Alkalinity	490		5.0	5.0	mg/L	1		310.1	Total/NA

Client Sample ID: FW-13

Lab Sample ID: 590-11815-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
TPH as Gasoline (C4-C13)	84	J	100	48	ug/L	1		NWTPH-Gx	Total/NA
Diesel Range Organics (DRO) (C10-C25)	0.14	J	0.27	0.12	mg/L	1		NWTPH-Dx	Silica Gel Cleanup
Sulfate	0.20	J	0.50	0.13	mg/L	1		300.0	Total/NA
Manganese	0.31	B	0.010	0.0023	mg/L	5		6020A	Dissolved
Alkalinity	220		5.0	5.0	mg/L	1		310.1	Total/NA

Client Sample ID: FW-13-DUP

Lab Sample ID: 590-11815-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	0.14	J	1.0	0.13	ug/L	1		8260C	Total/NA
TPH as Gasoline (C4-C13)	90	J	100	48	ug/L	1		NWTPH-Gx	Total/NA
Diesel Range Organics (DRO) (C10-C25)	0.17	J	0.24	0.11	mg/L	1		NWTPH-Dx	Silica Gel Cleanup
Residual Range Organics (RRO) (C25-C36)	0.23	J	0.39	0.12	mg/L	1		NWTPH-Dx	Silica Gel Cleanup
Sulfate	0.18	J	0.50	0.13	mg/L	1		300.0	Total/NA
Manganese	0.29	B	0.010	0.0023	mg/L	5		6020A	Dissolved
Alkalinity	220		5.0	5.0	mg/L	1		310.1	Total/NA

Client Sample ID: Trip Blank

Lab Sample ID: 590-11815-12

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Spokane

Client Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11815-1

Client Sample ID: T-3

Lab Sample ID: 590-11815-1

Date Collected: 09/10/19 08:47

Matrix: Water

Date Received: 09/11/19 11:38

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.14	ug/L	-		09/19/19 22:04	1
Ethylbenzene	ND		1.0	0.14	ug/L	-		09/19/19 22:04	1
o-Xylene	ND		1.0	0.15	ug/L	-		09/19/19 22:04	1
m,p-Xylene	ND		2.0	0.31	ug/L	-		09/19/19 22:04	1
Toluene	ND		1.0	0.13	ug/L	-		09/19/19 22:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		80 - 129		09/19/19 22:04	1
4-Bromofluorobenzene (Surr)	97		77 - 120		09/19/19 22:04	1
Dibromofluoromethane (Surr)	101		80 - 128		09/19/19 22:04	1
Toluene-d8 (Surr)	102		80 - 120		09/19/19 22:04	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline (C4-C13)	380		100	48	ug/L	-		09/20/19 21:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	181	X	38 - 134		09/20/19 21:46	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	0.43		0.27	0.13	mg/L	-	09/18/19 08:55	09/18/19 12:33	1
Residual Range Organics (RRO) (C25-C36)	ND		0.46	0.14	mg/L	-	09/18/19 08:55	09/18/19 12:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	93		50 - 150	09/18/19 08:55	09/18/19 12:33	1
n-Triacontane-d62	86		50 - 150	09/18/19 08:55	09/18/19 12:33	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		200	57	mg/L	-		09/11/19 14:42	1000
Sulfate	2000		500	130	mg/L	-		09/11/19 14:42	1000

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L	-	09/21/19 09:08	09/25/19 00:27	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L	-	09/21/19 13:42	09/26/19 16:40	5
Manganese	0.026	B	0.010	0.0023	mg/L	-	09/21/19 13:42	09/26/19 16:40	5

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	170		5.0	5.0	mg/L	-		09/21/19 12:44	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11815-1

Client Sample ID: E-21

Lab Sample ID: 590-11815-2

Date Collected: 09/10/19 09:00

Matrix: Water

Date Received: 09/11/19 11:38

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.54	J	1.0	0.14	ug/L	-		09/19/19 22:30	1
Ethylbenzene	ND		1.0	0.14	ug/L	-		09/19/19 22:30	1
o-Xylene	ND		1.0	0.15	ug/L	-		09/19/19 22:30	1
m,p-Xylene	ND		2.0	0.31	ug/L	-		09/19/19 22:30	1
Toluene	ND		1.0	0.13	ug/L	-		09/19/19 22:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		80 - 129		09/19/19 22:30	1
4-Bromofluorobenzene (Surr)	95		77 - 120		09/19/19 22:30	1
Dibromofluoromethane (Surr)	100		80 - 128		09/19/19 22:30	1
Toluene-d8 (Surr)	101		80 - 120		09/19/19 22:30	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline (C4-C13)	260	Z	100	48	ug/L	-		09/19/19 23:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		38 - 134					09/19/19 23:58	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	1.8		0.22	0.10	mg/L	-	09/18/19 08:55	09/18/19 12:54	1
Residual Range Organics (RRO) (C25-C36)	0.18	J	0.37	0.11	mg/L		09/18/19 08:55	09/18/19 12:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	105		50 - 150				09/18/19 08:55	09/18/19 12:54	1
n-Triacontane-d62	91		50 - 150				09/18/19 08:55	09/18/19 12:54	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.20	0.057	mg/L	-		09/11/19 14:53	1
Sulfate	24		0.50	0.13	mg/L	-		09/11/19 14:53	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L	-	09/21/19 09:08	09/24/19 22:59	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L	-	09/21/19 13:42	09/26/19 16:45	5
Manganese	0.24	B	0.010	0.0023	mg/L	-	09/21/19 13:42	09/26/19 16:45	5

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	290		5.0	5.0	mg/L	-		09/21/19 12:44	1

Client Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11815-1

Client Sample ID: RR-5

Lab Sample ID: 590-11815-3

Date Collected: 09/10/19 10:16

Matrix: Water

Date Received: 09/11/19 11:38

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.14	ug/L	-		09/19/19 22:56	1
Ethylbenzene	ND		1.0	0.14	ug/L	-		09/19/19 22:56	1
o-Xylene	ND		1.0	0.15	ug/L	-		09/19/19 22:56	1
m,p-Xylene	ND		2.0	0.31	ug/L	-		09/19/19 22:56	1
Toluene	ND		1.0	0.13	ug/L	-		09/19/19 22:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		80 - 129		09/19/19 22:56	1
4-Bromofluorobenzene (Surr)	96		77 - 120		09/19/19 22:56	1
Dibromofluoromethane (Surr)	98		80 - 128		09/19/19 22:56	1
Toluene-d8 (Surr)	102		80 - 120		09/19/19 22:56	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline (C4-C13)	65	J Z	100	48	ug/L	-		09/19/19 23:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		38 - 134					09/19/19 23:30	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	0.23	J	0.27	0.13	mg/L	-	09/18/19 08:55	09/18/19 13:15	1
Residual Range Organics (RRO) (C25-C36)	ND		0.46	0.14	mg/L		09/18/19 08:55	09/18/19 13:15	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	97		50 - 150				09/18/19 08:55	09/18/19 13:15	1
n-Triacontane-d62	92		50 - 150				09/18/19 08:55	09/18/19 13:15	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		100	29	mg/L	-		09/11/19 15:05	500
Sulfate	1400		250	64	mg/L	-		09/11/19 15:05	500

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L	-	09/21/19 09:08	09/25/19 00:48	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L	-	09/21/19 13:42	09/26/19 16:50	5
Manganese	0.064	B	0.010	0.0023	mg/L	-	09/21/19 13:42	09/26/19 16:50	5

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	91		5.0	5.0	mg/L	-		09/21/19 12:44	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11815-1

Client Sample ID: B-31

Lab Sample ID: 590-11815-4

Date Collected: 09/10/19 10:10

Matrix: Water

Date Received: 09/11/19 11:38

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	3.4	J	4.0	0.56	ug/L	-		09/19/19 23:22	4
Ethylbenzene	9.5		4.0	0.55	ug/L	-		09/19/19 23:22	4
o-Xylene	3.5	J	4.0	0.61	ug/L	-		09/19/19 23:22	4
m,p-Xylene	26		8.0	1.2	ug/L	-		09/19/19 23:22	4
Toluene	9.8		4.0	0.51	ug/L	-		09/19/19 23:22	4

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		80 - 129		09/19/19 23:22	4
4-Bromofluorobenzene (Surr)	98		77 - 120		09/19/19 23:22	4
Dibromofluoromethane (Surr)	100		80 - 128		09/19/19 23:22	4
Toluene-d8 (Surr)	102		80 - 120		09/19/19 23:22	4

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline (C4-C13)	820	Z	100	48	ug/L	-		09/19/19 22:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		38 - 134					09/19/19 22:05	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	0.73		0.23	0.11	mg/L	-	09/18/19 08:55	09/18/19 13:36	1
Residual Range Organics (RRO) (C25-C36)	ND		0.38	0.12	mg/L	-	09/18/19 08:55	09/18/19 13:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	90		50 - 150				09/18/19 08:55	09/18/19 13:36	1
n-Triacontane-d62	89		50 - 150				09/18/19 08:55	09/18/19 13:36	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.20	0.057	mg/L	-		09/11/19 15:16	1
Sulfate	0.56		0.50	0.13	mg/L	-		09/11/19 15:16	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.027		0.0040	0.0010	mg/L	-	09/21/19 09:08	09/25/19 00:53	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L	-	09/21/19 13:42	09/26/19 16:55	5
Manganese	0.70	B	0.010	0.0023	mg/L	-	09/21/19 13:42	09/26/19 16:55	5

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	260		5.0	5.0	mg/L	-		09/21/19 12:44	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11815-1

Client Sample ID: G-16

Lab Sample ID: 590-11815-5

Date Collected: 09/10/19 11:25

Matrix: Water

Date Received: 09/11/19 11:38

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.70	J	1.0	0.14	ug/L	-		09/19/19 23:48	1
Ethylbenzene	0.38	J	1.0	0.14	ug/L	-		09/19/19 23:48	1
o-Xylene	ND		1.0	0.15	ug/L	-		09/19/19 23:48	1
m,p-Xylene	ND		2.0	0.31	ug/L	-		09/19/19 23:48	1
Toluene	ND		1.0	0.13	ug/L	-		09/19/19 23:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		80 - 129		09/19/19 23:48	1
4-Bromofluorobenzene (Surr)	95		77 - 120		09/19/19 23:48	1
Dibromofluoromethane (Surr)	100		80 - 128		09/19/19 23:48	1
Toluene-d8 (Surr)	99		80 - 120		09/19/19 23:48	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline (C4-C13)	53	J Z	100	48	ug/L	-		09/19/19 23:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		38 - 134					09/19/19 23:02	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	0.21	J	0.23	0.11	mg/L	-	09/18/19 08:55	09/18/19 13:57	1
Residual Range Organics (RRO) (C25-C36)	ND		0.39	0.12	mg/L		09/18/19 08:55	09/18/19 13:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	93		50 - 150				09/18/19 08:55	09/18/19 13:57	1
n-Triacontane-d62	85		50 - 150				09/18/19 08:55	09/18/19 13:57	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		20	5.7	mg/L	-		09/11/19 15:28	100
Sulfate	210		50	13	mg/L	-		09/11/19 15:28	100

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L	-	09/21/19 09:08	09/25/19 00:57	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L	-	09/21/19 13:42	09/26/19 17:00	5
Manganese	0.14	B	0.010	0.0023	mg/L	-	09/21/19 13:42	09/26/19 17:00	5

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	540		5.0	5.0	mg/L	-		09/21/19 12:44	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11815-1

Client Sample ID: E-22

Lab Sample ID: 590-11815-6

Date Collected: 09/10/19 12:03

Matrix: Water

Date Received: 09/11/19 11:38

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.61	J	1.0	0.14	ug/L	-		09/20/19 00:14	1
Ethylbenzene	2.9		1.0	0.14	ug/L	-		09/20/19 00:14	1
o-Xylene	ND		1.0	0.15	ug/L	-		09/20/19 00:14	1
m,p-Xylene	0.96	J	2.0	0.31	ug/L	-		09/20/19 00:14	1
Toluene	0.32	J	1.0	0.13	ug/L	-		09/20/19 00:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		80 - 129		09/20/19 00:14	1
4-Bromofluorobenzene (Surr)	92		77 - 120		09/20/19 00:14	1
Dibromofluoromethane (Surr)	99		80 - 128		09/20/19 00:14	1
Toluene-d8 (Surr)	99		80 - 120		09/20/19 00:14	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline (C4-C13)	190		100	48	ug/L	-		09/20/19 23:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	128		38 - 134					09/20/19 23:11	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	ND		0.24	0.11	mg/L	-	09/18/19 08:55	09/18/19 14:39	1
Residual Range Organics (RRO) (C25-C36)	ND		0.41	0.12	mg/L	-	09/18/19 08:55	09/18/19 14:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	101		50 - 150				09/18/19 08:55	09/18/19 14:39	1
<i>n</i> -Triacontane-d62	99		50 - 150				09/18/19 08:55	09/18/19 14:39	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		20	5.7	mg/L	-		09/11/19 15:40	100
Sulfate	250		50	13	mg/L	-		09/11/19 15:40	100

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L	-	09/21/19 09:08	09/25/19 01:02	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L	-	09/21/19 13:42	09/26/19 17:05	5
Manganese	0.068	B	0.010	0.0023	mg/L	-	09/21/19 13:42	09/26/19 17:05	5

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	730		5.0	5.0	mg/L	-		09/21/19 12:44	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11815-1

Client Sample ID: RW-2

Lab Sample ID: 590-11815-7

Date Collected: 09/10/19 12:35

Matrix: Water

Date Received: 09/11/19 11:38

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.71	J	1.0	0.14	ug/L	-		09/20/19 00:39	1
Ethylbenzene	4.8		1.0	0.14	ug/L	-		09/20/19 00:39	1
o-Xylene	ND		1.0	0.15	ug/L	-		09/20/19 00:39	1
m,p-Xylene	ND		2.0	0.31	ug/L	-		09/20/19 00:39	1
Toluene	0.38	J	1.0	0.13	ug/L	-		09/20/19 00:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		80 - 129		09/20/19 00:39	1
4-Bromofluorobenzene (Surr)	103		77 - 120		09/20/19 00:39	1
Dibromofluoromethane (Surr)	100		80 - 128		09/20/19 00:39	1
Toluene-d8 (Surr)	101		80 - 120		09/20/19 00:39	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline (C4-C13)	1200	Z	100	48	ug/L	-		09/19/19 21:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	206	X	38 - 134					09/19/19 21:09	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	0.75		0.23	0.11	mg/L	-	09/18/19 08:55	09/18/19 14:59	1
Residual Range Organics (RRO) (C25-C36)	ND		0.38	0.12	mg/L		09/18/19 08:55	09/18/19 14:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	85		50 - 150				09/18/19 08:55	09/18/19 14:59	1
n-Triacontane-d62	83		50 - 150				09/18/19 08:55	09/18/19 14:59	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.53	F1	0.20	0.057	mg/L	-		09/11/19 15:52	1
Sulfate	1.5		0.50	0.13	mg/L	-		09/11/19 15:52	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L	-	09/21/19 09:08	09/25/19 01:06	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L	-	09/21/19 13:42	09/26/19 15:45	5
Manganese	1.5	B	0.010	0.0023	mg/L	-	09/21/19 13:42	09/26/19 15:45	5

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	530		5.0	5.0	mg/L	-		09/21/19 12:44	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11815-1

Client Sample ID: RW-8

Lab Sample ID: 590-11815-8

Date Collected: 09/10/19 13:50

Matrix: Water

Date Received: 09/11/19 11:38

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	4.4		4.0	0.56	ug/L			09/20/19 01:05	4
Ethylbenzene	0.89	J	4.0	0.55	ug/L			09/20/19 01:05	4
o-Xylene	ND		4.0	0.61	ug/L			09/20/19 01:05	4
m,p-Xylene	ND		8.0	1.2	ug/L			09/20/19 01:05	4
Toluene	ND		4.0	0.51	ug/L			09/20/19 01:05	4

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		80 - 129		09/20/19 01:05	4
4-Bromofluorobenzene (Surr)	96		77 - 120		09/20/19 01:05	4
Dibromofluoromethane (Surr)	99		80 - 128		09/20/19 01:05	4
Toluene-d8 (Surr)	101		80 - 120		09/20/19 01:05	4

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline (C4-C13)	810	Z	100	48	ug/L	—		09/19/19 21:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	151	X	38 - 134					09/19/19 21:37	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	1.3		0.23	0.11	mg/L		09/18/19 08:55	09/18/19 15:20	1
Residual Range Organics (RRO) (C25-C36)	0.14	J	0.39	0.12	mg/L		09/18/19 08:55	09/18/19 15:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	98		50 - 150				09/18/19 08:55	09/18/19 15:20	1
n-Triacontane-d62	88		50 - 150				09/18/19 08:55	09/18/19 15:20	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.20	0.057	mg/L			09/11/19 17:02	1
Sulfate	2.4		0.50	0.13	mg/L			09/11/19 17:02	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L		09/21/19 09:08	09/25/19 01:10	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L		09/21/19 13:42	09/26/19 18:05	5
Manganese	0.93	B	0.010	0.0023	mg/L		09/21/19 13:42	09/26/19 18:05	5

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	400		5.0	5.0	mg/L			09/21/19 12:44	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11815-1

Client Sample ID: B-34

Lab Sample ID: 590-11815-9

Date Collected: 09/10/19 15:05

Matrix: Water

Date Received: 09/11/19 11:38

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	110		20	2.8	ug/L	-		09/20/19 01:31	20
Ethylbenzene	6.6	J	20	2.8	ug/L	-		09/20/19 01:31	20
o-Xylene	ND		20	3.1	ug/L	-		09/20/19 01:31	20
m,p-Xylene	ND		40	6.1	ug/L	-		09/20/19 01:31	20
Toluene	2.8	J	20	2.6	ug/L	-		09/20/19 01:31	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		80 - 129		09/20/19 01:31	20
4-Bromofluorobenzene (Surr)	95		77 - 120		09/20/19 01:31	20
Dibromofluoromethane (Surr)	99		80 - 128		09/20/19 01:31	20
Toluene-d8 (Surr)	100		80 - 120		09/20/19 01:31	20

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline (C4-C13)	1700	Z	100	48	ug/L	-		09/20/19 02:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	179	X	38 - 134					09/20/19 02:19	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	2.8		0.23	0.11	mg/L	-	09/18/19 08:55	09/18/19 15:41	1
Residual Range Organics (RRO) (C25-C36)	0.31	J	0.38	0.11	mg/L		09/18/19 08:55	09/18/19 15:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	106		50 - 150				09/18/19 08:55	09/18/19 15:41	1
n-Triacontane-d62	100		50 - 150				09/18/19 08:55	09/18/19 15:41	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.20	0.057	mg/L	-		09/11/19 17:13	1
Sulfate	6.7		0.50	0.13	mg/L	-		09/11/19 17:13	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L	-	09/21/19 09:08	09/25/19 01:15	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L	-	09/21/19 13:42	09/26/19 18:10	5
Manganese	0.93	B	0.010	0.0023	mg/L	-	09/21/19 13:42	09/26/19 18:10	5

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	490		5.0	5.0	mg/L	-		09/21/19 12:44	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11815-1

Client Sample ID: FW-13

Lab Sample ID: 590-11815-10

Date Collected: 09/10/19 15:09

Matrix: Water

Date Received: 09/11/19 11:38

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.14	ug/L	-		09/20/19 01:57	1
Ethylbenzene	ND		1.0	0.14	ug/L	-		09/20/19 01:57	1
o-Xylene	ND		1.0	0.15	ug/L	-		09/20/19 01:57	1
m,p-Xylene	ND		2.0	0.31	ug/L	-		09/20/19 01:57	1
Toluene	ND		1.0	0.13	ug/L	-		09/20/19 01:57	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		80 - 129		09/20/19 01:57	1
4-Bromofluorobenzene (Surr)	97		77 - 120		09/20/19 01:57	1
Dibromofluoromethane (Surr)	99		80 - 128		09/20/19 01:57	1
Toluene-d8 (Surr)	101		80 - 120		09/20/19 01:57	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline (C4-C13)	84	J	100	48	ug/L	-		09/20/19 22:14	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		38 - 134					09/20/19 22:14	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	0.14	J	0.27	0.12	mg/L	-	09/18/19 08:55	09/18/19 16:02	1
Residual Range Organics (RRO) (C25-C36)	ND		0.44	0.13	mg/L	-	09/18/19 08:55	09/18/19 16:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	98		50 - 150				09/18/19 08:55	09/18/19 16:02	1
n-Triacontane-d62	88		50 - 150				09/18/19 08:55	09/18/19 16:02	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.20	0.057	mg/L	-		09/11/19 17:25	1
Sulfate	0.20	J	0.50	0.13	mg/L	-		09/11/19 17:25	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L	-	09/21/19 09:08	09/25/19 01:19	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L	-	09/21/19 13:42	09/26/19 18:15	5
Manganese	0.31	B	0.010	0.0023	mg/L	-	09/21/19 13:42	09/26/19 18:15	5

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	220		5.0	5.0	mg/L	-		09/21/19 12:44	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11815-1

Client Sample ID: FW-13-DUP

Lab Sample ID: 590-11815-11

Date Collected: 09/10/19 15:09

Matrix: Water

Date Received: 09/11/19 11:38

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.14	ug/L	-		09/20/19 18:08	1
Ethylbenzene	ND		1.0	0.14	ug/L	-		09/20/19 18:08	1
o-Xylene	ND		1.0	0.15	ug/L	-		09/20/19 18:08	1
m,p-Xylene	ND		2.0	0.31	ug/L	-		09/20/19 18:08	1
Toluene	0.14	J	1.0	0.13	ug/L	-		09/20/19 18:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		80 - 129		09/20/19 18:08	1
4-Bromofluorobenzene (Surr)	98		77 - 120		09/20/19 18:08	1
Dibromofluoromethane (Surr)	97		80 - 128		09/20/19 18:08	1
Toluene-d8 (Surr)	102		80 - 120		09/20/19 18:08	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline (C4-C13)	90	J	100	48	ug/L	-		09/20/19 22:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		38 - 134		09/20/19 22:42	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	0.17	J	0.24	0.11	mg/L	-	09/18/19 08:55	09/18/19 16:23	1
Residual Range Organics (RRO) (C25-C36)	0.23	J	0.39	0.12	mg/L	-	09/18/19 08:55	09/18/19 16:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	85		50 - 150	09/18/19 08:55	09/18/19 16:23	1
n-Triacontane-d62	83		50 - 150	09/18/19 08:55	09/18/19 16:23	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.20	0.057	mg/L	-		09/11/19 17:37	1
Sulfate	0.18	J	0.50	0.13	mg/L	-		09/11/19 17:37	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L	-	09/21/19 09:08	09/25/19 01:23	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L	-	09/21/19 13:42	09/26/19 18:20	5
Manganese	0.29	B	0.010	0.0023	mg/L	-	09/21/19 13:42	09/26/19 18:20	5

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	220		5.0	5.0	mg/L	-		09/22/19 12:45	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: AECOM

Job ID: 590-11815-1

Project/Site: Tacoma D St Terminal-Phillips 66

Client Sample ID: Trip Blank

Lab Sample ID: 590-11815-12

Date Collected: 09/10/19 00:00

Matrix: Water

Date Received: 09/11/19 11:38

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.14	ug/L			09/19/19 21:12	1
Ethylbenzene	ND		1.0	0.14	ug/L			09/19/19 21:12	1
o-Xylene	ND		1.0	0.15	ug/L			09/19/19 21:12	1
m,p-Xylene	ND		2.0	0.31	ug/L			09/19/19 21:12	1
Toluene	ND		1.0	0.13	ug/L			09/19/19 21:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		80 - 129		09/19/19 21:12	1
4-Bromofluorobenzene (Surr)	95		77 - 120		09/19/19 21:12	1
Dibromofluoromethane (Surr)	98		80 - 128		09/19/19 21:12	1
Toluene-d8 (Surr)	100		80 - 120		09/19/19 21:12	1

QC Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11815-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 570-20379/9

Matrix: Water

Analysis Batch: 20379

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.14	ug/L			09/19/19 19:30	1
Ethylbenzene	ND		1.0	0.14	ug/L			09/19/19 19:30	1
o-Xylene	ND		1.0	0.15	ug/L			09/19/19 19:30	1
m,p-Xylene	ND		2.0	0.31	ug/L			09/19/19 19:30	1
Toluene	ND		1.0	0.13	ug/L			09/19/19 19:30	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		80 - 129		09/19/19 19:30	1
4-Bromofluorobenzene (Surr)	95		77 - 120		09/19/19 19:30	1
Dibromofluoromethane (Surr)	101		80 - 128		09/19/19 19:30	1
Toluene-d8 (Surr)	101		80 - 120		09/19/19 19:30	1

Lab Sample ID: LCS 570-20379/4

Matrix: Water

Analysis Batch: 20379

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	49.0		ug/L		98	78 - 120
Ethylbenzene	50.0	50.1		ug/L		100	80 - 120
o-Xylene	50.0	49.3		ug/L		99	80 - 125
m,p-Xylene	100	96.9		ug/L		97	80 - 125
Toluene	50.0	50.1		ug/L		100	80 - 122

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		80 - 129
4-Bromofluorobenzene (Surr)	100		77 - 120
Dibromofluoromethane (Surr)	103		80 - 128
Toluene-d8 (Surr)	102		80 - 120

Lab Sample ID: LCSD 570-20379/5

Matrix: Water

Analysis Batch: 20379

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	50.0	46.8		ug/L		94	78 - 120	5	21
Ethylbenzene	50.0	48.0		ug/L		96	80 - 120	4	20
o-Xylene	50.0	47.5		ug/L		95	80 - 125	4	20
m,p-Xylene	100	92.2		ug/L		92	80 - 125	5	30
Toluene	50.0	48.1		ug/L		96	80 - 122	4	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	98		80 - 129
4-Bromofluorobenzene (Surr)	98		77 - 120
Dibromofluoromethane (Surr)	101		80 - 128
Toluene-d8 (Surr)	102		80 - 120

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QC Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11815-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 570-20520/9

Matrix: Water

Analysis Batch: 20520

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.14	ug/L			09/20/19 17:42	1
Ethylbenzene	ND		1.0	0.14	ug/L			09/20/19 17:42	1
o-Xylene	ND		1.0	0.15	ug/L			09/20/19 17:42	1
m,p-Xylene	ND		2.0	0.31	ug/L			09/20/19 17:42	1
Toluene	ND		1.0	0.13	ug/L			09/20/19 17:42	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		80 - 129		09/20/19 17:42	1
4-Bromofluorobenzene (Surr)	96		77 - 120		09/20/19 17:42	1
Dibromofluoromethane (Surr)	100		80 - 128		09/20/19 17:42	1
Toluene-d8 (Surr)	101		80 - 120		09/20/19 17:42	1

Lab Sample ID: LCS 570-20520/4

Matrix: Water

Analysis Batch: 20520

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	48.3		ug/L		97	78 - 120
Ethylbenzene	50.0	50.4		ug/L		101	80 - 120
o-Xylene	50.0	49.5		ug/L		99	80 - 125
m,p-Xylene	100	97.0		ug/L		97	80 - 125
Toluene	50.0	49.9		ug/L		100	80 - 122

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		80 - 129
4-Bromofluorobenzene (Surr)	98		77 - 120
Dibromofluoromethane (Surr)	102		80 - 128
Toluene-d8 (Surr)	101		80 - 120

Lab Sample ID: LCSD 570-20520/5

Matrix: Water

Analysis Batch: 20520

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	50.0	46.0		ug/L		92	78 - 120	5	21
Ethylbenzene	50.0	47.3		ug/L		95	80 - 120	6	20
o-Xylene	50.0	46.6		ug/L		93	80 - 125	6	20
m,p-Xylene	100	90.4		ug/L		90	80 - 125	7	30
Toluene	50.0	47.5		ug/L		95	80 - 122	5	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	98		80 - 129
4-Bromofluorobenzene (Surr)	101		77 - 120
Dibromofluoromethane (Surr)	101		80 - 128
Toluene-d8 (Surr)	103		80 - 120

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QC Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11815-1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Lab Sample ID: MB 570-20377/6

Matrix: Water

Analysis Batch: 20377

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline (C4-C13)	ND		100	48	ug/L	-		09/19/19 17:50	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		38 - 134					09/19/19 17:50	1

Lab Sample ID: LCS 570-20377/3

Matrix: Water

Analysis Batch: 20377

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
TPH as Gasoline (C4-C13)	2000	2390		ug/L	-	120	78 - 120	
Surrogate	LCS %Recovery	LCS Qualifier	Limits					
4-Bromofluorobenzene (Surr)	108		38 - 134					

Lab Sample ID: LCSD 570-20377/4

Matrix: Water

Analysis Batch: 20377

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
TPH as Gasoline (C4-C13)	2000	2370		ug/L	-	119	78 - 120	1	10
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene (Surr)	111		38 - 134						

Lab Sample ID: MB 570-20674/6

Matrix: Water

Analysis Batch: 20674

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline (C4-C13)	ND		100	48	ug/L	-		09/20/19 17:10	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		38 - 134					09/20/19 17:10	1

Lab Sample ID: LCS 570-20674/3

Matrix: Water

Analysis Batch: 20674

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
TPH as Gasoline (C4-C13)	2000	2360		ug/L	-	118	78 - 120	
Surrogate	LCS %Recovery	LCS Qualifier	Limits					
4-Bromofluorobenzene (Surr)	118		38 - 134					

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QC Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11815-1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC) (Continued)

Lab Sample ID: LCSD 570-20674/4

Matrix: Water

Analysis Batch: 20674

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
TPH as Gasoline (C4-C13)	2000	2280		ug/L		114	78 - 120	3	10
Surrogate	%Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene (Surr)	109		38 - 134						

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Lab Sample ID: MB 590-24180/1-A

Matrix: Water

Analysis Batch: 24181

Client Sample ID: Method Blank

Prep Type: Silica Gel Cleanup

Prep Batch: 24180

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	ND		0.24	0.11	mg/L		09/18/19 08:55	09/18/19 10:48	1
Residual Range Organics (RRO) (C25-C36)	ND		0.40	0.12	mg/L		09/18/19 08:55	09/18/19 10:48	1
Surrogate	%Recovery	MB Qualifier	Limits						
o-Terphenyl	96		50 - 150						
n-Triacontane-d62	84		50 - 150						

Lab Sample ID: LCS 590-24180/2-A

Matrix: Water

Analysis Batch: 24181

Client Sample ID: Lab Control Sample

Prep Type: Silica Gel Cleanup

Prep Batch: 24180

			Spike	LCS	LCS				%Rec.		
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits		
Diesel Range Organics (DRO) (C10-C25)			1.60	1.61		mg/L	-	100	50 - 150		
Residual Range Organics (RRO) (C25-C36)			1.60	1.70		mg/L		106	50 - 150		
										</	

Lab Sample ID: LCSD 590-24180/3-A

Matrix: Water

Analysis Batch: 24181

Client Sample ID: Lab Control Sample Dup

Prep Type: Silica Gel Cleanup

Prep Batch: 24180

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics (DRO) (C10-C25)	1.60	1.55		mg/L		97	50 - 150	4	25
Residual Range Organics (RRO) (C25-C36)	1.60	1.67		mg/L		104	50 - 150	2	25
Surrogate	%Recovery	LCSD Qualifier	Limits						
o-Terphenyl	98		50 - 150						
n-Triacontane-d62	100		50 - 150						

Eurofins TestAmerica, Spokane

QC Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11815-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 590-24052/1013

Matrix: Water

Analysis Batch: 24052

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.20	0.057	mg/L			09/11/19 12:45	1

Lab Sample ID: MB 590-24052/1022

Matrix: Water

Analysis Batch: 24052

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.20	0.057	mg/L			09/11/19 14:30	1

Lab Sample ID: MB 590-24052/1034

Matrix: Water

Analysis Batch: 24052

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.20	0.057	mg/L			09/11/19 16:50	1

Lab Sample ID: LCS 590-24052/1021

Matrix: Water

Analysis Batch: 24052

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	5.00	4.75		mg/L		95	90 - 110

Lab Sample ID: 590-11815-7 MS

Matrix: Water

Analysis Batch: 24052

Client Sample ID: RW-2

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	0.53	F1	4.55	2.26	F1	mg/L		38	80 - 120

Lab Sample ID: 590-11815-7 MSD

Matrix: Water

Analysis Batch: 24052

Client Sample ID: RW-2

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	0.53	F1	4.55	2.30	F1	mg/L		39	80 - 120	2	12.1

Lab Sample ID: 590-11815-7 DU

Matrix: Water

Analysis Batch: 24052

Client Sample ID: RW-2

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Nitrate as N	0.53	F1	0.521		mg/L		0.8	13.1

Lab Sample ID: MB 590-24053/1013

Matrix: Water

Analysis Batch: 24053

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		0.50	0.13	mg/L			09/11/19 12:45	1

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QC Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11815-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 590-24053/1022

Matrix: Water

Analysis Batch: 24053

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		0.50	0.13	mg/L			09/11/19 14:30	1

Lab Sample ID: MB 590-24053/1034

Matrix: Water

Analysis Batch: 24053

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		0.50	0.13	mg/L			09/11/19 16:50	1

Lab Sample ID: LCS 590-24053/1021

Matrix: Water

Analysis Batch: 24053

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	12.5	12.4		mg/L		99	90 - 110

Lab Sample ID: 590-11815-7 MS

Matrix: Water

Analysis Batch: 24053

Client Sample ID: RW-2

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	1.5		11.4	12.4		mg/L		96	80 - 120

Lab Sample ID: 590-11815-7 MSD

Matrix: Water

Analysis Batch: 24053

Client Sample ID: RW-2

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	1.5		11.4	12.8		mg/L		99	80 - 120	3	10

Lab Sample ID: 590-11815-7 DU

Matrix: Water

Analysis Batch: 24053

Client Sample ID: RW-2

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sulfate	1.5		1.68		mg/L		11	15.7

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 580-311915/24-A

Matrix: Water

Analysis Batch: 312349

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 311915

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L		09/21/19 09:08	09/24/19 22:55	5

Eurofins TestAmerica, Spokane

QC Sample Results

Client: AECOM

Job ID: 590-11815-1

Project/Site: Tacoma D St Terminal-Phillips 66

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 580-311915/25-A

Matrix: Water

Analysis Batch: 312349

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 311915

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	1.00	0.965		mg/L		97	80 - 120

Lab Sample ID: LCSD 580-311915/26-A

Matrix: Water

Analysis Batch: 312349

Client Sample ID: Lab Control Sample Dup

Prep Type: Total Recoverable

Prep Batch: 311915

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	1.00	0.955		mg/L		96	80 - 120	1	20

Lab Sample ID: MB 580-311939/22-A

Matrix: Water

Analysis Batch: 312495

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 311939

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L		09/21/19 13:42	09/26/19 15:40	5
Manganese	0.00719	J	0.010	0.0023	mg/L		09/21/19 13:42	09/26/19 15:40	5

Lab Sample ID: LCS 580-311939/23-A

Matrix: Water

Analysis Batch: 312495

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 311939

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	1.00	0.993		mg/L		99	80 - 120
Manganese	1.00	1.01		mg/L		101	80 - 120

Lab Sample ID: LCSD 580-311939/24-A

Matrix: Water

Analysis Batch: 312495

Client Sample ID: Lab Control Sample Dup

Prep Type: Total Recoverable

Prep Batch: 311939

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	1.00	0.983		mg/L		98	80 - 120	1	20
Manganese	1.00	0.991		mg/L		99	80 - 120	2	20

Lab Sample ID: 590-11815-7 MS

Matrix: Water

Analysis Batch: 312495

Client Sample ID: RW-2

Prep Type: Dissolved

Prep Batch: 311939

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	ND		1.00	1.10		mg/L		110	80 - 120
Manganese	1.5	B	1.00	2.65		mg/L		113	80 - 120

Lab Sample ID: 590-11815-7 MSD

Matrix: Water

Analysis Batch: 312495

Client Sample ID: RW-2

Prep Type: Dissolved

Prep Batch: 311939

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	ND		1.00	1.10		mg/L		110	80 - 120	0	20
Manganese	1.5	B	1.00	2.68		mg/L		116	80 - 120	1	20

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QC Sample Results

Client: AECOM

Job ID: 590-11815-1

Project/Site: Tacoma D St Terminal-Phillips 66

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 590-11815-7 DU

Matrix: Water

Analysis Batch: 312495

Client Sample ID: RW-2

Prep Type: Dissolved

Prep Batch: 311939

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lead	ND		ND		mg/L		NC	20
Manganese	1.5	B	1.50		mg/L		1	20

Method: 310.1 - Alkalinity

Lab Sample ID: LCS 580-311956/2

Matrix: Water

Analysis Batch: 311956

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	100	99.6		mg/L		100	85 - 115

QC Association Summary

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11815-1

GC/MS VOA

Analysis Batch: 20379

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11815-1	T-3	Total/NA	Water	8260C	
590-11815-2	E-21	Total/NA	Water	8260C	
590-11815-3	RR-5	Total/NA	Water	8260C	
590-11815-4	B-31	Total/NA	Water	8260C	
590-11815-5	G-16	Total/NA	Water	8260C	
590-11815-6	E-22	Total/NA	Water	8260C	
590-11815-7	RW-2	Total/NA	Water	8260C	
590-11815-8	RW-8	Total/NA	Water	8260C	
590-11815-9	B-34	Total/NA	Water	8260C	
590-11815-10	FW-13	Total/NA	Water	8260C	
590-11815-12	Trip Blank	Total/NA	Water	8260C	
MB 570-20379/9	Method Blank	Total/NA	Water	8260C	
LCS 570-20379/4	Lab Control Sample	Total/NA	Water	8260C	
LCSD 570-20379/5	Lab Control Sample Dup	Total/NA	Water	8260C	

Analysis Batch: 20520

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11815-11	FW-13-DUP	Total/NA	Water	8260C	
MB 570-20520/9	Method Blank	Total/NA	Water	8260C	
LCS 570-20520/4	Lab Control Sample	Total/NA	Water	8260C	
LCSD 570-20520/5	Lab Control Sample Dup	Total/NA	Water	8260C	

GC VOA

Analysis Batch: 20377

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11815-2	E-21	Total/NA	Water	NWTPH-Gx	
590-11815-3	RR-5	Total/NA	Water	NWTPH-Gx	
590-11815-4	B-31	Total/NA	Water	NWTPH-Gx	
590-11815-5	G-16	Total/NA	Water	NWTPH-Gx	
590-11815-7	RW-2	Total/NA	Water	NWTPH-Gx	
590-11815-8	RW-8	Total/NA	Water	NWTPH-Gx	
590-11815-9	B-34	Total/NA	Water	NWTPH-Gx	
MB 570-20377/6	Method Blank	Total/NA	Water	NWTPH-Gx	
LCS 570-20377/3	Lab Control Sample	Total/NA	Water	NWTPH-Gx	
LCSD 570-20377/4	Lab Control Sample Dup	Total/NA	Water	NWTPH-Gx	

Analysis Batch: 20674

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11815-1	T-3	Total/NA	Water	NWTPH-Gx	
590-11815-6	E-22	Total/NA	Water	NWTPH-Gx	
590-11815-10	FW-13	Total/NA	Water	NWTPH-Gx	
590-11815-11	FW-13-DUP	Total/NA	Water	NWTPH-Gx	
MB 570-20674/6	Method Blank	Total/NA	Water	NWTPH-Gx	
LCS 570-20674/3	Lab Control Sample	Total/NA	Water	NWTPH-Gx	
LCSD 570-20674/4	Lab Control Sample Dup	Total/NA	Water	NWTPH-Gx	

GC Semi VOA

Prep Batch: 24180

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11815-1	T-3	Silica Gel Cleanup	Water	3510C SGC	

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QC Association Summary

Client: AECOM

Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11815-1

GC Semi VOA (Continued)

Prep Batch: 24180 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11815-2	E-21	Silica Gel Cleanup	Water	3510C SGC	
590-11815-3	RR-5	Silica Gel Cleanup	Water	3510C SGC	
590-11815-4	B-31	Silica Gel Cleanup	Water	3510C SGC	
590-11815-5	G-16	Silica Gel Cleanup	Water	3510C SGC	
590-11815-6	E-22	Silica Gel Cleanup	Water	3510C SGC	
590-11815-7	RW-2	Silica Gel Cleanup	Water	3510C SGC	
590-11815-8	RW-8	Silica Gel Cleanup	Water	3510C SGC	
590-11815-9	B-34	Silica Gel Cleanup	Water	3510C SGC	
590-11815-10	FW-13	Silica Gel Cleanup	Water	3510C SGC	
590-11815-11	FW-13-DUP	Silica Gel Cleanup	Water	3510C SGC	
MB 590-24180/1-A	Method Blank	Silica Gel Cleanup	Water	3510C SGC	
LCS 590-24180/2-A	Lab Control Sample	Silica Gel Cleanup	Water	3510C SGC	
LCSD 590-24180/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Water	3510C SGC	

Analysis Batch: 24181

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11815-1	T-3	Silica Gel Cleanup	Water	NWTPH-Dx	24180
590-11815-2	E-21	Silica Gel Cleanup	Water	NWTPH-Dx	24180
590-11815-3	RR-5	Silica Gel Cleanup	Water	NWTPH-Dx	24180
590-11815-4	B-31	Silica Gel Cleanup	Water	NWTPH-Dx	24180
590-11815-5	G-16	Silica Gel Cleanup	Water	NWTPH-Dx	24180
590-11815-6	E-22	Silica Gel Cleanup	Water	NWTPH-Dx	24180
590-11815-7	RW-2	Silica Gel Cleanup	Water	NWTPH-Dx	24180
590-11815-8	RW-8	Silica Gel Cleanup	Water	NWTPH-Dx	24180
590-11815-9	B-34	Silica Gel Cleanup	Water	NWTPH-Dx	24180
590-11815-10	FW-13	Silica Gel Cleanup	Water	NWTPH-Dx	24180
590-11815-11	FW-13-DUP	Silica Gel Cleanup	Water	NWTPH-Dx	24180
MB 590-24180/1-A	Method Blank	Silica Gel Cleanup	Water	NWTPH-Dx	24180
LCS 590-24180/2-A	Lab Control Sample	Silica Gel Cleanup	Water	NWTPH-Dx	24180
LCSD 590-24180/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Water	NWTPH-Dx	24180

HPLC/IC

Analysis Batch: 24052

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11815-1	T-3	Total/NA	Water	300.0	
590-11815-2	E-21	Total/NA	Water	300.0	
590-11815-3	RR-5	Total/NA	Water	300.0	
590-11815-4	B-31	Total/NA	Water	300.0	
590-11815-5	G-16	Total/NA	Water	300.0	
590-11815-6	E-22	Total/NA	Water	300.0	
590-11815-7	RW-2	Total/NA	Water	300.0	
590-11815-8	RW-8	Total/NA	Water	300.0	
590-11815-9	B-34	Total/NA	Water	300.0	
590-11815-10	FW-13	Total/NA	Water	300.0	
590-11815-11	FW-13-DUP	Total/NA	Water	300.0	
MB 590-24052/1013	Method Blank	Total/NA	Water	300.0	
MB 590-24052/1022	Method Blank	Total/NA	Water	300.0	
MB 590-24052/1034	Method Blank	Total/NA	Water	300.0	
LCS 590-24052/1021	Lab Control Sample	Total/NA	Water	300.0	
590-11815-7 MS	RW-2	Total/NA	Water	300.0	

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QC Association Summary

Client: AECOM

Job ID: 590-11815-1

Project/Site: Tacoma D St Terminal-Phillips 66

HPLC/IC (Continued)

Analysis Batch: 24052 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11815-7 MSD	RW-2	Total/NA	Water	300.0	
590-11815-7 DU	RW-2	Total/NA	Water	300.0	

Analysis Batch: 24053

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11815-1	T-3	Total/NA	Water	300.0	
590-11815-2	E-21	Total/NA	Water	300.0	
590-11815-3	RR-5	Total/NA	Water	300.0	
590-11815-4	B-31	Total/NA	Water	300.0	
590-11815-5	G-16	Total/NA	Water	300.0	
590-11815-6	E-22	Total/NA	Water	300.0	
590-11815-7	RW-2	Total/NA	Water	300.0	
590-11815-8	RW-8	Total/NA	Water	300.0	
590-11815-9	B-34	Total/NA	Water	300.0	
590-11815-10	FW-13	Total/NA	Water	300.0	
590-11815-11	FW-13-DUP	Total/NA	Water	300.0	
MB 590-24053/1013	Method Blank	Total/NA	Water	300.0	
MB 590-24053/1022	Method Blank	Total/NA	Water	300.0	
MB 590-24053/1034	Method Blank	Total/NA	Water	300.0	
LCS 590-24053/1021	Lab Control Sample	Total/NA	Water	300.0	
590-11815-7 MS	RW-2	Total/NA	Water	300.0	
590-11815-7 MSD	RW-2	Total/NA	Water	300.0	
590-11815-7 DU	RW-2	Total/NA	Water	300.0	

Metals

Prep Batch: 311915

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11815-1	T-3	Total Recoverable	Water	3005A	
590-11815-2	E-21	Total Recoverable	Water	3005A	
590-11815-3	RR-5	Total Recoverable	Water	3005A	
590-11815-4	B-31	Total Recoverable	Water	3005A	
590-11815-5	G-16	Total Recoverable	Water	3005A	
590-11815-6	E-22	Total Recoverable	Water	3005A	
590-11815-7	RW-2	Total Recoverable	Water	3005A	
590-11815-8	RW-8	Total Recoverable	Water	3005A	
590-11815-9	B-34	Total Recoverable	Water	3005A	
590-11815-10	FW-13	Total Recoverable	Water	3005A	
590-11815-11	FW-13-DUP	Total Recoverable	Water	3005A	
MB 580-311915/24-A	Method Blank	Total Recoverable	Water	3005A	
LCS 580-311915/25-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCSD 580-311915/26-A	Lab Control Sample Dup	Total Recoverable	Water	3005A	

Prep Batch: 311939

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11815-1	T-3	Dissolved	Water	3005A	
590-11815-2	E-21	Dissolved	Water	3005A	
590-11815-3	RR-5	Dissolved	Water	3005A	
590-11815-4	B-31	Dissolved	Water	3005A	
590-11815-5	G-16	Dissolved	Water	3005A	
590-11815-6	E-22	Dissolved	Water	3005A	

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QC Association Summary

Client: AECOM

Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11815-1

Metals (Continued)

Prep Batch: 311939 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11815-7	RW-2	Dissolved	Water	3005A	
590-11815-8	RW-8	Dissolved	Water	3005A	
590-11815-9	B-34	Dissolved	Water	3005A	
590-11815-10	FW-13	Dissolved	Water	3005A	
590-11815-11	FW-13-DUP	Dissolved	Water	3005A	
MB 580-311939/22-A	Method Blank	Total Recoverable	Water	3005A	
LCS 580-311939/23-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCSD 580-311939/24-A	Lab Control Sample Dup	Total Recoverable	Water	3005A	
590-11815-7 MS	RW-2	Dissolved	Water	3005A	
590-11815-7 MSD	RW-2	Dissolved	Water	3005A	
590-11815-7 DU	RW-2	Dissolved	Water	3005A	

Analysis Batch: 312349

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11815-1	T-3	Total Recoverable	Water	6020A	311915
590-11815-2	E-21	Total Recoverable	Water	6020A	311915
590-11815-3	RR-5	Total Recoverable	Water	6020A	311915
590-11815-4	B-31	Total Recoverable	Water	6020A	311915
590-11815-5	G-16	Total Recoverable	Water	6020A	311915
590-11815-6	E-22	Total Recoverable	Water	6020A	311915
590-11815-7	RW-2	Total Recoverable	Water	6020A	311915
590-11815-8	RW-8	Total Recoverable	Water	6020A	311915
590-11815-9	B-34	Total Recoverable	Water	6020A	311915
590-11815-10	FW-13	Total Recoverable	Water	6020A	311915
590-11815-11	FW-13-DUP	Total Recoverable	Water	6020A	311915
MB 580-311915/24-A	Method Blank	Total Recoverable	Water	6020A	311915
LCS 580-311915/25-A	Lab Control Sample	Total Recoverable	Water	6020A	311915
LCSD 580-311915/26-A	Lab Control Sample Dup	Total Recoverable	Water	6020A	311915

Analysis Batch: 312495

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11815-1	T-3	Dissolved	Water	6020A	311939
590-11815-2	E-21	Dissolved	Water	6020A	311939
590-11815-3	RR-5	Dissolved	Water	6020A	311939
590-11815-4	B-31	Dissolved	Water	6020A	311939
590-11815-5	G-16	Dissolved	Water	6020A	311939
590-11815-6	E-22	Dissolved	Water	6020A	311939
590-11815-7	RW-2	Dissolved	Water	6020A	311939
590-11815-8	RW-8	Dissolved	Water	6020A	311939
590-11815-9	B-34	Dissolved	Water	6020A	311939
590-11815-10	FW-13	Dissolved	Water	6020A	311939
590-11815-11	FW-13-DUP	Dissolved	Water	6020A	311939
MB 580-311939/22-A	Method Blank	Total Recoverable	Water	6020A	311939
LCS 580-311939/23-A	Lab Control Sample	Total Recoverable	Water	6020A	311939
LCSD 580-311939/24-A	Lab Control Sample Dup	Total Recoverable	Water	6020A	311939
590-11815-7 MS	RW-2	Dissolved	Water	6020A	311939
590-11815-7 MSD	RW-2	Dissolved	Water	6020A	311939
590-11815-7 DU	RW-2	Dissolved	Water	6020A	311939

QC Association Summary

Client: AECOM

Job ID: 590-11815-1

Project/Site: Tacoma D St Terminal-Phillips 66

General Chemistry

Analysis Batch: 311956

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11815-1	T-3	Total/NA	Water	310.1	
590-11815-2	E-21	Total/NA	Water	310.1	
590-11815-3	RR-5	Total/NA	Water	310.1	
590-11815-4	B-31	Total/NA	Water	310.1	
590-11815-5	G-16	Total/NA	Water	310.1	
590-11815-6	E-22	Total/NA	Water	310.1	
590-11815-7	RW-2	Total/NA	Water	310.1	
590-11815-8	RW-8	Total/NA	Water	310.1	
590-11815-9	B-34	Total/NA	Water	310.1	
590-11815-10	FW-13	Total/NA	Water	310.1	
590-11815-11	FW-13-DUP	Total/NA	Water	310.1	
LCS 580-311956/2	Lab Control Sample	Total/NA	Water	310.1	

Lab Chronicle

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11815-1

Client Sample ID: T-3

Date Collected: 09/10/19 08:47

Date Received: 09/11/19 11:38

Lab Sample ID: 590-11815-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	20379	09/19/19 22:04	MGX6	ECL 2
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	20674	09/20/19 21:46	W6MG	ECL 2
Silica Gel Cleanup	Prep	3510C SGC			218.5 mL	2 mL	24180	09/18/19 08:55	AMB	TAL SPK
Silica Gel Cleanup	Analysis	NWTPH-Dx		1			24181	09/18/19 12:33	NMI	TAL SPK
Total/NA	Analysis	300.0		1000			24052	09/11/19 14:42	NMI	TAL SPK
Total/NA	Analysis	300.0		1000	5 mL	1.0 mL	24053	09/11/19 14:42	NMI	TAL SPK
Dissolved	Prep	3005A			50 mL	50 mL	311939	09/21/19 13:42	JCP	TAL SEA
Dissolved	Analysis	6020A		5	50 mL	50 mL	312495	09/26/19 16:40	FCW	TAL SEA
Total Recoverable	Prep	3005A			50 mL	50 mL	311915	09/21/19 09:08	JCP	TAL SEA
Total Recoverable	Analysis	6020A		5	50 mL	50 mL	312349	09/25/19 00:27	FCW	TAL SEA
Total/NA	Analysis	310.1		1	30 mL	30 mL	311956	09/21/19 12:44	EMM	TAL SEA

Client Sample ID: E-21

Date Collected: 09/10/19 09:00

Date Received: 09/11/19 11:38

Lab Sample ID: 590-11815-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	20379	09/19/19 22:30	MGX6	ECL 2
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	20377	09/19/19 23:58	CVA6	ECL 2
Silica Gel Cleanup	Prep	3510C SGC			269.3 mL	2 mL	24180	09/18/19 08:55	AMB	TAL SPK
Silica Gel Cleanup	Analysis	NWTPH-Dx		1			24181	09/18/19 12:54	NMI	TAL SPK
Total/NA	Analysis	300.0		1			24052	09/11/19 14:53	NMI	TAL SPK
Total/NA	Analysis	300.0		1	5 mL	1.0 mL	24053	09/11/19 14:53	NMI	TAL SPK
Dissolved	Prep	3005A			50 mL	50 mL	311939	09/21/19 13:42	JCP	TAL SEA
Dissolved	Analysis	6020A		5	50 mL	50 mL	312495	09/26/19 16:45	FCW	TAL SEA
Total Recoverable	Prep	3005A			50 mL	50 mL	311915	09/21/19 09:08	JCP	TAL SEA
Total Recoverable	Analysis	6020A		5	50 mL	50 mL	312349	09/24/19 22:59	FCW	TAL SEA
Total/NA	Analysis	310.1		1	30 mL	30 mL	311956	09/21/19 12:44	EMM	TAL SEA

Client Sample ID: RR-5

Date Collected: 09/10/19 10:16

Date Received: 09/11/19 11:38

Lab Sample ID: 590-11815-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	20379	09/19/19 22:56	MGX6	ECL 2
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	20377	09/19/19 23:30	CVA6	ECL 2
Silica Gel Cleanup	Prep	3510C SGC			218.7 mL	2 mL	24180	09/18/19 08:55	AMB	TAL SPK
Silica Gel Cleanup	Analysis	NWTPH-Dx		1			24181	09/18/19 13:15	NMI	TAL SPK
Total/NA	Analysis	300.0		500			24052	09/11/19 15:05	NMI	TAL SPK
Total/NA	Analysis	300.0		500	5 mL	1.0 mL	24053	09/11/19 15:05	NMI	TAL SPK
Dissolved	Prep	3005A			50 mL	50 mL	311939	09/21/19 13:42	JCP	TAL SEA
Dissolved	Analysis	6020A		5	50 mL	50 mL	312495	09/26/19 16:50	FCW	TAL SEA

Eurofins TestAmerica, Spokane

Lab Chronicle

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11815-1

Client Sample ID: RR-5

Date Collected: 09/10/19 10:16

Date Received: 09/11/19 11:38

Lab Sample ID: 590-11815-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	311915	09/21/19 09:08	JCP	TAL SEA
Total Recoverable	Analysis	6020A		5	50 mL	50 mL	312349	09/25/19 00:48	FCW	TAL SEA
Total/NA	Analysis	310.1		1	30 mL	30 mL	311956	09/21/19 12:44	EMM	TAL SEA

Client Sample ID: B-31

Date Collected: 09/10/19 10:10

Date Received: 09/11/19 11:38

Lab Sample ID: 590-11815-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		4	5 mL	5 mL	20379	09/19/19 23:22	MGX6	ECL 2
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	20377	09/19/19 22:05	CVA6	ECL 2
Silica Gel Cleanup	Prep	3510C SGC			260.7 mL	2 mL	24180	09/18/19 08:55	AMB	TAL SPK
Silica Gel Cleanup	Analysis	NWTPH-Dx		1			24181	09/18/19 13:36	NMI	TAL SPK
Total/NA	Analysis	300.0		1			24052	09/11/19 15:16	NMI	TAL SPK
Total/NA	Analysis	300.0		1	5 mL	1.0 mL	24053	09/11/19 15:16	NMI	TAL SPK
Dissolved	Prep	3005A			50 mL	50 mL	311939	09/21/19 13:42	JCP	TAL SEA
Dissolved	Analysis	6020A		5	50 mL	50 mL	312495	09/26/19 16:55	FCW	TAL SEA
Total Recoverable	Prep	3005A			50 mL	50 mL	311915	09/21/19 09:08	JCP	TAL SEA
Total Recoverable	Analysis	6020A		5	50 mL	50 mL	312349	09/25/19 00:53	FCW	TAL SEA
Total/NA	Analysis	310.1		1	30 mL	30 mL	311956	09/21/19 12:44	EMM	TAL SEA

Client Sample ID: G-16

Date Collected: 09/10/19 11:25

Date Received: 09/11/19 11:38

Lab Sample ID: 590-11815-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	20379	09/19/19 23:48	MGX6	ECL 2
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	20377	09/19/19 23:02	CVA6	ECL 2
Silica Gel Cleanup	Prep	3510C SGC			259.6 mL	2 mL	24180	09/18/19 08:55	AMB	TAL SPK
Silica Gel Cleanup	Analysis	NWTPH-Dx		1			24181	09/18/19 13:57	NMI	TAL SPK
Total/NA	Analysis	300.0		100			24052	09/11/19 15:28	NMI	TAL SPK
Total/NA	Analysis	300.0		100	5 mL	1.0 mL	24053	09/11/19 15:28	NMI	TAL SPK
Dissolved	Prep	3005A			50 mL	50 mL	311939	09/21/19 13:42	JCP	TAL SEA
Dissolved	Analysis	6020A		5	50 mL	50 mL	312495	09/26/19 17:00	FCW	TAL SEA
Total Recoverable	Prep	3005A			50 mL	50 mL	311915	09/21/19 09:08	JCP	TAL SEA
Total Recoverable	Analysis	6020A		5	50 mL	50 mL	312349	09/25/19 00:57	FCW	TAL SEA
Total/NA	Analysis	310.1		1	30 mL	30 mL	311956	09/21/19 12:44	EMM	TAL SEA

Client Sample ID: E-22

Date Collected: 09/10/19 12:03

Date Received: 09/11/19 11:38

Lab Sample ID: 590-11815-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	20379	09/20/19 00:14	MGX6	ECL 2

Eurofins TestAmerica, Spokane

Lab Chronicle

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11815-1

Client Sample ID: E-22

Date Collected: 09/10/19 12:03

Date Received: 09/11/19 11:38

Lab Sample ID: 590-11815-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	20674	09/20/19 23:11	W6MG	ECL 2
Silica Gel Cleanup	Prep	3510C SGC			246.6 mL	2 mL	24180	09/18/19 08:55	AMB	TAL SPK
Silica Gel Cleanup	Analysis	NWTPH-Dx		1			24181	09/18/19 14:39	NMI	TAL SPK
Total/NA	Analysis	300.0		100			24052	09/11/19 15:40	NMI	TAL SPK
Total/NA	Analysis	300.0		100	5 mL	1.0 mL	24053	09/11/19 15:40	NMI	TAL SPK
Dissolved	Prep	3005A			50 mL	50 mL	311939	09/21/19 13:42	JCP	TAL SEA
Dissolved	Analysis	6020A		5	50 mL	50 mL	312495	09/26/19 17:05	FCW	TAL SEA
Total Recoverable	Prep	3005A			50 mL	50 mL	311915	09/21/19 09:08	JCP	TAL SEA
Total Recoverable	Analysis	6020A		5	50 mL	50 mL	312349	09/25/19 01:02	FCW	TAL SEA
Total/NA	Analysis	310.1		1	30 mL	30 mL	311956	09/21/19 12:44	EMM	TAL SEA

Client Sample ID: RW-2

Date Collected: 09/10/19 12:35

Date Received: 09/11/19 11:38

Lab Sample ID: 590-11815-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	20379	09/20/19 00:39	MGX6	ECL 2
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	20377	09/19/19 21:09	CVA6	ECL 2
Silica Gel Cleanup	Prep	3510C SGC			260.8 mL	2 mL	24180	09/18/19 08:55	AMB	TAL SPK
Silica Gel Cleanup	Analysis	NWTPH-Dx		1			24181	09/18/19 14:59	NMI	TAL SPK
Total/NA	Analysis	300.0		1			24052	09/11/19 15:52	NMI	TAL SPK
Total/NA	Analysis	300.0		1	5 mL	1.0 mL	24053	09/11/19 15:52	NMI	TAL SPK
Dissolved	Prep	3005A			50 mL	50 mL	311939	09/21/19 13:42	JCP	TAL SEA
Dissolved	Analysis	6020A		5	50 mL	50 mL	312495	09/26/19 15:45	FCW	TAL SEA
Total Recoverable	Prep	3005A			50 mL	50 mL	311915	09/21/19 09:08	JCP	TAL SEA
Total Recoverable	Analysis	6020A		5	50 mL	50 mL	312349	09/25/19 01:06	FCW	TAL SEA
Total/NA	Analysis	310.1		1	30 mL	30 mL	311956	09/21/19 12:44	EMM	TAL SEA

Client Sample ID: RW-8

Date Collected: 09/10/19 13:50

Date Received: 09/11/19 11:38

Lab Sample ID: 590-11815-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		4	5 mL	5 mL	20379	09/20/19 01:05	MGX6	ECL 2
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	20377	09/19/19 21:37	CVA6	ECL 2
Silica Gel Cleanup	Prep	3510C SGC			256.2 mL	2 mL	24180	09/18/19 08:55	AMB	TAL SPK
Silica Gel Cleanup	Analysis	NWTPH-Dx		1			24181	09/18/19 15:20	NMI	TAL SPK
Total/NA	Analysis	300.0		1			24052	09/11/19 17:02	NMI	TAL SPK
Total/NA	Analysis	300.0		1			24053	09/11/19 17:02	NMI	TAL SPK
Dissolved	Prep	3005A			50 mL	50 mL	311939	09/21/19 13:42	JCP	TAL SEA
Dissolved	Analysis	6020A		5	50 mL	50 mL	312495	09/26/19 18:05	FCW	TAL SEA
Total Recoverable	Prep	3005A			50 mL	50 mL	311915	09/21/19 09:08	JCP	TAL SEA
Total Recoverable	Analysis	6020A		5	50 mL	50 mL	312349	09/25/19 01:10	FCW	TAL SEA

Eurofins TestAmerica, Spokane

Lab Chronicle

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11815-1

Client Sample ID: RW-8

Date Collected: 09/10/19 13:50

Date Received: 09/11/19 11:38

Lab Sample ID: 590-11815-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	310.1		1	30 mL	30 mL	311956	09/21/19 12:44	EMM	TAL SEA

Client Sample ID: B-34

Date Collected: 09/10/19 15:05

Date Received: 09/11/19 11:38

Lab Sample ID: 590-11815-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		20	5 mL	5 mL	20379	09/20/19 01:31	MGX6	ECL 2
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	20377	09/20/19 02:19	CVA6	ECL 2
Silica Gel Cleanup	Prep	3510C SGC			261.1 mL	2 mL	24180	09/18/19 08:55	AMB	TAL SPK
Silica Gel Cleanup	Analysis	NWTPH-Dx		1			24181	09/18/19 15:41	NMI	TAL SPK
Total/NA	Analysis	300.0		1			24052	09/11/19 17:13	NMI	TAL SPK
Total/NA	Analysis	300.0		1			24053	09/11/19 17:13	NMI	TAL SPK
Dissolved	Prep	3005A			50 mL	50 mL	311939	09/21/19 13:42	JCP	TAL SEA
Dissolved	Analysis	6020A		5	50 mL	50 mL	312495	09/26/19 18:10	FCW	TAL SEA
Total Recoverable	Prep	3005A			50 mL	50 mL	311915	09/21/19 09:08	JCP	TAL SEA
Total Recoverable	Analysis	6020A		5	50 mL	50 mL	312349	09/25/19 01:15	FCW	TAL SEA
Total/NA	Analysis	310.1		1	30 mL	30 mL	311956	09/21/19 12:44	EMM	TAL SEA

Client Sample ID: FW-13

Date Collected: 09/10/19 15:09

Date Received: 09/11/19 11:38

Lab Sample ID: 590-11815-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	20379	09/20/19 01:57	MGX6	ECL 2
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	20674	09/20/19 22:14	W6MG	ECL 2
Silica Gel Cleanup	Prep	3510C SGC			225.1 mL	2 mL	24180	09/18/19 08:55	AMB	TAL SPK
Silica Gel Cleanup	Analysis	NWTPH-Dx		1			24181	09/18/19 16:02	NMI	TAL SPK
Total/NA	Analysis	300.0		1			24052	09/11/19 17:25	NMI	TAL SPK
Total/NA	Analysis	300.0		1			24053	09/11/19 17:25	NMI	TAL SPK
Dissolved	Prep	3005A			50 mL	50 mL	311939	09/21/19 13:42	JCP	TAL SEA
Dissolved	Analysis	6020A		5	50 mL	50 mL	312495	09/26/19 18:15	FCW	TAL SEA
Total Recoverable	Prep	3005A			50 mL	50 mL	311915	09/21/19 09:08	JCP	TAL SEA
Total Recoverable	Analysis	6020A		5	50 mL	50 mL	312349	09/25/19 01:19	FCW	TAL SEA
Total/NA	Analysis	310.1		1	30 mL	30 mL	311956	09/21/19 12:44	EMM	TAL SEA

Client Sample ID: FW-13-DUP

Date Collected: 09/10/19 15:09

Date Received: 09/11/19 11:38

Lab Sample ID: 590-11815-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	20520	09/20/19 18:08	MGX6	ECL 2
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	20674	09/20/19 22:42	W6MG	ECL 2

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Lab Chronicle

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11815-1

Client Sample ID: FW-13-DUP

Date Collected: 09/10/19 15:09

Date Received: 09/11/19 11:38

Lab Sample ID: 590-11815-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Silica Gel Cleanup	Prep	3510C SGC			254.6 mL	2 mL	24180	09/18/19 08:55	AMB	TAL SPK
Silica Gel Cleanup	Analysis	NWTPH-Dx		1			24181	09/18/19 16:23	NMI	TAL SPK
Total/NA	Analysis	300.0		1			24052	09/11/19 17:37	NMI	TAL SPK
Total/NA	Analysis	300.0		1			24053	09/11/19 17:37	NMI	TAL SPK
Dissolved	Prep	3005A			50 mL	50 mL	311939	09/21/19 13:42	JCP	TAL SEA
Dissolved	Analysis	6020A		5	50 mL	50 mL	312495	09/26/19 18:20	FCW	TAL SEA
Total Recoverable	Prep	3005A			50 mL	50 mL	311915	09/21/19 09:08	JCP	TAL SEA
Total Recoverable	Analysis	6020A		5	50 mL	50 mL	312349	09/25/19 01:23	FCW	TAL SEA
Total/NA	Analysis	310.1		1	30 mL	30 mL	311956	09/22/19 12:45	EMM	TAL SEA

Client Sample ID: Trip Blank

Date Collected: 09/10/19 00:00

Date Received: 09/11/19 11:38

Lab Sample ID: 590-11815-12

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	20379	09/19/19 21:12	MGX6	ECL 2

Laboratory References:

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

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

TAL SPK = Eurofins TestAmerica, Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Definitions/Glossary

Client: AECOM

Job ID: 590-11815-1

Project/Site: Tacoma D St Terminal-Phillips 66

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits
Z	The chromatographic response does not resemble a typical fuel pattern.

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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

Accreditation/Certification Summary

Client: AECOM

Job ID: 590-11815-1

Project/Site: Tacoma D St Terminal-Phillips 66

Laboratory: Eurofins TestAmerica, Spokane

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Washington	State Program	C569	01-06-20
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte

Laboratory: Eurofins Calscience LLC

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

Authority	Program	Identification Number	Expiration Date
Arizona	State Program	AZ0781	03-13-20
California	SCAQMD LAP	N/A	11-30-19
California	State Program	2944	09-30-19
Guam	State Program	19-004R	10-31-19
Hawaii	State Program	N/A	01-29-20
Oregon	NELAP Primary AB	CA300001	01-20-20
Washington	State Program	C916	10-11-19

Laboratory: Eurofins TestAmerica, Seattle

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

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	17-024	01-19-22
Alaska (UST)	State Program	17-024	01-19-20
ANAB	Dept. of Defense ELAP	L2236	01-19-22
ANAB	DoD	L2236	01-19-22
ANAB	ISO/IEC 17025	L2236	01-19-22
ANAB	ISO/IEC 17025	L2236	01-19-22
California	State	2901	11-05-19
California	State Program	2901	11-05-19
Montana (UST)	State	NA	04-13-21
Montana (UST)	State Program	N/A	04-30-20
Oregon	NELAP	WA100007	11-05-19
Oregon	NELAP	WA100007	11-05-19
US Fish & Wildlife	Federal	LE058448-0	07-31-20
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	Federal	P330-14-00126	02-10-20
USDA	US Federal Programs	P330-17-00039	02-10-20
Washington	State	C553	02-17-20
Washington	State Program	C553	02-17-20

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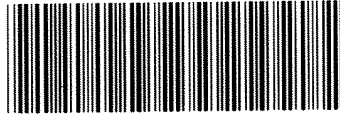
11922 E. 1st Ave.

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

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
TestAmerica Laboratories, Inc.

9/27/2019

Form No. CA-C-WI-002, Rev. 4.2, dated 04/02/2013



590-11815 Waybill

ORIGIN ID:GEGA (509) 924-1200
TEST AMERICA

11922 E 1ST AVE

SPOKANE, WA 99206
UNITED STATES US

SH 81:60
ACI 629
CAD
DIMS
BILL

08:01
1

67

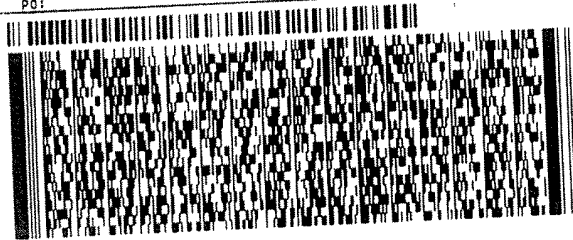
TO EUROFINS CAL SCIENCE, INC
ATTN SHIPPING
7440 LINCOLN WAY

GARDEN GROVE CA 92841

(714) 895-5494
INU:
PO:

REF:

DEPT:



FedEx
Express



J192019062401uy

TRK# 7897 7920 6294
0201

FRI - 13 SEP 10:30A
PRIORITY OVERNIGHT

XH APVA

92841
CA-US SNA



Eurofins TestAmerica, Spokane
11922 East 1st Ave
Spokane, WA 99206
Phone: 509-924-9200 Fax: 509-924-9290

Chain of Custody Record



eurofins

Environmental Testing
TestAmerica

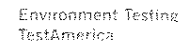
Client Information (Sub Contract Lab)		Lab PM:		Carrier Tracking No(s):		COC No:	
Client Contact: Shipping/Receiving		Arrington, Randee E				590-4722.1	
Company: Eurofins Calscience LLC		E-Mail: randee.arrington@testamericainc.com		State of Origin: Washington		Page: Page 1 of 2	
Address: 7440 Lincoln Way,		Accreditations Required (See note): State Program - Washington		Job #: 590-11815-1		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 X - other (specify)	
City: Garden Grove		Due Date Requested: 9/23/2019		Analysis Requested		Total Number of Containers	
State, Zip: CA, 92841		Barcode: 590-11815 Chain of Custody					
Phone: 714-895-5494(Tel) 714-894-7501(Fax)		Project #: 59000882					
Email:		SSOW#:					
Project Name: Tacoma D St Terminal-Phillips 66		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
Site:		Matrix (W=water, S=solid, O=wastewater, BT=Tissue, A=Air)		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)	
		Preservation Code		NMTPH, Gx/5030C TPH as Gasoline		8260C/5030C BTEX Volatiles	
Sample Identification - Client ID (Lab ID)		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
T-3 (590-11815-1)		9/10/19		08:47 Pacific		Water	
E-21 (590-11815-2)		9/10/19		09:00 Pacific		Water	
RR-5 (590-11815-3)		9/10/19		10:16 Pacific		Water	
B-31 (590-11815-4)		9/10/19		10:10 Pacific		Water	
G-16 (590-11815-5)		9/10/19		11:25 Pacific		Water	
E-22 (590-11815-6)		9/10/19		12:03 Pacific		Water	
RW-2 (590-11815-7)		9/10/19		12:35 Pacific		Water	
RW-8 (590-11815-8)		9/10/19		13:50 Pacific		Water	
B-34 (590-11815-9)		9/10/19		15:05 Pacific		Water	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the Signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification
Unconfirmed
Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2
Special Instructions/QC Requirements:

Empty Kit Relinquished by: _____ Date: _____
Relinquished by: _____ Date/Time: 9/12/19 16:00 Company: TMS
Relinquished by: _____ Date/Time: _____ Company: _____
Relinquished by: _____ Date/Time: _____ Company: _____
Custody Seals Intact: _____ Custody Seal No.: _____
Cooler Temperature(s) °C and Other Remarks:

Ver. 01/16/2019

[illegible]Ver: 01/16/2019 9/27/2019

 eurofins Environment Testing
TestAmerica

Ver: 01/16/2019 9/27/2019

Login Sample Receipt Checklist

Client: AECOM

Job Number: 590-11815-1

Login Number: 11815

List Number: 1

Creator: O'Toole, Maria C

List Source: Eurofins TestAmerica, Spokane

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	True	130486 130490 130489 130484
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	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 $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.

Login Sample Receipt Checklist

Client: AECOM

Job Number: 590-11815-1

Login Number: 11815

List Number: 2

Creator: Cruise, Noel

List Source: Eurofins Calscience

List Creation: 09/13/19 11:48 AM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	214794
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: AECOM

Job Number: 590-11815-1

Login Number: 11815

List Number: 3

Creator: Cruise, Noel

List Source: Eurofins Calscience

List Creation: 09/13/19 11:56 AM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ 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	214794
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: AECOM

Job Number: 590-11815-1

Login Number: 11815

List Number: 4

Creator: Gall, Brandon A

List Source: Eurofins TestAmerica, Seattle

List Creation: 09/13/19 11:59 AM

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ 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.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	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 $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins TestAmerica, Spokane
11922 East 1st Ave
Spokane, WA 99206
Tel: (509)924-9200

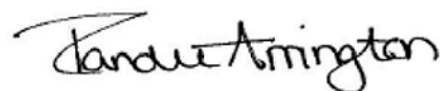
Laboratory Job ID: 590-11829-1

Client Project/Site: Tacoma D St Terminal-Phillips 66

For:

AECOM
111 SW Columbia Street, Suite 1500
Portland, Oregon 97201

Attn: Mr. Tyler Hemry



Authorized for release by:
10/1/2019 10:22:17 AM

Randee Arrington, Project Manager II
(509)924-9200
randee.arrington@testamericainc.com

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

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

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Case Narrative

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11829-1

Job ID: 590-11829-1

Laboratory: Eurofins TestAmerica, Spokane

Narrative

Receipt

The samples were received on 9/12/2019 2:00 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 2.2° C and 3.0° C.

GC/MS VOA

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

GC/MS Semi VOA

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

GC VOA

Method NWTPH-Gx: Surrogate recovery for the following samples were outside control limits: HC-111 (590-11829-2) and B-19 (590-11829-11). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA

Method 300.0: The native sample, matrix spike, and matrix spike duplicate (MS/MSD) associated with analytical batch 590-24092 were performed at the same dilution. Due to the additional level of analyte present in the spiked samples, the concentration of Sulfate in the MS/MSD was above the instrument calibration range. The data have been reported and qualified.

Method 300.0: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 590-24091 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method NWTPH-Dx: Detected hydrocarbons in the diesel range appear to be due to weathered gasoline overlap as well as heavily weathered diesel in the following samples: HC-111 (590-11829-2), DMW-2 (590-11829-8) and B-19 (590-11829-11).

Method NWTPH-Dx: Detected hydrocarbons in the diesel range appear to be due to heavily weathered diesel in the following samples: T-2 (590-11829-1), G-18 (590-11829-3), RR-2 (590-11829-4), DMW-4 (590-11829-6), G-8 (590-11829-7), FW-14 (590-11829-9) and FW-15 (590-11829-10).

Method NWTPH-Dx: The method blank for preparation batch 590-24194 and analytical batch 590-24181 contained Diesel Range Organics (DRO) (C10-C25) above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

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

Metals

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

General Chemistry

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

Organic Prep

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

VOA Prep

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

Sample Summary

Client: AECOM

Job ID: 590-11829-1

Project/Site: Tacoma D St Terminal-Phillips 66

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
590-11829-1	T-2	Water	09/11/19 08:57	09/12/19 14:00	
590-11829-2	HC-111	Water	09/11/19 08:50	09/12/19 14:00	
590-11829-3	G-18	Water	09/11/19 10:19	09/12/19 14:00	
590-11829-4	RR-2	Water	09/11/19 10:25	09/12/19 14:00	
590-11829-5	RR-3	Water	09/11/19 11:30	09/12/19 14:00	
590-11829-6	DMW-4	Water	09/11/19 11:42	09/12/19 14:00	
590-11829-7	G-8	Water	09/11/19 13:14	09/12/19 14:00	
590-11829-8	DMW-2	Water	09/11/19 13:15	09/12/19 14:00	
590-11829-9	FW-14	Water	09/11/19 14:05	09/12/19 14:00	
590-11829-10	FW-15	Water	09/11/19 15:20	09/12/19 14:00	
590-11829-11	B-19	Water	09/11/19 15:21	09/12/19 14:00	
590-11829-12	Trip Blank	Water	09/11/19 00:00	09/12/19 14:00	

Method Summary

Client: AECOM

Job ID: 590-11829-1

Project/Site: Tacoma D St Terminal-Phillips 66

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	ECL 2
8270D SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	TAL SPK
NWTPH-Gx	Northwest - Volatile Petroleum Products (GC)	NWTPH	ECL 2
NWTPH-Dx	Northwest - Semi-Volatile Petroleum Products (GC)	NWTPH	TAL SPK
300.0	Anions, Ion Chromatography	MCAWW	TAL SPK
6020A	Metals (ICP/MS)	SW846	TAL SEA
310.1	Alkalinity	MCAWW	TAL SEA
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	TAL SEA
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL SPK
3510C SGC	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL SPK
5030C	Purge and Trap	SW846	ECL 2

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

NWTPH = Northwest Total Petroleum Hydrocarbon

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

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

TAL SPK = Eurofins TestAmerica, Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Detection Summary

Client: AECOM

Job ID: 590-11829-1

Project/Site: Tacoma D St Terminal-Phillips 66

Client Sample ID: T-2

Lab Sample ID: 590-11829-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.14	J	1.0	0.14	ug/L	1		8260C	Total/NA
TPH as Gasoline (C4-C13)	120		100	48	ug/L	1		NWTPH-Gx	Total/NA
Diesel Range Organics (DRO) (C10-C25)	0.21	J	0.29	0.13	mg/L	1		NWTPH-Dx	Silica Gel Cleanup
Sulfate	1800		25	6.4	mg/L	50		300.0	Total/NA
Manganese	0.063	B	0.010	0.0023	mg/L	5		6020A	Dissolved
Alkalinity	76		5.0	5.0	mg/L	1		310.1	Total/NA

Client Sample ID: HC-111

Lab Sample ID: 590-11829-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	95		10	1.4	ug/L	10		8260C	Total/NA
Ethylbenzene	46		10	1.4	ug/L	10		8260C	Total/NA
Toluene	6.5	J	10	1.3	ug/L	10		8260C	Total/NA
TPH as Gasoline (C4-C13)	1200		100	48	ug/L	1		NWTPH-Gx	Total/NA
Diesel Range Organics (DRO) (C10-C25)	1.4		0.23	0.11	mg/L	1		NWTPH-Dx	Silica Gel Cleanup
Sulfate	0.64		0.50	0.13	mg/L	1		300.0	Total/NA
Manganese	0.53	B	0.010	0.0023	mg/L	5		6020A	Dissolved
Alkalinity	380		5.0	5.0	mg/L	1		310.1	Total/NA

Client Sample ID: G-18

Lab Sample ID: 590-11829-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.33	J	1.0	0.14	ug/L	1		8260C	Total/NA
Ethylbenzene	0.17	J	1.0	0.14	ug/L	1		8260C	Total/NA
o-Xylene	0.43	J	1.0	0.15	ug/L	1		8260C	Total/NA
Toluene	0.33	J	1.0	0.13	ug/L	1		8260C	Total/NA
TPH as Gasoline (C4-C13)	190		100	48	ug/L	1		NWTPH-Gx	Total/NA
Diesel Range Organics (DRO) (C10-C25)	0.61		0.27	0.12	mg/L	1		NWTPH-Dx	Silica Gel Cleanup
Sulfate	7.8		0.50	0.13	mg/L	1		300.0	Total/NA
Manganese	0.13	B	0.010	0.0023	mg/L	5		6020A	Dissolved
Alkalinity	230		5.0	5.0	mg/L	1		310.1	Total/NA

Client Sample ID: RR-2

Lab Sample ID: 590-11829-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics (DRO) (C10-C25)	0.10	J	0.22	0.10	mg/L	1		NWTPH-Dx	Silica Gel Cleanup
Sulfate	1700		250	64	mg/L	500		300.0	Total/NA

Client Sample ID: RR-3

Lab Sample ID: 590-11829-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	2000		500	130	mg/L	1000		300.0	Total/NA
Manganese	0.054	B	0.010	0.0023	mg/L	5		6020A	Dissolved
Alkalinity	81		5.0	5.0	mg/L	1		310.1	Total/NA

Client Sample ID: DMW-4

Lab Sample ID: 590-11829-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
TPH as Gasoline (C4-C13)	190		100	48	ug/L	1		NWTPH-Gx	Total/NA
Diesel Range Organics (DRO) (C10-C25)	0.35		0.27	0.12	mg/L	1		NWTPH-Dx	Silica Gel Cleanup

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Spokane

Detection Summary

Client: AECOM

Job ID: 590-11829-1

Project/Site: Tacoma D St Terminal-Phillips 66

Client Sample ID: DMW-4 (Continued)

Lab Sample ID: 590-11829-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	1300		25	6.4	mg/L	50		300.0	Total/NA
Manganese	0.14	B	0.010	0.0023	mg/L	5		6020A	Dissolved
Alkalinity	220		5.0	5.0	mg/L	1		310.1	Total/NA

Client Sample ID: G-8

Lab Sample ID: 590-11829-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.42	J	1.0	0.14	ug/L	1		8260C	Total/NA
Ethylbenzene	0.59	J	1.0	0.14	ug/L	1		8260C	Total/NA
Toluene	0.14	J	1.0	0.13	ug/L	1		8260C	Total/NA
TPH as Gasoline (C4-C13)	340		100	48	ug/L	1		NWTPH-Gx	Total/NA
Diesel Range Organics (DRO) (C10-C25)	0.43		0.26	0.12	mg/L	1		NWTPH-Dx	Silica Gel Cleanup
Sulfate	220		2.0	0.51	mg/L	4		300.0	Total/NA
Manganese	0.49	B	0.010	0.0023	mg/L	5		6020A	Dissolved
Alkalinity	360		5.0	5.0	mg/L	1		310.1	Total/NA

Client Sample ID: DMW-2

Lab Sample ID: 590-11829-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
m,p-Xylene	0.47	J	2.0	0.31	ug/L	1		8260C	Total/NA
Toluene	0.14	J	1.0	0.13	ug/L	1		8260C	Total/NA
TPH as Gasoline (C4-C13)	150		100	48	ug/L	1		NWTPH-Gx	Total/NA
Diesel Range Organics (DRO) (C10-C25)	0.31	B	0.23	0.10	mg/L	1		NWTPH-Dx	Silica Gel Cleanup
Sulfate	400		25	6.4	mg/L	50		300.0	Total/NA
Manganese	0.15		0.010	0.0023	mg/L	5		6020A	Dissolved
Alkalinity	400		5.0	5.0	mg/L	1		310.1	Total/NA

Client Sample ID: FW-14

Lab Sample ID: 590-11829-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics (DRO) (C10-C25)	0.12	J B	0.23	0.10	mg/L	1		NWTPH-Dx	Silica Gel Cleanup
Sulfate	1900		50	13	mg/L	100		300.0	Total/NA
Manganese	0.012		0.010	0.0023	mg/L	5		6020A	Dissolved
Alkalinity	86		5.0	5.0	mg/L	1		310.1	Total/NA

Client Sample ID: FW-15

Lab Sample ID: 590-11829-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics (DRO) (C10-C25)	0.15	J B	0.23	0.11	mg/L	1		NWTPH-Dx	Silica Gel Cleanup
Sulfate	230		50	13	mg/L	100		300.0	Total/NA
Manganese	0.0049	J	0.010	0.0023	mg/L	5		6020A	Dissolved
Alkalinity	45		5.0	5.0	mg/L	1		310.1	Total/NA

Client Sample ID: B-19

Lab Sample ID: 590-11829-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	3.3		1.0	0.14	ug/L	1		8260C	Total/NA
Ethylbenzene	0.94	J	1.0	0.14	ug/L	1		8260C	Total/NA
o-Xylene	0.25	J	1.0	0.15	ug/L	1		8260C	Total/NA
m,p-Xylene	1.0	J	2.0	0.31	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Spokane

Detection Summary

Client: AECOM

Job ID: 590-11829-1

Project/Site: Tacoma D St Terminal-Phillips 66

Client Sample ID: B-19 (Continued)

Lab Sample ID: 590-11829-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	1.9		1.0	0.13	ug/L	1		8260C	Total/NA
TPH as Gasoline (C4-C13)	680		100	48	ug/L	1		NWTPH-Gx	Total/NA
Diesel Range Organics (DRO) (C10-C25)	0.89	B	0.26	0.12	mg/L	1		NWTPH-Dx	Silica Gel Cleanup
Nitrate as N	0.68	F1	0.20	0.057	mg/L	1		300.0	Total/NA
Sulfate	180		20	5.1	mg/L	40		300.0	Total/NA
Manganese	0.19		0.010	0.0023	mg/L	5		6020A	Dissolved
Alkalinity	480		5.0	5.0	mg/L	1		310.1	Total/NA

Client Sample ID: Trip Blank

Lab Sample ID: 590-11829-12

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Spokane

Client Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11829-1

Client Sample ID: T-2

Lab Sample ID: 590-11829-1

Date Collected: 09/11/19 08:57

Matrix: Water

Date Received: 09/12/19 14:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.14	J	1.0	0.14	ug/L	-		09/20/19 18:34	1
Ethylbenzene	ND		1.0	0.14	ug/L	-		09/20/19 18:34	1
o-Xylene	ND		1.0	0.15	ug/L	-		09/20/19 18:34	1
m,p-Xylene	ND		2.0	0.31	ug/L	-		09/20/19 18:34	1
Toluene	ND		1.0	0.13	ug/L	-		09/20/19 18:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		80 - 129		09/20/19 18:34	1
4-Bromofluorobenzene (Surr)	98		77 - 120		09/20/19 18:34	1
Dibromofluoromethane (Surr)	99		80 - 128		09/20/19 18:34	1
Toluene-d8 (Surr)	101		80 - 120		09/20/19 18:34	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline (C4-C13)	120		100	48	ug/L	-		09/21/19 02:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		38 - 134					09/21/19 02:57	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	0.21	J	0.29	0.13	mg/L	-	09/18/19 08:55	09/18/19 16:43	1
Residual Range Organics (RRO) (C25-C36)	ND		0.48	0.14	mg/L		09/18/19 08:55	09/18/19 16:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	92		50 - 150				09/18/19 08:55	09/18/19 16:43	1
n-Triacontane-d62	82		50 - 150				09/18/19 08:55	09/18/19 16:43	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		10	2.9	mg/L	-		09/12/19 16:56	50
Sulfate	1800		25	6.4	mg/L	-		09/12/19 16:56	50

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L	-	09/24/19 13:45	09/26/19 18:22	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L	-	09/21/19 13:42	09/26/19 17:10	5
Manganese	0.063	B	0.010	0.0023	mg/L	-	09/21/19 13:42	09/26/19 17:10	5

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	76		5.0	5.0	mg/L	-		09/25/19 14:27	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11829-1

Client Sample ID: HC-111

Lab Sample ID: 590-11829-2

Date Collected: 09/11/19 08:50

Matrix: Water

Date Received: 09/12/19 14:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	95		10	1.4	ug/L	-		09/20/19 19:00	10
Ethylbenzene	46		10	1.4	ug/L	-		09/20/19 19:00	10
o-Xylene	ND		10	1.5	ug/L	-		09/20/19 19:00	10
m,p-Xylene	ND		20	3.1	ug/L	-		09/20/19 19:00	10
Toluene	6.5	J	10	1.3	ug/L	-		09/20/19 19:00	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		80 - 129		09/20/19 19:00	10
4-Bromofluorobenzene (Surr)	97		77 - 120		09/20/19 19:00	10
Dibromofluoromethane (Surr)	101		80 - 128		09/20/19 19:00	10
Toluene-d8 (Surr)	101		80 - 120		09/20/19 19:00	10

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline (C4-C13)	1200		100	48	ug/L	-		09/21/19 01:33	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	179	X	38 - 134					09/21/19 01:33	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	1.4		0.23	0.11	mg/L	-	09/18/19 08:55	09/18/19 17:02	1
Residual Range Organics (RRO) (C25-C36)	ND		0.39	0.12	mg/L		09/18/19 08:55	09/18/19 17:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	100		50 - 150				09/18/19 08:55	09/18/19 17:02	1
n-Triacontane-d62	89		50 - 150				09/18/19 08:55	09/18/19 17:02	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.20	0.057	mg/L	-		09/12/19 17:07	1
Sulfate	0.64		0.50	0.13	mg/L	-		09/12/19 17:07	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L	-	09/24/19 13:45	09/26/19 19:10	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L	-	09/21/19 13:42	09/26/19 17:15	5
Manganese	0.53	B	0.010	0.0023	mg/L	-	09/21/19 13:42	09/26/19 17:15	5

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	380		5.0	5.0	mg/L	-		09/25/19 14:27	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11829-1

Client Sample ID: G-18

Lab Sample ID: 590-11829-3

Date Collected: 09/11/19 10:19

Matrix: Water

Date Received: 09/12/19 14:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.33	J	1.0	0.14	ug/L	-		09/20/19 19:26	1
Ethylbenzene	0.17	J	1.0	0.14	ug/L	-		09/20/19 19:26	1
o-Xylene	0.43	J	1.0	0.15	ug/L	-		09/20/19 19:26	1
m,p-Xylene	ND		2.0	0.31	ug/L	-		09/20/19 19:26	1
Toluene	0.33	J	1.0	0.13	ug/L	-		09/20/19 19:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		80 - 129		09/20/19 19:26	1
4-Bromofluorobenzene (Surr)	98		77 - 120		09/20/19 19:26	1
Dibromofluoromethane (Surr)	100		80 - 128		09/20/19 19:26	1
Toluene-d8 (Surr)	100		80 - 120		09/20/19 19:26	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline (C4-C13)	190		100	48	ug/L	-		09/20/19 18:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	117		38 - 134					09/20/19 18:29	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	0.61		0.27	0.12	mg/L	-	09/18/19 08:55	09/18/19 17:22	1
Residual Range Organics (RRO) (C25-C36)	ND		0.45	0.14	mg/L		09/18/19 08:55	09/18/19 17:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	89		50 - 150				09/18/19 08:55	09/18/19 17:22	1
n-Triacontane-d62	83		50 - 150				09/18/19 08:55	09/18/19 17:22	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.20	0.057	mg/L	-		09/12/19 17:19	1
Sulfate	7.8		0.50	0.13	mg/L	-		09/12/19 17:19	1

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L	-	09/24/19 13:45	09/26/19 19:14	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L	-	09/21/19 13:42	09/26/19 17:20	5
Manganese	0.13	B	0.010	0.0023	mg/L	-	09/21/19 13:42	09/26/19 17:20	5

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	230		5.0	5.0	mg/L	-		09/25/19 14:27	1

Client Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11829-1

Client Sample ID: RR-2

Lab Sample ID: 590-11829-4

Date Collected: 09/11/19 10:25

Matrix: Water

Date Received: 09/12/19 14:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.14	ug/L			09/20/19 19:52	1
Ethylbenzene	ND		1.0	0.14	ug/L			09/20/19 19:52	1
o-Xylene	ND		1.0	0.15	ug/L			09/20/19 19:52	1
m,p-Xylene	ND		2.0	0.31	ug/L			09/20/19 19:52	1
Toluene	ND		1.0	0.13	ug/L			09/20/19 19:52	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		80 - 129		09/20/19 19:52	1
4-Bromofluorobenzene (Surr)	93		77 - 120		09/20/19 19:52	1
Dibromofluoromethane (Surr)	99		80 - 128		09/20/19 19:52	1
Toluene-d8 (Surr)	100		80 - 120		09/20/19 19:52	1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.085	0.050	ug/L		09/13/19 08:26	09/13/19 15:01	1
2-Methylnaphthalene	ND		0.085	0.041	ug/L		09/13/19 08:26	09/13/19 15:01	1
1-Methylnaphthalene	ND		0.085	0.022	ug/L		09/13/19 08:26	09/13/19 15:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	92		36 - 126	09/13/19 08:26	09/13/19 15:01	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline (C4-C13)	ND		100	48	ug/L			09/21/19 04:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		38 - 134		09/21/19 04:22	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO)	0.10	J	0.22	0.10	mg/L		09/18/19 08:55	09/18/19 17:42	1
Residual Range Organics (RRO)	ND		0.37	0.11	mg/L		09/18/19 08:55	09/18/19 17:42	1
(C25-C36)									

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	83		50 - 150	09/18/19 08:55	09/18/19 17:42	1
n-Triacontane-d62	78		50 - 150	09/18/19 08:55	09/18/19 17:42	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		100	29	mg/L			09/12/19 17:31	500
Sulfate	1700		250	64	mg/L			09/12/19 17:31	500

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L		09/24/19 13:45	09/26/19 19:19	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L		09/21/19 13:42	09/26/19 17:45	5
Manganese	ND		0.010	0.0023	mg/L		09/21/19 13:42	09/26/19 17:45	5

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Client Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11829-1

Client Sample ID: RR-2

Date Collected: 09/11/19 10:25

Date Received: 09/12/19 14:00

Lab Sample ID: 590-11829-4

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	ND		5.0	5.0	mg/L	-		09/25/19 14:27	1

Client Sample ID: RR-3

Date Collected: 09/11/19 11:30

Date Received: 09/12/19 14:00

Lab Sample ID: 590-11829-5

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.14	ug/L	-		09/20/19 20:18	1
Ethylbenzene	ND		1.0	0.14	ug/L	-		09/20/19 20:18	1
o-Xylene	ND		1.0	0.15	ug/L	-		09/20/19 20:18	1
m,p-Xylene	ND		2.0	0.31	ug/L	-		09/20/19 20:18	1
Toluene	ND		1.0	0.13	ug/L	-		09/20/19 20:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		80 - 129		09/20/19 20:18	1
4-Bromofluorobenzene (Surr)	100		77 - 120		09/20/19 20:18	1
Dibromofluoromethane (Surr)	101		80 - 128		09/20/19 20:18	1
Toluene-d8 (Surr)	101		80 - 120		09/20/19 20:18	1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.086	0.050	ug/L	-	09/13/19 08:26	09/13/19 15:25	1
2-Methylnaphthalene	ND		0.086	0.042	ug/L	-	09/13/19 08:26	09/13/19 15:25	1
1-Methylnaphthalene	ND		0.086	0.022	ug/L	-	09/13/19 08:26	09/13/19 15:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	100		36 - 126	09/13/19 08:26	09/13/19 15:25	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline (C4-C13)	ND		100	48	ug/L	-		09/21/19 03:54	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		38 - 134		09/21/19 03:54	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	ND		0.23	0.10	mg/L	-	09/18/19 08:55	09/18/19 18:21	1
Residual Range Organics (RRO) (C25-C36)	ND		0.38	0.11	mg/L	-	09/18/19 08:55	09/18/19 18:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	91		50 - 150	09/18/19 08:55	09/18/19 18:21	1
n-Triacontane-d62	83		50 - 150	09/18/19 08:55	09/18/19 18:21	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		200	57	mg/L	-		09/12/19 18:06	1000
Sulfate	2000		500	130	mg/L	-		09/12/19 18:06	1000

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Client Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11829-1

Client Sample ID: RR-3

Date Collected: 09/11/19 11:30

Date Received: 09/12/19 14:00

Lab Sample ID: 590-11829-5

Matrix: Water

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L	-	09/24/19 13:45	09/26/19 19:23	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L	-	09/21/19 13:42	09/26/19 17:50	5
Manganese	0.054	B	0.010	0.0023	mg/L	-	09/21/19 13:42	09/26/19 17:50	5

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	81		5.0	5.0	mg/L	-		09/25/19 14:27	1

Client Sample ID: DMW-4

Date Collected: 09/11/19 11:42

Date Received: 09/12/19 14:00

Lab Sample ID: 590-11829-6

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.14	ug/L	-		09/20/19 20:44	1
Ethylbenzene	ND		1.0	0.14	ug/L	-		09/20/19 20:44	1
o-Xylene	ND		1.0	0.15	ug/L	-		09/20/19 20:44	1
m,p-Xylene	ND		2.0	0.31	ug/L	-		09/20/19 20:44	1
Toluene	ND		1.0	0.13	ug/L	-		09/20/19 20:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		80 - 129		09/20/19 20:44	1
4-Bromofluorobenzene (Surr)	95		77 - 120		09/20/19 20:44	1
Dibromofluoromethane (Surr)	101		80 - 128		09/20/19 20:44	1
Toluene-d8 (Surr)	101		80 - 120		09/20/19 20:44	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline (C4-C13)	190		100	48	ug/L	-		09/21/19 04:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		38 - 134		09/21/19 04:50	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	0.35		0.27	0.12	mg/L	-	09/18/19 08:55	09/18/19 18:41	1
Residual Range Organics (RRO) (C25-C36)	ND		0.45	0.13	mg/L	-	09/18/19 08:55	09/18/19 18:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	100		50 - 150	09/18/19 08:55	09/18/19 18:41	1
n-Triacontane-d62	91		50 - 150	09/18/19 08:55	09/18/19 18:41	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		10	2.9	mg/L	-		09/12/19 18:17	50
Sulfate	1300		25	6.4	mg/L	-		09/12/19 18:17	50

Eurofins TestAmerica, Spokane

Client Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11829-1

Client Sample ID: DMW-4

Date Collected: 09/11/19 11:42

Date Received: 09/12/19 14:00

Lab Sample ID: 590-11829-6

Matrix: Water

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L	-	09/24/19 13:45	09/26/19 19:27	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L	-	09/21/19 13:42	09/26/19 17:55	5
Manganese	0.14	B	0.010	0.0023	mg/L	-	09/21/19 13:42	09/26/19 17:55	5

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	220		5.0	5.0	mg/L	-		09/25/19 14:27	1

Client Sample ID: G-8

Date Collected: 09/11/19 13:14

Date Received: 09/12/19 14:00

Lab Sample ID: 590-11829-7

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.42	J	1.0	0.14	ug/L	-		09/20/19 21:10	1
Ethylbenzene	0.59	J	1.0	0.14	ug/L	-		09/20/19 21:10	1
o-Xylene	ND		1.0	0.15	ug/L	-		09/20/19 21:10	1
m,p-Xylene	ND		2.0	0.31	ug/L	-		09/20/19 21:10	1
Toluene	0.14	J	1.0	0.13	ug/L	-		09/20/19 21:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		80 - 129		09/20/19 21:10	1
4-Bromofluorobenzene (Surr)	97		77 - 120		09/20/19 21:10	1
Dibromofluoromethane (Surr)	99		80 - 128		09/20/19 21:10	1
Toluene-d8 (Surr)	101		80 - 120		09/20/19 21:10	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline (C4-C13)	340		100	48	ug/L	-		09/21/19 05:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		38 - 134		09/21/19 05:46	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	0.43		0.26	0.12	mg/L	-	09/18/19 08:55	09/18/19 19:01	1
Residual Range Organics (RRO) (C25-C36)	ND		0.44	0.13	mg/L	-	09/18/19 08:55	09/18/19 19:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	89		50 - 150	09/18/19 08:55	09/18/19 19:01	1
n-Triacontane-d62	80		50 - 150	09/18/19 08:55	09/18/19 19:01	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.80	0.23	mg/L	-		09/12/19 18:29	4
Sulfate	220		2.0	0.51	mg/L	-		09/12/19 18:29	4

Eurofins TestAmerica, Spokane

Client Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11829-1

Client Sample ID: G-8

Lab Sample ID: 590-11829-7

Date Collected: 09/11/19 13:14

Matrix: Water

Date Received: 09/12/19 14:00

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L	-	09/24/19 13:45	09/26/19 19:32	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L	-	09/21/19 13:42	09/26/19 18:00	5
Manganese	0.49	B	0.010	0.0023	mg/L	-	09/21/19 13:42	09/26/19 18:00	5

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	360		5.0	5.0	mg/L	-		09/25/19 14:27	1

Client Sample ID: DMW-2

Lab Sample ID: 590-11829-8

Date Collected: 09/11/19 13:15

Matrix: Water

Date Received: 09/12/19 14:00

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.14	ug/L	-		09/20/19 21:35	1
Ethylbenzene	ND		1.0	0.14	ug/L	-		09/20/19 21:35	1
o-Xylene	ND		1.0	0.15	ug/L	-		09/20/19 21:35	1
m,p-Xylene	0.47	J	2.0	0.31	ug/L	-		09/20/19 21:35	1
Toluene	0.14	J	1.0	0.13	ug/L	-		09/20/19 21:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		80 - 129		09/20/19 21:35	1
4-Bromofluorobenzene (Surr)	97		77 - 120		09/20/19 21:35	1
Dibromofluoromethane (Surr)	99		80 - 128		09/20/19 21:35	1
Toluene-d8 (Surr)	101		80 - 120		09/20/19 21:35	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline (C4-C13)	150		100	48	ug/L	-		09/21/19 03:26	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		38 - 134		09/21/19 03:26	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	0.31	B	0.23	0.10	mg/L	-	09/18/19 11:55	09/18/19 20:20	1
Residual Range Organics (RRO) (C25-C36)	ND		0.38	0.11	mg/L	-	09/18/19 11:55	09/18/19 20:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	91		50 - 150	09/18/19 11:55	09/18/19 20:20	1
n-Triacontane-d62	80		50 - 150	09/18/19 11:55	09/18/19 20:20	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		10	2.9	mg/L	-		09/12/19 18:41	50
Sulfate	400		25	6.4	mg/L	-		09/12/19 18:41	50

Eurofins TestAmerica, Spokane

Client Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11829-1

Client Sample ID: DMW-2

Date Collected: 09/11/19 13:15

Date Received: 09/12/19 14:00

Lab Sample ID: 590-11829-8

Matrix: Water

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L	-	09/24/19 13:45	09/26/19 19:36	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L	-	09/24/19 08:31	09/26/19 08:10	5
Manganese	0.15		0.010	0.0023	mg/L	-	09/24/19 08:31	09/26/19 08:10	5

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	400		5.0	5.0	mg/L	-		09/25/19 14:27	1

Client Sample ID: FW-14

Date Collected: 09/11/19 14:05

Date Received: 09/12/19 14:00

Lab Sample ID: 590-11829-9

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.14	ug/L	-		09/20/19 22:01	1
Ethylbenzene	ND		1.0	0.14	ug/L	-		09/20/19 22:01	1
o-Xylene	ND		1.0	0.15	ug/L	-		09/20/19 22:01	1
m,p-Xylene	ND		2.0	0.31	ug/L	-		09/20/19 22:01	1
Toluene	ND		1.0	0.13	ug/L	-		09/20/19 22:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		80 - 129		09/20/19 22:01	1
4-Bromofluorobenzene (Surr)	99		77 - 120		09/20/19 22:01	1
Dibromofluoromethane (Surr)	103		80 - 128		09/20/19 22:01	1
Toluene-d8 (Surr)	101		80 - 120		09/20/19 22:01	1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.085	0.050	ug/L	-	09/13/19 08:26	09/13/19 15:48	1
2-Methylnaphthalene	ND		0.085	0.042	ug/L	-	09/13/19 08:26	09/13/19 15:48	1
1-Methylnaphthalene	ND		0.085	0.022	ug/L	-	09/13/19 08:26	09/13/19 15:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	90		36 - 126	09/13/19 08:26	09/13/19 15:48	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline (C4-C13)	ND		100	48	ug/L	-		09/21/19 02:29	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		38 - 134		09/21/19 02:29	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	0.12	J B	0.23	0.10	mg/L	-	09/18/19 11:55	09/18/19 20:40	1
Residual Range Organics (RRO) (C25-C36)	ND		0.38	0.11	mg/L	-	09/18/19 11:55	09/18/19 20:40	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11829-1

Client Sample ID: FW-14

Date Collected: 09/11/19 14:05

Date Received: 09/12/19 14:00

Lab Sample ID: 590-11829-9

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	91		50 - 150	09/18/19 11:55	09/18/19 20:40	1
n-Triacontane-d62	82		50 - 150	09/18/19 11:55	09/18/19 20:40	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		20	5.7	mg/L			09/12/19 18:52	100
Sulfate	1900		50	13	mg/L			09/12/19 18:52	100

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L		09/24/19 13:45	09/26/19 19:40	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L		09/24/19 08:31	09/26/19 08:14	5
Manganese	0.012		0.010	0.0023	mg/L		09/24/19 08:31	09/26/19 08:14	5

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	86		5.0	5.0	mg/L			09/25/19 14:27	1

Client Sample ID: FW-15

Date Collected: 09/11/19 15:20

Date Received: 09/12/19 14:00

Lab Sample ID: 590-11829-10

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.14	ug/L			09/20/19 22:27	1
Ethylbenzene	ND		1.0	0.14	ug/L			09/20/19 22:27	1
o-Xylene	ND		1.0	0.15	ug/L			09/20/19 22:27	1
m,p-Xylene	ND		2.0	0.31	ug/L			09/20/19 22:27	1
Toluene	ND		1.0	0.13	ug/L			09/20/19 22:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	99		80 - 129		09/20/19 22:27	1
4-Bromofluorobenzene (Surr)	97		77 - 120		09/20/19 22:27	1
Dibromofluoromethane (Surr)	100		80 - 128		09/20/19 22:27	1
Toluene-d8 (Surr)	101		80 - 120		09/20/19 22:27	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline (C4-C13)	ND		100	48	ug/L			09/21/19 02:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		38 - 134		09/21/19 02:01	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	0.15	J B	0.23	0.11	mg/L		09/18/19 11:55	09/18/19 21:00	1
Residual Range Organics (RRO) (C25-C36)	ND		0.39	0.12	mg/L		09/18/19 11:55	09/18/19 21:00	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11829-1

Client Sample ID: FW-15

Date Collected: 09/11/19 15:20

Date Received: 09/12/19 14:00

Lab Sample ID: 590-11829-10

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	85		50 - 150	09/18/19 11:55	09/18/19 21:00	1
<i>n</i> -Triacontane-d62	80		50 - 150	09/18/19 11:55	09/18/19 21:00	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		20	5.7	mg/L			09/12/19 19:04	100
Sulfate	230		50	13	mg/L			09/12/19 19:04	100

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L		09/24/19 13:45	09/26/19 19:45	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L		09/24/19 08:31	09/26/19 08:19	5
Manganese	0.0049	J	0.010	0.0023	mg/L		09/24/19 08:31	09/26/19 08:19	5

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	45		5.0	5.0	mg/L			09/25/19 14:27	1

Client Sample ID: B-19

Date Collected: 09/11/19 15:21

Date Received: 09/12/19 14:00

Lab Sample ID: 590-11829-11

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	3.3		1.0	0.14	ug/L			09/20/19 22:53	1
Ethylbenzene	0.94	J	1.0	0.14	ug/L			09/20/19 22:53	1
<i>o</i> -Xylene	0.25	J	1.0	0.15	ug/L			09/20/19 22:53	1
<i>m,p</i> -Xylene	1.0	J	2.0	0.31	ug/L			09/20/19 22:53	1
Toluene	1.9		1.0	0.13	ug/L			09/20/19 22:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		80 - 129		09/20/19 22:53	1
4-Bromofluorobenzene (Surr)	100		77 - 120		09/20/19 22:53	1
Dibromofluoromethane (Surr)	99		80 - 128		09/20/19 22:53	1
Toluene-d8 (Surr)	101		80 - 120		09/20/19 22:53	1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline (C4-C13)	680		100	48	ug/L			09/21/19 06:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	150	X	38 - 134		09/21/19 06:43	1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - Silica Gel Cleanup

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	0.89	B	0.26	0.12	mg/L		09/18/19 11:55	09/18/19 21:20	1
Residual Range Organics (RRO) (C25-C36)	ND		0.43	0.13	mg/L		09/18/19 11:55	09/18/19 21:20	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11829-1

Client Sample ID: B-19

Date Collected: 09/11/19 15:21

Date Received: 09/12/19 14:00

Lab Sample ID: 590-11829-11

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	93		50 - 150	09/18/19 11:55	09/18/19 21:20	1
<i>n</i> -Triacontane-d62	83		50 - 150	09/18/19 11:55	09/18/19 21:20	1

Method: 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.68	F1	0.20	0.057	mg/L			09/12/19 19:16	1
Sulfate	180		20	5.1	mg/L			09/13/19 11:06	40

Method: 6020A - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L		09/24/19 13:45	09/26/19 18:18	5

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L		09/24/19 08:31	09/26/19 08:23	5
Manganese	0.19		0.010	0.0023	mg/L		09/24/19 08:31	09/26/19 08:23	5

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Alkalinity	480		5.0	5.0	mg/L			09/25/19 14:28	1

Client Sample ID: Trip Blank

Date Collected: 09/11/19 00:00

Date Received: 09/12/19 14:00

Lab Sample ID: 590-11829-12

Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.14	ug/L			09/19/19 20:43	1
Ethylbenzene	ND		1.0	0.14	ug/L			09/19/19 20:43	1
<i>o</i> -Xylene	ND		1.0	0.15	ug/L			09/19/19 20:43	1
<i>m,p</i> -Xylene	ND		2.0	0.31	ug/L			09/19/19 20:43	1
Toluene	ND		1.0	0.13	ug/L			09/19/19 20:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		80 - 129		09/19/19 20:43	1
4-Bromofluorobenzene (Surr)	96		77 - 120		09/19/19 20:43	1
Dibromofluoromethane (Surr)	100		80 - 128		09/19/19 20:43	1
Toluene-d8 (Surr)	102		80 - 120		09/19/19 20:43	1

QC Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11829-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 570-20379/9

Matrix: Water

Analysis Batch: 20379

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.14	ug/L			09/19/19 19:30	1
Ethylbenzene	ND		1.0	0.14	ug/L			09/19/19 19:30	1
o-Xylene	ND		1.0	0.15	ug/L			09/19/19 19:30	1
m,p-Xylene	ND		2.0	0.31	ug/L			09/19/19 19:30	1
Toluene	ND		1.0	0.13	ug/L			09/19/19 19:30	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	101		80 - 129		09/19/19 19:30	1
4-Bromofluorobenzene (Surr)	95		77 - 120		09/19/19 19:30	1
Dibromofluoromethane (Surr)	101		80 - 128		09/19/19 19:30	1
Toluene-d8 (Surr)	101		80 - 120		09/19/19 19:30	1

Lab Sample ID: LCS 570-20379/4

Matrix: Water

Analysis Batch: 20379

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	49.0		ug/L		98	78 - 120
Ethylbenzene	50.0	50.1		ug/L		100	80 - 120
o-Xylene	50.0	49.3		ug/L		99	80 - 125
m,p-Xylene	100	96.9		ug/L		97	80 - 125
Toluene	50.0	50.1		ug/L		100	80 - 122

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		80 - 129
4-Bromofluorobenzene (Surr)	100		77 - 120
Dibromofluoromethane (Surr)	103		80 - 128
Toluene-d8 (Surr)	102		80 - 120

Lab Sample ID: LCSD 570-20379/5

Matrix: Water

Analysis Batch: 20379

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	50.0	46.8		ug/L		94	78 - 120	5	21
Ethylbenzene	50.0	48.0		ug/L		96	80 - 120	4	20
o-Xylene	50.0	47.5		ug/L		95	80 - 125	4	20
m,p-Xylene	100	92.2		ug/L		92	80 - 125	5	30
Toluene	50.0	48.1		ug/L		96	80 - 122	4	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	98		80 - 129
4-Bromofluorobenzene (Surr)	98		77 - 120
Dibromofluoromethane (Surr)	101		80 - 128
Toluene-d8 (Surr)	102		80 - 120

Eurofins TestAmerica, Spokane

QC Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11829-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 570-20520/9

Matrix: Water

Analysis Batch: 20520

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.14	ug/L			09/20/19 17:42	1
Ethylbenzene	ND		1.0	0.14	ug/L			09/20/19 17:42	1
o-Xylene	ND		1.0	0.15	ug/L			09/20/19 17:42	1
m,p-Xylene	ND		2.0	0.31	ug/L			09/20/19 17:42	1
Toluene	ND		1.0	0.13	ug/L			09/20/19 17:42	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		80 - 129		09/20/19 17:42	1
4-Bromofluorobenzene (Surr)	96		77 - 120		09/20/19 17:42	1
Dibromofluoromethane (Surr)	100		80 - 128		09/20/19 17:42	1
Toluene-d8 (Surr)	101		80 - 120		09/20/19 17:42	1

Lab Sample ID: LCS 570-20520/4

Matrix: Water

Analysis Batch: 20520

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	50.0	48.3		ug/L		97	78 - 120
Ethylbenzene	50.0	50.4		ug/L		101	80 - 120
o-Xylene	50.0	49.5		ug/L		99	80 - 125
m,p-Xylene	100	97.0		ug/L		97	80 - 125
Toluene	50.0	49.9		ug/L		100	80 - 122

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	99		80 - 129
4-Bromofluorobenzene (Surr)	98		77 - 120
Dibromofluoromethane (Surr)	102		80 - 128
Toluene-d8 (Surr)	101		80 - 120

Lab Sample ID: LCSD 570-20520/5

Matrix: Water

Analysis Batch: 20520

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	50.0	46.0		ug/L		92	78 - 120	5	21
Ethylbenzene	50.0	47.3		ug/L		95	80 - 120	6	20
o-Xylene	50.0	46.6		ug/L		93	80 - 125	6	20
m,p-Xylene	100	90.4		ug/L		90	80 - 125	7	30
Toluene	50.0	47.5		ug/L		95	80 - 122	5	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	98		80 - 129
4-Bromofluorobenzene (Surr)	101		77 - 120
Dibromofluoromethane (Surr)	101		80 - 128
Toluene-d8 (Surr)	103		80 - 120

Eurofins TestAmerica, Spokane

QC Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11829-1

Method: 8270D SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 590-24110/1-A

Matrix: Water

Analysis Batch: 24122

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 24110

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		0.090	0.053	ug/L		09/13/19 08:26	09/13/19 13:05	1
2-Methylnaphthalene	ND		0.090	0.044	ug/L		09/13/19 08:26	09/13/19 13:05	1
1-Methylnaphthalene	ND		0.090	0.023	ug/L		09/13/19 08:26	09/13/19 13:05	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	82		36 - 126				09/13/19 08:26	09/13/19 13:05	1

Lab Sample ID: LCS 590-24110/2-A

Matrix: Water

Analysis Batch: 24122

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 24110

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	1.60	0.835		ug/L		52	52 - 120
2-Methylnaphthalene	1.60	0.794		ug/L		50	44 - 120
1-Methylnaphthalene	1.60	0.813		ug/L		51	49 - 120
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
Nitrobenzene-d5	64		36 - 126				

Lab Sample ID: LCSD 590-24110/3-A

Matrix: Water

Analysis Batch: 24122

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 24110

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Naphthalene	1.60	0.932		ug/L		58	52 - 120	11	30
2-Methylnaphthalene	1.60	0.933		ug/L		58	44 - 120	16	35
1-Methylnaphthalene	1.60	0.950		ug/L		59	49 - 120	16	35
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
Nitrobenzene-d5	76		36 - 126						

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Lab Sample ID: MB 570-20674/6

Matrix: Water

Analysis Batch: 20674

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TPH as Gasoline (C4-C13)	ND		100	48	ug/L			09/20/19 17:10	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		38 - 134					09/20/19 17:10	1

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QC Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11829-1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC) (Continued)

Lab Sample ID: LCS 570-20674/3
Matrix: Water
Analysis Batch: 20674

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

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
TPH as Gasoline (C4-C13)			2000	2360		ug/L		118	78 - 120		
Surrogate	LCS %Recovery	LCS Qualifier	Limits								
4-Bromofluorobenzene (Surr)	118		38 - 134								

Lab Sample ID: LCSD 570-20674/4
Matrix: Water
Analysis Batch: 20674

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
TPH as Gasoline (C4-C13)			2000	2280		ug/L		114	78 - 120	3	10
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	109		38 - 134								

Lab Sample ID: 590-11829-3 MS
Matrix: Water
Analysis Batch: 20674

Client Sample ID: G-18
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
TPH as Gasoline (C4-C13)	190		2000	2540		ug/L		118	68 - 122		
Surrogate	MS %Recovery	MS Qualifier	Limits								
4-Bromofluorobenzene (Surr)	131		38 - 134								

Lab Sample ID: 590-11829-3 MSD
Matrix: Water
Analysis Batch: 20674

Client Sample ID: G-18
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
TPH as Gasoline (C4-C13)	190		2000	2530		ug/L		117	68 - 122	0	18
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
4-Bromofluorobenzene (Surr)	105		38 - 134								

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Lab Sample ID: MB 590-24180/1-A
Matrix: Water
Analysis Batch: 24181

Client Sample ID: Method Blank
Prep Type: Silica Gel Cleanup
Prep Batch: 24180

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	ND		0.24	0.11	mg/L		09/18/19 08:55	09/18/19 10:48	1
Residual Range Organics (RRO) (C25-C36)	ND		0.40	0.12	mg/L		09/18/19 08:55	09/18/19 10:48	1

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QC Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11829-1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) (Continued)

Lab Sample ID: MB 590-24180/1-A

Matrix: Water

Analysis Batch: 24181

Client Sample ID: Method Blank

Prep Type: Silica Gel Cleanup

Prep Batch: 24180

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	96		50 - 150	09/18/19 08:55	09/18/19 10:48	1
n-Triacontane-d62	84		50 - 150	09/18/19 08:55	09/18/19 10:48	1

Lab Sample ID: LCS 590-24180/2-A

Matrix: Water

Analysis Batch: 24181

Client Sample ID: Lab Control Sample

Prep Type: Silica Gel Cleanup

Prep Batch: 24180

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics (DRO) (C10-C25)	1.60	1.61		mg/L		100	50 - 150
Residual Range Organics (RRO) (C25-C36)	1.60	1.70		mg/L		106	50 - 150

Surrogate	LCS %Recovery	LCS Qualifier	Limits
o-Terphenyl	92		50 - 150
n-Triacontane-d62	96		50 - 150

Lab Sample ID: LCSD 590-24180/3-A

Matrix: Water

Analysis Batch: 24181

Client Sample ID: Lab Control Sample Dup

Prep Type: Silica Gel Cleanup

Prep Batch: 24180

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics (DRO) (C10-C25)	1.60	1.55		mg/L		97	50 - 150	4	25
Residual Range Organics (RRO) (C25-C36)	1.60	1.67		mg/L		104	50 - 150	2	25

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
o-Terphenyl	98		50 - 150
n-Triacontane-d62	100		50 - 150

Lab Sample ID: MB 590-24194/1-A

Matrix: Water

Analysis Batch: 24181

Client Sample ID: Method Blank

Prep Type: Silica Gel Cleanup

Prep Batch: 24194

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (DRO) (C10-C25)	0.190	J	0.24	0.11	mg/L		09/18/19 11:55	09/18/19 19:21	1
Residual Range Organics (RRO) (C25-C36)	ND		0.40	0.12	mg/L		09/18/19 11:55	09/18/19 19:21	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	98		50 - 150	09/18/19 11:55	09/18/19 19:21	1
n-Triacontane-d62	91		50 - 150	09/18/19 11:55	09/18/19 19:21	1

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QC Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11829-1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) (Continued)

Lab Sample ID: LCS 590-24194/2-A

Matrix: Water

Analysis Batch: 24181

Client Sample ID: Lab Control Sample

Prep Type: Silica Gel Cleanup

Prep Batch: 24194

Top Data: 176											
Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Diesel Range Organics (DRO) (C10-C25)			1.60	1.71		mg/L		107	50 - 150		
Residual Range Organics (RRO) (C25-C36)			1.60	1.76		mg/L		110	50 - 150		
Surrogate		LCS %Recovery	LCS Qualifier	Limits							
o-Terphenyl		95		50 - 150							
n-Triacontane-d62		98		50 - 150							

Lab Sample ID: LCSD 590-24194/3-A

Matrix: Water

Analysis Batch: 24181

Client Sample ID: Lab Control Sample Dup

Prep Type: Silica Gel Cleanup

Prep Batch: 24194

Top Data: 2/1/24											
Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics (DRO) (C10-C25)			1.60	1.55		mg/L	-	97	50 - 150	10	25
Residual Range Organics (RRO) (C25-C36)			1.60	1.63		mg/L		102	50 - 150	8	25
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits								
o-Terphenyl	87		50 - 150								
n-Triacontane-d62	91		50 - 150								

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 590-24091/1013

Matrix: Water

Analysis Batch: 24091

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.20	0.057	mg/L			09/12/19 13:46	1

Lab Sample ID: MB 590-24091/1046

Matrix: Water

Analysis Batch: 24091

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	ND		0.20	0.057	mg/L			09/12/19 20:14	1

Lab Sample ID: LCS 590-24091/1012

Matrix: Water

Analysis Batch: 24091

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	5.00	5.15		mg/L		103	90 - 110

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QC Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11829-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 590-24091/1045

Matrix: Water

Analysis Batch: 24091

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	5.00	4.91		mg/L		98	90 - 110

Lab Sample ID: 590-11829-B-11 MS

Matrix: Water

Analysis Batch: 24091

Client Sample ID: B-19

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Nitrate as N	0.68	F1	4.55	1.64	F1	mg/L		21	80 - 120

Lab Sample ID: 590-11829-B-11 MSD

Matrix: Water

Analysis Batch: 24091

Client Sample ID: B-19

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Nitrate as N	0.68	F1	4.55	1.47	F1	mg/L		17	80 - 120	11	12.1

Lab Sample ID: 590-11829-B-11 DU

Matrix: Water

Analysis Batch: 24091

Client Sample ID: B-19

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Nitrate as N	0.68	F1	0.775		mg/L		13	13.1

Lab Sample ID: MB 590-24092/1013

Matrix: Water

Analysis Batch: 24092

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		0.50	0.13	mg/L			09/12/19 13:46	1

Lab Sample ID: MB 590-24092/1046

Matrix: Water

Analysis Batch: 24092

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		0.50	0.13	mg/L			09/12/19 20:14	1

Lab Sample ID: LCS 590-24092/1012

Matrix: Water

Analysis Batch: 24092

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	12.5	12.8		mg/L		103	90 - 110

Lab Sample ID: LCS 590-24092/1045

Matrix: Water

Analysis Batch: 24092

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	12.5	12.2		mg/L		97	90 - 110

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QC Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11829-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: 590-11829-B-11 MS

Matrix: Water

Analysis Batch: 24092

Client Sample ID: 590-11829-B-11 MS

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	160	E	11.4	151	E 4	mg/L		-79	80 - 120

Lab Sample ID: 590-11829-B-11 MSD

Matrix: Water

Analysis Batch: 24092

Client Sample ID: 590-11829-B-11 MSD

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	160	E	11.4	153	E 4	mg/L		-65	80 - 120	1	10

Lab Sample ID: 590-11829-B-11 DU

Matrix: Water

Analysis Batch: 24092

Client Sample ID: 590-11829-B-11 DU

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Sulfate	160	E	162	E	mg/L		1	15.7

Lab Sample ID: MB 590-24115/1002

Matrix: Water

Analysis Batch: 24115

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		0.50	0.13	mg/L			09/13/19 10:42	1

Lab Sample ID: LCS 590-24115/1003

Matrix: Water

Analysis Batch: 24115

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	12.5	12.4		mg/L		99	90 - 110

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 580-311939/22-A

Matrix: Water

Analysis Batch: 312495

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 311939

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L		09/21/19 13:42	09/26/19 15:40	5
Manganese	0.00719	J	0.010	0.0023	mg/L		09/21/19 13:42	09/26/19 15:40	5

Lab Sample ID: LCS 580-311939/23-A

Matrix: Water

Analysis Batch: 312495

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 311939

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	1.00	0.993		mg/L		99	80 - 120
Manganese	1.00	1.01		mg/L		101	80 - 120

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QC Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11829-1

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSD 580-311939/24-A

Matrix: Water

Analysis Batch: 312495

Client Sample ID: Lab Control Sample Dup

Prep Type: Total Recoverable

Prep Batch: 311939

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	1.00	0.983		mg/L		98	80 - 120	1	20
Manganese	1.00	0.991		mg/L		99	80 - 120	2	20

Lab Sample ID: MB 580-312100/23-A

Matrix: Water

Analysis Batch: 312396

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 312100

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L		09/24/19 08:31	09/26/19 07:13	5
Manganese	ND		0.010	0.0023	mg/L		09/24/19 08:31	09/26/19 07:13	5

Lab Sample ID: LCS 580-312100/24-A

Matrix: Water

Analysis Batch: 312396

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 312100

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead	1.00	0.899		mg/L		90	80 - 120		
Manganese	1.00	1.04		mg/L		104	80 - 120		

Lab Sample ID: LCSD 580-312100/25-A

Matrix: Water

Analysis Batch: 312396

Client Sample ID: Lab Control Sample Dup

Prep Type: Total Recoverable

Prep Batch: 312100

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	1.00	0.891		mg/L		89	80 - 120	1	20
Manganese	1.00	0.906		mg/L		91	80 - 120	14	20

Lab Sample ID: MB 580-312172/23-A

Matrix: Water

Analysis Batch: 312516

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 312172

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0040	0.0010	mg/L		09/24/19 13:45	09/26/19 18:13	5

Lab Sample ID: LCS 580-312172/24-A

Matrix: Water

Analysis Batch: 312516

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 312172

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead	1.00	0.866		mg/L		87	80 - 120		

Lab Sample ID: LCSD 580-312172/25-A

Matrix: Water

Analysis Batch: 312516

Client Sample ID: Lab Control Sample Dup

Prep Type: Total Recoverable

Prep Batch: 312172

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	1.00	0.877		mg/L		88	80 - 120	1	20

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QC Sample Results

Client: AECOM

Job ID: 590-11829-1

Project/Site: Tacoma D St Terminal-Phillips 66

Method: 6020A - Metals (ICP/MS) (Continued)

Lab Sample ID: 590-11829-1 MS

Matrix: Water

Analysis Batch: 312516

Client Sample ID: T-2

Prep Type: Total Recoverable

Prep Batch: 312172

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	ND		1.00	0.959		mg/L		96	80 - 120

Lab Sample ID: 590-11829-1 MSD

Matrix: Water

Analysis Batch: 312516

Client Sample ID: T-2

Prep Type: Total Recoverable

Prep Batch: 312172

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	ND		1.00	1.06		mg/L		106	80 - 120	10	20

Lab Sample ID: 590-11829-1 DU

Matrix: Water

Analysis Batch: 312516

Client Sample ID: T-2

Prep Type: Total Recoverable

Prep Batch: 312172

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	ND		ND		mg/L				NC	20

Method: 310.1 - Alkalinity

Lab Sample ID: LCS 580-312321/2

Matrix: Water

Analysis Batch: 312321

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Alkalinity	100	98.4		mg/L		98	85 - 115

QC Association Summary

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11829-1

GC/MS VOA

Analysis Batch: 20379

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11829-12	Trip Blank	Total/NA	Water	8260C	
MB 570-20379/9	Method Blank	Total/NA	Water	8260C	
LCS 570-20379/4	Lab Control Sample	Total/NA	Water	8260C	
LCSD 570-20379/5	Lab Control Sample Dup	Total/NA	Water	8260C	

Analysis Batch: 20520

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11829-1	T-2	Total/NA	Water	8260C	
590-11829-2	HC-111	Total/NA	Water	8260C	
590-11829-3	G-18	Total/NA	Water	8260C	
590-11829-4	RR-2	Total/NA	Water	8260C	
590-11829-5	RR-3	Total/NA	Water	8260C	
590-11829-6	DMW-4	Total/NA	Water	8260C	
590-11829-7	G-8	Total/NA	Water	8260C	
590-11829-8	DMW-2	Total/NA	Water	8260C	
590-11829-9	FW-14	Total/NA	Water	8260C	
590-11829-10	FW-15	Total/NA	Water	8260C	
590-11829-11	B-19	Total/NA	Water	8260C	
MB 570-20520/9	Method Blank	Total/NA	Water	8260C	
LCS 570-20520/4	Lab Control Sample	Total/NA	Water	8260C	
LCSD 570-20520/5	Lab Control Sample Dup	Total/NA	Water	8260C	

GC/MS Semi VOA

Prep Batch: 24110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11829-4	RR-2	Total/NA	Water	3510C	
590-11829-5	RR-3	Total/NA	Water	3510C	
590-11829-9	FW-14	Total/NA	Water	3510C	
MB 590-24110/1-A	Method Blank	Total/NA	Water	3510C	
LCS 590-24110/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 590-24110/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

Analysis Batch: 24122

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11829-4	RR-2	Total/NA	Water	8270D SIM	24110
590-11829-5	RR-3	Total/NA	Water	8270D SIM	24110
590-11829-9	FW-14	Total/NA	Water	8270D SIM	24110
MB 590-24110/1-A	Method Blank	Total/NA	Water	8270D SIM	24110
LCS 590-24110/2-A	Lab Control Sample	Total/NA	Water	8270D SIM	24110
LCSD 590-24110/3-A	Lab Control Sample Dup	Total/NA	Water	8270D SIM	24110

GC VOA

Analysis Batch: 20674

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11829-1	T-2	Total/NA	Water	NWTPH-Gx	
590-11829-2	HC-111	Total/NA	Water	NWTPH-Gx	
590-11829-3	G-18	Total/NA	Water	NWTPH-Gx	
590-11829-4	RR-2	Total/NA	Water	NWTPH-Gx	
590-11829-5	RR-3	Total/NA	Water	NWTPH-Gx	
590-11829-6	DMW-4	Total/NA	Water	NWTPH-Gx	

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QC Association Summary

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11829-1

GC VOA (Continued)

Analysis Batch: 20674 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11829-7	G-8	Total/NA	Water	NWTPH-Gx	
590-11829-8	DMW-2	Total/NA	Water	NWTPH-Gx	
590-11829-9	FW-14	Total/NA	Water	NWTPH-Gx	
590-11829-10	FW-15	Total/NA	Water	NWTPH-Gx	
590-11829-11	B-19	Total/NA	Water	NWTPH-Gx	
MB 570-20674/6	Method Blank	Total/NA	Water	NWTPH-Gx	
LCS 570-20674/3	Lab Control Sample	Total/NA	Water	NWTPH-Gx	
LCSD 570-20674/4	Lab Control Sample Dup	Total/NA	Water	NWTPH-Gx	
590-11829-3 MS	G-18	Total/NA	Water	NWTPH-Gx	
590-11829-3 MSD	G-18	Total/NA	Water	NWTPH-Gx	

GC Semi VOA

Prep Batch: 24180

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11829-1	T-2	Silica Gel Cleanup	Water	3510C SGC	
590-11829-2	HC-111	Silica Gel Cleanup	Water	3510C SGC	
590-11829-3	G-18	Silica Gel Cleanup	Water	3510C SGC	
590-11829-4	RR-2	Silica Gel Cleanup	Water	3510C SGC	
590-11829-5	RR-3	Silica Gel Cleanup	Water	3510C SGC	
590-11829-6	DMW-4	Silica Gel Cleanup	Water	3510C SGC	
590-11829-7	G-8	Silica Gel Cleanup	Water	3510C SGC	
MB 590-24180/1-A	Method Blank	Silica Gel Cleanup	Water	3510C SGC	
LCS 590-24180/2-A	Lab Control Sample	Silica Gel Cleanup	Water	3510C SGC	
LCSD 590-24180/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Water	3510C SGC	

Analysis Batch: 24181

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11829-1	T-2	Silica Gel Cleanup	Water	NWTPH-Dx	24180
590-11829-2	HC-111	Silica Gel Cleanup	Water	NWTPH-Dx	24180
590-11829-3	G-18	Silica Gel Cleanup	Water	NWTPH-Dx	24180
590-11829-4	RR-2	Silica Gel Cleanup	Water	NWTPH-Dx	24180
590-11829-5	RR-3	Silica Gel Cleanup	Water	NWTPH-Dx	24180
590-11829-6	DMW-4	Silica Gel Cleanup	Water	NWTPH-Dx	24180
590-11829-7	G-8	Silica Gel Cleanup	Water	NWTPH-Dx	24180
590-11829-8	DMW-2	Silica Gel Cleanup	Water	NWTPH-Dx	24194
590-11829-9	FW-14	Silica Gel Cleanup	Water	NWTPH-Dx	24194
590-11829-10	FW-15	Silica Gel Cleanup	Water	NWTPH-Dx	24194
590-11829-11	B-19	Silica Gel Cleanup	Water	NWTPH-Dx	24194
MB 590-24180/1-A	Method Blank	Silica Gel Cleanup	Water	NWTPH-Dx	24180
MB 590-24194/1-A	Method Blank	Silica Gel Cleanup	Water	NWTPH-Dx	24194
LCS 590-24180/2-A	Lab Control Sample	Silica Gel Cleanup	Water	NWTPH-Dx	24180
LCS 590-24194/2-A	Lab Control Sample	Silica Gel Cleanup	Water	NWTPH-Dx	24194
LCSD 590-24180/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Water	NWTPH-Dx	24180
LCSD 590-24194/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Water	NWTPH-Dx	24194

Prep Batch: 24194

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11829-8	DMW-2	Silica Gel Cleanup	Water	3510C SGC	
590-11829-9	FW-14	Silica Gel Cleanup	Water	3510C SGC	
590-11829-10	FW-15	Silica Gel Cleanup	Water	3510C SGC	

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QC Association Summary

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11829-1

GC Semi VOA (Continued)

Prep Batch: 24194 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11829-11	B-19	Silica Gel Cleanup	Water	3510C SGC	
MB 590-24194/1-A	Method Blank	Silica Gel Cleanup	Water	3510C SGC	
LCS 590-24194/2-A	Lab Control Sample	Silica Gel Cleanup	Water	3510C SGC	
LCSD 590-24194/3-A	Lab Control Sample Dup	Silica Gel Cleanup	Water	3510C SGC	

HPLC/IC

Analysis Batch: 24091

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11829-1	T-2	Total/NA	Water	300.0	
590-11829-2	HC-111	Total/NA	Water	300.0	
590-11829-3	G-18	Total/NA	Water	300.0	
590-11829-4	RR-2	Total/NA	Water	300.0	
590-11829-5	RR-3	Total/NA	Water	300.0	
590-11829-6	DMW-4	Total/NA	Water	300.0	
590-11829-7	G-8	Total/NA	Water	300.0	
590-11829-8	DMW-2	Total/NA	Water	300.0	
590-11829-9	FW-14	Total/NA	Water	300.0	
590-11829-10	FW-15	Total/NA	Water	300.0	
590-11829-11	B-19	Total/NA	Water	300.0	
MB 590-24091/1013	Method Blank	Total/NA	Water	300.0	
MB 590-24091/1046	Method Blank	Total/NA	Water	300.0	
LCS 590-24091/1012	Lab Control Sample	Total/NA	Water	300.0	
LCS 590-24091/1045	Lab Control Sample	Total/NA	Water	300.0	
590-11829-B-11 MS	B-19	Total/NA	Water	300.0	
590-11829-B-11 MSD	B-19	Total/NA	Water	300.0	
590-11829-B-11 DU	B-19	Total/NA	Water	300.0	

Analysis Batch: 24092

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11829-1	T-2	Total/NA	Water	300.0	
590-11829-2	HC-111	Total/NA	Water	300.0	
590-11829-3	G-18	Total/NA	Water	300.0	
590-11829-4	RR-2	Total/NA	Water	300.0	
590-11829-5	RR-3	Total/NA	Water	300.0	
590-11829-6	DMW-4	Total/NA	Water	300.0	
590-11829-7	G-8	Total/NA	Water	300.0	
590-11829-8	DMW-2	Total/NA	Water	300.0	
590-11829-9	FW-14	Total/NA	Water	300.0	
590-11829-10	FW-15	Total/NA	Water	300.0	
MB 590-24092/1013	Method Blank	Total/NA	Water	300.0	
MB 590-24092/1046	Method Blank	Total/NA	Water	300.0	
LCS 590-24092/1012	Lab Control Sample	Total/NA	Water	300.0	
LCS 590-24092/1045	Lab Control Sample	Total/NA	Water	300.0	
590-11829-B-11 MS	590-11829-B-11 MS	Total/NA	Water	300.0	
590-11829-B-11 MSD	590-11829-B-11 MSD	Total/NA	Water	300.0	
590-11829-B-11 DU	590-11829-B-11 DU	Total/NA	Water	300.0	

Analysis Batch: 24115

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11829-11	B-19	Total/NA	Water	300.0	

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QC Association Summary

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11829-1

HPLC/IC (Continued)

Analysis Batch: 24115 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 590-24115/1002	Method Blank	Total/NA	Water	300.0	
LCS 590-24115/1003	Lab Control Sample	Total/NA	Water	300.0	

Metals

Prep Batch: 311939

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11829-1	T-2	Dissolved	Water	3005A	
590-11829-2	HC-111	Dissolved	Water	3005A	
590-11829-3	G-18	Dissolved	Water	3005A	
590-11829-4	RR-2	Dissolved	Water	3005A	
590-11829-5	RR-3	Dissolved	Water	3005A	
590-11829-6	DMW-4	Dissolved	Water	3005A	
590-11829-7	G-8	Dissolved	Water	3005A	
MB 580-311939/22-A	Method Blank	Total Recoverable	Water	3005A	
LCS 580-311939/23-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCSD 580-311939/24-A	Lab Control Sample Dup	Total Recoverable	Water	3005A	

Prep Batch: 312100

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11829-8	DMW-2	Dissolved	Water	3005A	
590-11829-9	FW-14	Dissolved	Water	3005A	
590-11829-10	FW-15	Dissolved	Water	3005A	
590-11829-11	B-19	Dissolved	Water	3005A	
MB 580-312100/23-A	Method Blank	Total Recoverable	Water	3005A	
LCS 580-312100/24-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCSD 580-312100/25-A	Lab Control Sample Dup	Total Recoverable	Water	3005A	

Prep Batch: 312172

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11829-1	T-2	Total Recoverable	Water	3005A	
590-11829-2	HC-111	Total Recoverable	Water	3005A	
590-11829-3	G-18	Total Recoverable	Water	3005A	
590-11829-4	RR-2	Total Recoverable	Water	3005A	
590-11829-5	RR-3	Total Recoverable	Water	3005A	
590-11829-6	DMW-4	Total Recoverable	Water	3005A	
590-11829-7	G-8	Total Recoverable	Water	3005A	
590-11829-8	DMW-2	Total Recoverable	Water	3005A	
590-11829-9	FW-14	Total Recoverable	Water	3005A	
590-11829-10	FW-15	Total Recoverable	Water	3005A	
590-11829-11	B-19	Total Recoverable	Water	3005A	
MB 580-312172/23-A	Method Blank	Total Recoverable	Water	3005A	
LCS 580-312172/24-A	Lab Control Sample	Total Recoverable	Water	3005A	
LCSD 580-312172/25-A	Lab Control Sample Dup	Total Recoverable	Water	3005A	
590-11829-1 MS	T-2	Total Recoverable	Water	3005A	
590-11829-1 MSD	T-2	Total Recoverable	Water	3005A	
590-11829-1 DU	T-2	Total Recoverable	Water	3005A	

Analysis Batch: 312396

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11829-8	DMW-2	Dissolved	Water	6020A	312100

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QC Association Summary

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11829-1

Metals (Continued)

Analysis Batch: 312396 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11829-9	FW-14	Dissolved	Water	6020A	312100
590-11829-10	FW-15	Dissolved	Water	6020A	312100
590-11829-11	B-19	Dissolved	Water	6020A	312100
MB 580-312100/23-A	Method Blank	Total Recoverable	Water	6020A	312100
LCS 580-312100/24-A	Lab Control Sample	Total Recoverable	Water	6020A	312100
LCSD 580-312100/25-A	Lab Control Sample Dup	Total Recoverable	Water	6020A	312100

Analysis Batch: 312495

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11829-1	T-2	Dissolved	Water	6020A	311939
590-11829-2	HC-111	Dissolved	Water	6020A	311939
590-11829-3	G-18	Dissolved	Water	6020A	311939
590-11829-4	RR-2	Dissolved	Water	6020A	311939
590-11829-5	RR-3	Dissolved	Water	6020A	311939
590-11829-6	DMW-4	Dissolved	Water	6020A	311939
590-11829-7	G-8	Dissolved	Water	6020A	311939
MB 580-311939/22-A	Method Blank	Total Recoverable	Water	6020A	311939
LCS 580-311939/23-A	Lab Control Sample	Total Recoverable	Water	6020A	311939
LCSD 580-311939/24-A	Lab Control Sample Dup	Total Recoverable	Water	6020A	311939

Analysis Batch: 312516

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11829-1	T-2	Total Recoverable	Water	6020A	312172
590-11829-2	HC-111	Total Recoverable	Water	6020A	312172
590-11829-3	G-18	Total Recoverable	Water	6020A	312172
590-11829-4	RR-2	Total Recoverable	Water	6020A	312172
590-11829-5	RR-3	Total Recoverable	Water	6020A	312172
590-11829-6	DMW-4	Total Recoverable	Water	6020A	312172
590-11829-7	G-8	Total Recoverable	Water	6020A	312172
590-11829-8	DMW-2	Total Recoverable	Water	6020A	312172
590-11829-9	FW-14	Total Recoverable	Water	6020A	312172
590-11829-10	FW-15	Total Recoverable	Water	6020A	312172
590-11829-11	B-19	Total Recoverable	Water	6020A	312172
MB 580-312172/23-A	Method Blank	Total Recoverable	Water	6020A	312172
LCS 580-312172/24-A	Lab Control Sample	Total Recoverable	Water	6020A	312172
LCSD 580-312172/25-A	Lab Control Sample Dup	Total Recoverable	Water	6020A	312172
590-11829-1 MS	T-2	Total Recoverable	Water	6020A	312172
590-11829-1 MSD	T-2	Total Recoverable	Water	6020A	312172
590-11829-1 DU	T-2	Total Recoverable	Water	6020A	312172

General Chemistry

Analysis Batch: 312321

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11829-1	T-2	Total/NA	Water	310.1	
590-11829-2	HC-111	Total/NA	Water	310.1	
590-11829-3	G-18	Total/NA	Water	310.1	
590-11829-4	RR-2	Total/NA	Water	310.1	
590-11829-5	RR-3	Total/NA	Water	310.1	
590-11829-6	DMW-4	Total/NA	Water	310.1	
590-11829-7	G-8	Total/NA	Water	310.1	

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QC Association Summary

Client: AECOM

Job ID: 590-11829-1

Project/Site: Tacoma D St Terminal-Phillips 66

General Chemistry (Continued)

Analysis Batch: 312321 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
590-11829-8	DMW-2	Total/NA	Water	310.1	
590-11829-9	FW-14	Total/NA	Water	310.1	
590-11829-10	FW-15	Total/NA	Water	310.1	
590-11829-11	B-19	Total/NA	Water	310.1	
LCS 580-312321/2	Lab Control Sample	Total/NA	Water	310.1	

Lab Chronicle

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11829-1

Client Sample ID: T-2

Lab Sample ID: 590-11829-1

Date Collected: 09/11/19 08:57

Matrix: Water

Date Received: 09/12/19 14:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	20520	09/20/19 18:34	MGX6	ECL 2
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	20674	09/21/19 02:57	W6MG	ECL 2
Silica Gel Cleanup	Prep	3510C SGC			208.6 mL	2 mL	24180	09/18/19 08:55	AMB	TAL SPK
Silica Gel Cleanup	Analysis	NWTPH-Dx		1			24181	09/18/19 16:43	NMI	TAL SPK
Total/NA	Analysis	300.0		50			24091	09/12/19 16:56	NMI	TAL SPK
Total/NA	Analysis	300.0		50			24092	09/12/19 16:56	NMI	TAL SPK
Dissolved	Prep	3005A			50 mL	50 mL	311939	09/21/19 13:42	JCP	TAL SEA
Dissolved	Analysis	6020A		5	50 mL	50 mL	312495	09/26/19 17:10	FCW	TAL SEA
Total Recoverable	Prep	3005A			50 mL	50 mL	312172	09/24/19 13:45	A1B	TAL SEA
Total Recoverable	Analysis	6020A		5	50 mL	50 mL	312516	09/26/19 18:22	FCW	TAL SEA
Total/NA	Analysis	310.1		1	30 mL	30 mL	312321	09/25/19 14:27	EMM	TAL SEA

Client Sample ID: HC-111

Lab Sample ID: 590-11829-2

Date Collected: 09/11/19 08:50

Matrix: Water

Date Received: 09/12/19 14:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		10	5 mL	5 mL	20520	09/20/19 19:00	MGX6	ECL 2
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	20674	09/21/19 01:33	W6MG	ECL 2
Silica Gel Cleanup	Prep	3510C SGC			256 mL	2 mL	24180	09/18/19 08:55	AMB	TAL SPK
Silica Gel Cleanup	Analysis	NWTPH-Dx		1			24181	09/18/19 17:02	NMI	TAL SPK
Total/NA	Analysis	300.0		1			24091	09/12/19 17:07	NMI	TAL SPK
Total/NA	Analysis	300.0		1			24092	09/12/19 17:07	NMI	TAL SPK
Dissolved	Prep	3005A			50 mL	50 mL	311939	09/21/19 13:42	JCP	TAL SEA
Dissolved	Analysis	6020A		5	50 mL	50 mL	312495	09/26/19 17:15	FCW	TAL SEA
Total Recoverable	Prep	3005A			50 mL	50 mL	312172	09/24/19 13:45	A1B	TAL SEA
Total Recoverable	Analysis	6020A		5	50 mL	50 mL	312516	09/26/19 19:10	FCW	TAL SEA
Total/NA	Analysis	310.1		1	30 mL	30 mL	312321	09/25/19 14:27	EMM	TAL SEA

Client Sample ID: G-18

Lab Sample ID: 590-11829-3

Date Collected: 09/11/19 10:19

Matrix: Water

Date Received: 09/12/19 14:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	20520	09/20/19 19:26	MGX6	ECL 2
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	20674	09/20/19 18:29	W6MG	ECL 2
Silica Gel Cleanup	Prep	3510C SGC			221.6 mL	2 mL	24180	09/18/19 08:55	AMB	TAL SPK
Silica Gel Cleanup	Analysis	NWTPH-Dx		1			24181	09/18/19 17:22	NMI	TAL SPK
Total/NA	Analysis	300.0		1			24091	09/12/19 17:19	NMI	TAL SPK
Total/NA	Analysis	300.0		1			24092	09/12/19 17:19	NMI	TAL SPK
Dissolved	Prep	3005A			50 mL	50 mL	311939	09/21/19 13:42	JCP	TAL SEA
Dissolved	Analysis	6020A		5	50 mL	50 mL	312495	09/26/19 17:20	FCW	TAL SEA

Eurofins TestAmerica, Spokane

Lab Chronicle

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11829-1

Client Sample ID: G-18

Date Collected: 09/11/19 10:19

Date Received: 09/12/19 14:00

Lab Sample ID: 590-11829-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	312172	09/24/19 13:45	A1B	TAL SEA
Total Recoverable	Analysis	6020A		5	50 mL	50 mL	312516	09/26/19 19:14	FCW	TAL SEA
Total/NA	Analysis	310.1		1	30 mL	30 mL	312321	09/25/19 14:27	EMM	TAL SEA

Client Sample ID: RR-2

Date Collected: 09/11/19 10:25

Date Received: 09/12/19 14:00

Lab Sample ID: 590-11829-4

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	20520	09/20/19 19:52	MGX6	ECL 2
Total/NA	Prep	3510C			265.4 mL	2 mL	24110	09/13/19 08:26	AMB	TAL SPK
Total/NA	Analysis	8270D SIM		1			24122	09/13/19 15:01	NMI	TAL SPK
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	20674	09/21/19 04:22	W6MG	ECL 2
Silica Gel Cleanup	Prep	3510C SGC			267.7 mL	2 mL	24180	09/18/19 08:55	AMB	TAL SPK
Silica Gel Cleanup	Analysis	NWTPH-Dx		1			24181	09/18/19 17:42	NMI	TAL SPK
Total/NA	Analysis	300.0		500			24091	09/12/19 17:31	NMI	TAL SPK
Total/NA	Analysis	300.0		500			24092	09/12/19 17:31	NMI	TAL SPK
Dissolved	Prep	3005A			50 mL	50 mL	311939	09/21/19 13:42	JCP	TAL SEA
Dissolved	Analysis	6020A		5	50 mL	50 mL	312495	09/26/19 17:45	FCW	TAL SEA
Total Recoverable	Prep	3005A			50 mL	50 mL	312172	09/24/19 13:45	A1B	TAL SEA
Total Recoverable	Analysis	6020A		5	50 mL	50 mL	312516	09/26/19 19:19	FCW	TAL SEA
Total/NA	Analysis	310.1		1	30 mL	30 mL	312321	09/25/19 14:27	EMM	TAL SEA

Client Sample ID: RR-3

Date Collected: 09/11/19 11:30

Date Received: 09/12/19 14:00

Lab Sample ID: 590-11829-5

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	20520	09/20/19 20:18	MGX6	ECL 2
Total/NA	Prep	3510C			262.8 mL	2 mL	24110	09/13/19 08:26	AMB	TAL SPK
Total/NA	Analysis	8270D SIM		1			24122	09/13/19 15:25	NMI	TAL SPK
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	20674	09/21/19 03:54	W6MG	ECL 2
Silica Gel Cleanup	Prep	3510C SGC			262.3 mL	2 mL	24180	09/18/19 08:55	AMB	TAL SPK
Silica Gel Cleanup	Analysis	NWTPH-Dx		1			24181	09/18/19 18:21	NMI	TAL SPK
Total/NA	Analysis	300.0		1000			24091	09/12/19 18:06	NMI	TAL SPK
Total/NA	Analysis	300.0		1000			24092	09/12/19 18:06	NMI	TAL SPK
Dissolved	Prep	3005A			50 mL	50 mL	311939	09/21/19 13:42	JCP	TAL SEA
Dissolved	Analysis	6020A		5	50 mL	50 mL	312495	09/26/19 17:50	FCW	TAL SEA
Total Recoverable	Prep	3005A			50 mL	50 mL	312172	09/24/19 13:45	A1B	TAL SEA
Total Recoverable	Analysis	6020A		5	50 mL	50 mL	312516	09/26/19 19:23	FCW	TAL SEA
Total/NA	Analysis	310.1		1	30 mL	30 mL	312321	09/25/19 14:27	EMM	TAL SEA

Eurofins TestAmerica, Spokane

Lab Chronicle

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11829-1

Client Sample ID: DMW-4

Date Collected: 09/11/19 11:42

Date Received: 09/12/19 14:00

Lab Sample ID: 590-11829-6

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	20520	09/20/19 20:44	MGX6	ECL 2
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	20674	09/21/19 04:50	W6MG	ECL 2
Silica Gel Cleanup	Prep	3510C SGC			223.1 mL	2 mL	24180	09/18/19 08:55	AMB	TAL SPK
Silica Gel Cleanup	Analysis	NWTPH-Dx		1			24181	09/18/19 18:41	NMI	TAL SPK
Total/NA	Analysis	300.0		50			24091	09/12/19 18:17	NMI	TAL SPK
Total/NA	Analysis	300.0		50			24092	09/12/19 18:17	NMI	TAL SPK
Dissolved	Prep	3005A			50 mL	50 mL	311939	09/21/19 13:42	JCP	TAL SEA
Dissolved	Analysis	6020A		5	50 mL	50 mL	312495	09/26/19 17:55	FCW	TAL SEA
Total Recoverable	Prep	3005A			50 mL	50 mL	312172	09/24/19 13:45	A1B	TAL SEA
Total Recoverable	Analysis	6020A		5	50 mL	50 mL	312516	09/26/19 19:27	FCW	TAL SEA
Total/NA	Analysis	310.1		1	30 mL	30 mL	312321	09/25/19 14:27	EMM	TAL SEA

Client Sample ID: G-8

Date Collected: 09/11/19 13:14

Date Received: 09/12/19 14:00

Lab Sample ID: 590-11829-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	20520	09/20/19 21:10	MGX6	ECL 2
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	20674	09/21/19 05:46	W6MG	ECL 2
Silica Gel Cleanup	Prep	3510C SGC			229.1 mL	2 mL	24180	09/18/19 08:55	AMB	TAL SPK
Silica Gel Cleanup	Analysis	NWTPH-Dx		1			24181	09/18/19 19:01	NMI	TAL SPK
Total/NA	Analysis	300.0		4			24091	09/12/19 18:29	NMI	TAL SPK
Total/NA	Analysis	300.0		4			24092	09/12/19 18:29	NMI	TAL SPK
Dissolved	Prep	3005A			50 mL	50 mL	311939	09/21/19 13:42	JCP	TAL SEA
Dissolved	Analysis	6020A		5	50 mL	50 mL	312495	09/26/19 18:00	FCW	TAL SEA
Total Recoverable	Prep	3005A			50 mL	50 mL	312172	09/24/19 13:45	A1B	TAL SEA
Total Recoverable	Analysis	6020A		5	50 mL	50 mL	312516	09/26/19 19:32	FCW	TAL SEA
Total/NA	Analysis	310.1		1	30 mL	30 mL	312321	09/25/19 14:27	EMM	TAL SEA

Client Sample ID: DMW-2

Date Collected: 09/11/19 13:15

Date Received: 09/12/19 14:00

Lab Sample ID: 590-11829-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	20520	09/20/19 21:35	MGX6	ECL 2
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	20674	09/21/19 03:26	W6MG	ECL 2
Silica Gel Cleanup	Prep	3510C SGC			263.2 mL	2 mL	24194	09/18/19 11:55	AMB	TAL SPK
Silica Gel Cleanup	Analysis	NWTPH-Dx		1			24181	09/18/19 20:20	NMI	TAL SPK
Total/NA	Analysis	300.0		50			24091	09/12/19 18:41	NMI	TAL SPK
Total/NA	Analysis	300.0		50			24092	09/12/19 18:41	NMI	TAL SPK
Dissolved	Prep	3005A			50 mL	50 mL	312100	09/24/19 08:31	A1B	TAL SEA
Dissolved	Analysis	6020A		5	50 mL	50 mL	312396	09/26/19 08:10	FCW	TAL SEA

Eurofins TestAmerica, Spokane

Lab Chronicle

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11829-1

Client Sample ID: DMW-2

Date Collected: 09/11/19 13:15

Date Received: 09/12/19 14:00

Lab Sample ID: 590-11829-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Recoverable	Prep	3005A			50 mL	50 mL	312172	09/24/19 13:45	A1B	TAL SEA
Total Recoverable	Analysis	6020A		5	50 mL	50 mL	312516	09/26/19 19:36	FCW	TAL SEA
Total/NA	Analysis	310.1		1	30 mL	30 mL	312321	09/25/19 14:27	EMM	TAL SEA

Client Sample ID: FW-14

Date Collected: 09/11/19 14:05

Date Received: 09/12/19 14:00

Lab Sample ID: 590-11829-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	20520	09/20/19 22:01	MGX6	ECL 2
Total/NA	Prep	3510C			264.7 mL	2 mL	24110	09/13/19 08:26	AMB	TAL SPK
Total/NA	Analysis	8270D SIM		1			24122	09/13/19 15:48	NMI	TAL SPK
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	20674	09/21/19 02:29	W6MG	ECL 2
Silica Gel Cleanup	Prep	3510C SGC			266.5 mL	2 mL	24194	09/18/19 11:55	AMB	TAL SPK
Silica Gel Cleanup	Analysis	NWTPH-Dx		1			24181	09/18/19 20:40	NMI	TAL SPK
Total/NA	Analysis	300.0		100			24091	09/12/19 18:52	NMI	TAL SPK
Total/NA	Analysis	300.0		100			24092	09/12/19 18:52	NMI	TAL SPK
Dissolved	Prep	3005A			50 mL	50 mL	312100	09/24/19 08:31	A1B	TAL SEA
Dissolved	Analysis	6020A		5	50 mL	50 mL	312396	09/26/19 08:14	FCW	TAL SEA
Total Recoverable	Prep	3005A			50 mL	50 mL	312172	09/24/19 13:45	A1B	TAL SEA
Total Recoverable	Analysis	6020A		5	50 mL	50 mL	312516	09/26/19 19:40	FCW	TAL SEA
Total/NA	Analysis	310.1		1	30 mL	30 mL	312321	09/25/19 14:27	EMM	TAL SEA

Client Sample ID: FW-15

Date Collected: 09/11/19 15:20

Date Received: 09/12/19 14:00

Lab Sample ID: 590-11829-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	20520	09/20/19 22:27	MGX6	ECL 2
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	20674	09/21/19 02:01	W6MG	ECL 2
Silica Gel Cleanup	Prep	3510C SGC			255.7 mL	2 mL	24194	09/18/19 11:55	AMB	TAL SPK
Silica Gel Cleanup	Analysis	NWTPH-Dx		1			24181	09/18/19 21:00	NMI	TAL SPK
Total/NA	Analysis	300.0		100			24091	09/12/19 19:04	NMI	TAL SPK
Total/NA	Analysis	300.0		100			24092	09/12/19 19:04	NMI	TAL SPK
Dissolved	Prep	3005A			50 mL	50 mL	312100	09/24/19 08:31	A1B	TAL SEA
Dissolved	Analysis	6020A		5	50 mL	50 mL	312396	09/26/19 08:19	FCW	TAL SEA
Total Recoverable	Prep	3005A			50 mL	50 mL	312172	09/24/19 13:45	A1B	TAL SEA
Total Recoverable	Analysis	6020A		5	50 mL	50 mL	312516	09/26/19 19:45	FCW	TAL SEA
Total/NA	Analysis	310.1		1	30 mL	30 mL	312321	09/25/19 14:27	EMM	TAL SEA

Eurofins TestAmerica, Spokane

Lab Chronicle

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11829-1

Client Sample ID: B-19

Lab Sample ID: 590-11829-11

Date Collected: 09/11/19 15:21

Matrix: Water

Date Received: 09/12/19 14:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	20520	09/20/19 22:53	MGX6	ECL 2
Total/NA	Analysis	NWTPH-Gx		1	5 mL	5 mL	20674	09/21/19 06:43	W6MG	ECL 2
Silica Gel Cleanup	Prep	3510C SGC			231.6 mL	2 mL	24194	09/18/19 11:55	AMB	TAL SPK
Silica Gel Cleanup	Analysis	NWTPH-Dx		1			24181	09/18/19 21:20	NMI	TAL SPK
Total/NA	Analysis	300.0		1			24091	09/12/19 19:16	NMI	TAL SPK
Total/NA	Analysis	300.0		40			24115	09/13/19 11:06	NMI	TAL SPK
Dissolved	Prep	3005A			50 mL	50 mL	312100	09/24/19 08:31	A1B	TAL SEA
Dissolved	Analysis	6020A		5	50 mL	50 mL	312396	09/26/19 08:23	FCW	TAL SEA
Total Recoverable	Prep	3005A			50 mL	50 mL	312172	09/24/19 13:45	A1B	TAL SEA
Total Recoverable	Analysis	6020A		5	50 mL	50 mL	312516	09/26/19 18:18	FCW	TAL SEA
Total/NA	Analysis	310.1		1	30 mL	30 mL	312321	09/25/19 14:28	EMM	TAL SEA

Client Sample ID: Trip Blank

Lab Sample ID: 590-11829-12

Date Collected: 09/11/19 00:00

Matrix: Water

Date Received: 09/12/19 14:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	5 mL	5 mL	20379	09/19/19 20:43	MGX6	ECL 2

Laboratory References:

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

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

TAL SPK = Eurofins TestAmerica, Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Definitions/Glossary

Client: AECOM

Job ID: 590-11829-1

Project/Site: Tacoma D St Terminal-Phillips 66

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits

GC Semi VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

HPLC/IC

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
E	Result exceeded calibration range.
F1	MS and/or MSD Recovery is outside acceptance limits.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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

Accreditation/Certification Summary

Client: AECOM

Job ID: 590-11829-1

Project/Site: Tacoma D St Terminal-Phillips 66

Laboratory: Eurofins TestAmerica, Spokane

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Washington	State Program	C569	01-06-20
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte

Laboratory: Eurofins Calscience LLC

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

Authority	Program	Identification Number	Expiration Date
Arizona	State Program	AZ0781	03-13-20
California	SCAQMD LAP	N/A	11-30-19
California	State Program	2944	09-30-19
Guam	State Program	19-004R	10-31-19
Hawaii	State Program	N/A	01-29-20
Oregon	NELAP Primary AB	CA300001	01-20-20
Washington	State Program	C916	10-11-19

Laboratory: Eurofins TestAmerica, Seattle

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

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	17-024	01-19-22
Alaska (UST)	State Program	17-024	01-19-20
ANAB	Dept. of Defense ELAP	L2236	01-19-22
ANAB	DoD	L2236	01-19-22
ANAB	ISO/IEC 17025	L2236	01-19-22
ANAB	ISO/IEC 17025	L2236	01-19-22
California	State	2901	11-05-19
California	State Program	2901	11-05-19
Montana (UST)	State	NA	04-13-21
Montana (UST)	State Program	N/A	04-30-20
Oregon	NELAP	WA100007	11-05-19
Oregon	NELAP	WA100007	11-05-19
US Fish & Wildlife	Federal	LE058448-0	07-31-20
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	Federal	P330-14-00126	02-10-20
USDA	US Federal Programs	P330-17-00039	02-10-20
Washington	State	C553	02-17-20
Washington	State Program	C553	02-17-20

TestAmerica Spokane

11922 E. 1st Ave.

Spokane, WA 99206
phone 509.924.9200 fax

Chain of Custody Record

TestAmerica

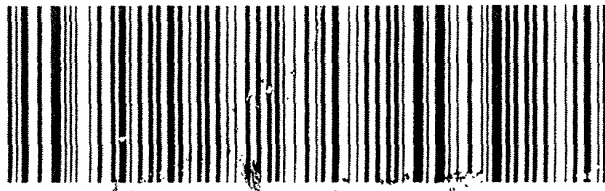
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

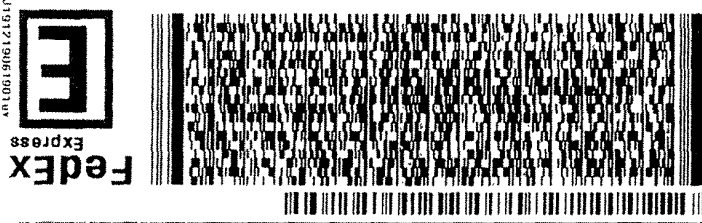
Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact		Project Manager: <u>Graig Riley TYLER</u>		Site Contact: Mark Tauscher		Date: <u>9/11/2019</u>		COC No:	
AECOM		Tel/Fax: 503-478-2766		Lab Contact: Randee Arrington		Carrier: <u>Feder</u>		1 of 1 COCs	
111 SW Columbia, Suite 1500		Analysis Turnaround Time		Filtered Sample (Y/N) Perform MS/MSD (Y/N) 8260B BTEX NWTPH-Gx NWTPH-Dx 300.0 Sulfate 300.0 Nitrate (48 Hr. Hold Time) 6020 Dissolved Lead and Mn- Lab FI 310.1 Alkalinity 6020 Total Lead Naphthalenes SIMPAH8270		Sampler: For Lab Use Only: Walk-in Client: Lab Sampling:		Job / SDG No.:	
Portland, Oregon 97201		☐ CALENDAR DAYS ☒ WORKING DAYS							
503-222-7200 Phone		TAT if different from Below							
Email: <u>grig.riley@aecom.com</u> <u>TYLER.HERRY@AECOM.COM</u>		☒ 2 weeks ☐ 1 week ☐ 2 days ☐ 1 day							
Project Name: D Street Terminal Tacoma, WA		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)		# of Cont.	
Site: P66 Terminal		Matrix							
P O # 60483190									
Sample Identification								Sample Specific Notes:	
T-2		9/11/19		08:57		G		W	
HC-111				08:50					
G-1B				10:19					
RR-2				10:25					
RR-3				11:30					
DMW-4				11:42					
G-8				13:14					
DMW-2				13:15					
FW-14				14:05					
FW-15				15:20					
B-19				15:21					
TRIP BLANK									
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other									
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)				
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown					☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months				
Special Instructions/QC Requirements & Comments: Please Contact <u>Graig Riley</u> with questions <u>TYLER HERRY</u>									
Custody Seals Intact: ☐ Yes ☐ No		Custody Seal No.:		Cooler Temp. (°C): Obs'd: <u>3.5</u> Corr'd: <u>2.2</u>		Therm ID No.:			
Relinquished by: <u>REBECCA DIGESTINO</u>		Company: <u>AECOM</u>		Date/Time: <u>9/11/19 16:30</u>		Received by: <u>Feder</u>		Company: <u>Feder</u>	
Relinquished by: <u>AD</u>		Company: <u>AECOM</u>		Date/Time: <u>9/11/19 16:30</u>		Received by: <u>Feder</u>		Company: <u>Feder</u>	
Relinquished by: <u>AD</u>		Company: <u>AECOM</u>		Date/Time: <u>9/12/19 14:00</u>		Received by: <u>AD</u>		Company: <u>AD</u>	

Form No. CA-C-WI-002, Rev. 4.2, dated 04/02/2013



CA-US SNA 92841
X0 APVA
 SATURDAY 12:00P
 PRIORITY OVERNIGHT
 1101 1300 4561
 TRK# 0201



SHIPPOING/RECEIVING
 EUROFINS CALSCIENCE LLC
 7440 LINCOLN WAY
 GARDEN GROVE CA 92841
 REF: DEPT: INU: PO:

ORIGIN ID: GEGA (509) 924-9200
 SAMPLE RECEIVING
 TESTAMERICA INC
 11922 E 1ST AVENUE
 SPOKANE, WA 992065302
 UNITED STATES US
 SHIP DATE: 13SEP19
 ACTWGT: 16.00 LB MAN
 CAD: 0402768/CAFE3310
 BILL SENDER

TestAmerica
 THE LEADER IN ENVIRONMENTAL TESTING



590-11829 Waybill

Eurofins TestAmerica, Spokane

11922 East 1st Ave

Spokane, WA 99206

Phone: 509-924-9200 Fax: 509-924-9290

Chain of Custody Record



eurofins

Environmental Testing
TestAmerica

Client Information (Sub Contract Lab)		Lab PM: Arrington, Randee E		Carrier Tracking No(s):		COC No: 590-4727.1	
Client Contact: Shipping/Receiving		Phone:		State of Origin: Washington		Page: Page 1 of 2	
Company: Eurofins Calscience LLC		E-Mail: randee.arrington@testamericainc.com		Accreditations Required (See note): State Program - Washington		Job #: 590-11829-1	
Address: 7440 Lincoln Way.		Due Date Requested: 9/24/2019		Analysis Requested		Preservation Codes:	
City: Garden Grove		TAT Requested (days):		Perform MS/MSD (Yes or No)		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
State, Zip: CA, 92841		PO #:		NMTPL, Gx/5030C TPH as Gasoline		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
Phone: 714-895-5494(Tel) 714-894-7501(Fax)		WO #:		Field Filtered Sample (Yes or No)		Total Number of Containers	
Email:		Project #: 59000882		Preservation Code:		Special Instructions/Note:	
Site: Tacoma D St Terminal-Phillips 66		SSOW#:		Sample Date			
		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=water, S=solid, O=wastewater, BT=Tissue, A=Air)	
Sample Identification - Client ID (Lab ID)		Sample Date		Sample Time		Sample Type	
T-2 (590-11829-1)	9/11/19	08:57 Pacific	Water	X	X	2	
HC-111 (590-11829-2)	9/11/19	08:50 Pacific	Water	X	X	2	
G-18 (590-11829-3)	9/11/19	10:19 Pacific	Water	X	X	2	
RR-2 (590-11829-4)	9/11/19	10:25 Pacific	Water	X	X	2	
RR-3 (590-11829-5)	9/11/19	11:30 Pacific	Water	X	X	2	
DMW-4 (590-11829-6)	9/11/19	11:42 Pacific	Water	X	X	2	
G-8 (590-11829-7)	9/11/19	13:14 Pacific	Water	X	X	2	
DMW-2 (590-11829-8)	9/11/19	13:15 Pacific	Water	X	X	2	
FW-14 (590-11829-9)	9/11/19	14:05 Pacific	Water	X	X	2	

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)	
Unconfirmed		Return To Client ☐ Disposal By Lab ☐ Archive For ☐ Months	
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:	
Primary Deliverable Rank: 2		Method of Shipment:	
Empty Kit Relinquished by:		Date:	
Relinquished by: Maria Ochoa		Date/Time: 9/13/19 1506	
Relinquished by:		Date/Time:	
Relinquished by:		Date/Time:	
Custody Seals Intact: ☐ Yes ☐ No		Custody Seal No.:	
Cooler Temperature(s) °C and Other Remarks:		Received by: <i>[Signature]</i>	
		Date/Time: 9/14/19 1140	
		Company: <i>[Signature]</i>	
		Company:	
		Company:	

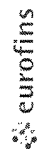
Chain of Custody Record



5. 2. 1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 215. 216. 217. 218. 219. 220. 221. 222. 223. 224. 225. 226. 227. 228. 229. 230. 231. 232. 233. 234. 235. 236. 237. 238. 239. 240. 241. 242. 243. 244. 245. 246. 247. 248. 249. 250. 251. 252. 253. 254. 255. 256. 257. 258. 259. 260. 261. 262. 263. 264. 265. 266. 267. 268. 269. 270. 271. 272. 273. 274. 275. 276. 277. 278. 279. 280. 281. 282. 283. 284. 285. 286. 287. 288. 289. 290. 291. 292. 293. 294. 295. 296. 297. 298. 299. 300. 301. 302. 303. 304. 305. 306. 307. 308. 309. 310. 311. 312. 313. 314. 315. 316. 317. 318. 319. 320. 321. 322. 323. 324. 325. 326. 327. 328. 329. 330. 331. 332. 333. 334. 335. 336. 337. 338. 339. 340. 341. 342. 343. 344. 345. 346. 347. 348. 349. 350. 351. 352. 353. 354. 355. 356. 357. 358. 359. 360. 361. 362. 363. 364. 365. 366. 367. 368. 369. 370. 371. 372. 373. 374. 375. 376. 377. 378. 379. 380. 381. 382. 383. 384. 385. 386. 387. 388. 389. 390. 391. 392. 393. 394. 395. 396. 397. 398. 399. 400. 401. 402. 403. 404. 405. 406. 407. 408. 409. 410. 411. 412. 413. 414. 415. 416. 417. 418. 419. 420. 421. 422. 423. 424. 425. 426. 427. 428. 429. 430. 431. 432. 433. 434. 435. 436. 437. 438. 439. 440. 441. 442. 443. 444. 445. 446. 447. 448. 449. 450. 451. 452. 453. 454. 455. 456. 457. 458. 459. 460. 461. 462. 463. 464. 465. 466. 467. 468. 469. 470. 471. 472. 473. 474. 475. 476. 477. 478. 479. 480. 481. 482. 483. 484. 485. 486. 487. 488. 489. 490. 491. 492. 493. 494. 495. 496. 497. 498. 499. 500. 501. 502. 503. 504. 505. 506. 507. 508. 509. 510. 511. 512. 513. 514. 515. 516. 517. 518. 519. 520. 521. 522. 523. 524. 525. 526. 527. 528. 529. 530. 531. 532. 533. 534. 535. 536. 537. 538. 539. 540. 541. 542. 543. 544. 545. 546. 547. 548. 549. 550. 551. 552. 553. 554. 555. 556. 557. 558. 559. 560. 561. 562. 563. 564. 565. 566. 567. 568. 569. 570. 571. 572. 573. 574. 575. 576. 577. 578. 579. 580. 581. 582. 583. 584. 585. 586. 587. 588. 589. 590. 591. 592. 593. 594. 595. 596. 597. 598. 599. 600. 601. 602. 603. 604. 605. 606. 607. 608. 609. 610. 611. 612. 613. 614. 615. 616. 617. 618. 619. 620. 621. 622. 623. 624. 625. 626. 627. 628. 629. 630. 631. 632. 633. 634. 635. 636. 637. 638. 639. 640. 641. 642. 643. 644. 645. 646. 647. 648. 649. 650. 651. 652. 653. 654. 655. 656. 657. 658. 659. 660. 661. 662. 663. 664. 665. 666. 667. 668. 669. 670. 671. 672. 673. 674. 675. 676. 677. 678. 679. 680. 681. 682. 683. 684. 685. 686. 687. 688. 689. 690. 691. 692. 693. 694. 695. 696. 697. 698. 699. 700. 701. 702. 703. 704. 705. 706. 707. 708. 709. 710. 711. 712. 713. 714. 715. 716. 717. 718. 719. 720. 721. 722. 723. 724. 725. 726. 727. 728. 729. 730. 731. 732. 733. 734. 735. 736. 737. 738. 739. 740. 741. 742. 743. 744. 745. 746. 747. 748. 749. 750. 751. 752. 753. 754. 755. 756. 757. 758. 759. 760. 761. 762. 763. 764. 765. 766. 767. 768. 769. 770. 771. 772. 773. 774. 775. 776. 777. 778. 779. 780. 781. 782. 783. 784. 785. 786. 787. 788. 789. 790. 791. 792. 793. 794. 795. 796. 797. 798. 799. 800. 801. 802. 803. 804. 805. 806. 807. 808. 809. 810. 811. 812. 813. 814. 815. 816. 817. 818. 819. 820. 821. 822. 823. 824. 825. 826. 827. 828. 829. 830. 831. 832. 833. 834. 835. 836. 837. 838. 839

[illegible]

Chain of Custody Record


 Laboratory Testing
 TestAmerica

| Client Information (Sub Contract Lab) | | Lab PM: | | Carrier Tracking No(s): | | COC No: | | | |
|---|-------------|---|---------------------------------|---|-----------------------------------|--------------------------------|----------------------------|----------------------------|----------------------------|
| Client Contact:
Shipping/Receiving | | Arrington, Randee E | | 590-4727.1 | | Page:
Page 1 of 2 | | | |
| Company:
Eurofins Calscience LLC | | E-Mail:
randee.arrington@testamericainc.com | | State of Origin:
Washington | | Job #:
590-11829-1 | | | |
| Address:
7440 Lincoln Way. | | Accreditations Required (See note):
State Program - Washington | | Preservation Codes: | | | | | |
| City:
Garden Grove | | Due Date Requested:
9/24/2019 | | Analysis Requested | | | | | |
| State, Zip:
CA, 92841 | | TAT Requested (days): | | | | | | | |
| Phone:
714-895-5494(Tel) 714-894-7501(Fax) | | PO #: | | | | | | | |
| Email:
714-895-5494(Tel) 714-894-7501(Fax) | | WO #: | | | | | | | |
| Project Name:
Tacoma D St Terminal-Phillips 66 | | Project #:
59000882 | | | | | | | |
| Site: | | SSOW#: | | | | | | | |
| Sample Identification - Client ID (Lab ID) | Sample Date | Sample Time | Sample Type
(C=Comp, G=grab) | Matrix
(W=water, S=solid, O=onwater, BT=Tissue, A=Air) | Field Filtered Sample (Yes or No) | NWTPH, Gx/5030C BTEX Volatiles | 8260C/5030C BTEX Volatiles | Total Number of Containers | Special Instructions/Note: |
| T-2 (590-11829-1) | 9/11/19 | 08:57 Pacific | Water | Water | X | X | X | 2 | |
| HC-111 (590-11829-2) | 9/11/19 | 08:50 Pacific | Water | Water | X | X | X | 2 | |
| G-18 (590-11829-3) | 9/11/19 | 10:19 Pacific | Water | Water | X | X | X | 2 | |
| RR-2 (590-11829-4) | 9/11/19 | 10:25 Pacific | Water | Water | X | X | X | 2 | |
| RR-3 (590-11829-5) | 9/11/19 | 11:30 Pacific | Water | Water | X | X | X | 2 | |
| DMW-4 (590-11829-6) | 9/11/19 | 11:42 Pacific | Water | Water | X | X | X | 2 | |
| G-8 (590-11829-7) | 9/11/19 | 13:14 Pacific | Water | Water | X | X | X | 2 | |
| DMW-2 (590-11829-8) | 9/11/19 | 13:15 Pacific | Water | Water | X | X | X | 2 | |
| FW-14 (590-11829-9) | 9/11/19 | 14:05 Pacific | Water | Water | X | X | X | 2 | |

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.

| Possible Hazard Identification | | Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) | |
|---------------------------------------|--|---|--------------------------|
| Unconfirmed | Deliverable Requested: I, II, III, IV, Other (specify) | Return To Client | Disposal By Lab |
| Primary Deliverable Rank: 2 | | ☐ | ☐ |
| Special Instructions/QC Requirements: | | Archive For _____ Months | |

| Empty Kit Relinquished by: | | Date: | | Time: | | Method of Shipment: | |
|----------------------------|----------|------------|--------------|------------|----------|---------------------|--|
| Relinquished by: | Company: | Date/Time: | Received by: | Date/Time: | Company: | | |
| Relinquished by: | Company: | Date/Time: | Received by: | Date/Time: | Company: | | |
| Relinquished by: | Company: | Date/Time: | Received by: | Date/Time: | Company: | | |

| Custody Seals Intact: | | Custody Seal No.: | |
|-----------------------|----|-------------------|----|
| Yes | No | Yes | No |
| | | | |

Cooler Temperature(s) °C and Other Remarks:

[illegible]

Eurofins TestAmerica, Spokane

11922 East 1st Ave

Spokane, WA 99206

Phone: 509-924-9200 Fax: 509-924-9290

Chain of Custody Record

Environment Testing
TestAmerica

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|-----------------------|--|-------------------------------------|--|-------------------------------------|--|---|--|--|--|--|--|-----------------------------------|--|-------------------------------|--|-------------------------------|--|--|--|-----------------------------------|--|-----------------------------------|--|--|--|--|--|------------------------------|--|--|--|--|--|--|--|--|--|--------------------------------|--|--|--|--|--|--|--|--|--|---------------------|--|--|--|--|--|--|--|--|--|
| Client Information (Sub Contract Lab) | | Sampler: | | Lab PM: | | Carrier Tracking No(s): | | COC No: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Client Contact: | | Phone: | | E-Mail: | | State of Origin: | | Page: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Shipping/Receiving | | | | randee.arrington@testamericainc.com | | Washington | | Page 1 of 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Company: | | | | Accreditations Required (See note): | | | | Job #: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TestAmerica Laboratories, Inc. | | | | State Program - Washington | | | | 590-11829-1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Address: | | Due Date Requested: | | Analysis Requested | | | | | | Preservation Codes: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 5755 8th Street East. | | 9/24/2019 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| City: | | TAT Requested (days): | | Field Filtered Sample (Yes or No) | | Perform MS/MSD (Yes or No) | | 6020A/3005A Total Lead | | 310.1/ Alkalinity only | | 6020A/FIELD_FLTRO (MOD) Diss Pb & Mn | | Total Number of containers | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tacoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| State, Zip: | | PO #: | | Special Instructions/Note: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| WA, 98424 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Phone: | | WO #: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 253-922-2310(Tel) 253-922-5047(Fax) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Email: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Project Name: | | Project #: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tacoma D St Terminal-Phillips 66/Quarter | | 59000882 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Site: | | SSOW#: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sample Identification - Client ID (Lab ID) | | Sample Date | | Sample Time | | Sample Type (C=Comp, G=grab) | | Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air) | | Preservation Code: | | Field Filtered Sample (Yes or No) | | Perform MS/MSD (Yes or No) | | 6020A/3005A Total Lead | | 310.1/ Alkalinity only | | 6020A/FIELD_FLTRO (MOD) Diss Pb & Mn | | Total Number of containers | | Special Instructions/Note: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| T-2 (590-11829-1) | | 9/11/19 | | 08:57 Pacific | | | | Water | | | | X | | X | | X | | | | | | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| HC-111 (590-11829-2) | | 9/11/19 | | 08:50 Pacific | | | | Water | | | | X | | X | | X | | | | | | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| G-18 (590-11829-3) | | 9/11/19 | | 10:19 Pacific | | | | Water | | | | X | | X | | X | | | | | | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| RR-2 (590-11829-4) | | 9/11/19 | | 10:25 Pacific | | | | Water | | | | X | | X | | X | | | | | | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| RR-3 (590-11829-5) | | 9/11/19 | | 11:30 Pacific | | | | Water | | | | X | | X | | X | | | | | | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DMW-4 (590-11829-6) | | 9/11/19 | | 11:42 Pacific | | | | Water | | | | X | | X | | X | | | | | | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| G-8 (590-11829-7) | | 9/11/19 | | 13:14 Pacific | | | | Water | | | | X | | X | | X | | | | | | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DMW-2 (590-11829-8) | | 9/11/19 | | 13:15 Pacific | | | | Water | | | | X | | X | | X | | | | | | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FW-14 (590-11829-9) | | 9/11/19 | | 14:05 Pacific | | | | Water | | | | X | | X | | X | | | | | | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to TestAmerica Laboratories, Inc.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Possible Hazard Identification | | | | | | | | | | Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Unconfirmed | | | | | | | | | | ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Deliverable Requested: I, II, III, IV, Other (specify) | | | | | | | | | | Primary Deliverable Rank: 2 | | | | | | | | | | Special Instructions/QC Requirements: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Empty Kit Relinquished by: | | | | | | | | | | Date: | | | | | | | | | | Time: | | | | | | | | | | Method of Shipment: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Relinquished by: <i>Maiba 09000</i> | | | | | | | | | | Date/Time: <i>9/18/19 16:10 TAP</i> | | | | | | | | | | Company: <i>TAP</i> | | | | | | | | | | Received by: <i>Tung H H</i> | | | | | | | | | | Date/Time: <i>9-13-19 1000</i> | | | | | | | | | | Company: <i>TAP</i> | | | | | | | | | |
| Relinquished by: | | | | | | | | | | Date/Time: | | | | | | | | | | Company: | | | | | | | | | | Received by: | | | | | | | | | | Date/Time: | | | | | | | | | | Company: | | | | | | | | | |
| Relinquished by: | | | | | | | | | | Date/Time: | | | | | | | | | | Company: | | | | | | | | | | Received by: | | | | | | | | | | Date/Time: | | | | | | | | | | Company: | | | | | | | | | |
| Custody Seals Intact: ☐ Yes ☐ No | | | | | | | | | | Custody Seal No.: | | | | | | | | | | Cooler Temperature(s) °C and Other Remarks: <i>5-2.3</i> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

 eurofins Environment Testing
TestAmerica

Ver: 01/16/2019 10/1/2019

Login Sample Receipt Checklist

Client: AECOM

Job Number: 590-11829-1

Login Number: 11829

List Number: 1

Creator: O'Toole, Maria C

List Source: Eurofins TestAmerica, Spokane

| Question | Answer | Comment |
|--|--------|---|
| Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter. | N/A | Lab does not accept radioactive samples. |
| The cooler's custody seal, if present, is intact. | True | 214508 625270 214509 1048312 |
| Sample custody seals, if present, are intact. | N/A | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | 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 $<6\text{mm}$ (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | No analysis requiring residual chlorine check assigned. |

Login Sample Receipt Checklist

Client: AECOM

Job Number: 590-11829-1

Login Number: 11829

List Number: 3

Creator: Cruise, Noel

List Source: Eurofins Calscience

List Creation: 09/20/19 05:47 PM

| Question | Answer | Comment |
|--|--------|---------|
| Radioactivity wasn't checked or is $\leq$ 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. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | 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 $<6\text{mm}$ (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

Login Sample Receipt Checklist

Client: AECOM

Job Number: 590-11829-1

Login Number: 11829

List Number: 2

Creator: Gall, Brandon A

List Source: Eurofins TestAmerica, Seattle

List Creation: 09/13/19 01:24 PM

| Question | Answer | Comment |
|--|--------|---------|
| Radioactivity wasn't checked or is $\leq$ 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. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | 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 $<6\text{mm}$ (1/4"). | N/A | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

ANALYTICAL REPORT

Eurofins TestAmerica, Spokane
11922 East 1st Ave
Spokane, WA 99206
Tel: (509)924-9200

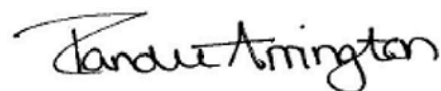
Laboratory Job ID: 590-11842-1

Client Project/Site: Tacoma D St Terminal-Phillips 66

For:

AECOM
111 SW Columbia Street, Suite 1500
Portland, Oregon 97201

Attn: Mr. Tyler Hemry



Authorized for release by:
10/1/2019 4:35:08 PM

Randee Arrington, Project Manager II
(509)924-9200
randee.arrington@testamericainc.com

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results through

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

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

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Case Narrative

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11842-1

Job ID: 590-11842-1

Laboratory: Eurofins TestAmerica, Spokane

Narrative

Receipt

The samples were received on 9/13/2019 12:37 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.0° C.

GC/MS VOA

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

GC VOA

Method NWTPH-Gx: Surrogate recovery for the following sample was outside control limits: RW-5R (590-11842-1). Evidence of matrix interference due to high target analytes is present; therefore, re-extraction and/or re-analysis was not performed.

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

GC Semi VOA

Method NWTPH-Dx: Detected hydrocarbons in the diesel range appear to be due to weathered gasoline overlap as well as heavily weathered diesel in the following samples: RW-5R (590-11842-1) and B-25 (590-11842-3).

Method NWTPH-Dx: Detected hydrocarbons in the diesel range appear to be due to heavily weathered diesel in the following sample: B-17B (590-11842-2).

Method NWTPH-Dx: The method blank for preparation batch 590-24194 and analytical batch 590-24181 contained Diesel Range Organics (DRO) (C10-C25) above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

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

Metals

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

General Chemistry

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

Organic Prep

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

VOA Prep

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

Sample Summary

Client: AECOM

Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11842-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received | Asset ID |
|---------------|------------------|--------|----------------|----------------|----------|
| 590-11842-1 | RW-5R | Water | 09/12/19 08:37 | 09/13/19 12:37 | |
| 590-11842-2 | B-17B | Water | 09/12/19 09:59 | 09/13/19 12:37 | |
| 590-11842-3 | B-25 | Water | 09/12/19 10:35 | 09/13/19 12:37 | |
| 590-11842-4 | Trip Blank | Water | 09/12/19 00:00 | 09/13/19 12:37 | |

Method Summary

Client: AECOM

Job ID: 590-11842-1

Project/Site: Tacoma D St Terminal-Phillips 66

| Method | Method Description | Protocol | Laboratory |
|-----------|--|----------|------------|
| 8260C | Volatile Organic Compounds by GC/MS | SW846 | ECL 2 |
| NWTPH-Gx | Northwest - Volatile Petroleum Products (GC) | NWTPH | ECL 2 |
| NWTPH-Dx | Northwest - Semi-Volatile Petroleum Products (GC) | NWTPH | TAL SPK |
| 300.0 | Anions, Ion Chromatography | MCAWW | TAL SPK |
| 6020A | Metals (ICP/MS) | SW846 | TAL SEA |
| 310.1 | Alkalinity | MCAWW | TAL SEA |
| 3005A | Preparation, Total Recoverable or Dissolved Metals | SW846 | TAL SEA |
| 3510C SGC | Liquid-Liquid Extraction (Separatory Funnel) | SW846 | TAL SPK |
| 5030C | Purge and Trap | SW846 | ECL 2 |

Protocol References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

NWTPH = Northwest Total Petroleum Hydrocarbon

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

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

TAL SPK = Eurofins TestAmerica, Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Detection Summary

Client: AECOM

Job ID: 590-11842-1

Project/Site: Tacoma D St Terminal-Phillips 66

Client Sample ID: RW-5R

Lab Sample ID: 590-11842-1

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---------------------------------------|--------|-----------|-------|--------|------|---------|---|----------|--------------------|
| Benzene | 21 | | 1.0 | 0.14 | ug/L | 1 | | 8260C | Total/NA |
| Ethylbenzene | 6.2 | | 1.0 | 0.14 | ug/L | 1 | | 8260C | Total/NA |
| o-Xylene | 0.23 | J | 1.0 | 0.15 | ug/L | 1 | | 8260C | Total/NA |
| Toluene | 0.59 | J | 1.0 | 0.13 | ug/L | 1 | | 8260C | Total/NA |
| TPH as Gasoline (C4-C13) | 2100 | Z | 100 | 48 | ug/L | 1 | | NWTPH-Gx | Total/NA |
| Diesel Range Organics (DRO) (C10-C25) | 1.8 | B | 0.26 | 0.12 | mg/L | 1 | | NWTPH-Dx | Silica Gel Cleanup |
| Nitrate as N | 0.10 | J | 0.20 | 0.057 | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 0.25 | J | 0.50 | 0.13 | mg/L | 1 | | 300.0 | Total/NA |
| Manganese | 0.42 | | 0.010 | 0.0023 | mg/L | 5 | | 6020A | Dissolved |
| Alkalinity | 540 | | 5.0 | 5.0 | mg/L | 1 | | 310.1 | Total/NA |

Client Sample ID: B-17B

Lab Sample ID: 590-11842-2

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---------------------------------------|--------|-----------|-------|--------|------|---------|---|----------|--------------------|
| TPH as Gasoline (C4-C13) | 54 | J Z | 100 | 48 | ug/L | 1 | | NWTPH-Gx | Total/NA |
| Diesel Range Organics (DRO) (C10-C25) | 0.17 | J B | 0.27 | 0.12 | mg/L | 1 | | NWTPH-Dx | Silica Gel Cleanup |
| Nitrate as N | 0.71 | | 0.20 | 0.057 | mg/L | 1 | | 300.0 | Total/NA |
| Sulfate | 63 | | 0.50 | 0.13 | mg/L | 1 | | 300.0 | Total/NA |
| Manganese | 0.28 | | 0.010 | 0.0023 | mg/L | 5 | | 6020A | Dissolved |
| Alkalinity | 34 | | 5.0 | 5.0 | mg/L | 1 | | 310.1 | Total/NA |

Client Sample ID: B-25

Lab Sample ID: 590-11842-3

| Analyte | Result | Qualifier | RL | MDL | Unit | Dil Fac | D | Method | Prep Type |
|---------------------------------------|--------|-----------|-------|--------|------|---------|---|----------|--------------------|
| Benzene | 92 | | 1.0 | 0.14 | ug/L | 1 | | 8260C | Total/NA |
| Ethylbenzene | 0.48 | J | 1.0 | 0.14 | ug/L | 1 | | 8260C | Total/NA |
| o-Xylene | 0.22 | J | 1.0 | 0.15 | ug/L | 1 | | 8260C | Total/NA |
| m,p-Xylene | 1.6 | J | 2.0 | 0.31 | ug/L | 1 | | 8260C | Total/NA |
| Toluene | 1.3 | | 1.0 | 0.13 | ug/L | 1 | | 8260C | Total/NA |
| TPH as Gasoline (C4-C13) | 1400 | Z | 100 | 48 | ug/L | 1 | | NWTPH-Gx | Total/NA |
| Diesel Range Organics (DRO) (C10-C25) | 0.78 | B | 0.24 | 0.11 | mg/L | 1 | | NWTPH-Dx | Silica Gel Cleanup |
| Sulfate | 0.23 | J | 0.50 | 0.13 | mg/L | 1 | | 300.0 | Total/NA |
| Manganese | 0.21 | | 0.010 | 0.0023 | mg/L | 5 | | 6020A | Dissolved |
| Alkalinity | 190 | | 5.0 | 5.0 | mg/L | 1 | | 310.1 | Total/NA |

Client Sample ID: Trip Blank

Lab Sample ID: 590-11842-4

No Detections.

This Detection Summary does not include radiochemical test results.

Eurofins TestAmerica, Spokane

Client Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11842-1

Client Sample ID: RW-5R

Lab Sample ID: 590-11842-1

Date Collected: 09/12/19 08:37

Matrix: Water

Date Received: 09/13/19 12:37

Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Benzene | 21 | | 1.0 | 0.14 | ug/L | - | | 09/20/19 23:19 | 1 |
| Ethylbenzene | 6.2 | | 1.0 | 0.14 | ug/L | - | | 09/20/19 23:19 | 1 |
| o-Xylene | 0.23 | J | 1.0 | 0.15 | ug/L | - | | 09/20/19 23:19 | 1 |
| m,p-Xylene | ND | | 2.0 | 0.31 | ug/L | - | | 09/20/19 23:19 | 1 |
| Toluene | 0.59 | J | 1.0 | 0.13 | ug/L | - | | 09/20/19 23:19 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 100 | | 80 - 129 | | 09/20/19 23:19 | 1 |
| 4-Bromofluorobenzene (Surr) | 102 | | 77 - 120 | | 09/20/19 23:19 | 1 |
| Dibromofluoromethane (Surr) | 100 | | 80 - 128 | | 09/20/19 23:19 | 1 |
| Toluene-d8 (Surr) | 102 | | 80 - 120 | | 09/20/19 23:19 | 1 |

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------|-----------|-----------|----------|-----|------|---|----------|----------------|---------|
| TPH as Gasoline (C4-C13) | 2100 | Z | 100 | 48 | ug/L | - | | 09/21/19 21:19 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 4-Bromofluorobenzene (Surr) | 404 | X | 38 - 134 | | | | | 09/21/19 21:19 | 1 |

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - Silica Gel Cleanup

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| Diesel Range Organics (DRO) (C10-C25) | 1.8 | B | 0.26 | 0.12 | mg/L | - | 09/18/19 11:55 | 09/18/19 22:39 | 1 |
| Residual Range Organics (RRO) (C25-C36) | ND | | 0.44 | 0.13 | mg/L | | 09/18/19 11:55 | 09/18/19 22:39 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| o-Terphenyl | 98 | | 50 - 150 | | | | 09/18/19 11:55 | 09/18/19 22:39 | 1 |
| n-Triacontane-d62 | 88 | | 50 - 150 | | | | 09/18/19 11:55 | 09/18/19 22:39 | 1 |

Method: 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------|--------|-----------|------|-------|------|---|----------|----------------|---------|
| Nitrate as N | 0.10 | J | 0.20 | 0.057 | mg/L | - | | 09/13/19 13:49 | 1 |
| Sulfate | 0.25 | J | 0.50 | 0.13 | mg/L | - | | 09/13/19 13:49 | 1 |

Method: 6020A - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|--------|--------|------|---|----------------|----------------|---------|
| Lead | ND | | 0.0040 | 0.0010 | mg/L | - | 09/28/19 13:18 | 09/30/19 16:13 | 5 |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|--------|--------|------|---|----------------|----------------|---------|
| Lead | ND | | 0.0040 | 0.0010 | mg/L | - | 09/24/19 08:31 | 09/26/19 08:27 | 5 |
| Manganese | 0.42 | | 0.010 | 0.0023 | mg/L | - | 09/24/19 08:31 | 09/26/19 08:27 | 5 |

General Chemistry

| Analyte | Result | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Alkalinity | 540 | | 5.0 | 5.0 | mg/L | - | | 09/25/19 15:15 | 1 |

Eurofins TestAmerica, Spokane

Client Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11842-1

Client Sample ID: B-17B

Lab Sample ID: 590-11842-2

Date Collected: 09/12/19 09:59

Matrix: Water

Date Received: 09/13/19 12:37

Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Benzene | ND | | 1.0 | 0.14 | ug/L | - | | 09/20/19 23:45 | 1 |
| Ethylbenzene | ND | | 1.0 | 0.14 | ug/L | - | | 09/20/19 23:45 | 1 |
| o-Xylene | ND | | 1.0 | 0.15 | ug/L | - | | 09/20/19 23:45 | 1 |
| m,p-Xylene | ND | | 2.0 | 0.31 | ug/L | - | | 09/20/19 23:45 | 1 |
| Toluene | ND | | 1.0 | 0.13 | ug/L | - | | 09/20/19 23:45 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 98 | | 80 - 129 | | 09/20/19 23:45 | 1 |
| 4-Bromofluorobenzene (Surr) | 97 | | 77 - 120 | | 09/20/19 23:45 | 1 |
| Dibromofluoromethane (Surr) | 100 | | 80 - 128 | | 09/20/19 23:45 | 1 |
| Toluene-d8 (Surr) | 100 | | 80 - 120 | | 09/20/19 23:45 | 1 |

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| TPH as Gasoline (C4-C13) | 54 | J Z | 100 | 48 | ug/L | - | | 09/21/19 21:51 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-----------------------------|-----------|-----------|----------|----------|----------------|---------|
| 4-Bromofluorobenzene (Surr) | 84 | | 38 - 134 | | 09/21/19 21:51 | 1 |

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - Silica Gel Cleanup

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|--------|-----------|------|------|------|---|----------------|----------------|---------|
| Diesel Range Organics (DRO) (C10-C25) | 0.17 | J B | 0.27 | 0.12 | mg/L | - | 09/18/19 11:55 | 09/18/19 22:59 | 1 |
| Residual Range Organics (RRO) (C25-C36) | ND | | 0.44 | 0.13 | mg/L | - | 09/18/19 11:55 | 09/18/19 22:59 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|-------------------|-----------|-----------|----------|----------------|----------------|---------|
| o-Terphenyl | 92 | | 50 - 150 | 09/18/19 11:55 | 09/18/19 22:59 | 1 |
| n-Triacontane-d62 | 82 | | 50 - 150 | 09/18/19 11:55 | 09/18/19 22:59 | 1 |

Method: 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------|--------|-----------|------|-------|------|---|----------|----------------|---------|
| Nitrate as N | 0.71 | | 0.20 | 0.057 | mg/L | - | | 09/13/19 14:01 | 1 |
| Sulfate | 63 | | 0.50 | 0.13 | mg/L | - | | 09/13/19 14:01 | 1 |

Method: 6020A - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|--------|--------|------|---|----------------|----------------|---------|
| Lead | ND | | 0.0040 | 0.0010 | mg/L | - | 09/28/19 13:18 | 09/30/19 16:18 | 5 |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|--------|--------|------|---|----------------|----------------|---------|
| Lead | ND | | 0.0040 | 0.0010 | mg/L | - | 09/24/19 08:31 | 09/26/19 08:32 | 5 |
| Manganese | 0.28 | | 0.010 | 0.0023 | mg/L | - | 09/24/19 08:31 | 09/26/19 08:32 | 5 |

General Chemistry

| Analyte | Result | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Alkalinity | 34 | | 5.0 | 5.0 | mg/L | - | | 09/25/19 15:15 | 1 |

Eurofins TestAmerica, Spokane

Client Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11842-1

Client Sample ID: B-25

Lab Sample ID: 590-11842-3

Date Collected: 09/12/19 10:35

Matrix: Water

Date Received: 09/13/19 12:37

Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Benzene | 92 | | 1.0 | 0.14 | ug/L | - | | 09/21/19 00:11 | 1 |
| Ethylbenzene | 0.48 | J | 1.0 | 0.14 | ug/L | | | 09/21/19 00:11 | 1 |
| o-Xylene | 0.22 | J | 1.0 | 0.15 | ug/L | | | 09/21/19 00:11 | 1 |
| m,p-Xylene | 1.6 | J | 2.0 | 0.31 | ug/L | | | 09/21/19 00:11 | 1 |
| Toluene | 1.3 | | 1.0 | 0.13 | ug/L | | | 09/21/19 00:11 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 100 | | 80 - 129 | | 09/21/19 00:11 | 1 |
| 4-Bromofluorobenzene (Surr) | 99 | | 77 - 120 | | 09/21/19 00:11 | 1 |
| Dibromofluoromethane (Surr) | 100 | | 80 - 128 | | 09/21/19 00:11 | 1 |
| Toluene-d8 (Surr) | 102 | | 80 - 120 | | 09/21/19 00:11 | 1 |

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------|-----------|-----------|----------|-----|------|---|----------|----------------|---------|
| TPH as Gasoline (C4-C13) | 1400 | Z | 100 | 48 | ug/L | - | | 09/21/19 22:23 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 4-Bromofluorobenzene (Surr) | 115 | | 38 - 134 | | | | | 09/21/19 22:23 | 1 |

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) - Silica Gel Cleanup

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|-----------|-----------|----------|------|------|---|----------------|----------------|---------|
| Diesel Range Organics (DRO) (C10-C25) | 0.78 | B | 0.24 | 0.11 | mg/L | - | 09/18/19 11:55 | 09/18/19 23:19 | 1 |
| Residual Range Organics (RRO) (C25-C36) | ND | | 0.39 | 0.12 | mg/L | | 09/18/19 11:55 | 09/18/19 23:19 | 1 |
| Surrogate | %Recovery | Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| o-Terphenyl | 97 | | 50 - 150 | | | | 09/18/19 11:55 | 09/18/19 23:19 | 1 |
| n-Triacontane-d62 | 82 | | 50 - 150 | | | | 09/18/19 11:55 | 09/18/19 23:19 | 1 |

Method: 300.0 - Anions, Ion Chromatography

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------|--------|-----------|------|-------|------|---|----------|----------------|---------|
| Nitrate as N | ND | | 0.20 | 0.057 | mg/L | - | | 09/13/19 14:13 | 1 |
| Sulfate | 0.23 | J | 0.50 | 0.13 | mg/L | | | 09/13/19 14:13 | 1 |

Method: 6020A - Metals (ICP/MS) - Total Recoverable

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|--------|-----------|--------|--------|------|---|----------------|----------------|---------|
| Lead | ND | | 0.0040 | 0.0010 | mg/L | - | 09/28/19 13:18 | 09/30/19 16:23 | 5 |

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

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|--------|-----------|--------|--------|------|---|----------------|----------------|---------|
| Lead | ND | | 0.0040 | 0.0010 | mg/L | - | 09/24/19 08:31 | 09/26/19 08:36 | 5 |
| Manganese | 0.21 | | 0.010 | 0.0023 | mg/L | | 09/24/19 08:31 | 09/26/19 08:36 | 5 |

General Chemistry

| Analyte | Result | Qualifier | RL | RL | Unit | D | Prepared | Analyzed | Dil Fac |
|------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| Alkalinity | 190 | | 5.0 | 5.0 | mg/L | - | | 09/25/19 15:15 | 1 |

Eurofins TestAmerica, Spokane

Client Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11842-1

Client Sample ID: Trip Blank

Lab Sample ID: 590-11842-4

Date Collected: 09/12/19 00:00

Matrix: Water

Date Received: 09/13/19 12:37

Method: 8260C - Volatile Organic Compounds by GC/MS

| Analyte | Result | Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------|--------|-----------|-----|------|------|---|----------|----------------|---------|
| Benzene | ND | | 1.0 | 0.14 | ug/L | | | 09/19/19 20:18 | 1 |
| Ethylbenzene | ND | | 1.0 | 0.14 | ug/L | | | 09/19/19 20:18 | 1 |
| o-Xylene | ND | | 1.0 | 0.15 | ug/L | | | 09/19/19 20:18 | 1 |
| m,p-Xylene | ND | | 2.0 | 0.31 | ug/L | | | 09/19/19 20:18 | 1 |
| Toluene | ND | | 1.0 | 0.13 | ug/L | | | 09/19/19 20:18 | 1 |

| Surrogate | %Recovery | Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|-----------|-----------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 98 | | 80 - 129 | | 09/19/19 20:18 | 1 |
| 4-Bromofluorobenzene (Surr) | 93 | | 77 - 120 | | 09/19/19 20:18 | 1 |
| Dibromofluoromethane (Surr) | 99 | | 80 - 128 | | 09/19/19 20:18 | 1 |
| Toluene-d8 (Surr) | 101 | | 80 - 120 | | 09/19/19 20:18 | 1 |

QC Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11842-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 570-20379/9

Matrix: Water

Analysis Batch: 20379

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| Benzene | ND | | 1.0 | 0.14 | ug/L | | | 09/19/19 19:30 | 1 |
| Ethylbenzene | ND | | 1.0 | 0.14 | ug/L | | | 09/19/19 19:30 | 1 |
| o-Xylene | ND | | 1.0 | 0.15 | ug/L | | | 09/19/19 19:30 | 1 |
| m,p-Xylene | ND | | 2.0 | 0.31 | ug/L | | | 09/19/19 19:30 | 1 |
| Toluene | ND | | 1.0 | 0.13 | ug/L | | | 09/19/19 19:30 | 1 |

| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 101 | | 80 - 129 | | 09/19/19 19:30 | 1 |
| 4-Bromofluorobenzene (Surr) | 95 | | 77 - 120 | | 09/19/19 19:30 | 1 |
| Dibromofluoromethane (Surr) | 101 | | 80 - 128 | | 09/19/19 19:30 | 1 |
| Toluene-d8 (Surr) | 101 | | 80 - 120 | | 09/19/19 19:30 | 1 |

Lab Sample ID: LCS 570-20379/4

Matrix: Water

Analysis Batch: 20379

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|--------------|-------------|------------|---------------|------|---|------|--------------|
| Benzene | 50.0 | 49.0 | | ug/L | | 98 | 78 - 120 |
| Ethylbenzene | 50.0 | 50.1 | | ug/L | | 100 | 80 - 120 |
| o-Xylene | 50.0 | 49.3 | | ug/L | | 99 | 80 - 125 |
| m,p-Xylene | 100 | 96.9 | | ug/L | | 97 | 80 - 125 |
| Toluene | 50.0 | 50.1 | | ug/L | | 100 | 80 - 122 |

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 99 | | 80 - 129 |
| 4-Bromofluorobenzene (Surr) | 100 | | 77 - 120 |
| Dibromofluoromethane (Surr) | 103 | | 80 - 128 |
| Toluene-d8 (Surr) | 102 | | 80 - 120 |

Lab Sample ID: LCSD 570-20379/5

Matrix: Water

Analysis Batch: 20379

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|--------------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| Benzene | 50.0 | 46.8 | | ug/L | | 94 | 78 - 120 | 5 | 21 |
| Ethylbenzene | 50.0 | 48.0 | | ug/L | | 96 | 80 - 120 | 4 | 20 |
| o-Xylene | 50.0 | 47.5 | | ug/L | | 95 | 80 - 125 | 4 | 20 |
| m,p-Xylene | 100 | 92.2 | | ug/L | | 92 | 80 - 125 | 5 | 30 |
| Toluene | 50.0 | 48.1 | | ug/L | | 96 | 80 - 122 | 4 | 20 |

| Surrogate | LCSD %Recovery | LCSD Qualifier | Limits |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 98 | | 80 - 129 |
| 4-Bromofluorobenzene (Surr) | 98 | | 77 - 120 |
| Dibromofluoromethane (Surr) | 101 | | 80 - 128 |
| Toluene-d8 (Surr) | 102 | | 80 - 120 |

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QC Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11842-1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 570-20520/9

Matrix: Water

Analysis Batch: 20520

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------|-----------|--------------|-----|------|------|---|----------|----------------|---------|
| Benzene | ND | | 1.0 | 0.14 | ug/L | | | 09/20/19 17:42 | 1 |
| Ethylbenzene | ND | | 1.0 | 0.14 | ug/L | | | 09/20/19 17:42 | 1 |
| o-Xylene | ND | | 1.0 | 0.15 | ug/L | | | 09/20/19 17:42 | 1 |
| m,p-Xylene | ND | | 2.0 | 0.31 | ug/L | | | 09/20/19 17:42 | 1 |
| Toluene | ND | | 1.0 | 0.13 | ug/L | | | 09/20/19 17:42 | 1 |

| Surrogate | MB %Recovery | MB Qualifier | Limits | Prepared | Analyzed | Dil Fac |
|------------------------------|--------------|--------------|----------|----------|----------------|---------|
| 1,2-Dichloroethane-d4 (Surr) | 100 | | 80 - 129 | | 09/20/19 17:42 | 1 |
| 4-Bromofluorobenzene (Surr) | 96 | | 77 - 120 | | 09/20/19 17:42 | 1 |
| Dibromofluoromethane (Surr) | 100 | | 80 - 128 | | 09/20/19 17:42 | 1 |
| Toluene-d8 (Surr) | 101 | | 80 - 120 | | 09/20/19 17:42 | 1 |

Lab Sample ID: LCS 570-20520/4

Matrix: Water

Analysis Batch: 20520

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|--------------|-------------|------------|---------------|------|---|------|--------------|
| Benzene | 50.0 | 48.3 | | ug/L | | 97 | 78 - 120 |
| Ethylbenzene | 50.0 | 50.4 | | ug/L | | 101 | 80 - 120 |
| o-Xylene | 50.0 | 49.5 | | ug/L | | 99 | 80 - 125 |
| m,p-Xylene | 100 | 97.0 | | ug/L | | 97 | 80 - 125 |
| Toluene | 50.0 | 49.9 | | ug/L | | 100 | 80 - 122 |

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|------------------------------|---------------|---------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 99 | | 80 - 129 |
| 4-Bromofluorobenzene (Surr) | 98 | | 77 - 120 |
| Dibromofluoromethane (Surr) | 102 | | 80 - 128 |
| Toluene-d8 (Surr) | 101 | | 80 - 120 |

Lab Sample ID: LCSD 570-20520/5

Matrix: Water

Analysis Batch: 20520

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|--------------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| Benzene | 50.0 | 46.0 | | ug/L | | 92 | 78 - 120 | 5 | 21 |
| Ethylbenzene | 50.0 | 47.3 | | ug/L | | 95 | 80 - 120 | 6 | 20 |
| o-Xylene | 50.0 | 46.6 | | ug/L | | 93 | 80 - 125 | 6 | 20 |
| m,p-Xylene | 100 | 90.4 | | ug/L | | 90 | 80 - 125 | 7 | 30 |
| Toluene | 50.0 | 47.5 | | ug/L | | 95 | 80 - 122 | 5 | 20 |

| Surrogate | LCSD %Recovery | LCSD Qualifier | Limits |
|------------------------------|----------------|----------------|----------|
| 1,2-Dichloroethane-d4 (Surr) | 98 | | 80 - 129 |
| 4-Bromofluorobenzene (Surr) | 101 | | 77 - 120 |
| Dibromofluoromethane (Surr) | 101 | | 80 - 128 |
| Toluene-d8 (Surr) | 103 | | 80 - 120 |

Eurofins TestAmerica, Spokane

QC Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11842-1

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Lab Sample ID: MB 570-20831/6

Matrix: Water

Analysis Batch: 20831

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------------------------|--------------|--------------|----------|-----|------|---|----------|----------------|---------|
| TPH as Gasoline (C4-C13) | ND | | 100 | 48 | ug/L | | | 09/21/19 13:57 | 1 |
| Surrogate | MB %Recovery | MB Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| 4-Bromofluorobenzene (Surr) | 81 | | 38 - 134 | | | | | 09/21/19 13:57 | 1 |

Lab Sample ID: LCS 570-20831/3

Matrix: Water

Analysis Batch: 20831

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | |
|-----------------------------|---------------|---------------|---------------|------|---|------|--------------|--|
| TPH as Gasoline (C4-C13) | 2000 | 1910 | | ug/L | | 95 | 78 - 120 | |
| Surrogate | LCS %Recovery | LCS Qualifier | Limits | | | | | |
| 4-Bromofluorobenzene (Surr) | 92 | | 38 - 134 | | | | | |

Lab Sample ID: LCSD 570-20831/4

Matrix: Water

Analysis Batch: 20831

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------------------------|----------------|----------------|----------------|------|---|------|--------------|-----|-----------|
| TPH as Gasoline (C4-C13) | 2000 | 1960 | | ug/L | | 98 | 78 - 120 | 3 | 10 |
| Surrogate | LCSD %Recovery | LCSD Qualifier | Limits | | | | | | |
| 4-Bromofluorobenzene (Surr) | 94 | | 38 - 134 | | | | | | |

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Lab Sample ID: MB 590-24194/1-A

Matrix: Water

Analysis Batch: 24181

Client Sample ID: Method Blank

Prep Type: Silica Gel Cleanup

Prep Batch: 24194

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---|--------------|--------------|----------|------|------|---|----------------|----------------|---------|
| Diesel Range Organics (DRO) (C10-C25) | 0.190 | J | 0.24 | 0.11 | mg/L | | 09/18/19 11:55 | 09/18/19 19:21 | 1 |
| Residual Range Organics (RRO) (C25-C36) | ND | | 0.40 | 0.12 | mg/L | | 09/18/19 11:55 | 09/18/19 19:21 | 1 |
| Surrogate | MB %Recovery | MB Qualifier | Limits | | | | Prepared | Analyzed | Dil Fac |
| o-Terphenyl | 98 | | 50 - 150 | | | | 09/18/19 11:55 | 09/18/19 19:21 | 1 |
| n-Triacontane-d62 | 91 | | 50 - 150 | | | | 09/18/19 11:55 | 09/18/19 19:21 | 1 |

Lab Sample ID: LCS 590-24194/2-A

Matrix: Water

Analysis Batch: 24181

Client Sample ID: Lab Control Sample

Prep Type: Silica Gel Cleanup

Prep Batch: 24194

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits | |
|---------------------------------------|-------------|------------|---------------|------|---|------|--------------|--|
| Diesel Range Organics (DRO) (C10-C25) | 1.60 | 1.71 | | mg/L | | 107 | 50 - 150 | |

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QC Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11842-1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC) (Continued)

Lab Sample ID: LCS 590-24194/2-A

Matrix: Water

Analysis Batch: 24181

Client Sample ID: Lab Control Sample

Prep Type: Silica Gel Cleanup

Prep Batch: 24194

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---|-------------|------------|---------------|------|---|------|--------------|
| Residual Range Organics (RRO) (C25-C36) | 1.60 | 1.76 | | mg/L | | 110 | 50 - 150 |

| Surrogate | LCS %Recovery | LCS Qualifier | Limits |
|-------------------|---------------|---------------|----------|
| o-Terphenyl | 95 | | 50 - 150 |
| n-Triacontane-d62 | 98 | | 50 - 150 |

Lab Sample ID: LCSD 590-24194/3-A

Matrix: Water

Analysis Batch: 24181

Client Sample ID: Lab Control Sample Dup

Prep Type: Silica Gel Cleanup

Prep Batch: 24194

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| Diesel Range Organics (DRO) (C10-C25) | 1.60 | 1.55 | | mg/L | | 97 | 50 - 150 | 10 | 25 |
| Residual Range Organics (RRO) (C25-C36) | 1.60 | 1.63 | | mg/L | | 102 | 50 - 150 | 8 | 25 |

| Surrogate | LCSD %Recovery | LCSD Qualifier | Limits |
|-------------------|----------------|----------------|----------|
| o-Terphenyl | 87 | | 50 - 150 |
| n-Triacontane-d62 | 91 | | 50 - 150 |

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 590-24114/1002

Matrix: Water

Analysis Batch: 24114

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|--------------|-----------|--------------|------|-------|------|---|----------|----------------|---------|
| Nitrate as N | ND | | 0.20 | 0.057 | mg/L | | | 09/13/19 10:42 | 1 |

Lab Sample ID: LCS 590-24114/1003

Matrix: Water

Analysis Batch: 24114

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|--------------|-------------|------------|---------------|------|---|------|--------------|
| Nitrate as N | 5.00 | 4.89 | | mg/L | | 98 | 90 - 110 |

Lab Sample ID: MB 590-24115/1002

Matrix: Water

Analysis Batch: 24115

Client Sample ID: Method Blank

Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|-----------|--------------|------|------|------|---|----------|----------------|---------|
| Sulfate | ND | | 0.50 | 0.13 | mg/L | | | 09/13/19 10:42 | 1 |

Lab Sample ID: LCS 590-24115/1003

Matrix: Water

Analysis Batch: 24115

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|------|---|------|--------------|
| Sulfate | 12.5 | 12.4 | | mg/L | | 99 | 90 - 110 |

Eurofins TestAmerica, Spokane

QC Sample Results

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11842-1

Method: 6020A - Metals (ICP/MS)

Lab Sample ID: MB 580-312100/23-A

Matrix: Water

Analysis Batch: 312396

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 312100

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|-----------|-----------|--------------|--------|--------|------|---|----------------|----------------|---------|
| Lead | ND | | 0.0040 | 0.0010 | mg/L | | 09/24/19 08:31 | 09/26/19 07:13 | 5 |
| Manganese | ND | | 0.010 | 0.0023 | mg/L | | 09/24/19 08:31 | 09/26/19 07:13 | 5 |

Lab Sample ID: LCS 580-312100/24-A

Matrix: Water

Analysis Batch: 312396

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 312100

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|-----------|-------------|------------|---------------|------|---|------|--------------|
| Lead | 1.00 | 0.899 | | mg/L | | 90 | 80 - 120 |
| Manganese | 1.00 | 1.04 | | mg/L | | 104 | 80 - 120 |

Lab Sample ID: LCSD 580-312100/25-A

Matrix: Water

Analysis Batch: 312396

Client Sample ID: Lab Control Sample Dup

Prep Type: Total Recoverable

Prep Batch: 312100

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|-----------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| Lead | 1.00 | 0.891 | | mg/L | | 89 | 80 - 120 | 1 | 20 |
| Manganese | 1.00 | 0.906 | | mg/L | | 91 | 80 - 120 | 14 | 20 |

Lab Sample ID: MB 580-312640/18-A

Matrix: Water

Analysis Batch: 312902

Client Sample ID: Method Blank

Prep Type: Total Recoverable

Prep Batch: 312640

| Analyte | MB Result | MB Qualifier | RL | MDL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------|-----------|--------------|--------|--------|------|---|----------------|----------------|---------|
| Lead | ND | | 0.0040 | 0.0010 | mg/L | | 09/28/19 13:18 | 09/30/19 15:14 | 5 |

Lab Sample ID: LCS 580-312640/19-A

Matrix: Water

Analysis Batch: 312902

Client Sample ID: Lab Control Sample

Prep Type: Total Recoverable

Prep Batch: 312640

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|---------|-------------|------------|---------------|------|---|------|--------------|
| Lead | 1.00 | 0.979 | | mg/L | | 98 | 80 - 120 |

Lab Sample ID: LCSD 580-312640/20-A

Matrix: Water

Analysis Batch: 312902

Client Sample ID: Lab Control Sample Dup

Prep Type: Total Recoverable

Prep Batch: 312640

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec. Limits | RPD | RPD Limit |
|---------|-------------|-------------|----------------|------|---|------|--------------|-----|-----------|
| Lead | 1.00 | 0.947 | | mg/L | | 95 | 80 - 120 | 3 | 20 |

Method: 310.1 - Alkalinity

Lab Sample ID: LCS 580-312321/2

Matrix: Water

Analysis Batch: 312321

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec. Limits |
|------------|-------------|------------|---------------|------|---|------|--------------|
| Alkalinity | 100 | 98.4 | | mg/L | | 98 | 85 - 115 |

Eurofins TestAmerica, Spokane

QC Association Summary

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11842-1

GC/MS VOA

Analysis Batch: 20379

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------------|-----------|--------|--------|------------|
| 590-11842-4 | Trip Blank | Total/NA | Water | 8260C | |
| MB 570-20379/9 | Method Blank | Total/NA | Water | 8260C | |
| LCS 570-20379/4 | Lab Control Sample | Total/NA | Water | 8260C | |
| LCSD 570-20379/5 | Lab Control Sample Dup | Total/NA | Water | 8260C | |

Analysis Batch: 20520

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------------|-----------|--------|--------|------------|
| 590-11842-1 | RW-5R | Total/NA | Water | 8260C | |
| 590-11842-2 | B-17B | Total/NA | Water | 8260C | |
| 590-11842-3 | B-25 | Total/NA | Water | 8260C | |
| MB 570-20520/9 | Method Blank | Total/NA | Water | 8260C | |
| LCS 570-20520/4 | Lab Control Sample | Total/NA | Water | 8260C | |
| LCSD 570-20520/5 | Lab Control Sample Dup | Total/NA | Water | 8260C | |

GC VOA

Analysis Batch: 20831

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|------------------------|-----------|--------|----------|------------|
| 590-11842-1 | RW-5R | Total/NA | Water | NWTPH-Gx | |
| 590-11842-2 | B-17B | Total/NA | Water | NWTPH-Gx | |
| 590-11842-3 | B-25 | Total/NA | Water | NWTPH-Gx | |
| MB 570-20831/6 | Method Blank | Total/NA | Water | NWTPH-Gx | |
| LCS 570-20831/3 | Lab Control Sample | Total/NA | Water | NWTPH-Gx | |
| LCSD 570-20831/4 | Lab Control Sample Dup | Total/NA | Water | NWTPH-Gx | |

GC Semi VOA

Analysis Batch: 24181

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|--------------------|--------|----------|------------|
| 590-11842-1 | RW-5R | Silica Gel Cleanup | Water | NWTPH-Dx | 24194 |
| 590-11842-2 | B-17B | Silica Gel Cleanup | Water | NWTPH-Dx | 24194 |
| 590-11842-3 | B-25 | Silica Gel Cleanup | Water | NWTPH-Dx | 24194 |
| MB 590-24194/1-A | Method Blank | Silica Gel Cleanup | Water | NWTPH-Dx | 24194 |
| LCS 590-24194/2-A | Lab Control Sample | Silica Gel Cleanup | Water | NWTPH-Dx | 24194 |
| LCSD 590-24194/3-A | Lab Control Sample Dup | Silica Gel Cleanup | Water | NWTPH-Dx | 24194 |

Prep Batch: 24194

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|------------------------|--------------------|--------|-----------|------------|
| 590-11842-1 | RW-5R | Silica Gel Cleanup | Water | 3510C SGC | |
| 590-11842-2 | B-17B | Silica Gel Cleanup | Water | 3510C SGC | |
| 590-11842-3 | B-25 | Silica Gel Cleanup | Water | 3510C SGC | |
| MB 590-24194/1-A | Method Blank | Silica Gel Cleanup | Water | 3510C SGC | |
| LCS 590-24194/2-A | Lab Control Sample | Silica Gel Cleanup | Water | 3510C SGC | |
| LCSD 590-24194/3-A | Lab Control Sample Dup | Silica Gel Cleanup | Water | 3510C SGC | |

HPLC/IC

Analysis Batch: 24114

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|---------------|------------------|-----------|--------|--------|------------|
| 590-11842-1 | RW-5R | Total/NA | Water | 300.0 | |
| 590-11842-2 | B-17B | Total/NA | Water | 300.0 | |
| 590-11842-3 | B-25 | Total/NA | Water | 300.0 | |

Eurofins TestAmerica, Spokane

QC Association Summary

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11842-1

HPLC/IC (Continued)

Analysis Batch: 24114 (Continued)

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| MB 590-24114/1002 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 590-24114/1003 | Lab Control Sample | Total/NA | Water | 300.0 | |

Analysis Batch: 24115

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|--------------------|--------------------|-----------|--------|--------|------------|
| 590-11842-1 | RW-5R | Total/NA | Water | 300.0 | |
| 590-11842-2 | B-17B | Total/NA | Water | 300.0 | |
| 590-11842-3 | B-25 | Total/NA | Water | 300.0 | |
| MB 590-24115/1002 | Method Blank | Total/NA | Water | 300.0 | |
| LCS 590-24115/1003 | Lab Control Sample | Total/NA | Water | 300.0 | |

Metals

Prep Batch: 312100

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|----------------------|------------------------|-------------------|--------|--------|------------|
| 590-11842-1 | RW-5R | Dissolved | Water | 3005A | |
| 590-11842-2 | B-17B | Dissolved | Water | 3005A | |
| 590-11842-3 | B-25 | Dissolved | Water | 3005A | |
| MB 580-312100/23-A | Method Blank | Total Recoverable | Water | 3005A | |
| LCS 580-312100/24-A | Lab Control Sample | Total Recoverable | Water | 3005A | |
| LCSD 580-312100/25-A | Lab Control Sample Dup | Total Recoverable | Water | 3005A | |

Analysis Batch: 312396

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|----------------------|------------------------|-------------------|--------|--------|------------|
| 590-11842-1 | RW-5R | Dissolved | Water | 6020A | 312100 |
| 590-11842-2 | B-17B | Dissolved | Water | 6020A | 312100 |
| 590-11842-3 | B-25 | Dissolved | Water | 6020A | 312100 |
| MB 580-312100/23-A | Method Blank | Total Recoverable | Water | 6020A | 312100 |
| LCS 580-312100/24-A | Lab Control Sample | Total Recoverable | Water | 6020A | 312100 |
| LCSD 580-312100/25-A | Lab Control Sample Dup | Total Recoverable | Water | 6020A | 312100 |

Prep Batch: 312640

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|----------------------|------------------------|-------------------|--------|--------|------------|
| 590-11842-1 | RW-5R | Total Recoverable | Water | 3005A | |
| 590-11842-2 | B-17B | Total Recoverable | Water | 3005A | |
| 590-11842-3 | B-25 | Total Recoverable | Water | 3005A | |
| MB 580-312640/18-A | Method Blank | Total Recoverable | Water | 3005A | |
| LCS 580-312640/19-A | Lab Control Sample | Total Recoverable | Water | 3005A | |
| LCSD 580-312640/20-A | Lab Control Sample Dup | Total Recoverable | Water | 3005A | |

Analysis Batch: 312902

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|----------------------|------------------------|-------------------|--------|--------|------------|
| 590-11842-1 | RW-5R | Total Recoverable | Water | 6020A | 312640 |
| 590-11842-2 | B-17B | Total Recoverable | Water | 6020A | 312640 |
| 590-11842-3 | B-25 | Total Recoverable | Water | 6020A | 312640 |
| MB 580-312640/18-A | Method Blank | Total Recoverable | Water | 6020A | 312640 |
| LCS 580-312640/19-A | Lab Control Sample | Total Recoverable | Water | 6020A | 312640 |
| LCSD 580-312640/20-A | Lab Control Sample Dup | Total Recoverable | Water | 6020A | 312640 |

QC Association Summary

Client: AECOM

Job ID: 590-11842-1

Project/Site: Tacoma D St Terminal-Phillips 66

General Chemistry

Analysis Batch: 312321

| Lab Sample ID | Client Sample ID | Prep Type | Matrix | Method | Prep Batch |
|------------------|--------------------|-----------|--------|--------|------------|
| 590-11842-1 | RW-5R | Total/NA | Water | 310.1 | |
| 590-11842-2 | B-17B | Total/NA | Water | 310.1 | |
| 590-11842-3 | B-25 | Total/NA | Water | 310.1 | |
| LCS 580-312321/2 | Lab Control Sample | Total/NA | Water | 310.1 | |

Lab Chronicle

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11842-1

Client Sample ID: RW-5R

Date Collected: 09/12/19 08:37

Date Received: 09/13/19 12:37

Lab Sample ID: 590-11842-1

Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|--------------------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260C | | 1 | 5 mL | 5 mL | 20520 | 09/20/19 23:19 | MGX6 | ECL 2 |
| Total/NA | Analysis | NWTPH-Gx | | 1 | 5 mL | 5 mL | 20831 | 09/21/19 21:19 | U1MC | ECL 2 |
| Silica Gel Cleanup | Prep | 3510C SGC | | | 229.4 mL | 2 mL | 24194 | 09/18/19 11:55 | AMB | TAL SPK |
| Silica Gel Cleanup | Analysis | NWTPH-Dx | | 1 | | | 24181 | 09/18/19 22:39 | NMI | TAL SPK |
| Total/NA | Analysis | 300.0 | | 1 | | | 24114 | 09/13/19 13:49 | NMI | TAL SPK |
| Total/NA | Analysis | 300.0 | | 1 | | | 24115 | 09/13/19 13:49 | NMI | TAL SPK |
| Dissolved | Prep | 3005A | | | 50 mL | 50 mL | 312100 | 09/24/19 08:31 | A1B | TAL SEA |
| Dissolved | Analysis | 6020A | | 5 | 50 mL | 50 mL | 312396 | 09/26/19 08:27 | FCW | TAL SEA |
| Total Recoverable | Prep | 3005A | | | 50 mL | 50 mL | 312640 | 09/28/19 13:18 | A1B | TAL SEA |
| Total Recoverable | Analysis | 6020A | | 5 | 50 mL | 50 mL | 312902 | 09/30/19 16:13 | FCW | TAL SEA |
| Total/NA | Analysis | 310.1 | | 1 | 30 mL | 30 mL | 312321 | 09/25/19 15:15 | EMM | TAL SEA |

Client Sample ID: B-17B

Date Collected: 09/12/19 09:59

Date Received: 09/13/19 12:37

Lab Sample ID: 590-11842-2

Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|--------------------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260C | | 1 | 5 mL | 5 mL | 20520 | 09/20/19 23:45 | MGX6 | ECL 2 |
| Total/NA | Analysis | NWTPH-Gx | | 1 | 5 mL | 5 mL | 20831 | 09/21/19 21:51 | U1MC | ECL 2 |
| Silica Gel Cleanup | Prep | 3510C SGC | | | 225.3 mL | 2 mL | 24194 | 09/18/19 11:55 | AMB | TAL SPK |
| Silica Gel Cleanup | Analysis | NWTPH-Dx | | 1 | | | 24181 | 09/18/19 22:59 | NMI | TAL SPK |
| Total/NA | Analysis | 300.0 | | 1 | | | 24114 | 09/13/19 14:01 | NMI | TAL SPK |
| Total/NA | Analysis | 300.0 | | 1 | | | 24115 | 09/13/19 14:01 | NMI | TAL SPK |
| Dissolved | Prep | 3005A | | | 50 mL | 50 mL | 312100 | 09/24/19 08:31 | A1B | TAL SEA |
| Dissolved | Analysis | 6020A | | 5 | 50 mL | 50 mL | 312396 | 09/26/19 08:32 | FCW | TAL SEA |
| Total Recoverable | Prep | 3005A | | | 50 mL | 50 mL | 312640 | 09/28/19 13:18 | A1B | TAL SEA |
| Total Recoverable | Analysis | 6020A | | 5 | 50 mL | 50 mL | 312902 | 09/30/19 16:18 | FCW | TAL SEA |
| Total/NA | Analysis | 310.1 | | 1 | 30 mL | 30 mL | 312321 | 09/25/19 15:15 | EMM | TAL SEA |

Client Sample ID: B-25

Date Collected: 09/12/19 10:35

Date Received: 09/13/19 12:37

Lab Sample ID: 590-11842-3

Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|--------------------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total/NA | Analysis | 8260C | | 1 | 5 mL | 5 mL | 20520 | 09/21/19 00:11 | MGX6 | ECL 2 |
| Total/NA | Analysis | NWTPH-Gx | | 1 | 5 mL | 5 mL | 20831 | 09/21/19 22:23 | U1MC | ECL 2 |
| Silica Gel Cleanup | Prep | 3510C SGC | | | 254.1 mL | 2 mL | 24194 | 09/18/19 11:55 | AMB | TAL SPK |
| Silica Gel Cleanup | Analysis | NWTPH-Dx | | 1 | | | 24181 | 09/18/19 23:19 | NMI | TAL SPK |
| Total/NA | Analysis | 300.0 | | 1 | | | 24114 | 09/13/19 14:13 | NMI | TAL SPK |
| Total/NA | Analysis | 300.0 | | 1 | | | 24115 | 09/13/19 14:13 | NMI | TAL SPK |
| Dissolved | Prep | 3005A | | | 50 mL | 50 mL | 312100 | 09/24/19 08:31 | A1B | TAL SEA |
| Dissolved | Analysis | 6020A | | 5 | 50 mL | 50 mL | 312396 | 09/26/19 08:36 | FCW | TAL SEA |

Eurofins TestAmerica, Spokane

Lab Chronicle

Client: AECOM
Project/Site: Tacoma D St Terminal-Phillips 66

Job ID: 590-11842-1

Client Sample ID: B-25

Date Collected: 09/12/19 10:35

Date Received: 09/13/19 12:37

Lab Sample ID: 590-11842-3

Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-------------------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|---------|
| Total Recoverable | Prep | 3005A | | | 50 mL | 50 mL | 312640 | 09/28/19 13:18 | A1B | TAL SEA |
| Total Recoverable | Analysis | 6020A | | 5 | 50 mL | 50 mL | 312902 | 09/30/19 16:23 | FCW | TAL SEA |
| Total/NA | Analysis | 310.1 | | 1 | 30 mL | 30 mL | 312321 | 09/25/19 15:15 | EMM | TAL SEA |

Client Sample ID: Trip Blank

Date Collected: 09/12/19 00:00

Date Received: 09/13/19 12:37

Lab Sample ID: 590-11842-4

Matrix: Water

| Prep Type | Batch Type | Batch Method | Run | Dil Factor | Initial Amount | Final Amount | Batch Number | Prepared or Analyzed | Analyst | Lab |
|-----------|------------|--------------|-----|------------|----------------|--------------|--------------|----------------------|---------|-------|
| Total/NA | Analysis | 8260C | | 1 | 5 mL | 5 mL | 20379 | 09/19/19 20:18 | MGX6 | ECL 2 |

Laboratory References:

ECL 2 = Eurofins Calscience LLC Lampson, 7445 Lampson Ave, Garden Grove, CA 92841, TEL (714)895-5494

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

TAL SPK = Eurofins TestAmerica, Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Definitions/Glossary

Client: AECOM

Job ID: 590-11842-1

Project/Site: Tacoma D St Terminal-Phillips 66

Qualifiers

GC/MS VOA

| Qualifier | Qualifier Description |
|-----------|--|
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

GC VOA

| Qualifier | Qualifier Description |
|-----------|--|
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |
| X | Surrogate is outside control limits |
| Z | The chromatographic response does not resemble a typical fuel pattern. |

GC Semi VOA

| Qualifier | Qualifier Description |
|-----------|--|
| B | Compound was found in the blank and sample. |
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

HPLC/IC

| Qualifier | Qualifier Description |
|-----------|--|
| J | Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value. |

Glossary

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

Accreditation/Certification Summary

Client: AECOM

Job ID: 590-11842-1

Project/Site: Tacoma D St Terminal-Phillips 66

Laboratory: Eurofins TestAmerica, Spokane

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

| Authority | Program | Identification Number | Expiration Date |
|--------------|---------|-----------------------|-----------------|
| Alaska (UST) | State | 17-025 | 12-07-19 |
| Oregon | NELAP | 4137 | 12-07-19 |
| Washington | State | C569 | 01-06-20 |

Laboratory: Eurofins Calscience LLC

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

| Authority | Program | Identification Number | Expiration Date |
|------------|------------------|-----------------------|-----------------|
| Arizona | State Program | AZ0781 | 03-13-20 |
| California | SCAQMD LAP | N/A | 11-30-19 |
| California | State Program | 2944 | 09-30-19 |
| Guam | State Program | 19-004R | 10-31-19 |
| Hawaii | State Program | N/A | 01-29-20 |
| Oregon | NELAP Primary AB | CA300001 | 01-20-20 |
| Washington | State Program | C916 | 10-11-19 |

Laboratory: Eurofins TestAmerica, Seattle

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

| Authority | Program | Identification Number | Expiration Date |
|--------------------|-----------------------|-----------------------|-----------------|
| Alaska (UST) | State | 17-024 | 01-19-22 |
| ANAB | Dept. of Defense ELAP | L2236 | 01-19-22 |
| ANAB | ISO/IEC 17025 | L2236 | 01-19-22 |
| California | State | 2901 | 11-05-19 |
| Montana (UST) | State | NA | 04-13-21 |
| Oregon | NELAP | WA100007 | 11-05-19 |
| US Fish & Wildlife | US Federal Programs | 058448 | 07-31-20 |
| USDA | US Federal Programs | P330-17-00039 | 02-10-20 |
| Washington | State | C553 | 02-17-20 |

TestAmerica Spokane
11922 E. 1st Ave.
Spokane, WA 99206
phone 509.924.9200 fax

Chain of Custody Record

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

Client Contact: AECOM
111 SW Columbia, Suite 1500
Portland, Oregon 97201
503-222-7200 Phone
Email: craig.riley@aecom.com
Project Name: D Street Terminal Tacoma, WA
Site: P66 Terminal
P O # 60483190

TestAmerica Laboratories, Inc.

THE LEADER IN ENVIRONMENTAL TESTING

10/1/2019

COC No: _____ of _____ COCs

Sampler: _____

For Lab Use Only:

Walk-In Client:

Lab Sampling:

Job / SDG No.:

Sample Specific Notes:

Site Contact: Mark Tauscher

Lab Contact: Randee Arrington

Carrier: Fede

Date: 9/12/2019

Filtered Sample (Y / N)

Perform MS / MSD (Y / N)

8260B BTEX

NWTPH-Gx

NWTPH-Dx

300.0 Sulfate

300.0 Nitrate (48 Hr. Hold Time)

6020 Dissolved Lead and Mn- Lab F

310.1 Alkalinity

6020 Total Lead

Naphthalenes SIMPAH8270

Sample Identification

Sample Date

Sample Time

Sample Type (C=Comp, G=Grab)

Matrix

of Cont.

RM-5R

B-17B

B-25

Teip blank

9/12/19 08:37

09:59

10:35

G

G

G

G

G

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G



590-11842 Chain of Custody

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

Possible Hazard Identification:

Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the

Comments Section if the lab is to dispose of the sample.

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

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

Special Instructions/QC Requirements & Comments: Please Contact Craig Riley with questions

TYLER HENRY

Custody Seal Intact: ☐ Yes ☐ No

Custody Seal No.:

Relinquished by: E. Davis

Relinquished by: Relinquished by:

Relinquished by: Relinquished by:

Relinquished by: Relinquished by:

Relinquished by: Relinquished by:

Relinquished by: Relinquished by:

Relinquished by: Relinquished by:

Relinquished by: Relinquished by:



590-11842 Waybill

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ORIGIN ID:GEGA (509) 924-9200
SAMPLE RECEIVING
TESTAMERICA INC
11922 E 1ST AVENUE

SPOKANE, WA 992065302
UNITED STATES US

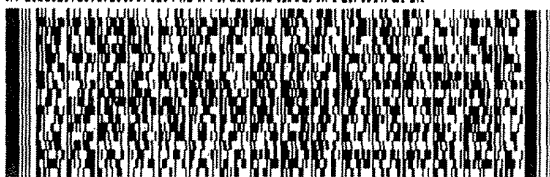
SHIP DATE: 13SEP19
ACTWGT: 16.00 LB MAN
CAD: 0402768/CAFE3310

BILL SENDER

TO SHIPOPING/RECEIVING
EUROFINS CALSCIENCE LLC
7440 LINCOLN WAY

GARDEN GROVE CA 92841

INU: REF: DEPT:
PO:



FedEx
Express



1191219061001

TRK# 1101 1300 4561
0201

SATURDAY 12:00P
PRIORITY OVERNIGHT

XO APVA

92841
CA-US SNA



11922 East 1st Ave
Spokane, WA 99206
Phone: 509-924-9200 Fax: 509-924-9290



eurolins

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Chain of Custody Record

| | | | | | | | |
|---|--|--|--|--|--|---|--|
| Client Information (Sub Contract Lab) | | | | Sampler: Lab PM: Carrier Tracking No(s): | | COC No: 590-4727.1 | |
| Client Contact: Shipping/Receiving | | | | Phone: E-Mail: randee.arrington@testamericainc.com | | Page: Page 1 of 1 | |
| Company: Eurofins Calscience LLC | | | | Address: 7440 Lincoln Way, City: Garden Grove, State: CA, Zip: 92841 | | State of Origin: Washington | |
| Phone: 714-895-5494(Tel) 714-894-7501(Fax) | | | | PO #: WO #: | | Job #: 590-11842-1 | |
| Email: Project Name: Tacoma D St Terminal-Phillips 66 | | | | Project #: 59000882 | | Accreditations Required (See note): State Program - Washington | |
| Site: SSOW#: | | | | Due Date Requested: 9/27/2019 | | Preservation Codes: | |
| TAT Requested (days): | | | | Matrix (Water, Seawater, Oil, etc.) | | A - HCL
B - NaOH
C - Zn Acetate
D - Nitric Acid
E - NaHSO4
F - MeOH
G - Ascorbic Acid
H - Ice
I - Ice
J - DI Water
K - EDTA
L - EDA
M - Hexane
N - None
O - AsNaO2
P - Na2O4S
Q - Na2SO3
R - Na2SO4
S - TSP Dodecahydrate
T - Acetone
U - MCAA
V - pH 4-5
W - other (specify) | |
| Sample Date | | | | Sample Time | | Sample Type (C=Comp, G=grab) | |
| Sample Identification - Client ID (Lab ID) | | | | Sample Date | | Sample Time | |
| RW-5R (590-11842-1) | | | | 9/12/19 | | 08:37 Pacific | |
| B-17B (590-11842-2) | | | | 9/12/19 | | 09:59 Pacific | |
| B-25 (590-11842-3) | | | | 9/12/19 | | 10:35 Pacific | |
| Trip Blank (590-11842-4) | | | | 9/12/19 | | Pacific | |
| Special Instructions/Note: | | | | Total Number of Containers | | | |
| 2 | | | | 2 | | 2 | |
| 2 | | | | 2 | | 2 | |
| 1 | | | | 1 | | 1 | |
| Special Instructions/Note: | | | | Total Number of Containers | | | |
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| Special Instructions/Note: | | | | Total Number of Containers | | | |
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| Special Instructions/Note: | | | | Total Number of Containers | | | |
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| Special Instructions/Note: | | | | Total Number of Containers | | | |

[illegible]



Environment Testing
Test&merica

[illegible]

Client: AECOM

Job Number: 590-11842-1

Login Number: 11842

List Number: 1

Creator: O'Toole, Maria C

List Source: Eurofins TestAmerica, Spokane

| Question | Answer | Comment |
|--|--------|---|
| Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter. | N/A | Lab does not accept radioactive samples. |
| The cooler's custody seal, if present, is intact. | True | 130471 |
| Sample custody seals, if present, are intact. | N/A | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | N/A | not present |
| 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 $<6\text{mm}$ (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | No analysis requiring residual chlorine check assigned. |

Login Sample Receipt Checklist

Client: AECOM

Job Number: 590-11842-1

Login Number: 11842

List Number: 3

Creator: Cruise, Noel

List Source: Eurofins Calscience

List Creation: 09/20/19 05:44 PM

| Question | Answer | Comment |
|--|--------|---------|
| Radioactivity wasn't checked or is $\leq$ 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. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | 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 $<6\text{mm}$ (1/4"). | True | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

Login Sample Receipt Checklist

Client: AECOM

Job Number: 590-11842-1

Login Number: 11842

List Number: 2

Creator: Vallelunga, Diana L

List Source: Eurofins TestAmerica, Seattle

List Creation: 09/14/19 03:03 PM

| Question | Answer | Comment |
|--|--------|---------|
| Radioactivity wasn't checked or is $\leq$ 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. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | 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 $<6\text{mm}$ (1/4"). | N/A | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |

Appendix C

Data Review, Third Quarter 2019

AECOM

Memorandum

AECOM
1111 3rd Ave
Suite 1600
Seattle, WA 98101
www.aecom.com

206 438 2700 tel
866 495 5288 fax

| | | | |
|---------|--|------|-------|
| To | Rebecca Tortorello, Project Manager | Info | FINAL |
| Subject | Summary Data Quality Review
Phillips 66 – D Street Terminal, Tacoma Washington
2019 Third Quarter Groundwater Sampling | | |
| From | Lucy Panteleeff, Chemist
Jennifer B. Garner, Chemist | | |
| Date | October 31, 2019 | | |

The summary data quality review of 34 groundwater samples and 4 trip blanks collected between September 9 and September 12, 2019, has been completed. The samples were analyzed at Eurofins TestAmerica Laboratories, Incorporated (TA) located in Spokane and Seattle, Washington and Eurofins Calscience, LLC. in Golden Grove, California for benzene, toluene, ethylbenzene, and total xylenes (BTEX) by EPA Method 8260C; total petroleum hydrocarbons (TPHs) by Washington State Department of Ecology (Ecology) Methods NWTPH-Gx (gasoline-range TPH) and NWTPH-Dx (diesel-range and heavy oil-range TPH); naphthalenes by EPA Method 8270D modified by selected ion monitoring (SIM); metals by EPA Method 6020A (total and dissolved lead and dissolved manganese); anions by EPA Method 300.0 (sulfate and nitrate as nitrogen); and/or total alkalinity by EPA Method 310.1. The laboratory provided summary reports containing sample results and associated quality assurance (QA) and quality control (QC) data for all samples. The following samples are associated with TA laboratory groups 590-11808-1, 590-11815-1, 590-11829-1, and 59011842-1:

| Sample ID | Laboratory Group | Laboratory ID | Requested Analyses |
|--------------------------------|------------------|---------------|---|
| RR-4 | 590-11808-1 | 590-11808-1 | BTEX, TPH-Gx, TPH-Dx, Metals, Anions, Alkalinity |
| RR-1 | | 590-11808-2 | BTEX, TPH-Gx, TPH-Dx, Metals, Anions, Alkalinity |
| FW-5R | | 590-11808-3 | BTEX, TPH-Gx, TPH-Dx, Naphthalenes Metals, Anions, Alkalinity |
| B-30 | | 590-11808-4 | BTEX, TPH-Gx, TPH-Dx, Metals, Anions, Alkalinity |
| DMW-1 | | 590-11808-5 | BTEX, TPH-Gx, TPH-Dx, Metals, Anions, Alkalinity |
| DMW-1-DUP (Duplicate of DMW-1) | | 590-11808-6 | BTEX, TPH-Gx, TPH-Dx, Metals, Anions, Alkalinity |
| FW-4 | | 590-11808-7 | BTEX, TPH-Gx, TPH-Dx, Naphthalenes, Metals, Anions, Alkalinity, |
| DMW-3 | | 590-11808-8 | BTEX, TPH-Gx, TPH-Dx, Metals, Anions, Alkalinity |
| FW-3 | | 590-11808-9 | BTEX, TPH-Gx, TPH-Dx, Metals, Anions, Alkalinity |
| Trip Blank | | 590-11808-10 | BTEX |
| T-3 | 590-11815-1 | 590-11815-1 | BTEX, TPH-Gx, TPH-Dx, Metals, Anions, Alkalinity |
| E-21 | | 590-11815-2 | BTEX, TPH-Gx, TPH-Dx, Metals, Anions, Alkalinity |
| RR-5 | | 590-11815-3 | BTEX, TPH-Gx, TPH-Dx, Metals, Anions, Alkalinity |
| B-31 | | 590-11815-4 | BTEX, TPH-Gx, TPH-Dx, Metals, Anions, Alkalinity |
| G-16 | | 590-11815-5 | BTEX, TPH-Gx, TPH-Dx, Metals, Anions, Alkalinity |
| E-22 | | 590-11815-6 | BTEX, TPH-Gx, TPH-Dx, Metals, Anions, Alkalinity |
| RW-2 | | 590-11815-7 | BTEX, TPH-Gx, TPH-Dx, Metals, Anions, Alkalinity |
| RW-8 | | 590-11815-8 | BTEX, TPH-Gx, TPH-Dx, Metals, Anions, Alkalinity |
| B-34 | | 590-11815-9 | BTEX, TPH-Gx, TPH-Dx, Metals, Anions, Alkalinity |
| FW-13 | | 590-11815-10 | BTEX, TPH-Gx, TPH-Dx, Metals, Anions, Alkalinity |
| FW-13-DUP (Duplicate of FW-13) | | 590-11815-11 | BTEX, TPH-Gx, TPH-Dx, Metals, Anions, Alkalinity |
| Trip Blank | | 590-11815-12 | BTEX |

Summary Data Quality Review
Phillips 66 - D Street Terminal, Tacoma, Washington
2019 Third Quarter Groundwater Sampling
Laboratory Groups: 590-11808-1, 590-11815-1, 590-11829-1, and 59011842-1

| Sample ID | Laboratory Group | Laboratory ID | Requested Analyses |
|------------|------------------|---------------|--|
| T-2 | 590-11829-1 | 590-11829-1 | BTEX, TPH-Gx, TPH-Dx, Metals, Anions, Alkalinity, Naphthalenes |
| HC-111 | | 590-11829-2 | BTEX, TPH-Gx, TPH-Dx, Metals, Anions, Alkalinity |
| G-18 | | 590-11829-3 | BTEX, TPH-Gx, TPH-Dx, Metals, Anions, Alkalinity |
| RR-2 | | 590-11829-4 | BTEX, TPH-Gx, TPH-Dx, Metals, Anions, Alkalinity, Naphthalenes |
| RR-3 | | 590-11829-5 | BTEX, TPH-Gx, TPH-Dx, Metals, Anions, Alkalinity, Naphthalenes |
| DMW-4 | | 590-11829-6 | BTEX, TPH-Gx, TPH-Dx, Metals, Anions, Alkalinity |
| G-8 | | 590-11829-7 | BTEX, TPH-Gx, TPH-Dx, Metals, Anions, Alkalinity, Naphthalenes |
| DMW-2 | | 590-11829-8 | BTEX, TPH-Gx, TPH-Dx, Metals, Anions, Alkalinity |
| FW-14 | | 590-11829-9 | BTEX, TPH-Gx, TPH-Dx, Metals, Anions, Alkalinity, Naphthalenes |
| FW-15 | | 590-11829-10 | BTEX, TPH-Gx, TPH-Dx, Metals, Anions, Alkalinity |
| B-19 | | 590-11829-11 | BTEX, TPH-Gx, TPH-Dx, Metals, Anions, Alkalinity |
| Trip Blank | | 590-11829-12 | BTEX |
| RW-5R | 590-11842-1 | 590-11842-1 | BTEX, TPH-Gx, TPH-Dx, Metals, Anions, Alkalinity |
| B17B | | 590-11842-2 | BTEX, TPH-Gx, TPH-Dx, Metals, Anions, Alkalinity |
| B-25 | | 590-11842-3 | BTEX, TPH-Gx, TPH-Dx, Metals, Anions, Alkalinity |
| Trip Blank | | 590-11842-4 | BTEX |

Data were evaluated based on validation criteria established in the *National Functional Guidelines for Organic Superfund Methods Data Review*, dated January 2017, and *National Functional Guidelines for Inorganic Superfund Methods Data Review*, January 2017, as applied to the reported methodology.

The following data components were reviewed during the limited data validation procedure for compliance with method specific or laboratory control charted criteria where appropriate: chain of custody forms, holding times, field/method/trip/instrument blanks, surrogate recoveries, matrix spike/matrix spike duplicate recoveries, laboratory and field duplicate results, laboratory control sample/laboratory control sample duplicate recoveries, reporting limits, and electronic data deliverables.

A summary of qualifiers that may be assigned to results in these laboratory groups are included in Table 1. Qualifiers that may be assigned to results include:

- U - The analyte was analyzed for but was not detected above the reported sample quantitation limit.
- J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- UJ - The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.



Summary Data Quality Review

Phillips 66 - D Street Terminal, Tacoma, Washington

2019 Third Quarter Groundwater Sampling

Laboratory Groups: 590-11808-1, 590-11815-1, 590-11829-1, and 59011842-1

- R - The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.
- DNR - Do Not Report. Another result is available that is more reliable or appropriate.

Sample Receipt

Upon receipt by the laboratories, the sample jar information was compared to the associated chain-of-custody (COC) and the cooler temperatures were recorded. No discrepancies related to sample identifications were noted by the laboratory and the coolers were received at temperatures within the EPA recommended temperature limits of greater than 0°C and less than or equal to 6°C.

The laboratory noted that limited volume remained after the analysis of DMW-3 and the laboratory was unable to perform site specific matrix spike and matrix spike duplicate analysis.

Organic Analyses

Samples were analyzed for BTEX, TPHs, and/or naphthalenes by the methods identified in the introduction of this report.

1. Holding Times – Acceptable
2. Blanks – Acceptable except as noted below:

NWTPH-Dx – Diesel-range TPH was detected in the method blanks associated with extraction batches 590-24151 (0.125 mg/L) and 590-24194 (0.190 mg/L) at concentrations between the method detection limits (MDLs) and the reporting limits. Diesel-range TPH results in RR-4, RR-1, B-30, DMW-1, DMW-1-DUP, FW-14, FW-15, and B-17B were reported at concentrations between the MDLs and the reporting limits; therefore, the results for diesel-range TPH in these samples were qualified as not detected and flagged 'U' at the reporting limits. Diesel-range TPH results in FW-4, DMW-3, FW-3, and DMW-2 were reported at concentrations between 1 and 2 times the reporting limits; therefore, the results for diesel-range TPH in these samples were qualified as estimated and flagged 'J' at the reported results.

3. Surrogates – Acceptable except as noted below:

NWTPH-Gx – The percent recoveries for the surrogate 4-bromofluorobenzene was outside the control limits of 38-134% in the following samples.

| Sample ID | Recovery |
|-----------|----------|
| T-3 | 181% |
| RW-2 | 206% |
| RW-8 | 151% |
| B-34 | 179% |
| HC-111 | 179% |
| B-19 | 150% |
| RW-5R | 404% |

Summary Data Quality Review

Phillips 66 - D Street Terminal, Tacoma, Washington

2019 Third Quarter Groundwater Sampling

Laboratory Groups: 590-11808-1, 590-11815-1, 590-11829-1, and 59011842-1

The results for gasoline-range TPH in the samples listed in the above table were qualified as estimated and flagged 'J' based on these surrogate results.

4. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) – Acceptable
5. Matrix Spike/Matrix Spike Duplicate (MS/MSD) – Acceptable

BTEX by Method 8260C – MS/MSDs were not performed in association with this analysis. Precision and accuracy were assessed using the LCS/LCSD and field duplicate results.

NWTPH-Gx – MS/MSDs were performed using DMW-3 and G-16. Results were acceptable.

NWTPH-Dx – An MS/MSD was performed using DMW-3. Results were acceptable.

Naphthalenes by Method 8270D-SIM – An MS/MSD was not performed in association with this analysis. Precision and accuracy were assessed using the LCS/LCSD and field duplicate results.

6. Field Duplicate (applicable to BTEX and TPH analyses only) – Acceptable

General – Field duplicates were submitted for DMW-1 and FW-13 and identified as DMW-1-DUP and FW-13-DUP, respectively. Results were comparable for all analytes reported at concentrations more than five times the reporting limits.

7. Reporting Limits – Acceptable except as noted below:

General – One or more results in multiple samples were flagged 'J' by the laboratory to indicate a concentration that was less than the reporting limit, but above the MDL. Laboratory 'J'-flagged results are considered estimated. As the result is between the MDL and the reporting limit, there is a greater level of uncertainty associated with the numerical result.

The reporting limits for one or more analytes reported as not detected in multiple samples were slightly elevated due to limited sample volume and/or dilutions for matrix interferences. The elevated reporting limits do not affect the use of the data.

8. Other Items of Note:

Diesel-range TPH by NWTPH-Dx – Sample FW-5R was reported for diesel-range and oil-range TPH from two analyses; one with silica gel cleanup and one without silica gel cleanup. The silica gel cleanup was performed on this sample at the request of AECOM.

The laboratory noted the following:

- Detected hydrocarbons in diesel range appeared to be due to weathered gasoline overlap as well as heavily weathered diesel in T-3, RR-5, B-31, RW-2, RW-8, B-34, HC-111, DMW-2, B-19, RW-5R, and B-25.

Summary Data Quality Review**Phillips 66 - D Street Terminal, Tacoma, Washington****2019 Third Quarter Groundwater Sampling****Laboratory Groups: 590-11808-1, 590-11815-1, 590-11829-1, and 59011842-1**

- Detected hydrocarbons in the diesel range appeared to be due to heavily weathered diesel in RR-4, RR-1, B-30, DMW-1, DMW-1-DUP, FW-4, DMW-3, FW-3, E-21 , G-16 , FW-13, FW-13-DUP, T-2, G-18, RR-2, DMW-4, G-8, FW-14, FW-15, and B-17B.
- Detected hydrocarbons in the diesel range appeared to be due to individual peaks as well as weathered diesel in FW-5R.

Metals

Samples were analyzed for total and/or dissolved metals by EPA Method 6020A.

1. Holding Times – Acceptable

2. Blanks – Acceptable

Manganese (0.00719 mg/L) was detected in the method blank associated with preparation batch 590-311939 at a concentration between the MDL and the reporting limit. Dissolved manganese results in T-3, RR-5, E-22, T-2, and RR-3 were reported at concentrations between 1 and 10 times the blank concentration; therefore, the results for dissolve manganese in these samples were qualified as estimated and flagged 'J' at the reported results.

3. Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) – Acceptable

4. Matrix Spike/Matrix Spike Duplicate (MS/MSD) – Acceptable

MS/MSDs for total lead were performed using DMW-3 and T-2. MS/MSDs for dissolved manganese and lead were performed using RR-4, DMW-3, and RW-2. Results were acceptable.

5. Laboratory Duplicate – Acceptable

Laboratory duplicates for total lead were performed using DMW-3 and T-2. Laboratory duplicates for dissolved manganese and lead were performed using RR-4, DMW-3, and RW-2. Results were comparable.

6. Field Duplicates – Acceptable

Field duplicates were submitted for DMW-1 and FW-13 and identified as DMW-1-DUP and FW-13-DUP, respectively. Results were comparable for all analytes reported at concentrations more than five times the reporting limits.

7. Reporting Limits – Acceptable

One or more results were flagged 'J' by the laboratory to indicate a concentration that was less than the reporting limit, but above the MDL. Laboratory 'J'-flagged results are considered estimated. As noted above, there is a greater level of uncertainty associated with the numerical result.

Summary Data Quality Review**Phillips 66 - D Street Terminal, Tacoma, Washington****2019 Third Quarter Groundwater Sampling****Laboratory Groups: 590-11808-1, 590-11815-1, 590-11829-1, and 59011842-1**

The reporting limits for total and/or dissolved lead in multiple samples were elevated due to dilution. The elevated reporting limits do not affect the use of the data.

Conventional Analyses

Samples were analyzed for sulfate, nitrate, and alkalinity by the methods identified in the introduction of this report.

1. Holding Times – Acceptable except as noted below:

Anions by EPA Method 300.0 – RR-4 and RR-1 were analyzed for nitrate outside the 48-hour holding time. The results for nitrate in these samples were qualified as estimated and flagged 'UJ' based on holding time exceedance.

2. Blanks – Acceptable (where applicable)
3. Laboratory Control Sample (LCS) – Acceptable
4. Matrix Spike/Matrix Spike Duplicate (MS/MSD) – Acceptable

Anions by EPA Method 300.0 – MS/MSDs were performed using DMW-3, RW-2, and B-19. The following recoveries were outside the control limit of 80-120%.

| Sample ID | Analyte | MS | MSD |
|-----------|---------|------|------|
| DMW-3 | Nitrate | 9% | 9% |
| RW-2 | Nitrate | 38% | 39% |
| B-19 | Nitrate | 21% | 17% |
| | Sulfate | -79% | -65% |

The sample concentration for sulfate in B-19 was more than four times the spike concentration; therefore, data were not qualified based on these MS/MSD recoveries. The results for nitrate in RW-2 and B-19 were qualified as estimated and flagged 'J' or 'UJ' based on these MS/MSD results. The result for nitrate in DMW-3 was rejected based on the low (<10%) recoveries in the MS and MSD.

Alkalinity by EPA Method 310.1 – An MS/MSD was not performed in association with this analysis. Accuracy was assessed using the LCS results. Precision was assessed using the laboratory and field duplicate results.

5. Laboratory Duplicate – Acceptable

Anions by EPA Method 300.0 – Laboratory duplicates were performed using DMW-3, RW-2, and B-19. Results were comparable.

Alkalinity by EPA Method 310.1 – A laboratory duplicate was performed using DMW-3. Results were comparable.



Summary Data Quality Review

Phillips 66 - D Street Terminal, Tacoma, Washington

2019 Third Quarter Groundwater Sampling

Laboratory Groups: 590-11808-1, 590-11815-1, 590-11829-1, and 59011842-1

6. Field Duplicates - Acceptable

General – Field duplicates were submitted for DMW-1 and FW-13 and identified as DMW-1-DUP and FW-13-DUP, respectively. Results were comparable for all analytes reported at concentrations more than five times the reporting limits.

7. Reporting Limits – Acceptable

Anions by EPA Method 300.0 – One or more results were flagged 'J' by the laboratory to indicate a concentration that was less than the reporting limit, but above the MDL. Laboratory 'J'-flagged results are considered estimated. As noted above, there is a greater level of uncertainty associated with the numerical result.

The reporting limits for nitrate reported as not detected in multiple samples were slightly elevated due to dilutions made for high concentrations of non-target analytes. The elevated reporting limits do not affect the use of the data.

Overall Assessment of Data

The data reported in these laboratory groups, as qualified, are considered to be usable for meeting project objectives. The completeness for TestAmerica laboratory groups 590-11808-1, 590-11815-1, 590-11829-1, and 59011842-1 is 100%.

Summary Data Quality Review
Phillips 66 - D Street Terminal, Tacoma, Washington
2019 Third Quarter Groundwater Sampling
Laboratory Groups: 590-11808-1, 590-11815-1, 590-11829-1, and 59011842-1

Table 1 - Summary of Qualified Data

| Sample ID | Laboratory ID | Analyte | Laboratory Result | Units | Final Result | Reason |
|-----------|---------------|-------------------------|-------------------|-------|--------------|-----------------------|
| RR-4 | 590-11808-1 | Nitrate | 5.7 U | mg/L | 5.7 UJ | Holding Time |
| RR-1 | 590-11808-2 | Nitrate | 5.7 U | mg/L | 5.7 UJ | |
| RR-4 | 590-11808-1 | Diesel Range Organics | 0.17 J | mg/L | 0.23 U | Blank contamination |
| RR-1 | 590-11808-2 | Diesel Range Organics | 0.18 J | mg/L | 0.27 U | |
| B-30 | 590-11808-4 | Diesel Range Organics | 0.18 J | mg/L | 0.26 U | |
| DMW-1 | 590-11808-5 | Diesel Range Organics | 0.2 J | mg/L | 0.22 U | |
| DMW-1-DUP | 590-11808-6 | Diesel Range Organics | 0.18 J | mg/L | 0.22 U | |
| FW-4 | 590-11808-7 | Diesel Range Organics | 0.36 | mg/L | 0.36 J | |
| DMW-3 | 590-11808-8 | Diesel Range Organics | 0.35 | mg/L | 0.35 J | |
| FW-3 | 590-11808-9 | Diesel Range Organics | 0.27 | mg/L | 0.27 J | |
| DMW-2 | 590-11829-8 | Diesel Range Organics | 0.31 | mg/L | 0.31 J | |
| FW-14 | 590-11829-9 | Diesel Range Organics | 0.12 J | mg/L | 0.23 U | |
| FW-15 | 590-11829-10 | Diesel Range Organics | 0.15 J | mg/L | 0.23 U | |
| B-17B | 590-11842-2 | Diesel Range Organics | 0.17 J | mg/L | 0.27 U | |
| T-3 | 590-11815-1 | Manganese | 0.026 | mg/L | 0.026 J | |
| RR-5 | 590-11815-3 | Manganese | 0.064 | mg/L | 0.064 J | |
| E-22 | 590-11815-6 | Manganese | 0.068 | mg/L | 0.068 J | |
| T-2 | 590-11829-1 | Manganese | 0.063 | mg/L | 0.063 J | |
| HC-111 | 590-11829-2 | Manganese | 0.53 | mg/L | 0.53 J | |
| RR-3 | 590-11829-5 | Manganese | 0.054 | mg/L | 0.054 J | |
| T-3 | 590-11815-1 | Gasoline Range Organics | 380 | ug/L | 380 J | Surrogate Recovery |
| RW-2 | 590-11815-7 | Gasoline Range Organics | 1200 | ug/L | 1200 J | |
| RW-8 | 590-11815-8 | Gasoline Range Organics | 810 | ug/L | 810 J | |
| B-34 | 590-11815-9 | Gasoline Range Organics | 1700 | ug/L | 1700 J | |
| HC-111 | 590-11829-2 | Gasoline Range Organics | 1200 | ug/L | 1200 J | |
| B-19 | 590-11829-11 | Gasoline Range Organics | 680 | ug/L | 680 J | |
| RW-5R | 590-11842-1 | Gasoline Range Organics | 2100 | ug/L | 2100 J | |
| RW-2 | 590-11815-7 | Nitrate | 0.53 | mg/L | 0.53 J | Matrix Spike Recovery |
| DMW-3 | 590-11808-8 | Nitrate | 0.057 U | mg/L | R | |
| B-19 | 590-11829-11 | Nitrate | 0.68 | mg/L | 0.68 J | |

Notes:

J – estimated value

mg/L – milligram per liter

R - The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

U – not detected at result shown

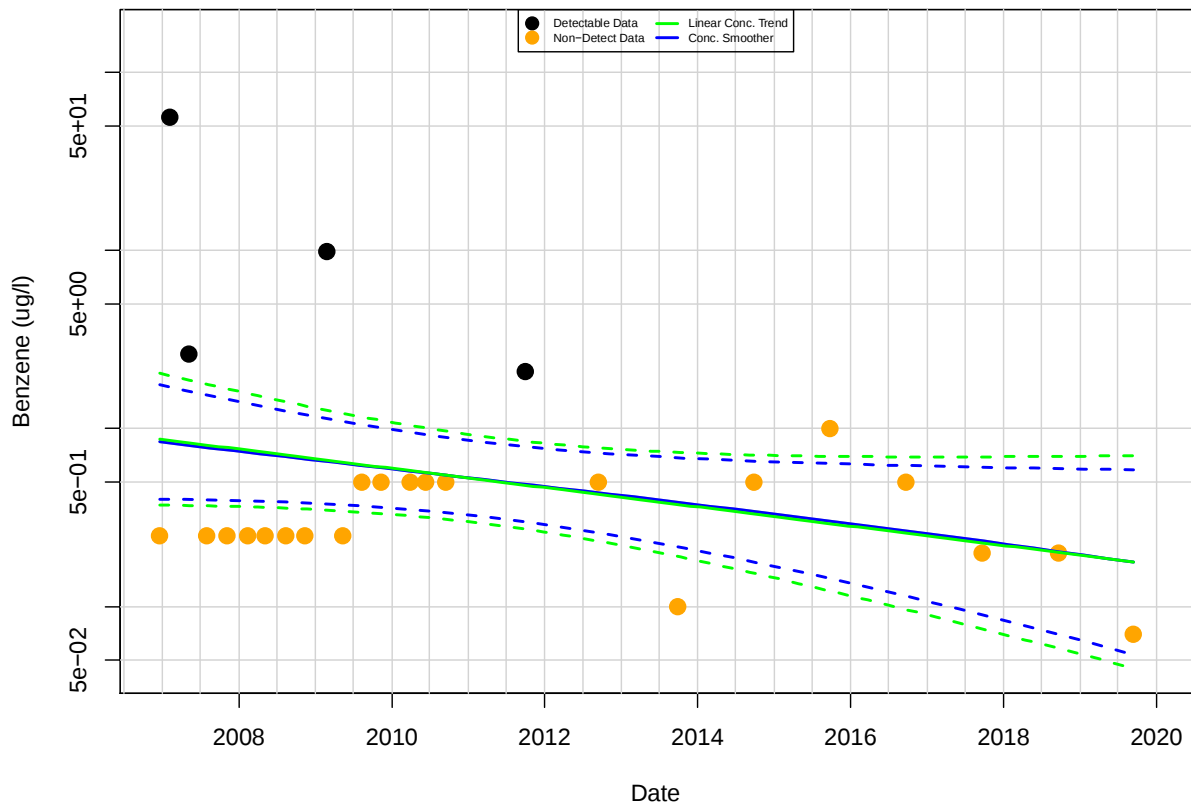
ug/L – microgram per liter

UJ – reported quantitation limit is estimated

Appendix D
GWSDAT Plots: Time vs.
Concentration with Mann-Kendall

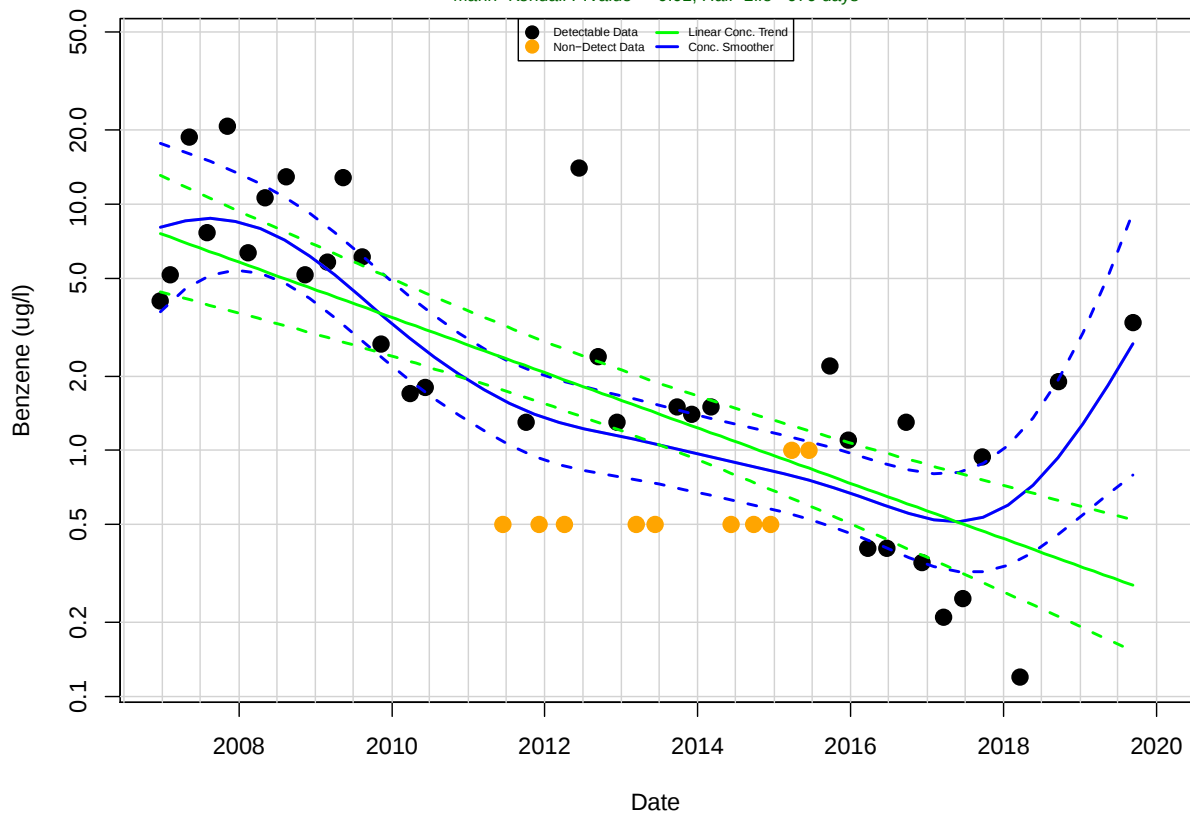
Benzene in B-17B : Aquifer-Blank

Mann-Kendall P.Value= 0.497; Half-Life> 5 Years



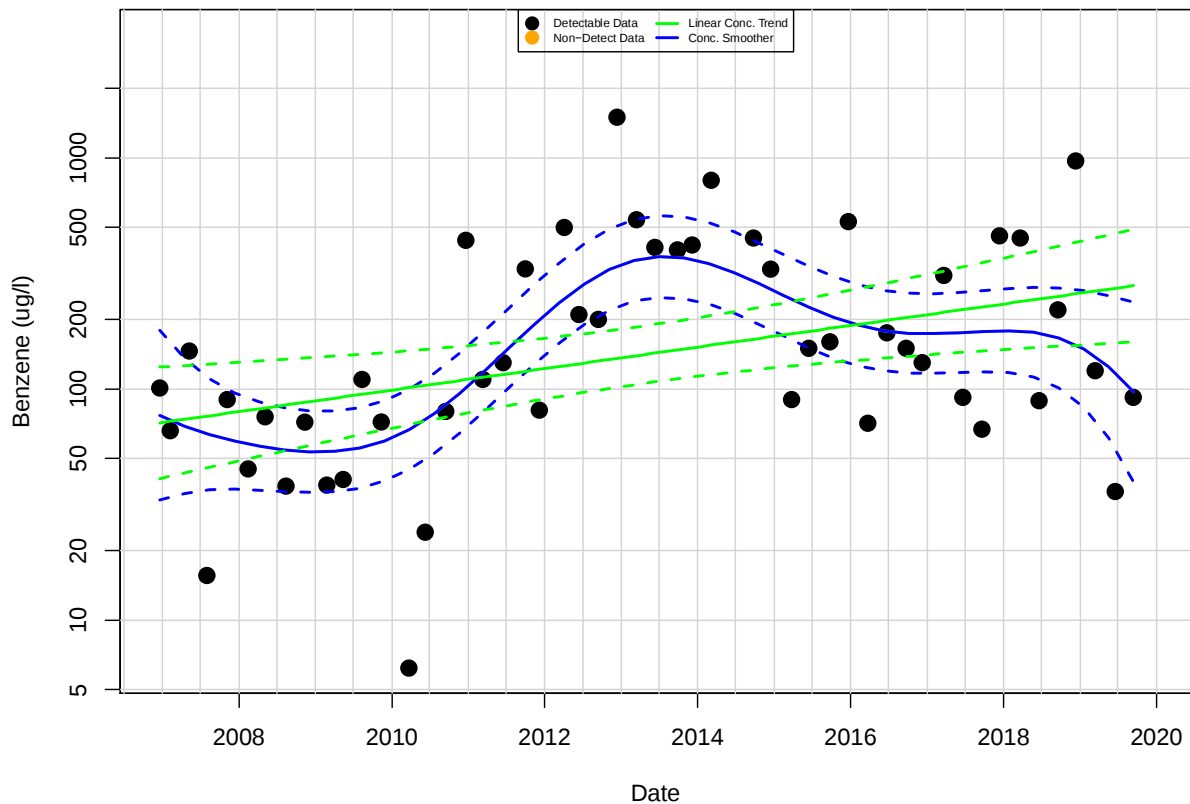
Benzene in B-19 : Aquifer-Blank

Mann-Kendall P.Value= <0.01; Half-Life= 979 days

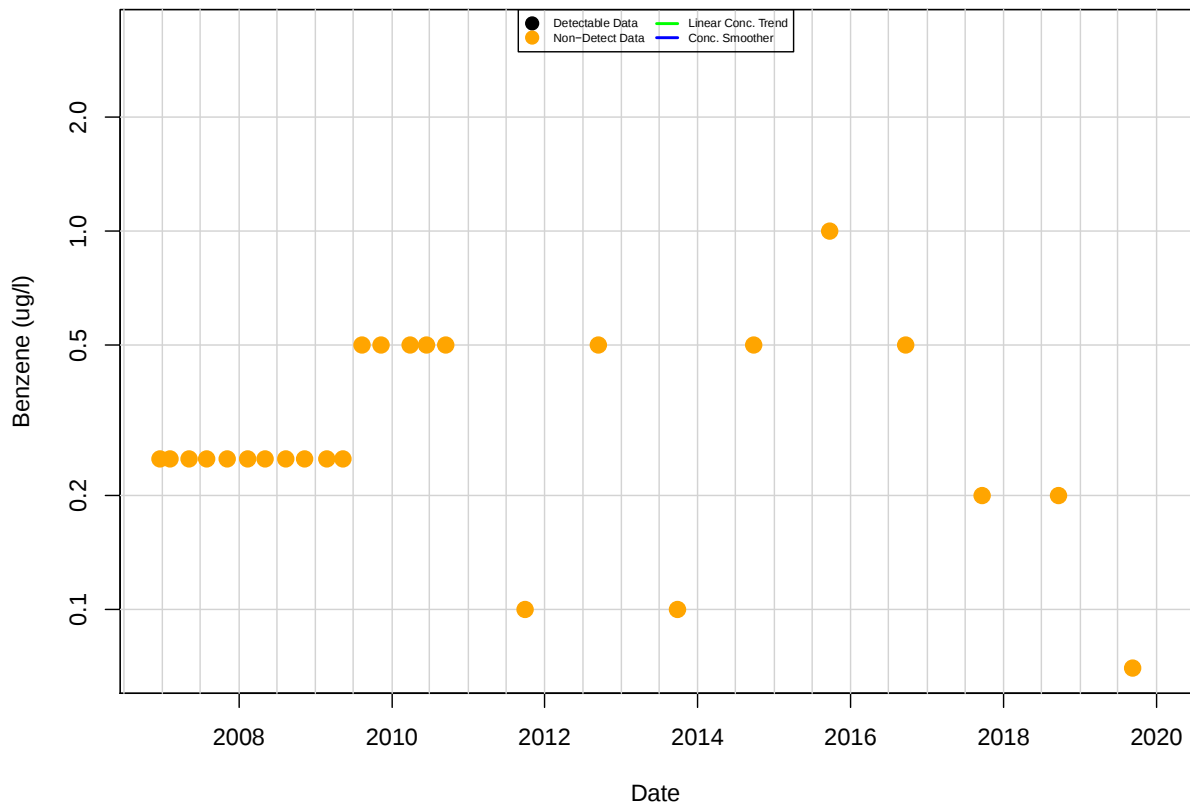


Benzene in B-25 : Aquifer-Blank

Mann-Kendall P.Value= <0.01; Half-Life> -5 Years

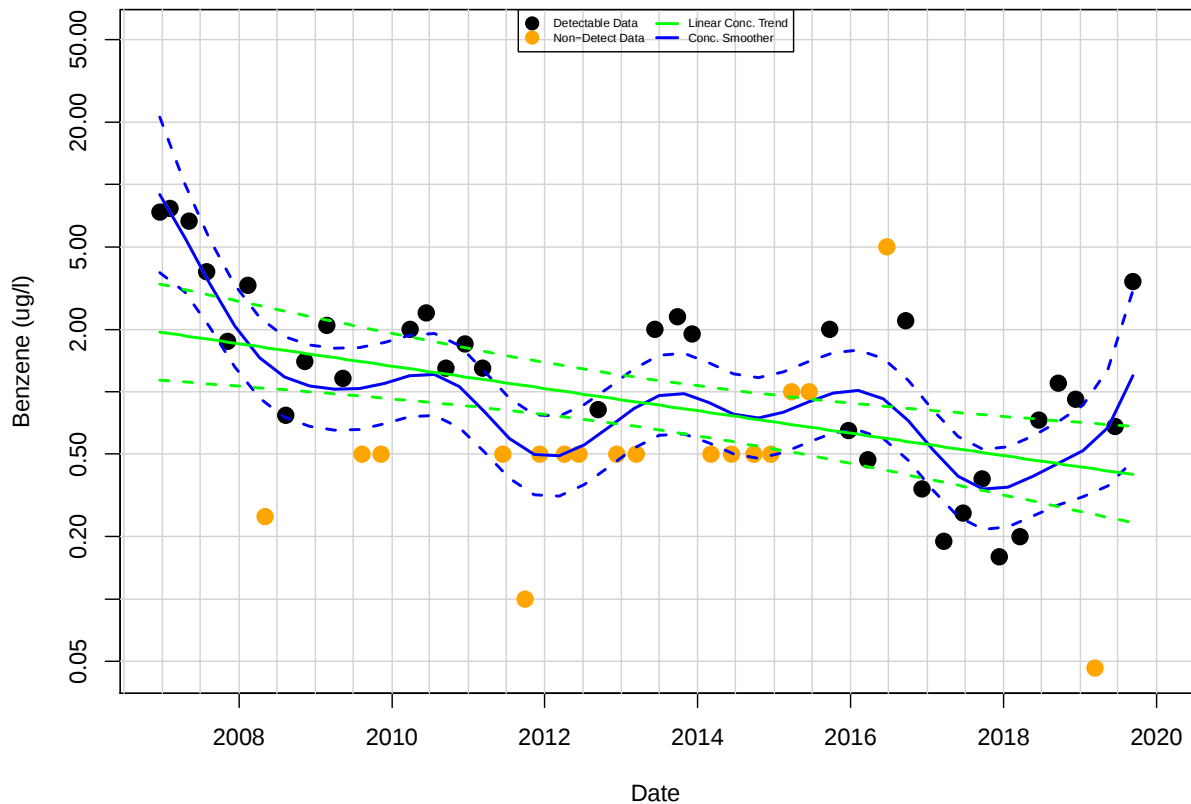


Benzene in B-30 : Aquifer-Blank



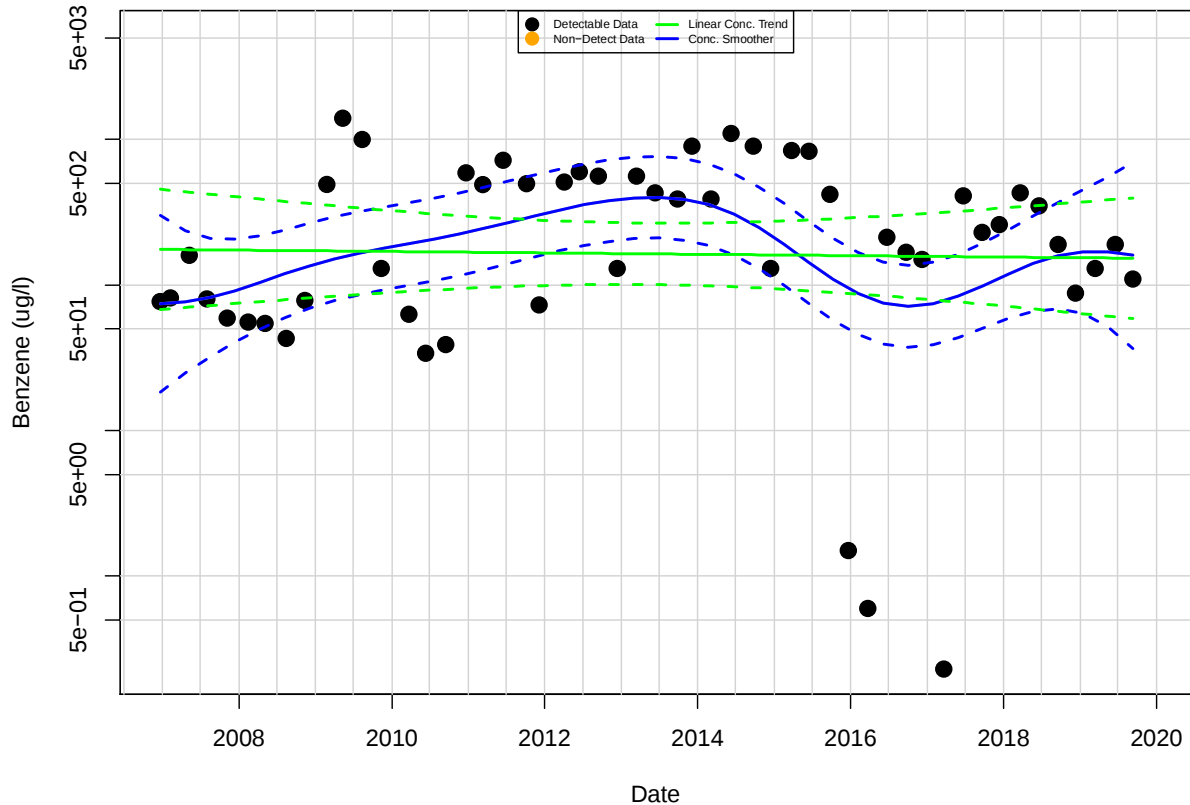
Benzene in B-31 : Aquifer-Blank

Mann-Kendall P.Value= <0.01; Half-Life> 5 Years



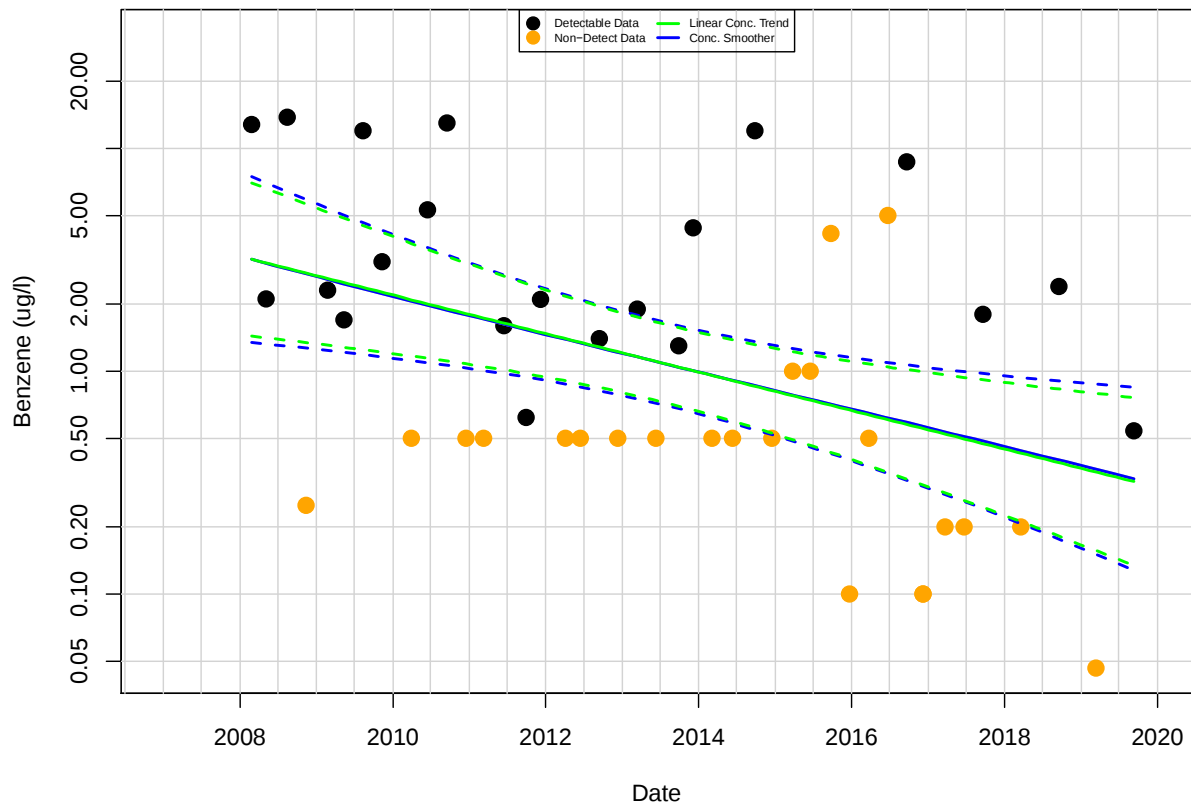
Benzene in B-34 : Aquifer-Blank

Mann-Kendall P.Value= 0.74; Half-Life> 5 Years



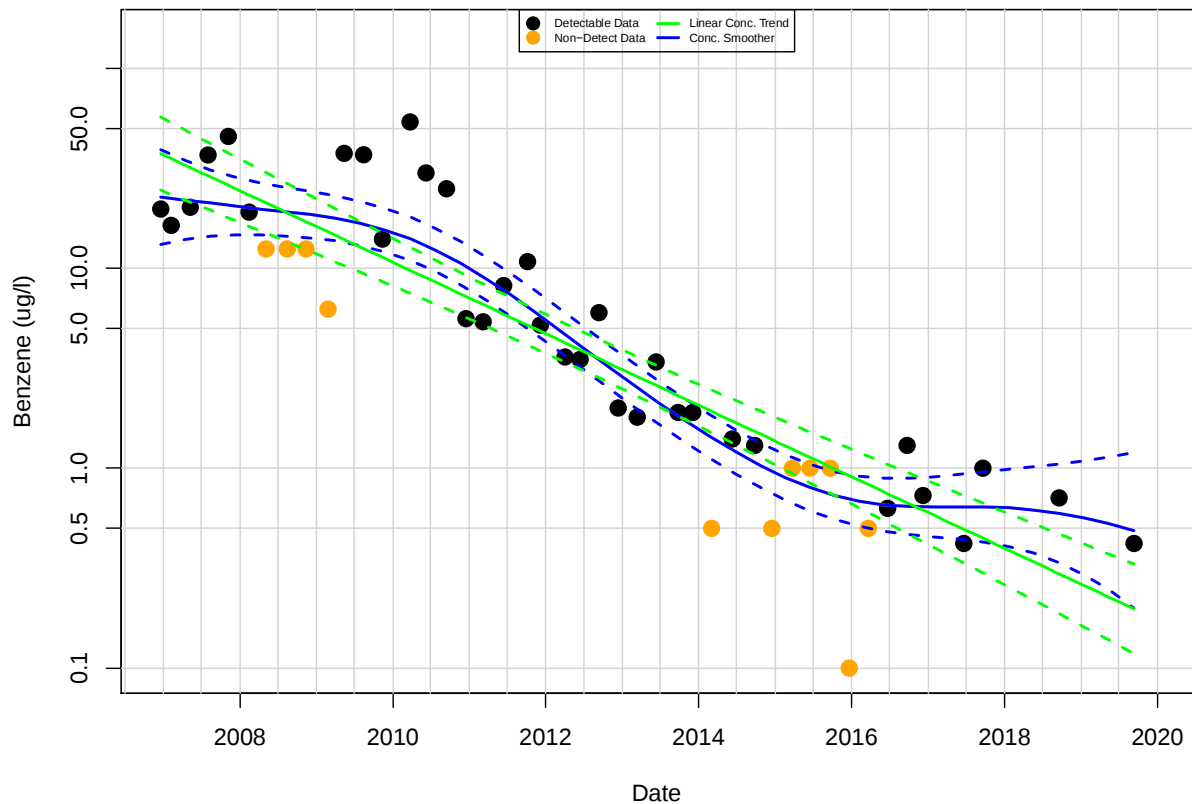
Benzene in E-21 : Aquifer-Blank

Mann-Kendall P.Value= <0.01; Half-Life= 1273 days



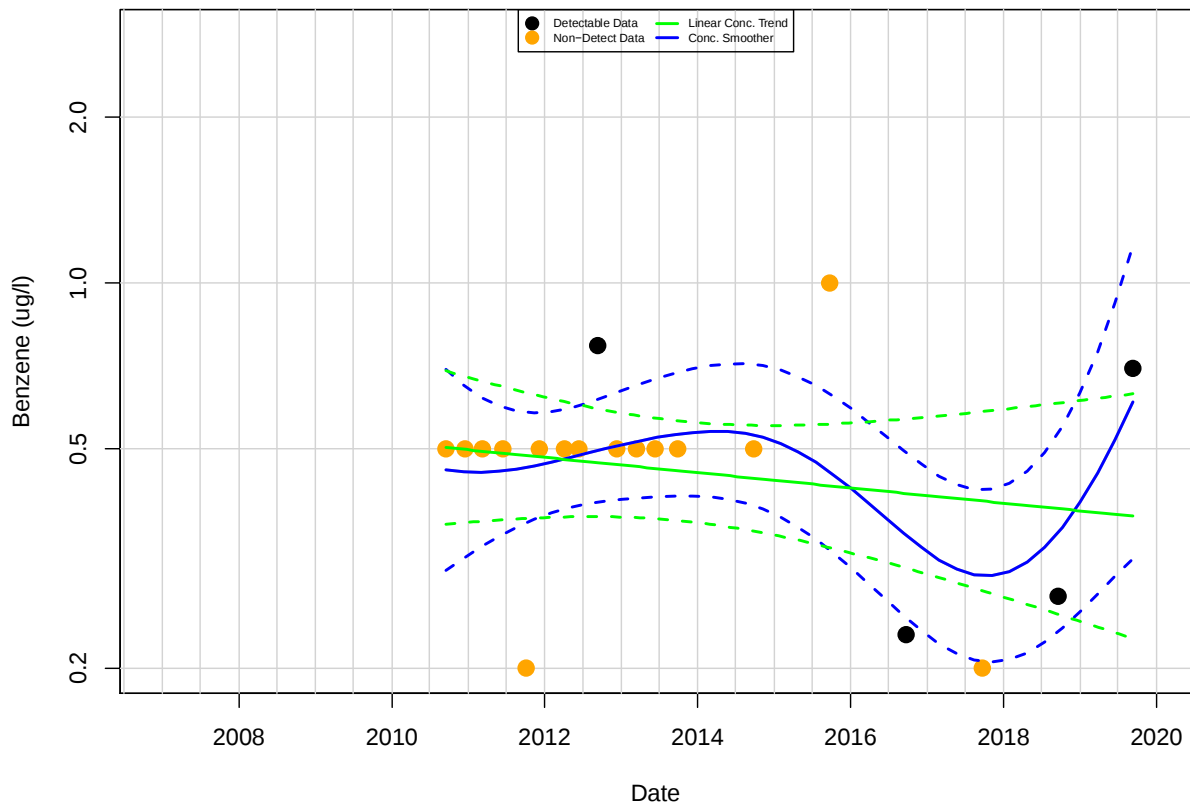
Benzene in G-8 : Aquifer-Blank

Mann-Kendall P.Value= <0.01; Half-Life= 615 days



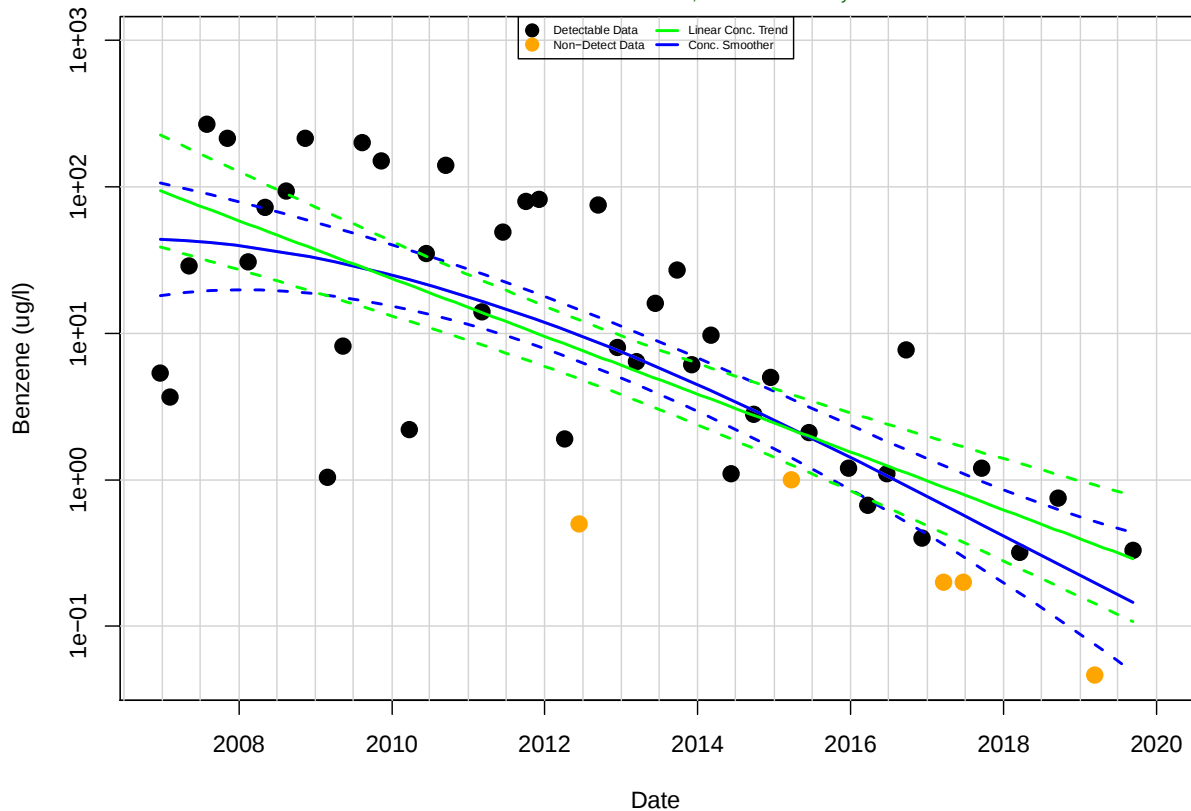
Benzene in G-16 : Aquifer-Blank

Mann-Kendall P.Value= 0.903; Half-Life> 5 Years



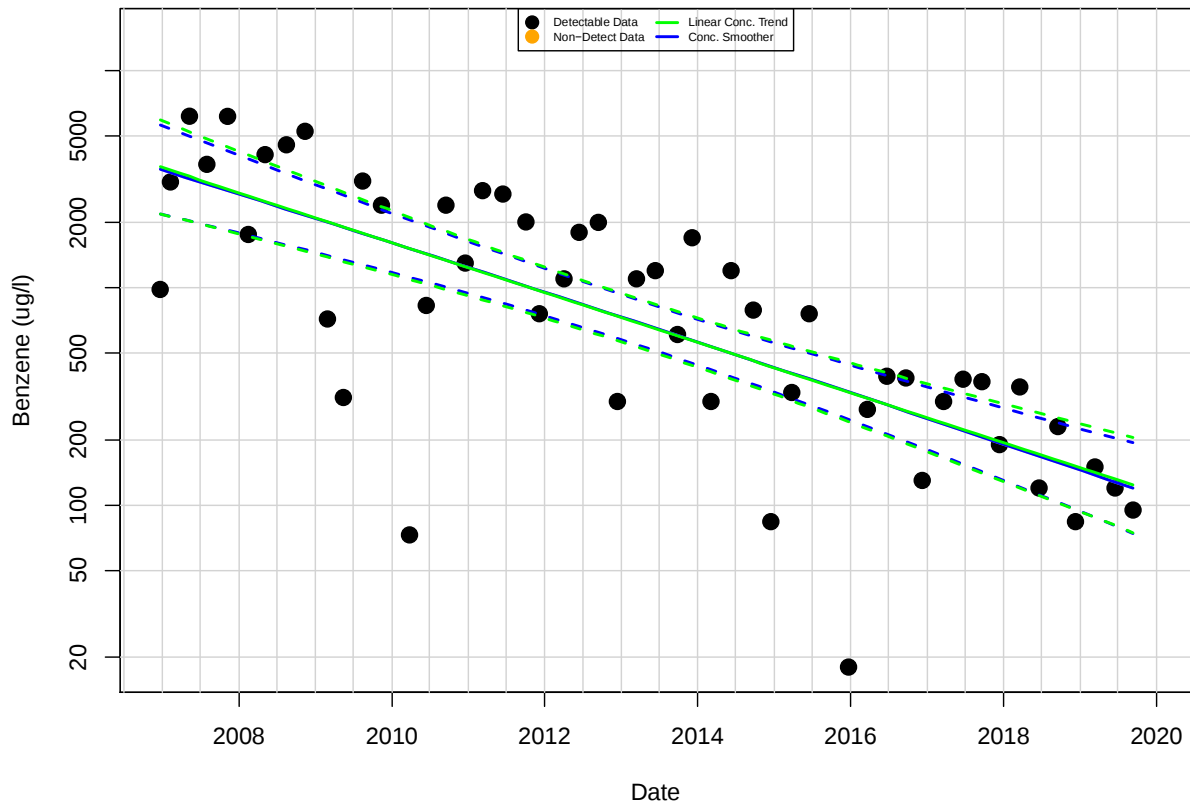
Benzene in G-18 : Aquifer-Blank

Mann-Kendall P.Value= <0.01; Half-Life= 557 days



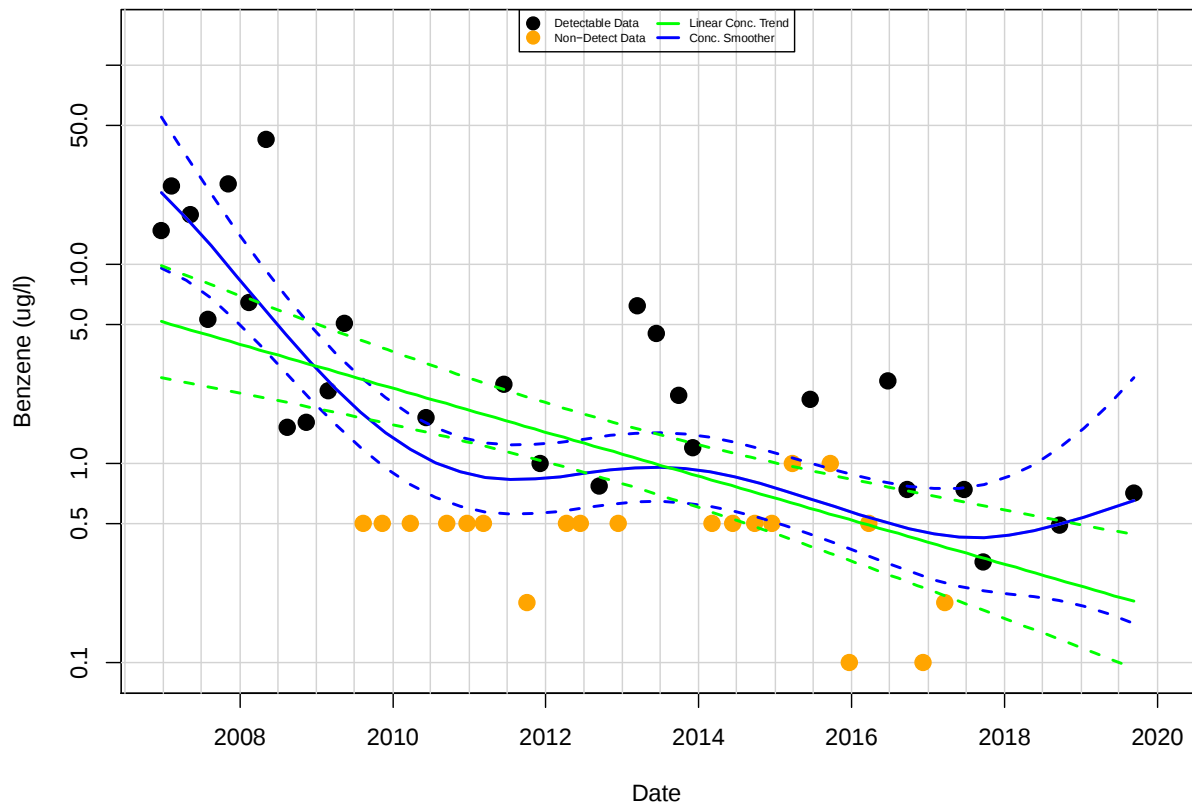
Benzene in HC-111 : Aquifer-Blank

Mann-Kendall P.Value= <0.01; Half-Life= 956 days



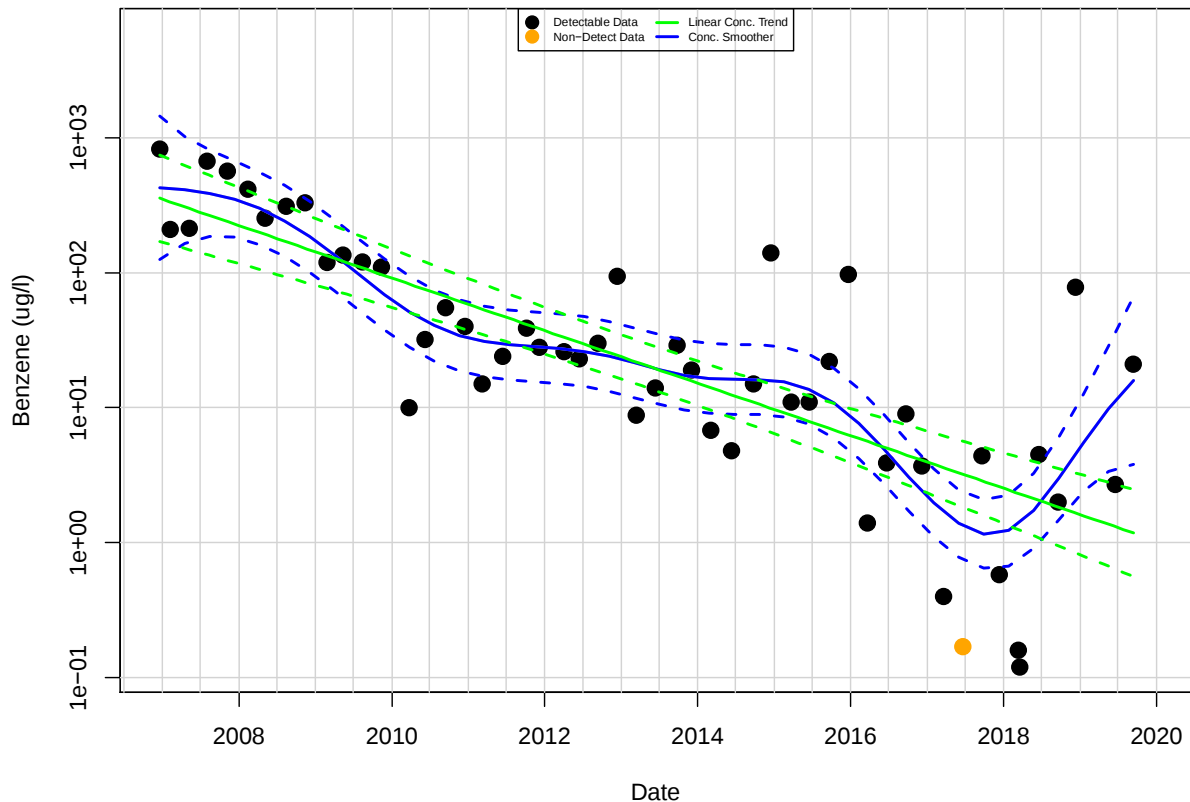
Benzene in RW-2 : Aquifer-Blank

Mann-Kendall P.Value= <0.01; Half-Life= 995 days



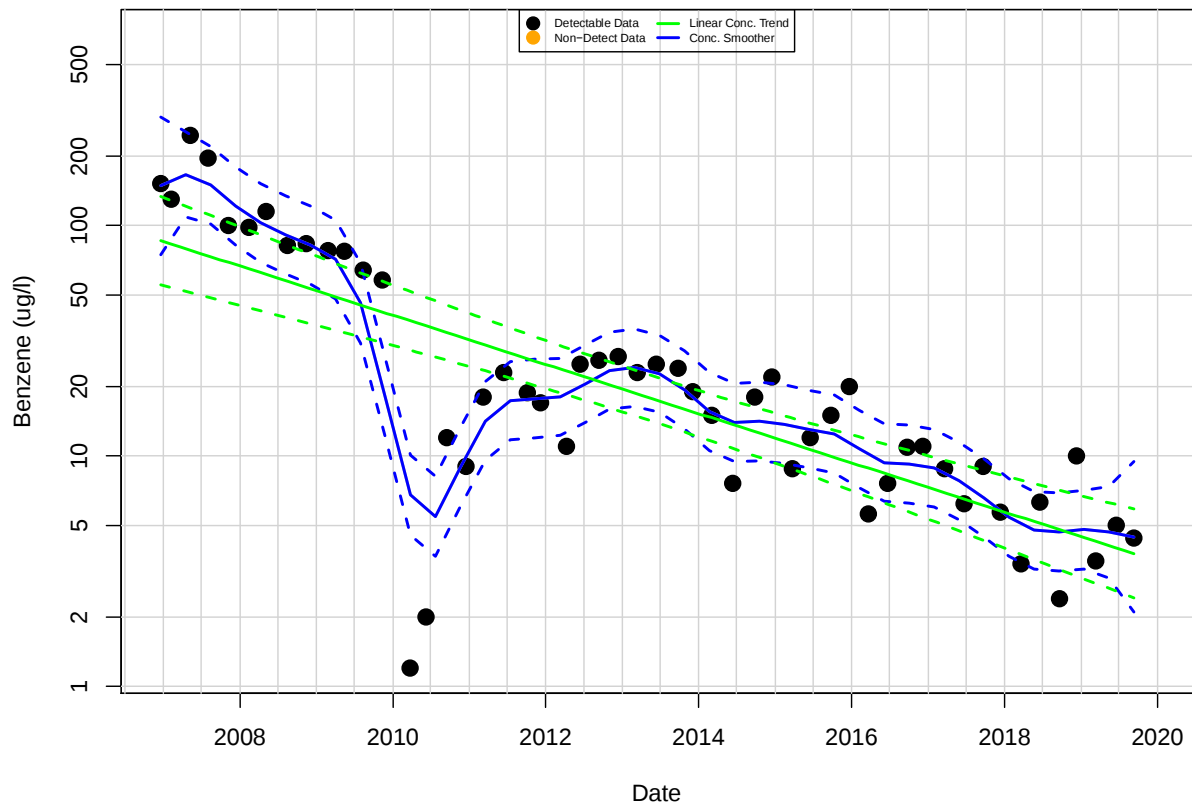
Benzene in RW-5R : Aquifer-Blank

Mann-Kendall P.Value= <0.01; Half-Life= 565 days



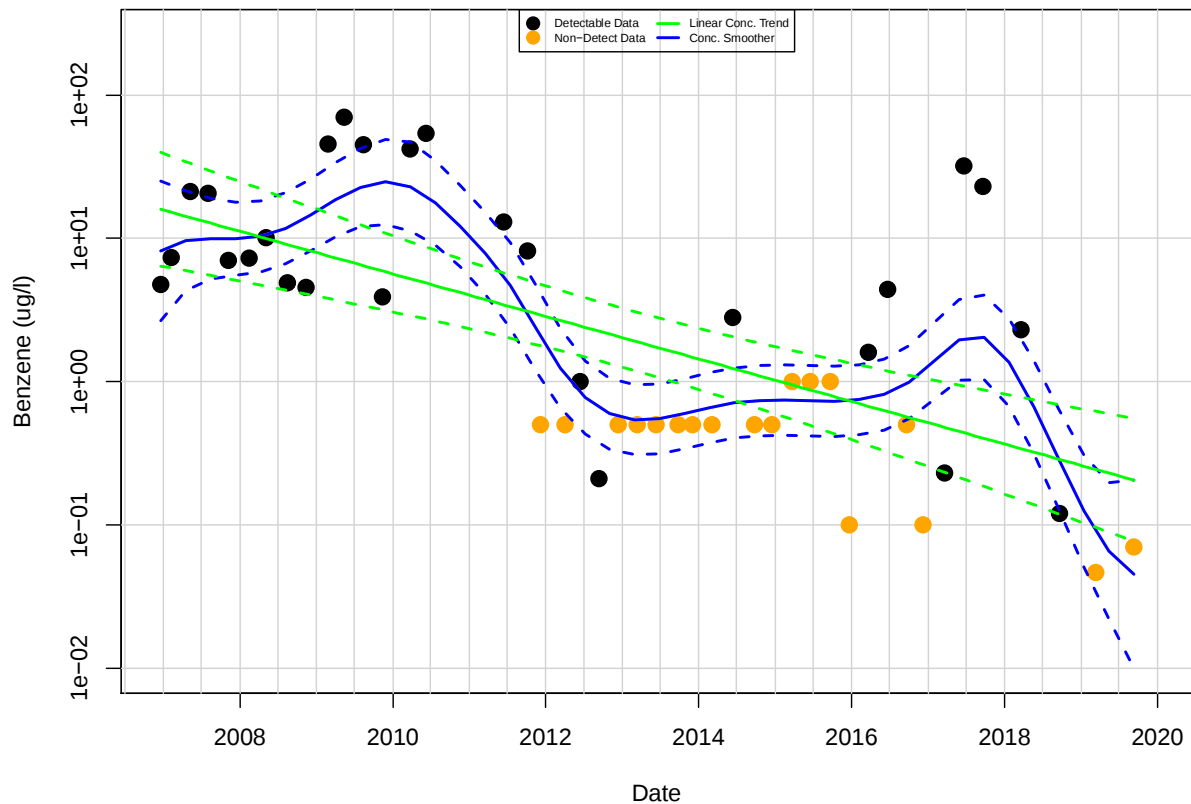
Benzene in RW-8 : Aquifer-Blank

Mann-Kendall P.Value= <0.01; Half-Life= 1030 days



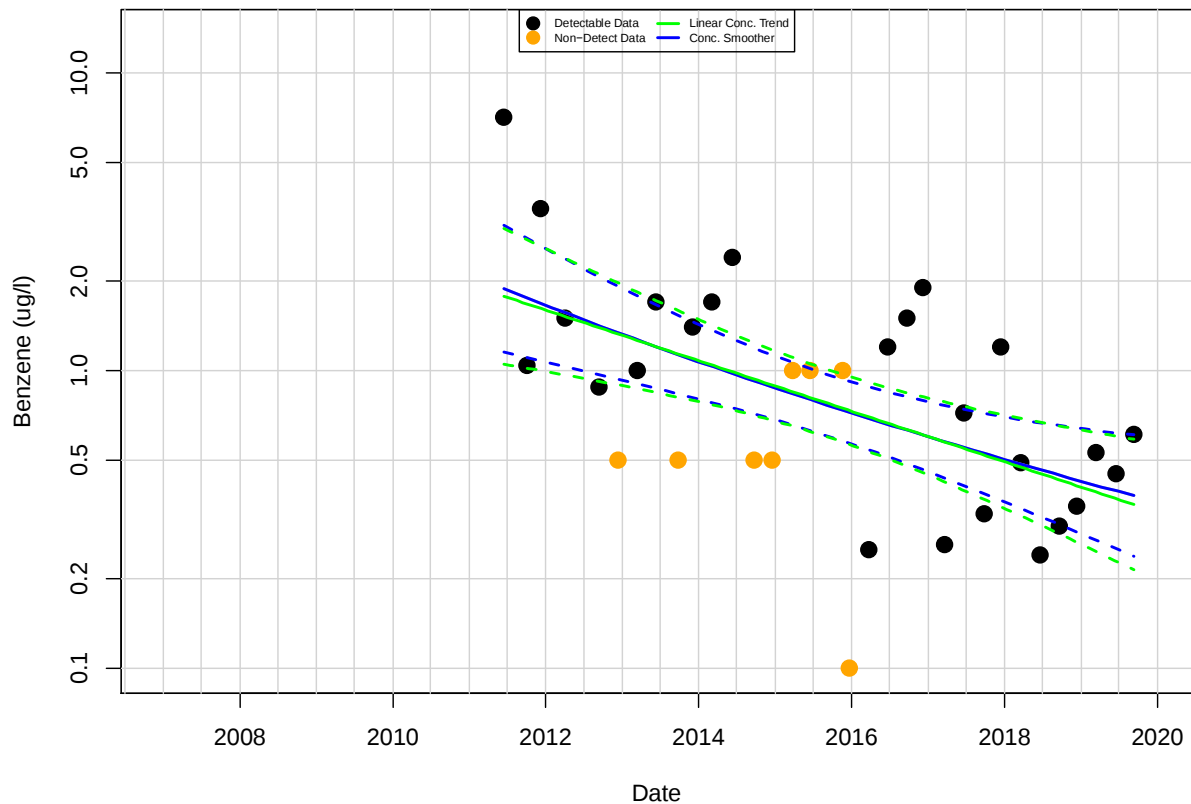
Benzene in T-3 : Aquifer-Blank

Mann-Kendall P.Value= <0.01; Half-Life= 740 days



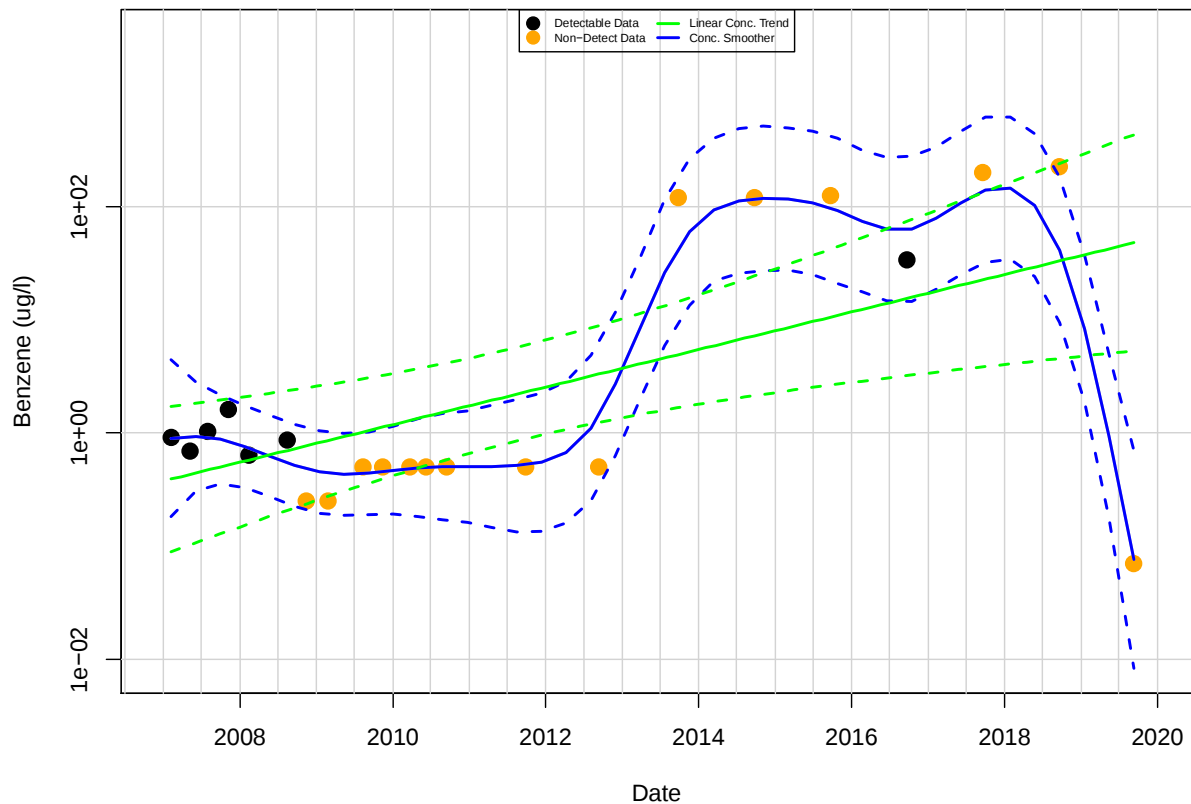
Benzene in E-22 : Aquifer-Blank

Mann-Kendall P.Value= <0.01; Half-Life= 1294 days



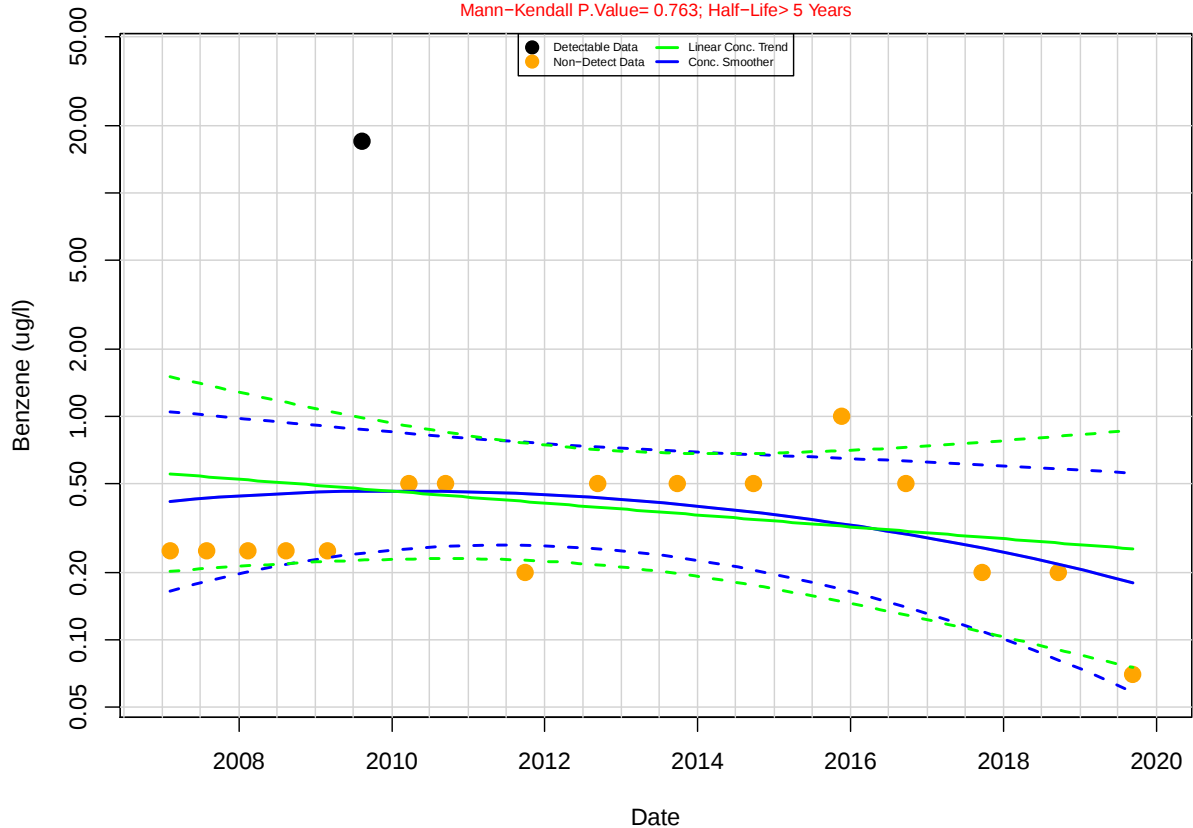
Benzene in FW-3 : Aquifer-Blank

Mann-Kendall P.Value= 0.315; Half-Life= -663 days



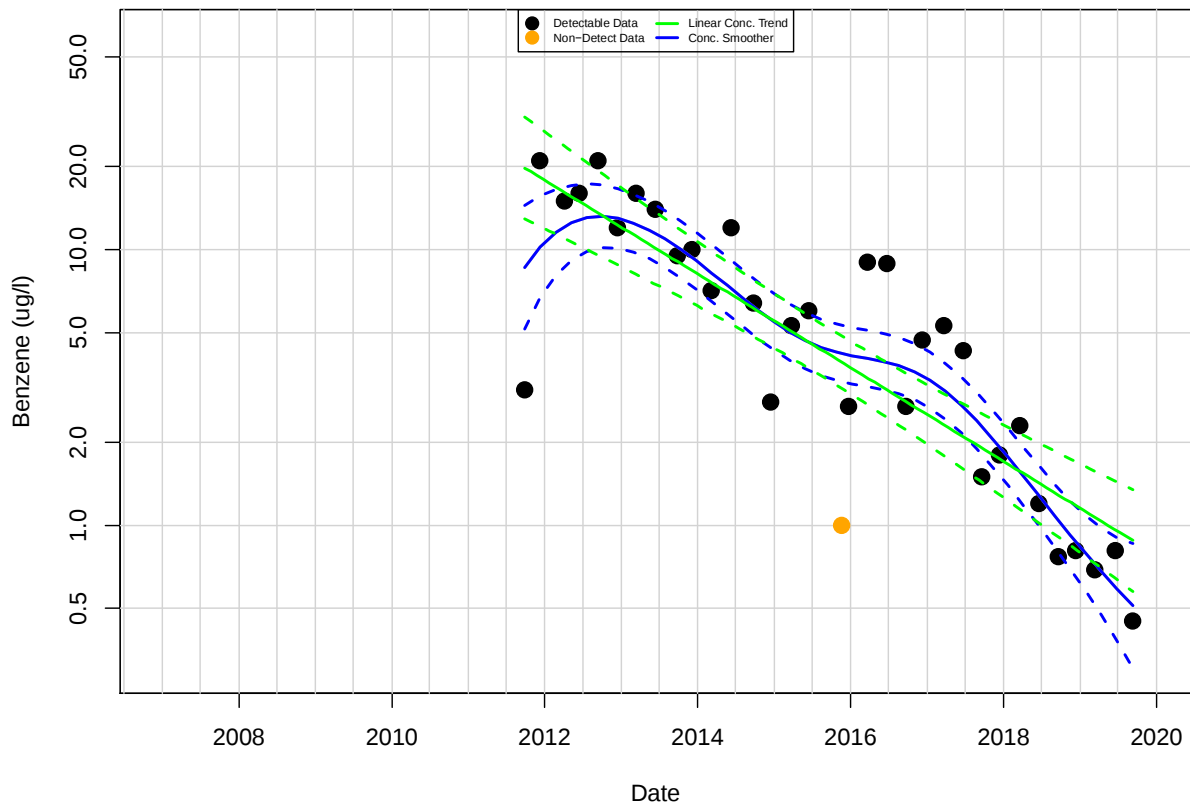
Benzene in FW-4 : Aquifer-Blank

Mann-Kendall P.Value= 0.763; Half-Life> 5 Years

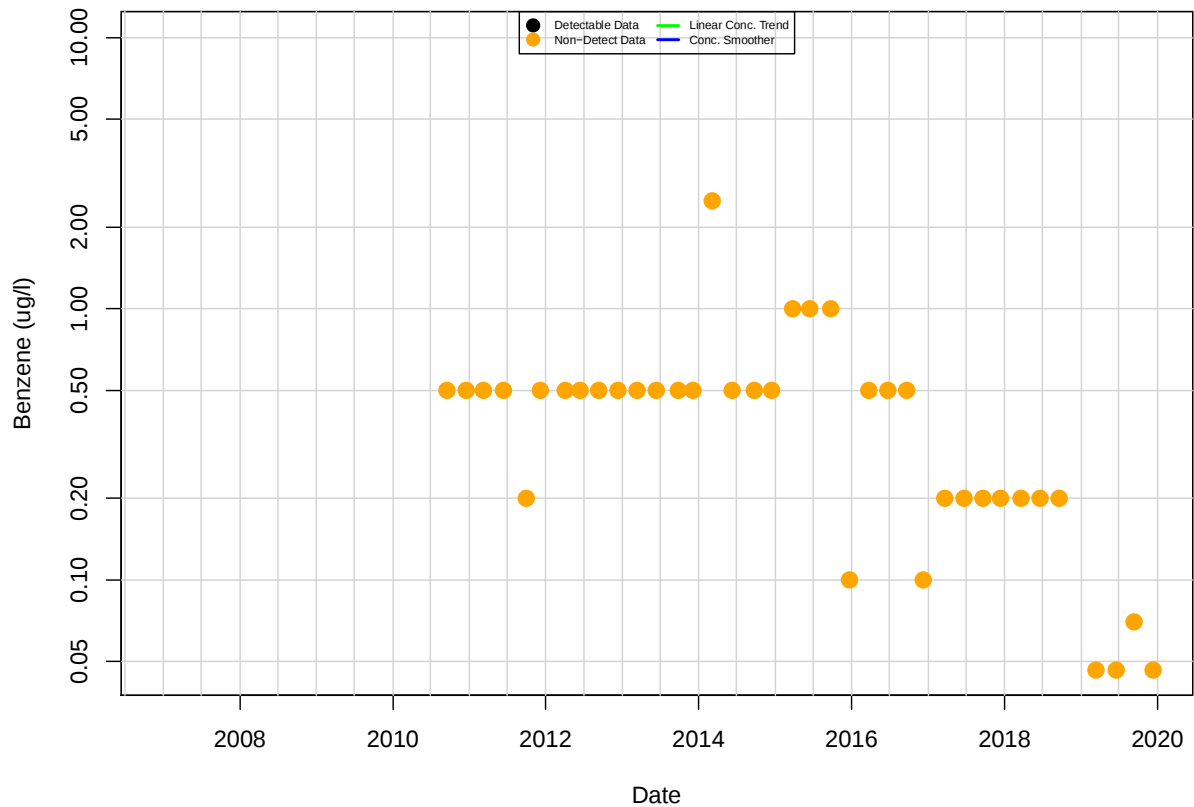


Benzene in FW-5R : Aquifer-Blank

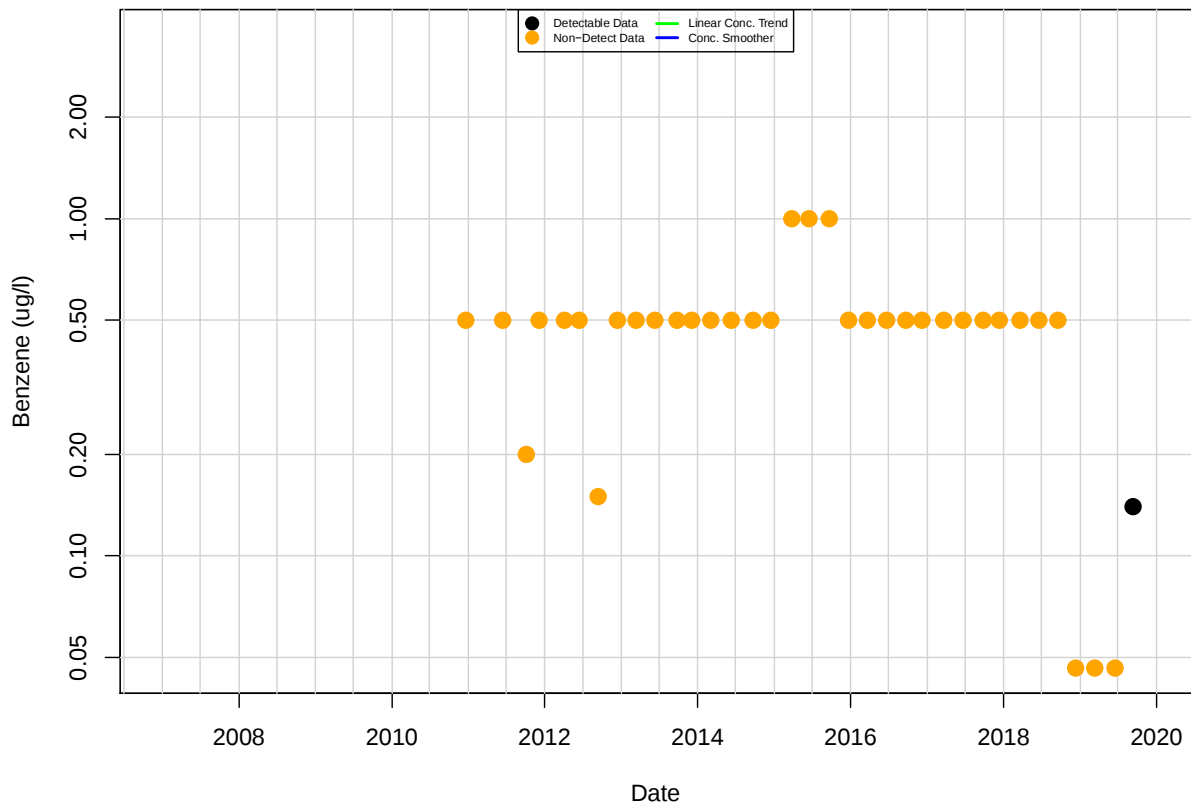
Mann-Kendall P.Value= <0.01; Half-Life= 647 days



Benzene in FW-14 : Aquifer-Blank

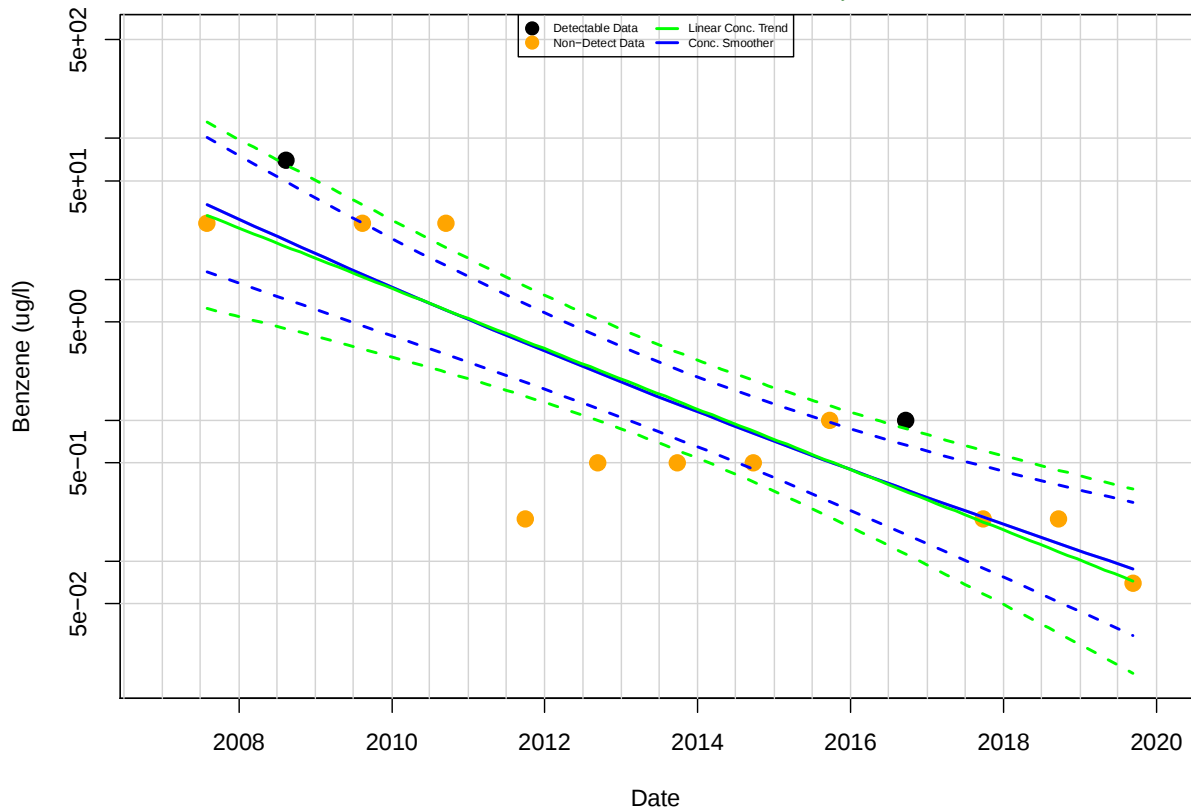


Benzene in T-2 : Aquifer-Blank

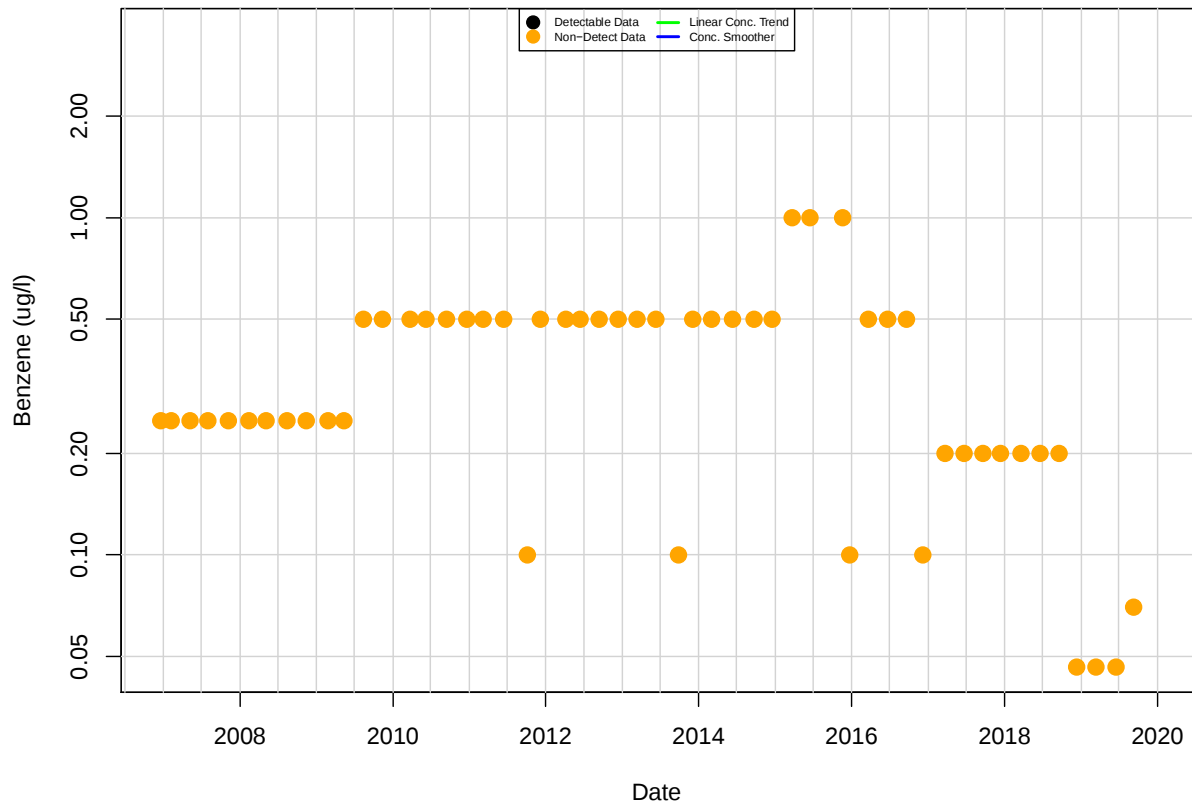


Benzene in FW-15 : Aquifer-Blank

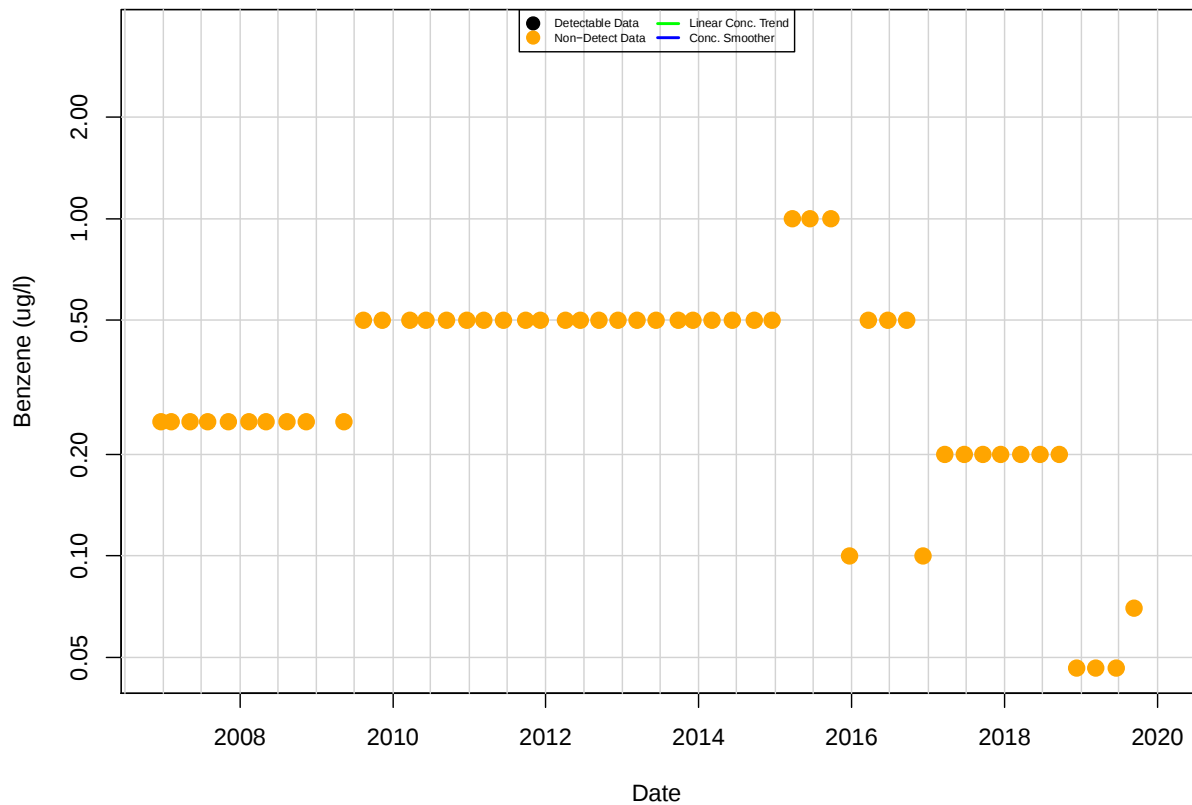
Mann-Kendall P.Value= <0.01; Half-Life= 513 days



Benzene in RR-1 : Aquifer-Blank

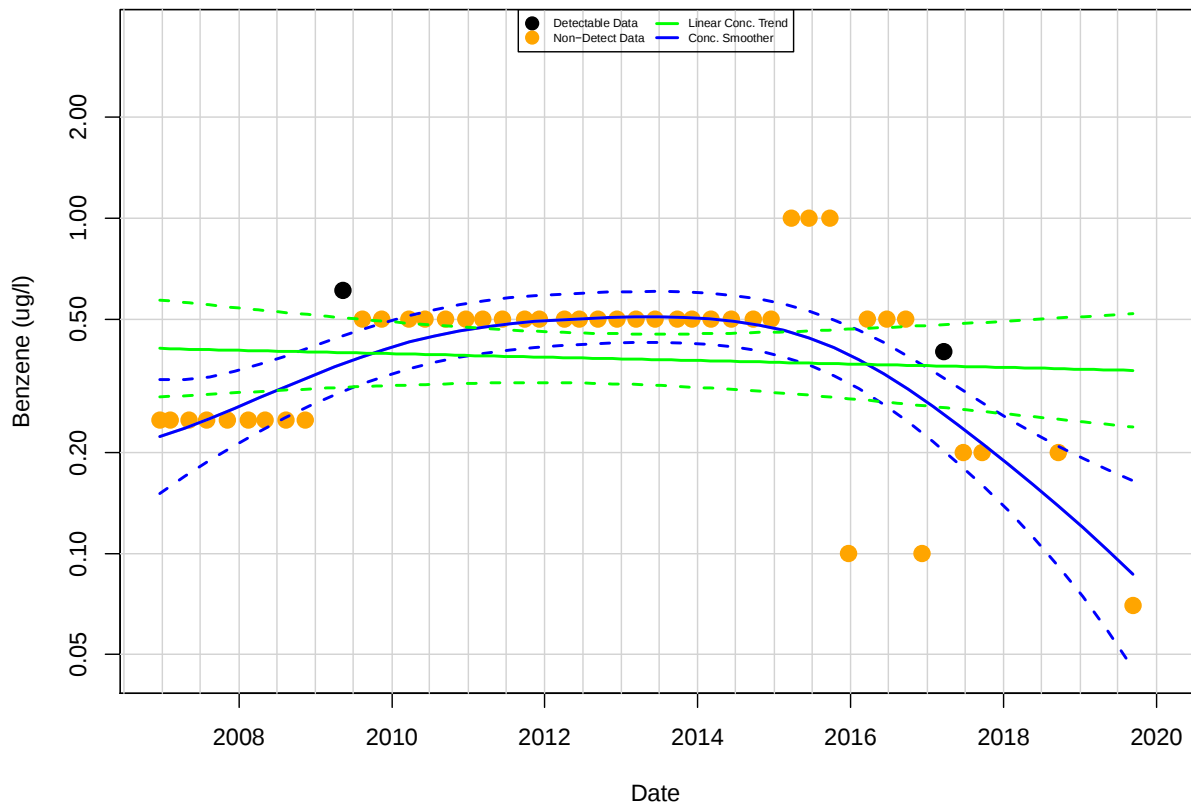


Benzene in RR-2 : Aquifer-Blank

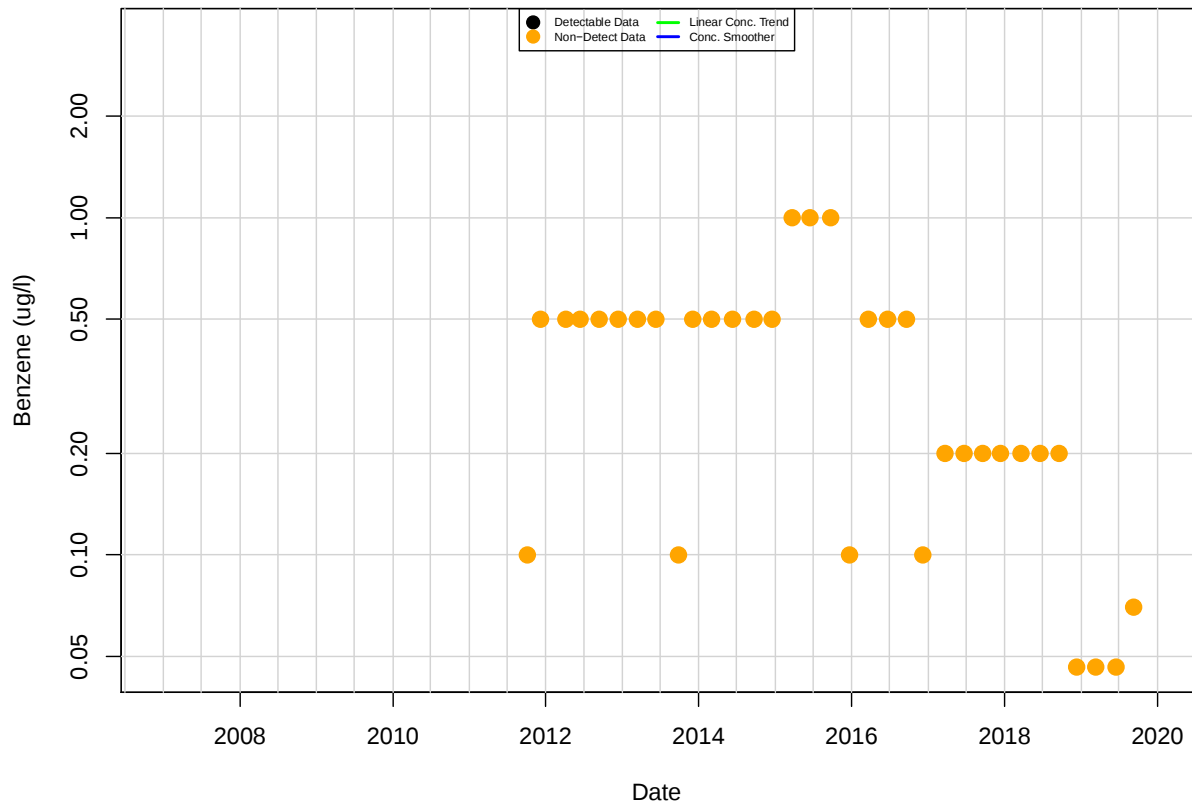


Benzene in RR-3 : Aquifer-Blank

Mann-Kendall P.Value= 0.573; Half-Life> 5 Years

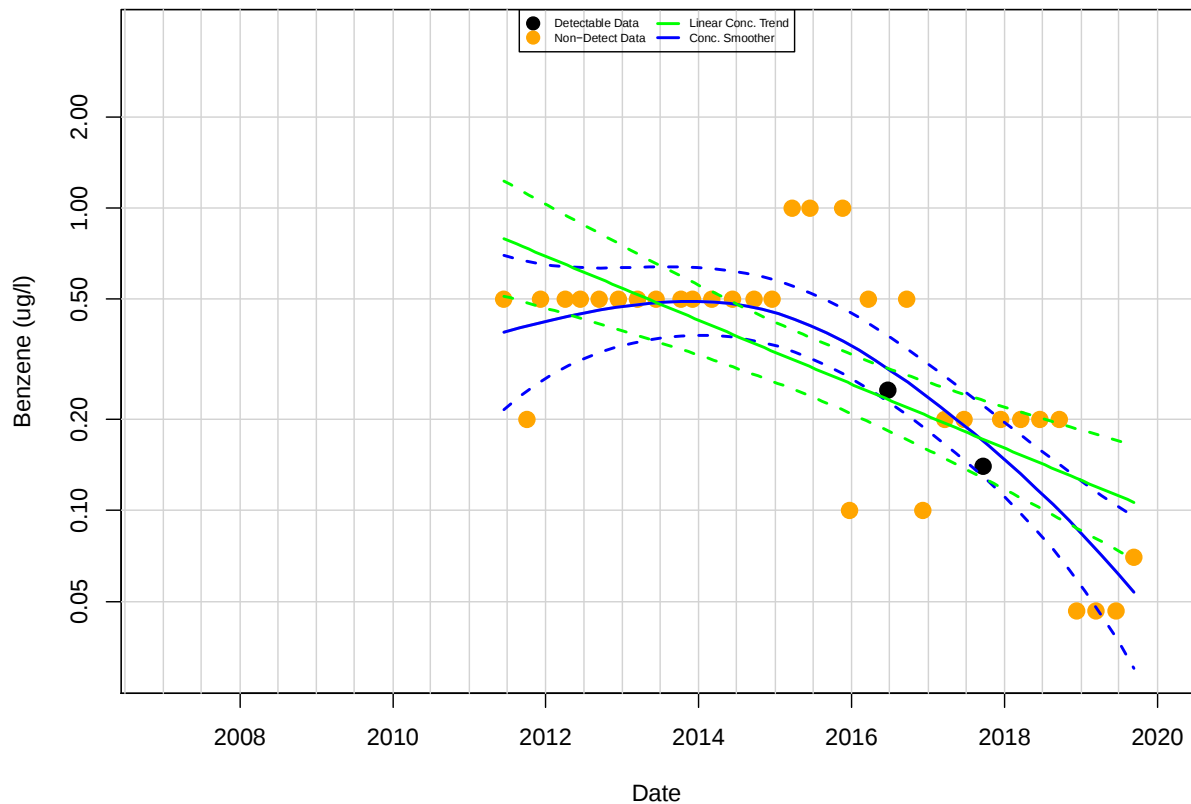


Benzene in RR-4 : Aquifer-Blank

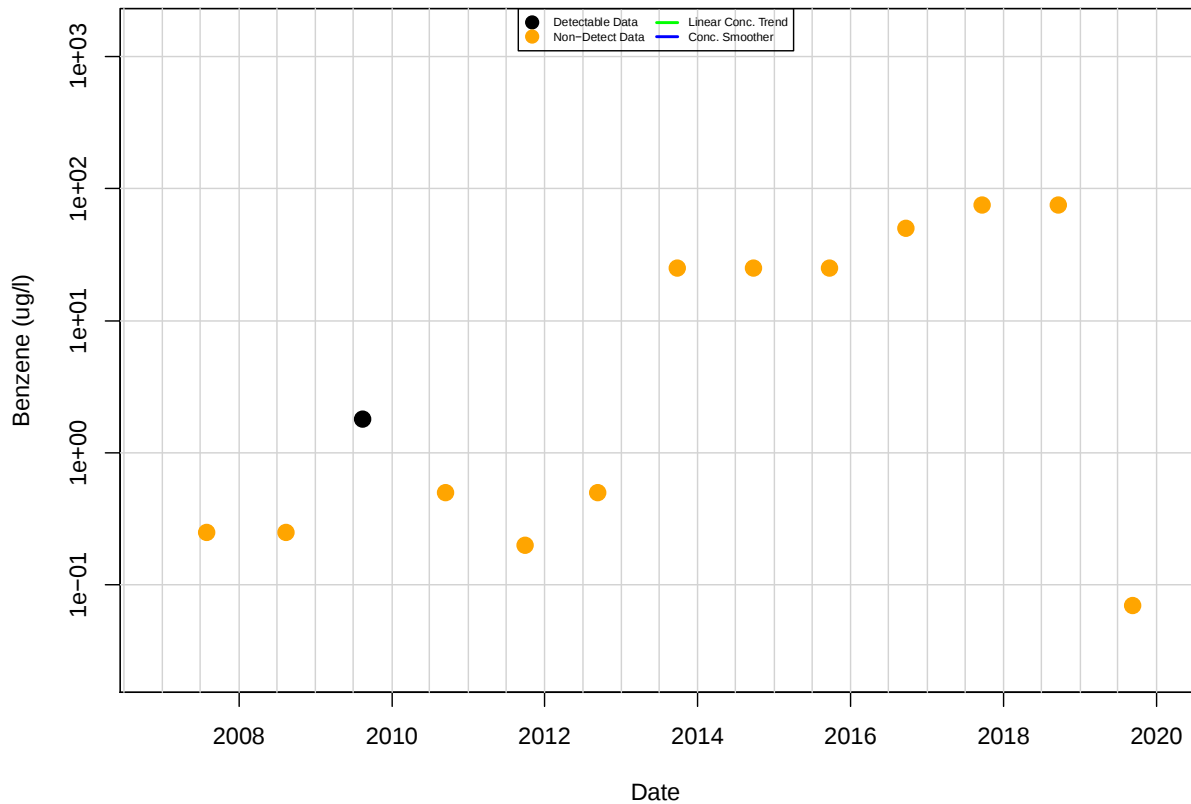


Benzene in RR-5 : Aquifer-Blank

Mann-Kendall P.Value= <0.01; Half-Life= 1039 days

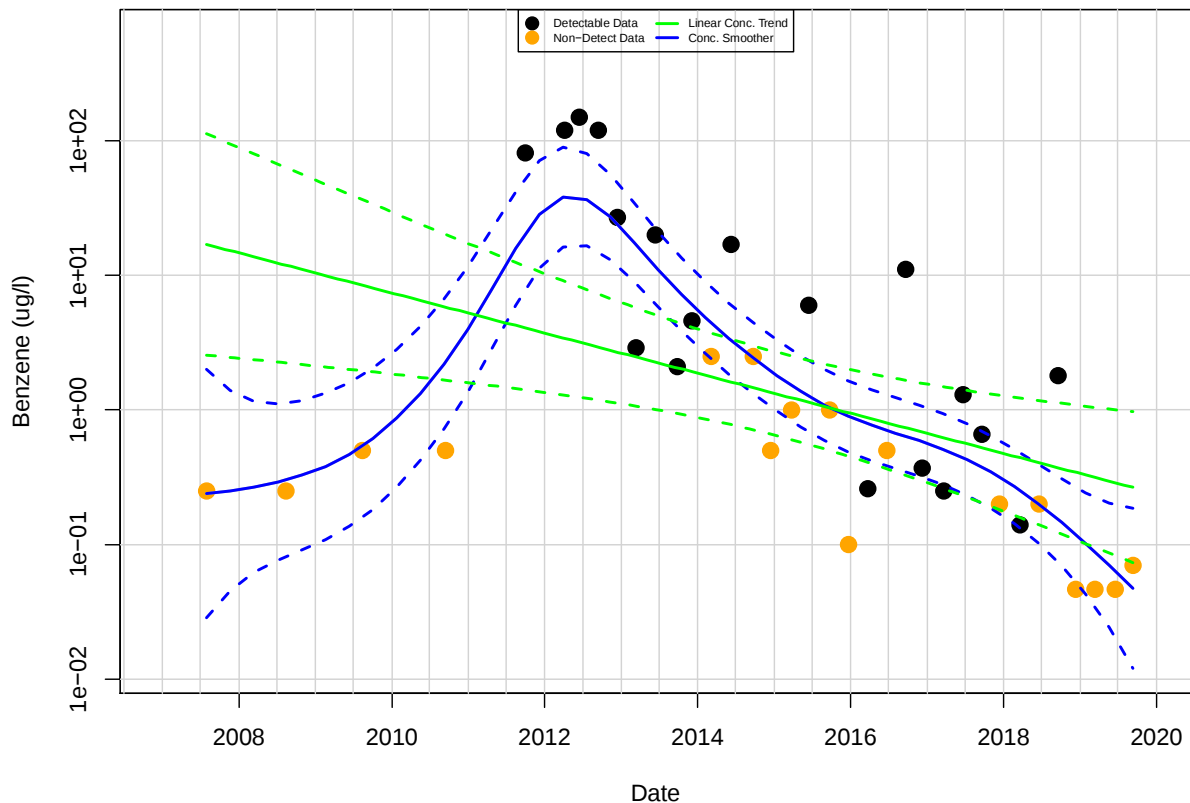


Benzene in DMW-1 : Aquifer-Blank



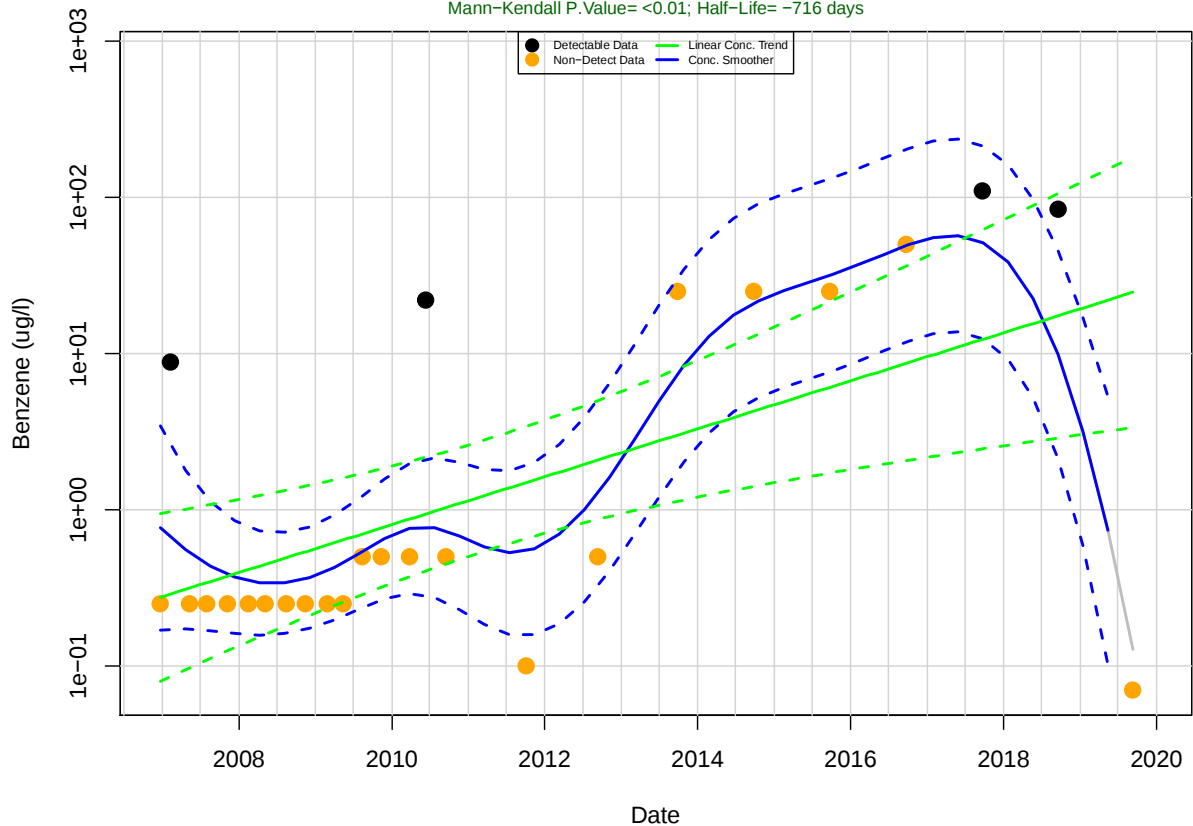
Benzene in DMW-2 : Aquifer-Blank

Mann-Kendall P.Value= <0.01; Half-Life= 738 days



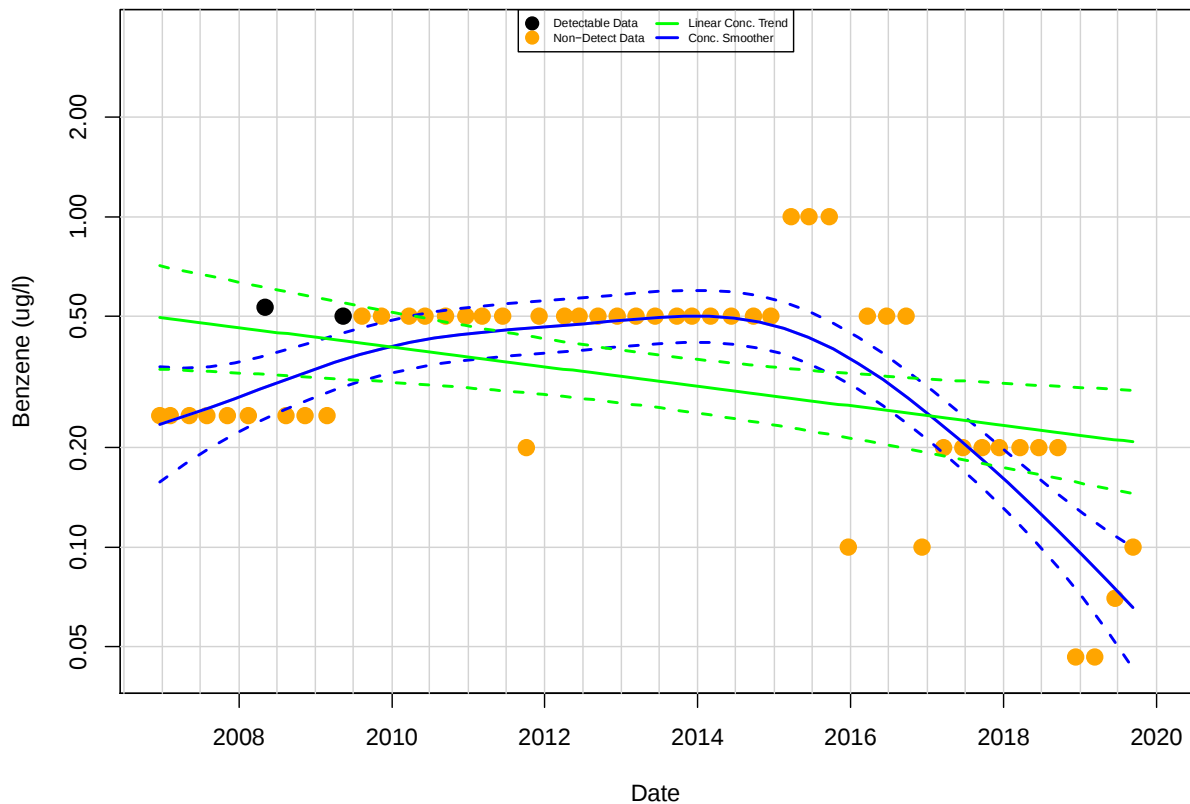
Benzene in DMW-3 : Aquifer-Blank

Mann-Kendall P.Value= <0.01; Half-Life= -716 days



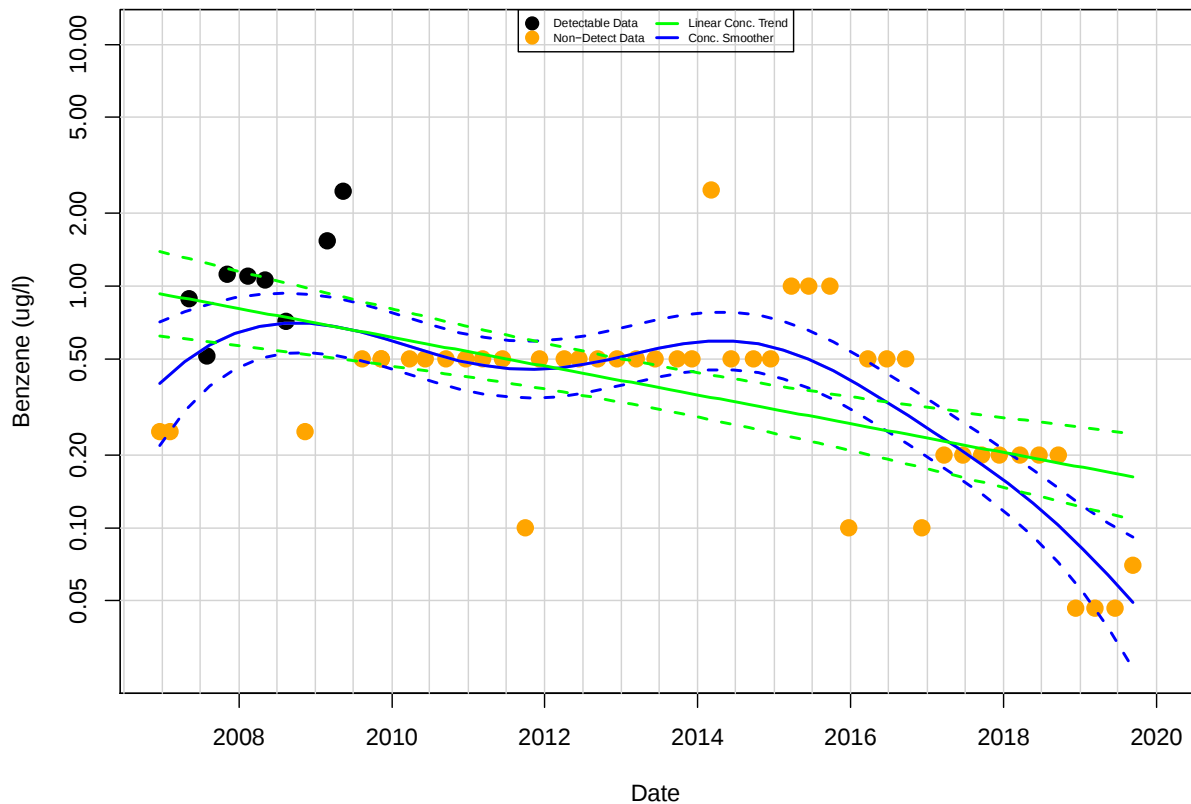
Benzene in DMW-4 : Aquifer-Blank

Mann-Kendall P.Value= 0.066; Half-Life> 5 Years



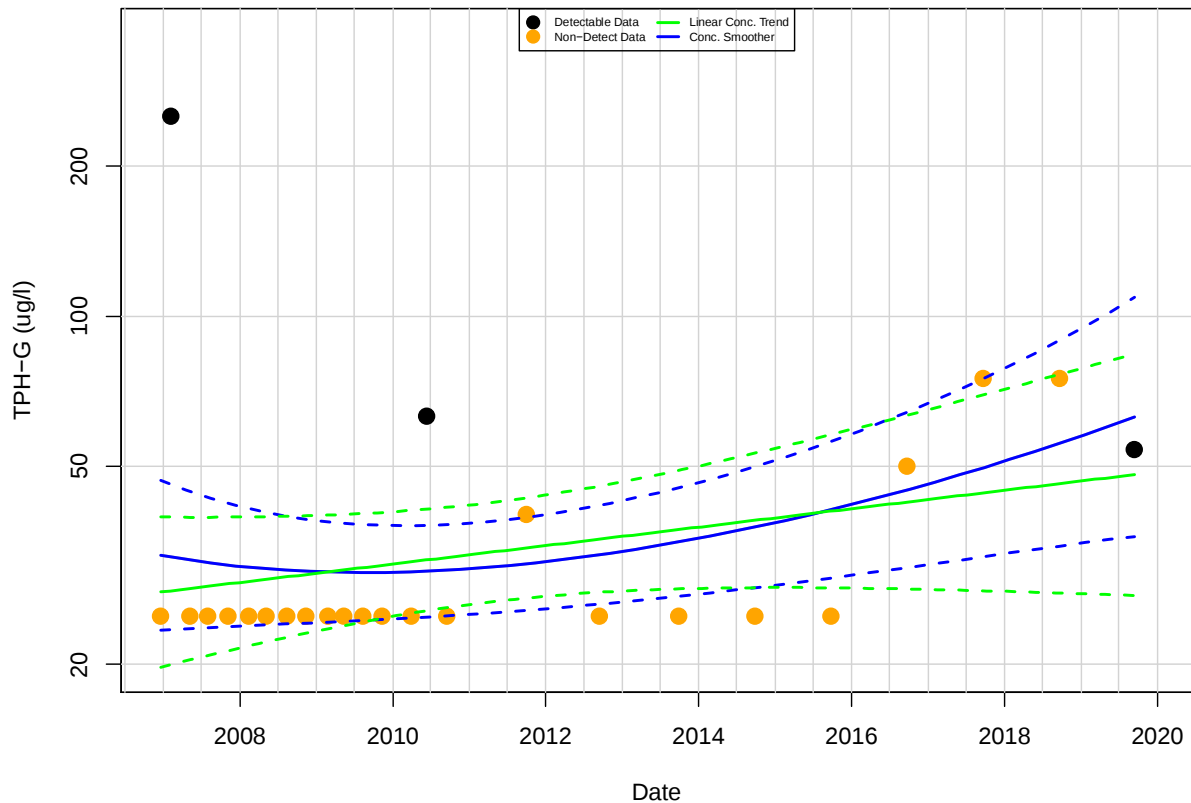
Benzene in FW-13 : Aquifer-Blank

Mann-Kendall P.Value= <0.01; Half-Life> 5 Years



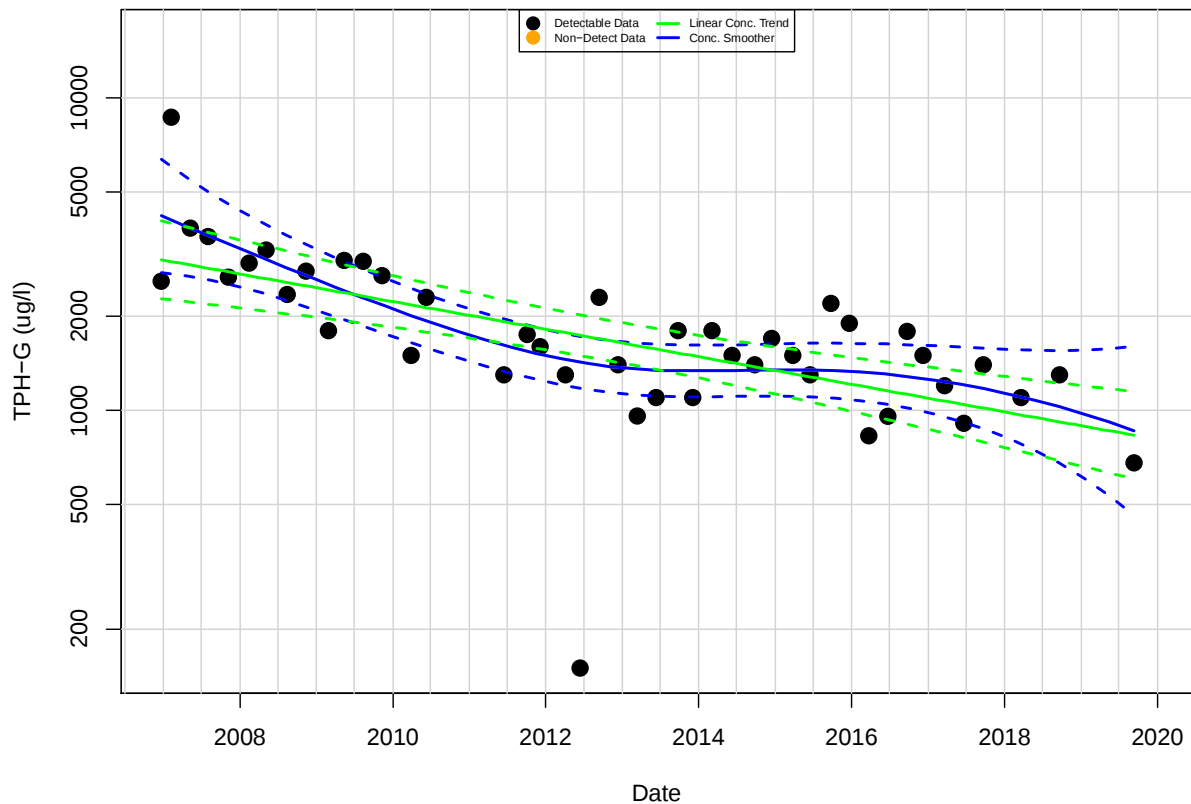
TPH-G in B-17B : Aquifer-Blank

Mann-Kendall P.Value= 0.0351; Half-Life> -5 Years



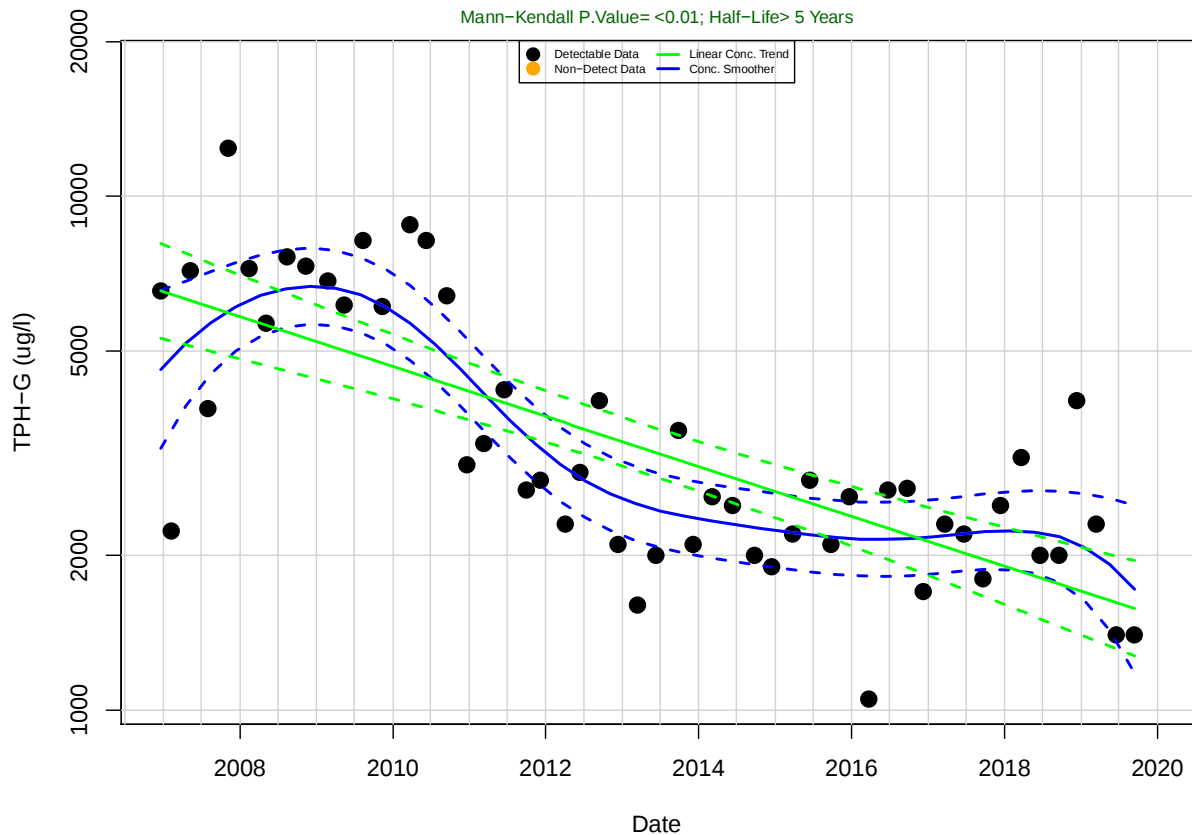
TPH-G in B-19 : Aquifer-Blank

Mann-Kendall P.Value= <0.01; Half-Life> 5 Years

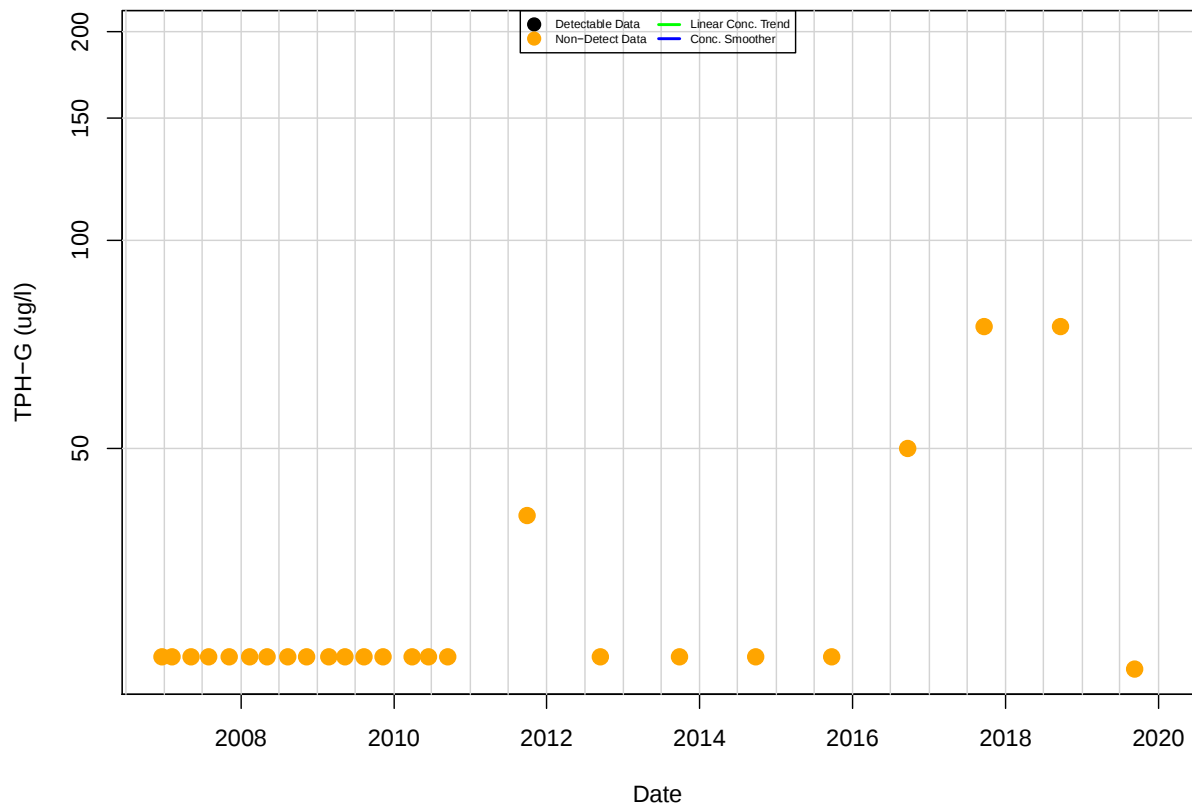


TPH-G in B-25 : Aquifer-Blank

Mann-Kendall P.Value= <0.01; Half-Life> 5 Years

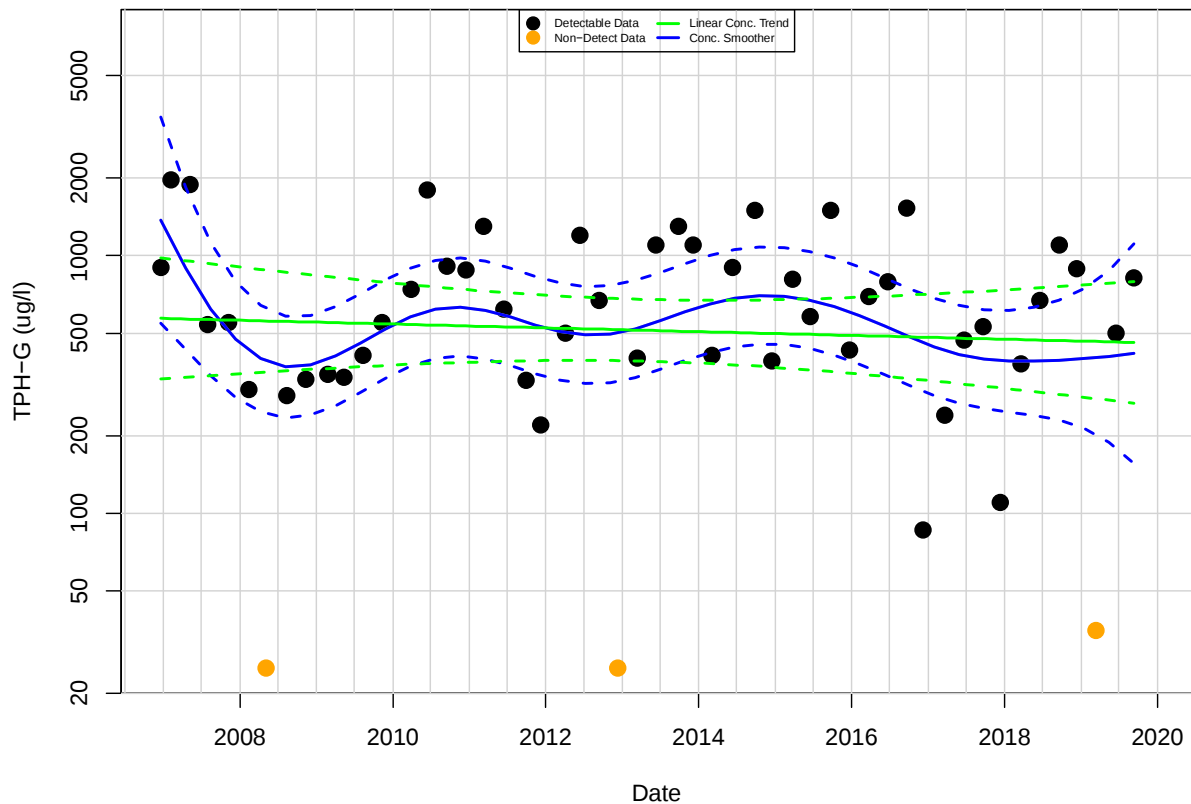


TPH-G in B-30 : Aquifer-Blank



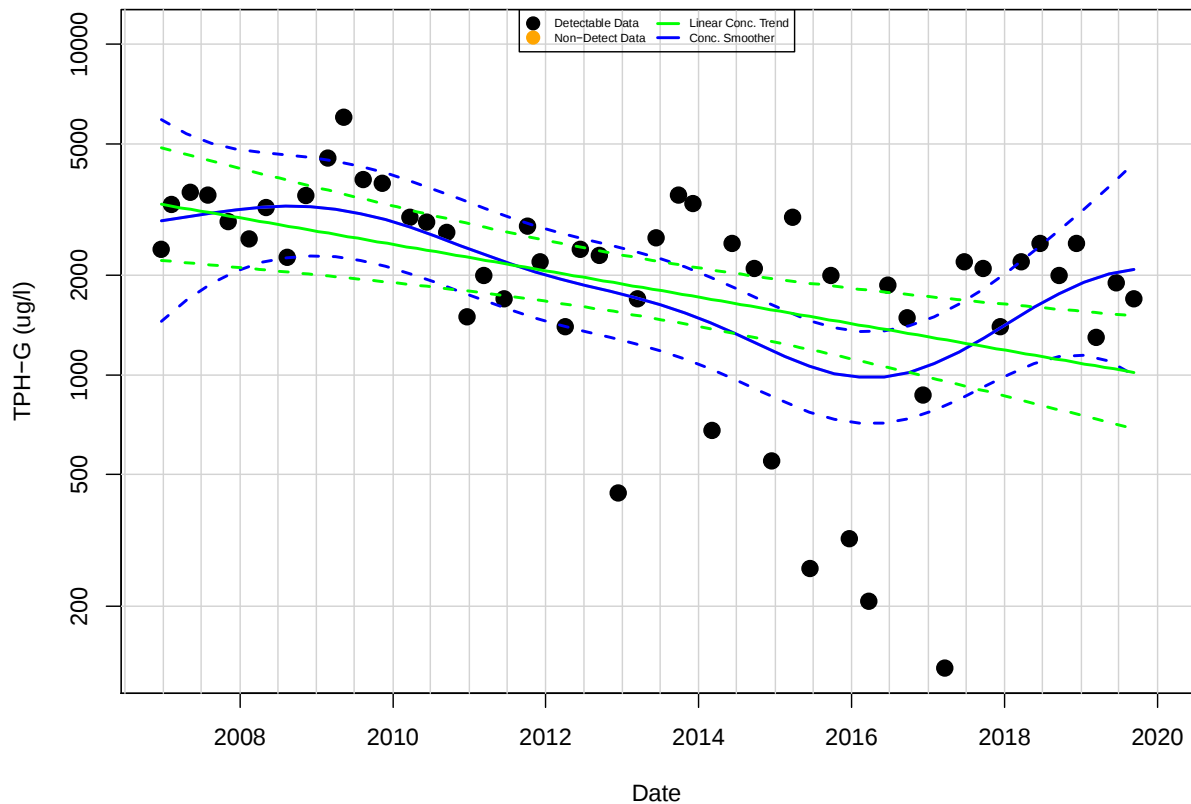
TPH-G in B-31 : Aquifer-Blank

Mann-Kendall P.Value= 0.925; Half-Life> 5 Years



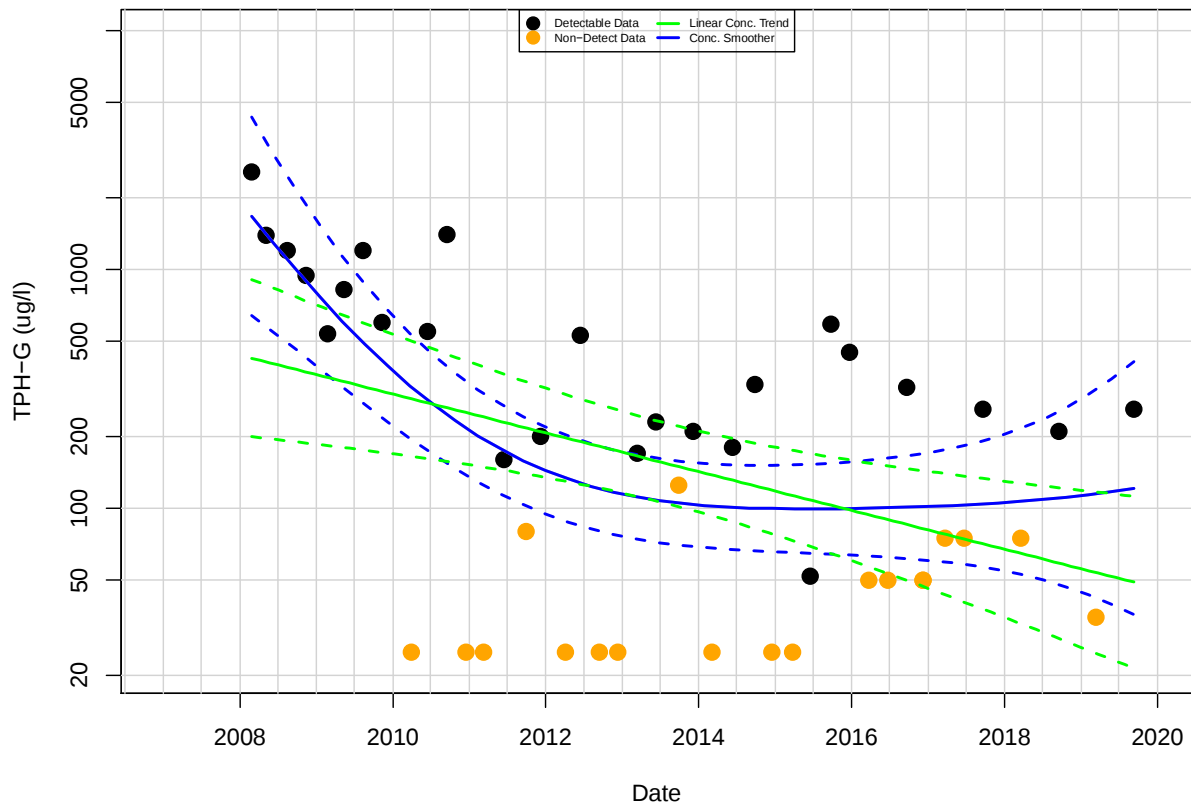
TPH-G in B-34 : Aquifer-Blank

Mann-Kendall P.Value= <0.01; Half-Life> 5 Years



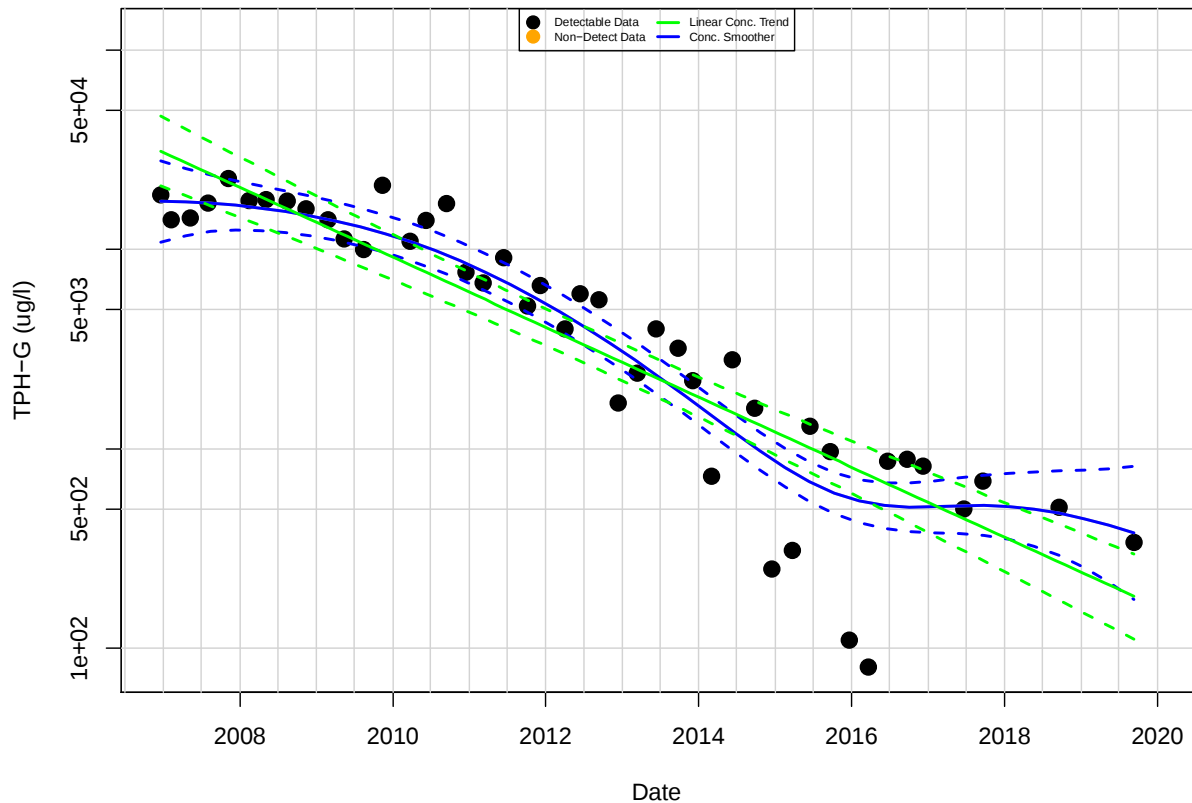
TPH-G in E-21 : Aquifer-Blank

Mann-Kendall P.Value= 0.0135; Half-Life= 1353 days



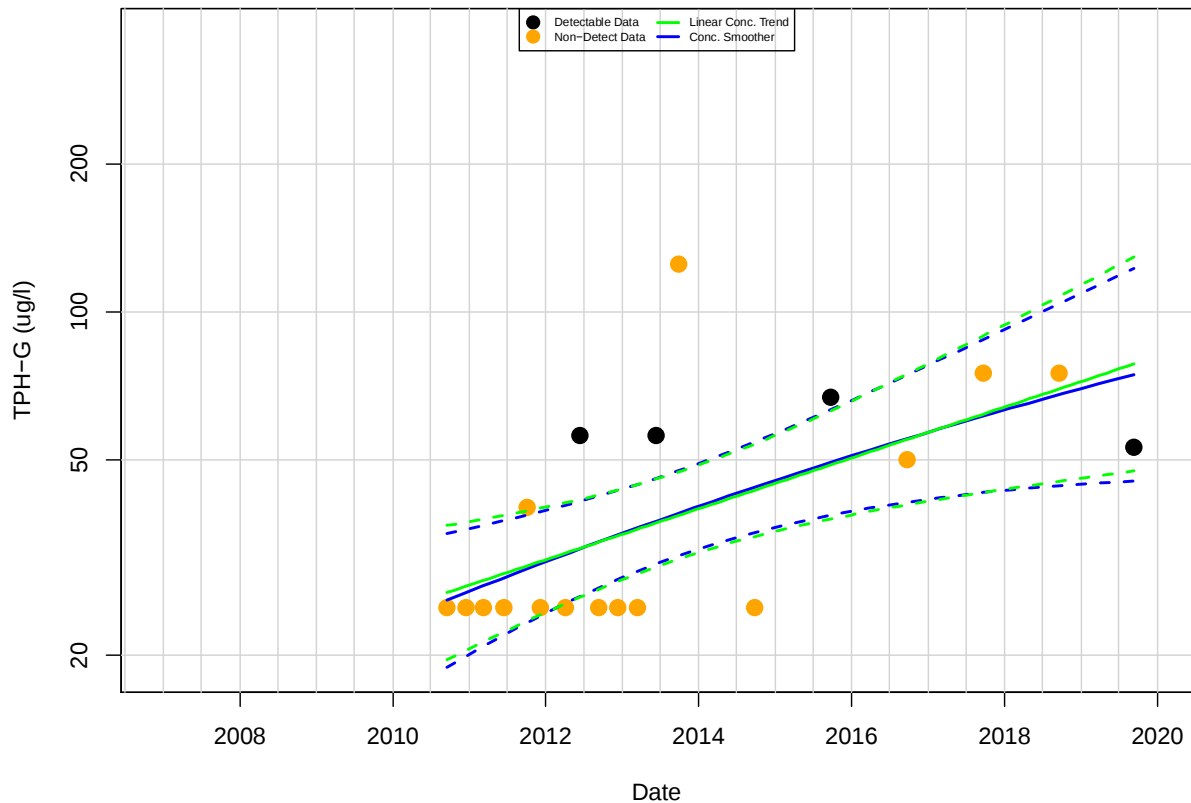
TPH-G in G-8 : Aquifer-Blank

Mann-Kendall P.Value= <0.01; Half-Life= 627 days



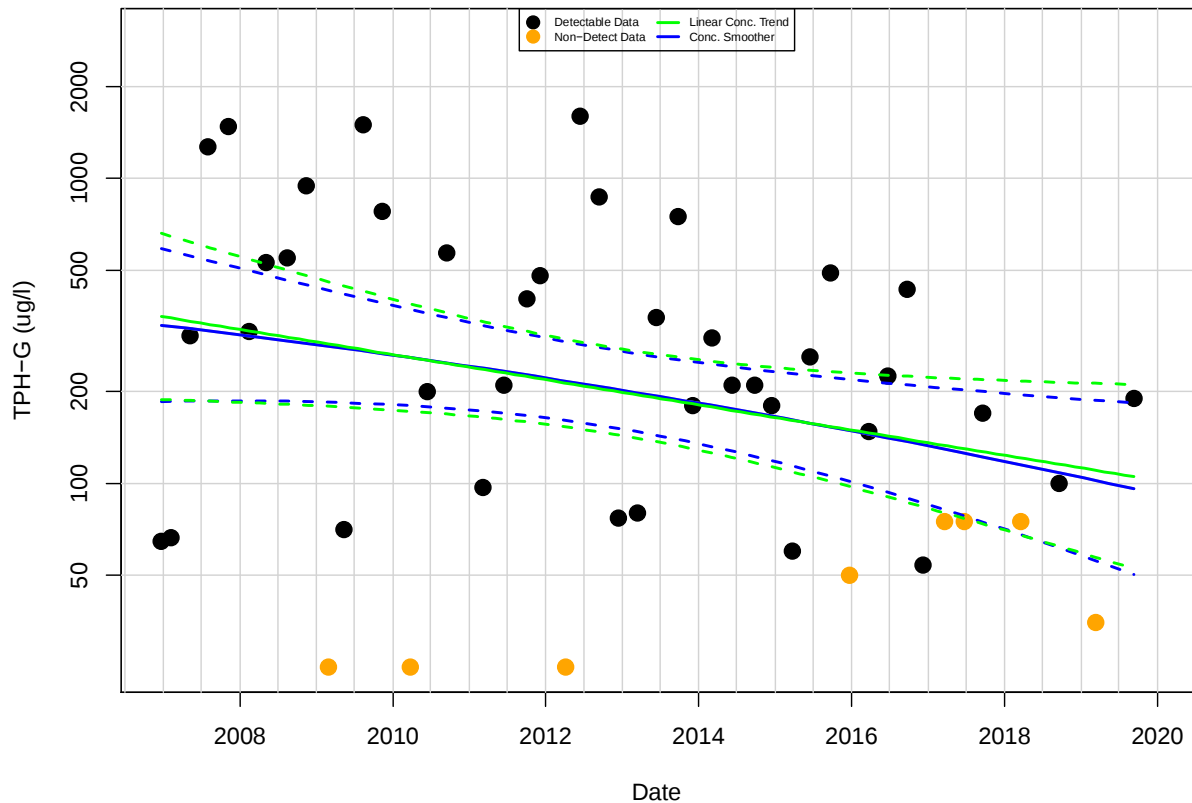
TPH-G in G-16 : Aquifer-Blank

Mann-Kendall P.Value= <0.01; Half-Life> -5 Years



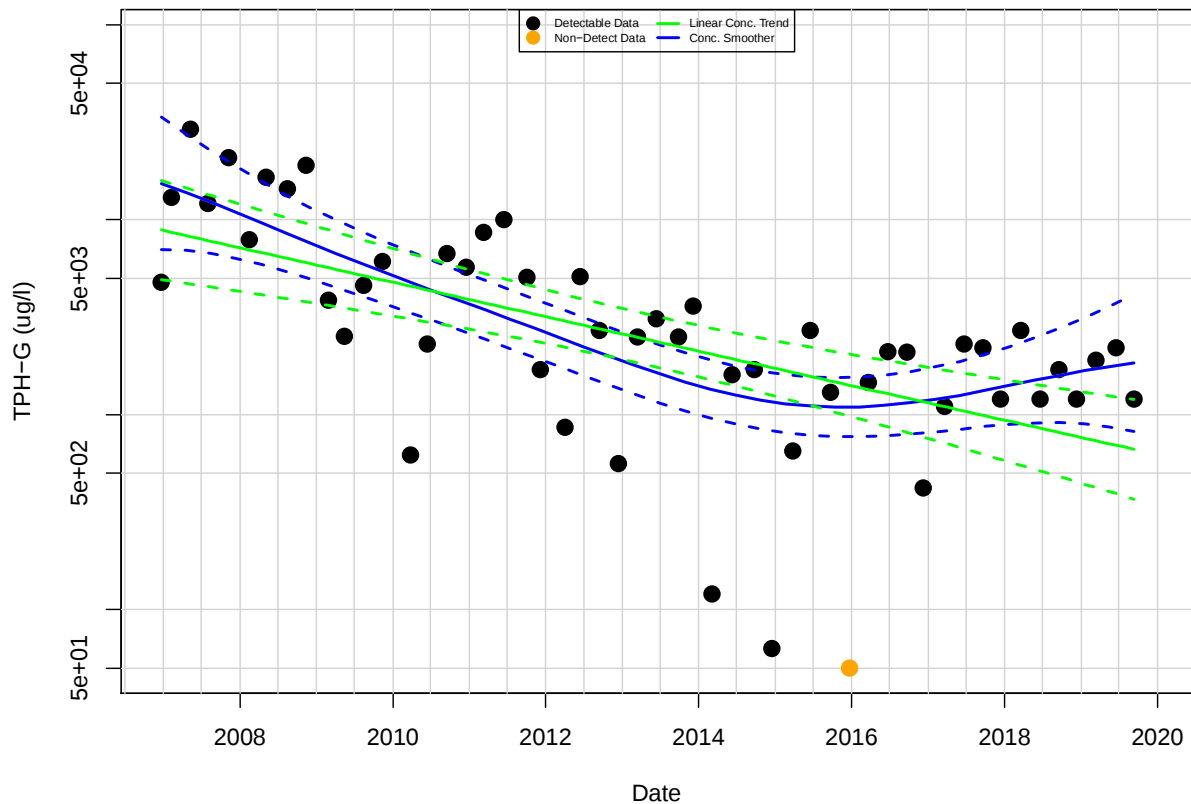
TPH-G in G-18 : Aquifer-Blank

Mann-Kendall P.Value= 0.0304; Half-Life> 5 Years



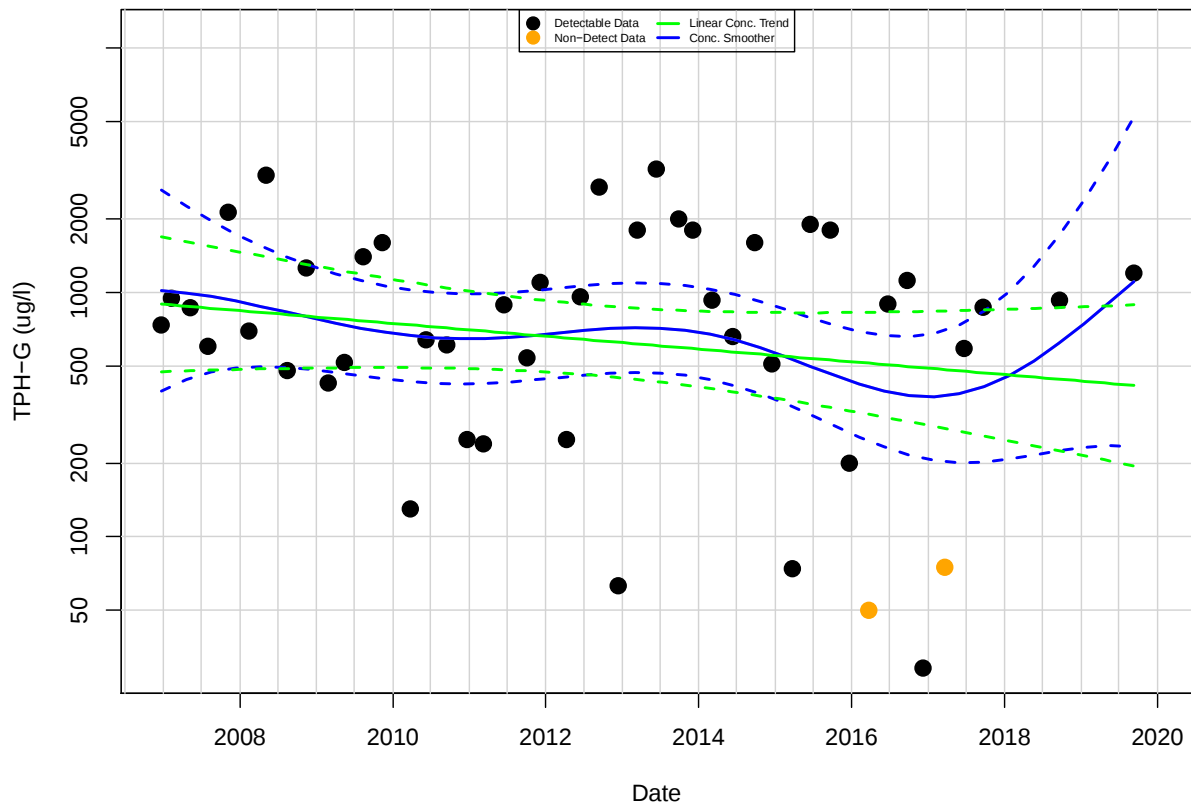
TPH-G in HC-111 : Aquifer-Blank

Mann-Kendall P.Value= <0.01; Half-Life= 1243 days



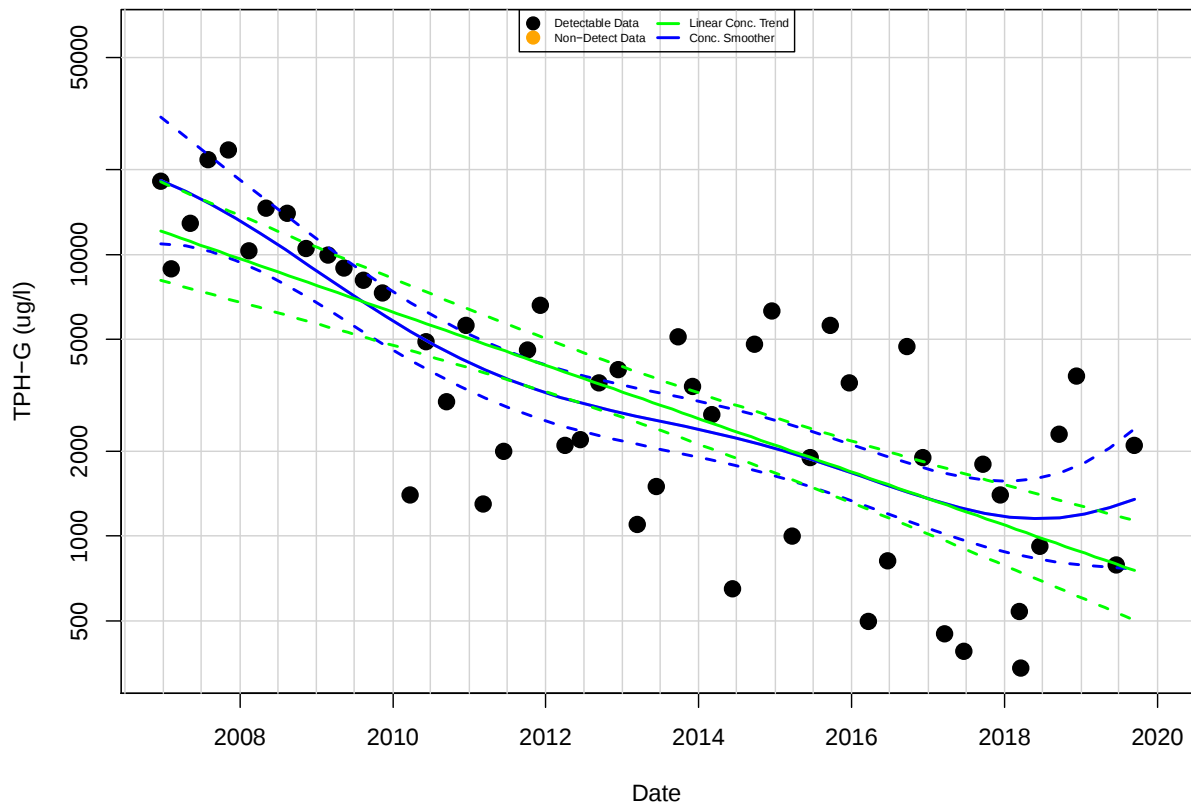
TPH-G in RW-2 : Aquifer-Blank

Mann-Kendall P.Value= 0.557; Half-Life> 5 Years



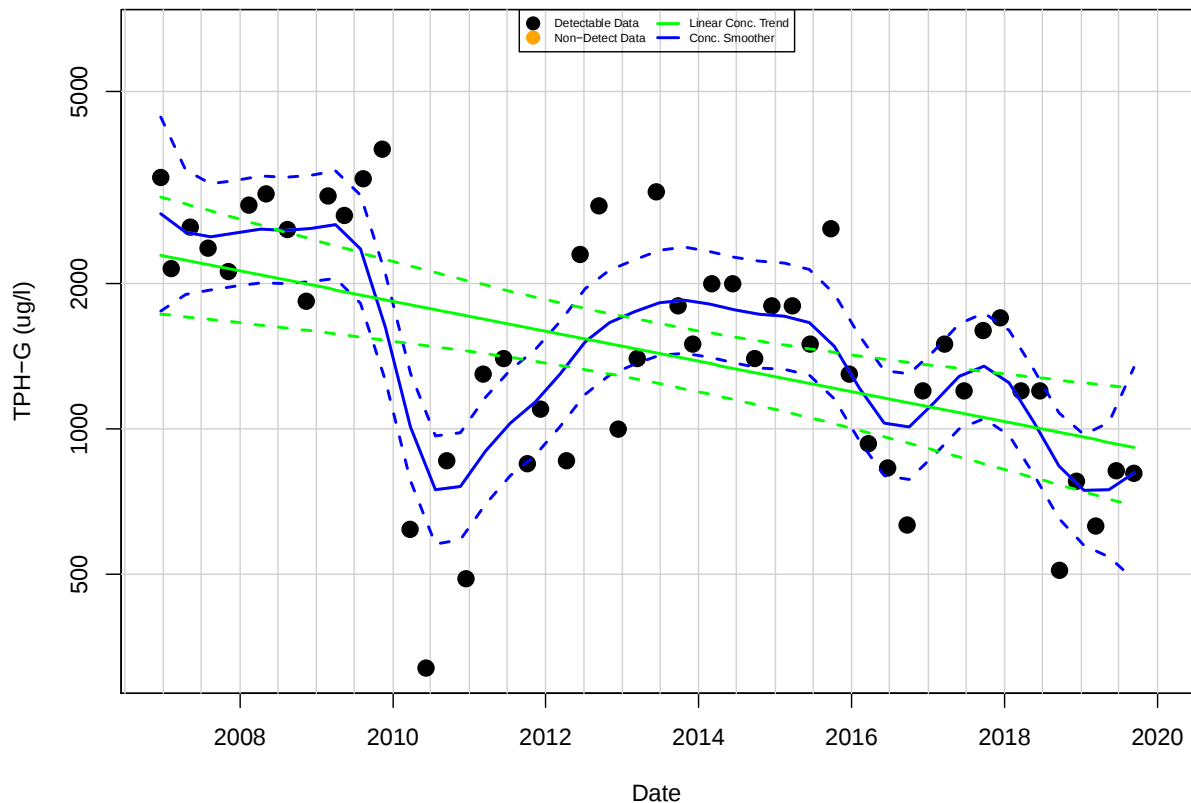
TPH-G in RW-5R : Aquifer-Blank

Mann-Kendall P.Value= <0.01; Half-Life= 1162 days



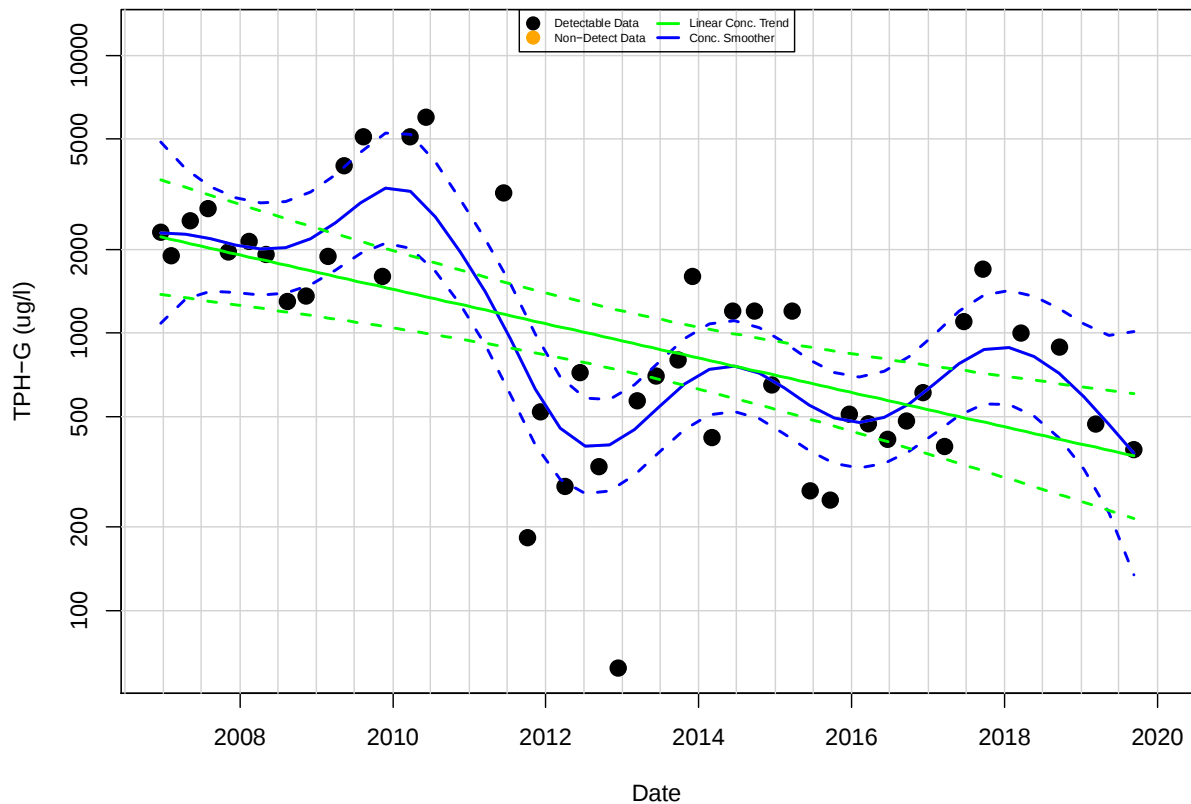
TPH-G in RW-8 : Aquifer-Blank

Mann-Kendall P.Value= <0.01; Half-Life> 5 Years



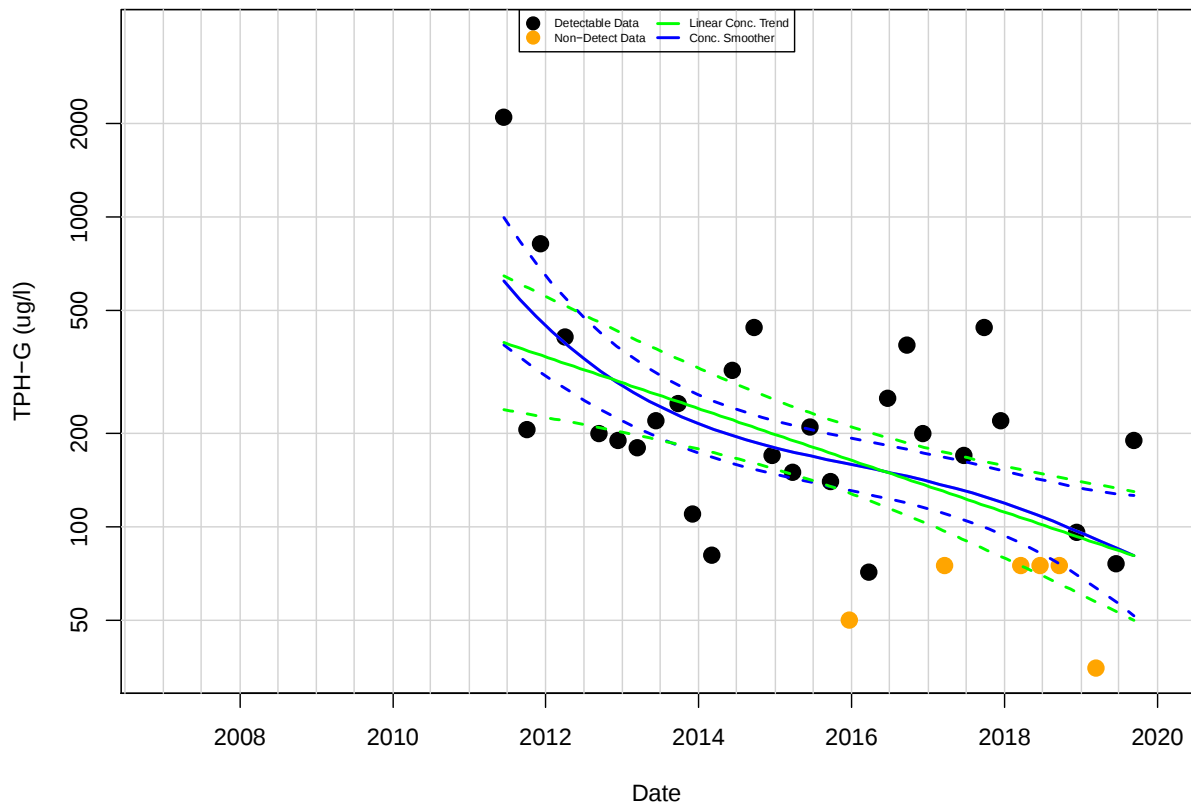
TPH-G in T-3 : Aquifer-Blank

Mann-Kendall P.Value= <0.01; Half-Life= 1774 days



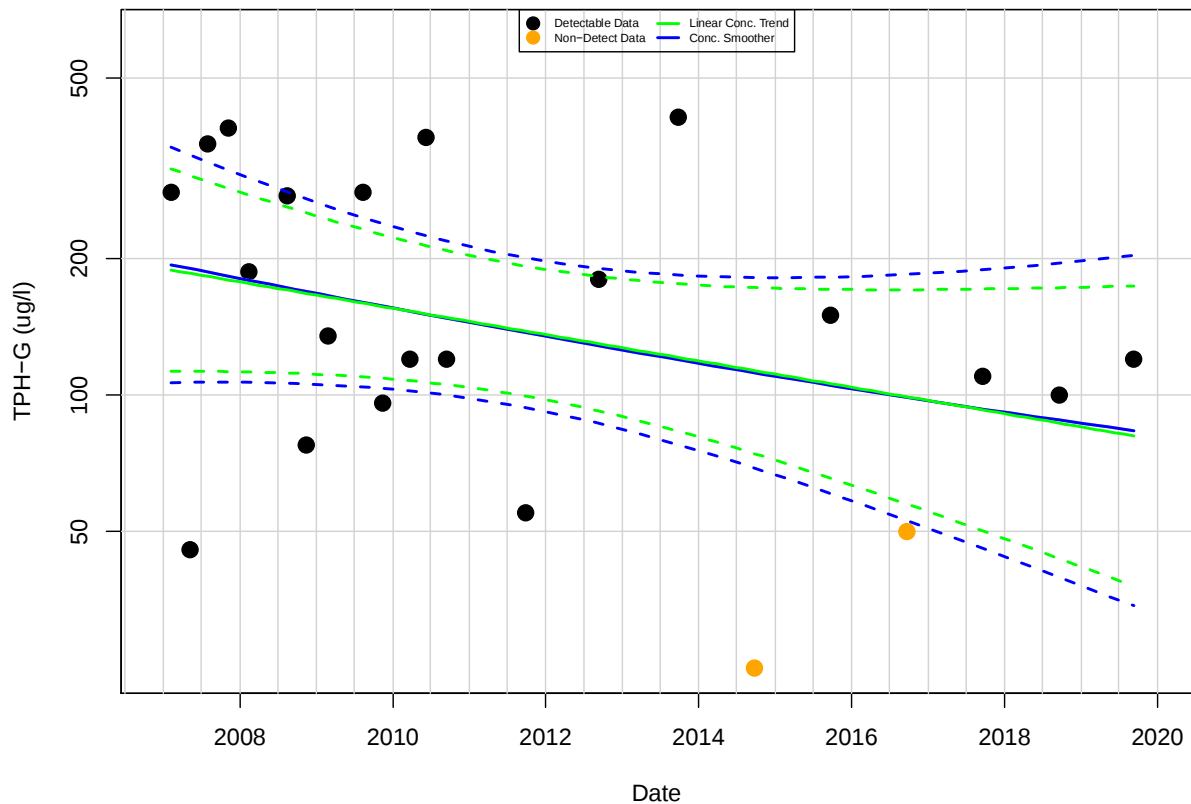
TPH-G in E-22 : Aquifer-Blank

Mann-Kendall P.Value= <0.01; Half-Life= 1317 days



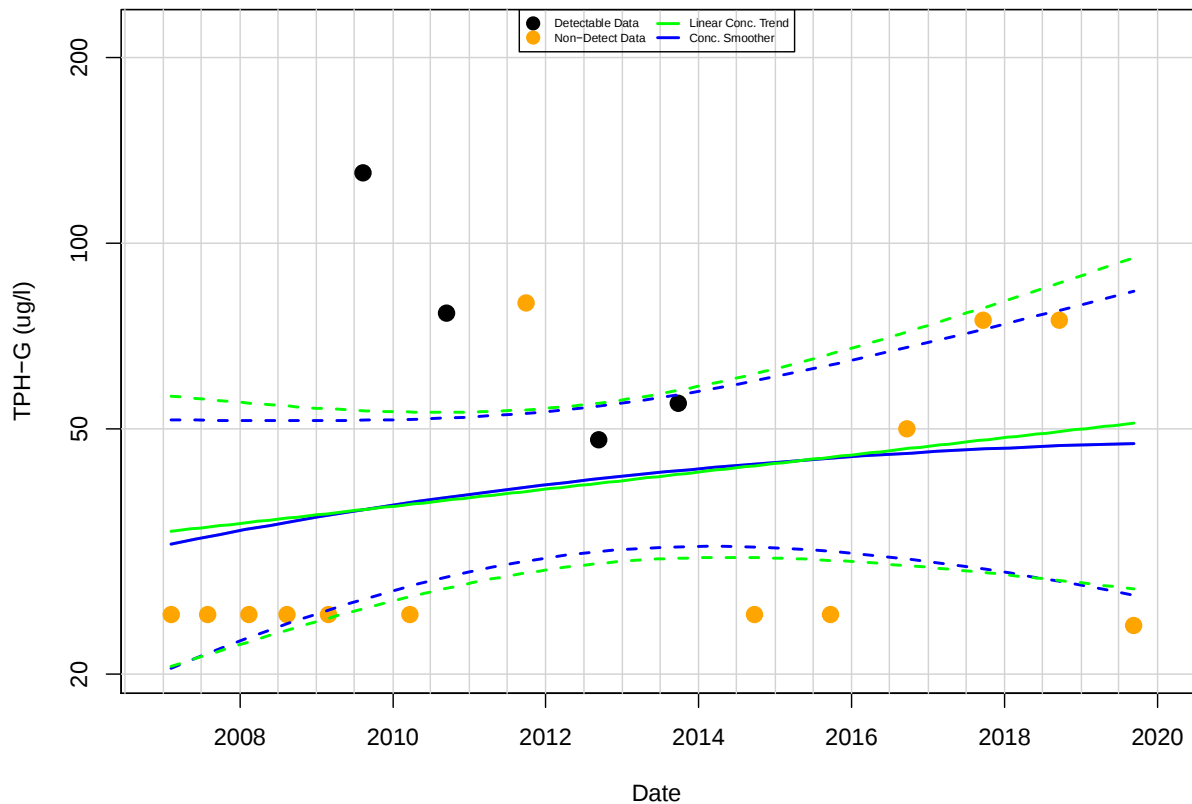
TPH-G in FW-3 : Aquifer-Blank

Mann-Kendall P.Value= 0.142; Half-Life> 5 Years



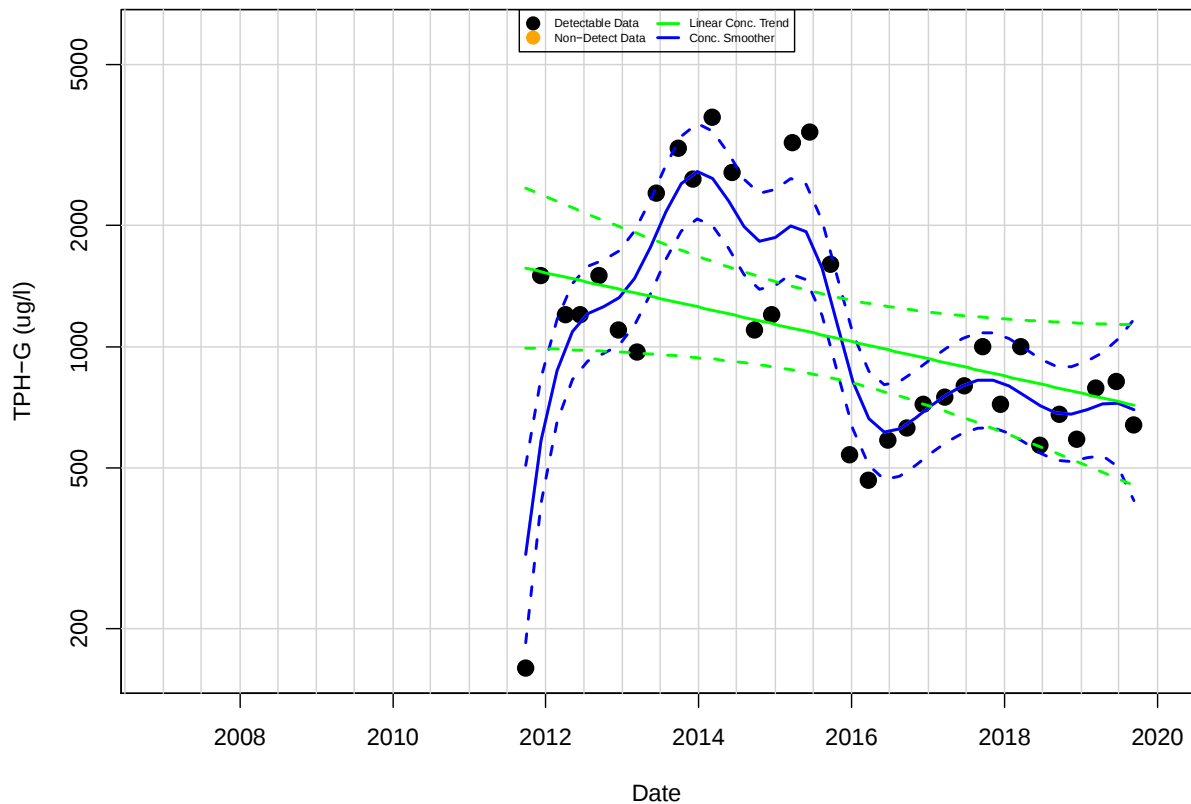
TPH-G in FW-4 : Aquifer-Blank

Mann-Kendall P.Value= 0.484; Half-Life> -5 Years



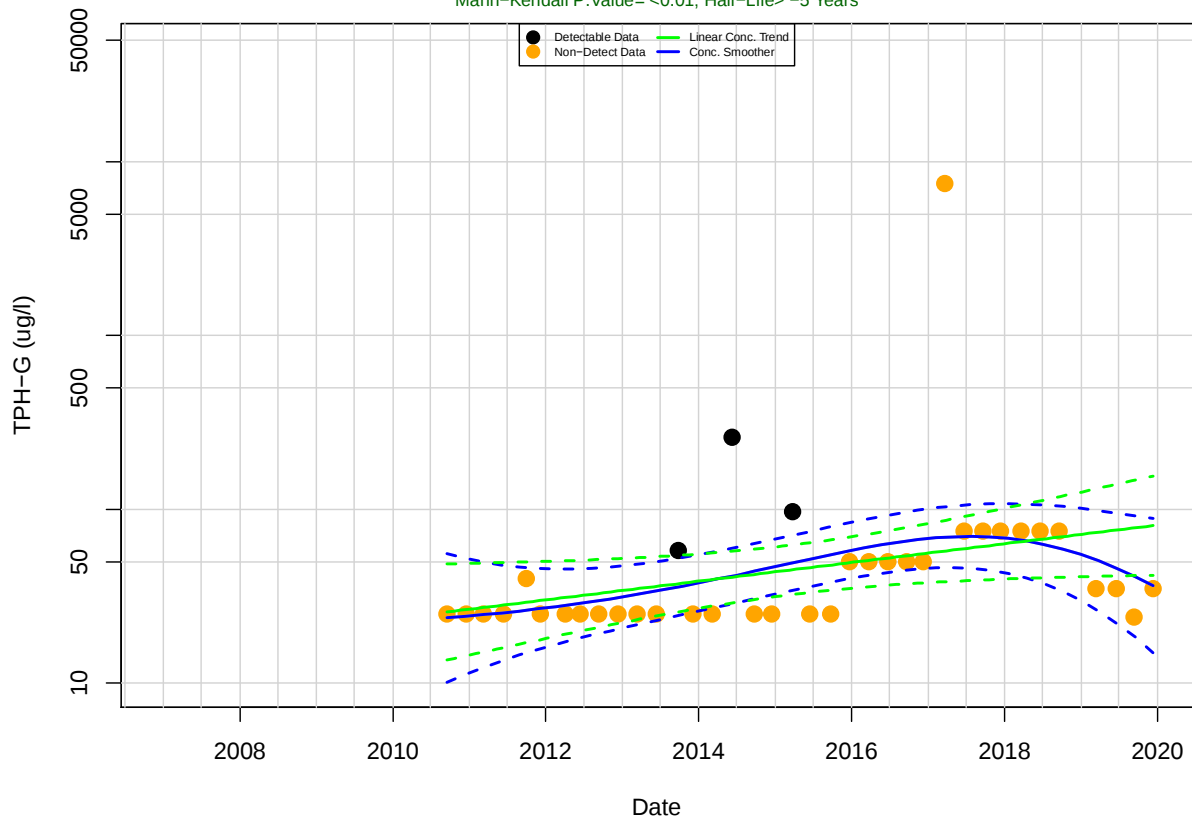
TPH-G in FW-5R : Aquifer-Blank

Mann-Kendall P.Value= 0.0255; Half-Life> 5 Years



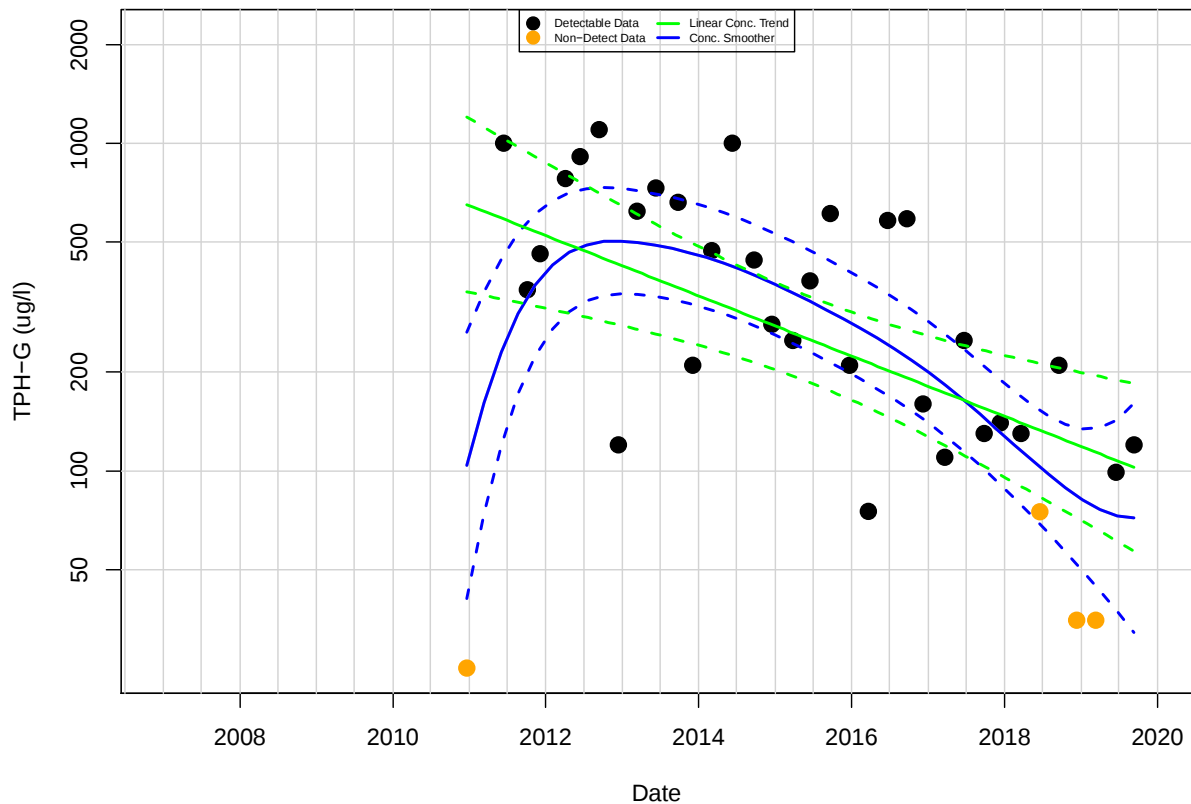
TPH-G in FW-14 : Aquifer-Blank

Mann-Kendall P.Value= <0.01; Half-Life> -5 Years

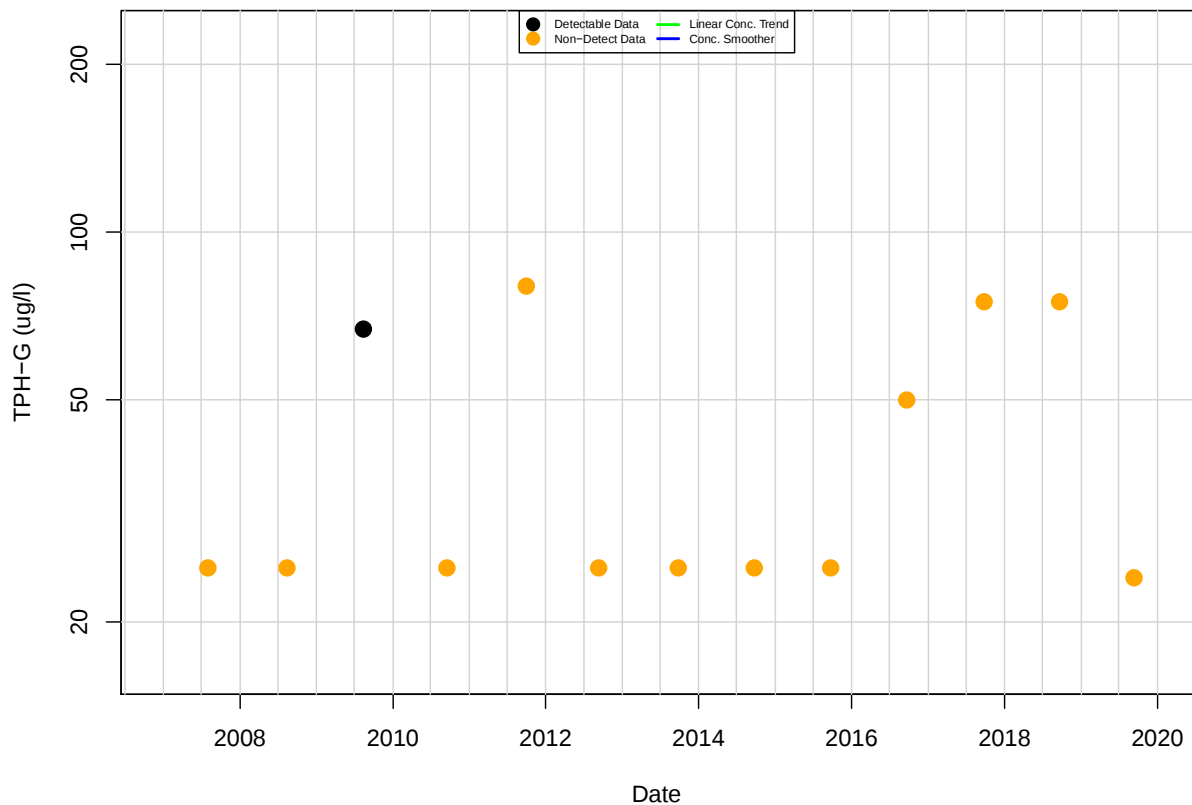


TPH-G in T-2 : Aquifer-Blank

Mann-Kendall P.Value= <0.01; Half-Life= 1196 days

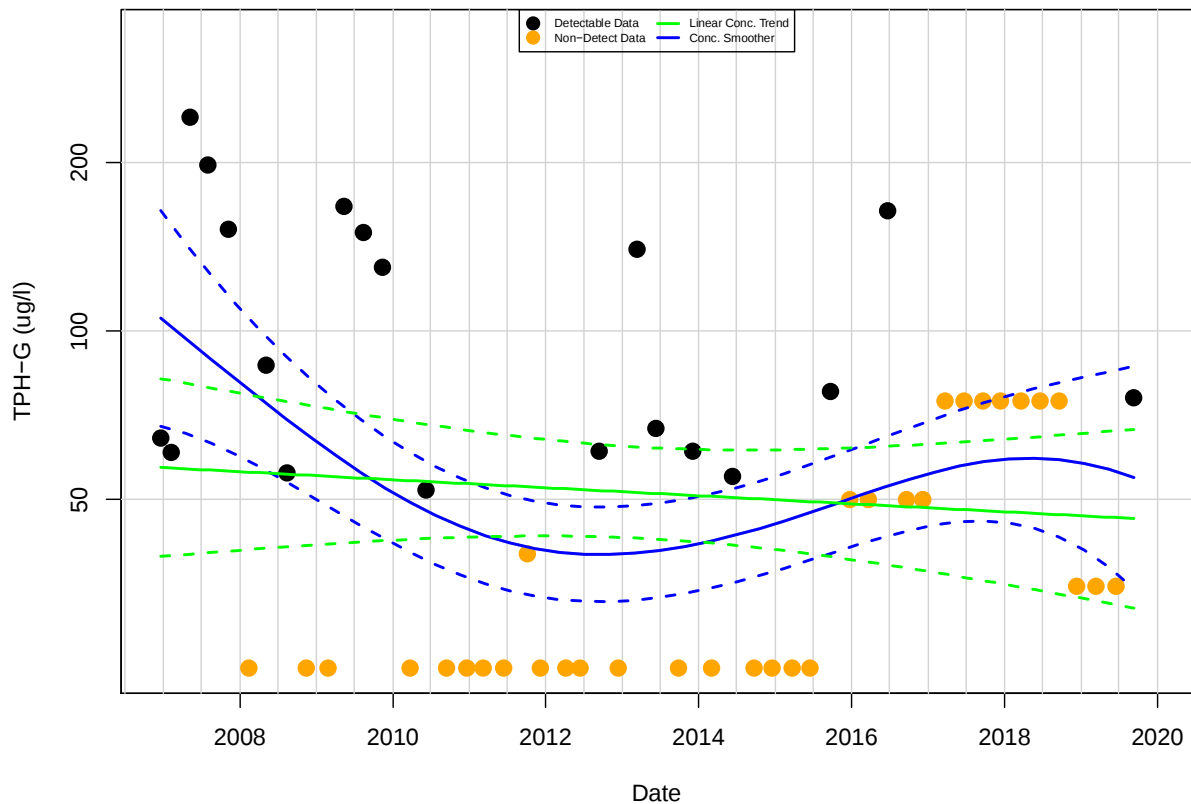


TPH-G in FW-15 : Aquifer-Blank



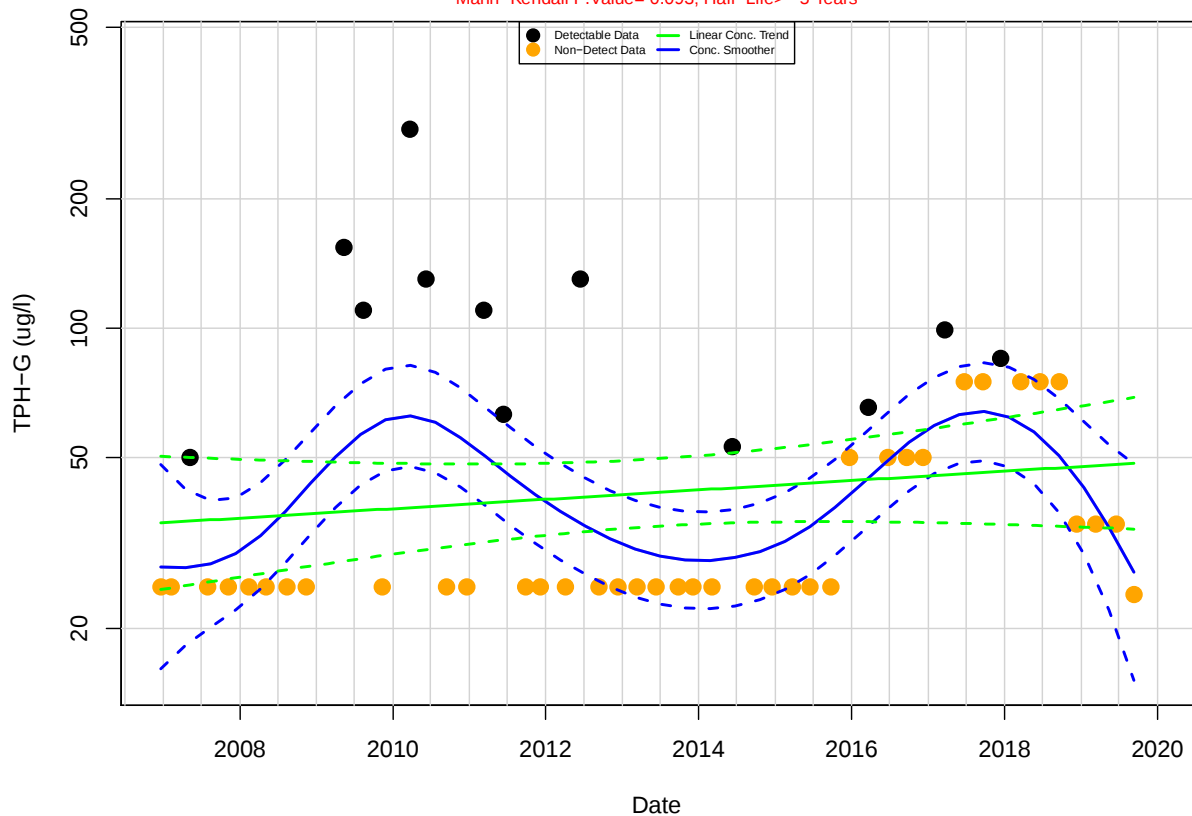
TPH-G in RR-1 : Aquifer-Blank

Mann-Kendall P.Value= 0.891; Half-Life> 5 Years



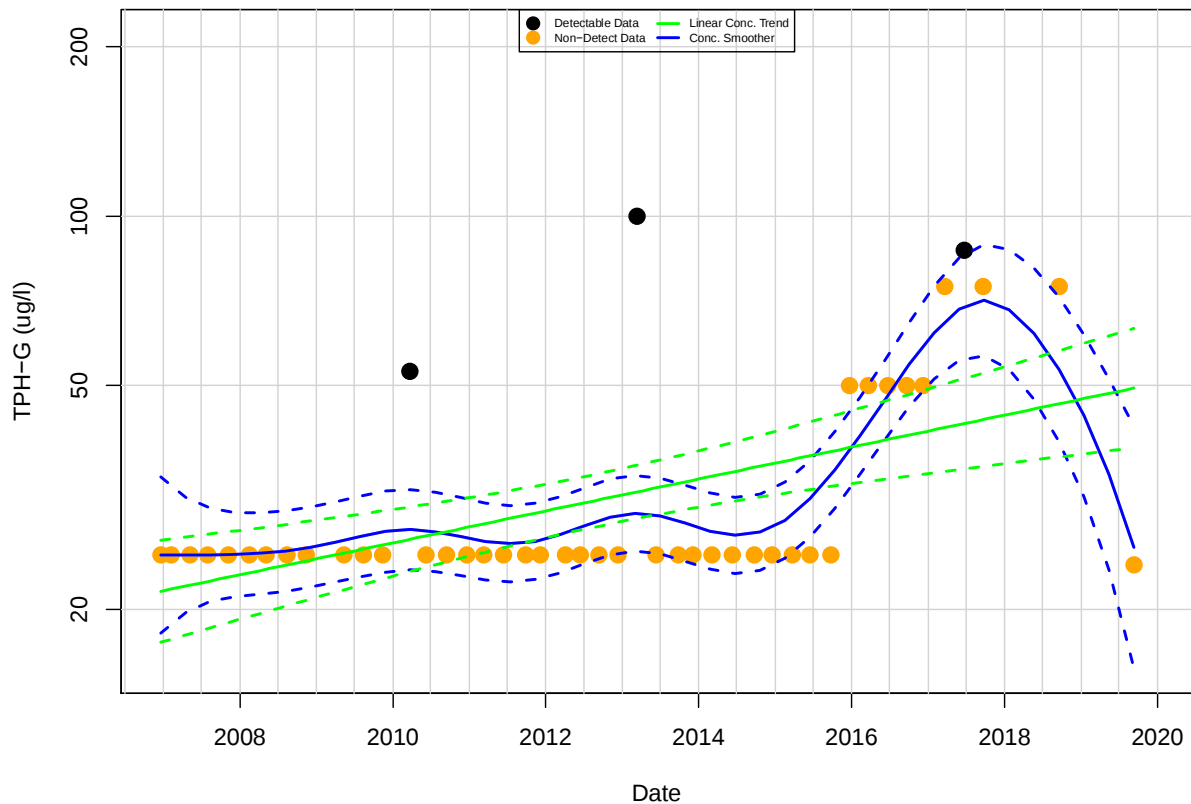
TPH-G in RR-2 : Aquifer-Blank

Mann-Kendall P.Value= 0.093; Half-Life> -5 Years



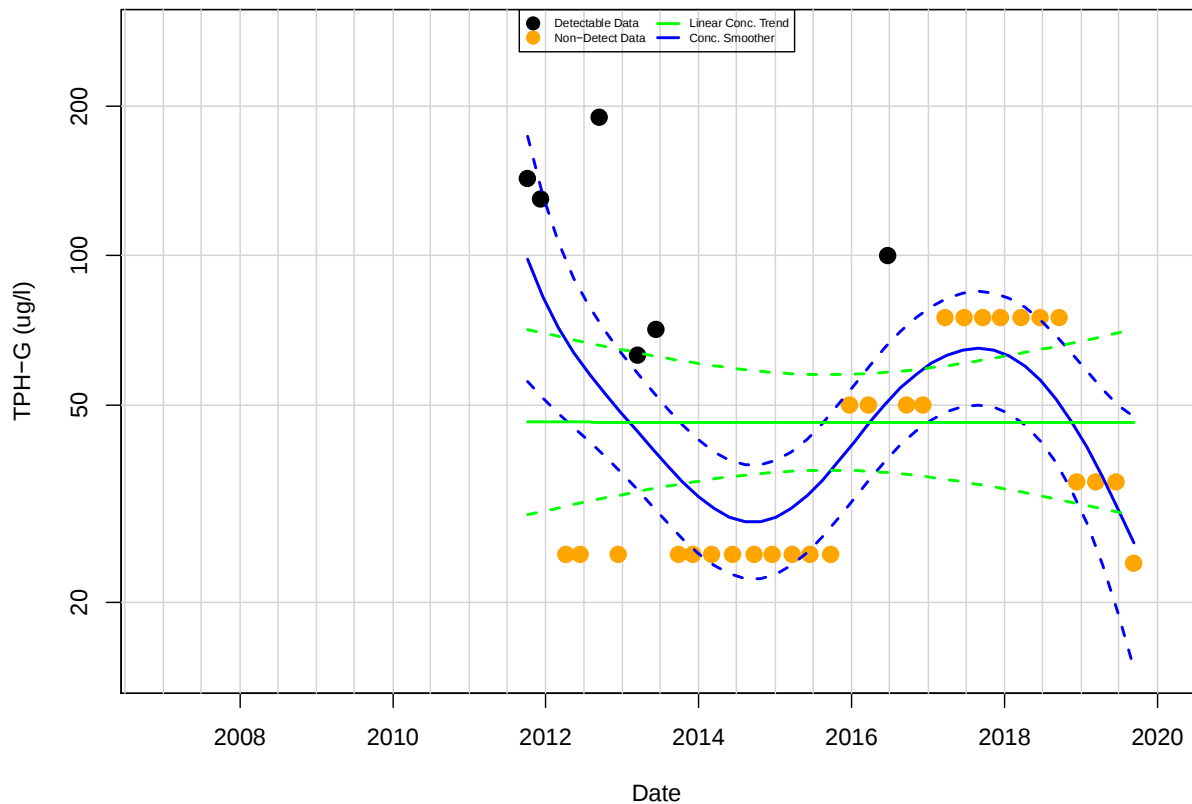
TPH-G in RR-3 : Aquifer-Blank

Mann-Kendall P.Value= <0.01; Half-Life> -5 Years



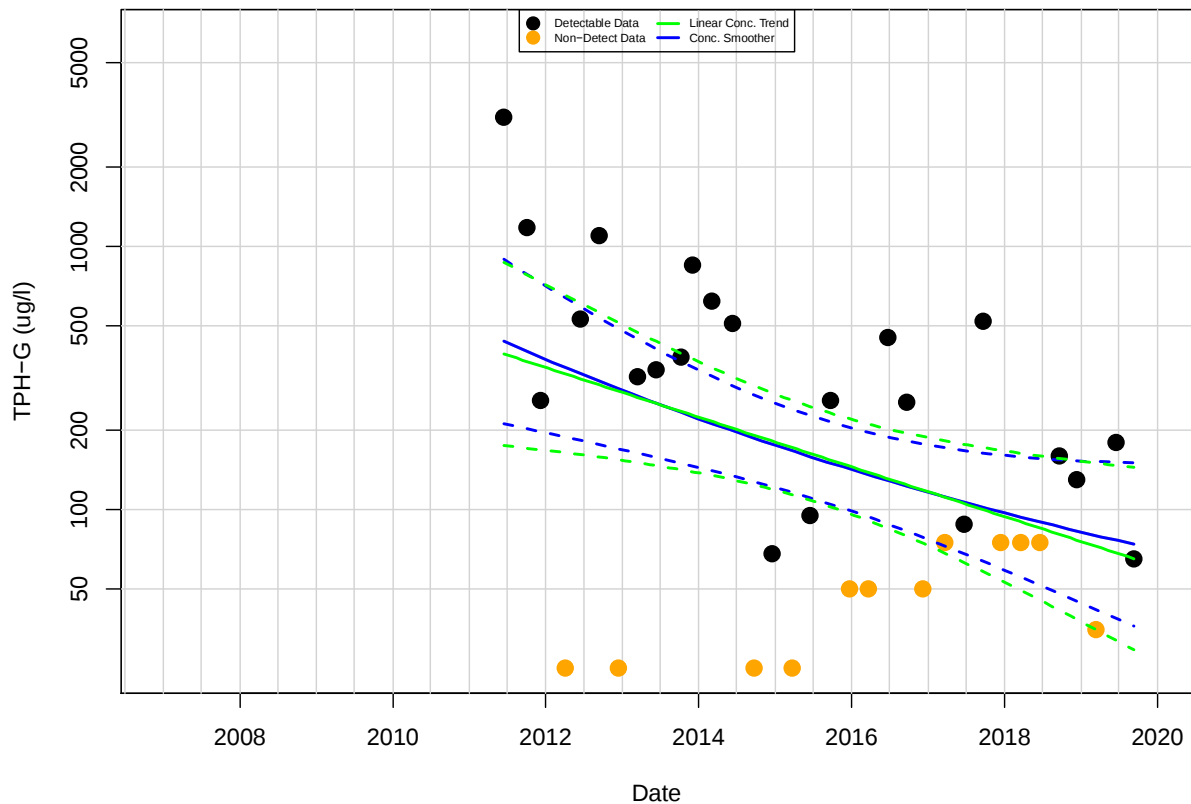
TPH-G in RR-4 : Aquifer-Blank

Mann-Kendall P.Value= 0.511; Half-Life> 5 Years



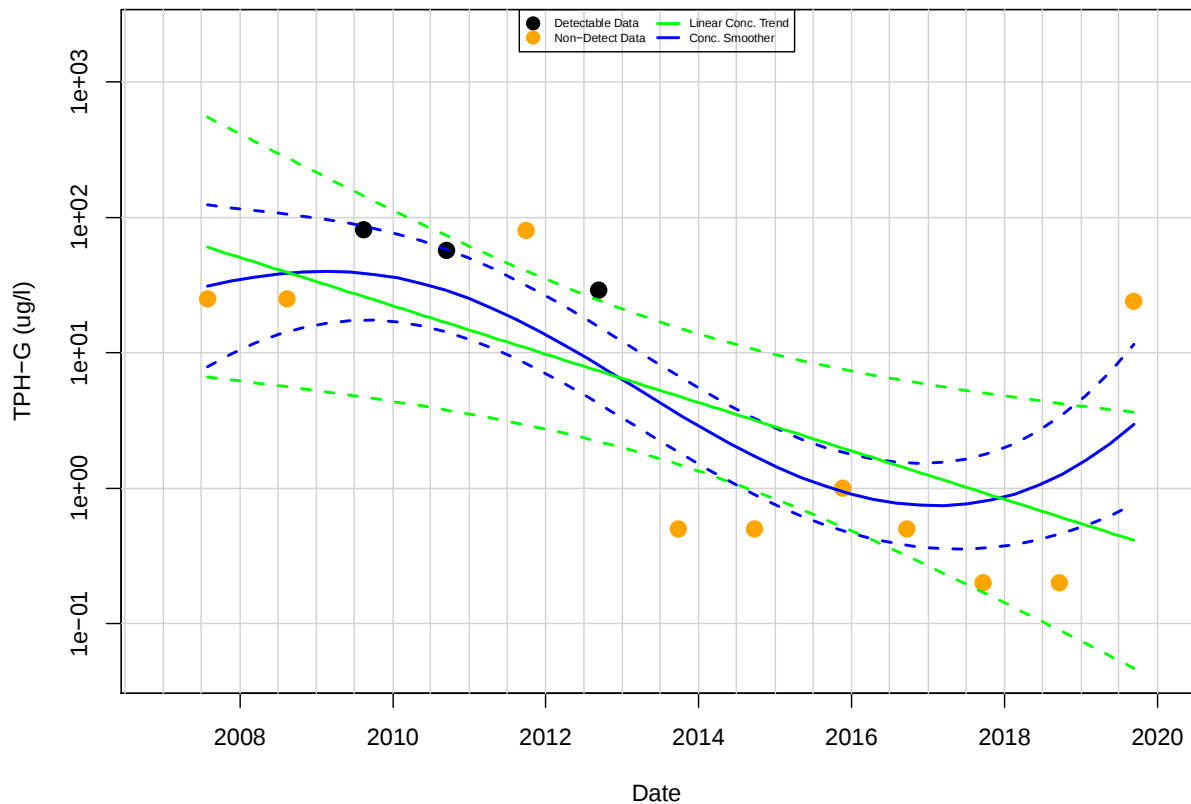
TPH-G in RR-5 : Aquifer-Blank

Mann-Kendall P.Value= 0.0348; Half-Life= 1165 days



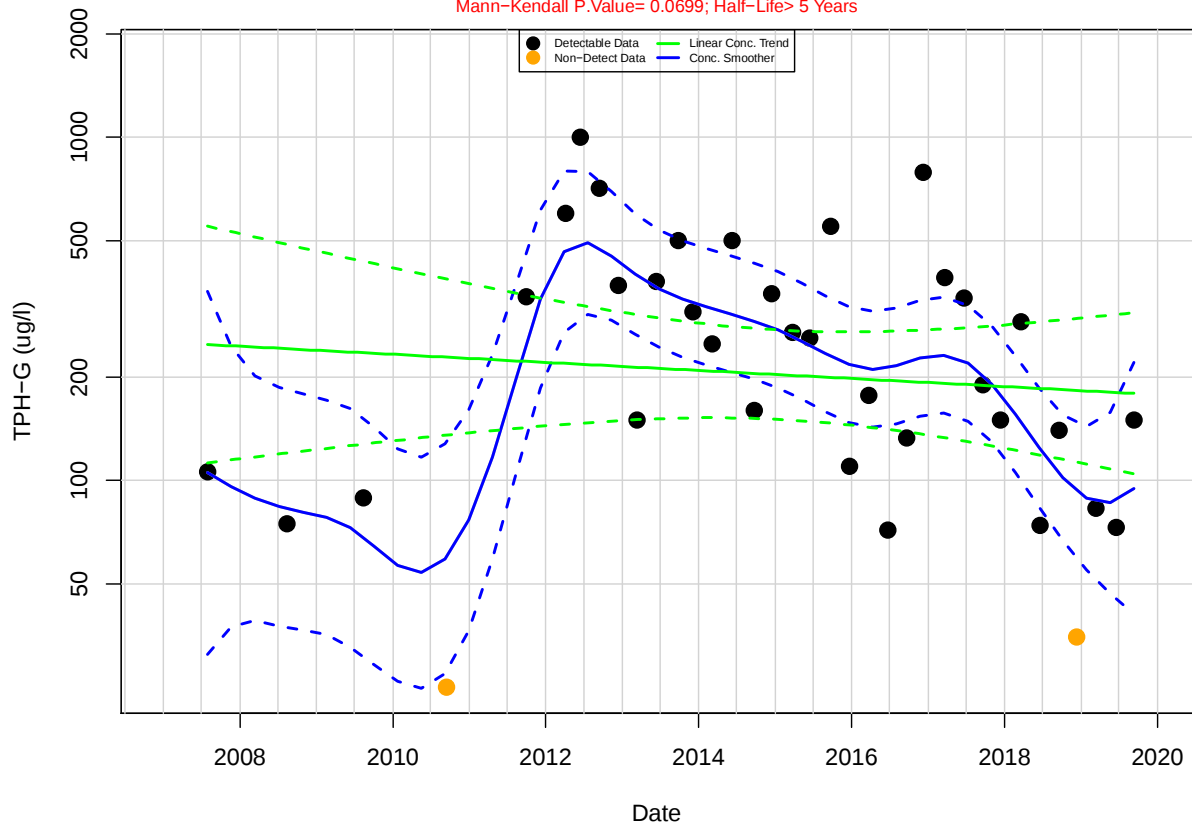
TPH-G in DMW-1 : Aquifer-Blank

Mann-Kendall P.Value= 0.0191; Half-Life= 615 days



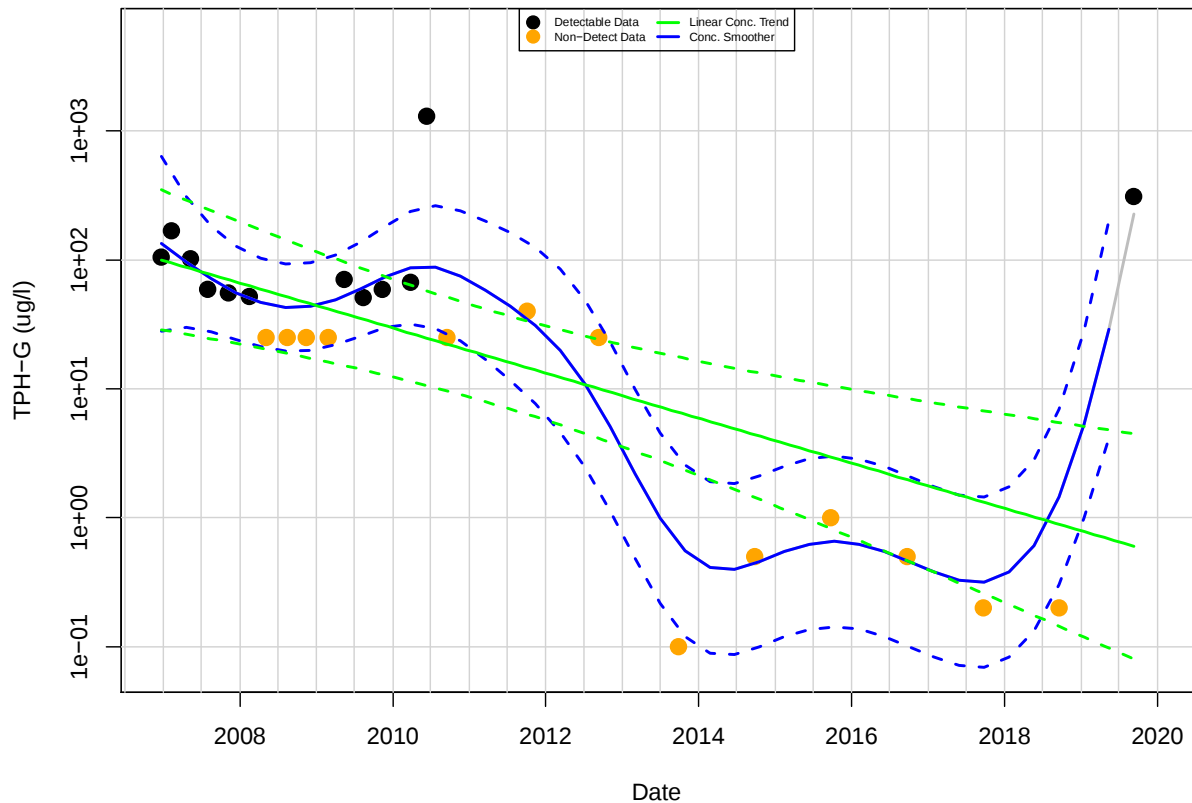
TPH-G in DMW-2 : Aquifer-Blank

Mann-Kendall P.Value= 0.0699; Half-Life> 5 Years



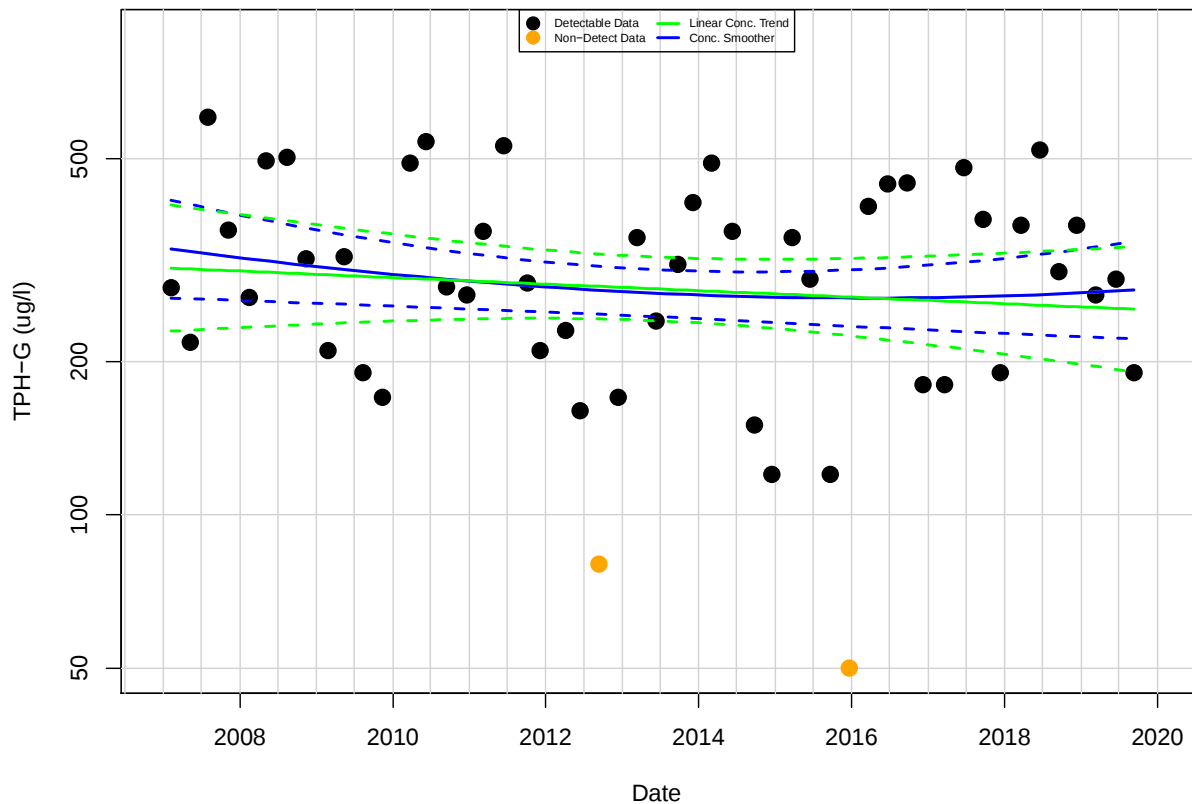
TPH-G in DMW-3 : Aquifer-Blank

Mann-Kendall P.Value= <0.01; Half-Life= 629 days



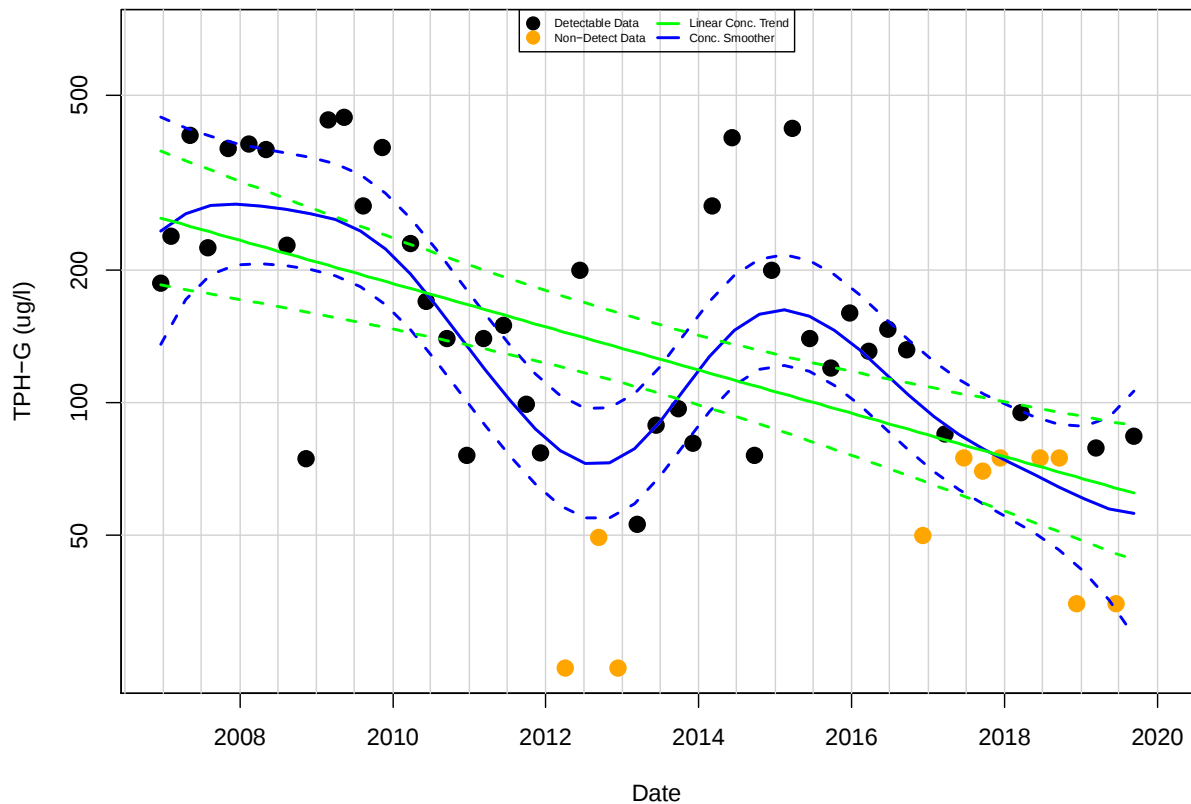
TPH-G in DMW-4 : Aquifer-Blank

Mann-Kendall P.Value= 0.575; Half-Life> 5 Years

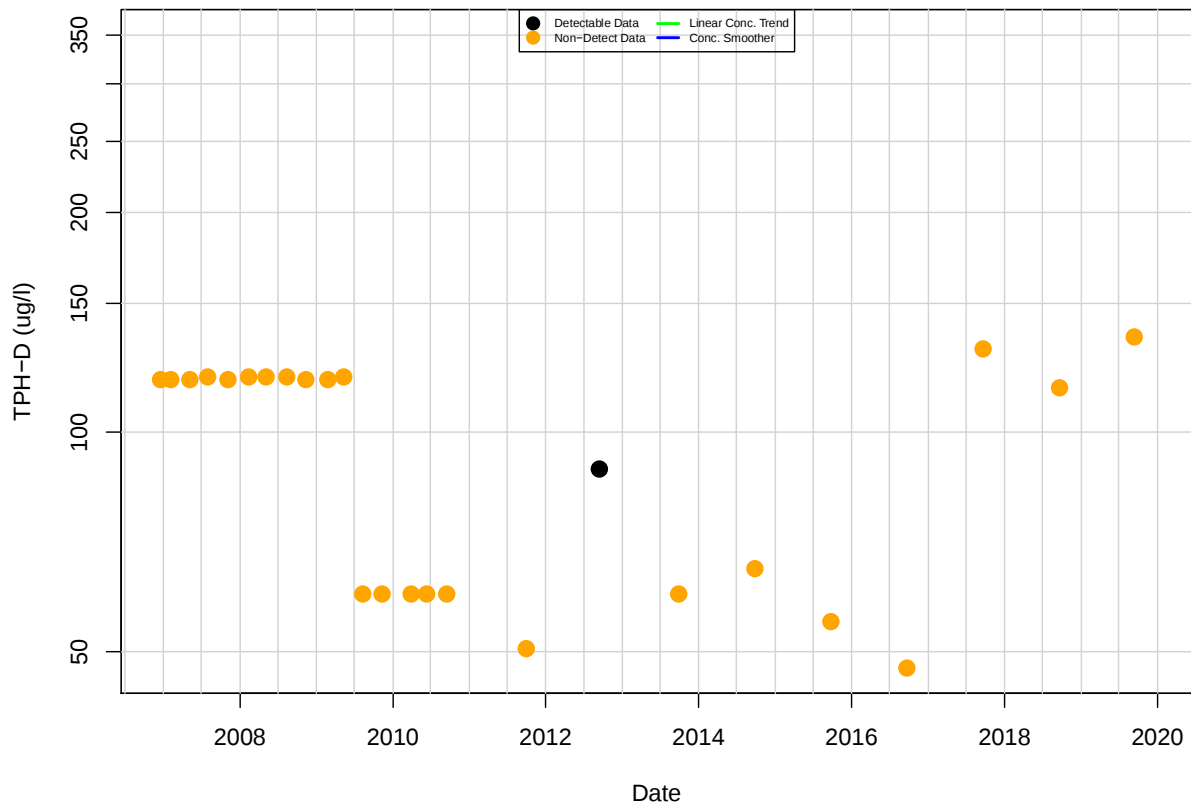


TPH-G in FW-13 : Aquifer-Blank

Mann-Kendall P.Value= <0.01; Half-Life> 5 Years

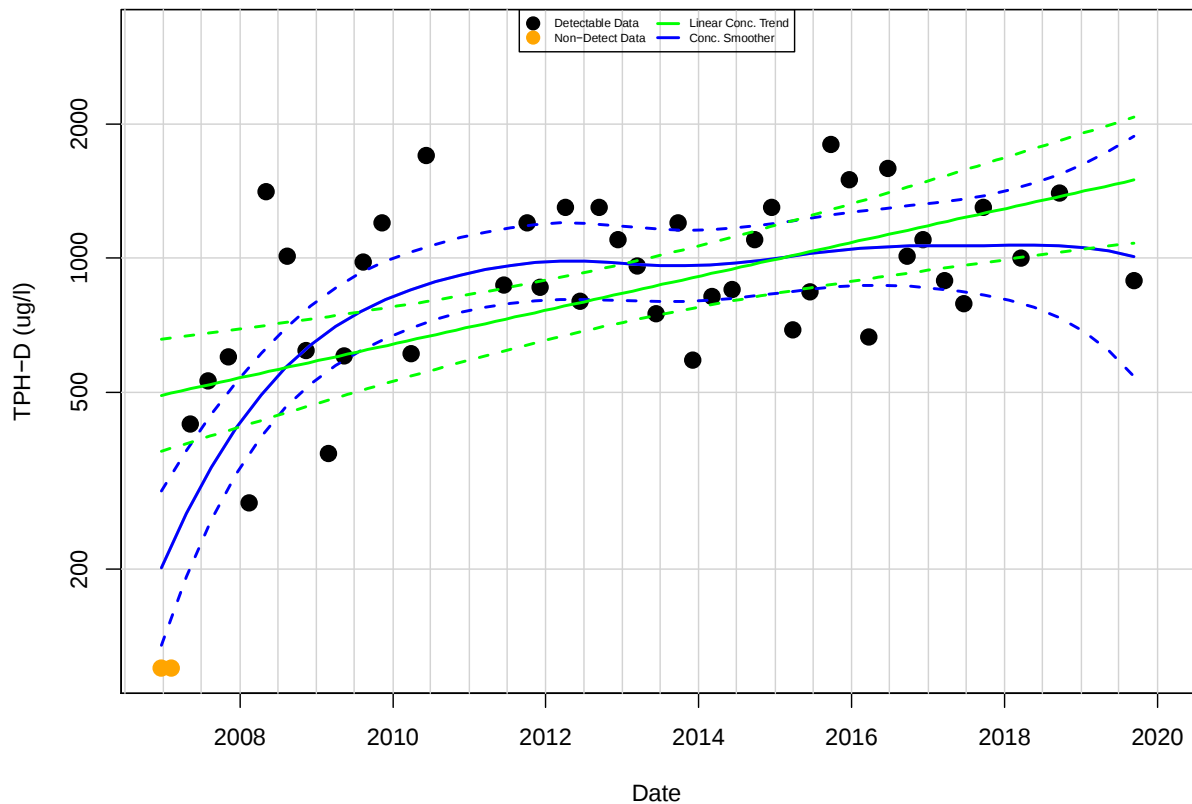


TPH-D in B-17B : Aquifer-Blank



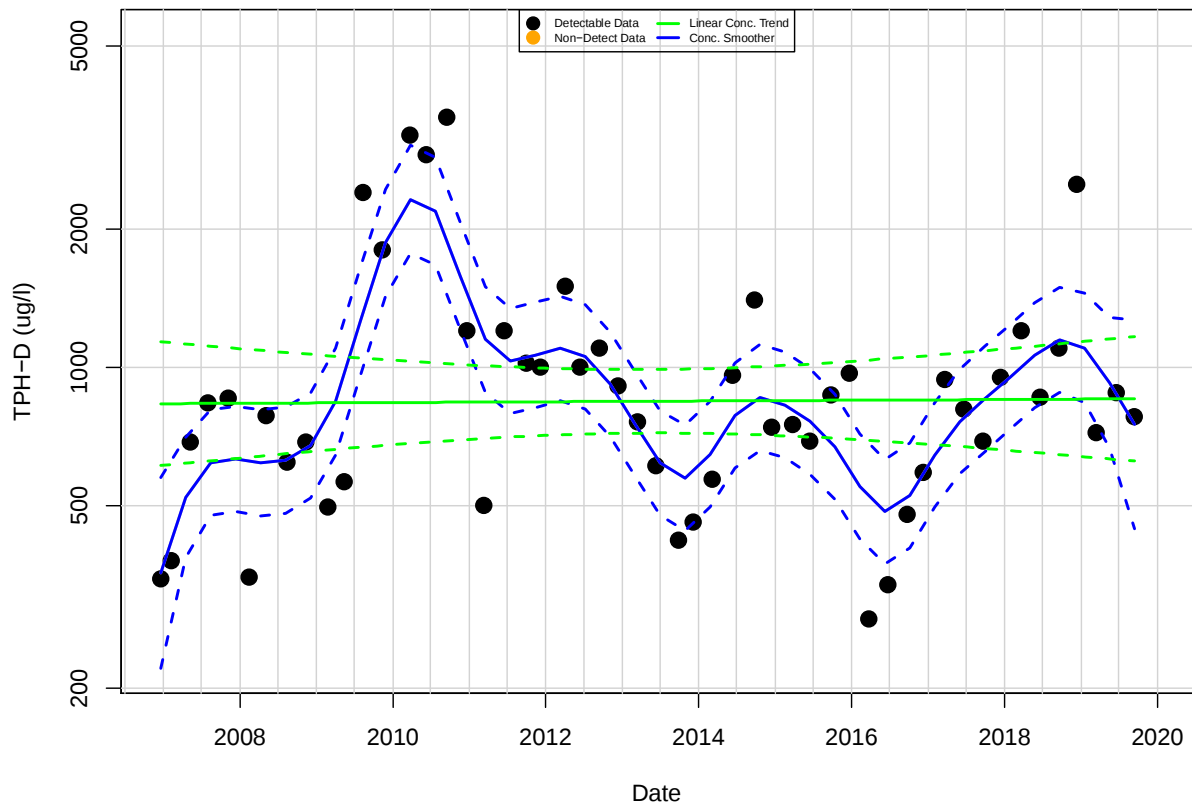
TPH-D in B-19 : Aquifer-Blank

Mann-Kendall P.Value= <0.01; Half-Life> -5 Years

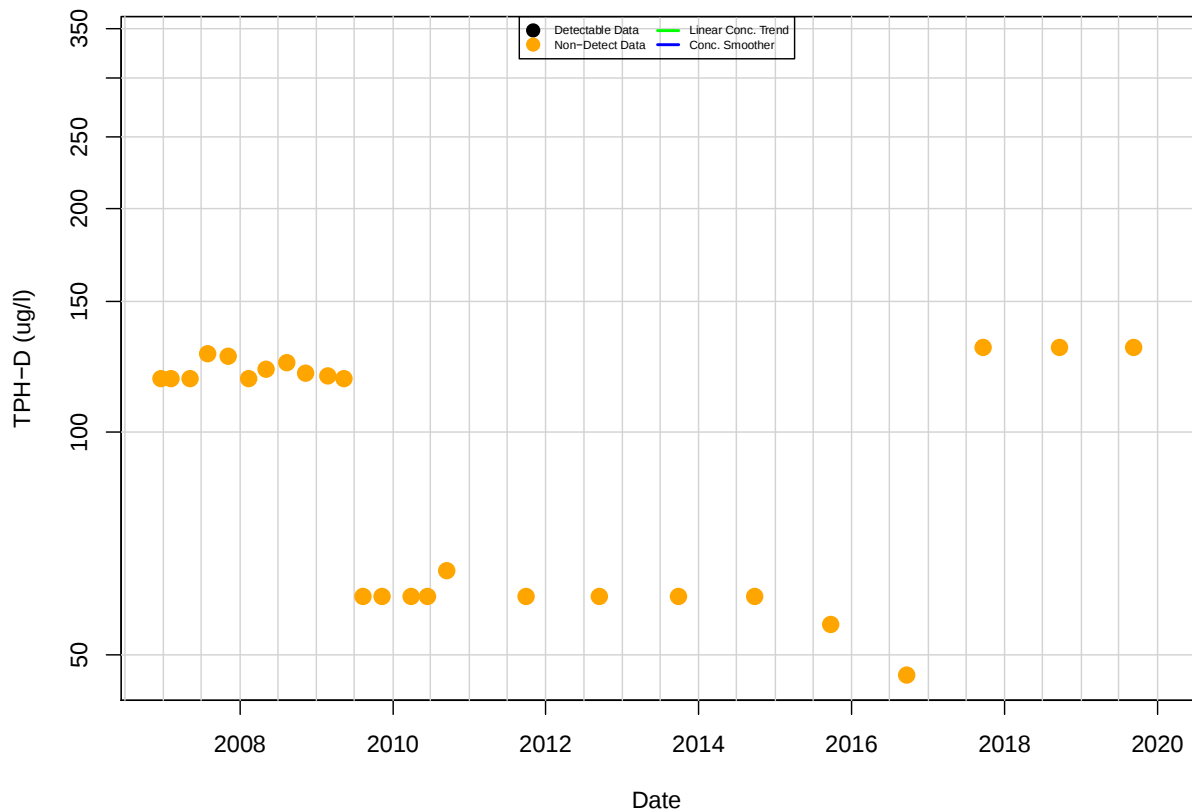


TPH-D in B-25 : Aquifer-Blank

Mann-Kendall P.Value= 0.728; Half-Life> -5 Years

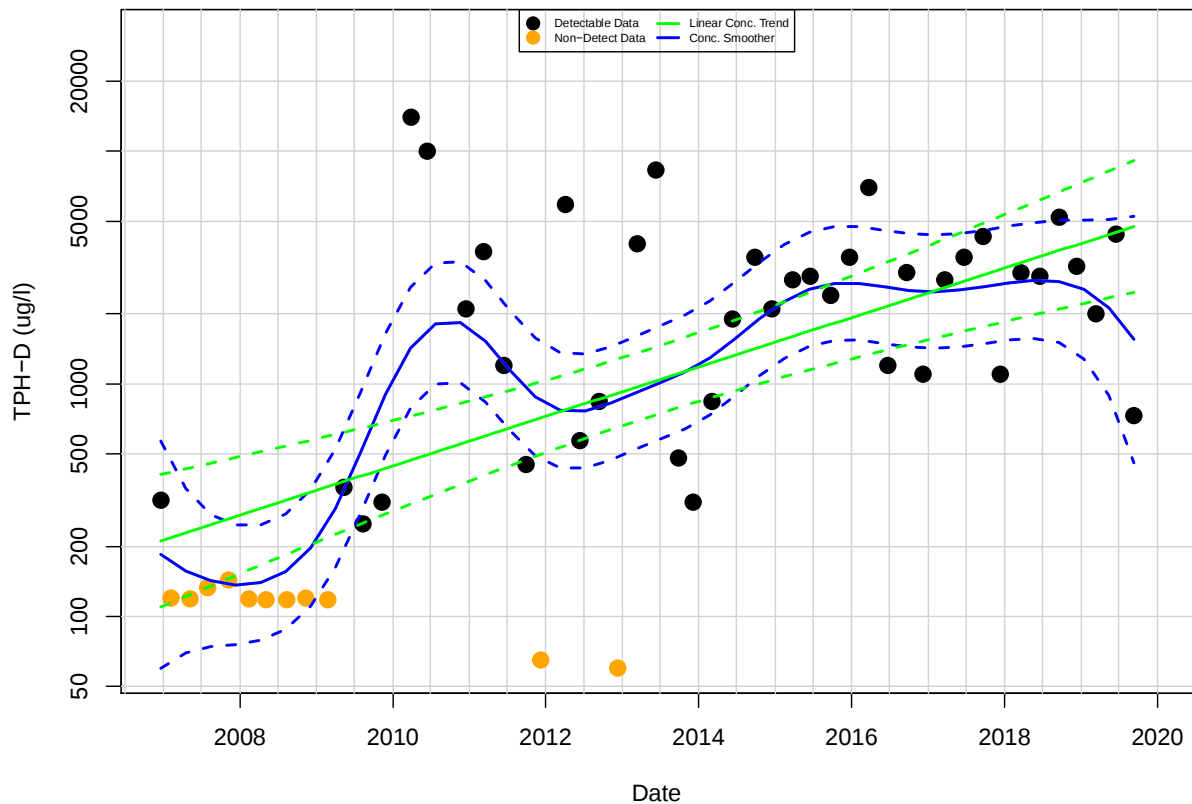


TPH-D in B-30 : Aquifer-Blank



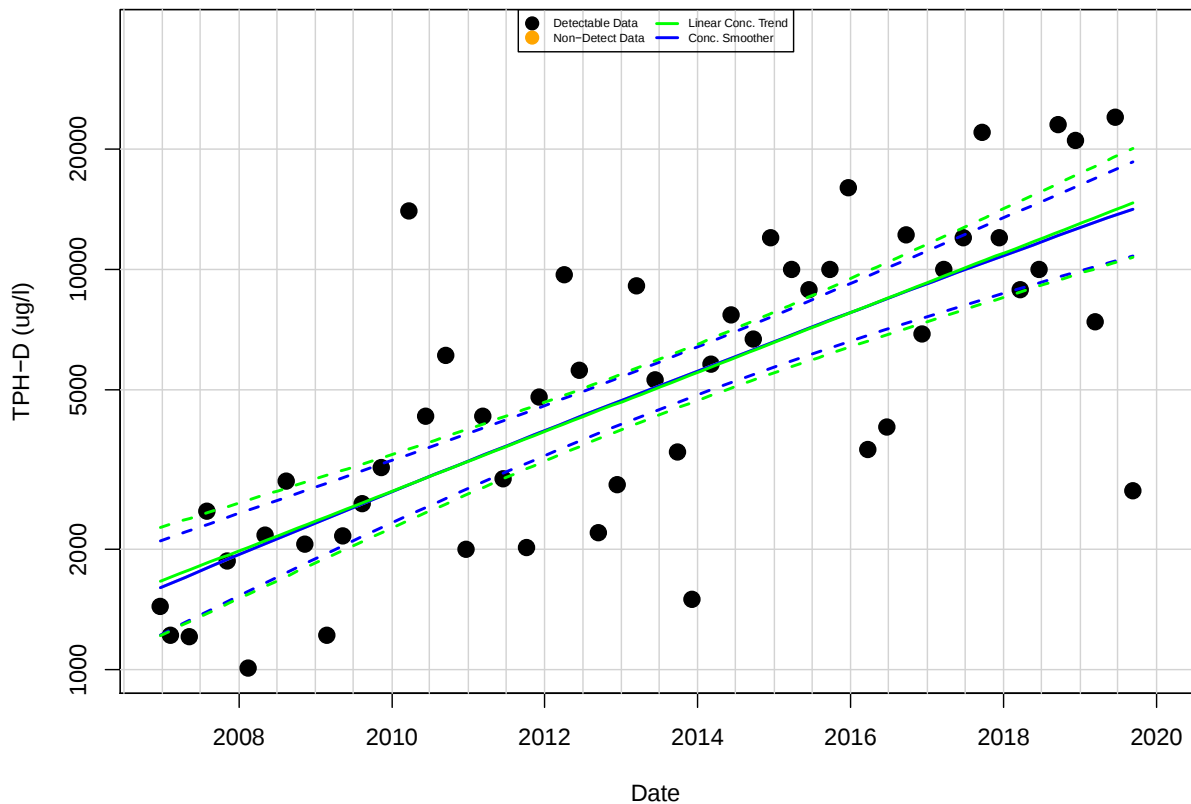
TPH-D in B-31 : Aquifer-Blank

Mann-Kendall P.Value= <0.01; Half-Life= -1036 days



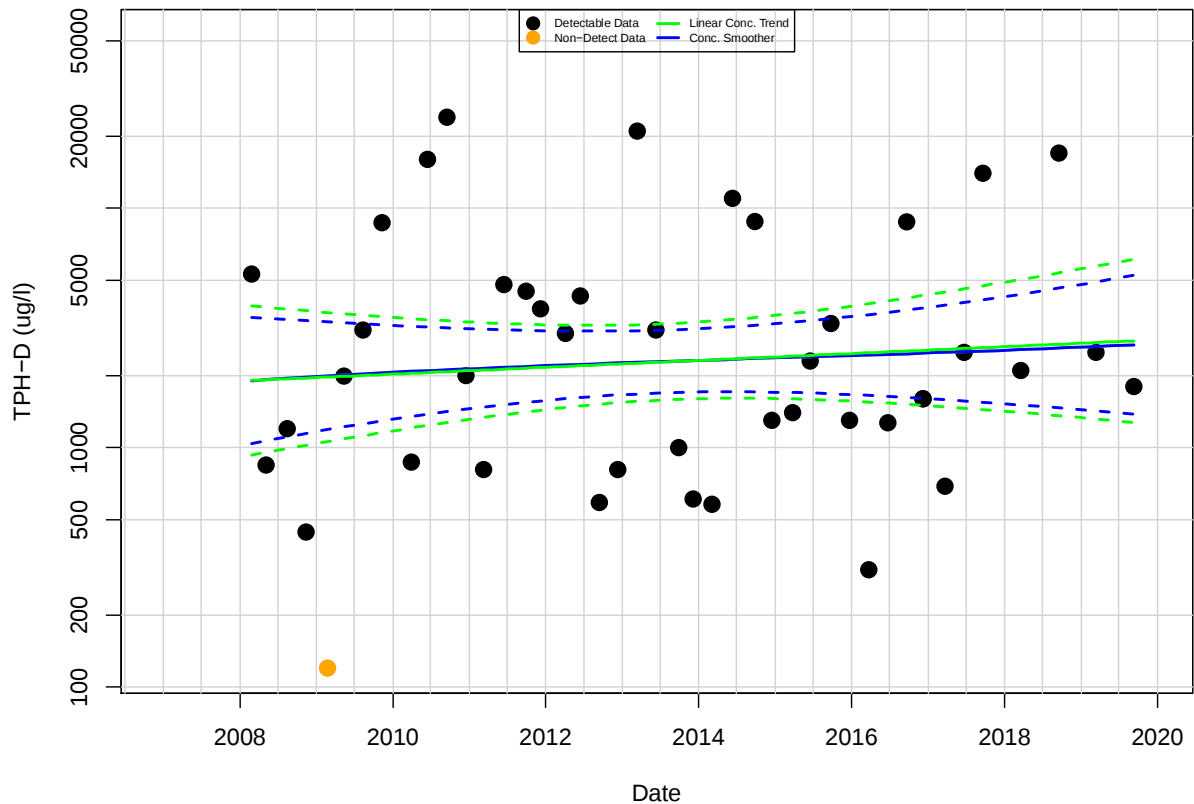
TPH-D in B-34 : Aquifer-Blank

Mann-Kendall P.Value= <0.01; Half-Life= -1479 days



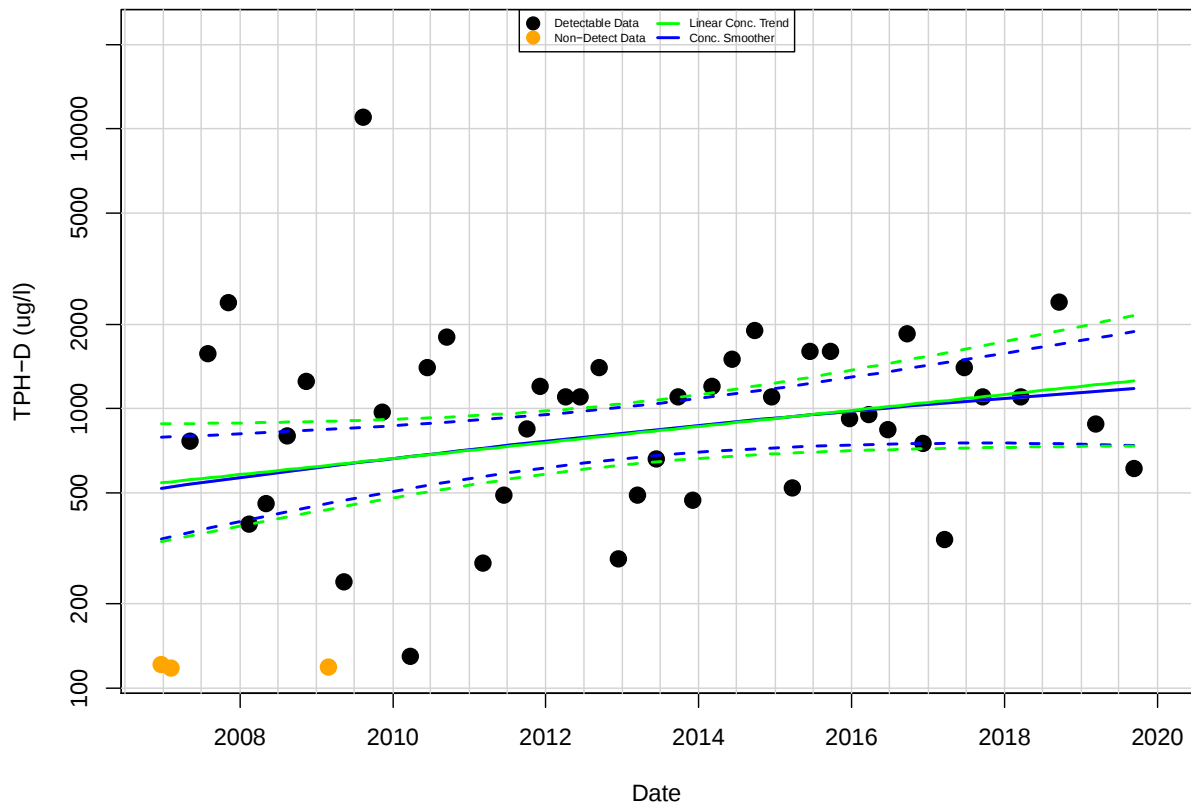
TPH-D in E-21 : Aquifer-Blank

Mann-Kendall P.Value= 0.671; Half-Life> ~5 Years



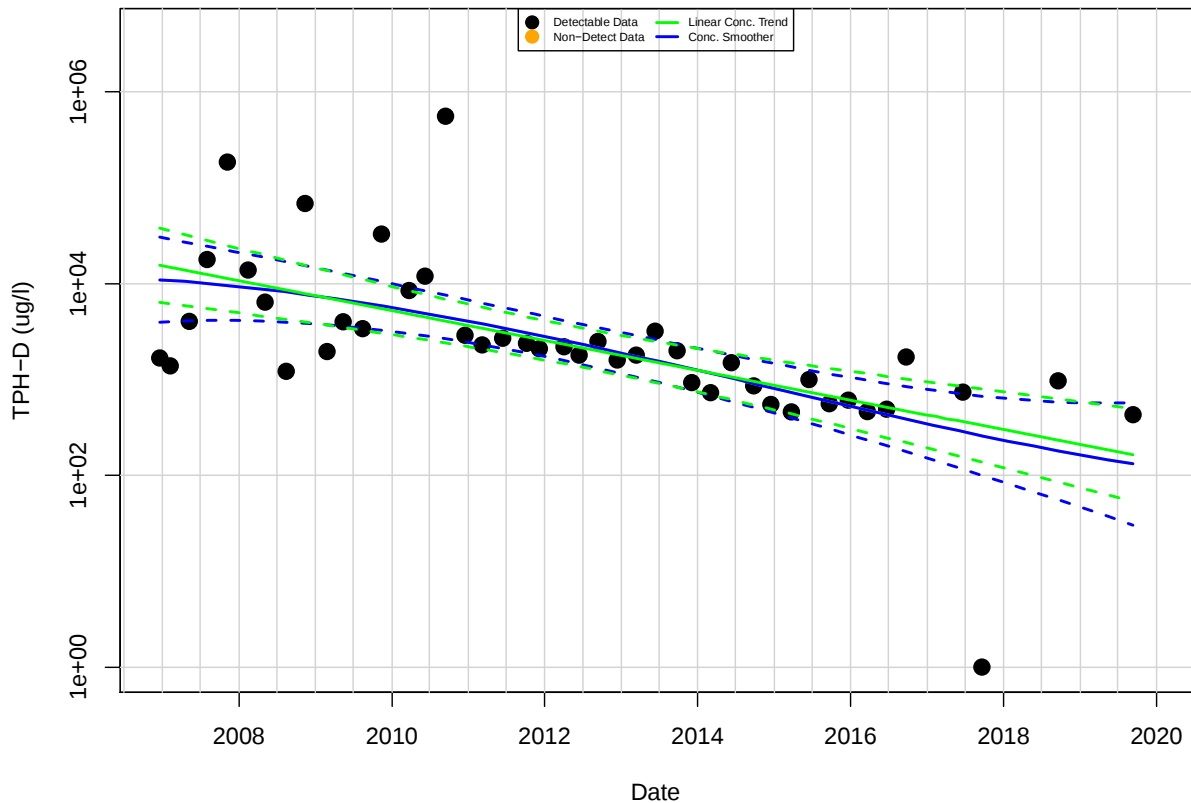
TPH-D in G-18 : Aquifer-Blank

Mann-Kendall P.Value= 0.0794; Half-Life> -5 Years



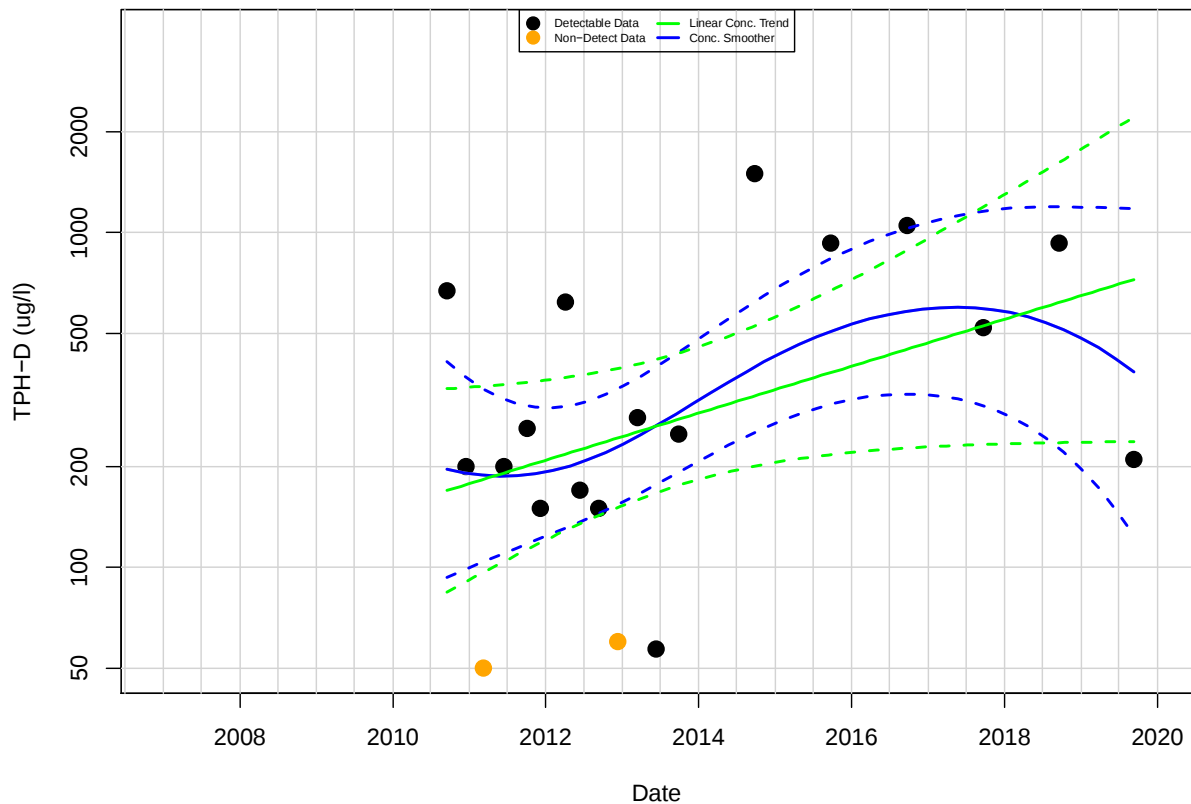
TPH-D in G-8 : Aquifer-Blank

Mann-Kendall P.Value= <0.01; Half-Life= 707 days



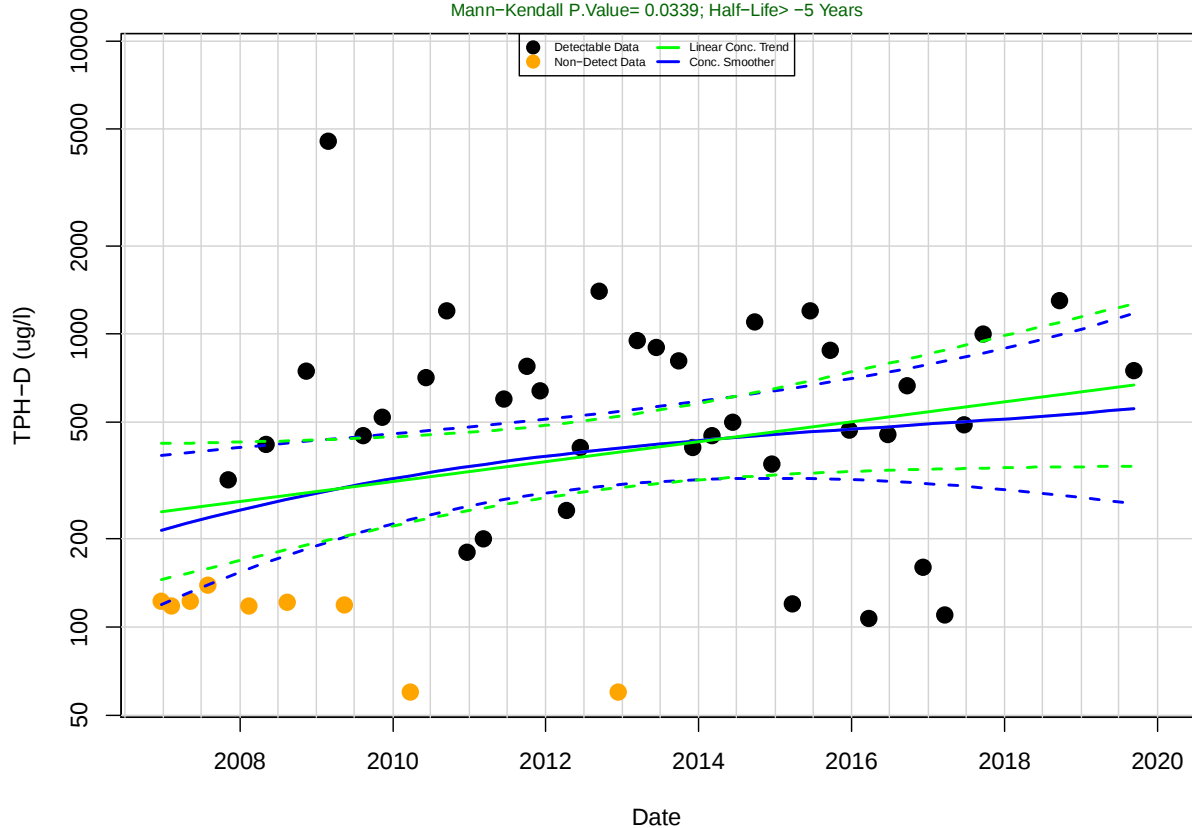
TPH-D in G-16 : Aquifer-Blank

Mann-Kendall P.Value= 0.172; Half-Life= -1566 days



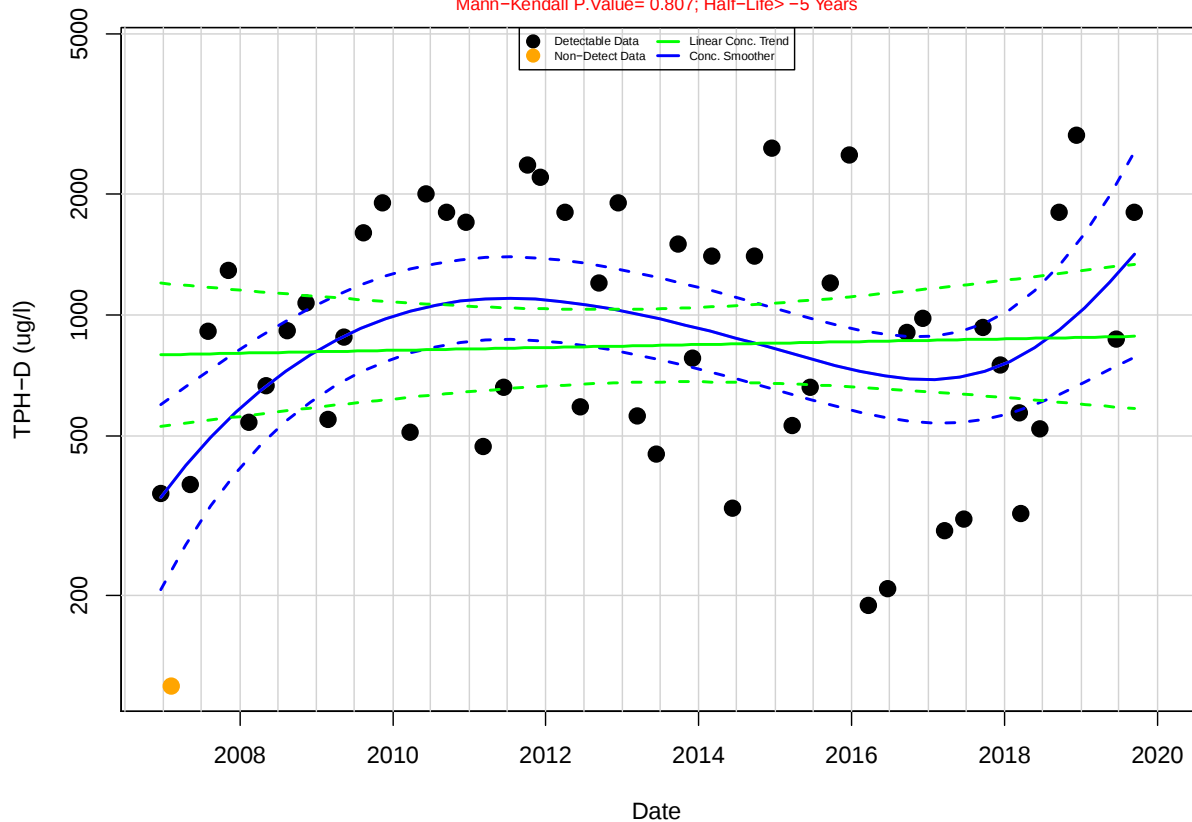
TPH-D in RW-2 : Aquifer-Blank

Mann-Kendall P.Value= 0.0339; Half-Life> -5 Years



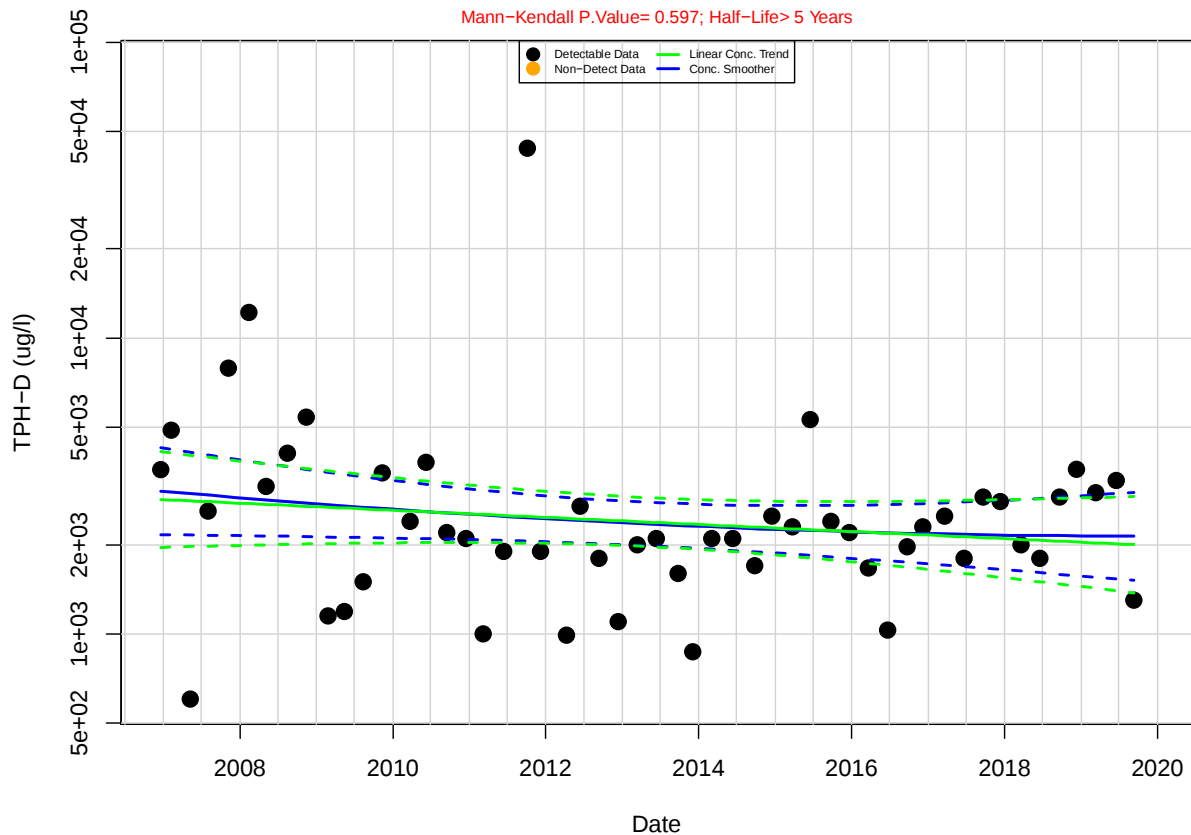
TPH-D in RW-5R : Aquifer-Blank

Mann-Kendall P.Value= 0.807; Half-Life> -5 Years



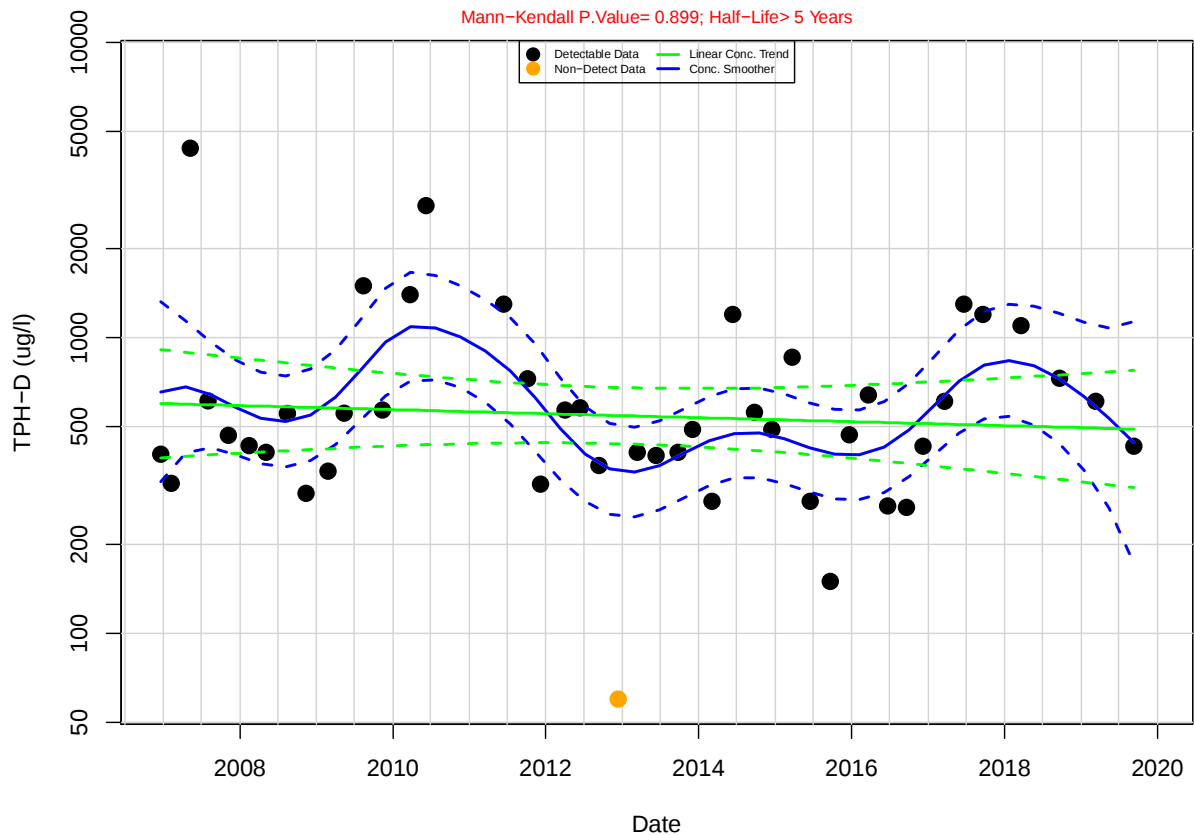
TPH-D in RW-8 : Aquifer-Blank

Mann-Kendall P.Value= 0.597; Half-Life> 5 Years



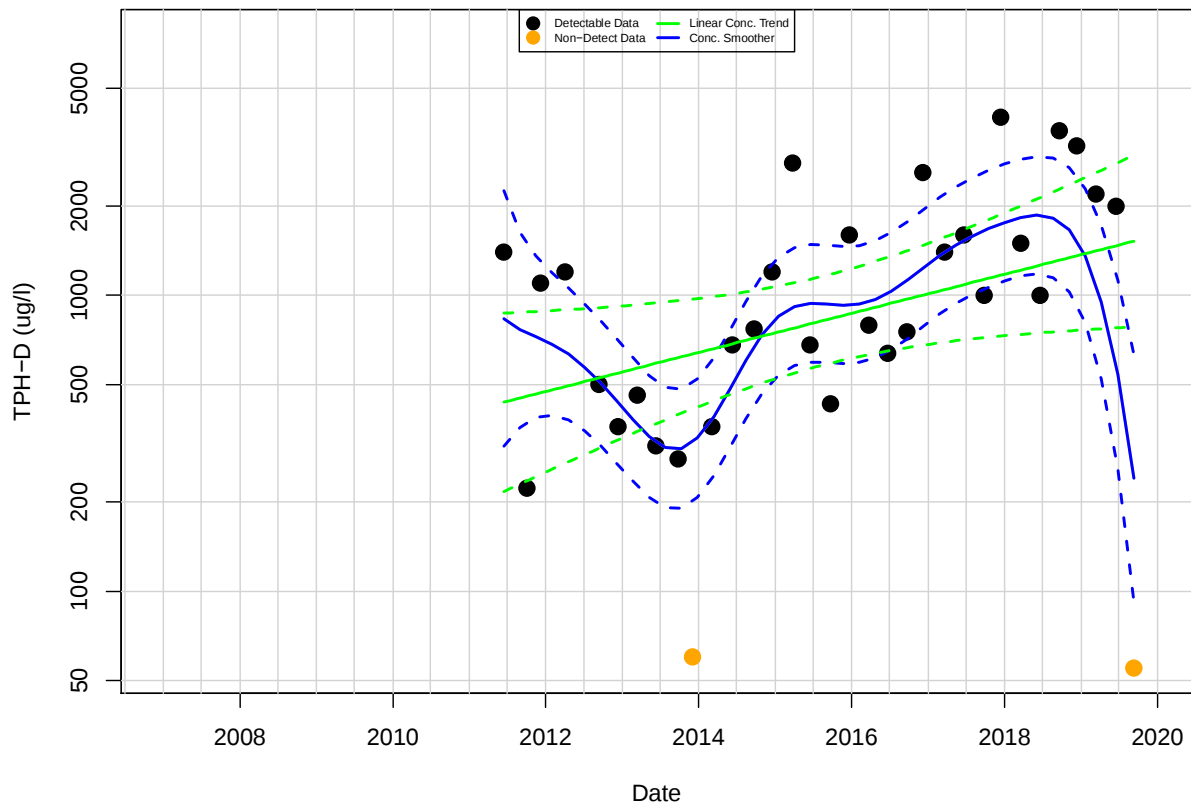
TPH-D in T-3 : Aquifer-Blank

Mann-Kendall P.Value= 0.899; Half-Life> 5 Years



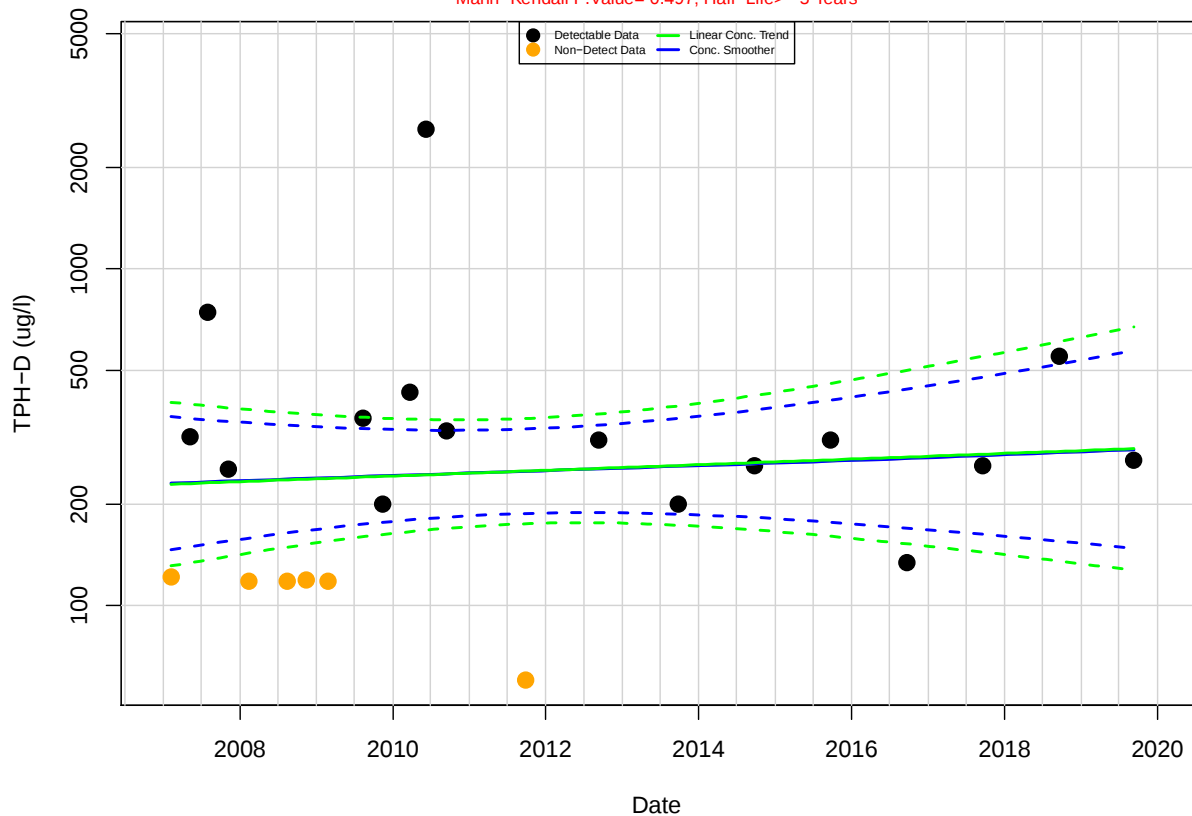
TPH-D in E-22 : Aquifer-Blank

Mann-Kendall P.Value= <0.01; Half-Life= -1664 days



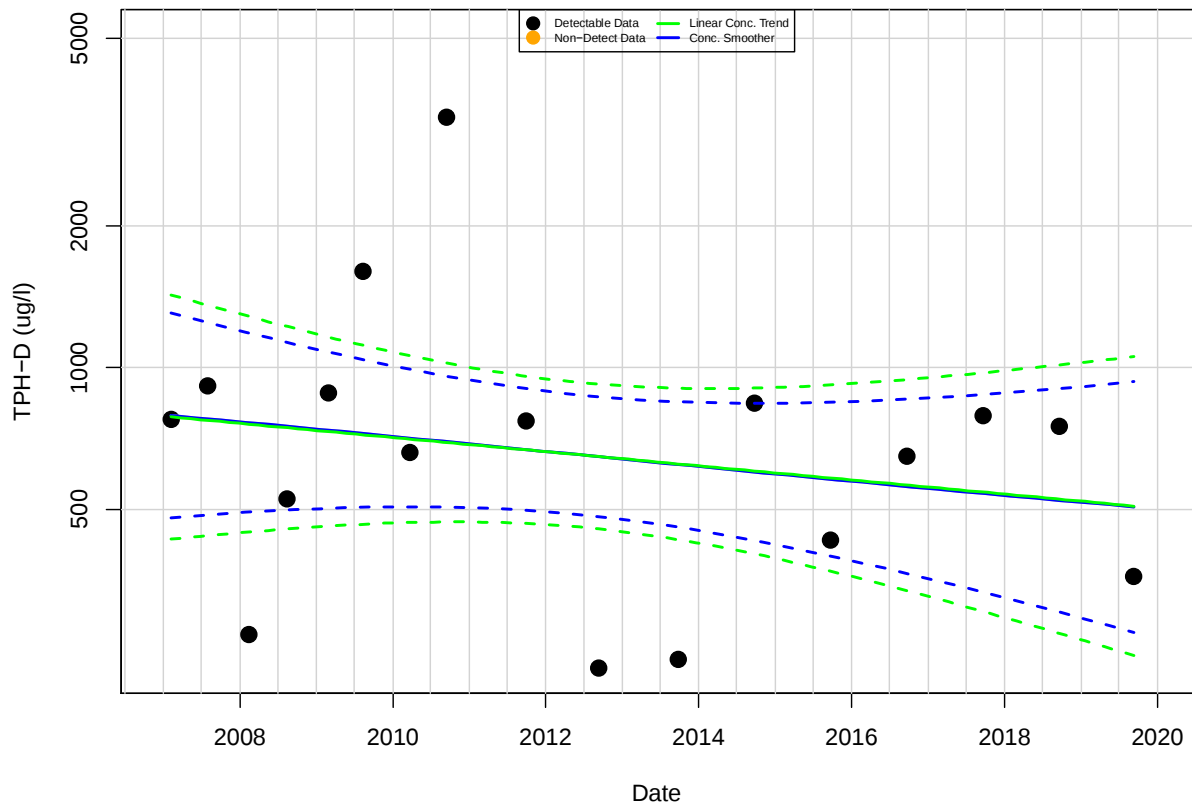
TPH-D in FW-3 : Aquifer-Blank

Mann-Kendall P.Value= 0.497; Half-Life> -5 Years



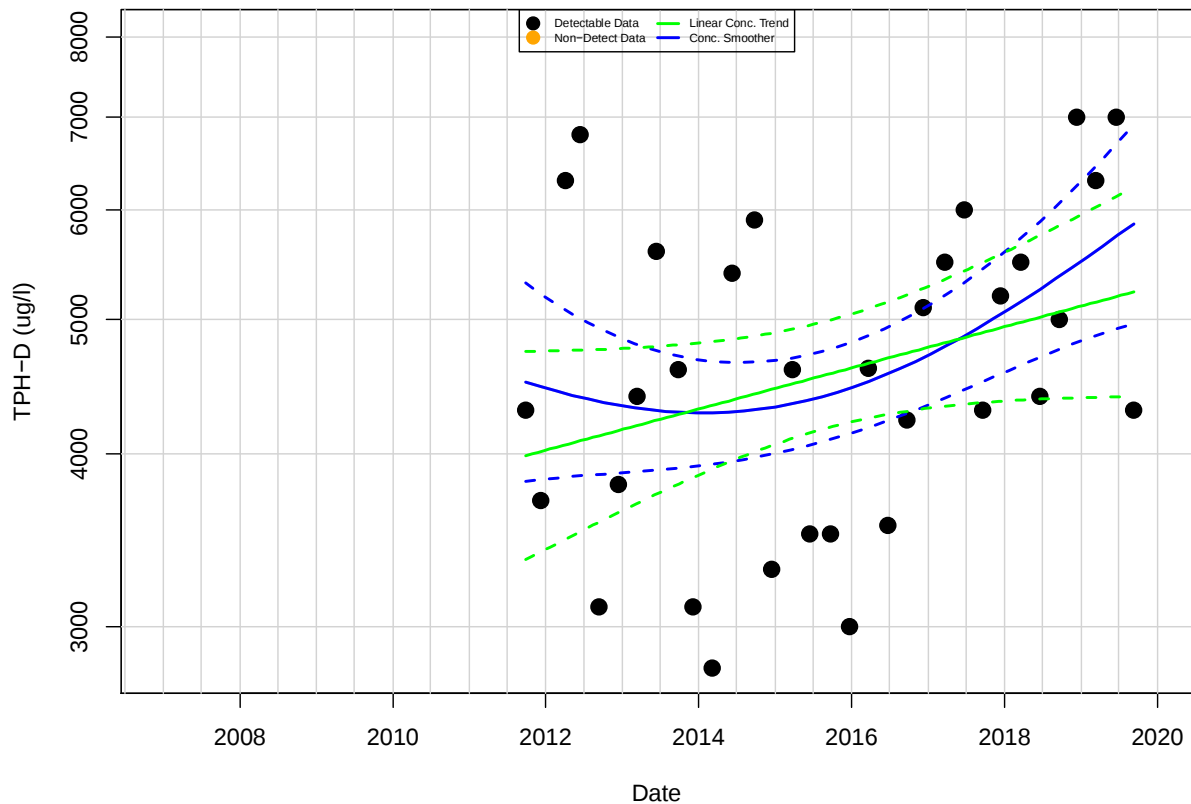
TPH-D in FW-4 : Aquifer-Blank

Mann-Kendall P.Value= 0.387; Half-Life> 5 Years



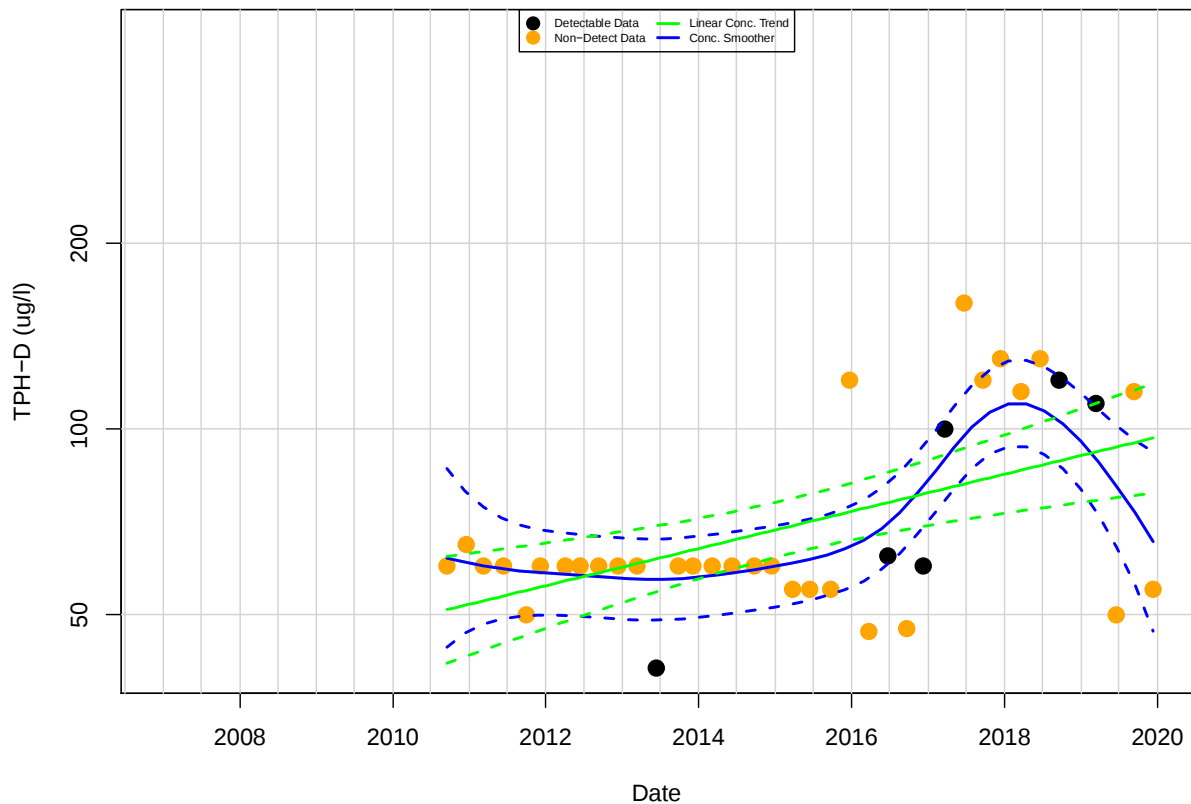
TPH-D in FW-5R : Aquifer-Blank

Mann-Kendall P.Value= 0.0564; Half-Life> -5 Years



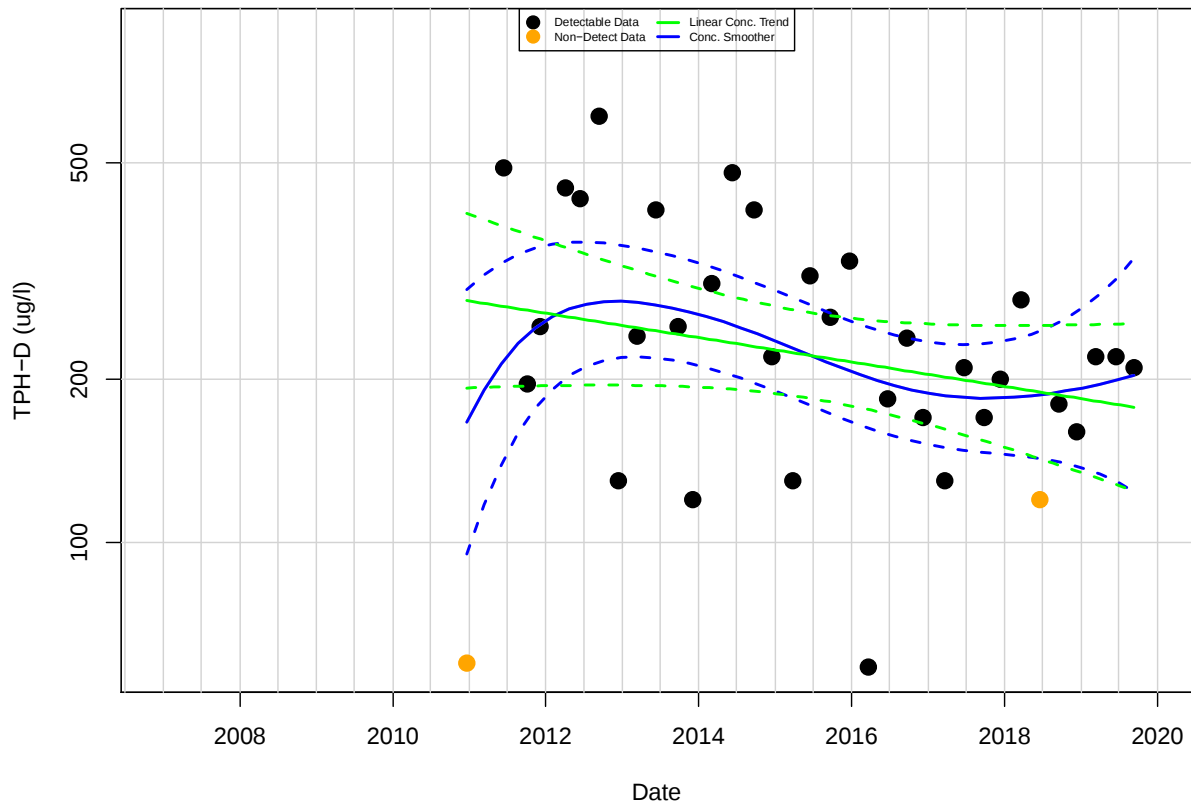
TPH-D in FW-14 : Aquifer-Blank

Mann-Kendall P.Value= 0.103; Half-Life> ~5 Years



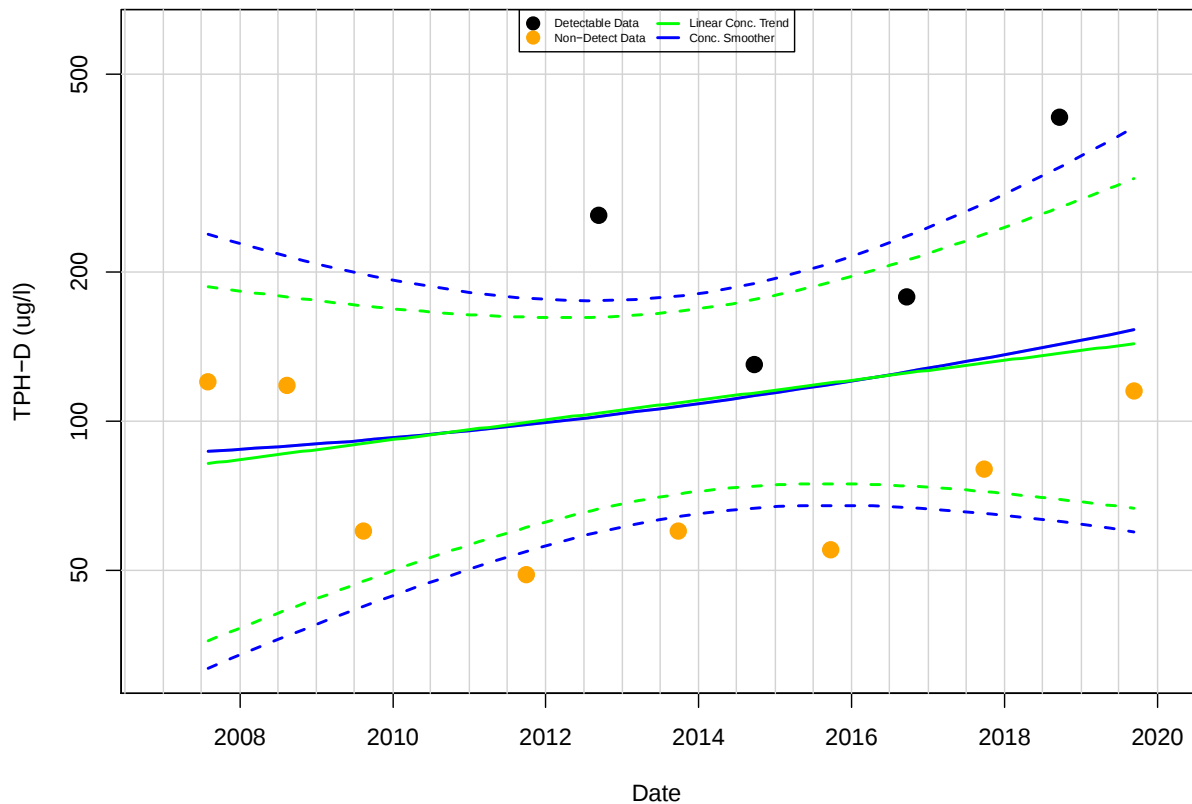
TPH-D in T-2 : Aquifer-Blank

Mann-Kendall P.Value= 0.0392; Half-Life> 5 Years



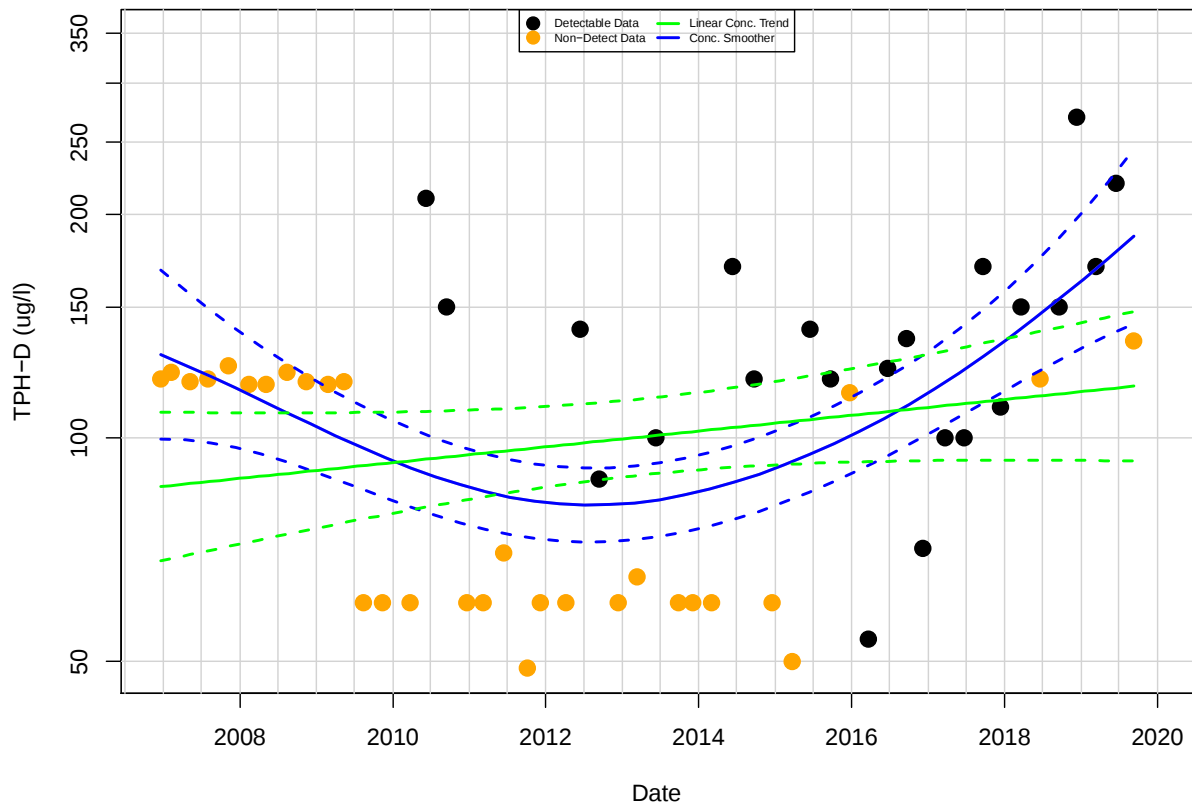
TPH-D in FW-15 : Aquifer-Blank

Mann-Kendall P.Value= 0.582; Half-Life> -5 Years



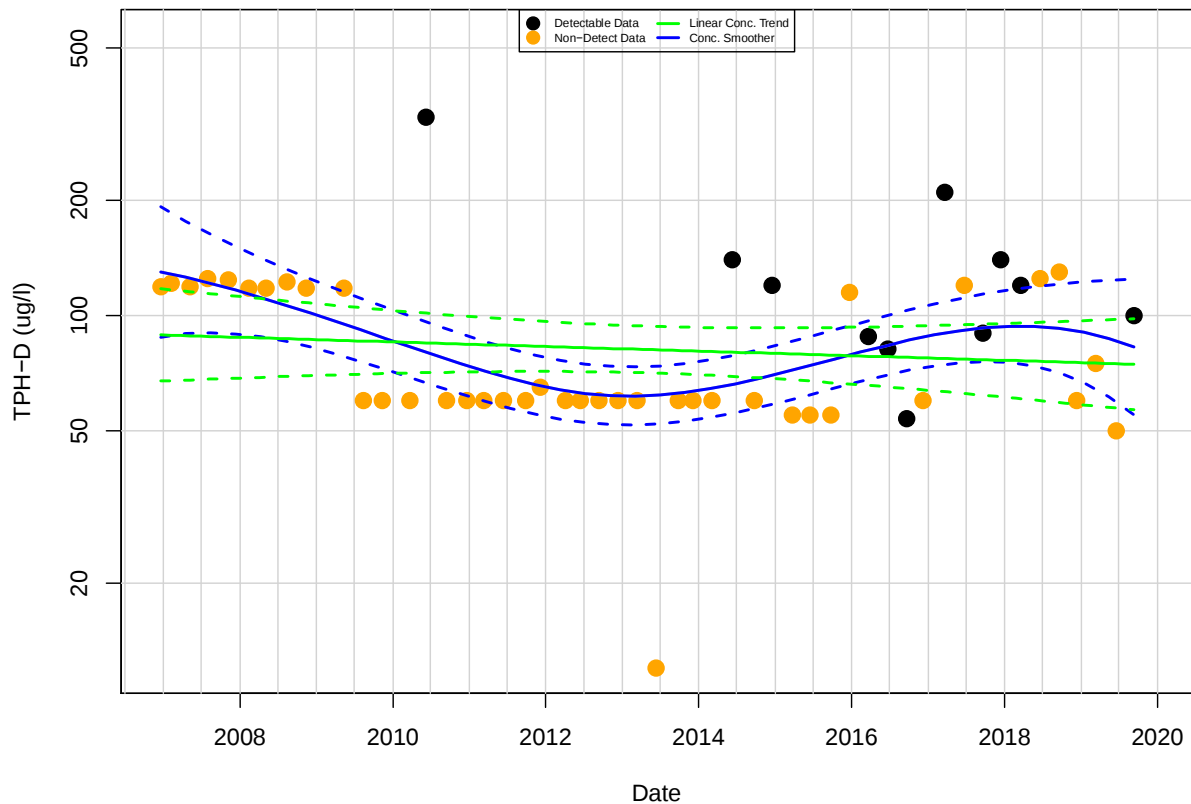
TPH-D in RR-1 : Aquifer-Blank

Mann-Kendall P.Value= 0.139; Half-Life> -5 Years

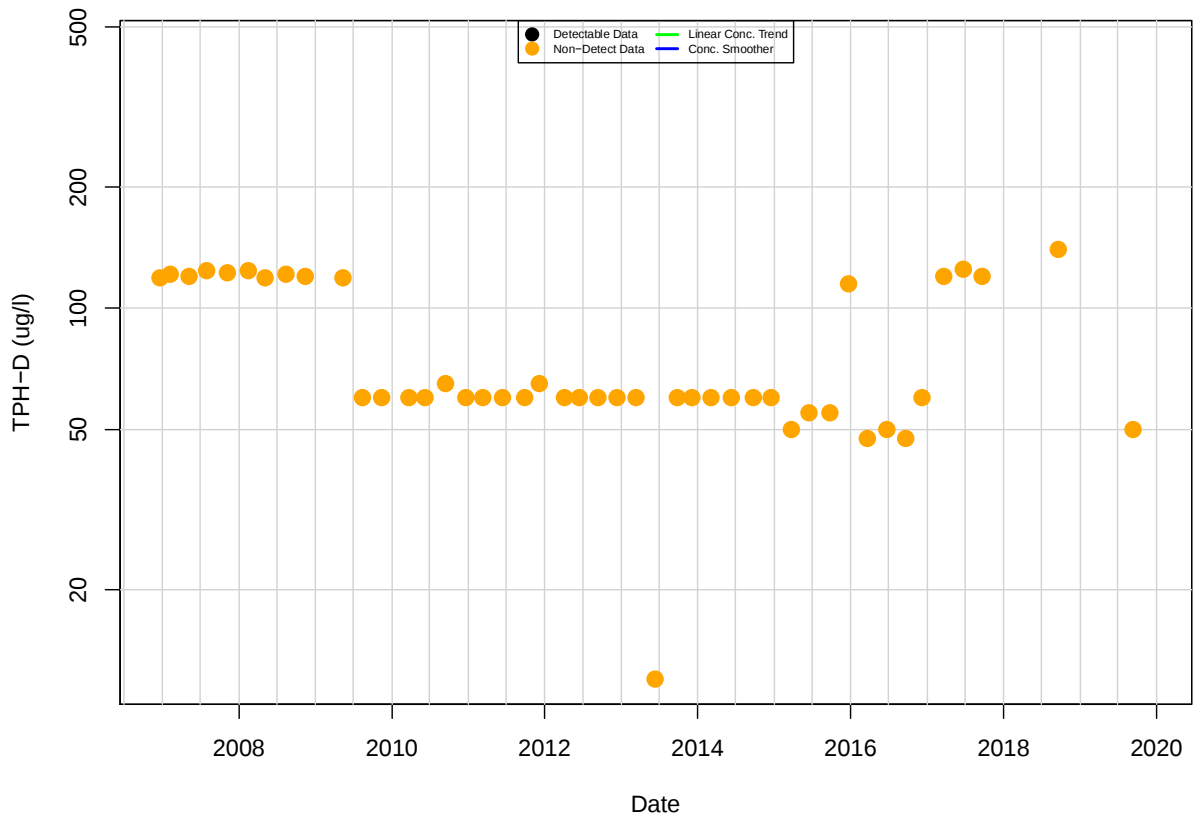


TPH-D in RR-2 : Aquifer-Blank

Mann-Kendall P.Value= 0.285; Half-Life> 5 Years

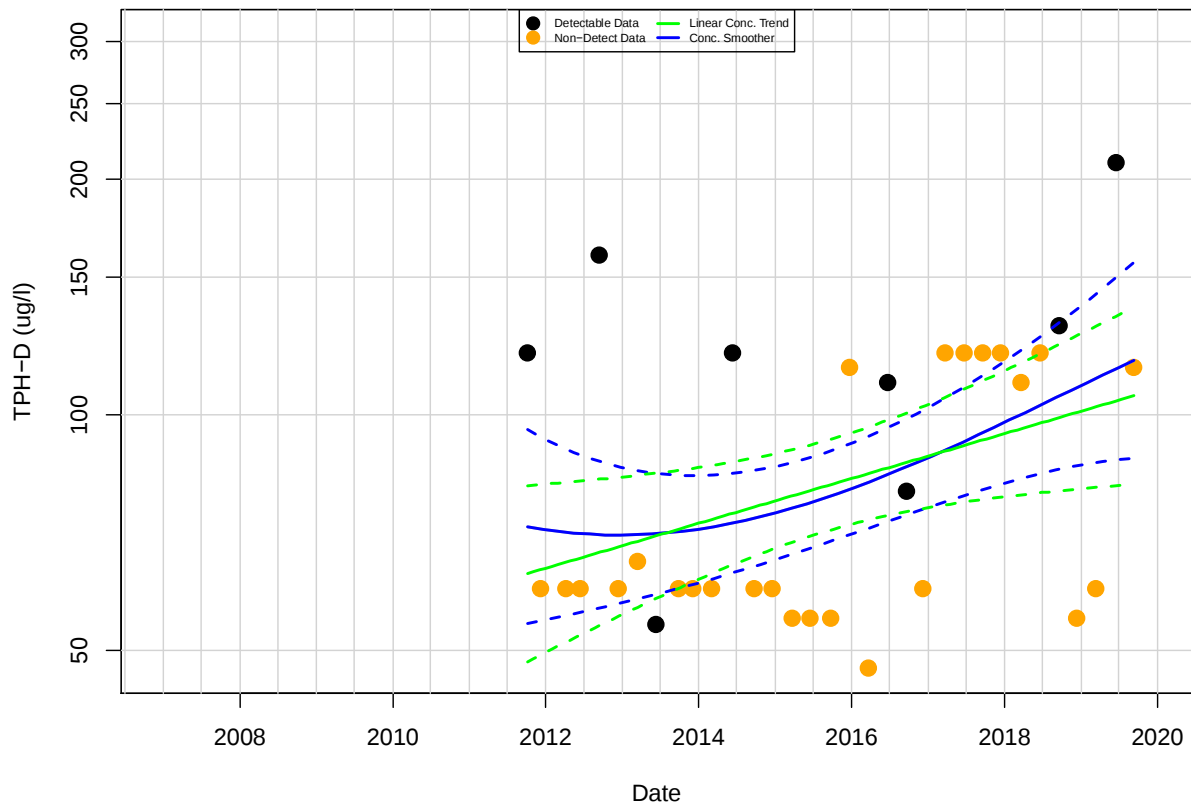


TPH-D in RR-3 : Aquifer-Blank



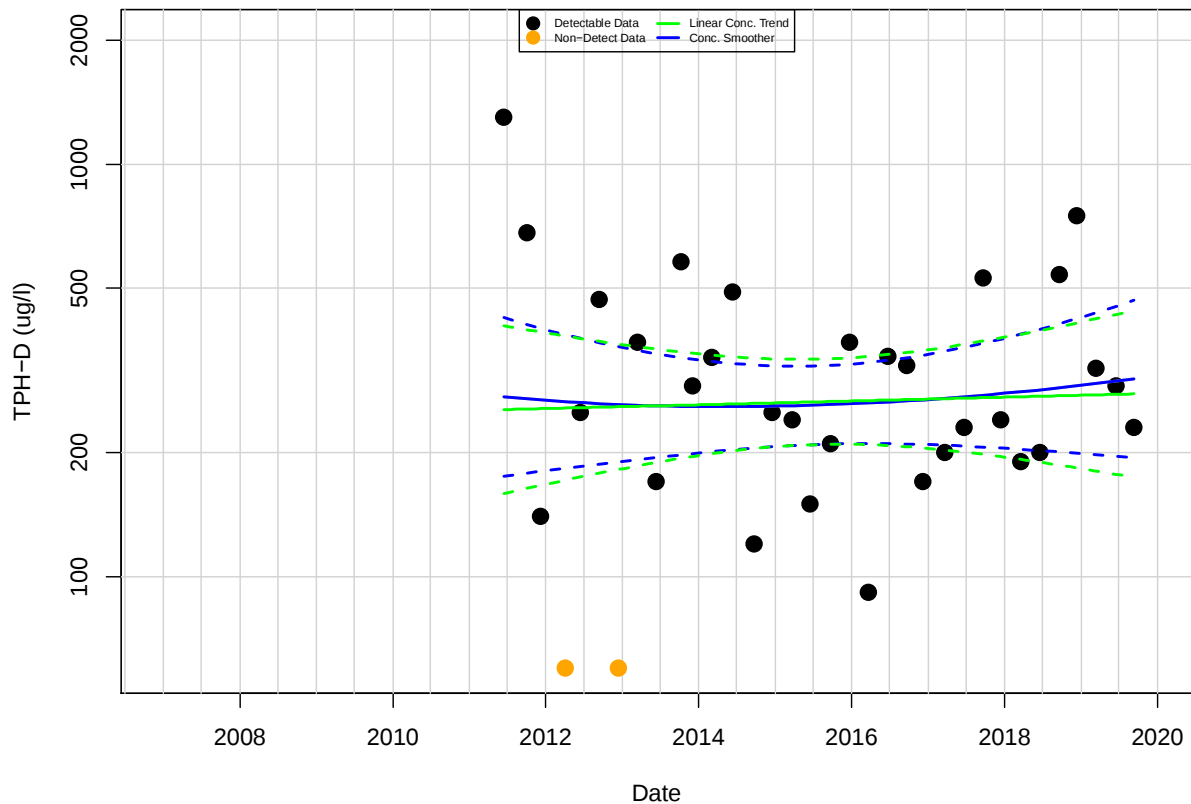
TPH-D in RR-4 : Aquifer-Blank

Mann-Kendall P.Value= 0.101; Half-Life> ~5 Years



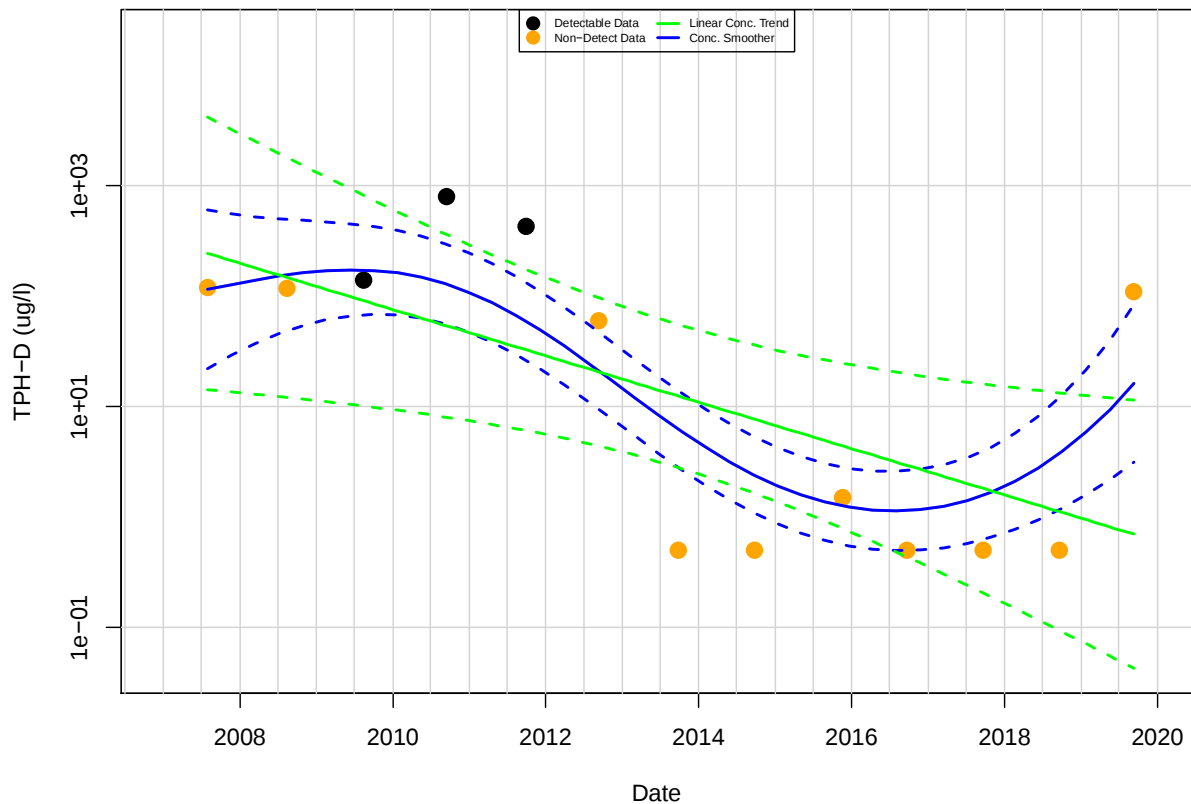
TPH-D in RR-5 : Aquifer-Blank

Mann-Kendall P.Value= 1; Half-Life> -5 Years



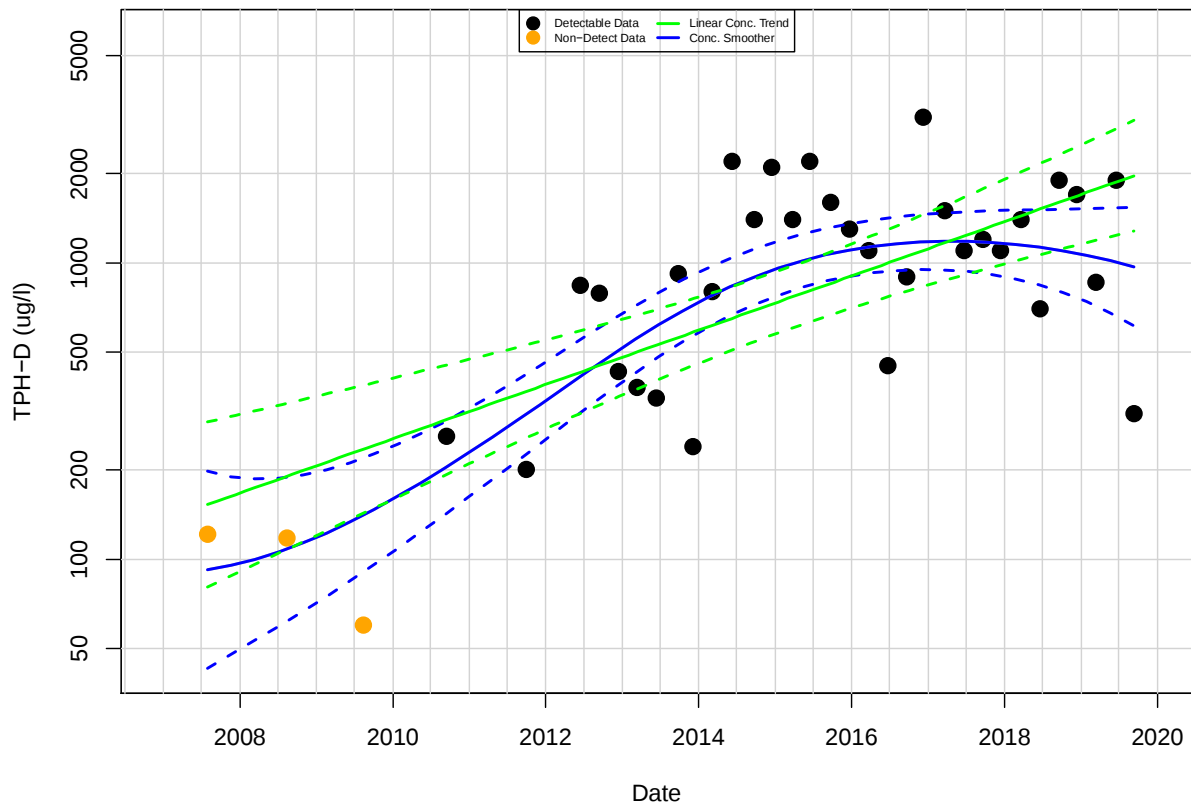
TPH-D in DMW-1 : Aquifer-Blank

Mann-Kendall P.Value= 0.0376; Half-Life= 523 days



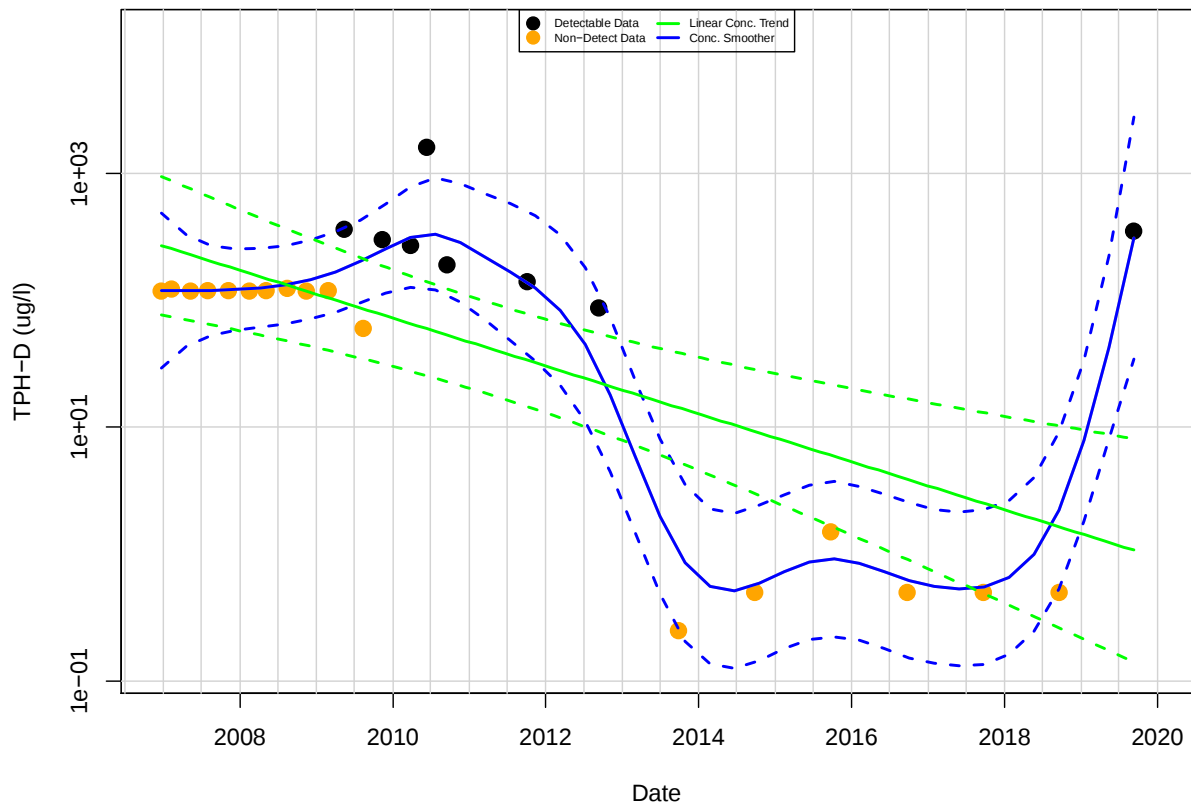
TPH-D in DMW-2 : Aquifer-Blank

Mann-Kendall P.Value= <0.01; Half-Life= -1201 days



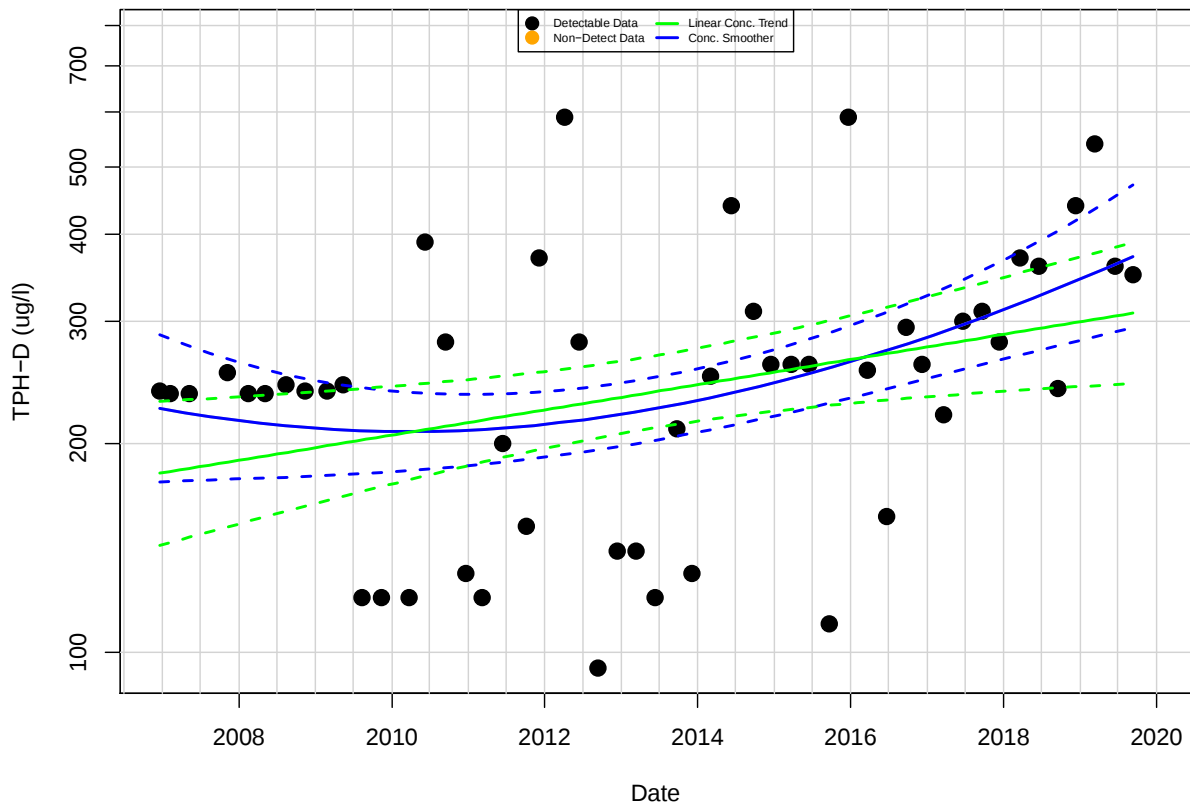
TPH-D in DMW-3 : Aquifer-Blank

Mann-Kendall P.Value= 0.249; Half-Life= 583 days



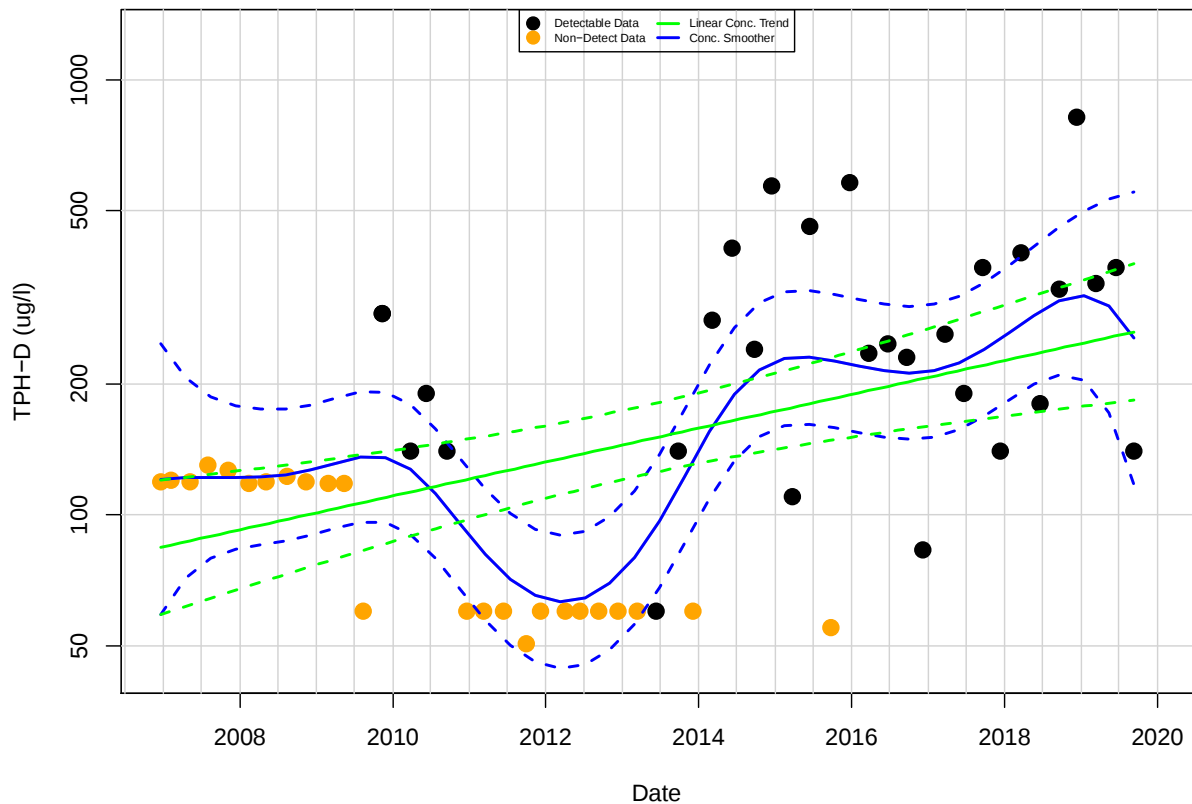
Mann-Kendall P.Value= <0.01; Half-Life> -5 Years

Mann-Kendall P.Value= <0.01; Half-Life> -5 Years



TPH-D in FW-13 : Aquifer-Blank

Mann-Kendall P.Value= <0.01; Half-Life> -5 Years



Appendix E

Restoration Time Frame Results

Module 2: Temporal Analysis: Concentration of contaminant vs. time (Regression Analysis at each well)

Site Name: D Street Petroleum Site

Site Address: Tacoma, WA

Additional Description: 0

Hazardous Substance Benzene

| 1. Level of Confidence (Decision Criteria)? | | 85% | | | | | | | | | | | | | | | |
|--|---------|------------------|-----------|---------|-----------|-----------|---------|-------|----|----|----|----|----|----|----|----|----|
| 2. Prediction: Calculation of Restoration Time and Predicted Concentration at Wells | | | | | | | | | | | | | | | | | |
| Well Location | | HC-111 | G-18 | B-34 | RR-2 | RR-3 | B-25 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| A. Cleanup Level (Criterion) to be achieved? ug/L | | 160 | 160 | 160 | 40 | 40 | 160 | | | | | | | | | | |
| A.1 Average (@50% CL ¹ best-fitting values) | | | | | | | | | | | | | | | | | |
| Time to reach the criterion | yr | 4.31 | -7.44 | NA | -7.31 | -9.59 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Date when the Criterion to be achieved | date | 9/29/18 | 1/2/07 | NA | 2/18/07 | 11/7/04 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| A.2 Boundary (@85% CL) | | | | | | | | | | | | | | | | | |
| Time to reach the criterion ² | yr | 11.92 | -10.42 | NA | -8.84 | -13.53 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Date when the Criterion to be achieved | date | 5/9/26 | 1/9/04 | NA | 8/9/05 | 12/2/00 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| | | | | | | | | | | | | | | | | | |
| B Date of Prediction? | date | 7/22/20 | 7/22/20 | 7/22/20 | 7/22/20 | 7/22/20 | 7/22/20 | | | | | | | | | | |
| B.1 Average conc predicted (@50% CL) ug/L | | 107.41 | 0.12 | NA | 0.04 | 0.06 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| B.2 Boundary conc predicted (@85% CL) ug/L | | 253.84 | 0.30 | NA | 0.06 | 0.13 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 3. Log-Linear Regression Results | | | | | | | | | | | | | | | | | |
| Coefficient of Determination r^2 | | 0.141 | 0.483 | 0.011 | 0.678 | 0.493 | 0.039 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Correlation Coefficient r | | -0.376 | -0.695 | -0.103 | -0.824 | -0.702 | -0.198 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Number of data points n | | 19 | 17 | 20 | 20 | 16 | 19 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 4. Statistical Inference on the Slope of the Log-Linear Regression Line with t-statistics | | | | | | | | | | | | | | | | | |
| One-tailed Confidence Level calculated, % | | 88.711% | 99.803% | 33.418% | 99.999% | 99.758% | 58.270% | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Sufficient evidence to support that the slope of the regression line is significantly different from zero? | | YES! | YES! | NO! | YES! | YES! | NO! | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Coefficient of Variation? | | NA | NA | 1.015 | NA | NA | 0.944 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Plume Stability? | | Shrinking | Shrinking | UD | Shrinking | Shrinking | Stable | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 5. Calculation of Point Decay Rate Constant (k_{point}) | | | | | | | | | | | | | | | | | |
| Slope: Point decay rate constant (k_{point}) | @50% CL | yr ⁻¹ | 0.220 | 0.531 | NA | 0.521 | 0.413 | 0.104 | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| | @85% CL | yr ⁻¹ | 0.080 | 0.379 | NA | 0.431 | 0.293 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Half Life for (k_{point}) | @50% CL | yr | 3.150 | 1.305 | NA | 1.331 | 1.678 | 6.685 | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| | @85% CL | yr | 8.712 | 1.829 | NA | 1.609 | 2.367 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |

Note: 1. CL : Confidence Level; UD= Undetermined

2. The length of time that will actually be required is estimated to be no more than years calculated (@ 85% of confidence level.)