

Yakima Railroad Area PCE Contamination: Groundwater Quality Monitoring, Data Summary 2022 – 2023: Appendices

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Appendix A. Well Construction Details and Field Measurement Data

Table 1. Well construction details.

Well ID	Well Installation Date	Well Tag ID	Latitude (decimal degrees)	Longitude (decimal degrees)	TOC Elevation (feet)	TOC Stickup (feet)	Ground Surface Elevation (feet)	Casing Diameter (inches)	Well Depth from TOC (feet)	Top of Screen Depth (below TOC)	Bottom of Screen Depth (below TOC)
GMW-1	4/1994	ABJ993	46.59949	-120.5019	1063.00	-1.44	1064.44	2	23	13	23
GMW-2	4/1994	ABJ994	46.59911	-120.50169	1055.42	-0.27	1055.69	2	23	13	23
GMW-4	1/1996	BIN804	46.59924	-120.50151	1056.94	-0.34	1057.28	2	30	10	30
NMW-1	6/1995	ABJ918	46.59366	-120.49867	1044.00	-0.29	1044.29	2	24.1	15	25
NMW-2 ¹	6/1995	ABJ919	46.59322	-120.49748	1044.21	-0.23	1044.44	2	23.6	10	25
NMW-3	6/1995	ABJ920	46.59362	-120.49820	1043.83	—	—	2	23.8	15	25
SGMW-1	4/1996	BIN801	46.58660	-120.51086	1056.90	-0.26	1057.16	2	43.7	15	45
SGMW-2	4/1996	BIN803	46.58617	-120.51034	1056.47	-0.35	1056.82	2	44.2	15	45
SGMW-3	4/1996	BIN802	46.58583	-120.51027	1054.77	-0.49	1055.26	2	45	15	45
WDOE-3S	—	BIN819	46.58963	-120.50341	1053.32	2.82	1050.50	2	29.9	—	—
WDOE-3I	—	BIN817	46.58963	-120.50325	1053.27	2.87	1050.40	2	58.5	—	—
WDOE-3D	—	BIN818	46.58962	-120.50332	1053.12	2.81	1050.31	2	100	—	—
5WMW-2	2/1995	BIN808	46.58887	-120.49778	1039.22	-0.55	1039.77	2	33.6	15	35
CYIMW102S	—	BIN810	46.58388	-120.49798	1030.74	-0.29	1031.03	2	30	10	30
CYIMW103S	—	BIN809	46.58388	-120.49757	1030.65	-0.54	1031.19	2	29.5	10	30
CYIMW103D	1/2003	AHR176	46.58386	-120.49757	1030.66	-0.35	1031.01	2	60	50	60
CYIMW106S	—	BIN806	46.58439	-120.49839	1033.46	-0.46	1033.92	2	29.2	10	30

Well ID	Well Installation Date	Well Tag ID	Latitude (decimal degrees)	Longitude (decimal degrees)	TOC Elevation (feet)	TOC Stickup (feet)	Ground Surface Elevation (feet)	Casing Diameter (inches)	Well Depth from TOC (feet)	Top of Screen Depth (below TOC)	Bottom of Screen Depth (below TOC)
CYIMW107S	8/1998	BIN805	46.58436	-120.49738	1033.85	-0.15	1034.00	2	29.3	10	30
CYIMW108S	8/1998	BIN807	46.58405	-120.49637	1031.45	-0.64	1032.09	2	30	10	30
CYIMW109S	8/1998	BIN815	46.58394	-120.49649	1029.19	-0.97	1030.16	2	29	10	30
CYIMW110S	8/1998	—	46.58389	-120.49678	1028.50	—	—	2	29	10	30
CYIMW111S	8/1998	—	46.58389	-120.49711	1029.33	—	—	2	31	10	30
CYIMW112S	8/1998	BIN811	46.58298	-120.49679	1028.84	-0.69	1029.53	2	29	10	30
CYIMW113S	8/1998	BIN814	46.58275	-120.49690	1028.38	-1.15	1029.53	2	30	11	31
CYIMW113D	8/1998	BIN813	46.58276	-120.49689	1028.19	-0.89	1029.08	2	59.5	50	60
CYIMW114S	8/1998	BIN812	46.58275	-120.49652	1028.18	-1.34	1029.52	2	30.7	10	30
ATMW-4 ²	10/1997	BIN816	46.56834	-120.48978	1000.82	-0.27	1001.09	2	30	10	30
RI-3S	10/1997	AEB112	46.59247	-120.51698	1071.39	-0.72	1072.11	2	47.2	33	48
RI-4S	11/1997	AEB126	46.58349	-120.52999	1051.91	-0.89	1052.80	6	35	20	35
RI-4D	11/1997	AEB125	46.58349	-120.53005	1052.48	-0.30	1052.78	6	126	116	126
RI-5S	10/1997	AEB114	46.57982	-120.51812	1044.51	-0.41	1044.92	2	38.4	24	39
RI-5D	10/1997	AEB113	46.57982	-120.51819	1044.54	-0.32	1044.86	2	119	109	119
RI-6S	11/1997	AEB122	46.57047	-120.51879	1033.50	-0.37	1033.87	2	38.9	25	40
RI-9S	10/1997	AEB116	46.56028	-120.48761	988.30	-0.54	988.84	2	28.8	15	30
RI-10S	11/1997	AEB128	46.56235	-120.48152	989.05	-0.62	989.67	2	33.3	20	35
RI-11S	11/1997	AEB130	46.56268	-120.47698	988.53	-0.41	988.94	2	38.6	23	38

Well ID	Well Installation Date	Well Tag ID	Latitude (decimal degrees)	Longitude (decimal degrees)	TOC Elevation (feet)	TOC Stickup (feet)	Ground Surface Elevation (feet)	Casing Diameter (inches)	Well Depth from TOC (feet)	Top of Screen Depth (below TOC)	Bottom of Screen Depth (below TOC)
FWMW-4	2/1995	—	46.598239	-120.511674	1064.45	-0.5	1064.95	2	35	10	35
FWMW-5	1997	—	46.598980	-120.512588	1067.68	-0.48	1068.16	2	35	15	35
FWMW-6	5/2005	AKN055	46.598796	-120.512500	1066.99	-0.2	1067.19	2	35	15	35
FWMW-10	5/2005	AKN059	46.598930	-120.512011	1066.00	-0.44	1066.44	2	35	15	35
FWMW-16	5/2012	BHH289	46.599146	-120.512846	1068.92	-0.54	1069.46	2	35	30	35
FWMW-17	5/2012	BHH290	46.599155	-120.512816	1069.10	-0.34	1069.44	2	93	88	93
FWMW-18	6/2012	BHH291	46.598908	-120.512083	1066.07	-0.52	1063.93	2	92	87	92
FWMW-19	6/2012	BHH292	46.598569	-120.511805	1064.07	-0.47	1062.02	2	93	88	93
FWMW-20	6/2012	BHH293	46.598578	-120.511961	1063.97	-0.28	1064.25	4	35	30	35
FWMW-24	6/2012	BHH293	46.597386	-120.510840	1062.22	—	1062.22	4	35	25	35

—: Information not available.

VERTICAL DATUM: NAVD88. Vertical accuracy measure +/-10 ft (3m).

HORIZONTAL DATUM: NAD83 HARN. Horizontal accuracy measure +/-10 ft (3m).

TOC: Top of well casing.

¹Well NMW-2 decommissioned in 2016.

²Well unable to be located since 2017.

Table 2. Field measurement parameters, 2022 – 2023.

Well ID	Well Tag ID	Sample Date	Depth to Groundwater (ft below measuring point)	Temp (°C)	pH (units)	DO (mg/L)	Conductivity (µmhos/cm)	ORP (mV)
GMW-1	ABJ993	4/19/2022	19.78	17.3	6.4	6.8	341	186
		4/25/2023	22.33	17.6	6.8	7.5	392	365
GMW-2	ABJ994	4/18/2022	17.29	11.5	7.1	10.4	136	304
		10/11/2022	15.79	17.4	6.6	7.2	483	269
		4/25/2023	20.11	17.0	6.8	7.3	388	316
		10/17/2023	17.04	17.3	6.7	7.3	491	157
GMW-4	BIN804	4/18/2022	17.67	9.2	7.4	11.4	86	388
		4/25/2023	20.63	12.3	6.8	8.6	348	350
NMW-1	ABJ918	4/19/2022	20.28	15.1	6.5	8.2	333	152
		4/25/2023	19.94	15.4	6.4	8	507	356
SGMW-1	BIN801	10/10/2022	24.45	16	6.7	8.4	294	151
		10/16/2023	26.01	16.1	6.8	8.2	307	143
SGMW-2	BIN803	10/11/2022	25.43	16.1	6.6	8.7	298	263
		10/16/2023	26.93	16.2	6.8	8.3	314	138
SGMW-3	BIN802	10/11/2022	23.57	16.1	6.6	9.1	296	265
		10/16/2023	25.05	16.18	6.8	8.5	319	137
WDOE-3D	BIN818	10/12/2022	26.47	17.2	7.2	0.2	312	-117
		10/18/2023	27.97	17.3	7.3	0.3	318	-93
WDOE-3I	BIN817	10/12/2022	24.61	17 EST	6.8	0.1	307	13
		10/18/2023	25.88	16.9	6.9	0.2	308	73
WDOE-3S	BIN819	10/12/2022	24.06	17.3	6.6	8.4	368	213
		10/18/2023	25.21	17.9	6.7	7.3	370	138
5WMW-2	BIN808	10/11/2022	15.77	18.5	6.5	6.5	384	264
		10/17/2023	16.49	18.2	6.6	5.8	424	160
CYIMW102S	BIN810	10/12/2022	14.63	17.4	6.5	6.9	394	302
		10/17/2023	15.56	17.7	6.7	6.7	414	201

Well ID	Well Tag ID	Sample Date	Depth to Groundwater (ft below measuring point)	Temp (°C)	pH (units)	DO (mg/L)	Conductivity (µmhos/cm)	ORP (mV)
CYIMW103D	AHR176	4/19/2022	21.06	15.1 EST	6.9	4.6	339	174
		4/26/2023	20.59	16.6 EST	7	4.9	336	341
CYIMW103S	BIN809	4/19/2022	20.42	15.6	6.7	6.5	391	193
		10/12/2022	15.06	18.1	6.6	7.8	403	295
		4/26/2023	19.91	15.7 EST	6.6	6.9	400	348
		10/17/2023	16.1	18.4	6.7	7.2	396	196
CYIMW106S	BIN806	10/11/2022	16.47	17.8	6.5	7.1	407	272
		10/17/2023	17.57	18.1	6.7	7	400	170
		4/20/2022	23.6	16	6.6	7	306	208
CYIMW107S	BIN805	10/11/2022	18.15	17.8	6.6	8.8	238	259
		4/26/2023	23.14	17	6.7	7.3	326	363
		10/17/2023	19.31	16.2 EST	6.7	7.1	356	128
CYIMW108S	BIN807	10/11/2022	16.32	18.4	6.7	8.2	297	250
		10/17/2023	17.44	17.1 EST	6.9	7.0	308	121
CYIMW111S	—	10/11/2022	14.51	17.4	6.6	7.4	266	265
		10/17/2023	15.65	16.9	6.7	7.0	364	131
CYIMW112S	BIN811	10/11/2022	13.96	16.6	6.4	7.2	370	268
CYIMW113D	BIN813	4/20/2022	19.92	15 EST	6.7	5.2	322	211
		4/26/2023	19.46	16	7	5.4	316	352
CYIMW113S	BIN814	4/20/2022	18.49	15.2 EST	6.6	7.3	332	216
		4/26/2023	17.91	15.5	6.5	5.7	398	372
CYIMW114S	BIN812	10/17/2023	14.57	17.9 EST	6.7	6.6	412	217

Well ID	Well Tag ID	Sample Date	Depth to Groundwater (ft below measuring point)	Temp (°C)	pH (units)	DO (mg/L)	Conductivity (µmhos/cm)	ORP (mV)
RI-3S	AEB112	4/19/2022	40.33	15.4	7	6.6	393	147
		4/24/2023	39.06	16.5 EST	6.9	6.8	388	326
RI-4D	AEB125	4/19/2022	14.58	15.2	7.7	7.5	332	178
		4/25/2023	14.03	16.6 EST	8	7.4	325	302
RI-4S	AEB126	4/19/2022	15.5	15.3	7.4	5	748	134
		4/25/2023	14.81	16 EST	7.4	5.1	749	338
RI-5D	AEB113	4/19/2022	24.53	15.2 EST	7.2	5.8	539	189
		4/25/2023	23.98	16 EST	7.5	6.4	533	333
RI-5S	AEB114	4/19/2022	19.81	14.9	6.8	7.7	439	150
		4/25/2023	19.33	16.3	6.8	7.6	459	313
RI-6S	AEB122	10/12/2022	7.37	15.5	7	7.3	746	281
		10/18/2023	7.61	15.8	7.2	6.9	754	144
RI-9S	AEB116	10/10/2022	4.37	16.3	6.6	3.2	339	132
		10/17/2023	4.85	16.5	6.8	3.3	318	125
RI-10S	AEB128	4/19/2022	10.14	14.7 EST	6.6	7	320	156
		4/25/2023	9.8	14.7	6.6	7.1	361	338
RI-11S	AEB130	10/10/2022	12.28	19.8	6.4	6.2	316	146
FWMW-4	—	4/20/2022	26.17	16.5	6.7	1.9	402	119
		10/12/2022	16.58	17.7	6.6	7.6	413	295
		4/26/2023	24.85	17.6 EST	6.5	5.8	1659	355
		10/18/2023	17.7	17.6	6.7	7.1	443.6	165.1

Well ID	Well Tag ID	Sample Date	Depth to Groundwater (ft below measuring point)	Temp (°C)	pH (units)	DO (mg/L)	Conductivity (µmhos/cm)	ORP (mV)
FWMW-5	—	4/18/2022	25.37	16.2	6.7	6.6	230	131
		10/11/2022	16.77	19.8 EST	6.5	7.6	309	251
		4/24/2023	24.27	17.5 EST	6.6	6.8	278	343
		10/17/2023	17.71	18.9	6.7	7.3	303.1	132
FWMW-6	AKN055	4/18/2022	24.49	16.3	6.7	7.6	235	128
		10/11/2022	17.17	17.3	6.5	6.9	312	272
		4/24/2023	23.65	16.5 EST	6.6	7.8	275	345
		10/18/2023	18.48	17.1	6.7	6.9	308	164
FWMW-10	AKN059	4/20/2022	24.9	15.8	7.3	0	302	-3
		10/13/2022	16.7	16.7	7	0	287	30
		4/27/2023	23.51	16.2	7.1	0.7	319	367
		10/19/2023	17.88	16.1	7.2	0.1	292	69
FWMW-16	BHH289	4/20/2022	27.69	15.5 EST	7.1	1.8	369	51
		10/12/2022	18.66	18	7	0.5 EST	366	-7
		4/26/2023	25.82	19 EST	7.2 EST	1.7	373	327
		10/18/2023	19.76	17.9	7.2	1.0	378	80
FWMW-17	BHH290	4/18/2022	32.02	16	7.8	2.8	245	78
		10/10/2022	25.39	16.8	7.4	3.6	239	104
		4/24/2023	31.06	16.5 EST	7.8	3.6	247	292
		10/16/2023	26.34	16.8	7.8	3.7	248	128
FWMW-18	BHH291	4/18/2022	28.77	15.8	7.9	4.4	245	84
		10/10/2022	23.11	16.7	7.6	4.4	241	94
		4/24/2023	27.99	15.9	7.9	4.5	251	288
		10/16/2023	24.09	16.5	7.9	4.6	252	124

Well ID	Well Tag ID	Sample Date	Depth to Groundwater (ft below measuring point)	Temp (°C)	pH (units)	DO (mg/L)	Conductivity (µmhos/cm)	ORP (mV)
FWMW-19	BHH292	4/18/2022	27.69	15.9	7.8	4.3	241	95
		10/10/2022	21.86	16.9	7.6	4.3	240	97
		4/24/2023	26.9	17.8 EST	7.8	4.5	248	259
		10/16/2023	22.91	16.7	7.9	4.4	249.8	112.9
FWMW-20	BHH293	4/20/2022	25.24	16.3	6.8	0	366	-8
		10/13/2022	15.9	17.5	6.8	0.6	374	14
		4/26/2023	23.9	16.7	6.9	0.8 EST	352	335
		10/19/2023	17.12	16.8	7.0	0.1	373	55
FWMW-24	BHH297	4/20/2022	24.02	16.9	6.6	6.7	282	141
		10/11/2022	15.77	17.4	6.5	7.3	323	295
		4/26/2023	23.01	17.6	6.6	7	328	355
		10/18/2023	16.77	17.7	6.7	6.9	328	130

°C: degree Celsius

DO: dissolved oxygen

EST – Final three readings outside of acceptance criteria, result is an estimated value.

mg/L: milligrams per liter]

mV: millivolts

ORP: oxidation-reduction potential

µmhos/cm: micromhos per centimeter

—: no information available.

Appendix B. Quality Assurance Review

Data Quality Assessment: 2022 – 2023 Data

To ensure collection of high-quality data, the project wells were sampled following standard procedures as specified in the Quality Assurance Project Plan (QAPP; Marti 2013) and Ecology’s SOP EAP078 (Ecology 2024). Groundwater samples were collected with a stainless-steel bladder pump using dedicated Teflon-lined tubing, using industry standard low-flow sampling techniques. Samples were collected into hydrochloric acid (HCL) preserved 40-mL glass vials supplied by the Manchester Environmental Laboratory (MEL) in Port Orchard, Washington. Following collection, the samples were labeled and stored in clean, ice-filled coolers and transported to the laboratory using standard chain-of-custody procedures.

For assessment of chlorinated volatile organic compounds (cVOCs) in the YRRA project area, samples were analyzed for VOCs using a modification of EPA SW-846 Method 8260C.

Quality control samples collected per the QAPP consisted of field duplicates, equipment blanks, and transport blanks.

During 2022 and 2023, field duplicates were collected from wells CYIMW-103S, FWMW-10, FWMW-20, GMW-2, RI-6S, RI-10S, and SGMW-2. PCE concentrations in these wells historically span the concentration range in the YRRA, and as such, represent suitable locations for duplicate samples.

Measurement quality objectives (MQO) for duplicate samples and other analytical performance criteria can be found in the QAPP (Marti 2013), which is summarized in Table 3.

Table 3. Laboratory measurement quality objectives.

Parameter	LCS % Recovery Limits	Laboratory Replicates (RPD)	Matrix Spikes % Recoveries	Matrix Spikes Duplicates (RPD)	Required Reporting Limit ¹
cVOCs	30–174%	30%	30–74%	30%	1–5 µg/L

LCS: laboratory control sample

RPD: relative percent difference

¹ Reporting limit may vary depending on dilutions, matrix interference, etc.

cVOC : Chlorinated volatile organic compounds

Laboratory analytical data from the 2022 to 2023 sampling events indicate that all replicate samples met the 30% relative percent difference (RPD) quality criteria for all analytes, with the exception of the April 2023 PCE results from GWM-2, which had an RPD value of 99%.

During April 2022, PCE was detected in an equipment blank sample at an estimated 0.34 µg/L. The equipment blank was collected on 4/20/2022 following sample collection at the Frank Wear well with the highest PCE concentration (FWMW-10). The PCE result from this well is not qualified as the sample concentration is greater than five times the concentration of the blank

contamination. The equipment blank collected prior to sampling the high concentration wells indicates that equipment contamination occurred because of high concentrations at FWMW-10. No other results are qualified due to the blank contamination.

In October 2022, PCE was detected in an equipment blank sample at an estimated 0.37 µg/L. The equipment blank was collected on 10/13/2022 following sample collection at the Frank Wear wells with the highest PCE concentration (FWMW-10, FWMW-20). The PCE result from this well is not qualified as the sample concentration is greater than five times the concentration of the blank contamination. The equipment blank collected prior to sampling the high concentration wells indicates that equipment contamination occurred because of high concentrations at FWMW-10 and FWMW-20. No other sample results are qualified due to the blank contamination.

None of the target analytes were detected in equipment blank samples collected during April 2023.

During October 2023, PCE was detected in an equipment blank sample at an estimated 0.77 µg/L. The equipment blank was collected on 10/18/2023 following sample collection at the Frank Wear wells with the highest PCE concentration (FWMW-10, FWMW-20). The PCE result from this well is not qualified as the sample concentration is greater than five times the concentration of the blank contamination. The equipment blank collected prior to sampling the high concentration wells indicates that equipment contamination occurred because of high concentrations at FWMW-10 and FWMW-20. No other sample results are qualified due to the blank contamination.

The transport blank sample from 4/18/2022 reported an estimated PCE concentration of 0.24 µg/L. The PCE results from samples collected after this transport blank are qualified “B” when the sample concentrations are less than five times the concentration of the transport blank. Transport blank samples collected during October 2022, April 2023, and October 2023 sampling events did not contain reportable concentrations of target analytes.

MEL follows strict quality assurance (QA) procedures to both ensure and later evaluate the quality of their analytical results (Ecology 2016). Samples submitted to MEL during October 2022 were resubmitted to Onsite Environmental Inc (Onsite) for analysis due to equipment issues at MEL. On-site provided a case narrative and explanation of data qualifiers for QA purposes. A review of the data quality control and QA from all laboratory case narratives indicates that overall analytical performance was good.

Table 4 lists the data quality codes MEL and Onsite assigned to the 2022 and 2023 analytical results, as well as the reasons for qualification and associated analytes.

Table 4. Analytical data qualification

Month & Year	Qualification Criteria ^{1,2}	Analyte	Affected Results
Spring 2022	CCV exceeded QC limits	PCE VC	CYIMW107S; CYIMW103D; CYIMW103S; CYIMW113D; CYIMW113S; FWMW-6; FWMW-20; FWMW-24; FWMW-16; FWMW-4; FWMW-5 GMW-4; GMW-2; CYIMW107S; CYIMW103D; CYIMW103S; CYIMW113D; CYIMW113S; FWMW-6; FWMW-4
Spring 2022	LCS recovery exceeded QC limits	VC	RI-10S; FWMW-19; FWMW-18; FWMW-17; NMW-1; RI-5S; RI-5D; RI-4D; RI-4S; GMW-1
Fall 2022	Analyses performed after holding times expired	PCE, TCE, DCE, VC	All samples
Spring 2023	MS recovery exceeded QC limits	VC	RI-5S
Spring 2023	Prep and/or analytical hold time expired	PCE	FWMW-20
Fall 2023	Surrogate recovery exceeded QC limits	PCE DCE VC	FWMW-10 FWMW-6; RMW-3I; RMW-3D; FWMW-24 RMW-3I; FWMW-16
Fall 2023	Qualitative criteria exceeded QC limits	PCE DCE TCE VC	FWMW-17 CYIMW108S; CYIMW106S; RMW-3S; FWMW-5; FWMW-4 5WMW-2; CYIMW111S RMW-3D

Table 4 Note. The 2022 and 2023 results are usable as qualified. Laboratory case narratives and reporting sheets are available upon request. All field measurements and analytical result data are available in electronic format from Ecology's EIM data management system:

www.ecology.wa.gov/eim/index.htm. Search Study ID: YRRA.

CCV: Continuing calibration verification

LCS: Laboratory control sample

MS: Matrix spike

QC: Quality control

PCE: Tetrachloroethene

TCE: Trichloroethene

DCE: Dichloroethene

VC: Vinyl chloride

¹ Results identified are qualified "NJ," indicating that the analyte was tentatively identified and the reported value represents its approximate concentration.

² Results identified are qualified "J," indicating that the reported result is an estimate.

³ Samples delivered to laboratory after hold times had expired due to equipment failures at Manchester Environmental Laboratory.

Table 5. Summary of field replicate data quality for the Yakima Railroad Area study, 2022.

Well	Date	Analyte	Primary Concentration	Duplicate Concentration	RPD or Absolute Difference ¹	Method Reporting Limit
GMW-2	4/18/2022	PCE	0.91 B	0.9 B	0.01	1
GMW-2	4/18/2022	TCE	1 U	1 U	0	1
GMW-2	4/18/2022	Cis-1,2-DCE	1 U	1 U	0	1
GMW-2	4/18/2022	VC	5 UJ	5 UJ	0	5
RI-10S	4/19/2022	PCE	1.18 B	1.22 B	0.04	1
RI-10S	4/19/2022	TCE	0.52 J	0.52 J	0	1
RI-10S	4/19/2022	Cis-1,2-DCE	1	1 U	0	1
RI-10S	4/19/2022	VC	5 UJ	5 UJ	0	5
CYIMW103S	4/19/2022	PCE	7.17 J	7.45	5.13%	1
CYIMW103S	4/19/2022	TCE	0.99 J	0.99 J	0.00	1
CYIMW103S	4/19/2022	Cis-1,2-DCE	0.19 J	0.2 J	0.01	1
CYIMW103S	4/19/2022	VC	5 UJ	5 UJ	0	5
FWMW-10	4/20/2022	PCE	2630	3060	15.1%	100
FWMW-10	4/20/2022	TCE	103	96.2	6.83%	10
FWMW-10	4/20/2022	Cis-1,2-DCE	60.9	54	12.0%	10
FWMW-10	4/20/2022	VC	22.6	22.6	0%	2
SGMW-2	10/11/2022	PCE	1.4 J	1.4 J	0%	0.2
SGMW-2	10/11/2022	TCE	0.2 UJ	0.2 UJ	0	0.2
SGMW-2	10/11/2022	Cis-1,2-DCE	0.2 UJ	0.2 UJ	0	0.2
SGMW-2	10/11/2022	VC	0.2 UJ	0.2 UJ	0	0.2
RI-6S	10/12/2022	PCE	6.8 J	7 J	2.90%	0.2
RI-6S	10/12/2022	TCE	0.2 UJ	0.2 UJ	0	0.2
RI-6S	10/12/2022	Cis-1,2-DCE	0.2 UJ	0.2 UJ	0	0.2
RI-6S	10/12/2022	VC	0.2 UJ	0.2 UJ	0	0.2

Well	Date	Analyte	Primary Concentration	Duplicate Concentration	RPD or Absolute Difference ¹	Method Reporting Limit
FWMW-20	10/13/2022	PCE	20000 J	19000 J	5.13%	100
FWMW-20	10/13/2022	TCE	640 J	600 J	6.45%	100
FWMW-20	10/13/2022	Cis-1,2-	300 J	250 J	50	100
FWMW-20	10/13/2022	VC	100 UJ	100 UJ	0	100
FWMW-10	10/13/2022	PCE	4500 J	4500 J	0%	20
FWMW-10	10/13/2022	TCE	97 J	97 J	0	20
FWMW-10	10/13/2022	Cis-1,2-	39 J	42 J	3	20
FWMW-10	10/13/2022	VC	20 UJ	20 UJ	0	20

¹ RPD limits are applicable if concentrations are greater than 5 times the method reporting limit (MRL). For results less than 5 times the MRL, the absolute difference between the sample and replicate must be less than the MRL. Tabulated MRLs are typical of analyses performed at MEL. MRLs may vary depending on dilutions performed by the laboratory during analysis. Shaded cells indicate absolute difference values. PCE – Tetrachloroethene, TCE – Trichloroethene, DCE – Dichloroethene, VC – Vinyl chloride, J: Analyte was positively identified. The associated numerical result is an estimate. 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 measure the analyte in the sample

Table 6. Summary of field and transport blank sample results, 2022.

Blank Type	Date	PCE	TCE	Cis-1,2-DCE	VC
Equipment Blank	4/20/2022	1 U	1 U	1 U	5 U
Equipment Blank	4/20/2022	0.34 J	1 U	1 U	5 U
Transport Blank	4/18/2022	0.24 J	1 U	1 U	5 U
Transport Blank	4/19/2022	1 U	1 U	1 U	5 U
Equipment Blank	10/13/2022	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ
Equipment Blank	10/13/2022	0.37 J	0.2 UJ	0.2 UJ	0.2 UJ
Transport Blank	10/10/2022	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ
Transport Blank	10/12/2022	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ

PCE: Tetrachloroethene, TCE: Trichloroethene, DCE: Dichloroethene, VC: Vinyl chloride,
 RPD: Relative percent difference, U: Analyte was not detected at or above the reported value.
 J: Analyte was positively identified. The associated numerical result is an estimate.
 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 measure the analyte in the sample.

Table 7. Summary of field replicate data quality for the Yakima Railroad Area study, 2023.

Well	Date	Analyte	Primary Concentration	Duplicate Concentration	RPD or Absolute Difference ¹	Method Reporting Limit
GMW-2	4/25/2023	PCE	22.1	7.45	99.15%	1
GMW-2	4/25/2023	TCE	1 U	1 U	0	1
GMW-2	4/25/2023	Cis-1,2-DCE	1 U	1 U	0	1
GMW-2	4/25/2023	VC	0.2 UJ	0.2 U	0	0.2
RI-10S	4/25/2023	PCE	1.5	1.53	0.03	1
RI-10S	4/25/2023	TCE	1 U	1 U	0	1
RI-10S	4/25/2023	Cis-1,2-DCE	1 U	1 U	0	1
RI-10S	4/25/2023	VC	0.2 U	0.2 U	0	0.2
CYIMW103S	4/26/2023	PCE	10.2	11.4	11.11%	1
CYIMW103S	4/26/2023	TCE	0.65 J	0.72 J	0.07	1
CYIMW103S	4/26/2023	Cis-1,2-DCE	0.23 J	0.26 J	0.03	1
CYIMW103S	4/26/2023	VC	0.2 U	0.2 U	0	0.2
FWMW-10	4/20/2023	PCE	10400	10300	0.96%	100
FWMW-10	4/20/2023	TCE	159	162	1.87%	10
FWMW-10	4/20/2023	Cis-1,2-DCE	76	84.3	10.36%	10
FWMW-10	4/20/2023	VC	28.5	28.3	0.70%	0.2
SGMW-2	10/16/2023	PCE	1.52	1.66	8.81%	1
SGMW-2	10/16/2023	TCE	1 U	1 U	0	1
SGMW-2	10/16/2023	Cis-1,2-DCE	1 U	1 U	0	1
SGMW-2	10/16/2023	VC	0.2 UJ	0.2 UJ	0	0.2
RI-6S	10/18/2023	PCE	8.79	9.38	6.49%	1
RI-6S	10/18/2023	TCE	1 U	1 U	0	1
RI-6S	10/18/2023	Cis-1,2-DCE	1 U	1 U	0	1
RI-6S	10/18/2023	VC	0.2 U	0.2 U	0	0.2
FWMW-20	10/19/2023	PCE	22000 J	22000 J	0%	1000
FWMW-20	10/19/2023	TCE	389	407	18	100
FWMW-20	10/19/2023	Cis-1,2-DCE	207	205	2	100
FWMW-20	10/19/2023	VC	51.4	50.4	1.96%	0.2

Well	Date	Analyte	Primary Concentration	Duplicate Concentration	RPD or Absolute Difference ¹	Method Reporting Limit
FWMW-10	10/19/2023	PCE	4610 J	420 J	8.83%	100
FWMW-10	10/19/2023	TCE	87.2	85.6	1.85%	10
FWMW-10	10/19/2023	Cis-1,2-DCE	35.5	35.2	0.85%	1
FWMW-10	10/19/2023	VC	15.5	15.6	0.64%	0.2

¹ RPD limits are applicable if concentrations are greater than 5 times the method reporting limit (MRL). For results less than 5 times the MRL, the absolute difference between the sample and replicate must be less than the MRL. Tabulated MRLs are typical of analyses performed at MEL. MRLs may vary depending on dilutions performed by the laboratory during analysis. Shaded cells indicate absolute difference values. PCE – Tetrachloroethene, TCE – Trichloroethene, DCE – Dichloroethene, VC – Vinyl chloride, RPD – Relative percent difference, U: Analyte was not detected at or above the reported value. J: Analyte was positively identified. The associated numerical result is an estimate. 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 measure the analyte in the sample

Table 8. Summary of field and transport blank sample results, 2023.

Blank Type	Date	PCE	TCE	Cis-1,2-DCE	VC
Equipment Blank	4/26/2023	1 U	1 U	1 U	0.2 U
Equipment Blank	4/26/2023	1 U	1 U	1 U	0.2 U
Transport Blank	4/24/2023	1 U	1 U	1 U	0.2 U
Transport Blank	4/26/2023	1 U	1 U	1 U	0.2 U
Equipment Blank	10/18/2023	1 U	1 U	1 U	0.2 U
Equipment Blank	10/18/2023	0.77 J	1 U	1 U	0.2 U
Transport Blank	10/16/2023	1 U	1 U	1 U	0.2 U
Transport Blank	10/16/2023	1 U	1 U	1 U	0.2 U

PCE – Tetrachloroethene, TCE – Trichloroethene, DCE – Dichloroethene, VC – Vinyl chloride, RPD – Relative percent difference, U: Analyte was not detected at or above the reported value. J: Analyte was positively identified. The associated numerical result is an estimate.

Appendix C. Project Results, December 1997 – October 2023

1. Goodwill — City of Yakima

Table 9. Summary of analytical results (µg/L) for GMW-1, Dec 1997 to Oct 2023.

Date	PCE	TCE	Cis-DCE	VC
12/1997	1.4	0.18	2 U	2 U
3/1998	0.92 J	1 U	1 U	1 U
6/1998	1.6	1 U	1 U	1 UJ
8/1998	0.56 J	0.34 J	1 U	1 UJ
6/1999	3.43	0.15 U	0.1 U	0.14 U
9/1999	0.25 U	0.15 U	0.1 U	0.14 U
12/1999	0.77 J	0.15 U	0.1 U	0.14 U
3/2000	1	0.15 U	0.1 U	0.14 U
3/2001	3.6	0.15 U	0.1 U	0.14 U
9/2001	4.7	0.2 U	0.2 U	0.2 U
3/2002	3	0.2 U	0.2 U	0.2 U
9/2002	4.3	0.2 U	0.2 U	0.2 U
3/2003	3.3	0.2 U	0.2 U	0.2 U
9/2003	4.6	0.2 U	0.2 U	0.2 U
3/2004	2.4	0.2 U	0.2 U	0.2 U
10/2004	2.6	0.2 U	0.2 U	0.2 U
3/2005	2.8	0.2 U	0.2 U	0.2 U
12/2005	1.5	0.2 U	0.2 U	0.2 U
4/2006	12	0.2 U	0.2 U	0.2 U
10/2006	1.9	0.2 U	0.2 U	0.2 U

Date	PCE	TCE	Cis-DCE	VC
4/2007	11	0.2 U	0.2 U	0.2 U
10/2007	2.4	0.2 U	0.2 U	0.2 U
4/2008	8.7	0.2 U	0.2 U	0.2 U
4/2009	7.5	1 U	1 U	0.2 U
10/2009	3	1 U	1 U	0.2 U
4/2010	1.1	1 U	1 U	1 U
6/2011	3.4	1 U	1 U	0.2 U
10/2011	1	0.2 U	0.2 U	0.2 U
4/2012	1.5	0.2 U	0.2 U	0.2 U
10/2012	1.3	0.2 U	0.2 U	0.2 U
5/2013	1 U	1 U	1 U	1 U
10/2013	1 U	1 U	1 U	1 U
4/2014	0.77 J	1 U	1 U	1 U
10/2014	0.54 J	1 U	1 U	0.2 U
4/2015	0.68 J	1 UJ	1 UJ	0.2 UJ
4/2016	0.2 J	1 U	1 U	0.2 U
4/2017	0.57 J	1 U	1 U	0.2 U
5/2018	290	1 UJ	1 UJ	0.2 UJ
4/2019	1 U	1 U	1 U	0.2 U
4/2021	0.78 J	1 U	1 U	0.2 U
4/2022	0.85 B	1 U	1 U	5 U
4/2023	8.8	1 U	1 U	0.2 U
MTCA CL	5	5	70	0.2

U: Analyte was not detected at or above the reported value.

J: Analyte was positively identified. The associated numerical result is an estimate.

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 measure the analyte in the sample.

E: Reported result is an estimate because it exceeds the calibration range.

B: Sample collected after an equipment blank or transport blank that reported concentrations of analytes.

Bold: Analyte was detected.

Shade: Values are greater than MTCA cleanup levels.

Table 10. Summary of analytical results (µg/L) for GMW-2, Dec 1997 to Oct 2023.

Date	PCE	TCE	Cis-DCE	VC
12/1997	9.8	2 U	2 U	2 U
3/1998	12	1 U	1 U	1 U
6/1998	7.7	1 U	1 U	1 UJ
8/1998	8.2 J	0.44 J	1 UJ	1 UJ
6/1999	5.36	0.15 U	0.1 U	0.14 U
9/1999	8.01	0.15 U	0.1 U	0.14 U
12/1999	14.2	0.15 U	0.1 U	0.14 U
3/2000	10.4	0.15 U	0.1 U	0.14 U
6/2000	4.4	0.15 U	0.1 U	0.14 U
8/2000	8.3	0.15 U	0.1 U	0.14 U
12/2000	11	0.15 U	0.1 U	0.14 U
3/2001	14	0.15 U	0.1 U	0.14 U
9/2001	6.8	0.2 U	0.2 U	0.2 U
3/2002	12	0.2 U	0.2 U	0.2 U
9/2002	11	0.2 U	0.2 U	0.2 U
3/2003	10	0.2 U	0.2 U	0.2 U
9/2003	8.4	0.2 U	0.2 U	0.2 U
3/2004	16	0.2 U	0.2 U	0.2 U
10/2004	5	0.2 U	0.2 U	0.2 U

Date	PCE	TCE	Cis-DCE	VC
3/2005	18	0.29	0.2 U	0.2 U
10/2005	25	0.2 U	0.2 U	0.2 U
4/2006	1.7	0.2 U	0.2 U	0.2 U
10/2006	11	0.2 U	0.2 U	0.2 U
4/2007	2	0.2 U	0.2 U	0.2 U
10/2007	11	0.2 U	0.2 U	0.2 U
4/2008	11	0.2 U	0.2 U	0.2 U
10/2008	7.5	7.5	1 U	0.2 U
4/2009	1.1	1 U	1 U	0.2 U
10/2009	6.6	1 U	1 U	0.2 U
4/2010	11	1 U	1 U	0.2 U
6/2011	11	1 U	1 U	0.2 U
10/2011	6.9	0.2 U	0.2 U	0.2 U
4/2012	9.4	0.2 U	0.2 U	0.2 U
10/2012	2.6	0.2 U	0.2 U	0.2 U
5/2013	10	1 U	1 U	1 U
10/2013	14	1 U	1 U	1 U
4/2014	11 J	1 U	1 U	1 U
10/2014	2.3	1 U	1 U	0.2 U
4/2015	10 J	1 UJ	1 UJ	0.2 UJ
10/2015	0.98 J	1 U	1 U	0.2 U
4/2016	6.6	1 U	1 U	0.2 U
10/2016	0.8 J	1 U	1 U	0.2 U
4/2017	12	1 U	1 U	0.2 U

Date	PCE	TCE	Cis-DCE	VC
9/2017	5.4	1 U	1 U	1 U
5/2018	12 J	1 U	1 U	0.2 U
10/2018	24 J	1 U	1 U	0.2 U
4/2019	15	1 U	1 U	0.2 U
10/2019	11.8 J	1 U	1 U	0.2 U
11/2020	4.7	1 U	1 U	0.2 U
4/2021	0.78 J	1 U	1 U	0.2 U
10/2021	5.4	1 U	1 U	0.2 U
4/2022	0.91 B	1 U	1 U	5 U
10/2022	4.6 J	0.2 UJ	0.2 UJ	0.2 UJ
4/2023	14.8 J	1 U	1 U	0.2 U
10/2023	13.8	1 U	1 U	0.2 U
MTCA CL	5	5	70	0.2

U: Analyte was not detected at or above the reported value.

J: Analyte was positively identified. The associated numerical result is an estimate.

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 measure the analyte in the sample.

E: Reported result is an estimate because it exceeds the calibration range.

B: Sample collected after an equipment blank or transport blank that reported concentrations of analytes.

Bold: Analyte was detected.

Shade: Values are greater than MTCA cleanup levels.

Table 11. Summary of analytical results (µg/L) for GMW-4, Dec 1997 to Oct 2023.

Date	PCE	TCE	Cis-DCE	VC
12/1997	7	2 U	2 U	2 U
3/1998	1.9	1 U	1 U	1 U
6/1998	7.3	1 U	1 U	1 UJ
8/1998	130 E	0.22 J	0.06 J	1 UJ
6/1999	4.18	0.15 U	0.1 U	0.14 U
9/1999	15.4	0.15 U	0.1 U	0.14 U
12/1999	2.23	0.15 U	0.1 U	0.14 U
3/2000	1.7	0.15 U	0.1 U	0.14 U
6/2000	5.6	0.15 U	0.1 U	0.14 U
8/2000	68	0.39	0.1 U	0.14 U
12/2000	2.5	0.15 U	0.1 U	0.14 U
3/2001	2.2	0.15 U	0.1 U	0.14 U
9/2001	19	0.22	0.2 U	0.2 U
3/2002	1.9	0.2 U	0.2 U	0.2 U
9/2002	8.3	0.2 U	0.2 U	0.2 U
3/2003	2.6	0.2 U	0.2 U	0.2 U
9/2003	6.4	0.2 U	0.2 U	0.2 U
3/2004	2.3	0.2 U	0.2 U	0.2 U
10/2004	3.8	0.2 U	0.2 U	0.2 U
3/2005	2.4	0.2 U	0.2 U	0.2 U
10/2005	11	0.2 U	0.2 U	0.2 U
4/2006	2.1	0.2 U	0.2 U	0.2 U
10/2006	2.1	0.2 U	0.2 U	0.2 U
4/2007	2.1	0.2 U	0.2 U	0.2 U

Date	PCE	TCE	Cis-DCE	VC
10/2007	2.2	0.2 U	0.2 U	0.2 U
4/2008	2	0.2 U	0.2 U	0.2 U
10/2008	2.6	1 U	1 U	0.2 U
4/2009	1.7	1 U	1 U	0.2 U
10/2009	1.9	1 U	1 U	0.2 U
4/2010	1.8	1 U	1 U	1 U
6/2011	1.8	1 U	1 U	0.2 U
10/2011	1.2	0.2 U	0.2 U	0.2 U
4/2012	1.4	0.2 U	0.2 U	0.2 U
10/2012	1.3	0.2 U	0.2 U	0.2 U
5/2013	1.5	1 U	1 U	1 U
10/2013	1.1	1 U	1 U	1 U
4/2014	1.9 J	1 U	1 U	1 U
10/2014	1.3	1 U	1 U	0.2 U
4/2015	1.8	1 U	1 U	0.2 U
4/2016	1	1 U	1 U	0.2 U
4/2017	1.6	1 U	1 U	0.2 U
5/2018	1.6	1 U	1 U	0.2 U
4/2019	1.9	1 U	1 U	0.2 U
4/2021	1 U	1 U	1 U	0.2 U
4/2022	0.29 B	1 U	1 U	5 U
4/2023	0.8J	1 U	1 U	0.2 U
MTCA CL	5	5	70	0.2

U: Analyte was not detected at or above the reported value.

J: Analyte was positively identified. The associated numerical result is an estimate.

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 measure the analyte in the sample.

E: Reported result is an estimate because it exceeds the calibration range.

B: Sample collected after an equipment blank or transport blank that reported concentrations of analytes.

Bold: Analyte was detected.

Shade: Values are greater than MTCA cleanup levels.

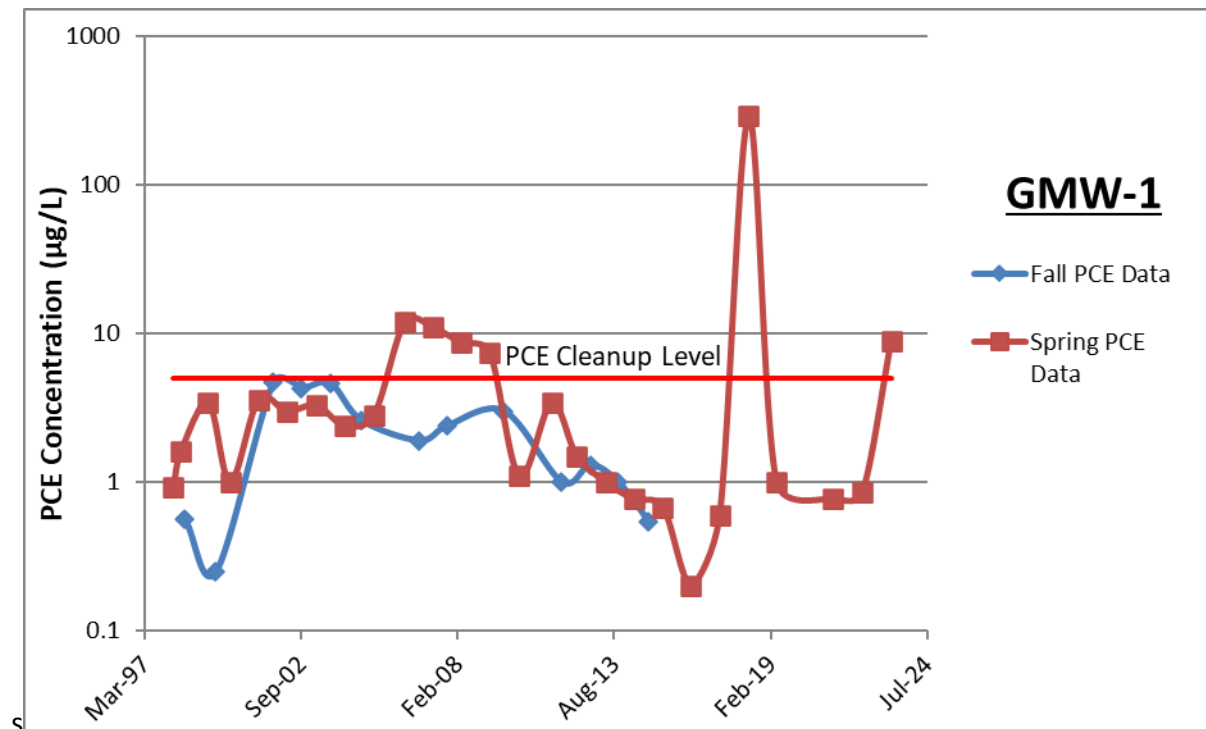


Figure 1. Goodwill-Yakima, well GMW-1 PCE results (log scale, µg/L), March 1998 to April 2023.

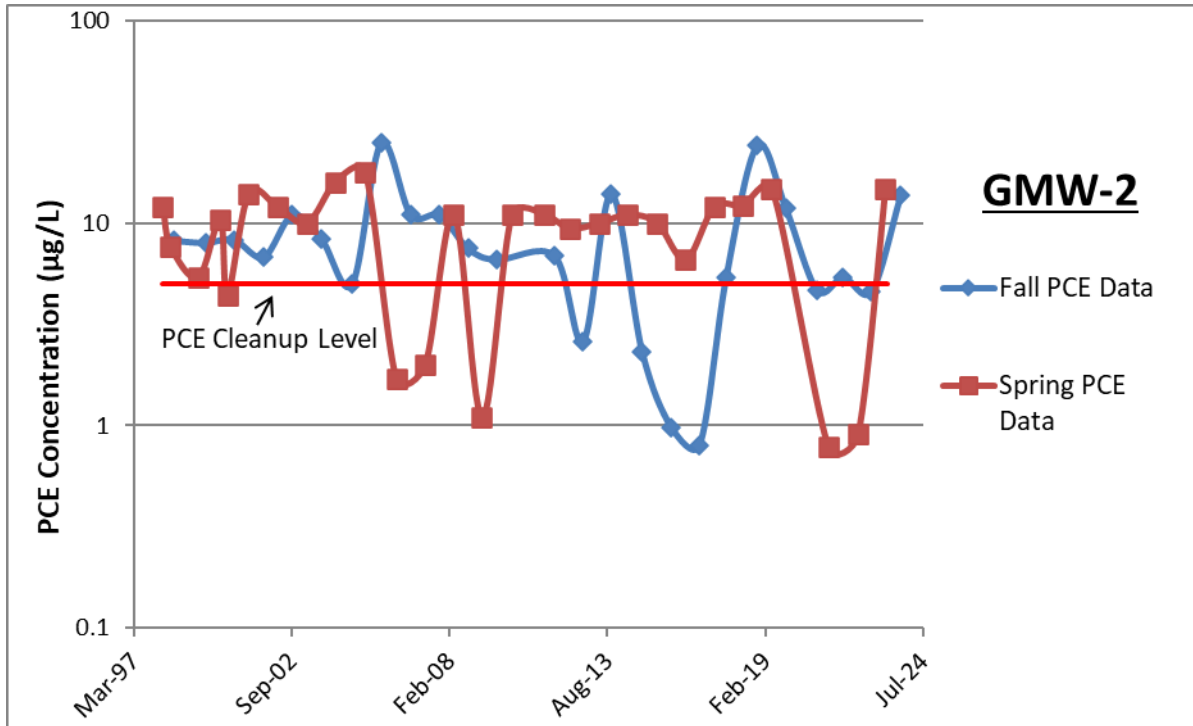


Figure 2. Goodwill-Yakima, well GMW-2 PCE results (log scale, µg/L), March 1998 to October 2023.

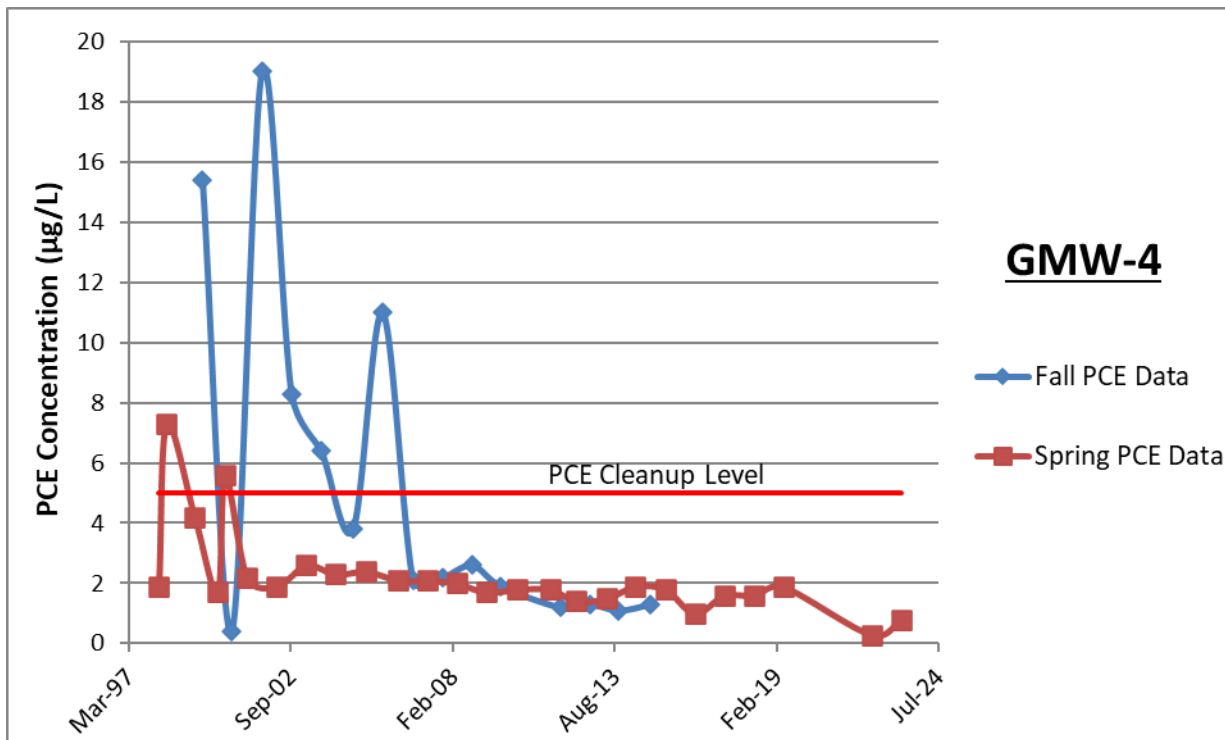


Figure 3. Goodwill-Yakima, well GMW-4 PCE results (µg/L), March 1998 to April 2023.

2. Nu-Way Cleaners

Table 12. Summary of analytical results (µg/L) for NMW-1, December 1997 to April 2023.

Date	PCE	TCE	Cis-DCE	VC
12/1997	1.8	2 U	2 U	2 U
3/1998	4.4	1 U	1 U	1 U
6/1998	4.4	1 U	1 U	1 UJ
8/1998	1.7 J	1 U	1 U	1 UJ
6/1999	5.28	0.15 U	0.1 U	0.14 U
9/1999	2.72	0.15 U	0.1 U	0.14 U
12/1999	3.28	0.15 U	0.1 U	0.14 U
3/2000	2.63	0.15 U	0.1 U	0.14 U
6/2000	4.2	0.15 U	0.1 U	0.14 U
8/2000	1.8	0.15 U	0.1 U	0.14 U
12/2000	3.2	0.15 U	0.1 U	0.14 U
3/2001	2.1	0.15 U	0.1 U	0.14 U
9/2001	1.5	0.2 U	0.2 U	0.2 U
3/2002	1.1	0.2 U	0.2 U	0.2 U
9/2002	2	0.2 U	0.2 U	0.2 U
3/2003	4.1	0.2 U	0.2 U	0.2 U
9/2003	2	0.2 U	0.2 U	0.2 U
3/2004	3.3	0.2 U	0.2 U	0.2 U
10/2004	0.99	0.2 U	0.2 U	0.2 U
3/2005	2.1	0.24	0.2 U	0.2 U
12/2005	2.4	0.2 U	0.2 U	0.2 U
4/2006	3.2	0.2 U	0.2 U	0.2 U

Date	PCE	TCE	Cis-DCE	VC
10/2006	0.63	0.2 U	0.2 U	0.2 U
4/2007	0.79	0.2 U	0.2 U	0.2 U
10/2007	1.3	0.2 U	0.2 U	0.2 U
4/2008	0.38	0.2 U	0.2 U	0.2 U
10/2008	0.63	1 U	1 U	0.2 U
4/2009	1.8	1 U	1 U	0.2 U
10/2009	1.7	1 U	1 U	0.2 U
4/2010	2.3	1 U	1 U	0.2 U
6/2011	5.5	1 U	1 U	0.2 U
10/2011	1.1	0.2 U	0.2 U	0.2 U
4/2012	2.1	0.2 U	0.2 U	0.2 U
10/2012	1.6	0.2 U	0.2 U	0.2 U
5/2013	1.6	1 U	1 U	1 U
10/2013	2.3	1 U	1 U	1 U
4/2014	2.3 J	1 U	1 U	1 U
10/2014	2.1	1 U	1 U	0.2 U
4/2015	2.1 J	1 UJ	1 UJ	0.2 UJ
4/2016	2.6	1 U	1 U	0.2 U
4/2017	2.5	0.59 J	1 U	0.2 U
5/2018	2.1	1 U	1 U	0.2 U
4/2019	2	1 U	1 U	0.2 U
4/2021	0.65 J	1 U	1 U	0.2 U
4/2022	1.16	0.49 J	1 U	5 UJ
4/2023	1.69	1 U	1 U	0.2 U

Date	PCE	TCE	Cis-DCE	VC
MTCA CL	5	5	70	0.2

U: Analyte was not detected at or above the reported value.

J: Analyte was positively identified. The associated numerical result is an estimate.

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 measure the analyte in the sample.

Bold: Analyte was detected.

Shade: Values are greater than MTCA cleanup levels.

Table 13. Summary of analytical results (µg/L) for NMW-2¹, December 1997 to April 2023.

Date	PCE	TCE	Cis-DCE	VC
12/1997	2	2 U	2 U	2 U
3/1998	3.4	1 U	1 U	1 U
6/1998	1 U	1 U	1 U	1 UJ
8/1998	1.1 J	1 UJ	1 UJ	1 UJ
6/1999	2.9	0.15 U	0.1 U	0.14 U
9/1999	1.1	0.15 U	0.1 U	0.14 U
12/1999	3.31	0.15 U	0.1 U	0.14 U
3/2000	2.9	0.15 U	0.1 U	0.14 U
6/2000	2.7	0.15 U	0.1 U	0.14 U
8/2000	1.5	0.15 U	0.1 U	0.14 U
12/2000	3.1	0.15 U	0.1 U	0.14 U
3/2001	2.3	0.15 U	0.1 U	0.14 U
9/2001	1.1	0.2 U	0.2 U	0.2 U
3/2002	1.5	0.2 U	0.2 U	0.2 U
9/2002	1.6	0.2 U	0.2 U	0.2 U
3/2003	3.3	0.2 U	0.2 U	0.2 U
9/2003	1.5	0.2 U	0.2 U	0.2 U

Date	PCE	TCE	Cis-DCE	VC
3/2004	3.4	0.2 U	0.2 U	0.2 U
10/2004	1.1	0.2 U	0.2 U	0.2 U
3/2005	2.4	0.2 U	0.2 U	0.2 U
12/2005	1.8	0.2 U	0.2 U	0.2 U
4/2006	0.2 U	0.2 U	0.2 U	0.2 U
10/2006	0.67	0.2 U	0.2 U	0.2 U
4/2007	0.2 U	0.2 U	0.2 U	0.2 U
10/2007	0.66	0.2 U	0.2 U	0.2 U
4/2008	0.2 U	0.2 U	0.2 U	0.2 U
10/2008	0.8 U	1 U	1 U	0.2 U
4/2009	1.9	1 U	1 U	0.2 U
10/2009	1.3	1 U	1 U	0.2 U
4/2010	2.4	1 U	1 U	0.2 U
6/2011	4	1 U	1 U	0.2 U
10/2011	0.93	0.2 U	0.2 U	0.2 U
4/2012	1.5	0.2 U	0.2 U	0.2 U
10/2012	1.2	0.2 U	0.2 U	0.2 U
10/2013	1.6	1 U	1 U	1 U
MTCA CL	5	5	70	0.2

¹NMW-2 decommissioned in 2016.

U: Analyte was not detected at or above the reported value.

J: Analyte was positively identified. The associated numerical result is an estimate.

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 measure the analyte in the sample.

Bold: Analyte was detected.

Shade: Values are greater than MTCA cleanup levels.

Table 14. Summary of analytical results (µg/L) for NMW-3, December 1997 to April 2023.

Date	PCE	TCE	Cis-DCE	VC
12/1997	3	2 U	2 U	2 U
3/1998	3.7	1 U	1 U	1 U
6/1998	3.8	1 U	1 U	1 UJ
8/1998	2.3 J	1 UJ	1 UJ	1 UJ
6/1999	0.25 U	0.15 U	0.1 U	0.14 U
9/1999	3.17	0.15 U	0.1 U	0.14 U
12/1999	5.11	0.15 U	0.1 U	0.14 U
3/2000	5.36	0.15 U	0.1 U	0.14 U
6/2000	3.2	0.15 U	0.1 U	0.14 U
8/2000	2.1	0.15 U	0.1 U	0.14 U
12/2000	5.3	0.15 U	0.1 U	0.14 U
3/2001	3.6	0.15 U	0.1 U	0.14 U
9/2001	1.8	0.2 U	0.2 U	0.2 U
3/2002	2.3	0.2 U	0.2 U	0.2 U
9/2002	1.8	0.2 U	0.2 U	0.2 U
3/2003	5.5	0.2 U	0.2 U	0.2 U
9/2003	2.1	0.2 U	0.2 U	0.2 U
3/2004	3.5	0.2 U	0.2 U	0.2 U
10/2004	1.3	0.2 U	0.2 U	0.2 U
3/2005	3.6	0.2 U	0.2 U	0.2 U
12/2005	2.2	0.2 U	0.2 U	0.2 U
4/2006	2.2	0.2 U	0.2 U	0.2 U
10/2006	0.9	0.2 U	0.2 U	0.2 U
4/2007	0.47	0.2 U	0.2 U	0.2 U

Date	PCE	TCE	Cis-DCE	VC
10/2007	1.3	0.2 U	0.2 U	0.2 U
4/2008	0.24	0.2 U	0.2 U	0.2 U
10/2008	1.7	1 U	1 U	0.2 U
4/2009	1.3	1 U	1 U	0.2 U
10/2009	1.8	1 U	1 U	0.2 U
4/2010	4.8	1 U	1 U	0.2 U
6/2011	3.7	1 U	1 U	0.2 U
10/2011	1.2	0.2 U	0.2 U	0.2 U
4/2012	2.7	0.2 U	0.2 U	0.2 U
10/2012	1.3	0.2 U	0.2 U	0.2 U
9/2017	1.6	1 U	1 U	0.2 U
MTCA CL	5	5	70	0.2

U: Analyte was not detected at or above the reported value.

J: Analyte was positively identified. The associated numerical result is an estimate.

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 measure the analyte in the sample.

Bold: Analyte was detected.

Shade: Values are greater than MTCA cleanup levels.

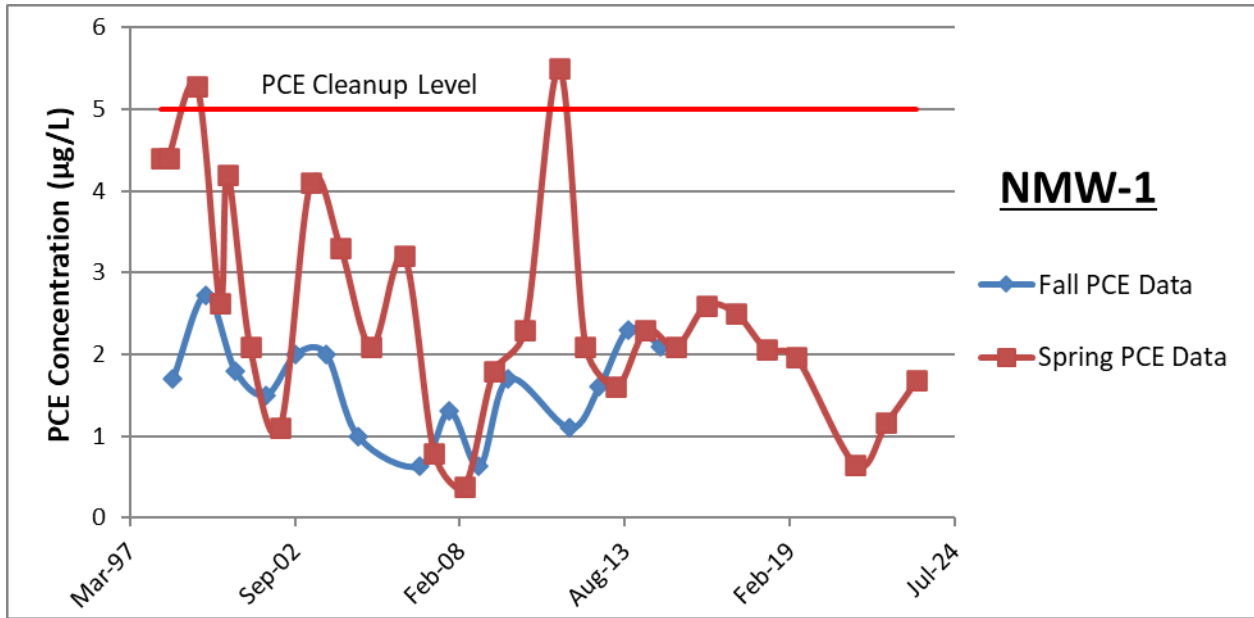


Figure 4. Nu-Way Cleaners, well NMW-1 PCE results (µg/L), March 1998 to April 2023.

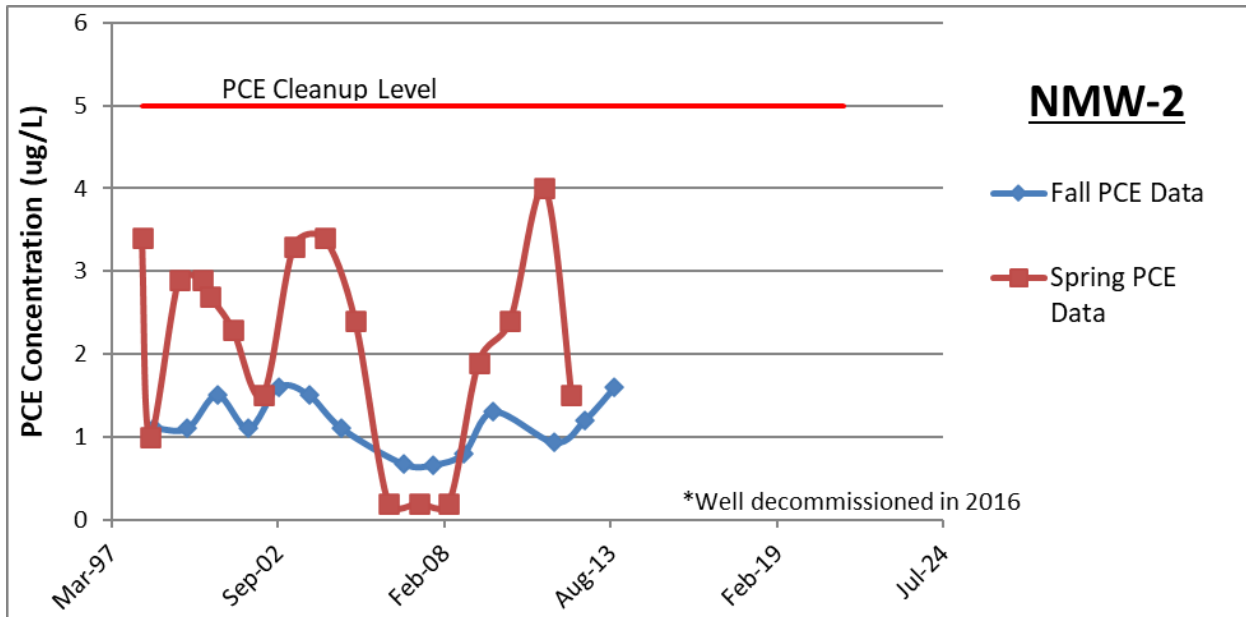


Figure 5. Nu-Way Cleaners, well NMW-2 PCE results (µg/L), March 1998 to October 2013.

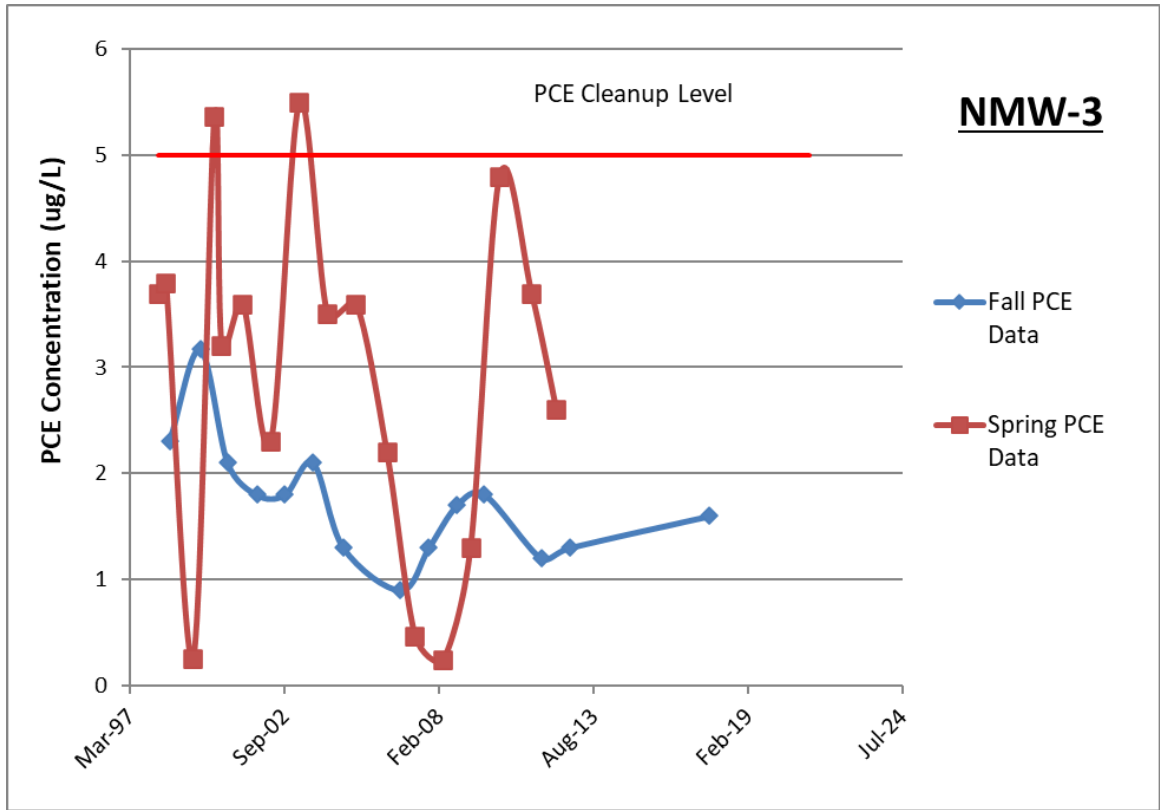


Figure 6. Nu-Way Cleaners, well NMW-3 PCE results (µg/L), March 1998 to September 2017.

3. Southgate Laundry

Table 15. Summary of analytical results (µg/L) for SGMW-1, December 1997 to October 2023.

Date	PCE	TCE	Cis-DCE	VC
6/1999	2.23	0.15 U	0.1 U	0.14 U
9/1999	0.25 U	0.15 U	0.1 U	0.14 U
12/1999	1.54	0.15 U	0.1 U	0.14 U
3/2000	0.34 J	0.15 U	0.1 U	0.14 U
6/2000	1.2	0.15 U	0.1 U	0.14 U
8/2000	0.37	0.15 U	0.1 U	0.14 U
12/2000	0.82	0.15 U	0.1 U	0.14 U
3/2001	0.87	0.15 U	0.1 U	0.14 U
9/2001	0.34	0.2 U	0.2 U	0.2 U
3/2002	0.29	0.2 U	0.2 U	0.2 U
9/2002	0.38	0.2 U	0.2 U	0.2 U
3/2003	0.38	0.2 U	0.2 U	0.2 U
9/2003	0.51	0.2 U	0.2 U	0.2 U
3/2004	1.6	0.2 U	0.2 U	0.2 U
10/2004	0.34	0.2 U	0.2 U	0.2 U
3/2005	4.8	0.2 U	0.2 U	0.2 U
12/2005	0.35	0.2 U	0.2 U	0.2 U
4/2006	0.33	0.2 U	0.2 U	0.2 U
10/2006	0.35	0.2 U	0.2 U	0.2 U
4/2007	0.49	0.2 U	0.2 U	0.2 U
10/2007	0.38	0.2 U	0.2 U	0.2 U
4/2008	0.31	0.2 U	0.2 U	0.2 U

Date	PCE	TCE	Cis-DCE	VC
10/2008	0.8 U	1 U	1 U	0.2 U
4/2009	1 U	1 U	1 U	0.2 U
10/2009	1 U	1 U	1 U	0.2 U
4/2010	1 U	1 U	1 U	0.2 U
6/2011	1 U	1 U	1 U	0.2 U
10/2011	0.2 U	0.2 U	0.2 U	0.2 U
4/2012	0.23	0.2 U	0.2 U	0.2 U
10/2012	0.2 U	0.2 U	0.2 U	0.2 U
5/2013	1 U	1 U	1 U	1 U
10/2013	1 U	1 U	1 U	1 U
4/2014	0.83 J	1 U	1 U	1 U
10/2014	1 U	1 U	1 U	0.2 U
10/2015	0.34 J	1 U	1 U	0.2 U
9/2017	1 U	1 U	1 U	0.2 U
10/2018	0.65 J	1 U	1 U	0.2 U
10/2019	1 U	1 U	1 U	0.2 U
11/2020	0.42 J	1 U	1 UJ	0.2 U
10/2021	0.71 J	1 U	1 U	0.2 U
10/2022	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ
10/2023	0.36	1 U	1 U	0.2
MTCA CL	5	5	70	0.2

U: Analyte was not detected at or above the reported value.

J: Analyte was positively identified. The associated numerical result is an estimate.

Bold: Analyte was detected.

Shade: Values are greater than MTCA cleanup levels.

Table 16. Summary of analytical results (µg/L) for SGMW-2, December 1997 to October 2023.

Date	PCE	TCE	Cis-DCE	VC
6/1999	27.4	0.15 U	0.1 U	0.14 U
9/1999	8.54	0.15 U	0.1 U	0.14 U
12/1999	4.72	0.65 J	0.1 U	0.14 U
3/2000	2.13	0.15 U	0.1 U	0.14 U
6/2000	26	0.15 U	0.1 U	0.14 U
8/2000	7.1	0.15 U	0.1 U	0.14 U
12/2000	5.5	0.15 U	0.1 U	0.14 U
3/2001	2.4	0.15 U	0.1 U	0.14 U
9/2001	8.6	0.2 U	0.2 U	0.2 U
3/2002	2.5	0.2 U	0.2 U	0.2 U
9/2002	11	0.2 U	0.2 U	0.2 U
3/2003	1.5	0.2 U	0.2 U	0.2 U
9/2003	8.1	0.2 U	0.2 U	0.2 U
3/2004	1.6	0.2 U	0.2 U	0.2 U
10/2004	5.2	0.2 U	0.2 U	0.2 U
3/2005	6.4	0.23	0.2 U	0.2 U
10/2005	10	0.2 U	0.2 U	0.2 U
4/2006	0.79	0.2 U	0.2 U	0.2 U
10/2006	2.6	0.2 U	0.2 U	0.2 U
4/2007	0.82	0.2 U	0.2 U	0.2 U
10/2007	2.6	0.2 U	0.2 U	0.2 U
4/2008	0.5	0.2 U	0.2 U	0.2 U
10/2008	2.7	1 U	1 U	0.2 U

Date	PCE	TCE	Cis-DCE	VC
4/2009	0.6 J	1 U	1 U	0.2 U
10/2009	2.3	1 U	1 U	0.2 U
4/2010	1 U	1 U	1 U	0.2 U
6/2011	4.5	1 U	1 U	0.2 U
10/2011	2.1	0.2 U	0.2 U	0.2 U
4/2012	0.34	0.2 U	0.2 U	0.2 U
10/2012	2	0.2 U	0.2 U	0.2 U
5/2013	1.5	1 U	1 U	1 U
10/2013	1.9	1 U	1 U	1 U
4/2014	0.89 J	1 U	1 U	1 U
10/2014	1.9	1 U	1 U	0.2 U
10/2015	1.8	1 U	1 U	0.2 U
10/2016	1.7 J	1 U	1 U	0.2 U
9/2017	1.2	1 U	1 U	1 U
10/2018	2	1 U	1 U	0.2 U
10/2019	1.3	1 U	1 U	0.2 U
11/2020	1.3	1 U	1 U	0.2 U
10/2021	1.58	1 U	1 U	0.2 U
10/2022	1.4 J	0.2 UJ	0.2 UJ	0.2 UJ
10/2023	1.66	1 U	1 U	0.2 U
MTCA CL	5	5	70	0.2

U: Analyte was not detected at or above the reported value.

J: Analyte was positively identified. The associated numerical result is an estimate.

Bold: Analyte was detected.

Shade: Values are greater than MTCA cleanup levels.

Table 17. Summary of analytical results (µg/L) for SGMW-3, December 1997 to October 2023.

Date	PCE	TCE	Cis-DCE	VC
6/1999	21.2	0.15 U	0.1 U	0.14 U
9/1999	6.35	0.15 U	0.1 U	0.14 U
12/1999	4.39	0.37 J	0.1 U	0.14 U
3/2000	10.2	0.15 U	0.1 U	0.14 U
6/2000	29	0.15 U	0.1 U	0.14 U
8/2000	21	0.15 U	0.1 U	0.14 U
12/2000	3.5	0.15 U	0.1 U	0.14 U
3/2001	5.6	0.15 U	0.1 U	0.14 U
9/2001	15	0.2 U	0.2 U	0.2 U
3/2002	4.6	0.2 U	0.2 U	0.2 U
9/2002	16	0.2 U	0.2 U	0.2 U
3/2003	4.7	0.2 U	0.2 U	0.2 U
9/2003	22	0.2 U	0.2 U	0.2 U
3/2004	7.6	0.2 U	0.2 U	0.2 U
10/2004	2.1	0.2 U	0.2 U	0.2 U
3/2005	8.1	0.21	0.2 U	0.2 U
10/2005	4	0.2 U	0.2 U	0.2 U
4/2006	2.4	0.2 U	0.2 U	0.2 U
10/2006	3.8	0.2 U	0.2 U	0.2 U
4/2007	4	0.2 U	0.2 U	0.2 U
10/2007	4.4	0.2 U	0.2 U	0.2 U
4/2008	1.9	0.2 U	0.2 U	0.2 U
10/2008	1.8	1 U	1 U	0.2 U

Date	PCE	TCE	Cis-DCE	VC
4/2009	3.2	1 U	1 U	0.2 U
10/2009	1.6	1 U	1 U	0.2 U
4/2010	2.8	1 U	1 U	0.2 U
6/2011	3.4	1 U	1 U	0.2 U
10/2011	1.7	0.2 U	0.2 U	0.2 U
4/2012	1.9	0.2 U	0.2 U	0.2 U
5/2013	1.7	1 U	1 U	1 U
10/2013	2.4	1 U	1 U	1 U
4/2014	1.9 J	1 U	1 U	1 U
10/2014	1.6	1 U	1 U	0.2 U
10/2016	1.7 J	1 U	1 U	0.2 U
9/2017	0.82 J	1 U	1 U	1 U
10/2018	2.3	1 U	1 U	0.2 U
10/2019	2.1	1 U	1 U	0.2 U
11/2020	1.3	1 U	1 UJ	0.2 U
10/2021	1.68	1 U	1 U	0.2 U
10/2022	1.2 J	0.2 UJ	0.2 UJ	0.2 UJ
10/2023	1.6	1 U	1 U	0.2 U
MTCA CL	5	5	70	0.2

U: Analyte was not detected at or above the reported value.

J: Analyte was positively identified. The associated numerical result is an estimate.

Bold: Analyte was detected.

Shade: Values are greater than MTCA cleanup levels.

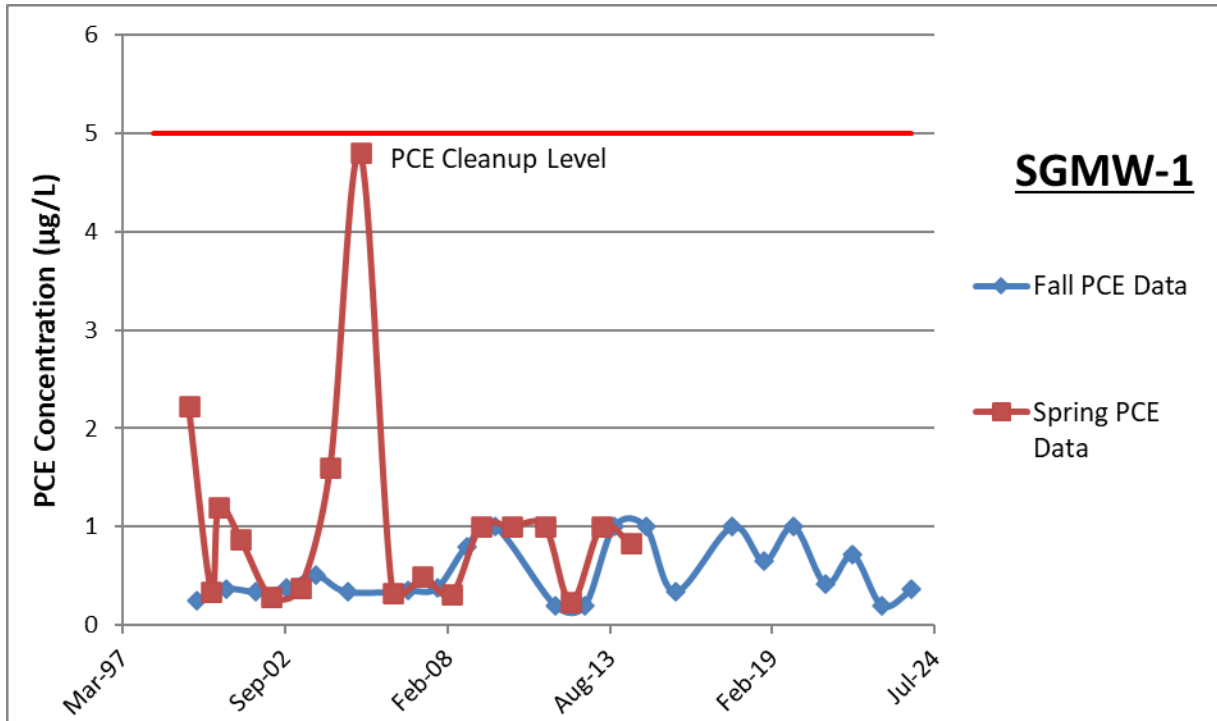


Figure 7. Southgate Laundry, well SGMW-1 PCE results (µg/L), June 1999 to October 2023.

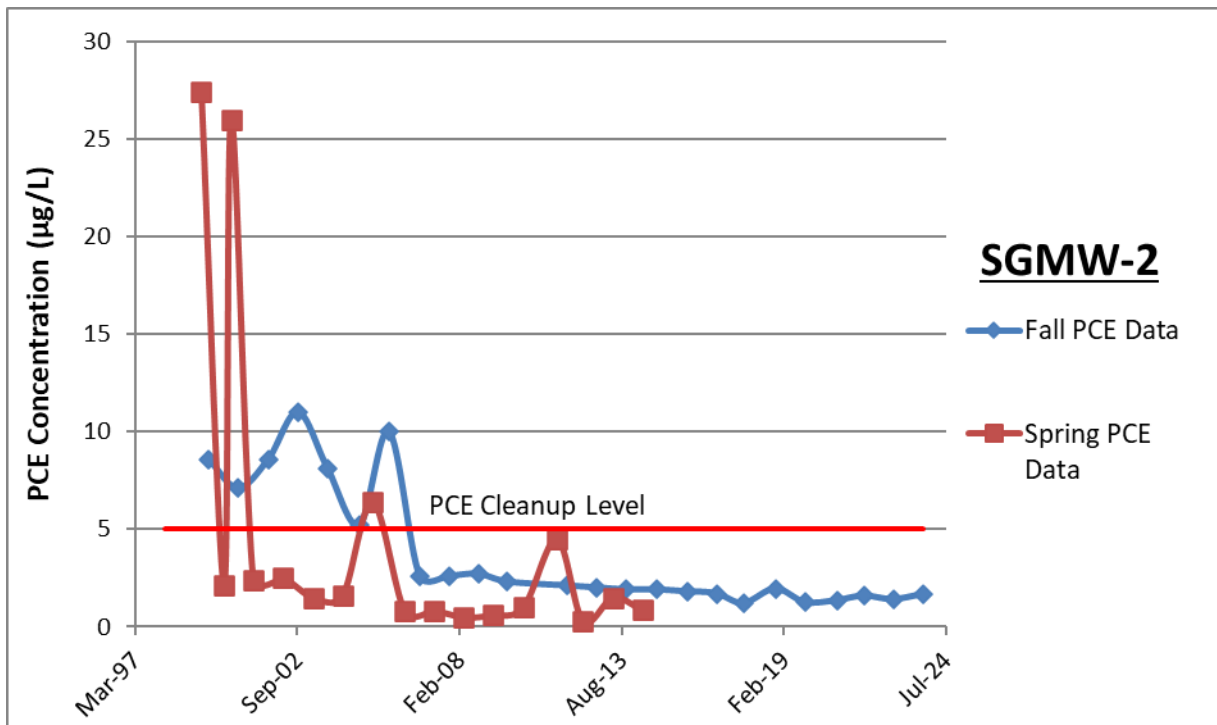


Figure 8. Southgate Laundry, well SGMW-2 PCE results (µg/L), June 1999 to October 2023.

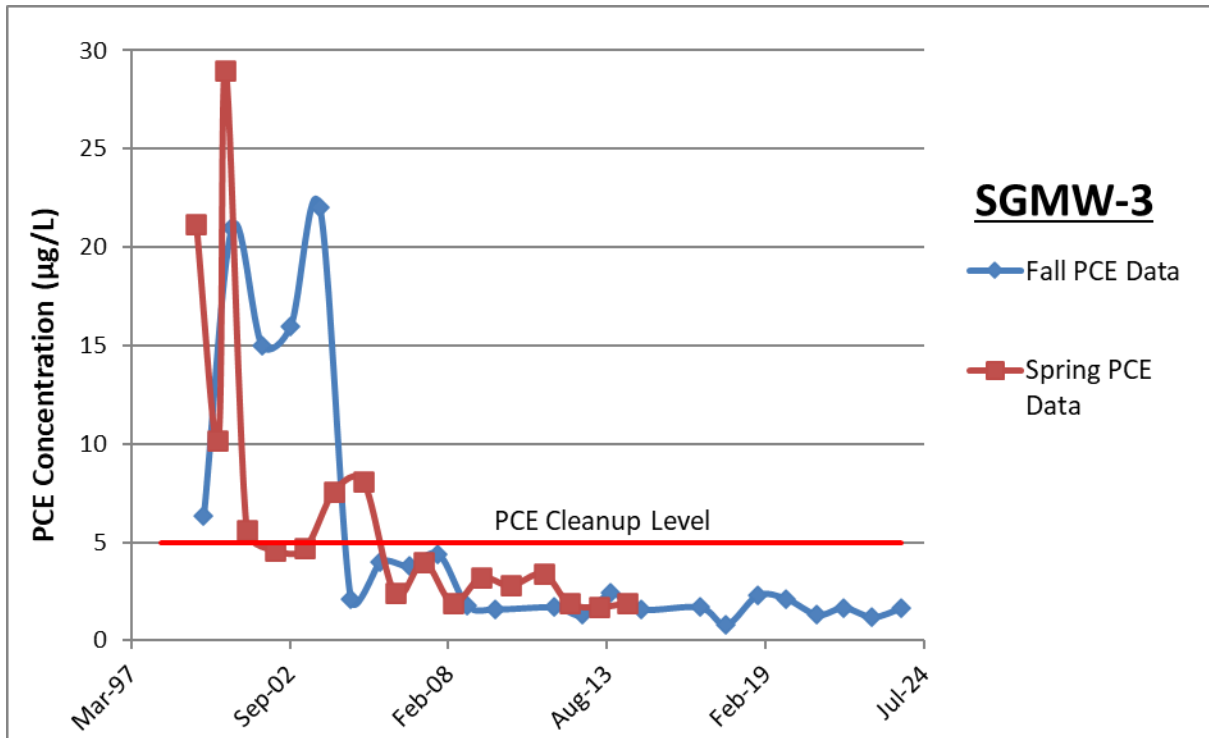


Figure 9. Southgate Laundry, well SGMW-3 PCE results (µg/L), June 1999 to October 2023.

4. Washington Central Railroad Roundhouse (WCRR)

Table 18. Summary of analytical results (µg/L) for WDOE-3S, December 1997 to October 2023.

Date	PCE	TCE	Cis-DCE	VC
6/1999	50.9	ND	ND	ND
9/1999	21.2	ND	ND	ND
12/1999	40.8	ND	ND	ND
6/2000	90	0.71	ND	ND
8/2000	11	ND	ND	ND
9/2001	9.3	< 0.2	< 0.2	< 0.2
9/2002	8.7	< 0.2	< 0.2	< 0.2
9/2003	9.1	< 0.2	< 0.2	< 0.2
10/2004	5.5	< 0.2	< 0.2	< 0.2
10/2005	13	< 0.2	< 0.2	< 0.2
10/2006	4.5	< 0.2	< 0.2	< 0.2
10/2007	5.5	< 0.2	< 0.2	< 0.2
10/2008	7.9	1 U	1 U	0.2 U
10/2009	11	1 U	1 U	0.2 U
10/2011	8.8	0.2 U	0.2 U	0.2 U
10/2012	8.7	0.2 U	0.2 U	0.2 U
10/2013	19	1 U	1 U	1 U
10/2014	12	1.8	16	0.2 U
10/2015	11	1.1	4.1	0.11 J
10/2016	10	1.1	1.8	0.2 U
11/2020	20	1.1	1.5	0.2 U
10/2021	14.1	0.58 J	0.42 J	0.2 U

Date	PCE	TCE	Cis-DCE	VC
10/2022	9.2 J	0.24 J	0.2 UJ	0.2 UJ
10/2023	15.4	0.47 J	0.66 NJ	0.2 U
MTCA CL	5	5	70	0.2

ND: Analyte was not detected.

U: Analyte was not detected at or above the reported value.

J: Analyte was positively identified. The associated numerical result is an estimate.

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 measure the analyte in the sample.

NJ: There is evidence that the analyte is present in the sample. Reported result for the tentatively identified analyte is an estimate.

REJ: Rejected.

Bold: Analyte was detected.

Shade: Values are greater than MTCA cleanup levels.

Table 19. Summary of analytical results (µg/L) for WDOE-3I, December 1997 to October 2023.

Date	PCE	TCE	Cis-DCE	VC
12/1997	11	1.2 J	0.25 J	0.59 J
3/1998	4.1	1.3	0.88 J	2.7
6/1998	20	1.3	1 U	1 UJ
8/1998	18	0.88 J	0.04 J	1 UJ
6/1999	35.1	2.17	ND	0.23 J
9/1999	28.2	0.93 J	ND	ND
12/1999	17.4	2.86	0.91 J	2.03
3/2000	0.61 J	ND	0.68 J	3.24
6/2000	42	1.9	0.27	0.36
8/2000	20	1.1	0.2	0.21
3/2001	1.2	0.45	0.54	7.5
9/2001	15	1.6	0.33	0.5

Date	PCE	TCE	Cis-DCE	VC
3/2002	0.74	0.51	0.35	3
9/2002	15	1.2	0.27	0.26
3/2003	< 0.2	1	0.58	2.2
9/2003	15	1.8	0.34	0.64
3/2004	< 0.2	0.47	0.32	2.8
10/2004	8.8	1.9	0.47	0.99
3/2005	0.32	0.35	0.37	3.5
10/2005	18	1.1	0.36	0.65
4/2006	0.22	0.46	0.45	4.5
10/2006	9.1	1.3	0.42	0.47
4/2007	0.5	0.74	0.76	4.4
10/2007	11	1.1	0.41	0.41
4/2008	0.61	0.53	0.69	5.7
10/2008	11	1.3	1 U	0.2 U
4/2009	0.13 J	0.69 J	3.1	0.2 U
10/2009	13	2.2	1 U	0.85
4/2010	2.4	1.1	1 U	3.8
6/2011	REJ	REJ	REJ	REJ
10/2011	7.9	4.1	1.8	1.2
4/2012	1.1	1.1	1.3	4.2
10/2012	6.9	5.5	2.1	0.99
5/2013	4.3	3.2	2.6	6.4
10/2013	8.2	4.8	3.5	3.1
4/2014	1.6 J	3	2.5	8.9

Date	PCE	TCE	Cis-DCE	VC
10/2014	10	15	48	4.2
10/2015	5.6	4.5	12	41 J
10/2016	12	4.6	6.4	3.7 J
4/2019	1.2	1.2	3.2	2.7
11/2020	14.35	4.95	5.045	4.9 J
10/2021	13.5	3.35	4.03	2.55
10/2022	9.3 J	1.5 J	1.8 J	0.78 J
10/2023	12.1	2.25	2.2 J	1.38 J
MTCA CL	5	5	70	0.2

ND: Analyte was not detected.

U: Analyte was not detected at or above the reported value.

J: Analyte was positively identified. The associated numerical result is an estimate.

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 measure the analyte in the sample.

NJ: There is evidence that the analyte is present in the sample. Reported result for the tentatively identified analyte is an estimate.

REJ: Rejected.

Bold: Analyte was detected.

Shade: Values are greater than MTCA cleanup levels.

Table 20. Summary of analytical results (µg/L) for WDOE-3D, December 1997 to October 2023.

Date	PCE	TCE	Cis-DCE	VC
6/1999	16.4	1.76	ND	0.98 J
9/1999	13.3	1.75	ND	1.19
12/1999	15.3	2.23	0.77 J	1.55
3/2000	7.99	1.54	ND	2.03
6/2000	1.6	3.2	0.3	0.62
8/2000	12	2	0.59	1.2
3/2001	8.1	1.7	0.61	3.6
9/2001	9.4	1.8	0.46	1.1
3/2002	7.3	1.6	0.38	1.4
9/2002	9.4	1.7	0.48	0.74
3/2003	7.8	1.7	0.35	1.1
9/2003	12	1.9	0.32	0.89
3/2004	9.1	1.8	0.4	1
10/2004	7.7	1.9	0.38	1.1
3/2005	11	1.9	0.48	1.1
10/2005	9	1.4	0.39	0.92
4/2006	5.8	1.8	0.5	1.5
10/2006	7.3	1.6	0.39	0.62
4/2007	6.5	2	0.56	0.87
10/2007	8.5	1.7	0.41	0.59
4/2008	6.3	1.7	0.45	0.92
10/2008	8.8	1.7	1 U	0.2 U
4/2009	9.9	2.9	2.9	0.2 U

Date	PCE	TCE	Cis-DCE	VC
10/2009	11	2.3	1 U	0.5
4/2010	8.9	2.5	1 U	1 U
6/2011	REJ	REJ	REJ	REJ
10/2011	9.6	2	0.42	0.2 U
4/2012	7.1	2.1	0.54	0.27
10/2012	9.7	2.1	0.4	0.2 U
5/2013	13	3.4	1	0.49 J
10/2013	15	2.5	0.36 J	1 U
4/2014	11 J	3.5	1	0.46 J
10/2014	15	5	8.7	0.56
10/2015	13	3.9	7.1	3.9 J
10/2016	11	3.8	4.6	0.53
4/2019	6.1	2.7	2.8	0.2 U
11/2020	11.85	3.65	22.85	0.2 U
10/2021	11.2	3.88	2.16	0.2 U
10/2022	9.3 J	2.7 J	1.6 J	0.2 UJ
10/2023	11.6	3.45	1.86 J	0.2 NJ
MTCA CL	5	5	70	0.2

ND: Analyte was not detected.

U: Analyte was not detected at or above the reported value.

J: Analyte was positively identified. The associated numerical result is an estimate.

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 measure the analyte in the sample.

NJ: There is evidence that the analyte is present in the sample. Reported result for the tentatively identified analyte is an estimate.

REJ: Rejected.

Bold: Analyte was detected.

Shade: Values are greater than MTCA cleanup levels.

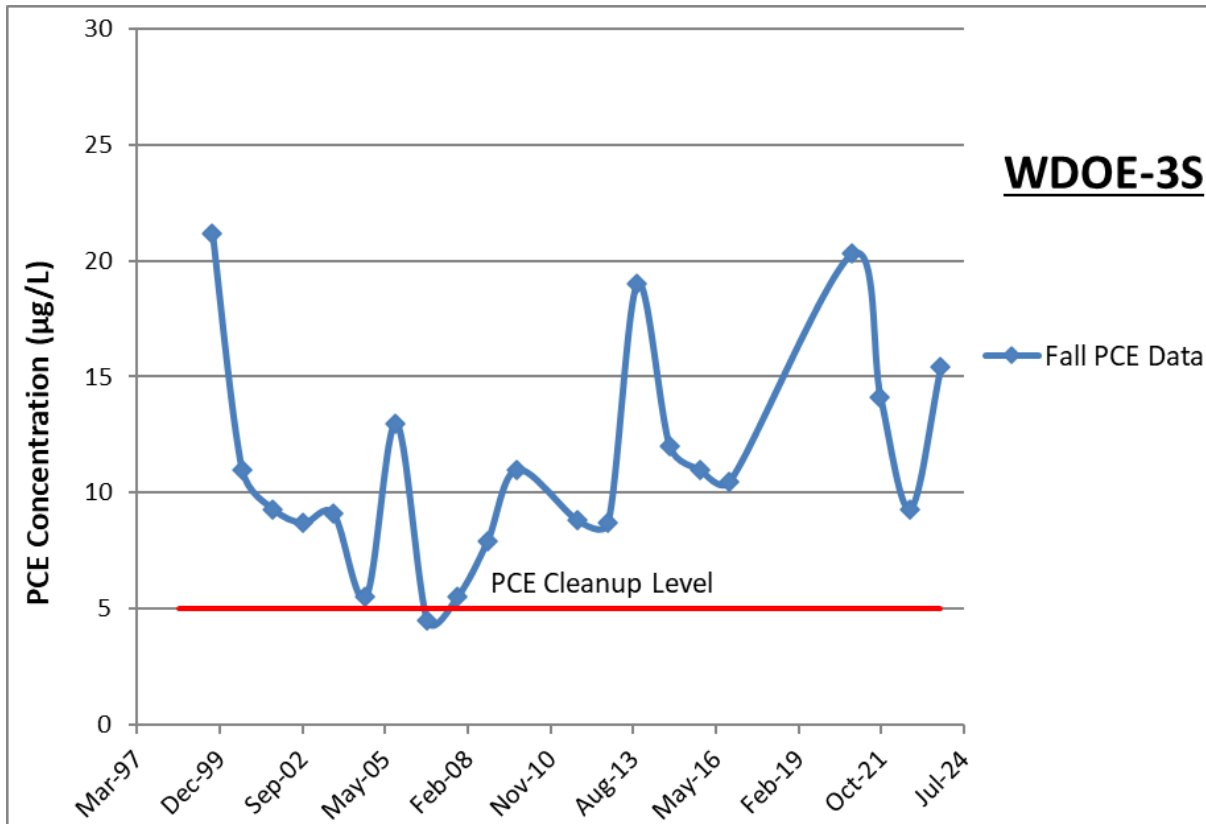
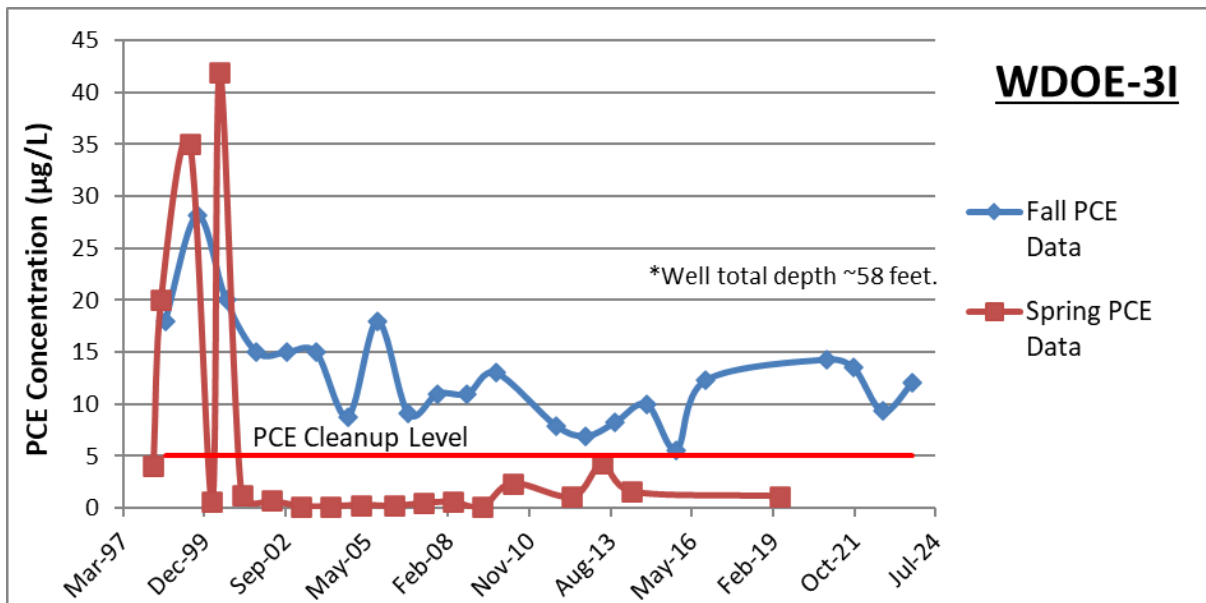


Figure 10. Washington Central Railroad Roundhouse, well WDOE-3S PCE results (µg/L), September 1999 to October 2023.



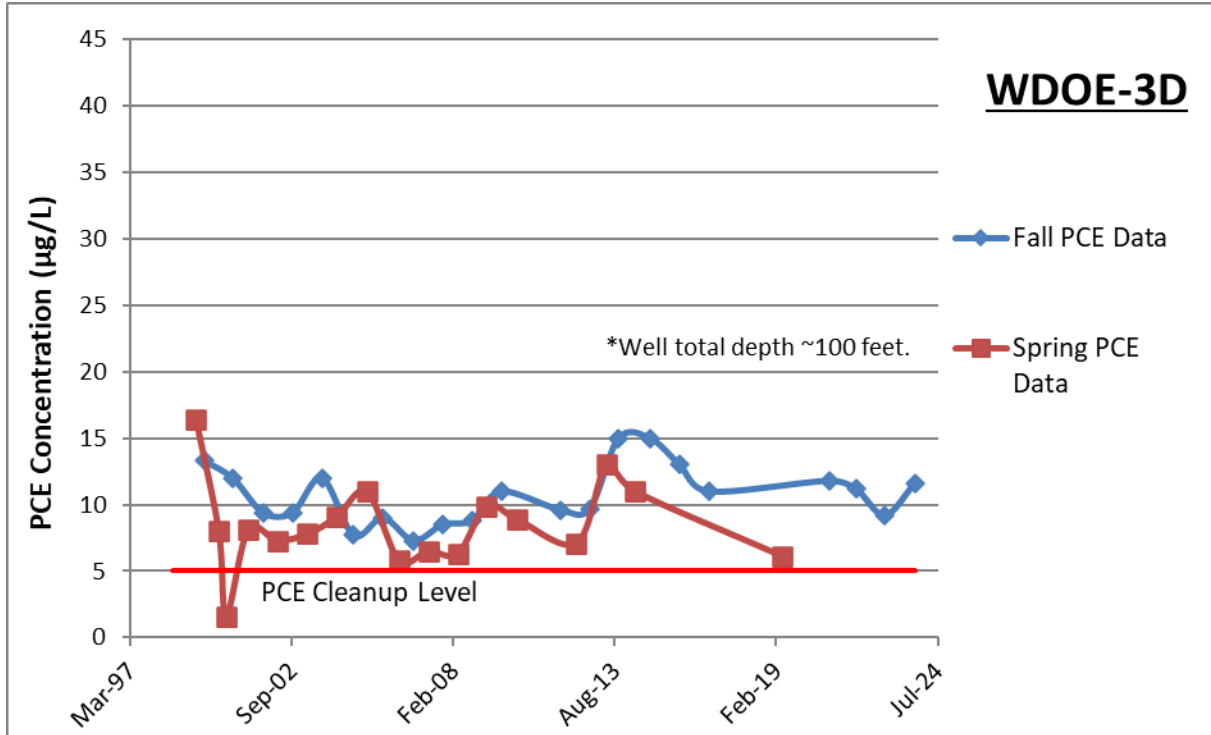
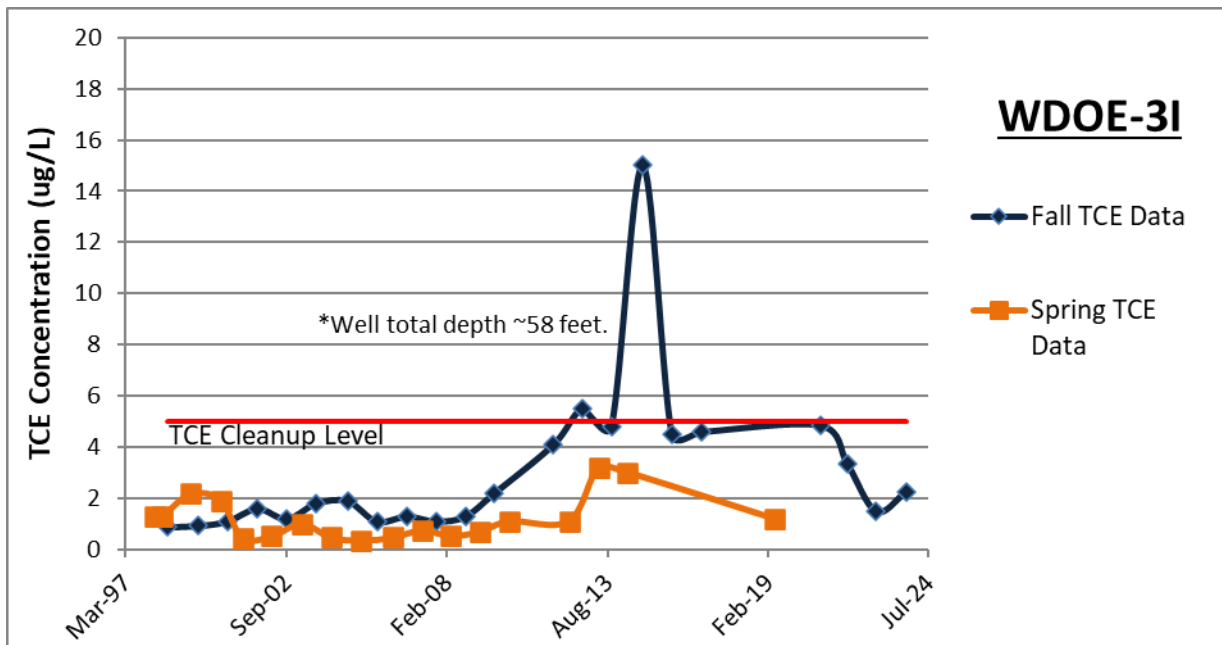


Figure 12. Washington Central Railroad Roundhouse, well WDOE-3D PCE results (µg/L), June 1999 to October 2023.



5. Fifth Wheel Truck Repair & Agri-Tech/Yakima Steel

Table 21. Summary of analytical results (µg/L) for 5WMW-2, June 1999 to October 2023.

Date	PCE	TCE	Cis-DCE	VC
6/1999	3.74	ND	ND	ND
9/1999	11.3	ND	ND	ND
12/1999	8.1	0.19 J	ND	ND
3/2000	4.17	ND	ND	ND
6/2000	ND	ND	ND	ND
8/2000	5.3	ND	ND	ND
12/2000	7.7	ND	ND	ND
3/2001	4.3	ND	ND	ND
9/2001	8.1	< 0.2	< 0.2	< 0.2
3/2002	3.2	< 0.2	< 0.2	< 0.2
9/2002	6.8	< 0.2	< 0.2	< 0.2
3/2003	3.5	< 0.2	< 0.2	< 0.2
9/2003	8.8	< 0.2	< 0.2	< 0.2
3/2004	3.1	0.59	< 0.2	< 0.2
10/2004	1.9	< 0.2	< 0.2	< 0.2
3/2005	2.8	< 0.2	< 0.2	< 0.2
12/2005	3.7	0.59	0.32	< 0.2
4/2006	0.21	0.35	1.2	< 0.2
10/2006	6.6	0.27	< 0.2	< 0.2
4/2007	2	< 0.2	< 0.2	< 0.2
10/2007	7.8	< 0.2	< 0.2	< 0.2
4/2008	1.8	< 0.2	< 0.2	< 0.2

Date	PCE	TCE	Cis-DCE	VC
10/2008	6.1	1 U	1 U	0.2 U
4/2009	1.3	1 U	1 U	0.2 U
10/2009	7.5	1 U	1 U	0.2 U
4/2010	1.9	1 U	1 U	0.2 U
6/2011	2.7	1 U	1 U	0.2 U
10/2011	3.8	0.2 U	0.2 U	0.2 U
4/2012	1.1	0.2 U	0.2 U	0.2 U
10/2012	3.5	0.21	0.2 U	0.2 U
5/2013	1.5	1 U	1 U	1 U
10/2013	5.9	1 U	1 U	1 U
4/2014	1.9 J	1 U	1 U	1 U
10/2014	7.6	2	18	0.2 U
10/2015	5.5	0.96 J	3.3	0.2 U
10/2016	7.5 J	0.82 J	1.1	0.2 U
9/2017	4.2	1 U	0.53 J	1 U
10/2018	5	1 U	0.54 J	0.2 U
10/2019	3.9	1 U	1 U	0.2 UJ
11/2020	2.3	1 U	1 UJ	0.2 U
10/2021	3.03	1 U	1 U	0.2 U
10/2022	2.8 J	0.2 UJ	0.2 UJ	0.2 UJ
10/2023	3.97	0.1 NJ	1 U	0.2 U
MTCA CL	5	5	70	0.2

ND: Analyte was not detected.

U: Analyte was not detected at or above the reported value.

J: Analyte was positively identified. The associated numerical result is an estimate.

NJ: There is evidence that the analyte is present in the sample. Reported result for the tentatively

identified analyte is an estimate.

Bold: Analyte was detected.

Shade: Values are greater than MTCA cleanup levels.

Table 22. Summary of analytical results (µg/L) for ATMW-4, June 1999 to October 2023.

Date	PCE	TCE	Cis-DCE	VC
6/1999	2.04	ND	2.15	ND
9/1999	4.07	0.73 J	4.95	ND
12/1999	3.93	0.94 J	4.77	ND
3/2000	3.11	ND	3.32	ND
6/2000	4.3	0.66	2.8	ND
8/2000	3.8	1.1	5.7	ND
12/2000	5.7	1.3	1.4	ND
3/2001	4.1	0.94	1.5	ND
9/2001	4.3	1.3	1.8	< 0.2
3/2002	4	0.94	0.68	< 0.2
9/2002	5.2	1.2	1	< 0.2
3/2003	4.2	0.84	2	< 0.2
9/2003	6.8	1.1	3	< 0.2
3/2004	0.23	< 0.2	0.59	< 0.2
10/2004	5.4	0.69	2.2	< 0.2
3/2005	5	0.71	2.2	< 0.2
12/2005	6.3	0.66	0.29	< 0.2
4/2006	4.3	0.54	0.68	< 0.2
10/2006	5	0.76	2.6	< 0.2
4/2007	4.1	0.52	1.4	< 0.2
10/2007	6	0.6	1.3	< 0.2

Date	PCE	TCE	Cis-DCE	VC
4/2008	3.4	0.48	1.7	< 0.2
10/2008	5.9	1 U	1 U	0.2 U
4/2009	4.8	0.64 J	4.2	0.2 U
10/2009	6.1	1 U	1.4	0.2 U
4/2010	3.9	1 U	1 U	0.2 U
6/2011	5.7	1 U	1	0.2 U
10/2011	4.8	0.39	0.46	0.2 U
4/2012	3.2	0.61	2.3	0.2 U
10/2012	3	0.26	0.87	0.2 U
5/2013	3	0.52 J	3.1	1 U
10/2013	6.5	1 U	0.62 J	1 U
4/2014	2.7 J	0.67 J	3.6	1 U
10/2014	6.3	0.51 J	1.2	0.2 U
10/2015	6.1	0.59 J	2.6	0.2 U
9/2017	4.2	1 U	1.3	0.2 U
MTCA CL	5	5	70	0.2

ND: Analyte was not detected.

U: Analyte was not detected at or above the reported value.

J: Analyte was positively identified. The associated numerical result is an estimate.

NJ: There is evidence that the analyte is present in the sample. Reported result for the tentatively identified analyte is an estimate.

Bold: Analyte was detected.

Shade: Values are greater than MTCA cleanup levels.

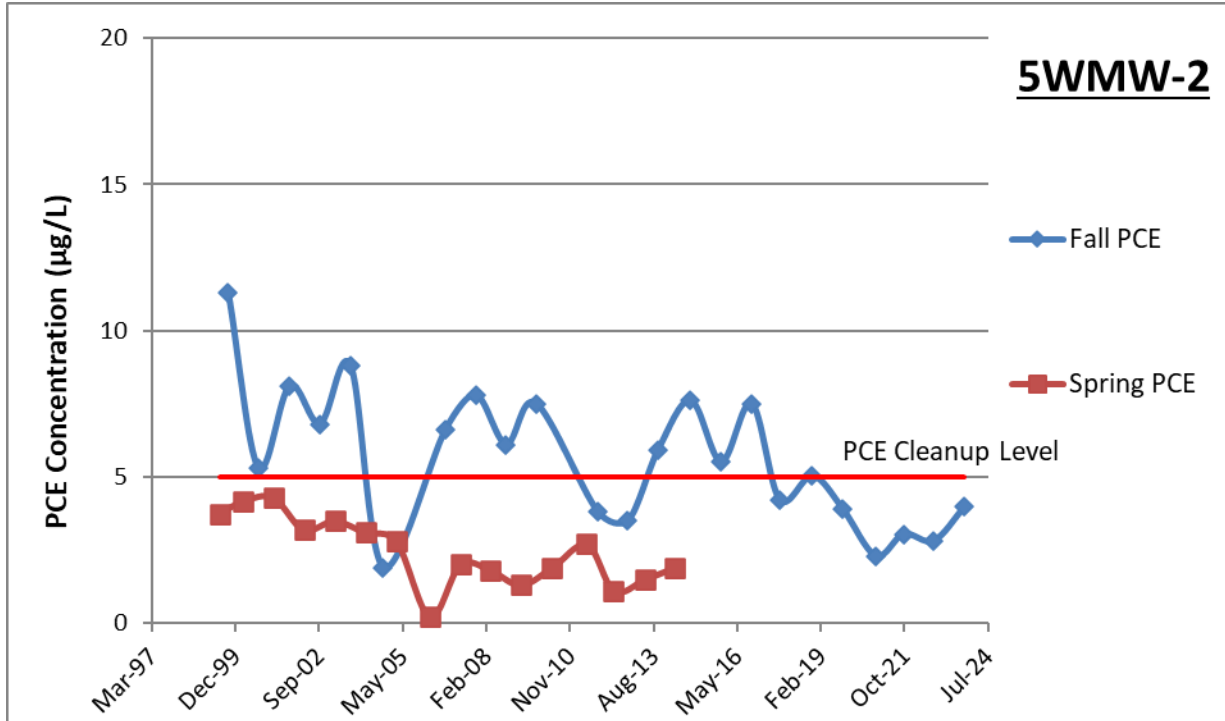


Figure 14. Fifth Wheel Truck Repair, well 5WMW-2 PCE results (µg/L), June 1999 to October 2023.

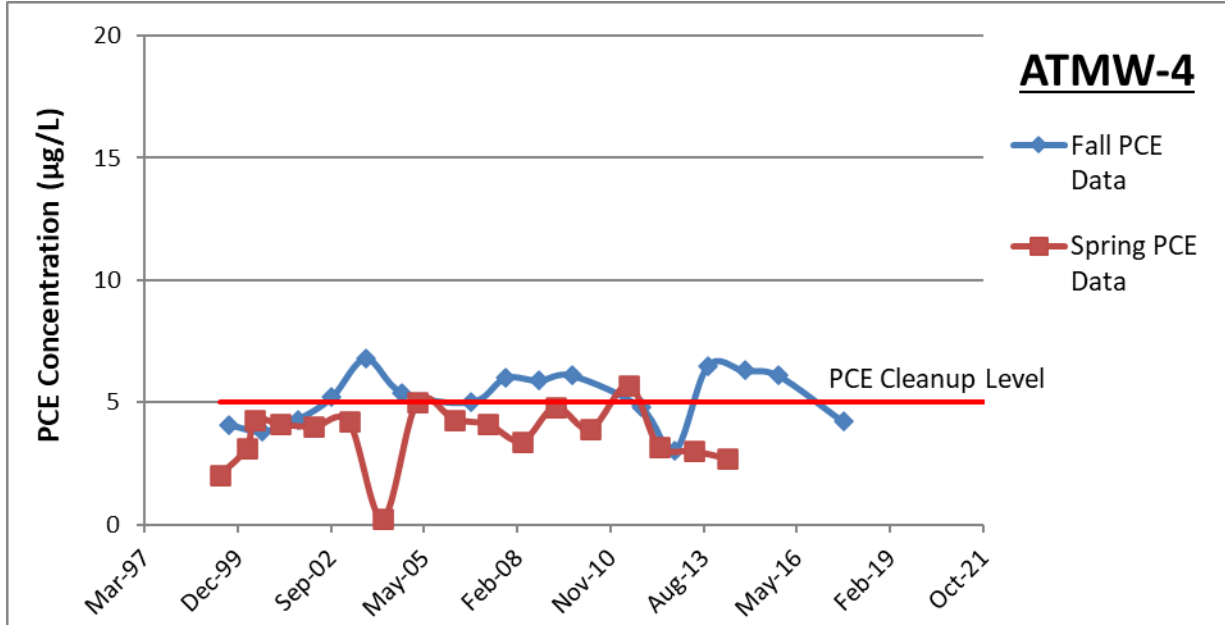


Figure 15. Agri-Tech/Yakima Steel, well ATMW-4 PCE results (µg/L), June 1999 to September 2017.

6. Cameron Yakima

Table 23. Summary of analytical results (µg/L) for CYIMW102S, December 1997 to October 2023.

Date	PCE	TCE	Cis-DCE	VC
12/1997	11	0.47 J	2 U	2 U
3/1998	11	0.5 J	0.2 J	1 U
6/1998	11	0.66 J	1.7	1 U
8/1998	70 E	4.9 J	45	2 UJ
6/1999	15.3	0.93 J	3.61	ND
9/1999	71.6	3.4	12.6	ND
6/2000	6.3	0.35	ND	ND
8/2000	16	0.55	ND	ND
12/2000	17	0.48	ND	ND
3/2001	12	0.48	ND	ND
9/2001	13	0.49	< 0.2	< 0.2
3/2002	7.9	0.33	< 0.2	< 0.2
9/2002	12	0.41	< 0.2	< 0.2
3/2003	6.8	0.29	< 0.2	< 0.2
9/2003	12	0.42	< 0.2	< 0.2
3/2004	8.6	0.32	< 0.2	< 0.2
3/2005	11	0.47	< 0.2	< 0.2
10/2005	15	0.29	0.2 U	0.2 U
4/2006	6.6	0.28	< 0.2	< 0.2
10/2006	8.3	0.24	0.2 U	0.2 U
4/2007	5.2	0.22	0.2 U	0.2 U
10/2007	9.3	0.27	0.2 U	0.2 U

Date	PCE	TCE	Cis-DCE	VC
4/2008	5.1	< 0.2	< 0.2	< 0.2
10/2008	6.3	1 U	1 U	0.2 U
4/2009	5.8	1 U	1 U	0.2 U
10/2009	11	1 U	1 U	0.2 U
4/2010	8	1 U	1 U	1 U
6/2011	7.7	1 U	1 U	0.2 U
10/2011	8.5	0.22	0.2 U	0.2 U
4/2012	5.8	0.24	0.2 U	0.2 U
10/2012	9.3	0.2 U	0.2 U	0.2 U
5/2013	4.6	1 U	1 U	1 U
10/2013	11	1 U	1 U	1 U
4/2014	5.1 J	0.53 J	1 U	1 U
10/2014	15 J	3.5	26	0.2 U
10/2015	10	1.6	6.6	0.2 U
10/2016	12	1.4	2.3	0.2 U
9/2017	6.9	0.75 J	1.1	0.2 U
10/2018	10 J	0.87 J	0.99 J	0.2 U
10/2019	13.1 J	1 U	0.39 J	0.2 U
11/2020	7.9	0.45 J	0.83 NJ	0.2 U
10/2021	9.96	0.92 J	0.61 J	0.2 U
10/2022	5.2 J	0.23 J	0.2 UJ	0.2 UJ
10/2023	6.61	0.27 J	0.47 J	0.2 U
MTCA CL	5	5	70	0.2

ND: Analyte was not detected.

U: Analyte was not detected at or above the reported value.

J: Analyte was positively identified. The associated numerical result is an estimate.

NJ: There is evidence that the analyte is present in the sample. Reported result for the tentatively identified analyte is an estimate.

Bold: Analyte was detected.

Shade: Values are greater than MTCA cleanup levels.

Table 24. Summary of analytical results (µg/L) for CYIMW103S, December 1997 to October 2023.

Date	PCE	TCE	Cis-DCE	VC
12/1997	26	1.2 J	2.6	2 U
3/1998	91 E	3.8	16	1 U
6/1998	64 E	4.1	90 E	1 U
8/1998	118 E	4 J	26 J	1 UJ
6/1999	55.3	3.9	31.3	ND
9/1999	139	4.54	17	ND
6/2000	27	ND	2.6	ND
8/2000	6.8	0.27	0.55	ND
12/2000	30	1	1.1	ND
3/2001	57	2.5	4.4	ND
9/2001	33	1.2	0.98	< 0.2
3/2002	31	1.6	1.6	< 0.2
9/2002	21	0.76	0.57	< 0.2
3/2003	26	1.2	0.92	< 0.2
9/2003	16	0.57	< 0.2	< 0.2
3/2004	25	0.8	0.69	< 0.2
10/2004	15	0.35	< 0.2	< 0.2
3/2005	18	0.8	0.71	< 0.2
10/2005	16	0.32	0.2 U	0.2 U
4/2006	13	0.52	0.44	< 0.2

Date	PCE	TCE	Cis-DCE	VC
10/2006	9.7	0.26	< 0.2	< 0.2
4/2007	13	0.52	0.47	0.2 U
10/2007	9	0.26	0.2 U	0.2 U
4/2008	10	0.38	0.38	< 0.2
10/2008	5.9	1 U	1 U	0.2 U
4/2009	12	1 U	2.7	0.2 U
10/2009	12	1 U	1 U	0.2 U
4/2010	7.2	1 U	1 U	1 U
6/2011	3.6	1 U	1 U	0.2 U
10/2011	8.3	0.37	0.2 U	0.2 U
4/2012	8.7	0.44	0.23	0.2 U
10/2012	7.9	0.3	0.2 U	0.2 U
5/2013	12	0.63 J	0.63 J	1 U
10/2013	10	1 U	1 U	1 U
4/2014	10 J	0.78 J	0.6 J	1 U
10/2014	12	2.3	15	0.2 U
4/2015	14	1.2	10	0.2 U
10/2015	10	1.4	5.1	0.2 U
4/2016	12	0.97 J	3.1	0.2 U
10/2016	10	1.2	1.9	0.2 U
4/2017	13	1.5	2	0.2 U
9/2017	7	0.81 J	1.1	0.2 U
5/2018	10	1	1.5	0.2 U
10/2018	9.3 J	0.82 J	0.8 J	0.2 U

Date	PCE	TCE	Cis-DCE	VC
4/2019	9.3	0.9 J	0.7 J	0.2 U
10/2019	10.8	1 U	11 U	0.2 U
11/2020	7.4	0.56 J	0.86 J	0.2 U
4/2021	8.06	0.72 J	0.65 NJ	0.2 U
10/2021	8.99	0.59 J	0.28 J	0.2 U
4/2022	7.45 J	0.99 J	0.2 J	5 UJ
10/2022	6 J	0.38 J	0.2 UJ	0.2 UJ
4/2023	11.4	0.72 J	0.26 J	0.2 U
10/2023	5.84	0.34 J	0.47 J	0.2 U
MTCA CL	5	5	70	0.2

ND: Analyte was not detected.

U: Analyte was not detected at or above the reported value.

J: Analyte was positively identified. The associated numerical result is an estimate.

NJ: There is evidence that the analyte is present in the sample. Reported result for the tentatively identified analyte is an estimate.

Bold: Analyte was detected.

Shade: Values are greater than MTCA cleanup levels.

Table 25. Summary of analytical results (µg/L) for CYIMW103D, December 1997 to October 2023.

Date	PCE	TCE	Cis-DCE	VC
12/1997	2.6	2 U	2 U	2 U
3/1998	3.3	1 U	1 U	1 U
6/1998	5	0.11 J	0.23 J	1 U
8/1998	3.9 J	1 UJ	1 UJ	1 UJ
6/1999	5.23	0.25 J	ND	0.23 J
9/1999	4.85	ND	ND	ND
6/2000	5.1	ND	ND	ND

Date	PCE	TCE	Cis-DCE	VC
8/2000	4.3	ND	ND	ND
12/2000	5	ND	ND	ND
3/2001	4.4	ND	ND	ND
9/2001	4.1	< 0.2	< 0.2	< 0.2
3/2002	3.7	< 0.2	< 0.2	< 0.2
3/2003	4	< 0.2	< 0.2	< 0.2
9/2003	4.4	< 0.2	< 0.2	< 0.2
3/2004	3.7	0.2	< 0.2	< 0.2
10/2004	3.8	< 0.2	< 0.2	< 0.2
3/2005	3.8	< 0.2	< 0.2	< 0.2
10/2005	4	0.2 U	0.2 U	0.2 U
4/2006	3.3	< 0.2	< 0.2	< 0.2
10/2006	3	0.2 U	0.2 U	0.2 U
4/2007	3.5	0.2 U	0.2 U	0.2 U
10/2007	3	0.2 U	0.2 U	0.2 U
4/2008	2.3	< 0.2	< 0.2	< 0.2
10/2008	2.7	1 U	1 U	0.2 U
4/2009	3.1	1 U	1 U	0.2 U
10/2009	3	1 U	1 U	0.2 U
4/2010	2.5	1 U	1 U	1 U
6/2011	4.8	1 U	1 U	0.2 U
10/2011	2.3	0.2 U	0.2 U	0.2 U
4/2012	1.9	0.2 U	0.2 U	0.2 U
10/2012	2.6	0.2 U	0.2 U	0.2 U

Date	PCE	TCE	Cis-DCE	VC
5/2013	3.1	1 U	1 U	1 U
10/2013	2.9	1 U	1 U	1 U
4/2014	3 J	0.36 J	1 U	1 U
10/2014	3.5	1 U	0.91 J	0.2 U
4/2015	3.4 J	1 UJ	0.93 J	0.2 UJ
4/2016	2.6	0.13 J	0.31 J	0.2 U
4/2017	3.7	0.69 J	0.78 NJ	0.2 U
5/2018	3.2	1 U	0.58 J	0.2 U
4/2019	2.8	1 U	1 U	0.2 U
4/2021	2.09	1 U	1 U	0.2 U
4/2022	1.93 J	0.55 J	1 U	5 UJ
4/2023	2.74	1U	1U	0.2 U
MTCA CL	5	5	70	0.2

ND: Analyte was not detected.

U: Analyte was not detected at or above the reported value.

J: Analyte was positively identified. The associated numerical result is an estimate.

NJ: There is evidence that the analyte is present in the sample. Reported result for the tentatively identified analyte is an estimate.

Bold: Analyte was detected.

Shade: Values are greater than MTCA cleanup levels.

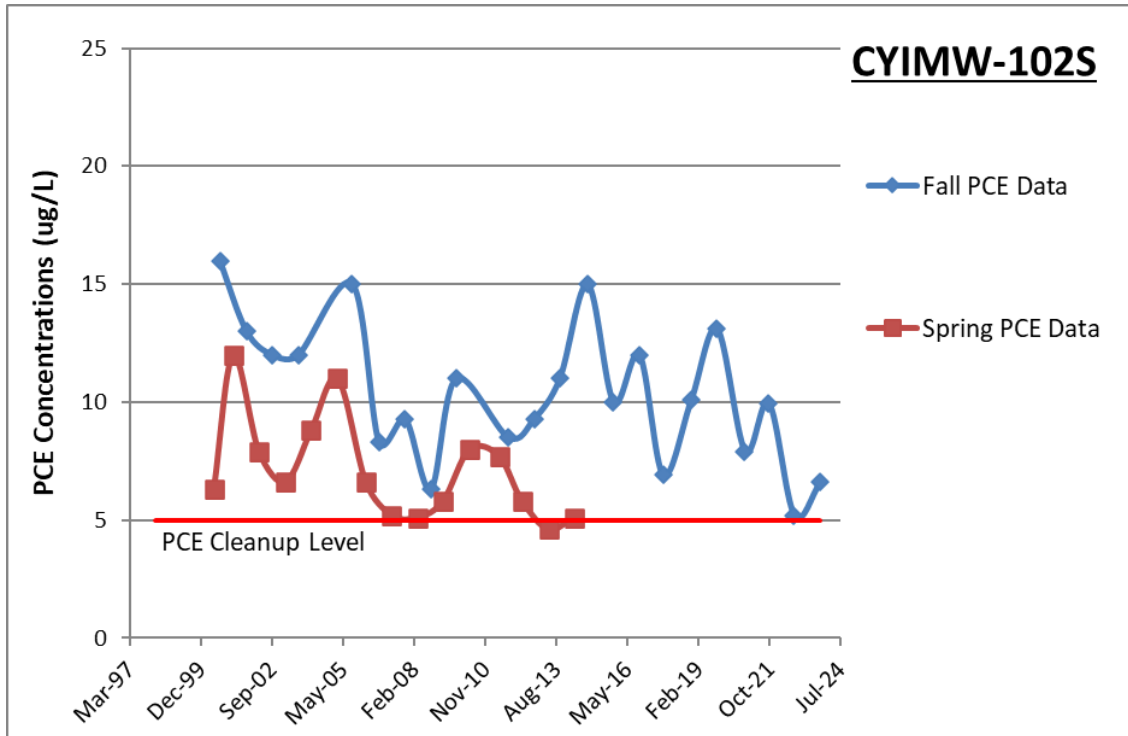


Figure 16. Cameron Yakima, well CYIMW-102S PCE results (µg/L), June 2000 to October 2023.

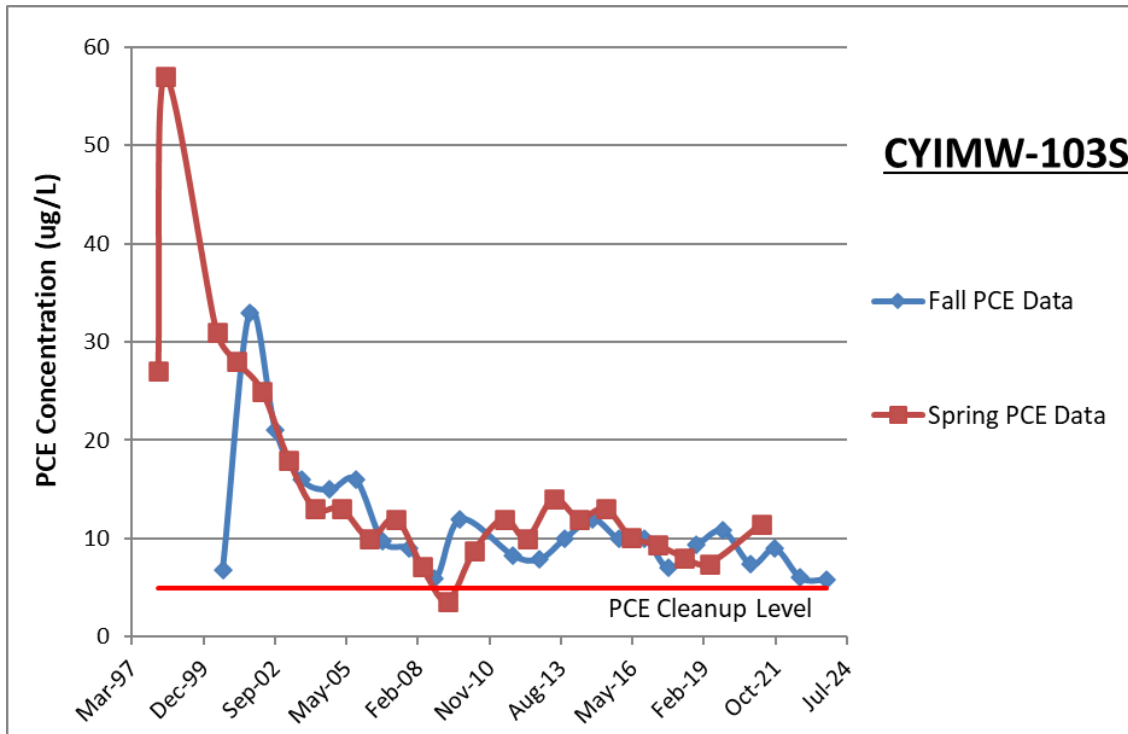


Figure 17. Cameron Yakima, well CYIMW-103S PCE results (µg/L), June 2000 to October 2023.

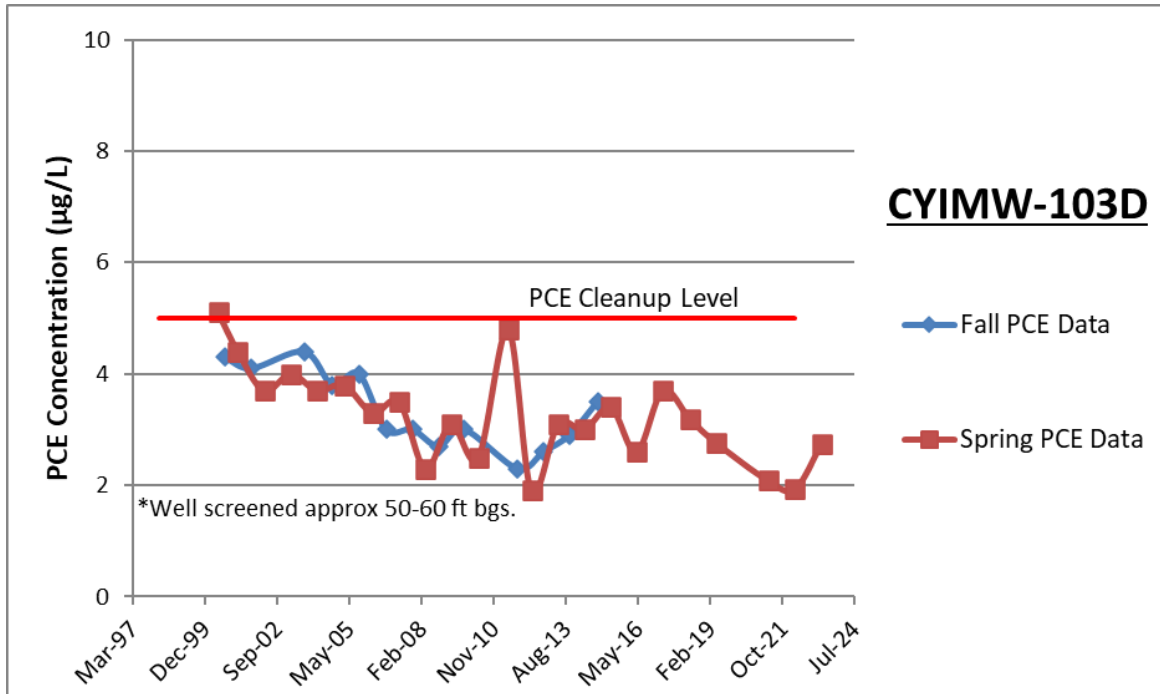


Figure 18. Cameron Yakima, well CYIMW-103D PCE results (µg/L), June 2000 to April 2023.

Table 26. Summary of analytical results (µg/L) for CYIMW106S, December 1997 to October 2023.

Date	PCE	TCE	Cis-DCE	VC
12/1997	27 J	1.2 J	2.6	2 U
3/1998	12	0.43 J	0.2 J	1 U
6/1998	8.8	0.35 J	1.7	1 UJ
8/1998	8.3 J	0.36 J	7.4 J	1 UJ
6/1999	7.79	0.43 J	ND	ND
9/1999	19	0.4 J	ND	ND
6/2000	6.2	0.28	ND	ND
8/2000	20	0.7	ND	ND
12/2000	12	0.35	ND	ND
3/2001	11	0.3	ND	ND
9/2001	13	0.4	< 0.2	< 0.2
3/2002	6.9	0.24	< 0.2	< 0.2
9/2002	12	0.31	< 0.2	< 0.2
3/2003	5.4	< 0.2	< 0.2	< 0.2
9/2003	13	0.31	< 0.2	< 0.2
3/2004	8.3	0.26	< 0.2	< 0.2
10/2004	11	0.26	< 0.2	< 0.2
3/2005	9.4	0.27	< 0.2	< 0.2
10/2005	15	0.29	0.2 U	0.2 U
4/2006	4.4	< 0.2	< 0.2	< 0.2
10/2006	8.4	0.24	0.2 U	0.2 U
4/2007	3.2	0.22	0.2 U	0.2 U
10/2007	8.9	0.24	0.2 U	0.2 U

Date	PCE	TCE	Cis-DCE	VC
4/2008	3.1	< 0.2	< 0.2	< 0.2
10/2008	6.4	1 U	1 U	0.2 U
4/2009	3.5	1 U	1 U	0.2 U
10/2009	9.3	1 U	1 U	0.2 U
4/2010	4.8	1 U	1 U	1 U
6/2011	4	1 U	1 U	0.2 U
10/2011	6.5	0.21	0.2 U	0.2 U
4/2012	2.9	0.2 U	0.2 U	0.2 U
10/2012	5.6	0.2 U	0.2 U	0.2 U
5/2013	3.6	1 U	1 U	1 U
10/2013	7.8	1 U	1 U	1 U
4/2014	2.3 J	1 U	1 U	1 U
10/2014	12	2.9	24	0.2 U
10/2015	8	1.3	5	0.2 U
10/2016	9.5 J	1.2	1.8	0.2 U
9/2017	6.2	0.65 J	0.89 J	0.2 U
10/2018	7.7	0.67 J	0.78 J	0.2 U
10/2019	8.8	1 U	1 U	0.2 U
11/2020	4.8	0.2 J	0.76 NJ	0.2 U
10/2021	6.61	0.34 J	0.16 J	0.2 U
10/2022	4 J	0.2 UJ	0.2 UJ	0.2 UJ
10/2023	5.19	0.16 J	0.42 NJ	0.2 U
MTCA CL	5	5	70	0.2

ND: Analyte was not detected.

U: Analyte was not detected at or above the reported value.

NJ: There is evidence that the analyte is present in the sample. Reported result for the tentatively identified analyte is an estimate.

J: Analyte was positively identified. The associated numerical result is an estimate.

Bold: Analyte was detected.

B: Sample collected after an equipment blank or transport blank that reported concentrations of analytes.

Shade: Values are greater than MTCA cleanup levels.

Table 27. Summary of analytical results (µg/L) for CYIMW107S, December 1997 to October 2023.

Date	PCE	TCE	Cis-DCE	VC
8/1998	18 J	0.02 J	0.06 J	1 UJ
6/1999	27	0.81 J	1.02	ND
9/1999	17.3	0.55 J	ND	ND
6/2000	10	0.22	ND	ND
8/2000	14	0.48	0.22	ND
12/2000	16	0.39	ND	ND
3/2001	12	0.35	ND	ND
9/2001	9.2	0.27	< 0.2	< 0.2
3/2002	8.3	0.27	< 0.2	< 0.2
9/2002	8.4	< 0.2	< 0.2	< 0.2
3/2003	7.7	0.21	< 0.2	< 0.2
9/2003	9.5	< 0.2	< 0.2	< 0.2
3/2004	9.5	0.36	< 0.2	< 0.2
10/2004	7	< 0.2	< 0.2	< 0.2
3/2005	9.2	0.28	< 0.2	< 0.2
10/2005	15	0.2 U	0.2 U	0.2 U
4/2006	6.6	< 0.2	< 0.2	< 0.2
10/2006	5	0.2 U	0.2 U	0.2 U
4/2007	6.6	0.2 U	0.2 U	0.2 U

Date	PCE	TCE	Cis-DCE	VC
10/2007	4.4	0.2 U	0.2 U	0.2 U
4/2008	5.9	< 0.2	< 0.2	< 0.2
10/2008	2.4	1 U	1 U	0.2 U
4/2009	5.6	1 U	1 U	0.2 U
10/2009	5.9	1 U	1 U	0.2 U
4/2010	7.6	1 U	1 U	1 U
6/2011	8.7	1 U	1 U	0.2 U
10/2011	4.8	0.2 U	0.2 U	0.2 U
4/2012	4.9	0.2 U	0.2 U	0.2 U
10/2012	4.9	0.2 U	0.2 U	0.2 U
5/2013	3.4	1 U	1 U	1 U
10/2013	6.2	1 U	1 U	1 U
4/2014	3.6 J	0.33 J	1 U	1 U
10/2014	7	1	5.9	0.2 U
4/2015	4.7	0.4 J	2.8	0.2 U
10/2015	6.4	0.74 J	3.5	0.2 U
4/2016	3.5	0.3 J	0.9 J	0.2 U
10/2016	5.4 J	0.53 J	1.1	0.2 U
4/2017	5.1	0.92 J	1.1	0.2 U
9/2017	1.4	1 U	1 U	0.2 U
5/2018	3.9	1 U	0.7 J	0.2 U
10/2018	6.3 J	0.64 J	0.75 J	0.2 U
4/2019	3.6	1 U	1 U	0.2 U
10/2019	6.81	1 U	1 U	0.2 U

Date	PCE	TCE	Cis-DCE	VC
11/2020	5.28	0.25 J	1 UJ	0.2 U
4/2021	2.87 B	1 U	1 U	0.2 U
10/2021	1 U	1 U	1 U	0.2 U
4/2022	3.39 J	0.66 J	1U	5 UJ
10/2022	0.91 J	0.2 UJ	0.2 UJ	0.2 UJ
4/2023	5.03	0.23 J	1 U	0.2 U
10/2023	4.9	0.22 J	0.43 J	0.2 U
MTCA CL	5	5	70	0.2

ND: Analyte was not detected.

U: Analyte was not detected at or above the reported value.

NJ: There is evidence that the analyte is present in the sample. Reported result for the tentatively identified analyte is an estimate.

J: Analyte was positively identified. The associated numerical result is an estimate.

Bold: Analyte was detected.

B: Sample collected after an equipment blank or transport blank that reported concentrations of analytes.

Shade: Values are greater than MTCA cleanup levels.

Table 28. Summary of analytical results (µg/L) for CYIMW108S, December 1997 to October 2023.

Date	PCE	TCE	Cis-DCE	VC
8/1998	7.8 J	1 UJ	1 UJ	1 UJ
6/1999	2.88	ND	ND	ND
9/1999	5.29	ND	ND	ND
6/2000	1.4	ND	ND	ND
8/2000	3.8	ND	ND	ND
12/2000	3	ND	ND	ND
3/2001	0.97	ND	ND	ND
9/2001	3.7	< 0.2	< 0.2	< 0.2

Date	PCE	TCE	Cis-DCE	VC
3/2002	0.89	< 0.2	< 0.2	< 0.2
9/2002	3.3	< 0.2	< 0.2	< 0.2
3/2003	1.3	< 0.2	< 0.2	< 0.2
9/2003	3.5	< 0.2	< 0.2	< 0.2
3/2004	0.96	< 0.2	< 0.2	< 0.2
10/2004	3.4	< 0.2	< 0.2	< 0.2
3/2005	0.8	< 0.2	< 0.2	< 0.2
10/2005	5.9	0.2 U	0.2 U	0.2 U
4/2006	0.6	< 0.2	< 0.2	< 0.2
10/2006	2.2	< 0.2	< 0.2	< 0.2
4/2007	0.43	0.2 U	0.2 U	0.2 U
10/2007	2.2	0.2 U	0.2 U	0.2 U
4/2008	0.48	< 0.2	< 0.2	< 0.2
10/2008	2.3	1 U	1 U	0.2 U
4/2009	0.13 J	1 U	1 U	0.2 U
10/2009	3.2	1 U	1 U	0.2 U
4/2010	3.6	1 U	1 U	1 U
6/2011	5.8	1 U	1 U	0.2 U
10/2011	2.8	0.2 U	0.2 U	0.2 U
4/2012	2.6	0.2 U	0.2 U	0.2 U
10/2012	3.1	0.2 U	0.2 U	0.2 U
5/2013	3.5	1 U	1 U	1 U
10/2013	4.1	1 U	1 U	1 U
4/2014	3.4 J	0.33 J	1 U	1 U

Date	PCE	TCE	Cis-DCE	VC
10/2014	4.3	0.58 J	3.5	0.2 U
10/2015	3.9	0.27 J	1.1	0.2 U
10/2016	3.8 J	1 U	0.5 J	0.2 U
9/2017	2.5	1 U	1 U	0.2 U
10/2018	3.7	1 U	1 U	0.2 U
10/2019	3.8	1 U	1 U	0.2 U
11/2020	3.1	1 U	1 UJ	0.2 U
10/2021	2.91	0.5 NJ	1 U	0.2 U
10/2022	2 J	0.2 UJ	0.2 UJ	0.2 UJ
10/2023	3.14	1 U	0.43 NJ	0.2 U
MTCA CL	5	5	70	0.2

ND: Analyte was not detected.

U: Analyte was not detected at or above the reported value.

NJ: There is evidence that the analyte is present in the sample. Reported result for the tentatively identified analyte is an estimate.

J: Analyte was positively identified. The associated numerical result is an estimate.

Bold: Analyte was detected.

B: Sample collected after an equipment blank or transport blank that reported concentrations of analytes.

Shade: Values are greater than MTCA cleanup levels.

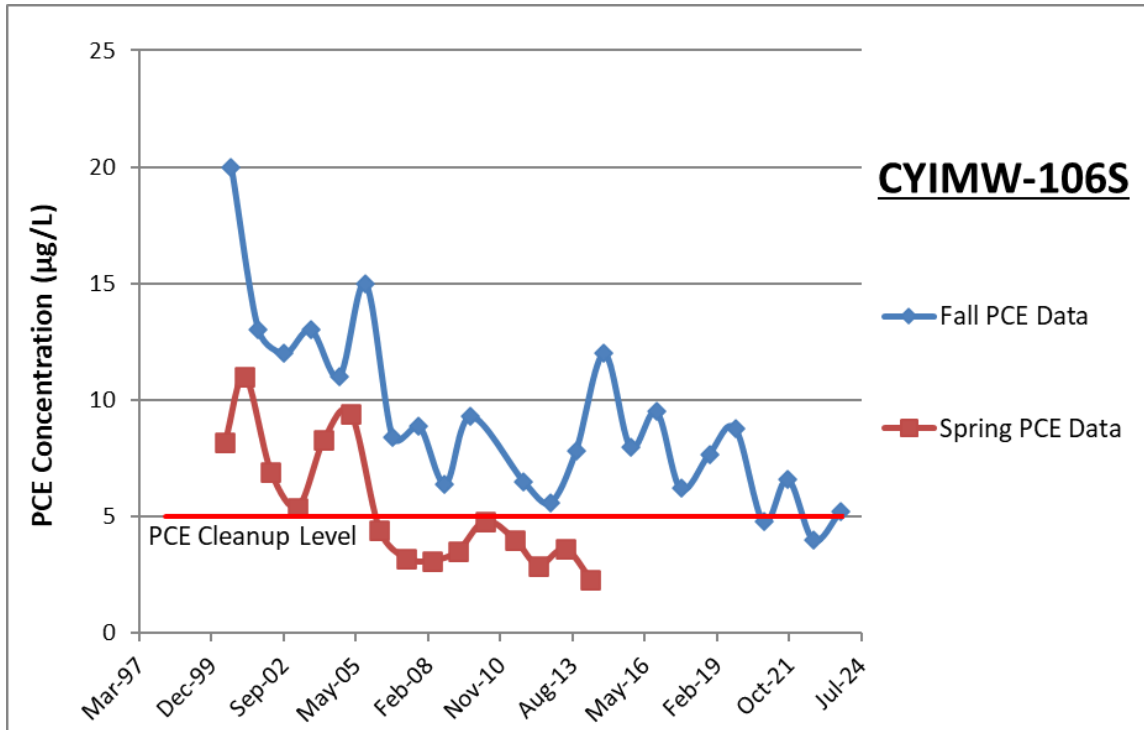


Figure 19. Cameron Yakima, well CYIMW-106S PCE results (µg/L), June 2000 to October 2023.

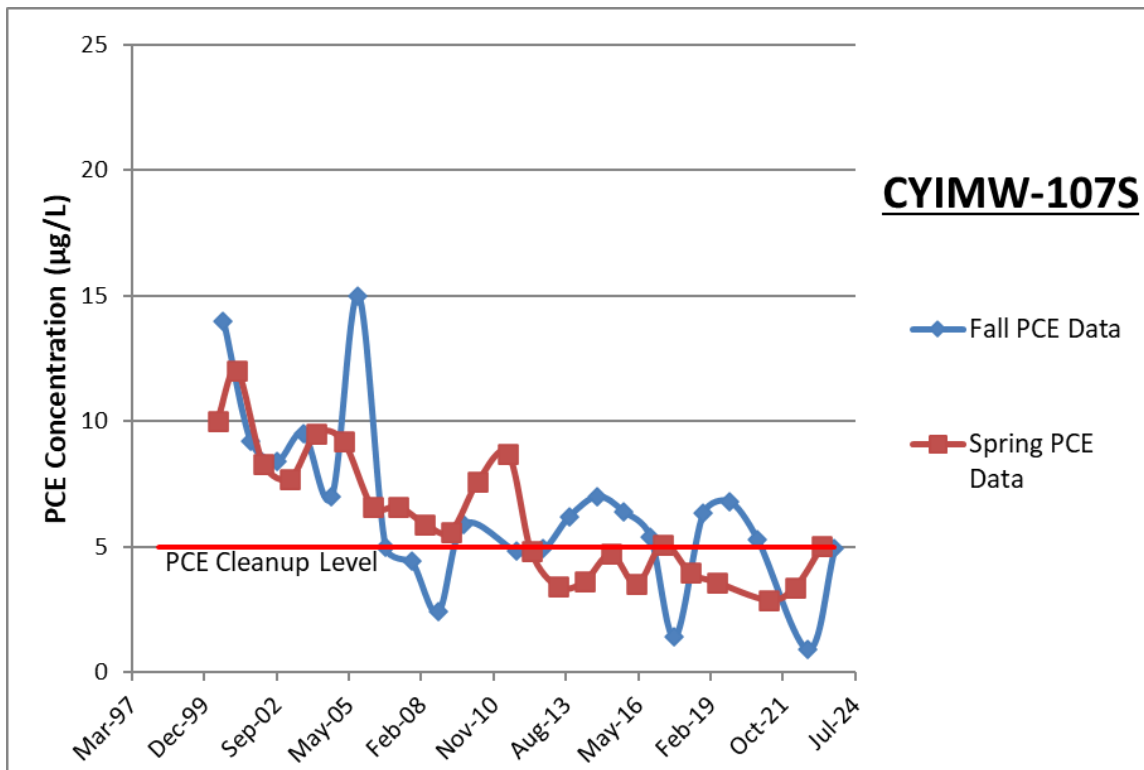


Figure 20. Cameron Yakima, well CYIMW-107S PCE results (µg/L), June 2000 to October 2023.

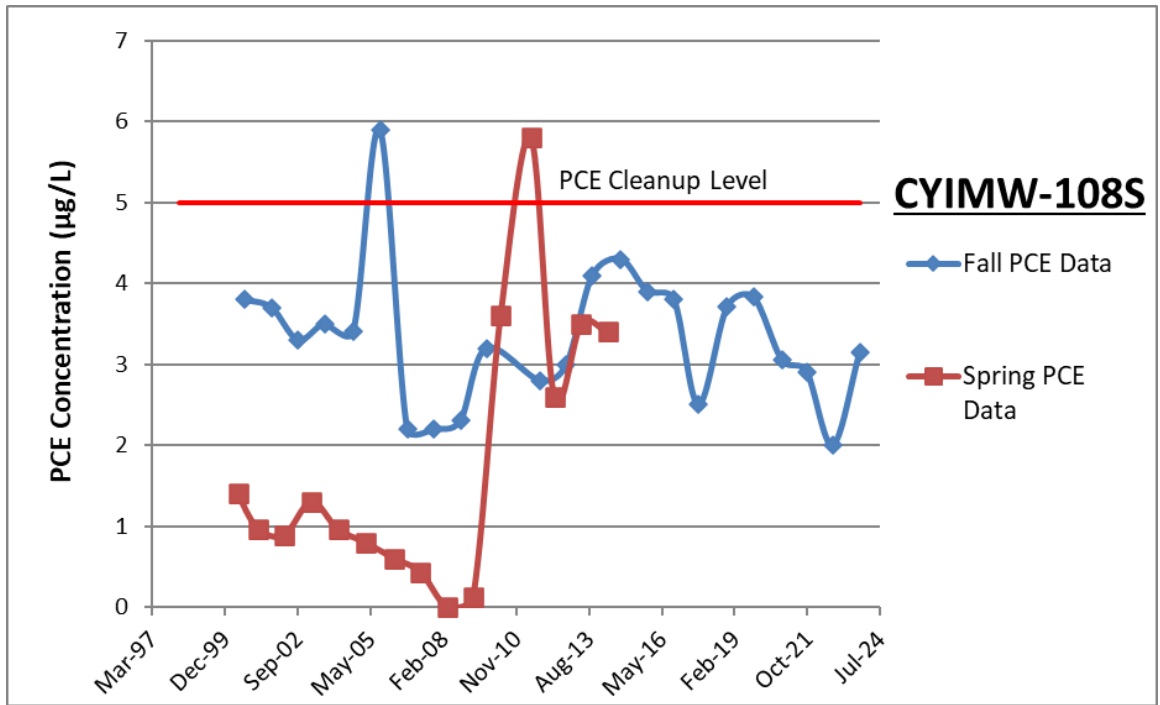


Figure 21. Cameron Yakima, well CYIMW-108S PCE results (µg/L), June 2000 to October 2023.

Table 29. Summary of analytical results (µg/L) for CYIMW109S, December 1997 to October 2023.

Date	PCE	TCE	Cis-DCE	VC
8/1998	7.1 J	1 UJ	1 UJ	1 UJ
6/1999	3.77	ND	ND	ND
9/1999	4.96	ND	ND	ND
6/2000	2	ND	ND	ND
8/2000	4	ND	ND	ND
12/2000	3.8	ND	ND	ND
3/2001	1.4	ND	ND	ND
9/2001	3.6	< 0.2	< 0.2	< 0.2
3/2002	1.1	< 0.2	< 0.2	< 0.2
9/2002	2.9	< 0.2	< 0.2	< 0.2
3/2003	1.7	< 0.2	< 0.2	< 0.2
3/2005	1.2	< 0.2	< 0.2	< 0.2
12/2005	1.4	0.2 U	0.2 U	0.2 U
4/2006	0.62	< 0.2	< 0.2	< 0.2
10/2006	2.3	0.2 U	0.2 U	0.2 U
4/2007	0.55	0.2 U	0.2 U	0.2 U
10/2007	2.9	0.2 U	0.2 U	0.2 U
4/2008	0.5	< 0.2	< 0.2	< 0.2
10/2008	1.8	1 U	1 U	0.2 U
4/2009	0.29 J	1 U	1 U	0.2 U
10/2009	3.3	1 U	1 U	0.2 U
4/2010	4.2	1 U	1 U	1 U
6/2011	4	1 U	1 U	0.2 U

Date	PCE	TCE	Cis-DCE	VC
5/2013	4.1	1 U	1 U	1 U
10/2013	4.2	1 U	1 U	1 U
4/2014	3.7 J	0.34 J	1 U	1 U
10/2014	5.7	1	7.2	0.2 U
MTCA CL	5	5	70	0.2

ND: Analyte was not detected.

U: Analyte was not detected at or above the reported value.

J: Analyte was positively identified. The associated numerical result is an estimate.

NJ: There is evidence that the analyte is present in the sample. Reported result for the tentatively identified analyte is an estimate.

Bold: Analyte was detected.

Shade: Values are greater than MTCA cleanup levels.

Table 30. Summary of analytical results (µg/L) for CYIMW110S, December 1997 to October 2023.

Date	PCE	TCE	Cis-DCE	VC
8/1998	8.3 J	1 UJ	1 UJ	1 UJ
6/1999	4.52	ND	ND	ND
9/1999	5.86	ND	ND	ND
6/2000	2.3	ND	ND	ND
8/2000	5.6	ND	ND	ND
12/2000	4.4	ND	ND	ND
3/2001	2.2	ND	ND	ND
9/2001	4.3	< 0.2	< 0.2	< 0.2
3/2002	1.7	< 0.2	< 0.2	< 0.2
9/2002	3.6	< 0.2	< 0.2	< 0.2
3/2003	2.4	< 0.2	< 0.2	< 0.2
10/2005	4.1	0.2 U	0.2 U	0.2 U

Date	PCE	TCE	Cis-DCE	VC
4/2006	1.2	< 0.2	< 0.2	< 0.2
10/2006	3	0.2 U	0.2 U	0.2 U
4/2007	0.96	0.2 U	0.2 U	0.2 U
10/2007	3.7	0.2 U	0.2 U	0.2 U
4/2008	0.75	< 0.2	< 0.2	< 0.2
10/2008	1.9	1 U	1 U	0.2 U
4/2009	0.59 J	1 U	1 U	0.2 U
10/2009	3.7	1 U	1 U	0.2 U
4/2010	5.2	1 U	1 U	1 U
6/2011	5.8	1 U	1 U	0.2 U
10/2011	3.4	0.2 U	0.2 U	0.2 U
4/2012	1.3	0.2 U	0.2 U	0.2 U
10/2012	3.9	0.2 U	0.2 U	0.2 U
5/2013	4.5	1 U	1 U	1 U
4/2014	2.8 J	0.28 NJ	1 U	1 U
MTCA CL	5	5	70	0.2

ND: Analyte was not detected.

U: Analyte was not detected at or above the reported value.

J: Analyte was positively identified. The associated numerical result is an estimate.

NJ: There is evidence that the analyte is present in the sample. Reported result for the tentatively identified analyte is an estimate.

Bold: Analyte was detected.

Shade: Values are greater than MTCA cleanup levels.

Table 31. Summary of analytical results (µg/L) for CYIMW111S, December 1997 to October 2023.

Date	PCE	TCE	Cis-DCE	VC
8/1998	9.4 J	0.19 J	1 UJ	1 UJ
6/1999	6.1	ND	ND	ND
9/1999	8.57	ND	ND	ND
6/2000	3.9	ND	ND	ND
8/2000	6.5	ND	ND	ND
12/2000	5.1	ND	ND	ND
3/2001	2.3	ND	ND	ND
9/2001	5.7	< 0.2	< 0.2	< 0.2
3/2002	1.5	< 0.2	< 0.2	< 0.2
9/2002	5.4	< 0.2	< 0.2	< 0.2
3/2003	2.2	< 0.2	< 0.2	< 0.2
9/2003	5.8	< 0.2	< 0.2	< 0.2
3/2004	1.7	< 0.2	< 0.2	< 0.2
10/2004	0.65	< 0.2	< 0.2	< 0.2
3/2005	1.7	< 0.2	< 0.2	< 0.2
10/2005	4.4	0.2 U	0.2 U	0.2 U
4/2006	0.4	< 0.2	< 0.2	< 0.2
10/2006	2.2	0.2 U	0.2 U	0.2 U
4/2007	0.68	0.2 U	0.2 U	0.2 U
10/2007	3.3	0.2 U	0.2 U	0.2 U
4/2008	0.6	< 0.2	< 0.2	< 0.2
10/2008	1.8	1 U	1 U	0.2 U
4/2009	0.43 J	1 U	1 U	0.2 U

Date	PCE	TCE	Cis-DCE	VC
10/2009	5.5	1 U	1 U	0.2 U
4/2010	1.3	1 U	1 U	1 U
6/2011	1 U	1 U	1 U	0.2 U
10/2011	4.4	0.2 U	0.2 U	0.2 U
4/2012	0.52	0.2 U	0.2 U	0.2 U
10/2012	2.3	0.2 U	0.2 U	0.2 U
5/2013	1.2	1 U	1 U	1 U
10/2013	0.93 J	1 U	1 U	1 U
10/2015	1.1	1 U	0.57 J	0.2 U
10/2016	1 U	1 U	1 U	0.2 U
9/2017	1 U	1 U	1 U	0.2 U
10/2018	4.9	1 U	0.58 J	0.2 U
10/2019	4.1	1 U	1 U	0.2 U
11/2020	3.7	0.13 NJ	1 UJ	0.2 U
10/2021	4.85	0.22 J	0.13 J	0.2 U
10/2022	1.3 J	0.2 UJ	0.2 UJ	0.2 UJ
10/2023	3.78	0.13 NJ	0.42 J	0.2 U
MTCA CL	5	5	70	0.2

ND: Analyte was not detected.

U: Analyte was not detected at or above the reported value.

J: Analyte was positively identified. The associated numerical result is an estimate.

NJ: There is evidence that the analyte is present in the sample. Reported result for the tentatively identified analyte is an estimate.

Bold: Analyte was detected.

Shade: Values are greater than MTCA cleanup levels.

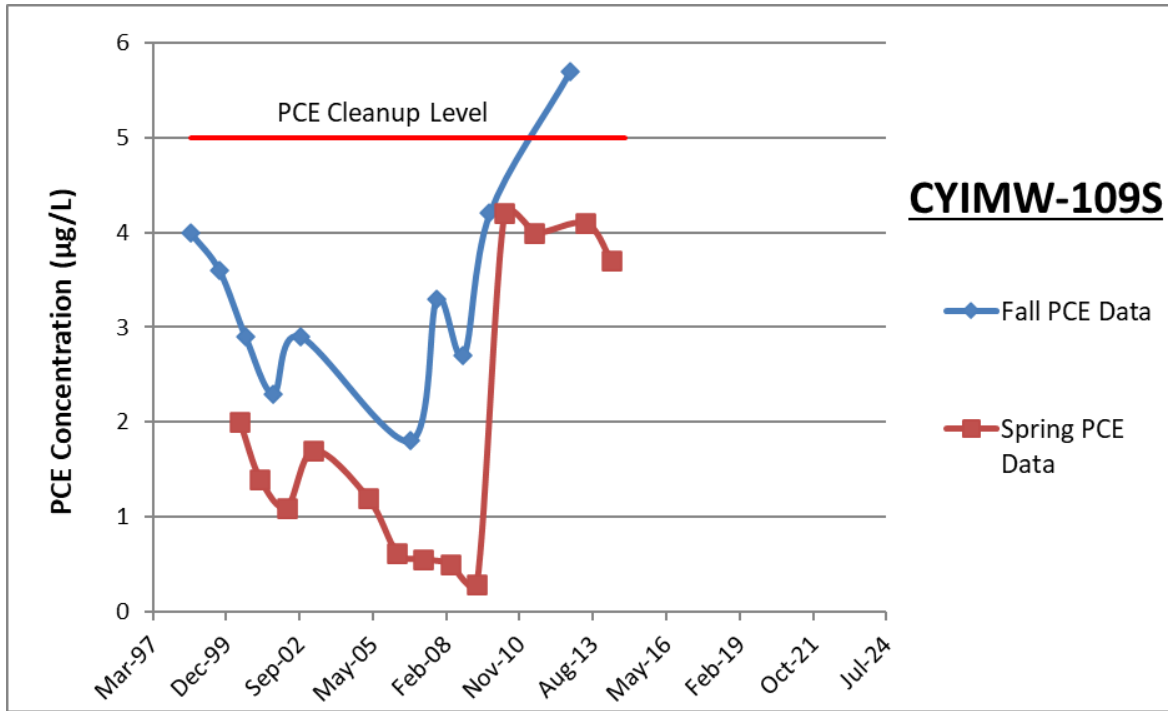


Figure 22. Cameron Yakima, well CYIMW-109S PCE results (µg/L), June 2000 to October 2014.

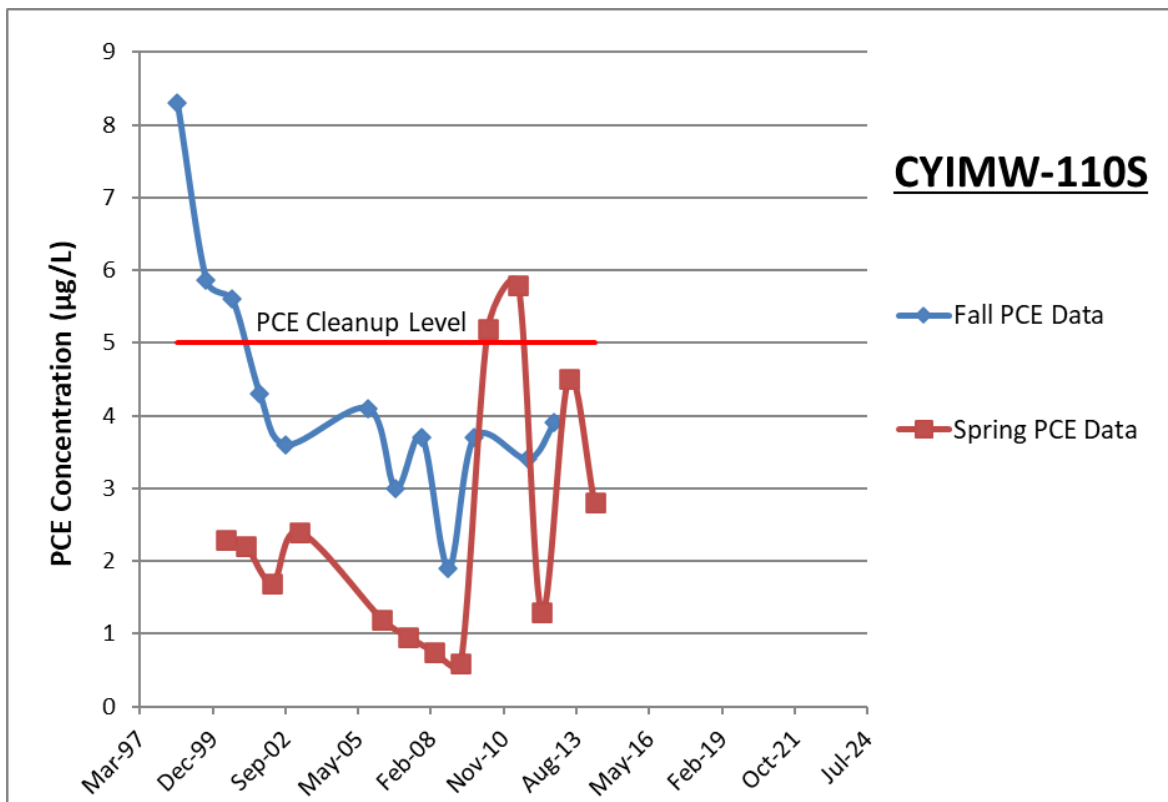


Figure 23. Cameron Yakima, well CYIMW-110S PCE results (µg/L), June 2000 to April 2014.

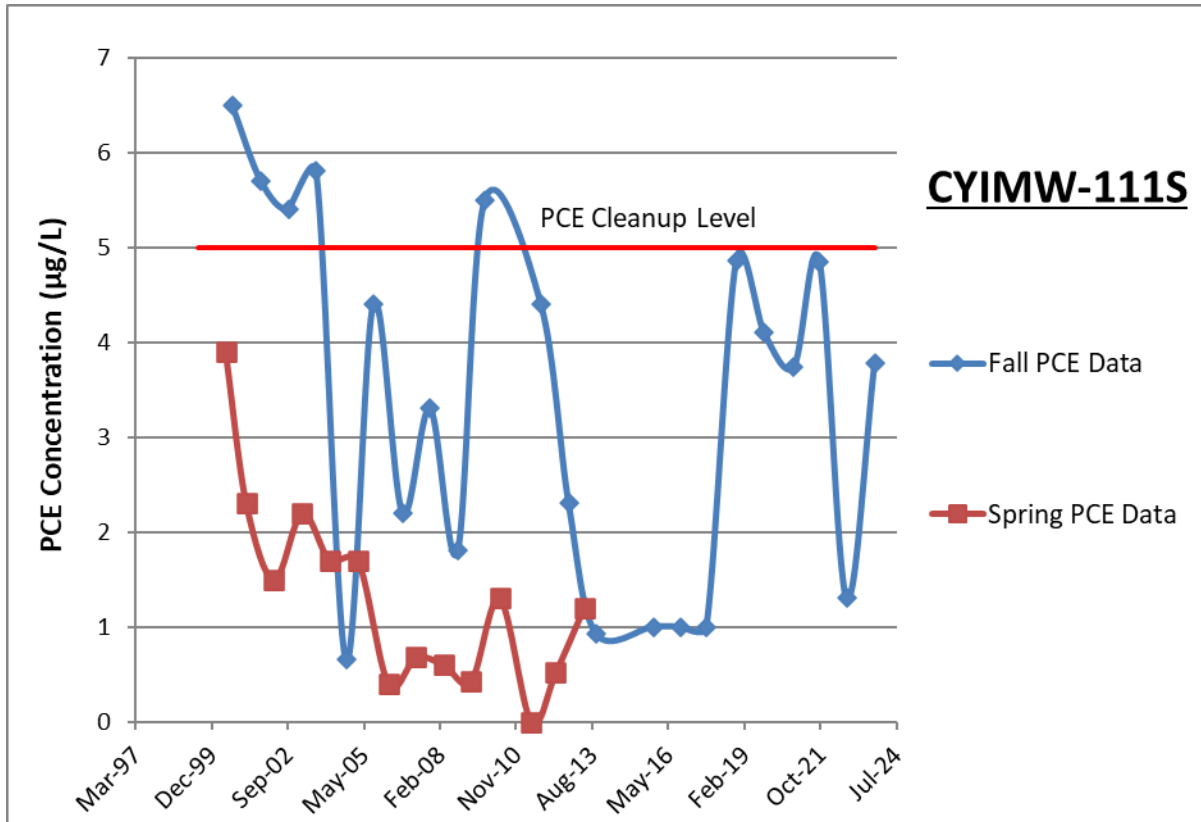


Figure 24. Cameron Yakima, well CYIMW-111S PCE results (µg/L), June 2000 to October 2023.

Table 32. Summary of analytical results (µg/L) for CYIMW112S, December 1997 to October 2023.

Date	PCE	TCE	Cis-DCE	VC
8/1998	15 J	0.02 J	0.45 J	1 UJ
6/1999	18.9	0.71 J	1.47	ND
9/1999	17.1	0.56 J	0.71 J	ND
6/2000	9.6	0.28	ND	ND
8/2000	11	0.37	ND	ND
12/2000	13	0.38	ND	ND
3/2001	6.5	0.24	ND	ND
9/2001	8.6	0.27	< 0.2	< 0.2
3/2002	3.9	< 0.2	< 0.2	< 0.2
9/2002	4	< 0.2	< 0.2	< 0.2
3/2003	4.6	0.21	< 0.2	< 0.2
3/2005	3.7	< 0.2	< 0.2	< 0.2
10/2005	8.8	0.2 U	0.2 U	0.2 U
4/2006	3	< 0.2	< 0.2	< 0.2
10/2006	4.6	0.2 U	0.2 U	0.2 U
4/2007	2.7	0.2 U	0.2 U	0.2 U
10/2007	4.7	0.2 U	0.2 U	0.2 U
4/2008	2	< 0.2	< 0.2	< 0.2
10/2008	3.2	1 U	1 U	0.2 U
4/2009	1.8	1 U	1 U	0.2 U
10/2009	7.9	1 U	1 U	0.2 U
4/2010	6.2	1 U	1 U	1 U
6/2011	8.5	1 U	1 U	0.2 U
10/2011	4.7	0.2 U	0.2 U	0.2 U
4/2012	7.3	0.28	0.2 U	0.2 U
10/2012	6.1	0.2 U	0.2 U	0.2 U
5/2013	9	0.44 J	0.45 J	1 U
10/2013	11	1 U	1 U	1 U
4/2014	7.4 J	0.6 J	1 U	1 U
10/2014	5.1	0.67 J	4	0.2 U

Date	PCE	TCE	Cis-DCE	VC
4/2015	9.1	1.1	7.6	0.2 U
10/2015	9.3	1.3	5.6	0.2 U
4/2016	5.9	0.77 J	1.9	0.2 U
10/2016	7	0.8 J	1.2	0.2 U
10/2018	8	0.69 J	0.8 J	0.2 U
11/2020	11.6	0.69 J	0.92 J	0.2 U
10/2022	3.9 J	0.2 UJ	0.2 UJ	0.2 UJ
MTCA CL	5	5	70	0.2

ND: Analyte was not detected.

U: Analyte was not detected at or above the reported value.

J: Analyte was positively identified. The associated numerical result is an estimate.

Bold: Analyte was detected.

Shade: Values are greater than MTCA cleanup levels.

Table 33. Summary of analytical results (µg/L) for CYIMW113S, December 1997 to October 2023.

Date	PCE	TCE	Cis-DCE	VC
8/1998	21 J	0.2 J	1.2 J	1 UJ
10/2005	9.9	0.2 U	0.2 U	0.2 U
10/2006	5.5	0.2 U	0.2 U	0.2 U
4/2007	2.8	0.2 U	0.2 U	0.2 U
10/2007	5.5	0.2 U	0.2 U	0.2 U
10/2008	3.7	1 U	1 U	0.2 U
4/2009	1.8	1 U	1 U	0.2 U
10/2009	8.6	1 U	1 U	0.2 U
4/2010	14	1 U	1 U	1 U
6/2011	12	1 U	1 U	0.2 U
10/2011	9	0.22	0.2 U	0.2 U
4/2012	8.5	0.36	0.2 U	0.2 U
10/2012	8.8	0.25	0.2 U	0.2 U
5/2013	12	0.58 J	0.51 J	1 U
10/2013	13	1 U	1 U	1 U
4/2014	6.1 J	0.55 J	1 U	1 U
10/2014	9.7	2	14	0.2 U

Date	PCE	TCE	Cis-DCE	VC
4/2015	12	1.4	9.9	0.2 U
10/2015	11	1.6	6.7	0.2 U
4/2016	7.2	0.92 J	2.5	0.2 U
10/2016	10	1.2	1.8	0.2 U
4/2017	13	1.8	2.3	0.2 U
5/2018	9.8	1	1.5	0.2 U
4/2019	10.3	0.98 J	0.68 J	0.2 U
4/2021	7.67	0.58 J	1 U	0.2 U
4/2022	4.6 J	0.76 J	1 U	5 UJ
4/2023	10.3	0.55 J	0.18 J	0.2 U
MTCA CL	5	5	70	0.2

ND: Analyte was not detected.

U: Analyte was not detected at or above the reported value.

J: Analyte was positively identified. The associated numerical result is an estimate.

Bold: Analyte was detected.

Shade: Values are greater than MTCA cleanup levels.

Table 34. Summary of analytical results (µg/L) for CYIMW113D, December 1997 to October 2023.

Date	PCE	TCE	Cis-DCE	VC
8/1998	5 J	1 UJ	1 UJ	1 UJ
6/1999	5.34	ND	ND	ND
9/1999	5.46	ND	ND	ND
6/2000	5.8	ND	ND	ND
8/2000	5.1	ND	ND	ND
12/2000	5.2	ND	ND	ND
3/2001	4.4	ND	ND	ND
9/2001	4.7	< 0.2	< 0.2	< 0.2
3/2002	3.5	< 0.2	< 0.2	< 0.2
9/2002	4.5	< 0.2	< 0.2	< 0.2
3/2003	3.9	< 0.2	< 0.2	< 0.2
3/2005	4	< 0.2	< 0.2	< 0.2
10/2005	4.8	< 0.2	< 0.2	< 0.2

Date	PCE	TCE	Cis-DCE	VC
4/2006	3.8	< 0.2	< 0.2	< 0.2
10/2006	3.6	0.2 U	0.2 U	0.2 U
4/2007	3.5	0.2 U	0.2 U	0.2 U
10/2007	3.2	0.2 U	0.2 U	0.2 U
4/2008	2.7	< 0.2	< 0.2	< 0.2
10/2008	2.8	1 U	1 U	0.2 U
4/2009	3	1 U	1 U	0.2 U
10/2009	4.2	1 U	1 U	0.2 U
4/2010	3.4	1 U	1 U	1 U
6/2011	6.1	1 U	1 U	0.2 U
10/2011	3.1	0.2 U	0.2 U	0.2 U
4/2012	2.8	0.2 U	0.2 U	0.2 U
10/2012	2.9	0.2 U	0.2 U	0.2 U
5/2013	4	1 U	1 U	1 U
10/2013	4.5	1 U	1 U	1 U
4/2014	3.8 J	0.33 J	1 U	1 U
10/2014	4.8	1 U	2.1	0.2 U
4/2015	4.4	1 U	0.38 J	0.2 U
4/2016	3.6	1 U	0.13 J	0.2 U
4/2017	4.7	0.67 J	1 U	0.2 U
5/2018	3.4	1 U	1 U	0.2 U
4/2019	2.9 J	1 UJ	1 UJ	0.2 UJ
4/2021	2.71	1 U	1 U	0.2 U
4/2022	2.44 J	0.54 J	1 U	5 UJ
4/2023	3.32	1 U	1 U	0.2 U
MTCA CL	5	5	70	0.2

ND: Analyte was not detected.

U: Analyte was not detected at or above the reported value.

J: Analyte was positively identified. The associated numerical result is an estimate.

Bold: Analyte was detected.

Shade: Values are greater than MTCA cleanup levels.

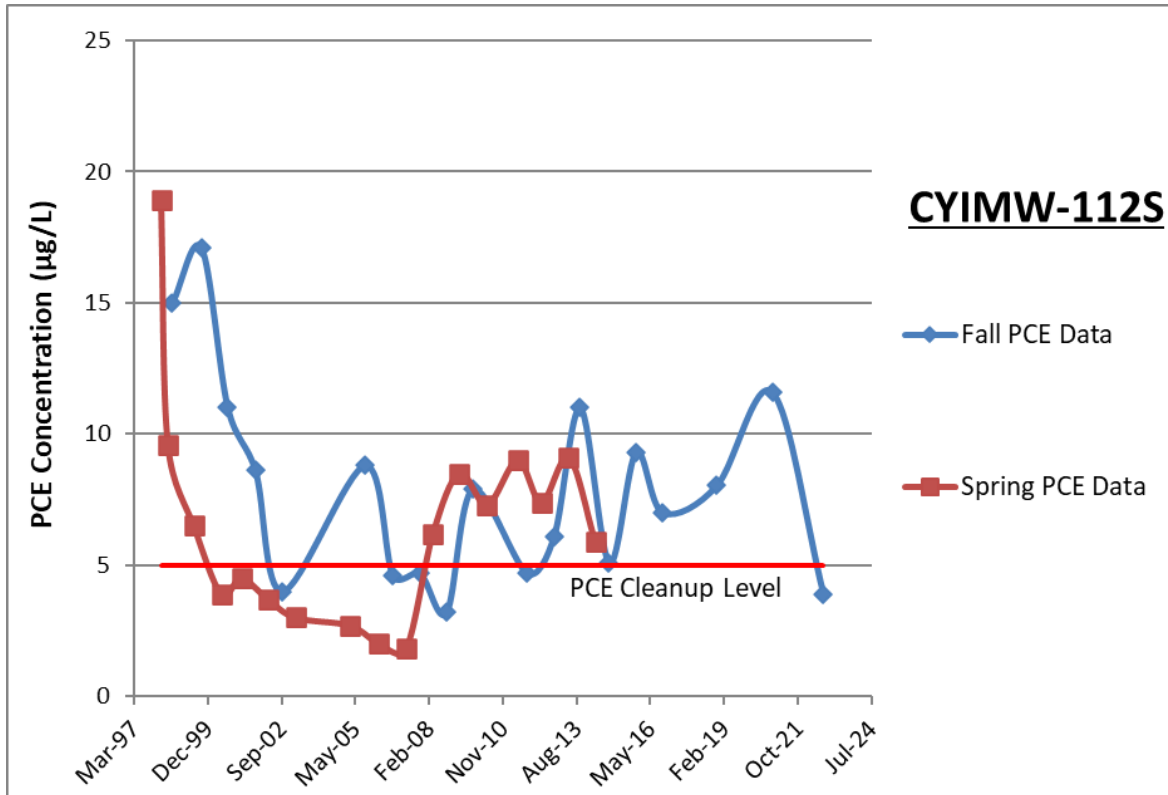


Figure 25. Cameron Yakima, well CYIMW-112S PCE results (µg/L), June 2000 to October 2022.

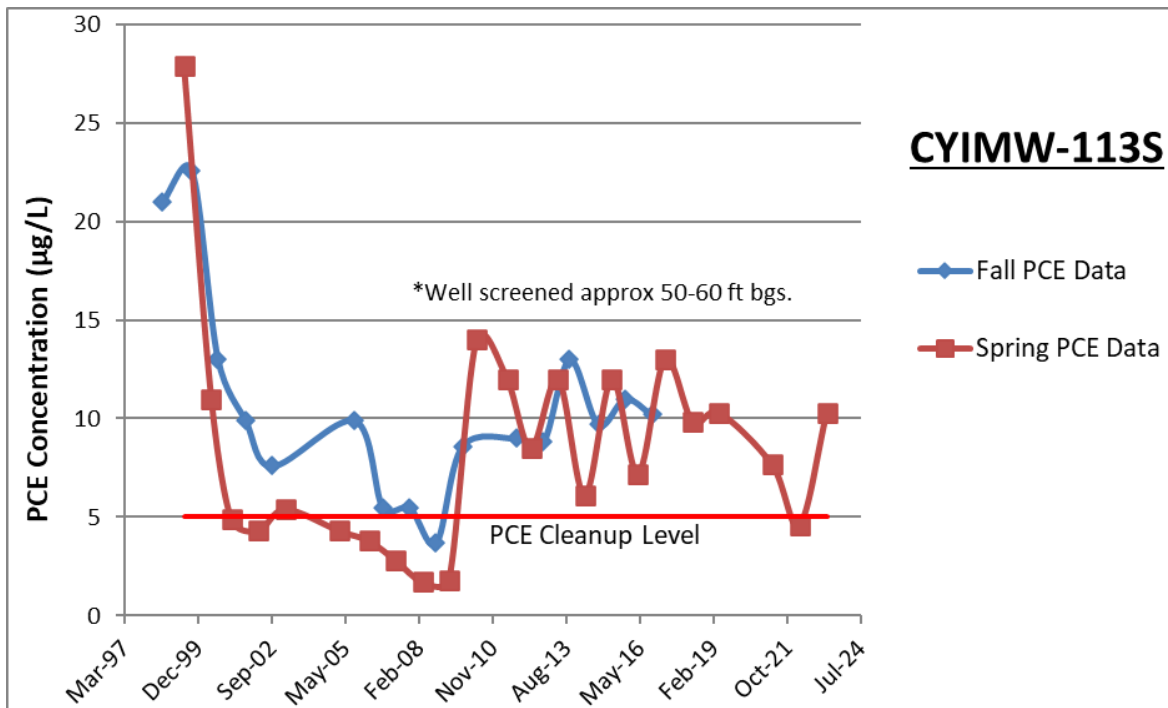


Figure 26. Cameron Yakima, well CYIMW-113S PCE results (µg/L), June 2000 to April 2023.

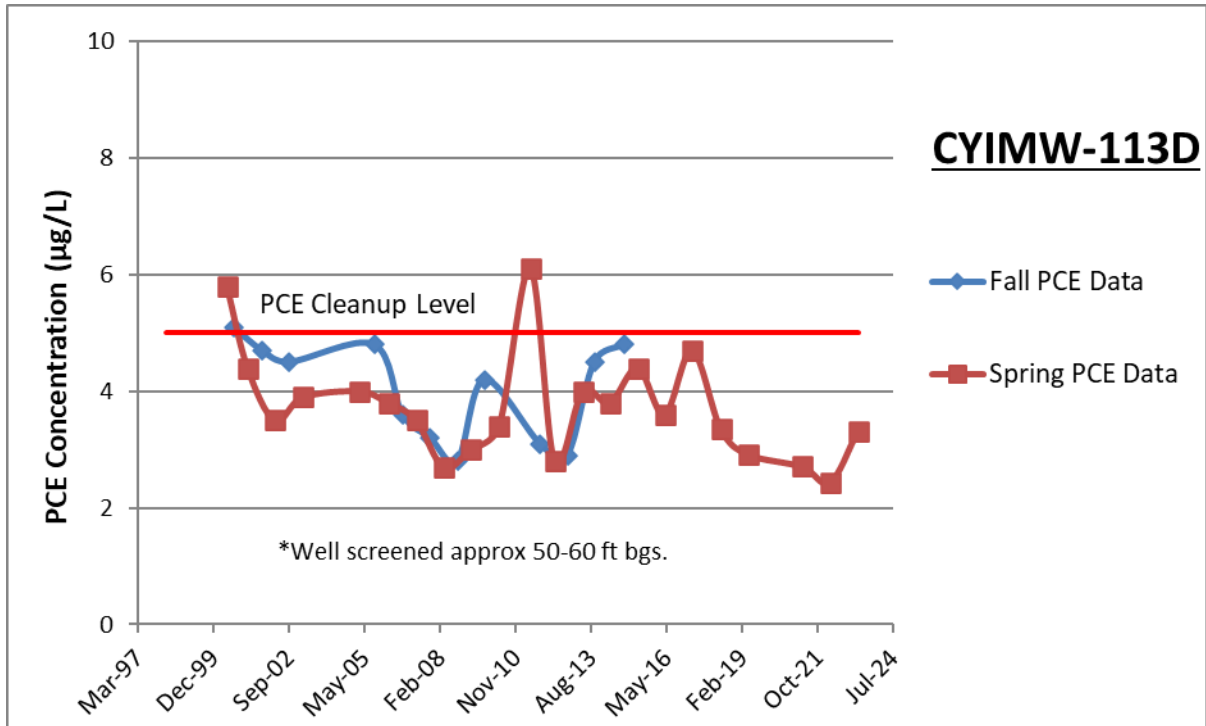


Figure 27. Cameron Yakima, well CYIMW-113D PCE results (µg/L), June 2000 to April 2023.

Table 35. Summary of analytical results (µg/L) for CYIMW114S, December 1997 to October 2023.

Date	PCE	TCE	Cis-DCE	VC
8/1998	15 J	0.03 J	0.72 J	1 UJ
6/1999	19.1	0.65 J	1.59	ND
9/1999	15.8	0.63 J	0.84 J	ND
6/2000	9.9	0.28	0.2	ND
8/2000	7.9	0.32	ND	ND
12/2000	13	0.34	ND	ND
3/2001	8.6	0.33	ND	ND
9/2001	7.8	0.27	< 0.2	< 0.2
3/2002	5.5	0.25	< 0.2	< 0.2
9/2002	4.9	< 0.2	< 0.2	< 0.2
3/2003	6.3	< 0.2	< 0.2	< 0.2
3/2005	6.2	0.31	< 0.2	< 0.2
10/2005	7.2	0.2 U	0.2 U	0.2 U
4/2006	2.5	< 0.2	< 0.2	< 0.2
10/2006	4.8	0.2 U	0.2 U	0.2 U
4/2007	2.5	0.2 U	0.2 U	0.2 U
10/2007	5	0.2 U	0.2 U	0.2 U
4/2008	3.4	< 0.2	< 0.2	< 0.2
10/2008	3.4	1 U	1 U	0.2 U
4/2009	4.4	1 U	2.4	0.2 U
10/2009	7.9	1 U	1 U	0.2 U
4/2010	13	1 U	1 U	1 U
6/2011	12	1 U	1 U	0.2 U
10/2011	9.5	0.27	0.2 U	0.2 U
4/2012	8.9	0.34	0.2 U	0.2 U
10/2012	8.9	0.28	0.2 U	0.2 U
5/2013	12	0.41 J	0.46 J	1 U
10/2013	12	1 U	1 U	1 U
4/2014	12 J	0.79 J	0.52 J	1 U
10/2014	10	2.1	14	0.2 U

Date	PCE	TCE	Cis-DCE	VC
4/2015	12	1.4	11	0.2 U
4/2016	10	1.3	3.8	0.2 U
10/2016	10	1.2	1.8	0.2 U
9/2017	6.2	0.63 J	0.95 J	0.2 U
10/2019	11.2	0.96 J	1 U	0.2 U
10/2021	5.5	0.27 J	1 U	0.2 U
10/2023	9.25	0.5 J	0.51 J	0.2 U
MTCA CL	5	5	70	0.2

U: Analyte was not detected at or above the reported value.

J: Analyte was positively identified. The associated numerical result is an estimate.

Bold: Analyte was detected.

Shade: Values are greater than MTCA cleanup levels.

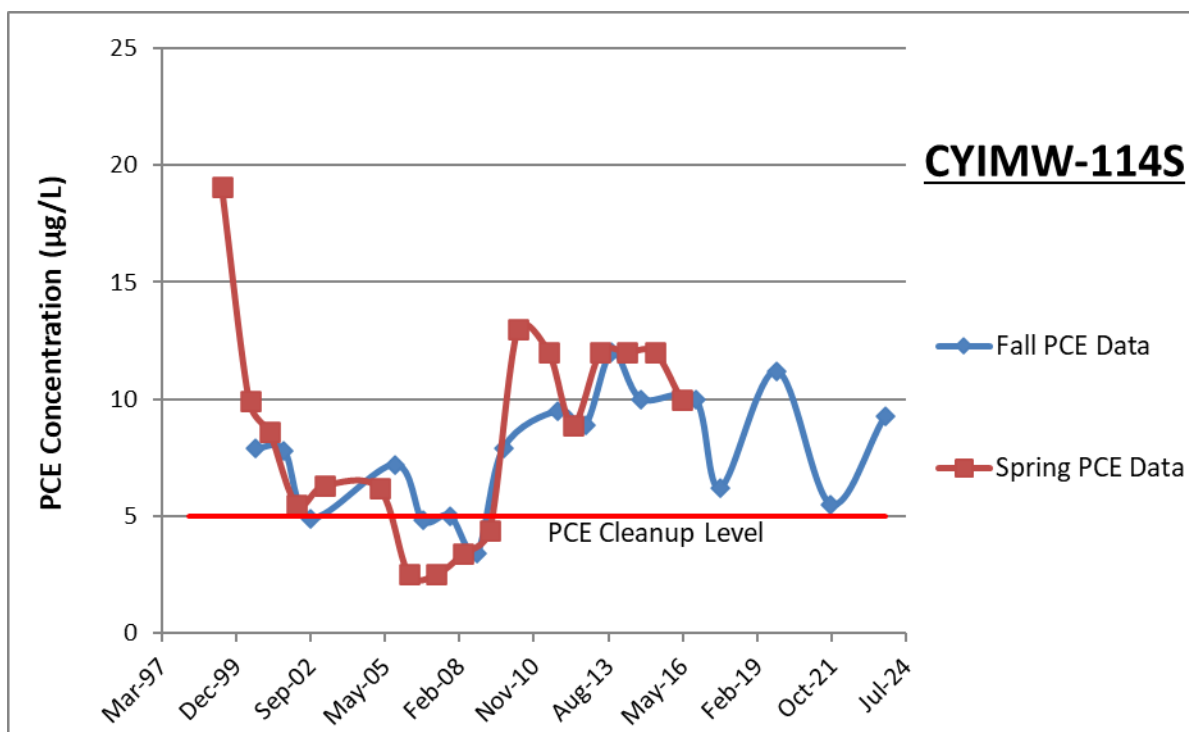


Figure 28. Cameron Yakima, well CYIMW-114S PCE results (µg/L), June 2000 to October 2023.

7. Frank Wear Cleaners

Table 36. Summary of analytical results (µg/L) for shallow well FMMW-4, February 1995 to October 2023.

Date	PCE	TCE	Cis-DCE	VC
2/1995	1.7	—	—	—
4/1995	18	—	—	—
9/1995	6	—	—	—
12/1995	332	—	—	—
12/1997	1100	—	—	—
3/1998	210	—	—	—
6/1998	280	—	—	—
8/1998	34	—	—	—
6/1999	530	—	—	—
9/1999	52	—	—	—
12/1999	139	—	—	—
3/2000	700	—	—	—
6/2000	52	—	—	—
8/2000	11	—	—	—
12/2000	23	—	—	—
3/2001	876	—	—	—
7/2005	48	—	—	—
10/2006	30	—	—	—
4/2007	20	—	—	—
4/2012	1900	1.3	1 U	1 U
9/2012	6.3	1 U	1 U	1 U
12/2012	9.1	1 U	1 U	1 U
3/2013	740	1 U	1 U	1 U
1/2014	150	1 U	1 U	1 U
5/2014	940	10 U	10 U	0.02 U
8/2014	320	150	200	0.2
11/2014	9.4	4.7	300	77
2/2015	1500	39	41	60

Date	PCE	TCE	Cis-DCE	VC
5/2015	4.8	0.97	10	2
8/2015	12	5.9	55	1.3
12/2015	11	6.3	52	2.2
3/2016	0.73	1.7	190	210
4/2017	235	27	23	2 U
9/2017	4.8 J	0.64 J	0.85 J	0.2 UJ
5/2018	645	19 J	135	1.8 J
10/2018	6.2	1 U	0.7 J	0.2 U
4/2019	633	20	115	0.77
10/2019	5.8 J	1 UJ	1 U	0.2 U
11/2020	28.2	0.48 J	1	0.2 U
4/2021	26.1	1.89	44.6	0.2 U
10/2021	4.89	0.11 J	1 U	0.2 U
4/2022	127 J	31.3	71.9	57.6 J
4/2023	414	19	56.7	0.42
10/2023	4.24	1 U	0.42 NJ	0.2 U
MTCA CL	5	5	70	0.2

U: Analyte was not detected at or above the reported value.

J: Analyte was positively identified. The associated numerical result is an estimate.

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 measure the analyte in the sample.

ND: Analyte was not detected.

NJ: There is evidence that the analyte is present in the sample. Reported result for the tentatively identified analyte is an estimate.

B: Sample collected after an equipment blank or transport blank that reported concentrations of analytes.

Bold: Analyte was detected.

Shade: Values are greater than MTCA cleanup levels.

Table 37. Summary of analytical results (µg/L) for shallow well FWMW-5, February 1995 to October 2023.

Date	PCE	TCE	Cis-DCE	VC
12/1997	83	—	—	—
3/1998	390	—	—	—
6/1998	120	—	—	—
8/1998	17	—	—	—
6/1999	91	—	—	—
9/1999	19	—	—	—
12/1999	69	—	—	—
3/2000	103	—	—	—
6/2000	25	—	—	—
8/2000	6.6	—	—	—
12/2000	41	—	—	—
3/2001	17	—	—	—
10/2006	6.5	—	—	—
1/2007	24	1 U	1 U	1 U
4/2007	2.9	—	—	—
4/2012	12	1 U	1 U	1 U
9/2012	2.1	1 U	1 U	1 U
12/2012	8.8	1 U	1 U	1 U
3/2013	2.4	1 U	1 U	1 U
1/2014	1.5	1 U	1 U	1 U
5/2014	17000	220	520	0.052
8/2014	76	15000	7700	1 U
11/2014	5 U	5 U	3200	620
2/2015	37	60	230	250
5/2015	13	160	540	42
8/2015	98	150	1100	210
12/2015	61	220	350	83
3/2016	50 U	20 U	200	90
4/2017	30	44	43	46
9/2017	3.3 JB	0.99 JB	1 U	0.2 UJ

Date	PCE	TCE	Cis-DCE	VC
5/2018	6.1 J	8.5	20	13
10/2018	3.3 JB	1 U	0.58 J	0.2 U
4/2019	7.3	5.9	10	1.4 J
10/2019	3.1 J	1 U	1 U	0.2 U
11/2020	11.5	3.5	3.5	0.2 U
4/2021	2.74	0.63 J	1.38	0.2 U
10/2021	1.99	0.12 J	1 U	0.2 U
4/2022	1.5 J	0.86 J	0.61 J	5 UJ
10/2022	1.5 J	0.2 UJ	0.2 UJ	0.2 UJ
4/2023	4.91	1.36	1.4	0.2 U
10/2023	1.49	1 U	0.41 NJ	0.2 U
MTCA CL	5	5	70	0.2

U: Analyte was not detected at or above the reported value.

J: Analyte was positively identified. The associated numerical result is an estimate.

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 measure the analyte in the sample.

ND: Analyte was not detected.

NJ: There is evidence that the analyte is present in the sample. Reported result for the tentatively identified analyte is an estimate.

B: Sample collected after an equipment blank or transport blank that reported concentrations of analytes.

Bold: Analyte was detected.

Shade: Values are greater than MTCA cleanup levels.

Table 38. Summary of analytical results ($\mu\text{g/L}$) for shallow well FWMW-6, February 1995 to October 2023.

Date	PCE	TCE	Cis-DCE	VC
7/2005	6	1 U	1 U	5 U
10/2006	2.6	—	—	—
4/2007	3.1	—	—	—
4/2012	4.9	1 U	1 U	1 U
9/2012	1.7	1 U	1 U	1 U
12/2012	2.2	1 U	1 U	1 U
3/2013	3.4	1 U	1 U	1 U
1/2014	1.5	1 U	1 U	1 U

Date	PCE	TCE	Cis-DCE	VC
5/2014	1700	69	140	0.02 U
8/2014	570	5000	5000	0.83
11/2014	19	8.6	390	26
2/2015	31	19	130	7.2
5/2015	45	24	85	7.3
8/2015	61	43	93	2.6
12/2015	7.1	18	51	0.2 U
3/2016	7.6	4.2	15	0.28
4/2017	3.9	1.4	2.2	0.2 U
9/2017	1.9	1 U	1 U	0.2 U
5/2018	2.1	1 U	1.1 NJ	0.2 U
10/2018	3.4 JB	1 U	1 U	0.2 U
4/2019	4.3 J	1 U	0.82 J	0.2 U
10/2019	5.6	1.6	3.5	0.2 U
11/2020	2.1	0.11 J	0.86 J	0.2 U
4/2021	2.34	1 U	1 U	0.2 U
10/2021	5.33	1.57	3.14	0.2 U
4/2022	1.22 J	0.54 J	1 U	5 UJ
10/2022	4.6 J	1.1 J	2.3J	0.2 UJ
4/2023	1.96	1 U	1 U	0.2U
10/2023	5.1	1.22	2.23J	0.2 U
MTCA CL	5	5	70	0.2

U: Analyte was not detected at or above the reported value.

J: Analyte was positively identified. The associated numerical result is an estimate.

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 measure the analyte in the sample.

ND: Analyte was not detected.

NJ: There is evidence that the analyte is present in the sample. Reported result for the tentatively identified analyte is an estimate.

B: Sample collected after an equipment blank or transport blank that reported concentrations of analytes.

Bold: Analyte was detected.

Shade: Values are greater than MTCA cleanup levels.

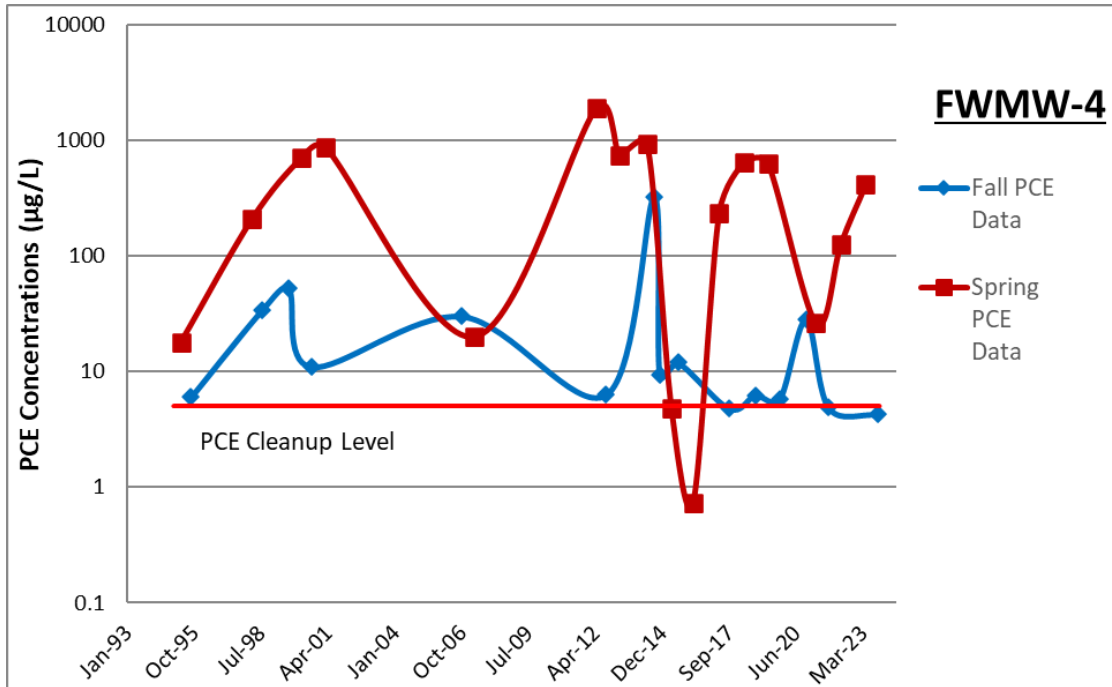


Figure 29. Frank Wear well FWMW-4 PCE results (µg/L, log scale), February 1995 to October 2023.

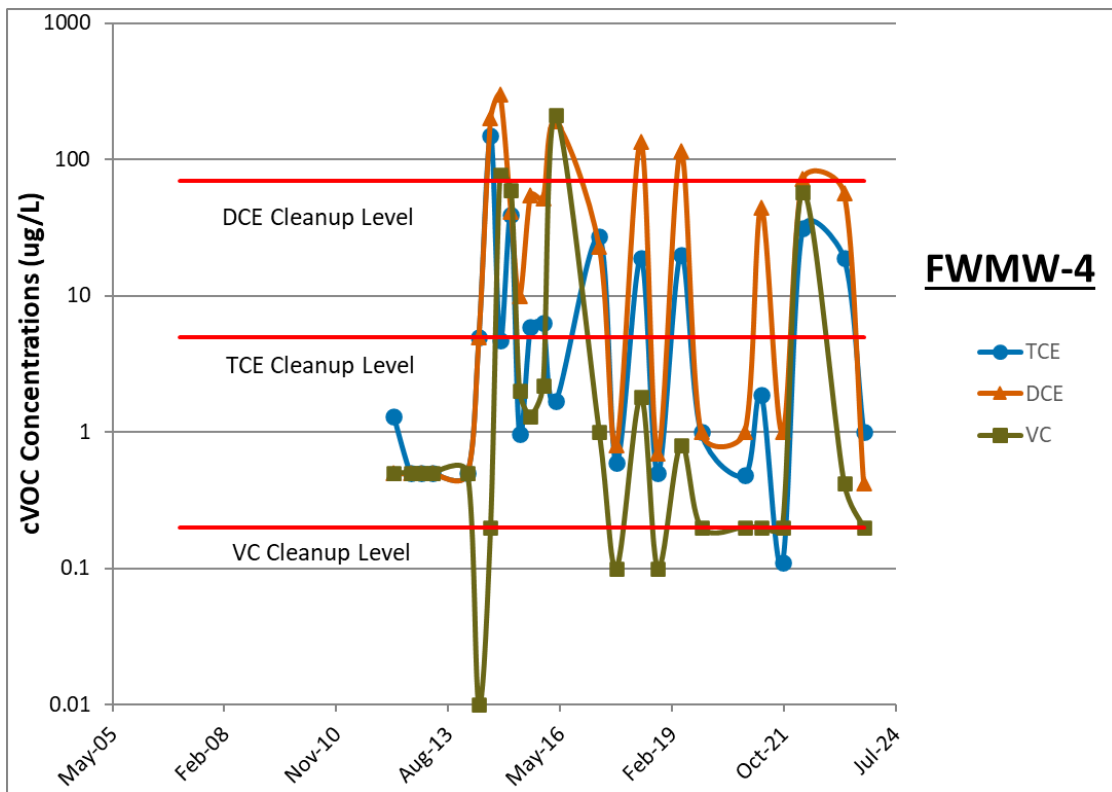


Figure 30. Frank Wear well FWMW-4 TCE, DCE, and VC results (µg/L, log scale), April 2012 to October 2023.

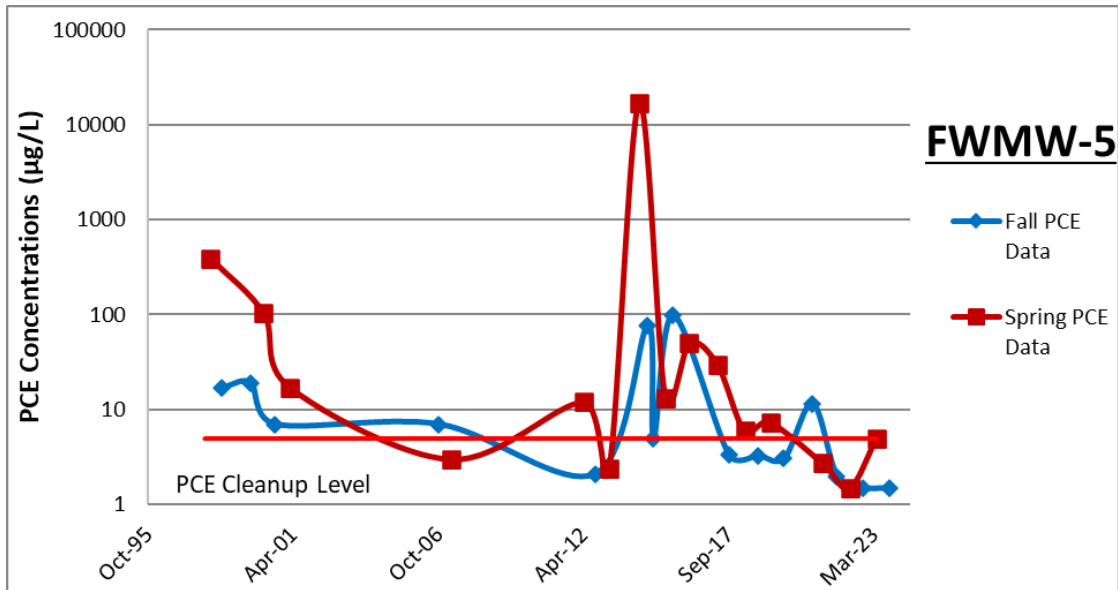


Figure 31. Frank Wear well FWMW-5 PCE results (µg/L, log scale), December 1997 to October 2023.

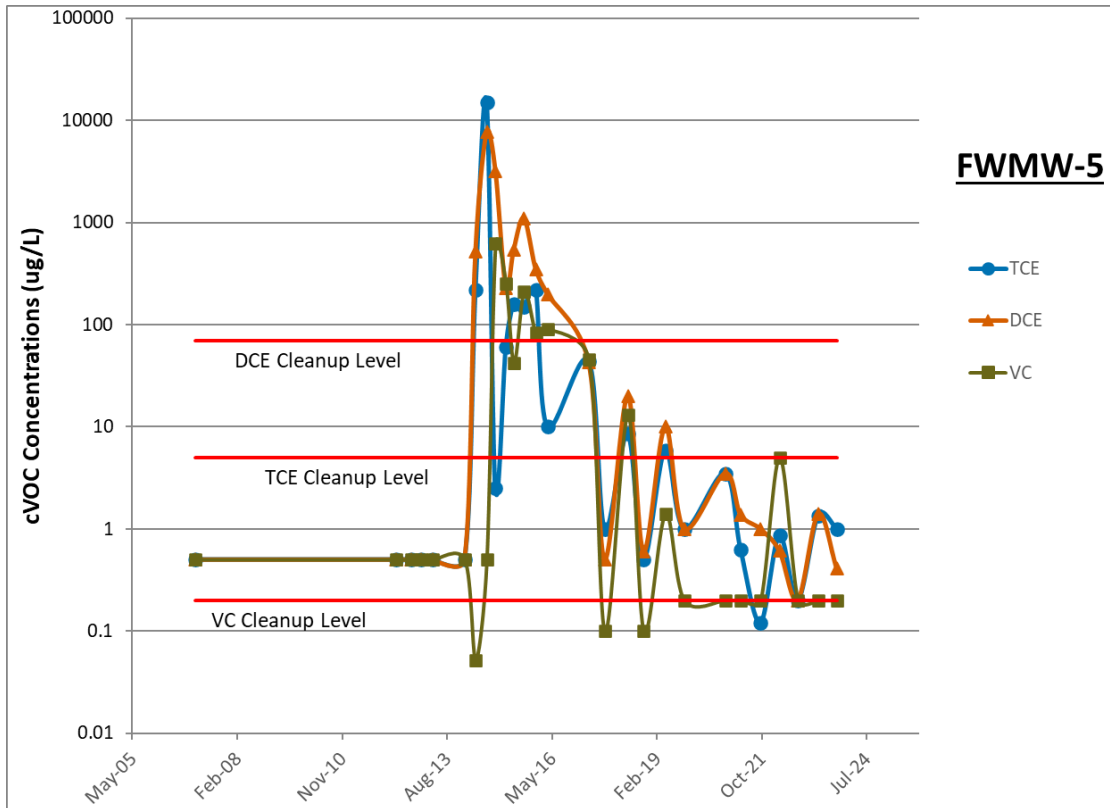


Figure 32. Frank Wear well FWMW-5 TCE, DCE, and VC results (µg/L, log scale), January 2007 to October 2023.

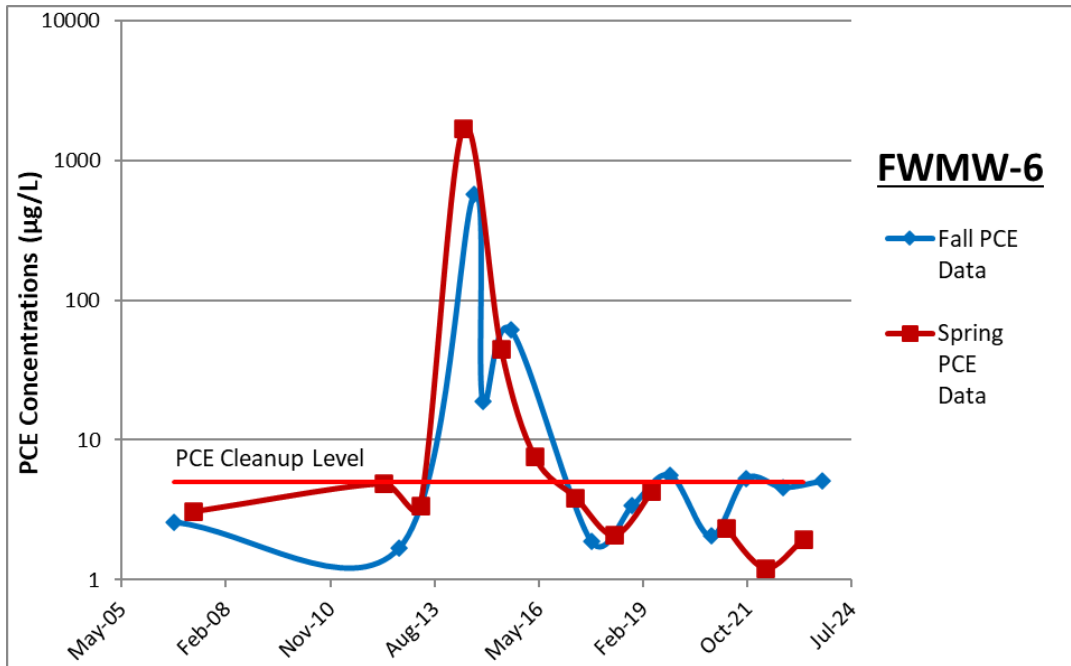


Figure 33. Frank Wear well FWMW-6 PCE results (µg/L, log scale), July 2005 to October 2023.

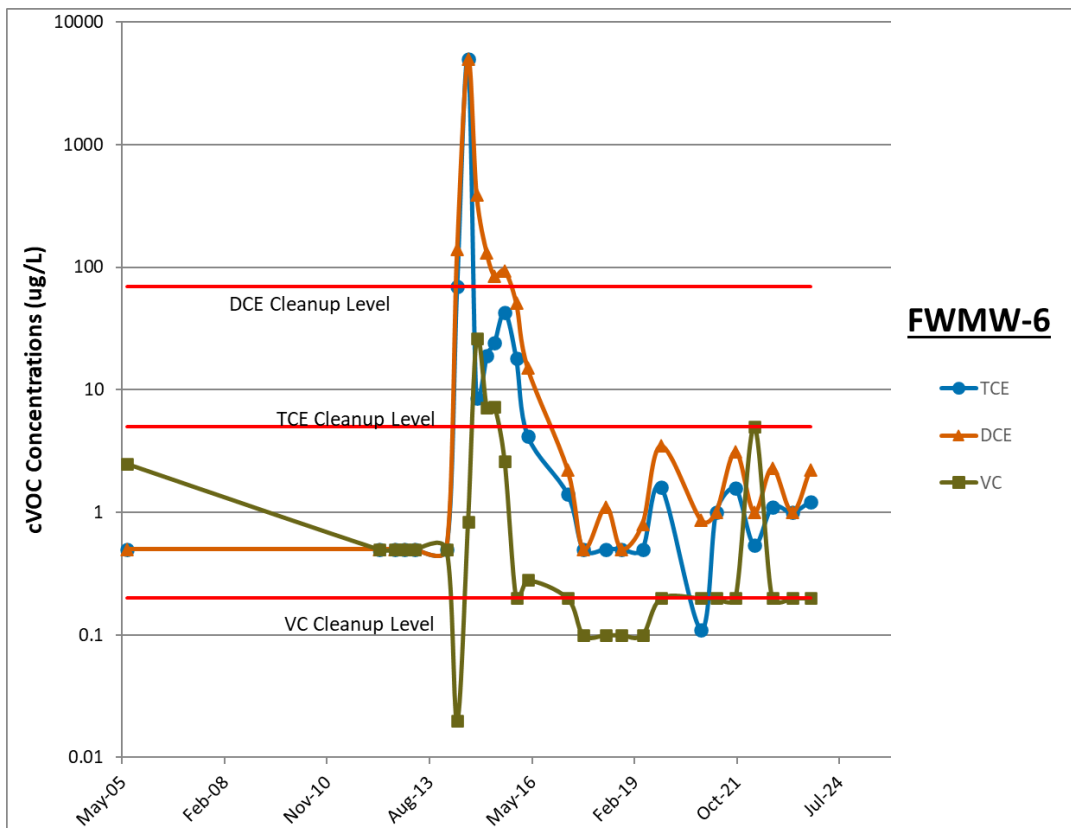


Figure 34. Frank Wear well FWMW-6 TCE, DCE, and VC results (µg/L, log scale), July 2005 to October 2023.

Table 39. Summary of analytical results (µg/L) for shallow well FWMW-10, July 2005 to October 2023.

Date	PCE	TCE	Cis-DCE	VC
7/2005	25100	8.3	5.4	5 U
10/2006	6900	—	—	—
1/2007	43500	12	2.3	1 U
4/2007	9200	—	—	—
4/2012	1800	1	14	1 U
9/2012	11000	1.8	1.2	1 U
12/2012	44000	7.5	3	1 U
3/2013	1100	1 U	2.7	1 U
1/2014	3300	1 U	1 U	1 U
5/2014	1900	470	900	0.18
8/2014	3000	5500	5700	2 U
11/2014	370	190	3600	400
2/2015	2000	290	620	70
5/2015	2200	780	940	71
8/2015	330	320	880	28
12/2015	5200	850	990	110
3/2016	3400	500	340	16
4/2017	9110	1160	1510	358
5/2018	2870	3910	719	208
10/2018	2400 J	3450 J	410 J	118 J
4/2019	—	1715 J	417.5 J	135.5 J
10/2019	5280 J	1460 J	150	62.25 J
11/2020	21800	362	200	71 J
4/2021	5600	434	118	54.8
10/2021	6270	192	69.4 J	62.3 J
4/2022	3060	103	60.9	22.6
10/2022	4500 J	97 J	42 J	20 UJ
4/2023	10400	162	84.3	28.5
10/2023	4610J	87.2	35.5	15.6
MTCA CL	5	5	70	0.2

U: Analyte was not detected at or above the reported value.

J: Analyte was positively identified. The associated numerical result is an estimate.

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 measure the analyte in the sample.

ND: Analyte was not detected.

Bold: Analyte was detected.

Shade: Values are greater than MTCA cleanup levels.

Table 40. Summary of analytical results (µg/L) for shallow well FWMW-16, July 2005 to October 2023.

Date	PCE	TCE	Cis-DCE	VC
6/2012	36	1 U	1 U	1 U
9/2012	63	1 U	1 U	1 U
12/2012	110	1 U	1 U	1 U
3/2013	93	1 U	1 U	1 U
1/2014	84	1 U	1 U	1 U
5/2014	73	0.21	0.1 U	0.02 U
8/2014	52	0.13	0.1 U	0.02 U
11/2014	70	0.15	0.1 U	0.02 U
2/2015	78	0.2 U	0.2 U	0.02 U
5/2015	100	0.23	0.73	0.02 U
8/2015	72	0.21	0.57	0.073
12/2015	66	0.2 U	1	0.02 U
3/2016	71	20 U	20 U	2 U
4/2017	28	12	52	54 J
5/2018	35	3.2	3.4	5
10/2018	12	6.5	2.6	6.1
4/2019	4	9	8.5	25 J
10/2019	28 J	5.7	6.4	2.9 J
11/2020	20	5.9	16	19.8 J
4/2021	34.9	20.1	35.9	28.2
10/2021	39.6	6.63	47.2	8.86
4/2022	29.6 J	16.5	44.5	5 UJ
10/2022	44 J	5.1 J	51 J	6.1 J
4/2023	61.3	7.88	62.7	12.6

Date	PCE	TCE	Cis-DCE	VC
10/2023	53.8	5.56	67.9	14.9 J
MTCA CL	5	5	70	0.2

U: Analyte was not detected at or above the reported value.

J: Analyte was positively identified. The associated numerical result is an estimate.

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 measure the analyte in the sample.

ND: Analyte was not detected.

Bold: Analyte was detected.

Shade: Values are greater than MTCA cleanup levels.

Table 41. Summary of analytical results (µg/L) for shallow well FWMW-20, July 2005 to October 2023.

Date	PCE	TCE	Cis-DCE	VC
6/2012	16	1 U	1 U	1 U
9/2012	9.2	1 U	1 U	1 U
12/2012	7	1 U	1 U	1 U
3/2013	10	1 U	1 U	1 U
1/2014	5.8	1 U	1 U	1 U
5/2014	610	49	110	0.02 U
8/2014	84	35	78	0.02 U
11/2014	200	16	170	3.8
2/2015	37	19	160	14
5/2015	71	26	180	7.5
8/2015	340	23	95	2.1
12/2015	310	29	120	1.1
3/2016	29	17	64	0.86
4/2017	136	25	53	2 U
5/2018	113	35	26	15
10/2018	102	38	273	197
4/2019	181	36 J	56	17
10/2019	5105 J	4545 J	694	249 J
11/2020	15800	2000	598	323 J
4/2021	10100	1460	512	124
10/2021	16200	657	268	98.9 J

Date	PCE	TCE	Cis-DCE	VC
4/2022	1880	511	334	56.5
10/2022	20000 J	640 J	300 J	100 UJ
4/2023	7410	564	301	50
10/2023	22000J	407	207	51.4
MTCA CL	5	5	70	0.2

U: Analyte was not detected at or above the reported value.

J: Analyte was positively identified. The associated numerical result is an estimate.

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 measure the analyte in the sample.

ND: Analyte was not detected.

Bold: Analyte was detected.

Shade: Values are greater than MTCA cleanup levels.

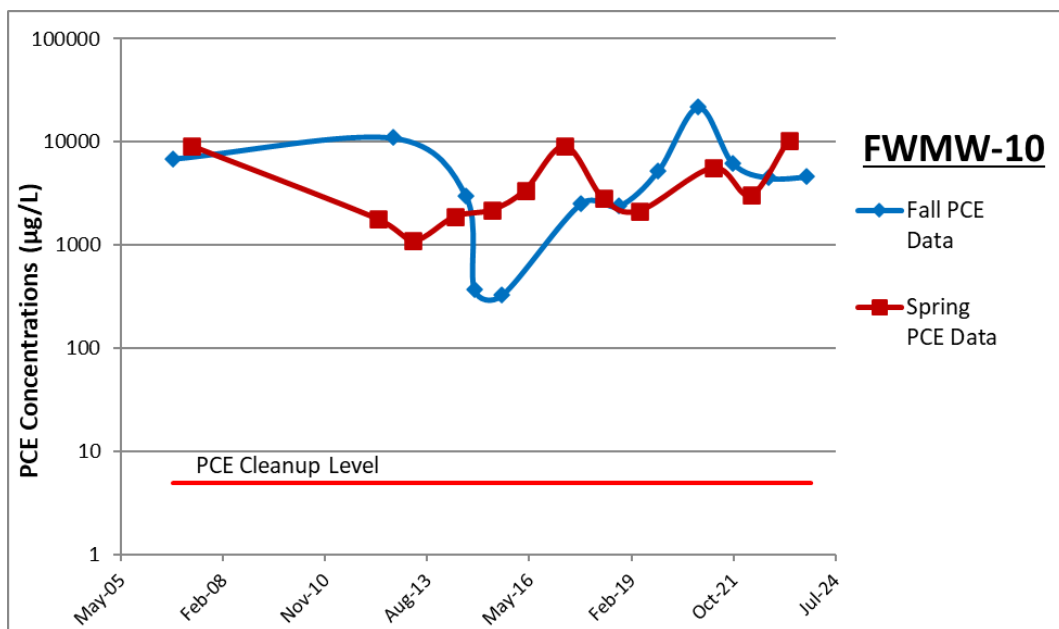


Figure 35. Frank Wear well FWMW-10 PCE results (µg/L, log scale), July 2005 to October 2023.

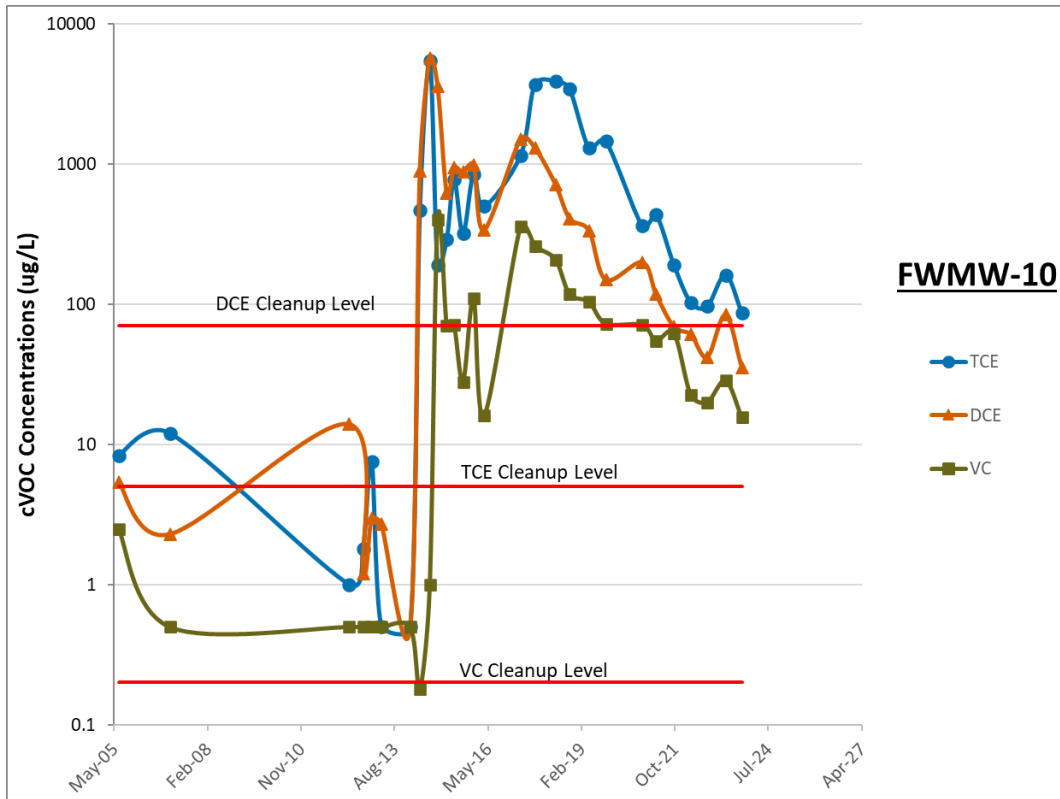


Figure 36. Frank Wear well FWMW-10 TCE, DCE, and VC results (µg/L, log scale), July 2005 to October 2023.

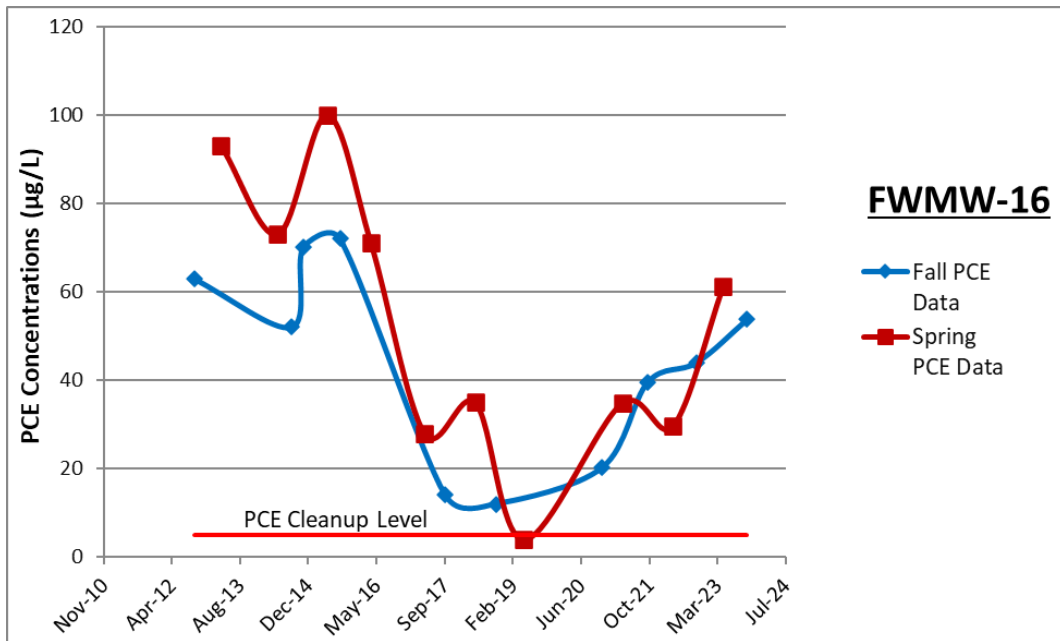


Figure 37. Frank Wear well FWMW-16 PCE results (µg/L, log scale), June 2012 to October 2023.

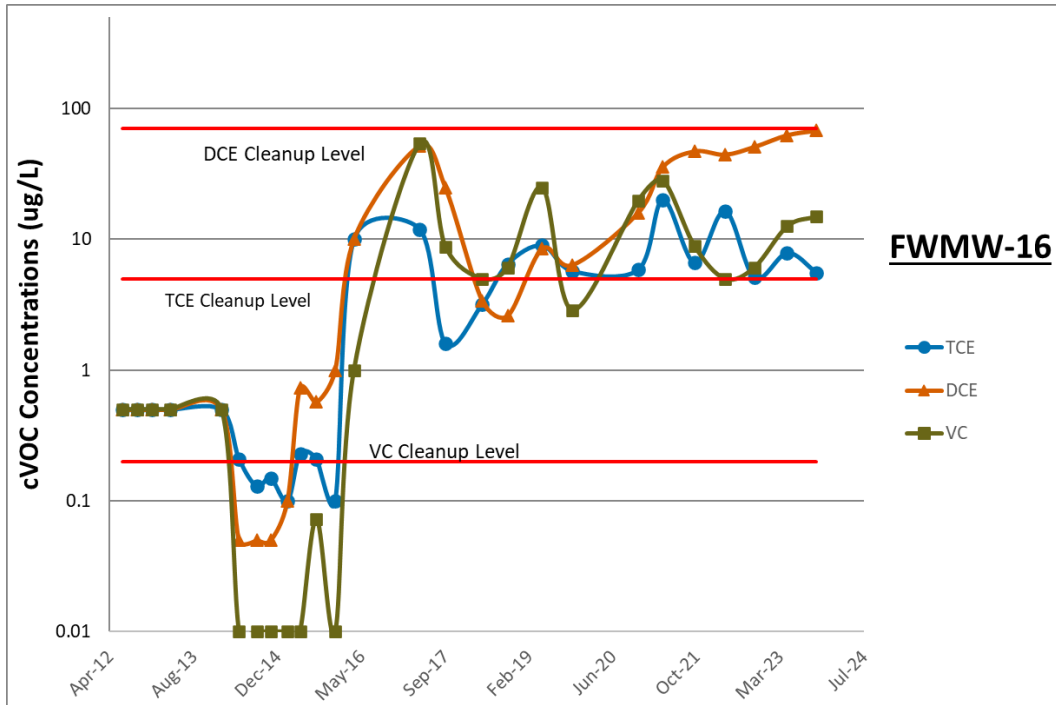


Figure 38. Frank Wear well FWMW-16 TCE, DCE, and VC results (µg/L, log scale), June 2012 to October 2023.

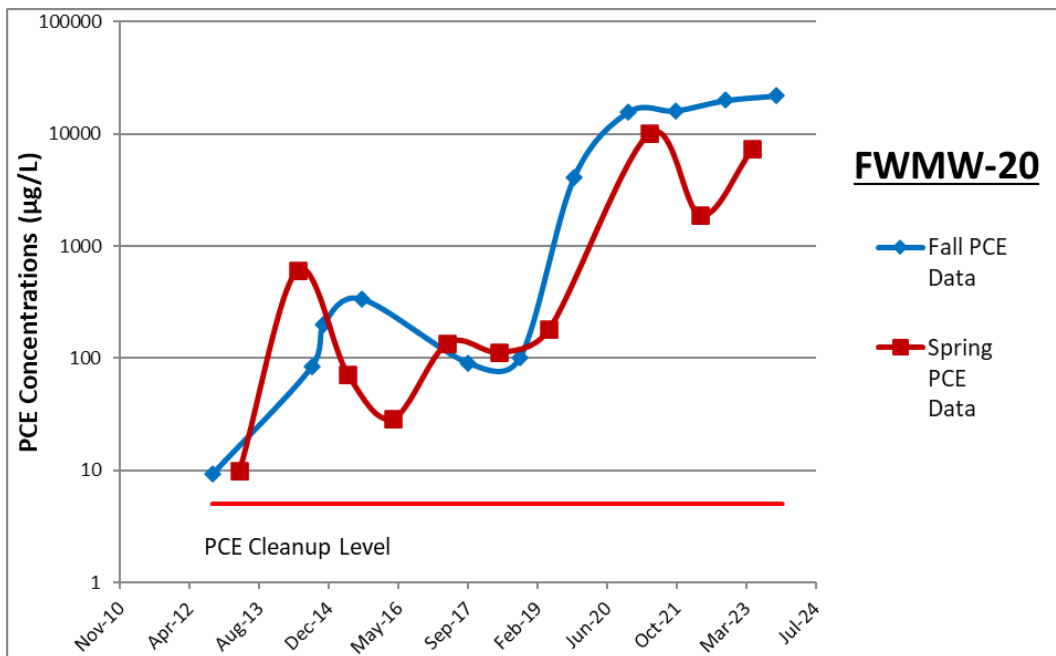


Figure 39. Frank Wear well FWMW-20 PCE results (µg/L, log scale), June 2012 to October 2023.

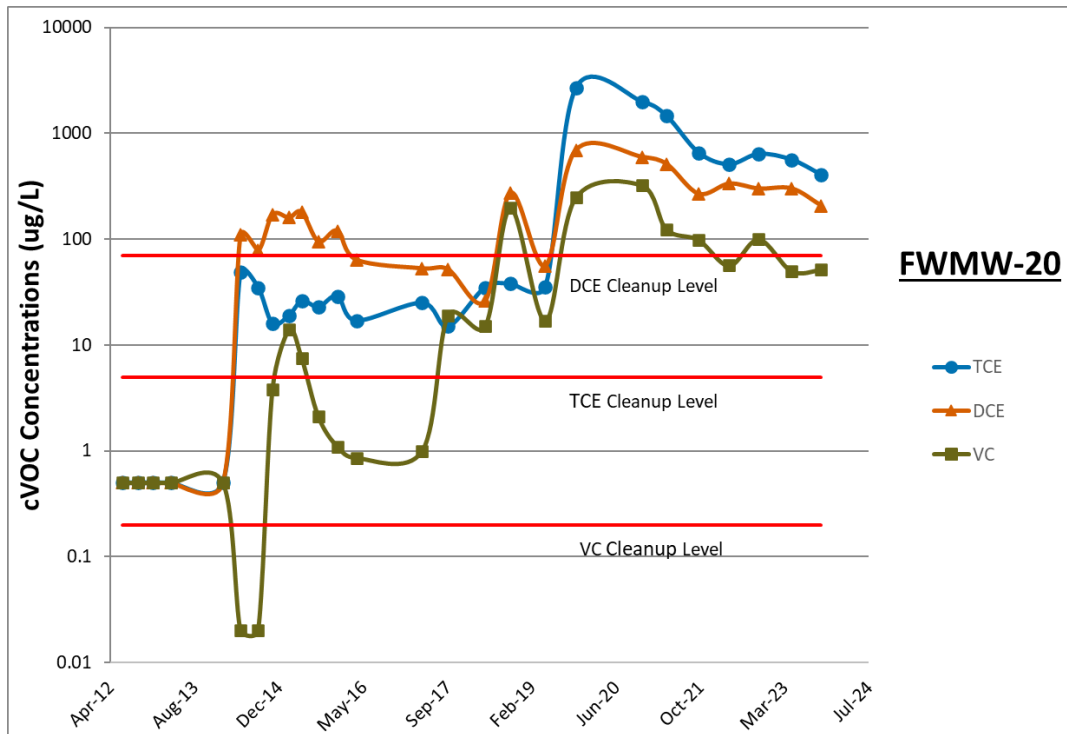


Figure 40. Frank Wear well FWMW-20 TCE, DCE, and VC results (µg/L, log scale), June 2012 to October 2023.

Table 42. Summary of analytical results (µg/L) for shallow well FWMW-24, June 2012 to October 2023.

Date	PCE	TCE	Cis-DCE	VC
6/2012	130	1 U	1 U	1 U
9/2012	110	1 U	1 U	1 U
12/2012	170	1 U	1 U	1 U
3/2013	75	1 U	1 U	1 U
1/2014	34	1 U	1 U	1 U
5/2014	1000	140	330	0.024
8/2014	61	59	150	0.02 U
11/2014	27	18	440	21
2/2015	20	12	100	3
5/2015	32	17	120	13
8/2015	19	6.6	23	2
12/2015	82	37	130	12
3/2016	11	19	140	4.4
4/2017	81	27	40	2 U

Date	PCE	TCE	Cis-DCE	VC
9/2017	59 J	8.7	11	0.2 UJ
5/2018	51	12 J	25 J	0.2 UJ
10/2018	71	8.7 J	5.2 J	0.2 UJ
4/2019	53 J	8.9 J	13 J	0.2 U
10/2019	79 J	4.8	2.7	0.2 U
11/2020	132	3.4	3.1 NJ	0.2 U
4/2021	34.9	3.65	4.37	0.2 U
10/2021	63.3	2.19	1.29	0.2 U
4/2022	23.4 J	2.36	1.7	5 UJ
10/2022	50 J	1.1 J	0.66 J	0.4 UJ
4/2023	28.4	1.32	0.77 J	0.2 U
10/2023	53.3	1.15	1.14 J	0.2 U
MTCA CL	5	5	70	0.2

U: Analyte was not detected at or above the reported value.

J: Analyte was positively identified. The associated numerical result is an estimate.

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 measure the analyte in the sample.

NJ: There is evidence that the analyte is present in the sample. Reported result for the tentatively identified analyte is an estimate.

Bold: Analyte was detected.

Shade: Values are greater than MTCA cleanup levels.

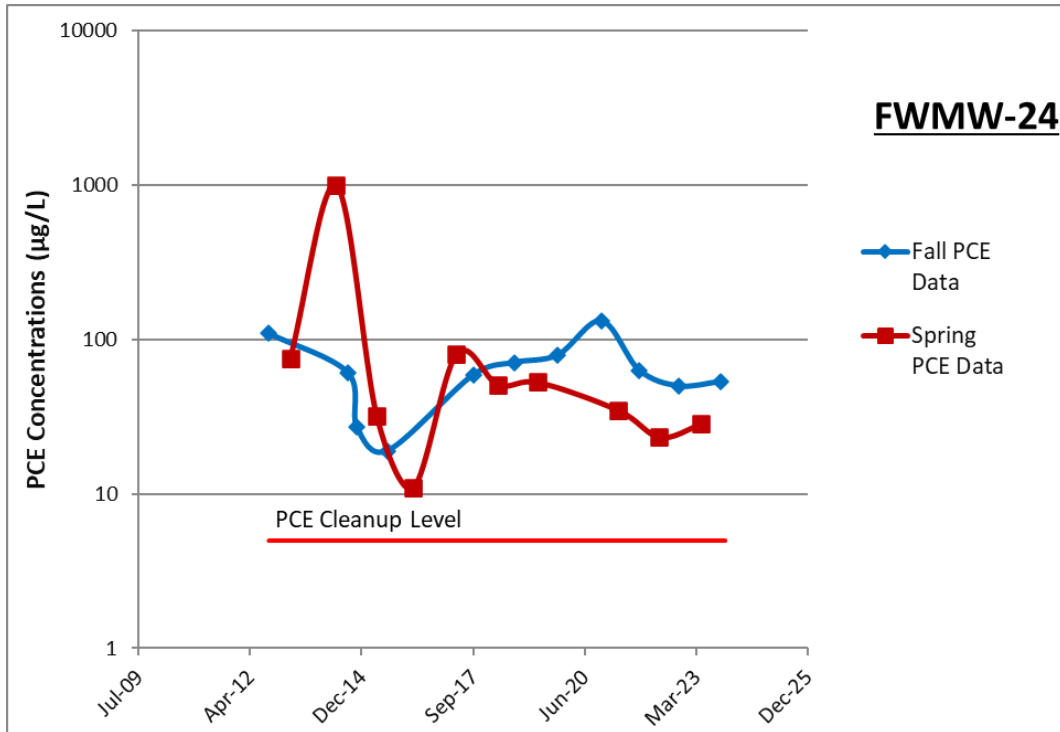


Figure 41. Frank Wear well FWMW-24 PCE results (µg/L, log scale), June 2012 to October 2023.

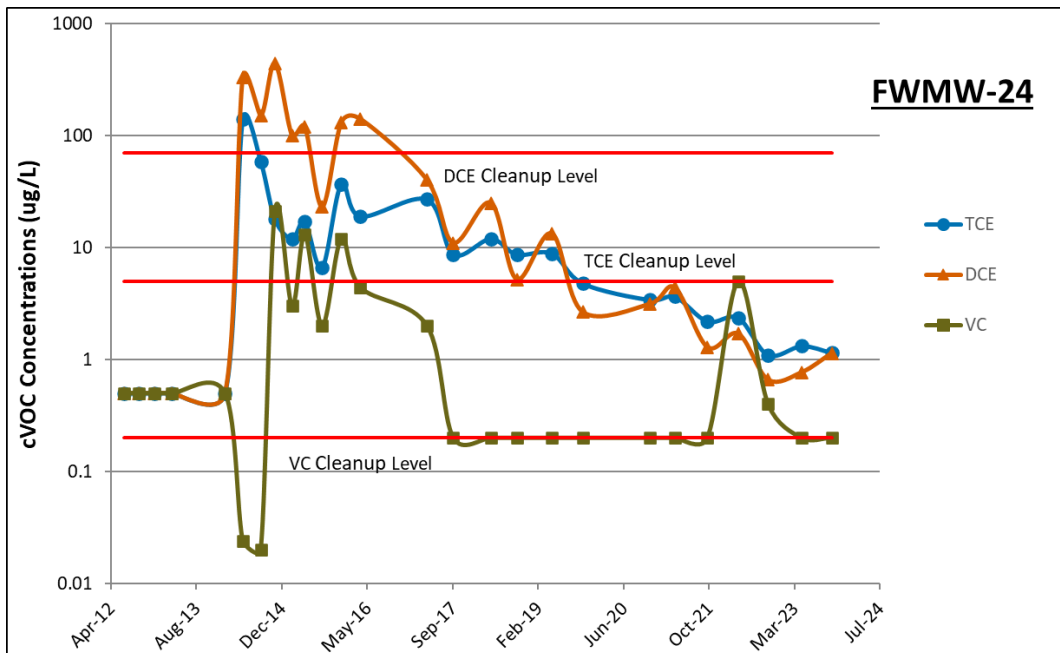


Figure 42. Frank Wear well FWMW-24 TCE, DCE, and VC results (µg/L, log scale), June 2012 to October 2023.

Table 43. Summary of analytical results (µg/L) for deep well FWMW-17, June 2012 to October 2023.

Date	PCE	TCE	Cis-DCE	VC
6/2012	1 U	1 U	1 U	1 U
9/2012	1 U	1 U	1 U	1 U
12/2012	1 U	1 U	1 U	1 U
3/2013	1.1	1 U	1 U	1 U
1/2014	1 U	1 U	1 U	1 U
5/2014	0.19	0.1 U	0.1 U	0.02 U
8/2014	0.17	0.1 U	0.1 U	0.02 U
11/2014	0.1 U	0.1 U	0.52	0.02 U
2/2015	0.5 U	0.2 U	0.2 U	0.086
5/2015	0.5 U	0.2 U	1.9	0.02 U
8/2015	5 U	2 U	2 U	0.2 U
12/2015	2	0.2	1.9	0.02 U
3/2016	100 U	40 U	40 U	4 U
4/2017	0.66 J	0.82 J	0.82 J	0.2 U
9/2017	0.64 J	1 U	1 U	0.2 U
5/2018	1 U	0.66 J	0.95 J	0.2 U
10/2018	0.66 J	1 U	1 U	0.2 U
4/2019	1 U	1 U	1 U	0.2 U
10/2019	1 U	1 U	1 U	0.2 UJ
11/2020	0.42 J	1 U	1 UJ	0.2 U
4/2021	1 U	1 U	1 U	0.2 U
10/2021	0.65 J	1 U	1 U	0.2 U
4/2022	0.39 B	1 U	1 U	5 UJ
10/2022	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ
4/2023	1 U	1 U	1 U	1 U
10/2023	0.17NJ	1 U	1 U	0.2 U
MTCA CL	5	5	70	0.2

U: Analyte was not detected at or above the reported value.

J: Analyte was positively identified. The associated numerical result is an estimate.

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 measure the analyte in the sample.

NJ: There is evidence that the analyte is present in the sample. Reported result for the tentatively identified analyte is an estimate.

B: Sample collected after an equipment blank or transport blank that reported concentrations of analytes.

Bold: Analyte was detected.

Shade: Values are greater than MTCA cleanup levels.

Table 44. Summary of analytical results (µg/L) for deep well FMMW-18, June 2012 to October 2023.

Date	PCE	TCE	Cis-DCE	VC
6/2012	1.2	1 U	1 U	1 U
9/2012	5.7	1 U	1 U	1 U
12/2012	1.1	1 U	1 U	1 U
3/2013	1 U	1 U	1 U	1 U
1/2014	1 U	1 U	1 U	1 U
5/2014	0.56	0.1 U	0.1 U	0.02 U
8/2014	0.34	0.15	0.11	0.02 U
11/2014	0.31	0.1 U	0.44	0.02 U
2/2015	0.5 U	0.2 U	2.1	0.02 U
5/2015	0.5 U	0.2 U	0.42	2.9
8/2015	0.5 U	0.2 U	0.2 U	0.02 U
12/2015	0.5 U	0.2 U	0.23	0.02 U
3/2016	0.5 U	0.2 U	0.55	0.02 U
4/2017	0.56 J	1.5	2.3	0.2 U
9/2017	0.58 J	1.6	1 U	0.2 U
5/2018	0.68 J	3.1	1.1	0.2 U
10/2018	1.4 J	4.1	0.78 J	0.2 U
4/2019	1.8 J	1.3 J	1 UJ	0.2 UJ
10/2019	2.3	1.4	1 U	0.2 UJ
11/2020	2.9	0.58 J	1 UJ	0.2 U
4/2021	2.81	0.41 J	1 U	0.2 U
10/2021	1.4 J	0.59 J	1 U	0.2 U
4/2022	1.17 B	0.67 J	1 U	5 UJ
10/2022	0.9 J	0.2 UJ	0.2 UJ	0.2 UJ
4/2023	0.92J	1 U	1 U	0.2 U
10/2023	1.6	0.21 J	1 U	0.2 U
MTCA CL	5	5	70	0.2

U: Analyte was not detected at or above the reported value.

J: Analyte was positively identified. The associated numerical result is an estimate.

NJ: There is evidence that the analyte is present in the sample. Reported result for the tentatively identified analyte is an estimate.

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 measure the analyte in the sample.

B: Sample collected after an equipment blank or transport blank that reported concentrations of analytes.

Bold: Analyte was detected.

Shade: Values are greater than MTCA cleanup levels.

Table 45. Summary of analytical results (µg/L) for deep well FMMW-19, June 2012 to October 2023.

Date	PCE	TCE	Cis-DCE	VC
6/2012	1 U	1 U	1 U	1 U
9/2012	1 U	1 U	1 U	1 U
12/2012	1 U	1 U	1 U	1 U
3/2013	1 U	1 U	1 U	1 U
1/2014	1 U	1 U	1 U	1 U
5/2014	0.12	0.1 U	0.1 U	0.02 U
8/2014	0.1 U	0.1 U	0.1 U	0.02 U
11/2014	0.11	0.1 U	0.1 U	0.02 U
2/2015	0.5 U	0.2 U	0.2 U	0.02 U
5/2015	0.5 U	0.2 U	0.2 U	0.02 U
8/2015	0.62	0.37	0.54	0.02 U
12/2015	0.5 U	0.2 U	0.2 U	0.02 U
3/2016	0.5 U	0.2 U	0.2 U	0.053
4/2017	1 U	1 U	1 U	0.2 U
9/2017	1 U	1 U	1 U	0.2 U
5/2018	1 U	1 U	1 U	0.2 U
10/2018	0.59 J	1 U	1 U	0.2 U
4/2019	1 UJ	1 UJ	1 UJ	0.2 UJ
10/2019	1 U	1 U	1 U	0.2 UJ
11/2020	0.37 J	1 U	1 UJ	0.2 U
4/2021	1 U	1 U	1 U	0.2 U
10/2021	0.6 NJ	1 U	1 U	0.2 U
4/2022	0.33 B	1 U	1 U	5 UJ
10/2022	0.2 UJ	0.2 UJ	0.2 UJ	0.2 UJ
4/2023	1 U	1 U	1 U	0.2 U
10/2023	0.19J	1 U	1 U	0.2 U
MTCA CL	5	5	70	0.2

U: Analyte was not detected at or above the reported value. J: Analyte was positively identified. The associated numerical result is an estimate.

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 measure the analyte in the sample.

NJ: There is evidence that the analyte is present in the sample. Reported result for the tentatively identified analyte is an estimate.

B: Sample collected after an equipment blank or transport blank that reported concentrations of analytes.

Bold: Analyte was detected.

Shade: Values are greater than MTCA cleanup levels.

8. YRRA Remedial Investigation Wells

Table 46. Summary of analytical results (µg/L) for RI-3S, December 1997 to October 2023.

Date	PCE	TCE	Cis-DCE	VC
6/1999	0.72 J	0.15 U	0.1 U	0.14 U
9/1999	1.72	0.15 U	0.1 U	0.14 U
12/1999	2.43	0.15 U	1.09	0.14 U
3/2000	0.33 J	0.15 U	0.1 U	0.14 U
6/2000	2	0.34	0.54	0.14 U
8/2000	2.2	0.39	0.69	0.14 U
12/2000	1.7	0.24	0.83	0.14 U
3/2001	0.3	0.15 U	0.1 U	0.14 U
9/2001	1.7	0.39	0.36	<0.2
3/2002	1.2	0.24	0.4	<0.2
9/2002	1.1	0.22	0.32	<0.2
3/2003	0.68	<0.2	0.35	<0.2
9/2003	1.6	0.26	<0.2	<0.2
3/2004	0.21	<0.2	<0.2	<0.2
10/2004	0.92	0.23	<0.2	<0.2
3/2005	4.7	<0.2	<0.2	<0.2
12/2005	1	<0.2	<0.2	<0.2
4/2006	0.25	<0.2	<0.2	<0.2
10/2006	0.75	<0.2	<0.2	<0.2
4/2007	1.4	0.22	0.29	<0.2
10/2007	0.61	<0.2	<0.2	<0.2
4/2008	0.29	<0.2	<0.2	<0.2
10/2008	1.2	1 U	1 U	0.2 U
4/2009	1.2	1 U	1 U	0.2 U
10/2009	1 U	1 U	1 U	0.2 U
4/2010	1 U	1 U	1 U	1 U
6/2011	2.5	1 U	1 U	0.2 U
10/2011	0.59	0.2 U	0.2 U	0.2 U

Date	PCE	TCE	Cis-DCE	VC
4/2012	0.2 U	0.2 U	0.2 U	0.2 U
10/2012	0.47	0.2 U	0.2 U	0.2 U
5/2013	1 U	1 U	1 U	1 U
10/2013	0.88 J	1 U	1 U	1 U
4/2014	0.74 J	1 U	1 U	1 U
10/2014	0.82 J	1 U	1 U	0.2 U
4/2015	0.73 J	1 U	1 U	0.2 U
4/2016	0.33 J	1 U	1 U	0.2 U
4/2017	0.86 J	1 U	1 U	0.2 U
5/2018	1 U	1 U	1 U	0.2 U
4/2019	0.51 J	1 U	1 U	0.2 U
4/2021	0.21 J	1 U	1 U	0.2 U
4/2022	0.3 B	1 U	1 U	5 UJ
4/2023	1U	1U	1U	0.2U
MTCA CL	5	5	70	0.2

U: Analyte was not detected at or above the reported value.

J: Analyte was positively identified. The associated numerical result is an estimate.

UJ: Analyte was not detected at or above the reported value.

Bold: Analyte was detected.

Shade: Values are greater than MTCA cleanup levels.

Table 47. Summary of analytical results (µg/L) for RI-4S, December 1997 to October 2023.

Date	PCE	TCE	Cis-DCE	VC
6/1999	15.4	0.15 U	0.1 U	0.14 U
9/1999	13.7	0.15 U	0.1 U	0.14 U
12/1999	12.7	0.32 J	0.1 U	0.14 U
3/2000	12.2	0.15 U	0.1 U	0.14 U
6/2000	17	0.15 U	0.1 U	0.14 U
8/2000	11	0.15 U	0.1 U	0.14 U
12/2000	15	0.15 U	0.1 U	0.14 U
3/2001	14	0.15 U	0.1 U	0.14 U
9/2001	11	<0.2	<0.2	<0.2
3/2002	15	<0.2	<0.2	<0.2
9/2002	11	<0.2	<0.2	<0.2
3/2003	13	<0.2	<0.2	<0.2
9/2003	14	<0.2	<0.2	<0.2
3/2004	17	<0.2	<0.2	<0.2
10/2004	14	<0.2	<0.2	<0.2
3/2005	16	<0.2	<0.2	<0.2
10/2005	18	<0.2	<0.2	<0.2
4/2006	14	<0.2	<0.2	<0.2
10/2006	11	<0.2	<0.2	<0.2
4/2007	13	<0.2	<0.2	<0.2
10/2007	11	<0.2	<0.2	<0.2
4/2008	13	<0.2	<0.2	<0.2
10/2008	11	1 U	1 U	0.2 U
4/2009	18	1 U	1 U	0.2 U
10/2009	13	1 U	1 U	0.2 U
4/2010	19	1 U	1 U	1 U
6/2011	25	1 U	1 U	0.2 U
10/2011	15	0.2 U	0.2 U	0.2 U
4/2012	11	0.2 U	0.2 U	0.2 U
10/2012	13	0.2 U	0.2 U	0.2 U
5/2013	18	1 U	1 U	1 U

Date	PCE	TCE	Cis-DCE	VC
10/2013	18	1 U	1 U	1 U
4/2014	16 J	1 U	1 U	1 U
10/2014	16	1 U	1 U	0.2 U
4/2015	18 J	1 UJ	1 UJ	0.2 UJ
4/2016	1	1 U	1 U	0.2 U
4/2017	21	1 U	1 U	0.2 U
5/2018	16.6	1 U	1 U	0.2 U
4/2019	9.8	1 U	1 U	0.2 U
4/2021	12.6	1 U	1 U	0.2 U
4/2022	12	1 U	1 U	5 UJ
4/2023	19.1	1U	1U	0.2U
MTCA CL	5	5	70	0.2

U: Analyte was not detected at or above the reported value.

J: Analyte was positively identified. The associated numerical result is an estimate.

UJ: Analyte was not detected at or above the reported value.

Bold: Analyte was detected.

Shade: Values are greater than MTCA cleanup levels.

Table 48. Summary of analytical results (µg/L) for RI-4D, December 1997 to October 2023.

Date	PCE	TCE	Cis-DCE	VC
6/1999	0.25 U	0.15 U	0.1 U	0.14 U
9/1999	0.61 J	0.15 U	0.1 U	0.14 U
12/1999	1.72	0.34 J	0.1 U	0.14 U
3/2000	0.34 J	0.15 U	0.1 U	0.14 U
6/2000	1.1	0.15 U	0.1 U	0.14 U
8/2000	0.38	0.15 U	0.1 U	0.14 U
12/2000	0.52	0.15 U	0.1 U	0.14 U
3/2001	0.78	0.15 U	0.1 U	0.14 U
9/2001	0.98	<0.2	<0.2	<0.2
3/2002	1	<0.2	<0.2	<0.2
9/2002	1	<0.2	<0.2	<0.2
3/2003	1.1	<0.2	<0.2	<0.2
9/2003	1.3	<0.2	<0.2	<0.2
3/2004	1.4	<0.2	<0.2	<0.2
10/2004	1.4	<0.2	<0.2	<0.2
3/2005	3.2	<0.2	<0.2	<0.2
10/2005	1.8	<0.2	<0.2	<0.2
4/2006	1.4	<0.2	<0.2	<0.2
10/2006	1.3	<0.2	<0.2	<0.2
4/2007	1.4	<0.2	<0.2	<0.2
10/2007	1.2	<0.2	<0.2	<0.2
4/2008	1.3	<0.2	<0.2	<0.2
10/2008	1.6	1 U	1 U	0.2 U
4/2009	1.3	1 U	1 U	0.2 U
10/2009	2	1 U	1 U	0.2 U
4/2010	1 U	1 U	1 U	1 U
6/2011	2.1	1 U	1 U	0.2 U
10/2011	0.73	0.2 U	0.2 U	0.2 U
4/2012	0.64	0.2 U	0.2 U	0.2 U
10/2012	0.89	0.2 U	0.2 U	0.2 U
5/2013	1	1 U	1 U	1 U

Date	PCE	TCE	Cis-DCE	VC
10/2013	1.1	1 U	1 U	1 U
4/2014	1.5 J	1 U	1 U	1 U
10/2014	1.2	1 U	1 U	0.2 U
4/2015	1.3 J	1 UJ	1 UJ	0.2 UJ
4/2016	1.5	1 U	1 U	0.2 U
4/2017	1.7	1 U	1 U	0.2 U
5/2018	1.5	1 U	1 U	0.2 U
4/2019	1.7	1 U	1 U	0.2 U
4/2021	1.76	1 U	1 U	0.2 U
4/2022	2.17	1 U	1 U	5 UJ
4/2023	3.41	1U	1U	0.2U
MTCA CL	5	5	70	0.2

U: Analyte was not detected at or above the reported value.

J: Analyte was positively identified. The associated numerical result is an estimate.

UJ: Analyte was not detected at or above the reported value.

Bold: Analyte was detected.

Shade: Values are greater than MTCA cleanup levels.

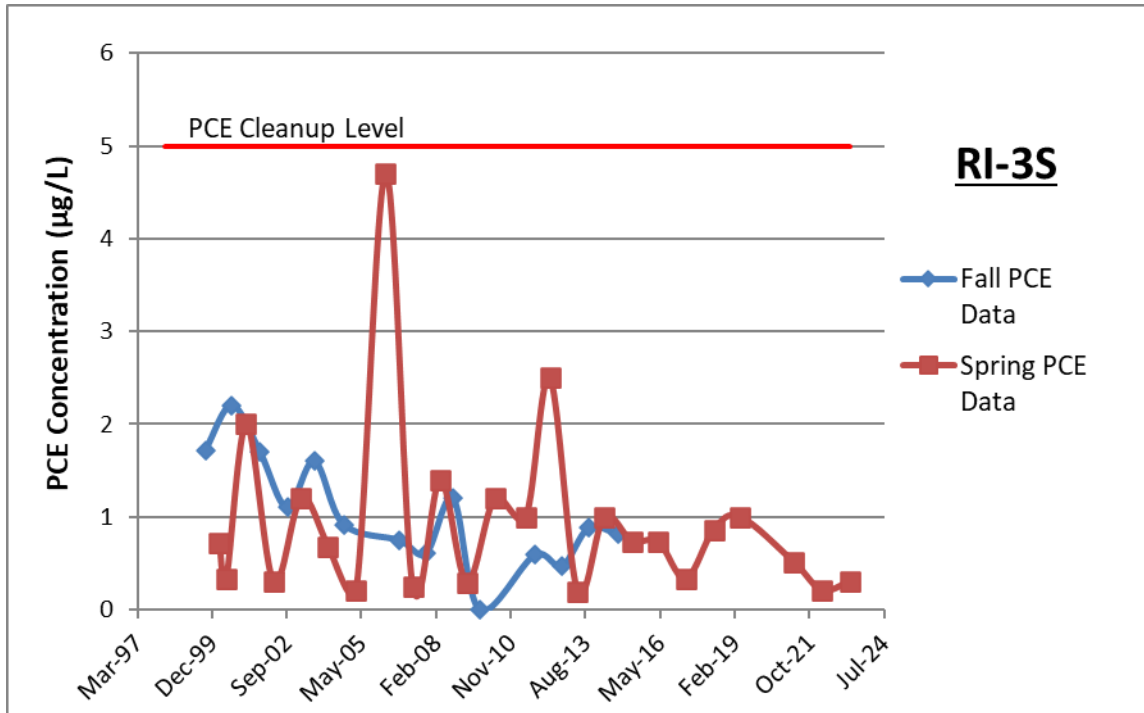
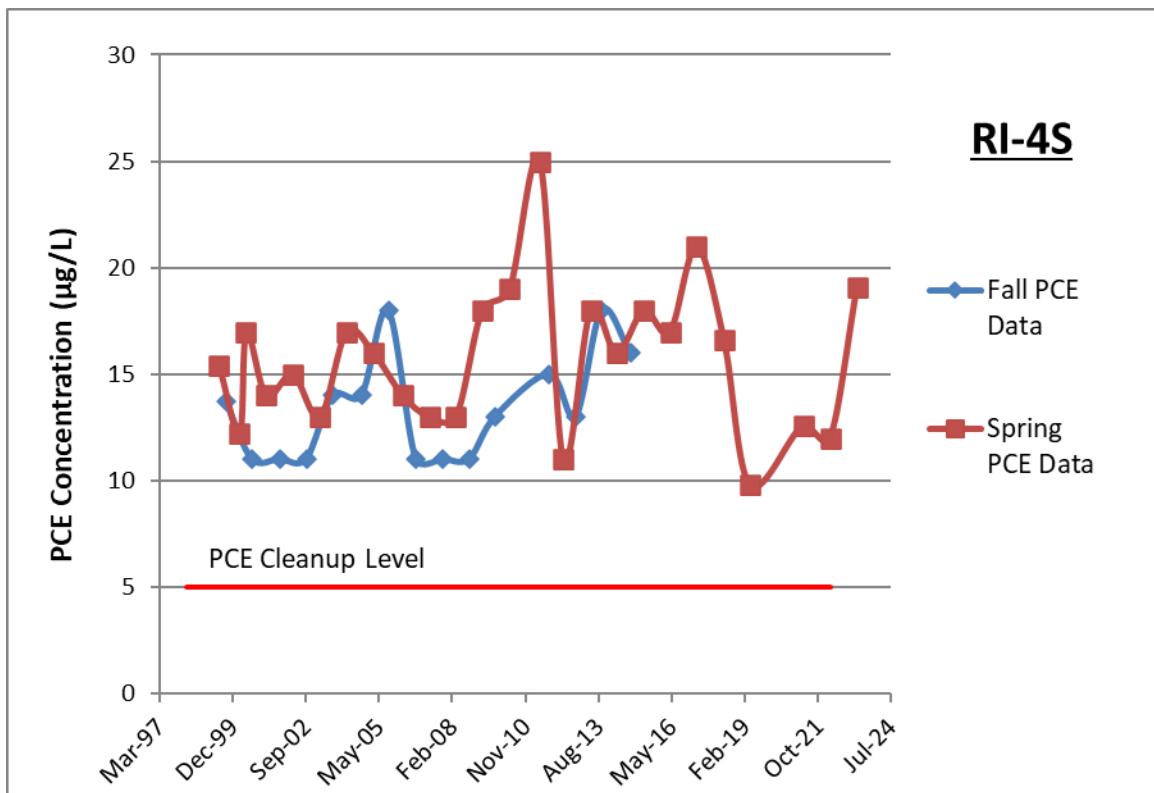


Figure 43. YRRA Remedial Investigation well RI-3S PCE results (µg/L), June 1999 to April 2023.



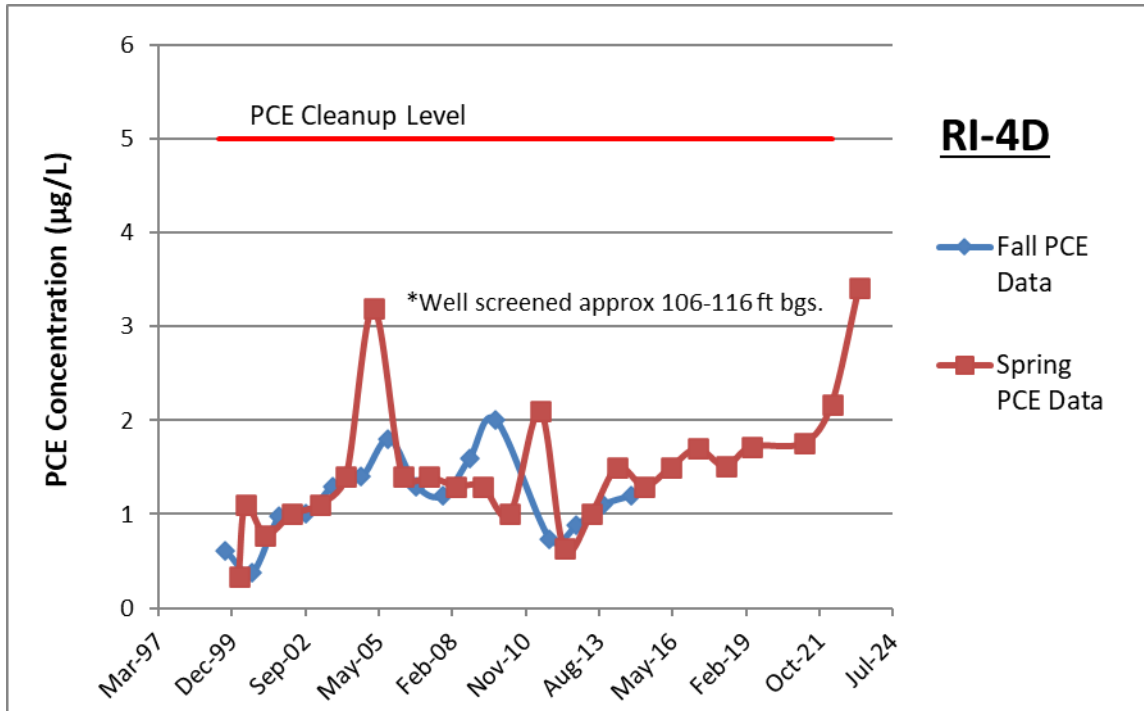


Figure 45. YRRA Remedial Investigation well RI-4D PCE results (µg/L), June 1999 to April 2023.

Table 49. Summary of analytical results (µg/L) for RI-5S, December 1997 to October 2023.

Date	PCE	TCE	Cis-DCE	VC
6/1999	0.8 J	0.15 U	0.1 U	0.14 U
9/1999	0.59 J	0.15 U	0.1 U	0.14 U
12/1999	1.84	0.15 U	0.1 U	0.14 U
3/2000	1.47	0.15 U	0.1 U	0.14 U
6/2000	0.87	0.15 U	0.1 U	0.14 U
8/2000	0.66	0.15 U	0.1 U	0.14 U
12/2000	1.1	0.15 U	0.1 U	0.14 U
3/2001	1.2	0.15 U	0.1 U	0.14 U
9/2001	0.74	<0.2	<0.2	<0.2
3/2002	1.2	<0.2	<0.2	<0.2
9/2002	0.5	<0.2	<0.2	<0.2
3/2003	1.2	<0.2	<0.2	<0.2
9/2003	0.89	<0.2	<0.2	<0.2
3/2004	1.4	<0.2	<0.2	<0.2
10/2004	0.97	<0.2	<0.2	<0.2
3/2005	1.6	<0.2	<0.2	<0.2
12/2005	0.66	<0.2	<0.2	<0.2
4/2006	0.61	<0.2	<0.2	<0.2
10/2006	0.76	<0.2	<0.2	<0.2
4/2007	0.76	<0.2	<0.2	<0.2
10/2007	1.1	<0.2	<0.2	<0.2
4/2008	1.3	<0.2	<0.2	<0.2
10/2008	1.3	1 U	1 U	0.2 U
4/2009	1 U	1 U	1 U	0.2 U
10/2009	1 U	1 U	1 U	0.2 U
4/2010	2.4	1 U	1 U	1 U
6/2011	2.4	1 U	1 U	0.2 U
10/2011	1.6	0.2 U	0.2 U	0.2 U
4/2012	2	0.2 U	0.2 U	0.2 U
10/2012	1.4	0.2 U	0.2 U	0.2 U
5/2013	2.4	1 U	1 U	1 U

Date	PCE	TCE	Cis-DCE	VC
10/2013	2.1	1 U	1 U	1 U
4/2014	3 J	1 U	1 U	1 U
10/2014	1.8	1 U	1 U	0.2 U
4/2015	3.3 J	1 UJ	1 UJ	0.2 UJ
4/2016	2.9	1 U	1 U	0.2 U
4/2017	4.2	1 U	1 U	0.2 U
5/2018	3.3	1 U	1 U	0.2 U
4/2019	2.3	1 U	1 U	0.2 U
4/2021	3.11	1 U	1 U	0.2 U
4/2022	2.73	1 U	1 U	5 UJ
4/2023	3.99	1U	1U	0.2UJ
MTCA CL	5	5	70	0.2

U: Analyte was not detected at or above the reported value.

J: Analyte was positively identified. The associated numerical result is an estimate.

UJ: Analyte was not detected at or above the reported value.

Bold: Analyte was detected.

Shade: Values are greater than MTCA cleanup levels.

Table 50. Summary of analytical results (µg/L) for RI-5D, December 1997 to October 2023.

Date	PCE	TCE	Cis-DCE	VC
6/1999	0.25 U	0.15 U	0.1 U	0.14 U
9/1999	0.25 U	0.15 U	0.1 U	0.14 U
12/1999	0.92 J	0.15 U	0.1 U	0.14 U
3/2000	0.62 J	0.15 U	0.1 U	0.14 U
6/2000	0.55	0.15 U	0.1 U	0.14 U
8/2000	0.43	0.15 U	0.1 U	0.14 U
12/2000	0.51	0.15 U	0.1 U	0.14 U
3/2001	0.51	0.15 U	0.1 U	0.14 U
9/2001	0.41	<0.2	<0.2	<0.2
3/2002	0.46	<0.2	<0.2	<0.2
9/2002	0.46	<0.2	<0.2	<0.2
3/2003	0.5	<0.2	<0.2	<0.2
9/2003	0.59	<0.2	<0.2	<0.2
3/2004	0.61	<0.2	<0.2	<0.2
10/2004	0.68	<0.2	<0.2	<0.2
3/2005	2.1	<0.2	<0.2	<0.2
10/2005	1.9	<0.2	<0.2	<0.2
4/2006	0.61	<0.2	<0.2	<0.2
10/2006	0.57	<0.2	<0.2	<0.2
4/2007	0.6	<0.2	<0.2	<0.2
10/2007	0.61	<0.2	<0.2	<0.2
4/2008	0.55	<0.2	<0.2	<0.2
10/2008	1	1 U	1 U	0.2 U
4/2009	0.48 J	1 U	1 U	0.2 U
10/2009	1 U	1 U	1 U	0.2 U
4/2010	1	1 U	1 U	1 U
6/2011	1.7	1 U	1 U	0.2 U
10/2011	0.78	0.2 U	0.2 U	0.2 U
4/2012	0.69	0.2 U	0.2 U	0.2 U
10/2012	0.77	0.2 U	0.2 U	0.2 U
5/2013	1.1	1 U	1 U	1 U

Date	PCE	TCE	Cis-DCE	VC
10/2013	1.2	1 U	1 U	1 U
4/2014	1.5 J	1 U	1 U	1 U
10/2014	1.4	1 U	1 U	0.2 U
4/2015	1.7 J	1 UJ	1 UJ	0.2 UJ
4/2016	1.2	1 U	1 U	0.2 U
4/2017	1.8	1 U	1 U	0.2 U
5/2018	1.5	1 U	1 U	0.2 U
4/2019	1.3	1 U	1 U	0.2 U
4/2021	1.34	1 U	1 U	0.2 U
4/2022	1.31	1 U	1 U	5 UJ
4/2023	1.9	1U	1U	0.2U
MTCA CL	5	5	70	0.2

U: Analyte was not detected at or above the reported value.

J: Analyte was positively identified. The associated numerical result is an estimate.

UJ: Analyte was not detected at or above the reported value.

Bold: Analyte was detected.

Shade: Values are greater than MTCA cleanup levels.

Table 51. Summary of analytical results (µg/L) for RI-6S, December 1997 to October 2023.

Date	PCE	TCE	Cis-DCE	VC
6/1999	2.04	0.15 U	0.1 U	0.14 U
9/1999	4.72	0.15 U	0.1 U	0.14 U
12/1999	3.66	0.15 U	0.1 U	0.14 U
3/2000	2.19	0.15 U	0.1 U	0.14 U
6/2000	3.1	0.15 U	0.1 U	0.14 U
8/2000	3.8	0.15 U	0.1 U	0.14 U
12/2000	3.8	0.15 U	0.1 U	0.14 U
3/2001	2.8	0.15 U	0.1 U	0.14 U
9/2001	4.3	<0.2	<0.2	<0.2
3/2002	2.9	<0.2	<0.2	<0.2
9/2002	4	<0.2	<0.2	<0.2
3/2003	2.5	<0.2	<0.2	<0.2
9/2003	5.3	<0.2	<0.2	<0.2
3/2004	3.7	<0.2	<0.2	<0.2
10/2004	6	<0.2	<0.2	<0.2
3/2005	3.5	<0.2	<0.2	<0.2
12/2005	4.1	<0.2	<0.2	<0.2
4/2006	3.3	<0.2	<0.2	<0.2
10/2006	4.9	<0.2	<0.2	<0.2
4/2007	3.4	<0.2	<0.2	<0.2
10/2007	6	<0.2	<0.2	<0.2
4/2008	2.9	<0.2	<0.2	<0.2
10/2008	5.9	1 U	1 U	0.2 U
4/2009	3.9	1 U	1 U	0.2 U
10/2009	6.9	1 U	1 U	0.2 U
4/2010	3.9	1 U	1 U	1 U
6/2011	4.4	1 U	1 U	0.2 U
10/2011	6.1	0.2 U	0.2 U	0.2 U
4/2012	2.7	0.2 U	0.2 U	0.2 U
10/2012	5.7	0.2 U	0.2 U	0.2 U
5/2013	3.8	1 U	1 U	1 U

Date	PCE	TCE	Cis-DCE	VC
10/2013	8.2	1 U	1 U	1 U
4/2014	3.6 J	1 U	1 U	1 U
10/2014	7.1	1 U	1 U	0.2 U
10/2015	8.5	1 U	1 U	0.2 U
10/2016	8.3 J	1 U	1 U	0.2 U
9/2017	6.6	1 U	1 U	0.2 U
10/2018	8.8	1 U	1 U	1 U
10/2019	8.5 J	1 U	1 U	0.2 U
11/2020	8.1	1 U	1 U	0.2 U
10/2021	7.75 J	1 U	1 U	0.2 U
10/2022	7 J	0.2 UJ	0.2 UJ	0.2 UJ
10/2023	9.38	1 U	1 U	0.2 U
MTCA CL	5	5	70	0.2

U: Analyte was not detected at or above the reported value.

J: Analyte was positively identified. The associated numerical result is an estimate.

UJ: Analyte was not detected at or above the reported value.

Bold: Analyte was detected.

Shade: Values are greater than MTCA cleanup levels.

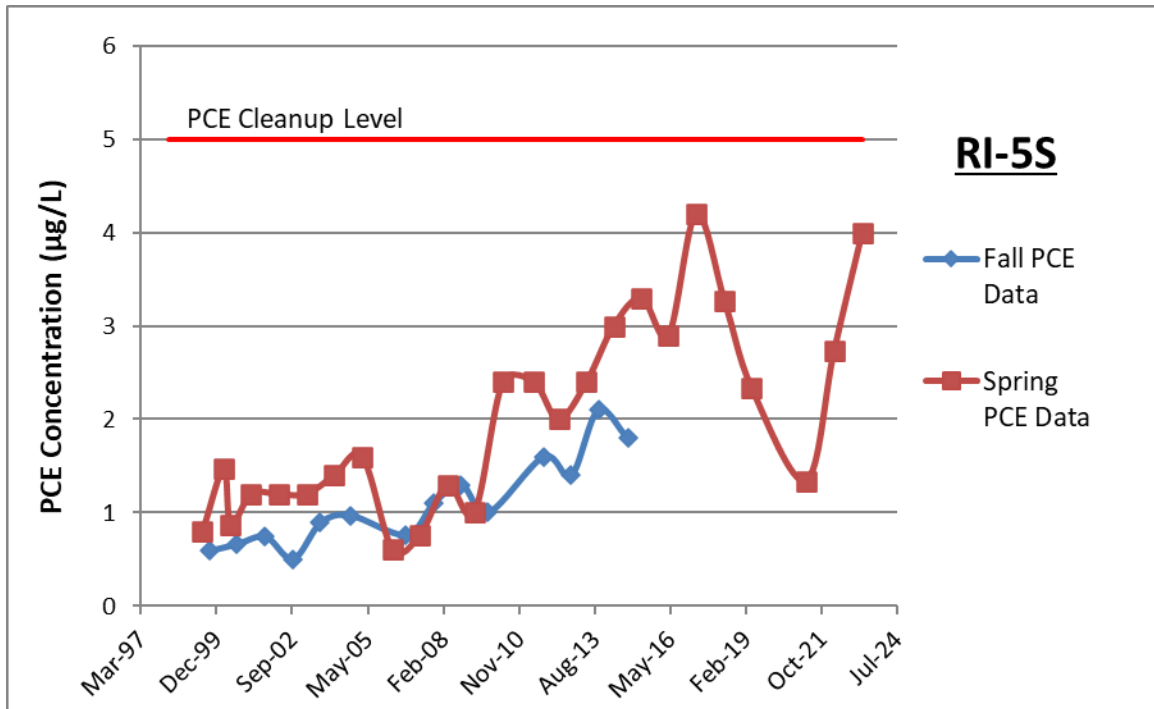


Figure 46. YRRA Remedial Investigation well RI-5S PCE results (µg/L), June 1999 to April 2023.

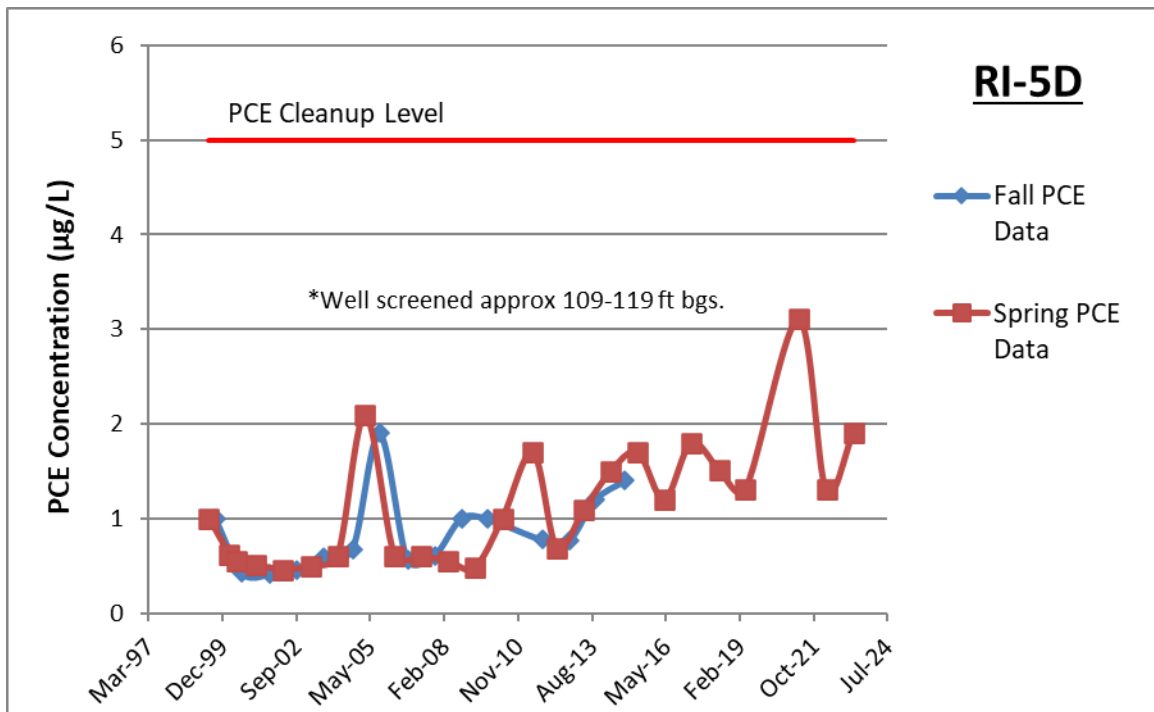


Figure 47. YRRA Remedial Investigation well RI-5D PCE results (µg/L), June 1999 to April 2023.

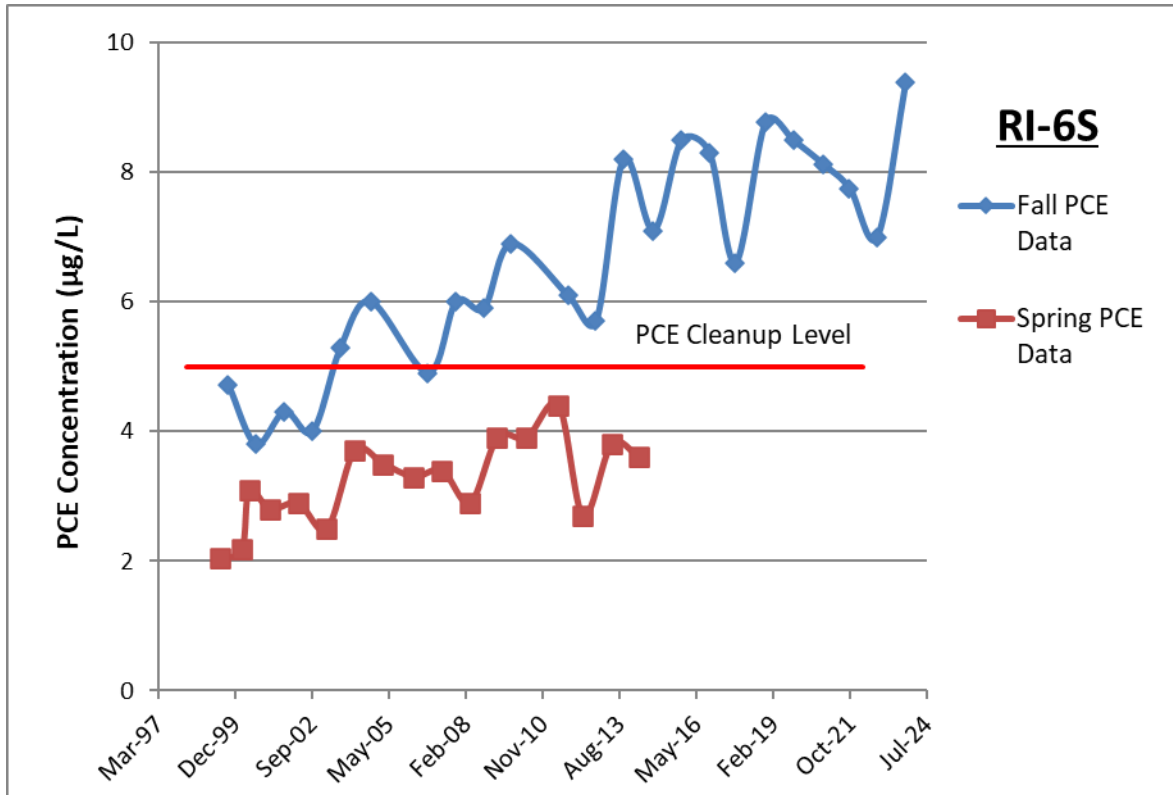


Figure 48. YRRA Remedial Investigation well RI-6S PCE results (µg/L), June 1999 to October 2023.

Table 52. Summary of analytical results (µg/L) for RI-9S, December 1997 to October 2023.

Date	PCE	TCE	Cis-DCE	VC
6/1999	1.86	0.15 U	0.1 U	0.14 U
9/1999	1.44	0.15 U	0.1 U	0.14 U
12/1999	1.33	0.15 U	0.1 U	0.14 U
3/2000	1.18	0.15 U	0.1 U	0.14 U
6/2000	1.4	0.15 U	0.1 U	0.14 U
8/2000	1.4	0.15 U	0.1 U	0.14 U
12/2000	1.9	0.23	0.1 U	0.14 U
3/2001	1.9	0.25	0.1 U	0.14 U
3/2002	1.8	0.21	<0.2	<0.2
9/2002	1.7	0.26	<0.2	<0.2
3/2003	1.6	0.23	<0.2	<0.2
9/2003	1.7	<0.2	<0.2	<0.2
3/2004	2	0.25	<0.2	<0.2
10/2004	1.5	<0.2	<0.2	<0.2
3/2005	2.2	<0.2	<0.2	<0.2
12/2005	2.2	<0.2	<0.2	<0.2
4/2006	2.1	0.21	<0.2	<0.2
4/2007	1.9	<0.2	<0.2	<0.2
10/2007	2.1	<0.2	<0.2	<0.2
4/2008	1.4	<0.2	<0.2	<0.2
10/2008	1.4	1 U	1 U	0.2 U
4/2009	1.7	1 U	1 U	0.2 U
10/2009	1 U	1 U	1 U	0.2 U
4/2010	1.9	1 U	1 U	1 U
6/2011	1 U	1 U	1 U	0.2 U
10/2011	1.3	0.2 U	0.2 U	0.2 U
4/2012	0.97	0.2 U	0.2 U	0.2 U
10/2012	1.1	0.2 U	0.2 U	0.2 U
5/2013	1.4	1 U	1 U	1 U
10/2013	1.8	1 U	1 U	1 U
4/2014	1.7 J	1 U	1 U	1 U

Date	PCE	TCE	Cis-DCE	VC
10/2014	1.6	1 U	1 U	0.2 U
4/2015	1.7 J	1 UJ	1 UJ	0.2 UJ
4/2016	1.1	1 U	1 U	0.2 U
4/2017	1.6	1 U	1 U	0.2 U
10/2018	1.8	1 U	1 U	0.2 U
11/2020	1.3	1 U	1 U	0.2 U
10/2021	1.41	0.47 NJ	1 U	0.2 U
10/2022	1.1 J	0.2 UJ	0.2 UJ	0.2 UJ
10/2023	1.19	1 U	1 U	0.2 U
MTCA CL	5	5	70	0.2

U: Analyte was not detected at or above the reported value.

J: Analyte was positively identified. The associated numerical result is an estimate.

ND: Analyte was not detected.

NJ: There is evidence that the analyte is present in the sample. Reported result for the tentatively identified analyte is an estimate.

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 measure the analyte in the sample.

Bold: Analyte was detected.

Shade: Values are greater than MTCA cleanup levels.

Table 53. Summary of analytical results (µg/L) for RI-10S, December 1997 to October 2023.

Date	PCE	TCE	Cis-DCE	VC
6/1999	2.53	0.15 U	0.1 U	0.14 U
9/1999	2.51	0.15 U	0.1 U	0.14 U
12/1999	2.33	0.15 U	0.1 U	0.14 U
3/2000	1.9	0.15 U	0.1 U	0.14 U
6/2000	2	0.15 U	0.1 U	0.14 U
8/2000	1.8	0.15 U	0.1 U	0.14 U
12/2000	2.7	0.15 U	0.1 U	0.14 U
3/2001	2.2	0.15 U	0.1 U	0.14 U
9/2001	2.3	<0.2	<0.2	<0.2
3/2002	2	<0.2	<0.2	<0.2
9/2002	1.8	<0.2	<0.2	<0.2
3/2003	1.8	<0.2	<0.2	<0.2
9/2003	2.8	<0.2	<0.2	<0.2
3/2004	1.9	<0.2	<0.2	<0.2
10/2004	1.8	<0.2	<0.2	<0.2
3/2005	1.9	<0.2	<0.2	<0.2
12/2005	1.6	<0.2	<0.2	<0.2
4/2006	1.8	<0.2	<0.2	<0.2
10/2006	1.7	<0.2	<0.2	<0.2
4/2007	1.9	<0.2	<0.2	<0.2
10/2007	1.9	<0.2	<0.2	<0.2
4/2008	1.4	<0.2	<0.2	<0.2
10/2008	1.5	1 U	1 U	0.2 U
4/2009	1.5	1 U	1 U	0.2 U
10/2009	2	1 U	1 U	0.2 U
4/2010	1.9	1 U	1 U	1 U
6/2011	1.8	1 U	1 U	0.2 U
10/2011	1.3	0.2 U	0.2 U	0.2 U
4/2012	1.3	0.2 U	0.2 U	0.2 U
10/2012	1.6	0.2 U	0.2 U	0.2 U

Date	PCE	TCE	Cis-DCE	VC
5/2013	1.7	1 U	1 U	1 U
10/2013	2.1	1 U	1 U	1 U
4/2014	1.9 J	1 U	1 U	1 U
10/2014	2	1 U	1 U	0.2 U
4/2015	2.2 J	1 UJ	1 UJ	0.2 UJ
4/2016	1.4	1 U	1 U	0.2 U
4/2017	2	0.6 NJ	1 U	0.2 U
5/2018	2	1 U	1 U	0.2 U
4/2019	1.4	1 U	1 U	0.2 U
4/2021	1.14	1 U	1 U	0.2 U
4/2022	1.22B	0.52 J	1 U	5 UJ
4/2023	1.53	1U	1U	0.2U
MTCA CL	5	5	70	0.2

U: Analyte was not detected at or above the reported value.

J: Analyte was positively identified. The associated numerical result is an estimate.

ND: Analyte was not detected.

NJ: There is evidence that the analyte is present in the sample. Reported result for the tentatively identified analyte is an estimate.

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 measure the analyte in the sample.

Bold: Analyte was detected.

Shade: Values are greater than MTCA cleanup levels.

Table 54. Summary of analytical results (µg/L) for RI-11S, December 1997 to October 2023.

Date	PCE	TCE	Cis-DCE	VC
6/1999	1.4	0.15 U	0.1 U	0.14 U
9/1999	1.63	0.15 U	0.1 U	0.14 U
12/1999	1.15	0.15 U	0.1 U	0.14 U
3/2000	1.01	0.15 U	0.1 U	0.14 U
6/2000	0.99	0.15 U	0.1 U	0.14 U
8/2000	1	0.15 U	0.1 U	0.14 U
12/2000	1.6	0.15 U	0.1 U	0.14 U
3/2001	1.1	0.15 U	0.1 U	0.14 U
9/2001	1.1	<0.2	<0.2	<0.2
3/2002	1.2	<0.2	<0.2	<0.2
9/2002	1	<0.2	<0.2	<0.2
3/2003	1	<0.2	<0.2	<0.2
9/2003	1.4	<0.2	<0.2	<0.2
3/2004	1.1	<0.2	<0.2	<0.2
10/2004	0.78	<0.2	<0.2	<0.2
3/2005	1.4	<0.2	<0.2	<0.2
12/2005	0.83	<0.2	<0.2	<0.2
4/2006	0.89	<0.2	<0.2	<0.2
10/2006	0.94	<0.2	<0.2	<0.2
4/2007	1.1	<0.2	<0.2	<0.2
10/2007	1.1	<0.2	<0.2	<0.2
4/2008	0.71	<0.2	<0.2	<0.2
10/2008	1.1	1 U	1 U	0.2 U
4/2009	0.43 J	1 U	1 U	0.2 U
10/2009	1 U	1 U	1 U	0.2 U
4/2010	1 U	1 U	1 U	0.2 U
6/2011	1.3	1 U	1 U	0.2 U
10/2011	0.87	0.2 U	0.2 U	0.2 U
4/2012	0.59	0.2 U	0.2 U	0.2 U
10/2012	0.71	0.2 U	0.2 U	0.2 U

Date	PCE	TCE	Cis-DCE	VC
5/2013	0.83 J	1 U	1 U	1 U
10/2013	1	1 U	1 U	1 U
10/2014	1.1	1 U	1 U	0.2 U
4/2015	1.2 J	1 UJ	1 UJ	0.2 UJ
10/2016	0.82 J	1 U	1 U	0.2 U
10/2018	1.3	1 U	1 U	0.2 U
10/2019	0.61 NJ	1 U	1 U	0.2 U
11/2020	0.98 J	1 U	1 U	0.2 U
10/2021	1.13	1 U	1 U	0.2 U
10/2022	0.68 J	0.2 UJ	0.2 UJ	0.2 UJ
MTCA CL	5	5	70	0.2

U: Analyte was not detected at or above the reported value.

J: Analyte was positively identified. The associated numerical result is an estimate.

ND: Analyte was not detected.

NJ: There is evidence that the analyte is present in the sample. Reported result for the tentatively identified analyte is an estimate.

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 measure the analyte in the sample.

Bold: Analyte was detected.

Shade: Values are greater than MTCA cleanup levels.

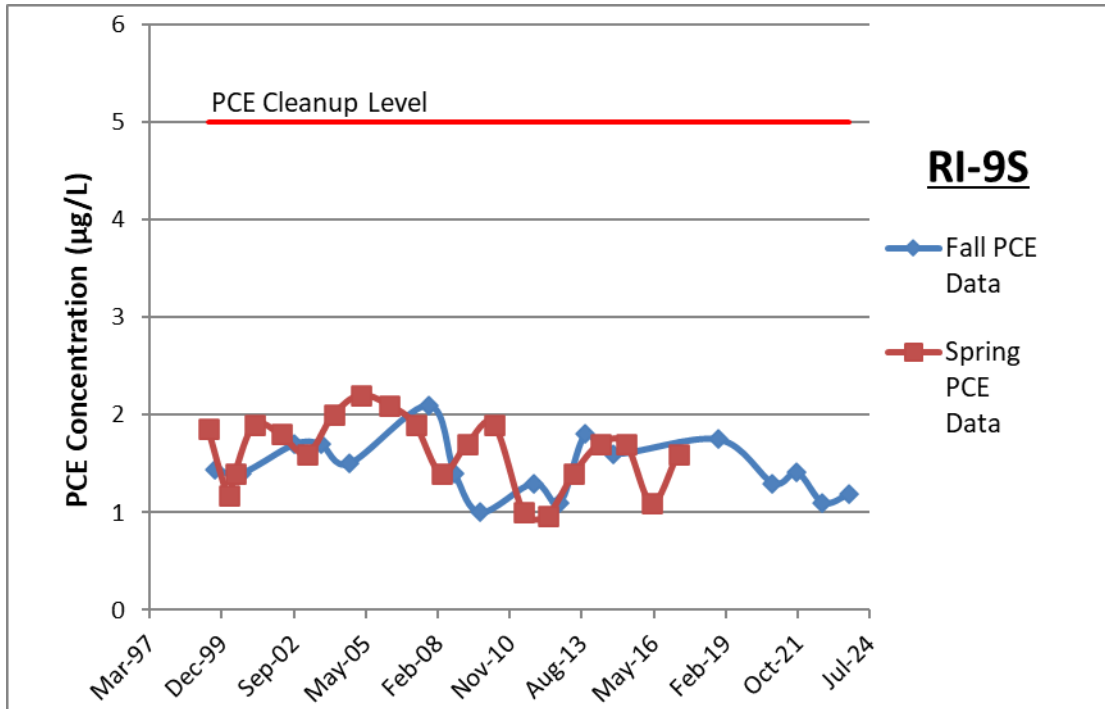
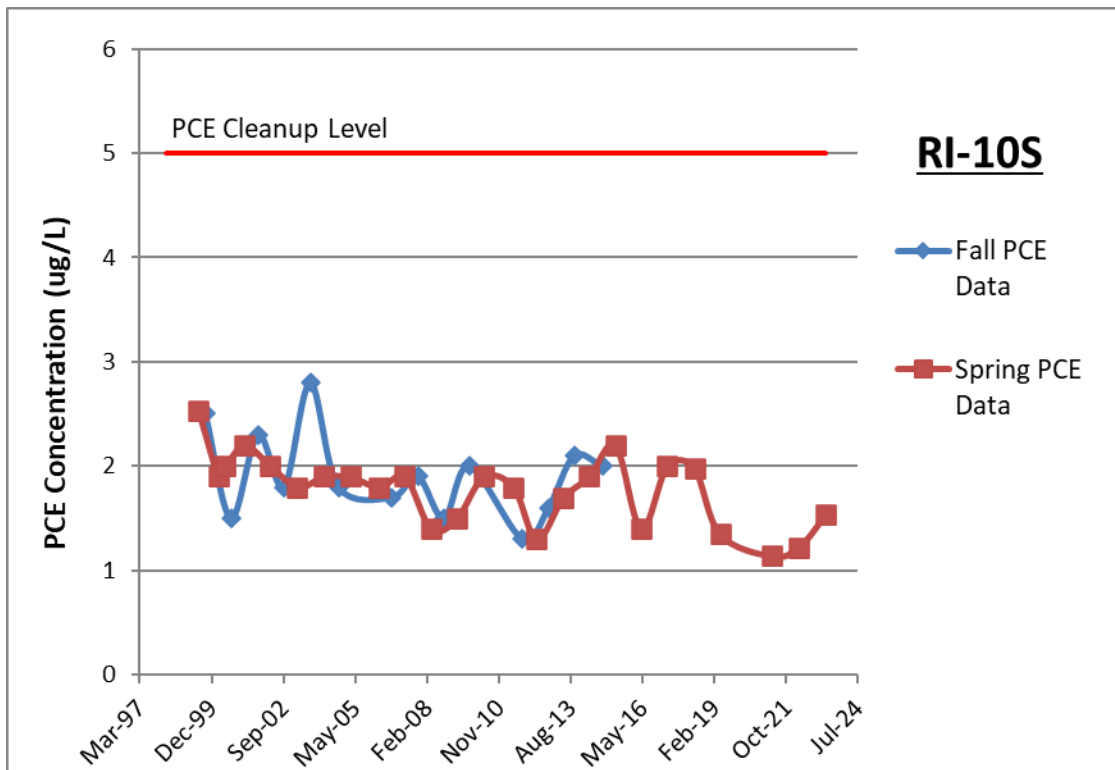


Figure 49. YRRA Remedial Investigation well RI-9S PCE results (µg/L), June 1999 to October 2023.



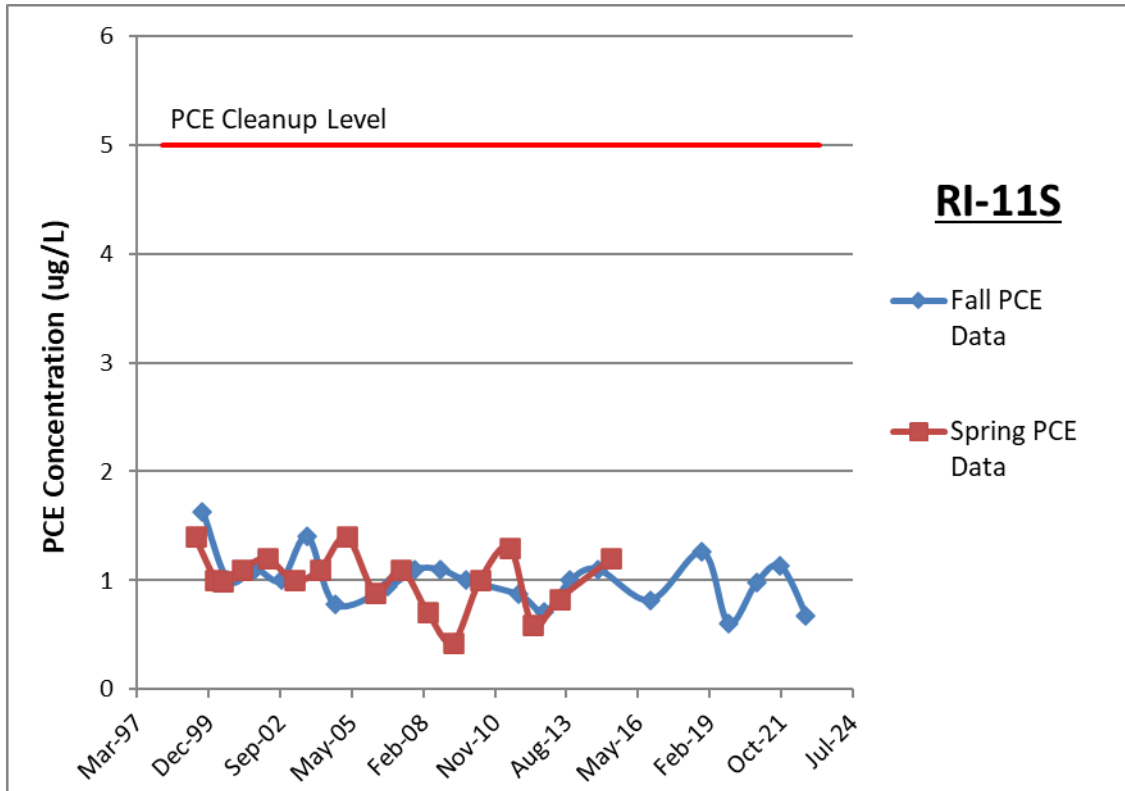


Figure 51. YRRA Remedial Investigation well RI-11S PCE results ($\mu\text{g/L}$), June 1999 to October 2023.