

COGCC STANDARDS		Sample 1 Final 1/31/19	Sample 2 Final 2/1/19	Sample 3 Final 2/1/19	Sample 4 Final 2/2/19	Sample 5 - S Final 2/6/19	Sample 6 - E Final 2/6/19	Sample 7 - N Final 2/6/19	Sample 8 - B Final 2/22/19	Sample 9 - N Final 2/22/19
Table 910-1 Concentration Levels*		Spill Location	Downgradient Sample	Background	Background	Spill Extent South	Spill Extent East	Spill Excavation Area N	Spill Extent Bottom	Spill Excavation Area N
Contaminant	Concentration	Concentration	Concentration	Concentration	Concentration	Concentration	Concentration	Concentration	Concentration	Concentration
Organic Compounds (Soil)										
TPH	500 mg/kg	130.227	0.084	0.1995	non-detect	0.1584	0.3	7,304.06	0.284	51.41
Benzene	0.17 mg/kg	0.078	non-detect	0.0085	non-detect	non-detect	non-detect	98	non-detect	non-detect
Toluene	85 mg/kg	3.7	0.034	0.074	non-detect	non-detect	0.069	400	0.041	non-detect
Ethylbenzene	100 mg/kg	0.93	0.016	0.014	non-detect	0.0094	0.021	35	0.012	non-detect
Xylenes (total)	175 mg/kg	11	0.034	0.085	non-detect	0.06	0.21	440	0.22	0.37
Acenaphthene	1,000 mg/kg	non-detect	non-detect	non-detect	non-detect	non-detect	non-detect	non-detect	non-detect	non-detect
Anthracene	1,000 mg/kg	non-detect	non-detect	non-detect	non-detect	non-detect	non-detect	non-detect	non-detect	non-detect
Benz(a)anthracene	0.22 mg/kg	non-detect	non-detect	0.011	non-detect	non-detect	non-detect	non-detect	non-detect	non-detect
Benzo(b)fluoranthene	0.22 mg/kg	non-detect	non-detect	non-detect	non-detect	non-detect	non-detect	non-detect	non-detect	non-detect
Benzo(k)fluoranthene	2.2 mg/kg	non-detect	non-detect	non-detect	non-detect	non-detect	non-detect	non-detect	non-detect	non-detect
Benzo(a)pyrene	0.022 mg/kg	non-detect	non-detect	non-detect	non-detect	non-detect	non-detect	non-detect	non-detect	non-detect
Chrysene	22 mg/kg	non-detect	non-detect	non-detect	non-detect	non-detect	non-detect	non-detect	non-detect	non-detect
Dibenzo(a,h)anthracene	0.022 mg/kg	non-detect	non-detect	non-detect	non-detect	non-detect	non-detect	non-detect	non-detect	non-detect
Fluoranthene	1,000 mg/kg	non-detect	non-detect	0.007	non-detect	0.011	non-detect	non-detect	0.011	non-detect
Fluorene	1,000 mg/kg	non-detect	non-detect	non-detect	non-detect	non-detect	non-detect	non-detect	non-detect	non-detect
Indeno(1,2,3,c,d)pyrene	0.22 mg/kg	non-detect	non-detect	non-detect	non-detect	non-detect	non-detect	non-detect	non-detect	non-detect
Naphthalene	23 mg/kg	0.019	non-detect	non-detect	non-detect	non-detect	non-detect	0.062	non-detect	0.041
Pyrene	1,000 mg/kg	non-detect	non-detect	non-detect	non-detect	0.078	non-detect	non-detect	non-detect	non-detect
Inorganics (Soil)										
Electrical Conductivity (EC)	<4 mmhos/cm or 2x background	1.6	2	3.3	1.6	0.041	0.076	1.6	3.1	1.9
Sodium Adsorption Ratio (SAR)	<12^5	1.8	15	11	5.2	5.2	11	13	9.1	8.1
pH	b/w 6 & 9	8.25	9.18*	9.01*	8.24	8.66	9.5*	8.24	8.08	8.66
Metals (Soil)										
Arsenic	0.39 mg/kg	5.4**	7.4**	5.5**	5.7**	6.1**	5.5**	6**	6.4**	6.1**
Barium (LDNR True Total Barium)	15,000 mg/kg	170	220	160	130	190	130	130	230	180
Boron (Hot Water Soluble)	2 mg/l	31***	31***	37***	20***	27***	25***	26***	non-detect	non-detect
Cadmium	70 mg/kg	0.48	1	0.88	0.37	0.5	0.29	0.52	0.38	0.39
Chromium (III)	120,000 mg/kg	9.4	9		7.1	11	11	11	6.8	9.7
Chromium (VI)	23 mg/kg	non-detect	non-detect		non-detect	non-detect	non-detect	non-detect	non-detect	non-detect
Copper	3,100 mg/kg	14	15	24	12	15	12	15	11	15
Lead (inorganic)	400 mg/kg	8.4	11	24	9.2	9	8.4	8.5	9.1	10
Mercury	23 mg/kg	0.0088	0.02	0.055	0.016	0.016	0.014	0.015	0.016	0.016
Nickel (soluble salts)	1,600 mg/kg	13	12	18	9.7	14	13	15	9.5	13
Selenium	390 mg/kg2	0.23	0.31	0.59	0.36	0.54	0.51	0.3	0.22	0.37
Silver	390 mg/kg	non-detect	non-detect	non-detect	non-detect	non-detect	non-detect	non-detect	non-detect	non-detect
Zinc	23,000 mg/kg	51	52	71	44	56	51	59	40	53
DRO/GRO (Diesel Range Organics/Gasoline Range Organics)										
DRO/GRO	Combined TPH 500 (mg/kg)	4.5 DRO / 110 GRO	non-detect	non-detect	non-detect	non-detect	non-detect	31 DRO / 6,300 GRO	non-detect	33 DRO / 18 GRO

* Consideration shall be given to background levels in native soils and water. Samples in excavated area are more than three feet below the ground surface and will be covered by more than three feet of clean backfill, **FAQ-32**.

** Compare elevated arsenic levels to background values, **FAQ-31**. Naturally-occurring arsenic appears to be elevated in this location.

*** All values estimated based on conversion factor of 1.240 kg/l soil density, derived from NRCS bulk density soil map data. Sample results reported in mg/kg. Compare elevated boron levels to background values. Naturally-occurring boron appears to be elevated in this location. Area is not cropland, **FAQ-34**.