

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
Table 910-1 Concentration Levels*		Spill Location	Downgradient Sample	Background	Background	Spill Extent South	Spill Extent East	Spill Excavation Area N
Contaminant	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
Benzene	0.17 mg/kg	0.078	non-detect	0.0085	non-detect	non-detect	non-detect	98
Toluene	85 mg/kg	3.7	0.034	0.074	non-detect	non-detect	0.069	400
Ethylbenzene	100 mg/kg	0.93	0.016	0.014	non-detect	0.0094	0.021	35
Xylenes (total)	175 mg/kg	11	0.034	0.085	non-detect	0.06	0.21	440
Acenaphthene	1,000 mg/kg	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
Benz(a)anthracene	0.22 mg/kg	non-detect	non-detect	0.011	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
Benzo(k)fluoranthene	2.2 mg/kg	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
Chrysene	22 mg/kg	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
Fluoranthene	1,000 mg/kg	non-detect	non-detect	0.007	non-detect	0.011	non-detect	non-detect
Fluorene	1,000 mg/kg	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
Naphthalene	23 mg/kg	0.019	non-detect	non-detect	non-detect	non-detect	non-detect	0.062
Pyrene	1,000 mg/kg	non-detect	non-detect	non-detect	non-detect	0.078	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
Sodium Adsorption Ratio (SAR)	<12^5	1.8	15	11	5.2		11	5.2
pH	b/w 6 & 9	8.25	9.18	9.01	8.24	8.66	9.5	8.24
Metals (Soil)								
Arsenic	0.39 mg/kg	5.4**	7.4**	5.5**	5.7	6.1	5.5	6
Barium (LDNR True Total Barium)	15,000 mg/kg	170	220	160	130	190	130	130
Boron (Hot Water Soluble)	2 mg/l	31***	31***	37***	20***	27***	25***	26***
Cadmium	70 mg/kg	0.48	1	0.88	0.37	0.5	0.29	0.52
Chromium (III)	120,000 mg/kg	9.4	9		7.1	11	11	11
Chromium (VI)	23 mg/kg	non-detect	non-detect		non-detect	non-detect	non-detect	non-detect
Copper	3,100 mg/kg	14	15	24	12	15	12	15
Lead (inorganic)	400 mg/kg	8.4	11	24	9.2	9	8.4	8.5
Mercury	23 mg/kg	0.0088	0.02	0.055	0.016	0.016	0.014	0.015
Nickel (soluble salts)	1,600 mg/kg	13	12	18	9.7	14	13	15
Selenium	390 mg/kg2	0.23	0.31	0.59	0.36	0.54	0.51	0.3
Silver	390 mg/kg	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
Liquid Hydrocarbons (Soil)								
Liquids (oil/condensate)	below detection level (mg/kg)	4.5 DRO / 110 GRO	non-detect	non-detect	non-detect	non-detect	non-detect	31 DRO / 6,300 GRO

* Consideration shall be given to background levels in native soils and water.

** Compare elevated arsenic levels to background values. 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.