

Table 915-1		6/24/2021		
		Red Dog 21-31 Pit Bottom	Red Dog 21-31 Pit Mid	Red Dog 21-31 Native
Contaminant of Concern	Concentrations			
Soil TPH (total volatile [C6-C10] and extractable [C10-C36] hydrocarbons)	500mg/kg	1200	52	24
Soils and Groundwater - liquid hydrocarbons including condensate and oil	below visual detection limits			
Soil Suitability for Reclamation				
Electrical conductivity (EC) (by saturated paste method)	<4mmhos/cm	1	1.1	0.25
Sodium adsorption ratio (SAR) (by saturated paste method)	<6	42	37	4.4
pH (by saturated paste method)	6-8.3	7.5	8.5	7.3
boron (hot water soluble soil extract)	2mg/l	ND	ND	ND
Organic Compounds in Groundwater				
benzene	5µg/l			
toluene	560 to 1,000µg/l			
ethylbenzene	700µg/l			
xylenes (sum of o-, m- and p- isomers = total xylenes)	1,400 to 10,000µg/l			
naphthalene	140µg/l			
1,2,4-trimethylbenzene	67µg/l			
1,3,5-trimethylbenzene	67µg/l			
Groundwater Inorganic Parameters				
total dissolved solids (TDS)	<1.25 X local background			
chloride ion	250mg/l or <1.25 X local background			
sulfate ion	250mg/l or <1.25 X local background			

Soils	Residential Soil Screening Level Concentrations (mg/kg)	Protection of Groundwater Soil Screening Level Concentrations (mg/kg)			
Organic Compounds in Soils					
benzene	1.2	0.0026 (M)	ND	ND	ND
toluene	490	0.69 (M)	ND	ND	ND
ethylbenzene	5.8	0.78 (M)	ND	ND	ND
xylenes (sum of o-, m- and p- isomers = total xylenes)	58	9.9 (M)	ND	ND	ND
1,2,4-trimethylbenzene	30	0.0081 (R)	ND	ND	ND
1,3,5-trimethylbenzene	27	0.0087 (R)	ND	ND	ND
acenaphthene	360	0.55 (R)	ND	ND	ND
anthracene	1800	5.8 (R)	ND	ND	ND
benz(a)anthracene	1.1	0.011 (R)	ND	ND	ND
benzo(b)fluoranthene	1.1	0.3 (R)	ND	ND	ND
benzo(k)fluoranthene	11	2.9 (R)	ND	ND	ND
benzo(a)pyrene	0.11	0.24 (M)	ND	ND	ND
chrysene	110	9 (R)	ND	ND	0.0062
dibenzo(a,h)anthracene	0.11	0.096 (R)	ND	ND	ND
fluoranthene	240	8.9 (R)	ND	ND	ND
fluorene	240	0.54 (R)	ND	ND	ND
indeno(1,2,3-cd)pyrene	1.1	0.98 (R)	ND	ND	ND
1-methylnaphthalene	18	0.006 (R)	ND	ND	ND
2-methylnaphthalene	24	0.019 (R)	ND	ND	0.0052
naphthalene	2	0.0038 (R)	ND	ND	ND
pyrene	180	1.3 (R)	ND	ND	ND
Metals in Soils					
arsenic	0.68	0.29 (M)	2.4	2.5	2
barium	15000	82 (M)	260	190	220
cadmium	71	0.38 (M)	ND	ND	ND
chromium (VI)	0.3	0.00067 (R)	ND	ND	ND
copper	3100	46 (M)	34	24	23
lead	400	14 (M)	14	12	12
nickel	1500	26 (R)	20	16	15
selenium	390	0.26 (M)	0.44	0.33	0.4
silver	390	0.8 (R)	ND	ND	ND
zinc	23000	370 (R)	84	67	66

The letter "(R)" following a protection of Groundwater soil screening level indicates the concentration is derived from a risk-based approach. The letter "(M)" following a protection of Groundwater soil screening level indicates the concentration is derived from the drinking water MCL.