

Table 3.4.1. Groundwater quality in 1996 in monitoring wells at the Turriss Mine^(a)

[Concentrations are averages from quarterly samples]

Well ^b	Parameter ^c										
	pH	TDS (mg/L)	Hardness, (mg/L)	Cl (mg/L)	SO ₄ (mg/L)	Ca (mg/L)	Mg (mg/L)	Fe (mg/L)	Mn (mg/L)	Ba (µg/L)	Zn (µg/L)
DW1	7.4	436	379	10.5	20.6	89.8	37.8	42.8	0.18	7.5	<0.05
DW2	7.3	475	404	14.3	20.4	95.3	40.3	42.0	0.08	15	<0.05
DW3	7.1	485	415	12.3	17.0	106.3	36.5	22.3	0.15	12.5	<0.05
MW101A	8.7	302	273	14.3	71.0	59.5	30.3	43.3	<0.01	<0.1	<0.05
MW101B	7.9	385	335	14.8	48.7	76.8	34.3	6.9	<0.01	<0.1	<0.05
MW103	7.3	402	372	5.3	12.0	96.3	32.0	7.4	0.18	<0.1	<0.05
MW104A	7.3	389	357	12.5	49.5	86.3	34.8	3.3	0.13	60	1.9
MW104B	7.7	435	351	30.0	51.5	86.8	32.8	8.4	0.05	<0.1	1.5
MW106	7.4	346	350	7.8	3.1	84.3	34.3	3.4	0.1	<0.1	1.5
MW107A	7.9	326	314	5.3	9.7	71.5	33.0	4.0	0.32	<0.1	1.6
MW109	7.5	351	353	5.3	3.2	77.3	39.0	1.3	0.03	<0.1	<0.05
MW110A	7.3	356	364	3.0	1.0	85.3	36.8	5.4	0.04	<0.1	1.6
MW110B	7.9	382	317	21.8	73.5	73.3	32.8	2.8	<0.01	<0.1	1.3
MW111	7.5	341	338	5.5	1.0	79.3	34.0	7.5	0.2	<0.1	2
MW114A	7.2	370	348	6.5	0.9	85.5	32.8	7.1	0.05	60	<0.05
MW114B	6.9	739	621	22.8	74.5	133.8	70.0	13.3	0.18	60	<0.05
MW115	7.7	335	302	24.5	9.8	76.3	27.0	14.3	0.05	15	<0.05
MW117	7.4	334	312	9.8	10.0	82.0	26.0	1.8	0.03	<0.1	<0.05
M5	7.0	441	392	6.5	17.3	108.5	29.8	17.5	0.09	<0.1	<0.05
M8	7.5	2027	1231	299.0	536.3	268.0	137.0	1.5	0.02	60	<0.05
M9	7.3	359	349	3.5	1.7	85.5	33.3	5.2	0.11	<0.1	<0.05
M11	7.4	419	361	22.3	7.0	90.3	33.0	2.3	<0.01	60	17.4
M12	7.5	422	384	11.3	41.3	96.3	35.0	2.2	0.05	17	<0.05
Drinking water standard	6.5 - 8.5	500	NA	250	250	NA	NA	0.3	0.05	1000	5000

^a Arsenic, boron, cadmium, lead, mercury, and selenium were also monitored, but all readings were below 1.0 µg/L for arsenic, boron, and lead; below 0.1 µg/L for cadmium; below 0.2 µg/L for mercury; and below 2.0 µg/L for selenium. The drinking water standards, in µg/L, are 50 for arsenic, 1000 for boron, 10 for cadmium, 50 for lead, 2 for mercury, and 10 for selenium.

^b MW101B, MW104B, MW110B, and MW114B monitor the Tenerife/Hagarstown Formation; well M11 monitors the Pearl Formation and Kansan Outwash; M12 monitors the Kansan Outwash; and the remainder of the wells monitor the Pearl Formation.

^c TDS = Total Dissolved Solids; Hardness is measured as CaCO₃; Cl = Chloride; SO₄ = Sulfate; Ca = Calcium; Mg = Magnesium; Fe = Iron; Mn = Manganese; Ba = Barium; Zn = Zinc