Table 5a.--Analyses of potash ores and rocks in Union Carbide Corporation AEC 8 (borehole 3)

[Analyst: T. J. Futch. K_2O, potash; Ca, calcium; Mg, magnesium, Cl, chlorine; SO_4, sulfate.]

Rock unit	Depth (feet) From To	Thickness (feet)	K_2O	Ca	Mg	Cl	SO_4	Water insoluble matter	Water loss 60°-200°C
			(weight percent)						
10th ore zone	1589.1-1589.7	0.6	3.28	0.74	0.87	53.96	5.38	1.73	0.25
	1589.7-1591.7	2.0	10.54	0.06	7.06	33.57	28.25	1.21	0.17
	1591.7-1592.2	0.5	12.77	0.03	4.19	33.43	14.48	14.86	2.84
	1592.2-1594.5	2.3	19.08	0.22	1.51	46.49	3.49	8.42	3.29
	1594.5-1594.7	0.2	12.77	0.03	4.60	46.00	0.43	3.72	18.67
	1594.7-1595.5	0.8	2.16	0.52	0.78	54.23	2.56	4.46	1.61
9th ore zone	1603.2-1604.3	1.1	3.25	0.52	0.45	57.10	2.26	0.81	0.42
	1604.3-1606.0	1.7	7.84	0.30	1.91	54.03	0.87	0.59	6.24
	1606.0-1606.4	0.4	10.35	0.08	4.79	47.46	0.53	0.68	14.49
	1606.4-160 .7	0.6	3.73	0.33	1.61	54.86	1.85	0.65	4.62
	1607.0-1607.7	0.7	7.59	0.29	0.62	54.72	1.27	3.29	1.15
8th ore zone	1629.7-1630.4	0.7	2.23	0.44	0.54	53.12	2.48	6.87	0.85
	1630.4-1631.3	0.9	26.04	0.64	0.37	51.09	2.99	2.42	0.15
	1631.3-1631.8	0.5	3.99	0.42	0.81	46.84	1.95	15.05	2.80
	1631.8-1633.3	1.5	1.11	0.39	0.21	58.21	1.75	0.95	0.10
	1633.3-1634.8	1.5	1.88	0.50	0.19	57.31	2.03	1.63	0.13
	1634.8-1635.5	0.7	2.61	0.41	0.14	58.63	1.49	0.67	0.07
	1635.5-1636.6	1.1	2.61	0.47	0.12	58.21	1.85	0.86	0.08
	1636.6-1637.1	0.5	29.05	0.38	0.16	51.16	1.45	3.08	0.15
	1637.1-1638.1	1.0	5.20	0.30	0.75	46.84	1.55	15.98	2.79
	1638.1-1638.7	0.6	0.93	0.22	0.38	54.03	0.92	8.40	0.85
4th ore zone	1752.1-1752.7	0.6	0.52	0.10	0.17	58.63	0.78	1.93	0.14
	1752.7-1753.4	0.7	1.14	0.05	0.44	58.07	2.50	0.31	0.13
	1753.4-1754.0	0.6	6.78	0.08	3.34	43.14	20.07	0.20	0.14
	1754.0-1755.0	1.0	15.09	0.03	7.57	21.01	45.49	0.14	0.17
	1755.0-1756.7	1.7	16.76	0.05	8.34	14.87	49.93	2.32	1.30
	1756.7-1757.4	0.7	2.11	0.06	1.10	50.81	4.48	7.23	1.24
Stray between 4th and 3d ore zones	1761.0-1762.0	1.0	4.42	0.22	2.00	49.49	12.45	0.28	0.11
	~~1762.0-1762.3~~	~~0.3~~	~~3.66~~	~~0.37~~	~~1.69~~	~~50.54~~	~~11.90~~	~~0.98~~	~~0.32~~
	1762.3-1763.4	1.1	2.26	0.53	1.03	51.79	7.39	2.71	0.54

Table 5b.--Computed modes of potash ores and rocks in Union Carbide Corporation AEC 8 (borehole 3)

[Syl, sylvite; Lan, langbeinite; Kai, kainite; Leo, leonite; Bloe, bloedite; Kie, Kieserite; Car, carnallite; Ha, halite; Poly, polyhalite; An, anhydrite. ---, not present.]

Rock unit	Depth (feet) From To	Thickness (feet)	Syl	Lan	Kai	Leo	Bloe	Kie	Car	Ha	Poly	An	Water insoluble matter
			(weight percent)										
10th ore zone	1589.1-1589.7	0.6	4.9	---	---	---	---	4.7	---	85.1	1.0	2.0	1.7
	1589.7-1591.7	2.0	16.6	---	---	---	---	40.1	---	42.4	0.5	---	1.2
	1591.7-1592.2	0.5	18.5	---	---	---	---	20.8	6.2	36.7	---	0.1	14.9
	1592.2-1594.5	2.3	27.9	---	---	---	---	4.3	8.7	49.3	---	0.8	8.4
	1594.5-1594.7	0.2	6.4	---	---	---	---	0.5	51.6	38.4	---	0.1	3.7
	1594.7-1595.5	0.8	1.3	---	---	---	---	1.0	6.1	84.6	2.0	0.9	4.5
9th ore zone	1603.2-1604.3	1.1	4.1	---	---	---	---	---	0.9	90.7	3.2	0.3	0.8
	1604.3-1606.0	1.7	7.2	---	---	---	---	1.2	19.5	71.1	---	0.1	0.6
	1606.0-1606.4	0.4	2.0	---	---	---	---	0.5	53.8	42.8	---	0.3	0.7
	1606.4-1607.0	0.6	1.8	---	---	---	---	1.5	15.3	79.4	---	1.1	0.7
	1607.0-1607.7	0.7	9.9	---	---	---	---	---	6.3	78.5	1.8	0.2	3.3
8th ore zone	1629.7-1630.4	0.7	1.8	---	---	---	---	0.5	3.6	84.0	3.3	---	6.9
	1630.4-1631.3	0.9	39.5	---	---	---	---	---	2.1	51.9	4.6	0.1	2.4
	1631.3-1631.8	0.5	3.5	---	---	---	---	---	7.9	69.5	3.0	0.1	15.1
	1631.8-1633.3	1.5	0.8	---	---	---	---	---	1.2	94.6	2.6	0.2	1.0
	1633.3-1634.8	1.5	2.1	---	---	---	---	---	1.0	93.4	2.6	0.5	1.6
	1634.8-1635.5	0.7	3.5	---	---	---	---	---	0.9	93.4	1.6	0.7	0.7
	1635.5-1636.6	1.1	3.5	---	---	---	---	---	0.3	93.2	2.3	0.6	0.9
	1636.6-1637.1	0.5	45.3	---	---	---	---	---	1.1	48.2	1.7	0.5	3.1
	1637.1-1638.1	1.0	5.7	---	---	---	---	0.2	7.2	68.2	2.3	---	16.0
4th ore zone	1752.1-1752.7	0.6	0.4	---	0.8	---	---	---	0.7	96.0	0.8	---	1.9
	1752.7-1753.4	0.7	0.4	1.3	2.8	---	---	---	---	94.8	0.4	---	0.3
	1753.4-1754.0	0.6	---	26.1	1.2	2.0	---	---	---	70.8	0.6	---	0.2
	1754.0-1755.0	1.0	---	63.6	---	---	1.2	---	---	34.6	0.2	---	0.1
	1755.0-1756.7	1.7	---	67.6	1.2	4.6	---	---	---	24.2	---	0.2	2.3
	1756.7-1757.4	0.7	---	---	10.8	---	---	---	---	81.3	0.6	---	7.3
Stray between 4th and 3d ore zones	1761.0-1762.0	1.0	0.7	16.2	0.3	---	---	---	---	81.0	1.7	---	0.3
	1762.0-1762.3	0.3	0.3	12.9	0.6	---	---	---	---	83.0	2.8	---	1.0
	1762.3-1763.4	1.1	---	6.1	1.3	---	---	0.1	---	85.1	4.0	---	2.7