

## 16 MINERALOGY OF THE H. B. MINE, SALMO, B.C.

From crystal No. 1 the polar elements were found to be  $p_0 = 0.8277$ ,  $q_0 = 0.4720$ , corresponding to the axial ratios  $a : b : c :: 0.5703 : 1 : 0.4720$ . These ratios are slightly lower than those obtained by previous observers, though they are very near the values of Lévy— $a : b : c :: 0.5723 : 1 : 0.4718$ .

The details of the measurements given in the following table were obtained from crystals 1 and 2 except the values for the forms (103), (433), (163) and (250).

TABLE II.

NO.	FORM.	NO. 1 OBSERVED.			NO. 2 OBSERVED.			CALCULATED.	
		Faces	$\phi$	$\rho$	Faces	$\phi$	$\rho$	$\phi$	$\rho$
1	111	4	60° 17'	43° 37'	4	59° 51'	43° 20'	60° 18'	43° 37'
2	1.33	2	30° 07'	28° 35'	4	30° 22'	28° 52'	30° 19'	28° 40'
3	433	8	67° 02'	50° 10'	..	.....	.....	66° 51'	50° 12'
4	163	4	16° 11'	44° 36'	..	.....	.....	16° 17'	44° 32'
5	011	..	.....	.....	2	0° 35'	25° 51'	0°	25° 16'
6	021	1	0° 10'	43°	2	0° 20'	43° 28'	0°	43° 21'
7	103	2	89° 37'	15° 26'	..	.....	.....	90°	15° 26'
8	101	1	89° 55'	39° 40'	1	88° 55'	39° 30'	90°	39° 36'
9	201	..	.....	.....	1	89° 29'	59° 04'	90°	58° 52'
10	670	..	.....	.....	3	56° 19'	89° 32'	56° 22'	90°
11	120	4	40° 42'	90°	4	40° 49'	89° 19'	41° 15'	90°
12	5.11.0	1	38° 44'	90°	..	.....	.....	38° 33'	90°
13	250	4	35°	90°	..	.....	.....	35° 03'	90°
14	130	3	29° 34'	90°	4	29° 13'	89° 05'	30° 53'	90°
15	3.11.0	1	25° 48'	90°	..	.....	.....	25° 34'	90°
16	160	..	.....	.....	1	16° 02'	89° 55'	16° 20'	90°
17	010	1	0° 05'	90°	..	.....	.....	0°	90°
18	100	2	90°	89° 42'	..	.....	.....	90°	90°

All the forms observed on hopeite from the H. B. Mine are shown on the gnomonic projection (Fig. 10).

## PARAHOPEITE

This mineral was first observed by Spencer on specimens from North Western Rhodesia<sup>1</sup> where it was associated with hopeite, tarbuttite, calamine, cerussite and other lead and

<sup>1</sup>Spencer, L. J. (Min. Magazine, Vol. xv, p. 18, 1908).