1943

U.S. Bureau of Mines: Black Mountain Beryl Deposit

U.S. Bureau of Mines

Maine Geological Survey

Core Repository Data Files

Driller: U.S. Bureau of Mines

Project: Black Mountain Beryl Deposit

Town(s): Rumford

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2. Location Map(s)
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TABLE 3. - Condensed logs of diamond-drill holes

Deposit: Black Mountain
Hole No.: 1
Elevation at collar: 1,709 ft.
Dip: -35°
Date begun: Sept. 13, 1943

Location: N. 5900, E. 4,985
Depth: 311.5 ft.
Bearing: N. 76 E.
Core size: AX
Date finished: Sept. 20, 1943

From-	To-	Distance drilled	Core obtained, feet	Core recovery, percent	Formation
0	17.3	17.3	16.0	93	Pegmatite.
17.3	144	126.7	108.9	86	Quartzite and schist.
144	160	16.0	16.0	100	Biotite gneiss.
160	178	18.0	17.2	96	Biotite schist and quartzite.
178	188	10.0	10.0	100	Granite.
188	273.8	85.8	85.6	100	Biotite schist and quartzite.
273	311.5	37.7	37.5	99	Biotite gneiss, schist and quartzite.
0	311.5	311.5	291.5	97	

Deposit: Black Mountain
Hole No.: 2
Elevation at collar: 1,762 ft.
Dip: -71-1/2°
Date begun: Sept. 21, 1943

Location: N. 5,041, E. 5,086
Depth: 146 ft.
Bearing: S. 9° E.
Core size: AX
Date finished: Sept. 24, 1943

0	2.0	2.0	1.5	75	Biotite schist and quartzite.
2.0	26.5	25.5	20.6	81	Pegmatite.
26.5	50.0	23.5	19.0	81	Biotite schist and quartzite.
50.0	57.1	7.1	7.1	100	Biotite schist.
57.1	93.7	36.6	36.6	100	Biotite gneiss.
93.7	146.0	52.3	46.6	90	Interbedded schist and quartzite.
0	146.0	146.0	131.4	90	

Deposit: Black Mountain
Hole No.: 3
Elevation at collar: 1,764 ft.
Dip: Vertical
Date begun: Sept. 25, 1943

Location: N. 4,938, E. 5,092
Depth: 41.0 ft.
Bearing: Vertical
Core size: AX
Date finished: Sept. 27, 1943

0	5.5	5.5	5.5	100	Pegmatite.
5.5	14.0	8.5	8.2	97	do.
14.0	41.0	27.0	26.2	97	Biotite-quartz schist and quartzite.
0	41.0	41.0	39.9	97	

TABLE 3. - Condensed logs of diamond-drill holes (Cont'd.)

Deposit: Black Mountain
Hole No.: 4
Elevation at collar: 1,819 ft.
Dip: -35°
Date begun: Sept. 28, 1943

Location: N. 5,070, E. 5,266
Depth: 202.9 ft.
Bearing: S. 77 W.
Core size: AX
Date finished: Oct. 4, 1943

From-	To-	Distance drilled	Core obtained, feet	Core recovery, percent	Formation
0	5.8	5.8	5.8	100	Quartzite.
5.8	28.6	22.6	20.9	93	Schist and quartzite.
28.6	51.2	22.6	21.0	93	do.
51.2	54.8	3.6	3.4	95	Pegmatite.
54.8	73.2	18.4	17.6	95	Schist and quartzite.
73.2	73.8	.8	.8	100	Pegmatite.
73.8	88.7	14.9	14.3	96	Quartzite and schist.
88.7	91.2	2.5	2.4	96	Pegmatite
91.2	94.8	3.6	3.4	95	Mica schist and quartzite.
94.8	126.2	31.4	31.2	96	Biotite gneiss.
126.2	144.2	18.0	17.2	95	Mica schist with some quartzite.
144.2	156.2	12.0	11.6	95	Biotite granite.
156.2	202.9	46.7	44.9	96	Biotite schist with some quartzite.
0	202.9	202.9	194.5	96	

Deposit: Black Mountain
Hole No.: 5
Elevation at collar: 1,833 ft.
Dip: -45
Date begun: Oct. 4, 1943

Location: N. 4,990, E. 5,362
Depth: 148.7 ft.
Bearing: S. 77 W.
Core size: AX
Date finished: Oct. 6, 1943

0	8.8	8.8	7.8	89	Biotite schist.
8.8	45.8	37.0	33.7	91	Interbedded schist and quartzite.
45.8	80.8	35.0	31.4	90	Quartzite and schist.
80.0	112.2	31.4	30.7	98	Schist and granite.
112.2	142.2	30.0	29.1	97	Muscovite-biotite schist and granite.
142.2	148.7	6.5	6.4	99	Biotite gneiss.
0	148.7	148.7	139.1	94	

Deposit: Black Mountain
Hole No.: 6
Elevation at collar: 1,824 ft.
Dip: Vertical
Date begun: Oct. 7, 1943

Location: N. 4,918, E. 5,300
Depth: 18.5 ft.
Bearing: Vertical
Core size: AX
Date finished: Oct. 7, 1943

0	5.9	5.9	5.4	92	Pegmatite.
5.9	18.5	12.6	12.3	97	Muscovite and biotite schist and quartzite.
0	18.5	18.5	17.7	96	

TABLE 3. - Condensed logs of diamond-drill holes (Cont'd.)

Deposit: Black Mountain
Hole No.: 7
Elevation at collar: 1,800 ft.
Dip: Vertical
Date begun: Oct. 7, 1943

Location: N. 5,019, E. 5,174
Depth: 16.5 ft.
Bearing: Vertical
Core size: AX
Date finished: Oct. 8, 1943

From-	To-	Distance drilled	Core obtained, feet	Core recovery, percent	Formation
0	5.5	5.5	4.6	84	Pegmatite.
5.5	8.9	3.4	3.0	88	do.
8.9	16.5	7.6	7.4	97	Muscovite schist and biotite gneiss.
0	16.5	16.5	15.0	91	

Deposit: Black Mountain
Hole No.: 8
Elevation at collar: 1,796 ft.
Dip: -39°
Date begun: Oct. 8, 1943

Location: N. 5,143, E., 5,177
Depth: 126.7 ft.
Bearing: S. 77 W.
Core size: AX
Date finished: Oct. 12, 1943

0	4.5	4.5			Overburden.
4.5	25.5	21.0	15.4	73	Quartz-muscovite-biotite schist.
25.5	52.8	27.3	25.7	94	Schist.
52.8	58.6	5.8	5.4	93	do.
58.6	59.0	0.4	0.4	100	Pegmatite.
59.0	60.5	1.5	1.4	93	Muscovite, quartz schist.
60.5	62.6	2.1	1.8	86	Pegmatite schist.
62.6	70.6	8.0	7.4	93	Pegmatite.
70.6	126.7	56.1	55.6	99	Schist and quartzite with pegmatite at 108.4 to 110.6 ft.
4.5	126.7	122.2	113.1	93	

Deposit: Black Mountain
Hole No.: 9
Elevation at collar: 1,812 ft.
Dip: Vertical
Date begun: Oct. 12, 1943

Location: N. 5,011, E. 5,248
Depth: 47.5
Bearing: Vertical
Core size: AX
Date finished: Oct. 13, 1943

0	2.3	2.3	2.3	100	Pegmatite.
2.3	6.1	3.8	3.7	98	do.
6.1	47.5	41.4	41.2	99	Quartzite. Muscovite-quartz schist.
0	47.5	47.5	47.2	99	

TABLE 3. - Condensed logs of diamond-drill holes (Cont'd.)

Deposit: Black Mountain
Hole No.: 10
Elevation at collar: 1,697 ft.
Dip: -45°
Date begun: Oct. 14, 1943

Location: N. 5,131, E. 4,949
Depth: 174.3 ft.
Bearing: S. 55° W.
Core size: AX
Date finished: Oct. 20, 1943

From-	To-	Distance drilled	Core obtained, feet	Core recovery, percent	Formation
0	6.6	6.6	6.5	98	Quartzite and granite.
6.6	41.3	34.7	31.1	90	Biotite granite; quartz schist; quartzite.
41.3	66.4	25.1	23.0	92	Pegmatite.
66.4	104.4	38.0	36.2	95	Quartz schist and quartzite.
104.4	174.3	69.9	65.7	94	Interbedded quartz schist and quartzite.
0	174.3	174.3	162.5	93	

Deposit: Black Mountain
Hole No.: 11
Elevation at collar: 1,702 ft.
Dip: Vertical
Date begun: Oct. 20, 1943

Location: N. 5,078, E. 4,950
Depth: 62 ft.
Bearing: Vertical
Core size: AX
Date finished: Oct. 21, 1943

0	3.9	3.9	0.0		Overburden.
3.9	17.9	14.0	13.2	94	Biotite-quartz-schist; quartzite.
17.9	26.9	9.0	8.3	91	Pegmatite.
26.9	62.0	35.1	33.2	94	Biotite schist and quartzite with pegmatite from 29.9 to 33.0 ft.
3.9	62.0	58.1	54.7	93	

METALLURGICAL TESTING

The bulk sample sent to the Eastern Experiment Station did not yield high-grade beryl concentrates by straight flotation, owing to the presence of considerable spodumene.6/ No method of flotation was found that was successful in separating the beryl and spodumene; but by employing heavy-medium separation to remove spodumene, 75.4 percent of the beryllia (BeO) was recovered in a flotation concentrate assaying 10.4 percent beryllia.

6/ Lamb, Frank D., Beneficiation of New England Beryllium Ores: Bureau of Mines Rept. of Investigations 4040, 1947, 9 pp.

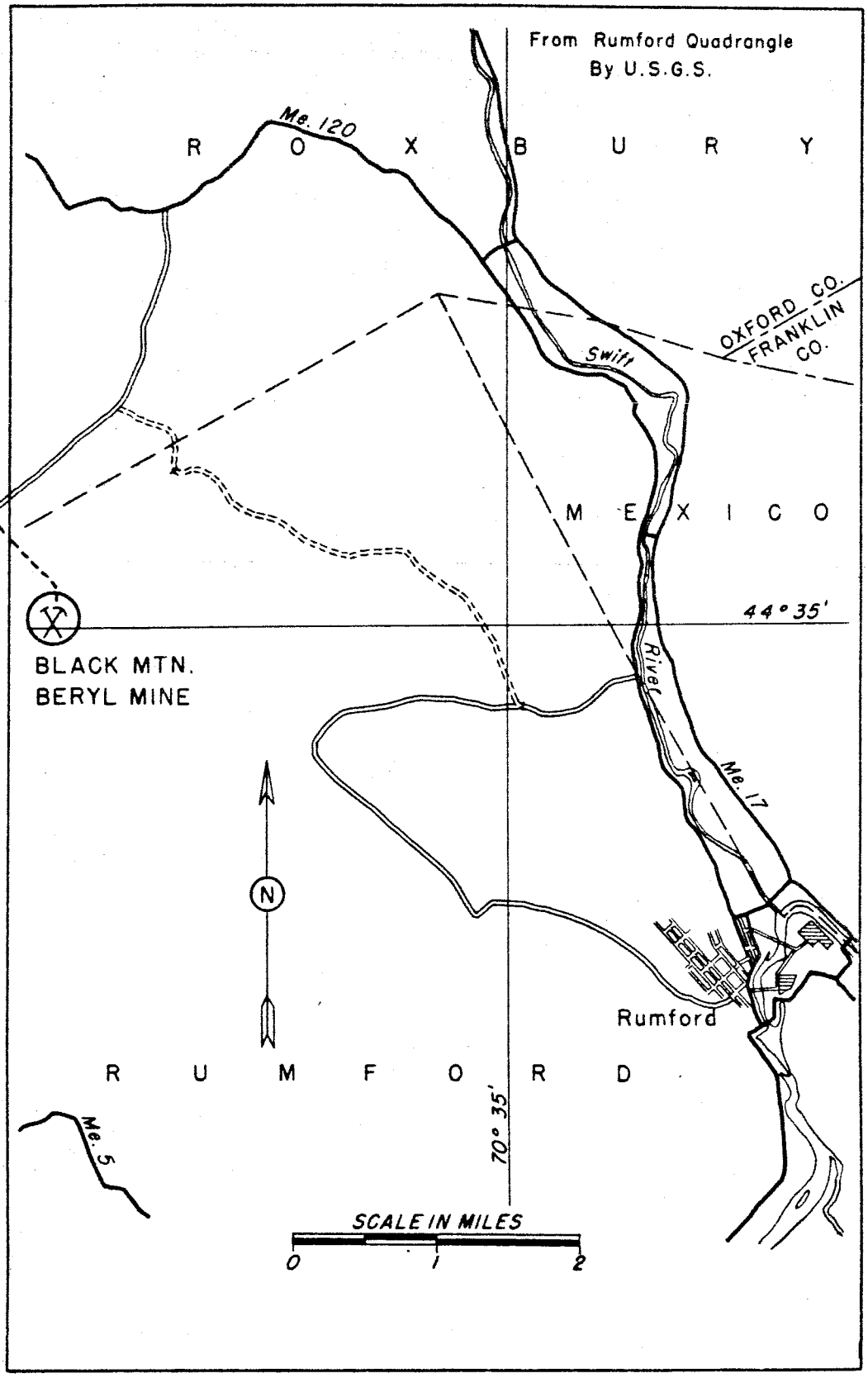

Figure 1. - Key map, Black Mountain beryl deposit, Oxford County, Maine.

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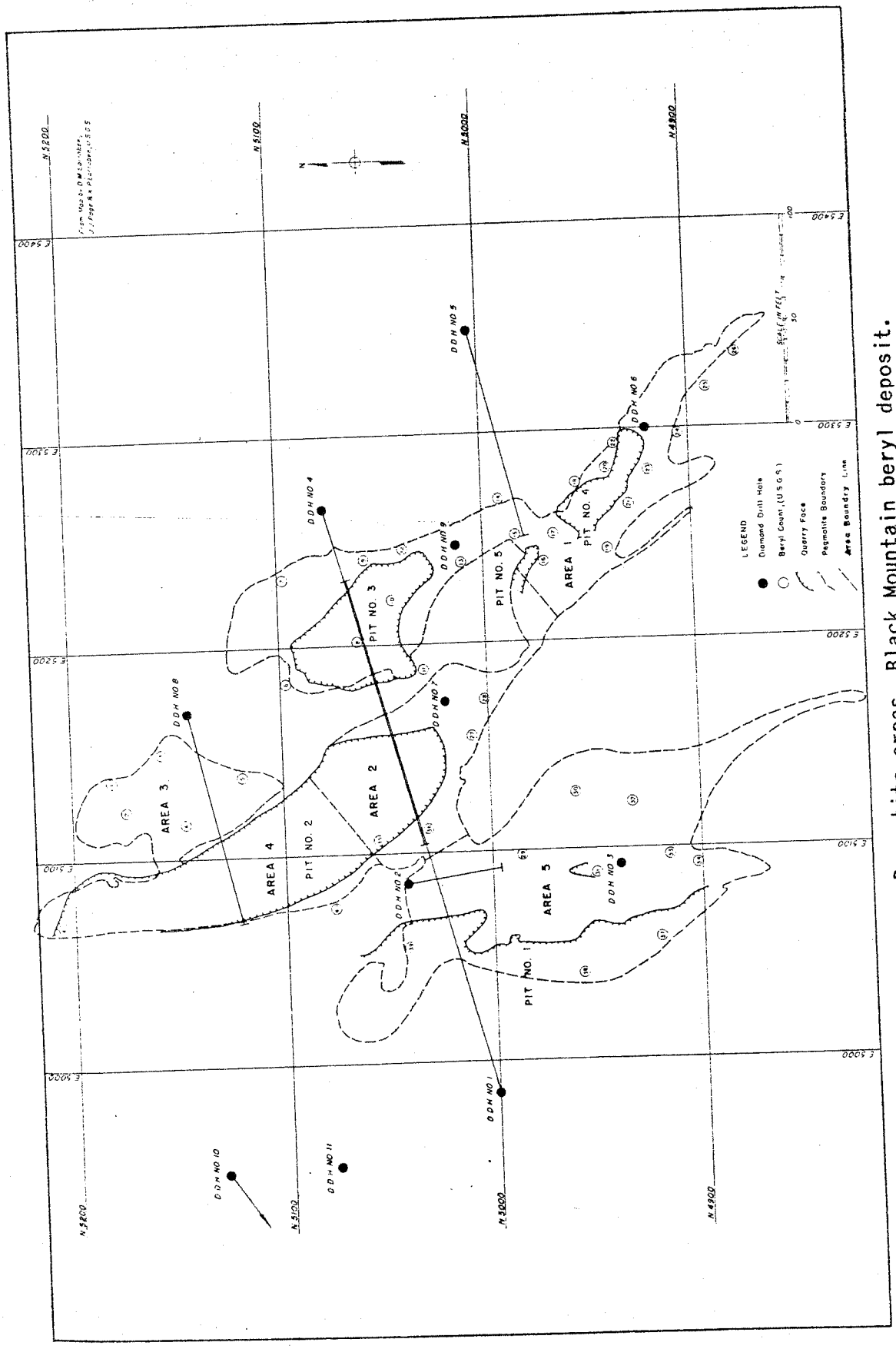

Figure 2. - Pegmatite areas, Black Mountain beryl deposit.

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Sections

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Figure 3. - Section through diamond-drill holes 1, 2, and 4, Black Mountain beryl deposit.

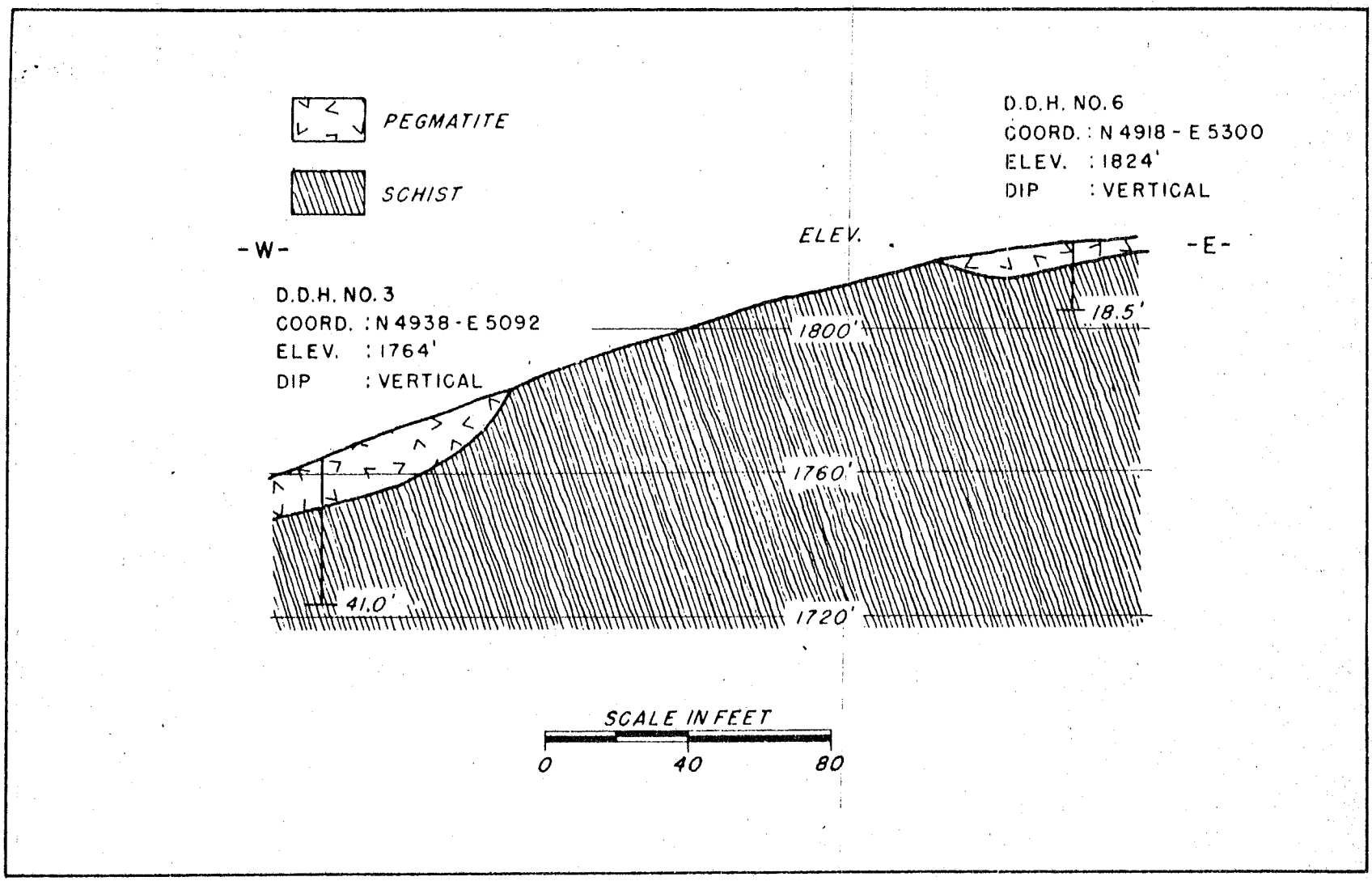

Figure 4. - Section through diamond-drill holes 3 and 6, Black Mountain beryl deposit.

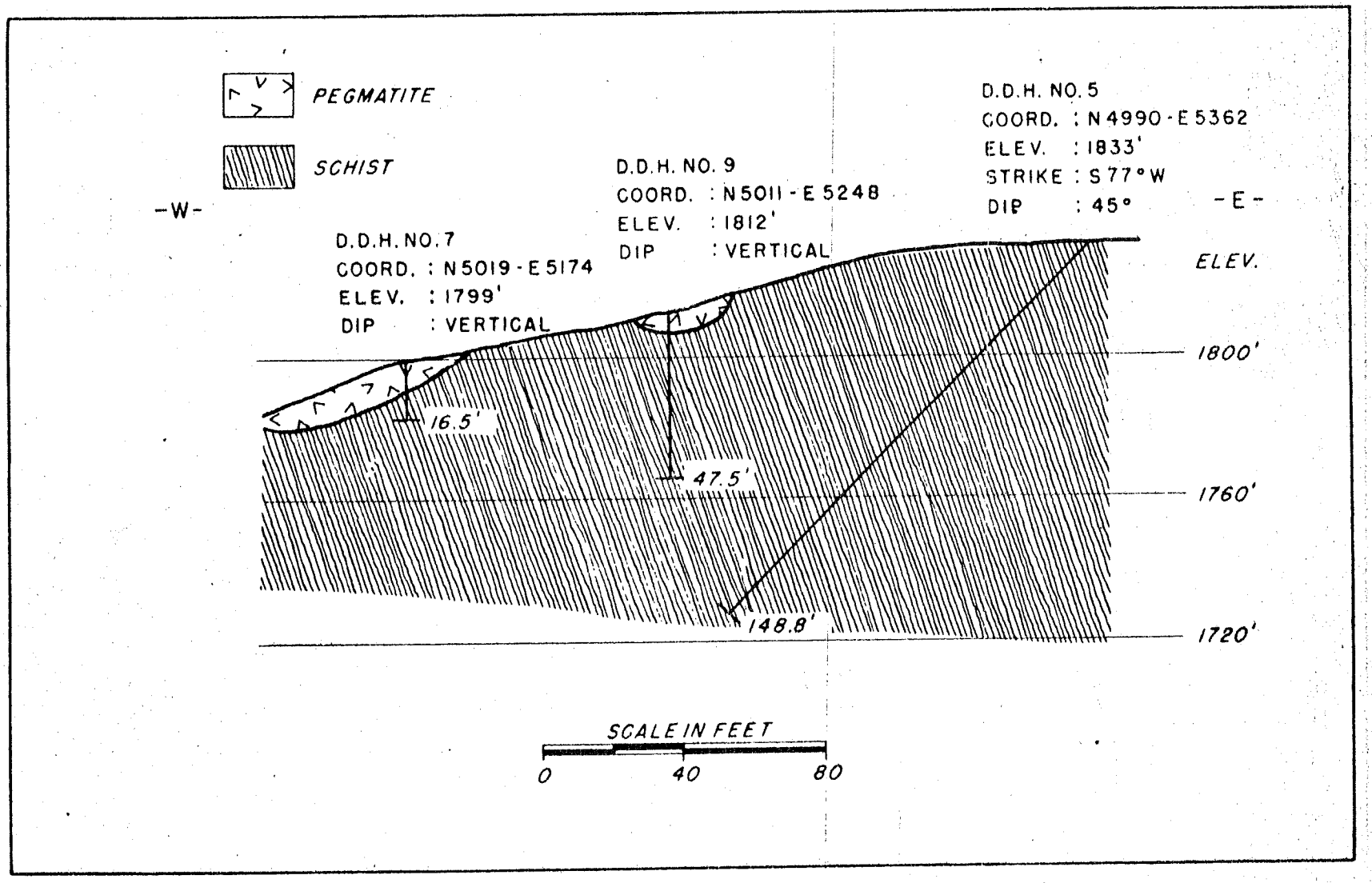

Figure 5. - Section through diamond-drill holes 7, 9, and 5, Black Mountain beryl deposit.

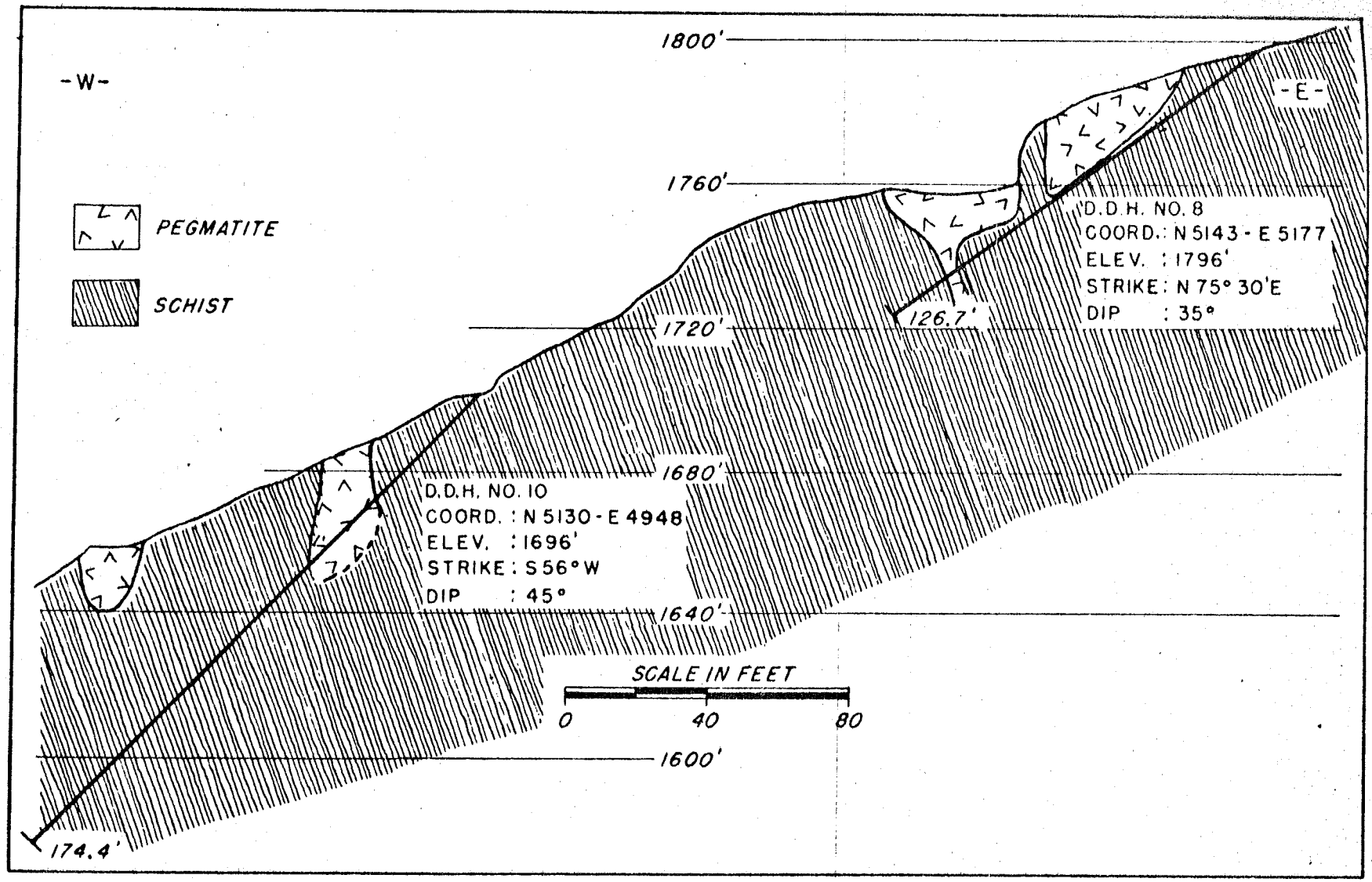

Figure 6. - Section through diamond-drill holes 8 and 10, Black Mountain beryl deposit.

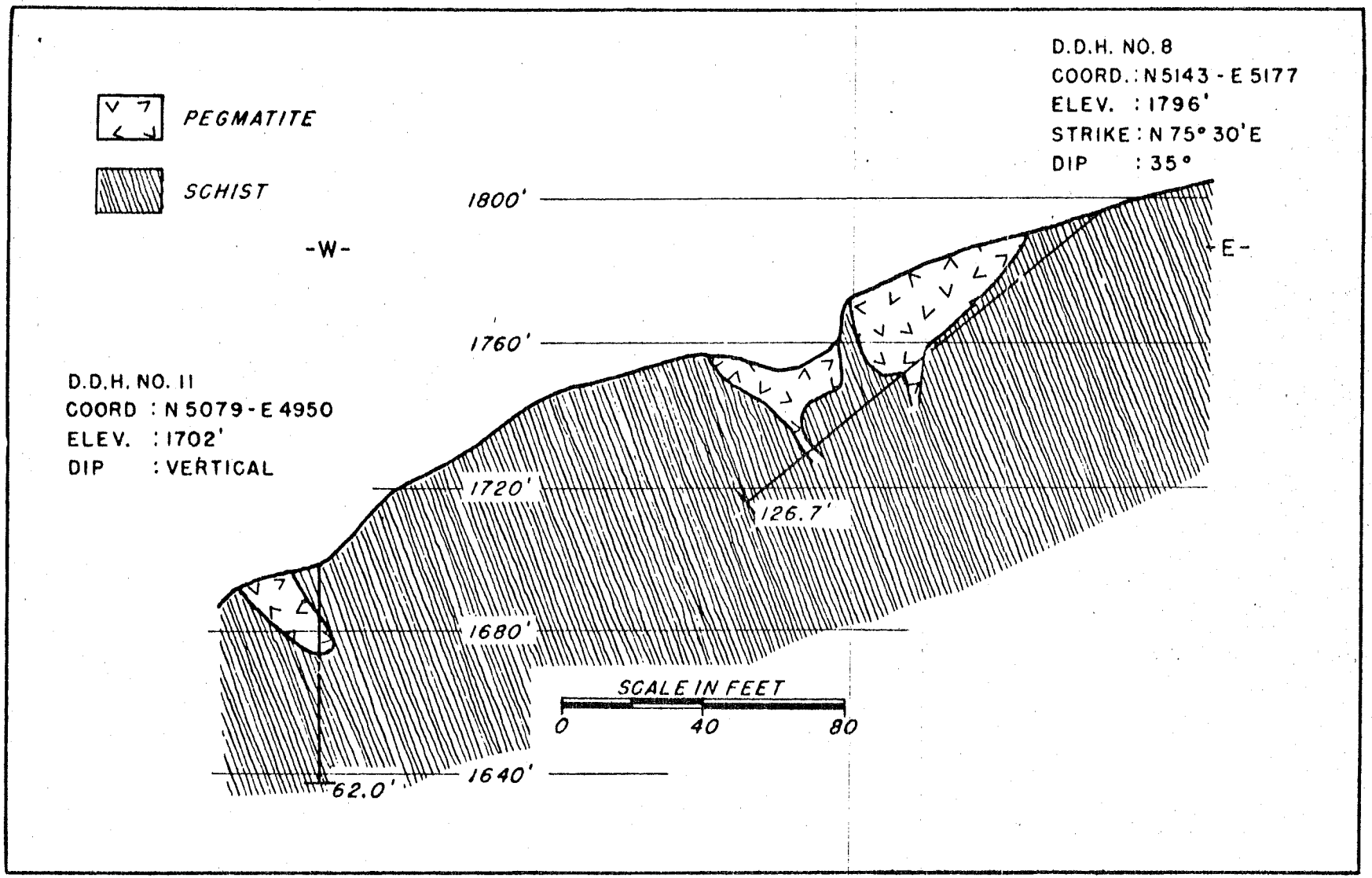

Figure 7. - Section through diamond-drill holes 8 and 11, Black Mountain beryl deposit.