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Battle Creek - Rusy Vaccey Dist.

The Battle Creek tungston mine, owned by N. M. Bowring, is on the east side of the Ruby Renge south of Battle Creek, in sec. 1, T. 50 N., R. 68 E. Schoolite, accompanied by a little quarts and pyrite, is found in 8 small lenses of chlorite schist surrounded by granite and pagmatite. One of the lenses is vertical and strikes E. 70° E.; it is 100 feet long, and has a maximum width of 10 feet,

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an average width of 3 feet. The other lens, in 1942 exposed in a cut 10 feet long, dips 300 H. and consists of 2 layers of chlorite schist I foot and 4 feet wide separated by a 5-foot band of pegmatite. An output of about 900 units of WOg was made during 1945-45 from ore that averaged 1.5 percent of WOS.

Foun Creek - Ruby VALLEY DIST.

The Fawn Creek prospect on the east side of the Ruby Range is south of Esyers Creek, the first creek south of Battle Creek, and is on a continuation of the road past the Battle Creek tungsten mime. When the property was exemined in 1944, no work was in progress, and the a dit, reported to be 40 feet long, was caved. Material on the dump was chlorite schist with fine-grained schoolite, and was estimated to contain 0.5 percent of WOg. The ore is similar to that at the Battle Creek mine, which is only 1,200 to 1,500 feet distant.

## Reno, Nevada September 24, 1942

Memorandum on Bowring Scheelits Property, Battle Greek,
Elko County, Nevada

#### Abstract

The Borring Scheelite Property is on the ridge south of Battle Creek on the eastern slope of the Ruby Range, 8 miles by dirt road northwest of Ruby P. O., Elko County, Nevada. Two small lenses of chlorite schist mineralized with scheelite are surrounded by granite. Each lens may contain about 1000 tons of 1.5% 805 ore, a total of 5000 units. It is not likely that larger ore bodies will be discovered.

#### Introduction

On August 51 I visited the Battle Creek Scheelite Property of N. M. Bowring, Bly, Nevada. The claims are at elevations between 7200' and 7500' along the east front of the Buby Renge, Elko County, Nevada, barely within the South border of the Halleck Topographic Sheet. They cover part of the north side of the divide between Battle Creek and an unmamed creek to the south. The property is reached by a three mile dirt road along Battle Creek. This road turns west from the Ruby Valley road about 5 miles of Ruby P. O.

At the time of my visit there was no one working on the property. I had previously seen Mr. Bowring in Ely and learned a little of the history and plans for future development. The claims were located in August, 1941 by Bowring and O. D. Welch. They were subsequently leased to John A. McDon-ald. During this time considerable trenching was done to expose bedrock

which is covered by 1'-10' of overburden over much of the property. This lease has now expired and Mr. Sowring plane to put a small crusher and table on the property and mill a few tens of ore daily. About 60 tens of 1-2% ore is now stockpiled on the property. Sufficient water is available in Sattle Creek, only 2000' from the workings. The working season is probably limited to eight menths by weather conditions.

#### Geology

The claims are underlain by quartite and quartz-sericite schiat that has been intruded by muscevite and biotite granite, in part foliated, and pegmatite. This is probably the area west of the Smith Ranch mapped as Eureka (?) by Hill (1). Bedrock is very poorly exposed but the relation between quartite and granite in some of the trenches indicates that litepar-lit injection was common. Two small lenses of chlorite schiat that contain scheelite and a denser, more siliceous, barren lens are partially exposed. These lenses, surrounded by granite and pegmatite on the surface, are probably menoliths that pinch out at relatively shallow depths.

# Ore Deposits and Reserves

Two lenses of schoolite ore have been found. The schoolite is almost entirely confined to a soft, medium grained, green chlorite schiet that also contains a little quartz and pyrite. A few schoolite crystals or pockets of crystals occur here and there in the granite adjacent to the contact.

(1). Hill, J. M., U. S. G. S. Bull. 648, pl. 111, opp. p. 54, 1916. The names of some of the Creeks and Properties have been changed since Hill's report was prepared. For example, Hankins Rench is now Ruby Valley P. C., Ruby Valley is now Ruby P. C. and the Short Property on Hill's map is probably the Battle Creek Mine on the Halleck Topographic Sheet.

At the surface the pyrite has been exidized and much of the schist has been stained brown. A denser, more quartzess lens has also been exposed by trenching but it contains no scheelite.

Closed geologic eketch map) is a vertical lens of chlorite schist enclosed by granite and pagmatite. It strikes about N7OE, gradually pinching out to the east and terminating as feather edges in granite to the west. These suggest lit-par-lit injection parallel to the foliation. Schoolite crystals that average about one eighth of an inch on a side are disseminated in the schist. The lens is about 100' long and has a maximum width of 10' and averages about 5'. It is developed by a surface cut to a depth of 15' in the central part. About 40 tons of 1-1.5% ore have been mined and stockpiled. At the bottom of the deepest part of the cut the lens is narrower than at the surface but this may be only a local pinch. This lens contains about 25 tons of 1-1.5% ore per foot of depth. It is not likely to continue to a depth much greater than 50' (1250 tons).

East Ore Rody. The east ore body is exposed in a cut 1200' east of the main ore body. It consists of two parallel lenses of mineralized chlorite schiet overlain by granite and separated by a 5' band of pegmatite. The lenses dip about 50%. The upper lens is exposed for a length of 10' and averages 1' thick. It continues below the floor of the cut but pinshes out in the granite upward so that it is not exposed at the surface. The lower lens has been opened to a depth of 4' and has not yet bottomed. Exposed faces in the cut and 20 tons of stockpiled ore are estimated to average 1.5-2.0% 805. The lens has not been opened up enough to permit any reliable estimate of temmage to be made, but a size comparable to the main one body is probable.

# SUMPRATY OF ROSOTVOS

1000-2000 tone of ore averaging about 1.5% WO5 have been partially blocked out. This ore can easily be mined from two surface cuts or shallow chafts. Other small ore bodies may be found by extensive trenching. The likelihood that a large ore body may be discovered is remote.

Respectfully submitted,

Nolan (5) Lommon Lasky Allen

Alle: File M. R. Klapper

· Priso

October 1987

= Trench or pit

Open cut

=== Road

Loading platform

GEOLOGIC SKETCH MAP

BOWRING SCHEELITE PROPERTY

BATTLE CREEK HALLECK QUADRANGLE

ELKO COUNTY NEVADA

SEPT 1942

U. S. GEOLOGICAL SURVEY

#### EXPLANATION

Q - Quartzite

G + P

Float

M. R. KLEPPER

QS - Sericitic quartzite + Quartz - sericite schist

C - Chlorite schist. Mostly scheelite ore

L - Calc - silicate contact rock

G - Muscovite granite, in part foliated

P - Pegmatite

D PAG

P+G

0

O

# UNITED STATES DEPARTMENT OF THE INTERIOR

# GEOLOGICAL SURVEY

Reno, Nevada September 24, 1942

Memorandum on Bowring Scheelite Property, Battle Creek,

M. R. Klepper Assistant Geologist

# Abstract

The Bowring Scheelite Property is on the ridge south of Battle Creek on the eastern slope of the Ruby Range, 8 miles by dirt road northwest of Ruby P. O., Elko County, Nevada. Two small lenses of chlorite schist mineralized with scheelite are surrounded by granite. Each lens may contain about 1000 tons of 1.5% WO3 ore, a total of 1000 units. It is not likely that larger ore bodies will be discovered.

On August 31 I visited the Battle Creek Scheelite Property of N. M. Bowring, Ely, Nevada. The claims of at elevations between 7200' and 7500' along the east front of the Rusp Range, Elko County, Nevada, barely within the South border of the Halleck Topographic Sheet. They cover part of the north side of the divide between Battle Creek and an unnamed creek to the south. The property is reached by a three mile dirt road along Battle Creek. This road turns west from the Ruby Valley road about 5 miles of Ruby P. O.

At the time of my visit there was no one working on the property. I had previously seen Mr. Bowring in Ely and learned a little of the history and plans for future development. The claims were located in August, 1941 by Bowring and O. D. Welch. They were subsequently leased to John A. McDon-ald. During this time considerable trenching was done to expose bedrock

which is covered by 1'-10' of overburden over much of the property. This lease has now expired and Mr. Bowring plans to put a small crusher and table on the property and mill a few tons of ore daily. About 60 tons of 1-2% ore is now stockpiled on the property. Sufficient water is available in Battle Creek, only 2000' from the workings. The working season is probably limited to eight months by weather conditions.

# Geology

The claims are underlain by quartzite and quartz-sericite schist that has been intruded by muscovite and biotite granite, in part foliated, and pegmatite. This is probably the area west of the Smith Ranch mapped as Eureka (?) by Hill (1). Bedrock is very poorly exposed but the relation between quartzite and granite in some of the trenches indicated that litpar-lit injection was common. Two shall length of the trenches are partially exposed. These lenses, surrounded by granite and pegmatite on the surface, are probably xenolitie that pinch our at relatively shallow depths.

# Ore Deposits and Reserves

Two lenses of scheelite ore have been found. The scheelite is almost entirely confined to a soft, medium grained, green chlorite schist that also contains a little quartz and pyrite. A few scheelite crystals or pockets of crystals occur here and there in the granite adjacent to the contact.

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At the surface the pyrite has been oxidized and much of the schist has been stained brown. A denser, more quartzose lens has also been exposed by trenching but it contains no scheelite.

Main Ore Body. The main ore body (near the west edge of the enclosed geologic sketch map) is a vertical lens of chlorite schist enclosed by granite and pegmatite. It strikes about N70E, gradually pinching out to the east and terminating as feather edges in granite to the west. These suggest lit-par-lit injection parallel to the foliation. Scheelite crystals that average about one eighth of an inch on a side are disseminated in the schist. The lens is about 100' long and has a maximum width of 10' and averages about 3'. It is developed by a surfage cut to a depth of 15' in the central part. About 40 tons of 1-1.5% organize cut to a depth of 15' in the central tom of the deepest part of the cut he lens is narrower than at the surface but this may be only a local pinch. The lens contains about 25 tons of 1-1.5% ore per foot of Mepth. It is not likely to continue to a depth much greater than 50' (1250 tons).

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# Summary of Reserves

1000-2000 tons of ore averaging about 1.5% WO3 have been partially blocked out. This ore can easily be mined from two surface cuts or shallow shafts. Other small ore bodies may be found by extensive trenching . The likelihood that a large ore body may be discovered is remote.

Respectfully submitted,

M. R. Klepper

Nolan (3) Lemmon Lasky Allen File

ONFROR GOVERNMENT

ON FOR OVERNMENT

ON S. GOVERNMENT

 $\mathsf{G}$ G + F Float TCH MAF

LITE PROPERTY

HALLECK QUADRANGLE

NEVADA

SURVEY

SEPT. 1942

ALTHORY GEOLOGIC SKETCH MAP BOWRING SCHEELITE PROPERTY BATTLE CREEK ELKO COUNTY M. R. KLEPPER 4. S. GEOLOGICAL SURVEY 1" : 200 EXPLANATION 0 Q - Guartzite QS - Sericitic quartzite + Open Cut Quartz - sericite schist Looding platform C - Chlorite schist. Mostly Scheelite ore L - Calc - Silicate Contact rock G - Mascovile granite, in port foliated

S

P · Pagmatite

### Reno, Nevada September 24, 1942

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Elko County, Nevada

M. R. Klepper

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Holam (5) Lemmon Lasky Allen File

GIP 5.1 6 P+G G G + P Float DPOG G + P 00 GEOLOGIC SKETCH MAP G BOWRING SCHEELITE PROPERTY · GOVERNMENT BATTLE CREEK HALLECK QUADRANGLE ELKO COUNTY NEVADA M.R. KLEPPER SEPT. 1942 U. S. GEOLOGICAL SURVEY 1" : 200' EXPLANATION 0 Q - Quartzite - Trench or pit QS - Sericitic quartzite + Open cut Quartz - sericite schist Loading platform C - Chlorite schist. Mostly scheelite ore === Road L - Calc - silicate contact rock 6 - Muscovite growite, in part foliated

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