History of the Wildhorse Mine, Custer County, Idaho

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CONTENTS

Introductory Note .................................................................................................................. v

History of the Wildhorse Mine ......................................................................................... 1

References ......................................................................................................................... 15

ILLUSTRATIONS

Figure 1. Location map of the Wildhorse Mine and vicinity, Custer County, Idaho
(U.S. Forest Service Challis National Forest map, scale 3/8 inch = 1 mile). ........... 2

Figure 2. Topographic map of the Wildhorse Mine area (U.S. Geological Survey
Standhope Peak 7.5-minute topographic map). ....................................................... 3

Figure 3. Location map of the Wildhorse tungsten deposits (Cook, 1956,
Figure 3). ..................................................................................................................... 6

Figure 4. Geologic map of the Steep Climb deposit, Wildhorse Mine (Cook, 1956,
Figure 4). .................................................................................................................... 7

Figure 5. Geologic section A-A' of the Steep Climb deposit, Wildhorse Mine
(Cook, 1956, Figure 5). ............................................................................................... 8

Figure 6. Geologic section B-B' of the Steep Climb deposit, Wildhorse Mine
(Cook, 1956, Figure 6). ............................................................................................... 9

Figure 7. Geologic map of the Hard To Find deposits, Wildhorse Mine (Cook,
1956, Figure 7). ........................................................................................................... 10

Figure 8. Geologic map of the Beaver deposit, Wildhorse Mine (Cook, 1956,
Figure 8). ................................................................................................................... 11

Figure 9. Open adit at the upper (Steep Climb) workings of the Wildhorse Mine,
Figure 10. Open adit at the lower workings of the Wildhorse Mine, 1994 (Falma J. Moye, Idaho Geological Survey photograph) ................................................................. 13

Figure 11. Mill building at the Wildhorse Mine (Falma J. Moye, Idaho Geological Survey photograph). .................................................................................................. 14

TABLES

Table 1. Companies operating at the Wildhorse Mine. ....................................................... 4

Table 2. Development work, employment, and operating companies at the Wildhorse Mine, by year. ........................................................................................................ 4
INTRODUCTORY NOTE

This report was prepared under a cooperative agreement with the U.S. Forest Service, Region IV, as part of a project to identify and describe inactive and abandoned mines in the state of Idaho. Work on this project included preparing detailed histories of mines in Region IV that had significant recorded production. The information in this report is taken from published and unpublished sources in the Idaho Geological Survey's mineral property files. Unless otherwise noted, most mine production data are drawn from the U.S. Geological Survey's (USGS) annual volumes on *Mineral Resources of the United States* (1882-1923) and the equivalent volumes produced by the U.S. Bureau of Mines (USBM) (*Mineral Resources of the United States*, 1924-1931, and *Minerals Yearbook*, 1932 to the present). Information on underground workings and mine equipment is generally from the annual reports of the Idaho Inspector of Mines (IMIR), published from 1899 to 1979. After 1974, the Mine Inspector's office was known as the Mine Safety Bureau, a section of the Idaho Department of Labor and Industrial Services. Detailed accounts of mine operations are mostly drawn from the annual reports prepared by the companies for the State Inspector of Mines; these reports were required by law, and the information contained in them formed the basis of the Mine Inspector's annual reports. Reports of recent developments are taken from the Idaho Geological Survey's (IGS) annual reports on mining and minerals in Idaho (from 1984 to present) or from similar reports produced by the Survey's predecessor, the Idaho Bureau of Mines and Geology (IBMG) from 1975 to 1984. Other published sources are referenced in the text. A complete bibliography is included at the end of the report. Where direct quotations are taken from source materials, the original spelling and grammar are preserved.
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Tungsten in the form of scheelite nodules was discovered in August 1953 along Wildhorse Creek (Figure 1), a northward-flowing tributary of the Big Lost River (Cook, 1956). The deposits that are the source of the nodules are in the Alto mining district at elevations between 7,700 and 8,300 feet (Figure 2). The area is near the southern border of Custer County about 30 miles east of Sun Valley, but winter access is along the Big Lost River to Mackay, 50 miles away. The deposits are in a scheelite-bearing skarn that forms lenses and pods in a well-defined marble bed enclosed in quartzite and gneiss. The mineralization is related to alaskite and aplite dikes.

Cordero Mining Co., a subsidiary of Sun Oil Co., leased the deposits from the locators a month after the discovery (Cook, 1956). (See Table 1 for companies working at the mine.) According to the company, the initial payment was $2,000, with a 10 percent royalty to be applied to a total purchase price of $110,000. Cordero explored the deposits and constructed a camp and milling facilities. (See Table 2 for development work done at the mine.) Open-pit mining began in the middle of 1954, and in September, the 40-ton mill started processing the ore. All the concentrate produced during the year was stockpiled. Cordero continued development and production during 1955. In 1956, the company produced 28 tons of tungsten concentrate averaging 71 percent WO₃. About 34 tons of concentrate was sold to the

1Idaho Geological Survey, Main Office at Moscow, University of Idaho, Moscow.
Figure 1. Location map of the Wildhorse Mine and vicinity, Custer County, Idaho (U.S. Forest Service Challis National Forest map, scale $\frac{3}{4}$ inch = 1 mile).
Figure 2. Topographic map of the Wildhorse Mine area (U.S. Geological Survey Standhope Peak 7.5-minute topographic map).
Table 1. Companies operating at the Wildhorse Mine.

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Officer</th>
<th>Date Incorporated</th>
<th>Charter Forfeited</th>
<th>Year(s) at Mine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cordero Mining Co.</td>
<td>J. Eldon Gilbert, Manager</td>
<td>April 2, 1951</td>
<td>certificate of withdrawal: Dec. 31, 1973</td>
<td>1953-196??</td>
</tr>
<tr>
<td>Bear Creek Mining Co.</td>
<td></td>
<td>Nov. 22, 1945</td>
<td></td>
<td>1980</td>
</tr>
<tr>
<td>Willalijack Mining Co.</td>
<td></td>
<td></td>
<td></td>
<td>1980-??</td>
</tr>
</tbody>
</table>

1Information not available in IGS's files.

Table 2. Development work, employment, and operating companies at the Wildhorse Mine, by year.

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of Men employed</th>
<th>Tunnels (feet)</th>
<th>Crosscutting (feet)</th>
<th>Drifting (feet)</th>
<th>Surface work (feet)</th>
<th>Operator</th>
</tr>
</thead>
<tbody>
<tr>
<td>1954</td>
<td>4</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>1,0001</td>
<td>Cordero Mining Co.</td>
</tr>
<tr>
<td>1955</td>
<td>6</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>2</td>
<td>Cordero Mining Co.</td>
</tr>
<tr>
<td>1956</td>
<td>9</td>
<td>80</td>
<td>---</td>
<td>120</td>
<td>---</td>
<td>Cordero Mining Co.</td>
</tr>
<tr>
<td>1957</td>
<td>5</td>
<td>200</td>
<td>200</td>
<td>300</td>
<td>---</td>
<td>Cordero Mining Co.</td>
</tr>
<tr>
<td>1958</td>
<td>2</td>
<td>---</td>
<td>---</td>
<td>100</td>
<td>---</td>
<td>Cordero Mining Co.</td>
</tr>
</tbody>
</table>

1Trenching.
2Surface pits.

The federal government for stockpiling. Total mine workings were one tunnel (200 feet long), two raises, and three open pits.

On January 17, 1957, Cordero received a Defense Minerals Exploration Administration (DMEA) contract for $28,572. Government participation was 75 percent. The project ran for less than a year and apparently did not discover any significant mineralization. The company's 1957 annual report listed 1,300 feet of workings, including two tunnels, one raise, two crosscuts, and two drifts. The No. 1 tunnel was 80 feet long and the No. 2 tunnel was 200 feet long; the raise was 100
feet long. The large increase in mine workings over the previous year probably reflects work done under the DMEA contract.

Cordero curtailed its development program "shortly after" June 1, 1957, and did very little work after that date. The company's 1958 annual report gave total workings as two tunnels, six crosscuts, two drifts, and four raises. The No. 1 tunnel was 400 feet long and the No. 2 tunnel was 200 feet long. The longest workings were a 600-foot drift and a 300-foot crosscut.

Cordero's property consisted of the Steep Climb, Hard to Find, Beaver, Mustang, and Pine Mouse claim groups (Figure 3). The orebody on the Steep Climb was in two parts (Figures 4, 5, and 6) and was originally mined by open-pit methods (Cook, 1956). Later work included two adits totaling 1,135 feet, and the property also has two open pits (McHugh and others, 1991). The deposits on the Hard to Find occur sporadically along a 600-foot-long band that is as much as 5 feet in width (Figure 7). Scheelite on the property was finer grained and lower grade than in the Steep Climb (Cook, 1956). Workings on the Hard to Find claims consist of two open pits (McHugh and others, 1991). Cook (1956) stated that some ore had been mined from the Beaver claims (Figure 8), but that the deposits were subeconomic. Cordero apparently did not produce any ore from the Pine Mouse claims. According to Cook, the deposits were too inaccessible and too low grade. The Mustang claims are not described in the literature.

In 1980, Bear Creek Mining Co., a Kennecott Corp. subsidiary, in association with the Willalijack Mining Co., evaluated the Wildhorse. McHugh and others (1991) listed Willalijack as the owner of record for the mine.

In 1982, eleven drill holes totalling 4,724 feet were drilled on the Steep Climb claims. Two holes totaling 205 feet were drilled on the Hard to Find claims in 1985. (McHugh and others (1991) does not mention the company that did this work.) The inferred resource on the Steep Climb is 200,000 tons of 0.70 percent WO₃ and on the Hard to Find, 100,000 tons of 0.60 percent WO₃ (McHugh and others, 1991). Inferred resources for the Pine Mouse are at least 1.4 million tons averaging 0.32 percent WO₃ (Tuchek and Ridenour, 1981).

The mine was inspected by an Idaho Geological Survey geologist in 1994 as part of a project to evaluate inactive and abandoned mines in southern Idaho. Figures 9, 10, and 11 show the mine as it appeared at that time.

Between 1954 and 1957, about 12,000 tons of ore was mined from the Steep Climb, Hard to Find, and Beaver claims. This ore yielded 7,461 STU (149,220 pounds) of WO₃.

5
Figure 3. Location map of the Wildhorse tungsten deposits (Cook, 1956, Figure 3).
Figure 4. Geologic map of the Steep Climb deposit, Wildhorse Mine (Figure 4 from Cook, 1956).
Figure 5. Geologic section A-A’ of the Steep Climb deposit, Wildhorse Mine. The line of the section is shown on Figure 4 (Cook, 1956, Figure 5).
Figure 6. Geologic section B-B' of the Steep Climb deposit, Wildhorse Mine. The line of section is shown on Figure 4 (Cook, 1956, Figure 6).
Figure 7. Geologic map of the Hard To Find deposits, Wildhorse Mine (Cook, 1956, Figure 7).
Figure 8. Geologic map of the Beaver deposit, Wildhorse Mine (Cook, 1956, Figure 8).
Figure 9. Open adit at the upper (Steep Climb) workings of the Wildhorse Mine in 1994 (Falma J. Moye, Idaho Geological Survey photograph).
Figure 10. Open adit at the lower workings of the Wildhorse Mine in 1994. This adit is about halfway between the Steep Climb workings and the mill (Falma J. Moye, Idaho Geological Survey photograph).
Figure 11. Mill building at the Wildhorse Mine (Idaho Geological Survey photograph by Falma J. Moye).
References


Idaho Geological Survey's mineral property files (includes copies of company reports to the Idaho Inspector of Mines).


