REPORT
of the
SKYLINE MINING COMPANY PROPERTY
by
W. J. MARTINE, E. M.

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COLORADO SCHOOL OF MINES
GOLDEN, COLORADO

Report furnished by Courtesy of W. J. Martine, E. M.
REPORT OF THE SKYLINE MINING COMPANY PROPERTY

Number of Claims There are fifteen claims in the group, making approximately three hundred acres in a solid body.

Location The property is located on the north westerly flank of Treasure mountain and about three and one-half miles in a southeasterly direction from the town of Marble on the Crystal River, Rock Creek Mining District, Gunnison County, Colorado.

Elevation The apex of the mining property is eleven thousand three hundred feet above sea level, while the base of the property is eight thousand three hundred feet elevation.

Transportation There is a good truck road to the R. R. from the property, down grade most of the way to the station three and one-half miles distant. The workings are reached by trail from the mill site, sufficiently constructed to move small machinery for development of tunnels and shafts.

Timber Timber for ordinary purposes may be had only one thousand feet from the tunnel portals, which is on the mine property.

Fuel Fuel for domestic purposes is secured on the property and is mostly pine timber. Coal is abundant at Marble, $8.00 to $9.00 per ton.

Power Steam and electric power can be secured at Marble. Electric Power can be generated at the property the year round by installing machinery for that purpose.

Water Water at the mill site is sufficient for any purpose within reason and is open the year round. Water at the mine is mostly from melted snow and open water in the summer.

Mining Supplies Machinery and mining supplies are available at Denver. Domestic supplies are plentiful at Marble and cost about twenty per cent more than Denver market prices.

Labor Labor is plentiful at Marble at $4.00 to $5.00 per day, mostly of the foreign population and more or less skilled in rock work.

Climate The climate is healthful and work can be prosecuted the year round when properly prepared for the snow.

Snow The snow fall is about ten to twelve feet deep in the upper reaches of the range, which lies on the ground seven months, while the lower regions are covered only three months of the year.

Rock Breaking Cost The cross section work can be prosecuted at a cost of $4.00 per foot. The vein matter can be worked without powder, making the cost nominal. The cross section work is in lise rock and the vein matter is oxidized lead and silver bearing matter and mostly pick work.

Ore Bodies The ore bodies are all in blanket form, lying between the upper and lower strata of the Cambrian limestone of metamorphic and replacement action and of great extent, varying in grade from high to
medium mill ore, averaging 18% lead and 19 ounces silver. Smelting ore has shown 2,000 ounces silver taken from the workings.

Geology: The geology is vastly interesting. Treasure mountain rears its head through the lower sedimentary rocks, causing them to dip in all four directions from a given center, giving the appearance of a collar to the peak and creating a circle some thirty miles in extent around the base of the peak. The Carboniferous limes extend from the river bed to the apex of the mountain on an angle of forty-five degrees from the horizontal.

The Cambrians, Devonian and Carboniferous are plainly visible and further back the strata are easily discerned. This makes a vast storehouse of mineral wealth to be found in the Carboniferous lime. The lime beds will be the storehouse for the lead deposits and the quartzite will be the source of the gold bearing beds, which produce most of the gold at Alma, Colorado.

The lead deposits of the Skyline Mining Co.'s property are found in the lime which belongs to the Carboniferous series and are exposed at various places along the escarpment at the crest of the mountain and are taken for fissures and separate veins, but to the contrary they are all the same blanket deposit and this development simply shows the vast extent of the ore body now being developed. The ore body can be reached by a tunnel twelve hundred feet long at the river bed, which will give five thousand feet of stoping ore of untold quantities that could be mined at a nominal cost. Ore 800' x 1200' and 6' thick is exposed on 5 sides.

The present workings have proven in a way the vastness of the ore beds, which would encourage the expenditure for equipment to handle a vast tonnage daily.

Development: There are shafts and tunnels to the extent of 470 feet on the ore body, which is prima facie evidence as to the extent of the ore deposit of the Skyline property.

Improvement: The improvement consists of cabins, which are well built and commodious and capable of accommodating thirty men.

Equipment: Equipment consists of engine, hoist and other mining machinery, including tram, track, steel, etc.; also blacksmith shop.

Summary: The work has been prosecuted in a workman-like manner and with as much economy as possible, consistent with the difficulties confronted.

I would suggest further development be centered on a tunnel at the base of the mountain near the tram line of the Yule Marble Co. This tunnel would give five thousand feet of stoping ground and this would reduce the mining most to a minimum.

Flotation concentration is admirably adapted to the treatment of this ore. Where the ore will change from Oxide to the Sulphide is problematical and development alone will determine the issue. The Yule Marble tram at the portal of the proposed tunnel is an asset of great value to the Skyline Mining Company and solves the transportation problem.

I would suggest smelting the ore at the mill and ship the lead-silver bullion or pig only to the refinery, for separation or refining plant at Omaha. This I think will prove to be of vast economy in every way reducing the freight to the minimum. The ore mined and ready for shipment should bring a nice return to the company.
Some 1,500 tons of this medium grade ore has been mined and is now stored at the mine for shipment. On this grade of ore, The American Smelters at Leadville gave the following values:

<table>
<thead>
<tr>
<th></th>
<th>Gold</th>
<th>Silver</th>
<th>Lead</th>
<th>Ins.</th>
<th>Iron</th>
<th>Sulphur</th>
</tr>
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<tbody>
<tr>
<td>No. 1</td>
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<td>18.9</td>
<td>22.7</td>
<td>13.9</td>
<td>6.0</td>
<td>2.0</td>
</tr>
<tr>
<td>No. 2</td>
<td>Trace</td>
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<td>17.9</td>
<td>6.0</td>
<td>36.1</td>
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<tr>
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<td>16.0</td>
<td>16.4</td>
<td>24.8</td>
<td>2.5</td>
</tr>
<tr>
<td>No. 4</td>
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<td>25.2</td>
<td>61.4</td>
<td>1.2</td>
<td>9.2</td>
</tr>
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<td>10.6</td>
<td>31.0</td>
<td>22.5</td>
<td>1.2</td>
</tr>
</tbody>
</table>

Which is equal to a return of from $15.85 to $45.00 per ton at present low metal quotations.

They have shipped some of the high-grade silver-lead ore which gave the following returns:

<table>
<thead>
<tr>
<th></th>
<th>Gold</th>
<th>Silver</th>
<th>Lead</th>
<th>Ins.</th>
<th>Iron</th>
<th>Sulphur</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Shpt.</td>
<td>.05</td>
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<td>66.0</td>
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<td>2.0</td>
<td>2.0</td>
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<td>68.9</td>
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<td>4.2</td>
<td>7.6</td>
</tr>
</tbody>
</table>

Settled for by the smelters at $79.66 and $84.75 per ton.

Respectfully submitted,

W. J. MARTINE,
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