<table>
<thead>
<tr>
<th>Indiana Mine</th>
<th>Muir Mine</th>
<th>Lead-silver</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAME</td>
<td>OLD NAMES</td>
<td>PRINCIPAL ORE</td>
</tr>
<tr>
<td>6 S 36 E 9-16</td>
<td>Union</td>
<td>COUNTY</td>
</tr>
<tr>
<td></td>
<td>Camp Carson</td>
<td>AREA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ELEVATION</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ROAD OR HIGHWAY</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DISTANCE TO</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SHIPPING POINT</td>
</tr>
</tbody>
</table>

PRESENT LEGAL OWNER (S) Union Silver Mining Co.

OPERATOR Union Silver Mining Co.

Address 1929-31 Aurora Ave, Seattle 9, Wash.

Name of claims | Area | Pat. | Unpat. |
----------------|------|------|--------|
Red Eagle       |      |      |        |
Hornet Group    |      |      |        |
Blackbird Group |      |      |        |
Howie           |      |      |        |

Name of claims | Area | Pat. | Unpat. |
----------------|------|------|--------|
Hazel G         |      |      |        |
Hadeen          |      |      |        |
Yellow Jacket   |      |      |        |
Indiana         |      |      |        |

EQUIPMENT ON PROPERTY Undersized and undersized capacity prospecting hoists, compressor, etc, Cabin.

Compressors and pumps - cabinets
Production in the near future is expected by the Union Silver Mining Company which operates the Indiana mine in the Grande Ronde district of Union County near La Grande, Oregon. Drifting and sinking operations were started this spring. Ore will be shipped from Hilgard, 32 miles from the mine, over a good road. Raleigh Chadwell, Box 477, La Grande, is in charge of operations.

(The "Mining Journal" July 30, 1945.)
Early production is expected by the Union Silver Mining Co. at its Indiana mine, in the Grande Ronde district of Union County. The project is backed by interests at Yakima, Wash. A shaft has been sunk 250 ft., which is 75 ft. below old workings. Raleigh Chadwell, of LaGrande, Ore., manager, says the main orebody appears to have been opened at the present low level.

.....from the Engineering and Mining Journal, September 1944.
INDIANA MINE
Camp Carson district
Union County

Union Silver Mining Co. is installing heavier machinery at its Indiana mine, in the Camp Carson district of Union County. The company expects to do additional exploratory work. The ore contains lead, zinc, and silver.

From Engineering and Mining Journal
Vol. 146, No. 9
September 1945
Page 130
Name of Property: Indiana Mine (Silver-Lead)

Old Name: Muir Mine

Owner-Operator: Union Silver Mining Company, 1929 Aurora Ave., Seattle, Washington and Box 447 La Grande, Oregon

Location: T6S, R6E, S9-16 -- Camp Carson District, Union County, Oregon

Area: 18 unpatented lode claims including the Red Elk, the Monitor and the Blackbird groups and the Howie, Hazel G., Nadeen, Yellow Jacket and Indiana Claims. These are recorded in La Grande, Oregon, the Howie, Hazel G., and Nadeen in August 1944 and all others in 1935.

History: The property was first worked by John Mezner, president and general manager of the Indiana Mining Company of Anderson, Indiana, about 1907 and 8. Little is known of the early history of the mine. Reportedly the Indiana Company purchased the property from a Mr. Muir, the discoverer, and if so the discovery antedates 1901, the year of publication of the 22nd Annual Report of the U.S.G.S. as therein Lindgren mentions (677) that zinc blende and galena with good silver values were reported from the Muir property.

The present operators have gleaned the following history from various sources: — 1500 feet of tunnel was driven and 4 lenses of ore were encountered in the first 750'. That these
were stopped to grass roots as is suggested by surface indications today. The last 750' was run mostly along a fault zone and only drag ore was encountered till its very end where good ore in place was reportedly found. Owing to the extreme difficulty experienced in holding the ground thru the faulted zone a footwall crosscut was run to solid rock just ahead of the faulted zone, or at about 750' from the portal. A station was cut at the end of this cross cut and a vertical shaft sunk 108', at which point it is also reported ore in place was encountered.

Messrs Newall and Holke who both worked in the mine at the time the old Indiana closed down, state that the shut down was due primarily to lack of finances and poor labor relations. Men had worked without pay for several months on the strength of past showings and the promise of being paid when they again encountered ore. When in the late fall the ore in the bottom of the underground shaft was encountered and pay was still not forthcoming they quit and the following Spring sold off the equipment to get their pay.

The mine had been completely electrified, with power generated at the mine. A small mill was also part of the equipment and shipments are known to have been made but there are no records of grade or amount. One teamster hired by the company claims that he hauled 36,000 lbs. of concentrate by pack horse 6 miles up the Anthony Lake road and thence to North Powder by wagon.

The property remained idle until 1935 when it was relocated by a Mr. Stacey and associates who organized a company known as the Union Silver Mining Company. This was a Washington corporation. This company endeavored to re-open the mine for sampling purposes by sinking a shaft designed to contact the old drift at about the location of the cross cut already mentioned. This work
Development:

Development was commenced in September 1943, but progress was slow due to a great extent to undersized and underpowered equipment.

Early in 1945 the property and assets were sold to another company also called the Union Silver Mining Company, but an Oregon corporation. The new company is now re-equipping the property for larger, more adequate scale operation.

Recent development includes an inclined shaft which contacts the old drift about 15' from where a footwall crosscut takes off to a vertical underground shaft. The old drift was saved tight, but this crosscut and vertical shaft were found to be open and in good shape. Instead of dewatering the old vertical shaft in order to check the reported occurrence of ore at its very bottom, the company continued sinking their new incline. This incline is now approximately 135' below the old drift and short, and to the east of the vertical shaft as determined by a rough compass survey. (see map). Drifts both to the north and south have been run from this incline at a depth of 80' below the old shaft. This drift to the west is bulkheaded off and used as pumping station and reservoir.

Equipment consists of a gasoline powered Fairbanks Morse hoist, a 350 Cu.ft. Sullivan compressor powered by a 180 hp Buda Diesel, plus the usual assortment of prospecting equipment, including also cabins and trucks, etc.

Transportation

It is 32 miles to the nearest railroad loading Station at Hillgarde via the Mt. Emily Lumber Company logging road and the County road from Starkey to Hillgarde. These are wide, well graded and gravelled roads, excepting for a stretch of 3 miles beginning at the mine itself.

Mining Facilities

Abundant tamarack timber occurs locally and adequate water power and camp sites are available.
Topography

Elevation is 4200'. Topography is mountainous but not excessively rugged in the immediate vicinity of the claim so that the various claims are readily accessible.

Geology

The country rock is a biotite granodiorite, very thoroughly decomposed along the vein for a considerable distance on either side of it, and to the depth of the deepest workings. It is difficult to estimate the width of the vein due to this intense decomposition, but it strikes about 25 degrees east of north and dips 45 degrees to the southeast.

No ore was in sight at the time of this examination, but the writer has seen drag ore in the shaft on occasion of a previous visit in 1944. The management reports that solid, in-place lenses have been found.

The ore when encountered has been a heavy galena ore, with some sphalerite and very rich in silver. Assays furnished by the company of selected ore show as much as 154 oz silver and 15% lead to the ton. A shipment of 28 tons to The Bunker Hill Smelter at Kellogg, Idaho, October 2, 1944 assayed as follows according to the smelter returns:

<table>
<thead>
<tr>
<th>Mineral</th>
<th>Assay</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gold</td>
<td>0.015 oz per ton</td>
</tr>
<tr>
<td>Silver</td>
<td>35.8 oz per ton</td>
</tr>
<tr>
<td>Lead</td>
<td>2.4%</td>
</tr>
<tr>
<td>Zinc</td>
<td>1.5%</td>
</tr>
</tbody>
</table>

This shipment was composed of such odds and ends of ore as has been extracted during the course of development and as mentioned before, this has consisted chiefly of small bunches of drag material. The owners report substantial tonnages of mill ore have been encountered, but no systematic assay mapping has been done.

Economics

The development work completed to date still falls short of its objective, but said objective should be reached soon—namely, confirmation of the presence or absence of the
ore reportedly found in the bottom of the old shaft. Hence, the property must necessarily be classed as a prospect at this time and until more development work demonstrates the existence of adequate ore reserves.

N. S. Wagner
Geologist
BUNKER HILL SMELTER

Bunker Hill and Sullivan Mining & Concentrating Company
Kellogg, Idaho

in account with

UNION SILVER MINING COMPANY

Name of Mine
Indiana

Mine Lot No.
-----

Smelter Lot No.
3

Date of Arrival
10-2-44

Date of Sampling
10-4-44

Date of Settlement
10-16-44

Weight of Shipment
58480 lbs.

Moisture
3040 lbs.

Dry Weight of Ore
55420 lbs.

SETTLEMENT ASSAYS

Gold
.015 oz. 1 ton

Silver
35.2 oz. 1 ton

Copper
.26 %

Lead
2.4 %

Iron
2.3 %

Insol.
83.8 %

Sulphur
2.2 %

Zinc
1.5 %

Antimony
.20 %

Arsenic
.09 %

PAYMENT and TREATMENT

Silver — 35.2% (95) @ .70625 Per Oz. — $23.617 value per ton

TREATMENT — $7.00 per ton plus additional refining charge for silver of .002 — $7.002 per ton total.