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Pioche Dist.

(166)

Item 17

UNITED STATES
DEPARTMENT OF THE INTERIOR
DIVISION OF INVESTIGATIONS

OFFICE OF SPECIAL AGENT IN CHARGE

Salt Lake City, Utah
May 9, 1940

Carson 020638
Comet Coalition Mines Co.
DI 11432

COPY FOR GEOLOGICAL SURVEY

Approved: MAY 10 1940
(SIGNED) N. F. WADDELL
Special Agent in Charge



Mr. Bradley B. Smith,
Director of Investigations,
Department of the Interior,
Washington, D. C.

Dear Sir;

On April 26, 1938, the Comet Coalition Mines Company, whose post office address is 818 Kearns Building, Salt Lake City, Utah, through its attorney-in-fact, H. U. Castle, whose post office address is 203-204 First National Bank Building, Elko, Nevada, filed mineral application Carson 020638 for patent of the Juniper No. 3, Juniper No. 4, Comet Chief, Log Cabin, Log Cabin No. 2, Murphy, Murphy No. 1, Murphy No. 3, Murphy No. 4, Murphy No. 5, Roxana, Stone Cabin, Tom Boy No. 1 and Flapper No. 1 lode mining claims comprising Mineral Survey 4732.

Field examination was made March 15 and 16, 1940, by the undersigned Special Agent, accompanied by E. C. Stephens, whose post office address is 807 Kearns Building, Salt Lake City, Utah, a geologist connected with the Comet Coalition Mines Company.

Location

The 14 claims of this survey as named in paragraph one are located in the SW¼ Sec. 29, SE¼ Sec. 30, E½ Sec. 31, W½ Sec. 32, T. 1 N., R. 66 E., and unsurveyed T. 1 S., R. 66 E., M. D. M., Comet Mining District, Lincoln County, Nevada. On an air line they would be only about 10 miles in a westerly direction from Pioche, Lincoln County, Nevada, but, since they are on the opposite





EHT:MJ
Orig. & 2 cc: Central Office
1 cc: Region III

(west) side of the Highland Mountain range, the distance by road is about 31 miles.

## Topography and Vegetation

The general topography of the area occupied by the claims consists of a wide flat valley on the west, rising gently to the east for several miles and then rising rapidly to the crest of the Highland Mountain Range. The claims named in this survey are located where the rugged mountain topography merges into the gentler slopes of the desert to the west. The elevation at the claims is around 7,000 feet.

The climate is semi-arid, with an average annual rainfall of about 12½ inches.

There is no commercial timber on any of the claims embraced in this survey. The vegetation consists of juniper, pinon, sage-brush, mountain holly, oak brush, yucca, Russian thistle, a few cacti and several species of native grasses. There are no permanent springs, creeks or water holes, and the land could be classed as fair grazing land.

There are no improvements other than those owned by the applicant and used in the course of prospecting and developing the claims.

## Geology

The geology of the district has been worked out by geologists of the U. S. G. S. and is described in detail in Professional Paper 171.

Cambrian rocks make up the whole of the Highland Range and the larger mines of the district are all in the rocks of this age. The total thickness of the Cambrian formation in the district is about 8,650 feet. The claims cover an area where the oldest Cambrian rocks are exposed.

The Prospect Mountain quartzite is the oldest and lowest in stratigraphic column, having a maximum thickness of about 1500 feet. It is a light to dark red vitreous sandstone or quartzite, in places well bedded with shale partings but thick bedded at the top.

The Pioche shale overlies the Prospect Mountain quartzite

and comprises about 1200 feet of shales and thin interbedded limestones. The shales are yellow or brown and commonly micaceous. In places they are referred to as "paper shales" because of the extremely thin bedding. Interbedded in the shale are limestones and sandstones.

Above the Pioche shale is the Lyndon limestone, which reaches a maximum thickness of about 400 feet. The lower half is a fine grained, dark gray, thick bedded limestone, much of which, on weathering, breaks into thin layers and small chunky debris. The upper half is a light gray, more coarsely crystalline rock, usually thick bedded but showing distinct partings.

Above the Lyndon limestone are some 5,500 feet of other Cambrian sediments, but none of these were examined or observed as they did not outcrop on any of the claims.

The main ore horizon is in a limestone member of the Pioche shale about 250 feet above the Prospect Mountain quartzite. Locally, this limestone is called the C. M. bed and in places it reaches a thickness of over 40 feet. The strike of the outcrop of this bed is approximately north and south, and the dip is about $10^{\circ}$ to the east. The ore bodies are replacement deposits in this limestone and where unoxidized they range from pyrite-sphalerite-galena ores to more or less manganiferous ores. The latter contain up to 20% manganese with small amounts of lead and zinc.

From the Jackrabbit mine of this district, the ore mined in 1926 was valuable only for its manganese and was shipped to the Columbia Steel Company at Provo, Utah. It carried between 15 and 20 per cent manganese, 3 ounces of silver per ton and about 1 per cent of lead and zinc.

The sketch accompanying this report shows the location of the C. M. bed on the claims of this survey and those adjoining. On the outcrop the most prominent minerals are iron and manganese oxides derived from the oxidation of a manganiferous siderite.

Where the C. M. bed has been cut at depth and is unoxidized, silver bearing galena, sphalerite and pyrite occur with a manganiferous siderite. The applicant considers this latter mineral of considerable importance as it can be sold as a by-product after the extraction of the silver, lead and zinc.

## Discovery

The claims as named in paragraph one of this report are as shown on Mineral Survey Plat No. 4732. The corners are all 4 x 4 posts set securely in the ground and properly marked. The discovery monument of each claim is also a 4 x 4 post set securely in the ground and properly marked.

According to the applicant, results of milling tests on ore from the C. M. bed show that the silver, lead and zinc are easily removed and that the tailings from this operation will contain about 9% or 10% manganese. The applicant has contacted the U. S. Steel Company and finds there is a market for the tailings. This gives the manganese a real market value.

Exhibit A is a copy of a letter from the applicant explaining this matter in more detail.

Since the applicant is claiming manganese as one of the valuable minerals, the presence of this was taken into consideration when considering discoveries.

A brief description of each claim of this survey is given below. The assays were copied from assay sheets, maps and reports furnished by the applicant.

Juniper No. 3:

The C. M. bed is not exposed on this claim as it is covered with a gravel wash. In an open pit, located N 34° E, 890 feet from corner No. 4, a quartz vein is exposed cutting the shale bed above the C. M. bed. The strike of this vein is N 70° W, and the dip is 50° to the south. The quartz in the vein is stained with iron and manganese and contains vugs filled with iron and manganese minerals. The applicant reports a sample from this vein assayed 0.01 oz. of gold per ton and 0.5 oz. of silver per ton.

Juniper No. 4:

The C. M. bed is not exposed on this claim and probably lies above it to the east. In a cut, located S 27° E, 330 feet from corner No. 4, is a quartz vein parallel to the bedding. The quartz is stained with manganese and iron and adjacent to the vein manganese minerals occur that are similar to those cut by the Jones Shaft in the C. M. on the Hub No. 1 lode mining claim

discussed in application Carson 020637. The applicant reports a sample from the vein assayed 0.21 oz. of gold per ton and 0.2 oz. of silver per ton.

Comet Chief:

The C. M. bed is not developed on this claim. A shaft 27 feet deep, located N 12° E, 360 feet from corner No. 4, has been sunk on a fissure. The fissure contains tungston in the form of wolframite, manganese in the form of manganite and pyrolusite and iron in the form of hematite. The applicant took no sample here, as the mineralization was obvious.

Log Cabin:

The C. M. bed is well exposed and developed on this claim by the Log Cabin Incline, the portal of which is located N 53° 16' E, 706.2 feet from corner No. 4. The incline cuts manganese in the form of pyrolusite, manganite and manganosiderite; lead in the form of galena, zinc in the form of sphalerite, and iron in the form of pyrite and oxides. The latter three minerals probably all carry silver. The applicant reports assays carrying a trace of gold, 5.2 oz. of silver per ton, 2.0% lead, 2.1% zinc and 17.0% manganese.

Log Cabin No. 2:

The C. M. bed is well exposed on this claim and well mineralized with manganese ore. A shaft, located S 61° E, 615 feet from corner No. 2, has been sunk to a depth of 12 feet in the C. M. bed. Manganese minerals similar to those on the Log Cabin claim of this survey are exposed.

Murphy:

The C. M. bed is well exposed on this claim and developed by a pit located N 65° W, 505 feet from corner No. 3, a cut located N 70° W, 510 feet from corner No. 3, and an incline located N 82° W, 490 feet from corner No. 3. In all these three places the C. M. bed is well mineralized with manganese. The applicant reports assays carrying 1.8 oz. of silver per ton, 3.9% lead, 3.3% zinc and 17.7% manganese.

Murphy No. 1:

The C. M. bed undoubtedly crosses this claim as it is exposed on the Murphy claim to the south and Murphy No. 4 claim to the north. However, the Murphy No. 1 claim is entirely covered by a gravel wash from a canyon to the east and no rock in place is exposed.

Murphy No. 3:

The C. M. bed on this claim is not exposed as it is covered by a gravel wash. A cut, located N 74° W, 510 feet from corner No. 3, in the shale, overlying the C. M. bed, exposes parallel vertical fissures filled with quartz. The fissures strike N 72° E and have a vertical dip. The quartz is stained with iron and shows a little coating of manganese.

Murphy No. 4:

The C. M. bed is well exposed on this claim and to some extent developed by the Murphy Incline and tributary workings, located S 69° E, 685 feet from corner No. 2. The applicant reports a sample assaying 0.9 oz. of silver per ton, 1.9% lead, 1.4% zinc and 9.0% manganese.

Murphy No. 5:

The C. M. bed is not exposed on this claim as it is covered by a gravel wash. A cut, located S 55° W, 215 feet from corner No. 2, exposes limestone and shale in place and well mineralized with manganese above the C. M. bed. At the time of this examination the pit was partly caved and there was no evidence of fissuring. The manganese showing was such that the applicant considered a sample unnecessary.

Roxana:

The C. M. bed crosses this claim but as yet has not been exposed. In a cut in limestone and shale below the C. M. bed located N 87° 48' E, 105 feet from corner No. 1, a quartz vein parallel to the bedding is exposed. Wolframite was noted in the vein and the limestone and shale showed manganese. The applicant reports a sample of this vein assayed 0.16 oz. of gold per ton and 0.8 oz. of silver per ton.

Stone Cabin and Tom Boy No. 1:

The C. M. bed is not exposed or developed on either of these claims as they are both considerably above it. Exposed in a cut, the mouth of which bears N 59° E, 215 feet from corner No. 4 of the Stone Cabin claim, is a strongly mineralized fissure, from 2 to 3 feet wide, with an east-west strike and vertical dip. The vein is mineralized with manganese-iron minerals and lead in the form of galena probably carrying silver. The fissuring and mineralization extend from the location given on the Stone Cabin claim into the Tom Boy No. 1 claim, and are exposed there in a drift and incline tributary to the cut. The miners in the vicinity state that silver ore has been shipped from these workings.

Flapper No. 1:

This claim is also above the C. M. bed and to date insufficient work has been done to develop it within the limits of the claim. A cut in shale, located N 0° 30' E, 375 feet from corner No. 4, shows no mineralization. A shaft 43 feet deep, located N 12° W, 362 feet from corner No. 4, is in limestone for about the first 8 feet and in shale for the remaining 35 feet. The shaft is sunk on a vertical fissure with a strike of N 80° E. At the time of this investigation the shaft was inaccessible and the collar had started to cave. The dump showed slight evidence of mineralization with some iron stained quartz and calcite. The applicant reports a sample from here assayed no gold and 0.2 oz. of silver per ton.

Improvements

The improvements are as described in the field notes accompanying Mineral Survey No. 4732. The main improvement is the Log Cabin Incline that is located approximately in the center of this group of claims. From the incline, 4 raises and a drift have been cut for the purpose of developing and exploring the C. M. bed. The applicant has placed a value of $12,075.00 on this work which is a reasonable figure. An undivided 1/23 interest, or $525.00, is credited to each claim of this survey, this amount being slightly in excess of the patent requirement.

The Log Cabin Incline and tributary drift and raises afford a practical and economical method for mining the ore in the C. M. bed on these claims.

## Conclusion

From the field examination, together with the maps, plans and assays submitted by the applicant, the writer is of the opinion that a discovery sufficient to show the mineral character of the ground and to warrant the expenditure of further funds for the development of valuable minerals has been made on all of the claims, except the Murphy No. 1, Murphy No. 3 and Flapper No. 1.

It is reasonable to assume that the C. M. bed crosses the Murphy No. 1 and Murphy No. 3 claims and underlies the Flapper No. 1 and that when developed will produce commercial ore. However, at present, there is no actual discovery of mineral bearing rock in place exposed on these claims.

The examination further revealed that the improvements are as listed, benefit the entire group of claims, and that the expenditure for improvements is in excess of the amount required for patent.

Respectfully submitted,

E. Rowland Tragitt
Special Agent

( c o p y )

INTERNATIONAL SMELTING & REFINING COMPANY

Kearns Building, Salt Lake City, Utah

April 10, 1940

Mr. E. R. Tragitt
355 Post Office Building
Salt Lake City, Utah

COMET COALITION

Dear Sir:

The results of milling tests on the ore from the Comet Coalition Mines Company's property near Pioche, Nevada, show that it contains silver, lead, zinc and about 9 or 10 per cent manganese. Our concentration tests show that the silver, lead and zinc are easily removed from this ore. We have had the matter up with the U. S. Steel Company and find that there is a market for the tailings from the ore which contains 9 or 10 per cent manganese up to the limits of the requirements of the iron blast furnaces located at Ironton, Utah. This manganese has a real market value when lead and zinc sulphides have been removed. Aside from this, of course, the lead, zinc and silver content of the ore has a commercial value. There are undoubtedly other places on the property that have manganese showings which will contain no lead, zinc and silver values. This manganese will undoubtedly have commercial value for the manganese alone.

I trust this will answer your question regarding the ore as disclosed in the Pan American shaft and also in other places on the surface of the claims on which the Comet Coalition Company has made application for patent.

Very truly yours,

(Signed) Tom Lyon

TL:P

EXHIBIT A

UNITED STATES
DEPARTMENT OF THE INTERIOR

DIVISION OF INVESTIGATIONS

OFFICE OF SPECIAL AGENT IN CHARGE

Salt Lake City, Utah
May 10, 1940

COPY FOR GEOLOGICAL SURVEY

Carson 020640
Comet Coalition Mines Co.
DI 11434

Approved: MAY 1 0 1940

(SIGNED) N. F. WADDELL
Special Agent in Charge



Mr. Bradley B. Smith,
Director of Investigations,
Department of the Interior,
Washington, D. C.

Dear Sir:

On April 26, 1938, the Comet Coalition Mines Company, whose post office address is 818 Kearns Building, Salt Lake City, Utah, through its attorney-in-fact, H. U. Castle, whose post office address is 203-204 First National Bank Building, Elko, Nevada, filed mineral application Carson 020640 for patent of the Fox, Southside and Great Western lode mining claims comprising Mineral Survey No. 4738.

Field examination was made March 20, 1940, by the undersigned Special Agent accompanied by E. C. Stephens, whose post office address is 807 Kearns Building, Salt Lake City, Utah, a geologist connected with the Comet Coalition Mines Company.

## Location

The Fox, Southside and Great Western lode mining claims, comprising Mineral Survey No. 4738, are located in unsurveyed T. 1 S., R. 66 E., M. D. M., Comet Mining District, Lincoln County, Nevada. On an air line they would only be about 10 miles in a southwesterly direction from Pioche, Lincoln County, Nevada, but since they are on the opposite (west) side of the Highland Mountain Range, the distance by road is about 29 miles.





ERT:EJ
Orig. & 2 cc: Central Office
1 cc: Region III

## Topography and Vegetation

The general topography of the area occupied by the claims consists of a wide flat valley on the west, rising gently to the east for several miles and then rising rapidly to the crest of the Highland Mountain Range. The claims named in this survey are located where the rugged mountain topography merges into the gentler slopes of the desert to the west. The elevation at the claims is around 6,500 feet.

The climate is semi-arid, with an average annual rainfall of about 12½ inches.

There is no commercial timber on any of the claims embraced in this survey. The vegetation consists of juniper, pinon, sage-brush, mountain holly, oak brush, yucca, Russian thistle, a few cacti and several species of native grasses. There are no permanent springs, creeks or water holes, and the land could be classed as fair grazing land.

There are no improvements other than those owned by the applicant and used in the course of prospecting and developing the claims.

## Geology

The geology of the district has been worked out by geologists of the U. S. G. S. and is described in detail in Professional Paper 171.

Cambrian rocks make up the whole of the Highland Range and the larger mines of the district are all in the rocks of this age. The total thickness of the Cambrian formation in the district is about 8,650 feet. The claims cover an area where the oldest Cambrian rocks are exposed.

The Prospect Mountain quartzite is the oldest and lowest in stratigraphic column, having a maximum thickness of about 1500 feet. It is a light to dark red vitreous sandstone or quartzite, in places well bedded with shale partings but thick bedded at the top.

The Pioche shale overlies the Prospect Mountain quartzite and comprises about 1,200 feet of shales and thin interbedded lime-stones. The shales are yellow or brown and commonly micaceous.

In places they are referred to as "paper shales" because of the extremely thin bedding. Interbedded in the shale are limestones and sandstones.

Above the Pioche shale is the Lyndon limestone, which reaches a maximum thickness of about 400 feet. The lower half is a fine grained, dark gray, thick bedded limestone, much of which, on weathering, breaks into thin layers and small chunky debris. The upper half is a light gray, more coarsely crystalline rock, usually thick bedded but showing distinct partings.

Above the Lyndon limestone are some 5,500 feet of other Cambrian sediments, but none of these were examined or observed as they did not outcrop on any of the claims.

The main ore horizon is in a limestone member of the Pioche shale about 250 feet above the Prospect Mountain quartzite. Locally, this limestone is called the C. M. bed and in places it reaches a thickness of over 40 feet. The strike of the outcrop of this bed is approximately north and south, and the dip is about 10° to the east. The ore bodies are replacement deposits in this limestone and where unoxidized they range from pyrite-sphalerite-galena ores to more or less manganiferous ores. The latter contain up to 20% manganese with small amounts of lead and zinc.

From the Jackrabbit mine of this district, the ore mined in 1926 was valuable only for its manganese and was shipped to the Columbia Steel Company at Provo, Utah. It carried between 15 and 20 per cent manganese, 3 ounces of silver per ton and about 1 per cent of lead and zinc.

The sketch accompanying this report shows the location of the C. M. bed on the claims of this survey and those adjoining. On the outcrop the most prominent minerals are iron and manganese oxides derived from the oxidation of a manganiferous siderite.

Where the C. M. bed has been cut at depth and is unoxidized, silver bearing galena, sphalerite and pyrite occur with a manganiferous siderite. The applicant considers this latter mineral of considerable importance as it can be sold as a by-product after the extraction of the silver, lead and zinc.

Discovery

The Fox, Southside and Great Western lode mining claims

are as shown on Mineral Survey Plat No. 4738. The corners are all 4 x 4 posts set securely in the ground and properly marked. The discovery monument of each claim is also a 4 x 4 post set securely in the ground and properly marked.

According to the applicant, results of milling tests on ore from the C. M. bed show that the silver, lead and zinc are easily removed and that the tailings from this operation will contain about 9 or 10 per cent manganese. The applicant has contacted the U. S. Steel Company and finds there is a market for the tailings. This gives the manganese a real market value.

Exhibit A is a copy of a letter from the applicant explaining this matter in more detail.

Since the applicant is claiming manganese as one of the valuable minerals, the presence of this was taken into consideration when considering discoveries.

A brief description of each claim of this survey is given below.

Fox:

The C. M. bed crosses the eastern part of this claim. In a trench, located S 39½° W 320 feet from corner No. 1, the C. M. bed is well exposed where it carries about 15% manganese. The applicant did not assay a sample from here, as the mineral is plainly evident.

Southside:

The C. M. bed crosses the east half of this claim and is well exposed in a trench located S 58° W 410 feet from corner No. 1. At this place the bed will carry about 10% manganese. The applicant did not assay a sample from here, as the mineral is plainly evident.

Great Western:

The C. M. bed also crosses the east half of this claim but it is not exposed as it is covered by a gravel wash from the mountains to the east. There is no rock in place exposed on this claim except along the east end line between the east end center and corner No. 2. Here a shale bed outcrops along a road and is slightly stained with iron and manganese but no mineralized fissure

or outcrop could be found.

## Improvements

The improvements are as listed in the field notes accompanying Mineral Survey No. 4738. The main improvement is the Deeper Incline and tributary workings on the Romona, Ronnow and Dorothy claims included in Mineral Survey No. 4734 (mineral application Carson 020639). The applicant has placed a value of $44,880.00 on this work, which is a reasonable amount. An undivided 1/60 interest, or $748.00, is credited to each of the claims of this survey. This amount is in excess of the patent requirement.

The Deeper Incline and its tributary workings will afford an economical and efficient means for developing and mining the C. M. bed and its extension on the claims of this survey.

## Conclusion

From the field examination, the writer is of the opinion that a discovery meeting the requirements of the mining regulations and sufficient to show the mineral character of the ground has been made on Fox and Southside claims, and that no discovery has been made on the Great Western claim. It is evident that the C. M. bed crosses this claim and that it is mineralized, but the applicant has failed to expose any mineral bearing rock in place.

The writer is also of the opinion that the improvements are as listed, benefit the entire group of claims and that the expenditure is in excess of the amount required for patent.

Respectfully submitted,

E. Rowland Tragitt
Special Agent

( c o p y )

INTERNATIONAL SMELTING AND REFINING COMPANY

Kearns Building, Salt Lake City, Utah

April 10, 1940

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UNITED STATES
DEPARTMENT OF THE INTERIOR

DIVISION OF INVESTIGATIONS

OFFICE OF SPECIAL AGENT IN CHARGE

Salt Lake City, Utah
May 10, 1940

Carson 020641
Comet Coalition Mines Co.
DI 11455

COPY FOR GEOLOGICAL SURVEY

MAY 10 1940

Approved:

(SIGNED) N. F. WADDELL

Special Agent in Charge



Mr. Bradley B. Smith,
Director of Investigations,
Department of the Interior,
Washington, D. C.

Dear Sir:

On April 26, 1938, the Comet Coalition Mines Company, whose post office address is 818 Kearns Building, Salt Lake City, Utah, through its attorney-in-fact, H. U. Castle, whose post office address is 203-204 First National Bank Building, Elko, Nevada, filed application Carson 020641 for patent of the Bald Eagle, Iron Cap No. 3, Iron Cap, Silver Star, Silver Star No. Three, North Star and Iron Cap Extension lode mining claims comprising Mineral Survey No. 4741.

Field examination was made March 21, 1940, by the undersigned Special Agent accompanied by E. C. Stephens, whose post office address is 807 Kearns Building, Salt Lake City, Utah, a geologist connected with the Comet Coalition Mines Company.

Location

The 7 claims of this survey as named in paragraph one are located in unsurveyed T. 1 S., R. 66 E., M. D. M., Comet Mining District, Lincoln County, Nevada. On an air line they would be about 10 miles in a southwesterly direction from Pioche, Lincoln County, Nevada, but since they are on the opposite (west) side of the Highland Mountain Range, the distance by road is about 29 miles.



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NOT FOR PUBLIC INSPECTION

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1 cc: Region III

## Topography and Vegetation

The general topography of the area occupied by the claims consists of a wide flat valley on the west, rising gently to the east for several miles and then rising rapidly to the crest of the Highland Mountain Range. The claims named in this survey are located where the rugged mountain topography merges into the gentler slopes of the desert to the west. The elevation at the claims is around 6,500 feet.

The climate is semi-arid, with an average annual rainfall of about 12½ inches.

There is no commercial timber on any of the claims embraced in this survey. The vegetation consists of juniper, pinon, sage-brush, mountain holly, oak brush, yucca, Russian thistle, a few cacti and several species of native grasses. There are no permanent springs, creeks or water holes, and the land could be classed as fair grazing land.

There are no improvements other than those owned by the applicant and used in the course of prospecting and developing the claims.

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In places they are referred to as "paper shales" because of the extremely thin bedding. Interbedded in the shale are limestones and sandstones.

Above the Pioche shale is the Lyndon limestone, which reaches a maximum thickness of about 400 feet. The lower half is a fine grained, dark gray, thick bedded limestone, much of which, on weathering, breaks into thin layers and small chunky debris. The upper half is a light gray, more coarsely crystalline rock, usually thick bedded but showing distinct partings.

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Where the C. M. bed has been cut at depth and is unoxidized, silver bearing galena, sphalerite and pyrite occur with a manganiferous siderite. The applicant considers this latter mineral of considerable importance as it can be sold as a by-product after the extraction of the silver, lead and zinc.

## Discovery

The Bald Eagle, Iron Cap No. 3, Iron Cap, Silver Star, Silver Star No. Three, North Star and Iron Cap Extension lode mining claims are as shown on Mineral Survey Plat No. 4741. The corners are all 4 x 4 posts set securely in the ground and properly marked. The discovery monument on each claim is also a 4 x 4 post set securely in the ground and properly marked.

According to the applicant, results of milling tests on ore from the C. M. bed show that the silver, lead and zinc are easily removed and that the tailings from this operation will contain about 9 or 10 per cent manganese. The applicant has contacted the U. S. Steel Company and finds there is a market for the tailings. This gives the manganese a real market value.

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A brief description of each claim of this survey is given below. The assays were copied from assay sheets, maps and reports furnished by the applicant.

Bald Eagle:

The C. M. bed crosses but is not exposed on this claim as it is covered by a gravel wash. In a trench, located S 76° W 220 feet from corner No. 4, the shale above the C. M. bed is exposed and cut by a vertical basic dyke with a N 80° W strike. The shale beds are stained with manganese and iron but the staining could not be classed as a mineralized exposure. The applicant reports a sample from this trench assayed 0.005 oz. of gold per ton, 0.15 oz. of silver per ton and 3.3% iron.

Iron Cap No. 3:

The C. M. bed crosses and outcrops on this claim. It is well exposed in a trench 270 feet long that crosses the bed from the hanging wall to the foot wall, and is well mineralized with manganese. The west end of this trench is located N 54° E 600 feet from corner No. 1.

In a tunnel and tributary cut, located S 63½° W 165 feet from corner No. 3, the dike mentioned on the Bald Eagle claim is again exposed, cutting the portal of the tunnel. The tunnel follows a fissure striking N 87° W and dipping 74° to the north. The fissure contains some manganese and iron minerals, up to about 4% lead in the form of galena, and about the same amount of zinc in the form of sphalerite. The applicant reports a sample from this fissure assayed 0.02 oz. of gold per ton, 7.4 oz. of silver per ton and 4.8% lead.

Iron Cap:

The C. M. bed crosses this claim but is not exposed as it is covered by a gravel wash. From the mineralization of the C. M. bed on the Iron Cap No. 3 and Silver Star claims, adjoining the Iron Cap on the north and south, respectively, it is reasonable to assume that the mineralization continues through this claim.

A cut in the shale above the C. M. bed, located S 76° W 405 feet from corner No. 4, exposes shale in place that is slightly stained with manganese and iron, but this could not be classed as a mineralized exposure.

Silver Star:

The C. M. bed crosses and outcrops on this claim. It is well exposed in a trench 87 feet long and is well mineralized with manganese. The west end of the trench is located S 61° E 285 feet from corner No. 2. Other minerals identified were pyrite (iron sulphide), galena (lead sulphide) and sphalerite (zinc sulphide). The applicant reports assays from two samples taken in this trench, one showing a trace of gold, 0.6 oz. of silver per ton, 1.3% lead, 6.0% zinc and 7.8% manganese; the other showing a trace of gold, 0.8 oz. of silver per ton, 1.0% lead, 4.1% zinc and 8.4% manganese.

Silver Star No. Three and North Star:

The C. M. bed crosses both of these claims, but for the most part is covered by a sand and gravel wash. In a gulch to the west of corner No. 2 of the North Star claim the C. M. bed is exposed on both the Silver Star No. Three and the North Star claims. The outcrop is slightly stained with manganese and iron but there are no mineral bearing fissures, and the limestone is not replaced by manganese ore.

Iron Cap Extension:

This claim is above the C. M. bed. In a cut and tunnel, located S 20° W 360 feet from corner No. 3, a limestone member in the Pioche Shale is exposed. The limestone has been replaced by manganese ore, which the applicant considers of commercial value. An estimate of the manganese content would be from 8 to 10 per cent.

## Improvements

The improvements are as listed in the field notes accompanying Mineral Survey No. 4741. The main improvement is the Deeper Incline and tributary workings on the Romona, Ronnow and Dorothy claims included in Mineral Survey No. 4734 (mineral application Carson 020639). The applicant has placed a value of $44,880.00 on this work, which is a reasonable amount. An undivided 1/60 interest, or $748.00, is credited to each of the claims of this survey. This amount is in excess of the patent requirement.

The Deeper Incline and its tributary workings will afford an economical and efficient means for developing and mining the C. M. bed and its extension on the claims of this survey.

## Conclusion

From the field examination, together with the maps, plans and assays submitted by the applicant, the writer is of the opinion that: (1) a discovery meeting the requirements of the mining regulations and sufficient to show the mineral character of the ground has been made on the Iron Cap No. 3, Silver Star and Iron Cap Extension lode mining claims; (2) that where the C. M. bed crosses the Bald Eagle and Silver Star lode mining claims it is covered by a gravel wash, but, if developed, it would probably be mineralized; (3) that the C. M. bed where exposed on the Silver Star No. Three and North Star lode mining claims is not mineralized; and (4) that the improvements are as listed, benefit the entire group of claims and the expenditure for improvements is in excess of the amount required for patent.

Respectfully submitted,

E. Rowland Tragitt

E. Rowland Tragitt
Special Agent

( c o p y )

INTERNATIONAL SMELTING AND REFINING COMPANY

Kearns Building, Salt Lake City, Utah

April 10, 1940

Mr. E. R. Tragitt
355 Post Office Building
Salt Lake City, Utah

COMET COALITION

Dear sir:

The results of milling tests on the ore from the Comet Coalition Mines Company's property near Pioche, Nevada, show that it contains silver, lead, zinc and about 9 or 10 per cent manganese. Our concentration tests show that the silver, lead and zinc are easily removed from this ore. We have had the matter up with the U. S. Steel Company and find that there is a market for the tailings from the ore which contains 9 or 10 per cent manganese up to the limits of the requirements of the iron blast furnaces located at Ironton, Utah. This manganese has a real market value when lead and zinc sulphides have been removed. Aside from this, of course, the lead, zinc and silver content of the ore has a commercial value. There are undoubtedly other places on the property that have manganese showings which will contain no lead, zinc and silver values. This manganese will undoubtedly have commercial value for the manganese alone.

I trust this will answer your question regarding the ore as disclosed in the Pan American shaft and also in other places on the surface of the claims on which the Comet Coalition Company has made application for patent.

Very truly yours,

(Signed) Tom Lyon

TL:P

EXHIBIT A

N

SEC. 19

SEC. 20

C.M. BED

PUP No. 1

HULLA No. 1

SPOKE No. 1

SPOKE No. 2

HUB

HUB No. 1

JONES SHAFT

SEC. 30

SEC. 29

HUB No. 7

HUB No. 8

PINE No. 6

PINE No. 5

CEDAR No. 7

JUNIPER No. 2

JUNIPER No. 1

JUNIPER No. 4

JUNIPER No. 3

COMET CHIEAF

ROXANA

SEC. 31

SEC. 32

LOG CABIN No. 2

LOG CABIN INCLINE

LOG CABIN

MURPHY No. 5

MURPHY No. 4

MURPHY INCLINE

MURPHY No. 3

MURPHY No. 1

MURPHY

T. 1N., R. 66E., M.D.M.

T. 1S., R. 66E., M.D.M.

UNSURVEYED

FLAPPER

STONE CABIN

TOM BOY

SHEIK No. 3

SHEIK No. 2

SHEIK

SHEIK No. 4

MT. COMET No. 3

MT. COMET No. 4

CENTRAL No. 6

CENTRAL No. 4

CENTRAL No. 7

CENTRAL No. 3

CENTRAL No. 8

MT. COMET No. 7

MT. COMET No. 1

MT. COMET No. 6

MT. COMET No. 5

STELLA No. 2

RAMONA

RONNOW

DOROTHY

DEEPER INCLINE

FOX

SOUTHSIDE

GREAT WESTERN

BALD EAGLE

IRON CAP No. 3

IRON CAP

IRON CAP EXTENSION

SILVER STAR

SILVER STAR No. THREE

NORTH STAR

C.M. BED

MINERAL SURVEY No. 4731

MINERAL SURVEY No. 4732

MINERAL SURVEY No. 4734

MINERAL SURVEY No. 4738

MINERAL SURVEY No. 4741

# COMET DISTRICT

LINCOLN CO. NEVADA.

SCALE 1" = 1500' MARCH 1940.

DRAWN BY E. R. TRAGITT.

1490016

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SEC. 19

SEC. 20

SEC. 30

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SPOKE No. 1

SPOKE No. 2

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MINERAL SURVEY No. 4738

MINERAL SURVEY No. 4741

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SEC. 19

SEC. 20

SEC. 30

SEC. 29

SEC. 31

SEC. 32

T. 1N., R. 66E., M.D.M.

T. 1S., R. 66E., M.D.M.

UNSURVEYED

C/W. BED

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PINE No. 5

JUNIPER No. 2

JUNIPER No. 1

JUNIPER No. 4

JUNIPER No. 3

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LOG CABIN

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