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Zinc Nevada
Boyce Prop.

25

In the words of AAG----

Mr. Evans made an examination on October 10 1941. Only a small amount of additional work had been done on the property since last visited, and Mr. Evans feels that the possibility of the mineralization extending to depth is not good. In view of Mr. Cole's unreasonable terms, no further interest will be taken at this time.

AAG had examined this property, had sampled along the strike, thinking it was crosscutting the ore, and had an average of 11.2%Zn across 14 feet. He had recommended the property.

over

Not only was the mineralization very narrow as brought out by mapping but at least one half of the narrow structure was massive pyrite. It occupied a pend- and of lime lying in Granodiorite and the possibilities of extension were foul.

ReportBOYCE ZINC PROPERTY

(Elko County, Nevada)

INTRODUCTION

The Boyce zinc property was first brought to the attention of the Reno office by Mr. W. B. Cole of Fallon, Nevada, on August 11, 1941. Mr. Gustafson, making an examination on September 20, 1941 found the occurrence of sufficient interest to warrant further investigation. The writer completed a second examination on September 29, 1941.

CONCLUSIONS

Geologic mapping reveals the fact that mineralization occurs in a limestone lense entirely surrounded by syenite. Tonnage possibilities are therefore limited and the property is not recommended to Freeport. Geologic mapping also indicated that the operators had been drifting and not crosscutting the mineralized zone; widths of ore had therefore been exaggerated.

LOCATION

The Boyce prospect lies in the Centennial (or Edgemont) mining district, Elko county, Nevada, in the southwest quarter of the southeast quarter of Section 18, Township 44 North, Range 52 East of the Mt. Diablo base and meridian. The area may be reached from Mountain City via Owyhee, returning south on State Highway 11 to White Rock; or, directly from Mountain City via State Highway 11A to Deep Creek and then north on 11 to White Rock. The owners, George R. Boyce and sons live near Edgemont and can be contacted there. Detailed instructions concerning the approach to the property are therefore omitted.

GENERAL & LIMITING CONDITIONS

An abundant supply of water is available at the property. This, however, is probably completely filed on for the benefit of ranching along the base of the Bull mountains. No timber exists and the nearest power is at Mountain City, a distance of 12 miles. The topography is rough and a maximum back of 300 feet could be obtained from tunnel sites near the canyon floor. Elevation is approximately 7,000 feet.

The property is 120 miles by graded road from Mountain Home, Idaho. All concentrates from this district are shipped by truck to rail at Elko, Nevada. The distance from the Boyce property to Elko is 120 miles, 80 miles of which is paved highway. Trucking costs to Elko have been estimated at \$3.25 per ton, but at \$.05 per ton mile, \$6 per ton seems more within reason.

LEGAL TITLE

Mr. George R. Boyce and three sons hold by location the following five claims: Tunnel, Mystery 1, Mystery 2, Mystery 3 and Mystery 4. The claims have been leased to Walter B. Cole and C. L. Osterlund. Mr. Osterlund lives in Elko. Messrs. Cole and Osterlund were asking \$500,000 for the property, the payments to be made on a 10% royalty basis of the net smelter returns, but with a minimum

payment of \$500 per month.

HISTORY

The Edgemont district has produced about \$1,000,000 in gold from the Montana and Bull Run mines. The Boyce zinc property was explored to some extent many years ago. However, only recently did Mr. Boyce advance a pre-existing tunnel to encounter the massive sulphide which has been the basis of their enthusiasm. The prospect has had no production.

GEOLOGY

Massive pyrite and sphalerite, lying in a sedimentary formation, probably limestone, has been cut by the main tunnel. Syenite and acid intrusive rock surrounds the occurrence on all sides. Fractures with N. 10° W. to N. 15° W. strike, 30 feet apart, limit the massive sulphide on the east and west sides. Trend of the massive mineralization is N. 76° E., between and normal to the strike of the fractures, which possibly served as feeders to the bank of sulphide.

Because of the fact that the greater part of the present development has been drifting on and not crosscutting the mineralization, the entire width of sulphide has not been developed. Indicated to date is a 5-foot band of massive pyrite, bordered by a 3-foot band of massive sphalerite associated with pyrite. From 50 to 65 feet southeast of the tunnel line is a stringer of sphalerite cutting through the margin of sedimentary rock and entering massive syenite. This lies directly on the westerly limiting N. 10° W. fissure, described above. The area represented by the limestone inclusion might approach 50 feet by 50 feet. Another possible inclusion was observed in the syenite about 500 feet northeast of the main workings. No suggestion of mineralization existed at that point, and no connection exists between the two inclusions.

DEVELOPMENT

About 90 feet of drifting in the main tunnel is the principal development work. Adjacent to this tunnel is a 15-foot open cut. A winze at 40° follows down the second described inclusion for about 50 feet.

SAMPLES

In November, 1940, Mr. L. G. Thomas examined the property for Combined Metals Reduction Company. His samples ran from 0.6% to 8.1% zinc, but at that time advance had been insufficient to cut the best sulphide. His report is attached and reference is made to it for further detail.

Samples taken by Mr. Gustafson are as follows:

Sample Number	<u>Main Tun., S. Rib</u>		<u>% Zn</u>	<u>% Cu</u>	<u>% Ni</u>	<u>Oz Au</u>	<u>Oz Ag</u>
	<u>From</u>	<u>To</u>					
1289	E.Limit	7'W.	15.4	Nil	--	0.01	0.40
1290	7' W.	14'W.	7.1	Nil	--	0.007	0.15
1291	14' W.	21'W.	1.8	Nil	Nil	0.015	0.20

An average of the first and second samples, 12% zinc, would probably represent the value of the 3 feet of better zinc mineralization. Mr. Evans cut no additional samples.

RECOMMENDATIONS

The property has no substantial reserves and no further interest is recommended

A. A. Gustafson
D. L. Evans

Reno, Nevada
November 6, 1941

cc-Mr. Gentry
Mr. McIver
Mr. Lundy
Mr. Lee

Attachments.

Combined Metals Reduction Company

Mine Examination - Boyce Property - Elko County, Nevada

November 18, 1940

Mr. Otto Herres, Assistant Manager

Mr. L. G. Thomas

Dear Mr. Herres:

I visited the mining property of Mr. George R. Boyce in Elko County, Nevada, on November 14 and 15, and report as follows:

CONCLUSIONS

The Boyce property is undeveloped and does not have exposed ore of mineable size and grade at the present time. It is a virgin prospect which offers fair possibilities for the development of sizable zinc-lead orebodies in heavy iron pyrite beddings with probable values of gold, silver, lead and zinc on fissures. Hand work should continue on a grub stake basis to expose more of the bedded characteristics. A plant investment is not warranted.

LOCATION

The Boyce property is located about 85 miles north of Elko, Nevada, in the Centennial Mining District of Elko County, Bull Run Mountains, White Rock Canyon, ore more particularly in the Southwest Quarter of Southeast Quarter of Section 18, Township 44 North, Range 52 East, Mt. Diablo Base Meridian, at an elevation of approximately 7,000 feet. It consists of 5 contiguous unpatented lode claims named: Tunnel, Mystery Nos. 1, 2, 3 and 4.

GEOLOGY

Sedimentaries (Ordovician) have been intruded by igneous magmas (Tertiary?) varying from coarse grained plutonic syenite porphyry to siliceous lavas. Mineralization is of a later date occurring along a series of North 45° East fissures which dip approximately 85° to the Southeast and cut both the sedimentary and igneous rocks, forming metasomatic replacements in the adjacent sedimentaries. The lateral extent of the sedimentary structure could not be studied closely as the mountain side was mostly covered by snow and detritus. Those beds immediately under consideration were magnesian limestones intercalated with shales and intrusives of unknown thickness. Average strike of the replaced beds is approximately North 45° East with a dip of 25° to the East.

The area surrounding the Boyce property has been productive of considerable gold ore at the old (abandoned) Edgemont Mine and leasers are reported to be making occasional shipments of high grade gold-silver ore from fissures in the neighborhood. Rio Tinto Copper Co. at Mountain City is the only large producer, about 12 miles northwest and the Rip Van Winkle Mine, a lead-zinc mine, is reported to be successfully operating about 50 miles to the south. The Tuscarora District is 40 miles southwest. I was informed that the district about the Boyce property has not been carefully studied or mapped from a geological viewpoint.

Assays of samples taken on the Boyce property, Elko County, Nevada, by George Boyce and Leonard Thomas, November 14 and 15, 1940 showed:

<u>Samples</u>	<u>Au</u>	<u>Ag</u>	<u>Pb</u>	<u>Zn</u>	<u>Fe</u>	<u>Insol</u>	<u>Cu</u>	<u>Mn</u>
No. 1	Tr	0.4	Tr	8.1	12.3	58.3	Tr	0.2
No. 2	Tr	Tr	Tr	1.5	52.2	3.9	Tr	0.3
No. 3	Tr	0.4	Tr	1.5	40.2	13.0	Tr	0.3
No. 4	Tr	0.4	Tr	0.6	36.0	17.6	Tr	0.3
No. 5	Tr							
Boyce*								
25# Sample	Tr	0.3	Tr	18.9	15.2	33.6	.01	

Sample No. 1 - 3 foot cut across bedding in open surface cut.

Sample No. 2 - 3 foot cut across bedding in tunnel 28 feet from portal. Iron pyrite.

Sample No. 3 - 3 foot cut across bedding in tunnel, 33 feet from portal, just above No. 2. Iron pyrite.

Sample No. 4 - 4 foot cut across bedding in face of Boyce Tunnel on same bed as No. 3

Sample No. 5 - Quartz from 17 inch fissure (N 45° E, dips 85° to SE) on surface 150 feet west of portal. Typical of a series which show occasional gold values.

*Boyce 25# Samples - Was taken in October 1940 and forwarded to Bauer by Mr. George Boyce in the caved portion of the open cut on the Tunnel Claim about 5 feet below sample No. 1.

Mr. Boyce informs me that he cut up the slope of the bedding plane for a distance of 15 feet but did not cut across (normal to) the bedding. It is very likely that he obtained considerably higher zinc values by cutting mostly in a comparatively thin layer of sphalerite. However, this assay is indicative and shows sulphides with very little oxidation just under the detritus on the surface. More exploration should be done to expose the true thickness and character of the replaced beds.

GENERAL NOTES

The trucking cost to Elko is estimated at \$3.25 per ton. The approximate freight cost via U.P.R.R., Elko to Bauer, is \$2.65 per ton for low grade ores.

Water Approximately one second foot of clear drinking water flows down White Rock Canyon about 300 feet below the portal of the Boyce workings. Mr. Boyce has no rights on this, but believes the State Engineer would allow diversion of part for mining purposes from the cattle ranches in the valley below. Water was formerly diverted by flume above the workings for use in generating power for the old Edgemont Mine, 3 miles distant.

Timber Mountain sides covered with sage and light brush with small aspen trees in canyons. Timber can be obtained via truck from southern Idaho at 12 cents per lineal foot for 8" sulls.

Roads All graded dirt and steep narrow mountain roads from junction with main oiled highway 26 miles north of Elko.

Buildings & Equipment None on property. Single-jacks only. Mr. Boyce and father live in small cabins about 2 miles away.

Topography Mountainous. Boyce workings on hillside 300 feet above bottom of White Rock Canyon.

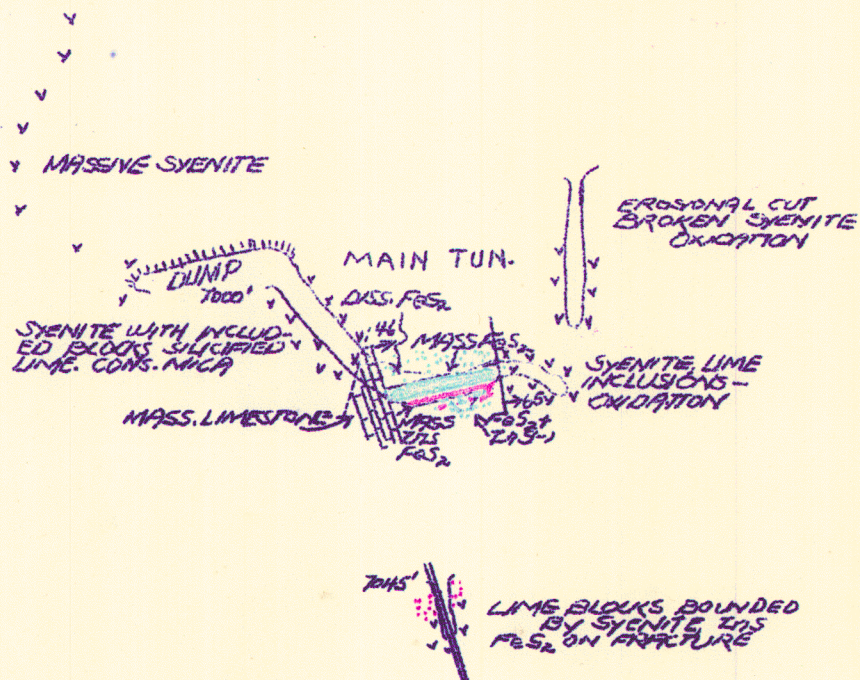
Power Nearest electric power at Mountain City, 12 miles distant. Has been developed locally in the past.

Very truly yours,

LGT-RC

(s) L. G. Thomas

FSCO-reno
10-2-41



BOYCE CLAIMS

Centennial Mining District
Elko County ---- Nevada

1" = 50'

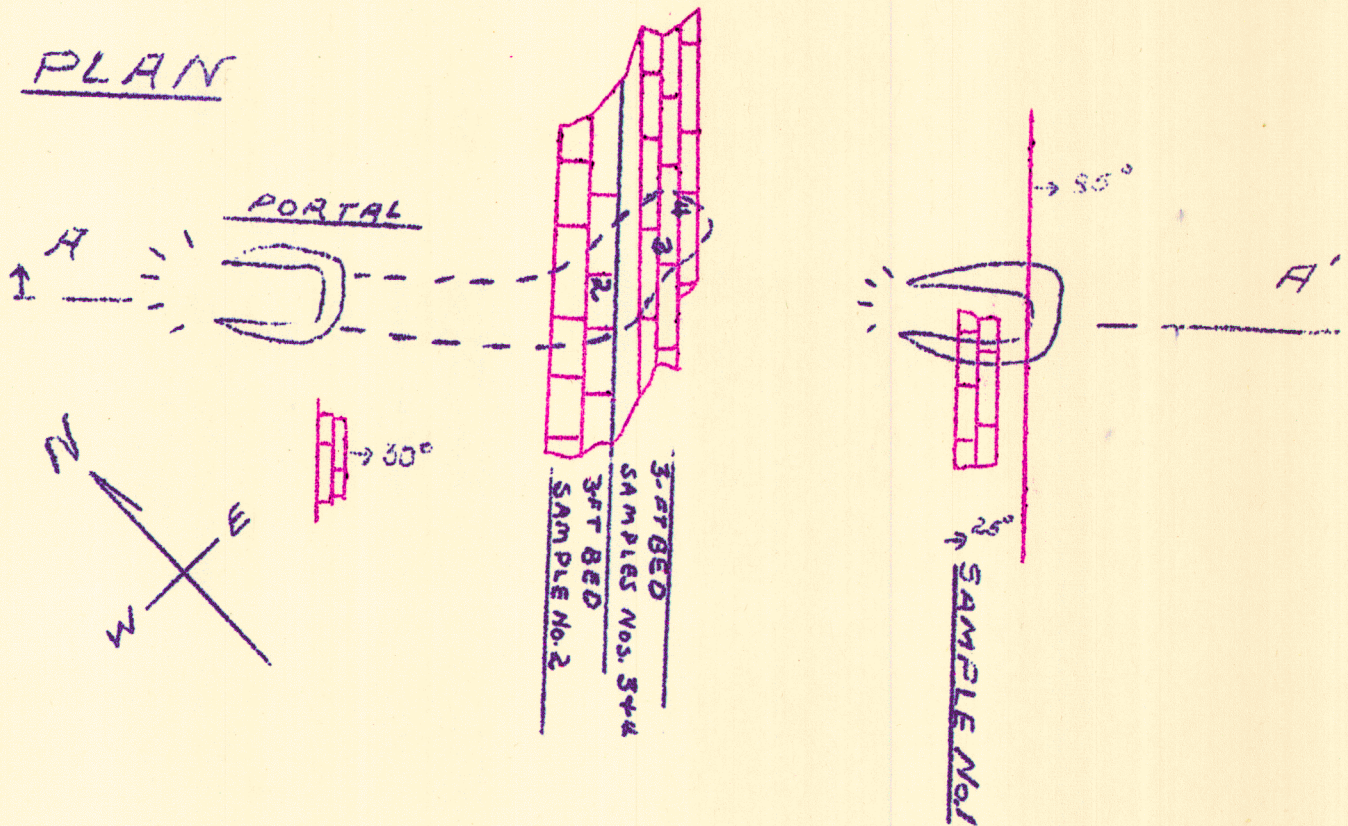
October 10, 1941

D. L. Evans

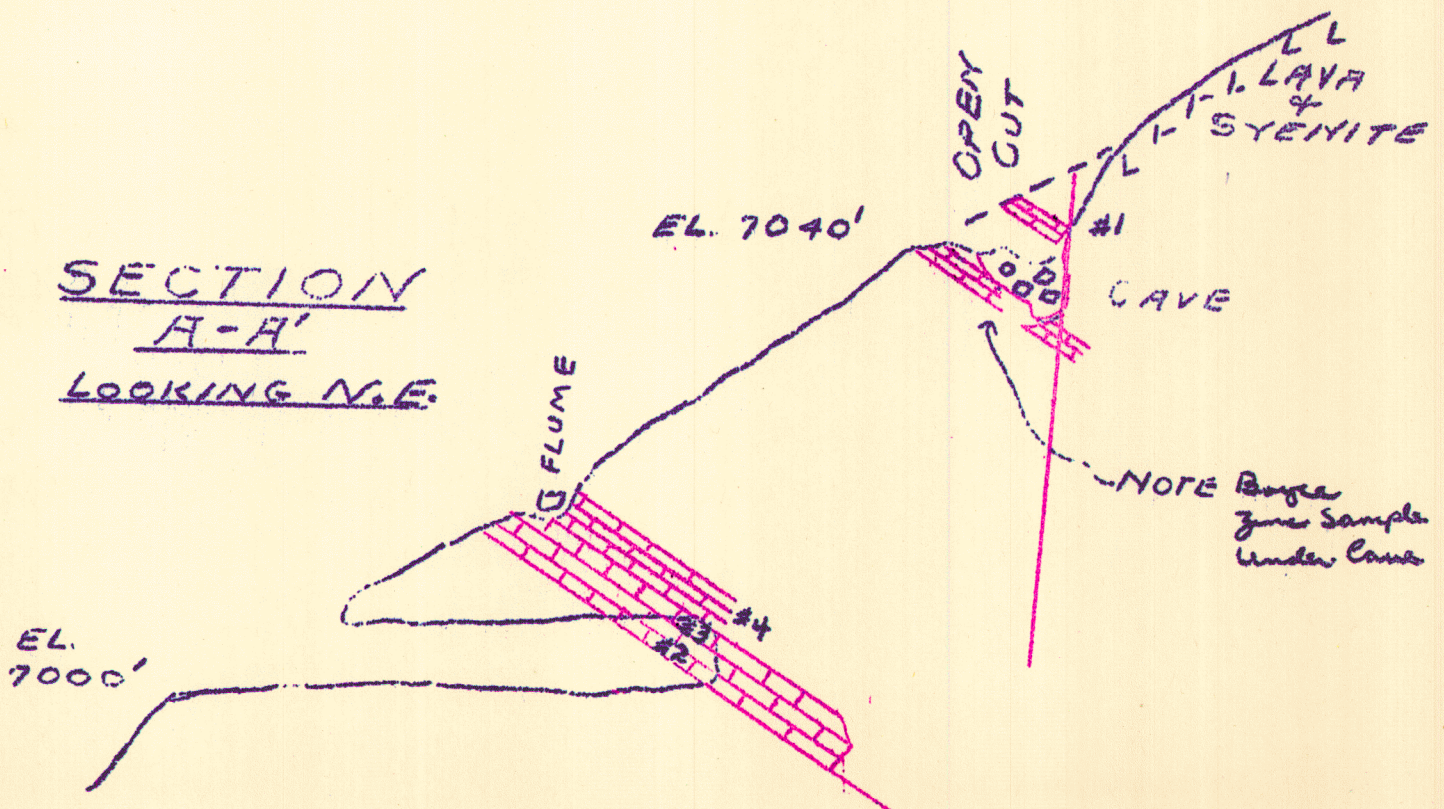
BOYCE WORKINGS
TUNNEL CLAIM
ELKO COUNTY - NEVADA

1 INCH = 20 FT

PLAN



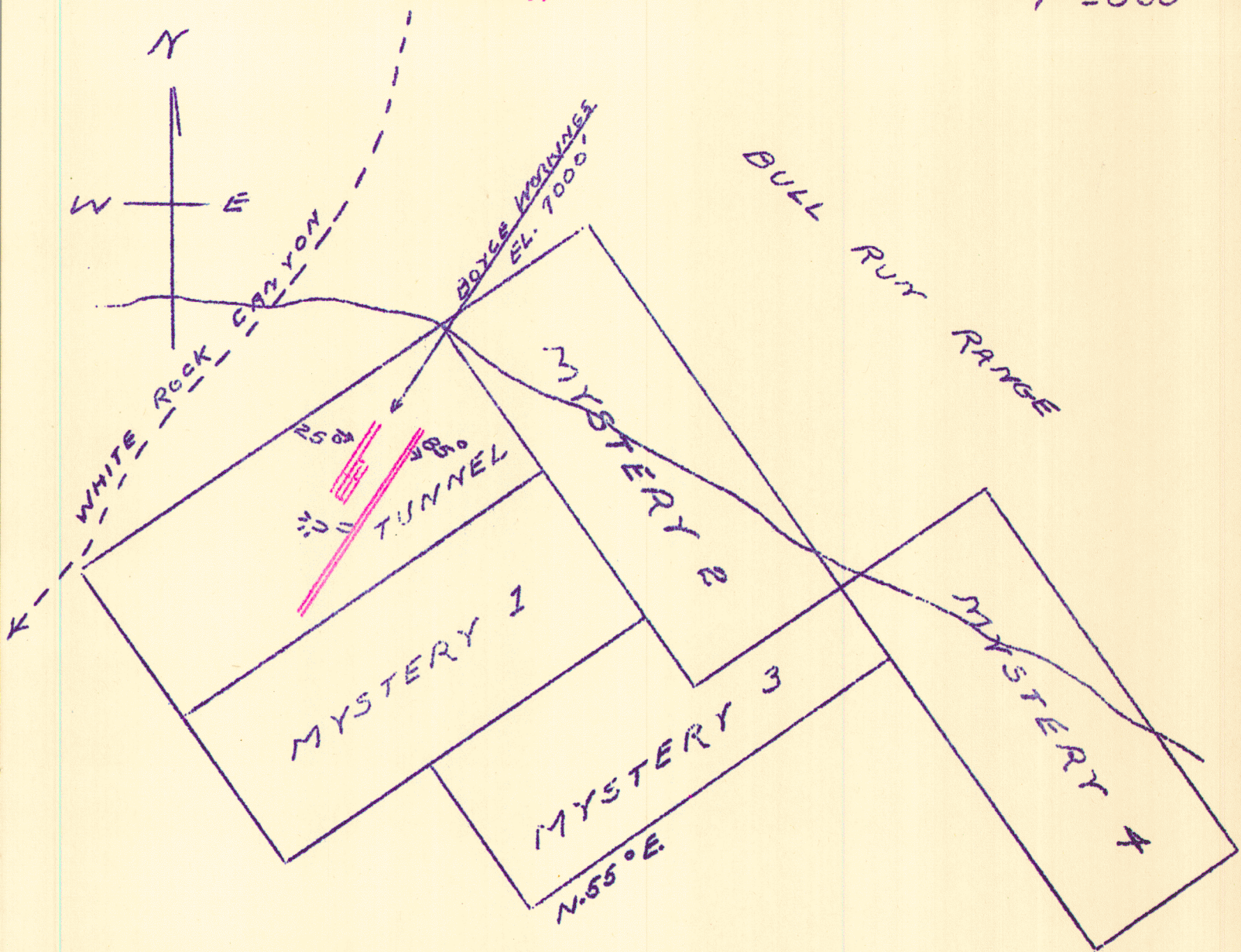
SECTION
A-A'
LOOKING N.E.



Combined Metals Reduction Co.

BOYCE CLAIMS -- Un. Pat. --
Centennial Mining District,
Elko County, Nevada

1" = 500'



S. W. $\frac{1}{4}$ OF S. E. $\frac{1}{4}$
SEC. 18 ~ TWP. 44 N.
RANGE 52 EAST