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Blue Ribbon Prospect
Mineral Cnty, Nevada

File.
Wisser File

November 5, 1974

Mr. Jay P. Mackenzie
901 South 1100 West
Provo, Utah 84601

Dear Mr. Mackenzie:

In the absence of Ken Jones I am taking the liberty of replying to your letter of Oct. 9, 1974.

Thank you very much for sending us the data on the Blue Ribbon prospect in Nevada, herewith.

Essex currently is not considering any new properties, so I cannot offer you any encouragement at the moment. However, if and when we are in the area we certainly will visit your prospect, and following that field visit we may contact you.

Thank you again for your courtesy in letting Essex review your data which is herewith enclosed.

Very truly yours,

E. Grover Heinrichs
Assistant Exploration Manager

EGH:td
enclosures

Provo, Utah
Oct. 9, 1974

Ken Jones
Essex International
1704 West Grant
Tuscon, Arizona 85705

SXM
OCT 11 1974
RECEIVED

Mr. Jones:

Please find inclosed the information you ask for. I went thru and made a couple of little notes that may help.

The claim and sample map was prepared by some-one I ~~know~~ nothing about. The sample areas can be found - all but the "g" sample "chips". I believe they were taken from a drill hole to the East of the property.

Hope this information is help full - if you can, reproduce what will, and send the ~~semaine~~ originals back to me.

Excuse the hand written note no girl and I can not type [I barely make it as a writter]

Truly
Jay C. Mackenzie

901 South 1100 West
Provo, Utah 84601
377-1452

BLUE RIBBON

COPPER PROSPECT

Mineral Co., Nevada

AN ANALYSIS

January 1971

David LeCount Evans

Consulting Geologist
Reno, Nevada

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MAPS

	Pocket
Index Map	Plate A
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Sections, 600 scale	Plate D

BLUE RIBBON

COPPER PROSPECT

Mineral Co., Nevada

AN ANALYSIS

FOREWARD:

Prior to visiting the Blue Ribbon property, references to Mineral County's Santa Fe mining district were consulted.

Reports furnished by Mr. J. M. Reynolds, lessee, and Mr. Jay MacKenzie, Reynold's consulting geologist, added to preliminary impressions.

Accompanied by Mr. MacKenzie, portions of December 16 and 17, 1970, were spent in covering all claims. Three days have been needed to complete maps and sections, coordinate information from several sources, and to reach the conclusions and recommendations listed below.

The text is supported by Plates A through D, which are listed as follows:

A. Index Map;

B. Regional Pattern, 2000 scale;

C. Blue Ribbon Copper Prospect, 600 scale;

D. Sections, 600 scale.

Reference to illustrations is urged.

PURPOSE OF REPORT:

On the basis of two days of study, a detailed understanding of the property cannot be claimed. Reports in leassee's files do not fill in the gaps, since all speak in generalities. The property and its environs is very much in need of detailed mapping and sampling.

The two days of study in the field and what has been read, however, provide a favorable impression.

Recognized has been a broad distribution of alteration, characterized, throughout, by copper staining.

Purposes of this report, therefore, are to indicate its size, urge that it be drilled systematically, and that materials recovered be metallurgically tested as drilling progresses.

PROCEDURES:

The property's major occurrences were first covered by Jeep-reconnaissance. It was found to be impossible to coordinate field observations with maps in use. As reported above, mineral occurrences were 'generalities'; road systems, sketched in, were innacurate and could not be put to use.

The initial examination was continued, therefore, by running 8000 feet of Brunton compass-controlled pacing traverse through the heart of the property's zone of alteration, starting from an identifiable claim corner. The survey could then be tied accurately to the over-all claim map.

Seven samples from typical copper 'shows' and tactite alteration were cut during the reconnaissance. It was possible, also, to roughly establish the contact between fresh limestone and the underlying tactite on the western side, to tie in a portion of the volcanics covering the tactite area, and to establish the swing of the tactite unit to the northwest in the Black Diamond No. 2 claim.

Plate C is the product of the procedures described above. Plate B, "Regional Pattern", has as its base the excellent 7 1/2 minute Mina Northwest sheet. Sections have been constructed, using both B. and C.

Other reports have supported but not added to observations. A seemingly accurate soil sample map, in Reynold's files, has contributed to geological thinking and the accuracy of the 600 scale map, Plate C.

CONCLUSIONS:

This analysis concludes:

1- Reynold's Blue Ribbon group covers a unit of extremely altered limestone-porphyry, called tactite, with length and width more or less established, but with thickness still to be determined;

2- flanked on both sides by bedded limestones, the zone, where crossing Reynold's claims has a long axis of 6000 feet and an average width of about 1250 feet;

3- mineralization consists of copper with minor tungsten; an arithmetic average of samples taken during an earlier survey shows 0.85% copper, with tungsten to be determined;

three samples taken by the writer from zones of obvious copper mineralization average 0.55% copper

4- with reference to No. 3 above, the samples are believed to represent the gossan horizon; therefore, in view of secondary enrichment possibilities, an average of 0.07% copper is significant;

5- the area within the confines of the Reynolds' claims would support 50,000,000 tons for every 100 feet of vertical extent;

6- possibilities exist that the trend can be continued to the Windup mine on the north and the Jeep mine on the southeast.

RECOMMENDATIONS:

Assuming an understanding, satisfactory to both Mr. Reynolds and sub-lessee, this analysis recommends that:

1- the property be diamond drilled in a systematic fashion;

2- within a reasonable time after the start of drilling and if results are immediately encouraging, metallurgical testing of typical Blue Ribbon mineralization be continued.

LOCATION:

With reference to Plate A, the property lies about 3 1/2 miles southwest of Luning, Nevada, in east-central Mineral County. Claims fall in the southeast quarter of section 7 and the south half of section 8, Township 7 North, Range 34 East, Mt. Diablo base and meridian. Mining district is Santa Fe. Properties lie on the north portion of Black Dyke mountain, and the slope is steeply east into the Soda Spring Valley.

GENERAL AND LIMITING CONDITIONS:

Access:

Property lies 170 miles, via paved highways, from Reno, Nevada; the last three miles is good desert road.

Luning, on a branch of the Southern Pacific railroad, is 4 1/2 miles to the northeast, over gravel and pavement.

As reported by Mr. H. M. Walker, in a report dated March 10, 1969:

Power:

"A power line passes within 500 feet of the property line."

Water Supply:

"Sufficient water can be obtained by drilling to a depth of 200 feet—."

i.e.: not at the mine area but to the east, probably in the talus area east of the range.

Mill Sites:

"---there are nine mill sites, approximately 45 acres, located about 3 miles east, between U. S. Highway 95 and the Southern Pacific Railroad."

Tailings Disposal:

Probably the area could accommodate tailings from a small to medium-sized operation. However, should the zone have substantial thickness, further tailings disposal studies would be a requirement.

Climate:

Climate is semi arid, with precipitation not exceeding nine inches; the specific area is known for its lack of snow cover during winter months; year-round surface mining is a reasonable expectancy.

LEGAL TITLE:

Properties consist of three patented and 18 unpatented mining claims. According to Mr. J. M. Reynolds, the legal description of claims, as recorded in the official records of Mineral County, Nevada, are:

Patented Mining Claims

Blue Jacket No. 1
Blue Jacket No. 2
Copper John

Book 14 of Deeds, pages 506-507

Unpatented Lode Mining Claims

Blue Ribbon No. 1 Blue Ribbon No. 2 Blue Ribbon No. 3	Book 13 of Deeds, pages 544-545
Blue Ribbon No. 4 Blue Ribbon No. 5 Blue Ribbon No. 6	Book 14 of Deeds, pages 163-164
Blue Ribbon No. 7	Book 14 of Deeds, page 471
Blue Diamond No. 1	Book 13 of Deeds, page 566
Blue Diamond No. 2 Blue Diamond No. 3 Blue Diamond No. 4 Blue Diamond No. 5 Blue Diamond No. 6	Book 20 of Deeds, pages 497-499
Blue Ribbon No. 8 Blue Ribbon No. 9	Book 7 of Deeds, pages 59-60
Blue Diamond No. 7 Blue Diamond No. 8 Blue Diamond No. 9	Book 7 of Deeds, pages 61-63

Owner of the Blue Ribbon group in 1961 was Mr. C. F. Noble of Mina, according to the Nevada Bureau of Mines. H. M. Walker reports that Mr. Reynolds acquired the property in July 1966, taking a lease and option at that time. It is reported that Mr. Noble's end price in 1966 was $1,000,000.

Mr. J. M. Reynolds has been lessee, therefore, for 4 1/2 years.

No personal check has been made of County Court House records.

HISTORY OF PROPERTY AND DISTRICT

The area is part of the Santa Fe mining district, the bulk of which lies east of Highway 95.

F. C. Lincoln's "Mining Districts of Nevada" reports:

"The Santa Fe silver mine was discovered in 1879 and a

number of other silver, silver-lead, and silver-copper claims were located in the district. These silver properties were exploited up to 1893. Work upon the copper-lead deposits began about 1906 -----.

From 1906 to 1921 the district produced 88,019 tons of ore, containing 8,849,597 pounds of copper, $123,146 in gold, 233,058 ounces in silver and 253,119 pounds of lead ----."

Concerning the Blue Ribbon, Windup, Jeep, Tungsten Dyke, Kay and other prospects in the general area of the Santa Fe district, west of the highway, references fail to report discovery dates. With most of them staked for copper, probably around 1915-1918, no copper has been produced. They have shipped some tungsten.

Mr. Walker refers to "shallow drilling done by a contractor in 1963 which I personally know." Mr. Reynolds refers to such drilling but has been unable to present locations or values of material cut.

An undated memorandum by Mr. William F. Hutchens, geologist, reports:

> "some claims held below the Reynolds claims by various individuals are leased to the Bear Creek Mining Company, who have cored their holdings to the maximum depth of their drilling equipment, i.e.: below the 2000 foot level. The drilling found that values increased with depth in copper, gold, silver and lead."

With reference to our submitted Plate B, it would appear that the Jeep mine area, on which roads and drill sites are obvious, is the center to which Mr. Hutchens refers. It is my understanding that the activity was recent, perhaps 1968 or 1969.

GEOLOGY:

Mappable units:

With reference to Plate C, note the references to limestone, tactite and volcanics. The three units are outstanding and easily recognized. Less

obvious, but definitely present, are acid to slightly basic intrusives, mixed with the tactite but unmapped, because of the detail required and the lack of time.

It is believed that the terms "limestones" and "volcanics" are familiar ones, requiring no further explanation.

Concerning tactite, Grout's "Petrology and Petrography" reports:

> "Tactite: a contact-mineralized rock with various minerals, formed from limestones and other soluble rocks by igneous eminations."

Tactite on these properties is a group or unit classification. Variations, depending on origin, do exist.

In greater detail, the limestones are dark gray to almost black, very well bedded and, away from the contact on the hanging wall side, truly limestones. However, moving in the opposite direction and into the footwall area, limes slowly lose their identity, passing rapidly into an area where lime remenents exist as black "ghosts" in a very siliceous ground mass, and finally to the highly-siliceous, darkish gray to green, finely crystalline tactite condition.

The volcanics, where definite, appear thinly layered, relatively soft, occasionally platey; in places, light-gray, rhyolitic appearing, and in other areas reddish and andesitic looking.

Whereas, initially it was believed that the volcanics might be mid-Tertiary in age and post-mineral, covering limestone, tactite and mineralization, others have concluded that the volcanics are pre-mineral, describing

some of the tactite as highly metamorphosed volcanics.

The tactite unit suggests a mixture of origins, namely limestones, intrusives and possibly volcanics. The unit is hard and difficult to shatter, probably because of the massive silica. Finely crystalline silica is dominant, shades of green persist and, locally, ghosts of less absorbed limestone and porphyritic material can be recognized. Tactite limits appear sharp.

Structure:

Major Possibilities:

Deformation throughout the area is intense but whether the tactite zone and the intrusive which was responsible for such alteration was structurally controlled must remain a question to be resolved.

With reference to Plate B, our very obvious inference that the same tactite zone runs from the Windup mine, through the Blue Ribbon area, the Jeep area, and possibly to the Kay mine region, suggests regional structural control.

The fact, too, that the limestones on both sides of the alteration trend are twisted and contorted, with changes in strike and dip, and even with folds, locally recumbent suggests a strong structural unit, perhaps, even a regional overthrust.

With reference to Section X-X' on Plate D, if the limestones shown on both sides of the tactite unit are identical, structure has definitely entered into the emplacement of an intrusive and its halo of tactite alteration.

Minor Structures:

Quartz veins with widths as great as two feet cut across the east-west trend of the tactite zone in some areas. Strike of such vein structures varies from N15°E to N65° E, with dips steep to the southwest to near vertical.

The distribution of structures with their fillings of massive to vuggy, copper stained quartz, and scheelite might well suggest a distribution of tactite and copper mineralization throughout the 6000 by 1250 feet of area, and to depth. Since the greater part of this veining appears to favor the south portion of the alteration zone, and not the more pronounced tactite on the north side, the entire 1250 feet of average width should be taken seriously.

One of these minor structural trends can be traced for about 1400 feet, cutting diagonally across the true width of the tactite zone.

Mineralization:

Copper

Personally observed and on the strength of references, copper mineralization is wide spread; it consists of the green malachite and the blue azurite (carbonates), undoubtedly chrysocolla (the silicate) and some diseminations of chalcopyrite (the double sulphide with iron).

Copper is reported at the Windup mine, north of the property and the Jeep mine (Tungsten Dyke) on the east.

It should also be mentioned that the Blue Ribbon block of claims takes in the old Houghton-O'Boyle mine and the Atom Lorna mine. The former, as indicated by Nevada Bureau of Mines maps falls on the Blue Diamond 1 and 2 claims. The latter appears to have been located in the northeast corner of section 7, between the Blue Ribbon and Windup properties. We have shown neither on submitted maps.

The Houghton-O'Boyle was first located for copper, but small production in tungsten as well as copper has been reported.

Malachite and azurite are disseminated in the limestones of the Atom Lorna. Copper stained quartz characterizes the Kay mine in section 15.

It is obvious that in this surface zone, characterized by the usual gossan iron oxide, the copper carbonates malachite and azurite are persistent in their distribution. It is also believed that the silicate chrysocolla is associated throughout. The recognition of these oxide zone-minerals, considered significant, merits the following quotations:

(1) from Roland Blanchards' "Interpretation of Leached Outcrops", Bull. 66, Nevada Bureau of Mines:

Page 71: concerning the Home of Bullion mine, Northern Territory, Australia:

"copper within the gossan is marooned mainly as seams and patches of malachite, which so characteristically lingers irregularly within gossans derived from copper ore in semi arid regions ----".

Page 181: Re: Mt. Oxide mine; also Australia:

"at and near the surface most of the ore occurred as carbonate, mainly as malachite, with lesser atacamite and azurite; these minerals were mixed with chalcocite which persisted to the surface as streaks and residuals."

(2) From F. W. Clarke's "Data of Geochemistry" (old but still basic)

Page 663, concerning malachite and azurite:

"both species are formed in the upper portions of ore deposits by the action of carbonated waters upon copper compounds, or by reactions between cupreous solutions and limestones ----

and

crysocolla is probably formed by the action of percolating waters, carrying silica, upon other soluble compounds of copper. Probably, also, it may be produced during processes of secondary enrichment."

Tungsten

Mr. Reynolds reports that the Blue Ribbon claims and patented ground were 'high graded' for the calcium tungstate, scheelite.

Concerning the Houghton-O'Boyle, it has been described in Nevada Bureau of Mines, Bulletin 58 (Mineral Co.) as follows:

"shafts (two, each with an inclined depth of 80 feet) follow a silicified zone 4 to 5 feet thick in limestone; abundant iron stain with stringers and veinlets of quartz; scheelite scattered; locally up to 4% WO_3 in crystals up to one half inch long."

Disseminated scheelite occurs with the copper at the Windup mine. The Tungsten Dyke (near the Jeep) reports a scheelite bearing tactite stringer in limestone.

Miscellaneous

Sphalerite (ZnS) was reported in some of the soil samples on the Blue Ribbon property. At the Aton Lorna pyrite, galena (PbS) and sphalerite (ZnS)

occur in the limestone. In the Houghton-O'Boyle area, large masses of iron oxide (hematite) noted as 'gossan' on older maps, were observed. Pyrite is widespread.

Overall Personal Reactions:

The existence of copper mineralization, throughout the tactite zone is the property's main attraction. Carbonates and silicates of copper occur in fractures, cutting the silicified tactite unit, and probably as fine disseminations throughout the greenish mass. Chalcopyrite in minor quantities as disseminations seems to be widespread. Copper "shows" accompany the quartz veins. The possibility of improvement of copper grade with depth, because of secondary enrichment down to the water table, cannot be discounted.

Too, one should bear in mind the possibility of bivalues in tungsten.

DEVELOPMENT:

Except for scattered pits and trenches, a few short tunnels into obvious tungsten zones, and several short inclined shafts to as deep as 80 feet on the incline, the properties are without any serious, systematic development. No attempt was made to map any of the old workings.

According to Mr. Reynolds, the owner, Mr. Noble financed the drilling of a few short holes to as deep as 50 feet in 1963. The writer is concerned since any results are "hear-say", since no records exist.

SAMPLES:

Seven samples were out during the progress of this study. Efforts were made to pick average exposures of copper mineralization as well as tactite, without, in sampling, up or down grading. Results, nevertheless, reflect the normal conservatism in sampling.

Assay results, with work provided by Metallurgical Laboratories of San Francisco, are as follows:

Assay No.	Claim	% Cu	Comments
A	Blue Ribbon No. 9	0.43	Face of north cut, above road on side line common with Blue Ribbon No. 6; copper carbonates cutting tactite alteration.
B	dto	0.14	Pit at center of claim, Blue Ribbon #6 side line; south of Sample A; massive tactite, greenish, and suggestion of porphyritic origin.
C	Blue Ribbon No. 1	0.063	Tunnel above road; marked "C" on Plate C; cut across alteration at portal; no copper in evidence.
D	dto	0.54	Tunnel north of Sample C; material chipped from tunnel ribs in copper stained alteration; also an area of past tungsten mining.
E	dto	0.15	Tactite in bank west of road and across from Samp. D; alteration and no apparent Cu.
F	Blue Diamond No. 2	0.67	Center of claim; chip sample across 100 feet of width in copper streaked tactite.
G	Blue Ribbon No. 5	0.026	Chipped from pit in center of claim; alteration.

Of interest and significant because of reasonable grade are the samples, following on page 15.

Provided from Mr. Reynolds files, he spoke well of parties responsible for the cutting of samples and their assaying.

Except for the inference that examining parties were in some way connected with the Colorade School of Mines, the writer came away without any other details.

Copied from a well-drafted map of the property, assay results are as follows:

Sample No.	Width	% Cu	Comments
A	18 in.	0.50	Blue Ribbon #8 at south end of east line.
B	45 in.	1.20	Blue Ribbon #9; across east line, opposite Sample No. A.
C-1	10 ft.	0.35	Blue Ribbon #1; same area as our samples C, D, and E
C-2	7 ft.	0.80	dto
C-3	7 ft.	0.70	dto
D-1	45 in.	0.135	Blue Jacket #2; center of west side line.
D-2	40 in.	0.75	dto
D-3	30 in.	1.00	dto
E	30 in.	1.70	Copper John; center of south end line.
F	45 in.	2.70	Blue Jacket 1 and 2; center of common side line.
G	chips	15.00	Same area as our number F.
			Locations are shown by small filled triangles on maps.

Concerning recent soil sampling by a very reputable company, those analyses reported in percent copper have been added to Plate C; values in parts per million are enclosed in parentheses.

A composite of the seven samples cut during the course of recent examination assayed only 0.07% Tungstic Oxide.

Again with reference to the seven samples, three were cut from very obvious

copper exposures and average 0.55% copper. The other four, samples B, C, E and G, cut to evaluate tactite occurrences, are, obviously, very low.

The second table (School of Mines list) provides an arithmetic average of 0.85% Cu, without including the very high sample G.

ORE RESERVES

No ore reserves exist at this stage of development. An estimate of up to 7,000,000 tons by Mr. H. M. Walker was based on "shallow drilling by a contractor whom I personally know".

One set of data (Walker) estimates a 2% copper average grade for the zone. William F. Hutchens refers to "assays have been from 5% to 30%". This analysis considers both to be unrealistic.

On the other hand the two averages above, which could be indicative, reflect the low-grade concept of this analysis. It is believed that with an indicated tonnage of 30,000,000 tons or better, averaging, perhaps, somewhere between 0.55% and 0.85% copper, expenditures for exploration and development, as listed below, would be warranted. The fact that materials would be mineable by surface methods strengthens this conclusion.

Only by proper drilling and detailed mapping, to provide the thickness to accompany the square area and to determine grade, can a true reserve be established.

DEVELOPMENT POTENTIAL

Area of tactite shown on Plate C and projected to the north line of Blue Diamond No. 1, amounts to 5,937,000 square feet. Using a factor of 12 cubic feet to the ton, the square area represents 495,000 tons per vertical foot; 4,950,000 per 10 feet of depth, and 49,500, 000 tons per 100 feet of thickness.

Page 17 was taken out because it had only referenced to a financial deal that does not relate to the property or to the present time. J.P.M.

RECAPITULATION:

The property has its excellent features. Considering access, power supply, shipping facilities, mill site with respect to mine area, climate, et cetera, conditions are exceptionally good.

Slopes would provide an ideal and cheap open pit mining operation, contingent, of course, on the development of reserves.

Terrain is such that operator could move through the property with ease, establishing drill pads and drilling out the property. It is also believed that the compact tactite could be efficiently cored by a knowledgeable contractor.

It is further believed that with continued study, the ideal flow sheet could be devised to handle the complex carbonate-silica copper ores, the possible secondary copper sulphides at depth, and possible tungsten bi-values.

The chances for an improvement in grade with depth, because of secondary enrichment, are realistic.

But, until the property is drilled, the thickness and grade of the alteration zone must remain only a guess. A ten foot zone, forecasting some 5,000,000 tons would be considered insufficient. Thicknesses of mineralization approaching 100 feet, with an overall grade of 0.75% copper would indicate an economic probability.

The indicated maximum of $83,000, i. e.: down payment, monthly payments and development costs, or $100,000, including a reasonable contingency factor, appears justified, considering the target, described above. We believe that it would make or break the deposit.

Should initial development efforts provide only negative results, the program could be stopped before the expenditure of the full $50,000.

Plan of drilling, an anticipated 4,000 to 5,000 of core holes, must await additional field studies. Suffice it to conclude that holes would be systematically arranged on sections at right angles to the trend, with initial depths, per holde, not to exceed 200 feet.

Respectfully submitted,

Signed: David LeCount Evans

Consulting Geologist
1700 Royal Drive
Reno, Nevada 89503

January 13, 1971

Registered Geologist
State of California
Certificate No. 91

RESULTS OF SAMPLES TAKEN BY DON L. DEARDORFF
March 28, 1971

(For location see attached map)
EXHIBIT III

Sample No.	Description	Ag (ppm)	Cu (ppm)		Mo (ppm)	W (ppm)
DLD3- 1	Intrusive rock (?) in pit area, highly altered. Shows some copper staining.	4.8	1,100	0.11%	2	24
DLD3- 2	Skarn from west side of pit area. Some copper staining, copper oxide is abundant in this cut. Associated with skarn minerals and abundant fractures adjacent to tactite zone.	.6	320		24	150
DLD3- 3	Seven foot cut across oxide copper zone in end of same cut as sample DLD3-2. Abundant copper oxide staining in siliceous limestones and tactite.	11.	16,500	1.65%	30	1,200
DLD3- 4	Rock chips from unaltered limestones on hill north of pit area.	1.2	55		-2	16
DLD3- 5	Rock chips from tactite altered limestone on hill north of pit area. Tactite is highly siliceous.	.6	165		4	15

EXHIBIT III
Page 2

Sample No.	Description	Ag (ppm)	Cu (ppm)		Mo (ppm)	W (ppm)
DLD3- 6	Five-foot cut across skarn and copper oxide vein in a prospect dug for tungsten, abundant copper oxides in highly altered limestones and tactite.	12.	20,000	2.0 %	30	230
DLD3- 7	Black mineral tentatively identified as tenorite with some oxide copper minerals. This sample was taken to identify this mineral which is relatively abundant.	1.0	180,000	18.0 %	18	16
DLD3- 8	Residual rock chips and outcrop chips from leach ore zone, chips taken three feet apart over a sample length of 150 feet.	4.8	2,200	.22%	12	160
DLD3- 9	Sandstone (?) from leach ore area.					
DLD3-10	Massive quartzite from leach ore area. This quartzite appears to be interbedded with the sandstone sampled in 3-9 and 3-11. Sample width 2.5 feet.	7.2	4,450	.44%	8	235
DLD3-11	Sandstone from leach ore zone displays abundant copper oxides. Sample width 2.5 feet.	16.	8,000	.80%	4	600

this sample was taken in the leach area. Very only covered a short interval.

same

El Paso Natural Gas Company

El Paso, Texas 79999

March 3, 1971

Mr. J. M. Reynolds
P. O. Box 125
Mina, Nevada 89422

Dear Joe:

I now have all my sample data complete on the Blue Ribbon property. They are as follows:

Location	Au (oz.)	Ag (oz.)	Pb	Zn	Cu	Mo
Grab-bottom open-pit area	Tr.	0.10	800 ppm	1570 ppm	1222 ppm	25 ppm
Bench above " " to north					1282 ppm	18 ppm
12' Chip open-cut face (checks Evans sample 0.43% Cu)					0.39%	12 ppm
Soil samp. 150' W. open-pit					349 ppm	20 ppm
Soil samp.-Top of Hill					1240 ppm	19 ppm
Bulldozed cut NW side hill					184 ppm	26 ppm
Backhoe cut dump (Checks Evans sample 0.14% Cu)					0.07%	9 ppm

A dump sample from the tungsten workins on Blue Ribbon No. 1 was 0.26% Cu, 0.003% WO_3, and 26 ppm Mo. This is the long vertical vein parallel to the road.

Three rock chip samples were taken along the road southeast of the large dump at the inclined shaft near the east side line of the Blue Jacket No. 1 claim and these ran Tr. copper, 3 ppm Mo, Tr. copper, 31 ppm Mo, and 0.18% Cu, 10 ppm Mo.

The 55-60 foot surface chip sample on the Blue Diamond No. 2 claim, where you planned to strip and mine assayed Tr. gold, 0.40 oz. silver, 0.58% copper, and 126 ppm molybdenum. This checks Jay's sample of 0.67% very well. A sample from this same location of the black mineral, which I thought might be tenorite, assayed only a trace in copper so it might be a manganese mineral instead. From one of your fresh dozer cuts just below the saddle on the road that goes to the west and back to Luning, I took a rock chip in the iron-stained flow rock that went 243 ppm Cu and 19 ppm Mo.

It is an interesting prospect, Joe, and I would like to wish you success in having some exploration carried out on the claims. Would also like to thank you and Mrs. Reynolds for the hospitality at Mina.

Yours truly,

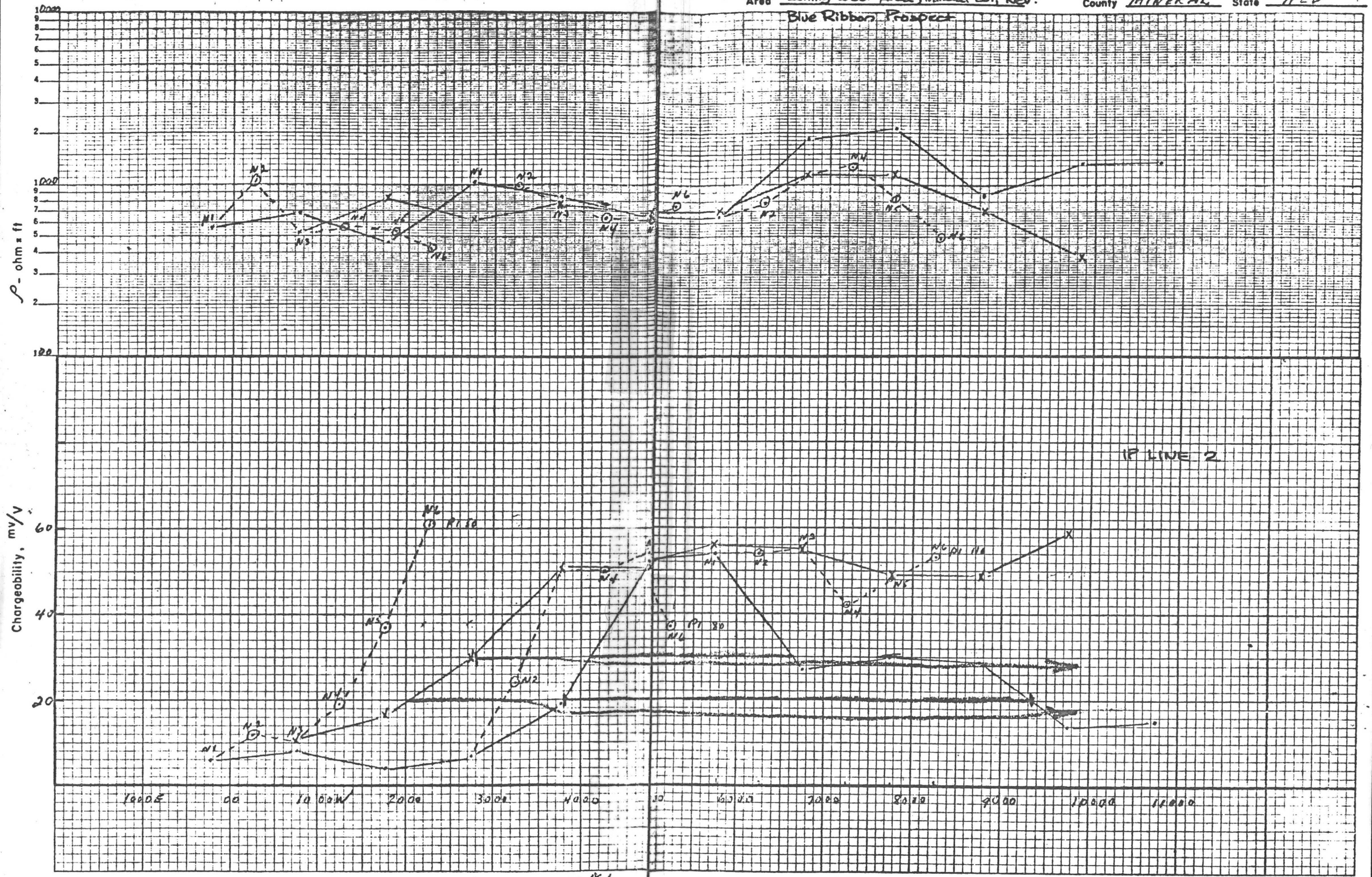
H. C. Lewis (By TCB)

H. C. Lewis
Geologist
Mining Division

HCL:tcb

Area Luning West Area, Mineral Co., Nev. County MINERAL State NEV

Blue Ribbon Prospect



Geologic Section Looking South Vert. Scale: 1" = _____

POLE DIPOLE

DEPTH PROBE N1-N6

Opr. REA Scale: 1" = _____

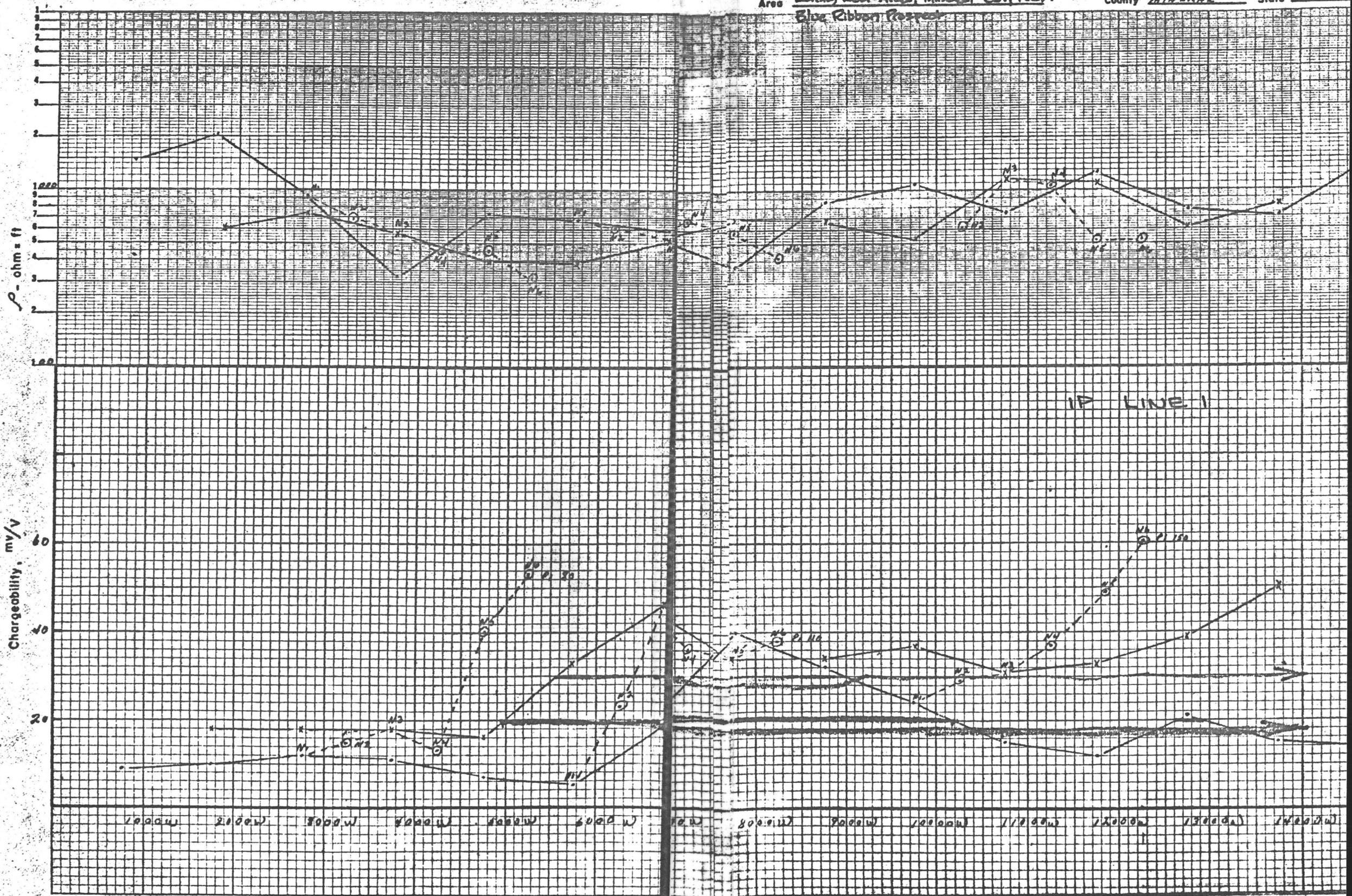
"a" 1000' Date 11-23-70

Location LUNING, T7N R34E

Bearing W

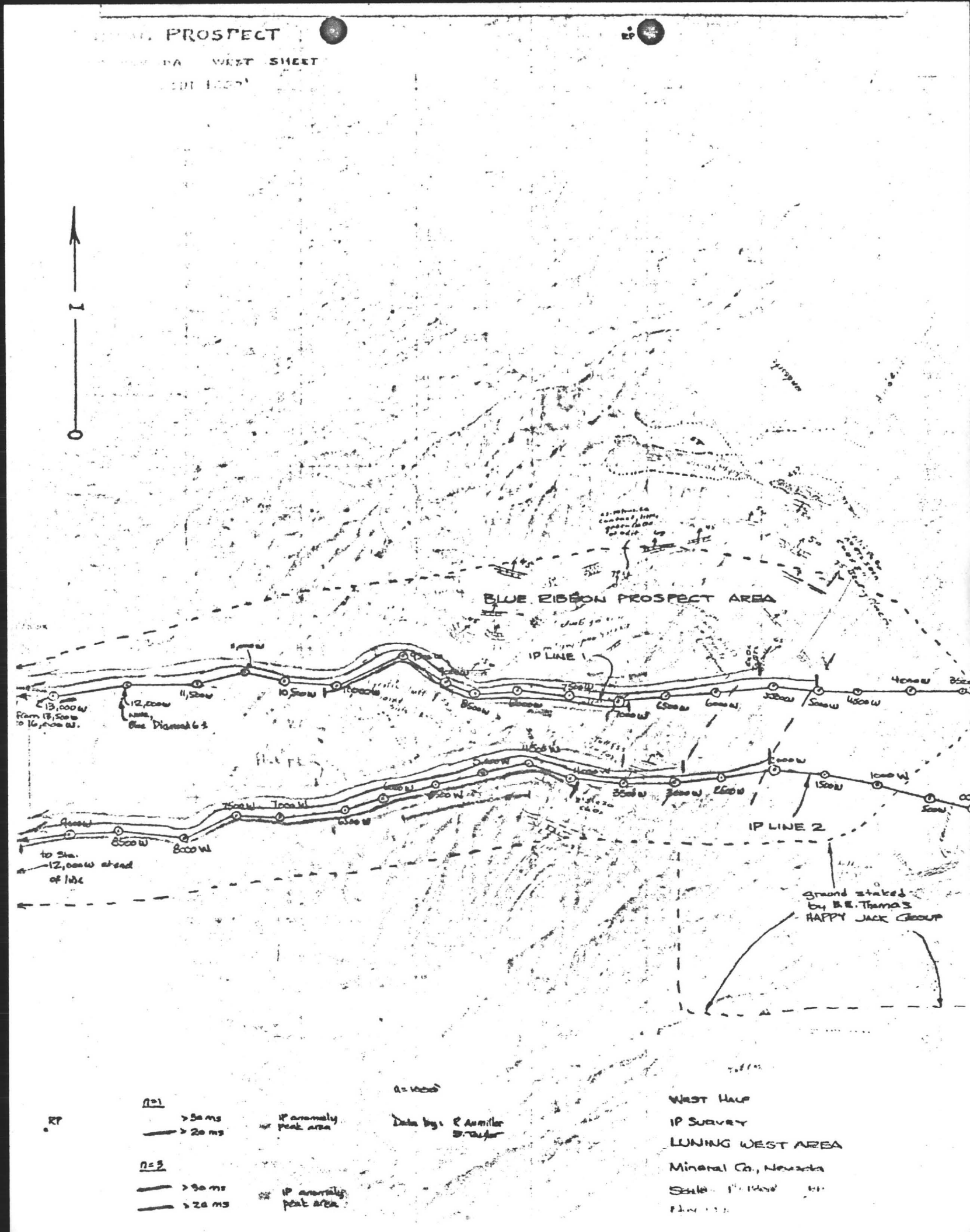
Area Luning West Area, Mineral Co., Nev. County MINERAL State NEV

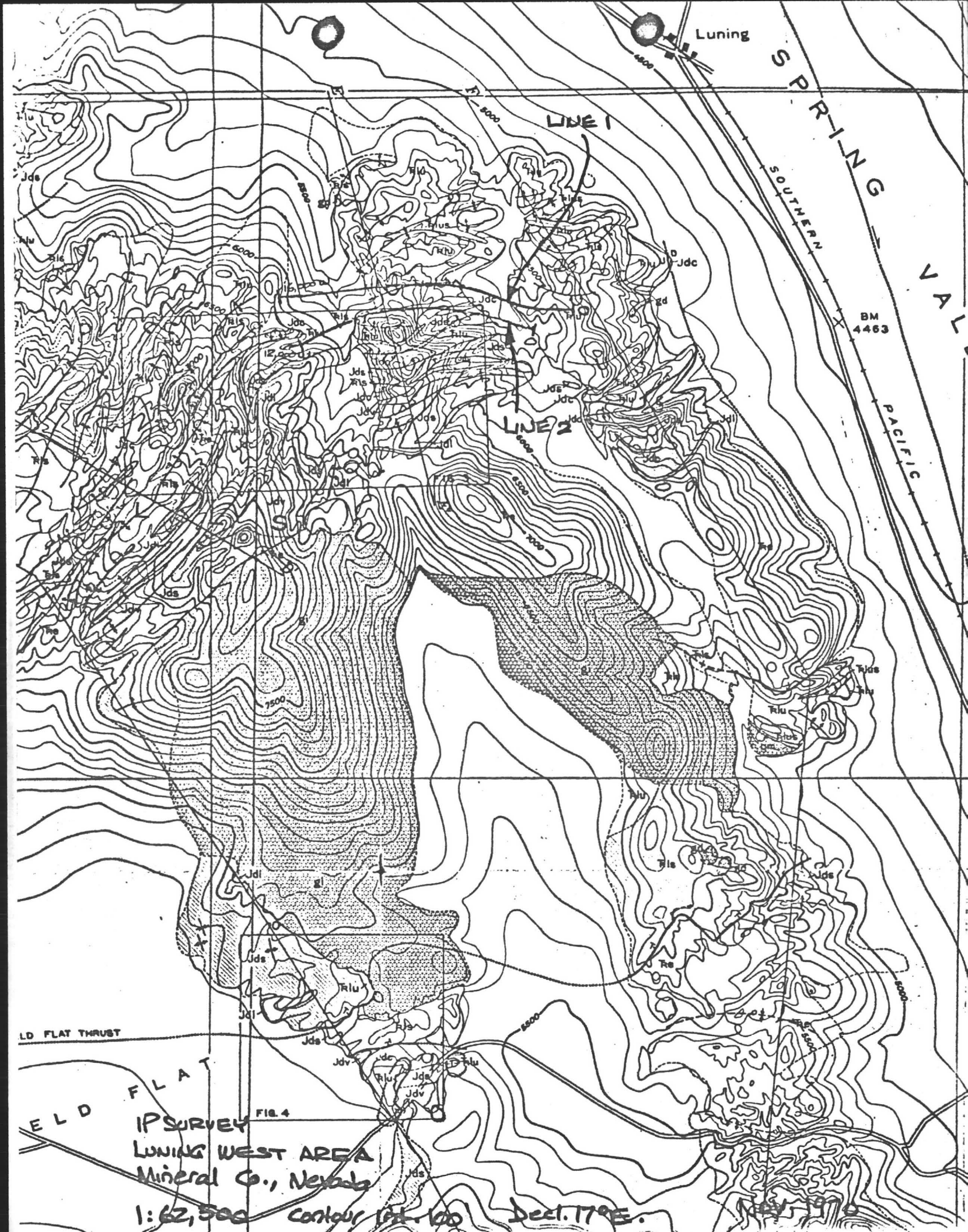
Blue Ribbon Prospect



Geologic Section Looking South Vert. Scale: 1" = _____ N1 •—• N1 + N6 ... Depth ... Opr. _____ Scale: 1" = 1000' Location T7N., R34E.

POLE DIPOLE N3 x—x "a" 1000 Date 11-20-70 Bearing W


PROSPECT
WEST SHEET
BLUE RIBBON PROSPECT AREA
IP LINE 1
IP LINE 2
13,000 W
12,000 W
11,500 W
10,500 W
8500 W
7500 W
6500 W
5000 W
4500 W
4000 W
8500 W
8000 W
7500 W
7000 W
6500 W
3500 W
3000 W
2500 W
1500 W
1000 W
500 W
to Sta. 12,000 W at end of line
ground staked by B.E. Thomas HAPPY JACK GROUP
n=1
> 30 ms
> 20 ms
IP anomaly peak area
n=3
> 30 ms
> 20 ms
IP anomaly peak area
Data by: R Aumiller
S. Taylor
WEST HALF
IP SURVEY
LUNING WEST AREA
Mineral Co., Nevada


Luning
SPRING
VAL
SOUTHERN
PACIFIC
BM
4463
LINE 1
LINE 2
LD FLAT THRUST
ELD FLAT
FIG. 4
IP SURVEY
LUNING WEST AREA
Mineral Co., Nevada
1:62,500 Contour Int. 100 Decl. 17°E.
May 1970

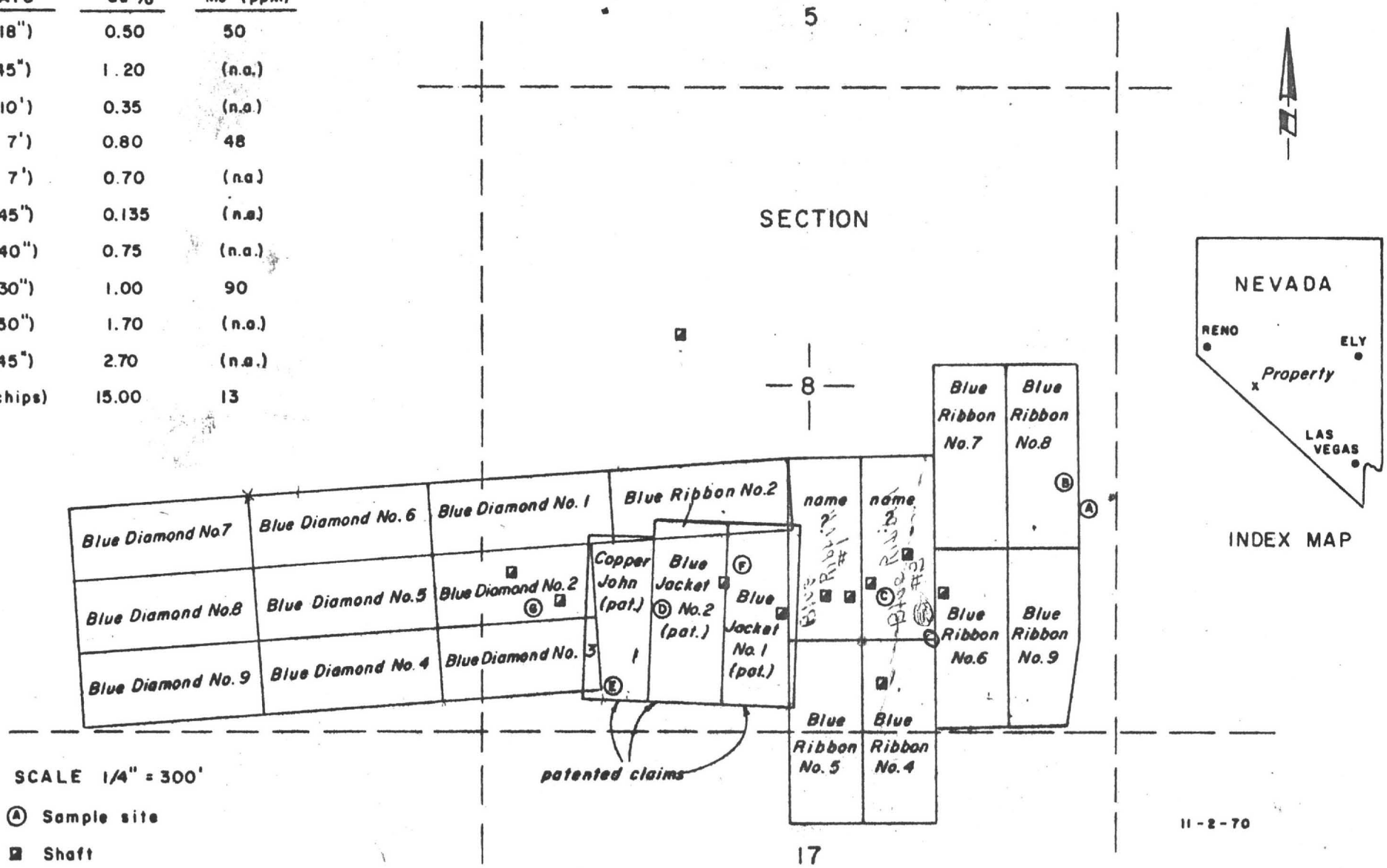
JOE REYNOLDS' CLAIMS

T 7 N R 34 E

MINERAL COUNTY, NEVADA

[unknown author]

ASSAYS	Cu %	Mo (ppm)
A (18")	0.50	50
B (45")	1.20	(n.a.)
C_1 (10')	0.35	(n.a.)
C_2 (7')	0.80	48
C_3 (7')	0.70	(n.a.)
D_1 (45")	0.135	(n.a.)
D_2 (40")	0.75	(n.a.)
D_3 (30")	1.00	90
E (30")	1.70	(n.a.)
F (45")	2.70	(n.a.)
G (chips)	15.00	13



H. M. Walker M.E.
1221 Highland Dr.
Reno, Nevada
Mar. 10, 1969

Mr. J. M. Reynolds
P.O. Box 125
Mina, Nevada

Dear Sir;

Pursuant to your request, I have examined the Blue Ribbon Mine, and conducted such other tests, and research as required.

I herewith submit my report.

Very truly yours

H. M. Walker

H. M. Walker
Mining Engineer

Blue Ribbon Mine Abstract

Foreword

With the increasing need for copper, and the continueing problems in the copper producing countries in South America. The Major Mining firms in the U. S., and Canada are spending an estimated 3.7 million dollars per month exploring for the red metal in this country.

Copper being one of the oldest and most widely used metals known to man. The need for new production is evident.

Introduction

The author of this report has with all honesty and sincerity set forth to give an unbiased opinion and report on the Blue Ribbon Mine.

This report is done at the request of Mr. J. M. Reynolds, owner of the Blue Ribbon Mine.

Location

The Blue Ribbon Mine is located in T.7N.,R34E., 3.5 miles west of U.S. highway #95, 8 miles No. of Mina, Mineral Co., Nevada. The nearest major point of supply is at Reno, Nev., 160 north. There is good railway facilities at Luning, Nev. 4 mi. east, and at Mina. Limited housing exists at these communities, with additional housing at Hawthorne 25 mi. No.

Access to the mine is fair. There are several unimproved roads criss crossing the property. Most are passable with two wheel drive.

Description

The property consists of three patented mining claims, the Blue Jacket #1, & #2, and the Copper John. Along with eighteen possessorg claims, the Blue Ribbon #1 thru #9 inclusive, and the Blue Diamond #1 thru #9 inclusive, app. 420 acres.

In addition there are nine millsites, app.45 acres, located about 3 mi east. Between U.S. highway #95, and The Southern Pacific Railroad. A power line passes within 500 ft. of the property line. Sufficient water can be obtained by drilling to a depth of 200 ft.

History

The mine was originally located and worked for scheelite, which occurs in tactite layers in limestone that is intruded by a fine grained granitic rock.

Additional locations were later made to include almost all of the copper mineralized zone.

Mr. Reynolds upon viewing the property in July, 1966 realized the potential and aquired property. He has since spent a great deal of time and money, both in improving the mine and its reserves, and solving the metallurgy problems.

Geolgy

The limestones, are Triassic, and of the Luning formation, and consists dominantly of dolomite with subordinate shale and argillite. They are locally altered and silicified, and and mineralized with WO_3 and cu.

The limestones are intruded by a quartz monsonite prophyry. Thetexture of this rock is particulary distinctive on a stained sawed surface and shows a fine grained interstitial ground mass in which are set euhedral to subhedral metacrysts. The metacrysts are almost completly ironized at the surface. This indicates surface leaching, which will enrich the area at the water table of that time.

The lower exposure of the intrusive is 400 ft. wide and mineralized with cu in the form of oxides, as well as minor amounts pyrites. The samples taken at this point assay 1.70% cu, running as high as 27% in the carbonate zone near the contact. The carbonates are in the form of chrysocolla, azurite, and malachite and are generally with iron and manganese.

The intrusion is striking W 4 deg No. and dipping 15 deg. So.

There is some volcanic tuff overlay on the southwest edge of the intrusion, and locally some quartz andesite. It is reddish brown in color and consists of 25 to 30% of crystals in a ground mass that is partly glassey, and partly crystallized, and is generally mineralized.

All evidence indicates surface oxidation only, therefore the sulfide zone should be shallow, and highly productive.

Ore Reserves

There are numerous shafts, pits, adits, and cuts present on the property, along with the shallow drilling done by a contractor in 1963 whom I personally know, it is with this knowledge that I estimate the oxide reserves in the silicified zone at 1.5 million tons, with an additional reserve of .75 million tons of carbonates. There is no way to estimate the tonnage in the sulfide zone with the information at hand. It could run in excess of 5 million tons.

Conclusion and Recommendations

There is sufficient reserves of oxide ore to warrent a 500 tpd leaching operation. This could be accomplished with a min. of development, and at the same time conduct an exploration program of deep drilling to prove the sulfide zone, whereas a flotation plant of adequate size will be needed to process that ore.

I am in no way interested in the Blue Ribbon Mine, or Mr. J. M. Reynolds.

Respectfully submitted

H. M. Walker

H. M. Walker
Mining Engineer