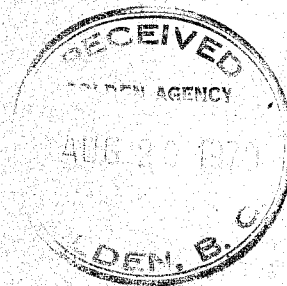


2515

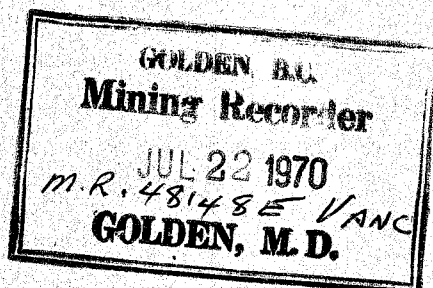
GEOPHYSICAL REPORT
ELECTROMAGNETIC SURVEY

JUMBO MINES LTD.
82K/8W
Tatler Claim Group
Golden M.D., B. C.

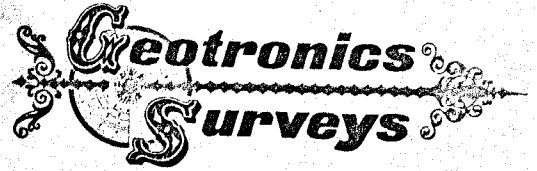
Location: $116^{\circ} 30'W$, $50^{\circ} 30'N$



Report by: R. H. PARKER, B.Sc.
Geophysicist



July 1970



517 • 602 West Hastings Street, Vancouver, British Columbia, Canada * Telephone 688-4342

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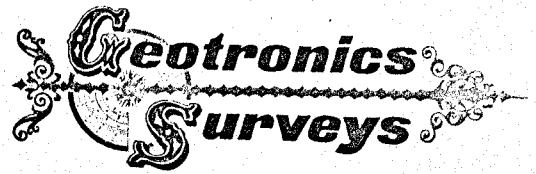
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| RESUME - R. H. Parker, B.Sc. | |

MAPS IN FOLDER:

- #2 Fig. 2 - Electromagnetic Map
- #3,4 Fig. 3 - Profiles - Sheets 1 & 2

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. 2515 MAP



517 - 602 West Hastings Street, Vancouver, British Columbia, Canada * Telephone 688-4342

SUMMARY

The results of two electromagnetic surveys are combined into one map and one report. On the basis of these results, 6 areas are chosen for a drilling program. In this report these areas are discussed in what is felt to be the order of priority for the drilling program.

INTRODUCTION

This report is based on work completed on the Tatler group of claims, held by Jumbo Mines Ltd., in the Golden Mining Division, B.C. This work has been done in 2 stages:

- a) Initial reconnaissance EM survey (1969).
- b) Follow up EM survey with extension and filling-in of previous work (1970).

On the basis of the results of these 2 surveys, an interpretation has been made to locate the best possible areas for drilling.

CLAIM LOCATION

The claim group is located at the headwaters of Farnham Creek, a tributary of Horsethief Creek, about 40 miles west of Invermere, B.C. Access to the claims is by a road which runs up the side of Farnham Creek, passable for jeep or other 4-wheel drive vehicle; or by helicopter from Invermere.

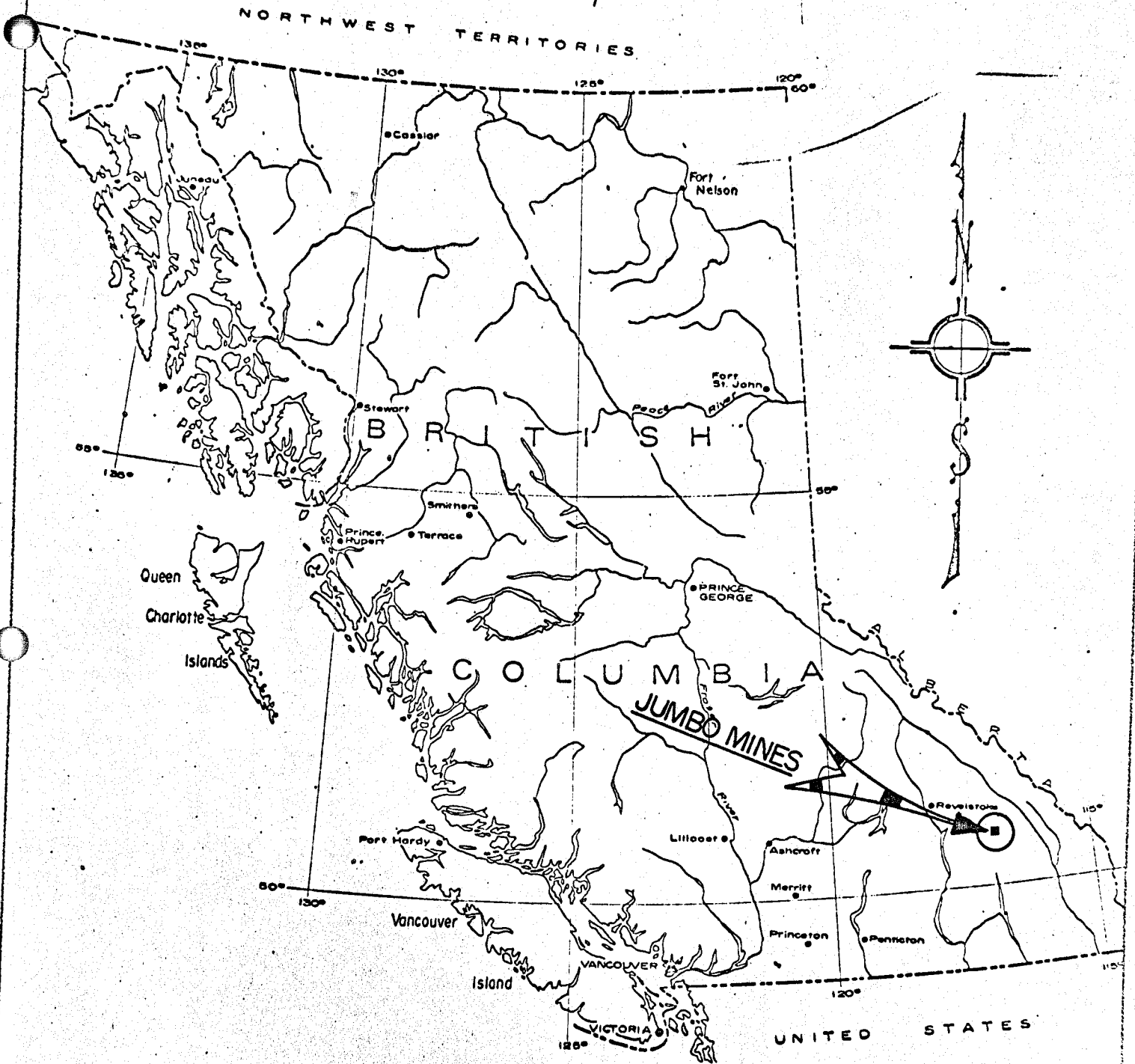
GEOLOGY

The geology of the area is complex. Broken Hill, the site of a Crown grant, is comprised of shattered shale, sandstone and limestone with many scattered showings of azurite, malachite, pyrite and small amounts of galena and tetrahedrite. There are 2 pronounced showings of barite, with minor copper mineralization, plus a lot of barite float scattered on the hillside. The rock is greatly fractured and sheared in all locations. Mineralization appears to occur mainly in vein systems, often in areas of contact between shale and limestone. Both quartz and calcite appear in the vein system.

WEATHER

The weather during the survey was excellent, barring one afternoon of rain. Snow conditions this year were much better than in 1969.

JUMBO MINES - TATLER CLAIM GROUP



LOCATION MAP

GEOTRONICS SURVEYS

Scale 1" = 120 miles

INSTRUMENTATION

A Model G-28 VLF EM Receiver, manufactured by Geotronics Instruments Ltd., Vancouver, B.C. was used in this survey. This is a dip angle instrument which gives the dip angle of the resultant EM field at any location. A dip angle of zero generally indicates the presence of an electrical conductor. The station used for this survey was Jim Creek, Washington, at a frequency of 18.6 KHz.

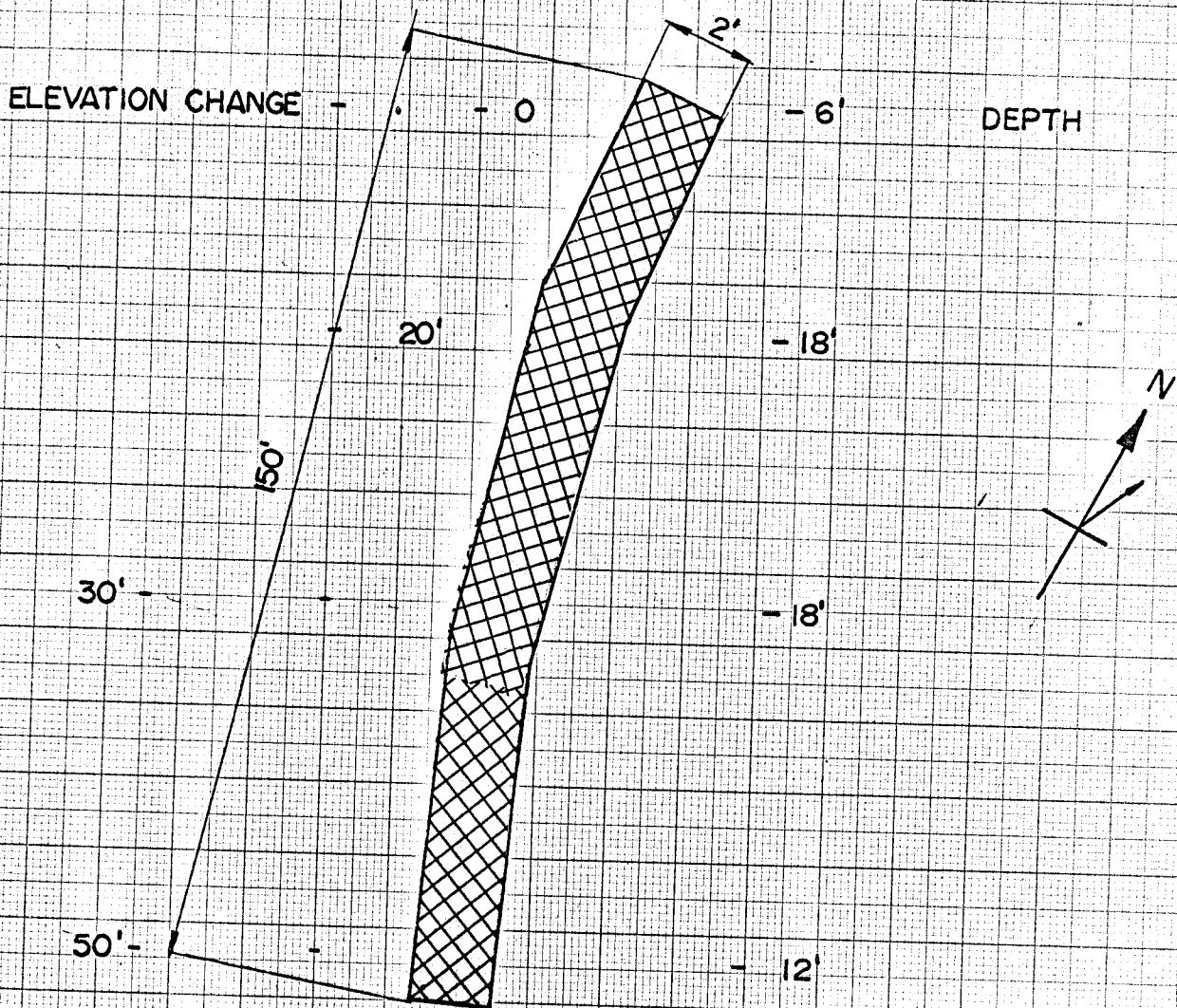
MAPPING

Two maps have been drawn of the results. Figure 2 shows the survey grid with the value for each station given, and the conductive zones indicated. The location of Farnham Creek is shown, with the campsite, claim posts, and trenching located in the course of the survey. Recent trenching was crossed on Line 0+02S of base line 2, at station 03W. A sketch of this trenching is included in this report. Figure 3 shows the profiles for each line.

INTERPRETATION

There are 6 main areas of interest, marked A, B, C, D, E and F on Figure 2. It should be noted that in all areas, the trend of the axes of the conductors appears to be the same - almost due north-south.

ESTIMATED DIMENSIONS & ROUGH PLAN OF TRENCHING



length - 150'
width - 2'
depth - 6' to 18'

JUMBO MINES Ltd.

TATLER GROUP

Location crosses line O+2S, BL No. 2 at station 3W

Area A

This area is adjacent to the major showing of azurite on the upper portion of the claim group. Several conductors are indicated, and the profiles show marked similarities over a distance of some 800 ft. The axis of one conductor appears to be aligned with the location of the showing, although there is no crossover right at the trench itself. The presence of the showing, apparently associated with a fairly broad conductive region, would make this area the prime drilling target. A grid of holes is recommended as follows:

Base Line No. 2

Line 22S, station 12W to 20W

Line 24S, station 12W to 20W

Base Line No. 1

Line 0+00, station 0 to 09E

It is felt that 10 holes of 200 ft. depth should be drilled, evenly spaced in this area, to outline the extent of the conductive body. More, and/or deeper holes should be drilled here based on the initial drilling results.

Area B

This area consists of 2, perhaps related, conductive zones of long extent. The profiles are

characterized by very deep lows to the west of the crossover points. The zones have axes that are more or less parallel to the snow cornice at the south extremity of the survey area. B-1 is about 800 ft. long; its southern extremity is near a location post on an outcrop with a good deal of quartz and some minor copper mineralization. B-2 has trenching at one end, with barite and copper mineralization showing, and crosses one or two outcrops showing strong pyrite mineralization and some copper. It is felt that B-2 should be drilled on Line 10S, station 13E; Line 12S, station 9E; and Line 14S, station 6E, with further holes if positive results are obtained from these initial holes. B-1 should be drilled if B-2 shows good indications.

Area C

This area contains a number of conductive axes, covering an area of approximately 400 ft. by 800 ft. The eastern edge of this zone coincides fairly closely to a ridge (glacial moraine, lateral) of black shaly mud that may be fairly conductive of itself. However, the crossovers on the western edge coincide with a fairly steep bluff of rock with a large amount of gossan zones, and some copper mineralization. A series of 5 or 6 holes, in a line from Line 24S,

station 03W or 04W to Line 18S, station 01W, should indicate the nature of this conductive zone.

Area D

There is one main conductive axis indicated here. This crosses Farnham Creek about 400 ft. from the campsite and coincides with some outcrops with minor showings at its southern end. Test holes are recommended at Line 06S, 02W and Line 02S, 02E. It should be noted that barite with copper occurs around 06S, 04W.

Area E

A couple of fairly short conductive zones appear here, in an area where some trenching was done in the past, and an adit driven (Line 08N, 06W). There is a fair amount of overburden and bush cover here, with few outcrops. Holes at Line 12N, station 03W, and on the base line at 13N should indicate whether this area is worthy of more investigation.

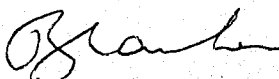
Area F

Two conductive axes appear here, in an area of some outcrop and much broken cover and talus. There is some barite float and minor amounts of pyrite float in the area. A test hole is suggested at Line 04N, station 10E.

CONCLUSION

Work accomplished in the summer of 1969 and the summer of 1970 has resulted in outlining several areas on the Tatler group of claims, Golden M.D., that appear amenable to drilling. A series of drill holes has been recommended that should indicate **the worth** and extent of the bodies involved.

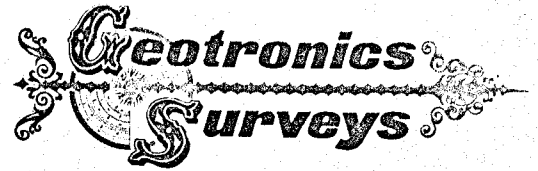
Respectfully submitted,


R. H. PARKER, B.Sc.
Geophysicist

RHP:ly
July 20, 1970

REFERENCE

Field Report, Electromagnetic Survey, Jumbo Mines Ltd.,
Tatler Group, Golden Mining Division, July 1969, R. H. Parker.



517-602 West Hastings Street, Vancouver, British Columbia, Canada * Telephone 688-4342

COST BREAKDOWN

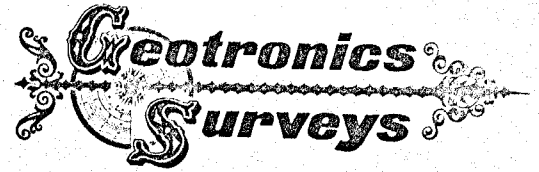
Tatler Claim Group No. 1

Mineral Lease M-15

| | | | |
|------------|-------|------------|-------|
| Record No. | L9991 | Record No. | L9987 |
| " | " | " | " |
| " | L9992 | " | L9988 |
| " | " | " | " |
| " | L9993 | " | L9989 |
| " | " | " | " |
| " | L9994 | " | L9990 |

Hand Trenching - June 27 to July 8, 1970 - 12 days

| | | |
|---|---------------|-------------------|
| Wages: R. Kane - 10 days @ \$60.00/day | \$600.00 | |
| A. Louie - 10 days @ \$40.00/day | <u>400.00</u> | \$1,000.00 |
| 4-wheel drive jeep rental - 14 days @ \$25.00/day | | 350.00 |
| Drill Rental - 14 days @ \$15.00/day | | 210.00 |
| Materials, Drill Rod, etc. | | 122.00 |
| Camp Maintenance - 2 men @ \$15.00/per man - 10 days | | <u>300.00</u> |
| TOTAL COST | | <u>\$1,982.00</u> |



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COST BREAKDOWN

Tatler Claim Group No. 2

| | | | |
|------------|-----------------|------------|-----------------|
| Record No. | 11223 | Record No. | 12988-91 inc. |
| " | " 11224 | " | " 12982 |
| " | " 11227 | " | " 12984 |
| " | " 11229 | " | " 12986 |
| " | " 11242 | " | " 11173 |
| " | " 11244 | " | " 11174 |
| " | " 11249-57 inc. | " | " 11176 |
| " | " 11259 | " | " 11195 |
| " | " 11261 | " | " 11197 |
| " | " 11263 | " | " 11199 |
| " | " 11265 | " | " 11186-93 inc. |

Geophysical Survey - Electromagnetic - July 9 to 21, 1970 - 13 days

| | | |
|---|---------------|--------------------------|
| Wages: R.H. Parker, Geophysicist - | | |
| 13 days @ \$80.00/day | \$1,040.00 | |
| A. Louie, Compass Man - | | |
| 13 days @ \$40.00/day | 520.00 | |
| W. Mitchell, Chain Man - | | |
| 13 days @ \$40.00/day | 520.00 | |
| Geophysical Mapping & Reports - | | |
| R. H. Parker | 400.00 | |
| Engineering Fees - E. P. Sheppard | <u>300.00</u> | \$2,780.00 |
| EM Instrument Rental | | 200.00 |
| Camp Maintenance, 13 days @ \$40.00/day, 3-man crew | | 520.00 |
| Survey Materials | | 50.00 |
| Helicopter cost to move camp location on property | | <u>507.50</u> |
| TOTAL COST | | <u><u>\$4,057.50</u></u> |

E. P. SHEPPARD & ASSOCIATES LTD.

CONSULTING GEOLOGISTS

314-402 WEST PENDER STREET,
VANCOUVER 3, B.C.

August 1, 1970

Mr. Tom Rolston, Pres.
Geotronics Surveys
517-602 West Hastings
Vancouver, B.C.

Dear Mr. Rolston:

At your request I have reviewed the reference noted below and examined the report prepared by your personnel, "Geophysical Report - Electromagnetic Survey" on the Tatler Claim Group, Golden M.D., submitted to Jumbo Mines Ltd. (N.P.L.)

The claims group is located at the head of Farnham Creek, a tributary of Horsethief Creek, about 40 miles west of Invermere, B.C. Access to the claims is by a road along the bank of Farnham Creek, passable by a 4-wheel drive vehicle. A direct means of reaching the property is by helicopter, available at Invermere or Golden.

Geology. The claims group is underlain by rock types of the Toby and Mt. Nelson formations of the Lower Windermere and Upper Purcell ages respectively. Toby is composed of pebble, cobble and boulder conglomerate with a matrix of quartzite, argillite and limestone. The conglomerate overlies the Mt. Nelson in the southern part of the property. This formation consists of buff weathering, grey dolomitic limestones, purple, grey and black argillite and slate, and green and white quartzite. The rocks are folded into anticlinal folds, with rocks on the western flank intensely contorted into a series of chevron and recumbent folds striking NW. Sparsely mineralized joints trending N 60°E are filled with quartz-barite gangue. The veins are short, lentic and irregular.

Two normal faults were traced southward to the Mineral King Mine 4 miles distant. The faults are the main sources of mineralization in the Mineral King deposit. Replacement bodies tend to form wherever mineralized veins intersect favourable horizons within the Mt. Nelson dolomite.

The Electro-magnetic survey was carried out over a grid pattern and 6 main areas of interest were outlined. They are designated by letters on Fig. 2 accompanying the report. The conductors exhibit a northerly trend.

Area A indicates a broad conductive zone part of which is aligned with the showing exposed in a trench. Diamond drill hole is recommended to explore this conductor.

Area B indicates lineal conductors of more than 1000 feet in length. The conductor coincides with a showing on L 10S-13E. Drill holes are recommended to explore this conductor.

Area C indicates several conductors over an area 400' x 800'. The eastern edge of this zone coincides with a ridge of black shaly mud which may well be conductive. The conductor on the western edge coincides with a steep bluff of rock showing gossan zones and copper mineralization. This zone warrants exploration by diamond drilling.

Area D shows a linear conductor 800 ft. long. There are showings nearby of barite and copper showings on 06S, 04W. A drill hole is recommended to explore this conductor.

Area E shows a conductor 600 ft. long beginning north of the adit. A series of drill holes is recommended for this conductor.

Area F contains two conductive areas. These appear to be part of the conductor running through Area D, and should be explored in conjunction with Area E.

The areas of immediate interest are A, B and C. It is known that the beds and veins dip NE, and it is felt that the conductors located here may represent downdip occurrences, which would make the whole area a target for diamond drilling.

The geophysical report and maps submitted by your Company show careful preparation and professional presentation.

E. P. Sheppard

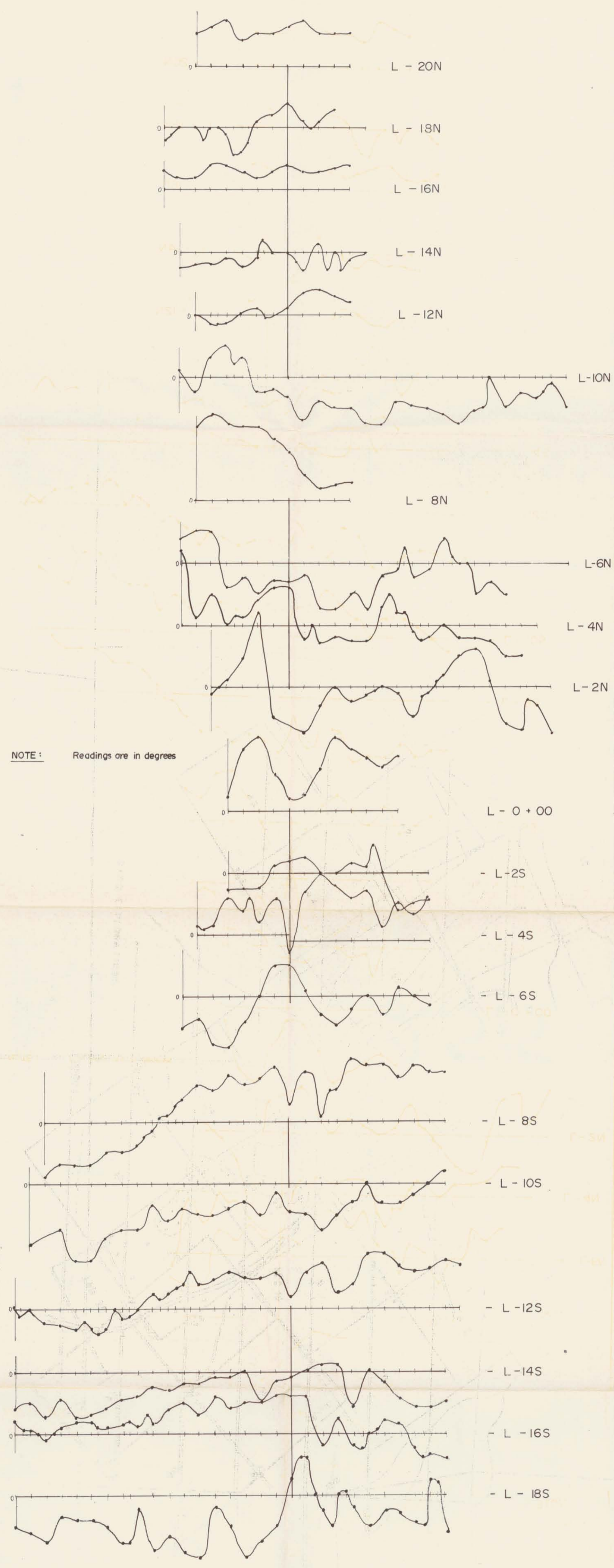
E. Percy Sheppard, P. Eng.
Consulting Geologist

REFERENCE

FIELD REPORT, ELECTROMAGNETIC SURVEY,
Jumbo Mines Ltd, Tatler Group, July
1969, R. H. Parker.



S:d



NOTE: Readings are in degrees

PROFILES - SHEET 1, FIGURE 3

SCALE: 1" = 400' HOR., 1" = 20° VER.

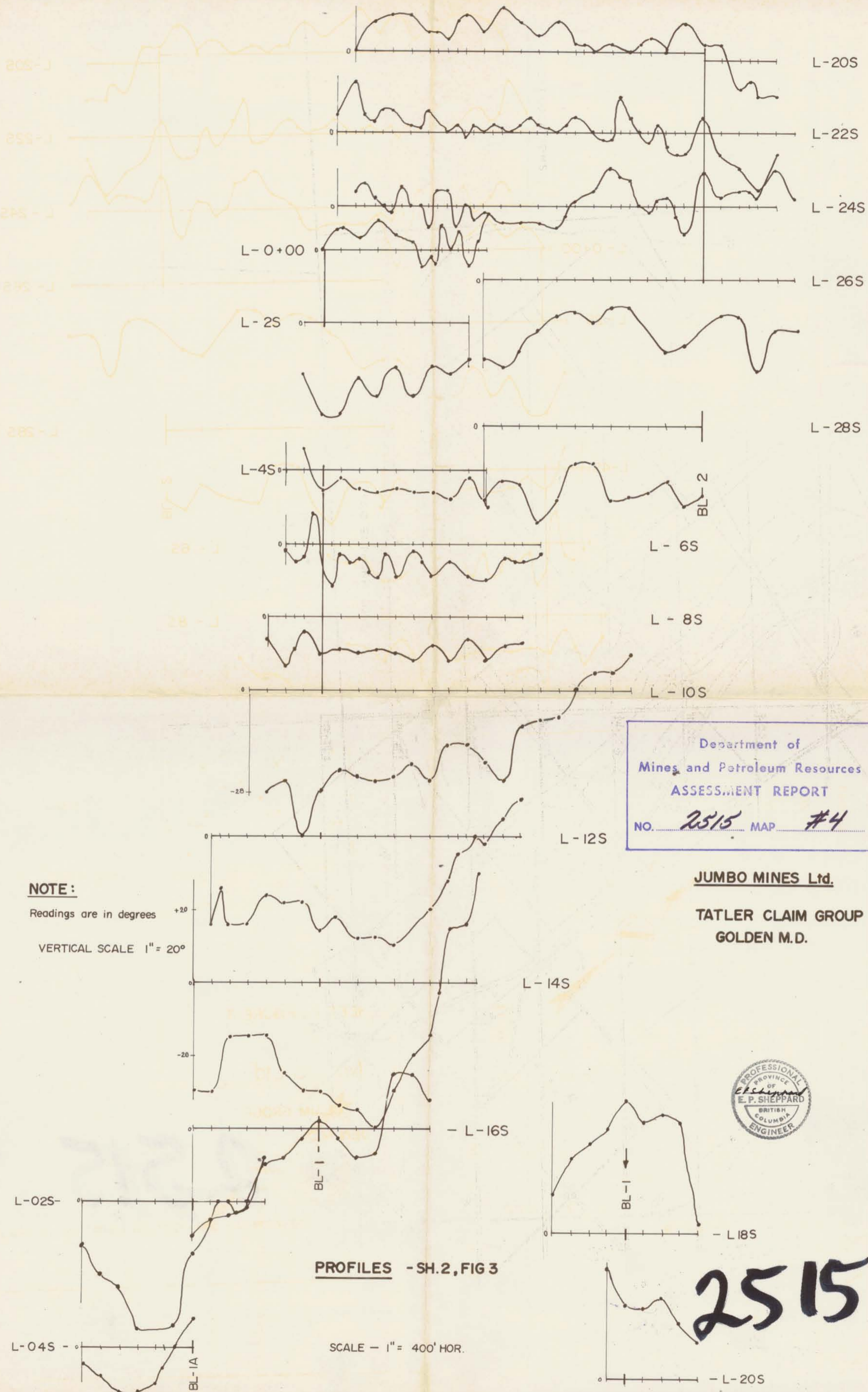
JUMBO MINES Ltd.
TATLER CLAIM GROUP
GOLDEN M.D.



2515

TO ACCOMPANY GEOPHYSICAL REPORT BY R.H. Parker, B.Sc.

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 2515 MAP #3



NOTE:

Readings are in degrees

VERTICAL SCALE 1" = 20°

PROFILES - SH.2, FIG 3

SCALE - 1" = 400' HOR.

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 2515 MAP #4

JUMBO MINES Ltd.

**TATLER CLAIM GROUP
GOLDEN M.D.**



2515



LEGEND

- bluff / snow cornice
- claim post
- trenching
- axis of E - M conductor
- campsite
- adit

FIGURE 2

Department of
Mines and Petroleum Resources
ASSETS IN REPORT
NO. 2515 MAP #2

PROFESSIONAL
E. P. SHEPPARD
BRITISH COLUMBIA
ENGINEER
2515

NOTE

← all lines facing

TO ACCOMPANY GEOPHYSICAL REPORT BY
R.H. Parker, B.Sc.

| | | | | |
|--|-----------|--------------------------------|-----------|----------|
| JUMBO MINES LTD. | | | | |
| TATLER CLAIM GROUP, GOLDEN M.D. | | | | |
| ELECTRO - MAGNETIC | | | | |
| scale | date | job no. | sheet no. | drawn by |
| 1" = 400' | JULY 1970 | 70-41 | FIG. 2 | P.P. |
| | | Geometrics Surveys Ltd. | | |
| <small>Geophysical Services, Ground & Airborne</small> | | | | |
| <small>517 - 802 West Hastings Street, Vancouver, British Columbia</small> | | | | |