

2309

GEOCHEMICAL REPORT ON THE
BA, LB, CU, MAG, JANE, BARR,
LYBDENUM AND VAN DOO, CLAIMS
BULKLEY RIVER AREA, OMINECA M. D.

FOR

FORTUNE CHANNEL MINES LTD. (N.P.L.)

WORK PERIOD: Dec. 7-15, 1969

Jan. 15-Feb. 13, 1970

CO-ORDINATE: 50° 126° S. W.

S. S. Tan, B.Sc., E.I.T.,
L. J. Manning, P.Eng.

File No. 92-L/7W, 70-1
Date: March 13, 1970

L. J. Manning & Associates Ltd.
610 - 890 West Pender Street,
Vancouver 1, B. C.

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Department of
Minés and Petroleum Resources
ASSESSMENT REPORT

NO. **2309** MAP

L. J. MANNING & ASSOCIATES LTD.

CONSULTING MINING ENGINEERS

610-890 WEST PENDER STREET

VANCOUVER 1. B.C.

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INTRODUCTION:

This report is based on results of a geochemical soil survey conducted on parts of the property during the periods December 7 to 15, 1969 and January 22, 1970 to February 13, 1970. The work was directed and supervised by L. J. Manning & Associates Ltd.

PROPERTY:

The property consists of 173 claims. Since it is an amalgamation of two separate properties on which considerable overstaking has taken place, the total area is less than the number of claims would indicate.

Details of the claims as far as can be ascertained by checking records in the office of the Vancouver Mining Recorder and documents passed to us by Fortune Channel Mines Ltd. are as follows:

<u>Claims</u>	<u>No. of Claims</u>	<u>Record Numbers</u>	<u>Expiry Dates</u>	<u>Owner</u>
BA 1-24	24	75291-314	May 20, 1970	Fortune Channel Mine
LB 1-20	20	75315-334	May 20, 1970	Fortune Channel Mine
CU 1-32	32	77528-559	June 9, 1970	Fortune Channel Mine
Mag 1-44	44	75417-460	June 13, 1970	Fortune Channel Mine
Jane 1-10	10	80208-217	Sept. 16, 1970	W. Magnusson
Lybdenum 1-3	3	25790-792	July 24, 1970	W. H. Smith
Barr 4	1	28811	March 16, 1970	W. H. Smith
Barr 6	1	28813	March 16, 1970	W. H. Smith
Barr 8	1	28815	March 16, 1970	W. H. Smith
Barr 10	1	28817	March 16, 1970	W. H. Smith
Barr 12	1	28819	March 16, 1970	W. H. Smith
Barr 15-25	11	28822-832	March 16, 1970	W. H. Smith
Barr 29	1	28836	March 16, 1970	W. H. Smith
Barr 31	1	28838	March 16, 1970	W. H. Smith
Barr 33-39	7	28840-846	March 16, 1970	W. H. Smith
Barr 40-52	13	49341-353	June 9, 1970	W. H. Smith
Barr 53 Fr	1	54237	Sept. 6, 1970	W. H. Smith
Van Doo	<u>1</u>	65437	Jan. 2, 1971	W. H. Smith
TOTAL	173			

LOCATION AND ACCESS:

Approximate Co-ordinates: Longitude 126°52'W
(Center of Property) Latitude 54°26'N

Ref: N.T.S. Sheet 93-L-7 West Half, Houston. ✓

The property is on the west of Bulkley River, approximately 25 miles southeast of Smithers. Access to the property by road is at the turn-off from Highway 16 into Quick. From thence, an all-weather gravel road leads 10 miles south to the property. The Canadian National Railway line runs along the eastern edge of the property.

TOPOGRAPHY AND VEGETATION:

Elevations on the property range from 1,800 feet a.m.s.l. at the river to 4,100 feet at the western boundary.

The terrain is of gentle relief with a gradual rise averaging about four degrees to the west. Within the area there are several streams which have cut shallow valleys and there are extensive areas of flat, boggy ground.

There are few rock outcrops. The area is almost entirely covered by overburden carrying a thick forest growth of small to medium trees, some of commercial size. On the eastern portion, near the railway and river, several open areas appear to be former agricultural or grazing lands.

GENERAL GEOLOGY:

Geological Survey of Canada Map 671A indicates the claims area to be covered extensively by overburden. Undifferentiated volcanic rocks occur within a few miles of, and surround the property.

An outcrop of intensely altered granodiorite occurs to the north of the central group of claims. Aeromagnetic map (Sheet 93-L/7) indicates the area to be underlain by intrusive rocks that are now masked by overburden. Low grade molybdenum mineralization in altered granodiorite ~~are~~ present in the Barr claims.

is

SURVEY CONTROL:

A stadia survey was carried out to establish claim boundaries in the south central region. The main access road on the property and some claim posts were surveyed by H. Thurgood, P.Eng. East-west base lines were established with north-south grid lines turned off at 500-foot spacing. Local terrain features, e.g. creeks, roads, railway line, etc., and claim posts were tied into the grid. These data were then transferred to a 1 inch = 1,000 foot base map enlarged from sheet 93-L/7W.

SOIL SAMPLING PROCEDURE:

Soil samples were taken on a line grid basis. The field crew was instructed to take one "B" soil horizon sample from each 200 foot station on the grid lines. A soil auger was used to reach the "B" sample horizon. This soil horizon varies from poorly to well developed and is 2 to 6 inches thick. About 50 grams of the "B" horizon soil was placed in a standard 4" x 9" soil sample envelope. The usual survey and sample data are marked on the envelope of each corresponding sample location and later transferred to record sheets. Samples were partially air dried and shipped to Bondar-Clegg and Company, Geochemist, North Vancouver, for analysis.

SAMPLE PREPARATION AND LABORATORY ANALYSIS:

Bondar-Clegg treated the samples as follows:

- Drying
- Visual determination of soil type and organic content.
- Sieve to -80 mesh fraction
- Hot extraction by Aqua Regia (HNO_3HCl)
- Atomic absorption analysis for copper and molybdenum in parts per million.

RESULTS AND INTERPRETATION:

A total of 963 soil samples were taken. Laboratory determination of soil horizons and organic content revealed that soil samples taken from the south-central part of the property were not from a consistent "B" horizon. Samples range from "A₀" to "B" horizon soil and their admixture. Consequently, in determining background and threshold, categorization with soil type was required. The calculated copper values are:

<u>Soil Horizon</u>	<u>Background Cu P.P.M.</u>	<u>Threshold CU P.P.M.</u>
A ₀ A ₁ (organic)	30	60
A ₂	12	24
A ₂ + B	16	32
B	20	40

Since the area is extensively overburdened and the government aeromagnetic map indicates probable underlying granitic intrusive no attempt was made to differentiate background/threshold values with respect to lithology.

The magnitude of anomalies is the contrast between the peak values and the threshold (upper limit of background).

Molybdenum determination was made on 335 samples. Calculated background and threshold values for molybdenum is 2 p.p.m. and 4 p.p.m. respectively. A possible anomaly, represented by 5 sample values is centered at 75 + 00S between L14 + 00 and L15 + 00.

Copper anomalies derived from A₀A₁ and the A₂ soil horizons are generally erratic in distribution. One A₂ + B horizon copper anomaly of up to 1.5 times threshold in magnitude is indicated. The "B" horizon anomaly is co-incident to the molybdenum anomaly. In addition, several isolated one value copper anomalies are present.

CONCLUSIONS:

The molybdenum anomaly occurs adjacent to and downslope from some previous trenches and drill sites that investigated low grade molybdenum and copper mineralization. A creek bisects the anomaly into two semi-equal halves. This anomaly is thus attributed to soil creep and drainage from a known showing.

Copper anomalies derived from the A₀A₁ and A₂ horizons are inconclusive and are not considered further. One of the two small copper anomalies is coincident to the molybdenum anomaly and could be attributed to the same source. The second anomaly, centered at 100 + 00S between L115 + 00 and L120 + 00, consists of an aggregate of three sample values. The anomaly is fan shaped and is suggestive of a secondary dispersion pattern via soil creep.

Respectfully submitted,

L. J. MANNING & ASSOCIATES LTD.

S. S. Tan

S. S. Tan, B.Sc., E.I.T.

L. J. Manning

L. J. Manning, P.Eng.

SST:Mjb

CERTIFICATE

I, Siak S. Tan, residing at 310 - 1965 West 8th Avenue, in the City of Vancouver, Province of British Columbia, hereby certify that:

1. I am employed as a geologist by L. J. Manning and Associates Ltd., with office at 610 - 890 West Pender Street, Vancouver, B. C.
2. I am a graduate of Carleton University, Ottawa, Ontario, B.Sc. (Geology) in 1964, and have practiced my profession since that time.
3. I have successfully completed, by examination, the academic requirements for admission to membership of the Association of Professional Engineers of British Columbia, and am presently enrolled as an Engineer-in-Training.
4. I have no interest, direct or indirect, in the properties or securities of Fortune Channel Mines Ltd. (N.P.L.) or any of its affiliates, nor do I expect to receive any such interest.
5. This report is based on results of a geochemical soil survey carried out under the direction and supervision of L. J. Manning and Associates Ltd.
6. My experience in Geochemistry includes courses in Applied Geochemistry, Chemistry of the Earth, and a minor in Chemistry taken at Carleton University. I have been involved in geochemical soil survey projects at various times.

DATED at Vancouver, British Columbia this 13th day of March 1970.

S. S. Tan

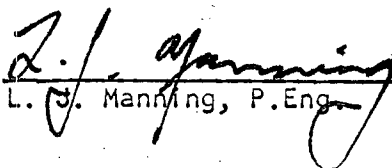
S. S. Tan, B.Sc., E.I.T.

CERTIFICATE OF QUALIFICATIONS

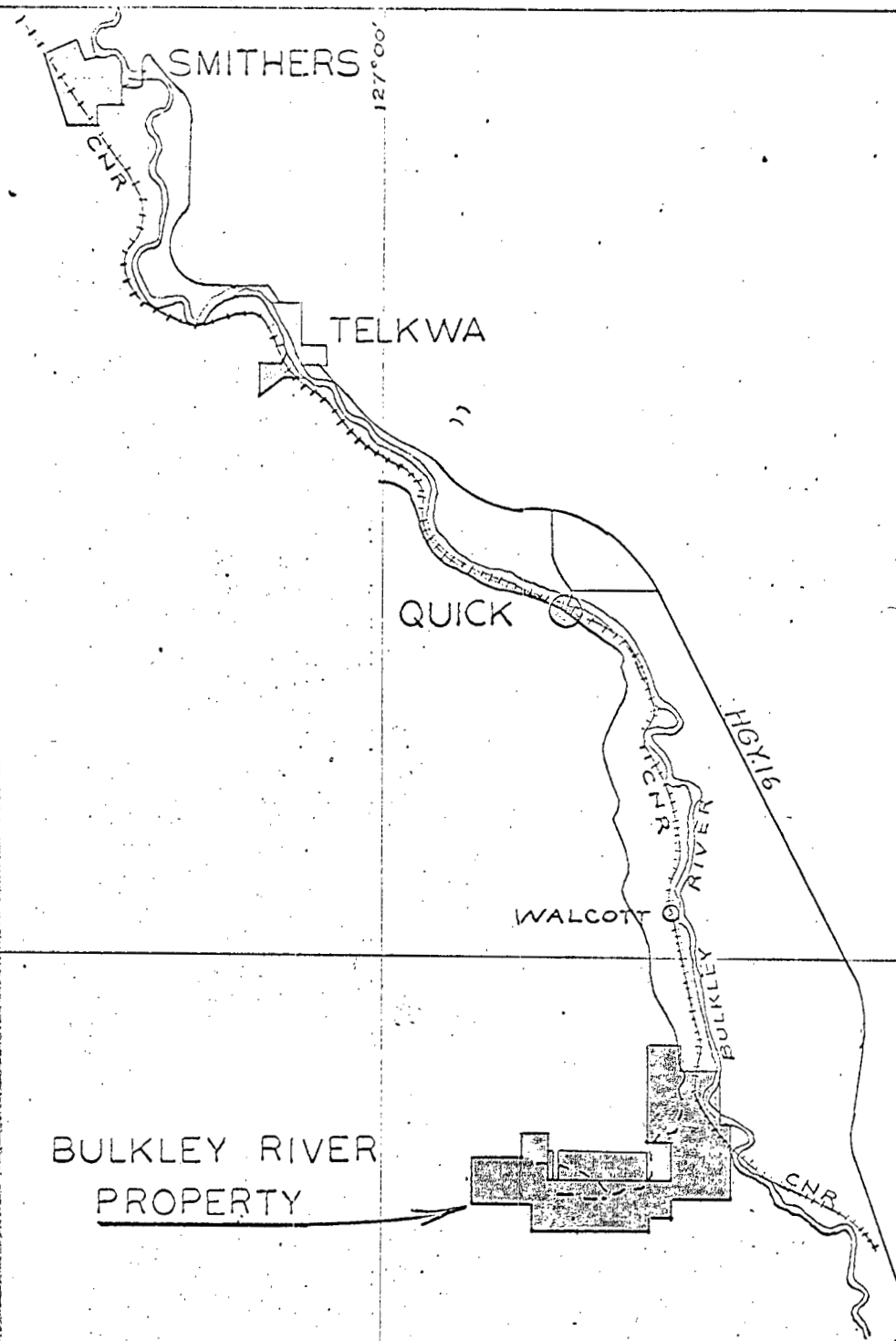
I, Luard J. Manning, P.Eng., Mining, of 945 Belvedere Drive, North Vancouver, B. C. certify as follows:

1. That I am a graduate of the University of British Columbia and hold a Bachelor of Applied Science degree in Mining Engineering.
2. That I have been a member of the Association of Professional Engineers of Ontario since 1959 and a member of the Association of Professional Engineers of British Columbia since April, 1966.
3. That I have been engaged in the profession of mining engineering for over 15 years.
4. That I was a member of the engineering and supervisory staff of the Taxco Unit of the American Smelting and Refining Co. Ltd. from 1951 to 1953.
5. That in 1953 I joined the staff as chief engineer of Giant Mascot Mines Ltd., Spillimacheen, B. C. and remained there until 1955.
6. That from 1955 to 1957 I was employed by Rix Athabasca Uranium Mines Ltd. as chief engineer and assistant manager.
7. That from 1957 to 1965 I was employed at the Pronto Division of Rio Algom Mines Ltd. in various capacities at both the uranium mine and the copper mine.
8. That from August to December 1965 I was Resident Manager at Orecan Mines Ltd.
9. That from January 1966 I have been involved in general exploration and consulting work.
10. That I am, at present, the principal in the firm of L. J. Manning & Associates Ltd. of Vancouver, a firm of consulting mining engineers.
11. That I concur with the report and conclusions of the report by S. S. Tan of this firm which is based on a geochemical soil survey carried out under the direction and supervision of L. J. Manning & Associates Ltd.
12. That I do not hold any financial or other interest in the properties or stock of Fortune Channel Mines Ltd. (N.P.L.) or any of its affiliates nor do I expect to do so in the future.

Dated at Vancouver, B. C. this 13th day of March, 1970.



L. J. Manning, P.Eng.



BULKLEY RIVER
PROPERTY

MAP 1

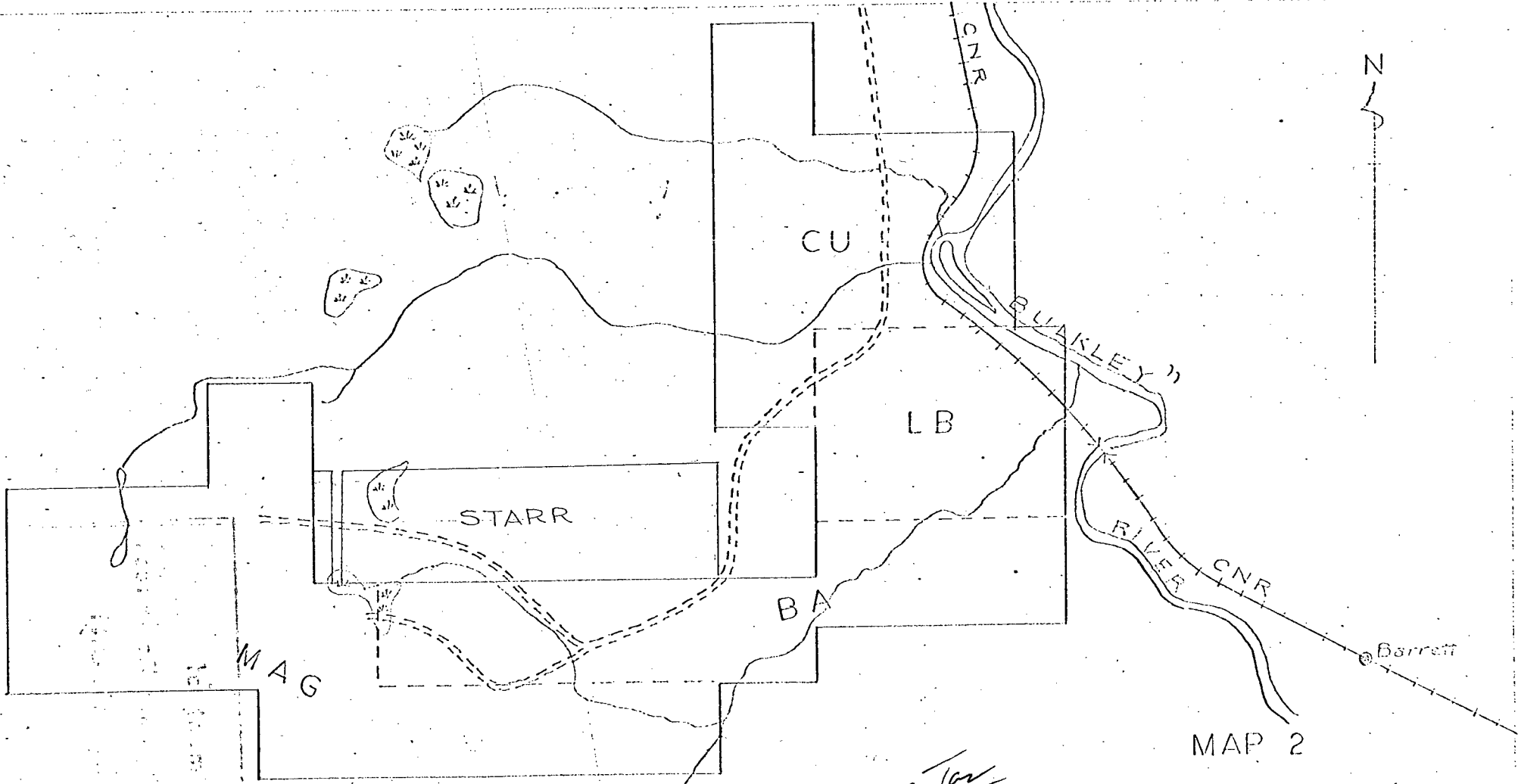
FORTUNE CHANNEL MINES LTD
BULKLEY RIVER PROPERTY
LOCATION MAP

Scale: 1:250,000
Drawn: M.K. Lorimer
Date: June 1969

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S. Tan
Mar 13/1970



Not surveyed - approximate only.

S. S. Cox
Mar 13 / 1970

FORTUNE CHANNEL MINES LTD.
 BULKLEY RIVER PROPERTY

PROPERTY MAP

Scale: 1:50,000
 Drawn: M.K. Lohmer
 Date: June, 1969

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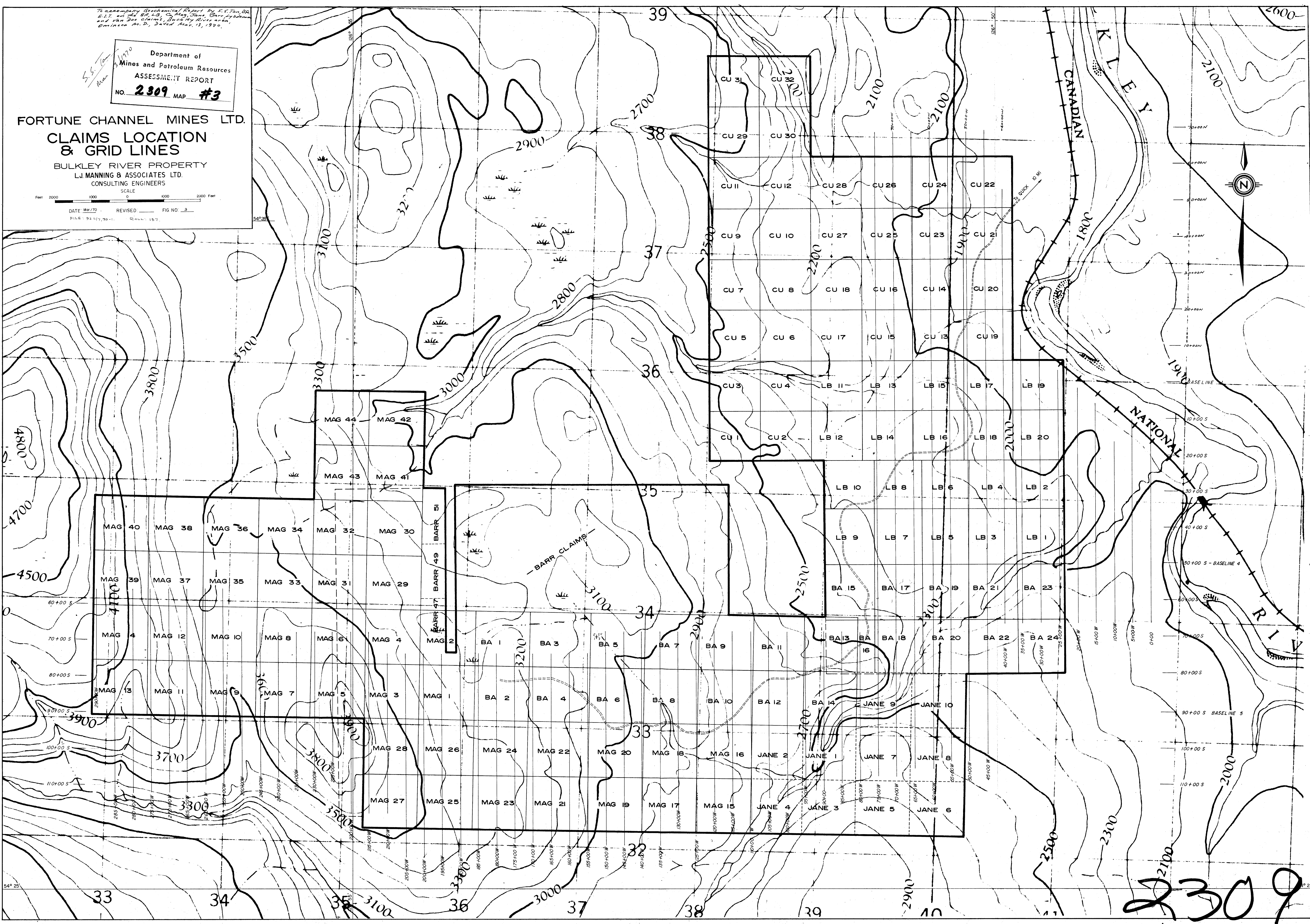
NO. **2309** MAP **#2**

To accompany Geological Report by S.S. Fay, B.S., D.I.T. and J.H. B.S., M.A., on Mag. Stone Barrage, and Van Der Klippe, Bulkley River area, Ontario No. 2, Dated Mar. 13, 1970.

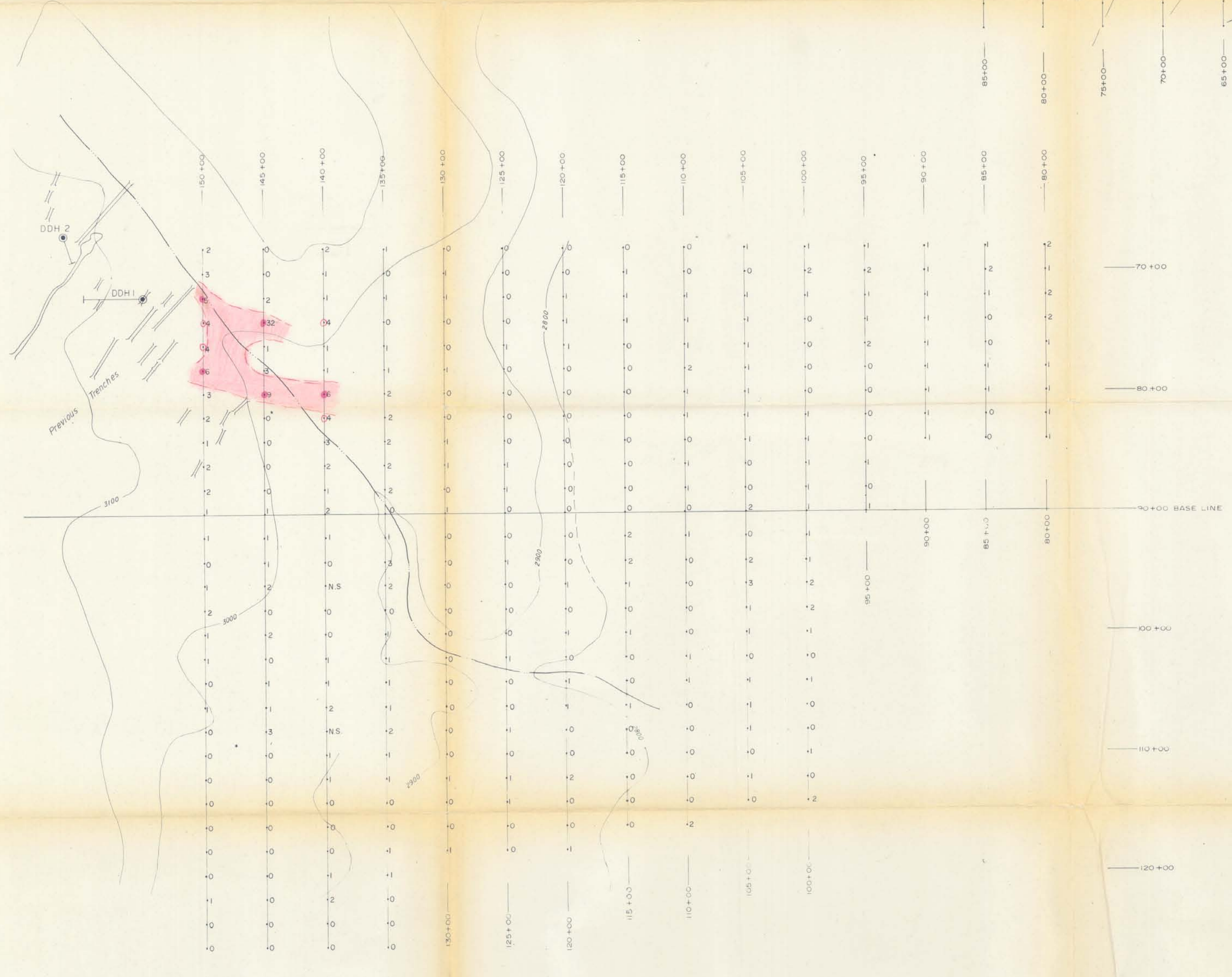
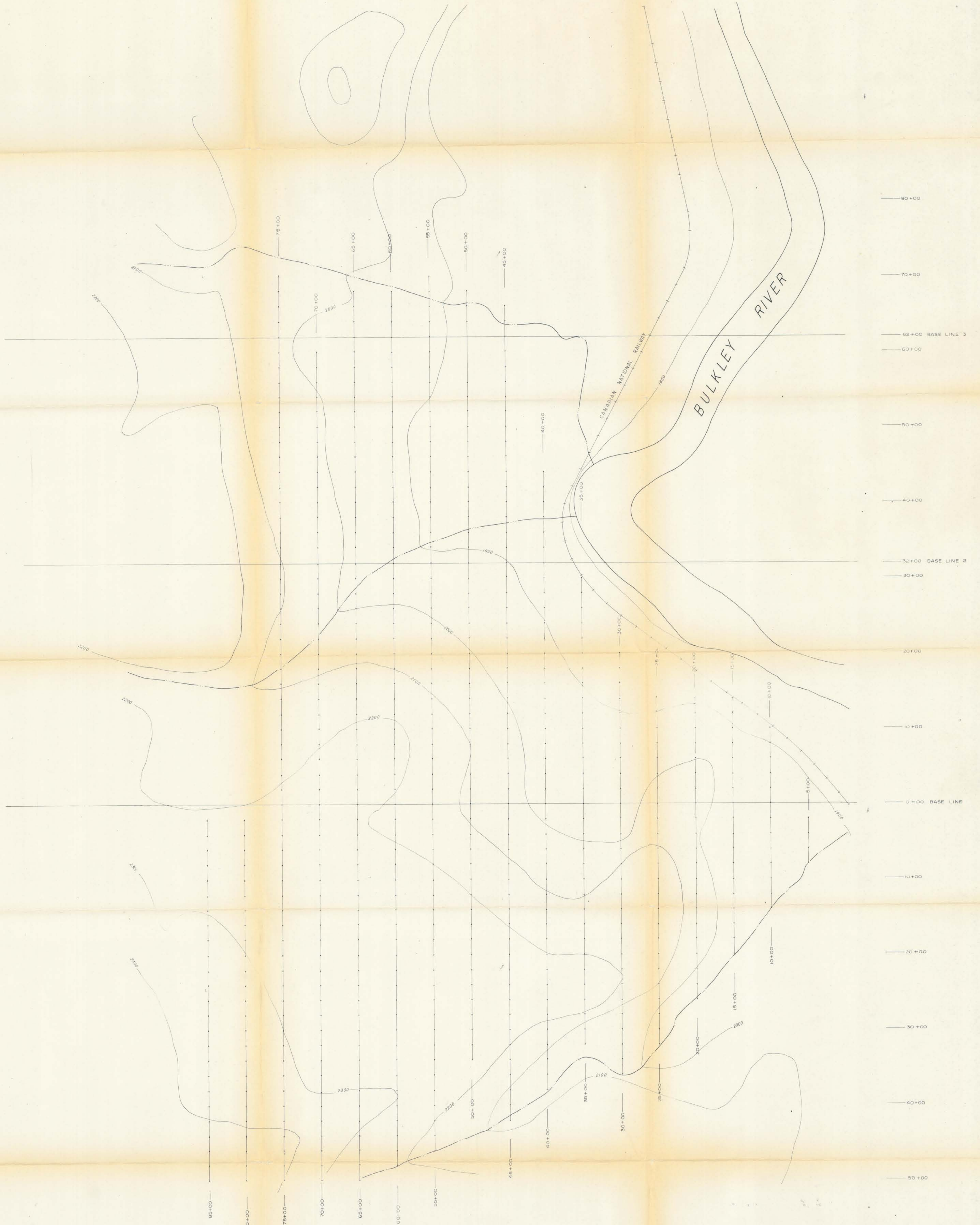
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NO. **2309** MAP #3

FORTUNE CHANNEL MINES LTD.
CLAIMS LOCATION
& GRID LINES
BULKLEY RIVER PROPERTY
L.J. MANNING & ASSOCIATES LTD.
CONSULTING ENGINEERS

Feet 2000 1000 0 1000 2000
SCALE
DATE Mar/70 REVISED FIG NO. 3
FILE 92-47, 70-1. REVISION 157.



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GEOCHEMICAL DATA
Background..... ppm Mo
Threshold..... ppm Mo
Assessment
Sample Location and Method
See Bulkley River Map

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To accompany Geochemical report by S.S. The B.S. Ltd. on the
B.L. 28, Co. Mag. Jans. Van. Likhman and Van. De claims,
Bulkley River area, Ontario M.D., dated Mar. 13, 1970.

FORTUNE CHANNEL MINES LTD.
GEOCHEMICAL SOIL SURVEY
MOLYBDENUM IN P.P.M.
BULKLEY RIVER PROPERTY
L.J. MANNING & ASSOCIATES LTD.
CONSULTING ENGINEERS

SCALE
FEET 0 100 200 300 400 500 600 700 800 900 1000

DATE Mar. 72 REVISED FIG NO. 5
FILE 92/34/W, 70-1 RAIL 193

12/12/70
Map 12/12/70



930d

GEOCHEMICAL DATA

Soil horizon	Background	Threshold
△ Ash	30 ppm Cu	60 ppm Cu
□ Ash	12 ppm Cu	24 ppm Cu
○ Ash/B	16 ppm Cu	32 ppm Cu
+B	20 ppm Cu	40 ppm Cu

+ Anomalous B and AxB
Anomalous A₁ and A₂
Tr Sample location and Cu in ppm.

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To accompany Geochemical report by G.S. Tom, B.Sc., B.E.T. on the BA, LB, Cu, Ni, Zn, Bar, Pb, Ag, Au and Van Ore claims, Bulkley River area, Dominion of D., dated Aug. 19, 1970.

**FORTUNE CHANNEL MINES LTD.
GEOCHEMICAL SOIL SURVEY
COPPER IN PPM.**

BULKLEY RIVER PROPERTY
L.J. MANNING & ASSOCIATES LTD.
CONSULTING ENGINEERS

SCALE
FEET 0 50 100 150 200
DATE 8/77 REVISIONS FIG NO. 4
FILE 1-52 2/1/76-1 ROLL 1197