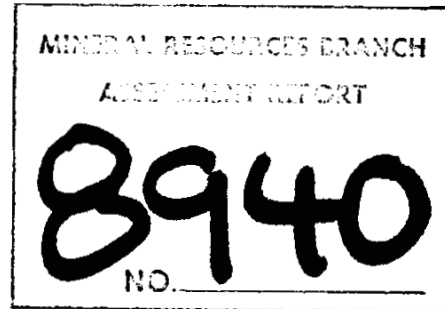


' 81-#106-# 8940



GEOCHEMICAL & PROSPECTING REPORT

BR 1 - 4 MINERAL CLAIMS

OMINECA MINING DIVISION

93 L 14/W

54° 56' N      127° 14' W

OWNER OF RECORD: S. Homenuke

OPERATOR: Tri-Con Mining Ltd.

WRITER: A.M. Homenuke, P. Eng. (Geol.)

SUBMITTED: February 20, 1981

**Tri-con** Mining Ltd.

VANCOUVER, B.C. CANADA

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I. INTRODUCTORY NOTES

Location and Access (Fig. 1)

The BR claims straddle the Bulkley River 17km N.N.W. of Smithers. More precisely, they are centered at 54°56' N. Lat. and 127°14' W. Long. Access on the south side of the river is by country lanes off Highway 16, then through farmland (permission required) to the river bank. The known showings are near the river level a further half kilometer on foot. On the north side of the river, the Moricetown Highroad passes near the claims, with remaining access on foot.

Physical Features

The Bulkley River flows westerly across the center of the claim block and is about 80 meters wide. The banks are very steep and rise about 50 meters to the gently rolling "floor" of the Bulkley Valley. The general elevation is about 450 meters.

On the south side of the river most of the land is cleared for farming except for a band of jackpine forest along the river bank. On the north side, it is mostly forested grazing land with mixed coniferous-deciduous growth and swampy areas.

Claims and Ownership

The property consists of four 2-post claims:

BR 1-4 Record nos. 2513-2516, Map No. 93L14/W

They were staked in February 1980 (Record date Feb. 22) and are held by S. Homenuke of Smithers, B.C. The work was paid for by Tri-Con Mining Ltd.

History

The existence of a silver-bearing vein has been known for several decades. There does not appear to be any literature available on the prospect, however, it shows on B.C.D.M. Map 69-1 as a silver, lead, zine occurrence, but is unnamed.



### History Con't.

During the writer's visits to the property, several old pits were noted. A log cabin, perhaps as much as 50 years old, is near the showings. Some old piping and hose lying around appeared to have been used for washing off bedrock. An adit was also rumoured to exist, but it was not seen. There appeared to be a shaft in the riverbed, but water was too high for examination.

### Economic Assessment

The property was staked at a time of record high silver prices so that any occurrence of silver mineralization was worth looking at. Also, the area has limited general accessibility and few rock exposures. It was thought that the showings might be indicative of more extensive mineralization. It is also rumoured that specimens from the property ran as high as several hundred ounces per ton silver. At present it must be considered as a small occurrence of silver mineralization.

### Present Work and Distribution

The writer and the property owner prospected the north side of the river while trying to locate the showing. This work is not included for assessment as it predates the claims, however, the information obtained is included in this report.

Prospecting on the south side of the river (BR 1,3) found the old showings and was concentrated around this area. (BR 3) Reconnaissance traversing totalled about 1,500 meters, while detailed work covered an area about 200 m by 1000 m.

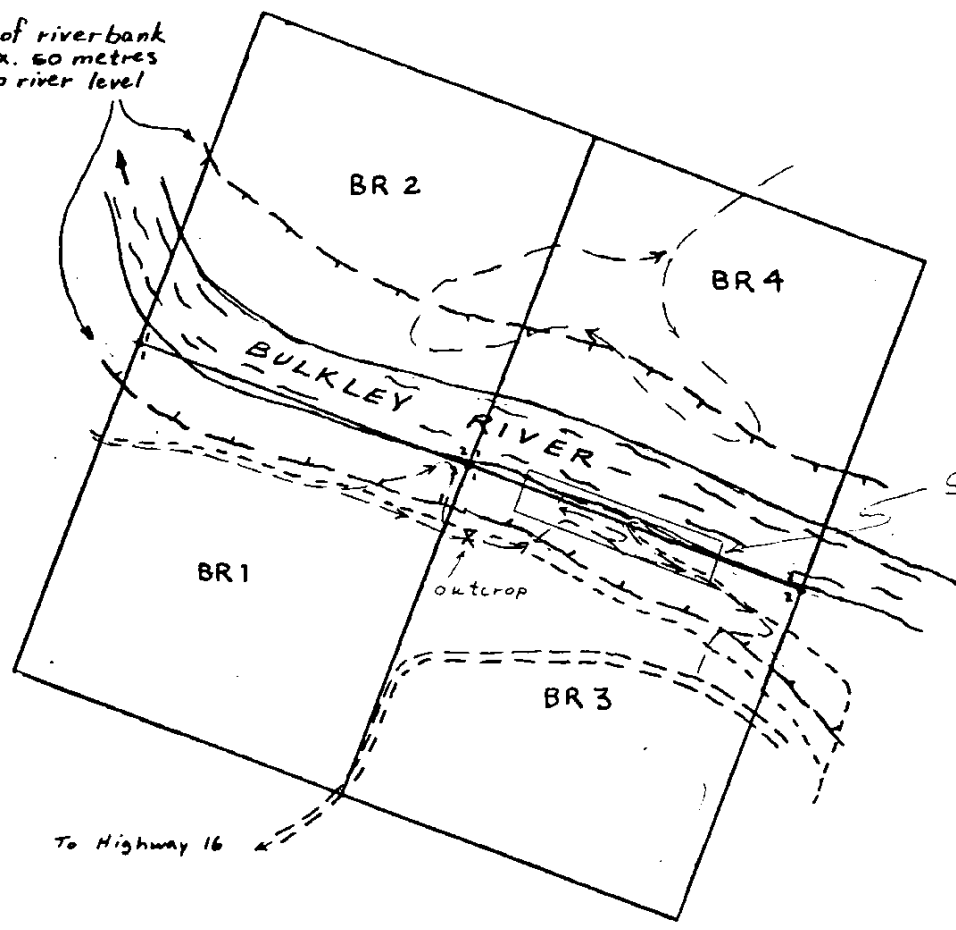
On the north side (BR 2,4) 16 soil samples were taken at 30 meter intervals to see if there was any obvious extension of the veins across the river.

## II. PROSPECTING AND GEOLOGY

The prospecting traverses are shown on Fig. 2 along with a



Edge of riverbank  
approx. 60 metres  
elev. to river level



See Fig. 3

LEGEND

- $\frac{1/2}{1/2}$  Claim posts: 1 - initial  
2 - final
- == Cat Trail (4-wheel drive)
- Foot Trail
- - - - - Prospecting traverse

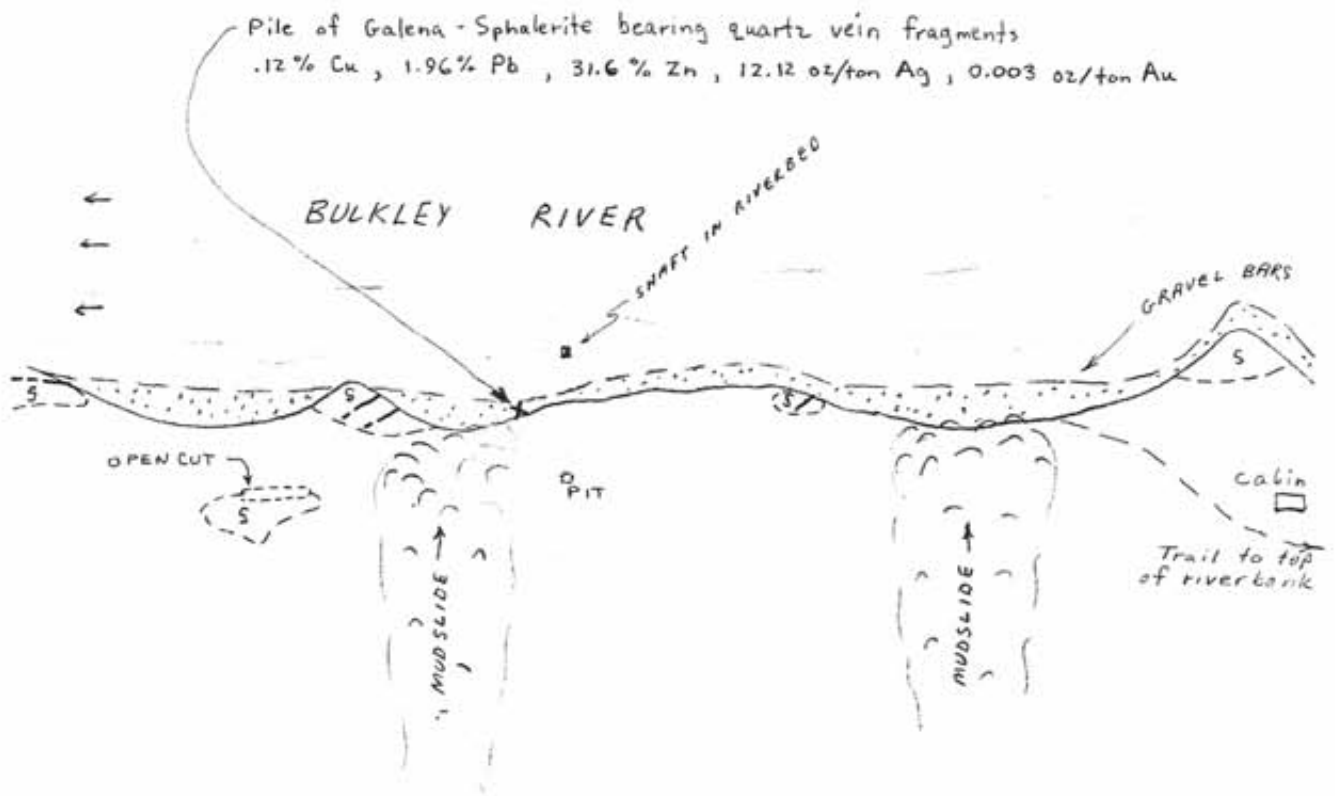


BR 1-4 MINERAL CLAIMS  
OMINECA MINING DIVISION

PROSPECTING TRAVERSES

Prepared by: A.M. Homenuke, P.Eng.  
TRI-CON MINING LTD. Feb. 1981

FIG. 2



Pile of Galena - Sphalerite bearing quartz vein fragments  
.12% Cu , 1.96% Pb , 31.6% Zn , 12.12 oz/ton Ag , 0.003 oz/ton Au

(S) outcrop of sediments  
— quartz vein

SKETCH of SHOWINGS  
on  
SOUTH SIDE of RIVER

0 20 40 60 80  
metres (approx.)

FIG. 3

II. PROSPECTING AND GEOLOGY Con't.

sketch of the area of the showings, Fig. 3.

No outcrops were seen on the north side. Several angular boulders which may have been sub-outcropping appeared to be composed of a dark greenish-grey rock tentatively labelled as "greenstone." However, it is possible that they were hornfelsed or siliceous sediments. Most of the bank was covered with a mixture of fluvial and glacial gravels.

Only one outcrop was seen above the riverbank on the south side. It was a greywacke or a dark grey dense shale, with near vertical cleavage or bedding planes. Outcrops become more numerous down the bank towards the river. For the most part they are similar to the above, but along the river's edge there is an intermittent veneer of somewhat indurated river sediments. They are a light tan colour versus the dark grey of the above. G.S.C. Open File Map 351 shows the area to be underlain by Kitsum Creek sediments folded into a westerly trending syncline in the area of the property. These rocks occur at the base of the Skeena Group and are of early Cretaceous age.

In the area of the showings, there are several narrow quartz and quartz-siderite veins (Fig. 3). There are two mudslides which may have covered other showings or old workings. Some quartz-siderite vein float was seen in the eastern slide but the source was not exposed. No sulfide minerals were observed in any of the above, however a pile of about 100 lbs. of galena-sphalerite mineralization in the quartz-siderite gangue was found by the edge of the river. The most likely source was the shaft in the river which would only be exposed at very low water. A sample from this pile assayed:

<u>Copper</u>	<u>Lead</u>	<u>Zinc</u>	<u>Silver</u>	<u>Gold</u>
.12%	1.96%	31.6%	12.12 oz/ton	0.003 oz/ton

This result certainly does not confirm the rumoured several hundred ounces silver per ton.



### III. GEOCHEMICAL SURVEY

Purpose: The south side of the river has several problems that would hinder exploration of any mineral deposit, mainly arising from the fact that it is being actively farmed.

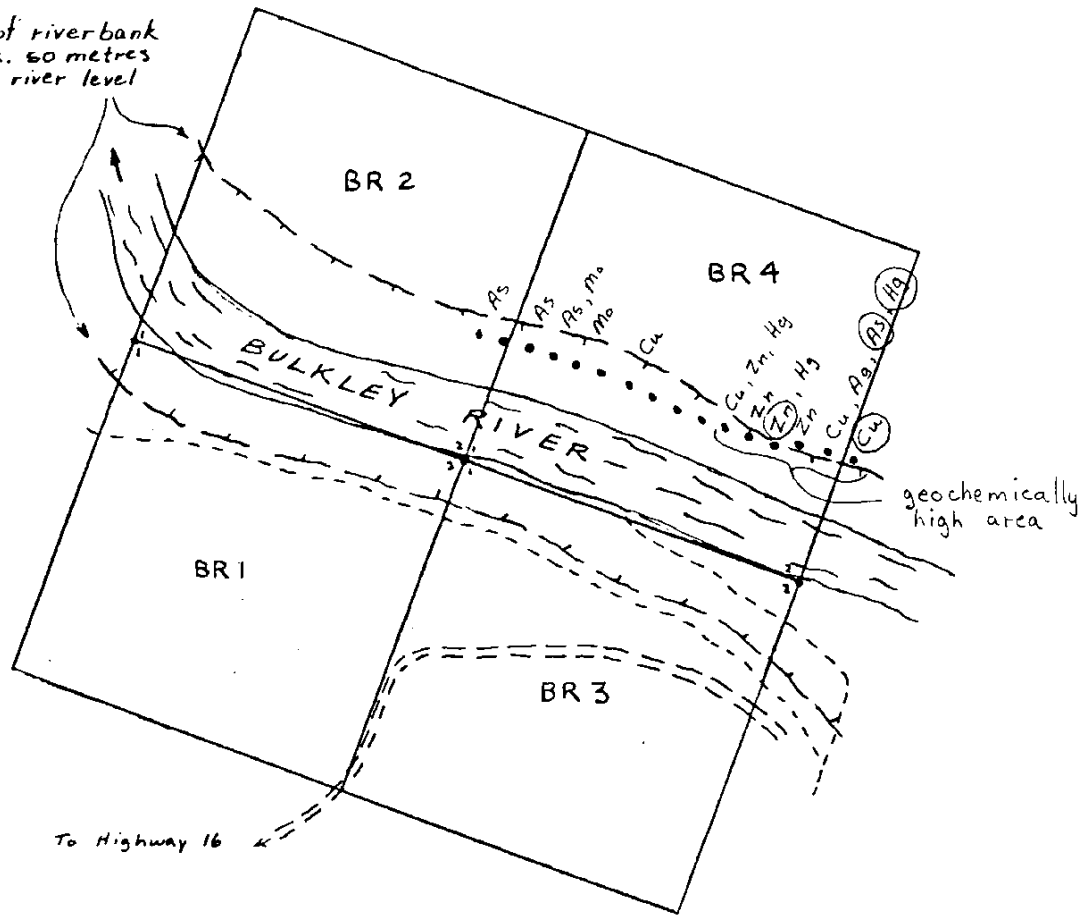
As the north side of the river is considerably less sensitive, if was decided to take a line of soil samples to see if there was any obvious extension of the veins across the river. The samples were taken at or near the break in slope to the river to capture any seepage anomalies and to avoid soils transported by sliding. (i.e. if taken lower down the river bank)

Procedure: 16 samples were taken at 30 meter intervals from the "B" horizon at a depth of 20-30 cm. The samples were placed in kraft envelopes, marked as to location and shipped to Chemex Labs in North Vancouver. At the lab, they were dried, sieved to minus 80 mesh and subjected to perchloric-nitric acid digestion, except for mercury for which a concentrated hydrochloric acid digestion was used. Copper, silver, zinc and molybdenum were determined by atomic absorption. Arsenic was also determined by atomic absorption following the standard hydrid procedure which uses potassium iodide as the primary reducer and borohydride as the arsine producer. Mercury was determined by flameless atomic absorption following reduction by stannous sulphate.

Discussion of Results: The results of the geochemical survey were somewhat surprising in that several of the samples showed relatively high values in most of the metals determined. (See Appedix I) To aid in interpretation, the mean and standard deviation were determined for those metals which showed a significant range of values. This was done on a Hewlett-Packard HP-45 pocket calculator. While the formula is not entirely statistically correct it was considered adequate for the purpose of this survey.



Edge of riverbank  
approx. 50 metres  
elev. to river level



**LEGEND**

- $\frac{1}{2}$  Claim post: 1 - initial  
2 - final
- == Cat Trail (4-wheel drive)
- Foot Trail

- Soil Sample Site
- Elevated values are indicated by the symbol for the metal
- Cu - copper      As - arsenic
- Zn - zinc        Hg - mercury
- Ag - silver      Mo - molybdenum
- Statistically anomalous values are circled - (Zn)



**BR 1-4 MINERAL CLAIMS**  
OMINECA MINING DIVISION

**GEOCHEMICAL SURVEY**  
COMPILATION

Prepared by: A.M. Homenuke, P.Eng.  
TRI-CON MINING LTD. Feb. 1981

FIG. 4

Discussion of Results Con't.:

1. Copper            range 12-162 ppm            (Fig. 5)  
                      mean (M) 49 ppm  
                      standard deviation (S) 41 ppm  
                      M + S 90 ppm (considered threshold)  
                      M + 2S 191 ppm (considered anomalous)
  
2. Zinc             range 64-320 ppm            (Fig. 6)  
                      M        163 ppm  
                      S        64 ppm  
                      M + S 227 ppm  
                      M + 2S 291 ppm
  
3. Silver - all values 0.1 ppm, except 1 sample, 0.2 ppm (Fig.7).
  
4. Arsenic          range 6-20 ppm            (Fig. 8)  
                      M        11.3 ppm  
                      S        4.4 ppm  
                      M + S 15.6 ppm  
                      M + 2S 20 ppm
  
5. Mercury          range 10-40 ppb            (Fig. 9)  
                      M        16.3 ppb  
                      S        9.6 ppb  
                      M + S 25.8 ppb  
                      M + 2S 35.4 ppb
  
6. Molybdenum - all values 1 ppm except 2 samples, 2 ppm (Fig. 10).

Referring to the geochemical compilation on Fig. 4 it can be seen that there are 6 samples over 150 meters at the east end of the traverse which are variously elevated or anomalous in copper, zinc, silver, arsenic and mercury. There appears to be a weak zonation of zinc to the west of copper.

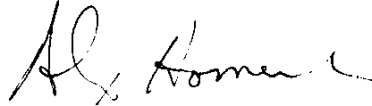
Interpretation: The multi-element geochemical anomaly, while based on limited sampling, indicates the possibility of a mineralized source. No outcrops were seen, the bedrock depth is unknown and there are glacial and fluvial gravels present. There are several polymetallic vein deposits in the general vicinity. Therefore, it is considered that the anomalous results may indicate a sulfide vein or a mineralized intrusive.

IV. CONCLUSIONS

1. Prospecting on the south side of the river showed several barren quartz veins in the vicinity of some old workings. A sample of a pile of sulfide bearing vein material ran 12 oz. silver per ton and appeared to be from a shaft under the level of the river. This area is not of significant interest at the present level of knowledge.

2. A line of soil samples on the north side of the river showed very interesting results, in that 6 samples over a length of 150 meters were elevated or anomalous in several metals. More work needs to be done including sampling, profiling and pH testing, however the results were encouraging enough to cause the operator to stake a further 20 units.

Respectfully Submitted,  
TRI-CON MINING LTD.

A handwritten signature in cursive script, appearing to read "A.M. Homenuke".

A.M. Homenuke, P. Eng.

REFERENCES

Carter, N.C., and R.V. Kirkham, B.C. Dept. of Mines, Map 69-1  
Geological Compilation of Smithers, Hazelton and  
Terrace Map Areas.

Geol. Survey of Can. Open File 351, Geology of Smithers Area, 93L

COST STATEMENT

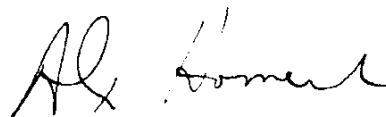
Prospecting July 18 and 21, 1980	2 man days at \$150/day	\$300.00
Geochemical sampling November 7, 1980	½ day at \$150/day	75.00
Maps, interpretation and report	1 day at \$250/day	250.00
Geochemical Analysis 16 samples for		
Cu, Zn, Ag, Hg, As and Mo at \$12.70/sample		203.20
Assaying 1 sample for Cu, Pb, Zn, Ag and Au		26.50
Vehicle	2½ days at \$40/day	100.00
Secretarial, materials, copying		40.00
	TOTAL .....	<u>\$994.70</u>

CERTIFICATE OF QUALIFICATION

I, ALEXANDER M. HOMENUKE, DO HEREBY CERTIFY:

1. THAT I am a member in good standing of the Association of Professional Engineers of British Columbia.
2. THAT I received the Degree of Bachelor of Science in Geological Engineering from the Colorado School of Mines in 1974.
3. THAT I received a Diploma of Technology in Mining from the B.C. Institute of Technology in 1969.
4. THAT I have been employed in various aspects of mining exploration for 12 years and am presently employed by Tri-Con Mining Ltd. of 2580-1066 West Hastings Street, Vancouver, B.C.
5. THAT I presently reside at 29825 Harris Road, Mt. Lehman, British Columbia.
6. THAT this report is based on work supervised or conducted by myself.

Dated at Vancouver, B.C. this 20th day of February, 1981.



A.M. HOMENUKE, P. ENG.  
Geological Engineer

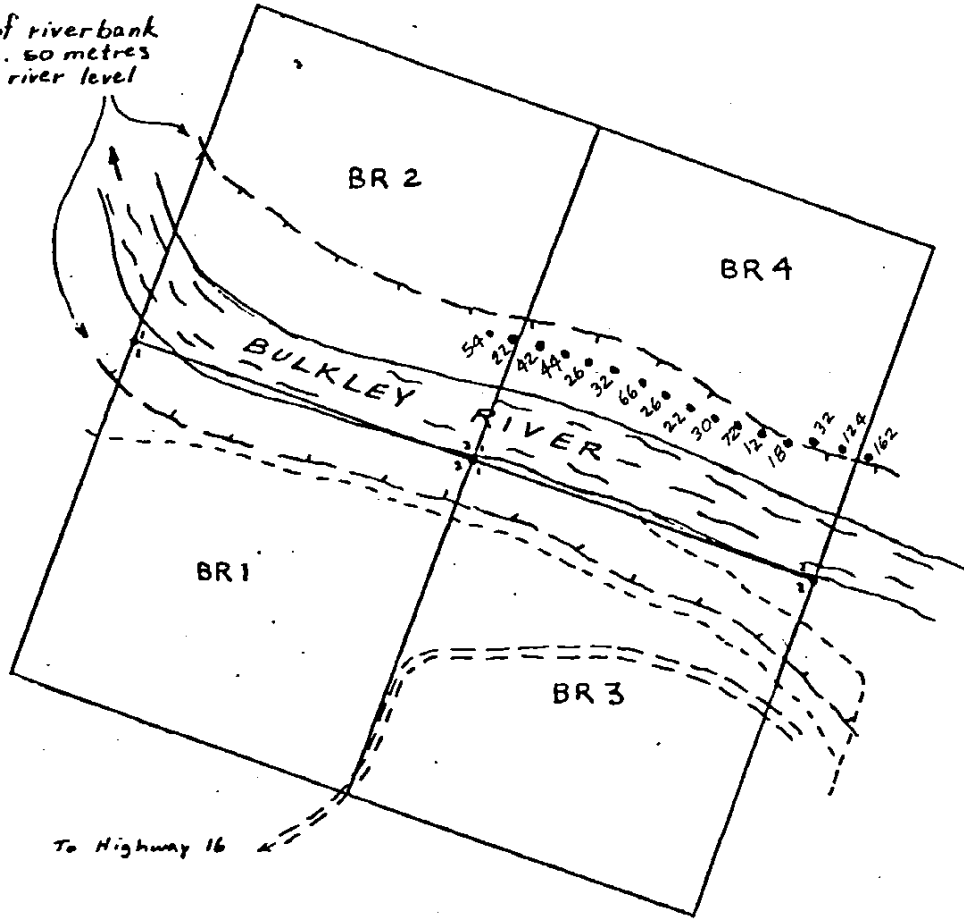
APPENDIX I

GEOCHEMICAL MAPS



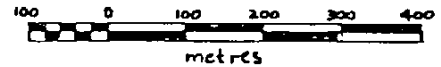


Edge of riverbank  
approx. 50 metres  
elev. to river level



LEGEND

- $\frac{12}{12}$  Claim posts: 1 - initial  
2 - final
- == Cat Trail (4-wheel drive)
- Foot Trail
- Soil Sample Site  
value in ppm



BR 1-4 MINERAL CLAIMS  
OMINECA MINING DIVISION

GEOCHEMICAL SURVEY

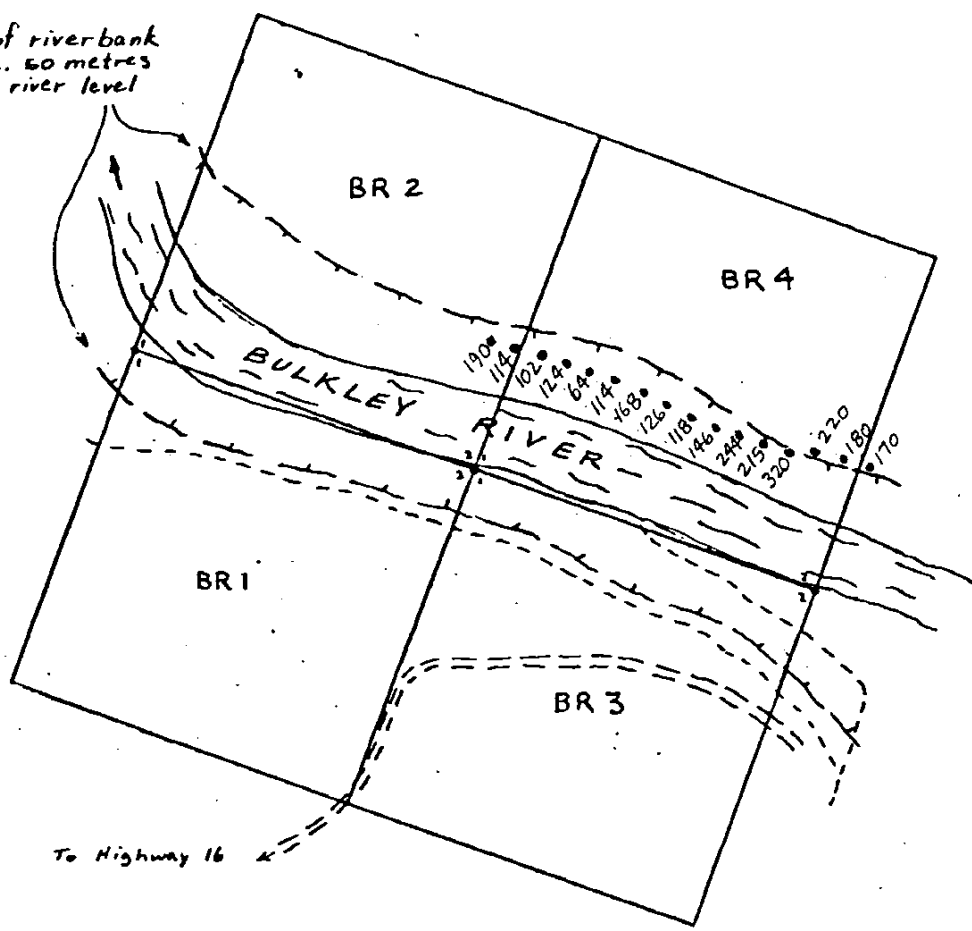
COPPER

Prepared by: A.M. Homenuke, P.Eng.  
TRI-CON MINING LTD. Feb. 1981

FIG. 5



Edge of riverbank  
approx. 50 metres  
elev. to river level



LEGEND

- $\frac{1}{1} \frac{1}{2}$  Claim posts: 1 - initial  
2 - final
- == Cat Trail (4-wheel drive).
- Foot Trail
- Soil Sample Site  
12 value in ppm



BR 1-4 MINERAL CLAIMS  
OMINECA MINING DIVISION

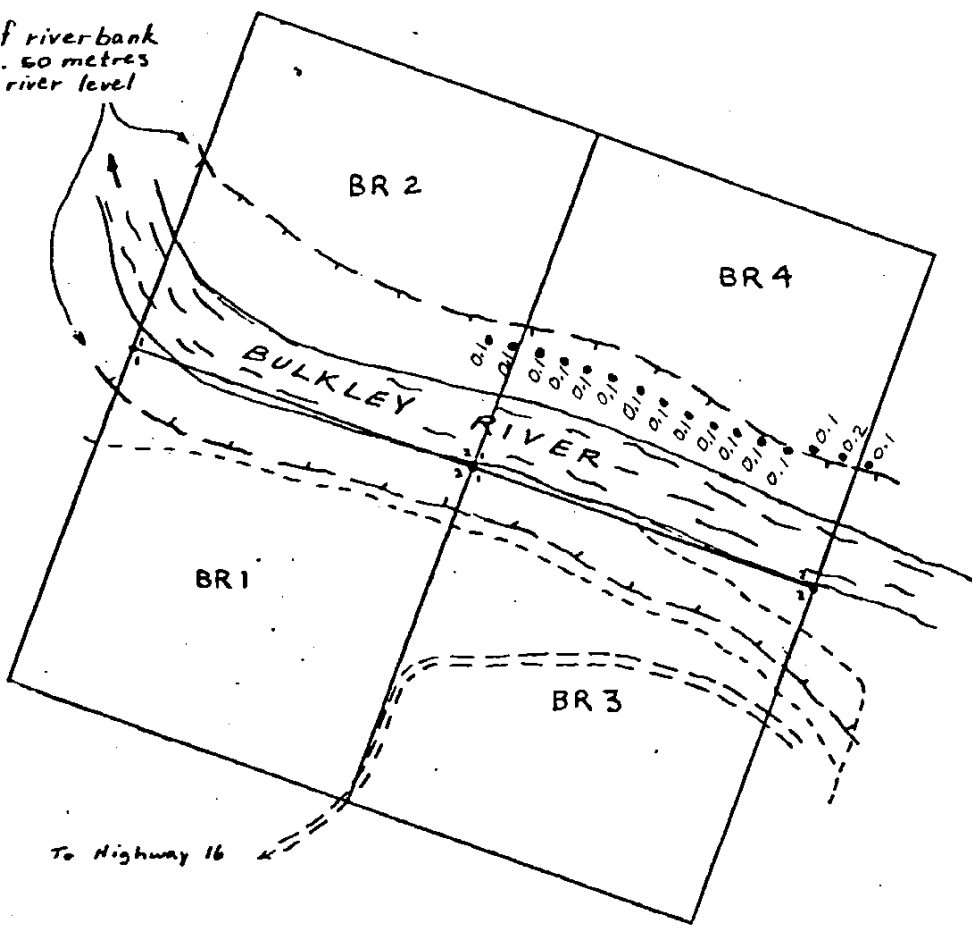
GEOCHEMICAL SURVEY  
ZINC

Prepared by: A.M. Homenyuk, P.Eng.  
TRI-CON MINING LTD. Feb. 1981

FIG. 6

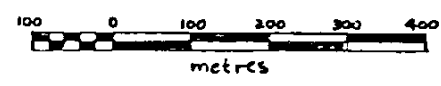


Edge of riverbank  
approx. 50 metres  
elev. to river level



**LEGEND**

- $\frac{1}{1} \frac{1}{2}$  Claim posts 1 - initial  
2 - final
- == Cat Trail (4-wheel drive)
- Foot Trail
- Soil Sample Site  
12 value in ppm



**BR 1-4 MINERAL CLAIMS**  
OMINECA MINING DIVISION

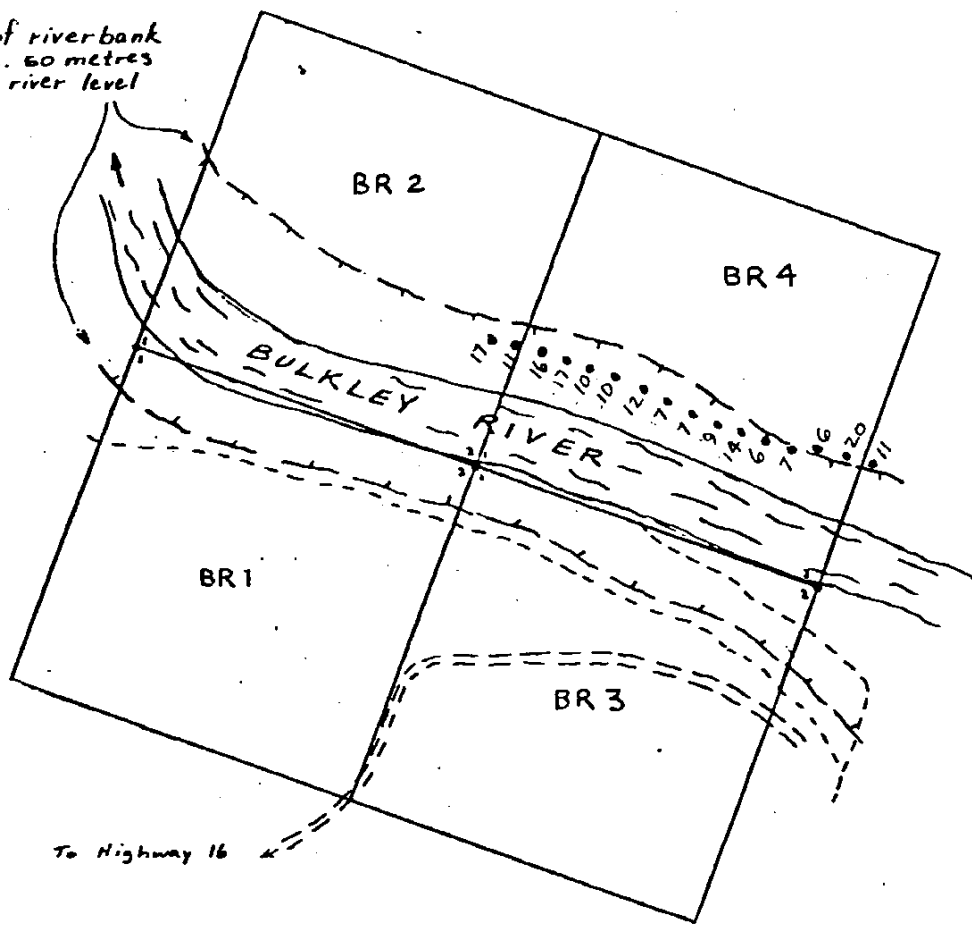
**GEOCHEMICAL SURVEY**  
SILVER

Prepared by: A.M. Homenuke, P.Eng.  
TRI-CON MINING LTD. Feb. 1981

FIG. 7

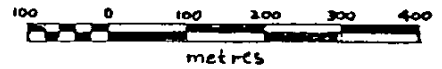


Edge of riverbank  
approx. 60 metres  
elev. to river level



**LEGEND**

- $\frac{11}{12}$  Claim posts 1 - initial  
2 - final
- == Cat Trail (4-wheel drive).
- Foot Trail
- Soil Sample Site  
12 value in ppm



**BR 1-4 MINERAL CLAIMS**  
OMINECA MINING DIVISION

**GEOCHEMICAL SURVEY**  
ARSENIC

Prepared by: A.M. Homenuke, P.Eng.  
TRI-CON MINING LTD. Feb. 1981

FIG. 8



