

83-#553 - #11457

QUEENSTAKE RESOURCES LTD.

ROCK AND SOIL GEOCHEMISTRY

of the

BROKEN HILL PROPERTY 9/84

Lillooet Mining Division, 92J/16W

Latitude 50°48'N

Longitude 122°18'W

Claims:

Snow, Pay Strip 1-2, Fur, Silver Queen 1-2

owned by T. Conway and R. Polischuk

Erly Bird 1-3

owned by Quinto Mining Corp.

M.G. Price

5th Aug. 1983

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**11,457**

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**Summary**

The Broken Hill property, near Lillooet, B.C., was examined during May - June 1983 on behalf of Queenstake Resources Ltd.; a moderate-sized silver-bearing mineralized structure was systematically sampled and the surrounding area gridded and soil-sampled. Several zones anomalous in gold, silver, copper, lead, zinc and arsenic were found, not corresponding to any known mineralized zones, within a 600 m x 400 m area. Further soil sampling and prospecting in the area is recommended.

## 1. Introduction

### 1.1 Location and Access

The Broken Hill property, consisting of nine Modified Grid System staked claims totalling 121 units, is located 3 km north of the eastern part of Carpenter Lake, and about 28 km WNW of Lillooet, B.C., in the Lillooet Mining Division (see Fig 1). The area is located on NTS 1:50,000 sheet 92J/16W: the main showing and adits, on the SNOW claim, are located at 50°48' North latitude, and 122°18' West longitude.

The main Lillooet to Gold Bridge road runs along the north shore of Carpenter Lake, and a steep foot trail extends from the road to the property. However, the most convenient means of access is by helicopter: there is a good landing pad a few hundred meters from the adits, to which there is a good foot trail. Several good foot and pack trails give access to large areas of the property.

### 1.2 Claims

The property comprises the following M.G.S. claims (See Fig 2).

<u>Claim Name</u>	<u>Record #</u>	<u>Owners</u>	<u>Date Registered</u>	<u>Units</u>
SNOW	2018	T. Conway & R. Polischuk	Apr. 13, 1982	4
PAY STRIP 1	2413	T. Conway & R. Polischuk	May 12, 1983	16
PAY STRIP 2	2414	T. Conway & R. Polishcuk	May 12, 1983	15
FUR	2460	T. Conway & R. Polischuk	June 8, 1983	20
SILVER QUEEN 1	2462	T. Conway & R. Polischuk	June 8, 1983	15
SILVER QUEEN 2	2461	T. Conway & R. Polischuk	June 8, 1983	15
ERLY BIRD 1	1208	Quinto Mining Corp.	Jan. 28, 1980	14
ERLY BIRD 2	1209	Quinto Mining Corp.	Jan. 28, 1980	14
ERLY BIRD 3	1210	Quinto Mining Corp.	Jan. 28, 1980	8

### 1.3 Topography, Climate, Vegetation

Terrain in the property area is moderately steep to rugged: elevations range from 700 m to over 2100 m (2300 to over 7000 feet), with good outcrop, much of it in the form of steep bluffs and cliffs.

The property is located on the edge of the B.C. Interior Dry Belt, and receives an average annual precipitation of 50 - 75 cm. Most of the area is well forested, douglas fir and hemlock being the dominant species. There is thus no shortage of good quality timber for mining purposes, and underbrush is minimal.

Ample water for mining and drilling purposes is available from several creeks which cross the property from north to south, of which Sebring and Viera creeks are the most important (Fig 2).

### 1.4 History

The property was first reported on in 1913. The B.C. Minister of Mines' report for that year (p. 270-71) quotes assays of 5 to 24 oz./ton Ag, 1 to 5.2% Cu and 30¢ to \$9.60 Au, at the old price of gold, from surface outcrops. From 1913 to 1915, according to the Minister of Mines' report for the latter year (p. 282), 2 adits totalling 780 ft (238 m) were driven on a vein reported to be 104 ft (31.7 m) wide and "a number of miles" long. Assays of from \$5.85 to \$34.96 per ton, in gold, silver and copper, are quoted.

Little appears to have been done on the property until 1971, when a report by A.R. Allen, for Helgena Mines Ltd. (B.C.D.M. Open File, 93J/NE - 124) quotes assay figures on six grab samples taken from open cuts; of these, only one gave much more than trace amounts of silver (5.2 oz/ton), although copper assays of 0.01 to 1.8% are reported.

In 1981, the property was owned by Gold Bridge Development Corp.; this company systematically sampled the adits, obtaining silver assays averaging 6.3 oz/ton over 36 ft (10.9 m) length, and 2.28 oz/ton over 186 ft (56.7 m) in the lower adit, and 6.34 oz/ton over 23 ft (7.0 m) and 4.0 oz/ton over 40 ft (12.2 m) in the upper adit. The best gold assay obtained was 0.045 oz/ton.

### **1.5 Summary of Work Done**

On May 12th and 13th, 1983, the author with one assistant, accompanied by Mr. R. Polischuk, part owner of the property, made a brief reconnaissance examination on behalf of Queenstake Resources Ltd. and obtained 23 rock chip samples from the two adits, from surface outcrops and an open cut on the SNOW claim (see Fig 16 for sample locations).

Between June 23 and July 8th, 1983, the author and two assistants examined the property in more detail. A grid consisting of a baseline 3.6 km in length, and 3.82 km of soil lines, was established on the SNOW, ERLY BIRD 1 - 3, SILVER QUEEN 1 and PAY STRIP 1 claims: a total of 7.42 km. 205 soil samples were obtained. Additionally, 70 rock chip samples were taken from adits, open cuts and outcrops on the SNOW and ERLY BIRD 3 claims.

As a guide to sampling only, the geology in the vicinity of the mineralized zone was mapped in outline: however no detailed geological mapping was undertaken at this stage.



## 2. Geology and Mineralization

### 2.1 Geology

The Broken Hill deposit is hosted by the Bridge River (or Fergusson) Group, a moderately altered marine volcanic-sedimentary assemblage of Triassic or earlier age (Woodsworth, 1977), which in the vicinity of the deposit strikes generally E - W, with moderate to steep northerly dips.

The Bridge River Group appears to have distinct ophiolitic affinities. The sedimentary component consists predominantly of a strongly sheared, black graphitic argillite, a soft easily weathered rock which forms few outcrops. Thin chert bands and occasional lenses of recrystallized limestone also occur.

The commonest volcanic rock is a fine grained, dark green chloritized basalt or andesite (greenstone). Associated with the greenstone are occasional layers of a medium to coarse grained pyroxene-olivine ultramafic rock, and at least one thick (30 m +) layer of a buff-weathering, fine grained moderately porphyritic, apparently tuffaceous rock of rhyolitic to dacitic composition. This unit may have some relationship with a unit of similar lithology described by Woodsworth (1977 - unit 20) and Roddick and Hutchison (1973 - unit 12) which outcrops to the west of the deposit, and which is interpreted by them to be of Miocene age, an extrusive equivalent of the Rexmount Porphyry. In the Broken Hill area, however, these felsic rocks definitely seem to form part of the Bridge River assemblage.

To the northeast, the Bridge River Group is in contact with a coarse grained, weakly porphyritic granodiorite of Eocene age (Woodsworth, 1977) probably related to the nearby Bendor Pluton. The exact nature of the contact is uncertain, but it is probably intrusive.

## 2.2 Mineralization

The felsic volcanic member of the Bridge River Group, described above, is locally brecciated and silicified, and in places almost entirely replaced by fine to medium grained quartz, giving the rock the appearance of a quartz vein.

Where this unit crosses Sebring Creek the silicification is accompanied by sparse to moderately abundant, generally fine grained sulphide mineralization. Pyrite, galena, sphalerite and chalcopryrite are present in subequal amounts. Malachite occurs in places on weathered surfaces. This mineralization occurs both widely disseminated in the silicified zone, and locally more concentrated as small lenses, veinlets and segregations.

A very persistent 2 - 3 m wide quartz vein, striking about 100 - 110° and with a near vertical dip, cuts across the structure northeast of the main showings. This vein is probably related to the granodiorite intrusive; no mineralization was noted.

The sedimentary - volcanic sequence appears to be offset by a fault, possibly associated with the quartz vein, about 200 m east of the main showings. Further offset portions of the felsic unit, or possibly parallel structures, outcrop to the south on the ridge between the west and middle forks of Viera Creek.

## 2.3 Rock Sampling

### 2.3.1 Sampling Methods

On May 12th - 13th, 1983, 23 rock chip and grab samples were taken from the two adits, from surface outcrops and from an open cut west of

the showings (sample #'s 72851 - 73: see Fig 16 for locations). These samples are described in Table 1.

Between June 23rd and July 8th, 1983, a total of 70 rock chip samples were obtained from the adits, from surface outcrops of the mineralized zone and the quartz vein described above, and from open cuts (sample #'s 72874 - 900 and 73301 - 43: Fig 16). These samples are described in Table II. Although neither adit is driven at 90° to the structure, both were treated as crosscuts for sampling purposes.

About 2 - 3 kg of rock was taken at each sampling station, using a chisel-point rock hammer, the samples being packed into standard clear PVC sample bags. Care was taken to ensure that the samples were representative of the stated widths.

All samples were assayed for Au, Ag, Pb, Zn and Cu by Acme Analytical Laboratories Ltd., of 852 East Hastings St., Vancouver, using standard atomic absorption methods (fire assay for Au). Assay results are presented in Appendix A.

### 2.3.2 Results and Discussion

In general, metal values are directly related to sulphide abundance. The highest values (20.68 oz/ton Ag, 0.004 oz. Au, 2.05% Zn, 3.83% Pb, 1.03% Cu) were found in a grab sample of strongly mineralized quartz from an outcrop close west of the upper adit portal (#72859). Values of 11.04 oz/ton Ag, 0.002 oz Au, 1.52% Zn, 1.06% Pb and 1.13% Cu were obtained on a 40 cm wide sulphide lens in the upper adit (# 72853).

Chip samples taken on outcrops adjacent to the upper adit portal gave an average assay of 1.41 oz/ton Ag across an 18 m interval,

including one assay of 4.70 oz/ton across 3 m (#'s 73327 - 32). 0.25 oz/ton Ag across a 10 m interval was found in the lower adit (73304 -08). It should be noted that this is not a true width across the mineralized zone, but is measured along the length of the adit. Two samples of well mineralized material from the lower adit assayed 1.33 oz/ton and 2.58 oz/ton Ag (72865 and 72871).

A series of samples across a 14 m width in 3 open cuts west of the main showing averaged 0.18 oz/ton Ag. Base metal assays in all cases were low, generally below 0.1%. All samples taken elsewhere than in the known mineralized zone returned essentially trace assays.

The results seem to indicate the existence of a moderate-sized pod or lens of low-grade silver mineralization associated with similarly low-grade base metals, 10 - 18 m wide and about 500 m in length, extending about WSW from the main showing in Sebring Creek ( Figs 3 and 16).

### **3. Soil Geochemistry**

#### **3.1 Sampling and Analytical Methods**

During the period June 23rd and July 8th, 1983, a 3.6 km baseline was established, running at a bearing of 080° true; 15 soil lines, totalling 3.82 km, were laid out at 200 m intervals, and soil samples were taken along each line at 20 m intervals. Approximately 500 g samples were obtained using a light chisel-pointed rock hammer and a common garden trowel, packed in kraft sample bags and air dried at ambient temperature. Sample depth varied from 2 to 15 cm: only the 'B' horizon was sampled wherever possible, though occasionally a composite 'B + C' sample was obtained. Soils were generally

light brown in colour, composed mainly of silt and silty fine sand, and almost invariably contained subangular to subrounded rock fragments.

Soil samples were analysed for Au, Ag, Cu, Pb, Zn and As by Acme Analytical Laboratories Ltd using the ICP (inductively coupled argon plasma) technique; the analytical methods are described and results presented in Appendix B.

Cumulative curves were established for each element, and the mean and standard deviation calculated, using the standard statistical formulae for lognormal data:

$$x \text{ (Mean)} = \frac{\%16 + \%50 + \%84}{3} \text{ where \%16 = 16th percentile, etc.}$$

$$s \text{ (Standard Deviation)} = \frac{\%84 - \%16}{4} + \frac{\%95 - \%5}{6.6}$$

(Figs 4 - 9)

The analytical results were plotted at 1:2500 scale and contoured, using contours corresponding to  $x$ ,  $(x + s)$ ,  $(x + 2s)$  and  $(x + 3s)$ . Results more than one standard deviation greater than the mean  $(x + s)$  are regarded as anomalous, more than  $(x + 2s)$  as strongly anomalous, and more than  $(x + 3s)$  as highly anomalous.

Results are presented in Figs 10 - 15.

## 3.2 Results

### 3.2.1 Gold (Fig 10)

A surprising result of this soil survey, in view of the uniformly low gold assays obtained on rock samples, is the strength and extent of gold anomalies in the soil, including two very high values of 330 ppb (line 00, 2 + 00N) and 170 ppb (line 06, 1 + 60 S). Aside from these, the highest value obtained is 55 ppb, and the background around 5. No strong pattern is discernable in the gold results: the reasons for gold's erratic distribution remain obscure.

### 3.2.2 Silver (Fig 11)

The highest silver values obtained were 7.9 ppm, immediately adjacent to the lower adit portal at line 00, 0 + 20N, and 4.7 ppm on the same line at 1 + 40N.

Strong anomalies are also present along the northern edge of the grid at line 00, 2 + 00N; 02E, 2 + 00N and 06E, 1 + 60N; at 06E, 1 + 60S; and on line 00 between 0 + 80 and 1 + 20S. These anomalies are not associated with any known mineralized structure, and their importance remains unclear.

### 3.2.3 Copper (Fig 12)

Once again, the strongest anomaly found was adjacent to the lower adit portal (787 ppm at 02E, 0 + 20N). Other widely scattered strong anomalies are present at 02W, 0 + 00; 00, 2 + 00S; 02E, 1 + 40N; and 06E, 1 + 60N.

### 3.2.4 Lead (Fig 13)

Aside from the expected high anomaly at 02E, 0 + 20N (731 ppm), strong lead anomalies exist at 00, 1 + 80 to 2 + 00N; 00, 0 + 20N to 1 + 20S; 02E, 1 + 20 to 1 + 40N; and 06E, 1 + 00N.

### 3.2.5 Zinc (Fig 14)

Zinc anomalies are more widely scattered than the other metals considered here. Once again, no consistent pattern is apparent, except for the expected highest anomaly at the lower adit portal. Anomalies at 14E, 2 + 00S and on line 14W are not coincident with anomalies in any other element.

### 3.2.6 Arsenic (Fig 15)

In contrast to all the other elements under consideration, the value obtained for arsenic at 02E, 0 + 20N is a background value: however, the values on either side of this are strongly anomalous. Other strongly anomalous values were found at 06E, 1 + 20 to 1 + 60N; and 06E, 1 + 40 to 1 + 60S.

## 3.3 Discussion

All major anomalies occur in the narrow, canyon-like valley of Sebring Creek, close to but not generally coincident with the known mineralized zone. The extent and intensity of gold anomalies (Fig 10) are surprising, since the gold assays found in even the most strongly mineralized parts of the structure are uniformly low. The significance of these results is not clear.



Strong coincident anomalies in all metals are present around 06E, 1 + 60N, and in all metals except gold and arsenic at 02E, 1 + 20 to 1 + 40N. All elements except lead are anomalous at 06E, 1 + 60S, and all except arsenic at line 00, 1 + 80 to 2 + 00N. These areas, none of which coincide with any known mineralization, should be investigated further, as described below.

All elements except arsenic are highly anomalous at 02E, 0 + 20N, and arsenic is highly anomalous immediately north and south of this point. This location is immediately adjacent to the lower adit portal and the soil here may have been contaminated by dumped material. Similarly, the high lead, zinc and silver anomalies on line 00S are directly downhill from the old cabin and garbage dump, and thus also may have resulted from contamination.

#### 4.0 Conclusions and Recommendations

Rock assays indicate a moderately large, low grade zone anomalous in silver, lead, zinc and copper, up to 18 m in width and extending in an E - W direction for about 500 m. Soil sampling has indicated several anomalous zones not associated with known mineralization in a 400 m x 600 m area, which warrant some further attention.

The property is presently at too early a stage for extensive diamond drilling to be justified, although it might be of interest to drill some of the strong anomalies described above using a very light rig (packsack or Winkie). As an alternative to drilling, hand trenching could be resorted to.

Further soil sampling between lines 02W and 08E inclusive is recommended, in order to more closely delineate the anomalous zones. Lines 02W, 00, 02E, 04E, 06E and 08E should be extended to 4 + 00N and 4 + 00S, and infill lines should be established at 01W, 01E, 03E, 05E and 07E. Sampling in the anomalous zone should be at 10 m intervals. Only when the soil anomalies are fully outlined should extensive drilling be undertaken.



Since the mineralized structure has been found to be offset and/or duplicated in several places, detailed prospecting of the whole area would seem to be justified. All structures similar to the known mineralized zone, found during this prospecting survey, should be mapped and systematically sampled.

## 5 References

Allen, R.A. (1971) Report on the Sebring Creek Property, Bridge River, B.C. Priv. Rept., Helgena Mines Ltd. B.C.D.M. Open File Report, 92J/NE - 124.

Anon., n.d. Progress report on the exploration of the Dot claims. Priv. Rept., Bridge River Development Corp.

B.C. Dept. of Mines, (1913). Minister of Mines Annual Report, p. 270 - 271.

B.C. Dept. of Mines, (1915). Minister of Mines Annual Report, p. 282.

Roddick, J.A., and Hutchison, W.W. (1973). Pemberton (east half) map-area, British Columbia 92J(E $\frac{1}{2}$ ). G.S.C. paper 73-17.

Woodsworth, G.J. (1977) Geology - Pemberton (92J) map area. BCDM Open File Map 482

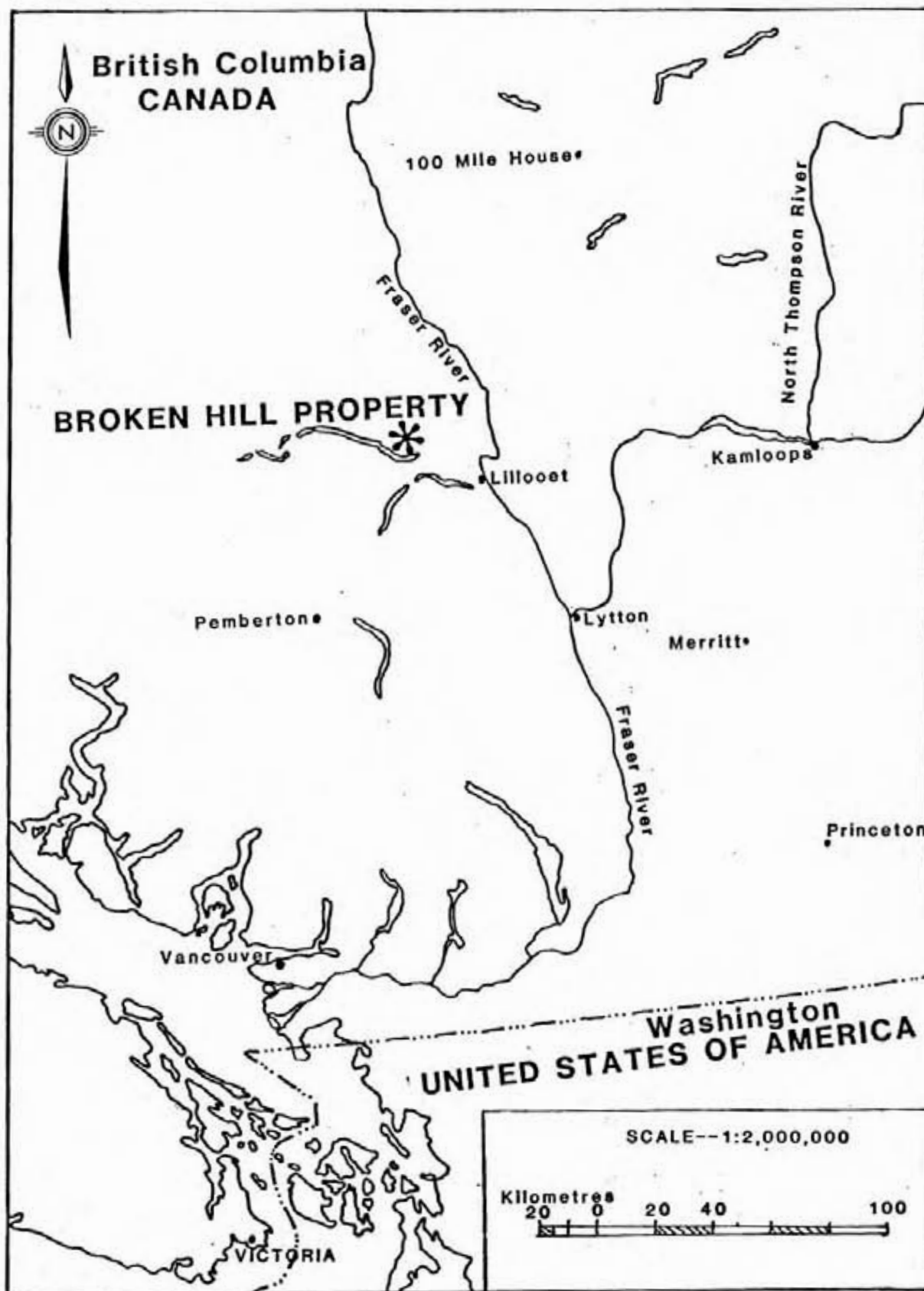
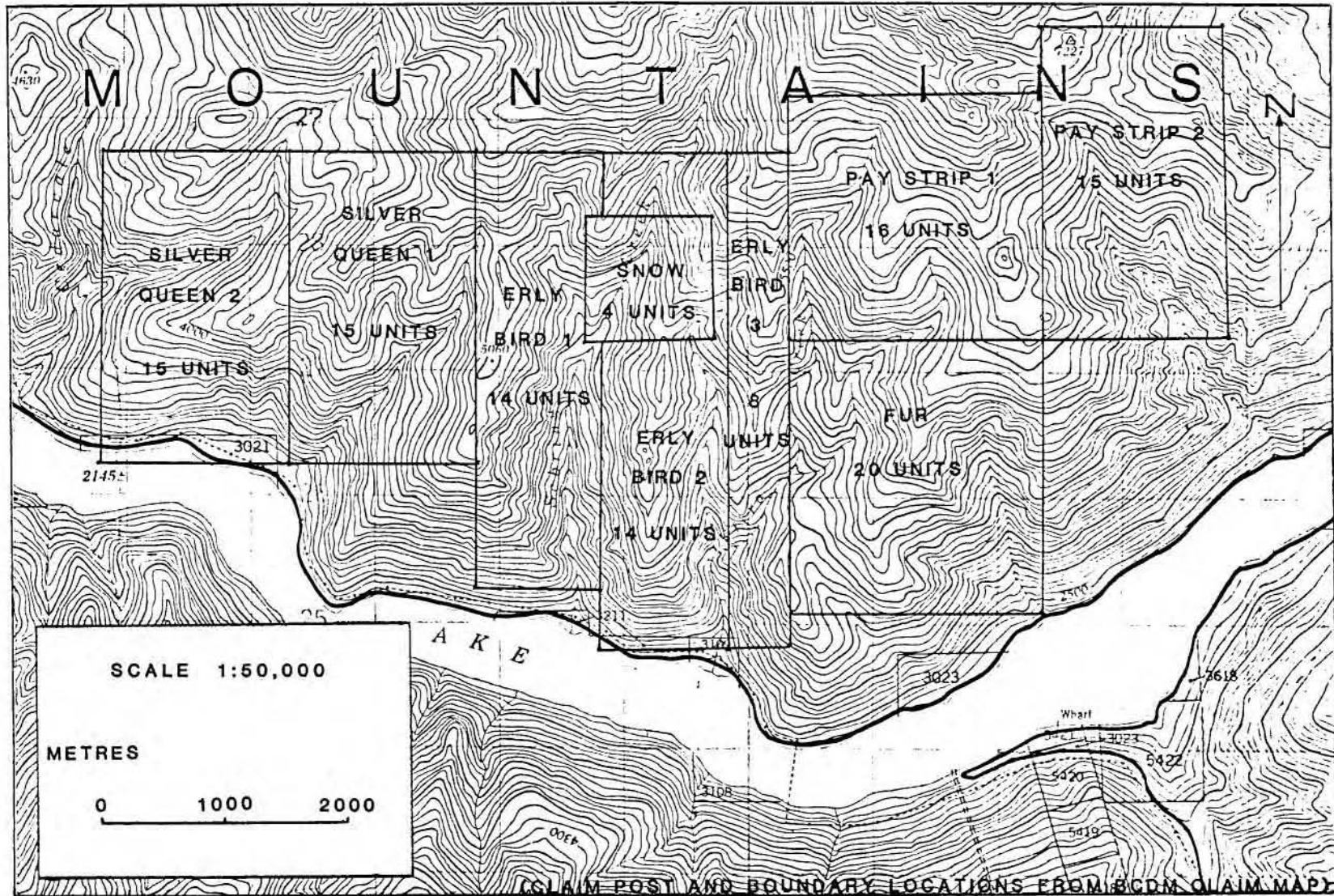


FIGURE 1: BROKEN HILL LOCATION MAP



**FIGURE 2: CLAIM MAP**  
(PART OF NTS 92J/16)

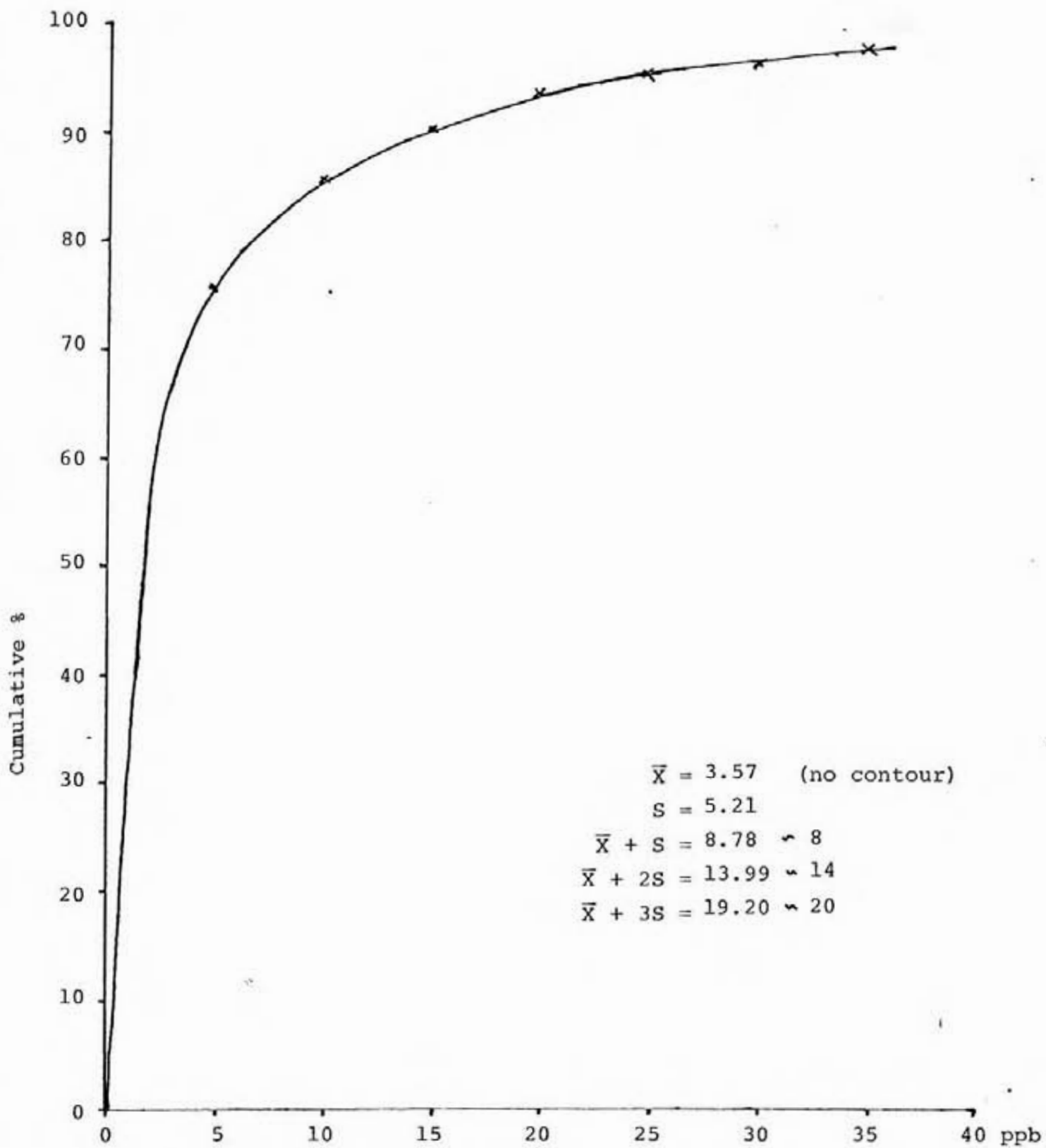


Fig. 4 . Geochem. cumulative curve - Gold

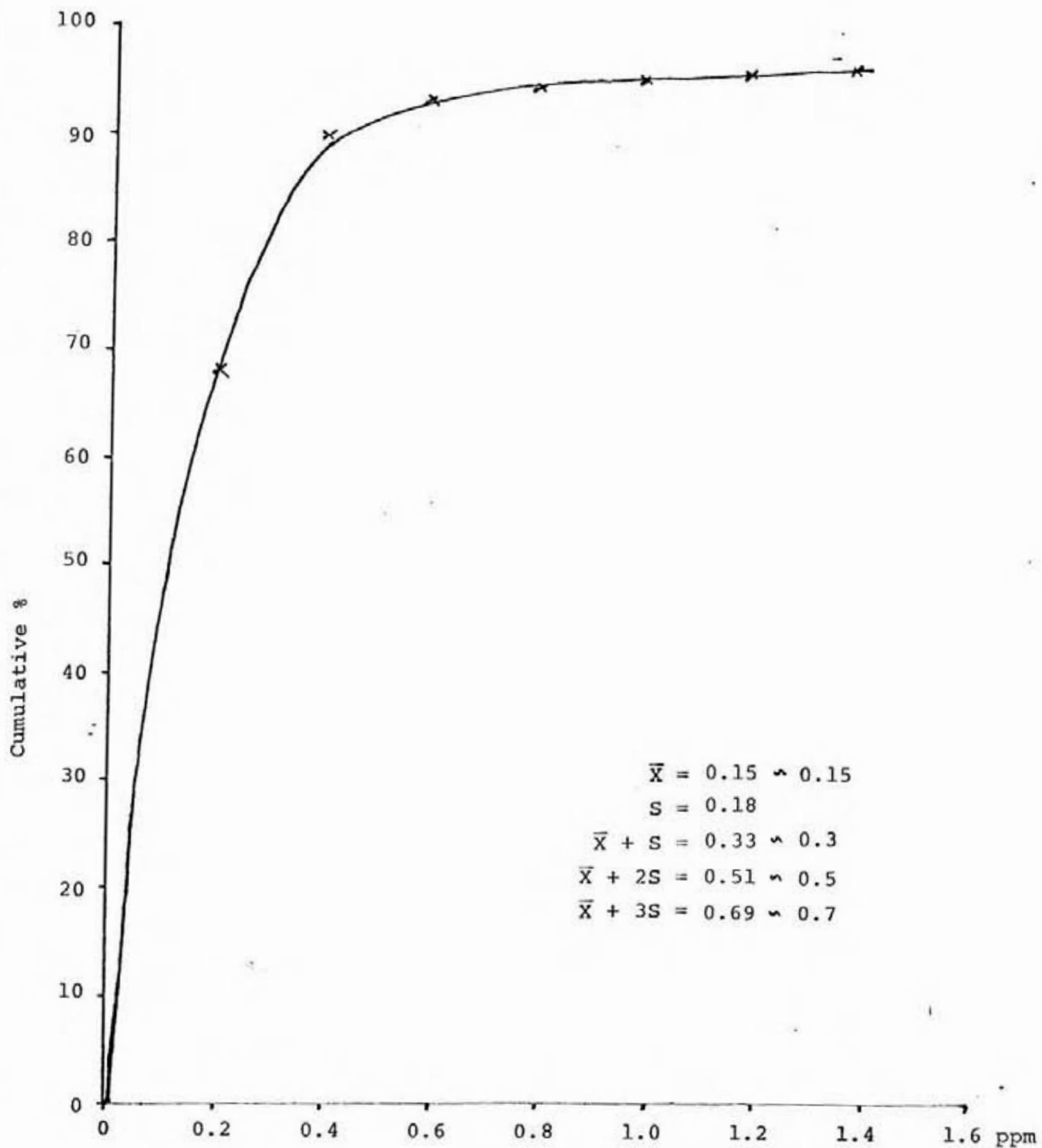


Fig. 5 . Geochem. cumulative curve - silver.

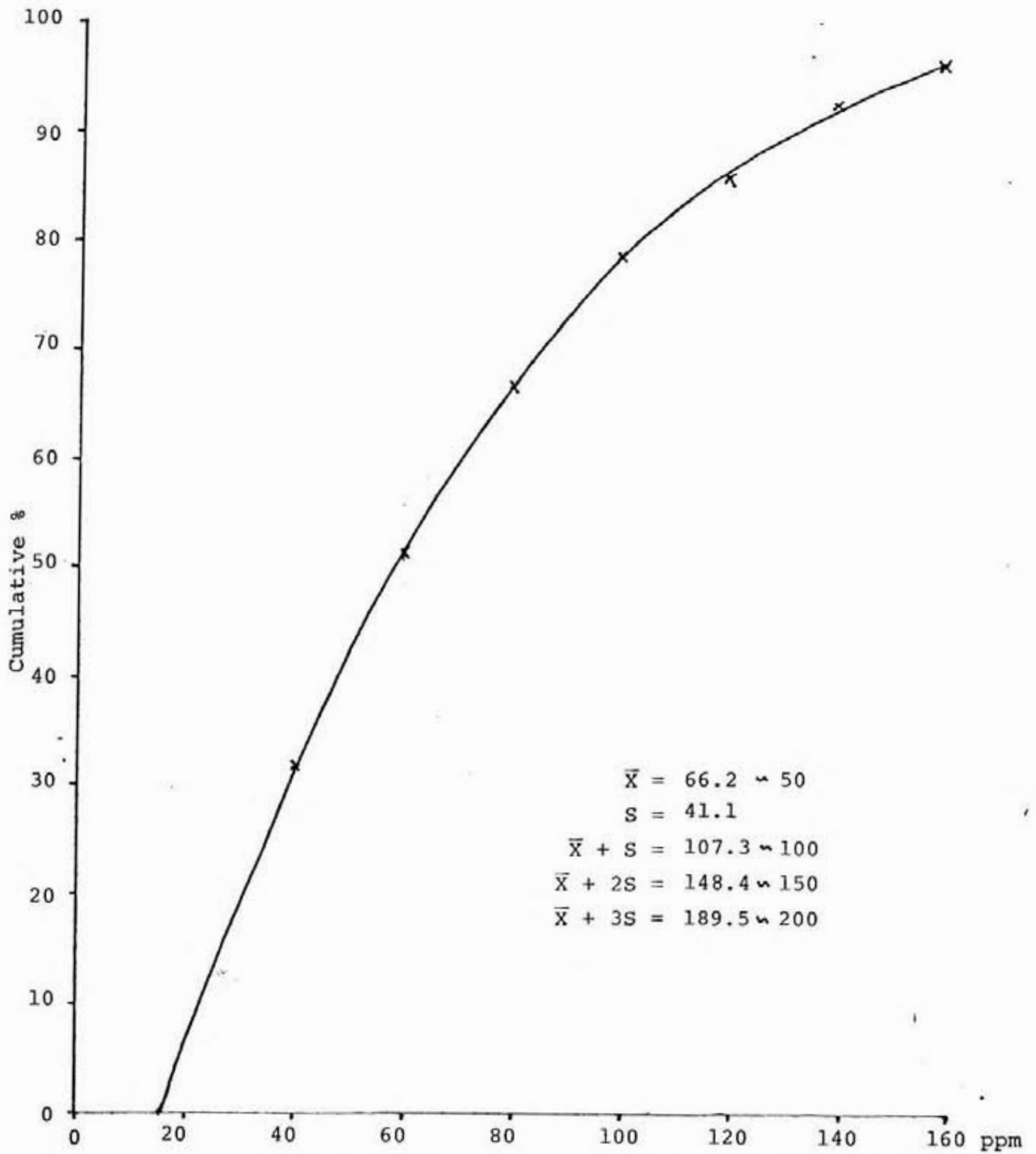


Fig. 6 . Geochem. cumulative curve - Copper

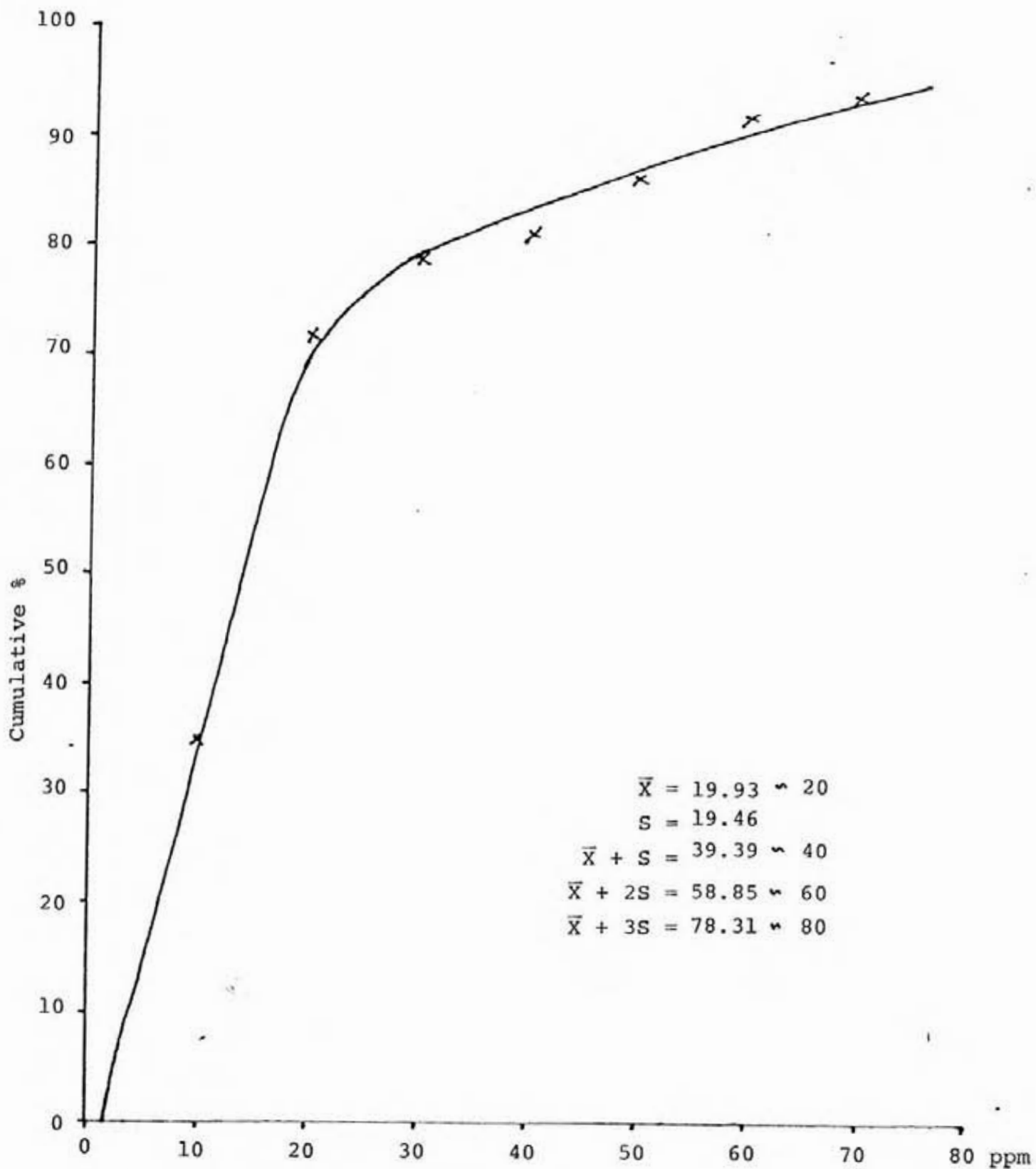


Fig.7 . Geochem. cumulative curve - Lead.



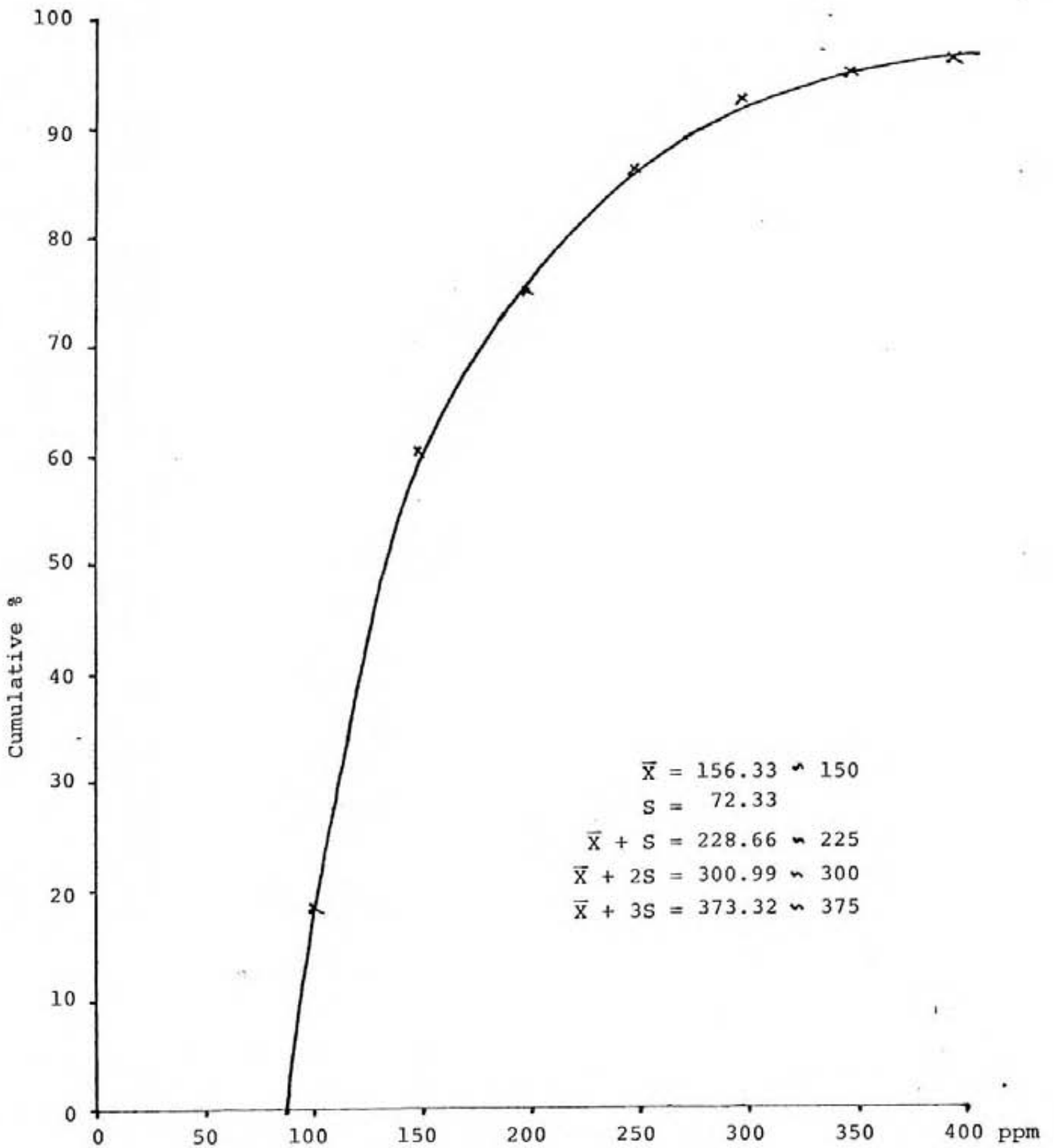


Fig. 8 . Geochem. cumulative curve - Zinc.

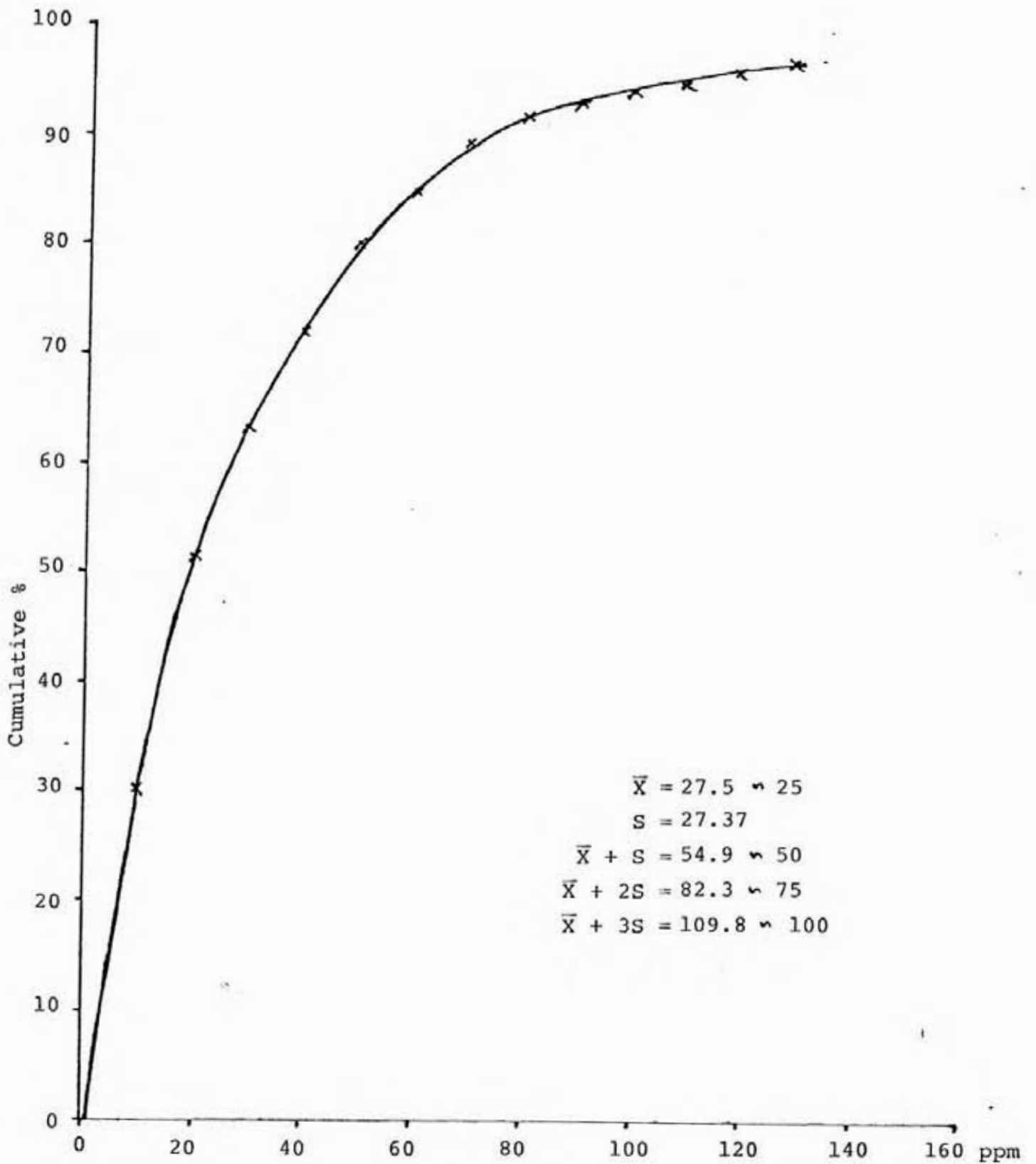


Fig. 9 . Geochem. cumulative curve - Arsenic.

TABLE 1

## SAMPLE DESCRIPTIONS - MAY SAMPLING

(Except where otherwise noted, all samples were rock chip samples taken to be representative of an area of about 1 m<sup>2</sup> from both walls of the adit).

72851	Upper Adit	Silicified vein breccia-sulphide specks
72852	Upper Adit	Generalized sample over approx. 4 m length of branch adit
72853	Upper Adit	Black, fine-gr. sulphide lens, about 40 cm wide
72854	Upper Adit	Quartz with small sulphide lenses
72855	Upper Adit	Rusty Quartz-malachite stained
72856	Upper Adit	Rust Quartz-no visible mineralization
72857	Upper Adit	Sugary quartz-specks of black sulphide-minor rusty stains
72858	Surface Outcrop	Quartz with heavy malachite staining - grab sample
72859	Surface Outcrop	Quartz with abundant sulphide (galena, sphalerite, pyrite, chalcopyrite) - grab sample
72860	Lower Adit	Silicified breccia-sparse oxidation
72861	Lower Adit	Similar to 860
72862	Lower Adit	Similar to 860
72863	Lower Adit	Rusty zone in sheared argillite with quartz veinlets
72864	Lower Adit	Rusty material & quartz in hanging wall shear zone
72865	Lower Adit	Rusty, malachite-stained zone - minor sulphide (old tag # 2690B)
72866	Lower Adit	Rusty limonite zone about 50 cm wide: specks of sulphide
72867	Lower Adit	Very hard (? re-silicified) rusty quartz with sparse sulphide
72868	Lower Adit	Quartz with moderate sulphide & rust, minor malachite
72869	Lower Adit	Quartz with abundant fine-gr. sulphide: across about 4 m in side adit
72870	Lower Adit	Sulphide lenses in resilicified quartz breccia (old tag # 2688B)
72871	Lower Adit	Highly silicified vein breccia-fine-gr. sulphide lenses
72872	Lower Adit	Silicified breccia-fine-gr. sulphide specks & films
72873	Open Cut	Quartz with malachite stains - grab sample

TABLE II

## SAMPLE DESCRIPTIONS - JUNE/JULY SAMPLING

<u>Tag #</u>	<u>Width (m)</u>	<u>Location</u>	<u>Notes</u>
72874	2.0	Lower adit, 0 - 2 m	
72875	2.0	Lower adit, 2 - 4 m	
72876	2.0	Lower adit, 4 - 6 m	
72877	2.0	Lower adit, 6 - 8 m	
72878	2.0	Lower adit, 8 - 10 m	
72879	2.0	Lower adit, 10 - 12 m	
72880	2.0	Lower adit, 12 - 14 m	Includes several small sulphide lenses
72881	2.0	Lower adit, 14 - 16 m	
72882	2.0	Lower adit, 16 - 18 m	
72883	2.0	Lower adit, 18 - 20 m	
72884	2.0	Lower adit, 20 - 22 m	
72885	2.0	Lower adit, 22 - 24 m	
72886	2.0	Upper adit crosscut, 0 - 2 m	
72887	2.0	Upper adit crosscut, 2 - 4 m	
72888	2.0	Upper adit crosscut, 4 - 6 m	
72889	2.0	Upper adit crosscut, 6 - 8 m	
72890	2.0	Upper adit crosscut, 8 - 10 m	
72891	2.0	Upper adit crosscut, 10 - 12 m	
72892	2.0	Upper adit crosscut, 12 - 14 m	
72893	2.0	Upper adit crosscut, 14 - 16 m	
72894	2.0	Upper adit crosscut, 16 - 18 m	
72895	2.0	Upper adit crosscut, 18 - 20 m	
72896	2.0	Upper adit crosscut, 20 - 22 m	
72987	2.0	Upper adit crosscut, 22 - 24 m	
72898	1.5	Upper adit # 1 drift, 6 m from crosscut	
72899	1.5	Upper adit # 1 drift, 12 m from crosscut	
72900	1.5	Upper adit # 2 drift, at face	
73301	2.0	Lower adit, 24 - 26 m	
73302	2.0	Lower adit, 26 - 28 m and short drift	
73303	4.0	Lower adit, 32 - 36 m	
73304	2.0	Lower adit, 36 - 38 m	
73305	2.0	Lower adit, 38 - 40 m	
73306	2.0	Lower adit, 40 - 42 m	
73307	2.0	Lower adit, 42 - 44 m	
73308	2.0	Lower adit, 44 - 46 m	
73309	2.0	Lower adit, 46 - 48 m	
73310	2.0	Lower adit, 48 - 50 m	
73311	2.0	Lower adit, 50 - 52 m	

<u>Tag #</u>	<u>Width (m)</u>	<u>Location</u>	<u>Notes</u>
73312	2.0	Lower adit, 120 - 122 m	
73313	2.0	Lower adit, 122 - 124 m	Minor sulphide
73314	2.0	Lower adit, 124 - 126 m	
73315	2.0	Lower adit, 126 - 128 m	
73316	2.0	Lower adit, 52 - 54 m	Minor sulphide
73317	2.0	Lower adit, 54 - 56 m	
73318	2.0	Lower adit, 56 - 58 m	
73319	2.0	Lower adit, 58 - 60 m	
73320	2.0	Lower adit, 60 - 62 m	Includes 15 cm HW
73321	2.5	South open cut, 0 - 2.5 m	
73322	2.5	South open cut, 2.5 - 5.0 m	
73323	2.5	Middle open cut, 0 - 2.5 m	
73324	2.5	Middle open cut, 2.5 - 5.0 m	
73325	2.0	North open cut, 0 - 2 m	
73326	2.0	North open cut, 2 - 4 m	
73327	3.0	Outcrop in Sebring Creek, North of upper adit 0 - 3 m	
73328	3.0	Outcrop in Sebring Creek, North of upper adit 3 - 6 m	
73329	3.0	Outcrop in Sebring Creek, North of upper adit 6 - 9 m	
73330	3.0	Outcrop in Sebring Creek, South of upper adit, 0 - 3 m	
73331	3.0	Outcrop in Sebring Creek, South of upper adit, 3 - 6 m	
73332	3.0	Outcrop in Sebring Creek, South of upper adit, 6 - 9 m	
73333	3.0	Outcrop opposite upper adit portal	
73334	1.5	Oxidized lens - outcrop in creek North of upper adit	
73335	3.0	Outcrop in Sebring Creek, South of lower adit, 0 - 3 m	
73336	4.0	Outcrop in Sebring Creek, South of lower adit, 3 - 7 m	
73337	3.0	Outcrop in Sebring Creek, South of lower adit, 7 - 10 m	
73338	10.0	Outcrop on ridge South of 9 + 50E	
73339	2.5	Quartz vein on ridge S of 9 + 50E	
73340	1.5	Quartz vein on W side Sebring Creek HW	
73341	1.5	Quartz vein on W side Sebring Creek FW	
73342	5.0	Outcrop on ridge overlooking Viera Creek ( See Fig 3)	
73343	Grab	Outcrop W of Viera Creek (Fig 3)	

**APPENDIX A**  
**ROCK ASSAY CERTIFICATES**

### ASSAY CERTIFICATE

SAMPLE TYPE : ROCK - CRUSHED AND PRULVERIZED TO -100 MESH.  
AU\*\* RUN BY FIRE ASSAY

ASSAYER *D. J. J.* DEAN TOYE, CERTIFIED B.C. ASSAYER

QUEENSTAKE RES FILE # 83-0552 PROJECT # BC COAST PAGE# 1

SAMPLE	CU %	PB %	ZN %	AG OZ/TON	AU** OZ/TON
72851	.01	.01	.01	.26	.002
72852	.01	.01	.01	.18	.001
72853	1.13	1.96	1.52	11.04	.002
72854	.03	.01	.01	.29	.001
72855	.11	.01	.01	.32	.001
72856	.01	.01	.01	.03	.001
72857	.01	.01	.01	.02	.001
72858	.05	.06	.02	.54	.001
72859	1.03	3.83	2.05	20.68	.004
72860	.01	.04	.04	.27	.001
72861	.01	.05	.07	.13	.001
72862	.16	.01	.22	.24	.001
72863	.03	.01	.14	.06	.001
72864	.01	.01	.02	.01	.001
72865	.30	.21	.10	1.33	.001
72866	.04	.06	.05	.18	.001
72867	.01	.01	.02	.04	.001
72868	.02	.04	.05	.10	.001
72869	.03	.06	.08	.34	.001
72870	.15	.01	.03	.26	.001
72871	.16	.54	.27	2.58	.001
72872	.01	.01	.01	.11	.001
72873	.19	.04	.01	.40	.001



To: Queenstake Resources Ltd.,  
900 - 850 W. Hastings St.,  
Vancouver, B.C.  
V6C 1E1  
Project : Broken Hill

File No. 83-1124 B

Type of Samples Rock

Disposition

**ASSAY CERTIFICATE**

F A

No.	Sample	Cu%	Pb%	Zn%	Ag oz/ton	Au oz/ton		No.
1	72874	.01	.03	.01	.12	.001		1
2	72875	.04	.01	.01	.21	.001		2
3	72876	.01	.06	.11	.39	.001		3
4	72877	.01	.01	.01	.03	.001		4
5	72878	.01	.01	.03	.01	.001		5
6	72879	.01	.01	.01	.05	.001		6
7	72880	.06	.23	.17	1.04	.001		7
8								8
9	72881	.01	.01	.03	.17	.001		9
10	72882	.02	.01	.02	.10	.001		10
11	72883	.01	.01	.04	.08	.001		11
12	72884	.01	.01	.01	.08	.001		12
13	72885	.01	.01	.01	.01	.001		13
14	72886	.02	.01	.01	.04	.001		14
15	72887	.01	.01	.01	.01	.001		15
16	72888	.01	.01	.01	.01	.001		16
17	72889	.01	.01	.01	.01	.001		17
18	72890	.01	.01	.01	.01	.001		18
19								19
20	72891	.01	.01	.03	.04	.001		20

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ASSAYER

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER





To: Queenstake Resources Ltd.,

ACME ANALYTICAL LABORATORIES LTD.

Assaying & Trace Analysis

852 E. Hastings St., Vancouver, B.C. V6A 1R6

Telephone: 253 - 3158

File No. 83-1124 B

Type of Samples Rock

Disposition

# ASSAY CERTIFICATE

F A

No.	Sample	Cu%	Pb%	Zn%	Ag oz/ton	Au oz/ton		No.
1	72892	.08	.09	.01	.54	.001		1
2	72893	.01	.01	.01	.09	.001		2
3	72894	.01	.01	.01	.01	.001		3
4	72895	.01	.01	.01	.09	.001		4
5	72896	.01	.01	.01	.01	.001		5
6	72897	.01	.01	.01	.06	.001		6
7	72898	.08	.01	.01	.12	.001		7
8	72899	.01	.01	.01	.01	.001		8
9	72900	.01	.01	.01	.06	.001		9
10								10
11	73301	.01	.02	.01	.13	.001		11
12	73302	.01	.01	.01	.10	.001		12
13	73303	.01	.01	.01	.07	.001		13
14	73304	.02	.06	.01	.23	.001		14
15	73305	.02	.26	.19	.45	.001		15
16	73306	.01	.07	.06	.27	.001		16
17	73307	.01	.04	.13	.16	.001		17
18	73308	.01	.02	.02	.14	.001		18
19	73309	.01	.01	.01	.01	.001		19
20	73310	.01	.01	.01	.01	.001		20

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Assaying & Trace Analysis

852 E. Hastings St., Vancouver, B. C. V6A 1R6

Telephone: 253 - 3158

File No. 83-1124 B

Type of Samples Rock

Disposition \_\_\_\_\_

# ASSAY CERTIFICATE

F A

No.	Sample	Cu%	Pb%	Zn%	Ag oz/ton	Au oz/ton		No.
1	73311	.01	.01	.01	.01	.001		1
2	73312	.01	.01	.01	.01	.001		2
3	73313	.07	.01	.01	.22	.001		3
4	73314	.01	.01	.01	.09	.001		4
5	73315	.01	.01	.01	.06	.001		5
6	73316	.01	.06	.01	.28	.001		6
7	73317	.01	.01	.01	.02	.001		7
8	73318	.01	.01	.01	.09	.001		8
9	73319	.01	.01	.01	.11	.001		9
10	73320	.02	.01	.06	.12	.001		10
11								11
12								12
13								13
14								14
15								15
16								16
17								17
18								18
19								19
20								20

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ASSAYER

*Dean Toye*

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER



To: Queenstake Resources Ltd.,  
9th Floor 850 W. Hastings St.,  
Vancouver, B.C.  
V6C 1E1

ACME ANALYTICAL LABORATORIES LTD.

Assaying & Trace Analysis

852 E. Hastings St., Vancouver, B. C. V6A 1R6

Telephone: 253 - 3158

File No. 83-1147 B

Type of Samples Rock

Disposition \_\_\_\_\_

# ASSAY CERTIFICATE

No.	Sample	Cu%	Pb%	Zn%	Ag oz/ton	Au oz/ton		No.
1	73321	.02	.04	.01	.47	.001		1
2	73322	.17	.03	.01	.17	.001		2
3	73323	.06	.01	.01	.22	.001		3
4	73324	.01	.01	.01	.04	.001		4
5	73325	.01	.01	.01	.11	.001		5
6	73326	.02	.01	.01	.05	.001		6
7	73327	.01	.01	.01	.11	.001		7
8	73328	.03	.63	.01	4.70	.001		8
9	73329	.26	.17	.06	1.03	.001		9
10	73330	.22	.05	.03	.62	.001		10
11	73331	.34	.21	.09	1.78	.001		11
12	73332	.06	.02	.08	.21	.001		12
13	73333	.09	.03	.03	.25	.001		13
14	73334	.08	.08	.32	.43	.001		14
15	73335	.01	.01	.01	.03	.001		15
16	73336	.01	.01	.02	.01	.001		16
17	73337	.04	.05	.09	.11	.001		17
18	73338	.01	.01	.01	.01	.001		18
19	73339	.01	.01	.01	.01	.001		19
20	73340	.01	.01	.01	.01	.001		20

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ASSAYER

*D. Toye*  
DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER



To: Queenstake Resources

ACME ANALYTICAL LABORATORIES LTD.

Assaying & Trace Analysis

852 E. Hastings St., Vancouver, B. C. V6A 1R6

Telephone: 253 - 3158

File No. 83-1147 B

Type of Samples \_\_\_\_\_

Disposition \_\_\_\_\_

# ASSAY CERTIFICATE

No.	Sample	Cu%	Pb%	Zn%	Ag oz/ton	Au oz/ton		No.
1	73341	.01	.01	.01	.01	.001		1
2	73342	.01	.01	.01	.01	.001		2
3	73343	.01	.01	.01	.01	.001		3
4								4
5								5
6								6
7								7
8								8
9								9
10								10
11								11
12								12
13								13
14								14
15								15
16								16
17								17
18								18
19								19
20								20

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DATE REPORTS MAILED July 14, 1983

ASSAYER

*D. Toye*

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER

**APPENDIX B**  
**SOIL GEOCHEMISTRY RESULTS**

ICP GEOCHEMICAL ANALYSIS

A .500 GRAM SAMPLE IS DIGESTED WITH 3 ML OF 3:1:3 HCL TO HNO3 TO H2O AT 90 DEG.C. FOR 1 HOUR.  
 THE SAMPLE IS DILUTED TO 10 MLS WITH WATER.  
 THIS LEACH IS PARTIAL FOR: Ca,P,Mg,Al,Ti,La,Na,K,W,Ba,Si,Sr,Cr AND B. Au DETECTION 3 ppm.  
 AU\* ANALYSIS BY AA FROM 10 GRAM SAMPLE.  
 SAMPLE TYPE - SOIL

ASSAYER *D. Toye* DEAN TOYE, CERTIFIED B.C. ASSAYER

QUEENSTAKE RESOURCES PROJECT # BROKEN HILL FILE # 83-1124A PAGE# 1

SAMPLE	CU ppm	PB ppm	ZN ppm	AG ppm	AS ppm	Au* ppb
2N 14W	29	14	224	.2	8	5
1+80N 14W	85	13	157	.1	19	5
1+60N 14W	54	14	315	.3	12	5
1+40N 14W	87	17	223	.3	12	5
1+20N 14W	90	20	210	.2	18	5
1N 14W	26	8	185	.2	9	5
0+80N 14W	69	19	245	.2	10	5
0+60N 14W	63	17	248	.3	9	5
0+40N 14W	50	12	316	.2	7	5
0+20N 14W	39	14	256	.2	5	5
0S 14W	93	20	254	.3	10	5
0+20S 14W	131	17	190	.2	19	5
0+40S 14W	57	12	108	.2	12	5
2N 12W	12	5	61	.2	2	5
1+80N 12W	37	11	58	.2	11	5
1+60N 12W	35	8	96	.1	7	5
1+40N 12W	15	7	109	.1	3	5
1+20N 12W	38	15	126	.2	9	5
1N 12W	13	6	110	.1	3	5
0+80N 12W	63	11	134	.1	11	5
0+60N 12W	59	15	172	.3	9	5
0+40N 12W	57	13	258	.3	8	5
0+20N 12W	28	8	181	.1	2	5
0S 12W	64	17	242	.1	7	5
0+20S 12W	99	22	207	.1	13	5
0+40S 12W	61	13	209	.2	10	5
2N 10W	35	10	98	.2	4	5
1+80N 10W	31	11	174	.1	6	5
1+60N 10W	19	6	113	.1	4	5
1+40N 10W	41	13	114	.2	8	5
1+20N 10W	54	11	136	.2	12	5
1N 10W	43	14	166	.2	24	5
0+80N 10W	35	13	149	.1	13	10
0+60N 10W	56	11	140	.3	11	5
0+40N 10W	134	21	218	.3	18	10
0+20N 10W	54	16	211	.3	11	5
STD A-1	29	40	184	.3	11	5

SAMPLE	CU ppm	PB ppm	ZN ppm	AG ppm	AS ppm	Au* ppb
OS 10W	67	17	294	.1	10	5
0+20S 10W	67	14	163	.1	14	5
0+40S 10W	35	10	131	.1	6	5
2N 8W	26	4	89	.1	10	5
1+80N 8W	31	6	116	.1	10	5
1+60N 8W	28	9	117	.1	8	5
1+40N 8W	31	6	87	.1	6	5
1+20N 8W	28	6	81	.1	6	5
1N 8W	33	6	77	.1	10	5
0+80N 8W	11	9	73	.1	4	5
0+60N 8W	25	9	128	.1	6	5
0+40N 8W	28	9	129	.1	6	5
0+20N 8W	82	14	131	.1	21	5
OS 8W	15	9	211	.1	4	5
0+20S 8W	30	8	241	.1	9	5
0+40S 8W	17	5	184	.1	7	5
0+40N 0	75	66	252	.1	30	5
0+20N 0	114	115	216	.4	53	20
OS 0	107	93	215	.2	26	5
0+20N 0	119	157	275	.3	36	5
0+40N 0	109	168	249	.2	40	5
0+60N 0	91	84	169	.1	34	5
0+80N 0	137	194	305	1.0	51	5
1+20N 0	139	187	378	3.1	27	5
1+40N 0	128	45	139	.2	42	5
1+60N 0	139	42	134	.2	44	5
1+80N 0	167	14	98	.1	15	5
2S 0	238	24	105	.2	26	5
STD A-1	30	41	185	.3	10	5



ICP GEOCHEMICAL ANALYSIS

A .500 GRAM SAMPLE IS DIGESTED WITH 3 ML OF 3:1:3 HCL TO HNO3 TO H2O AT 90 DEG.C. FOR 1 HOUR.  
 THE SAMPLE IS DILUTED TO 10 MLS WITH WATER.  
 THIS LEACH IS PARTIAL FOR: Ca, P, Mg, Al, Ti, La, Na, K, W, Ba, Si, Sr, Cr AND B. Au DETECTION 3 ppm.  
 AU\* ANALYSIS BY AA FROM 10 GRAM SAMPLE.  
 SAMPLE TYPE - SOIL

ASSAYER *Dean Toye* DEAN TOYE, CERTIFIED B.C. ASSAYER

QUEENSTAKE

FILE # 83-1147A

PAGE# 1

SAMPLE	CU ppm	PB ppm	ZN ppm	AG ppm	AS ppm	Au* ppb
2N 6W	60	14	84	.1	11	5
1+80N 6W	47	12	72	.1	14	5
1+60N 6W	37	11	91	.1	18	5
1+40N 6W	39	9	109	.2	7	5
1+20N 6W	80	8	139	.1	6	5
1N 6W	47	10	111	.2	10	5
0+80N 6W	40	9	96	.1	6	10
0+60N 6W	40	7	115	.2	6	5
0+40N 6W	68	7	109	.1	17	5
0+20N 6W	64	8	96	.2	11	5
0S 6W	50	8	88	.1	10	5
0+20S 6W	36	7	148	.2	6	5
0+40S 6W	45	9	130	.1	4	5
2N 4W	38	10	86	.1	17	5
1+80N 4W	29	9	112	.1	12	5
1+60N 4W	28	10	106	.1	10	10
1+40N 4W	46	12	90	.1	18	5
1+20N 4W	37	11	67	.1	15	5
1N 4W	57	8	73	.1	15	5
0+80N 4W	62	5	84	.1	6	10
0+60N 4W	53	8	91	.1	7	5
0+40N 4W	101	8	102	.1	13	5
0+20N 4W	90	9	83	.1	2	5
0S 4W	52	8	77	.1	2	5
0+20S 4W	60	8	106	.1	8	10
0+40S 4W	74	7	82	.1	8	5
2N 2W	52	10	126	.3	22	5
1+80N 2W	47	13	140	.3	22	5
1+60N 2W	65	18	125	.1	25	10
1+40N 2W	72	14	124	.1	26	5
1+20N 2W	29	10	95	.2	10	5
1N 2W	56	49	257	.3	20	5
0+80N 2W	90	45	221	.1	23	5
0+60N 2W	75	28	153	.1	29	5
0+40N 2W	61	24	214	.1	16	5
0+20N 2W	114	54	292	.3	62	5
0S 2W	201	59	146	.3	77	5
0+20S 2W	166	66	186	.3	51	5
STD A-1	30	40	189	.3	10	5

*The soil hwe Ni, Cr values similar to Cu.*



SAMPLE	CU ppm	PB ppm	ZN ppm	AG ppm	AS ppm	Au* ppb
0+40S 2W	55	19	124	.1	13	5
2N 0	142	167	339	1.1	36	305
1+80N 0	170	339	589	2.4	26	10
1+60N 0	126	51	170	.2	46	15
1+40N 0	118	53	166	.1	34	25
1+20N 0	115	42	574	.2	32	30
1N 0	100	36	131	.2	35	20
0+80N 0	98	40	166	.1	35	15
0+60N 0	128	46	147	.4	47	35
2N 2E	152	14	129	1.3	48	5
1+80N 2E	151	51	238	.5	54	5
1+60N 2E	146	54	267	.4	92	10
1+40N 2E	245	226	1112	4.7	57	10
1+20N 2E	191	114	627	.7	53	15
1N 2E	127	47	199	.1	47	5
0+80N 2E	102	25	147	.2	38	5
0+60N 2E	131	63	195	.4	67	15
0+40N 2E	159	42	151	.5	110	10
0+20N 2E	787	731	2549	7.9	73	5
0S 2E	145	45	211	1.0	155	30
0+20S 2E	109	19	160	.4	126	15
0+40S 2E	139	31	219	.4	122	10
1+80N 4E	91	19	94	.4	45	10
1+60N 4E	130	52	181	.2	97	15
1+40N 4E	116	26	132	.1	65	20
1+20N 4E	52	15	86	.2	30	10
1N 4E	95	34	110	.3	117	20
0+80N 4E	73	24	117	.1	64	5
0+60N 4E	115	55	157	.8	161	20
0+40N 4E	46	20	163	.1	38	5
0+20N 4E	60	26	117	.1	48	25
0S 4E	29	10	69	.1	31	5
0+20S 4E	44	19	138	.1	41	10
0+40S 4E	48	14	154	.1	26	5
1+60N 6E	201	131	440	1.2	172	20
1+40N 6E	155	57	271	.4	184	35
STD A-1	30	40	185	.3	10	5

SAMPLE	CU ppm	PB ppm	ZN ppm	AG ppm	AS ppm	Au* ppb
1+20N 6E	124	67	335	.5	186	25
1N 6E	87	39	149	.5	87	20
0+80N 6E	69	27	143	.4	71	10
0+60N 6E	40	21	259	.4	45	5
0+40N 6E	28	18	160	.1	33	5
0+20N 6E	34	17	141	.4	27	5
0S 6E	111	19	140	.1	62	5
0+20S 6E	36	16	131	.3	49	5
0+40S 6E	22	58	59	.6	63	35
0+60S 6E	82	14	125	.2	57	15
0+80S 6E	94	27	137	.5	115	55
1S 6E	101	22	151	.3	77	10
1+20S 6E	96	25	139	.6	81	15
1+40S 6E	88	24	153	.3	118	15
1+60S 6E	158	57	481	1.2	152	170
1+60N 8E	79	14	106	.4	49	5
1+40N 8E	85	10	126	.2	49	5
1+20N 8E	70	17	119	.3	67	5
1N 8E	95	13	115	.3	65	5
0+80N 8E	87	12	110	.3	87	5
0+60N 8E	134	15	112	.3	71	5
0+40N 8E	86	18	106	.1	61	5
0+20N 8E	67	12	104	.1	42	10
0S 8E	53	17	125	.3	36	5
0+20S 8E	36	11	203	.2	28	5
0+40S 8E	44	14	226	.3	20	5
0+60S 8E	28	9	236	.1	23	5
0+80S 8E	8	6	259	.2	6	5
1S 8E	39	8	123	.4	24	10
1+20S 8E	31	15	313	.3	55	5
1+40S 8E	26	11	195	.2	21	5
1+60S 8E	13	11	225	.2	16	5
0+40N 10E	86	17	117	.2	38	5
0+20N 10E	67	12	111	.2	42	5
0S 10E	84	12	108	.2	35	5
0+20S 10E	80	11	103	.3	43	5
0+40S 10E	54	10	104	.1	37	5
0+60S 10E	66	11	90	.1	37	5
STD A-1	30	39	190	.3	9	5

SAMPLE	CU ppm	PB ppm	ZN ppm	AG ppm	AS ppm	Au* ppb
0+80S 10E	71	15	101	.1	34	5
1S 10E	96	6	82	.1	57	5
1+20S 10E	73	10	109	.1	45	5
1+40S 10E	60	12	119	.1	29	5
1+60S 10E	57	13	155	.1	18	5
1+80S 10E	41	9	140	.2	16	5
2S 10E	23	8	186	.1	12	5
0S 12E	56	8	112	.2	17	5
0+20S 12E	33	6	193	.1	11	5
0+40S 12E	48	3	137	.1	20	10
0+60S 12E	65	7	131	.2	25	5
0+80S 12E	55	5	125	.1	20	5
1S 12E	57	9	115	.1	18	5
1+20S 12E	66	7	122	.1	26	5
1+40S 12E	61	8	117	.1	16	5
1+60S 12E	48	7	112	.1	11	5
1+80S 12E	14	5	130	.1	2	5
2S 12E	63	20	117	.3	25	5
0S 14E	20	6	111	.1	5	10
0+20S 14E	16	10	93	.3	2	5
0+40S 14E	17	8	88	.1	6	5
0+60S 14E	24	14	88	.1	4	5
0+80S 14E	17	7	94	.2	4	5
1S 14E	24	9	97	.1	8	5
1+20S 14E	26	11	105	.1	14	5
1+40S 14E	20	9	127	.2	7	5
1+60S 14E	21	7	141	.3	16	15
1+80S 14E	19	8	115	.2	10	5
2S 14E	27	13	378	.3	7	5
STD A-1	29	38	184	.3	10	5

**APPENDIX C**  
**STATEMENT OF QUALIFICATIONS**

## STATEMENT OF QUALIFICATIONS

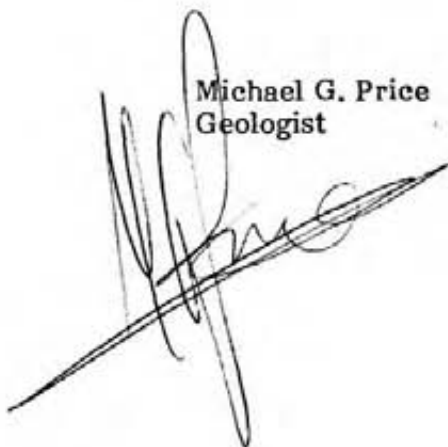
I, Michael G. Price, do certify that I am a Geologist employed by Queenstake Resources Ltd., of 900 - 850 West Hastings Street, Vancouver, B.C. V6C 1E1.

I also certify that:

- 1) I have a B.Sc. degree in Geological Sciences from the University of British Columbia, 1977, and a M. Sc. degree also from the University of British Columbia, 1981.
- 2) I have practised my profession since 1977.
- 3) I am an associate member in good standing of the Geological Association of Canada.
- 4) The report to which this certificate is attached is based on my fieldwork carried out on the property during May, June and July 1983, and from a review of previously published material.
- 5) I have no financial interest, direct or indirect, in Queenstake Resources Ltd., other than as an employee, and no financial interest, direct or indirect, in Quinto Mining Corporation, or any of their affiliated or subsidiary companies.

Vancouver, B. C.  
July 1983

Michael G. Price  
Geologist



**APPENDIX D**  
**ITEMIZED COST STATEMENT**

### Itemized Cost Statement

#### Crew costs: Salaries and benefits:

Geologist, 18 days @ \$150/day	\$ 2,700.00	
Snr. Assistant, 18 days @ \$80/day	1,440.00	
Jnr. Assistant, 16 days @ \$60/day	960.00	
Driver, 4 days @ \$90/day	270.00	
	<u>5,370.00</u>	5,370.00

#### Camp costs, Accomodation, meals

Groceries & stove fuel	626.54	
Meals & accomodation	376.67	
	<u>1,003.21</u>	1,003.21

#### Transportation:

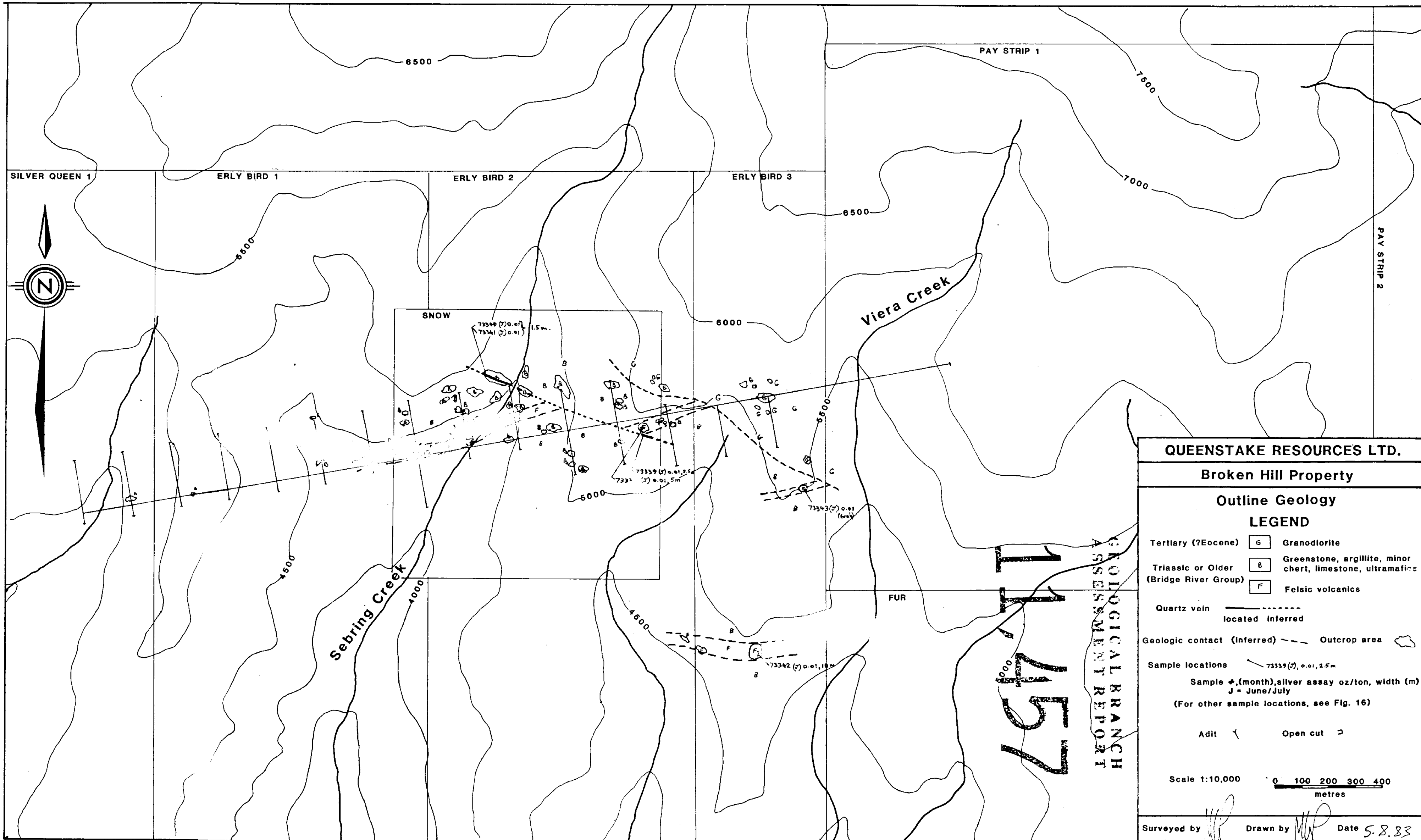
Truck rental: 4 days @ \$32.95/day & mileage etc.	435.06	
Gasoline	138.62	
Helicopter rental: 4.9 hrs. @ \$420/hr & fuel	2,317.00	
	<u>2,890.68</u>	2,890.68

#### Assays, analysis

93 rock assays @ \$26.75	2,489.00	
205 soil analyses @ 8.25	1,691.25	
	<u>4,180.25</u>	4,180.25

#### Preparation of Report

Geologist, 15 days @ \$150/day	2,250.00	
Assistant (drafting), 15 days @ \$80/day	1,200.00	
Typing, reproduction, etc.	272.25	
Filing fees	845.00	
	<u>4,567.25</u>	4,567.25
	<u>TOTAL</u>	<u>18,011.39</u>



**QUEENSTAKE RESOURCES LTD.**  
**Broken Hill Property**

**Outline Geology**

**LEGEND**

Tertiary (?Eocene)	G	Granodiorite
Triassic or Older (Bridge River Group)	B	Greenstone, argillite, minor chert, limestone, ultramafics
	F	Felsic volcanics

Quartz vein ————  
located inferred

Geologic contact (inferred) - - - - - Outcrop area

Sample locations — 73339 (7), 0.01, 2.5m

Sample #, (month), silver assay oz/ton, width (m)  
J = June/July  
(For other sample locations, see Fig. 16)

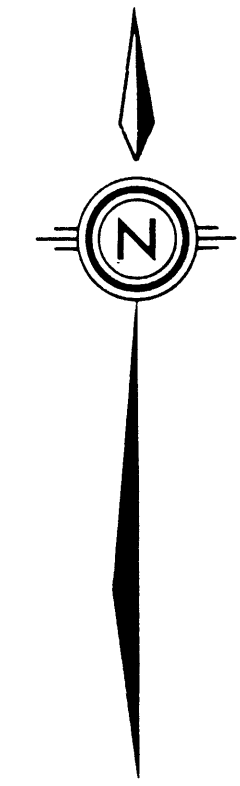
Adit < Open cut >

Scale 1:10,000 0 100 200 300 400 metres

Surveyed by *[Signature]* Drawn by *[Signature]* Date 5.8.83

Fig. 3.





SILVER QUEEN 1

ERLY BIRD 1

ERLY BIRD 2

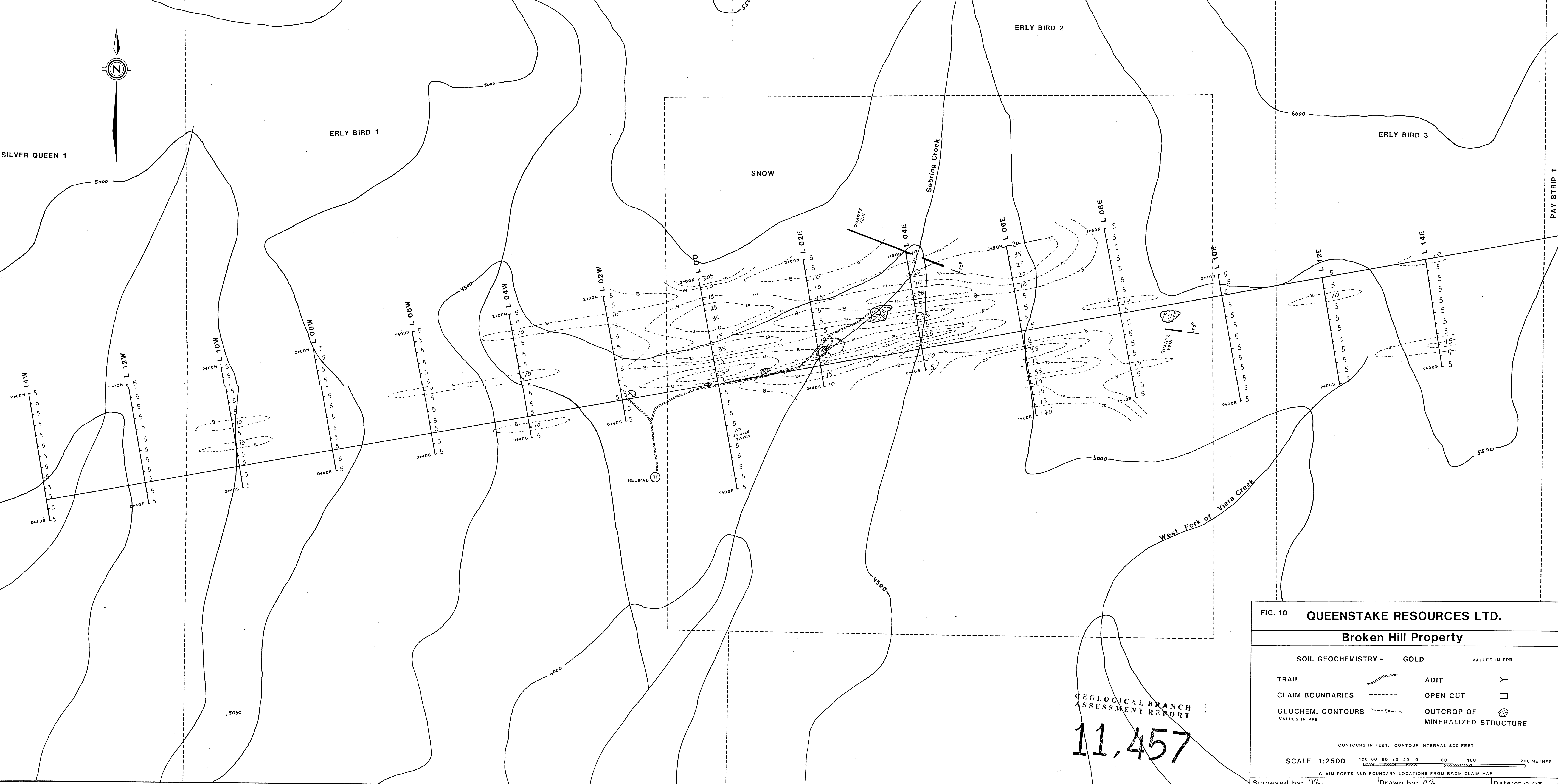
ERLY BIRD 3

SNOW

Sebring Creek

West Fork of Viera Creek

PAY STRIP 1



HELIPAD (H)

NO SAMPLE TAKEN

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

11,457

FIG. 10 **QUEENSTAKE RESOURCES LTD.**  
**Broken Hill Property**

SOIL GEOCHEMISTRY - GOLD VALUES IN PPB

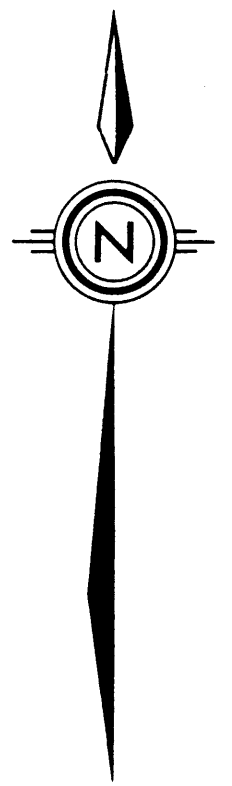
TRAIL		ADIT	
CLAIM BOUNDARIES		OPEN CUT	
GEOCHEM. CONTOURS VALUES IN PPB		OUTCROP OF MINERALIZED STRUCTURE	

CONTOURS IN FEET: CONTOUR INTERVAL 500 FEET

SCALE 1:2500

CLAIM POSTS AND BOUNDARY LOCATIONS FROM BCDM CLAIM MAP

Surveyed by: *JM* Drawn by: *JM* Date: 05.08.83



SILVER QUEEN 1

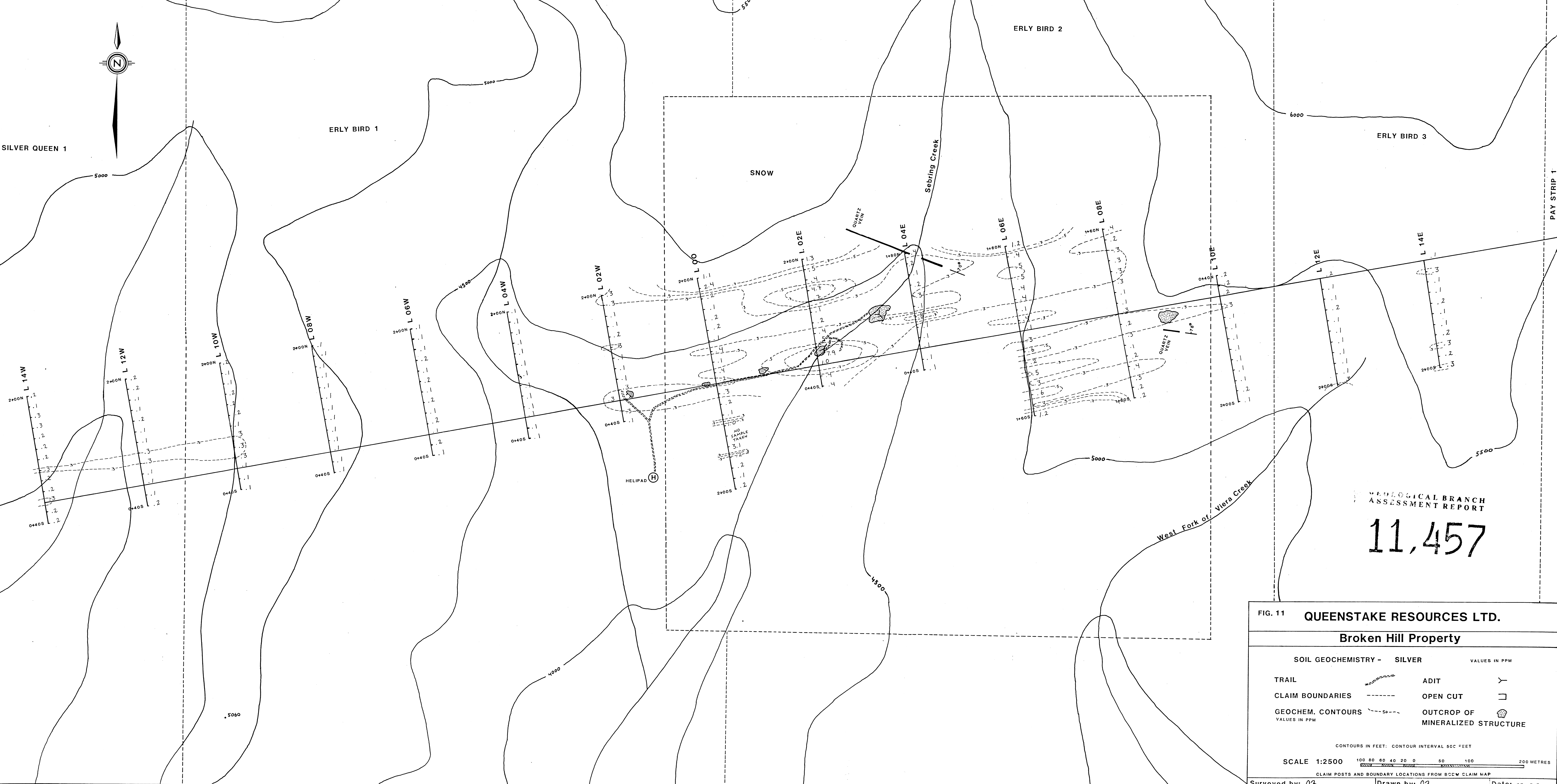
ERLY BIRD 1

ERLY BIRD 2

ERLY BIRD 3

SNOW

PAY STRIP 1



GEOLOGICAL BRANCH  
ASSESSMENT REPORT

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FIG. 11 QUEENSTAKE RESOURCES LTD.

Broken Hill Property

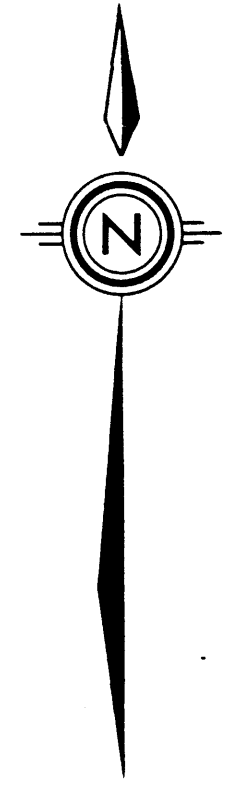
SOIL GEOCHEMISTRY - SILVER VALUES IN PPM

- TRAIL ADIT
- CLAIM BOUNDARIES OPEN CUT
- GEOCHEM. CONTOURS OUTCROP OF MINERALIZED STRUCTURE

CONTOURS IN FEET: CONTOUR INTERVAL 500 FEET

SCALE 1:2500

CLAIM POSTS AND BOUNDARY LOCATIONS FROM BCCW CLAIM MAP



SILVER QUEEN 1

ERLY BIRD 1

ERLY BIRD 2

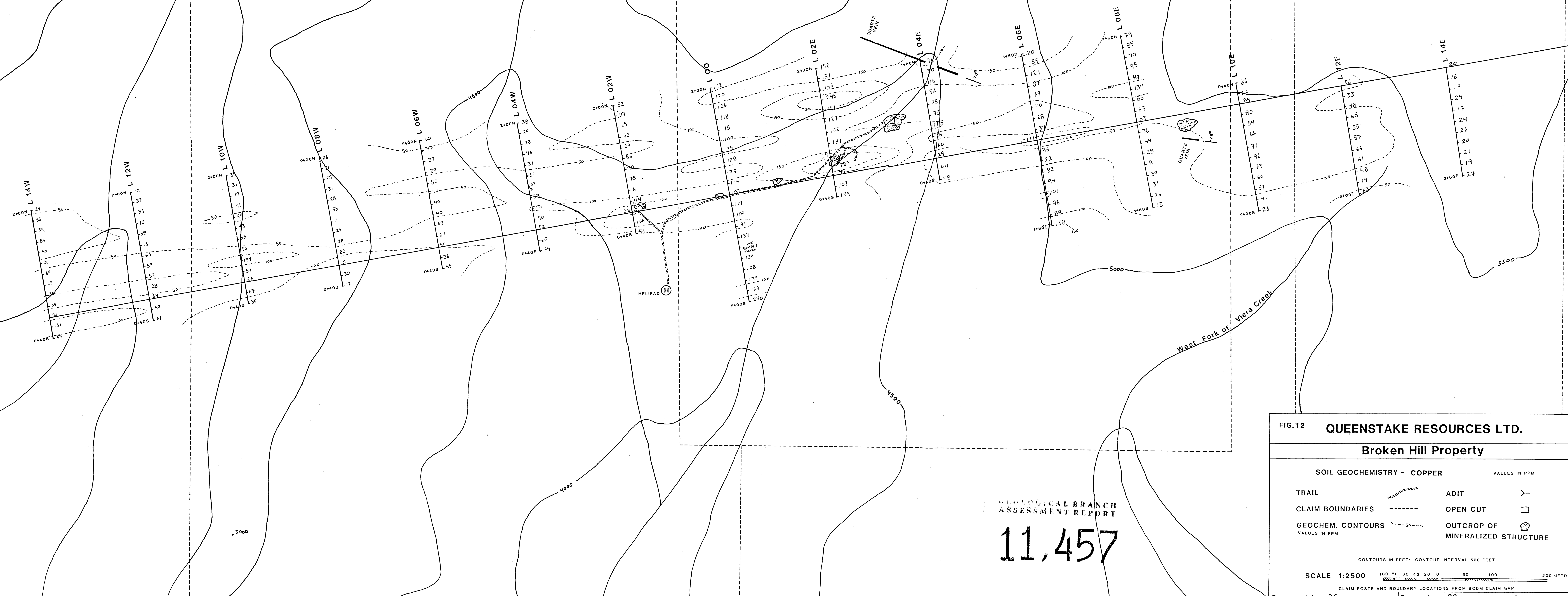
ERLY BIRD 3

SNOW

Sebring Creek

West Fork of Viera Creek

PAY STRIP 1



GEOLOGICAL BRANCH  
ASSESSMENT REPORT

11,457

FIG.12 QUEENSTAKE RESOURCES LTD.

Broken Hill Property

SOIL GEOCHEMISTRY - COPPER

VALUES IN PPM

- |                   |  |                                  |  |
|-------------------|--|----------------------------------|--|
| TRAIL             |  | ADIT                             |  |
| CLAIM BOUNDARIES  |  | OPEN CUT                         |  |
| GEOCHEM. CONTOURS |  | OUTCROP OF MINERALIZED STRUCTURE |  |

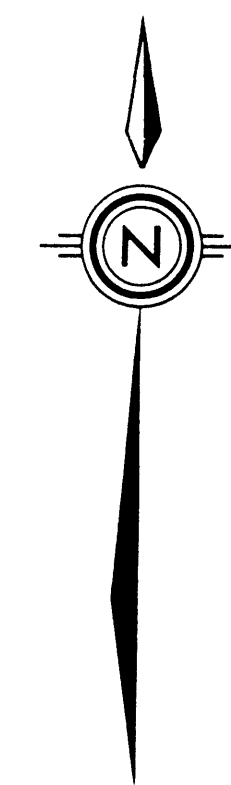
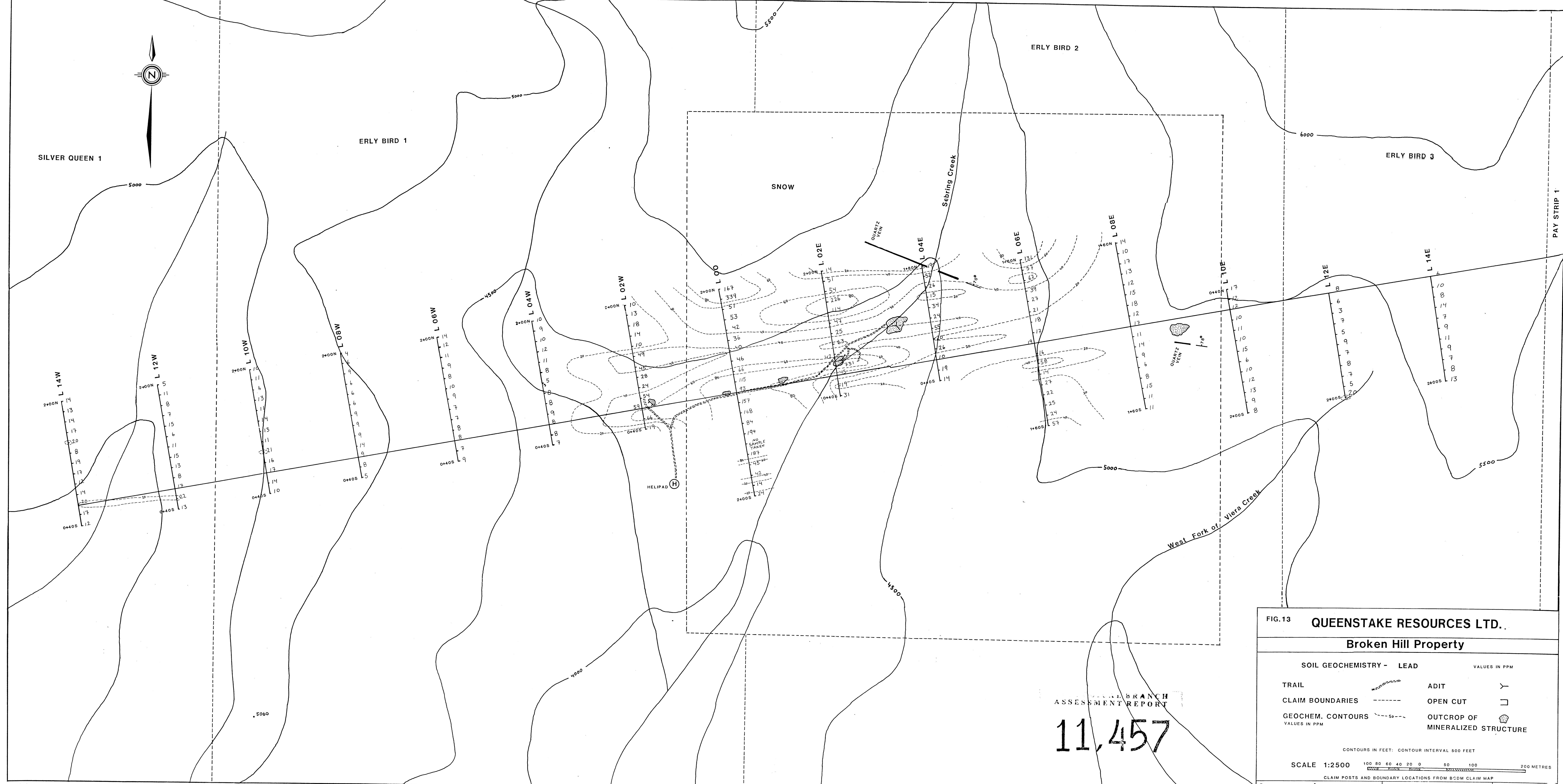
CONTOURS IN FEET: CONTOUR INTERVAL 500 FEET

SCALE 1:2500 100 80 60 40 20 0 50 100 200 METRES

CLAIM POSTS AND BOUNDARY LOCATIONS FROM BCDM CLAIM MAP

Surveyed by: *gn* Drawn by: *gn* Date: 05.08.83





BRANCH  
ASSESSMENT REPORT

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FIG. 13 **QUEENSTAKE RESOURCES LTD.**  
**Broken Hill Property**

SOIL GEOCHEMISTRY - LEAD VALUES IN PPM

TRAIL		ADIT	
CLAIM BOUNDARIES		OPEN CUT	
GEOCHEM. CONTOURS VALUES IN PPM		OUTCROP OF MINERALIZED STRUCTURE	

CONTOURS IN FEET: CONTOUR INTERVAL 500 FEET

SCALE 1:2500

CLAIM POSTS AND BOUNDARY LOCATIONS FROM BCDM CLAIM MAP

Surveyed by: *gn* Drawn by: *gn* Date: 05.08.83



GEOLOGICAL BRANCH  
 ASSESSMENT REPORT  
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FIG. 14 **QUEENSTAKE RESOURCES LTD.**

**Broken Hill Property**

SOIL GEOCHEMISTRY - ZINC VALUES IN PPM

TRAIL		ADIT	
CLAIM BOUNDARIES		OPEN CUT	
GEOCHEM. CONTOURS VALUES IN PPM		OUTCROP OF MINERALIZED STRUCTURE	

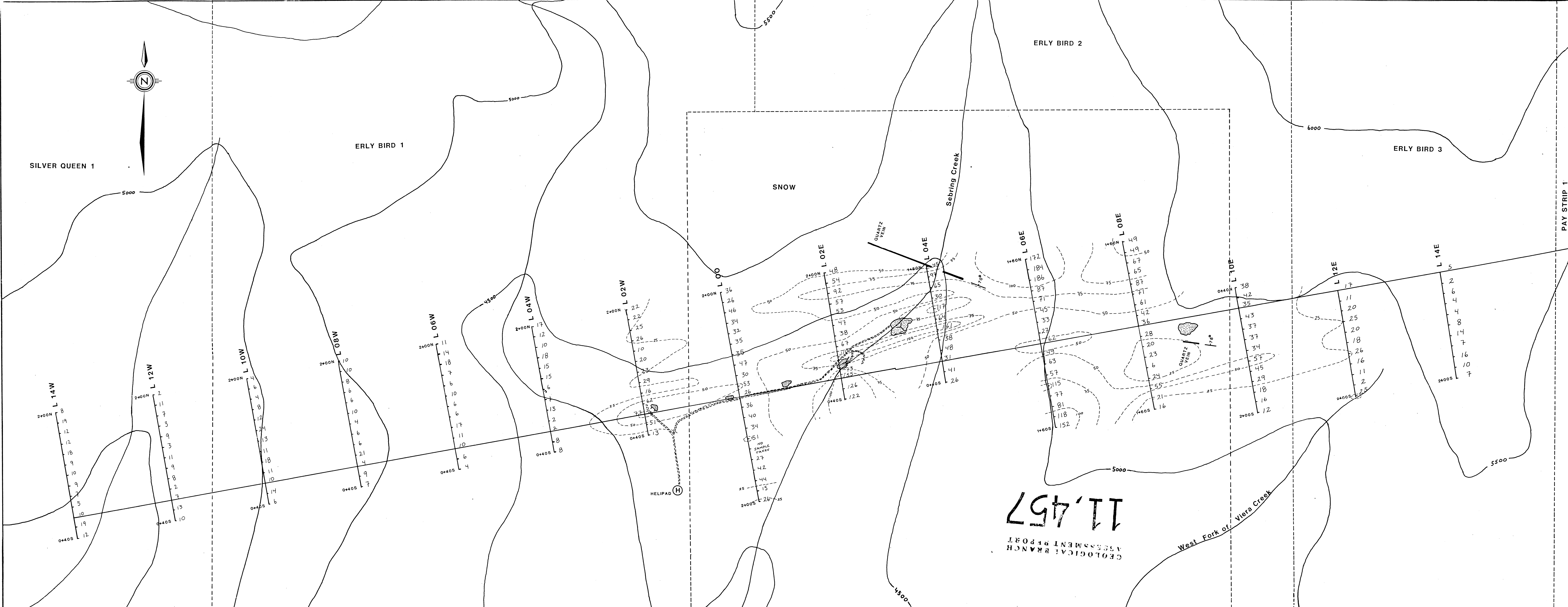
CONTOURS IN FEET: CONTOUR INTERVAL 500 FEET

SCALE 1:2500

100 80 60 40 20 0 50 100 200 METRES

CLAIM POSTS AND BOUNDARY LOCATIONS FROM BCM CLAIM MAP

Surveyed by: *gn* Drawn by: *gn* Date: 05.08.83



**FIG. 15** **QUEENSTAKE RESOURCES LTD.**  
**Broken Hill Property**

**SOIL GEOCHEMISTRY - ARSENIC** VALUES IN PPM

TRAIL		ADIT	
CLAIM BOUNDARIES		OPEN CUT	
GEOCHEM. CONTOURS		OUTCROP OF MINERALIZED STRUCTURE	

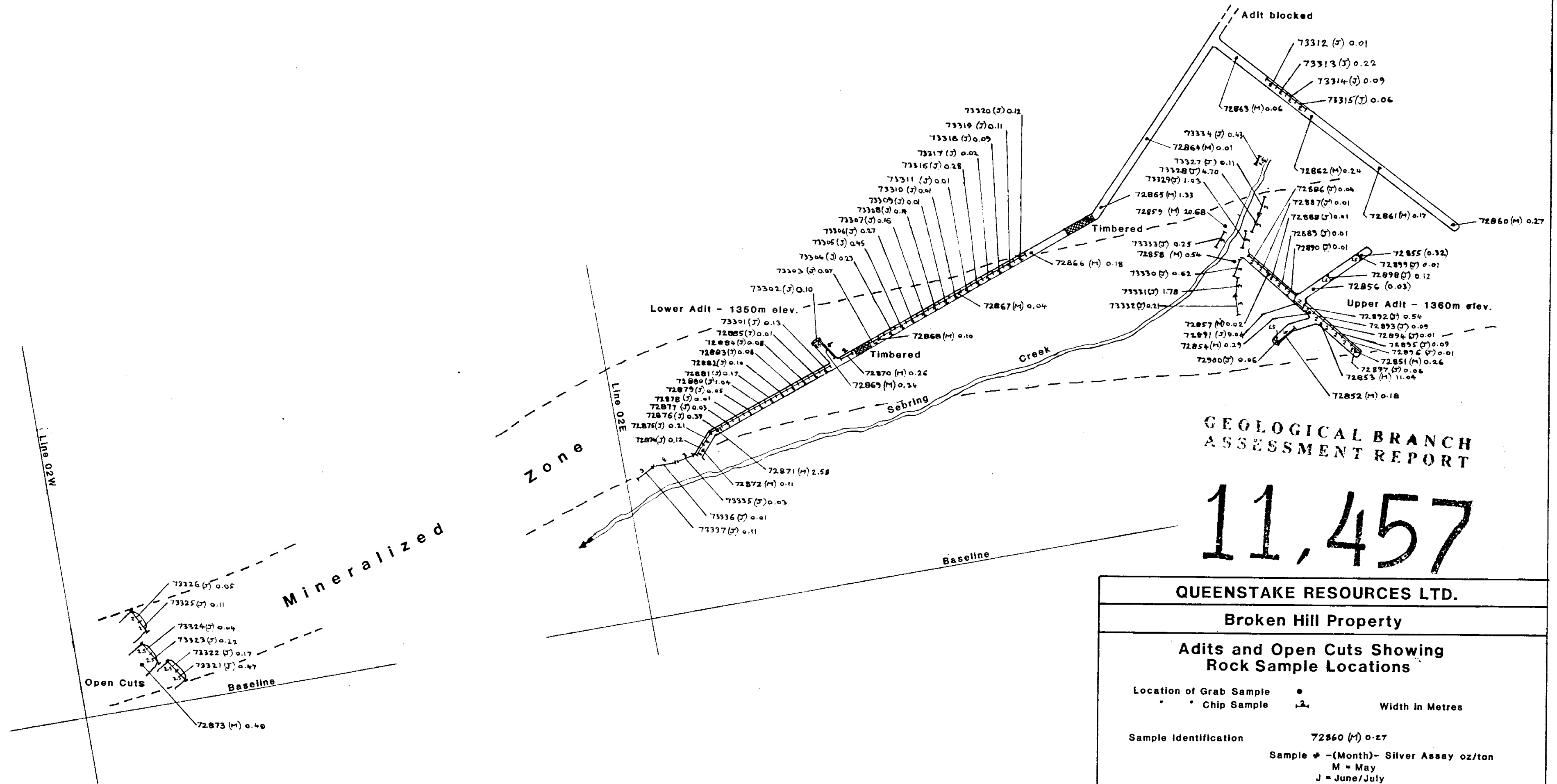
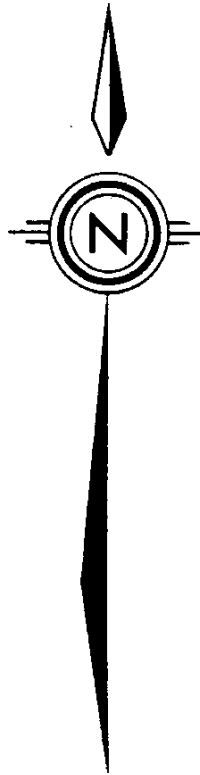
VALUES IN PPM

CONTOURS IN FEET: CONTOUR INTERVAL 500 FEET

SCALE 1:2500

CLAIM POSTS AND BOUNDARY LOCATIONS FROM BCDM CLAIM MAP

Surveyed by: *JR* Drawn by: *JR* Date: 05.08.83



**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

# 11,457

<b>QUEENSTAKE RESOURCES LTD.</b>	
<b>Broken Hill Property</b>	
<b>Adits and Open Cuts Showing Rock Sample Locations</b>	
Location of Grab Sample	•
Chip Sample	•
	Width in Metres
Sample Identification	72860 (M) 0.27
	Sample # - (Month) - Silver Assay oz/ton
	M = May
	J = June/July
Scale 1:500	0 10 20 metres
Surveyed by: <i>MP</i>	Drawn by: <i>MP</i> Date: 5.8.83

**Fig. 16**