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GEOLOGICAL REPORT
ON THE
TIGGY 1 & 2 CLAIMS
LOCATED IN THE
OSOYOOS MINING DIVISION
8 km SOUTH OF
HEDLEY, B.C.

PROPERTY: 49° 16' N Latitude
120° 06' W Longitude
NTS 92H/8E

OWNER/OPERATOR: Banbury Gold Mines Ltd.
302-540 Burrard St.,
Vancouver, B.C. V6C 2K1

AUTHOR: M. R. Sanford, Geologist
Box 225
Hedley, B.C. VOX IKO

DATED: September 15, 1987

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GEOLOGICAL BRANCH
ASSESSMENT REPORT

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I. INTRODUCTION:

Program

From the 21st of April, 1987 to the 19th of June, 1987 a mineral exploration program was carried out on the Tiggy Claims by Banbury Gold Mines, Ltd. The work included grid establishment and geological mapping. The program was managed by M. R. Sanford, Geologist, of Banbury Gold Mines, Ltd.

Summary of Work Performed

1. Grid establishment: 0.9 km cut and cleared base line; 17.5 km flagged lines 30 ~~m~~ apart with 20 m stations, covering the entire claims.
2. Geological survey: mapped at a scale of 1:2000 by Roy Kregoski; covering the entire claims.

II. PROPERTY:Description

The property consists of two two-post claims as follows:

<u>Claim</u>	<u>Record No.</u>	<u>Units</u>	<u>Date of Recording</u>	<u>Area</u>
TIGGY -1	2485	1	September 18	20.9 ha
TIGGY -2	2486	$\frac{1}{2}$	September 18	20.9 ha

Ownership

The claims are owned by Banbury Gold Mines Ltd., of Vancouver, B.C.

Location

The claims are located 8 km due south of Hedley, B.C. The eastern claim line lies NS along the western boundary of Indian Reservation 10A.

Access

The claims are accessible from Keremeos via the Paul Creek logging road, and from the east via the road to the Microwave tower atop Ashnola Hill, which connects to the Stirling Creek logging road.

Physiography

The south half of the claims are covered by gentle, south-facing, grassy slopes and the north half of the claims are covered by lightly wooded north-facing slopes. The elevation ranges between 1700m and 1800m. There is no water flowing on the property. Paul Creek lies 500m to the south west of the claim.

III. HISTORY:

Regional

Placer gold in the Similkameen River was discovered in the mid-eighteen-hundreds and actively worked until the turn of the century. The first major discovery of lode gold in the region was on Nickel Plate Mountain in 1897. Since then the area has had a long history of gold mining and between 1902 and 1955 approximately 51 million grams (1.6 million ounces) of gold were won from several mineralized skarn orebodies. Most production came from the Nickel Plate and Hedley Mascot mines located near the summit of Nickel Plate Mountain. Total production from the smaller French, Canty, Good Hope and Banbury mines was approximately 1.8 million grams of gold. Mineralization is also seen at the Peggy (Hedley Amalgamated) and Gold Hill properties.

The Hedley district was geologically mapped more than 40 years ago (Camsell, 1910; Bostock, 1930, 1940a, 1940b) but since that time little regional geological work has been done. The areas immediately surrounding some of the gold producers were mapped and studied in detail (Warren and Cummings, 1936; Dolmage and Brown, 1945; Lee, 1951), but less attention was devoted to either the regional geology or synthesising and comparing the various gold-bearing deposits in the district.

Interest in the Hedley gold camp has recently revived due to Mascot Gold Mines Limited planned 1987 reopening of the Nickel Plate mine as an open-pit operation (Simpson and Ray, 1986). Current open-pit reserves total approximately 6.5 million tonnes of ore grading 5.1 grams gold per tonne.

Banbury Gold Mines, currently under option to Noranda Exploration, has also created interest in the Hedley camp in prospects peripheral to Mascot Gold Mines Ltd.

Property

There appears to be no public record of exploration work prior to the location of the Tiggy Claims. However, several sizeable pits and trenches attest to previous mineral exploration efforts of ten to twenty years ago.

IV. GEOLOGY:Regional

The Hedley region lies within the Intermontane Belt of the Canadian Cordillera. The area between Winters Creek to the east, and Smith Creek to the west is underlain by a sedimentary and volcanoclastic package of rocks of Upper Triassic age of the Nicola Group. These rocks are relatively highly deformed, and in the Hedley area are folded tightly along North-South axial planes. The entire package is roughly 1500m thick.

As did Bostock in 1930, G. Ray of the B.C. Department of Mines divides the package in two, comprising an older Hedley Sequence, and a younger Whistle Creek Sequence. A description of these two sequences follows:

"...our preliminary work indicates that the package can be informally separated into a younger Whistle Creek sequence to the west and an older Hedley sequence to the east. The latter comprises a generally westerly dipping, 450 to 600-metre-thick succession of sedimentary rocks that are characterized by thin-bedded, calcareous and cherty turbiditic siltstones, black argillites and impure limestone beds of variable thickness. Some parts of the Hedley sequence, particularly its upper portion, contain appreciable amounts of fine-grained volcanoclastic and crystal tuff material ...

"The Hedley sequence passes stratigraphically upwards into the 700 to 1200-metre-thick Whistle Creek sequence. This forms a generally westerly dipping, west-facing succession that mainly underlies the western portion of the district although small, downfaulted outliers of the sequence are present east of Hedley township and in the vicinity of Lookout Mountain. It contains tuffaceous siltstones and rare argillites in its lower portion, but higher in the succession is characterized by bedded to massive ash and lapilli tuffs with minor volcanic breccia. The Whistle Creek sequence is distinguished from the underlying rocks by a general lack of limestones and a predominance of volcanoclastic material. No volcanic flows have been identified in the sequence."

Regional Geology (contd.)

"The Whistle Creek sequence is divisible into three stratigraphic units, the oldest (Unit A) is believed to be Late Triassic in age, while the precise age of the upper two younger units (Units B and C) is uncertain. Unit A is mainly comprised of well-bedded to massive ash tuffs of andesitic to basaltic composition. In its lower portion the unit is predominantly sedimentary in character and includes tuffaceous siltstones, interbedded with thin horizons of well-bedded to massive crystal-lithic tuff. Higher in the unit, ash tuffs with minor lapilli tuffs and volcanic breccias predominate; individual horizons are thicker and more massive, and sedimentary bedding is uncommon. Thin-section studies reveal that many ash tuffs in Unit A contain abundant euhedral, pristine crystals of plagioclase and pyroxene that show little evidence of mechanical abrasion or transportation

"The Whistle Creek and Hedley sequences are separated by a limestone boulder conglomerate which forms the most distinctive and important stratigraphic marker horizon in the district. This conglomerate is best developed west of Hedley where it forms a northerly trending, steeply dipping unit that is traceable discontinuously for over 15 kilometres along strike. Remnant outliers of the same conglomerate are also seen further east, in the Nickel Plate mine-Lookout Mountain vicinity.

"The Copperfield conglomerate is interpreted to be an olistostrome. It probably resulted from the catastrophic slumping of an unstable accumulation of reef debris down a steep submarine slope, and the widespread, chaotic deposition of this mass onto a sequence of unlithified, deeper water turbidites. South of Lookout Mountain some of the larger limestone blocks were apparently autobrecciated during the downslope movement. They are now represented by highly angular, closely interlocking fragments, separated by a thin limy gouge matrix."

Regional Geology (contd.)

"Sedimentary indicators show that the Hedley and Whistle Creek sequences generally young westward.

Measurements of crossbeds and flame structures indicate that the Hedley sequence, and Unit A of the Whistle Creek sequence were deposited by northwesterly to southwesterly directed paleocurrents."

"Three plutonic suites are recognized in the area:

"The oldest is probably Middle Jurassic in age and comprises massive, coarse-grained, hornblende-bearing diorites, quartz diorites and minor gabbros of the Hedley intrusions (Rice, 1947). Potassium-argon age dates from these rocks range between 170 and 190 million years (Roddick et al., 1972). These rocks form major stocks up to 1.5 kilometres in diameter and swarms of thin sills and dykes, up to 200 metres in thickness and over 1 kilometre in strike length. The suite is absent in the Apex Mountain Group, but further west is widespread throughout the Upper Triassic rocks in the Hedley district. Most of the Hedley intrusions are concentrated along a northerly trending, elongate zone that coincides with the slope-related change of sedimentary facies in the Hedley sequence. Varying degrees of sulphide-bearing skarn alteration are developed within and adjacent to many of these intrusions. Some previous workers (Billingsley and Hume, 1941; Dolmage and Brown, 1945) considered this plutonic suite to be genetically related to the skarn-hosted gold mineralization in the district, including that at the Nickel Plate, Hedley Mascot and French mines. The preliminary geochemical and mapping results of this project support their conclusions."

Regional Geology (contd.)

"The second plutonic suite, the Similkameen intrusions, comprises coarse, massive, biotite hornblende-bearing granodiorite of presumed Late Jurassic age; most potassium-argon ages from these rocks range from 150 to 160 million years. These intrusions generally form large bodies such as the Pennask pluton which outcrops northwest of Hedley and a granodiorite body outcropping between Winters Creek and Hedley township ... referred to as the Cahill Creek Pluton type in the region."

"Several extensive roof pendants of hornfelsed, highly deformed sedimentary and tuffaceous rocks are present in the Cahill Creek pluton north of Winters Creek. These pendants contain coarse volcanic breccias, minor chert pebble conglomerates, limestones, siltstones and a thick horizon of limestone boulder conglomerate. The boulder conglomerate is the principal host for auriferous skarn mineralization at the French Mine and closely resembles the Copperfield conglomerate seen further west. However, it is not known whether these two conglomerate units are stratigraphically equivalent. The precise relationship between the deformed and hornfelsed roof pendant geology in the French mine area and the stratigraphic succession recognized further west is uncertain.

"The third and youngest intrusive suite in the district is represented by a fine-grained, felsic, quartz-bearing porphyry that cuts and postdates the Cahill Creek pluton. These rocks are characteristically leucocratic and contain rounded, partially resorbed quartz phenocrysts up to 4 millimetres in diameter. Sills and dykes, generally less than 3 metres wide, are widespread but not abundant throughout the area. West of Ashnola Hill one 300-metre-wide, 1.3-kilometre-long dyke-like body of quartz porphyry is controlled by the west-southwest-trending Cahill Creek fracture zone."

IV. GEOLOGY (contd.)
Property

The Tiggy Claims were mapped at a scale of 1:2000 in June, 1987, by Roy Kregoski, geologist. The following is from his summary report:

"The northern portion is underlain by tuffaceous rocks belonging to the Whistle Creek Formation. The southern sector is underlain by the Hedley Formation which consists primarily of a limestone conglomerate and cherts with some argillite and minor siltstone.

"The limestone conglomerate (Copperfield Conglomerate) recrystallized consists of large blocks of black recrystallized limestone in a pinkish-white cherty matrix. Clasts of argillite are also common. This conglomerate grades downward into a white to pinkish cryptocrystalline chert which frequently appears color banded. Locally, the texture of the chert becomes quartzitic. The limestone conglomerate/chert transition zone is characterized by a higher degree fracturing as well as a decrease in size and extent of limestone clasts.

"The conglomerate grades upward into a silicified variety which has a banded, nodular appearance due to greater amount of argillite and cherty clasts. Bedding is generally southeasterly (140-170°) with moderate dips to the south west.

"The silicified conglomerate is in contact with rocks belonging to the Whistle Creek Formation near the center of the property. It consists of two primary rock types; an andesitic tuff and a rhyolitic tuff.

"Both rock types exhibit a wide variety of textures and appearances. In general, the andesitic tuff is a grey to dark brown, mottled rock which is fine to medium grained. It is composed of subhedral to euhedral felspar crystals, irregular to rounded quartz crystals in a glassy siliceous matrix.

"The rhyolitic tuff is usually a cream to grey rock which can be glassy to having a medium-grained granular texture. It is composed of fine-grained felspar and white quartz crystals in a glassy groundmass.

Property (contd.)

"The rhyolitic tuffs usually occur as small, discontinuous and irregular intercalations in the andesitic tuffs. Contacts are characterized by a decrease in grain size of the andesitic with some bleaching and epidote alteration.

"Mineralization

Pyrrhotite was the most pervasive mineralization observed on the property. It was noted in all rock types except for the argillite and siltstone. Minor malachite (?) was observed in a silicified limestone conglomerate on L12 and 10N 9 and 00E.

The pyrrhotite was observed to be mainly associated with the rhyolites and the silicified conglomerates. A series of trenches at L9+40N 10+00E has exposed the strongest mineralization in the conglomerate and close to the tuff contact. Trench 1 has exposed a strongly iron stained zone within the silicified limestone. The fracture zone at this location appears to cross-cut (30°/70° NW) the bedding of the limestone (135°/45° SW).

Another series of trenches (No. 2 and 3) on L7+30N 9+00E have exposed a similar mode of mineralization. At this location, the zone in the fractured conglomerate appears to follow the bedding (140°) but with steep dips to the north-east."

Gerry Ray of the B. C. Department of Energy, Mines and Petroleum Resources notes the similarities between rocks on the Tiggy Claims, and conjectures that the thick limestone succession in this area represents a southern extension of the shallow-water marginal facies that is observed around the Mascot Gold deposit.

V. ITEMIZED COST STATEMENT:

1. Grid Establishment:	
20 man days @ \$100.00/day	\$2000.00
Truck expenses 7 days @ \$50.00/day	\$ 350.00
Supplies, flagging, hip clain, chain saw, etc	\$ 380.00
2. Geological Survey	
Monashee Consulting	\$1173.19
	<hr/>
TOTAL	\$3903.19

VI. REFERENCES:

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RICE, H.M.A.

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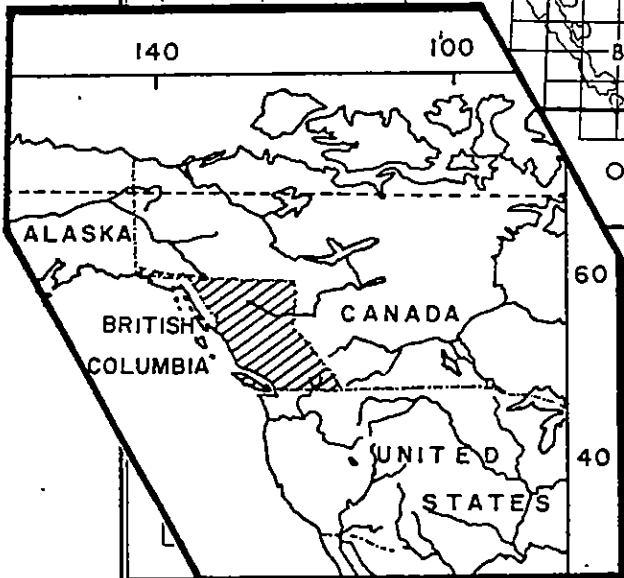
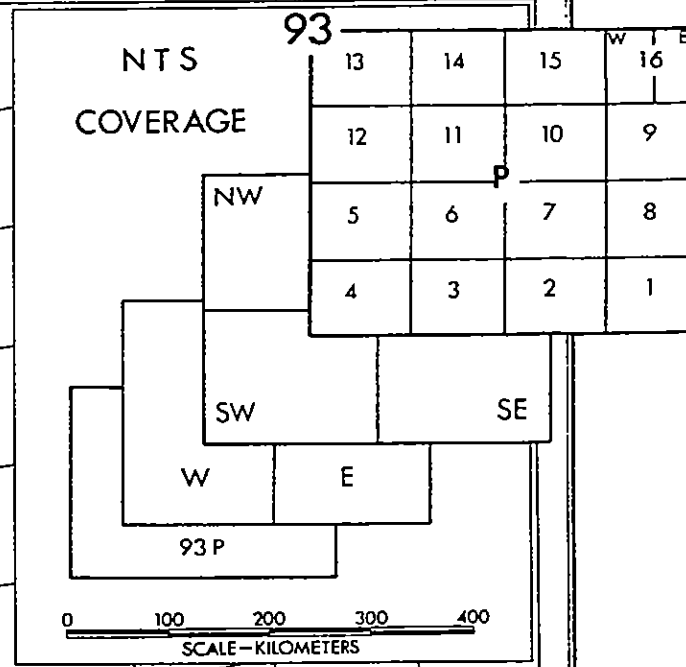
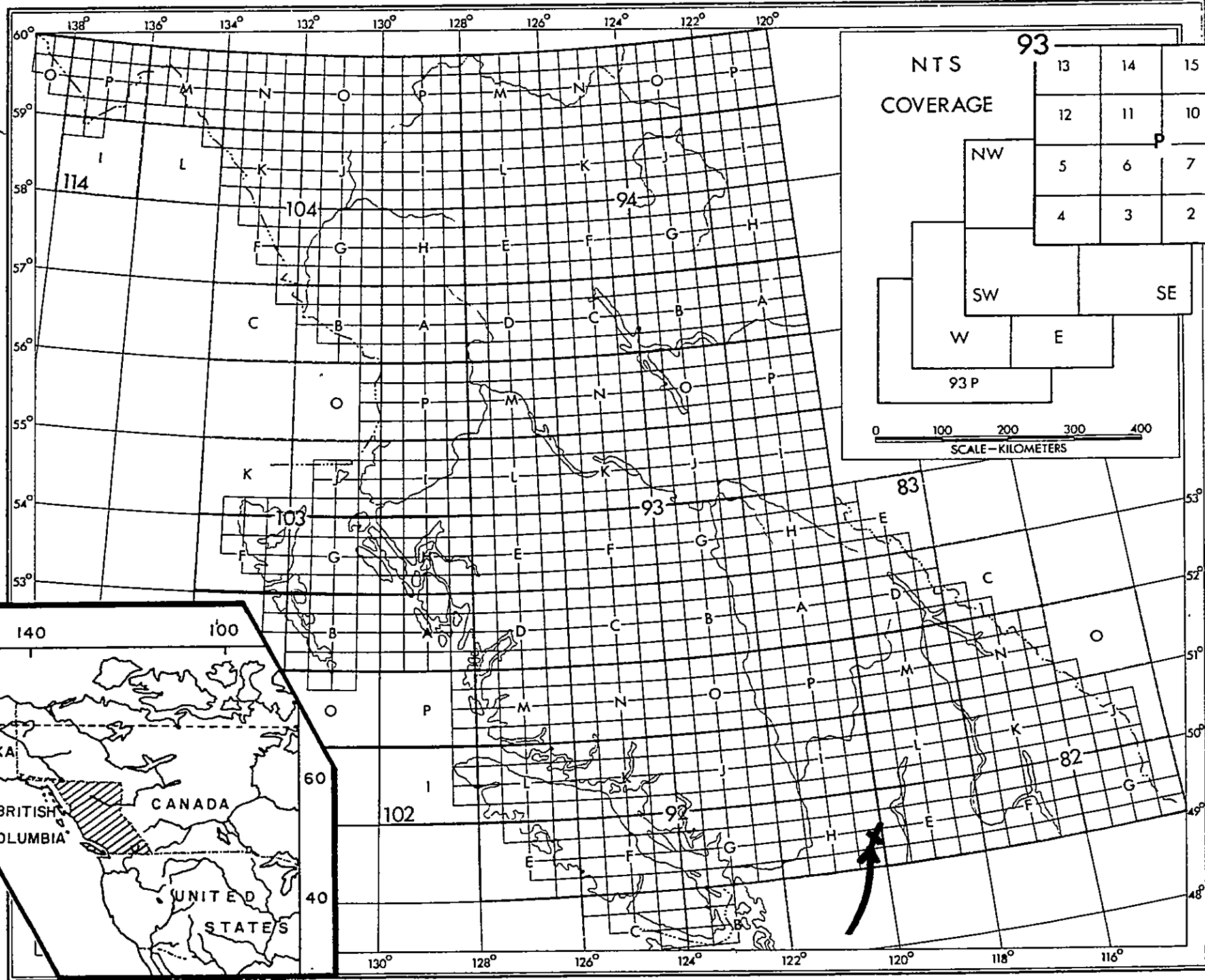
VII. GEOLOGIST'S CERTIFICATE:

I, Michael R. Sanford, of Hedley, B.C., do hereby certify:

1. that I am a graduate of the University of British Columbia, 1978, and hold a B.Sc. degree in geology.
2. that I have been the geologist for Banbury Gold Mines Ltd. for the past 6 years.
3. that I have been active in the field of mineral exploration for the past 12 years.
4. that this report is based on data collected from April 21st, 1987 to June 19th, 1987 on the Tiggy 1 and 2 claims located in the Osoyoos Mining Division for Banbury Gold Mines Ltd. of Vancouver, B.C.

DATED September 15, 1987 at Hedley, B.C.

M. R. SANFORD,
GEOLOGIST

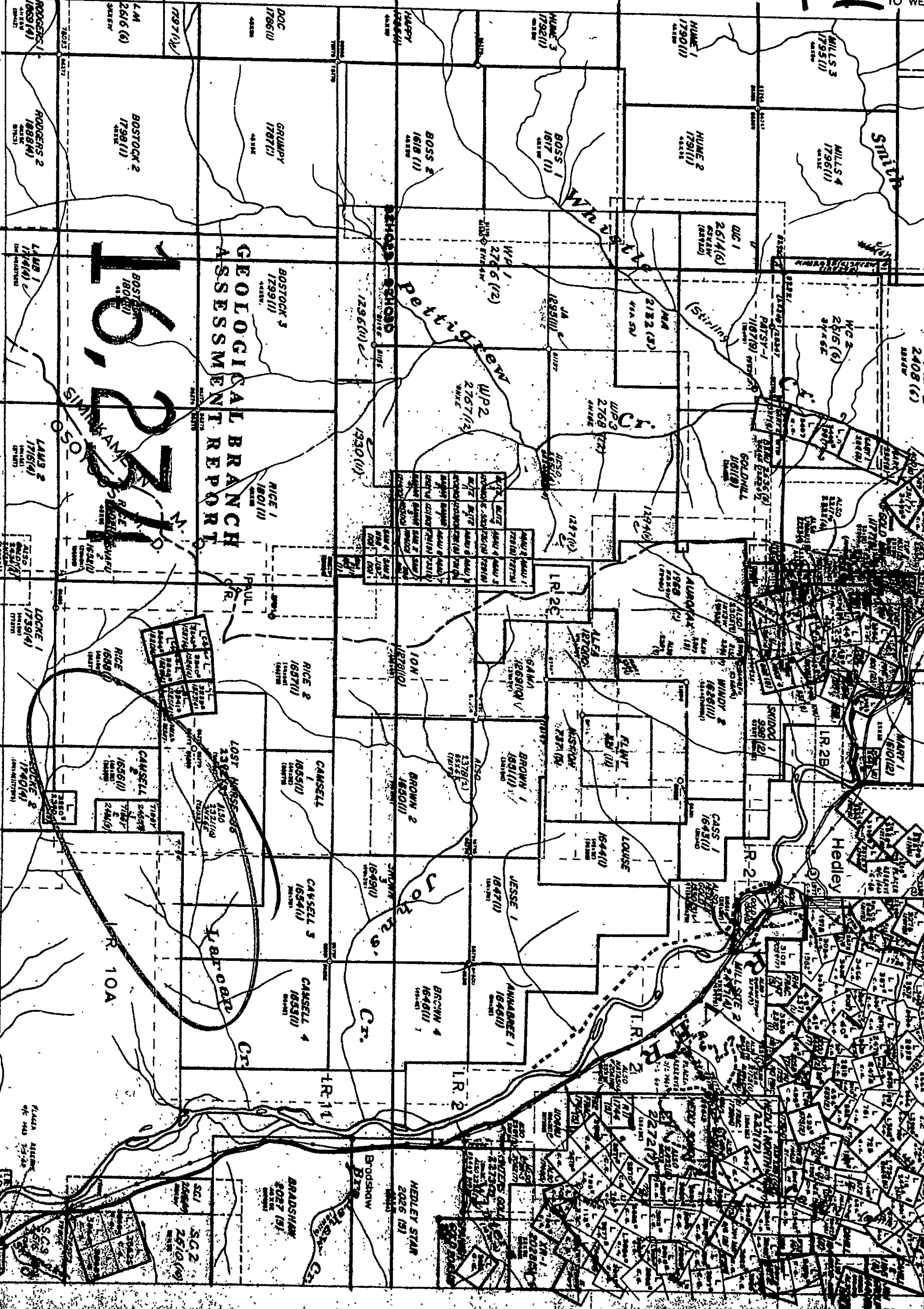


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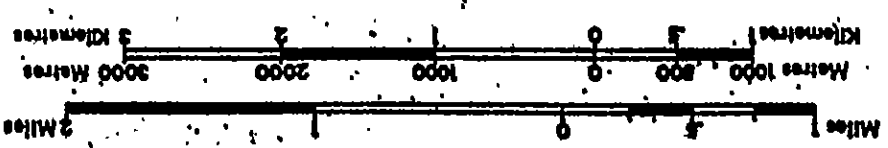
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TO SOUTH SEE MAP 92H/1E



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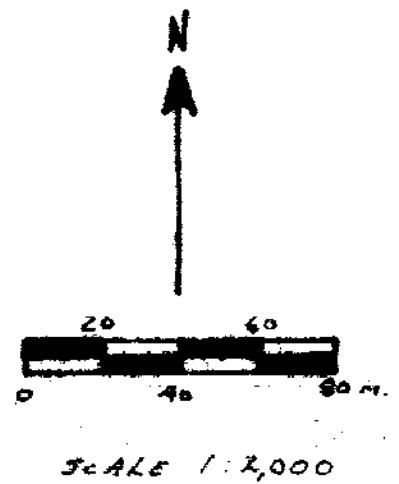
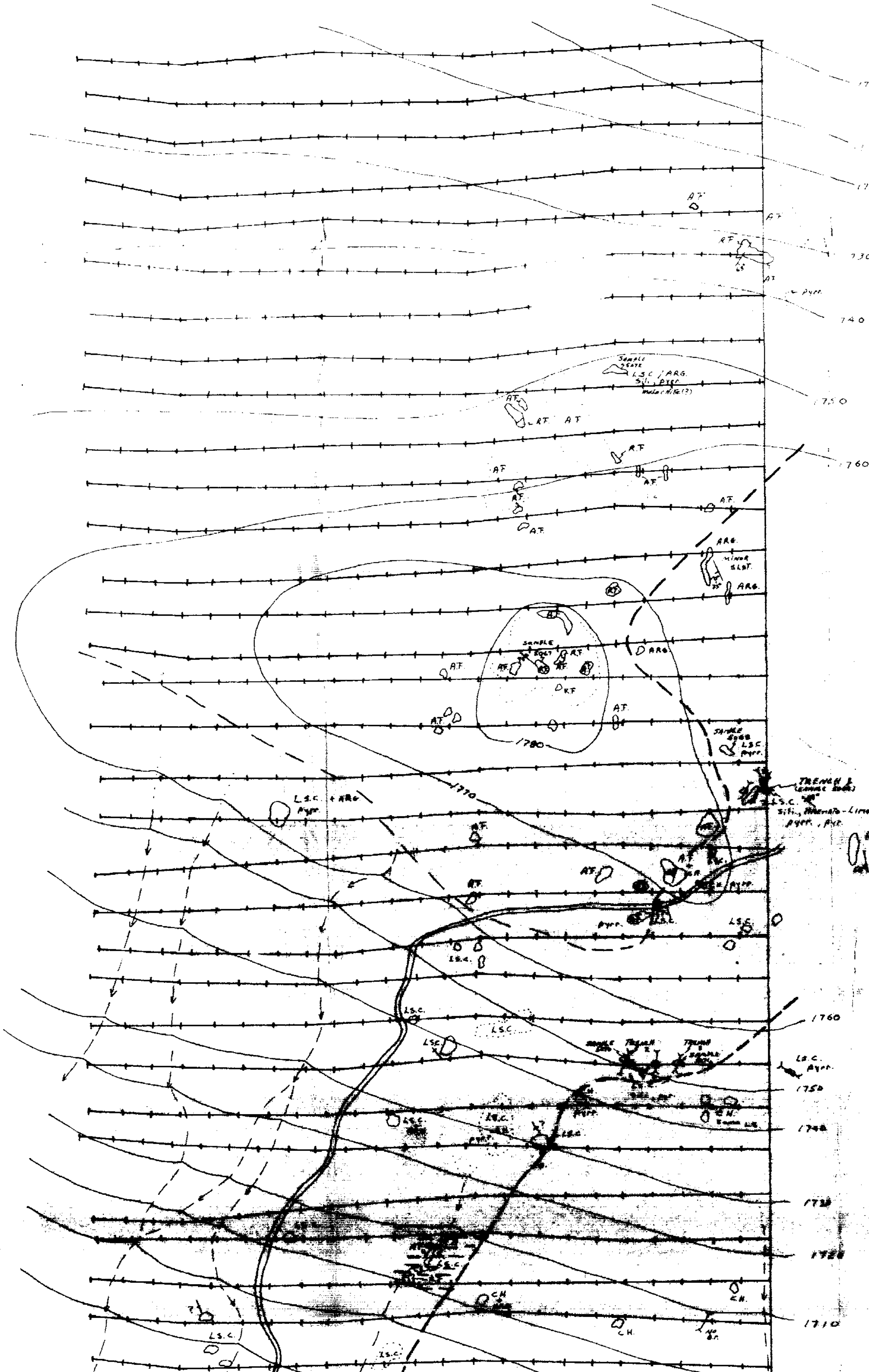
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Ministry of Energy, Mines and Petroleum Resources

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- WHISTLE GREEN FORMATION**
- [AT] - ANDESITIC TUFF
 - [RT] - RHYOLITIC TUFF
- HEBLEY FORMATION**
- [L.S.C.] - LIMESTONE CONGLOMERATE
 - [CH] - CHEAT
 - [ARG.] - ARGILLITE
MINOR SILTSTONE (SIST)
 - [---] - CONTACT, ASSUMED
 - [---] - STRIKE/DIP OF BEDS
 - [---] - STRIKE/DIP OF FRACTURE ZONES
 - [---] - TRENCH
 - [---] - OUTCROP/SCATTERED
 - [---] - BARRIAGE
 - SIL. - SILICIFIED
 - ARG. - ARGILLITE
- ELEVATION CONTOURS - 10 METERS

GEOLOGICAL BRANCH
ASSESSMENT REPORT

16,234

BANBURY GOLD MINES LTD.
 TIGGY 1 & 2 CLAIMS - OSOYOOS M.D.
 Geology by R. Kazovsky June, 1987
 TO ACCOMPANY REPORT BY M.E. SANFORD

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