

GEOPHYSICAL
ASSESSMENT REPORT
on the
GOLD PROPERTY
(GOLD CLAIM)
VENNER MEADOWS
OSOYOOS MINING DIVISION, B.C.

NTS: 82E/6W
Latitude: 49° 16.7' - 49° 17.5' North
Longitude: 119° 18.4' - 119° 20.0' West
Owner: E & D Joint Venture
Consultant: K. L. Daughtry & Associates Ltd.
Author: K. L. Daughtry, P.Eng.
Date: March 31, 1982

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
10,624
NO.

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SUMMARY

The GOLD property, held by the E & D Joint Venture, is located 20 km southeast of Okanagan Falls. This report presents the results of exploration work carried out in 1982.

During 1982, 2.1 km of grid lines were established or rehabilitated and an orientation magnetometer survey was conducted. This survey indicated that a detailed magnetic survey over the area of interest might delineate magnetic lows corresponding to zones of hydrothermal alteration and mineralization.

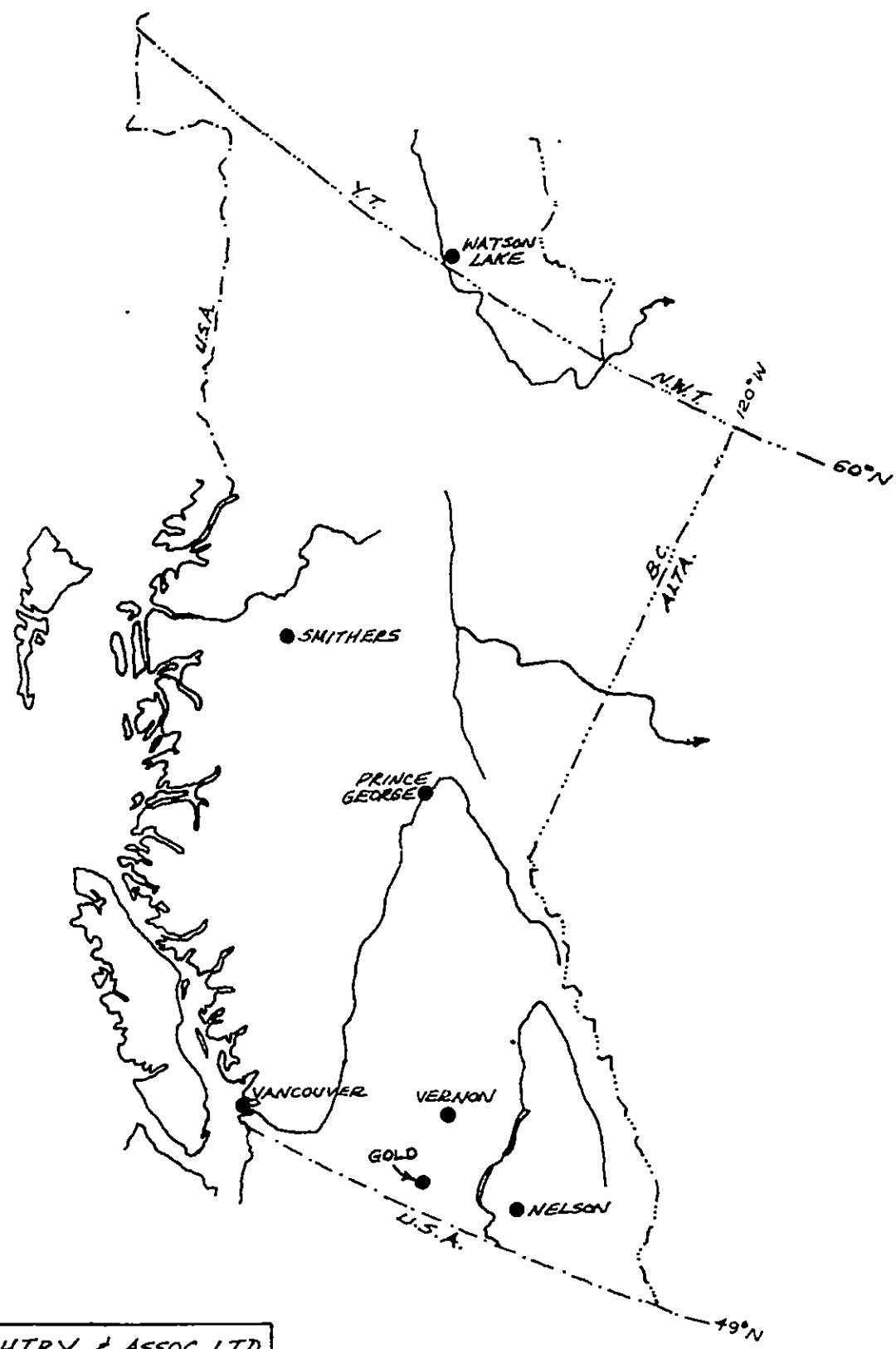
The property continues to exhibit exploration potential and a programme of further exploration is warranted.

LOCATION, ACCESS, TOPOGRAPHY

The GOLD claim is located astride Solco (Fish) Creek, a southerly-flowing tributary of Vaseux Creek, 20 km southeast of Okanagan Falls, B.C. (Figures 1 & 2). Venner Meadows is on the central part of the south boundary, and Solco (Fish) Lake is 8.5 km north-northeast of the centre of the claim. Elevations on the property vary from 1370m to 1600m a.s.l. The National Topographic System reference is 82E/6W and the co-ordinates of the area of the showings are $49^{\circ}16.9'$ north and $119^{\circ}08.4'$ west.

Good access is provided to the property by driving up the Shuttleworth Creek logging road from Okanagan Falls for 27 km. Much of the claim is covered by second growth with abundant windfalls and peckerpole pine.

Topography is rolling and typical of the Okanagan Plateau. The central part of the claim is a bowl-like depression between low hills. The upper part of the Solco Creek canyon extends to the southern corner of the claim.



K.L. DAUGHTRY & ASSOC. LTD	
E & D JOINT VENTURE	
LOCATION MAP	
GOLD PROPERTY	
Osoyoos M.D.	
Project No 098	FIG. NO. 1

PROPERTY

The property consists of the following located mineral claims:

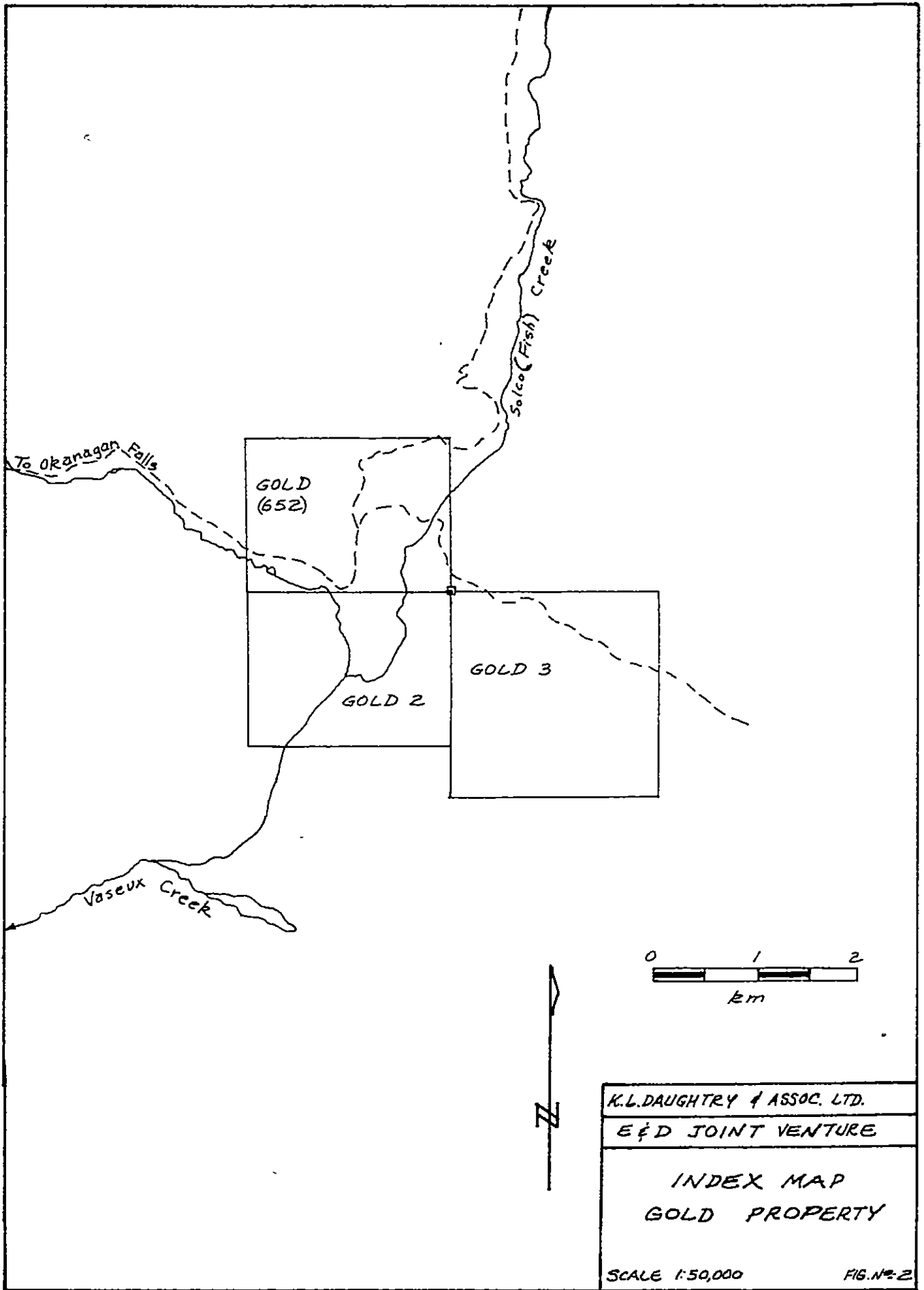
<u>Name</u>	<u>Record No.</u>	<u>No. units</u>	<u>Registered Owner</u>	<u>Expiry Date</u>
GOLD	652	12	P.P. Nielsen	March 1, 1983
GOLD 2	1420	20	P.P. Nielsen	July 14, 1982
GOLD 3	1421	12	P.P. Nielsen	July 14, 1982

The ownership of all claims is subject to an agreement between Energex Minerals Ltd. and K. L. Daughtry and Associates Ltd., acting for K. L. Daughtry, P. P. Nielsen, W. R. Gilmour and V.F. Erickson, dated August 11, 1978.

HISTORY

K. G. Ewers and partners of Okanagan Falls, B.C. staked the AU-RAIN group of 8 claims in June 1973. This was the first recorded activity in the area of the GOLD claim. The AU-RAIN property was staked to cover an occurrence of gold-silver mineralization exposed in a road cut on a recently upgraded logging road.

The prospectors dug two trenches, one on either side of the road. The western trench encountered bedrock but the eastern one was entirely in overburden.



K.L. DAUGHTRY & ASSOC. LTD.
E & D JOINT VENTURE
INDEX MAP
GOLD PROPERTY
SCALE 1:50,000
FIG. NO. 2

In November 1973, Teck Corporation Limited conducted limited soil and rock geochemical surveys and magnetometer and VLF-EM surveys over the immediate area of the showing. Soil sampling indicated the presence of above-background gold, silver and mercury values near the showing. The geophysical surveys did not appear to indicate significant magnetic or VLF-EM response. However, magnetic readings were recorded only to the nearest 100 gammas.

In June 1974, Teck enlarged the grid and carried out further soil sampling. This work delineated an area, anomalous in gold and silver values, which extended about 1100 x 800 feet (330 x 240 m). Teck concluded that the anomalies were "related to nearby gold and silver mineralization of very limited areal extent", and dropped their option. The total value of Teck's work filed for assessment was about \$3500.00.

In 1975, Ewers and partners dug 4 trenches and cut over 800 metres of trail. Twenty one rock samples were submitted for gold and silver assays.

Granby Mining Corporation carried out a channel sampling programme of outcrops, road cuts and trenches in November 1975. Granby's report concludes "... appreciable gold and silver mineralization occurs erratically in limited areal extent.... It might merit additional detailed sampling and some exploration, but its potential is considered not enough for Granby at this time".

From November 1975 to May 1976, Ewers and partners conducted biogeochemical surveys, trenching, and assaying. Some of this work was financed by Canex Placer Limited.

Apparently no further work was performed, and the AU-RAIN claims were allowed to lapse in 1978. The area of the showings were re-staked as the GOLD claim by the current owners in February 1979.

In 1980 a 1:5,000 base map was prepared by Pacific Survey Corporation and filed for assessment work. In addition the current owners conducted a geochemical orientation survey over part of the claim. Soil samples were collected and analyzed for gold, silver, arsenic, antimony and mercury. High values in gold, silver, arsenic and mercury occurred near the known showings, and two new areas of anomalous arsenic and mercury values were discovered. Antimony values were negative.

GEOLOGY

The GOLD property is an outlier of early Tertiary volcanic and sedimentary rocks which are correlative with rocks of the White Lake Basin 11 km to the west and northwest.

Early Tertiary rocks were probably once co-extensive between the White Lake Basin and the area of the GOLD property. Tertiary faults have tilted and uplifted intervening blocks resulting in erosion of the Tertiary units between the Okanagan Valley and the subject area. The distribution of Tertiary rocks in the outlier itself may be controlled by unmapped Tertiary block faults.

The pre-Tertiary basement rocks in the area of the property are shown on GSC Map 15-1961 as Mesozoic Valhalla granitic rocks and metamorphic rocks of the older Monashee Group.

The GOLD claim is underlain by andesitic flows and tuffs which overlie sedimentary rocks south of the area of the showings. The andesitic rocks are described by Verzosa (1974) as dark-coloured fine-grained feldspar porphyry and tuff. Verzosa also mentions areas of rusty, highly altered and silicified rock associated with a northeasterly-trending zone of shearing and fracturing. Alteration is accompanied by pyritization in places, is patchy, and is spatially related to bands, veins and veinlets of calcite. He also describes a siliceous

volcanic breccia, or possibly lahar, which he compares to similar rocks at the Dusty Mac Mine 19 km to the northwest. The mineralization at the GOLD property appears to be generally related to the altered and fractured rocks.

The arsenic anomaly in soils discovered in the 1980 soil survey occurs along the same northeast-southwest trend mentioned above.

GEOPHYSICAL SURVEY

Epithermal gold deposits are often accompanied by areas of hydrothermal alteration in which the magnetic minerals have been destroyed. The resulting anomalously low magnetic intensity can be useful as an exploration guide. Accordingly, an orientation ground magnetometer survey was conducted over part of the GOLD property in February, 1982, to determine whether there was any anomalous magnetic feature associated with mineralization.

Flagged grid lines were established:

- (a) in the area of the known showings,
- (b) across a geochemical mercury anomaly in soils south of the showings,
- (c) across a geochemical arsenic anomaly in soils near an outcrop of silicified rock west of the legal corner post of the GOLD claim, and
- (d) along the logging road to the east and west of the showings.

A total of 2150 metres of line were established (Figure 3).

Readings of the total magnetic field were taken at 25-metre intervals using a Geometrics Unimag II neutron-procession magnetometer (Table 1). A base station was established at 2+45N on the base line and readings were taken about every 30 minutes.

DISCUSSION

Repeated base station readings over the course of the survey indicated that there was no significant diurnal variation. Consequently, the readings have not been corrected.

The maximum magnetic relief over the area covered by the orientation survey was 554 gammas. The maximum relief at adjacent stations was 314 gammas (between 2+50W and 2+75W on line ON).

In the area of the main showings, a definite magnetic low was measured at 2+50N on the base-line. The earlier magnetometer survey by Teck Corporation in 1973 also indicated a magnetic low in this area.

In the area of the arsenic anomaly in soils, on line ON from 1+75W to 2+75W, a sharp magnetic low was noted between 1+50W and 3+00W.

A weak magnetic low was also noted near the borrow pit on the logging road about 125 to 150 metres east of the base line.

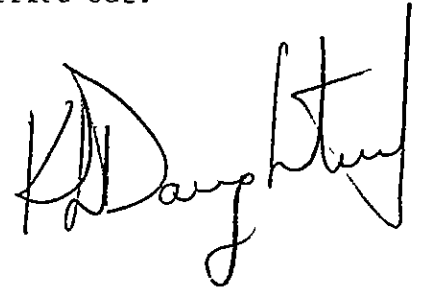
The above relationships strongly suggest a direct relationship between low magnetic readings and areas of hydrothermal alteration accompanying epithermal mineralization.

In the area of the mercury anomaly in soils on the base line from 0+75N to 1+00N, magnetic readings were background to high. Higher readings were also noted along the logging road about 550 metres west of the base line. These areas may be underlain by distinct lithologic units displaying high magnetic susceptibility.

CONCLUSIONS AND RECOMMENDATIONS

The direct correlation between areas of anomalously low magnetic readings and areas of mineralization, alteration and geochemical arsenic anomalies confirms the potential of a ground magnetometer survey in delineating target for further exploration.

It is recommended that a grid be established over the GOLD property and detailed magnetometer and geochemical soil surveys be carried out.

A handwritten signature in black ink, appearing to read "H. Doughty". The signature is written in a cursive style with a large initial "H" and a long, sweeping tail.

REFERENCES

- Church, B.N. (1977) Tertiary Stratigraphy in South Central B.C. in Geological Fieldwork, 1977 B.C. Ministry of Mines & Petroleum Resources.
- (1973) Geology of the White Lake Basin. Bulletin 61 B.C. Department of Mines & Petroleum Resources.
- (1970) GEM pp 396-402. B.C. Department of Mines and Petroleum Resources.
- (1969) GEM pp 294-296
- Daughtry, K.L. & Gilmour, W.R. (1981) Geochemical Assessment Report on the GOLD property, Osoyoos Mining Division, B.C.
- GEM (1976) pp E26-27 AU, RAIN
- (1975) p E21 AU
- (1974) p 56 AU and DUSTY MAC
- (1973) p 47 AU
- Kim, H. (1975) Report on AU-RAIN Claim Group for Granby Mining Corporation
- Thompson, K.G. (1976) AU-RAIN Claim Group. Assessment report 5886.
- (1975) AU-RAIN Claim Group. Assessment Report 5702.
- Verzosa, R.S. (1974) Geochemical Report, AU-RAIN Claim Group Assessment Report 5009.
- (1973) Geochemical and Geophysical Report, AU-RAIN Claim group. Assessment Report 4763.

STATEMENT OF COSTS

1. Grid establishment and magnetometer survey:		
J. Graham, prospector; February 20 & 26 1982 2 day\$150/diem		\$300.00
K. L. Daughtry, P.Eng. February 26, 1982 1 day @ \$275/diem		275.00
Transport		127.89
Food & lodging		14.00
Supplies, equipment		8.03
Magnetometer rental		<u>15.00</u>
	Total	<u>\$739.92</u>
2. Report preparation:		
K. L. Daughtry, P.Eng. February 28, 1982 March 31, 1982 1.5 days @ 275/diem		412.50
Secretarial		<u>84.00</u>
	Total	<u>\$496.50</u>

STATEMENT OF QUALIFICATIONS

I, KENNETH L. DAUGHTRY, of R.R. #4, Vernon, British Columbia, DO HEREBY CERTIFY that:

1. I am a Consulting Geologist in mineral exploration.
2. I have been practising my profession for seventeen years in Canada, the United States and Ireland.
3. I am a graduate of Carleton University, Ottawa, with a Bachelor of Science degree in Geology and Chemistry.
4. I am a member of the Associations of Professional Engineers of British Columbia, Ontario, and Yukon Territory, and a Fellow of the Geological Association of Canada.
5. This report is based upon knowledge of the GOLD property gained from an examination of the showings on the property, from the study of numerous assessment reports on the property, and from conducting the magnetometer survey herein described.
6. I hold a beneficial interest in the GOLD property.

Vernon, B.C.
March 31, 1982.

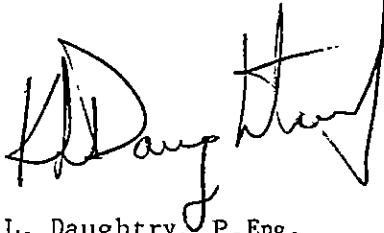

K. L. Daughtry, P.Eng.

Table 1

Ground Magnetometer readings, GOLD property, Osoyoos, M.D.

Operator: K. L. Daughtry

Date: February 26, 1982

Instrument: Geometrics Unimag II

Weather: Overcast, snow flurries
-2 C, calm

<u>Line</u>	<u>Station (metres)</u>	<u>Reading (gammas)</u>	<u>Time</u>	<u>Reading</u>	<u>Time</u>	
B/L	2+50N (road)	57169	1331	57168	1447	
	2+25N	57366				
	2+00N	57374				
	1+75N	57365				
	1+50N	57369				
	1+25N	57599	1341	57627	1441	
	1+00N	57536				
	0+75N	57312				
	0+50N	57334				
	0+25N	57194				
	ON	0+00N (LCP)	57313	1350	57326	1435
		0+25W	57359			
		0+50W	57418			
		0+75W	57449			
1+00W		57422				
1+25W		57415	1357	57462	1429	
1+50W		57431				
1+75W		57162				
2+00W		57249				
2+25W		57173				
2+50W		57141	1404	57146	1423	
2+75W		57082				
3+00W		57396				
3+25W		57446				
3+50W	57429					
3+75W	57403	1412	57400	1416		
4+00W (creek)	57464					
ROAD (N. side)	0+00W	57165	1531	57166	1555	
	0+25W	57211				
	0+50W	57274				
	0+75W	57351				
	1+00W	57281	1454			
1+25W	57380					

<u>Line</u>	<u>Station (metres)</u>	<u>Reading (gammas)</u>	<u>Time</u>	<u>Reading</u>	<u>Time</u>
	1+50W	57354			
	1+75W	57383			
	2+00W	57357			
	2+25W	57468			
	2+50W	57481			
	2+75W	57397			
	3+00W	57373	1501		
	3+25W	57414			
	3+50W	57358		claim ID post across road	
	3+75W	57325			
	4+00W	57346			
	4+25W	57409			
	4+50W	57450			
	4+75W	57393			
	5+00W	57525	1507		
	5+25W	57568			
	5+50W	57636			
	5+75W	57636		sharp bend in road	
	6+00W	57590			
	6+25W	57480			
	6+50W	-		(culvert)	
	6+75W	57434			
	7+00W	57424			
	7+25W	57460	1517		
	7+50W	57469			
	7+75W	57452			
	8+00W	57406			
	8+25W	57396			
	8+50W	57389			
	8+75W	57367			
	9+00W	57361	1523	57359	1528
	9+25W	57408			
	9+50W	57378			
	9+75W	57359			
	10+00W	57441	1526		
ROAD	0+25E	57349	1532		
(N.side)	0+50E	57378			
	0+75E	57446			
	1+00E	57372			
	1+25E	57251			
	1+50E	57272		borrow pit	

<u>Line</u>	<u>Station (metres)</u>	<u>Reading (gammas)</u>	<u>Time</u>	<u>Reading</u>	<u>Time</u>
	1+75E	57385			
	2+00E	57286	1538		
	2+25E	57313			
	2+50E	57345			
	2+75E	57456			
	3+00E	57501			
	3+25E	57470			
	3+50E	57468			
	3+75E	57506			
	4+00E	57372	1546		
	4+25E	57347			
	4+50E	57378			
	4+75E	57393			
	5+00E	57386	1550		

NOTE: The base station was at 2+45N on the base line, on the north side of the logging road in the area of the showings. The maximum variation of readings taken at the base station during the survey was 4 gammas.

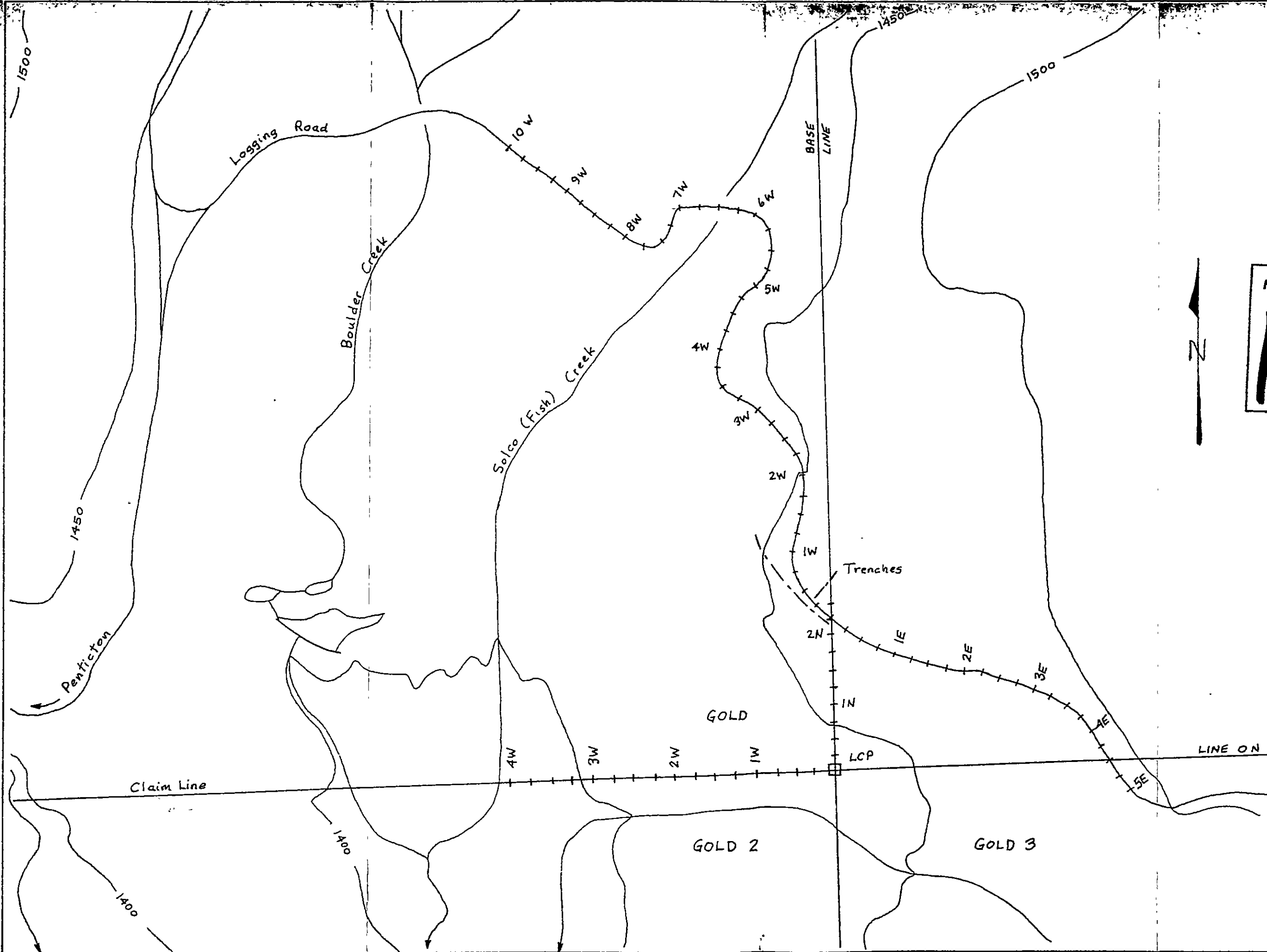


Figure 3a

Survey stations

 Elevations in metres a.s.l.

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K.L. Daughtry

0 100 200
 metres
 Scale 1:5000

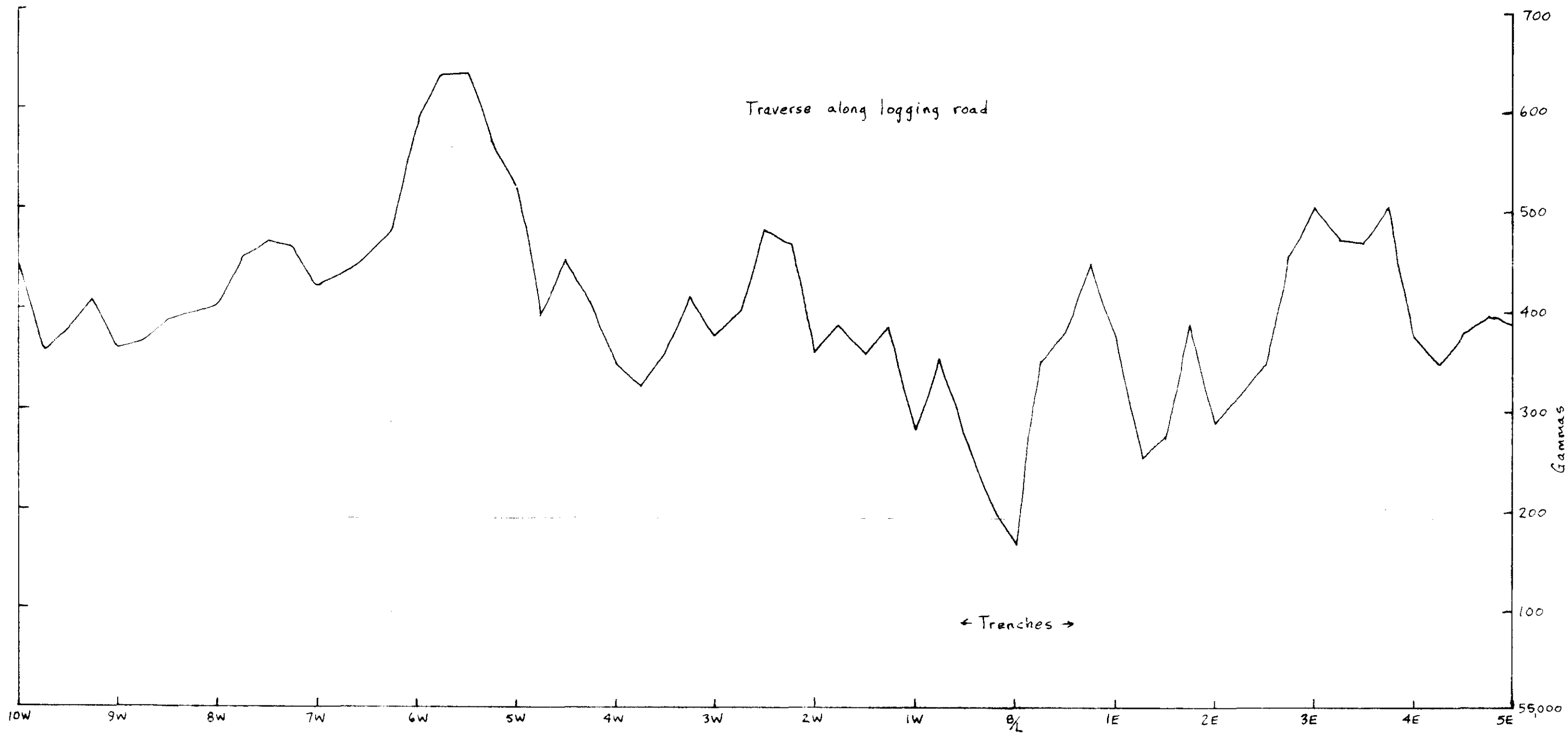
K. L. DAUGHTRY & ASSOC. Ltd.

E & D JOINT VENTURE

GOLD PROPERTY
 Orientation Magnetometer
 Survey

Osoyoos M.D. 82E/6W

Drawn by: KLD. March 1982



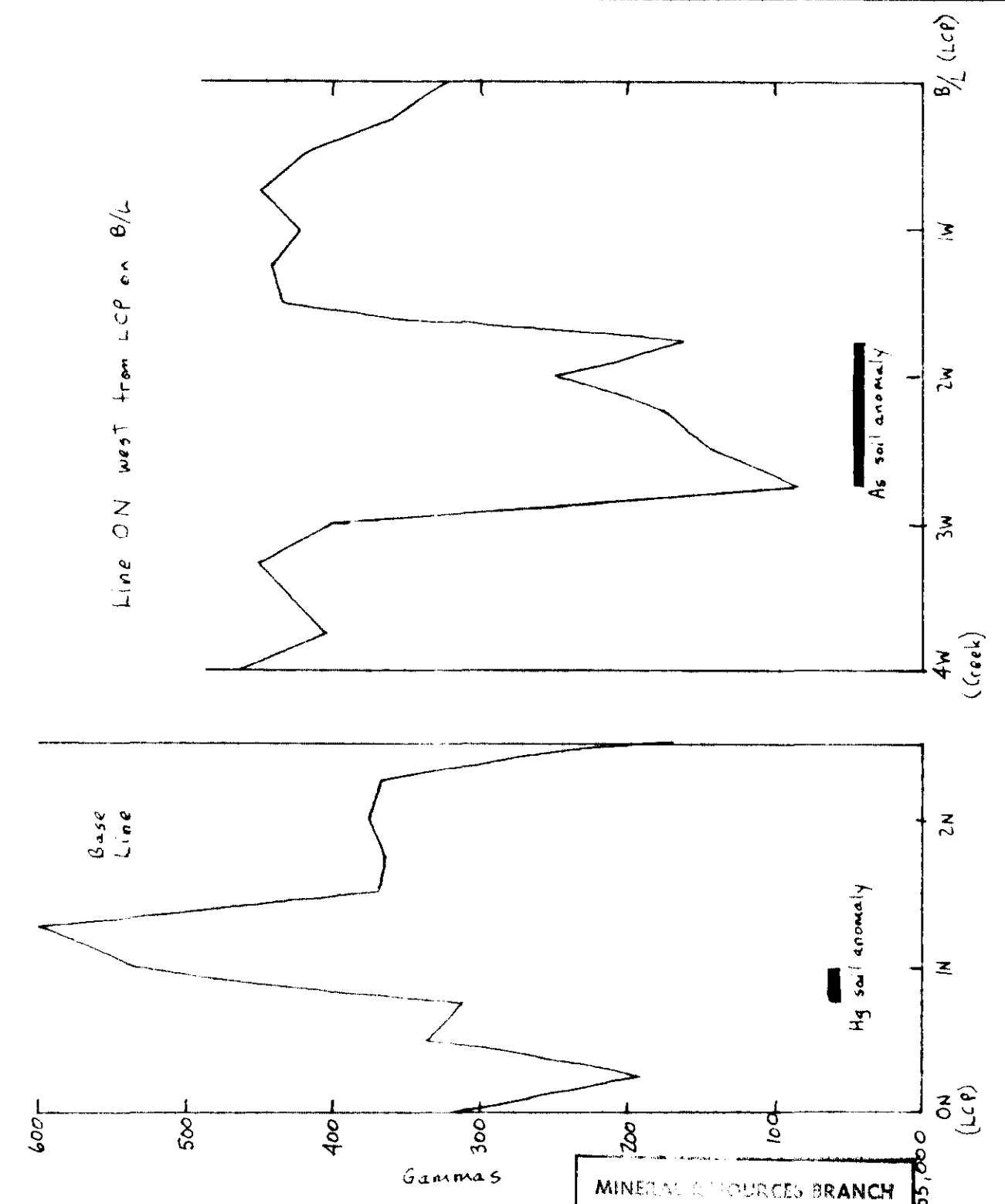
100 Gammas

Total intensity of magnetic field

100 metres

Figure 3b
(see Figure 3a for location)

K.L. DAUGHTRY & ASSOC Ltd.
E & D JOINT VENTURE
GOLD PROPERTY
Ground Magnetic Survey
Profiles of Traverses



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