ARCHER, CATHRO
& ASSOCIATES (1981) LIMITED
CONSULTING GEOLOGICAL ENGINEERS

BOX 4127, 3125 THIRD AVENUE
WHITEHORSE, Y.T. Y1A 3S9

(403) 667-4415

GEOLOGICAL REPORT

BLENDE 1 - 15 CLAIMS

YA43524 - YA43538

091586

MT. WILLIAMS, WERNECKE MOUNTAINS, Y.T.

CLAIM SHEET 106D/7

LATITUDE 64°25'N; LONGITUDE 134°40'W

AUGUST 16, 1984

R.J. Cathro, B.A.Sc., P.Eng.

R.C. Carne, M.Sc.

1016-510 WEST HASTINGS STREET, VANCOUVER, B.C. V6B 1L8

(604) 688-2568

This report has been examined by the Geological Protection Unit under Section 53 (4) Yukon Quartz Mining Act and is allowed as representation work in the amount of $ 8,507.00.

DQ Emond

for Regional Manager, Exploration and Geological Services Directorate of Yukon Territory.

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SUMMARY

The Blende property (15 claims) hosts a lead-zinc-silver deposit of Helikian age that occurs within Helikian or older dolomite unit G_{2a}, which is a member of the Gillespie Lake Group of the Wernecke Supergroup. The property, which is owned by Archer, Cathro & Associates (1981) Limited, is situated on Mt. Williams, 65 km northeast of Elsa, Y.T. and just off the Wind River Trail, a winter road that follows a good all-weather road route. Exploration to date has been restricted to mapping, trenching and surface sampling.

The known showings occur within an interpreted graben zone about 130 m wide. The best zone (No. 5) is mineralized across a thickness of up to 43 m. Trench samples average 3.63% Pb, 4.32% Zn and 2.02 oz/ton Ag across a true thickness of 13.75 m, using a cutoff grade of 5% Pb + Zn. The zone has been sampled over an exposed length of 800 m and a vertical range of 300 m. This grade could well be conservative. Zone No. 5 has a geological potential of about 10 million tonnes and is open to the southeast, where the mineralized interval plunges beneath the overlying stratigraphic unit.

The inferred potential of No. 5 Zone can easily be confirmed with surface drilling. In addition, the presence of numerous strongly anomalous stream sediment values in creeks that do not drain known zones implies that there is a strong possibility of finding more such zones with systematic prospecting and rock sampling.

The geometry of the deposit, competence of the wallrocks, simple mineralogy, opportunity for adit development and reasonably good location suggest ideal underground mining conditions, while the preliminary work has indicated the presence of significant tonnage and grade.

INTRODUCTION

The Blende 1-15 claims were staked by Archer, Cathro & Associates (1981) Limited in March 1981 to cover lead-zinc-silver occurrences discovered in July, 1975 by Cyprus Anvil Mining Corp. The showing had been staked as the Will claim group and mapped and lightly prospected later that year; however, the claims were allowed to lapse without systematic sampling or evaluation.

Exploration by Archer, Cathro in 1981 was directed toward evaluation of the silver potential. Selected specimens collected during a brief examination returned up to 34.3 oz/ton Ag and exhibited an average silver-to-lead ratio of 0.8 oz/ton Ag to 1% Pb. This was followed by additional representative rock and chip sampling of the main occurrences, limited prospecting peripheral to the main area of interest, and an airphoto interpretation of linear structures in 1982. This work suggested that commercially significant grades are present in the main mineralized zone. A program of hand trenching and systematic rock chip sampling was conducted in 1984 to provide a preliminary evaluation of this potential.

This report summarizes the results of the 1984 and earlier work. The occurrence is listed in Archer, Cathro's Northern Cordillera Mineral Inventory as Braine - 106D(64).

PROPERTY, LOCATION AND ACCESS

The property consists of 15 continguous claims that are registered with the Mayo Mining Recorder in the name of Archer, Cathro & Associates (1981) Limited, as follows:

Claim Name	Grant Number	Expiry Date
Blende 1 - 15	YA43524-538	March 11,1986

When the 1984 work is recorded, it will extend the expiry date to March 11, 1990.

The claims are situated on Mt. Williams at latitude 64°25'N and longitude 134°40'W, within NTS mapsheet 106D/7. They lie 65 km northeast of the United Keno Hill Mines Ltd. townsite at Elsa, which is accessible from Whitehorse by a 450 km all-weather gravel highway. A winter road (the Wind River Trail) extends north from Elsa and passes within 11 km of the property enroute to the coal and U, Cu, Au and Fe deposits in the Bonnet Plume district. It was last used in 1981 by Prism Resources Ltd. The location of the Blende property in relation to the main Prism vein deposits and the highway is shown on Figure 1 on the following page.

GEOMORPHOLOGY

The area of interest is situated on the southern margin of the Wernecke Mountains within the Yukon River watershed. Local elevations range from 1000 m (3300 ft) along the creeks to approximately 2000 m (6500 ft) at the summit of Mt. Williams on the south side of the property. The area has undergone Pleistocene to Recent alpine glaciation and cirques are common at elevations above 1370 m (4500 ft). Outcrop is most abundant on steep north-facing cirque walls, along ridge tops and in actively eroding creek cuts, while south-facing hillsides are normally blanketed by talus. Treeline in the area of interest is at about 1300 m (4300 ft) and, aside from sparse grasses and lichens, the property is unvegetated.

GEOCHEMISTRY

Figure 2 incorporates reconnaissance stream sediment Pb-Zn-Cu geochemical

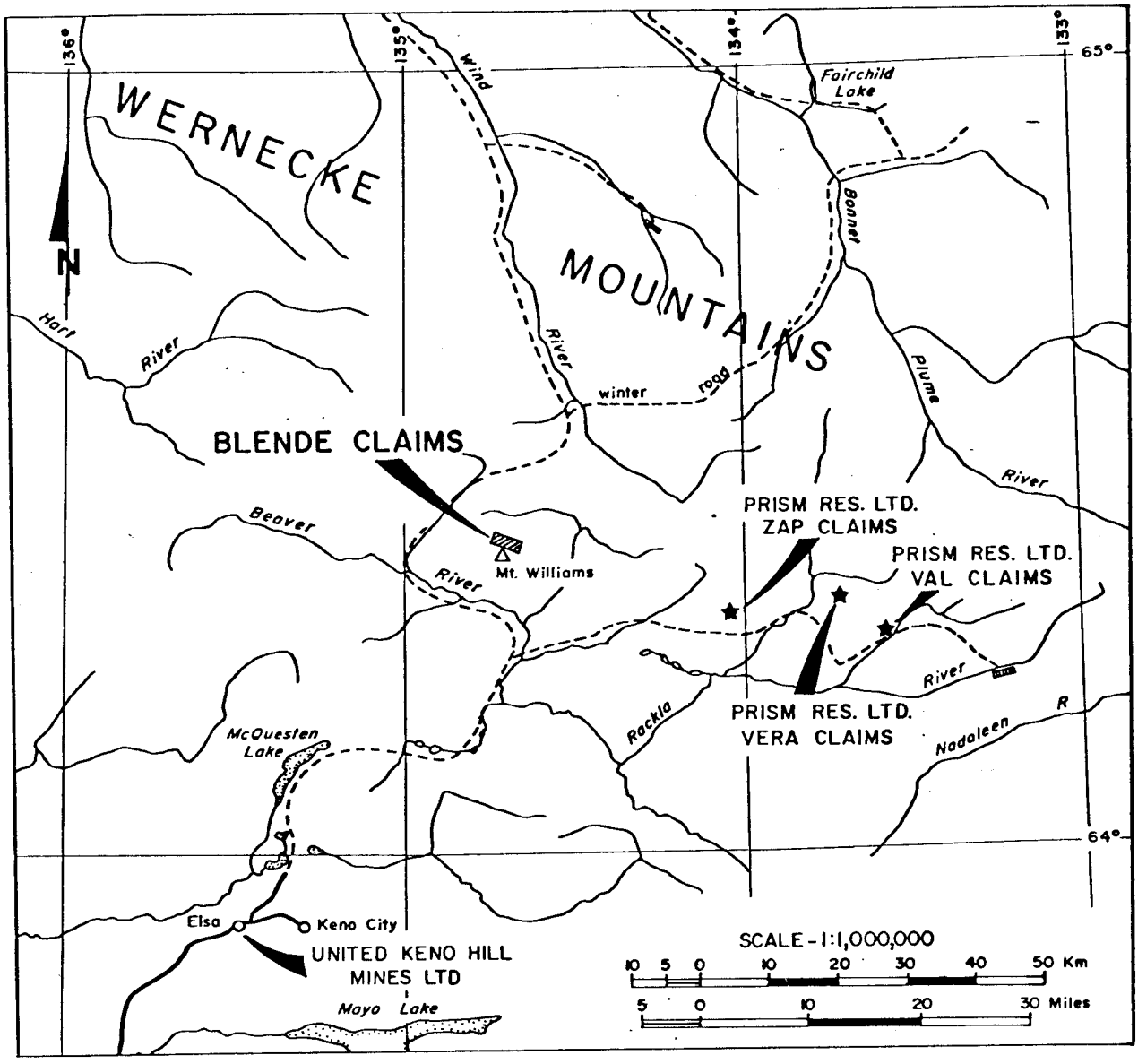


Figure 1

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

LOCATION MAP

BLENDE PROPERTY

MT. WILLIAMS, Y.T.

data from the Cyprus Anvil assessment report and GSC Open File 518. The most striking aspect of the data is the abundance of strongly anomalous lead values. Background values for lead in the Gillespie Lake Group are in the 30 to 50 ppm range and the threshold for strongly anomalous values is about 200 ppm. Of the 91 soil and silt sample values available, 42 (46%) exceed 200 ppm Pb. The anomalous lead values cover a 3 by 5 km area and are open in all directions. Zinc and copper values are lower but still anomalous.

Most of the anomalous stream sediment values do not occur downstream from known mineralization, which suggests that other mineralized zones have yet to be discovered. The best example is the talus slope on the opposite (south) side of the ridge from No. 5 Zone, where three stream sediment samples returned values between 900 and 1350 ppm Pb. Aside from minor showings near the top of this ridge, no mineralization has been found in this drainage basin. However, strong airphoto linears that parallel No. 5 Zone are present, suggesting that other mineralized structures may be obscured beneath talus.

GEOLOGY

General

The Blende property lies immediately north of a major south-dipping, complex, regional fault zone (the Dawson Fault) and is underlain by Helikian or older Wernecke Supergroup sedimentary rocks that have been intruded by diorite and gabbro dykes. The property geology is illustrated on Figure 2.

Stratigraphy

The oldest rocks in the area of interest belong to the upper portion of the Wernecke Supergroup (Delaney, 1981). This assemblage includes black slate, phyllite and argillite with minor interbedded quartzite of Quartet Group Q2

Formation, which is conformably overlain by Gillespie Lake Group orange weathering dolomite with interbedded argillaceous dolomite and lesser chert, shale and argillite. The Gillespie Lake Group has been locally subdivided into three mappable units: G_{TR}, G_2 and G_3.

Immediately northwest of the property, Wernecke Supergroup sedimentary rocks are unconformably overlain by Ordovician-Silurian, light grey to white weathering, massive to thin-bedded limestone and dolomite (unit OS_c).

Unit G_{TR}, which forms the base of the Gillespie Lake Group, is regionally transitional with Quartet Group rocks. Only the upper part is seen in the vicinity of the Blende property, where it consists of light orange to maroon-green weathering, interbedded maroon and green dolomitic shale with white to tan dolomite intervals.

Unit G_{2a} rocks conformably overlie the G_{TR} sequence across an abrupt stratigraphic break. They consist of a shallow water sequence of orange weathering, massive, grey to interbedded light grey and black argillaceous and stromatolitic dolomite with thin black chert interbeds. This unit hosts all the known mineralization.

Unit G_{2b} strata lie conformably upon G_{2a} rocks across a gradational contact about 10 m thick. Interbedded black argillaceous dolomite, shale and chert characterize the unit, although orange weathering silty dolomite intervals are common near the base.

Unit G_3 comprises buff weathering, light grey to tan, massive bedded stromatolitic or crystalline dolomite and is separated from underlying unit G_{2b} strata by an apparent low angle unconformity.

Intrusive Rocks

A 600 to 1500 m wide, 6.5 km long diorite to gabbro dyke cuts Gillespie Lake Group carbonate rocks directly south of the property. This body is one of a series

of WNW-trending dykes occurring along the north side of the Dawson Fault. Although early GSC mapping interpreted these bodies as Cretaceous in age, recent Rb-Sr age determinations indicate that they are Hadrynian or older. Alteration around these dykes is limited to scattered 3 to 20 m wide zones of dedolomitization and rare skarn development.

Structure

The property lies near the crest of a broad WNW-trending anticline. Numerous small-scale folds associated with this larger structure overprint earlier NNE-trending folds that are associated with slaty cleavage in fine-grained clastic sedimentary rocks. The WNW-trending folds and the nearby Dawson Fault appear to be related to the Cretaceous Laramide Orogeny whereas the older deformation probably occurred during the Hadrynian Hayhook Orogeny.

Two fault types have been recognized on the claims, both of which are clearly visible on airphotos. The most prominent set strikes WNW with near vertical dips. The sense of movement appears to be dip-slip, forming a series of parallel step or block faults. Ordovician-Silurian rocks are not apparently displaced by these structures, which may also predate deposition of the Helikian G_3 strata. These WNW-trending block faults are offset by the second set of N to NNE-trending, dextral transcurrent faults that displace both the Ordovician-Silurian rocks and the Cretaceous Laramide folds. Known mineralization is associated with the WNW structures.

Age of Mineralization

A specimen of galena from No. 5 Zone was submitted to Dr. C. Godwin of the University of British Columbia for lead isotope analysis and returned the isotopic data shown on Figure 3 on the following page (Godwin and Sinclair, 1982). The isotopic data indicates an Helikian model age, identical to stratiform

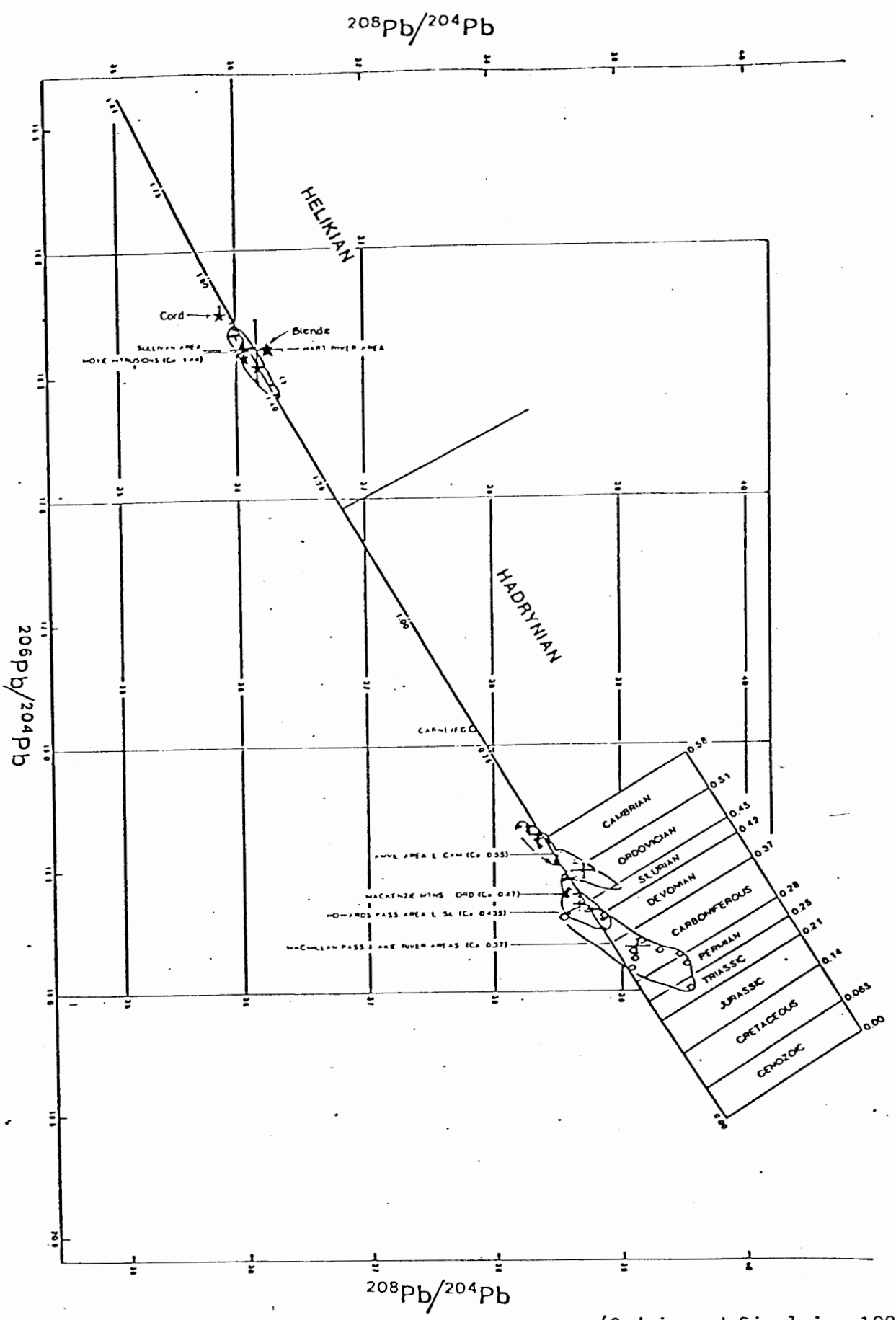


Figure 3. Plot of galena-lead $^{206}Pb/^{204}Pb$ vs. $^{208}Pb/^{204}Pb$ for deposits (Godwin and Sinclair, 1982)

mineralization collected from the nearby Hart River and Snakehead-Cord sedex occurrences, which are hosted by argillaceous horizons within the Gillespie Lake Group. Although stratiform mineralization does not occur on the Blende property, the isotopic data suggest a genetic link with the nearby Helikian sedex deposits.

MINERALIZATION

The known Blende showings are confined within fractured dolomite of Gillespie Lake unit G_{2a}. They exhibit variable proportions of fine- to coarse-grained sphalerite, galena, pyrite, chalcopyrite and tetrahedrite (in order of decreasing abundance). Also present are secondary minerals such as smithsonite, anglesite, limonite and malachite.

Ten mineralized zones have been discovered to date on the property, of which the most important is No. 5 Zone. Because initial exploration has been mainly directed towards areas of outcrop, less than 30% of the property and 2% of the surrounding area of interest has been systematically prospected. The location of the known zones, which are briefly described below, are shown on Figure 2. Those descriptions marked with an asterisk are taken from the 1975 Cyprus Anvil assessment report.

No. 5 Zone

No. 5 Zone is the largest and most prominent mineralized structure discovered to date. Zinc, lead, silver and minor copper mineralization are poorly exposed on surface over a strike length of approximately 800 m, widths up to 47 m and a vertical range of about 300 m. The surface trace angles across a very steep cliff face near the top of the north face of the north spur of Mt. Williams as illustrated in Figure 4, a panoramic aerial photo on the following page. The east end of No. 5 Zone is exposed on narrow ridges between

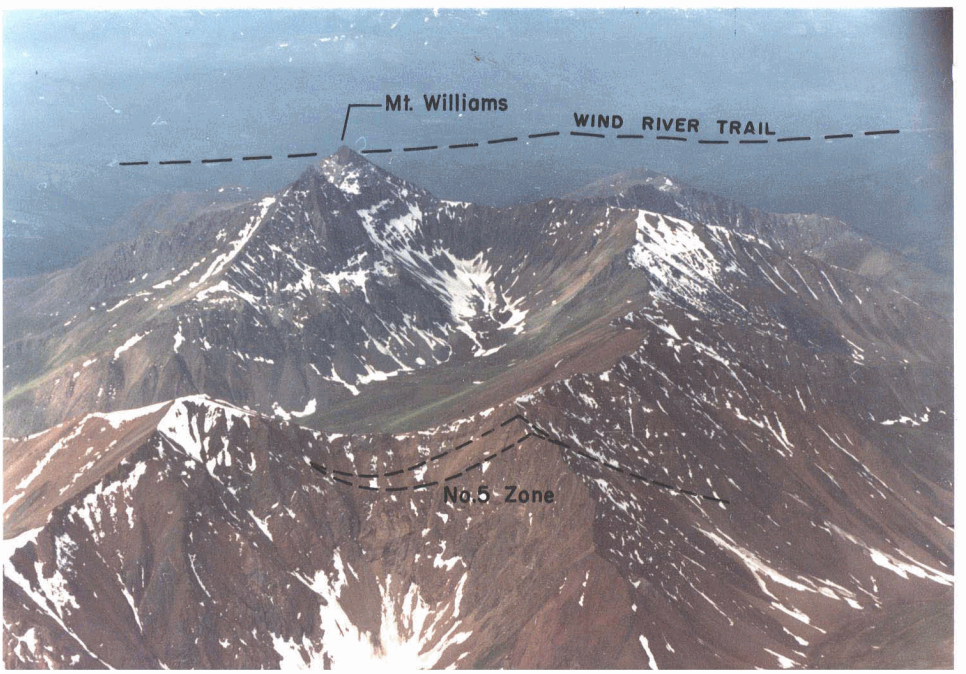


Figure 4. Blende No. 5 Zone - view south over Mt. Williams and the Wind River Trail.

snow and talus chutes whereas the west half is only intermittently exposed through talus cover.

The geology of this zone is shown in plan on Figure 5 (in pocket) and in three cross-sections on Figures 6 - 8 (in text). It strikes about 105°, dips between 65 and 80° to the south and consists of disseminated and fracture-filling sphalerite and galena with lesser tetrahedrite and chalcopyrite in a tabular tectonic breccia zone contained between strong footwall and hanging wall faults. No. 5 Zone has developed within a northeasterly-dipping sequence of strongly competent Gillespie Lake Group unit G_{2a} dolomite. The intersection between No. 5 Zone structure and the dolomite unit yields a 10° easterly rake to the mineralized body. Because the underlying and overlying strata (units G_{TR} and G_{2b}, respectively) are less competent pelitic units that do not support widespread fracturing, No. 5 Zone structure is apparently unmineralized outside unit G_{2a}.

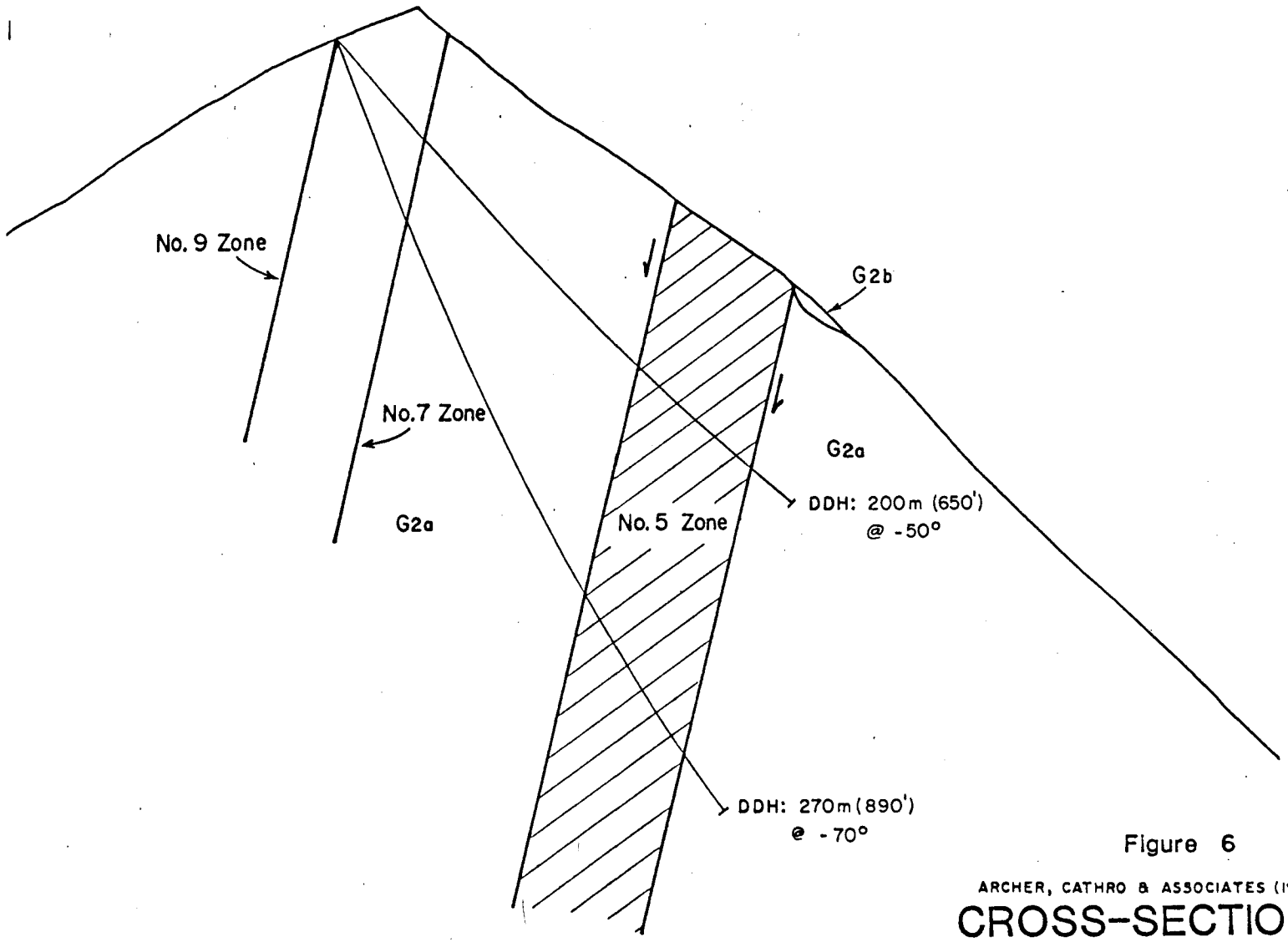


Figure 6

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

CROSS-SECTION 1-1'

SHOWING PROPOSED DRILL HOLES

BLENDE CLAIMS

SCALE 1:2000

Metres 50 0 50 100

To accompany report dated Aug./84

SOUTH

NORTH

2

2'

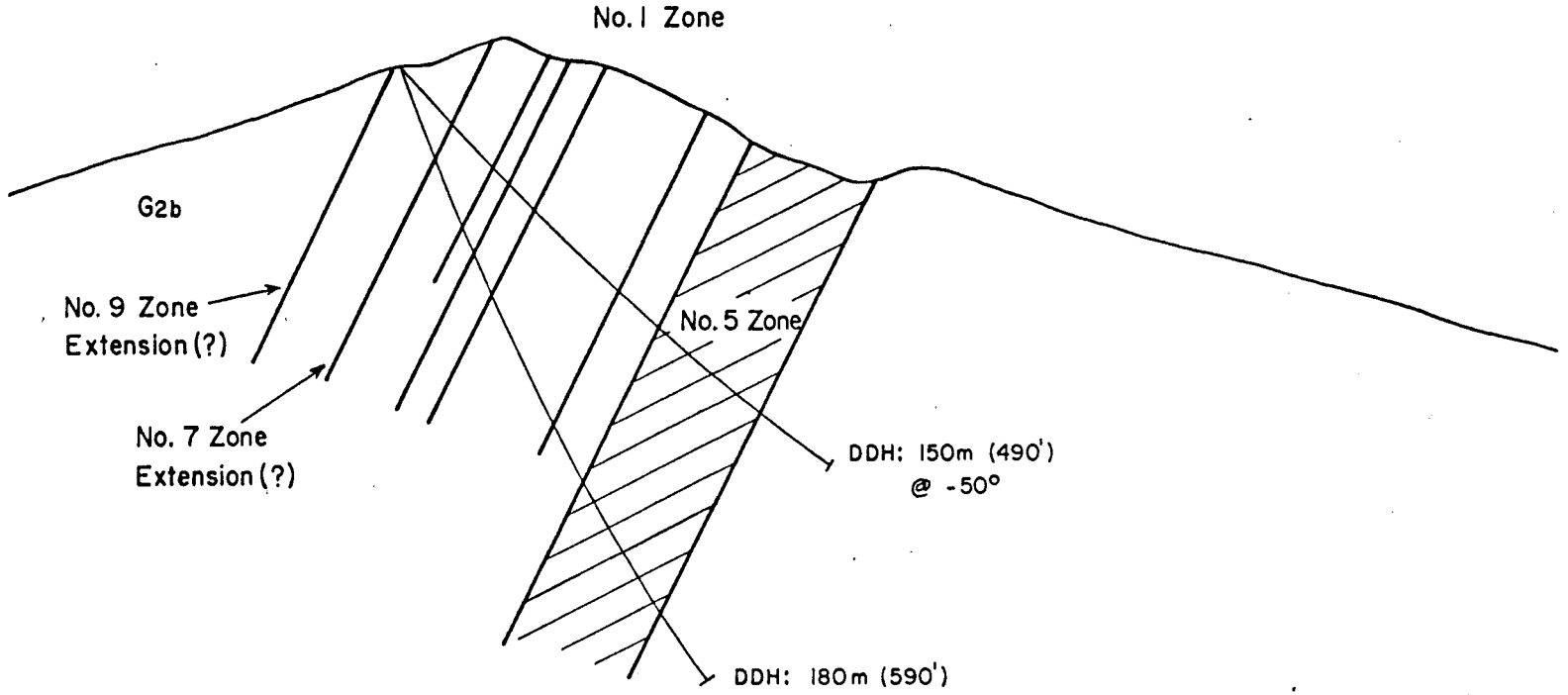


Figure 7

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

CROSS-SECTION 2-2'

SHOWING PROPOSED DRILL HOLES

BLENDE CLAIMS

SCALE 1:2000

Metres 50 0 50 100

To accompany report dated Aug/84

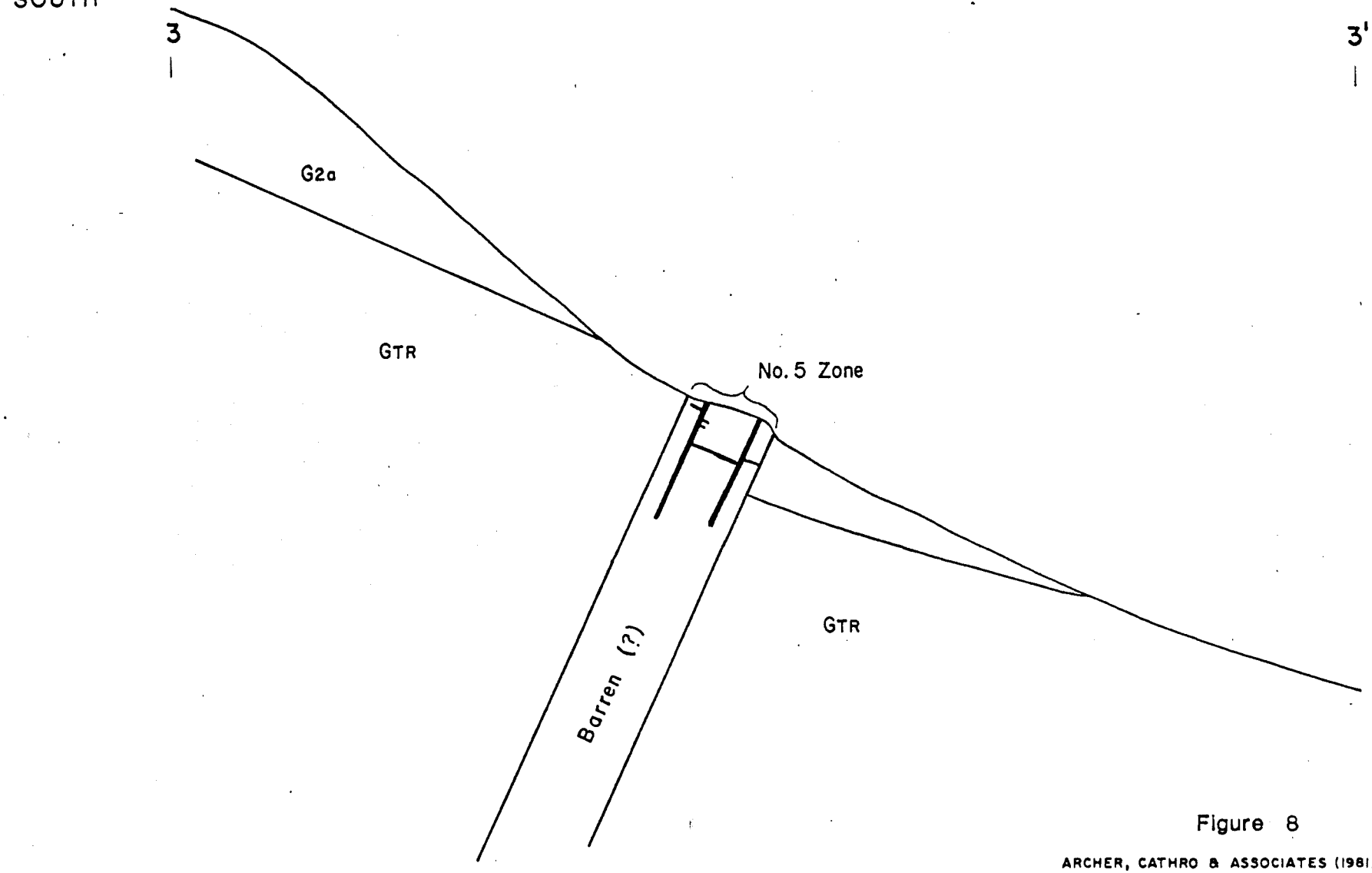


Figure 8

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

CROSS-SECTION 3-3'

BLENDE CLAIMS

SCALE 1:2000

Metres 50 0 50 100

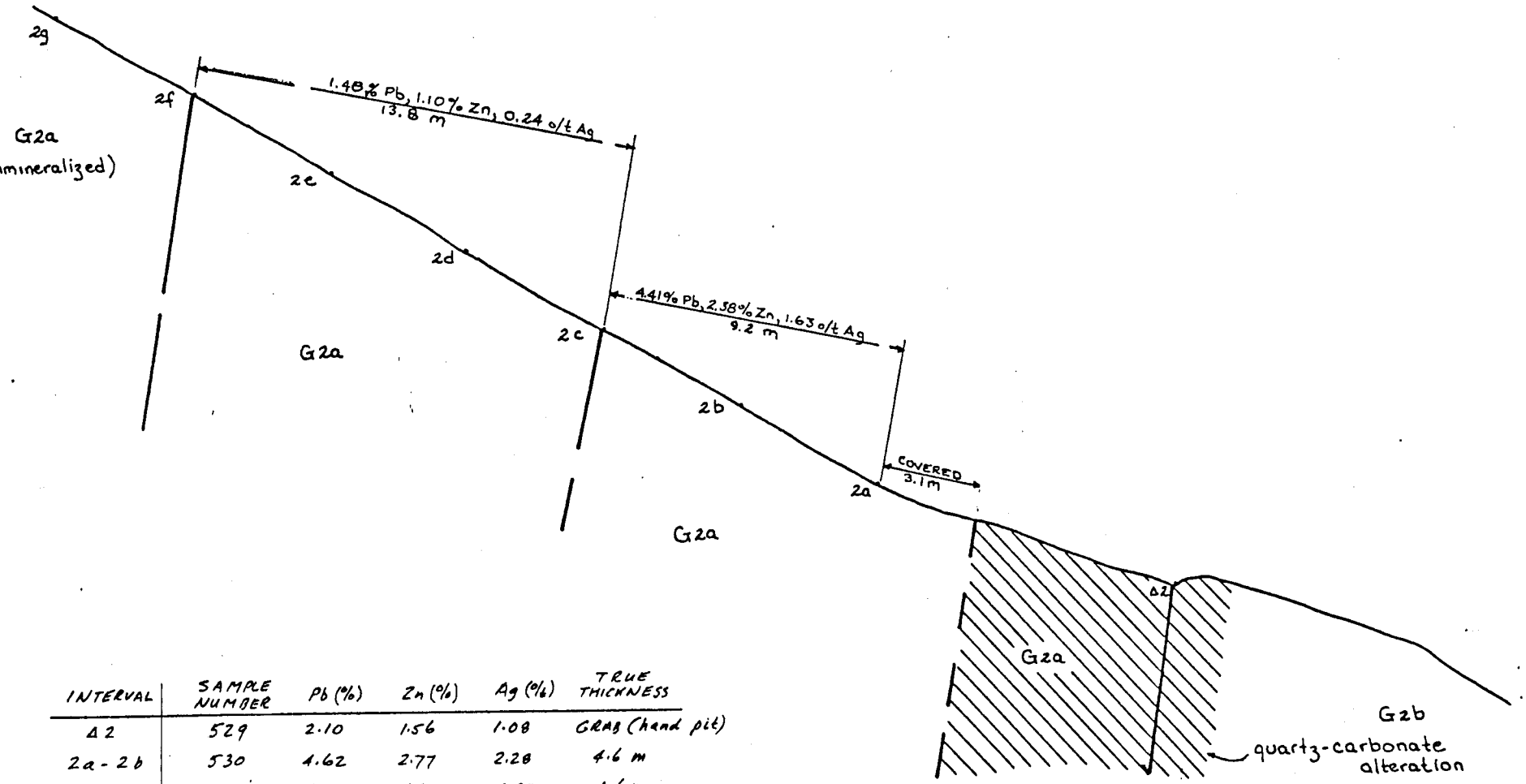
To accompany report dated Aug./84

The east half of No. 5 Zone occurs at the top of the mineralized interval immediately beneath the contact with overlying Unit G_{2b}. Down-dropped, fault-bounded blocks of unit G_{2b} dolomitic argillite contained within the mineralized zone are relatively barren, containing only wide-spaced sphalerite and galena-bearing fractures. In contrast, immediately underlying and surrounding rocks belonging to unit G_{2a} are highly fractured and are mineralized.

Erosion has removed part of the western end of No. 5 Zone and the surface trace cuts obliquely down through the mineralized interval to the basal contact with unit G_{TR}. The mineralized zone, which tends to weather more recessively than the enclosing unmineralized dolomite, is almost completely mantled by talus scree. Continuity of the zone is suggested by isolated partial exposures and widespread mineralized float mixed in the scree.

A 3 to 8 m wide quartz-carbonate alteration zone developed in unit G_{2a} dolomite along the interpreted hanging wall of No. 5 Zone (present footwall) persists for the exposed strike length and vertical extent of the mineralization. The alteration consists of complete replacement of bedded dolomite by structureless, fine-grained, intergrown manganiferous siderite, secondary ferroan dolomite and quartz. Shears within this are occasionally mineralized although the alteration zone as a whole is essentially barren.

Assays of chip samples collected from hand trenches and blasted to bedrock along the ridges and from float specimens collected in areas of poor exposure are plotted in plan on Figure 9 (in pocket) and in cross-section on Figures 10 to 19 (in text). The table on the following page lists all sampled intervals assaying greater than 5% Pb + Zn. It shows that the weighted average of the surface trenches sampled to date is 3.63% Pb, 4.32% Zn and 2.02 oz/ton Ag across a true thickness of 13.75 m.



INTERVAL	SAMPLE NUMBER	Pb (%)	Zn (%)	Ag (%)	TRUE THICKNESS
Δ2	529	2.10	1.56	1.08	GRAB (hand pit)
2a - 2b	530	4.62	2.77	2.28	4.6 m
2b - 2c	531	4.20	1.99	0.98	4.6 m
2c - 2d	532	1.81	1.28	0.54	4.6 m
2d - 2e	533	0.66	0.82	0.04	4.6 m
2e - 2f	534	1.96	1.20	0.14	4.6 m
2f - 2g	535	0.27	0.17	0.02	4.6 m

Figure 10

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

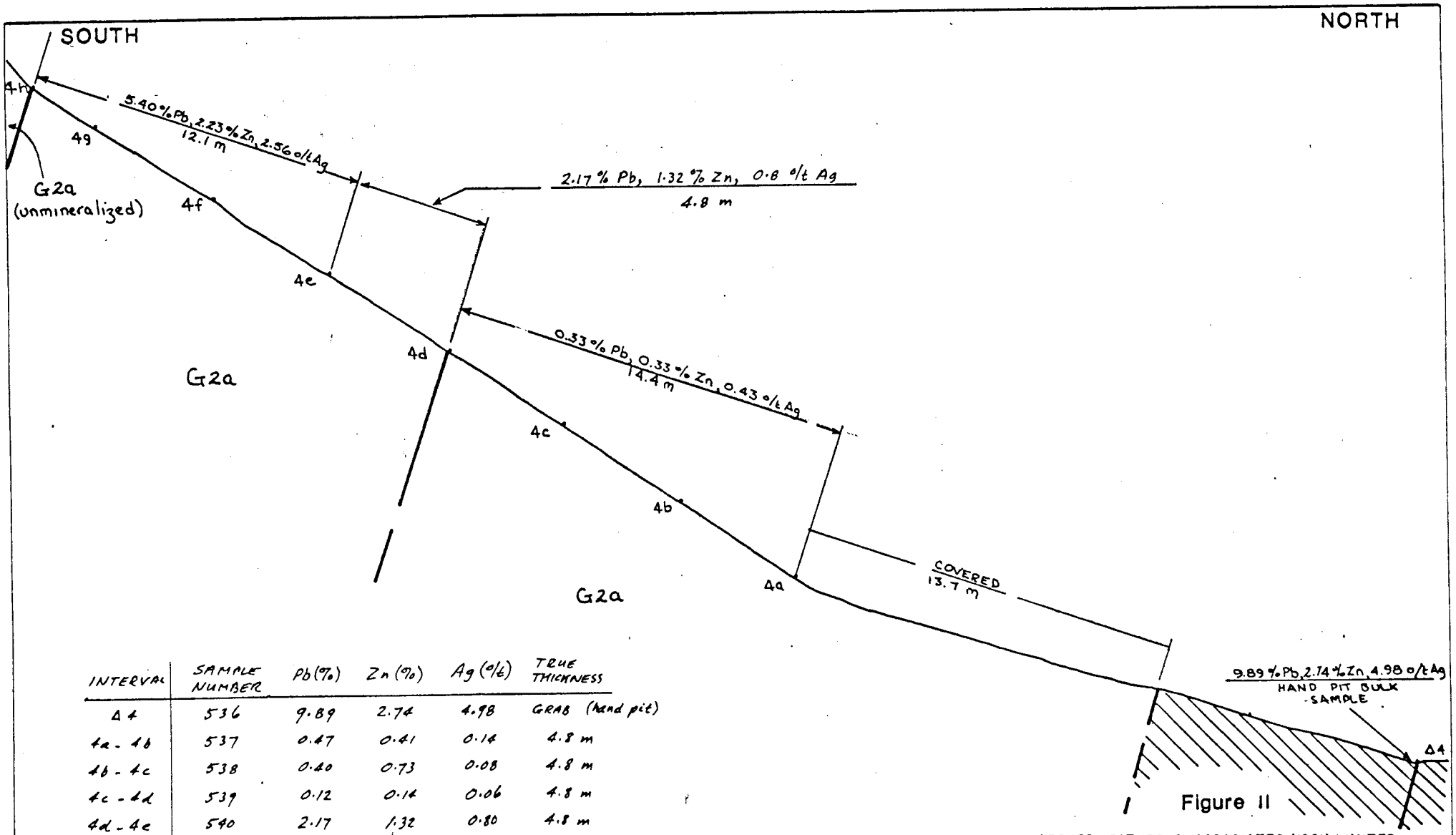
ASSAY SECTION A

BLENDE CLAIMS

SCALE-1:200

Metres 5 0 5 10

To accompany report dated Aug/84



INTERVAL	SAMPLE NUMBER	Pb (%)	Zn (%)	Ag (o/t)	TRUE THICKNESS
Δ4	536	9.89	2.74	4.98	GRAB (hand pit)
4a - 4b	537	0.47	0.41	0.14	4.8 m
4b - 4c	538	0.40	0.73	0.08	4.8 m
4c - 4d	539	0.12	0.14	0.06	4.8 m
4d - 4e	540	2.17	1.32	0.80	4.8 m
4e - 4f	541	3.79	1.18	1.72	4.8 m
4f - 4g	542	1.32	2.45	0.44	4.8 m
4g - 4h	543	9.07	3.91	5.86	2.5 m

Figure II

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

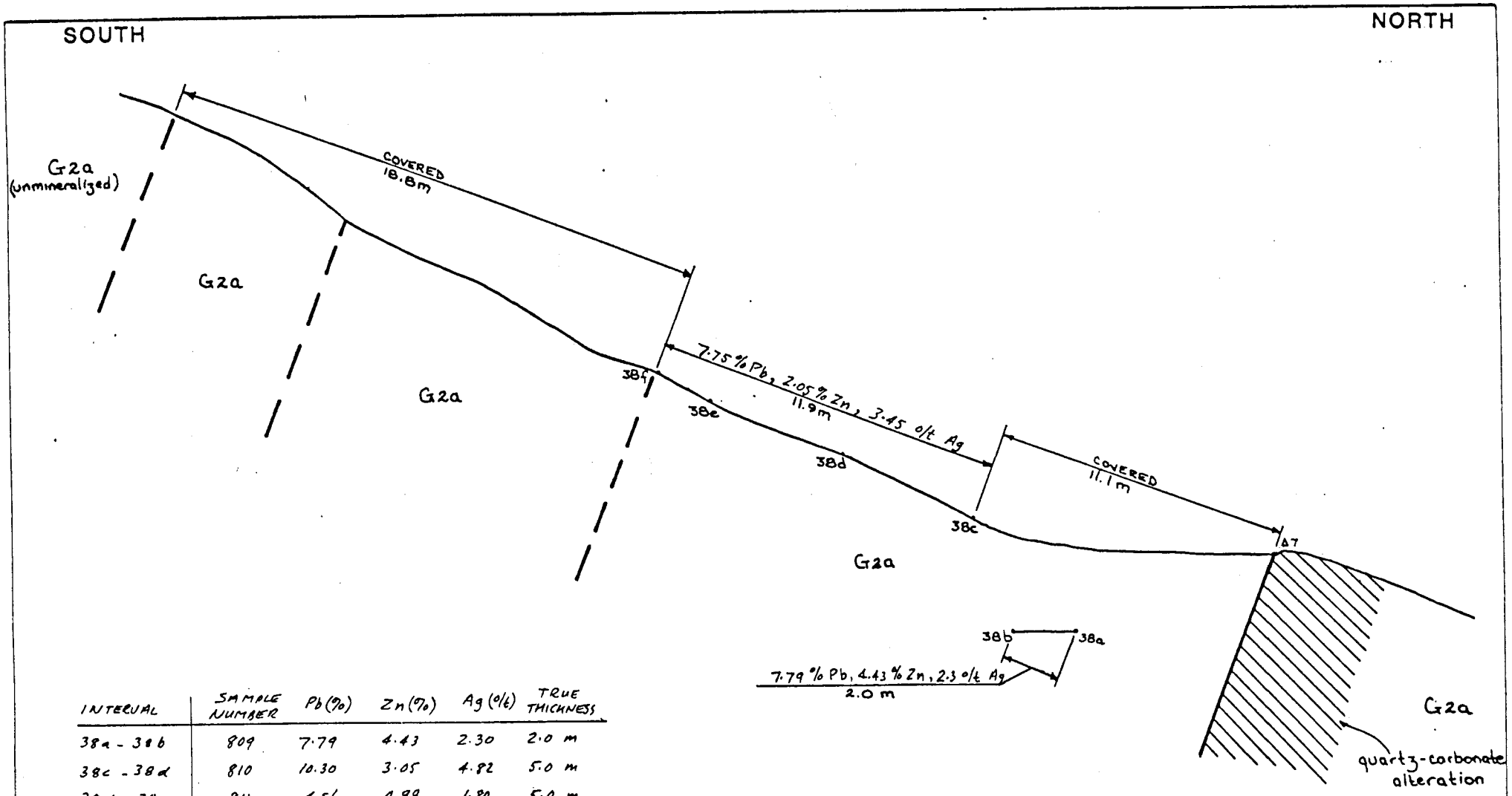
ASSAY SECTION B

BLENDE CLAIMS

SCALE-1:200

Metres 5 0 5 10

To accompany report dated Aug/84



INTERVAL	SAMPLE NUMBER	Pb (%)	Zn (%)	Ag (o/t)	TRUE THICKNESS
38a - 38b	809	7.79	4.43	2.30	2.0 m
38c - 38d	810	10.30	3.05	4.82	5.0 m
38d - 38e	811	4.56	0.98	1.80	5.0 m
38e - 38f	812	9.45	2.25	4.14	1.9 m

Figure 12

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

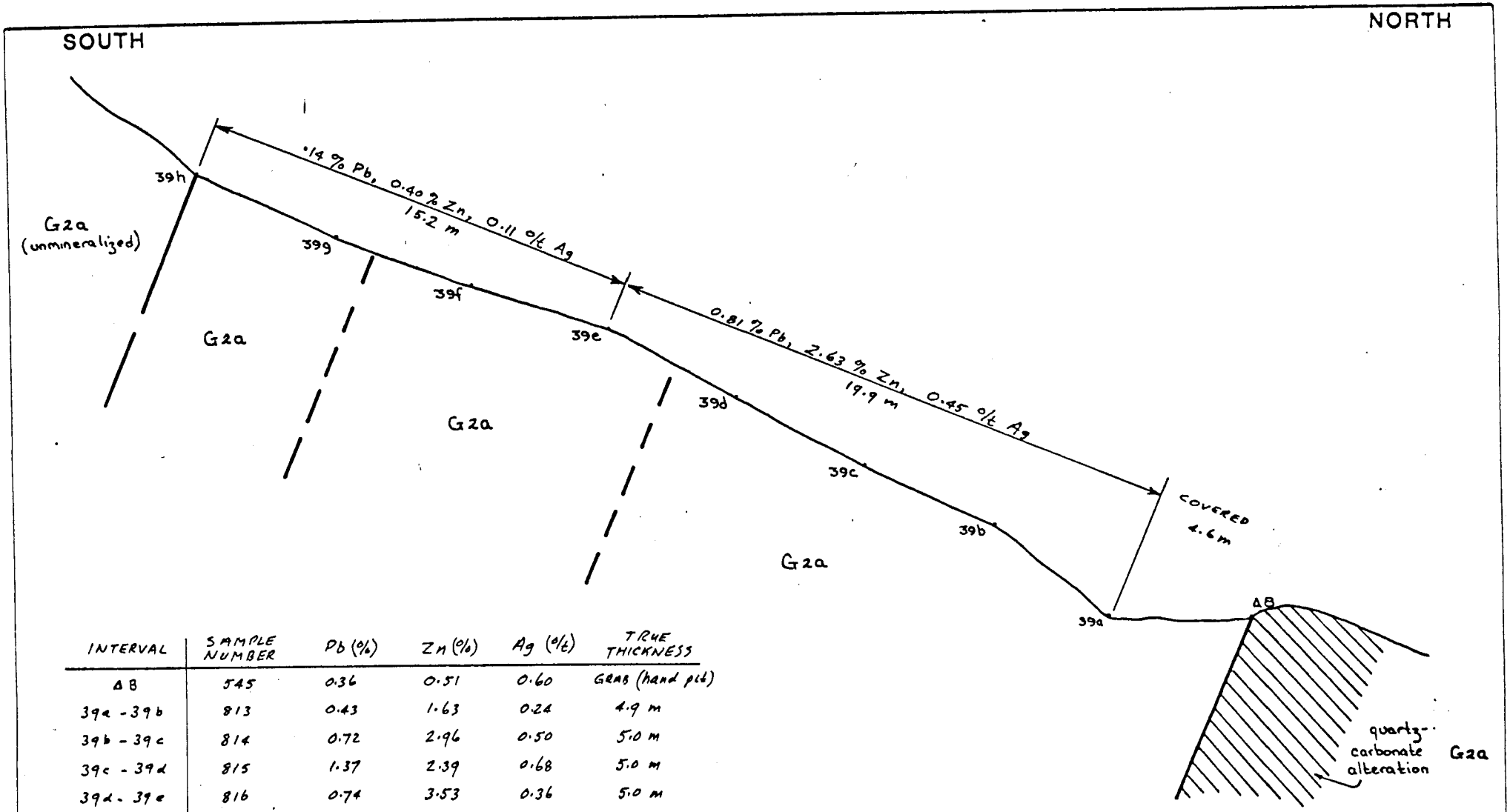
ASSAY SECTION C

BLENDE CLAIMS

SCALE-1:200

Metres 5 0 5 10

To accompany report dated Aug/84



INTERVAL	SAMPLE NUMBER	Pb (%)	Zn (%)	Ag (o/t)	TRUE THICKNESS
AB	545	0.36	0.51	0.60	GRAB (hand pit)
39a - 39b	813	0.43	1.63	0.24	4.9 m
39b - 39c	814	0.72	2.96	0.50	5.0 m
39c - 39d	815	1.37	2.39	0.68	5.0 m
39d - 39e	816	0.74	3.53	0.36	5.0 m
39e - 39f	817	0.10	0.24	0.05	5.0 m
39f - 39g	818	0.15	0.69	0.14	5.0 m
39g - 39h	819	0.16	0.45	0.15	5.2 m

Figure 13

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

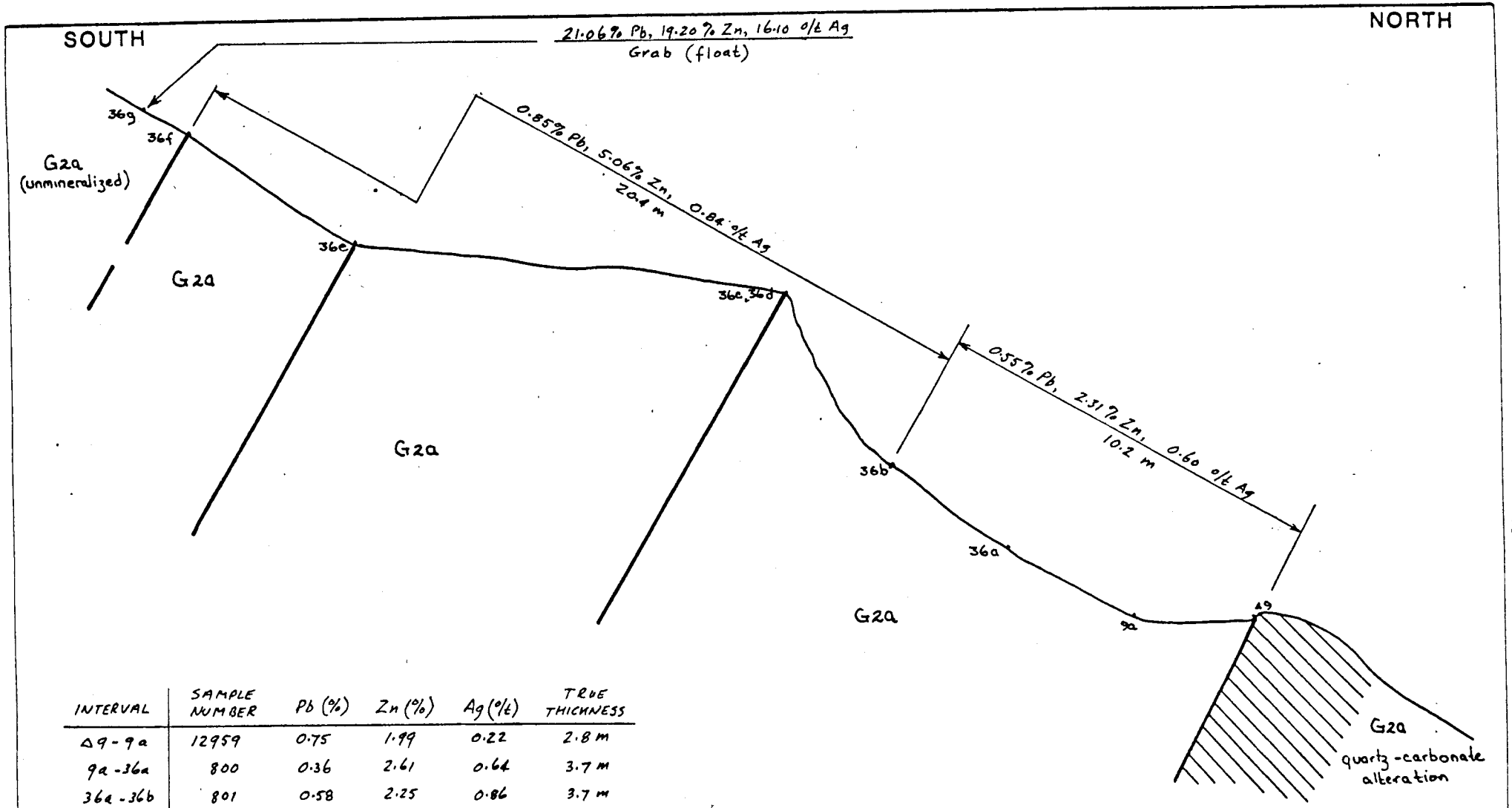
ASSAY SECTION D

BLENDE CLAIMS

SCALE-1:200

Metres 5 0 5 10

To accompany report dated Aug./84



INTERVAL	SAMPLE NUMBER	Pb (%)	Zn (%)	Ag (o/t)	TRUE THICKNESS
A9 - 9a	12959	0.75	1.99	0.22	2.8 m
9a - 36a	800	0.36	2.61	0.64	3.7 m
36a - 36b	801	0.58	2.25	0.86	3.7 m
36b - 36c	802	1.17	5.06	1.24	4.7 m
36d - 36e	803	1.02	5.22	0.74	10.4 m
36e - 36f	804	0.24	4.71	0.66	5.3 m
36g	805	21.06	19.20	16.10	GRAB (float)

Figure 14

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

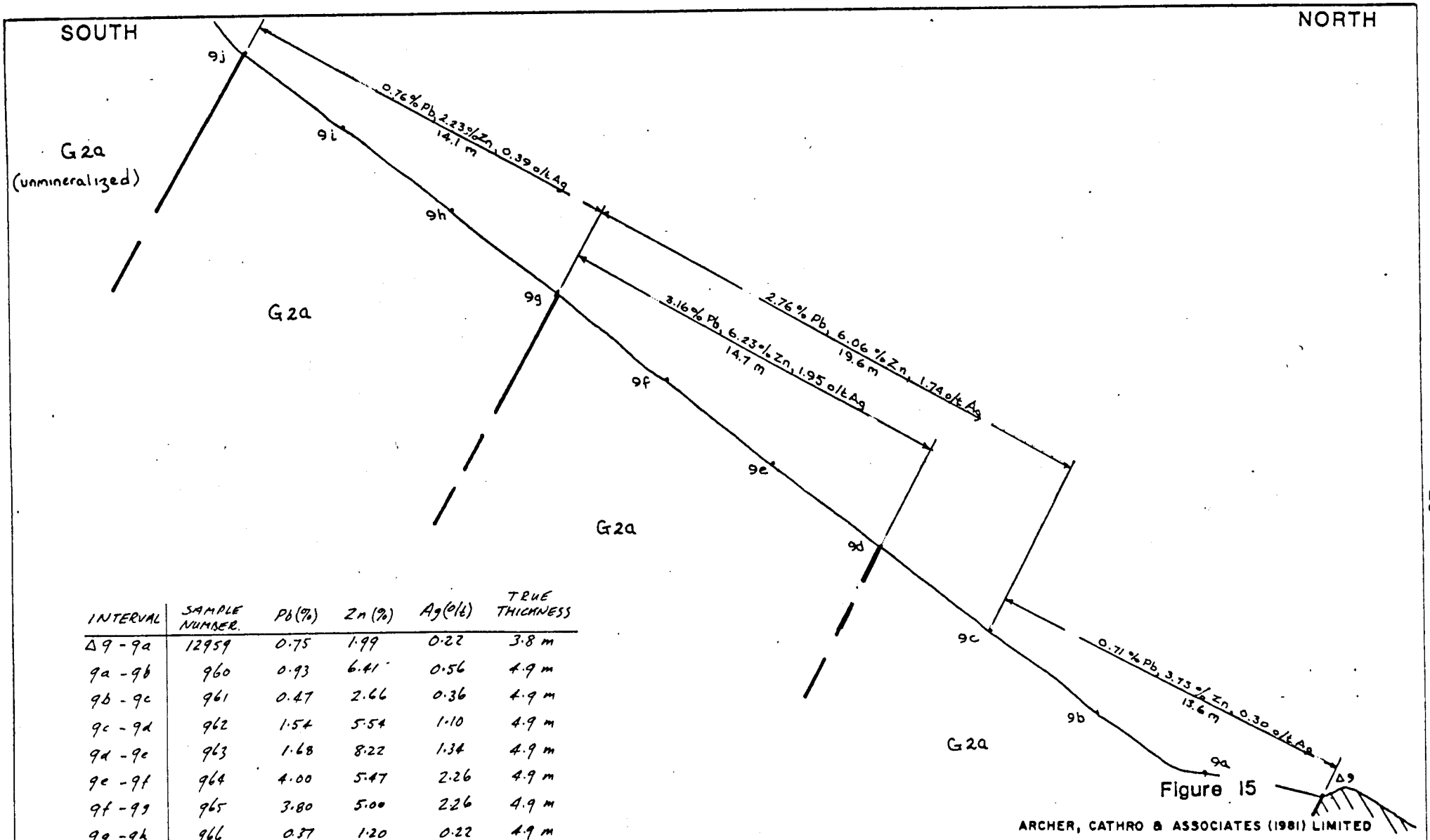
ASSAY SECTION E

BLENDE CLAIMS

SCALE-1:200

Metres 5 0 5 10

To accompany report dated Aug./84



INTERVAL	SAMPLE NUMBER	Pb (%)	Zn (%)	Ag (o/t)	TRUE THICKNESS
Δ9 - 9a	12959	0.75	1.99	0.22	3.8 m
9a - 9b	960	0.93	6.41	0.56	4.9 m
9b - 9c	961	0.47	2.66	0.36	4.9 m
9c - 9d	962	1.54	5.54	1.10	4.9 m
9d - 9e	963	1.68	8.22	1.34	4.9 m
9e - 9f	964	4.00	5.47	2.26	4.9 m
9f - 9g	965	3.80	5.00	2.26	4.9 m
9g - 9h	966	0.37	1.20	0.22	4.9 m
9h - 9i	967	0.30	1.24	0.22	4.9 m
9i - 9j	968	1.75	4.26	0.98	4.3 m

Figure 15

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

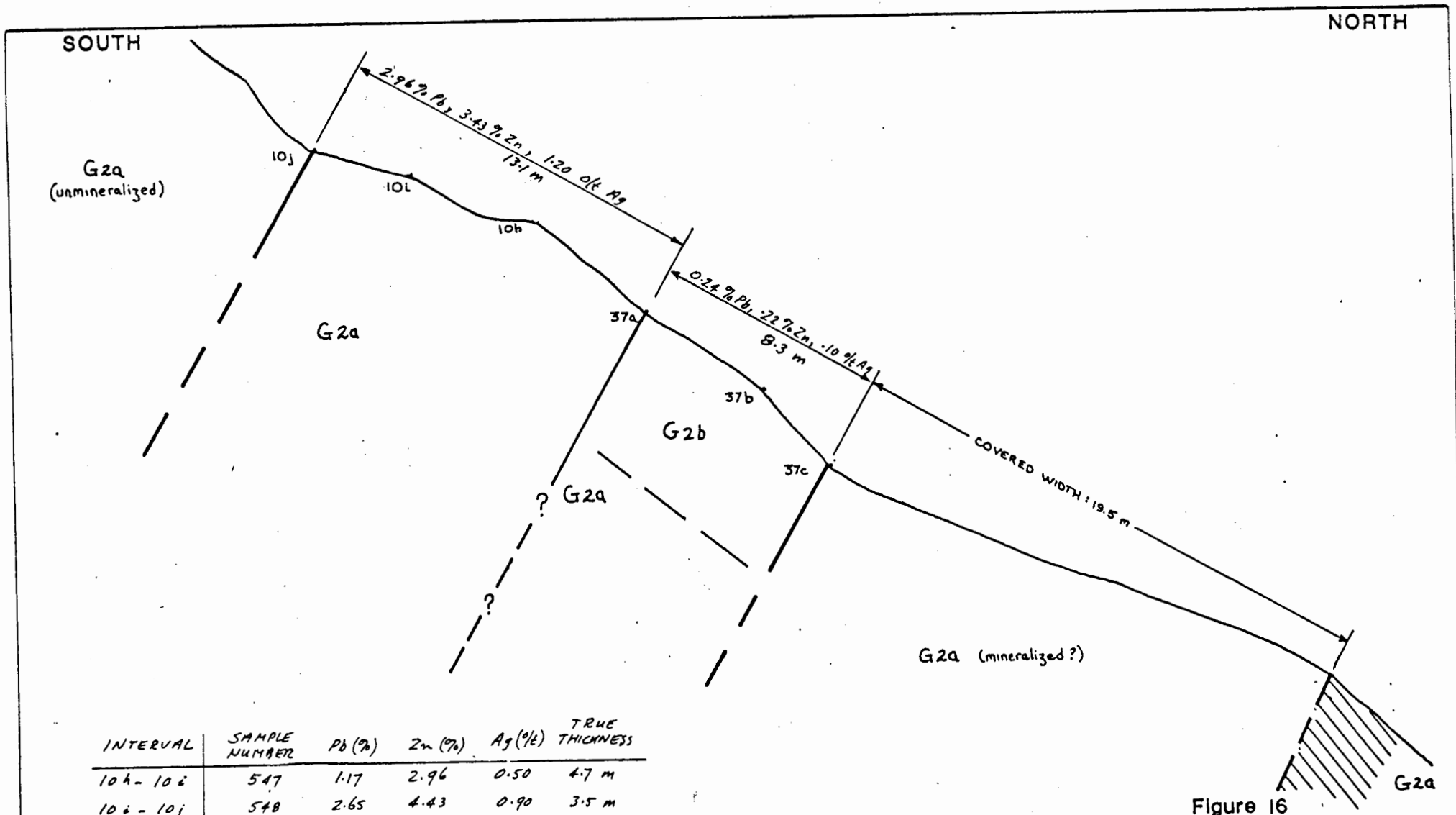
ASSAY SECTION F

BLENDE CLAIMS

SCALE-1:200

Metres 5 0 5 10

To accompany report dated Aug/84



INTERVAL	SAMPLE NUMBER	Pb (%)	Zn (%)	Ag (o/t)	TRUE THICKNESS
10h - 10i	547	1.17	2.96	0.50	4.7 m
10i - 10j	548	2.65	4.43	0.90	3.5 m
10h - 37a	806	4.90	3.15	2.10	4.9 m
37a - 37b	807	0.23	0.33	0.08	5.0 m
37b - 37c	808	0.28	0.49	0.14	3.3 m

Figure 16

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

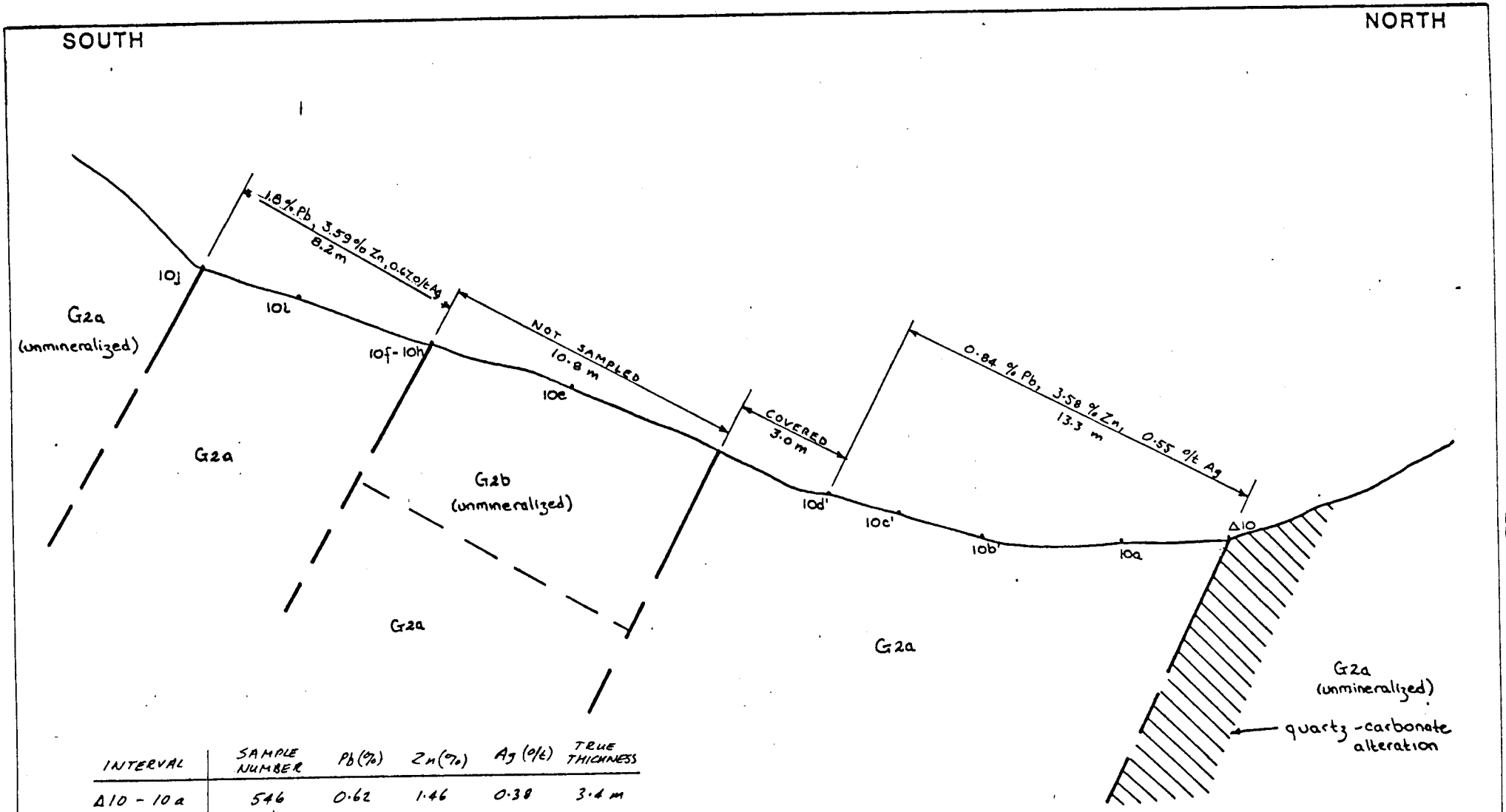
ASSAY SECTION G

BLENDE CLAIMS

SCALE-1:200

Metres 5 0 5 10

To accompany report dated Aug./84



INTERVAL	SAMPLE NUMBER	Pb (%)	Zn (%)	Ag (o/t)	TRUE THICKNESS
Δ10 - 10a	546	0.62	1.46	0.38	3.4 m
10a - 10b'	820	1.14	3.53	0.66	4.5 m
10b' - 10c'	821	0.33	1.83	0.26	3.0 m
10c' - 10d'	822	1.24	7.94	0.96	2.4 m
10h - 10i	547	1.17	2.96	0.50	4.7 m
10i - 10j	548	2.65	4.43	0.90	3.5 m

Figure 17

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

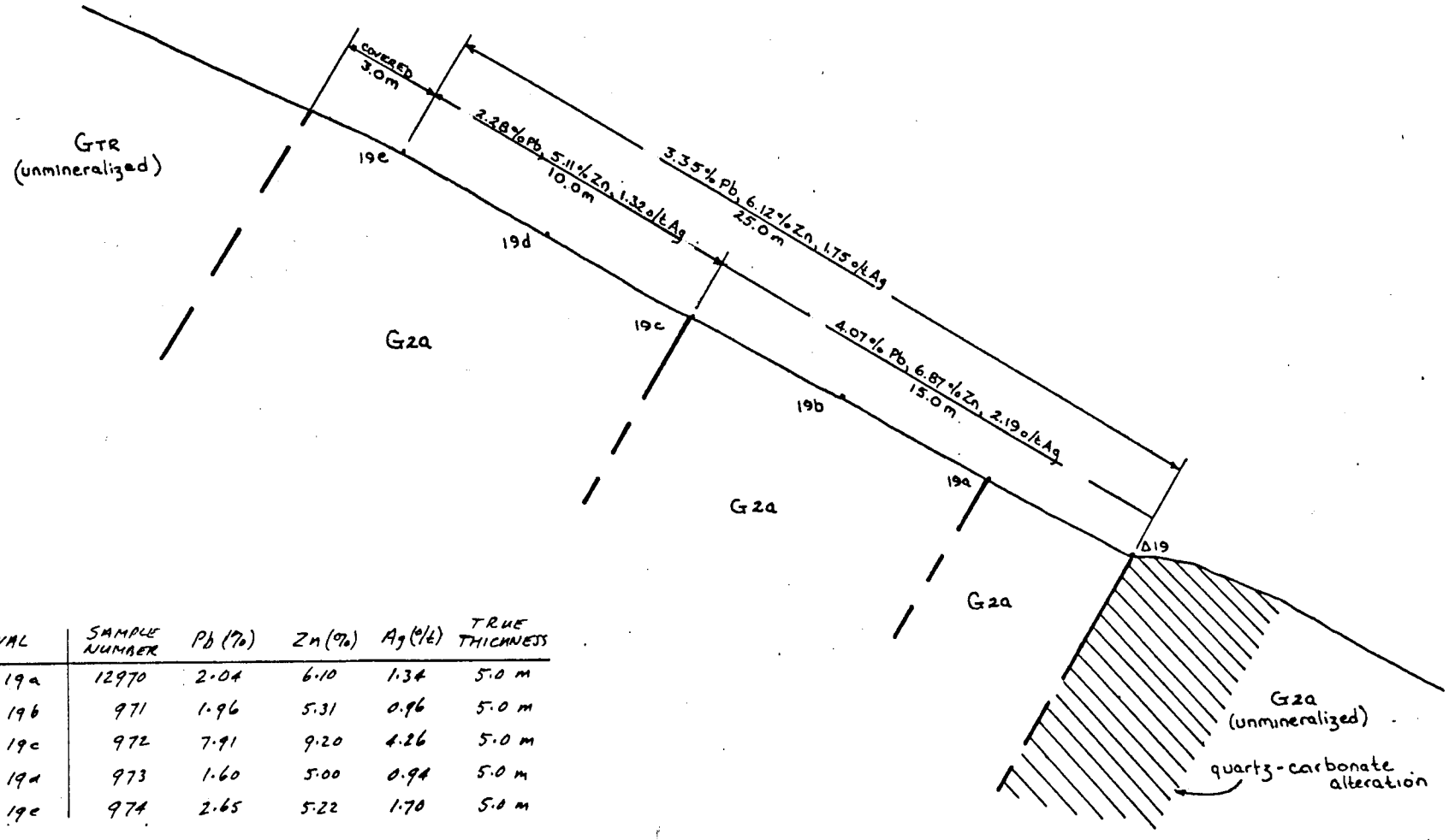
ASSAY SECTION H

BLENDE CLAIMS

SCALE-1:200

Metres 5 0 5 10

To accompany report dated Aug./84



INTERVAL	SAMPLE NUMBER	Pb (%)	Zn (%)	Ag (o/t)	TRUE THICKNESS
Δ19 - 19a	12970	2.04	6.10	1.34	5.0 m
19a - 19b	971	1.96	5.31	0.96	5.0 m
19b - 19c	972	7.91	9.20	4.26	5.0 m
19c - 19d	973	1.60	5.00	0.94	5.0 m
19d - 19e	974	2.65	5.22	1.70	5.0 m

Figure 18

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

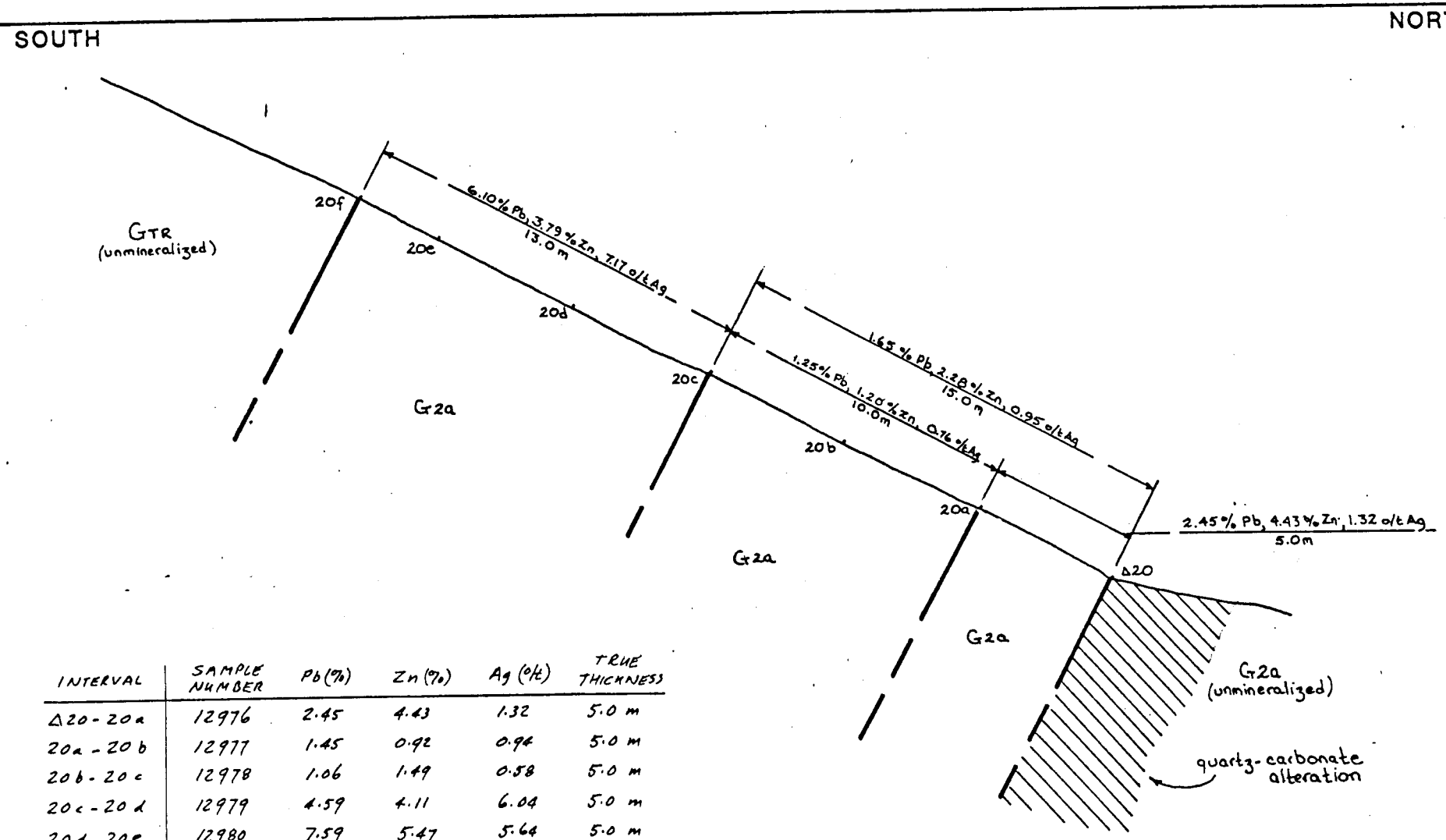
ASSAY SECTION I

BLENDE CLAIMS

SCALE-1:200

Metres 5 0 5 10

To accompany report dated Aug./84



INTERVAL	SAMPLE NUMBER	Pb (%)	Zn (%)	Ag (o/t)	TRUE THICKNESS
Δ20 - 20a	12976	2.45	4.43	1.32	5.0 m
20a - 20b	12977	1.45	0.92	0.94	5.0 m
20b - 20c	12978	1.06	1.49	0.58	5.0 m
20c - 20d	12979	4.59	4.11	6.04	5.0 m
20d - 20e	12980	7.59	5.47	5.64	5.0 m
20e - 20f	12981	6.13	0.46	11.60	3.0 m

Figure 19

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

ASSAY SECTION J

BLENDE CLAIMS

SCALE-1:200

Metres 5 0 5 10

To accompany report dated Aug./84

TABLE OF BEST ASSAYS (>5% Pb + Zn)

NO. 5 ZONE

Section	Figure	True Thickness (m)	Pb (%)	Zn (%)	Ag (oz/t)	$\frac{Pb}{Pb + Zn}$	Ag/Pb
A	10	9.2	4.41	2.38	1.63	0.56	0.37
B	11	12.1	5.40	2.23	2.56	0.71	0.47
C	12	11.9	7.75	2.05	3.45	0.79	0.45
D	13	---	---	---	---	---	---
E	14	20.4	0.85	5.06	0.84	0.14	1.00
F	15	19.6	2.76	6.06	1.74	0.31	1.75
G	16	13.1	2.96	3.43	1.20	0.46	0.41
H	17	8.2	1.80	3.59	0.67	0.33	0.37
I	18	25.0	3.35	6.12	1.75	0.35	0.52
J	19	13.0 (HW)	6.10	3.79	7.17	0.62	1.18
		5.0 (FW)	2.45	4.43	1.32	0.36	0.54
Weighted average		13.75	3.63	4.32	2.02	0.36	0.56

As shown in the table, ratios of Pb/Pb + Zn and Ag/Pb vary widely because of fluctuating proportions of galena, sphalerite and (perhaps) tetrahedrite. The best base metal grades have been obtained from sections C (9.80% Pb + Zn), F (9.82% Pb + Zn), I (9.45% Pb + Zn) and J(HW) (9.89% Pb + Zn). The best silver content is on sections B (2.56), C (3.45) and J(HW) (7.17) although the Ag/Pb ratios are sometimes higher on sections where lead content is closer to the average. The results suggest that lead content is highest towards both ends and zinc is highest in the centre. The west end, which has the highest silver content, shows the most malachite on weathered surfaces and is intensely silicified, also occurs at the base of the mineralized interval along the contact between units G_{2a} and G_{TR} (Figure 8). Assays of talus specimens also tend to be higher at the west end than the east end.

No. 1 Zone

No. 1 Zone consists of numerous narrow (less than one metre wide), recessive, near-vertical fault zones that trend 105° across the north spur of Mt. Williams, parallel to No. 5 Zone. Mineralization consists of breccia with a matrix of limonite, secondary dolomite, galena and minor sphalerite. Weak sphalerite and galena mineralization also occurs in hydrozincite-stained wallrocks peripheral to the breccia zones. Samples taken across the mineralized area in 1984 returned values of less than 1% Pb + Zn and 1.0 oz/ton Ag. These showings have little economic importance at surface.

No. 2 Zone

A highly brecciated fracture zone approximately 1.5 m wide and containing limonite, galena and minor sphalerite trends subparallel to No. 9 Zone to the north. Two small hand trenches dug by Cyprus Anvil yielded predominately limonite and galena to a depth of one metre. Two galena-rich specimens from the

trenches assayed 29.9% Pb, 1.77% Zn and 6.62 oz/ton Ag and 54.7% Pb, 10.4% Zn and 28.46 oz/ton Ag. The zone was visually estimated in 1982 to average 15 to 20% Pb + Zn over a width of 1.5 m for a strike length of at least 50 m.

No. 3 Zone*

Zones of fracturing and some brecciation strike parallel to sub-vertical, east-trending joints in massive G_{2a} dolomite over a strike length of 70 to 100 m. Individual fractures are less than 5 cm wide and are filled with reddish-brown to yellow sphalerite, galena and secondary dolomite. The two main zones are 0.3 to 1 m wide and are estimated to contain 5 to 10% Pb + Zn.

No. 4 Zone*

Two fault zones roughly 6 m apart trend 100° and dip about 70° to the south. The fractured rocks are mineralized with secondary dolomite, galena and sphalerite over widths of up to one metre.

No. 6 Zone

No. 6 Zone has been traced for about 50 m along strike in the hanging wall of No. 5 Zone and consists of two parallel fracture zones up to 1 m thick that are roughly 10 m apart. These contain limonite, secondary dolomite, galena and minor sphalerite. Wallrock between the two fracture sets is fractured and mineralized with minor galena and sphalerite fillings.

No. 7 Zone

No. 7 Zone has not been defined by prospecting but is probably small. A composite sample of mineralized float downslope from the approximate position of the mineralized trend assayed 12.80% Pb, 2.25% Zn and 10.20 oz/ton Ag.

No. 8 Zone*

No. 8 Zone consists of a 6 cm to 1 m wide fracture zone traced by Cyprus Anvil for a strike length of 15 m in an area of poor bedrock exposure. Mineral-

ization consists of yellow-brown sphalerite, galena and minor pyrite in narrow fractures and breccia zones. Grades are estimated to be about 10% Pb + Zn over scattered intervals of less than 15 cm.

No. 9 Zone

No. 9 Zone consists of a 2 to 3 m wide, recessive limonitic breccia zone 300 m long. It parallels No. 5 Zone but lies on the south side of the ridge and has weathered to form a prominent linear. Two composite samples of mineralized float assayed 17.2% Pb, 7.44% Zn and 6.92 oz/ton Ag; and 10.9% Pb, 11.1% Zn and 3.46 oz/ton Ag.

No. 10 Zone

Fragments of limonite and malachite-stained vein material from a 2 to 3 m wide, northeast-trending shear zone about 1 km east of the property returned 0.15% Pb, 0.17% Zn and 42.5 oz/ton Ag. This suggests that the malachite has formed from the weathering of tetrahedrite. This area has received only minor work and the full extent of this mineralization is not known.

DISCUSSION AND CONCLUSIONS

The Blende deposit consists of structurally controlled galena and sphalerite within a wide, steeply-dipping fault zone. The largest individual deposit found thus far, No. 5 Zone, contains grades of over 5% Pb + Zn across thicknesses of up to 25 m within a mineralized fault zone up to 47 m thick. It has been traced on surface for a length of about 800 m. The mineralized structure strikes WNW subparallel to the major regional Dawson Fault and regional folds of Laramide age. However, lead isotope ratios of the mineralization give Helikian model ages and indicate that the faults are Helikian in age and were probably formed during the Hayhook Orogeny. In addition to the lead isotope data, metal ratios and

structural style are all dissimilar to nearby vein and Mississippi Valley-type occurrences.

Trench sampling of No. 5 Zone has given an average grade of 3.63% Pb, 4.32% Zn and 2.02 oz/ton Ag (using a 5% Pb + Zn cutoff grade) across a thickness of 13.75 m. It is important to remember that the best grades within this zone are probably associated with the most intensely fractured areas. Since the better grade areas will tend to weather more recessively and surface trenching of No. 5 Zone is restricted by talus cover to the most resistant locations, surface sampling may be biased toward the lower grade portions of the zone. While the trench assays show that zinc content is highest near the centre and lead and silver content are higher at both ends and suggest that both lateral and vertical zoning may exist, much more sampling is required before these trends will be statistically meaningful.

Mapping and airphoto interpretation suggest that No. 5 Zone and a strong linear that parallels it to the south (No. 9 Zone) define a major fault zone about 130 m wide that may be part of a wider graben structure. Mineralization is apparently best developed within this graben where it intersects a 300 m thick, competent and massive dolomite (unit G_{2a}) of Helikian or older age. Figure 20 is an idealized, structurally restored cross-section through the interpreted graben that illustrates the structural setting after removal of post-mineral faulting. It also shows the relative stratigraphic position between the Blende deposit and nearby Sullivan-age sedex deposits.

While the most obvious exploration potential occurs in No. 5 Zone at depth and to the southeast, where it plunges beneath overlying unit G_{2b}, excellent potential also exists for finding additional zones in the following locations:

a) within the graben and parallel to No. 5 Zone in subparallel faults that are not well exposed or well mineralized at surface. Most of

SOUTH

NORTH

APPROXIMATE STRATIGRAPHIC POSITION OF HELIKIAN SEDEX DEPOSITS

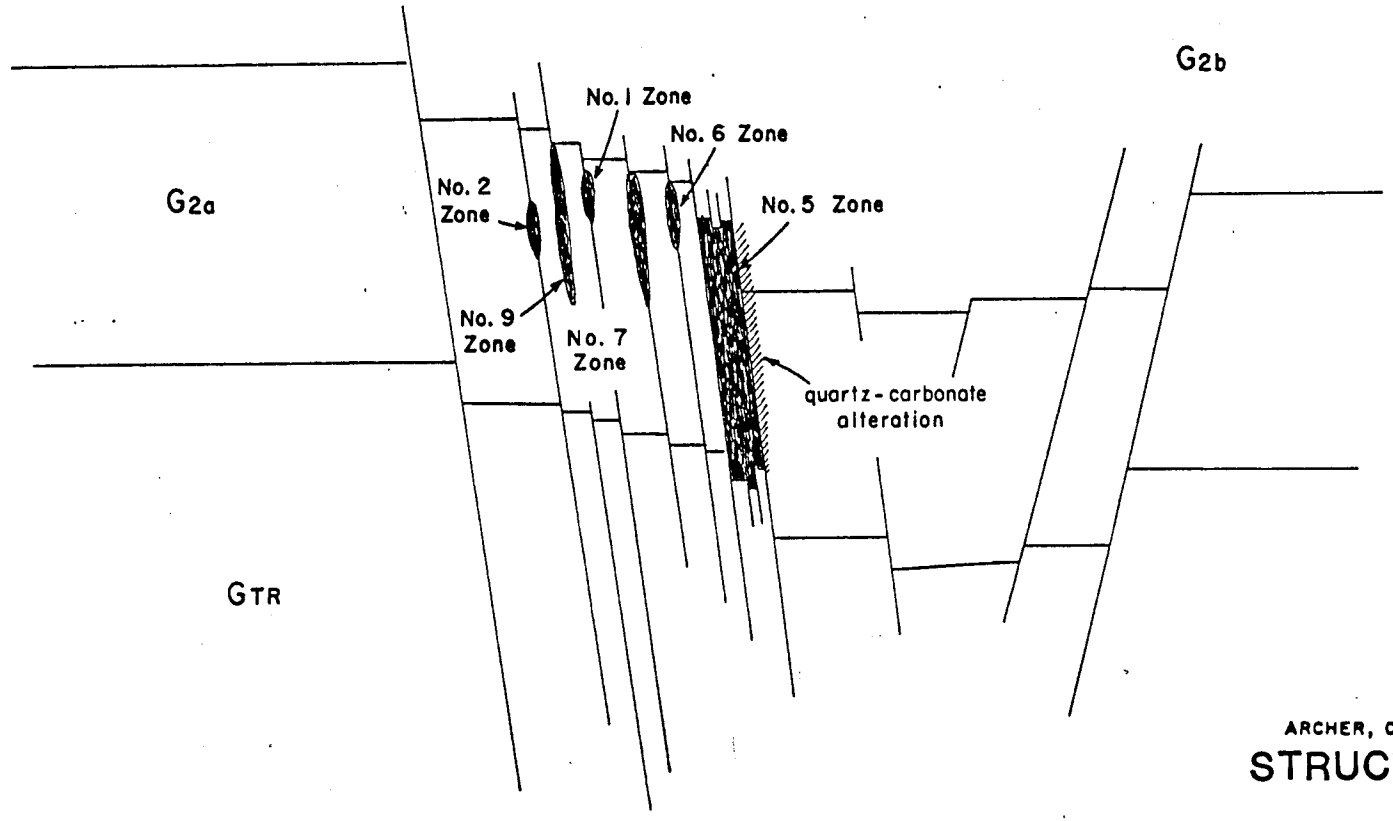


Figure 20

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

STRUCTURALLY RESTORED X-SECTION BLENDE CLAIMS

SCALE 1:10000

Metres 250 0 250 500

To accompany report dated Aug./84

these will be explored at the same time as No. 5 Zone with holes drilled from the south side of the ridge (Figures 6, 7 and 8).

b) in other mineralized grabens or faults obscured under talus or glacial drift. Weathering of No. 5 Zone, which is situated on a rapidly eroding cliff, has produced rather inconspicuous mineralization consisting of grey-buff sphalerite, smithsonite, hydrozincite and anglesite in buff dolomite. It is most easily recognized where it has a high galena or pyrite content and is less weathered. Careful and systematic prospecting is required to detect similar mineralization in more stable talus slopes with lichen and moss cover. The widespread and intense stream sediment response suggests that other mineralized sources remain to be found.

The preliminary work completed to date has shown that the Blende property hosts a unique Yukon lead-zinc-silver deposit in terms of age and structural setting. Grades appear to be comparable with those in younger sedex deposits in Selwyn Basin although silver content is relatively high. The geometry of the deposit and the competence of the wallrocks suggest ideal underground mining conditions, while it also has the additional advantages of adit development, simple mineralogy and a reasonably favourable geographic location.

The next stage of exploration should include drilling to test the downward continuity of No. 5 Zone and systematic prospecting and rock sampling elsewhere to locate other zones. Since the mineralization in No. 5 Zone appears to be fairly uniform, 25 or 30 holes may be sufficient to confidently indicate grade, tonnage and continuity.

Respectfully submitted,

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

R.J. Cathro, B.A.Sc., P.Eng

R.C. Carne, M.Sc.

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ARCHER, CATHRO
& ASSOCIATES LIMITED
CONSULTING GEOLOGICAL ENGINEERS

VANCOUVER, B.C. (604) 688-2568

BOX 4127, WHITEHORSE, Y.T. Y1A 3S9 (403) 667-4415

1016 - 510 WEST HASTINGS STREET
VANCOUVER, B.C. V6B 1L8

091586

AFFIDAVIT

I, Joan Mariacher, of Vancouver, B.C. make oath and say:

That to the best of my knowledge the attached Statement of Expenditures for exploration work on the Blende 1-15 mineral claims on Claim Sheet 106D/7 is accurate.

Joan Mariacher

Sworn before me at Vancouver,B.C.

this 16 day of

November, 198 4

Notary, Yukon Territory

Statement of Expenditures
Blende 1-15 Mineral Claims
Hand Trenching Program
November 15, 1984

Expenses

Helicopter, 18.1 hours Terr-Air Rotary Ltd. at $470/hr	$8,507.00

Terr - Air Rotary Ltd.

FLIGHT TICKET
NO. 5800

BOX 688, LAC LA BICHE, ALBERTA T0A 2C0
TELEPHONE: (403) 623-2190

GENERAL DELIVERY, ROSS RIVER, Y.T.
TELEPHONE: (403) 869-2240

DATE JUNE 20 1984 A/C CFBHH

CHARTER ☐ CONTRACT _____ NON - REV. ☐

CUSTOMER CANYON E DIAMOND DRILLING

ADDRESS _____

P.O.# _____ PROJECT _____

	Fuel Supplied By S.H.L.	Fuel Supplied By CUST.	HRS.	MIN.
WH. TKHORSE TO KENO CITY	55	~~55~~	2.2	
SADIE LADUE - D RIG MOVE	20		1.7	
RETURN SADIE LADUE				
TOTAL FLIGHT HOURS			3.9	
TOTAL HOURS THIS CONTRACT			3.9	

PILOTS SIG. [signature]

CUSTOMERS SIG.

MTCE. ENG. BOB

I agree to pay interest at 2% ~~per month on all overdue~~ accounts.

Signed [signature]

A/F TTSOH 12,063.5

ENG. TTSOH

N.W.T. ☐
YUKON ☑
ALBERTA ☐
B.C. ☐
SASK. ☐
MAN. ☐
ONT. ☐
QUE. ☐

SPECIAL REMARKS

FUEL USED

CACHE REMAINING

$531.25 x 3.0 = $1593.75

470.00 x 0.9 = $423.00

2016.75

copy

Terr.- Air Rotary Ltd

FLIGHT TICKET
No 5801

BOX 688, LAC LA BICHE, ALBERTA T0A 2C0
TELEPHONE: (403) 623-2190

GENERAL DELIVERY, ROSS RIVER, Y.T.
TELEPHONE: (403) 869-2240

DATE JUNE 21 1984 A/C CFBHH

CHARTER ☐ CONTRACT _____ NON - REV. ☐

CUSTOMER CARION & DIAMOND DRILLING

ADDRESS _____

P.O.# _____ PROJECT _____

	Fuel Supplied By S.H.L.	Fuel Supplied By CUST.	HRS.	MIN.
SADIE LADUE TO WILLIAMS CREEK				
TWO TRIPS		✓	2.	0
TOTAL FLIGHT HOURS			2.	0
TOTAL HOURS THIS CONTRACT			5.	9

Blank

PILOTS SIG. [signature]

I agree to pay interest at 2% per month on all overdue accounts.

A/F TTSOH 10,065.5

CUSTOMERS SIG. _____

ENG. TTSOH

MTCE. ENG. BOB

Signed [signature]

N.W.T. ☐
YUKON ☑
ALBERTA ☐
B.C. ☐
SASK. ☐
MAN. ☐
ONT. ☐
QUE. ☐

SPECIAL REMARKS

$470.00 x 2.0 = $940.00 OK

2016.15

FUEL USED

CACHE REMAINING

COPY

Terr - Air Rotary Ltd.

FLIGHT TICKET
No 5802

BOX 688, LAC LA BICHE, ALBERTA T0A 2C0
TELEPHONE: (403) 623-2190

GENERAL DELIVERY, ROSS RIVER, Y.T.
TELEPHONE: (403) 869-2240

DATE JUNE 22 A/C CFBHH

CHARTER ☐ CONTRACT _____ NON - REV. ☐

CUSTOMER CARION E DIAMOND DRILLING

ADDRESS _____

P.O.# _____ PROJECT _____

	Fuel Supplied By S.H.L.	Fuel Supplied By CUST.	HRS.	MIN.
SPOKE LAKE TO 180 miles NWC		✓		
RETURN TO SPOKE LAKE			4	3
TOTAL FLIGHT HOURS			4	3
TOTAL HOURS THIS CONTRACT			10	2

PILOTS SIG. Peter Kelly

I agree to pay interest at 2% per month on all overdue accounts.

A/F TTSOH 10,867.8

CUSTOMERS SIG. _____

ENG. TTSOH

MTCE. ENG. BOB Signed _____

N.W.T. ☐
YUKON ☑
ALBERTA ☐
B.C. ☐
SASK. ☐
MAN. ☐
ONT. ☐
QUE. ☐

SPECIAL REMARKS

FUEL USED

CACHE REMAINING

4.3 x 470 = $2021.00

OK

COPY

Terr - Air Rotary Ltd

FLIGHT TICKET NO. 5803

BOX 688, LAC LA BICHE, ALBERTA T0A 2C0
TELEPHONE: (403) 623-2190

GENERAL DELIVERY, ROSS RIVER, Y.T.
TELEPHONE: (403) 869-2240

DATE JUNE 23 1984 A/C CFBUH

CHARTER ☐ CONTRACT _____ NON - REV. ☐

CUSTOMER CANEN E DIAMOND DRILLING

ADDRESS _____

P.O.# _____ PROJECT _____

	Fuel Supplied By S.H.L.	Fuel Supplied By CUST.	HRS.	MIN.
SADIE LAQUE TO WILLIAMS CREEK RETURN TWO TRIPS		✓	1.4	
TWO TRIPS TOTCLOAK CLAIMS			0.8	
TOTAL FLIGHT HOURS			2.2	
TOTAL HOURS THIS CONTRACT			12.4	

PILOTS SIG. [signature]

I agree to pay interest at 2% per month on all overdue accounts.

A/F TTSOH 10,072.0

CUSTOMERS SIG. _____

ENG. TTSOH _____

MTCE. ENG. BOB

Signed [signature]

N.W.T. ☐
YUKON ☑
ALBERTA ☐
B.C. ☐
SASK. ☐
MAN. ☐
ONT. ☐
QUE. ☐

SPECIAL REMARKS

2.2 x 470 = 1034.00

FUEL USED

CACHE REMAINING

copy

Terr - Air Rotary Ltd.

FLIGHT TICKET
No 5804

BOX 689, LAC LA BICHE, ALBERTA T0A 2C0
TELEPHONE: (403) 623-2190

GENERAL DELIVERY, ROSS RIVER, Y.T.
TELEPHONE: (403) 869-2240

DATE JUNE 24 1984 A/C CFBHH

CHARTER ☐ CONTRACT _____ NON - REV. ☐

CUSTOMER CARION E DIAMOND DRILLING

ADDRESS _____

P.O.# _____ PROJECT _____

	Fuel Supplied By S.H.L.	Fuel Supplied By CUST.	HRS.	MIN.
TWO TRIPS WILLIAMS CREEK		✓	1.5	
TWO TRIPS KEYSTONE CREEK		✓	0.6	
TOTAL FLIGHT HOURS			2.1	
TOTAL HOURS THIS CONTRACT			14.5	

PILOTS SIG. P. Kelly

CUSTOMERS SIG. _____

MTCE. ENG. BOB

I agree to pay interest at 2% per month on all overdue accounts.

Signed _____

A/F TTSOH 10,074.4

ENG. TTSOH _____

N.W.T. ☐
YUKON ☒
ALBERTA ☐
B.C. ☐
SASK. ☐
MAN. ☐
ONT. ☐
QUE. ☐

SPECIAL REMARKS

2.1 × 470 = $987.00

FUEL USED

CACHE REMAINING

copy

5825

Terr.- Air Rotary Ltd.

FLIGHT TICKET
No 5805

BOX 688, LAC LA BICHE, ALBERTA T0A 2C0
TELEPHONE: (403) 623-2190

GENERAL DELIVERY, ROSS RIVER, Y.T.
TELEPHONE: (403) 869-2240

DATE JUNE 25 1984 A/C CF BHH

CHARTER ☐ CONTRACT _____ NON - REV. ☐

CUSTOMER CARTIER DIAMOND DRILLING

ADDRESS _____

P.O.# _____ PROJECT _____

	Fuel Supplied By S.H.L.	Fuel Supplied By CUST.	HRS.	MIN.
TRIP TO WILLIAMS		✓	1.5	
TOTAL FLIGHT HOURS			1.5	
TOTAL HOURS THIS CONTRACT			K.O	

Blank

PILOTS SIG. [signature]

I agree to pay interest at 2% per month on all overdue accounts.

CUSTOMERS SIG.

A/F TTSOH 10,075.6

ENG. TTSOH

MTCE. ENG. BOB

Signed [signature]

N.W.T. ☐
YUKON ☐
ALBERTA ☐
B.C. ☐
SASK. ☐
MAN. ☐
ONT. ☐
QUE. ☐

SPECIAL REMARKS

1.5 x 470 = 705.00

FUEL USED

CACHE REMAINING

copy

Ter - Air Rotary Ltd.

FLIGHT TICKET
No. 5806

BOX 689, LAC LA BICHE, ALBERTA T0A 2C0
TELEPHONE: (403) 623-2190

GENERAL DELIVERY, ROSS RIVER, Y.T.
TELEPHONE: (403) 869-2240

DATE JUNE 26 1984 A/C CFBHN

CHARTER ☐ CONTRACT _____ NON - REV. ☐

CUSTOMER CANTON & DIAMOND DRILLING

ADDRESS _____

P.O.# _____ PROJECT _____

	Fuel Supplied By S.H.L.	Fuel Supplied By CUST.	HRS.	MIN.
SADDLE LAKE TO BIG SALMON		V	1.6	
BIG SALMON TO LOON LAKE			0.5	
LOON LAKE TO WH-TCABSE			0.5	
TOTAL FLIGHT HOURS			2.6	
TOTAL HOURS THIS CONTRACT			18.6	

PILOTS SIG. [signature]

I agree to pay interest at 2% per month on all overdue accounts.

A/F TTSOH 10,078.2

CUSTOMERS SIG. _____

ENG. TTSOH _____

MTCE. ENG. Bob

Signed [signature]

N.W.T. ☐
YUKON ☑
ALBERTA ☑
B.C. ☐
SASK. ☐
MAN. ☐
ONT. ☐
QUE. ☐

SPECIAL REMARKS

2.6 × 470 = 1222.00

FUEL USED

CACHE REMAINING

COPY

Terr - Air Rotary Ltd.

FLIGHT TICKET
No. 5824

BOX 688, LAC LA BICHE, ALBERTA T0A 2C0
TELEPHONE: (403) 623-2190

GENERAL DELIVERY, ROSS RIVER, Y.T.
TELEPHONE: (403) 869-2240

DATE JULY 24 1984 A/C [illegible]

CHARTER ☐ CONTRACT [illegible] NON - REV. ☐

CUSTOMER CARION E DIAMOND DRILLING

ADDRESS

P.O.# PROJECT 12 HRS 75

	Fuel Supplied By S.H.L.	Fuel Supplied By CUST.	HRS.	MIN.
X4 → SADIE LAQUE	45		1.	8
SADIE LAQUE RETURN TWO TRIPS	40		1.	6
TO PAT WILLIAMS	85			
TOTAL FLIGHT HOURS			3.	4
TOTAL HOURS THIS CONTRACT			3.	4

PILOTS SIG. [signature] I agree to pay interest at 2% per month on all overdue accounts.

CUSTOMERS SIG. [signature]

MTCE. ENG. Bob Signed

A/F TTSOH 10,117.6

ENG. TTSOH

N.W.T. ☐
YUKON ☑
ALBERTA ☐
B.C. ☐
SASK. ☐
MAN. ☐
ONT. ☐
QUE. ☐

SPECIAL REMARKS [illegible]

FUEL USED 125

CACHE REMAINING

$531.25 x 3.4 = $1806.25 OK

copy

Terr - Air Rotary Ltd.

FLIGHT TICKET 2305

BOX 888, LAC LA BICHE, ALBERTA T0A 2C0
TELEPHONE: (403) 623-2190

GENERAL DELIVERY, ROSS RIVER, Y.T.
TELEPHONE: (403) 869-2240

DATE JULY 25 1984 A/C C-FBHH

CHARTER ☐ CONTRACT _____ NON - REV. ☐

CUSTOMER CANYON E DIAMOND DRILLING

ADDRESS _____

P.O.# _____ PROJECT _____

	Fuel Supplied By- S.H.L.	Fuel Supplied By- CUST.	HRS.	MIN.
SABTE LAKE TO WILLIAMS CREEK				
TWO TRIPS		L	1.7	
TOTAL FLIGHT HOURS			1.7	
TOTAL HOURS THIS CONTRACT			5.1	

Blank

PILOTS SIG. Peter Kyle

CUSTOMERS SIG. A Lewis

MTCE. ENG. Bob Signed

I agree to pay interest at 2% per month on all overdue accounts.

A/F TTSOH 10,119.3

ENG. TTSOH

N.W.T. ☐
YUKON ☑
ALBERTA ☐
B.C. ☐
SASK. ☐
MAN. ☐
ONT. ☐
QUE. ☐

SPECIAL REMARKS

$470.00 x 1.7 = $799.00

FUEL USED	CACHE REMAINING

cabu

Terr - Air Rotary Ltd.

FLIGHT TICKET
NO [redacted]06

BOX [redacted]88, LAC LA BICHE, ALBERTA T0A 2C0
TELEPHONE: (403) 623-2190

GENERAL DELIVERY, ROSS RIVER, Y.T.
TELEPHONE: (403) 869-2240

DATE July 26 1984 A/C CFBHH

CHARTER ☐ CONTRACT _____ NON - REV. ☐

CUSTOMER CARTER & DIAMOND DRILLING

ADDRESS _____

P.O.# _____ PROJECT _____

	Fuel Supplied By S.H.L.	Fuel Supplied By CUST.	HRS.	MIN.
SADDLE LAKE TO WILLIAMS LAKE				
TO &		✓	2.	2
TOTAL FLIGHT HOURS			2.	2
TOTAL HOURS THIS CONTRACT			7.	8

PILOTS SIG. [signature]

CUSTOMERS SIG. [signature]

MTCE. ENG. Bal Signed

I agree to pay interest at 2% per month on all overdue accounts.

A/F TTSOH 121.5

ENG. TTSOH

N.W.T. ☐
YUKON ☑
ALBERTA ☐
B.C. ☐
SASK. ☐
MAN. ☐
ONT. ☐
QUE. ☐

SPECIAL REMARKS

FUEL USED

CACHE REMAINING

~~470.00~~ 2.2 = $ 1034.00 - OK

copy

Terr - Air Rotary Ltd.

FLIGHT TICKET
No 5827

BOX 888, LAC LA BICHE, ALBERTA T0A 2C0
TELEPHONE: (403) 623-2190

GENERAL DELIVERY, ROSS RIVER, Y.T.
TELEPHONE: (403) 869-2240

DATE JULY 27 1984 A/C CFBHH

CHARTER ☐ CONTRACT _____ NON - REV. ☐

CUSTOMER CARSON DIAMOND DRILLING

ADDRESS _____

P.O.# _____ PROJECT _____

	Fuel Supplied By S.H.L.	Fuel Supplied By CUST.	HRS.	MIN.
SADIE LADUE TO AUSSIE CAR		✓	0	9
AUSSIE CAR LOCA			0	8
AUSSIE TO SADIE LADUE			0	7
SADIE LADUE TO CAY TO X4			2	2
TOTAL FLIGHT HOURS			4	6
TOTAL HOURS THIS CONTRACT			11	9

Blank

PILOTS SIG. _____

CUSTOMERS SIG. _____

MTCE. ENG. Bob

I agree to pay interest at 2% per month on all overdue accounts.

Signed _____

A/F TTSOH 10,126.1

ENG. TTSOH

N.W.T. ☐
YUKON ☑
ALBERTA ☐
B.C. ☐
SASK. ☐
MAN. ☐
ONT. ☐
QUE. ☐

SPECIAL REMARKS

$470.00 x 4.6 = $ 2162.00

FUEL USED

CACHE REMAINING

copy

Terr[illegible] Air Botary Ltd.

BOX 688, LAC LA BICHE, ALBERTA T0A 2C0
TELEPHONE: (403) 623-2190

GENERAL DELIVERY, ROSS RIVER, Y.T.
TELEPHONE: (403) 869-2240

FLIGHT TICKET
NO. 5853

DATE AUG 28/84 A/C CFBHH

CHARTER ☐ CONTRACT _____ NON - REV. ☐

CUSTOMER CARIBOU E DIAMOND DRILLING

ADDRESS _____

P.O.# _____ PROJECT _____

	Fuel Supplied By S.H.L.	Fuel Supplied By CUST.	HRS.	MIN.
WHITEHORSE TO DALTON POST	475		1.	9
LOCAL RETURN				
TOTAL FLIGHT HOURS			1.	9
TOTAL HOURS THIS CONTRACT				

PILOTS SIG. Peter Neil

CUSTOMERS SIG.

MTCE. ENG. Bel

I agree to pay interest at 2% per month on all overdue accounts.

Signed Linda Carey

A/F TTSOH

ENG. TTSOH

N.W.T. ☐
YUKON ☑
ALBERTA ☐
B.C. ☐
SASK. ☐
MAN. ☐
ONT. ☐
QUE. ☐

SPECIAL REMARKS

@ 531.25 X 1.9 = 1009.38 - OK.

FUEL USED

CACHE REMAINING

copy

Terr - Air Rotary Ltd.

BOX 688, LAC LA BICHE, ALBERTA T0A 2C0
TELEPHONE: (403) 623-2190

GENERAL DELIVERY, ROSS RIVER, Y.T.
TELEPHONE: (403) 869-2240

FLIGHT TICKET
No. **5845**

DATE AUG 14 1984 A/C CFBHH

CHARTER ☐ CONTRACT _____ NON - REV. ☐

CUSTOMER CARTON E DIAMOND DRILLING

ADDRESS _____

P.O.# _____ PROJECT _____

	Fuel Supplied By S.H.L.	Fuel Supplied By CUST.	HRS.	MIN.
WHITEHORSE TO MOT MURPHY				
RETURN 2 PASS AND GEAR		✓	1.1	
NO CHARGE				
TOTAL FLIGHT HOURS			1.1	
TOTAL HOURS THIS CONTRACT				

PILOTS SIG. [signature] I agree to pay interest at 2% per month on all overdue accounts.

CUSTOMERS SIG. [signature]

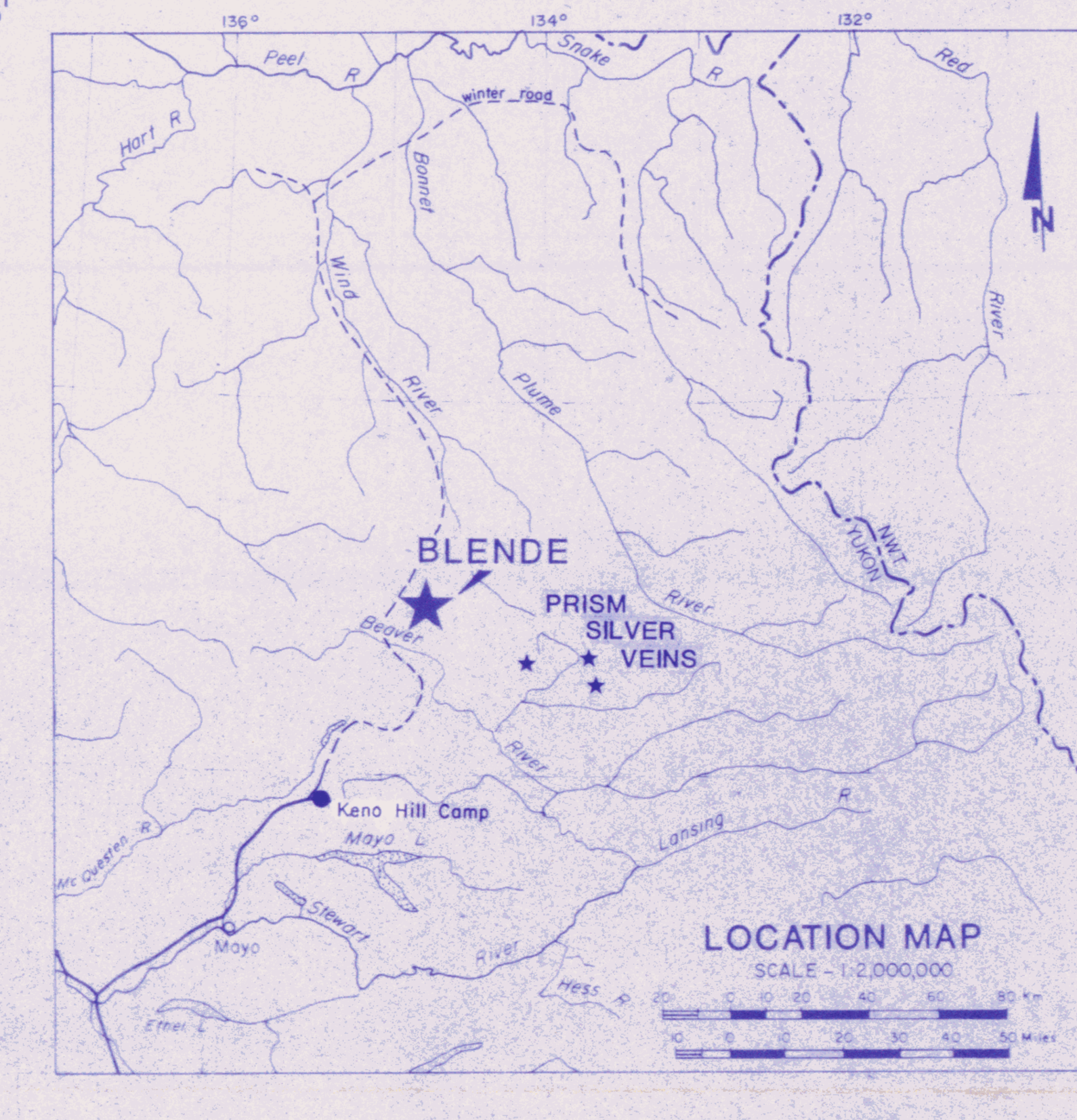
MTCE. ENG. Bob Signed

A/F TTSOH 10,161.6

ENG. TTSOH

	SPECIAL REMARKS	FUEL USED	CACHE REMAINING
N.W.T. ☐			
YUKON ☑			
ALBERTA ☐	$470.00 x 1.1 = $ 517.00 - OK		
B.C. ☐			
SASK. ☐			
MAN. ☐			
ONT. ☐			
QUE. ☐			

COPY



LEGEND

ORDOVICIAN – SILURIAN

OSc	light grey to white weathering massive to thick bedded limestone and dolomite

HADRYNIAN or OLDER

+	orange to brown weathering diorite and gabbro dyke

HELIKIAN or OLDER
GILLESPIE LAKE GROUP

G3	massive stromatolitic dolomite
G2b	interbedded black argillite shale and chert; minor orange weathering dolomite interbeds
G2a	orange weathering, massive grey to interbedded light grey and black argillaceous and stromatolitic dolomite with minor chert interbeds
G2	undivided G2a and G2b; may include GTR
GTR	light orange to maroon-green weathering interbedded maroon and green shale with white to tan dolomite intervals

QUARTET LAKE GROUP (not seen)

Q2	interbedded black shales, phyllites, argillites and quartzites

geological contact (known, assumed)
fault (known, assumed)
airphoto linear (suspected faults)
bedding attitude
anticlinal axis
x Cyprus Anvil stream sediment
• Cyprus Anvil soil sediment
⊗ G.S.C. O.F. 518 stream sediment
(with Cu, Pb and Zn in ppm)
■ Archer Cathro rock with Pb and Zn in % and Ag and Au in oz/ton
★ No.3 Zone Mineralized area described in text

Figure 2

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

GEOLOGY AND GEOCHEMISTRY

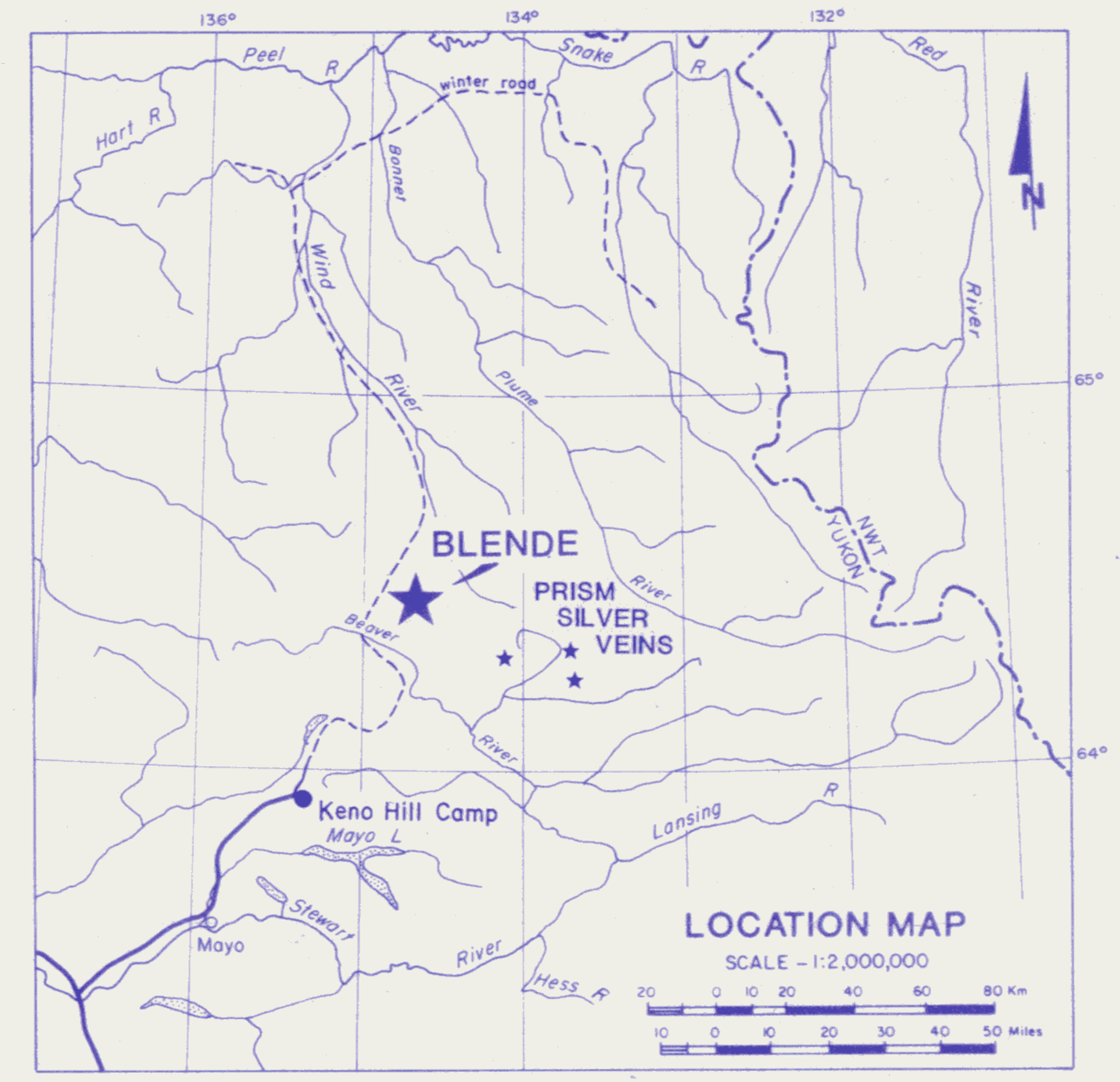
BLENDE 1–15 CLAIMS

MT. WILLIAMS, Y.T.

SCALE – 1:10,000

200 100 0 100 200 300 400 500 600 Metres
200 100 0 100 200 400 600 Yards

To accompany report dated August/84



LEGEND

ORDOVICIAN - SILURIAN

OSc	light grey to white weathering massive to thick bedded limestone and dolomite

HADRYNIAN or OLDER

+ +	orange to brown weathering diorite and gabbro dyke

HELIKIAN or OLDER

GILLESPIE LAKE GROUP

G3	massive stromatolitic dolomite
G2b	interbedded black argillite shale and chert; minor orange weathering dolomite interbeds
G2a	orange weathering, massive grey to interbedded light grey and black argillaceous and stromatolitic dolomite with minor chert interbeds
G2	undivided G2a and G2b; may include GTR
GTR	light orange to maroon-green weathering interbedded maroon and green shale with white to tan dolomite intervals

QUARTET LAKE GROUP (not seen)

Q2	interbedded black shales, phyllites, argillites and quartzites

geological contact (known, assumed)

fault (known, assumed)

area of mineralized outcrop

area of mineralization indicated by talus

alteration; ferroan carbonate and silica

Figure 5

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

No. 5 ZONE GEOLOGY

BLENDE 1-15 CLAIMS

MT. WILLIAMS, Y.T.

091586

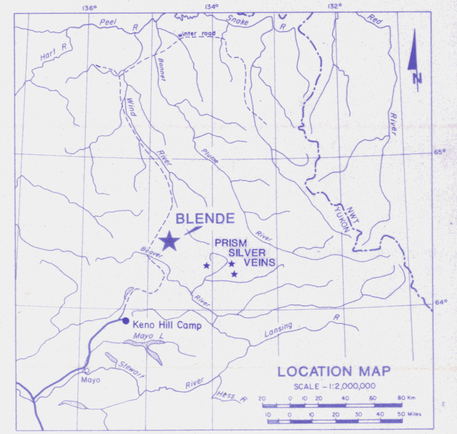
Scale 1:2000

20 0 20 40 60 80 100 Metres

100 0 100 200 300 400 Feet

To accompany report dated August, 1984

LONGITUDINAL SECTION
(VERTICAL PROJECTION)



LEGEND

1984 SAMPLING

- continuous chip sample
  - < 5% Pb+Zn
  - 5 – 9% Pb+Zn
  - > 9% Pb+Zn

see Figs 10-19 for specific assay values

- □ isolated chip or grab sample
- ○ bulk sample from hand pit
- △ float composite or grab sample

1982 SAMPLING

- ■ chip or grab sample
- ▲ float composite or grab sample

ASSAYS

$\frac{9.89,\ 1.22,\ 3.22}{2.1\,m}$ = $\frac{\%\ \text{lead},\ \%\ \text{zinc},\ {}^{oz}/_{ton}\ \text{silver}}{\text{sample interval}}$

PLAN VIEW

FIGURE 9

ARCHER, CATHRO & ASSOCIATES (1981) LIMITED

No.5 ZONE ASSAY PLAN

BLENDE 1-15 CLAIMS

MT. WILLIAMS, Y.T.

091586

Scale 1:2000

20 0 20 40 60 80 100 Metres

100 0 100 200 300 400 Feet

To accompany report dated August, 1984