

ARIS SUMMARY SHEET

District Geologist, Nelson

Off Confidential: 92.10.15

ASSESSMENT REPORT 22049

MINING DIVISION: Fort Steele

PROPERTY: Burn
LOCATION: LAT 49 35 00 LONG 116 02 00
UTM 11 5492535 569876
NTS 082F09E

CAMP: 001 Purcell Belt (Sullivan)

CLAIM(S): Quartz Creek 1-6, Saw 1-6, Burn 1-6

OPERATOR(S): Klewchuk, P.

AUTHOR(S): Klewchuk, P.

REPORT YEAR: 1992, 23 Pages

KEYWORDS: Helikian, Aldridge Formation, Creston Formation, Quartzites, Schists

WORK

DONE: Prospecting
PROS 450.0 ha

LOG NO: JAN 17	RD.
ACTION:	
FILE NO:	

ASSESSMENT REPORT
on

PROSPECTING, GEOCHEMISTRY AND GEOPHYSICS

QUARTZ CREEK, SAW AND BURN CLAIMS

BURN GROUP

Sawmill Creek, Pitt Creek Area

FORT STEELE MINING DIVISION

NTS 82 F/9 E

Latitude 49° 35'N
Longitude 116° 02'W

by

PETER KLEWCHUK
GEOLOGIST

January 10, 1991

GEOLOGICAL BRANCH
ASSESSMENT REPORT

22,049

TABLE OF CONTENTS

	Page
1.00 INTRODUCTION	1
1.10 Location and Access	1
1.20 Physiography	1
1.30 History of Previous Exploration	1
1.40 Property	3
1.50 Purpose of Survey	3
2.00 GEOLOGY	5
3.00 PROSPECTING AND ROCK GEOCHEMISTRY	5
3.10 Kimberley Goldfields Area	8
3.20 Burn Claims	9
4.00 GEOPHYSICS	10
4.10 Kimberley Goldfields Area	10
4.20 Burn Claims	11
5.00 CONCLUSIONS	11
6.00 STATEMENT OF EXPENDITURES	17
7.00 AUTHOR'S QUALIFICATIONS	18

LIST OF ILLUSTRATIONS

Figure 1. Property Location Map	2
Figure 2. Claim Map	4
Figure 3. Prospecting and Rock Geochemistry Sample Location Map	6
Figure 4. Rock Geochemistry Values for Au (ppb), Cu, Pb, Zn and Ag (ppm)	7
Figure 5. South Burn Group Plan of VLF-EM Survey	12
Figure 6a. South Burn Group VLF-EM Profiles	13
Figure 6b. South Burn Group VLF-EM Profiles	14
Figure 6c. South Burn Group VLF-EM Profiles	15
Figure 7. North Burn Group VLF-EM and Mag Profiles	16

APPENDICES

Appendix 1. Description of Rock Samples	19
Appendix 2. Geochemical Analyses	20

1.00 INTRODUCTION

1.10 Location and Access

The Burn group of claims is located approximately 12 kilometers southwest of Kimberley, B.C., in the Fort Steele Mining Division (Fig. 1). The claims straddle the ridge between the St. Mary River drainage to the north and the Perry Creek drainage to the south and are centered approximately at 49° 35' N Latitude, 116° 05' W Longitude.

Access to the property is via good logging roads from the Perry Creek side, which join the old highway between Kimberley and Cranbrook. Very recent Forestry thinning programs on and in the vicinity of the claims have created additional road access on the claims.

1.20 Physiography

The property is situated west of the Rocky Mountain Trench within the Moyle Range of the Purcell Mountains. The claims straddle a glacially rounded ridge which rises to 2070 meters.

Vegetation cover is mainly of pine, larch and fir. Part of the property has been clear-cut logged and the northern part was burned by the large Pitt Creek fire around 1950. These areas are in various stages of forest regeneration and locally contain thick stands of immature trees.

1.30 History of Previous Exploration

Sawmill Creek, which drains the south portion of the property, is a south-flowing tributary of Perry Creek. It is one of the better placer gold tributaries of Perry Creek, and has historically received considerable prospecting for lode gold sources.

Three important lode gold prospects occur in the vicinity of the Burn group of claims. The Birdie Lode and Price's Pit occur to the southeast while Kimberley Goldfield's is a small 2-unit block included within the boundaries of the Burn group (but has separate ownership). Each of these prospects are of gold with quartz, with associated pyrite and copper and lead sulfides. Each has seen minor production, in the case of Kimberley Goldfields about 1800 tons of 0.25 ounce gold/ton.

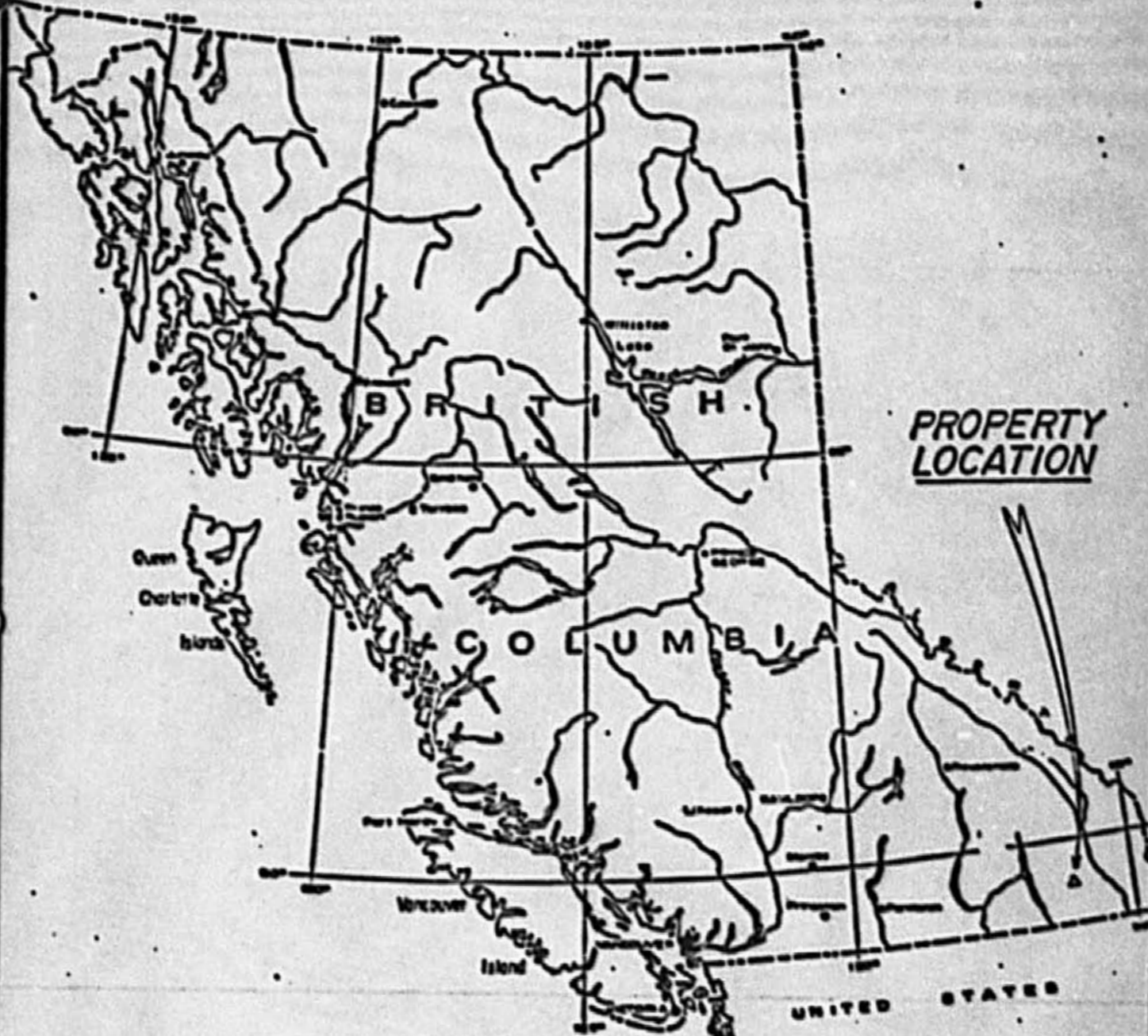


Figure 1
BURN GROUP
LOCATION MAP



More regionally, historic exploration for lode gold has been generally similar to the Sawmill Creek area with small gold occurrences identified and a few with minor production. In 1990 Dragoon Resources Ltd. drilled the David Property (optioned from the same owners as the Burn Group), and proved up a reserve of nearly 100,000 tonnes with a grade of about 10 grams gold/ton. The David deposit is hosted by a prominent shear zone and its discovery has provided a new focus to gold exploration in the East Kootenay region of B.C.

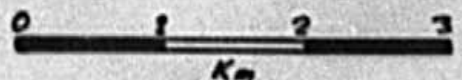
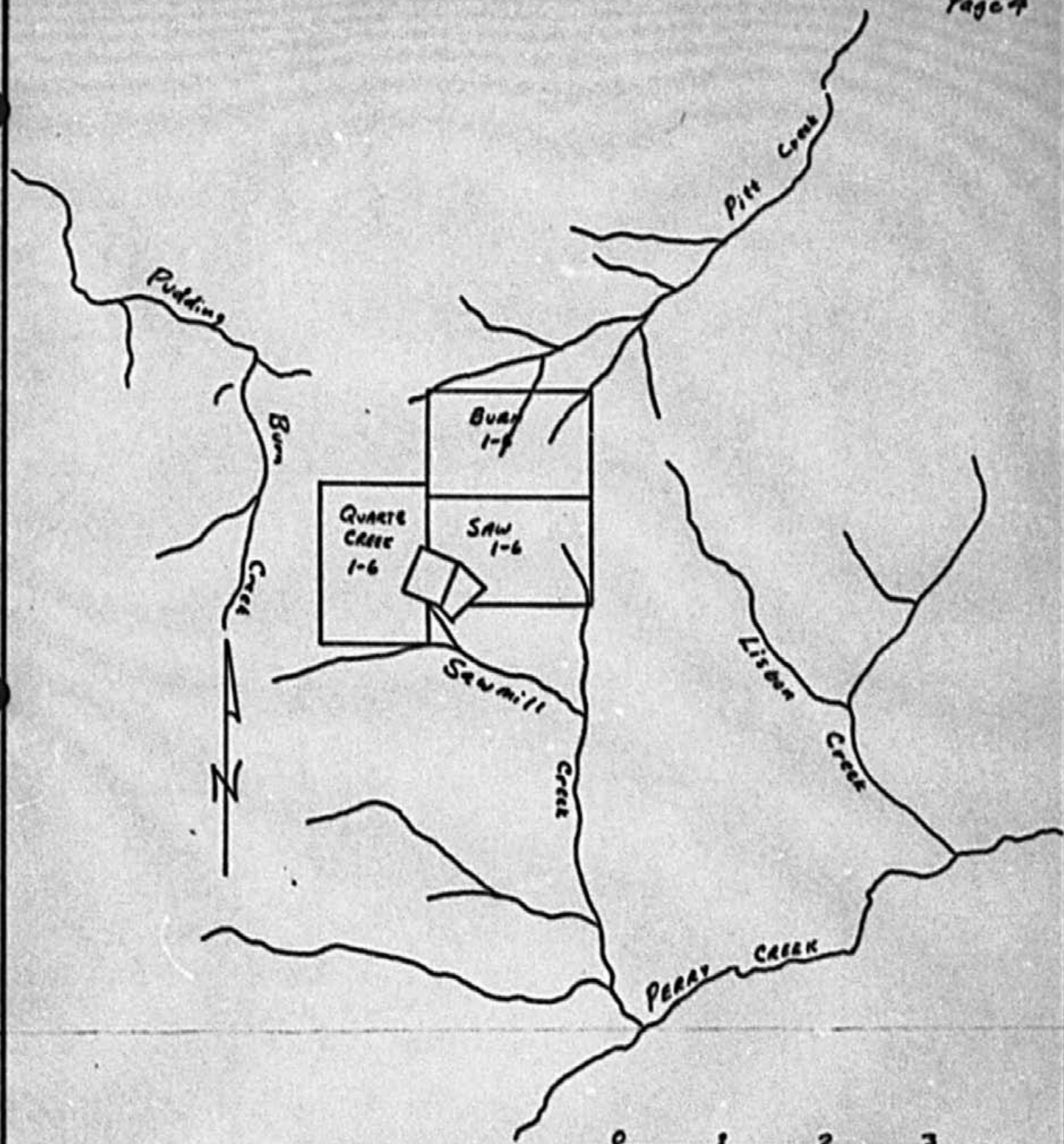
1.40 Property

The Burn group includes 18 2-post claims staked in 1990 and 1991 (Fig. 2):

Claim Name	Title Number	Date Staked	Due
Quartz Creek 1	212115	90-10-19	1993
Quartz Creek 2	212116	90-10-19	1993
Quartz Creek 3	212117	90-10-19	1993
Quartz Creek 4	212118	90-10-19	1993
Quartz Creek 5	212119	90-10-19	1993
Quartz Creek 6	212120	90-10-19	1993
Saw 1	300075	91-05-15	1993
Saw 2	300076	91-05-15	1993
Saw 3	300077	91-05-15	1993
Saw 4	300084	91-05-15	1993
Saw 5	300086	91-05-15	1993
Saw 6	300087	91-05-15	1993
Burn 1	301768	91-06-15	1993
Burn 2	301769	91-06-15	1993
Burn 3	301770	91-06-15	1993
Burn 4	301771	91-06-15	1993
Burn 5	301772	91-06-15	1993
Burn 6	301773	91-06-15	1993

1.50 Purpose of Survey

In 1991 a program of prospecting, rock geochemistry and reconnaissance geophysics was undertaken to evaluate the Burn claim group for shear zone hosted lode gold mineralization. The claims cover part of a very extensive northeast oriented gold-mineralized belt within which gold and base metals have been introduced in association with oxidizing Cretaceous felsic intrusives. Thus other features of significance were prospected for, along with evidence of shear zone activity.



Km
Scale 1:50,000
NTS 82 F/9E

Figure 2. Burn Group Claim Map

2.00 GEOLOGY

The area of the Burn claim group is cut by the major ENE oriented St. Mary Fault which separates younger Creston Formation siltstones on the south from older Aldridge Formation siltstones to the north. The fault is a complex feature in the claim area and has probably influenced younger northeast structures which are more directly related to the gold mineralizing process. The resultant product is an extensively brecciated and altered package of rocks with both northeast and ENE structures.

The Precambrian Purcell Supergroup Aldridge and Creston Formation rocks have been intruded by Precambrian age diorite and gabbro composition sills and dikes of the Moyie Intrusions. Locally these are magnetic, apparently due to an overprinting effect of the oxidizing Cretaceous felsic intrusives which are present in the area.

3.00 PROSPECTING AND ROCK GEOCHEMISTRY

The 1991 prospecting program on the Burn claim group centered on two areas, one near the Kimberley Goldfields prospect and one on the Burn claims in the vicinity of an aeromag anomaly and potentially 'on strike' to the northeast of the Kimberley Goldfields prospect.

A number of rock samples were collected as part of the prospecting program. These were shipped to Acme Analytical Laboratories in Vancouver and analyzed for a 30 element ICP package and geochemical gold by standard analytical techniques. Figure 3 shows the location of rock samples collected, Figure 4 is a summary of the anomalous results, Appendix 1 provides descriptions of the rock samples and Appendix 2 gives the complete geochemical analyses.

Mineralization at the Kimberley Goldfields prospect is gold with galena and chalcopyrite, within a domal-shaped lens of quartz developed at the contact of sheared and altered Middle Aldridge Formation siltstones and a magnetic gabbro. Disseminated pyrite, hematite breccias and fine-grained syenitic intrusive material all exist within the trenched area of this prospect. Regionally, the deposit is considered to be along the St. Mary Fault structure although the presence of Aldridge rocks at the prospect suggests the fault is actually south of the trenched area.

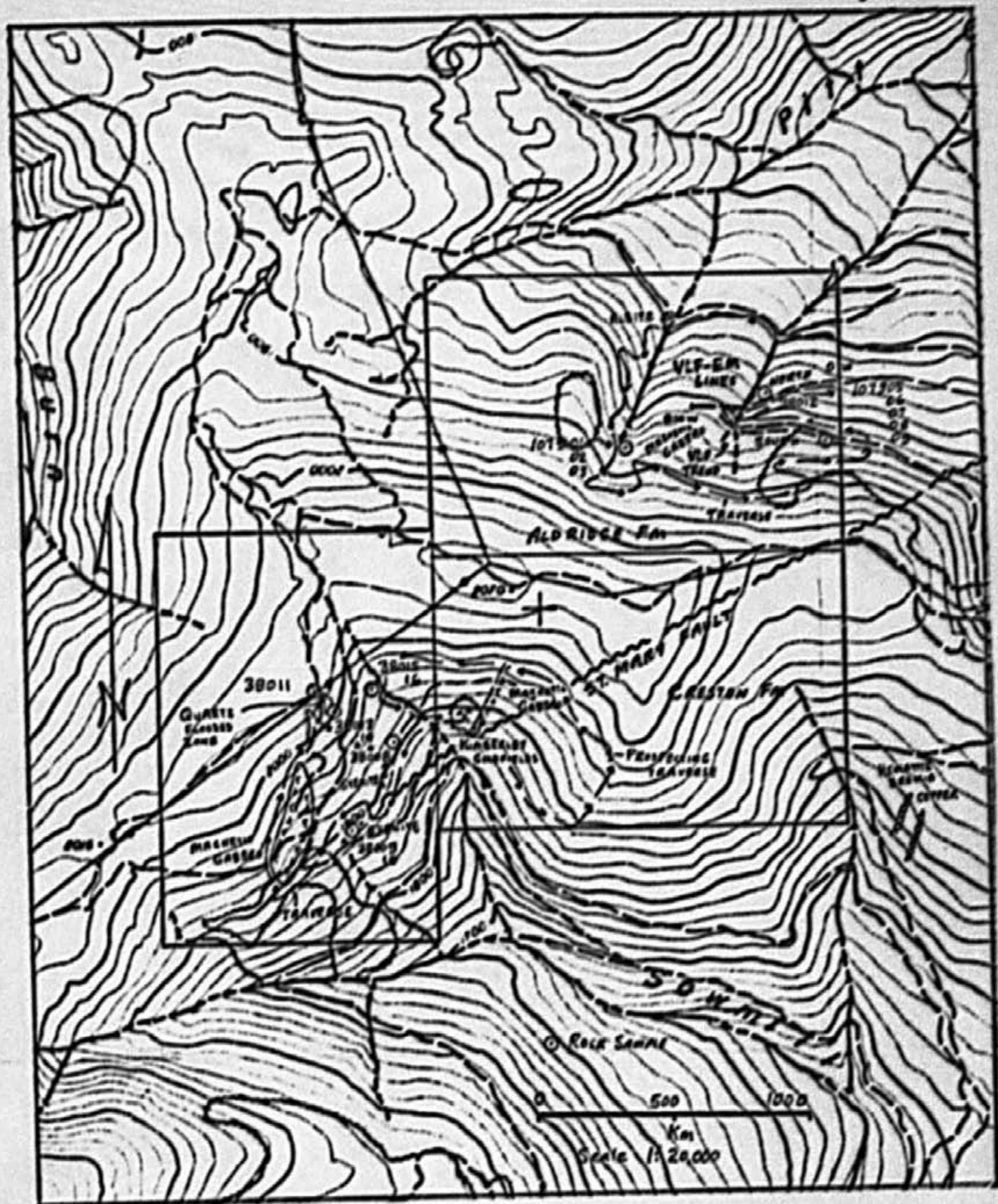


Figure 3. Prospecting and Rock Geochemistry Sample Location Map Showing Location of VLF-EM Lines

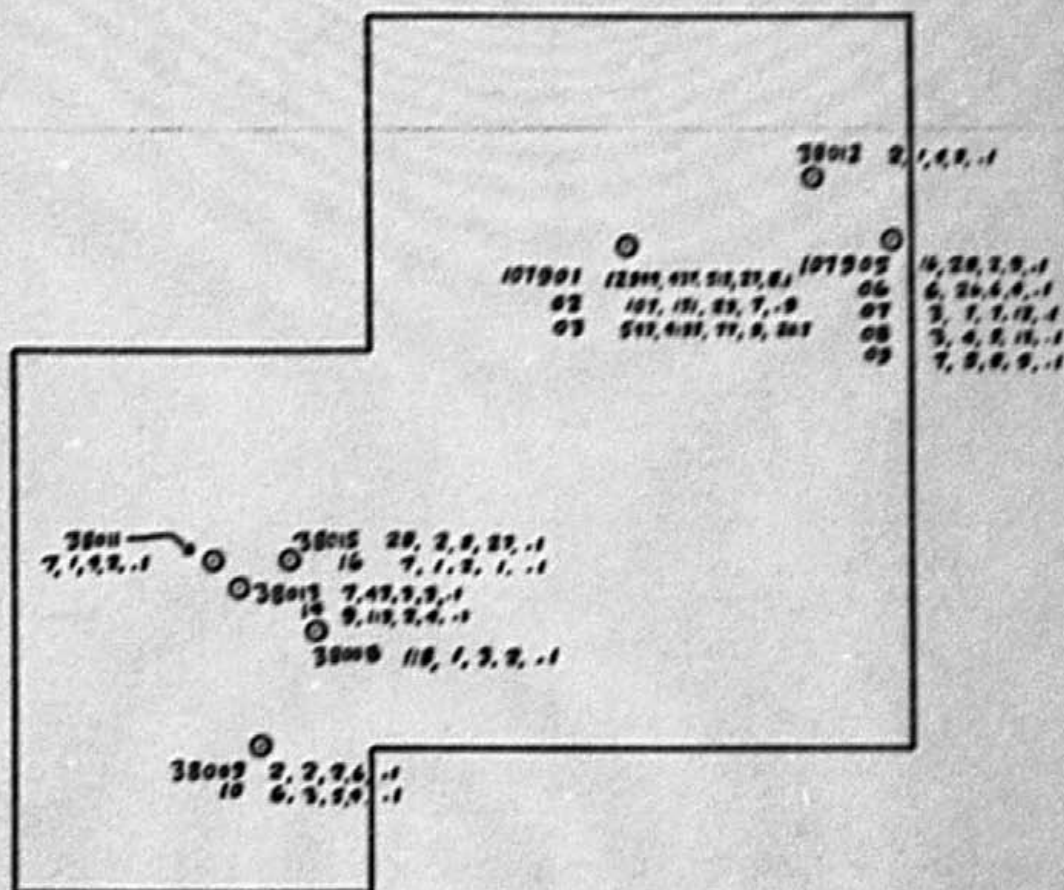


Figure 4. Rock Geochemistry
 Values for Au (ppb), Cu, Pb, Zn and Ag (ppm)

3.10 Kimberley Goldfields Area

Traversing west of the Kimberley Goldfields trenches, the bedrock includes chloritic altered quartz vein breccia zones, commonly with minor disseminated pyrite. Shearing in these rocks and immediately north of the trench area is northeasterly with steep west dips. A new logging road above and west of the trench area has exposed small gabbro bodies, chloritic altered sediments and narrow zones of brecciation with local hematite breccias. Southward along this road and approximately 150 meters southwest of the Kimberley Goldfields trenches is a long exposure of fine grained syenitic intrusive. Fine disseminated pyrite occurs within the syenite and locally there are narrow gray quartz veinlets. Sample 38008 is from this exposure (118 ppb Au). Immediately south of this syenite exposure is an Aldridge Formation stratigraphic marker. This unit identifies the lithology as Aldridge Formation and requires the St. Mary Fault to be further to the south (and in turn the Kimberley Goldfields prospect thus appears to be entirely within Middle Aldridge Formation rather than on the fault trace).

Prospecting just to the northeast of the road exposure of syenite detected a series of small bedrock exposures of similar material. Although outcroppings are not extensive, the impression is one of a northwest alignment of syenite, suggesting a northwest structure in this area. The structural fabric is all northeasterly, however, and if a syenite-controlling structure exists here it may be an earlier fault. Additional prospecting along the road to the south in fact discovered more syenite in association with quartz breccia and chloritic alteration. Two samples from this locality, 38009 and 38010 had no anomalous values.

Further prospecting uphill of the first syenite exposure located a very large quartz flooded zone above an old cabin near a small creek. This zone is approximately 500 meters west of the Kimberley Goldfields trenches and appears generally similar to a large quartz flooded zone discovered by Chapleau Resources Ltd. in 1988 on the Cranbrook Fault about 13 kilometers to the southeast. The zone is mainly massive crystalline quartz with minor inclusions of intensely altered sedimentary wallrock. Pyrite is common although not abundant. A series of old trenches have explored this zone but they have not exposed it very well and they may have been dug primarily to sample the material. The trenches do little to help understand the physical configuration of the quartz flooded zone or its size. Peripheral to the main zone, local sheared zones were seen (similar to the David Shear which occurs about 23 kilometers to the south). One sample of this sheared material, 38014, has 25.7% Fe and 119 ppm Cu. Other samples from this area are 38013 of the quartz flooded zone (43 ppm Cu) and 38015, hematite breccia float from near the cabin with 28 ppb Au and 38016 of hematite breccia from a small bedrock exposure on the road leading to the cabin.

Prospecting of this area ended with a reconnaissance traverse of the power line roads on the ridge above the quartz flooded zone. One float sample of massive specular hematite and quartz was collected, 18011. This sample shows elevated Vanadium and Tungsten which probably reflects an intrusive influence in the deposition.

In summary, there is considerable alteration and complexity of structure in the Kimberley Goldfields area of the Burn group. Some evidence exists to support a northwest oriented control on mineralization and associated alteration. Such a structure could be controlling Price's Pit to the south, Kimberley Goldfields and the newly rediscovered quartz flooded zone.

3.20 Burn Claims

Prospecting on parts of the Burn claims is hampered by thick forest growth. A regional aeromagnetic anomaly detected by a Federal Government survey in the early 1970's was the first area prospected. This anomaly occurs approximately 'on strike' northeasterly of the Kimberley Goldfields prospect but it is north of the St. Mary Fault and thus within Aldridge stratigraphy. The St. Mary Fault is an early structure but is known to host gold bearing quartz veins. Thus an inferred northeast structure and the existing St. Mary Fault could coincide near the magnetic anomaly. Such a structural intersection should be a favourable place for mineralizing fluids to be concentrated.

Most of the bedrock seen in the area of the mag anomaly is relatively unaltered non-magnetic gabbro. Bedrock exposures are sparse. Some sedimentary rock was seen, it tends to be unaltered thinly bedded gray-black siltstone. Narrow quartz veins with platy specular hematite occur with some of the sedimentary rocks. Near the heart of the aeromag anomaly a quartz float train was found. One fragment of this material was seen to carry a small speck of visible gold. Chalcopyrite, malachite hematite and pyrite are also present. Three samples were collected, 107901, 2 & 3, with copper values up to 4193 ppm, silver to 20.7 ppm and gold to 12,944 ppb. An exposure of gabbro a short distance northwest of the quartz float train is cut by a number of northeast trending white bull quartz veins. This suggests a northeast structural control to the gold-mineralized quartz.

Further work in the immediate area, both uphill and downhill of the quartz float proved futile as no other bedrock or interesting float was seen - overburden appears to be quite thick here.

Some distance downslope, an accumulation of albitic altered siltstones was seen. This may be part of the system alteration.

Prospecting along roads east of the mag anomaly discovered a zone of shearing and silicification near the eastern boundary of the Burn claims. A narrow gabbro dike occurs within the structure; altered sheared sediments occur on both sides. The zone of shearing and silicification is at least 10 meters wide and has a northeast strike. Narrow zones of hematite breccia are present. Five samples were collected at this locality (107905 - 9), with some weak copper and gold values.

Sample 38012 is a float specimen of hematite breccia collected during the reconnaissance geophysical survey of the Burn claim roads.

In summary, prospecting on the Burn claims has successfully located an interesting gold occurrence and has established the presence of strong northeast structures.

4.00 GEOPHYSICS

Two areas of the Burn claim group, where gold mineralization was known to exist, were tested with a reconnaissance VLF-EM survey to establish if conductors were present in the area. A magnetometer survey was done in conjunction with the VLF-EM survey on the Burn claims. In total, 5.3 line-kilometers of VLF-EM surveying were completed and 1.5 kilometers of magnetic surveying were done. Station spacing was 25 meters for all of the survey lines.

A Crone Radem VLF-EM unit manufactured by Crone Geophysics Limited of Mississauga, Ontario was used for the survey. Seattle, Washington (24.8 KHz) was used as a transmitting station for the Burn claims survey while Cutler, Maine (24.0 KHz) and Annapolis, Maryland (21.4KHz) were used for the Kimberley Goldfields area survey.

A Geometrics model G816 portable proton precession magnetometer capable of detecting magnetic variations of one gamma was used for the magnetic survey. Repeat readings were taken along the traverse after individual segments were completed, to allow correcting for diurnal variation.

4.10 Kimberley Goldfields Area

G.M. Rodgers spent two days doing reconnaissance VLF-EM surveying in the Kimberley Goldfields area. The survey hoped to establish a controlling structure for the mineralization and alteration in the area. The survey lines are shown on Figure 5 and Figures 6a, 6b and 6c show VLF-EM profiles of those lines.

A number of weak responses were detected. Lines IV and V show an easterly oriented response near 225S. Another, possible northeast response can be seen on Line III at 0 to 75N and on Line IV at 0N. This northeast response may be present also on Lines 4 and 5 in the 0 to 75W region but is not seen on Line 6.

The St. Mary Fault occurs somewhere just south of the survey area. This fault appears to be a complex structure in the area with a large breccia and alteration zone. Any structures present may be too broad to be effectively detected by VLF-EM surveying.

4.20 Burn Claims

One day was spent by P. Klewchuk on the Burn claims running two road traverses across the regional northeast structure in the vicinity of anomalous gold mineralization. Both VLF-EM and Mag were done. The survey lines are shown on Figure 3 and profiles are on Figure 7. Near the western switchback on both roads, a moderate VLF-EM response was detected. This coincides with the shoulder of a magnetic zone to the west which may be caused by magnetite in gabbro. The two VLF-EM responses in plan define a northeast conductor. As this is the regional structure, it may be due to a mineralization-controlling structure or to shearing along the gabbro contact. Given that significant gold mineralization has been found nearby, this VLF-EM anomaly should be detailed and possibly trenched and sampled.

Near the east edge of the Burn claims a small VLF-EM response was detected coinciding with a silicified shear zone that includes a small magnetic gabbro dike and narrow zones of hematite breccia. A weak, subtle mag high in the vicinity of this VLF-EM response may be due to the gabbro or the hematite breccia. This anomaly also warrants some detailed follow-up.

5.00 CONCLUSIONS

Prospecting on the Burn claim group has identified an extensive zone of alteration and brecciation with localized gold mineralization. Given the extent of the alteration and the considerable amount of overburden cover on the property, further work should be done to evaluate opportunities for economic mineralization.

Geophysical surveying using VLF-EM and Magnetometer instruments has detected anomalous responses worthy of detailed follow-up work. As these responses occur near newly-discovered gold mineralization they are of particular interest.

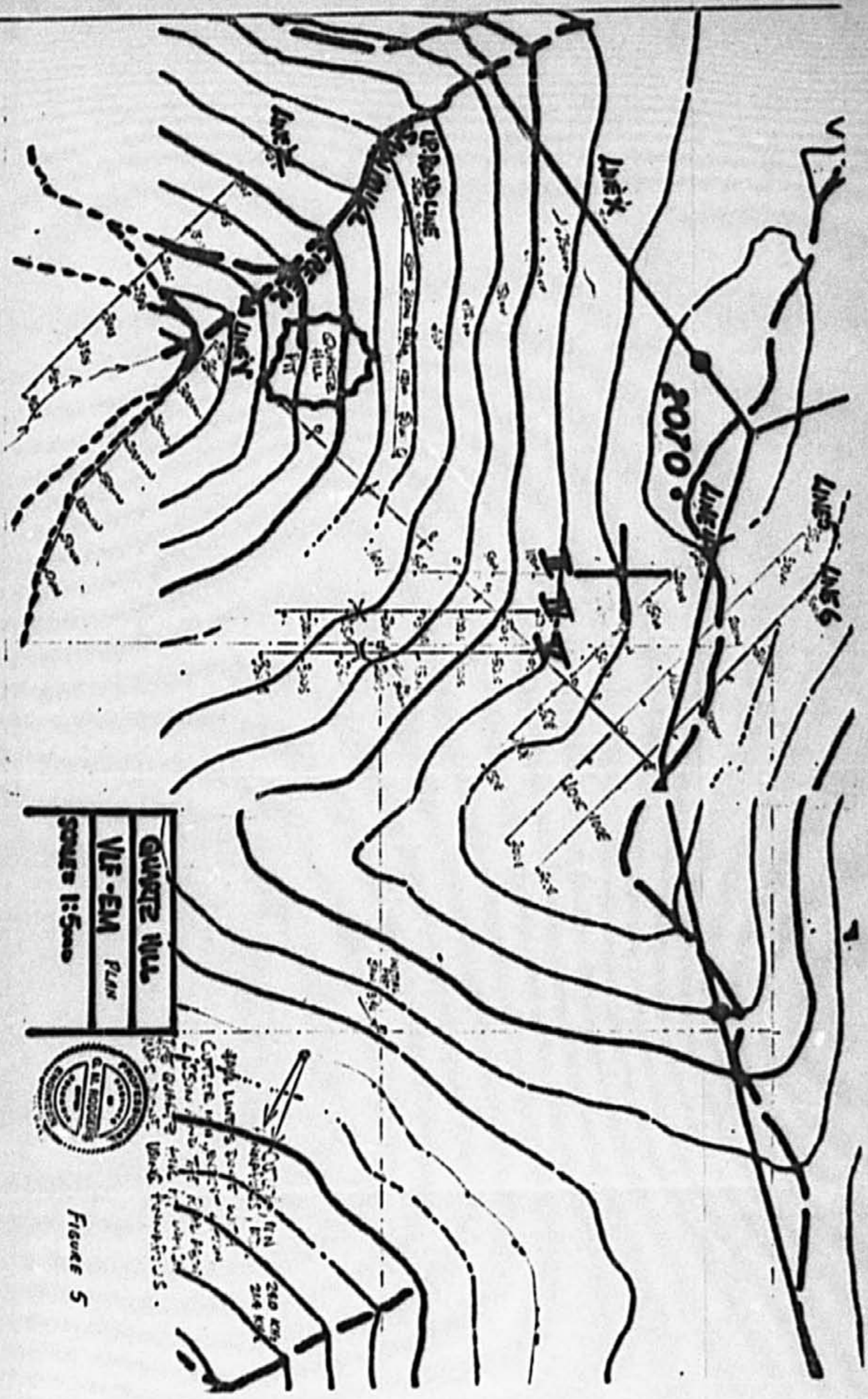


Figure 5

VLF PROFILES
QUARTZ HILL

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(1cm = 25m)

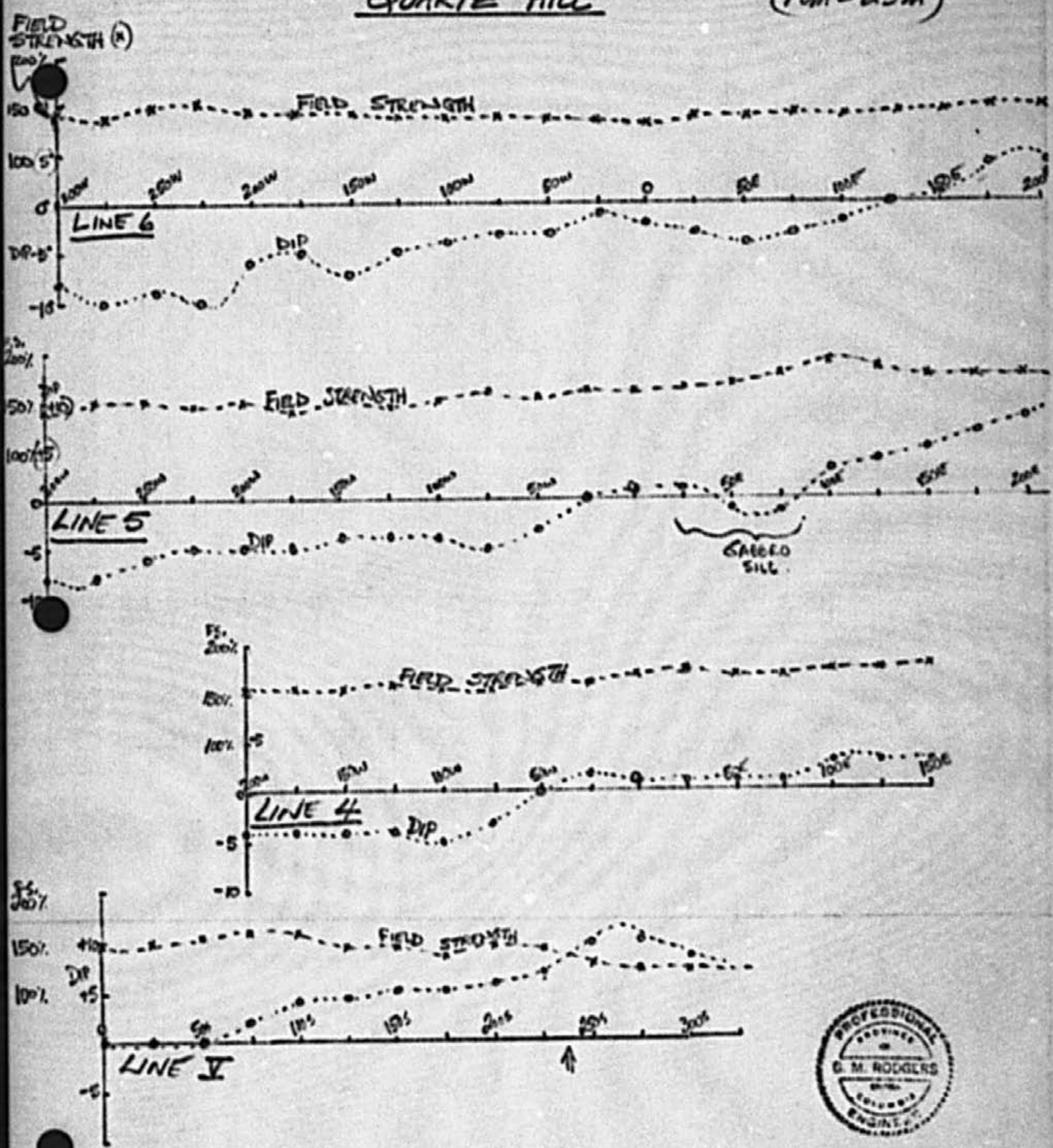


FIGURE 6a
SOUTH BURN GROUP
VLF-EM PROFILES

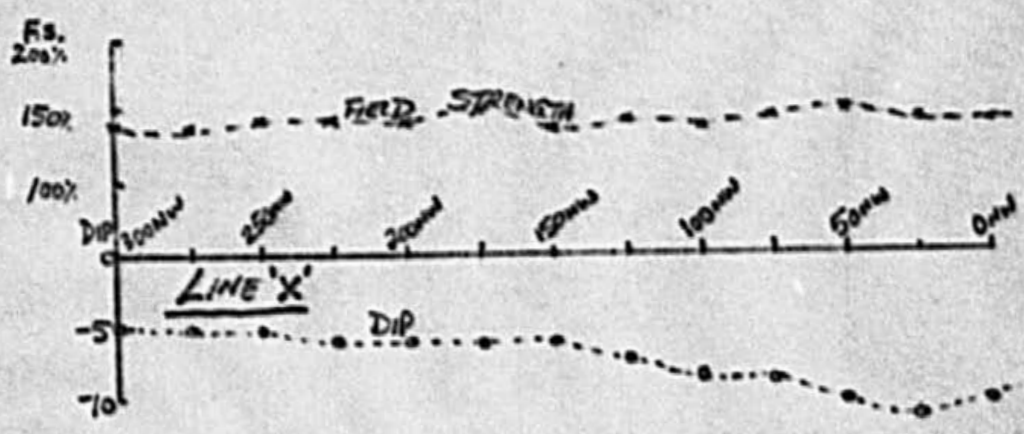
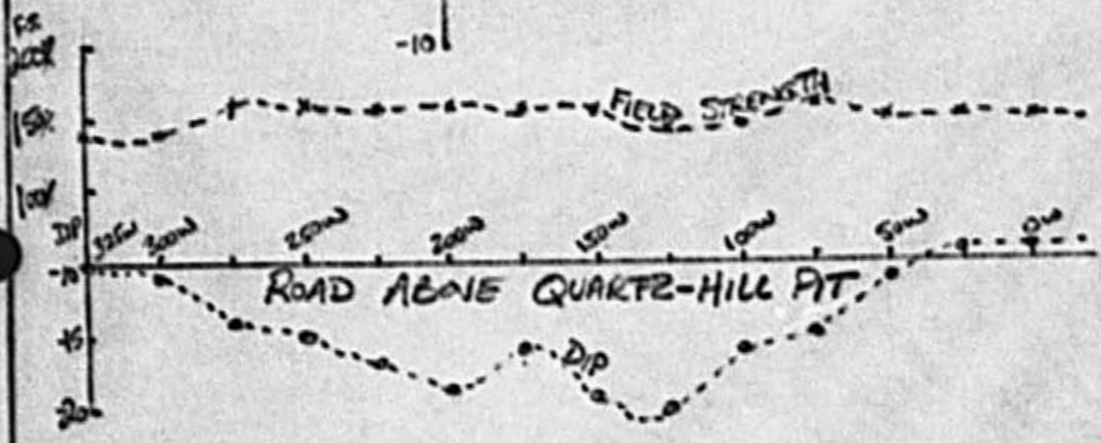
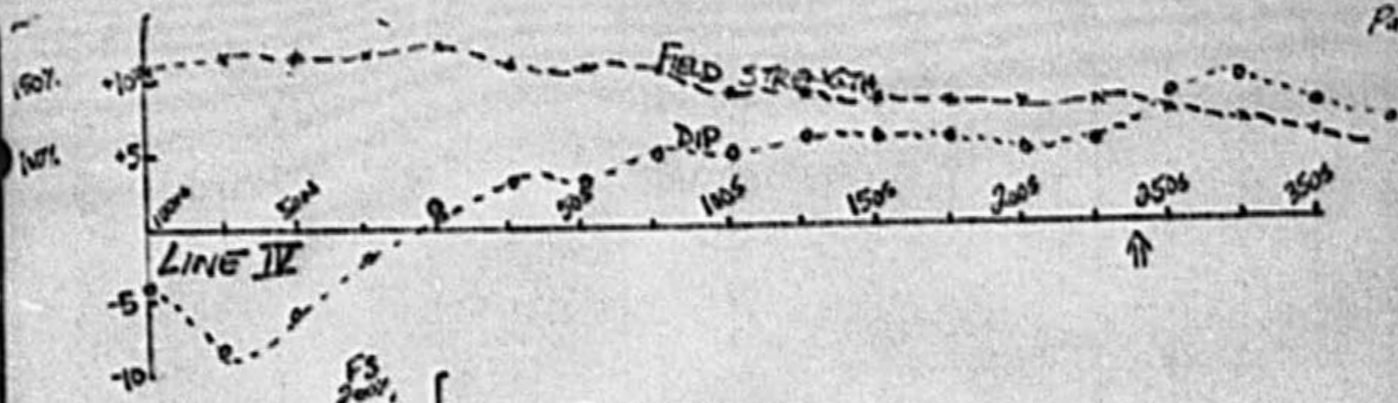


Figure 6b
SOUTH BURN GROUP
VLF-EM PROFILES



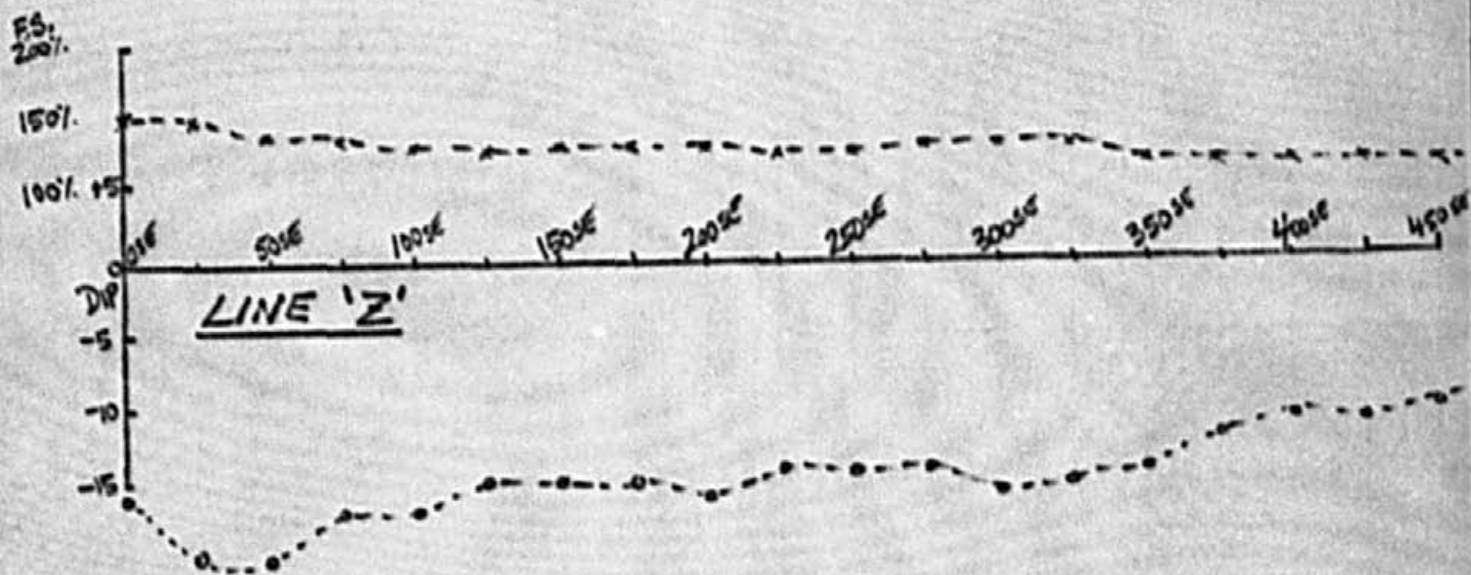
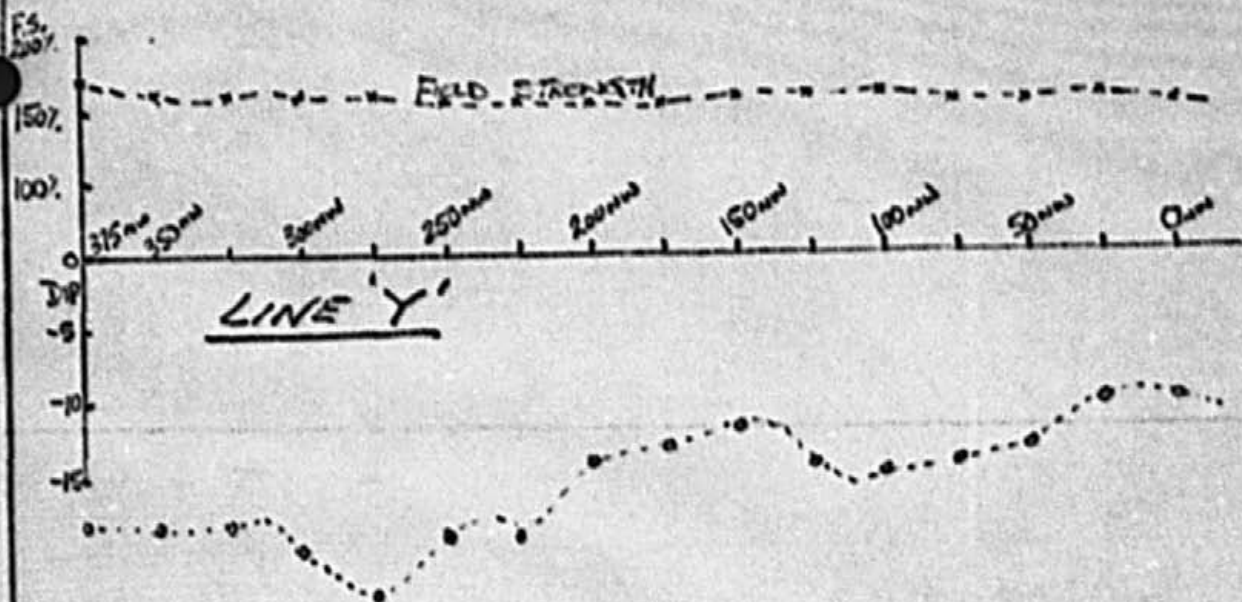


Figure 6 c
 SOUTH BURN GRAVE
 VLF-EM PROFILES

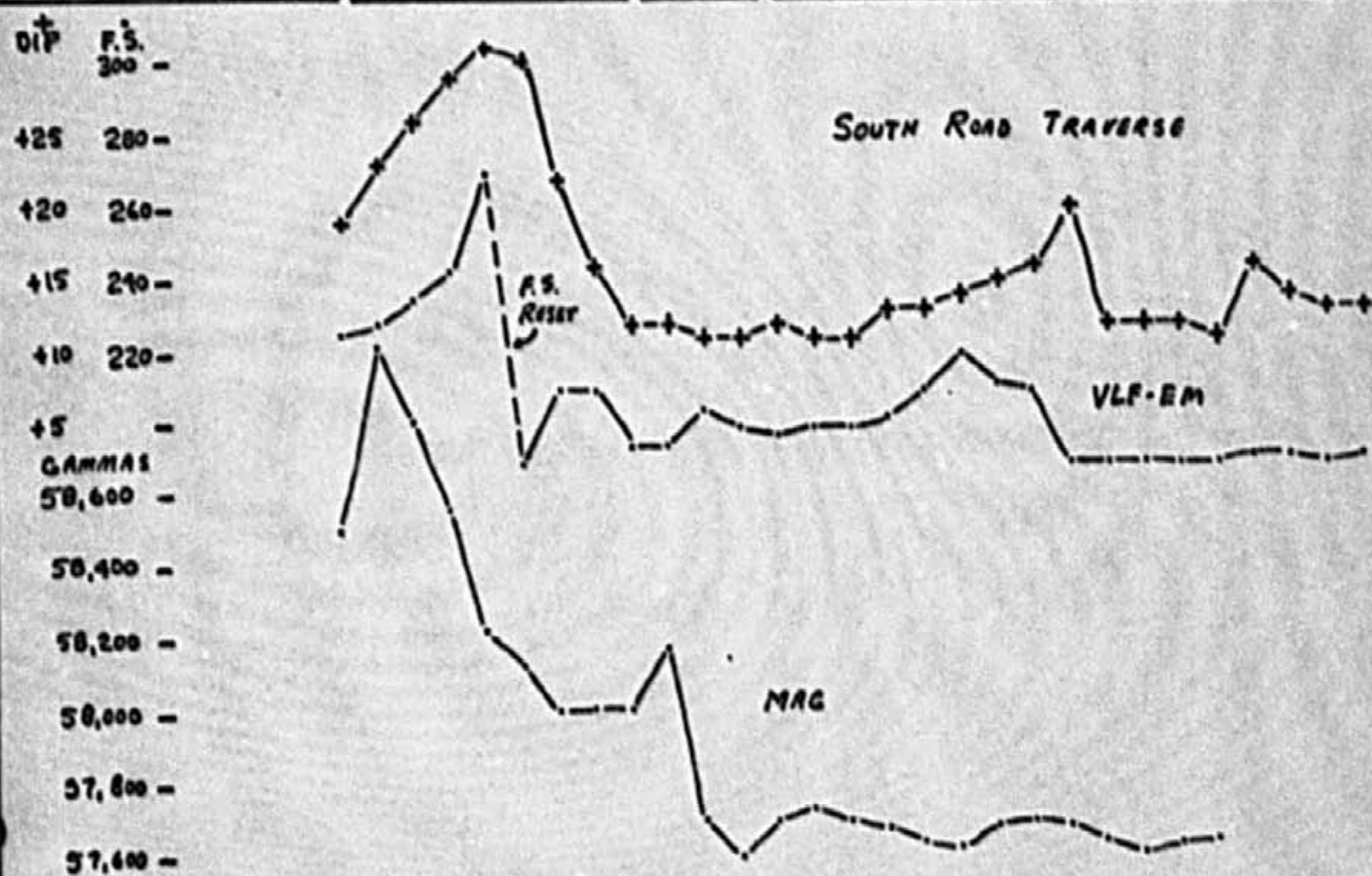
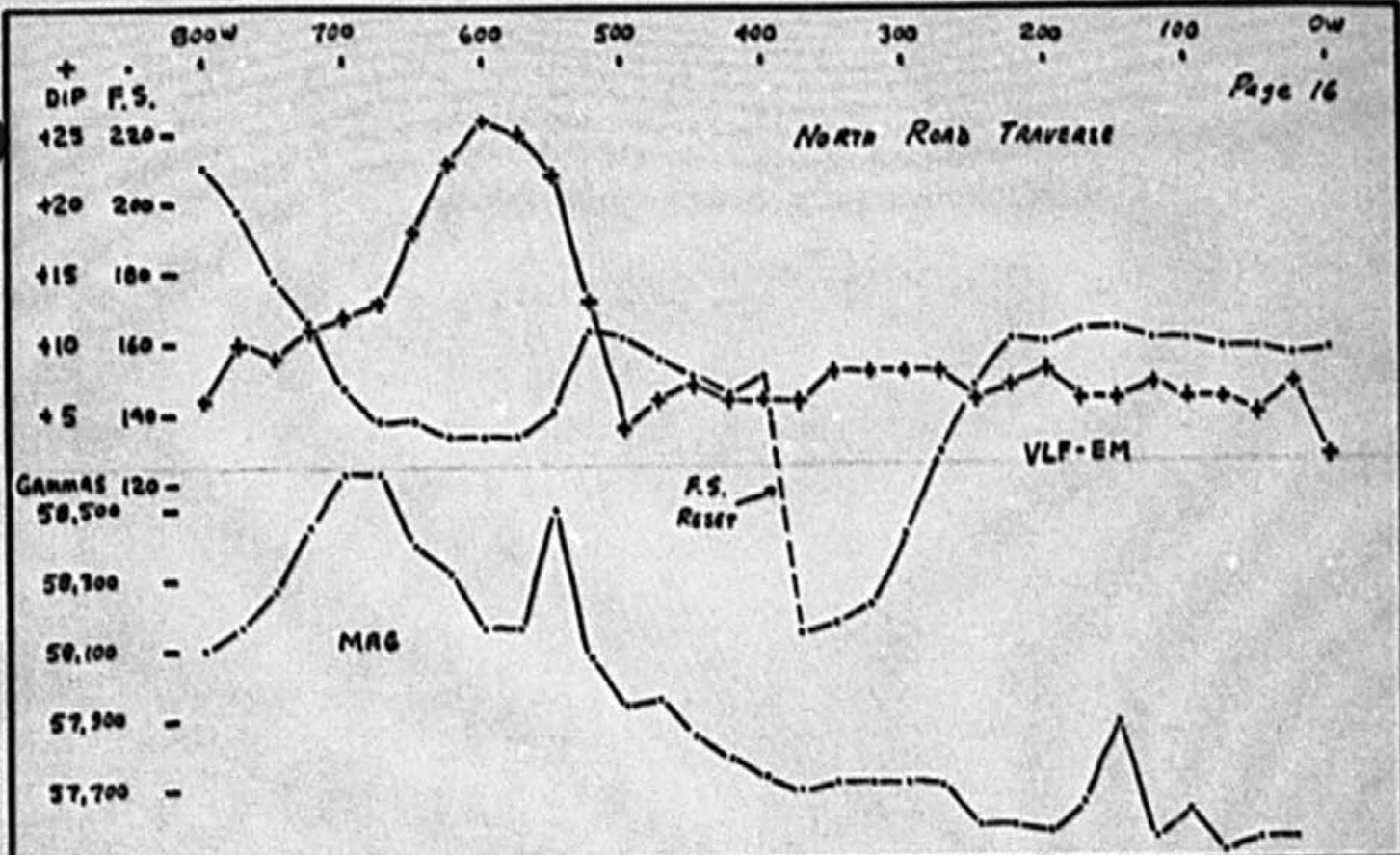


FIGURE 7 VLF-EM & MAGNETOMETER PROFILES
BURN CLAIMS NORTH & SOUTH ROAD TRAVERSES

STATEMENT OF EXPENDITURES

Prospecting 4 days @ \$225.00/day	\$900.00
Geophysics 3 days @ \$225.00/day	675.00
Truck Rental 6 days @ \$50.00/day	300.00
VLF-EH and Mag Rental 4 days @ \$25.00/day	100.00
Geochem Analyses 17 samples @ \$15.50/sample	263.50
Report and Drafting 3 days @ \$225.00/day	675.00

TOTAL EXPENDITURE

\$2913.50

7.00 AUTHOR'S QUALIFICATIONS

As author of this report I, Peter Klewchuk, certify that:

1. I am an independent consulting geologist with offices at 246 Moyle Street, Kimberley, British Columbia.
2. I am a graduate geologist with a BSc degree (1969) from the University of British Columbia and an MSc degree (1972) from the University of Calgary.
3. I am a Fellow in good standing of the Geological Association of Canada.
4. I have been actively involved in mining and exploration geology, primarily in the province of British Columbia, for the past 18 years.
5. I have been employed by major mining companies and provincial government geological departments.

Dated at Kimberley, British Columbia, this 10th day of January, 1992.

Peter Klewchuk

Peter Klewchuk
Geologist

CERTIFICATE

I, Glen M. Rodgers of Skookumchuck, Province of British Columbia, hereby certify as follows:

-I am a consulting geologist presently registered with the Association of Professional Engineers of British Columbia.

-I graduated from the University of Manitoba in 1977 with a bachelors degree in Geological Engineering.

-I have practised my profession continuously since graduation in British Columbia, Yukon Territory, Alaska and Mexico working primarily in the field of mineral exploration.

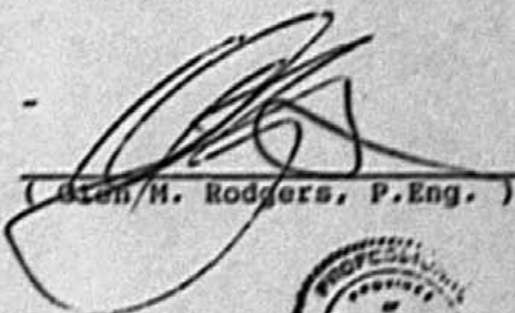
-I am a principal of Kootenay Geo-Services, a proprietorship registered in Victoria, British Columbia. The office and records of Kootenay Geo-Services are located at Sheep Creek Road, P.O. Box 63, Skookumchuck, B.C., V0B 2E0.

-I have based this report on personal observation and experience while working as geologist for Chapleau Resources Ltd. during 1991.

-I have held shares in Chapleau Resources off and on but never more than 16,000 shares.

-I consent to the use of this report by Chapleau Resources Ltd. for whatever purposes they deem necessary.

November 30, 1991


(Glen M. Rodgers, P.Eng.)



Appendix 1 Description of Rock Samples

Sample Number	Description
38008	Grab of fine grained syenite with coarse and fine disseminated pyrite, and gray crystalline quartz veins
38009	Grab of brecciated syenite mixed with chloritic breccia
38010	Grab of quartz vein breccia with leached pyrite
38011	Massive specular hematite and crystalline quartz. Float from ridge above quartz flooded zone
38012	Hematite breccia float off road on Burn claims
38013	Quartz from large zone, with limonite
38014	Sheared quartz, very strongly limonitic
38015	Hematite breccia float near cabin
38016	Hematite breccia, narrow zone in roadcut
107901	Vuggy quartz, limonitic. Part of sample with small fleck of visible gold
107902	Float quartz, hematite and limonite
107903	Float quartz, hematite, limonite and chalcopryite
107905	Hematite breccia, bedrock
107906	Float quartz with limonite and hematite
107907	Float quartz with chloritic quartz breccia
107908	Float magnetic hematite breccia
107909	Altered hematite breccia, in place

GEOCHEMICAL ANALYSIS CERTIFICATE

Chalco Res. Ltd. PROJECT QUARTZ CREEK File # 91-5241

617 - 35 Ave St., Vancouver BC V6C 2T7



SAMPLE	ELEMENTS										ELEMENTS																			
	As	Co	Cr	Cu	Fe	Mn	Ni	Pb	Sb	Zn	Ag	Al	Ca	Cd	Cl	Fluoride	Hg	K	Mg	Mo	Na	Ni	P	Se	Ti	V	W	Zn		
100000
100001
100002
100003
100004
100005
100006
100007
100008
100009
100010
100011
100012
100013
100014
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100016
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100020

ALCO ANALYTICAL LABORATORIES LTD. VANCOUVER, B.C. CANADA
 THIS CERTIFICATE IS VALID ONLY IF THE SAMPLE IS IDENTIFIED BY THE ANALYST'S SIGNATURE AND THE ANALYST'S NAME IS PRINTED ON THE CERTIFICATE.
 THE ANALYST'S SIGNATURE IS A NECESSARY PART OF THIS CERTIFICATE.

DATE RECEIVED: 02 05 1991
 ANALYST: *Outcrop*
 CHECKED BY: *C. King*