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# ASSESSMENT REPORT

# **GEOPHYSICS AND TRENCHING**

## ON THE

## MCCARTHY PROPERTY

# KAMLOOPS MINING DIVISION

LATITUDE 51° 32' LONGITUDE 120° 06'

NTS: 92P/9E

OWNER: Martin Peter

OPERATOR:

Teck Exploration Ltd

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R. Farmer, P. Geo.

June, 1993

GEOLOGICAL BRANCH ASSESSMENT REPORT

22,916

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### SUMMARY

The grid was expanded and a magnetic survey run on the South Grid. The survey was carried out to followup a magnetic anomaly identified in 1992 which demonstrated similarities to the magnetic response associated with sulphide mineralization on the Main Grid. The main anomaly was not significantly extended and remains as two parallel magnetic highs separated by a pronounced magnetic low. The strike extent is 200 metres as defined by the 750 gamma contour. Two other anomalies were identified by the survey. The first consists of two adjacient, small circular responses along line 90+00N, and the second is a narrow, north trending anomaly 350 metres in length extending from L91+00N to L87+50N and open to the south. Outcrop or locally derived float are not present in the area of the anomalies.

A total of nine trenches and test pits were dug, three on the Main Grid and six on the South Grid. The trenches on the Main Grid tested zones of ferricrete development identified in 1992, known mineralization at the Kerr Addison Showing and Self Potential anomalies from a small survey which is not included in this report or filed as assessment. Trenches and test pits on the South Grid tested the magnetic anomalies and a weak SP anomaly.

On the Main Grid Trench E identified a two metre thick semi-massive pyrite zone as the source of ferricrete development. Significant base or precious metal values are not associated with the mineralization. Trench F tested the Kerr Addison Showing, however only minor disseminated pyrite and pyrrhotite were uncovered. A test pit on a SP anomaly failed to reach bedrock.

On the South Grid the anomaly of main interest was tested with two trenches (G and H). Trench G uncovered only one metre of rock which may or may not be bedrock which did not carry sufficient mineralization to explain the magnetic response. Trench H tested the eastern magnetic high on the same trend as trench G and uncovered a magnetic dyke of possible Tertiary age which is sufficient to explain the anomaly. The other magnetic anomalies were tested by trenches or test pits, however bedrock was not uncovered. A test pit on a weak SP anomaly on line 90+00N uncovered pyritic chert which is sufficient to explain the anomaly, but did not contain significant base or precious metal values.

## RECOMMENDATIONS

1. Although several magnetic anomalies remain unexplained in the South Grid area, the overburden in the area is too deep to warrant any further attempt at trenching. Sufficient encouragement has not been attained to warrant drilling. An EM or IP survey could be undertaken to confirm a sulphide source to the magnetic anomalies. Due to the dissappointing results of the current program further work is not recommended.

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#### INTRODUCTION

During May 1993, an exploration program was carried out on the McCarthy Property south of Clearwater, B.C. The purpose of the program was to search for massive sulphide mineralization. The current program is a follow up to exploration carried out by Teck Exploration Ltd in October and November, 1992, and to work carried out by the owner, Martin Peter, in 1992.

The exploration program included establishing a grid, a grid controlled magnetometer survey and trenching carried out on the South Zone, as identified in 1992.

This report will describe the work done and present an interpretation of the results.

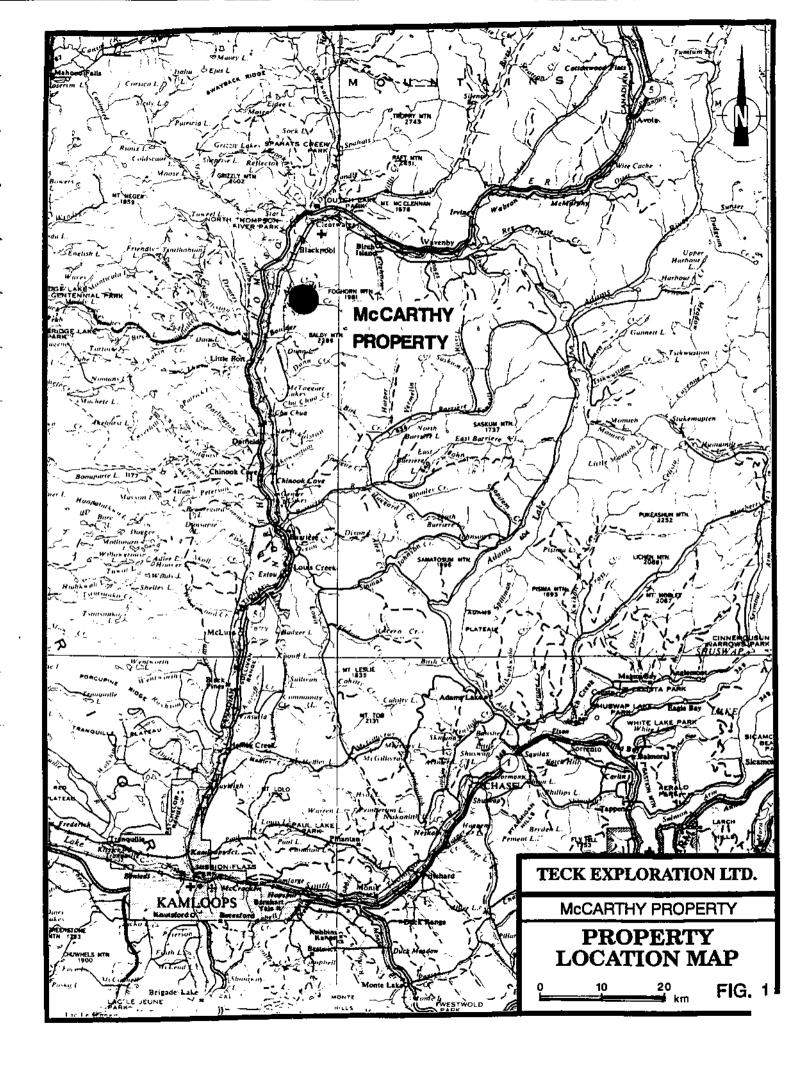
### LOCATION AND ACCESS

The McCarthy Property is located approximately 20 kilometres south of Clearwater B.C. (figure 1). Access is gained by following the Dunn Lake road for twenty kilometres south of Clearwater, then turning left onto the McCarthy Mountain microwave tower road. The western boundary of the property is approximately two kilometres along this road. The main area of exploration described in this report is a further 1.0km along the road and approximately 500 metres south of the road. A one kilometre long trail was constructed to access the area for trenching and is not driveable by 4x4.

The claims lie along the lower portions of the main west-sloping ridge, east of the North Thompson River. Elevations on the property vary from 2900ft (885m) along the western boundary, to 4000ft (1200m) along the east boundary. Topography is moderately steep, and occurs as a series of steps and benches. Most of the property has been selectively logged of conifers sometime in the past, leaving a relatively open forest of birch and poplar, with moderate to thick alder undergrowth.

### CLAIMS

The property is comprised of the McCarthy 1-4 claims for a total of 33 units (figure 2). Teck Corporation is the current registered owner of the claims. A summary of claim statistics is presented below.



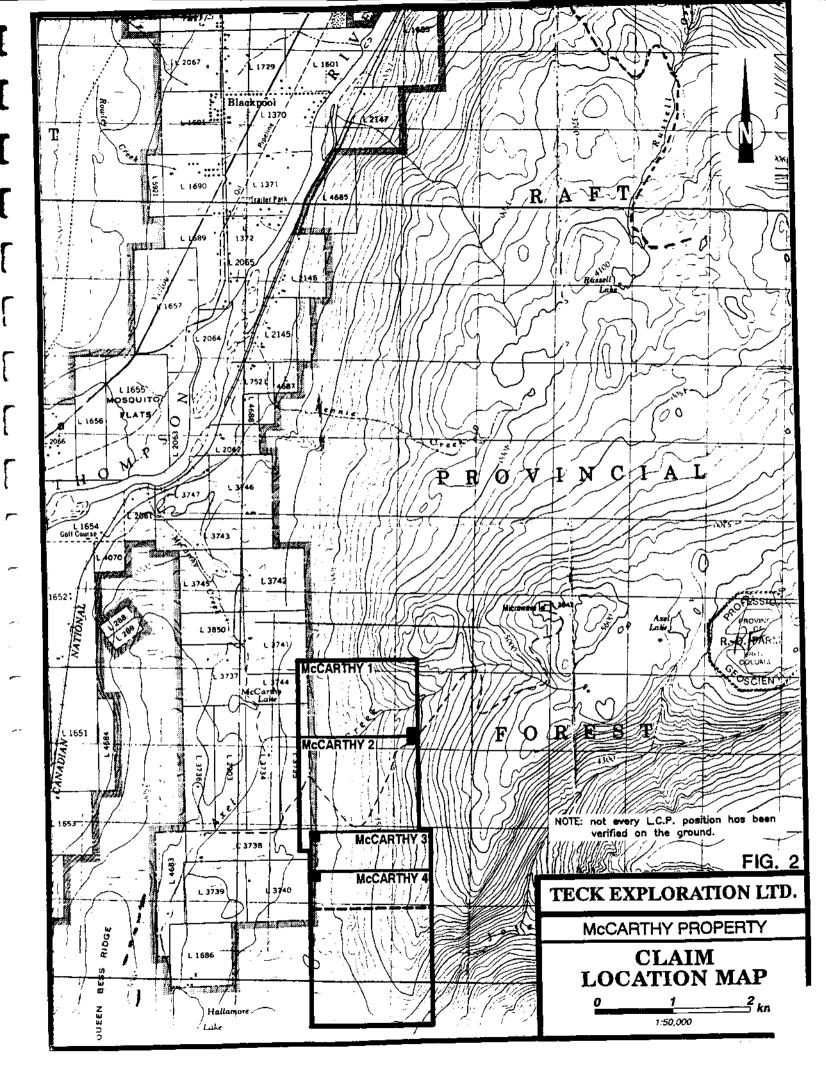


	TABLE 1: CLAIM STATISTICS				
CLAIM NAME	RECORD NUMBER	NUMBER OF UNITS	OWNER	EXPIRY DATE*	
McCarthy 1	311484	9	Teck Corporation	June 26/99	
McCarthy 2	311485	6	Teck Corporation	June 26/99	
McCarthy 3	311845	6	Teck Corporation	August 1/99	
McCarthy 4	315750	12	Teck Corporation	Feb. 18/94	

### Total: 33 Units

\* Expiry Date Based on Acceptance of this Report

\* Grouped as the McCarthy Group

### **PREVIOUS WORK**

In 1979 Craigmont flew a Dighem III survey covering all of the Fennell Formation between Barriere and Clearwater, B.C., including the McCarthy claims area.

During 1988 Kerr Addison Mines Ltd carried out a prospecting and rock sampling program in the Joseph Creek area and this program covered part of the area presently covered by the McCarthy Claims. This program discovered a showing of stringer and fracture fill Py-Po-Cp in what is now the Main Grid area of the McCarthy property.

In 1992 the property owner, Martin Peter, established a grid and carried out a prospecting style magnetometer survey centered in the area of the Kerr Addison showing. Hand trenching of magnetic anomalies was then carried out which discovered massive sulphide mineralization, 50 metres north of the Kerr Addison showing.

In September, 1992 Teck Exploration optioned the McCarthy Claims and carried out a program consisting of detailed, grid controlled, magnetometer, soil and geological mapping surveys. Priority targets in the Main Grid area were trenched.

There is no record of any other exploration having been carried out in the area covered by the McCarthy Claims.

### 1993 PROGRAM

During May and early June 1993, Teck carried out a program consisting of; establishing a grid, a ground magnetic survey and trenching in the South Zone area. The purpose of the program was to define and test a magnetic anomaly identified on three short lines as part of the 1992 program. This anomaly is approximately 800 metres south of the Main Grid, along strike. An access trail approximately 1.5km long was established to facilitate trenching.

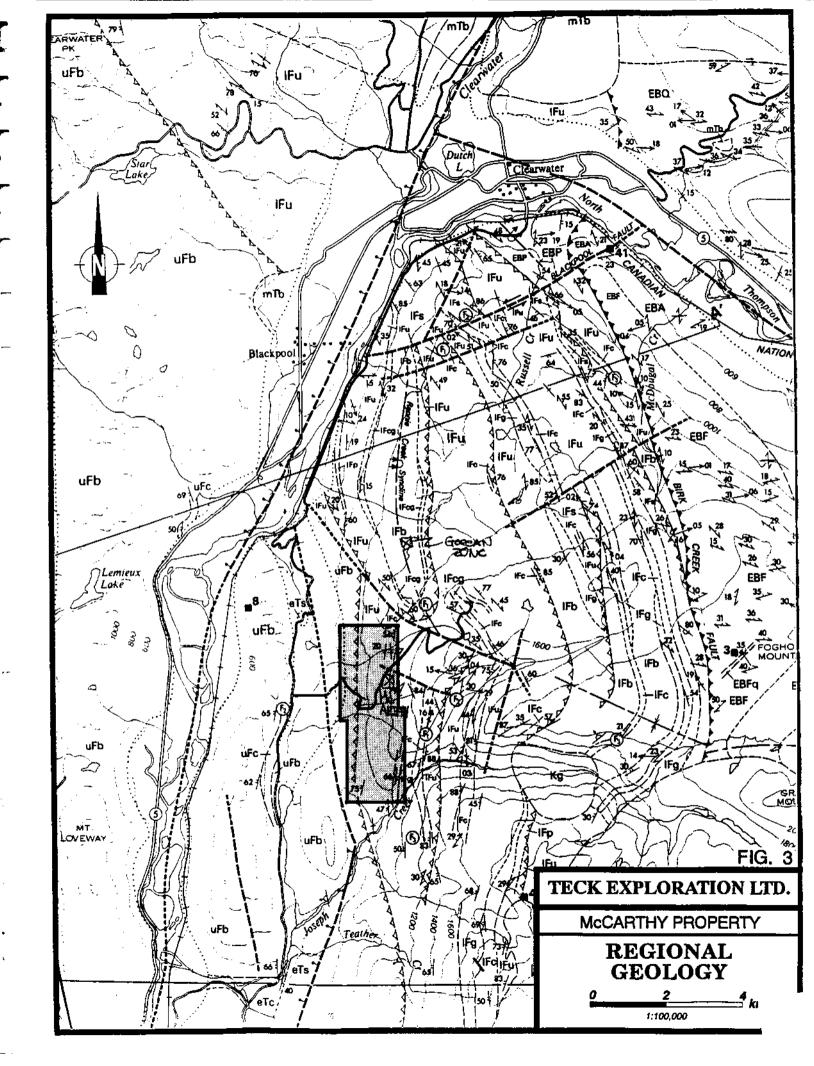
At the completion of the program described above the trenches and disturbed portions of the access trail were back filled and water bars constructed to prevent erosion. Disturbed areas were fertilized (13-16-10) and seeded (forestland mixture #1).

### **GRID PREPARATION**

A total of 3.3 line kilometres of lines and 0.3 line kilometres of baseline were established in the South Zone area, comprising, three lines each to the north and south of the short lines established in 1992, and 200 metre extensions to the east for each of the 1992 lines. Grid lines were spaced at 50 metre intervals, with stations established every 25 metres, utilizing compass and topofil chaining. Lines were corrected for slope using an inclinometer. Lines are flagged and stations marked on tyvex tags. The grid location is shown on figure 4.

## GEOLOGY

The best summary of the regional geology is provided by Schiarizza and Preto (1987). The claims area is underlain by rocks of the Mississippian-Permian Fennell Formation (figure 3). Dominant lithologies are massive to pillowed basaltic flows, with subordinate chert, argillite and conglomerate. The Fennell Formation is divided into upper and lower structural divisions, generally separated by a thrust fault. Cherts, argillite and



conglomerate are generally more abundant in the lower structural division. The boundary between the upper and lower divisions is mapped as passing through the center of the McCarthy Property and through the Main Grid area (Schiarizza and Preto, 1987). Figure 3 shows the McCarthy claims in relation to the regional geology as mapped by Schiarizza and Preto.

In the claims area massive, featureless basalt is the dominant lithology. Locally the basaltic rocks are coarse grained and likely represent dykes or sills, possibly feeders for overlying flows. Thin bedded chert is present locally, mainly in Axel Creek near the eastern claim boundary and in the south-central portion of the property. Based on the cherts, the stratigraphy generally strikes north-south and dips moderately to the east (30-50°). Local bedding dip reversals indicate folding, however insufficient data is available to interpret fold geometry.

Known mineralization to date is largely restricted to the Main Grid area and consists of disseminated and fracture fill pyrite and pyrrhotite within silicified basalt associated with a north-trending fault zone. Within the fault zone are pods (fragments?) of massive pyritepyrrhotite-chalcopyrite mineralization hosted by chloritic basalt. These pods are considered to be remnants of a once contiguous massive sulphide body which has been disrupted by faulting.

Geological mapping was not part of the current program. For a more complete description of lithology, structure and mineralization the reader is referred to a 1992 report by R. Farmer (assessment report, number not yet assigned).

During the current program one day was spent prospecting the McCarthy 4 claim. Fine grained basalt and chert were the only exposures found and no mineralization was located. The outcrops and traverse are plotted on the Geology Map (figure 4). The new South Zone grid was not geologically mapped in detail, however the only known outcrops are plotted on the Trench location map (figure 6). The outcrops consist of fine grained, locally brecciated basalt and, near magnetic anomaly A, silicified basalt with disseminated and fracture fill pyrite and pyrrhotite. This silicified basalt is very similar to silicified basalt observed in trenches on the Main Grid where it occurs immediately adjacent to the zone containing massive sulphide pods. North-trending zones of brecciation within the silicified basalt on the South Zone grid indicate that the north-trending fault zone identified in the Main Grid area can be traced to the South Zone.

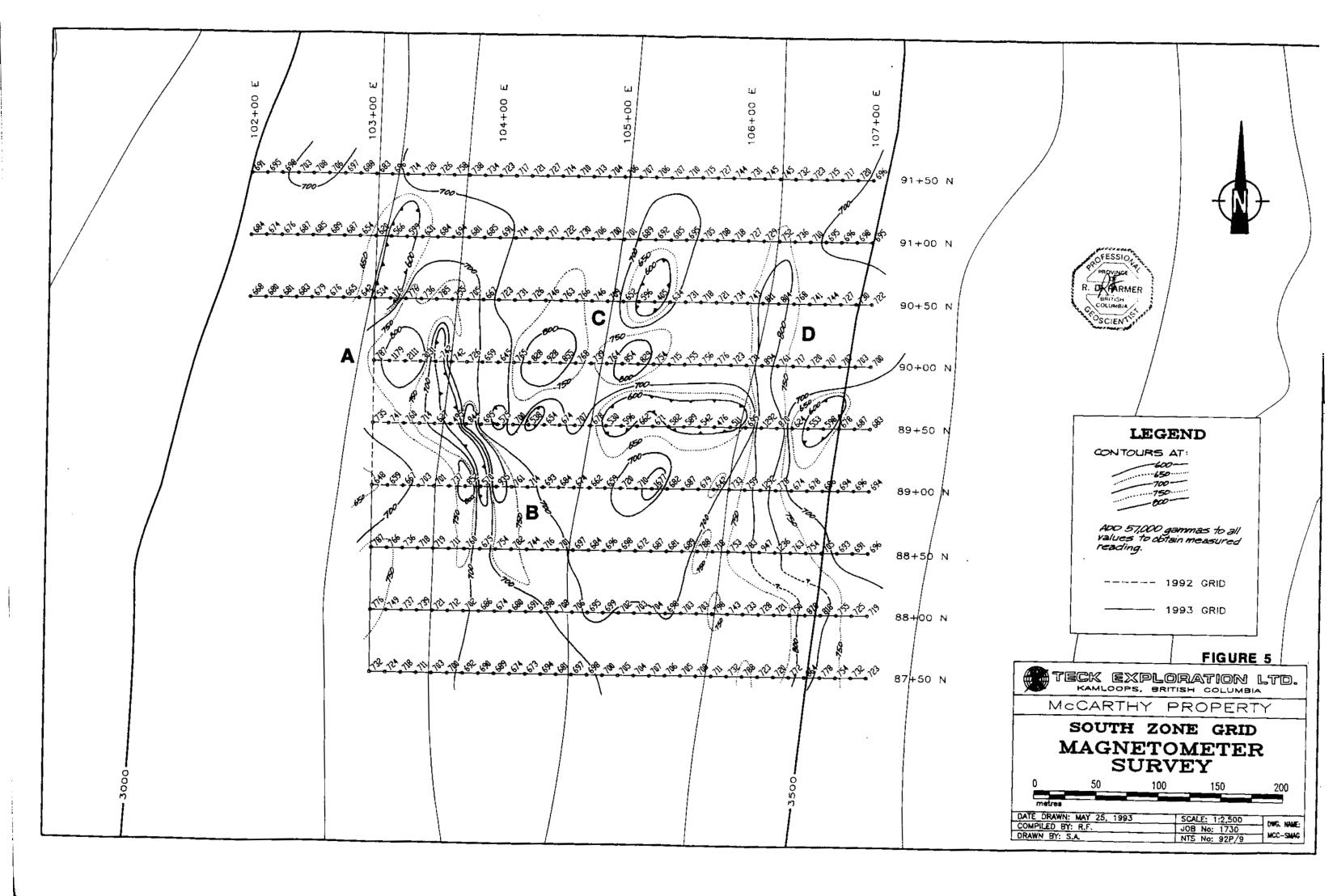
### MAGNETOMETER SURVEY

During May, 1993 a magnetic survey was run over the newly established portions of the South Zone grid on the McCarthy Property. Readings were taken every 12.5 metres on slope corrected lines 50 metres apart. A total of 3.6 line kilometres, including the baseline, on the South Zone grid were surveyed in this manner. Readings were retaken on the baseline for the three lines run in 1992 to enable the current data to be corrected back to the 1992 data, to allow accurate comparison of the two data sets. A Geonics model G-816 proton procession magnetometer was used for the survey. Base stations were established and measured periodically throughout the day and the data was corrected for diurnal variation. The background is approximately 57,700 gammas and on figure 5, for ease of plotting, 57,000 should be added to the plotted values to obtain the true magnetic value in gammas. Contouring on the map identifies anomalies, both positive and negative. To ease in description, anomalies on the map have been assigned a letter designation.

Four anomalies were identified in the grid area and are labelled A-D on figure 5. Anomalies A and B lie along the western side of the grid and are separated from each other by a narrow magnetic low. Anomalies A and B were identified in 1992 on lines 89+00N to 90+00N, open to the north and south. Definition and testing of these anomalies was the purpose of the 1993 program. Both anomalies have now been traced for their full strike length. Anomaly A is 200 metres long as defined by the 750 gamma contour, and extends from 88+50N to 90+50N between 103+00E and 104+00E. The strongest portion of the anomaly is on line 90+00N where values reach 3031 gammas above a background of 700 gammas. A very strong magnetic low is present along the east side of anomaly A between 89+00N and 90+00N. This very sharp, very narrow magnetic transition from high to low is suggestive of localized field reversals often associated with pyrrhotite or magnetite. Anomaly B is a narrow response which occurs immediately east of the sharp magnetic low on lines 88+50N to 89+50N. The strongest portion is 935 gammas on line 89+00N. This anomaly is likely reflecting the silicified basalt with 2-5% disseminated pyrrhotite which underlies the area of the anomaly between 89+00N and 89+50N.

Anomaly C consists of two small responses along line 90+00N. The first at 104+12.5E to 104+62.5E and extends north to line 90+50N. The second response occurs at 104+87.5E to 105+25E and is circular. This response is present only on line 90+00N, however a small circular magnetic low is present to the north on line 90+50N. The cause of these small responses is unknown.

Anomaly D is a narrow, north trending response which occurs between 106+00E and 106+50E and extends from line 91+00N south to line 87+50N, a distance of 350 metres. The anomaly remains open to the south. The strongest portion of the anomaly is between lines 88+50N and 89+50N where values reach 1292 gammas. South of line 88+50N the anomaly shifts three stations (37.5 metres) to the east, possibly indicating a fault offset. In the area of lines 89+00N to 89+50N a strong magnetic low occurs to both the east and west of the anomaly, possibly indicating a change in the character of the anomaly in this area. The north-south trend is more or less parallel to regional strike. Trenching will be necessary to determine the cause of the anomaly.



### TRENCHING

A trenching program was carried out over the period of June 4<sup>th</sup> to 8<sup>th</sup>, 1993. The purpose of the program was to test magnetic anomalies identified on the South Grid. Similar magnetic anomalies on the Main Grid are associated with sulphide mineralization. Three trenches and three test pits were excavated on anomalies on the south grid. Approximately 1.5km of excavator trail was constructed to access the South Grid area.

In addition two trenches and a test pit were dug on the Main Grid to test anomalies generated by an Self Potential survey carried out over the main mineralized area. The SP survey is not being filed for assessment, and as such, is not included in this report.

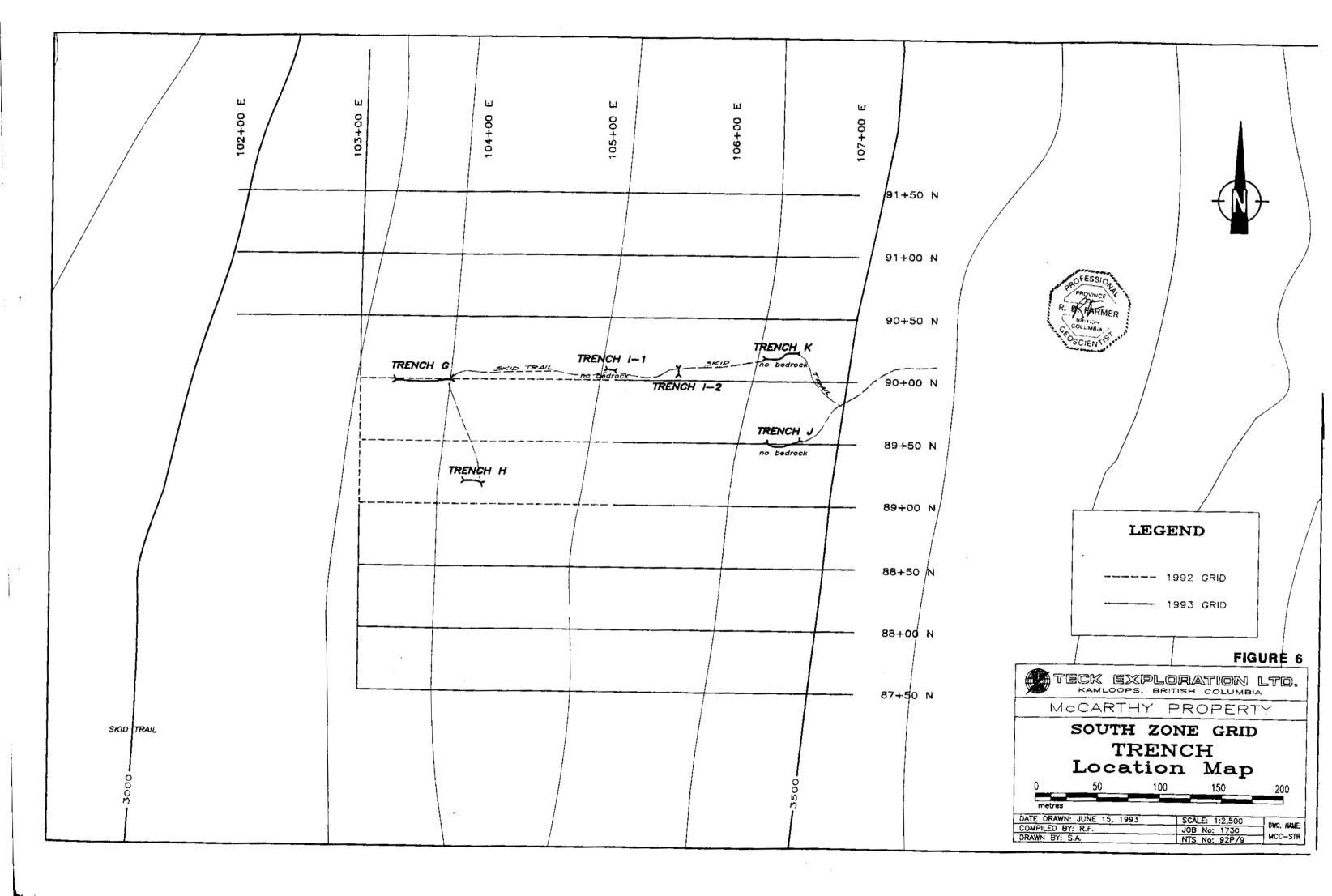
A JD 290 excavator was utilized to dig a total of approximately 150 metres of trenches, plus four test pits. At the completion of the job all trenches and test pits were backfilled, water bars constructed and the sites seeded. On the access trail to the South Grid area, water bars were constructed and the trail seeded.

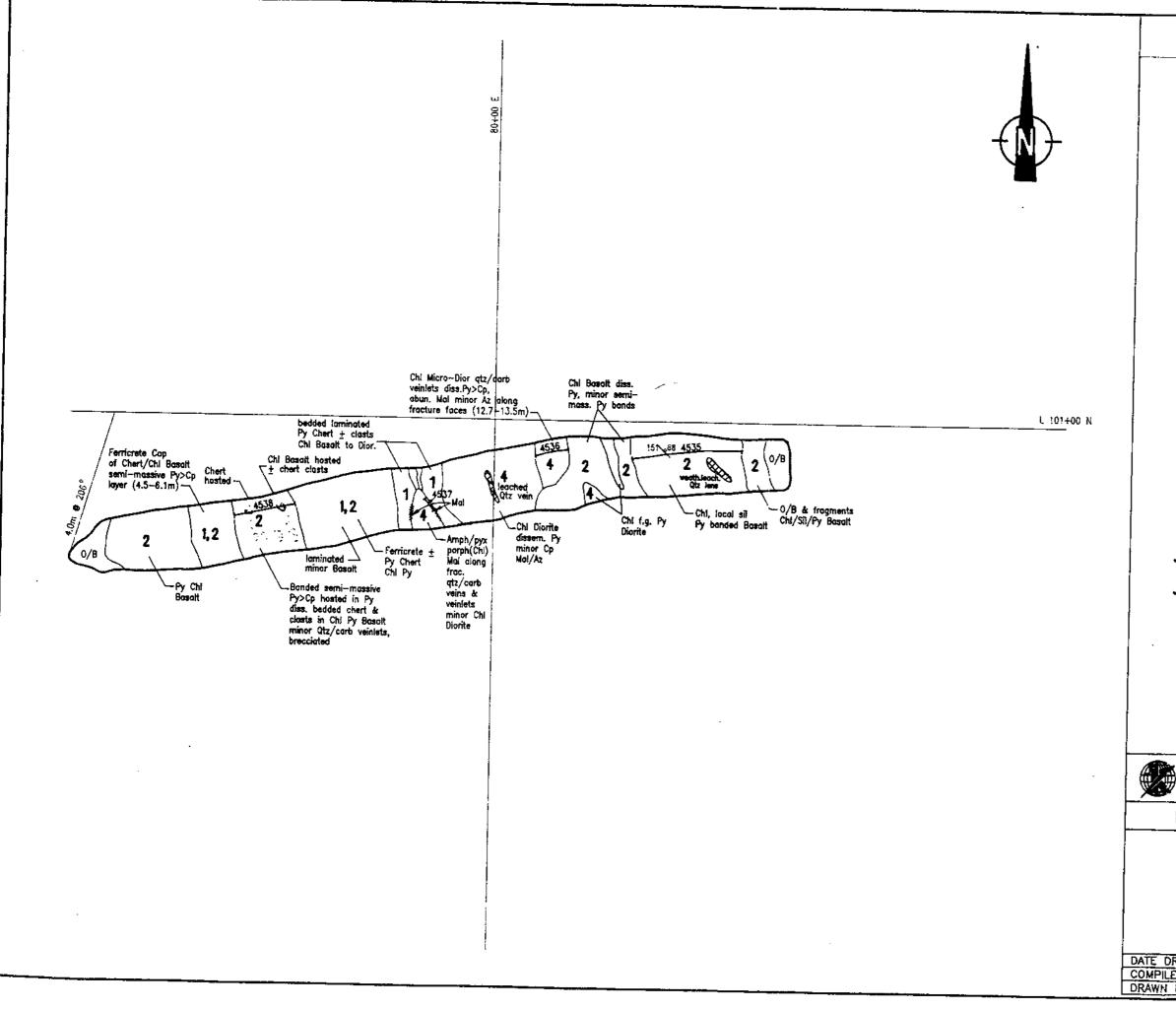
Trench locations are shown on figures 4 and 6. Geology and sample locations are plotted on figures 8 to 11. Sample descriptions are shown on Table 2 and selected results on Table 3. Complete results are listed on the certificates of analyses, included in Appendix III.

## 1) TRENCH E (Figure 8)

Trench E was established on the Main Grid to test a zone of ferricrete development identified in a test pit in 1992 and a Self Potential anomaly.

The trench exposed mafic volcanics intruded by dioritic dykes or sills throughout most of its length. Disseminated and fracture fill pyrite and minor chalcopyrite occur throughout the trench, however chalcopyrite and malachite are often concentrated along the contacts of diorite with basalt. Grey, pyritic chert occurs as a narrow zone in the center of the trench and, interbedded with basalt, near the west end of the trench. At 4.5-6.0m a zone of semi-massive pyrite with local, minor chalcopyrite is present. This zone occurs at the upslope termination of the ferricrete development and is coincident with the SP anomaly. Mineralization is hosted by chert and silicified, locally chloritic mafic volcanics. In part the host rock is a breccia consisting of fragments (<10cm) of chert and silicified mafic volcanics with semi-massive sulphide forming the matrix. The west end of the trench (0-4.5m), exposed unmineralized, generally unaltered mafic volcanics.





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	FENNELL FORMATION				
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	3	SILICEOUS FELDSPAR	MICROPORPHYRY DYKES		
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## 2) TRENCH F (Figure 9)

Trench F was dug along a skid trail at the Kerr Addison Showing to test a SP anomaly and better expose the showing.

Trench F exposed mafic volcanics for its entire length. The volcanics are silicified and contain 2-5% disseminated and fracture fill pyrite and local pyrrhotite. Along the north wall, in the center of the trench a NNW trending fault is present and is likely related to the north trending faulting identified in 1992 trenching. Exposure is poor at the west end of the trench due to deep weathering and extensive ferricrete development.

A test pit was dug on line 100+00N at 103+50E to test a SP anomaly. Bedrock was not exposed in the test pit.

### 3) TRENCH G-SOUTH GRID (Figure 10)

Trench G was dug to test magnetic anomaly A (see figs. 5 and 6 for trench location). A series of three test pits comprised the trench. Bedrock was not encountered, except in the center pit where a narrow (<1m) exposure of possible bedrock consisting of silicified mafic volcanics with 2-4% disseminated pyrite and pyrrhotite was exposed. The exposure could not be traced and the sulphide content is insufficient to explain the magnetic anomaly. It is not clear if the exposure represents bedrock or a large boulder.

4) TRENCH H-SOUTH GRID (Figure 11)

Trench H tested magnetic anomaly B (figs. 5 and 6). The trench exposed mafic volcanics with 1-2% disseminated pyrite and pyrrhotite. At the east end of the trench a dark grey to black, locally amygdaloidal, strongly magnetic basalt dyke was exposed. The dyke appears quite fresh and may be Tertiary in age. Magnetic anomaly B consists of two magnetic highs separated by a magnetic low. The magnetic dyke is the probable source of the eastern 'high'. Bedrock was lost before reaching the western anomaly, and it therefore remains untested.

## TABLE 2 SAMPLE DESCRIPTIONS

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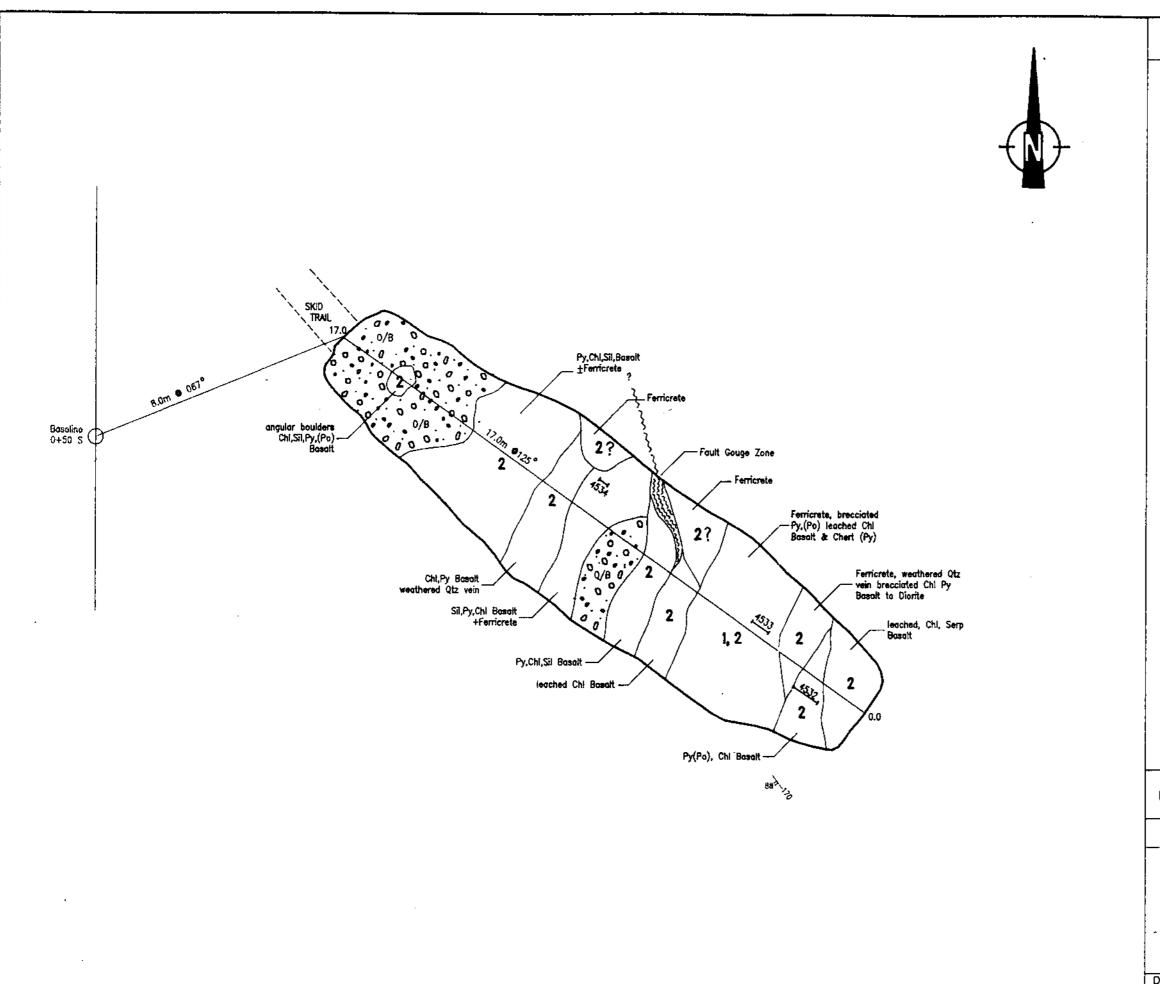
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SAMPLE NUMBER	LOCATION COMMENT	SAMPLE DESCRIPTION
4532	Trench F	Chip from 1.4 to 1.9m. Chloritic basalt with local 2-3cm pyrite bands
4533	Trench F	Chip from 3.5 to 3.8m. Leached chloritic basalt with disseminated Py and local semi-massive Py bands (dissm.).
4534	Trench F	Chip from 9.1 to 9.3m. Silicified basalt with moderate disseminated pyrite.
4535	Trench E	Chip from 15.4 to 18.3m. Chloritic basalt, locally silicified. Local semi- massive pyrite bands.
4536	Trench E	Chip from 12.8 to 13.5m. Fine grained, chloritic diorite, dissm. Py, local Cp, Mal, Az.
4537	Trench E	Chip from 9.1 to 9.5m. Chloritic amphibole/pyroxene porphyritic dyke(?) with fracture controlled Mal.
4538	Trench E	Chip from 4.5 to 6.0m. Banded semi- massive pyrite with local chalcopyrite hosted in breccia zone consisting of clasts of chert and silicified basalt with the sulphides forming the matrix.
4539	Trench I-2	Chip from 0.8 to 2.5m. Grey chert with 5-10% disseminated pyrite.

	TABLE 3 - TRENCH SAMPLE RESULTS					
SAMPLE NO.	Trench No.	LENGTH METRES	COPPER PPM	ZINC PPM	SILVER PPM	GOLD PPB
4532	F	0.5	1724	193	0.2	10
4533	F	0.3	1165	148	0.2	15
4534	F	0.2	4962	41	2.0	30
4535	E	2.9	183	56	0.2	5
4536	E	0.7	1199	154	0.2	5
4537	E	0.4	6644	154	0.2	5
4538	E	1.5	2991	506	3.2	105
4539	1-2	1.7	177	36	0.2	5

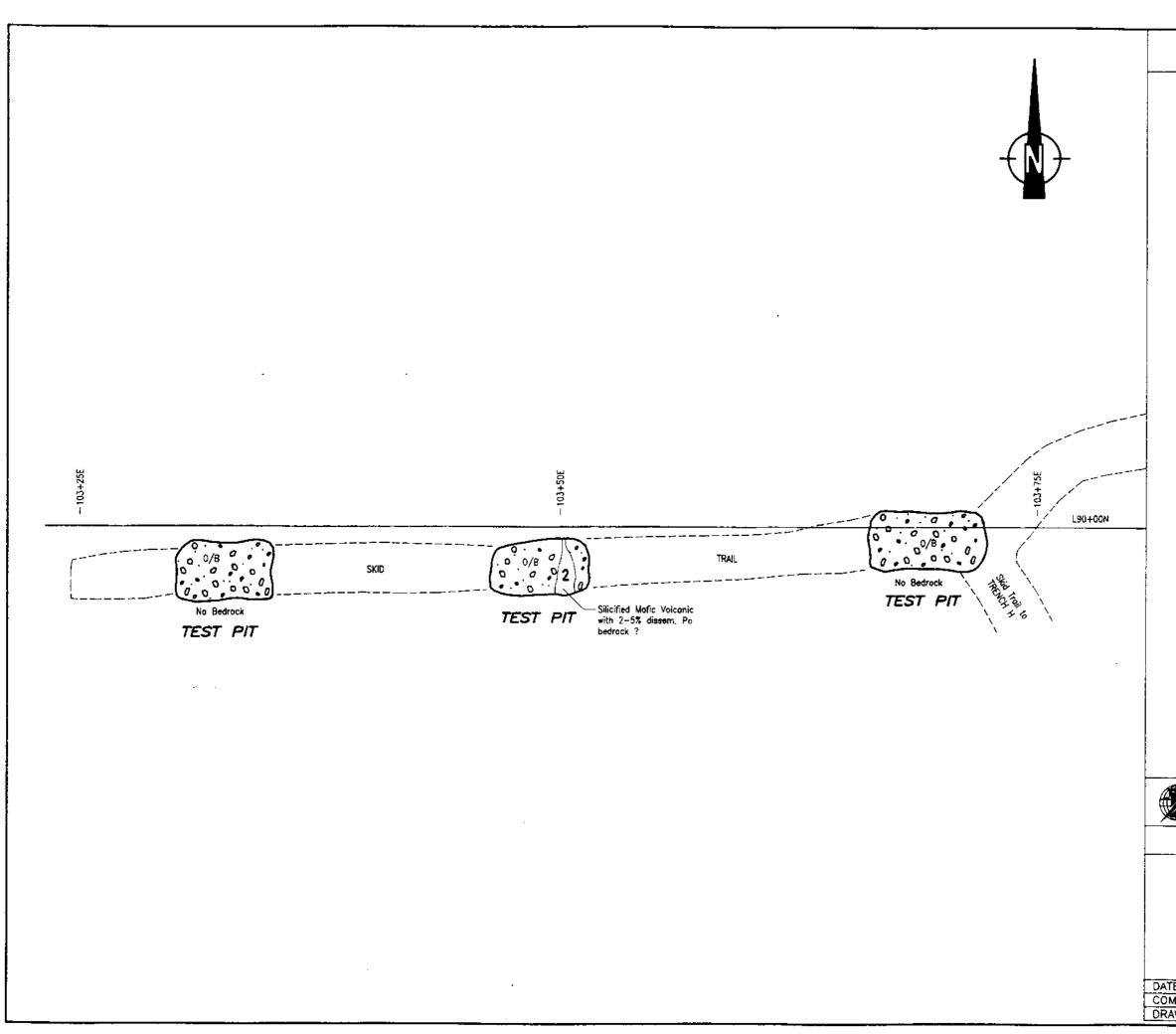
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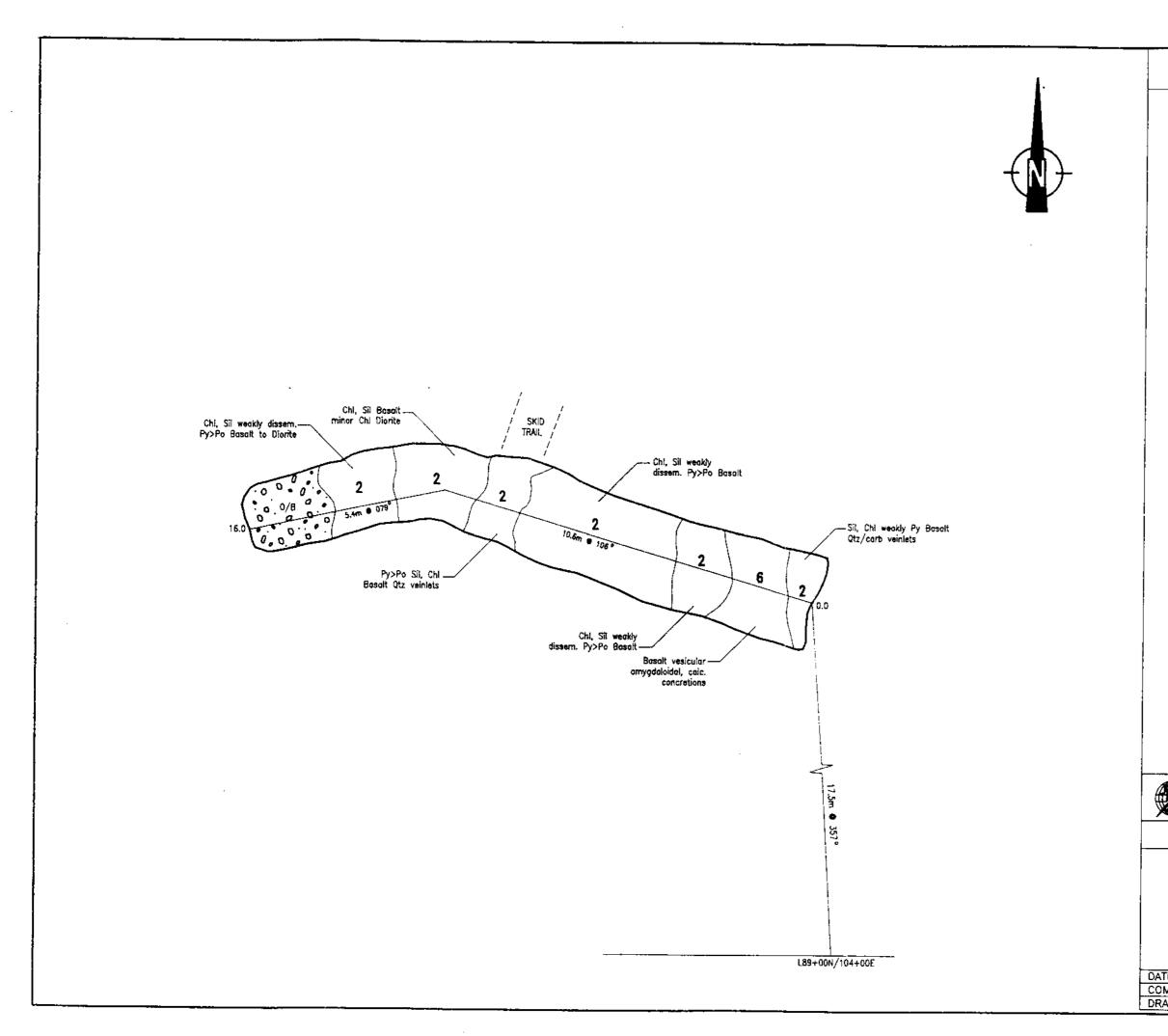


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LOWER STRUCTURAL DIVISION				
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3 SILICEOUS FELDSPAR MICROPORPHYRY DYKES				
2 MASSIVE BASALT, LOCALLY PILLOWED or VARIOLITIC				
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FIGURE 9				
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### 5) TRENCH I-1, I-2-SOUTH GRID (Figure 12)

A test pit (Trench I-1) was dug to test the eastern portion of magnetic anomaly C (figs. 5 and 6). Bedrock was not exposed.

Trench I-2 tested a very weak SP anomaly at L 90+00N-105+60E. The trench exposed grey chert with 5-10% disseminated pyrite. Significant base metals are not present.

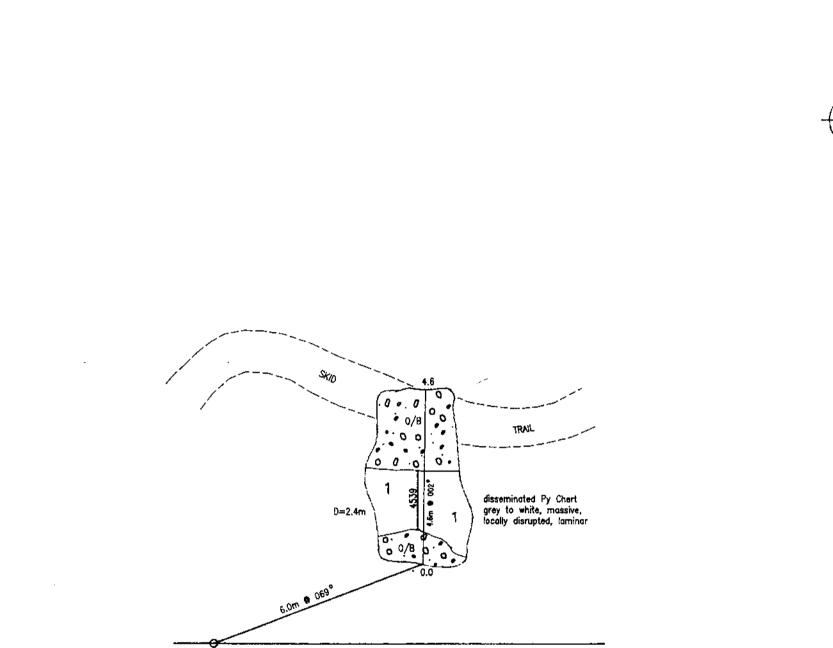
Magnetic anomaly D was tested with a trench on line 89+50N and a test pit on line 90+00N (see figs. 5 and 6 for location). Bedrock was not exposed and the anomaly remains unexplained.

A total of eight samples were collected from the trenches, none of which returned significant base or precious metal values (see Table 3).

### CONCLUSIONS

A magnetic survey run over the South Grid identified four primary anomalies, labelled A to D. Anomalies A and B represent two parallel magnetic 'highs' separated by a pronounced magnetic low. These anomalies were identified in 1992 and their response is very similar to the response over the main sulphide showing on the Main Grid. The 1993 survey failed to extend the anomaly along strike, either to the north or south. Anomaly C consists of two small, circular magnetic highs along line 90+00N, the cause of which is unknown. Anomaly D consists of a narrow, north-south trending magnetic high which extends from line 91+00N to the southernmost grid line, for a strike length of 350 metres. The anomaly remains open to the south. Between lines 88+50N and 88+00N the anomaly is shifted approximately 30 metres to the east, possibly reflecting a fault offset. Outcrop or locally derived float are not present in the vicinity of this anomaly.

A total of nine trenches and test pits were dug during the current program. Two trenches and one test pit were dug on the Main Grid to test areas of ferricrete development, known mineralization and Self Potential anomalies (the SP survey is not included in this report). Three trenches and two test pits were dug on the South Grid to test magnetic anomalies. One test pit was dug on the South Grid to test a very weak SP anomaly.



L90+00N/105+50E

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# LEGEND

TERTIA	NRY									
6	BASALT, BASALTIC DYKES. AMY CALCAREOUS CONCRETIONS	GDALOIDAL								
MISSISSIPPIAN-PERMIAN										
FENNELL FORMATION										
	PPER STRUCTURAL DIVISION PILLOWED, VARIOLITIC BASALT, BASALT BRECCIA,									
5	PILLOW BRECCIA, LOCAL MASS									
	WER STRUCTURAL DIV	ISION								
4	MEDIUM GRAINED, BASALTIC D'	YKES or SILLS, DIORITE								
3	SILICEOUS FELDSPAR MICROPO	RPHYRY DYKES								
2	MASSIVE BASALT, LOCALLY PIL	LOWED or VARIOLITIC								
1	1 CHERT, GREY-GREEN, LAMINATED TO THIN BEDDED LOCALLY MASSIVE									
<b></b>	BEDDING, INCLINED	ALTERATION MINERALS								
	JOINTING	əp chi sil								
	FOLIATION	bi Py								
	BANDING	Po Cp Mt								
	CLEAVAGE									
	THRUST FAULT									
	NORMAL or STRIKE SLIP FAUL	л								
utityu	RELATIVE SENSE OF MOVEMEN	· · · · · · · · · · · · · · · · · · ·								
	MASSIVE SULPHIDE (usually be	ands) Pression								
	QUARTZ LENS	R. DEFARMER								
+4534	SAMPLE No. and INTERVAL	OSCIENTIS								
		FIGURE 12								
	CEXPLORA									
McC	ARTHY PRO	PERTY								
TI	RENCH	I-2								
	Geology a									
	nple Loca									
	0 1 2 3 4	5								
	metres									
DATE DRAWN: JUN COMPILED BY: H.S DRAWN BY: S.A.	. JOB	E: 1:100 DWG. NAME: No: 1730 MCC-TRI2 No: 92P/9								

Significant mineralization was not encountered in any of the trenches or test pits. A zone of ferricrete development on the Main Grid was found to be related to a two meter thick zone of semi-massive pyrite which does not contain significant base or precious metals. Trenching at the Kerr Addison Showing uncovered only minor disseminated pyrite and pyrrhotite.

On the South Grid the eastern portion of magnetic anomaly B was found to be caused by a magnetic mafic dyke, possibly of Tertiary age. Anomaly A and the western portion of anomaly B were not adequately explained. Bedrock was not reached on anomaly C and two attempts to trench anomaly D failed to reach bedrock. As a result both remain unexplained. Trench I-2 tested a weak SP anomaly and uncovered pyritic chert. The sulphide content adequately explains the anomaly.

Although several of the magnetic anomalies in the South Grid area remain untested, further attempts to explain the anomalies would not be a high priority due to the presence of magnetic dykes in the area. The deep, glacial till overburden is not conducive to further trenching or to soil geochemical surveys.

## REFERENCES

- Schiarizza, P. (1983): Geology of the Barriere River-Clearwater Area. B.C. Ministry of Energy, Mines and Petroleum Resources; Preliminary Map No. 53.
- Schiarizza, P. and Preto, V. (1987): Geology of the Adams Plateau-Clearwater-Vavenby Area. B.C. Ministry of Energy Mines and Petroleum Resources; Paper 1987-2.
- Dvorak, Z. and Fraser, D.C. (1979): Dighem III Survey of North Thompson River, B.C., for Craigmont Mines Limited by Dighem Limited. Assessment Report No. 7659.
- Daley, F., Whalen, D.J., Angus, S.E. (1988): Prospecting and Geochemistry on the Honeymoon Claims. Assessment Report # 18582.

**APPENDIX I - COST STATEMENT** 

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## COST\_STATEMENT

## 1. PERSONNEL

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# a) GRID ESTABLISHMENT

R. Farmer (geologist)	
May 11, 12, 13	
3 days @ \$252.76/day	\$758.28

## b) MAGNETOMETER SURVEY

G. Lovang (assistant)	
May 11, 12, 13	
3 days @ \$217.50/day	<b>\$652.50</b>

## c) TRENCH CLEANING/MAPPING/SAMPLING/SUPERVISION

i) R. Farmer (geologist) June 4, 5, 6, 8 4 days @ \$252.76/day	\$1011.04
ii) Hugh Stewart (assistant) June 5, 6, 7, 8 4 days @ \$200.00/day	

## d) REPORT WRITING

R. Farmer (geologist)		
3 days @ \$252.76//day	 	\$758.28

## e) DRAFTING

S. Archibald (draftsman)	
2 days @ \$145.00/day \$2	90.00

## 2. ANALYTICAL

Eco-Tech Labs Ltd., Kamloops, B.C.

8 rock samples for 30 element ICP+Au(AA)	
8 samples @ \$17.65 ea	\$141.20

## COST STATMENT-CONTINUED

## **3. TRENCHING**

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## a) MOB/DEMOB

Lowbed haulage Fees 11hrs @ \$75.00/hr
b) JD 290 EXCAVATOR
43hrs @ \$74.90/hr
4. RECLAMATION
Seed and Fertilizer
5. TRANSPORTATION
Truck Rental (Teck Owned), 8 days @ \$20.00/day
6. LIVING EXPENSES
a) ACCOMODATION
8 days @ \$45.00/day

## b) FOOD

14 mandays @ \$20.00/manday ..... \$280.00

TOTAL: \$9628.60

RandyJourne

**APPENDIX II - STATEMENT OF QUALIFICATIONS** 

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I, Randy Farmer, do hereby certify that:

- 1) I am a geologist and have practised my profession for more than 12 years.
- 2) I graduated from Lakehead University in Thunder Bay, Ontario with an Honours Bachelor of Science degree, (Geology), in 1980.
- 3) I supervised the magnetic survey and trenching program on the McCarthy Property and authored the report contained herein.
- 4) All data contained within this report and conclusions drawn from it are true and accurate to the best of my knowledge.
- 5) I hold no personal interest, direct or indirect, in the McCarthy Property which is the subject of this report.

Rondy ?

Randy Farmer, P. Geo. Project Geologist December, 1992



**APPENDIX III - CERTIFICATES OF ANALYSES** 

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ECO-TECH LABORATORIES LTD. 10041 EAST TRANS CANADA MMT. RAMLOOPS, B.C. V2C 233 PHONE - 604-573-5700 FAX - 604-573-4557

JUNE 11, 1993

VALUES IN PPN UNLESS OTHERWISE REPORTED

K - K - K - K - K - K - K

TECK EXPLORATION ETR 93-134 # 350, 272 Victoria Street KAMLOOPS, B.C. V2C 2A2

ATTENTION: FRED DALEY/RANDY FARMER

8 ROCK SAMPLES RECEIVED JUNE 8, 1993 PROJECT #: 1730

ET <b>\$</b>	DESCRIPTION	AU(ppb)		AL(%)		в			CA(%)					PZ(%)	, .		HG(%)			NA(\$)					SW		TI(%)	۵	v	¥	Y	ZN
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2	- 4533	15	. 2	2.35	75	6	60	5	. 43	1	74	147	1165	6.08	.01	10	7.41	916	6	.01	41	490	2	5	20	10	.37	10	88	10	21	148
3	- 4534	30	2.0	2.16	70	6	40	5	. 40	1	34	56	4962	4,29	. 29	10	. 52	134	3	.04	35	340	2	5	20	6	-24	10	50	10	15	41
4	- 4535	5	. 7	2.31	75	6	40	5	. 48	1	41	95	183	6.85	, 01	10	2.93	530	2	.01	41	650	2	5	20	6	.41	20	122	20	28	56
5	- 4536	5	-						1.07	1	49	175	1199	4.20	. 01	10	3.03	771	1	.01	54	510	2	5	20	22	.34	10	123	10	26	154
6	- 4537	5	. 2	3.22	110	2	295	5	.50	1	276	131	6644	5.79	.01	10	3.43	2072	з	.01	51	170	2	15	20	16	. 30	10	133	10	30	254
7	4538	105	3.2	1.36	115	6	35	5	. 21	1	100	103	2991	9.94	.01	10	1.46	293	40	.01	35	310	236	5	20	16	.11	30	65	10	5	506
8	- 4539	5	. 2	1.25	50	2	25	5	. 68	1	33	127	177	4.21	.01	10	1.62	399	3	.02	42	520	2	5	20	13	. 22	10	53	10	17	36

QC/DATA1

STANDARD 1991 -

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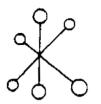
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ECO-TECH LABORATORIES LTD. FRANK J. PEZZOTTI, S.S.T. B.C. Certified Asseymr

SC93/TECK

APPENDIX IV - ANALYTICAL PROCEDURE

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# ECO-TECH LABORATORIES LTD

ASSAYING - ENVIRONMENTAL TESTING 10041 East Trans Canada Hwy., Kamioops, B.C. V2C 2J3 (604) 573-5700 Fax 573-46

### GEOCHEMICAL LABORATORY METHODS

#### SAMPLE PREPARATION (STANDARD)

- 1. Soil or Sediment: Samples are dried and then sieved through 80 mesh sieves.
- 2. Rock, Core: Samples dried (if necessary), crushed, riffled to pulp size and pulverized to approximately -140 mesh.
- 3. Humus/Vegetation: The dry sample is ashed at 550 C. for 5 hours.

#### METHODS OF ANALYSIS

All methods have either cannet certified or in-house standards carried through entire procedure to ensure validity of results.

1. MULTI ELEMENT ANALYSES

(a) ICP Packages (6,12,30 element).

Digestion Finish

Hot Aqua Regin ICP

(b) ICP - Total Digestion (24 element).

Digestion Finish

Hot HC104/HNO3/HF

(c) Atomic Absorption (Acid Soluble) Ag\*, Cd\*, Cr, Co\*, Cu, Pe, Pb\*, Mn, Mo, Ni\*, Zn.

Digestion

12

Finish

ICP

Atomic Absorption \* = Background corrected

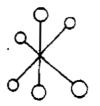
ICP

(d) Whole Rock Analyses.

Hot Aqua Regia

Digestion	Finish
*****	

Lithium Metaborate fusion



ECO-TECH LABORATORIES LTI ASSAYING - ENVIRONMENTAL TESTING 10041 East Trans Canada Hwy., Kamioops, B.C. V2C 2J3 (604) 573-5700 Fax 573

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- 2. Antimony
  - Digestion Finish
  - Hot aqua regia ICP
- 3. Arsenic
  - Digestion
  - Hot aqua regia
- 4. Barium
  - Digestion
  - Lithium Metaborate
- 5. Beryllium
  - Digestion
    - Hot aqua regia
- 6. Bismuth

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- Digestion
- Hot aqua regia
- 7. Chromium
  - Digestion
  - Sodium Peroxide Fusion
- 8. Flourine
  - Digestion
  - Lithium Metaborate Fusion

- -----
- Hydride generation A.A.S.
- Finish

Finish

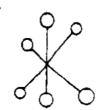
- ICP
  - <u>Pinish</u>
  - Atomic Absorption
  - Finish
  - Atomic Absorption (Background Corrected)
  - Finish
  - Atomic Absorption
  - Finish
  - Ion Selective Electrode

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ASSAYING • ENVIRONMENTAL TESTING 10041 East Trans Canada Hwy., Kamloops, B.C. V2C 2J3 (604) 573-5700 Fax :

9. Gallium Digestion Finish ---------Hot HC104/HN03/HF Atomic Absorption 10. Germanium Digestion Finish ----------Hot HClO4/HNO3/HF Atomic Absorption 11. Mercury Digestion Finish ------------Hot aqua regia Cold vapor generation -A.A.S. 12. Phosphorus Digestion Finish -----Lithium Metaborate ICP finish Fusion 13. Selenium Digestion Finish ----------Hot aqua regia Hydride generation -A.A.S. 14. Tellurium Digestion Finish

Hot aqua regiaHydride generation ~ A.A.S.Potassium BisulphateColorimetric or I.C.P.FusionFusion

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## ECO-TECH LABORATORIES LTD.

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ASSAYING - ENVIRONMENTAL TESTING 10041 East Trans Canada Hwy., Kamioops, B.C. V2C 2J3 (804) 573-5700 Fax 573-4657

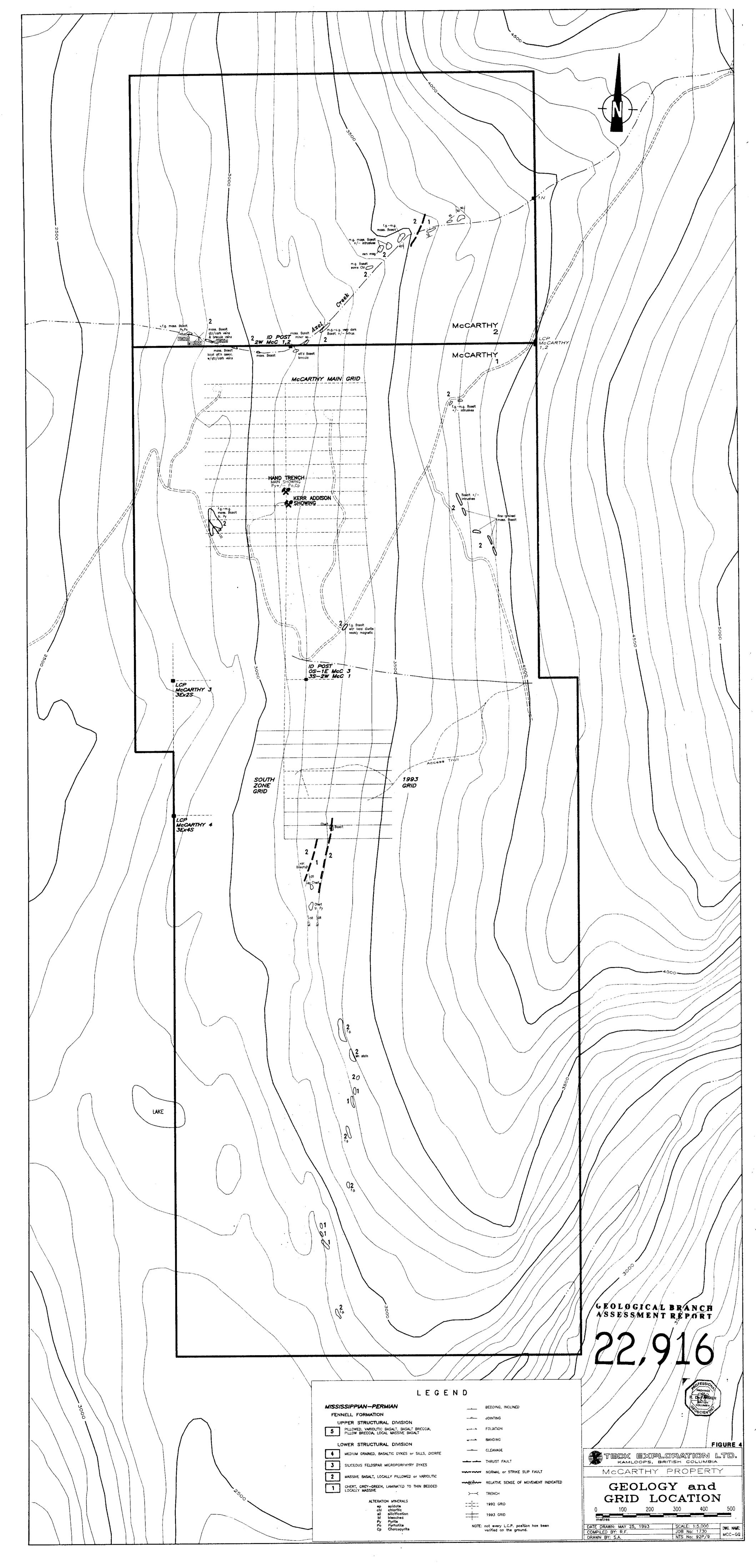
### GEOCHEMICAL LABORATORY METHODS

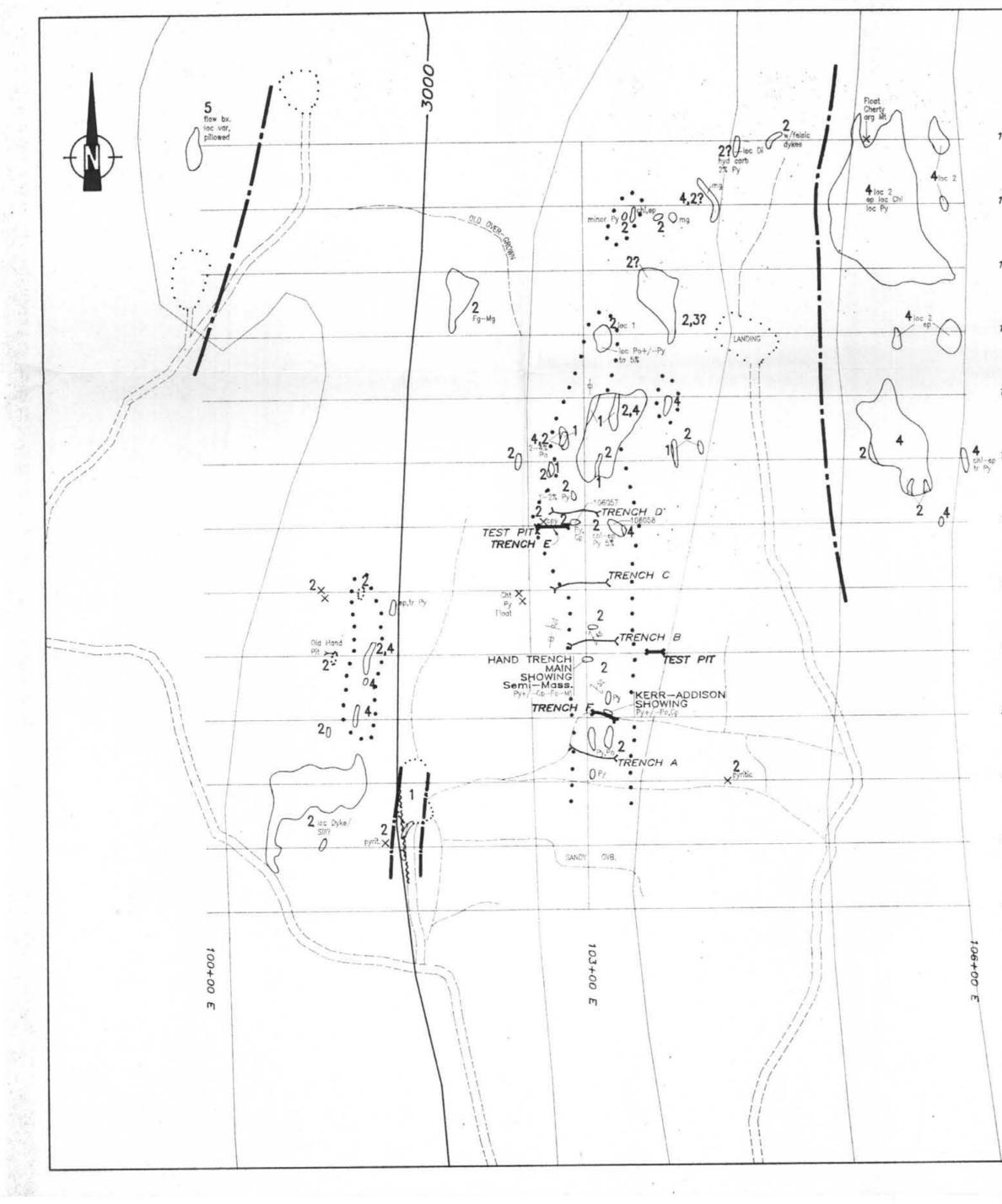
## Multi Element ICP Analyses

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**Digestion:** 1 gram sample is digested with 6 ml dilute aqua regia in a waterbath at 90°C for 90 minutes and diluted to 20 ml.

Analysis: Inductively coupled Plasma.





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3500		
I.	2	
04+00 N	LEGEN	D
03+50 N	MISSISSIPPIAN-PERMIAN	1
	FENNELL FORMATION	
103+00 N	PILLOW BRECCIA, LOCAL MAS	SIVE BASALT
	LOWER STRUCTURAL DI	VISION
- 11 A A A	4 MEDIUM GRAINED, BASALTIC	DYKES or SILLS, DIORITE
102+50 N	3 SILICEOUS FELDSPAR MICROF	ORPHYRY DYKES
	2 MASSIVE BASALT, LOCALLY P	ILLOWED or VARIOLITIC
	1 CHERT, GREY-GREEN, LAMIN	ATED TO THIN BEDDED
102+00 N	LOCALLY MASSIVE	
	BEDDING, INCLINED	ALTERATION MINERALS
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101+00 N		
TH	CLEAVAGE	
SAC	THRUST FAULT	
100+50 N ZO	NORMAL or STRIKE SUP FA	ULT
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EN	GRID (re-established)	
99+50 N 🛃 🗙	GRID (NOT re-established)	
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		FIGURE 7
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	DRAWN BY: S.A. N	TS No: 92P/9

P-1