

Geological, Geophysical and Geochemical Report

- on the -

Jeff and Big J#3 Claims

Sicamous Area, Kamloops Mining Division

British Columbia

- for -

Caltex Hydrocarbons Inc.

501 - 850 West Hastings Street,

Vancouver B. C. V6E 1E1

Covering: Jeff and Big J#3 Claims (12 Units) -

Work Performed: October 5 - 7, 1982

**GEOLOGICAL BRANCH**  
**ASSESSMENT REPORT**

Location: (1). 8 km SE of Sicamous, B. C.  
(2). N.T.S. Map No. 82L/14E  
(3). Latitude:  $50^{\circ}48'$  North  
Longitude:  $119^{\circ}03.2'$  West

**10,745**

Prepared by;

Kerr, Dawson and Associates Ltd.

#206 - 310 Nicola Street,

Kamloops, B. C. V2C 2P5

W. Gruenwald, B. Sc.

November 7, 1982

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SUMMARY

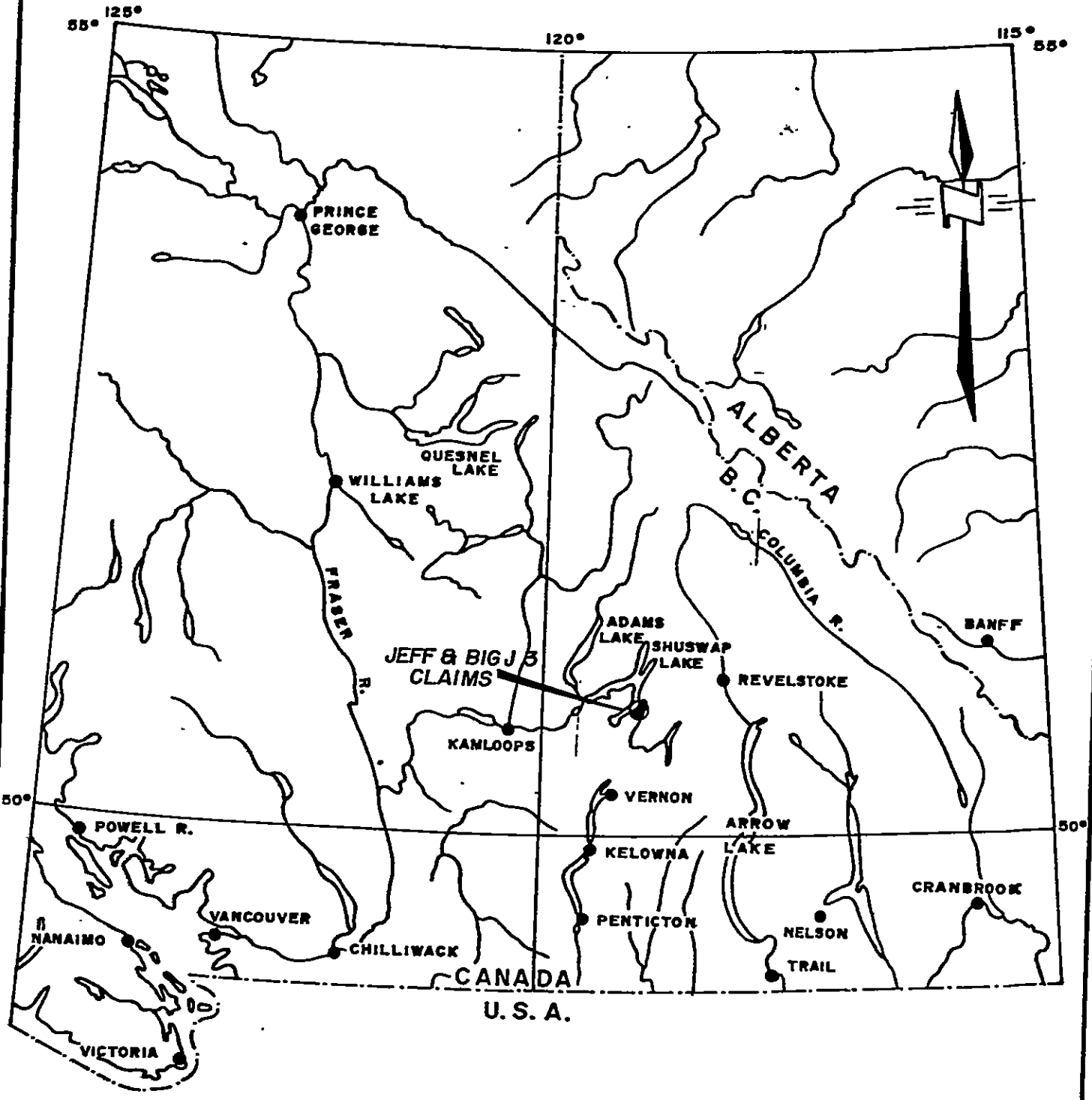
(1). The Jeff and Big J3 claims are situated in south central British Columbia, approximately eight kilometers southeast of Sicamous, B. C. The property consists of two contiguous claims totalling twelve units (300 hectares).

(2). The property geology consists of schists, gneisses and quartzites of the Archean (?) Mara Formation. Galena, sphalerite and chalcopryrite (+ pyrite and/or pyrrhotite) are found as disseminations along schistosity planes, and as semi-massive to massive concentrations along minor fold axes and fracture zones in the metamorphic rocks.

Surface sampling of the mineralized zones indicate values from 1% to 8.5% combined lead-zinc, 0.16 to 2.1 oz/ton silver and 0.16% to 0.4% copper over widths from 0.3 to 2m. Drilling indicated narrow (0.2 to 2m) zones with grades in excess of 16% lead-zinc and 5 oz/ton silver. Considerably wider and lower grade zones are indicated in several areas. Mineralization occurs sporadically over a length of at least 400 meters (old reports state 600 meters).

(3). Exploration programmes conducted in 1977 & 1978 indicated a large co-incident lead-zinc geochemical anomaly. This anomalous zone overlies the known workings as well as several strongly conductive areas. (See fig. 250-3)

A magnetometer survey conducted during October, 1982 revealed a highly magnetic body co-incident with a previously documented electromagnetic conductor. Co-incident with the above "mag-EM" zone are geochemical soil samples that contained anomalous amounts of lead, zinc and silver. Further exploration is definitely warranted.



**CALTEX HYDROCARBONS INC.**

LOCATION MAP

**JEFF & BIG J 3 CLAIMS**

KAMLOOPS MINING DIVISION, B. C.

Date: Nov., 1982.

Scale: 1" = 64 Miles

Dwn by: W.G

Dwg no. 250-1

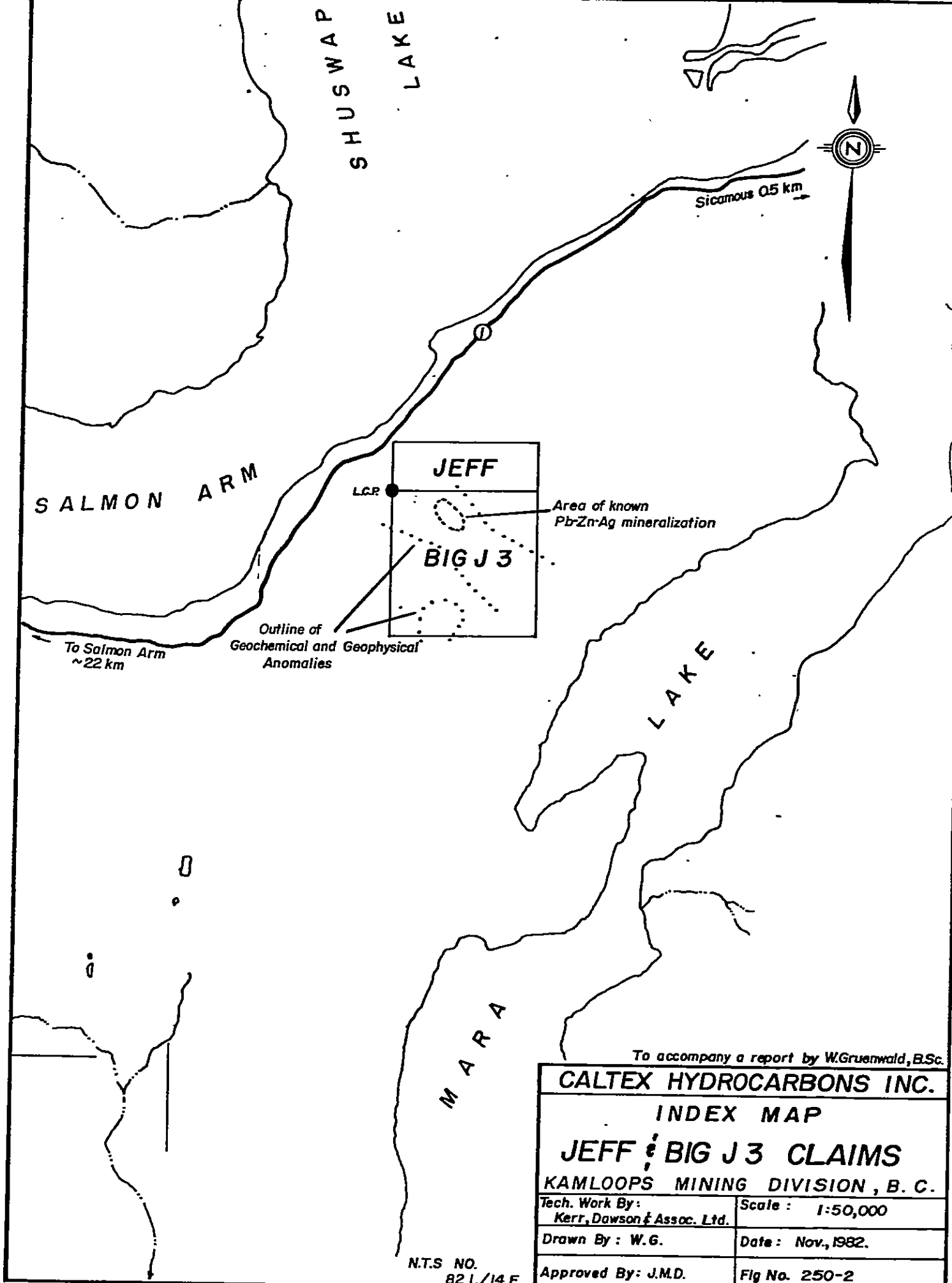
INTRODUCTION

The writer and two assistants, at the request of Caltex Hydrocarbons Inc. carried out geophysical and geochemical surveys over a portion of the Jeff and Big J#3 claim block near Sicamous, B. C. The outlined work was carried out over an area recommended in the writer's report dated September 4, 1981.

LOCATION AND ACCESS

The Jeff and Big J#3 claims are located in south central British Columbia approximately eight kilometers southeast of the town of Sicamous. Geographic co-ordinates for the center of the claims are  $50^{\circ}48'$  North latitude and  $119^{\circ}03.2'$  West longitude, on N.T.S. Map No. 82L/14E.

Access to the property is via a short gravel road that leaves the Trans Canada Highway approximately 7.5 km. southwest of Sicamous, B.C. Roads transect much of the claim block making access to most areas quite easy.



To accompany a report by W.Gruenwald, B.Sc.

**CALTEX HYDROCARBONS INC.**

**INDEX MAP**

**JEFF & BIG J 3 CLAIMS**

**KAMLOOPS MINING DIVISION, B. C.**

Tech. Work By: Kerr, Dawson & Assoc. Ltd.	Scale: 1:50,000
Drawn By: W.G.	Date: Nov., 1982.
Approved By: J.M.D.	Fig No. 250-2

N.T.S. NO.  
82 L/14 E



PHYSIOGRAPHY AND VEGETATION

The property is situated on the ridge between the Salmon Arm of Shuswap Lake and Mara Lake. The central portions of the claim block cover the relatively flat ridge top, while the northwest and southeast corners of the claims slope quite steeply to the northwest and southeast respectively. Total relief over the claims is approximately 490 meters (1600 feet) from the northwest corner (457m) to the eastern boundary of the Jeff claim ( $\surd$ 947m). The known mineral occurrences are situated between the 800m and 900m elevations in the north central portion of the Big J#3 claim. The area presently under investigation is situated in the south half to the southwestern corner of the Big J#3 claim. The relief in this area is less than 100 meters and the slopes are predominantly to the southeast.

Rock outcroppings are scarce except along road cuts and small hilltops. Overburden cover appears to be generally minimal (< 5 meters) however, in local depressions overburden depths may exceed ten meters.

With the exception of some logged areas, the property is covered by vegetation consisting of moderately thick stands of fir, cedar, hemlock and pine. Undergrowth is notably absent in much of the areas presently under investigation.

PROPERTY

The property consists of two contiguous claims staked under the modified grid system. Claim posts observed in the field meet the requirements of the British Columbia Mineral Location Act.

<u>Name of Claim</u>	<u>Record No.</u>	<u>No. of Units</u>	<u>Expiry Date</u>
Jeff	1087	3	Nov. 10, 1982
Big J #3	1099	9	Nov. 10, 1982

The Jeff and Big J #3 claims are presently owned by Caltex Hydrocarbons Inc. of Vancouver, B. C.

HISTORY

According to the 1964 Minister of Mines Annual Report, Annis Mines Ltd. dug several bulldozer trenches on the property revealing lead-zinc-copper mineralization. Prior to this, in 1958 an 85' adit was driven to intersect the continuation of the surface showings.

In 1965 the adit was driven to 125'. Small scale trenching as well as prospecting were also carried out that year. By 1966 the adit was driven to 160' along with the drilling of five short diamond drill holes. Scattered galena, sphalerite, chalcopyrite and pyrrhotite mineralization was encountered; however, no records of any grades were indicated.

Additional trenches were dug in 1966, many of which exposed mineralization at intervals over a strike length of 400 feet (122 meters). By 1967 trenches encountering mineralization spanned a length of 2000' (600m).

No further work was recorded until 1977 when Granges Exploration optioned the property from Mr. J. Hussein. In that year Glen E. White, Geophysical Consulting and Services Ltd. carried out a pulse type electromagnetic survey on a grid established over the property.

In the following year a geochemical soil sampling programme was completed (Maverick Mountain Mines) followed by the drilling of 13 diamond drill holes totalling 1794 feet (547 meters). The option was dropped soon after and the property has virtually lain idle until the present surveys (Oct. 5, 6, 7, 1982) were carried out.

## GEOLOGY

### Regional Geology:

Geological mapping by the G.S.C. indicates that the claim area is underlain by rocks of the Archean (or later) Mount Ida Group. The immediate vicinity of the property is underlain by argillites, limestones, sericite and chlorite schists of the Mara Formation. The overlying Sicamous Formation, comprised of limestone, sericitic & graphitic schists appears near the northeast corner of the property.

Foliations within the metamorphosed rocks strike approximately east - west and dip northerly from  $35^{\circ}$  to  $45^{\circ}$ . A northerly trending fault is indicated in the vicinity of the claims.

Property Geology:

The geology of the property, consists of interbedded mica schists, gneisses and micaceous quartzites which are undoubtedly representative of the Mara Formation.

The mica schists, by far the most common rocks observed, are generally pale coloured, fine to locally coarse grained and weakly to moderately fissile. Muscovite mica is dominant in these schists, however, lenses rich in biotite & chlorite were observed. Intercalated with the mica schists are lenses of massive, generally fine grained, micaceous quartzites.

Granitic and pegmatitic dykes were observed in areas to cut the local schistosity planes. These, generally narrow (<1 meter) dykes are most likely products derived from partial melting during the intense metamorphism of the schists. Granitic rocks appear to become more abundant near the western portion of the grid area (ie. L-9W).

Schistosity attitudes observed are quite variable, ranging in strike from  $070^{\circ}$  to  $145^{\circ}$  azimuth, while dips range from  $40^{\circ}$  to  $65^{\circ}$  northerly. Locally dips may reach  $80^{\circ}$  (see fig. 250-3,5).

RESULTS OF PREVIOUS WORK

The first comprehensive exploration programme carried out on the property was in 1977 when an electromagnetic survey was carried out by Glen E. White Geophysical and Consulting Services Ltd. This survey resulted in the discovery of four conductive zones, designated A, B, C and D.

A geochemical survey carried out in the following year delineated a strong northwesterly trending co-incident lead - zinc - silver anomaly in the central and northeastern portions of the Big J #3 claim (see fig 250-3). A smaller, less intense co-incident lead - zinc anomaly was delineated in the south - central part of the Big J#3 claim. Figure 250-3 is a compilation plan showing the geochemical anomalies and conductive zones (E.M. Survey) along with the 1978 grid outline, diamond drill hole locations and trench locations (from Dec. 1977 report). Figure 250-4,5 details the area presently under investigation.

Conductive zones "A" and "B" were interpreted as conductors in an area of no background response and later tested by drilling. The drill holes (1978) encountered often abundant sulphides with the best intersections being approximately 2 meters wide and grading from 4 to 5.5% combined lead zinc and 0.4 to 0.7 oz/ton silver. Many intersections, though narrow are often flanked by wider areas containing disseminated sulphides that likely could grade 1 - 2% combined lead - zinc, and 0.2 to 0.4 oz/Ton silver.

Conductive zones "C" and "D", in contrast to "A" and "B" are in a broad zone of strong negative background response. Conductors  $C_1$  and  $C_2$  according to White (1977) could possibly form a fold structure. These conductors as seen on fig 250-3 are situated near the southwest margin of the large lead - zinc anomaly. Conductor  $C_3$  is interpreted (White, 1977) as two closely spaced parallel conductors with an apparent dip of  $30 - 50^\circ$  north, similar to that of the known mineralized zones. The maximum conductivity is interpreted to be at a depth of 12 meters with a possible thickness of 10 meters. This conductor lies partially within the large lead - zinc geochemical anomaly, and was therefore considered an exploration target for the 1982 surveys.

#### GEOPHYSICS

A magnetic survey was carried out between Oct. 5 - 7, 1982 using a Geometrics Model G-836 Proton Magnetometer to establish whether some of the electromagnetic (E.M.) anomalies delineated in 1977 (White) had a magnetic expression. This was also done because the best known mineralization near  $1+30^E$ ;  $4+60^N$  contains substantial amounts of pyrrhotite and is magnetically anomalous.

The magnetometer survey was carried out on all of the lines south of the baseline from L-9W to L-1E. Magnetic readings were taken on L-1E and L-2E to check the response over the area containing known mineralization, which has received most of the attention in past exploration programmes.

Magnetometer readings are expressed in gammas and in the case of this particular instrument total magnetic field readings are given. An average "background" reading would be approximately 58,000 gammas.

It was during the course of doing the survey on L-1E that an intense magnetic anomaly was found to lie between the baseline and 1+00N. This magnetic anomaly yielded readings in excess of 70,000 gammas as compared with 60,000 to 62,000 gammas over the known mineralization. (see fig. 250-4). A quick check of the area around the initial "highs" revealed similar high values and an extreme magnetic low on the southwest side of L-1E (values as low as 43,300 gammas). These intense "mag lows" are often in close proximity to magnetic highs and reflect the inherent polarity of a magnetic body (ie. magnetite and/or pyrrhotite ± base metal sulphides). The rate at which the high values drop off on the southwest side of L-1E suggest the presence of a moderately steeply inclined magnetic mass that dips toward the north to northeast. This particular dip direction would appear to be conformable to the local dips of the schistose rocks observed in the area.

This particular area of intense magnetics is also the site of a conductive zone ("B2") delineated in the 1977 electromagnetic survey. In addition the greatest geochemical values encountered in the writer's sampling were found to co-incide with this area of magnetic and electromagnetic anomalies.

The magnetic survey carried out south of the baseline from L-0 to L-9W revealed only sporadic magnetic "highs" and "lows" which were generally found near established conductors C3, D1, D2, D3 (see fig. 250-4). The magnetic values seldom exceeded 60,000 gammas and nowhere approached the intensity or polarity of the "B2" magnetic-electromagnetic anomaly. Geochemically these areas were found to be generally negative and thus for these reasons the above "C" and "D" conductive zones are of a lower priority than the "B2" anomaly.

During the 1978 drilling programme one hole (DDH-8) was drilled near the B2 anomaly (0+10N; 2+30E). This hole, inclined at 45° to the south, intersected over 1.5 meters of massive pyrrhotite with galena, sphalerite and chalcopyrite. Being drilled to a depth of less than 30 meters and located over 100 meters from the intense magnetic anomaly it is the writer's opinion that a definite exploration target still exists.

#### GEOCHEMISTRY

A total of 67 soil samples were collected along the re-established grid lines (see fig. 250-5). The samples were collected in areas of known magnetic and/or electromagnetic anomalies to ascertain whether any concentrations of lead, zinc or silver were co-incident with these geophysical anomalies. In addition these samples would serve as checks for the previous geochemical surveys conducted in 1978.



Soil samples consisted of "B" horizon material found at depths of 15 to 35 cm. Extraneous rock chips and organic material were excluded from these samples. Upon collection the samples were placed in kraft waterproof envelopes and labelled with the grid co-ordinates. All samples were then packaged and shipped to the Acme Analytical Laboratory in Vancouver, B. C. for analysis.

After drying the soil samples were sieved to obtain a minus 80 mesh fraction. The determination procedure was as follows:

<u>Element</u>	<u>Digestion</u>	<u>Determination</u>
Lead	0.5 gm sample is digested in hot aqua regia.	Atomic Absorption.
Zinc		
Silver		

The results for each element are stated in parts per million (ppm) and are plotted on base maps at a scale of 1:2,000 (1 cm = 20 m) (See fig. 250-5).

A statistical analysis was done with the following geochemical categories being derived.

	<u>Lead</u>	<u>Zinc</u>	<u>Silver</u>
Mean ( $\bar{X}$ )	29ppm	198ppm	0.4ppm
Standard Deviation (S)	16ppm	143ppm	0.4ppm
Background	<29ppm	<198ppm	<0.4ppm
Possibly Anomalous	29-45ppm	198-341ppm	0.5-0.8ppm
Probably Anomalous	46-61ppm	342-484ppm	0.9-1.2ppm
Definitely Anomalous	> 61ppm	>484ppm	> 1.2ppm

Although the number of samples used for this type of calculation is rather low (ideally should have more than 100 samples) it does nonetheless give an approximate idea of what an anomalous metal value is for this area.

In applying the geochemical categories to the given metal values, the following anomalous areas are indicated, and described with respect to any geophysical anomalies.

1). Lead: (fig. 250-5)

- range of values from background to 490 ppm.
- highest value associated with co-incident EM and magnetic anomaly near B/L on L-1E.
- rest of values at background to possibly anomalous range.
- one probably anomalous lead value on the D1 conductor (L-6W) and on the C3 conductor (L-1AW).

2). Zinc: (fig. 250-5)

- range of values from background to 860 ppm.
- only 5 samples found to be definitely anomalous, 1 probably anomalous.
- all of these are centered around co-incident EM and magnetic anomaly near B/L on L-1E, 2E.
- no anomalous zinc in the C and D conductors tested.

3). Silver: (fig. 250-5)

- range of values from background to 2.2 ppm.
- only 5 samples in the probably to definitely anomalous category.
- four of these are centered around co-incident EM and magnetic anomaly near B/L on L-1E, 2E.
- highest value, 2.2 ppm found on L-2W; O+75S is near west end of long C3 conductor outlined in 1977 survey by White and may be attributed to some mineralized float (?).

It can be readily seen that the most attractive area thus far, geochemically speaking is that found near the baseline around L-1E and L-2E. In addition the samples collected verify previous geochemical sampling in the area. The anomalous geochemical data in the above area, combined with the presence of interesting co-incident magnetic and electromagnetic anomalies would seem to warrant further investigation.

RECOMMENDATIONS

Based on the geophysical and geochemical data available to date, further exploration of the property is definitely warranted. Further work should include the following:

- (1). Carry out a detailed magnetometer survey over the grid in the B1, B2, B3 conductive zones. Special emphasis in the area of the B2 anomaly should be directed to establishing the geometry and trend of the zone.
- (2). Extend the detailed geochemical sampling over and around the B2 anomaly.
- (3). Carry out a programme of trenching and/or backhoe sampling.
- (4). Contingent on the results of the above carry out a programme of diamond drilling.

These recommendations for the most part encompass those outlined in Phase I and Phase II of the writer's report of September, 1981.

Respectfully Submitted by;



DAWSON AND ASSOCIATES LTD.,

Werner Gruenwald, B. Sc.  
Geologist.

Kamloops, B. C.

November 7, 1982

APPENDIX A

GEOCHEMICAL RESULTS

To: Kerr, Dawson & Associates Ltd.,  
Suite 206, Nicola Place,  
310 Nicola Street,  
Kamloops, B.C.  
V2C 2P5

File No. 82-1356

Type of Samples Soils

Disposition \_\_\_\_\_

**GEOCHEMICAL ASSAY CERTIFICATE**

Jeff

SAMPLE No.			Pb*	Zn	Ag							
0	3	S	32	165	.3							1
	3+50		19	205	.4							2
	3+75		20	200	.5							3
	4		27	196	.1							4
	4+25		26	270	.5							5
	4+50		18	144	.4							6
0	5	S	26	308	.2							7
												8
1E	5	S	24	156	.3							9
	5+25		36	196	.3							10
	5+50		28	190	.2							11
	5+75S		34	204	.3							12
	0		32	240	.2							13
	0+25N		490	646	1.5							14
	0+50		32	540	.5							15
1E	0+75N		44	860	1.4							16
												17
1W	1+25S		14	100	.2							18
	1+50		26	104	.4							19
	1+75		13	188	.2							20
	2		12	72	.5							21
	2+25		15	119	.6							22
	2+50		13	104	.3							23
1W	2+75S		22	178	.4							24
												25
1AW	2	S	32	176	.3							26
	2+50		20	130	.4							27
	2+75		22	192	.4							28
	3		29	135	.5							29
	3+25		22	125	.5							30
	3+50		106	270	.1							31
	4		20	86	.4							32
	4+25		18	162	.4							33
	4+50		16	155	.4							34
1AW	4+75S		22	200	.3							35
												36
1BW	2	S	29	142	.4							37
	2+25		30	134	.3							38
	2+50		29	138	.4							39
1BW	2+75S		20	108	.6							40

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All results are in PPM.

DIGESTION:.....

DETERMINATION:.....

DATE SAMPLES RECEIVED Oct. 18, 1982

DATE REPORTS MAILED Oct. 21, 1982

ASSAYER

*Dean Toy*

DEAN TOYE, B.Sc.  
CHIEF CHEMIST  
CERTIFIED B.C. ASSAYER

To: Kerr, Dawson & Associates Ltd.,

File No. 82-1356

Type of Samples Soils

Disposition \_\_\_\_\_

**GEOCHEMICAL ASSAY CERTIFICATE**

Jeff

SAMPLE No.	Pb*	Zn	Ag							
1BW 3 S	24	138	.3							1
2E 0	84	645	1.8							2
0+25N	58	428	1.1							3
2E 0+50N	82	502	.5							4
2W 0+75S	52	215	2.2							5
1	36	168	.4							6
1+25	37	120	.1							7
2W 1+50S	22	128	.3							8
3W 5+50S	25	140	.5							9
3W 6 S	38	128	.4							10
4W 4+50S	26	175	.4							11
4+75	24	130	.6							12
5	30	170	.6							13
5+25	32	262	.3							14
5+50	27	192	.4							15
5+75	20	188	.5							16
4W 6 S	27	148	.5							17
6W 3 S	46	160	.2							18
3+25	19	155	.4							19
3+50	26	175	.5							20
3+75	24	192	.6							21
6W 4 S	28	135	.2							22
7W 2+25S	20	94	.1							23
2+50	17	138	.1							24
2+75	22	130	.2							25
7W 3 S	34	185	.4							26
9W 1 S	26	80	.4							27
1+25	24	90	.2							28
1+50	24	120	.1							29
1+75	20	78	.1							30
9W 2 S	18	98	.1							31
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 All results are in PPM.  
 DIGESTION:.....  
 DETERMINATION:.....

DATE SAMPLES RECEIVED Oct. 18, 1982

DATE REPORTS MAILED Oct. 21, 1982

ASSAYER *D. Toy*

DEAN TOYE, B.Sc.  
 CHIEF CHEMIST  
 CERTIFIED B.C. ASSAYER

APPENDIX B

PERSONNEL



PERSONNEL

FIELD:

W. Gruenwald, B. Sc.

-October 5, 6, 7, 1982

3 days

R. Henderson, Assistant,

-October 5, 6, 7, 1982

3 days

B. Dawson, Assistant,

-October 5, 6, 7, 1982

3 days

OFFICE:

W. Gruenwald, B. Sc.

-September 29, October 21, 25, 1982

1 1/4 days

APPENDIX C

STATEMENT OF EXPENDITURES

COST STATEMENT

(Jeff : Big J #3 Claim)

PERSONNEL:

W. Gruenwald, B. Sc., -4 ½ days @ \$200.00/day	\$850.00	
R. Henderson, Assistant, -3 days @ \$130.00/day	390.00	
B. Dawson, Assistant, -3 days @ \$120.00/day	<u>360.00</u>	\$1,600.00

TRUCK RENTAL:

3 days @ \$20.00/day	\$60.00	
200 mi. @ 0.20/mi.	<u>40.00</u>	100.00

GEOCHEMICAL ANALYSIS:

237.85

ROOM & BOARD: (Salmon Arm)

315.86

MAGNETOMETER RENTAL:

3 days @ \$15.00/day	45.00	
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MISCELLANEOUS:

Sample Shipping, Flagging, Sample Bags, Printing, Xeroxing, Secretarial.	<u>111.29</u>	<u>810.00</u>
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TOTAL

\$2,410.00

APPENDIX D

REFERENCES



APPENDIX E

WRITER'S CERTIFICATE

**Werner GRUENWALD, B. Sc.**

Geologist

~~XXXXXXXXXXXXXXXXXXXX~~ • KAMLOOPS, B.C. V2C 2A1 • TELEPHONE (604) 374-0544,  
#206 - 310 Nicola St.,

CERTIFICATE

I. WERNER GRUENWALD, OF KAMLOOPS, BRITISH COLUMBIA, DO HEREBY  
CERTIFY THAT:

- (1). I am a geologist residing at 45 West Battle Street, Kamloops, British Columbia, and am employed by Kerr, Dawson and Associates Ltd., of Suite 206, 310 Nicola Street, Kamloops, B. C.
- (2). I am a graduate of the University of British Columbia, B. Sc. (1972), and a fellow of the Geological Association of Canada. I have practised my profession for 10 years:
- (3). I am the author of this report which describes the results of the geological, geophysical and geochemical exploration programme carried out on the Jeff & Big J3 claims, Kamloops Mining Division, British Columbia.



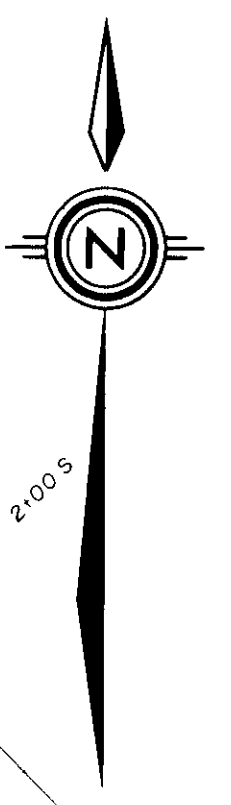
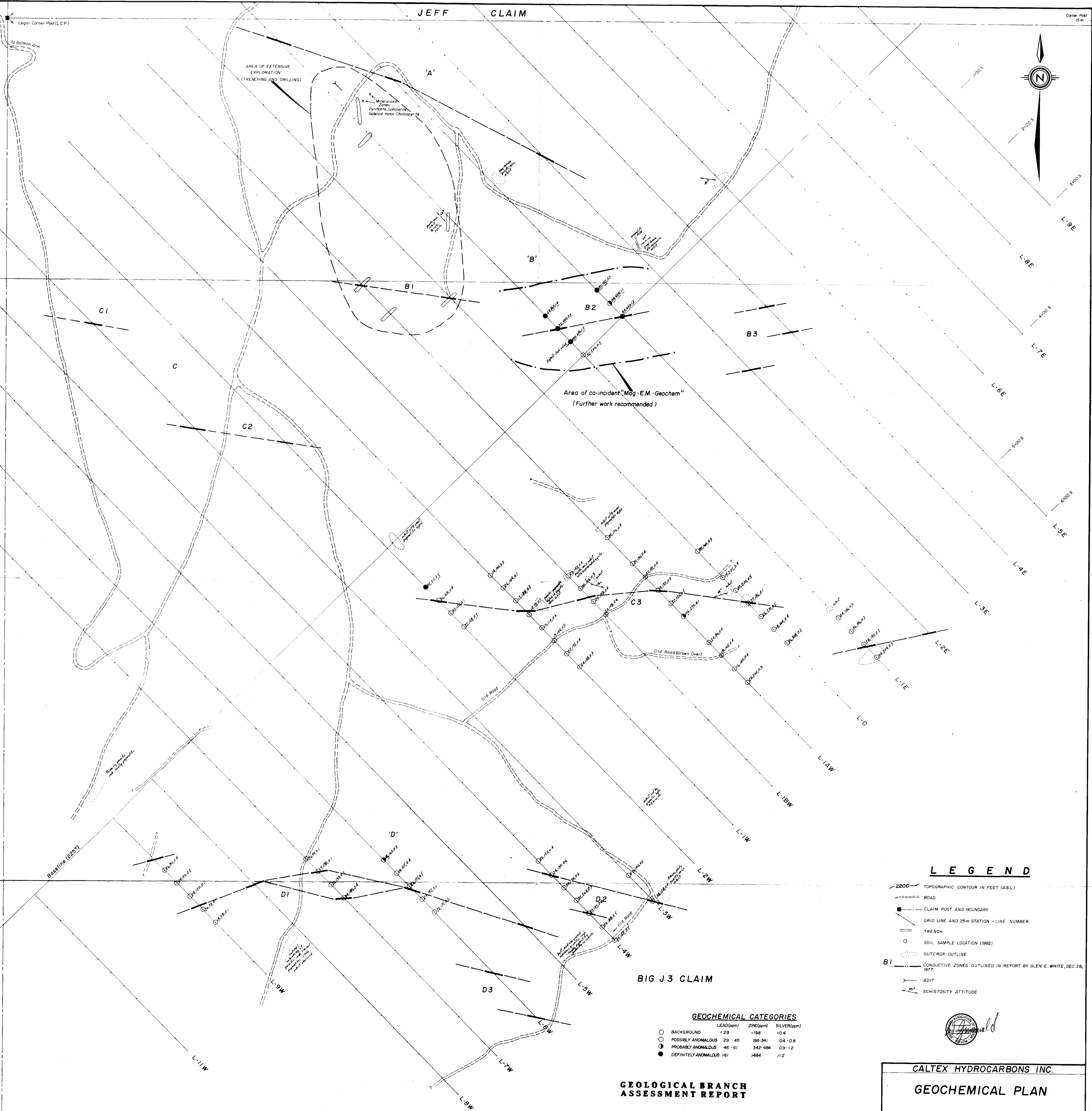
KERR, DAWSON AND ASSOCIATES LTD.,

*Werner Gruenwald*  
Werner Gruenwald, B. Sc.

GEOLOGIST.

KAMLOOPS, B. C.

November 7, 1982



**LEGEND**

- 2200 TOPOGRAPHIC CONTOUR IN FEET (A.S.L.)
- ROAD
- CLAIM POST AND BOUNDARY
- GRID LINE AND 25m STATION - LINE NUMBER
- TRENCH
- SOIL SAMPLE LOCATION (1982)
- OUTCROP OUTLINE
- CONDUCTIVE ZONES OUTLINED IN REPORT BY GLEN E. WHITE, DEC 28, 1977
- ADIT
- SCHISTOSITY ATTITUDE

**BIG J 3 CLAIM**

**GEOCHEMICAL CATEGORIES**

	LEAD(ppm)	ZINC(ppm)	SILVER(ppm)
○ BACKGROUND	< 29	< 198	< 0.4
○ POSSIBLY ANOMALOUS	29 - 45	198-341	0.4 - 0.8
● PROBABLY ANOMALOUS	46 - 61	342-494	0.9 - 1.2
● DEFINITELY ANOMALOUS	> 61	> 494	> 1.2

**GEOLOGICAL BRANCH ASSESSMENT REPORT**

**10,745**

CALTEX HYDROCARBONS INC.

**GEOCHEMICAL PLAN**

**JEFF AND BIG J 3 CLAIMS**

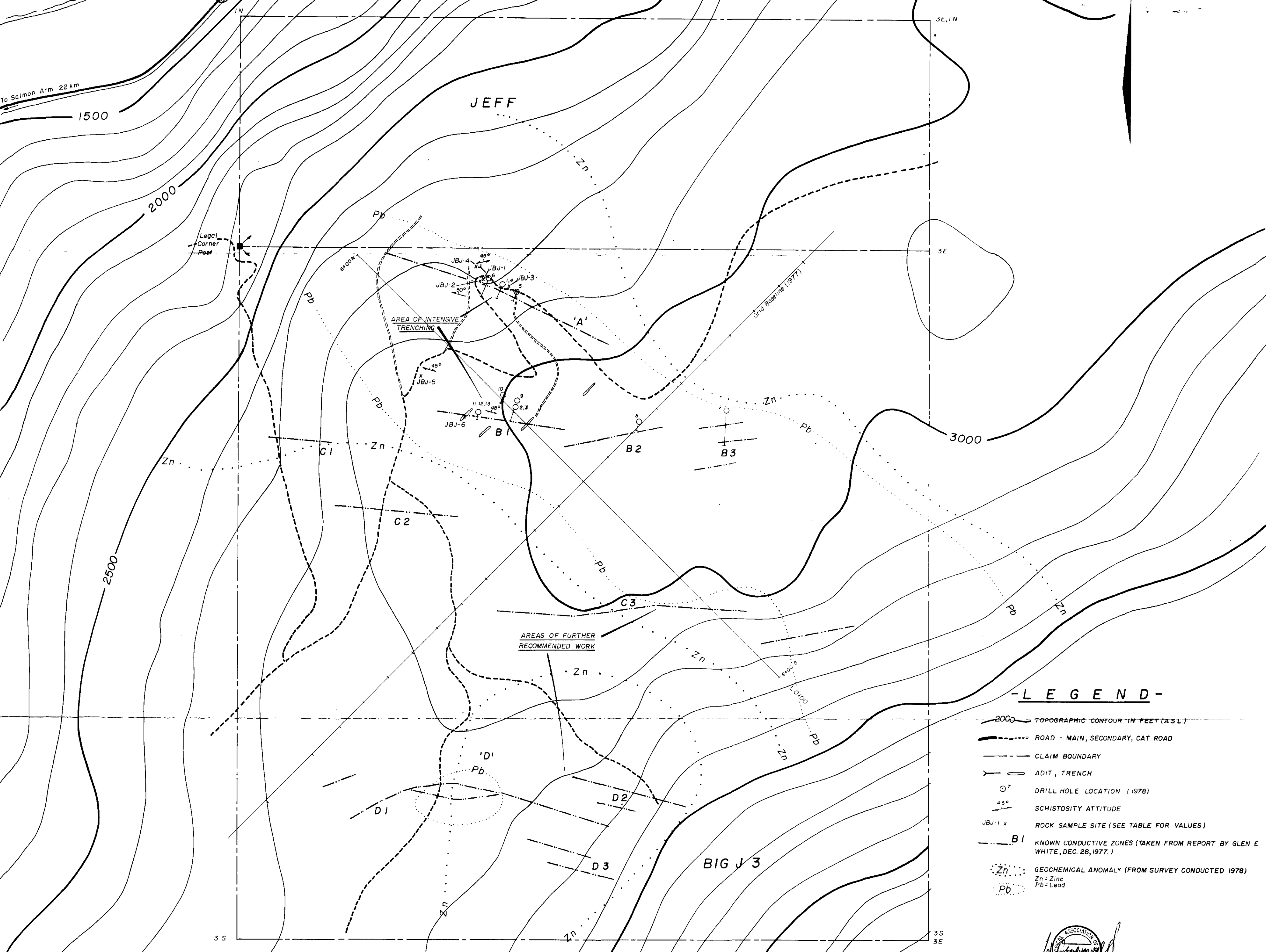
KAMLOOPS MINING DIVISION, BRITISH COLUMBIA.

TECHNICAL WORK BY KERR, DAWSON AND ASSOCIATES LTD.	SCALE 1:2,000
DRAWN BY W.G.	DATE NOVEMBER, 1982
APPROVED BY J.R.K., W.G.	FIG NO. 250-5

To accompany a report by W. Greenwald, B.Sc.



SALMON ARM  
(SHUSWAP LAKE)



**- L E G E N D -**

- 2000 TOPOGRAPHIC CONTOUR IN FEET (A.S.L.)
- ROAD - MAIN, SECONDARY, CAT ROAD
- CLAIM BOUNDARY
- ADIT, TRENCH
- DRILL HOLE LOCATION (1978)
- SCHISTOSITY ATTITUDE
- JBU-1 x ROCK SAMPLE SITE (SEE TABLE FOR VALUES)
- B1 KNOWN CONDUCTIVE ZONES (TAKEN FROM REPORT BY GLEN E. WHITE, DEC. 28, 1977.)
- GEOCHEMICAL ANOMALY (FROM SURVEY CONDUCTED 1978)  
Zn = Zinc  
Pb = Lead



**ASSAY VALUES**

SAMPLE NO	WIDTH(meters)	SILVER (oz/t)	COPPER(%)	LEAD(%)	ZINC(%)
JBU-1 (4006)	1.2m	2.10	0.40	7.8	0.7
JBU-2 (4006)	0.3m	1.39	0.19	6.4	1.8
JBU-3 (4007)	2.0m	0.16	0.31	0.1	0.9
JBU-4 (4008)	Grab	0.67	0.16	1.9	0.8

	SILVER (PPM)	COPPER (PPM)	LEAD (PPM)	ZINC (PPM)
JBU-5 (4009)	10	-	114	148
JBU-6 (4010)	42.4	-	3600	2840

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**10,745**

To accompany a report by W. Gruenwald, B.Sc.

**CALTEX HYDROCARBONS INC.**

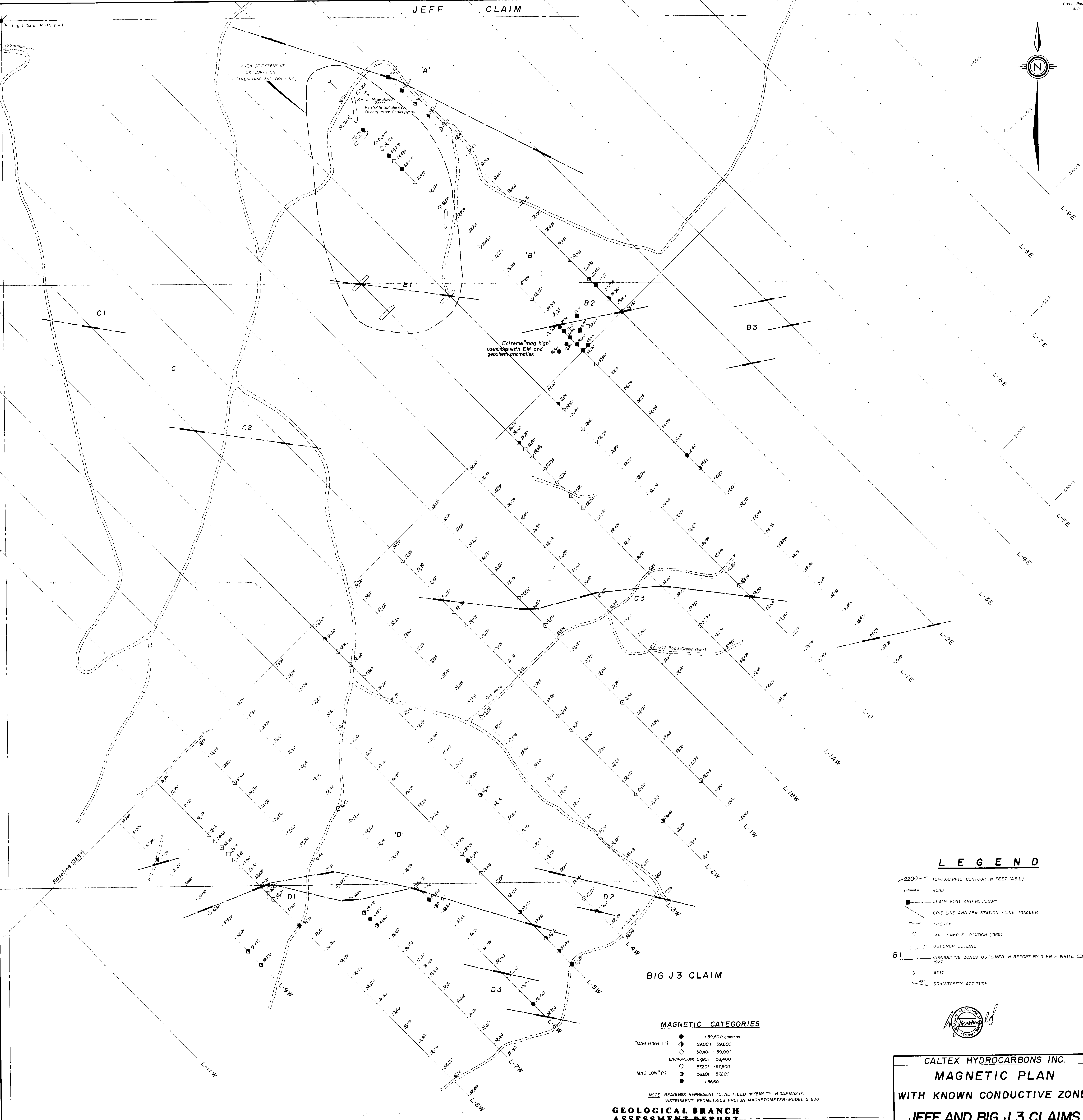
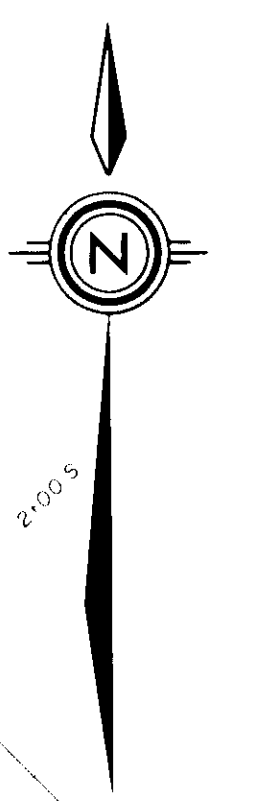
COMPILATION PLAN SHOWING:  
GEOCHEMICAL ANOMALIES (1977)  
CONDUCTIVE ZONES (1977 E.M. SURVEY)  
SAMPLE LOCATIONS & ASSAY VALUES

**JEFF AND BIG J 3 CLAIMS**

KAMLOOPS MINING DIVISION, BRITISH COLUMBIA.

Tech Work By: Kerr, Dawson and Associates Ltd	Scale: 1:5,000
Drawn By: W.G.	Date: July, 1981 Revision Nov 1982
Approved By: J.M. Dawson, P.Eng.	Fig. No. 250-3

# JEFF CLAIM



AREA OF EXTENSIVE EXPLORATION (TRENCHING AND DRILLING)

'A'

Extreme mag high coincides with EM and geochem anomalies.

B1

B2

B3

C1

C

C2

C3

Baseline (2289')

'D'

D1

D2

D3

## BIG J 3 CLAIM

### LEGEND

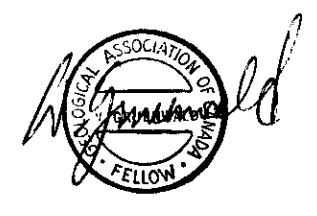
- 2200 TOPOGRAPHIC CONTOUR IN FEET (A.S.L.)
- ROAD
- CLAIM POST AND BOUNDARY
- GRID LINE AND 25 m STATION + LINE NUMBER
- TRENCH
- SOIL SAMPLE LOCATION (1982)
- OUTCROP OUTLINE
- CONDUCTIVE ZONES OUTLINED IN REPORT BY GLEN E. WHITE, DEC 28, 1977
- ADIT
- SCHISTOSITY ATTITUDE

### MAGNETIC CATEGORIES

- ◆ > 59,600 gammas
- ◆ 59,001 - 59,600
- ◇ 58,401 - 59,000
- BACKGROUND 57,801 - 58,400
- 57,201 - 57,800
- 56,601 - 57,200
- < 56,601

NOTE: READINGS REPRESENT TOTAL FIELD INTENSITY IN GAMMAS (G)  
INSTRUMENT - GEOMETRICS PROTON MAGNETOMETER - MODEL G-836

### GEOLOGICAL BRANCH ASSESSMENT REPORT



**CALTEX HYDROCARBONS INC.**  
**MAGNETIC PLAN**  
**WITH KNOWN CONDUCTIVE ZONES**  
**JEFF AND BIG J 3 CLAIMS**  
 KAMLOOPS MINING DIVISION, BRITISH COLUMBIA.

TECHNICAL WORK BY: KERR, DAWSON AND ASSOCIATES LTD. SCALE: 1:2,000  
 DRAWN BY: W.G. DATE: NOVEMBER, 1982  
 APPROVED BY: J.R.K., W.G. FIG NO. 250-4

# 10,745