

ARIS SUMMARY SHEET

District Geologist, Nelson

Off Confidential: 93.10.09

ASSESSMENT REPORT 22543

MINING DIVISION: Fort Steele

PROPERTY: Fall  
LOCATION: LAT 49 16 00 LONG 116 01 00  
UTM 11 5457346 571540  
NTS 082F01E

CAMP: 001 Purcell Belt (Sullivan)

CLAIM(S): Fall 1-6  
OPERATOR(S): Gass, N.  
AUTHOR(S): Gass, N.  
REPORT YEAR: 1992, 13 Pages  
KEYWORDS: Proterozoic, Creston formation, Kitchener formation, Siltites  
Quartzites, Argillites, Quartz veins

WORK  
DONE: Geological, Geophysical, Geochemical  
GEOL 150.0 ha  
Map(s) - 1; Scale(s) - 1:2500  
MAGG 5.2 km  
ROCK 14 sample(s) ;AU

LOG NO: OCT 13 1992 RD.

ACTION.

FILE NO:

**ASSESSMENT REPORT**

on the

**FALL CLAIMS**

**LAMB CREEK**

**GRASSY MOUNTAIN MAP SHEET**

82 F/8 lat. 49° 16" N Long 116° 01" W

by

**N. GASS**

2604 Exshaw Rd. N.W.

Calgary, Alberta

**T2M 4E5**

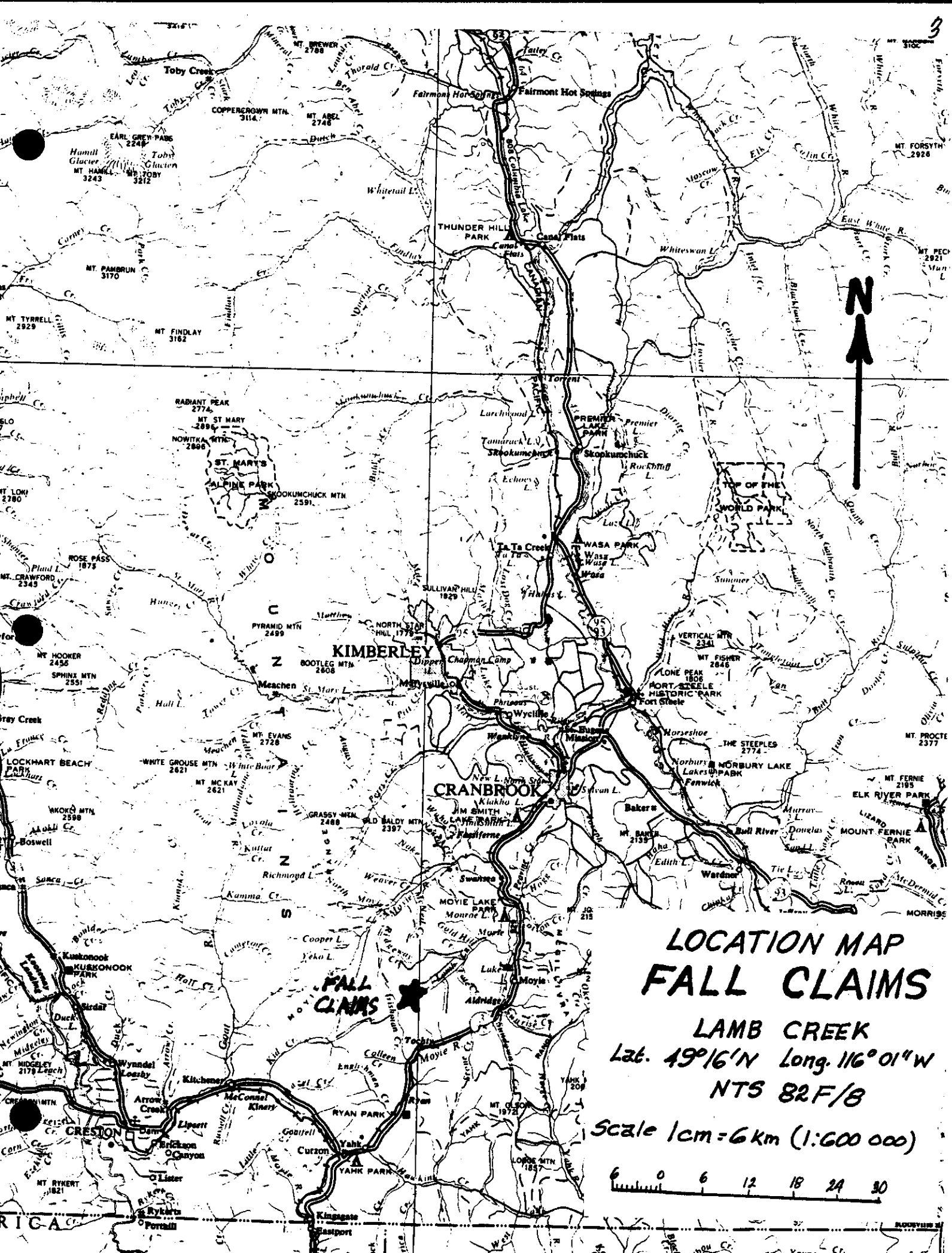
Ph. 282-6179

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**22,543**

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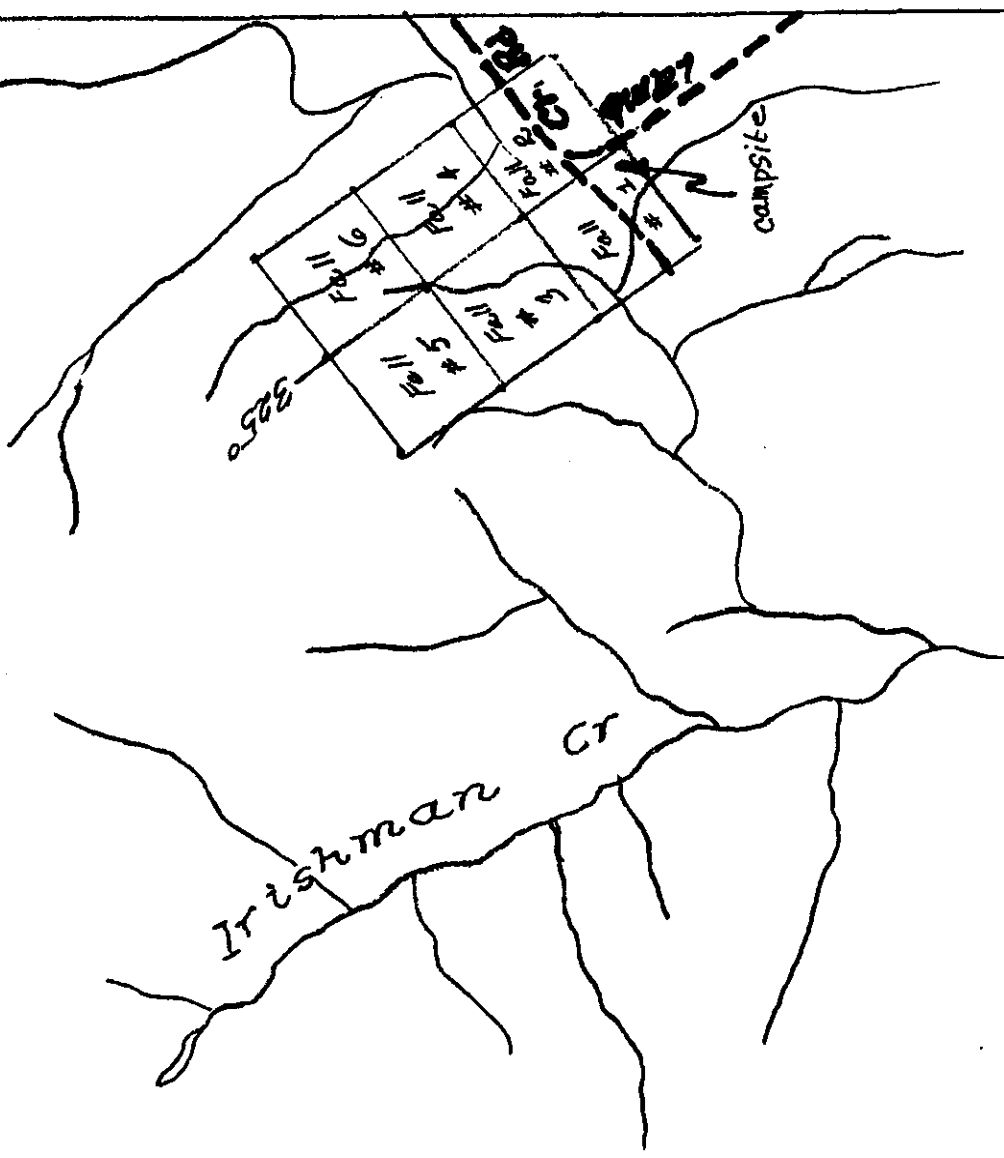
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CLAIMS MAP  
FALL CLAIMS

LAMB CREEK

Lat.  $49^{\circ}16'N$  Long  $116^{\circ}01'W$

NTS 82F/8



Scale  $\frac{1}{2}$  mile = 1 in  
0 1/4 1/2 3/4 1

116°00'

82F/8E(M)<sup>A</sup>

49° 15'

## INTRODUCTION

A preliminary assessment of the six Fall claims was carried out in July 1992. The work consisted of a reconnaissance geological and geomagnetic map and three shallow pits.

## LOCATION AND ACCESS

The Fall claims are located near the headwaters of Lamb Creek on NTS map 82 F/8, lat. 49° 16" N long. 116° 01" W in the Fort Steel Mining Division.

The claims can be reached by travelling 18.5 km south of Cranbrook on highway 3/93 to the Moyie Lake provincial park turnoff. Turn right and continue south for approximately one kilometre. Take the right fork for 2.5 km then the left fork off the pavement. Continue south west for 8 km, take the left fork for 4 km then the right fork for 6 km to where the road takes a 90° turn to the south east. IP #1 is approximately 320 M up this road, between the road and the creek.

The road is an excellent gravelled logging road passable by car except for heavy snow months. The claim line bears 325° across a broad open interval for about 750 M. The gradient steepens considerably from there on up across the Irishman Creek road.

## PREVIOUS WORK

The area was massively clearcut a number of years ago and is a favourite for elk hunters. It was perhaps these individuals who first discovered alluvial gold on the height of land between Lamb and Irishman creeks. A moderately large operation was undertaken on the Irishman drainage side but was abandoned. Several more

modest attempts are alleged to have found some gold in Lamb Creek itself.

The area was mapped in 1980-81 by J.E. Reesor of the G.S.C. It does not appear that the structure mentioned in the Local Geology section below was recognized, at least it does not appear on the published map.

#### REGIONAL GEOLOGY

The claims are located on the north-west flank of the Moyie anticline. Only the pre-cambrian Creston and Kitchener formations are present on the claims and regional strike is approximately  $085^{\circ}$ . The Moyie fault is about 300 M to the north-west and brings middle Aldridge beds to the surface.

#### LOCAL GEOLOGY

The prospect is based on the wedging of Creston and Kitchener beds at an angle of about  $57^{\circ}$  to the regional strike between two north trending faults. This structure appears to have set up a structural trap (see Fig. #1) between the easternmost fault and the Kitchener argillite just west south west of Lamb Creek in the vicinity of a small spring fed lake which goes dry in summer. The west fault is off the property but gives a remarkable demonstration of the trapping of quartz veins on the fault below the Kitchener. These particular veins are barren (see Fig. #2) being just below the projected dilatent zone as depicted in Fig. #1. The Creston/Kitchener contact is only very tenuously established. As mapped there appears to be a structural discontinuity between the

two. It is conceivable that the Creston is folded back on itself in a very tight fold but more likely a number of faults parallel to the east and west faults will account for the apparent structural inconsistency.



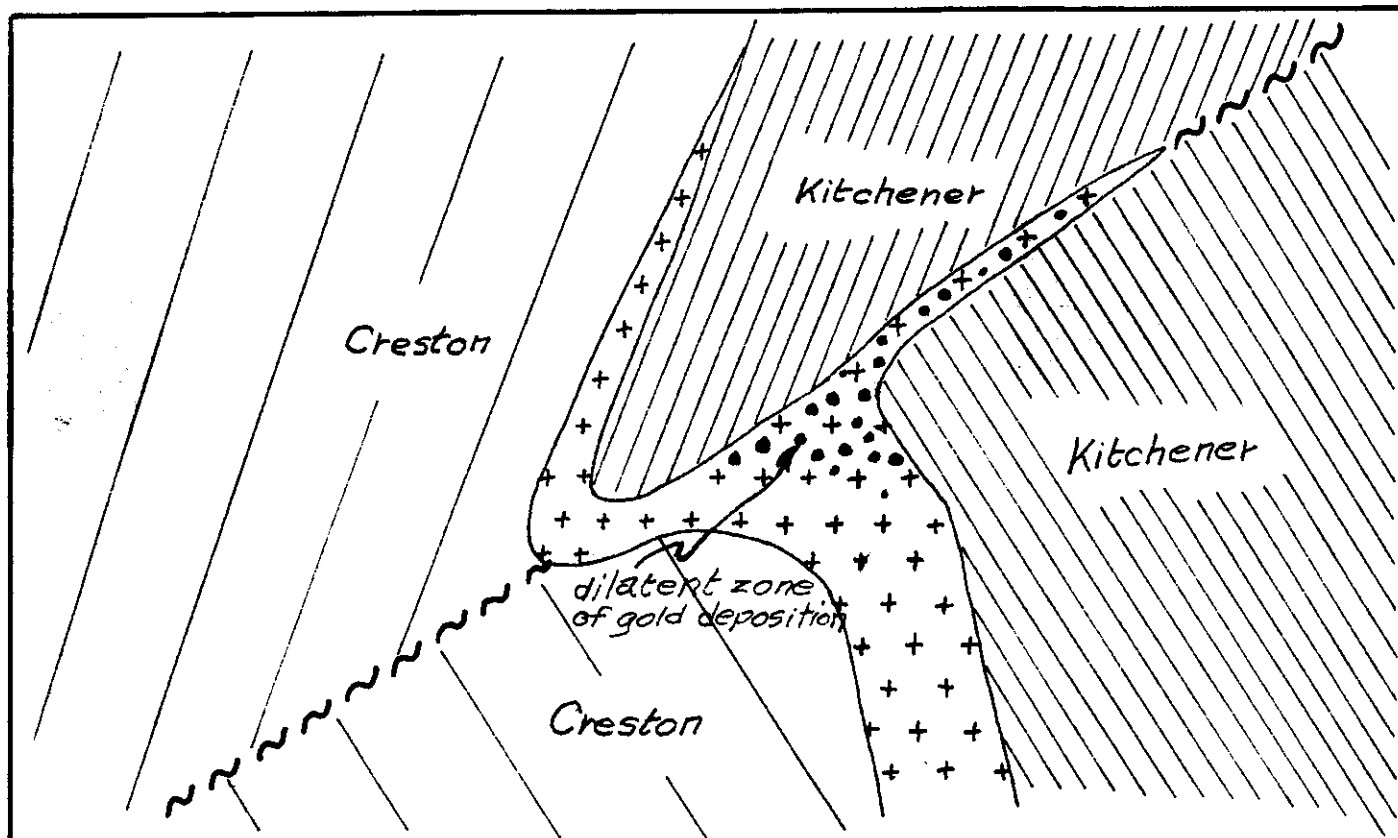


Fig. 1 Hypothetical cross-section of structural trap on the easternmost fault in the vicinity of the dry lake

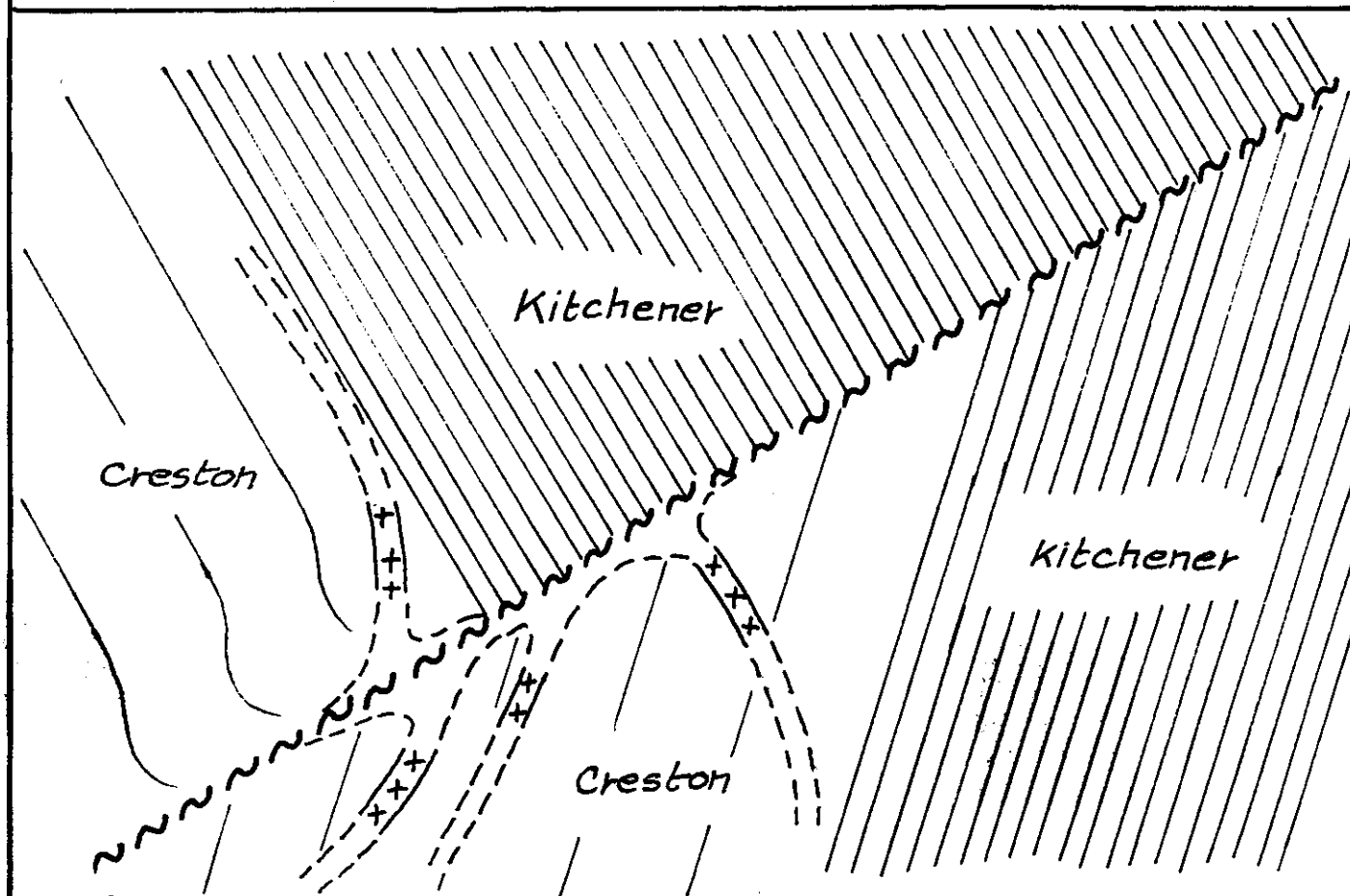


Fig. 2 Sketch of four quartz veins in structural trap on the west fault

### GEOMAGNETICS

An M 700 McPhar, total field, magnetometer was used to take readings every 22 M. All readings were rationalized to minimize the diurnal effect, noise and ground effects.

A base line was run from IP #1 along the claim line bearing 325° to the upper or Irishman Creek road a distance of some 1430 M. Six cross lines were run for an additional 3763 M for a total of 5193 M. The claim posts and the upper road where the claim line crosses it were used as floating standard stations to zero the instrument.

Three anomalous areas were encountered.

1. 250-300 M north-east of claim post #3 a very rusty weathering zone in the Kitchener gave readings 200-300 gammas above background.
2. The baseline intersected the fault zone 125 M below the Irishman Creek <sup>road</sup> for a distance of about 100 M. This zone gave readings of about 200 gammas below background.
3. The baseline again intersected a zone 50 M south east of claim post #2. The zone appears to be about 150 M wide with a maximum magnetic expression of about 300 gammas below background.

### SAMPLE PITS

Four sample pits were dug in an attempt to intersect the "C" zone in the vicinity of the dry lake. Pit #1, 150 M NNW of claim

post #2 was dug in the dry creek bed to a depth of eight feet. Assay of the sample from this depth yielded a value of 11 PPb Au or about twice background.

Pits #2 and 3 were dug on either side of the dry lake to a depth of four feet where the aquifer was encountered and they had to be abandoned. Assay values were at background probably because of the water washed nature of the silt at this elevation.

Pit #4 was dug on the edge of the second sink hole but was abandoned at four feet because of excessively difficult digging in boulders. This sample as well was at background value for Au in the area.

#### SUMMARY AND CONCLUSION

The skewed fault block sets up structures along the faults for entrapment of gold bearing hydrothermal solutions in dilatent zones where the impermeable Kitchener argillite serves as the hydrodynamic barrier. Sketchy reconnaissance sampling has not determined any gold values on the west fault. It is suspected that erosion has removed the dilatent portion of the veins or it is not yet exposed at the surface. Additional claims need to be staked and more extensive sampling done along the fault.

Anomalously low geomagnetic values along the fault and in the vicinity of the dry lake suggest quartz veining. The apparent broader nature of the event near the dry lake suggests considerable lateral silicification of country rock typical of a structural trap.

The anomalously high magnetic readings accompanied by iron alteration in the kitchener north east of claim post #3 are indicative of cretaceous granitic intrusion similar to granitic plugs accompanied by alteration and gold values elsewhere in the Kimberly-Cranbrook area.

The slightly anomalous soil sample from 8' down in pit #1 indicates the depth at which sampling will have to be done to penetrate what appears to be glacial lake sediments on this col between the two drainages. It will probably require a power auger or back hoe in the late fall when the water table is at its lowest to produce enhanced gold assays.

The dry lake is viewed as the vestigial remains of what was a considerably larger body of water in immediately post glacial times. The aquifer underlying this lake is thought to bear an artesian relationship to the fault and or the quartz vein occupying a sheer zone. Anomalous gold values would not be expected in the well washed sills of the dry lake.

The sink holes immediately west of the dry lake are doubtlessly related to undermining by this aquifer.

## Appendix A

### QUALIFICATIONS

- 14.1 The writer, N. Gass, obtained his B.Sc. in geology from Dalhousie University, Halifax, N.S. in 1955 and his M.Sc. in geology from the same institution in 1957.
- 14.2 Experience
- 1955 Detailed mapping & prospecting American Smelting and Refining Ltd., Newfoundland.
- 1956 Regional mapping and detailed study of Pegmatites of the Winnipeg River, Manitoba Department of Mines.
- 1957-62 Surface and subsurface exploration, mapping, wellsite and special projects in Saskatchewan, Alberta, & British Columbia. Chevron Standard Oil Co. Ltd.
- 1963 Wellsite consultant, Chevron Standard.
- 1964 Developed House Mt. Oil field for Chevron Standard.
- 1971 Uranium and base metal exploration in Saskatchewan for V. Zay Smith and Associates, Calgary.
- 1976 Uranium exploration northern Saskatchewan for Rio Alto Exploration Ltd.
- 1979 Drilling program on fossil placer, Gay's River, N.S., Calgary syndicate.
- 1980 Drilling program Nelson, B.C. for Dekalb Mining.
- 1981 Geological mapping and geophysical survey, La France Creek, B.C., Dekalb Mining.
- 1982 Lithium, tantalum, germanium prospecting and reconnaissance survey, Winnipeg River, Manitoba, Dekalb Mining.
- 1983-92 Base metals, gold/silver prospecting, Cranbrook, B.C.

APPENDIX B<sub>2</sub>

To: MR. NICK GASS

2604 Exshaw Road N.W.,

Calgary, Alberta

T2M 4E5



File No. 35298

Date August 19, 1992

Samples Soil/Rock

# Certificate of Assay

## LORING LABORATORIES LTD.

SAMPLE NO.

GOLD  
ppb

## "GEOCHEM ANALYSIS"

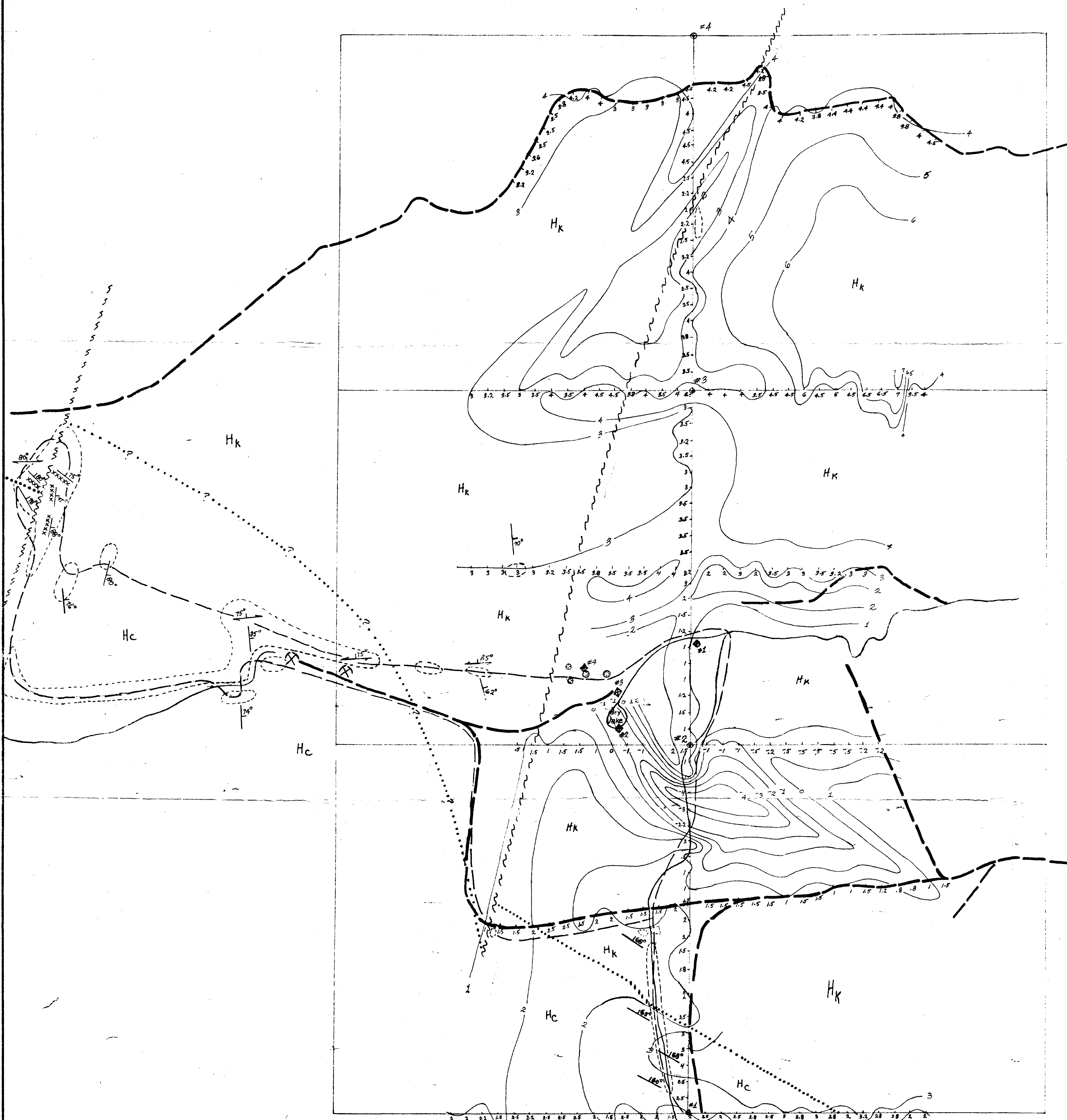
BR - 1	< 5
BR - 2	5
BR - 3	46 <i>same as BR-1</i>
BS - 1	< 5
BS - 2	< 5
BS - 3	< 5
BS - 4	19 <i>Pit Lamb Cr. #1</i>
BS - 5	< 5
BS - 6	6
BS - 7	< 5
BS - 8	< 5
BS - 9	6
BS - 10	< 5
L - 1	11 <i>Lamb Cr. Pit #1</i>
L - 2	< 5
L - 3	< 5
L - 4	< 5

I Hereby Certify that the above results are those  
assays made by me upon the herein described samples....

Rejects retained one month.  
Pulps retained one month  
unless specific arrangements  
are made in advance.

*[Signature]*  
Assayer

22,543



## LEGEND

### PROTEROZOIC-HELIKIAN

**Hk** KITCHENER FM. lower part green argillite grading to grn. siltstn with interbeds of buff to brn. dolomite rsty. weathering

**Hc** MIDDLE CRESTON FM. grey/green siltstone & argillite some purple siltstone to fine sandstone & quartzite

- Road
- - - Claim lines
- - - Traverse
- ~ Stream
- Rock outcrop
- ~ Fault (defined)
- ~ Fault (approximate)
- ~ Fault (assumed)
- Claim post
- + Sample location
- 1/70 Strike & dip of bedding
- 1/70 Strike & dip of foliation
- ... Geological boundary
- 4 - Geomagnetic contours X 100 gammas
- Sink hole
- ⌵ Placer operation
- ⬢ #1 Sample pit

### GEOLOGICAL & MAGNETIC MAP of the **FALL CLAIMS** **LAMB CREEK**

Lat. 49°16'N Long. 116°01'W B2F8  
by N. GASS Sept. 1992

Scale: 1:2500, 1cm = 25M

0 50 100 150 200