

ARIS SUMMARY SHEET

District Geologist, Nelson

Off Confidential: 90.02.20

ASSESSMENT REPORT 18708

MINING DIVISION: Fort Steele

PROPERTY: Sylvan
LOCATION: LAT 49 33 00 LONG 116 08 00
UTM 11 5488741 562690
NTS 082F09E

CAMP: 001 Purcell Belt (Sullivan)

CLAIM(S): Sylvan 1
OPERATOR(S): Fairclough, F.
AUTHOR(S): Gass, N.
REPORT YEAR: 1989, 27 Pages

COMMODITIES

SEARCHED FOR: Copper, Lead, Zinc, Silver, Gold
KEYWORDS: Proterozoic, Aldridge Formation, Creston Formation
Kitchener Formation, Granite, Quartz Veins

WORK
DONE: Physical, Geochemical, Drilling, Geological
DIAD 53.0 m 3 hole(s); XRP
Map(s) - 2; Scale(s) - 1:1000
ROAD
ROCK 20 sample(s) ; ME
Map(s) - 1; Scale(s) - 1:1000
SOIL 47 sample(s) ; AU

LOG NO: 0511	RD.
ACTION:	
FILE NO:	Page #

TABLE OF CONTENTS

TITLE PAGE AND SUMMARY

INTRODUCTION 1

 Objectives and Scope 1

 Location and Access 1

 Location Map 2

 Previous Work 3

GEOLOGY 3

 Regional Geology and Theoretical Background 3

 Regional Geology Map 4

 Local Structure 6

 Economic Geology 7

GEOCHEMISTRY 7

DIAMOND DRILLING 7

PHYSICAL CONSTRUCTION 9

SUMMARY AND CONCLUSIONS 11

QUALIFICATIONS 13

REFERENCES 14

APPENDIX A: Loring Lab Assays

APPENDIX B: Acme Analytical Laboratories

MAP #1: Geology

MAP #2: Geochemical and Physical on 4W 4N and 5W 4N

MAP #3: Physical on 5W 2N

MAP #4: Claims Map

GEOLOGICAL BRANCH
ASSESSMENT REPORT

18,708

FILMED

INTRODUCTION

Objectives and Scope

There were five objectives of the present work:

- A. Intersect the suspected quartz vein on the St. Mary's fault with a diamond drill and evaluate mineralization.
- B. Drill through the silicified zone to determine mineral potential.
- C. Drill the granite contact to evaluate for rare earths.
- D. Do a soil sample grid to attempt to establish the location of both sections of the St. Mary's fault and delineate any "hot spots".
- E. Prospect the Grassy Mt. fault and surrounding area to establish the extent of granitic intrusion and associated minerals.

Location and Access

The Sylvan claims are located 27 km W.N.W. of Cranbrook, B.C., latitude 49° 33'N, longitude 116° 08' W. They are situated on the north slope of a ridge extending westward from the "radio range ridge".

To reach the claims a paved road runs 16 km west from Marysville to St. Mary's Lake. Turning south the road crosses a narrow bridge over the St. Mary's River just east of the lake. From there one travels along "the river road" for 2 - 3 km, then turn south on a good logging road up Angus Creek. About 8 km up this road is a switchback on the east side which climbs the west face of the ridge for about 2 km onto the Sylvan claims.

St. Mary

PINETREE 1
1994(10)
45 X 5W

Pudding
PINETREE 3
1996(10)
55 X 6W

PUDDING
3141(7)
3NX6E

BURN
3145(7)
25 X 6E

PERRY 4
2555(12)
4N X 4E
104460
PERRY 5
2556(12)
35 X 2E
104460

MAXX
2
2478
(10)
3N X 2W

WELL 3
1857(7)
4N X 4W

WELL 4
1858(7)
4N X 4E

MONECA
2035(12)
5N X 4E

PEAK
3148(7)
45 X 4E

SYLVAN No. 1
3064(2)
4N X 5W

WELLINGTON
1590(11)
18 X 4E

LEADER A
1834(7)
3N X 3E

ANCHOR
3138(7)
35 X 6E
(115260)

ANGUS
3123(6)
3N X 6W
(115220)

EASY
3142
(7)
55 X 3E

SYLVAN
NO. 2
3081
(4)
35 X 2W

LEADER
#3
3061(2)
65 X 3W
(121524)

LOOK OUT
3060(2)
65 X 3E

GOLD POT
3124(6)
6N X 3W
(115212)

PARIS
1960(10)
4N X 5W

RHINO
3135
(7)
5N X 4E

LOOK OUT
3127(6)
3N X 4E

BEAVER
2909(5)
4N X 3W
Glasgow

PARIS 2
1961(10)
45 X 5W

SUMMIT
3125(6)
55 X 4W

WALSH
3126(6)
55 X 4E

RACK 1
2448
(7)
RACK 2
2449
(7)

RACK 1
2450(B)
35 X 3E

GEOLOGICAL BRANCH
ASSESSMENT REPORT

1878

88367
121530

MAC 6
2776
(11)
3N X 1E

OUT
42(12)
X 3W

086

(7)

KEPINE
43(7)
X 4W

S NEST
(7)
(115222)

TO SOUTH SEE MAP R25185



Province of British Columbia
Ministry of Energy Mines and Petroleum Resources

**DISTRICT GEOLOGISTS' AREAS AND OFFICES
AND
MINING INSPECTION DISTRICTS**

MINING INSPECTION DISTRICTS

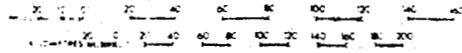
1	Inspector of Mines 2747 East 1st Street Vancouver, B.C. V5K 1Z5
2	Inspector of Mines 2569A Airport Road Nanaimo, B.C. V9T 4P7
3	Inspector of Mines 1652 Quinn St. Prince George, B.C. V2N 1X3
4	Inspector of Mines 1652 Quinn St. Prince George, B.C. V2N 1X3
5	Inspector of Mines 101, 2985 Airport Road Kamloops, B.C. V2B 7A5
6	Inspector of Mines Box 1290 Fernie, B.C. V0B 1M0

DISTRICT GEOLOGISTS' AREAS AND OFFICES, 1982

- | | | |
|-------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| 1 Northwestern District,
T. G. Schroeter,
Bag 5000,
Smithers, B.C. V0J 2N0
847-4411 (Local 277) | 4 South Central District,
G.P.E. White,
101, 2985 Airport Dr.,
Kamloops, B.C. V2B 7W8
376-7201 | 6 West Kootenay District,
G. G. Addie,
310 Ward St.,
Nelson, B.C. V1L 5S4
352-2211 (Local 303) |
| 2 Northeastern District,
A. Legun,
Box 7438,
Ft. St. John, B.C. V1J 4M9
785-6906 | 5 Southwest District,
H. P. Wilton,
218, 548 Michigan St.,
Victoria, B.C. V8V 1S2
387-5538 | 7 Southeast District,
D. A. Grieve,
Box 1290,
Fernie, B.C. V0B 1M0
423-6884 |
| 3 Central District,
E. L. Faulkner,
1652 Quinn St.,
Prince George, B.C. V2N 1X3
562-8131 | | |

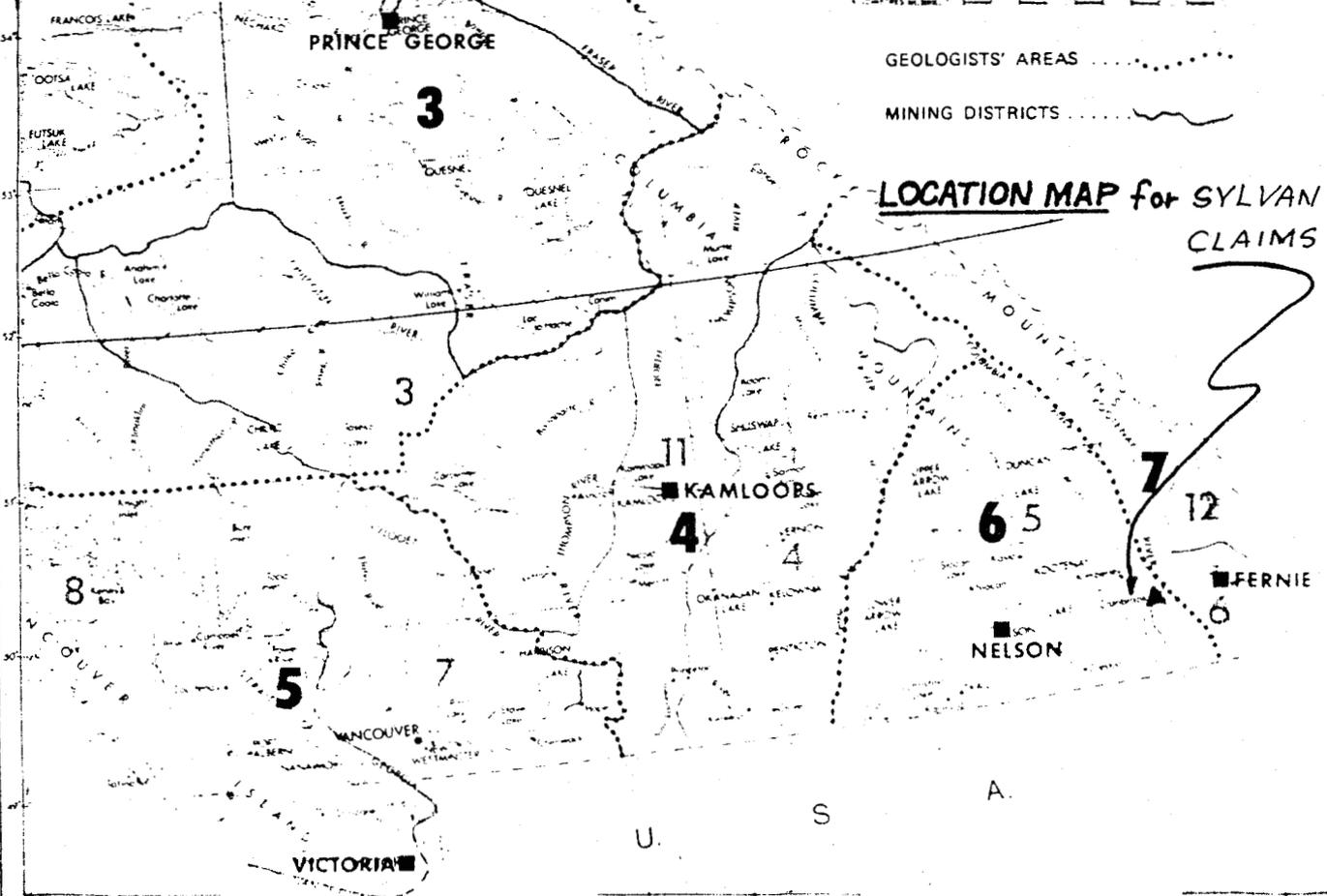
District Geologists' offices are open to the public on normal business days from 8:30 a.m. to 12:00 noon and 1:00 p.m. to 4:30 p.m. District information available for public use includes assessment reports, mineral deposit records, geological reports and maps, topographic maps, current air photograph indexes, some photographs, and Ministry publications. Information on prospectors' assistance, prospectors' training, and other Ministry programs is also available from all offices.

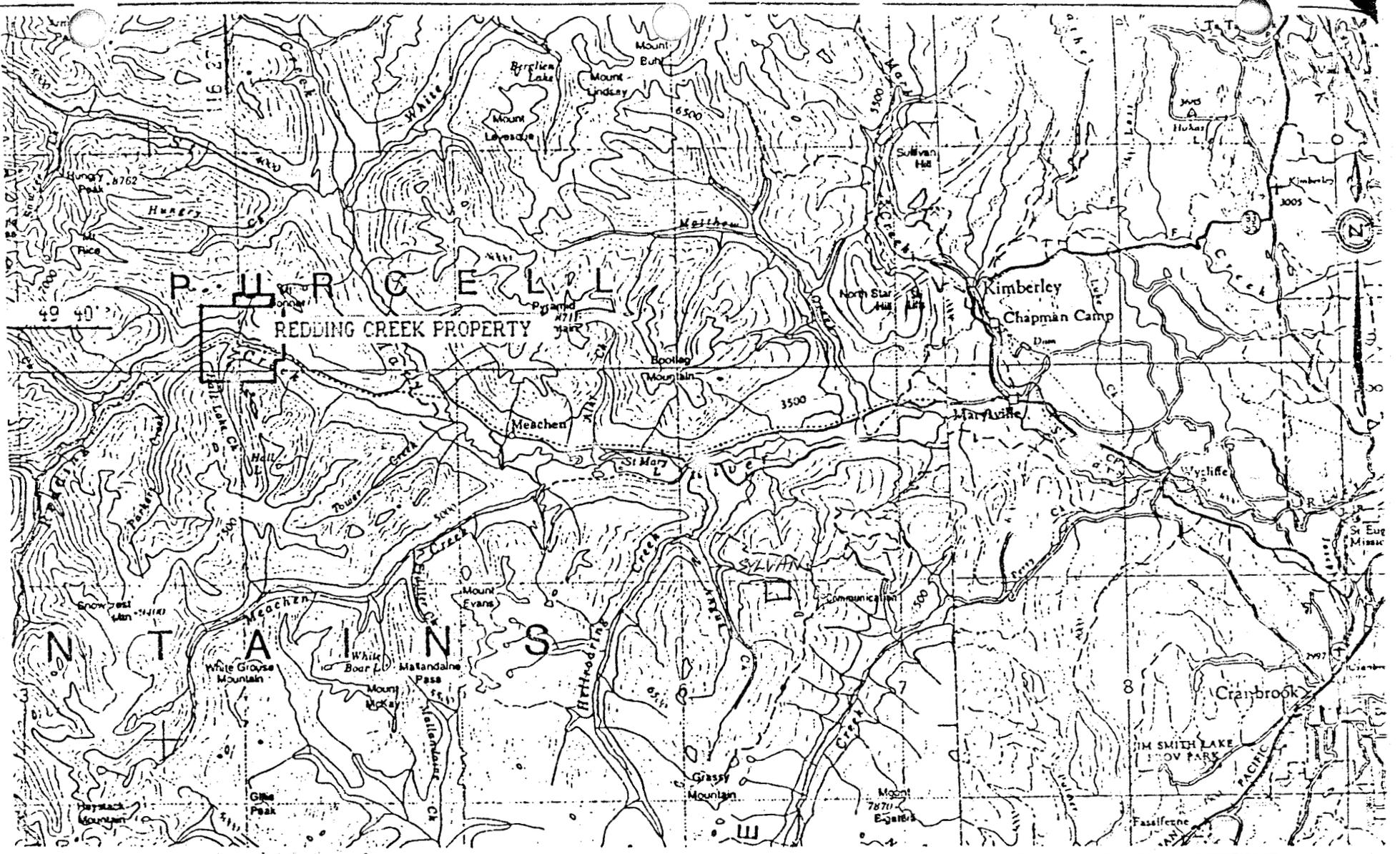
Representative coal cores for the Northeast Coalfield are stored at the Charlie Lake (Ft. St. John) warehouse. Cores and coal reports are available for viewing, subject to terms of confidentiality.



GEOLOGISTS' AREAS
MINING DISTRICTS

LOCATION MAP for SYLVAN CLAIMS





REDDING CREEK PROPERTY

SYLVAN#1

Property Location and Access Map

Kilometres
 Scale: 0
 N.T.S. 62 F/9W
 Date: 7/9/85
 Figure: 2

Previous Work

The main mineral occurrence in the area is just S.W. of the Sylvan claims on the Leader 2 claim. Here a narrow (10-50 cm) quartz vein has been injected along the Grassy Mt. fault. Good values for lead, silver, gold, copper and tungsten were obtained. Several thousand feet of diamond drilling was done and a 15-20 ton bulk sample remains on the property.

Several very old trenches and a 3M pit were dug in the silicified zone of the St. Mary's fault but no mineralization is evident and no records have been discovered.

In 1984 Tunstall and Geotech Resources did a VLF-EM survey and soil sampling over the south end of the well claims and north side of the Wellington claims just to the west of Sylvan. The results confirm the presence of the St. Mary's fault and suggest a small gold anomaly down near Angus Creek.

GEOLOGY

Regional Geology and Theoretical Background

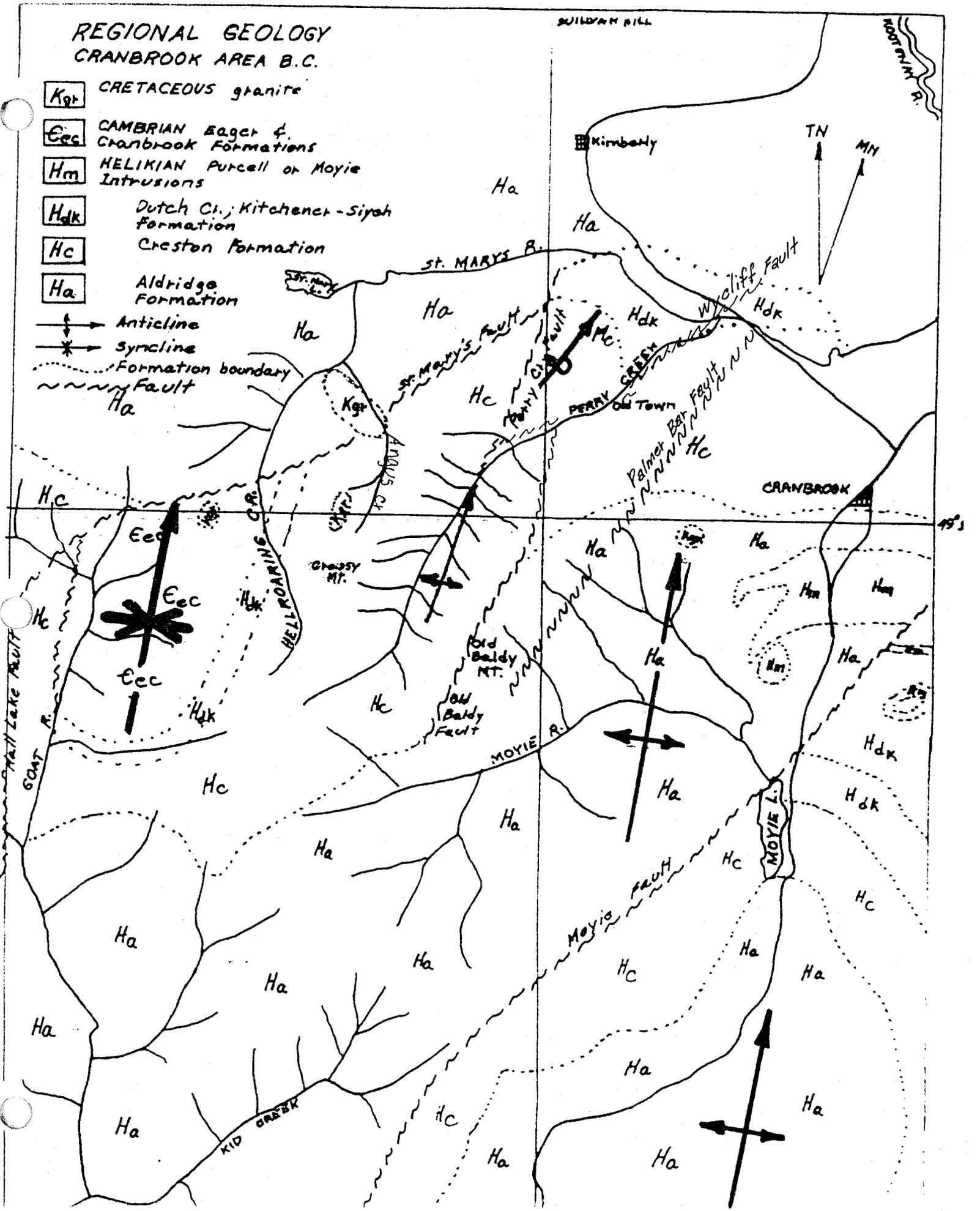
The Sylvan claims are situated on the St. Mary's fault just east of Angus Creek. The St. Mary's is a regional fault traceable for approximately 35 km and strikes roughly W.S.W. It separates the Precambrian Aldridge Formation of the Kimberley ~~horst~~ to the north from the Precambrian Creston and Kitchener Formations of the downthrown side to the south. The Aldridge series of argillaceous siltstones contain multiple diorite dykes and sills that are thought to have intruded the partially consolidated sediments in late middle Aldridge times.

REGIONAL GEOLOGY CRANBROOK AREA B.C.

SULLIVAN HILL

- Kgr CRETACEOUS granite
- Eec CAMBRIAN Bagot & Cranbrook Formations
- Hm HELIKIAN Purcell or Moyie Intrusions
- Hdk Dutch Cr.; Kitchener-Siyah Formation
- Hc Creston Formation
- Ha Aldridge Formation

- Anticline
- Syncline
- Formation boundary
- Fault



Intrusion of the granite of the Bayonne batholith to the west in Larimide times compressed the Kitchener argillites and dolomitic siltstones and Creston quartzite, argillites and siltstones, resulting in thin overthrust fault slices to the south of the St. Mary's fault. This imbricate structure is not dissimilar from the Cretaceous overthrusts in the foothills of the Rocky Mountains. The fault slices typically preserve remnants of Kitchener on the east side of Creston overthrusts.

Aeromagnetic surveys done by Chapleau Resources suggest that the major topographic highs of the area, Grassy Mt. and Old Baldy Mt., are underlain by granitic intrusives of Cretaceous age. Several granitic stocks are exposed along Angus Creek.

Base metal mineralization in the area is generally assumed to be similar in origin to the deposits at Kimberley. East-west faulting along the margin of the basin appears to have been active at the close of lower Aldridge times. Intraformational conglomerates were formed along these faults and became aquifers for base metal bearing solutions. These gave rise to huge stratiform deposits as at the Sullivan mine. Subsequent faulting and quartz veining cut through these stratiform deposits, giving rise to numerous lead, zinc, copper and silver-bearing quartz veins.

Until very recently the gold in quartz veins was viewed as randomly occurring. It is now believed that the basal carbonate bed of the Kitchener Formation may have enhanced gold content due to the affinity of that element for the carbonate molecule in a concretionary environment. This thesis has yet to be proved by assay but circumstantial evidence is strong. Wherever quartz veins cut through this horizon gold is evident.

Giant quartz veins of up to 20 m have long been known as a feature of the Perry Creek valley and surrounding area. They occur most often near the intersections of large faults. They are viewed as a quasi-magmatic phase of the granite and are probably in close proximity to this rock type.

Local Structure

The St. Mary's Fault

The throw on this fault is probably in the order of tens of thousands of feet. It is offset about 1200 m by the Angus Creek fault and is mapped by G.B. Leech (1950-52) as a double fault through the Sylvan property.

The Grassy Mt. Fault

This structure brings Creston to the west over Kitchener to the east and strikes almost perpendicularly into the St. Mary's fault on the west side of the property. A thin quartz vein (10 to 50 cm) carries good lead, silver, copper, gold and tungsten on the Leader 2 claim. The intersection of this fault with the St. Mary's fault seems to have provided the requisite conditions for major silicification to occur. This 50 m wide zone is exposed on the west side of the 5W 4N claim. An aeromagnetic anomaly supports the concept that the granitic intrusion evident on the west boundary is a fairly large body along this fault.

The Angus Creek Fault

Mention should be made of this fault because it appears to have provided one of the main avenues for granitic intrusion. It is something of an enigma in that it offsets the St. Mary's fault by some 1200 m, but

1.5 km further south it appears to have died out or merged with the Grassy Mt. fault.

Economic Geology

An exceptionally large amount of tourmaline in the pegmatitic intrusion west of Angus Creek confirms the presence of abundant boron indicative of sea floor fumaroles. This suggests the possibility of stratiform replacement deposits. The good values contained in the Leader vein fit the model of intrusion through much more extensive deposits.

This quartz vein is in contact with the basal Kitchener at depth, which could account for the good gold values. Following this line of reasoning the intersection of the two faults south of the silicified zone would appear to be a major prospect.

A recent development is the high rare earth values found on the margins of the granite intrusion. Assays as high as 2.3 oz/ton Thorium, 1.6 oz./ton Vanadium and 1.1 oz/ton Lanthanium pressage an interesting prospecting direction.

GEOCHEMISTRY

A 700 m soil sample baseline was laid out in an E - W direction approximately along the St. Mary's fault (see Map #2).

The grid sample pattern used was to take one sample on the fault and one sample downhill from the fault when 250 m east of the defined location. In addition two samples approximately 20 m apart were taken south of the main fault in an attempt to establish the presence of the second fault as proposed by Leech.

All soil samples were taken from the "B" horizon. In many instances the demarcation between A and B horizons was poorly defined. This situation is due to the preponderance of fine "yellow ochre" silt. This material is characteristic of areas where glaciation has ground up the iron rich Kitchener dolomitic siltstone. The fines of this material have been windblown and dropped on the lea side of ridges. This complication often necessitated digging down 40-50 centimeters.

All soil samples were analyzed by Loring Labs of Calgary. They were dry sieved and one fraction pulverized to 100 mesh. Standard digestion using hot aqua regia was used.

Rock samples were pulverized to 140 mesh and the same extraction methods used (see Appendix A).

Acme Analytical Laboratories did a 31 element analysis on 13 rock samples taken from the granite margins (see Appendix B).

Soil sampling gave disappointing results with negligibly significant definition. This is ascribed, in the main, to incomplete coverage, depth of overburden and thickness of the oxidized zone. An initial assessment suggests that attempting to sample the B horizon in this area is not a recommended technique. This conclusion is supported by results obtained on Perry Creek where the yellow ochre was encountered. Due to the poor analysis, soil samples beyond 500E were not analyzed.

Results of the 30 element analysis on the other hand are very encouraging. Lanthanum as high as 1.1 oz/ton and Vanadium 1.6 oz/ton indicate real possibilities for rare earth values.

Rock sample Angus #3 simply confirms the existence of gold and ~~base metal~~ values from the Grassy Mt. fault.

DIAMOND DRILLING

Three holes were attempted at location #1 on landing #1. A packsack drill and XRP diamond bit cutting a 2.2 cm core was used. All three holes were drilled at approximately the same location in an effort to realize some core recovery. The attempt was unsuccessful as no core was recovered in the three attempts. This result was due to the friable nature of the fractured, sheared and pyritized diorite. It was, however, possible to establish several important intersections by observing the drill cuttings.

Overburden was approximately 6 m thick. A 30 cm pyrite lens was encountered at 10 m. Approximately 40 cm of "blood red" gouge was penetrated at 13.2 m. This is presumed to be the St. Mary's fault, as this feature is quite pronounced west of Hellroaring Creek. One quartz vein was encountered at 14.9 m and another at 16 m.

PHYSICAL CONSTRUCTION

A D8 cat was used to prepare and stabilize drill sites, reconstruct, grade and ditch roads, dig a small sump and construct two small settling ponds.

On landing #1 (see Map #2) an overhanging mud bluff was contoured. The extra mud was used to cover an unsightly pile of logs dumped over the side of the landing and only partially burned. A settling pond was dug in the middle of the landing and a small sump was dug just east of the landing. Both were filled in on completion of the work.

The logging road between landing #1 and #3 was graded and ditched to permit use by light vehicles. Similarly a road into landing #2 was graded.

GASS & ASSOCIATES EXPLORATION

D.D.H. PROGRAM: SYLVAN

D.D.H. #s 1, 2, 3 Bearing 180° Inclination #1- 70° #2+3- 45° T.D. #1-14.9M
 #2-10.7M
 #3-22.9M

Location # 1 description: landing at end of upper road in center of cleatcut

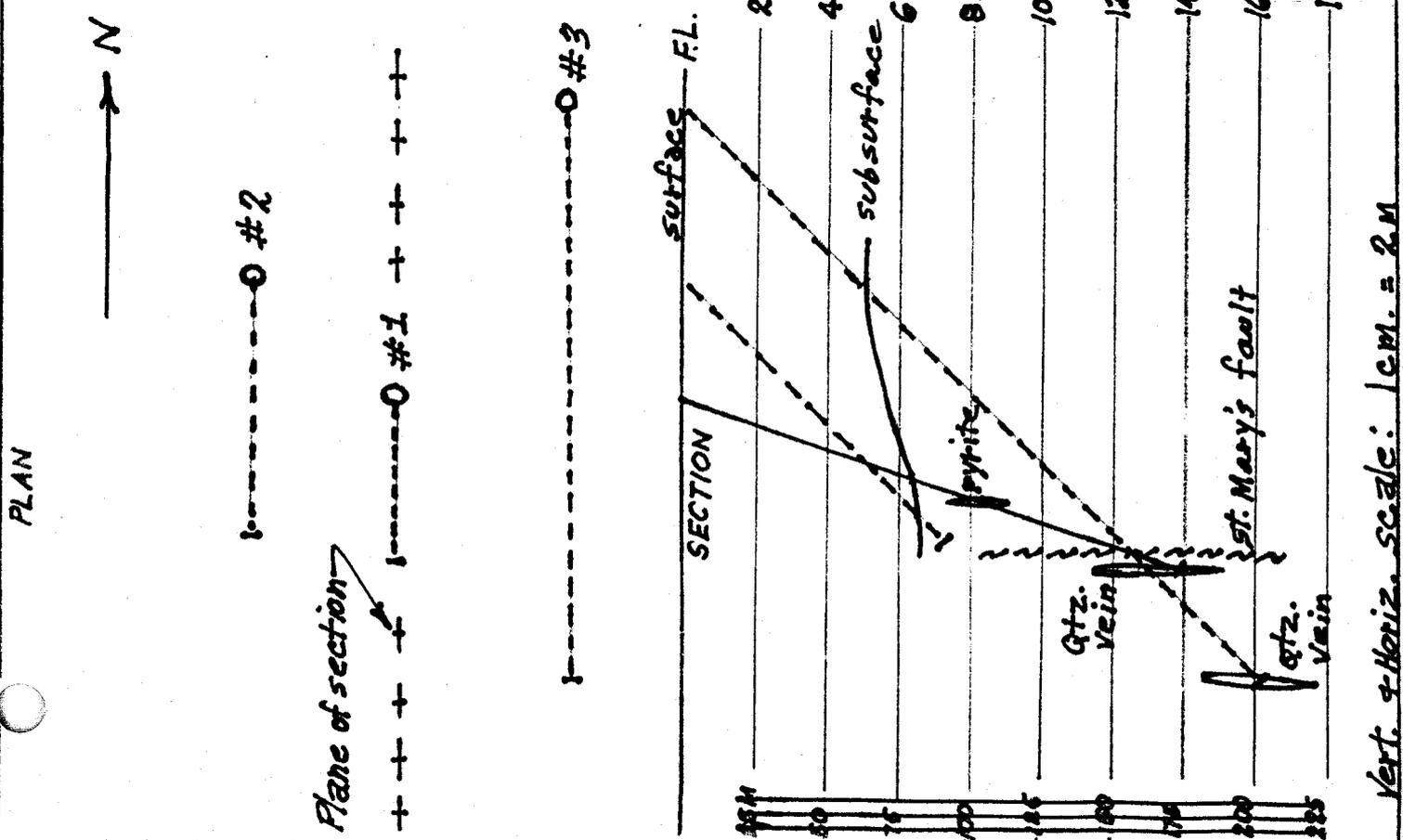
Priority: _____

OBJECTIVES:

	depth		depth
		1 Bedrock	5-6.5M
2 St. Mary's fault	13.2M	3 Quartz Vein	13-14M
4 Quartz vein	16M	5	
5		7	
8		9	
10		11	
12		13	
14		15	

COMMENTS: Hole #1 terminated when steep angle caused bit to bounce off qtz. vein. Hole #2 jammed off. Hole #3 dull bit could not penetrate qtz. vein.

Pyritized Diorite too friable for core recovery with such small diameter bit.



Landing #2 was graded down to bedrock and a shallow settling pond provided to catch drilling mud.

On claim 5W 2N several slumps were removed from the road and ditch. A drilling site was constructed and the bank contoured (see Map #3). A small sump and settling pond were built as well.

SUMMARY AND CONCLUSIONS

- A. The pyritized diorite is far too friable to be cored by a small diameter crown set diamond bit.
- B. The time spent drilling three holes at location #1 negated drilling the silicified zone and granite contact.
- C. Depth and nature of overburden precluded good soil sample results. Soil samples from 500E to 700E were not analyzed.
- D. The silicified zone is probably there because the intersection of the Grassy Mt. and St. Mary's fault provided a channel for ascending solutions from the pluton. The close proximity of granite outcrop suggests a quasi magmatic origin for the silicified zone, therefore rare earth potential.
- E. Abundant boron in the tourmaline of the pegmatitic granite to the west of Angus Creek suggests seafloor fumaroles and the attendant probability of stratiform replacement deposits.
- F. High base metal values along the Grassy Mt. fault suggest intrusion through or along stratiform replacement deposits.

- G. Gold values in the Leader (Grassy Mt.) vein support the thesis of extraction from the Kitchener basal carbonate at depth.
- H. High values for rare earth minerals on the margins of the granite point to a new direction for exploration.

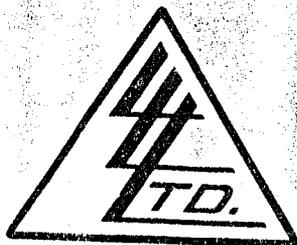
QUALIFICATIONS

- 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, tantalium, germanium prospecting and reconnaissance survey, Winnipeg River, Manitoba, Dekalb Mining.
- 1983-89 Base metals, gold/silver prospecting, Cranbrook, B.C.

REFERENCES

- Annual Reports of Department of Mines, Province of British Columbia
- | | |
|------|------------|
| 1898 | p. 1016 |
| 1915 | p. 108-109 |
| 1916 | p. 190 |
| 1918 | p. 151 |
| 1921 | p. 127-166 |
| 1922 | p. 188 |
| 1923 | p. 207 |
| 1925 | p. 230 |
| 1926 | p. 243 |
| 1929 | p. 297 |
- Banting R.T. Report on the Purcell Camp 1989
- Barlee, N.L. Guide to Gold Panning in B.C., 2nd Ed, 1979.
- Boyle, R.W. The Geochemistry of Gold and Its Deposits, G.S.C. Bulletin 280, 1976.
- Cairnes, C.E. G.S.C. Summary Report Pt. A., Some Mineral Occurrences in the Vicinity of Cranbrook, B.C. 1932, pp. 76-84.
- Leech, G.B. St. Mary Lake, B.C., G.S.C. Map #15
- Reesor, J.E. Grassy Mt., B.C., G.S.C. Open File #820
- Rice, H.M.A. G.S.C. Memoir #207, 1937
- Rice, H.M.A. G.S.C. Memoir #228, 1941
- Schofield, S.J. G.S.C. Memoir #76, pp. 147-152.

To: Mr. E. Fairclough,
 402 Briar Avenue North,
 Cranbrook, B.C.



File No. 31505
 Date July 20, 1988
 Samples Soil
 Project: Sylvan

**Certificate of
 ASSAY of
 LORING LABORATORIES LTD.**

Page # 2

SAMPLE No.	PPB Au
<u>"Soil Samples"</u>	
Geochemical Analysis	
00 + 00	10
415	10
515	10
755	10
50E + 00	10
405	10
515	10
755	10
100E + 00	10
465	10
565	10
755	10
150E + 00	10
505	10
605	10
200E + 00	30
125	10
325	10
605	10
250E + 00	10
755	10
305	10
605	15
755	10
30 N	10
300E + 00	10
305	10
605	10

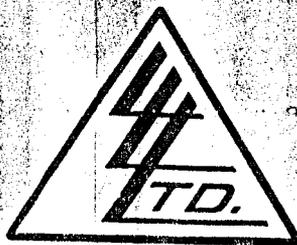
I Hereby Certify THAT THE ABOVE RESULTS ARE THOSE
 ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES . . .

Samples Retained one month.
 Samples Retained one month
 unless specific arrangements
 made in advance.

[Signature]
 Assayer

To: ~~M. F. Fairclough,~~
 402 Briar Avenue North,
 Nanbrook, B.C.

File No. 31505
 Date July 20, 1988
 Samples Soil
 Project: Sylvan



Certificate of
ASSAY of
LORING LABORATORIES LTD.

Page # 3

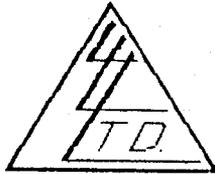
SAMPLE No.	PPB
	Au
300E + 755	10
30 N	10
350E + 30 S	10
60 S	10
75 S	10
30 N	NIL
400E + 55	NIL
35 S	NIL
65 S	NIL
80 S	NIL
30 N	NIL
440 + 15 S	NIL
450E + 00	NIL
30 S	NIL
65 S	NIL
80 S	NIL
500 E + 80 S	NIL
30 N	NIL
Rods	NIL

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
 made in advance.

[Signature]
 Assayer

2604 Exshaw Road N.W.
Calgary, Alberta T2M 4E5
A. N. Gass.



Date July 28, 1988
Samples soil & rock

Certificate of Assay LORING LABORATORIES LTD.

Page # 2

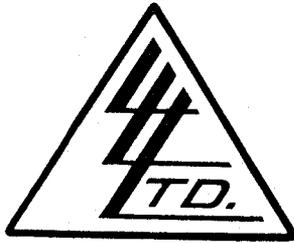
SAMPLE NO.	PPB Au
Geochemical analysis	
"Soil samples"	
BSH-1	nil
BSH-2	5
BSH-3	10
BSH-4	10
BSH-5	nil
BSH-6	nil
BSH-7	nil
BSH-8	20
BSH-9	10
BSH-10	5
BSH-11	5
BSH-12	5
BSH-13	5
BSH-14	15
BSH-15	5
BSH-16	nil
BSH-17	nil
NPBF-1	10
NPBF-2	nil
NPBF-3	nil
NPBF-4	nil
NPBF-5	nil
NPBF-6	nil
D-1	5
D-2	nil
D-3	nil
D-4	nil
D-5	nil
Sylvan 350E +00	nil
Sylvan 500E +30s	nil
Sylvan 500E +65s	nil

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

Objects retained one month.
Culps retained one month
unless specific arrangements
are made in advance.

Gary J. Gass
Assayer

To: Mr. F. Fairdough,
 402 Briar Street North,
 Cranbrook, B.C.



File No. 31310
 Date June 8, 1988
 Samples Rock

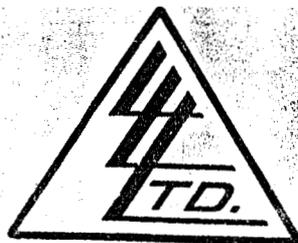
Certificate of
ASSAY of
LORING LABORATORIES LTD.

SAMPLE No.	OZ./TON GOLD	OZ./TON SILVER
<p><u>"Assay Analysis"</u></p> <p>Mary # 1 .002 6 W 1 S</p> <p>Angus # 2 - 5 W 4 N</p> <div style="text-align: center; margin-top: 20px;"> <p>2300.00 1.9.75. ----- 2280.25.</p> </div>		
<p>I Hereby Certify THAT THE ABOVE RESULTS ARE THOSE ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES</p>		

Rejects Retained one month.
 Pulps Retained one month
 unless specific arrangements
 made in advance.

Assayer

To: Mr. F. Fairclough,
 402 Briar Avenue North,
 Cranbrook, B.C.



File No. 31478
 Date July 19, 1988
 Samples Rock

Certificate of
 ASSAY of

LORING LABORATORIES LTD.

426-2796

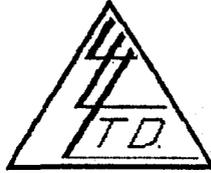
SAMPLE No.	OZ./TON GOLD	OZ./TON SILVER	% Pb	% Zn
Rock Samples" "Assay Analysis"				
Angus # 3	.284	8.08	-	-
SYLVAN Angus # 4	.002	-	-	-
# 5 - M	-	24.68	55.14	.06
SYLVAN, 4 MARY 5				
<p>I Hereby Certify THAT THE ABOVE RESULTS ARE THOSE ASSAYS MADE BY ME UPON THE HEREIN DESCRIBED SAMPLES</p>				

Subjects Retained one month.
 Samples Retained one month
 unless specific arrangements
 made in advance.

Harry Swaley
 Assayer

To: GASS AND ASSOCIATES EXPLORATION,
2604 Exshaw Road N.W.,
Calgary, Alberta T2M 4E5

File No. 31595
Date August 19, 1988
Samples Soil & Rock



ATTN: N. Gass

Certificate of Assay LORING LABORATORIES LTD.

SAMPLE NO.

PPB
Au

PPM
Ag

"Rock & Soil"

S.S.S. 2-1

p.p.p.

DDH-1 28-30.5

S.N.S.-1

HR - 1

Sylvan (silicified)
Price pyrite
Pyrite Sylvan

NIL

50

10

NIL

15

0.2

0.6

2.2

0.3

0.3

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

Objects retained one month.
Cups retained one month
unless specific arrangements
are made in advance.

Assayer

ACME ANALYTICAL LABORATORIES LTD. 852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6 PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
 THIS LEACH IS PARTIAL FOR MN FE CA P LA CR NG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
 - SAMPLE TYPE: ROCK AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: JUNE 30 1988 DATE REPORT MAILED: *July 8/88* ASSAYER: *C. Leong* D. TOYE OR C. LEONG, CERTIFIED B.C. ASSAYERS

KOOTENAY EXPLORATION PROJECT-VEX-832-640-W613 File # 88-2354

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	S	Au	Th	U	Cd	Sb	Bi	V	Ca	P	La	Cr	Hg	Ba	Tl	B	Al	Na	K	W	Au*
	PPM	%	PPM	%	%	PPM	PPM	%	PPM	%	PPM	%	%	%	PPM	PPM															
<i>Fairclough</i> { 0551	1	14	10	9	.2	9	11	62	1.94	14	7	ND	1	1	1	2	2	4	.01	.004	5	3	.01	1	.01	2	.05	.01	.02	1	320
0552	1	23	5	11	.1	5	8	80	3.07	8	5	ND	21	3	1	2	2	16	.02	.006	15	20	.38	10	.01	3	1.39	.01	.05	1	1
0553	3	40	36	53	.4	24	24	347	6.27	28	5	ND	9	18	1	2	2	44	.69	.033	38	24	1.10	60	.15	4	1.66	.05	.25	2	12

10 log/ton

*Sylvan NO1 SW 4N ON ST MARYS
 FAULT WEST CLAIM LINE*

FOR George

THE ROYAL BANK OF CANADA
MAIN BRANCH
2 CRANBROOK STREET
CRANBROOK, B.C. V1C 3P6

PAY TO
THE ORDER OF

Purcell Explorations
Loring Laboratories

June 28 1988
\$ 19.75

Thirteen

100 DOLLARS
75

PER S. Fairclough

FRANK OR SYLVIA FAIRCLOUGH
402 BRAIR AVENUE
CRANBROOK, B.C. V1C 4B5

THE ROYAL BANK OF CANADA
MAIN BRANCH
2 CRANBROOK STREET
CRANBROOK, B.C. V1C 3P6

ROYAL
CERTIFIED
SERVICE

PAY TO
THE ORDER OF

Loring Laboratories
Fifty one

Nov. 30 1988

377

\$ 51.75

75 /100 DOLLARS

Sylvia Fairclough

⑈377⑈ ⑆01360⑆003⑆526⑆358⑆7⑆ accounts payable ⑈0000005175⑈

10101

DETAILS	DEBIT	CREDIT	BALANCE
1- Budget 08 set			
11-6 wood improvement drilling site			
2-8 hrs trenching & bedding			
3-9 hrs trenching & water hole			
4-4- drill site			
5-3- wood work & back filling			
9-8- back filling & drill bedding			
10- at 112 ⁰⁰ per hour	4256 00		
operator of cat & mauls			
turnover	562 00		
			4818 00

Superior

DATE July 19 88

STATEMENT

PURCELL EXPLORATIONS
402 BRIAR STREET NORTH
CRANBROOK, B.C. V1C 4B5
PHONE 426-2796

PAY TO THE ORDER OF
Loring Laboratories Ltd
Unencumbered
100 DOLLARS

THE ROYAL BANK OF CANADA
MAIN BRANCH
2 CRANBROOK STREET
CRANBROOK, B.C. V1C 3P6

FOR George

⑈100⑆09⑆10⑆⑈5000000⑈

⑈197⑆21⑆⑈

⑈505000000⑈

George

100 DOLLARS
Aug 26 1988

\$ 501.75

ACME ANALYTICAL LABORATORIES LTD.

852 E. HASTINGS ST. VANCOUVER B.C. V6A 1R6

PHONE(604)253-3158 FAX(604)253-1716

GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCl-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
 THIS LEACH IS PARTIAL FOR NI ZN SR CA P LA CR NG BA YI B W AND LIMITED FOR BA K AND AL. AN DETECTION LIMIT BY ICP IS 3 PPM.
 - SAMPLE TYPE: ROCK AD^o ANALYSIS BY ACID LEACH/LA FROM 10 GR SAMPLE.

DATE RECEIVED: SEP 12 1988 DATE REPORT MAILED: *Sept 16/88* ASSAYER: *C. Leong* ...D. TOYE OR C. LEONG, CERTIFIED B.C. ASSAYERS

KOOTENAY EXPLORATION PROJECT VEX-832-640-W613 File # 88-4395

SAMPLE#	No	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	V	Au	Th	Sr	Cd	Sb	Bi	Y	Ca	P	La	Cr	Hg	Ba	Yt	B	Al	Mo	K	V	Am ^o
	PPM	%	PPM	%	%	PPM	PPM	%	PPM	%	%	%	%	PPM	PPM																
<i>rough</i> 059K(SFF)	1	69	84	39	.1	28	35	427	6.48	15	5	ND	60	29	1	9	3	55	1.08	.007	6	74	1.06	21	.01	2	.93	.03	.09	2	18
<i>rough</i> 059K(63F)	1	19	254	42	.9	55	62	977	9.39	19	5	ND	35	26	1	2	3	34	2.32	.016	2	82	1.08	15	.01	2	.86	.02	.15	1	48
<i>rough</i> 0600 (SFF)(70F)		24	43	30	.4	26	34	2142	6.42	12	5	ND	18	62	1	2	2	24	12.24	.005	2	23	3.83	38	.01	2	.49	.03	.15	3	15
<i>rough</i> 060K7SF)	1	75	66	5	.2	14	15	313	2.19	9	5	ND	7	9	1	2	2	3	1.13	.011	2	5	.07	63	.01	2	.21	.02	.07	1	5

↓
1.75 mg/ton

↓
1.6 mg/ton

GEOCHEMICAL ANALYSIS CERTIFICATE

ICP - .500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.
 THIS LEACH IS PARTIAL FOR MN FE CA P LA CR MG BA TI B W AND LIMITED FOR NA K AND AL. AU DETECTION LIMIT BY ICP IS 3 PPM.
 - SAMPLE TYPE: ROCK AU* ANALYSIS BY ACID LEACH/AA FROM 10 GM SAMPLE.

DATE RECEIVED: JUN 09 1988

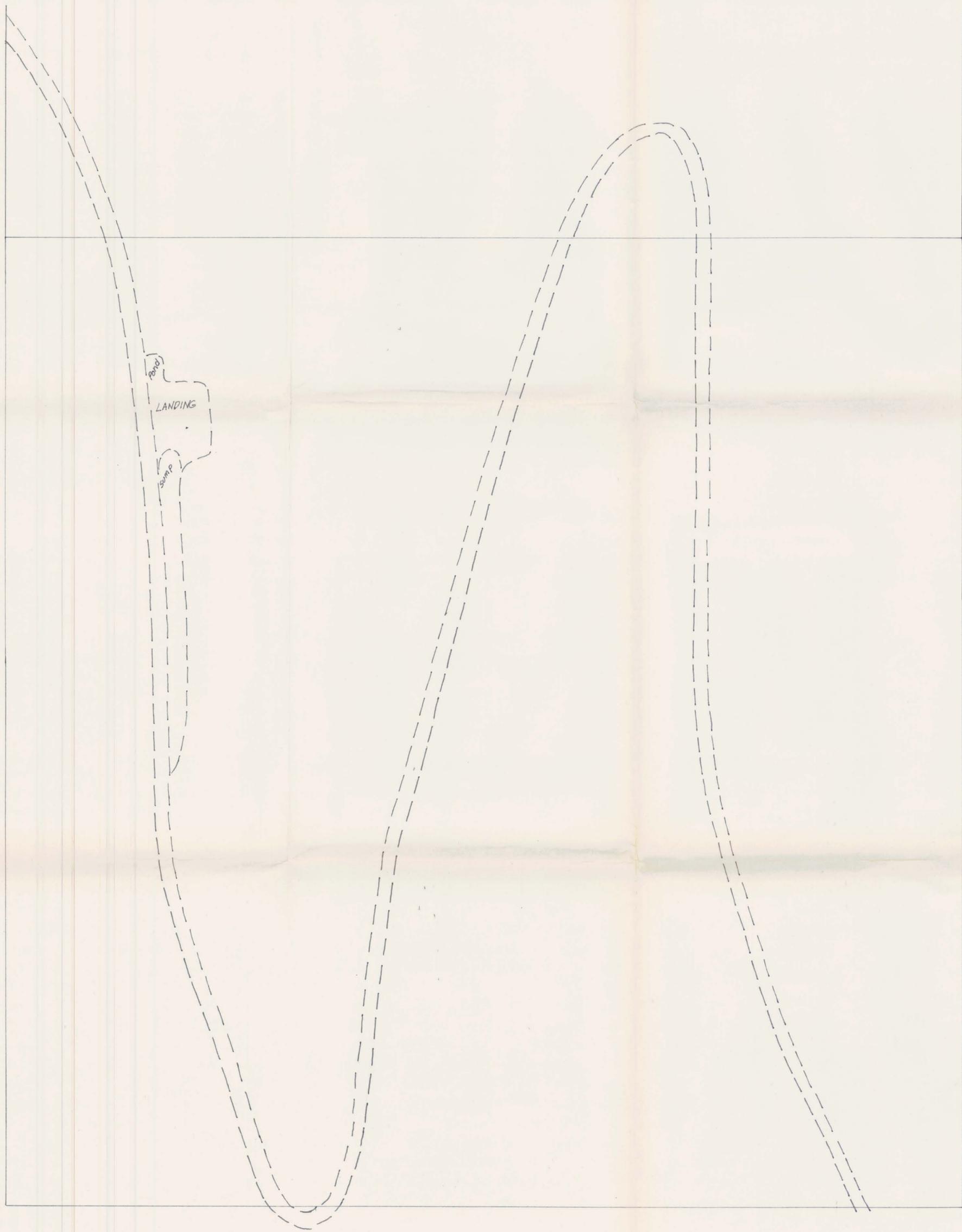
DATE REPORT MAILED: *June 15/88* ASSAYER.....*C. Leong*...D. TOYE OR C. LEONG, CERTIFIED B.C. ASSAYERS

KOOTENAY EXPLORATION PROJECT-VEX-832-640-W613 File # 88-1850

SAMPLE#	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Au*
	PPM	%	PPM	%	%	PPM	PPM	%	PPM	%	PPM	%	%	%	PPM	PPB															
<i>1</i> 0541	1	21	13	21	.1	26	33	70	10.95	63	5	ND	47	2	1	2	6	36	.02	.006	15	28	.93	10	.01	2	1.36	.04	.08	1	18
<i>2</i> 0542	1	5	5	14	.1	8	8	45	3.43	7	6	ND	34	2	1	2	2	40	.05	.024	23	21	.56	7	.01	8	.82	.04	.02	2	2

SYLVAN, NO1

5 W. 4 N



GEOLOGICAL BRANCH
ASSESSMENT REPORT

18,708

MAP#3

SYLVAN #1

by N. Gass April '89

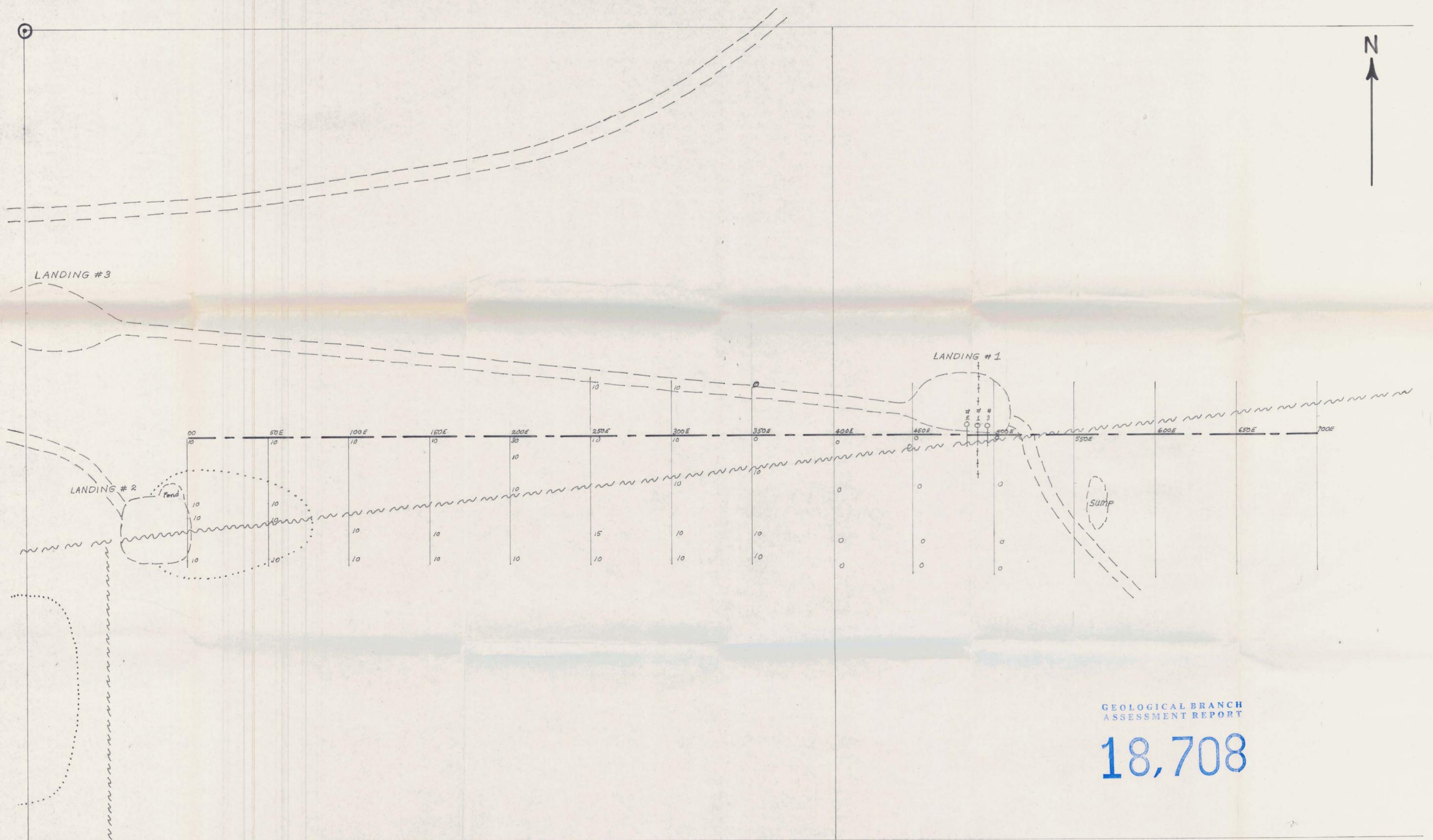
PHYSICAL

on

Claim 5W 2N

Scale 1:1000, 1cm = 10M



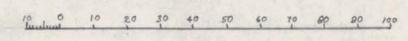


GEOLOGICAL BRANCH
ASSESSMENT REPORT

18,708

MAP # 2
GEOCHEMICAL & PHYSICAL
claims 4W4N, 5W4N

SYLVAN # 1
by N. Gass April '89
Scale: 1:1000, 1cm. = 10M



LEGEND

- Baseline
- Road or Landing
- Outcrop
- Crosssection
- fault (defined)
- fault (approximate)
- fault (assumed)
- diamond drill hole

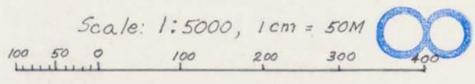


LEGEND

- MESOZOIC**
- CRETACEOUS**
- Kgr** Granite/granodiorite/monzonite
Quartz veins & silicification
- HELIKIAN**
- Hk** KITCHENER FM. green argillite, dolomitic argillite, silty argillite
- Hc** MIDDLE CRESTON FM. grey siltstone & argillite, some green or purplish siltstone and fine sandstone
- Hm** DIORITE med. to fr. grained very pyritic
- Ha₂** MIDDLE ALDRIDGE grey fine quartzite & siltstone & dark grey argillite, very rusty weathering
- PROTEROZOIC**
- claim lines
- traverse
- ~ stream
- == logging road
- geochem baseline
- rock outcrop
- geological boundary
- ~~~~ fault (defined)
- ~ fault (approximate)
- ~ fault (assumed)
- ♀ diamond drill hole
- ♀ proposed dd.h.
- ⊙ corner post



MAP #1
SYLVAN #1
 by N. Gass
 April '89
 GEOLOGY



18,708

GEOLOGICAL BRANCH
 ASSESSMENT REPORT