

86-381-14872

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**14,872**

**DRILLING REPORT  
ON THE  
KELLY 4 MINERAL CLAIM**

05/31

**Lang Creek area  
Vancouver. M.D.  
NTS 92F/16W  
40° 48'N, 124° 25'W**

**Owner and Operator  
Fargo Resources Limited  
900 - 850 West Hastings Street  
Vancouver, B.C.  
V6C 1E1**

**Contractor  
Exploratech Financial Inc.  
306 - 1095 McKenzie Avenue  
Victoria, B.C.  
V8P 2L5**

**Field Supervision, Logging  
G. R. Hilchey. P.Eng  
Gordon Hilchey and Associates Ltd.**

**Logging, Sampling & Report  
Marvin A. Mitchell P.Eng.  
for  
Gordon Hilchey and Associates Ltd.**

**July 9, 1986**

**FILMED**

**MINISTRY OF ENERGY, MINES  
AND PETROLEUM RESOURCES**  
Rec'd **JUL 15 1986**  
SUBJECT \_\_\_\_\_  
FILE \_\_\_\_\_  
VANCOUVER, B.C.

## TABLE OF CONTENTS

1	Introduction
2	Claims
3	Location and Access
4	Topography and Climate
5	History
6	Geology
7	1986 Drilling Program
8	Conclusions
9	Recommendations
10	Statement of Cost Incurred by Fargo Resources Limited
11	Bibliography
12	Certificate

## FIGURES

Figure 1	Location Map
Figure 2	Exploration Area
Figure 3	Cross Section A-A'
Figure 4	Cross Section B.B.

## APPENDIX 'A'

Drill Logs

## 1. INTRODUCTION

Fargo Resources Limited is the holder of the Trish 1 & 2 and Kelly 1-5 mineral claims situated just south of Powell River, B.C. at Lang Creek, Vancouver M.D., British Columbia.

An exploration program of nine short reverse circulation rotary holes was completed on the Kelly 4 claim during the period from April 14 to April 26, 1986.

The purpose of this work was to confirm the results of previous drilling and to test the continuity, lateral extent and grade of a series of germanium bearing, coaly, carbonaceous shale horizons (brown beds).

The field work was supervised by Gordon R. Hilchey, P.Eng., who also logged five of the holes. The remaining four holes were logged by the writer who also selected the samples for assay.

The writer was requested to prepare this report for submission to the Ministry of Energy, Mines and Petroleum Resources.

This report is based on field notes supplied by Mr. Hilchey and on data supplied by Fargo Resources Limited. Portions of this report are reproduced with permission from previous assessment reports by G. R. Hilchey, P.Eng.

The writer was not present during the recent exploration work but had visited the property in 1972 and 1981.

## 2. CLAIMS

An examination of mineral titles at the B.C. Ministry of Energy, Mines and Petroleum Resources shows the registered holder of the following mineral claims to be Fargo Resources Limited, 900 - 850 West Hastings Street, Vancouver, B.C. V6C 1E1.

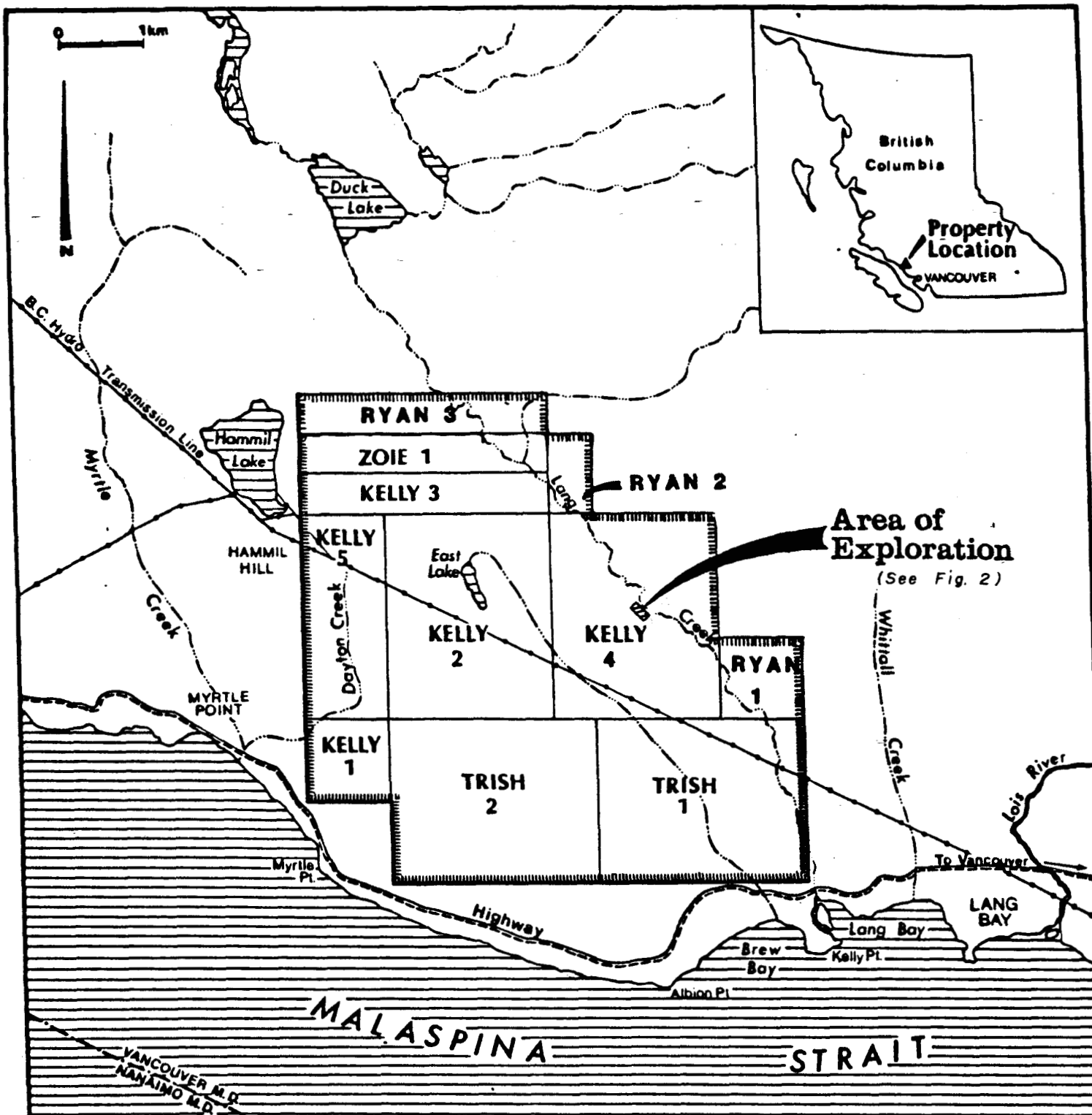
Claim Name	Record Number	Number of Units	Record Date
Trish 1	873	20	May 4, 1981
Trish 2	874	20	May 4, 1981
Kelly 1	875	4	May 4, 1981
Kelly 2	889	20	May 8, 1981
Kelly 3	876	6	May 4, 1981
Kelly 4	877	20	May 4, 1981
Kelly 5	890	10	May 8, 1981
		<hr/> 100	

The expiry date for Trish 1 & 2, Kelly 1, 3 & 4 is May 4, 1986 and the expiry date for Kelly 2 & 5 is May 8, 1986. These claims are shown on Figure 1.

## 3. LOCATION & ACCESS

The claim group lies 15 km southeast of the town of Powell River, B.C. centered on Lang Creek. General boundaries are Malaspina Strait between Lang Bay and Myrtle Point to the south, Myrtle Creek and Hammil Lake to the west and northwest, the eastern arm of Lang Creek to the north and Whittall Creek to the east. The approximate coordinates are 49° 48' N and 124° 25' W. The NTS map reference for the area is 92F/16W.

Highway 101 follows the coast from Saltery Bay to Powell River and passes very near to the southern border of the Kelly claim group. A good paved secondary road connecting to Highway 101 between Lang Creek and Kelly Creek extends north and then west where a tote road in fairly good condition, after being cleared of underbrush by a bulldozer, gives access to the outcrop area where the drilling was undertaken.



**Area of Exploration**  
(See Fig. 2)

**MALASPINA STRAIT**

FARGO RESOURCES LTD.

LANG BAY GERMANIUM/GALLIUM PROPERTY

POWELL RIVER

VANCOUVER M.D., B.C.

**CLAIM MAP**

DATA FROM FARGO RESOURCES LTD.

SCALE:  
1:66,000

DATE:  
JUNE 86

FIGURE:  
1

N.T.S.  
92 F/16 W

#### **4. TOPOGRAPHY & CLIMATE**

The gently rolling terrain is basically flat with an elevation of approximately 800 ft. a.s.l. in the northeast corner of the property. The ground slopes down in a gentle fashion towards Malaspina Strait to the south. Lang Creek has cut its valley about 100 ft. below the general level of the surrounding area.

The area has a thick second growth of timber consisting mainly of fir, hemlock, cedar with alder found along the stream and creek banks.

The water supply is plentiful due to the many streams and creeks, the main ones being centrally located Lang creek and Kelly creek, both flowing southeasterly and to the west, Deighton Creek flowing southerly into Malaspina strait. Dissecting the property in a northwest to southeast line is a high tension power line.

The climate is mild with an annual rainfall from 40 to 50 inches and minimal snowfall in the winter.

#### **5. HISTORY**

In 1948 a spectrographic research study on the coals of British Columbia discovered high values of germanium in the carbonaceous sandstone material found in the sedimentary basin located around the Lang Creek area. In 1957 the mineral rights to the area were acquired by Taiga Mines Ltd. who carried out a bulldozer trenching and a churn and diamond drilling program throughout 1958 and 1959. The results of this work showed that the coaly material is present at intervals throughout the sedimentary column. The most promising results came from a carbonaceous bed containing coal-like fragments of vitrain with a high content of germanium. All of the drilling took place in the area where the bed outcrops on the northeast edge of the sedimentary basin.

Due to poor drill core recovery and the uncertainty of assay procedures used at that time no reserves could be accurately defined from the drilling carried out in 1958 and 1959.

The market for germanium suffered a serious setback in the early 1960's when it was found that the cheaper silicon could be substituted for germanium in the production of semi-conductors. Thus the original claims were allowed to lapse.

In 1977 the property was staked by Ultrabasic Minerals Ltd. who collected a sample for treatment in a high temperature plasma furnace. The test results did not warrant further work and the claims were allowed to lapse once more.

In 1981 the property was acquired by the current owner, Fargo Resources Limited, who have conducted a total of 11 trenching and sampling programs between August 1981 and April 1984. Most of the 1985 work has consisted of research on methods of recovering germanium from the ore. Much of the research has been done by American Cyanamid Company, Stamford, Connecticut, who have conducted flotation tests, and CSIRO who have conducted pyro-metallurgical research.

## **6. GEOLOGY**

The property is underlain by a basin of thin-bedded Eocene sedimentary rocks composed of poorly to well consolidated shale, sandstone, arkose and conglomerate. The basin is about six km long and about four km wide. Observed dips are gentle (up to about 15° or 20°) towards the axis of the basin which trends northwest. The total thickness of the formation in the center of the basin is estimated to be about 450 metres. The sedimentary series is underlain by pre-Tertiary granitic rocks of the Coast Range and possibly other Mesozoic or earlier formations.

Arkosic rocks near the base of the formation and the underlying granitic rocks have been subject to weathering which has altered the feldspars to clay minerals and deposited small amounts of carbonate (mainly calcite) and pyrite. The weathering process was probably accomplished by ground waters under mainly reducing conditions although a few lenses of sandy sediments with red oxides of iron have been observed. Neither the time of the alteration or its relationship to the germanium mineralization, if any, is known.

Thin, discontinuous lenses of coal occur throughout the formation in both sandstone and shale members. The coal is probably the result of coalification of logs, branches and twigs scattered in the formation. This coal has always yielded significant germanium values in whenever it has been assayed. Where observed, however, the percentage of coal in this type of occurrence has always been very low.

Near the base of the formation along the northern rim of the basin, coal has been found in a dark brown horizon locally called a brown bed. The brown bed has an observed thickness of one-half metre to five metres. Most of the coal in the brown bed occurs as discontinuous lenses 2 to 10 mm thick with an aggregate content of two to three percent coal.

On the basis of the best data available the germanium content of the brown bed in AREA 1 (See PROPERTY MAP) is expected to average 70 grams per tonne or better. The brown bed has been observed in four apparently distinct deposits but the lateral extent is not known. While most of the brown beds observed to date occur within a few metres of the weathered basement rocks, they are also known to occur higher in the formation.

In 1959 the brown bed was exposed for 60 metres along the south side of Lang creek in the central part of the property. It pinched out to the southeast but the limit was not found along strike to the northwest or down dip to the southwest.

## **7. 1986 DRILLING PROGRAM**

During the period from April 14 through April 24, 1986 nine reverse circulation air-rotary holes totalling 853 ft (260 m) were completed as part of the first phase of a two phase exploration program, recommended by Gordon R. Hilchey P.Eng. in 1986. Mr. Hilchey supervised the drilling program.

These 4½ inch diameter holes were drilled with an Ingersoll Rand TH-60 Truck mounted drill rig by Exploratech Financial Inc., 306 - 1095 McKenzie Avenue, Victoria, B.C. V8P 2L5. The location of these holes is shown on Figure 2.



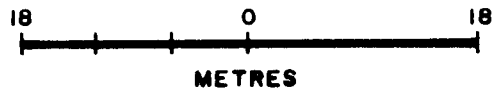
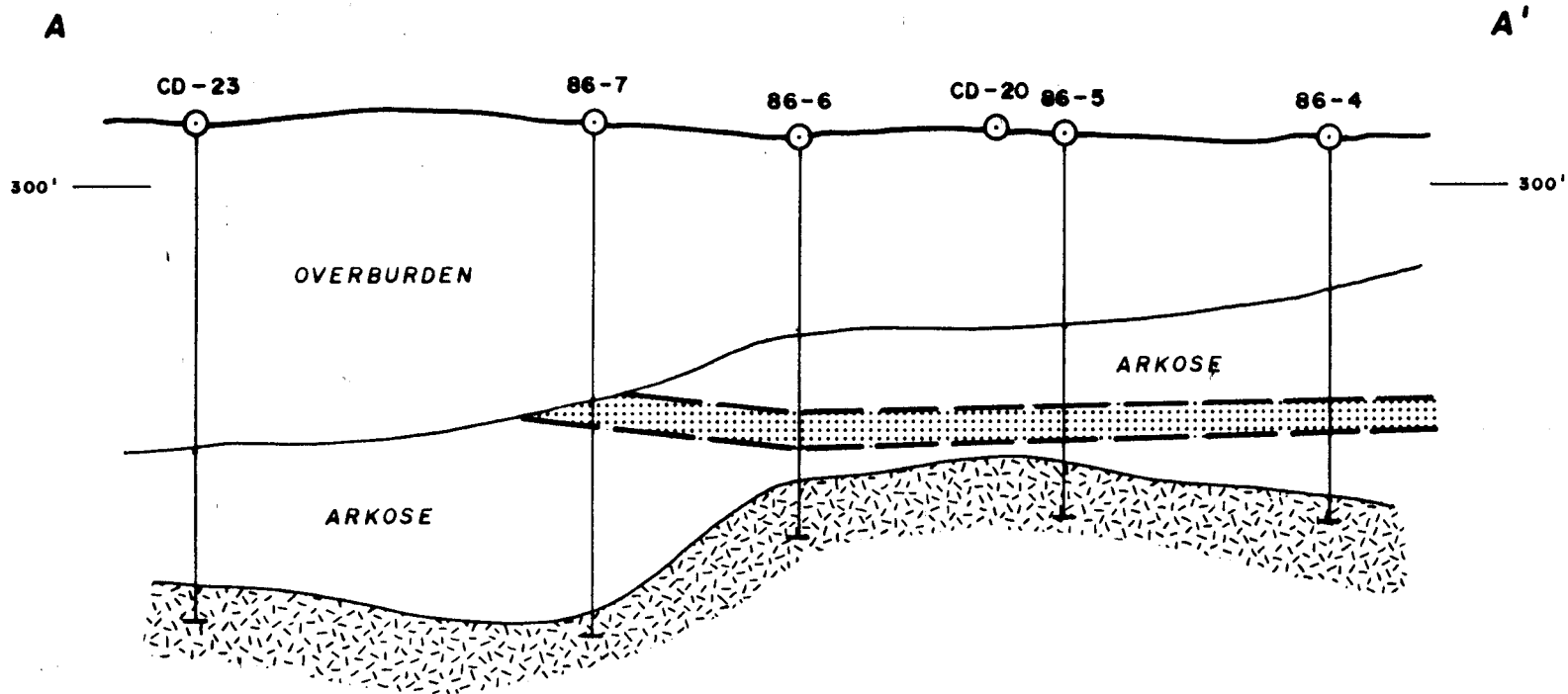
Sampling of the drill cuttings on 2 ft. intervals was done with an Accusampler E-1 sample recovery unit. These samples were collected in plastic bags. The remainder or reject portion of the cuttings for each interval were bagged and saved for assay checks. Selected but continuous samples were sent for assay to American Cyanamid Company in Stamford, Connecticut. All remaining samples are stored at the company's warehouse in Vancouver, B.C.

The drill cuttings were logged by washing out clay and fine material on a screen. Rock type and the presence of coal and/or carbonaceous were noted. Coal percentages logged were concentrated due to washing and are therefore higher than the actual percentages. The drill logs of the holes are appended to this report.

## 8. CONCLUSIONS

Coal bearing brown beds were intersected in seven of the nine holes drilled. The amount of vitrain and carbonaceous shale in the washed residue from the samples in these sections varied from 20% to estimated 50% with the balance composed of Arkosic sandstone and clay. The widths of the intersections varied from 4.0 plus metres near Lang Creek to 0.5 metres or less, within 175 metres south and west of Lang Creek. Traces of vitrain were found in most samples above the brown beds and are interpreted as being derived from discontinuous coal lenses, the result of the coalification of washed in logs and other organic debris. The brown beds were deposited as a fairly continuous horizon from 1 to 20 metres above an undulating granitic basement as shown on figures 3 and 4. The basement drops to the south and west of Lang Creek and the arkosic unit above the basement but below the brown bed thickens in these directions. This could indicate a general infill of the basin from the north and east. Although the brown bed was originally formed as an essentially horizontal horizon above the basement it now parallels the irregular basement surface. This change in configuration is probably due to the natural compaction of the sediments and is due also to ice loading during post Eocene glaciation.

The brown bed also appears, due to this compaction, to have have been thinned over topographic basement "highs" and thickened in basement topographic "lows".



GORDON HILCHEY AND ASSOCIATES LTD.

FARGO RESOURCES LTD.

LANG BAY PROPERTY

1986 DRILLING

VANCOUVER M.D., B.C.

**CROSS SECTION A-A'**

SCALE:  
1:600

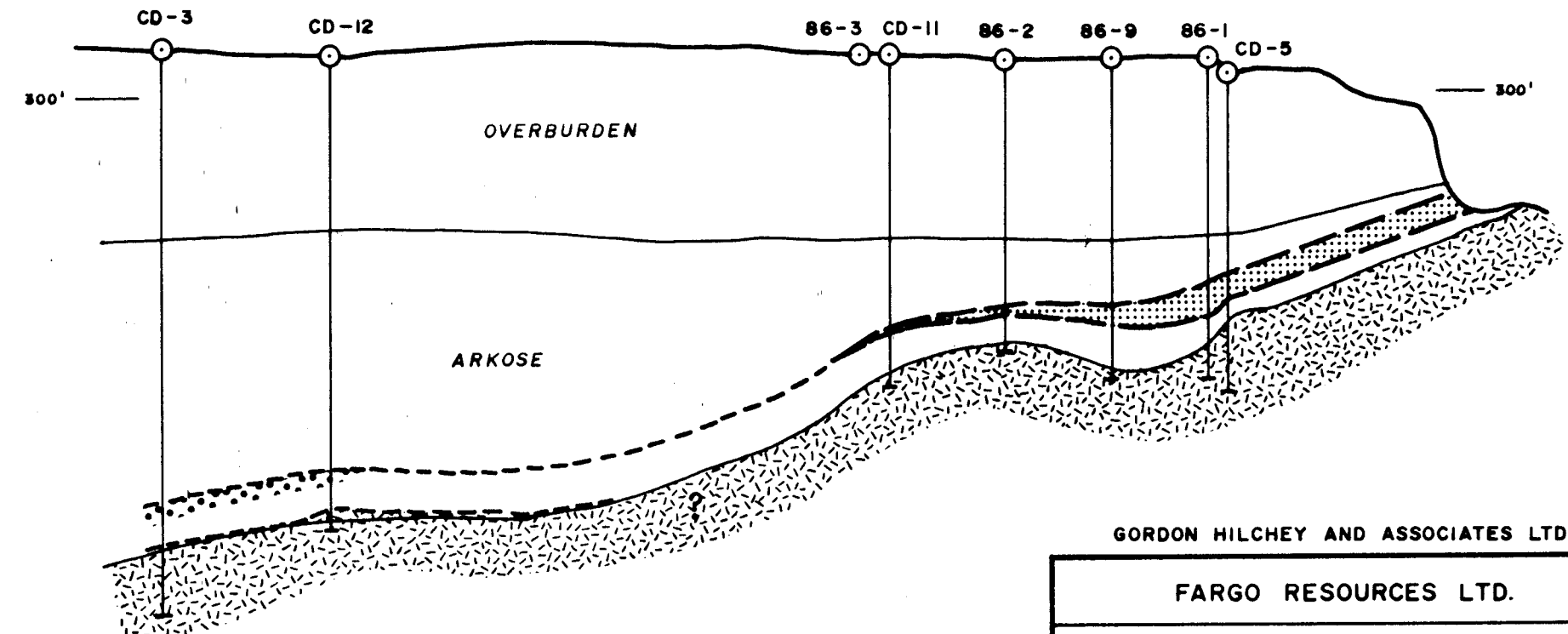
DATE:  
JUNE 86

FIGURE:  
3

DRAWN BY:  
M.A.M.

B

B'



GORDON HILCHEY AND ASSOCIATES LTD.

FARGO RESOURCES LTD.

LANG BAY PROPERTY

1986 DRILLING

VANCOUVER M.D., B.C.




CROSS SECTION B-B'

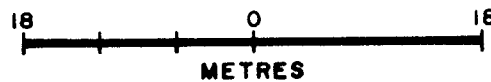
SCALE:  
1:600

DATE:  
JUNE 86

FIGURE:  
4

DRAWN BY:  
M.A.M.

-  BROWN BED
-  RED BED
-  GRANITE



Finally, post depositional faulting has tilted the brown bed down the the west as shown on figure 4 relative to the position of the brown bed as shown on figure 3.

If the assay returns from the 1986 drilling are sufficiently encouraging, the following recommendations should be carried out to further assess the potential of the Lang Creek property.


## 9. RECOMMENDATIONS

1. Phase I-a of the drilling program as recommended by Gordon R. Hilchey, P. Eng. should be continued. Two fences of four holes each should be drilled in between the areas drilled in May, 1986. One additional hole should be drilled between Hole 86-3 and CD-12 to assess the section where the basement falls away south of Hole 86-3.

All holes should be geophysically logged to accurately determine brown bed thickness using bulk density down-hole equipment.

2. Contingent upon the successful completion of Phase I-a, Phase I-b should be started.

Respectfully Submitted:

  
A circular professional seal is stamped over the signature. The seal contains the text: "PROFESSIONAL ENGINEER OF BRITISH COLUMBIA".  
Marvin A. Mitchell, P.Eng.

July 9, 1986

**10. STATEMENT OF COST INCURRED BY FARGO RESOURCES LIMITED**

**1. Professional Fees & Services**

Gordon R. Hilchey & Associates: 11 days in field @ \$400/day	\$ 4,400.00	
Expenses	<u>939.91</u>	\$ 5,339.91

**2. Equipment & Drilling**

Exploratech Financial Inc. (Drill Rig)	\$ 13,605.59	
Numan's Enterprises Ltd. (Bulldozer)	4,485.00	
Cana Rentals (Truck)	483.12	
Deakin Equipment	44.00	
Various Supplies	<u>301.85</u>	\$18,919.96

**3. Food & Accommodation**

\$ 483.81

**4. Freight**

Bob Gardener	\$ 100.00	
All Star Inland Freight	46.50	
Consolidated Freightways	129.96	
Davidson & Sons	<u>40.00</u>	\$ 316.46

**5. Miscellaneous**

Express Airborne	\$ 45.00	
Select Courier	5.00	
Air B.C.	<u>57.00</u>	\$ 97.00

**6. Logging & Sampling**

Gordon R. Hilchey & Associates: 2 days @ \$300/day	\$ 600.00	
Misc.	<u>14.23</u>	\$ 614.23

**7. Report Preparation**

1½ days @ \$400/day	\$ 600.00	
Drafting - Brad's Drafting Service	162.00	
Reproduction	<u>50.00</u>	\$ 812.00

**TOTAL** \$26,583.37

## 11. BIBLIOGRAPHY

Fargo Resources Limited, 1985, Annual Report  
and other data.

Hilchey, G.R., 1981 Assessment Report 10384,  
Kelly Claims

Hilchey, G.R., 1982 Assessment Report 11263,  
Kelly, Trish Claims

Hilchey, G.R., 1984 Assessment Report  
Kelly, Trish Claims

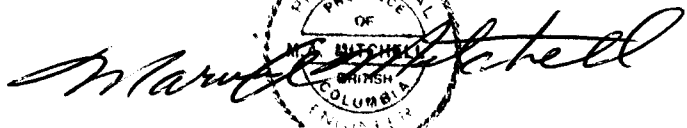
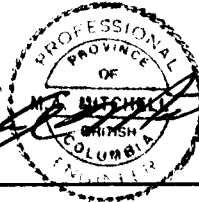
Price, M.G. 1982 Assessment Report 10921  
Zoie Claims

Taiga Mines Ltd. - various old reports.

CERTIFICATE

I, MARVIN ALFORD MITCHELL DO HEREBY CERTIFY THAT:

- 1) I am a Consulting Geologist residing at Suite 203, 2825 Spruce Street, Vancouver, B.C. V6H 2R4. My office is at 611, 850 W. Hastings Street, Vancouver, B.C. V6C 1E1.
- 2) I graduated from Montana College of Mineral Science and Technology in 1968 with a B.Sc. in Geological Engineering (Mining Option).
- 3) I have been a member of The Association of Professional Engineers of the Province of British Columbia since 1972 and that I am a member in good standing of that Association.
- 4) The findings of this report are derived from field notes provided by Gordon R. Hilchey, P.Eng., logging by the writer, and other data as acknowledged.
- 5) I have no interest, directly or indirectly in the properties or securities of Fargo Resources Limited, nor do I expect to receive any interest in such property or securities.

  
  
MARVIN A. MITCHELL, P. ENG.

July 9, 1986.

**APPENDIX A**

**DRILL LOGS**



PERCUSSION HOLE 86-1

Hole #86-1  
Grid Location 1+22E, 1+61N  
Inclination - Vertical  
Date Drilled - April 19, 1986  
Date Logged - June 12, 1986

Supervised by G.R. Hilchey  
Logged by M.A. Mitchell  
Collar Elevation 94.4M

Footage

Description

0-54	Overburden
54-56	Light Grey Arkosic SST, some volcanic grains.
56-58	Arkosic SST, 80% Qtz. Gr. No coal.
58-60	Arkosic SST, light brown 5% black shale + coal grains
60-62	Arkosic SST, light grey 2-5% black shale grains - no coal.
62-64	Arkosic SST, F.G. Light Grey - 2-5% black shale grains - no coal.
64-66	Arkosic SST, Pebbly, light Grey - light brown 2-5% shale grains + coal.
66-68	Arkosic SST, Pebbly light Grey -light brown - coal as fine partings in clay and shale.
*68-70	Brown Bed, Light brown pebbly Arkosic with 60% carbonaceous shale and coal grains.
*70-72	Brown Bed, as in 68-70.
*72-74	Brown Bed. 60-70% coal and carbonaceous shale. Coal bright -shale dull black - mostly coal.
*74-76	Quartzite, 90% F.G. - Qtz. grains. 5% bright coal - mud light brown.
*76-78	Quartzite, F.G. light grey slightly Arkosic 10% bright coal grains.
78-80	Quartzite, slightly Arkosic F.G. light grey - 2% coal grains.
80-82	Arkosic SST, Light grey. Tr. coal .
82-84	Quartzite SST, slightly Arkosic 2-5% coal.
84-86	Same with Tr. coal.
86-88	Same with no coal.
88-90	Same with no coal.
90-92	Same with no coal.
92-94	Arkosic rubble + granite.
94-96	Grey green granite.

1 FT = 0.305 M

\* Samples sent for Assay.

END OF HOLE

PERCUSSION HOLE 86-2

Hole #86-2  
Grid Location 0+24E, 1+64N  
Inclination - Vertical  
Date Drilled - April 19, 1986  
Date Logged - June 12, 1986

Supervised by G.R. Hilchey  
Logged by M.A. Mitchell  
Collar Elevation 94.5M

<u>Footage</u>	<u>Description</u>
0-54	Overburden
54-56	Medium grey Arkosic SST, rubble.
56-58	Medium grey Arkosic SST, Tr. coal.
58-60	Light grey Arkosic SST, F.G. - 5-10% coal - bright, very clayey.
60-62	Light Grey Arkosic SST, as above - 2-5% coal.
62-64	Light grey, brown Arkosic SST. Very clayey - 5-7% coal.
64-66	Light grey, brown Arkosic SST, Pebbly, Tr. coal.
66-68	Light grey very fine Quartzite, slightly Arkosic, Tr. coal.
68-70	Light grey medium Arkosic Quartzite - 2% coal.
70-72	Light grey medium Arkosic Quartzite - Tr. coal.
*72-74	Light grey brown Arkosic SST, pebbly, Tr. coal.
*74-76	Brown Bed 20% carbonaceous shale and coal in pebbly Arkosic SST.
*76-78	Light brown Arkosic SST, 5% coal, large pieces.
78-80	Light brown Quartzite SST, very clean 95% Quartzite Tr. coal.
80-82	Light brown Arkosic SST. Very clayey, Tr. coal.
82-84	Light brown Arkosic SST. Very clayey, Tr. coal.
84-86	Arkosic basement rubble.
86-88	Granite.

\* Samples sent for Assay.

END OF HOLE

**PERCUSSION HOLE 86-3**

Hole #86-3  
Grid Location 0+24E, 0+07N  
Inclination - Vertical  
Date Drilled - April 20, 1986  
Date Logged - June 13, 1986

Supervised by G.R. Hilchey  
Logged by M.A. Mitchell  
Collar Elevation 95.1M

**Footage**

**Description**

0-56	Overburden
57-59	Medium grey F.G. Arkosic SST, coal grains 5-7% - very clayey.
59-61	Medium grey F.G. and Pebbly Arkosic 5-10% coal - Trace Py in pebbles.
61-63	Light grey brown F.G. Arkosic SST, - 5% coal.
63-65	Light Grey F.G. Arkosic SST, - 2-5% coal.
65-67	Light grey brown pebbly Arkosic SST, - 5-7% coal.
67-69	Light grey - slightly brown pebbly Arkosic SST, - 7-10% coal.
69-71	Light grey Arkosic SST, F.G. - 5-10% coal and carbonaceous shale.
71-73	Light grey - light brown pebbly Arkosic SST, - 5% carbonaceous shale.
73-75	Very clayey light grey Arkosic SST, pebbly, no coal - minor carbonaceous shale.
75-77	Light brown - light grey Arkosic SST, - pebbly no coal.
77-79	Light brown - light grey pebbly Arkosic SST, - 2-5% coal.
79-81	Light brown - light grey pebbly Arkosic SST, - Quartzite 80% - 5% coal.
81-83	Medium grey Arkosic pebble cong. No coal.
83-85	Light brown F.G. Arkosic SST, - no coal .
*85-87	Light brown pebbly F.G. Arkosic SST, - 2% coal - Tr. Py.
*87-89	Brown Bed - 70% coal and Carbonaceous shale.
*89-91	Light grey Arkosic Quartzite, Tr. coal.

\*Samples sent for assay.

END OF HOLE

PERCUSSION HOLE 86-4

Hole #86-4  
Grid Location 10+38W, 1+67N  
Inclination - Vertical  
Date Drilled - April 21, 1986  
Date Logged - June 13, 1986

Supervised by G.R. Hilchey  
Logged by M.A. Mitchell  
Collar Elevation 94.8M

<u>Footage</u>	<u>Description</u>
0-38	Overburden
38-40	Light grey Arkosic SST, - Tr. coal.
40-42	Light grey Arkosic SST, - Tr. coal.
42-44	Grey Arkosic SST, - 5% coal.
44-46	Pink Arkosic SST, from 435 ft. - no coal.
46-48	Pink Arkosic SST, - no coal.
48-50	Medium grey Arkosic SST, - no coal.
50-52	Medium light grey Arkosic SST, - no coal.
52-54	Grey - Paleton Arkosic SST, - no coal.
54-56	Grey - Paleton Arkosic SST, - coal at 55 ft.
56-58	Brown Arkosic SST, - Pink at 57 ft. - Tr. coal
58-60	Grey - minor brown Arkosic SST, - Tr. coal.
60-62	Grey brown Arkosic SST, F.G. -moderate coal.
62-64	Light brown Arkosic SST, - Tr. coal.
64-66	Light brown Arkosic SST, - 5% coal.
*66-68	Light brown Arkosic SST, - Moderate coal.
*68-70	Grey brown Arkosic SST, - coal.
*70-72	Brown Bed. Coal.
*72-74	Brown Bed. Coal.
*74-76	Brown Bed to 75 ft. Coal.
76-78	Light grey Arkosic SST, - Tr. coal.
78-80	Grey Arkosic SST, - no coal.
80-82	Light grey Arkosic SST, . Basement rubble. No coal.
82-90	Basement granite.

\*Samples sent for assay.

END OF HOLE

PERCUSSION HOLE 86-5

Hole #86-5  
Grid Location 10+38W, 0+99N  
Inclination - Vertical  
Date Drilled - April 21, 1986 -  
Date Logged - April 21, 1986

Supervised by G.R. Hilchey  
Logged by G.R. Hilchey  
Collar Elevation 95.1M

Footage

Description

0-48	Overburden
48-50	Light grey
50-52	Light grey
52-54	Light brown - some coal.
54-56	Brown - a little pink near 56 -some coal.
56-58	Medium grey - no coal. Added rod at 57 (some grease).
58-60	Some greasy grey (medium to light) no coal.
60-62	Medium grey to brown to pinkish -coal.
62-64	Pinkish brown - grey shade - Tr. coal.
*64-66	Grey becoming medium brown -some coal.
*66-68	Grey some brown - some coal.
*68-70	Grey brown 69-70 - more coal.
*70-72	Greyish brown shale - Tr. coal.
*72-74	Grey brown shale - Tr. coal.
*74-76	Brown gritty - no coal.
*76-78	Dark brown.
*78-80	Light grey - no coal.
80-82	Light grey - some coal.
82-84	Light Grey
84-86	Light grey gritty - no coal.
86-88	Light Grey Arkosic - coal.
88-90	Light grey - same as 86-90.
90-92	Light grey - same as 86-90.
92-94	Getting quite hard granite.
94-96	Getting quite hard granite.
96-98	Getting a little dark - hard granite.
98-100	Getting a little dark - hard granite.

\*Samples sent for Assay

END OF HOLE

**PERCUSSION HOLE 86-6**

Hole #86-6  
Grid Location 10+38W, 0+99N  
Inclination - Vertical  
Date Drilled - April 21/22, 1986  
Date Logged - April 21/22, 1986

Supervised by G.R. Hilchey  
Logged by G.R. Hilchey  
Collar Elevation 94.8

<u>Footage</u>	<u>Description</u>
50-52	Medium grey
52-54	Medium grey
54-56	Medium grey
56-58	Grease
58-60	Brown grey shale Arkosic - no coal.
60-62	Brown grey Arkosic
62-64	Faint pinkish grey Arkosic
64-66	Grey brown shale - Tr. coal.
*66-68	Grey brown Arkosic grit - coal.
*68-70	Grey brown shale - coal.
*70-72	Brown grey shale - coal.
*72-74	Grey brown Arkosic - coal.
*74-76	Grey brown shale - coal.
*76-78	Grey brown shale - lots of coal.
*78-80	Brown grey shale - coal.
*80-82	Brown grey shale - coal.
*82-84	Brown grey shale - coal.
84-86	Grey arkosic shale - no coal.
86-88	Light grey arkosic shale - no coal.
88-90	Light grey granite - no coal.
90-102	Granite getting harder - no coal.
102-104	Hard granite - no coal.

\*Samples sent for assay.

END OF HOLE

PERCUSSION HOLE 86-7

Hole #86-7  
Grid Location 1+22E, 1+61N  
Inclination - Vertical  
Date Drilled - April 22, 1986  
Date Logged - April 22, 1986

Supervised by G.R. Hilchey  
Logged by G.R. Hilchey  
Collar Elevation 94.5

Footage

Description

0-72	Overburden till water bearing sand 45-50.
*72-74	Grey shale - coal.
*74-76	Brown grey shale - coal.
*76-78	Brown pink Arkosic - coal.
*78-80	Grey shale to grit - no coal.
*80-82	Grey shale - Tr. pink - no coal.
*82-84	Tr. pink/brown grey shale - some coal.
*84-86	Grey shale.
*86-88	Brown grey shale.
*88-90	Tan and grey shale.
*90-92	Grey brown.
*92-94	Grey shale.
94-96	Grey shale
96-98	Grey shale.
98-100	Grey shale - no coal.
100-102	Arkosic - coal.
102-104	Arkosic - coal.
104-106	Arkosic - coal.
106-108	Arkosic - coal.
108-110	Arkosic - coal.
110-112	Arkosic - coal.
112-114	Arkosic - coal.
114-116	Grey Arkosic/granite.
116-118	Grey Arkosic/granite.

END OF HOLE

## PERCUSSION HOLE 86-8

Hole #86-8  
Grid Location 6+73W, 0+37S  
Inclination - Vertical  
Date Drilled - April 23, 1986  
Date Logged - April 23, 1986

Supervised by G.R. Hilchey  
Logged by G.R. Hilchey  
Collar Elevation 94.3M

### Footage

### Description

0-33	Some horiz. water
33-35	Arkose, brown.
35-37	Arkose, brown
37-39	Arkose, brown.
39-41	Arkose, brown
41-43	Arkose, brown
43-45	Arkose, brown.
45-47	Arkose, brown
47-49	Arkose, brown.
49-51	Arkose, brown pink - Tr. coal.
51-53	Arkose - Tr. coal.
53-55	Arkose (pyr) - Tr. coal.
55-57	Arkose - coal.
*57-59	Grey shale - coal.
*59-61	Arkose - no coal.
*61-63	Brown grey - Tr. coal.
*63-65	Brown shale - coal.
*65-67	Brown Arkose shale - coal.
*67-69	Grey shale.
*69-71	Mixed shale (Arkose).
71-73	Granite at 72.

\*Sample sent for assay.

END OF HOLE



PERCUSSION HOLE 86-9

Hole #86-9  
Grid Location 0+75E, 0+63N  
Inclination - Vertical  
Date Drilled - April 23, 1986  
Date Logged - April 23, 1986

Supervised by G.R. Hilchey  
Logged by G.R. Hilchey  
Collar Elevation 94.4M

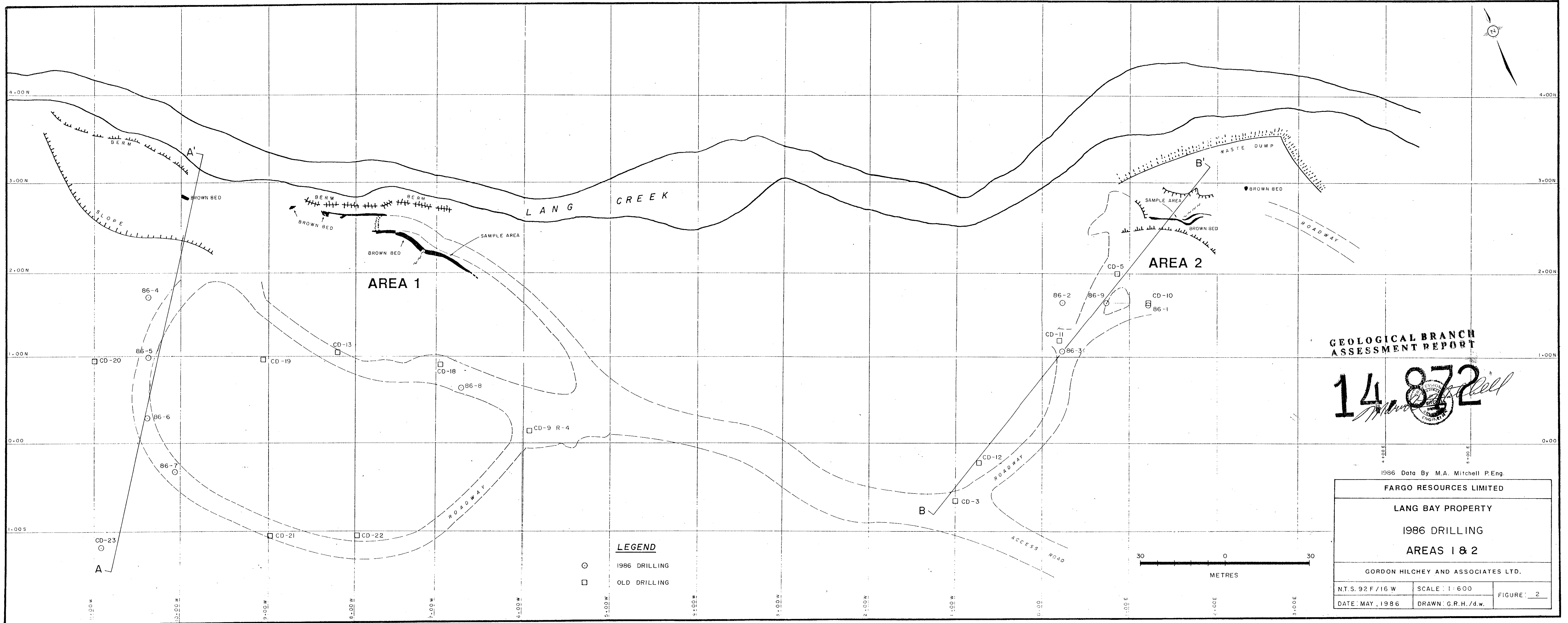
Footage

Description

0-55	Overburden
55-57	Large boulder/very hard.
57-59	Bed rock Arkosic/white clay.
59-61	Arkosic shale - Tr. coal.
61-63	Shale - Tr. coal.
63-65	Shale - Tr. coal.
65-67	Grey shale - coal.
67-69	Grey shale/Arkose - coal.
69-71	Arkose.
71-73	Grey Arkose/some pink - coal.
*73-75	Grey Arkose/some pyr. becoming brown 74-75 - coal.
*75-77	Dark brown Arkose - shale - coal.
*77-79	Dark brown Arkose - shale - coal.
*79-81	Dark brown dark grey shale - coal.
*81-83	Sl. br. grey arkose - coal.
83-85	Sl. br. grey arkose - coal.
85-87	Grey Arkose/shale @ 86.5.
87-89	Grey shale to 88.5 then Arkose -Pyrite.
89-91	Arkose.
91-93	Arkose (92 Pink).
93-95	Arkose grit cong - granite pebbles.
95-97	Granite.

\*Samples sent for assay.

END OF HOLE



**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**14,872**

1986 Data By M.A. Mitchell P.Eng.

<b>FARGO RESOURCES LIMITED</b>		
<b>LANG BAY PROPERTY</b>		
<b>1986 DRILLING</b>		
<b>AREAS 1 &amp; 2</b>		
<b>GORDON HILCHEY AND ASSOCIATES LTD.</b>		
N.T.S. 92 F / 16 W	SCALE : 1 : 600	FIGURE : 2
DATE : MAY , 1986	DRAWN : G.R.H./d.w.	