

4617

GEOPHYSICAL REPORT

on a

COMBINED MAGNETOMETER AND VLF-EM SURVEY

on the

PAM CLAIM GROUP

STRACHAN LAKE, KAMLOOPS MD BC

May - June, 1973

92I/15E

Pam Claim Group: 20 miles N35W of Kamloops
50° 120° NW

NTS - 92 I/15E

Report by : David G Mark
Geophysicist
GEOTRONICS SURVEYS Ltd
514-602 West Hastings St
Vancouver 2, BC

for : ALBERTA PETROLEUM and
RESOURCES Ltd NPL
Ste 1502 Cambridge Building
Edmonton, Alberta

June 7, 1973

| | |
|-------------------------------|----------|
| Department of | |
| Mines and Petroleum Resources | |
| ASSESSMENT REPORT | |
| NO. 4617 | MAP..... |

Geotronics Surveys Ltd.

Vancouver, Canada

TABLE OF CONTENTS

| | Page |
|-----------------------------------|------|
| SUMMARY | i |
| CONCLUSIONS | ii |
| RECOMMENDATIONS | iii |
| | |
| INTRODUCTION AND GENERAL REMARKS | 1 |
| PROPERTY AND OWNERSHIP | 2 |
| LOCATION AND ACCESS | 2 |
| PHYSIOGRAPHY | 3 |
| HISTORY OF PREVIOUS WORK | 4 |
| GEOLOGY | 5 |
| INSTRUMENTATION AND THEORY | 6 |
| SURVEY PROCEDURE | 8 |
| COMPILATION OF DATA | 9 |
| a) Magnetic | |
| b) VLF-EM | |
| INTERPRETATION | 10 |
| a) Government Aeromagnetic Survey | |
| b) Ground Magnetic Survey | |
| c) VLF-EM Survey | |
| SELECTED BIBLIOGRAPHY | 15 |
| RESUME - Howard A. Larson | 16 |
| GEOPHYSICIST'S CERTIFICATE | 17 |
| ENGINEER'S CERTIFICATE | 18 |

SUMMARY

Magnetic and VLF-EM surveys were completed over the complete area of the Pam Claim Group located on and around Strachan Lake approximately 20 miles N35°W of Kamloops, B.C.

Access to the property is by a series of 2-wheel drive roads to Pass Lake and a 4-wheel drive logging road to Strachan Lake. The terrain is quite gentle with the elevation varying from 5000 to over 5100 feet.

According to the G.S.C. geology map, the general area is underlain by Tertiary volcanics of the Kamloops Group. There is, however, a window of Cache Creek sediments mapped 3 miles to the southeast. At the south end of this window is the old Allies showing. Exploration was done for gold but mineralization also consists of lead and copper sulphides.

Readings with both the magnetometer and VLF-EM instrument were taken on the already established grid. The magnetic readings were diurnally corrected, plotted, and contoured.

The VLF-EM readings were Fraser-filtered, plotted and contoured.

The magnetic results showed a broad high striking northwesterly through the center of the Pam claims flanked by 1 low on each side. The VLF-EM results were rather discontinuous and low in magnitude.

CONCLUSIONS

1. The aeromagnetics in correlation with the topography show a lineation striking northwest through the Pam claims. This is felt to be a fault-contact. The Tertiary Kamloops volcanics probably overlies this fault-contact. The Allies copper-lead-gold showing occurs on this lineation $1\frac{1}{2}$ miles southeast of the southern boundary of the Pam claims.
2. The magnetic survey delineated more closely the aeromagnetic low on the northeast part of the claim group.
3. Samples from several outcrops show that this low as well as the low on the southwest part of the claim group to be underlain by basalt that is probably part of the Tertiary Kamloops Group.

4. The whole area is probably underlain by the Kamloops volcanics. The magnetic lows probably reflect areas of thinner volcanic capping.
5. Small local highs and lows are likely caused by local concentrations of magnetite within the basalt.
6. The VLF-EM anomalies are probably partly caused by terrain effects.
7. The lineation labelled A-A' is probably caused by the fault ascertained from the aeromagnetics and topography.

RECOMMENDATIONS

1. It is important to first find out if the property is completely covered by the Tertiary volcanics. This would best be accomplished by geologically mapping the property.
2. If it is found that the property is completely covered, then it is important to find out how thick the cover is. This would best be accomplished by a series of percussion drill holes or seismic refraction surveying.

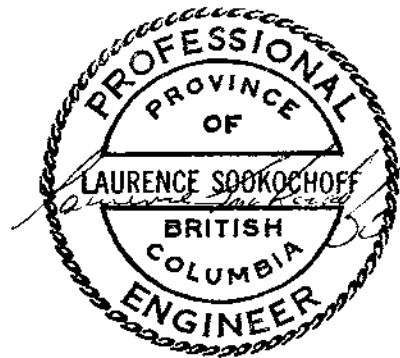
3. Dependent on 1) and 2) it is then recommended to soil sample the property and test for copper and gold.

Respectfully submitted,
GEOTRONICS SURVEYS LTD.



David G. Mark
Geophysicist

June 7, 1973



GEOPHYSICAL REPORT
on a
COMBINED MAGNETOMETER AND VLF-EM SURVEY
PAM CLAIM GROUP
STRACHAN LAKE, KAMLOOPS MD BC

INTRODUCTION AND GENERAL REMARKS

This report discusses the procedure, compilation and interpretation of a combined fluxgate magnetometer and very low frequency electromagnetic (VLF-EM) survey carried out over all the PAM Claim Group located on Strachan Lake during May and June, 1973.

The field work was carried out under the direct supervision of H. A. Larson, geophysicist. The number of line miles completed was 15.6.

The object of these surveys was to outline structure, such as faults and shear zones, and geologic contacts. Particularly, it was hoped to determine the possible existence of any mineralized intrusives similar to those known to exist to the immediate SE of the property. It is the writer's experience that the above geophysical methods have been successful in reflecting such zones of mineralization in this area.

In addition, a secondary object of the magnetometer survey was to verify the location of a magnetic low shown on the government aeromagnetic map on the eastern part of the claim group.

The property description, location, access, physiography, history of previous work, geology and interpretation of government aeromagnetics have all been given in the writer's previous report. They are repeated here, for the reader's convenience.

PROPERTY AND OWNERSHIP

The PAM Group consists of 22 contiguous claims as shown below and on figures 2 and 3.

| NAME | TAG NUMBER |
|------------------------|-------------------------------|
| PAM 3 - 24 inclusively | 337165M - 337185M inclusively |

All the claims are wholly owned by ALBERTA PETROLEUM and RESOURCES Ltd of Edmonton, Alberta.

LOCATION AND ACCESS

The PAM claims are located on and around Strachan Lake 20 miles N35W of Kamloops in a straight line.

The geographical coordinates are $50^{\circ} 54'$ N latitude and

120° 37' W longitude.

Access to the claims is by the Pass Lake dirt road to Pass Lake. This road starts approximately 1 mile north of the city center of North Kamloops along the west side of the North Thompson River. From the agricultural research station at Pass Lake, one travels northwesterly for 0.6 of a mile where one turns west and travels a further 5 miles to a fork in the road. One takes the right road upon which is a bridge across Cannell Creek. The property lies approximately 2.5 miles past the fork.

Pass Lake is accessible by a 2-wheel drive vehicle all year around, the road being kept open in winter. A 4-wheel drive vehicle is recommended from Pass Lake to the property during summer months, and a snowmobile during winter months.

PHYSIOGRAPHY

The property is found on the Tranquille Plateau which forms part of the physiographic unit known as the Thompson Plateau. The terrain is quite gentle. The elevation range is over 100 feet varying from about 5,000 feet to over 5,100 feet.

The main water source of the immediate area is Strachan

Lake which lies within the center of the claims. Parts of the claims are also covered by swamp.

The property lies within the Tranquille forest with the major vegetation consisting of pines, spruce and other conifers.

Pleistocene ice occupied the Thompson Plateau and thus much of the claims area is probably covered by glacial drift which could become quite deep over the flatter areas.

The climate is semi-arid with annual precipitation varying from 11 to 12 inches. Temperatures vary from the high extreme in summer of around 100°F to the low extreme in winter of around 30°F, though the usual temperature during the summer days would be 60°F to 80°F and that in winter 20°F to 40°F.

HISTORY OF PREVIOUS WORK

The only work that has been done on the PAM group of claims is linecutting in February, 1973. The lines were cut at 500-foot intervals.

Other work has been done in the area, however. About three miles to the southeast is the Allies workings where trenches, shafts and several adits have been dug out during the 20's and 30's.

GEOLOGY

According to the GSC map of the area, the geology of which has been mapped by W E Cockfield, the claims group is entirely underlain by Tertiary volcanics of the Kamloops Group. This consists of rhyolite, andesite and basalt with associated tuffs, breccias, and agglomerates.

Cache Creek rocks of Carboniferous age occur 4.5 miles to the east where it is in contact with the Kamloops Group, and in a window within the Kamloops Group 3 miles to the southeast.

The Cache Creek rocks consist of argillite, quartzite, hornstone, limestone, sheared conglomerate, breccia, greenstone and serpentine.

Cutting the Cache Creek rocks at the southern end of the window are dykes of light grey and dark grey porphyry. The dark grey porphyry is a dense rock with phenocrysts of hornblende and feldspar.

It is within the dark grey porphyry dyke that the sulphide mineralization of the old Allies prospect occurs. The sulphides are galena, pyrite, and chalcopyrite occurring within quartz veins within the dyke. Up to 1.4 oz/ton of gold is reported.

South of Kamloops are many copper occurrences within both the Iron Mask batholith and the older intruded Nicola rocks close to the batholith. Generally, they are veins, impregnations, stockworks and mineralized shear zones in the country rock with the principle copper minerals being chalcopyrite bornite, and native copper as well as some chalcocite, cuprite, azurite, and malachite. The main developer of the area is Afton Mines Ltd. which has blocked out so far 40 million tons of 0.65% copper as of June, 1972.

INSTRUMENTATION AND THEORY

1) Magnetometer

The magnetic survey was carried out using a portable vertical component, Model G-110 fluxgate magnetometer manufactured by Sabre Electronic Instruments Ltd. of Burnaby, B.C. This is a visual-null type instrument using digital dial readout with a range of 100,000 gammas and a reading accuracy of 10 gammas. The G-110 has a temperature coefficient of 2 gammas per degree centigrade.

Only two commonly occurring minerals are strongly magnetic; magnetite and pyrrhotite. Hence, magnetic surveys are used to detect the presence of these minerals in varying concentrations. Magnetic data are also useful as a reconnaissance tool for mapping lithology and structure since different rock types have different background amounts of magnetite and/or pyrrhotite.

2) VLF-EM

A VLF-EM receiver, Model G-28, manufactured by Sabre Electronic Instruments Ltd of Burnaby, BC was used for the VLF-EM survey. This instrument is designed to measure the electromagnetic component of the very low frequency field (VLF), transmitted at 18.6KHz, from Seattle, Washington.

In all electromagnetic prospecting, a transmitter produces an alternating magnetic field (primary) by a strong alternating current usually through a coil of wire. If a conductive mass such as a sulphide body is within this magnetic field, a secondary alternating current is induced within it which in turn induces a secondary magnetic field that distorts the primary magnetic field. It is this distortion that the EM receiver measures. The VLF-EM uses a frequency range from 16 to 24 KHz whereas most EM instruments use frequencies ranging from a few hundred to a few thousand Hz. Because of its relatively high frequency, the VLF-EM can pick up bodies of a much lower conductivity and therefore is more susceptible to clay beds, electrolyte-filling fault or shear zones and porous horizons, graphite, carbonaceous sediments, lithological contacts as well as sulphide bodies of too low a conductivity for other EM methods to pick up. Consequently the VLF-EM has additional

uses in mapping structure and in picking up sulphide bodies of too low a conductivity for conventional EM methods and too small for induced polarization (in places it can be used instead of IP). However, its susceptibility to lower conductive bodies results in a number of anomalies, many of them difficult to explain and, thus, VLF-EM preferably should not be interpreted without a good geological knowledge of the property and/or other geophysical and geochemical surveys.

SURVEY PROCEDURE

The survey was carried out over the grid that had been cut out during February, 1973. The baseline runs in a northwest-southeast direction along the claim line for the PAM 3 to 13 claims. The survey lines were cut out in a northeast-southwest direction at 500-foot intervals. A total of 16 lines was cut out and they are labelled L-60SE to L-15NW.

Readings with both the magnetometer and VLF-EM were taken at 100-foot intervals along the survey lines. Reading stations were flagged with orange flagging bearing the appropriate co-ordinates.

Corrections were made for magnetic diurnal variations by closing loops on base stations established at 400-foot

intervals along the base line. All loops were closed within two hours.

The survey grid was oriented so that the survey lines would be approximately normal to the strike of the aeromagnetic low shown on the government map.

COMPILATION OF DATA

a) Magnetic

The magnetic data were corrected for diurnal drift and a cumulative frequency curve, Figure 3, was plotted. For ease of drafting, 50,000 gammas were subtracted from all values and the data was then plotted on Sheet 1 at a scale of 1" = 500 feet, and contoured at a 500-gamma interval. The 55,500 gamma contour was omitted since this is close to the mean background value and would therefore only hinder the interpretability of the magnetic data.

b) VLF-EM

Sheet 2 shows the VLF-EM results after they have been reduced by applying the Fraser filter. Filtered data is plotted between actual reading stations. The positive dip angle readings were contoured at intervals of 5°.

The Fraser filter is essentially a 4 point difference

operator which transforms zero crossings into peaks, and a low pass smoothing operator which reduces the inherent high frequency noise in the data. Therefore the noisy, non-contourable data are transformed into less noisy, contourable data. Another advantage of this filter is that a conductor that does not show up as a cross over on the unfiltered data quite often will show up on the filtered data.

INTERPRETATION

a) Government Aeromagnetic Survey

The government aeromagnetic survey was flown on east-west flight lines approximately $\frac{1}{2}$ mile apart. Terrain clearance was about 1,000 feet. The reference sheet for the PAM Claim group is Tranquille River (see SELECTED BIBLIOGRAPHY). A copy of this map around the PAM claims is given as Figure 4 at the end of the report.

The magnetic contours on and around the claims are typical of Tertiary volcanics, that is the data is high frequency.

There is a northwest trending lineation apparent in the magnetic data that strikes along Cannel Creek and through Strachan Lake. This would be caused either by a rock contact or a fault. The Allies Group prospect is on this lineation 3 miles to the southeast from Strachan Lake.

To the southwest of the lineation, the magnetic contours are in the 3,000-gamma range and the magnetic gradient is high. Whereas to the northeast of the lineation, the contours are in the low 2,000-gamma range and the gradient is lower.

This may reflect two different rock types on either side of the lineation or a thicker Tertiary volcanic cover to the southwest.

East of Tranquille Lake, the data is much quieter which is a reflection of the underlying Cache Creek rocks. Also the magnetic low of 2,060-gammas in the southeast corner of figure 4 is likely a reflection of the Cache Creek window in this area. Taking this into consideration the small low within the eastern corner of the PAM claims may also be reflecting a Cache Creek window.

b) Ground Magnetic Survey

The cumulative frequency graph shows the mean background level to be about 55,500 gammas. At the upper and lower end of the graph, there is a series of breaks which graphically illustrate that there is a greater number of lows and highs than is average for this type of distribution.

This could well be caused by several mineralized areas of magnetite which gives a magnetic expression of a high and low adjacent to each other. The graph would therefore be a typical shape for Tertiary volcanics such as how the GSC has mapped the property area.

Generally speaking, the magnetic pattern of the ground magnetic survey (sheet 1) agrees with that of the aeromagnetic map (fig. 4). There is a broad area of higher values striking northwest through the center of the claim group. On each side of this are areas of lower values.

It was hoped that the aeromagnetic low was reflecting Cache Creek sediments and/or intrusives similar to that found southeast of the Pam claims around the Allies showings. However, within the correlating magnetic low on the ground survey, Larson picked up rock samples that were

later identified to be basalt. It then appears that the magnetic low is underlain by the Tertiary volcanics of the Kamloops group. It also appears from outcrops that the magnetic low on the southwest part of the property is underlain by this same rock-type.

The conclusion is then that the whole property area may be underlain by the Tertiary volcanics. Therefore the magnetics may only be reflecting variations in the concentration of magnetite within the volcanics. The writer feels that this probably is the explanation for the small local anomalies. But the larger broad anomalous lows on the northeast and southwest part of the property is probably caused by the volcanic cover being thinner in these areas. Cache Creek sediments likely occur beneath the volcanic cover.

c) VLF-EM Survey

As seen on sheet 2, the results of the VLF-EM survey are rather low in magnitude. Part of this is very likely a result of the strike of the survey lines with relation to the direction to the transmitter at Seattle. For optimum results, these 2 directions should be perpendicular to each other. On this survey they were almost parallel.

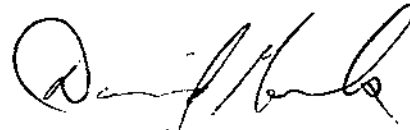
A fault was interpreted from the aeromagnetics and topography to strike northwest through the claim group around Strachan Lake. The lineation A-A' or B-B' of anomalous highs could well be a reflection of this fault. A-A' is probably the more likely lineation.

Other small anomalies may also be reflecting fault and/or shear zones.

There is weak correlation between some of the anomalies and terrain. Therefore, some of the VLF-EM anomalies are probably at least partly caused by terrain effects.

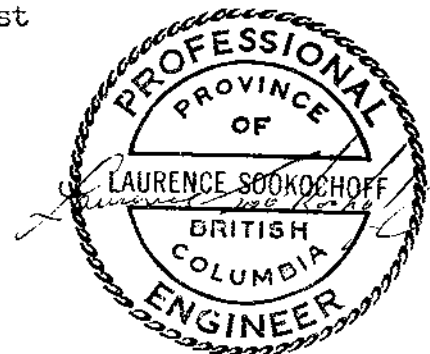
The VLF-EM results correlate poorly with the magnetic results. A few of the VLF-EM highs correlate weakly with magnetic lows. This may be a result of both methods reflecting shear zones and/or topographic depressions.

Respectfully submitted
GEOTRONICS SURVEYS LTD.



David G. Mark
Geophysicist

June 7, 1973



SELECTED BIBLIOGRAPHY

Aeromagnetic Map, Tranquille River, British Columbia
Geol Surv of Can, Map 5220G Sheet 92I/15
1968

Carr, J M, Deposits Associated with the Eastern Part
of the Iron Mask Batholith near Kamloops, Annual
Report of the Minister of Mines of British Columbia
pp 47-69, 1956

Cockfield, W E Geology and Mineral Deposits of the
Nicola Map-Area, British Columbia, Geol Surv
of Canada Memo 249, 1948

Mark, David G Preliminary and Line-Cutting Report on
the Pam Claim Group, Strachan Lake, Kamloops MD,
BC Geotronics Surveys Ltd, March 7, 1973

Mathews, W H Geology of the Iron Mask Batholith, un-
published thesis for the degree of Master of
Science, University of British Columbia, about 1942

Preto, V A G Geology of the Eastern Part of the
Iron Mask Batholith, Report of the Minister of
Mines and Petroleum Resources, 1967

RESUME OF
PROFESSIONAL AND TECHNICAL EXPERIENCE
of
Howard Larson, Geophysicist

EDUCATION 1971 Graduate of the University of British
Columbia with a Bachelor's Degree (B Sc)
in geophysics

EXPERIENCE GEOTRONICS SURVEYS Ltd, geophysicist
August 1971 in both mining and engineering
to the present geophysics

May 1970 -
September 1970 TRI-CON EXPLORATION SURVEYS Ltd
Field Supervisor in geophysics

May 1969 -
September 1969 ATLAS EXPLORATIONS Ltd
Geochemical Analyst and geophysical
operator

May 1968 -
September 1968 COAST ELDRIDGE ENGINEERS AND CHEMISTS
chemist's assistant on geochemical
rock assays and soil samples

Location of experience is British Columbia, Yukon and
the Northwest Territories.

Types of geophysical surveys experience are single and
multi-channel seismic, induced polarization, resistivity,
self-potential, magnetometer (air and ground), various
types of electromagnetic, radiometric and soil sampling.

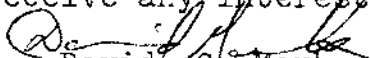
GEOPHYSICIST'S CERTIFICATE

I, DAVID G MARK of the City of Vancouver, in the Province of British Columbia, do hereby certify:

That I am a Consulting Geophysicist of GEOTRONICS SURVEYS Ltd with offices at 514-602 West Hastings Street, Vancouver 2, British Columbia.

I further certify that:

1. I am a graduate of the University of British Columbia (1968) and hold a B Sc degree in Geophysics
2. I have been practising my profession for the past five years and have been active in the mining industry for the past eight years
3. I am an associate member of the Society of Exploration Geophysicists and a member of the European Association of Exploration Geophysicists
4. This report is compiled from data obtained from a combined magnetic and VLF-EM survey supervised and carried out by H A Larson, geophysicist during May and June, 1973 on the PAM Claim Group and from pertinent data in published maps and reports as listed under SELECTED BIBLIOGRAPHY
5. I have no direct or indirect interest in the properties or securities of ALBERTA PETROLEUM and RESOURCES Ltd, Edmonton, Alberta nor do I expect to receive any interest therein.


David G Mark
Geophysicist

June 7, 1973

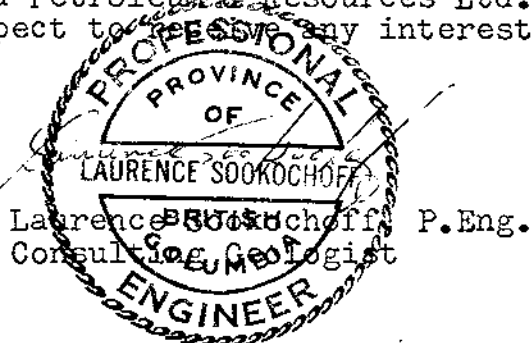
ENGINEER'S CERTIFICATE

I, LAURENCE SOOKOCHOFF, of the City of Vancouver, in the Province of British Columbia, do hereby certify:

That I am a Consulting Geologist and an associate with T.R. Tough & Associates Ltd., with offices at 519-602 West Hastings Street, Vancouver 2, B.C.

I further certify that:

1. I am a graduate of the University of British Columbia (1966) and hold a B.Sc. degree in Geology.
2. I have been practising in my profession for the past seven years.
3. I am registered with the Association of Professional Engineers of British Columbia.
4. I have studied the accompanying report dated June 7, 1973 on a combined magnetic and VLF-EM survey submitted by Geotronics Surveys Ltd., written by David G. Mark, Geophysicist, and concur with findings therein.
5. I have no direct or indirect interest whatsoever in the property described herein, nor in the securities of Alberta Petroleum & Resources Ltd. (NPL), and do not expect to have any interest therein.



June 11, 1973
Vancouver, B.C.

Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO. **4617** MAP # **1**

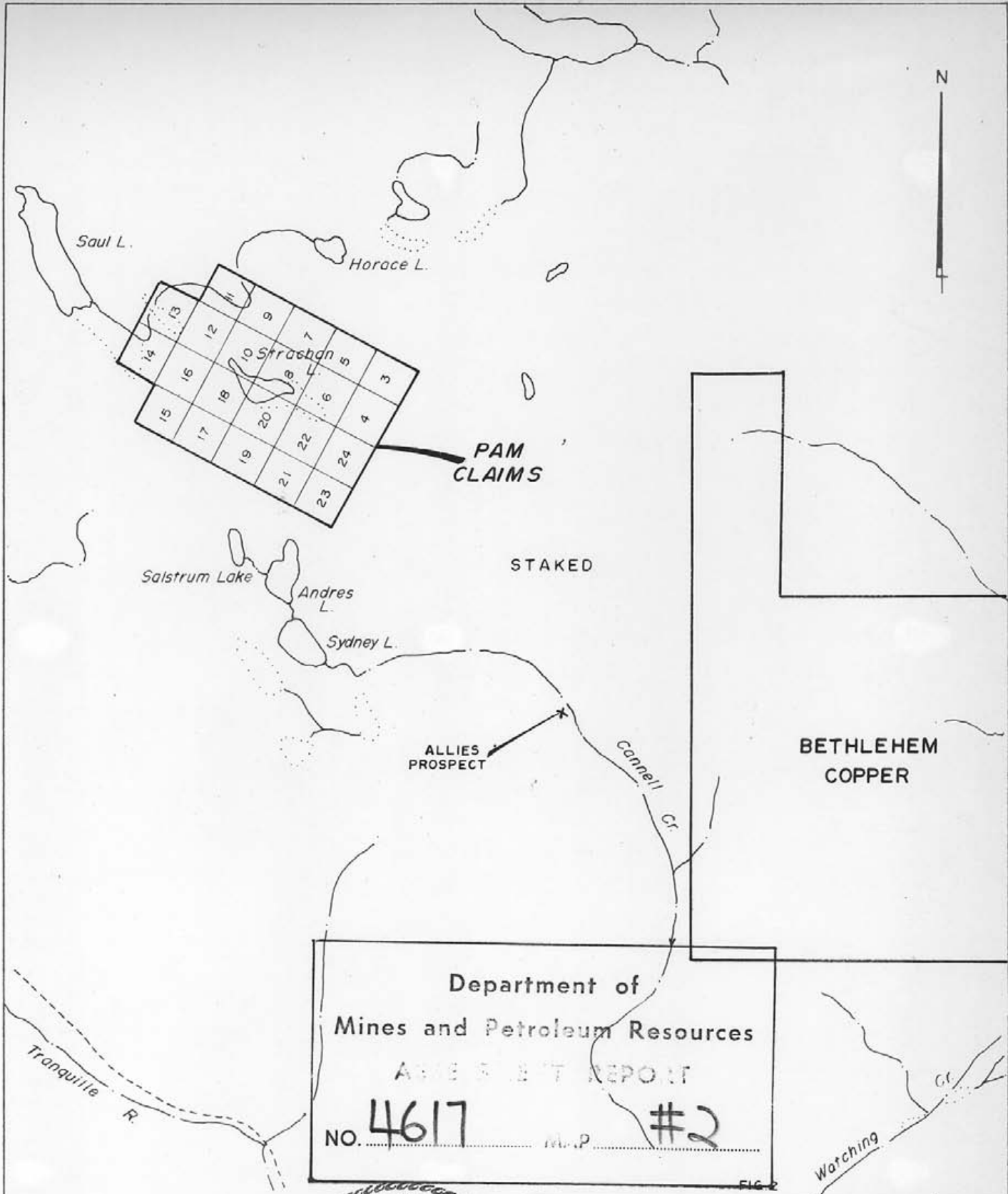


FIG. 1

PROPERTY



GEOTRONICS SURVEYS LTD.
 ALBERTA PETROLEUM & RESOURCES LTD.
 PAM CLAIMS
 KAMLOOPS M.D., B.C.
LOCATION MAP
 SCALE 1" = 134 mi



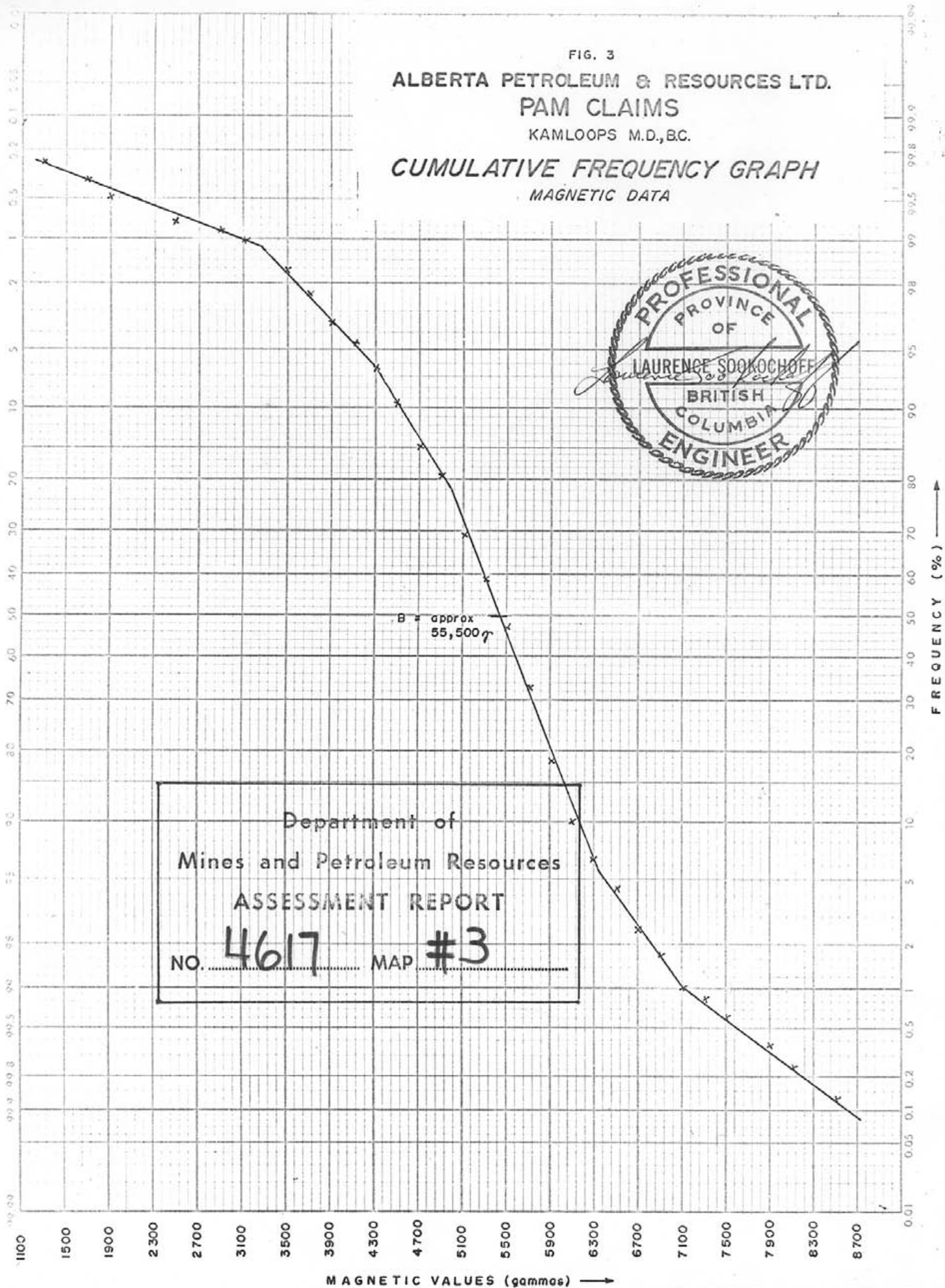
Department of
 Mines and Petroleum Resources
 A P E R T R E P O R T
 NO. **4617** M.P. **#2**



| | | |
|---|---------------------|-------------------|
| ALBERTA PETROLEUM & RESOURCES LTD. | | |
| PAM CLAIMS KAMLOOPS M.D., B.C. | | |
| CLAIM MAP & PROPERTY LOCATION | | |
| GEOTRONICS SURVEYS LTD PDT DRAFTING SERVICES | SCALE 1" = 4500' | DATE MARCH '73 |

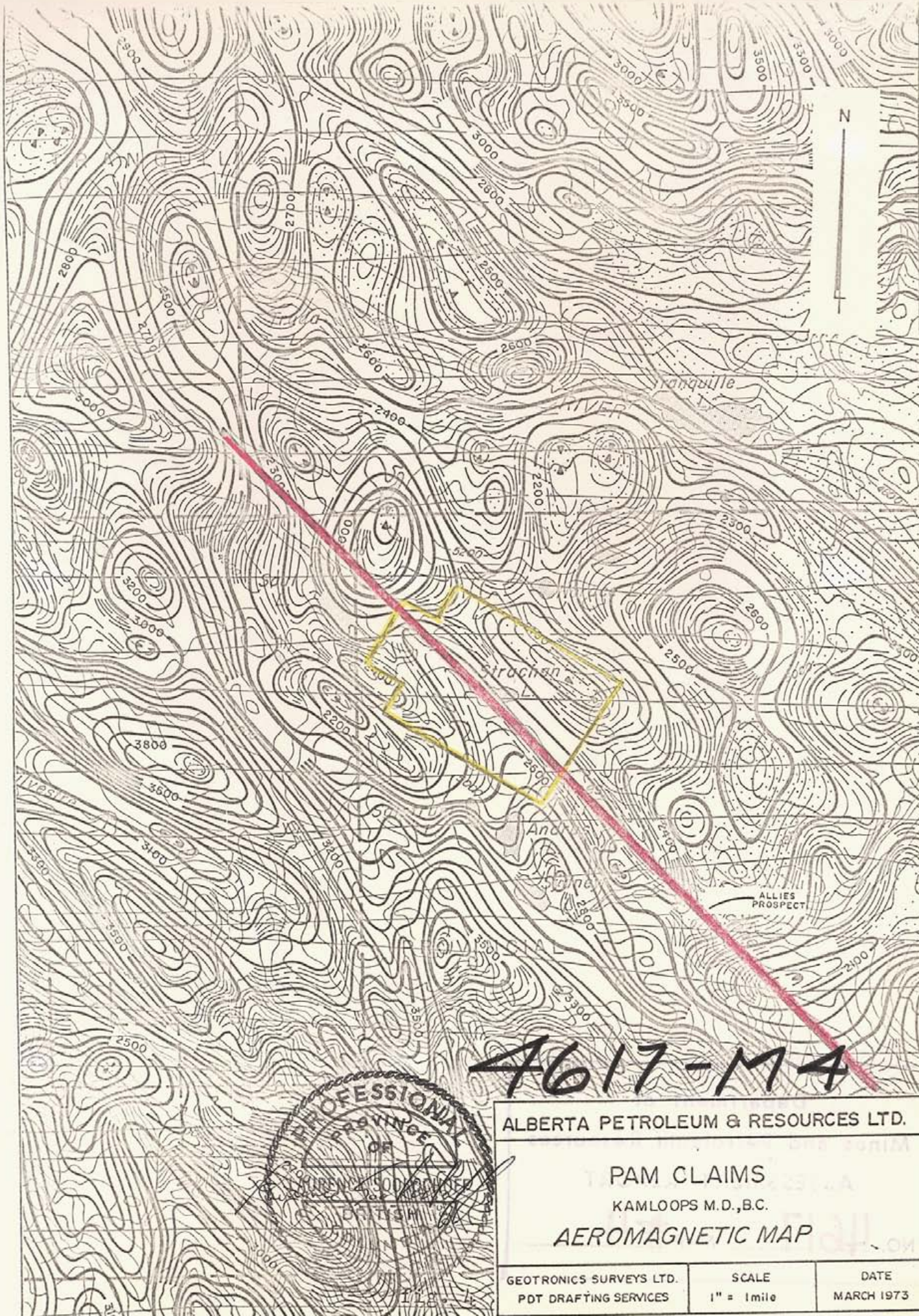
GC#-27B
Arithmetic Probability
Scale of Gamma

FIG. 3
ALBERTA PETROLEUM & RESOURCES LTD.
PAM CLAIMS
KAMLOOPS M.D., B.C.
CUMULATIVE FREQUENCY GRAPH
MAGNETIC DATA



MAGNETIC VALUES (gammas) →

↑ FREQUENCY (%)



4617-M4



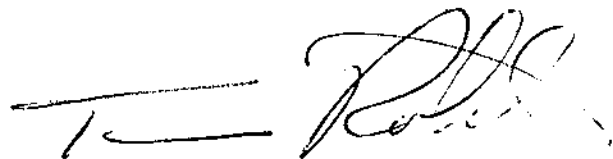
| | | |
|--|---------------------|--------------------|
| ALBERTA PETROLEUM & RESOURCES LTD. | | |
| PAM CLAIMS KAMLOOPS M.D., B.C. | | |
| AEROMAGNETIC MAP | | |
| GEOTRONICS SURVEYS LTD. PDT DRAFTING SERVICES | SCALE 1" = 1mile | DATE MARCH 1973 |

COST BREAKDOWN
 COMBINED MAGNETOMETER & VLF-EM SURVEY
 ON THE PAM CLAIM GROUP
 STRACHAN LAKE, KAMLOOPS M.D., B.C.

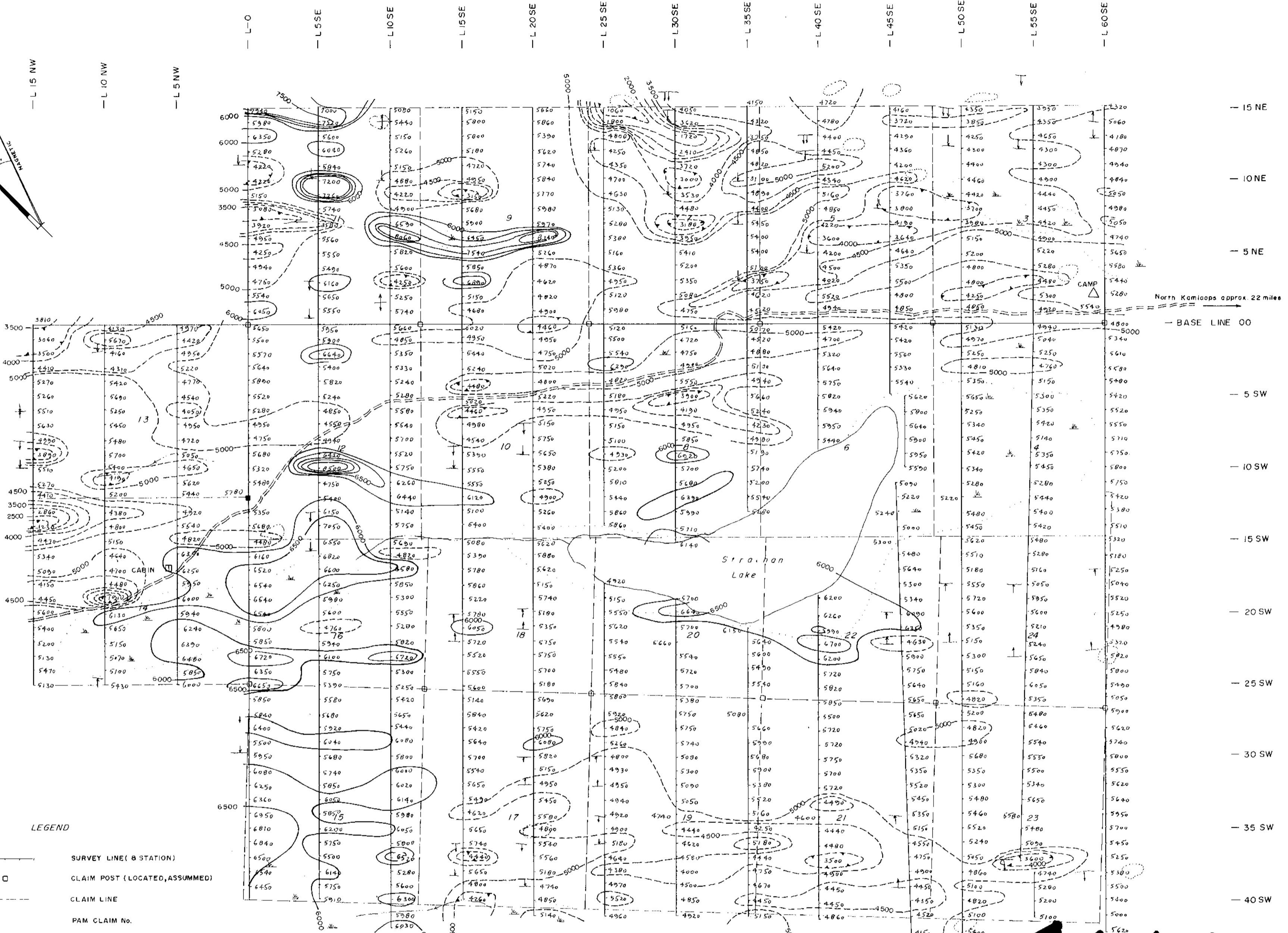
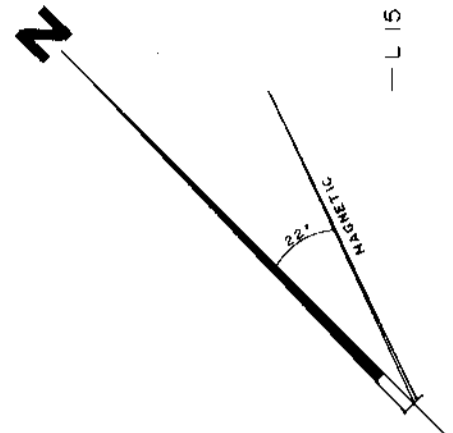
Wages

| | |
|--|-------------------|
| Geophysicist - 14 days @ \$125.00/day | \$1,750.00 |
| Instrument operator - 14 days @ \$60.00/day | 840.00 |
| Camp maintenance - 2 men @ \$30.00/day | 420.00 |
| 4-wheel drive rental - 15 days @ \$30.00/day | 450.00 |
| Instrument rental - Mag. @ \$15.00/day | 210.00 |
| EM @ \$15.00/day | 210.00 |
| Survey supplies | 50.00 |
| Drafting, mapping and printing cost - 26 hours @ \$7.00/hour | 182.00 |
| Geophysicist report and compilation - 30 hours @ \$20.00/hour | 600.00 |
| Engineering fees | 300.00 |
| TOTAL | \$5,012.00 |

Declared before me at the City
 of Vancouver in the
 Province of British Columbia, this 4
 day of October 1973



Jan Sinner
 A Commissioner for taking Affidavits within British Columbia
 A Notary Public in and for the Province of British Columbia
 Sub-mining Recorder

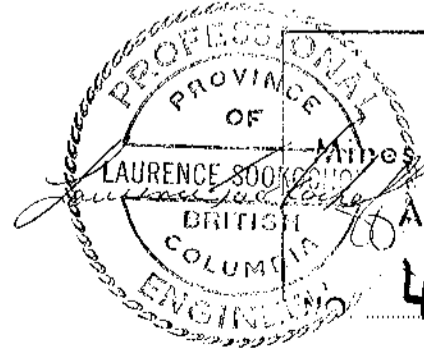


LEGEND

- SURVEY LINE (B STATION)
- CLAIM POST (LOCATED, ASSUMED)
- CLAIM LINE
- PAM CLAIM No. 22
- ROAD
- SWAMP
- SLOPE (STEEP)
- BASALT OUTCROP
- CREEK

NOTE: READINGS ARE IN GAMMAS.
 50,000 GAMMAS HAS BEEN SUBTRACTED FROM ALL FIELD VALUES.
 CONTOUR INTERVAL IS 500 GAMMAS
 - - - - - 5000 CONTOUR AND LESS
 _____ 6000 CONTOUR AND ABOVE
 5500 CONTOUR IS NOT DRAWN IN.

4617-175



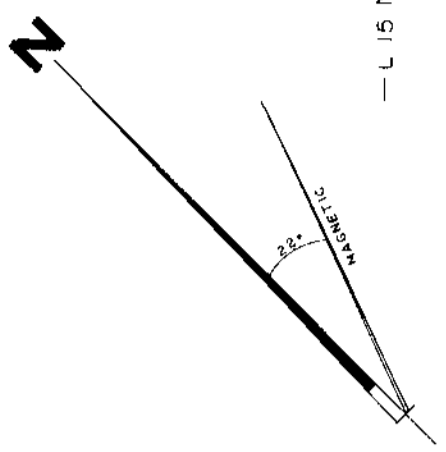
G. ACCOM. PHYSIC. REPORT E. D. G. MARK, GEOPHYSICIST

GEOTRONICS SURVEYS LTD.

DOBERTA PETROLEUM & RESOURCES LTD. (N.P.L.)
 RAM CLAIMS
 KAMLOOPS MINING DIVISION, B.C.

ASSESSMENT REPORT
 MAGNETOMETER SURVEY
 4617 MAP #5 DATA & CONTOURS

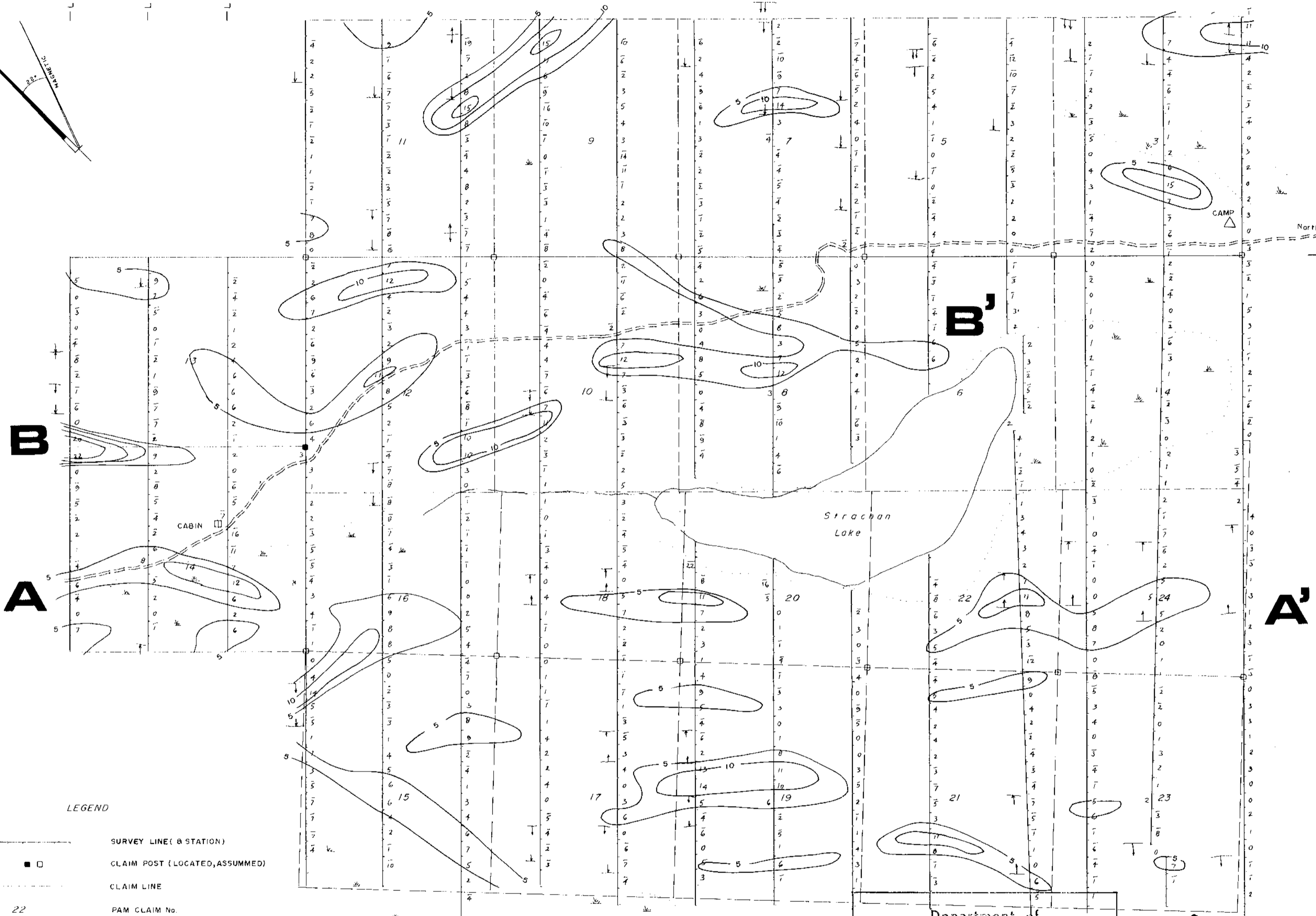
| | | | | |
|-----------------------|--------------------|-------------------|------------------|------------|
| PDT DRAFTING SERVICES | SCALE 1" = 500' | DATE JUNE 1973 | JOB No. 73-52 | SHEET 1 |
|-----------------------|--------------------|-------------------|------------------|------------|



L-0 L-5SE L-10SE L-15SE L-20SE L-25SE L-30SE L-35SE L-40SE L-45SE L-50SE L-55SE L-60SE

L-15 NW L-10 NW L-5 NW

15 NE
10 NE
5 NE
BASE LINE 00
5 SW
10 SW
15 SW
20 SW
25 SW
30 SW
35 SW
40 SW



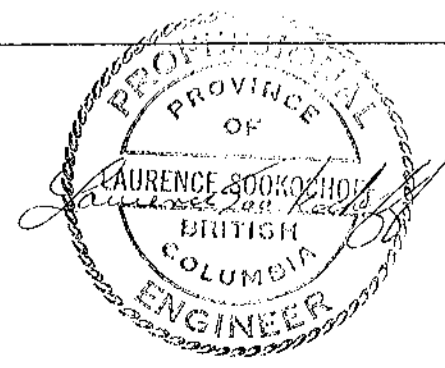
- SURVEY LINE (B STATION)
- □ CLAIM POST (LOCATED, ASSUMED)
- CLAIM LINE
- 22 PAM CLAIM No.
- ROAD
- Sw SWAMP
- St STEEP SLOPE (STEEP)

SEATTLE TRANSMITTER 18.6 KHz
S 15° W

NOTE: READINGS ARE IN DEGREES.
CONTOUR INTERVAL IS 5°.

Department of
Mines and Petroleum Resources
ALBERTA REPORT
No. 4617 MAP #6

4617-M6
PHYSICAL REPORT BY D.G. MARK, GEOPHYSICIST



GEOTRONICS SURVEYS LTD.

ALBERTA PETROLEUM & RESOURCES LTD.(N.P.L.)
PAM CLAIMS
KAMLOOPS MINING DIVISION, B.C.

V.L.F. EM SURVEY - FRASER FILTER
DATA & CONTOURS

| | | | | |
|-----------------------|--------------------|-------------------|------------------|------------|
| PDT DRAFTING SERVICES | SCALE 1" = 500' | DATE JUNE 1973 | JOB No. 73-52 | SHEET 2 |
|-----------------------|--------------------|-------------------|------------------|------------|