

2331

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REPORT ON
AIRBORNE GEOPHYSICAL SURVEY
ADAMS PLATEAU, BRITISH COLUMBIA
ON BEHALF OF
DRESSER MINERALS INCORPORATED

by

Richard O. Crosby, B.Sc., P.Eng.

April 20, 1970

CLAIMS:

<u>Names</u>	<u>Record Numbers</u>
PETE 1 - 12 (inclusive)	55791 - 55802
BIG BEN 1 - 3 (inclusive)	55805 - 55807
SILVER BELL	55804
PAT	55803
THOR 2	49122

LOCATION:

About 80 miles west of Revelstoke, B. C.
Kamloops Mining Division
51° 119° SW

DATES:

December 10 to December 20, 1969

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(in text)	
#1 Plate 1 - Location Map	1" = 4 miles
(in envelope)	
#2 Plate 2 - Magnetometer Contour Plan and Claim Location	1" = 1000'

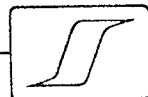
Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. **2331** MAP



SUMMARY

A helicopter-borne magnetometer survey was executed over approximately 4 1/2 square miles in the Adams Lake area, British Columbia. Two anomalies have been interpreted as arising from intrusive rocks and one may indicate mineralization along a major structure.



REPORT ON
AIRBORNE GEOPHYSICAL SURVEY
ADAMS PLATEAU, BRITISH COLUMBIA
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INTRODUCTION

From December 10 to December 20, 1969, a geophysical survey was executed on behalf of Dresser Minerals Incorporated in the Adams Plateau area, British Columbia over some PETE, BIG BEN, SILVER BELL, PAT and THOR 2 claims (see Plate 1). Centre of the area is located 51°05' N - 119°30' W.

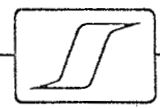
The airborne survey included magnetometer measurements taken with a Scintrex NPM-1 nuclear resonance, total intensity magnetometer.

Appendix "A", attached, gives full details of the airborne geophysical equipment and the ancillary equipment employed, as well as the treatment of data resulting from this survey. In the case of the present survey a Hiller SL-4 helicopter, on charter from Haida Helicopters, was employed as the basic transport vehicle.

The aeromagnetic survey lines were flown at a nominal 1/8 mile line interval along lines oriented east-west at a mean terrain clearance of 250'. Flight navigation and flight path recovery have been based upon photomosaics on the scale of approximately 1" = 1000'.

The magnetometer sensor was flown 60 feet below the helicopter.

The value of the earth's total magnetic field in the survey area is approximately 58,000 gammas. The inclination is 73°.



PRESENTATION OF DATA

The results of the geophysical survey are presented on Plate 2, on the scale of 1" = 1000'. Some topographic features and flight lines are shown on the plate. Plate 2 shows the magnetic contours at an interval of 100 gammas or less, according to magnetic relief. All data are plotted from an arbitrary base datum.

The magnetometer data are presented together with altimeter and fiducial recording on a dual trace Moseley recorder.

The original geophysical traces are on the scale of 1" = 100 gammas with automatic steps of 500 gammas.

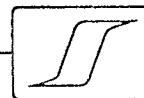
DISCUSSION OF RESULTS

Two magnetic positive anomalies measuring 200 gammas and 300 gammas were recorded in the extreme northwest portion of the survey grid. The remainder of the area is relatively flat and featureless, except for a pronounced northeast lineation in the magnetic contours in the southern group of claims. This pronounced trend is interpreted as the magnetic expression of a major fault in the area.

A forty gamma anomaly centred in BIG BEN 3 mineral claim may indicate a local mineralized zone along this structure. The strong anomalies mentioned previously are interpreted as arising from intermediate type intrusive rocks.

CONCLUSIONS AND RECOMMENDATIONS

The airborne geophysical survey has revealed magnetic features which warrant further investigation.



It is recommended that these features and particularly the anomaly located in BIG BEN 3 be field checked. Further work would depend upon the results of this field work.

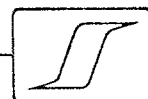
Respectfully submitted,

SEIGEL ASSOCIATES LIMITED

Richard O. Crosby

Richard O. Crosby, B.Sc., P.Eng.
Geophysicist

Vancouver, B. C.
April 20, 1970



MAGNETOMETER - SCINTREX NPM-1

The Scintrex NPM-1 nuclear resonance airborne magnetometer is based on a Newmont modification of a Varian Associates magnetometer and is produced under license to both companies. It is a very light weight, solid state unit, especially designed for use in a helicopter or light fixed-wing aircraft where weight is an important consideration.

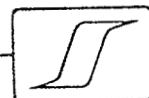
Its cycle period is 1.1 seconds. Each cycle it measures the total intensity of the earth's magnetic field and this quantity, in gammas, is recorded, in analogue form, on a suitable graphic recorder. The full scale sensitivity is usually 1000 gammas and the recorder automatically steps each 500 gammas. In very active areas a full scale sensitivity of 5000 gammas with steps of 2,500 gammas may be employed. Only the magnetic variations are actually recorded although the absolute base level may be established from the NPM-1 as well.

The magnetic sensing head may be on a cable as much as 100 ft. below the aircraft or, in some installations, may be rigidly attached to the aircraft on a suitable boom.

The intrinsic noise level of each reading is about 5 gammas.

Where it is intended to contour the NPM-1 information it is customary to fly tie lines across the survey grid. A fixed magnetic field monitor is often used as well, on the ground, primarily to indicate periods of magnetic storms during which the aeromagnetic data should be considered as unreliable.

The aeromagnetic data may be contoured if desired, using a contour interval of 25 gammas or up, depending on the amount of magnetic relief. Alternatively they may be used simply for purposes of correlation with simultaneously obtained electromagnetic data to determine which conductor zones are appreciably magnetic.



ANCILLARY EQUIPMENT

1. Altimeter

A Bonzer, high frequency solid state radioaltimeter is employed to continuously indicate the mean terrain clearance of the helicopter or other transporting aircraft. The altimeter is installed in the aircraft (unless otherwise indicated) so that the elevation of the sensing birds (electromagnetic or magnetic) will be less by the usual vertical displacement of these birds below the aircraft.

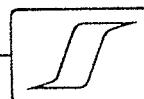
The output of the Bonzer may be expressed in analogue form on a suitable graphic recorder, or may be, for convenience, converted to a semi-digital form on a recorder side pen. In the latter event the altimeter record is a series of spaced pulses whose separation is proportional to the mean terrain clearance.

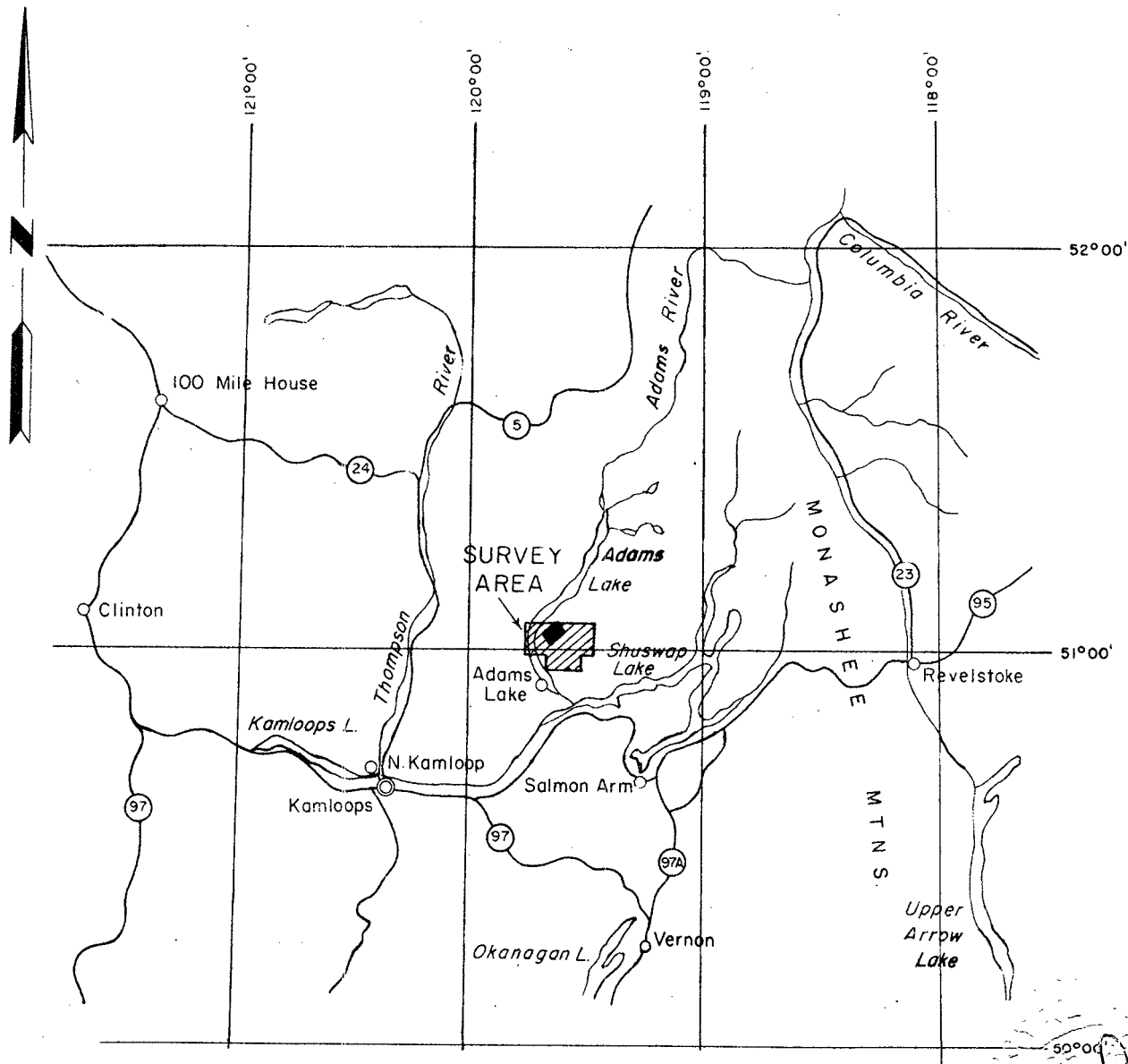
2. Positioning Camera

A Vinten Mark 3 16 mm positioning camera is employed with a wide angle lens. Photographs of the ground are taken with sufficient frequency to give a complete record of the flight path of the aircraft or helicopter. The frequency of exposure is controlled by the intervalometer referred to below.

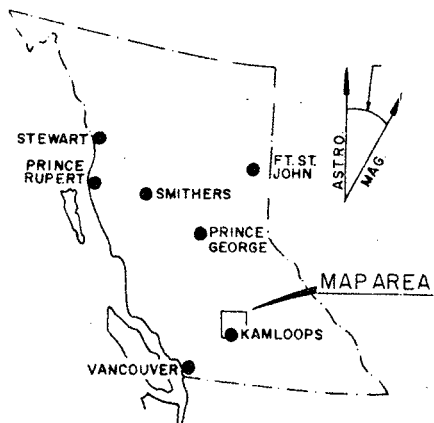
3. Intervalometer

A Scintrex IA-2 intervalometer provides regularly spaced timing pulses which drive the positioning camera exposure mechanism and produces synchronous "fiducial marks" on the side pen of the geophysical graphic recorder or recorders. Because of the synchronization of the geophysical traces and the positioning camera it is then possible to relate the geophysical events of interest to their proper ground location. The timing pulse frequency may be adjusted in accordance with the ground speed of the aircraft so that an adequate flight path record is obtained.





Richard O. Cook



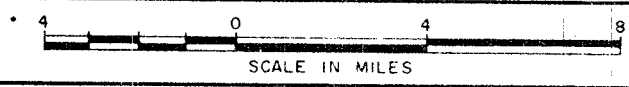
BRITISH COLUMBIA

DRESSER MINERALS

LOCATION MAP

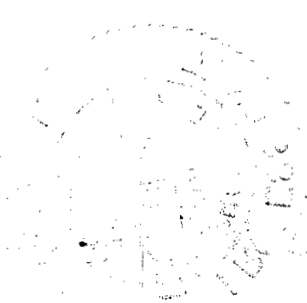
AIRBORNE GEOPHYSICAL SURVEY

ADAMS PLATEAU AREA, B.C.



SURVEY BY
 SEIGEL ASSOCIATES LIMITED
 DECEMBER 1969

PLATE I



Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. **2331** MAP **7/**



THE GOVERNMENT OF
THE PROVINCE OF BRITISH COLUMBIA

DEPARTMENT OF MINES

"MINERAL ACT"

FORM D

Copy only - To be
attached to
Geophysical report
JSC

Affidavit on Application for Certificate of Work

I, <u>John S. Carter</u> <small>(Name.)</small>	Agent for <u>DRESSER MINERALS</u> <u>Div. of Dresser Industries Inc.</u> <small>(Name.)</small>
<u>301 - 415 3 St. S.W.</u> <small>(Address.)</small>	<u>301 - 415 3 St. S.W.</u> <small>(Address.)</small>
<u>Calgary 1, Alberta.</u>	<u>Calgary 1, Alberta.</u>
Free Miner's Certificate No. <u>70572</u>	Free Miner's Certificate No. <u>70571</u>
Date issued <u>June 12, 1969</u>	Date issued <u>June 12, 1969</u>

make oath and say:—

I have done, or caused to be done, work on the Thor 2

Mineral Claim(s)

Record No.(s) 49122

situate at NW and adjoining Crown Grant L 5228 Adams Plateau

in the Kamloops Mining Division, to the value of at least

one hundred dollars, since the 2 day of April, 1969.

The following is a detailed statement of such work:—

(Set out full particulars of the work done in the twelve months in which such work is required to be done.)

Airborne Geophysical Survey.

Helicopter Borne Magnetometer Survey.

By Seigel Associates

Report to follow.

Work done \$100

Apply for 1 year.

That I have not and will not use the work declared herein in any way for the purposes of obtaining tax exemption on a Crown-granted mineral claim under the terms of the "Taxation Act."

SWORN and subscribed to at Calgary

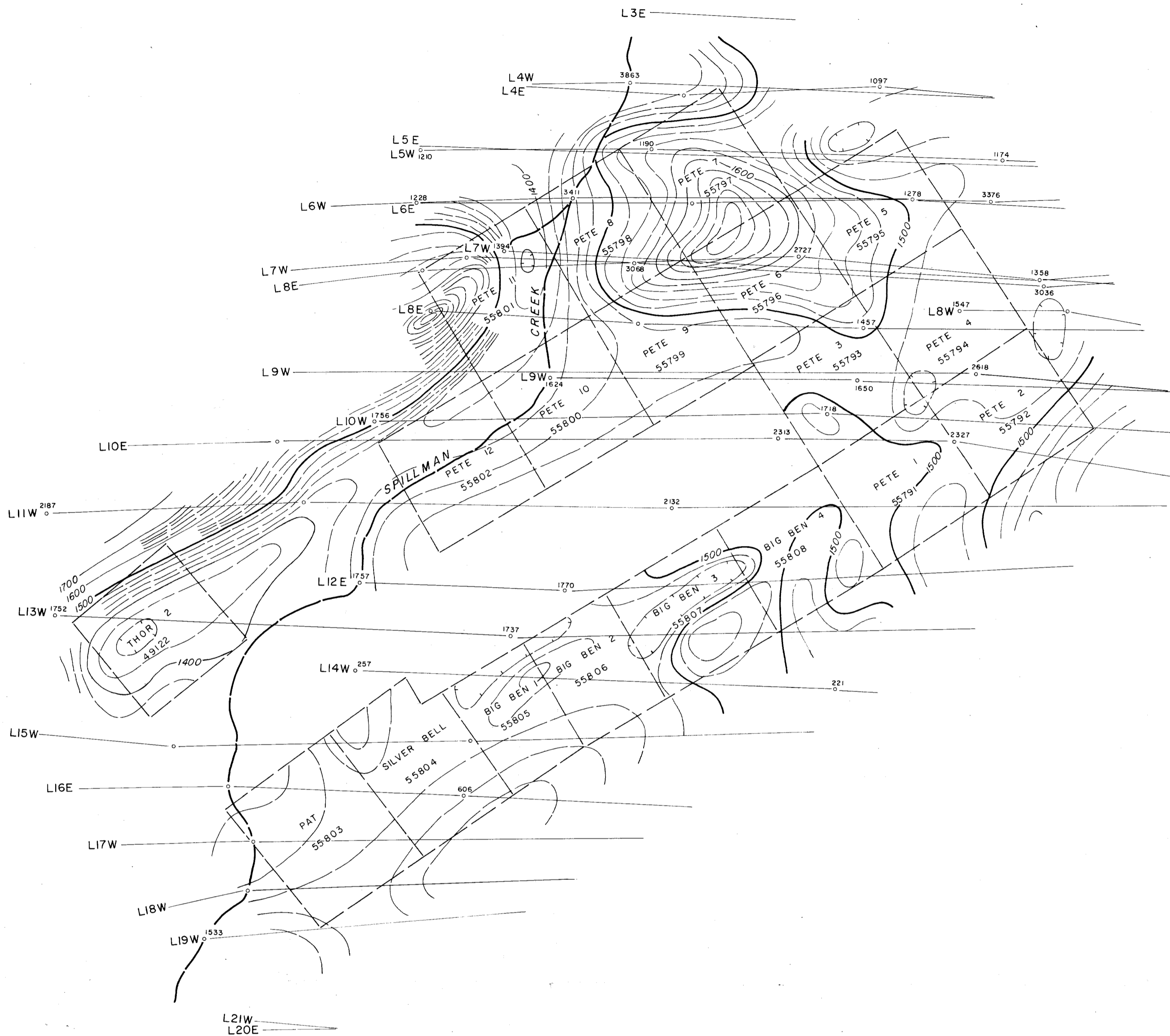
this 16th day of April

1972, before me—

William Adams

Assistant Registrar for the Province of Alberta

* This affidavit may be taken by a person empowered to take affidavits by the "Evidence Act" of British Columbia.



Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. **2331** MAP **#2**

LEGEND

- L10 — 0.3863 — FLIGHT LINE, FLIGHT LINE NUMBER AND NUMBERED FIDUCIAL POINT
- 500 GAMMA ISOMAGNETIC CONTOUR INTERVAL
- 100 GAMMA ISOMAGNETIC CONTOUR INTERVAL
- 20 GAMMA ISOMAGNETIC CONTOUR INTERVAL
- MAGNETIC LOW
- BASE VALUE ARBITRARY

2331

PLATE 2
DRESSER MINERALS
ADAMS PLATEAU AREA, B.C.
AIRBORNE GEOPHYSICAL SURVEY
CLAIM LOCATION PLAN
AND
MAGNETIC CONTOURS
SCALE 1" = 1000'

SURVEY BY SEIGEL ASSOCIATES LIMITED
FLOWN AND COMPILED DECEMBER, 1969
AIRCRAFT TERRAIN CLEARANCE 250 FEET
FLIGHT LINE SPACING 1/8 MILE

Richard O. Crosby