

REPORT ON THE
AIRBORNE GEOPHYSICAL SURVEY
RM 1-10 MINERAL CLAIMS
STIKINE RIVER AREA, B.C.
LIARD MINING DIVISION

* * * *

- i) Airborne Geophysical Survey
Magnetometer - Electromagnetic
- ii) RM 1-10 Mineral Claims
Long: $131^{\circ}40'W$
Lat: $57^{\circ}05'N$
- iii) Harvey H. Cohen, P.Eng.
- iv) Honda Mining Co. Ltd. NPL
- v) August 14 - September 22, 1969

104604E

Honda Mining Co. Ltd. NPL
Vancouver, B.C.



HARVEY H. COHEN ENGINEERING LTD.
CONSULTING ENGINEERS

TELEPHONE: BUS.: 684-6711
RES.: 266-8169

1264 WEST PENDER STREET
VANCOUVER 1, B. C.

2057

September 22, 1969

Honda Mining Co. Ltd. NPL,
540 Seymour Street,
Vancouver 2, B.C.

Dear Sirs;

RE: RM 1-10 Mineral Claims
Stikine River Area, B.C.
Geophysical Survey

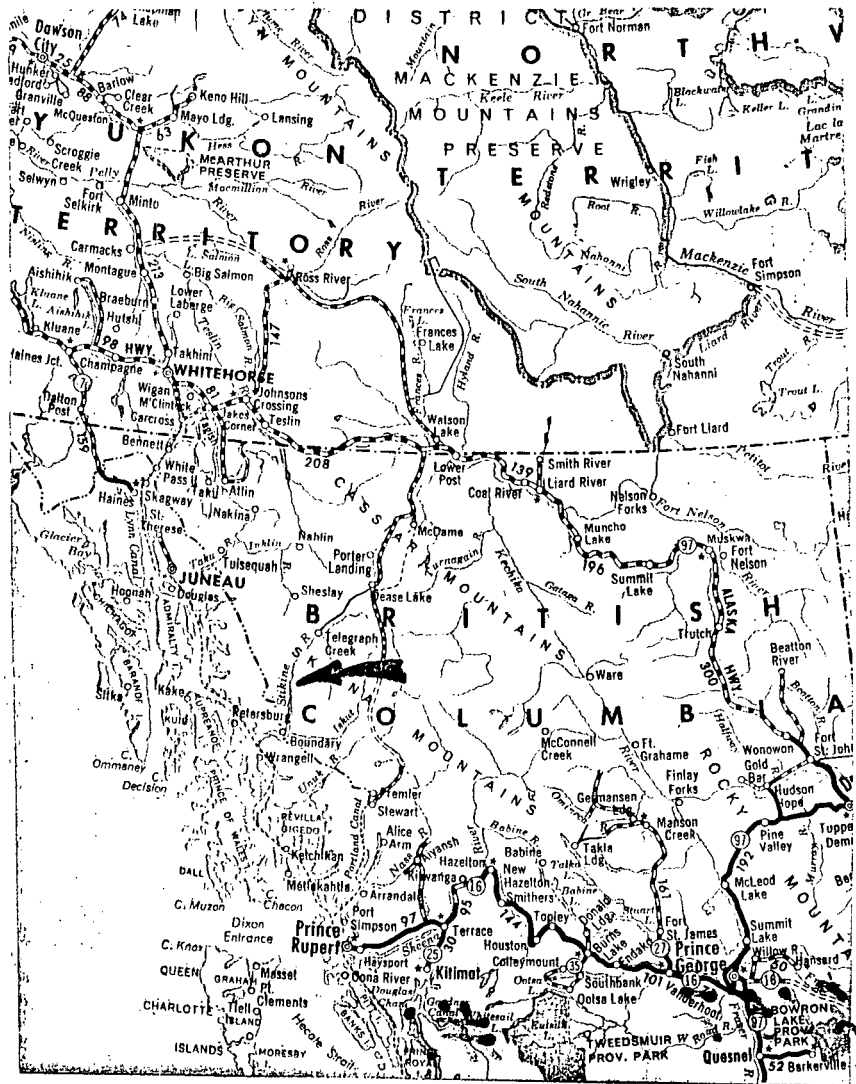
Pursuant to your instructions, the writer has conducted an Airborne Geophysical Survey over the subject mineral claims in the Liard Mining Division, and submits herewith reports and maps based on the results of that survey.

Respectfully submitted,



Harvey H. Cohen, P.Eng.

HHC/ip



KEY MAP SHOWING LOCATION OF STIKINE RIVER AREA, B.C.

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. 2057 MAP #1

REPORT ON THE
AIRBORNE GEOPHYSICAL SURVEY

R.M. 1-10 MINERAL CLAIM

STIKINE RIVER AREA, B.C.

LIARD MINING DIVISION

HONDA MINING CO. LTD.

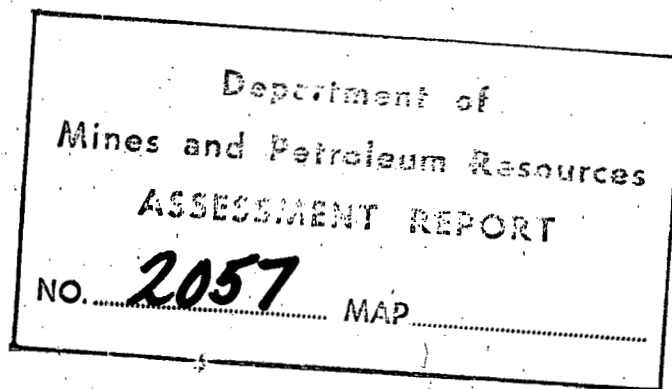
VANCOUVER, B. C.

TABLE OF CONTENTS

	<u>Page</u>
Introduction	1
Summary of Claims	3
Geophysical Investigations	4
Procedure	7
Analysis of Results and Conclusions	9

List of Illustrations

- #1 Key Map Showing Location of Stikine River Area, B.C. (FRONT)
- #2 Map Showing Flight Line and Grid Pattern (REAR)
- #3 Airborne Geophysical Survey Magnetometer (REAR POCKET)
- #4 Airborne Geophysical Survey Electromagnetic (REAR POCKET)



Report on the
Airborne Geophysical Survey
R.M. 1-10 Mineral Claims
Stikine River Area, B.C.

Liard Mining Division

Introduction

Location of Area:

The RM 1-10 Group Mineral Claims are located at the conflux of the Porcupine and Stikine rivers on the south slope of Scotsimpson Mtn. approximately 35 air miles northeast of the Stikine River delta.

Mt. Scotsimpson is part of the Coast Range of northern British Columbia and Alaska, and the property lies east of the main axis of the range.

Access to the area is by aircraft with a landing strip approximately two miles northwest of the RM Group on the east side of the Stikine and south of the Anuk River.

Barge transportation is accommodated during May to October along the Stikine on a scheduled or charter basis. Wrangell, Alaska is the Port

of Entry for travel up the Stikine River. A highway connects Dease Lake, Telegraph Creek, north to the Alaska Highway, and a branch from Dease Lake south to Stewart is nearing completion.

Scheduled aircraft service the area from Terrace, B. C., with helicopters the main method of travel locally.

Geographically, the location may be described as:-

Longitude:- 131° 40' W

Latitude :- 57° 5' N

Summary of Claims

<u>Name</u>	<u>Record No.</u>	<u>Date</u>
RM 1	15186	Sept. 22
RM 2	15187	
RM 3	15188	
RM 4	15189	
RM 5	15190	
RM 6	15191	
RM 7	15192	
RM 8	15193	
RM 9	15194	
RM 10	15195	

The area is situated in the Liard Mining Division.

GEOPHYSICAL INVESTIGATIONS

MAGNETOMETER SURVEY:

The purpose of the Magnetometer Survey was to determine the existence of any magnetic anomalies on the property, and if so, what was their size, magnetic intensity, and probable cause. An anomaly would result from the presence or absence of any magnetic accessory minerals in the underlying rock formations in detectable quantity; the magnetic survey would differentiate between the volcanic, sedimentary and intrusive members and detect sulphides that are magnetic and that could possibly be associated with valuable minerals.

Using these factors as a guide, the Geophysical Survey (Magnetometer) was conducted over an area 10,000 feet by 4,500 feet in order to adequately cover the property held by the company. A total of 18 line miles were recorded in this survey.

Factors which produce variations in the magnetic field are:-

1. A concentration of magnetic minerals possibly associated with valuable minerals.

2. A variation in amount of accessory mineral magnetite in granitic, volcanic, or sedimentary bedrock.
3. A variation in amount of magnetite distributed through or connected with the overburden.
4. A variation in depth of non-magnetic overburden on caprock over bedrock having a constant vertical magnetic intensity.
5. Variation in amount of magnetic minerals in adjacent bands of volcanic and/or sedimentary rocks. These variations are not expected to be great, and they produce elongated highs and lows parallel to the strike of the formation.
6. Any combination between variations in magnetic minerals in the rock and variations in magnetic or non-magnetic overburden or caprock thickness.

It will be seen from the above factors that the geophysical survey employing a magnetometer, produces information that would assist in providing

a structural picture as well as indicating and defining more favorable areas of greater geologic significance for further exploration.

A Sharpe PMF 3 Magnetometer was employed during this survey.

ELECTROMAGNETIC SURVEY

The Electromagnetic Survey, conducted simultaneously with the Magnetometer Survey, measures the change in mutual impedance between a pair of coils as the impedance is affected by nearby conductors of electricity. The equipment employed transmits an electrical field through a 65 foot coil at a frequency of 1,000 cycles per second. The coil is housed in a "bird" that is drawn by the aircraft, and records any fields produced by the transmitted field.

RADIOACTIVITY SURVEY

The radioactivity was continuously measured employing a DR-229 Nucleometer constructed specifically for airborne work. It is a highly sensitive instrument of 24 tube construction. This survey system was employed to investigate any zones of radioactivity that may be caused

by certain weathered products associated with mineralized zones.

PROCEDURE

The RM Group, consisting of 10 mineral claims were covered by 18 line miles of survey. Due to the nature of the topography, flight lines were flown at 278° and 098° (true). A near constant height above ground of 500 feet was maintained.

The flight lines were flown at 500 foot spacing, and at a constant speed of 113.7 miles per hour. Instrumentation was continuous with readings recorded by photography at 500 foot intervals.

Flight lines, 9 in number were flown for 10,000 feet in length plus turning and re-orienting distance. The flight pattern and grid lines were plotted in advance on topographic maps to a scale of one inch to a half mile and the survey was conducted during a period of extreme weather. Prominent landmarks were utilized as visual reference for navigational control.

The resulting data was processed and plotted to produce the accompanying maps.

Instrumentation consisted of a PMF 3 Sharpe Magnetometer (Airborne), Detectron DR229 Nucleometer, and a specially designed EM of 1,000 CPS.

ANALYSIS OF RESULTS AND CONCLUSIONS

Magnetic field strength recorded over the area ranges from a high of 1500 gamma to a low minus 1000 gamma, a variation of 2500 gamma.

The anomalous highs and lows are centred at

- | | | | |
|----|---------------|---------|-------------|
| 1. | Flight Line 3 | West 50 | 1500 gamma |
| 2. | Flight Line 3 | West 40 | 1300 gamma |
| 3. | Flight Line 4 | West 80 | 1000 gamma |
| 4. | Flight Line 5 | West 0 | 1100 gamma |
| 5. | Flight Line 4 | West 90 | 900 gamma |
| 6. | Flight Line 7 | West 32 | 1000 gamma |
| 7. | Flight Line 7 | West 90 | -1000 gamma |
| 8. | Flight Line 3 | West 80 | -500 gamma |
| 9. | Flight Line 9 | West 30 | -1000 gamma |

Zones of greater conductivity were noted by the EM at

- | | | |
|---------------|---------|----|
| Flight Line 1 | West 95 | +7 |
| Flight Line 3 | West 85 | +7 |
| Flight Line 7 | West 20 | +6 |
| Flight Line 7 | West 60 | +8 |
| Flight Line 9 | West 10 | +5 |

The high magnetic zone along FL 1 from W70 to W100 is due to concentrations of magnetite content in the overburden in the creek bed.

Of particular interest is the anomaly at FL 3 and FL 4 at West 80. This ranges from a high of 1000 gamma to a low of minus 500 gamma and is adjacent to an EM high of plus 7. This is indicative of significant sulphide content, partly magnetic and highly conductive. The anomaly appears on a structural break trending east - west and forming part of a secondary system associated with the intrusive - sedimentary contact to the east.

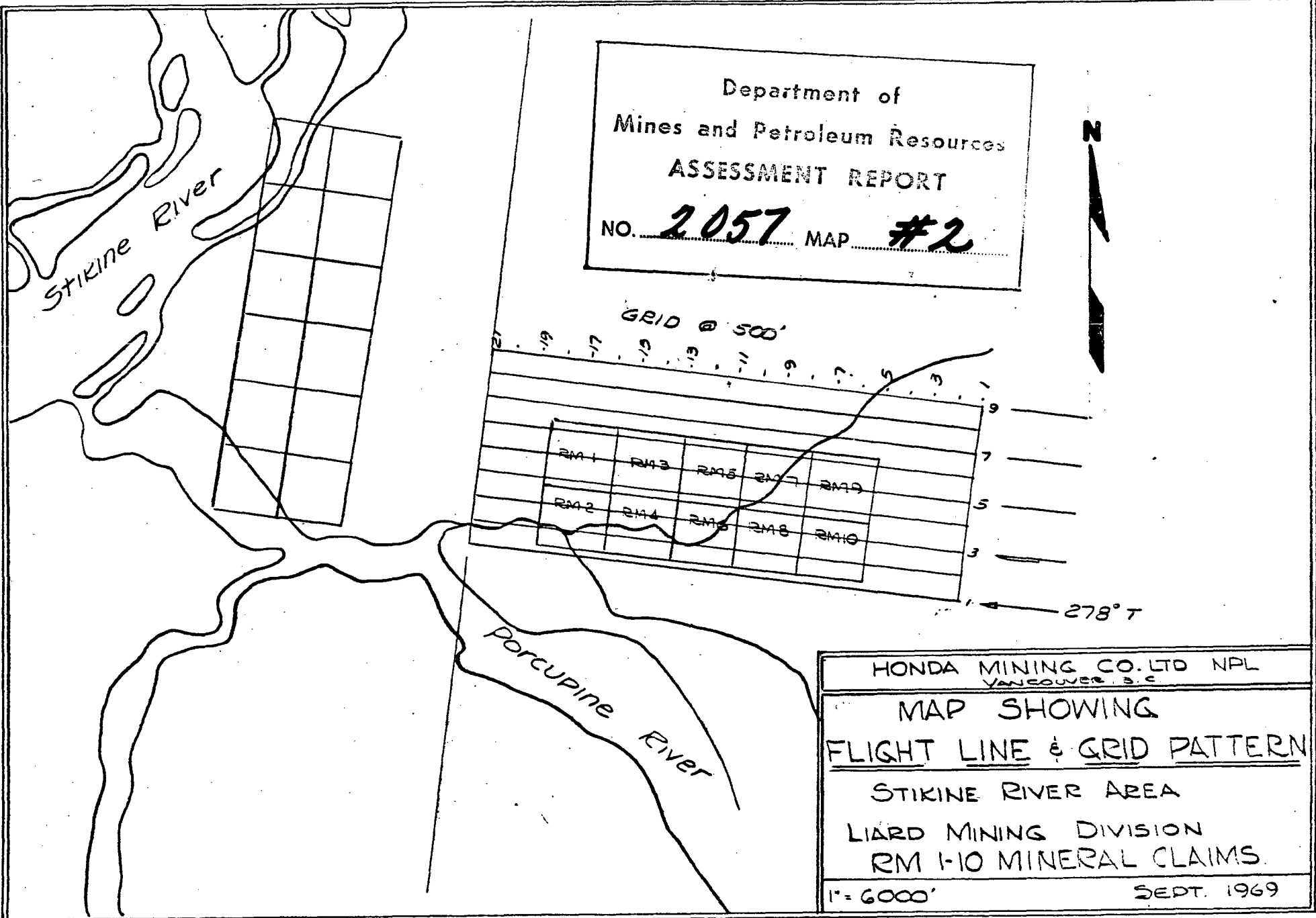
The irregular EM anomaly along FL 3 recording intensities of plus 5 appear significant from a sulphide content, but could be due to electrolyte filled shears. The area covers a shear zone at this location, and on examination, has revealed shearing and minor staining of limonite and malachite.

A series of high magnetic intensities oriented along Flight Line 3 and 4 from grid 40 West to 95 West is due to a sudden decrease in depth of overburden with outcrops of intrusive rock froming a bluff or ridge.

At FL 3 W 85, and EM high of 7 is coincident with a magnetic low of -500 gamma indicative of sulphides disseminated and non-magnetic in character.

A second EM conductor at FL7 W 60 of plus 8 is of significance in sulphide content of non-magnetic nature. It is possible that the conductivity is due to sulphides of iron with the possibility of copper content.

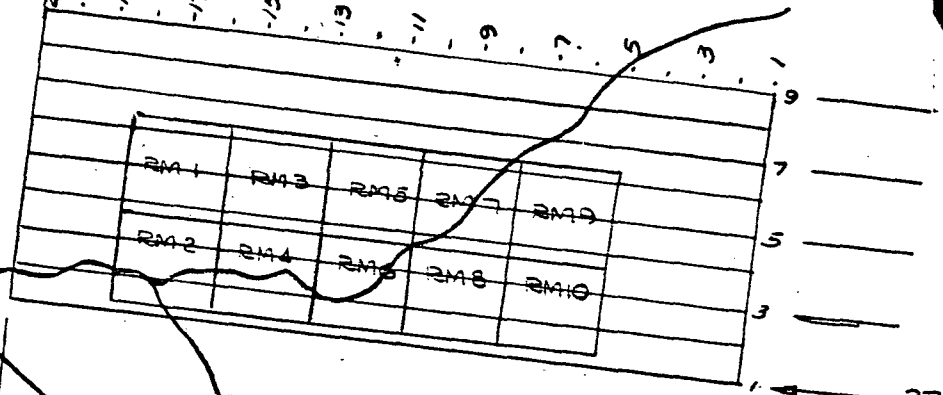
The EM high of plus 6 at FL 7 W 20 is due in part to magnetite content in greater than normal amount in an intrusive or volcanic mass.



Department of
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 NO. **2057** MAP **#2**



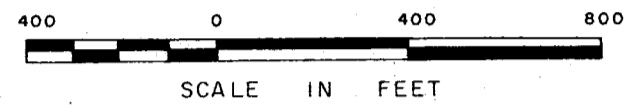
GRID @ 500'



278° T

HONDA MINING CO. LTD NPL
 VANCOUVER B.C.
 MAP SHOWING
 FLIGHT LINE & GRID PATTERN
 STIKINE RIVER AREA
 LIARD MINING DIVISION
 RM 1-10 MINERAL CLAIMS.
 1" = 6000' SEPT. 1969

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. **2057** MAP **#3**



LEGEND

INSTRUMENTATION
MAGNETOMETER P.M.F. 3 SHARPE
EM 1000 C.P.S. AIRBORNE
RADIOACTIVITY NUCLEOMETER DR 229
AIRCRAFT CHEROKEE 235

SPEED 137.2 M.P.H.
HEIGHT ABOVE GROUND 500 FEET
GRID SPACING 500 FEET

BEARING FLIGHT LINE 278° T

UNITS IN 100 GAMMAS
CONTOUR INTERVAL 200 GAMMAS

2057

TO ACCOMPANY REPORT ON THE
AIRBORNE GEOPHYSICAL SURVEY
RM 1-10 MINERAL CLAIMS STIKINE RIVER AREA
LAIRD MINING DIV. SEPT. 1969

HONDA MINING CO. LTD. (N.P.L.)

VANCOUVER, B.C.

AIRBORNE GEOPHYSICAL SURVEY

MAGNETOMETER

RM 1-10 MINERAL CLAIMS

STIKINE RIVER AREA B.C.

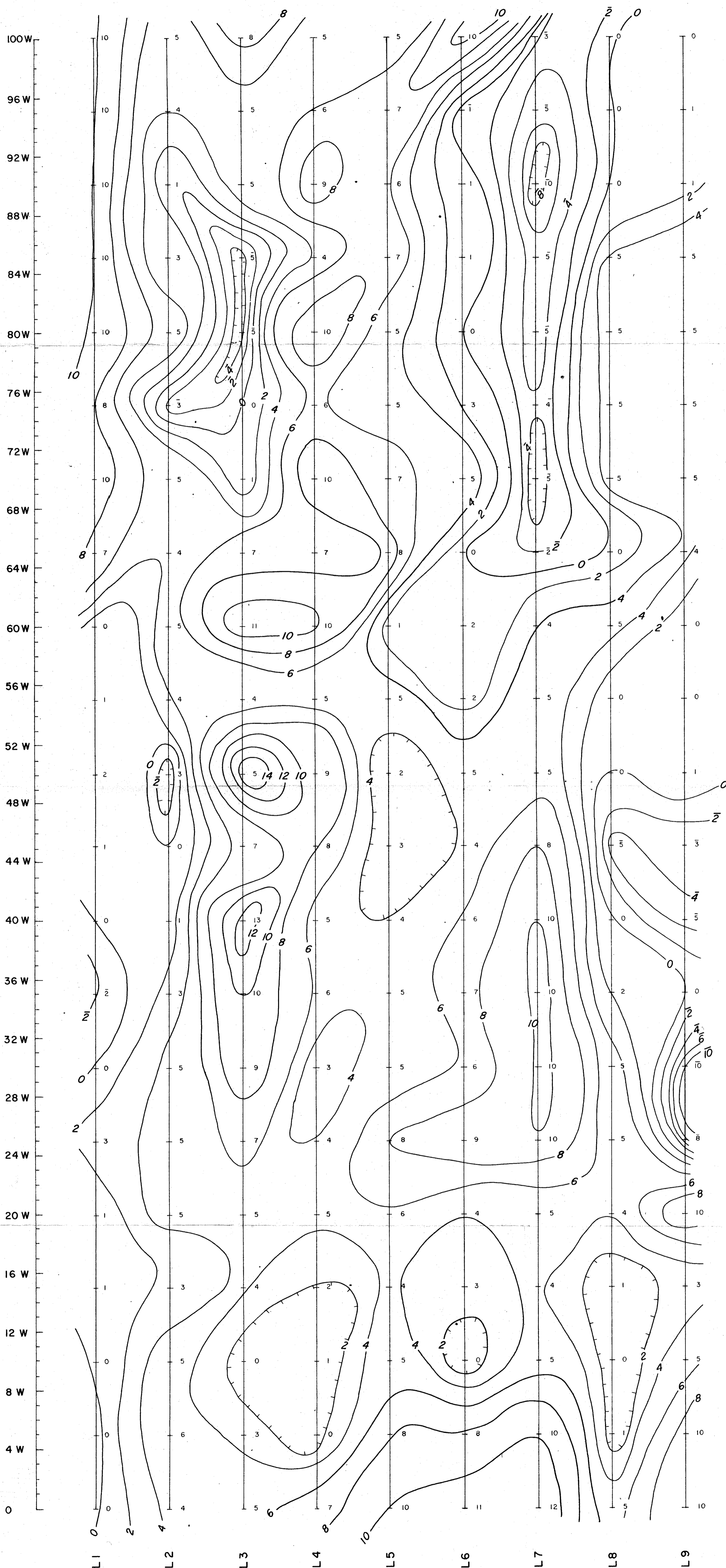
LAIRD MINING DIVISION

PREPARED BY

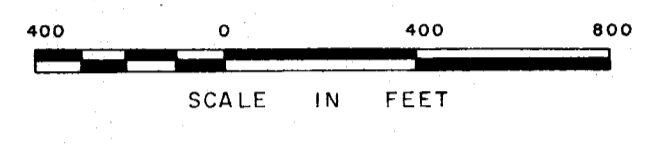
HARVEY COHEN ENGINEERING LTD.

SCALE 1"=400'

SEPT. 1969



Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 2057 MAP #4

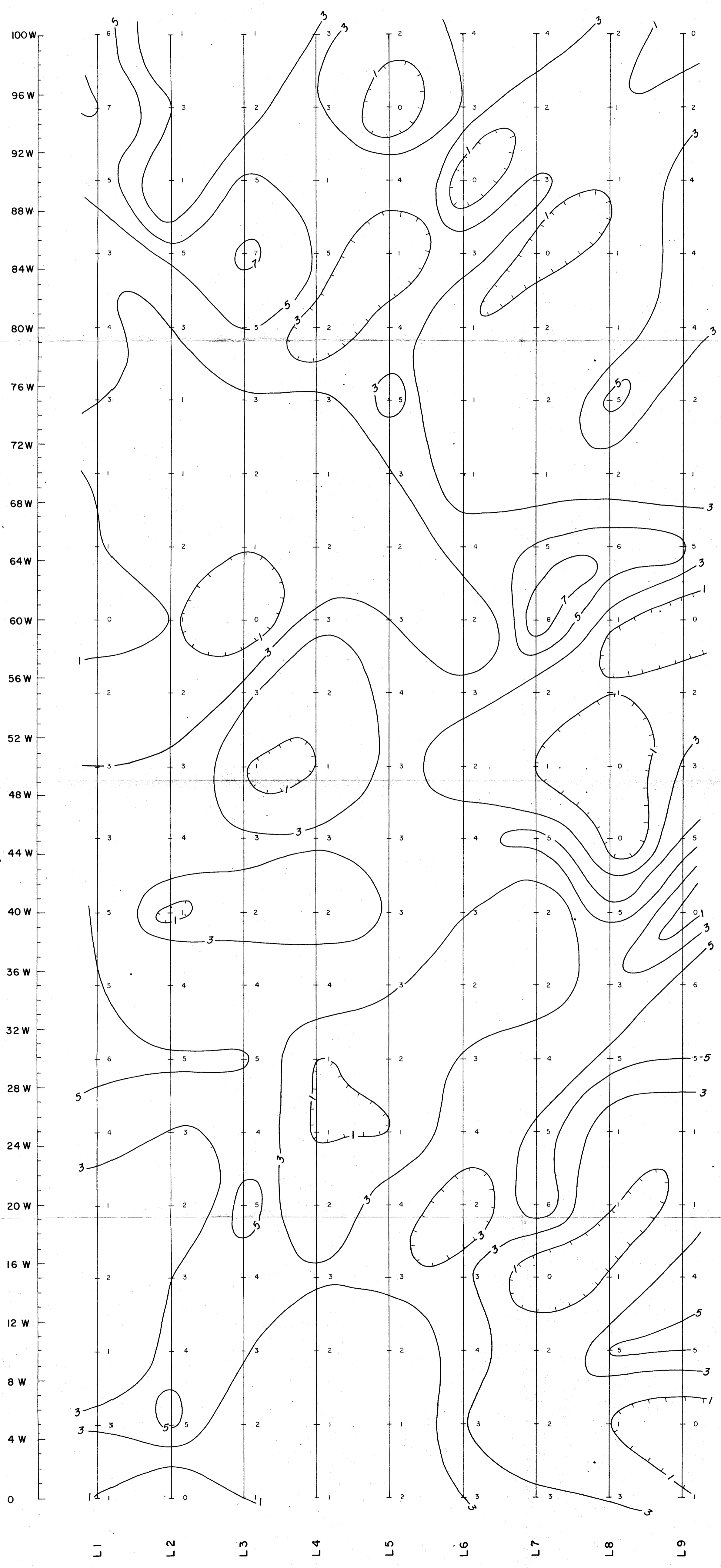


LEGEND

INSTRUMENTATION
MAGNETOMETER P.M.F. 3 SHARPE
EM 1000 C.P.S. AIRBORNE
RADIOACTIVITY NUCLEOMETER DR 229
AIRCRAFT CHEROKEE 235

SPEED 137.2 M.P.H.
HEIGHT ABOVE GROUND 500 FEET
GRID SPACING 500 FEET
BEARING FLIGHT LINE 278° T

UNITS .01 MILLIAMPS
CONTOUR INTERVAL .02 MILLIAMPS



2057

TO ACCOMPANY REPORT ON THE
AIRBORNE GEOPHYSICAL SURVEY
RM 1-10 MC - STIKINE RIVER AREA
LARD MINING DIV - SEPT 1969

HONDA MINING CO. LTD. (N.P.L.)	
VANCOUVER, B.C.	
AIRBORNE GEOPHYSICAL SURVEY	
ELECTROMAGNETIC	
RM 1-10 MINERAL CLAIMS	
STIKINE RIVER AREA B.C.	
LARD MINING DIVISION	
PREPARED BY	
HARVEY COHEN ENGINEERING LTD.	
SCALE 1" = 400'	SEPT. 1969