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180 = #461 - # 82 ~~34~~

GEOPHYSICAL REPORT

ON

AIRBORNE MAGNETIC, VLF-EM AND RADIOMETRIC SURVEYS

OVER THE

RELAY CREEK CLAIMS

RELAY CREEK AREA, CLINTON M.D., B.C.

Relay Creek Claims : 51° 112° SW  
 : N.T.S. 920/2W  
 : 46 km N12W of Bralorne, B.C.  
 on Relay Creek

Written for

Clear Mines Ltd.  
 #1004 - 789 West Pender Street  
 Vancouver, B.C.  
 MINERAL RIGHTS BRANCH  
 ASSESSMENT REPORT

By

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 GEOTRONICS SURVEYS LTD.  
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Surveys by

Columbia Geophysical Services  
 7050 Halligan Street  
 Burnaby, B.C.

Dated

: June 7, 1980



GEOTRONICS SURVEYS LTD.  
 Engineering & Mining Geophysicists  
 VANCOUVER, CANADA

82413

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### SUMMARY

Airborne magnetometer, VLF-EM and radiometric surveys were carried out over the Relay Creek Claims owned by Clear Mines Ltd. of Vancouver, B.C. during May, 1980. The claims are located on Relay Creek approximately 46 km north of Bralorne in terrain varying from moderate to steep with vegetation being fir, pine and spruce trees. Access is easily gained by a series of gravel roads from Lillooet. The purpose of the surveys was to aid in the mapping of geology as well as locate probable areas for the exploration of mineralization.

The property is mainly underlain by various clastic sedimentary rocks of the Taylor Creek and Kingsvale Groups. These are intruded by Eocene felsite and feldspar porphyries. The mineralization is a copper-molybdenum porphyry-type and occurs within altered intrusives.

The airborne surveys were flown at about an 80-meter terrain clearance on east-west and northwest-southeast lines with a separation of about 200 meters. The instruments used were a Sabre Electronics proton precession magnetometer, a Sabre Electronics VLF-EM receiver, and a Precision Instruments scintillometer with a 2-inch sodium iodide crystal. The magnetic data were picked from the strip charts, plotted on 3 survey plans, and contoured. The VLF-EM anomalies were picked from the strip charts, and plotted on a survey plan with the magnetic contours. Also the radiometric anomalies were drawn in on the same plans.

### CONCLUSIONS

1. Mineralization on the Relay Creek claims occur within an altered feldspar porphyry. Feldspar porphyry intrusives have been reflected by aeromagnetic highs.
2. The known feldspar porphyry intrusives all have been mapped north of Relay Creek, where all the aeromagnetic highs have been mapped as well, except for anomalies H, I and J.
3. The aeromagnetic survey has also shown most of the property is underlain by sedimentary rocks of the Taylor Creek and Kingsvale Groups.
4. Many aeromagnetic lineations were revealed striking in several different directions, especially in the area of the Jim and Norm Claims. The lineations are probably reflective of faults, contacts, fracturing and shear zones. Some of these correlate with previously mapped faults.
5. The VLF-EM survey revealed several anomalies, especially on grid C. These are likely reflective of structure as well, though the possibility of them reflecting sulphides should not be precluded. Many of the VLF-EM anomalies correlate with known faults as well as aeromagnetic lineations.
6. The radiometric survey results are inconclusive.

### RECOMMENDATIONS

Aeromagnetic highs, especially those that correlate with or occur near VLF-EM anomalies should be checked on the ground by prospecting. The highs appear to have revealed intrusives

previously unknown. Further work such as geochemistry and ground geophysics will depend on the results of the prospecting.

GEOPHYSICAL REPORT  
ON  
AIRBORNE MAGNETIC, VLF-EM AND RADIOMETRIC SURVEYS  
OVER THE  
RELAY CREEK CLAIMS  
RELAY CREEK AREA, CLINTON M.D., B.C.

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INTRODUCTION AND GENERAL REMARKS

This report discusses the survey procedure, compilation of data and the interpretation of airborne magnetic, VLF-EM, and radiometric surveys carried out over the Relay Creek claims during the latter part of May, 1980. The surveys were carried out by T.W. Rolston, instrument operator and project manager, and N. Newsom, navigator, both of who are of Columbia Geophysical Services Ltd. The survey data were brought to the writer, already compiled and contoured, for interpretation.

The Relay Creek claims were staked for porphyry copper-molybdenum mineralization which occurs on the Jim claim, Also some copper mineralization occurs on the Norm claim.

The object of all three surveys was to aid in the geological mapping of lithology and structure for the purpose of copper-molybdenum exploration.

### PROPERTY AND OWNERSHIP

The Relay Creek property is comprised of 3 contiguous claims located in the Clinton M.D., B.C. and 3 contiguous claims located in the Lillooet M.D., B.C. as shown on the accompanying claim map and as described below:

<u>NAME</u>	<u>No of Units</u>	<u>Record No.</u>	<u>Expiry Date</u>	<u>Mining District</u>
Joe	20 (4 x 5)	1334	May 7, 1981	Lillooet
Tom	20 (4 x 5)	1333	May 7, 1981	Lillooet
Kev	20 (4 x 5)	1335	May 7, 1981	Lillooet
Norm	20 (4 x 5)	681	May 7, 1981	Clinton
Jim	20 (4 x 5)	682	May 7, 1981	Clinton
Al	20 (4 x 5)	680	May 7, 1981	Clinton

The claims (a total of 120 units) are owned by Clear Mines Ltd., of Vancouver, B.C.

### LOCATION AND ACCESS

The property is located on Relay Creek 46 km N12°W of Bralorne and 95 km N85°W of Clinton. Relay Mountain is located to the immediate south of the property and Prentice Lake occurs on the eastern edge of the Norm claim.

The geographical coordinates are 51°11'N latitude and 122°56'W longitude.

Access to the property is gained by travelling west from Lillooet for 87 km along the Goldbridge Road to the Tyaughton Lake road. One then travels north along the Tyaughton Lake road for 24.1 km to the confluence of Tyaughton and Relay Creeks. Relay Creek is then followed by a road for 12.8 km to the property.

### PHYSIOGRAPHY

The Relay Creek claims are located within the physiographic division known as the Chilcotin Ranges, which is part of the Pacific Ranges, a unit to the Coast Mountains. The terrain in the claims area is relatively steep varying from 1550 m a.s.l. on the southern part of the Norm claim to 2350 m on a mountain peak on the northern part of the Jim claim. The relief is



therefore 800 m. The topographic trend is northwest to west.

Precipitation is only around 100 cm a year. As a result the vegetation, fir, spruce, and pine trees, is only moderately heavy with little undergrowth.

Water sources in the area are mainly from Relay Creek and its tributaries. A tributary of Dash Creek occurs on the northern part of the property. Prentice Lake and 2 quite small lakes occur on the eastern part of the Norm Claim.

#### HISTORY OF PREVIOUS WORK

The copper-molybdenum mineralization on the property was discovered by regional soil and silt geochemistry surveying in 1970. The property was then staked and a soil geochemistry survey was carried out. This was followed by trenching and diamond drilling of 3 holes.

#### GEOLOGY

The following is taken from Tipper (1978) and Montgomery (1979).

The oldest rock group in the property area are those of the Relay Mountain Group which is Middle Jurassic to Lower Cretaceous Age. These occur to the immediate south of grid A and the Jim Claim. The rocks are dark grey to green greywacke, siltstone, shale and minor conglomerate.

The next oldest group is of Lower Cretaceous Age and is the sedimentary member of the Taylor Creek Group. These rocks cover much of the 3 survey grids. The rocks within this group are dark grey to black shale and siltstone, chert, pebble conglomerate, and minor quartzose sandstone.

The next oldest group also covers much of the area of the 3 survey grids and is the sedimentary member of the Kingsvale Group.

The Age is Upper Cretaceous and the rocks are interbedded siltstone, greywacke, and conglomerate.

A thin northwest-striking sliver of volcanic rocks of the Kingsvale Group occurs on the north end of the B grid. The rocks within this group are varicoloured andesite, dacite, and basaltic pyroclastics; minor flows and volcanic sediments.

Intruding into the above-named rock groups are plutonic rocks of Eocene Age (Tertiary). The rocks are felsite, feldspar porphyry, and biotite feldspar porphyry. Tipper has mapped this group at the northeast end and the northwest end of grid A as well as the northern part of grid C.

Occurring principally at higher elevations (cappings) are Tertiary volcanics of Upper Miocene and/or Pliocene Age. The rocks are olivine basalt, andesite, and minor related tuff and breccia of the Chilcotin Group. The closest these rocks are to the survey area are to the immediate north of grids A and C.

Strong regional and localized faulting in the area strikes in a northwesterly direction. The survey area occurs between the Yalokom Fault to the northeast and the Taseko Thrust Fault to the southwest. Numerous minor faults occur between these 2 major faults, many of them forming contacts between the rock groups discussed above.

A copper-molybdenum deposit occurs on the Jim Claim. Pyrite is the dominant sulphide occurring as coarse crystals in amphibole pseudomorphs, finely disseminated in the matrix and in fractures with quartz, chalcopyrite, and molybdenite. Other minerals are magnetite, epidote, chlorite, calcite, and pyrrhotite.

## INSTRUMENTATION AND THEORY

### 1) Magnetic Survey:

The magnetic data was detected using a nuclear free precession magnetometer, made by Sabre Electronics of Burnaby, B.C. This measures the absolute value of the earth's magnetic field intensity in three ranges which are 1,000, 2,500 and 5,000 gammas, respectively. The sensitivity is 1 gamma and the absolute calibration is governed by a crystal-controlled oscillator so that it cannot drift.

The magnetic data as well as the VLF-EM data were recorded on an MFE model M-22 CAHA dual channel strip chart recorder. There are four chart speeds which are 1, 5, 25 and 50 mm/sec respectively.

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

### 2) VLF-EM

A VLF-EM receiver manufactured by Sabre Electronics of Burnaby, B.C. was used for the VLF-EM survey. This instrument is designed to measure the current induced, in a vertical coil, by the primary and secondary fields of the very low frequency electromagnetic field (VLF-EM) transmitted at 18.6 KHz. 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 which 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 structures and in picking up sulphide bodies of too low 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.

### 3) Radiometric Survey

The instrument used to carry out this survey was a Model 118 Royal Scintillator manufactured by Precision Radiation Instruments Ltd. The detecting element used with this scintillator is a 2-inch sodium iodide crystal. The data was recorded on a Bausch & Lomb 6-inch strip chart recorder. The complete airborne system was installed as close as possible to the rear of the aircraft to ensure against radiation from the plane's navigational equipment.

All radiometric surveys, ground or airborne, work on the principle of gamma-ray emission from radioactive sources. The most common sources incurred in geophysical prospecting are radioactive isotopes of uranium ( $U^{238}$ ), thorium ( $Th^{232}$ ) and potassium ( $K^{40}$ ).

These isotopes disintegrate spontaneously into daughter elements emitting alpha and beta particles, and gamma rays. The alpha and beta particles travel no more than 1 to 2 feet through air and thus are little use for geophysical detection. On the other hand, the gamma ray travels hundred of feet through air and thus is of prime importance. These gamma rays, in a radioactive survey, are generally detected by thallium-activated sodium iodide crystals.

The gamma ray can be shielded by two feet of water or rock and thus over large lakes there is a minimum signal. Thus, also radiometric surveying is essentially surveying for outcrop expression of rocks containing radioactive minerals. However, around uranium showings, if the rock and overburden is porous and fractured enough (and not water-soaked), the uranium can be detected at greater depths because of the uranium daughter product, radon gas, seeping upwards.

The main sources of error are topographic noise and cosmic noise.

Topographic noise is in the form of anomalous highs or lows and is produced by the terrain clearance becoming correspondingly lesser or greater. A related type of noise is a variable amount of snow cover wherein a few feet of snow would completely eliminate gamma rays from the ground.

Cosmic noise is only exhibited by anomalous highs and is caused by bursts of cosmic showers, which are radioactive particles from outer space. However, a constant low background of cosmic noise continually exists.

#### SURVEY PROCEDURE

A Bell 206B Jet Ranger helicopter belonging to Highland Helicopters flown at a speed of about 80 to 100 kph, was used to fly the survey.

The magnetometer head and the VLF-EM receiving antenna were towed in a bird at the end of a 20-meter cable. The scintillometer detector crystal was placed in the floor of the helicopter. The flight lines were flown with a separation of about 200 meters in a direction varying from northwest-southeast to almost east-west. This is close to the strike direction of faults and lithological contacts in the area but rough terrain precluded flying in any other direction. The survey was divided into 3 grids correlating with the 3 survey directions. These were labelled A, B and C. The bird was flown at a terrain clearance of about 80 meters. Tie points were made over prominent topographic features. They were numbered, recorded, and plotted on the flight-line and data sheets. There were considerable topographic features to serve as visual tie points so that the flight lines can be considered to be plotted fairly accurately.

The magnetic readings were taken with the magnetometer set on a 1.2 second recycling period which corresponds to readings taken at intervals of about 40 meters.

The magnetic diurnal change was not monitored but the survey was done in short enough time so that any possible error would be minimal. As for magnetic storms, which are frequent at this time, there were none on the day of the survey. This was checked with the monitoring station at Victoria.

All radiometric readings were taken with the scintillometer set on a 5-second response time whereby the meter would respond to the average count of gamma particles received over a 5-second interval of time. Therefore, the sample length averaged about 160 meters.

#### COMPILATION OF DATA

The magnetic and radiometric data were picked off the strip charts at equal intervals of length of 100 meters. In some instances, variations were made in this sampling interval to

more accurately define isolated areas of change.

The magnetic data were then plotted on Sheets 1 to 3 (grids A, B and C) at a scale of 1:10,000 (1 cm = 100 m) and contoured at a 50-gamma interval on Sheets 4 to 6 (grids A, B and C). The mean background value appears to be about 1,450 gammas which is approximately equivalent to 56,000 gammas total field.

The VLF-EM data on the strip chart were first examined for field strength anomalies which were then placed on Sheets 4 to 6. The center of each anomaly is shown by a crossline since this is the best indication of the location of the causative source.

The radiometric data was visually scanned to determine the background. It was then contoured on the basis of being two times background which only occurred on grid C. Therefore, the radiometric anomalies are only plotted on Sheet 6.

#### DISCUSSION OF RESULTS

##### a) Magnetics:

The aeromagnetic values vary from a low of 1300 gammas to a high of 2000 gammas giving a range of 700 gammas. This range can be subdivided into 2 sections as discussed below.

Most of the survey area has values in the range of 1300 to 1500 gammas. Furthermore, the data in this area is fairly quiet, that is the variation in values is relatively small and gradual.

These magnetic characteristics are typical of sedimentary rocks under which much of the survey area is underlain by. In other words, those areas ranging in magnetic intensity from 1300 to 1500 gammas are likely underlain by Taylor Creek or Kingsvale sediments.

The second section refers to those areas with values in the range of 1500 to 2000 gammas. Some of these areas correlate directly with feldspar porphyry intrusives and these have been labelled by the letters A to D. It is quite likely therefore that the other anomalies labelled by the letters E to K, also reflect the same intrusives. It is this rock-type within which the copper-molybdenum mineralization occurs.

The anomalous area labelled K apparently is underlain by a dacite plug which could be a phase variation of the feldspar porphyry intrusives. The plug contains minor molybdenum and chalcopyrite with much pyrrhotite and chalcopyrite.

The lettering has been given to these anomalies containing values above 1600 gammas. However, these anomalies are joined together by areas with values in the 1500 to 1600 gammas range. These areas may be reflecting feldspar porphyries that are buried somewhat deeper and covered by sedimentary rock-types. Tipper's geological map shows these intrusives to be all on the north side of Relay Creek, which is where most of these magnetic highs occur.

Not any part of the magnetic field mapped by the survey could be considered to be noisy. Therefore, it is doubtful that any part of the survey area is underlain by the Tertiary Chilcotin Group.

Considering how long and narrow the survey area is, it is somewhat difficult to map accurately magnetic lineations. Nevertheless, numerous lineations were noted, especially on grids A and B. It is within grid A that the main zone of copper-molybdenum mineralization occurs. Magnetic lineations in general, may be a reflection of faults, contacts, shear zones, or fracture zones. Some of these lineations correlate with some of the north-west trending faults as mapped by Tipper.



b) VLF-EM:

The major cause of VLF-EM anomalies, as a rule, are geologic structures such as fault, shear and breccia zones. It is therefore logical to interpret VLF-EM anomalies to likely be caused by these structural zones. Of course, sulphides may also be a causative source. But in the writer's experience, when VLF-EM anomalies correlate with sulphide mineralization, the anomalies are usually reflecting the structure associated with the mineralization rather than the mineralization itself.

Most of the VLF-EM anomalies are found on grid C and only a few on grids A and B. Two anomalies have been labelled by lower-case letters for ease of discussion. Some of these correlate fairly well with magnetic lineations that are felt to reflect geological structure. One good example is VLF-EM anomaly b.

Anomaly a correlates directly with a northwest-trending fault as mapped by Tipper.

A large area within the southwest corner of grid B is characterized by anomalously high VLF-EM field strength. The area is therefore relatively conductive and consequently could be underlain by a different rock-type or a zone of increased fracturing.

c) Radiometrics:

The anomalies revealed by the radiometric survey occur only on grid C. It is generally expected that radiometric highs reflect potassium feldspar (unless uranium occurs in the area). However, there is only partial correlation with the feldspar porphyry intrusives. Most of the anomalies are found within the sedimentary rocks. The radiometric survey results are therefore inconclusive.

Respectfully submitted,  
GEOTRONICS SURVEYS LTD.



David G. Mark,  
Geophysicist  
GEOTRONICS SURVEYS LTD.

June 7, 1980

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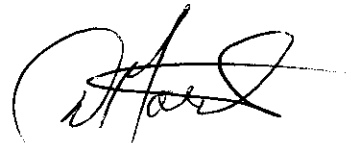
## GEOPHYSICIST'S CERTIFICATE

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 #420-890 West Pender Street, Vancouver, B.C.

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 twelve years and have been active in the mining industry for the past fifteen years.
3. I am an active 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 airborne magnetic, VLF-EM and radiometric survey carried out by Columbia Geophysical Services Ltd., under the supervision of T.W. Rolston, during the latter part of May, 1980.
5. I have no direct or indirect interest in Clear Mines Ltd., Vancouver, B.C., nor in any of it's properties, nor do I expect to receive any interest therein as a result of writing this report.



David G. Mark

June 7, 1980



Geotronics Surveys Ltd.

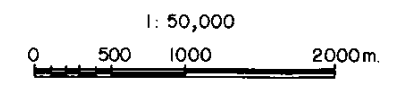
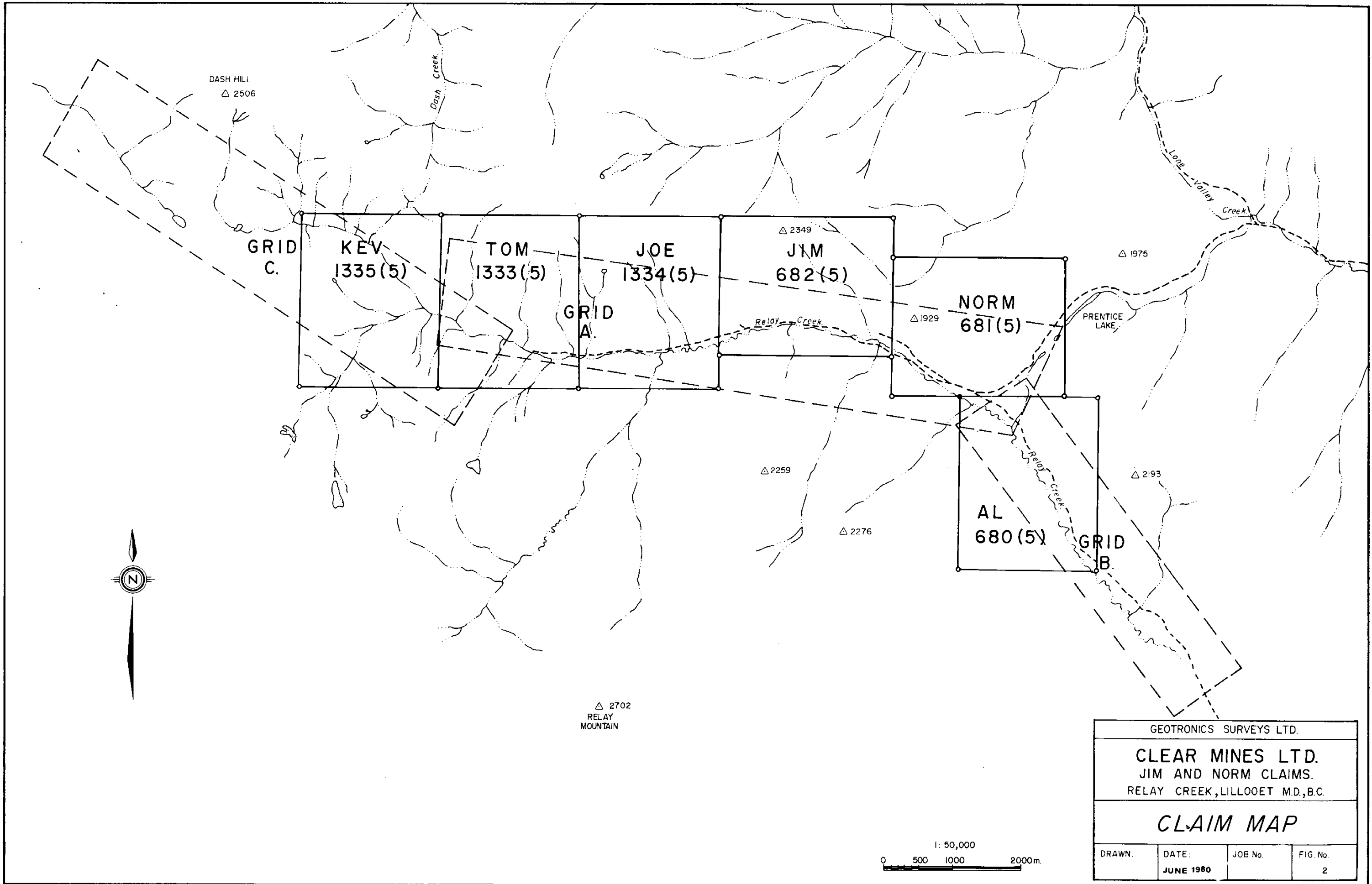
CLEAR MINES LTD.

RELAY CREEK CLAIMS  
 Relay Creek, Clinton M.D., B.C.

LOCATION MAP

1:240,000

Figure 1



GEOTRONICS SURVEYS LTD.			
CLEAR MINES LTD. JIM AND NORM CLAIMS. RELAY CREEK, LILLOOET M.D., B.C.			
<b>CLAIM MAP</b>			
DRAWN:	DATE: JUNE 1980	JOB No.	FIG. No. 2

**C. DRILLING** (Details in report submitted as per section 8 of regulations.)  
 (The itemized cost statement must be part of the report.)

**D. GEOLOGICAL, GEOPHYSICAL, GEOCHEMICAL**

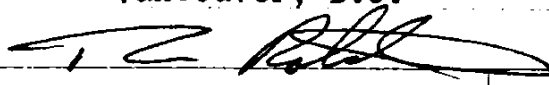
(Details in report submitted as per section 5, 6, or 7 of regulations.)  
 (The itemized cost statement must be part of the report.)  
 (State type of work in space below.)

180 L Km @ \$75.00

Combined airborne geophysical survey; magnetometer,  
 VLF electromagnetic and total count scintillometer

COST	
	13,500.00
TOTAL OF C AND D	13,500.00

Who paid for the above-described work? Name **Clear Mines Ltd.**  
 Address **1004-789 West Pender Street,**  
**Vancouver, B.C.**



*Portable Assessment Credits (PAC) Withdrawal Request*

Amount to be withdrawn from owner(s) account(s):

Name of Owner		AMOUNT
(May be no more than 30 per cent of value of the approved work submitted as assessment work in C and (or) D.)	1.	
	2.	
	3.	
	4.	
<b>TOTAL WITHDRAWAL</b>		
<b>TOTAL OF C AND (OR) D PLUS PAC WITHDRAWAL</b>		

I wish to apply \$ **4,000.00** of this work to the claims listed below.

(State number of years to be applied to each claim and its month of record.)

Apply one to Norm Group (40 units)

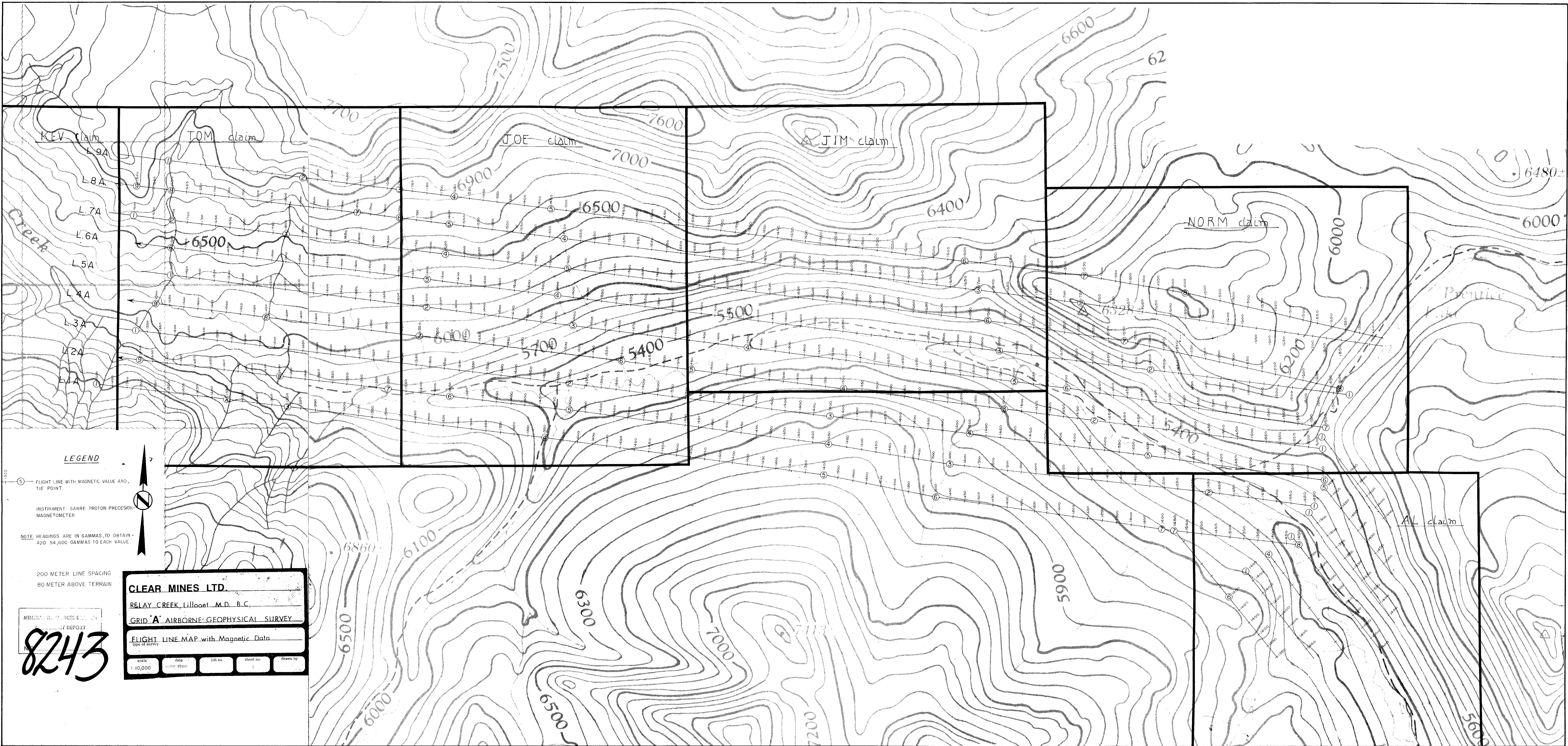
Norm 681(5) 20 units

A1 680(5) 20 units

Value of work to be credited to portable assessment credit (PAC) account(s).

(May only be credited from the approved value of C and (or) D not applied to claims.)

Name		AMOUNT
In owner(s) name.	1.	
	2.	
	3.	
In operator(s) name (person paying for the work).	1.	
	2.	



KEV claim  
L 9A  
L 8A  
L 7A  
L 6A  
L 5A  
L 4A  
L 3A  
L 2A  
L 1A

**LEGEND**

① — FLIGHT LINE WITH MAGNETIC VALUE AND TIE POINT.

INSTRUMENT: SABRE PROTON PRECISION MAGNETOMETER.

NOTE: READINGS ARE IN GAMMAS, TO OBTAIN — ADD 54,600 GAMMAS TO EACH VALUE.

200 METER LINE SPACING  
80 METER ABOVE TERRAIN

**CLEAR MINES LTD.**

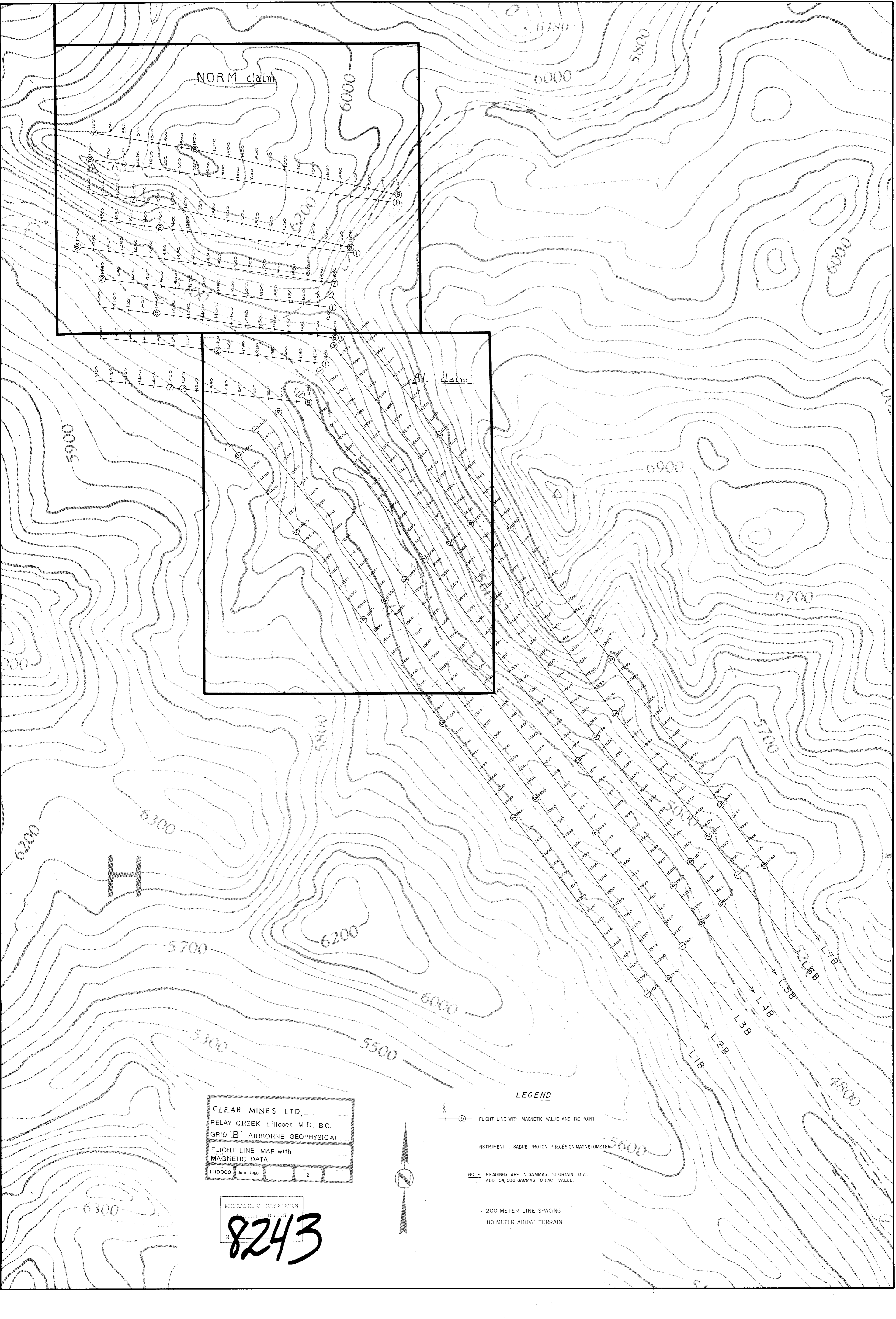
RELAY CREEK, Lillooet, B.C.

GRID "A" AIRBORNE GEOPHYSICAL SURVEY

FLIGHT LINE MAP with Magnetic Data  
type of survey

scale	date	job no.	sheet no.	drawn by
1:10,000	JUNE 1980			

MINERAL ACTS REGS. CH. 21  
PROPERTY REPORT  
**8243**



NORM claim

AL claim

CLEAR MINES LTD,  
 RELAY CREEK Lillooet M.D. B.C.  
 GRID 'B' AIRBORNE GEOPHYSICAL  
 FLIGHT LINE MAP with  
 MAGNETIC DATA  
 1:10000 June 1980 2

MINERAL RESOURCES BRANCH  
 AIRBORNE REPORT  
 NO. 8243

LEGEND

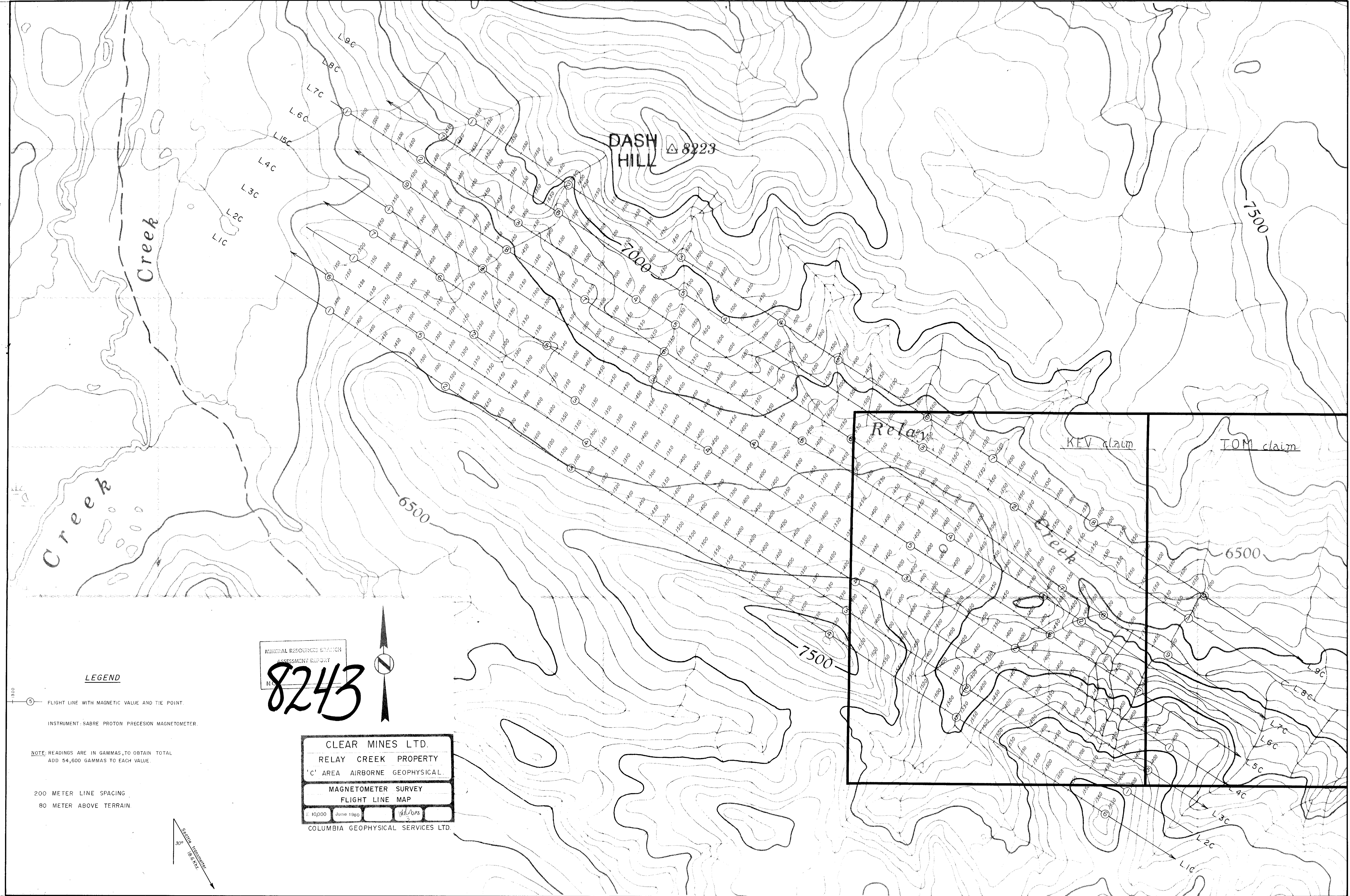
⑤ — FLIGHT LINE WITH MAGNETIC VALUE AND TIE POINT

INSTRUMENT : SABRE PROTON PRECISION MAGNETOMETER

NOTE: READINGS ARE IN GAMMAS. TO OBTAIN TOTAL  
 ADD 54,600 GAMMAS TO EACH VALUE.

200 METER LINE SPACING  
 80 METER ABOVE TERRAIN.

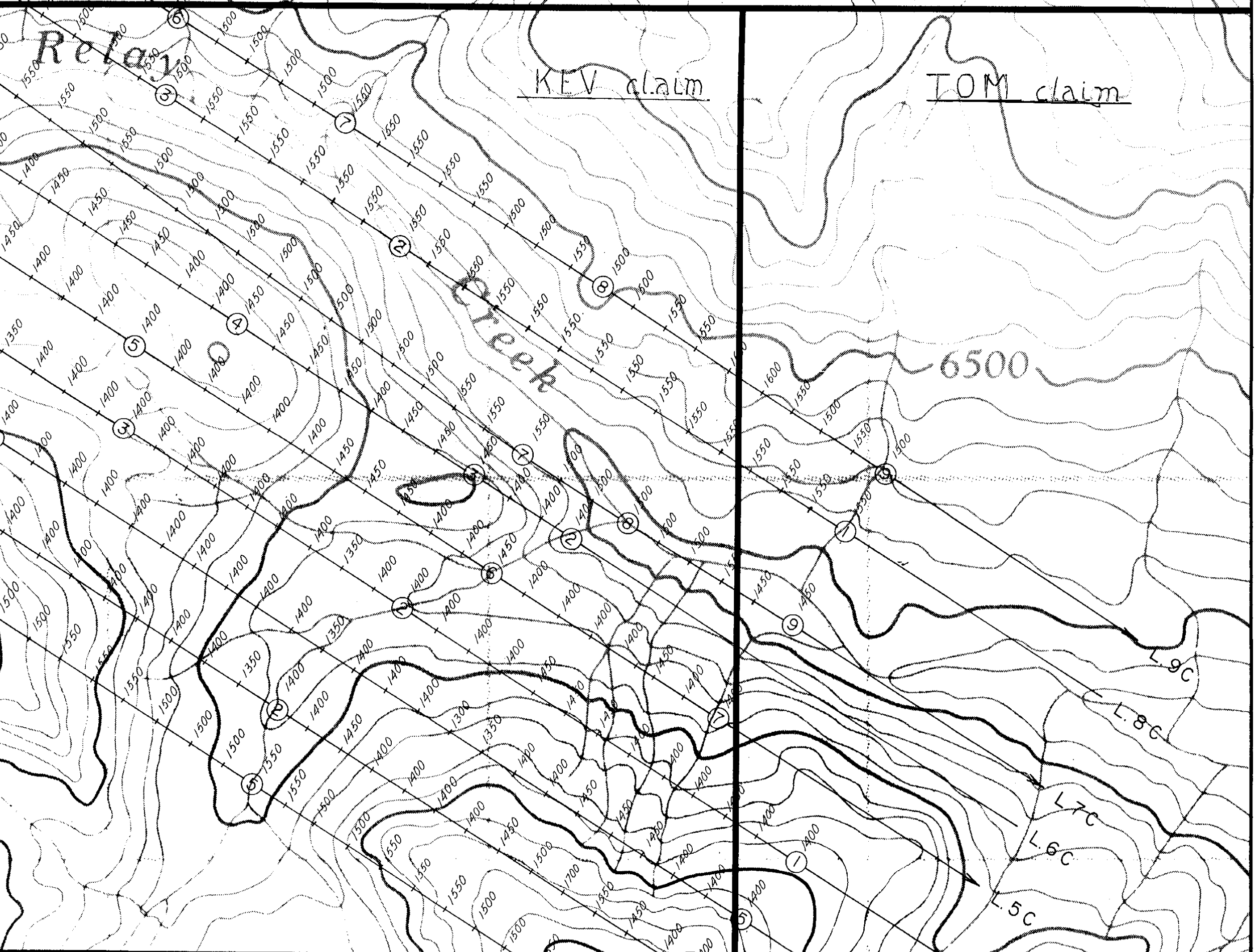




DASH HILL 8223

Creek

Creek



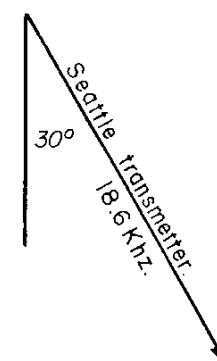
**LEGEND**

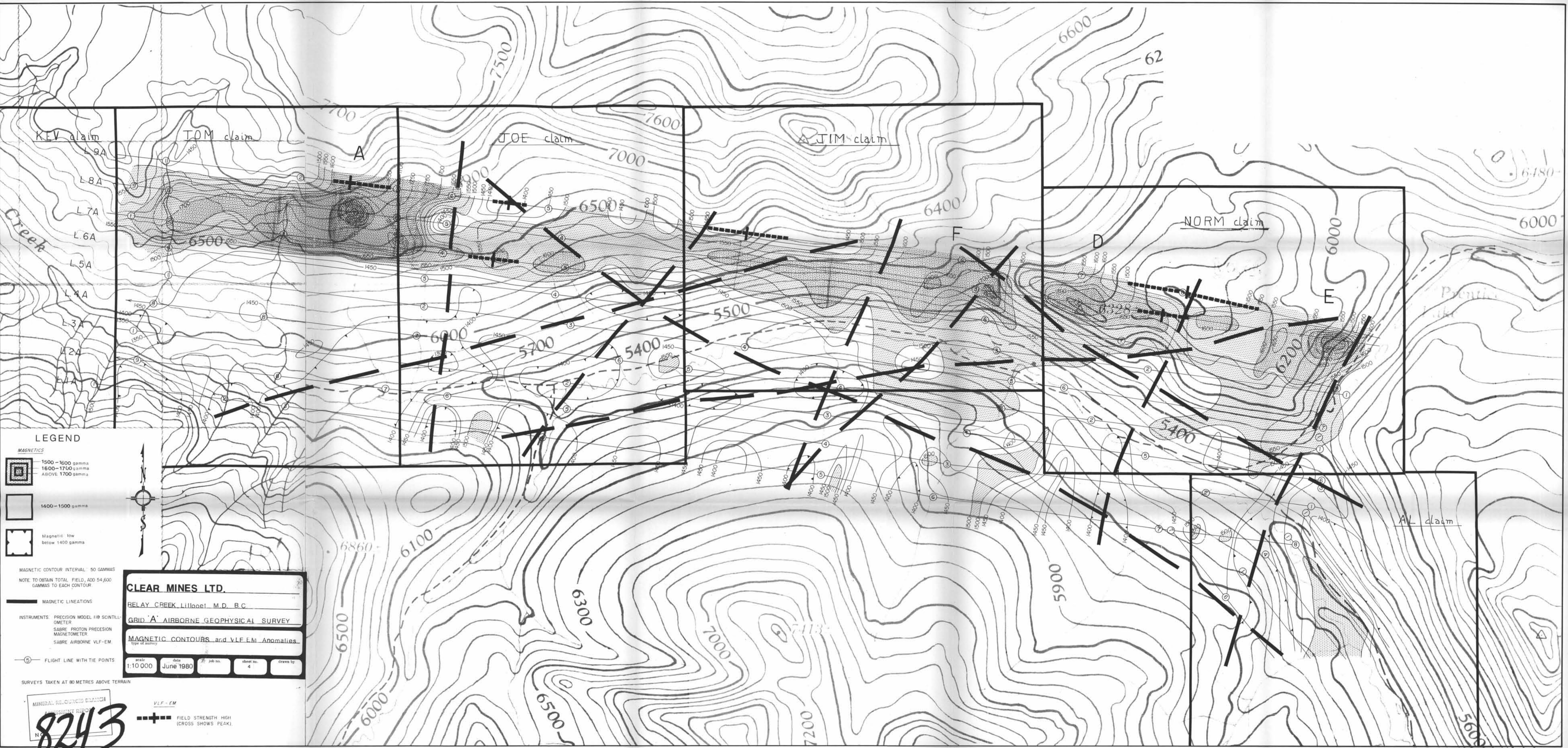
- ⑤ FLIGHT LINE WITH MAGNETIC VALUE AND TIE POINT.
- INSTRUMENT: SABRE PROTON PRECISION MAGNETOMETER.
- NOTE: READINGS ARE IN GAMMAS, TO OBTAIN TOTAL ADD 54,600 GAMMAS TO EACH VALUE.
- 200 METER LINE SPACING
- 80 METER ABOVE TERRAIN

MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT  
NO. **8243**



CLEAR MINES LTD.  
RELAY CREEK PROPERTY  
'C' AREA AIRBORNE GEOPHYSICAL.  
MAGNETOMETER SURVEY  
FLIGHT LINE MAP  
1:10,000 June 1980  
COLUMBIA GEOPHYSICAL SERVICES LTD.





**LEGEND**

**MAGNETICS**

- 1500 - 1600 gamma
- 1600 - 1700 gamma
- ABOVE 1700 gamma
- 1400 - 1500 gamma
- Magnetic low below 1400 gamma

MAGNETIC CONTOUR INTERVAL: 50 GAMMAS  
NOTE TO OBTAIN TOTAL FIELD, ADD 54,600 GAMMAS TO EACH CONTOUR.

**MAGNETIC LINEATIONS**

**INSTRUMENTS** PRECISION MODEL 119 SCINTILLATION METER  
SABRE PROTON PRECISION MAGNETOMETER  
SABRE AIRBORNE VLF-EM

**FLIGHT LINE WITH TIE POINTS**

**CLEAR MINES LTD.**  
RELAY CREEK, Lillooet, M.D. B.C.

**GRID 'A' AIRBORNE GEOPHYSICAL SURVEY**

**MAGNETIC CONTOURS and VLF-EM Anomalies**  
(Type of survey)

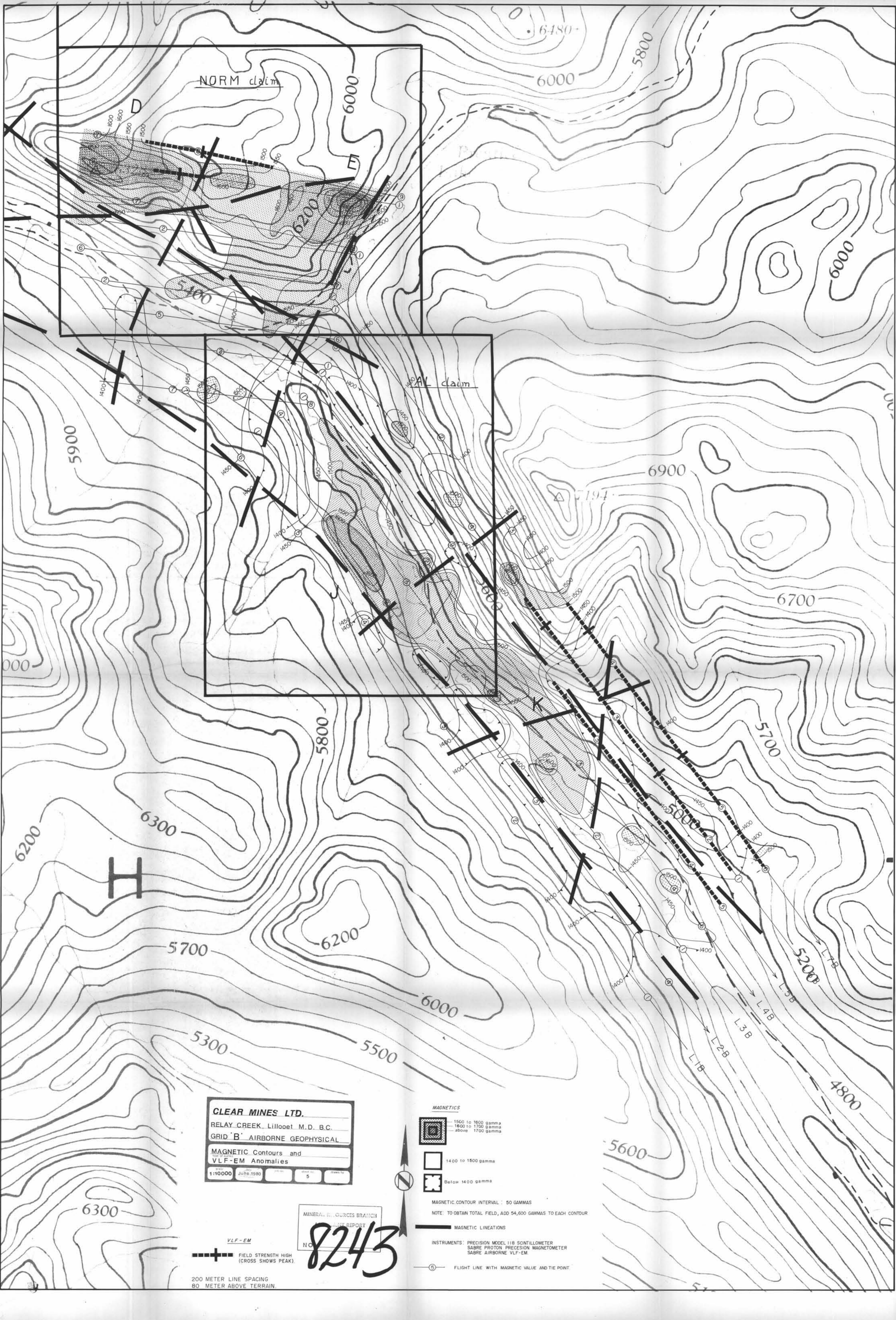
scale	date	job no.	sheet no.	drawn by
1:10 000	June 1980		4	

MINERAL RESOURCES BRANCH  
ASSESSMENT REPORT

**8243**

**VLF-EM**

FIELD STRENGTH HIGH (CROSS SHOWS PEAK)



**CLEAR MINES LTD.**  
 RELAY CREEK, Lillooet M.D. B.C.  
 GRID 'B' AIRBORNE GEOPHYSICAL  
 MAGNETIC Contours and  
 VLF-EM Anomalies  
 1:10000 June 1980

MINERAL RESOURCES BRANCH  
 REPORT  
 8243

**MAGNETICS**

- 1500 to 1600 gamma
- 1600 to 1700 gamma
- above 1700 gamma
- 1400 to 1500 gamma
- Below 1400 gamma

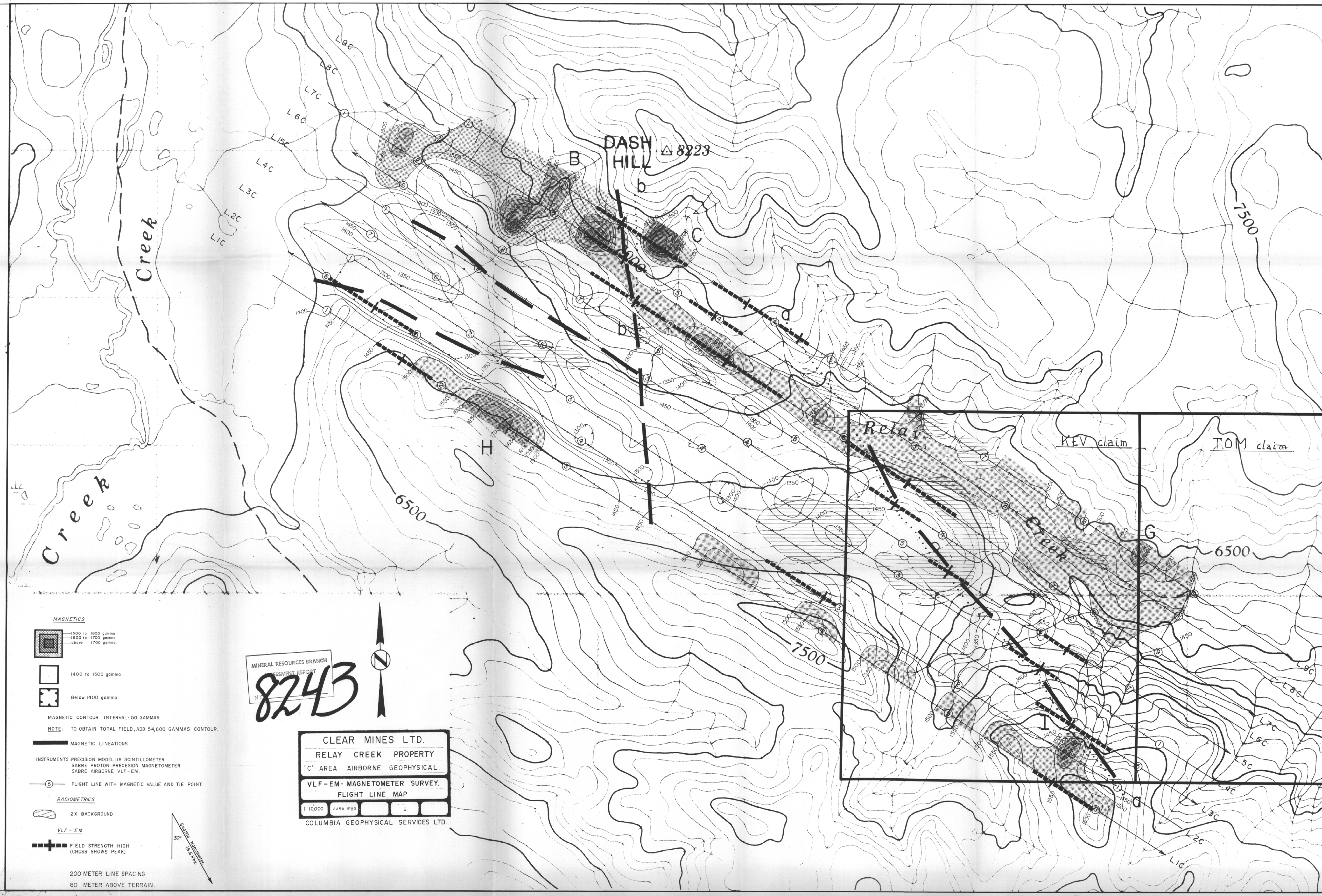
MAGNETIC CONTOUR INTERVAL: 50 GAMMAS  
 NOTE: TO OBTAIN TOTAL FIELD, ADD 54,600 GAMMAS TO EACH CONTOUR

**MAGNETIC LINEATIONS**

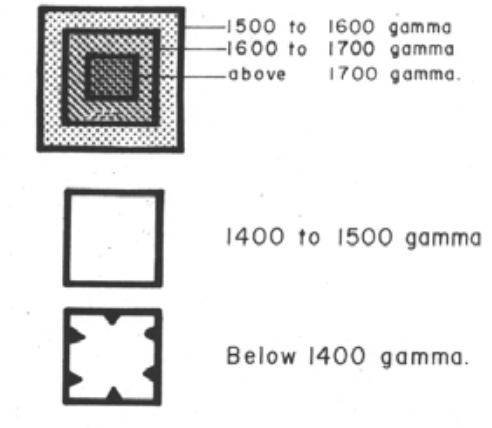
INSTRUMENTS: PRECISION MODEL 118 SCINTILLOMETER  
 SABRE PROTON PRECISION MAGNETOMETER  
 SABRE AIRBORNE VLF-EM

FLIGHT LINE WITH MAGNETIC VALUE AND TIE POINT

VLF-EM  
 FIELD STRENGTH HIGH (CROSS SHOWS PEAK)  
 200 METER LINE SPACING  
 80 METER ABOVE TERRAIN



**MAGNETICS**



MAGNETIC CONTOUR INTERVAL: 50 GAMMAS.  
 NOTE: TO OBTAIN TOTAL FIELD, ADD 54,600 GAMMAS CONTOUR.

- MAGNETIC LINEATIONS
- INSTRUMENTS: PRECISION MODEL 118 SCINTILLOMETER  
 SABRE PROTON PRECISION MAGNETOMETER  
 SABRE AIRBORNE VLF-EM
- ⑤ FLIGHT LINE WITH MAGNETIC VALUE AND TIE POINT

**RADIOMETRICS**



- VLF-EM
- +— FIELD STRENGTH HIGH (CROSS SHOWS PEAK)

200 METER LINE SPACING  
 80 METER ABOVE TERRAIN.

MINERAL RESOURCES BRANCH  
 ASSESSMENT REPORT  
**8243**

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RELAY CREEK PROPERTY			
'C' AREA AIRBORNE GEOPHYSICAL.			
VLF-EM- MAGNETOMETER SURVEY.			
FLIGHT LINE MAP			
1	10000	June 1980	6
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