86-178-14514

GEOPHYSICAL REPORT on the Rice 1-4 and Camp 1 Mineral Claims Nov./Dec. 1985 NTS 82-E/3 East 04.4' Latitude 49°00 North Longitude 119° 00 West 08.4'

> Greenwood Mining Division British Columbia

> > March 24, 1986

Owner Operator: REX SILVER MINES LID. Calgary, Alberta

FILMED

TAIGA CONSULTANTS LTD.

<u>/</u>

by C. H. Aussant, B.Sc., P.Geol. TAIGA CONSULTANTS LITD. #100, 1300 - 8th Street S.W. Calgary, Alberta T2R 1B2

GEOLOGICAL BRANCH ASSESSMENT REPORT

14,51

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# CERTIFICATE

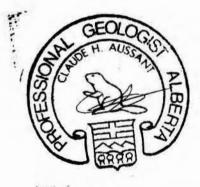
I, Claude Henry Aussant, of 32 Templebow Way N.E. in the City of Calgary in the Province of Alberta do hereby certify that:

- 1. I am a Consulting Geologist with the firm of Taiga Consultants Ltd. with offices at Suite 100, 1300 8th Street S.W., Calgary, Alberta.
- 2. I am a graduate of the University of Calgary, B. Sc. Geology (1976).
- 3. I have practised my profession continuously since graduation.
- 4. I am a member in good standing of the Association of Professional Engineers, Geologists and Geophysicists of Alberta.
- 5. I did not receive and do not expect to receive any interest, directly or indirectly, in the property described herein, nor in the securities of Rex Silver Mines Ltd. or its affiliates, in respect of services rendered in the preparation of this report.

DATED at Calgary, Alberta, this 24th day of March, A.D. 1986.

Respectfully submitted,

Claude H. Aussant, B.Sc., P.Geol.



	PEDA
	PERMIT TO PRACTICE TAIGA CONSULTANTS LTO.
1	Signature
	Date Callinger
	PERMIT NUMBER: P 2300
	The Association of Professional Engineers.
	Geologists and Goophysicists ( Alberta

# INTRODUCTION

Taiga Consultants Ltd. was contracted by Rex Silver Mines Ltd. to carry out a reconnaissance exploration program on the Rice 1-4 and Camp 1 mineral claims located 2 km south of the village of Camp McKinney, British Columbia (Figure 1).

During the period November 29 to December 9, 1985, a total of 20 man days were spent exploring the property. A semi-reconnaissance flag-and-compass grid was emplaced on the Rice 3 claim, with magnetometer and VLF-EM surveys completed.

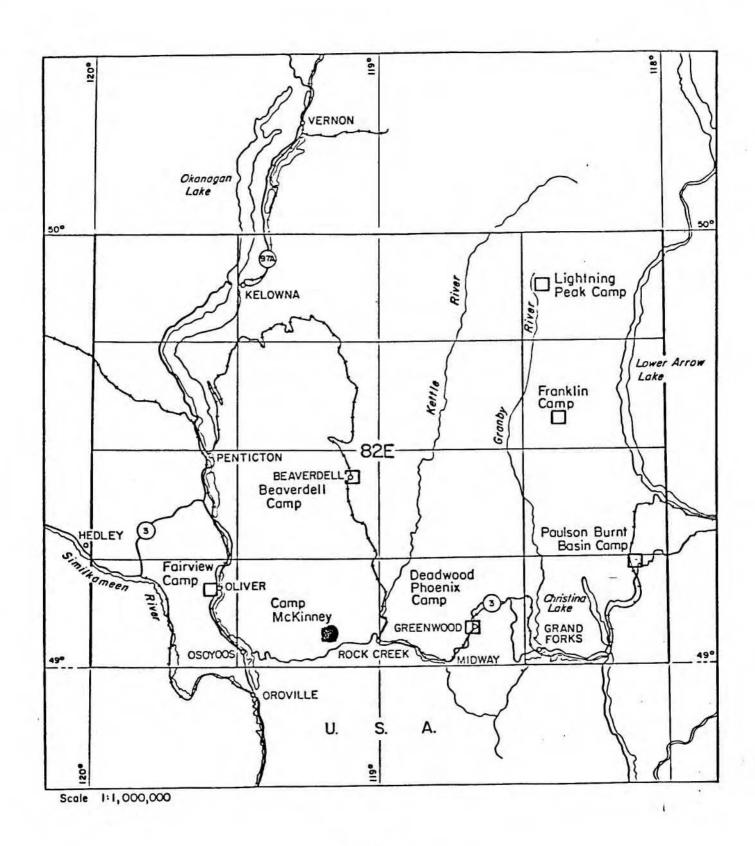
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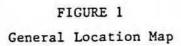
The property is located 2 km south of the village of Camp McKinney and 2 km northeast of Bridgeville, on NTS map-sheet 82-E/3 in the Greenwood Mining Division. The approximate geographic coordinates of the property centre are 49°05' North latitude and 119°09' West longitude (Figures 1 and 2).

Access to the property is from Highway 3, north via the Camp McKinney Road which crosses the Rice 2 and 3 claims. Numerous logging roads provide excellent access to the remainder of the property. Four-wheel-drive vehicles are not necessary but would be an asset.

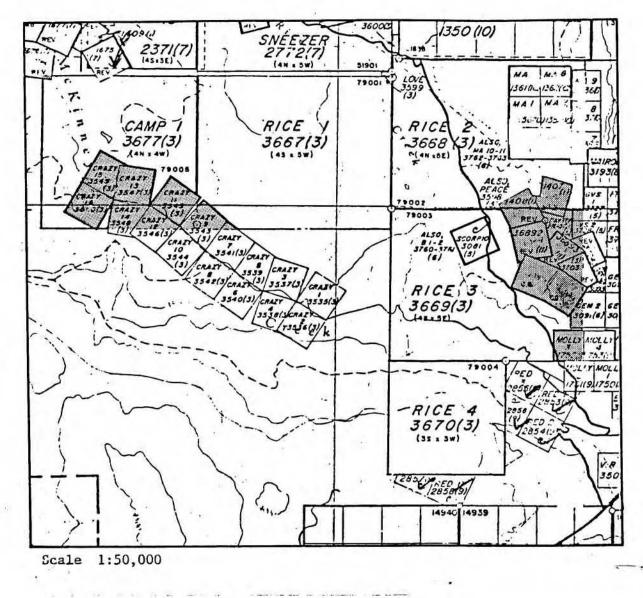
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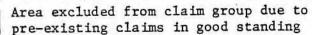
The property consists of 5 mineral claims staked under the modified grid system, and registered in the name of Rex Silver Mines Ltd. Portions of the property encompass pre-existing mineral claims which are currently in good standing, and are excluded from the claims area (shown on Figure 2 by hatchured pattern).





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CAMP 1 and RICE CLAIM GROUP Rice/Camp 1985

Claim Name	No.of Units	Acres/Hec	tares	Record Number	Date of R	ecord	Expiry Da	te
Rice 1	20	1235.48	500	3667	March 28,	1983	March 28,	
Rice 2	20	1235.48	500	3668	March 28,	1983	March 28,	1986
Rice 3	20	1235.48	500	3669	March 28,	1983	March 28,	1986
Rice 4	9	555.97	225	3670	March 28,	1983	March 28,	1986
Camp 1	<u>16</u> 85	988.39	400	3677	March 29,	1983	March 29,	1986

# Physiography and Glaciation

The property is situated in the Similkameen district of British Columbia. The area consists of a series of generally well-rounded ridges which extend in a general southeasterly direction from Baldy Mountain. The ridges have generally long gentle slopes, but in the vicinity of the main creeks, the slopes become steep. The topography is fairly mature with most peaks rounded by glacial action.

The lowest point of the claim area is 3200' along the eastern boundary of the property which follows the steep banks of Rock Creek valley. Elevations steadily increase toward the northwest, with the highest point at 4200' in the centre of the Camp 1 claim.

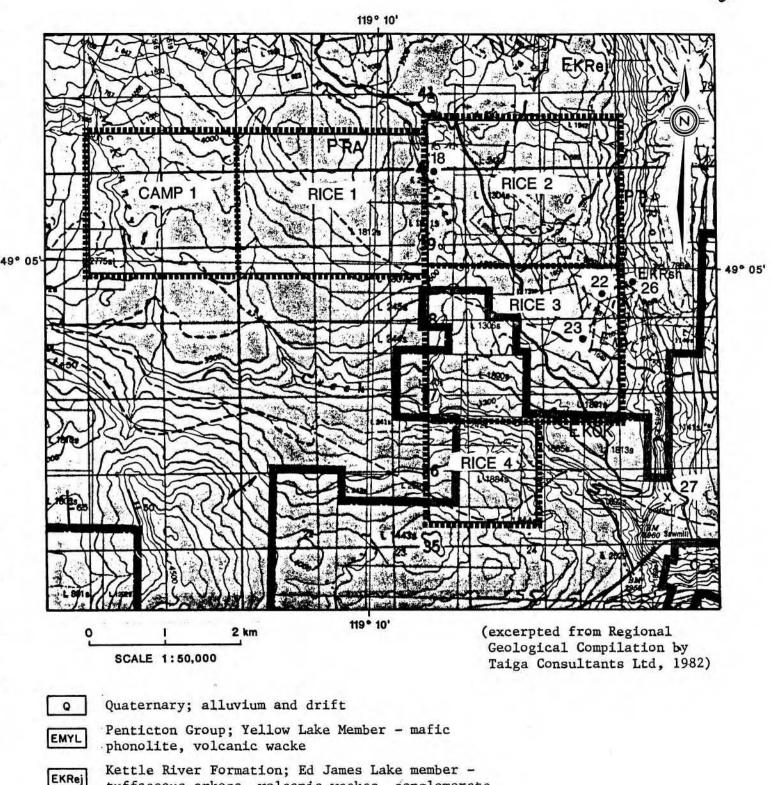
# REGIONAL GEOLOGY

The Camp McKinney area is underlain by a mixed assemblage of metavolcanic and metasedimentary rocks of the Anarchist Group. The volcanics consist of basaltic to andesitic lavas, greenstones, and tuffs; the sediments consist of quartzite and limestone. These rocks have been severely faulted and folded. In the western part of the area, they are folded into an irregular overturned syncline; elsewhere, they strike northwest and dip steeply northeast.

These units have been intruded by a northwest trending belt of granitic rocks of the Okanagan Batholith of Cretaceous age. Sheared and serpentinized basic intrusives occur along Rock Creek. The youngest rocks in the area belong to the Penticton Group, an assemblage of Tertiary volcanic and sedimentary rocks.

The major structural feature in the area is the Conkle Lake Fault, which divides the Okanagan granites on the west from the Tertiary sediments and volcanics on the east.

The regional geology is depicted on Figure 3; Table 1 summaries the geological stratigraphy of the area.



tuffaceous arkose, volcanic wackes, conglomerate.

EKRsh Kettle River Formation; Storm Hill member - sandstone, shale

eKOK Okanagan Batholith; (Valhalla Intrusions - early Cretaceous)

Anarchist Group; greenstone, quartzite, greywacke, limestone, paragneiss.

occurrences

PTA

REGIONAL GEOLOGY MAP

FIGURE 3

TAIGA CONSULTANTS LTD.

# TABLE OF FORMATIONS

1

TERTIARY	EOCENE	PENTICTON GROUP	e To Es Ewl EMA EMA	CORYELL INTRUSIONS: syenite, quartz monzonite, minor granite, pulaskite, biotite-augite monz. SKAHA F <sup>m</sup> : Esg: fanglomerate; Esy: augite porphyry WHITE LAKE F <sup>m</sup> : EwLy: volc.bx.pyroclastics; EwLs: volc, cg, ss, sh. MARAMA F <sup>m</sup> : EMA; : feldspathic dacite; EMAd: aphanitic dacite; EMA; volc, cg (EM clasts). MARRON F <sup>m</sup> : augite-hornblende-biotite andesite,
		PEN	EKR	trachyandesite in Rossland area. KETTLE RIVER F: tuffaceous ark; volc.wacke, cg SPRINGBROOK F: polymictic conglomerate
	PALEOCENE			
CRETA- CEOUS	UPPER		еK	EARLY CRETACEOUS INTRUSIONS; includes: eKoL:
CRETA- CEOUS	LOWER		en	OLIVER GRANITE; eKOK: OKANAGAN BATHOLIGH
JURASSIC	UPPER MIDDLE LOWER			
	TRIASSIC	)	NRN PROT PROT PRSH PRB PRA	NICOLA GROUP: ukN <sub>v</sub> : andesite, basalt, tuff, minor seds; ukN <sub>a</sub> : quartzite, arg, ls, ss, schist KOBAU F <sup>m</sup> : greenstone, schist, quartzite OLD TOM F <sup>m</sup> : basalt, greenstone SHOEMAKER F <sup>m</sup> : chert, tuff, greenstone, ls INDEPENDENCE F <sup>m</sup> : chert, greenstone, breccia, arg. BRADSHAW F <sup>m</sup> : arg, tuff, qtzite, andesite ANARCHIST GROUP: greenstone, quartzite, greywacke, limestone, paragneiss; PRA <sub>B</sub> : BROOKLYN F <sup>m</sup> : ls, jasperoid, pyroclastics.
	PERMIAN		PPKH	KNOB HILL GROUP: chert, greenstone, limestine, arg.
CARBON- IFEROUS	PENNSYL- VANIAN MISSISSIP- PIAN		MPMR	- MOUNT ROBERTS F <sup>m</sup> : siltstone, quartzite, slate, limestone, chert
	DEVONIAN		DMc	- CHAPPERON Fu: arg, chlorite-mica schist, arg.

# PROPERTY GEOLOGY

The Rice 1-4 and Camp 1 mineral claims (Figure 3) are primarily underlain by greenstones, tuffs, limestones, quartzite, and argillaceous sediments of the Anarchist Group. These sediments are intruded by granites of the Nelson Intrusion. Extensive overburden covers the Rice 1 and 4 and Camp 1 claims.

The Anarchist Group represents the oldest rocks observed in the area, underlying the entire claim group. The sedimentary members of the group include quartzite, chert, and minor limestone. Quartzite and chert are the dominant sediments, occurring in the central part of the Rice 2 claim and in the northeast portion of the Rice 3 claim. The volcanic members of the group are chiefly altered greenstone, greenstone, and meta-andesite. The altered greenstone is massive, light green, chlorite-rich, soft, locally banded by thin layers of dark green chlorite. It becomes rich in carbonate adjacent to the intrusive contact. The greenstone is generally greenish-grey and porphyritic, strongly chlorite altered throughout, and contains 1% disseminated pyrite. The meta-andesite is dark grey, generally massive, with local development of thin chlorite bands; chlorite-rich zones have developed in areas where fracturing is intense.

Sill-like bodies of granitic rocks belonging to the Okanagan Intrusive extensively intrude these sediments. There are exposures of the Penticton Group, which is represented by two units, the Springbok Formation (bottom of the sequence) and the Marron Formation (resting unconformably above the Springbok), in the extreme southeast corner of the Rice 2 claim and in the northeast corner of the Rice 3 claim. The Springbok Formation consists of a dark chert breccia in the lowest part, overlain by a well-layered polymictic pebble/boulder conglomerate. Clasts and fragments are from pre-Tertiary beds and consist of black chert, chlorite schist, greenschist, and feldspathic andesite. The Marron Formation is represented by the Kitley Lake member consisting of massive trachyandesite and andesite. These rocks are down-faulted and tilted to the east, forming the west edge of the Rock Creek Tertiary Outlier.

## ECONOMIC GEOLOGY

The claim group lies within the Camp McKinney area. The ore deposits of the camp generally consist of:

 Quartz and/or quartz-calcite filled fissure veins containing disseminations and stringers of pyrite, galena, and chalcopyrite with associated gold and silver:

This type occurs in outcrop and within previously developed zones in the central and northeastern parts of the Rice 2 claim. This feature hosts the best mineralization in the Cariboo/Amelia and the Victoria/Old England areas.

 "Replacement" irregular or tabular massive sulphide bodies near fracture/fault zones in chemically favourable beds:

Favoured lithologies for this type of mineralization include greenstone, altered greenstone, and argillite. This type was observed on the Rice 3 claim along a major splay of the Rock Creek Fault. Two deposits of economic interest occur along this splay: the War Eagle situated in the south-central part of the Rice 3 claim; and the "Gem" situated 600 m along strike to the southeast.

3. Fault gouge zones 0.5 m wide related to the 8 m wide felsic dyke transecting the Rice 2 claim, characterized by a soft, recessive, fine-grained clay and carbonate zone.

Fine-grained pyrite is disseminated throughout. This feature hosts the best mineralization in the Old England group, including the Progress and the Nighthawk occurrences in the northeast part of the Rice 2 claim.

In the north-central to northeast parts of the Rice 2 claim, there are a number of old workings believed to be related to the "Old England" group. These workings explored a series of sub-parallel fissure veins striking east-west. In most of the workings, the veins contain quartz, pyrite, chalcopyrite, and galena.

Additional workings in the area investigated an 8 m wide felsic dyke mineralized with disseminated pyrite. On the west side of the dyke, a narrow (5-150 cm) zone of pyritized gouge was reported to assay from 0.3 to 0.8 oz/ton Au (see Wilson reports). In the southeast portion of the Rice 3 claim, several trenches and old workings investigated an area containing massive sulphides, consisting of massive pyrrhotite and pyrite with lesser amounts of chalcopyrite.

The "Gem" deposit on the Gem #2 claim lies approximately 400 m to the southeast. This deposit is reported to be similar to the above-described massive sulphide lens. It occurs within the chemically receptive argillite and altered greenstone units in fault contact with the Okanagan granodiorite complex. The deposit is marked on surface by a large gossan. Grab samples reported assayed up to 1.2 oz/ton Au and 3.6 oz/ton Ag.

The Dayton deposit (occurrence #22), approximately 1.7 km to the south, consists of a 60.9 to 91.0 cm wide oxidized felsic dyke containing free gold. Samples collected by the owners and government agents returned values of 4.7 oz/ton Au (1934); 2 oz/ton Au and 5 oz/ton Ag (1916); and 5 oz/ton Au (1915). In both of the above occurrences, the general strike is N20°W.

The War Eagle prospect (occurrence #23) also occurs on an oxidized felsic dyke, 61 to 92 cm wide, with disseminated pyrite and free gold. This dyke appears to be the same one hosting the Dayton deposit to the north, and is probably the same feature observed on the Rice 2 claim.

# 1985 EXPLORATION PROGRAM

The 1985 program consisted of establishing a semi-reconnaissance flagand-compass grid across the central portion of the Rice 3 claim, to cover potential mineralization in this area. A total of 12.175 km of lines were emplaced at 100 m or 200 m spacings, with stations placed at 25 m intervals. VLF-EM and magnetometer surveys were then completed on the grid (location, see Map 1).

# VLF-EM Survey

A VLF-EM survey was completed over the grid using a Geonics EM-16 unit and employing the Cutler, Maine (24.0 kHz) as the transmitting station. This survey was carried out at 25 m station intervals. The results are plotted in profile format on Map 2 and in Fraser-filtered contour format on Map 3.

The VLF-EM survey delineated a strong conductor on L.8+00E,1+35N near a mine shaft located at this station. The conductor extends from L.4+00E to L.10+00E gradually decreasing in strength. Folding of the conductor axis between L.7+00E and L.6+00E may be indicative of cross-faulting in this area.

A number of very weak conductors were delineated over the rest of the grid area. Their significance is not known.

# Magnetometer Survey

A magnetometer survey, using a one-gamma GeoMetrics G826A proton magnetometer with the sensor head was mounted on a 2.5 m staff, was conducted with readings taken at 25 m intervals. A base station was used to correct for magnetic fluctuations during the survey; all readings were then corrected to a common datum. The survey results are plotted on Map 4. The magnetic signature through the western half of the grid lies above 58,000 gammas with numerous subparallel bands with readings up to 59,000 gammas. The eastern half of the grid area generally has a magnetic signature below 58,000 gammas, decreasing towards the east. A narrow magnetic zone crosses the entire grid near the base line; the significance is not known.

No magnetic signatures were found to correspond with the VLF-EM conductors delineated.

The magnetometer survey may be outlining different rock units underlying the property. Geological mapping should be completed utilizing the existing grid in order to better interpret the magnetic signature.

# SUMMARY AND CONCLUSIONS

The Camp/Rice property is located 2 km south of the former producing Camp McKinney Mine and 2 km north of the village of Bridgeville, British Columbia. The Camp McKinney Road provides excellent access to the property. The 1985 program included the emplacement of 12.175 km of flag-and-compass grid lines across the central portion of the Rice 3 claim. VLF-EM and magnetometer surveys were completed over the grid.

The VLF-EM survey delineated a number of very weak conductors and one strong conductor near an old mine shaft. This conductor was traceable over a strike length of 600 m decreasing in strength both east and west from the shaft.

The magnetometer survey was relatively active over the western half of the grid and quiet over the eastern portion. A narrow magnetic zone was outlined crossing the entire property. The significance was not determined. The survey may be outlining the different rock units underlying the area.

# RECOMMENDATIONS

Future exploration of the property should consist of the emplacement of a semi-reconnaissance grid over the claims. Systematic coverage of the property could then be completed, resulting in a comprehensive map depicting the outcrop areas, the geology, and a more precise location of the numerous trenches and shafts on the property. Additional geophysical coverage should also be completed. In particular, the following selected areas should be further investigated:

1. the VLF-EM conductor delineated at L.8+00E, 1+35N.

2. the significance of the magnetic zone which crosses the present grid.

# REFERENCES

Wilson, G.L. Feb.10, 1984

1

"Geological, Geochemical and Geophysical Report on the Camp 1 and Rice 1-4 Mineral Claims"; private company report.

Dec.14, 1984 "Geological and Geochemical Report on the Camp 1 and Rice 1-4 Mineral Claims"; private company report.

# APPENDIX

Occurrence Descriptions Instrument Specifications Personnel Summary of Expenditures

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METALS	x	x	x																	P	RA

The War Eagle occurs in a highly siliceous tuff close to its contact with the granodiorite intrusive. Surface mineralization consists of oxidized pyrrhotite, pyrite, and malachite, noticeable in the fractures. At the bottom of a 4 m shaft, considerable chalcopyrite is observed. The general trend of the mineralized vein is N20°W with a dip of N65°E. It is thought that this is an extension of the Datun(?) ore body. Further, molybdenite mineralization is reported in a quartz vein 0.3 m wide, found near the main workings.

REFERENCES

BCDM MMAR 1901 (1153) Minfile

				-				-		_								- 1	DATE	83	.06.21.
N.T.S.		IFILE		CURR		Ξ			•		N	AM	ES						LA	τ.	LONG.
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# DESCRIPTION

The Rock Creek placer occurrence is one of many operations that existed along Rock Creek. Gold was first mined on the creek in 1860. Presently, there are a number of working operations along the creek.

Workings consisted (1935) of a hydraulic pit, known as the Williams (?) pit, and drift workings into bedrock, where the bulk of the production came from. The amount of production is not known.

REFERENCES GSC Mem.179 (19) Minfile

N.T.S.												_	-		DATE	- 83	.08.08.
	I. D.	OCCURRENCE				NA	ME	S		1111-241					LA	Т,	LONG.
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METALS	x x											1				EM	KL (?)
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•	S BCDA Mini	GEM 1969	(294)							24	g s	ilv	er	_[	DATE		.05.02.
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shattered and altered dyke. Here, sulphides run high in free gold. In the northern part, quartz veins in metasedimentary rocks (PFA) carry either gold-bearing pyrite or molybdenite. Elsewhere on the property, in the pre-batholithic formations, many of the principal quartz veins conform with the schistosity of the enclosing formations and were formed partly as a result of fissure filling and partly by replacement processes. REFERENCES BCDM GEM 1974 (52), 1975 (E17), 1976 (E24).

BCDM GEM 1974 (52), 1975 (E17), 1976 (E24). Minfile

# **CIVI 10**

Pioneered and patented exclusively by Geonics Limited, the VLF method of electromagnetic surveying has been proven to be a major advance in exploration geophysical instrumentation.

Since the beginning of 1965 a large number of mining companies have found the EM16 system to meet the need for a simple, light and effective exploration tool for mining geophysics.

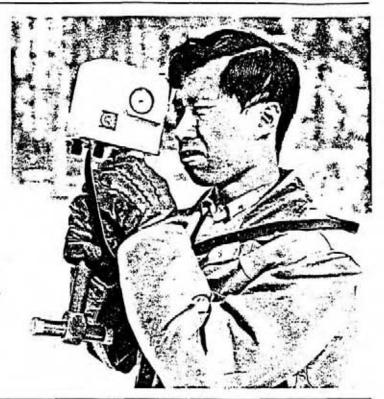
The VLF method uses the military and time standard VLF transmissions as primary field. Only a receiver is then used to measure the secondary fields radiating from the local conductive targets. This allows a very light, one-man instrument to do the job. Because of the almost uniform primary field, good response from deeper targets is obtained.

The EM16 system provides the *in-phase* and *quadrature* components of the secondary field with the polarities indicated.

Interpretation technique has been highly developed particularly to differentiate deeper targets from the many surface indications.

# Principle of Operation

The VLF transmitters have vertical antennas. The magnetic signal component is then horizontal and concentric around the transmitter location.



# Specifications

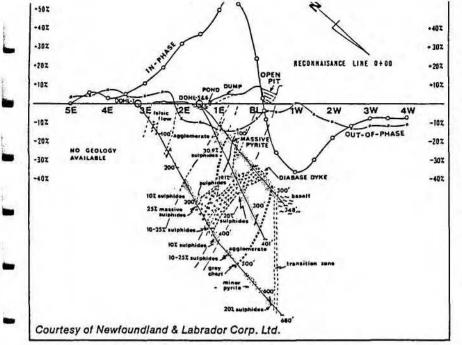
Source of primary field	VLF transmitting stations.	Reading time	10-40 seconds depending on signal strength.
Transmitting stations used	Any desired station frequency can be supplied with the instrument in the	Operating temperature range	-40 to 50° C.
	form of plug-in tuning units. Two tuning units can be plugged in at one time. A switch selects either station.	Operating controls	ON-OFF switch, battery testing push button, station selector, switch,
Operating frequency range	About 15-25 kHz.		volume control, quadrature, dial $\pm$ 40%, inclinometer dial $\pm$ 150%.
Parameters measured	(1) The vertical in-phase component (tangent of the tilt angle of the	Power Supply	6 size AA (penlight) alkaline cells. Life about 200 hours.
	polarization ellipsoid). (2) The vertical out-of-phase (quadra- ture) component (the short axis of the	Dimensions	42 x 14 x 9 cm (16 x 5.5 x 3.5 in.)
	polarization ellipsoid compared to the	Weight	1.6 kg (3.5 lbs.)
Method of reading	long axis). In-phase from a mechanical inclino- meter and quadrature from a calibrated dial. Nulling by audio tone.	Instrument supplied with	Monotonic speaker, carrying case. manual of operation, 3 station selector plug-in tuning units (additional fre- quencies are optional), set of batteries.
Scale range	In-phase $\pm$ 150%; quadrature $\pm$ 40%.	Shipping weight	4.5 kg (10 lbs.)
Readability	±1%.		



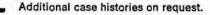
GEONICS LIMITED

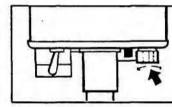
Designers & Manufacturers of Geophysical Instruments 1745 Meyerside Drive/ Unit 8 Mississauga/Ontario/Canada L5T 1C5 Tel: (416) 676-9580 Cables: Geonics

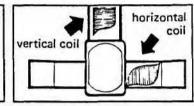
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# EM 16 Profile over Lockport Mine Property, Newfoundland

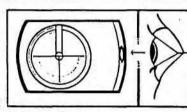






Station Selector Two tuning units can be plugged in at one time. A switch selects either station.

Receiving Coils Vertical receiving coil circuit in instrument picks up any vertical signal present. Horizontal receiving coil circuit, after automatic 90° signal phase shift, feeds signal into quadrature dial in series with the receiving coil.

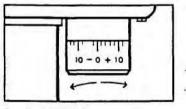


Areas of VLF Signals

actually much larger in extent.

Coverage shown only for well-known stations. Other reliable, fully operational stations exist. For full information regarding VLF signals in your area consult Geonics Limited. Extensive field experience has proved that the circles of coverage shown are very conservative and are

In-Phase Dial shows the tilt-angle of the instrument for minimum signal. This angle is the measure of the vertical in-phase signal expressed in percentage when compared to the horizontal field.



50

Is calibrated in percentage markings and nulls the vertical quadrature signal in the vertical coil circuit.

Quadrature Dial

By selecting a suitable transmitter station as a source, the EM 16 user can survey with the most suitable primary field azimuth.

The EM 16 has two receiving coils, one for the pick-up of the horizontal (primary) field and the other for detecting any anomalous vertical secondary field. The coils are thus orthogonal, and are mounted inside the instrument "handle".

The actual measurement is done by first tilting the coil assembly to minimize the signal in the vertical (signal) coil and then further sharpening the null by using the reference signal to buck out the remaining signal. This is done by a calibrated "quadrature" dial. The tangent of the tilt angle is the measure of the vertical in-phase component and the quadrature reading is the signal at right angles to the total field. All readings are obtained in per centages and do not depend on the absolute amplitude of the primary signals present.

The "null" condition of the measurement is detected by the drop in the audio signal emitted from the patented resonance loudspeaker. A jack is provided for those preferring the use of an earphone instead.

The power for the instrument is from 6 penlight cells. A battery tester is provided.

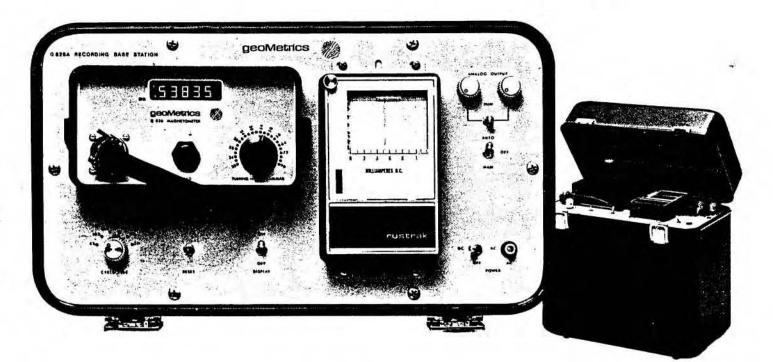
Oct/73



# PORTABLE/BASE STATION PROTON MAGNETOMETER

# MODEL G-826A

Data Sheet January 1976



- Unique Versatility—Both a recording base station and a field portable proton magnetometer system.
- Base Station System—Rugged, self-contained for remote, unattended monitoring from external AC or DC power.
- Timed automatic measurements with switch selectable range from 4 seconds to 5 minutes — pushbutton measurements for field portable operation.
- 1 gamma resolution and repeatability with visual, analog and digital outputs directly in gammas.
- Field Portable System Removable magnetometer console with complete accessories for man-carry surveys – operation from replaceable "D" cell flashlight batteries.
- Precise total field measurements—no orientation, no calibration, no leveling, no temperature compensation required—world-wide operation.

Characterized by unique versatility, the Model G-826A is a high-sensitivity recording base station proton magnetometer system, and a complete man-carry field portable magnetometer for ground exploration. The base station configuration incorporates a Portable Field Magnetometer that measures the earth's total magnetic field including time variations and magnetic storms, and a special Converter/Timer console to record this data in analog or digital form at selectable timed sampling periods. A 5.1 cm (2 in.) galvanometric analog strip chart recorder is normally supplied as an integral part of the system; however, a variety of external analog recorders may also be utilized. For man-carry field surveys, the portable magnetometer can be easily removed from the Converter/Timer console for total field geologic mapping, archaeological exploration, fault analysis, search requirements, and follow-up to larger airborne reconhaissance surveys. As a proton system, the G-826A provides absolute drift-free measurements of the earth's total field directly in gammas with complete freedom from temperature drift, leveling and orientation adjustments. Operation is world-wide, controls are simplified and no previous operator experience or training is necessary. The G-826A is a complete ground magnetics system for all your monitoring and survey requirements.

For other field applications, consider GeoMetrics Models G-816 and G-836 (UniMag<sup>™</sup>) magnetometers.

# COMPLETE PORTABLE/BASE STATION SYSTEM

The Model G-826A system includes complete instrumentation and related accessories for remote base station monitoring and portable field applications:

Converter/Timer Console: Complete signal processing and timing circuitry housed within an aluminum watertight cabinet. Includes "pocket" for the G-826 Portable Magnetometer and recessed mounting of the Rustrak recorder.

Portable Magnetometer Console: Compact instrument slides into "pocket" in Converter/Timer. Includes field accessories: shoulder harness, portable sensor, staff, 2 sets of batteries, signal cables for pouch and staff, and storage container.

Analog Recorder: Rustrak, Model 2146, installed in recessed panel mount in Converter/Timer console. Includes 1 roll chart paper. Recessed panel mount not provided when a different recorder is selected.

Base Station Sensor: Noise cancelling, high-signal sensor for use with long signal cables. Includes mounting stud.

Base Station Cables: Shielded 46 m (150 ft.) sensor cable with connectors attached (92 m, or 300 ft., cable optionally

### RESOLUTION

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±1 gamma throughout tuning range. TUNING BANGE

20,000 to 100,000 gammas (world-wide).

### TUNING MECHANISM

Multi-position rotary switch with twenty-five overlapping positions. Peak signal ampli-tude indicator light on readout display.

#### GRADIENT TOLERANCE

Exceeds 800 gammas/foot (portable applications).

#### SAMPLING RATE

#### Base Station Mode:

- Six-position rotary switch for automatic sampling every 4, 10, 30 seconds or 1, 2, or 5 min. (time base oscillator stable within 10 seconds/week from 0° to 50° C.). Portable Mode:
- Manual pushbutton; new reading every 5 seconds.

### DATA OUTPUTS

Visual (Base Station and Portable):

5-digit illuminated incandescent display directly in gammas-visible even in bright sunlight.

See. 4

- Analog (Base Station):
- Potentiometric: Calibrated for 100 mv full-scale, maximum load is 20KG. Galvanometric: Calibrated for 1 ma full-scale into 1500 G.
- Digital (Base Station): 5-BCD characters, 1-2-4-8 code (4 line output). "0" state 0 to +0.5V. "1" state +2.5 to +5V. 9.00

#### EVENT MARKER

- Automatic, every 30 minutes (Analog Recorder only).
- POWER REQUIREMENTS

- Base Station Mode: External 24V DC or 115/220V, 50/60 Hz AC power (maximum current drain per measurement is 2.18 amps with Rustrak recorder and display on). -20.1
- Portable Mode: Internal "D" cell (12 each) universally available flashlight batteries. Charge state or replacement signified by flashing indicator light. No. of Readings Battery Type
- Alkaline over 10,000

Premium carbon zinc over 4,000 Standard carbon zinc over 1,500 NOTE: Battery life decreases with low temperature operation.

# TEMPERATURE RANGE

Consoles and Sensors -40° C, to +85° C. Analog Recorder (Rustrak) 0° C, to +50° C, NOTE: For portable operation at temperatures below 0° C., an optional battery belt is recommended.

### ACCURACY (TOTAL FIELD)

±1 gamma throughout 0° to +50° C. (±3 gamma from -40° C. to +85° C.). SENSORS:

#### Base Station:

High signal, AC noise cancelling for use with long signal cables. Includes threaded aluminum mounting stud. -Portable: .

High signal, omnidirectional for use with collapsible staff or in "back pouch" attached to shoulder harness.

available), AC and DC input power cables, and external recorder connector.

Manuals: Operation manual, and 64-page "Applications Manual for Portable Magnetometers".



# SPECIFICATIONS

# GALVANOMETRIC ANALOG RECORDER

reprinted ( Santa Santa

Rustrak, Model 2146. Includes 5.1 cm (2 inch) chart width with fixed chart speed of 10.2 cm (4 inch) or 15.2 cm (6 inch) per hour (select), event marker, and inkless writing. Style "N" chart paper (50 divisions f/s), 8.4 cm x 19.2 m (2.5 inch wide x 63 feet long).

# SIZE AND WEIGHT

- - 92

Converter/Timer Console (w/o magnetometer or recorder)	23.5 x 41.3 x 40 cm (9¼″ x 16¼″ x 15¾″)	9.5	21.0	
Portable Magnetometer: (with batteries)	9.5 x 18 x 27 cm (31/4" x 7" x 10/2")	2.5	5.5	
Portable Accessories*	2.5 cm dia. x 2.4 m (1" x 8 ft.)	2.8	6.0	١.
Sensors:		100		
Base Station:	11.4 cm dia. x 17.8 cm (4½" x 7")	2.8	6.0	1
Portable:	8.9 cm dia. x 12.7 cm (31/2" x 5")	. 1.2	- 2.5	1
Sensor Cable:	46 m length (150 ft.)	4.6	10.0	
Rustrak Recorder:	13.9 x 8.9 x 11.4 cm (51/2" x 31/2" x 41/2")	1.6	3.5	-

Portable Accessories: Includes shoulder harness, batteries, sensor cables, and staff. Only the staff dimensions are shown. Weight shown is for all accessories.

# OPTIONS INCREASED RESOLUTION Provisions for either 1.0 gamma or 0.25 gamma resolution. Includes internal switch In magnetometer console. EXTENDED SENSOR CABLE Special 92 m (300 ft.) shielded sensor signal cable for use with Base Station Sensor. POTENTIOMETRIC ANALOG RECORDER Hewlett-Packard, Model 7155B, Includes 12.7 cm (5 inch) chart width, event marker, multiple chart speeds, operation on 24V DC or 115/220V 50/60 Hz AC power. Galibration: Metric (English optional) Size: 30.5 x 19.7 x 42 cm (12" x 734" x 16½z") Weight: 13.6 kg (30 lbs.) Temp. Range: -28° to +65° C. MULTIPLE EVENT MARKS AND ANALOG RESOLUTIONS Recorder event marks every 0.5 hour, 1 hour and 24 hours (separately coded). Analog outputs (switch selectable) to provide 10, 100 and 1,000 gammas full scale. Specially designed canvas belt with pockets for 12 "D" cell batteries and appropriate power cables for use with the portable magnetometer in very cold weather (0° to $-15^{\circ}$ C). S Jacobar Maria 12 RACK MOUNTING Special 48.3 x 26.7 cm (19" x 101/2") flush-mount aluminum panel, complete with RECORDING SUPPLIES

BATTERY BELT

Available upon request for the recorder selected.

geometrics SUNNYVALE, CA. 94066 U.S.A (408) 734-4816 (408) 734-4816 CABLE: "GEOMETRICS" SUNNYVALE TELEX NO: 357-435 GEOMETRICS Exploranium BMSSA 07 GEOMETRICS SERVICE CAMPACIAN ELEPHONE: (416) 0671-1066 TELEPHONE: (416) 0671-1066 INTERNATIONAL CORP 80 ALFRED ST. MILSON'S POINT SYDNEY NSW 2061 PHONE: 929-9942

WORLD-WIDE AGENTS:

EUROPE . SCANDINAVIA . AUSTRALIA . UNITED KINGDOM . JAPAN . SO. AFRICA . SO. AMERICA

# PERSONNEL

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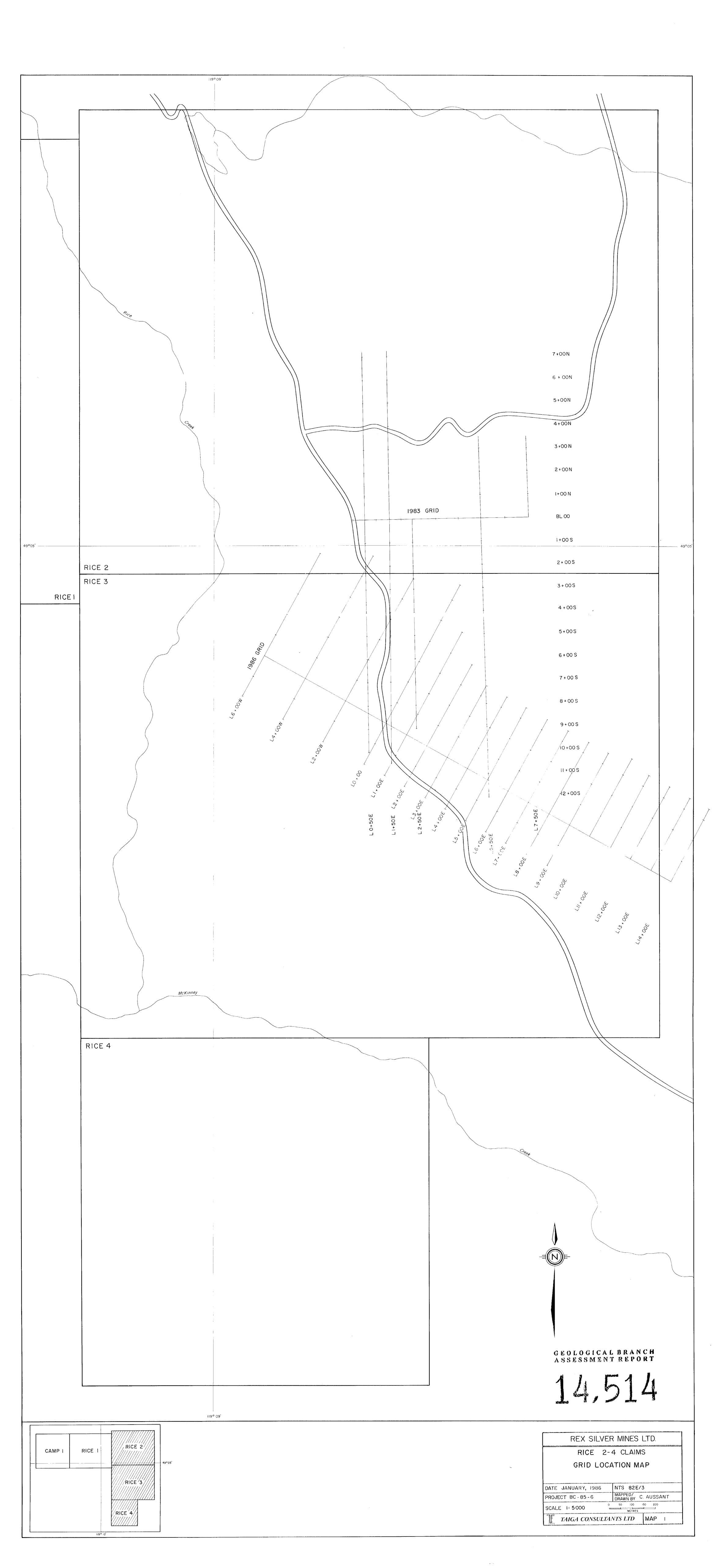
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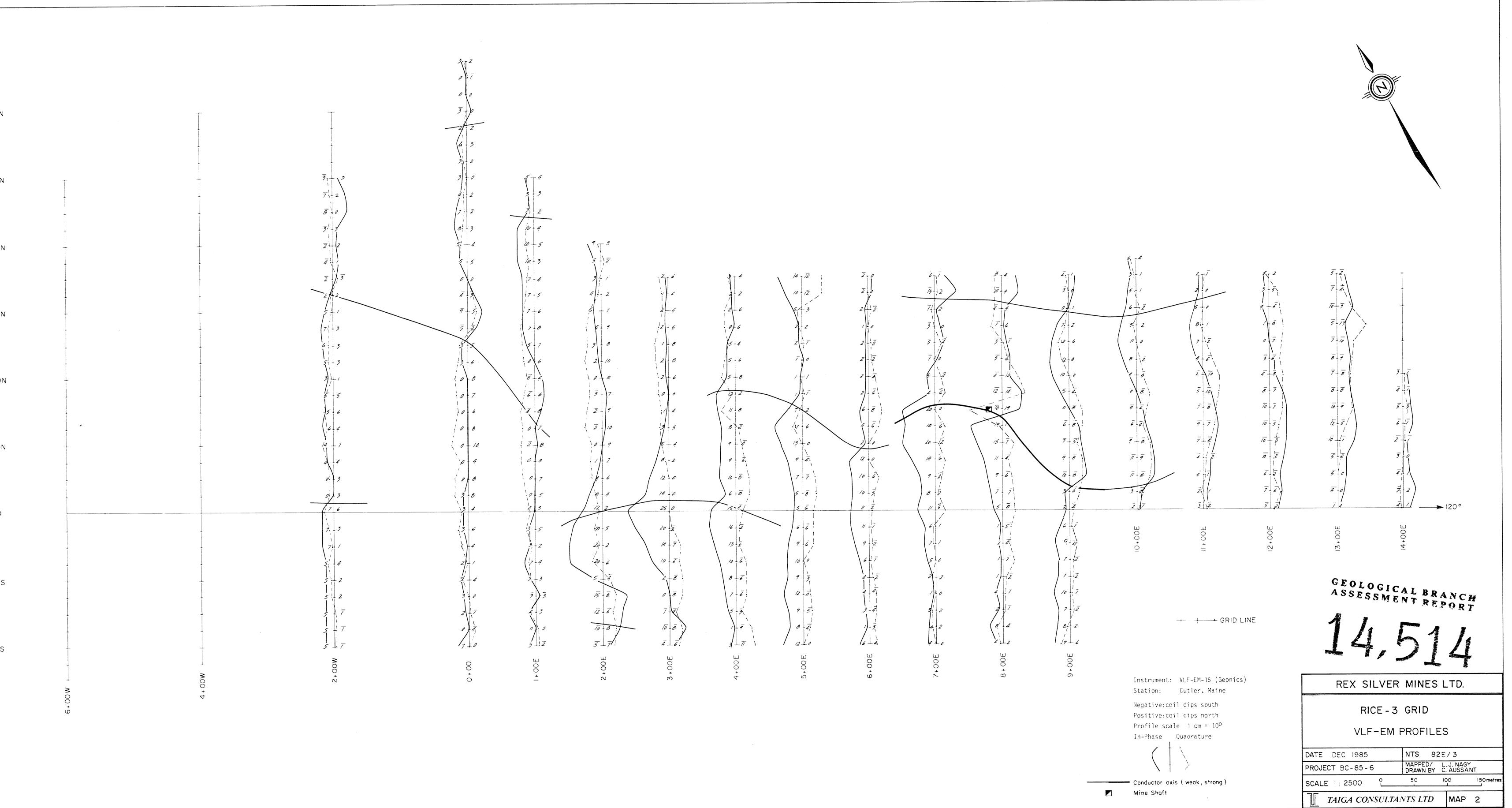
<u>Name / Address</u> J. W. Davis, P.Geol. 116 MacEwan Drive N.W. Calgary, AB T3K 2P7	<u>Position</u> Project Supervisor	<u>Dates</u> Dec. 5+9/85	<u>Man Days</u> 2
L. J. Nagy 2137 Kaslo Court Kelowna, BC V1Y 8B9	Project Geologist	Nov.29-30, Dec.1,2	4
G. L. Wilson 60 Ranchridge Road NW Calgary, Alberta T3G 129	Geophysical Operator	Nov.29-30, Dec.1,2,3	5
D. D. Dancer #2, 519 - 4a St. NE Calgary, AB T1Y 3V9	Assistant	Nov.29,30, Dec.2,9	4
S. P. Dancer #2, 519 - 4a St. NE Calgary, AB TIY 3V9	Cook	Nov.29,30, Dec.1,2,9	5
		TOTAL	20

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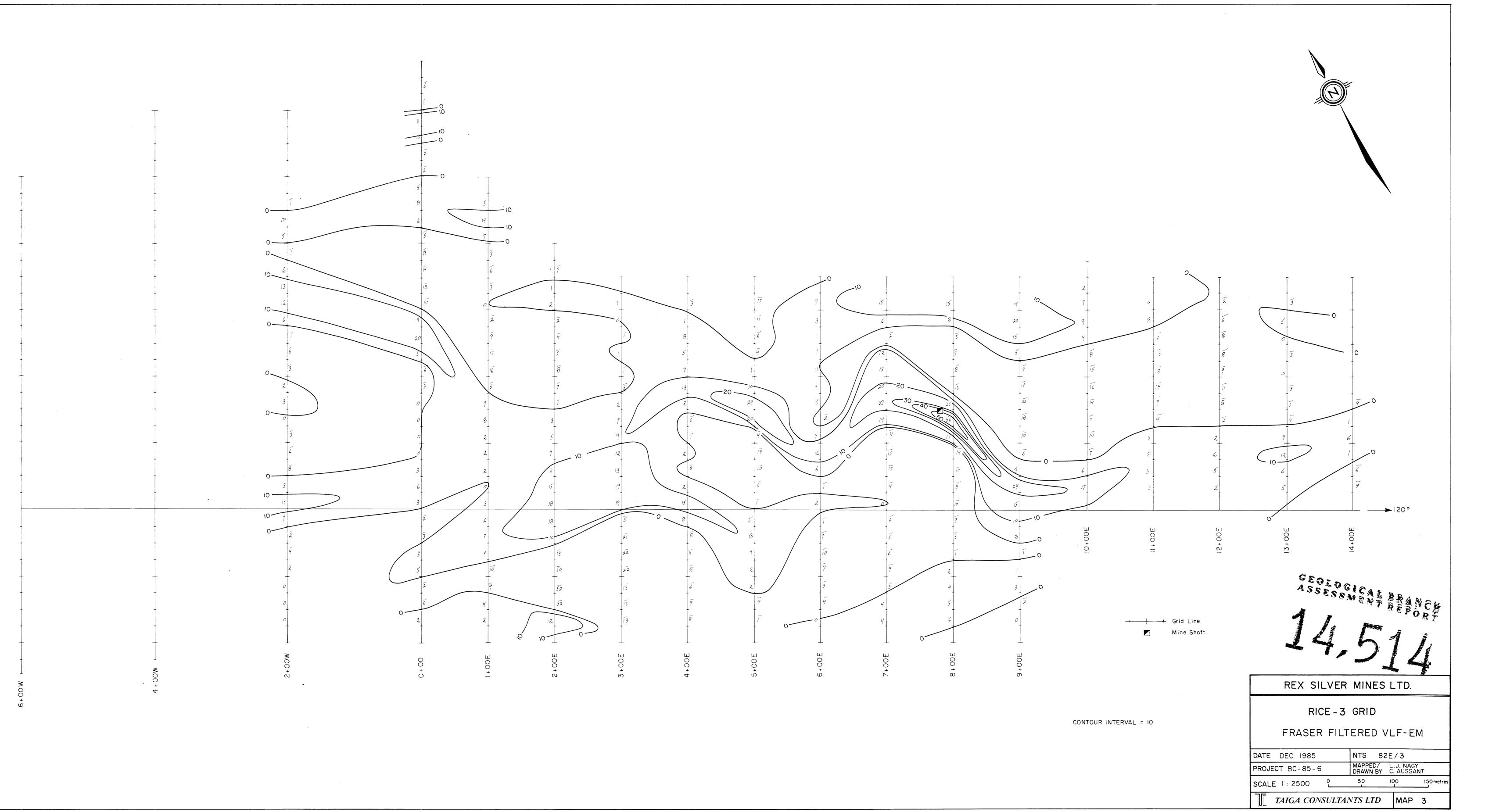
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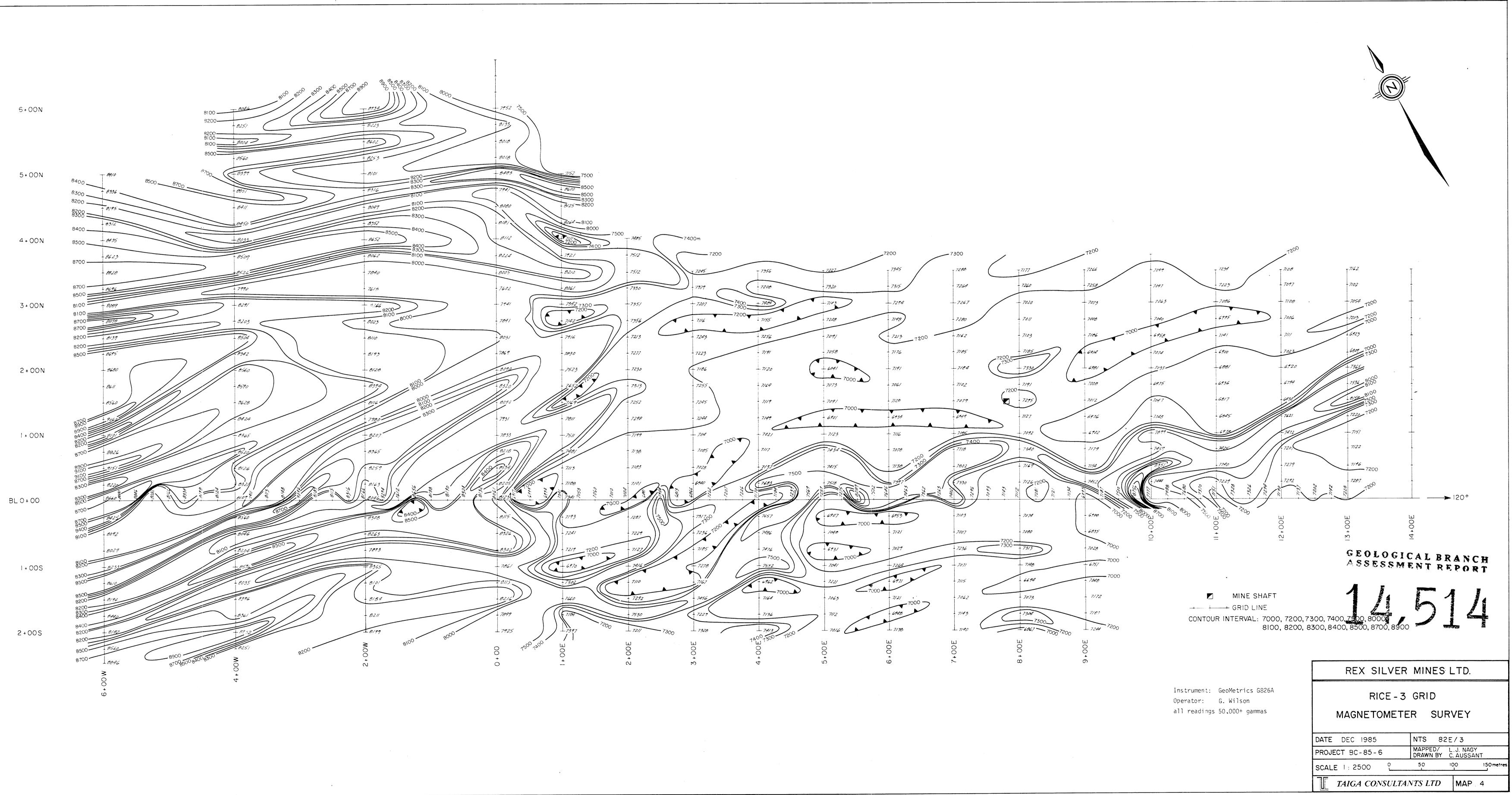
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