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Geophysical Report

- on the -

JAXD Group (Jaxd 1 to 6, Jaxd 7 Fr)

Kamloops Mining Division, British Columbia

N.T.S. 92I/9W

- for -

Getchell Resources Inc.
#740 - 175 2nd Avenue
Kamloops, B.C.
V2C 5W1

Prepared by:

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**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

Gary D. Belik, P.Geo.
January 18, 1992

22,070

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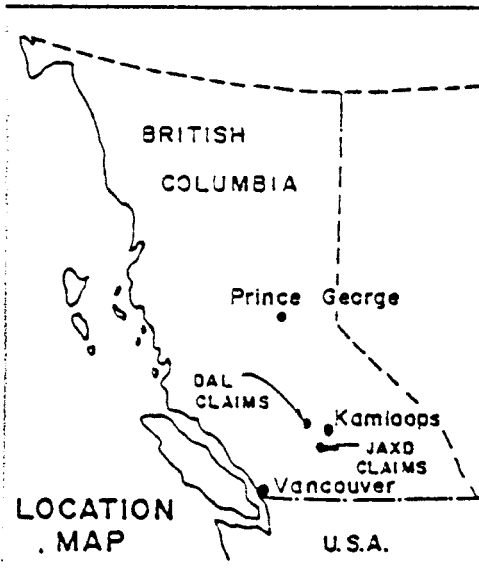
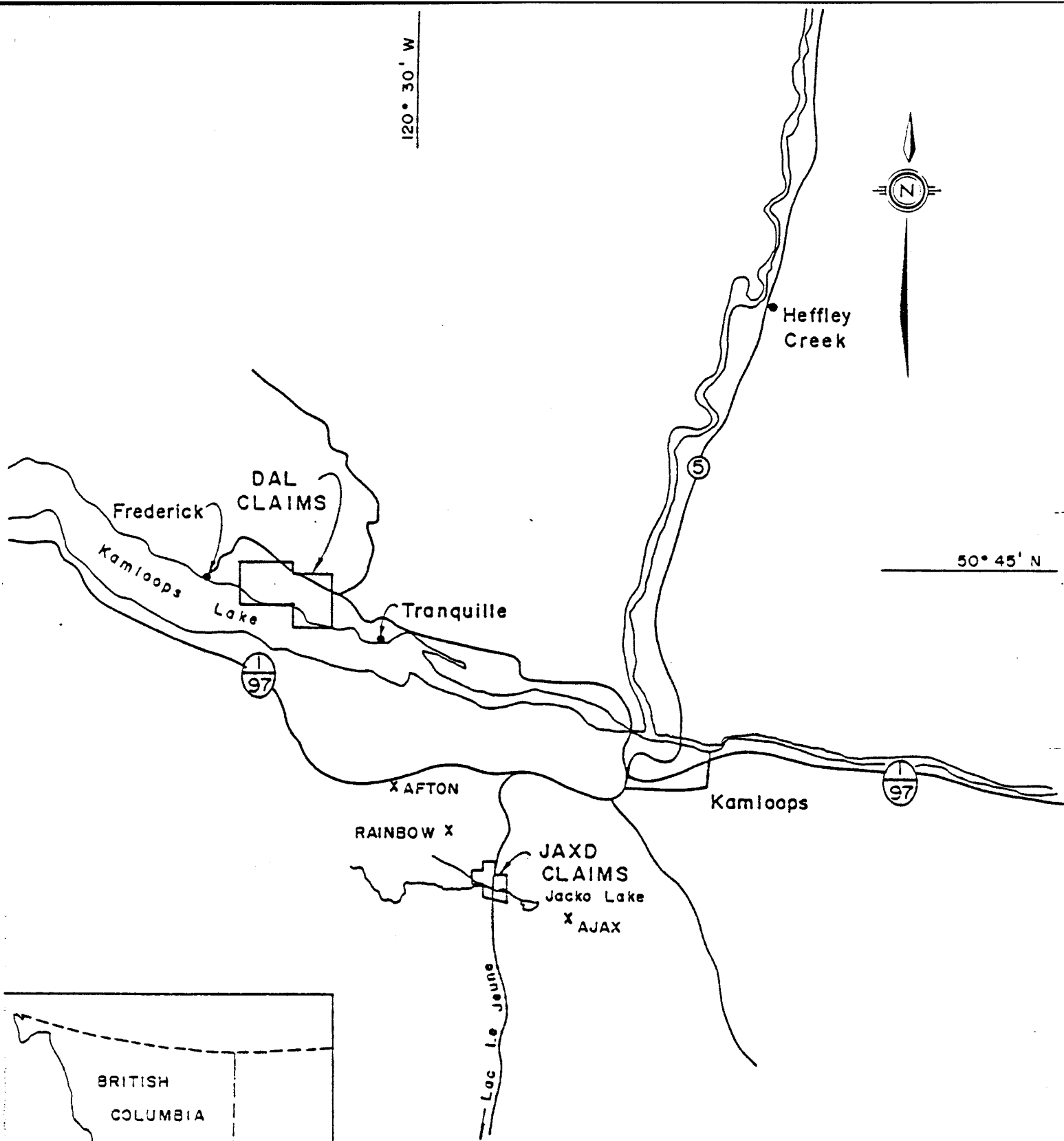
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120° 30' W



50° 45' N



N.T.S. 92 I

EUREKA RESOURCES INC.

**LOCATION PLAN
DAL & JAXD CLAIMS**

TECHNICAL WORK BY: DBM

SCALE: 1:250,000

DRAWN BY: DBM

DATE: MARCH, 1989

REVISIONS :

FIGURE NO. : 1

To accompany report by G. Belik , P. Geo.

INTRODUCTION

On January 15, 1992, 6.0 km of grid and ground magnetics were completed on the JAXD property located near the city of Kamloops, B.C. The magnetic survey was carried out by Gary Belik of G. Belik & Associates Limited, 664 Sunvalley Drive, Kamloops, B.C.

CLAIMS

The JAXD property is comprised of six, two-post metric mineral claims and one fractional mineral claim as detailed below:

<u>Claim Name</u>	<u>Record No.</u>	<u>Record Date</u>
JAXD 1	8297	January 25, 1989
JAXD 2	8298	January 25, 1989
JAXD 3	8299	January 25, 1989
JAXD 4	8300	January 25, 1989
JAXD 5	8301	January 25, 1989
JAXD 6	8302	January 25, 1989
JAXD 7 Fr.	8479	May 10, 1989

LOCATION AND ACCESSIBILITY

The JAXD claims straddle the Lac le Jeune Highway and are located approximately 14 kilometres (by road) southwest

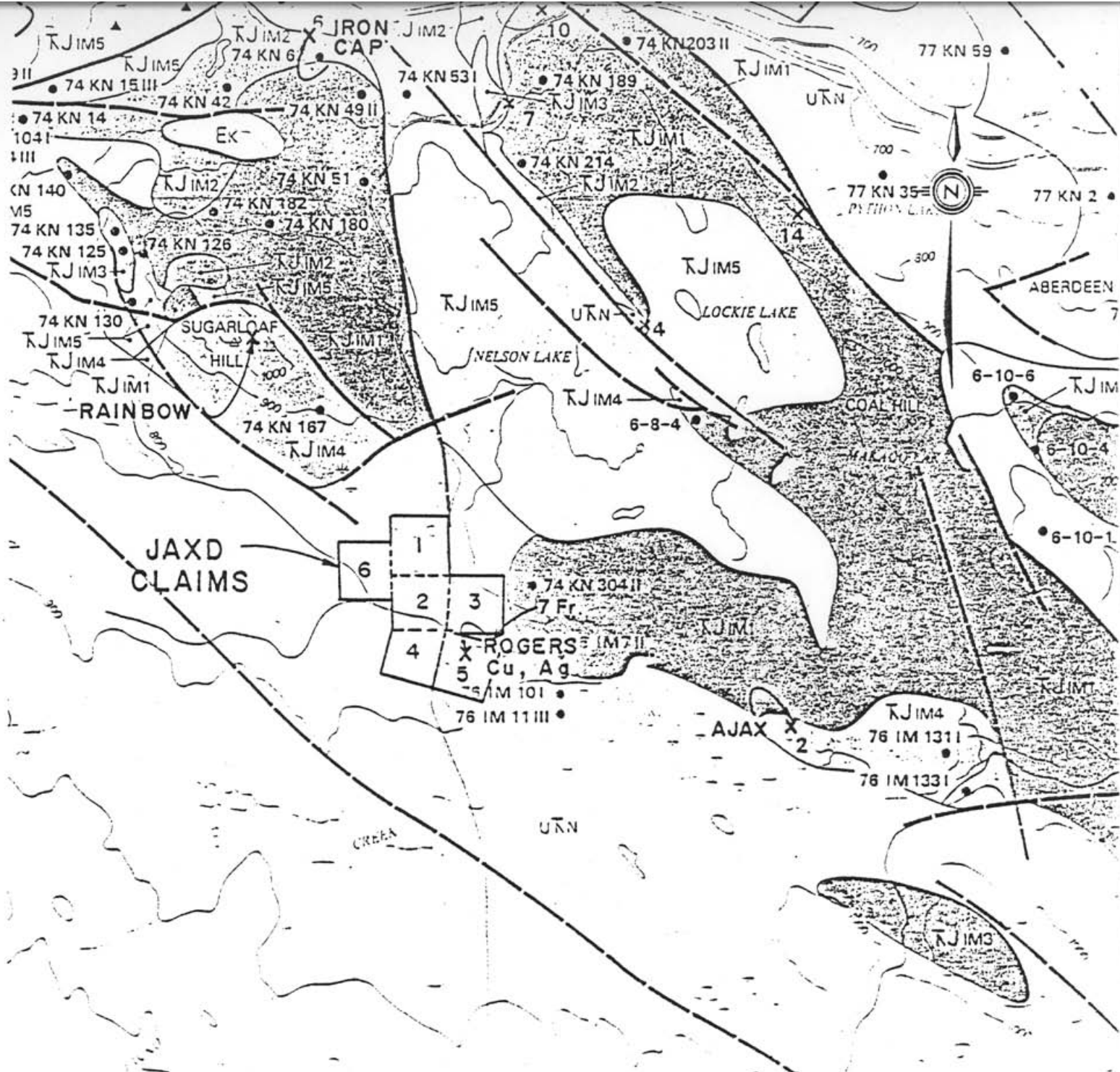
of Kamloops, The geographic center of the property is situated at 50°37' North Latitude, 120°27' West Longitude.

The claim area is characterized by gentle, rolling, sage- and grass-covered hills with small alkaline lakes and scattered groves of pine, spruce and dry-belt fir.

GENERAL GEOLOGICAL SETTING

The JAXD claims are underlain by andesitic to basaltic volcanic rocks of the Upper Triassic Nicola Group (Fig. 2). Various phases of the Upper Triassic to Jurassic Iron Mask Batholith occur in close proximity to the claim area to the north, east and west. The Iron Mask Batholith hosts a number of important alkaline-type porphyry copper/gold deposits.

Mapping by Doug Leishman (1989) identified a zone of intense alteration trending northwesterly through the central part of the claim group. The zone has a minimum strike length of 600 metres and is at least 100 metres wide. Altered units typically are well fractured, pyritic and contain up to 30% secondary quartz/carbonate veining. Original textures are obscured by an intense hydrothermal alteration that has bleached the volcanics to pale buff green colors. A green mineral resembling fuschite locally is evident.



X MINERAL SHOWINGS

N.T.S. 92 I 9 W

Geology from Y.T.J. Kwong, Bull. 77, 1987

EUREKA RESOURCES INC.

**GEOLOGY
JAXD CLAIMS**



BAR SCALE : 1:50,000

TECHNICAL WORK BY: DAL	SCALE: 1:50,000
DRAWN BY: DBM	DATE: MARCH, 1989
REVISIONS:	FIGURE NO.: 2

To accompany report by G. Belik, P. Geo.

PREVIOUS EXPLORATION

A number of poorly documented, old prospect pits and adits are evident in the southern part of the claim area. One of the showings reportedly contains tetrahedrite, malachite and azurite in northeast-trending quartz veins.

In 1976, New Denver Exploration Limited, completed a soil survey over a tract of ground which covered part of the JAXD claims. A number of copper anomalies were detected but it is not known whether any follow-up work was carried out.

In 1983, Aberford Resources carried out a rock sampling program on the adjacent Galaxy property and during this program sampled a number of the old pits and adits now covered by the JAXD claims. Although several of these samples contained anomalous gold values (up to 1,000 ppb), no follow-up work was carried out by Aberford.

In 1989, Eureka Resources Inc. completed a program of prospecting/mapping combined with rock sampling over the JAXD claims. This work identified the previously noted northwest-trending alteration zone. A number of samples from the zone returned anomalous values in gold, silver, arsenic, copper and barite.

There is no record of further work having been carried out on the JAXD claims up to the present time.

PROTON MAGNETIC SURVEY

The magnetic survey was carried out utilizing a Geometric's "Unimag", portable, proton magnetometer (Model G-830). The Unimag measures the total intensity of the earth's magnetic field over a range of 20,000 to 100,000 gammas with an accuracy of ± 10 gammas. General information and operating procedure for the Unimag is given in Appendix I.

Procedure

For the magnetic survey, readings were taken at 25 metre intervals along 6 north-south lines, each 1.0 km long, spaced 100 metres apart. Where steep magnetic gradients were encountered the reading interval was reduced to 12.5 metres.

Prior to beginning the survey the coarse setting on the magnetometer was tuned to the local magnetic field (56,000 gammas). During the course of the survey, base station readings were established at points within the grid area in order to correct for diurnal variations.

Presentation of Results

The results of the magnetic survey are presented in Figure No. 3 at a scale of 1:2,500. Isomagnetic contours are drawn

at an interval of 200 gammas.

Discussion of Results



In general, magnetic relief within the surveyed area is moderate and ranges from low of 57,900 gammas to a high of 60,200 gammas.

Several moderate magnetic highs and lows are evident within the survey area. A strong magnetic dipole detected on line 3+00 E between 0+50 S and 1+25 S appears to be a cultural response caused by a steel reinforced overpass located at the junction of the Afton haul road and the Lac le Juene highway. A strong magnetic high of probable bedrock origin is located about 200 metres east of the overpass. This anomaly is open to the east and extends west to line 4+00 E. On line 5+00 E the anomaly has an apparent width of about 60 metres. The north edge of the anomaly appears to terminate against the south boundary of the northwest-trending hydrothermally altered zone mapped by Leishman.

A possible northeast-trending fault structure was identified by a series of aligned magnetic lows extending from 0+00 E, 0+65 N to 4+00 E, 4+50 N.

CONCLUSIONS AND RECOMMENDATIONS

The JAXD claims have a potential for hosting significant zones of shear/fracture controlled copper/gold mineralization. The next phase of exploration should include Induced Polarization and VLF-EM surveys. Anomalies outlined by these surveys should be tested by trending and/or drilling.



 Gary D. Belik, P. Geo.

January 18, 1992

REFERENCES

- Kwong, Y.T.J. (1987): Evolution of the Iron Mask Batholith and it's associated copper mineralization, Bulletin 77, Ministry of Energy, Mines and Petroleum Resources, Victoria, British Columbia.
- Leishman, D.A. (1990): Geological and Geochemical Report on the JAXD Claims; Private Report to Eureka Resources Inc.
- McArthur, G.F. (1983): Reconnaissance Geology and Rock Geochemistry, Galaxy Property, Aberford Resources Limited; Assessment Report #11,690
- Sookachoff, L. (1976): Geochemical Report on the Feb Claim for New Denver Exploration Limited; Assessment Report #6204

Appendix I

Operating Procedure for "Unimag"

1.0 GENERAL INFORMATION

1.1 INTRODUCTION

The UniMag IITM Portable Proton Magnetometer, Model G-846, is a complete system designed for man carry general field applications requiring simple operation and stable measurements of the total intensity of the earth's magnetic field. UniMag II provides one gamma accuracy with the sensor detached from the unit and connected to the staff and ten gamma absolute accuracy and resolution without the staff. Each measurement is based upon an atomic constant* and is independent of temperature, humidity, and sensor orientation. The integrated simplicity of the UniMag II Proton Magnetometer allows rapid, accurate measurements to be obtained from a single, compact field instrument without the need for external batteries, cables or sensor. UniMag II is a precision instrument and reasonable care should be exercised to avoid damage from unnecessary field abuse.

I-M-P-O-R-T-A-N-T

Read Chapter 3.0 Before Using UniMag II on a Survey

1.2 MAGNETIC ENVIRONMENT

During survey operation, it is important that the earth's magnetic field is not biased or disturbed by allowing unwanted magnetic objects to come close to the sensor. Such objects include jewelry, keys, watches, belt buckles, pocket knives, mechanical pencils, zippers, notebooks, other survey equipment, etc.

NOTE: The special nonmagnetic membrane push button operates with as little as 3 oz of pressure. Therefore, it is important that the operator completely remove his thumb or forefinger from the push button during the instrument cycle.

*Proton Gyromagnetic Ratio: $(2.67513 \pm 0.00002) \times 10^4$
Radians/Gauss second.

Prior to survey use objects that are suspected to be magnetic may be checked in the following manner:

1. Go to a magnetically clean area away from buildings, roads, automobiles, ac power lines, etc.

2. Place the suspected object far away (15 to 20 ft.) from UniMag II, and take several readings by depressing the black push button - releasing - and waiting for a digital readout to appear.
3. Observe the displayed readings. Each reading should repeat to within 1.0 gammas, i.e., the least significant digit should NOT change by more than one count.
4. Now place the suspected object at the distance from the sensor expected during actual survey operation. Take several *more* readings and note the measurements.
5. If the measurements made in Step 4 above differ by more than + one count from those measurements made in Step 3, then the object is magnetic.

IF THE ARTICLE IS HIGHLY MAGNETIC, OR IF UniMag II IS OPERATED INSIDE OR NEAR A BUILDING OR VEHICLE, NO SIGNAL WILL DEVELOP, GIVING COMPLETELY ERRATIC READINGS AND LOSS OF + ONE COUNT REPEATABILITY.

UniMag II cannot operate properly in areas that are known sources of radio frequency energy, power line noise (transformers), or in buildings. Also UniMag II may not operate properly if it is placed directly on the ground, due to the magnetic properties of most soils.

UniMag II will indicate a high gradient field by blanking the two least significant digits. This gives a 100 gamma resolution, instead of 1 gamma. To view all five digits, hold the cycle button down while the display is illuminated.

1.3 SPECIFICATIONS

Resolution:	Ten gamma without staff One gamma on staff Hundred gamma in high gradient fields
Tuning Range:	20,000 to 100,000 gammas (worldwide)
Tuning Mechanism:	Multiposition switch with 24 overlapping steps
Gradient Tolerance:	2,000 gammas per meter

Sample Rate: Manual push button, new reading every 3-1/2 seconds

Output: Five digit, illuminated display directly in gammas

Power Requirements: 12 Vdc, rechargeable battery, sufficient for 2,300 readings

Power Source: An internally mounted and rechargeable 12 volt, 1.5 amp/hr nonspill gelled electrolyte battery. Charge state or replacement signified by flashing readout display.

AC Battery Charger: Input: 115 V, 50/60 Hz , 220 volt with adapter
Output: 14 Vdc

Temperature Range: -20° to +50°C, weatherproof
Note: Battery capacity decreases with low temperature operation.

Accuracy: One gamma with sensor detached
Ten gamma with sensor attached

Sensor: Noise cancelling, high signal. May be mounted to console, or used on staff.

Console Size: 3-1/2 x 3-1/2 x 27 in
(9 cm x 9 x 68 cm)

Console Weight: 6.6 lbs (3 kg) Includes batteries, sensor and shoulder harness.

1.4 INVENTORY INSPECTION

When received from the manufacturer, the UniMag II™ Proton Magnetometer should include the following items:

- | | | |
|----|---------------------------|--------|
| 1. | UniMag II Console | 1 each |
| 2. | Sensor | 1 each |
| 3. | AC battery charger | 1 each |
| 4. | Adjustable shoulder strap | 1 each |
| 5. | Collapsible Sensor Staff | 1 each |
| 6. | Battery | 2 each |
| 7. | Operator's Manual | 1 each |

Operating Manual
Model G-846
UniMag II™ Proton Magnetometer

- | | | |
|-----|---|--------|
| 8. | Applications Manual for Portable
Magnetometers | 1 each |
| 9. | Carrying Case | 1 each |
| 10. | 220 V to 115 V ac Adapter | 1 each |
| 11. | AC Plug Adapters | 1 set |

2.0 FIELD OPERATION

2.1 INTRODUCTION

UniMag II is completely self-contained, and ready for field survey operation. A few simple procedures should be observed to obtain optimum results, and it is recommended that the operator follow each step as outlined in this chapter to initially become familiar with the operation of the instrument. Refer to Figure 2-1 for identification of UniMag II's controls and indicators.

2.2 CONSOLE OPERATION

PRELIMINARY CONSIDERATIONS: BEFORE USING UniMag II, CHECK FOR:

1. Presence of sensor fluid:

The sensor is located in the forward, cylindrical portion of the instrument. Shake the instrument GENTLY and listen for a "sloshing" sound. If fluid is not present, or cannot be heard, it is necessary to fill the sensor PRIOR to operation. Note that this procedure will not be required under normal conditions.

- a) Hold the UniMag II console vertically with the sensor pointed up. Remove the slotted Fill Plug from the convex end of the sensor as shown in Detail "A" of Figure 2-1. Note that sensor may be removed from its bayonet mounting on the console.
- b) Fill the sensor with STRAINED* kerosene or unleaded gasoline completely. Then REMOVE approximately two tablespoons of fluid.

*NOTE: The fluid MUST be strained several times through paper filters, (i.e., paper towels, coffee filters, etc.). NEVER use kerosene or gasoline directly from a pump or storage can as it may be contaminated with metal particles.

2. Battery pack is fully charged:

To check the battery voltage, simply depress the black push button and observe the readout - if it "flashes" on/off during the display period, the battery pack is NOT fully charged. Refer to Chapter 3.0 for instruction of recharging the battery PRIOR to survey operation.

ONLY THREE SIMPLE STEPS ARE NECESSARY TO CORRECTLY TUNE AND OPERATE UniMag II.

1. Lift the UniMag II console out of the carrying case, and adjust the shoulder strap for a comfortable fit. Typically, the magnetometer is used on the operator's right or left side, with the shoulder strap suspended across the operator's chest from the OPPOSITE shoulder. Keep sensor on console if ten gamma accuracy is sufficient for survey.
2. Adjust the TUNING-KILOGAMMAS knob to a position that correlates with the earth's known magnetic field. The earth's field, in any general location, can be estimated by using the world intensity map at the front of this manual.
3. Depress the black push button and release; observe that the center digit on the readout will flash briefly. This indicates that the measurement cycle has started. Numeric value of digit is MSD (most significant digit) of last reading. Wait two seconds, and observe the two second illuminated display of the earth's total field directly in gammas.

THE INSTRUMENT IS NOW READY FOR FIELD SURVEY OPERATION

NOTE: A true and repeatably correct reading can be made with TUNING-KILOGAMMAS knob set in three or four tuning positions on either side of the "estimated" local magnetic field (i.e., the tuning is quite broad and noncritical in most cases). Unless high field changes on the order of four or five thousand gammas occur during operation, it will not be necessary to retune the console.

2.3 SENSOR ORIENTATION

In low magnetic latitudes (where the field dips less than 40°, or below 40,000 gammas) such as near the magnetic equator where the field is horizontal, it may be necessary to rotate the sensor 90° as in following procedure.

The small dot or line on the sensor is provided to allow proper orientation of the internal sensor axis, which must be placed perpendicular to the earth's field to produce optimum signal. The following procedure is recommended for easy rotation of the sensor.

1. Loosen the black knob on the sensor mount before removing the sensor.
2. Twist the sensor and remove it from the bayonet mounting on the front of the UniMag II console.
3. Turn the sensor 90° so that the white dot or line on the open end is aligned with the side of the console.
4. Reattach the sensor to the bayonet mount after coiling the interconnect cable in a figure 8 pattern approximately 5 inches in length and inserting into the end of the sensor as far as it will go.

NOTE: The sensor should be rotated ONLY in survey areas where the local field intensity is less than 40,000 gammas.

2.4 SURVEY OPERATION

During survey operation and after UniMag II has been tuned to the local field intensity (see Section 2.2), the operator need only depress the black push button and note the reading in a log or field notebook. If a reading is in question (i.e., a sudden shift of several hundred gammas) several readings should be taken with the console held as still as possible

UniMag II SHOULD EXHIBIT ONE COUNT STABILITY, WHICH CAN BE VERIFIED BY REPEATING A MEASUREMENT WITH THE CONSOLE HELD IN THE SAME LOCATION. If one count stability is not possible, then an unwanted ferromagnetic article is present (buried pipe, etc.) or an extremely high magnetic gradient has been encountered.

2.5 INSTRUMENT STORAGE

When not in use, all of the components except the battery should be stored in the carrying case to prevent damage, loss, or possible contact with magnetic particles that could be embedded in the sensor. If extended storage (one week or longer) is anticipated, the battery should be stored in a cool, dry, place (see Chapter 3.0) to minimize self-discharge. After any storage time, always recharge the battery.

NOTE: Gelled electrolyte batteries provide an excellent power/weight ratio, but do require special handling considerations. TO PREVENT DAMAGE FROM EXCESSIVE BATTERY DISCHARGE, READ CHAPTER 3.0 COMPLETELY BEFORE USING THE UniMag II MAGNETOMETER ON A SURVEY.

2.6 POSSIBLE SURVEY DIFFICULTIES

The following is a list of possible survey difficulties, probable causes, and recommended corrective action.

<u>Survey Difficulty</u>	<u>Probable Cause</u>	<u>Corrective Action</u>
No reading on display, or digit flash on start	1. Poor battery contact	1. Check for loose connector or broken cable
	2. Dead battery	2. Recharge battery
Console will not tune	1. Loose tuning knob	1. Tighten set screw
	2. Open signal cable	2. Check signal cable for continuity
	3. High noise area	3. Move to different location
Blinking BAT Display	1. Low battery voltage	1. Recharge battery
Erratic readout, or partial display - three digits only	1. Sensor located in high noise area	1. Move sensor away from generators, power lines buildings, highways, etc.
	2. Highly magnetic environment	2. Check for magnetic articles (knives, belts, eye glass straps, pencils, etc) that are close to or are imbedded in sensor (steel chips, magnetic dirt, etc.). Unit will not make valid readings inside buildings (refer to Section 1.2)

- | | |
|---|---|
| 3. No fluid in sensor | 3. Shake sensor and listen for fluid. Fill as required (refer to Section 2.2) |
| 4. Sensor not connected or signal cable is broken | 4. Check sensor signal cable for damage |
| 5. No polarize power | 5. Weak or "dead" battery - replace |
| 6. Intermittent battery contact | 6. Check battery cable connections |
| 7. Sensor not properly oriented | 7. Align sensor dot to side or top (refer to Section 2.3) |
| 8. Diurnal shift or magnetic storm | 8. Wait for several hours - repeat readings when field is stable |

Appendix II

Statement of Expenditures

Statement of Expenditures

JAXD Project, 1992

1.	G. Belik, M.Sc., P.Geo.		
	-preparation; Jan. 14, 1992	0.3 days	
	-field work; Jan. 15, 1992	1.0 days	
	-magnetic plan; Jan. 16, 1992	0.8 days	
	-report; Jan. 18, 1992	<u>1.0 days</u>	
		3.1	
	3.1 days @ \$375/day		\$1,162.50
	J. Gillis, Assistant		
	-Jan. 15, 1992		
	1.0 days @ \$100/day		<u>100.00</u> \$1,262.50
2.	Truck Rental		50.00
3.	Magnetometer Rental		50.00
4.	Drafting		237.54
5.	Field Supplies		20.00
6.	Report Preparation		
	-xerox, map prints, binding, secretarial		<u>150.00</u>
		Total	<u><u>\$1,770.04</u></u>

Appendix III

Writer's Certificate

GARY D. BELIK, M.Sc.


Consulting Geologist
Mineral Exploration

CERTIFICATE

I, GARY D. BELIK, OF THE CITY OF KAMLOOPS, BRITISH COLUMBIA,
DO HEREBY CERTIFY THAT:

- (1). I am employed as a geologist by G. Belik and Associates Limited, located at 664 Sunvalley Drive, Kamloops, B.C.
- (2). I am a fellow of the Geological Association of Canada and a member of the Association of Professional Engineers and Geoscientists of British Columbia.
- (3). I am a graduate of the University of British Columbia with a B.Sc. in Geology (Honours) and M.Sc. in Geology.
- (4). I have practised continuously as a geologist since May, 1970.
- (5). I have gained considerable geophysical experience over the past 20 years including extensive use of ground magnetic systems.
- (6). The magnetic survey discussed in this report was carried out by me on January 15, 1992.

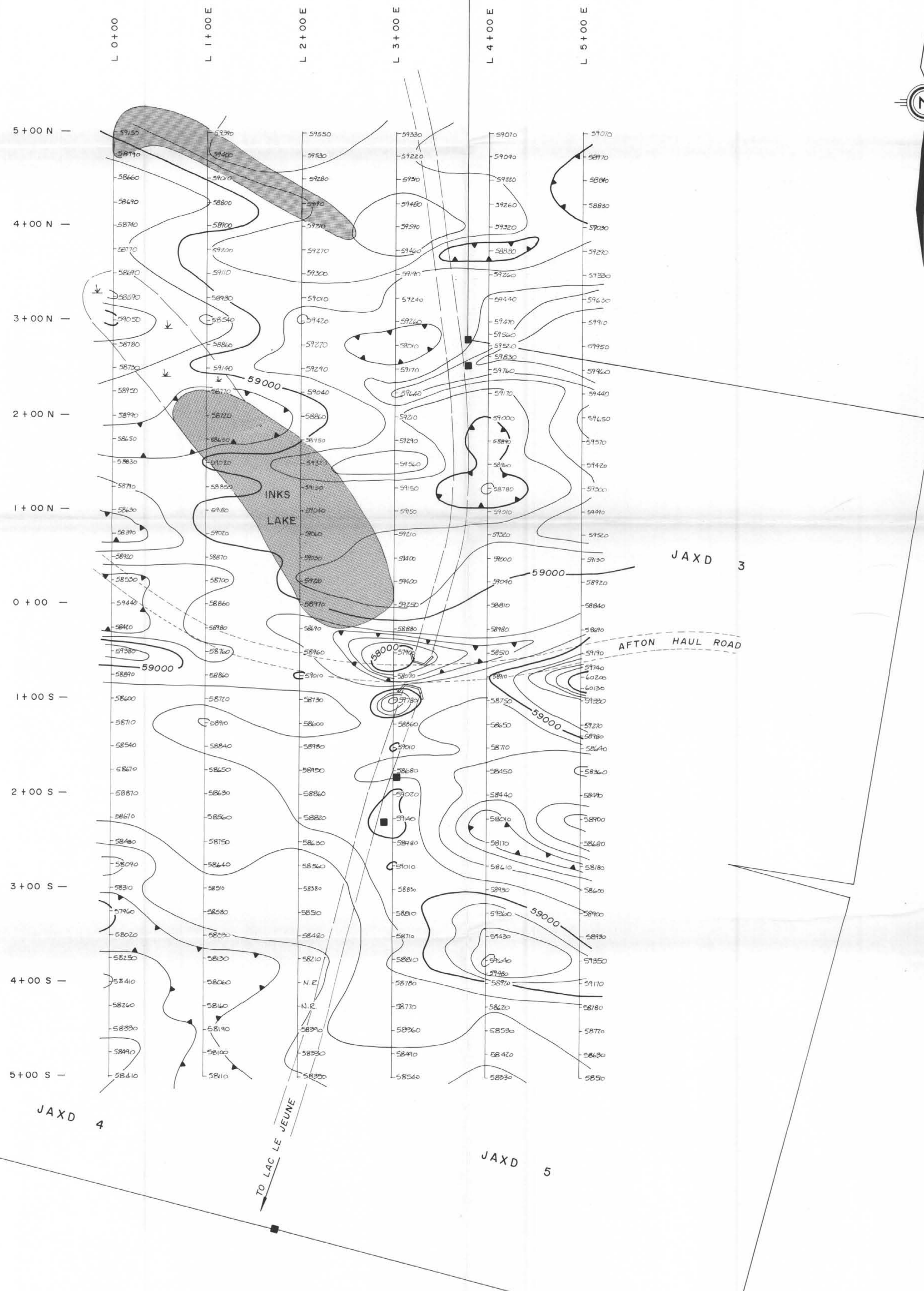



Gary D. Belik, M.Sc., P. Geo.
GEOLOGIST

January 18, 1992

KAMLOOPS, B. C.

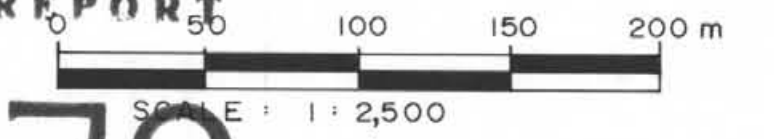
JAXD 6



LEGEND

- CLAIM POST / CLAIM BOUNDARY
- GRID LINE
- MAGNETIC READINGS
- ISOMAGNETIC CONTOUR (200 m INTERVAL)
- MAGNETIC LOW
- ROADS
paved
gravel
- LAKE
- MARSH

GEOLOGICAL BRANCH
ASSESSMENT REPORT



22,070

GETCHELL RESOURCES INC.

MAGNETIC PLAN
(TOTAL FIELD)

- JAXD CLAIMS -

KAMLOOPS MINING DIVISION, B.C.

Technical Work by:	G. BELIK & ASSOCIATES LTD.	Scale:	1:2,500
Drawn by:	DBM	Date:	JAN. 16, 1992
Approved by:		Figure No.:	3