MAGNETOMETER GEOPHYSICAL SURVEY

FIFTYMILE CREEK PROJECT

PLACER LEASE PL 7573 (3 mile)
ENCHANTMENT CREEK
N.T.S. 115 J 16: 63 54' N 140 20' W

Prepared By :
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YUKON ENGINEERING SERVICES

Prepared For :

L. Mollot / E. Setrakov

120119

JULY 8 1989

Yukon Engineering Services

This report has been examined by the Geological Evaluation Unit under Section 41 Yukon Placer Mining Act and is recommended as allowable representation work in the amount of $ 3489.38 .

W.R. LeBarge

Chief Geologist, Exploration and Geological Services Division, Northern Affairs Program for Commissioner of Yukon Territory.

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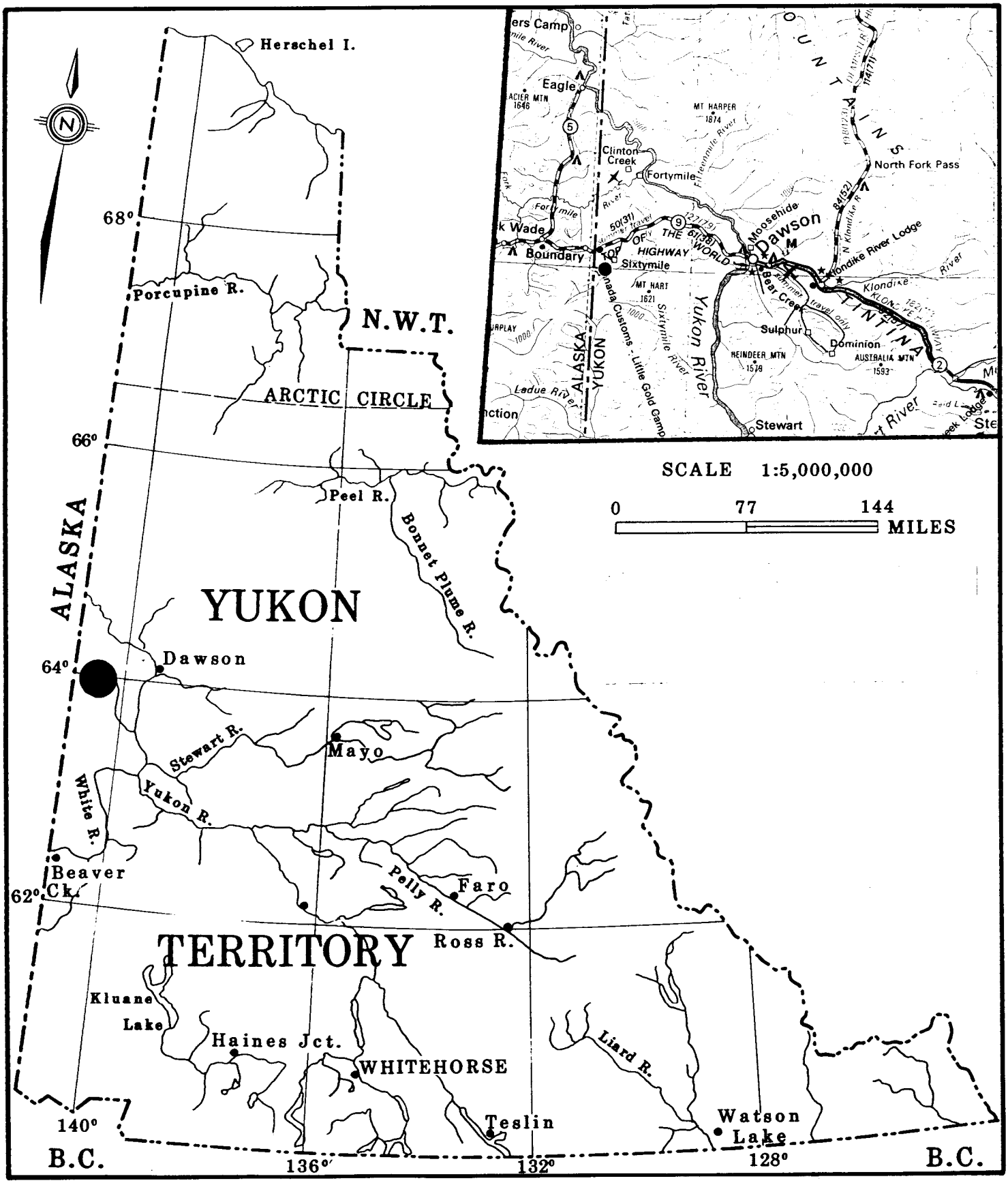
Figure 1. Location Map



Approximate location of EC grid

MOUNT HART

Enchantment

Creek

PL7573

3 MILE

4000

3500

3000

Ma

YA89557

YA89556

YA89555

YA89554

SCALE 1:31,680

1500 0 1500 3000 4500 6000 7500 9000 10500

MAGNETOMETER GEOPHYSICAL SURVEY:

ENCHANTMENT CREEK, YUKON TERRITORY 115 J 16

1. SUMMARY:

This report presents the methods, results, and exploration implications of a total field magnetometer ground geophysical survey conducted on the left limit of the upper reaches of Enchantment Creek, a tributary of Sixtymile River, Yukon Territory. The survey was conducted by R.L. McIntyre, C.E.T., and D. Holcombe, Geophysicist, of Yukon Engineering Services.

The survey was performed to extend information obtained from a previous gradiometer survey (M. Mollot, 1988), in order to determine first order priorities for follow up physical testing.

Magnetic anomalies, that can be interpreted as local concentrations of unconsolidated magnetite in the stream gravels, were detected on this grid. Exploration implications are discussed on page 4 of this report.

It is important to note that the magnetometer method, when used in placer exploration, gives broadly interpreted qualitative information for magnetic minerals located in the stream bed gravels, that may or may not bear a direct relationship to placer gold content. It is therefore recommended that the results of this, and previous surveys conducted on the property, be used to indicate locations for quantitative testing.

Note that the entire premise of the program was based on the assumptions that;

1. - regionally and locally, (within the area influenced by this creek drainage) the host rocks for gold mineralization, and/or the associated rock types, also bear magnetic mineralization;
2. - the stream sedimentation processes that controlled alluvial gold deposition also controlled deposition of other heavy minerals to roughly the same degree;
3. - old stream channels, presently buried by alluvium, exist in the valley at varying displacements from the present stream channel.

2. Property Location and Access

The EC Grid is located on Placer Lease PL7573 (3 mile), situated at the upstream end of Enchantment Creek. The property is at 63 54'N, 140 20'W, on NTS map sheet 115-N-16, and is approximately twenty five miles east of the Alaska Border.

3. Equipment and Survey Procedures

The survey was conducted using an EDA Instruments (now Scintrex) OMNI IV proton precession magnetometer, operated in the Total Field mode, with an EDA OMNI IV Base Station Magnetometer for correction of the diurnal drift. Due to the expected high occurance of solar influenced "magnetic storms" in the summer of 1989, operation in the Tie Line mode was not considered an option.

The Base Station was programmed to take total field readings at twenty second intervals to ensure accurate corrections for the rapidly collected field survey data. The instrument is sensitive to 0.1 nano-Teslas (1 nT=1 gamma), necessitating diurnal drift and micropulsation correction to survey data to discern true anomalies.

The grid parameters and direction of travel are programmed into the OMNI IV by the operator and are automatically updated at each position increment. The position information, sensor decay rate and sensitivity, total magnetic field and statistical error are displayed to the operator, who then stores the information in the 48k memory of the magnetometer. This system enables the operator to assess measurement quality, and take repeat readings if necessary.

The daily survey information is manipulated with the following procedure:

a) - field mag unit connected to base station; data transferred and corrected;
b) - base station unit connected to laptop computer; corrected field data, as well as base station readings, dumped to gwbasic software;
c) - both data files transferred to EMXS software for review and preliminary data manipulation.

The final review, interpretation and presentation of results is performed in the Whitehorse office of Yukon Engineering Services. This involves the computer generation of a three dimensional digital terrain model, and extraction of cross sections of each grid line. The corrected total field magnetic values are presented in this report as both cross sections and planimetric contour maps.

The data is interpreted and geophysical anomalies are discussed later in this report.

4. Geophysical Grid Parameters

The grid was established on the left limit bench of Enchantment Creek, approximately two kilometres upstream from the 1988 Grid. The grid is located on the left limit "bench"; the creek at this point flows along the steep right limit bank.

The grid was entirely cut out by hand methods, with the following dimensions:

Baseline	: 300 metres; from Sation 200 N to Stn. 500 N
Crosslines (stationing)	: at twenty metre intervals
Offsets	: at five metre intervals
Line length (max. offset)	: 30 m W, 30m E

5. Regional Geophysics and Geology : Magnetic Implications

The 1:63,360 scale aeromagnetic map (GSC Map 4282G) in the immediate area of the grid shows very low magnetic relief, less than 10 gammas over the entire grid area. This expression allows for good response from the alluvial material, providing that it is of sufficient depth.

The EC Grid area is entirely underlain by the Paleozoic age Pelly Gneiss unit, a foliated to gneissic granodiorite. There is no outcrop exposed in this portion of the narrow creek valley; the surficial material is expected to be on the order of two to five metres deep.

6. Results and Recommendations

As previously discussed in this report, the results are indicative of magnetic mineralization, rather than gold.

The survey on the EC Grid was successful in locating linear anomalies within the bench material that can be interpreted as old channels. The cross sections give absolute values and locations, but it may be more useful to examine the contour plan map of the total field. Specific anomalies exist at the following locations:

- Stn. 420 N to 460 N (centred on 440 N), from the baseline to the creek (30 E);
- Stn. 340 N , centred @ 15 W;
- Stn. 220 to 260 N, baseline @ 220 N, 10 E @ 260 N;

These locations should be physically tested for gold content.

7. References

1. Geological Survey of Canada, Geophysics Paper 4282 Enchantment Creek (115 N 16) Aeromagnetic Series 1966; 1:63,360 Scale map.

2. Breiner, S. , 1973 "Applications manual for Portable Magnetometers", GeoMetrics, Sunnyvale California.

3. Hood, P.J., 1977 "Geophysics and Geochemistry in the Search for Metallic Ores", G.S.C. Economic Geology Report 31.

4. Mollot, M. 1988, Fiftymile Creek Gradiometer Survey, unpublished report submitted to D.I.A.N.D for assessment credit.

CERTIFICATE

I, Robert L. McIntyre, C.E.T., of Whitehorse, Yukon Territory, do hereby certify that;

1. I hold a Geological Technician Diploma from Sir Sandford Fleming College, Lindsay, Ontario, and I have been practising continuously since graduation in 1979;

2. I am a Certified Engineering Technician (Geology) for Alberta and Yukon, by the Alberta Society of Engineering Technologists.

3. The geophysical field work, and report preparation was performed by me personally, with the assisstance of Mr. D. J. Holcombe, B.Eng. .

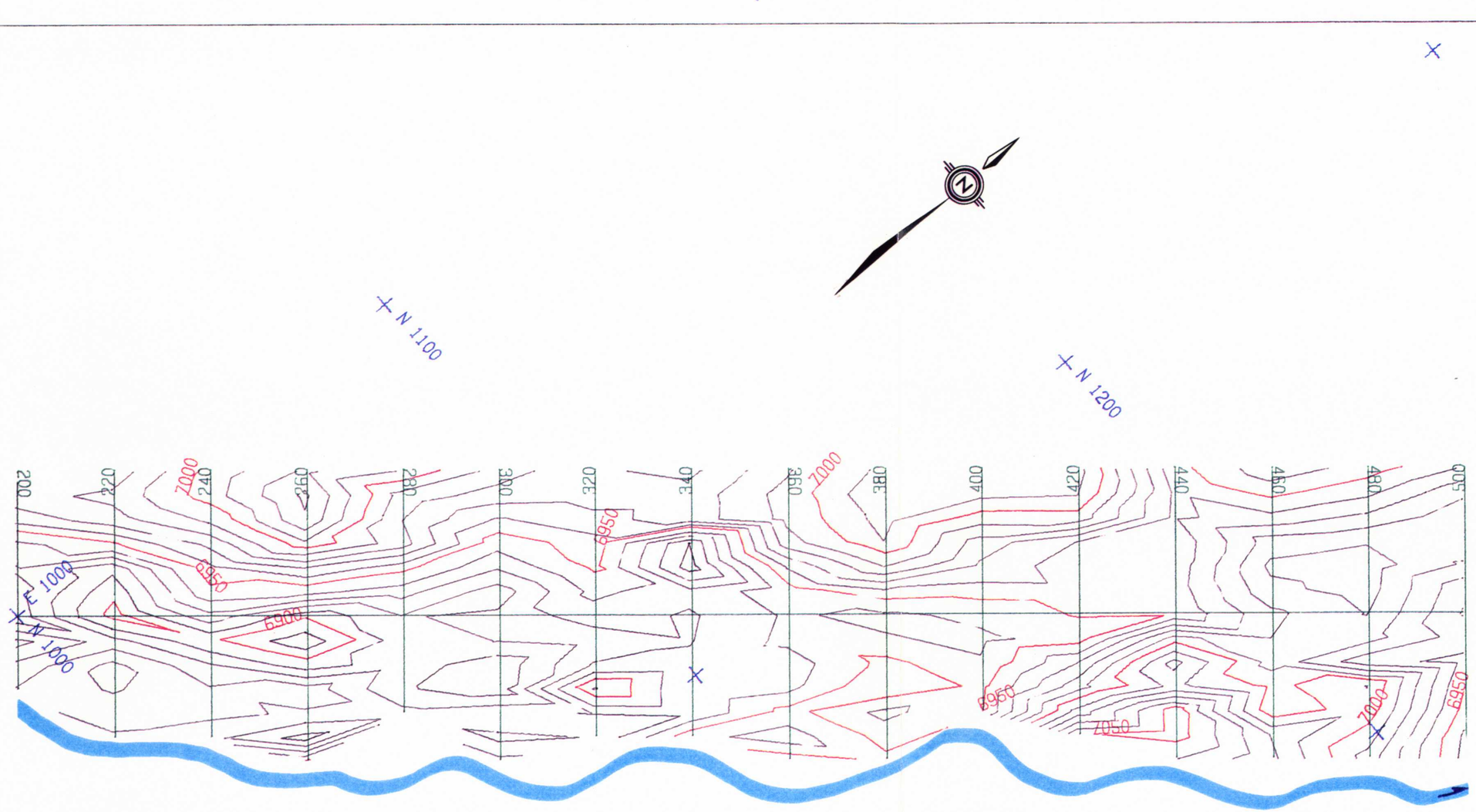
4. I have based conclusions and recommendations contained in this report on my knowledge of geophysics, my previous experience, and on the results of field work conducted on the property.

5. I hold no interest, directly or indirectly, in this property other than professional fees, nor do I expect any interest in the property, or any other of Mr. Mollots' holdings.

R. L. McIntyre, C.E.T.
Manager, Exploration Division

Whitehorse, Yukon Territory
July, 1989

APPENDICES



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DATE: 89/07/18		REV: 1
TOTAL FIELD MAGNETOMETER SURVEY		
YUKON ENGINEERING SERVICES		DRAWING NO. 1

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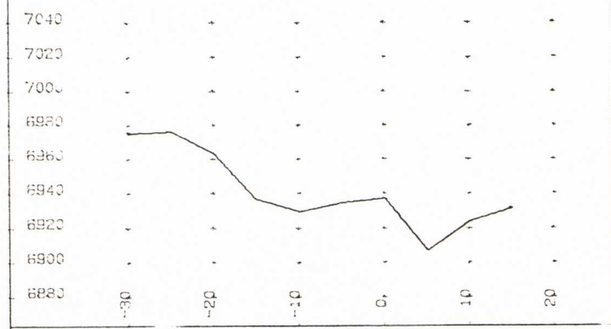

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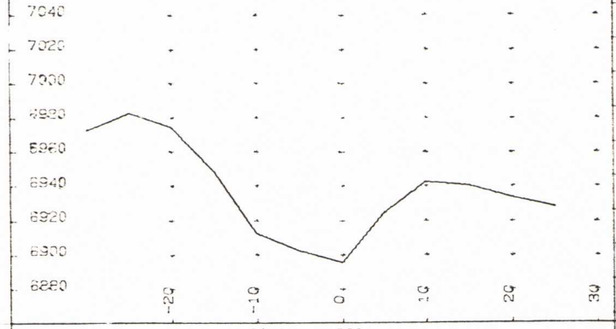

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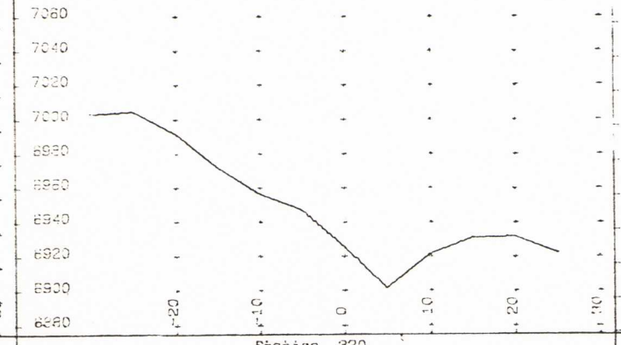

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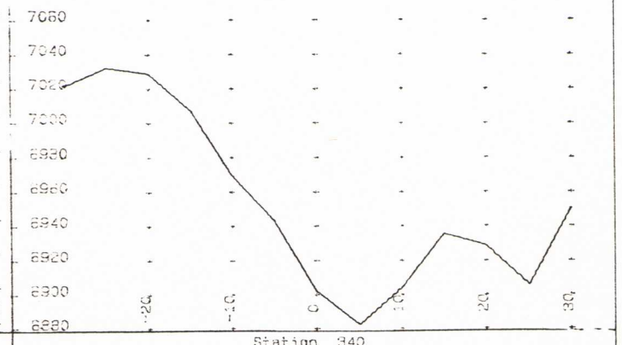

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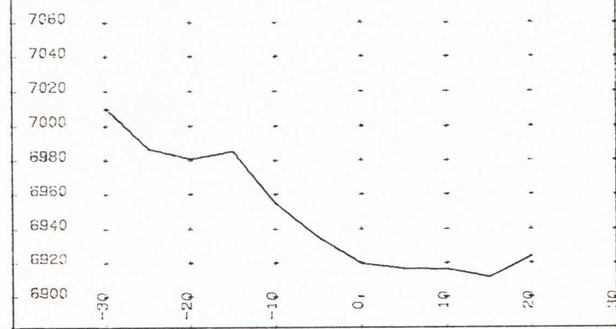

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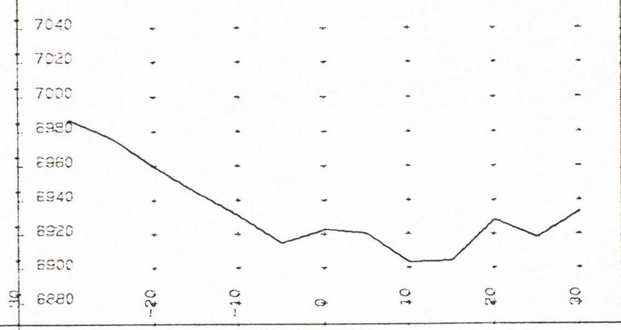

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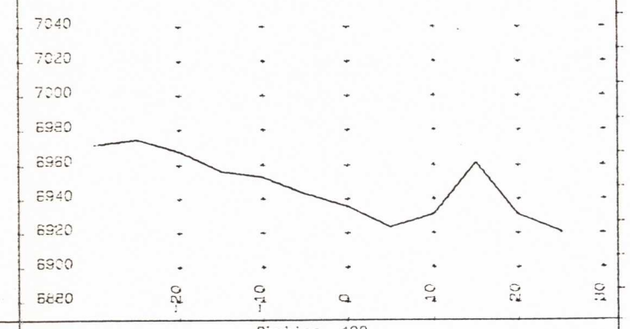

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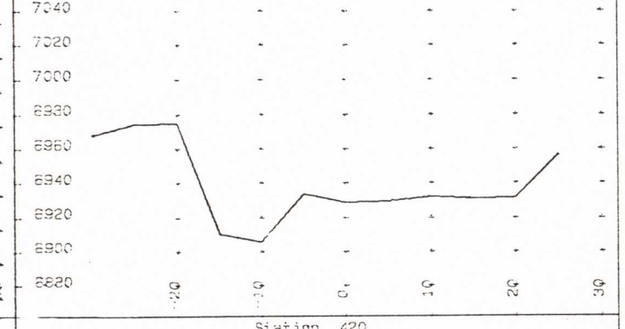

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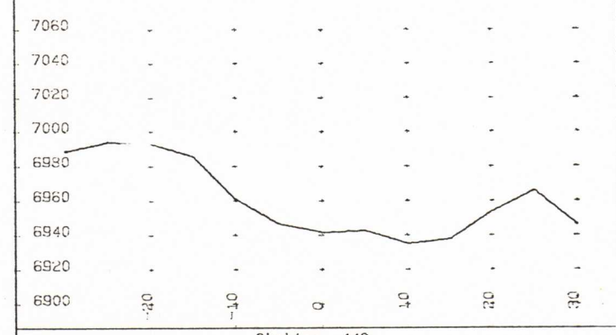

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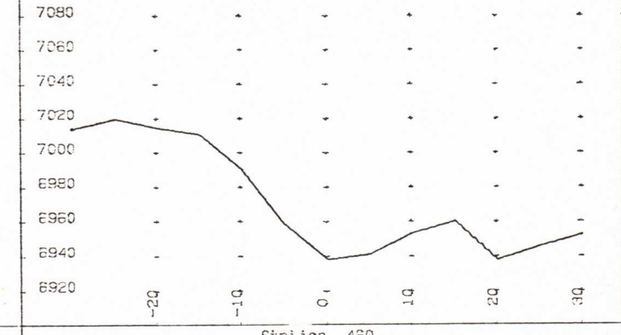

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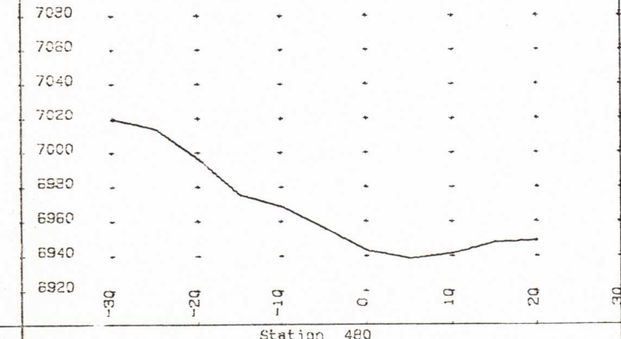

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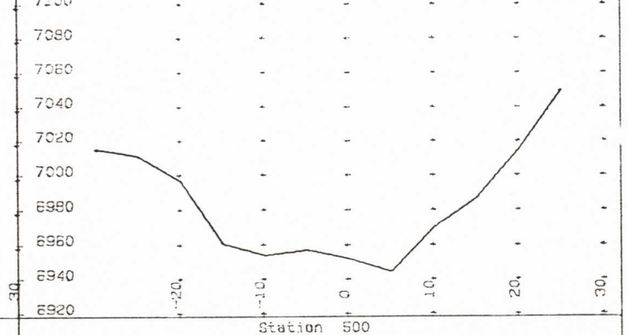

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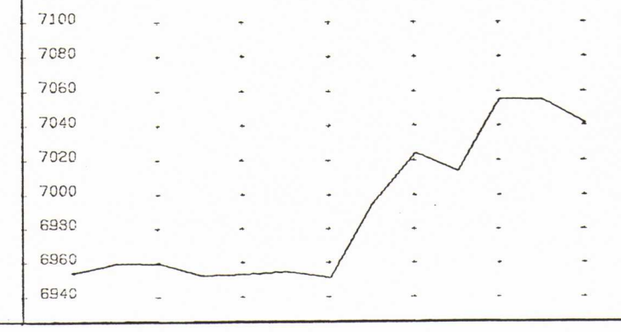

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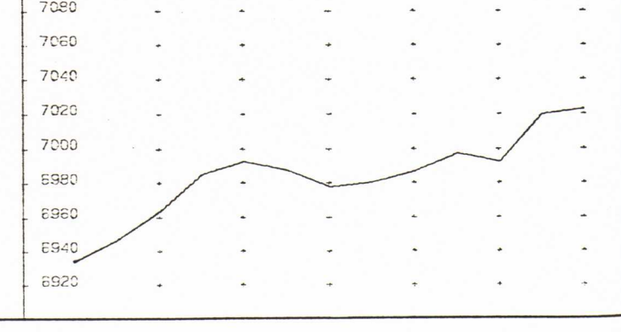

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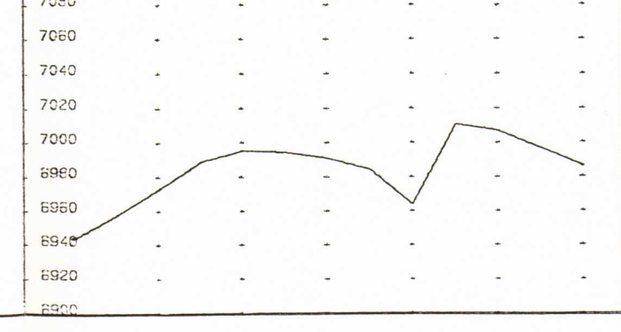

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