

GEOLOGICAL AND GEOPHYSICAL REPORT

BNOB CLAIM GROUP



Watson Lake Mining District

Yukon Territory

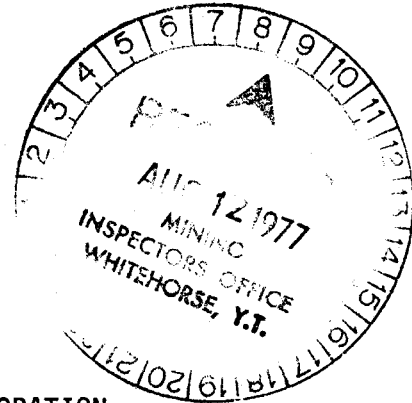
N. T. S. 105 F - 10

Latitude: 61° 35' N

Longitude: 132° 30' W

By:

P. Dean



CYPRUS ANVIL MINING CORPORATION

July 29, 1977.

Field Work Done From June 24, 1977 - July 17, 1977.

090103



This report has been examined by the Geological Evaluation Unit and is recommended to the Commissioner to be considered as representation work in the amount of

\$ 5200.00

~~Resident Geologist or
Resident Mining Engineer~~

Considered as representation work under Section 53 (4) Yukon Quartz Mining Act.

B. R. BAXTER
Supervising Mining Recorder

Commissioner of Yukon Territory

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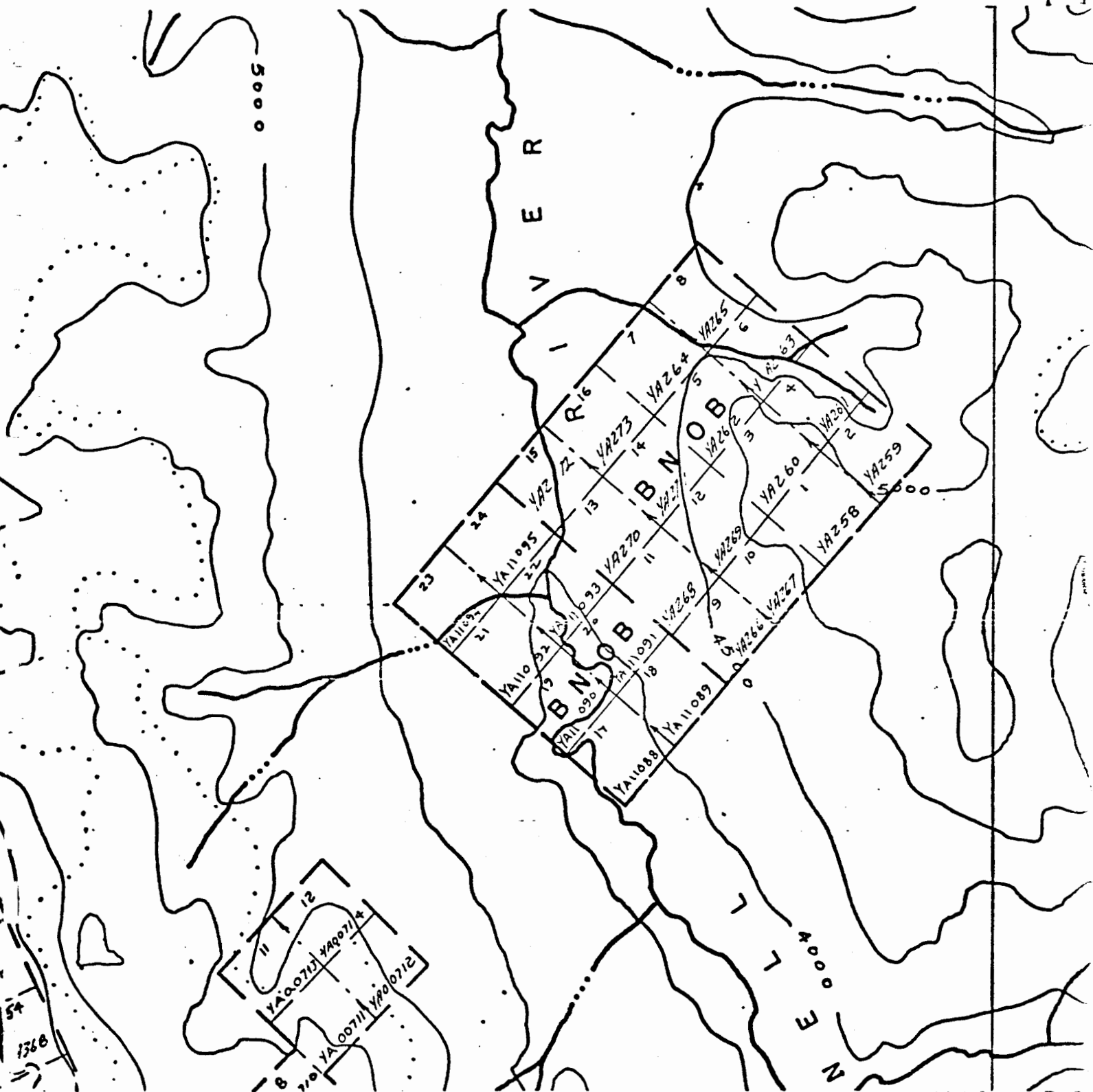
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LIST OF CLAIMS

<u>Claims</u>	<u>Grant Nos.</u>	<u>Recording Dates</u>
BNOB 1 - 16	YA 258 - YA 273	July 26, 1976
BNOB 17 - 24	YA 11088 - YA 11095	September 20, 1976

PELLY PROJECT



BNOB CLAIM GROUP

Figure 2

nts.: 105-F-10

scale: 1 inch : 1/2 mile

GEOLOGICAL AND GEOPHYSICAL REPORT

BNOB CLAIM GROUP

INTRODUCTION

The BNOB Claim Group, consisting of 24 contiguous claims, lies in the valley of the McConnell River at about $132^{\circ} 30' W$ by $61^{\circ} 35' N$ (Figure 1). The claims were staked in 1976 following the discovery of sedimentary barite outcrops associated with prominent base metal geochemical anomalies.

Access to the property is possible only by helicopter, the nearest base being at Ross River, 30 miles to the north.

SUMMARY AND CONCLUSION

During the 1977 season a picket grid was established on the property and detailed geologic mapping and geophysical surveys were carried out. Both magnetic and electromagnetic surveys were completed over most of the property, and neither outlined any anomalous zones which are likely to be caused by significant sulphide deposits. The various anomalies which were outlined by these surveys can be explained quite adequately by changes in rock type. No new showings or features of potential economic significance were discovered during the course of geologic mapping.

No further work is recommended to be carried out on the property at this time, but the claims should be held in good standing pending developments on adjacent properties within the belt of Mississippian volcanics.

GEOLOGY

The oldest rocks exposed on the BNOB Claims are carbonates of the Askin Group, believed to be Silurian or Devonian in age. On the mapped grid area (Figure 3) these outcrop only in the northeast corner, and consist of medium to dark grey limestone.

Overlying these limestones, probably conformably, are a few hundred feet of siliceous medium to dark grey phyllite. These phyllites are believed to be Mississippian in age, and typically form the basal portion of a regionally mappable formation made up of shales, volcanics, and cherts.

These phyllites are overlain on the BNOB by tuffaceous, very pyritic, felsic volcanic rocks. These rocks vary in texture from nearly amorphous, sheared, featureless tuffs, to pyroclastics with recognisable lapilli size fragments.

The colour on fresh surfaces is medium-greenish-grey to nearly white, while on weathered surfaces the rocks are bright red due to the oxidation of the abundant pyrite which makes up as much as 10% of the rock in some places.

These pyritic pyroclastics host Kuroko type massive sulphide-barite deposits at two localities in the Pelly Mountains. On the BNOB Claims Group, a bed of sugary syngedimentary barite occurs within this rock unit. At the one point where it outcrops this bed of barite is 30 feet thick, and contains thin layers of pyrite and very sparsely disseminated galena. Elsewhere on the claims it occurs as boulders in talus, the best of which contain an estimated 2% lead. The main economic potential of the property lay in the possibility that this barite might grade laterally into massive sulphide, as it does elsewhere in the Pelly Mountains at the MM property and on the JOE claims. The magnetic and electromagnetic surveys give no suggestion that this is the case, nor has any massive sulphide mineralization been seen in float or in place.

About 100 feet above the level of the barite the pyritic pyroclastic unit is overlain by a blocky weathering, resistant medium-grained felsite sill or flow.

This rock type is brownish grey in colour, non-pyritic, and contains small whitish plagioclase phenocrysts in an amorphous matrix. This rock type is the youngest member of the volcanic sequence exposed on the property.

GEOPHYSICAL SURVEYS

Magnetic and shootback electromagnetic surveys were carried out over the entire gridded portion of the property. In addition, a small part of the grid was surveyed by Radem VLF electromagnetic methods.

A large magnetic anomaly in the south part of the grid (Figure 4) occurs in an area with no outcrop. A number of large boulders of ultrabasic volcanic rock occur in this area, and the magnetic anomaly probably indicates the suboutcrop of these basic rocks. Many of these boulders contain abundant magnetite. Elsewhere on the grid the magnetic results are very uniform, and in particular there is no unusual magnetic response along strike from the barite beds.

The shootback E.M. survey, which was carried out with a Crone C.E.M. instrument, is equally flat in the area of the barite (Figure 5). The large anomalies on the east side of the grid indicate areas underlain by the dark grey phyllite unit. The conductor on Line 72S is difficult to interpret since it occurs in an overburden covered area. It is coincident with the large magnetic anomaly and may indicate a conductive zone within the ultrabasic volcanic rocks.

The Radem survey did not detect any significant conductors (Figure 6).

PROPOSED EXPLORATION

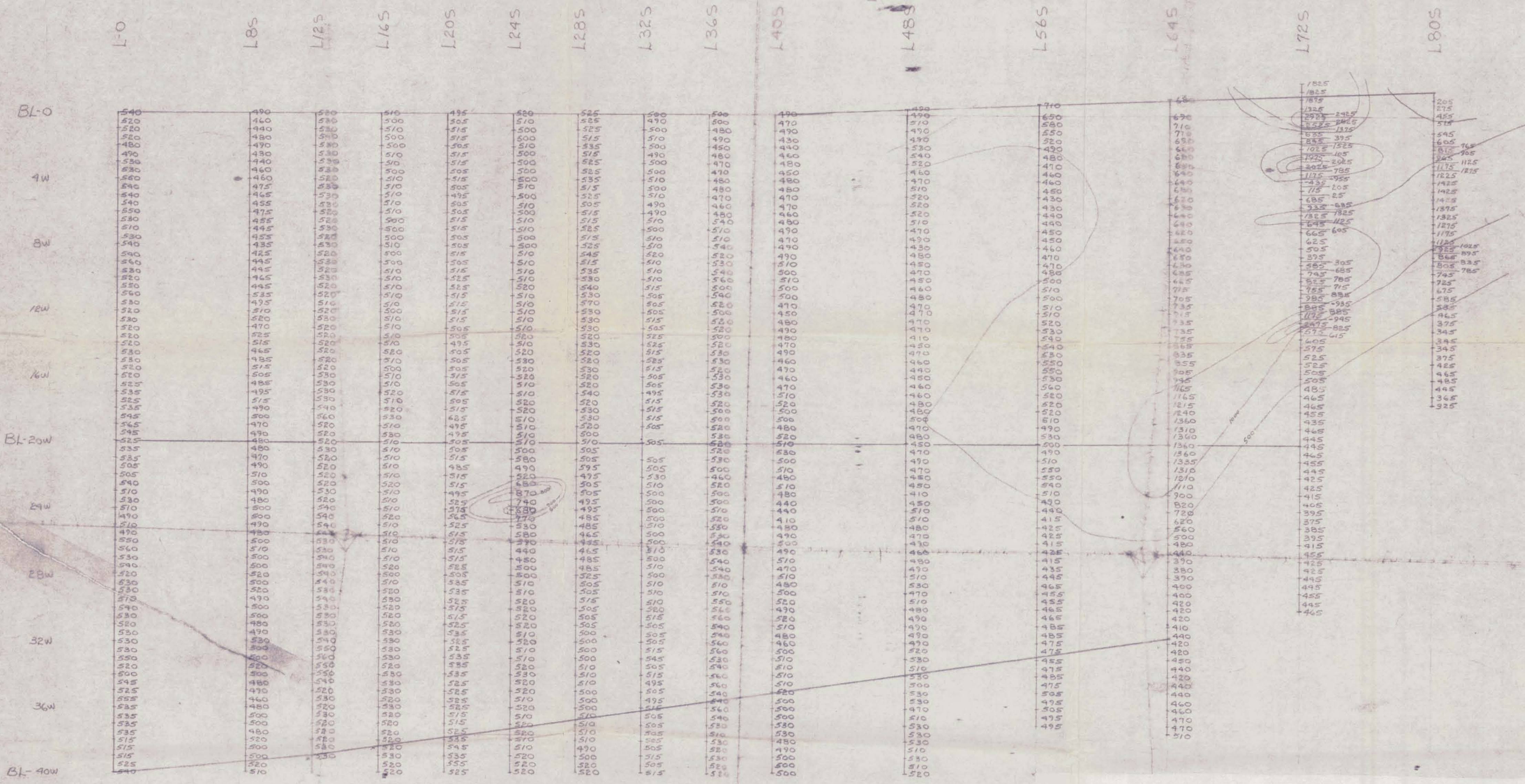
No additional work is recommended to be carried out on these claims.

Respectfully submitted,



PETER DEAN

July 29, 1977.



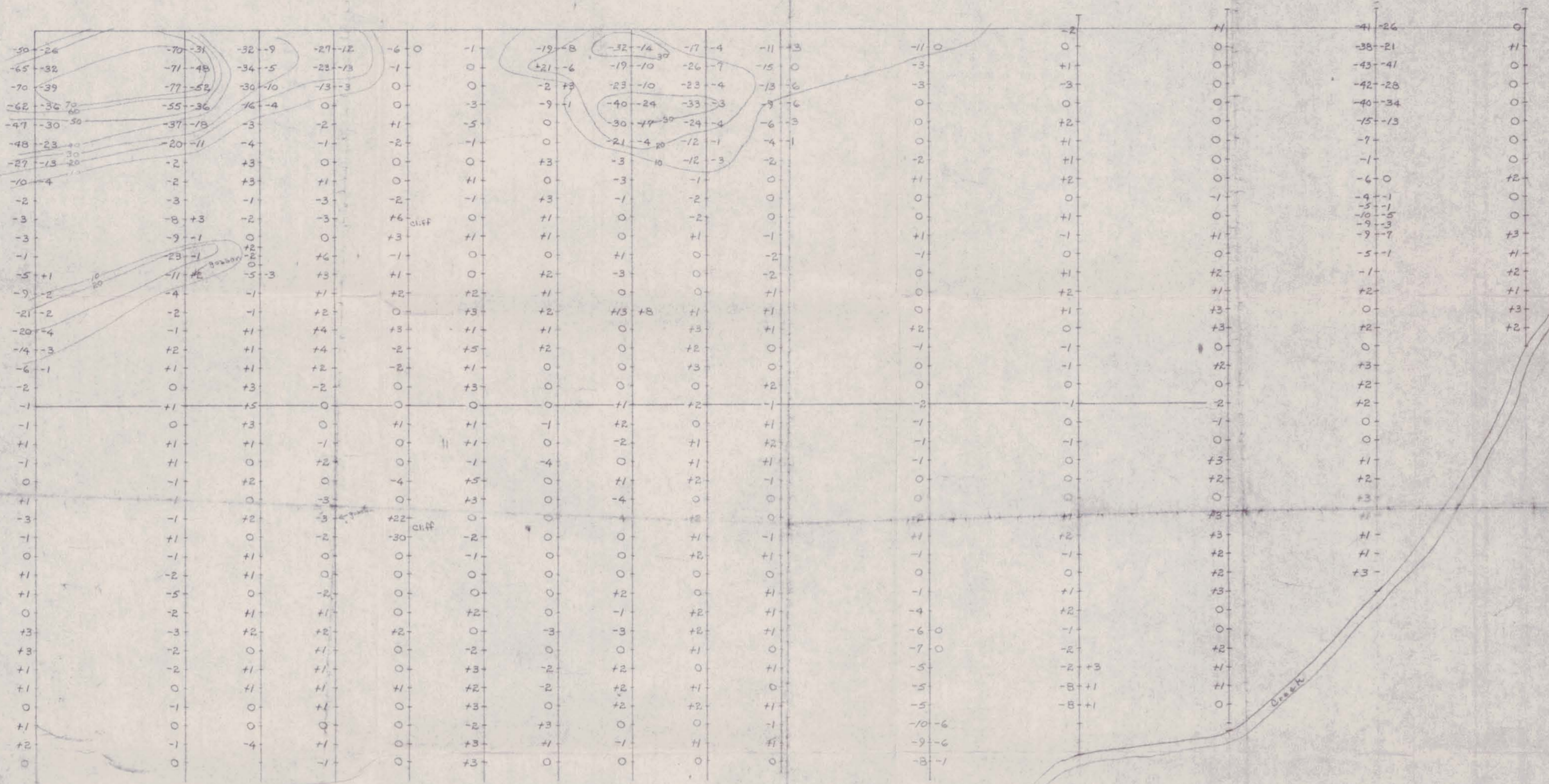
CONTOUR INTERVAL - 500 GAMMAS
 INSTRUMENT - PHOENIX MV I

Figure 4

CYPRUS ANVIL MINING CORPORATION			
BNOB CLAIMS			
MAGNETIC SURVEY			
NTS 105 F 10	SCALE: 1" = 400'	DATE: JULY 1977	

L-0 L85 L125 L165 L205 L245 L285 L325 L365 L405 L485 L565 L645 L725 L805

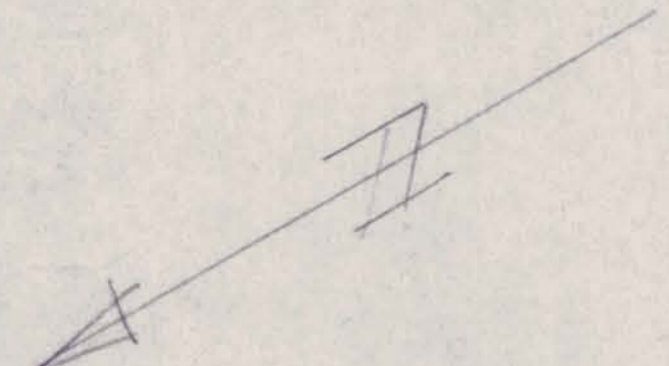
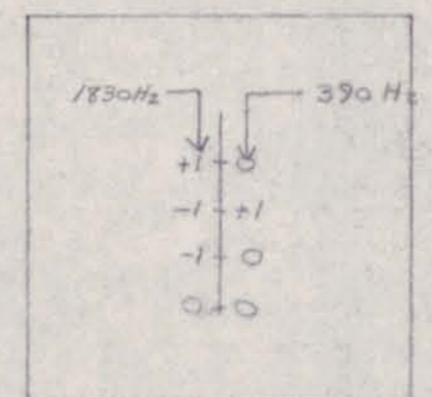
Bk0
4w
8w
12w
16w
Bk20w
Bk40w



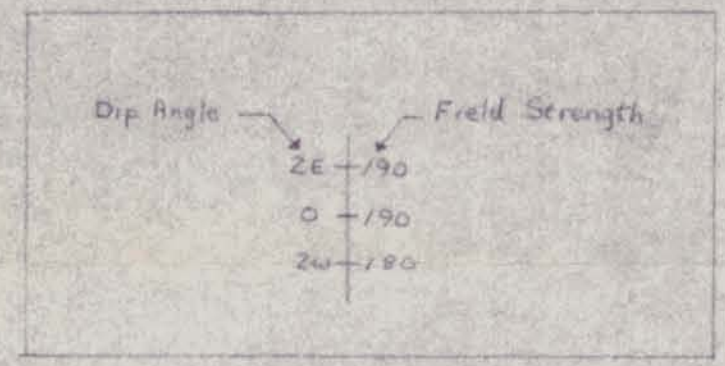
FREQUENCY: 1830 Hz & 390 Hz
COIL SPACING: 200 FEET
CONTOUR INTERVAL FOR 1830 Hz: 10°

Figure 5

CYPRUS ANVIL MINING CORPORATION
BNOB CLAIMS
CEM HORIZONTAL SHOOTBACK SURVEY
NTS 105 F 10 SCALE: 1" = 400' DATE: JULY 1977



	L 05	L 05	L 125	L 165	L 205	L 245
BL 0 W	24W-190	2E-220	7E-145	10E-160	2E-215	4E-310
	18W-170	1W-175	11E-130	14E-165	5E-205	
	17W-180	4W-160	11E-130	14E-165	10E-195	
	20W-180	16W-145	12E-210	10E-150	13E-185	
4 W	18W-175	9W-105	3E-250	12E-150	12E-185	
	16W-190	4W-100	2W-200	16E-130	14E-185	
	22W-165	4W-85	6E-140	16E-140	16E-175	
	14W-180	1W-75	11E-140	12E-135	18E-175	
8 W	16W-175	8E-85	10E-175		19E-185	
	14W-165	11E-100	6E-175		21E-195	
	13W-180	12E-100	3E-185		32E-185	
	14W-175	16E-100	2E-175			
	12W-175	20E-115	4E-165			
	16W-180	17E-145	5E-165			
	10W-165	12E-205	4E-155			
	9W-175	3E-235	7E-165			
	5W-175	0-200	5E-180			
	3W-190	4W-180	0-180			
	1W-200	0-150	0-170			
	2W-200	7E-150				
	2W-200	6E-160				
	2E-200	7E-170				
BL 20 W	0-200					



STATION - JIM CREEK, WASHINGTON

Figure 6

CYPRUS ANVIL MINING CORPORATION		
BNOB CLAIMS		
RADEM VLF E.M. SURVEY		
NTS 105 F 10	SCALE: 1" = 400'	DATE: JULY 1977