

5809

RECONNAISSANCE  
EXPLORATION PROGRAM (1975)

OF

THE ELK CLAIM GROUP

PROJECT NO. C415

(50° 45' N 128° 04' W)

PORT HARDY, B.C.

NANAIMO MINING DIVISION

BRITISH COLUMBIA

BY

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GEOLOGIST

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Vancouver, B.C. V6C 2G8

February 11, 1976

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT

NO. 5809 MAP X

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CHARLOTTE

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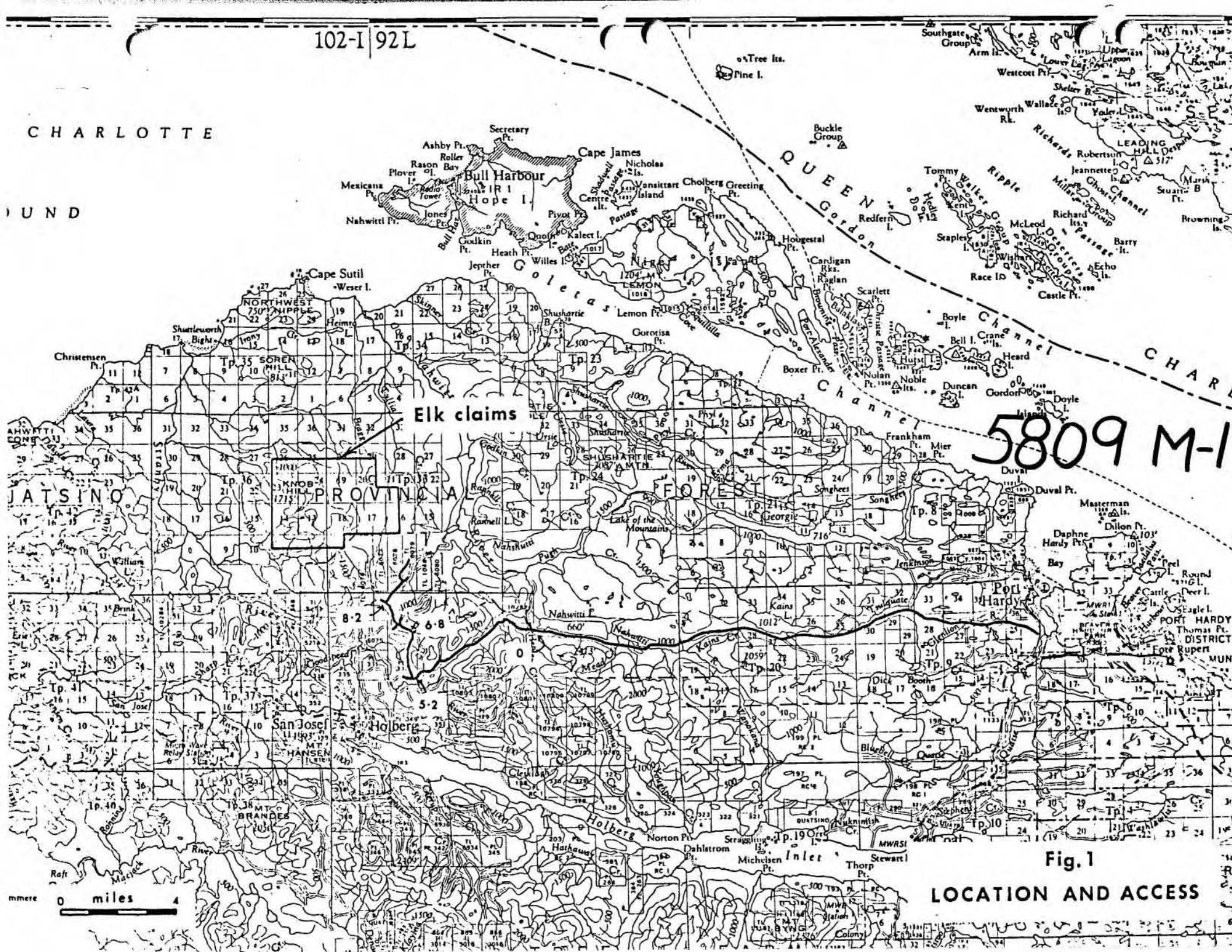


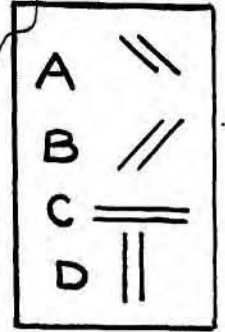
Fig. 1

LOCATION AND ACCESS

256	47	48	19	
7922	(0)	(0)	(0)	(0)
28171	2	2	28143	28144
CID			CID	18
28171	CAB		170	
28141			(0)	
			28142	

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34997E	34996E	34746(0)	34747(0)	34712(0)	34719(0)	34716(0)	34718(0)	34720(0)	34721(0)	34724(0)	34726(0)	34728(0)
ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK
342	347	135	136	95	97	99	101	103	105	107	109	111
34999E	34998E	34744(0)	34745(0)	34713(0)	34714(0)	34717(0)	34719(0)	34721(0)	34723(0)	34725(0)	34727(0)	34729(0)
ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK
343	133	134	96	98	100	102	104	106	108	110	112	
35001E	35000E	34742(0)	34743(0)	34694(0)	34696(0)	34698(0)	34700(0)	34702(0)	34704(0)	34706(0)	34708(0)	34710(0)
ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK
346	345	131	132	73	75	77	79	81	83	85	87	89
35003E	35002E	34740(0)	34741(0)	34695(0)	34697(0)	34699(0)	34701(0)	34703(0)	34705(0)	34707(0)	34709(0)	34711(0)
ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK
348	347	129	178	76	78	80	82	84	86	88	90	
35007E	35006E	34738(0)	34739(0)	34625(0)	34626(0)	34628(0)	34630(0)	34632(0)	34634(0)	34636(0)	34638(0)	34640(0)
ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK
350	349	127	128	4	5	6	7	8	9	10	11	12
35009E	35008E	34736(0)	34737(0)	34627(0)	34629(0)	34631(0)	34633(0)	34635(0)	34637(0)	34639(0)	34641(0)	34643(0)
ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK
352	351	125	126	12	13	14	15	16	17	18	19	20
35011E	35010E	34734(0)	34735(0)	34625(0)	34627(0)	34629(0)	34631(0)	34633(0)	34635(0)	34637(0)	34639(0)	34641(0)
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354	353	121	122	28	29	30	31	32	33	34	35	36
35013E	35012E	34732(0)	34733(0)	34627(0)	34629(0)	34631(0)	34633(0)	34635(0)	34637(0)	34639(0)	34641(0)	34643(0)
ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK
356	355	119	120	49	50	51	52	53	54	55	56	57
35015E	35014E	34730(0)	34731(0)	34627(0)	34629(0)	34631(0)	34633(0)	34635(0)	34637(0)	34639(0)	34641(0)	34643(0)
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358	357	117	118	50	51	52	53	54	55	56	57	58



ALSO  
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36687B	36688B	36685	36684	36703	36704
PUP 121	PUP 122	PUP 119	PUP 120	PUP 117	PUP 118
				PUP 13	

# 5809 M2

## ELK CLAIMS

Nanaimo m.d.

FIG. 2

CLAIM GROUPING  
JANUARY 1975

29490	29475	29476	29463	29464	36620	36518	36547	36529	36521B	36558	36517
A	A	A	A	A	PUP 54	BEN 2	BEN 1	HUR 2	HUR 1	BEN 12	BEN 11
26707	29477K	29478K	29465K	29466K	36619	36617	36550	36549	36530B	36529	36555
20C	A	A	A	A	PUP 53	ALSO 36611-616	BEN 3	HUR 4	HUR 3	ALSO 36633-43	BEN 13
26787K	A	A	A	A	ALSO						

50°45'

INTRODUCTION:

A property reconnaissance exploration program was designed and carried out to further establish the potential of the Elk claims. Basal till sampling was conducted by two 2-man crews with drillers and equipment supplied by Adcura Ltd., Ottawa, Ontario. A (limited in extent) induced polarization survey was done by consulting geophysicist Mauro G. Berretta. Ground magnetometer and ground electromagnetic coverage, plus some line-cutting were carried out by Chevron Standard Limited.

LOCATION AND ACCESS:

The Elk Property is centered on Knob Hill, a 300-foot topographic high, 24 air miles west of Port Hardy airport on Vancouver Island, B.C.

Access is either via Vancouver Island Helicopters of Port Hardy or via logging roads to within a 3-hour hike of Knob Hill.

Port Hardy is serviced 3 times daily from Vancouver, B.C. by Pacific Western Airlines, weather permitting, and is located on the north-south Vancouver Island highway.

OWNERSHIP AND CLAIMS:

The Elk claims are held under option by the Standard Oil Company of British Columbia Limited, from Cominex Holdings Ltd. The claims currently held are:

<u>NAME</u>	<u>RECORD NO. (S)</u>
ELK 3 - 42 Incl.	34624 - 34663 Incl.
ELK 43 - 62 "	37794 - 37813 "
ELK 63 - 90 "	34684 - 34711 "
ELK 95 -101 "	34712 - 34718 "
ELK 103-104	34720 - 34721
ELK 117-125 "	34730 - 34738 "
ELK 127	34739
ELK 347-380 "	35002 - 35035 "
ELK 399-400	35036 - 35037

GEOGRAPHY:

The property covers what is essentially a plateau at an elevation of 1,300 feet. Relief across most of the property does not exceed 500 feet.

The vegetation is unusual. Patches of scrub Jackpine and Yellow Cedar do not exceed 6 feet in height except in the stream valleys. Many small ponds to 25 feet in diameter and depths to 4 feet cover most of the area.

Precipitation is high, fogs are frequent and the flat terrain offers little protection from the persistent west winds.

EXPLORATION 1975:

Line Cutting- 10.5 miles of line were cut.

Geophysical - A ground magnetometer survey covered some 58 miles of line. The instrument used was:

Barringer Portable Proton Magnetometer  
Model GM 122

An electromagnetic survey of some 22 miles was carried out using a Crone E.M. shootback system, vertical transmission, 200 foot coil spacing, and a 1830 Hz frequency.

An induced polarization survey covering 8.1 line miles was conducted using a portable Sabre Mark 21-1, 450 watt frequency domain I.P. system, employing a dipole - dipole array with a = 400 feet,  $n = 1$  and a frequency span of 0.3 - 10 Hz.

Geochemical - A basal till sampling program using Pionjar drills recovered samples from 246 sites.

RESULTS OBTAINED AND CONCLUSIONS:

Results are plotted and contoured on maps on a scale of 1 inch to 800 feet. Three areas of anomalous copper values designated as  $A_1$ ,  $A_2$ , and  $B_1$  centred at 52E 24S, 28E 7S and 36W 8N, are of sufficient size to merit consideration.  $A_2$  and  $B_1$  are coincident with the location of two such areas located in 1974 and then called No. 2 and No. 3.

The ratio of total copper to easily extractable copper (Cu/Cu X) is high but variable for all three anomalous areas and indicative of a nearby sulphide source.

Analyses for barium, rubidium and strontium were conducted in an attempt to utilize possible correlations between these trace elements and copper mineralization. Little encouragement resulted except for a strontium decrease approaching Area B<sub>1</sub>, again indicative of the alteration associated with porphyry copper deposits.

Areas of anomalous zinc values are peripheral to Area A, indicative of leaching of a central core.

The ground magnetic survey results proved useful as an aid in mapping areas with little or no outcrop. Each underlying formation offers a different magnetic expression.

The electromagnetic response showed remarkably little relief when the results were plotted. No near surface massive sulphides are therefore likely.

The induced polarization test indicated a wide range of disseminated metallic mineralization, comparable to the range at the Island Copper property. Intermediate responses (percent frequency effect of 8% to 18%) are the most favourable for the occurrence of disseminated copper of the Island Copper type, and are present.

RECOMMENDATIONS:

Drill targets are difficult to pinpoint. Each of the three copper anomalies A<sub>1</sub>, A<sub>2</sub>, B<sub>1</sub> and Area #1 (1974) should be tested by shallow diamond drilling.

Further basal till sampling in the #1 Area and to close the western limit of anomaly B<sub>1</sub> could be of value.

I.P. coverage, extensive enough to assess all metallic anomalies, could well be an aid in determining specific drill sites.

Respectfully Submitted:



G.W. LAFORME

A P P E N D I X I

SUMMARY OF COSTS:

Salaries and Wages	\$ 19,224.77
Communications	83.36
Travel	2,740.11
Postage	4.00
Camp Supplies	790.74
Reproduction and Drafting	868.62
Camp Provisions	1,977.81
Assay Service	2,542.16
Air Charter - Vancouver Island Helicopters	4,744.05
Express Cartage	34.31
Equipment Rental - Barringer	25.00
Consultants-Technical- I.P. Survey	3,921.03
Drilling Overburden	<u>10,248.03</u>
	<u><u>\$ 47,203.99</u></u>



SALARIES AND WAGES

	CONWAY, J. Cook	KING, R. Assistant	MAYBERRY, M. Geologist's Assistant	TURNER, K. Drafts-Person	ARSCOTT, D. Supervisor	DODSON, E.D. Manager	FOX, M. Geologist	LAFORME, G.W. Supervisor	NG, M. Geologist
	<u>PERCENTAGE OF MONTH WORKED</u>								
<u>1975</u>									
Jan.					20%		15%		
Feb.					1%				
Mar.					2%				
Apr.	26%	26%	10%		50%	5%		50%	
May	100%	100%	100%		60%			100%	10%
June	100%	100%	100%		5%			100%	
July				5%	10%				
Aug.	50%		40%					30%	
Sept.					10%				
Oct.					12.5%				
Nov.					10%				
Dec.					25%			25%	
Cumulative Percentage	276%	226%	250%	5%	255.5	5%	15%	355%	10%
*Monthly Rate	\$1,188.00	1,056.00	1,188.00	1,247.40	2,428.80	3,531	1,421.40	1,636.80	1,537.80
**Daily Rate	56.57	50.24	56.57	59.40	115.66	168.14	67.68	77.94	73.43
Total Wages	\$3,278.88	2,386.56	2,970.00	62.37	4,991.18	176.55	213.21	4,992.24	153.78

\* Wage plus benefits as charged to this project

\*\* Equivalent daily rate based on 21 day month

C E R T I F I C A T E

I, George W. Laforme, am a geologist employed by Chevron Standard Limited, Minerals Staff, 910 - 355 Burrard Street, Vancouver, B.C. V6C 2G8.

QUALIFICATIONS: B.Sc - University of British Columbia

EXPERIENCE: Seven seasons of field exploration.



G.W. LAFORME

February, 1976

I, MAURO G. BEKRETTA, do hereby certify that I have the following qualifications :

ACADEMIC

- 1964 - B.Sc. (Physics) - University of Windsor  
1965 - M.Sc. (Physics) - University of Windsor  
1967-69 - Ph.D. Studies (Geophysics) - U.B.C.

PROFESSIONAL and RELATED EXPERIENCE

- 1963-64 - oceanography and marine geophysics research with Great Lakes Institute, University of Toronto
- 1968-69 - lecturer in exploration geophysics (GP400, GP402) with Dept. of Geophysics, U.B.C.
- 1970-present - instructor in mining and petroleum geophysics with British Columbia Institute of Technology
- 1968-present - geophysical exploration as an employee, consultant, joint-venture partner with numerous mining companies in B.C., Yukon, and U.S.A.
- experience in all phases of geophysics (i.p., mag, e.m., seismic, gravity) with special concentration on i.p. and e.m. methods (in excess of 500 survey miles)

PROFESSIONAL ASSOCIATIONS

- Active Member in British Columbia Geophysical Society  
1974-75 - President , British Columbia Geophysical Society

*Mauro G. Bekretta*

C E R T I F I C A T E

I, David Philip Arscott, am a Professional Engineer,  
registered in British Columbia, with an office address  
at #901 - 355 Burrard Street, Vancouver, B.C. V6C 2G8.

The 1975 Exploration Program on the Elk claims was  
carried out by George W. Laforme under my general  
direction.

I hereby certify that the stated costs represent the true  
value of the work undertaken on the Elk claims during the  
current claims anniversary year.

*David Arscott*

DAVID ARSCOTT, P.Eng.

APPENDIX II

1. Geochemical Survey:

- (a) Sampling Procedure:  
Samples recovered from sampler driven to bedrock by Pionjar drill.
- (b) Material Sampled:  
Basal till
- (c) Depth:  
Average approximately 6.0' Range 1.6' - 12.0'
- (d) Analyses Done By:  
Bondar-Clegg and Company Ltd.,  
1500 Pemberton Avenue,  
North Vancouver, B.C.
- (e) Mesh Size Fraction:  
-80
- (f) Chemical Procedure(s):
  - (1) Atomic absorption test for Cu, Zn, Pb, Mo. Reagents used - hot Aqua Regia.
  - (2) X-ray fluorescence test for Ba, Sr, Rb.
  - (3) Cold extraction test for CxCu.  
Reagent used - 0.5N HCl

SUMMARY

An induced polarization survey over part of the Elk property has outlined the presence of widespread metallic mineralization such as pyrite, pyrrhotite, chalcopyrite, magnetite, molybdenite, etc., of up to 8% by volume. Correlation with geochemical data is evident in the extreme west part of the survey, but more complex in the central part where numerous geochemical anomalies are widely scattered. Resistivity data has indicated three distinct rock types as well as a possible dyke. Additional induced polarization is recommended in order to enlarge a limited view which presently seems to display both porphyry copper and volcanogenic possibilities.

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#15	Figure 4	I.P. Profiles Map	leaflet

## 1. INTRODUCTION

During the period from August 7 to August 15, 1975, an induced polarization survey was carried out on the Elk property, on behalf of Chevron Standard Ltd. The field work was carried out by Mauro G. Berretta.

The property lies on a plateau, 1500' above sea-level, about 24 miles west of Port Hardy, Vancouver Island, B.C., and is accessible via logging roads to within about three miles (Figure 1). The latter represents a hike of about three hours or a short hop by helicopter. The topography is flat with some steepening in creek ravines to the south and north. The ground surface is very similar to muskeg, with numerous puddles dispersed throughout. The vegetation consists mostly of scrub brush and jackpine. Outcrop is extremely sparse.

A 450 watt frequency domain i.p. system was employed on the property, using a dipole-dipole array with  $a=400'$ ,  $n=1$  and a frequency span of 0.3-10Hz. Although it was originally intended to survey along specified lines selected on the basis of geochemical results, it soon became apparent that this would not be possible without substantially expanding the extent of the survey. This was due to the fact that most of the readings taken, as the survey progressed, were found to be anomalous. As a result, selected survey lines had to be extended substantially in order to 'close off' anomalies and make any attempt at interpretation



feasible. Unfortunately the survey was terminated by equipment failure caused by the extremely wet conditions that prevailed during the first few days. As a result, only 8.11 line miles of data were obtained, somewhat less than the contracted 9 miles. Moreover, the survey area consists of four long lines and two short ones only.

## 2. GEOLOGY

The Elk property is underlain by three major rock types. The oldest is a northwesterly trending belt of Bonanza volcanics, which has been intruded to the northeast by a granitic to dioritic unit. In the southwestern portion of the property, the volcanics are overlain by cretaceous sediments. The Bonanza group is highly altered, with widespread pyrite and pyrrhotite among other alteration products such as sericite, chlorite, epidote, biotite, clay and quartz.

A previous magnetometer survey has yielded data highly instrumental in mapping geological contacts as well as some structure. An extensive program of basal till geochemistry has outlined numerous zones anomalous in Cu, Mo, and Zn, with some correlation between Cu and Mo. Also, four widely spaced holes drilled to a depth of about 800' have revealed the presence of pyrite, pyrrhotite, some magnetite and in hole 72-1 minor

copper.

The geological setting then appears to be primarily favourable for an Island Copper type porphyry Cu-Mo deposit, with a more remote possibility of a volcanogenic Cu-Pb-Zn massive sulphide deposit.

### 3. INDUCED POLARIZATION RESULTS AND INTERPRETATION

At the beginning of the survey, a series of measurements were made with electrode separations of 10', 20' and 30', in order to determine overburden resistivity. It turned out to be about 300 ohm-metres. This negated the possibility of a very conductive clay layer, discovered by the geochemical survey, giving rise to troublesome electromagnetic coupling effects. The survey then proceeded with an electrode separation of 400' and a frequency span of 0.3-10 Hz. This corresponds to an effective depth of penetration of about 200', well within bedrock in view of the shallow overburden cover.

#### RESISTIVITY

The resistivity data (Figure 2) indicates the presence of three, possibly four distinct rock types. To the northeast, the higher resistivities (750-2000 ohm-metres) are indicative of the intrusive diorites. A curved belt of low resistivities

in the range of 100-500 ohm-metres, immediately to the west, represents a second, more fractured and/or altered rock, which correlates well with a rhyodacite unit interpreted in this area. Adjacent to this, and to the southwest, the resistivities are generally higher (above 500 ohm-metres) and are possibly due to more competent volcanics and/or sediments. An east-west high resistivity feature in the range of 1000-2000 ohm-metres, and about 2000' south of the baseline may represent a dyke. A narrow tongue of low resistivity (100-500 ohm-metres) in the southwest corner of the survey area may be due to a fault or a separate rock type. However, not enough information is available to the west to enlighten this speculation. The short survey line at 40W may also be indicative of a geological contact, as the resistivity undergoes a sharp transition from 250 ohm-metres to about 3000 ohm-metres. In view of the limited amount of data, it is difficult to interpret any faulting. However, trends and possible shifts of resistivity features may point to a northwesterly structure.

#### PERCENT FREQUENCY EFFECT

The pfe data is shown in Figure 3. As previously stated, most of the area surveyed is anomalous. Background responses of 2% to 4% are seen only in the north and south edges of the survey area. It is interesting to note that the geology map indicates several occurrences of pyrite in these locations. It appears however that the bulk content of sulphides here is indeed very small.

Taking 8% as the lower anomalous limit defines a very broad anomalous zone, about 6000' wide and open both to the east and west. The most intense part is in the vicinity of the baseline and occurs over the region of contact between the diorites and the rhyodacite. Anomaly amplitude in this area indicates the presence of metallic mineralization of up to 8% by volume, disseminated in both the diorite and the rhyodacite.

Adjacent to this and to the south is a region of lower i.p. response, although still anomalous, that ranges in amplitude from 8% to 18%. The sulphide content here is probably in the range of 1% to 3%, which seems to be in agreement with the results of DDH 72-1 and DDH72-4.

Contained within this area of lower pfe values, is a series of three narrow anomalies, open to the east and striking roughly east-west. Due to the lack of data to the east, and also to the fact that these anomalies are defined by only one or two high pfe readings each, it is difficult to speculate on their importance. Nevertheless, their tentative shape and proximity to the sediments to the south are noteworthy in view of the volcanogenic possibilities for this part of the property. The amplitude of these features points to the occurrence of metallic mineralization of up to 5% by volume if disseminated, and higher if massive.

The westernmost line of the survey (line 40W) has also detected

a strong anomaly which unfortunately could not be better defined due to equipment failure, as discussed in the introduction. The magnitude of the readings, however, point to the existence of metallic mineralization of up to 8% by volume.

Correlation between pfe and resistivity data is quite variable (Figure 4). The pervasiveness of anomalous pfe readings reflects a widespread distribution of mineralization in more than one rock type. As a result both high and low resistivity zones, which are representative of different rock units, will correspond to pfe highs. A possible exception is found on line 40W, where the high pfe response seems to be confined to a region of resistivity low (Figure 4), which is flanked by higher resistivities. Again, lack of sufficient data renders the interpretation of this correspondence difficult.

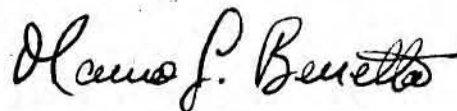
Similarly, correlation between i.p. and geochemistry is also difficult due to large number of scattered geochemical responses. Still, two major observations can be made. The first is the coincidence between the i.p. and the Cu geochemical anomalies on line 40W. The second is the scattering of Cu, Mo, Zn features which appear to ring the intense i.p. zone near the baseline at about 48E.

#### 4. RECOMMENDATIONS

It is recommended that additional i.p. be carried out both to the east and west of the area surveyed, in order to more fully define the distribution of metallic mineralization on the property. This would first of all provide a regional picture which has often been highly instrumental in the discovery of porphyry copper deposits. Secondly, further data over DDH 72-2 and DDH 72-3 would greatly enhance interpretation, and aid in the planning of future drilling. Thirdly, it would provide more information in the region of volcanogenic interest. And finally, it would define the extent of the i.p. response west of line 40W, which may necessitate extra claim staking.

It is estimated that approximately 20 line miles of additional induced polarization would adequately cover the property.

Respectfully submitted,



Mauro G. Berretta  
Geophysicist

Maple Ridge, B.C.  
August 29, 1975

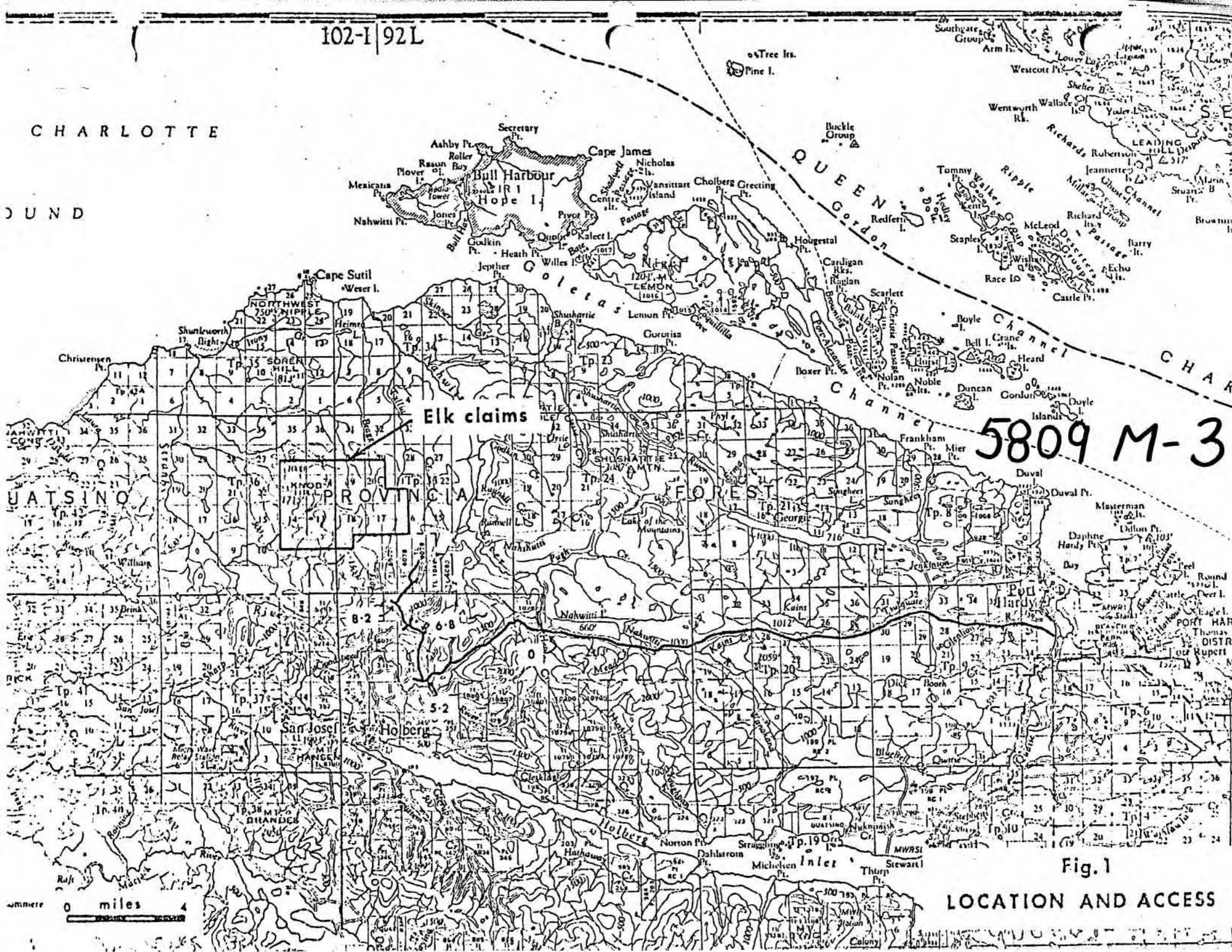
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DUND

UATSINO

RICK

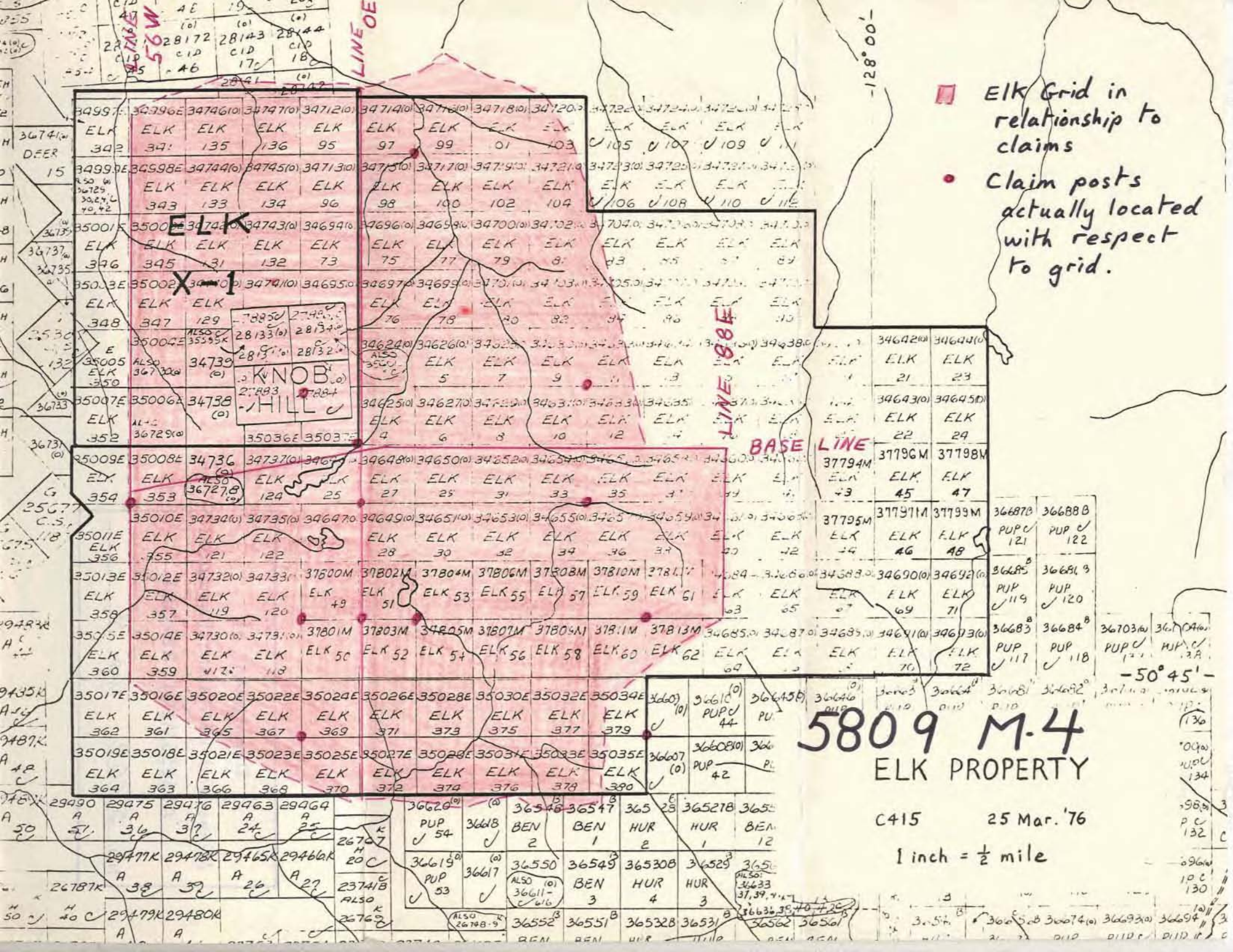
0 miles 4



5809 M-3

Fig. 1

LOCATION AND ACCESS



■ ELK Grid in relationship to claims  
● Claim posts actually located with respect to grid.

ELK

X-1

KNOB  
 HILL

LINE OF

BASE LINE

**5809 M-4**  
**ELK PROPERTY**

C415 25 Mar. '76

1 inch = 1/2 mile

-50°45'

34997	34996	34746	34747	34712	34714	34715	34718	34720	34722	34724	34726	34728
ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK
342	341	135	136	95	97	99	01	103	105	107	109	111
34998	34744	34745	34713	34715	34717	34719	34721	34723	34725	34727	34729	34731
ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK
343	133	134	96	98	100	102	104	106	108	110	112	
35001	35002	34743	34694	34696	34698	34700	34702	34704	34706	34708	34710	34712
ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK
346	345	131	132	73	75	77	79	81	83	85	87	89
35003	34741	34695	34697	34699	34701	34703	34705	34707	34709	34711	34713	34715
ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK
348	347	129	76	78	80	82	84	86	88	90	92	94
35005	34739	34624	34626	34628	34630	34632	34634	34636	34638	34640	34642	34644
ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK
350	347	5	7	9	11	13	15	17	19	21	23	25
35007	35008	34738	34625	34627	34629	34631	34633	34635	34637	34639	34641	34643
ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK
352	367	4	6	8	10	12	14	16	18	20	22	24
35009	35008	34736	34737	34648	34650	34652	34654	34656	34658	34660	34662	34664
ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK
354	353	124	25	27	29	31	33	35	37	39	41	43
35010	34734	34735	34647	34649	34651	34653	34655	34657	34659	34661	34663	34665
ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK
356	355	121	28	30	32	34	36	38	40	42	44	46
35011	34732	34733	37800	37802	37804	37806	37808	37810	37812	34684	34686	34688
ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK
358	357	119	49	51	53	55	57	59	61	63	65	67
35013	35012	34732	37801	37803	37805	37807	37809	37811	37813	34685	34687	34689
ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK
358	357	119	50	52	54	56	58	60	62	64	66	68
35014	34730	34731	37802	37804	37806	37808	37810	37812	37814	34689	34691	34693
ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK
360	359	118	51	53	55	57	59	61	63	65	67	69
35016	35017	35020	35022	35024	35026	35028	35030	35032	35034	36600	36602	36604
ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK
362	361	365	367	369	371	373	375	377	379	41	43	45
35018	35019	35021	35023	35025	35027	35029	35031	35033	35035	36603	36605	36607
ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK	ELK
364	363	366	368	370	372	374	376	378	380	42	44	46

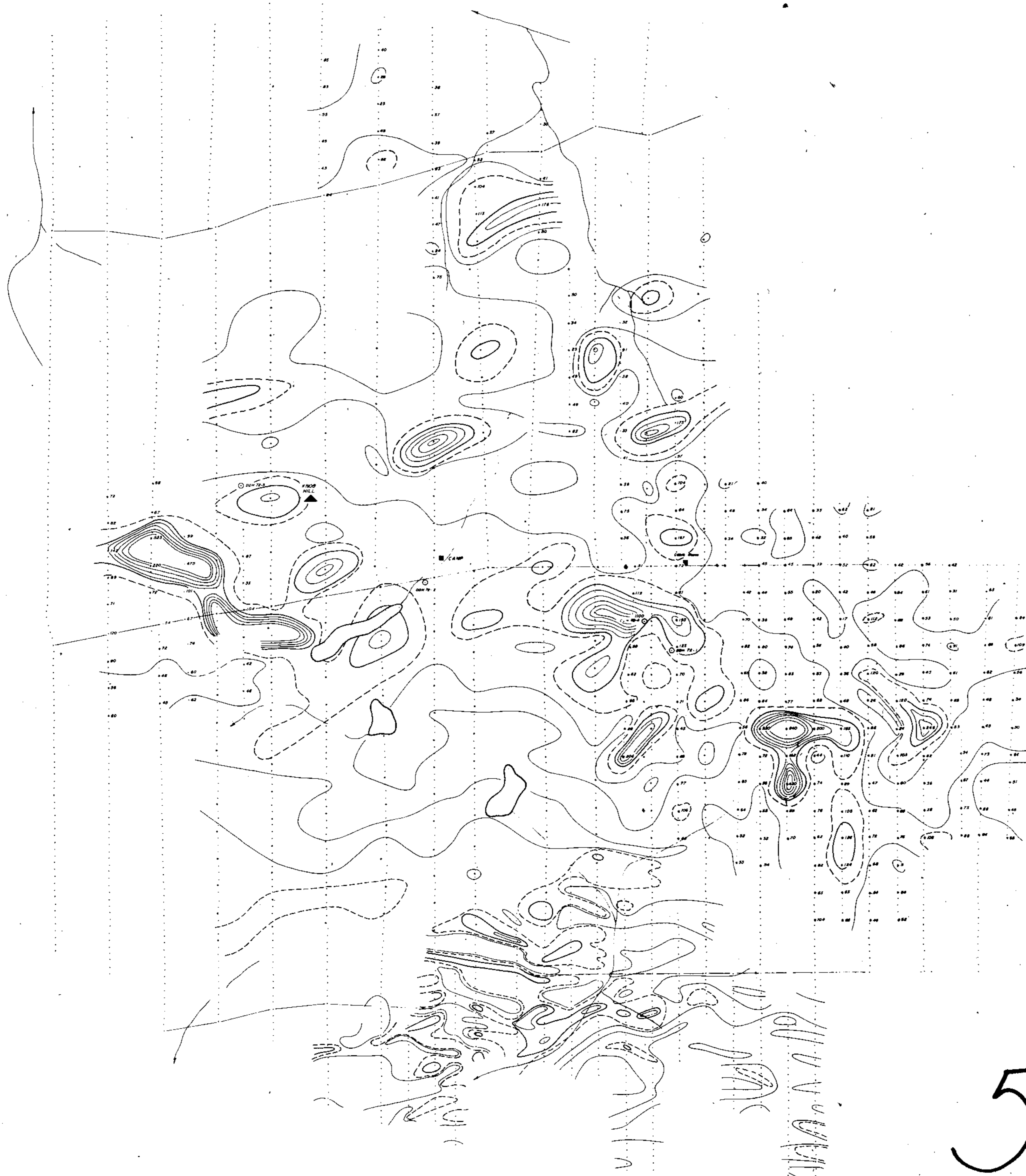
36687B 36688B  
 PUP 121 PUP 122  
 36685 36686 36687 36688 36703 36704  
 PUP 119 PUP 120 PUP 117 PUP 118 PUP 121 PUP 122  
 -50°45'  
 136  
 134  
 132  
 130



56 W 48 W 40 W 32 W 24 W 16 W 8 W 0 8 E 16 E 24 E 32 E 40 E 48 E 56 E 64 E 72 E 80 E 88 E 96 E 104 E



80 N  
70 N  
60 N  
50 N  
40 N  
30 N  
20 N  
10 N  
0 N Base Line  
10 S  
20 S  
30 S  
40 S  
50 S  
60 S



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ASSESSMENT REPORT  
NO. 5809 MAP 5

LEGEND

- Contour of threshold, (120 ppm for basal fill samples)
- Contour of top 30% of values (90 ppm for basal fill samples)

Note: Results generally south of 50 S are 1974 surface soils, with equivalent contouring.

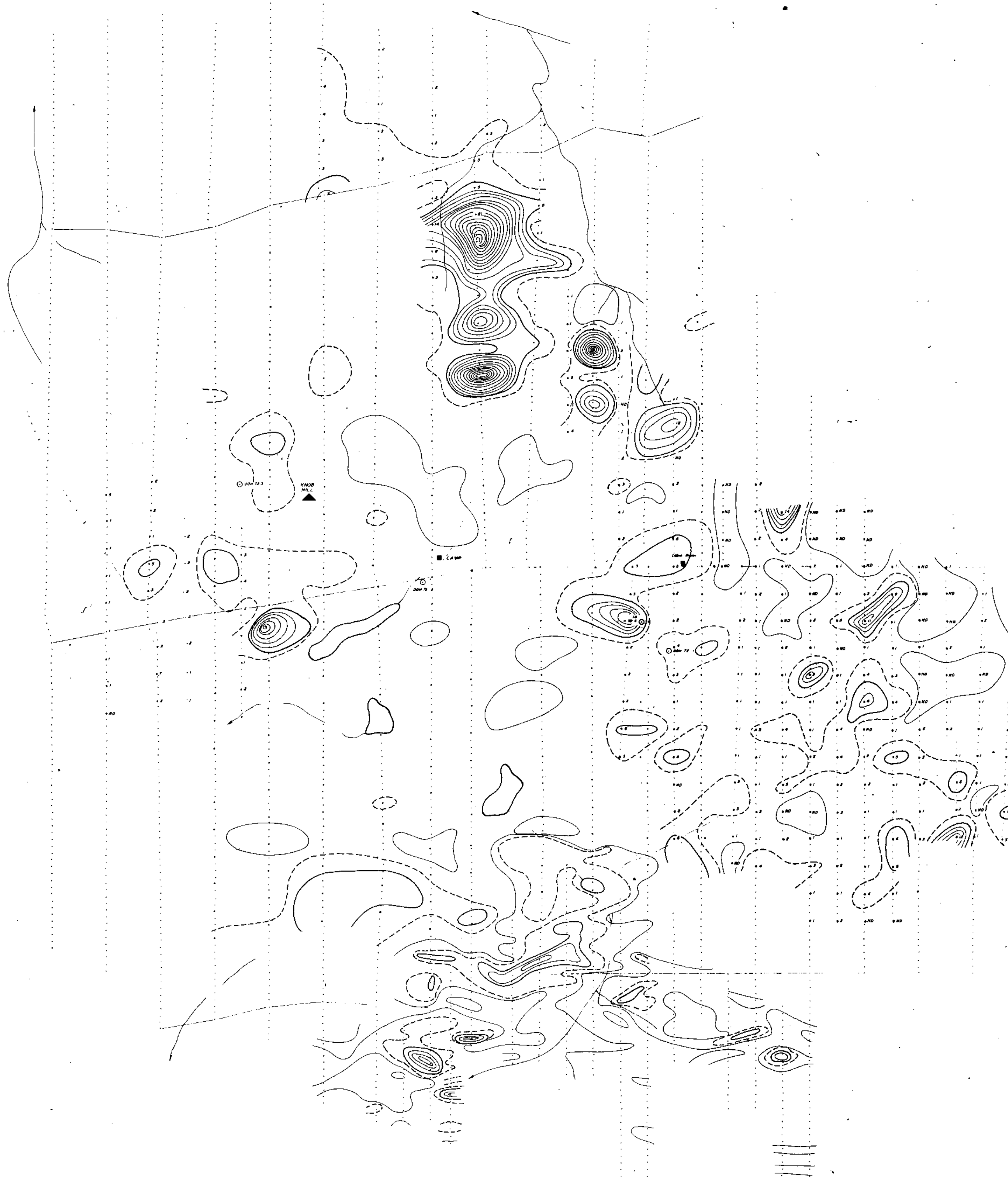
Fig- 3(a)

CHEVRON STANDARD LIMITED	
ELK	PROJECT
C415	
COPPER GEOCHEMISTRY 1975	
JULY 1975	

36 W 48 W 40 W 32 W 24 W 16 W 8 W 0 8 E 16 E 24 E 32 E 40 E 48 E 56 E 64 E 72 E 80 E 88 E 96 E 104 E



80 N  
70 N  
60 N  
50 N  
40 N  
30 N  
20 N  
10 N  
0 N Base Line  
10 S  
20 S  
30 S  
40 S  
50 S  
60 S



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NO. 5809 MAP 6

Fig-3(b)

**LEGEND**

- Contour of threshold (4.8 ppm for basal till samples)
- Contour of top 30% of values (2.8 ppm for basal till samples)
- ND Non detectable

Note: Results generally south of 50S are 1974 surface soils, with equivalent contouring

CHEVRON STANDARD LIMITED	
ELK	PROJECT
C 415	
MOLYBDENUM GEOCHEMISTRY 1975	
JULY 1975	


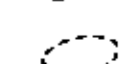
56 W 48 W 40 W 32 W 24 W 16 W 8 W 0 8 E 16 E 24 E 32 E 40 E 48 E 56 E 64 E 72 E 80 E 88 E 96 E 104 E

80 N  
70 N  
60 N  
50 N  
40 N  
30 N  
20 N  
10 N  
ON Base Line  
10 S  
20 S  
30 S  
40 S  
50 S  
60 S




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NO. 5209 MAP 7

LEGEND

-  Contour at threshold (320 ppm for basal till samples)
-  Contour of top 30% of values (200 ppm for basal till samples)

Note: Results generally south of 30 S are 1974 surface soils, with equivalent contouring

Fig-3(c)

CHEVRON STANDARD LIMITED	
ELK	PROJECT
C415	
ZINC GEOCHEMISTRY 1975	
	
JULY 1975	

56 W 48 W 40 W 32 W 24 W 16 W 8 W 0 8 E 16 E 24 E 32 E 40 E 48 E 56 E 64 E 72 E 80 E 88 E 96 E 104 E

80 N  
70 N  
60 N  
50 N  
40 N  
30 N  
20 N  
10 N  
0 N Base Line  
10 S  
20 S  
30 S  
40 S  
50 S  
60 S



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NO. 5809 MAP 8

**LEGEND**

- — Sr/Ba X 100
- — Rb/Sr X 1000
- ▨ — Anomalous Rb/Sr Ratios
- ▨ — Anomalous Sr/Ba Ratios

Fig-3(d)

CHEVRON STANDARD LIMITED

ELK PROJECT  
C415

RUBIDIUM / STRONTIUM AND STRONTIUM / BARIUM  
RATIOS IN SOIL

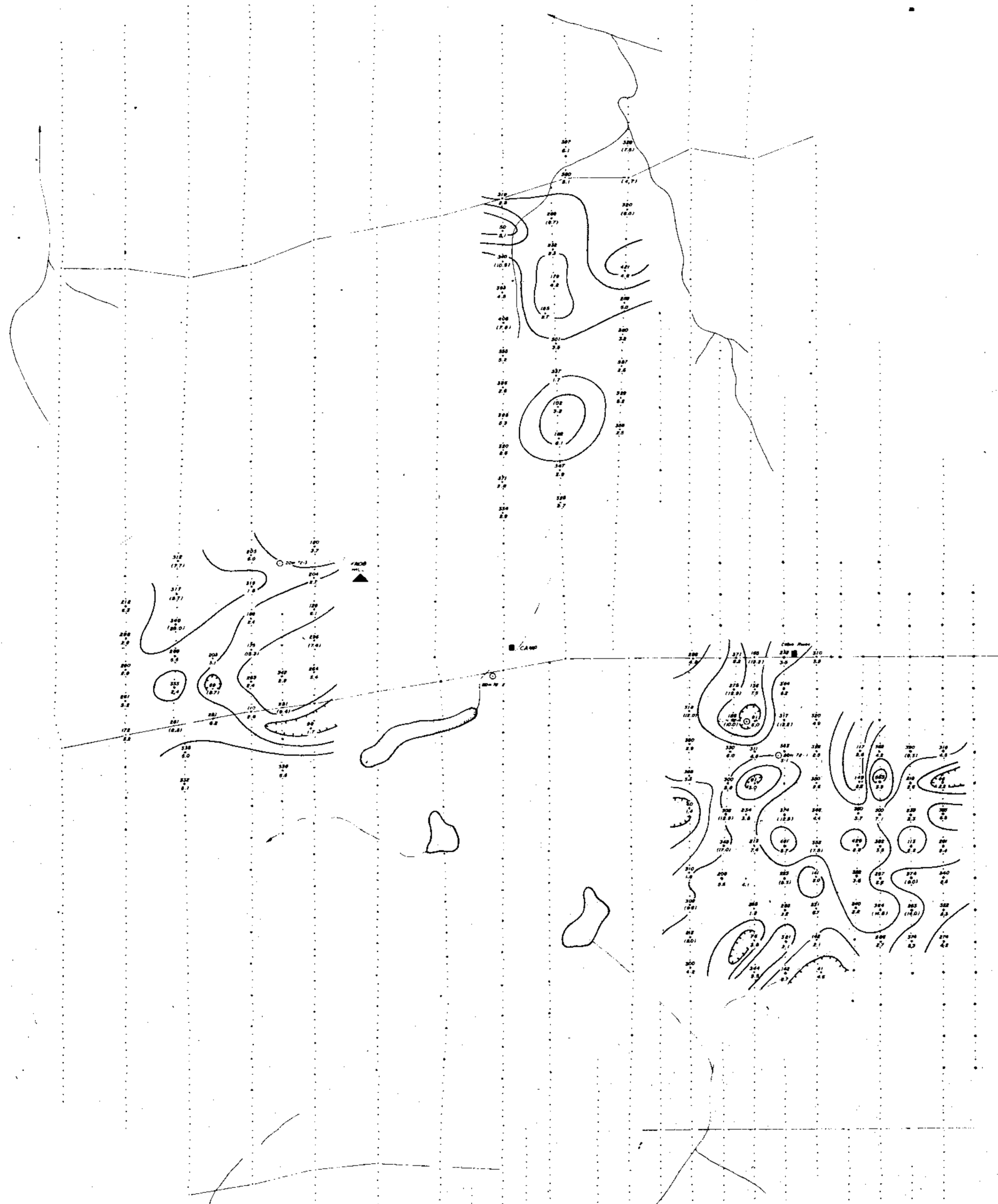
800 400 0 400 800 METERS

December 1975

56 W 48 W 40 W 32 W 24 W 16 W 8 W 0 8 E 16 E 24 E 32 E 40 E 48 E 56 E 64 E 72 E 80 E 88 E 96 E 104 E



80 N  
70 N  
60 N  
50 N  
40 N  
30 N  
20 N  
10 N  
0 N Base Line  
10 S  
20 S  
30 S  
40 S  
50 S  
60 S



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NO. 5809 MAP 9

Fig-3(e)

**LEGEND**

--- Sr in ppm, with 100 ppm contour interval  
--- Cu (favorable in brackets)

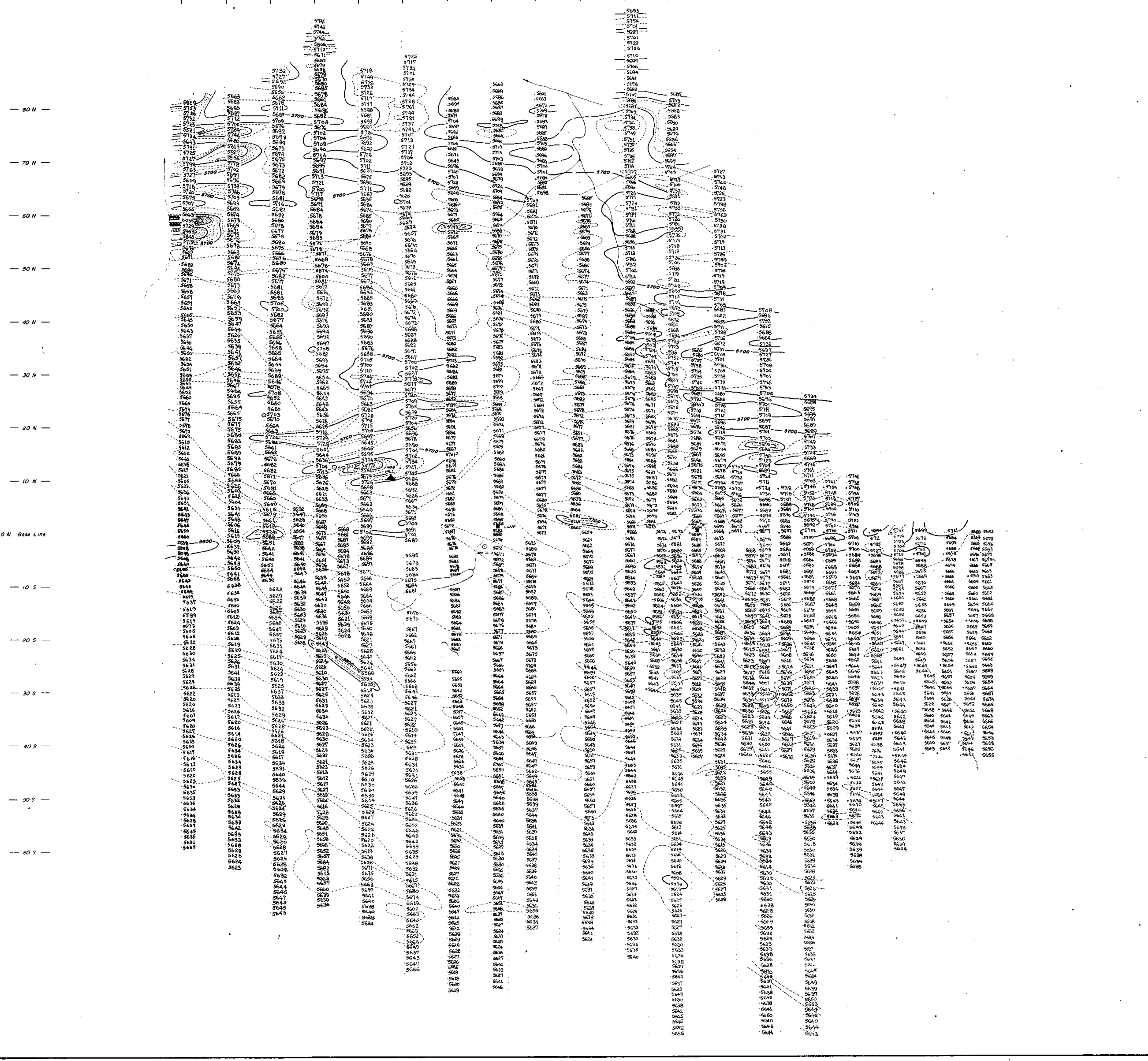
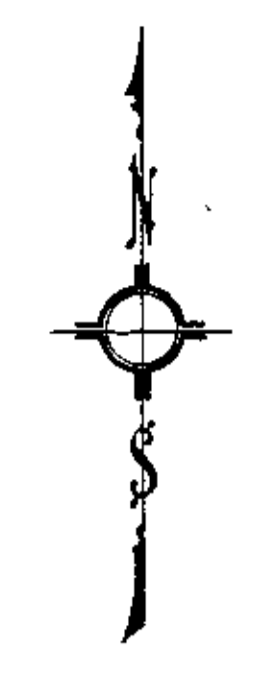
CHEVRON STANDARD LIMITED

ELK PROJECT  
C 415  
STRONTIUM AND TOTAL TO  
COLD EXTRACTABLE COPPER  
RATIOS IN SOIL

800 400 0 400 800 1600 ppm

December 1975

56 W 48 W 40 W 32 W 24 W 16 W 8 W 0 8 E 16 E 24 E 32 E 40 E 48 E 56 E 64 E 72 E 80 E 88 E 96 E 104 E



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NO. 5809 MAP 10

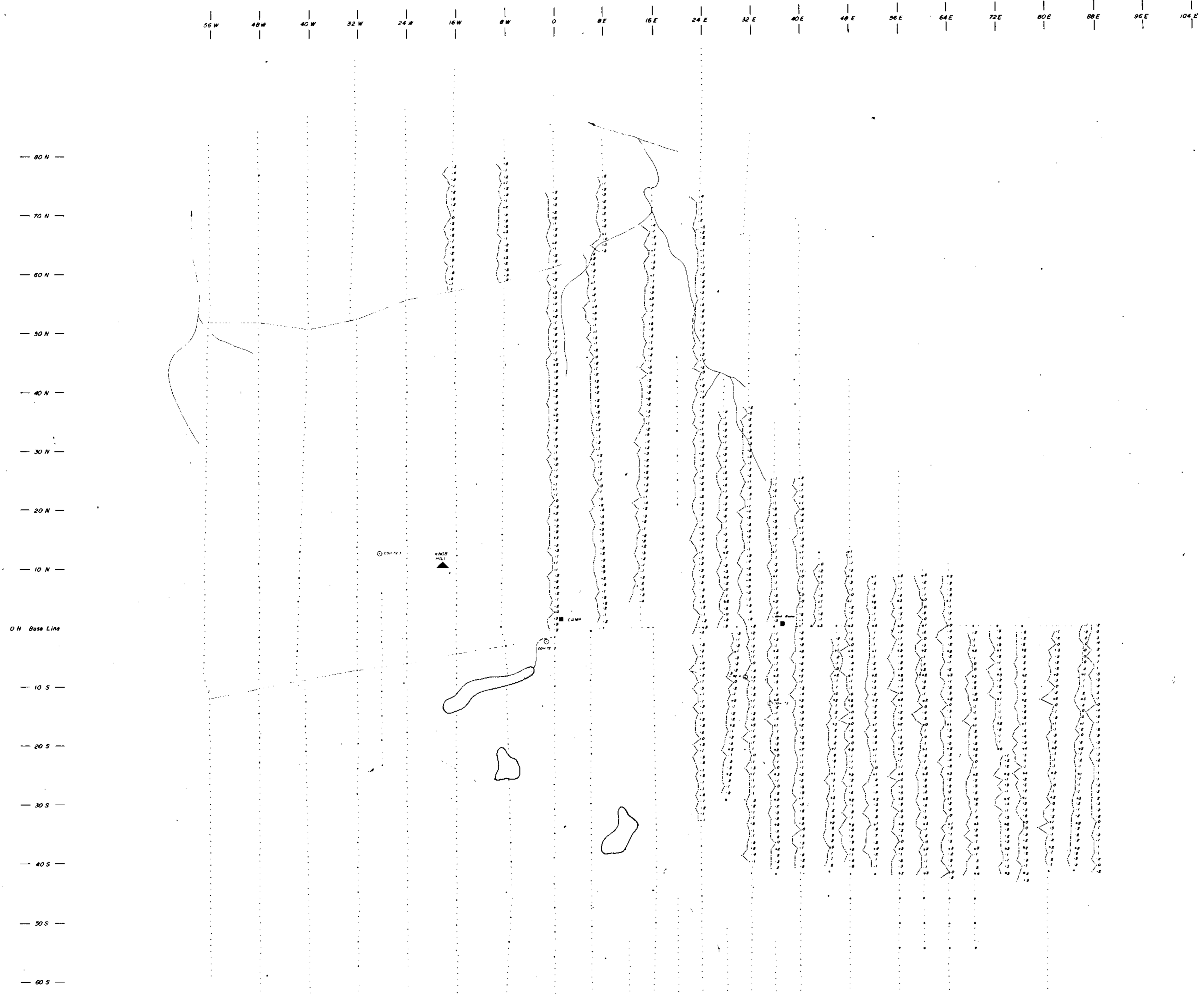
LEGEND  
— Contours At 100 Gamma Interval  
- - - - - Contours At 25 Gamma Interval

CHEVRON STANDARD LIMITED  
ELK PROJECT  
C 415  
MAGNETOMETER SURVEY

0 400 800 1600 Feet

JULY 1975

Fig - 4 (a)



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NO. 5807 MAP 11

Fig - 4 (b)

Notes: All values plotted are negative  
e.g. 2 - 2\* etc.  
- Instrument is Crane C.E.M. reconnaissance unit, used in vertical co-axial configuration  
- Coil spacings are 200'  
- Frequency used:

CHEVRON STANDARD LIMITED

ELK PROJECT  
C415  
1975 PROGRAM  
ELECTROMAGNETIC SURVEY

800 400 0 400 800 1600 FEET

December 1975

56 W 48 W 40 W 32 W 24 W 16 W 8 W 0 8 E 16 E 24 E 32 E 40 E 48 E 56 E 64 E 72 E 80 E 88 E 96 E 104 E

80 N  
70 N  
60 N  
50 N  
40 N  
30 N  
20 N  
10 N  
0 N Base Line  
10 S  
20 S  
30 S  
40 S  
50 S  
60 S



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**LEGEND**

- |   |   |                   |
|---|---|-------------------|
| Soil Copper Anomalies                                     | Diamond Drill Holes   | cd - chalcopyrite |
| Soil Molybdenum Anomalies                                 | Lineaments, From Aerials, Geochemical And Geophysical Indications | py - pyrite       |
| Soil Zinc Anomalies                                       | Generalized Geological Contacts                                   | po - pyrrhotite   |
| Rock Chip Copper Anomalies, ppm, In Available Outcrop     |   | mal - malachite   |
| Rock Chip Molybdenum Anomalies, ppm, In Available Outcrop |   | sp - sphalerite   |
| Rock Chip Zinc Anomalies, ppm, In Available Outcrop       |   | ep - epidote      |
|   |   | q - quartz        |
|   |   | cl - chlorite     |
|   |   | mag - magnetite   |

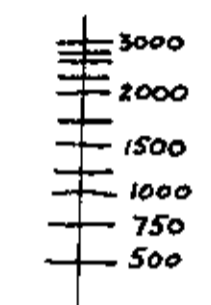
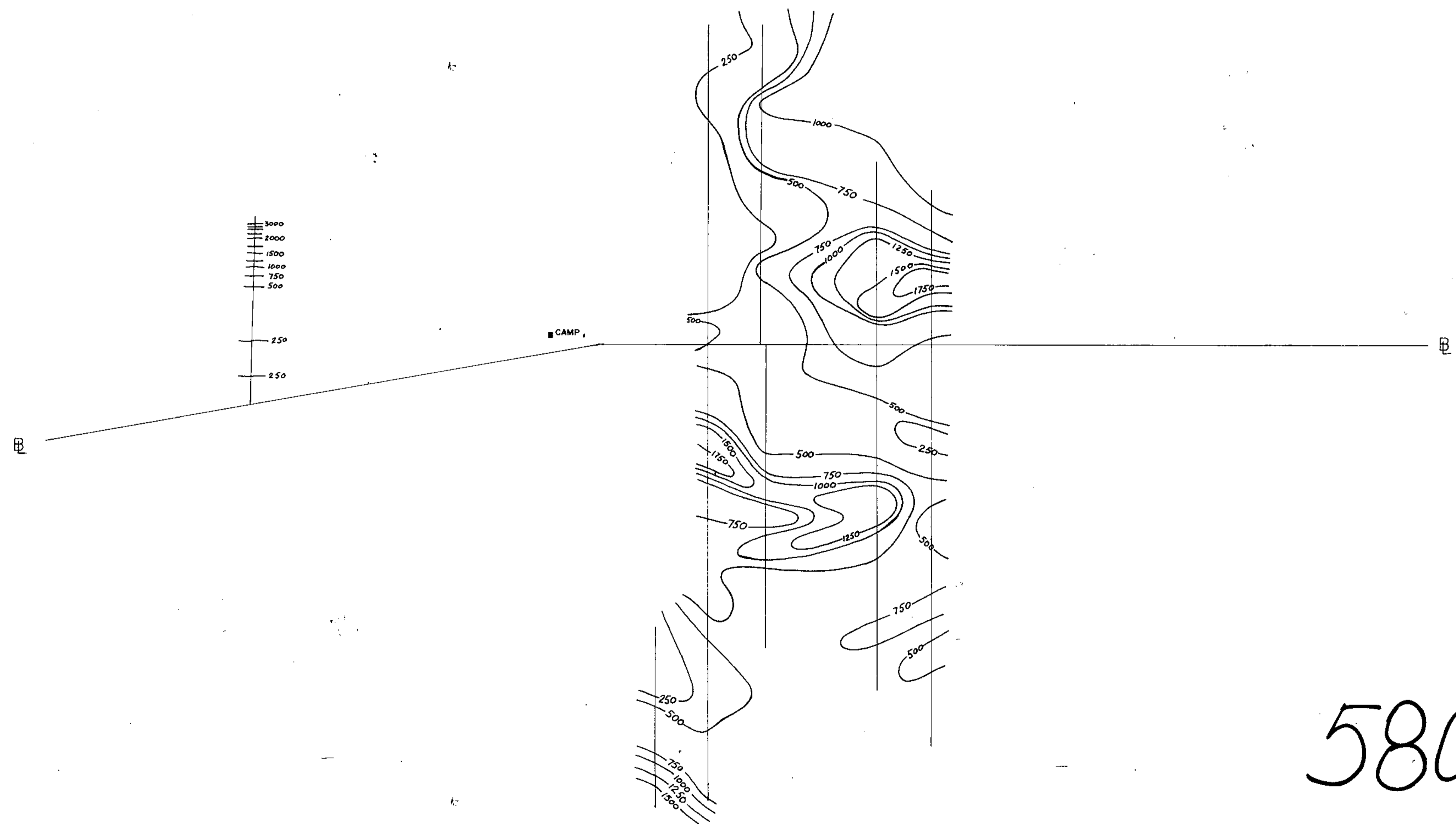
Fig-5

CHEVRON STANDARD LIMITED  
ELK PROJECT  
C415  
COMPILATION  
800 400 0 400 800 Feet  
Nov. 1975



56W 48W 40W 32W 24W 16W 8W 0 8E 16E 24E 32E 40E 48E 56E 64E 72E 80E 88E

60N —  
50N —  
40N —  
30N —  
20N —  
10N —  
00 —  
10S —  
20S —  
30S —  
40S —  
50S —  
60S —



5809 M-13

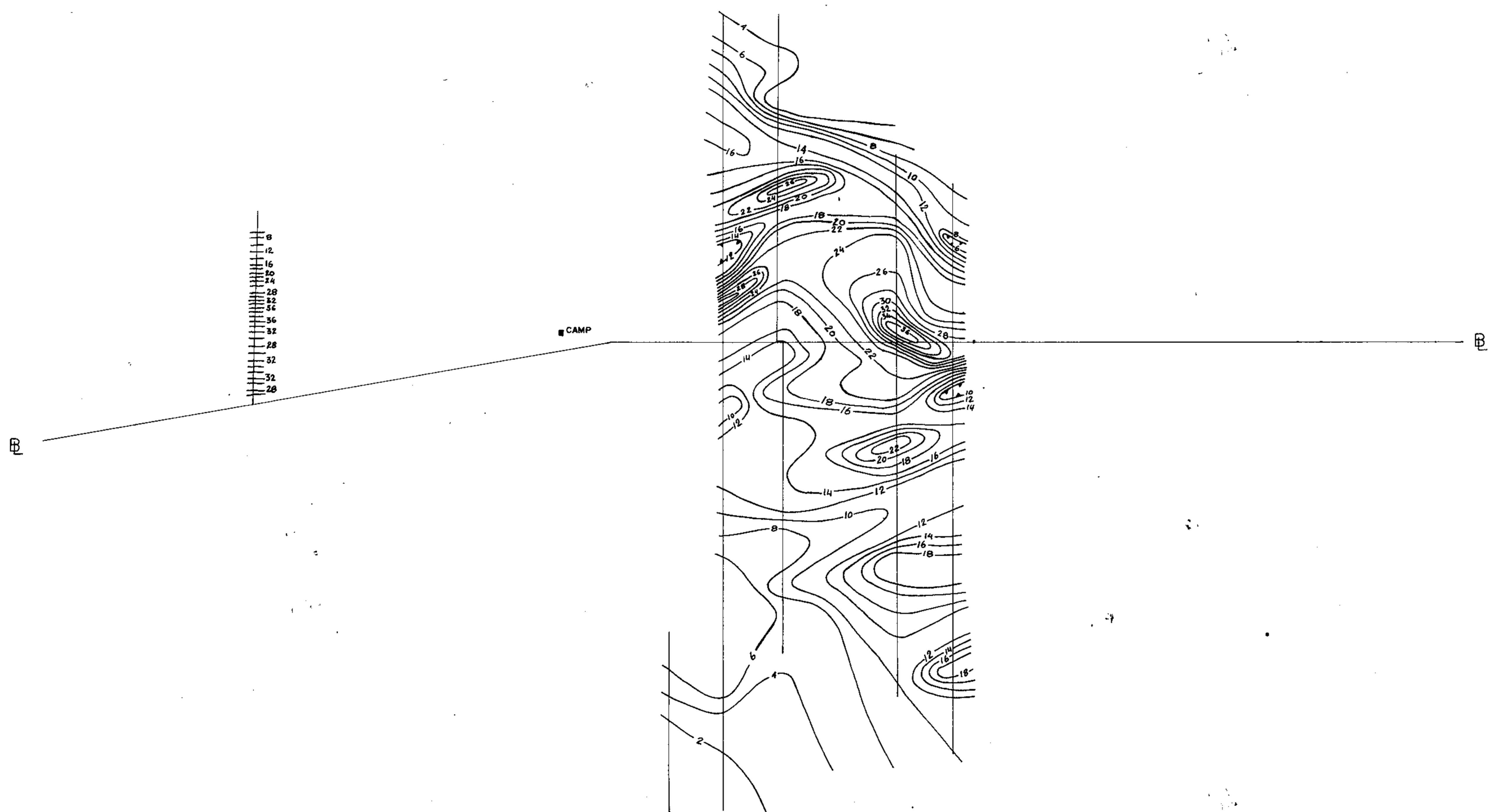
FIGURE 2

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5809  
MAP 13

RESISTIVITY	
ELK PROPERTY	PROJECT C415
CHEVRON STANDARD-MINERALS STAFF	
DIPOLE-DIPOLE	SCALE 1" = 800'
a = 400' n = 1	CONTOUR INTERVAL 250 Ωm
0.3-10 HZ	MAURO G. BERRÉTTA
SABRE 21-1	AUGUST 1975
450 W	

56W 48W 40W 32W 24W 16W 8W 0 8E 16E 24E 32E 40E 48E 56E 64E 72E 80E 88E

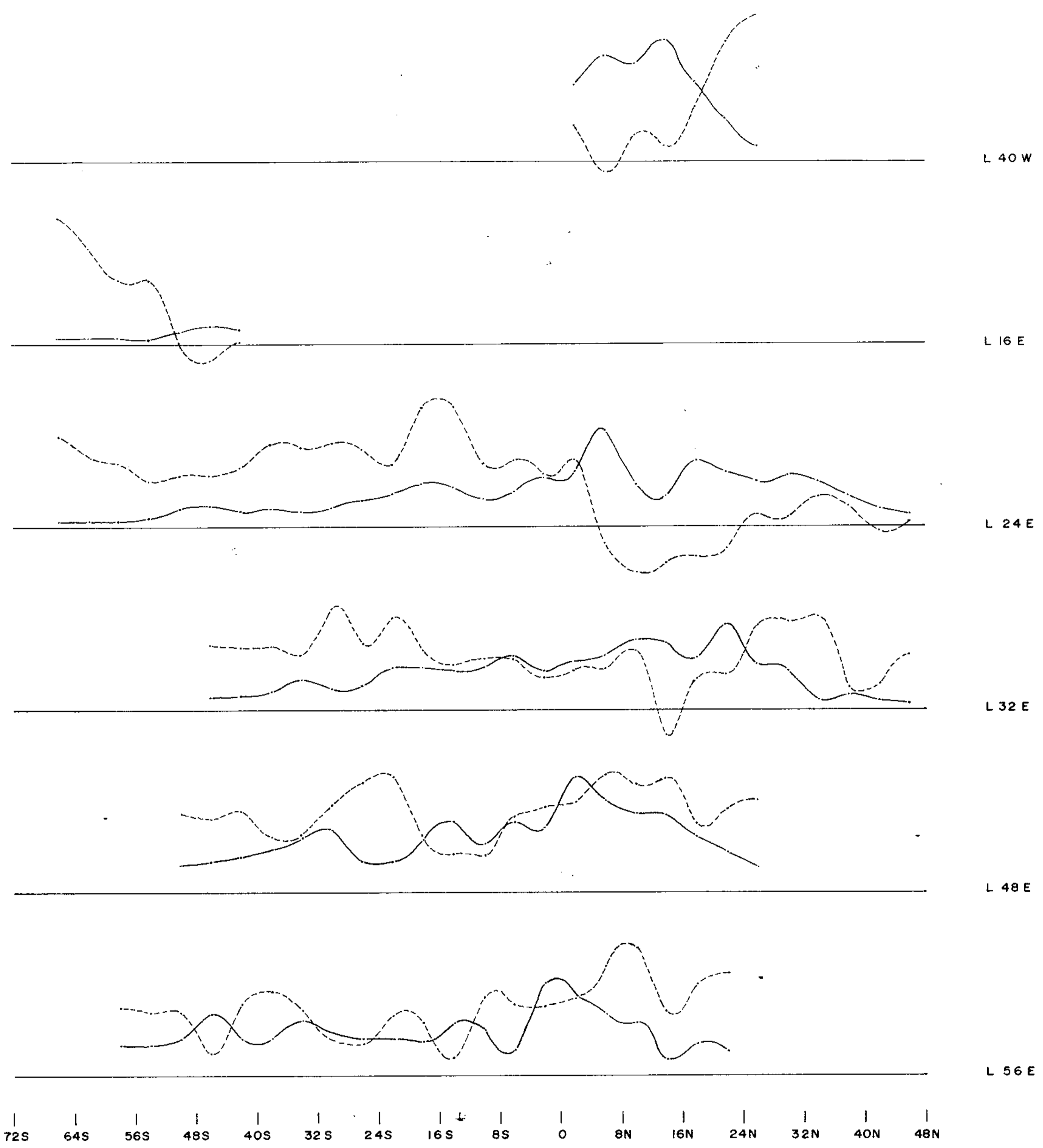
60N  
50N  
40N  
30N  
20N  
10N  
00  
10S  
20S  
30S  
40S  
50S  
60S



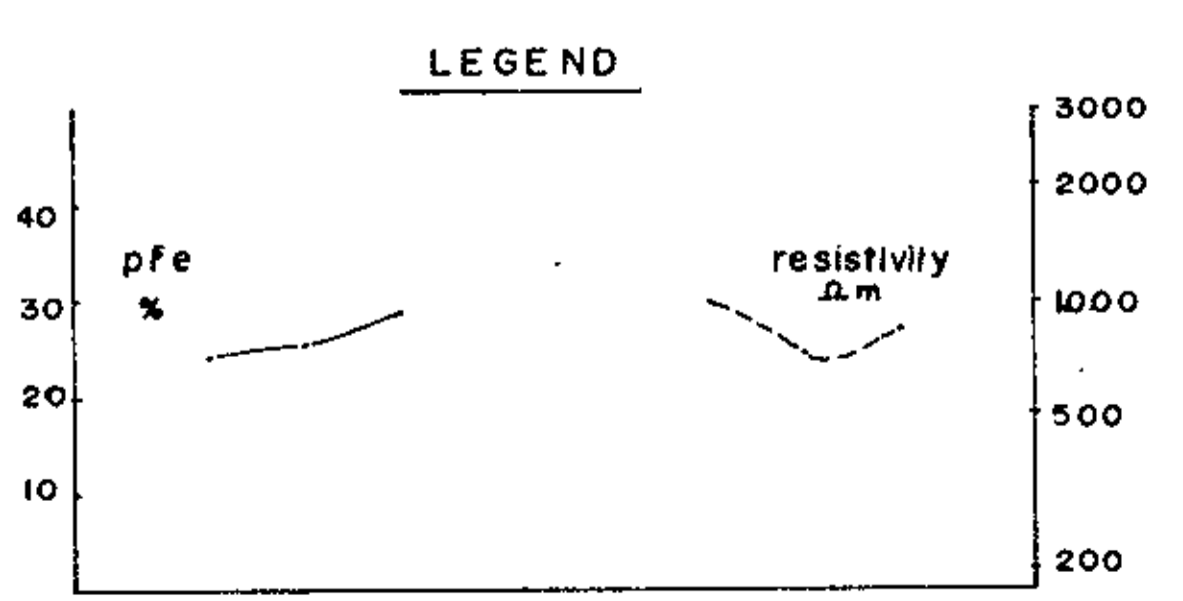
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Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 5809 MAP 14

FIGURE 3

<b>PERCENT FREQUENCY EFFECT</b>	
ELK PROPERTY PROJECT C415 CHEVRON STANDARD-MINERALS STAFF	
DIPOLE-DIPOLE $a = 400'$ $n = 1$ 0.3 - 10 HZ SABRE 21-1 450 W	SCALE 1" = 800' CONTOUR INTERVAL 2% MAURO G. BERRETTA AUGUST 1975



M-15 5809



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 NO. 5809 MAP 15

FIGURE 4

I.P. PROFILES	
ELK PROPERTY PROJECT C415	
CHEVRON STANDARD - MINERALS STAFF	
DIPOLE - DIPOLE a = 400' n = 1 0.3 - 10 HZ SABRE MK 21-1 450 W	PERCENT FREQUENCY EFFECT (%) RESISTIVITY (OHM-METRES)
<i>Mauro G. Berretta</i> MAURO G. BERRETTA AUGUST 1975	