

DATA INVOLVED IN DRILL HOLE  
SELECTION - May 75

Elk.

861203

DDH 76-1 ~~36W 8N~~ 37+50W 8+00N  
- 50° TO N.E.

REASONS FOR SELECTION

GEO CHEM { Cu HIGH SIGNIFICANT SIZE  
          { Sr LOW  
          { Mo HIGH

PHOTO { ADJACENT TO STRONG LINEARITY SHOWN  
          { ON AIR PHOTO. FAULT?

GEOPHYSICS E.M. NO DATA MINOR CHANGE IN  
MAG. CLOSE TO A<sub>x</sub> TOTAL INTENSITY  
POSSIBLE CONTACT OF FORMATIONAL CHANGE  
OR FAULT.

I.P.

P.F.E 15-20% INDICATING 3-5% SULPHIDES

RESISTIVITY 200-300 Ω m FRACTURING?

S.P. > 1 mV DEEP OVERBURDEN?

RINGED BY HIGHER VALUES

WATER NEARBY

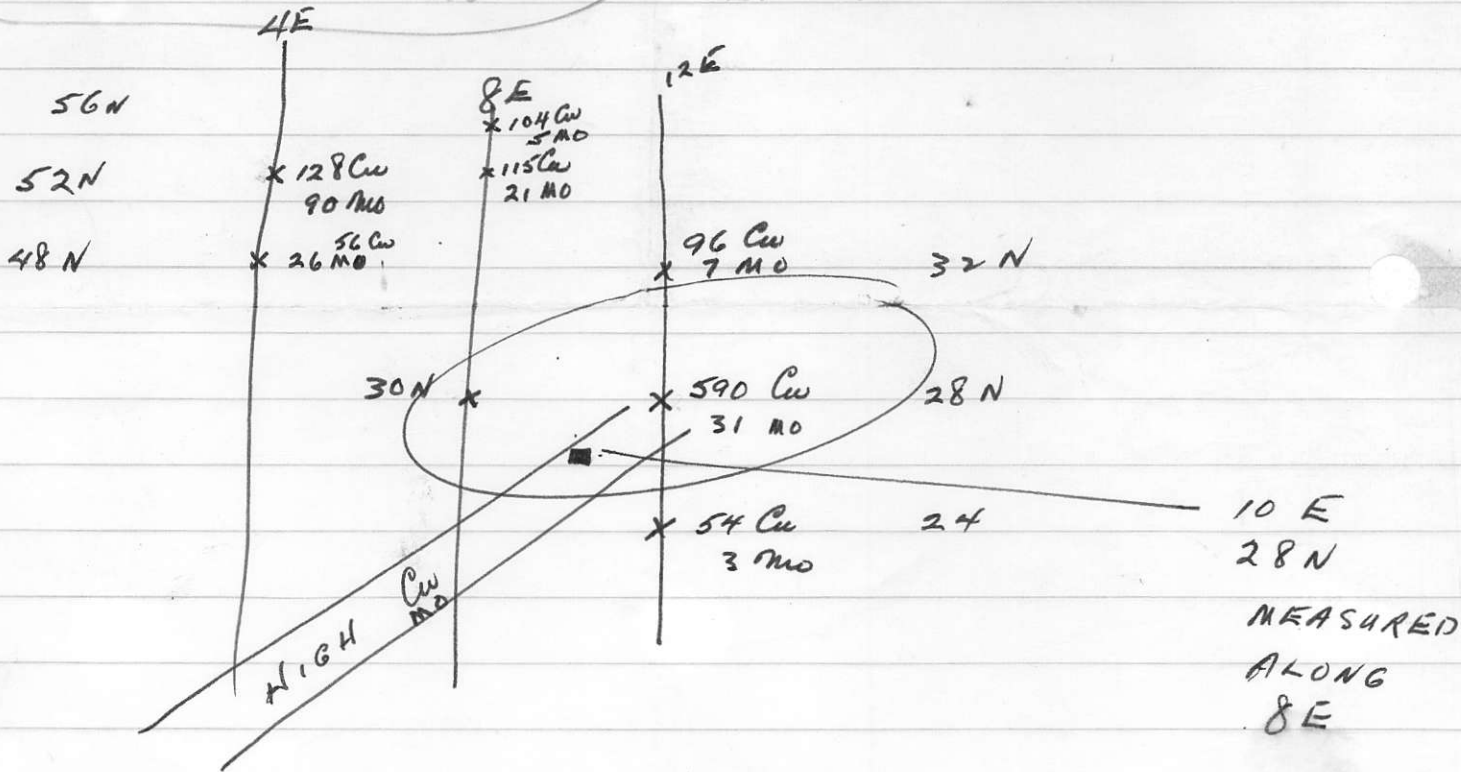
TIMBER NEARBY

COLLAR AREA LEVEL

$52 N$   $B_g$  ATTITUDE  
 4E 50-52 N N USE  $-70^\circ$  DDH 76-3

8E 26 N ~~N USE~~  $50^\circ$  DDH 76-4

12E 28N CENTRE VERTICAL



DDH	76-1	76-2	76-3	76-4	76-5
LOCATION	37+50W 8+00N	44+00W 9+00N	4+00E 51+00N	11+00E 27+00N	27+35W 3+00S
DIRECTION	N 45 E	N 45 E	N 45 E	N 45 E	N 45 E
DIP	-50°	-70°	-60°	-60°	-50°
OVERBURDEN	23'	25'	21'	17'	55'
DEPTH	483'	377'	386'	368'	375'
CORE BOXES USED (25')	20	16	16	15	14
UNFILLED	19'	24'	21'	18'	21'
REPORTED CORE LOST			11.5'	12'	9'
HORIZONTAL	310'	128	192	185	240
VERTICAL	386	354	335'	320	288
SHARP BEDDING(S) CONTACT	26° AT 388'			27° AT 181', 18° AT 313'	

① ANOMALY BEST TARGET

- structure
- magnitude of I.P. (740)
- ringing of SP. Hi's around Low.

→ Cu geochem.  
Sr



Note

Resistivity Low area  $\Rightarrow$  pyritized voids to Cu  
PFE HIGH possibly Hi. Fractured.

② see you later George!

Good luck with your drilling!

Mans will be in touch with  
you shortly. - Day

DDH 76-2

44W ~~24~~ 10N

REASONS FOR SELECTION

GEOCHEM Cu HIGH  
Sr  
Mo HIGH.

PHOTO. ADJACENT TO LINEARITY

GEOPHYSICS

MAG. HIGH

E.M.

I.P. PFE > 40% HIGH 10-13% SULPHIDES

RESISTIVITY 200  $\Omega$ m LOW

S.P. > 5mV LOW

PROFILE OF 48W

INDICATES HIGH SULPHIDES AT DEPTH <sup>CN</sup>(10N) (200')

RESISTIVITY SAME " " "

AS AT 100'

48E  
24S

CW 220  
PFE 11

ZN 320

HIGH RESIST  
EDGE OF DYKE?

56E  
24S

CW 200  
PFE 12

ZN 270

LOW RESIST



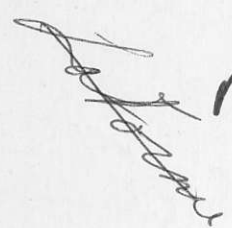
32E  
16N

CW 218  
PFE 20

1000'

928-3142

MO 10  
RESIST LOW



*McQuinn*  
Desk CP

DDH 72-1

76-1

76-2

76-3

76-4

76-5

27W 35  
26W 45

LOCATION	35E 12+50 S	37+50 W 8+00N	44W 9N	4E 51N	11E 27N	28W -820
<b>GEOCHEM</b>						
Cu	120	> 400 PPM	> 400	128	590	> 400 PPM
<del>Cu</del> <del>Cu-Cx</del>	5	8.7	4	3.7	4.3	9.4
Mo	4	LOW 2	3	90	31	LOW 3
Zn	200	LOW 78	100	100	100	LOW 110
SR	300	200	275	200	250	291
Rb/ SR	75	HIGH 870	150	100	70	LOW 106
Sr/ Ba	45	4	31	47	44	— 95
<b>GEOPHYS</b>						
MAG						
E.M.	—	—	—	—	—	—
I.P						
Pfe	14	16%	40	20	19	16%
RESIST	< 500	< 300	200	200	330	> 400
S.P.	NO DATA	1 MV	< .5 MV	NO DATA	NO DATA	1 MV

	DDH 72-1	72-2	72-3	72-4
	35E 12+50S	1+75W 0+50S	28+25W 17+15N	31E 8S
Cu	120	< 90	90	150
$\frac{Cu}{CuEX}$	5	NO DATA	4	6
Mo	4	N.D.	<del>2-8</del> N.D.	5
Zn	200	< 100? NO DATA	< 100?	320
Sr	300	NO DATA	200	100
$\frac{R^+}{S^+} \times 100$	75	NO DATA	165	174
$\frac{S^+}{Ba^+} \times 100$	45	NO DATA	34	26
MAC				
EM				
I.P.				
PFe	14	NO DATA	15	16
RESIST	< 500	NO DATA	500	< 500
S.P.	NO DATA	> 5	NO DATA	NO DATA



COPPER

ZINC

Mo

76-3

DDH 76-1

Cu  
67

SP

65 Mo

75

82

39'

89

106

133 Cu

205

260 Mo

235

68'

273 Mo

249

267

273

352

358

367

69

378

396

421

465

?

	28 W 0	24 W 45	DDH 76-1	
<u>Cu</u>	✓ 9.4	1.7	✓ 8.7	✓
CuX				✓
SR	LOW	LOW	LOW	✓
Cu	> 400	104	> 400	✓
Mu	LOW	HIGH	LOW	✓
Zn	LOW 170		LOW 78 <del>110</del>	✓
Rb/SR	LOW 100	HIGH 408	HIGH 870	X
M.A.C.	—	—	—	
P.F.E	16	13	16	✓
RESIST	> 400	> 600	< 300	✓
S.P.	1 mV	$\frac{1}{\mu}$	1 ma	✓

# EVALUATION

	DDH 72-1 (34E 13S)	DDH 72-4 (31E 8S)	DDH 76-1 (37+50W 8N <del>36W 8N</del> )	DDH 76-2 44W 10N
Cu RB SR	100 PPM	> 100 PPM LOW	> 400 PPM HIGH HIGH	> 400 PPM —
Mo	PERIPHERAL	HIGH	PERIPHERAL	HIGH
Zn	PERIPHERAL	HIGH	—	—
PHOTO	LINEARITY 700' E		LINEARITY 200' W	LINEARITY 500' E
EM	—	—	—	—
MAG. P.P.	< 5600 TO > 5650 VARIED	< 5600 TO > 5650 VARIED	MIND CHANGE < 5650 TO > 5650 TOTAL INTENSITY	LOW < 5600
PFE	14%	> 14%	16%	40%
RESIST	500 Ω m	500 Ω m	< 300 Ω m RINGED BY HIGHER VALUES 1.5 mV	200 Ω m
SP	—	—		< 1 mV DRILLING TOWARDS HIGHER VALUES
	DDH 76-3 4E 51N <del>4E 51N</del> 128	DDH 76-4 (19E <del>28N</del> 27N) 590	DDH 76-5 (24W 4S) 430 HIGH HIGH	
Cu RB SR				
Mo	90	31	HIGH	
Zn	<del>HIGH</del>	HIGH	—	
PHOTO	—	—	LINEARITY 100' SW	
EM	—	—		
MAG	—	—		
PFE	18%	19%		
RESIST	200 Ω m	330 Ω m		
SP	.4 mV	2 mV		

28W

24W

35

35

55

65

Cu  
Pee  
5x  
Zn

anywhere

27W — 24W.

anywhere

anywhere

26W  
45

P.

Pee

28 W

26 W

RESIST

28 W

25 W

45

55

26

Cu  
Cu Ek

28

27W  
45

00H

~~76-2~~

28W 45

REASONS FOR SELECTION

GEOCHEM { Cu HIGH  
Sr LOW  
Mo HIGH.

PHOTO { ADJACENT TO STRONG LINEARITY  
E.M. NO DATA.

GEOPHYSICS { MAC. ADJACENT TO A MINOR CHANGE  
IN TOTAL INTENSITY

I.P.

P.F.E. 20% INDICATING ~5% SULPHIDE

RESISTIVITY 350  $\Omega$ m FRACTURING?

S.P. ~1.1 mV OVERBURDEN?

RINGED BY HIGHER VALUES

VERTICAL

12 E 28 N

Cu	Mo	RESIST	Pfe
590	31	330	19

~~ANN~~ HIGH  
31% at  
44-48N

4 E 52 N

Cu	Mo	RESIST	Pfe
128	90	230	19

N 45° E - 60°

	RESIS	P.F.R	CW	M 0	R/SR	SR BA
4E 52N	231 $\Omega$ m	18	128	90		
48N	< 200 $\Omega$ m	31				
50N	200	<del>22</del>	56	26		
56N	200	22				✓
32N		16				✓
30N		?				✓
12E 28N	256 $\Omega$ m	18	590	31		
52N	200	18				✓
56N	200	18				✓
<del>50N</del> 50N	200	22%				
		<del>22%</del>				

8E 24 S.

56E 32 S. > 5600 x

48E 29 S Low < 5550 x  
30 S

56E 28 S > 1000-5m

48E 26 S > 1000-5m

56E 28 S 2 mV

48E 28 S 2 mV

52E 28 S 3 mV  
24 S

52E 24 S  
32 S

CW > 600  
400  
200  
200

56E }  
48E } 24 S

CW

Mo

Zn

PERIPHERAL

Sr

56

~~48-64E~~  
~~48E 24 S~~  
~~54E 26 S~~

CW 200-600 ppm

~~24-28 S~~

Zn PERIPHERAL

22-26 S.

Mo

Sr

Mag HIGH 5650 x

EM.

30 S

PFE 5632

4-12 E

8E 40 N



# CHEVRON STANDARD LIMITED

FILE \_\_\_\_\_ BY \_\_\_\_\_ PAGE 1 OF 3  
PROJECT ELK C415 DATE 26 Apr. 76  
SUBJECT DRILLING RECOMMENDATIONS

Abandoned on basis of '76 I.P. results.  
① AREA # 2. (Refer to 2 profiles through 52E, 32S)

Recom: Collar DDH 76-1 at 52E, 32S  
Incline hole @  $-70^\circ$  to NE

## Interpretation:

This site is one of the few which combines high Cu with high P.F.E. In addition the ratio of immobile to mobile Cu is high, Rb/Sr ratio is slightly anomalous, and the area is suitably complex structurally.

On the negative side the P.F.E. anomaly overlies erratic magnetic values, and could therefore be at least partly due to magnetite or pyrrhotite.

A possible structural interpretation is a Cu-rich intrusive stock, at a depth of 100 to 300 feet. The peripheral Zn highs help support this theory; also the high resistivity.

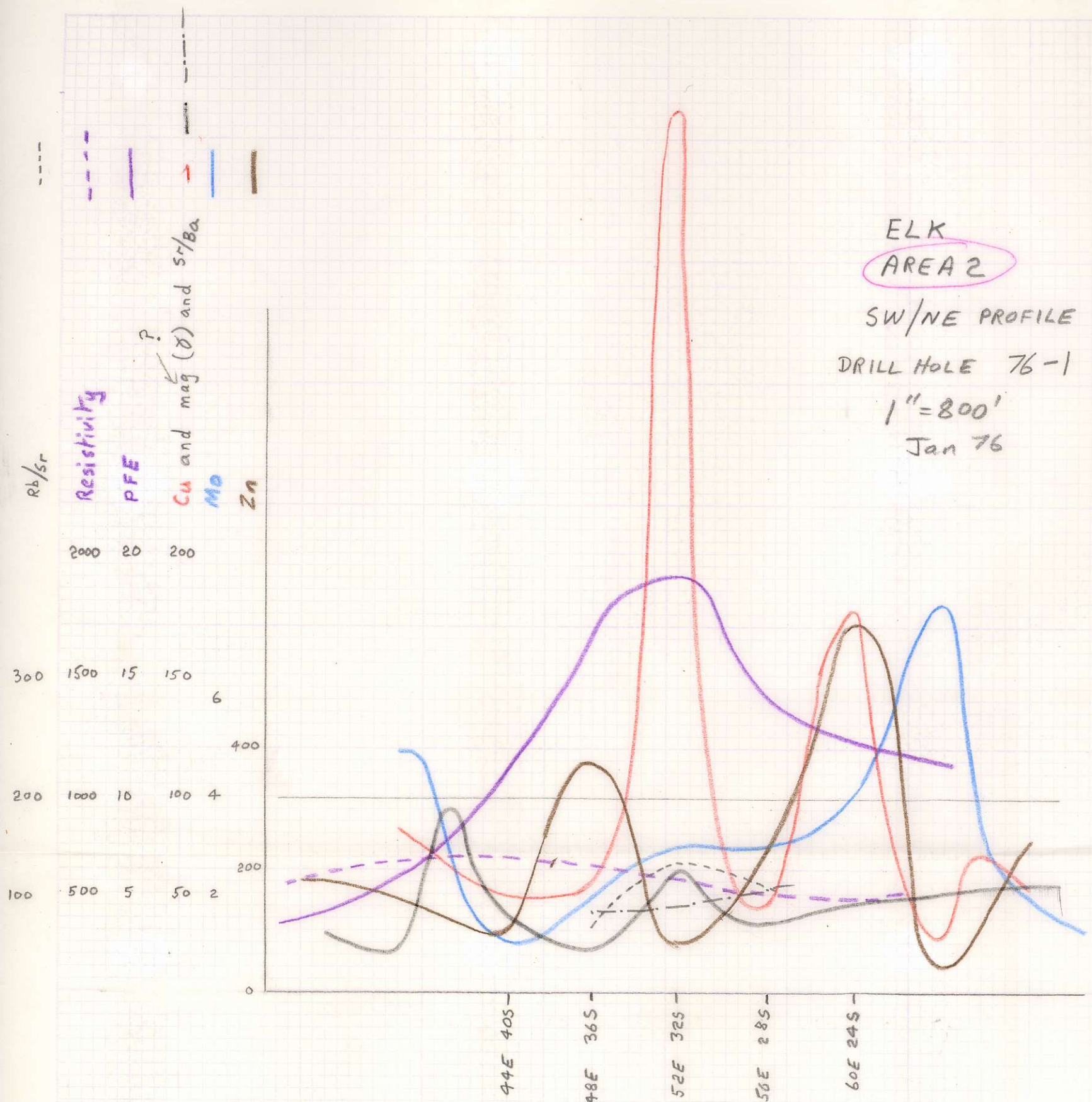
## Depth of Hole:

Keeping in mind that the "centre of response" of the I.P. is at a depth of 200 feet, we should not go beyond 400 feet if there is no encouragement, ~~and~~ i.e. no visible Cu, no bititic alteration. Similarly, more than 100 feet of coarse grained intrusive would be rather discouraging.

With some encouragement, the hole could go up to 600 feet, but to go further in order to possibly locate the rhyodacite, is not justified.

## Second Hole in Area 2:

Your choice. Probably not valid unless at least moderate encouragement from 76-1.



ELK  
 AREA 2  
 SW/NE PROFILE  
 DRILL HOLE 76-1  
 1" = 800'  
 Jan 76

INTERPRETATION



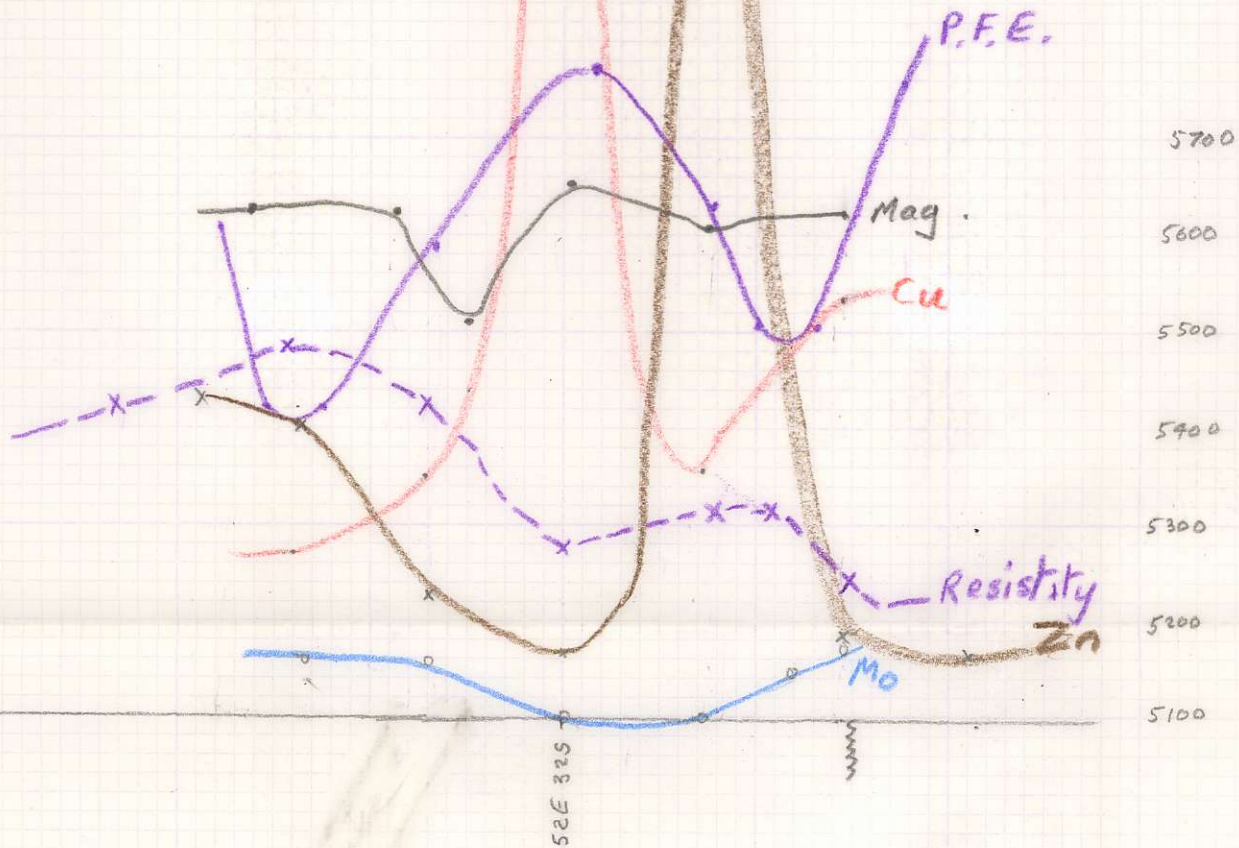
possible bedding pt. And. Rhyo

- 70° to NE

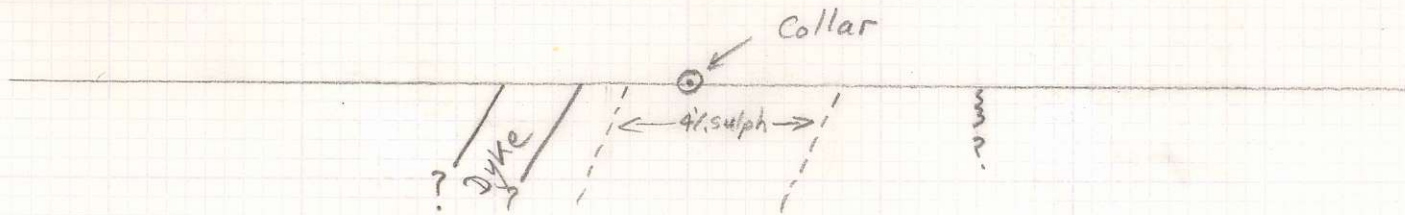
ELK  
AREA 2

SE/NW PROFILE  
DRILL HOLE 76-1

1" = 800'



INTERPRETATION



# CHEVRON STANDARD LIMITED

FILE

BY

PAGE 2 OF 3

PROJECT

ELK

DATE

SUBJECT

DRILLING RECOMMENDATIONS

## ② AREA 3 (Refer to rough profile on line 40w)

Recom: 2 holes, one near each end of the anomalous area. Final choice of positions must depend on new I.P. and basal till data.

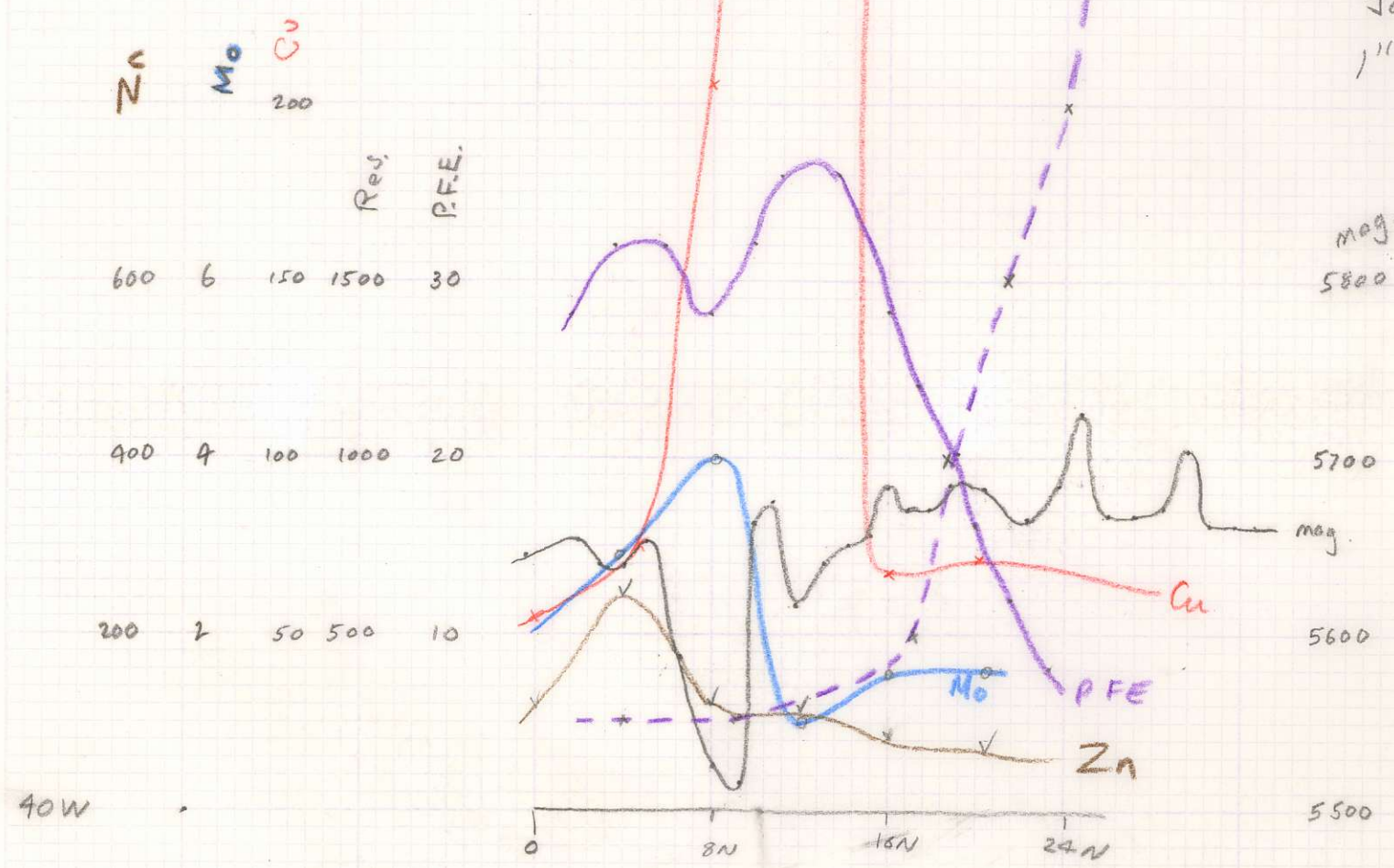
### Interpretation:

The apparently high degree of structural complexity shown by a number of converging lineaments, makes theorizing difficult. For example, Cu data alone suggests a 1500 foot horizontal offset on the NE lineament, but this is not well supported by the mag data. The I.P. data shows an almost certain change in rock type, correlating well with the major NW airphoto lineament.

The sketch profile drawn along line 40w indicates that this alone would make a good target, unless the new data provides a better location. The somewhat flattened dips on the bedding (which should be about  $-55^\circ$ ) and the interpreted fault (which might be  $-70^\circ$ ), are a consequence of the profile not being perpendicular to either feature.

The principal reason for a second hole on the anomaly, aside from its length, is the different characteristics at each end. The E. end has, in addition to good Cu values, anomalous Mo, and anomalous low Sr, so it should certainly be tested independently.

ELK  
AREA 3  
 ROUGH PROFILE  
 Jan 76  
 1" = 800'



INTERPRETATION:

8% dissem. sulphides

low % sulphides,  
 either unfractured volcs.  
 or intrusive

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FILE

BY

PAGE

3

OF

3

PROJECT

ELK

DATE

SUBJECT

DRILLING RECOMMENDATIONS

## ③ AREA 1

Recom: This needs at least one drill hole, and preferably two. On the basis of present data, the first choice would be at the N. end, where there is some Cu correlation. However new I.P. and basal till data may alter the picture radically.

Interpretation:

Not possible. The presence of the "rhyodacite" may be significant.

## ④ OVERALL PROGRAM

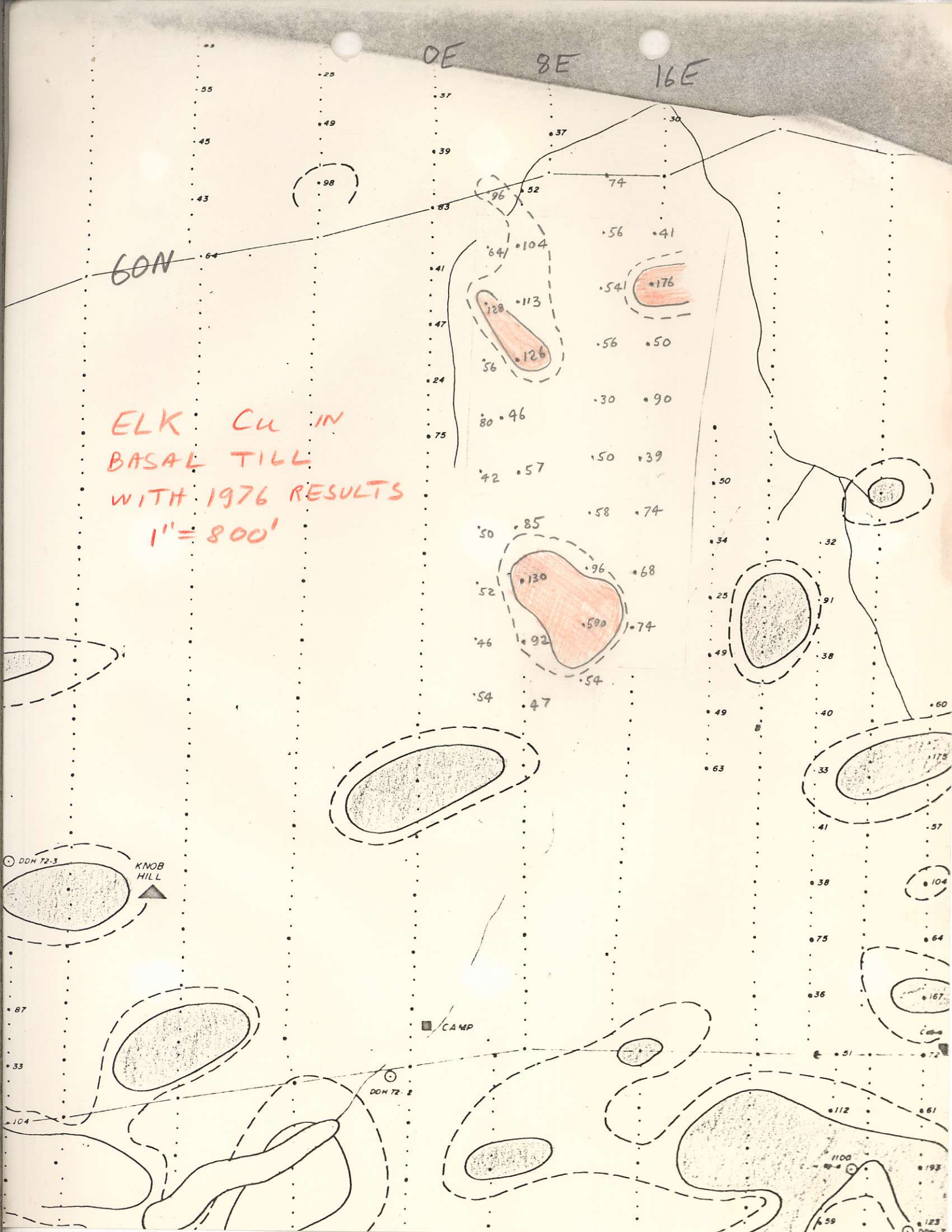
The drilling should almost certainly be restricted to 2000 feet, and the I.P. to 10 line miles. Even at this we will almost certainly overspend the budget. (On the other hand, the drilling could not be less than 2000' without paying some penalty).

D. A.

0E 8E 16E

60N

ELK CU IN  
BASAL TILL  
WITH 1976 RESULTS  
1" = 800'



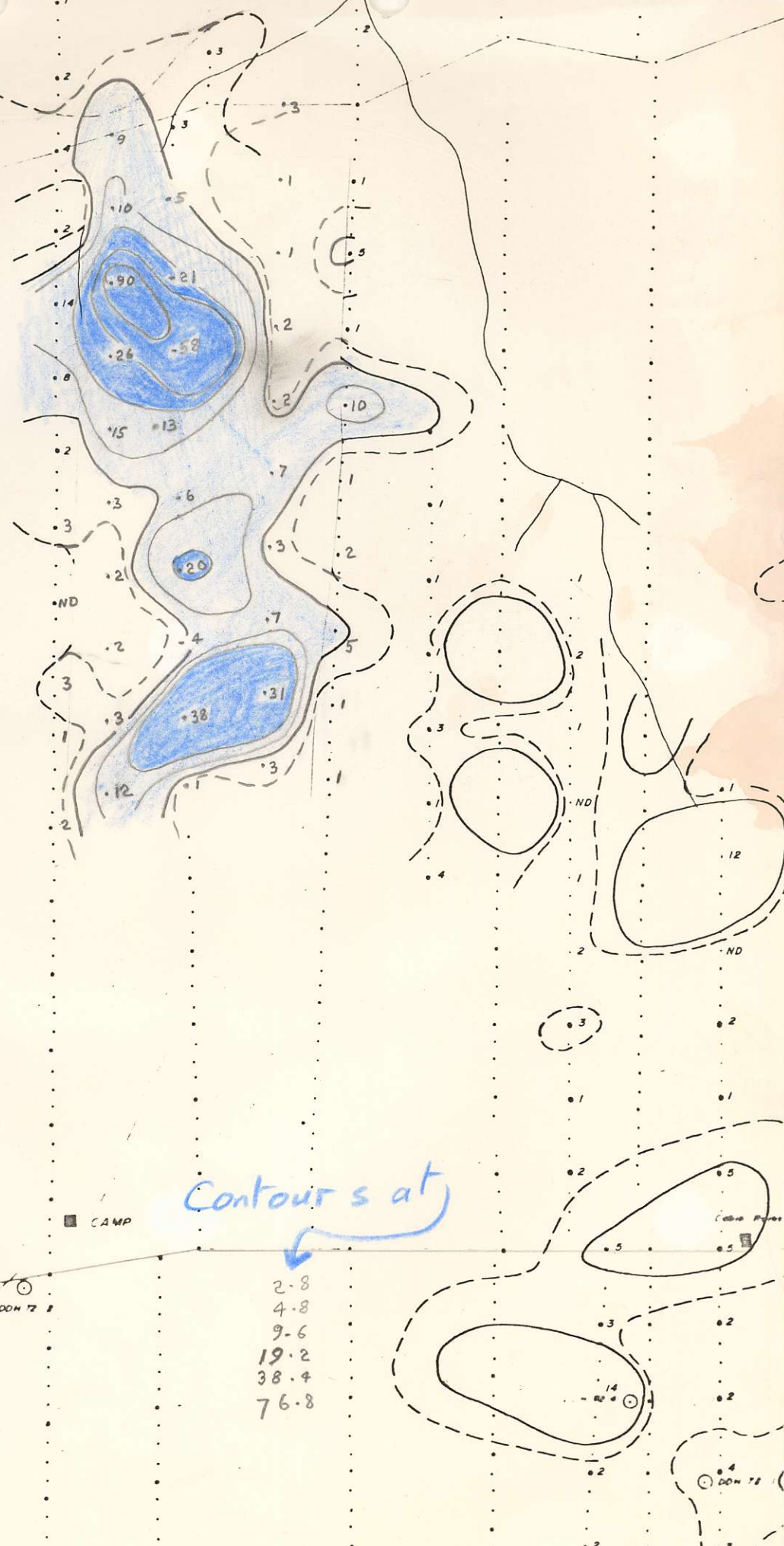
0E 8E 16E

60N

# ELK

M<sub>0</sub> IN BASAL TILL  
INCLUDING 1976  
RESULTS

1" = 800'



72-3  
KNOB HILL

CAMP

Contours at

DOM 72 3

Centre Point

DOM 78 1



OE 8:E

124 60N

ELK  
Zn in BASAL TILL  
INCLUDING 1976  
RESULTS.  
1" = 800'

KNOB  
HILL  
▲

CAMP

Cable Pylon

DOM 72-2

158

195

105

174

710

134

134

210

178

195

214

210

