

GEOCHEMICAL SURVEY
LUCKY JOE OPTION

Lat. $63^{\circ} 35'$ Long. $139^{\circ} 30'$

J. McClintock May 20 to July 9, 1978

115-0-11 & 12



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 \$19,600.00 DBC.

[Signature]
Resident Geologist or
Resident Mining Engineer

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

[Signature]
B. R. BAXTER
Supervising Mining Recorder

[Signature]
Commissioner of Yukon Territory

090406

GEOCHEMICAL SURVEY
LUCKY JOE OPTION



1. INTRODUCTION Lat. 63°35' Long. 139°30'
 2. LOCATION J. McClintock May 20 to July 9, 1978
 3. METHODS
 4. SAMPLES
 5. INTERPRETATION
 6. CONCLUSIONS AND RECOMMENDATIONS

Complete List of Claims

<u>Claims</u>	<u>Numbers</u>	<u>Due Dates</u>
B 1-12	Y56956-67	November 10, 1982
B 15-18	Y56970-73	" " "
BJB 1-8	Y99779-86	" " "
BJB 9-17	Y99868-76	" " "
SUNEP 1-14	Y99745-58	" " "
SUNEP 18-24	Y99759-65	" " "
SUNEP 26-34	Y99766-74	" " "
ASH 1-44	Y99883-926	" " "
PAX 1-10	Y9926-36	" " "
TAR 1-6	YA29800-05	" " "
MAD DOG 1-12	YA29806-17	" " "
EXTRACT 1-8	YA31216-23	" " "
BUSHED 1-2	YA31224-25	" " "

TABLE OF CONTENTS

	<u>Page No.</u>
1. INTRODUCTION	1
2. LOCATION AND ACCESS	2
3. GEOLOGICAL SETTING	2
4. SAMPLING, SAMPLE PREPARATIONS AND ANALYTICAL PROCEDURES	2
5. INTERPRETATION OF RESULTS	3
6. CONCLUSIONS AND RECOMMENDATIONS	4
7. QUALIFICATION OF STAFF MEMBER	6

TABLE I	
THRESHOLD AND ANOMALOUS METAL VALUES	
IN LUCKY JOE CREEK AREA	4

~~APPENDIX I~~
~~SCHEDULE OF CLAIMS~~

APPENDIX II
GEOCHEMICAL RESULTS

LIST OF ILLUSTRATIONS

	<u>ILLUSTRATION NO.</u>	<u>SCALE</u>
LOCATION MAP	L-6385	1:50,000
SAMPLE LOCATION MAP	GC-8615	1:5,000
GEOCHEM MAP SHOWING CU SOIL RESULTS IN PPM	GC-8614	
GEOCHEM MAP SHOWING PB SOIL RESULTS IN PPM	GC-8613	1:5,000
GEOCHEM MAP SHOWING ZN SOIL RESULTS IN PPM	GC-8612	1:5,000

GEOCHEMICAL SURVEY
OF THE
LUCKY JOE OPTION

LUCKY JOE CREEK AREA, Y. T.

November 1978

J. McClintock
R. S. Hewton

1. INTRODUCTION

In the spring of 1975 Rio Tinto Canadian Exploration Limited acquired by option from Silver Standard Mines Ltd. (NPL), a block of 16 mineral claims, the "B" claims, located in the Dawson area, Yukon Territory. Since acquisition of this property 129 mineral claims, the SUNEP, BJB, ASH, PAX, TAR, Mad Dog, Bushed and Extract claims have been staked peripheral to the "B" claims for protection purposes.

The "B" claims were staked in 1970 to cover a copper showing discovered by Silver Standard earlier that year. In 1970 and again in 1975 a soil sampling survey was carried out over the "B" claims, SUNEP and BJB claims. These surveys revealed a broad copper soil anomaly to exist on the property.

During the 1977 field season two additional soil sampling surveys, known as Grid II and Grid III, were carried out over the northern and northwestern portion of the property by Riocanex. Results of this survey revealed a broad area of anomalous copper values in soils on both grids. The copper anomaly on Grid III extended beyond the region sampled and therefore it was decided to extend the sample area of Grid III. Extension of Grid III was carried out during the period May through July 1978 under the supervision of Mr. John McClintock.

The results of the 1978 survey are discussed in the following report.

2. LOCATION AND ACCESS

The claim block is situated in west central Yukon within map sheet 115-0-12. The claims overlie the head waters of Lucky Joe Creek approximately 48 km south of Dawson City and 8 km east of the Yukon River. Centre of the property occurs at Latitude 63°36' and Longitude 139°31'.

The claims are shown on the accompanying drawing L-6385 and are described in detail in the Schedule of Claims, Appendix I.

Currently the property is only accessible by helicopter. The closest helicopter is a Bell 206B, operated by Trans North Turbo Air out of their permanent base at Dawson City.

A 36 km long unimproved cat trail leads from the mouth of Quartz Creek to the centre of the property. This trail could be improved to allow access by tracked vehicle to the property.

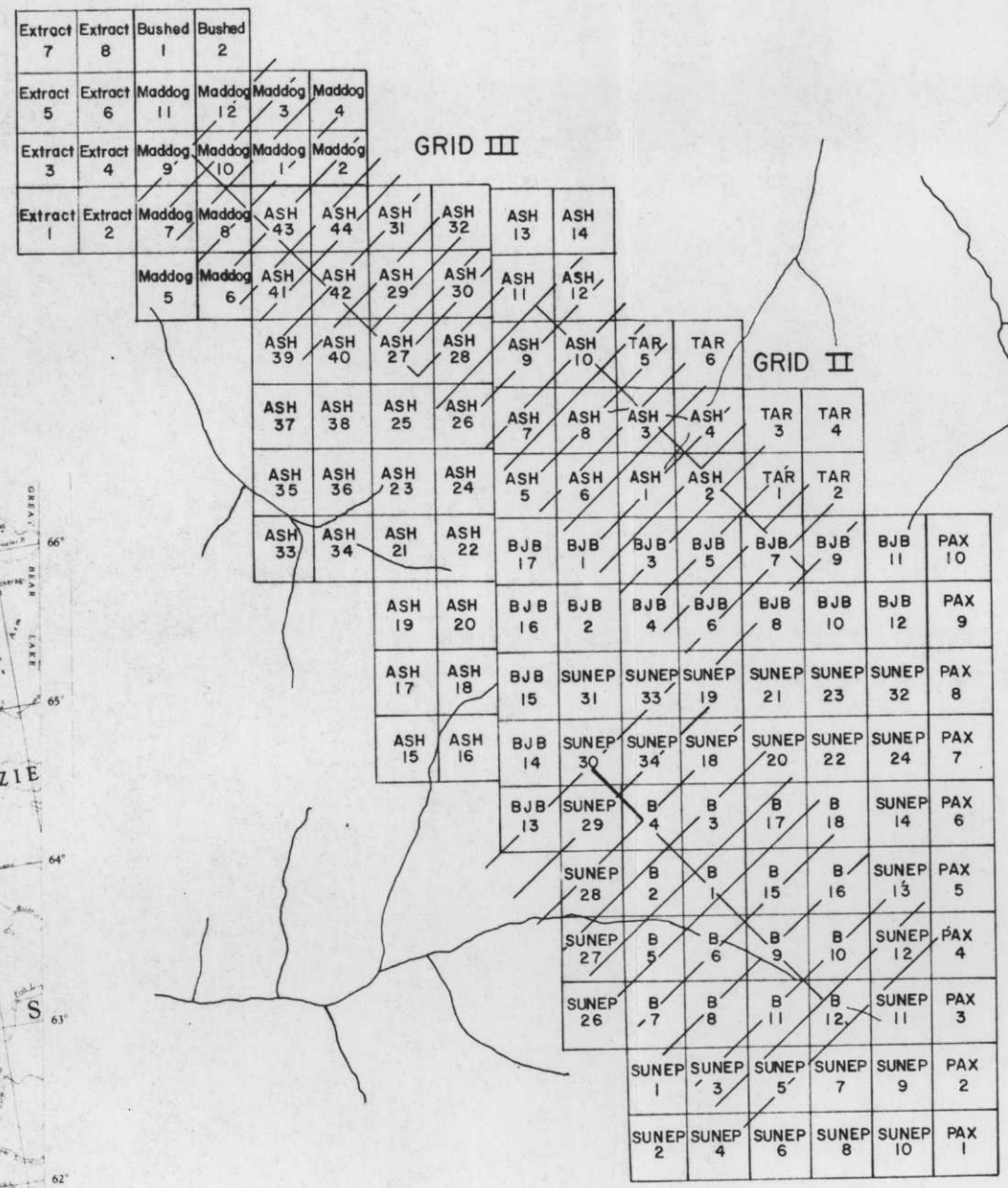
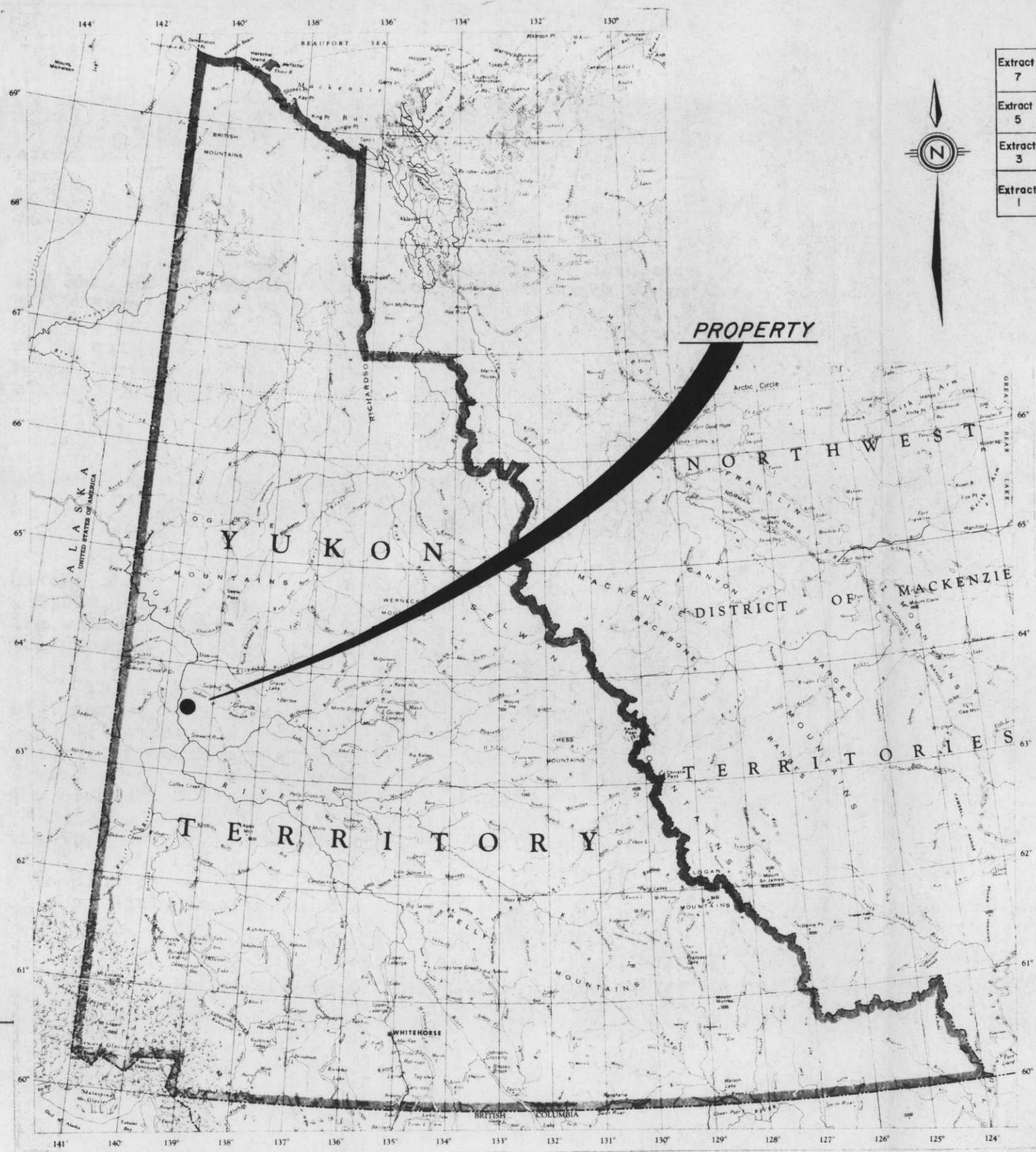
3. GEOLOGICAL SETTING

The area was mapped at a scale of 1 inch to 4 miles by the G.S.C. in 1934 and 1935 (G.S.C. Map 711A; Bostock, 1942). This work shows the property to be situated over a northsouth trending belt of Yukon Group gneiss and schist, sandwiched between two large bodies of gneissic granite. Outcrop and float noted during the 1978 survey suggests this work to be reasonably accurate.

4. SAMPLING, SAMPLE PREPARATION AND ANALYTICAL PROCEDURE

The soil sampling programme was carried out by a three-man crew working from a base camp located in the centre of Grid III. A total of 276 soil samples were taken.

.../3



SCALE 1:50,000

N.T.S. 1150/11,12

RIO TINTO CANADIAN EXPLORATION LTD.

LUCKY JOE OPTION

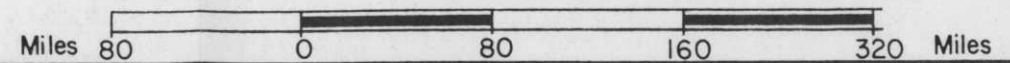
PROPERTY LOCATION

JULY 1976

J.M. /y.m.

DWG. L.- 6385

SCALE One Inch = 80 Miles



Soil samples were collected at 50 metre intervals along 200 metre spaced northeast-southeast trending lines. Samples were taken from the "B" soil horizon. Where "B" horizon material could not be obtained, no sample was collected and the sample site marked as N.S.

All samples were placed in Kraft paper envelopes and shipped to the Riocanex Laboratory in North Vancouver, B.C. Samples were oven dried at approximately 60°C. Dried samples were sieved through 80-mesh bolting cloth and oversized material discarded. Analysis was carried out on the minus 80-mesh fraction by atomic absorption spectrometer after digestion with hot nitric and perchloric acid.

All samples were analysed for Cu, Pb and Zn.

5. INTERPRETATION OF RESULTS

The results of the soil sampling programme are shown on the three accompanying drawings all at the scale of 1:5,000. Sample locations are shown on drawing GC-8615. The values in ppm obtained for the elements Cu, Pb and Zn are shown on drawings GC-8612 to GC-8614.

Threshold and anomalous levels for each of the metals of interest have been derived from the results of the 1975 and 1977 soil sampling and are shown in Table I. The statistics were carried out on approximately 1,243 samples. Previous work in this part of the Yukon has shown all of the elements of interest to show a log normal distribution. Therefore, statistical manipulations were carried out on the logs of values. Threshold and anomalous levels were taken at the mean plus two standard derivations and the mean plus three standard derivations respectively, for each of the metals investigated.

.../4

Table I

THRESHOLD AND ANOMALOUS METAL VALUES
IN "B" HORIZON SOILS
LUCKY JOE CREEK AREA

<u>Metal</u>	<u>Threshold Value</u>	<u>Anomalous Value</u>
Cu	124	152
Pb	38	52
Zn	140	198

(Data on the minus 80-mesh fraction; analysis on the atomic absorption spectrometer after digestion with hot nitric and perchloric acid.)

Analysis of the soil samples revealed the large and strong copper anomaly detected in 1977 survey to be little affected by the 1978 sampling. The main copper anomaly on Grid III is 1600 metres in length, has an average width of 250 metres and is very irregular in shape. Several smaller areas of anomalous copper values are present; however, with the exception of two areas, these copper in soil anomalies are generally restricted to one or two sample locations. The two remaining areas of anomalous copper values located on lines 800 W and 1000 W, although small, are still open to the northwest, and may indicate parts of a larger copper-soil anomalous area.

Both zinc and lead fail to show a concentration of anomalous values. Occasional sporadic high zinc and lead values do occur on Grid III; however, these anomalous values are generally separated by background values.

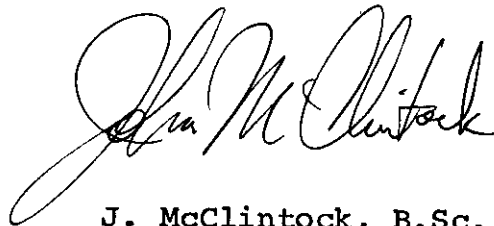
6. CONCLUSIONS AND RECOMMENDATIONS

The 1978 soil sampling survey closed off the previously open large copper-soil anomaly on Grid III and located two small, but still open copper anomalous areas in the western portion of the grid.

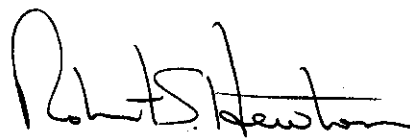
Additional work should concentrate on the main area of anomalous copper values and should include an induced

.../5

polarization survey and diamond drilling. The two small, but still open copper-soil anomalies located in the western portion of Grid III should be closed off by extension of the soil sampling grid to the west.



J. McClintock, B.Sc.



R. S. Hewton, P.Eng.

Vancouver
November 1978

JMcC:pr

	Sample	Cu	Mo	Pb	Zn
1.	813001.0	47		6	41
2.	813002.0	33		7	44
3.	813003.0	65		10	60
4.	813004.0	75		15	52
5.	813005.0	72		19	114
6.	813006.0	35		8	45
7.	813007.0	15		4	20
8.	813008.0	61		4	30
9.	813009.0	28		3	30
10.	813010.0	12		4	20
11.	813011.0	14		3	30
12.	813012.0	12		1	28
13.	813013.0	16		7	45
14.	813014.0	33		9	82
15.	813015.0	24		4	38
16.	813016.0	22		3	58
17.	813017.0	26		7	64
18.	813018.0	16		3	25
19.	813019.0	40		4	25
20.	813020.0	132		2	73
21.	813021.0	64		3	65
22.	813022.0	35		2	48
23.	813023.0	175		4	110
24.	813024.0	21		1	55
25.	813026.0	16		2	45
26.	813027.0	34		4	42
27.	813028.0	310		7	255
28.	813029.0	26		5	62
29.	813030.0	18		5	40
30.	813031.0	178		4	85
31.	813032.0	30		6	55
32.	813033.0	68		4	65
33.	813034.0	95		3	98
34.	813035.0	148		4	100
35.	813037.0	44		3	65
36.	813038.0	48		3	48
37.	813038.0B	26		2	35
38.	813039.0	20		3	50
39.	813040.0	64		3	60
40.	813041.0	75		4	85
41.	813042.0	58		1	40
42.	813043.0	14			30
43.	813044.0	8		3	25
44.	813045.0	58		8	48
45.	813046.0	52		4	44
46.	813047.0	44		8	54
47.	813048.0	47		7	59
48.	813049.0	42		7	57
49.	813050.0	81		12	104
50.	813051.0	19		11	62
51.	813052.0	17		12	75
52.	813053.0	15		9	124
53.	813054.0	13		8	85
54.	813055.0	105		18	83

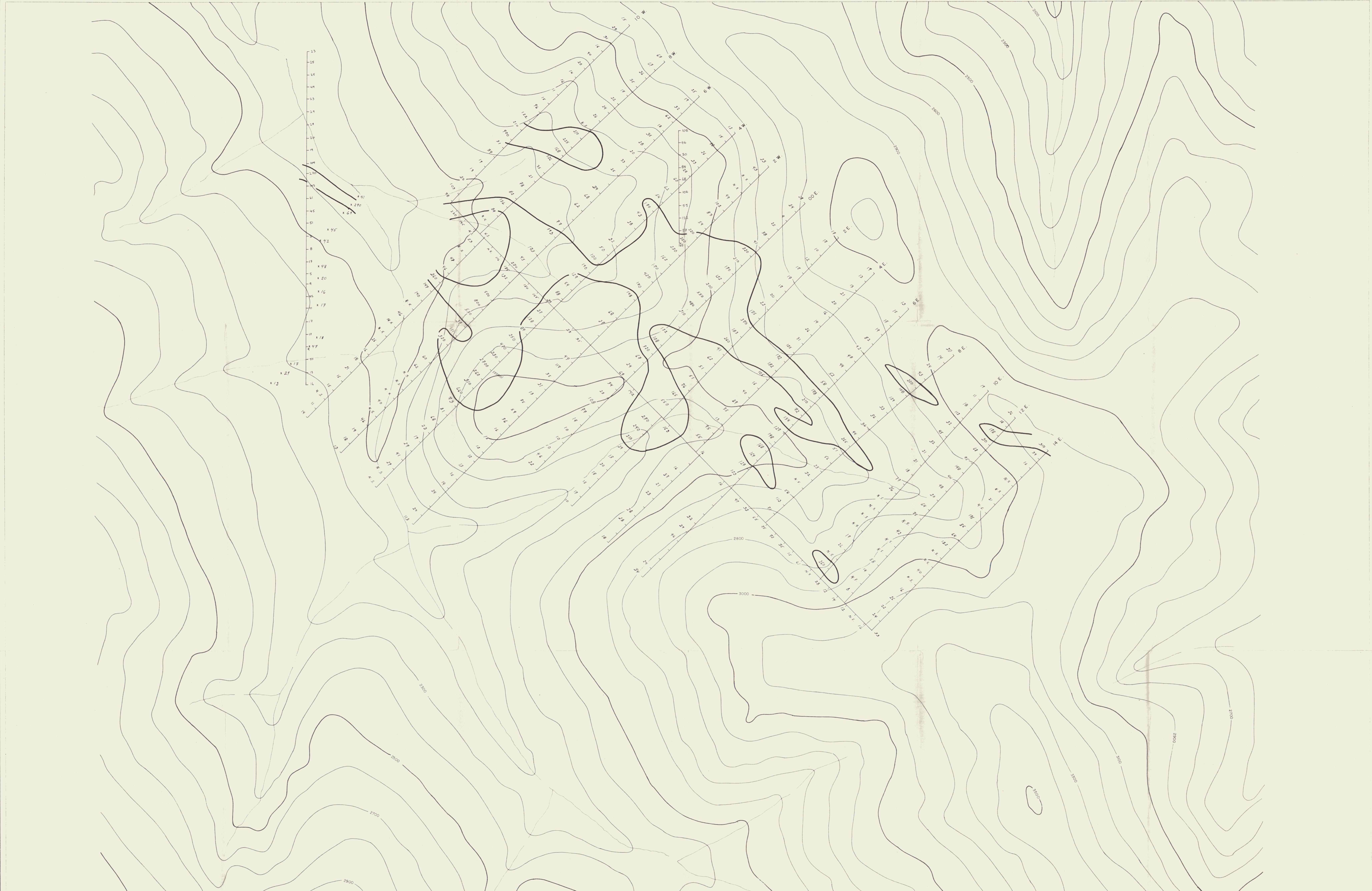
	Sample	Cu	Mo	Pb	Zn
55.	813056.0	31		13	115
56.	813057.0	26		20	72
57.	813058.0	14		7	96
58.	813059.0	16		9	68
59.	813060.0	20		10	72
60.	813061.0	21		12	92
61.	813062.0	13		10	86
62.	813063.0	13		16	178
63.	813064.0	19		21	280
64.	813065.0	135		11	62
65.	813066.0	22		4	74
66.	813067.0	20		6	74
67.	813068.0	17		7	116
68.	813069.0	19		33	305
69.	813070.0	17		47	182
70.	813071.0	12		6	72
71.	813072.0	10		10	120
72.	813073.0	17		11	110
73.	813074.0	20		56	225
74.	813075.0	73		5	36
75.	813076.0	81		17	205
76.	813077.0	68		67	100
77.	813078.0	23		20	110
78.	813079.0	19		23	70
79.	813080.0	27		13	64
80.	813081.0	41		10	76
81.	813082.0	29		22	66
82.	813083.0	13		3	47
83.	813084.0	18		5	52
84.	813085.0	19		7	56
85.	813086.0	42		13	132
86.	813087.0	40		5	80
87.	813088.0	62		4	28
88.	813089.0	116		5	60
89.	813090.0	118		6	52
90.	813091.0	145		4	94
91.	813092.0	220		6	94
92.	813093.0	38		5	58
93.	813094.0	103		7	85
94.	813095.0	20		6	46
95.	813096.0	13		5	40
96.	813097.0	19		4	55
97.	813098.0	39		6	102
98.	813099.0	31		7	100
99.	813100.0	185		5	72
100.	813101.0	900		9	124
101.	813102.0	210		4	72
102.	813103.0	122		4	75
103.	813104.0	96		3	82
104.	813105.0	15		4	36
105.	813106.0	11		4	38
106.	813107.0	16		3	60
107.	813108.0	14		6	44
108.	813109.0	20		3	48

	Sample	Cu	Mo	Pb	Zn
109.	813110.0	40		11	220
110.	813111.0	16		4	80
111.	813112.0	31		6	125
112.	813113.0	23		20	144
113.	813114.0	15		5	82
114.	813115.0	67		7	106
115.	813116.0	67		13	120
116.	813117.0	36		10	104
117.	813118.0	35		6	160
118.	813119.0	17		6	105
119.	813120.0	22		6	164
120.	813121.0	24		12	122
121.	813122.0	26		7	158
122.	813123.0	210		7	114
123.	813124.0	225		5	138
124.	813125.0	168		7	90
125.	813126.0	126		7	74
126.	813127.0	35		6	48
127.	813128.0	21		5	50
128.	813129.0	78		6	94
129.	813130.0	82		6	86
130.	813131.0	56		6	96
131.	813132.0	84		4	80
132.	813133.0	53		4	50
133.	813134.0	47		3	92
134.	813135.0	46		3	62
135.	813136.0	310		5	58
136.	813137.0	147		5	58
137.	813138.0	140		3	75
138.	813139.0	46		6	82
139.	813140.0	24		4	46
140.	813140.0	18		6	90
141.	813141.0	16		5	52
142.	813142.0	18		3	56
143.	813143.0	21		5	54
144.	813144.0	15		4	38
145.	813145.0	15		4	42
146.	813146.0	11		4	38
147.	813147.0	14		5	48
148.	813148.0	13		5	52
149.	813149.0	29		7	78
150.	813150.0	19		5	38
151.	813151.0	47		8	40
152.	813152.0	18		4	35
153.	813153.0	17		6	12
154.	813154.0	16		6	50
155.	813155.0	20		6	34
156.	813156.0	48		17	128
157.	813157.0	42		15	138
158.	813158.0	45		23	95
159.	813159.0	69		20	122
160.	813160.0	270		138	355
161.	813161.0	41		5	72
162.	813166.0	24		16	58

	Sample	Cu	Mo	Pb	Zn
163.	813168.0	24		9	62
164.	813169.0	113		8	46
165.	813171.0	1500		6	102
166.	813172.0	16		7	58
167.	813173.0	13		3	62
168.	813174.0	30		6	84
169.	813175.0	9		3	34
170.	813176.0	17		3	40
171.	813177.0	17	1	5	52
172.	813178.0	10		5	42
173.	813179.0	9		5	45
174.	813180.0	5		3	28
175.	813181.0	17		4	50
176.	813182.0	8	1	5	52
177.	813183.0	30	2	245	1080
178.	813184.0	51	3	10	135
179.	813185.0	145	2	10	85
180.	813186.0	61	3	12	54
181.	813187.0	143	5	8	82
182.	813188.0	270	3	5	225
183.	813189.0	104	4	7	88
184.	813190.0	19		6	70
185.	813191.0	20	2	4	68
186.	813192.0	29	1	5	68
187.	813193.0	29	1	2	58
188.	813194.0	23	1	2	58
189.	813195.0	49	1	4	58
190.	813196.0	25	2	1	58
191.	813197.0	25	1	3	42
192.	813198.0	23	1	4	52
193.	813199.0	430	26	10	58
194.	813200.0	95	4	15	55
195.	813500.0	71		7	37
196.	813501.0	113		15	45
197.	813502.0	58		7	38
198.	813503.0	32		4	64
199.	813504.0	23		7	138
200.	813505.0	56		7	62
201.	813506.0	51		8	42
202.	813507.0	265		6	162
203.	813508.0	44		6	52
204.	813509.0	36		4	50
205.	813510.0	36		4	38
206.	813511.0	33		4	42
207.	813512.0	129		7	58
208.	813513.0	108		17	172
209.	813514.0	220		9	210
210.	813515.0	43		8	158
211.	813516.0	24		5	108
212.	813517.0	14		6	36
213.	813518.0	20		8	40
214.	813519.0	19		7	44
215.	813520.0	11		9	42
216.	813521.0	18		7	68

	<u>Sample</u>	<u>Cu</u>	<u>Mo</u>	<u>Pb</u>	<u>Zn</u>
217.	813522.0	112		20	128
218.	813523.0	37		6	56
219.	813524.0	45		3	42
220.	813525.0	32		6	60
221.	813526.0	21		6	48
222.	813527.0	21		7	52
223.	813528.0	18		5	44
224.	813529.0	26		3	44
225.	813530.0	18		3	50
226.	813531.0	17		3	42
227.	813532.0	26		2	40
228.	813533.0	260		5	62
229.	813534.0	165		12	80
230.	813535.0	57		8	70
231.	813536.0	122		14	76
232.	813537.0	55		8	64
233.	813538.0	106		37	158
234.	813539.0	68		8	93
235.	813540.0	84		9	114
236.	813541.0	30		11	96
237.	813542.0	46		11	135
238.	813543.0	108		18	248
239.	813544.0	220		9	86
240.	813545.0	220		13	122
241.	813546.0	54		6	38
242.	813547.0	83		7	86
243.	813548.0	102		10	130
244.	813549.0	99		17	152
245.	813550.0	43		14	90
246.	813551.0	23		7	83
247.	813552.0	12		4	50
248.	813553.0	15		6	65
249.	813554.0	18		5	52
250.	813555.0	26		4	75
251.	813556.0	33		5	168
252.	813557.0	29		7	185
253.	813558.0	60		8	114
254.	813559.0	62		5	105
255.	813560.0	54		5	88
256.	813561.0	170		7	115
257.	813562.0	25		6	94
258.	813563.0	33		7	125
259.	813564.0	20		5	82
260.	813565.0	28		4	106
261.	813566.0	35		7	155
262.	813567.0	18		7	102
263.	813568.0	62		14	355
264.	813569.0	32		7	92
265.	813570.0	19		6	120
266.	813571.0	25		5	82
267.	813572.0	15		7	80
268.	813573.0	12		46	110
269.	813574.0	12		38	108
270.	813575.0	13		9	42

	<u>Sample</u>	<u>Cu</u>	<u>Mo</u>	<u>Pb</u>	<u>Zn</u>
271.	813576.0	15		8	66
272.	813577.0	14		9	44
273.	813578.0	132		9	72
274.	813579.0	170		13	92
275.	813580.0	210		15	55
276.	813581.0	320		17	155
277.	813582.0	41		9	42
278.	813583.0	38		11	125
279.	813584.0	25		9	88
280.	813585.0	9		6	22
281.	813586.0	34		7	48
282.	813587.0	28		3	75



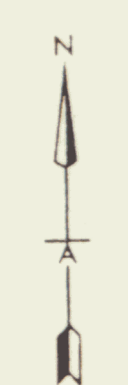
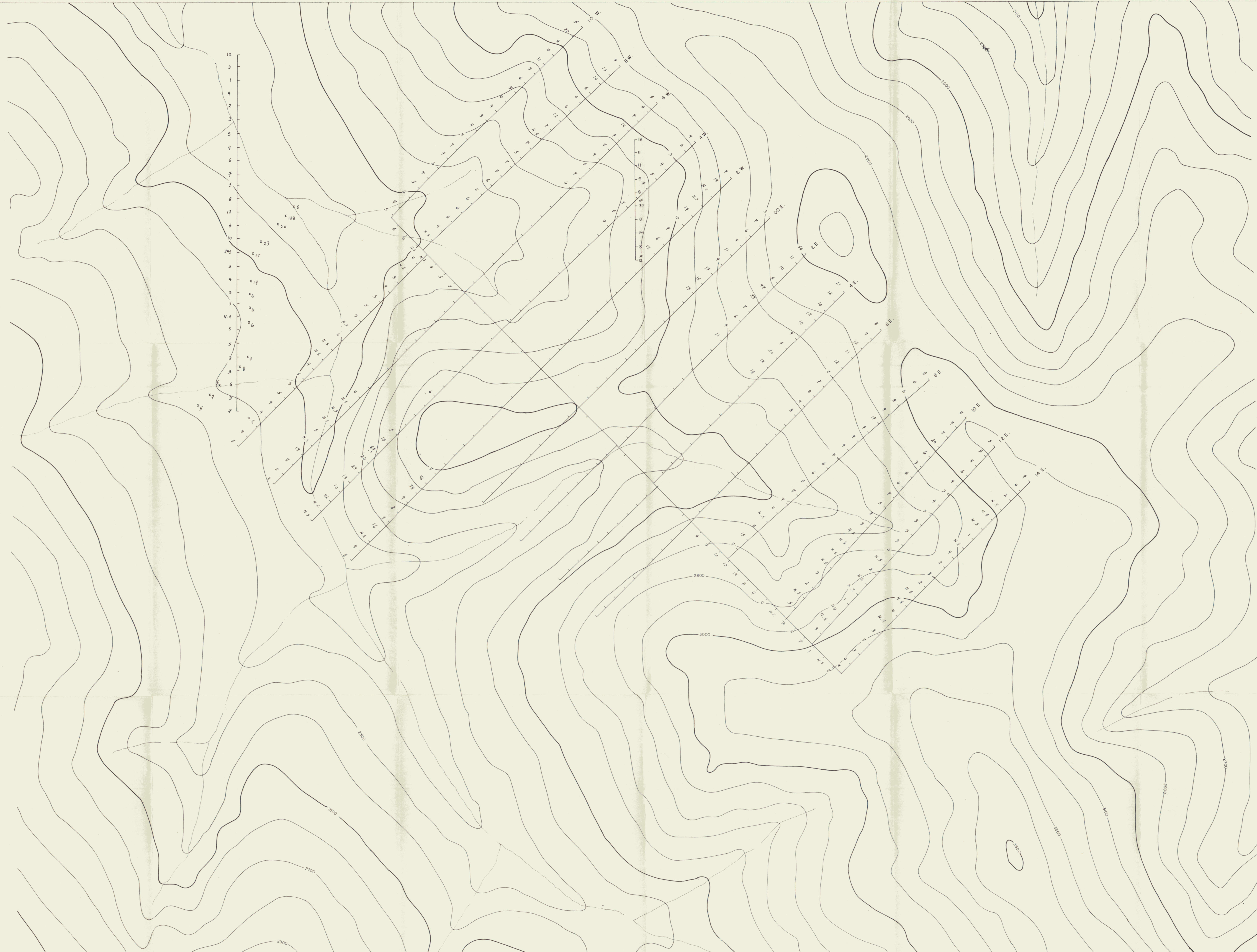
25
24
23
22
21
20
19
18
17
16
15
14
13

N.T.S. 115-0-12

SCALE 1:5000
100 50 0 100 200 300 400 Metres

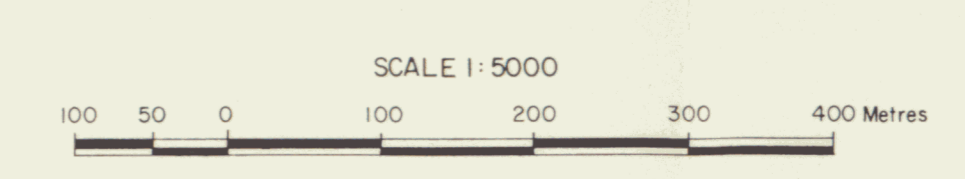
16 Cu results in ppm U > 151 ppm Cu

RIO TINTO CANADIAN EXPLORATION LIMITED	
LUCKY JOE OPTION	
GRID III	
PPM CU	
JULY 1978	J. Mc / y. m. DWG GC-8614

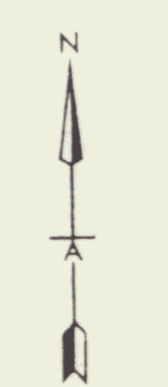


N.T.S. 115-0-12

13 ppm Pb

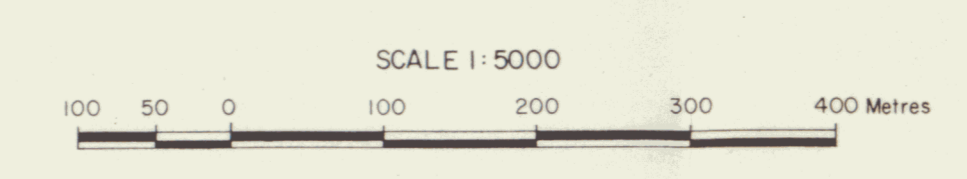


RIO TINTO CANADIAN EXPLORATION LIMITED		
LUCKY JOE OPTION		
GRID III		
PPM Pb		
NOV. 78	J.M./y.m.	DWG GC - 8613



N.T.S. 115-0-12

1000 + ppm Zn



RIO TINTO CANADIAN EXPLORATION LIMITED		
LUCKY JOE OPTION		
GRID III		
PPM Zn		
NOV. 78	J.M./y.m.	DWG GC-8612