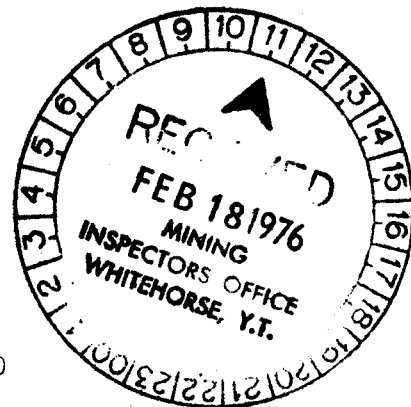




A GEOPHYSICAL REPORT
ON A
TIME DOMAIN INDUCED POLARIZATION SURVEY

FOR

KLOTASSIN JOINT VENTURE
(ARCHER, CATHRO & ASSOCIATES LIMITED
AND WESTERN MINES LIMITED)



BY

EAGLE GEOPHYSICS LIMITED
VANCOUVER, BRITISH COLUMBIA

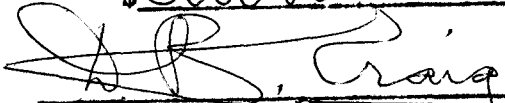
DECEMBER 1975

A REPORT ON A TIME DOMAIN
INDUCED POLARIZATION SURVEY
ON PARTS OF THE CAR, BEAR
AND FOX CLAIM GROUPS,
WHITEHORSE MINING DIVISION
NEAR CARMACKS, YUKON TERRITORY

by

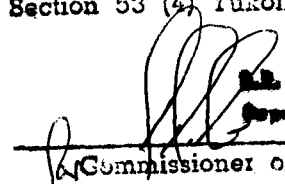
John Lloyd, M.Sc., P. Eng.

This report has been examined by the
Geological Evaluation Unit and is recom-
mended to the Commissioner to be consider-
ed as representation work in the amount of
\$ 3000.00



Resident Geologist or
~~Resident Mining Engineer~~

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



R. BAXTER
Supervising Mining Recorder

Commissioner of Yukon Territory

S U M M A R Y

During the period June 19th to July 11th, 1975, Eagle Geophysics Limited carried out a time domain Induced Polarization (IP) survey for Western Mines Limited and Archer, Cathro and Associates Limited on parts of the CAR, BEAR and FOX claim groups near Carmacks, Yukon Territory.

Drilling in and near zones of strong IP response revealed mainly pyrite mineralization. However additional drilling is recommended to test a broad magnetic high and an associated IP response which may indicate a deeply buried Tertiary feldspar porphyry stock, which is assumed to be the source of the observed mineralization and the accompanying alteration.

TABLE OF CONTENTS

	<u>Page</u>
1. INTRODUCTION	1
2. INSTRUMENT SPECIFICATIONS	3
3. SURVEY SPECIFICATIONS	8
4. PRESENTATION OF DATA	9
5. DISCUSSION OF RESULTS	10
6. CONCLUSIONS AND RECOMMENDATIONS	15

APPENDICES

Certification	(i)
Personnel Employed On Survey	(ii)

<u>ACCOMPANYING MAPS</u> (1" = 400 ft.)	<u>In Map Pocket</u>
First Separation Contours Of Apparent Chargeability	E75194-1
Second Separation Contours Of Apparent Chargeability	E75194-2
Third Separation Contours Of Apparent Chargeability	E75194-3
First Separation Contours Of Apparent Resistivity	E75194-4
Second Separation Contours Of Apparent Resistivity	E75194-5
Third Separation Contours Of Apparent Resistivity	E75194-6

1. INTRODUCTION

During the period June 19th to July 11th, 1975 a time domain Induced Polarization (IP) survey was carried out by Eagle Geophysics Limited for Western Mines Limited and Archer, Cathro and Associates Limited on parts of the CAR, BEAR and FOX claim groups in the Whitehorse Mining Division near Carmacks, Yukon Territory. It is understood that future evaluation of these claims will be directed by Archer, Cathro and Associates Limited for partners in the Klotassin Joint Venture.

The property is located about 50 air miles northwest of Carmacks on the south side of Big Creek some 5 miles southeast of Prospector Mountain.

Transportation of the geophysical crew and equipment to the property was by a 15 mile helicopter trip from the Freegold road at the junction of Bow and Seymour Creeks. As a result of several washouts on the Freegold road demobilization from the property was by helicopter directly to Carmacks.

This report describes only the geophysical results obtained over the grid surveyed and their evaluation for future exploration purposes. At the request of Archer, Cathro and Associates Limited no attempt has been made to identify the claims covered, their record numbers or expiry dates. This information in conjunction with details

of other exploration work performed on the property will be provided when this report is filed for assessment credits by Archer, Cathro and Associates Limited.

The purpose of the IP survey was to search for and outline concentrations of sulphide mineralization believed to be associated with a large copper-molybdenum geochemical anomaly outlined during the 1974 exploration season.

2. INSTRUMENT SPECIFICATIONS

The IP equipment used to carry out this work was a time domain measuring system developed and manufactured by Hunttec Limited of Toronto, Ontario.

The system used for this work consisted of a transmitter, a motor generator and a Mark III receiving unit incorporating a digital display readout for chargeability measurements.

The transmitter, which provides a maximum of 7.5 kw D.C. to the ground, obtains its power from a 7.5 kw, 400 cycle, 3 phase beland alternator driven by a 20 H.P. Onan gasoline engine. The total cycle time for the transmitter was 6 seconds and the duty ratio (R) was 2 to 1. This means the cycling rate of the transmitter was 2 seconds current "ON" and 1 second current "OFF" with the pulses reversing continuously in polarity.

The Mark III receiver presents digitally four individual (M) values of the decay curve at each station. The (M) value reading is the ratio of the secondary decay voltage (V_s) divided by the primary voltage (V_p) expressed as a percentage. The quantity (V_p) is displayed separately.

The parameters measured by this unit are shown in Figure 1. The delay time (t_d) and the integration interval (t_p) of the receiver define completely the measurements (M_1), (M_2), (M_3) and (M_4).

$$M_1 = \frac{e(t_1)}{V_p} = \sum_1^n \int_{(t_d)}^{(t_d + t_p)} V_s \cdot dt / V_p \cdot t_p$$

$$M_2 = \frac{e(t_2)}{V_p} = \frac{1}{2} \sum_1^n \int_{(t_d + t_p)}^{(t_d + 3t_p)} V_s \cdot dt / V_p \cdot t_p$$

$$M_3 = \frac{e(t_3)}{V_p} = \frac{1}{4} \sum_1^n \int_{(t_d + 3t_p)}^{(t_d + 7t_p)} V_s \cdot dt / V_p \cdot t_p$$

$$M_4 = \frac{e(t_4)}{V_p} = \frac{1}{8} \sum_1^n \int_{(t_d + 7t_p)}^{(t_d + 15t_p)} V_s \cdot dt / V_p \cdot t_p$$

$$M_0 = t_p \times 10^{-2} \sum (M_1 + 2M_2 + 4M_3 + 8M_4) \quad (\text{Milliseconds})$$

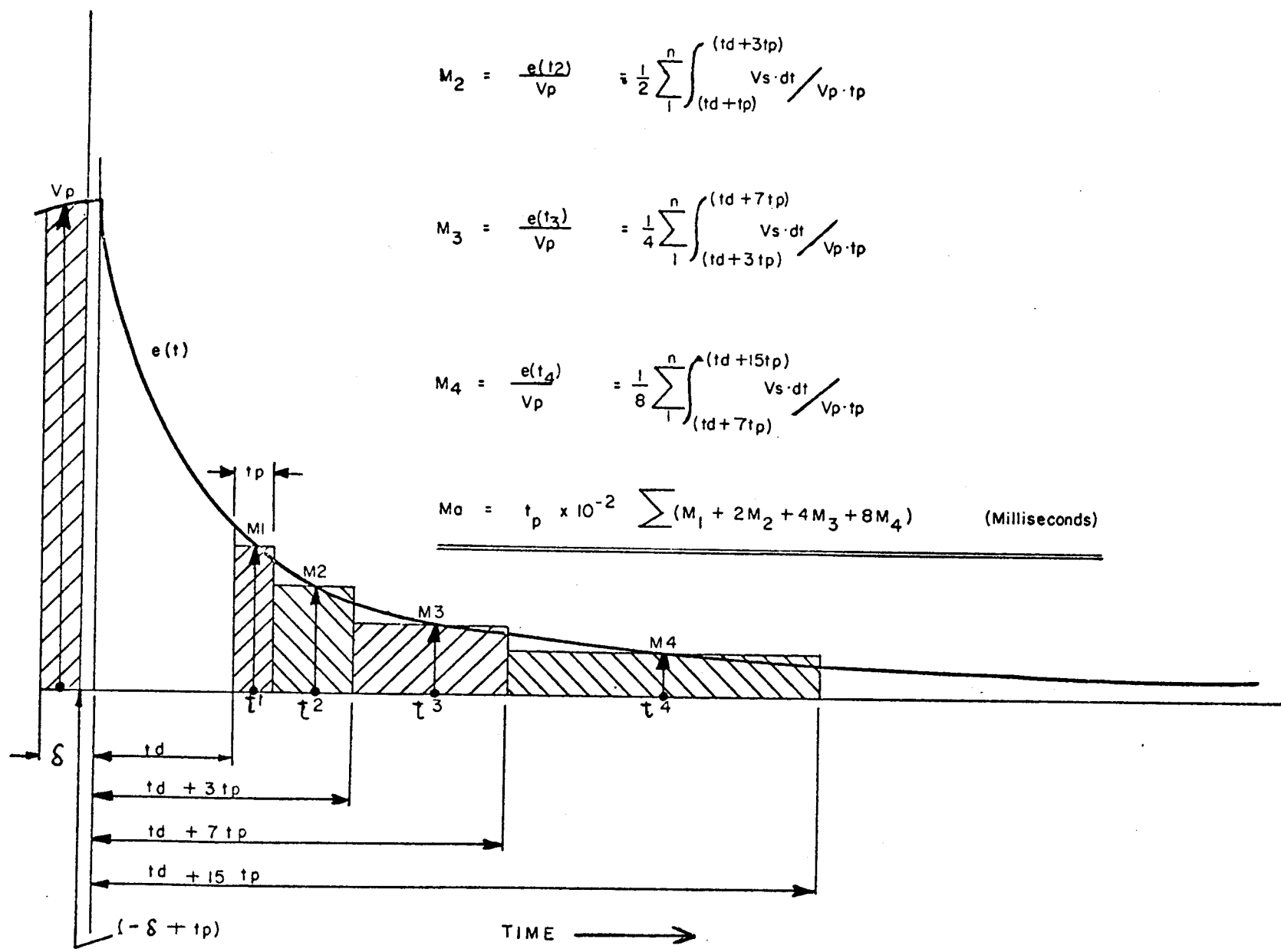


FIGURE 1

The delay time (t_d) may be set to 15, 30, 60, 120 or 240 milliseconds; similarly the integration interval (t_p) may be set to 20, 30, 40, 50 or 60 milliseconds. This provides twenty-five different sets of values for each of the four sample points (t_1), (t_2), (t_3) and (t_4) of Figure 1. These quantities have been calculated and are shown in Table 1, together with the limits of integration corresponding to each of the intervals (M_1), (M_2), (M_3) and (M_4).

For this survey the delay time (t_d) was fixed at 60 milliseconds and the integrating interval (t_p) at 40 milliseconds; this gives a total integrating time (T_p) of 600 milliseconds.

The apparent chargeability (M_a) in milliseconds is obtained by summing the (M) factors, weighted for their individual integrating times as follows:-

$$M_a = t_p \times 10^{-2} \sum (M_1 + 2M_2 + 4M_3 + 8M_4) \text{ milliseconds} \quad \text{-- (1)}$$

The apparent resistivity (ρ_a) in ohm-metres is obtained by dividing (V_p) by the measured current (I_g) and multiplying by a factor (K) which is dependent on the geometry of the array used. The absolute value of (V_p) is obtained by multiplying the digital voltmeter reading by the scale factor of the input attenuator.

The chargeabilities and resistivities obtained are called apparent as they are values which that portion of the earth sampled would have if it were homogeneous. As the earth sampled is usually inhomogeneous, the calculated apparent chargeabilities and resistivities are functions of the actual chargeabilities and resistivities of the rocks.

Period t_p		DELAY TIME t_d IN MILLISECONDS															
		15			30			60			120			240			
		S	M	E	S	M	E	S	M	E	S	M	E	S	M	E	
MILLISECONDS	20	15	25	35	30	40	50	60	70	80	120	130	140	240	250	260	M ₁
		35	55	75	50	70	90	80	100	120	140	160	180	260	280	300	M ₂
		75	115	155	90	130	170	120	160	200	180	220	260	300	340	380	M ₃
		155	235	315	170	250	330	200	280	360	260	340	420	380	460	540	M ₄
	30	15	30	45	30	45	60	60	75	90	120	135	150	240	255	270	M ₁
		45	75	105	60	90	120	90	120	150	150	180	210	270	300	330	M ₂
		105	165	225	120	180	240	150	210	270	210	270	330	330	390	450	M ₃
		225	345	465	240	360	480	270	390	510	330	450	570	450	570	690	M ₄
	40	15	35	75	30	50	70	60	80	100	120	140	160	240	260	280	M ₁
		75	95	135	70	110	150	100	140	180	160	200	240	280	320	360	M ₂
		135	215	295	150	230	310	180	260	340	240	320	400	360	440	520	M ₃
		295	455	615	310	470	630	340	500	660	400	560	720	520	680	840	M ₄
	50	15	40	65	30	55	80	60	85	110	120	145	170	240	265	290	M ₁
		65	115	165	80	130	180	110	160	210	170	220	270	290	340	390	M ₂
		165	265	365	180	280	380	210	310	410	270	370	470	390	490	590	M ₃
		365	565	765	380	580	780	410	610	810	470	670	870	590	790	990	M ₄
60	15	45	75	30	60	90	60	90	120	120	150	180	240	270	300	M ₁	
	75	135	195	90	150	210	120	180	240	180	240	300	300	360	420	M ₂	
	195	315	435	210	330	450	240	360	480	300	420	540	420	540	660	M ₃	
	435	675	915	450	690	930	480	720	960	540	780	1020	660	900	1140	M ₄	

Table 1

S - time in milliseconds from turn off at which integration commences.

E - time in milliseconds from turn off at which integration ceases.

M - the mid point between S and E.

The majority of geophysicists, using time domain equipment, quote their apparent chargeability measurements in units of milliseconds. This is an unfortunate choice of units since these units are really millivolt seconds per volt. Therefore data obtained by different transmitters and receivers using different timing and sampling sequences will yield different "millisecond" values over the same orebody or mineralized zone. The interpreter must therefore pay special attention to the transmitter cycling time, the receiver delay time, and the receiver integrating interval and total integrating time before making comparisons between data obtained with different systems.

Time domain equipment manufactured by Hunttec Limited in the past used a transmitter with a 4 second cycle time, a duty ratio (R) of 3 to 1 and a receiver with a fixed delay time of 15 milliseconds and a fixed total integrating time of 400 milliseconds. Data obtained with the present Hunttec equipment used on this survey is approximately 2.5 times greater than data obtained with the earlier system described above. This only holds true for the sampling parameters selected for this survey. The present data is approximately equivalent numerically to data obtained with standard Newmont equipment presently manufactured by Scintrex Limited.

3. SURVEY SPECIFICATIONS

The pole-dipole array was used on this survey. With this array the current electrode C_1 and the two potential electrodes P_1 and P_2 are moved in unison along the lines to be surveyed. The second current electrode C_2 is grounded an "infinite" distance away, which is at least ten times the distance between C_1 and P_1 , for the largest electrode separation.

The dipole length (x) is the distance between P_1 and P_2 . The electrode separation (nx) is the distance between C_1 and P_1 and is equal to or some multiple of the distance between P_1 and P_2 .

For a mineralized body of some particular size, shape, depth and true chargeability, the dipole length (x) determines mainly the sensitivity of the array, whereas the electrode separation (nx) determines mainly the depth of penetration of the array.

Cross lines were surveyed with 2 electrode separations using a 200-foot dipole length. North of the baseline, where the overburden was expected to be greater than 100 feet deep, lines were surveyed using second and third electrode separations, that is for $n = 2$ ($nx = 400$ feet) and for $n = 3$ ($nx = 600$ feet). South of the baseline, where the overburden was expected to be less than 100 feet deep, lines were surveyed using first and second electrode separations, that is for $n = 1$ ($nx = 200$ feet) and for $n = 2$ ($nx = 400$ feet). To the north of the baseline the measuring dipole (P_1P_2) was always to the north of the leading current electrode C_1 . To the south of the baseline the measuring dipole (P_1P_2) was always to the south of the leading current electrode C_1 .

4. PRESENTATION OF DATA

The data obtained from the IP survey described in this report are presented on six maps which are folded into a map pocket at the end of this report.

Map numbers E75194-1, E75194-2 and E75194-3 are contour maps of the apparent chargeability for the first ($n = 1$), second ($n = 2$) and third ($n = 3$) electrode separation measurements respectively. The contour interval is 10 milliseconds for each map.

Map numbers E75194-3, E75194-4 and E75194-5 are contour maps of the apparent resistivity for the first ($n = 1$), second ($n = 2$) and third ($n = 3$) electrode separation measurements respectively. The basic contour interval is 1000 ohm-metres for each map, however where strong resistivity gradients are present several contours have been omitted.

All maps are at a horizontal scale of 1 inch equals 400 feet.

5. DISCUSSION OF RESULTS

Induced polarization interpretation procedures have been most completely developed in situations of mineralized horizontal layering, where the electrode separations used are small compared with the lateral extent of the mineralized bodies. Geologically, the porphyry coppers of large lateral extent are practical examples where such interpretation procedures can be used to best advantage.

For more confined bodies, where the electrode separations used are often large compared with the lateral extent of the bodies themselves, the complex problem of resolving the combined effects of depth, width, thickness and true chargeability of such bodies, together with the physical characteristics of the overburden and country rocks have only recently been studied in detail. The results of much of this work remain as yet unpublished. The interpreter must therefore use empirical solutions, type curves obtained from theoretical investigations, plus experience gained from surveys over known orebodies and the results of both computer and tank model studies.

The sulphide content of the underlying rocks or, since rocks containing magnetite, graphite or clay minerals frequently give an IP response, an equivalent sulphide content is one of the critical factors that we would like to determine from IP field measurements. However experience has shown that this is both difficult and unreliable, mainly because there are a large number of factors which contribute to an IP response. These factors vary considerably from one geological environment

to another and even from one porphyry copper deposit to another. An IP response depends, at least, on the following factors:-

1. The number of pore paths that are blocked by sulphide grains.
2. The number of sulphide faces that are available for polarization.
3. The absolute size of the sulphide grains and the relationship of their size to the size of the available pore paths.
4. The volume content of sulphide minerals.
5. The electrode array employed.
6. The width, depth, thickness and strike length of the mineralized body and its location relative to the array.
7. The resistivity contrast between the mineralized body and the unmineralized host rock.

Although the above factors have not yet been separated, some interpreters have developed empirical rules for making rough estimates of the per cent sulphides by volume contained within rocks giving anomalous IP responses.

Anomalies are often classified into three groups: definite, probable and possible. This grouping is based on the relative amplitudes of the apparent chargeability and to a lesser degree on apparent resistivity. Of equal importance in the grouping of these anomalies is the overall anomaly pattern and the degree to which this pattern may be correlated from line to line and with rock types of possible economic importance. Such a correlation, particularly for weak anomalies, increases considerably their attractiveness as potential drilling targets.

Despite the lack of outcrop, Archer, Cathro and Associates have prepared a preliminary geology map of the area, based on rock fragments, small pits, magnetic data and drilling results. A major portion of the area is underlain by a northwest trending roof pendant of older schists and gneisses of the Yukon metamorphic complex. Two pyritic gossans have developed in this unit immediately west of Big Creek, one of these covered by the IP survey gave a strong response.

Along Big Creek, in the eastern part of the survey area, a gabbro plug has been outlined with the aid of magnetics. Magnetite and pyrite combined accounts for about 10% of this rock unit. An IP response of moderate magnitude was also observed.

In the southern part of the area intrusive rocks of syenite and monzonite composition have been emplaced. A younger feldspar porphyry (Tertiary) intrusive was intersected in holes 14, 16 and 17 as a dyke and in hole 10 as a stock. This rock unit, which has a weak magnetic response, is assumed to be the source of the observed mineralization and accompanying alteration.

The IP response over the property varies from less than 5 milliseconds to over 70 milliseconds, which is evidence for the existence of a large sulphide system. Resistivities vary from less than 100 ohm-metres to more than 25,000 ohm-metres. The very high resistivity zones may not outline particular rock types, but may be partially related to permafrost effects. Variations in the lower resistivity values are probably related to variations in overburden thickness.

The following table shows the overburden thickness, surface IP response and pyrite content for the 12 drill holes completed by Western Mines Limited during 1975.

<u>Hole Number</u>	<u>Overburden Thickness (ft.)</u>	<u>Approximate IP Response (ms.)</u>	<u>Approximate % Pyrite Content</u>
1	86	28	2 to 4
2	121	12	1 to 2
3	25	27	1 to 2
9	36	39	2 to 6
10	28	35	2 to 4
11	28	42	1 to 2
* 12	35	36	0 to 1
13	63	17	0 to 1
14	153	15	1 to 2
15	123	10	0 to 1
16	51	25	1 to 2
17	37	20	1 to 4

* Core recovery less than 25%.

Although the estimates of the pyrite content of the core samples show large variations, there is a reasonably clear relationship between the IP response and the pyrite content of the rocks when an allowance is made for variations in overburden thickness.

On the second separation chargeability map the 30 millisecond contour outlines three strongly anomalous zones. Each of these zones is roughly bisected by a well defined fault, and each zone is at least 2000

feet by 1000 feet. The zone in the southwest was tested by holes 9, 10 and 11. Hole 10 which intersected the Tertiary feldspar porphyry lies on the edge of a weak magnetic high. From the geophysical viewpoint there is no obvious place within the survey area where these conditions repeat themselves. The majority of drilling was concentrated in or around this zone of increased chargeability.

There is a vague chargeability "grain" extending away from this zone in a northeasterly direction. This trend ends abruptly on the second separation chargeability map, at the break of slope, but reappears on strike to the north of the baseline on the third separation chargeability map. A broad magnetic high overlies this area and could represent deeply buried Tertiary feldspar porphyry rocks. A partially coincident strong resistivity high may be related to permafrost effects.

The second and third zones of increased chargeability lie in the northwest and southeast corners of the grid. These zones are probably not underlain by favourable rock types, but since they have not been tested by drilling it cannot be assumed that they are caused solely by pyrite mineralization.

A fourth zone of increased chargeability ranging from 20 to 30 milliseconds appears to coincide with a magnetic high which outlines a gabbro plug along Big Creek. These four zones together form a very crude peripheral chargeability high.

6. CONCLUSIONS AND RECOMMENDATIONS

From a study of the IP and ground magnetometer data, the known geology and the drilling results to date, it has been concluded that:-

1. The strong variations in the IP response over the area surveyed are indicative of a large sulphide system.
2. When allowances are made for variations in the overburden thickness, the IP response can be directly related to the pyrite content of the rocks as estimated from studies of the drill core.
3. The three main zones of increased IP response are roughly bisected by major faults.
4. A broad magnetic high, and an IP response at depth, immediately north of Pit No. 1 may indicate deeply buried Tertiary feldspar porphyry rocks.
5. The four zones of increased chargeability form a crude peripheral chargeability high within the area surveyed.
6. There is, at present, insufficient outcrop and/or drill information to identify the nature of the rocks underlying the weaker magnetic highs on the property.

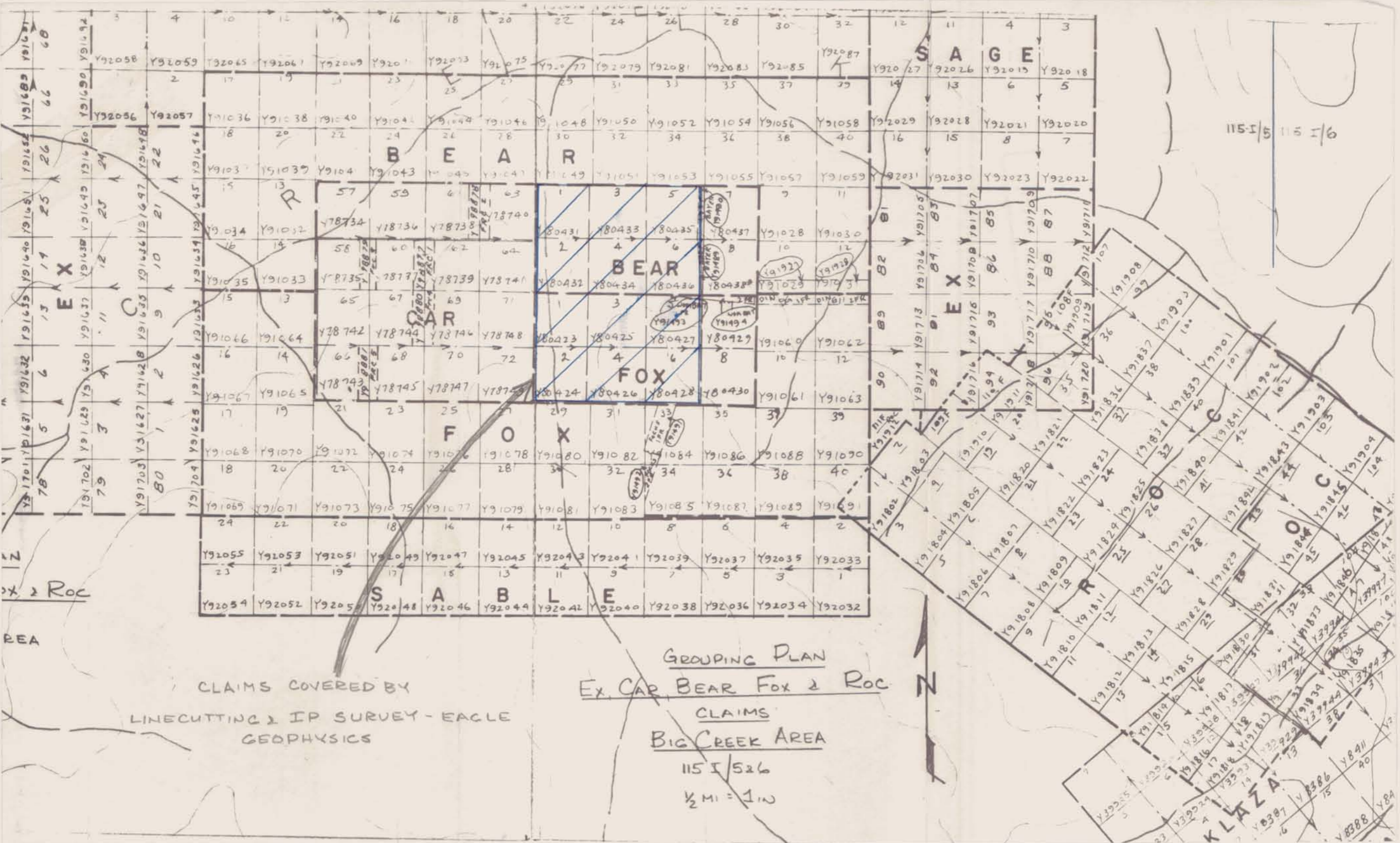
In view of the lack of outcrop and the favourable picture developed to date, it is recommended that additional drilling be undertaken immediately north and northeast of Pit No. 1 to test a broad magnetic high and an IP response at depth which may be caused by deeply buried Tertiary feldspar porphyry rocks.

Respectfully submitted,

EAGLE GEOPHYSICS LIMITED

A handwritten signature in cursive script that reads "John Lloyd". The signature is written in dark ink and is positioned below the company name.

John Lloyd, M.Sc., P. Eng.

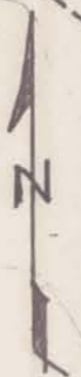


115 I / 5 115 I / 6

Y92058	Y92059	Y92065	Y92061	Y92069	Y92071	Y92073	Y92075	Y92077	Y92079	Y92081	Y92083	Y92085	Y92087	Y92027	Y92026	Y92015	Y92018
2	17	19	21	23	25	25	27	29	31	33	35	37	39	14	13	6	5
Y92056	Y92057	Y91036	Y91038	Y91040	Y91042	Y91044	Y91046	Y91048	Y91050	Y91052	Y91054	Y91056	Y91058	Y92029	Y92028	Y92021	Y92020
18	20	22	24	26	28	30	32	34	36	38	40	42	44	16	15	8	7
Y91037	Y91039	Y91041	Y91043	Y91045	Y91047	Y91049	Y91051	Y91053	Y91055	Y91057	Y91059	Y92031	Y92030	Y92023	Y92022		
15	13	57	59	61	63	65	67	69	71	73	75	77	79	81	83	85	87
Y91034	Y91032	Y78734	Y78736	Y78738	Y78740	Y80431	Y80433	Y80435	Y80437	Y91028	Y91030						
16	14	58	60	62	64	2	4	6	8	10	12						
Y91035	Y91033	Y78735	Y78737	Y78739	Y78741	Y80432	Y80434	Y80436	Y80438	Y91029	Y91031						
15	3	65	67	69	71	3	5	7	9	11	13						
Y91066	Y91064	Y78742	Y78744	Y78746	Y78748	Y80423	Y80425	Y80427	Y80429	Y91060	Y91062						
16	14	66	68	70	72	2	4	6	8	10	12						
Y91067	Y91065	Y78743	Y78745	Y78747	Y78749	Y80424	Y80426	Y80428	Y80430	Y91061	Y91063						
17	19	21	23	25	27	29	31	33	35	37	39						
Y91068	Y91070	Y91072	Y91074	Y91076	Y91078	Y91080	Y91082	Y91084	Y91086	Y91088	Y91090						
18	20	22	24	26	28	30	32	34	36	38	40						
Y91069	Y91071	Y91073	Y91075	Y91077	Y91079	Y91081	Y91083	Y91085	Y91087	Y91089	Y91091						
24	22	20	18	16	14	12	10	8	6	4	2						
Y92055	Y92053	Y92051	Y92049	Y92047	Y92045	Y92043	Y92041	Y92039	Y92037	Y92035	Y92033						
23	21	19	17	15	13	11	9	7	5	3	1						
Y92054	Y92052	Y92050	Y92048	Y92046	Y92044	Y92042	Y92040	Y92038	Y92036	Y92034	Y92032						

CLAIMS COVERED BY
LINECUTTING & IP SURVEY - EAGLE
GEOPHYSICS

GROUPING PLAN
Ex. CAR BEAR FOX & ROC
CLAIMS
BIG CREEK AREA
115 I / 526
1/2 MI = 1 IN



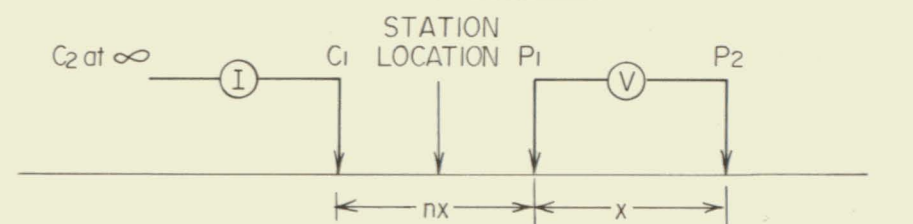
KLAZA
Y8387
Y8386
Y8385
Y8384
Y8383
Y8382
Y8381
Y8380
Y8379
Y8378
Y8377
Y8376
Y8375
Y8374
Y8373
Y8372
Y8371
Y8370
Y8369
Y8368
Y8367
Y8366
Y8365
Y8364
Y8363
Y8362
Y8361
Y8360
Y8359
Y8358
Y8357
Y8356
Y8355
Y8354
Y8353
Y8352
Y8351
Y8350
Y8349
Y8348
Y8347
Y8346
Y8345
Y8344
Y8343
Y8342
Y8341
Y8340
Y8339
Y8338
Y8337
Y8336
Y8335
Y8334
Y8333
Y8332
Y8331
Y8330
Y8329
Y8328
Y8327
Y8326
Y8325
Y8324
Y8323
Y8322
Y8321
Y8320
Y8319
Y8318
Y8317
Y8316
Y8315
Y8314
Y8313
Y8312
Y8311
Y8310
Y8309
Y8308
Y8307
Y8306
Y8305
Y8304
Y8303
Y8302
Y8301
Y8300
Y8299
Y8298
Y8297
Y8296
Y8295
Y8294
Y8293
Y8292
Y8291
Y8290
Y8289
Y8288
Y8287
Y8286
Y8285
Y8284
Y8283
Y8282
Y8281
Y8280
Y8279
Y8278
Y8277
Y8276
Y8275
Y8274
Y8273
Y8272
Y8271
Y8270
Y8269
Y8268
Y8267
Y8266
Y8265
Y8264
Y8263
Y8262
Y8261
Y8260
Y8259
Y8258
Y8257
Y8256
Y8255
Y8254
Y8253
Y8252
Y8251
Y8250
Y8249
Y8248
Y8247
Y8246
Y8245
Y8244
Y8243
Y8242
Y8241
Y8240
Y8239
Y8238
Y8237
Y8236
Y8235
Y8234
Y8233
Y8232
Y8231
Y8230
Y8229
Y8228
Y8227
Y8226
Y8225
Y8224
Y8223
Y8222
Y8221
Y8220
Y8219
Y8218
Y8217
Y8216
Y8215
Y8214
Y8213
Y8212
Y8211
Y8210
Y8209
Y8208
Y8207
Y8206
Y8205
Y8204
Y8203
Y8202
Y8201
Y8200
Y8199
Y8198
Y8197
Y8196
Y8195
Y8194
Y8193
Y8192
Y8191
Y8190
Y8189
Y8188
Y8187
Y8186
Y8185
Y8184
Y8183
Y8182
Y8181
Y8180
Y8179
Y8178
Y8177
Y8176
Y8175
Y8174
Y8173
Y8172
Y8171
Y8170
Y8169
Y8168
Y8167
Y8166
Y8165
Y8164
Y8163
Y8162
Y8161
Y8160
Y8159
Y8158
Y8157
Y8156
Y8155
Y8154
Y8153
Y8152
Y8151
Y8150
Y8149
Y8148
Y8147
Y8146
Y8145
Y8144
Y8143
Y8142
Y8141
Y8140
Y8139
Y8138
Y8137
Y8136
Y8135
Y8134
Y8133
Y8132
Y8131
Y8130
Y8129
Y8128
Y8127
Y8126
Y8125
Y8124
Y8123
Y8122
Y8121
Y8120
Y8119
Y8118
Y8117
Y8116
Y8115
Y8114
Y8113
Y8112
Y8111
Y8110
Y8109
Y8108
Y8107
Y8106
Y8105
Y8104
Y8103
Y8102
Y8101
Y8100
Y8099
Y8098
Y8097
Y8096
Y8095
Y8094
Y8093
Y8092
Y8091
Y8090
Y8089
Y8088
Y8087
Y8086
Y8085
Y8084
Y8083
Y8082
Y8081
Y8080
Y8079
Y8078
Y8077
Y8076
Y8075
Y8074
Y8073
Y8072
Y8071
Y8070
Y8069
Y8068
Y8067
Y8066
Y8065
Y8064
Y8063
Y8062
Y8061
Y8060
Y8059
Y8058
Y8057
Y8056
Y8055
Y8054
Y8053
Y8052
Y8051
Y8050
Y8049
Y8048
Y8047
Y8046
Y8045
Y8044
Y8043
Y8042
Y8041
Y8040
Y8039
Y8038
Y8037
Y8036
Y8035
Y8034
Y8033
Y8032
Y8031
Y8030
Y8029
Y8028
Y8027
Y8026
Y8025
Y8024
Y8023
Y8022
Y8021
Y8020
Y8019
Y8018
Y8017
Y8016
Y8015
Y8014
Y8013
Y8012
Y8011
Y8010
Y8009
Y8008
Y8007
Y8006
Y8005
Y8004
Y8003
Y8002
Y8001
Y8000



LEGEND

BASELINE 'A'

POLE-DIPOLE ARRAY



- NOTES: (1) ALL LINES WERE SURVEYED USING THIS ARRAY
- (2) TO THE **NORTH** OF THE BASELINE THE MEASURING DIPOLE (P1-P2) WAS ALWAYS TO THE **NORTH** OF THE LEADING CURRENT ELECTRODE C1.
- (3) TO THE **SOUTH** OF THE BASELINE THE MEASURING DIPOLE (P1-P2) WAS ALWAYS TO THE **SOUTH** OF THE LEADING CURRENT ELECTRODE C1.
- (4) MEASUREMENTS ARE FOR $x = 200$ FEET; $n = 2$
- 20 - CONTOURS OF APPARENT CHARGEABILITY
CONTOUR INTERVAL IS MILLISECONDS
- No. 6 ○ 1975 DIAMOND DRILL HOLE
- ZONE OF INCREASED CHARGEABILITY

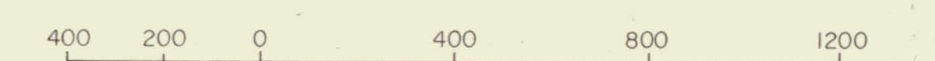
KLOTASSIN JOINT VENTURE

ARCHER, CATHRO & ASSOCIATES LTD.
& WESTERN MINES LIMITED
CAR, BEAR & FOX CLAIM GROUP, WHITEHORSE MINING DIVISION, CARMACKS, Y.T.

**TIME DOMAIN
INDUCED POLARIZATION SURVEY**

SECOND SEPARATION CONTOURS OF APPARENT CHARGEABILITY

SCALE: 1 INCH = 400 FEET

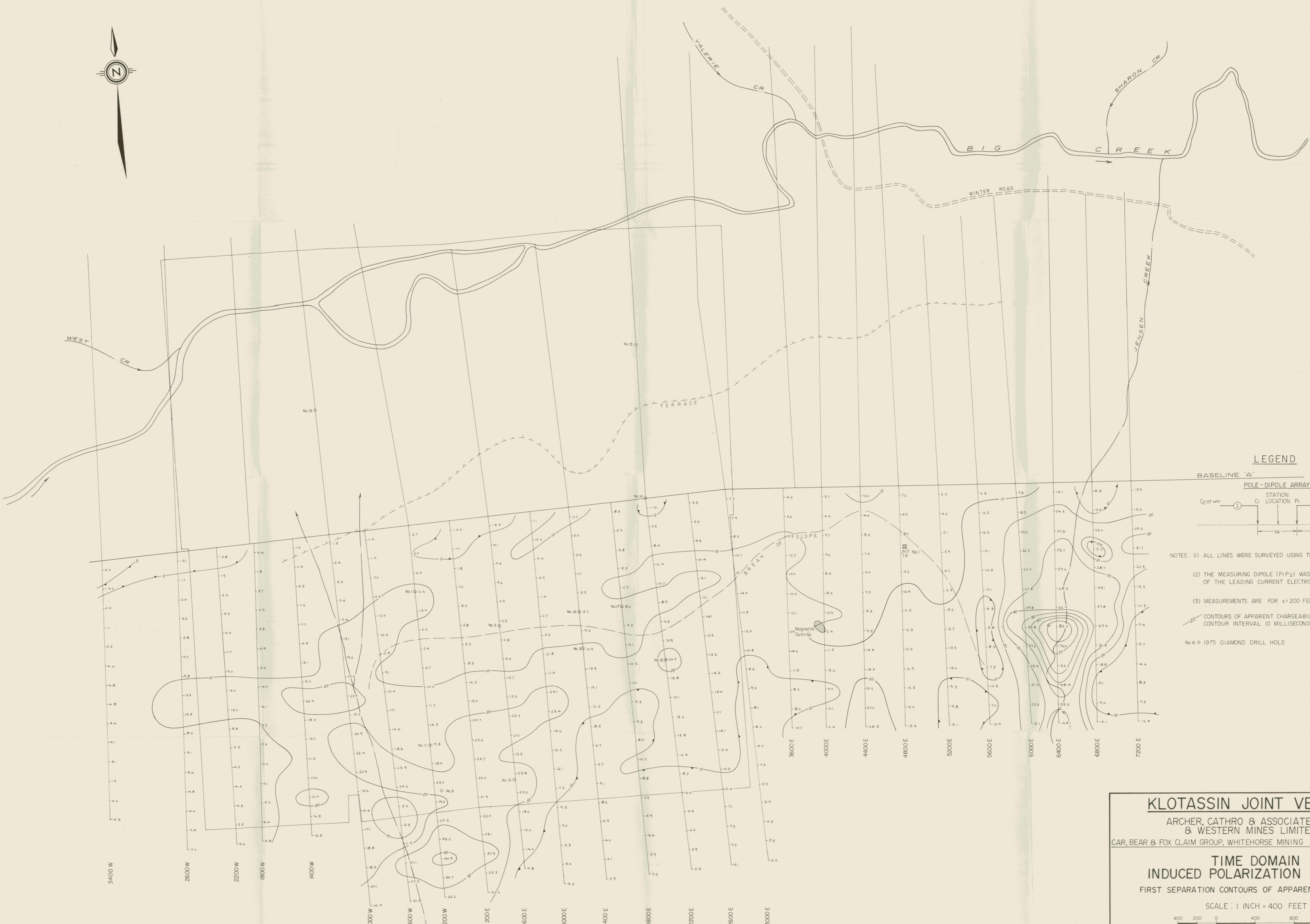


EAGLE GEOPHYSICS LTD
DEC. 1975

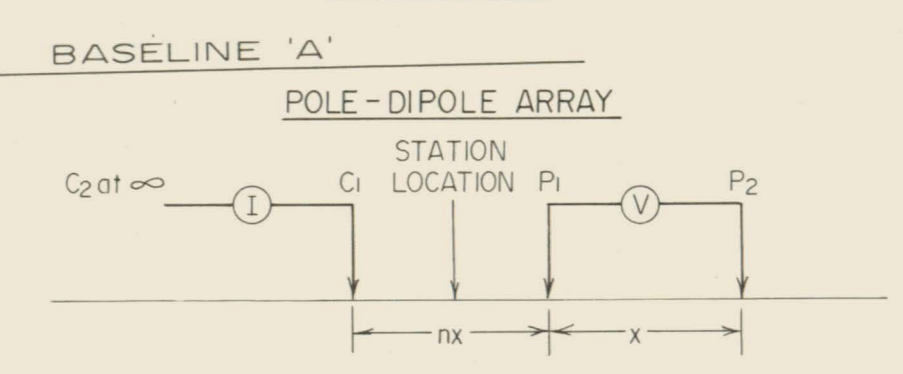
MAP NUMBER E 75194-2

To accompany a report by

John Lloyd, M.Sc., P.Eng.



LEGEND



- NOTES: (1) ALL LINES WERE SURVEYED USING THIS ARRAY
- (2) THE MEASURING DIPOLE (P₁P₂) WAS ALWAYS TO THE SOUTH OF THE LEADING CURRENT ELECTRODE C₁.
- (3) MEASUREMENTS ARE FOR x=200 FEET, n=1
- CONTOURS OF APPARENT CHARGEABILITY
CONTOUR INTERVAL 10 MILLISECONDS
- No 60 1975 DIAMOND DRILL HOLE

KLOTASSIN JOINT VENTURE
 ARCHER, CATHRO & ASSOCIATES LTD.
 & WESTERN MINES LIMITED
 CAR, BEAR & FOX CLAIM GROUP, WHITEHORSE MINING DIVISION, CARMACKS, Y.T.

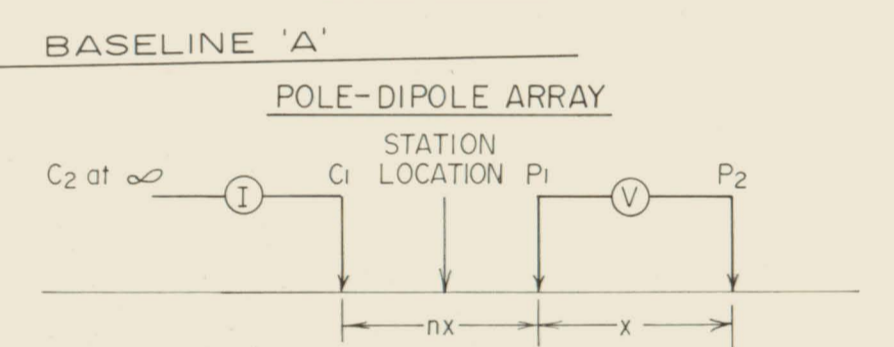
**TIME DOMAIN
 INDUCED POLARIZATION SURVEY**
 FIRST SEPARATION CONTOURS OF APPARENT CHARGEABILITY

SCALE: 1 INCH = 400 FEET

EAGLE GEOPHYSICS LTD. MAP NUMBER E75194-1
 DEC. 1975 To accompany a report by John Lloyd M.Sc., P.Eng.



LEGEND



- NOTES: (1) ALL LINES WERE SURVEYED USING THIS ARRAY
- (2) THE MEASURING DIPOLE (P1-P2) WAS ALWAYS TO THE NORTH OF THE CURRENT ELECTRODE C1
- (3) MEASUREMENTS ARE FOR $x=200$, $n=3$
- CONTOURS OF APPARENT CHARGEABILITY
CONTOUR INTERVAL 10 MILLISECONDS
- No. 6 1975 DIAMOND DRILL HOLE

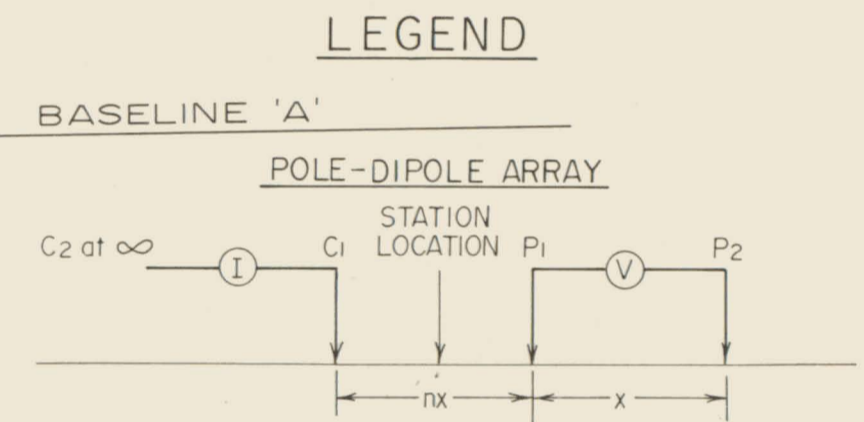
KLOTASSIN JOINT VENTURE
ARCHER, CATHRO & ASSOCIATES LTD.
& WESTERN MINES LIMITED
CAR, BEAR & FOX CLAIM GROUP, WHITEHORSE MINING DIVISION, CARMACKS, Y.T.

**TIME DOMAIN
INDUCED POLARIZATION SURVEY**
THIRD SEPARATION CONTOURS OF APPARENT CHARGEABILITY

SCALE: 1 INCH = 400 FEET

EAGLE GEOPHYSICS LTD.
DEC. 1975

MAP NUMBER E 75194-3
To accompany report by
John Lloyd
John Lloyd M.Sc. P. Eng.



- NOTES: (1) ALL LINES WERE SURVEYED USING THIS ARRAY
- (2) THE MEASURING DIPOLE (P1/P2) WAS ALWAYS TO THE SOUTH OF THE LEADING CURRENT ELECTRODE C1.
- (3) MEASUREMENTS ARE FOR $x=200$ FEET, $n=1$
- CONTOURS OF APPARENT RESISTIVITY IN OHM-METRES
- No. 60 1975 DIAMOND DRILL HOLE

KLOTASSIN JOINT VENTURE
 ARCHER, CATHRO & ASSOCIATES LTD.
 & WESTERN MINES LIMITED
 CAR, BEAR & FOX CLAIM GROUP, WHITEHORSE MINING DIVISION, CARMACKS, Y.T.

**TIME DOMAIN
 INDUCED POLARIZATION SURVEY**
 FIRST SEPARATION CONTOURS OF APPARENT RESISTIVITY

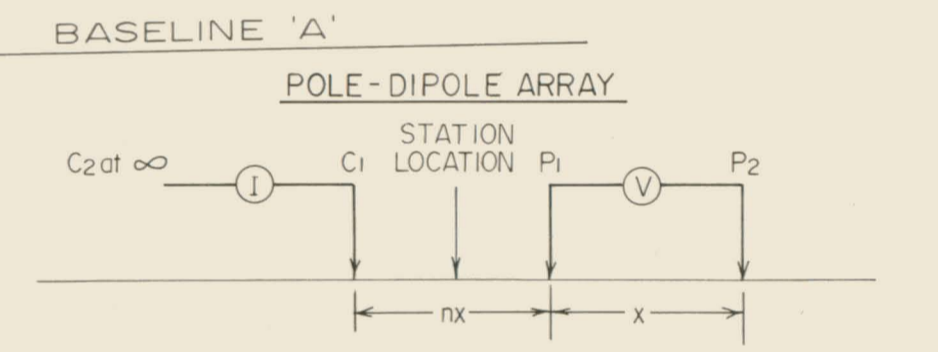
SCALE: 1 INCH = 400 FEET

EAGLE GEOPHYSICS LTD. DEC. 1975

MAP NUMBER E 75194-4
 To accompany report by
 John Lloyd M.Sc., P. Eng.



LEGEND



- NOTES: (1) ALL LINES WERE SURVEYED USING THIS ARRAY
- (2) TO THE NORTH OF THE BASELINE THE MEASURING DIPOLE (P1/P2) WAS ALWAYS TO THE NORTH OF THE LEADING CURRENT ELECTRODE C1.
- (3) TO THE SOUTH OF THE BASELINE THE MEASURING DIPOLE (P1/P2) WAS ALWAYS TO THE SOUTH OF THE LEADING CURRENT ELECTRODE C1.
- (4) MEASUREMENTS ARE FOR $x = 200$ FEET; $n = 2$
- CONTOURS OF APPARENT RESISTIVITY IN OHM-METRES
- No. 6 1975 DIAMOND DRILL HOLE

KLOTASSIN JOINT VENTURE
 ARCHER, CATHRO & ASSOCIATES LTD.
 & WESTERN MINES LIMITED
 CAR, BEAR & FOX CLAIM GROUP, WHITEHORSE MINING DIVISION, CARMACKS, Y.T.

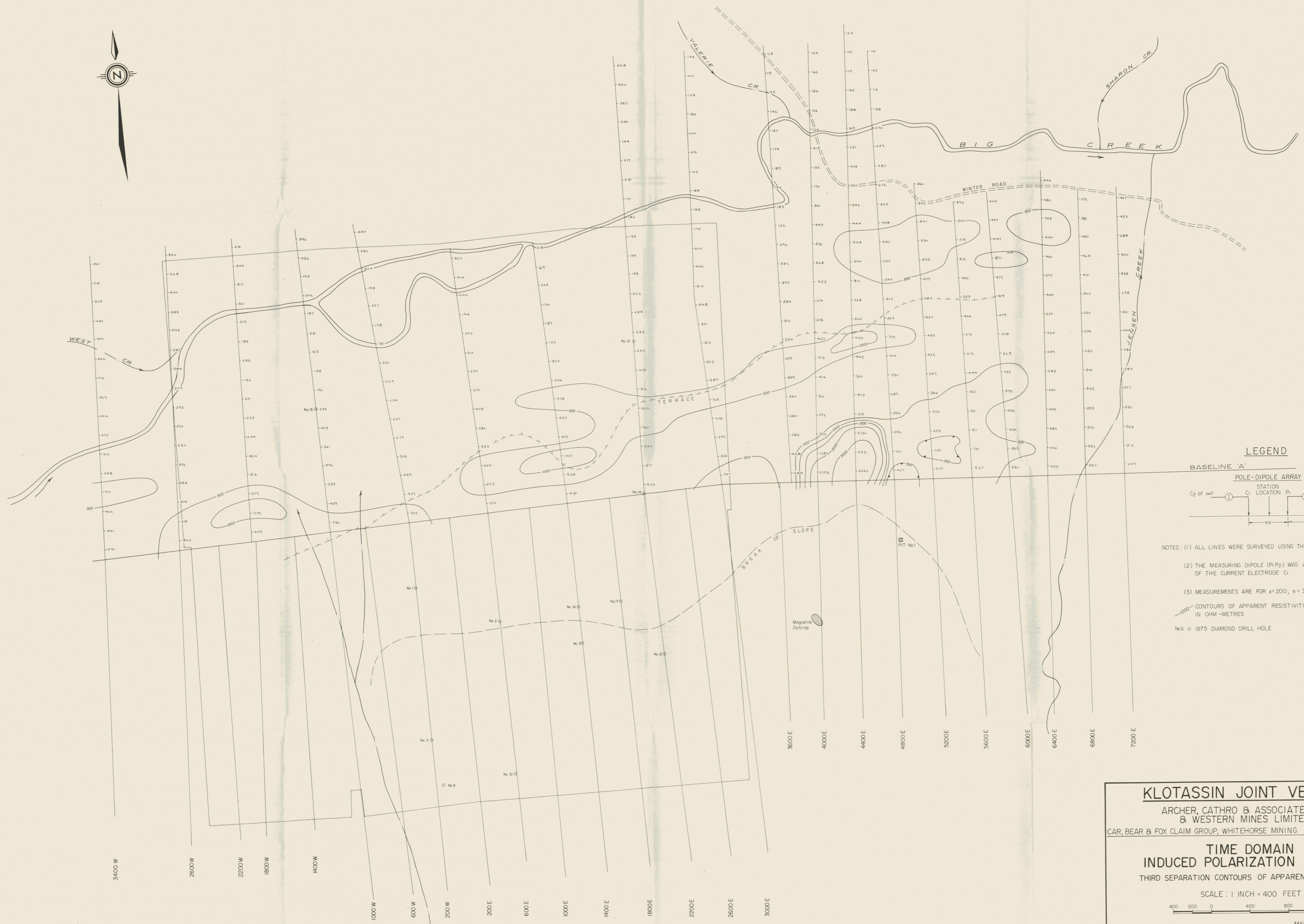
**TIME DOMAIN
 INDUCED POLARIZATION SURVEY**
 SECOND SEPARATION CONTOURS OF APPARENT RESISTIVITY

SCALE: 1 INCH = 400 FEET

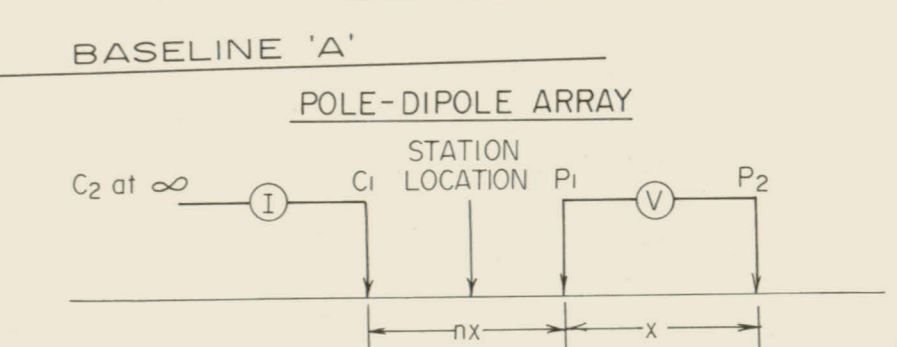
400 200 0 400 800 1200

EAGLE GEOPHYSICS LTD. DEC. 1975

MAP NUMBER E 75194-5
 To accompany a report by
 John Lloyd M.Sc., P. Eng.



LEGEND



- NOTES: (1) ALL LINES WERE SURVEYED USING THIS ARRAY
- (2) THE MEASURING DIPOLE (P1 P2) WAS ALWAYS TO THE NORTH OF THE CURRENT ELECTRODE C1
- (3) MEASUREMENTS ARE FOR $x=200$; $n=3$
- COUNTURS OF APPARENT RESISTIVITY IN OHM-METRES
- No. 6 O 1975 DIAMOND DRILL HOLE

KLOTASSIN JOINT VENTURE
 ARCHER, CATHRO & ASSOCIATES LTD.
 & WESTERN MINES LIMITED
 CAR, BEAR & FOX CLAIM GROUP, WHITEHORSE MINING DIVISION, CARMACKS, Y.T.

**TIME DOMAIN
 INDUCED POLARIZATION SURVEY**
 THIRD SEPARATION CONTOURS OF APPARENT RESISTIVITY

SCALE: 1 INCH = 400 FEET

400 200 0 400 800 1200

EAGLE GEOPHYSICS LTD. MAP NUMBER E 75194-6
 DEC. 1975 To accompany a report by John Lloyd M.S.C., P. Eng.