



GEOLOGICAL, GEOCHEMICAL, GEOPHYSICAL REPORT

on the

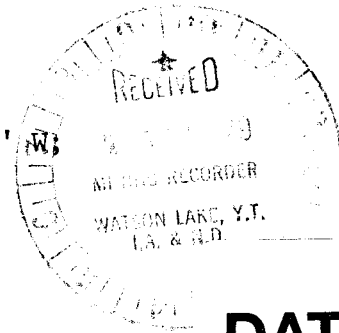
J.C. 1 - 82 MINERAL CLAIMS

YA25465-72; YA29351-400; YA33001-018; YA33790-795

MAP SHEET 105B/4

Lat.  $60^{\circ}11' N$ ; Long.  $131^{\circ}41' W$

Watson Lake M.D. Yukon

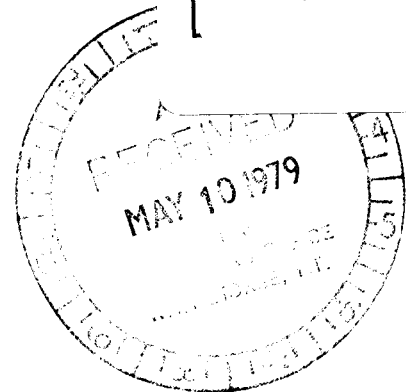


**DATE DUE**

[ Rec. 8/00 ]

by

J.C. Stephen



090462

Work Done: June 6 - Aug. 17 1978

January 1979

By: J.C. Stephen Explorations Ltd.,

Funded by: D.C. Syndicate

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 \$ 33,700.00

*D. Craig* 11 June 79

~~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

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GEOLOGICAL, GEOCHEMICAL, GEOPHYSICAL REPORT  
on the  
J.C. 1 - 82 MINERAL CLAIMS

SUMMARY

The J.C. 1-8 claims were staked in August 1977 to cover a tin - tungsten bearing skarn. Preliminary geological mapping, with some rock sampling, was done. On the basis of this limited information an exploration budget was provided for 1978.

The J.C. claim group was enlarged to:-

- (a) cover the projected down dip extension of the mineralized skarn,
- (b) cover a small intrusive plug indicated about two miles to the south west on G.S.C. map 10-1960 Wolf Lake,
- (c) cover the drainage flowing south about one mile east of the showings where anomalous silt samples had been obtained,
- (d) cover open ground west of J.C. group to link up with the PLUG group,

Silt sampling and panning was done on all drainage systems. Reconnaissance mapping and prospecting was done over the whole claim group. A picket line grid was established along the trend of the mineralized skarn horizon and geological mapping, soil sampling and a magnetometer survey were conducted on this grid. A series of 18 rock trenches were drilled and blasted on outcrops of skarn to provide fresh sample surfaces. These trenches were chip sampled and assayed for Cu, Zn, W and Sn. A limited amount

of petrographic work has been done on specimens of mineralized skarn.

There is indicated on the property a south dipping skarn horizon in excess of 3000 feet long which contains important amounts of tin mineralization in the form of malayaite, stannite and cassiterite. Low values were obtained for tungsten, occurring as coarse scheelite, and pods and lenses of copper and zinc mineralization occur.

Three thousand feet east of the main skarn, and approximately on strike, three small outcrops of skarn occur with coarse scheelite mineralization. Soil samples anomalous for tin were obtained east of this zone in the north east portion of the property.

It is recommended that:-

- (A) the main skarn horizon be tested by diamond drilling to-
  - (1) provide more complete cross sections of the skarn for stratigraphic and assay purposes,
  - (2) test to a depth of 800 feet for the expected sedimentary-granite contact. This hole would test for possible parallel mineralized horizons and for alteration, structure and possible mineralization in and close to the granite
- (B) research be done on tin recovery if adequate tonnage-grade possibilities are indicated by diamond drilling,
- (C) research be done on tin geochemistry to assist in interpretation of high silt sample values obtained at considerable distance from known showings.

LOCATION AND ACCESS

The J.C claims, Figure I, are located 21 miles north west of Swift River (mile 733) on the Alaska Highway. They are approximately three miles north west of Dorsey Lake and cover parts of two south flowing streams from elevations of about 3500 feet to the mountain between which reaches an elevation of 5626 feet. The mineralized showings are at elevations between 4700 and 4900 feet.

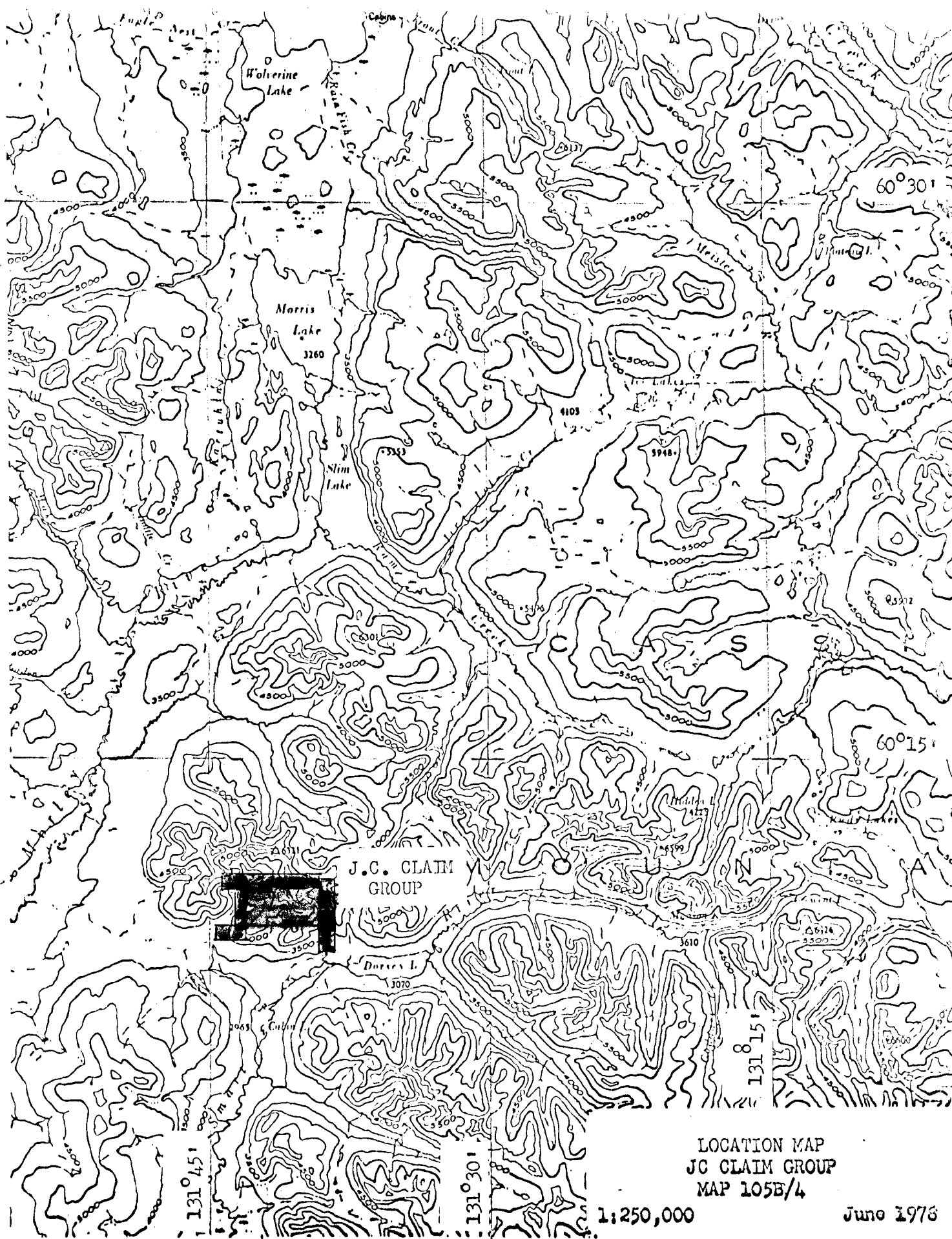
Topography is rugged immediately south of the showings but most of the other slopes are only moderately steep. Map IA.

A camp was established on the claim group June 5, 1978 at which time considerable snow remained on tree covered slopes and on shaded open slopes. The camp was supplied, throughout the program, by helicopter based on Pine Lake airstrip.

A tractor road, about 24 miles in length, was constructed to support exploration on this zone in 1974 or earlier. This trail follows the Smart River valley from milepost 755, Alaska Highway, to Cabin Lake and reaches the property by following valleys north west from Cabin Lake. The trail crosses several streams, including Two Ladder Creek flowing west from the Logtung property, and the Smart River above Cabin Lake. Except for some particularly wet spots, generally in thawed permafrost, this trail could be used by tracked vehicles but is impassable for ordinary 4 wheel drive vehicles.

LIST OF CLAIMS (Fig. II)

<u>NAME</u>	<u>RECORD NUMBERS</u>	<u>RECORD DATE</u>	<u>WORK RECORDED</u>	<u>EXPIRY DATE</u>
JC 1- 8	YA25465-472	Aug. 29/77	2½ years	Feb. 28/81
9-58	YA29351-400	June 15/78	-	June 15/79
59-76	YA33001-018	June 15/78	-	June 15/79
77-82	YA33790-795	July 17/78	-	July 17/79



LOCATION MAP  
JC CLAIM GROUP  
MAP 105B/4

1:250,000

June 1976

FIGURE I



## HISTORY

The area was staked in December 1967 as the VIOLA group for copper, zinc and silver. Trenching was carried out in the 1968 season. It was restaked as the FXE in August 1972 by Cypress Resources Ltd when minor sampling was done. In July 1974 it was again restaked as FIS and two shallow holes were drilled. No drill core has been found on the property.

D.C. Syndicate became interested in 1977 because of anomalous silt sample results, and minor copper mineralization reported by Brian Atkinson while silt sampling the region as part of our investigation of the "Zinc Creek" anomaly two miles to the north. Cursory examination by J.C. Stephen indicated fairly extensive skarn with some zinc and copper mineralization. Specimens taken back to base camp showed scheelite and malayaite mineralization when examined under a UV light.

GEOLOGY

The regional geology is shown on G.S.C. Map 10-1960, Wolf Lake by W.H. Poole 1951-55; J.A. Roddick and L.H. Green 1959.

The area within which D.C. Syndicate exploration has been concentrated in 1977 and 1978 is underlain primarily by Upper Devonian and Lower Mississippian sediments intruded by the Seagull batholith. The sedimentary rocks appear, generally, to be folded into a northwest trending synclinal structure and the Seagull batholith occupies a large part of the trough of this syncline. On the J.C. group the sediments dip moderately to the south and no synclinal structure is evident.

ROCK UNITS Map I J.C. Claim Group Geology 1"-500'  
Maps II and III Geology 1"-100'

Unit 1 Metasediments

A relatively monotonous sequence of argillites, quartzite, greywacke and minor chert, with minor carbonate horizons, apparently extends several hundred feet stratigraphically above and below the mineralized skarn horizon.

The argillite is usually dark grey to dark brown and contains abundant quartz, both in groundmass and as small veins. Fairly abundant iron staining is due to small amounts of pyrrhotite.

Unit 2 Limestone

The limestone, which is sparry and white, usually occurs as thin layers up to about two feet wide, or as lenses within thicker beds of silicified limestone. The thickest limestone bed is about 25 to 30 feet in width.

Within the limestone are thin interbeds or lenses of argillite, silicified limestone and weak garnet actinolite skarn.

### Unit 3 Silicified Limestone

The silicified limestone is white to light grey or green, and often exhibits differential weathering. It is often thinly bedded with minor laminations of argillite or small lenses of skarn and limestone. Occasionally the argillite lenses, or the silicified limestone itself, exhibits iron staining and rarely it contains traces of pyrrhotite.

### Unit 5 Hedenbergite - Diopside Skarn

The greater part of the skarn horizon consists of dark green, hackly weathering, skarn with varied proportions of epidote and actinolite. It usually contains garnet and calcite and is often mineralized with sphalerite, chalcopyrite, arsenopyrite, magnetite and scheelite. It sometimes contains axinite, beryl, fluorite and apatite. Near the campsite an apparently pipe-like lens of breccia contains coarse axinite, fluorite mineralization.

Considerable tin mineralization is associated with this skarn but, to the writer at least, the tin bearing skarn is indistinguishable from that which is barren.

### Unit 6 Calc - Silicate Skarn

This skarn is of limited apparent extent. It is buff-tan colored, contains red brown garnets and appears to occur as lenses. The mapped portion occurs at the east end of the main tin bearing skarn Map III Geology. This is apparently part of the better grade tin bearing, skarn.

Unit 7 Malayaite Bearing Calc-silicate Skarn

This has a marble like appearance with a greenish, or less commonly, brownish cast. Malayaite generally occurs as linear bands of minute crystals.

Unit 4 Seagul Batholith - Monzonite

This is a medium to coarse grained quartz monzonite. Outcrops are relatively limited although extensive talus occurs in the north east portion of the claim group and most of the glacial debris in the valleys in the south west part of the claim group is of the same rock type.

STRUCTURE

The sedimentary sequence on the J.C. group is an apparently continuous sequence of sediments dipping south at 25° to 50°. Some faulting occurs as is shown at the east end of Map II and west end of Map III, 1"-100' Geology.

Examination of air photos has indicated east-west and north-south trending linears which may represent important faults. One north-south linear lies near the east boundary of the J.C. claim group. To the west of this linear the granitic-sedimentary contact lies at about the 4300 foot elevation, while to the east the contact is at about the 5500 foot elevation with only remnants of sediments capping the ridges. Faulting is postulated here with movement of the east block up and to the north.

An east trending linear is indicated extending from the PLUG group through the skarn horizon on J.C. group. The minor faults at 92E and 94E may be splays off this fault.

In the south west part of the claim group granitic outcrops occur at elevations of about 3500 feet while the valleys to the north contain 60 to 80% granitic debris up to elevations of 4000 to 4200 feet.

In the north east part of the claim group granitic outcrops occur in the creek at 4000 to 4300 foot elevations, and at over 5000 foot elevation on the north east ridge at 142E. It is likely then that the whole claim group is underlain by the Seagull batholith at about the 4000 foot elevation.

#### MINERALIZATION

To date all mineralization of significance is confined to the main skarn horizon. Some occurrences of sulphide mineralization have been found in talus and float in the east part of the property but no showings of importance have as yet been found. The float in the north west corner of J.C.57 was sulphide rich and assayed 0.16% Sn. It is assumed this comes from the skarn horizon on J.C.10 Map I.

#### TIN

Tin minerals identified are malayaite ( $\text{CaSnSiO}_5$ ), stannite ( $\text{Cu}_2\text{S.FeS.SnS}_2$ ), stanniferous tetrahedrite and cassiterite.

Examination by Larry Dick, Queens University, of a specimen from Sample 0919, Trench section 8145E, which assayed 1.16% Sn determined that cassiterite was abundant, at least in the specimen, and that no other tin mineral was evident.

A specimen from sample 0920 from Trench section 8168E, showed abundant cassiterite. The cassiterite is very fine and well crystallized.

Dick reports the malayaite is psuedomorphous after cassiterite and that the tin mineralization occurs in fractures in the skarn. Some of these mineralized fractures cut garnet and other minerals of the skarn and Dick feels that the tin mineralization is subsequent to the skarn formation.

Stannite is reported associated with malayaite and chalcopyrite. It has been seen rimming chalcopyrite.

### TUNGSTEN

Coarse scheelite is evident in places. The highest assay obtained was from a picked sample which ran 4.4%  $WO_3$ . Chip sampling gave generally low values. No tungsten mineral other than scheelite has been identified.

### COPPER

Scattered sparse chalcopyrite and malachite mineralization occurs in the tin bearing skarn near 98E. A lens of relatively massive chalcopyrite grading 2.15% Cu across 9.75 feet on Section 7560E contains no appreciable tin or tungsten.

Chalcopyrite associated with malayaite grades 1.44% Cu across 7.6 feet on Section 8000E with 0.11%  $WO_3$  and 0.12% Sn, 0.09% Zn, 1.44 oz. Ag.

### ZINC

Sphalerite is abundant in local areas of the skarn and blue fluorescence from hydrozincite has interfered with estimation of scheelite content. Grades of 6.3% Zn across 5.5 feet and 8.68% Zn across 3,0 feet are indicative of the richest sections. Only very low tin assays were obtained in these sections.

SILVER

Small amounts of silver are reported in some trench samples which were assayed for that element. Where assayed there appears to be slightly less than 1 oz. silver per 1% copper. Silver has been detected associated with malayaite and chalcopyrite.

MISCELLANEOUS

Some sections of the skarn are well mineralized with magnetite and these zones are indicated by the results of the magnetometer survey. There is general, but not consistent, relationship between magnetite and the tin bearing areas.

Arsenopyrite is common in parts of the magnetite, copper, tin zone at about 8000E.

Relatively small amounts of pyrite and pyrrhotite occur, particularly in the magnetite, chalcopyrite rich sections of the skarn.

As mentioned above, axinite, fluorite, beryl and apatite have been identified in various portions of the skarn.

GEOCHEMISTRY

SILT SAMPLING AND PANNING Map I Geology  
Figures III W, Mo, Sn Geochemistry  
IV Cu, Zn Geochemistry

Silt sample results are shown on Figures III and IV, 1"- $\frac{1}{2}$  mile, Geochemistry. These are normal fine silts screened to -40 mesh and analysed for Cu, Zn, W and Sn.

Results in the drainage immediately east from the main malayaite showing were in the order of 30-154 ppm Cu; 116-2000 ppm Zn; 4 ppm W; 3-70 ppm Sn. The copper and zinc values led to the discovery. The values of 40 and 70 ppm Sn are nearly a mile east of the showing and values decrease to 5-8 ppm Sn near the showing.

In the south flowing stream near the east side of the property silts returned 14-30 ppm Cu; 96-310 ppm Zn; 4-75 ppm W; and 15-100 ppm Sn. These latter values were thought to be quite significant.

Check silt sampling in this creek was done in 1978. Results are shown on Map I, Geology. Samples were panned and the concentrate examined visually and with the UV lamp. Some scheelite is reported in a few samples but no cassiterite was found. The panned samples were screened to -48 mesh and pulverized to -200 mesh. Analysis gave 12-45 ppm W; with one high of 80 ppm. These results are not significantly higher than ordinary silt sampling but results are more consistent probably due to pulverizing to -200 mesh. Tin results ranged from 32 to 960 ppm showing generally higher and more consistent results than the 15-100 ppm Sn in ordinary silts.

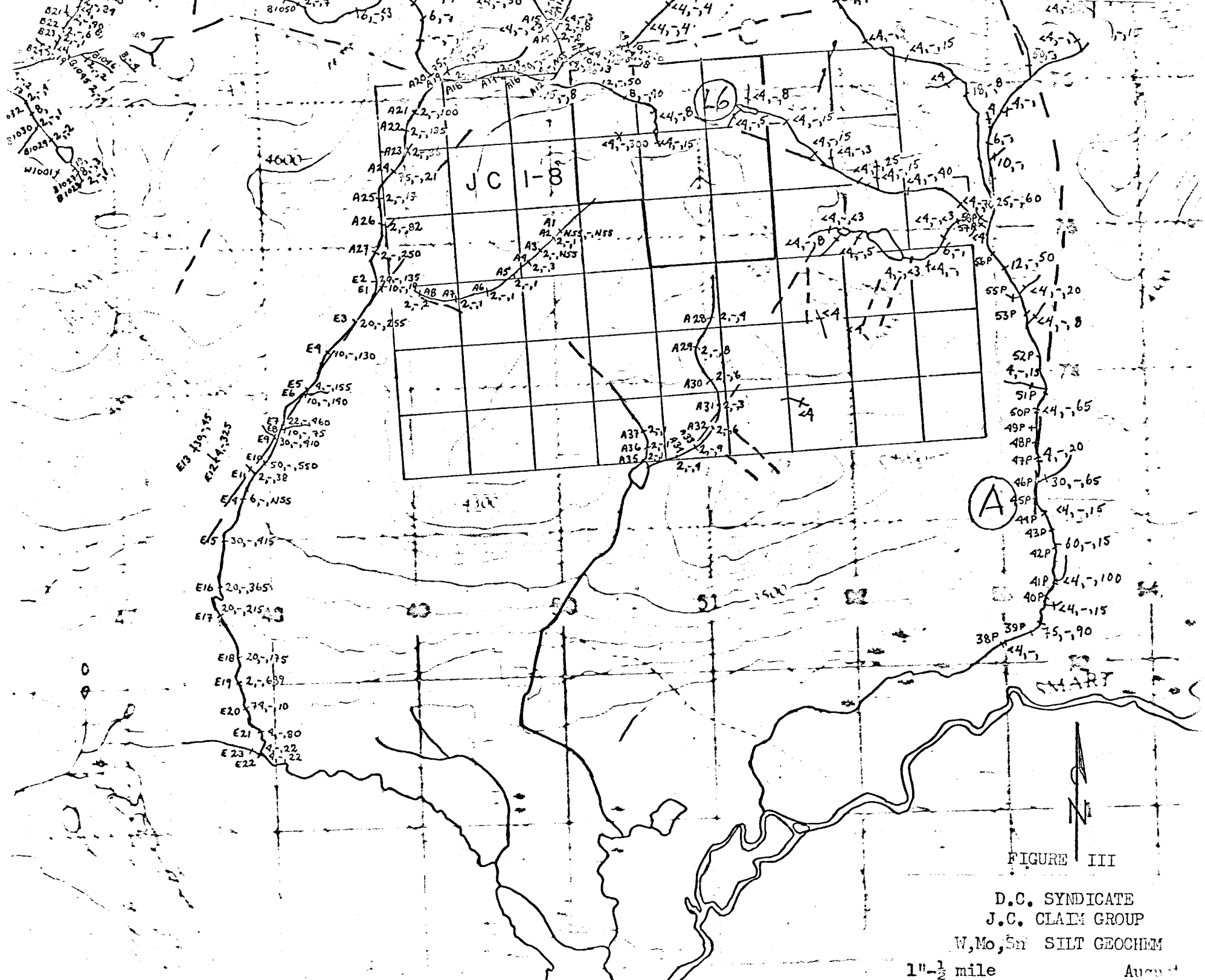


FIGURE III

D.C. SYNDICATE  
 J.C. CLAIM GROUP  
 W, Mo, Sn SILT GEOCHEM

1" - 1/2 mile

August

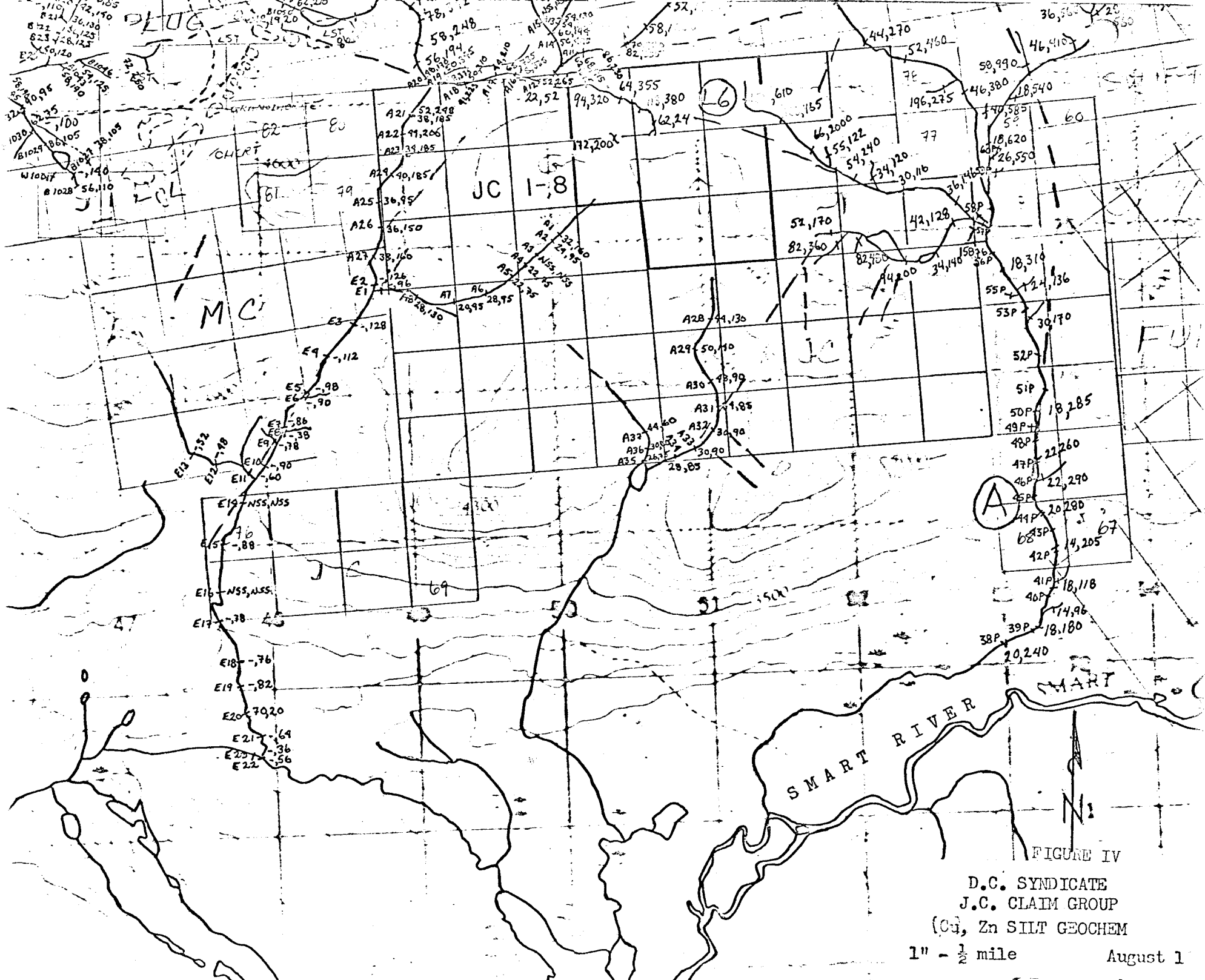


FIGURE IV

D.C. SYNDICATE  
 J.C. CLAIM GROUP  
 (Cu, Zn SILT GEOCHEM

1" - 1/2 mile

August 1

Drainage west from the tin bearing skarns gave 22-94 ppm Cu; 24-735 ppm Zn; 4-30 ppm W, and 8-50 ppm Sn. To the south west in the main south flowing stream values are 20-52 ppm Cu; 60-248 ppm Zn; 2-50 ppm W and, in the area assumed to be underlain by sediments, 17-135 ppm Sn. The tin results rise dramatically downstream in the area assumed to be underlain by granite to 38-689 ppm Sn.

In both main south flowing streams high tin results led us to expect tin mineralization in the granite below the sedimentary contact. Prospecting and panning failed to locate such mineralization and considerable time was expended on this search. There is, however, very little outcrop available for examination.

There is, particularly in the south east creek, an apparent preferential concentration of tin in panned concentrate samples. It is likely that, given the microscopically fine character of the cassiterite identified in the J.C. skarns, very fine cassiterite is present in the panned samples. The fine nature of the mineral may preclude identification in the field while panning.

#### SOIL SAMPLING

Soil, and in some cases talus, samples were taken on either side of the main streams in an effort to locate sources of tin dispersion. Results have been obtained only for the east side stream where tin values are relatively low 2-20 ppm. East of the north east ridge, near the north boundary, values rise to 12-135 ppm Sn and it is assumed this reflects the tungsten-tin bearing skarn horizon.

Samples along the main west stream were not analysed due to budget restrictions and are in storage.

Soil samples were taken at 200x100 foot intervals on the picket line grid along the main skarn horizon. Results so far obtained for 896 samples are shown on Maps IV to VII, Soil Sample Results, 1"-100'.

A zone of values >20 ppm Sn extends north east from the malayaite showing at about 100E. This is open to the north east where there is a considerable gap in the sampled grid.

This zone is followed easterly by several en-echelon anomalies which might indicate further zones of mineralization. From 130E no tin results are available as analysis was stopped at that time due to shortage of money. This area, however, shows the only significant tungsten geochemistry so far located on the property. Tungsten values in soil range from 10 to 95 ppm and are in the vicinity of coarse scheelite mineralization in small isolated skarn outcrops.

TIN RESULTS  
ADDED JAN 30/79  
JTB

Between 94E and 84E there are two small, apparently isolated, anomalies. This is in the area disrupted by south east trending faults and the favourable horizon may be offset.

From 84E a strong tin anomaly trends north west along and down the side of the valley. Some skarn and favourable limey horizons follow this trend to about 64E where outcrop ceases.

Several of the smaller anomalies further west might be attributed to dispersion of tin along the valley by glaciation. The magnetic survey shows a few isolated highs but not sufficient to confidently project the skarn horizon.

Samples were analysed for Cu, Zn, W, Sn but examination of the soil sample maps indicates there is no positive correlation in the geochemical results for these elements.

GEOPHYSICS

PURPOSE AND METHOD

A magnetometer survey was prompted by the magnetite mineralization in the skarn horizon and the survey was conducted on the picket line grid in an attempt to trace the skarn in areas of overburden. Initial work was done using a proton precession magnetometer. These lines were repeated using a McPhar M-700 fluxgate magnetometer and no appreciable differences were evident in the results.

The proton precession magnetometer is a total field measuring device while the fluxgate instrument is a vertical component measuring device. At very high latitudes there is little or no difference in the results. Within the limits of precision of the fluxgate instrument no difference in results could be detected on the J.C. group and the fluxgate was used for the most part because it was more readily available and much cheaper to rent.

Readings were taken on the picket line grid with stations normally at 200 x 100 foot spacing. Locally where magnetic variations were high intermediate readings were taken. Results are plotted on Maps VIII to XI, Magnetometer Survey, 1" - 100'. Contours are at 100 gamma intervals generally with 500 gamma intervals in some areas of high magnetic relief. The survey extended generally from near the base of the talus slope south of the skarn horizon, north to the north boundary of the property. The high rugged relief to the south was avoided as impassable in places but also as too time consuming. Results would have been difficult to interpret and possibly of uncertain precision.

East of about 88E. some lines were short because of topography although it was intended that readings be taken. From

98E. to 126E. there is a gap in the survey, as in the geochemical survey, due to lack of time and money.

Base line stations were read repeatedly at the start of the survey to establish check stations for the survey. All lines read included checks on the base line and corrections from day to day were made as necessary.

### INTERPRETATION

Zone 1 A strongly magnetic zone occurs between 76E and 90E. From about 78E to 83E this conforms closely to outcrops of magnetite, copper, tin rich skarn. It is assumed the eastern part of the anomaly is caused by similar material buried under quartzitic sediments exposed in the tractor trench at about 85E. As some of the best grade tin assays were obtained from trenches in this area the zone is indicated as a prime diamond drill target. Length of the zone is in excess of 1200 feet.

Zone 2 High readings just north of the base line at 71E to 75E may be caused by material similar to Zone 1. The base line crosses an area of talus and sediments apparently stratigraphically above the favourable skarn horizon.

Zone 3 A relative high at 62E to 66E, 106N lies south of the trend of the geochemical tin anomaly and west of the skarn outcrop area. It may represent a magnetite zone in skarn however and, because of the geochemical results just downhill, it deserves future attention. It is elliptical in shape and magnetic relief indicates steep contacts rather than a stratabound south dipping zone.

Zones 4 and 5 These two anomalies in the western part of the picket linegrid area are similar to Zone 3 but even farther removed from known outcrops of skarn and tin geochem anomalies. Their importance

is problematic. Zone 5 may be an elliptical structure.

Zone 6 This area of relatively high magnetic response includes an area of copper-magnetite mineralization with some associated tin as well as the area of the original malayaite showing. The survey should be continued to the north east.

Zone 7 An abrupt increase in magnetic response occurs on line 130E at 109N. No outcrop is indicated on Map I, Geology, but the area is one of sediments favourable for skarn formation. The anomaly has steep gradients on the south and west but is open to the north east. It does not appear to be a strata bound structure.

Zone 8 This is apparently a small zone and the anomaly is of only about 200 gammas. It is in the vicinity of small scheelite bearing skarn outcrops.

Zone 9 This anomaly occurs on the north boundary of the claim group on line 84E. It suggests a structure which may be dipping south with the general trend of the sediments. No outcrop is mapped in the vicinity. It is a potential target if other magnetic anomalies prove important.

The character of the magnetic anomalies observed is not what was expected when the survey was proposed. I had assumed there would be a fairly general, though not constant, magnetite, pyrrhotite component in the skarn horizon. The anomaly expected was a general, relatively low amplitude, magnetic anomaly along the strike length of the skarn. In areas of high magnetite content, as at about 80E, the anomaly was expected to be abrupt on the north side, possibly with a distinct magnetic low associated, and a fairly gentle tapering off down dip to the south. This was on the assumption that mineralization was skarn controlled and generally stratabound.

The character of anomalies such as Zones 3, 5 and 7, together with the axinite, fluorite bearing breccia in Zone 1 raises the possibility that the anomalies indicate near vertical, elliptical, breccia pipes and that tin mineralization, since it is apparently post skarn, is associated with these structures.



FIGURE V    LOOKING EAST ALONG NORTH BOUNDARY  
J.C. CLAIM GROUP

PHYSICAL WORK

A picket line grid was established to aid in survey and mapping work. The base line is termed 100+00N and runs east-west through the claim post near the original malayaite showing which was designated 100+00E. The base line extends from 28E to 142E as shown on Map I, Geology.

Cross lines were cut at 200 foot intervals and total about 93,000 feet.

Rock trenching was carried out where outcrop was available along the exposed trend of the skarn formations. These trenches are parallel to the picket lines and are represented on Map XII, Rock Trenches and Soil Sample Results, together with the assay results for tin.

All trenches were surveyed for profile and plotted, together with observations of strike, dip and rock type on Figures VII to XXI. Assays for Cu, Zn,  $WO_3$ , Sn and Ag are given on each section. Widths are calculated true widths.

Two areas of significant tin content are indicated. The first is on lines 80E and 82E, which is part of Magnetic Zone 1, and the south east head of one of the largest geochemical tin anomalies. The highest value is 1.26% Sn over 8.5 feet. The samples are distributed north south from 9962N (Section 8065E) to 10101N (Section 8000E), a surface distance of 139 feet. Dips are noted at  $21^\circ$  and  $25^\circ$  south. Total thickness of the horizon, including probably unmineralized sediments covered by overburden between the trenches, would be about 50 feet. Average grade of all samples on Sections 8000E, 8065E, 8145E and 8168E is 0.51% Sn.

The second area of tin mineralization is in the vicinity of the original malayaite showing between 9951E and 10104E. This is part of Magnetic Zone 6 and is covered by a geochemical anomaly open to the north east.

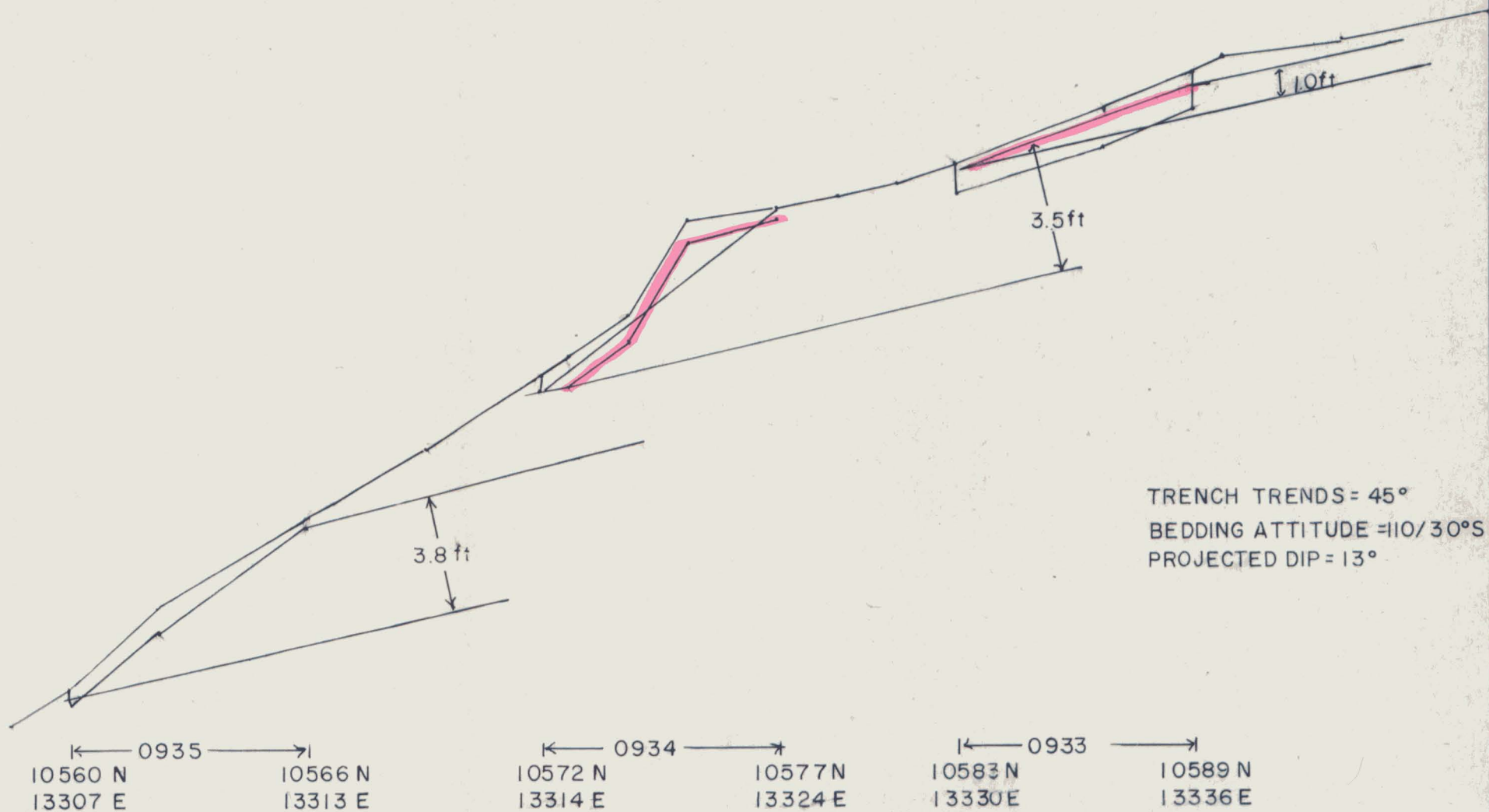
True total thickness of the zone is difficult to estimate. Geometric position of the trenches on Sections 10062E and 10104E suggest a possible thickness of up to 18 feet. Appearance of the zone, however, suggests relatively thin mineralized beds. Average grade of samples on Sections 9951E, 10062E, 10092E and 10104E is 0.90% Sn.



FIGURE VI MALAYAITE FLUORESCENCE  
Sample 66982A 10,062E.  
Light colored fluorescence should be yellow.



SAMPLE NO.	Cu %	Zn%	WO <sub>3</sub> %	Sn %	Ag <sup>oz</sup> /TON	CALCULATED THICKNESS
0933	<0.01		<0.01	0.10		1.0 ft
0934	<0.01		0.04	0.12		3.5 ft
0935	<0.01		<0.01	0.06		3.8 ft



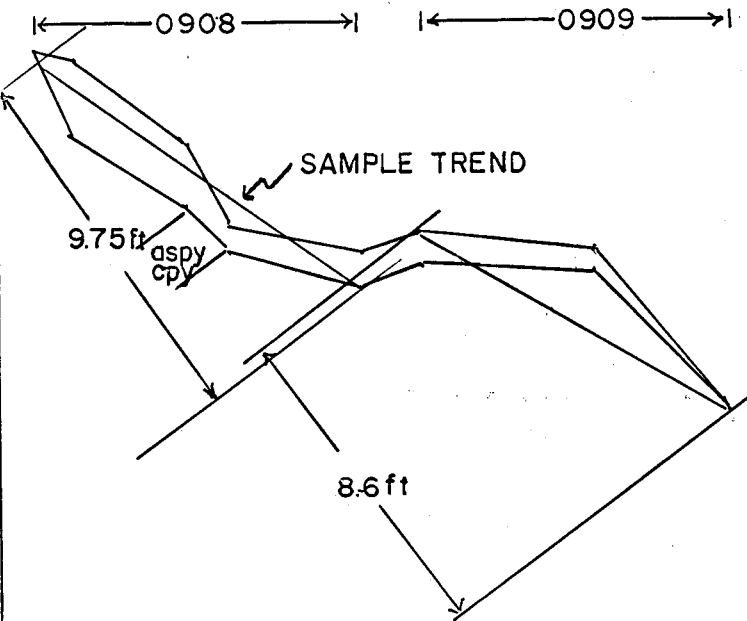
993 - 995: Diopside-epidote skarn with  
 axinite and fluorite

D. C. SYNDICATE  
 J. C. CLAIM GROUP  
 SECTIONS 13,307 E & 13,330 E  
 SCALE 1" = 5'  
 AUGUST 1978



10100 N; 7560 E

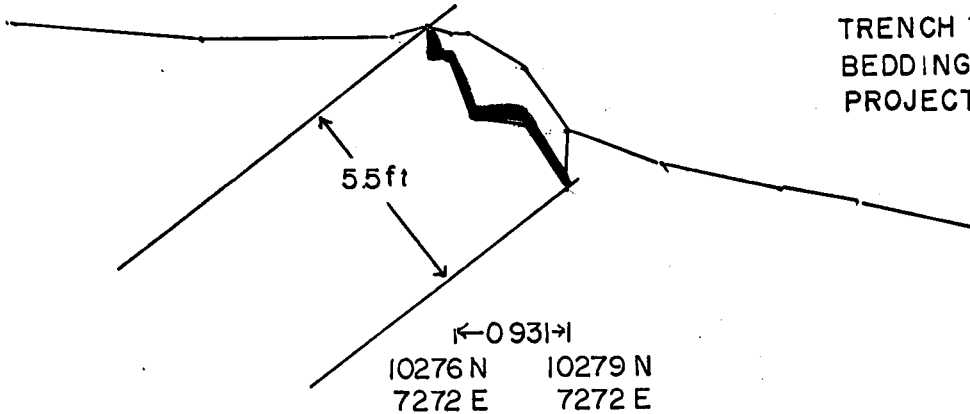
10118 N; 7560 E



908-909: Diopside skarn with slight scheelite mineralization and a zone with arsenopyrite and chalcopyrite

TRENCH TRENDS = 0°  
BEDDING ATTITUDE = 110/38°S  
APPARENT DIP = 30°

SAMPLE NO.	Cu %	Zn %	WO <sub>3</sub> %	Sn %	Ag %/TON	CALCULATED THICKNESS
0908	2.15	0.12	0.02	0.01	1.38	9.75 ft
0909	0.76	0.08	0.01	0.01	0.60	8.6 ft
0931	0.06	6.30	0.01			5.5 ft



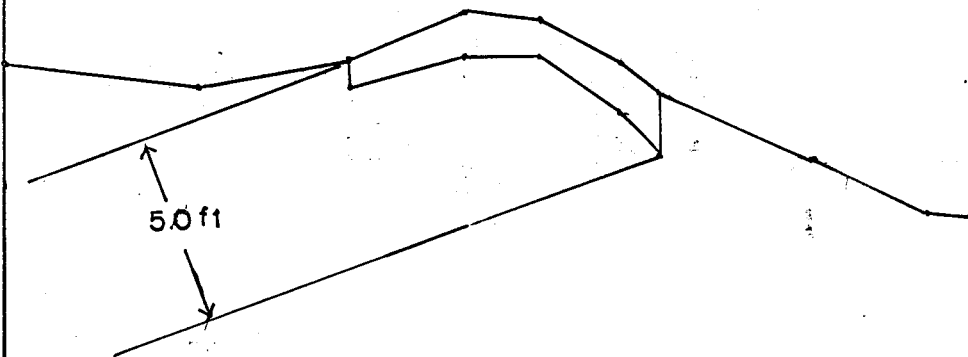
TRENCH TRENDS = 0°  
BEDDING ATTITUDE = 110/38°S  
PROJECTED DIP = 37°

931: Top of section is calc-silicate skarn with green garnet grading into massive sphalerite then back into calc-silicate skarn

D.C. SYNDICATE  
J.C. CLAIM GROUP  
SECTIONS 7272E & 7560 E  
SCALE 1" = 5'  
AUGUST 1978

7356 E      7356 E  
 |← 0910 →|  
 10229 N    10234 N

TRENCH TRENDS = 0°  
 BEDDING ATTITUDE = 110/20°S



0910: Tan coloured calc-silicate skarn with traces of malayaite, grading down into cherty silicified limestone

0911: A picked sample from the calc-silicate skarn, exhibiting abundant malayaite fluorescence

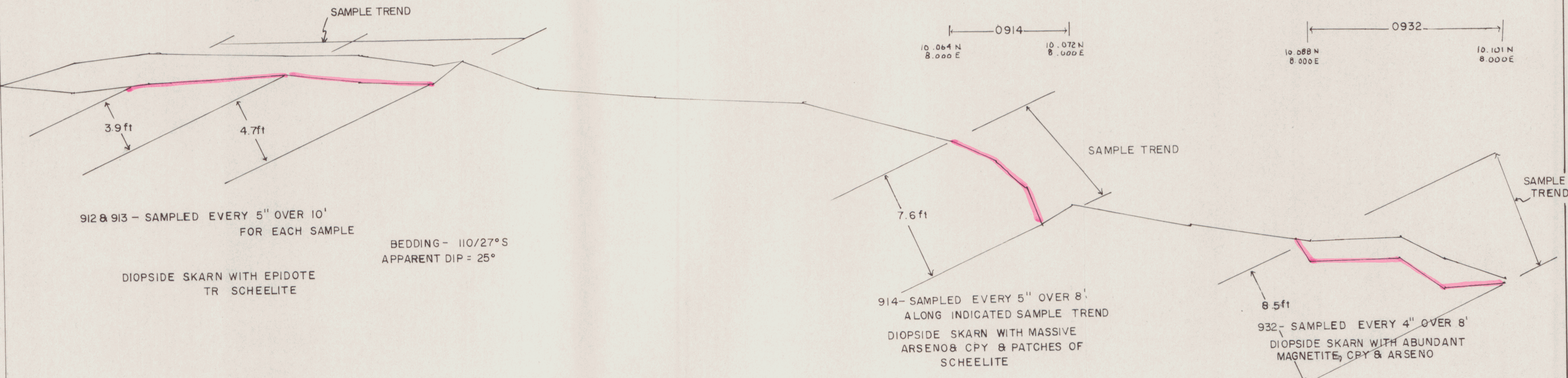
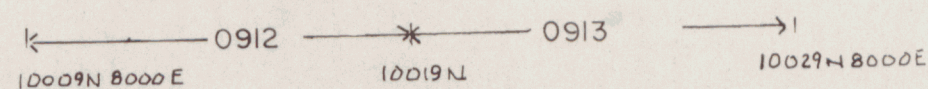
SAMPLE NO.	Cu%	Zn%	WO <sub>3</sub> %	Sn %	Ag <sup>α</sup> / <sub>TOL</sub>	CALCULATED THICKNESS
0910	<0.01	0.01	0.01	0.06		5.0 ft
0911	<0.01	0.01	0.01	<del>0.06</del>		PICKED SAMPLE

D.C. SYNDICATE  
 J.C. CLAIM GROUP  
 SECTION 7356 E

SCALE 1" = 5'      AUGUST 1978

SAMPLE NO.	Cu%	Zn%	WO <sub>3</sub> %	Sn%	Ag <sup>oz/TON</sup>	CALCULATED THICKNESS
0912	<0.01	0.01	0.01	0.16		3.9 ft
0913	<0.01	0.02	0.01	0.14		4.7 ft
0914	1.44	0.09	0.11	0.12	1.44	7.6 ft
0932	0.38	0.04	<0.01	1.26		8.5 ft

NORTH-SOUTH PROFILE



912 & 913 - SAMPLED EVERY 5" OVER 10' FOR EACH SAMPLE

BEDDING - 110/27°S  
APPARENT DIP = 25°

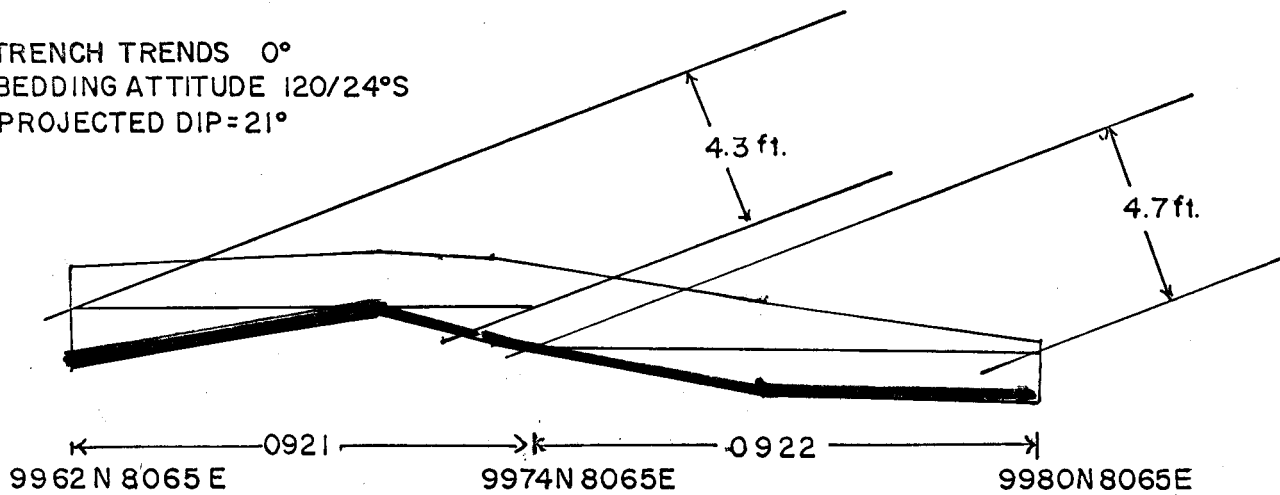
DIOPSIDE SKARN WITH EPIDOTE  
TR SCHEELITE

914 - SAMPLED EVERY 5" OVER 8'  
ALONG INDICATED SAMPLE TREND  
DIOPSIDE SKARN WITH MASSIVE  
ARSENO & CPY & PATCHES OF  
SCHEELITE

932 - SAMPLED EVERY 4" OVER 8'  
DIOPSIDE SKARN WITH ABUNDANT  
MAGNETITE, CPY & ARSENO

D.C. SYNDICATE  
J.C. CLAIM GROUP  
SECTION 8000E  
SCALE 1"-5' AUGUST 1978

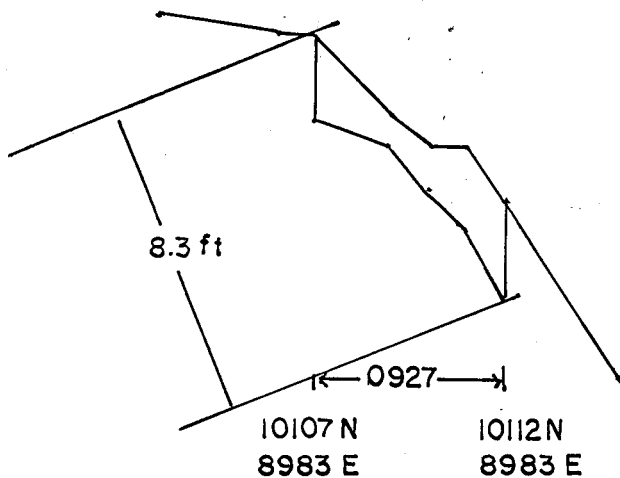
TRENCH TRENDS 0°  
 BEDDING ATTITUDE 120/24°S  
 PROJECTED DIP=21°



921: Diopside skarn with garnet and actinolite, abundant chalcopyrite, zones of arsenopyrite, patches of scheelite

922: Diopside-epidote-garnet-actinolite skarn with abundant magnetite, also with chalcopyrite, arsenopyrite, fluorite and scheelite

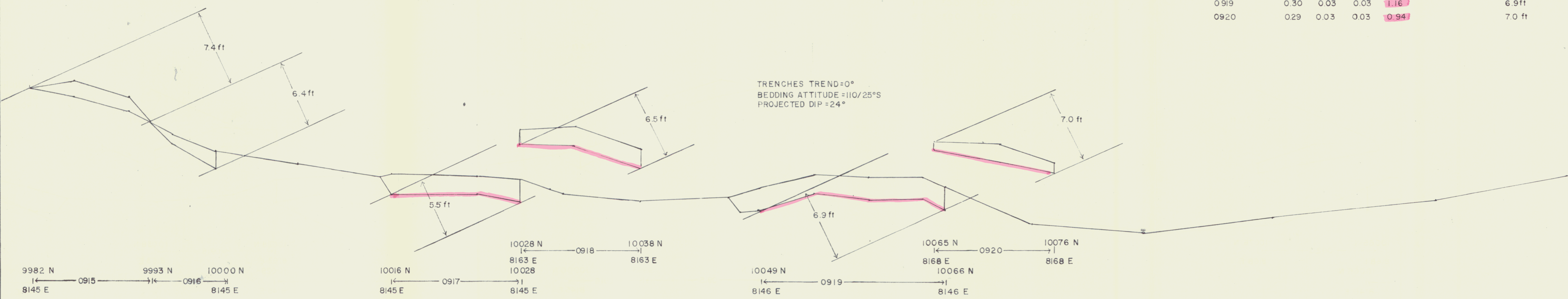
SAMPLE NO.	Cu%	Zn%	WO <sub>3</sub> %	Sn%	Ag % <sub>TON</sub>	CALCULATED THICKNESS
0921	<0.01	0.03	0.31	██████	0.02	4.3 ft
0922	0.59	0.04	0.06	██████	0.56	4.7 ft.
0927	0.01	0.09	0.01	0.02		8.3 ft



927: Interbedded silicified limestone and weak diopside skarn with a one foot thick rusty zone

TRENCH TRENDS 0°  
 BEDDING ATTITUDE 135/30S  
 PROJECTED DIP=22°

D. C. SYNDICATE  
 J.C. CLAIM GROUP  
 SECTIONS 8065 E & 8983 E  
 SCALE 1" = 5'  
 AUGUST 1978



SAMPLE NO.	Cu %	Zn%	WO <sub>3</sub> %	Sn %	Ag % <sub>TDM</sub>	CALCULATED THICKNESS
0915	0.11	0.01	0.02	0.08	0.06	7.4 ft
0916	0.11	0.02	0.01	0.07		6.4 ft
0917	0.44	0.04	0.05	0.34		5.5 ft
0918	0.05	0.02	0.04	0.22		6.5 ft
0919	0.30	0.03	0.03	1.16		6.9 ft
0920	0.29	0.03	0.03	0.94		7.0 ft

9982 N  
8145 E

← 0915 →

9993 N  
8145 E

← 0916 →

10000 N  
8145 E

10016 N  
8145 E

← 0917 →

10028 N  
8163 E

← 0918 →

10038 N  
8163 E

10049 N  
8146 E

← 0919 →

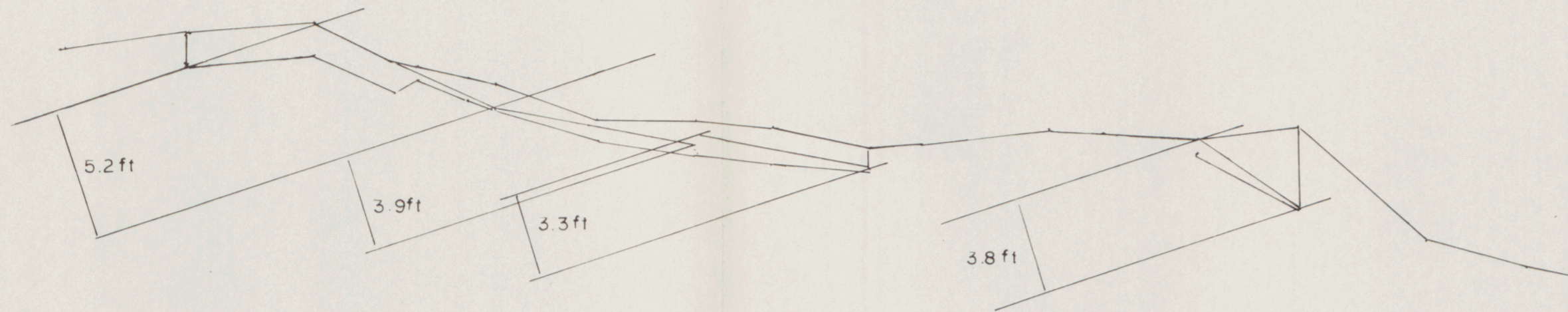
10065 N  
8168 E

← 0920 →

10076 N  
8168 E

D.C. SYNDICATE  
 J.C. CLAIM GROUP  
 SECTIONS 8145 E & 8168 E  
 SCALE 1" = 5'      AUGUST 1978

SAMPLE NO.	Cu%	Zn%	WO <sub>3</sub> %	Sn%	Ag <sup>oz</sup> /TON	CALCULATED THICKNESS
0923	0.01	0.01	0.11	0.04		5.2 ft
0924	0.01	0.01	0.02	0.01		3.9 ft
0925	0.01	0.01	0.03	0.08		3.3 ft
0926	0.01	0.01	0.02	0.05		3.8 ft

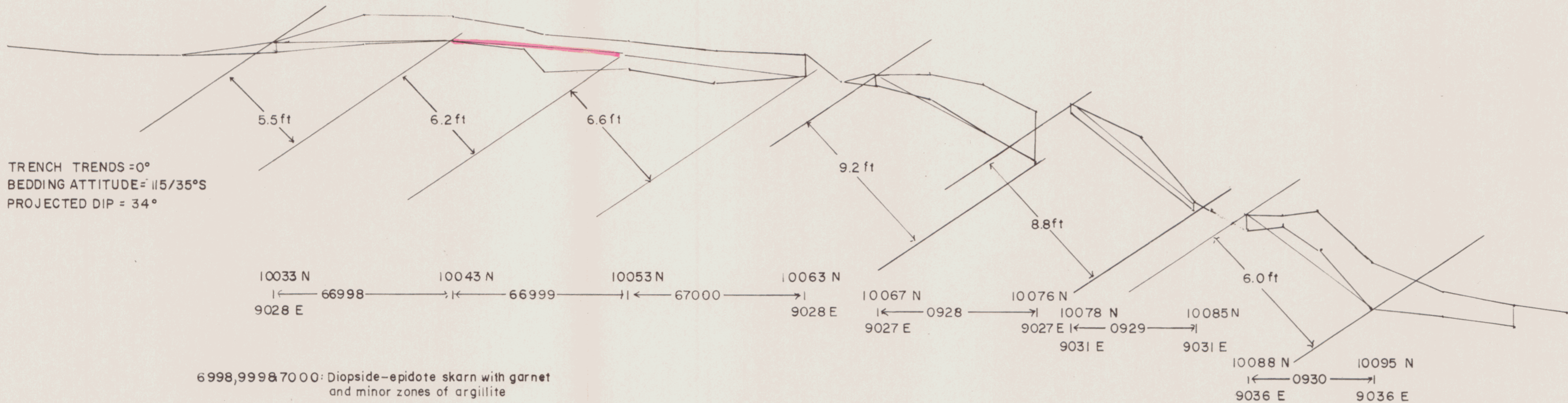


10027N 10034 N 10042 N 10049 N 10062 N 10066 N  
 8895 E 8895 E 8895 E 8895 E 8895 E 8895 E  
 ← 0923 → ← 0924 → ← 0925 → ← 0926 →  
 923 & 924 = Calc-silicate skarn, pink (garnet)-green cast  
 925 = Diopside skarn with traces of scheelite  
 926 = Diopside skarn with traces of scheelite

BEDDING ATTITUDE - 125/22°S  
 PROJECTED DIP - 18°

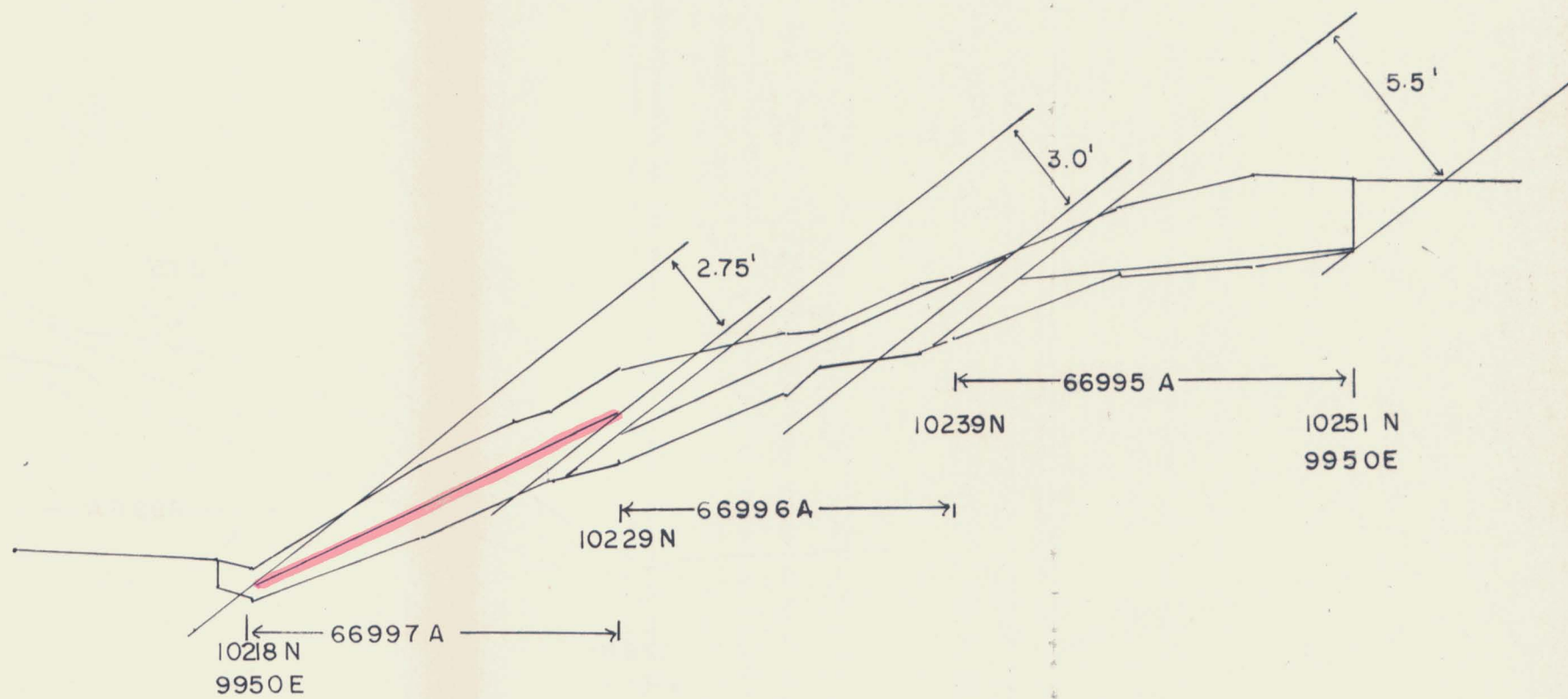
D.C. SYNDICATE  
 J.C. CLAIM GROUP  
 SECTION 8895 E  
 SCALE 1"=5' AUGUST 1978

SAMPLE NO.	Cu%	Zn%	WO <sub>3</sub> %	Sn%	Ag <sup>oz</sup> /ton	CALCULATED THICKNESS
0928	<0.01	0.01	<0.01	0.02		9.2 ft
0929	<0.01	<0.01	<0.01	0.06		8.8 ft
0930	<0.01	0.03	<0.01	<0.01		6.0 ft
66998	<0.01	0.01	0.03	0.09		5.5 ft
66999	<0.01	0.01	0.02	0.15		6.2 ft
67000	<0.01	0.01	0.02	0.03		6.6 ft



D.C. SYNDICATE  
 J.C. CLAIM GROUP  
 SECTIONS 9027E & 9036E  
 SCALE 1"=5' AUGUST 1978

SAMPLE NO.	Cu %	Zn %	WO <sub>3</sub> %	Sn %	Ag <sup>oz</sup> /TON	CALCULATED THICKNESS
66995 A	<0.01	0.14	0.02	0.05		5.5 ft
66996 A	1.35	8.68	0.03	0.04	0.76	3 ft
66997 A	0.01	0.35	0.02	0.18		2.75 ft



997 = Diopside - epidote skarn

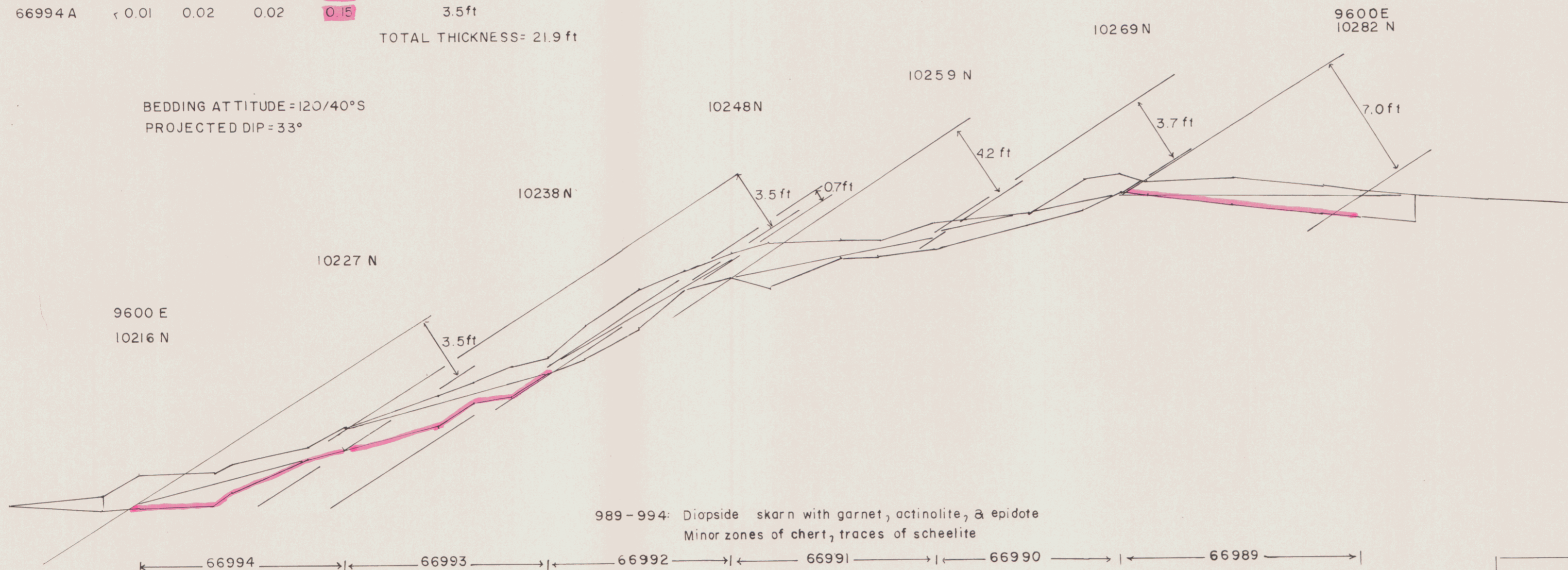
996 = Green diopside skarn, richly mineralized with sphalerite, chalcopyrite, bornite and arsenopyrite

995: Diopside skarn

D.C. SYNDICATE  
 J.C. CLAIM GROUP  
 SECTION 9550 E  
 SCALE 1" = 5'    AUGUST 1978

SAMPLE NO.	Cu%	Zn%	WO <sub>3</sub> %	Sn %	CALCULATED THICKNESS
66989 A	< 0.01	0.01	0.09	0.20	7ft.
66990 A	< 0.01	0.04	0.03	0.05	3.7ft.
66991 A	< 0.01	0.05	0.03	0.08	4.2ft.
66992 A	< 0.01	0.01	0.06	0.08	0.7ft.
66993 A	< 0.01	0.01	0.02	0.13	3.5ft.
66994 A	< 0.01	0.02	0.02	0.15	3.5ft.

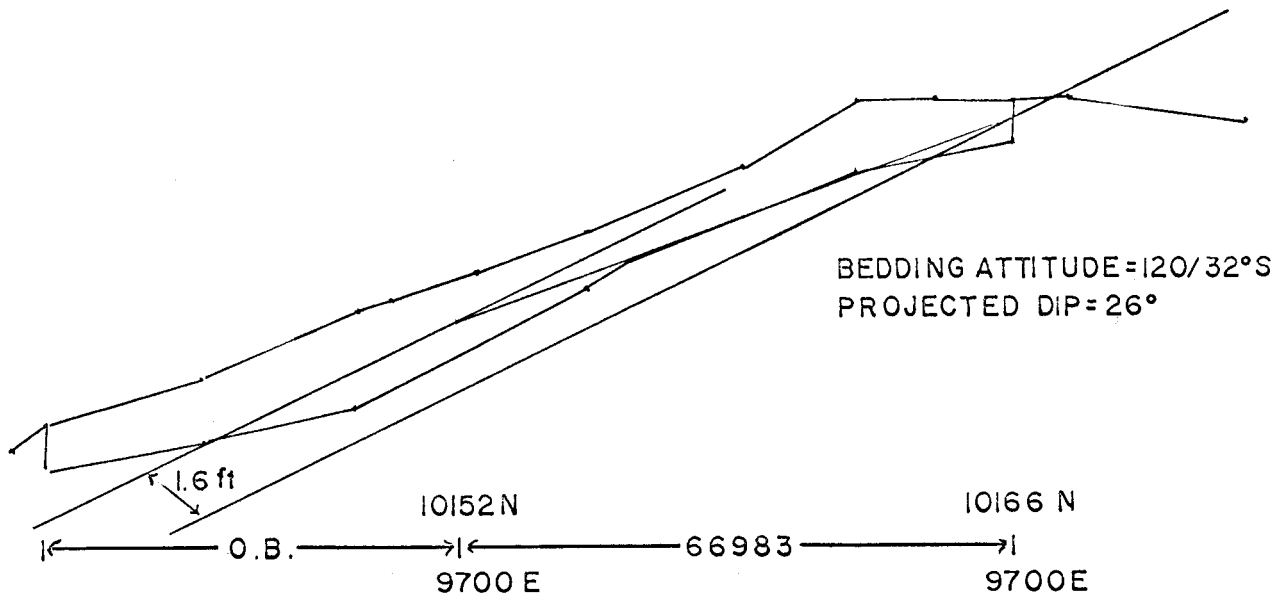
TOTAL THICKNESS= 21.9 ft



989-994: Diopside skarn with garnet, actinolite, & epidote  
 Minor zones of chert, traces of scheelite

← 66994 → | ← 66993 → | ← 66992 → | ← 66991 → | ← 66990 → | ← 66989 → |

D.C. SYNDICATE  
 J.C. CLAIM GROUP  
 SECTION 9600E  
 SCALE 1"=5' AUGUST 1978



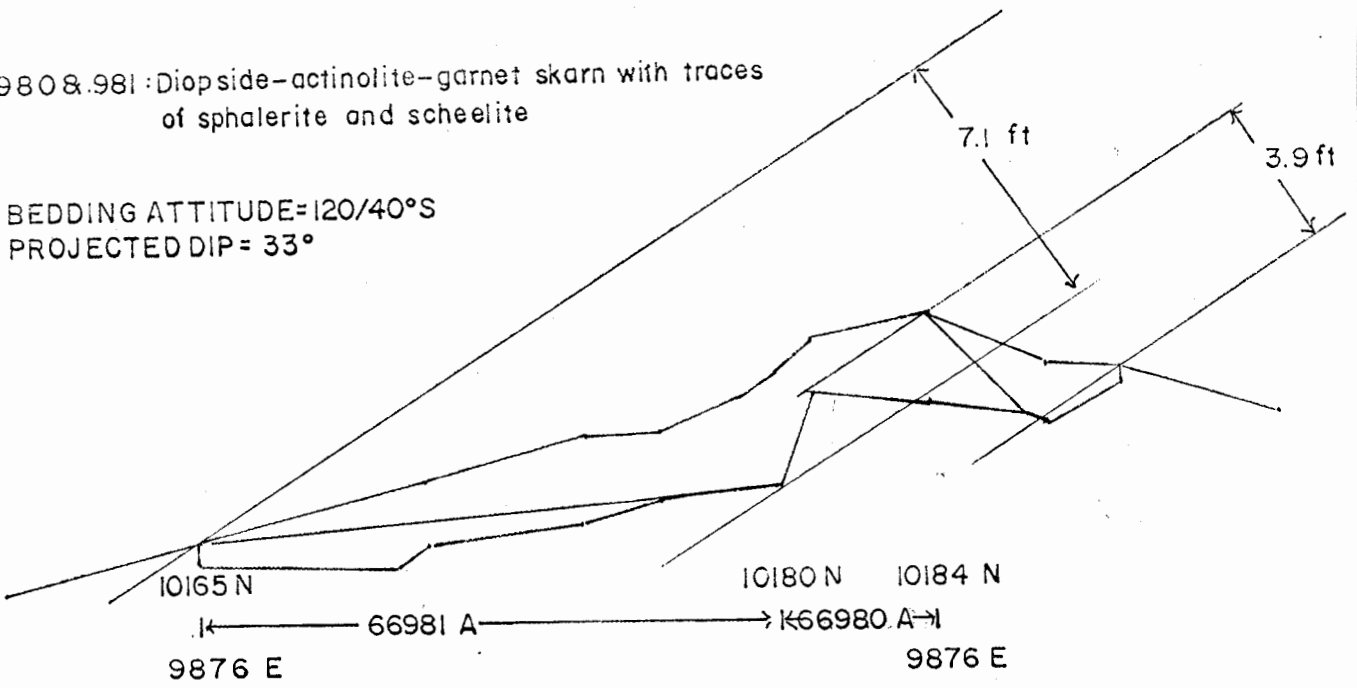
<u>SAMPLE NO.</u>	<u>Cu %</u>	<u>Zn %</u>	<u>WO<sub>3</sub> %</u>	<u>Sn %</u>	<u>CALCULATED THICKNESS</u>
66983 A	0.01	0.16	0.12	0.03	1.6 ft

983: Diopside skarn with garnet, mineralized with sphalerite and traces of scheelite

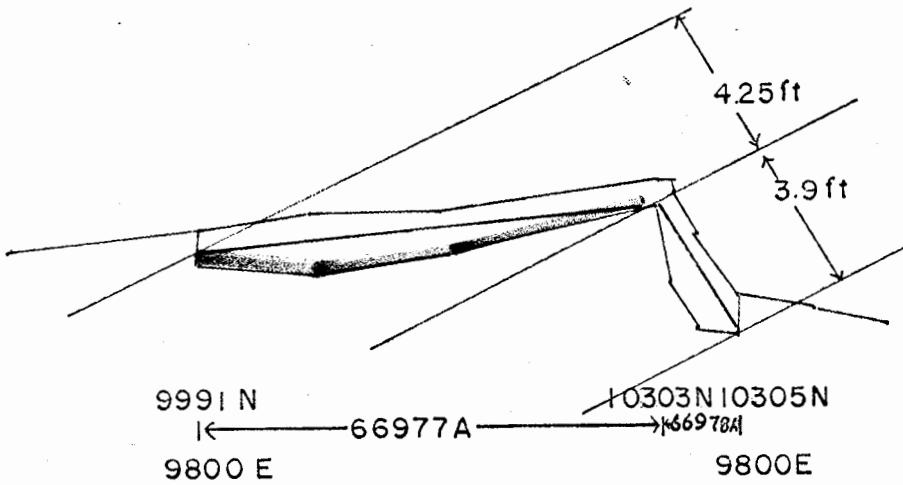
D.C. SYNDICATE  
 J.C. CLAIM GROUP  
 SECTION 9700E  
 SCALE 1" = 5'      AUGUST 1978

980 & 981: Diopside-actinolite-garnet skarn with traces of sphalerite and scheelite

BEDDING ATTITUDE = 120/40°S  
PROJECTED DIP = 33°



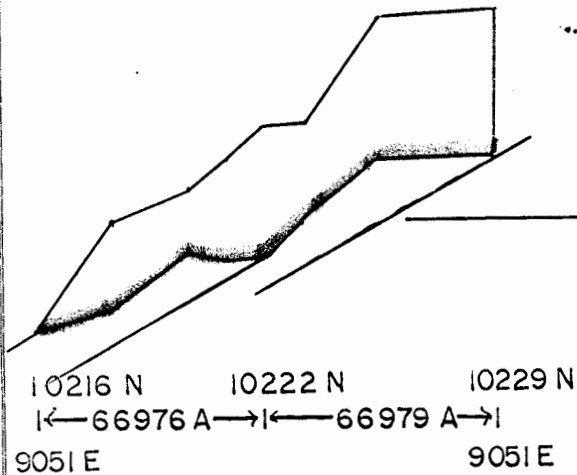
SAMPLE NO.	Cu%	Zn%	WO <sub>3</sub> %	Sn%	CALCULATED THICKNESS
66977 A	<0.01	0.03	0.03	0.18	4.25 ft
66978 A	<0.01	0.03	0.03	0.08	3.9 ft
66980 A	<0.01	0.12	0.02	0.08	3.9 ft
66981 A	<0.01	0.14	0.16	0.08	7.1 ft



BEDDING ATTITUDE = 120/32°S  
PROJECTED DIP = 26°

977 & 978: Black actinolite diopside skarn with traces of scheelite

D. C. SYNDICATE  
J. C. CLAIM GROUP  
SECTIONS 9800E & 9876 E  
SCALE 1" = 5'  
AUGUST 1978



BEDDING ATTITUDE = 130/ 36°S  
 APPARENT DIP = 29°  
 (measured 40° from dip slope)

- 976: Diopside skarn with patches of chalcopyrite  
 and abundant yellow fluorescence, possibly malayaite
- 979: Diopside skarn with yellow fluorescence  
 at south end of sample

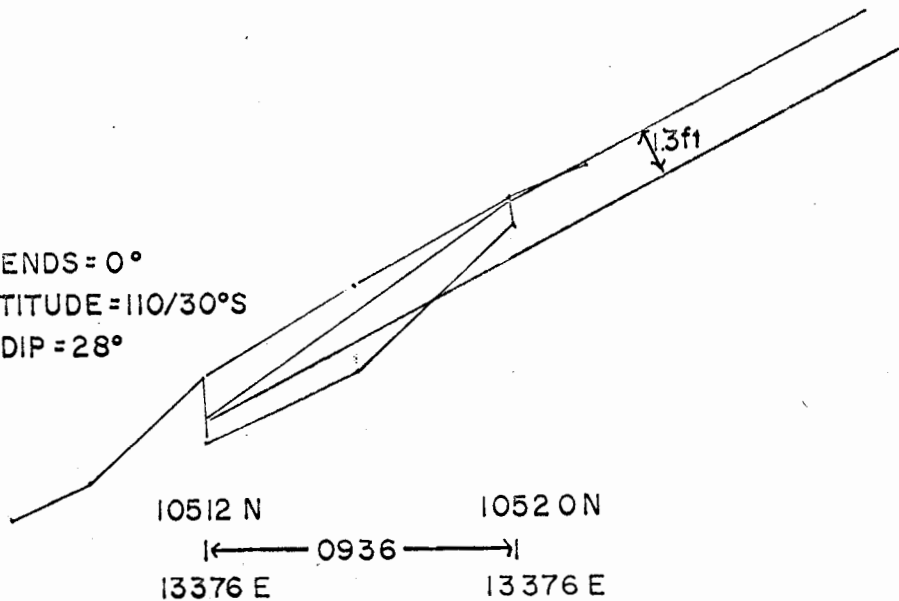
<u>SAMPLE NO.</u>	<u>Cu %</u>	<u>Zn %</u>	<u>WO<sub>3</sub> %</u>	<u>Sn %</u>	<u>CALCULATED THICKNESS</u>
66976A	0.23	0.04	0.02	0.30	1.25 ft
66979A	0.01	0.02	<0.01	0.35	0.6 ft

D.C. SYNDICATE  
 J.C. CLAIM GROUP  
 SECTION 9951 E

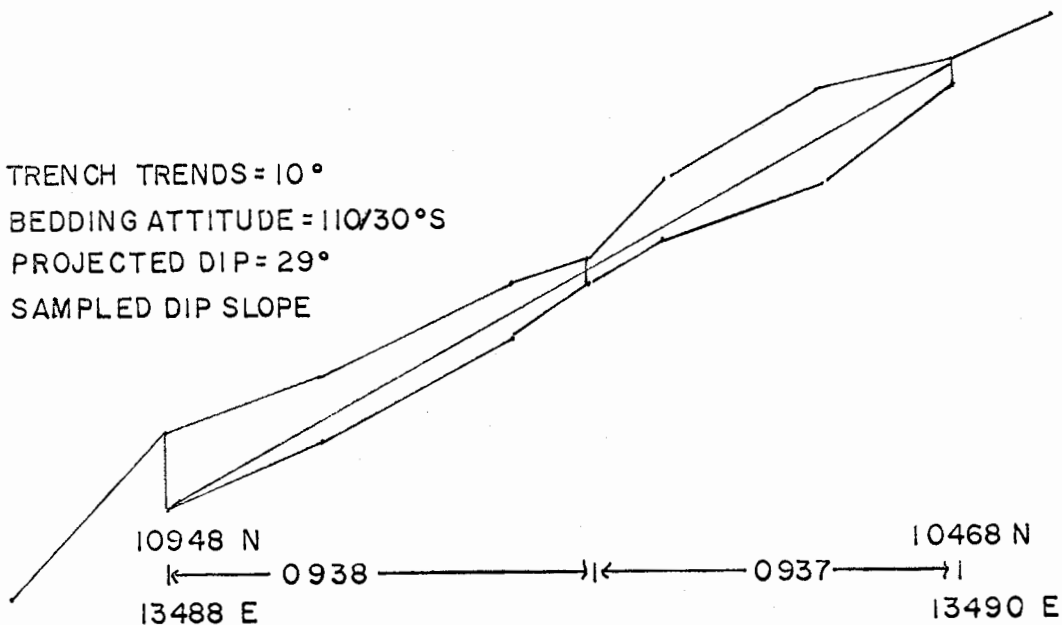
SCALE 1" = 5'      AUGUST 1978

SAMPLE NO.	Cu%	Zn%	WO <sub>3</sub> %	Sn%	Ag <sub>2</sub> O%	CALCULATED THICKNESS
0936	<0.01		<0.01	0.06		1.3 ft
0937	<0.01		0.01	0.08		DIP SLOPE
0938	<0.01		0.09	0.07		DIP SLOPE

TRENCH TRENDS = 0°  
 BEDDING ATTITUDE = 110/30°S  
 PROJECTED DIP = 28°



TRENCH TRENDS = 10°  
 BEDDING ATTITUDE = 110/30°S  
 PROJECTED DIP = 29°  
 SAMPLED DIP SLOPE



D. C. SYNDICATE  
 J. C. CLAIM GROUP  
 SECTIONS 13,376E & 13,490E  
 SCALE 1" = 5'  
 AUGUST 1978

CONCLUSIONS

There is indicated on the J.C. group a skarn horizon over 3000 feet in length with thickness up to 50 feet which contains significant tin mineralization with some tungsten.

Tin is contained in cassiterite, stannite and malayaite for the most part. The malayaite is indicated by Dick to be an alteration product of cassiterite and the tin mineralization appears to be later than the skarn formation.

Mineralized zones may be controlled by:-

- (a) the skarn horizon, or
- (b) breccia pipe like zones, or
- (c) a combination of the two with mineralization occurring where breccia pipes intersect the skarn horizon.

Strong tin geochemistry in silt samples in areas underlain by granite suggests tin mineralization may also be associated with presently undiscovered zones in the granite, or at the granite-sediment contact.

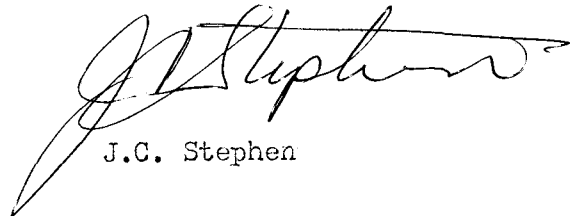
The property warrants further exploration and the following steps are suggested:-

- (a) completion of analysis of stored soil samples,
- (b) diamond drilling to test for grade, thickness and stratigraphy, particularly along Magnetic Zone 1,
- (c) plane table surveying in this area for better stratigraphic control,
- (d) continuation of soil sampling and magnetic surveying between 88E and 126E and possibly north and east of the present survey on Zones 7 and 8,
- (e) further geological mapping, particularly in the north east, including a stratigraphic section at about 100E,

- (f) staking along the west perimeter of the property to take up any open ground,
- (g) further prospecting and mapping along this west boundary in view of the high silt geochem results.

A cost estimate was submitted by letter dated November 13, 1978 to cover 2500 feet of drilling plus some geochemical, geological and geophysical work. This estimate totalled \$106,000 for 1979 work on this property. This figure is included with estimates quoted in the D.C. Syndicate Annual Report 1978.

Respectfully submitted,  
J.C. Stephen Explorations Ltd.



J.C. Stephen

## APPENDIX I

- 26 -

## J.C. CLAIM GROUP

SCHEDULE OF 1978 EXPENDITURESWAGES AND FIELD BONUS

<u>NAME</u>	<u>POSITION</u>	<u>DATES AND RATE</u>	<u>COST</u>
J.E. Chartier	Geologist	June 4 - August 17/78 2.47 months @ \$1300 + 15%	\$3,687
C. Yip	Helper	June 4 - August 17 2.47 months @ \$ 700 + 15%	1,988
D. Greig	Helper	June 5 - July 28 1.8 months @ \$ 900 + 15%	1,863
B. Hillhouse	Helper	June 4 - July 10 1.2 months @ \$ 850 + 15%	1,173
M. Kapnistos	Geologist Mag. Op.	June 5-21;28-30; July 1-14; Aug 2,3 1.2 mo @ \$1050 + 15%	1,449
A. Choudhry	Geologist	June 15-21;28-30; July 1-14 0.8 mo @ \$1050 + 15%	966
J. Turner	Geologist	June 15-22; .25 mo @ \$1500 + 15%	431
B. Atkinson	Ass't Geol.	June 15-22; .25 mo @ \$1100 + 15%	316
L. Galozo	Helper	July 15-30; Aug 1-17 1.1 mo @ \$ 700 + 15%	885
G. Peters	Linecutter	July 18-28; Aug 1 12 days @ \$100	1,200
TOTAL WAGES			\$13,958

TRENCHING CONTRACTOR

McCrorry Holdings	July 18-28; Aug 1; 12 days @ \$325	3,900
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FOOD AND CAMP SUPPLIES

360 mandays @ \$8.00	2,280
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GEOCHEMICAL ANALYSIS

896 soil samples, Sn,W,Cu,Zn @ \$7.95	\$7,123	
72 silt samples, " " " @ \$7.95		<u>572</u>
		\$ 7,695

TRENCH ASSAYS

52 samples run for Sn,W,Cu,Zn @ \$27.50	1,430
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MAGNETOMETER RENTAL

One month at \$300	300
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HELICOPTER MOBILIZATION AND SUPPORT

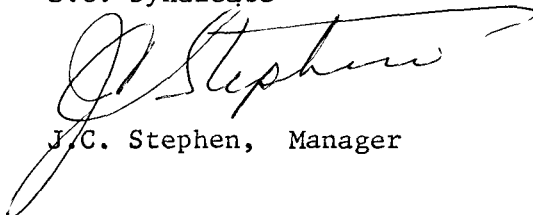
55.6 hours Bell 3B-1 @ \$185	<u>10,298</u>
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TOTAL ITEMIZED COSTS	\$39,861
DEDUCT ESTIMATED STAKING COSTS (74 claims @ \$50/claim)	<u>3,700</u>
TOTAL COSTS TO BE APPLIED	\$36,161

COSTS NOT INCLUDED:

Proportionate costs of base camp operation, J.C. Stephen supervision, vehicle rental, expediting, travel costs, orthophoto map, compilation of data and report, WCB, CPP, holiday pay and other overhead costs.

J.C. Stephen Explorations Ltd.,  
for D.C. Syndicate

  
J.C. Stephen, Manager

J.C. CLAIM GROUP

DISTRIBUTION OF ASSESSMENT WORK 1978

TOTAL COSTS BEING APPLIED (after deducting staking)	\$36,161
NUMBER OF CLAIMS TO BE HELD	74
AVERAGE EXPENDITURE PER CLAIM	\$ 538

<u>GROUP</u> <u>CERT.</u>	<u>NUMBER OF CLAIMS</u> <u>TO BE HELD</u>	<u>RELATIVE</u> <u>AMOUNT OF WORK</u>	<u>ASSIGNED COST</u> <u>PER CLAIM</u>	<u>DISTRIBUTION</u> <u>GEOL. ETC.      PHYSICAL</u>	
1697	11	Large	\$550	\$300	\$200
1698	16	Small	400	300	100
1699	15	Large	550	300	200
1700	7	Fairly large	500	300	100
1701	15	Fairly large	500	300	200
1702	10	Fair	450	300	100

TOTAL OF ASSIGNED COST MULTIPLIED BY CLAIMS TO BE HELD	\$36,100
TOTAL OF DISTRIBUTED COSTS MULTIPLIED BY CLAIMS TO BE HELD	\$33,700

APPENDIX II

STATEMENT OF QUALIFICATIONS

J.E. CHARTIER

B.Sc. Geology 1973, Acadia University, Nova Scotia

EXPERIENCE

<u>DATES</u>	<u>POSITION</u>	<u>COMPANY</u>
1973	Assistant Geologist	Kaiser Resources Ltd. Sparwood
1974	Seismic Operator	Geophysical Engineering Pty. Ltd. Singapore
1976	Drillsite Geologist	Continental Laboratories Ltd. Calgary
1977, 78	Geologist	D.C. Syndicate

Sept, 1978

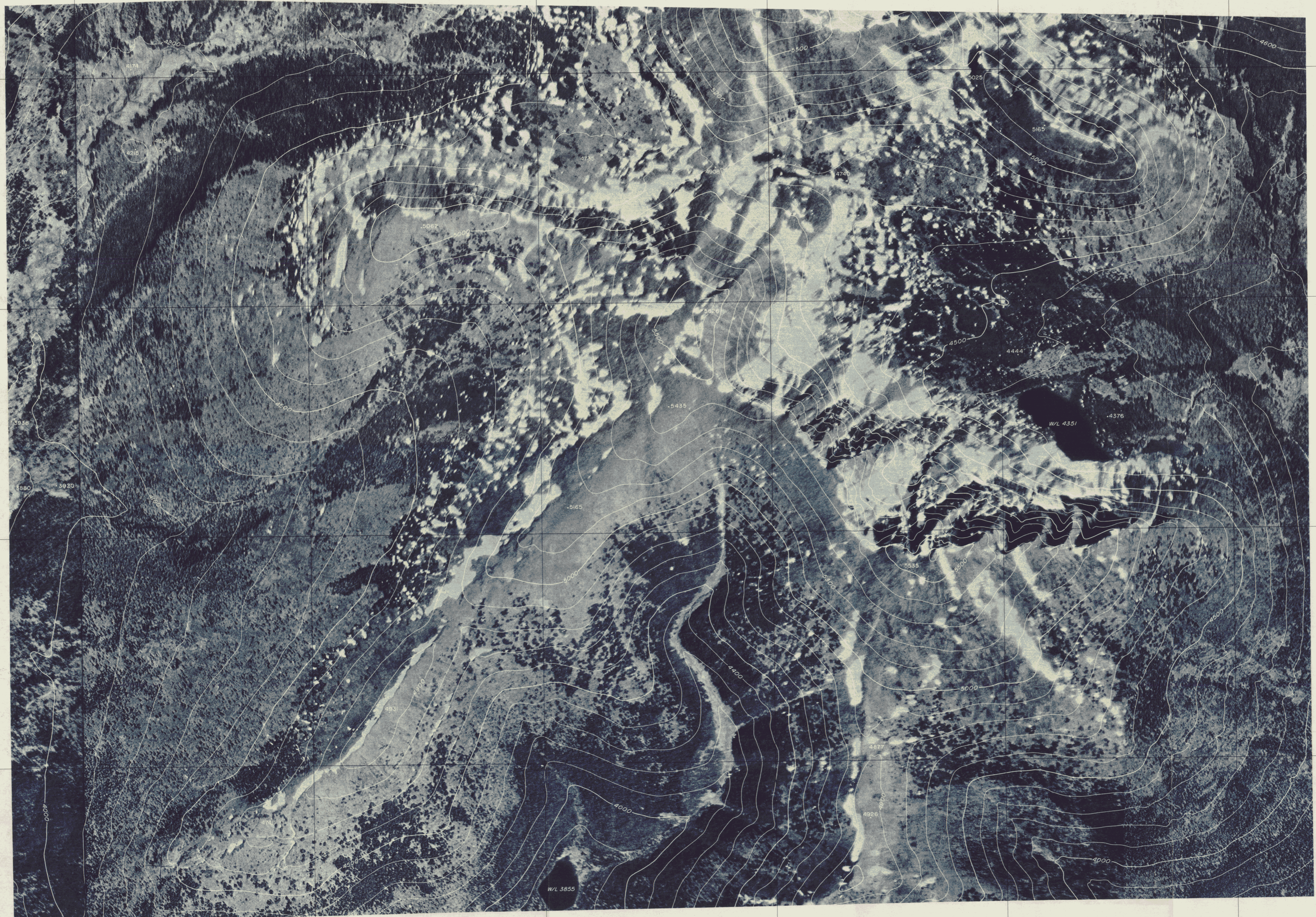
STATEMENT OF QUALIFICATIONS

J.C. STEPHEN


Ass. Member British Institute of Engineering Technology 1951  
Member Canadian Institute of Mining and Metallurgy

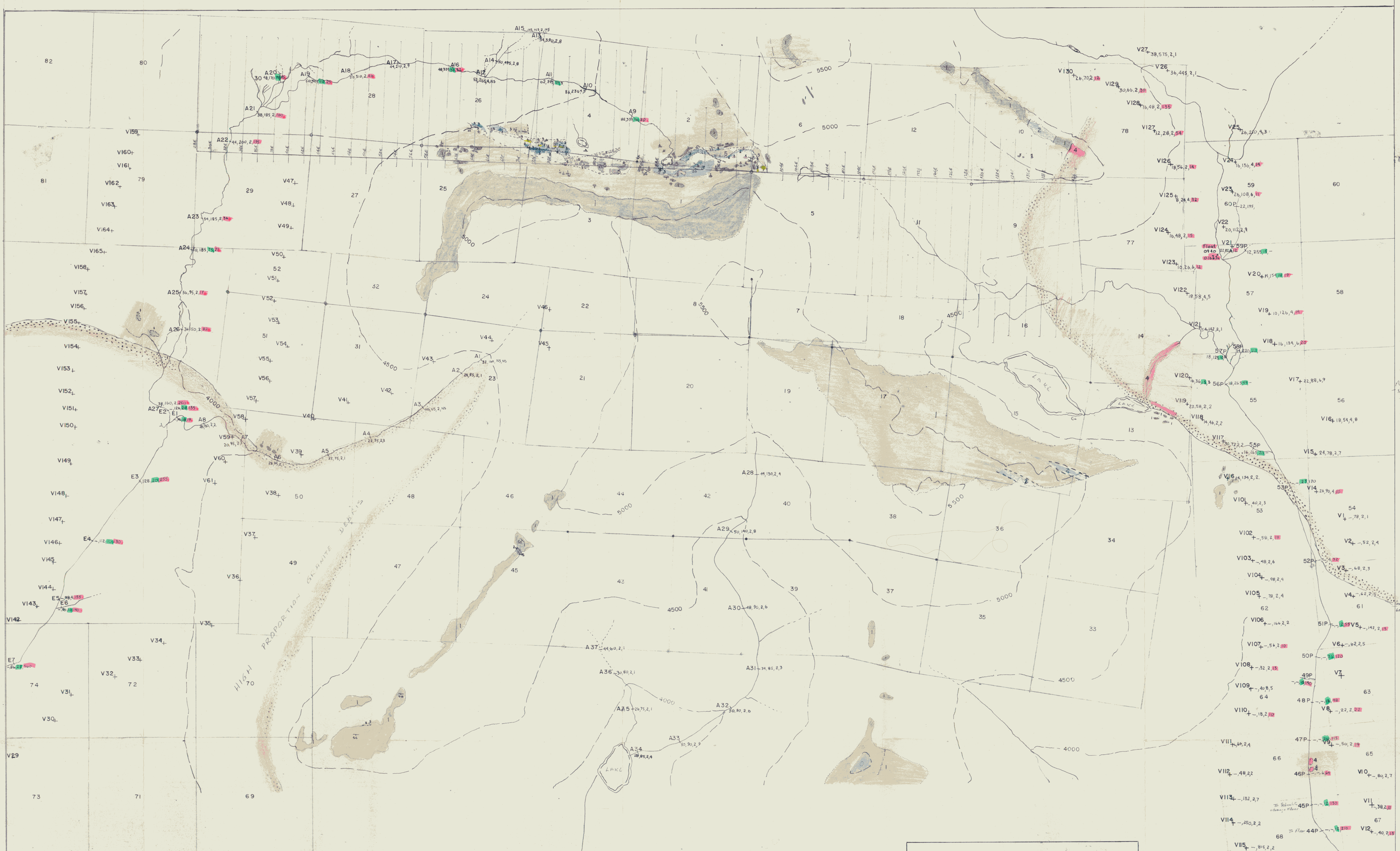
EXPERIENCE

<u>DATES</u>	<u>POSITION</u>	<u>COMPANY</u>
1947 - 49	Engineering staff	Central Patricia Gold Mines Ltd.
1949 - 50	Geology student	Univ. of Alberta
1950 - 51	Geological staff	Eldorado Mining & Refining (1944) Ltd.
1951	Engineering staff	Madsen Red Lake
1952	Geological staff	Hasaga Gold Mines Ltd.
1953 - 55	Engineering and Geological staff	Pickle Crow Gold Mines Ltd.
1955 - 56	Exploration staff	Combined Developments Ltd.
1956 - 59	Associate and field man	Jay-Kay Syndicate R.G. Crosby and Assoc.
1960 - 62	Senior construction Inspector	Haddin, Davis & Brown Ltd.
1962 - 68	Exploration staff	Mastodon Highland Bell Mines Ltd.
1968 - 76	Exploration Sup't NBC, LUC, DC Synd's	Bacon & Crowhurst Ltd.
1977 -	Manager President	D.C. Syndicate J.C. Stephen Explorations Ltd.



Scale and elevation datum based on limited ground control resulting in good relative, but uncertain absolute map accuracy.  
 Compiled from aerial photography at an approximate scale of 1 inch equals 2500 feet flown in 1948

<b>J.C. STEPHEN EXPLORATIONS LTD.</b>	
<b>J.C. CLAIM GROUP</b>	
PRELIMINARY RECONNAISSANCE TYPE MAPPING	
 <b>McElhanney</b> McElhanney Surveying & Engineering Ltd. 1200 West Pender Street, Vancouver, B.C., Canada	Scale - 1"=500'
	Contour Interval - 100 feet
	Date - June, 8 1978
	Job No. - 06484-0
	Sheet No. -



**LEGEND**

**UPPER CRETACEOUS or LOWER TERTIARY**

- 7 MALAYITE BEARING CALC-SILICATE SKARN: has a marble like appearance, with a greenish, or less commonly brownish, cast. malayite generally occurs in linear bands of minute crystals.
- 6 CALC-SILICATE SKARN: usually buff tan coloured, often contains red-brown garnets, seems to generally occur in lenses
- 5 HEDENBERGITE-DIOPSIDE SKARN: dark green, hackly weathering, skarn with varying proportions of epidote and actinolite, and usually containing garnet and calcite. often mineralized with sphalerite, chalcopyrite, arsenopyrite, magnetite and scheelite. sometimes contains axinite, beryl, fluorite and apatite

**SEAGULL BATHOLITH**

- 4 MONZONITE: usually quartz monzonite

**UPPER DEVONIAN - LOWER MISSISSIPPIAN**

- 3 SILICIFIED LIMESTONE: white to gray, often cherty, sometimes with lenses of limestone
- 2 LIMESTONE: sparry, white
- 1 METASEDIMENTS: argillite, quartzite, graywacke, minor chert, minor, isolated carbonates, abundant quartz veining, abundant iron staining with traces of pyrrhotite

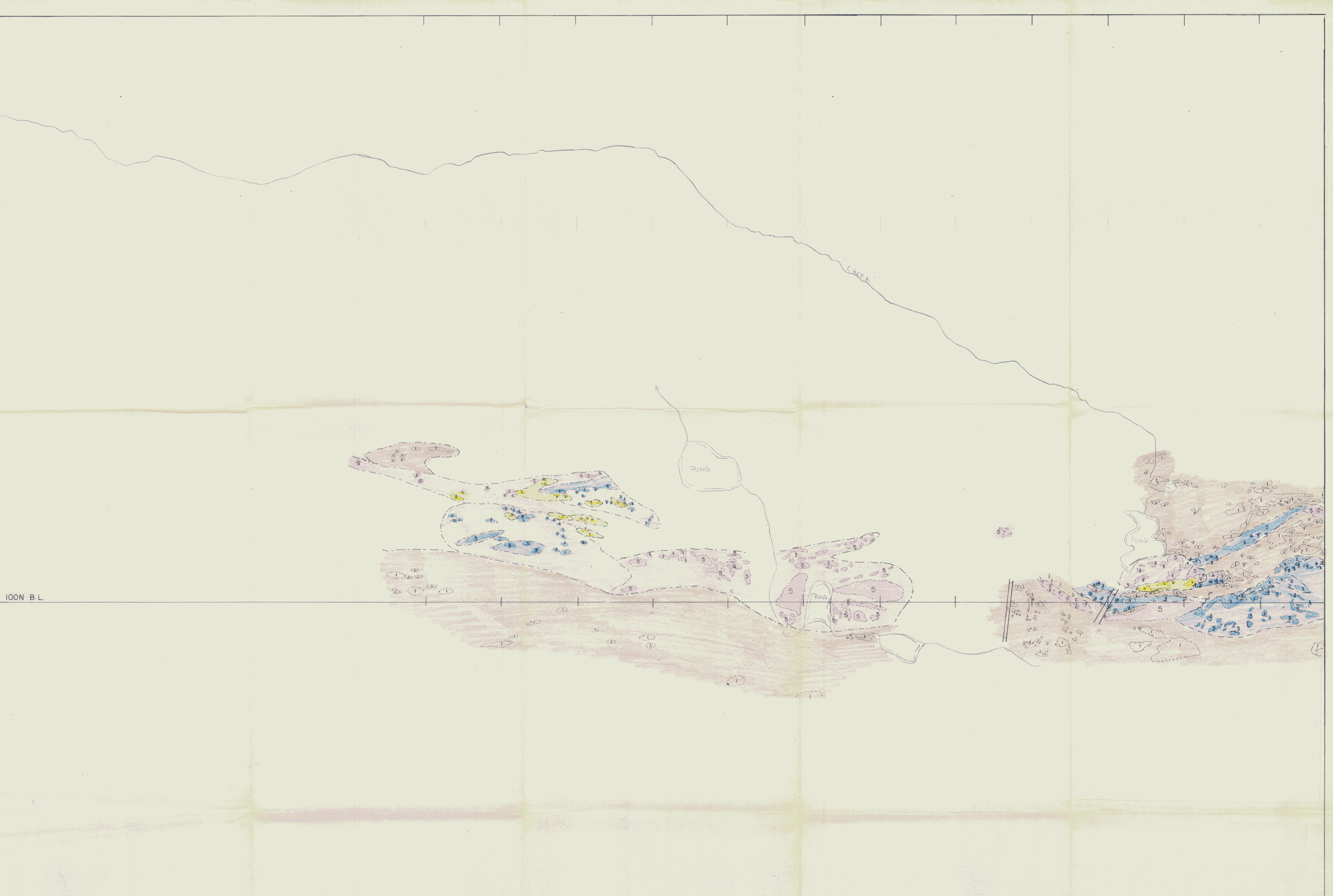
E3<sup>2</sup> - 128, 20, 25.5  
Silt sample  
Cu<sub>2</sub>Zn<sub>1</sub>W<sub>1</sub>Sn P.P.M.  
(- indicates element not determined)

46P<sup>2</sup> - 6, 64  
Panned Silt sample  
Cu<sub>2</sub>Zn<sub>1</sub>W<sub>1</sub>Sn P.P.M.

V109<sup>+</sup> - 40, 2.5  
Soil or Talus sample  
Cu<sub>2</sub>Zn<sub>1</sub>W<sub>1</sub>Sn P.P.M.

J. C. STEPHEN EXPLORATIONS LTD.  
D.C. SYNDICATE  
J.C. CLAIM GROUP  
GEOLOGY

SCALE 1" = 500'  
NOVEMBER 1978



100N B.L.

70E 72E 74E 76E 78E 80E 82E

**LEGEND**

**UPPER CRETACEOUS or LOWER TERTIARY**

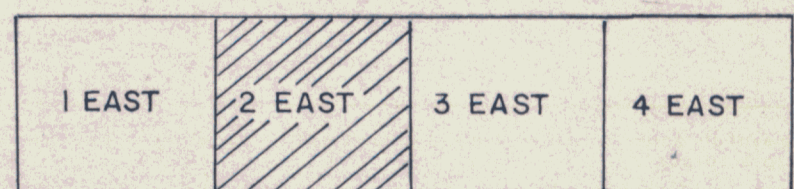
- 7** MALAYAITE BEARING CALC-SILICATE SKARN: has a marble like appearance, with a greenish, or less commonly brownish, cast. malayaite generally occurs in linear bands of minute crystals.
- 6** CALC-SILICATE SKARN: usually buff tan coloured, often contains red-brown garnets, seems to generally occur in lenses
- 5** HEDENBERGITE-DIOPSIDE SKARN: dark green, hackly weathering, skarn with varying proportions of epidote and actinolite, and usually containing garnet and calcite. often mineralized with sphalerite, chalcocopyrite, arsenopyrite, magnetite and scheelite. sometimes contains axinite, beryl, fluorite and apatite

**SEAGULL BATHOLITH**

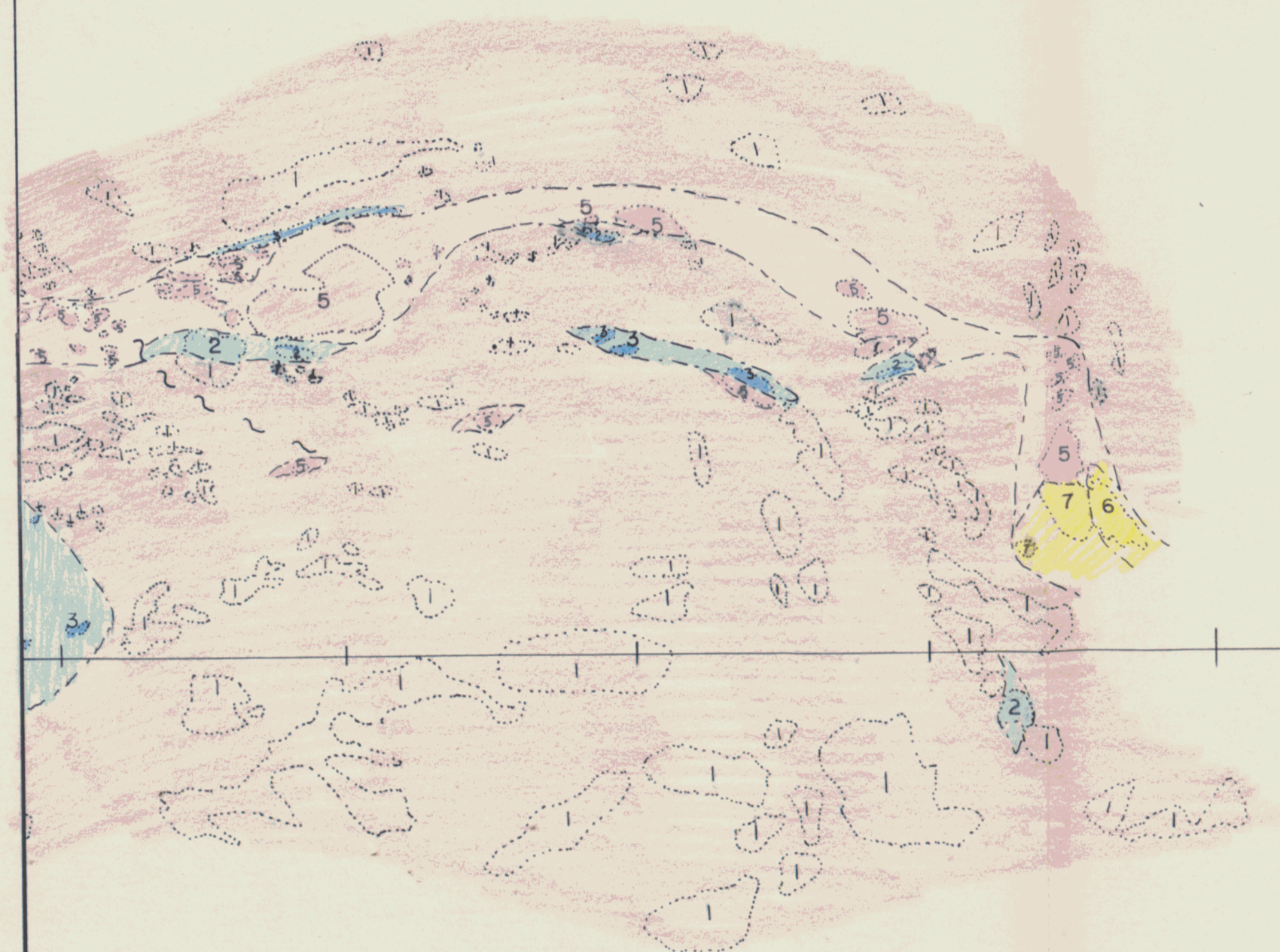
- 4** MONZONITE: usually quartz monzonite

**UPPER DEVONIAN - LOWER MISSISSIPPIAN**

- 3** SILICIFIED LIMESTONE: white to gray, often cherty, sometimes with lenses of limestone
- 2** LIMESTONE: sparry, white
- 1** METASEDIMENTS: argillite, quartzite, graywacke, minor chert, minor, isolated carbonates, abundant quartz veining, abundant iron staining with traces of pyrrhotite



J. C. STEPHEN EXPLORATIONS LTD.  
D.C. SYNDICATE  
**J. C. CLAIM GROUP**  
GEOLOGY  
MAP SHEET 105 B/4  
SCALE 1" = 100'  
NOVEMBER 1978



100N B.L.

1 EAST	2 EAST	3 EAST	4 EAST
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LEGEND  
SEE MAP 2 EAST

J.C. STEPHEN EXPLORATIONS LTD.  
D.C. SYNDICATE  
J.C. CLAIM GROUP  
GEOLOGY  
MAP SHEET 105 B/4  
SCALE 1"=100'  
NOVEMBER 1978  
MAP III

94E 96E 98E 100E 102E

J C 80

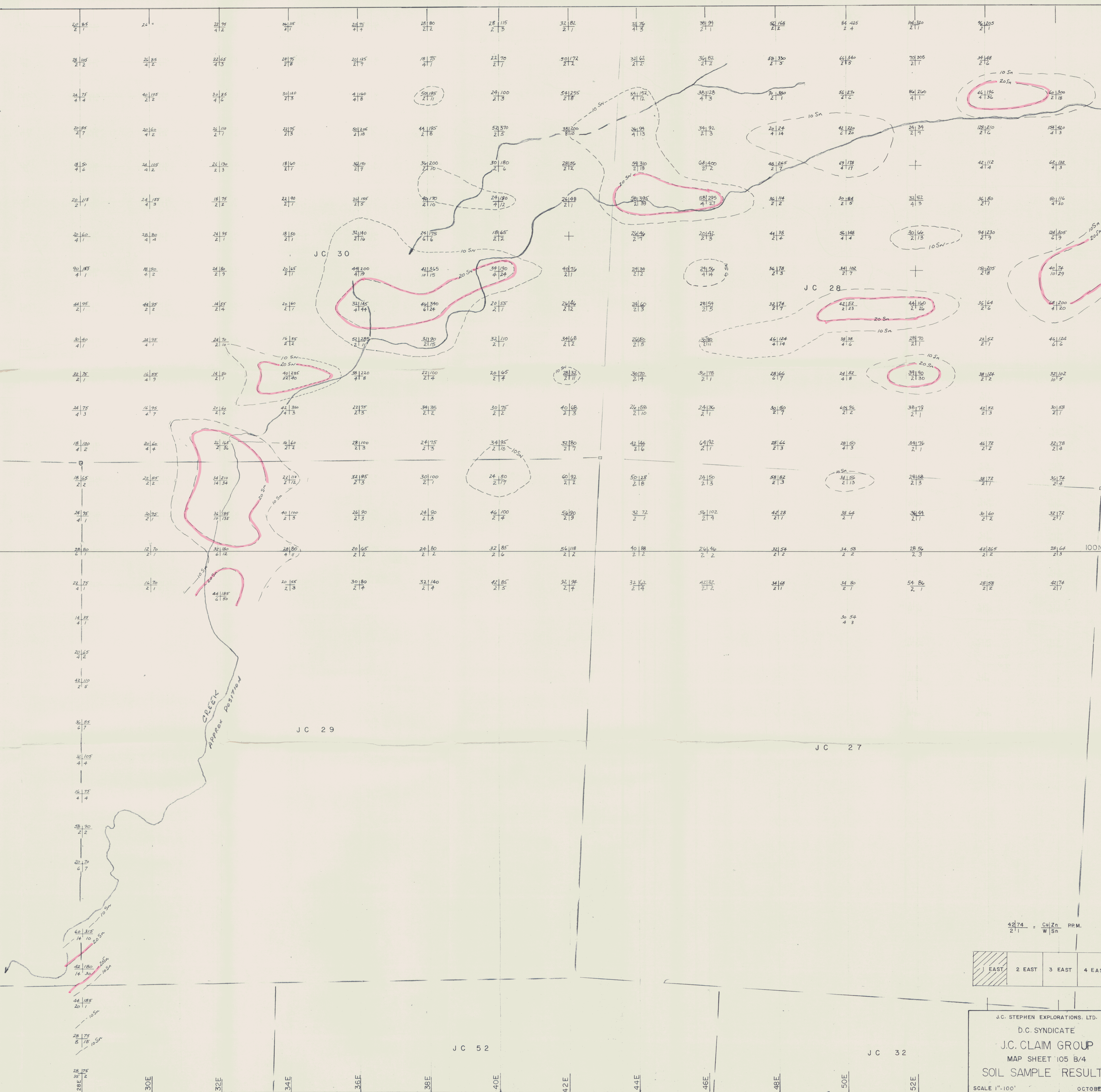
J C 79

J C 29

J C 27

J C 52

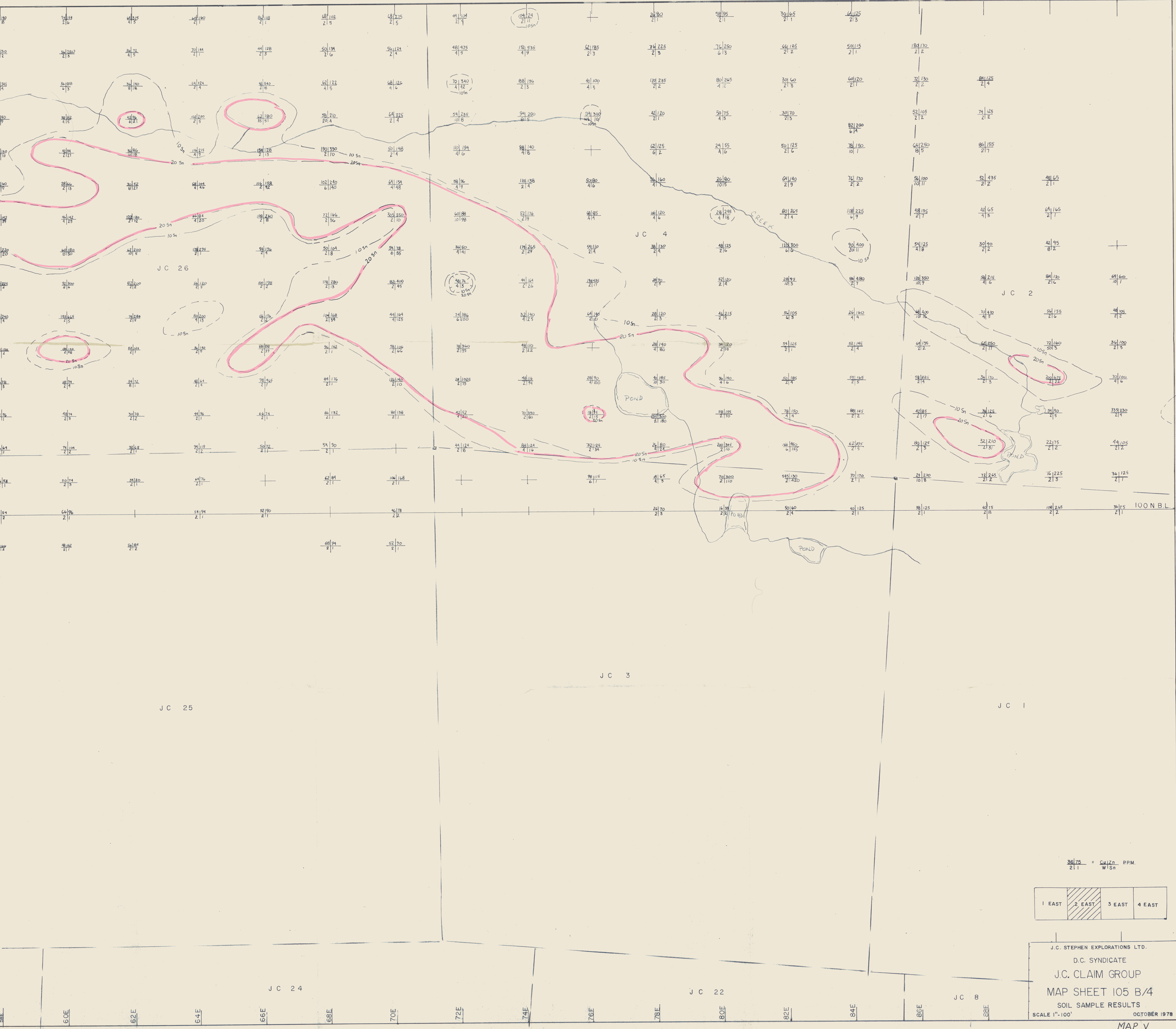
J C 32



4274 =  $\frac{\text{Cu/Zn}}{\text{W/Sn}}$  PPM.

EAST	2 EAST	3 EAST	4 EAST
------	--------	--------	--------

J.C. STEPHEN EXPLORATIONS, LTD.  
 D.C. SYNDICATE  
 J.C. CLAIM GROUP  
 MAP SHEET 105 B/4  
 SOIL SAMPLE RESULTS  
 SCALE 1"=100'  
 OCTOBER 1978  
 MAP IV



36/75 = Cu/Zn PPM.  
211 W/Sn

1 EAST	2 EAST	3 EAST	4 EAST
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J.C. STEPHEN EXPLORATIONS LTD.  
D.C. SYNDICATE  
J.C. CLAIM GROUP  
MAP SHEET 105 B/4  
SOIL SAMPLE RESULTS  
SCALE 1"=100' OCTOBER 1978  
MAP V

J C 25

J C 3

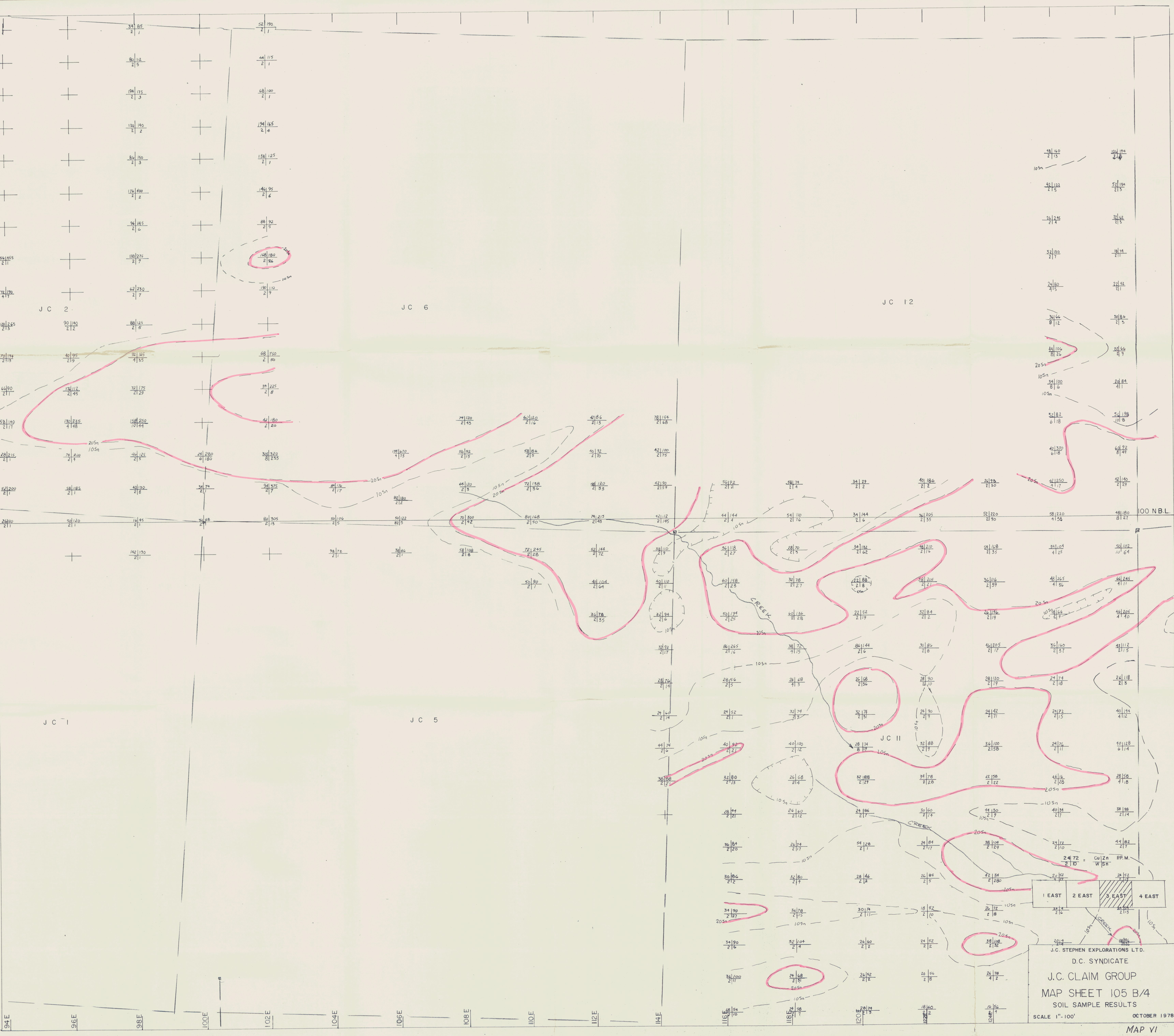
J C 1

J C 24

J C 22

J C 8

60E 62E 64E 66E 68E 70E 72E 74E 76E 78E 80E 82E 84E 86E 88E



34 | 85  
2 | 1

52 | 70  
2 | 7

80 | 112  
2 | 5

44 | 115  
2 | 1

104 | 135  
2 | 3

68 | 140  
2 | 1

124 | 140  
2 | 2

124 | 165  
2 | 4

84 | 150  
2 | 3

158 | 125  
2 | 1

176 | 140  
2 | 2

146 | 95  
2 | 6

96 | 145  
2 | 6

88 | 92  
2 | 5

130 | 125  
2 | 7

108 | 180  
2 | 22

62 | 230  
2 | 7

100 | 110  
2 | 7

J.C. 2

90 | 140  
2 | 2

88 | 125  
2 | 5

34 | 66  
2 | 12

36 | 125  
2 | 4

32 | 130  
2 | 7

24 | 80  
2 | 5

36 | 66  
2 | 12

36 | 104  
2 | 26

34 | 100  
2 | 6

32 | 82  
2 | 18

54 | 125  
2 | 17

42 | 180  
2 | 20

74 | 120  
2 | 45

60 | 120  
2 | 6

42 | 86  
2 | 13

78 | 154  
2 | 68

42 | 100  
2 | 15

50 | 122  
2 | 2

58 | 74  
2 | 4

34 | 22  
2 | 2

40 | 186  
2 | 2

24 | 18  
2 | 30

42 | 250  
2 | 17

54 | 120  
2 | 17

44 | 144  
2 | 4

54 | 110  
2 | 76

34 | 144  
2 | 6

36 | 205  
2 | 55

52 | 220  
2 | 90

58 | 220  
2 | 58

48 | 180  
2 | 27

100 N.B.L.

142 | 130  
2 | 1

164 | 5  
2 | 1

24 | 280  
2 | 180

30 | 320  
2 | 255

54 | 74  
2 | 17

84 | 120  
2 | 15

56 | 192  
2 | 15

58 | 86  
2 | 15

40 | 92  
2 | 70

42 | 100  
2 | 15

42 | 112  
2 | 145

44 | 144  
2 | 4

54 | 110  
2 | 76

34 | 144  
2 | 6

36 | 205  
2 | 55

52 | 220  
2 | 90

58 | 220  
2 | 58

48 | 180  
2 | 27

74 | 245  
2 | 28

52 | 144  
2 | 72

38 | 110  
2 | 19

44 | 110  
2 | 11

32 | 94  
2 | 6

36 | 78  
2 | 35

50 | 90  
2 | 7

60 | 158  
2 | 28

32 | 78  
2 | 27

60 | 136  
2 | 28

22 | 52  
2 | 19

32 | 84  
2 | 2

26 | 116  
2 | 19

46 | 120  
2 | 35

34 | 104  
2 | 25

46 | 265  
2 | 36

44 | 245  
2 | 11

46 | 205  
2 | 40

32 | 92  
2 | 17

86 | 265  
2 | 72

38 | 72  
2 | 15

86 | 144  
2 | 6

36 | 86  
2 | 18

46 | 205  
2 | 17

36 | 100  
2 | 57

48 | 112  
2 | 15

28 | 76  
2 | 14

28 | 56  
2 | 5

26 | 68  
2 | 3

26 | 108  
2 | 36

28 | 90  
2 | 0

41 | 48  
2 | 35

34 | 104  
2 | 25

46 | 245  
2 | 36

44 | 245  
2 | 11

24 | 140  
2 | 14

24 | 52  
2 | 1

32 | 74  
2 | 2

40 | 100  
2 | 72

28 | 174  
2 | 17

32 | 88  
2 | 19

24 | 42  
2 | 71

24 | 72  
2 | 15

40 | 144  
2 | 12

44 | 74  
2 | 6

40 | 92  
2 | 21

40 | 100  
2 | 72

28 | 174  
2 | 17

32 | 88  
2 | 19

24 | 42  
2 | 71

24 | 72  
2 | 15

40 | 144  
2 | 12

36 | 156  
2 | 12

32 | 80  
2 | 13

26 | 68  
2 | 4

32 | 88  
2 | 27

34 | 78  
2 | 28

22 | 50  
2 | 22

46 | 16  
2 | 20

28 | 158  
2 | 18

28 | 14  
2 | 21

26 | 160  
2 | 72

24 | 86  
2 | 17

30 | 60  
2 | 74

44 | 130  
2 | 9

40 | 34  
2 | 17

38 | 178  
2 | 74

36 | 84  
2 | 20

26 | 74  
2 | 17

54 | 28  
2 | 1

24 | 84  
2 | 17

38 | 104  
2 | 29

24 | 122  
2 | 0

44 | 82  
2 | 17

30 | 86  
2 | 2

32 | 80  
2 | 7

28 | 46  
2 | 2

26 | 84  
2 | 5

42 | 54  
2 | 280

20 | 52  
2 | 17

24 | 52  
2 | 2

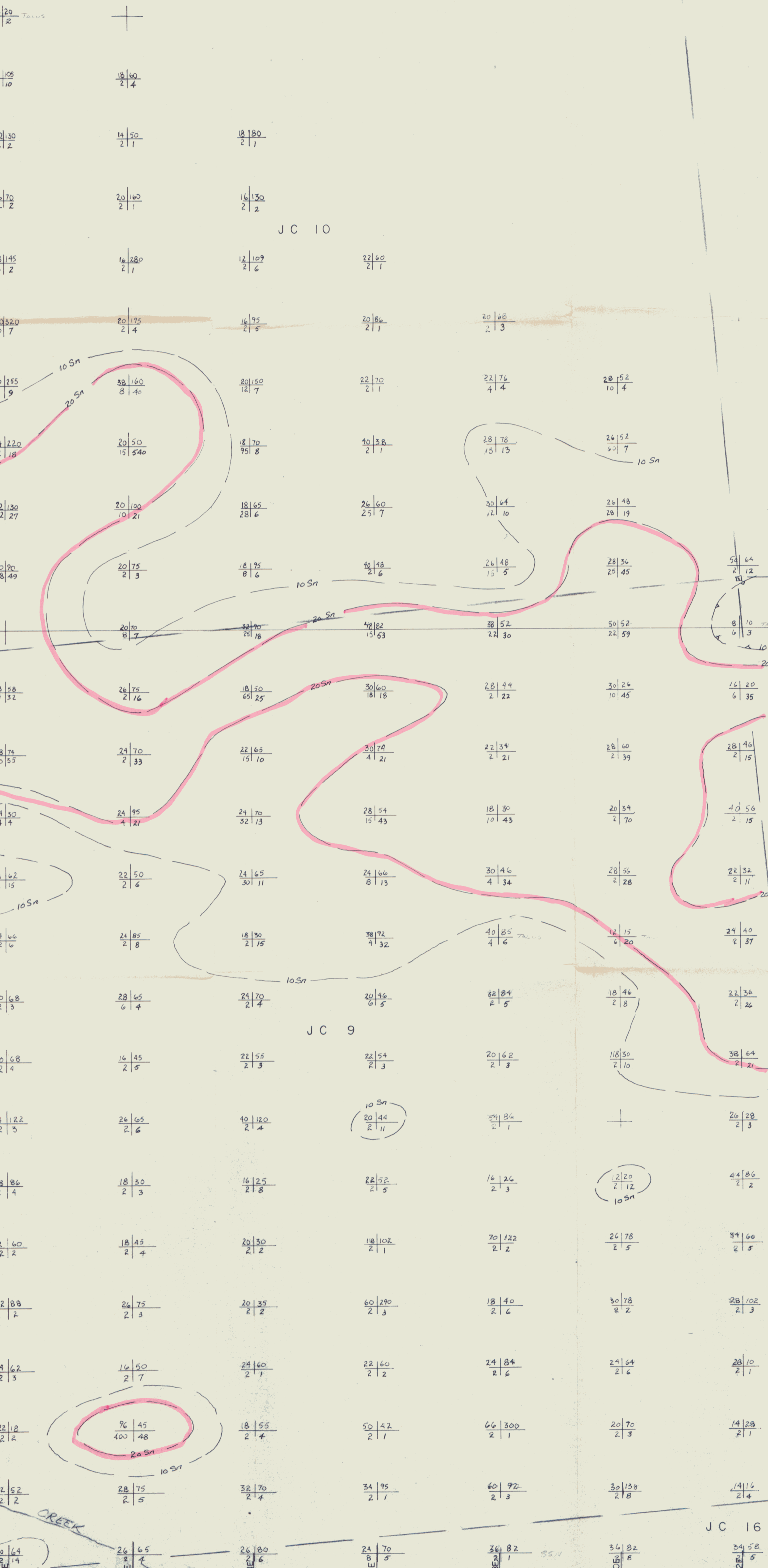
24 | 152  
2 | 17

24 | 152  
2 | 17

24 | 72 = Cu | Zn  
2 | 10 W | S n P.P.M.

1 EAST 2 EAST 3 EAST 4 EAST

J.C. STEPHEN EXPLORATIONS LTD.  
D.C. SYNDICATE  
J.C. CLAIM GROUP  
MAP SHEET 105 B/4  
SOIL SAMPLE RESULTS  
SCALE 1" = 100'  
OCTOBER 1978  
MAP VI



J C 78

J C 10

100 N.B.L.

J C 59

J C 77

J C 9

J C 57

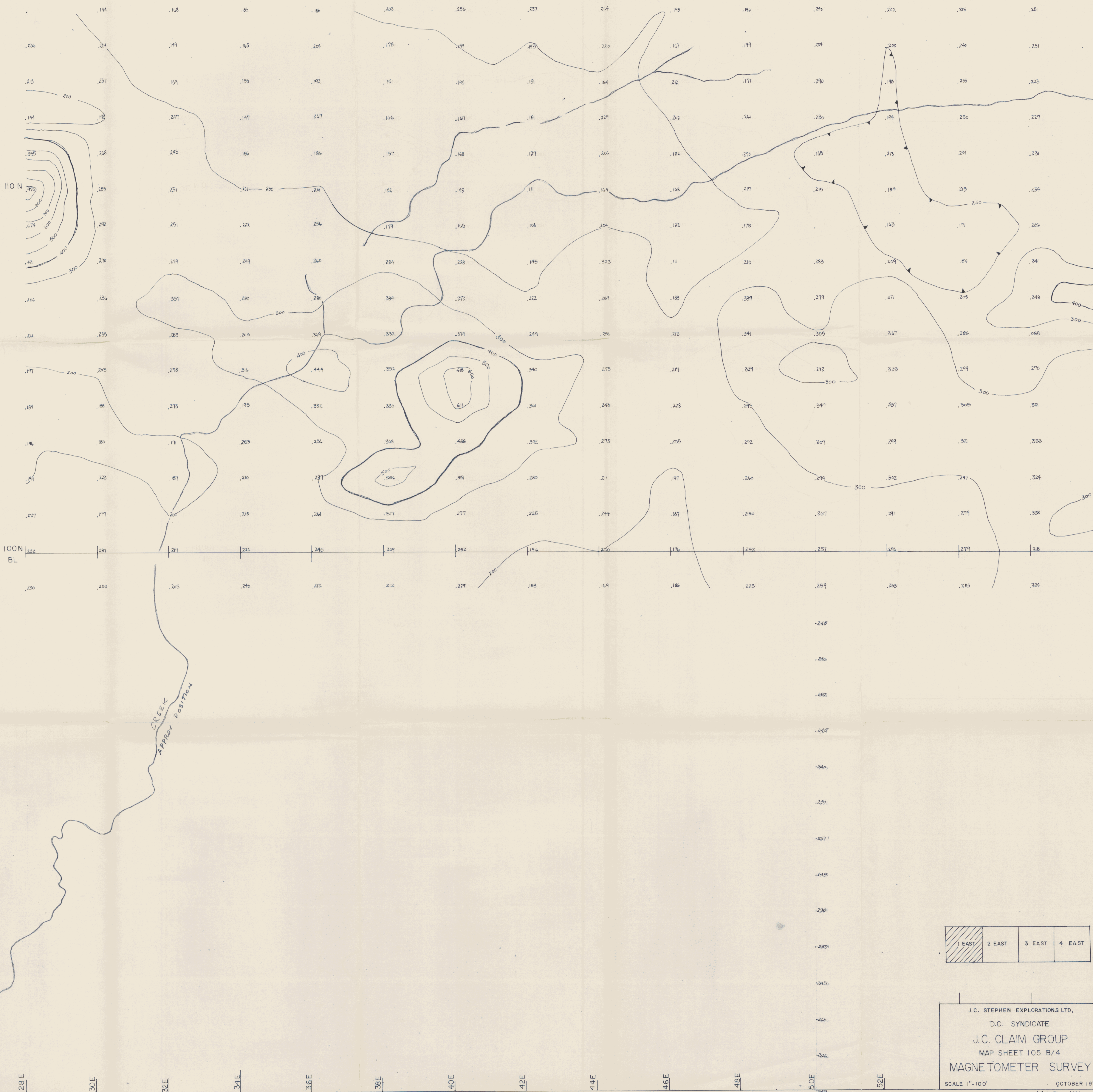
J C 14

J C 16

20.64 =  $\frac{\text{CuZn}}{\text{W}} \text{ PPM.}$

1 EAST	2 EAST	3 EAST	4 EAST
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J.C. STEPHEN EXPLORATIONS LTD.  
 D.C. SYNDICATE  
 J.C. CLAIM GROUP  
 MAP SHEET 105 B/4  
 SOIL SAMPLE RESULTS  
 SCALE 1" = 100'      OCTOBER 1978  
 MAP VII



100N

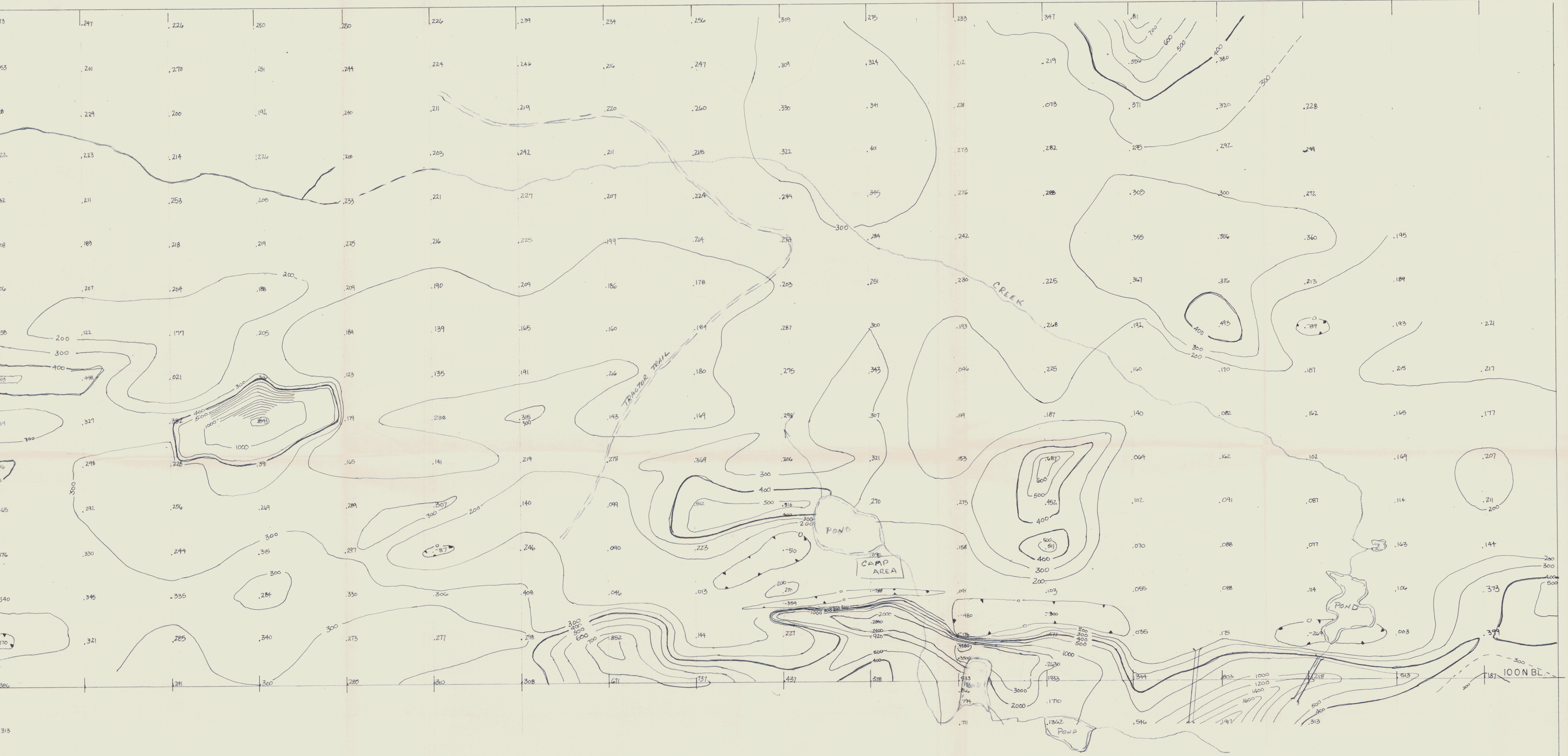
100N  
BL

CREEK  
APPROX POSITION

1 EAST	2 EAST	3 EAST	4 EAST

J.C. STEPHEN EXPLORATIONS LTD,  
D.C. SYNDICATE  
J.C. CLAIM GROUP  
MAP SHEET 105 B/4  
MAGNETOMETER SURVEY  
SCALE 1" = 100'      OCTOBER 1978  
MAP VIII

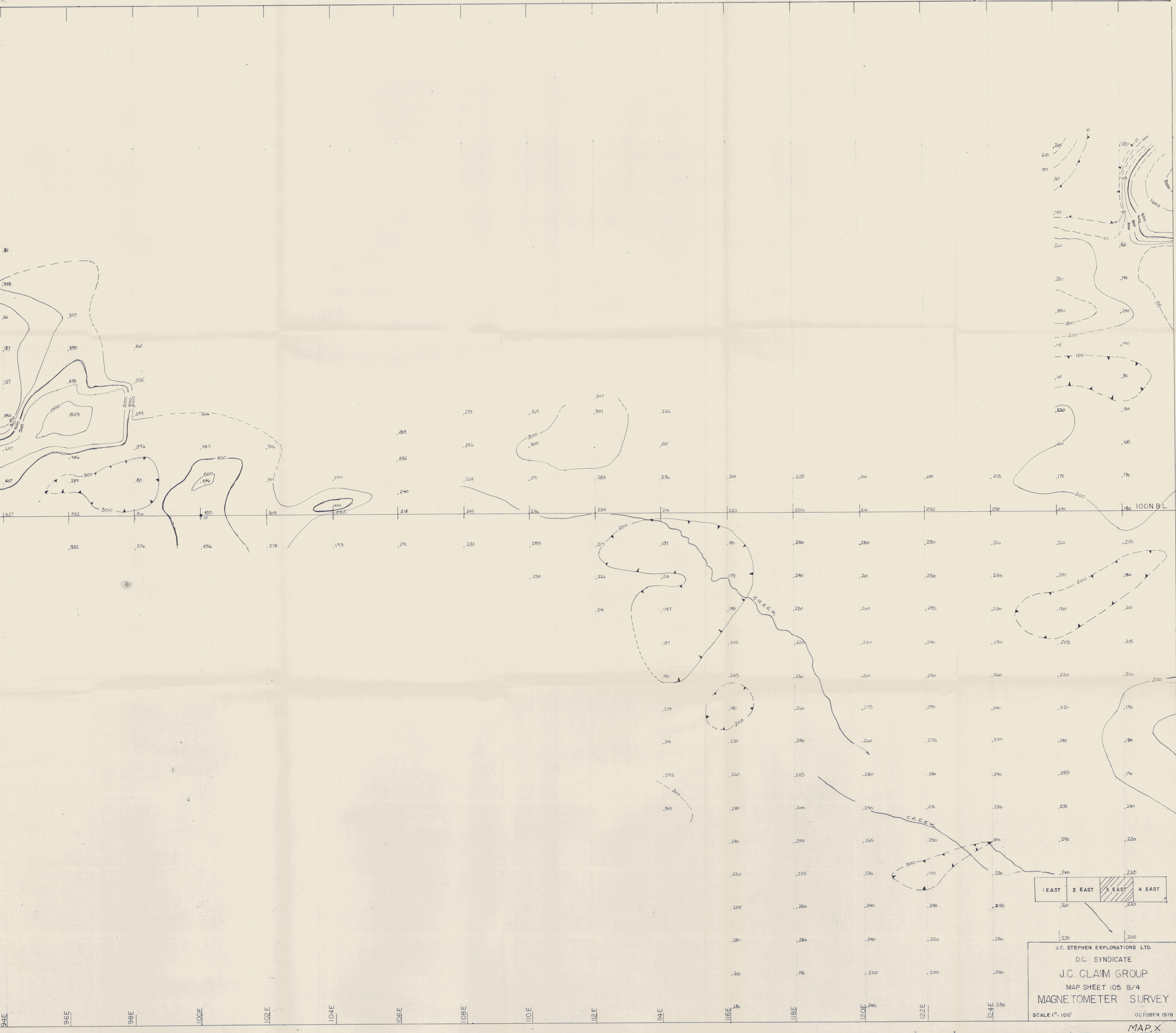
28E 30E 32E 34E 36E 38E 40E 42E 44E 46E 48E 50E 52E



1 EAST	2 EAST	3 EAST	4 EAST
--------	--------	--------	--------

J.C. STEPHEN EXPLORATIONS LTD.  
D.C. SYNDICATE  
J.C. CLAIM GROUP  
MAP SHEET 105 B/4  
MAGNETOMETER SURVEY

SCALE 1" = 100'      OCTOBER 1978

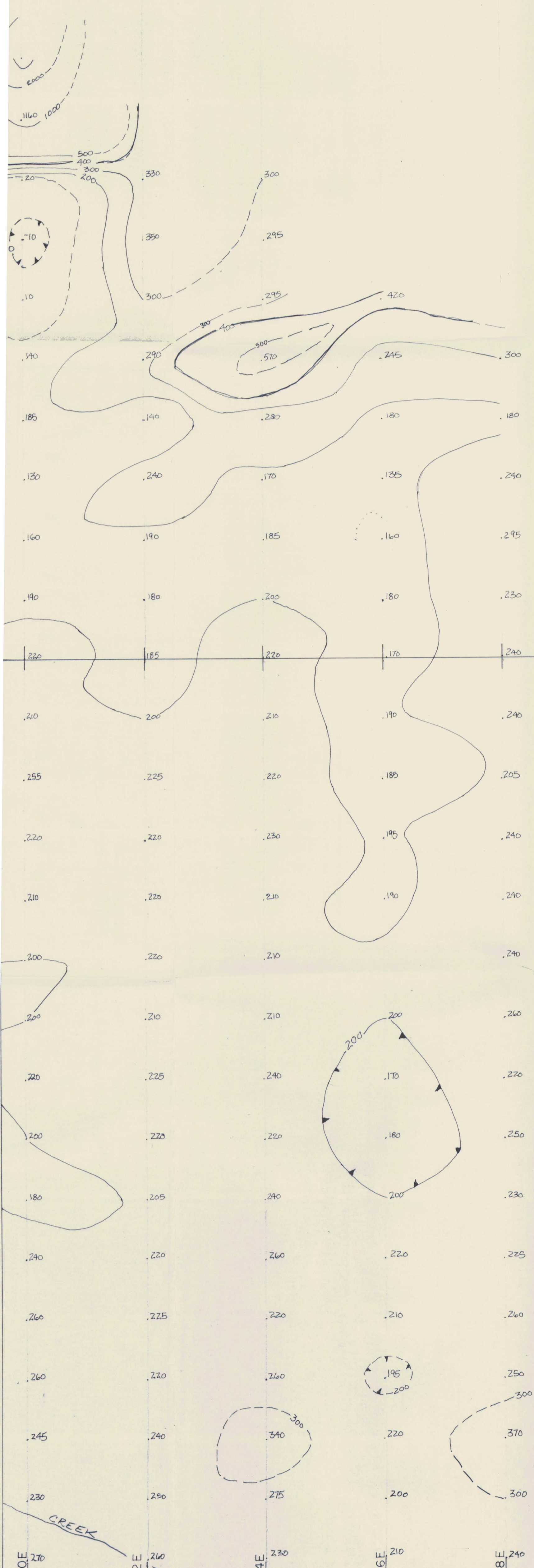


1 EAST	2 EAST	3 EAST	4 EAST
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J.C. STEPHEN EXPLORATIONS LTD.  
 D.C. SYNDICATE  
 J.C. CLAIM GROUP  
 MAP SHEET 105 B/4  
 MAGNETOMETER SURVEY  
 SCALE 1" = 100'

OCTOBER 1978

MAP X



100 N.B.L.

1 EAST	2 EAST	3 EAST	4 EAST
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J.C. STEPHEN EXPLORATIONS LTD.  
 D.C. SYNDICATE  
 J.C. CLAIM GROUP  
 MAP SHEET 105 B/4  
 MAGNETOMETER SURVEY  
 SCALE 1" = 100'      OCTOBER 1976  
 MAP X/1