

SUMMARY REPORT OF EXPLORATION



TYCON 1-52 CLAIM GROUP

NTS 105-D-3

Latitude  $60^{\circ}12'N$  - Longitude  $135^{\circ}08'W$

for

A. W. HYDE

7 Willow Crescent, Whitehorse, Y.T.

R. S. Rogers, M.Sc., P.Geol.,  
Rogers Exploration Services,  
Whitehorse, Y.T.

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This report has been examined by  
the Geological Evaluation Unit  
under Section 53 (4) Yukon Quartz  
Mining Act and is allowed as  
representation work in the amount  
of \$ 11,450.00.

for *D. D. Emmond*  
Regional Manager, Exploration and  
Geological Services for Commissioner  
of Yukon Territory.

## I: INTRODUCTION

This report summarizes the geological setting, exploration history and mineralization of the TYCON property in the Wheaton River area of south-central Yukon Territory. Geological, geochemical and geophysical investigations during the period 1981-1982 are summarized herein. The writer examined the claims on November 5, 1983 in the company of Mr. A. W. Hyde and has reviewed all available information on the property.

### Location and Access

The TYCON property is located south of Mt. Anderson at 60°12'N latitude by 135°08'W longitude in the Whitehorse Mining District of the Yukon Territory on N.T.S. map sheet 105-D-3. The property lies 38 miles south of the City of Whitehorse and is accessible by four-wheel-drive vehicle along a gravel tote road off the Wheaton River Road or by charter helicopter from Whitehorse (Figure 1).

### Physiography

The property includes the drainages of Becker and Partridge Creeks, both tributary to the Wheaton River, and covers a large portion of the ridge between these creeks, south of Mt. Anderson, above 4000' elevation. The TYCON claims lie wholly within the Boundary Ranges of the Coast Mountains (Bostock, 1948) characterised by extensive, steep-walled mountain ranges dissected by polygonal valleys with short, steep tributaries feeding main valley drainages. In the Wheaton River area, at the northern edge of the Boundary Ranges, the relief is tempered by a gradual change into the surrounding Teslin Plateau, and upland areas above the major drainages display a smoothed plateau surface devoid of all but alpine vegetation. Topographic relief on the property is 1500', with a maximum elevation of 5500' ASL in the southeastern portion of the claims.

### History of Exploration

The Windy Arm and Wheaton River districts were first prospected near the turn of the century by stamperders en route to the goldfields of the Klondike from the upper reaches of Bennett Lake. The Mt. Anderson area has been intermittently explored since 1906 but most activity seems to have been centred on Au-Ag-Pb-Zn veins erratically distributed north of the TYCON claim group (Archer, Cathro and Associates, 1972). Two adits of 322' and 350' were driven on the Whirlwind vein between 1906 and 1915 and a number of bulldozer trenches and open cuts were made in the vicinity of Mt. Anderson in the period 1926-1964. Silgold ML, Adanac ML and Adonis ML all performed minor bulldozer trenching under option agreements from 1967 to 1973. The TAM claim group was staked in July 1978 by W. Kuhn, who conducted geophysical surveys and trenching in 1979 and 1980.

The TYCON property was first staked in March of 1981 by Mr. Hyde as the TYCON 1-16 claims. In 1982, magnetometer VLF-EM and EM-16 surveys were conducted and a soil geochemistry grid established in the vicinity of

earlier trenching. In July of 1983, the TYCON 17-52 claims were added, three bulldozer trenches were excavated over the EM conductors and the access road from Partridge Creek was upgraded.

Claims

The TYCON property consists of 52 claims located under the Yukon Quartz Mining Act (Figure 2): TYCON 1-16 (YA59654-YA59669) and TYCON 17-52 (YA78133-YA78168), all owned by Mr. A. W. Hyde. Table I summarizes the disposition of the claims.

TABLE I - CLAIMS DATA

<u>Name</u>	<u>Grant</u>	<u>Assessment Due Date</u>	<u>Name</u>	<u>Grant #</u>	<u>Assessment Due Date</u>
TYCON 1	YA59654	23 June 84	TYCON 27	YA78143	10 Aug. 84
2	YA59655		28	YA78144	
3	YA59656		29	YA78145	
4	YA59657		30	YA78146	
5	YA59658		31	YA78147	
6	YA59659		32	YA78148	
7	YA59660		33	YA78149	
8	YA59661		34	YA78150	
9	YA59662		35	YA78151	
10	YA59663		36	YA78152	
11	YA59664		37	YA78153	
12	YA59665		38	YA78154	
13	YA59666		39	YA78155	
14	YA59667		40	YA78156	
15	YA59668		41	YA78157	
16	YA59669	23 June 84	42	YA78158	
17	YA78133	10 Aug. 84	43	YA78159	
18	YA78134	10 Aug. 84	44	YA78160	
19	YA78135		45	YA78161	
20	YA78136		46	YA78162	
21	YA78137		47	YA78163	
22	YA78138		48	YA78164	
23	YA78139		49	YA78165	
24	YA78140		50	YA78166	
25	YA78141		51	YA78167	
26	YA78142		52	YA78168	

Note: All claims owned by Mr. A. W. Hyde of Whitehorse, Yukon Territory.



## II: REGIONAL GEOLOGY

The regional geology of the Wheaton River area is described by Wheeler (1961). Chert, limestone and melalocratic volcanic rocks of the Pennsylvanian(?) and Permian Taku Group lie in fault contact with Mesozoic strata. The Upper Triassic Lewes River Group consists of melanocratic volcanic and marine sedimentary rocks and is overlain disconformably by the Jurassic marine and partly non-marine locally coarse-grained sedimentary rocks of the Laberge Group. A granitic plutonic complex of Cretaceous age, forming the northern extension of the Coast intrusions, underlies much of the Wheaton River area and locally intrudes the Paleozoic and lower Mesozoic strata. The intrusive rocks are, in turn, cut by volcanics of the Tertiary Skukum Group (andesites, rhyolites, trachytes) and stocks and dykes of younger rhyolites, in part forming ring dykes related to caldera collapse in the Skukum volcanics.

Figure 3 depicts the regional geological setting of the Wheaton River area, and Table II summarizes regional stratigraphy.

### Taku Group

The Pennsylvanian(?)–Permian Taku Group includes sedimentary and volcanic rock types. Limestone dominates the sedimentary package and is commonly on poorly bedded, massive grey to white crystalline rock. In places, the limestone occurs as breccia bodies with clasts up to 6" in size; elsewhere it displays abundant crinoid stems, fusulinids and brachiopods. Chert occurs in the Taku group as (1) contorted beds of varicoloured ribbon chert associated with greenstone; (2) massive grey beds interbedded with limestone; (3) discrete pods conformable to limestone bedding planes; and (4) massive lenses in greenstone. Flows, volcanic breccia and sills of rudely tabular greenstone occur in the Taku Group. These are locally vesicular and amygdaloidal with fillings of quartz, calcite, albite, epidote and chlorite. Altered greenstone and dioritic rocks occur throughout the Taku Group.

### Lewes River Group

The Upper Triassic Lewes River Group occurs in the Wheaton River area in a belt extending NW from Bennett Lake to Two Horse Creek. This includes disconnected areas of purple, grey and green volcanic breccia, subordinate volcanic greywacke and lenses of grey and pink massive limestone. Near Millhaven Bay and at the mouth of the Watson River, limestones of the Lewes River Group are similar to Norian limestones of the Whitehorse Copper Belt.

### Laberge Group

The Jurassic Laberge Group is mainly restricted to a belt 25 miles wide extending from Tagish northwesterly to Lake Laberge. In the Wheaton River area, the Laberge Group is isolated by granitic and volcanic rocks from the more continuous portions of the belt to the east. Rusty

argillites, locally metamorphosed to hornfels, extend from Red Ridge to Mt. Perkins. On Mt. Folle and Idaho Hill, greywacke predominates. The south end of Gray Ridge includes greywacke, friable quartzose sandstone and chert-volcanic fragment conglomerates.

Coast Intrusions

The Cretaceous Coast Plutonic Complex underlies much of the Wheaton River area, and includes granodiorite, granite, quartz monzonite, quartz diorite and allied rocks. The most common rock type is a medium-to-coarse-grained, grey to brown, equigranular, non-foliated biotite-hornblende granodiorite.

Skukum Group

The Tertiary Skukum Group includes brightly coloured andesitic, felsitic and basaltic breccias, tuffs and lavas. The Skukum Group is subdivided into three subgroups: (1) basal, andesitic rocks; (2) a middle division of felsic rocks; and (3) upper, basaltic rocks.

Tertiary Rhyolite

This includes Tertiary granite porphyry and rhyolite and typically occurs as pale brown, fine-grained groundmass with phenocrysts of quartz and feldspar up to 3 mm diameter. Distribution of stocks and dykes of this rock suggest primary emplacement in ring fractures or local faults.

TABLE II - TABLE OF FORMATIONS (Wheaton River Area)

Cenozoic	Tertiary	Granite porphyry, rhyolite (MU 11)  <u>Skukum Group</u> : andesite, basalt, rhyolite and trachyte breccias, tuffs and flows (MU 10)
	unconformity	
Mesozoic	Cretaceous	<u>Coast Intrusions</u> : granodiorite, granite, quartz monzonite, quartz diorite, etc. (MU 8)
	Jurassic	<u>Laberge Group</u> : conglomerate, greywacke, arkose, quartzite, siltstone, argillite, hornfels (MU 4)
	disconformity	
	Upper Triassic	<u>Lewes River Group</u> : volcanic greywacke, siltstone, argillite, limestone, limestone breccia, conglomerate; volcanic breccia, agglomerate, tuff; andesite, porphyritic andesite and basalt. (MU 3)
Paleozoic	Pennsylvanian(?) and Permian	<u>Taku Group</u> : limestone, limestone breccia, chert; greenstone and pyroclastics (MU 2)

### III: PROPERTY GEOLOGY

Outcrop on the TYCON property is limited to patches of blocky felsenmeer on ridge tops, scattered frost-heaved boulders and subcrop exposed in trenching. The property is primarily underlain by coarse-grained, grey to brown biotite-hornblende granodiorite. Local zones of argillic alteration are evident in the granodiorite; these appear to be centralized on major east-west shear zones and subordinate fractures. Minor dykes and sills of Tertiary trachyte and basalt intrude the granodiorite in places; exposures of this contact are thus far limited to a very weathered occurrence in Trenches 1 and 2 and to isolated pieces of float north of the property baseline. Large veins of massive white to chalcedonic quartz crosscut the intrusive rocks in the trenches, with a primary set of veins striking  $090^{\circ}$  dipping  $60^{\circ}\text{S}$  exposed in Trench 1; a second set of veins appears to be subordinate to this set and locally strikes  $125^{\circ}$  dipping  $65^{\circ}\text{N}$ . Both sets of quartz veins are sheared and foliate; vein intersections are typically fractured and consist of irregular masses of white dull quartz. Elsewhere, the quartz veins and associated stringers seem to consist of smoky grey to beige banded quartz with some chalcedony evident.

Slickensides observed on many samples from the trenches suggest that the veining is emplaced on a shear zone trending east-west. Disruption and drag folding evident on both the quartz veins and trachytic dykes suggest the shearing or faulting may have continued through the emplacement of the veining system.

An examination of the available aerial photography over the Mt. Anderson area suggests that the TYCON property lies on the extension of a prominent, auriferous fracture system extending from Skukum Creek 18 miles ENE to Mt. Stevens.

The current extent of geological mapping on the property should be expanded. Detailed grid mapping is recommended for the areas immediately east and west of the trenches, and preliminary traverses should be made north towards Hyde Lake.

IV: GEOCHEMICAL SURVEYS

A total of 109 soil samples were collected from the TYCON property grid between June 16 and June 20, 1982. Samples were taken of the "B" horizon soils with a mattock to depths of up to 18"; "C" horizon material was taken if the former material was unavailable. Samples were placed into Kraft sample bags, labelled as to location, and packaged for shipping. All soils were analysed for Cu, Zn, Pb, Ag, Mo, Au, Mn and Fe at Noranda Exploration Co. Ltd. (NPL) in Vancouver following accepted analytical techniques. Figure 4(a) and (b) illustrates soil geochemistry results on the property grid and Table III summarizes soil geochemistry statistical data.

The 1982 soil sampling was restricted to two zones parallel to baseline 0+00N along the inferred strike of conductors identified in contemporary VLF surveys. Because of this directed sampling, estimates of background and threshold geochemical values are tentative. Anomalous values of Ag, Cu, Zn and Pb occur in the northern part of baseline "B"; varying degrees of anomalies in Ag, Au, Cu and Pb occur in the northern portions of line 10+00W, 6+00W, 4+00W, baseline "A" and line 2+50E. It appears that the greatest concentration of anomalies occurs on this northern part of the soil grid, particularly between line 2+50E and baseline "B" near 17+00N and between line 4+00W and 10+00W near 18+00N.

It is recommended that soil geochemical sampling on the property be continued, with stations chosen to fill in the unsampled central area of the grid and lines established west and east of the present grid.

TABLE III - GEOCHEMICAL DATA : SOILS

<u>Element</u>	<u>Cu (ppm)</u>	<u>Zn (ppm)</u>	<u>Pb (ppm)</u>	<u>Ag (ppm)</u>	<u>Au (ppb)</u>
N	109	109	109	109	109
$\bar{x}$	20.14	72.17	17.52	0.41	15.50
$\sigma$	12.42	20.26	19.64	0.69	54.86
$\sigma^2$	152.80	406.62	382.08	4.70	2982.54
$\bar{x} + 2\sigma$	44.97	112.69	56.80	1.78	125.23
$N > \bar{x} + 2\sigma$	3	4	3	3	1

## V: GEOPHYSICAL SURVEYS

Preliminary EM-16, VLF-EM and magnetometer surveys were conducted over portions of the TYCON property in 1982. Results of these surveys are presented in Figures 5-7.

The VLF-EM-16 survey is depicted in Figure 5. Three discrete conductors appear in the Fraser-Filtered data; the most dominant of these is a sinuous band extending from L 10+50E to L 10+00W between L 1+00N and L 6+00N. The filter-enhanced conductor appears to be fairly symmetrical in cross-section and has a linear peak value at B.L. "A" by L 2+50N. This conductor is open on the east end where strong peak values are truncated by the survey limit. A secondary conductor appears between L 2+50E and L 10+00W from L 17+00N to L 20+00N. This conductor tapers off to the west but is open-ended on the east where strong peak values are developing. A third conductor appears in the southeast portion of the grid from L 9+50E to L 2+50E between L 5+00S and L 10+00S. This conductor is not as pronounced as the other two EM-16 anomalies but is open-ended on the east.

The Sabre VLF-EM survey is seen in Figure 6. Three conductors are also evident in this survey, the dominant conductor extending from L 17+50E to L 14+00W between L 1+00N and L 5+00N. This conductor is sinuous and symmetrical in cross-section, with a smooth peak between L 2+50E and L 6+00W. A second conductor appears between L 17+50E and L 14+00W from L 17+00N to L 20+00N. This conductor is similar to the EM-16 conductor, extending the latter considerably eastward. A small third conductor is seen near L 13+50E at L 1+00S.

The Scintrex MF-2 Fluxgate magnetometer survey is seen in Figure 7. The general magnetic signature of the grid area is fairly blotchy, with a local relief of 1400 gammas. Features on L 13+50E suggest poorly corrected diurnal drift, and must therefore leave the rest of the survey somewhat suspect. Generally, there appears to be a preponderance of low values overlapping the two principal EM conductors; a resurvey with proper correction and a proton magnetometer may show these magnetic dipoles.

It is recommended that VLF-EM surveys be continued on the TYCON property, with emphasis first placed on establishing the continuation of the conductors particularly to the east of the present grid. Preliminary VLF-EM lines should be run to the north and south to search out any parallel conductors; for this, a line spacing of 1000' may initially suffice with anomalies followed upon lines 200' apart. Horizontal shootback or C.E.M. may be found to be a useful EM tool on this property and may be tested in the present grid area. An orientation survey could be run with a proton magnetometer over the dominant EM conductor; diurnal drift corrected data could be assessed to determine the viability of this tool.

VI: TRENCHING

In 1982, a trench was excavated by hand for 55' length south of baseline "A", 3+00N, to a depth of three feet. This trench did not reach bedrock but exposed a section of limonitic quartz and chalcedony subcrop in a matrix of weathered biotite-hornblende granodiorite. Grab samples of this material were obtained for assay (detailed in Chapter VII).

In 1983, the original trench (T1) was excavated further by bulldozer to a length of 150' orthogonal to the EM conductors. The depth of the trench was extended to eight feet in places and, although solid bedrock was not encountered due to permafrost, a cleaner exposure of the quartz veining in the intrusive was obtained.

A second trench (T2) was excavated east of T1, extending 60' south from 1+90E, 3+00N to a depth of eight feet. The extension of the quartz veining system was exposed here, as well as rhyolitic dykes cutting the granodiorite. Again, the exposure is limited to weathered subcrop in permafrost.

A third trench (T3) was excavated west of T1 extending 80' south from 2+80N, 2+30W to a depth of six feet. The material encountered in this trench was similar to that exposed in T1 and T2.

Future trenching on the TYCON property should include: (1) further excavation of T1, T2 and T3 to bedrock and (2) excavation of new trenches as detailed below to explore geophysical and geochemical anomalies:

T 'a'	2+50E	19+00N to 17+00N
T 'b'	5+00E	19+00N to 17+00N
T 'c'	B.L. "B"	19+00N to 17+00N
T 'd'	6+00W	19+00N to 17+00N
T 'e'	10+00W	19+00N to 17+00N
T 'f'	4+00W	3+00N to 2+00N
T 'g'	9+50E	4+00N to 3+00N

A system of organized sampling and mapping should be conducted over existing and proposed trenches.

VII: MINERALIZATION

The occurrence of Au-Ag bearing chalcedony in shear zones in altered granodiorite in a region of known epithermal mineralization suggests that the TYCON property is underlain by a high level epithermal vein system. The property lies on the extension of a known auriferous fracture system which hosts important gold and antimony showings to the west. This system is most likely the expression of a ring fracture system related to caldera collapse to the southwest.

Mineralization discovered to date on the property consists of auriferous massive white to yellow quartz, grey to buff limonitic chalcedony and banded grey-white quartz with minor pyrite, galena and chalcopryrite filling fractures and shear zones in argillic and silicic altered biotite-hornblende granodiorite cut by Tertiary trachytic and rhyolitic dykes. The preferred orientation of the quartz veining is 090°/60S with a subordinate set at 125°/65N; both sets display contortion, drag folding and slickensides suggestive of post-emplacement shear. The extent of detailed geological mapping on the TYCON property has been limited by paucity of exposure; consequently, all descriptive geology and sampling has been restricted to three trenches excavated in 1982-83 described previously and depicted on Figure 8.

Trench T1 was sampled in May of 1982. Two selected samples of greyish chalcedonic quartz from Trench 1 were fire assayed:

<u>Sample No.</u>	<u>Location</u>	<u>OPT Au</u>
1	2+93N	2.86
2	2+62N	0.23

A series of samples were taken of the rocky soil that floored Trench 1:

<u>Sample No.</u>	<u>Location</u>	<u>OPT Ag</u>	<u>% Pb</u>
1	3+00N	0.02	L 0.01
2	2+95N	0.02	L 0.01
3	2+90N	0.28	L 0.01
4	2+85N	L 0.02	L 0.01
5	2+80N	L 0.02	L 0.01
6	2+75N	L 0.02	L 0.01
7		L 0.02	0.01
8		L 0.02	0.01
9		L 0.02	0.01
10		0.02	0.01
		0.26	0.01

A series of 10 grab samples of limonitic quartz from Trench 1 in June of 1982 were submitted for rock geochemistry to Noranda Exploration Co. Ltd. on 18 June 1982:

<u>Sample No.</u>	<u>ppb Au</u>	<u>ppm Zn</u>	<u>ppm Pb</u>	<u>ppm Ag</u>
1	125	68	12	0.8
2	515	64	10	0.2
3	65	64	10	0.2
4	85	56	4	0.2
5	30	60	4	0.2
6	55	60	4	0.2
7	30	60	4	0.2
8	25	56	10	0.2
9	L 5	56	20	0.2
10	90	60	10	0.2

Two selected samples of limonitic quartz from Trench 1 were also analysed:

<u>Sample No.</u>	<u>ppb Au</u>	<u>ppm Zn</u>	<u>ppm Pb</u>	<u>ppm Ag</u>
T 1	10,000+	48	48	24
T 2	3,820	28	10	1.2

The sample that ran 10,000+ ppb Au was fire assayed by Bondar-Clegg on 1 July 1982:

<u>Sample No.</u>	<u>OPT Au</u>
1	3.255

A suite of six grab samples of chalcedonic quartz were submitted for rock geochemistry to Noranda Exploration Co. Ltd. on 9 July 1982:

<u>Sample No.</u>	<u>ppb Au</u>	<u>ppm Cu</u>	<u>ppm Zn</u>	<u>ppm Pb</u>	<u>ppm Ag</u>
35052	10	12	14	2	0.2
35053	170	6	16	2	1.4
35054	10	6	8	2	0.2
35055	100	6	14	4	0.6
35056	30	10	10	2	0.2
35057	10	200	240	110	0.2

Chip samples were obtained in 1983 from Trench 2 and Trench 3 and sent for fire assay on 7 November 1983 to Chemex Labs:

Trench 2:

<u>Sample No.</u>	<u>Interval</u>	<u>Width</u>	<u>OPT Au</u>	<u>OPT Ag</u>
P 3174	3+00N - 2+96N	4'	L 0.003	0.12
P 3175	2+96N - 2+92N	4'	L 0.003	0.12
P 3176	2+92N - 2+88N	4'	0.003	0.18
P 3177	2+88N - 2+84N	4'	L 0.003	0.12
P 3178	2+84N - 2+80N	4'	L 0.003	0.14
P 3179	2+80N - 2+76N	4'	L 0.003	0.08
P 3180	2+76N - 2+72N	4'	L 0.003	0.10
P 3181	2+72N - 2+68N	4'	L 0.003	0.06



Trench 3:

<u>Sample No.</u>	<u>Interval</u>	<u>Width</u>	<u>OPT Au</u>	<u>OPT Ag</u>
P 3156	2+80N - 2+75N	5'	L 0.003	0.10
P 3157	2+75N - 2+71N	4'	L 0.003	0.06
P 3158	2+71N - 2+66N	5'	0.006	0.08
P 3159	2+66N - 2+63N	3'	L 0.003	0.04
P 3160	2+63N - 2+60N	3'	0.003	0.06
P 3161	2+60N - 2+56N	4'	L 0.003	0.08
P 3162	2+56N - 2+54N	2'	L 0.003	0.04
P 3163	2+54N - 2+50N	4'	0.020	0.12
P 3164	2+50N - 2+47N	3'	0.022	0.06
P 3165	2+47N - 2+43N	4'	0.022	0.14
P 3166	2+43N - 2+41N	2'	0.004	0.24
P 3167	2+41N - 2+39N	2'	L 0.003	0.02
P 3168	2+39N - 2+37N	2'	L 0.003	0.08
P 3169	2+37N - 2+34N	3'	0.007	0.07
P 3170	2+34N - 2+32N	2'	L 0.003	0.04
P 3171	2+32N - 2+30N	2'	L 0.003	0.08
P 3172	2+30N - 2+28N	2'	0.005	0.10
P 3173	2+28N - 2+24N	4'	L 0.003	0.01

A series of grab samples was obtained of rusty chalcedonic quartz from Trenches 1, 2 and 3 and sent to Chemex for fire assay on 7 November 1983:

Trench 1:

<u>Sample No.</u>	<u>OPT Au</u>	<u>OPT Ag</u>
P 3151	L 0.003	0.12
P 3152	L 0.003	0.14

Trench 2:

<u>Sample No.</u>	<u>OPT Au</u>	<u>OPT Ag</u>
P 3153	L 0.003	0.18
P 3154	L 0.003	0.12
P 3155	L 0.003	0.08

Trench 3:

<u>Sample No.</u>	<u>OPT Au</u>	<u>OPT Ag</u>
P 3182	L 0.003	0.08
P 3183	0.003	0.08


The gold mineralization exposed in trenching on the TYCON property is of sufficient grade to warrant further exploration. Erratic values of Au up to 3.255 OPT have been returned from selected samples on the property; values from chip sampling of the three trenches are inconclusive and may well improve as the trenches are further excavated to bedrock. Exploration effort should be directed to extension and delineation of the known mineralization and the search for similar style mineralization elsewhere on the property.

STATEMENT OF QUALIFICATIONS

I, RANDALL STEWART ROGERS, of the City of Whitehorse in the Yukon Territory, DO HEREBY CERTIFY:

1. THAT I am a consulting Professional Geologist with offices at 32 Marion Crescent, Whitehorse, Yukon Territory;
2. THAT I am a graduate of the University of British Columbia with the degree of Bachelor of Science (Honours) in Geology;
3. THAT I am a graduate of Queen's University at Kingston, Ontario, with the degree of Master of Science in Mineral Exploration;
4. THAT I am a Notary Public in and for the Yukon Territory;
5. THAT I am a member of the Canadian Institute of Mining and Metallurgy (Geology Section);
6. THAT I am a member of the Geological Association of Canada;
7. THAT I am a Professional Geologist (P.Geol.) licensed by the Association of Professional Engineers, Geologists and Geophysicists of Alberta.

DATED at the City of Whitehorse, Yukon Territory, this 18th day of November, 1983.

  
\_\_\_\_\_  
Randall Stewart Rogers, M.Sc., P.Geol.

CERTIFIED LIST OF EXPENDITURES

R. Rodgers - report and consulting:	\$3,000.00
Assays	475.00
Helicopter/cat/truck rental	6,750.00
Fuel and gas	1,225.00
TOTAL	<u>\$11,450.00</u> =====

I HEREBY DECLARE that the above is a true reckoning of expenditures/  
statement of costs involved in exploration performed on the TYCON  
1-52 CLAIM GROUP in 1983; relevant receipts have inadvertently not  
been obtained / kept, or have been mislaid.

SWORN BEFORE ME at Whitehorse, )  
Yukon, this 26th day of )  
October 1984: )

*Mary E. Fitter*

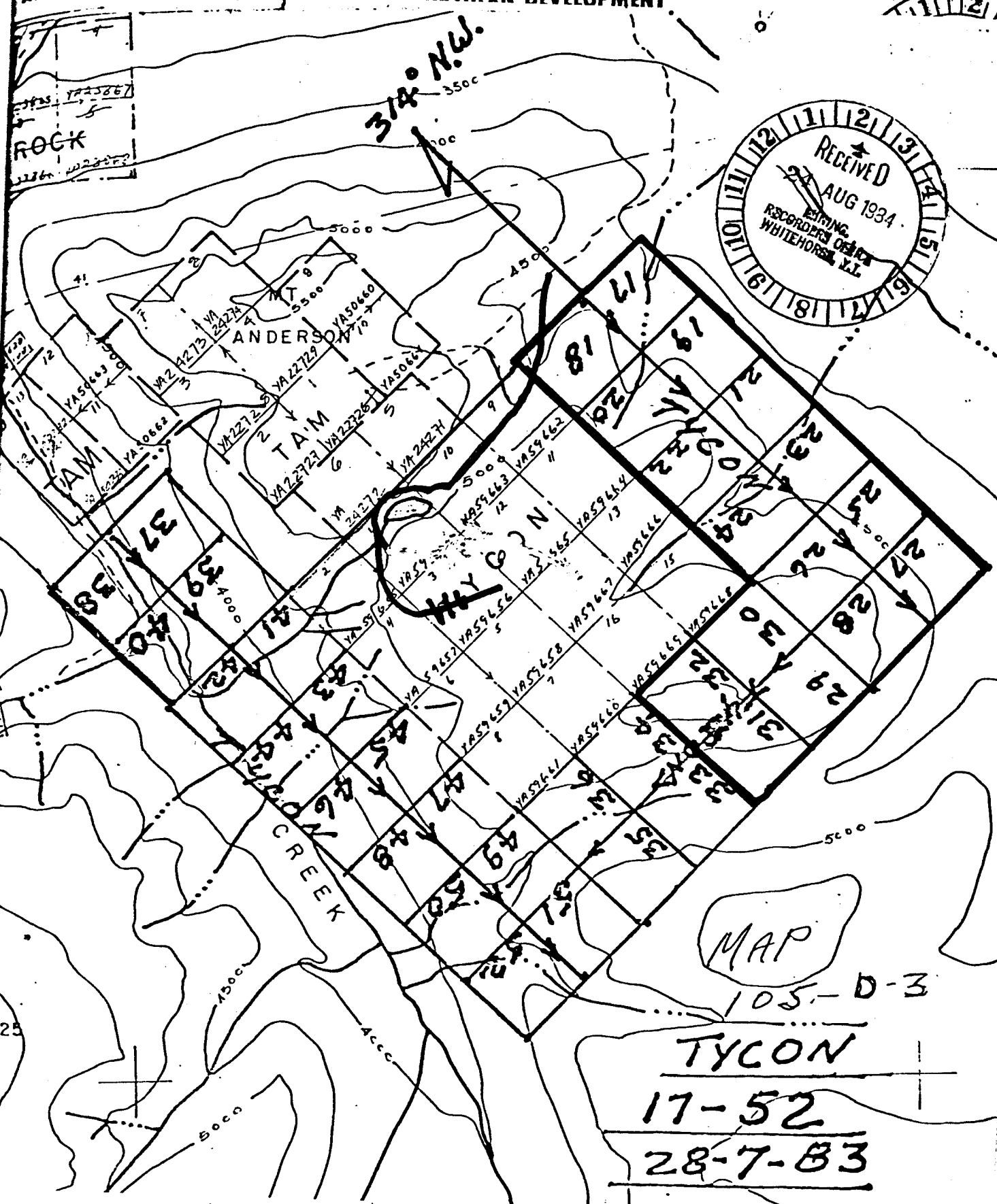
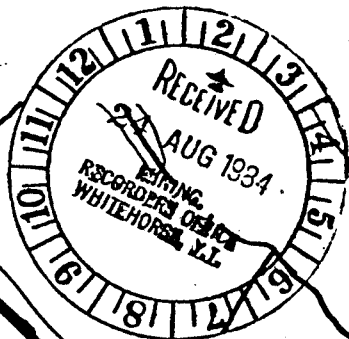
Notary Public in and for the )  
Yukon Territory. )

*A. W. Hyde*

A. W. Hyde

1725867  
ROCK  
1725867

374° N.W.



MAP

105.-D-3

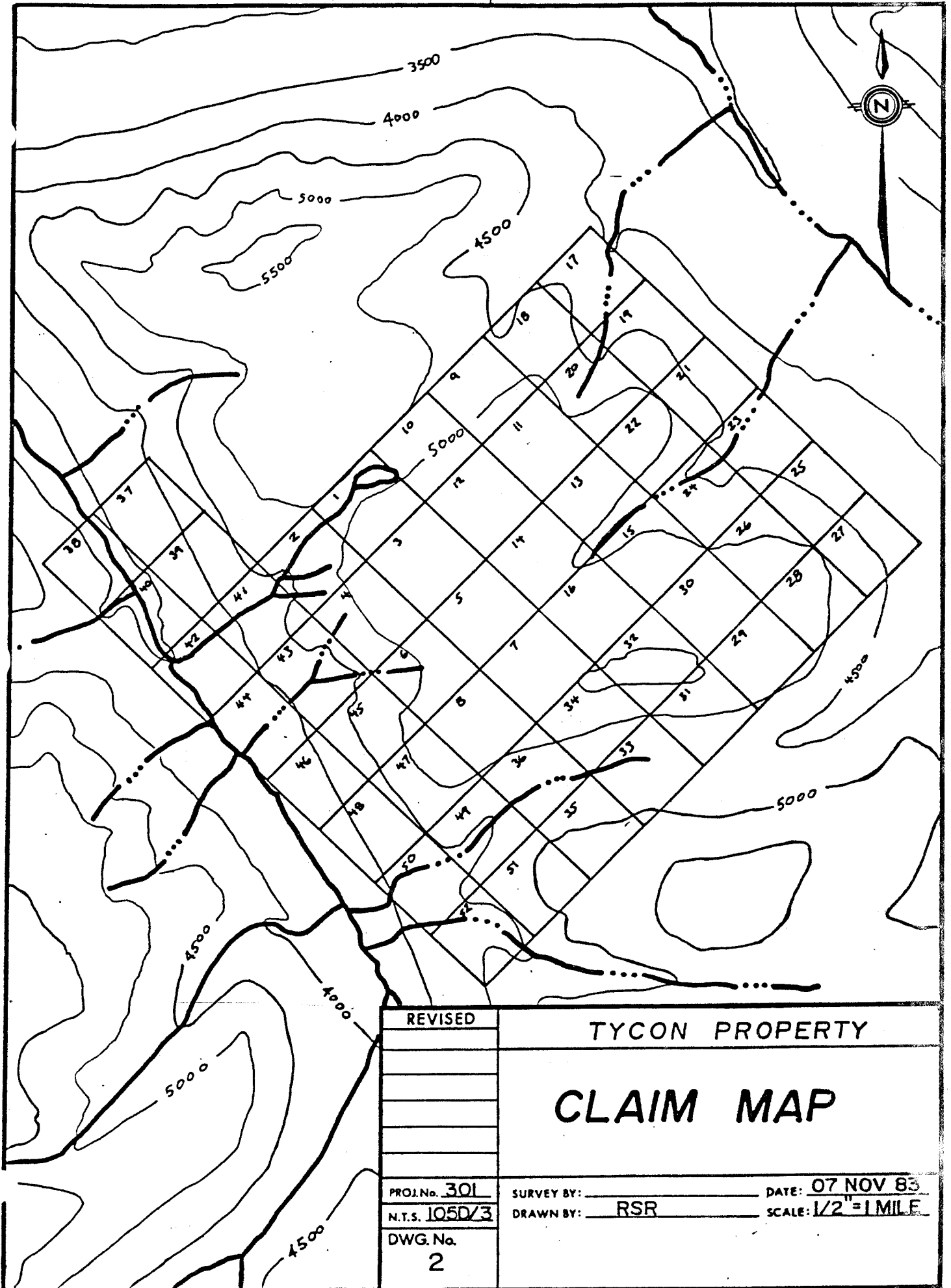
TYCON

17-52

28-7-B3

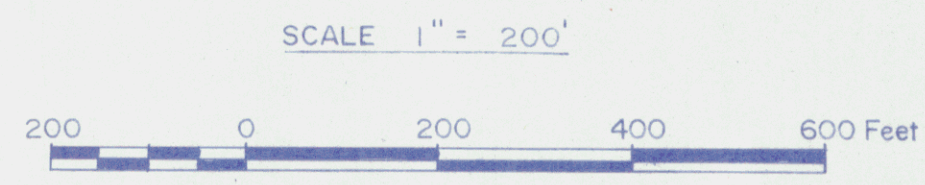
6425  
LL





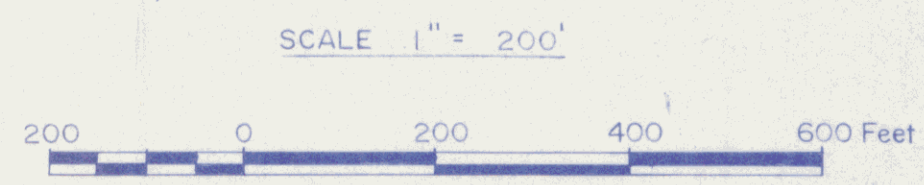
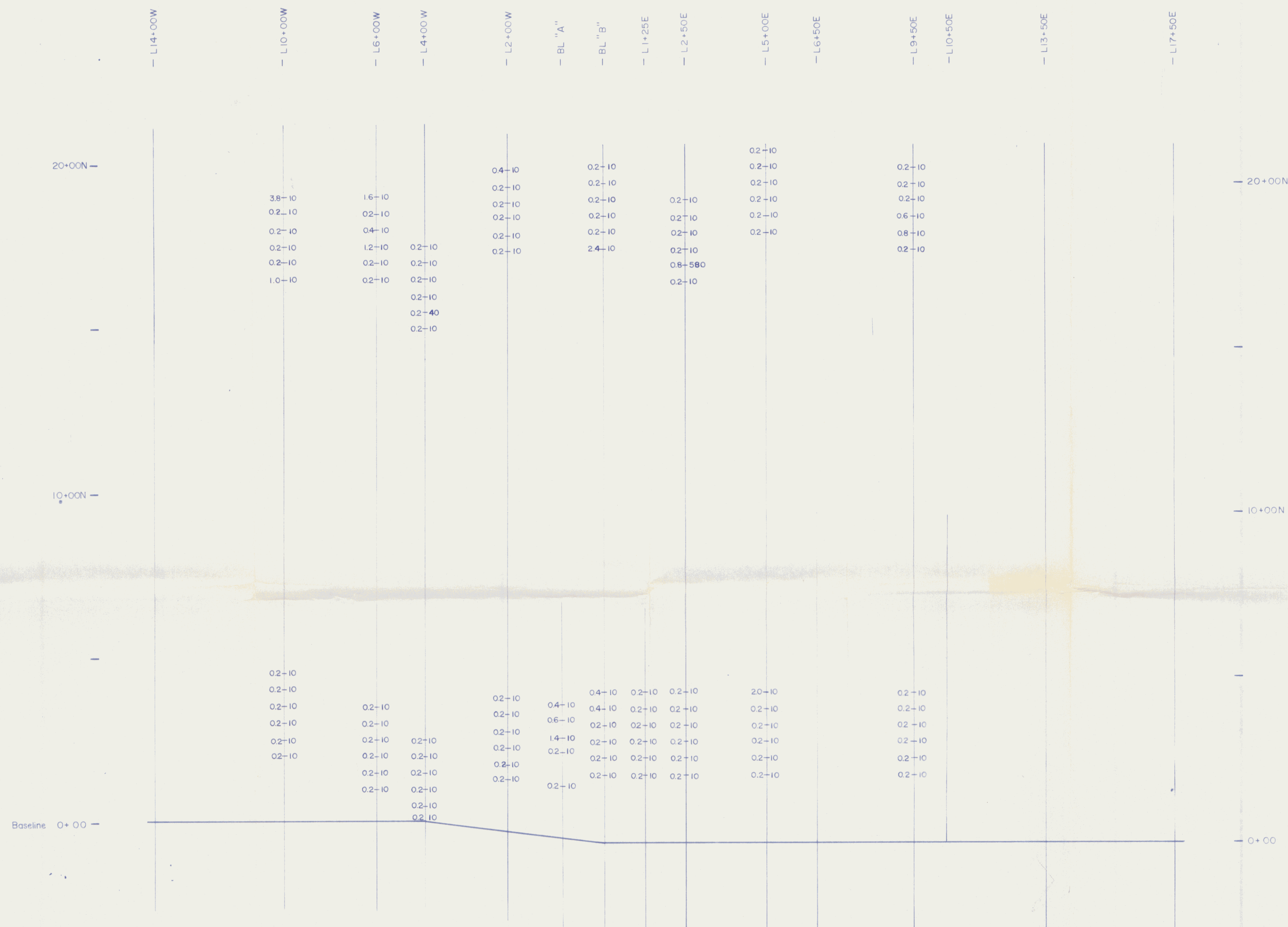
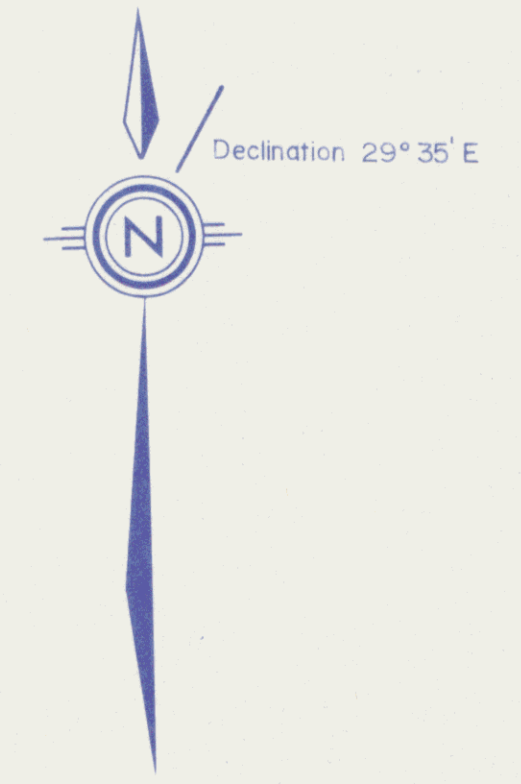
REVISED	TYCON PROPERTY	
	<b>CLAIM MAP</b>	
PROJ. No. <u>301</u>	SURVEY BY: _____	DATE: <u>07 NOV 83</u>
N.T.S. <u>105D/3</u>	DRAWN BY: <u>RSR</u>	SCALE: <u>1/2" = 1 MILE</u>
DWG. No. <u>2</u>		





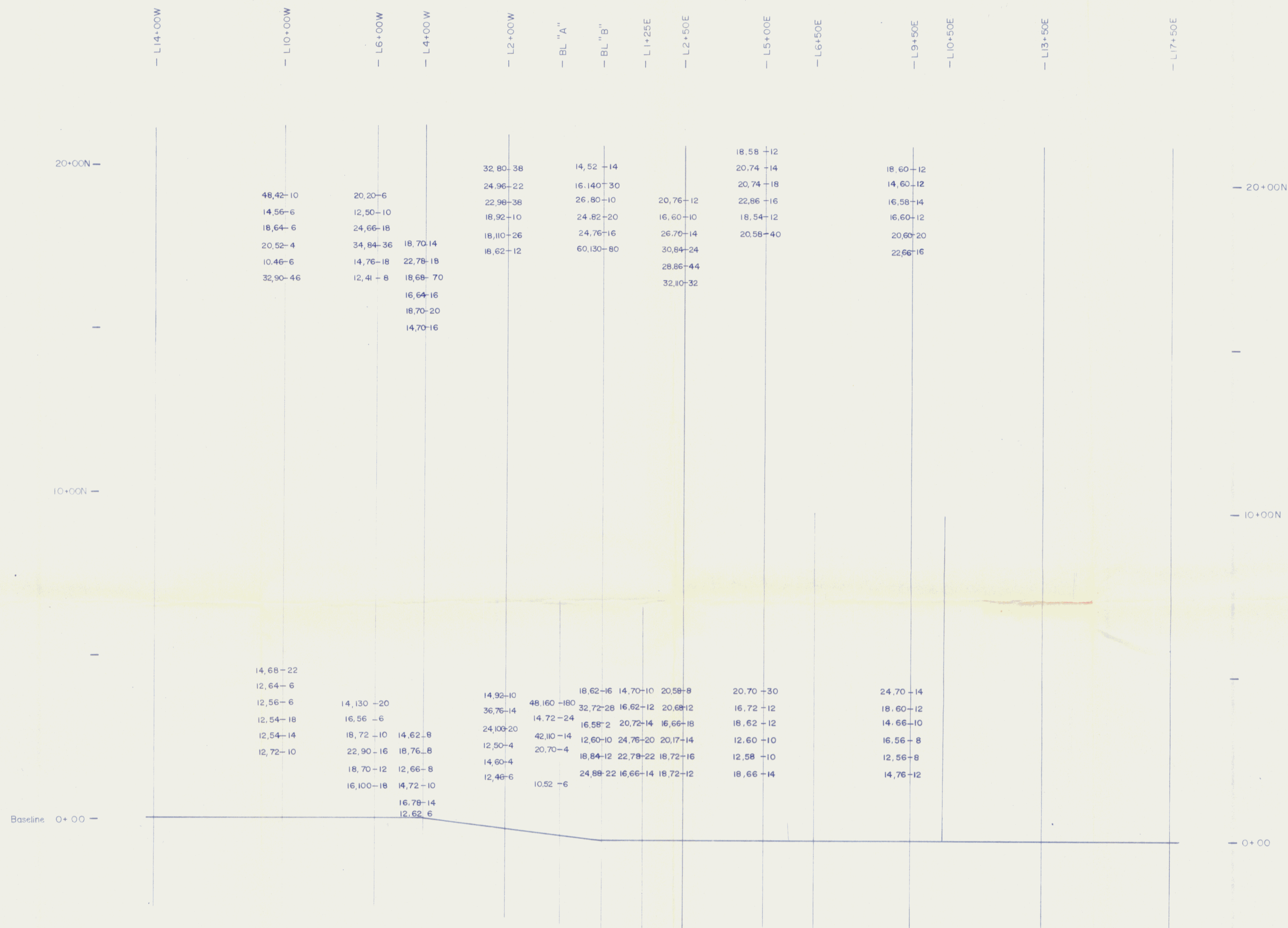
REVISED	<b>TYCON PROPERTY</b>	
	091579	
PROJ No. 301	SURVEY BY: RSR	DATE:
N.T.S. 105D/3	DRAWN BY: RSR	SCALE: 1" = 200'
FIGURE	<b>ROGERS EXPLORATION SERVICES</b> Whitehorse, Yukon	





REVISED	<b>TYCON PROPERTY</b>	
	SOIL GEOCHEMISTRY 091579	
	Silver (ppm) - Gold (ppb)	
PROJ No 301	SURVEY BY: GY, JM, SC	DATE: August 1982
N.T.S. 105D/3	DRAWN BY: RSR	SCALE: 1" = 200'
FIGURE	ROGERS EXPLORATION SERVICES	
<b>4a</b>	Whitehorse, Yukon	



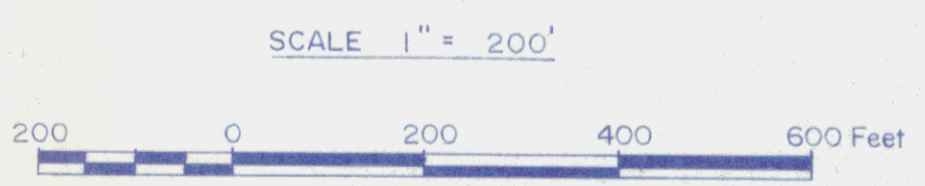
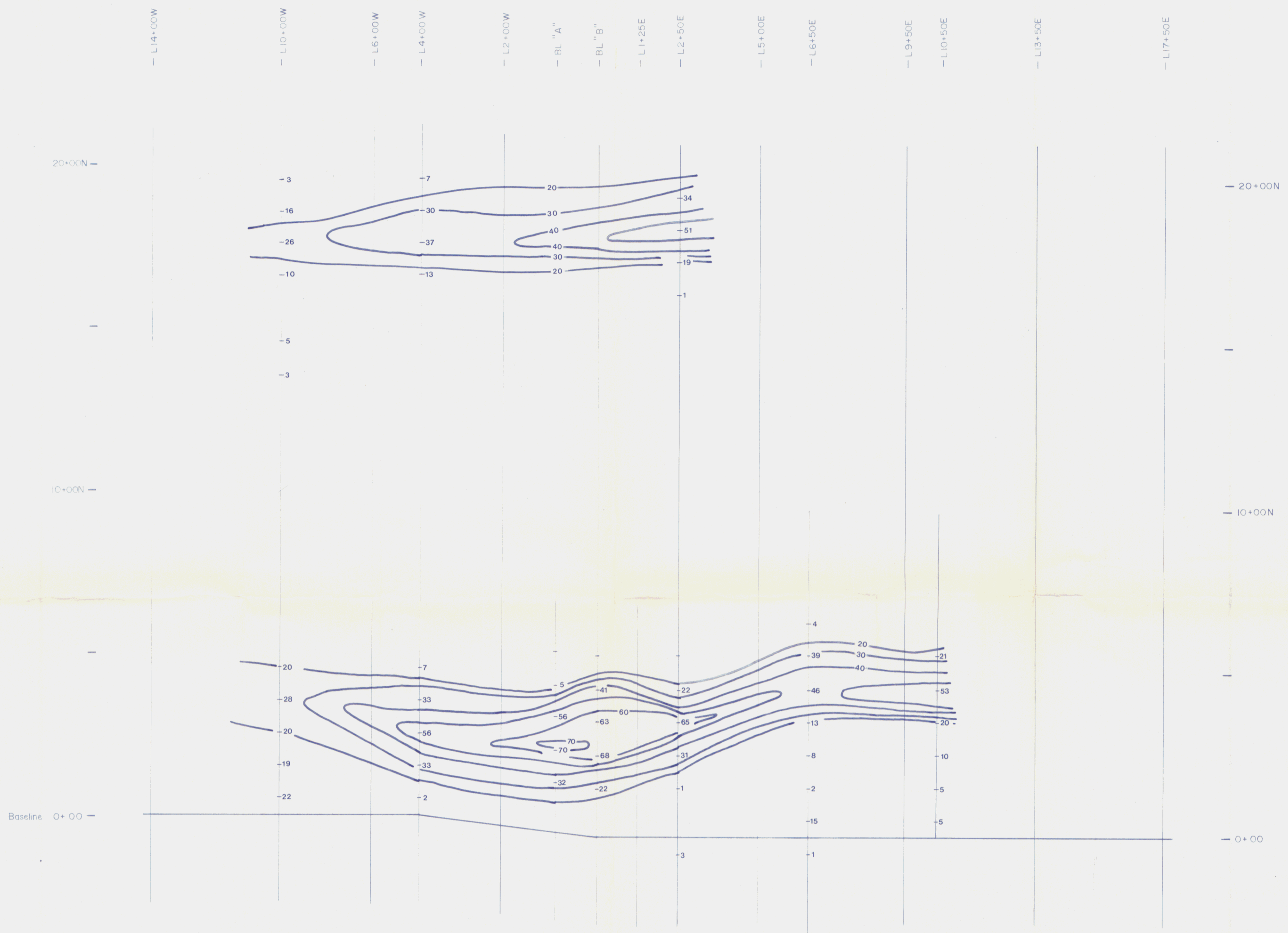


SCALE 1" = 200'



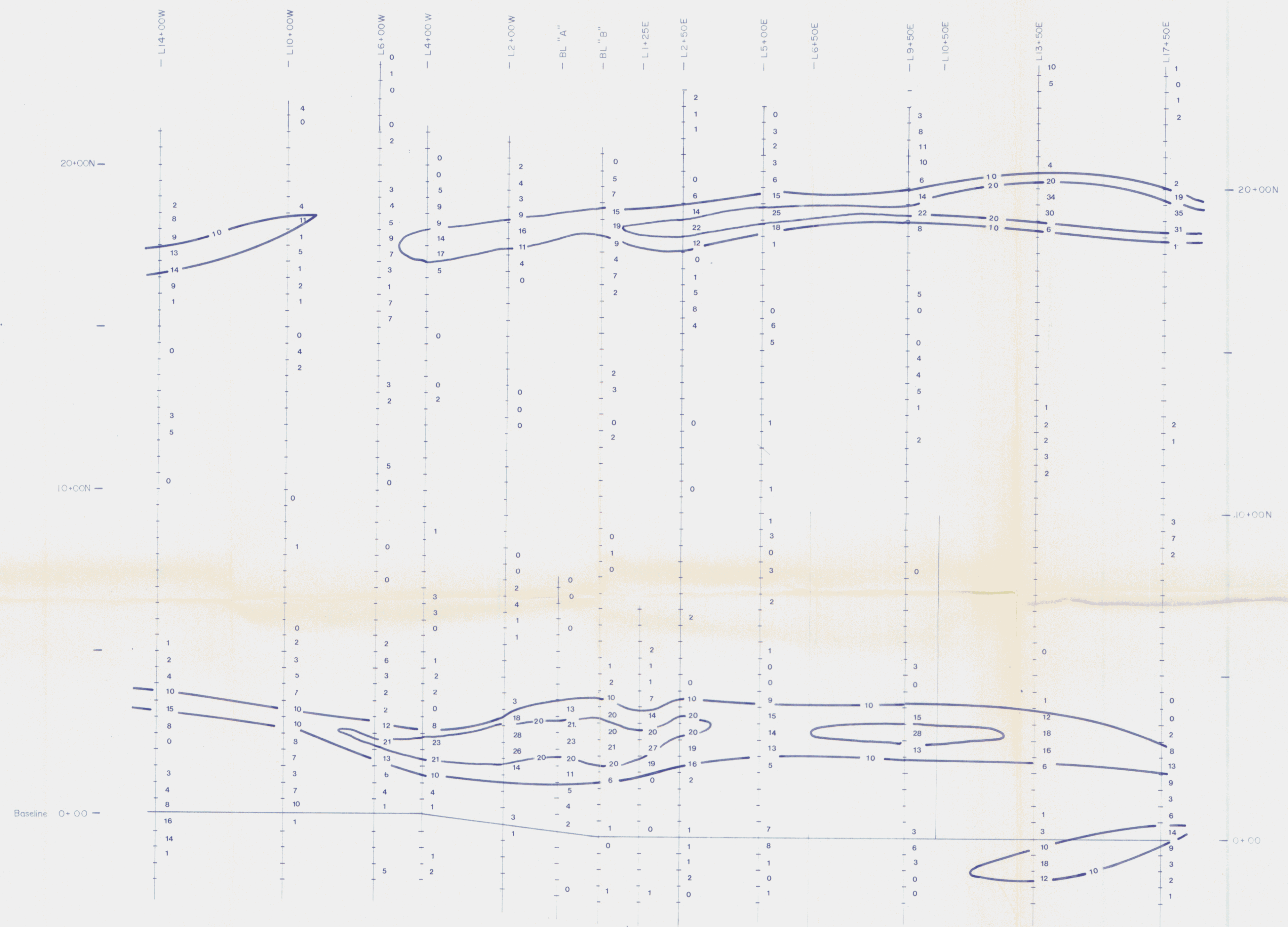
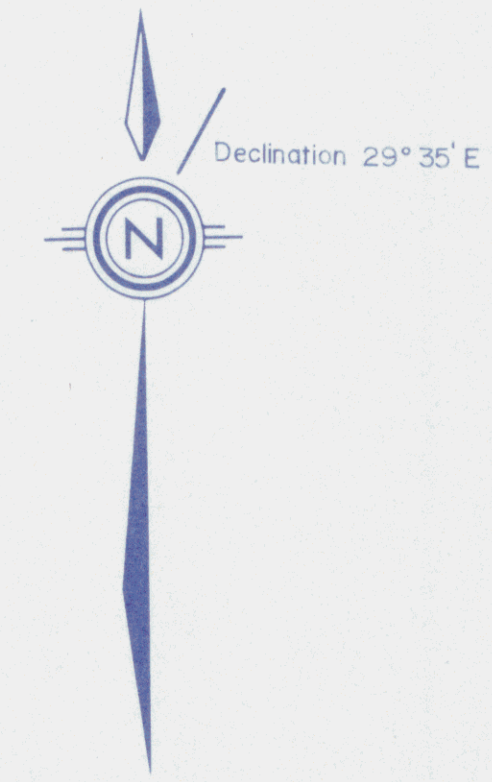
REVISED	<b>TYCON PROPERTY</b>	
	SOIL GEOCHEMISTRY 091579	
	Copper, Zinc, Lead (ppm)	
PROJ No. 301	SURVEY BY: GY, JM, SC	DATE: August 1982
N.T.S. 105 D/3	DRAWN BY: RSR	SCALE: 1" = 200'
FIGURE	ROGERS EXPLORATION SERVICES	
<b>4b</b>	Whitehorse, Yukon	



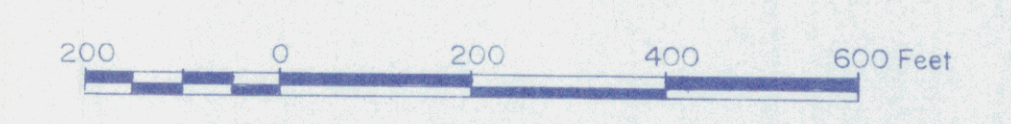


REVISED	<b>TYCON PROPERTY</b>	
	VLF EM-16 SURVEY	091579
	(Fraser Filtered)	
		Tx: NAA
PROJ. No. 301	SURVEY BY: AC	DATE: 16 June 82
N.T.S. 105 D/3	DRAWN BY: RSR	SCALE: 1" = 200'
FIGURE	ROGERS EXPLORATION SERVICES	
<b>5</b>	Whitehorse, Yukon	



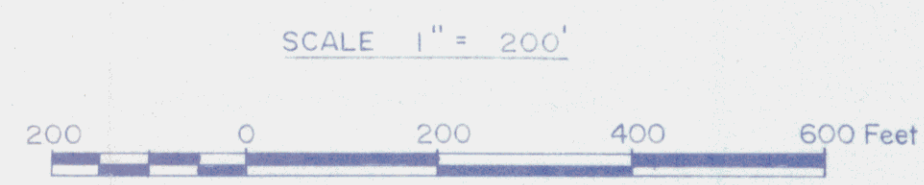


SCALE 1" = 200'



REVISED	<b>TYCON PROPERTY</b>	
	VLF - EM SURVEY 091579	
	(Fraser Filtered)	
	Tx: Cutler	
PROJ No. 301	SURVEY BY: JM	DATE: August 1982
N.T.S. 105D/3	DRAWN BY: R.S.R.	SCALE: 1" = 200'
FIGURE	ROGERS EXPLORATION SERVICES	
<b>6</b>	Whitehorse, Yukon	

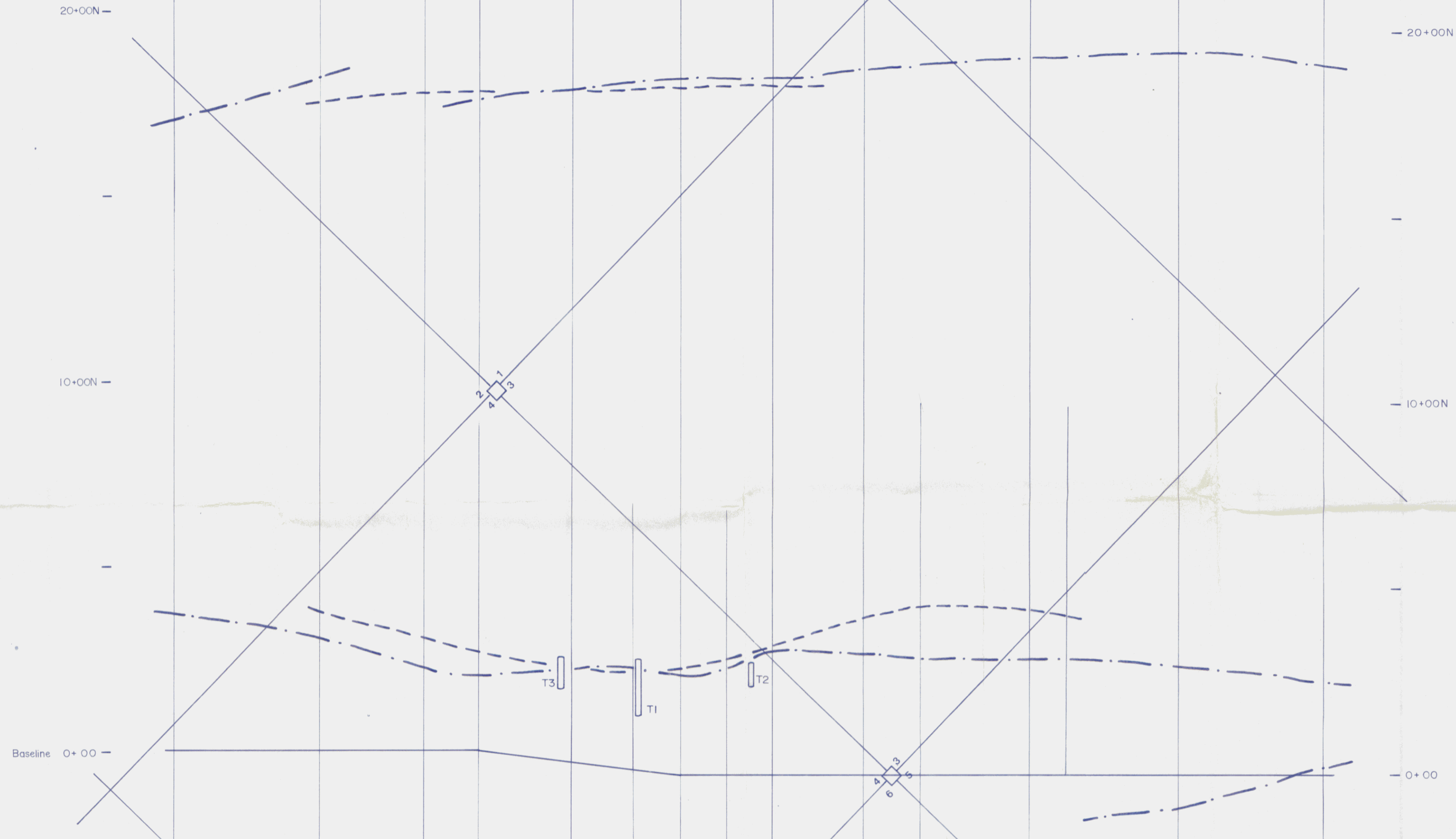
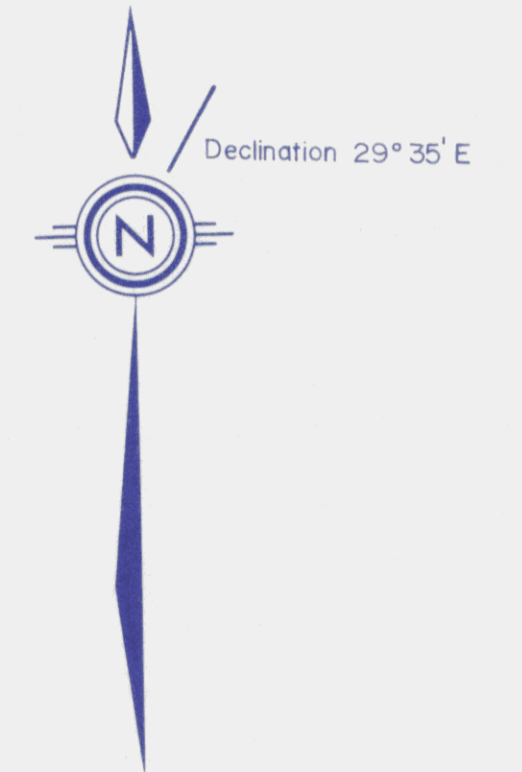




REVISED	<b>TYCON PROPERTY</b>	
	MAGNETOMETER SURVEY <b>091579</b>	
	(Sciñtrex MF-2 Fluxgate Mag.)	
PROJ No. <u>301</u>	SURVEY BY: <u>SC</u>	DATE: <u>August 1982</u>
N.T.S. <u>105D/3</u>	DRAWN BY: <u>RSR</u>	SCALE: <u>1" = 200'</u>
FIGURE <b>7</b>	ROGERS EXPLORATION SERVICES Whitehorse, Yukon	



— L14+00W — L10+00W — L6+00W — L4+00W — L2+00W  
 — BL "A" — BL "B" — L1+25E — L2+50E — L5+00E — L6+50E — L9+50E — L10+50E — L13+50E — L17+50E



- CLAIM POSTS AND BOUNDARY
- · - VLF-EM CONDUCTOR
- - - EM-16 CONDUCTOR
- ▭ TRENCH

SCALE 1" = 200'



REVISED	<b>TYCON PROPERTY</b>	
	COMPILATION	091579
PROJ. No. 301	SURVEY BY: _____	DATE: 15 NOV 83
N.T.S. 105 D/3	DRAWN BY: RSR	SCALE: 1" = 200'
FIGURE	ROGERS EXPLORATION SERVICES	
<b>8</b>	Whitehorse, Yukon	