

ASSESSMENT REPORT  
YUKON QUARTZ MINING ACT  
TYCON 1 TO 16 CLAIMS  
(YA59654 - YA59669)  
N.T.S. 105D/3

for

A.W. Hyde

#7 Willow Cr.

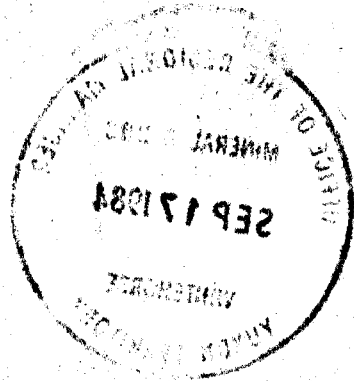
Whitehorse, Yukon Territory

by

Randall S. Rogers M.Sc., P.Geol.;  
ROGERS EXPLORATION SERVICES LTD.  
Whitehorse, Yukon Territory

06 Sep 84

091557



This report has been examined by  
the Geological Evaluation Unit  
under Section 58 (4) Yukon Quartz  
Act and is allowed as  
proof of work on work account

of \$ 5,780.07

*D. D. Emmond*

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

## SUMMARY

The Tycon 1 - 16 mineral claims, located on N.T.S. mapsheet 105 D/3, are owned by Mr. A.W. Hyde of Whitehorse, Yukon Territory. Mr. Hyde has retained the author to perform geological consulting on the property, and in accordance with that work the following report is tendered pursuant to the requirements of the Yukon Quartz Mining Act assessment work provisions.

The Tycon 1 - 16 claims were grouped under application dated 16 July 84 and a Form "C" Application for Certificate of Work submitted on the same date, claiming \$ 1600.00 worth of bulldozer trenching to extend the expiry date of the claims ahead to 23 June 85.

## INTRODUCTION

This report summarizes the setting and exploration history of the Tycon property in the Wheaton River area of south central Yukon Territory. The writer has personally examined the subject property on numerous occasions between 5 Nov 83 and 5 Sept 84 and is currently engaged in geological consultation to the owner of the claims, Mr. A.W. Hyde of Whitehorse, Yukon.

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 on mapsheet N.T.S. 105D/3. The property lies 38 miles south of the City of Whitehorse and is accessible by a four wheel drive road connecting to the Wheaton River Road and Klondike Highway. (Figure 1).

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 characterised by extensive steep walled mountain ranges dissected by polygonal valleys with short steep tributary streams feeding main valley drainages. In the Wheaton River area the topographical relief is tempered by a gradual northerly change into the Teslin Plateau, and upland areas display smoothed plateau surfaces devoid of all but alpine vegetation. Topographic relief on the property is 1500', with a maximum elevation of 5500' a.s.l. in the southeastern portion of the claims.

HISTORY OF EXPLORATION

The Windy Arm and Wheaton River districtw were first prospected near the turn of the century by stamperders en route to the gold fields of the Klondike from the upper reaches of Bennett Lake. The Mt. Anderson area was explored intermittently in the years following 1906, but most activity seems to have been centered on Au-Ag veins immediately north of the present property. Two adits of 322' and 350' were driven on the Whirlwind vein between 1906 and 1915 and a number of bulldozer and hand trenches excavated prior to 1964. Silgold ML, Adanac ML and Adonis ML all performed minor bulldozer trenching under option agreements from 1967 to 1973. The TAM group of claims was staked in 1978 by W. Kuhn who conducted limited geophysical surveys and trenching in 1979 and 1980.

The Tycon claims were staked by Mr. A.W. Hyde in March of 1981, and magnetometer, VLF-EM and soil geochemical surveys conducted in the summer of 1982. A grid was establiehed over a portion of the claims, and three bulldozer trenches excavated over the EM conductors in July of 1983. The access road from Partridge Creek was upgraded at the same time as the trenching.

CLAIMS

The Tycon property consists of 52 claims located under the Yukon Quartz Mining Act. The present report is directed at only the Tycon 1 - 16 as detailed below:

<u>Claim Name</u>	<u>Grant No.</u>	<u>Due Date</u>
TYCON 1 - 16	YA59654-69	23 June 85

The claims are depicted on Figure 2.

## REGIONAL GEOLOGY

The regional geology of the Wheaton River area is described by Wheeler (1961). Chert, limestone and melanocratic 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.

### 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)

## 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  $60^{\circ}$ S exposed in Trench 1; a second set of veins appears to be subordinate to this set and locally strikes  $125^{\circ}$  dipping  $65^{\circ}$ 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.

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.



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## 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 chalcopyrite 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  $090^{\circ}/60S$  with a subordinate set at  $125^{\circ}/65N$ ; 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	0.01
7		L 0.02	0.01
8		L 0.02	0.01
9		0.02	0.01
10		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.

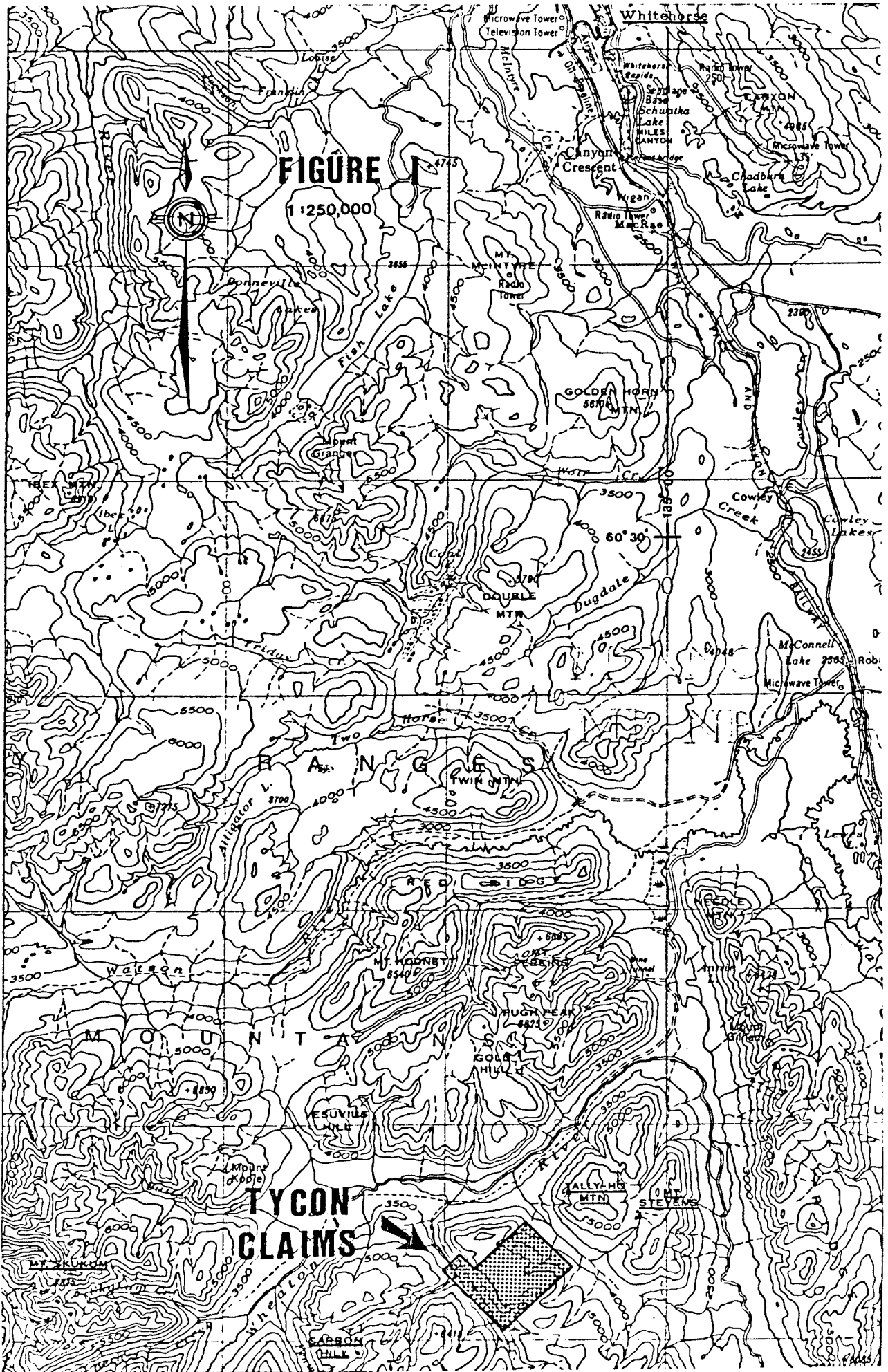
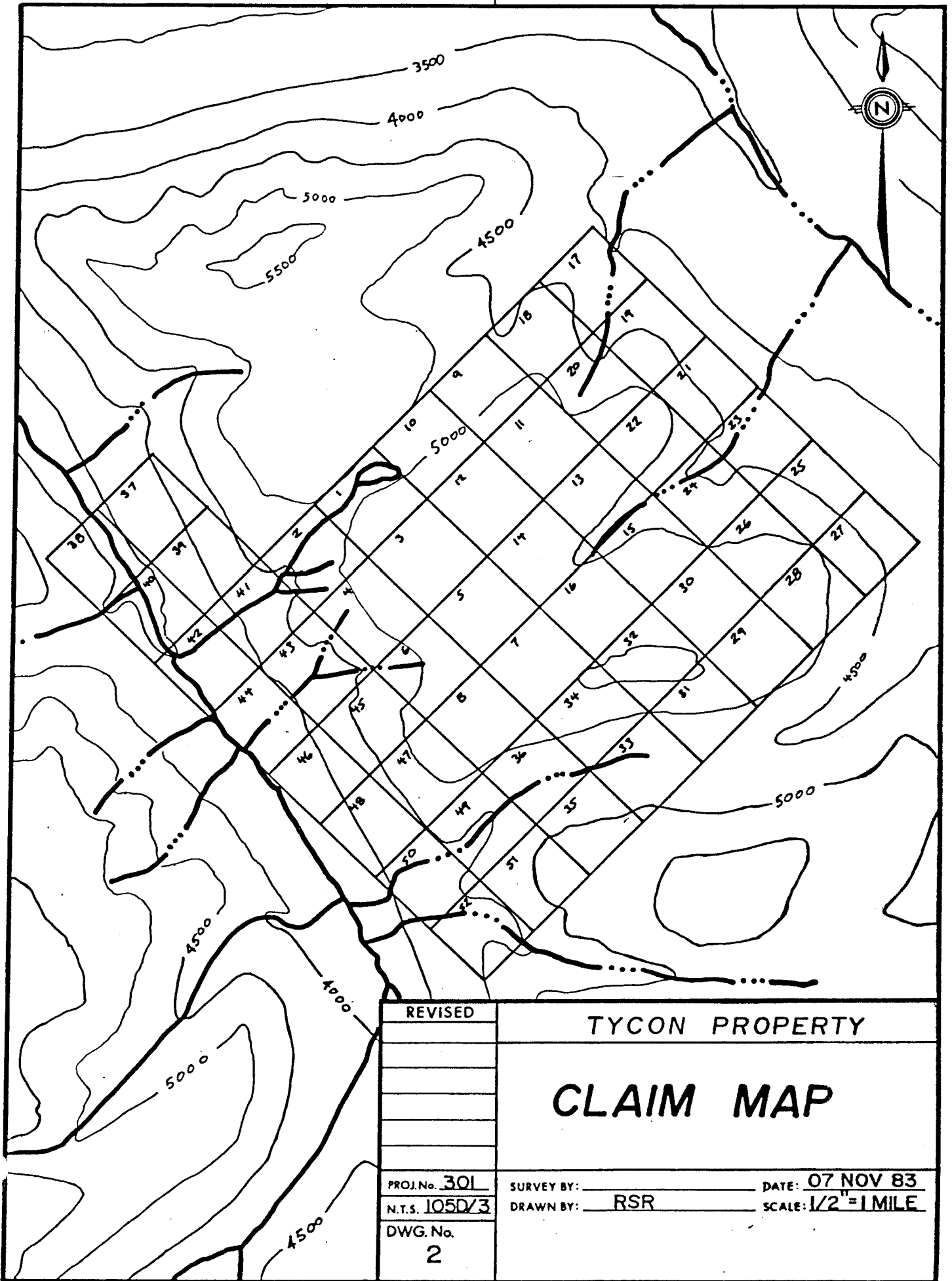


FIGURE 1

1:250,000

TYCON CLAIMS



REVISED	TYCON PROPERTY	
	<h1>CLAIM MAP</h1>	
PROJ.No. <u>301</u>	SURVEY BY: _____	DATE: <u>07 NOV 83</u>
N.T.S. <u>1050/3</u>	DRAWN BY: <u>RSR</u>	SCALE: <u>1/2" = 1 MILE</u>
DWG.No.		
2		

CERTIFICATE

I, Randall Stewart Rogers, of the City of Whitehorse in the Yukon Territory, DO HEREBY CERTIFY:

THAT I am a consulting professional geologist with offices located at 32 Marion Crescent, Whitehorse, Yukon Territory;

THAT I am a Professional Geologist (P.Geol.) licenced by the Association of Professional Engineers, Geologists and Geophysicists of Alberta;

THAT I am a graduate of the University of British Columbia with the degree of Bachelor of Science (Honours) in Geology;

THAT I am a graduate of Queen's University at Kingston with the degree of Master of Science in Mineral Exploration;

THAT I am a member of the Canadian Institute of Mining and Metallurgy;

THAT I am a member of the Geological Association of Canada;

THAT I have personally examined the property now covered by the Tycon 1 - 16 mineral claims;

THAT I have no interest, direct or indirect in the property subject of this report.

DATED at the City of Whitehorse, Yukon Territory, this 06 day of September, A.D. 1984.



Randall S. Rogers M.Sc., P.Geol.

091557

# ROGERS EXPLORATION SERVICES LTD.

- Placer and Hardrock Consulting  
- Project Management  
- Property Evaluation

PO Box 4488  
Whitehorse, Yukon  
Y1A 2R8  
(403) 633-2080

## STATEMENT OF EXPENDITURES

Re: Tycon 1 - 16 Claims (Yukon Quartz Mining Act)  
Grant No. YA 59654 - YA 59669  
N.T.S. 105D/3

The following statement of expenditures is submitted supplemental to assessment report dated 06 Sept 84 and prepared by R. S. Rogers of Rogers Exploration Services Ltd. on behalf of Mr. A.W. Hyde of Whitehorse, Yukon Territory.

EXCAVATION OF THREE TRENCHES WITH BULLDOZER TO BEDROCK TO INVESTIGATE ELECTROMAGNETIC ANOMALIES: 01 - 31 July 1983

1) A. Fekete : rental of D-7 bulldozer	\$ 2900.00
2) Truck rental	300.00
3) Fuel and oil	600.00
4) Chemex Labs Ltd.: Assays	464.00
5) Rogers Exploration Services Ltd. Geological report and services	1266.07
6) Miscellaneous supplies	<u>250.00</u>
	\$ 5780.07

Certified correct from invoices and information supplied by Mr. A.W. Hyde.



Randall S. Rogers M.Sc., P.Geol.  
President  
28 Sept 84

ma/RR

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- Placer and Hardrock Consulting
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PO Box 4488  
Whitehorse, Yukon  
Y1A 2R8  
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Mr. D.F. Jennings  
Mining Recorder  
Whitehorse Mining District  
Room 220 Federal Bldg.  
Whitehorse, Yukon

28 Sept 84

Re: TYCON 1 - 16 Claims (Y.Q.M.A.)  
YA 59654 - YA 59669

Dear Mr. Jennings;

Further to our discussion of 24 Sept 84 with regard to the captionally noted claim group owned by Mr. A.W. Hyde of Whitehorse, I enclose an itemized statement of expenditures for his 1983 works program.

I believe that the Form "C" dated 06 July 84 applied for one year worth of credits on sixteen claims, or a value of \$1600.00 is assessment work. Mr. Hyde's expenditures were well in excess of that amount, but he has decided to apply for only one year's credit.

I trust that the attached statement of expenditures will be satisfactory.

Best of luck on your new posting to Dawson, and I hope that you find that position to be as rewarding as possible.

Yours Truly,

Randall S. Rogers, M.Sc., P.Geol.  
President

ma/RR