

GEOLOGICAL REPORT ON THE PROPERTY OF
CANALTA RESOURCES LTD.

MIKE LAKE, DAWSON MINING DIVISION, Y.T.

MIKE 1-24

Situated approximately 46 miles N 70 E of Dawson City,
Yukon Territory and lies approximately 17 miles east of
the Dempster Highway.

64 15' N, 137 55' W. 116-A-5

Submitted by: F.Holcapek. P.Eng.

Owner: CANALTA RESOURCES LTD.

Work conducted for: CANALTA RESOURCES LTD.

By: AGILIS ENGINEERING LTD.

090124

Office of The Supervising Mining Recorder
AUG 23 1976
WHITEHORSE
Yukon Territory

Stamp: OFFICE OF THE SUPERVISING MINING RECORDER, WHITEHORSE, YUKON TERRITORY, AUG 23 1976

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 \$ 12,000.00

[Signature]
Resident Geologist or
Resident Mining Engineer

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

[Signature]
E. R. BAXTER
Supervising Mining Recorder

[Signature]
Commissioner of Yukon Territory

Geological

November 1976

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REPORT ON THE MIKE MINERAL CLAIMS
LOCATED ON
MIKE LAKE, DAWSON MINING DIVISION
YUKON TERRITORY
FOR
CANALTA RESOURCES LTD.

INTRODUCTION:

This report is based on an exploration program consisting of surface sampling, trenching, geological mapping and diamond drilling conducted during the period of August 8 to September 15, 1975. The program was conducted by Agilis Engineering Ltd. on behalf of Canalta Resources Ltd. under the supervision of the writer.

The purpose of the program was to investigate auriferous arsenopyrite - quartz veins.

Property:

The property consists of the following mineral claims:

<u>Claim Name</u>	<u>Record Number:</u>
Mike 1 - 24	Y 99705 - 99728
Can 1 - 30	not available
Can 45	not available

The Mike 1 - 24 minerals claims have been tagged during the course of the program.

Location and Access:

The property is located approximately 46 miles N 70° E of Dawson City, Yukon Territory and lies approximately 17 miles east of the Dempster Highway.

Co-ordinates of the property are 64° 15' north latitude, 137° 55' west longitude.

Access to the property is by helicopter from Dawson City or driving by truck 15 miles up the Dempster Highway and from there by helicopter to the property.

All necessary supplies are available in Dawson City.

PHYSIOGRAPHY:

Topographic relief within the claim area is rugged with elevations varying from between 4,500 to 6,500 feet. These elevations are above timberlines. Slopes are steep and are talus and rubble covered, with the ridges being mainly outcrop.

Vegetation consists of mosses, alpine grass and arctic birches, with willow confined to the shore line of Mike Lake.

Winters are severe in the region and initial surface exploration will have to be confined to the period of mid June to mid September.

Water for exploration purposes is available from Mike Lake at the western part of the property.

HISTORY:

Claims have been held for many years in the Fish Creek area. Hart River Mines Ltd. located the Gold claim group and completed geological mapping, trenching and sampling.

Most of the trenches did not reach bedrock but stopped in strongly oxidized vein material. Sampling showed good values in gold, widths of 1.5 to 5 feet. The claim group was allowed to elapse.

Conwest Mines Ltd. holds a claim group with known gold bearing quartz veins approximately 10 miles to the west of the subject property.

The AS claim group held by Belmoral Mines Ltd. adjoins the Mike Claims to the west. Several quartz veins carrying gold values and a wide low grade copper zone have been worked on in this group.

The Mike 1-24 mineral claims are covering the area of the elapsed Gold claims of Hart River Mines Ltd.

GEOLOGY:**Regional Geology:**

Regional geological mapping of the area at a scale of 1 inch=4 miles by the Geological Survey of Canada has been published as Map 14-1962, accompanying Geological Survey of Canada Paper 62-7.

This shows the region to be largely underlain by a northwest trending belt of Precambrian and/or Cambrian sedimentary and metamorphic rocks intruded by small granitic to basic sills. The older rocks (unit 3) consist of quartzite, sandstone, conglomerate, shales, slates, phyllites, various schists and limestone.

Intrusives occupy the southern-central portion of the claim group. These consist of variously textured syenitic rocks with lesser diorite.

The sedimentary units are strongly contorted and generally contain appreciable amount of pyrrhotite and pyrite giving them a rusty appearance. Several large dykes, up to 50 feet wide, cut the intrusives and sediments.

STRUCTURAL GEOLOGY:

Structurally the area has been intensively folded as indicated by a series of tight overturned folds along a steep hillside along the eastern boundary of the claim group.

The isolated quartzite peaks at the mountain peaks surrounding Mike Lake are part of a tightly folded anticline bisected by deep glacial valleys or cirques.

Sheeting observed in the syenite, causing mass wasting by large blocks and boulders, is essentially parallel to the bedding of the sediments. North and east of the south veins the syenite, feldspar porphyry is overlaying

the sediments. A zone of up to 5 feet wide of thermal metasomatism associated with a chilled contact is exposed in this area. Jointing within the syenite is parallel to fracturing within the sediments.

The sulfide content of the sediments, expressed by intensively rusty areas decreases with the distance from the intrusive contact.

Two areas of strong easterly trending fractures are indicated by the south vein and north vein.

The first is confined to the syenite outcrop area and appears to be a continuation of the fracture zone investigated on the AS claims to the west. Heavy rubble cover precludes more detailed surface investigation.

The second, in vicinity of the north zone, lies within an area of quartz outcrops.

DETAILED GEOLOGY AND TRENCHING:

South Zone:

The south zone has been investigated by trenching and sampling for a strike distance of 1,000 feet. Deep weathering and heavy overburden, in excess of 10 ft. combined with the presence of permafrost precluded reaching fresh vein material. During the mapping it became apparent that the south vein is not a single quartz - arsenopyrite vein but rather a zone of two or more quartz veins apparently en echelon arranged and

horsetailing into each other. Maximum sulfide width observed is 4.5 ft. The apparent en echelon arrangement can explain the sharp northward swing of the vein system. The two vein outcropping at the top of the eastern ridge could not be traced for any distance because of talus cover.

Heavy fog cover and rain did not allow intensive investigations along the ridge.

Mineralization consists of quartz, arsenopyrite, chalcopyrite, minor pyrite and occasional specks and flakes of molybdenum in the adjoining wall rock.

Hydrothermal alteration of the wallrock consists of silicification, development of chlorite and enrichment of biotite. The alteration depends on the width of the vein but is strongest where horsetailing occurs. The vein system could not be traced past the intrusive sediment contact.

Trench #1: Dimensions: 10 ft x 6 ft x 6 ft strongly oxidized vein material vein is 3 ft. wide, 50% arsenopyrite. Attitude of vein is E, 75° south, chlorite alteration along footwall, biotite - silicification along hanging wall. Vein is sheeted and shows palisade structure.

<u>Sample #</u>	<u>Width</u>	<u>Description</u>	<u>Au.oz/ton</u>	<u>Ag.oz/ton</u>
32005	115 ft	Seynite-footwall	0.028	2.64
32003	3 ft	vein material	1.012	0.1
32004	1.5 ft	hangingwall	0.003	0.01

Average: 32005 and 32002 - 4.5 ft 0.675 oz/ton Au;
0.45 oz/ton Ag.

Trench #2: Dimensions: 30 ft x 7 ft x 4 ft; permafrost, yellowish soil and muck. No fresh vein-material, not sampled.

Trench #3: Dimensions: 15 ft x 10 ft x 10 ft; rubble and permafrost.

Trench #4: Dimensions: 15 ft x 6 ft x 6 ft; vein is completely oxidized. Footwall is well defined but hanging wall has not been intersected. Along footwall quartz contains less than 10% arsenopyrite. Minor malachite staining and chalcopyrite occurs disseminated in porphyritic wallrock.

<u>Sample #</u>	<u>Width</u>	<u>Description</u>	<u>Au.oz/ton</u>	<u>Ag.oz/ton</u>
32006	1 ft	quartz - arseno.	0.684	0.05
32007	3 ft	quartz- footwall	0.046	0.02
32008	grab	footwall-alteration	0.04	0.12
32009	grab	hangingwall	0.018	0.15
Average:	32006 and 32007 - 4 ft		0.329 oz/ton Au,	0.027 oz/ton Ag.

Trench #5: Dimensions: 10 ft x 3 ft x 1 ft; alteration zone, vein pinches to 1.5 feet is poorly defined and shows evidence of horsetailing

<u>Sample #</u>	<u>Width</u>	<u>Description</u>	<u>Au.oz/ton</u>	<u>Ag.oz/ton</u>
32010	1.5 ft	vein material	0.0080	0.01

Trench 6 to 8 are definitely located on a parallel vein structure.

Trench #6: Dimensions: 10 ft x 4 ft x 6 ft; the vein is 1.3 ft wide and lies within a 6 foot wide alteration zone containing numerous small quartz stringers, less than 1.5 inches wide.

<u>Sample #</u>	<u>Width</u>	<u>Description</u>	<u>Au.oz/ton</u>	<u>Ag.oz/ton</u>
32011	1 ft	oxidized vein	1.534	0.85
32012	¼ ft	arseno - massive	1.548	0.79
32013	grab	hanging wall	0.042	0.01

Trench #7: Dimensions: 15 ft x 5 ft x 4 ft; vein shows good arsenopyrite but is strongly oxidized. Alteration zone 10 feet width appears to cross cut vein. Strike of vein S 85°E, dip 75°S to 75°N.

<u>Sample #</u>	<u>Width</u>	<u>Description</u>	<u>Au.oz/ton</u>	<u>Ag.oz/ton</u>
32016	5.5 ft	silicified wallrock	0.01	0.13
32017	2.5 ft	arseno - oxidized	.190	4.26

Trench #8: Dimensions 4 ft x 3 ft x 2 ft; shear zone 3.16 ft wide containing quartz stringers and massive arsenopyrite up to 4 inches wide. Chalcopyrite in altered hangingwall seynites.

<u>Sample #</u>	<u>Width</u>	<u>Description</u>	<u>Au.oz/ton</u>	<u>Ag.oz/ton</u>
32014	3.16 ft	arseno - quartz	0.176	1.16
32015	grab	selected sulfides	0.696	1.15

South Zone Diamond Drilling:

The purpose of the drill program was to test the auriferous arsenopyrite mineralization at depth.

DDH 1: N25 E at - 70°; total depth 240 ft. The purpose of this hole was to test mineralization below trench #1.

A ft. section assaying 0.128 oz/ton Au and 0.21 oz/ton Ag was intersected from 118.1 feet to 122.7 feet.

DDH 2: abandoned

DDH 2b: N46E at - 65°; total depth 187 ft. The purpose of this hole was to test possible mineralization below trench #2 and 3.

No ore grade mineralization was intersected. The best section assayed 0.004 oz/ton Au over 7.5 ft.

DDH 3: N32E at - 60°; total depth 193 ft. The purpose of this hole was to check the extension of the vein to the east and at depth below Trench #5. A 4.20 ft. intersection assaying 0.715 oz/ton Au and 0.026 oz/ton Ag was intersected. These values were encountered from 154.8 - 159 ft. and are higher than the surface samples taken.

North Zone:

The North zone was mapped and sampled by Ms. F. Shnay, Geologist, under supervision of the writer for a strike distance of 1,600 ft.

The trenching on this zone did not penetrate beyond the strongly oxidized material. Samples taken from this area are not considered representative but give an indication if gold values are present.

Mineralization consists of arsenopyrite, pyrrhotite and minor occasional magnetite associated with a quartz gangue. Contact alteration appears to be intense over at least 4 feet into the wall rock. The light coloured quartzite is changed to a sugary, brown to tan coloured fine grained skarn. Amphibolites have been found as rubble in vicinity of the trace of the vein.

The North zone appears to consist of several closely spaced veins showing horsetailing. The main vein trends easterly and has an apparent steep dip to the south. Maximum width of the vein is 20 feet.

A second vein, trending northerly appears to intersect the main vein. This vein follows a creek bed and outcrops intermittently. For most of the distance strongly oxidized rubble is the only indication of the vein. The vein is up to 4 feet wide and consist of varying amount of arsenopyrite and pyrrhotite in a quartz gangue.

Trenching:

All trenches were cut across the indicated strike of the vein.

Trench 1: 19 ft x 5 ft x 3 ft: Vein trends 80° , dip 80° . Strongly oxidized arsenopyrite and quartz rubble. Some fresher material pyrrhotite boulders.

<u>Sample #</u>	<u>Width</u>	<u>Description</u>	<u>Au.oz/ton</u>	<u>Ag.oz/ton</u>
23501	1	chip vein material	0.014	0.01
23502	1	grab, weathered	0.032	0.40

Trench 2: 3 ft x 3 ft x 1 ft; Strongly weathered arsenopyrite, chert and quartzite rubble.

<u>Sample</u>	<u>Width</u>	<u>Description</u>	<u>Au.oz/ton</u>	<u>Ag.oz/ton</u>
23503	grab	strongly oxidized arsenopyrite	0.09	0.02

Trench 3: 12 ft x 8 ft x 6 ft; Strongly oxidized and sheared vein material; strike 80° dip 85°S. Part of trench in mixed chert, quartzite and vein rubble.

<u>Sample #</u>	<u>Width</u>	<u>Description</u>	<u>Au.oz/ton</u>	<u>Ag.oz/ton</u>
23504	grab	oxidized material	0.438	0.04
23508	grab	vein material	0.005	0.01

Trench 4: 33 ft x 3 ft x 3 ft; Strongly weathered arsenopyrite, quartzite contact with hydrothermal alteration.

<u>Sample #</u>	<u>Width</u>	<u>Description</u>	<u>Au.oz/ton</u>	<u>Ag.oz/ton</u>
23505	grab	arseno - oxidized	0.003	0.02

Trench 5: 30 ft x 4 ft x 2.5 ft; Vein, arsenopyrite 7 ft wide, hydro thermal alteration along walls, strike 70°, dip 80°S.

<u>Sample #</u>	<u>Width</u>	<u>Description</u>	<u>Au.oz/ton</u>	<u>Ag.oz/ton</u>
23507	7 ft	chip arseno pyrite	0.118	0.02
23506	2.5 ft	massive arsenopyrite	0.102	0.01

Trench 6: 5.5 ft x 4 ft x 3 ft; Along branch vein trending N45°E, 60°S. Vein is 4 ft wide and strongly oxidized.

<u>Sample #</u>	<u>Width</u>	<u>Description</u>	<u>Au.oz/ton</u>	<u>Ag.oz/ton</u>
23510	4 ft	oxidized sulfides	0.124	0.02

Trench 7: 8 ft x 4 ft x 3 ft; Intersection of main vein with two subsidiary veins trending N 10°E, 75°S and S 40°E, 65°E, oxidized sulfides, pyrrhotite and arsenopyrite.

<u>Sample #</u>	<u>Width</u>	<u>Description</u>	<u>Au.oz/ton</u>	<u>Ag.oz/ton</u>
23509	4 ft	oxidized material	0.02	0.02

Trench 8: 6 ft x 4 ft x 3 ft; Gossan - pyrrhotite and arsenopyrite. Branch vein strikes into north trending vein structure. Strike at N 40°W, 70°E.

<u>Sample #</u>	<u>Width</u>	<u>Description</u>	<u>Au.oz/ton</u>	<u>Ag.oz/ton</u>
23511	5 ft	oxidized material	0.128	0.45

Trench 9: 20 ft x 3.5 ft x 3 ft; Vein exposed for 5 ft width has an apparent easterly strike and dips 80°S. Vein material exposed consists of strongly weathered pyrrhotite and arsenopyrite.

<u>Sample #</u>	<u>Width</u>	<u>Description</u>	<u>Au.oz/ton</u>	<u>Ag.oz/ton</u>
23514	5 ft	weathered vein material	0.01	0.01

Two samples were taken from small outcrop areas along the north trending vein.

<u>Sample #</u>	<u>Width</u>	<u>Description</u>	<u>Au.oz/ton</u>	<u>Ag.oz/ton</u>
23512	grab	oxidized in Creek	0.032	0.01
23513	grab	oxidized in Creek	0.02	0.05

CONCLUSIONS:

1. The Mike claims of Canalta Resources have been investigated by surface trenching, sampling, geological mapping and diamond drilling of the South zone.

2. The claim group is underlain by quartzites, cherts and argillites intruded by a syenite feldspar porphyry, and several wide basic dykes.
3. Mineralization on the claim group investigated occurs in two zones, both trending easterly with steep south dips.
4. The south zone is an average of 4 ft wide and has been traced for a distance of 1,000 ft. Mineralization consist of arsenopyrite, minor chalcopyrite and molybdenum in a quartz gangue. Hydrothermal wall rock alteration has been recognized.

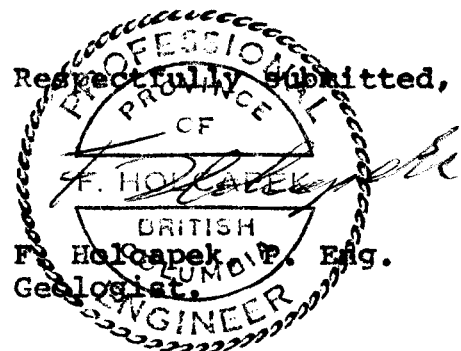
Surface sampling of the trenches gave gold values from 0.01 to 1.548 oz/ton. The best section gave an average value of 0.675 over 4.5 ft. Nearly all samples taken are strongly oxidized and are not considered representative.

5. This zone appears to consist of several veins en echelon arranged following a major easterly trending fracture zone.
6. Diamond drilling showed that the vein type mineralization is continuous at depth. The best assays were encountered in DDH 3 over a 4.2 ft width returning 0.715 oz/ton gold.
7. The results are inconclusive and further work will be required to allow evaluation of this zone.

8. The north zone has been sampled and trenched for a distance of 1,600 ft. Several branch veins varying from N 40°E to N 40°W have been found in this area.
9. The main vein trends easterly with steep southerly dip and has a maximum indicated width of 20 ft.
10. Mineralization consists of arsenopyrite, and pyrrhotite in a quartz gangue. The vein cuts quartzites.
11. The trenching did not expose fresh sulfides and hence the sampling is not representative. The highest value obtained was 0.438 oz/ton gold obtained from a grab sample. The best assay from a 7 ft chip sample of strongly weathered and oxidized material was 0.118 oz/ton gold.
12. Additional work is warranted to establish the grade of the fresh sulfides.

RECOMMENDATIONS:

Further work in the form of diamond drilling of both the North and South zone is recommended.



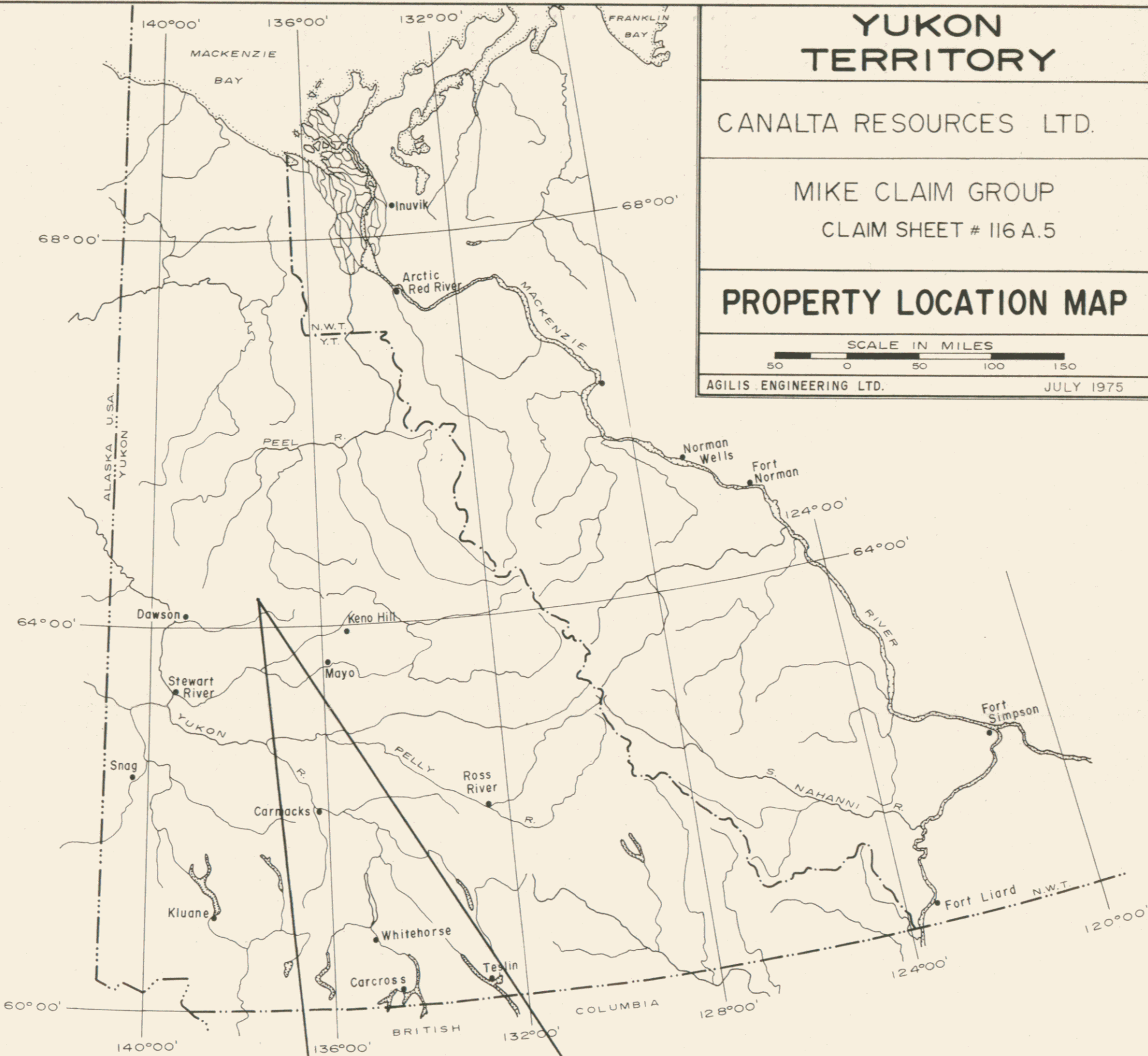
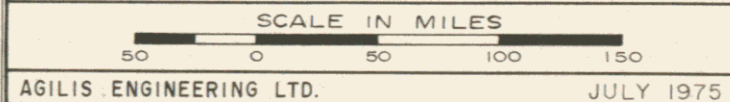
Vancouver, B.C.
November, 1975

YUKON TERRITORY

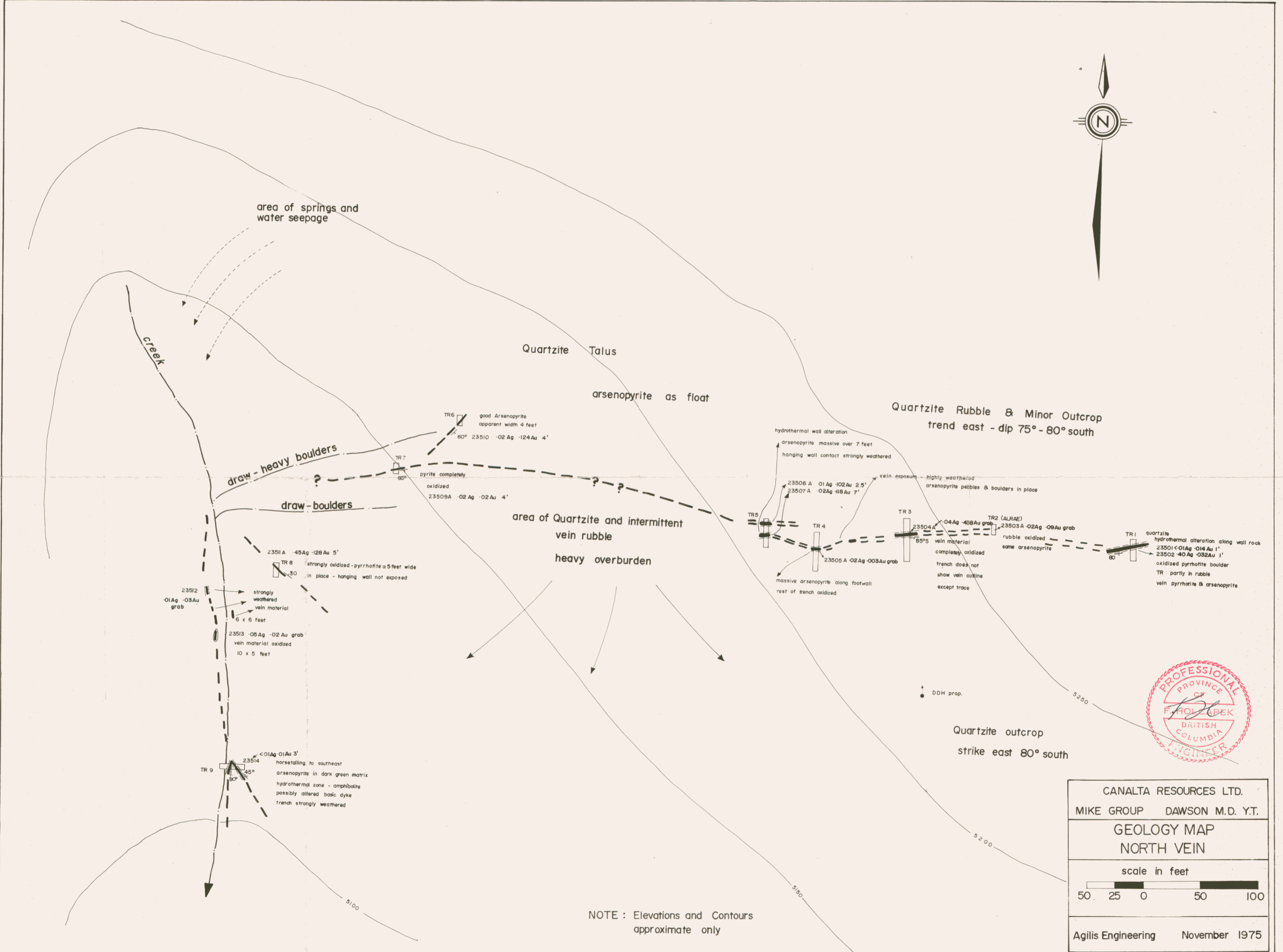
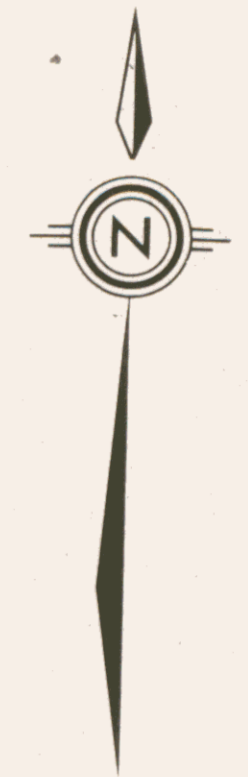
CANALTA RESOURCES LTD.

MIKE CLAIM GROUP
CLAIM SHEET # I16 A.5

PROPERTY LOCATION MAP



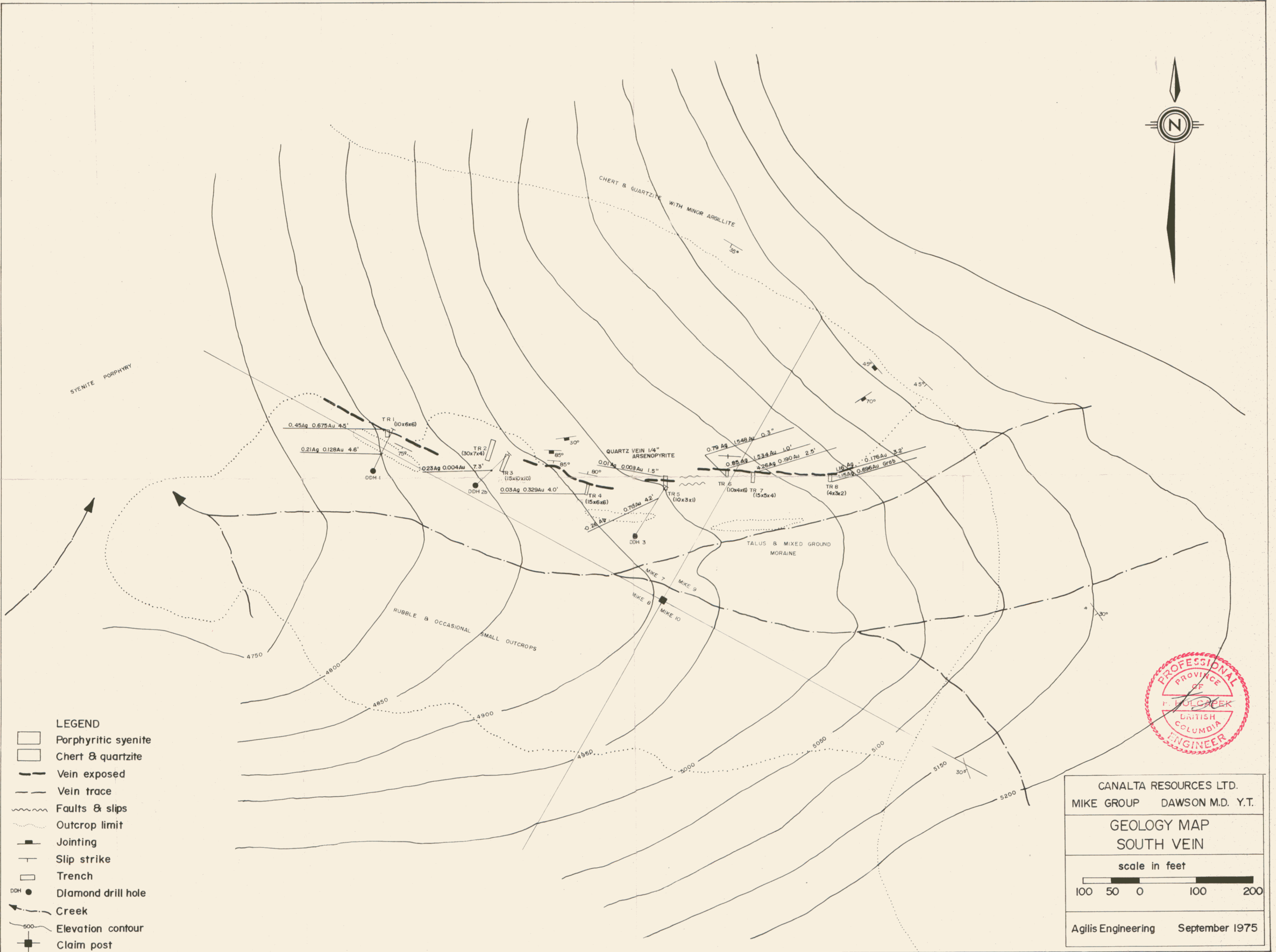
Scale 1" = 1/2 mile



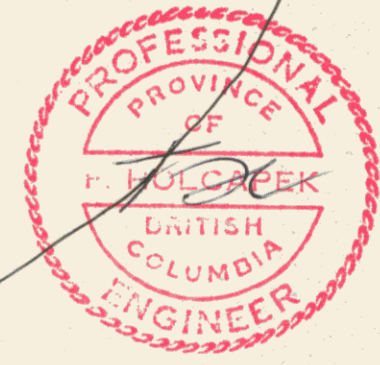
NOTE : Elevations and Contours approximate only



CANALTA RESOURCES LTD.
 MIKE GROUP DAWSON M.D. Y.T.
GEOLOGY MAP
NORTH VEIN
 scale in feet
 50 25 0 50 100
 Agilis Engineering November 1975



- LEGEND**
- Porphyritic syenite
 - Chert & quartzite
 - Vein exposed
 - Vein trace
 - Faults & slips
 - Outcrop limit
 - Jointing
 - Slip strike
 - Trench
 - Diamond drill hole
 - Creek
 - Elevation contour
 - Claim post



CANALTA RESOURCES LTD.
MIKE GROUP DAWSON M.D. Y.T.

**GEOLOGY MAP
SOUTH VEIN**

scale in feet

Agilis Engineering September 1975

N 25° E

DDH 1 -70°

elev. 4790'

TRENCH 1
0.95 Ag 0.675 Au 4.5'

TALUS OVERBURDEN

0.22 Ag 0.012 Au 0.05'

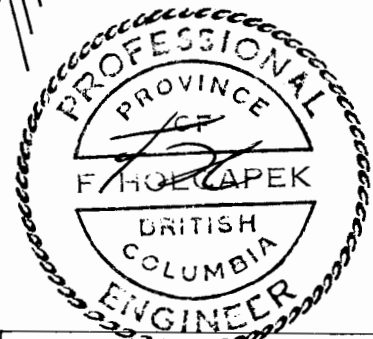
SYENITE PORPHYRY

0.03 Ag 0.010 Au 0.08'

0.21 Ag 0.128 Au 4.6'

0.01 Ag 0.012 Au 3.0'

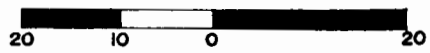
SYENITE PORPHYRY TO 240'



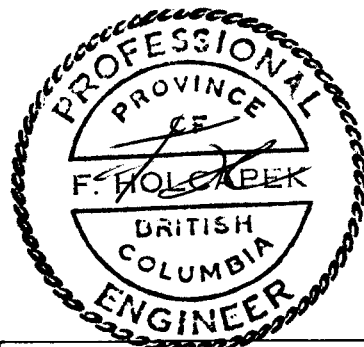
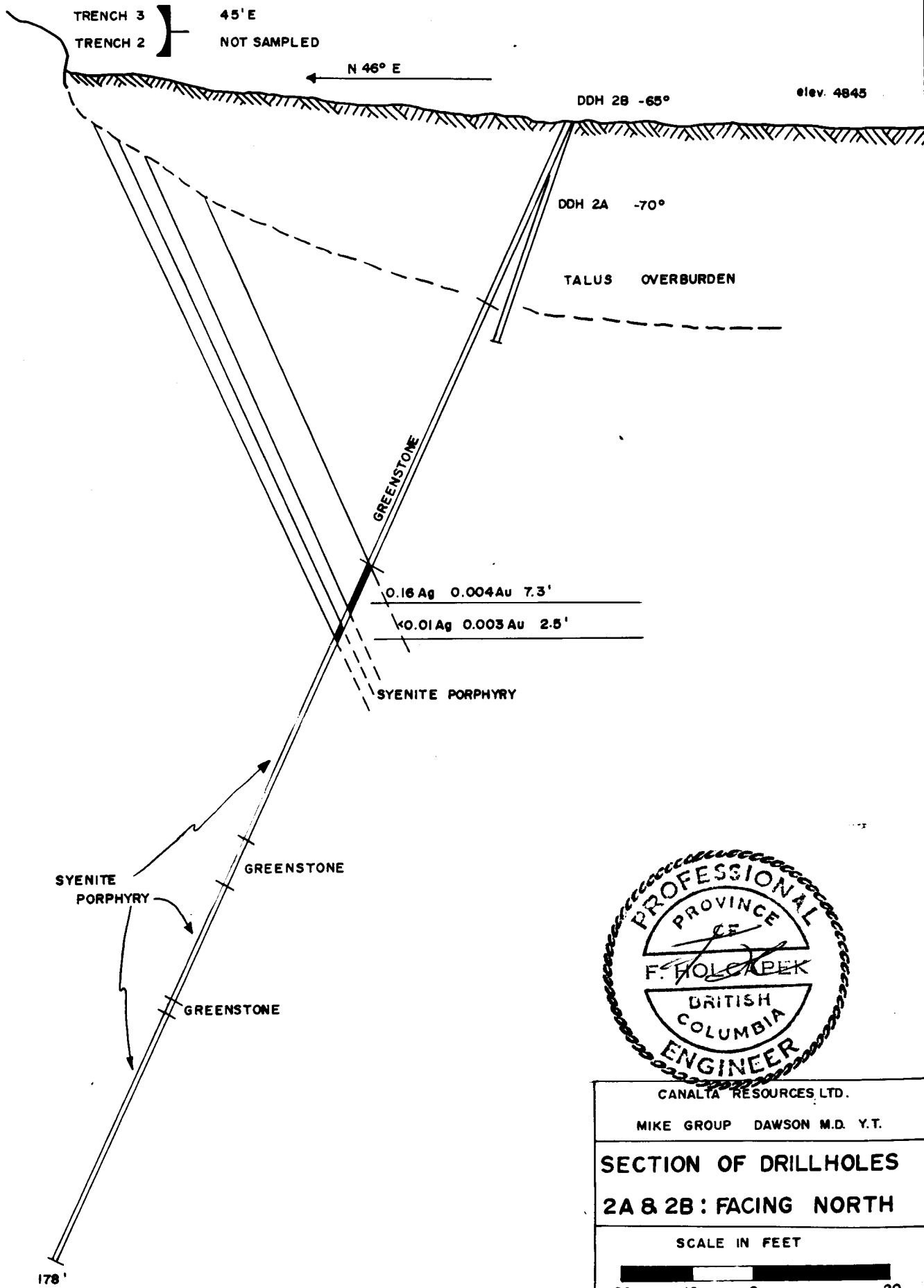
CANALTA RESOURCES LTD.
MIKE GROUP DAWSON M.D. Y.T.

SECTION OF DRILLHOLE 1
FACING NORTH

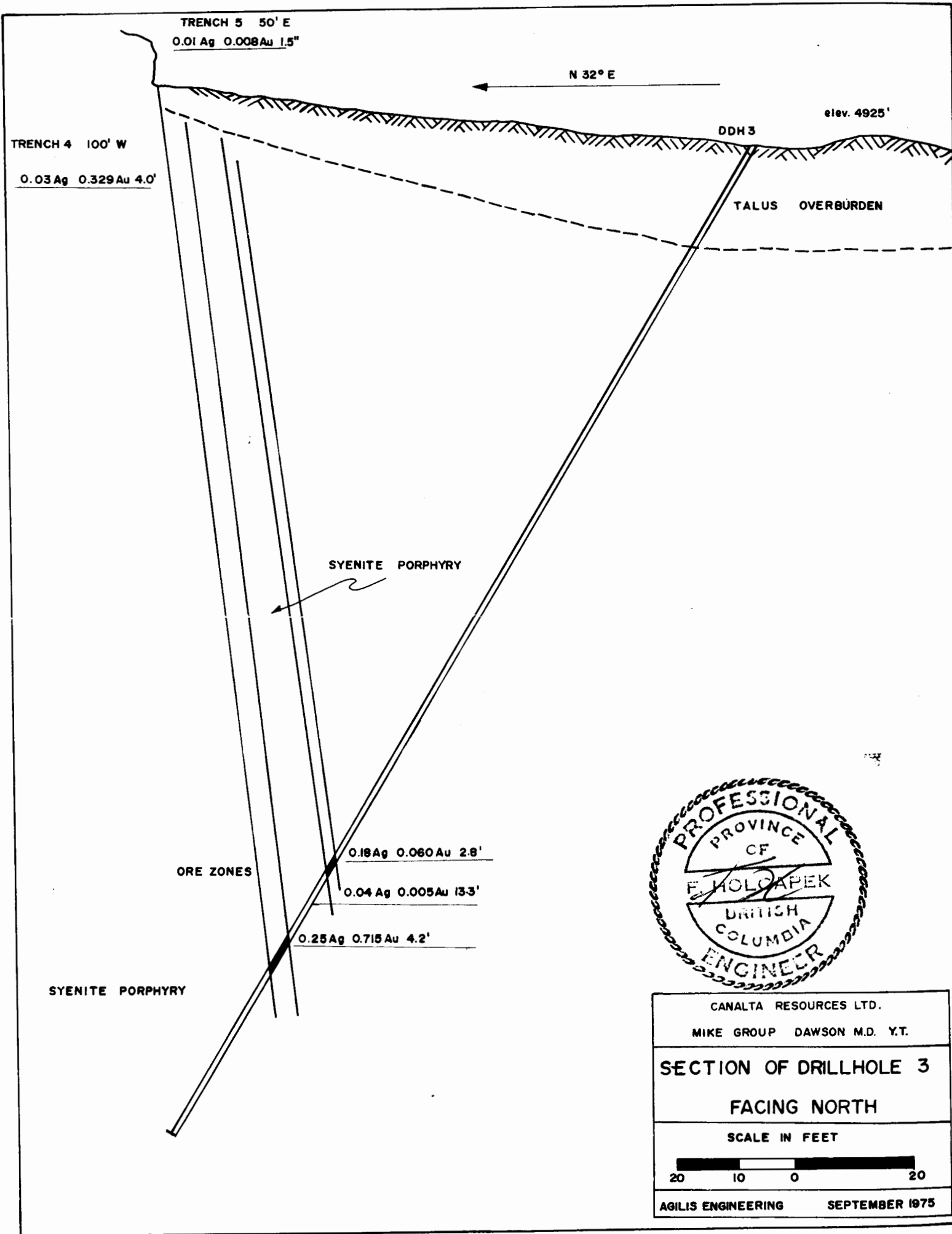
SCALE IN FEET



AGILIS ENGINEERING SEPTEMBER 1975



CANALTA RESOURCES LTD.
 MIKE GROUP DAWSON M.D. Y.T.
**SECTION OF DRILLHOLES
 2A & 2B : FACING NORTH**
 SCALE IN FEET
 20 10 0 20
 AGILIS ENGINEERING SEPTEMBER 1975



COLLAR
 NORTH _____
 EAST _____
 ELEVATION 4925
 AZIMUTH Direction N 32° E True
 DIP 0 60°
 LEVEL _____

Agilis Exploration Services Ltd.

PROJECT Cirque South of Mike Lake
 HOLE NO. DH #3
 COMMENCED September 1975
 COMPLETED _____
 PURPOSE OF HOLE _____

DIAMOND DRILL RECORD

FROM	TO	DESCRIPTION	CORE SAMPLES				ASSAYS				WIDTH & ASSAY		COMMENTS	
			FROM	TO	WIDTH	SAMPLE NO.	Au OZ	Ag OZ			WxAu	WxAg		
		Drilled by: Arctic Drilling												
		Depth 193.0												
		Logged by: D. Hopper												
		Core Size B.Q.												
0	23.0	Casing												
0	19.0	Boulders												
19.0	138.7	Syenite Porphyry												
		Grey matrix, numerous white feldspar crystals, largest being 3/8" x 1", no arrangement occasional fracture with carbonate and some red-brown alteration mineral hematite												
		46.0 fracture, carbonate filling at 30°												
		63.6-65.4 altered zone in the porphyry	63.6	65.4	1.8	23601A	0.003	0.07						
		pyroxene 30° to core 68.0-70.0 carbonate	68.0	70.0	2.0	23602A	0.003	0.05						
		red-orange and spots in shears and fractures 92.0 1/4" quartz vein 20° to C.A.												
		95.4-100.1 3-1/4" carbonate, red-orange, shears 25° to C.A. Trace of arsenopyrite	95.4	100.1	4.7	23603A	0.003	0.02						
		110.9 - 111.9 - 0.1 quartz vein arseno specks.	110.9	111.9	1.9	23604A	<0.003	0.02						
			135.0	138.7	3.7	23605A	0.003	0.03						
138.7	141.5	Altered zone in Syenite Porphyry 140.0-140.3 massive arseno pyrite trend 30-35° to C.A. on each contact of this band. Arseno and cp spots.	138.7	141.5	2.8	23606A	0.060	0.18						
141.5	153.0	Syenite Porphyry. Many chlorite slips,	141.5	143.0	1.5	23607A	0.003	0.07						

