

004671

NEBULOUS PROPERTY

Nebulous 1 - 33 claims

DECEMBER, 1977

NTS 116B/7

latitude 64°28' north, longitude 138°47' west

INTRODUCTION

The Nebulous property consists of 33 mineral claims, covering a radio-metrically anomalous portion of the Brenner stock, about 9 km northwest of the Ting occurrence. Prospecting in 1976 located three areas of secondary uranium mineralization called the West, Ridge and East Zones (see 1976 Report, pp. 42-47) in weakly jointed monzonite on a steep, frost-fractured, partially talus-covered slope.

The 1977 program was conducted from June 30 to July 12 and consisted of hand trenching and channel sampling of the West Zone and a small radiometric grid survey over a nearby 1976 airborne radiometric anomaly.

PROPERTY, LOCATION & ACCESS

The Nebulous claims are recorded in the Dawson Mining District as follows:

| <u>CLAIM NAME</u> | <u>GRANT NUMBERS</u> | <u>EXPIRY DATE</u> |
|-------------------|----------------------|--------------------|
| Nebulous 1-15 | YA 5089 - YA 5103 | 23 January, 1979 |
| Nebulous 16-29 | YA 5142 - YA 5155 | 23 January, 1979 |
| Nebulous 30-33 | YA 5170 - YA 5173 | 23 January, 1979 |

The claims are located at latitude 64°28' north and longitude 138°47' west within NTS claim sheet 116B/7, 56 km (35 miles) northeast of Dawson. The nearest road point is Km 58 (mile 36) on the Dempster Highway which lies 19 km (12 miles) to the southeast. Access is by helicopter from Dawson.

GEOLOGICAL SETTING

The property is located within a 5 km diameter Middle Cretaceous quartz monzonite intrusion called the Brenner stock, which cuts Silurian to Cretaceous shales, quartzite and limestone. The stock has no significant associated faulting and is more erosion resistant than the surrounding sedimentary rocks, resulting in a maze of steep-walled cirque valleys separated by extremely steep, knife-edge ridges. Valleys are covered by debris from extinct alpine glaciation while their sides are often obscured by coarse blocky talus. Outcrop, while abundant, is mostly located on steep cliffs which are usually inaccessible.

The Brenner stock exhibits a crude compositional zoning, grading from aplite at the centre through pink monzonite porphyry, porphyritic hornblende monzonite, monzonite porphyry and finally to augite biotite monzonite at its margins. Airborne radiometric surveys in 1976 showed that the entire stock is radiometrically anomalous although the strongest response was obtained over the porphyritic hornblende monzonite phase near its contact with monzonite porphyry. Prospecting in 1976 failed to locate specific zones of high grade uranium mineralization although an area of weak secondary enrichment was outlined in monzonite porphyry near the south end of the claims. The best showing, called the West Zone, consists of frost-opened joints coated with abundant yellow stain, a specimen of which assayed 1.1% U_3O_8 and only 30 ppm Th. Thirteen samples across a 50 m wide exposure of host rock averaged 42 ppm U with individual specimens assaying up to 150 ppm U and 340 ppm Th.

1977 EXPLORATION PROGRAMTrenching

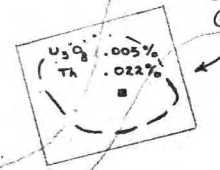
The main objective in 1977 was to trench into bedrock at the West Zone to obtain better samples and to determine if the open joints on surface contained more abundant secondary uranium mineralization at depth. Figures U-NE2 and U-NE3 on the following pages illustrate the geology and location of trenching and assay results of Trench NWA, respectively. This trench was cut between 1 and 2 m deep into the West Zone from 90 and 123 feet (10 m long) on the 1976 A-B sample line (see 1976 Figure U-NE1). This area proved fairly easy to trench in spite of the steep (38°) slope. Open surface joints proved to be too tight in bedrock to host mineralization and the abundance of secondary uranium oxides in mineralized joints remained unchanged at depth. Three clusters of mineralized joints exposed in the trench were channel sampled and returned uranium (U_3O_8) assays of 0.026% across 2 cm, 0.052% across 10 cm and 0.048% across 24 cm. Chip channel sampling of the monzonite in 2 m panels along the base of the trench (carefully avoiding mineralized joints) returned assays ranging from 0.007% U_3O_8 to 0.012% U_3O_8 with an average of 0.0082% U_3O_8 as compared to 0.0059% obtained by surface sampling in 1976. The average assay combining mineralized joints and country rock is 0.0105% U_3O_8 over the 10 m trench length.

Since Trench NWA and the West Showing in general occur in a snow chute where most of the weathered talus has been scoured away, two smaller trenches were blasted into less scoured bedrock nearby to determine if the yellow stain in bedrock was more widespread. Trench NWB was cut 1 m deep and 3.5 m long about 40 m west of Trench NWA and cut three, 4 cm wide, weakly crushed (?) joint seams

138° 47'

EAST NEB LAKE

SEE FIG U-NE3
LAKE ZONE
SCINT
GRID



NEBULOUS
16-19

5000

PORPHYRITIC

HORNBLENDE

MONZONITE

EAST ZONE

64° 28'

CAMP

NEBULOUS
1-4

NWB
.006%
U3O8
.022%
Th

NWA
.031%
U3O8

NWC
.006%
U3O8

RIDGE ZONE

MONZONITE

PORPHYRY

AUGITE BIOTITE

MONZONITE

5500

6000

6500

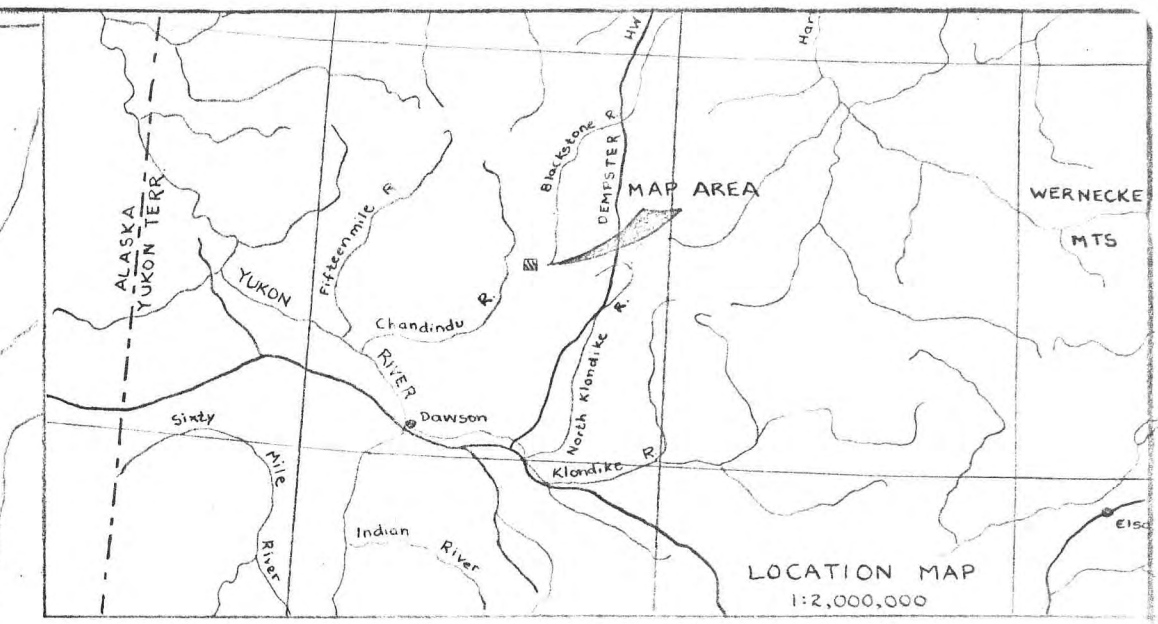
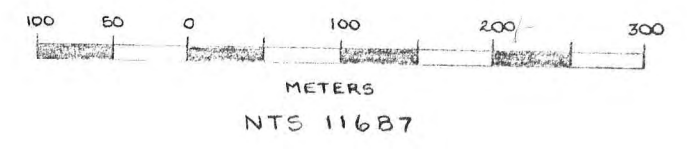


FIG. U-NE2
ARCHER, CATHRO AND ASSOCIATES
WEST ZONE
GEOLOGY AND TRENCH
LOCATIONS
NEBULOUS 1-33 CLAIMS
UKON JOINT VENTURE

LEGEND

- TRENCH LOCATION, NAME, AND ASSAY IN % U₃O₈
- 1976 UJV CHIP SAMPLE LOCATIONS
- .005% U₃O₈ ROCK SAMPLE LOCATION AND ASSAY IN % U₃O₈ AND % Th
.022% Th
- CAMP
- CLAIM POSTS
- CONTACTS OF MONZONITE PORPHYRY, APPROXIMATE AND INFERRED

SCALE 1:50,000



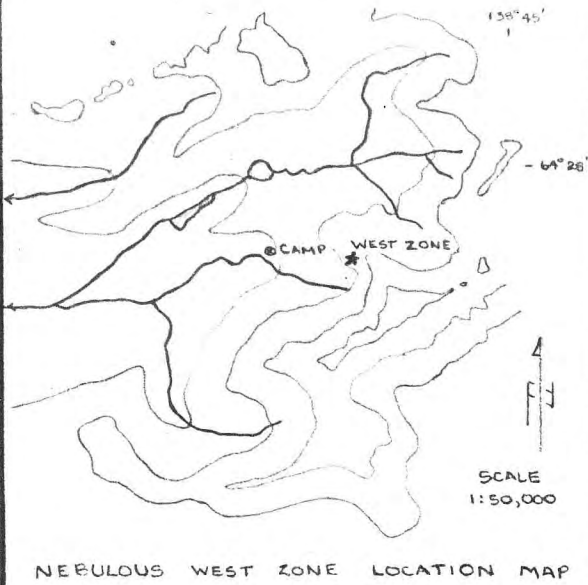


FIGURE U-NEB 3
ARCHER, CATHRO, AND ASSOCIATES

ASSAY AND RADIOMETRIC PLAN
TRENCH NWA - WEST ZONE
NEBULOUS 1-35 CLAIMS
UKON JOINT VENTURE

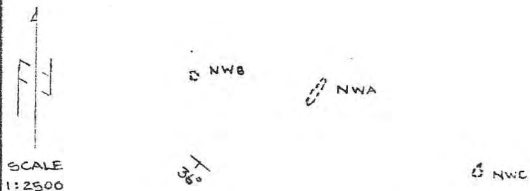
- BOTTOM OF TRENCH
- - - TOP OF BEDROCK
- TOP OF TRENCH
- ↓ SLOPE OF HILLSIDE
- - - - YELLOW STAINED FRACTURES
- - - - ZONE OF HIGHLY FRACTURED ROCK AND ASSAY
- 0.052%
- - - - 0.048% CHANNEL SAMPLE ACROSS MULTIPLE FRACTURES AND ASSAY

ALL ASSAY VALUES EXPRESSED IN PERCENT U_3O_8

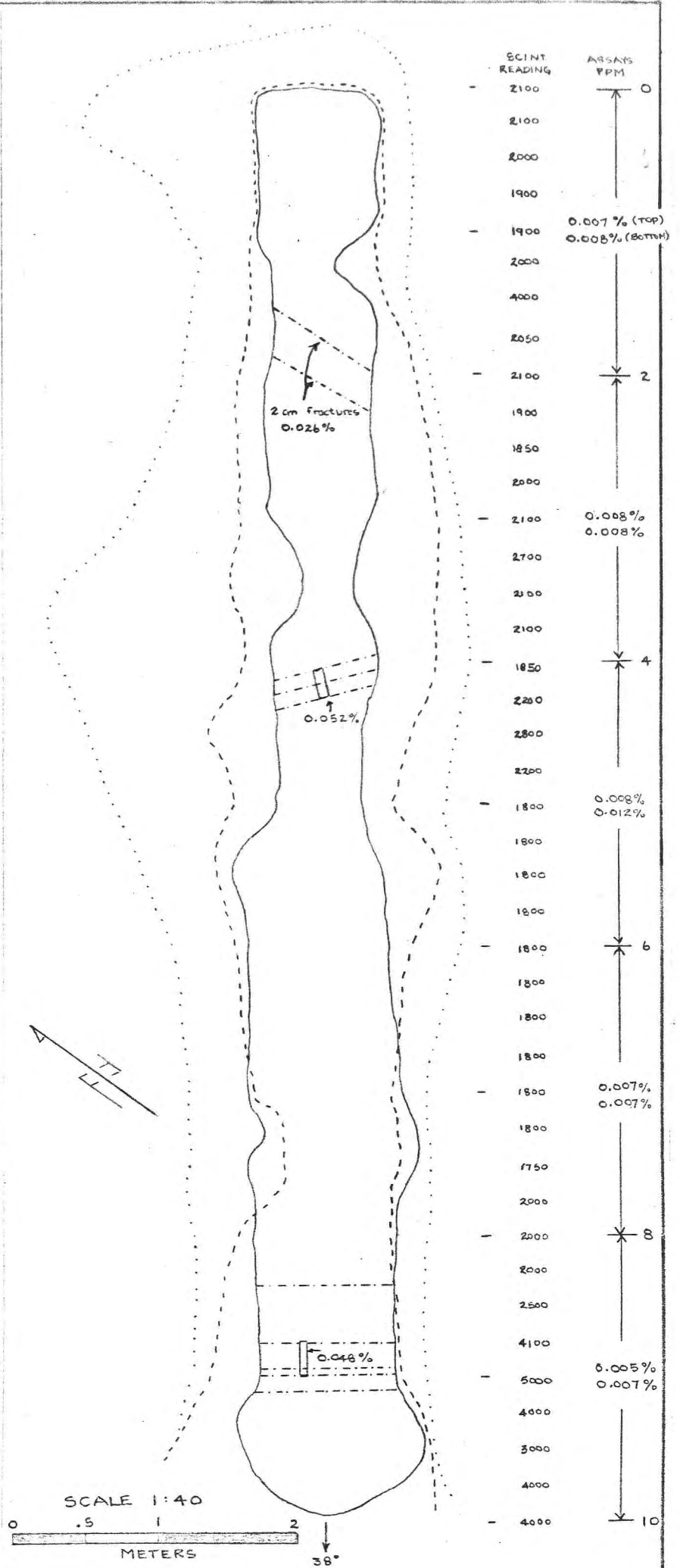
ALL SCINT READINGS TAKEN AT BOTTOM OF TRENCH WITH SCINTREX BGS-15L (43CC CRYSTAL)

CHIP SAMPLES COLLECTED FROM 2 METER PANELS AT THE TOP AND THE BOTTOM OF THE TRENCH. YELLOW STAINED ROCK NOT INCLUDED WITH THESE SAMPLES.

NEBULOUS CLAIMS
TRENCH LOCATION SKETCH



NEBULOUS 1-4



with traces of yellow secondary uranium mineralization. A grab sample from the joints assayed 0.018% U_3O_8 while a random chip sample of the host intrusion assayed 0.006% U_3O_8 . Trench NWC was located at 65 m east of trench NWA on a 50° slope where minor yellow staining was occurring along a joint surface. The trench was cut between 1/2 and 1 m deep over an area of 4 m by 3.4 m. No increase in joint density was found and only a trace of yellow staining was located in exposed joint surfaces. A chip sample across the trench assayed 0.006% U_3O_8 .

Grid Radiometrics and Prospecting

An 80 by 100 m grid radiometric survey was conducted over an anomalous area located by airborne radiometrics in 1976. The airborne response was 6700/1800 cps as compared to 7125/500 cps for the West Zone. The anomalous area lies about 100 m northwest of the West Zone in a relatively flat, boulder-covered valley. Figure U-NE4 on the following page illustrates the ground response using a Scintrex BGS-1SL scintillometer (43 cc crystal). An area of 70 m by 70 m, open to the northwest, gave about double the background of 400 cps. A few outcrops of monzonite show through the boulders in the anomalous area and a 3 m chip sample across one outcrop assayed 50 ppm U and 220 ppm Th. No secondary uranium minerals were seen on joint surfaces.

Prospecting located a float train of twice background radioactive boulders originating from an inaccessible ridge above Trench NWB. The boulders were composed of coarse grained monzonite porphyry with inclusions of fine grained, weakly foliated, mafic-rich monzonite. Most of the radioactivity is derived from the coarser grained portion. Two chip samples of the float averaged

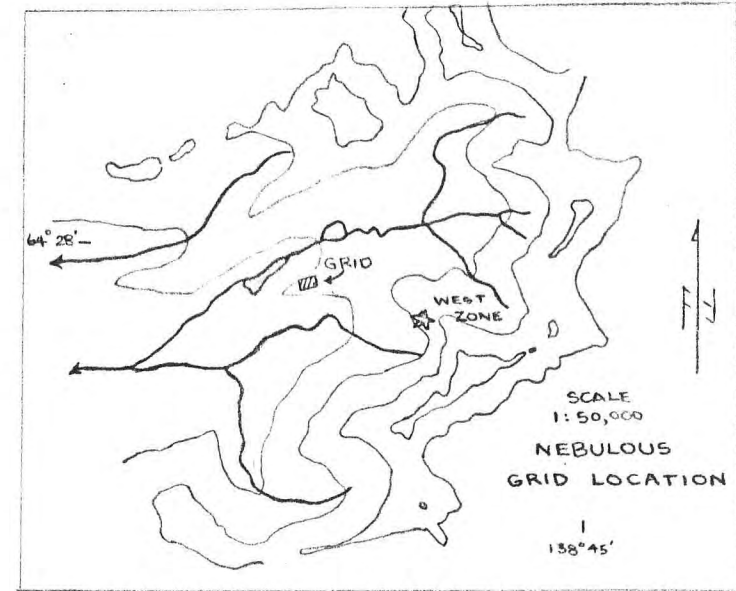
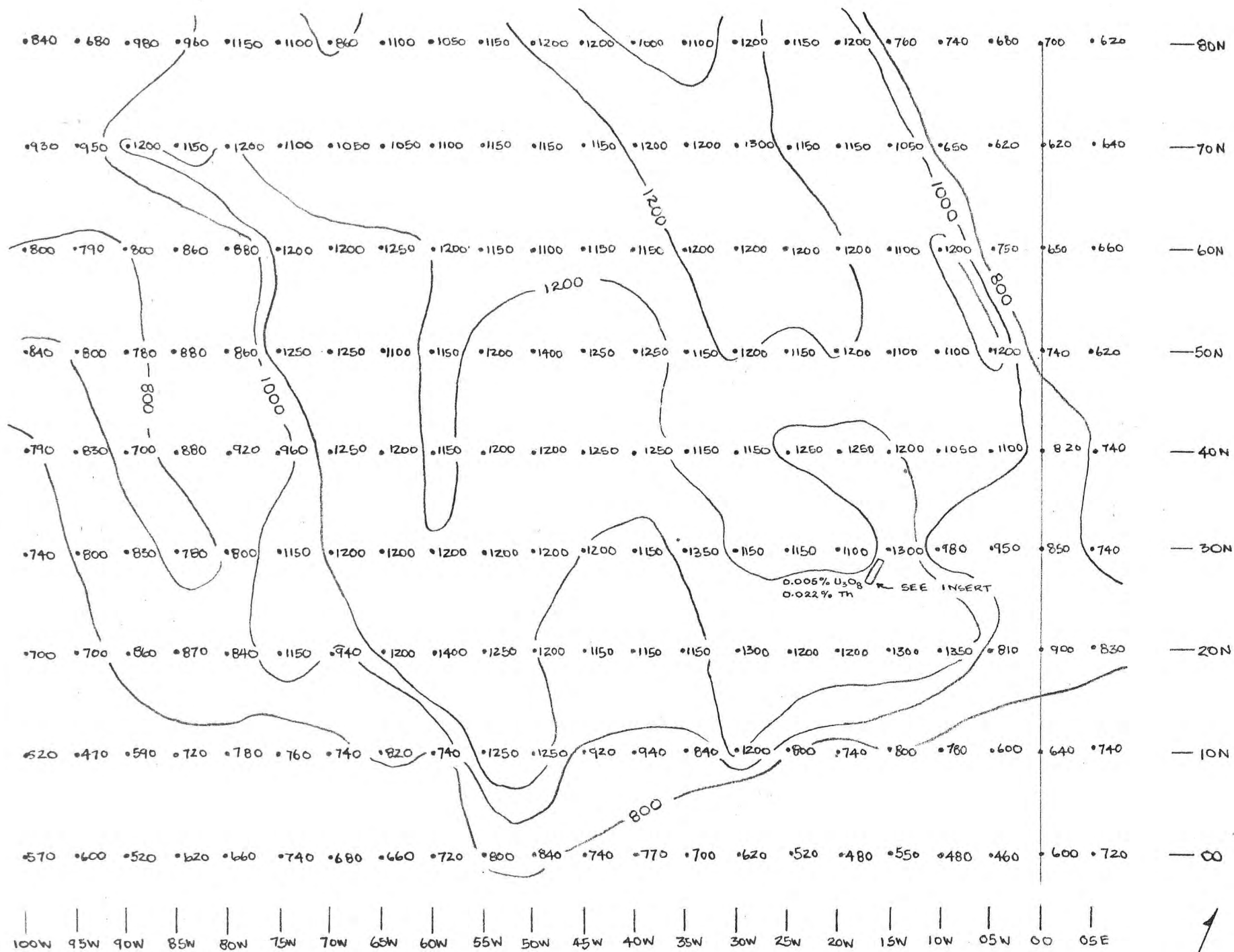
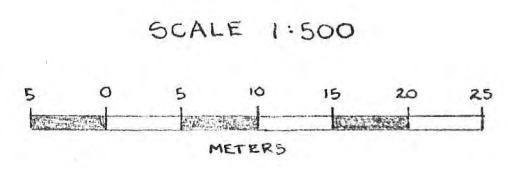
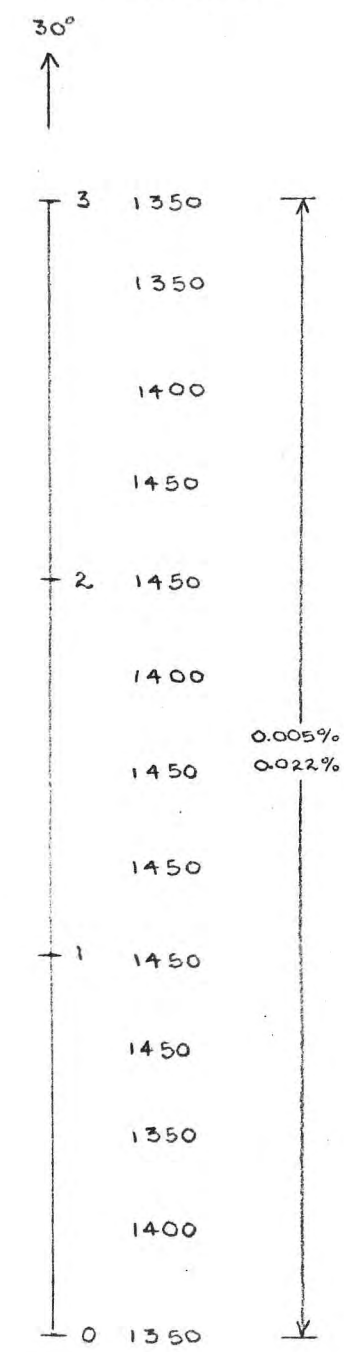


FIGURE U-NEB 4
 ARCHER, CATRO AND ASSOCIATES
RADIOMETRICS, ASSAY
 LAKE ZONE
 NEBULOUS 1-33 CLAIMS
 UKON JOINT VENTURE

LEGEND
 CHIP SAMPLE LOCATION AND ASSAYS
 IN % URANIUM AND % THORIUM
 •1200 RADIOMETRIC STATION AND READING
 AT WAIST HEIGHT WITH SCINTREX
 BGS-15L (43 CC. CRYSTAL)



**DETAIL
 RADIOMETRICS
 AT
 CHIP SAMPLE
 LOCATION**



SCALE
 1:20

100W 95W 90W 85W 80W 75W 70W 65W 60W 55W 50W 45W 40W 35W 30W 25W 20W 15W 10W 05W 00 05E

B
 A



0.021% U_3O_8 and 0.022% Th. The float is not abundant and the source is unlikely to exceed 10 m in width.

CONCLUSIONS AND RECOMMENDATIONS

Most uranium on the Nebulous claims is occurring as a trace element concentration in a zoned monzonite stock. The highest values are found in a porphyritic phase which exhibits weak secondary uranium enrichment due to precipitation of yellow oxides along joint surfaces during weathering. A 10 m long trench from the best area averaged 0.0105% U_3O_8 of which 0.0082% was contributed by the porphyritic monzonite and 0.0023% by secondary enrichment. Substantial tonnages of open pit material with no stripping ratio may be available in this grade range if the secondary enrichment extends to depth.

Additional exploration will require diamond drilling to outline tonnage and grade. A large core size and mud circulation will be required to ensure maximum recovery of secondary oxides. Petrological work and a mill test should precede any drill program to ensure that the uranium in the monzonite is in a recoverable form. Further work will be both expensive and risky and should only be considered on a joint venture or option basis.