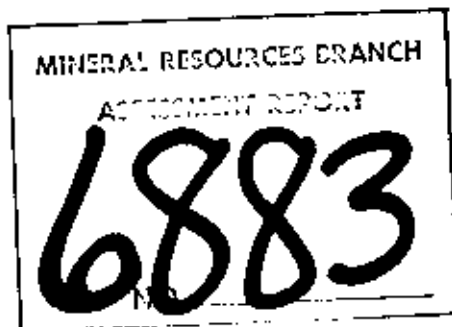


GEOLOGICAL AND GEOCHEMICAL REPORT
ON THE NET-4 MINERAL CLAIM
ATLIN MINING DIVISION

LATITUDE 59° 59' NORTH LONGITUDE 135° 00' WEST
N.T.S. MAP-SHEETS 104M/15W AND 104M/14E

For
E&B Explorations Ltd.



By
R.J. Beaty, B.Sc., M.Sc., D.I.C.
And
R.R. Culbert, Ph.D., P.Eng.

D.G. Leighton & Associates Ltd.

15 August 1978

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GEOLOGICAL AND GEOCHEMICAL REPORT
ON THE NET-4 MINERAL CLAIM

INTRODUCTION

This report describes the results of exploration work for uranium completed on the NET-4 mineral claims at Munroe Lake, British Columbia. Field work was completed between the 7th and 11th of July, 1978. The program was part of a larger program, financed by E&B Explorations Ltd., involving a number of properties in the Bennett Lake region.

The NET-4 claim was staked to cover a stream sediment anomaly in uranium derived from the analysis of sample pulps supplied by Kennco Explorations Ltd.

Property work included geological mapping, geochemical sampling and prospecting with hand-held scintillometers. The major effort was put into search for radioactive occurrences by prospecting. The area was not suited to normal follow-up geochemical techniques being for the most part very steep and rocky with poorly developed drainages.

The conclusions set forth in this brief report are based on the work cited above.

SUMMARY AND CONCLUSIONS

1. The NET-4 mineral claim is located approximately 25 kilometers southwest of Carcross on the southeast edge of Munroe Lake.
2. The property is underlain by two phases of plutonic rock which includes granodiorite and quartz monzonite.
3. This property was staked to cover a uranium anomaly derived from the analysis of sample pulps supplied by Kennco Explorations Ltd.
4. Work including geological mapping, more detailed geochemical sampling and intensive prospecting with hand-held scintillometers failed to detect any indication of worthwhile radioactive mineralization.

Respectfully submitted,

D.G. LEIGHTON & ASSOCIATES LTD.

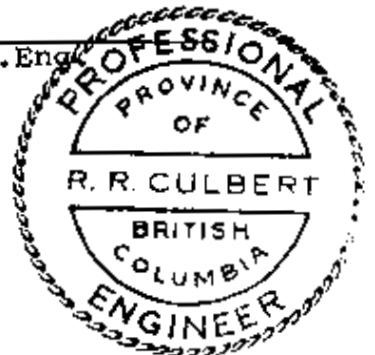
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15 August 1978



GENERAL DESCRIPTIONS

Location and Access

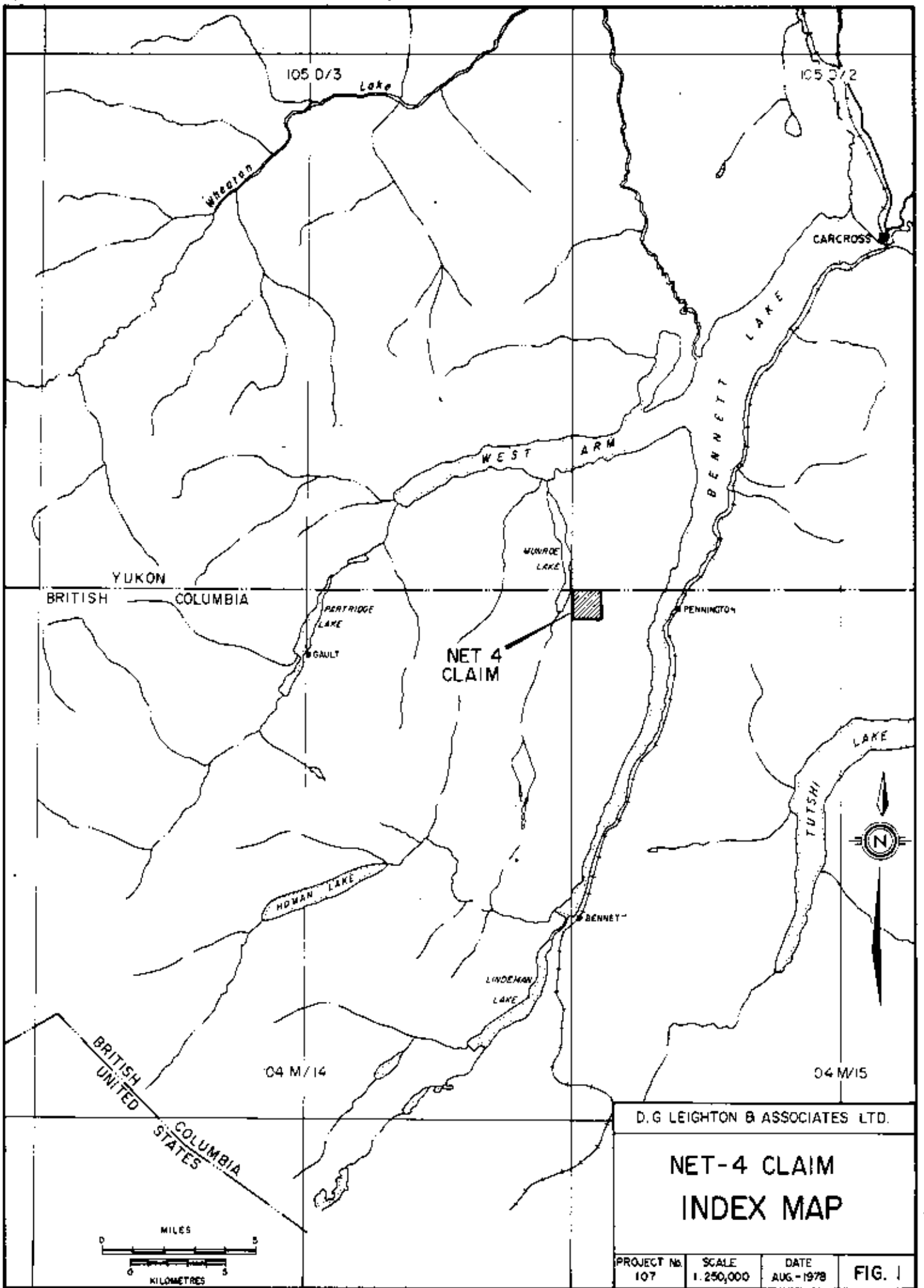
The NET-1 mineral claim is located at the southeast end of Munroe Lake, 25 kilometers southwest of Carcross, Yukon Territory. Geodetic co-ordinates are: Latitude 59° 59' North; Longitude 135° 00' West.

The property is accessible by either float plane or helicopter from Whitehorse.

Claim Information

The NET-1 mineral claim is held in the name of Welcome North Mines Ltd. (N.P.L.).

<u>Claim</u>	<u>Units</u>	<u>Record No.</u>	<u>Record Date</u>	<u>Expiry Date</u>
NET-4	8	235	26 July 1977	26 July 1978



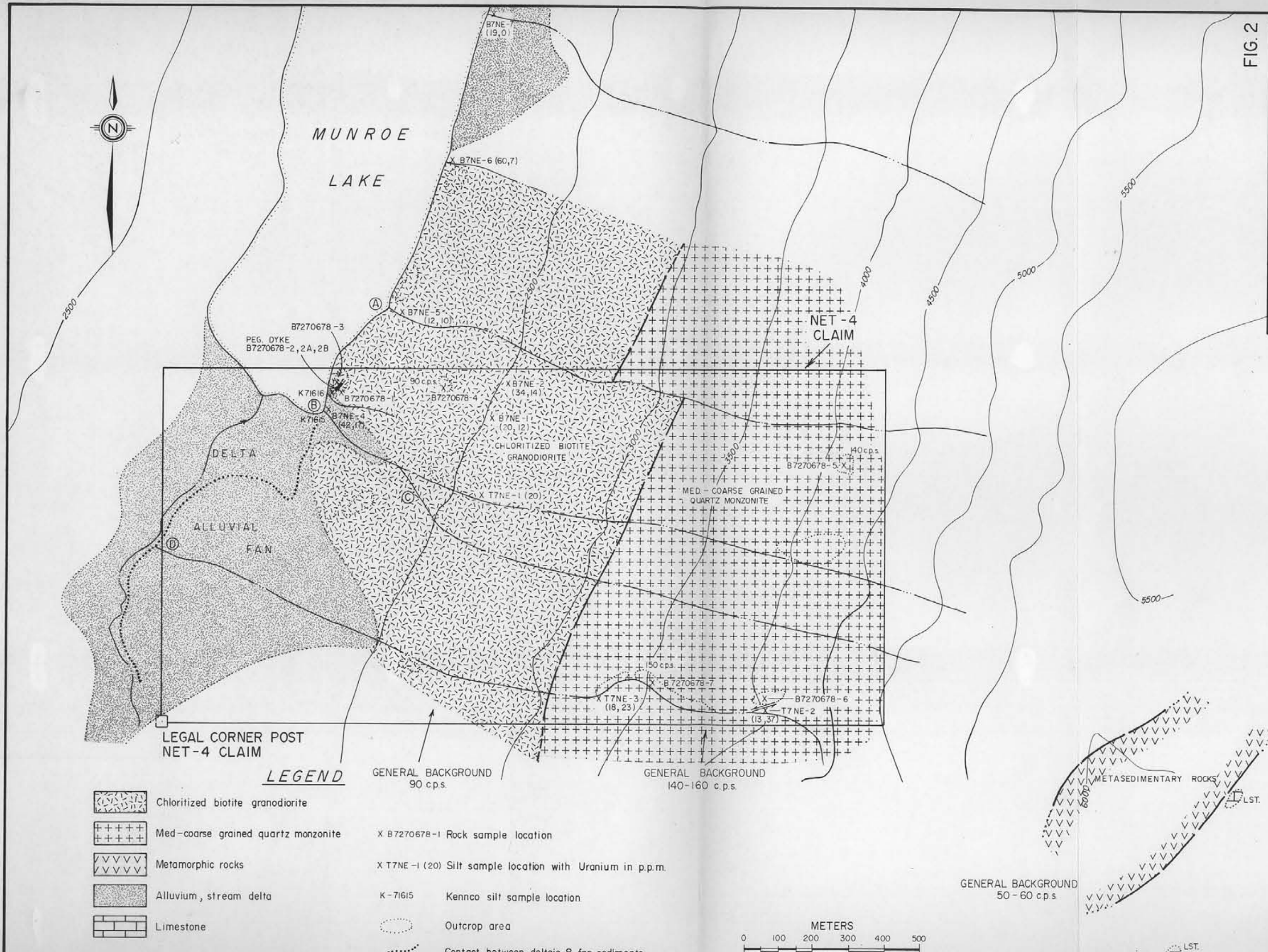
GEOLOGY

Three major rock types occur in the vicinity of the NET-4 claim. These include metasediments of the Paleozoic Yukon Group, grey biotite granodiorite and quartz monzonite. The biotite granodiorite contains 10% fine grained quartz and potassium feldspar, 20% chloritized biotite, 70% medium grained plagioclase and trace amounts of sphene and hornblende.

Geological features recorded on the NET-4 mineral claim are shown on an attached map (following this page).

FIG. 2

D. G. LEIGHTON AND ASSOCIATES LTD.			
NET-4 CLAIM			
GEOLOGICAL - GEOCHEMICAL			
COMPILATION			
PROJECT No.	PROJECT	SCALE	DATE
107	BENNETT	1:10,000	AUG. 1978



LEGEND

- | | | | |
|--|-------------------------------------|--|---|
| | Chloritized biotite granodiorite | | X B7270678-1 Rock sample location |
| | Med-coarse grained quartz monzonite | | X T7NE-1 (20) Silt sample location with Uranium in p.p.m. |
| | Metamorphic rocks | | K-71615 Kennco silt sample location |
| | Alluvium, stream delta | | Outcrop area |
| | Limestone | | Contact between deltaic & fan sediments |

GENERAL BACKGROUND
50-60 c.p.s.

METERS
0 100 200 300 400 500

GEOCHEMISTRY

In the course of regional silt sampling Kennco Explorations Ltd. collected three samples from creeks later covered by the NET-4 mineral claim. These samples, when run for uranium, returned values of 60, 9.5 and 125 ppm which is distinctly anomalous for this region. Listed below are the values obtained for other elements tested:

<u>Sample</u>	<u>U</u>	<u>Mo</u>	<u>Cu</u>	<u>Pb</u>	<u>Zn</u>	<u>Ni</u>	<u>Co</u>	<u>Ag</u>
71615	60	8	77	24	60	51	26	0.9
71616	9.5	2	57	22	155	40	25	1.0
71617	125	3	55	16	48	18	13	1.3

Follow-up geochemical sampling involved the samples listed on Table 1. These are interpreted as follows:

Only one strongly anomalous silt sample was found on the NET-4 claim, namely T7NE-1 which contained 159 ppm uranium. This, however, was very organic material (note the low weight of 8.7 cc of sample) and was not particularly anomalous in daughter products Pb^{214} and Radium. This indicates scavenging by organic materials. Other moderately anomalous values in less organic samples were also out of equilibrium. The somewhat radioactive pegmatite rock sample contains excess daughter products, suggesting that surficial leaching of uranium from pegmatites may be the source of high uranium geochemistry here.

Results of geochemical sampling on the NET-4 claim are shown on an accompanying map entitled "NET-4 CLAIM - GEOLOGICAL-GEOCHEMICAL COMPILATION". Samples were tested using the procedure outlined in Appendix "A".

TABLE 1

ANALYTICAL RESULTS NET-4 CLAIM

<u>Sam</u> <u>Sample No.</u>	<u>U ppm</u>	<u>Pb²¹⁴</u>	<u>Radium</u>	<u>Th ppm</u>	<u>Weight</u> <u>(8.7 cc)</u>
<u>SILTS</u>					
B7NE-1	20	5.3	11.4	12.4	8.40
2	34	5.3	5.3	13.9	6.36
3	23	7.8	16.0	12.5	8.03
4	42	2.0	.9	17.1	9.27
5	12	2.4	.0	10.2	7.85
6	60	3.7	13.9	7.3	8.40
7	19	2.6	.1	.0	8.89
T7NE-1	159	.0	27.1	19.7	3.09
2	13	8.8	10.0	36.8	9.01
3	18	3.6	5.2	22.9	9.17
<u>ROCKS</u>					
JR-5-32	6	2.6	3.2	13.0	11.25*
B7270678-1	53	65.8	71.3	38.6	12.08**

NB: Pb²¹⁴ and Radium in ppm uranium equivalents.

* Country Rock

**Pegmatite

PROSPECTING RESULTS

Approximately five man-days were spent prospecting the general area of the NET-4 mineral claim. Results were discouraging. The only occurrence of anomalous radioactivity found involved a pegmatite dike located near the southeast corner of Munroe Lake. This dike was traced along strike for about 20 meters. A rock chip which can be considered representative of the pegmatite in general, assayed only 53 ppm uranium. There was a close association of magnetite to isolated "hot spots" in the dike, a relatively common association in this region.

The rock unit underlying most of the claim consists of medium grained "granite" which averaged 150 - 180 cps radioactivity (all prospecting was done using French SPP2-NF scintillometers).

At the ridge top near the eastern claim boundary there is a zone of metasedimentary rock. Where this contacts the underlying granite a gossan is developed. This is derived mainly from pyrite. Limestone containing seams of magnetite was also noted in the general area.

BREAKDOWN OF COSTS

For Assessment purposes (approximate only).

Wages and salaries	\$1,620.00	
Benefits at 12%	<u>194.00</u>	\$1,814.00
Meals and accommodation		480.00
Transport - mainly helicopter		316.00
Assay costs		150.00
Miscellaneous; includes report preparation, geophysical equipment rental, etc.		<u>350.00</u>
TOTAL		<u><u>\$3,110.00</u></u>

The following were directly involved with field work on the NET-4 mineral claim:

John Ricker, Geologist
R.J. Beaty, Geologist
R.J. Bilquist, Prospector
L.O. Allen, Prospector

CERTIFICATION

I, R.R. Culbert, do hereby certify that:

1. I am a practicing Professional Geological Engineer with offices at 3155 West 12th Avenue, Vancouver, B.C.
2. I am a graduate of the University of British Columbia, B.Sc. (1964), Ph.D. (1971).
3. I have practiced mining exploration for fifteen years, most of which were based in British Columbia.
4. I am a member in good standing of the Association of Professional Engineers of the Province of British Columbia.
5. I am familiar with the area being explored, and having reviewed the data on the NET-4 mineral claim, agree with the conclusions set forth here.

Respectfully submitted,

R.R. Culbert

R.R. Culbert, Ph.D., P.Eng.

15 August 1978



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APPENDIX "A"

ANALYTICAL PROCEDURE
LOW ENERGY GAMMA SPECTROSCOPY (LEGS)

Analysis of low energy gamma radiation provides a rapid and accurate method of assaying geological materials (silt, soil, rock, etc.) for uranium, thorium and the uranium daughter products radium and lead-214.

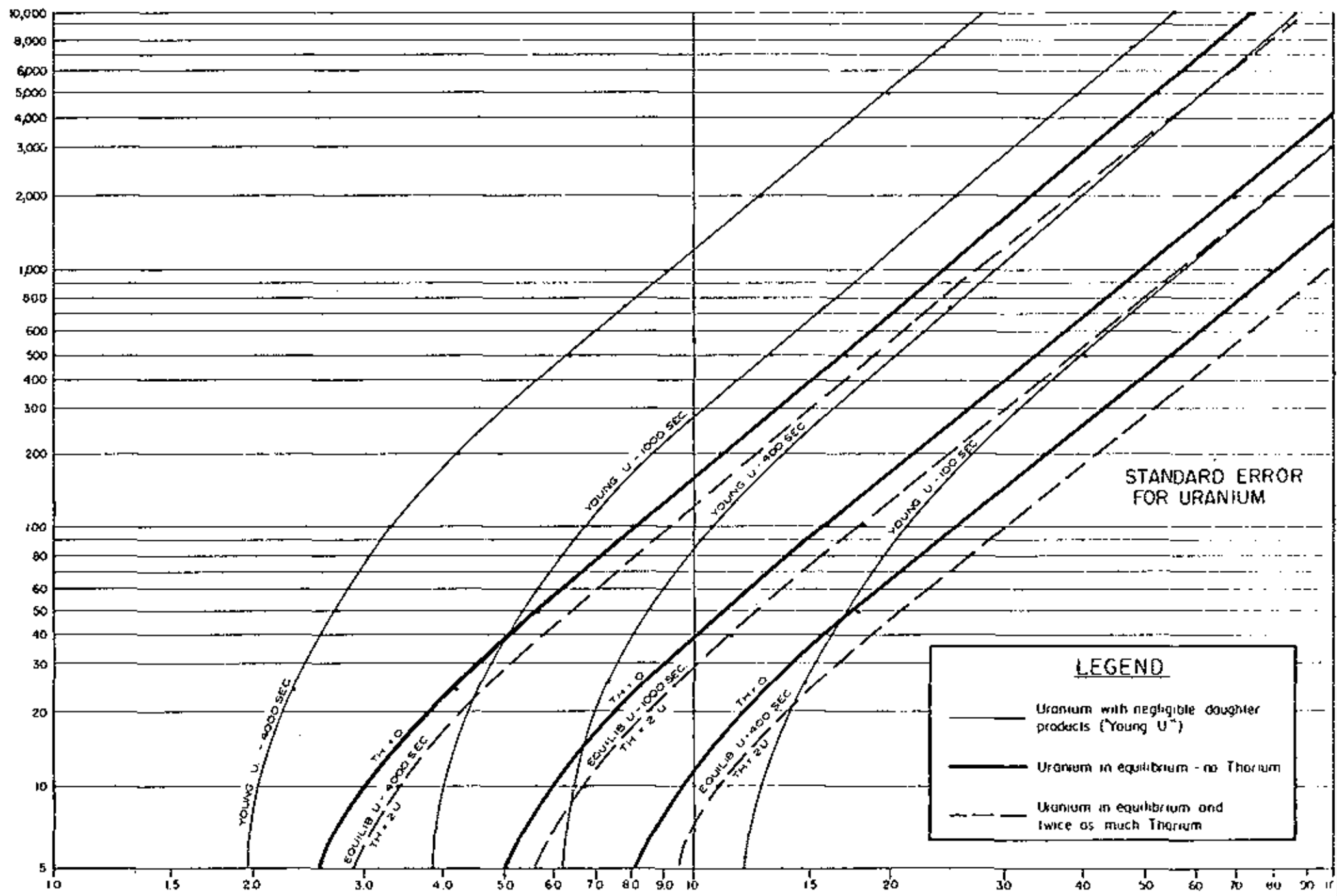
Disequilibrium in nature between uranium and its daughters may be considered as the result of differential mobility between parent and daughter elements at two points in the U^{238} decay sequence. The first originates with the long half lives of Ionium (Th^{230}) and its daughter Radium-226, and the second with the short-lived but very mobile radon 222. The comparatively rapid decay sequence of U^{235} may be considered to remain in equilibrium for practical purposes.

Analysis of the portion of the gamma ray spectrum between 50 and 500 KEV allows the low energy radioactivity from the initial part of the decay sequence (and representing the actual uranium present) to be differentiated from representatives of the above mentioned later segments of this chain, namely Ra-226 and Pb-214. Thorium (whose decay sequence is sufficiently rapid to involve minimal disequilibrium in nature) is also differentiated in this spectrum range.

In LEGS analysis, a weighed 8.7 cc sample of the material to be analyzed is placed in a plastic vial and inserted into a center-well scintillating crystal (BICRON 3MW3) protected from cosmic radiation by a six inch lead shielding. The crystal is monitored by an INOTEC 5200 pulse height analyzer which breaks the resulting gamma ray spectrum (50 to 500 KEV range) into 1,024 gradations or channels, and accumulates pulse counts in each channel for a pre-set counting period. The analyzer then integrates across four segments of the gamma spectrum and the resulting numbers are entered into a HP 97 programable desk calculator to obtain uranium and thorium content in ppm and Ra-226 and Pb-214 content in percent equilibrium or ppm uranium equivalents. Background radiation corrections are involved for sample of low radioactivity and self-adsorption corrections for those rich in uranium or thorium.

The technique is calibrated using Geological Survey of Canada Radioactive Rock Standards, and chemical standards from Min-En Laboratories and the B.C. Department of Mines. Figure A-1 shows the standardization results for uranium. These samples were counted for at least 4,000 seconds each, however, and in the usual 400 - 1,000 second geochemical analysis runs it is the counting statistic uncertainty which almost entirely controls the accuracy. Standard errors for uranium and Pb-214 under various conditions and counting times are given in Figure A-2.

P.P.M. URANIUM



STANDARD ERROR FOR URANIUM

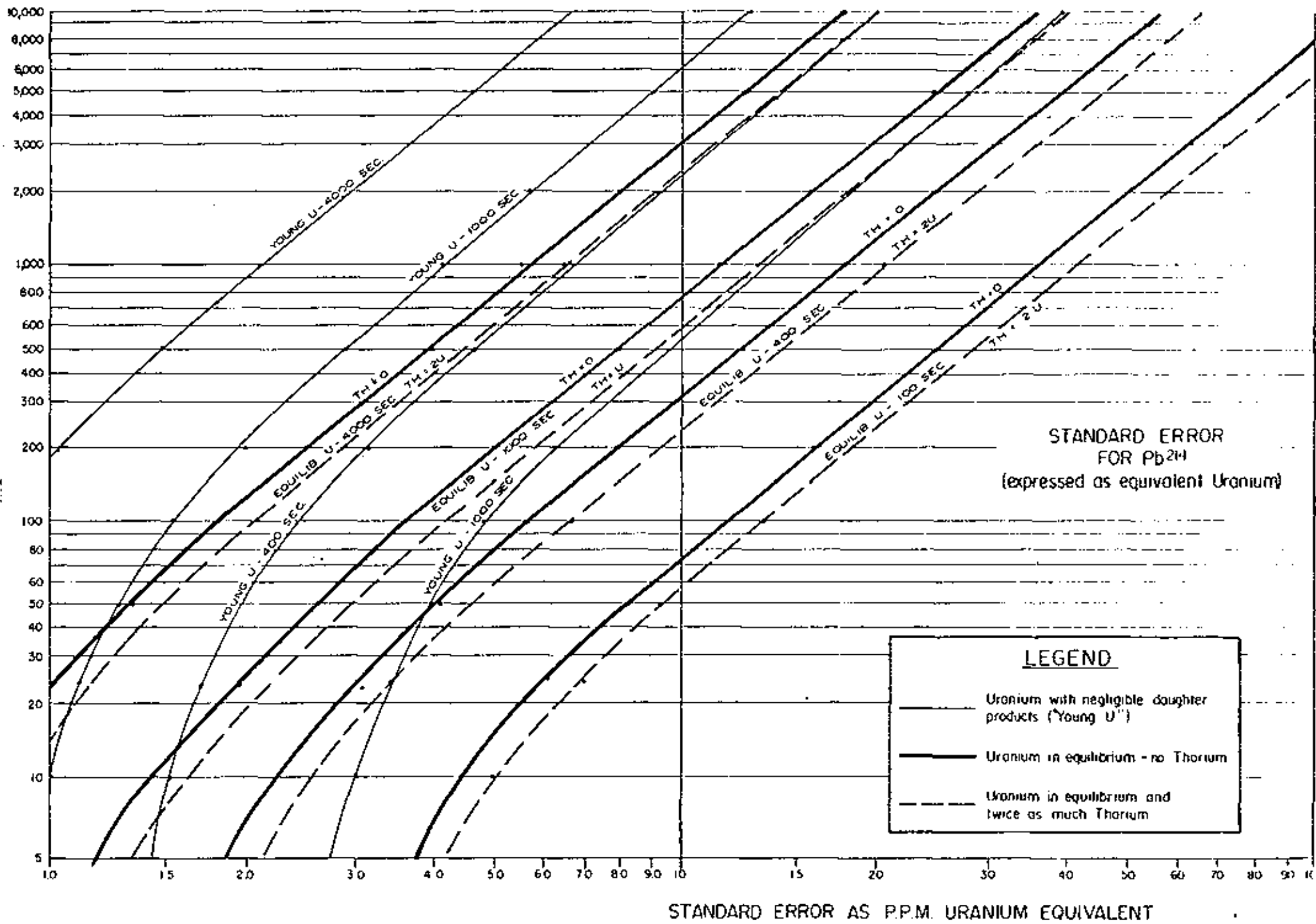
LEGEND

- Uranium with negligible daughter products (Young U*)
- Uranium in equilibrium - no Thorium
- - - Uranium in equilibrium and twice as much Thorium

STANDARD ERROR - P.P.M. URANIUM

FIGURE A-1

PPM. URANIUM



STANDARD ERROR
FOR Pb²¹⁴
(expressed as equivalent Uranium)

LEGEND

- Uranium with negligible daughter products ("Young U")
- Uranium in equilibrium - no Thorium
- - - Uranium in equilibrium and twice as much Thorium

STANDARD ERROR AS P.P.M. URANIUM EQUIVALENT

FIGURE A-2