

MINERAL RESEARCH BRANCH

ASSESSMENT REPORT

No.

6360

GEOCHEMICAL REPORT ON THE
OLIVER NORTH AND WEST GROUPS
OLIVER, B.C.
RKL-1, RKL-2, POLVO AND SYN-2 CLAIMS
OSOYOOS MINING DIVISION
LAT. 49°13'N; LONG. 119°35'W
N.T.S. MAP SHEET 82E/4E

for

British Newfoundland Exploration Ltd.

by

D.G. Leighton and
R.R. Culbert, P. Eng, PhD

D.G. Leighton & Associates Ltd.
Vancouver, B.C.

31 July, 1977

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GEOLOGICAL CONSULTANTS

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GEOCHEMICAL REPORT ON THE
OLIVER NORTH AND WEST GROUPS
OLIVER, B.C.

INTRODUCTION

This report describes the results of a geochemical survey completed over parts of the RKL-1, RKL-2, POLVO and SYN-2 mineral claims. Work was part of a larger program of uranium exploration covering the Okanagan Valley and surrounding regions. Field work was done at intervals in the Fall and Winter of 1976 and Spring of 1977.

The conclusions and recommendations set forth in this report are based on the geochemical results shown, combined with other data derived from regional work, as well as prospecting and geological observations. This includes information derived from ground based radiometric measurements.

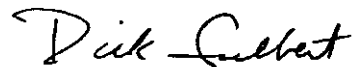
SUMMARY AND CONCLUSIONS

1. The Oliver property comprised of 8 unsurveyed mining claims (124 units) held by British Newfoundland Exploration Ltd. is situated roughly 3 miles northwest of Oliver, British Columbia.
2. The property is accessible by road via the Sawmill (Burnell) Lake road.
3. Granitic rocks of Cretaceous age underlie most of the claims. These intrude carboniferous Koban Group metasediments which are exposed especially on the southern portion of the property.
4. Geochemical and prospecting work carried out to date has revealed uranium mineralization in place and geochemically anomalous zones the extent of which have not been tested by drilling.
5. The primary target at this time is structurally controlled mineralization analogous to that found in the well-known two-mica granites of France.

Respectfully submitted,



D.G. Leighton



R.R. Culbert, P. Eng, PhD.

31st July, 1977

GENERAL DESCRIPTIONSLocation and Access

The Oliver property is located 3 miles northwest of Oliver, B.C. This area is readily reached by car via the Sawmill (Burnell) Lake road from Oliver. The geodetic coordinates are 49°13'N latitude, 119°35'W longitude.

Topography of the area consists of open grazing land with good rock exposures. The average elevation is 1500 feet ASL.

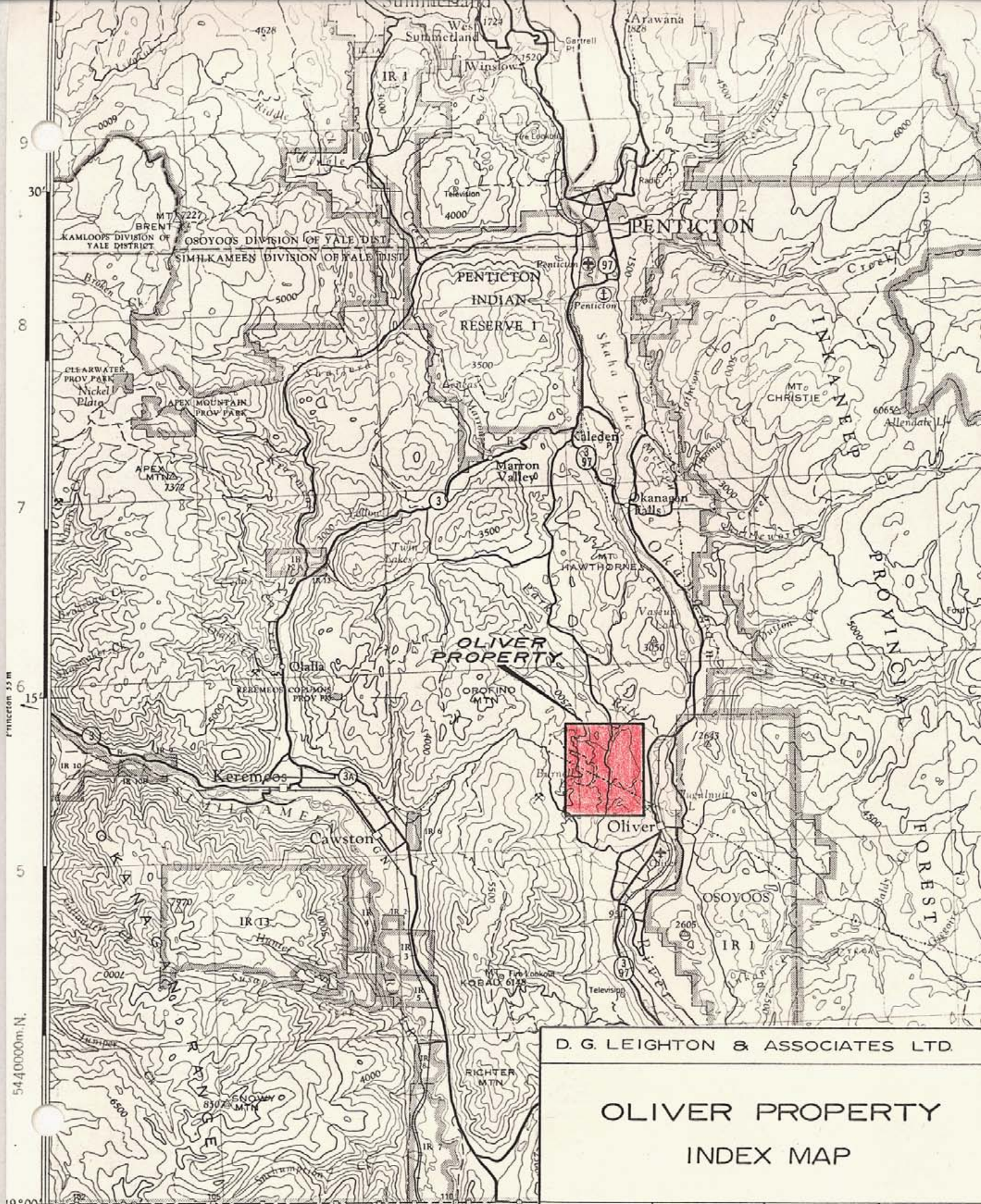
History

There is no record of previous uranium exploration work having been carried out on the Oliver property. The area has, however, been extensively tested for gold and silver mineralization. The Fairview mining camp is located immediately south of the property and numerous pits and old workings (mainly on quartz veins) exist. In several instances old mineral leases related to this earlier work occur as inliers in the Oliver property. These are shown as accurately as possible on the accompanying Grouping Map. The Oliver silica quarry lease is also shown.

Claims

The Oliver property consists of the following mining claims held by British Newfoundland Exploration Ltd.:

<u>Property</u>	<u>Claims</u>	<u>Units</u>	<u>Record No.</u>	<u>Record Date</u>	<u>Group</u>	<u>Expiry</u>
OLIVER	RKL-1	(18)	99 (7)	16 July, 1976	(OLIVER	1977
	POLVO	(18)	168(12)	1 Dec., 1976	(NORTH	1977
	RKL-2	(20)	100 (7)	16 July, 1976	(OLIVER	1977
	SYN-2	(12)	140(10)	27 Oct., 1976	(WEST	1977
	SYN	(12)	139(10)	27 Oct., 1976	(OLIVER	1977
	GUM-1	(20)	169(12)	1 Dec., 1976	(EAST	1977
	OLI-1	(8)	274 (5)	18 May, 1977	(OLIVER	1978
	OLI-2	(15)	275 (5)	18 May, 1977	(SOUTH	1978



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OLIVER PROPERTY INDEX MAP

PROJECT S. B.C. URANIUM	PROJECT NO. 101	SCALE 1: 250,000	DATE AUG - 1977
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120°00' 290000m.E. 45' 0' Wenatchee

GEOLOGY

The Oliver property is underlain mainly by granite of Cretaceous age - the Oliver Granite. This is a three phase intrusion comprising granite and quartz monzonite with associated dykes.* It is cut by large and small quartz veins.

The southern portion of the Oliver property is underlain by Koban Group meta-sediments which have been mapped in detail by A.V. Okulitch (1969).**

The Oliver Granite is a highly fractured pluton which is evident from air-photos which show a high density of lineations. The granite is also cut by a number of lamprophyre dikes. The intersections of these dikes with major fractures are considered favourable sites for uranium mineralization. A good example is seen in the Oliver quartz quarry.

Concentrations of radioactive mineralization have also been found in marbles and quartzites in Koban Group rocks near the granite contact; therefore the possibility of replacement type mineralization also exists.

GEOCHEMISTRY

The Oliver Granite is a high background two-mica granite with potential for economic concentrations of radioactive mineralization. Prospecting has resulted in the discovery of small patches with in excess of 100 ppm U_3O_8 in leached surface outcrops. Lake waters are highly anomalous in uranium in this area, containing in some instances several thousand ppb uranium with correspondingly high ppm levels in sediment. The most likely targets for primary mineralization are fault zones, especially near intersections with lamprophyre dikes. Such mineralization will be difficult to detect, due to deep leaching.

GEOCHEMICAL SURVEY

General

A geochemical soil survey covering various parts of the Oliver property was completed in the Spring of 1977.

Control for grid work was by chain and compass survey. Pickets were used to mark stations which were placed at 50 meter intervals on lines 50 meters apart from the Wow Lake area and at 50 meter intervals along preselected lineations. For



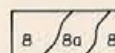


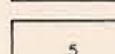



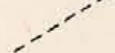




* Richards, G.G. (1968); The Oliver Quartz Monzonite, Oliver, British Columbia; unpublished BSc. Thesis, Dept. of Geol., University of B.C.

** Okulitch, A.V. (1969); Geology of Mount Koban; unpublished PhD Thesis, Dept. of Geol., University of B.C.

119°40'



LEGEND

-  Diorite, Granodiorite, Qtz Monzonite, Qtz latite
-  9 Foliated quartzite
-  8 Ba 8 Chloritic, actinolitic phyllite & quartzite
-  7 Foliated phyllitic quartzite
-  6a b c Chloritic, actinolitic phyllite & schist
6a = marble, 6b = schist, 6c = quartzite
-  5 Massive quartzite
-  Lithologic contacts - observed, approx., assumed
-  Foliation - inclined
-  Fault - observed, assumed
-  Lineaments
-  OLIVER - NORTH
-  OLIVER - WEST
-  OLIVER - EAST
-  OLIVER - SOUTH

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**OLIVER PROPERTY
SOUTHERN B. C. URANIUM PROJECT
CLAIM GROUPING**

PROJECT No. 103	PROJECT S. B.C. U.	SCALE 1" = 1/2 mile	DATE AUG. 1977
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49°10'N

NOTE: GEOLOGY MODIFIED AFTER
A.V. OKULITCH (1969)

the lineament sampling, airphotos were used to locate sample sites and results were plotted on 36 x 36 inch enlargements of standard 9 x 9 inch B.C. government photographs.

Samples were collected from the "B" soil horizon where possible using a combination of augers and grub-hoes.

All samples were shipped to Min-En Laboratories Ltd., North Vancouver, B.C., where they were prepared and tested for uranium. The analytical procedure is described in Appendix "A".

Results

Results of the geochemical survey on the Oliver North and West groups are shown on two maps (in pocket). One map shows soil uranium from grid controlled work in the Wow Lakes area at a scale of 1 centimeter to 25 meters. The second map shows results of lineament sampling at a scale of 1 centimeter to 50 meters. For ease of interpretation, the grid controlled survey results have been contoured.

Interpretation

Results of the geochemical work are interpreted as follows:

1. In general, high geochemical values in soils correspond to zones where the granite contains more than average uranium.
2. Individual high values frequently correspond to wet areas where uranium has concentrated from alkaline spring waters.
3. In order to be useful guides to ore, a means will have to be found to distinguish between soil samples where high uranium values related to bedrock mineralization as opposed to zones enriched through the action of spring waters.

BREAKDOWN OF COSTS - FOR ASSESSMENT
PURPOSES (APPROXIMATE)

Wages and salaries	\$2,900.00
Benefits	725.00
Meals and accommodation	1,104.00
Mobilization - mainly vehicle rental	985.00
Assay costs	2,800.00
Miscellaneous; includes drafting, report preparation, etc.	<u>800.00</u>
Total	<u><u>\$9,314.00</u></u>

Divide above costs equally between Oliver North and Oliver West claim groups.

CERTIFICATION

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

1. I am a practicing Professional Geological Engineer with offices at 3152 West 10th Ave., Vancouver, B.C.
2. I am a graduate of the University of British Columbia, B.A.Sc. (1964), PhD (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 have personally visited the Oliver property and supervised exploration work carried out there.

Respectfully submitted,



R.R. Culbert, PhD, P.Eng

31 July, 1977

MIN-EN Laboratories Ltd.

Specialists in Mineral Environments

Corner 15th Street and Bewicke
705 WEST 15th STREET
NORTH VANCOUVER, B.C.
CANADA

ANALYTICAL PROCEDURE REPORTS FOR
ASSESSMENT WORK

Procedure for Uranium Analysis:

Rock, soil and silt samples are dried at 110°C and then rocks are crushed and pulverized to -80 mesh.

Soils and silts are sieved and the minus 80 mesh fraction is retained for analysis.

1.000 g. sub-sample is weighed and digested for eight hours with HNO_3 and HClO_4 .

Then the uranium is separated chemically from other possible interfering ions as Mn, Fe, etc.

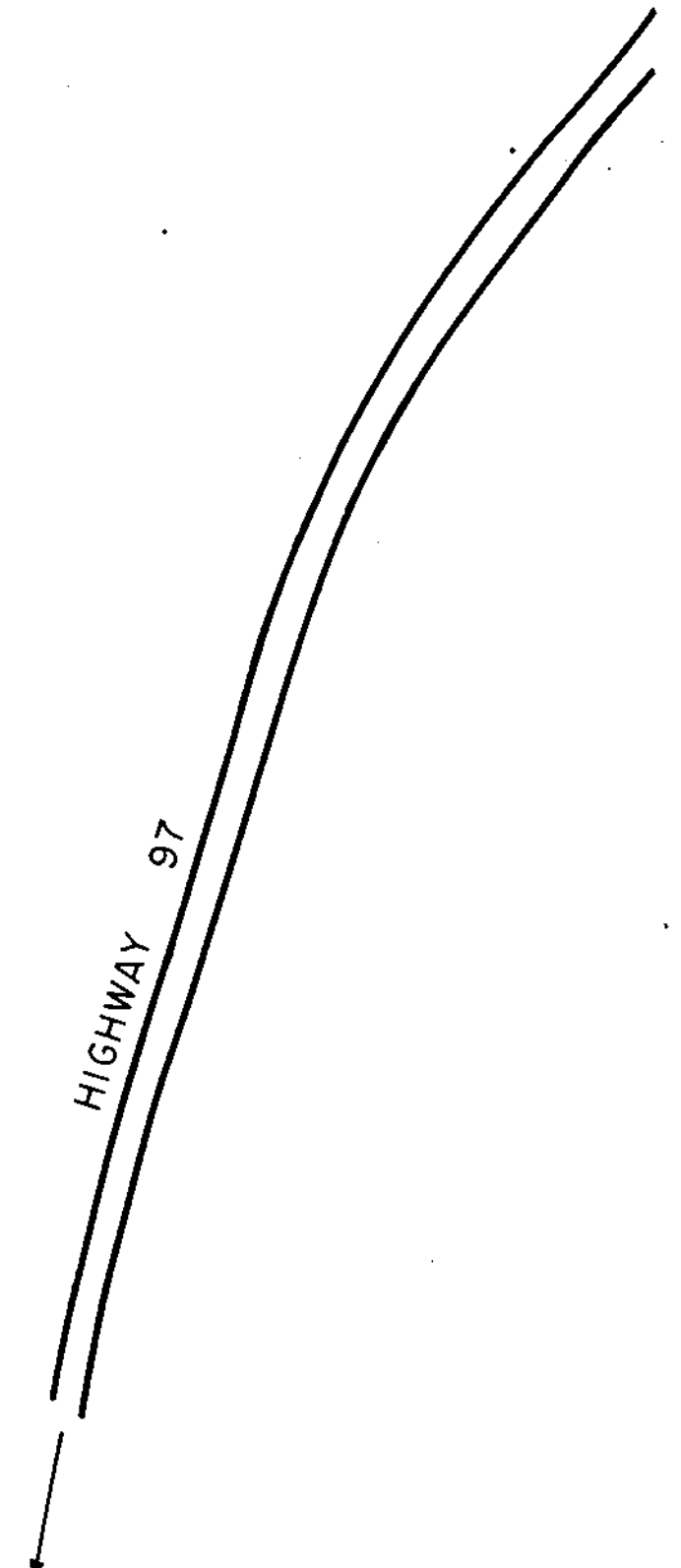
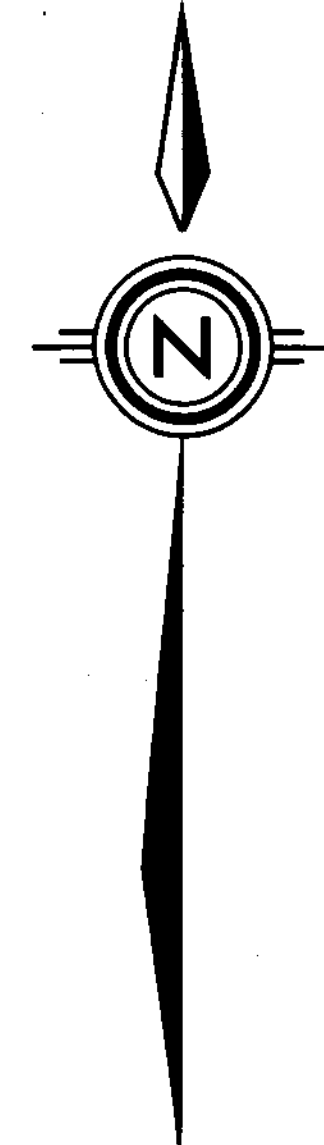
After preparation a suitable aliquote is taken and fluxed to form a 1.5 inch diameter discs in platinum dishes.

These salt discs then are compared and measured along with suitable standard with a Jarrell Ash Fluorometer.

The results are calculated accordingly to the sample aliquotes used from standard graphs.

POLVO

RKL-2 RKL-1



VICTORIA CREEK

C.G.

C.G.

C.G.

C.G.

C.G.

C.G.

SAWMILL LAKE

SYN-2 SYN

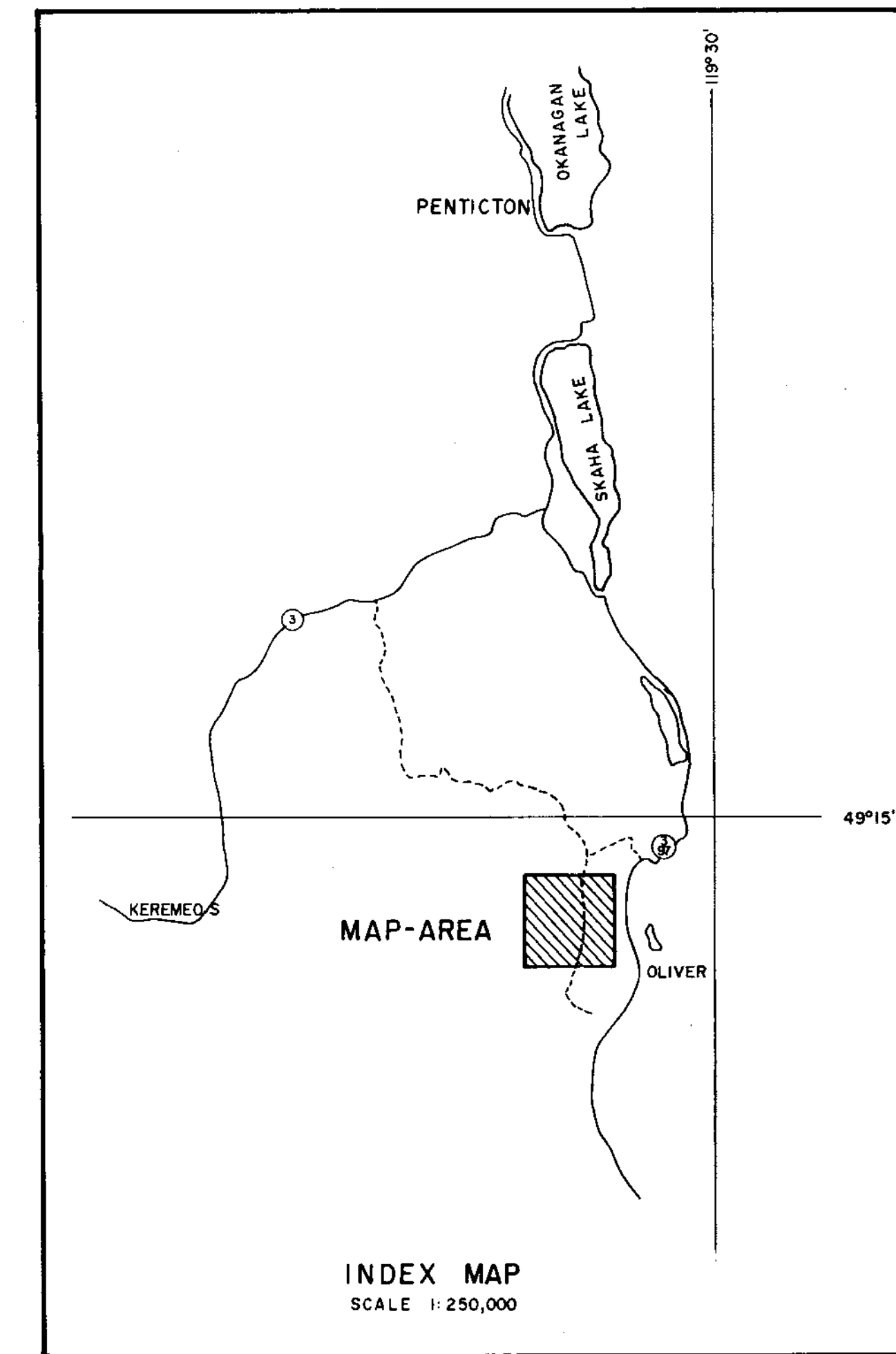
NORTH WOW LAKE

SOUTH WOW LAKE

C.G.

AREA COVERED BY SOIL GRID MAP

AIR PHOTO FLIGHT LINE INDEX MARK



LEGEND

- LEGAL CORNER CLAIM POST
- POWERLINE
- ROAD
- C.G.** CROWN GRANTED MINERAL CLAIM (Approximate Location)
- LINEAMENT SOIL SAMPLE WITH URANIUM VALVE (ppm)
- WATER SAMPLE URANIUM VALVE (ppb)

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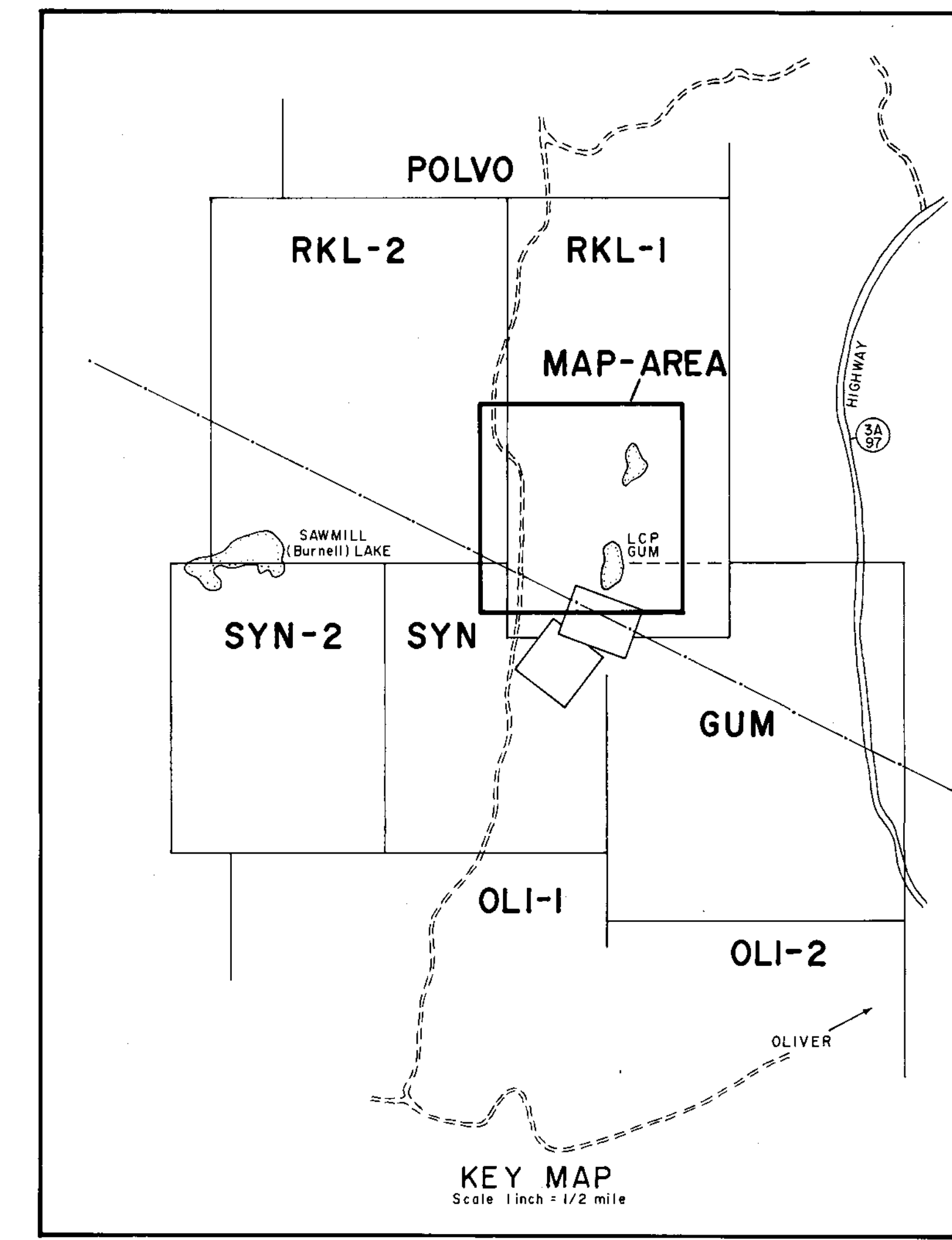
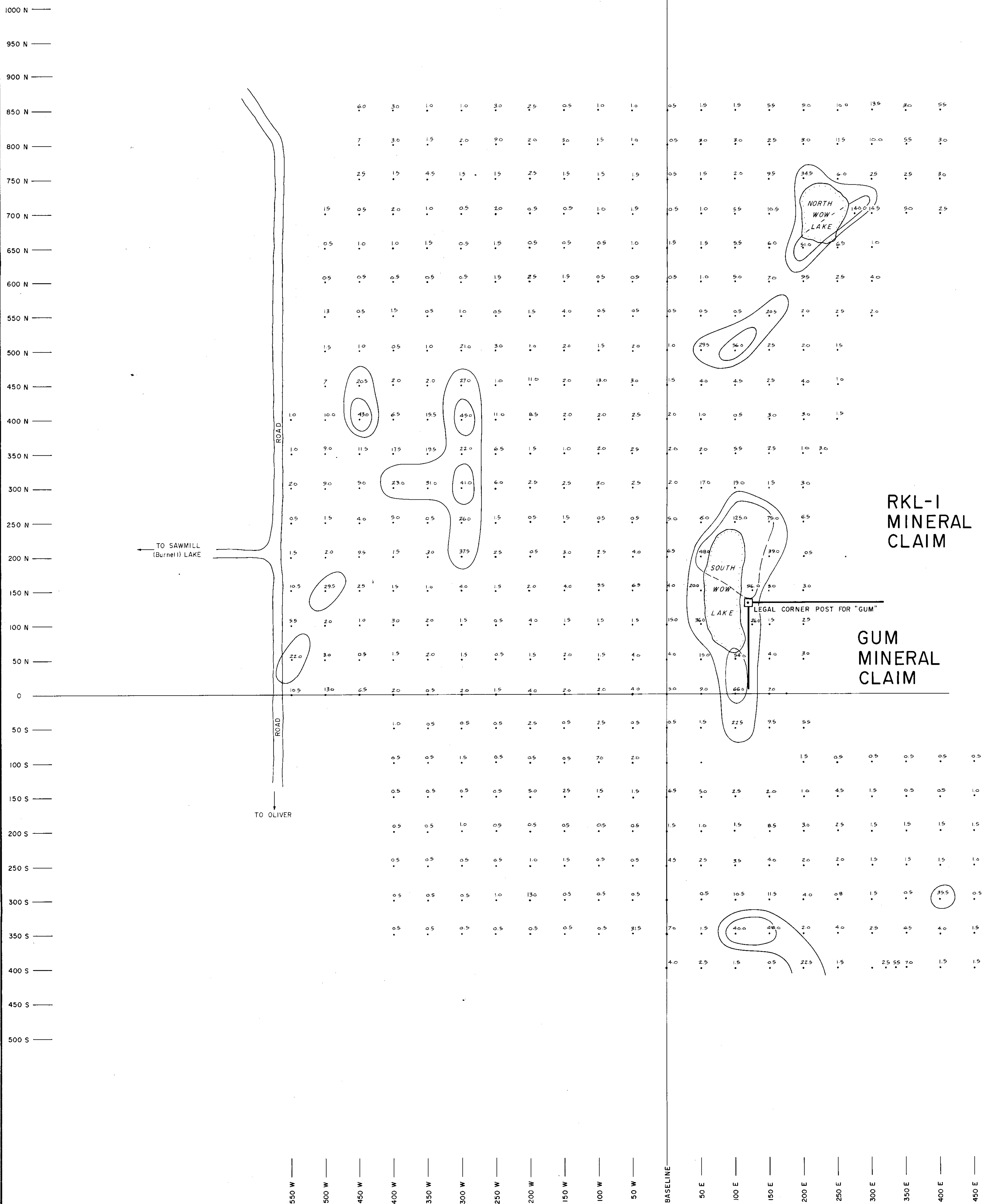
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OLIVER PROPERTY WOW LAKES AREA LINEAMENT GEOCHEMISTRY

NOTE: THIS MAP WAS MADE FROM OVERLAY TO B.C. GOVERNMENT AIRPHOTO BC 7582-84 ENLARGED TO 36x36 INCHES

SCALE 1cm = 50m (approx) METRES 0 100 200 300 400

PROJECT	PROJECT No.	DATE	DRAWN
S.B.C. URANIUM	103	AUG 1977	ALTAIR



- LEGEND**
- LEGAL CORNER POST FOR "GUM" MINERAL CLAIM
 - GRID STATION (WITH URANIUM ppm.)
 - CONTOUR INTERVALS
 - <20 ppm
 - 20-40 ppm
 - >40 ppm

MINERAL RESOURCES DIVISION
ASSESSMENT REPORT
No. 6360

D.G. Leighton

6360

D. G. LEIGHTON & ASSOCIATES

OLIVER PROPERTY
WOW LAKES AREA
URANIUM IN SOILS

SCALE 8 CM = 100 M.
METRES 50 0 50 100 150 200 METRES

PROJECT S.B.C. URANIUM	PROJECT No. 103	DATE AUG 1977	DRAWN ALTAIR
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