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CG

REPORT ON THE HERMAN LAKE NEPHELINE-SYENITE OCCURRENCE

ONTARIO TOWNSHIP 49, COUDREAU AREA

Location

Herman Lake lies alongside the Algoma Central Railway Line, from 2-3 miles North of Goudreau, and in Ontario Twp. 49. The syenitic occurrences have a roughly N.E. strike from the N.E. part of this lake, one on each side of a small creek which empties into the N.E. corner of the lake.

Previous Work

T. L. Gledhill, in his report on the Goudreau-Lochalsh Area (O.D.M. report Vol. 36, 1927, Part 2, Page 59) describes the alkali-syenites of Herman Lake, and says:- "In certain localities, cancrinite and nephelinite are common and show themselves by the pitted nature of the outcrop. Frequently the soda-potash feldspars, which are domino-shaped, are arranged in parallel lines". This is the syenite on the north side of the creek mentioned above. Of the occurrence on the south side of the creek he says:- "The syenite is pink, fine-grained, and almost free of dark minerals such as biotite and pyroxene".

Two of the syenites were assayed by the Provincial Assay office. The light-coloured syenite contained 18.84% of alumina, while the dark-coloured syenite contained 20.76% of alumina. The full assay figures are given in Gledhill's report, and are also quoted in Bruce's report (O.D.M. Report, Vol. 49, Part 3, 1940 Pg. 28). According to E. S. Moore (O.D.M. Rept. Vol. 40, Part 4, 1931, Page 9) thin sections of the northern syenite contained no nepheline but contain considerable cancrinite.

The nepheline-bearing rocks are also briefly mentioned G.S.C. Memoir 147, Pg. 149, on the Missinaibi Map Area, by Ellis Thompson (1926).

Recent Work

Mr. Andrew Spy of the A.C.R. Mines Department in March-April, 1960 brought this occurrence to the notice of Mr. John B. Aird, who in turn informed the Company of F. R. Joubin & Associates. As Consolidated Denison Mines is currently reported to be interested in nepheline-syenite, it was thought advisable to stake some claims over the area, shown on Moore's map to be underlain by nepheline-syenite.

G. A. Checklin and Angus Graham spent 4 days in the area, and though the geological examination of the ground was hampered by bad weather and few outcrops, seven claims were staked to cover the Herman Lake ends of the syenitic ridges and their extensions to the N.E. One hand specimen was brought out from the nepheline-syenite band, and this has been sent to the Toronto office for the attention of Mr. Norman Ursel.

Conclusions

Judging by the rather low assay values for alumina from both types of

syenite, as mentioned by Gledhill, these replacement syenites may have little or no value on a glutted market such as is the case at the present time. Little examination of the area from a geological standpoint was accomplished before staking began, but the syenite rocks seem to be very variable. They may be of lengthy extension towards the N.E., however.

Recommendations

Pending assessment of the content of alumina and the value of the property, the claims have not yet been recorded. The last recording date is Friday, July 22, 1960, and a decision should be made at a higher level as to whether these claims should be recorded or are in fact not worth recording.

G. A. Checklin,

July 8, 1960.

Sault Algoma No.1.Project, (A.C.R.)

CG

Monthly Report for Period May 17th to
May 31st, 1961, inclusive.

SUMMARY.

The period May 17th to May 26th-inclusive, was spent at the Sault Ste. Marie Office, 144, Leo Avenue, inking property maps and preparing for the first segment of fieldwork.

May 27th to May 31st was spent in the field. This period included claim tagging, sampling and geology of the Herman Lake syenite claim group.

GENERAL.

The Herman Lake claim group consists of seven contiguous claims situated at the northeast corner of Herman Lake, Township 49, approximately two miles north of Goudreau. The claims are readily accessible from Goudreau by the A.C.R. and are located approximately 1000' east of the rail line.

Seven claims were staked over a reported nepheline syenite by G. Checklin in June 1960. The claims were not tagged and some geology was attempted.

The purpose of the present investigation was four fold: (1) To tag the claims; (2) to map the claim group geologically; (3) to collect representative samples of the syenite rock; and (4) to attempt to trace the northeast extension of the syenite rock out of the claim group.

PERSONNEL.

Personnel for this period included C.R. Kustra and H. Clemence.

Proposed Work for the Coming Period.

Work for the coming period will include:

1. Completion of the Herman Lake syenite claim group.
2. Visits to and/or inquiries about the following properties: Pick Mines, Ego Mines, Adonis Mines, Golden Algoma and R. Fry and Associates' pyrite operation.
3. Possibly a trip to Dubreuilville (location of sawmill) for inquiries into new access roads.

Township 49, (CO).

Herman Lake Syenite Claim Group.

The Herman Lake claim group consists of seven contiguous claims partially covering a reported nepheline syenite occurrence. (1)

(1) O.D.M. Vol. 36. Part 2. 1927. "Goudreau-Localsh Area". Gledhill.

During the present investigation the claims, staked by G. Checklin, were tagged and geology was completed along claim lines. In addition several traverse lines were run between claims.

TOPOGRAPHY.

A broad, northeast-trending syenite ridge is the prominent topographic feature of the area. Rock outcrop is plentiful and is confined to the flanks of the ridge and lake shores. Overburden varies in thickness and is strewn with large volcanic and syenite boulders.

ROCKS.

Two rock types were encountered during the course of geological mapping, Keewatin volcanics and syenite. The younger syenite is bounded to the north and south by the volcanics and broadens into the main granite massive to the northeast. Measurements of lineation in the syenite and volcanics indicate that the two are conformable.

The volcanics outcrop on the north shore of Herman Lake, the northwest corner of the claim group, and along the upper northwest shore of Mud Lake. The rock is typically fine grained, dark green and sheared. Pillow structure, although somewhat deformed by shearing, did indicate direction of tops.

Two types of syenite were encountered, and for convenience in this brief summary are called number one and number two syenite.

Number one syenite is medium grained, and brown to pink on the fresh surface. The rock weathers to a smooth pink to white surface. It appears to consist essentially of feldspar with minor amounts of biotite and magnetite. Locally the biotite is present in amounts from 5%-10%. The rock may or may not contain feldspathoids.

Number two syenite is a coarse grained rock, brown on the fresh surface. It consists predominantly of randomly oriented crystal blocks of feldspar, up to 2½" long. Close to the northern edge of the volcanics, the feldspars are oriented in a sub-parallel fashion.

The weathered surface is greyish white and deeply pitted. The feldspars stand out in relief, and the more easily weathered feldspathoids occupy the interstitial spaces. Magnetite is common to the rock, and grains occasionally measure 2 inches across.

One outcrop was observed in which the pink syenite intruded the number two rock as a six inch vein. This seems to indicate that the number one syenite is the younger rock; other paragenetic evidence concerning the relative ages of the two syenites was not observed.

Conclusions.

Pending the outcome of the assay results on eight samples, further judgement is reserved. The number two syenite appears to be the feldspathoid-bearing rock, and there seems to be substantial volumes of the rock within the claim group.

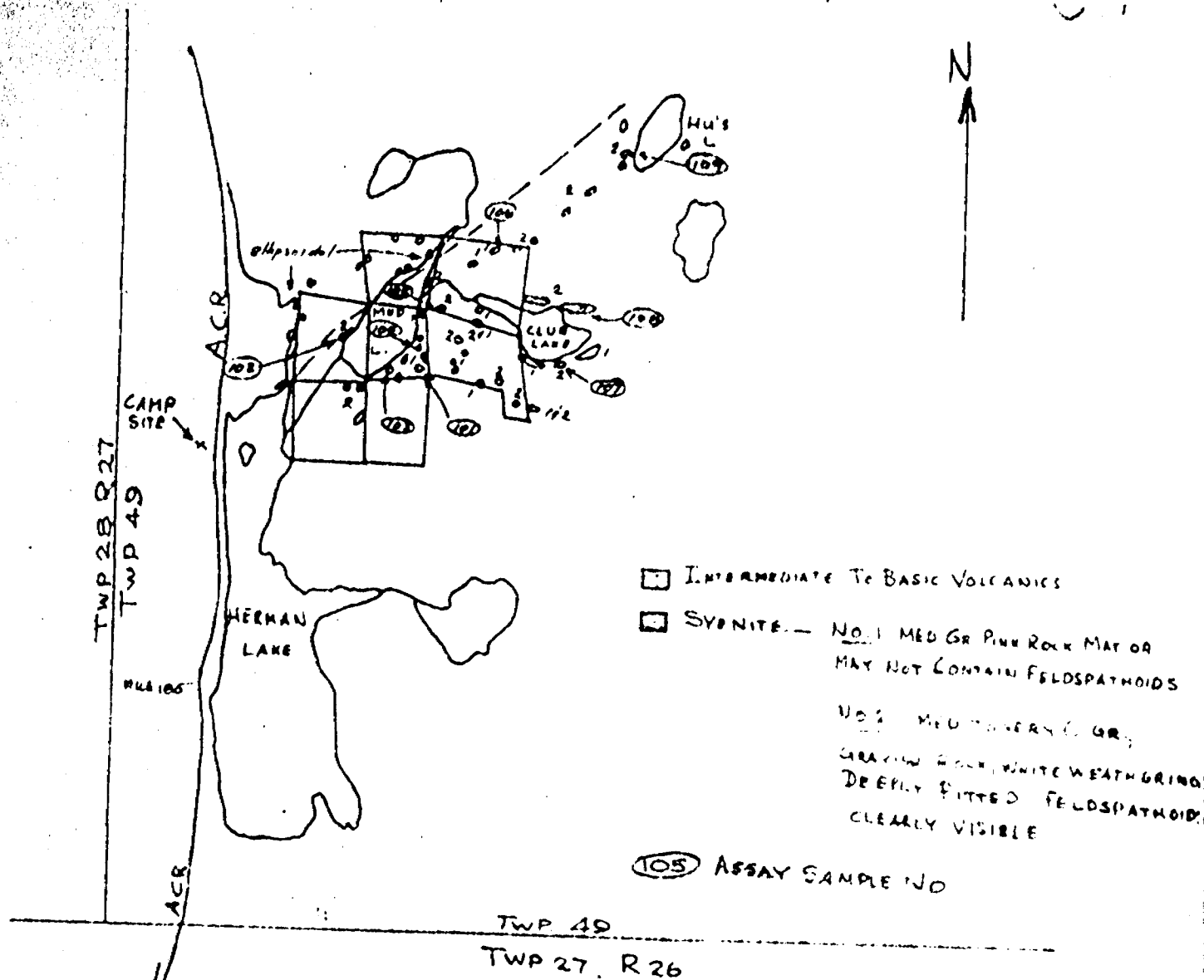
Further investigation is warranted if the rock contains sufficient nepheline for a good Al_2O_3 assay.

C.R. KUSTRA.
June 1961.

	-69	5996B
-63	-66	-67
-64	-65	

CLAIM No's

SAMPLE No	TYPE No
SA-101 :	1
" 102 :	2
" 103 :	1
" 104 :	1
" 105 :	2 ✓
" 106 :	1
" 107 :	2
" 108 :	2
" 100 :	2 ✓



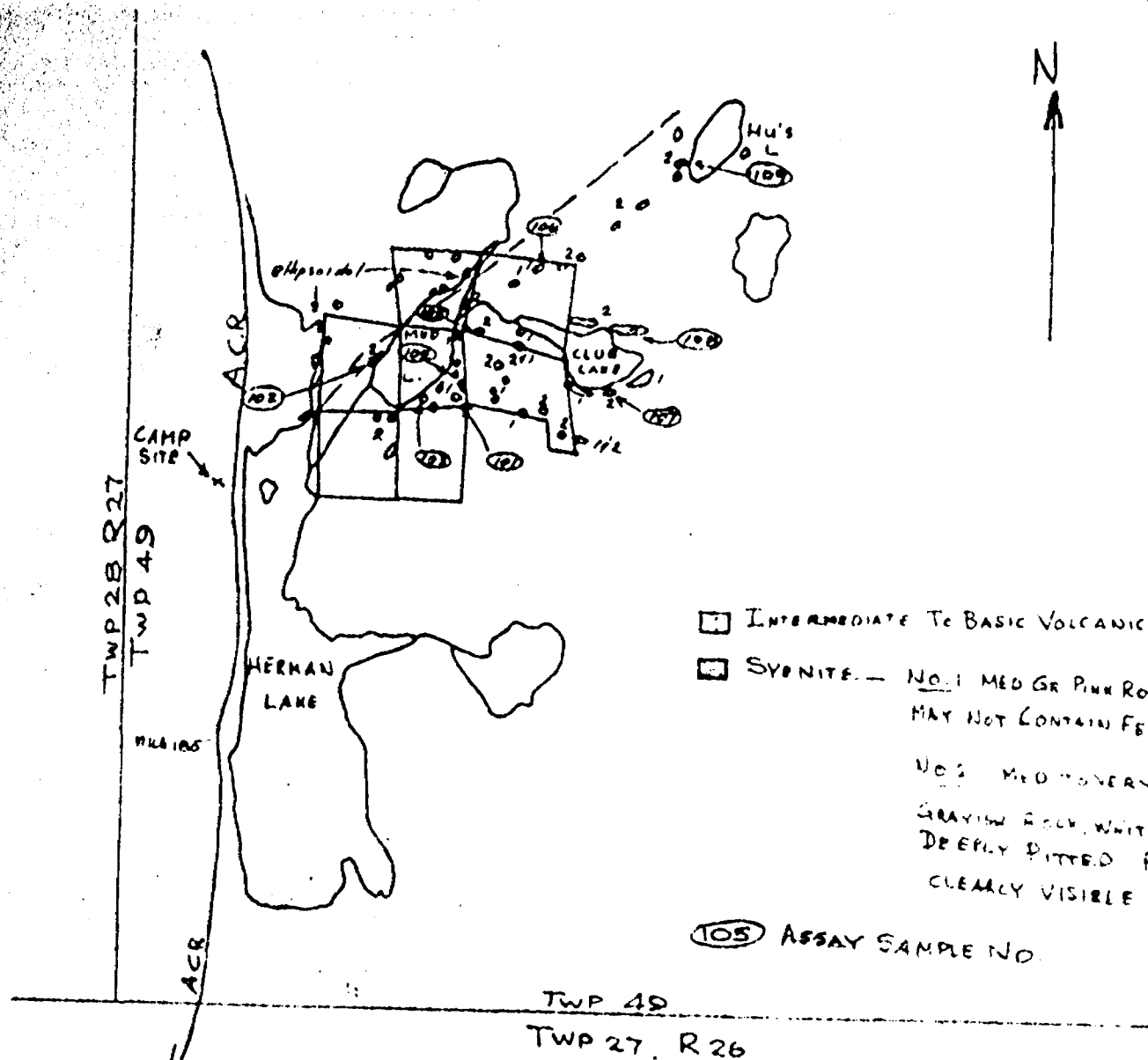
SKETCH MAP
OF
HERMAN LAKE SYENITE.

PLOTTED JUNE 12, 1961
C. KUSTRA
SCALE: 1" = 1/2 MILE
1/2 MILE

	-69	5996B
-63	-66	-67
-64	-65	

CLAIM No's

<u>SAMPLE No</u>	<u>TYPE No</u>
SA-101 :	1
" 102 :	2
" 103 :	1
" 104 :	1
" 105 :	2 ✓
" 106 :	1
" 107 :	2
" 108 :	2
" 109 :	2 ✓



SKETCH MAP
OF
HERMAN LAKE SYENITE.

PLOTTED JUNE 12, 1961
C. KUSTRA
SCALE: 1" = 1/2 MILE
1/2 MILE

to DE Smith

Master File

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TORONTO

ASSAY CERTIFICATE

CG

Mr. F. Joubin & Associates,

Suite 802, 111 Richmond St., W., Toronto.

SAMPLES: 090(2)

ACR

DATE: June 27/61.

RECEIVED: June 20/61.

Harman Lake

Magnesian Syenite

ORDER NO.

Samples Marked	Gold Oz.	Value Per Ton	SiO ₂	Al ₂ O ₃	CaO %	MgO %	K ₂ O %	Fe ₂ O ₃ %
			<u>SiO₂</u>	<u>Al₂O₃</u>	<u>CaO</u>	<u>MgO</u>	<u>K₂O</u>	<u>Fe₂O₃</u>
SH 105. ...			56.72	20.00	2.35	7.22	3.04	2.62
SH 109. ...			49.46	18.87	6.46	7.83	3.71	4.64
					as CaCO ₃			
					4.18			
					11.59			

Thomas Heys & Sons
Per *Wm. A. Heys*

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DETAILS.

Township 49.

Mapping of the Herman Lake syenite claim group was completed and the rock traced for approximately 2200' northeast of post #4, claim SSM 59968 to a small lake. A sample of white feldspathoid syenite was taken near the west shore of the lake. There is reason to believe that the rock continues in a northeasterly trend and merges with the granite massive.

One half day was spent in trying to locate an auriferous breccia zone, reported by Gledhill to occur just southeast of Herman Lake. The land is held by Adonis Mines and has been prospected geophysically for sulphides. The zone was not found and rain during the afternoon discouraged further attempts.

C.H. Kustra.
July 1961.

DMR 9.

Township 49 (CG) Crown.

1. A visit was made to the Magine Mines (Algoma Summit) located four miles northeast of Goudreau on the Goudreau-Localsh road. Several buildings, including mill, mine office and head frame, remain on the property and appear to be in fair repair.

The geology of the property is adequately described by numerous authors, including Bruce (O.D.M. report Volume 49, 1940). briefly a quartz/tourmaline vein system fills shears in light green granodiorite that has intruded acid volcanics. The vein system does not appear to be strong and consists of white, glassy quartz with tourmaline and carbonate. The tourmaline is found in the quartz and sheared granodiorite near the quartz margins. Some pyrite is found associated with the quartz.

Old assay sheets found in the mine office lists scores of assays ranging in gold values from trace to \$662.50 per ton. High values were rare. No samples were taken.

(2) The Kremzar property is located in the east central portion of the township, one-quarter mile southeast of Millar Lake, on claim 3901. (Map 49g, ODM, 1940). The property is described by Moore in ODM report Volume 40, 1931.

The main vein system is exposed 300 feet northwest of the #2 post, claim 3901. Here it has been trenched for a length of approximately 100 feet. The vein system occupies a width of 8 feet in sheared basic Keewatin lavas intruded by quartz porphyry. Pyrrhotite occurs in the greenstone adjacent to the shear zone in amounts not exceeding 3%. It is not nickeliferous. Sa-132, a sample of the vein system was taken.

(3) Gledhill (ODM, volume 36, 1927) shows a quartz vein occurrence and mentions gold values found along the portage between Bear Paw and Strobos Lakes in the extreme east central portion of the township.

A quartz vein system, not more than 10 feet wide and discontinuous, occurs in a shear zone in grey acid volcanics. The quartz is glassy and milky, and lies conformable to the strike of the country rock. The widest singular vein is not more than 18" in width. The rocks strike N.60E and dip 80° North.

A 4' band of massive pyrite with pyrrhotite was found in the shear zone, but does not appear to be continuous.

Numerous trenches, now filled, were found along the south and north side of the creek. That drains Strobos Lake. Geophysical work was probably done, as several picket lines were found.

A samples of the quartz vein Sa-126 was taken.

(4) A. Cappallani owns a group of 13 claims bordering Lovell Lake, approximately 5 miles northeast of Goudreau. A series of old trenches and pits are found over a narrow quartz vein system in diorite, in claims 2138 and 8391. (Map 49g). The veins, widest of which varies from 3" to 12", strike North 80° east and dip 45° north. They are conformable to the strike of the shearing in the diorite and are mineralized sparsely with pyrite and chlorite. Pyrite is abundant as grains in the sheared wall rock near the margins of the veins.

Township 49 continued...

The trench and pit system extends 350' to the west of the east claim boundary of claim 2138, and to the shore of Lovell Lake east of the claim boundary.

The quartz-carbonate veins are not continuous and occur intermittently along the strike. Structure is not strong.

Cappallani has reported values of \$6.00 per ton in gold, but adds that good values are erratic. A sample of a quartz/carbonate vein, SA-160 was taken.

The Lowell-Aitkins pyrite (A.O.P. anomaly N, aero sheet 3) is covered by Cappallani's claims. The pyrite was trenched in 1918; it was not visited.

A brief visit was made to a pyrite occurrence on the south shore of a small lake, $\frac{1}{2}$ mile north of the Goudreau-Localsh road, and 5 miles northeast of Goudreau. The pyrite occurs in claims 1708, 1709 and 1710. (Map 49g).

Approximately a 12' width of good quality pyrite with pyrrhotite in quartz is bounded to the north and south by sheared, pyritized acid volcanics. Banded sugary silica occurs nearby to the east of the trenched sulphides, but was not seen in the trenches cut across the pyrite. The position and attitude of the silica indicates that it overlies the pyrite.

Faulting has occurred and is evidenced by shearing in the volcanics and the breaking of the pyrite into large blocks.

The pyrite has been drilled; cores are located on the north side of the Goudreau-Localsh road, at a point approximately $\frac{1}{2}$ mile west of Bear Paw Lake.

C.H. Kustra.
September 1961.

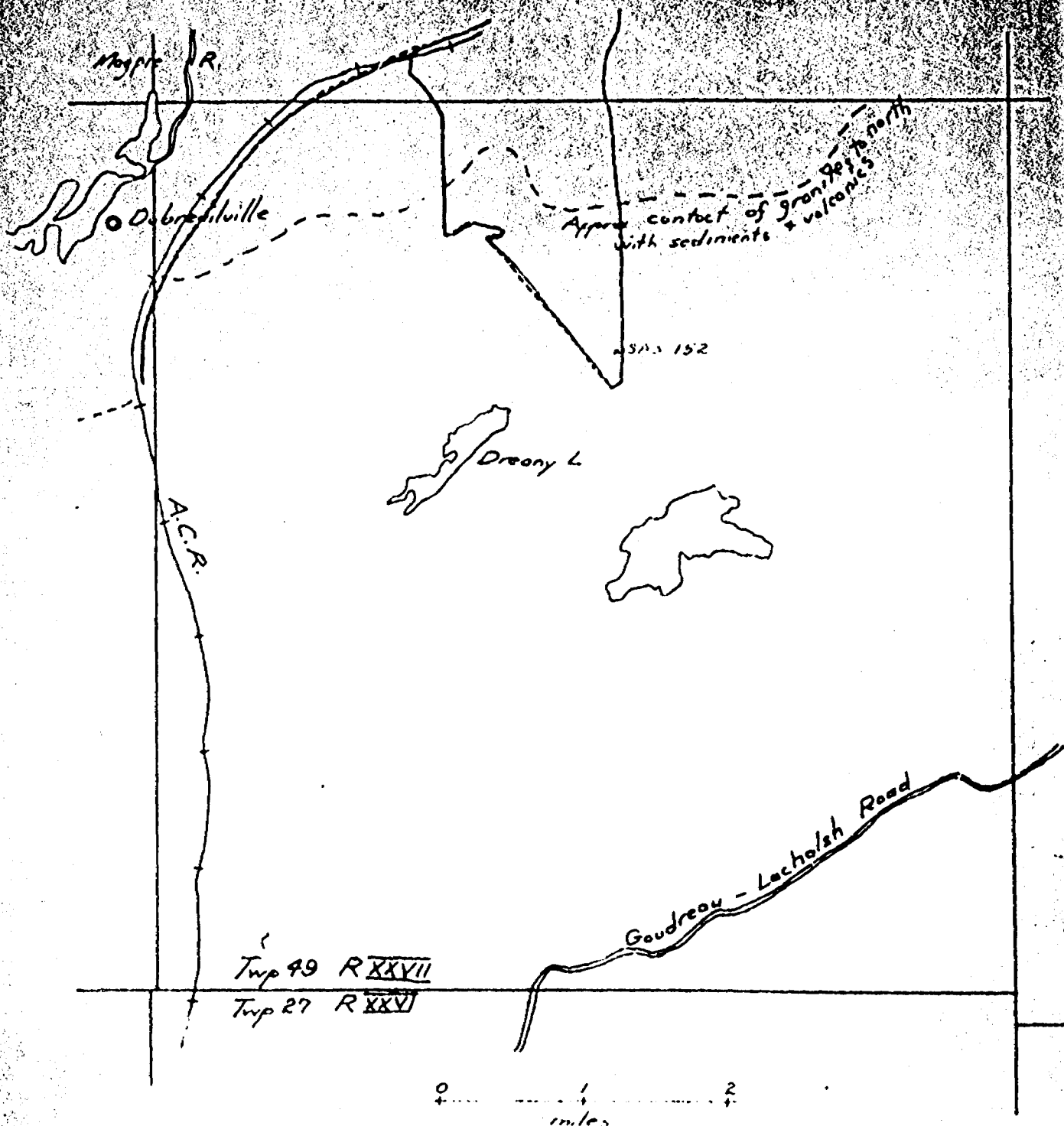
Township 49 Range 27 (60)

The contact of the Timiskaming sediments (Bruce E.L.) and the northern granites was traversed. A hornblende syenite rock was noted to be persistent along the contact. It is proposed to prospect this contact and the contacts with intrusive acid bodies immediately to the south later in the season when the northern granite area has been mapped. Work could most conveniently be carried out from a van at Dubreuilville. The eastern extension of the contact will be prospected from Localsh.

One sample was taken, SA3-152, from a pyrite-rich lens, 6 inches by 3 feet, in the greenstone.

James A. MacIntosh.
June 1, 1962.

SAULT ALGOMA No. 1 PROJECT (A.G.R.)
May 1962 Report - Twp 49 R. 27 (CG)
J.A. MacIntosh



Traverses Shown Approximately.

BEARPAW LAKE

Location: Township 49.

Minerals Present: Pyrite, pyrrhotite.

Development: Trenching and drilling.

Geology: A 12 foot wide band of pyrite is intercalated
with acid metavolcanics.

References: O.D.M. Resident Geologist, Sault Ste. Marie,
File S.S.M.-777, Algoma Central Railway.

March 29, 1967.

S.S.M.-777 -