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ASTRABRUN MINES LIMITED
REPORT ON A URANIUM PROSPECT
STETHAM TOWNSHIP
GOGAMA AREA, ONTARIO

For
The Directors

February 26, 1968,
Haileybury, Ontario

E.L. MacVeigh B.A., M.S.

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- a) Plan of Stetham Township showing the location of the Astrabrun Mining Claim Holdings. Scale 1" = 1/2 Mile.

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FOREWORD AND SUMMARY

Astrabrun Mines Limited hold a block of 55 unpatented mining claims in the Township of Stetham, 12 miles northeast of Gogama, Ontario. The claims were acquired during the summer of 1967 following a uranium discovery in the same township by Jonsmith Mines Limited. Jonsmith Mines hold two groups of claims and the property of Astrabrun is located between the two Jonsmith groups covering the strike of a presumed fault structure crossing the three properties.

Surface prospecting and airborne work has established the presence of radioactivity in the granite area of the adjoining townships of Nobel, Stetham and Hazen. On Jonsmith the uranium is present in a reddish coloured pegmatite. Most of the radioactive locations found so far are near projected fault linears. A minimum of surface prospecting, and no diamond drilling to the writer's knowledge, was carried out during the 1967 season. The locations of most interest may be the faults present in the deep overburdened or lake filled depressions. These would require diamond drill exploration.

At the time of writing, Jonsmith Mines Limited are undertaking the first diamond drill program in the area with a minimum contract of 5,000'.

It is recommended that a geological mapping of the Astrabrun property be carried out along with scintillo-

Foreword &
Summary Cont'd.

meter readings of the rock outcrops and a water sampling of the lake areas for U_3O_8 . If the presumed fault locations on the Jonsmith property are established as uranium bearing it is recommended that Astrabrun diamond drill the fault location projected through the property in the area of Kenetogami Lake.

PROPERTY AND ACCESS

The property consists of a single block of 55 unpatented claims in the east central part of Stetham Township, Montreal River Mining Division, Ontario. The claims are recorded as follows:

MR 47827-67 incl.	MR 47958-66 Incl.	(30 claims)
MR 49162-83 incl.	MR 49189-90-91	(25 claims)

The property is reached from Gogama, Ontario, a station on the Canadian National Railway, by driving 11 miles northeast on the Tower Road which crosses the west side of the Astrabrun property. A new highway recently opened from Gogama to Timmins, No. 144, crosses the east boundary of Stetham Township about half a mile east of the Astrabrun property boundary. The distance from here to Timmins is about 55 miles on Highway No. 144.

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The property is one of fairly high granite hill outcroppings with deep intervening lake basins. There is a moderate second growth tree cover.

HISTORY

The first radioactive discovery in the area was made by Jonsmith Mines in July, 1967. This is apparently the first mineral discovery of interest made in the township. Astrabrun Mines Limited acquired their Stetham Township property by staking on the projected strike of the Jonsmith structure. Some surface prospecting has been carried out by Astrabrun and radioactive granitic rocks have been found on the property.

GEOLOGY

Stetham Township is located in an extensive granite batholith area which underlies many neighboring townships. Near the Gogama area the granite is traversed by a number of very long, 30 to 40 mile, linears striking north-northwest and thought to be regional fault locations.

In Stetham Township the granite is intruded by Keweenawan diabase dikes striking in northwest to northeast directions with observed widths up to 60 feet. The only other mafic rocks seen by the writer are interpreted to be Keewatin greenstone. These occur on the east shore of

Kenetogami Lake, 400' east of the Jonsmith discovery site. There is a xenolith type of mafic rock present at the Jonsmith discovery site, also thought to be a Keewatin inclusion.

The half mile of mafic rocks exposed along the shore line on the Jonsmith property may be indicative of a fault movement of considerable off-set. At one location on this shore line the mafic rocks are intruded by radioactive pegmatite with the presence of shearing in the mafic rocks at the contact. This general structure would project on strike to the Astrabrun property about two miles distant to the north. The structure may prove to be important for uranium exploration. Mafic rocks may or may not be present along this presumed fault structure on Astrabrun.

MINERAL DEPOSITS

Surface prospecting and reconnaissance airborne survey have located radioactivity of several times background on the Astrabrun claims. Prospecting of the radioactive locations has revealed chiefly granite occurrence.

The better uranium values at the Jonsmith discovery site are present in a reddish colored, high orthoclase pegmatite, with a graphic texture. This pegmatite location is characterized by a very low quartz content. Those outcrops of pegmatitic granite showing

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a fair percentage of quartz may show some anomalous radioactivity, but do not appear to have the prospecting chances that are found at the discovery site.

Much of the radioactive mineralization present in the area is undoubtedly syngenetic and was emplaced at the time of the intrusion of the pegmatites and pegmatitic granite. Considering the proximity of the extensive regional faults traversing the area, it is a speculation that epigenetic uranium occurrence might be present in the fault zones or subsidiary fracturing and shearing related to these large structures. Ore amounts of uranium occurrence have not so far been found by the limited surface exploration carried out in the Stetham area. However diamond drilling exploration may establish ore by drilling in the pegmatite dike zones below the area of surface leach, or diamond drilling may establish the presence of epigenetic vein type uranium occurrence in the shear, fracture, or fault locations.

RECOMMENDATIONS

If the current diamond drilling program on Jonsmith Mines Limited establishes the presence of uranium occurrence near the presumed fault location at the discovery site, it is recommended that the projection of this fault structure be diamond drilled on the Astrabrun property. For this purpose a minimum of 3,000' of diamond drilling

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should be considered, at an overall cost including supervision of approximately \$6.00 to \$7.00 per foot.

The finding of anomalous radioactivity over a three township area marks an important exploration chance. The Astrabrun property is in the central part of this area. To date very little investigation has been made of the surface. It is recommended that the Astrabrun property receive at least a reconnaissance geological mapping controlled by a widely spaced grid of picket lines. This will also serve as a guide for prospecting and scintillometer work. The cost of this surface and geological work with some allowance for rock blasting would be about \$5,000.00.

It is also recommended by the writer that the lake bottoms be water sampled for U_3O_8 and particularly the lake bottom of Kenetogami Lake on the Astrabrun property. If the presence of a strong regional fault is established by Jonsmith diamond drilling, such a fault would likely be a water channel. This underground water at the lake bottom should contain leach values in uranium if uranium minerals are present in the fault zone. The comparatively small volume of water present at the bottom of a lake trough would be the place to sample. It would also be the place

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of least dilution by surface run-off. In the winter these lake bottom waters are comparatively quiet which should be the best time to locate the sources of any radioactive water anomalies.

ASSESSMENT WORK

Rec'd from *Ont. Securities Commission*

Date *JUN 20 1968* *H. Lovell*
R. C. S. logist

Respectfully submitted,



February 26th, 1968,
Haileybury, Ontario.

E.L. MacVeigh B.A., M.S.

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Haileybury, Ontario.
February 26th, 1968.

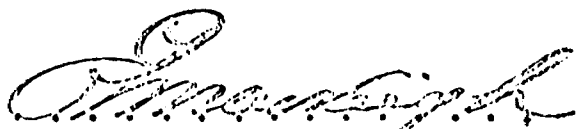
CERTIFICATION

CONCERNING A REPORT OF FEBRUARY 26th, 1968,
ON A URANIUM PROSPECT OF
ASTRADBUK MINES, LIMITED,
STETHAM TOWNSHIP, GOMARA, ONTARIO.

I, EDWIN LESTER MACVEIGH, of Haileybury in the Province of Ontario, hereby certify:-

1. THAT I am a Consulting Geologist and reside at Haileybury, Ontario.
2. THAT I am a graduate of the University of Illinois with the degrees of Bachelor of Arts and Master of Science and have been practising my profession as a Geologist since 1932 in Northern Ontario and Quebec, and also that I have been Manager of producing mines in these areas.
3. THAT I have no direct, indirect or anticipated interest in the mining claims mentioned in this report nor in the companies interested in the property reported herein.
4. THAT the accompanying report is based on a personal visit to the property, November 15th, 16th and 17th, 1967, at which time an examination was also made of the radioactive occurrences on neighboring properties.

DATED this 26th day of February, 1968.


Edwin Lester Macveigh, P.G.S., P.G.E.

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Hazen Twp.

2M.

Wassagong

Station

Stetham Twp.

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+5M.

Upper
Kontagami

Lower

Twp.

5M.

5M.

