REPORT ON
28-CLAIM PROPERTY
MAREAST EXPLORATIONS LIMITED
RATHBUN TOWNSHIP
WANAPITEI LAKE AREA
SUDBURY MINING DIVISION
ONTARIO

August 1968
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Location Maps.
This report describes your 28-claim property located in Rathbun Township, Wanapitei Lake Area, Sudbury Mining Division, Ontario. Previous work carried out on the property area has reduced considerably the potential of the property, but, has not satisfactorily checked all its possibilities which warrant further exploration.

PROPERTY -

The 28 claims are contiguous and unpatented, extending just short of three miles east-northeasterly in length and one to five claims in width, covering an area totalling about 1,120 acres. 15 of the 28 claims are new claims staked to cover grounds previously owned by the Company. The 28 claims are listed as follows:


All but a fraction of two claims are in Lots 6 to 11, Concession III and IV of the Townships of Rathbun, District of Sudbury, Sudbury Mining Division.

LOCATION AND ACCESS -

The property is located to the northeast of Wanapitei Lake along the north shore of Portage Bay. Wanapitei Lake is at the east end of the Sudbury Basin and approximately seven miles to the northeast of
Falconbridge.

Access can be readily had by motor road from Sudbury to Wanapitei Lake and across the lake by boat in the Summer, or by snowmobile across the lake ice for about six miles in the Winter. Access can also be had from Sudbury, 16 miles east along Highway 17 and turn north along a gravel road known as Kukagami Lake Road for about 15 miles to the south end of Metagamishing Lake at a point about 1-1/4 miles from the southeast part of the property. There is a bush road leading from this point to the property of Little Ag Mines Limited, which ties on to the southeast of your property.

HISTORY -

The east part of the property ties onto the gold prospect of Little Ag Mines Limited. This gold prospect consists of 5 claims with exploration shafts and some mining done by previous owners and a drill program carried out in 1965. Brief prospecting for gold was carried out by previous owners on the seven-claim area tying on to the immediate north of the said gold prospect but apparently was hindered by overburden.

In the period between 1953 to 1955, Dolmac Mines Limited conducted a systematic geological mapping and a limited geophysical survey at the central-west part of your property now covered by Claims S-133462 to S-133465, inclusive, and S-149347. The same company has also drilled two short holes at the eastern part of what is now Claim S-133463, with apparently negative results. The exploration work was designed mainly to explore the area surrounding a high-grade Ni-Cu base
metal showing, located at the south end of McLarens Lake, at about one claim to the north of your property.

In 1967, your Company conducted a program of magnetic and electromagnetic surveys covering the area of all the claims. The surveys were carried out by Cana Exploration Consultants Limited and further work was recommended. In February, 1968, your company drilled two holes totalling 920 ft. to test a "Ronka EM 16" conductor zone encountered by the about said geophysical survey at Portage Bay. The drilling was by A. McKnight Diamond Drilling Limited, under the supervision of Mr. Keith J. Benner.

TOPOGRAPHY AND GEOLOGY -

The topography of the property is rugged, typical of the Precambrian terrain. There are apparently a large number of outcrops within the hilly ground, yet in general the ratio between overburden to outcrop is great.

According to map no. P. 367, O. D. M., the base metal showing at McLarens Lake is located along the north contact zone of a belt of basic intrusives which has an indicated average width of about one mile, striking east-northeasterly for about three miles and turns south-easterly at the eastern end. The property is located along the south contact zone of this belt of basic intrusives.

The basic intrusives, including Sudbury gabbro and Nipissing diabase, are intruding a formation of Growganda sediments (Huronian), and are questionably earlier than the nickel eruptives found in the Sudbury Basin.
area. The Gowganda sediments in the area of the property are mostly conglomerate and argillite.

MINERAL OCCURRENCE -

There is no available record of any mineral occurrence on the property area. The base metal showing, located along the north contact zone at the south end of the McLarens Lake, also known as Rathbun Lake, is comprised of two lenses of massive to dissemination sulphides in gabbro. Grab samples of heavy sulphides from shaft muck, obtained by Theodore Koulomzine in 1953, assayed high in copper, with some values in nickle, gold, silver, and interesting values in platinum and paladium. His grab samples of low-grade mineralization from mineralized rock assayed low-grade in copper, some nickle, also with values in platinum and paladium. A grab sample of heavy sulphide collected by the writer, from a small pile of material near a shallow shaft at the showing, assayed 17.84% of copper, 0.1% nickle, trace of gold, 0.50 oz. per ton silver, 0.1 oz. per ton of platinum, and 4.6 oz. per ton of paladium. A sample from an outcrop with specks to weak mineralization, just northwest of the shallow shaft at the showing, assayed 0.46% copper, 0.13% nickle, nil in gold, 2.4 oz. per ton of silver, 0.005 oz. per ton of platinum, and 0.12 oz. per ton of paladium. The values are comparable to that obtained by Theodore Koulomzine in 1953.

It should be noted here that there are many occurrences of gold and copper located to the southeast of your property in the neighbouring Scadding and Davis Townships where the geological setting is similar to that in your property area.
AEROMAGNETIC DATA -

Aeromagnetic maps nos. 1511G and 1152G, G.S.C. and O.D.M., indicate that there is a strong magnetic anomaly striking northwesterly at short distances to the north and northeast of the property. There is also a small weak anomaly located to the immediate south of the property. The data showed no appreciable anomalous conditions associated with the basic intrusives indicated on the property.

PREVIOUS WORK BY THE COMPANY -

The magnetometer survey conducted in 1967 by the Company obtained no indication of a clear-cut contact zone between sediments and basic intrusives. Weak indications encountered at the eastern part of the property suggested a contact zone cut by cross faulting rather than curved, as shown on the government geological maps. Several magnetic depressions outlined on the south-eastern part of the property were inferred as favourable areas for the prospecting of gold-bearing veins.

The electromagnetic survey encountered an outstanding conductor zone in water claims nos. S-133456 and S-133461. Two holes were drilled to test the conducting zone. Hole #1, at a dip of 45° bearing north, cut greywacke from 72' to 467', then entered into gabbro for 28'. There are frequent fine pink calcite stringers from 265' to 467' with little chalcopyrite observed in a 1/8" pink calcite stringer at 423'. The lower part of this hole apparently cut across the conducting zone but at a point where the electromagnetic survey encountered only weak response. Hole
#2, at a dip of 50°, bearing southeast, cut greywacke from 41' to the end of the hole at 425'. The lower part of this hole could have cut below the axis of the strongest part of the conductor zone, since the electromagnetic data indicated that at that point the conductor dips to the south. Furthermore the hole did not cut the gabbro-greywacke contact. It follows that this electromagnetic indication could not be completely discarded.

The electromagnetic survey also encountered several conducting points at the assumed east boundary of claim S-133456 and in claim S-133462 at Portage Bay. In view of these and the fact that Hole No. 1 cut minor chalcopyrite near a gabbro-greywacke contact the writer feels that all these indications should be checked by a horizontal loop E.M. survey using a Ronka Mark IV unit for further evaluation.

The previous electromagnetic survey encountered four weak to marginal short conductors on the land area of the property. The writer had recommended to check these indications by a limited geochemical survey in his report dated July 7, 1967. A check survey carried out by the writer on the high-grade Ni-Cu showing at McClarens Take encountered only questionable and isolated electromagnetic indications when using the Ronka E.M. -16 instrument. It follows that the weak to marginal conductors associated with geochemical anomalies, may lead to the discovery of interesting mineralization.

Furthermore, the electromagnetic survey may not obtain response from disseminated type of sulphide mineralization. The magnetic indications and drill data obtained up-to-date showed that the contact zone between basic intrusives and sediments is not as that shown...
on the government geological map. The exact location of this contact zone should be investigated and gold possibilities along this zone and to the south be checked by prospecting. The area to the north should be checked by a self-potential survey for disseminated type of sulphide mineralization.

CONCLUSIONS AND RECOMMENDATIONS -

Previous exploration work carried out on the property area has reduced considerably the potential of the property, but, has not satisfactorily checked all its possibilities.

The writer recommends to check the "Ronka Em 16" conductors encountered on Portage Bay by a horizontal loop electromagnetic survey in the Winter for further evaluation. The check survey may lead to further test diamond drilling involving a minimum of four hundred feet. The cost for the check survey is estimated at about four hundred dollars. The test diamond drilling, if justified, is estimated to cost about four thousand dollars.

The writer also recommends to conduct a program of geological prospecting to investigate the south contact zone between basic intrusives and sediments at the south half of the property, to check the possibility of gold along and to the south of this contact zone, particularly at the eastern claims. A self-potential survey is recommended to cover the area to the north of the contact zone. A geochemical soil sample survey is also recommended to check weak to marginal conductors encountered
by the previous survey at the northern part of the property. The estimated cost for the geological prospecting involving a geologist and a prospector is estimated at one thousand and five hundred dollars. The self-potential survey to be carried out along picket lines established on the property is estimated to cost less than three thousand dollars, subject to the findings by the geological prospecting. The geochemical check survey involves and estimated cost of three hundred dollars. Furthermore, the company should be prepared to follow up the findings by the recommended exploration work by a program of test diamond drilling involving two or three shallow holes.

The writer therefore recommends the company to allocate a sum of ten thousand dollars ($10,000.00) for the complex program of exploration work and diamond drilling which may be required, to further investigate the possibilities of the property.

Respectfully submitted,

CANA EXPLORATION CONSULTANTS LTD.

S. S. Szetu, Ph. D.
Consulting Geologist.

Toronto, Ontario
August 13, 1968.
SUMMARY -

The 28-claim property has no mineral occurrence but is located close to known nickel-copper and gold occurrences. The property area was subjected to a program of geophysical survey in 1967 and two holes were drilled in 1968 to test an electromagnetic conductor encountered over lake ice. The work has reduced considerably the potential of the property, but, has not satisfactorily checked all its possibilities for base metals and gold.

A complex program of further investigation has been recommended. The program involves a check survey at Portage Bay, using a horizontal loop electromagnetic instrument, in the Winter; a geological prospecting along and to the south of the contact zone between basic intrusives and sediments, a self-potential survey to cover the area north of the contact zone for disseminated type of mineralization, and a geochemical soil sample check survey across electromagnetic conductors encountered by previous survey on the land area of the property. The program may lead to a limited amount of exploration diamond drilling.

A sum of ten thousand dollars ($10,000.00) is recommended to be allocated for the program of exploration work and possible follow-up diamond drilling.

S. S. Szetu, Ph. D.
Consulting Geologist

Toronto, Ontario
August 13, 1968.
SELECTED REFERENCES


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CERTIFICATE

I, S. S. SZETU, of Willowdale, in the Province of Ontario, hereby certify:

1. THAT I reside at 36 Whittaker Crescent, Willowdale, Ontario, and am a Consulting Geologist. My office is located at Suite 427, 12 Richmond Street East, Toronto 1, Ontario.

2. THAT I hold a Degree of B. Sc. in Geology, 1941, from National Sun Yat Sen University, China, and a Degree of Ph. D. in Geology, 1954, University of Toronto, and that I have been practising my profession in geological and geophysical explorations since graduation.

3. THAT I am a Fellow of the Geological Association of Canada, Member of the Mineralogical Association of Canada, the American Geophysical Union and The Canadian Institute of Mining and Metallurgy.

4. THAT I have no interest directly or indirectly, nor do I expect to receive any interest directly or indirectly in any securities issued by Mareast Explorations Limited or in the property referred to in the accompanying report.

5. THAT the accompanying report is based on a study of Government geological and geophysical reports and maps; my personal geological and geophysical experiences in Rathbun Township, a visit to the property in December, 1966 and supervision of a geophysical survey covering the property area in 1967.

S. S. Szetu, Ph.D.,
Consulting Geologist.

Dated at Toronto, Ontario,
this 12th day of August, 1968.
NOTE: Geology from Map #P 367, O.D.M.
Scale: 1" = 2 Miles.

LEGEND

PRECAMBRIAN, PROTEROZOIC, KEWEENAWAN AND MATACHewan.

18
Diorite

KILLARNEY (GRENVILLE)

17
Gneiss, granite, pegmatite, amphibolite, diorite—amphibolite, migmatite, metasediments

MAFIC INTRUSIVE ROCKS.

14
a) Gabbro, diabase (Ni-poor diabase)
b) Metagabbro, amphibolite (Sudbury gabbro)

Huronian System—Cobalt Group—Lorraine Formation.

13
Quartzite, arcbre, siltstone, conglomerate

GOGANDA FORMATION

12
Conglomerate, argillite, arcbre

BRUCE GROUP—Mississagi Formation.

8
Quartzite, arkose, argillite, conglomerate

UNCONFORMITY (?)

UNCLASSIFIED ROCKS (Sudbury Group, White Water Group)

7a Conglomerate, (Ramsey Lake)
7b Quartzite, arcbre, (Wanapitei)

SEDIMENTARY ROCKS (KEEWATIN)

3
Conglomerate, greywacke, tuff, amphibolite

MINERAL OCCURRENCES

16
ALWYN PORCUPINE MINES LTD.

23
BONANZA MINE.

24
DAVIS TOWNSHIP, CONCESSION II, LOT 2.

25
DAVIS TOWNSHIP, CONCESSION II, LOT 13.

27
DAVIS TOWNSHIP, CONCESSION III, LOT 7.

30
McLEOD OCCURRENCE.

32
NORSTAR LAKE MINE

39
RATHBUN TOWNSHIP, CONCESSION IV, LOT 9.

LOCATION OF 28-CLAIM PROPERTY

MAREAST EXPLORATIONS LTD.

RATHBUN TOWNSHIP
SUDBURY MINING DIVISION, ONTARIO

Cona Exploration Consultants Limited, July 1968