

21 August 2020

ASX ANNOUNCEMENT

EM SURVEY DATA MODELLING COMPLETED AT GADDEBO NICKEL PROJECT

HIGHLIGHTS

- EM modelling has defined two distinct anomalous bodies requiring follow-up detailed ground EM surveying
- Both anomalies occur adjacent to the historic Gaddebo nickel mine
- IP gradient array survey completed with data currently being processed

Ragnar Metals Limited ("Ragnar" or "the Company", ASX: RAG) is pleased to provide an update on recent work completed by 2617818 Ontario Inc ("Ontario Inc") at its Gaddebo nr3 tenement (Gaddebo), located within the Bergslagen District of Sweden, 110km NW of the capital Stockholm (Figure 1). Electromagnetic data modelling has been completed following an airborne electromagnetic helicopter survey conducted earlier in the year¹. In addition, ground Induced Polarization (IP) surveys have been completed over Gaddebo.

The SkyTEM geophysical helicopter survey was undertaken by Ontario Inc, as part of a larger regional airborne survey covering a total of 150-line kilometers over their local tenement interests. Approximately 10% of the survey (15-line kilometers) was flown over Gaddebo which is in the western central portion of the survey area (Figure 2).

Ragnar's Chairman Steve Formica comments "The goal of the survey work and modelling was to identify potential areas of nickel sulphide mineralization in and around the historic Gaddebo nickel mine, which was also mined for copper, cobalt, platinum, and palladium. We are pleased that Ontario Inc have completed the first pass geophysical surveys and modelling, which has generated targets that warrant further modeling and testing. Ultimately, we are optimistic that the follow up work will form the basis of Ontario Inc's exploration and drilling program at Gaddebo for the next 4 years as part of the expenditure obligations of their option."

¹ ASX:RAG 20/01/2020-Airbourne EM Survey Completed at Swedish Gaddebo Nickel Project.



Figure 1: Gaddebo is located in the Bergslagen District NW of Stockholm. The region is well supported by infrastructure and mining operations.



Figure 2: Gaddebo project area. SkyTEM helicopter EM anomaly locations presented on RTP TMI and Bing imagery.

The magnetic data as shown at Figure 2 is marked by a strong east-west fault that crosscuts the survey block. The south side of the fault appears to have been intruded by igneous, magnetite rich rocks in the form of a dyke subparallel to the fault, and a larger intrusive event to the south and west of the fault. The aim of the survey was to gain a better understanding of the bedrock geology and identify potential for addition Ni-sulphide mineralisation in and around the historic Gaddebo nickel mine.

Following the completion of the survey, Southern Geoscience Consultants Pty Ltd conducted a data review and commenced modelling of the flight data which comprised 50 flight lines through the tenement. The EM data (dB/dt) has been modelled with the objective of defining a common anomalous source for the multi-line linear anomaly using the MAXWELL software package.

A group of airborne EM anomalies were identified, forming an east-west linear cluster in the central part of the license were identified during the SkyTEM survey, coincident with the historic Gaddebo Ni-sulphide workings. The EM modelling defined two distinct bodies that are offset to the northeast of the Gaddebo nickel occurrences (Figure 3). The Gaddebo 1 & 2 anomalous bodies are of moderate conductivity-thickness (Table 1), both bodies are dipping to the southwest and are offset to the north of an east-west trending road cutting through the area. Inspection of the Low Moment (LM) SkyTEM data does not suggest a cultural source for the anomalies. Both anomalies appear to be in a forested area, which has been confirmed on the ground by Ontario Inc geologists.

Table 1. Gaddebo MAXWELL models

Model	Flight Line	X (SWEREF99)	Y (SWEREF99)	Depth (m,bgs)	Depth Extent (m)	Length (m)	Dip (deg)	Dip Az.	Plunge (deg)	Cond-Th (s)
Gaddebo 1	501301	601619	6633278	39	35	35	49	205	0	250
Gaddebo 2	501401	601564	6633297	43	40	50	47	204	0	250

Follow up ground EM is now recommended to further test the modelled conductive plates identified in the SkyTEM survey. The ground EM survey is currently in the planning phase, and once finalised, work plans will be submitted to the Swedish Mining Inspector. It is anticipated the survey will be conducted in 3Q.

Induced Polarization survey

A gradient array Induced Polarization survey, as planned by Ragnar in 2019, was conducted over Gaddebo between the 23rd and 27th of July 2020. The survey was conducted by the Swedish geophysical contractor Geovista and the data is currently being processed and reviewed by Ontario Inc.

Licence standing

The Gaddebo licence is in good standing and paperwork is being prepared for the upcoming renewal. which is its second (6th year) renewal. This renewal typically needs a significant amount of work indicating the holder is moving towards defining a resource (ie drilling) in order to be granted.



Figure 3. Maxwell EM modelling causative bodies, plan view. The Gaddebo 1 causative body is to the left (yellow), the Gaddebo 2 causative body is to the right (red). Gaddebo historic Ni workings (ORED15233) is shown as a sphere (orange).

About the Project

Historical mining was undertaken at Gaddebo for nickel, copper, cobalt, platinum, and palladium. The Gaddebo nickel mine is located on the border of the Enkoping and Sala Municipalities. Approximately 1,432 tonnes of nickel ore was produced from the workings between 1870 and 1871. An average grade of 0.8% copper and 0.3% nickel was reported (with grades of up to 4.9% nickel) based on subsequent trial mining in 1918 (BERGSKRAFT BERGSALGEN AB, 2014). Exploration works by Ragnar in 2018 identified abundant nickel sulphide mineralisation within the host medium-coarse grained olivine rich gabbroic rocks which host the historic mining operations.

Ragnar holds a 100% interest in exploration permit 2014:91, Gaddebo nr 3, located in Bergslagen District, Sweden. Ragnar entered into a binding head of agreement ("**HOA**") on 21 November 2019 with 2617818 Ontario Inc, a company incorporated in Ontario, Canada. The binding HOA sets out the term upon which the Vendor agrees to grant an option to Ontario Inc to acquire the Tenement.

Competent Person Statement

The information in this announcement relating to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Neil Hutchison of Geolithic Geological Services, who is a consultant to Ragnar Metals, and a member of The Australasian Institute of Geoscientists. Mr Hutchison has sufficient experience relevant to the style of mineralisation and type of deposit under consideration, and to the activity he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resource and Ore Reserves".

Mr Hutchison consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

For the purpose of ASX Listing Rule 15.5, the Board has authorised for this announcement to be released.

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