



MANGANESE

New Ross, Nova Scotia

New Ross - Manganese Deposit



Highlights

- 41,000 Possible tons of Mn-oxides ranging from 50 - 60% Manganese (Data collected in 1950s).
- Recently funded under the NS Mineral Resources Development Fund to conduct heliborne mag-survey and leachability testing.
- 7 new mag targets identified, ready for exploration to increase resource.
- Easy access, 16 km from the community of New Ross.
- Mn-Oxides, pyrolusite, manganite and psilomelane veins up to 2 meters thick.



21Alpha Sample (Float)
51.5% Manganese

21Alpha Resources Inc. holds the mineral rights to the past manganese producers known as the Cain and Riddle Mine (production from 1890 - 1921) and the Dean and Chapter Mine (production 1907 - 1936). They are located near the rural community of New Ross, Nova Scotia, Canada. The two sites are approximately 2.5 km apart, which are now together referred to as the New Ross Manganese Mines.

Diamond drilling with some 1940s and 50s exploration programs substantially extended the mineralized zones along strike at both mines. An estimate of 41,000 possible tons of high-purity Mn-oxide was made at that time. With very little work conducted to extend the strike beyond the known workings or to make new discoveries on the property, the estimates made in the 50s are considered the most current.

Although current tonnage estimates are low, with consistently high-grades ranging from 50-60% manganese and little to no modern-day exploration, an advanced work program to increase the resource is warranted.

In 2018, 21Alpha Resources was able to secure funding from the Nova Scotia Mineral Resources Development Fund to conduct a heliborne magnetic survey in order to narrow in on new targets for future ground work. The program was successful at identifying 7 new targets ready for future exploration.

With the continued support of the Nova Scotia government, in 2021, a \$10k MRDF grant was awarded to 21Alpha to implement a leach test to determine the leachability of manganese from the New Ross deposit into an acid solution. Dr. Ian Flint and his lab, Lab 4 Inc., were commissioned for the project. Two samples were supplied, a black sample (59.3% Mn/0.9% Fe) and a red sample (7.86% Mn/55.1% Fe). Tests concluded that the black sample was able to achieve a recovery of 83.5% Mn and would most likely be economic. Flint also recommended additional test phases to improve recovery.

The property is located 16 km north of New Ross (pop 1400) and just over 100km to Nova Scotia's capital city, Halifax. Surface rights are a mix of Crown Land and private forestry. Efforts to explore to date have been welcome.

Contact

21Alpha Resources Inc.

Jimmy Gravel, VP - Chester Basin, Nova Scotia, B0J 1K0
(902) 273-2387 - graveldevelopments@gmail.com

NEW ROSS MANGANESE

LOCAL GEOLOGY AND MINERALIZATION

The manganese deposits occur in a megacrystic biotite monzogranite along fault zones which dip steeply to the northwest. The deposit consists of northeast-trending zones of Mn-oxide, which on the surface, are manifested as low-lying swampy hollows. The presence of a fault has been confirmed in the abundant diamond drilling and in the underground workings. The hanging wall to the northwest of the veins consists of relatively unaltered monzogranite while the footwall to the southeast grades from a highly altered and brecciated monzogranite outwards into massive, but hematized rock and finally unaltered monzogranite within 30-40 m (O'Reilly et al., 1982).

Manganese oxides, pyrolusite, manganite and psilomelane occur in lenticular veins, ranging in thickness from a few centimetres to 2 meters. The veins occur within the fault zone with brick-red hematite-ochre breccia and pinch and swell along much of their length.

