

Regional 3-d survey leads to discovery of kaolin resource Nova Scotia

Outputs from joint Canada-Nova Scotia geoscience program in central Nova Scotia resulted in new mineral exploration company and discovery of large kaolin-silica sand deposits.

DESCRIPTION OF SUCCESS:

- Starting in November of 1995, Terence Coughlan staked over 10,000 claims (>400,000 acres) in central Nova Scotia for kaolin, based on display of geoscience research at annual Natural Resources Review of Activities conference.
- Coughlan then formed new company, Kaoclay Resources, to evaluate Musquodoboit and Shubenacadie valleys for Late Cretaceous sedimentary kaolin clay and silica sand deposits.
- Between 1996 and 1999 the company conducted regional and detailed exploration, including shallow seismic surveys and drilling of 280 drill holes.
- In 1999 the company announced the identification of large deposits (circa 200 million tonnes) of inter-bedded kaolin and silica sand deposits in the Sibley Road area. The shallow deposits (locally <2 meters from surface) were up to 200 meters in thickness and occurred as shallow as 2-5 meters from surface.

DESCRIPTION OF GEOSCIENCE PROJECT:

- A regional 3-dimensional study of the lowland areas in the Shubenacadie and Musquodoboit valleys was conducted from 1994 to 1997 by the Nova Scotia Department of Natural Resources (DNR) and NRCan geoscientists.
- The project followed up on limited evidence of mottled clays and silica sand deposits that were historically mined for use as silica sand and various minor clay applications.
- Based on regional surficial mapping, trenching, drilling (DNR) and shallow seismic studies (NRCan), the project increased the known areal extent of the Late Cretaceous deposits from 8 to 40 km² and identified substantial deposits of kaolin clay.
- Analysis and processing studies contracted by DNR geoscientists revealed the kaolin was suitable for industrial filler applications, including ceramic production and calcined coater products.
- In addition to the local interest by Kaoclay Resources, international interest in Nova Scotia kaolin was also generated from a presentation of project results at the annual SMME in 1996 in Phoenix, Arizona.
- Subsequent exploration for primary kaolin near the East Kemptville Tin Mine by Black Bull Resources lead to the delineation of approximately 12 million tonnes of quartz and 7 million tonnes of kaolin, and ultimately to the opening of the White Rock Mine, currently on care and maintenance.