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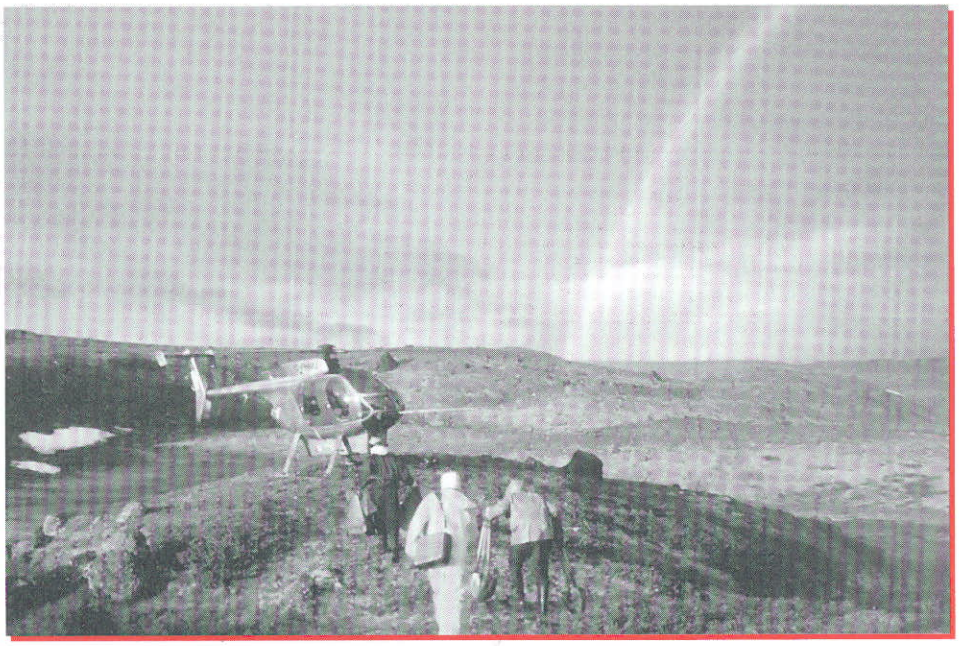
GOLD OR NICKEL, AT THE END OF THE RAINBOW?

This year, AMT is playing an important role in exploring for nickel in northeast Canada.

The Voisey's Bay nickel deposit, worth billions of dollars, was discovered in 1994 in Labrador, the mainland portion of Canada's most easterly province, Newfoundland. This bonanza sparked an exploration boom. Since 1994, millions of dollars have been spent by large and small mining companies to survey hundreds of claim blocks. Thousands of kilometres of airborne geophysical surveys were flown and thousands of metres of holes were drilled. In spite of this massive expenditure, to date the only economically viable deposits discovered are at Voisey's Bay.

The push is on to look deeper and to use AMT to focus deep drilling efforts.



A good luck rainbow arches over the Phoenix field crew as they board a helicopter chartered by Gallery Resources Ltd. at the Okak Bay camp, Northern Labrador, during an AMT survey. The weather in northeastern Canada can play havoc with helicopter-assisted surveys, explains consulting geologist Victor French of St. John's, Newfoundland, "When it's clear, the wind often blows too strongly to fly and when it's calm, it's often too foggy to fly."

Exploration entered a new phase in 1997 as hundreds of AMT measurements were made to map the known ore bodies and to explore for new ones. AMT is a deep-probing technique which identifies zones of increased electrical conductivity as deep as two km below the surface. Deep nickel deposits are detected by AMT, proven by Phoenix's work in Sudbury since 1992 (*see Issue #7*).

On some properties in Labrador, gravity or airborne magnetic anomalies identified from '94 to '96 have not been explained by shallow drilling or shallow geophysics done to date. One possible explanation for the anomalies is that they're caused by iron – containing (but electrically resistive) upwelling crystalline rocks; another is that they're due to electrically conductive nickel deposits (nickel has magnetic properties similar to iron).

The basic objective of the AMT surveys in Labrador is thus to discover whether any of the known deep-seated gravity and magnetic anomalies are also zones of increased electrical conductivity. If so, they become more promising drill targets.

The push is on to look deeper and to use AMT to focus deep drilling efforts. If just one new economic deposit is found it will indeed be the pot of gold at the end of the rainbow. ■

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