

Nunavummi Qaujisaqtulirijikkut / Nunavut Research Institute

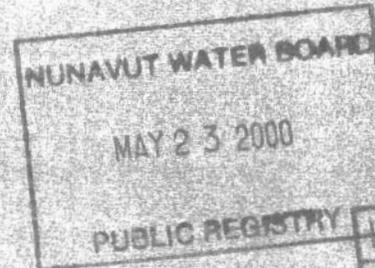
Box 1720, Iqaluit, NU X0A 0H0 phone: (867) 979-4108 fax: (867) 979-4681 e-mail: slcnri@nunanet.com

SCIENTIFIC RESEARCH LICENCE

LICENCE # 0300600R-M

NWB2M6L990

ISSUED TO: Neil Van Der Gugten
Agra Earth and Environmental Ltd.
221-18 Street SE
Calgary, Alberta
T2E 6J5 Canada
403-235-8117



TEAM MEMBERS: M. Jones, W. Hanna, A. Chan, B. Hubert

AFFILIATION: Agra Earth and Environmental Ltd.

TITLE: Evaluation of Overall Water Balance of the Meliadine River Basin

OBJECTIVES OF RESEARCH:

The objective of the project is to evaluate the overall water balance of the Meliadine River Basin and the detailed water balance of smaller local sub-basins and lakes in the immediate project area, in sufficient detail to permit prediction of impacts on the local and basin hydrology of any future gold mine development, especially tailings ponds. The proposed work will include the following: 1) To measure the depth and density of snow, using probes, snow tubes and weigh scales and then calculate the volume of snowmelt runoff; 2) To measure lake water levels and river and stream flows using seasonally installed monitoring equipment and taking flow velocity measurements by wading or by rubber boat. All equipment and methods will be standard as per Water Survey of Canada (WSC); 3) Install an evaporation pan and take daily readings; 4) The research team will be based at the existing WMC camp at Meliadine Lake. All helicopters and other local transportation and resources needed will be supplied via the WMC camp.

INTERNAL	
PC	<input checked="" type="checkbox"/>
LA	<input checked="" type="checkbox"/>
OM	<input checked="" type="checkbox"/>
TA	<input type="checkbox"/>
BS	<input type="checkbox"/>
ED	<input type="checkbox"/>
CEO	<input type="checkbox"/>
BRD	<input type="checkbox"/>

TERMS & CONDITIONS:

As per Nunavut Impact Review Board Screening Decision Report and per Prince of Wales Northern Heritage Centre Archeological Sites Terms and Conditions.

DATA COLLECTION IN NU:

DATES: May 12, 2000-September 30, 2000

LOCATION: Meliadine River Basin (63°10'N, 92°15'W)

Scientific Research Licence 0300600R-M expires on December 31, 2000

Issued at Iqaluit, NU on May 05, 2000

Bruce Rigby
Science Advisor



May 05, 2000

NOTIFICATION OF RESEARCH

PLEASE BE ADVISED THAT SCIENCE RESEARCH LICENCE No. 0300600R-M HAS BEEN ISSUED TO:

Neil Van Der Gugten
Agra Earth and Environmental Ltd.
221-18 Street SE
Calgary, Alberta
T2E 6J5 Canada
403-235-8117

TO CONDUCT THE FOLLOWING STUDY:

Evaluation of Overall Water Balance of the Meliadine River Basin

SUMMARY OF RESEARCH:

The objective of the project is to evaluate the overall water balance of the Meliadine River Basin and the detailed water balance of smaller local sub-basins and lakes in the immediate project area, in sufficient detail to permit prediction of impacts on the local and basin hydrology of any future gold mine development, especially tailings ponds. The proposed work will include the following: 1) To measure the depth and density of snow, using probes, snow tubes and weigh scales and then calculate the volume of snowmelt runoff; 2) To measure lake water levels and river and stream flows using seasonally installed monitoring equipment and taking flow velocity measurements by wading or by rubber boat. All equipment and methods will be standard as per Water Survey of Canada (WSC); 3) Install an evaporation pan and take daily readings; 4) The research team will be based at the existing WMC camp at Meliadine Lake. All helicopters and other local transportation and resources needed will be supplied via the WMC camp.

THE STUDY WILL BE CONDUCTED AT: Meliadine River Basin (63°10'N, 92°15'W)

BETWEEN: May 12, 2000 - September 30, 2000

Mary Ellen Thomas
Manager, Research Liaison

Nunavummi Qaujisaqtulirijikkut / Nunavut Research Institute

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