# NORTHERN EXPLORERS LTD ASSESSMENT WORK REPORT - ON -MINING CLAIM # S 3004077 CLAIM MAP G:2900 AFTON TOWHNSHIP, NTS 41 - I/16 Sudbury Mining Division

Preliminary mapping / prospecting; sampling; physical/chemical testing

Prepared by: Ed A. Rose, C.P.Geol.

August 11th, 2004





41116NW2018 2.28281 AFTON

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## **INTRODUCTION**

A preliminary work program designed to include geological mapping, prospecting, sampling, physical and chemical analyses was carried out on mining claim S-300477 Afton township. This claim is registered in the name of Northern Explorers Ltd of 3142 East View, Saskatoon, Saskatchewan, S7J 3J4.

Project work was carried out in stages between Sept. 10/02 - July/20/03.

#### **LOCATION AND ACCESS**

Located in Afton township, Claim #300407 is between coordinates 545530E - 546330E and 519848ON - 519888ON (NAD27UTM17 NTS 41 - I/16).

The claim is accessed via highway 17E from Sudbury to Verner (63km); then right on highway 539 to field (19km). Continue west to River Valley (15km), then north on part paved part gravel road to a bridge(37km). Turn left (gravel road) and travel to a fork(21km), then right for 1 km and right to the claim (2.5km)

## **TOPOGRAPHY / VEGETATION**

The topographic feature of the area shows alternating areas of outcrop and drift cover. Sills/dikes of Nipissing diabase are responsible for a series of high, rocky and rugged ridges which separate structurally weak areas and low ground.

Most of the vegetation is second growth spruce, birch, poplar and jackpine, with alders tamaracks and cedars in swampy areas. Timber/pulpwood harvesting carried out in the area for many year is responsible for the second growth.

#### **PREVIOUS WORK**

Except for geological mapping carried out in 1948 by "Dominion Gulf" in an attempt to locate high anomaly Fe areas no other record of work was found.

## **REGIONAL GEOLOGY**

The area is of gently doming within the superior province of the Canadian shield. Erosion of the overlying huronian supergroup (Cobalt plate) has exposed early pre cambrian metavolcanics and metasediments. The isoclinally folded early precambrian trend east-west and is steeply dipping.

As the area is part of the Cobalt structural plain faulting is the most important structural feature while folding is slight within the huronian sediments.

## **PROPERTY GEOLOGY**

Detail geological mapping of the area was not carried. The only mapping and prospecting carried out was in the immediate area of quartz veins which are the subject of interest.

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The property is within an area of early metavolcanics, metasediments and Nipissing diabase.

The metavolcanics are of felsic to mafic-intermediate pyroclastic and porphyritic flows. While the felsic-intermediate volcanics occur as flow and pyroclastics. The mafic metavolcanics are predominantly massive flows with some intercalated pillow lavas. In many cases the pyroclastics show tectonic deformation resulting in schists. The metasediments exhibit a composition of granitic material and a fine matrix of dark material.

Diabase occur as dikes is fine textured at the contact with sediments and metavolcanics. It has a gabbroic composition, lath shaped plagioclase crystals.

Located in the upper third of the west part of the claim is a flat lying E-W quartz vein of some 2100 ft x up to 220 feet. More than one age of growth is evidenced by the healing of strained and fracture coatings within the regenerated crystal.

It appears as though the quartz was deposited towards the end of igneous activity and a period of minor folding. Deformation of competent rock shattered and left the opening (shear) which the quartz now occupy. Milky quartz was deposited first at fairly high temperature as indicated by the presence of gaseous inclusions. As the concentration of liquid decreased and the temperature lowered small crystals were formed and much clearer quartz was deposited.

In isolated areas in the vicinity of the quartz there are patches of chlorite. This suggests that during emplacement (of the quartz) temperatures were high enough and therefore the mafic silicates of the enclosing rocks were converted to chlorite. The quartz is white (especially at the base) but exhibits a blue tinge in sections. In other isolated sections inclusions of shared diabase is found within the quartz while patches of Fe staining is sperodic.

# WORK CARRIED OUT

Between September 10/02 - July/20/03 work on the project included the layout of A 2100ft base line and cross lines on 100ft centers and 100ft on either side. These lines were layed out by pace - chain and compass and hardly any trees were cut. Prospecting and mapping of the quartz body . and sampling were carried out. Along each line approximately 10 lbs of chip sample was collected for a total of 21 samples (210 lbs).

The sample materials were then transported to Sudbury for preparation and testing. The 210 lbs sample was made into a well mixed composite and examined. The sample was not contaminated.

RAW PRODUCT DESCRIPTION					
Mineral Composition	Modal Percentage				
Quartz	90				
Opaque inclusions	10				

Anhedral, massive grains greater than 10 mn minute inclusions of opaque material; sharp grain boundaries, opaque inclusions are andhedral less than 0.1 mm, scattered and locally concentrated within fractures. Quartz grain showed no sign of strain (ie. condolatry extinction), but exhibit

fracturing with no preferred orientation. The fractures are relatively narrow features cutting across grain boundaries. The opaque inclusions are stress-activated transformations involving localised changes of atomic arrangement within the quartz grain. The dislocation results from the stress that initiated the fracturing.

The raw product is massive (amorphous) with about 20% by weight, pieces substantially water clear, while most of the material exhibits white milky colour due to the inclusion of gases and liquids.

## ASSAY ANALYSIS

Four samples from the project area were submitted to the MNDM Geo labs by M. Gerow for analysis. The following results were obtained.



# **CRUSHING / SCREENING OF SAMPLE**

The sample was delivered to a small private crusher in Hanmer Ontario and the following procedures were carried out.

- 1. Clean jaw crusher with wire brush.
- 2. Air-blow dust off inside and on the top of the crusher for sample preparation.
- 3. Run small sample through crusher to clean the jaws and remove any contaminated materials, then discard the sample.
- 4. Set the crusher at #1 setting and crush all samples at this setting.
- 5. Feed and crush small pieces of sample to prevent crusher from jamming.
- 6. Put the collected product in a sealed plastic bag to avoid any contamination.
- 7. Label the plastic sample bag according to the field code given.
- 8. Repeat the above steps for the next sample.

Further work performed consist of crushing 2 separate 50 lbs sample and screening these into 3/8", 1/4" and -1/16" sizes. (Remainder kept as umpire sample)

Sample #1(50	lbs)		
	SIZE	WT(lbs recovered)	% of TOTAL
	3/8	17.49	34.98
	1/4	12.84	25.68
	1/8	9.97	19.94
	-1/16	7.66	15.32
	Total	48.96	95.92
Sample #2 (50	) lbs)		
	SIZE	WT(lbs recovered)	%of TOTAL
	3/8	16.95	33.90
	1/4	12.48	24.96
	1/8	9.82	19.64
	-1/16	8.95	17.90
	Total	48.20	96.40

#### STATEMENT OF COSTS AND EXPENDITURES

DATE: September 10/02 - Ed Rose and Isaac Idika - Prospecting grid, layout and sampling. 8 a.m. - 10 p.m = 14 hours x \$85 = \$1190 September 11/02 - 8 a.m. - 9 p.m. = 13 hours x %85 = \$1105 Travel total - Sudbury - site - return 640 km x \$0.40 = \$256 July 16/03 - Ed Rose/Mike Dagostino/Gary Ross - Sample prep crushing and screening 9 a.m. - 8 p.m. = 11 hours x \$105 = \$1155 August 12/04 - Report compilation/preparation = 4 hours x 60 = \$240 TOTAL = \$3,945.

#### **CONCLUSION AND RECOMMENDATION**

The ore body(deposit) appeared to contain enough high purity quartz material to satisfy markets to include the chemical industry and polyconcrete manufacturer. One sample each from the crush products was delivered to a Hanmer Ontario company (NCL) polyconcrete manufacture. This product will be formulated with NCL's resin and other raw filler products for the production of electrolytic cells and for environmental concrete products. It is hoped that by using quartz the psi value of above 10,000 will be obtained and all other structure and mechanical values will be acceptable for products manufacturing.

Once results are obtained from NCL further project work should be carried out in order to position the product for industry.

Respectfully submitted,

Ed A. Rose, C.P.Geol.



AFPENDIX #1

Fago #7

# GEOSCIENCE LABORATORIES CERTIFICATE OF ANALYSIS



 CLIENT:
 Gerow

 Geo Labs JOB #:
 03-0059

 DATE:
 05/23/2003

 METHOD CODE:
 xwf-101

Client ID Units Detection Limit	SiO2 wt% 0.01	TiO2 wt% 0.01	Al2O3 wt% 0.01	Fe2O3 wt% 0.01	MnO wt% 0.01	MgO wt% 0.01	CaO wt% 0.01	Na2O wt% 0.01	K2O wt% 0.01	P2O5 wt% 0.01	LOI wt% 0.05	TOTAL wt% n/a
MG03-01	98.73	N.D.	0.59	0.05	N.D.	0.01	0.06	~`N.D.	0.04	N.D.	0.34	99.80
MG03-02	<b>9</b> 9.60	N.D.	0.45	N.D.	N.D.	N.D.	0.07	N.D.	0.04	N.D.	0.43	100.60
MG03-03	99.20	N.D.	0.25	0.26	0.02	0.01	0.02	N.D.	0.01	N.D.	0.30	100.03
MG03-04	99.60	N.D.	0.43	N.D.	N.D.	N.D.	0.02	N.D.	0.02	N.D.	0.25	100.30

NORTHERN EXPLORENTEd CLAINS # 300477 AFTON TWP.

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# Work Report Summary

Transaction No: Recording Date: Approval Date:	W0470. 2004-Al 2004-No	JG-13		St Work Done					
Client(s): 39304	44 N	ORTHERN E	XPLORERS	LTD.					
Survey Type(s):		ASSAY		PROSP					
Work Report Det Claim# S 3004077	ails: Perform \$3,945	Perform Approve \$3,945	Applied \$3,200	Applied Approve \$3,200	Assign \$0	Assign Approve 0	Reserve \$745	Reserve Approve \$745	
	\$3,945	\$3,945	\$3,200	\$3,200	\$0	\$0	\$745	\$745	-
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Status of claim is based on information currently on record.



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Ministry of Northern Development and Mines

Date: 2004-NOV-25

Ministère du Développement du Nord et des Mines



GEOSCIENCE ASSESSMENT OFFICE 933 RAMSEY LAKE ROAD, 6th FLOOR SUDBURY, ONTARIO P3E 6B5

Tel: (888) 415-9845 Fax:(877) 670-1555

Submission Number: 2.28281 Transaction Number(s): W0470.01288

S7J 3J4 CANADA

NORTHERN EXPLORERS LTD.

SASKATOON, SASKATCHEWAN

Dear Sir or Madam

3142 EASTVIEW

#### Subject: Approval of Assessment Work

We have approved your Assessment Work Submission with the above noted Transaction Number(s). The attached Work Report Summary indicates the results of the approval.

At the discretion of the Ministry, the assessment work performed on the mining lands noted in this work report may be subject to inspection and/or investigation at any time.

Thank you for your prompt response to the 45 Day Notice dated October 28, 2004. The deficiencies outlined in the Notice have been corrected. Accordingly, assessment work credit has been approved as outlined on the Declaration of Assessment Work Form that accompanied this submission.

If you have any question regarding this correspondence, please contact STEVEN BENETEAU by email at steve.beneteau@ndm.gov.on.ca or by phone at (705) 670-5855.

Yours Sincerely,

Rom C Gashingh.

Ron C. Gashinski Senior Manager, Mining Lands Section

Cc: Resident Geologist

Assessment File Library

Northern Explorers Ltd. (Claim Holder) Northern Explorers Ltd. (Assessment Office)





y of Northern Development and Mines for additional d title determination purposes as the information onal information may also be obtained through the

me of downloading from the Ministry of Northern

General Information and Limitations Context Information and Limitations Context Information: Toll Free Map Datum: NAD 83 Provindial Mining Recorders' Office Tel: 1 (888) 415-9845 ext 578/bijection: UTM (6 degree) Willet Green Miller Centre 933 Ramsey Lake Road Fax: 1 (677) 670-1444 Topographic Data Source: Land Information Ontario Sudbury ON P3E 685 Home Page: www.mndm.gov.on.ca/MNDM/MINES/LANDS/mismnpge.htm

	<b>ONTARIO</b> CANADA	MINISTRY OF NORTHERN DEVELOPMENT AND MINES PROVINCIAL MINING RECORDER'S OFFICE
	Date / Time of Issue: Thu De	c 02 10:53:12 EST 2004
	TOWNSHIP / ARE AFTON	A
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	Mining Division Land Titles/Registry Div Ministry of Natural Reso	
5200000N	TOPOGRAPHIC Administrative Boundaries Township	

Mining Land Tenure Мар

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TOPOG	RAPHIC			Land Tenure		
}	Administrative Bou	ndaries		Freehold Patent		
	Township			Surface And Mining Rights		
	Concession, Lot			Surface Rights Only		
	Provincial Park			Mining Rights Only		
	Indian Reserve			Leasehold Patent		
	Cliff, Pit & Pile			Surface And Mining Rights		
	Contour			Surface Rights Only		
_	Mine Shafts			Mining Rights Only		
₽	Mine Headframe			Licence of Occupation		
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	Trail			Surface Rights Only		
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This map may not show unregistered land tenure and interests in land including certain patents, leases, easements, right of ways, flooding rights, licences, or other forms of disposition of rights and interest from the Crown. Also certain land tenure and land uses that restrict or prohibit free entry to stake mining claims may not be illustrated.

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