

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, DC 20549

**FORM 6-K**

REPORT OF FOREIGN PRIVATE ISSUER  
PURSUANT TO RULE 13a-16 OR 15d-16 UNDER  
THE SECURITIES EXCHANGE ACT OF 1934

For the month of January 2004.

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**Northgate Exploration Limited**

(Translation of registrant's name into English)

2050 – 1055 West Georgia Street  
Vancouver, British Columbia  
Canada V6E 3R5

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(Address of principal executive offices)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 401-F:

Form 20-F  Form 40-F

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1): \_\_\_\_\_

Indicate by check mark whether by furnishing the information contained in this Form, the registrant is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934.

Yes  No

If "Yes" is marked, indicate below the file number assigned to the registrant in connection with Rule 12g3-2(b): 82-\_\_\_\_\_

## SIGNATURES

Pursuant to the requirements of the Securities and Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereto duly authorized.

Registrant:  
Northgate Exploration Limited

Date: January 13, 2004.

(signed) \_\_\_\_\_  
Jon Douglas  
Chief Financial Officer

# News Release

NORTHGATE EXPLORATION LIMITED  
Stock Symbols: TSX: NGX, AMEX: NXG  
Website: [www.northgateexploration.ca](http://www.northgateexploration.ca)



Northgate Exploration Limited

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## NORTHGATE PROJECTS 300,000 OUNCES OF GOLD PRODUCTION IN 2004

**VANCOUVER, January 13, 2004** *(All figures in US dollars except where noted)* – Northgate Exploration Limited (TSX: NGX; AMEX: NXG) today released the 2004 production forecast for the Kemess South Mine.

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### Highlights

- The Kemess South mine is forecast to produce 300,000 ounces of gold and 75 million pounds of copper during 2004.
- The cash cost of production in 2004 on a fully absorbed basis, net of by-product credits, is forecast to be \$206 per ounce (\$174 per ounce using the Gold Institute Methodology).
- Mill throughput during 2004 is forecast to average 52,109 tonnes per day.
- The feasibility study on the Kemess North deposit is scheduled for completion at the end of the first quarter and is expected to add significantly to the reserves at Kemess.
- Northgate will invest \$2 million in exploration within the Kemess Camp and on various joint venture exploration projects during 2004.

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Ken Stowe, President and CEO, stated, "In 2003, we delivered on our promises at Kemess South, significantly advanced and enhanced the Kemess North Project, obtained a listing on AMEX, became a widely-held company with the exit of our major shareholder and saw our common share price rise by over 65%. In 2004, I expect our accomplishments will be no less dramatic. Our first priority in 2004 is to continue to build on our record of operational improvements at the Kemess South mine. Our second priority is to complete the feasibility study on Kemess North and move a substantial portion of the current indicated resource into a reserve category. Our final priority is to establish a fresh strategic plan for future growth that will take Northgate to its next level of development as a gold mining company. Fueled by projected gold production at Kemess South of 300,000 ounces in the coming year, strengthening prices for gold and copper and a strong balance sheet, I feel that we are poised to generate even more value for our shareholders in 2004."

## 2004 Kemess South Operating Parameters

Mine production is forecast to total 48 million tonnes of ore plus waste with ore being mined primarily from the eastern end of the pit during the early part of the year, and moving to the central and western regions of the pit as the year progresses. Mine productivity is expected to drop by approximately 5% due to the general deepening of the pit and increased truck haulage distances. The stripping ratio during the year is projected to be 1.57:1 compared to a life-of-mine average of approximately 1:1.

Mill throughput is forecast to average 52,109 tonnes per day with the mill operating at the same 91% availability as it did during 2003. Metallurgical recoveries of approximately 71% for gold and 82% for copper are projected. 3.2 million tonnes of supergene and leach cap ores are scheduled for processing in two separate campaigns in the second and third quarters compared to 2.3 million tonnes in 2003. Metal production of 300,000 ounces of gold and 75 million pounds of copper is anticipated from 19.1 million tonnes of ore.

### Projected 2004 Kemess South Production

<i>(100% of production basis)</i>	2004	2003
Tonnes mined (ore plus waste)	48,240,000	53,100,000
Tonnes milled (ore)	19,072,000	18,632,837
Average mill operating rate (tpd)	52,109	51,049
Gold grade (gmt)	0.691	0.702
Copper grade (%)	0.217	0.236
Gold recovery (%)	71	70
Copper recovery (%)	82	82
Gold production (ounces)	300,000	294,117
Copper production (000's pounds)	75,000	76,177
Tonnes mined per man-shift	758	803
Tonnes milled per man-shift	300	281

## Quarterly Metal Production

Quarterly gold output in 2004 will average 75,000 ounces. However, as in past years, quarterly production will vary significantly due to scheduled variations in the mill feed grade. In 2004, gold production in the third quarter is forecast to be substantially above average offsetting below average production of 60,500 ounces in the first quarter when lower grade ore from the eastern region of the pit is scheduled for processing.

### Kemess South Mine Quarterly Metal Production Forecast

	Q1	Q2	Q3	Q4	Total 2004
Gold (ounces)	60,500	77,200	89,800	72,500	300,000
Copper (millions lbs)	17.3	17.4	21.2	19.1	75

### **Gold Cash Cost**

Assuming by-product copper and silver prices of \$0.95 per pound and \$5.00 per ounce respectively and a Cdn\$/US\$ exchange rate of 1.30, cash costs are projected to be \$206 per ounce of gold produced on a fully absorbed basis. Each \$0.025 per pound change in the copper price or \$0.01 change in the US\$/Cdn\$ exchange rate affects the cash cost by approximately \$5 per ounce. Applying the Gold Institute methodology employed by the vast majority of the industry, the cash cost of the Kemess South mine during 2004 would be \$174 per ounce due to the capitalization of waste stripping in excess of the life-of-mine average. In contrast to mines using the Gold Institute methodology, the Kemess South cash cost is projected to decrease dramatically in future years when the waste-ore stripping ratio drops below the life-of-mine average.

### **Continuous Improvement Projects**

The culture of continuous improvement at Kemess will continue unabated in 2004, building on numerous past achievements. The mill team will implement three projects that will enhance the throughput and efficiency of the grinding and flotation circuits. The rotational speed of the second of two SAG mills will be increased, allowing the mill to process ore at a 4% higher rate. In addition, a trommel magnet will be installed on the second of two ball mills to recover small pieces of broken steel, thereby reducing power consumption and maintenance costs. Identical projects completed on the B-side grinding mills in 2003 were highly successful. In the flotation circuit, the rougher flotation cells are being upgraded to increase retention time, improve circuit stability and increase metal recoveries and concentrate grade. The first phase of the flotation cell retrofit will be completed in the first quarter and involves activating four currently unused cells.

In the first quarter, the mine engineering team will complete a re-optimization of the Kemess South pit incorporating a steeper angle for the south pit wall based on updated geotechnical information and a re-configuration of haul roads and ramps. These changes will be incorporated into Northgate's 2003 year-end reserve statement where they are expected to have a positive effect on the life-of-mine stripping ratio and ore reserves.

### **Kemess North Feasibility Study**

By the end of the first quarter, Northgate plans to complete a feasibility study of the Kemess North deposit. Kemess North is situated approximately five kilometers north of the existing Kemess South pit and contains an indicated resource of 5.4 million ounces of gold and more than 2 billion pounds of copper. The goal of the study is to move a substantial portion of the resources into a reserve category under the terms of National Instrument 43-101. A pre-feasibility study completed in the third quarter of 2003 demonstrated the potential to increase the mine life at Kemess by more than 10 years.

## Exploration

Exploration spending during 2004 is forecast to total \$2 million. Approximately half of this amount will be used to continue exploration of the claims surrounding the Kemess South mine and Kemess North deposit. This will include diamond drilling on the periphery of the Kemess South deposit and in the areas surrounding Kemess North and the Nugget Zone. In addition to diamond drilling, geophysical surveys will be conducted over the Kemess region and trenching and fieldwork will follow up on the promising showings identified during last year's prospecting campaign. The balance of the exploration budget will be allocated to the Hyland and Brenda properties, which are the subject of joint venture agreements, and any other opportunities that may arise during the year.

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Northgate Exploration Limited is a gold and copper mining company focused on operations and opportunities in North and South America. The Corporation's principal assets are the 300,000-ounce per year Kemess South mine in north-central British Columbia and the adjacent Kemess North deposit, which contains an indicated resource of 5.4 million ounces of gold and 2 billion pounds of copper and is currently the subject of a feasibility study. Northgate is listed on the Toronto Stock Exchange under the symbol NGX and on the American Stock Exchange under the symbol NXG.

This press release includes certain "forward-looking statements" within the meaning of section 21E of the *United States Securities Exchange Act* of 1934, as amended. Forward-looking statements include without limitation, statements regarding future production, potential mineralization and reserves, exploration results and future plans and objectives of Northgate Exploration Limited (Northgate). Forward-looking statements generally can be identified by the use of forward-looking terminology such as "may," "will," "expect," "intend," "estimate," "anticipate," "believe," or "continue" or the negative thereof or variations thereon or similar terminology. There can be no assurance that such statements will prove to be accurate and actual results and future events could differ materially from those anticipated in such statements. Important factors that could cause actual results to differ materially from Northgate's expectations are disclosed under the heading "Risk Factors" in Northgate's 2002 Annual Report and under the heading "Trends, Risks and Uncertainties" in Northgate's 2002 Annual Information Form (AIF) both of which are filed with Canadian regulators on SEDAR ([www.sedar.com](http://www.sedar.com)) and with the United States Securities and Exchange Commission ([www.sec.gov](http://www.sec.gov)).

For further information, please contact:

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