

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 October 2004.

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**Northgate Minerals Corporation**

(Translation of registrant's name into English)

815 Hornby Street, Suite 404  
Vancouver, British Columbia  
Canada V6Z 2E6

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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 Minerals Corporation

Date: October 20, 2004.

(signed)  
Jon Douglas  
Chief Financial Officer

# Joint News Release



**RIMFIRE**

MINERALS CORPORATION

Stock Symbol: **TSX: RFM**

Website: [www.rimfireminerals.com](http://www.rimfireminerals.com)



**Northgate Minerals Corporation**

Stock Symbols: **TSX: NGX, AMEX: NXG**

Website: [www.northgateminerals.com](http://www.northgateminerals.com)

## **Discovery of Native Silver at Surface at RDN and 2004 Drill Results Northgate Approves 2005 Exploration Program**

**VANCOUVER, October 20, 2004** – Rimfire Minerals Corporation and Northgate Minerals Corporation are pleased to provide a program update for the Companies' RDN project. Three target areas were tested with 2,499 metres of drilling in nine holes. Several precious metal bearing intervals were intersected; however these are interpreted as veins and breccias that are unlikely to have economic significance. The most important result of the program was the discovery of native silver at a volcanic/sediment contact in an area (Blind Fault) that has not been previously explored. This discovery, along with discovery of a gold and silver mineralized boulder in a second area (Arctic grid) that has only been superficially explored is very encouraging in such prospective rock types. On the basis of these discoveries, Northgate has committed to funding the 2005 exploration program with the aim of discovering a deposit similar to the Eskay Creek Mine, located 40 km to the south.

Christopher Rockingham, P.Geo. VP Business Development and Exploration for Northgate commented: "We are encouraged with the progress on the project to date and look forward to following up the new discoveries in 2005. Finding precious metal mineralization in unexplored areas is significant, as is the delineation of stratigraphy correlative to that at the Eskay Creek deposits. Our plan is to explore these new discoveries of precious metal mineralization and to continue to systematically drill test RDN's favourable stratigraphy".

The discovery of sediment-hosted silver-rich disseminated and veinlet-controlled mineralization in the Blind Fault area presents a new exploration target for the property. Sulphide mineralization is contained within sedimentary beds and chlorite-altered rhyolite flows positioned below pillow basalt flows. This geological setting, alteration style and sulphide veining of pyrite, chalcopyrite, and galena is consistent with a Volcanogenic Massive Sulphide (VMS) mineralizing system. Five outcrop grab samples at the sediment/volcanic contact collected over a 200 metre length assayed 140, 215, 263, 275, and 363 g/t silver with highly anomalous antimony, mercury, lead, and copper. High silver values are associated with tetrahedrite and native silver. Samples of the rhyolite bodies are also highly anomalous in silver with assays from 10-45 g/t silver.

The second area of interest is the Arctic Grid where previous reconnaissance work had identified felsic stratigraphy including low titanium rhyolites similar in composition to those at

the Eskay Creek deposits. This year's work at the Arctic Grid has shown that the favourable stratigraphy is more extensive than previously thought and the discovery of a mineralized felsic volcanic boulder (3.6 g/t gold, 12.9 g/t silver, 1.2% lead, 4.57% zinc) indicates mineralizing events occurred in the area. Detailed mapping, rock and soil sampling of both the Blind Fault and Arctic Grid areas will be undertaken in 2005 to further delineate and prioritize drill targets for the second phase drill program.

### **Drill Program Results:**

A total of nine holes and 2,499 metres of drilling were completed on the property, testing the Wedge Zone (6 holes), Jungle Anomaly area (1 hole) and Marcasite Gossan (2 holes).

#### **Wedge Zone**

At the Wedge Zone, drilling tested the target contact horizon between strongly altered, sulphide-bearing footwall dacite (felsic) volcanic rocks and hanging wall sedimentary rocks. The strongest mineralization and alteration was intersected in holes RDN04-31, RDN04-32, RDN04-33 and RDN04-35 which were drilled along strike to the north and south of a previous hole, RDN01-17. Hole RDN01-17 intersected 1.5 metres of siliceous, pyritic breccia assaying 3.75 g/t gold at the contact horizon. Significant intersections in the 2004 holes were restricted to the footwall-altered dacite volcanic rocks, occurring in quartz-carbonate veins (holes RDN04-32 and 33), and in a brecciated sulphide shear zone (hole RDN04-31).

#### **Wedge Zone - Significant Intercepts**

<b>Hole</b>	<b>From (m)</b>	<b>To (m)</b>	<b>Length (m)</b>	<b>Gold (g/t)</b>	<b>Silver (ppm)</b>	<b>Copper (ppm)</b>	<b>Lead (ppm)</b>	<b>Zinc (ppm)</b>
RDN04-31	58.60	62.75	4.15	1.46	14.0	530	7608	9495
RDN04-32	93.50	98.61	5.11	1.43	4.0	596	775	2258
RDN04-33	84.20	86.25	2.05	9.18	8.3	2498	1073	3770

#### **Jungle Anomaly**

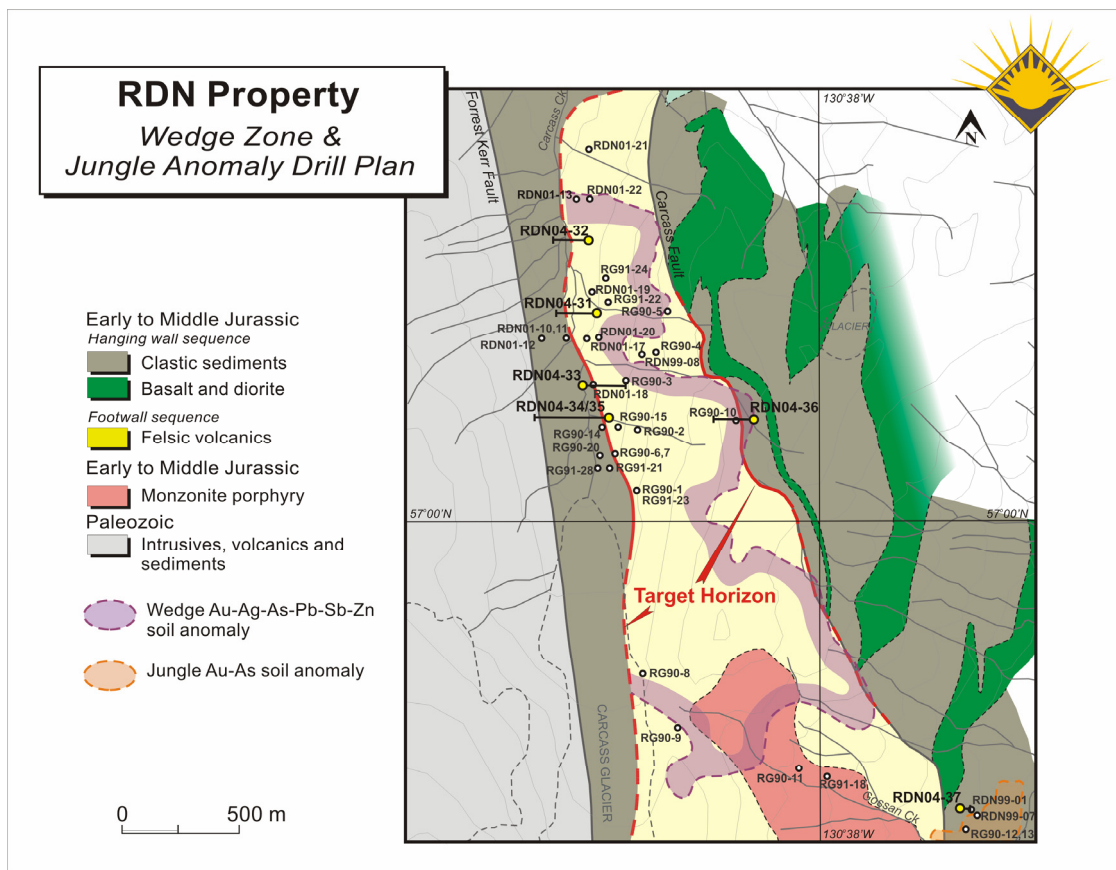
Drilling at the Jungle Anomaly targeted a 100 x 400 metre gold-arsenic soil geochemical anomaly underlain by favourable argillite/siltstone stratigraphy thought to be correlative with the hanging wall sequence at the Eskay Creek deposits. Hole RDN04-37 was drilled to a depth of 336.2 metres entirely within the hanging wall sequence and was stopped before reaching the sediment-felsic volcanic target horizon. RDN04-37 did intersect anomalous gold (58 – 649 ppb) and arsenic (102 – 664 ppm) values in argillite and mafic volcanic rocks near the top of the hole and has likely explained the source of the anomalous soil geochemistry.

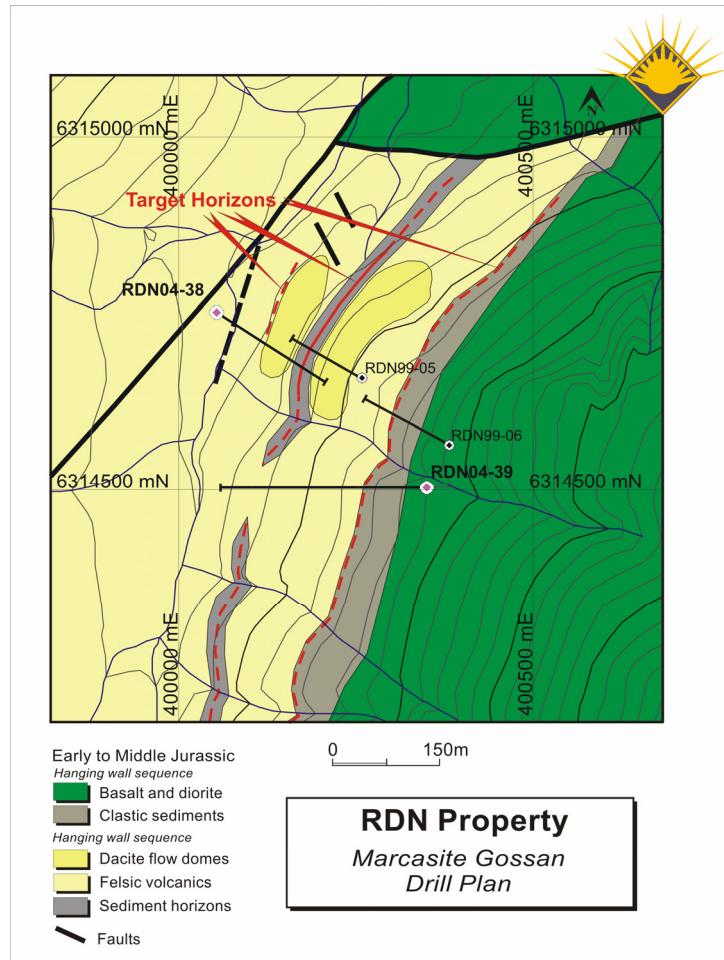
#### **Marcasite Gossan**

Holes RDN04-38 and -39 were drilled at the Marcasite Gossan. The holes targeted two shallow marine dacite flow domes, which have been altered and cut by stockwork alteration and mineralization, with overlying sedimentary rocks and pillow basalts. Thin beds of semi-massive pyrite that lie in graphitic argillite beds layered between the Upper Marcasite Gossan and basalts, provide a close analogy to the setting of the Eskay Creek deposit. Both holes intersected altered dacite volcanic rocks with elevated antimony and mercury values without significant gold intercepts.

### Drill Collar Locations

Hole Number	Area	East (NAD83)	North (NAD83)	Elev	Azimuth	Dip	Length
RDN04-31	Wedge	399878	6319465	1212	270	-55	251.46
RDN04-32	Wedge	399825	6319758	1192	270	-55	324.31
RDN04-33	Wedge	399810	6319195	1222	90	-45	205.44
RDN04-34	Wedge	399818	6319025	1240	270	-50	343.2
RDN04-35	Wedge	399818	6319025	1240	270	-85	48.16
RDN04-36	Wedge	400515	6319007	1625	270	-50	312.72
RDN04-37	Jungle	401343	6317345	1134	90	-85	336.19
RDN04-38	Marcasite Gossan	400055	6314750	1128	123	-45	242.62
RDN04-39	Marcasite Gossan	400351	6314501	1280	270	-55	434.64





The results of the 2004 program have been reviewed, verified and compiled by Rimfire's geological staff (which includes a qualified person, David Caulfield, P. Geo. President, CEO, for the purpose of National Instrument 43-101). Rimfire employs a rigorous quality assurance, quality control program described on the Company website at [www.rimfireminerals.com](http://www.rimfireminerals.com). Assays from the current program were completed at ALS Chemex in North Vancouver.

#### **About Rimfire:**

Rimfire is an aggressive, well-financed mineral exploration company with a portfolio of highly prospective gold and silver properties in British Columbia and Alaska. Partners include AngloGold (USA) Exploration Inc., Newmont Mining Company, Northgate Minerals Corporation, Cangold Limited, and Serengeti Resources Inc.

**About Northgate:**

Northgate Minerals Corporation is a gold and copper mining company focused on operations and opportunities in the Americas. The Corporation's principal assets are the 300,000-ounce per year Kemess mine in north-central British Columbia and the adjacent Kemess North deposit, which contains a Proven and Probable Reserve of 4.1 million ounces of gold. Northgate is listed on the Toronto Stock Exchange under the symbol NGX and on the American Stock Exchange under the symbol NXG.

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*The TSX Venture Exchange has not reviewed and does not accept responsibility for the adequacy or accuracy of the content of this news release.*

**Forward-Looking Statements**

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. These forward-looking statements include estimates, forecasts, and statements as to management's expectations with respect to, among other things, future metal production and production costs, potential mineralization and reserves, exploration results, progress in the development of mineral properties, demand and market outlook for commodities and future plans and objectives of Northgate Minerals Corporation (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. Forward-looking statements are necessarily based upon a number of estimates and assumptions that, while considered reasonable by management are inherently subject to significant business, economic and competitive uncertainties and contingencies. 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 2003 Annual Report and under the heading "Trends, Risks and Uncertainties" in Northgate's 2003 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)). Northgate expressly disclaims any intention or obligation to update or revise any forward-looking statements whether as a result of new information, future events or otherwise.

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