

NORTHERN DYNASTY MINERALS LTD  
Form 6-K  
February 12, 2007

**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  
of the Securities Exchange Act of 1934

CIK # 1164771

As at January 23, 2007

**NORTHERN DYNASTY MINERALS LTD.**

**800 West Pender Street, Suite 1020  
Vancouver, British Columbia  
Canada V6C 2V6**

Indicate by check mark whether the registrant files or will file annual reports under cover Form 20-F or Form 40-F.

Form 20-F...X.... 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): \_\_\_\_\_

Note: Regulation S-T Rule 101(b)(1) only permits the submission in paper of a Form 6-K if submitted solely to provide an attached annual report to security holders.

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7): \_\_\_\_\_

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 Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

By: /s/ Jeffrey R. Mason  
Director and Chief Financial Officer

Date: January 23, 2007

Print the name and title of the signing officer under his signature.

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**2006 DRILLING EXPANDS NORTHERN DYNASTY'S PEBBLE EAST DEPOSIT**

**PEBBLE EAST DEPOSIT NOW OVER 7000 FT BY 4000 FT WITH GRADES EXCEEDING 1% CUEQ**

***Company Outlines 2006 Programs and 2007 Plans to Further Advance One of  
North America 's Most Important Metal Deposits***

**January 23, 2007, Vancouver, BC** - Ronald W. Thiessen, President and CEO of Northern Dynasty Minerals Ltd. (TSXV:NDM;AMEX:NAK) is pleased to provide a summary of results from the Company's 2006 drill program and an update on other Pebble Project advancements.

Northern Dynasty's 2006 drill program was highly successful with 74,000 feet of core drilling completed in 19 holes (numbered 6338 through 6356). Drilling was focused on determining the overall size, copper-gold-molybdenum grade distribution and geometry of the world class Pebble East deposit discovery. Drill holes intersected long intervals of high-grade copper-gold-molybdenum mineralization, substantially expanding the Pebble East deposit beyond the boundaries of the previously announced 1.8 billion tonne inferred mineral resource. The north-south strike length of Pebble East has been extended to over 7000 feet in which the grades consistently exceed 1% copper equivalent. The deposit remains open for expansion to the north and to the south across a width exceeding 4000 feet. Importantly, significant amounts of high-grade copper minerals (predominantly bornite) were intersected in the northern most holes drilled (6341, 6346, 6350 and 6354) and also in holes near the southern most area drilled (6339, 6342, 6348, 6355). The presence of significant bornite mineralization in these holes indicates their proximity to mineralizing centers which are open to extension and appear to be strengthening to the north and to the south.

Internationally recognized consultants, Scott Wilson Roscoe Postle Associates Inc. have been contracted to audit a new resource estimate for Pebble East. This new estimate is expected in the next few weeks. Drilling is set to recommence in the first half of February 2007 after breaking for the holiday season. A high probability exists for the further expansion of copper-gold-molybdenum resources with additional drilling.

A Table of 2006 Pebble East Deposit Assay Results and a Drill Hole Location Plan Map are included with this news release and also posted on Northern Dynasty's website at [www.northerndynasty.com](http://www.northerndynasty.com).

Highlights from 2006 drill holes include:

- Hole 6338 intersected 1225 feet grading 1.29% copper equivalent (CuEQ<sup>1</sup>) comprising 0.45% Cu, 1.03 g/t Au, 0.040% Mo. Included in this intersection is a 527 foot interval grading 1.72% CuEQ (0.55% Cu, 1.64 g/t Au, 0.035% Mo).

- Hole 6339 intersected 2051 feet grading 1.32% CuEQ (0.84% Cu, 0.49 g/t Au, 0.032% Mo). Included in this intersection is a 661 foot interval grading 2.04% CuEQ (1.44% Cu, 0.78g/t Au, 0.024% Mo).

- Hole 6341 intersected 2330 feet grading 1.10% CuEQ (0.63% Cu, 0.27 g/t Au, and 0.052 Mo). Included in this intercept is a 360 foot interval grading 1.63% CuEQ (1.08 % Cu, 0.37 g/t Au, and 0.056% Mo).

- Hole 6348 intersected 949 feet grading 1.92% CuEQ (1.24% Cu, 0.74 g/t Au, 0.042% Mo) before the hole was unfortunately lost in high grade (1.82% CuEQ) mineralization. This hole is located at the southern end of the area drilled. Plans are to redrill this hole to deeper levels early in 2007 along with completing additional holes further to the south.

- Hole 6349 intersected 2153 feet grading 0.89% CuEQ (0.57% Cu, 0.28 g/t Au, 0.026% Mo). Including in this intersection is a 613 foot interval grading 1.10% CuEQ (0.80% Cu, 0.30 g/t, 0.021% Mo).

- Hole 6350 intersected 1457 feet grading 1.24% CuEQ (0.76% Cu, 0.46 g/t Au, 0.035% Mo) and is located at the northern margin of the area drilled. Included in this intersection is a 670 foot interval grading 1.53% CuEQ (0.89% Cu, 0.54 g/t Au, 0.055% Mo).

- Hole 6354, also located at the northern margin of the area drilled, intersected 705 feet grading 1.52% CuEQ (1.23% Cu, 0.29 g/t Au, 0.020% Mo). Included in this intersection is a 259 foot interval grading 1.82% CuEQ (1.43% Cu, 0.50 g/t Au, 0.016% Mo) and a 75 foot interval grading 2.37% CuEQ (1.92% Cu, 0.12 g/t Au, 0.064% Mo).

- Hole 6355 intersected 2252 feet grading 1.28% CuEQ (0.70% Cu, 0.53 g/t Au, 0.046% Mo). Included in this intersection is a 592 foot interval grading 1.42% CuEQ (0.52% Cu, 0.96 g/t Au, 0.057% Mo). This hole was unfortunately lost at 4047 feet in good grade (1.27% CuEQ) mineralization.

### ***2007 Drilling to Expand and Upgrade Engineering Status of Pebble East Resources***

Drilling is planned to re-commence at the Pebble Project site in the first half of February 2007. Drilling, helicopter and other ancillary contracts have already been executed. The program is planned to commence with 4 rigs, ramping up to 8 rigs by early April.

The 2007 program will focus on Pebble East and consist of two components: delineation drilling and infill drilling. Delineation drilling will contribute to further expansion of resources and the infill drilling will upgrade the classification of known mineralization. Delineation drilling in the order of 100,000 feet will focus on extending the Pebble East deposit to the north and south and also define its eastern and western limits.

Infill drilling, comprising approximately 150,000 feet, is also planned with the focus on upgrading the resource classification of the highest grade 1 billion tonnes of the deposit.

### ***Advancing Integrated Development Plan for Pebble Project***

The copper, gold and molybdenum resources of the open pit style Pebble West deposit and the underground style Pebble East deposit rank with the most important metal accumulations in the world. Northern Dynasty's goal is to optimize the design of the Pebble Project with regard to these mineral resources as well as social, environmental, and economic factors. Northern Dynasty has been engaged in comprehensive engineering, environmental and socioeconomic studies on the Pebble West deposit since 2004. The Company is now focused on thoroughly assessing Pebble East through drilling, engineering and environmental programs in order to integrate this exceptional discovery into an overall Integrated Development Plan that is optimal for a modern, long-life mine.

During 2006, preliminary engineering activities commenced to assess Pebble East as a potential underground mine. This work included detailed geotechnical logging of core holes and scoping-level assessment of mining options. In addition, metallurgical scoping level work was conducted on composites from Pebble East drill core. These results are very promising; with excellent copper (95%) and molybdenum (75%) recoveries and good gold (50%) recovery, to a high grade (32%) copper concentrate. The primary engineering objectives for 2007 will be to determine the optimum project alternatives and to have commenced the Integrated Development Plan engineering with a target for study completion by early 2008. To achieve the 2007 objectives, the key engineering tasks that have been identified are:

- Collect additional site and underground geotechnical data to support ongoing mine design work
- Complete pre-feasibility level metallurgical testwork on Pebble East to optimize conventional processing systems and designs
- Continue to assess the major infrastructure elements (access road, port and power) in order to establish the optimum alternatives and designs for these Project components
- Develop an optimum overall Project mine plan from the extensive mineral resources available.

### ***Ongoing Focus on Community Engagement and Environmental Planning***

Northern Dynasty's comprehensive environmental and socioeconomic study programs continued in 2006, along with its efforts to engage local communities, and other project stakeholders in an informed dialogue on the deposit geology, project design alternatives and the environmental studies. Over the past 12 months, more than 350 meetings have been facilitated with project stakeholders throughout the State of Alaska and the Company also continued its local hire/recruiting, workforce training, and local business development initiatives.

The Company has now completed three consecutive years of environmental and socio-economic baseline data studies. This work was undertaken by over 45 independent consulting firms, and expanded the geographic scope of its investigations to support Pebble East planning. Water rights applications were submitted to the Alaska Department of Natural Resources last fall in order to maintain Northern Dynasty's priority status. These applications will be processed during project permitting, which is planned to commence when the optimum project is designed.

Northern Dynasty has employed more than 100 local people in each of the last two years, and made significant expenditures on local goods, services and salaries. The Company has also secured positive working relationships with many local Native and community institutions, while supporting skills training, workforce and business development, local scholarships, search and rescue efforts, and other community initiatives. On-site training programs have enabled the Company to hire more local people and to advance

workers to positions requiring more skill and responsibility. Northern Dynasty's comprehensive environmental and socioeconomic study programs will continue in 2007.

***Advancing one of North America's Most Important Metal Deposits***

President Ron Thiessen stated: "In addition to our very active technical, environmental and social programs at Pebble, the Company is assessing the merits of building a consortium to permit, finance, construct and operate a modern, long-life, mine with substantial annual metal output. We expect that this process will be achieved successfully because the world-wide discovery rate of large copper deposits has declined significantly and the shortage of important, major-company-sized projects is likely to remain a critical issue for the world's large copper miners going forward."

Bob Dickinson, Northern Dynasty's Chairman commented: "Copper production in the United States is falling as major open pit copper mines in the southwest are being exhausted, yet the American public continues to demand the products that utilize this strategic metal. This gap between domestic demand and supply has led to a growing dependency on substantial imports of copper. As the world's developing economies utilize an increasing amount of copper, they are in direct competition for available copper. When combined with growing concerns about global security and the nationalization of resources in many places from which the United States acquires its supply, this presents a compelling case to establish new and secure sources of domestic supply. We believe that Pebble is a very important project because it meets both of these objectives: it is located on American soil and is large enough to meet a significant portion of the USA's requirements for copper, gold and molybdenum."

Mark Rebagliati, P.Eng., is the Qualified Person for the exploration and drilling programs for the Pebble Project and is supervising the quality control and quality assurance programs. Core logging and sampling are completed in Northern Dynasty's secure facility at Iliamna, Alaska. The NQ-size core is sawn and samples are transported to the ALS Chemex laboratory in Fairbanks for drying, weighing and crushing. Samples are shipped by airfreight to the main ALS Chemex laboratory, North Vancouver, Canada (an ISO 9003 certified laboratory) for final preparation and analysis. Gold is determined by 30 g Fire Assay (FA) fusion with an Atomic Absorption Spectroscopy (AAS) finish. Copper, molybdenum and 23 other elements are assayed by four acid digestion with an Inductively Coupled Plasma-Emission Spectroscopy (ICP-ES) finish. Northern Dynasty includes standards, duplicates and blanks in addition to the laboratory's internal quality control work. Duplicate samples are analyzed by Acme Analytical Laboratories of Vancouver, Canada.

For further details on Northern Dynasty and the Pebble Project please visit the Company's website at [www.northerndynasty.com](http://www.northerndynasty.com) or contact Investor Services at (604) 684-6365 or within North America at 1-800-667-2114. Review Canadian public filings at [www.sedar.com](http://www.sedar.com) and US public filings at [www.sec.gov](http://www.sec.gov).

On behalf of the Board of Directors

*Ronald W. Thiessen*  
President & CEO

Neither the TSX Venture Exchange nor any other regulatory authority accepts responsibility for the adequacy or accuracy of this release.

**Comments on Forward Looking Information, Estimates and other Cautionary Factors**

This release includes certain statements that may be deemed "forward-looking statements". All statements in this release, other

than statements of historical facts, especially those that address estimated resource quantities, grades and contained metals, are forward-looking statements because they are generally made on the basis of estimation and extrapolation from a limited number of drill holes and metallurgical studies. Although diamond drill hole core provides valuable information about the size, shape and geology of an exploration project, there will always remain a significant degree of uncertainty in connection with these valuation factors until a deposit has been extensively drilled on closely spaced centers which has occurred only in specific areas on the Pebble Project. Although the Company believes the expectations expressed in its forward-looking statements are based on reasonable assumptions, such statements should not be in any way construed as guarantees of the ultimate size, quality or commercial feasibility of the Pebble Project or of the Company's future performance. Subsequent results and developments may differ materially from those postulated in the estimates and forward-looking statements. Other factors that could cause the Company's actual results and performance to differ materially from those in forward-looking statements include adverse market prices for metals, the conclusions of detailed feasibility and technical analyses, lower than expected grades and quantities of resources, mining rates and metal recovery rates and the fact that necessary capital may not be available to the Company on terms acceptable to it or at all. The need for compliance with extensive environmental and socio-economic rules and practices and the requirement for the Company to obtain government permitting can cause a delay or even abandonment of a mineral project. The Company is subject to the specific risks inherent in the mining business as well as general economic and business conditions. For more information on the Company, Investors should review the Company's annual Form 20-F filing with the United States Securities and Exchange Commission and its home jurisdiction filings that are available at [www.sedar.com](http://www.sedar.com).

#### Information about CuEQ

Copper equivalency or "CuEQ" is a manner of expressing poly-metallic deposits as a grade of the principal mineralization (by value). As used herein, gold and molybdenum values have been expressed as part of the copper grade. CuEQ as calculated herein is based on assumed metal prices of US\$1.00/lb for copper, US\$400/oz for gold, and US\$6.00/lb for molybdenum. Copper equivalent has not been adjusted for metallurgical recoveries. Adjustment factors to account for differences in relative metallurgical recoveries for gold, copper and molybdenum depend upon the completion of definitive metallurgical testing. Significant shifts in the relative values of these metals can significantly change the CuEQ. CuEQ is provided for illustrative purposes only.

#### Information Concerning Estimates of Measured, Indicated and Inferred Resources

This news release also uses the terms "measured resources", "indicated resources" and "inferred resources". Northern Dynasty Minerals Ltd. advises investors that although these terms are recognized and required by Canadian regulations (under National Instrument 43-101 Standards of Disclosure for Mineral Projects), the U.S. Securities and Exchange Commission does not recognize them. Investors are cautioned not to assume that any part or all of the mineral deposits in these categories will ever be converted into reserves. In addition, "inferred resources" have a great amount of uncertainty as to their existence, and economic and legal feasibility. It cannot be assumed that all or any part of an Inferred Mineral Resource will ever be upgraded to a higher category. Under Canadian rules, estimates of Inferred Mineral Resources may not form the basis of feasibility or pre-feasibility studies, or economic studies except for Preliminary Assessment as defined under 43-101. Investors are cautioned not to assume that part or all of an inferred resource exists, or is economically or legally mineable

**TABLE OF 2006 PEBBLE EAST DEPOSIT ASSAY RESULTS**

Drill Hole Hole Number	Vertical Depth to Cretaceous (feet)	Hole Dip (degrees)	Hole Direction (degrees)		From (feet)	To (feet)	Intercept (feet)	Cu %	Au <sup>2</sup> g/t	Mo %	CuEQ <sup>1</sup> %
6338	1750	-80	270		1660	2885	1225	0.45	1.03	0.040	1.29
6338				incl.	1660	2348	688	0.53	1.41	0.032	1.54
6338				and	1821	2348	527	0.55	1.64	0.035	1.72
6338				and	2060	2348	288	0.49	2.12	0.032	1.92
6339	2284	-90	0		2284	4335	2051	0.84	0.49	0.032	1.32
6339				incl.	2284	3365	1081	1.12	0.69	0.025	1.67

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6339				and	2284	2945	661	1.44	0.78	0.024	2.04
6340	416	-90	0	Lost due to technical difficulties at 416 feet in Tertiary <sup>7</sup> - No assays							
6341	1463	-90	0		1463	3793	2330	0.63	0.27	0.052	1.10
6341				incl.	1565	2345	780	0.88	0.24	0.056	1.35
6341				and	1565	1925	360	1.08	0.37	0.056	1.63
6341				incl.	3035	3365	330	0.70	0.78	0.053	1.47
6342	1396	-90	0		1396	2566	1170	0.73	0.37	0.036	1.16
6342				incl.	1396	2075	679	0.81	0.44	0.040	1.30
6343	4630	-80	270	Anomalous Results							
6344	3821	-90	0	Anomalous Results (Grade Increasing at Depth)							
6345	3227+	-90	0	Lost due to technical difficulties at 3227 feet in Tertiary <sup>7</sup> - No Assays							
6346	1393	-90	0		2705	3975	1270	0.72	0.16	0.020	0.93
6346				incl.	3585	3965	380	0.85	0.33	0.038	1.27
6346				and	3785	3965	180	1.04	0.41	0.053	1.60
6347	4405	-90	0	Intersected Post Mineral Intrusion Below Tertiary <sup>7</sup>							
6348 <sup>3</sup>	4715	-90	0		4715	5663	949	1.24	0.74	0.042	1.92
6349 <sup>2</sup>	1522	-90	0		1520	3673	2153	0.57	0.28	0.026	0.89
6349 <sup>2</sup>				incl.	1520	2133	613	0.80	0.30	0.021	1.10
6350 <sup>3</sup>	1436	-90	0	incl.	2028	4098	2070	0.60	0.37	0.033	1.02
6350 <sup>3</sup>					2028	3485	1457	0.76	0.46	0.035	1.24
6350 <sup>3</sup>				and	2778	3448	670	0.89	0.54	0.055	1.53
6351	402	-90	0	Anomalous Results							
6352	1196+	-90	0	Lost due to technical difficulties at 1196 feet in Tertiary <sup>7</sup> - No Assays							
6353	4000+	-85	355	Lost due to technical difficulties at 4016 feet in Tertiary <sup>7</sup> - No Assays							
6354 <sup>4</sup>	1284	-90	0		3685	4390	705	1.23	0.29	0.020	1.52
6354 <sup>4</sup>				incl.	3685	3760	75	1.92	0.12	0.064	2.37

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6354 <sup>4</sup>				incl.	4039	4298	259	1.43	0.50	0.016	1.82
6355 <sup>5</sup>	1780	-90	0		1795	4047	2252	0.70	0.53	0.046	1.28
6355 <sup>5</sup>				incl.	1885	2375	490	0.94	0.26	0.047	1.37
6355 <sup>5</sup>				incl.	3455	4047	592	0.52	0.96	0.057	1.42
6356 <sup>6</sup>	Unknown	-80	019	Drilling of this hole suspended for holiday break at 923 feet in Tertiary <sup>7</sup>							

<sup>1</sup> Copper equivalent calculations use metal prices of US\$1.00/lb for copper, US\$400/oz for gold and US\$6.00/lb for molybdenum.

$CuEQ = Cu \% + (Au \text{ g/t} \times 12.86/22.05) + (Mo \% \times 132.28/22.05)$

<sup>2</sup> Au values > 5.0 g/t capped at 5.0 g/t

<sup>3</sup> Hole 6348 unfortunately lost due to technical difficulties at 5663 feet with bottom 100 feet averaging 1.82% CuEQ

<sup>4</sup> Drilling of Hole 6354 suspended at 4749 feet for December holiday break - to be continued in 2007

<sup>5</sup> Hole 6355 unfortunately lost due to technical difficulties at 4047 feet with bottom 100 feet averaging 1.27% CuEQ.

<sup>6</sup> Drilling of Hole 6356 suspended at 923 feet for December holiday break - to be continued in 2007

<sup>7</sup> Tertiary is a general term, used to refer to the (age of) rocks that overlie those which host the Pebble East deposit.



