

NORTHERN DYNASTY MINERALS LTD  
Form 6-K  
February 03, 2010

**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 February 1, 2010

**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..... Form 40-F.... **X**.....

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-

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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/ Marchand Snyman  
Director and Chief Financial Officer

Date: February 3, 2010

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

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**Updated Mineral Resource Estimate Confirms the Pebble Project as North America's  
Most Important New Copper-Gold-Molybdenum Development Opportunity**

**February 1, 2010, Vancouver, BC** - Northern Dynasty Minerals Ltd. (TSX: NDM; NYSE Amex: NAK) announces that the Pebble Limited Partnership ("PLP" or the "Pebble Partnership") has provided an updated mineral resource estimate for southwest Alaska's Pebble Project, confirming it as one of the world's most significant undeveloped copper-gold-molybdenum porphyry deposits and North America's most important mineral development opportunity.

Additional core drilling conducted at the Pebble Project site has verified the grade and distribution of mineralization in the high-grade eastern portion of the deposit, while substantially increasing the amount of contained metal and upgrading the confidence classification. The new drill results, in concert with revised economic parameters, have resulted in an improved mineral resource estimate for the Pebble deposit.

The new Pebble resource estimate is based on 509 core holes, including 37 new holes drilled since mid-2008, and updates the estimate released on December 4, 2008. The new estimate represents a 17% increase in resources within higher confidence measured and indicated categories, and a 12%, 14% and 16% increase in contained copper, gold and molybdenum, respectively.

"The quantity, grade and continuity of mineralization at Pebble, as well as the fact that more than 55% of the resource is now classified in measured and indicated categories, demonstrate the project's potential to be one of the great metal producers of the 21<sup>st</sup> century," said Northern Dynasty President & CEO Ron Thiessen. "Based on this estimate, the Pebble Project has further entrenched its status among the top-tier of global copper and molybdenum resources, and the most significant undeveloped gold resource in the world."

Mineral resources are reported at various cut-off grades as presented in the Table of Pebble Deposit Mineral Resources - January 2010 below.

At a 0.30% copper equivalent (CuEQ, see Note 1) cut-off, the Pebble Deposit Mineral Resources comprise:

- 5.94 billion tonnes of Measured and Indicated Mineral Resources grading 0.78% CuEQ, containing 55 billion pounds of copper, 67 million ounces of gold, and 3.3 billion pounds of molybdenum; and
- 4.84 billion tonnes of Inferred Mineral Resources grading 0.53% CuEQ, containing 25.6 billion pounds of copper, 40.4 million ounces of gold, and 2.3 billion pounds of molybdenum.

The estimate was prepared for the Pebble Partnership. David Gaunt, P.Geo., a qualified person as defined under 43-101 who is not independent of Northern Dynasty, is responsible for the estimate. He has reviewed the contents of this release. A technical report providing details of the estimate will be filed on [www.sedar.com](http://www.sedar.com) within 45 days.

The Pebble Project is located in southwest Alaska on state land designated for mineral exploration and development. It is situated approximately 1,000 feet above sea-level, 65 miles from tidewater on Cook Inlet and presents favourable conditions for successful mine site and infrastructure development. The Pebble Partnership is working to advance a Prefeasibility Study for the Pebble Project and preparing to initiate project permitting under the National Environmental Policy Act (NEPA) in 2011, a process estimated to take 2 - 3 years to complete.

The Pebble Partnership was established in July 2007 as a 50:50 partnership between a wholly-owned affiliate of Northern Dynasty and a wholly-owned subsidiary of Anglo American plc. To retain a 50% interest, Anglo American is required to invest US\$1.425 to \$1.5 billion to advance the Pebble Project toward permitting and operations.

**PEBBLE DEPOSIT MINERAL RESOURCES - JANUARY 2010**

**MEASURED MINERAL RESOURCES**

| Cut-Off | Size        | Grade |          |        |       | Contained Metal |           |         |
|---------|-------------|-------|----------|--------|-------|-----------------|-----------|---------|
| CuEQ %  | Tonnage     | Cu %  | Gold g/t | Mo ppm | CuEQ% | Copper B lb     | Gold M oz | Mo B lb |
| 0.30    | 527,000,000 | 0.33  | 0.35     | 178    | 0.65  | 3.8             | 5.9       | 0.21    |
| 0.40    | 508,000,000 | 0.34  | 0.36     | 180    | 0.66  | 3.8             | 5.9       | 0.20    |
| 0.60    | 277,000,000 | 0.40  | 0.42     | 203    | 0.77  | 2.4             | 3.7       | 0.12    |
| 1.00    | 27,000,000  | 0.62  | 0.62     | 301    | 1.16  | 0.4             | 0.5       | 0.02    |

**INDICATED MINERAL RESOURCES**

| Cut-Off | Size          | Grade |          |        |       | Contained Metal |           |         |
|---------|---------------|-------|----------|--------|-------|-----------------|-----------|---------|
| CuEQ %  | Tonnage       | Cu %  | Gold g/t | Mo ppm | CuEQ% | Copper B lb     | Gold M oz | Mo B lb |
| 0.30    | 5,414,000,000 | 0.43  | 0.35     | 257    | 0.80  | 51.3            | 60.9      | 3.07    |
| 0.40    | 4,891,000,000 | 0.46  | 0.36     | 268    | 0.85  | 49.6            | 56.6      | 2.89    |
| 0.60    | 3,391,000,000 | 0.56  | 0.41     | 301    | 1.00  | 41.9            | 44.7      | 2.25    |

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|      |               |      |      |     |      |      |      |      |
|------|---------------|------|------|-----|------|------|------|------|
| 1.00 | 1,422,000,000 | 0.77 | 0.51 | 342 | 1.30 | 24.1 | 23.3 | 1.07 |
|------|---------------|------|------|-----|------|------|------|------|

**MEASURED + INDICATED MINERAL RESOURCES**

| Cut-Off | Size          | Grade |          |        |        | Contained Metal |           |         |
|---------|---------------|-------|----------|--------|--------|-----------------|-----------|---------|
| CuEQ %  | Tonnage       | Cu %  | Gold g/t | Mo ppm | CuEQ % | Copper B lb     | Gold M oz | Mo B lb |
| 0.30    | 5,942,000,000 | 0.42  | 0.35     | 250    | 0.78   | 55.0            | 66.9      | 3.28    |
| 0.40    | 5,399,000,000 | 0.45  | 0.36     | 260    | 0.83   | 53.6            | 62.5      | 3.09    |
| 0.60    | 3,668,000,000 | 0.55  | 0.41     | 293    | 0.98   | 44.5            | 48.3      | 2.37    |
| 1.00    | 1,449,000,000 | 0.76  | 0.52     | 341    | 1.29   | 24.3            | 24.2      | 1.09    |

**INFERRED MINERAL RESOURCES**

| Cut-Off | Size          | Grade |          |        |        | Contained Metal |           |         |
|---------|---------------|-------|----------|--------|--------|-----------------|-----------|---------|
| CuEQ %  | Tonnage       | Cu %  | Gold g/t | Mo ppm | CuEQ % | Copper B lb     | Gold M oz | Mo B lb |
| 0.30    | 4,835,000,000 | 0.24  | 0.26     | 215    | 0.53   | 25.6            | 40.4      | 2.29    |
| 0.40    | 2,845,000,000 | 0.32  | 0.30     | 259    | 0.66   | 20.1            | 27.4      | 1.62    |
| 0.60    | 1,322,000,000 | 0.48  | 0.37     | 289    | 0.89   | 14.0            | 15.7      | 0.84    |
| 1.00    | 353,000,000   | 0.69  | 0.45     | 379    | 1.20   | 5.4             | 5.1       | 0.29    |

**Note 1** Copper equivalent calculations used metal prices of US\$1.85/lb for copper, US\$902/oz for gold and US\$12.50/lb for molybdenum, and metallurgical recoveries of 85% for copper, 69.6% for gold, and 77.8% for molybdenum in the Pebble West area and 89.3% for copper, 76.8% for gold, 83.7% for molybdenum in the Pebble East area. Recovery values reflect average results of metallurgical testwork completed to date and are subject to revision pending ongoing metallurgical studies. Revenue is calculated for each metal based on grades, recoveries and selected metal prices: accumulated revenues are then divided by the revenue at 1% copper. Recoveries for gold and molybdenum are normalized to the copper recovery as show below:

$$\text{CuEQ (Pebble West)} = \text{Cu \%} + (\text{Au g/t} \times 69.6\%/85\% \times 29.00/40.79) + (\text{Mo \%} \times 77.8\%/85\% \times 275.58/40.79)$$

$$\text{CuEQ (Pebble East)} = \text{Cu \%} + (\text{Au g/t} \times 76.8\%/89.3\% \times 29.00/40.79) + (\text{Mo \%} \times 83.7\%/89.3\% \times 275.58/40.79)$$

**Note 2** By prescribed definition, "Mineral Resources" do not have demonstrated economic viability. An Inferred Mineral Resource is that part of a mineral resource for which quantity and grade can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity. The mineral resources fall within a volume or shell defined by long-term metal price estimates of US\$2.50/lb for copper, US\$900/oz for gold and US\$25/lb for molybdenum.

**Note 3** For bulk underground mining, cut-offs such as 0.60% CuEQ, are typically used for porphyry deposit bulk underground mining operations at copper porphyry deposits located around the world. A 0.30% CuEQ cut-off is considered to be comparable to that used for porphyry deposit open pit mining operations in the Americas.

**Note 4** All mineral resource estimates, cut-offs and metallurgical recoveries are subject to a feasibility study.

For further details on Northern Dynasty 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).

*Ronald W. Thiessen*  
President and CEO

ALS Chemex in North Vancouver, Canada (an ISO 9003 certified facility) is the main laboratory for the analysis of drill core samples from the Pebble Project. Duplicate samples are analyzed by Acme Analytical Laboratories of Vancouver, Canada.

#### **Sole Responsibility**

No regulatory authority accepts responsibility for the adequacy or accuracy of this release.

Northern Dynasty is solely and entirely responsible for the contents of this news release. No other party, including any parties which have an interest in the project, are in any way responsible for the contents hereof.

#### **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. The likelihood of future mining at the Pebble Project is subject to a large number of risks and will require achievement of a number of technical, economic and legal objectives, including obtaining necessary mining and construction permits, completion of pre-feasibility and final feasibility studies, preparation of all necessary engineering for underground workings and processing facilities as well as receipt of significant additional financing to fund these objectives as well as funding mine construction. Such funding may not be available to the Company on acceptable terms or on any terms at all. There is no known ore at the Pebble Project and there is no assurance that the mineralization at the Pebble Project will ever be classified as ore. 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 also 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 40-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 polymetallic 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 is provided for illustrative purposes only.

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

This news release 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.