# TECHNICAL REPORT ON THE PEBBLE DEPOSIT, ALASKA, USA

# PREPARED FOR NORTHERN DYNASTY MINERALS LTD.



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#### **Authors:**

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### 1 SUMMARY

Roscoe Postle Associates Inc. (RPA) has been retained by Northern Dynasty Minerals Ltd. (NDM) to prepare a Mineral Resource estimate for the Pebble Au-Cu-Mo-Ag deposit and prepare an Independent Technical Report compliant with NI 43-101. RPA retained R. Mohan Srivastava, M.Sc., P. Geo., of FSS Canada Consultants Inc. (FSS) to guide the geostatistical analyses, configure and carry out the grade interpolations, and validate the block models.

Grade estimation was carried out using FSS in-house software, and checked and validated using GEMS (Gemcom). Solids models were constructed by NDM using Vulcan. Grade estimation for Cu, Au, and Mo were carried out using Multiple Indicator Kriging (MIK), and estimation of Ag was carried out using Inverse Distance weighting to the third power (ID3).

The Pebble property comprises a block of 1,158 mineral claims totalling 87.3 sq mi (226 km²) located 17 mi (27 km) NW of the village of Iliamna, Alaska. The Pebble deposit is located mostly within what is termed the "Resource Lands", surrounded by the "Exploration Lands". The property is owned 100% by NDM, and Teck Cominco holds a 5% Net Profits Royalty on the Exploration Lands.

The Pebble deposit is a calc-alkalic Cu-Au-Mo-Ag-bearing porphyry system associated with granodiorite to quartz monzonite stocks and related sills which have intruded relatively flat-lying and undeformed Cretaceous sedimentary rocks. Sulphide mineralization, consisting principally of pyrite, chalcopyrite and molybdenite, occurs in zones of strong potassium-silicate alteration in and disseminated adjacent to quartz-vein stockworks in all rock types. The Pebble deposit, as presently defined by drilling, is a broad horizontal slab-like body measuring approximately 12,000 ft across, and averaging approximately 1000 ft thick.

Detailed property description, including the geology, deposit type, mineralization, and history can be obtained from in the 2003 Summary Report on the Pebble Porphyry Gold-Copper Project (Haslinger, et al., 2004), which is available to the public on SEDAR (<a href="http://www.sedar.com">http://www.sedar.com</a>).

During 2004, NDM drilled 227 holes totalling 162,509 ft (49,550 m) bringing the sum of all drilling on the property to 346,557 ft (105,625 m) in 526 holes. The majority of the drilling was conducted to further define and upgrade the Mineral Resources within the Pebble deposit. Drilling was also carried out to acquire metallurgical samples, carry out geotechnical evaluation of soils, collect oriented core for geotechnical structural studies, as well as to continue exploration work on targets outside of the Pebble deposit area.

The 2004 drilling program identified a new porphyry zone located to the east of the main Pebble deposit (East Zone).

RPA reviewed the core handling, logging, sampling and assaying protocols as well as the assay QA/QC data for the project. In RPA's opinion, all aspects of the drilling and sampling in 2004 were carried out according to commonly-accepted industry standards. RPA also validated and verified the drill database, and confirmed that it was suitable for use in estimation of Mineral Resources.

RPA has carried out an update of the Mineral Resources estimate for the Pebble deposit, using the drill results collected by NDM and Teck Cominco. The estimate was conducted using a block model constrained by wireframe solid models. Grade interpolation for Au, Cu, and Mo was done using Multiple Indicator Kriging (MIK). Interpolation for Ag was done using Inverse Distance weighting to the third power (ID3). The grade interpolation was carried out using in-house software belonging to FSS Canada, and checked using GEMS.

The variogram model, search, and general estimation parameters for the MIK estimates were derived by Mohan Srivastava of FSS. Mr. Srivastava also carried out the kriging and performed the post-processing. RPA conducted the ID3 estimate for Ag as well as an ID3 check of the MIK models. Both RPA and FSS conducted validation exercises on the block models. FSS used in-house software for the MIK estimates, and RPA used GEMS (GEMS version 5.44).

The 2004 drilling program was successful in upgrading Mineral Resources to the Measured and Indicated categories. Classification was carried out in two steps. The first step consisted of assigning an integer code to the blocks depending on the number of composites and average distance to composites for each block estimate. This classification assignment was carried out according to the following rules:

The second step was a manual adjustment to trim outlying isolated blocks and consolidate the Measured Resources into coherent, solid masses.

The Mineral Resources estimate results at a range of cut-off grades is provided in Table 1-1.

TABLE 1-1 MINERAL RESOURCES ESTIMATE (METRIC)
Northern Dynasty Minerals Ltd. Pebble Project

#### **MEASURED RESOURCES**

<b>Cut-Off</b>	Tonnes	Cu	Au	Мо	Ag	CuEq	Cu	Au	Мо	Ag
(%CuEq)	MT	(%)	(g/t)	(%)	(g/t)	(%)	(KT)	(T)	(KT)	(T)
0.3	711	0.326	0.355	0.016	1.647	0.632	2,320	0.25	116	1.17
0.4	655	0.339	0.368	0.017	1.677	0.655	2,221	0.24	111	1.10
0.5	525	0.367	0.395	0.018	1.754	0.704	1,929	0.21	94	0.92
0.6	355	0.411	0.432	0.019	1.875	0.778	1,462	0.15	68	0.67
0.7	214	0.465	0.474	0.021	1.995	0.866	995	0.10	44	0.43

#### **INDICATED RESOURCES**

<b>Cut-Off</b>	Tonnes	Cu	Au	Мо	Ag	CuEq	Cu	Au	Мо	Ag
(%CuEq)	MT	(%)	(g/t)	(%)	(g/t)	(%)	(KT)	(T)	(KT)	(T)
0.3	2,315	0.267	0.311	0.014	1.388	0.536	6,193	0.72	334	3.21
0.4	1,757	0.300	0.341	0.016	1.478	0.594	5,278	0.60	277	2.60
0.5	1,103	0.347	0.391	0.017	1.594	0.679	3,827	0.43	192	1.76
0.6	615	0.404	0.452	0.020	1.703	0.787	2,480	0.28	122	1.05
0.7	356	0.463	0.514	0.021	1.811	0.891	1,645	0.18	76	0.64

#### **MEASURED PLUS INDICATED RESOURCES**

Cut-Off	Tonnes	Cu	Au	Мо	Ag	CuEq	Cu	Au	Мо	Ag
(%CuEq)	MT	(%)	(g/t)	(%)	(g/t)	(%)	(KT)	(T)	(KT)	(T)
0.3	3,026	0.281	0.322	0.015	1.449	0.558	8,512	0.974	450	4.38
0.4	2,413	0.311	0.348	0.016	1.532	0.610	7,498	0.840	388	3.70
0.5	1,628	0.354	0.392	0.018	1.646	0.688	5,756	0.638	285	2.68
0.6	970	0.406	0.445	0.020	1.766	0.784	3,943	0.432	190	1.71
0.7	569	0.464	0.499	0.021	1.880	0.881	2,640	0.284	120	1.07

#### **INFERRED RESOURCES**

Cut-Off	Tonnes	Cu	Au	Мо	Ag	CuEq	Cu	Au	Мо	Ag
(%CuEq)	MT	(%)	(g/t)	(%)	(g/t)	(%)	(KT)	(T)	(KT)	(T)
0.3	1,133	0.235	0.297	0.014	1.091	0.495	2,660	0.34	164	1.24
0.4	756	0.271	0.339	0.017	1.153	0.569	2,049	0.26	126	0.87
0.5	417	0.312	0.418	0.018	1.162	0.666	1,302	0.17	76	0.48
0.6	226	0.363	0.490	0.020	1.164	0.771	821	0.11	46	0.26
0.7	143	0.402	0.556	0.020	1.203	0.846	576	0.08	28	0.17

## 2 INTRODUCTION AND TERMS OF REFERENCE

Roscoe Postle Associates Inc. (RPA) has been retained by Northern Dynasty Minerals Ltd. (NDM) to prepare a Mineral Resource estimate for the Pebble Au-Cu-Mo-Ag deposit and prepare an Independent Technical Report compliant with NI 43-101. RPA understands that this report will be filed with the British Columbia and Alberta Securities Commissions in support of the statement of Mineral Resources on the property.

In addition to the Mineral Resources estimate, project work included the following:

- ∉ validation of the drilling database as supplied by NDM.
- ∉ review of assay QA/QC results.
- ∉ review of the geological interpretation carried out by NDM personnel.
- ∉ inspection and validation of the 3D wireframe models constructed by NDM personnel.
- ∉ statistical and geostatistical analyses of the drilling data.

RPA retained R. Mohan Srivastava, M.Sc., P. Geo., of FSS Canada Consultants Inc. (FSS) to guide the geostatistical analyses, configure and carry out the grade interpolations, and validate the block models. Grade estimation was carried out using FSS in-house software, and checked and validated using GEMS (Gemcom). Solids models were constructed by NDM using Vulcan. Grade estimation for Cu, Au, and Mo were carried out using Multiple Indicator Kriging (MIK), and estimation of Ag was carried out using Inverse Distance weighting to the third power (ID3).

David Rennie, P. Eng., a geological engineer employed by RPA, carried out a site visit on October 4-6, 2004. During the site visit, independent samples were taken from the diamond drill core, interviews were conducted with site personnel, core-handling and

sampling procedures were inspected, as were both active and abandoned drill sites. Discussions were held on site and in the Vancouver office with NDM geological and engineering staff. The various technical reports provided by NDM, in addition to the public documents that were reviewed, are listed in the Reference Section.

The property has been the subject of 43-101 Technical Reports in the past and these reports are available to the public on SEDAR. Reference is made to these reports in the Property Description and Location; Accessibility, Climate, etc.; History; and Geological Setting sections of this report. Specifically, the referenced reports are:

Haslinger, R. J., Payne, J. G., Price, S., and Rebagliati, C. M.; May 31, 2004; 2003 Summary Report on the Pebble Porphyry Gold-Copper Project.

Norwest Corporation, February 20, 2004; Resource Estimate, Pebble Copper Gold Project, Iliamna Lake Area, Alaska.

An unreleased draft version of a report entitled 2004 Summary Report on the Pebble Porphyry Gold-Copper Project was provided for reference, as well.

Currencies are US Dollars unless otherwise stated. The Pebble property resides in a jurisdiction within which Imperial units of measure are used. Land surveys and distances are quoted in Imperial measure as are precious metal grades. Measurements are quoted in this report in the units in which they were first collected, which in this case are Imperial units. Since this report is intended for filing with Canadian regulatory agencies, final reporting of Mineral Resources has been done in metric units.

#### **LIST OF ABBREVIATIONS**

°C degree Celsius         kPa kilopascal           °F degree Fahrenheit         kVA kilovolt-amperes           og microgram         kW kilowatt           A ampere         kWh kilowatt           A annum         L liter           m³/h cubic metres per hour         L liter           CFM cubic metres per minute         M metre           Bbl barrels         M mega (million)           Btu British thermal units         m² square metre           C\$ Canadian dollars         m³ cubic metre           Cal calorie         Min minute           Cm centimetre         Masl metres above sea level           cm² square centimetre         Mm millimetre           D day         Mph mile per hour           dia. diameter         MVA megavolt-amperes           Dmt dy metric tonne         MW megawatt-hour           Dwt dead-weight ton         MWh megawatt-hour           ft/s foot per second         opt, oz/st           ft/s foot per second         opt, oz/st           ft² square foot         Oz           ft³ cubic foot         oz/dmt           G giga (billion)         Psia         pound per square inch absolute           Gal Imperial gallons per minute         Stpa         short ton           g/f	σ	micron	km <sup>2</sup>	square kilometre
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Km kilometre Yr year	Kcal		Wmt	wet metric tonne
Km kilometre Yr year	Kg	kilogram	yd <sup>3</sup>	cubic yard
kili/ii kilometre per nodi	km/h	kilometre per hour		•

All monetary units in this report are US\$ unless otherwise specified.

## **3 DISCLAIMER**

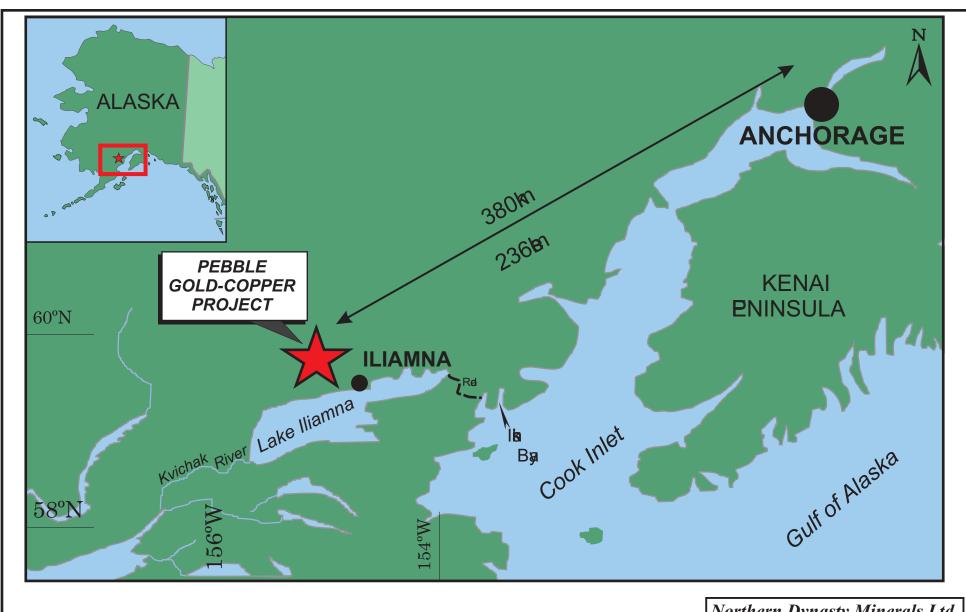
This report has been prepared by RPA for NDM. The information, conclusions, opinions, and estimates contained herein are based upon:

- o Information available to RPA at the time of preparation of this report,
- o Assumptions, conditions, and qualifications as set forth in this report, and,
- Data, reports, and opinions supplied by NDM and other third party sources listed as references.

## **4 PROPERTY DESCRIPTION AND LOCATION**

The Pebble property comprises a block of 1,158 mineral claims totalling 87.3 sq mi (226 km²) located 17 mi (27 km) NW of the village of Iliamna, Alaska. A complete description of the property can be found in the 2003 Summary Report on the Pebble Porphyry Gold-Copper Project (Haslinger, et al., 2004), which is available to the public on SEDAR (http://www.sedar.com).

In November 2004, subsequent to the issuing of the 2004 Haslinger report, NDM exercised its option to purchase an 80% interest in the Resource Lands portion of the Pebble property. NDM purchased the remaining 20% interest in the Resource Lands from Hunter Dickinson Group Inc. in March 2005. NDM now owns 100% of both the Resource Lands and Exploration Lands. Teck Cominco retains a 5% Net Profits Royalty on the Exploration Lands portion.





Northern Dynasty Minerals Ltd.

Pebble Project

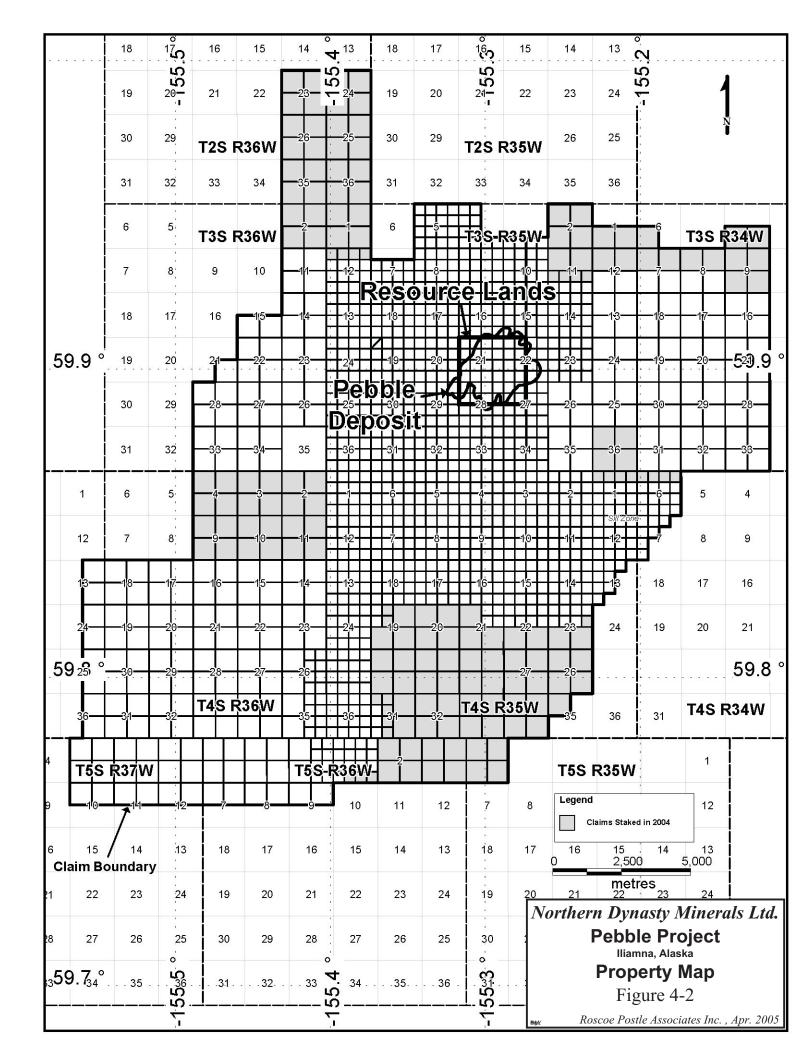
Iliamna, Alaska

Location Map

Figure 4, 1

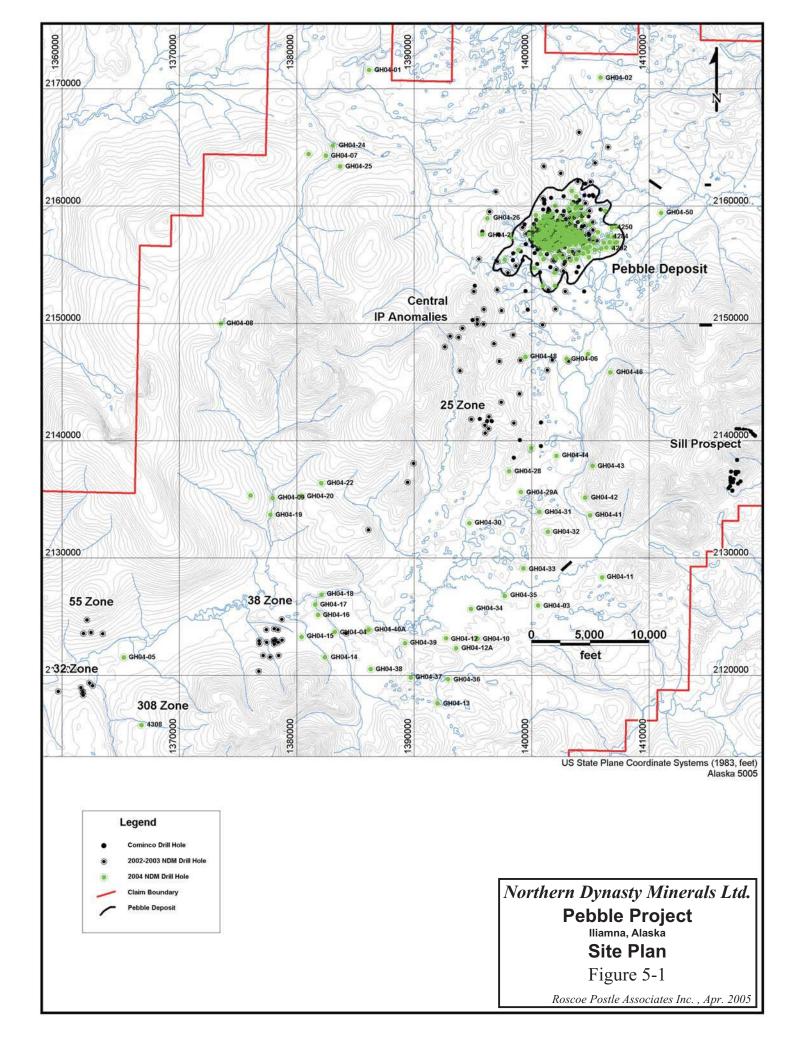
Figure 4-1

Roscoe Postle Associates Inc., Apr. 2005



## 5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

This is described in the 2003 Summary Report on the Pebble Porphyry Gold-Copper Project (Haslinger, et al., 2004), which is available to the public on SEDAR (<a href="http://www.sedar.com">http://www.sedar.com</a>).



## **6 HISTORY**

The history of the property is described in some detail in the 2003 Summary Report on the Pebble Porphyry Gold-Copper Project (Haslinger, et al., 2004), which is available to the public on SEDAR (<a href="http://www.sedar.com">http://www.sedar.com</a>). Significant historical events occurring since the completion of the 2003 Summary Report are described below.

To the end of 2003, diamond drilling at Pebble totaled 184,047 ft (56,095 m) in 295 holes. In 2004, NDM updated the Mineral Resource estimate using the drilling results from the previous year's programs. This estimate was carried out by Norwest Corporation and totalled 2.737 billion tonnes in the Inferred category, grading 0.27% Cu, 0.30 g/t Au, and 0.015% Mo. The Mineral Resource was quoted using a 0.30% Cuequivalent (CuEq) cut-off.

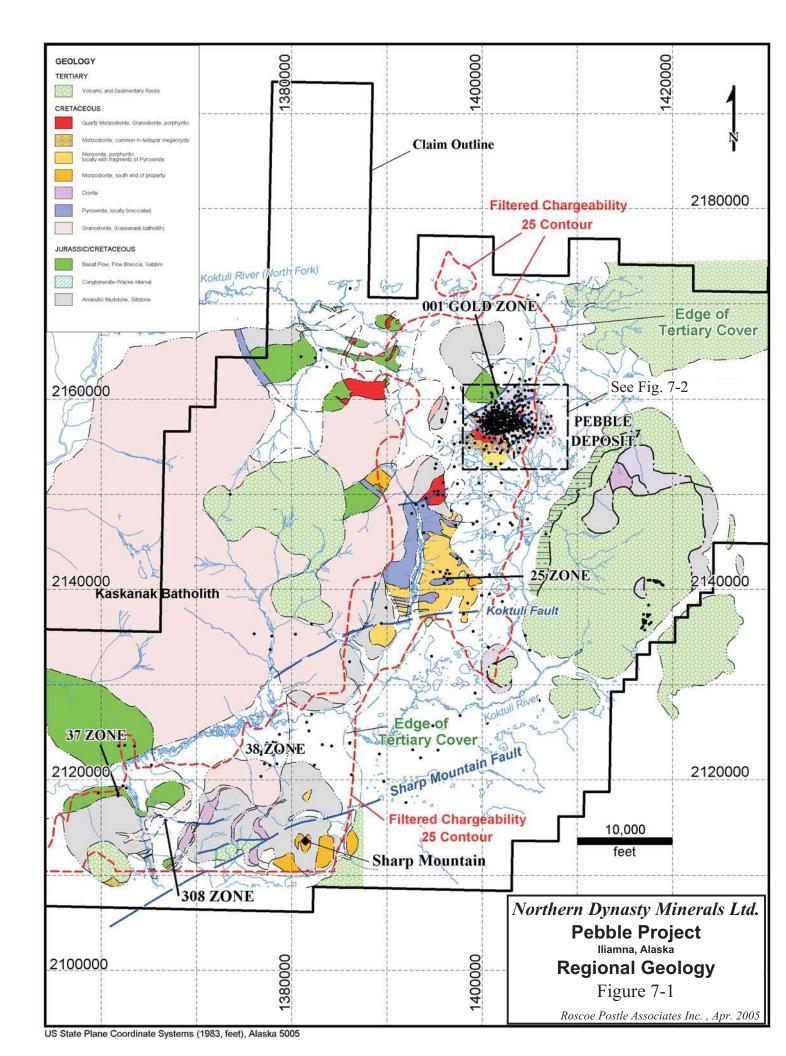
NDM resumed diamond drilling in 2004 to better define and upgrade the Inferred Resources and explore extensions to the known mineralization. An additional 227 holes totalling 162,510 ft (49,550m) were drilled for a variety of purposes including exploration, resource definition, metallurgical sampling, and geotechnical testing. The drilling is described in more detail in the section of this report entitled Drilling.

Under the terms of the tenure agreements between NDM and Teck Cominco American Incorporated (Teck Cominco), NDM exercised its option to purchase an 80% interest in the Resource Lands portion of the Pebble property in November 2004. This gave NDM the right to acquire Teck Cominco's 50% interest in the surrounding Exploration Lands. NDM exercised this right in February 2005, and shortly thereafter, NDM also completed the purchase of the remaining 20% interest in the Resource Lands from Hunter Dickinson Group Inc. NDM now owns 100% of both the Resource Lands and Exploration Lands. Teck Cominco retains a 5% Net Profits Royalty on the Exploration Lands.

## 7 GEOLOGICAL SETTING

#### **REGIONAL GEOLOGY**

The complete summary of regional geology the deposit area can be obtained from the 2003 Summary Report on the Pebble Porphyry Gold-Copper Project (Haslinger, et al., 2004), which is available to the public on SEDAR (<a href="http://www.sedar.com">http://www.sedar.com</a>).

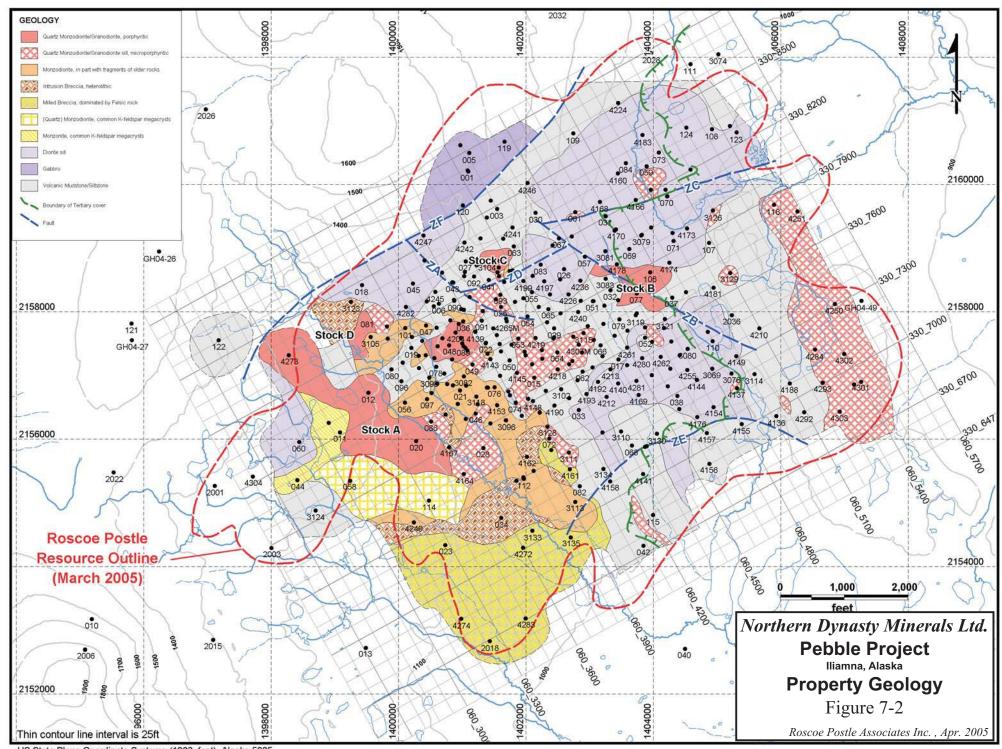


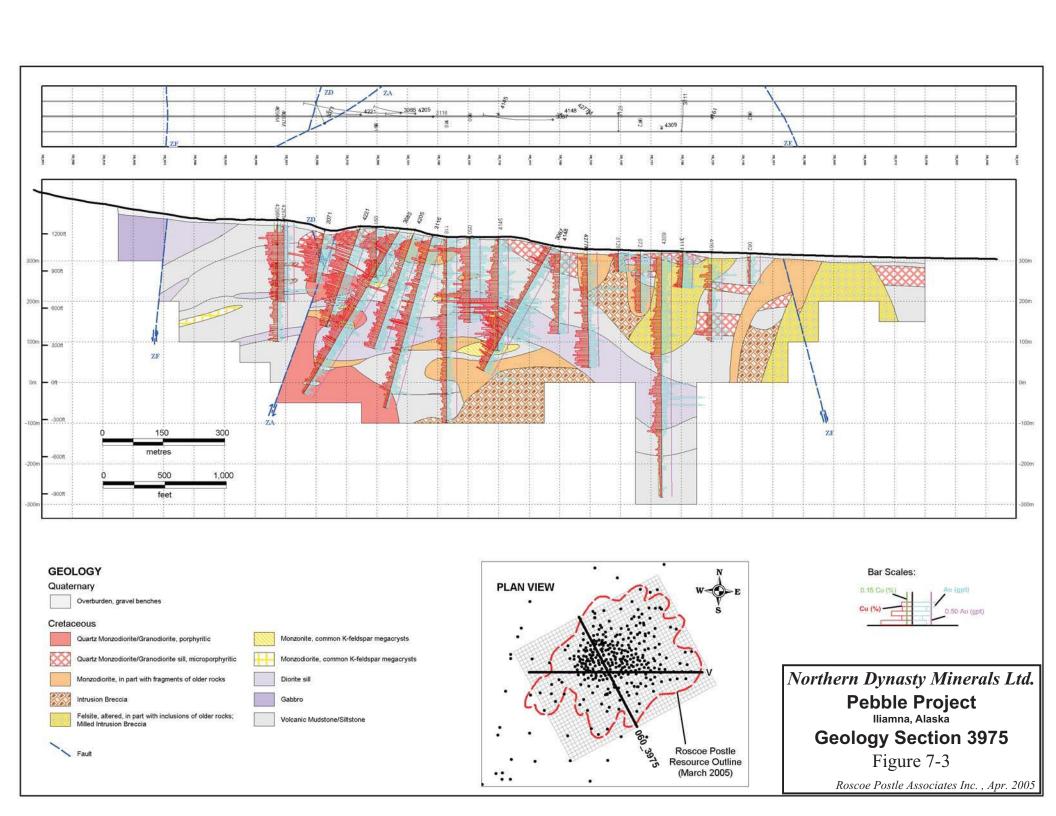
#### **PROPERTY GEOLOGY**

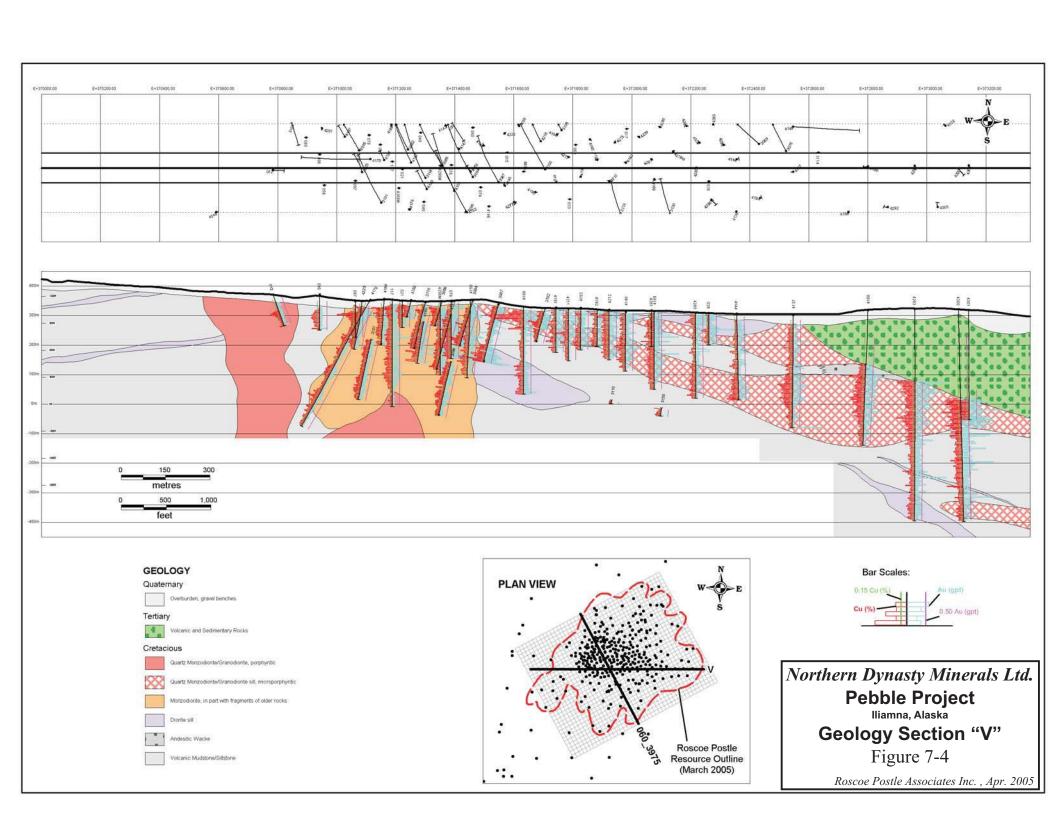
The complete summary of Pebble property geology can be obtained from the 2003 Summary Report on the Pebble Porphyry Gold-Copper Project (Haslinger, et al., 2004), which is available to the public on SEDAR (<a href="http://www.sedar.com">http://www.sedar.com</a>).

The 2004 drilling identified a new porphyry centre (the East Zone) located to the east of the previously delineated Pebble deposit (Rebagliati, C. M. and Payne, J., 2005, draft report). The East Zone dips down below the Tertiary cover, and is open-ended to the south, east, northeast, and to depth (see Figure 7-4). Au-Cu-Mo mineralization is similar to the main Pebble Zone in that it is broadly tabular owing to its relationship to laterally extensive granodiorite sills. It is also very consistent in distribution of sulphide mineralization and grade from hole to hole. The average grade of the East Zone is higher than the main body of mineralization. This increase in grade is attributed to the abundance and greater thickness of the intrusive sills in the east compared to the main Pebble zone (Rebagliati and Payne, 2005, draft report).

NDM geologists are of the opinion that certain characteristics of the East Zone suggest that it is proximal to some, as yet, undefined thermal centre. These characteristics include intense potassic alteration, abundant early-stage quartz veining, numerous granodiorite sills at depth, weakness of late-stage lower-temperature alteration, and the depth extent of strong Au-Cu-Mo mineralization. The increased grade is attributed to the abundance of the intrusive sills compared to the main Pebble zone.







## ROSCOE POSTLE ASSOCIATES INC. DEPOSIT TYPE

The Pebble is a Cu-Au-Mo-Ag-bearing porphyry deposit associated with calc-alkalic stocks and related sills of Cretaceous age. The stocks and sills have intruded relatively undeformed and gently-dipping Jurassic and Cretaceous argillites and siltstones. Sulphide mineralization consisting of disseminated chalcopyrite, molybdenite, and accessory pyrite occurs with minor bornite in and around quartz veins and veinlets. The mineralized system is tabular in shape, and is of considerable lateral extent owing to its association with the sills, which are also laterally persistent. Alteration comprises a high-temperature potassic core (biotite), grading outward through a quartz-sericite-pyrite zone (phyllic), to a peripheral low-temperature mix of propylitic and phyllic assemblages. The mineralization occurs in both the intrusive and sedimentary units. Au and Cu grades are observed to be marginally lower in the sediments compared to the intrusives. The difference is small, but measurable, and had to be taken account in configuring the grade estimations.

## ROSCOE POSTLE ASSOCIATES INC. MINERALIZATION

The complete summary of mineralization of the Pebble deposit can be obtained from the 2003 Summary Report on the Pebble Porphyry Gold-Copper Project (Haslinger, et al., 2004), which is available to the public on SEDAR (<a href="http://www.sedar.com">http://www.sedar.com</a>).

## **8 EXPLORATION**

The complete summary of exploration work on the property up to the end of 2003 can be obtained from the 2003 Summary Report on the Pebble Porphyry Gold-Copper Project (Haslinger, et al., 2004), which is available to the public on SEDAR. The following is a summary from that report.

#### **GEOPHYSICAL SURVEYS**

- ∉ 1988 1990: Induced polarization (IP) surveys (amount unspecified) were conducted by Teck Cominco.
- ∉ 2001: Zonge Geosciences completed 30 line-km of IP surveying for Hunter Dickinson Group Inc. (HDGI).

The IP surveys outlined a north-northeast trending composite zone of anomalous IP effect that extends over 89 km<sup>2</sup> and measures 21 km long by 9 km wide. The Pebble deposit occupies the northeast corner of this anomaly (see Figure 7-1).

#### **GEOCHEMISTRY**

Geochemical soil samples have been taken throughout much of the property, and comprise samples taken at 30 m to 80 m intervals along lines spaced 130 m and 260 m apart. The work done to date is listed below:

∉ 1988-1997: Teck Cominco undertook several soil geochemical surveys on the property, collecting a total of 7,337 samples.

- ∉ 2001: HDGI collected 601 soil samples.
- ∉ 2002: NDM collected 328 soil samples.
- ∉ 2003: NDM collected 97 soil samples.

These surveys have outlined coincident Cu-Au-Mo soil anomalies lying within the IP anomaly described above.

#### DIAMOND DRILLING

The following summary is from Nilsonn (2004).

- ∉ 1988: Teck Cominco 2,317 m in 26 holes.
- ∉ 1989: Teck Cominco 2,256 m in 27 holes.
- ∉ 1990: Teck Cominco 3,054 m in 25 holes.
- ∉ 1991: Teck Cominco 8,574 m in 48 holes.
- ∉ 1992: Teck Cominco 2,014 m in 14 holes.
- ∉ 1993: Teck Cominco 382 m in 4 holes.
- ∉ 1997: Teck Cominco 4,479 m in 20 holes.
- ∉ 2002: HDGI/NDM 11,306 m in 68 holes.
- $\not\in$  2003: NDM 21,717 m in 67 holes.

Total amount of drilling to the end of 2003 was 56,095 m (184,048 ft) in 299 holes.

Exploration work carried out by NDM in 2004 consisted primarily of diamond drilling. The majority of the drilling was conducted to further define and upgrade the Mineral Resources within the Pebble deposit. Drilling was also done to acquire metallurgical samples, carry out geotechnical evaluation of soils, collect oriented core for geotechnical structural studies, as well as to continue exploration work on targets outside of the Pebble deposit area. A summary of the drilling in 2004 is provided below in Table 8-1.

## TABLE 8-1 SUMMARY OF 2004 DRILLING Northern Dynasty Minerals Ltd. Pebble Project

Туре	No.	Length (ft)	Length (m)
Exploration (Distal to Pebble)	9	13,835.0	4,216.9
Definition Drilling Oriented Geotechnical Drill	122	101,538.5	30,948.9
holes PQ- & HQ-size Holes For	8	10,049.5	3,063.1
Metallurgical Samples	26	21,335.0	6,502.9
Geotechnical Soils Testing Waste Rock, ARD,	53	9,081.5	2,785.0
Geotechnical	9	6,670.0	2,033.0
Total	227	162,509.5	49,549.8

## 9 DRILLING

Drilling has been conducted on the property for several years dating back to the first Teck Cominco work in 1988. From that time until 1997, Teck Cominco completed 164 holes totaling 75,712 ft (23,076 m). To the end of 2003 NDM added an additional 135 holes totaling 108,335 ft (33,019 m). As stated in the section of this report entitled Exploration, in 2004, NDM added an additional 227 holes, which brings the total drilled footage for the property to 346,557 ft (105,625 m) in 526 holes.

RPA notes that not all of this drilling was carried out in the vicinity of the Pebble deposit proper. Only about 350 holes are actually within the boundary of the deposit or close enough to affect the Mineral Resource estimate (see Figure 9-1). Of these, there are several holes drilled for purposes other than resource definition (e.g. soil testing and other geotechnical holes). All drill holes have been included in the database for Mineral Resources estimation. Some holes contributed only lithological data, and others essentially contributed nothing (i.e. soil sampling holes) and were ignored. Those holes that are distant from the deposit area were not captured in the grade interpolation.

Of the 350 holes in the "Resource Area", all but 28 were vertical holes. For most of the drilling, the core size was NQ or greater. Teck Cominco drilled HQ core (core diameter = 2.5 in or 6.35 cm), and most of the NDM core is NQ2 (1.99 in / 5.05 cm dia.). The metallurgical test holes are PQ (3.27 in / 8.31 cm dia.) and HQ size. The drilling was carried out at a wide range of collar spacing. The purpose of most of the drilling in 2004 was to define and upgrade the Inferred Resources to Measured and Indicated categories, so these holes are more uniformly spaced but RPA notes there is still a fairly wide disparity in hole-to-hole spacing. Drill hole spacing in the core of the deposit varies from approximately 250 ft to 1000 ft (70 m to 300 m), with most 500 ft to 700 ft (150 m to 210 m) apart. Towards the periphery the spacing increases to 650 ft to 1150 ft (200 m to 350 m).

The Pebble deposit, as presently defined by drilling, is a broad horizontal slab-like porphyry system measuring approximately 12,000 ft across, and averaging approximately 1000 ft thick; although RPA notes that the ultimate extent of the mineralization has not yet been established. To date, the mineralization has been demonstrated to be quite consistent throughout in terms of both grade and thickness. In RPA's opinion, the drill-spacing employed at Pebble is appropriate for delineation of Mineral Resources.

Drilling prior to 2004 was described in detail in independent technical reports by Snowden Mining Consultants (Snowden) and Norwest, as well as in Haslinger, et al. (2004), and Rebagliati and Haslinger (2003). These reports are listed in the references section of this report and are available on SEDAR. A brief summary of the descriptions of the drilling, sampling and assaying in these reports is provided below.

Drilling from 1988 to 1997 was carried out by Teck Cominco. The core size was HQ. Core was transported by helicopter to Iliamna for logging and sampling. Sampling was done using a mechanical core splitter (1/2 core) along the entire drilled interval for most holes, although some intervals are reported to be unsampled. All samples were reportedly analyzed for Au, and all holes following number 4 were analyzed for Cu. RPA notes that within the database for holes from this era, there are assays for Au in 6,883 out of 7,266 sample intervals, with 6,761 for Ag, 6,060 for Cu, and 5,787 for Mo. Every sixth sample was reportedly analyzed with multi-element Inductively Coupled Plasma Spectroscopy (ICP), following digestion in Aqua-Regia. Assays prior to 1997 were performed by Chemex Labs in North Vancouver, and for the 1997 samples by Teck Cominco's Exploration and Research Lab in Vancouver. One standard and two duplicates were assayed for every 20 samples. Cu was assayed using Aqua-Regia digestion and Inductively Coupled Plasma Spectroscopy (ICP), and Au was done using fire assay on a 30 g aliquot and ICP finish.

In 2001 and 2002, the drilling was conducted by NDM. Core size was NQ2. The core was transported by helicopter to Iliamna where it was photographed, logged, and

sampled. Sampling was done using a mechanical core splitter (1/2 core) along the entire drilled interval, except in the Tertiary units. Sample lengths reportedly average 3.9 m (12.8 ft), and RPA notes that 94% of the sampled intervals are 20 ft (6.1 m) or less. The samples were flown to Fairbanks for crushing, pulverizing and sub-sampling. Analyses were carried out at ALS Chemex in Vancouver for Au using fire assay (also a 30 g aliquot) with Atomic Absorption Spectroscopy (AA) finish, and 34 other elements, including Cu, Mo, and Ag, using ICP. ICP analyses were conducted on samples after four-acid digestion. External QA/AC samples consisted of one standard entered every 20 samples.

The 2003 drilling was also conducted by NDM, and again, core size was NQ2. Corehandling protocols were identical to those employed in 2002, except that the logging procedures were amended to include measurement of core recovery and Rock Quality Designation (RQD). Assaying methods were the same as in 2002; however, the lab was SGS Canada Inc. in Toronto. One standard per 20 samples was inserted into the sample stream for QA/QC purposes.

In RPA's opinion, the core logging and sampling done prior to 2004 has been subjected to thorough independent review and validation, so RPA concentrated on the 2004 program. RPA notes that there are very few changes to the procedures for the 2004 drilling versus the previous year; although there are some significant differences in assay QA/QC protocols. The 2004 drilling procedures and protocols are described below. Assay QA/QC is discussed in the section of this report entitled Sample Preparation, Analyses, and Security.

During the October 2004 site visit, RPA inspected four operating drill rigs, as well as a number of abandoned pads. Confirmation was made of the locations of several collars using a handheld Global Positioning System receiver (GPS). RPA notes that the drilling was being carried out in an appropriate manner, using equipment suited to the job. RPA further notes that the drilling program was entirely helicopter-supported and that the

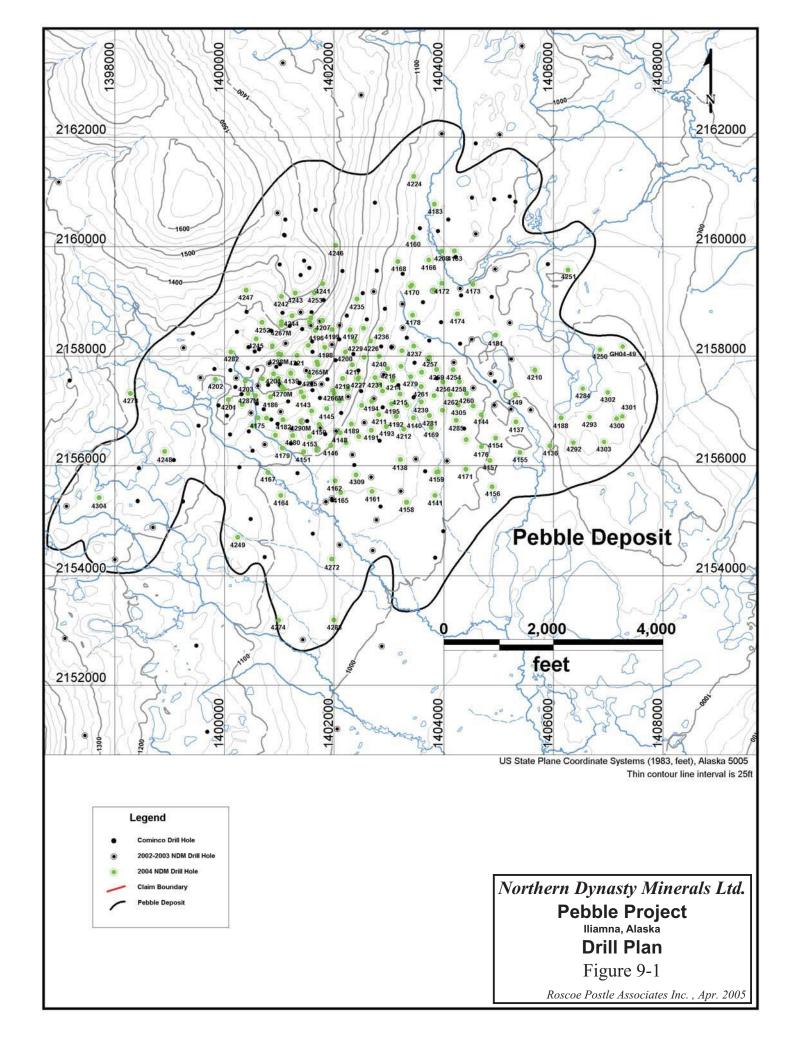
ground disturbance at the drill sites was minimal. Drill collars are well-marked, with posts and identification tags.

The drilling contractor was Quest America Drilling Inc. Drill core was transported by helicopter to NDM's logging and storage facility in Iliamna. The core was then photographed, logged, split and sampled, then stacked on pallets for storage. Palletized core was shrink-wrapped, covered in tarps, and stacked outside in a fenced enclosure. The storage, logging and sampling facility is reasonably secure.

Core logging was carried out in a large tent. RPA notes that this facility was well-ordered and configured for handling large volumes of core. It was supplied with heat, electricity, and water. Lithologic information was entered directly into lap-top computers by the geologists. Each day, the new information was validated and uploaded to a central database. The updated database was made available to the core loggers each day so they could refer to it and compare with the current logging.

The lithology, alteration, structure, and mineralization were logged for each hole. The core logging software has been configured to allow for systematic entry of information into the database using a standardized set of codes. These codes were set up by NDM geological consultants prior to commencement of the program. Geotechnical information was collected along with regular measurements of bulk density. Following logging, the core was marked up and sent to an adjacent building for sampling. Specimens of core were taken from each sampled interval for bulk density determinations.

In RPA's opinion the core handling and logging procedures at Pebble meet or exceed common industry standards.



## 10 SAMPLING METHOD AND APPROACH

Drill core was marked and tagged by the core logger for sampling. Tags were stapled to the core boxes to identify the sampled intervals. The samples were taken in 10 ft (3.05 m) lengths or less, with breaks at lithological boundaries. Half cores were split with a hydraulic splitter, and the balance returned to the box for storage. The samples were placed in doubled plastic bags along with a tag, and these bags were placed in synthetic fabric bags for shipping. The bags were flown by a charter air carrier to Anchorage, and then by commercial freight to Fairbanks.

Holes drilled for metallurgical samples were also included in the database for Mineral Resources estimation. These holes were PQ and HQ in size and were sampled using a diamond saw instead of a splitter. Twenty percent of the core was taken for analysis, and the remaining 80% was sent for metallurgical testing. Apart from this difference in sampling procedure, the core and samples were subject to the same protocols as the other drill holes.

## 11 SAMPLE PREPARATION, ANALYSES AND SECURITY

RPA inspected the sampling facility and found it to be secure, orderly, and well-suited to the project task. Samples were under constant supervision of NDM staff until transfer to the air freight company. The hangar for the air carrier is located across the street from the core logging facility so there were no concerns with transportation or handling of samples. RPA considers the facility and sample-handling protocols to meet or exceed common industry standards.

#### **SAMPLING AND ASSAYING**

Samples were sent to ALS Chemex in Fairbanks where they were dried, crushed to 75% minus 2 mm, and split down to 7 kg. A 750 g sub-sample was pulverized to 95% minus 75 microns, and the balance of the coarse rejects was sent to Delta Junction, AK. Thirty-gram pulp sub-samples were shipped to ALS Chemex in Vancouver, and the pulp rejects were sent to the company storage facility in Port Kells, BC. The samples were analyzed for Au using fire assay (30 g aliquot) with AA finish, as well as 30-element ICP following 4-acid digestion.

#### **ASSAY QA/QC**

Assay QA/QC protocols were configured and monitored by Analytical Laboratory Consultants Ltd. (ALC), for the 2004 drilling program. QA/QC data were collected, collated and monitored by both ALC and NDM personnel in Vancouver. When problems were encountered, batches and individual samples were rerun. RPA reviewed ALC's progress reports and notes that several QA/QC concerns were encountered over the course of the program but these issues appear to have been resolved, usually through reassay of problem batches.

# ROSCOE POSTLE ASSOCIATES INC. STANDARDS

A Cu-Au-Mo standard was entered into the sample stream at a rate of 1 in 20 samples. RPA notes that standard material was placed into the sample stream as pulps prior to submission to ALS Chemex in Vancouver, so they were blind samples. Three standards were used for the Pebble analyses. One standard was prepared by CDN Resource Laboratories Ltd. from Pebble deposit material supplied by NDM, and the other two were commercial standards produced by CDN.

#### **BLANKS**

Coarse dolomite blanks were entered into the sample stream at the crushing stage at a rate of one per drill hole. Where possible, the blanks were placed directly after a suspected high-grade sample.

#### **DUPLICATES**

Duplicates of the coarse reject were taken at a rate of 1 in 20 samples and sent to Acme Analytical Labs in Vancouver. These samples were analyzed using the same sample methodology as that used at ALS Chemex.

In RPA's opinion, the assay QA/QC protocols applied to the Pebble samples meet common industry standards. RPA notes that these protocols were applied in addition to the ALS Chemex internal QA/QC protocols. RPA further notes that NDM personnel have properly monitored the QA/QC results and responded appropriately where problems have emerged.

#### **RPA CHECK SAMPLING**

RPA collected 8 independent samples comprising the residual ½-core material stored in the boxes at site. RPA was allowed free access to the core, and selected the samples more or less at random. The samples were in the custody of an RPA representative from the time of their collection to delivery to a commercial carrier for transport to the lab. The samples were analyzed at Assayers Canada in Vancouver for Au and Cu. The

purpose of the sampling was to confirm the presence of Au and Cu mineralization in the core. They do not represent a statistically significant check of the sampling and assaying at Pebble and were not intended as such. The results of the RPA sampling are provided below in Table 11-1 alongside NDM's results. RPA notes that it is possible to confirm Cu and Mo mineralization visually in the core.

TABLE 11-1 INDEPENDENT SAMPLING RESULTS
Northern Dynasty Minerals Ltd. Pebble Project

RP	A Samples	6	NDM Samples					
Sample	Au g/t	Cu %	Sample	Au g/t	Cu %			
56051	1.16	0.354	7888	1.17	0.349			
56052	0.39	0.173	9185	0.48	0.185			
56053	0.06	0.251	7695	0.08	0.395			
56054	0.10	0.011	7519	0.08	0.001			
56055	0.27	0.341	9989	0.26	0.341			
56056	0.44	0.426	9491	0.48	0.52			
56057	0.81	0.823	9877	0.89	0.843			
56058	0.38	0.397	9048	0.47	0.43			

In RPA's opinion, the independent sampling confirms the presence of Au and Cu at Pebble.

# **12 DATA VERIFICATION**

Drill hole data was provided to RPA in a GEMS database. Lithology solids models were provided as DXF files, along with laboratory files containing analytical data. Data collection in recent years has been entirely digital and, as such, the verification process did not include a comparison of digital records to physical records (i.e. hardcopies). Checks were carried out, however, with the digital lab files.

## **RPA CHECKS**

RPA performed the following checks:

- ∉ GEMS validation to check for interval gaps or overlaps, out-of sequence intervals or intervals that were greater than the final drill hole length
- ∉ Comparison of the final drill hole lengths to the final record depth in each table
- ∉ Comparison of the collar elevations and topography to check for survey errors
- ✓ Visual inspection of the drill hole trace to check for downhole survey errors
- ∉ Comparison of collar locations when plotted in different coordinate systems
- ∉ Check for duplicate sample numbers
- ∉ Comparison of assay table results against laboratory files
- ∉ Review of final quality control report
- ∉ Comparison of the lithology solids against the lithology codes and intervals

The GEMS validation was performed on the Header, Survey, Assay and Lithology tables; all tables, except for Lithology, were error-free. The lithology table contains gaps in seven drill holes that appear deliberate and there were two records where the length was greater than the total drilled length in the Header table. In addition, there are records in the assay and lithology tables where the final downhole interval distance is not equal to the final drill hole length. These sorts of errors are noted by the software as

inconsistencies but they do not impact the manipulation of the assays or grade estimation. As such, none of these errors noticeably affect the integrity of the database.

The collar elevations for the drill holes are consistent with topography in all but one case (GH04-49) and are considered acceptable for use. The drill hole traces were viewed on-screen and all the downhole surveys are acceptable. A plot of the collar locations using the UTM datum was compared against of plot of the collar locations in the Alaska State Plane datum; differences were negligible.

There are no duplicate sample numbers in the assay table. Approximately 10% of the laboratory files from ALS Chemex (2004) were compiled and compared against the results stored in the database. At the time of the comparison RPA was not in possession of the final set of analytical files. There were only a few occurrences where the analytical results showed ppb scale differences. The final quality control report prepared by Analytical Laboratory Consultants Ltd. (30 January 2005) states that the quality of the analytical data is above the industry norm and is adequate for project advancement.

The final lithology solids showed good correlation with the lithology table intervals and codes.

NDM was made aware of all errors encountered during the validation process.

In RPA's opinion, the data contained in the Pebble database is of a quality suitable for inclusion in Mineral Resource estimations.

# **13 ADJACENT PROPERTIES**

RPA is not aware of any significant exploration projects underway on adjacent properties.

# 14 MINERAL PROCESSING AND METALLURGICAL TESTING

At the time of writing, NDM had drilled a series of holes for metallurgical samples and were in the process of conducting test work.

# 15 MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES

RPA has carried out an update of the Mineral Resources estimate for the Pebble deposit, using the drill results collected by NDM and Teck Cominco. The estimate was conducted using a block model constrained by wireframe solid models. Grade interpolation for Au, Cu, and Mo was done using Multiple Indicator Kriging (MIK). Interpolation for Ag was done using Inverse Distance weighting to the third power (ID3). The grade interpolation was carried out using in-house software belonging to FSS Canada, and checked using GEMS. Solids models were constructed in Vulcan, and exported to GEMS for checking and use in assigning block lithology codes.

#### SAMPLE DATABASE

The sample database was provided to RPA by NDM in a series of ASCII files consisting of diamond drill data and wireframe models. RPA imported this information into GEMS for validation and verification. The database included assays for Au and Ag in both Imperial and metric units, Cu in %, and Mo in ppm. Collar coordinates were provided in both the UTM (metric) and Alaska State Plane (Imperial) systems. Similarly, downhole distances were provided in both feet and metres.

Data was provided for 526 drill holes, with 29,775 assay records, of which 25,463 were located within the solids models used for the grade estimates. Statistics for the Ag, Au, Cu, and Mo assays used in the estimates are provided in Table 15-1.

## TABLE 15-1 SAMPLE STATISTICS Northern Dynasty Minerals Ltd. Pebble Project

		All Roc	k Types	
	Ag	Au	Cu	Мо
	(oz/T)	(oz/T)	(%)	(ppm)
No.	05.400	05.400	05.400	05.400
Samples	25,463	25,463	25,463	25,463
No. Zero	37	161	183	437
Mean	0.046	0.011	0.295	157.6
SD	0.079	0.063	0.219	271.7
CV	1.728	5.880	0.741	1.724
Max	6.650	9.765	9.290	26,290
Median	0.029	0.008	0.260	117.0
Min	0.000	0.000	0.000	0.0
		Sedi	ments	
	Ag	Au	Cu	Мо
	(oz/T)	(oz/T)	(%)	(ppm)
No.	40.700	40.700	40.700	40.700
Samples	13,782	13,782	13,782	13,782
No. Zero	9	69	4	33
Mean	0.050	0.011	0.324	164.3
SD	0.079	0.013	0.231	335.4
CV	1.582	1.135	0.713	2.041
Max	4.783	0.838	9.290	26,290
Median	0.035	0.009	0.284	116.0
Min	0.000	0.000	0.000	0.0
			sives	
	Ag	Au	Cu	Мо
	(oz/T)	(oz/T)	(%)	(ppm)
No. Samples	11,680	11,680	11,680	11,680
No. Zero	28	92	179	404
Mean	0.041	92 0.010	0.260	404 149.4
1		0.010		
SD	0.078		0.197	163.0
	1.933	9.146	0.757	1.092
Max	6.650	9.765	4.180	4560
Median	0.029	0.007	0.230	118.0
Min	0.000	0.000	0.000	0.0

# ROSCOE POSTLE ASSOCIATES INC. BLOCK MODEL

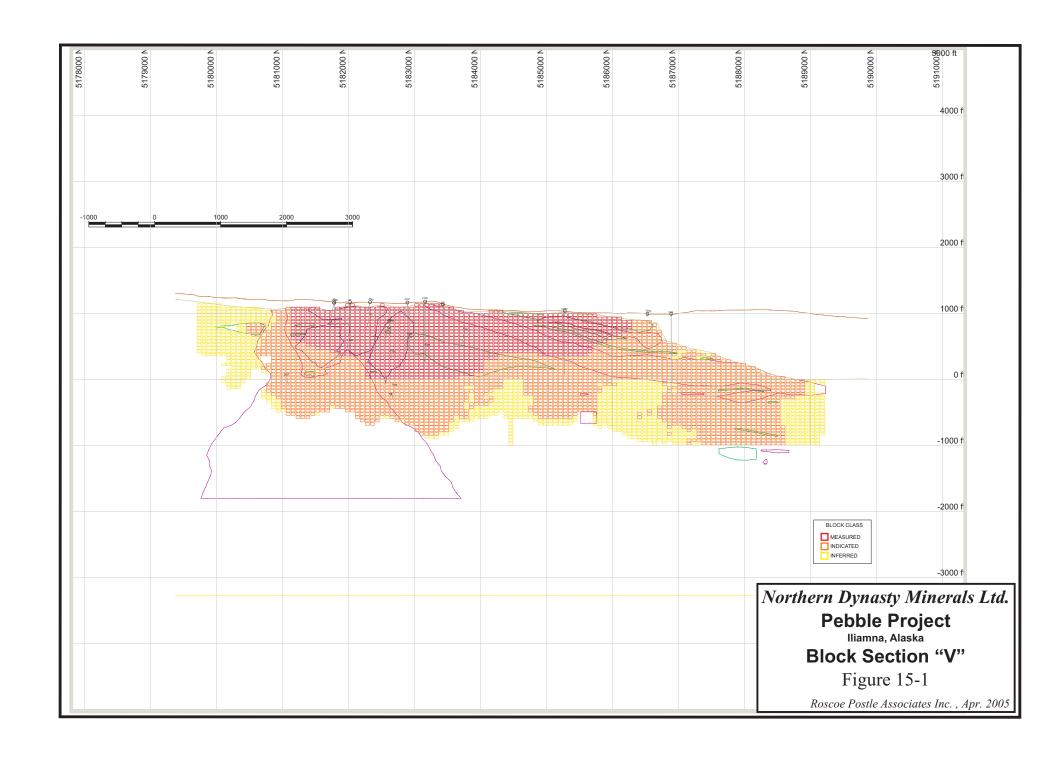
The block model comprises blocks measuring 75 ft x 75 ft x 50 ft in size (X x Y x Z), aligned with the NS-EW directions (i.e. no rotation). The block size was selected based on the separation of the drill holes and the mining constraints presently contemplated by NDM engineering personnel. Block model geometry is described in Table 15-2.

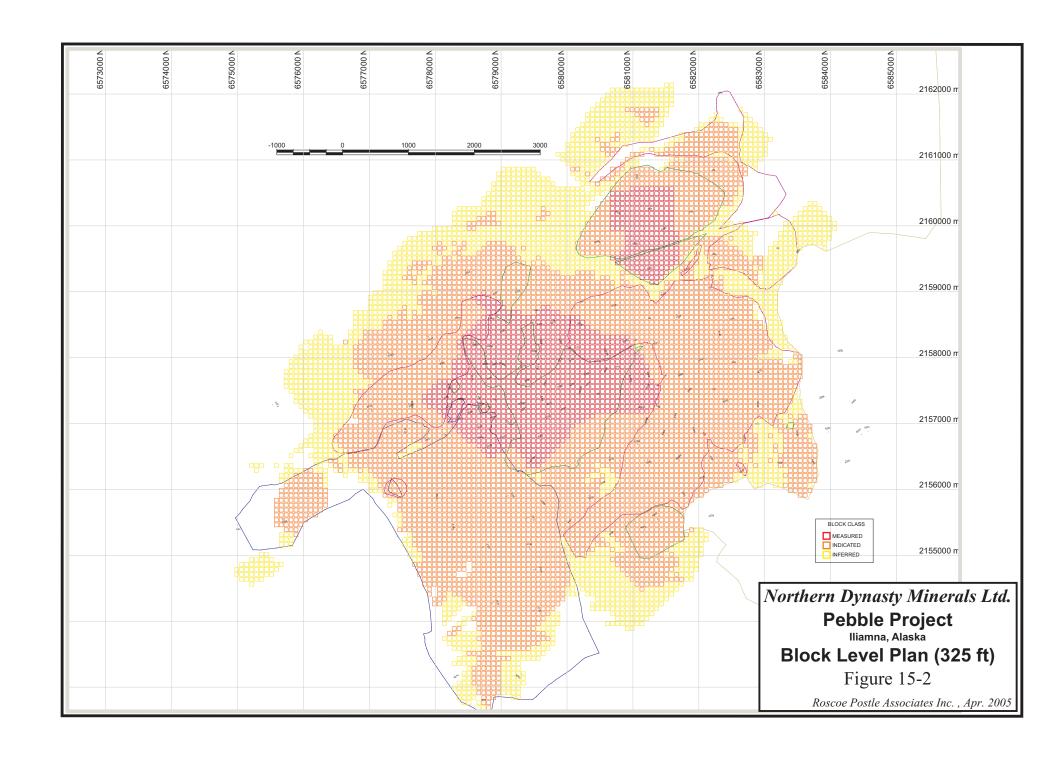
TABLE 15-2 BLOCK MODEL GEOMETRY Northern Dynasty Minerals Ltd. Pebble Project

_ · ·	· · · · · · · · · · · · · · · · · · ·	4 000 000	_
Origin	X	1,396,000	E
	Υ	2,151,000	N
	Z	2050	ft El
Block (ft)	Χ	75	
	Υ	75	
	Z	50	
   #			
Blocks	X	182	
	Υ	188	
	Z	75	
Size (ft)	X	13,650	
. ,	Υ	14,100	
	Z	3,750	

Block lithological codes were assigned using the wireframe models of the principal units. No percentage model or sub-blocking was used to account for portions of blocks lying within different domains. The lithology assignments were made based on the location of the centroids of the blocks alone.

Typical cross section and level plan views of the block model are provided in Figures 15-1 and 15-2.





#### **WIREFRAME MODELS**

Wireframe models of the principal lithological units were constructed by NDM personnel using Vulcan. The main units modelled were the granodiorite (GDIO), diorite sills (DIO), mega-breccia (X), Cretaceous sediments (SEDS), Tertiary cover (TERT), and overburden (OB). RPA inspected and validated the wireframe models prior to using them for assigning rock codes in the block model. RPA notes that there are small overlaps and gaps between wireframes that resulted in ambiguous and incorrect rock code assignments. These ambiguities were resolved by arbitrary assignment of a priority to the various wireframe models. Highest priority was given to the Cretaceous sediments, so blocks not clearly within a lithological domain would have been assigned to this rock code. RPA notes that there were a very limited number of blocks affected by this problem and there should be no noticeable difference to the block model results.

#### COMPOSITING

Samples were composited to 20 ft intervals prior to grade estimation. The composites were assigned rock codes for lithology based on the locations of the centroids of the intervals. The same block model rock code was assigned for all intrusive units plus the mega-breccia. Composite statistics are provided in Table 15-3.

The full database is extensive, and is available on request from Northern Dynasty.

#### **ESTIMATION METHODOLOGY**

The grade interpolations for Au, Cu, and Mo were performed using Multiple Indicator Kriging (MIK). For Ag, grade interpolation was carried out using Inverse Distance to the third power weighting (ID3) using composites capped at 0.5 opt Ag.

The variogram model, search, and general estimation parameters for the MIK estimates were derived by Mohan Srivastava of FSS. Mr. Srivastava also carried out the kriging and performed the post-processing. RPA conducted the ID3 estimate for Ag as well as an ID3 check of the MIK models. Both RPA and FSS conducted validation exercises on the block models. FSS used in-house software for the MIK estimates, and RPA used GEMS (GEMS version 5.44).

TABLE 15-3 COMPOSITE STATISTICS (UNCAPPED)
Northern Dynasty Minerals Ltd. Pebble Project

		All Roc	k Types	
	Ag	Au	Cu	Мо
	(oz/T)	(oz/T)	(%)	(ppm)
No.				
Composites	12,867	12,867	12,867	12,867
No. Zero	55	73	98	183
Mean	0.045	0.010	0.289	152.4
SD	0.052	0.044	0.186	165.7
CV	1.166	4.261	0.645	1.087
Max	3.358	4.890	4.197	6706.5
Median	0.037	0.008	0.265	122.8
Min	0.000	0.000	0.000	0.0
		Sedin	nents	
	Ag	Au	Cu	Мо
	(oz/T)	(oz/T)	(%)	(ppm)
No.				
Composites	5,984	5,984	5,984	5,984
No. Zero	47	63	90	168
Mean	0.040	0.009	0.252	143.6
SD	0.056	0.064	0.181	138.1
CV	1.409	6.902	0.716	0.962
Max	3.358	4.890	2.618	2640.0
Median	0.030	0.007	0.234	120.4
Min	0.000	0.000	0.000	0.0
		Intru	sives	
	Ag	Au	Cu	Мо
	(oz/T)	(oz/T)	(%)	(ppm)
No.				
Composites	6,883	6,883	6,883	6,883
No. Zero	8	10	8	15
Mean	0.049	0.011	0.320	160.0
SD	0.048	0.009	0.185	185.5
CV	0.982	0.818	0.579	1.160
Max	1.552	0.308	4.197	6706.5
Median	0.043	0.013	0.290	124.3
Min	0.003	0.000	0.000	0.0

Two lithologic domains were defined for the resource estimate: sediments (SEDS) and intrusives (INTR). All intrusive lithological units plus the mega-breccia were included as INTR, and SEDS comprise the surrounding Cretaceous sedimentary units.

For the MIK estimates, grade bins were established at the 20<sup>th</sup> to 90<sup>th</sup> deciles of the distributions plus the 95<sup>th</sup> and 98<sup>th</sup> percentiles. The percentile thresholds were generated from declustered grade distributions of the composites. The grade thresholds are listed below in Table 15-4.

TABLE 15-4 GRADE BIN THRESHOLDS
Northern Dynasty Minerals Ltd. Pebble Project

		(	Grade Th	resholds			
Percentile		ntrusives		Sediments			
	Cu	Au	Мо	Cu	Au	Мо	
20	0.123	0.005	40	0.050	0.002	7	
30	0.165	0.006	60	0.080	0.003	15	
40	0.203	0.007	80	0.120	0.004	50	
50	0.235	0.008	100	0.165	0.005	75	
60	0.267	0.009	120	0.210	0.006	105	
70	0.308	0.011	150	0.250	0.008	140	
80	0.361	0.013	190	0.305	0.010	185	
90	0.462	0.016	270	0.385	0.014	260	
95	0.565	0.021	330	0.465	0.021	340	
98	0.689	0.027	395	0.545	0.030	445	

#### **VARIOGRAM MODELS**

Variogram models were generated for each grade threshold in each of the two lithology domains. The orientations for the variogram models for each element were set to the orientations of the principal axes for the experimental semi-variogram at the median thresholds (i.e. 50<sup>th</sup> percentile). This was done to reduce order relations problems. The nugget effects and ranges were fit to the experimental variograms for each threshold and checked for overall continuity and consistency between the various thresholds.

The variogram models used for each element in the MIK estimates are listed below in Tables 15-5 to 15-7.

#### **SEARCH PARAMETERS**

The estimates were run using an octant search with principal axes oriented parallel to the median indicator variogram model for each domain. Search distances for each indicator bin were set equal to the variogram ranges (see Tables 15-5, 15-6, and 15-7). The search was limited to a minimum of 8 and maximum of 32 composites, minimum 1 and maximum 6 per octant (an octant is an eighth of the search ellipsoid derived from dividing the ellipsoid with planes along the principal axes), with a maximum of 3 composites allowed from any one drill hole.

Angle rotations in Tables 15-5, 15-6, and 15-7 use Stanford Geostatistical Software Library (GSLIB) conventions (Deutsch and Journel, 1992).

# TABLE 15-5 CU SEMI-VARIOGRAM MODELS Northern Dynasty Minerals Ltd. Pebble Project

# Intrusive Cu Variogram Models

					Rotation			R1			R2		
Threshold	Type	C0	C1	C2	Ang1	Ang2	Ang3	Major	Semi	Minor	Major	Semi	Minor
0.123	Exp	0.26	0.44	0.30	30	0	20	589	476	277	1450	583	579
0.165	Exp	0.26	0.44	0.30	30	0	20	589	583	277	1450	750	579
0.203	Exp	0.29	0.40	0.31	30	0	20	456	476	277	2172	1249	890
0.235	Exp	0.30	0.39	0.31	30	0	20	589	583	277	1450	750	579
0.267	Exp	0.32	0.38	0.30	30	0	20	589	583	327	1450	856	579
0.308	Exp	0.33	0.36	0.31	30	0	20	656	716	327	1922	984	579
0.361	Exp	0.33	0.36	0.31	30	0	20	589	476	277	2594	1249	890
0.462	Exp	0.35	0.39	0.26	30	0	20	595	716	299	1922	984	523
0.565	Exp	0.43	0.30	0.27	30	0	20	495	338	171	1667	784	479
0.689	Exp	0.53	0.20	0.27	30	0	20	295	160	71	812	556	307

# Sediment Cu Variogram Models

					Rotation			R1			R2		
Threshold	Type	CO	C1	C2	Ang1	Ang2	Ang3	Major	Semi	Minor	Major	Semi	Minor
0.050	Exp	0.15	0.52	0.33	45	0	0	1862	1539	595	3000	2816	634
0.080	Exp	0.10	0.57	0.33	45	0	0	1862	1539	595	3000	2816	634
0.120	Exp	0.10	0.72	0.18	45	0	0	1457	1145	595	2772	2816	634
0.165	Ехр	0.16	0.59	0.25	45	0	0	1207	878	595	2739	1192	634
0.210	Exp	0.22	0.53	0.25	45	0	0	1207	634	489	1550	878	634
0.250	Exp	0.25	0.49	0.26	45	0	0	1207	634	489	1550	878	634
0.305	Exp	0.30	0.46	0.24	45	0	0	1140	695	333	1878	967	556
0.385	Exp	0.31	0.46	0.23	45	0	0	1140	695	333	1878	967	556
0.465	Exp	0.40	0.37	0.23	45	0	0	601	522	278	2333	967	612
0.545	Exp	0.43	0.34	0.23	45	0	0	601	512	184	2333	606	523

# TABLE 15-6 AU SEMI-VARIOGRAM MODELS Northern Dynasty Minerals Ltd. Pebble Project

## Intrusive Au Variogram

#### Models

							R1			
Threshold	Type	C0	C1	Ang1	Ang2	Ang3	Major	Semi	Minor	
0.005	Ехр	0.41	0.59	105	-30	0	600	600	600	
0.006	Ехр	0.40	0.6	105	-30	0	800	650	650	
0.007	Ехр	0.40	0.6	105	-30	0	900	700	700	
0.008	Ехр	0.40	0.6	105	-30	0	900	750	750	
0.009	Exp	0.41	0.59	105	-30	0	1000	800	800	
0.011	Exp	0.42	0.58	105	-30	0	900	750	750	
0.013	Exp	0.47	0.53	105	-30	0	700	700	700	
0.018	Exp	0.55	0.45	105	-30	0	400	400	400	
0.024	Ехр	0.58	0.42	105	-30	0	400	400	400	
0.036	Ехр	0.74	0.26	105	-30	0	250	250	250	

## Sediment Au Variogram

#### Models

	1									
								R1		
Threshold	Type	C0	C1	Ang1	Ang2	Ang3	Major	Semi	Minor	
0.002	Exp	0.43	0.57	240	-25	0	600	350	350	
0.003	Exp	0.36	0.64	240	-25	0	850	500	450	
0.004	Exp	0.34	0.66	240	-25	0	1100	800	700	
0.005	Ехр	0.36	0.64	240	-25	0	1100	850	700	
0.006	Ехр	0.37	0.63	240	-25	0	1200	1000	800	
0.008	Exp	0.40	0.6	240	-25	0	1200	1200	950	
0.010	Exp	0.47	0.53	240	-25	0	1200	1200	1000	
0.012	Exp	0.49	0.51	240	-25	0	1000	1000	800	
0.015	Exp	0.54	0.46	240	-25	0	900	650	650	
0.020	Ехр	0.68	0.32	240	-25	0	500	350	250	

# TABLE 15-7 MO SEMI-VARIOGRAM MODELS

## Northern Dynasty Minerals Ltd. Pebble Project

# Intrusive Mo Variogram

#### Models

								R1	
Threshold	Type	C0	C1	Ang1	Ang2	Ang3	Major	Semi	Minor
40	Exp	0.30	0.70	30	0	0	1940	1280	800
60	Exp	0.30	0.70	30	0	0	2410	1360	800
80	Exp	0.33	0.67	30	0	0	2410	1360	740
100	Exp	0.37	0.63	30	0	0	2410	1360	740
120	Exp	0.42	0.58	30	0	0	2410	1360	690
150	Exp	0.44	0.56	30	0	0	2130	1080	500
190	Exp	0.53	0.47	30	0	0	1800	880	390
270	Exp	0.60	0.40	30	0	0	1650	780	360
330	Exp	0.60	0.40	30	0	0	920	540	270
395	Ехр	0.60	0.40	30	0	0	550	300	140

# **Sediment Mo Variogram**

#### Models

								R1	
Threshold	Type	C0	C1	Ang1	Ang2	Ang3	Major	Semi	Minor
7	Exp	0.10	0.90	130	-30	0	1820	1360	580
15	Exp	0.14	0.86	130	-30	0	2790	1870	630
50	Exp	0.18	0.82	130	-30	0	2420	1630	650
75	Exp	0.29	0.71	130	-30	0	1780	1360	540
105	Exp	0.31	0.69	130	-30	0	1620	1210	460
140	Exp	0.33	0.67	130	-30	0	1500	1040	420
185	Exp	0.42	0.58	130	-30	0	1340	920	320
260	Ехр	0.56	0.44	130	-30	0	1120	700	300
340	Exp	0.60	0.40	130	-30	0	1070	670	250
445	Ехр	0.65	0.35	130	-30	0	630	410	170

#### **BULK DENSITY**

The bulk density used was based on a set of determinations carried out by NDM on drill core specimens. A total of 785 determinations were carried out using a water immersion method on whole core that had been squared off with a diamond saw. The average bulk densities derived from these data were 12.05 ft<sup>3</sup>/T (2.66 t/m<sup>3</sup>) for the sediments and 13.23 ft<sup>3</sup>/T (2.61 t/m<sup>3</sup>) for the intrusives. In RPA's opinion, the derivation and application of the bulk density data were carried out in an appropriate manner.

#### **BLOCK MODEL VALIDATION**

FSS and RPA carried out the following validation exercises on the block model:

- ✓ Visual inspection of block grades in plan and section views, and comparison with composite grades.
- ∉ Comparison of global block and composite grades.
- ∉ Comparison of local "well-informed" block grades with composites contained within those blocks (Measured and Indicated only).
- ∉ Comparison of ID3 estimates with MIK.
- ∉ Analysis of the number and magnitude of order relations inconsistencies.
- ∉ Comparison of block grade distribution with composite grade distribution
   after application of indirect log-normal change of support correction to the
   composites.

For all validation exercises, the block model grade estimates appeared to be within an acceptable range.

# ROSCOE POSTLE ASSOCIATES INC. CLASSIFICATION

Block classification was applied to the model using a combination of the average distance and number of drill holes contributing composites to the local estimate. Due to the varying search and kriging parameters used for each component of the estimate, not all blocks received estimates for all metals. Only those blocks containing estimates for all principal components (i.e. Au, Cu, and Mo) were included in the classified Mineral Resource estimate. The classification was carried out in two steps. The first step was to apply integer codes to the blocks based on average distance and number of composites. The second step was to manually adjust the classification to account for isolated pods of blocks with inconsistent or unrealistic class assignments. This manual adjustment was made based on visual inspection of the block model in 3D. The integer assignments were applied to the block model as follows:

- Class 1 was applied to those blocks for which three or more holes contributed composites to the estimate, and the average distance to composites was less than 500 ft (i.e. 1/2 of the range of the median Au variogram).
- Class 2 was applied to blocks estimated by three or more holes and for which the average distance to composites was between 500 ft and 700 ft.
- Class 3 was applied to all other blocks with estimates for all three elements. The search for these blocks was based on the range of the median indicator variograms, with a minimum of two separate drill holes contributing composites to the estimate.

An inspection of the classified block distribution was made, and compared to the drill hole spacing. A manual adjustment was made to the Class 1 assignment in order to ensure that these blocks comprised a simple, consolidated mass with a consistent classification and drilling density. Isolated islands of blocks surrounding solitary drill holes distant from the main body of the resource were manually recoded. In addition, an

artificial "floor" was placed on the estimate to eliminate blocks that, in RPA's opinion, were extrapolated too deeply below the bottom of the drill holes. The Class 1 blocks remaining after the manual adjustments were assigned to the Measured category. Class 2 blocks were assigned to the Indicated category, and Inferred were Class 3 blocks.

#### **CUT-OFF GRADE**

In order to apply a cut-off grade to the estimate, a Cu-Equivalent (CuEq) grade was used. The CuEq grade was derived using the following relationship:

$$CuEq = ((Au * P_{Au}) + (Mo * P_{Mo}) + Cu)/P_{Cu}$$

Where:  $P_{Au} = Au \text{ price} = \$400/oz$ 

 $P_{Cu} = Cu \text{ price} = \$1/lb$ 

 $P_{Mo} = Mo price = $6/lb$ 

Au = oz Au/T

Cu = lb Cu/T

Mo = lb Mo/T

It is noted that no provision was made for metallurgical recovery in the CuEq calculation. However, in RPA's opinion, the metal prices used are sufficiently conservative relative to actual spot prices at the time of writing to account for metallurgical losses.

RPA notes that the majority of the value in the CuEq calculation is derived from Cu and Au, with a relatively minor, but measurable, contribution from Mo. For most cut-offs, Cu accounts for about 50% of the value, Au 34%, and Mo 16%. If Ag were also included in the calculation, the average CuEq value would increase by approximately 1.5% to 1.8%, depending on the cut-off grade used.

The base case cut-off grade applied to the Mineral Resources estimate was 0.3% CuEq. In RPA's opinion, this cut-off compares reasonably well with other large scale porphyry operations throughout the world and so is adequate for application to a Mineral Resource estimate.

# **MINERAL RESOURCES REPORT**

The Mineral Resources estimates for the Pebble deposit are summarized below in Tables 15-7 and 15-8. The tables are presented in both Imperial and metric units of measurement.

# TABLE 15-7 MINERAL RESOURCES ESTIMATE (IMPERIAL) Northern Dynasty Minerals Ltd. Pebble Project

#### **MEASURED RESOURCES**

Cut-Off	Tons	Cu	Au	Мо	Ag	CuEq	Cu	Au	Мо	Ag
(%CuEq)	MST	(%)	(opt)	(%)	(opt)	(%)	M lb	M oz	M lb	M oz
0.3	784	0.326	0.010	0.016	0.048	0.632	5,114	8.1	256	37.7
0.4	722	0.339	0.011	0.017	0.049	0.655	4,896	7.8	244	35.3
0.5	579	0.367	0.012	0.018	0.051	0.704	4,252	6.7	206	29.6
0.6	392	0.411	0.013	0.019	0.055	0.778	3,224	4.9	150	21.4
0.7	236	0.465	0.014	0.021	0.058	0.866	2,193	3.3	97	13.7

#### **INDICATED RESOURCES**

Cut-Off	Tons	Cu	Au	Мо	Ag	CuEq	Cu	Au	Мо	Ag
(%CuEq)	MST	(%)	(opt)	(%)	(opt)	(%)	M lb	M oz	M lb	M oz
0.3	2,552	0.267	0.009	0.014	0.040	0.536	13,652	23.2	736	103.3
0.4	1,937	0.300	0.010	0.016	0.043	0.594	11,635	19.2	611	83.5
0.5	1,216	0.347	0.011	0.017	0.046	0.679	8,438	13.9	423	56.5
0.6	678	0.404	0.013	0.020	0.050	0.787	5,468	8.9	270	33.7
0.7	392	0.463	0.015	0.021	0.053	0.891	3,627	5.9	167	20.7

## **MEASURED PLUS INDICATED RESOURCES**

Cut-Off	Tons	Cu	Au	Мо	Ag	CuEq	Cu	Au	Мо	Ag
(%CuEq)	MST	(%)	(opt)	(%)	(opt)	(%)	M lb	M oz	M lb	M oz
0.3	3,336	0.281	0.009	0.015	0.042	0.558	18,766	31.3	992.6	141.0
0.4	2,660	0.311	0.010	0.016	0.045	0.610	16,531	27.0	854.9	118.9
0.5	1,794	0.354	0.011	0.018	0.048	0.688	12,690	20.5	629.4	86.1
0.6	1,069	0.406	0.013	0.020	0.052	0.784	8,692	13.9	419.9	55.1
0.7	628	0.464	0.015	0.021	0.055	0.881	5,820	9.1	264.8	34.4

#### **INFERRED RESOURCES**

Cut-Off	Tons	Cu	Au	Мо	Ag	CuEq	Cu	Au	Mo	Ag
(%CuEq)	MT	(%)	(opt)	(%)	(opt)	(%)	M lb	M oz	M lb	M oz
0.3	4,585	0.269	0.009	0.015	0.039	0.541	24,630	42.1	1,354	180.7
0.4	3,493	0.301	0.010	0.016	0.042	0.600	21,049	35.2	1,133	146.9
0.5	2,254	0.345	0.012	0.018	0.045	0.683	15,561	26.1	798	101.7
0.6	1,319	0.398	0.013	0.020	0.048	0.781	10,501	17.4	521	63.5
0.7	785	0.451	0.015	0.021	0.051	0.874	7,089	11.7	328	40.0

# TABLE 15-8 MINERAL RESOURCES ESTIMATE (METRIC) Northern Dynasty Minerals Ltd. Pebble Project

#### **MEASURED RESOURCES**

Cut-Off	Tonnes	Cu	Au	Мо	Ag	CuEq	Cu	Au	Мо	Ag
(%CuEq)	MT	(%)	(g/t)	(%)	(g/t)	(%)	(KT)	(T)	(KT)	(T)
0.3	711	0.326	0.355	0.016	1.647	0.632	2,320	0.25	116	1.17
0.4	655	0.339	0.368	0.017	1.677	0.655	2,221	0.24	111	1.10
0.5	525	0.367	0.395	0.018	1.754	0.704	1,929	0.21	94	0.92
0.6	355	0.411	0.432	0.019	1.875	0.778	1,462	0.15	68	0.67
0.7	214	0.465	0.474	0.021	1.995	0.866	995	0.10	44	0.43

#### **INDICATED RESOURCES**

Cut-Off	Tonnes	Cu	Au	Мо	Ag	CuEq	Cu	Au	Мо	Ag
(%CuEq)	MT	(%)	(g/t)	(%)	(g/t)	(%)	(KT)	(T)	(KT)	(T)
0.3	2,315	0.267	0.311	0.014	1.388	0.536	6,193	0.72	334	3.21
0.4	1,757	0.300	0.341	0.016	1.478	0.594	5,278	0.60	277	2.60
0.5	1,103	0.347	0.391	0.017	1.594	0.679	3,827	0.43	192	1.76
0.6	615	0.404	0.452	0.020	1.703	0.787	2,480	0.28	122	1.05
0.7	356	0.463	0.514	0.021	1.811	0.891	1,645	0.18	76	0.64

## **MEASURED PLUS INDICATED RESOURCES**

Cut-Off	Tonnes	Cu	Au	Мо	Ag	CuEq	Cu	Au	Мо	Ag
(%CuEq)	MT	(%)	(g/t)	(%)	(g/t)	(%)	(KT)	(T)	(KT)	(T)
0.3	3,026	0.281	0.322	0.015	1.449	0.558	8,512	0.974	450	4.38
0.4	2,413	0.311	0.348	0.016	1.532	0.610	7,498	0.840	388	3.70
0.5	1,628	0.354	0.392	0.018	1.646	0.688	5,756	0.638	285	2.68
0.6	970	0.406	0.445	0.020	1.766	0.784	3,943	0.432	190	1.71
0.7	569	0.464	0.499	0.021	1.880	0.881	2,640	0.284	120	1.07

#### **INFERRED RESOURCES**

Cut-Off	Tonnes	Cu	Au	Мо	Ag	CuEq	Cu	Au	Мо	Ag
(%CuEq)	MT	(%)	(g/t)	(%)	(g/t)	(%)	(KT)	(T)	(KT)	(T)
0.3	1,133	0.235	0.297	0.014	1.091	0.495	2,660	0.34	164	1.24
0.4	756	0.271	0.339	0.017	1.153	0.569	2,049	0.26	126	0.87
0.5	417	0.312	0.418	0.018	1.162	0.666	1,302	0.17	76	0.48
0.6	226	0.363	0.490	0.020	1.164	0.771	821	0.11	46	0.26
0.7	143	0.402	0.556	0.020	1.203	0.846	576	0.08	28	0.17

# 16 OTHER RELEVANT DATA AND INFORMATION

NDM carried out a Preliminary Assessment for the Pebble Project in November of 2004 (see SEDAR, Barratt, P. and Beaudoin, P.; November, 2004; Preliminary Assessment of the Pebble Gold-Copper-Molydenum Project, Iliamna Area, Alaska, USA; 56 pp.). The study contemplated an open pit mine and mill operation, with capacity of 100,000 and 200,000 tpd, along with a scenario involving start-up at 100,000 tpd and ramping up to 200,000 tpd after five years. The economic model was generated using metal prices of US\$0.95/lb copper, US\$395/oz gold, US\$5.00/oz silver, and US\$5.00/lb molybdenum. Capital costs did not include a provision for a seaport and access road, as it was assumed that the Alaska State Government will provide these through its Southwest Alaska Regional Transportation Plan. The report concluded that the project is economically feasible using commonly-employed proven equipment and techniques. The report's conclusions were based on certain assumptions concerning metallurgical recovery, State involvement in capital investment, power availability, waste management, and Mineral Resources, and recommended that the following actions be taken:

- ★ The drill hole database should be expanded to include all 2004 results, and the
   estimate of Mineral Resources updated and reclassified to include Measured
   and Indicated categories.
- ∉ Metallurgical testing should be carried out to finalize estimated mill recoveries.
- ∉ Capital and operating costs of concentrate handling and transportation should be finalized.

- ∉ The involvement of the Alaska State Government in provision of infrastructure (port and road) should be definitively established.
- ∉ A suitable supply of electric power should be established.
- ∉ The location, design and construction methods for the tailings impoundment should be defined.

Note: RPA has not reviewed this report in detail and cannot comment of the validity of the assumptions or conclusions presented therein. The study was carried out using Inferred Mineral Resources, and according to NI43-101, it must be stipulated that these are "mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves".

NDM has embarked on a range of work programs aimed at resolving these and other issues. This includes commencement of a full Feasibility Study, which is on-going at the time of writing of this report. Project work initiated in 2004 that is in addition to or in support of the Feasibility Study includes:

- ∉ Environmental and socio-impact studies aimed at establishing baseline conditions for the project site, collecting environmental data for design purposes, provide an assessment of project impacts, and to support project review and permitting.
- ∉ A geotechnical study to establish design criteria for open pits and to collect groundwater data.
- ∉ A metallurgical sampling program comprising 27 PQ (3.35 in dia.) and HQ

  (2.5 in dia.) holes, which yielded 85 tons of test material. The sample material

  will be used to establish parameters for design of the plant and for prediction

  of metal recoveries.

- Pre-feasibility studies for the proposed site access road and port facility were initiated by the State.
- ∉ A feasibility study for establishment of a source for electric power for the project.

# 17 INTERPRETATION AND CONCLUSIONS

RPA has been retained to carry out an update of the Mineral Resources estimate for the Pebble Au-Cu-Mo-Ag deposit. RPA carried out a review of the drill logging, database, assay QA/QC and geological interpretations for the Pebble deposit. The grade interpolation was carried out by FSS.

#### RPA draws the following conclusions:

- ∉ The drilling, logging, and sampling protocols employed at Pebble are
  appropriate for the deposit type and are being carried out in a fashion that
  meets or exceeds common industry standards.
- ∉ The assaying was carried out using industry standard methods and QA/QC protocols. The QA/QC data indicate that the assays are acceptable for use in Mineral Resource estimation.
- ∉ The drill hole database is reasonably free of errors and is appropriate for use in Mineral Resources estimation.
- ∉ The 2004 drilling was successful in upgrading a significant proportion of the Inferred Resources to the Measured and Indicated categories.

- ∉ A cut-off grade of 0.3% CuEq is reasonable for a deposit of this type. The metal prices used in the CuEq calculation are conservative relative to the spot prices at the time of writing.
- Using the CuEq value as a benchmark, Cu accounts for about 50% of the gross value of the deposit, Au 34%, and Mo 16%.
- ∉ The Mineral Resources estimate, in metric units and at the 0.3% CuEq cut-off is listed in Table 17-1.

TABLE 17-1 MINERAL RESOURCES ESTIMATE Northern Dynasty Minerals Ltd. Pebble Project

	Tonnes	Cu	Au	Мо	Ag	CuEq	Cu	Au	Мо	Ag
	MT	(%)	(g/t)	(%)	(g/t)	(%)	(Kt)	(t)	(Kt)	(t)
Measured	711	0.326	0.355	0.016	1.647	0.632	2,320	0.25	116	1.17
Indicated	2,315	0.267	0.311	0.014	1.388	0.536	6,193	0.72	334	3.21
Inferred	1,133	0.235	0.297	0.014	1.091	0.495	2,660	0.34	164	1.24

# **18 RECOMMENDATIONS**

RPA makes the following recommendations:

- ∉ The present data-capture, assaying, and QA/QC protocols should be maintained for any future drilling programs.
- ∉ The project warrants a feasibility evaluation to determine if it is an economically viable deposit. At the time of writing, a feasibility study was underway.

# 19 REFERENCES

Analytical Laboratory Consultants; various dates; Internal assay QA/QC progress reports to NDM (Powerpoint files).

Analytical Laboratory Consultants; 2004; Site Inspection of Sample Preparation Facilities in Fairbanks, Alaska, internal report to NDM, 17 pp.

Barratt, D, and Beaudoin, P; November, 2004; Preliminary Assessment of the Pebble Gold-Copper-Molybdenum Project, Iliamna Area, Alaska, USA, 56 pp.

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Deutsch, C. and Journel, A.; 1992; GSLIB Geostatistical Software Library and User's Guide, Oxford University Press, Inc., 369 pp.

Haslinger, R. J., Payne, J. G., Price, S., and Rebagliati, C. M.; May 31, 2004; 2003 Summary Report on the Pebble Porphyry Gold-Copper Project, 119 pp.

Nilsson, J, Norwest Corporation; February 20, 2004; Resource Estimate, Pebble Copper Gold Pro-Iliamna Lake Area, Alaska., 345 pp.

Rebagliati, C. M., and Haslinger, R. J.; February 7, 2003; Summary Report on the Pebble Copper-Gold Porphyry Project, Iliamna Lake Area, Southwestern Alaska, U.S.A., 94 pp.

Rebagliati, C. M., and Payne, J. G.; draft report; 2004 Summary Report on the Pebble Porphyry Gold-Copper Project, Iliamna Lake Area, Southwestern Alaska, U.S.A., 97 pp.

# **20 SIGNATURE PAGE**

This report titled "Technical Report on the Pebble Deposit, Alaska, USA", dated April 1, 2005, was prepared by and signed by the following authors:

Dated at Vancouver, BC

April 1, 2005

Sr. Consulting Geological Engineer

Roscoe Festle Associates Inc

R. Mohan Srivastava

Dated at Toronto, ON

April 1, 2005

Mohan Srivastay

Principal

FSS Canada Consultan

# 21 CERTIFICATE OF QUALIFICATIONS – R. MOHAN SRIVASTAVA

I, R. Mohan Srivastava, P.Geo., do hereby certify that:

As an author of this report entitled "Technical Report on the Pebble Deposit, Alaska, USA", dated April 1, 2005, I hereby make the following statements:

1. I am currently employed as a Consulting Geostatistician by:

FSS Canada Consultants Inc.

Suite 302, 2179 Danforth Avenue

Toronto, Ontario, Canada

M4C 1K4

- 2. I graduated with a Bachelor of Science degree in Earth Sciences from the Massachusetts Institute of Technology in 1979, and I received a Master of Science degree in Applied Earth Sciences from Stanford University in 1988.
- 3. I am a Practising Member of the Association of Professional Geoscientists of Ontario (No. 547).
- 4. I have worked as a geostatistician for a total of 22 years since my graduation from university.
- 5. I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43 -101.

- 6. I am responsible for the data analysis and calculations described in Section 15 of this technical report titled "Technical Report on the Pebble Deposit, Alaska, USA", dated April 1, 2005. I assisted with the writing of Section 15, and have provided review comments on the other sections of this technical report.
- 7. I have not visited the property.
- 8. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.
- 9. I am independent of the issuer applying all of the tests in section 1.5 of National Instrument 43-101.
- 10. I have read National Instrument 43-101 and Form 43-101FI, and the Technical Report has been prepared in compliance with that instrument and form.
- 11. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Signed and dated this 1st day of April, 2005 at Toronto, Ontario

R. Mohan Srivastava

R. Mohan Srivastava, P. Geo.

R. MOHAN SRIVASTAVA COPRACTISING MEMBER 0547

# 22 CERTIFIATE OF QUALIFICATIONS - DAVID W. RENNIE

I, David W. Rennie, P. Eng., do hereby certify that:

As an author of this "Technical Report on the Pebble Deposit, Alaska, USA", dated April 1, 2005, I hereby make the following statements:

1. I am currently employed as a Consulting Geological Engineer by:

Roscoe Postle Associates Inc.

Suite 2000, 1066 West Hastings Street

Vancouver, British Columbia, Canada

V6C 3X2

- 2. I graduated with a Bachelor of Applied Science degree in Geological Engineering from the University of British Columbia in 1979.
- 3. I am a member of the Professional Association of Professional Engineers and Geoscientists of British Columbia (Reg. No. 13572).
- 4. I have worked as a geological engineer for a total of 26 years since my graduation from university.
- 5. I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43 -101.

- 6. I am responsible for the preparation of this technical report titled "Technical Report on the Pebble Deposit, Alaska, USA", dated April 1, 2005.
- 7. I visited the property on October 4 6, 2004.
- 8. I am not aware of any material fact or material change with respect to the subject matter of the Technical Report that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.
- 9. I am independent of the issuer applying all of the tests in section 1.5 of National Instrument 43-101.
- 10. I have read National Instrument 43-101 and Form 43-101FI, and the Technical Report has been prepared in compliance with that instrument and form.
- 11. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

Signed and dated this 1st day of April, 2005 at Vancouver, British Columbia.

