TECHNICAL REPORT

ON THE

2007 PROGRAM

AND

UPDATE ON METALLURGY AND RESOURCES

ON THE

PEBBLE COPPER-GOLD-MOLYBDENUM PROJECT

ILIAMNA LAKE AREA

SOUTHWESTERN ALASKA, U.S.A.

For:
NORTHERN DYNASTY MINERALS LTD.

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3 SUMMARY

This technical report has been prepared in compliance with the requirements of National Instrument 43-101 for use as supporting documentation to be filed on www.sedar.com with the 2007 Annual Information Form for Northern Dynasty Minerals Ltd ("Northern Dynasty").

Northern Dynasty is a mineral exploration company whose major asset is a 50% share of the Pebble Copper-Gold-Molybdenum Project (the "Project").

The Pebble property is located at latitude 59º53'54" N and longitude155º17'44" W in the Bristol Bay region of southwest Alaska, 320 km southwest of Anchorage and 27 km west-northwest of the village of Iliamna. It forms a continuous block consisting of 1,335 located Alaska State mineral claims totalling 98,000 acres (39,659 hectares).

On July 26, 2007, Northern Dynasty converted a wholly-owned general partnership formed in 2006 to hold its Pebble Property interests into a limited partnership, the Pebble Limited Partnership ("the Partnership"), so that an indirect wholly-owned subsidiary of Anglo American plc ("Anglo") could subscribe for 50% of the Partnership's equity effective July 31, 2007. Each of Northern Dynasty and Anglo effectively have equal rights in the Partnership through wholly-owned affiliates. The Partnership's assets include the shares of two Alaska subsidiaries which hold registered title to the claims. To maintain its 50% interest in the Partnership, Anglo will be required to make staged cash investments into the Partnership aggregating US$1.425 billion.

A staged investment by Anglo includes a committed expenditure of US$125 million to complete a pre-feasibility study targeted for the end of 2008. After completion of the pre-feasibility study Anglo must, in order to retain its 50% interest, elect to commit to a further US$325 million for a feasibility study, the completion and approval of which is targeted for 2011, and which is expected to take the Partnership to a production decision. Upon the decision to develop a mine, Anglo must commit to the next US$975 million of expenditures to retain its 50% interest, completion of which will meet the US$1.425 billion requirement. Thereafter, any further expenditure will be funded on a 50:50 basis. If the feasibility study is completed after 2011, Anglo's overall funding requirement increases to US$1.5 billion.

In this technical report the Pebble Project may be for convenience referred to as "Northern Dynasty's Pebble Project" or similar phraseology may be used, all of which is qualified by the legal details about the exact manner of ownership found above and in the Northern Dynasty's Annual Information Form filed March 31, 2008. ALL STATEMENTS HEREIN ARE STRICTLY THOSE OF NORTHERN DYNASTY LTD. AND ARE NOT TO BE CONSTRUED AS DISCLOSURES OF ANY OTHER PARTY INCLUDING THE PEBBLE PARTNERSHIP OR ANGLO-AMERICAN PLC.

3.1 Geology and Exploration

The Pebble property comprises Jura-Cretaceous to Eocene igneous and sedimentary rocks. Jura-Cretaceous flysch and interbedded mafic to intermediate volcanic flows and tuffs were sequentially intruded at about 96 Ma by subalkalic diorite sills, alkalic pyroxenite, monzodiorite, monzonite and syenomonzonite. Granodiorite of the Kaskanak batholith was emplaced at about 90 Ma, accompanied by coeval satellite bodies of granodiorite which are related to porphyry copper-gold-molybdenum and other styles of intrusion-related mineralization in the eastern part of the district, including the Pebble deposit. The district was subjected to extensive erosion, and sedimentary and volcanic strata were deposited sometime between about 89 and 65 Ma. Eocene (~46 Ma) volcanic rocks overlie the older units. Low-lying parts of the district are covered by thin fluvio-glacial sediments.

The Pebble deposit is a calc-alkalic copper-gold-molybdenum porphyry deposit which formed in association with granodiorite intrusions emplaced at about 90 Ma. The deposit comprises the contiguous Pebble West and Pebble East deposits. The West deposit was discovered by Cominco American Incorporated, now Teck Cominco America ("Teck Cominco") in 1986. Mineralization manifests several coalescing hydrothermal centres formed around small granodiorite stocks which intruded Jura-Cretaceous flysch, diorite sills, and alkalic intrusions and associated intrusion breccias. The West deposit extends to surface and is amenable to open pit mining methods. The East deposit was discovered by Northern Dynasty in 2005. The East deposit occurs within a granodiorite stock, and in surrounding flysch cut by granodiorite sills. The East deposit is overlain by east-thickening, post-mineralization volcanic and sedimentary strata, and is being evaluated for underground block cave mining.

Mineralization in the East and West deposits precipitated during early K-silicate alteration and associated quartz-sulphide veins, and was later variably overprinted by phyllosilicate alteration. Mineralization is dominated by hypogene pyrite, chalcopyrite and molybdenite; bornite is an important component in some parts of the East deposit. The West deposit contains irregularly distributed, mostly thin, volumetrically subordinate zones of supergene mineralization and a very minor zone of oxide mineralization; the East deposit contains only hypogene mineralization. Copper-gold-molybdenum mineralization, as currently known, extends over an east-elongated area of 4.9 by 3.3 km (2.8 by 1.9 mi), and to a depth of 610 m (2000 ft) in the West deposit and to at least 1525 m (5000 ft) in the East deposit. The Pebble East deposit remains open to the east, north and south. A much larger zone of strong alteration and low-grade mineralization extends north, south and west of the known Pebble deposit.

The 2007 exploration program at Pebble focused on diamond drilling in the East deposit. Delineation holes evaluated possible extensions of mineralization, and infill holes assessed internal continuity in the highest grade portions of the deposit as currently known; this work comprised 46,900 m (153,884 feet) in 35 holes. Oriented core was obtained from 4 of these holes, and acoustic logging provided geotechnical information in 19 holes. In the West Zone, 9 holes totalling 3,099 m (10,168 feet) were completed to obtain material for metallurgical and comminution testwork. A total of 26 short engineering drill holes comprising 1,349 m (4, 425 feet) were completed in the Pebble district to obtain geotechnical and hydrologic information on overburden and bedrock. The delineation and infill drilling returned long intervals of high-grade copper-gold-molybdenum mineralization and expanded the size of the East deposit, which remains open to the north, east and south.

Additional work in the district during 2007 included: 1) a helicopter-borne magnetic survey comprising about 2,700 line kilometres over an area of 426 km^2; and 2) a magnetotelluric survey based on 196 stations located atop and immediately surrounding the Pebble East deposit. The geophysical surveys were completed to provide baseline data, and did not influence the exploration program in 2007.

3.2 Mineral Resource Estimations

The Pebble West Deposit is a near-surface resource that is amenable to extraction by open pit methods. The estimated mineral resources in the Pebble West deposit to March 2005[1,3] at a 0.30% copper-equivalent[4,5] cut-off, include:

- Measured and Indicated Resources of 3.0 billion tonnes grading 0.28% copper, 0.32 g/t gold, and 0.015% molybdenum, containing 18.8 billion pounds of copper, 31.3 million ounces of gold and 993 million pounds of molybdenum.
- Inferred Resource of 1.1 billion tonnes grading 0.24% copper, 0.30 g/t gold and 0.014% molybdenum, containing 5.9 billion pounds of copper, 10.8 million ounces of gold and 361 million pounds of molybdenum.

The Pebble East Deposit is located adjacent and to the east of Pebble West. Pebble East is deeper but higher grade than Pebble West, and preliminary geotechnical analysis indicates that it is potentially amenable to underground bulk mining. A new resource estimate was completed in February 2008[2,3] , which at a 0.60% copper equivalent[4,5] cut-off is:

- Inferred Resource of 3.9 billion tonnes grading 0.58% copper, 0.36 g/t gold and 0.033% molybdenum, containing 49 billion pounds of copper, 45 million ounces of gold, and 2.8 billion pounds of molybdenum.

3.3 Metallurgy and Comminution Testwork

The metallurgical test program for the Pebble Project, initiated in 2004, has continued into 2008 with testing of drill core samples from both East and West deposits. Extensive batch and lock cycle flotation testwork on Pebble East samples confirmed the suitability of a relatively simple flowsheet consisting of rougher and scavenger flotation, regrinding of concentrate, and cleaner flotation using pH control for copper/pyrite separation. Copper, gold and molybdenum recoveries achieved to flotation concentrate, projected to a 26% Cu concentrate, were 91% for copper, 64% for gold and 94% for molybdenum. Molybdenum separation efficiencies of approximately 90% were obtained in copper/molybdenum separation tests.

Concepts for the design and operation of the grinding circuits for the Pebble project were determined from comminution test work. Estimates of Bond work indices have been determined on drill core material from both the Pebble West and Pebble East deposits. Additional testwork is planned as input to ongoing comminution circuit design and estimation of power draw.

3.4 Recommended Program

The recommended program for 2008 encompasses drilling, engineering studies and ongoing environmental and socioeconomic programs to advance the project. Resource drilling will focus on continuing to delineate the Pebble East deposit through 51,850 m (157,000 feet) of infill and step out diamond drilling. In addition, 6,600 m (20,000 feet) of engineering drilling is recommended. Metallurgical and comminution work will continue, focusing on fresh material obtained from the Pebble West and East deposits during 2006 and 2007; this work will address further modifications to the flowsheets and comminution circuits.

Notes on Mineral Resource estimates:

[1]The Pebble West resource estimate was completed in March 2005 under the direction of David W. Rennie, P. Eng. of Scott Wilson Roscoe Postle Associates Inc., and R. Mohan Srivastava, M.Sc., P.Geo., of FSS Canada Consultants Inc., who are independent Qualified Persons.

[2]The Pebble East estimate was prepared in February 2008 by David Gaunt, P.Geo., Hunter Dickinson Inc., technical consultant to the Partnership and Qualified Person, who is not independent of Northern Dynasty.

[3]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.

[4]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. Copper equivalent has not been adjusted for metallurgical recoveries. Adjustment factors to account for differences in relative metallurgical recoveries for copper, gold and molybdenum will depend upon the completion of definitive metallurgical testing. CuEQ = Cu % + (Au g/t x 12.86/22.05) + (Mo % x 132.28/22.05).

[5]A 0.30% CuEQ cut-off is considered to be comparable to that used for porphyry deposit open pit mining operations in the Americas. Cut-offs in the range of 0.60% CuEQ are typically used for bulk underground mining operations at copper porphyry deposits located around the world. Appropriate cut-offs for the Pebble Project's open pit and underground resources will be defined during detailed engineering studies.

4 INTRODUCTION AND TERMS OF REFERENCE

4.1 Introduction

This report provides an update of the exploration, mineral resource estimates, metallurgical and comminution testwork activities and results achieved on the Pebble project between January 1, 2007 and December 31, 2007.

This technical report has been prepared in compliance with the requirements of National Instrument 43-101 for use as supporting documentation to be filed on www.sedar.com with the Northern Dynasty's 2007 Annual Information Form.

4.2 Terms of Reference

The Qualified Persons (authors) responsible for the content of this report are as follows:

C. Mark Rebagliati, P.Eng – Consulting International Exploration Manager for Hunter Dickinson Inc. Responsible for coordination of local and regional geological reconnaissance, and exploration and delineation drilling, sample security and integrity, core logging, and sampling on the project from 2001 to present. Mr. Rebagliati is responsible, jointly with Dr. Lang, for Sections 6 to 13, 17, 20, 21 and 22. He was at the project site for 6 days in 2007, and for about 90 days in previous years.

James R. Lang, PhD, P.Geo – Senior Geological Consultant for Hunter Dickinson Inc. Dr. Lang, jointly with Mr. Rebagliati, is responsible for Sections 6 to 13, 17, 20, 21 and 22. He has been on site each year from 2003 through 2007. He spent about 120 days on the project site from 2003 through 2006, and during 2007 was on site for approximately 135 days.

Eric Titley, P.Geo – Senior Geologist and Database Manager, Hunter Dickinson Inc. supervises assay certificate and drill database verification, and all QA/QC protocols. He is responsible for sections 14, 15 and 16. He was on site for two days in May 2007.

David Gaunt, P.Geo. **–** Geologist and Manager of Resources for Hunter Dickinson Inc. Mr. Gaunt has been responsible for assay certificate and drilling database verification, three-dimensional deposit modelling, geostatistical modeling and completion of resources estimates for the Pebble East deposit in Section 19.2 of this Technical Report. He has been to site several times, including visits during 2007, and most recently in March 2008.

David Rennie, P.Eng – Consulting Geological Engineer for Scott Wilson Roscoe Postle. Mr. Rennie is responsible for the Pebble West Resource Estimate in Section 19.1. He was on the project site for 2 days in 2007, and has visited the project on several other occasions in previous years, during which time he directly observed the methods of data acquisition and documentation, drilling, sample preparation and geological interpretation.

Lawrence Melis, P.Eng – Principal of Melis Engineering, and primary metallurgical consultant to Northern Dynasty. Mr. Melis is responsible for Section 18.1. He visited the project site for 2 days in August 2006, during which time he reviewed drill core and sampling procedures related to metallurgical testwork.

Derek Barratt, P.Eng, C.Eng, FIMM, LMCIMM, MSME – President of DJB Consultants Inc. Mr. Barratt is responsible for Section 18.2. He has been on the project site for a total of 5 days since 2004, during which time he directly observed the methods of data acquisition and documentation, drilling, sample preparation and geological interpretation.

Stephen Hodgson, P.Eng – Vice President Engineering, Hunter Dickinson Inc and Director of Engineering for the Pebble Project, provided the summary of engineering studies presented in Section 20.4, and is jointly responsible for sections 21 and 22. Mr. Hodgson first visited the project site in 1991 and has been there multiple times each year since 2005, most recently in October 2007.

In preparing this Technical Report, the authors relied upon the following reports provided by Northern Dynasty, namely:

- Technical Report on the Pebble Project by C.M. Rebagliati and R.J. Haslinger, dated January 2003. (Report filed on www.sedar.com).
- Technical Report on the Pebble Project by C.M. Rebagliati and R.J. Haslinger, dated January 2004. (Report filed on www.sedar.com).
- Technical Report on the Pebble Project by R.J. Haslinger, J.G. Payne, S. Price and C.M. Rebagliati, dated May 2004. (Report filed on www.sedar.com).
- Technical Report on the Pebble Project by C.M. Rebagliati and J.G. Payne, dated March 2005. (Report filed on www.sedar.com).
- Technical Report on the Pebble Project by C.M. Rebagliati and J.G. Payne, dated March 2006. (Report filed on www.sedar.com).
- Technical Report on the Pebble Project by C.M. Rebagliati and J.G. Payne, dated March 2007. (Report filed on www.sedar.com).
- Internal company reports archived by Northern Dynasty, detailing the results of exploration activities conducted on the property over the time period January 2001 to December 2007.

The sections of this report which cover Property Description and Location (Section 6.1 only), Accessibility, Climate, Local Resources, Infrastructure and Physiography (Section 7), History (Section 8), Geological Setting (Section 9), Deposit Types (Section 10) and Mineralization

(Section 11) were acquired from previously filed Technical Reports, which are noted in this document, as well as the technical records of Northern Dynasty.

All reports listed in the references concerning the property have been reviewed and have been used, as cited, in this report. All units of measure used in this report are metric and monetary amounts are in United States dollars, unless otherwise noted.

5 RELIANCE ON OTHER EXPERTS

In preparing this Technical Report, the authors also relied upon information provided by Northern Dynasty, namely:

- Northern Dynasty provided the information on environmental, socioeconomic, community engagement and cultural study programs in Sections 20.1, 20.2 and 20.3.
- Northern Dynasty's general corporate counsel, Bernhard Zinkhofer, B.Comm., LL.B, partner, Lang Michener LLP, provided the disclosure on the Pebble Limited Partnership.

6 PROPERTY DESCRIPTION AND LOCATION

6.1 Property Description

The "Property Description and Location" is stated in the report titled "2006 Summary Report on the Pebble Porphyry Copper-Gold-Molybdenum Project" by C.M. Rebagliati and J.G. Payne, dated March 2007 and filed on SEDAR, www.sedar.com. The 2007 exploration program at the Pebble project did not result in any material or significant changes from the descriptions in the citation above. The authors have not made a field examination of the claim posts and can pass no opinion on the validity of the claims.

6.2 Business Description

On July 26, 2007, Northern Dynasty converted a wholly-owned general partnership formed in 2006 to hold its Pebble Property interests into a limited partnership, the Pebble Limited Partnership ("the Partnership"), so that an indirect wholly-owned subsidiary of Anglo American plc ("Anglo") could subscribe for 50% of the Partnership's equity effective July 31, 2007. Each of Northern Dynasty and Anglo effectively have equal rights in the Partnership through wholly-owned affiliates. The Partnership's assets include the shares of two Alaska subsidiaries which hold registered title to the claims. To maintain its 50% interest in the Partnership, Anglo will be required to make staged cash investments into the Partnership aggregating US$1.425 billion.

A staged investment by Anglo includes a committed expenditure of US$125 million to complete a pre-feasibility study targeted for the end of 2008. After completion of the pre-feasibility study Anglo must, in order to retain its 50% interest, elect to commit to a further US$325 million for a feasibility study, the completion and approval of which is targeted for 2011, and which is expected to take the partnership to a production decision. Upon the decision to develop a mine, Anglo must elect to commit to the next US$975 million of expenditures to retain its 50% interest, completion of which will meet the US$1.425 billion requirement. Thereafter, any further expenditure will be funded on a 50:50 basis. If the feasibility study is completed after 2011, Anglo's overall funding requirement increases to US$1.5 billion.

A redacted form of the Limited Partnership Agreement was filed on SEDAR March 26, 2008.

7 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

The "Accessibility, Climate, Local Resources, Infrastructure and Physiography" are stated in the report titled "2006 Summary Report on the Pebble Porphyry Copper-Gold-Molybdenum Project" by C.M. Rebagliati and J.G. Payne, dated March 2007 and filed on SEDAR, www.sedar.com. The 2007 exploration program at the Pebble project did not result in any material or significant changes from the descriptions in the citation above.

8 HISTORY

The "History" is stated in the report titled "2006 Summary Report on the Pebble Porphyry Copper-Gold-Molybdenum Project" by C.M. Rebagliati and J.G. Payne, dated March 2007 and filed on SEDAR, www.sedar.com. The 2007 exploration program at the Pebble project did not result in any material or significant changes from the descriptions in the citation above.

9 GEOLOGICAL SETTING

The "Geological Setting" is stated in the report titled "2006 Summary Report on the Pebble Porphyry Copper-Gold-Molybdenum Project" by C.M. Rebagliati and J.G. Payne, dated March 2007 and filed on SEDAR, www.sedar.com. The 2007 exploration program at the Pebble project did not result in any material or significant changes from the descriptions in the citation above.

10 DEPOSIT TYPES

The "Deposit Types" are stated in the report titled "2006 Summary Report on the Pebble Porphyry Copper-Gold-Molybdenum Project" by C.M. Rebagliati and J.G. Payne, dated March 2007 and filed on SEDAR, www.sedar.com. The 2007 exploration program at the Pebble project did not result in any material or significant changes from the descriptions in the citation above.

11 MINERALIZATION

The "Mineralization" is stated in the report titled "2006 Summary Report on the Pebble Porphyry Copper-Gold-Molybdenum Project" by C.M. Rebagliati and J.G. Payne, dated March 2007 and filed on SEDAR, www.sedar.com. The 2007 exploration program at the Pebble project did not result in any material or significant changes from the descriptions in the citation above.

12 EXPLORATION

12.1 Overview to December 2006

Geological, geochemical, and geophysical surveys were conducted in the Pebble project area from 1985 to 2000 by Teck Cominco, and from 2001 to 2006 by Northern Dynasty. The types of surveys and their results are briefly summarized below. Exploration work prior to 2007 was of significant historical importance, but is only summarized here as it did not directly bear upon design or execution of the drilling or exploration programs conducted during 2007, as described in this report; detailed descriptions of the historical exploration programs and results may be found in Technical Reports by Rebagliati and Haslinger (2003, 2004), Haslinger et al. (2004), and Rebagliati and Payne (2005, 2006, 2007), which are available at www.sedar.com. Drilling is described separately in Section 13.

12.1.1 Geological Mapping

Between 2001 and 2006 the entire Pebble property was mapped for rock type, structure and alteration at a scale of 1:10,000. This work provided an important geological framework for interpretation of other exploration data and drilling programs. A geological map of the Pebble deposit has also been constructed, but in the absence of outcrop is based solely on drill hole information. The content and interpretation of district and deposit scale geological maps have not changed materially from the information presented by Rebagliati and Payne (2007).

12.1.2 Geophysical Surveys

Dipole-dipole induced polarization (IP) surveys totalling 122 line kilometres were completed by Zonge Geosciences for Teck Cominco between 1988 and 1997, and an additional 31 line kilometres were completed by Zonge Geosciences for Northern Dynasty in 2001. This work defined a chargeability anomaly about 91 km^2 in extent within Cretaceous rocks which surround the Kaskanak batholith on its eastern to southern margins. The anomaly measures about 21 km north-south by up to 10 km east-west; the western margin coincides with the contact of the Kaskanak batholith, and to the east the anomaly is masked by a cover of younger Tertiary volcanic and sedimentary rocks (Casselman and Osatenko, 1996; Zonge, 1997). The broader anomaly was found to contain 11 distinct centres reflected by stronger chargeability anomalies, many of which were later demonstrated to be coincident with extensive copper, gold and molybdenum soil geochemical anomalies. All known zones of mineralization of Cretaceous age in the Pebble district occur within the broad IP anomaly.

A ground magnetometer survey totalling 18.7 line kilometres was completed during 2002. The focus of this work was the area surrounding skarn mineralization in the 37 Zone in the southern part of the Pebble district.

12.1.3 Geochemical Surveys

Teck Cominco undertook several soil geochemical surveys on the Pebble property and collected a total of 7,337 samples between 1988 and 1995 (Bouley et al., 1995). Northern Dynasty collected an additional 1,026 soil samples between 2001 and 2003. Typical sample spacing in the central part of the large geochemical grid was 30 to 76 m (100 to 250 ft) along lines spaced 122 to 229 m (400 to 750 ft) apart; samples were more widely spaced near the north, west and southwest margins of the grid. These sampling programs outlined high contrast, coincident anomalies in gold, copper, molybdenum and other metals in an area which measures 9 km (5.6 mi) north-south by up to 4 km (2.5 mi) east-west, with strong but smaller anomalies in several outlying zones. All soil geochemical anomalies lie within the IP chargeability anomaly described above.

12.2 Exploration During 2007

The principal focus of activity on the Pebble project during 2007 was delineation and infill drilling within and immediately surrounding the Pebble East deposit. This work is described in Section 13.

Two geophysical surveys were completed during 2007. A helicopter airborne magnetic survey was flown over the entire Pebble property. A total of 2,343.9 line kilometres were flown at 200 m line spacing. The survey covered an area of 426 km^2. The survey lines were flown at a nominal mean terrain clearance of 60 m along flight lines oriented 135^o at a line spacing of 200 m, with tie lines oriented 045^o at a spacing of 2000 m. An area of 37.4 km^2 located over the Pebble deposit was flown at 100 m line spacing for a total of 341.7 line kilometres, without additional tie lines. The survey was conducted by MPX Geophysics Ltd., based in Richmond Hill, Ontario. Preliminary results are described by McKinnon et al. (2007). The principal objective of this survey was to obtain a higher resolution of magnetic patterns than was available from existing regional government magnetic maps. Results of this work will be presented at a later time, upon completion of a full data interpretation; this work did not influence any of the exploration work described in this report.

A magnetotelluric survey was also completed during 2007. The survey was conducted by GSY-USA Inc., the U.S. subsidiary of Geosystem SRL of Milan, Italy, under the supervision of Northern Dynasty geologists (Soyer, 2007). The survey focused on the area of current drilling in the Pebble East deposit, and comprised 196 stations on 9 E-W lines and 1 N-S line, at a nominal station spacing of 200 m. Interpretation, including 3D inversion of the dataset, is being undertaken by Mr. Donald Hinks of RTZ. Similar to the aeromagnetic survey, the magneto-telluric survey did not influence any of the exploration work described in this report and will be described in detail at a later date upon completion of a full interpretation.

No geochemical surveys were completed during 2007.

13 DRILLING

The principal focus of exploration work on the Pebble project during 2007 was a drilling program designed to expand and delineate the Pebble East deposit, as well as infill drilling to decrease the spacing of holes within the area of known mineralization. Drilling protocols and results are described below, after a brief review of historical drilling in the district.

13.1 Summary of Drilling Prior to 2007

The Pebble district has been drilled extensively (Fig. 13.1). Drilling statistics to the end of the 2006 exploration program are compiled in Table 13.1. Detailed descriptions of the programs and results for 2006 and preceding years may be found in Technical Reports by Rebagliati and Haslinger (2003, 2004), Haslinger et al. (2004), and Rebagliati and Payne (2005, 2006), available at www.sedar.com.

All drilling on the Pebble project has been diamond core drilling, except for 667 m (2,185 ft) of percussion drilling in some early engineering drill holes. All reported drilling lengths include overburden, which in most cases was drilled by tricone bit with no core recovery.

Table 13.1. Summary of drilling in the Pebble district to December 2006.

Company	Area	No. of Holes	Length (m)	Length (ft)
Teck Cominco	Pebble Deposit	114	18,813	61,724
Teck Cominco	Rest of Property	50	4,273	15,019
Northern Dynasty	Pebble Deposit	307	110,964	364,056
Northern Dynasty	Rest of Property	170	59,977	196,774
TOTALS		**641**	**194,027**	**636,572**

Highlights of drilling between 1986 and 2006 include the following:

- Initial drilling by Teck Cominco focused on the Sill epithermal deposit, located on the east-central side of the district; 39 holes were drilled for a total of 3,184 m (10,446 ft) in 1986 and 1987, and no further work has been conducted in this deposit since that time. The Sill deposit comprises quartz veins and replacements which host gold and silver mineralization. It is of Eocene age and is not related to the rest of mineralization in the district, including the Pebble deposit, which is Cretaceous in age.
- Most of the remaining 19,902 m (66,297 ft) of drilling by Teck Cominco was completed in the immediate vicinity of the Pebble West deposit. Most Teck Cominco holes were between 113 and 213 m (370 and 700 ft) in length, and only 5 exceeded 274 m (900 ft) in length with the deepest drilled to a depth of 411.5 m (1,350 ft). Drill spacing ranged from 91 to 229 m (300 to 750 ft) throughout much of the Pebble West deposit, increasing to up to 305 m (1,000 ft) on the margins. In the higher-grade core of the Pebble West deposit, drill holes had a spacing of 61 to 73 m (200 to 240 ft). Interestingly, 50% of Teck Cominco drill holes in the Pebble West deposit bottomed in sulphide mineralization with grades of 0.60% CuEQ or higher, and 96% bottomed in mineralization with grades higher

than 0.30% CuEQ (as defined in the notes to Table 19.1); the depth extension of this mineralization was tested during later drill programs by Northern Dynasty. Teck Cominco completed a few, generally shallow holes totalling 1,089 m (3,573 ft) within the broad IP chargeability and geochemical anomaly to the south and southwest of the Pebble West deposit.

- Northern Dynasty drilled 68 holes totalling 11,350 m (37,237 ft) during 2002. The objective of this work was to test the strongest IP chargeability anomalies outside of the Pebble deposit, as known at that time, but within the larger and broader IP chargeability anomaly described above. This program discovered the 38 Zone porphyry copper-gold-molybdenum deposit, the 52 Zone porphyry copper occurrence, the 37 Zone gold-copper skarn deposit, the 25 Zone gold deposit, and several small occurrences in which gold values exceeded 3.0 g/t (Fig. 13.1).
- In 2003, Northern Dynasty drilled 67 holes totalling 21,713 m (71,238 ft), mainly within and adjacent to the Pebble West deposit to determine continuity of mineralization and to identify and extend higher grade zones. Most holes were drilled to the 0 m (0 ft) elevation above mean sea level, and were 274 to 366 m (900 to 1,200 ft) in length. Nine holes totalling 1,987 m (6,519 ft) were drilled outside the Pebble deposit to test for extensions and new mineralization at 4 other zones on the property, including the 38 Zone porphyry copper-gold-molybdenum deposit and the 37 Zone gold-copper skarn deposit.
- Drilling by Northern Dynasty during 2004 totalled 39,994 m (131,214 ft) in 147 holes in the Pebble deposit, and 268 m (879 ft) in 1 exploration hole in the southern part of the property which discovered the 308 Zone porphyry copper-gold-molybdenum deposit. In addition, 9,937 m (32,601 ft) of drilling were completed in 111 engineering holes, of which 32 holes totalling 667 m (2,185 ft) were percussion.
- In 2005, Northern Dynasty drilled 23,181 m (76,052 ft) in 45 holes. Of these drill holes, 27 totalling 4,124 m (13,530 ft) were drilled for engineering and metallurgical purposes in the Pebble West deposit. The remaining 18 drill holes totalling 18,556 m (60,879 ft) were drilled in the Pebble East deposit, and the results confirmed its presence and further demonstrated that it was of large size and contained higher grades of copper, gold and molybdenum than the Pebble West deposit. The Pebble East deposit remained completely open at the end of 2005.
- Drilling during 2006 focused on further expansion of the Pebble East deposit. Drilling comprised 23,930 m (78,509 ft) in 50 holes, which included 30 engineering and water monitoring drill holes. The Pebble East deposit again remained fully open at the conclusion of the 2006 drilling program.

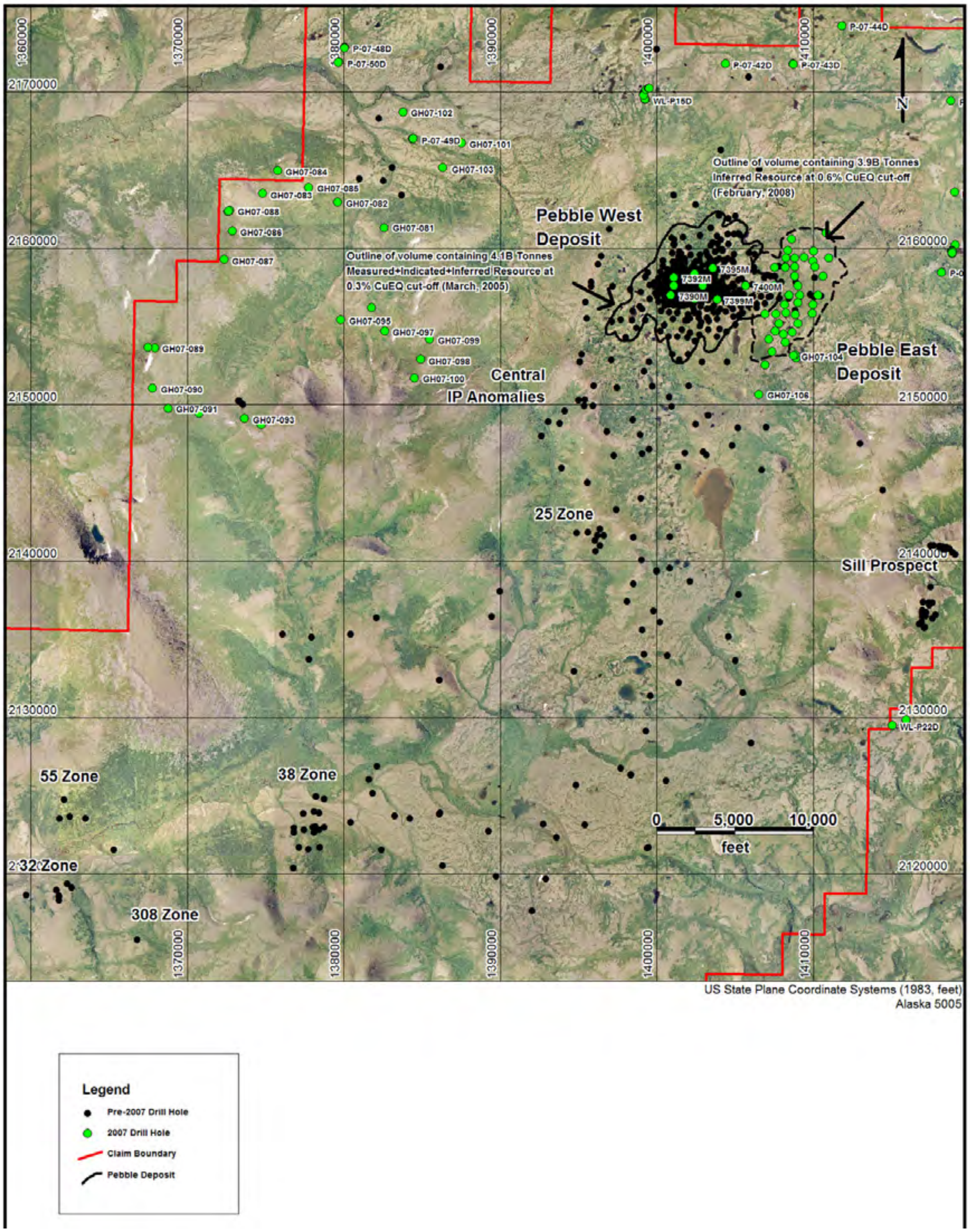


Figure 13.1. Location of drill holes, Pebble district. Holes completed during 2007 are shown in green. Those with the GH prefix are engineering drill holes; unlabelled green dots show exploration, delineation and metallurgy drill holes as detailed in Figure 13.2. Grid is in feet using the Alaska State Plane 5 UTM Datum. Base map is an aerial photo.

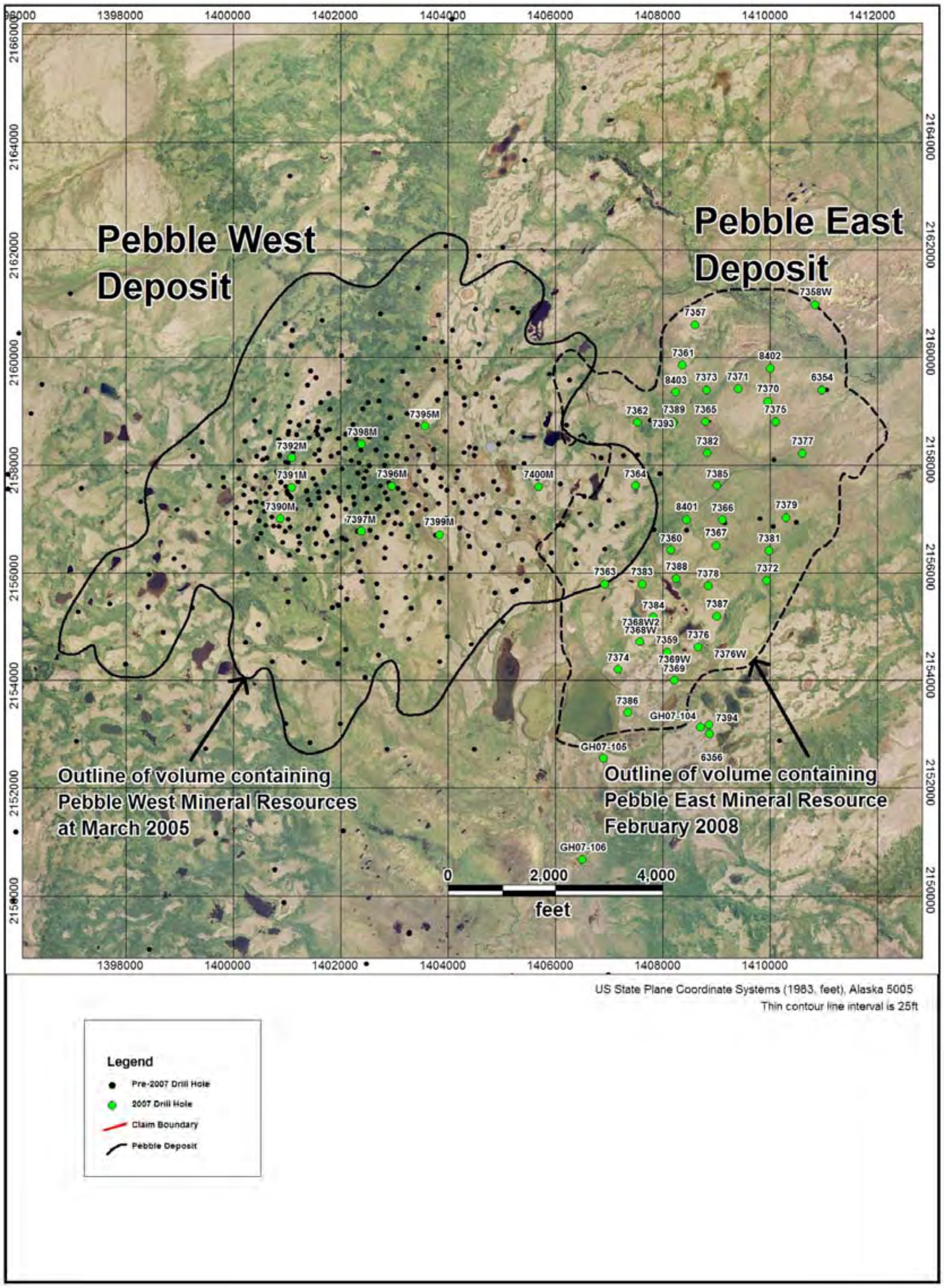


Figure 13.2. Location of drill holes, Pebble deposit. Holes completed during 2007 are shown in green. Those in the Pebble West deposit with the M suffix were drilled solely to obtain material for metallurgy and comminution testwork; those in the Pebble East Zone are infill and exploration drill holes. Base and grid data as in Figure 13.1.

13.2 The 2007 Drilling Program

13.2.1 Drilling Procedures

Delineation and infill drilling in the Pebble deposit during 2007 was completed by American Recon, Inc., and Boart Longyear, using several types of wireline rigs; Foundex Drilling completed additional geotechnical drilling in the district. All drilling was conducted under the supervision of project geologists. Core diameters included 86 mm (PQ), 63.5 mm (HQ) and 47.6 mm (NQ); a very small amount of 36.5 mm (BQ) core was obtained from the lower part of one drill hole (DDH-7359). Overburden in delineation and infill drill holes was drilled by tricone bit with no core recovery; overburden was cored by triple-tube in some engineering holes. Core was boxed and depth markers inserted at the drill site. Core was transported daily by helicopter to a secure logging compound located adjacent to the Iliamna airport.

Core logging and processing are carried out in a secure compound by site geologists and personnel, supervised by qualified persons as defined by National Instrument 43-101. A geological log, with complete written and coded descriptions of rock type, alteration, veins, mineralization, and structure was entered into a Microsoft Access database for all drill core obtained during the program. Geotechnical data on specific gravity, fractures, joints, veins, faults, RQD, rock hardness and related physical characteristics were collected on all drill core by or under the supervision of site geologists, monitored for quality control by geotechnical engineers provided by SRK Consulting. Core samples of all rock types, and important and representative alteration and mineralization features, were collected, sawn, photographed and archived on site as skeleton core. Selected samples were sawn and retained for petrographic work to document rock type and hydrothermal mineral assemblages, although no significant petrographic work was completed during 2007. Assay sample intervals were marked on the core and assay sample tags attached to the core boxes. Each box of drill core was then digitally photographed prior to being sawn for sampling. Further information on sample processing, analytical and QA/QC procedures is presented in Sections 14 to 16. Sawn core not utilized for geochemical analysis was palletized, covered with shrink wrap and heavy tarp to protect it from the elements, and archived in a fenced, gated and secure compound located near the logging facility.

13.2.2 Down-Hole Surveys and Collar Coordinates

The position of drill rigs and orientation of the drill string at each drill collar were supervised and rigorously checked. The subsurface orientation of each delineation and infill drill hole was determined by down hole surveys approximately every 500 feet, as permitted by ground conditions, with a Reflex EZ-Shot down hole survey tool. The surveys are considered reliable due to the almost total absence of magnetic minerals in the Pebble East deposit; an absence of magnetic interference was further verified by taking magnetic susceptibility measurements at each survey depth.

Drill sites were surveyed and marked with sights prior to moving the rig onto the pad, and a final survey was conducted at the collar upon completion of each drill hole. Collar surveys were obtained using a Magellan Promark 3 differential GPS system. This system uses a fixed base station located on top of the Pebble deposit as control; the coordinates of the base station are in turn tied by traverse into the Iliamna East Base, a Federal Base Network Control Station. All survey data are recorded in the Alaska State Plane 5 datum. Precision of the differential GPS surveys is considered to be less than 10 cm for X and Y directions, and less than 20 cm in the Z direction. Upon completion of the final survey, each drill collar was marked with a labelled post.

13.2.3 Types of Drilling Completed During 2007

A total of 51,352.4 m (168,477 ft) of core drilling was completed during the 2007 exploration program at the Pebble project, in three types of drill holes as summarized below and in Table 13.2. Collar locations are shown in Figures 13.1 and 13.2. Most drill holes were vertical, and those holes drilled at an angle were all oriented steeper than -70^{o}.

- **Delineation and Infill Drilling.** These drill holes are all located within or immediately adjacent to the Pebble East deposit (Figs. 13.1 and 13.2). They comprised 35 drill holes totalling 46,904.4 m (153,884 ft). The primary objective of this drilling was to expand and delineate the boundaries of mineralization in the Pebble East deposit, and to increase the density of drilling within the area of known mineralization by infill between previously drilled holes.
- **Metallurgical Drilling.** This program comprised 9 drill holes totalling 3,099.2 m (10,168 ft). All of these holes were drilled in the Pebble West deposit (Fig. 13.2), in areas drilled in previous years at a close collar spacing (Fig. 13.2). The primary objective of this drilling was to obtain material for metallurgical and comminution testwork. All sampling and logging was completed by site geologists. No metallurgical tests have been completed on this material. Additional metallurgical and comminution sample material was collected from 18 selected drill holes from the 2006 and 2007 drilling programs in the Pebble East deposit, although no testwork was completed on these samples during 2007; all metallurgical drilling, sampling, and completed and ongoing testwork are discussed in Section 18.
- **Engineering Drilling.** The primary objective of this drilling, which comprised 26 drill holes totalling 1,348.4 m (4,425 ft), was to obtain geotechnical information on overburden in areas of possible infrastructure development. Overburden was cored by triple-tube drilling. Overburden characteristics were logged by geotechnical engineers provided by Knight-Piesold Ltd.; bedrock was logged by site geologists. Additional purposes for some of these holes included sampling of ground water, installation of piezometers for monitoring of groundwater, and determination of rock type in underlying bedrock. These drill holes are distributed throughout the Pebble district (Fig. 13.1). They were drilled to comparatively shallow depths (average depth of 52 m or 170 ft), and most were shut down after a short penetration into competent bedrock.
- **Geotechnical Data Acquisition.** Two additional types of geotechnical studies and surveys were applied to selected delineation and infill drill holes.

  1) **Oriented Core.** The primary purpose of drilling oriented core is to obtain true strike and dip on fracture and discontinuity surfaces, data which cannot be obtained from core which has not been oriented. Orientations on drill core can only be obtained if the hole is drilled at an angle other than vertical. This work was completed in 4 holes (Table 13.2) totalling 5,098 m (16,725 ft). Drill core in these holes was oriented for each run at the drill using an ACE Core Tool. Supervision of core orientation and

geotechnical data acquisition were conducted by SRK Consulting, who is interpreting the data.

2) **Acoustic Logging.** The acoustic logging is accomplished using a down-hole device that uses sound waves to generate a 3D ‘map’ of the abundance and true orientations of fractures and discontinuities on the wall of a drill hole. These data are used to control and/or supplement geotechnical data obtained from oriented and non-oriented drill core. This work utilized the ABI40 Acoustic Televiewer, manufactured by Advanced Logic Technology of Luxembourg. Some drill holes were both oriented and logged acoustically (Table 13.2). Acoustic logging was completed on 19 drill holes (Table 13.2) for a total of 12,713 m (41,708 ft). The actual surveys were completed by trained site personnel, and data reduction and subsequent interpretation, still ongoing, is being conducted by SRK Consulting.

Table 13.2. Drilling in the Pebble district by Northern Dynasty during 2007.

Type	Area	No. of Holes	Length (m)	Length (ft)
Exploration & Delineation	Pebble Deposit	35	46,904.4[1]	153,884[1]
Oriented core[2,3]	Pebble Deposit	*(4)*	*(5,098)*	*(16,725)*
Acoustic logging[2,4]	Pebble Deposit	*(19)*	*(12,713)*	*(41,708)*
Metallurgical	Pebble Deposit	9	3,099.2	10,168
Geotechnical	Pebble District	26	1,348.8	4,425
TOTALS		**70**	**51,352.4**	**168,477**

[1]Total length includes 1,799.3 m (5,903 ft) of drilling completed during 2007, in holes DDH-6354 and DDH-6356 which were begun in 2006 but temporarily suspended in December 2006 for holiday break. Similarly, drilling in holes 7386, 7387 and 7394 was temporarily suspended in December 2007 for completion in 2008 at respective depths of 1,799 m (5901 ft), 1,257 m (4,124 ft), and 725 m (2,378 ft).

[2]The indicated lengths are already included in the total for exploration and delineation holes.

[3]Oriented core was obtained from drill holes DDH-7367, 7372, 7379 and 7387.

[4]Acoustic logging was completed on drill holes DDH-6354, 7359, 7360, 7363-7366, 7370, 7371, 7375, 7377, 7379, 7381, 7382, 7385, 7388, 7389, 7393.

13.2.4 Drilling Results During 2007

The 2007 drilling program at the Pebble project produced several significant outcomes:

- All but two exploration and delineation drill holes in the Pebble East deposit (Fig. 13.2) had significant intersections of copper, gold and molybdenum mineralization (Table 13.3).
- Two drill holes did not intersect significant mineralization. Drill hole DDH-7369 (Fig. 13.2) was lost in the younger Tertiary cover rocks which overlie the deposit, before reaching the underlying Cretaceous mineralization. Drill hole DDH-7358 (Fig. 13.2),

drilled farthest to the northeast in the Pebble East deposit program, encountered long intervals of comparatively low grade mineralization.

- Drill results during 2007 significantly extended the volume of high grade copper, gold and molybdenum mineralization in the Pebble East deposit to the north, northwest, south and southeast.
- The 2007 drilling continued to document excellent lateral and vertical continuity of high grade copper, gold and molybdenum mineralization within the Pebble East deposit. Grade continuity and distribution are further discussed in Section 19.
- Drilling did not define the margins of the Pebble East deposit, which remains open to the north, northwest, south and southeast (Fig. 13.2). Critically, the deposit also remains open to the east, where very high grade mineralization was encountered during the 2006 drill program in DDH-6348, below Tertiary cover rocks down-dropped by normal faults (see Rebagliati and Payne, 2007); the continuity and extent of this deep, mineralization is a very important target which remains to be tested.
- Predictable intersection of anticipated rock types in the 2007 drill holes demonstrated that the existing geological model for the Pebble East Zone is robust.
- Similarly, intersection of anticipated rock types in the nine metallurgical drill holes in the Pebble West deposit (Fig. 13.2) demonstrated that the geological model for this part of the deposit is similarly robust.
- Assay results for the nine metallurgical drill holes in the Pebble West deposit are pending. These holes were completed in an area previously tested at a close drill collar spacing and results are not expected to have any consequential effect.
- No significant copper mineralization was intersected in any of the engineering drill holes (Fig. 13.1) distributed throughout the Pebble district (Fig. 13.1).
- A complete set of drill cross sections are maintained in the technical files and are continuously updated.

Table 13.3. Significant drill intersections in the Pebble East Deposit.

DDH #	Vertical Depth to Cretaceous (ft)	Hole Dip (deg)	Azimith (deg)		Intercept (m)	From (ft)	To (ft)	Intercept (ft)	Cu %	Au[2] g/t	Mo %	CuEQ[1] %
4136	477	-90	0		164.6	490	1030	540	0.42	0.40	0.020	0.77
4136	477	-90	0	incl.	67.1	770	990	220	0.48	0.59	0.020	0.94
4188	596	-90	0		244.9	596	1399	804	0.47	0.55	0.031	0.98
4188	596	-90	0	incl.	152.4	709	1209	500	0.57	0.65	0.032	1.14
4250	842	-90	0		42.4	859	998	139	0.43	0.62	0.010	0.86
4284	814	-90	0		318.7	814	1859	1046	0.46	0.46	0.019	0.84
4284	814	-90	0	incl.	151.0	814	1309	496	0.56	0.64	0.020	1.06
4292	696	-90	0		440.9	696	2142	1447	0.43	0.38	0.029	0.83
4292	696	-90	0	incl.	129.1	696	1119	424	0.57	0.55	0.021	1.02
4292	696	-90	0	incl.	49.7	1979	2142	163	0.53	0.48	0.023	0.95
4293	812	-90	0		469.4	819	2359	1540	0.42	0.55	0.026	0.90
4293	812	-90	0	incl.	167.8	819	1370	551	0.59	0.81	0.019	1.18
4300	996	-90	0		416.5	996	2362	1367	0.46	0.65	0.033	1.04
4300	996	-90	0	incl.	132.1	996	1429	434	0.66	0.98	0.017	1.33
4300	996	-90	0	incl.	92.7	2058	2362	304	0.31	0.52	0.081	1.10
4301	1005	-90	0		65.5	1005	1220	215	0.73	0.95	0.016	1.38
4302	961	-90	0		352.7	961	2118	1157	0.42	0.55	0.019	0.86
4302	961	-90	0	incl.	118.3	961	1349	388	0.52	0.67	0.020	1.02
4302	961	-90	0	incl.	125.0	1529	1939	410	0.40	0.58	0.024	0.88
4303	1028	-90	0		375.4	1028	2259	1232	0.47	0.50	0.027	0.92
4303	1028	-90	0	incl.	85.8	1028	1309	282	0.75	0.87	0.018	1.37
4303	1028	-90	0	incl.	42.7	2119	2259	140	0.35	0.55	0.042	0.93
5311	1064	-90	0		94.5	1068	1378	310	0.37	0.32	0.015	0.64
5311	1064	-90	0		173.7	1618	2188	570	0.46	0.41	0.019	0.81
5318	576	-90	0		458.4	574	2078	1504	0.40	0.41	0.030	0.82
5318	576	-90	0	incl.	155.5	708	1218	510	0.59	0.62	0.026	1.10
5321	728	-65	90		324.5	804	1868	1065	0.43	0.47	0.019	0.81
5321	728	-65	90	incl.	97.4	804	1123	320	0.58	0.66	0.023	1.10
5324	1366	-60	109		634.0	1937	4017	2080	0.54	0.26	0.026	0.85
5324	1366	-60	109	incl.	478.5	2447	4017	1570	0.59	0.30	0.031	0.95
5324	1366	-60	109	incl.	344.4	2717	3847	1130	0.64	0.38	0.033	1.06
5324	1366	-60	109	incl.	253.0	3017	3847	830	0.66	0.43	0.039	1.14
5325	792	-65	90		200.0	872	1528	656	0.37	0.55	0.009	0.75
5325	792	-65	90	incl.	67.1	1158	1378	220	0.44	0.67	0.009	0.89
5326	1815	-65	145		687.3	2003	4258	2255	0.45	0.50	0.030	0.92
5326	1815	-65	145	incl.	304.8	2008	3008	1000	0.64	0.83	0.029	1.30
5326	1815	-65	145	incl.	103.6	2008	2348	340	0.77	1.07	0.039	1.63
5326	1815	-65	145	incl.	155.5	2488	2998	510	0.61	0.81	0.021	1.21

Table 13.3. Continued.

DDH #	Vertical Depth to Cretaceous (ft)	Hole Dip (deg)	Azimith (deg)		Intercept (m)	From (ft)	To (ft)	Intercept (ft)	Cu %	Au[2] g/t	Mo %	CuEQ[1] %
5327	1558	-65	90		798.3	1719	4338	2619	0.87	0.70	0.028	1.45
5327	1558	-65	90	incl.	184.4	1732	2337	605	0.91	1.06	0.014	1.61
5327	1558	-65	90	incl.	463.3	2457	3977	1520	0.95	0.70	0.034	1.56
5327	1558	-65	90	incl.	88.4	2897	3187	290	1.08	1.30	0.029	2.00
5328	372	-65	150		39.0	410	538	128	0.06	0.79	0.001	0.52
5330	1619	-60	60		713.8	1869	4211	2342	0.99	0.26	0.036	1.36
5330	1619	-60	60	incl.	288.3	1869	2815	946	1.37	0.15	0.031	1.64
5330	1619	-60	60	and	111.6	1869	2235	366	1.70	0.11	0.028	1.93
5330	1619	-60	60	incl.	62.8	4005	4211	206	1.12	0.22	0.054	1.57
5331	1317	-60	90		739.1	1521	3946	2425	0.54	0.28	0.039	0.94
5331	1317	-60	90	incl.	35.7	1521	1638	117	0.74	0.39	0.036	1.18
5331	1317	-60	90	incl.	50.9	2191	2358	167	0.73	0.43	0.029	1.16
5331	1317	-60	90	and	145.7	3468	3946	478	0.75	0.39	0.042	1.23
5332	1839	-90	0		721.5	1839	4206	2367	0.88	0.33	0.056	1.41
5332	1839	-90	0	incl.	249.0	1839	2656	817	1.27	0.28	0.051	1.73
5334	2755	-90	0		323.1	2706	3766	1060	0.58	0.95	0.022	1.26
5334	2755	-90	0	incl.	278.9	2755	3670	915	0.62	1.06	0.023	1.38
5334	2755	-90	0	and	100.6	3078	3408	330	0.64	1.81	0.019	1.82
5335	1690	-90	0		755.3	1690	4168	2478	0.81	0.44	0.023	1.21
5335	1690	-90	0	incl.	532.2	1690	3436	1746	0.97	0.42	0.023	1.35
5335	1690	-90	0	and	259.1	1698	2548	850	1.09	0.44	0.022	1.48
5336	1644	-90	0		787.5	1645	4228	2584	0.67	0.23	0.055	1.13
5336	1644	-90	0	incl.	45.6	1645	1794	150	1.16	0.71	0.059	1.92
5336	1644	-90	0	incl.	196.9	1862	2508	646	0.86	0.33	0.062	1.42
5336	1644	-90	0	incl.	213.4	3178	3878	700	0.81	0.27	0.052	1.28
5337	1650	-90	0		618.1	1650	3678	2028	0.83	0.34	0.041	1.28
5337	1650	-90	0	incl.	362.1	1650	2838	1188	1.10	0.48	0.036	1.60
5337	1650	-90	0	incl.	231.0	1650	2408	758	1.26	0.37	0.038	1.70
6338	1676	-80	270		373.4	1660	2885	1225	0.45	1.03	0.040	1.29
6338	1676	-80	270	incl.	209.7	1660	2348	688	0.53	1.41	0.032	1.54
6338	1676	-80	270	and	160.6	1821	2348	527	0.55	1.64	0.035	1.72
6338	1676	-80	270	and	87.8	2060	2348	288	0.49	2.12	0.032	1.92
6339	2284	-90	0		625.1	2284	4335	2051	0.84	0.49	0.032	1.32
6339	2284	-90	0	incl.	329.5	2284	3365	1081	1.12	0.69	0.025	1.67
6339	2284	-90	0	and	201.5	2284	2945	661	1.44	0.78	0.024	2.04

Table 13.3. Continued.

DDH #	Vertical Depth to Cretaceous (ft)	Hole Dip (deg)	Azimith (deg)		Intercept (m)	From (ft)	To (ft)	Intercept (ft)	Cu %	Au[2] g/t	Mo %	CuEQ[1] %
6341	1463	-90	0		710.2	1463	3793	2330	0.63	0.27	0.052	1.10
6341	1463	-90	0	incl.	237.7	1565	2345	780	0.88	0.24	0.056	1.35
6341	1463	-90	0	and	109.7	1565	1925	360	1.08	0.37	0.056	1.63
6341	1463	-90	0	incl.	100.6	3035	3365	330	0.70	0.78	0.053	1.47
6342	1354	-90	0		356.6	1396	2566	1170	0.73	0.37	0.036	1.16
6342	1354	-90	0	incl.	207.0	1396	2075	679	0.81	0.44	0.040	1.30
6346	1393	-90	0		387.1	2705	3975	1270	0.72	0.16	0.020	0.93
6346	1393	-90	0	incl.	115.8	3585	3965	380	0.85	0.33	0.038	1.27
6346	1393	-90	0	and	54.9	3785	3965	180	1.04	0.41	0.053	1.60
6348	4714	-90	0		289.1	4715	5663	949	1.24	0.74	0.042	1.92
6349	1522	-90	0		656.2	1520	3673	2153	0.57	0.28	0.026	0.89
6349	1522	-90	0	incl.	186.8	1520	2133	613	0.80	0.29	0.022	1.10
6350	1436	-90	0		630.9	2028	4098	2070	0.60	0.37	0.033	1.02
6350	1436	-90	0	incl.	444.1	2028	3485	1457	0.76	0.46	0.035	1.24
6350	1436	-90	0	and	204.2	2778	3448	670	0.89	0.54	0.055	1.53
6354	1284	-90	0		214.9	3685	4390	705	1.23	0.29	0.020	1.52
6354	1284	-90	0	incl.	22.9	3685	3760	75	1.92	0.12	0.064	2.37
6354	1284	-90	0	incl.	78.9	4039	4298	259	1.43	0.50	0.016	1.82
6355	1780	-90	0		686.4	1795	4047	2252	0.70	0.53	0.046	1.28
6355	1780	-90	0	incl.	149.4	1885	2375	490	0.94	0.26	0.047	1.38
6355	1780	-90	0	incl.	180.4	3455	4047	592	0.52	0.96	0.057	1.42
6356	6327+	-80	0	Lost at 6425 feet - No assays								
7357	1270	-90	0		512.1	1276	2956	1680	0.61	0.50	0.021	1.03
7357	1270	-90	0	incl.	155.5	2386	2896	510	0.78	0.79	0.036	1.46
7358	1205	-90	0	Anomalous results								
7359	1967	-90	0		679.1	1967	4195	2228	0.92	0.50	0.035	1.42
7359	1967	-90	0	incl.	128.0	2707	3127	420	1.04	0.62	0.026	1.56
7359	1967	-90	0	incl.	137.5	3527	3978	451	0.95	1.15	0.051	1.93
7360	1082	-90	0		536.5	1698	3458	1760	0.53	0.43	0.038	1.00
7360	1082	-90	0	incl.	192.0	1698	2328	630	0.73	0.43	0.028	1.15
7360	1082	-90	0	and	51.8	1698	1868	170	0.81	0.72	0.016	1.33
7361	1198	-90	0		852.5	1198	3995	2797	0.39	0.43	0.035	0.85
7361	1198	-90	0	incl.	68.0	2252	2475	223	0.70	0.59	0.031	1.23
7362	986	-90	0		431.1	986	2400	1415	0.32	0.45	0.013	0.66
7363	1746	-90	0		159.3	1746	2268	523	0.53	0.48	0.035	1.02
7364	1083	-90	0		438.0	1083	2520	1437	0.32	0.47	0.015	0.68

Table 13.3. Continued.

DDH #	Vertical Depth to Cretaceous (ft)	Hole Dip (deg)	Azimith (deg)		Intercept (m)	From (ft)	To (ft)	Intercept (ft)	Cu %	Au[2] g/t	Mo %	CuEQ[1] %
7365	1275	-90	0		506.0	1280	2940	1660	0.53	0.45	0.036	1.00
7365	1275	-90	0	and	79.3	1280	1540	260	0.60	0.49	0.049	1.18
7365	1275	-90	0	incl.	106.7	2590	2940	350	0.53	0.90	0.034	1.26
7366	1567	-90	0		549.3	1567	3369	1802	0.66	0.39	0.019	1.00
7366	1567	-90	0	incl.	227.1	1567	2312	745	0.84	0.65	0.017	1.31
7366	1567	-90	0	and	108.5	1913	2269	356	0.78	0.95	0.017	1.43
7367	1326	-75	315		765.7	1383	3895	2512	0.51	0.44	0.024	0.92
7367	1326	-75	315	incl.	439.5	1383	2825	1442	0.64	0.46	0.015	1.00
7367	1326	-75	315	and	217.0	1383	2095	712	0.78	0.68	0.013	1.25
7367	1326	-75	315	and	107.3	1743	2095	352	0.82	0.97	0.012	1.46
7368	1826	-90	0		537.7	1826	3590	1764	0.52	0.53	0.030	1.00
7368	1826	-90	0	incl.	360.9	1826	3010	1184	0.62	0.70	0.030	1.21
7368	1826	-90	0	and	211.8	1955	2650	695	0.69	1.00	0.029	1.45
7368	1826	-90	0	and	79.3	2390	2650	260	0.57	1.70	0.019	1.68
7369	4744+	-90	0	Lost at 4744 feet - No assays								
7370	1465	-90	0		681.2	1465	3700	2235	0.71	0.23	0.031	1.03
7370	1465	-90	0	incl.	442.0	2140	3590	1450	0.76	0.25	0.033	1.11
7370	1465	-90	0	and	51.8	2140	2310	170	1.28	0.09	0.024	1.48
7370	1465	-90	0	and	167.6	3040	3590	550	0.85	0.52	0.034	1.36
7371	1449	-90	0		807.1	1449	4097	2648	0.56	0.37	0.036	1.00
7371	1449	-90	0	incl.	575.5	1449	3337	1888	0.66	0.39	0.034	1.10
7371	1449	-90	0	and	27.4	2257	2347	90	0.94	0.71	0.029	1.53
7371	1449	-90	0	and	170.7	2617	3177	560	0.85	0.53	0.042	1.41
7372	2262	-75	315		432.5	2353	3772	1419	0.58	0.44	0.028	1.00
7372	2262	-75	315	incl.	274.0	2613	3512	899	0.66	0.46	0.033	1.12
7372	2262	-75	315	and	106.7	2613	2963	350	0.71	0.50	0.033	1.20
7373	1249	-90	0		710.2	1537	3867	2330	0.49	0.50	0.037	1.00
7373	1249	-90	0	incl.	213.1	2277	2976	699	0.62	0.75	0.038	1.29
7373	1249	-90	0	and	146.3	2277	2757	480	0.70	0.78	0.041	1.40
7374	1482	-90	0		746.5	1508	3957	2449	0.61	0.42	0.056	1.19
7374	1482	-90	0	incl.	401.4	1890	3207	1317	0.75	0.52	0.061	1.41
7374	1482	-90	0	and	151.5	2200	2697	497	0.83	0.77	0.065	1.67
7375	1476	-90	0		698.0	1486	3776	2290	0.73	0.16	0.042	1.08
7375	1476	-90	0	incl.	304.8	1486	2486	1000	0.89	0.17	0.037	1.21
7375	1476	-90	0	and	54.9	1486	1666	180	1.13	0.35	0.052	1.65
7376	2723	-90	0	Lost at 2777 feet - No assays								

Table 13.3. Continued.

DDH #	Vertical Depth to Cretaceous (ft)	Hole Dip (deg)	Azimith (deg)		Intercept (m)	From (ft)	To (ft)	Intercept (ft)	Cu %	Au[2] g/t	Mo %	CuEQ[1] %
7377	1681	-90	0		806.5	1681	4327	2646	0.60	0.12	0.044	0.93
7377	1681	-90	0	incl.	599.2	1681	3647	1966	0.71	0.13	0.045	1.05
7377	1681	-90	0	and	301.8	1827	2817	990	0.90	0.15	0.039	1.22
7377	1681	-90	0	and	118.9	2347	2737	390	1.00	0.14	0.038	1.31
7378	2363	-90	0		562.7	2363	4209	1846	0.91	0.70	0.021	1.45
7378	2363	-90	0	incl.	245.7	2363	3169	806	1.41	1.31	0.023	2.31
7378	2363	-90	0	and	111.6	2363	2729	366	1.78	1.15	0.033	2.64
7379	1611	-75	315		780.3	1668	4228	2560	0.74	0.33	0.040	1.17
7379	1611	-75	315	incl.	653.8	1668	3813	2145	0.84	0.37	0.038	1.29
7379	1611	-75	315	and	253.0	1723	2553	830	1.31	0.30	0.034	1.69
7379	1611	-75	315	and	90.8	1723	2021	298	1.65	0.25	0.037	2.02
7380	1001	-75	270	Lost at 1290 feet - No assays								
7381	1788	-90	0		643.4	1788	3899	2111	0.77	0.64	0.037	1.37
7381	1788	-90	0	incl.	277.7	1788	2699	911	0.94	1.00	0.031	1.71
7381	1788	-90	0	and	134.1	2259	2699	440	1.08	0.93	0.029	1.80
7382	1520	-90	0		737.3	1520	3939	2419	0.43	0.49	0.028	0.88
7382	1520	-90	0	incl.	213.4	2479	3179	700	0.51	0.77	0.030	1.14
7382	1520	-90	0	and	125.0	2639	3049	410	0.60	0.89	0.033	1.32
7383	1970	-90	0		109.4	1970	2329	359	0.73	0.75	0.014	1.25
7383	1970	-90	0		219.8	2478	3199	721	0.43	0.34	0.035	0.83
7384	1934	-90	0		361.5	1934	3120	1186	0.74	0.65	0.026	1.27
7384	1934	-90	0	incl.	196.9	1934	2580	646	0.95	0.97	0.022	1.65
7384	1934	-90	0	and	81.1	1934	2200	266	1.25	1.07	0.026	2.03
7385	1494	-90	0		797.1	1494	4109	2615	0.47	0.38	0.024	0.83
7385	1494	-90	0	incl.	168.6	1494	2047	553	0.72	0.40	0.013	1.03
7385	1494	-90	0	and	74.1	1494	1737	243	0.75	0.67	0.012	1.22
7385	1494	-90	0	incl.	160.0	2557	3082	525	0.46	0.64	0.027	0.99
7386	1041	-80	270		783.3	1387	3957	2570	0.66	0.37	0.049	1.17
7386	1041	-80	270	incl.	551.7	1947	3757	1810	0.71	0.41	0.059	1.30
7386	1041	-80	270	and	21.3	3047	3117	70	0.61	3.67	0.071	3.17
7387	2215	-75	270		597.7	2293	4254	1961	0.89	0.67	0.026	1.44
7387	2215	-75	270	incl.	188.1	2293	2910	617	1.21	0.48	0.016	1.59
7387	2215	-75	270	incl.	115.8	3234	3614	380	0.93	1.15	0.025	1.75
7388	2103	-90	0		444.1	2103	3560	1457	0.60	0.45	0.031	1.05
7388	2103	-90	0	incl.	205.7	2103	2778	675	0.83	0.74	0.025	1.40
7388	2103	-90	0	and	79.3	2218	2478	260	0.86	1.25	0.024	1.74

Table 13.3. Continued.

DDH #	Vertical Depth to Cretaceous (ft)	Hole Dip (deg)	Azimith (deg)		Intercept (m)	From (ft)	To (ft)	Intercept (ft)	Cu %	Au[2] g/t	Mo %	CuEQ[1] %
7389	1272	-90	0		418.2	1472	2844	1372	0.46	0.67	0.022	0.98
7389	1272	-90	0	incl.	37.2	1472	1594	122	0.56	1.56	0.032	1.66
7389	1272	-90	0	incl.	103.6	2144	2484	340	0.70	0.98	0.017	1.38
7393	1570	-90	0		640.1	1921	4031	2110	0.54	0.24	0.055	1.01
7393	1570	-90	0	incl.	112.8	1921	2291	370	0.72	0.17	0.052	1.13
7393	1570	-90	0	incl.	140.8	2918	3390	472	0.72	0.57	0.053	1.37

[1] 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.
Metallurgical recoveries and net smelter returns are assumed to be 100%. CuEQ = Cu % + (Au g/t x 12.86/22.05) + (Mo % x 132.28/22.05)
[2] Au values > 5.0 g/t capped at 5.0 g/t.

14 SAMPLING METHOD AND APPROACH

14.1 Teck Cominco Drill Core

Teck Cominco drilled 125 holes in the Pebble area between 1988 and 1997 totalling 19,902 m (65,297 ft). These holes, numbered 001 through 125 in the database, include 114 holes drilled in the Pebble West deposit and 11 holes drilled elsewhere on the property. Of the Pebble West holes, 94 were drilled vertically and 20 were inclined from −45° to −70° at various orientations. Teck Cominco also completed 39 drill holes on the Sill prospect totalling 3,184 m (10,445 ft) in 1988 and 1989. These holes are numbered Sill 01 through Sill 39.

Teck Cominco drill core was transported from the drill site by helicopter to a logging and sampling site in the village of lIiamna, Alaska. The half-core samples were transported by air charter to Anchorage and by airfreight to Vancouver, B.C. All coarse rejects from 1988 through 1997 and all pulps from 1988 and 1989 have been discarded. The remaining pulps were shipped to a secure warehouse at Port Kells, British Columbia, for long-term storage.

A total of 6,289 core samples were taken from the 125 drill holes. On the Sill prospect, a total of 609 samples were taken from the 39 holes drilled.

14.2 Northern Dynasty 2002 Drill Core

In 2002, Northern Dynasty drilled 68 holes for a total length of 11,350 m (37,237 ft). These holes were numbered 2001 through 2068. All but one of these holes (2036) were drilled outside the Pebble West deposit, including 16 holes in the38 Zone, 5 in the 37 Zone, 5 in the 25 Gold Zone, 4 in the 52 Zone and 27 holes in other areas to the south, west and north of the Pebble West deposit area. Of the 2002 holes, 37 were drilled vertically and 31 were inclined from −42° to −74° at various orientations.

The drill core was boxed at the drill rig and transported daily by helicopter to Northern Dynasty's secure logging facility in Iliamna. A total of 2,467 core samples, averaging 3.0 m (10 ft) in length, were taken by Northern Dynasty personnel from the 5.08 cm (2 inch) diameter NQ2 core drilled in 2002. Sampling was performed by mechanically splitting the core in half lengthwise.

14.3 Northern Dynasty 2003 Drill Core

In 2003, the diamond drill contractor, Quest America Drilling, Inc., drilled NQ2 core. A total of 6,619 m (21,717 ft) of drilling was completed in 67 holes. Of the holes completed in 2003, 58 were drilled in the Pebble West deposit, 2 in the 37 Zone, 1 in the 38 Zone and 6 elsewhere on the Pebble property. In Phase I, 25 widely spaced holes numbered 3069 through 3093 were completed and 1,973 samples were taken. In Phase II, 42 holes numbered 3094 through 3135 were completed and 4,471 samples were taken. Of the 2003 holes, 11 were drilled vertically and 56 were inclined from −44° to −74° at various orientations.

The drill core was boxed at the drill rig and transported daily by helicopter to Northern Dynasty's secure logging facility at Iliamna. The samples from both phases averaged 3.0 m (10 ft) in length. Sampling was performed by mechanically splitting the core in half lengthwise.

Coarse rejects were stored at SGS Mineral Services in Fairbanks, Alaska until early 2005 and then discarded. The pulps were returned to Northern Dynasty and are stored at the Port Kells warehouse.

14.4 Northern Dynasty 2004 Drill Core

In 2004, the diamond drill contractor, Quest America Drilling, Inc., drilled NQ2, HQ (6.35 cm/2.5 in. diameter) and PQ (8.31 cm/3.3 in. diameter) core. Between May and October 2004, 50,199 m (164,694 ft) were drilled in 259 holes. Of the holes drilled in 2004, 174 were drilled in the Pebble West deposit, 14 were drilled in Pebble East deposit (as subsequently defined) and 71 were drilled elsewhere on the property. The drill hole number sequence for the exploration program included 4136 through 4309, and GH04-01 through GH04-50 for the geotechnical program. Thirty two "MW" and "P" series water well, engineering and environmental holes were also completed. The 2004 drilling program included 26 large diameter (PQ and HQ) holes drilled in Pebble West deposit for metallurgical testing (drill hole-id suffix "M"). A total of 227 holes were drilled vertically, including all holes in the Pebble East deposit, all holes from the GH, MW, and P series holes, and all but 1 Pebble West deposit metallurgical hole. The remaining 32 holes, all in the Pebble West deposit, were inclined from −57.5° to −85.5° at various orientations.

The drill core was boxed at the drill rig and transported daily by helicopter to Northern Dynasty's secure logging facility in the village of Iliamna. A total of 12,851 Cretaceous (mineralized) samples averaging 3.0 m (10 ft) in length were taken in 2004; 10,879 samples were mechanically split half core samples and 1,972 samples were of the metallurgical type. The metallurgical samples were taken by sawing an off-center slice representing 20% of the core volume, which was submitted for assay analysis. The remaining 80% was used for metallurgical purposes. In addition, 907 Tertiary (post-mineralization) samples averaging 4.6 m (15 ft) in length were taken for trace element analysis. Tertiary samples were taken by mechanically splitting the core in half lengthwise. The average core recovery for all samples taken in 2004 was 97.6%.

14.5 Northern Dynasty 2005 Drill Core

In 2005, diamond drill contractor Quest America Drilling Inc. drilled NQ2, HQ and PQ core. Between April and December 2005, 23,180 m (76,052 ft) were drilled in 45 holes. Eighteen of the holes were drilled in the Pebble East deposit, 12 in the Pebble West deposit and 15 in other areas. The drillhole number sequence for the exploration included 5310M through 5337, and GH05-51 through GH05-65 for the geotechnical series. Two holes were also drilled in the MW and P series. Of the "5000" series exploration holes, 10 were metallurgical holes (suffix "M"). A total of 33 holes were drilled vertically, including all the 2005 metallurgical holes and all holes from the GH, MW and P series. The remaining 32 holes were inclined from −60° to −75° at various orientations.

The drill core was boxed at the drill rig and transported daily by helicopter to Northern Dynasty's secure logging facility in the village of Iliamna. A total of 4,378 Cretaceous samples and 1,435 Tertiary samples were taken. Of the Cretaceous samples, 3,541 were taken by sawing the core in half lengthwise. The 837 samples from metallurgical holes were taken by the 20% off-center saw method. The Tertiary samples were all of the 20% saw type. The Cretaceous samples averaged 3.0 m (10 ft) in length and Tertiary samples averaged 6.1 m (20 ft.) in length. The average core recovery in 2005 was 98.4%.

14.6 Northern Dynasty 2006 Drill Core

The diamond drill contractors in 2006 were American Recon and Boart Longyear. Between April and December 2006, they drilled 23,930 m (78,509 ft) of NQ2 and HQ core in 48 holes. The hole numbering sequence for 2006 included 17 Pebble East deposit exploration holes numbered 6338 through 6355 (holes 6354 and 6356 were started in 2006 but completed in 2007, and are counted in 2007), 17 "GH" series geotechnical holes numbered GH06-65 through GH06-80, and 14 shallow "P" series environmental holes. All but five holes were drilled vertically. The 5 non-vertical holes were drilled sub-vertically, from −80° to −85° inclination.

The drill core was boxed at the drill rig and transported daily by helicopter to Northern Dynasty's secure logging facility in Iliamna. The 2,759 Cretaceous samples taken averaged 3.0 m (10 ft) in length and the 1,911 Tertiary samples averaged 6.1 m (20 ft) in length. The Cretaceous samples were taken by sawing the core in half lengthwise and the Tertiary samples were of the 20% off-center saw type. The average core recovery was 98.7%.

14.7 Northern Dynasty and the Partnership 2007 Drill Core

American Recon and Boart Longyear, the diamond drill contractors in 2007, drilled a total of 53,373.5 m (175,110 ft) in 72 NQ2, and HQ diameter core holes between February and December 2007. The hole numbering sequence for 2007 includes 6354 and 6356, and 7357 through 7400M. A total of 37 holes were drilled in the Pebble East deposit and 9 metallurgical holes numbered 7390M to 7391M and 7395M to 7400M were drilled in the Pebble West deposit. Twenty six GH series geotechnical holes numbered GH07-81 through GH07-106 were also drilled, 3 holes within the area of the Pebble East deposit and 20 holes in other areas. Of the 2007 holes, 64 were vertical and the remaining 8 were inclined from −70° to −80° at various orientations. Of the "7000" series of drill holes, 14 holes were completed by Northern Dynasty , 7 holes were started by Northern Dynasty and completed by the Partnership after the Partnership was formed, and 22 holes from 7376 onwards were completed by the Partnership. In addition, 170 m (558 ft) of drilling was completed in 68 shallow, vertical, non-cored WL series wetland holes with an average depth of 2.5 m (8.2 ft).

Four drill holes (7358, 7368, 7369 and 7376) were wedged to complete the Cretaceous intersection in these areas after drilling difficulties were encountered in the parent holes. A total of 5 wedged holes numbered 7358W, 7368W, 7368W2, 7369W and 7376W were drilled. Wedged holes that successfully extended beyond the total depth of the parent holes were treated as extensions of their parent holes and the overlapping information was relegated.

Drill holes 7386, 7387 and 7394 were collared in 2007 but will not be completed until 2008. The portions of these holes drilled in 2007 are included in this report. Once the holes are fully completed, each entire hole will be treated as part of the 2008 drilling.

Table 14.1 2007 Drill Hole Summary

Purpose	DH	Metres	Feet
Exploration	37	48,925.6	160,517
Metallurgical	9	3099.2	10,168
Geotechnical	26	1348.7	4,425
Total	**72**	**53,373.5**	**175,110**

The drill core was boxed at the drill rig and transported daily by helicopter to Northern Dynasty's secure logging facility in Iliamna. A total of 12,664 main stream and duplicate samples were taken from the 72 drill holes. The 9,482 Cretaceous samples averaged 3.0 m (10 ft) in length and the 3,126 Tertiary samples averaged 6.1 m (20 ft) in length. The Cretaceous samples were taken by sawing the core in half lengthwise and the Tertiary samples were of the 20% off-center saw type. The average core recovery was 99.7%.

Coarse rejects of Cretaceous and Tertiary rocks from the 2004 through 2007 drill programs are stored in locked steel shipping containers at Delta Junction, Alaska. The large 750 to 1,000 g Cretaceous rock assay pulps and the 250 g Tertiary waste rock pulps from these years are stored in the warehouse at Port Kells.

15 SAMPLE PREPARATION, ANALYSIS, AND SECURITY

15.1 Sample Preparation

Prior to 2001, all soil and drill core samples taken from the property were collected by Teck Cominco personnel and sent to well-recognized laboratories. Samples prior to the 1997 program were prepared and analyzed by Chemex Labs in North Vancouver, British Columbia.

The 1997 drill hole samples were prepared by Chemex Labs in Anchorage. The core samples were processed by drying, weighing, crushing to 70% <10 mesh (2 mm) and then splitting to a 250 g sub-sample and a coarse reject; the 250 g sub-sample was pulverized to 85% < 200 mesh (75 microns).

In 2002 the samples were prepared at the Fairbanks laboratory of ALS Chemex. The sample bags were verified against the numbers listed on the shipment notice. The entire sample of half-core was dried, weighed and crushed to 70% passing 10 mesh (2 mm), then a 250 g split was taken and pulverized to 85% passing 200 mesh (75 microns). The pulp was split, and approximately 125 g shipped by commercial airfreight for analysis at the ALS Chemex laboratory in North Vancouver. The remaining pulps were shipped to the secure Northern Dynasty warehouse at Port Kells for long-term storage. The coarse rejects were held for several months at the Fairbanks laboratory until all QA/QC measures were completed and were then discarded.

The 2003 samples were prepared at the SGS Mineral Services sample preparation laboratory in Fairbanks. After verification of the sample bag numbers against the shipment notice, the entire sample of half-core was dried, weighed and crushed to 75% passing 10 mesh (2 mm). A 400 g split was taken and pulverized to 95% passing 200 mesh (75 microns) and the pulp was shipped by commercial airfreight to the SGS laboratories in Toronto, Ontario and Rouyn, Québec. The assay pulps were returned to Northern Dynasty for storage at the Port Kells warehouse. Coarse rejects were held for several months at the Fairbanks laboratory until all QA/QC measures were completed and were then discarded.

For the 2004 through 2007 programs, The ALS Chemex sample preparation laboratory in Fairbanks performed the sample preparation work. The laboratory received the half core Cretaceous samples and the off-center saw splits from the Tertiary samples and metallurgical holes, verified the sample numbers against the sample shipment notice and performed the sample drying, weighing, crushing and splitting. ALS Chemex of North Vancouver pulverized the samples from 2004 through 2006 and ALS Chemex Fairbanks pulverized the samples in 2007.

15.2 Analysis

All samples from Teck Cominco's 125 drill holes were analyzed for gold and copper from drillhole 004 onward. Molybdenum assays were completed on a selective basis. Multi-element ICP analysis was done on every sixth sample beginning with Hole 106. On the Sill prospect, a total of 609 samples from the 39 holes drilled by Teck Cominco were primarily assayed for gold and silver. Only 59 of the Sill samples were subject to multi-element analysis. In the 1997 program, a 250 g sample was analyzed by Teck Cominco's Exploration and Research Laboratory in Vancouver, British Columbia, for copper using an Aqua Regia digestion with ICP-AES finish. Gold was analyzed using Fire Assay (FA) on a one assay ton sample with AAS finish. Trace elements also were analyzed by Aqua Regia (AR) digestion and ICP-AES finish. One blind standard was inserted for every 20 samples analyzed. One duplicate sample was taken for each 10 samples analyzed.

ALS Chemex of North Vancouver, British Columbia, an ISO 9002 certified laboratory, performed the analytical work for the 2002 program. All 2,467 samples were analyzed by fire assay for gold (Au), and for 34 elements, including copper and molybdenum using a standard multi-element geochemical method. In addition, several drill holes exhibiting copper-gold porphyry style mineralization were subjected to copper assay level determinations, and a few molybdenum assay level determinations were also performed. Gold concentration was determined by 30 g FA fusion with lead as a collector and AAS finish. The four samples that returned gold results greater than 10,000 ppb (10 g/t), were re-analyzed by one assay ton FA fusion with a gravimetric finish. All samples were subject to multi-element analysis for 34 elements, including copper and molybdenum, by AR digestion with an ICP-AES finish. A total of 1,822 samples from 31 drill holes exhibiting porphyry copper-gold style mineralization were assayed for copper by four-acid (total) digestion with an AAS finish to the ppm level. For copper assays of >10,000 ppm another total digestion with an AAS finish analysis was performed to the percent level. A further 61 samples from drill hole 2034 were assayed for molybdenum by four-acid digestion with an AAS finish to the ppm level.

SGS Canada Inc. of Toronto, Ontario, an ISO 9002 registered ISO 17025 accredited laboratory, performed the analytical work for the 2003 drill program. All 6,444 samples were analyzed by FA for gold, and for 33 elements, including copper and molybdenum, using a standard multi-element geochemical method. Gold concentration was determined at SGS Rouyn, Québec, by one assay ton (30 g) lead-collection FA fusion with AAS finish, with results reported in ppb. Ten samples which returned gold results >2,000 ppb (2 g/t) were re-analyzed by 30-g, FA fusion with a gravimetric finish, with results reported in grams per tonne. Copper assays were done at SGS Toronto, Ontario. Samples were fused with sodium peroxide, digested in dilute nitric acid and the solution analyzed by ICP-AES, with results reported in percent. All samples were subject to multi-element analysis for 33 elements including copper, molybdenum and sulphur by AR digestion with an ICP-AES finish at SGS Toronto. In addition, 30 samples were analyzed by lithium metaborate fusion XRF finish whole rock analysis. All duplicates were analyzed at ALS Chemex laboratory in North Vancouver, British Columbia.

For the 2004 through 2007 programs, ALS Chemex Laboratories of North Vancouver, British Columbia, an ISO 9001:2000 registered facility, performed the analytical work. All samples from the Cretaceous portions of the holes were analyzed for 25 elements, including copper and molybdenum, by a four acid digestion, intermediate grade multi-element analysis method. All Cretaceous samples were also analyzed for gold by FA. Most of the Tertiary sections of these holes were also sampled for waste rock characterization studies. A low detection limit analysis of 48 elements by four acid digestion was performed on the Tertiary waste rocks. Total copper and molybdenum concentration was determined by an intermediate grade multi-element analytical method. A four acid (HF-HNO3-HClO4-HCl) digestion was followed by ICP-AES finish. The same multi-element method was used to determine 23 additional elements, including sulphur (ALS Chemex method code ME-ICP61a). In 2004 and 2005, approximately 1 sample in 10 was also analyzed for copper by a high grade, four acid digestion method (ALS Chemex code Cu-AA62) with AAS finish. Gold content was determined by one assay ton (30 g) lead collection FA fusion, the doré dissolved in Aqua Regia with AAS finish (ALS Chemex method Au-AA23). A total of 10 samples from this period had gold results >10 ppm; they were re-analyzed by 30 g FA fusion with a gravimetric finish, with results reported in ppm, (ALS Chemex method Au-GRA21). From drill holes 7371 onwards, gold concentration, along with platinum and palladium concentrations, was determined by 30 g FA fusion with an ICP finish (ALS Chemex method PGM-ICP23).

Some additional analyses were performed on sample pulps from the 2003 through 2007 programs, including copper speciation, metallic precious metal and total sulphur determinations. A total of 5,633 samples were subject to copper speciation analyses that included oxide copper analysis by citric acid leach AAS finish, non-sulphide copper analysis by 10% sulphuric acid leach AAS finish, and cyanide leachable copper on the sample residue of the sulphuric acid leach by cyanide leach AAS finish (ALS Chemex codes Cu-AA04, Cu-AA05 and Cu-AA17). A total of 222 samples from Pebble East drill hole 7359 were analyzed for precious metal metallics (modified ALS Chemex method Au-SCR21 to include platinum and palladium). A 1000 g pulp sample was screened at 100 μm (Tyler 150 mesh) and the entire plus fraction was weighed and analyzed by FA ICP finish and two 30 g minus fraction splits were analyzed by FA ICP finish. In addition, 136 total sulphur analyses by Leco furnace (ALS Chemex method S-IR08) were also performed.

All duplicates were analyzed at Acme Analytical Laboratories in Vancouver, BC using similar methods. Acme method Group 7TD, a four acid digestion (HF-HNO3-HClO4-HCl) digestion with an ICP-AES finish was used to determine total copper, molybdenum and 20 additional elements. Check assays for gold were determined by Acme method Group 3B, 30 g FA fusion with an ICP-AES finish.

Details of 2007 sample preparation, analysis, and QA/QC protocol are provided in Figure 15.1.

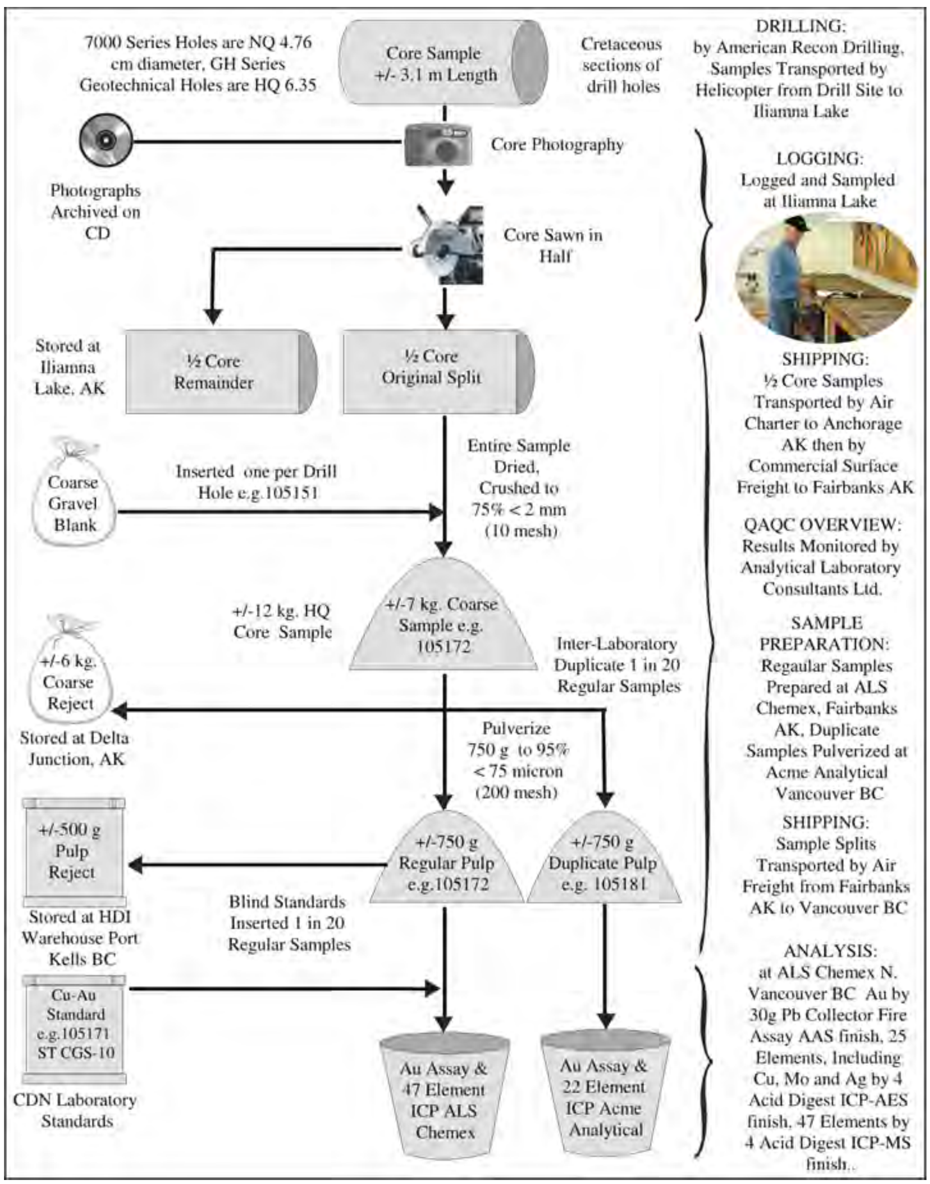


Figure 15.1. Pebble Project 2007 drill core sampling and analytical flow chart.

15.3 Quality Assurance and Quality Control (QA/QC)

Quality assurance is a system of activities whose purpose is to provide the assurance that the analytical results meet the standards of quality with a stated level of confidence. Quality control is a system of physical processes whose purpose is to monitor and control the quality of the results.

Northern Dynasty implemented a rigorous QA/QC program after taking over the Pebble project in 2002 and this has continued through 2007. Mark Rebagliati, P.Eng, is the Qualified Person for the Pebble Project and is supervising the QA/QC program. This program is in addition to the QA/QC procedures used internally by the analytical laboratories. Since 2004, the QA/QC program has also been subject to independent review and monitoring by Analytical Laboratory Consultants Ltd (ALC). ALC provides ongoing monitoring, including facility inspection, and timely reporting of the performance of standards, blanks and duplicates in the drill hole sampling and analytical program. The results of this program indicate that analytical results are of a high quality suitable for use in detailed modeling and resource evaluation studies. Table 15.1 describes the QA/QC sample types used in this program.

Table 15.1. QA/QC sample types used.

QC Code	Sample Type	Description	Percent of Total
MS	Regular Mainstream	• Regular samples submitted for preparation and analysis at the primary laboratory.	90%
ST	Standard Reference Material	• Mineralized material in pulverized form with a known concentration and distribution of element(s) of interest • Randomly inserted using pre-numbered sample tags	5% or 1 in 20
DP	Duplicate or Replicate	• An additional split taken from the remaining pulp reject, coarse reject, ¼ core or ½ core remainder. • Random selection using pre-numbered sample tags • Inter-Laboratory duplicates analyzed at a secondary or check laboratory (random selection) • In-line intra-laboratory duplicates from a coarse or pulverized reject split of previous sample given next sample number in the sequence (random selection) • Non-random selection, after initial assays returned	5% or 1 in 20
SD	Standard Duplicate	• Standard reference sample submitted with duplicates and replicates to the check laboratory	<1%
BL	Blank	• Basically a standard with no appreciable grade used to test for contamination	1%

Table 15.2 is summarizes the regular mainstream (MS) samples and additional QA/QC samples analyzed on the Pebble Project. This is in addition to the laboratory internal QA/QC work.

Table 15.2. QA/QC Summary for the Pebble Project.

Year	MS	DP	SD	ST	BL	Total
1988	626	0	0	0	0	626
1989	774	10	0	0	0	783
1990	965	20	0	0	0	985
1991	2,674	10	0	0	0	2,684
1992	611	20	0	0	0	631
1993	100	0	0	0	0	100
1997	1,215	103	0	55	0	1,373
2002	2,467	132	1	118	0	2,718
2003	6,444	1,666	13	318	0	8,441
2004	13,769	700	43	645	200	15,357
2005	5,813	315	19	218	87	6,452
2006	4,478	204	12	132	108	5,110
2007	12,809	547	14	506	198	14,074
ALL	**52,745**	**3,727**	**102**	**1992**	**593**	**59,334**

As an example of laboratory internal QA/QC work for gold assays, in 2003 through 2007 ALS Chemex inserted two standards, three duplicates and one blank on a rack size of 84 samples. For regular ICP methods they inserted two standards, one duplicate and one blank on a rack size of 40 samples.

15.3.1 Standards

Standard reference materials inserted after sample preparation as anonymous (blind), consecutively numbered pulps with the regular samples provide a good indication of the overall accuracy of each batch of analytical results. These standards are in addition to those routinely analyzed by the analytical laboratories themselves. Standards were inserted in the field by the use of sample tags on which the ST designation for standard was pre-marked.

Standard performance was monitored by charting the analytical results over time on the x-axis against element concentration on the y-axis (see Figure 13.2). The results are compared with the expected value and range, as determined from the round-robin analysis. Table 15.3 is a summary of the standard reference materials used through 1997 to 2007 with the expected value and the range.

In the 1997 drill program Teck Cominco made the first use of a project-based copper-gold reference material called “the standard”. This standard was subsequently given the name “Pebble” to differentiate it from other standards that come into use later.

Table 15.3. Summary of standard reference materials.

Standard	Times Used	Years Used	Cu %	± 2 Std. Dev. Cu	Au g/t	± 2 Std. Dev. Au
Pebble	55	1997	0.374	0.004	0.456	0.034
95-2L	26	2002	0.002	0.001	1.090	0.090
Cu-105	9	2002-03	0.827	0.027	0.034	0.005
Cu-107	16	2002-03	0.284	0.013	0.055	0.062
PC-1	550	2002-04	0.268	0.010	0.170	0.048
CGS-1	214	2004-05	0.596	0.029	0.530	0.068
CGS-2	180	2004-07	1.177	0.046	0.970	0.092
CGS-3	367	2004-06	0.646	0.031	0.530	0.048
CGS-5	47	2005-06	0.155	0.006	0.130	0.020
CGS-6	106	2006-07	0.318	0.018	0.260	0.030
CGS-7	48	2006-07	0.950	0.070	1.010	0.080
CGS-8	181	2006-07	0.105	0.008	0.080	0.012
CGS-9	73	2006-07	0.473	0.025	0.340	0.034
CGS-10	24	2006-07	1.550	0.070	1.730	0.150
CGS-11	46	2006-07	0.683	0.026	0.730	0.068
CGS-12	60	2007	0.265	0.015	0.290	0.040
CGS-15	5	2007	0.451	0.010	0.570	0.052
CGS-16	52	2007	0.112	0.005	0.140	0.046
Gravel*	6	2005-2007	0.007	0.008	0.005	0.010

* The data related to the gravel blank are derived from the actual measurements which are not certified.

When the Northern Dynasty program started in 2002, a suitable commercial copper-gold reference material was not readily available. The Teck Cominco “Pebble” standard could not be located, and existing in-house supplies of copper-gold standards were exhausted. It was decided to alternate a gold standard (95-2L) with two copper-molybdenum standards (Cu-105 and Cu-107). This was done in 2002 and part of 2003, until coarse rejects from the 38 Zone drill hole 2034 were manufactured into a new the copper-gold-molybdenum standard PC-1 in late 2002. The new project based standard PC-1 was somewhat low grade and, although useful for copper, had fairly wide limits for gold. However, as it was of very similar matrix and mineralization type to the Pebble West deposit rocks it proved very useful. It was eventually replaced by the CGS series of copper-gold standards purchased from CDN Laboratories from 2004 onwards.

The 2004 program employed four different standards and QC was actively monitored for copper and gold. The four standards used were: CGS-1, CGS-2, CGS-3 and PC1. In 2005, low grade standard CGS-5 was added and PC1 was discontinued.

In 2006, the program employed nine different commercial standards from CDN Resource Laboratories Ltd: CGS-2, CGS-3, CGS-5, CGS-6, CGS-7, CGS-8, CGS-9, CGS-10 and CGS-11.

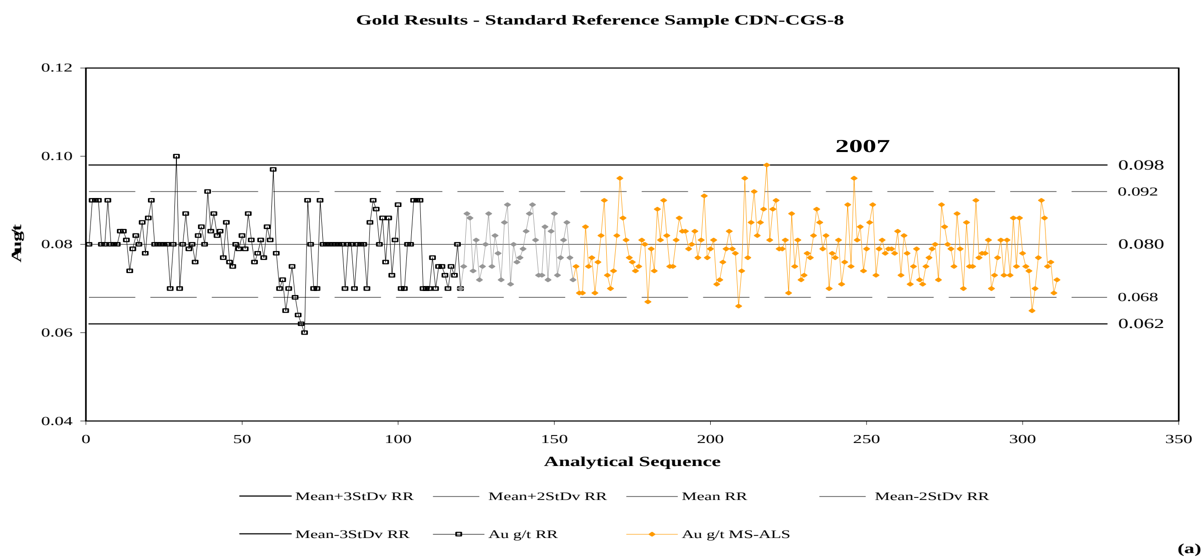
In 2007, the program employed ten different standard reference materials: CGS-2, CGS-6, CGS-7, CGS-8, CGS-9, CGS-10, CGS-11, CGS-12, CGS-16 and gravel. The gravel material is not a certified standard. It was only used for Tertiary waste rock analysis in 2005 and 2007 and as a blank from 2004 onwards.

The active monitoring portion on the QA/QC program was carried out for gold and copper. Standards were inserted into the sample stream approximately 1 every 20 samples.

ALC obtains analytical data directly from ALS Chemex and constructs Shewhart plots and Cumulative Sum (CuSum) control charts as well as Range Charts (Fig. 15.2).

Northern Dynasty and, more recently, the Partnership were notified when any group of data failed QC. A standard determination that was outside the control limits indicated a control failure. The control limits used were as follows.

- Warning limits: ± 2 S.D.
- Control Limits: ± 3 S.D.



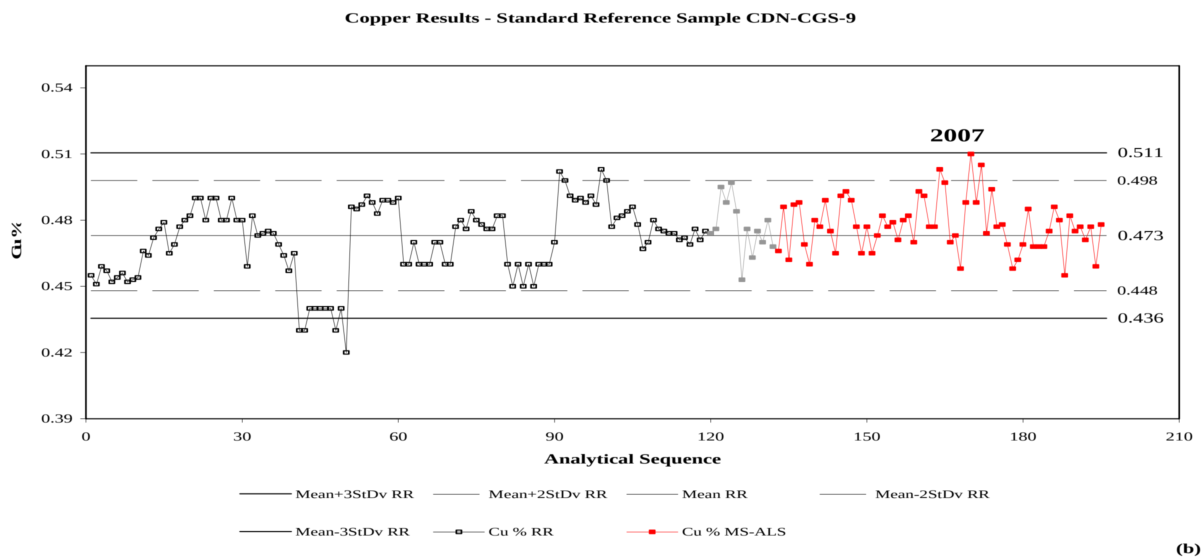


Figure 15.2. Standard monitoring charts (Shewhart Control Charts) at Pebble for: (a) gold; and (b) copper.

When a control failure occurred, Northern Dynasty notified ALS Chemex and the affected range of samples was re-analyzed. By the end of the program, no sample intervals had outstanding QA/QC issues.

15.3.2 Duplicates

Random duplicate samples were selected and tagged in the field by the use of sample tags on which the DP designation for duplicate was pre-marked.

A total of 568 duplicate samples (including DP samples and SD samples) from the 2007 exploration program were taken for inter-laboratory duplicate analysis. Samples to be duplicated were split by ALS Chemex Lab. at Fairbanks and submitted to Acme Lab. in Vancouver, British Columbia, for pulverization. The original samples were assayed by ALS Chemex Laboratories of North Vancouver and the corresponding duplicate samples were assayed by Acme laboratories of Vancouver. The inter-laboratory duplicates show good correlation (0.988) for gold and good correlation (0.989) for copper (see Figure 15.3).

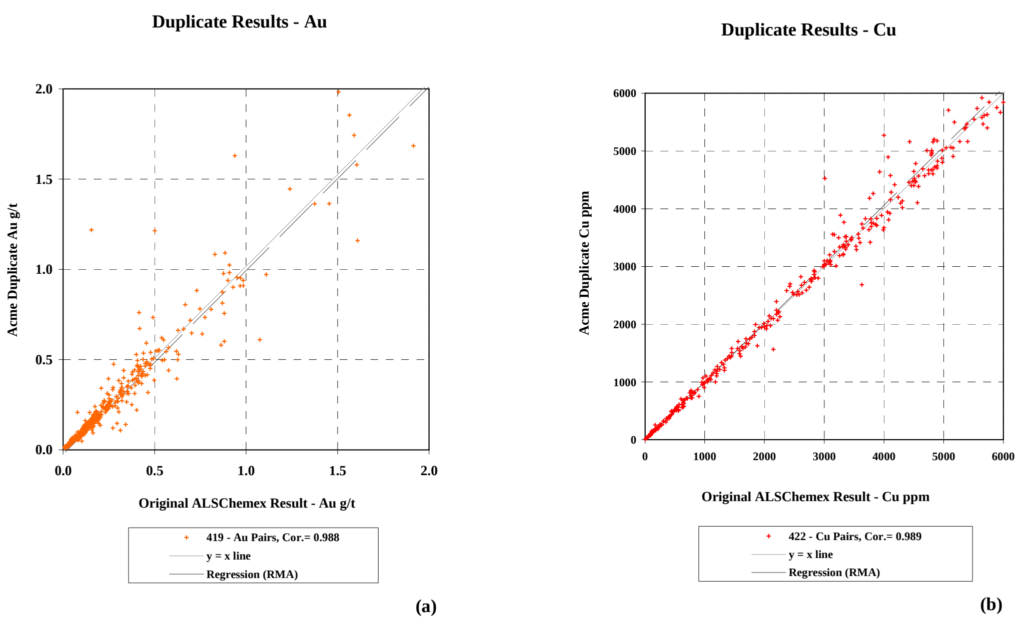


Figure 15.3. Duplicate Monitoring Charts in 2007 for: (a) gold; and (b) copper.

15.3.3 Blanks

A total of 194 field blanks were inserted in 2007 to test for contamination. This program was in addition to the blanks which are routinely inserted with the samples by the analytical laboratories as a part of their internal quality control procedures. The gravel material used as a blank from 2004 onwards is commercially available in 27 kg (60 lb) bags labelled '3/4 Gravel' obtained from the Anchorage Sand and Gravel Company. It consists of small rounded pebbles, typically 1-2 cm in size. About 0.5 kg of gravel was placed in a sample bag, given a sequential sample number in the sequence and randomly inserted one to three times per drill hole after the regular core samples were split at Iliamna. These blank samples were processed in sample number order along with the regular samples.

The gravel material has been analyzed 349 times for copper in the Tertiary waste rock sampling and 73 times for copper and gold in the Cretaceous sampling program. Based on current available results, the majority of assay results for the blanks in 2007 reported at or below the detection limit. The maximum values reported were: Au 0.011 g/t and Cu 0.015% in current results (Figure 15.4) which imply that no significant contamination occurred during sample preparation.

Figure 15.4. Blank monitoring charts in 2007 for: (a) gold; and (b) copper.

15.4.4 QA/QC on Other Elements

The four acid digestion ICP-AES 25 multi-element analytical method employed in 2007 is optimized for copper and molybdenum analysis. The copper and molybdenum assays were monitored by laboratory internal and Northern Dynasty external standards. Twenty three additional elements including (with their lower detection limits): Ag (1 ppm), Al (0.05 %), As (50 ppm), Ba (500 ppm), Be (10 ppm), Bi (20 ppm), Ca (0.05 %), Cd (10 ppm), Co (20 ppm), Cr (10 ppm), Fe (0.05 %), K (0.1 %), Mg (0.05 %), Mn (10 ppm), Na (0.05 %), Ni (10 ppm), Pb (20 ppm), S (0.1 %), Sb (50 ppm), Sr (10 ppm), Ti (0.05%), V (10 ppm) and Zn (20 ppm) were also determined by this multi-element method.

In addition to the monitoring performed on these elements by the analytical laboratory, ALC presented Shewhart standard control charts for each element in their final report.

15.4 Specific Gravity (Bulk Density) Determinations

A total of 1,535 specific gravity (bulk density) measurements of Tertiary and Cretaceous rocks were taken in 2007 using a water immersion method on whole drill core samples at the Iliamna core logging facility (Table 15.4).

Measurements were made at 100 foot intervals within continuous rock units, and at least once in each rock unit less than 100 feet in width. Rocks chosen for analysis were typical of the surrounding rock. Where the sample interval occurred in a section of missing core, or poorly consolidated material unsuitable for measurement, the nearest intact piece of core was measured instead.

Table 15.4. Summary of specific gravity results for 2007 from the Pebble Project.

Age	Number of Measurements	SG Mean	SG Median
Tertiary	657	2.56	2.57
Cretaceous	832	2.60	2.58
Unknown	46	2.57	2.60
All	1,535	2.58	2.58

Prior to each session, a standard rock of known SG was measured as a control procedure. Whole core samples free of visible moisture were selected; they ranged from 8 to 30 cm in length, and averaged 18 cm. The samples were dried, weighed in air on an Ohaus SP2001 digital scale (capacity 2000 g) and the mass in air (Ma) recorded to the nearest 0.1 g in a table in an Access database. The sample was then suspended in water below the scale and the mass in water (Mw) entered into the same table. Calculation of the specific gravity (SG) was by the following formula:

$$SG = Ma / (Ma - Mw)$$

In the water immersion method, natural voids in the whole core samples are not all filled during the Mw measurement. Because of this, the results tend to be closer to the in-situ bulk density of the rock mass compared to determinations on crushed or pulverized samples of the same rock material. The more the rocks are processed, the more voids are removed. These determinations tend to be higher, approaching the specific gravity of the rock forming minerals themselves.

Two possible sources of error in the measurements are the presence of: 1) moisture in the Ma measurement for some samples; and 2) porosity and permeability of the bulk rock mass not determinable by the method. The former will result in measurements that are somewhat overstated, and the latter in measurements that are understated in terms of the dry in-situ bulk density. An assessment of this is recommended. Several water immersion measurements should be repeated after drying and wax coating of typical, moisture-retentive and vuggy samples. It is also recommended that the bulk in-situ porosity and permeability of the rock mass be determined by geotechnical testing.

16 DATA VERIFICATION

16.1 Database

All drill logs and surface exploration samples collected on the project site were compiled in an Access relational database which has tables that are compatible with GEMS mining exploration software. For the purposes of geological and resource modeling, this information was exported to the Vulcan program. Table 16.1 summarizes the drilling information in the primary GEMS/Access database for the Project.

Table 16.1. Drill hole database summary.

Year	Drill Holes	Metres Drilled	Core Samples
1988	26	2,316.9	626
1989	27	2,262.5	773
1990	25	3,054.0	965
1991	48	8,573.7	2,674
1992	14	2,014.4	611
1993	4	385.0	100
1997	20	4,479.2	1,215
2002	68	11,349.8	2,541
2003	67	21,713.2	6,444
2004	259	50,198.7	13,829
2005	45	23,180.5	5,815
2006	48	20,869.1	4,535
2007	77	60,429	13,356
ALL	**728**	**210,826**	**53,484**

16.2 Verification

The 1997 and prior Teck Cominco data were validated by Northern Dynasty in 2003 using:

- The digital data and printed information.
- Digital assay results obtained directly from ALS Chemex and Teck Cominco Exploration Research laboratories, where available.
- Re-analyses of the original assay pulps in a few instances.

Most of the pre-2002 data in the current database is derived from a digital compilation created by Teck Cominco in 1999. A total of 28 gold results from 1988 and 1989 holes, which existed only on hand written drill logs, was added to the database. Although a complete set of original information does not exist for all the historical holes and, in particular, the printed assay certificates were not found, the digital data are of good quality. The data compiled by Teck Cominco match the digital analytical data received directly from the laboratories, with few exceptions. Most differences are likely due to separately reported over-limits and reruns. The small number of errors identified in the Teck Cominco data, including mismatched assay data, conversion errors, unapplied over-limits and typos, were corrected.

The 2002 analytical data were also verified and validated. A few errors were identified and corrected.

When the 2003 digital data were verified against the assay certificates, some differences with the printed certificates were identified. In 2003, the analytical results were provided by SGS laboratory in a digital format that included SGS internal standards, duplicates and blanks. These digital results differed from the values on the corresponding printed certificates in two ways; digits in excess of three significant figures were recorded and results were not trimmed to the upper detection limit value. As a result, sixteen 2003 gold assays over 2000 ppb had incorrect values assigned to them in the database. This was corrected by applying the correct Fire Assay over-limit rerun result to these samples in the database. No over-limits existed in the 2003 copper results so there were no problems with this element. The lone over-limit molybdenum value (26,290 ppm for sample 242801 in hole 3097) was left untrimmed because this result was substantiated by an ALS Chemex check assay. Results from 2003 for elements other than gold, copper and molybdenum were left untrimmed in the database.

Norwest reported on additional data verification done in conjunction with the resource estimate in the February 20, 2004 report. “Norwest received, from Northern Dynasty, the initial Pebble drill hole database in the form of an assay, collar, downhole survey and geology file. An audit was undertaken of 5% of the data within these files. Digital files were compared to original assay certificates and survey records. It was determined that the downhole survey file had an unacceptable number of errors. These errors were subsequently corrected at Northern Dynasty. The assay file had an error rate of approximately 1.2%. This was considered acceptable for this level of study."

The 2004 drillhole data were collected and digitally entered by Northern Dynasty geological and technical personnel at the Iliamna site and sent to the Vancouver office on a weekly basis. In Vancouver, the digital database was compiled, merged with the analytical results, and reviewed for QA/QC. Verification and validation took place at Iliamna and Vancouver. At Iliamna, the geologist responsible for each drill hole reviewed print-outs of the digitally entered geology, sample and field log data. The merged sample logs and analytical results were also reviewed by site personnel and, if necessary, checked against the drill core.

In Vancouver, the compiled data from the header, survey, assay, geology and geotechnical tables were validated for missing, overlapping or duplicated intervals or sample numbers, and for matching drill hole lengths in each table. Drill hole collars and traces were plotted out in plan and sectional view as a visual check on the validity of the location information by a geologist. As the analytical data were returned from the laboratory they were merged with the sample logs, printed out, and the gold, copper, molybdenum and silver values verified against the original assay certificates provided by the laboratory. Particular attention was paid to laboratory reruns where the analytical results were revised for QA/QC reasons to ensure the correct data were applied. Revised laboratory certificates were marked superseded if replaced by reruns.

Verification and validation work were completed on the 2004 data by January 2005 and a low number of errors were reported. Mislabeled standards in the sample log were the main source of error. This originated because the individual standard pulp bags in packages of 10 are not labelled with the standard name for QA/QC reasons. Personnel at site were instructed to apply the sample number to the standard pulp and record it in the sample log with the standard name as soon as they were used to avoid recurrence of the problem. Digital values not matching the analytical certificates were the next area of concern. In this case, the digital data were usually correct, as the certificates had been superseded by new results from QA/QC reruns. New certificates provided by the laboratory were placed in the drill hole files and the old certificates were marked superseded so that these revisions could be tracked.

The 2005 through 2007 data were verified and validated at the Iliamna office and in the Vancouver office as the drill program progressed. The validation and verification work for each year was generally completed by January of the following year, although some QA/QC issues took longer to resolve. Work at the Iliamna office consisted mostly of validating the site data entry and resolving errors that were identified. Corrections to the site entry database were made at Iliamna for the entries of the current year. Corrections and revisions to entries of other years were made at the Vancouver office. Additional validation and verification work was performed in the Vancouver office. This consisted of checking the site data tables for missing, overlapping, unacceptable and mismatching entries, and reviewing the analytical QAQ/QC results. In addition to this, the copper, gold and molybdenum data received on the ALS Chemex analytical certificates were manually verified against print-outs of the sample results from the database for intervals included in company news releases.

The work for each year was completed by January of the following year. The work at the Iliamna office consisted mostly of checking the data entry and resolving errors identified by the Vancouver office. Corrections to the data entry database at site were made for the current year of active drilling. Corrections to previous years were made through the Vancouver office. At the Vancouver office, the validation and verification work consisted of checking the site data tables for missing, overlapping, unacceptable and mismatching entries. In addition to this, the copper, gold and molybdenum data received on the analytical certificates from laboratories was manually verified against print-outs of the sample results from the database for intervals included in Northern Dynasty news releases.

Several different types of errors were identified, including data entry errors, misidentification of QA/QC samples, missing information in data tables, differing drill hole lengths for the same hole in different tables, misapplication of passed analytical QAQC data, difficulties with sub-unit intervals on geologic logs, problems with geologic coding and practical issues to do with overlapping wedges. Corrections to site-entered data for the current year were made at the Iliamna office and were received by the Vancouver office as of the next update. Corrections to the analytical data errors were made in Vancouver.

This verification and validation work performed on the digital database indicates that it is of good quality and acceptable for use in geological and resource modeling of the Pebble deposit.

17 ADJACENT PROPERTIES

There are no properties adjacent to the Pebble project relevant to this report.

18 MINERAL PROCESSING AND METALLURGICAL TESTING

18.1 Metallurgical Testwork

The metallurgical test programs between 2004 and 2007 for the Pebble Project consisted of separate work programs for the Pebble West deposit and the Pebble East deposit. In 2008, the work has been expanded to testing of Pebble West and Pebble East mineralization blends to quantify metallurgical efficiencies against mining plans for the deposits. The test programs, which are reviewed separately below, provide recovery values for copper and molybdenum to flotation concentrate along with associated gold.

18.1.1 Pebble West – Phase I (2004 – 2006)

The first phase of the Pebble West work consisted of a large flotation program conducted by Process Research Associates Ltd. of Vancouver, British Columbia (PRA) in 2004 and into 2005. It also included an attempt to produce representative concentrate by a pilot plant campaign conducted under the supervision of G&T Metallurgical Services Ltd. of Kamloops, British Columbia (G&T), and a grinding testwork program conducted by SGS Lakefield Research Limited of Lakefield, Ontario (Lakefield) under the supervision of DJB Consultants Inc. of Vancouver, British Columbia (DJB).

This initial PRA testwork, which was based on a preliminary flowsheet, confirmed the amenability of Pebble West samples to concentration into bulk copper/molybdenum concentrates with reasonable grades (26% Cu to 31% Cu) and recovery ranges as summarized below (Table 18.1),including recovery of associated gold into flotation concentrate.

Table 18.1. Summary of PRA lock cycle test results, Pebble West.

Calculated Head			% Recovery to Concentrate		
% Cu	% Mo	g Au/t	Cu	Mo	Au
0.33 - 0.62	0.016 - 0.038	0.28 - 0.47	82.9 - 87.4	42.9 - 69.5	50.7 - 66.4

Results of subsequent variability tests, however, showed that pyrite activation by alteration and copper (chalcocite) rimming would potentially impact achievable concentrate grades. Attempts at making bulk flotation concentrates at G&T also showed that the presence of slimes would have to be accommodated in flotation.

Following this work a program was conducted at Lakefield, and included flotation, comminution and other miscellaneous testwork aimed at confirming the PRA results in advance of completing variability testing. The composites, prepared from 2004 PQ core selected by DJB for comminution testing, were produced to each represent a different quadrant of the initial open pit stages (Fig. 18.1).

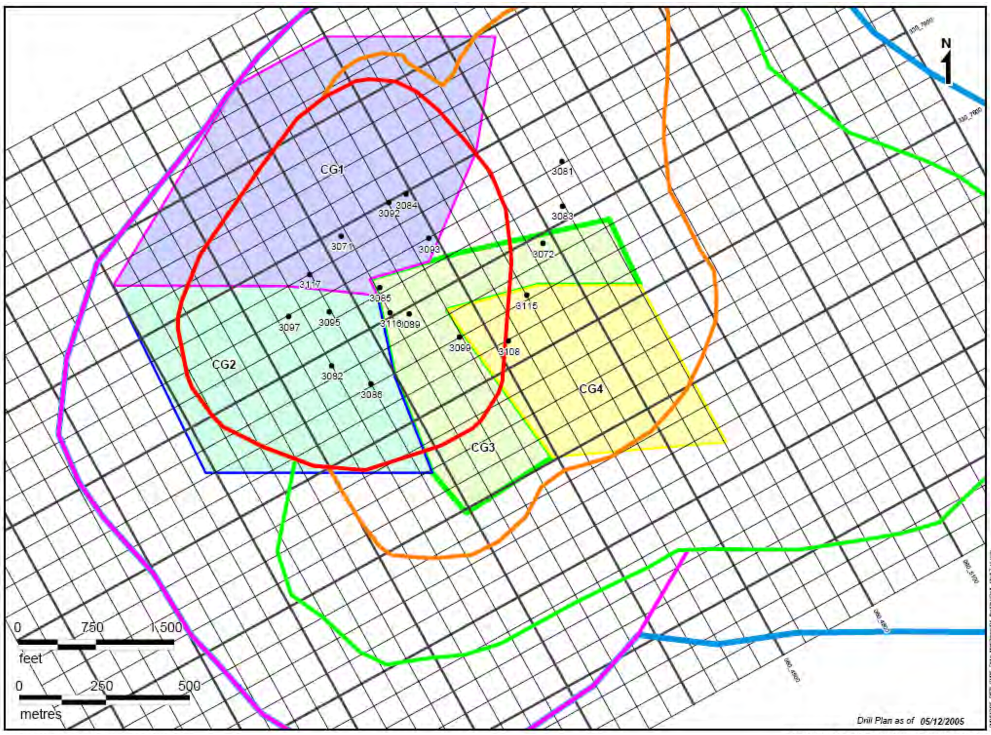


Figure 18.1. Location of drill holes utilized for First Stage Pebble West metallurgical testwork.

This second stage of work was problematic in that the Pebble West composites used for testing, made up to represent the first five years of mining in a preliminary forecast, were highly variable in terms of hardness and pyrite content. Good recoveries of all of the pay metals were generally achieved, but the recoveries were moderated by the requirement to suppress co-floating pyrite and non-sulphide gangue, which otherwise would reduce grades below marketable levels. This led to some changes in the process flowsheet. The test composites were prepared as complete vertical blends, thus contained near surface supergene mineralization would have been distributed through the complete composites.

Flotation lock cycle results on the first two composites, Composites C1 and C2, using a modified flowsheet which included pre-cleaner flotation of reground rougher concentrate ahead of copper-pyrite separation (cleaner flotation), were in the range of those achieved in the PRA testwork

(Table 18.2). Results on the other two composites, after multiple tests, were still inferior to Composites C1 and C2 as summarized in Table 18.3:

Table 18.2. Summary of Lakefield lock cycle test results on Composites C1 and C2, Pebble West 2005 metallurgical testwork.

Composite	Con Grade	Calculated Head			% Recovery to Concentrate		
		% Cu	% Mo	g Au/t	Cu	Mo	Au
C1	26.6	0.44	0.017	0.44	89.4	65.0	54.0
C2	28.7	0.36	0.023	0.40	86.1	67.4	62.4

Table 18.3. Summary of Lakefield lock cycle test results on Composites C3 and C4, Pebble West 2005 metallurgical testwork.

Composite	Con Grade	Calculated Head			% Recovery to Concentrate		
		% Cu	% Mo	g Au/t	Cu	Mo	Au
C3	25.9	0.29	0.014	0.41	81.9	75.3	48.2
C4	27.4	0.29	0.013	0.35	83.0	62.6	44.4

A review of regrinding test data suggested that the mineralization making up Composite C3 was finer grained then the mineralization making up the other three composites. This could have had an impact on metal recovery due to inadequate liberation. Also, a review of drill core log data revealed that Composite C3, identified as sericite material, contained supergene-type secondary copper minerals and also has more gold associated with pyrite. Both of these would impact on metallurgical efficiencies by pyrite activation and sliming resulting in difficulties achieving high concentrate grade.

Further mineralogical examinations of Pebble West mineralization confirmed that the main sulphide gangue is pyrite, occurring as liberated grains, some showing covellite/chalcocite rimming, and a minor amount with inclusions, rims and attachments of chalcopyrite. A regrind K_{80} (80% passing size) of 10 µm to 20 µm was deemed necessary to liberate copper minerals from pyrite.

Melis Engineering Ltd. of Saskatoon, Saskatchewan (Melis) was engaged to complete a review of 2004 PRA metallurgical testwork and 2005 Lakefield metallurgical testwork. Based on this review, the third stage of Pebble West Phase I was initiated at the end of 2005.

To facilitate the work, and to simplify comparison of results, a blend of Composites C1, C2 and C4 was prepared (Composite C124) for testing. Composite C3 was left out of the mix due to differing results as discussed above. Also, three preliminary composites were made up from available PQ05 core in storage at Lakefield (separated as Upper, Middle and Lower Composites). These were tested to provide an initial comparison of upper, middle and lower portions of the area of the deposit where the 2005 PQ drilling had been carried out.

From the results achieved in this series of tests, the process flowsheet yielding the better results for the Pebble West mineralization was a Split Stream flowsheet incorporating flash flotation as an alternative add-in at the front end to maximize recoveries, particularly for molybdenum. This flowsheet incorporated bulk rougher flotation at natural pH followed by bulk scavenger flotation and bulk cleaning of bulk scavenger concentrate, separate regrinding/copper-pyrite separation/cleaning of the bulk rougher concentrate and separate bulk cleaning/regrinding and cleaning of the bulk scavenger concentrate. This split stream approach allowed separation of copper/non-sulphide gangue and copper/pyrite in separate circuits. Flash flotation, which would be incorporated in the grinding circuit, was seen as a requirement for some of the mineralization based on the composites tested.

Based on the selected Split Stream flowsheet target metallurgical efficiencies for the Pebble West deposit, which were observed to be variable based on the composites tested, were derived from lock cycle testing of two composites, Composite C124 and the Lower Composite. For these composites target recoveries for copper, gold and molybdenum and associated gold to flotation concentrate were estimated as shown in Table 18.4 below:

Table 18.4. Target metallurgical efficiencies for composites C124 and Lower, Pebble West 2005 metallurgical testwork.

Composite	Calculated Head			Concentrate Grade			% Recovery to 26% Cu Concentrate		
	% Cu	g Au/t	% Mo	% Cu	g Au/t	% Mo	Cu	Au	Mo
C124	0.31	0.34	0.022	26	19	1.3	87	59	62
Lower	0.33	0.24	0.018	26	14	1.3	90	65	82

Silver recovery to flotation concentrate, containing 60 to 80 g Ag/t, was estimated at 50%.

The metallurgical variability of the Pebble West deposit was identified by batch comparison testing of available composites, namely the Middle and Upper Composites and the individual composites, Composites C1, C2, C3 and C4 which were in storage at Lakefield. The recoveries to flotation concentrate achieved for these composites as tested, projected from results of batch tests using the Split Stream flowsheet, are shown in Table 18.5.

Table 18.5. Pebble West observed metallurgical variability from testing of available composites.

Composite	Calculated Head			Concentrate Grade			% Recovery to 26% Cu Concentrate		
	% Cu	g Au/t	% Mo	% Cu	g Au/t	% Mo	Cu	Au	Mo
Middle	0.23	0.21	0.020	26	13	1.8	84	47	67
Upper	0.26	0.37	0.021	26	23	2.1	80	51	77
C1	0.41	0.39	0.018	26	16	0.7	84	54	53
C2	0.32	0.30	0.028	26	16	1.5	84	57	58
C3	0.27	0.33	0.014	26	18	0.9	87	51	59
C4	0.23	0.28	0.019	26	17	1.7	82	48	69

The composites available for testing had been in storage for an extended period causing some concern with respect to degradation of composite integrity. Due to the nature of these composites, it was concluded that geo-metallurgical mapping of the deposit on fresh core samples would be necessary to more closely quantify copper, gold and molybdenum recoveries and finalize and/or simplify flowsheet requirements for the Pebble West deposit.

18.1.2 Pebble East – Scoping Tests (2006)

Melis completed preliminary scoping tests on samples from DDH 5327 of the Pebble East deposit at Lakefield in the first quarter of 2006. Projected overall recoveries of copper, molybdenum and associated gold to a 26% Cu flotation concentrate using a simplified Combined Stream flowsheet (rougher and scavenger flotation/regrind/cleaner flotation using pH control for copper/pyrite separation with no requirement for a pyrite depressant), based on lock cycle testing of the overall drill hole composite, are summarized in table 18.6.

Table 18.6. Pebble East target metallurgical efficiencies for DDH-5327 overall composite.

Composite	Calculated Head			Concentrate Grade			% Recovery to 26% Cu Concentrate		
	% Cu	g Au/t	% Mo	% Cu	g Au/t	% Mo	Cu	Au	Mo
EZ-B	0.75	0.38	0.012	26	9.4	0.4	98	55	75

18.1.3 Pebble East – Phase I (2007)

As a follow-up to the Pebble East scoping tests a metallurgical test program was initiated on Pebble East composites at Lakefield in December 2006 under the direction of Melis, starting with composite preparation. The test program, referred to as Pebble East Phase I and completed during 2007 and into early 2008, included comminution testwork, gravity recovery testwork, flotation testwork and environmental data generation. Test material was collected from nine 2005 drill holes and four 2006 drill holes.

Extensive batch and lock cycle flotation testwork confirmed the suitability of the simpler Combined Stream flowsheet for the Pebble East mineralization, developed from the scoping tests discussed above. Good recoveries to copper concentrate were achieved; in particular gold recoveries to copper concentrate, as well as molybdenum recoveries (in part due to the higher molybdenum head grade), improved over those achieved in the scoping tests.

Using the Combined Stream flowsheet and a 200 µm primary grind K_{80} (the mesh-of-grind estimated to yield the optimum NPV), projected recoveries to a 26% Cu flotation concentrate including gravity gold recovery from first cleaner scavenger tails, calculated for lock cycle tests under conditions approaching steady state, were estimated as shown in Table 18.7 below:

Table 18.7. Pebble East Phase I, projected recoveries by rock type.

Mineralization	% Recovery to 26% Cu Concentrate		
	Cu	Au	Mo
Granodiorite	92.6	64.8	94.7
Sediment	86.6	61.3	91.4
Weighted Average	91.1	63.7	93.9

Copper/molybdenum separation tests were completed on flotation concentrate produced in batch tests. Molybdenum separation efficiencies of approximately 90% were obtained on relatively coarse concentrate. Further tests are being done using concentrate produced from the current bulk flotation program using a finer regrind. Limited analysis of molybdenum concentrate yielded payable rhenium values averaging 750 g Re/t.

18.1.4 On-Going Work

Continuing work for the Pebble project includes completion of the Pebble East Phase I work, execution of the Pebble West Phase II work on fresh composites and completion of a second phase of work on further drill hole samples from the Pebble East deposit.

Completion of Pebble East Phase I

Current work at Lakefield consists of completing the Pebble East Phase I work on a blend of the granodiorite and sediments composites. It entails bulk flotation to prepare concentrate for characterization and regrind tests and to prepare tailings for physical and chemical characterization as well as environmental testing.

Pebble West Phase II Program

As a follow-up of previous Pebble West test programs, as reviewed above, further drilling of metallurgical samples from the Pebble West open pit deposit was completed in the fourth quarter of 2007 to provide test composites for confirmation of comminution design parameters and for evaluation of the optimum flowsheet for the Pebble West mineralization, particularly with regards to its response to the Combined Stream flowsheet established for the Pebble East mineralization.

A series of nine HQ metallurgical drill holes were drilled to represent different areas of the Pebble West deposit, purpose-drilled to provide metallurgical test composites.

The general metallurgical testing approach will be to first confirm the flotation response of Pebble West mineralization on the three zone composites, and then follow with confirmation testing of zone rock type composites and future variability testing of all the metallurgical sub-composites. As noted above the testwork will start with the Pebble East Combined Stream flowsheet and adjustments made according to test results.

Pebble East Phase II Program

As a follow-up to the Pebble East Phase I program, further samples were collected from the remaining 2006 drill holes and from available 2007 drill holes for preparation of further Pebble East test composites. The same general approach for sample selection and composite preparation was used to provide a sufficiently large number of metallurgical test composites of varying copper, gold and molybdenum grades and varying mineralization for comminution and flotation testing.

The general metallurgical testing approach will be to first complete scoping and flowsheet confirmation tests on the three overall lithological zone composites and then follow this with future variability testing of all the metallurgical sub-composites.

Test Program on Pebble West/Pebble East Blends

An important component of the Pebble Project is not only to quantify the separate metallurgical response of Pebble West and Pebble East mineralization but to also quantify the response of blends of both deposits to the selected flowsheet. This test program has been implemented in the first quarter of 2008 using the Pebble West composites prepared from the nine metallurgical holes discussed above, and, to save time and use currently available composites, a weighted blend of the Pebble East Phase I granodiorite and sediments composites.

The testwork on these blends was initiated in the first quarter of 2008 to identify any changes to process variables early in the pre-feasibility study for the project.

18.2 Comminution Testwork

18.2.1 Sample History

Concepts for the design and operation of the comminution circuit for the Pebble project were determined from comminution test work programs.

For the Pebble West deposit, 295 intervals were tested representing 66,678 feet of drill core which had been sampled. Each interval was sampled according to a relevant sampling protocol for PQ/HQ and ½ NQ core:

- for Bond Low Energy Impact Crushing Work Index, Wic, PQ and HQ core pieces (full diameter cross-section where possible);
- for Bond Rod Mill Work Index, WiRM to 14 mesh, Bond Ball Mill Work Index, WiBM to 100 mesh, and Bond Abrasion Index, Ai, approximately 50 kg in aggregate sampled from minus 1-inch crushed core;
- a reserve sample for Bond Ball Mill Work Index in case a coarser grind should be investigated.

In addition, 30 kg of PQ/HQ core pieces (full diameter cross-selection where possible) was reserved for the JK Drop Weight test and, in the case of ½ NQ core, 20 kg for SMC/SPI tests. Results from these tests were used to corroborate mill throughput projections per DJB Consultants, Inc. The average results are shown in Table 18.8.

Table 18.8. Summary of Communition Test Results.

BOND WORK INDICES (Metric)	
Low Energy Impact Crushing	
➢ 50 % Percentile	5.9
Rod Mill to 14 Mesh	
➢ 50 % Percentile	16.2
Ball Mill to 100 Mesh	
50 % Percentile	14.5
Abrasion	
➢ 50 % Percentile	0.1883

18.2.2 Mill Sizing

Comminution test results have and will be used to estimate project grinding plant capacity based on a power-based mill sizing software package which has been developed by DJB Consultants, Inc.

A composite calculation of the overall specific power consumption for each sample interval has been listed as input to a frequency diagram which shows the variability of mill capacity at constant power draw. In addition, a geostatistical approach in predicting variability was used, in which the specific power consumption for each sample interval is given a zone of influence in the block model and across/through mine bench levels. A scale of contingencies is assigned to mitigate differences in specific power consumptions between neighbouring core intervals on the same bench level. This geostatistical approach, when combined with the mine production plan, will result in a considerably different variability of mill capacity.

A similar approach will be adopted for selection of the comminution samples and the processing of test results for the Pebble East Underground Deposit.

19 MINERAL RESOURCE ESTIMATES

19.1 Pebble West Deposit

Roscoe Postle Associates Inc. (RPA, now Scott Wilson Roscoe Postle Inc.) was retained in 2005 to complete a resource estimate for the Pebble (now Pebble West) deposit. The estimate was completed under the direction of David W. Rennie, P.Eng. 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. Both Mr Rennie and Mr Srivastava are independent Qualified Persons as defined by Canadian regulatory policy NI 43-101. The following is a summary from the April 2005 Technical Report.

RPA's resource estimate is based upon drill core assay results from 70,719 metres of drilling in 265 holes which were completed by Northern Dynasty during 2003 and 2004, and 19,245 metres in 118 holes completed by Teck Cominco up to 1997.

Grade estimation was carried out using FSS in-house software, and checked and validated using GEMS (Gemcom). Solids were constructed by Northern Dynasty technical staff using Vulcan. Grade estimation for copper, gold and molybdenum were carried out using Multiple Indicator Kriging (MIK) and estimation of silver grade was done using Inverse Distance weighting to the third power (ID3).

RPA reviewed the core handling, logging, sampling and assaying protocols as well as the assay QA/QC for the project. In RPA's opinion, all aspects of the drilling and sampling carried out 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.

The MIK estimation was carried out by FSS. The ID3 estimation for silver, as well as an ID3 check on the MIK models was carried out by RPA.

Mineral Resource classification was carried out in two steps. The first step involved assigning an integer code to the blocks depending on the number of six metre composites and average distance to the composites used for each block estimate, according to the following rules:

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

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

Results of the Mineral Resource estimates as of March 2005, are presented in Table 19.1

Table 19.1. Pebble West Deposit – measured, indicated and inferred mineral resources.

Pebble West Deposit – Measured Mineral Resources

Cut-Off	Size	Grade				Contained Metal		
CuEQ %	Million Tonnes	Copper %	Gold g/t	Molybdenum %	CuEQ %	Copper B lb	Gold M oz	Molybdenum M lb
0.30	**711**	**0.33**	**0.36**	**0.016**	**0.63**	**5.1**	**8.1**	**256**
0.40	655	0.34	0.37	0.017	0.66	4.9	7.8	244
0.50	525	0.37	0.40	0.018	0.70	4.3	6.7	207
0.60	355	0.41	0.43	0.019	0.78	3.2	4.9	150
0.70	214	0.47	0.47	0.021	0.87	2.2	3.3	97

Pebble West Deposit – Indicated Mineral Resources

Cut-Off	Size	Grade				Contained Metal		
CuEQ %	Million Tonnes	Copper %	Gold g/t	Molybdenum %	CuEQ %	Copper B lb	Gold M oz	Molybdenum M lb
0.30	**2,315**	**0.27**	**0.31**	**0.014**	**0.54**	**13.7**	**23.2**	**736**
0.40	1,757	0.30	0.34	0.016	0.59	11.6	19.2	611
0.50	1,103	0.35	0.39	0.017	0.68	8.4	13.9	423
0.60	615	0.40	0.45	0.020	0.79	5.5	8.9	270
0.70	356	0.46	0.51	0.021	0.89	3.6	5.9	167

Pebble West Deposit – combined Measured and Indicated Mineral Resources

Cut-Off	Size	Grade				Contained Metal		
CuEQ %	Million Tonnes	Copper %	Gold g/t	Molybdenum %	CuEQ %	Copper B lb	Gold M oz	Molybdenum M lb
0.30	**3,026**	**0.28**	**0.32**	**0.015**	**0.56**	**18.8**	**31.3**	**993**
0.40	2,413	0.31	0.35	0.016	0.61	16.5	27.0	855
0.50	1,628	0.35	0.39	0.018	0.69	12.7	20.5	629
0.60	970	0.41	0.45	0.020	0.78	8.7	13.8	420
0.70	569	0.46	0.50	0.021	0.88	5.8	9.1	265

Pebble West Deposit – Inferred Mineral Resources

Cut-Off	Size	Grade				Contained Metal		
CuEQ %	Million Tonnes	Copper %	Gold g/t	Molybdenum %	CuEQ %	Copper B lb	Gold M oz	Molybdenum M lb
0.30	**1,133**	**0.24**	**0.30**	**0.014**	**0.50**	**5.9**	**10.8**	**361**
0.40	756	0.27	0.34	0.017	0.57	4.5	8.2	278
0.50	417	0.31	0.42	0.018	0.67	2.9	5.6	168
0.60	226	0.36	0.49	0.020	0.77	1.8	3.6	101
0.70	143	0.40	0.56	0.020	0.85	1.3	2.6	62

Note 1. 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.

Note 2. A 0.30% CuEQ cut-off is considered to be comparable to that used for porphyry deposit operations in the Americas, but is subject to completion of a feasibility study. For the above resource estimates, cut-off grades were established by the following method:

Note 3. 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. The contained gold and copper represent estimated contained metal in the ground and have not been adjusted for metallurgical recoveries. Adjustment factors to account for differences in relative metallurgical recoveries for copper, gold and molybdenum will depend upon the completion of definitive metallurgical testing. CuEQ = Cu % + (Au g/t x 0.583) + (Mo % x 6.00)

19.2 Pebble East Deposit

The Partnership personnel have carried out an estimate of the Mineral Resources for the Pebble East deposit. The estimate was conducted using a block model constrained by wireframe solids. Grade interpolation for Au, Cu, and Mo was done using Ordinary Kriging (OK), with capped high grade composites. The geologic modeling, block model construction and grade interpolation were carried out using the Vulcan® Mine Modeling system.

19.2.1 Sample Database

The sample database consisted of assays for Au (measured in oz/ton), Cu (measured in %), and Mo (measured in ppm). Collar coordinates were provided in the Alaska State Plane (Imperial) system. Down hole distances were provided in feet.

As of December, 2007 the Pebble database totalled 719 drill holes and 54,094 assay records. Of the 719 holes in the database, 167 were used in the estimate for Pebble East by virtue of their proximity to the deposit area.

Statistical analyses of the data used in previous estimates suggested the central tendency of assays from the intrusive rocks differed from those located in sedimentary rocks. Previously, the data was split into intrusive-hosted and sedimentary-hosted subsets in order to carry out statistical and geostatistical analyses, as well as to conduct the grade interpolation. This approach was followed in the 2007 estimation for Cu and Mo, however to better capture the spatial variability of Au, a grade shell was constructed at a 0.4 g/t (0.013 oz/t) threshold. Statistics for the Au, Cu, and Mo assays up to and including the 2007 drilling data are provided in Table 19.2.

Table 19.2. Sample statistics, Pebble East Deposit.

INTRUSIVE DOMAIN			SEDIMENTARY DOMAIN		
	Cu %	Mo PPM		Cu %	Mo PPM
# samples	10363	10363	# samples	6840	6840
Mean	0.495	280.4	Mean	0.358	23.1
Std Dev	0.399	333.8	Std Dev	0.306	298.2
CV	0.806	1.19	CV	0.855	1.291
Maximum	9.29	10850	Maximum	2.97	12300
Median	0.417	210	Median	0.287	160
Minimum	0.001	1	Minimum	0.001	1

WITHIN GRADE SHELL			OUTSIDE GRADE SHELL		
	Au oz/T			Au oz/T	
# samples	3636		# samples	13532	
Mean	0.022		Mean	0.008	
Std Dev	0.051		Std Dev	0.085	
CV	2.379		CV	10.32	
Maximum	1.977		Maximum	9.765	
Median	0.016		Median	0.005	
Minimum	0		Minimum	0	

Note. SD – standard deviation; CV – coefficient of variation

19.2.2 Wireframe Models

Three lithological domains and one grade domain were employed in the resource estimate: a sedimentary domain, an intrusive domain, a down-thrown intrusive block defined by drill hole 6348, and an Au grade shell at the 0.013 oz/t (0.4 g/t) threshold for Au estimation. Wireframe models of the principal lithological units were constructed by the Partnership personnel using Vulcan® and Datamine®. The units modelled in 3D were the granodiorite pluton, and the down-thrown granodiorite block, with material outside the intrusive wireframes considered to be sedimentary rock. A surface was also created to define the unconformity between the mineralized Cretaceous rocks and the overlying unmineralized Tertiary rocks. A fourth wireframe was created to define the extent of the 2005 Pebble West resource.

19.2.3 Block Model

The block model has been rebuilt to encompass all drilling data relevant to the Pebble East deposit. The block model is comprised of blocks measuring 75 ft. x 75 ft. x 50 ft. in size (X x Y x Z), and is orthogonal to the State Plane coordinate system. The block size was selected based on the separation of the drill holes and mining constraints presently contemplated by the Partnership engineering personnel at Pebble West deposit. Block model geometry is described in Table 19.3.

Table 19.3. Block model geometry, Pebble East Deposit.

Origin	X	1,404,625	E
	Y	2,151,600	N
	Z	-5500	ft. El
Block (ft.)	X	75	
	Y	75	
	Z	50	
# Blocks	X	114	
	Y	143	
	Z	130	
Size (ft.)	X	8,550	
	Y	10,725	
	Z	6,500	

Note: convention in Table 17-2 is for Vulcan®, Model origin is the southwest corner, lowermost tier of blocks.

Block lithological codes were assigned using the wireframe models of the principal domains (i.e., the Tertiary cover, Cretaceous sedimentary rocks, Cretaceous intrusions (including sills) and the Au grade shell). An additional rock code was created to identify blocks which were located in a down-thrown portion of the granodiorite intrusion, allowing them to be estimated separately.

Blocks located below the tertiary unconformity and not falling interior to the intrusive domains were coded as sediments. Rock codes are listed in Table 19.4.

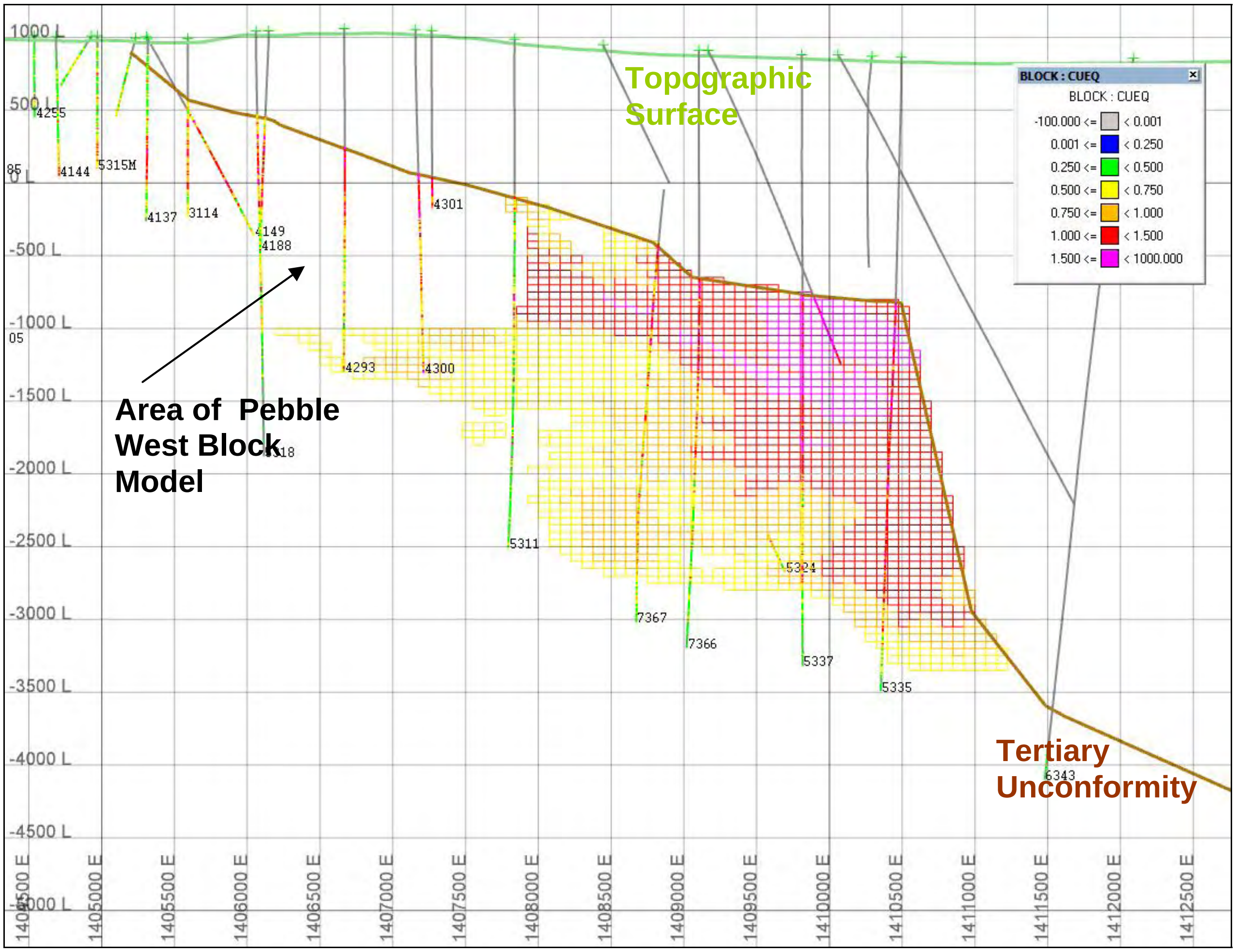
Table 19.4. Block model rock codes, Pebble East Deposit.

DOMAIN	CODE
Cretaceous Sediments	sed
Cretaceous Intrusives	int
Downthrown Intrusives	dwn_flt
Tertiary Rocks	ter
Air	air
Au Grade Shell	in/out

No percentage model or sub-blocking was used to account for portions of blocks lying within different domains and lithology assignments were made based on the location of the centroids of the blocks alone. The western boundary of the Pebble East block model was defined by the extent of the blocks included in the 2005 Pebble West resource. Blocks within the 2005 model were excluded from the Pebble East model. However, some drill holes that reside within the 2005 West model were used in estimating grade for the 2006 model.

Typical cross section and level plan views of the block model are provided in Figures 19.1 and 19.2.

Figure 19.1. Block Section 2157000N, Pebble East Deposit.



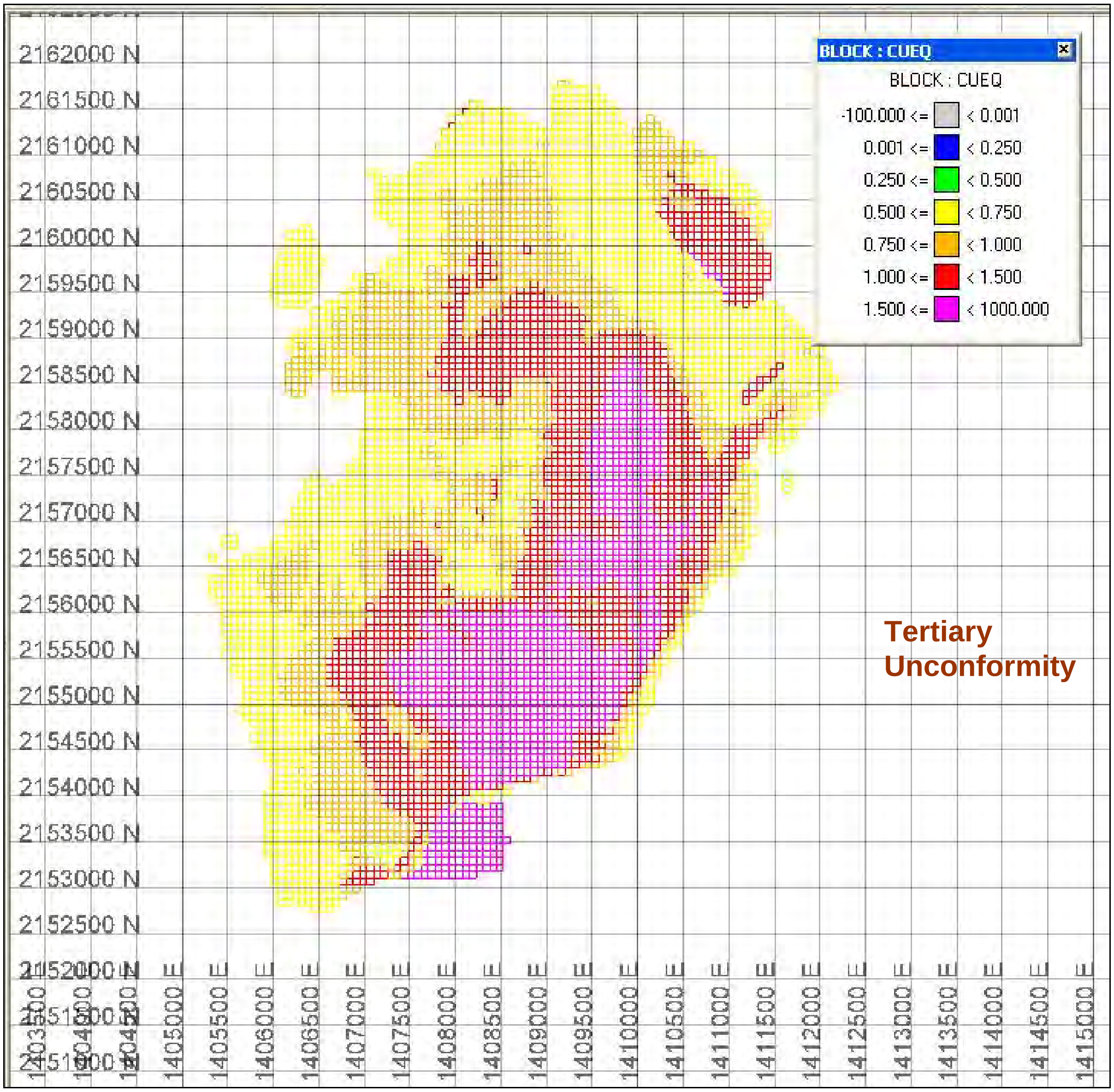


Figure 19.2. Block level plan, Pebble East Deposit.

19.2.4 Capping of High Grades

High grade samples were capped prior to compositing. The capping thresholds are listed in Table 19.5.

Table 19.5. High-grade caps, Pebble East Deposit.

Metal	INT	SED
Cu %	2.5	2.1
Mo ppm	2700	2100

Metal	IN SHELL	OUT SHELL
Au oz/T	0.16 (4.98 g/t)	0.19 (5.91 g/t)

The high-grade cap thresholds were selected by inspection of the probability plots for the samples. Caps were selected where it appeared that outliers to the grade distributions occurred.

19.2.5 Compositing

Samples were composited to 50 ft. intervals prior to grade estimation. Within the Cretaceous the composites for Cu and Mo were assigned codes for lithology (i.e., SEDS or INT) based on the locations of the centroids of the intervals with respect to wireframe boundaries. The Au composites were flagged as being either in or out of the grade shell. Composite statistics are provided in Table 19.6.

Table 19.6. Composite Statistics (Capped), Pebble East Deposit.

INTRUSIVE DOMAIN		
	Cu %	Mo PPM
# composites	2387	2387
Mean	0.477	265.7
Std Dev	0.344	192.7
CV	0.721	0.725
Maximum	2.257	1550.3
Median	0.413	235.8
Minimum	0.002	5

SEDIMENTARY DOMAIN		
	Cu %	Mo PPM
# composites	1454	1454
Mean	0.36	225.417
Std Dev	0.277	182.6
CV	0.769	0.81
Maximum	1.915	1317
Median	0.303	182.691
Minimum	0.004	1

WITHIN GRADE SHELL		
	Au oz/T	
# composites	715	
Mean	0.021	
Std Dev	0.012	
CV	0.564	
Maximum	0.095	
Median	0.018	
Minimum	0.003	

OUTSIDE GRADE SHELL		
	Au oz/T	
# composites	2926	
Mean	0.007	
Std Dev	0.007	
CV	0.88	
Maximum	0.095	
Median	0.006	
Minimum	0	

Note. SD – standard deviation; CV – coefficient of variation

19.2.6 Estimation Methodology

The grade interpolations for Cu, Au and Mo were performed using ordinary kriging with high grades capped as described in the preceding section.

Separate variogram models were generated for Cu and Mo in each of the sedimentary and intrusive domains. Separate variogram models were generated for Au composites positioned interior and exterior to the modelled grade shell. The variogram models used for each element are listed below in Table 19.7.

Angle rotations in Table 19.7 are quoted using Vulcan® rotation conventions.

The semi-variograms have been generated and are considered to be modelled in an appropriate fashion. The interpreted ranges and structures appear reasonable for the style of mineralization, and the kriging models have been configured appropriately.

19.2.7 Estimation Parameters

The estimates were run using an ellipsoidal search with principal axes oriented parallel to the variogram model axes. Maximum search distances were set equal to the variogram ranges. The search was limited to a minimum of eight and a maximum of thirty composites per block, with a minimum of two drill holes required to estimate a block, except in the 6348 zone (down-thrown block). In the down-thrown block, the search was relaxed to allow blocks to be estimated by composites from only one drill hole. Minimum and maximum number of samples required to estimate a block being set to eight and twelve respectively.

Blocks coded as sediments were estimated using only composites from within the sedimentary domain. Blocks coded as intrusive were estimated using only composites from within the intrusive domain.

For blocks to be included as Mineral Resources, they must have estimates for all three elements (i.e., Cu, Au and Mo).

Table 19.7. Variogram Models, Pebble East Deposit.

						Structure 1				Structure 2			
	Structures	Nugget	Bearing	Plunge	Dip	Sill 1	Major	Semi-Major	Minor	Sill 2	Major	Semi-Major	Minor
Pluton													
Cu	1	0.04	300	20	0	0.96	2500	2250	1125				
Mo	2	0.47	310	20	0	0.235	1910	1065	305	0.295	2480	2805	2805
Dn-Fault													
Cu	1	0.04	300	20	0	0.96	1250	1125	562				
Mo	2	0.47	310	20	0	0.235	955	532	152	0.295	1240	1402	1402
Sed													
Cu	1	0.04	310	20	0	0.61	2630	2135	1275				
Mo	2	0.424	310	30	0	0.304	2095	1500	1395	0.272	2100	1505	1400
Au													
In Shell	2	0.32	131	-28	-67	0.26	472	545	356	0.42	1056	735	1083
Out of Shell	2	0.52	329	54	-54	0.33	399	1230	1066	0.15	2286	2317	1866

19.2.8 Bulk Density

The bulk density used was based on a set of measurements carried out by Northern Dynasty on drill core specimens. A total of 785 density measurements were carried out using a water immersion method on whole core that had been squared off with a diamond saw. A summary of the density measurements is provided in Table 19.8. Bulk density measurements were assigned to the appropriate block model variable by rock type. For this estimate, the median of the bulk density was used, which is the more conservative approach. The derivation and application of the bulk density data were is considered appropriate.

Table 19.8. Density Measurements, Pebble East Deposit.

Domain	Median	Mean	# Samples
Intrusive	2.58	2.603	507
Sediment	2.59	2.615	265

19.2.9 Block Model Validation

The estimated block model was validated through visual inspection of block grades in plan and section views, and comparison with composite grades.

Visually, block grades compared reasonably well with composite grades and no obvious errors were noted.

19.2.10 Classification

All blocks estimated were assigned to the Inferred category. This classification is appropriate and conforms to the definitions as stated by NI 43-101 and defined by the CIM Definitions Standards on Mineral Resources and Mineral Reserves adopted by the CIM Council on December 11, 2005.

19.2.11 Copper Equivalent (CuEQ)

Resources are expressed in terms of a calculated copper equivalent (CuEQ) cut-off grade. The CuEQ grade was calculated for short tons by the following algorithm:

Revenue Au = Au_opt*400
Revenue Cu = Cu pct*20*1
Revenue Mo = (Mo ppm/10000)*20*6
Revenue_total = Revenue Au + Revenue Cu + Revenue Mo
CuEq = Revenue total/20

Where: Au price = $400/oz
Cu price = $1/lb
Mo price = $6/lb

The CuEQ value was derived only for blocks with estimates for all three components (Cu, Au and Mo).

19.2.12 Mineral Resources Report

The Mineral Resource estimates for the Pebble East deposit are reported in metric tonnes and summarized below in Table 19.9 at cut-off grades between 0.6% CuEq and 1.1% CuEq.

Table 19.9. 2007 Pebble East Inferred Mineral Resource Estimate

Cut-off %CuEq	M Tonnes	CuEq %	Cu %	Au g/t	Mo %	Moz Au	Blb Cu
1.10	1,200	1.40	0.87	0.53	0.035	21	23
1.00	1,520	1.32	0.82	0.49	0.035	24	27
0.90	1,900	1.25	0.77	0.46	0.035	28	32
0.80	2,420	1.16	0.71	0.42	0.034	33	38
0.70	3,100	1.07	0.64	0.39	0.033	39	44
0.60	3,860	0.99	0.58	0.36	0.033	45	49

Note. CIM definitions were followed for Mineral Resources.

19.2.13 Comparison to Previous Estimates

The updated estimate of Mineral Resources for the Pebble East deposit represents an increase from the 2007 estimate. In 2007, total inferred mineral resources at a 0.6% CuEQ cut-off, were 3,379 million tonnes grading 0.57% Cu, 0.36 g/t Au, and 0.036% Mo. The present estimate represents an increase in tonnes from the previous year with little change in grade. The 2007 and 2008 estimates are compared in Table 19.10.

Table 19.10. Comparison of 2007 and 2008 Estimates, Pebble East Deposit.

Year	Cut-off %CuEq	M Tonnes	CuEq %	Cu %	Au g/t	Mo %	Moz Au	Blb Cu
2007	0.6	3,379	1.00	0.57	0.36	0.036	39	42
2008	0.6	3,860	0.99	0.58	0.36	0.033	45	49

20 OTHER RELEVANT DATA AND INFORMATION

20.1 Environmental and Socioeconomic Studies

Comprehensive environmental and socioeconomic base-line study programs continued in 2007, with the objectives of collecting data in the area of the expanded Pebble East deposit and comparing annual variability. These data provide a foundation for the sound environmental design of the project and preparation of state and federal permit applications in future years. The primary focus of 2007 programs was in the areas of water, aquatic/fish, terrestrial/wildlife, wetlands, and subsistence/traditional use.

Environmental and socio-economic baseline data studies have now been completed for four consecutive years. This work was undertaken by over 45 independent consulting firms, and expanded the geographic scope of its investigations to support Pebble East planning. In addition to the currently obtained data, environmental base line information that was collected during the exploration activities by the prior operator has been obtained.

20.2 Cultural Studies

Archaeological studies have been carried out on all areas that might be disturbed by the project, with the exception of possible road and port locations. Examination of the road and port sites are not expected until 2008, once a decision is made regarding the exact location of these project features.

20.3 Community Engagement

The Partnership team continued its efforts to engage people in the local communities, as well as other project stakeholders, in an informed dialogue on the deposit geology, project design alternatives, and environmental studies. Over the past 12 months, 430 meetings have been facilitated with project stakeholders throughout the State of Alaska. Local hire/recruiting, workforce training, and local business development initiatives were ongoing. Four community associates were hired to assist with project education in some villages in the area.

In 2007, the Stakeholder Relations team included eight people directly and many others indirectly. The primary goal this year was to be visible and available in the communities. Ninety communities were visited and more than 45 mine tours were hosted. Those tours included representatives from 95 different stakeholder groups visiting our Pebble site and 47 representatives from stakeholder groups attending tours to operating mines in Alaska and British Columbia. In addition, the Stakeholder Relations team made presentations on the Pebble Project to 52 different groups around Alaska in addition to 40 presentations made during site tours.

The Partnership continues to focus on developing positive working relationships with many local Native and community institutions, supporting skills training, workforce and business development, local scholarships, search and rescue efforts, and other community initiatives.

More than 140 local people from more than 16 communities in the Bristol Bay area were employed by the Project last year, and significant expenditures were made on local goods, services and salaries. On-site training programs have enabled more local people to be hired and workers to be advanced to positions requiring more skill and responsibility. The Partnership has also continued to provide financial support to enable mining and natural resources career education to be introduced at schools in the local region.

20.4 Engineering Studies

Engineering work in 2007 focused on the following areas:

- Collection of additional site and underground geotechnical data to support ongoing mine design work;
- Completion of metallurgical testwork on Pebble East to optimize conventional processing systems and designs;
- Continuation of assessments of the major infrastructure elements (access road, port and power) in order to establish the optimum alternatives and designs for these Project components; and
- Assessment of potential project mine plans that would extract portions of the extensive mineral resources available to determine likely scenarios for future prefeasibility studies.

20.4.1 Pebble East Deposit Geotechnical Data

The Pebble East geotechnical data collection program is managed by an internationally recognized independent consultant. The objective of this program is to collect geotechnical data to support design of a major underground mine at Pebble East. In the first quarter, data were collected from the acoustic logger, along with logging and collation of geotechnical data collected by site staff. Personnel from SRK Consulting arrived on site in the second quarter of 2007, and from then until the end of December one drill rig was dedicated to a program that included drilling and logging oriented core. A number of holes were tested using the acoustic logger and geotechnical data were collected from all core by PLP personnel under the supervision of the independent consultant.

20.4.2 Surface Geotechnical Data

A surface geotechnical program, designed to supplement the extensive database collected in previous years, took place during the third and fourth quarters of 2007. The data will be used in the design of site infrastructure, tailings and water management systems. A total of 46 drill holes were laid out for the program, and 26 were completed by the end of the 2007 field season.

20.4.3 Infrastructure

Although a base case for the project infrastructure has been developed, previous studies had shown that there may be additional opportunities provided through alternatives for the port site and road. Alternate port site studies were completed by year-end. This study confirmed that the two port alternatives that were studied rank very closely and further additional analysis will be required to make a final selection.

21 INTERPRETATION AND CONCLUSIONS

21.1 Exploration and Drilling

The Pebble deposit is a calc-alkalic copper-gold-molybdenum porphyry deposit. Magmatic-hydrothermal activity responsible for the Pebble deposit is spatially and genetically associated with 90 Ma granodiorite intrusions emplaced into older flysh and intrusive rocks. The deposit is separated into the West deposit, amenable to open pit extraction, and the East deposit which is being evaluated for underground block cave extraction; both deposits, however, represent a single large magmatic-hydrothermal system. Copper-gold-molybdenum mineralization precipitated during formation of early K-silicate alteration and associated quartz-sulphide veins, and is dominated by hypogene chalcopyrite and molybdenite mineralization, accompanied by important bornite in some parts of the East deposit; supergene and oxide mineralization are volumetrically very minor components found only in parts of the West deposit.

Drilling during 2007 did not result in any material changes to the geological model for the Pebble deposit. Importantly, drilling did encounter, in all but one intersection of Cretaceous rocks, long intervals of high-grade copper-gold-molybdenum mineralization which has significantly extended the known extent of the East deposit to the north, northwest, south and southeast. The deposit, as a whole and as currently known, now covers an area of 4.9 by 3.3 km (2.8 by 1.9 mi). Critically, the East deposit remains open for expansion to the north, south and east.

21.2 Mineral Resources

A resource estimation using data up to and including the 2007 drill campaign has been completed on the Pebble East copper-gold-molybdenum deposit (Table 21.1). Updated geological interpretations were realized in 3D and employed to tailor estimation parameters for copper and molybdenum. A grade shell was constructed using a 0.4 g/t Au threshold and employed as a hard boundary in the estimate of gold. Grades for copper, gold and molybdenum were interpolated into the block model using ordinary kriging. Key conclusions are:

- Geological interpretations are sound and useful in deriving estimation parameters for copper and molybdenum.
- The use of a grade shell at a 0.013 oz/t (0.4 g/t) cut-off is considered appropriate for ensuring a reliable and accurate gold estimation.
- 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 classification of the Mineral Resources at Pebble East is reasonable and consistent with the regulations and guidelines set forth in NI43-101 and the CIM Definition Standards on Mineral Resources and Mineral Reserves dated December 11, 2005.
- The 2007 drilling was successful in delineating new mineralization at Pebble East, resulting in a 14% increase in the inferred mineral resources compared to the prior estimate prepared in early 2007.
- The Pebble East deposit remains open in several directions.

Table 21.1. Inferred mineral resource estimate for the Pebble East Deposit.

Cut-Off	Size	Grade				Contained Metal		
CuEQ[2,3] %	Million Tonnes	Copper %	Gold g/t	Molybdenum %	CuEQ[2] %	Copper B lb	Gold M oz	Molybdenum B lb
0.60	3860	0.58	0.36	0.033	0.99	49	45	2.8
0.70	3100	0.64	0.39	0.033	1.07	44	39	2.3
0.80	2420	0.71	0.42	0.034	1.16	38	33	1.8
0.90	1900	0.77	0.46	0.035	1.25	32	28	1.5
1.00	1520	0.82	0.49	0.035	1.32	27	24	1.2
1.10	1200	0.87	0.53	0.035	1.40	23	21	0.9

Note 1 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. It cannot be assumed that all or any part of an Inferred Mineral Resource will ever be upgraded to a higher category.

Note 2 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. Copper equivalent has not been adjusted for metallurgical recoveries. Adjustment factors to account for differences in relative metallurgical recoveries for copper, gold and molybdenum will depend upon the completion of metallurgical testing. CuEQ = Cu % + (Au g/t x 12.86/22.05) + (Mo% x 132.28/22.05).

Note 3 Cut-offs in the range of 0.60% CuEQ, are typically used for bulk underground mining operations at copper porphyry deposits located around the world. Appropriate cut-offs for the Pebble Project's open pit and underground resources will be defined during the pre-feasibility study planned during 2008.

21.3 Metallurgy and Comminution

The metallurgical and comminution test programs for the Pebble Project were initiated in 2004 and have continued through 2007, with testing of drill core samples from both the Pebble East and West deposits.

Extensive batch and lock cycle flotation testwork on Pebble East samples confirmed the suitability of a relatively simple flowsheet consisting of rougher and scavenger flotation, regrinding of concentrate, and cleaner flotation using pH control for copper/pyrite separation. Copper, gold and molybdenum recoveries achieved to flotation concentrate, projected to a 26% Cu concentrate, were 91% for copper, 64% for gold and 94% for molybdenum. Molybdenum separation efficiencies of approximately 90% were obtained in copper/molybdenum separation tests.

As a follow-up to previous Pebble West test programs, tests are currently on-going on fresh Pebble West drill core samples for evaluation of the optimum flowsheet for the Pebble West mineralization, particularly with regards to its response to the flowsheet established for the Pebble East mineralization. Further testing of the Pebble East mineralization is also on-going on composites prepared from 2006 and 2007 drill core. As well, Pebble West and Pebble East composite blends are being tested to quantify the response of blends of both deposits to the selected flowsheet, and to identify any changes to process variables that may be required.

Concepts for the design and operation of the comminution circuit for the Pebble project were determined from comminution test work. Estimates of Bond work indices have been determined on drill core material from both the Pebble West and Pebble East deposits. Additional testwork is planned as input to ongoing comminution circuit design and estimation of power draw.

21.4 General Conclusion

The resource estimates for the Pebble deposits show that they are large and contain moderate to high grade copper, gold and molybdenum mineralization. Drilling during 2007 continued to expand the Pebble East deposit, and to document mineralization with excellent internal continuity over large vertical and horizontal distances. These results provide a basis and framework for continued work. Metallurgical testing completed thus far has shown good to excellent recoveries for copper, gold and molybdenum by conventional flotation techniques. Similarly, comminution testwork has also thus far returned good results.

22 RECOMMENDATIONS

22.1 Delineation and Infill Drilling

Drill results from the 2007 program at Pebble support an aggressive diamond drilling program for 2008. It is recommended that the 2008 program focus on drilling in the Pebble East deposit, and include delineation drilling to both expand and define the margins of the deposit, as well as infill drilling within the zone of known mineralization. Delineation drilling will contribute to further expansion and definition of resources, whereas infill drilling will focus on upgrading the classification of known mineralization generally, and focus on upgrading the resource in the highest grade portions of the Pebble East deposit specifically. This report recommends that the 2008 program consist of 51,850 m (157,000 ft) of combined infill and delineation drilling.

Exploration drilling in other parts of the Pebble district is not recommended for 2008. At a later date, however, additional property-wide exploration is warranted to systematically assess known zones of mineralization, and further test documented IP and soil geochemical anomalies.

22.2 Metallurgy and Comminution Testwork

Extensive suites of samples were collected for metallurgy and comminution testwork in late 2007, but detailed work on this material remains in progress. An ongoing program of detailed testwork should proceed initially on this material base. Additional material should be collected during 2008, as warranted by future results.

22.3 Geotechnical and Engineering Programs

Acquisition of geotechnical data from oriented core should be continued using the approaches and protocols which were successfully validated during the 2007 program. During 2008, acoustic logging should be expanded to include a larger percentage of total drilled meterage than was obtained during 2007. Engineering assessment of potential infrastructure sites should also continue, along with engineering drilling as undertaken in previous years and as required for ongoing assessment of project infrastructure alternatives. A total of 6,600 m (20,000 ft) of engineering drilling is recommended.

The ultimate focus of engineering work in 2008 will be the completion of a prefeasibility study. Once indicated resources have been established for Pebble East, then an overall prefeasibility study for the Project, including the Pebble East and Pebble West deposits can be completed.

22.4 Socio-Economic and Environmental Programs

The programs of socio-economic evaluations, community engagement, cultural studies and environmental baseline assessment studies and analysis initiated in previous years should be continued at appropriate levels during 2008. Included in this category is a thorough program of drill site reclamation work similar to that which has been effectively undertaken in all previous years on the Pebble Project.

22.5 Proposed Allocation of Funds

The recommended program for 2008 encompasses drilling, engineering studies and ongoing environmental and socioeconomic programs to advance the project. Resource drilling will focus on continuing to delineate the Pebble East deposit through 51,850 m (157,000 feet) of infill and step out diamond drilling and establish indicated resources so that the Pebble East Deposit can be included in prefeasibility studies. In addition, 6,600 m (20,000 feet) of engineering drilling is recommended at a cost of approximately $61.6 million for the drilling and related site support activities. Metallurgical and comminution work will continue, focusing on fresh material obtained from the Pebble West and East deposits during 2006 and 2007; this work will address further modifications to the flowsheets and comminution circuits. The cost of metallurgical, infrastructure, and other engineering studies, as well as report writing and associated activities is approximately $30.2 million. The proposed cost of environmental and socioeconomic programs is $39.7 million.

23 REFERENCES

Bouley, B.A., St. George, P., and Wetherbee, P.K, 1995. Geology and Discovery at Pebble Copper, a Copper-Gold Porphyry System in Southwest Alaska, in Porphyry Deposits of the Northwestern Cordillera of North America, Edited by T.G. Schroeter, CIM Special Volume 46, pp.422-435.

Casselman, M.J. and Osatenko, M.J., 1996. Memorandum on Pebble Geology with Project Recommendations, Cominco Ltd. Internal Memorandum. September 30, 1996.

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

McKinnon, D.J., Healy, P., Bojkova, T., and Clark, C., 2007, Helicopter-borne magnetic survey, Pebble Project, Iliamna, Alaska, USA. Private report to Northern Dynasty Minerals Ltd., prepared by MPX Geophysical Ltd., June 2007, 20p.

Rebagliati, C.M., and Haslinger, R.J., 2003: Summary Report on the Pebble Copper-Gold Porphyry Project. Northern Dynasty Minerals Ltd., SEDAR Report. January 2003.

Rebagliati, C.M., and Haslinger, R.J., 2004. Summary Report on the Pebble Copper-Gold Porphyry Project. Northern Dynasty Minerals Ltd., SEDAR Report. January 2004.

Rebagliati, C.M., and Payne, J.G., 2005. Summary Report on the Pebble Copper-Gold Porphyry Project. Northern Dynasty Minerals Ltd., SEDAR Report. March 2005.

Rebagliati, C.M., and Payne, J.G., 2006. Summary Report on the Pebble Copper-Gold Porphyry Project. Northern Dynasty Minerals Ltd., SEDAR Report. March 2006.

Rebagliati, C.M., and Payne, J.G., 2007. Summary Report on the Pebble Copper-Gold Porphyry Project. Northern Dynasty Minerals Ltd., SEDAR Report. March 2007.

Soyer, W., 2007, Magnetotelluric survey, Pebble Project, Alaska: Final Report on acquisition, processing and 3D inversion model. Private report to Northern Dynasty Minerals Ltd., Prepared by GSY-USA, September 2007, 22p.

Zonge Geosciences, 1997: IP/Resistivity Survey on the Pebble Copper Project, Iliamna, Alaska, Cominco American Inc., Interpretive Report.

24 DATE

This report is dated March 31, 2008. The effective date is February 25, 2008.

The undersigned prepared the report entitled "Technical Report on the 2007 Program and Update on Update on Metallurgy and Resources, Pebble Copper-Gold-Molybdenum Project, Iliamna Lake area, Southwestern Alaska, USA". The format and content of the report are intended to conform to Form 43-101F1 of the National Instrument of the Canadian Securities Administrators.

/s/ C.M. Rebagliati
C. Mark Rebagliati March 31, 2008

/s/ James R. Lang
James R. Lang March 31, 2008

/s/ E. Titley
Eric Titley March 31, 2008

/s/ David W. Rennie
David Rennie March 31, 2008

/s/ L.A. Melis
Lawrence Melis March 31, 2008

/s/ D. J. Barratt
Derek Barratt March 31, 2008

/s/ D. Gaunt
David Gaunt March 31, 2008

/s/ S. Hodgson
Stephen Hodgson March 31, 2008

25 CERTIFICATES OF AUTHORS

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I, C. Mark Rebagliati, P.Eng., am a Professional Engineer of 2503-588 Broughton Street in the City of Vancouver, in the Province of British Columbia.

1. I am a member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia.
2. I am a graduate of the Provincial Institute of Mining, Haileybury, Ontario (Mining Technology, 1966).
3. I am a graduate of the Michigan Technological University, Houghton, Michigan USA (B.Sc., Geological Engineering, 1969).
4. I have practiced my profession continuously since graduation and have been involved in mineral exploration for precious and based metals in Canada, USA, Mexico, Brazil, China and South Africa.
5. As a result of my experience and qualifications I am a Qualified Person as defined in National Instrument 43–101.
6. I am co-author of this report entitled "Technical Report on the 2007 Program and Update on Metallurgy and Resources on the Pebble Copper-Gold-Molybdenum Project, Iliamna Lake Area, Southwestern Alaska, USA". I am responsible jointly responsible for sections 6-13, 17, 20 and 21.
7. I have visited the Pebble Project several times, for a total of approximately 96 days, and have supervised the exploration programs from 2001 to the present. I am very familiar with the geology, topography, physical features, access and local infrastructure.
8. I have read National Instrument 43-101, Form 43-101FI and this report has been prepared in compliance with NI 43-101 and Form 43-101FI.
9. I am not aware or any material fact or material change with respect to the subject matter of this technical report, which is not reflected in the report, the omission of which to disclose would make this report misleading.
10. I consent to the filing of the subject Technical Report with any stock exchange and any 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 subject Technical report.

Dated in Vancouver on this 31st day of March, 2008

/s/ C.M Rebagliati

C. Mark Rebagliati, P.Eng.

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I, James R. Lang Ph.D, P.Geo., of Delta, British Columbia, Canada, do hereby certify that:

1) I am a consulting geologist and President of Lang Geoscience Inc., with offices at 10556 Suncrest Drive, Delta, British Columbia, Canada.

2) I graduated with a B.Sc. in geology from Michigan State University, East Lansing, Michigan, USA in 1983, and received M.Sc. and PhD degrees in geology from the University of Arizona, Tucson, Arizona, USA in 1986 and 1991, respectively.

3) I am a registered member of the Association of Professional Engineers and Geoscientists of British Columbia, Registration Number 25376.

4) I have worked as an economic geologist for 22 consecutive years.

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 by 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 co-author of this report entitled "Technical Report on the 2007 Program and Update on Metallurgy and Resources on the Pebble Copper-Gold-Molybdenum Project, Iliamna Lake Area, Southwestern Alaska, USA". I am jointly responsible for sections 6-13 and 17, 20, 21 and 22.

7) I was on the Pebble property for 135 days in 2007, during which time I acted as Chief Geologist for the project, and have been on the project site at least annually and for numerous times since 2003. I am familiar with the geology, topography, physical features, access, location and infrastructure.

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 NOT independent of the issuer, Northern Dynasty Minerals Ltd., applying all tests in Section 1.5 of National Instrument 43-101. In the last 12 months over 50% of the writer's income has been derived from consulting services provided to Hunter Dickinson Inc, and the writer holds securities and/or options on securities of Northern Dynasty Minerals Ltd.

10) I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.

11) As of the date of the certificate, to the best of my knowledge, information and belief, the technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

12) I consent to the filing of the Technical Report with any stock exchange and any 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.

Dated this 31st day of March, 2008.

/s/ James R. Lang

James R. Lang, Ph.D., P.Geo.

Eric Dylan David Titley, P.Geo.
3255 West 13th Avenue
Vancouver, British Columbia
EricTitley@hdgold.com

I, Eric Dylan David Titley, P.Geo., do hereby certify that:

1. I am an employee of Hunter Dickinson Inc, with a business office at Suite 1020-800 West Pender Street, Vancouver, British Columbia.

2. I am a graduate of the University of Waterloo (B.Sc. Earth Sciences, 1980).

3. I am a member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia, License number 19518.

4. I have practiced my profession continuously since graduation and have been involved in mineral exploration database management and analytical quality assurance-quality control projects in Canada, United States of America, Mexico, South Africa and China.

5. I have read the definition of "qualified person" set out in National Instrument 43-101 and certify that by reason of my education, affiliation with a professional association, as defined by NI 43-101, and past relevant work experience, I fulfilled the requirements to be a "qualified person" for the purpose of NI 43-101.

6. I am a co-author of the technical report entitled, "Technical Report on the 2007 Program and Update on the Metallurgy and Resources on the Pebble Copper-Gold-Molybdenum Project, Iliamna Lake Area, Southwestern Alaska USA", March 31, 2008, which relates to the Pebble Project, Alaska USA. I am responsible for Sections 14, 15 and 16 of the report. I have provided geological services to Northern Dynasty on the project since 2001.

7. I have considerable experience related to mineral exploration database management and analytical quality assurance-quality control, including porphyry copper deposits such as Pebble.

8. I visited the Pebble Project for two days in May 2007. I am familiar with the geology, topography and physical features of the property.

9. I am not independent of the issuer, Northern Dynasty Minerals Ltd.

10. I have read National Instrument 43-101 and Form 43-101F1, and the subject technical report has been prepared in compliance with that instrument and form of reporting.

11. As of the date of this certificate and to the best of my knowledge, information and belief, the subject technical report contains all information that is required disclosed to make the report not misleading.

12. I consent to the filing of the subject Technical Report with any stock exchange and any 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 subject Technical report.

Signed at Vancouver, British Columbia on the 31st day of March 2008.

/s/ E. Titley

Eric Dylan David Titley, B.Sc., P.Geo.

DAVID W. RENNIE – CERTIFICATE OF AUTHOR

I, David W. Rennie, P.Eng., as an author of this report entitled "Technical Report on the 2007 Program and Update on Metallurgy and Resources on the Pebble Copper-Gold-Molybdenum Project, Iliamna Lake Area, Southwestern Alaska, USA ", prepared for Northern Dynasty Minerals Ltd., and do hereby certify that:

1. I am a Consulting Geological Engineer with Scott Wilson Roscoe Postle Associates Inc. My office address is Suite 388, 1130 W. Pender Street, Vancouver, British Columbia, Canada V6E 4A4.
2. I am a graduate of the University of British Columbia in 1979 with a Bachelor of Applied Science degree in Geological Engineering.
3. I am registered as a Professional Engineer in the Province of British Columbia (Reg. # 13572). I have worked as a geological engineer for a total of 29 years since my graduation. My relevant experience for the purpose of the Technical Report is:
    - Review and report as a consultant on numerous exploration and mining projects around the world for due diligence and regulatory requirements, including:
        - Mineral Resource estimate for the New Afton Project, for New Gold Resources Inc.
        - Mineral Resource estimate for the Lindero deposit, Argentina for Mansfield Minerals Inc.
        - Mineral Resource estimates for the Malmbjerg Project, Greenland for International Molybdenum plc and Quadra Mining Limited.
        - Mineral Resource estimate for the Pebble (West) Deposit, Alaska, for Northern Dynasty Minerals Ltd.
        - Two audits of the Mineral Resource estimate for the Pebble East Deposit, Alaska for Northern Dynasty Minerals Ltd.
    - Consultant Geologist to a number of major international mining companies providing expertise in conventional and geostatistical resource estimation for properties in North and South Americas, and Africa.
    - Chief Geologist and Chief Engineer at a gold-silver mine in southern B.C.
    - Exploration geologist in charge of exploration work and claim staking with two mining companies in British Columbia.
4. I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI43-101.
5. I visited the Pebble property on October 4–6, 2004, and again on August 22-23, 2007. .
6. I am responsible for Section 19.1 of this Technical Report.
7. I am independent of the Issuer applying the test set out in Section 1.4 of National Instrument 43-101.
8. I have had prior involvement with the property that is the subject of the Technical Report in preparing the following:
    - Technical Report on the Pebble Deposit, Alaska, USA; April, 2005.
    - Technical Report on the Audit of the Mineral Resource Estimate for the Pebble East Deposit, Alaska, USA; March, 2006.
    - Technical Report on the Audit of the Mineral Resource Estimate for the Pebble East Deposit, Alaska, USA; April, 2007.
9. I have read National Instrument 43-101, and the Technical Report has been prepared in compliance with National Instrument 43-101 and Form 43-101F1.
10. As of this date on the certificate, to the best of my knowledge, information, and belief the Technical Report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

Dated 31st day of March, 2008.

/s/ David W. Rennie

David W. Rennie, P. Eng.

James David Gaunt, P.Geo.
24179 McClure Drive, Maple Ridge, British Columbia
davidg@hdgold.com

I, James David Gaunt, P.Geo., do hereby certify that:

1. I am an employee of Hunter Dickinson Inc, with a business office at Suite 1020-800 West Pender Street, Vancouver, British Columbia.
2. I am a graduate of Acadia University (B.ScS , Geology, 1985).
3. I am a member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia, License number 20050.
4. I have practiced my profession continuously since graduation and have been involved in and managed exploration projects and resource calculations in Canada, United States of America, Mexico, and South America.
5. I have read the definition of “qualified person” set out in National Instrument 43-101 and certify that by reason of my education, affiliation with a professional association, as defined by NI 43-101, and past relevant work experience, I fulfill the requirements to be a “qualified person” for the purpose of NI 43-101.
6. I am a co-author of the technical report entitled, “Technical Report on the 2007 Program and Update on the Metallurgy and Resources on the Pebble Copper-Gold-Molybdenum Project, Iliamna Lake Area, Southwestern Alaska, USA”, March 31, 2008. I am responsible for Section 19.2 of the report. I have provided geological services for Northern Dynasty on the project since 2001.
7. I have considerable experience related to resource estimation, including porphyry copper deposits such as Pebble East.
8. I visited the Pebble Project numerous times, most recently in March 2008. I am familiar with the geology, topography, and physical features of the property.
9. I am not independent of the issuer, Northern Dynasty Minerals Ltd.
10. I have read National Instrument 43-101 and Form 43-101F1, and the subject technical report has been prepared in compliance with that instrument and form of reporting.
11. As of the date of this certificate and to the best of my knowledge, information and belief, the subject technical report contains all information that is required disclosed to make the report not misleading.
12. I consent to the filing of the subject Technical Report with any stock exchange and any 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 subject Technical report.

Signed at Vancouver, British Columbia on the 31st day of March, 2008.

/s/ David Gaunt

James David Gaunt, B.ScS., P. Geo.

Lawrence A. Melis, P.Eng.
President, Melis Engineering Ltd.
Suite 100, 2366 Avenue C North, Saskatoon SK Canada S7L 5X5
Tel: (306) 652-4084 Fax: (306)653-3779 Email: melis@sasktel.net

I, Lawrence A. Melis, am a Registered Professional Engineer in the Province of British Columbia, Registration No. 19398. I am President of Melis Engineering Ltd. and I reside at 259 Egnatoff Crescent, Saskatoon, Saskatchewan, Canada.

1) I am a member of the Canadian Institute of Mining Metallurgy and Petroleum and I hold a Consulting Engineer designation with the Association of Professional Engineers and Geoscientists of Saskatchewan. I graduated from the University of Western Ontario with a Honours BSc. Degree in Chemistry in 1971.

2) I have practiced my profession continuously since 1971 and have been involved in: metallurgical testwork supervision, process engineering, preparation of process audits, scoping, pre-feasibility, and feasibility level studies, and mill operations for precious metals, base metals, uranium and diamond projects worldwide.

3) 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.

4) I am a co-author of the report entitled "Technical Report on the 2007 Program and Update on Metallurgy and Resources on the Pebble Copper-Gold-Molybdenum Project, Iliamna Lake Area, Southwestern Alaska, USA". I am responsible for section 18.1 of the report. The work was completed at a commercial testing laboratory and in the Melis Engineering Ltd. office.

5) I visited the Pebble Project site in August 2006 to review drill core and general site conditions.

6) I have been involved with the project from December 2005 until the present. This involvement takes the form of the design and supervision of metallurgical testwork for the project.

7) As of the date of this certificate, to the best of my knowledge, information and belief, the metallurgical section of the Technical Report contains all scientific and technical information that is required to be disclosed to make the metallurgical component of the Technical Report not misleading.

8) I am independent of the Issuer, Northern Dynasty Minerals Ltd., in accordance with the application of Section 1.5 of National Instrument 43-101.

9) I have read National Instrument 43-101 and certify that the portions of the report for which I served as a Qualified Person have been prepared in compliance with that Instrument.

10) I consent to the filing of the subject Technical Report with any stock exchange and any 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 subject Technical report.

Dated 31st March, 2008.

/s/ Lawrence A. Melis, P.Eng.

Lawrence A. Melis, P.Eng.

Derek J. Barratt P.Eng.
427 Silverdale Place
North Vancouver, British Columbia, Canada V7N 2Z6
Telephone: (604) 985-7617; Facsimile: (604) 985-9647
ddbarratt@uniserve.com

I, Derek J. Barratt P.Eng., C.Eng., B.Sc. (Mineral Technology), ARSM, FIMM do hereby certify that:

1) I am currently self-employed as a mineral processing consultant.
2) I graduated from The University of London with a B.Sc. Degree in Mineral Technology in 1963 and an Associateship of the Royal School of Mines, Imperial College, London.
3) I am a registered member of the Association of Professional Engineers and Geoscientists of British Columbia registration number 7840, a Chartered Engineer (U.K.) and a Fellow of the Institution of Mining and Metallurgy (U.K.) and its successor, the Institute of Materials, Minerals, and Mining.
4) I have worked as a mineral processing engineer for a total of 45 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 by 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 a co-author of the report entitled "Technical Report on the 2007 Program and Update on Metallurgy and Resources on the Pebble Copper-Gold-Molybdenum Project, Iliamna Lake Area, Southwestern Alaska, USA". I am responsible for the preparation of the Comminution Circuit Design and Process Design Criteria for the Pebble Project, and for section 18.2 of this report.
7) I have considerable experience related to the mineral processing of porphyry copper-gold deposits.
8) I have visited the Pebble Project site.
9) I have had prior involvement with the Pebble Project beginning in 2004 and continuing to 2008.
10) I am not aware of any material fact or material change with respect to the subject matter of this 43-101 Document that is not reflected in that Document, the omission of which to disclose would make this 43-101 Document misleading.
11) I am independent of the issuer, Northern Dynasty Minerals Ltd., applying all of the tests in Section 1.5 of National Instrument 43-101.
12) I have read National Instrument 43-101 and Form 43-101F1, and this 43-101 Document has been prepared in compliance with that instrument and form.
13) I consent to the filing of this 43-101 Document with any stock exchange and any other regulatory authority and any publication by them, including electronic publication in the public company files on their websites accessible by the public, of this 43-101 Document.

Signed in Vancouver, British Columbia on this 31st day of March, 2008.

/s/ D. J. Barratt

Derek J. Barratt P.Eng., C.Eng., B.Sc. (Mineral Technology), ARSM, FIMM

Stephen Hodgson, P.Eng.
202 – 1099 Marinaside Crescent, Vancouver, British Columbia V6Z 2Z3
stephenhodgson@hdgold.com

I, Stephen Hodgson, P.Eng., do hereby certify that:

13. I am an employee of Hunter Dickinson Inc, with a business office at Suite 1020-800 West Pender Street, Vancouver, British Columbia.
14. I am a graduate of the University of Alberta (B.Sc , Mineral Engineering, Mining, 1976).
15. I am a member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia, License number 18501.
16. I have practiced my profession continuously since graduation in mine operations in Canada and the United States, as a consulting mining engineer in Canada, the United States, Peru, Chile, Vietnam, Venezuela, Kyrgyzstan, Australia, New Caledonia, South Africa, Russia, and Mongolia, and as a Vice President of Engineering in the United States.
17. I have read the definition of "qualified person" set out in National Instrument 43-101 and certify that by reason of my education, affiliation with a professional association, as defined by NI 43-101, and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purpose of NI 43-101.
18. I am a co-author of the technical report entitled, "Technical Report on the 2007 Program and Update on the Metallurgy and Resources on the Pebble Copper-Gold-Molybdenum Project, Iliamna Lake Area, Southwestern Alaska, USA", March 31, 2008, which relates to the Pebble Project, Alaska, United States. I am responsible for Section 20.4 of the report, and jointly responsible for Sections 21 and 22. I have provided engineering and management services for Northern Dynasty on the project since 2001.
19. I have considerable experience related to resource estimation, including porphyry copper deposits such as Pebble East.
20. I visited the Pebble Project numerous times, most recently in October 2007. I am familiar with the geology, topography, and physical features of the property.
21. I am not independent of the issuer, Northern Dynasty Minerals Ltd.
22. I have read National Instrument 43-101 and Form 43-101F1, and the subject technical report has been prepared in compliance with that instrument and form of reporting.
23. As of the date of this certificate and to the best of my knowledge, information and belief, the subject technical report contains all information that is required disclosed to make the report not misleading.
24. I consent to the filing of the subject Technical Report with any stock exchange and any 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 subject Technical report.

Signed at Vancouver, British Columbia on the 31st day of March, 2008.

/s/ S. Hodgson

Stephen Hodgson, P.Eng.