



Pre-Permitting Environmental/ Socio-Economic Data Report Series

---

# Report Series A-Meteorology

## Report A-5 First Annual Data Report – Pebble 1 Station

*August 2005 – July 2006*

*Submitted to the Alaska Department of Environmental Conservation December 2006*

*Preliminary data. Do not cite or quote.*

The Pebble Partnership is providing environmental and socio-economic baseline data collected to inform the development of the Pebble Project to state and federal agencies, project stakeholders and the general public prior to project permitting as part of its commitment to full and open disclosure.

A comprehensive Environmental Baseline Document (EBD) will subsequently be prepared and appended to future project permit applications. The EBD will also be made publicly available when complete.



Prepared for the Pebble Limited Partnership by  
Hoefler Consulting Group  
administrator@hoeflernet.com  
3401 Minnesota Drive, Suite 300  
Anchorage, Alaska 99503  
907-563-2137

**Pebble 1  
(Mine PSD Station)  
First Annual Data Report  
August 2005 - July 2006**

*for the*

**Pebble Project  
Meteorological Monitoring  
Program**

Iliamna, Alaska



*prepared for*

**Northern Dynasty Mines Inc.**

**December 2006**

**Pebble 1  
(Mine PSD Station)  
First Annual Data Report  
August 2005 - July 2006**

*for the*

**Pebble Project  
Meteorological Monitoring Program**

**Iliamna, Alaska**

December 2006

*prepared for*

**Northern Dynasty Mines Inc.  
Anchorage, Alaska**

*prepared by*

Hoefler Consulting Group  
3401 Minnesota Drive, Suite 300  
Anchorage, Alaska 99503  
907-563-2137

Hoefler Consulting Group

---

This data report has been prepared and reviewed by the following:

HCG Meteorologist:

Al Trbovich, CCM

Name

Signature

12/21/06  
Date

HCG Project Manager:

K. Steven Mackey

Name

Signature

12/21/2006  
Date

HCG Associate Scientist:

Isaac Bertschi, Ph.D.

Name

Signature

12/20/2006  
Date

HCG Data Manager:

Dominic Shallies

Name

Signature

12-20-2006  
Date

**CONTENTS**

**Executive Summary ..... 1**

**1.0 Introduction ..... 5**

    1.1 Project Summary ..... 5

    1.2 Measurements Method Table ..... 6

    1.3 Variations from the Quality Assurance Project Plan ..... 6

**2.0 Station Performance Summary ..... 11**

    2.1 Significant Project Events ..... 11

    2.2 Missing, Invalid, and Adjusted Data ..... 13

    2.3 Network Data Completeness ..... 13

    2.4 Precision Statistics ..... 16

        2.4.1 Monitoring Network Precision Statistics ..... 16

        2.4.2 Analytical Laboratory Precision Statistics ..... 16

        2.4.3 Analytical Laboratory Precision Statistics for Lead Analysis of  
        Particulate Samples ..... 16

    2.5 Accuracy Statistics ..... 16

        2.5.1 Instrument Calibration Statistics ..... 16

        2.5.2 Independent Quality Assurance Audits ..... 16

**3.0 Monitoring Data Network Summary ..... 21**

    3.1 Air Quality Data Summary ..... 21

    3.2 Meteorological Data Summary ..... 21

        3.2.1 Wind Speed (WS) and Wind Direction (WD) Climatology ..... 21

        3.2.2 Temperature Climatology ..... 33

        3.3.3 Other Meteorological Parameters ..... 38

**4.0 References ..... 43**

**List of Figures**

1-1	Map of the Pebble Project Area .....	8
1-2	Map of the Pebble 1 Station .....	9
1-3	Pebble 1 Meteorological Monitoring Station.....	10
3-1	Annual Pebble 1 Station Wind Roses .....	23
3-2	Quarterly Pebble 1 Wind Roses (Climatronics).....	24
3-3	Quarterly Pebble 1 Wind Roses (RM Young).....	25
3-4	Annual Wind Rose Superimposed on Site Map .....	32
3-5	Hourly Average 2-m and 10-m Temperatures.....	36
3-6	Hourly Average Vertical Temperature Difference.....	37
3-7	Hourly Average Relative Humidity.....	39
3-8	Barometric Pressure.....	40
3-9	Hourly Average Solar Radiation .....	41
3-10	Daily and Cumulative Precipitation.....	42

**List of Tables**

E-1	Meteorological Data Capture – Valid Hours per Month.....	2
E-2	Meteorological Data Capture – Percent Data Capture.....	3
E-3	Pebble Project QAPP Variation Table.....	4
1-1	Meteorological Measurement Methods .....	7
2-1	Chronology of Events .....	11
2-2	Percentage of Final Data Set Flagged .....	14
2-3	Pebble 1 Station Percent Data Capture .....	15
2-4	Initial Performance Audit Summary.....	18
2-5	Semi-Annual Performance Audit Summary.....	19
2-6	Second Annual Performance Audit Summary.....	20
3-1	Average and Maximum Wind Speeds .....	21
3-2	First Year Wind Rose Analysis Table (Climatronics).....	26
3-3	Quarter A Wind Rose Analysis Table (Climatronics).....	27
3-4	Quarter B Wind Rose Analysis Table (Climatronics).....	27
3-5	Quarter C Wind Rose Analysis Table (Climatronics) .....	28
3-6	Quarter D Wind Rose Analysis Table (Climatronics) .....	28
3-7	First Year Wind Rose Analysis Table (RM Young) .....	29
3-8	Quarter A Wind Rose Analysis Table (RM Young) .....	30
3-9	Quarter B Wind Rose Analysis Table (RM Young) .....	30
3-10	Quarter C Wind Rose Analysis Table (RM Young) .....	31
3-11	Quarter D Wind Rose Analysis Table (RM Young) .....	31
3-12	2-meter Temperature Summary .....	34
3-13	10-meter Temperature Summary .....	35

**List of Appendices**

- A** Data Processing Specifications and Statistical Formulae
  - A.1 Data Recovery Percentage
  - A.2 Data Bias Correction Using Calibration Information
  - A.3 Estimation of Pasquill-Gifford Stability Categories
- B** Precision Data
- C** Accuracy Data
- D** Validated Continuous Hourly/Daily/Monthly Data Summaries
- E** Validated Manual Particulate (Field and Laboratory) Data

## **Executive Summary**

On behalf of Northern Dynasty Mines Inc. (NDM), Hoefler Consulting Group, Inc. (HCG) is collecting meteorological data to support baseline environmental studies, mine design objectives, and Prevention of Significant Deterioration (PSD) permitting needs for the Pebble Project.

PSD-quality meteorological monitoring for the Pebble Project began on August 1, 2005 and will continue at least through July 31, 2007. This report provides details of the first full year of meteorological measurements collected from August 1, 2005 through July 31, 2006 at the proposed mill location.

Table E-1 and E-2 provide monthly and annual valid data capture hours and the percent data capture, respectively, for the Pebble 1 (Mine PSD) meteorological monitoring station. The Pebble 1 meteorological monitoring station met all PSD requirements during the monitoring year with the exception of the primary wind speed sensor, which did not meet the minimum PSD monitoring requirement of 90% data capture or better during Monitoring Quarter B (November 1, 2005 through January 31, 2006) as a result of icing of the sensor. However, the collocated PSD-quality wind speed sensor (R.M. Young, model 05305-AQ) serving as a back-up instrument had greater than 90% data capture during this same period. Therefore, measurements from the back-up PSD-quality instrument will be used to fulfill PSD data capture requirements for Monitoring Quarter B.

Table E-3 provides items and procedures that differ from the Pebble Project Quality Assurance Project Plan (QAPP).



Table E-1. Meteorological Data Capture – Valid Hours per Month.

Period	Meteorological Parameters													
	2-m Temp	10-m Temp	Δ T	WS (CLM) <sup>1</sup>	WD (CLM)	Sigma (CLM)	WS (RMY) <sup>2</sup>	WD (RMY)	Sigma (RMY)	RH	Solar	BP	Precip	Evap
August 2005	640	739	640	744	744	744	744	744	744	644	744	744	744	737
September 2005	720	720	720	720	720	720	720	720	720	720	720	720	720	717
October 2005	742	742	742	534	738	744	744	744	744	744	744	744	548	180
November 2005	720	720	720	361	720	720	715	715	715	720	720	720	652	N/A <sup>3</sup>
December 2005	744	744	744	487	744	744	744	744	744	744	744	744	744	N/A
January 2006	741	741	741	612	737	737	723	737	737	744	744	744	741	N/A
February 2006	672	672	672	616	672	672	638	672	672	672	672	672	671	N/A
March 2006	744	744	744	742	744	744	744	744	744	744	744	744	742	N/A
April 2006	720	720	720	690	720	720	720	720	720	720	720	720	720	N/A
May 2006	744	744	744	744	744	744	744	744	744	744	744	744	744	471
June 2006	720	720	720	720	720	720	720	720	720	720	720	720	719	715
July 2006	730	730	730	732	732	732	726	726	726	735	735	735	720	728
<b>Monitoring Year</b>	<b>8637</b>	<b>8736</b>	<b>8637</b>	<b>7702</b>	<b>8735</b>	<b>8741</b>	<b>8682</b>	<b>8730</b>	<b>8730</b>	<b>8651</b>	<b>8751</b>	<b>8751</b>	<b>8465</b>	<b>3548</b>

<sup>1</sup> CLM = Climatronics wind speed and wind direction sensor.

<sup>2</sup> RMY = R.M. Young wind speed and wind direction sensor.

<sup>3</sup> Not applicable. The evaporation gauge decommissioned for winter from October 8, 2005 to May 11, 2006.

Table E-2. Meteorological Data Capture – Percent Data Capture.

Period	Meteorological Parameters													
	2-m Temp	10-m Temp	Δ T	WS (CLM) <sup>1</sup>	WD (CLM)	Sigma (CLM)	WS (RMY) <sup>2</sup>	WD (RMY)	Sigma (RMY)	RH	Solar	BP	Precip	Evap
August 2005	86.0%	99.3%	86.0%	100%	100%	100%	100%	100%	100%	86.6%	100%	100%	100%	99.1%
September 2005	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	99.7%
October 2005	99.7%	99.7%	99.7%	71.8%	99.2%	100%	100%	100%	100%	100%	100%	100%	73.7%	100%
<b>Quarter A</b>	<b>95.2%</b>	<b>99.7%</b>	<b>95.2%</b>	<b>90.5%</b>	<b>99.7%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>95.5%</b>	<b>100%</b>	<b>100%</b>	<b>91.1%</b>	<b>99.4%</b>
November 2005	100%	100%	100%	50.0%	100%	100%	99.3%	99.3%	99.3%	100%	100%	100%	90.7%	N/A <sup>3</sup>
December 2005	100%	100%	100%	65.6%	100%	100%	100%	100%	100%	100%	100%	100%	100%	N/A
January 2006	99.6%	99.6%	99.6%	82.3%	99.1%	99.1%	97.2%	99.1%	99.1%	100%	100%	100%	99.7%	N/A
<b>Quarter B</b>	<b>99.9%</b>	<b>99.9%</b>	<b>99.9%</b>	<b>66.1%</b> <sup>4</sup>	<b>99.7%</b>	<b>99.7%</b>	<b>98.8%</b> <sup>4</sup>	<b>99.5%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>96.9%</b>	N/A
February 2006	100%	100%	100%	91.7%	100%	100%	100%	100%	100%	100%	100%	100%	100%	N/A
March 2006	100%	100%	100%	99.7%	100%	100%	100%	100%	100%	100%	100%	100%	100%	N/A
April 2006	100%	100%	100%	95.8%	100%	100%	100%	100%	100%	100%	100%	100%	100%	N/A
<b>Quarter C</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>95.9%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	N/A
May 2006	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	98.9%	100%
June 2006	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	99.3%	99.9%
July 2006	99.3%	99.3%	99.3%	99.6%	99.6%	99.6%	98.8%	98.8%	98.8%	100%	100%	100%	99.1%	98.0%
<b>Quarter D</b>	<b>99.8%</b>	<b>99.8%</b>	<b>99.8%</b>	<b>99.9%</b>	<b>99.9%</b>	<b>99.9%</b>	<b>99.6%</b>	<b>99.6%</b>	<b>99.6%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>99.1%</b>	<b>99.1%</b>
<b>Monitoring Year</b>	<b>98.7%</b>	<b>99.8%</b>	<b>98.7%</b>	<b>88.0%</b>	<b>99.8%</b>	<b>99.9%</b>	<b>99.2%</b>	<b>99.8%</b>	<b>99.8%</b>	<b>98.9%</b>	<b>100%</b>	<b>100%</b>	<b>99.2%</b>	<b>96.7%</b>

<sup>1</sup> CLM = Climatronics wind speed and wind direction sensor.

<sup>2</sup> RMY = R.M. Young wind speed and wind direction sensor.

<sup>3</sup> Not applicable. The evaporation gauge was decommissioned for winter from October 8, 2005 to May 11, 2006.

<sup>4</sup> The Climatronics wind speed sensor was affected by icing during Quarter B. The R.M. Young wind speed sensor will be used to achieve the required data capture requirement of 90% or greater per monitoring quarter.

**Table E-3. Pebble Project QAPP Variation Table**

Item/Procedure	Variation	Reason for Variation
An accuracy performance evaluation will be conducted within 30 days of site startup.	The performance evaluation was conducted within 50 days of site startup.	The official start of the monitoring year was postponed from July 1 to August 1, 2005. The delay had no effect on the collected data as all sensors passed performance audits conducted during and after the monitoring year.

## **1.0 Introduction**

### **1.1 Project Summary**

On behalf of Northern Dynasty Mines Inc. (NDM), Hoefler Consulting Group (HCG) is collecting meteorological data to support baseline environmental studies, mine design objectives, and future Prevention of Significant Deterioration (PSD) permitting needs for the Pebble Project, an initiative to develop and operate an open-pit gold, copper, molybdenum, and silver mine in the Bristol Bay region of southwest Alaska. This project currently consists of three PSD-quality meteorological monitoring stations located at the proposed mill site (Pebble 1), the tailings storage facility (Pebble 4), and shipping mine site (Pebble Port). An additional, non-PSD meteorological monitoring station (Pebble 3) is being used for engineering and mine design purposes. Of the three PSD meteorological monitoring stations, continuous measurements were made at the Pebble 1 and Pebble Port stations from August 1, 2005 through July 31, 2006, which concluded the first PSD monitoring year of the meteorological monitoring program. A separate annual data report has been prepared for the Pebble Port station. This report focuses on the first year of measurements collected at the Pebble 1 station.

Figure 1-1 is a map of the Pebble Project meteorological monitoring sites located in southwest Alaska. Figures 1-2 and 1-3 provide a higher resolution map and a site photo, respectively, of the Pebble 1 station.

The Pebble 1 station collects data for the following parameters:

- Air temperature, two meters above ground (degrees Celsius [°C])
- Air temperature, ten meters above ground (degrees Celsius [°C])
- Vertical temperature difference ( $\Delta T$ , "Delta T" (degrees Celsius [°C]))
- Wind speed (meters per second [m/s])
- Wind direction (degrees [°])
- Wind direction standard deviation (wind sigma [ $\sigma_{\theta}$ ])
- Relative humidity (percent [%])
- Solar radiation (Watts per square meter [ $W/m^2$ ])
- Barometric Pressure (millibar [mb]).
- Precipitation (millimeters [mm])
- Evaporation (millimeters [mm])

Measurements of these parameters will provide at least two years of representative surface observations for use in air dispersion modeling and PSD permitting needs.

## **1.2 Measurements Method Table**

Table 1-1 lists each parameter measured at the Pebble 1 station and includes the sensor manufacturer and model number, measurement range, accuracy, sampling frequency, and sample averaging period. All instruments meet or exceed the U.S. Environmental Protection Agency (EPA) PSD requirements for range accuracies, thresholds, response times, resolutions, damping ratios, and other measures of instrument performance. For this project, wind speed and wind direction measurements are collected using two different types of PSD-quality sensors collocated at 10-meters above ground level. The Climatronics F460 (CLM) features a three-cup anemometer and separate wind vane, while the RM Young 05305-AQ (RMY) is a propeller-vane anemometer, which is a single unit consisting of a four-blade propeller fitted to the front end of a wind vane. Dual wind sensors are deployed at the Pebble Mine PSD station to prevent the loss of valid data in the event that one of the sensors is damaged or subjected to inclement weather conditions. Because the manufacturers' stated wind speed accuracy, wind direction accuracy, and wind speed threshold values of the CLM sensor exceed those of the RMY sensor, the CLM sensor has been designated as the "primary" wind instrument at the Pebble Mine PSD station.

## **1.3 Variations from the Quality Assurance Project Plan**

During the first monitoring year, there was one variation from the Pebble Project Meteorological Monitoring Quality Assurance Project Plan (QAPP).

The initial performance audit for the Pebble 1 station was conducted on June 10, 2005 for most parameters. Follow-up audits were conducted on July 18, 2005 (for relative humidity) and July 21, 2005 (for temperature and vertical temperature difference). The June 10, 2005 audit date is somewhat greater than thirty days prior to the start of the monitoring period. At the time of the audit, it was envisioned that the monitoring period would start on July 1, 2005. However, temperature sensor wiring problems at the Pebble Port station caused that station's monitoring period to be delayed until August 1, 2005. It was later decided that the Pebble 1 and Pebble Port stations should operate on the same monitoring year schedule, so the official start for PSD monitoring was moved to August 1, 2005 for the Pebble 1 station. This later start to the monitoring year has no effect on collected data, as all performance audits (before, during, and after the monitoring year) passed. For a discussion of audits performed on the Pebble 1 station, see Section 2.5.2 and Appendix C of this data report.

**Table 1-1. Meteorological Measurement Methods.**

Parameter	Sensor Manufacturer/ Model Number	Measurement Method	Range	Accuracy	Sampling Frequency	Averaging Period
<b>Ambient Temperature</b>	Met One, Inc. Model 062 MP	Solid state thermistor	+50°C to -50°C	± 0.05°C	1 second	1 hour
<b>Wind Speed<sup>1</sup></b>	Climatronics, Inc. F460 (P/N 100075)	Three-cup anemometer, LED photo chopper	0 to 65 m/s	± 0.15 m/s or 1%	1 second	1 hour
<b>Wind Direction<sup>1</sup></b>	Climatronics, Inc. F460 (P/N 100076)	Light-weight vane, Low torque potentiometer	0 to 360°	± 2°	1 second	1 hour
<b>Wind Speed<sup>1</sup></b>	RM Young Co. 05305-AQ	Propeller, magnetically induced AC sine wave	0 to 60 m/s	± 0.3 m/s or 1%	1 second	1 hour
<b>Wind Direction<sup>1</sup></b>	RM Young Co. 05305-AQ	Light-weight vane, Low torque potentiometer	0 to 360°	± 3°	1 second	1 hour
<b>Relative Humidity</b>	Vaisala, Inc. HMP 45C	Capacitive polymer chip	0.8 to 100%	± 2%	1 second	1 hour
<b>Solar Radiation</b>	LI-COR, Inc. LI200X	Silicon photovoltaic detector	0 to 3,000 W/m <sup>2</sup> (400 to 1,100 nm)	± 5%	1 second	1 hour
<b>Barometric Pressure</b>	Vaisala, Inc. PTB 101B	Silicon capacitive sensor	600 to 1060 mb	± 0.5 mb	1 hour <sup>2</sup>	N/A <sup>2</sup>
<b>Precipitation</b>	ETI NOAH II	Pressure of water column above a load cell mechanism	0 to 12 in	± .254 mm	N/A <sup>3</sup>	N/A <sup>3</sup>
<b>Evaporation</b>	Nova Lynx 255-100	Change in pressure head determined by float mechanism	3 to 10 in	± 0.25% over 10 in range	1 second	1 minute

<sup>1</sup> Wind speed and wind direction measurements are collected using two different types of PSD-quality sensors.

<sup>2</sup> Instantaneous barometric pressure measurements are collected for 1 second during every hour.

<sup>3</sup> Instantaneous precipitation measurements are collected by the datalogger and subsequently summed on an hourly basis.

Figure 1-1. Map of the Pebble Project Area.

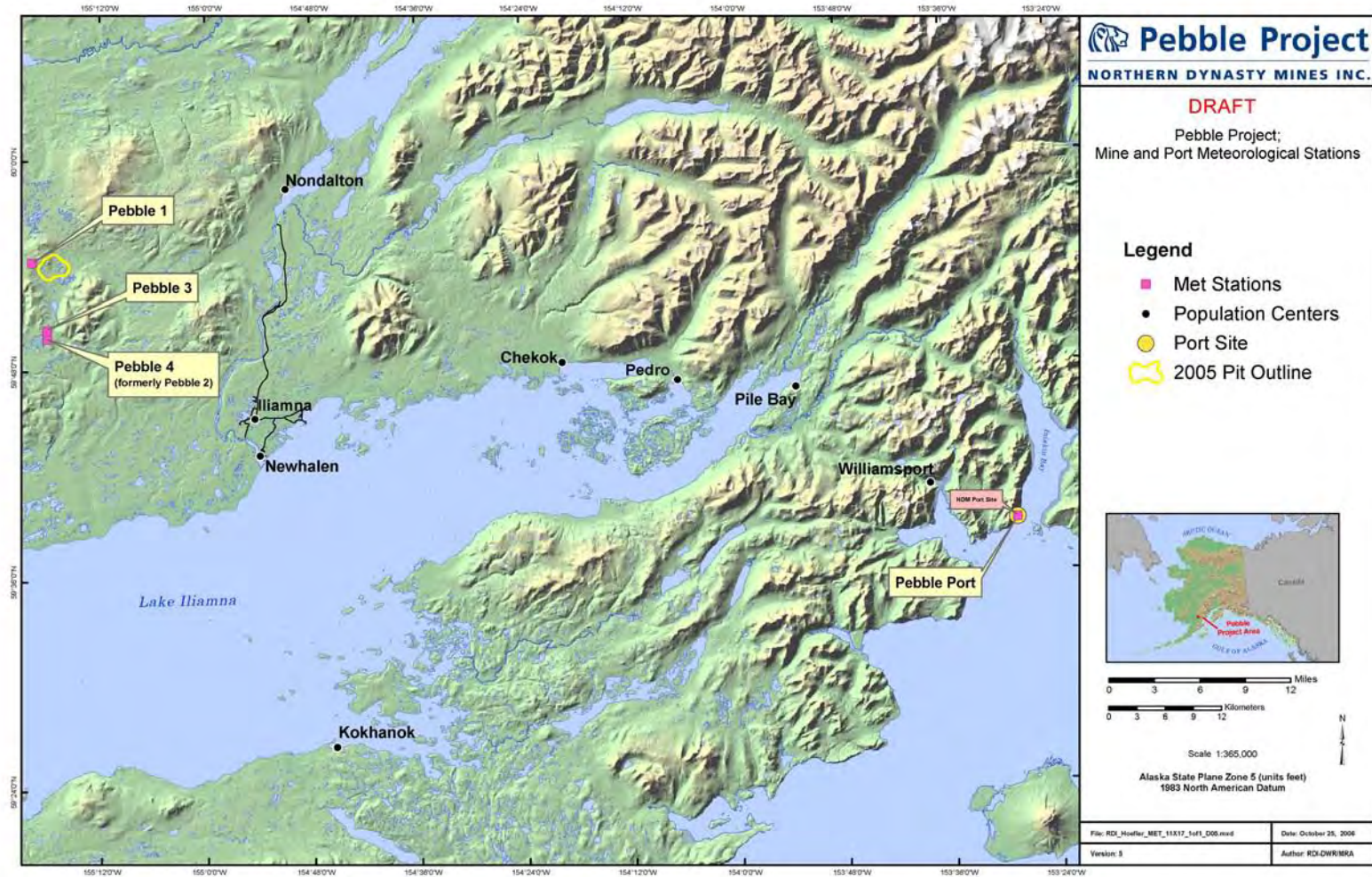
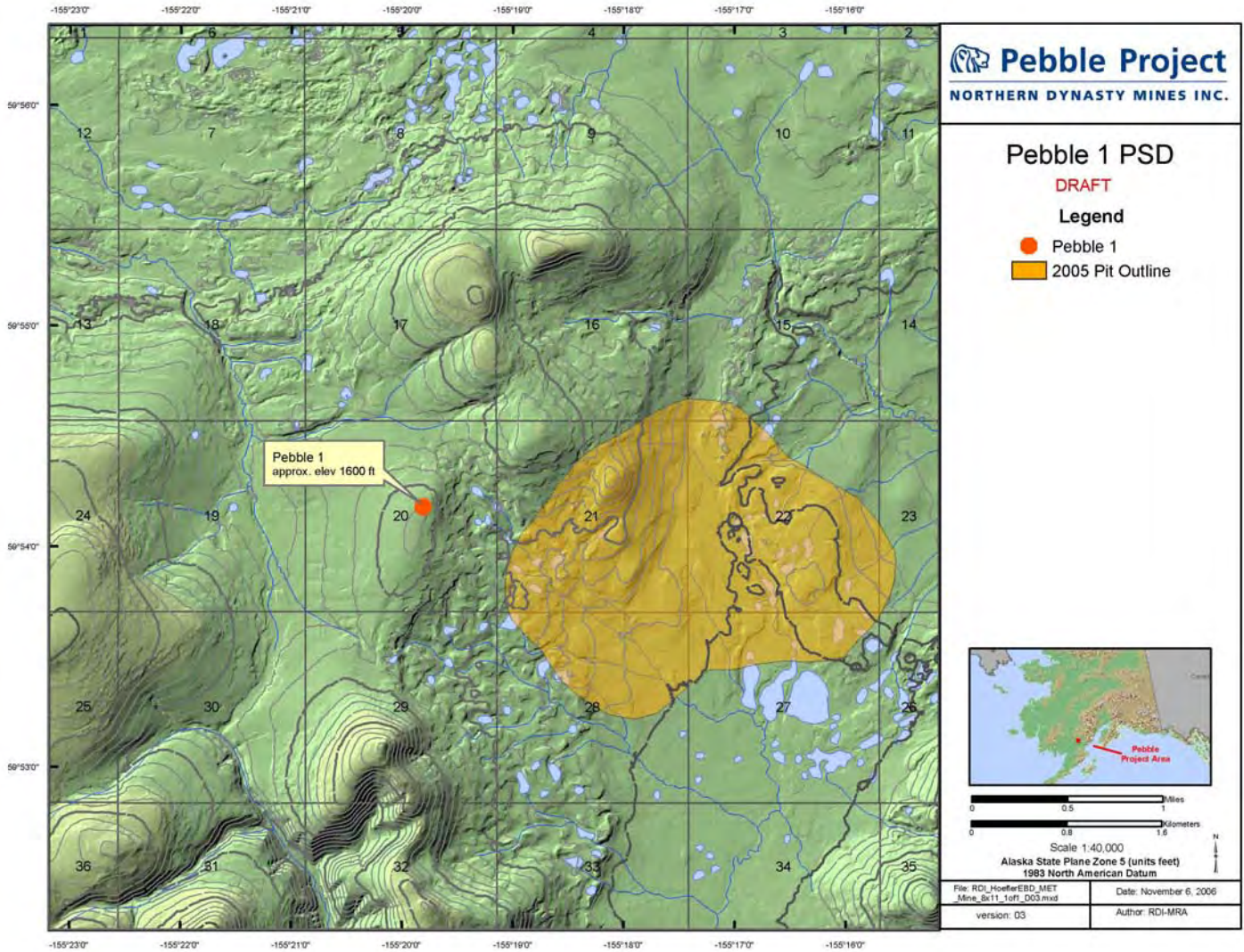


Figure 1-2. Map of the Pebble 1 Station.





**Figure 1-3. Pebble 1 Meteorological Monitoring Station.**



## 2.0 Station Performance Summary

### 2.1 Significant Project Events

Table 2-1 summarizes the significant events that occurred at the Pebble 1 station relevant to the first year of meteorological monitoring.

**Table 2-1. Chronology of Events.**

Date	Event
June 6 – 11, 2005	Installation and upgrade of the Pebble 1 station to full PSD quality.
June 10, 2005	Initial performance audit for all parameters.
July 18, 2005	Performance audit and calibration of barometric pressure, relative humidity and temperature sensors. Maintenance performed on evaporation sensor.
July 20, 2005	Performance audit and calibration of precipitation gauge.
July 21, 2005	Rewiring of relative humidity and 2-meter temperature sensors. Re-audit of relative humidity and temperature sensors.
August 1, 2005	Beginning of the Pebble 1 station first monitoring year.
August 5, 2005	Maintenance of evaporation, 2-meter aspirator and 2-meter temperature sensor.
August 20, 2005	Maintenance of evaporation, 2-meter aspirator, 2-meter temperature sensor. Heaters added to Climatronics wind sensor bearings.
August 26, 2005	NDM personnel service relative humidity sensor.
August 30, 2005	NDM personnel replace relative humidity sensor.
October 8, 2005	Snowfall adapter fitted to precipitation gauge, evaporation gauge decommissioned for winter.
October 18, 2005	Calibration check of temperature sensors.

**Table 2-1 (continued). Chronology of Events.**

Date	Event
November 3-4, 2005	Maintenance work performed on precipitation gauge.
November 17-19, 2005	Period of icing affects Climatronics wind speed sensor.
November 20, 2005	Installation of NOAH II precipitation gauge.
December 10-13, 2005	Period of icing affects Climatronics wind speed sensor.
January 11-18, 2006	Significant period of icing affects Climatronics wind speed sensor.
January 15, 2006	Semi-annual performance audit.
February 11, 2006	Shelter anchored
February 18, 2006	Maintenance work performed on precipitation gauge windscreen.
April 22, 2006	Maintenance work performed on precipitation gauge windscreen.
May 4, 2006	Follow-up maintenance of precipitation gauge and evaporation pan.
May 11, 2006	Evaporation pan returned to service for data collection. Back-up precipitation gauge installed.
June 10, 2006	Structural maintenance performed on shelter and precipitation gauge wind screen.
July 10-12, 2006	Second annual performance audit of the Pebble 1 station.
July 31, 2006	End of first monitoring year at Pebble 1 station.

## **2.2 Missing, Invalid, and Adjusted Data**

The data for the Pebble 1 station were carefully reviewed during the quality assurance process. Some data were removed as a result of planned site activities, including data collected during station system and performance audits and calibrations. Of particular note, the primary wind speed sensor was affected by substantial periods of icing during the months of November, December 2005 and January 2006 resulting in a valid data capture rate less than 90% for this sensor during Monitoring Quarter B. However, the back-up PSD-quality wind instrument met the 90% or greater valid data capture requirement for Quarter B, enabling PSD-quality data capture criteria to be met for all monitoring quarters of the Pebble Mine PSD meteorological monitoring year.

The Noah II precipitation gauge sustained damage due to a combination of high liquid level (in gauge) and sustained high winds, only few days prior to the July 10-12, 2006 performance audit. Although the gauge failed the audit, the data prior to the gauge damage are believed to be reliable. Data after the storm damage were removed. Data believed to be good are included in the data capture percentage calculations. A comparison graph showing the tracking between all precipitation gauges in the Pebble 1 area is provided in Appendix C. It should be noted that the Mine PSD Noah II gauge only stops tracking the other gauges immediately prior to the July 10-12, 2006 performance audit.

All data were validated only after being screened by the criteria listed in Table 8-4 of *Meteorological Monitoring Guidance for Regulatory Modeling Applications* (EPA-454/R-99-005). Table 2-2 lists the quantities of data that were flagged according to EPA criteria, yet not removed from the refined final data set. All flagged data were carefully examined, but generally remained in the reduced data unless dictated by certain circumstances, including values outside the normal range of variation, consecutive repetitive values recorded for an unidentified reason, maintenance activity at the site, and impairing damage to sensors.

## **2.3 Network Data Completeness**

Data completeness is a measure of the amount of data actually collected compared to the amount of data that could have been collected. Data completeness was calculated by dividing the number of valid hours of data by the total number of hours during the monitoring period. The data quality objective (DQO) for data completeness for the Pebble Project Meteorological Monitoring Program is 90 percent data capture per quarter for each parameter listed in Section 1.1. Table 2-3 provides a summary of data completeness, in terms of a percentage, for the first monitoring year at the Pebble 1 station.

Table 2-2. Percentage of Final Data Set Flagged.

Parameter	Flagging Criteria <sup>1</sup>	Percent Flagged
<b>Wind Speed (Climatronics)</b>	Value is < 0 m/s	0.00%
	Value is > 25 m/s	0.67%
	< 0.1 m/s variation for 3 consecutive hours	0.00%
	<0.5 m/s variation for 12 consecutive hours	0.47%
<b>Wind Direction (Climatronics)</b>	Value is < 0°, > 360°	0.00%
	<1° variation over 3 consecutive hours	0.00%
	< 10° variation over 18 consecutive hours	1.79%
<b>Wind Speed (RM Young)</b>	Value is < 0 m/s	0.00%
	Value is > 25 m/s	0.57%
	< 0.1 m/s variation for 3 consecutive hours	0.00%
	<0.5 m/s variation for 12 consecutive hours	0.18%
<b>Wind Direction (RM Young)</b>	Value is < 0°, > 360°	0.00%
	<1° variation over 3 consecutive hours	0.00%
	< 10° variation over 18 consecutive hours	2.01%
<b>Temperature (2 meters)</b>	> 5°C variation from previous hour	0.00%
	< 0.5°C variation for 12 consecutive hours	0.97%
	Value is > record high, < record low	0.00%
<b>Temperature (10 meters)</b>	> 5°C variation from previous hour	0.00%
	< 0.5°C variation for 12 consecutive hours	1.07%
	Value is > record high, < record low	0.00%
<b>Temperature Difference, ΔT</b>	Value is > 0.8°C during the daytime	1.79%
	Value is < -0.8°C during the night	0.00%
	Value is > 5°C, < -3°C	0.17%
<b>Relative Humidity (Dew Point Temperature)<sup>2</sup></b>	Value is > ambient temperature	0.00%
	> 5°C variation from previous hour	0.00%
	< 0.5°C variation for 12 consecutive hours	0.00%
	Equals ambient temperature for 12 consecutive hours	0.00%
<b>Solar Radiation</b>	> 0 W/m <sup>2</sup> at night	0.00%
	Greater than the maximum possible value for date	0.00%
<b>Barometric Pressure</b>	> 1060 mb (sea level)	0.00%
	< 940 mb (sea level)	0.00%
	> 6 mb variation for 3 consecutive hours	0.03%
<b>Precipitation</b>	> 25 mm in one hour	0.00%
	> 100 mm in 24 hours	0.00%
	< 50 mm in one month	0.00%

<sup>1</sup> Based upon Table 8-4: Suggested Data Screening Criteria in *Meteorological Monitoring Guidance for Regulatory Modeling Applications* (EPA-454/R-99-005).

<sup>2</sup> Guidance document provides criteria relative to dew point temperature.

Table 2-3. Pebble 1 Station Percent Data Capture.

Period	Meteorological Parameters													
	2-m Temp	10-m Temp	Δ T	WS (CLM) <sup>1</sup>	WD (CLM)	Sigma (CLM)	WS (RMY) <sup>2</sup>	WD (RMY)	Sigma (RMY)	RH	Solar	BP	Precip	Evap
August 2005	86.0%	99.3%	86.0%	100%	100%	100%	100%	100%	100%	86.6%	100%	100%	100%	99.1%
September 2005	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	99.7%
October 2005	99.7%	99.7%	99.7%	71.8%	99.2%	100%	100%	100%	100%	100%	100%	100%	73.7%	100%
<b>Quarter A</b>	<b>95.2%</b>	<b>99.7%</b>	<b>95.2%</b>	<b>90.5%</b>	<b>99.7%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>95.5%</b>	<b>100%</b>	<b>100%</b>	<b>91.1%</b>	<b>99.4%</b>
November 2005	100%	100%	100%	50.0%	100%	100%	99.3%	99.3%	99.3%	100%	100%	100%	90.7%	N/A <sup>3</sup>
December 2005	100%	100%	100%	65.6%	100%	100%	100%	100%	100%	100%	100%	100%	100%	N/A
January 2006	99.6%	99.6%	99.6%	82.3%	99.1%	99.1%	97.2%	99.1%	99.1%	100%	100%	100%	99.7%	N/A
<b>Quarter B</b>	<b>99.9%</b>	<b>99.9%</b>	<b>99.9%</b>	<b>66.1%</b> <sup>4</sup>	<b>99.7%</b>	<b>99.7%</b>	<b>98.8%</b> <sup>4</sup>	<b>99.5%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>96.9%</b>	N/A
February 2006	100%	100%	100%	91.7%	100%	100%	100%	100%	100%	100%	100%	100%	100%	N/A
March 2006	100%	100%	100%	99.7%	100%	100%	100%	100%	100%	100%	100%	100%	100%	N/A
April 2006	100%	100%	100%	95.8%	100%	100%	100%	100%	100%	100%	100%	100%	100%	N/A
<b>Quarter C</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>95.9%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	N/A
May 2006	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	98.9%	100%
June 2006	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	99.3%	99.9%
July 2006	99.3%	99.3%	99.3%	99.6%	99.6%	99.6%	98.8%	98.8%	98.8%	100%	100%	100%	99.1%	98.0%
<b>Quarter D</b>	<b>99.8%</b>	<b>99.8%</b>	<b>99.8%</b>	<b>99.9%</b>	<b>99.9%</b>	<b>99.9%</b>	<b>99.6%</b>	<b>99.6%</b>	<b>99.6%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>99.1%</b>	<b>99.1%</b>
<b>Monitoring Year</b>	<b>98.7%</b>	<b>99.8%</b>	<b>98.7%</b>	<b>88.0%</b>	<b>99.8%</b>	<b>99.9%</b>	<b>99.2%</b>	<b>99.8%</b>	<b>99.8%</b>	<b>98.9%</b>	<b>100%</b>	<b>100%</b>	<b>99.2%</b>	<b>96.7%</b>

<sup>1</sup> CLM = Climatronics wind speed and wind direction sensor.

<sup>2</sup> RMY = R.M. Young wind speed and wind direction sensor.

<sup>3</sup> Not applicable. The evaporation gauge was decommissioned for winter from October 8, 2005 to May 11, 2006.

<sup>4</sup> The Climatronics wind speed sensor was affected by icing during Quarter B. The R.M. Young wind speed sensor will be used to achieve the required data capture requirement of 90% or greater per monitoring quarter.

## **2.4 Precision Statistics**

### **2.4.1 Monitoring Network Precision Statistics**

Not applicable.

### **2.4.2 Analytical Laboratory Precision Statistics**

Not applicable.

### **2.4.3 Analytical Laboratory Precision Statistics for Lead Analysis of Particulate Samples**

Not applicable.

## **2.5 Accuracy Statistics**

### **2.5.1 Instrument Calibration Statistics**

Not applicable.

### **2.5.2 Independent Quality Assurance Audits**

A preliminary systems and performance audit was conducted at the Pebble 1 station on June 10, 2005 and again from July 18 through July 21, 2005. The audits performed in July were necessary since the relative humidity sensor transfer standard was not available during the June 10, 2005 audit and additional electrical work was required for the temperature sensors. Specifically, the relative humidity probe was audited on July 18, 2005 and the temperature probes were re-audited on July 21, 2005. Additional audits were conducted on the barometric pressure sensor and precipitation gauge on July 18 and July 20, 2005, respectively. The results of the initial systems and performance audit are presented in Table 2-4. The complete systems and performance audit report is available in Appendix C.

A semiannual performance audit was conducted at the Pebble 1 station primarily on January 15, 2006. The evaporation pan and tipping bucket precipitation gauge were audited prior to winterization on October 8, 2005. The temperature sensors were also audited on October 18, 2005 because of preventative rewiring. On November 20, 2005 a new primary precipitation gauge was installed and the RM Young wind sensor had to be rewired through a pulse to millivolt converter to free up a pulse channel on the datalogger. Both the RM Young and the new ETI NOAH II precipitation gauge were

audited at that time. The results of the semiannual performance audit are presented in Table 2-5. The complete performance audit report is available in Appendix C.

An annual systems and performance audit was conducted at the Pebble 1 station from July 10-12, 2006. The results of the annual performance audits are presented in Table 2-6. The complete performance systems and performance audit report is available in Appendix C.

The performance audit involves reading the data acquisition system (DAS) output for each meteorological sensor and comparing the value with the input from appropriate audit equipment or from calibrated instruments collocated with the sensor. For each reading, the difference between the station value and the predicted value is compared with established PSD limits to assess the accuracy of the sensor.

During each of these audits, the power supply, DAS, communications system, and audited sensors all worked properly. The systems audit found that the station is well-planned, equipped with PSD quality equipment, and properly sited according to criteria recommended by EPA. The operator provided adequate manuals for system maintenance and proper documentation to report operation and quality control activities. The operator was knowledgeable and competent with all meteorological equipment, communications equipment, and the power supply system. Appendix C contains the complete technical systems audit report.



**Table 2-4. Initial Performance Audit Summary.**

Parameter	EPA Limit	Units	Maximum Absolute Error	Pass/Fail
Datalogger Time (AST)	≤ ±5:00	Min:Sec	0:03	Pass
Temperature Accuracy (2-m) <sup>1</sup>	≤ ±0.5	°C	0.35	Pass
Temperature Accuracy (10-m) <sup>1</sup>	≤ ±0.5	°C	0.35	Pass
Temperature Difference (ΔT) <sup>1</sup>	≤ ±0.1	°C	0.00	Pass
Wind Speed <sup>2</sup> Accuracy	≤ ±0.2 + 5%	m/s	0.00	Pass
Wind Speed <sup>2</sup> Torque	≤ ±0.005	oz-in	< 0.003	Pass
Wind Direction <sup>2</sup> Alignment	≤ ±5	°	3.3	Pass
Wind Direction <sup>2</sup> Linearity	≤ 3	°	0.5	Pass
Wind Direction <sup>2</sup> Torque	≤ 0.104	oz-in	0.060	Pass
Wind Speed <sup>3</sup> Accuracy	≤ ±0.2 + 5%	m/s	0.00	Pass
Wind Speed <sup>3</sup> Torque	≤ ±0.014	oz-in	0.006	Pass
Wind Direction <sup>3</sup> Alignment	≤ ±5	°	3.0	Pass
Wind Direction <sup>3</sup> Linearity	≤ 3	°	1.6	Pass
Wind Direction <sup>3</sup> Torque	≤ 11.0	gm-cm	5.0	Pass
Relative Humidity <sup>4</sup> (Dew Point Temperature)	≤ ±1.5	°C	0.3	Pass
Barometric Pressure <sup>4</sup>	≤ ±3	mb	1.4	Pass
Solar Radiation	≤ ±5	% obs	NT <sup>5</sup>	N/A
Precipitation <sup>6</sup>	≤ ±10	% input	-8.5	Pass
Evaporation	≤ ±10	% input	-5.0	Pass

<sup>1</sup> Temperature sensors audited on July 21, 2005.

<sup>2</sup> Parameters audited for Climatronics wind sensor.

<sup>3</sup> Parameters audited for RM Young wind sensor.

<sup>4</sup> Relative humidity probe and barometric pressure sensor audited on July 18, 2005.

<sup>5</sup> NT = Not tested.

<sup>6</sup> Precipitation gauge audited on July 20, 2005.

The semi-annual and second annual audits were conducted from January 15, 2006 and July 10 – 12, 2006, respectively. A summary of the results of the performance audits are presented in Tables 2-5 and 2-6. The complete performance audit reports are available in Appendix C.

**Table 2-5. Semi-Annual Performance Audit Summary.**

Parameter	EPA Limit	Units	Maximum Absolute Error	Pass/Fail
Datalogger Time (AST)	≤ ±5:00	Min:Sec	00:03	Pass
Temperature Accuracy (2-m)	≤ ±0.5	°C	0.11	Pass
Temperature Accuracy (10-m)	≤ ±0.5	°C	0.11	Pass
Temperature Difference (ΔT)	≤ ±0.1	°C	0.00	Pass
Wind Speed <sup>1</sup> Accuracy	≤ ±0.2 + 5%	m/s	0.00	Pass
Wind Speed <sup>1</sup> Torque	≤ ±0.005	oz-in	< 0.003	Pass
Wind Direction <sup>1</sup> Alignment	≤ ±5	°	2.3	Pass
Wind Direction <sup>1</sup> Linearity	≤ 3	°	1.3	Pass
Wind Direction <sup>1</sup> Torque	≤ 0.104	oz-in	0.070	Pass
Wind Speed <sup>2</sup> Accuracy	≤ ±0.2 + 5%	m/s	0.02	Pass
Wind Speed <sup>2</sup> Torque	≤ ±0.014	oz-in	0.010	Pass
Wind Direction <sup>2</sup> Alignment	≤ ±5	°	4.2	Pass
Wind Direction <sup>2</sup> Linearity	≤ 3	°	2.4	Pass
Wind Direction <sup>2</sup> Torque	≤ 0.152	oz-in	0.139	Pass
Relative Humidity (Dew Point Temperature)	≤ ±1.5	°C	1.0	Pass
Barometric Pressure	≤ ±3	mb	1.2	Pass
Solar Radiation	≤ ±5	% obs	NT <sup>3</sup>	N/A
Precipitation	≤ ±10	% input	9.5	Pass
Evaporation	≤ ±10	% input	NT	Pass

<sup>1</sup> Parameters audited for Climatronics wind sensor.

<sup>2</sup> Parameters audited for RM Young wind sensor.

<sup>3</sup> NT = Not tested.

**Table 2-6. Second Annual Performance Audit Summary.**

Parameter	EPA Limit	Units	Maximum Absolute Error	Pass/Fail
Datalogger Time (AST)	≤ ±5:00	Min:Sec	03:05	Pass
Temperature Accuracy (2-m)	≤ ±0.5	°C	0.48	Pass
Temperature Accuracy (10-m)	≤ ±0.5	°C	0.48	Pass
Temperature Difference (ΔT)	≤ ±0.1	°C	0.00	Pass
Wind Speed <sup>1</sup> Accuracy	≤ ±0.2 + 5%	m/s	0.00	Pass
Wind Speed <sup>1</sup> Torque	≤ ±0.005	oz-in	< 0.003	Pass
Wind Direction <sup>1</sup> Alignment	≤ ±5	°	4.7	Pass
Wind Direction <sup>1</sup> Linearity	≤ 3	°	0.6	Pass
Wind Direction <sup>1</sup> Torque	≤ 0.104	oz-in	0.070	Pass
Wind Speed <sup>2</sup> Accuracy	≤ ±0.2 + 5%	m/s	1.2	Pass
Wind Speed <sup>2</sup> Torque	≤ ±0.014	oz-in	0.013	Pass
Wind Direction <sup>2</sup> Alignment	≤ ±5	°	2.1	Pass
Wind Direction <sup>2</sup> Linearity	≤ 3	°	2.1	Pass
Wind Direction <sup>2</sup> Torque	≤ 0.153	oz-in	0.042	Pass
Relative Humidity (Dew Point Temperature)	≤ ±1.5	°C	0.5	Pass
Barometric Pressure	≤ ±3	mb	0.5	Pass
Solar Radiation	≤ ±5	% obs	-5.8	Pass <sup>3</sup>
Precipitation	≤ ±10	% input	-6.9	Pass
Evaporation	≤ ±10	% input	2.3	Pass

<sup>1</sup> Parameters audited for Climatronics wind sensor.

<sup>2</sup> Parameters audited for RM Young wind sensor.

<sup>3</sup> See audit methodology in Appendix C for full pass/fail criteria explanation.

### 3.0 Monitoring Data Network Summary

#### 3.1 Air Quality Data Summary

Not applicable.

#### 3.2 Meteorological Data Summary

##### 3.2.1 Wind Speed (WS) and Wind Direction (WD) Climatology

Table 3-1 provides a statistical summary of Climatronics (CLM) and RM Young (RMY) wind speed measurements during the first year of meteorological monitoring at the Pebble Mine PSD station. The mean hourly average wind speed during the monitoring year was 7.59 m/s and 7.60 m/s for the CLM and RMY sensors, respectively. Maximum hourly average wind speeds of 31.91 m/s and 30.82 m/s were measured by the CLM and RMY sensors, respectively, at 8:00 PM on March 30, 2006.

**Table 3-1. Average and Maximum Wind Speeds.**

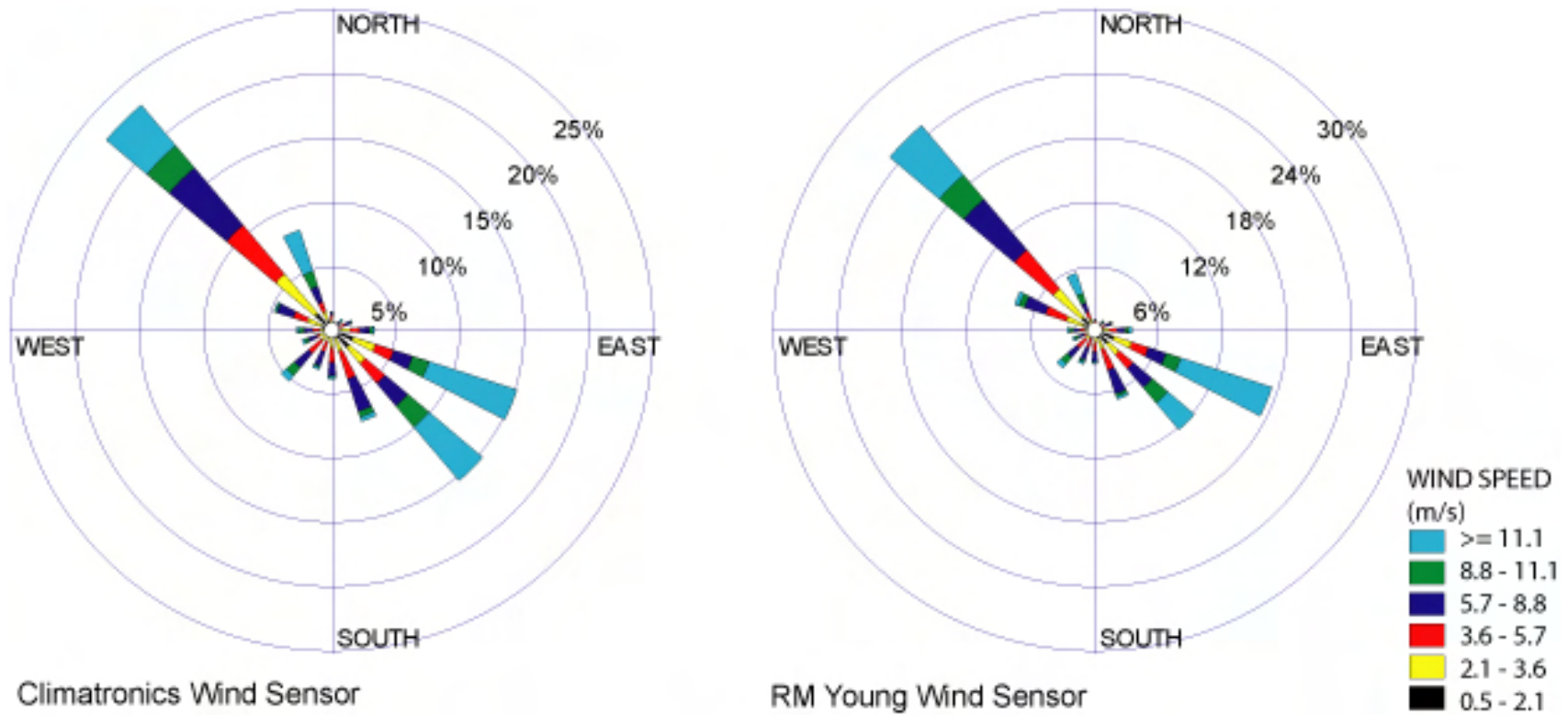
Monitoring Period	Mean Hourly Average Wind Speed (m/s) (CLM)	Mean Hourly Average Wind Speed (m/s) (RMY)	Maximum Hourly Average Wind Speed (m/s) (CLM)	Maximum Hourly Average Wind Speeds (m/s) (RMY)
Quarter A	6.37	6.54	22.85	23.02
Quarter B	7.70	7.58	27.86	30.17
Quarter C	9.33	9.41	31.91	30.82
Quarter D	7.01	6.97	26.14	24.81
Monitoring Year	7.59	7.60	31.91	30.82

Figure 3-1 provides wind roses for the CLM and RMY wind instruments during the first monitoring year. Winds were predominantly from the northwest and southeast with minor wind components from the southwest. Figures 3-2 and 3-3 present the quarterly wind roses for the CLM and RMY sensors, respectively. All of the quarterly wind roses are characterized by major wind components from the northwest. Quarter A and Quarter D wind roses have similar wind components defined by winds predominantly blowing

from the northwest, southeast, and east-southeast. The Quarter B (November 1, 2005 through January 31, 2006) wind rose indicates a lack of southwesterly winds during this period. During Quarter C (February 1 through April 30, 2006), winds were mostly from the southeast, east-southeast and northwest. Tables 3-2 through 3-6 are the annual and quarterly wind tables for the Climatronics wind measurements. Tables 3-7 through 3-11 are the annual and quarterly wind analysis tables for the RM Young wind measurements.

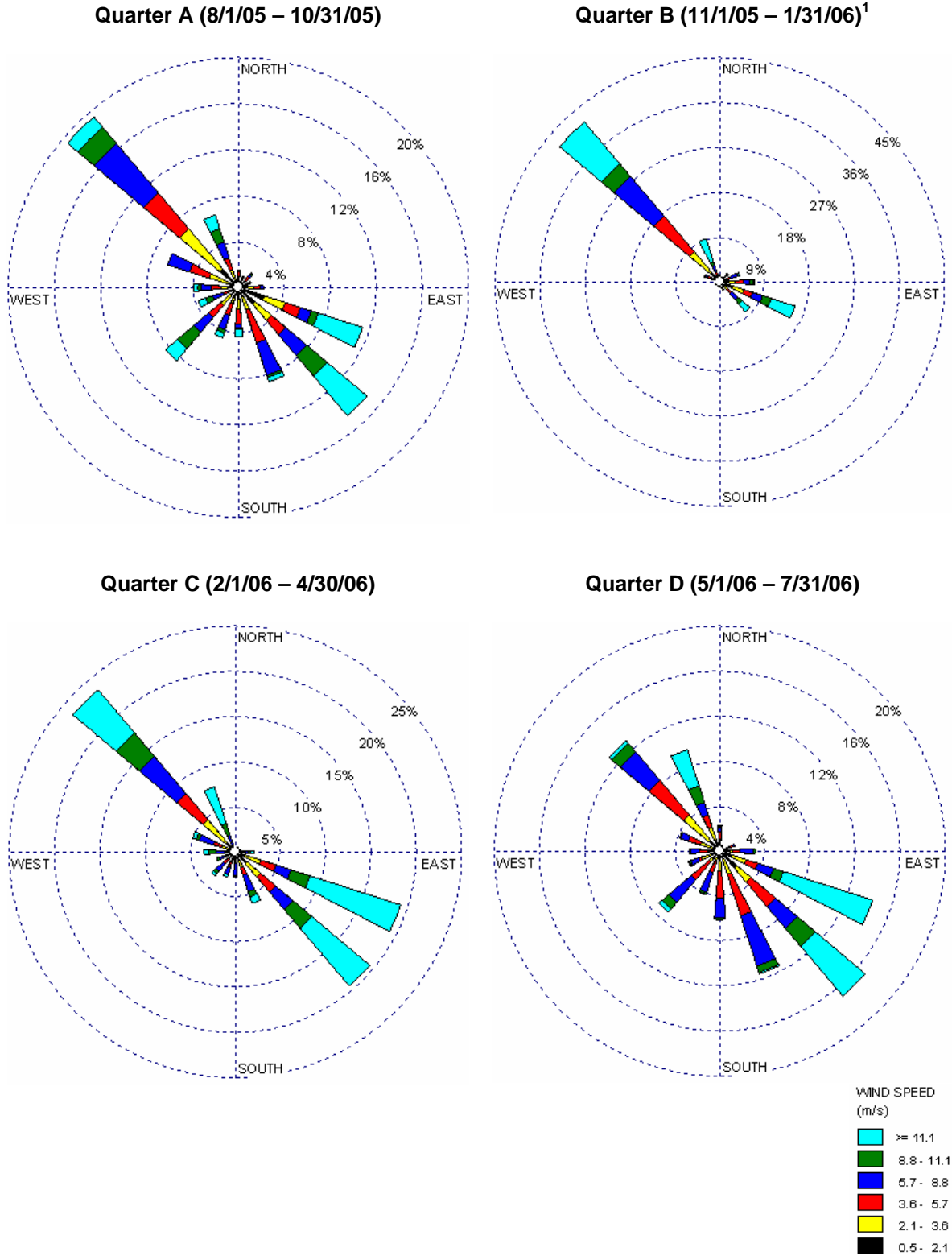
Figure 3-4 shows the first monitoring year wind rose (derived from the Climatronics wind sensor measurements) superimposed over a map of the proposed location of the Pebble Mine and vicinity. The wind rose in Figure 3-4 is centered over the location of the Pebble 1 station.

Figure 3-1. Annual<sup>1</sup> Pebble 1 Station Wind Roses.



<sup>1</sup> August 1, 2005 to July 31, 2006.

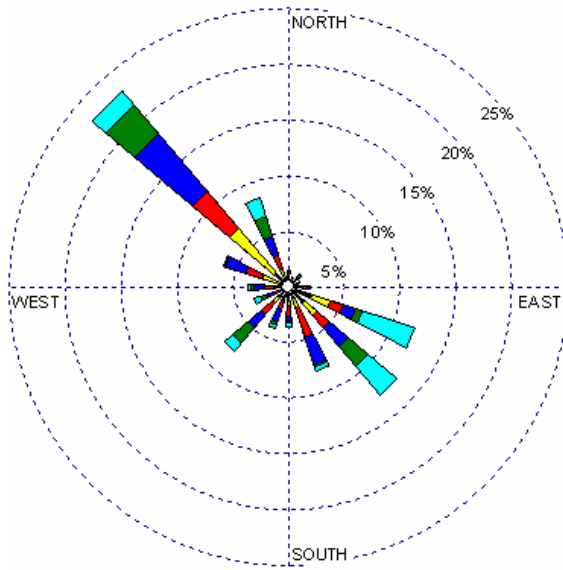
Figure 3-2. Quarterly Pebble 1 Station Wind Roses (Climatronics).



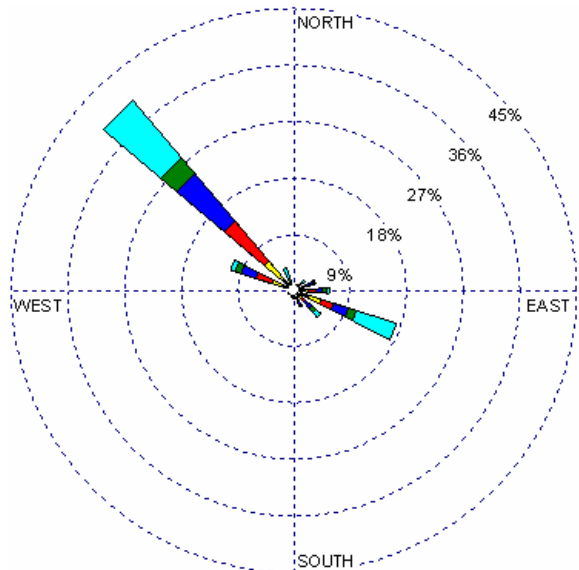
<sup>1</sup> Quarter B valid data capture was less than 90% for the Climatronics wind speed sensor.

Figure 3-3. Quarterly Pebble 1 Station Wind Roses (RM Young).

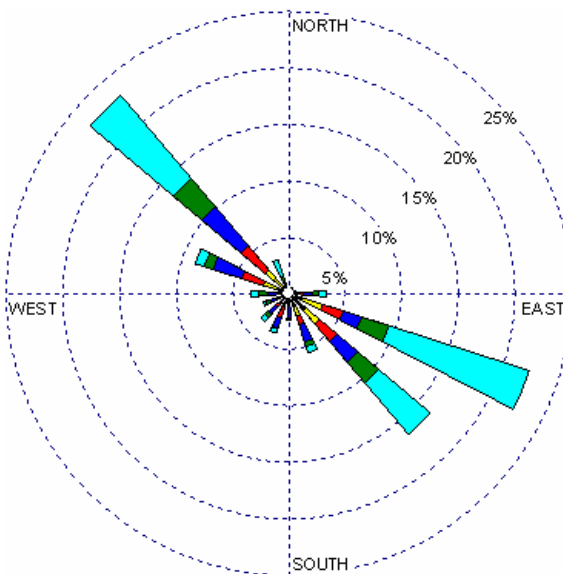
Quarter A (8/1/05 – 10/31/05)



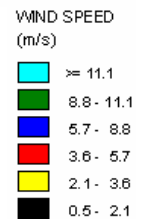
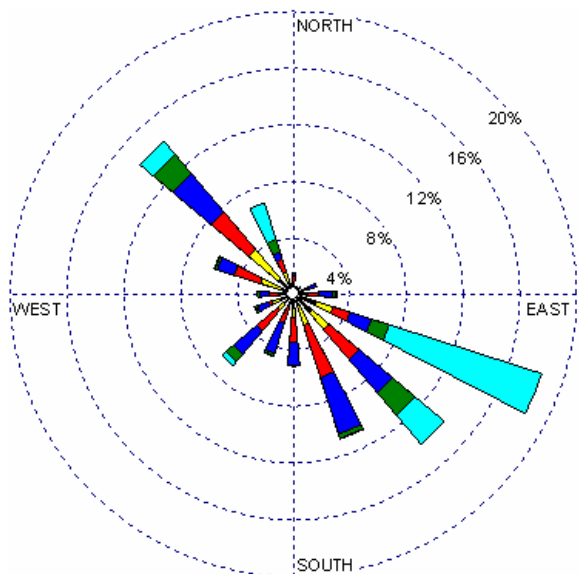
Quarter B (11/1/05 – 1/31/06)



Quarter C (2/1/06 – 4/30/06)



Quarter D (5/1/06 – 7/31/06)





**Table 3-2. First Year Wind Rose Analysis Table (Climatronics).**

Station ID: Pebble Mine PSD  
 Climatronics wind speed and direction  
 Start Date: August 1, 2005

Run ID: First Monitoring Year  
 End Date: July 31, 2006

Direction	Frequency Distribution (Percent)						Total
	Speed (m/s)						
	0.5 - 2.1	2.1 - 3.6	3.6 - 5.7	5.7 - 8.8	8.8 - 11.1	>= 11.1	
N	0.9%	0.7%	0.8%	0.5%	0.3%	0.7%	3.9%
NE	0.5%	0.4%	0.6%	0.5%	0.3%	0.2%	2.5%
E	1.6%	1.7%	1.6%	1.6%	0.8%	1.2%	8.5%
SE	3.4%	3.1%	4.0%	4.8%	3.3%	11.8%	30.5%
S	1.0%	1.8%	2.5%	2.5%	0.3%	0.4%	8.5%
SW	0.9%	1.2%	1.9%	2.5%	1.1%	0.8%	8.4%
W	1.2%	1.0%	0.8%	1.3%	0.5%	0.4%	5.1%
NW	3.0%	5.3%	6.3%	7.9%	3.3%	6.9%	32.7%
Sub-Total:	12.4%	15.2%	18.7%	21.5%	9.8%	22.3%	99.9%
Calms (<0.5 m/s):							0.1%
Total:							100.0%

Average Wind Speed: 7.59 m/s

**Table 3-3. Quarter A Wind Rose Analysis Table (Climatronics).**

Station ID: Pebble Mine PSD Run ID: Quarter A  
 Climatronics wind speed and direction  
 Start Date: August 1, 2005 End Date: October 31, 2005

Direction	Frequency Distribution (Percent)						Total
	Speed (m/s)						
	0.5 - 2.1	2.1 - 3.6	3.6 - 5.7	5.7 - 8.8	8.8 - 11.1	>= 11.1	
N	0.9%	0.7%	0.8%	0.5%	0.3%	0.7%	3.9%
NE	0.5%	0.4%	0.6%	0.5%	0.3%	0.2%	2.5%
E	1.6%	1.7%	1.6%	1.6%	0.8%	1.2%	8.5%
SE	3.4%	3.1%	4.0%	4.8%	3.3%	11.8%	30.5%
S	1.0%	1.8%	2.5%	2.5%	0.3%	0.4%	8.5%
SW	0.9%	1.2%	1.9%	2.5%	1.1%	0.8%	8.4%
W	1.2%	1.0%	0.8%	1.3%	0.5%	0.4%	5.1%
NW	3.0%	5.3%	6.3%	7.9%	3.3%	6.9%	32.7%
Sub-Total:	12.4%	15.2%	18.7%	21.5%	9.8%	22.3%	99.9%
Calms (<0.5 m/s):							0.1%
Total:							100.0%

Average Wind Speed: 6.37 m/s

**Table 3-4. Quarter B Wind Rose Analysis Table (Climatronics).<sup>1</sup>**

Station ID: Pebble Mine PSD Run ID: Quarter B  
 Climatronics wind speed and direction  
 Start Date: November 1, 2005 End Date: January 31, 2006

Direction	Frequency Distribution (Percent)						Total
	Speed (m/s)						
	0.5 - 2.1	2.1 - 3.6	3.6 - 5.7	5.7 - 8.8	8.8 - 11.1	>= 11.1	
N	1.1%	0.6%	0.4%	0.7%	0.0%	0.7%	3.5%
NE	1.0%	0.3%	1.0%	1.5%	0.7%	0.5%	5.1%
E	2.7%	3.2%	3.2%	2.8%	1.8%	2.1%	15.8%
SE	3.4%	2.1%	2.5%	3.1%	2.1%	5.5%	18.6%
S	0.6%	0.5%	0.8%	0.8%	0.1%	0.0%	2.7%
SW	0.5%	0.0%	0.1%	0.0%	0.0%	0.1%	0.7%
W	0.8%	0.1%	0.1%	0.0%	0.1%	0.1%	1.1%
NW	4.5%	6.3%	10.3%	12.3%	3.8%	15.2%	52.4%
Sub-Total:	14.6%	13.2%	18.4%	21.1%	8.6%	24.1%	99.9%
Calms (<0.5 m/s):							0.1%
Total:							100.0%

Average Wind Speed: 7.70 m/s

<sup>1</sup> Quarter B valid data capture was less than 90% for the Climatronics wind speed sensor.

**Table 3-5. Quarter C Wind Rose Analysis Table (Climatronics).**

Station ID: Pebble Mine PSD Run ID: Quarter C  
 Climatronics wind speed and direction  
 Start Date: February 1, 2006 End Date: April 30, 2006

Direction	Frequency Distribution (Percent)						Total
	Speed (m/s)						
	0.5 - 2.1	2.1 - 3.6	3.6 - 5.7	5.7 - 8.8	8.8 - 11.1	>= 11.1	
N	0.4%	0.1%	0.1%	0.3%	0.2%	0.1%	1.3%
NE	0.2%	0.0%	0.2%	0.1%	0.1%	0.3%	1.1%
E	1.1%	0.9%	0.8%	1.4%	1.2%	2.2%	7.7%
SE	3.3%	3.3%	3.7%	4.6%	4.5%	17.5%	36.9%
S	0.8%	1.7%	1.1%	2.2%	0.3%	0.4%	6.5%
SW	1.0%	0.9%	1.6%	2.0%	0.6%	0.5%	6.5%
W	1.3%	0.7%	0.4%	1.6%	1.1%	0.7%	5.8%
NW	2.2%	4.1%	4.7%	7.7%	4.7%	10.5%	33.9%
Sub-Total:	10.3%	11.7%	12.7%	20.0%	12.7%	32.3%	99.8%
Calms (<0.5 m/s):							0.2%
Total:							100.0%

Average Wind Speed: 9.33 m/s

**Table 3-6. Quarter D Wind Rose Analysis Table (Climatronics).**

Station ID: Pebble Mine PSD Run ID: Quarter D  
 Climatronics wind speed and direction  
 Start Date: May 1, 2006 End Date: July 31, 2006

Direction	Frequency Distribution (Percent)						Total
	Speed (m/s)						
	0.5 - 2.1	2.1 - 3.6	3.6 - 5.7	5.7 - 8.8	8.8 - 11.1	>= 11.1	
N	1.2%	1.0%	1.5%	0.6%	0.7%	1.7%	6.7%
NE	0.5%	0.5%	0.3%	0.0%	0.0%	0.0%	1.3%
E	0.9%	1.6%	1.4%	1.9%	0.3%	0.5%	6.5%
SE	3.0%	3.1%	5.4%	6.3%	3.3%	13.7%	34.9%
S	1.0%	2.6%	4.9%	4.4%	0.4%	0.0%	13.2%
SW	0.9%	1.5%	2.8%	4.0%	1.0%	0.5%	10.6%
W	1.2%	1.5%	1.0%	1.2%	0.3%	0.0%	5.4%
NW	2.4%	4.6%	5.4%	4.8%	2.1%	2.1%	21.4%
Sub-Total:	11.2%	16.4%	22.6%	23.2%	8.0%	18.5%	100.0%
Calms (<0.5 m/s):							0.0%
Total:							100.0%

Average Wind Speed: 7.01 m/s

**Table 3-7. First Year Wind Rose Analysis Table (RM Young).**

Station ID: Pebble Mine PSD  
 RM Young wind speed and direction  
 Start Date: August 1, 2005

Run ID: First Monitoring Year  
 End Date: July 31, 2006

Direction	Frequency Distribution (Percent)						Total
	Speed (m/s)						
	0.5 - 2.1	2.1 - 3.6	3.6 - 5.7	5.7 - 8.8	8.8 - 11.1	>= 11.1	
N	0.7%	0.6%	0.7%	0.3%	0.1%	0.2%	2.7%
NE	0.5%	0.4%	0.7%	0.5%	0.3%	0.2%	2.5%
E	1.7%	1.8%	1.6%	1.7%	0.9%	2.7%	10.6%
SE	3.3%	2.7%	3.9%	4.7%	2.9%	9.9%	27.5%
S	1.1%	1.4%	2.2%	2.2%	0.2%	0.3%	7.5%
SW	0.9%	1.2%	1.7%	2.2%	1.0%	0.7%	7.7%
W	1.3%	0.9%	0.9%	1.2%	0.5%	0.5%	5.3%
NW	2.8%	5.0%	6.8%	8.6%	4.2%	8.1%	35.6%
Sub-Total:	12.4%	14.0%	18.4%	21.5%	10.3%	22.7%	99.4%
Calms (<0.5 m/s):							0.6%
Total:							100.0%

Average Wind Speed: 7.60 m/s

**Table 3-8. Quarter A Wind Rose Analysis Table (RM Young).**

Station ID: Pebble Mine PSD

Run ID: Quarter A

RM Young wind speed and direction

Start Date: August 1, 2005

End Date: October 31, 2005

Direction	Frequency Distribution (Percent)						Total
	Speed (m/s)						
	0.5 - 2.1	2.1 - 3.6	3.6 - 5.7	5.7 - 8.8	8.8 - 11.1	>= 11.1	
N	0.8%	1.1%	1.1%	0.3%	0.3%	0.1%	3.7%
NE	0.4%	0.5%	1.0%	0.4%	0.4%	0.0%	2.8%
E	1.9%	1.4%	1.2%	0.8%	0.1%	0.6%	6.1%
SE	3.7%	3.2%	3.7%	4.4%	3.0%	7.8%	25.9%
S	1.4%	1.6%	2.4%	1.8%	0.3%	0.8%	8.4%
SW	1.1%	1.9%	2.4%	2.8%	2.2%	1.6%	12.0%
W	1.3%	1.0%	1.2%	1.8%	0.5%	0.6%	6.4%
NW	2.8%	7.4%	6.2%	9.8%	5.1%	3.4%	34.6%
Sub-Total:	13.5%	18.2%	19.2%	22.1%	11.9%	15.0%	99.8%
Calms (<0.5 m/s):							0.2%
Total:							100.0%

Average Wind Speed: 6.54 m/s

**Table 3-9. Quarter B Wind Rose Analysis Table (RM Young).**

Station ID: Pebble Mine PSD

Run ID: Quarter B

RM Young wind speed and direction

Start Date: November 1, 2005

End Date: January 31, 2006

Direction	Frequency Distribution (Percent)						Total
	Speed (m/s)						
	0.5 - 2.1	2.1 - 3.6	3.6 - 5.7	5.7 - 8.8	8.8 - 11.1	>= 11.1	
N	0.7%	0.4%	0.2%	0.5%	0.0%	0.1%	2.0%
NE	0.8%	0.5%	1.0%	1.4%	0.5%	0.5%	4.6%
E	2.6%	3.0%	2.6%	2.5%	1.7%	3.4%	15.8%
SE	2.7%	1.8%	2.4%	3.3%	1.5%	4.8%	16.5%
S	0.9%	0.6%	0.9%	0.7%	0.1%	0.0%	3.2%
SW	0.4%	0.2%	0.2%	0.4%	0.3%	0.2%	1.6%
W	1.1%	0.4%	0.3%	0.2%	0.1%	0.1%	2.2%
NW	4.2%	5.4%	11.1%	12.7%	4.7%	14.3%	52.4%
Sub-Total:	13.5%	12.3%	18.6%	21.7%	8.9%	23.4%	98.4%
Calms (<0.5 m/s):							1.6%
Total:							100.0%

Average Wind Speed: 7.58 m/s

**Table 3-10. Quarter C Wind Rose Analysis Table (RM Young).**

Station ID: Pebble Mine PSD

Run ID: Quarter C

RM Young wind speed and direction

Start Date: February 1, 2006

End Date: April 30, 2006

Direction	Frequency Distribution (Percent)						Total
	Speed (m/s)						
	0.5 - 2.1	2.1 - 3.6	3.6 - 5.7	5.7 - 8.8	8.8 - 11.1	>= 11.1	
N	0.3%	0.1%	0.2%	0.1%	0.0%	0.0%	0.7%
NE	0.1%	0.0%	0.2%	0.2%	0.1%	0.3%	1.0%
E	1.1%	1.1%	1.3%	1.7%	1.6%	5.4%	12.2%
SE	3.5%	3.2%	3.5%	4.2%	4.1%	14.8%	33.3%
S	1.1%	1.0%	1.4%	2.3%	0.2%	0.4%	6.5%
SW	1.0%	0.6%	1.7%	1.8%	0.8%	0.7%	6.4%
W	1.4%	0.7%	0.7%	1.5%	1.2%	1.1%	6.7%
NW	1.8%	3.0%	4.7%	7.0%	4.5%	11.7%	32.7%
Sub-Total:	10.4%	9.7%	13.7%	18.7%	12.6%	34.4%	99.5%
Calms (<0.5 m/s):							0.5%
Total:							100.0%

Average Wind Speed: 9.41 m/s

**Table 3-11. Quarter D Wind Rose Analysis Table (RM Young).**

Station ID: Pebble Mine PSD

Run ID: Quarter D

RM Young wind speed and direction

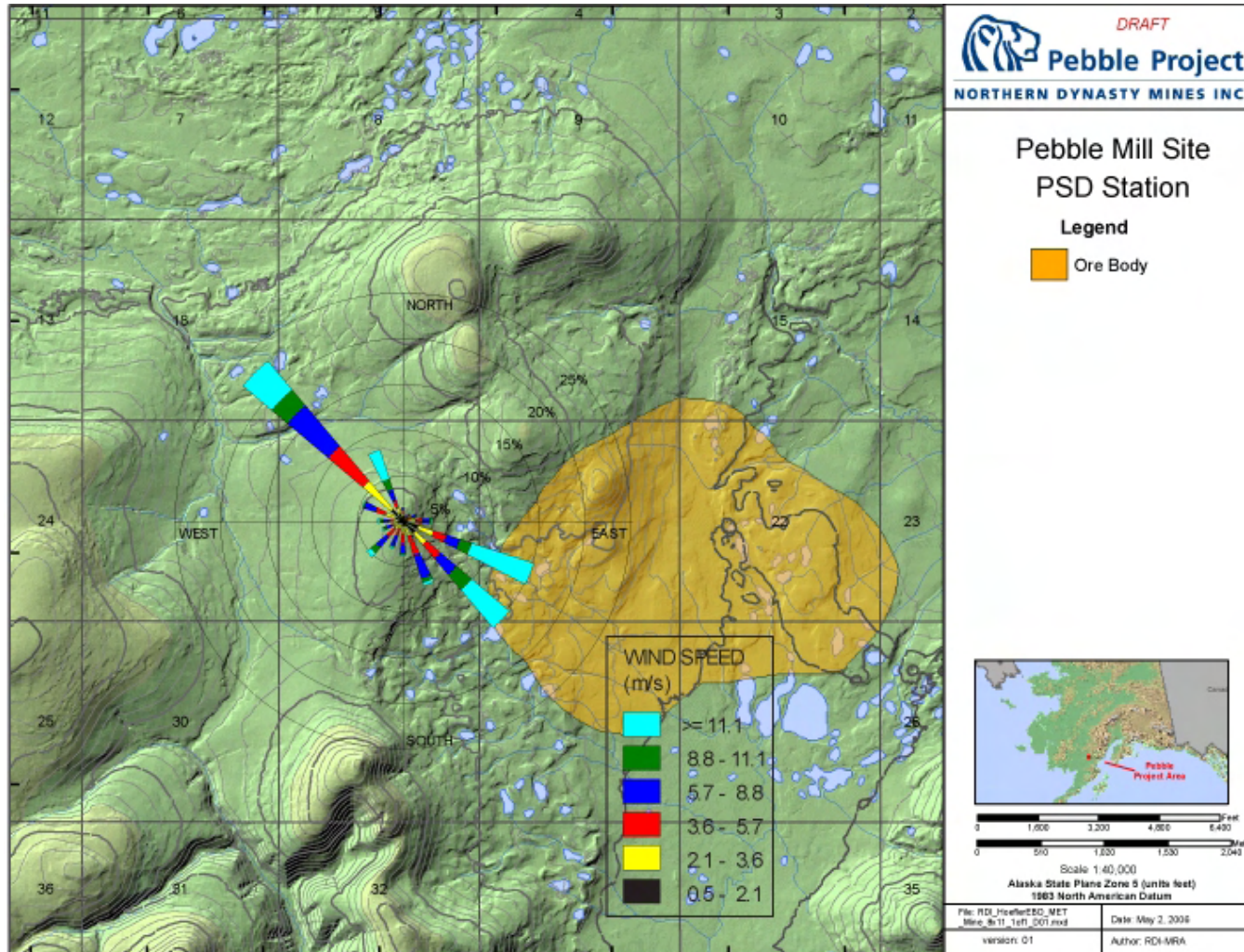
Start Date: May 1, 2006

End Date: July 31, 2006

Direction	Frequency Distribution (Percent)						Total
	Speed (m/s)						
	0.5 - 2.1	2.1 - 3.6	3.6 - 5.7	5.7 - 8.8	8.8 - 11.1	>= 11.1	
N	1.2%	0.8%	1.1%	0.3%	0.2%	0.6%	4.2%
NE	0.6%	0.5%	0.4%	0.1%	0.0%	0.0%	1.6%
E	1.1%	1.7%	1.5%	2.0%	0.5%	1.7%	8.5%
SE	3.2%	2.7%	5.8%	6.9%	3.3%	12.4%	34.3%
S	1.0%	2.4%	3.9%	4.0%	0.3%	0.0%	11.6%
SW	1.0%	1.9%	2.6%	3.9%	0.9%	0.5%	10.8%
W	1.5%	1.4%	1.3%	1.4%	0.3%	0.0%	5.9%
NW	2.5%	4.2%	5.2%	4.9%	2.7%	3.5%	22.9%
Sub-Total:	12.1%	15.7%	21.8%	23.5%	8.1%	18.7%	99.9%
Calms (<0.5 m/s):							0.1%
Total:							100.0%

Average Wind Speed: 6.97 m/s

Figure 3-4. Annual<sup>1</sup> Wind Rose Superimposed on Site Map.



<sup>1</sup> First monitoring year: August 1, 2005 to July 31, 2006.

### **3.2.2 Temperature Climatology**

Tables 3-12 and 3-13 provides maximum and minimum daily mean temperatures, monthly mean temperatures, and maximum and minimum hourly average temperatures for the 2-meter and 10-meter temperature measurements, respectively. Daily average temperatures at the Pebble Mine PSD station ranged from 18.6°C on August 12, 2005 to -33.3°C on January 28, 2006. The average 2-meter temperature during the monitoring year was -1.2°C, which is slightly less than the mean temperature of 1.3°C observed at the Iliamna airport during the same time span.

Figure 3-5 provides a graph of the 2-meter and 10-meter hourly average temperatures. There was considerable monthly temperature variation throughout the late-autumn and winter months. The coldest temperatures were observed during January 2006. During the last two weeks of January 2006 temperatures hovered in between -20°C and -35°C, which corresponded with a period of cold arctic air influence across most of mainland Alaska.

Figure 3-6 is a plot of the vertical temperature difference (the difference between 10-m and 2-m temperature values) during the monitoring year. The greatest positive vertical temperature difference was 5.3°C measured at 3:00PM on April 2, 2006. The greatest negative vertical temperature difference was -5.9°C measured at 1:00PM on March 1, 2006.



Table 3-12. 2-meter Temperature Summary.

Period	Maximum Daily Mean Temperature (°C)	Minimum Daily Mean Temperature (°C)	Monthly Mean Temperature (°C)	Maximum Temperature (°C)	Minimum Temperature (°C)
August 2005	18.6	6.9	11.5	23.6	2.4
September 2005	8.7	2.4	6.5	13.4	-1.1
October 2005	4.8	-13.2	-1.8	7.8	-14.5
<b>1st Quarter</b>	<b>18.6</b>	<b>-13.2</b>	<b>5.1</b>	<b>23.6</b>	<b>-14.5</b>
November 2005	-0.9	-24.6	-13.0	1.7	-26.2
December 2005	2.1	-23.4	-3.1	3.7	-25.7
January 2006	-1.0	-33.3	-16.1	1.3	-35.3
<b>2nd Quarter</b>	<b>2.1</b>	<b>-33.3</b>	<b>-10.7</b>	<b>3.7</b>	<b>-35.3</b>
February 2006	0.3	-30.0	-7.6	1.4	-31.6
March 2006	-2.4	-20.9	-8.9	0.0	-23.8
April 2006	0.5	-12.6	-4.2	1.8	-16.4
<b>3rd Quarter</b>	<b>0.5</b>	<b>-30.0</b>	<b>-6.9</b>	<b>1.8</b>	<b>-31.6</b>
May 2006	16.8	-4.6	4.8	23.0	-7.2
June 2006	11.9	4.7	8.3	19.3	-0.1
July 2006	16.5	6.9	10.6	22.4	5.7
<b>4th Quarter</b>	<b>16.8</b>	<b>-4.6</b>	<b>7.9</b>	<b>23.0</b>	<b>-7.2</b>
<b>Monitoring Year</b>	<b>18.6</b>	<b>-33.3</b>	<b>-1.2</b>	<b>23.6</b>	<b>-35.3</b>

Table 3-13. 10-meter Temperature Summary.

Period	Maximum Daily Mean Temperature (°C)	Minimum Daily Mean Temperature (°C)	Monthly Mean Temperature (°C)	Maximum Temperature (°C)	Minimum Temperature (°C)
August 2005	18.6	6.9	11.4	23.1	3.0
September 2005	8.6	2.1	6.4	12.6	-1.3
October 2005	5.1	-12.9	-1.8	7.2	-14.2
<b>1st Quarter</b>	<b>18.6</b>	<b>-12.9</b>	<b>5.3</b>	<b>23.1</b>	<b>-14.2</b>
November 2005	-0.8	-24.2	-12.8	1.9	-26.0
December 2005	2.3	-23.1	-2.9	4.5	-24.9
January 2006	-0.6	-33.3	-15.7	1.5	-35.3
<b>2nd Quarter</b>	<b>2.3</b>	<b>-33.3</b>	<b>-10.4</b>	<b>4.5</b>	<b>-35.3</b>
February 2006	0.8	-29.8	-7.4	1.7	-31.4
March 2006	-1.8	-20.9	-8.6	0.2	-23.5
April 2006	0.4	-12.4	-4.1	1.9	-15.6
<b>3rd Quarter</b>	<b>0.8</b>	<b>-29.8</b>	<b>-6.7</b>	<b>1.9</b>	<b>-31.4</b>
May 2006	17.3	-4.9	4.9	22.2	-6.8
June 2006	11.8	4.6	8.1	18.7	0.7
July 2006	16.3	6.6	10.4	21.2	5.7
<b>4th Quarter</b>	<b>17.3</b>	<b>-4.9</b>	<b>7.8</b>	<b>22.2</b>	<b>-6.8</b>
<b>Monitoring Year</b>	<b>18.6</b>	<b>-33.3</b>	<b>-0.9</b>	<b>23.1</b>	<b>-35.3</b>

Figure 3-5. Hourly Average 2-Meter and 10-Meter Temperatures.

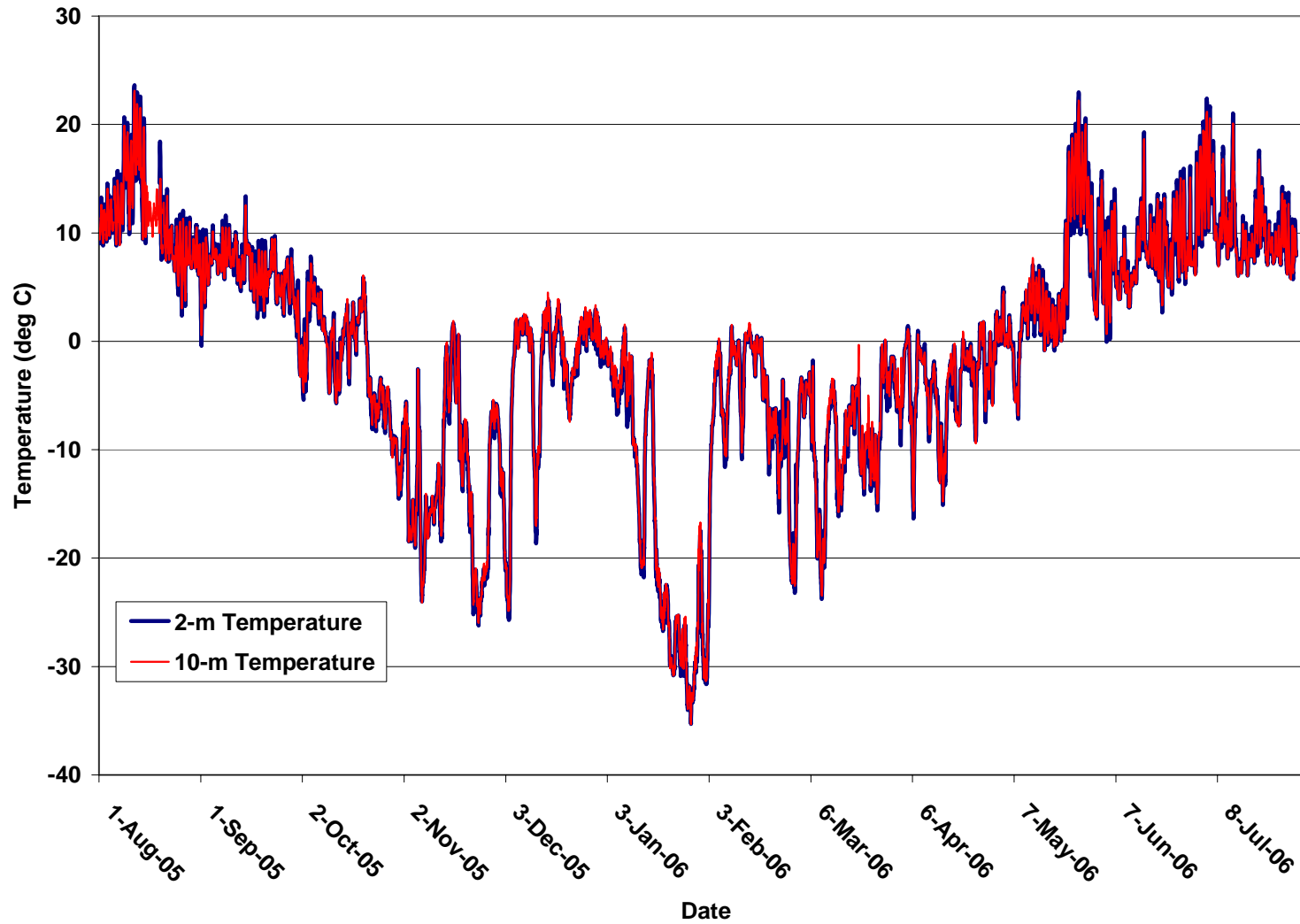
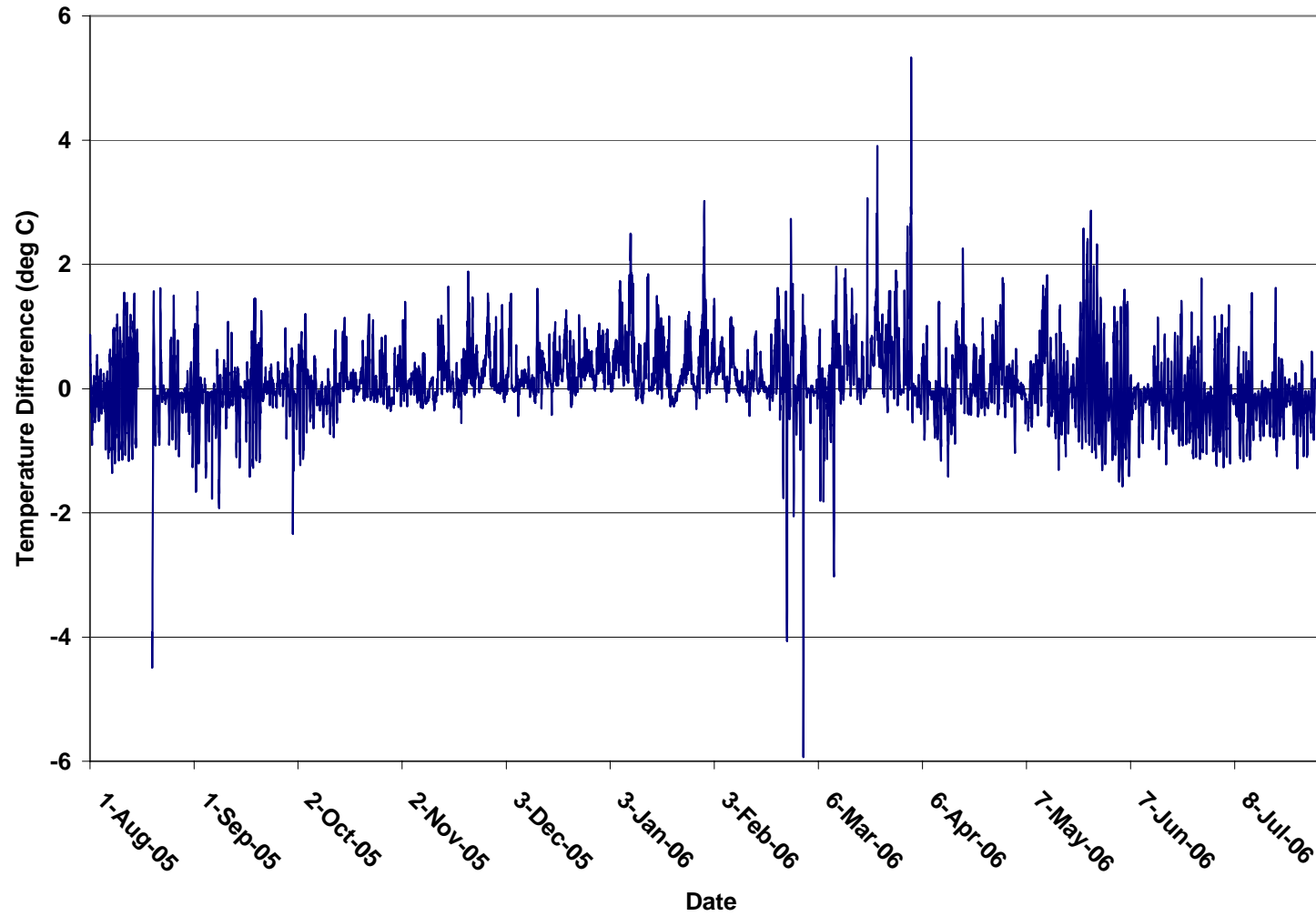


Figure 3-6. Hourly Average Vertical Temperature Difference.



### **3.3.3 Other Meteorological Parameters**

Other measured meteorological parameters include relative humidity, barometric pressure, solar radiation, precipitation, and evaporation.

Figure 3-7 is a plot of the annual hourly average relative humidity. The mean relative humidity at the Pebble 1 station was 85.5%. The minimum relative humidity was 18.5% percent measured on May 26, 2006.

Figure 3-8 is a plot of the annual hourly instantaneous barometric pressure. Barometric pressure varied from a minimum of 908 mbar on February 6, 2006 to a maximum of 980 mbar observed on February 16, 2006. The mean barometric pressure during the monitoring year was 948 mbar.

Figure 3-9 is a plot of the annual hourly average solar radiation. The maximum hourly average solar radiation was 897 W/m<sup>2</sup> recorded on June 27, 2006 at 1:00 PM. The mean hourly average solar radiation for the monitoring year was 108 W/m<sup>2</sup>.

Figure 3-10 is a graph of total daily precipitation and the cumulative precipitation during the first PSD monitoring year. The maximum total daily precipitation was 30.6 mm measured on September 9, 2005 and, consequently, the maximum monthly precipitation was 146.8 mm during September 2005. The cumulative precipitation during the monitoring year was 817 mm.

A table of total daily evaporation is provided in Appendix D. The maximum total monthly evaporation at the Pebble Mine PSD station was 88.1 mm during May 2006.

Comprehensive hourly data tables of temperature, vertical temperature difference, wind speed, wind direction, wind sigma, relative humidity, barometric pressure, solar radiation, and precipitation are also provided in Appendix D.

Figure 3-7. Hourly Average Relative Humidity.

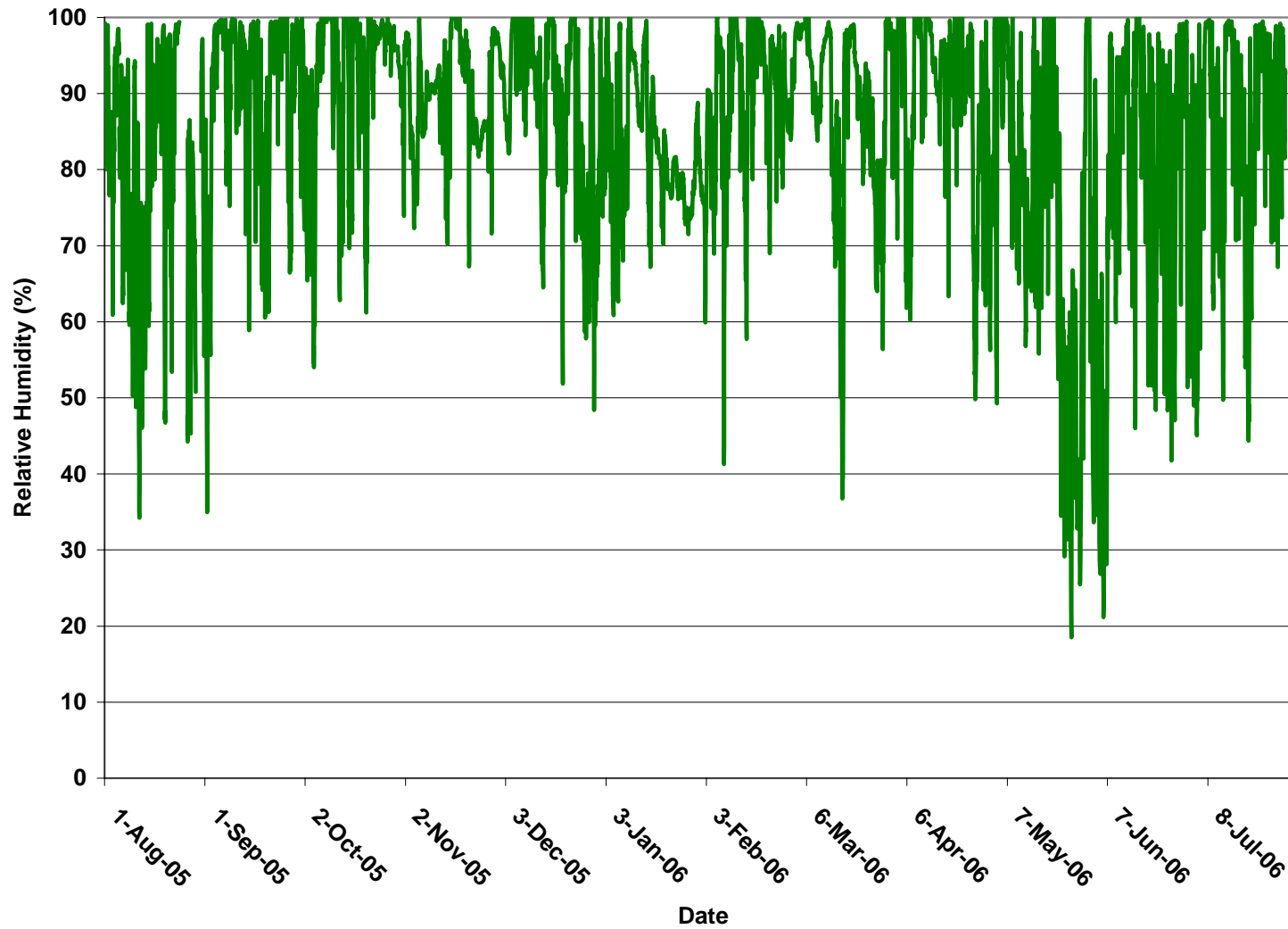


Figure 3-8. Barometric Pressure.

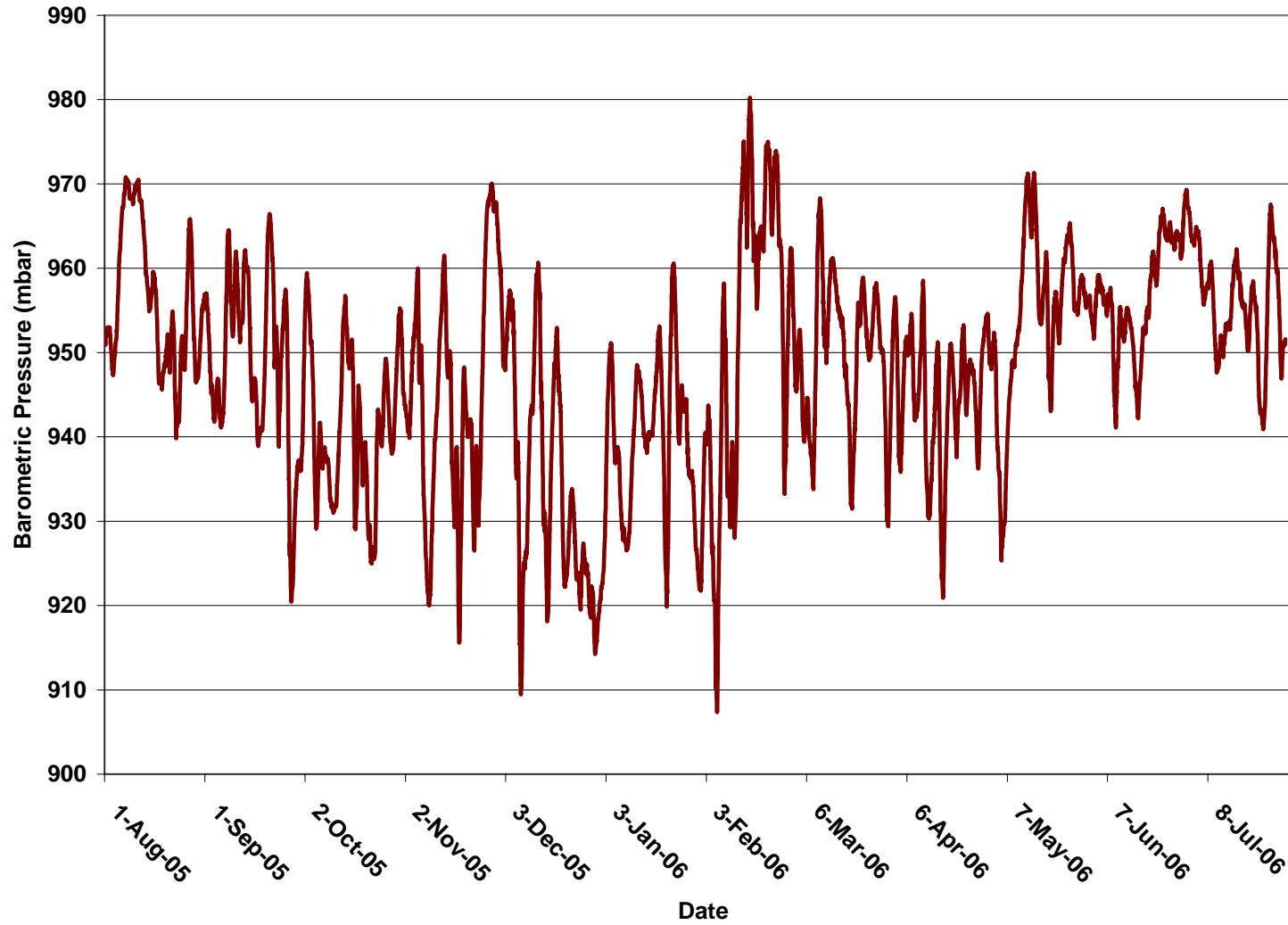


Figure 3-9. Hourly Average Solar Radiation.

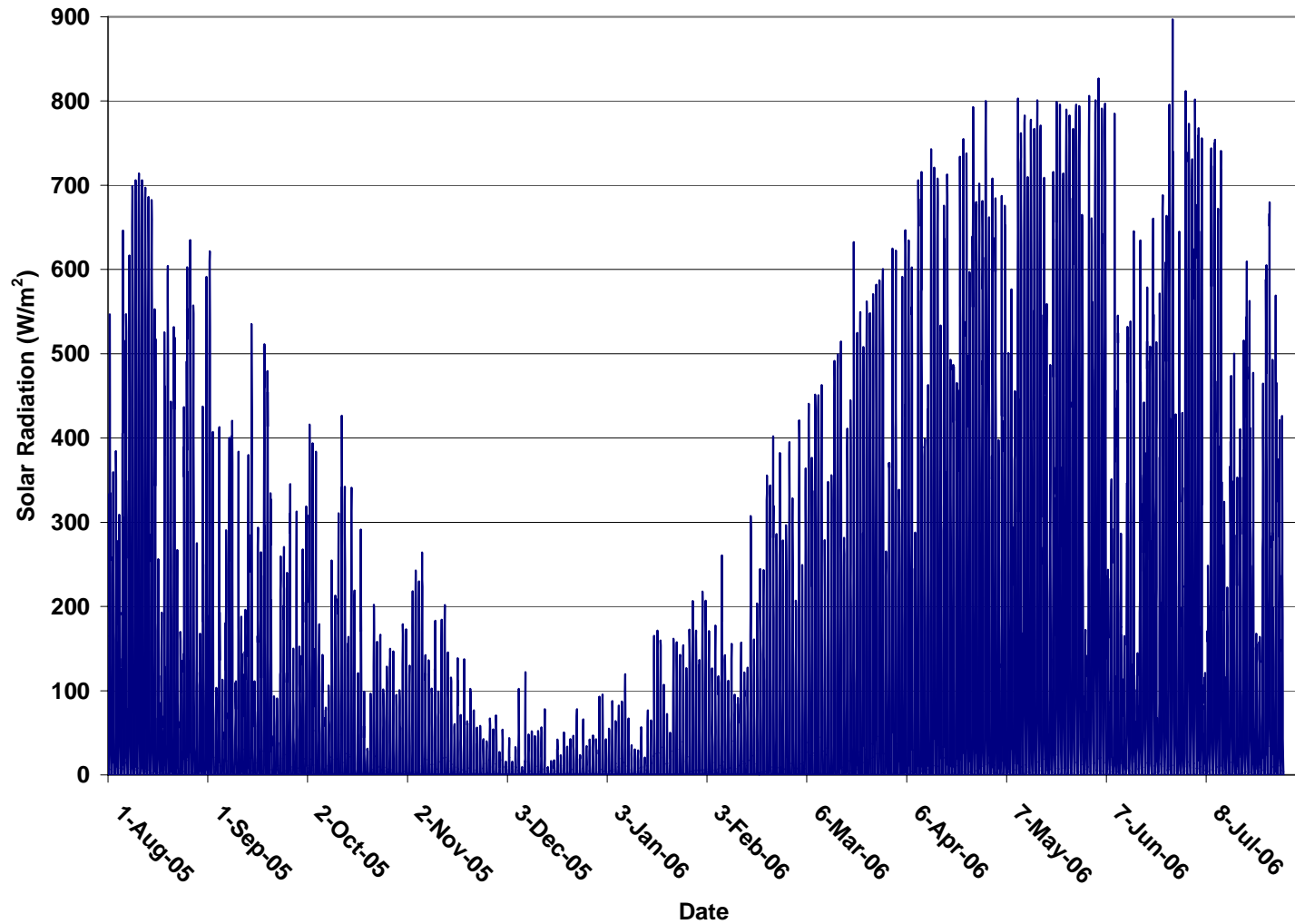
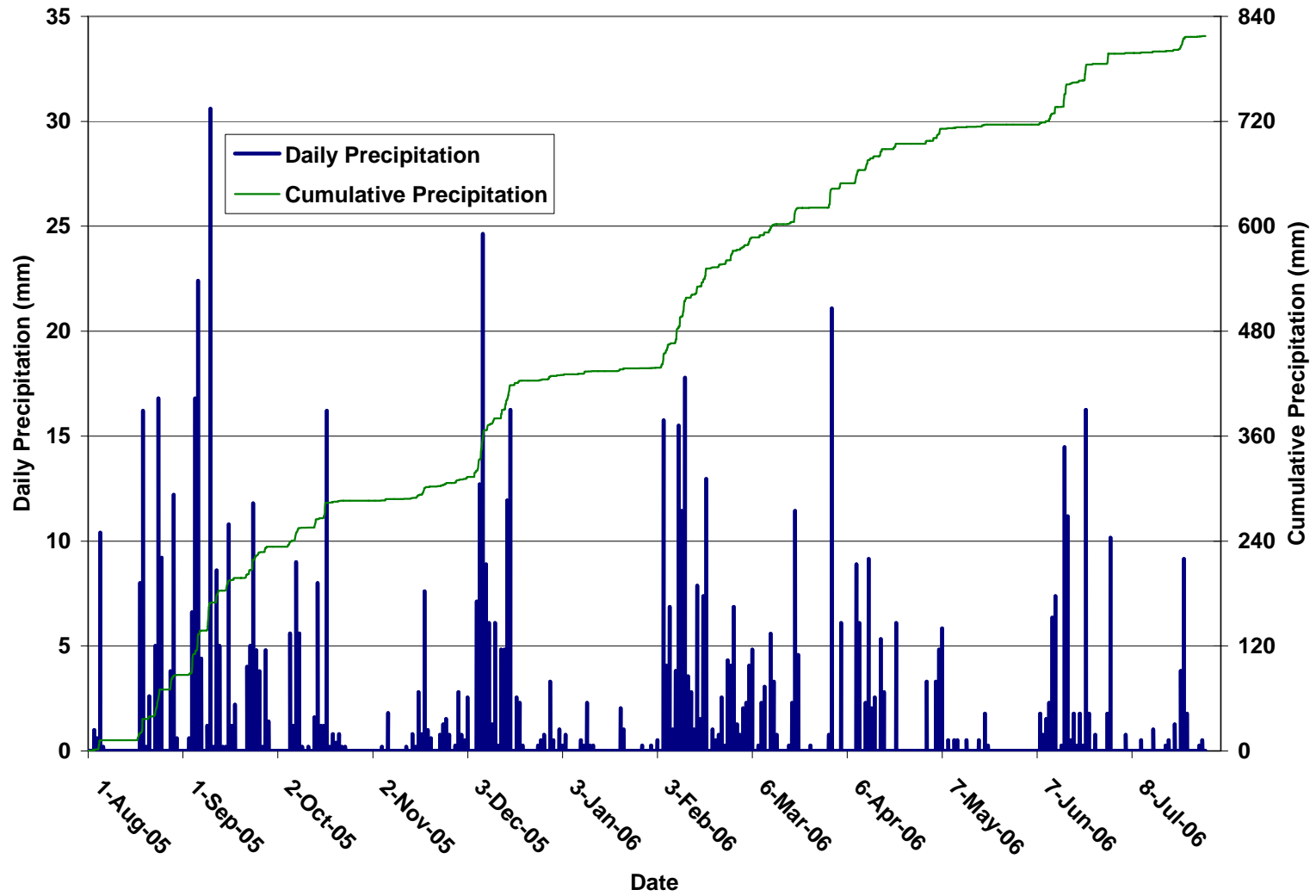




Figure 3-10. Daily and Cumulative Precipitation.



## **4.0 References**

Hoefler Consulting Group, Inc., *Quality Assurance Project Plan for the Pebble Project Meteorological Monitoring Program*, Iliamna, Alaska, August 2006.

U.S. Environmental Protection Agency (EPA), *On-Site Meteorological Program Guidance for Regulatory Modeling Applications*, Office of Air Quality Planning and Standards, Research Triangle Park, North Carolina, EPA-450/4-87-013, Revised August 1995.

U.S. Environmental Protection Agency (EPA), *Ambient Monitoring Guidelines for Prevention of Significant Deterioration (PSD)*, Office of Air Quality Planning and Standards, Research Triangle Park, North Carolina, EPA-450/4-87-007, 1987.

U.S. Environmental Protection Agency (EPA), *Meteorological Monitoring Guidance for Regulatory Modeling Applications*, Office of Air Quality Planning and Standards, Research Triangle Park, North Carolina, EPA-454/R-99-005, 2000.

Yamartino, R.J., *A Comparison of Several "Single-Pass" Estimators of the Standard Deviation of Wind Direction*, J. Climate Appl. Meteor., Vol. 23, pp. 1362-1366, 1984.

U.S. Department of Commerce, National Climatic Data Center, Asheville, North Carolina, <http://www.ncdc.noaa.gov>.

Western Regional Climate Center, Desert Research Institute, Reno Nevada, <http://www.wrcc.dri.edu/summary/climsmak.html>.

## **Appendix A**

### **Data Processing and Statistical Formulae**

## **A.1 Data Recovery Percentage**

Data completeness for meteorological monitoring methods was calculated assuming a minimum of 90 percent valid hourly average data to calculate quarterly average data completeness and a minimum of 90 percent quarterly data completeness for four consecutive quarters.

Quarterly data completeness ( $DC_i$ ) was determined using the following equation:

$$DC_i = h_v/h_i \times 100$$

Where:  $h_v$  = number of hours of valid data actually collected

$h_i$  = number of possible valid hours of data collection during the monitoring period

## **A.2 Data Bias Correction Using Calibration Information**

Not Applicable.

## **A.3 Estimation of Pasquill-Gifford Stability Categories**

Not Applicable.

**Appendix B**  
**Precision Data**

Not Applicable.

**Appendix C**  
**Accuracy Data**

**Pebble 1  
PSD Meteorological  
Monitoring Station**

**June 2005**

**Quality Assurance  
Systems Audit and  
Performance Audit**



*for the*

**Pebble Project  
Meteorological  
Monitoring Program  
Iliamna, Alaska**

*prepared for*

**Northern Dynasty Mines, Inc.**

**Pebble 1 PSD Meteorological Monitoring Station  
June 2005  
Quality Assurance Systems Audit  
and Performance Audit**

*Prepared for:*

**Northern Dynasty Mines, Inc.  
Anchorage, Alaska**

*Prepared by:*

**Hoefler Consulting Group, Inc.  
3401 Minnesota Drive, Suite 300  
Anchorage, Alaska 99503**



## TABLE of CONTENTS

<b>1.0 INTRODUCTION .....</b>	<b>1</b>
<b>2.0 SYSTEMS AUDIT.....</b>	<b>2</b>
<b>2.1 Systems Audit Methodology.....</b>	<b>2</b>
<b>2.2 Meteorological Station On-Site Systems Audit.....</b>	<b>2</b>
<b>2.3 Operations, Data Management and Documentation Systems Audit .....</b>	<b>4</b>
<b>2.4 Comments and Suggestions.....</b>	<b>5</b>
<b>3.0 PERFORMANCE AUDIT.....</b>	<b>6</b>
<b>3.1 Performance Audit Methodology.....</b>	<b>6</b>
3.1.1 Data Acquisition System .....	7
3.1.2 Air Temperature and Air Temperature Difference .....	7
3.1.3 Wind Speed.....	7
3.1.4 Wind Direction .....	8
3.1.5 Relative Humidity .....	9
3.1.6 Barometric Pressure.....	9
3.1.7 Precipitation .....	9
3.1.8 Evaporation .....	10
3.1.9 Solar Radiation.....	10
<b>3.2 Performance Audit Results .....</b>	<b>11</b>
<b>3.3 Performance Audit Recommendations .....</b>	<b>11</b>
<b>4.0 REFERENCES .....</b>	<b>13</b>

## LIST of FIGURES and TABLES

Figure 2-1 Pebble 1 Station DAS Wiring Panel .....	3
Table 3-1 Performance Audit Methods and Acceptable Limits.....	6
Table 3-2 Pebble 1 June 10, 2005 & July 2005 Performance Audit Summary.....	12

## LIST of APPENDICES

- A SYSTEMS AUDIT DATA SHEETS
- B PERFORMANCE AUDIT DATA SHEETS and ALIGNMENT MAP
- C AUDIT EQUIPMENT CALIBRATION CERTIFICATES

## **1.0 INTRODUCTION**

Hoefler Consulting Group, Inc. (HCG) operates meteorological monitoring stations for Northern Dynasty Mines, Inc. (NDM) in support of the Pebble Mine Project near Iliamna, Alaska. The air monitoring program is one component of ongoing baseline environmental studies being conducted to support mine permitting, mine design and mine transportation infrastructure development. The stations meet Prevention of Significant Deterioration (PSD) guidelines, although PSD permits may not be required. This report covers the Pebble 1 Station (Pebble 1) located near the proposed mine site.

Pebble 1 is located just west of the mine ore body on top of a gentle, wind swept knoll at about 1,550 foot elevation. The station consists of an instrumented 11-meter sectional tower secured with three guy wires. A precipitation gauge is located approximately 75 feet west of the tower and an evaporation pan is located roughly 125 feet south of the tower. Between the tower and the precipitation gauge is a 6' by 8' insulated building which houses the datalogger and power supply system. Pebble 1 is instrumented with PSD quality sensors monitoring the following parameters:

- Ambient Temperature (°C): Met One 062MP Thermistor Probe at 2-m
- Temperature Difference (°C): Met One 062MP Thermistors at 2-m and 10-m
- Wind Speed 1 (m/s): Climatronics F460 P/N 100075 Wind Speed Sensor
- Wind Direction 1 (°): Climatronics F460 P/N 100076 Wind Direction Sensor
- Wind Speed 2 (m/s): RM Young 05305 Wind Monitor-AQ
- Wind Direction 2 (°): RM Young 05305 Wind Monitor-AQ
- Sigma Theta (°): Campbell Scientific CR10X DAS calculated (Yamartino)
- Relative Humidity (%RH): Vaisala HMP45AC Relative Humidity Sensor
- Barometric Pressure (mbar): Vaisala PT101B Barometric Pressure Sensor
- Precipitation (mm H<sub>2</sub>O): Met One Model 370 Tipping Gauge
- Evaporation (mm H<sub>2</sub>O): Nova-Lynx Model 255-100/200 Pan and Gauge
- Solar Radiation (W/m<sup>2</sup>): LI-COR Li-200SX Solar Radiation Pyranometer.

This report has been prepared for NDM to serve as an official review of the Pebble 1 station and a review of the overall Pebble Project Meteorological Monitoring Program for the monitoring period from To that end, Systems and Performance Audits were undertaken in order to help demonstrate that the equipment and procedures used for collecting meteorological data by HCG meet the requirements set forth by the U.S. Environmental Protection Agency (EPA) and the Alaska Department of Environmental Conservation (ADEC).

## **2.0 SYSTEMS AUDIT**

### **2.1 Systems Audit Methodology**

In the *Quality Assurance Handbook for Air Pollution Measurement Systems* and the *Meteorological Monitoring Guidance for Regulatory Modeling Applications*, EPA provides guidance for conducting systems audits. EPA recommends that a systems audit be conducted to serve as a qualitative review of all aspects of a meteorological monitoring program. The systems audit includes a review of the program plan, station site, facilities, equipment, personnel, procedures, record keeping, data validation and data reporting. The systems audit should be completed within the first 30 days of operation and every year thereafter.

The program plan was the *Draft Quality Assurance Project Plan for the Pebble Project Meteorological Monitoring Program*. This systems audit consisted of a review of this document, site visits and personnel interviews. Personnel were also observed during station maintenance and calibration operations. All aspects of the program not specifically mentioned in the Plan were reviewed to determine consistency with EPA and ADEC guidelines. The complete systems audit report contained in Appendix A is organized into six major sections; 1) General Program Information, 2) Monitoring Program Staff Organization, 3) Meteorological Monitoring Station Equipment, 4) Standard Operating Procedures, 5) Documentation, 6) Data Processing and Validation, 7) Quality Assurance and Quality Control (QA/QC), and 8) Comments and Suggestions. Each section consists of a question-answer format with additional comments to provide clarity. Flow charts are also used to accurately document program staff organization and the data handling process. A complete list of the references used for the systems audit is contained in Section 4.

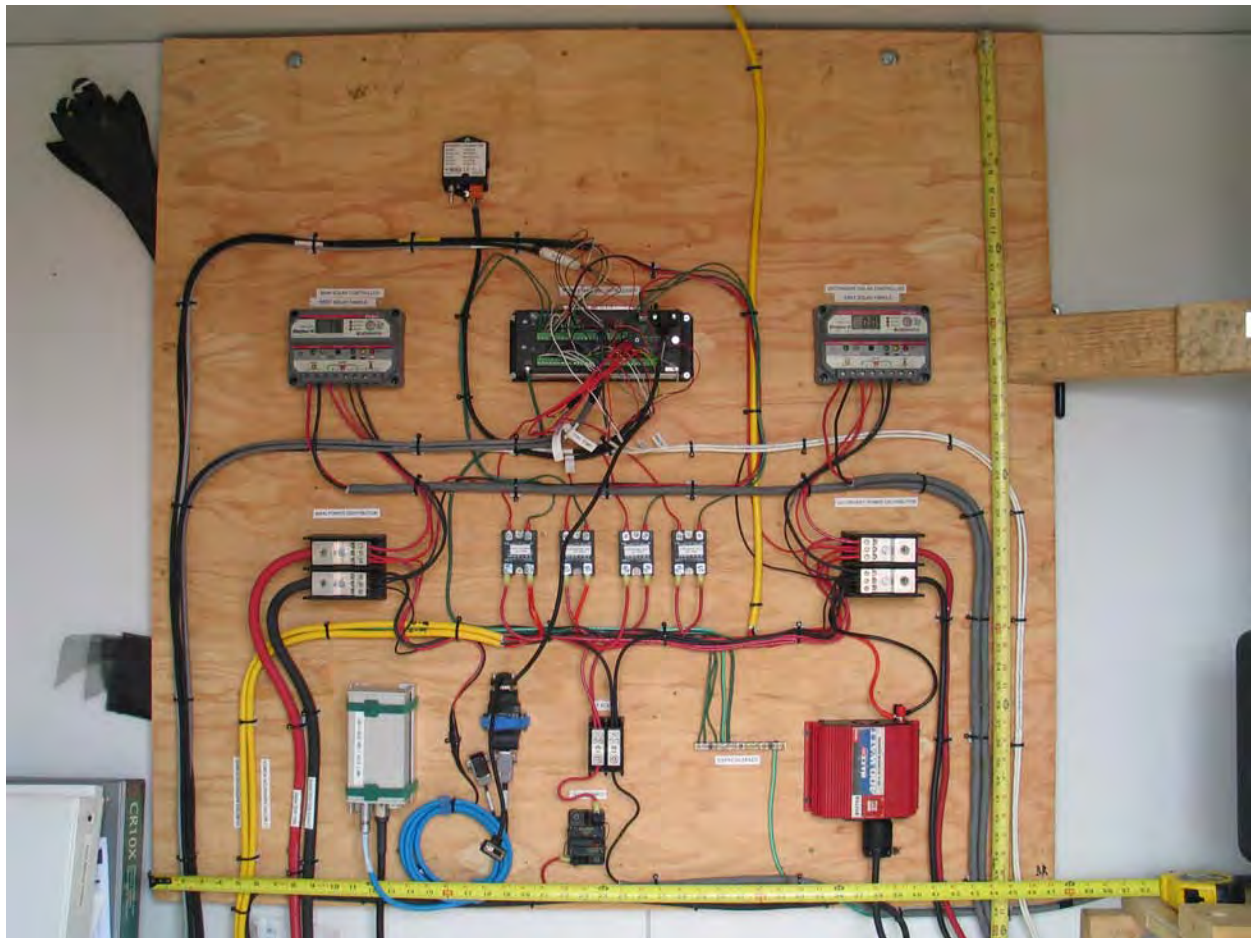
### **2.2 Meteorological Station On-Site Systems Audit**

The on-site systems audit of the Pebble 1 station was conducted on June 10, 2005. Eric Brudie of HCG completed the systems audit with Dominic Shallies and Jared Cockman of HCG and Terry Wassilie of NDM assisting and witnessing. Mr. Brudie serves as an independent auditor on this project and is not involved with day to day operations of the station.

The Pebble 1 meteorological monitoring station is founded on a stable, well anchored tower with PSD quality sensors securely affixed. The precipitation gauge is shielded from high winds by a 20' diameter Wyoming Wind Screen. The evaporation pan and gauge are mounted on a 6' by 8' deck supported on four adjustable pier blocks, which

allow leveling. The evaporation deck is surrounded by a 6' high fence to repel thirsty animals. All instrumentation wires from the tower, precipitation gauge and evaporation gauge are housed in conduit in order to repel hungry animals. These conduits all converge at a 6' by 8' insulated prefab building. The data acquisition system (DAS), communications system, solar controllers and power distribution system are mounted on a 4' by 4' plywood wiring panel mounted in the building, see photo.

**Figure 2-1 Pebble 1 Station DAS Wiring Panel**



The Campbell Scientific CR10X DAS wiring is well organized and needs no further discussion. Constant communication between the DAS and a dedicated polling computer in the HCG office is integral to this installation. A Campbell Scientific SC932A interface converts the DAS signal to a RS-232 DCE modem signal. Three FreeWave spread spectrum radio modems transmit the signal to a SixNet industrial phone modem which is linked to the grid in Iliamna. The met station radio and base radio rely on directional Yagi antennas focused on an omni-directional antenna at the repeater radio. The repeater radio is powered by one 35-Watt solar panel buffered through a solar controller and five 100 Amp-Hr deep cycle gel cell batteries.

Power generation at the meteorological monitoring station consists of four 50-Watt solar panels and a 21-Watt Global Thermoelectric Model 5030 Thermo-Electric Generator (TEG). One solar panel is dedicated to the DAS and meteorological instrumentation; wired through a Morningstar ProStar-15 solar controller and buffered through five 100 Amp-Hr deep cycle gel cell batteries. Three panels are dedicated to the aspirator fans, Climatronics heaters, shelter lighting and 120VAC power; wired through a Morningstar ProStar-15 solar controller and buffered through two 200 Amp-Hr deep cycle gel cell batteries. The shelter lights and 120VAC inverter for laptop use are routed through manual timers to ensure use only when operators are on site. During the winter months, November through April, the TEG is turned on to supplement the aspirator/heater power system. Aspirator fans and heaters are controlled through relays connected to the DAS control ports. Logic programmed into the DAS reduces power consumption by limiting heater use to weather conditions conducive to icing and turns fans off at night when voltage is low, considered an upset condition. Also the TEG power is routed through relays which shunt power to the critical DAS/sensor system during upset conditions.

### **2.3 Operations, Data Management and Documentation Systems Audit**

This phase of the systems audit consists of a review of the HCG *Draft Quality Assurance Project Plan for the Pebble Project Meteorological Monitoring Program* (Plan), and other system documentation, and a review of system operations. System operations include physically running the station and subsequent data management.

The Plan is a comprehensive document which adequately details the Pebble meteorological monitoring program. Program objectives, installations, operations, data management and quality assurance are all clearly outlined. Equally, the Pebble 1 station is representative of the Plan design. The Plan provides standard operating procedures and standard forms for all equipment field calibrations and audits. Station operators also had complete DAS and meteorological sensor manuals on hand at the station. Plan and documentation review are covered further in Appendix A.

Station operators were observed during calibration and maintenance procedures and appeared knowledgeable about all facets of operating the monitoring station. Data are downloaded daily using an automated script on a dedicated polling computer located at the HCG office. The raw data are appended to a station file located on the HCG server, which is backed up daily. The data manager copies the raw data to a custom Access/Excel database, leaving the raw data unaltered. The custom database creates a series of graphs of all meteorological data as well as some station operational parameters. These plots are reviewed 5-6 days per week in order to immediately

identify station upsets. An example is a graph of solar radiation and battery voltage; which reveals potential problems with daily charge cycles. Both the Climatronics and RM Young Wind sensor data are plotted together to indicate problems with one of the sensors. All station parameters are plotted with ranges and pairings intended to best reveal upset conditions. Problems are immediately identified and corrective action planned and executed. Steps are taken to flag data which may have been identified as suspect during this graphical data review. Data generated during station maintenance, audits and calibrations are also flagged as invalid.

Prior to compilation of data summary reports, data are screened using EPA recommended screening criteria. Data flagged as outliers by the screening program are further reviewed for consistency with prevailing conditions and then permanently invalidated or validated. Data ultimately invalidated are permanently removed from the database and the reasoning is codified in a special column in the database. This cleaned dataset is used for all subsequent data summaries, wind roses, data reports and capture rate calculations. More detailed discussion of the operations and data management are contained in the Systems Audit Appendix A.

#### **2.4 Comments and Suggestions**

The Pebble 1 station is a well designed and operated meteorological monitoring station. The remote station is equipped with a robust and sophisticated power supply. The systems audit revealed that HCG possesses the necessary organization, personnel, training, equipment, quality assurance, and quality control procedures to accurately collect and report PSD quality data. HCG adequately maintains the Pebble 1 station and practices sufficient data review and preventive maintenance to avoid unnecessary data loss.

The following recommendations are made to the program in order to improve the operation of the stations and ensure their operation is in accordance with standards:

- Create custom site visit checklists
- Keep a file on site containing copies of previous checklists.

### 3.0 PERFORMANCE AUDIT

#### 3.1 Performance Audit Methodology

During the performance audit, the station datalogger is interfaced with a portable laptop computer to display the outputs for the meteorological sensors. The value of each meteorological sensor is compared to the output value from the appropriate piece of audit equipment or from calibrated instruments collocated with the sensor. The difference between the station’s datalogger reading and the output from each audit instrument is compared with established PSD limits to determine the accuracy of each sensor. Additionally, threshold torques for wind speed and wind direction are measured with audit equipment and compared with manufacturer torques corresponding to the PSD threshold speed of 0.5 m/s. Table 3-1 provides a summary of the performance audit methods and limits used to audit each parameter at the stations.

**Table 3-1 Performance Audit Methods and Acceptable Limits**

Parameter	Audit Method	EPA/Manufacturer Limit
Datalogger Time	NOAA Clock	≤ ±5:00 minutes from AST
Temperature Accuracy	Collocated NIST thermistor	≤ ±0.5 °C
Temperature Difference	Collocated NIST thermistor	≤ ±0.1 °C
Wind Speed Accuracy	Synchronous rpm motor	≤ ±0.2 m/s + 5 % observed
Wind Spd Torque (Clim)	Torque watch	≤ 0.35 g-cm (0.0049 oz-in)
Wind Spd Torque (RMY)	Torque watch	≤ 1.0 g-cm (0.014 oz-in)
Wind Direction Alignment	GPS, compass or landmark	≤ ±5° from true azimuth
Wind Direction Accuracy	Linearity tester	≤ ±5° per audit point
Wind Direction Linearity	Linearity tester	≤ 3° mean absolute average
Wind Dir Torque (Clim)	Torque watch	≤ 7.5 g-cm (0.104 oz-in)
Wind Dir Torque (RMY)	Vane torque gauge	≤ 11 g-cm (0.153 oz-in)
Relative Humidity	Collocated NIST RH sensor	≤ ±1.5 °C of dew point
Barometric Pressure	Collocated NIST BP sensor	≤ ±3 mbar
Precipitation	Calibrated water volume	≤ ±10% of input
Evaporation	Measured water level	≤ ±10% of input
Solar Radiation <sup>1</sup>	Collocated NIST sensor	≤ ±5% of input+resolutuion <sup>2</sup>

1. Solar radiation not audited.
2. This audit limit is modified from PSD standard, as discussed below.

### **3.1.1 Data Acquisition System**

An audit of the datalogger is conducted by comparing all datalogger outputs to the audit standards, as described below. The datalogger time is checked against an instantaneous time reading from the National Oceanic and Atmospheric Administration (NOAA) clock in Boulder, Colorado, via a global positioning system (GPS) handheld unit or telephone contact with the NOAA clock.

### **3.1.2 Air Temperature and Air Temperature Difference**

The 2-meter and 10-meter thermistors are removed from their aspirator shields and collocated with a National Institute of Standards and Technology (NIST) traceable digital thermometer. The station thermistors and the transfer standard NIST thermometer are taped together and immersed in insulated thermoses containing a series of water baths; hot water (35°C to 45°C), warm water (15°C to 25°C), and a water/ice bath (0°C). Each water bath is agitated and allowed to equilibrate before simultaneous readings are taken from the three instruments. The difference between the individual station thermistors and the NIST standard are compared to the PSD temperature accuracy limit of  $\pm 0.5^\circ\text{C}$ . The difference between the two station thermistors (10-m°C minus 2-m°C) is compared to the PSD temperature difference limit of  $\pm 0.1^\circ\text{C}$ .

### **3.1.3 Wind Speed**

Anemometers are audited to determine their accuracies in reading known wind speeds and to ascertain the sensor's threshold torque. The Climatronics and RM Young sensors are audited in very similar manners and are discussed together. The instruments are tested after removal from the tower and after removal of the sensor's props or cups.

First, an RM Young synchronous motor is attached to the shaft of the anemometer by using brand specific coupling devices. The sensor shaft is rotated at several different known revolutions per minute (rpm). Each rotational speed in rpm is equated to a wind speed in meters per second (m/s) by using the anemometer manufacturer's linear calibration formula. The difference between the calculated input speed in m/s and the datalogger output is compared to established PSD limits for each input rpm.

Next, a high precision torque watch is attached to the shaft of the anemometer, once again using custom couplings. Torque readings are made in both directions in each quadrant along the axis of rotation of the shaft. The maximum reading is recorded for the torque required to turn the shaft of the anemometer. The torque value recorded



during the audit is compared to manufacturer's torque corresponding to the minimum PSD threshold speed of 0.5m/s.

### **3.1.4 Wind Direction**

The wind direction sensors are first audited as-found to determine the accuracy of their alignment with respect to true north (true azimuth alignment) using one of four methods. In one method, a handheld GPS unit is used to measure the position of the auditor with respect to a waypoint captured under the wind sensor's position on the tower. Using binoculars, the tail of the wind vane is aligned with the auditor's position at a distance of several hundred feet from the tower. The GPS bearing back to the tower waypoint is then compared to the DAS reading. The difference between the two should not exceed  $\pm 5^\circ$  per audit point. This procedure is repeated at least 4 times, once per quadrant, generally near the cardinal directions. The second method uses a calibrated precision compass mounted on a gimbal and tripod. The compass declination is preset for the specific location and date using one of a variety of magnetic declination computer models. The sensor tail is aligned toward the auditor while auditor sights the compass toward the sensor and readings are taken in a similar manner to the GPS method.

Another option is to align the tail of the sensor with a distant identifiable landmark of known bearing. The bearing to the landmark may be ascertained using a variety of methods. One method involves physically capturing a distant GPS waypoint, such as at a discernable structure or emissions stack. Bearings to inaccessible natural landmarks, usually distant mountain peaks, are acquired through the use of various computer mapping programs, such as Natural Geographic's TOPO program or USGS digital raster graphics (DRGs) loaded into AutoCAD. The bearing from the station location to the landmark is compared to the DAS reading. This method yields the most accurate audit value, but is limited by weather and availability of discernable landmarks. The final method is to align the vane with the tower guy wires or preset survey markers, whose bearing has been ascertained using precision survey equipment.

The wind direction accuracy and linearity are subsequently audited after the wind direction sensor is removed from the tower. The Climatronics sensor is mounted on a Climatronics Model 101984 linearity tester and the RM Young sensor is mounted on an RM Young Model 18112 Vane Angle Bench Stand. Both test fixtures are keyed to their respective sensor and graduated from  $0^\circ$  to  $360^\circ$ . A series of readings starting at  $30^\circ$  and then clockwise in  $30^\circ$  increments are taken. The RM Young is read from  $30^\circ$  to  $360^\circ$  and the Climatronics is read from  $30^\circ$  to  $540^\circ$ . The Climatronics sensor is tested  $180^\circ$  past  $360^\circ$  in order to test the second potentiometer used in some DAS

programming. Although not required, the Climatronics sensor is also tested with the vane attached in order to ascertain sensor accuracy and linearity relative to the instrument crossarm. The vane is aligned along the axis of the crossarm to yield the 0°/360° and 180° values and against a square held to the crossarm for the 90° and 270° directions. Four readings are taken in a clockwise direction and four are taken counterclockwise to complete the test. For both the linearity test fixture and crossarm tests, individual error values are assessed for the PSD accuracy limit of  $\pm 5^\circ$  per point and the mean absolute average error is assessed against the linearity limit of  $3^\circ$ .

Next, the RM Young wind direction threshold is tested by measuring wind vane torque using an RM Young Model 18331 Vane Torque Gauge. This device saddles the wind vane and a calibrated spring is pulled to determine maximum torque from readings taken in both directions in all four quadrants. The Climatronics wind direction starting torque is measured with the vane removed by using a precision torque watch in the same manner as the wind speed torque. The highest torque readings are compared to specific manufacturer limits for instrument starting torque.

Finally, the wind direction sensors are placed back on the tower and as-left audits of the azimuth alignments are conducted to ensure the instruments are properly reinstalled.

### **3.1.5 Relative Humidity**

Relative humidity (RH) is audited using a collocated NIST traceable RH sensor. The NIST sensor and the field sensor are collocated out of direct sunlight to eliminate solar radiation effects, preferably inside of the motor aspirated shield. If the NIST standard reads directly in dew point °C, those readings are used; if not, relative humidity and temperature readings are used. For the audit, instantaneous readings of dew point, relative humidity and temperature are recorded from the transfer standard and the DAS. All relative humidity and temperature readings are converted to dew point in order to assess the PSD error limit of  $\pm 1.5^\circ\text{C}$  dew point.

### **3.1.6 Barometric Pressure**

Barometric pressure (BP) is audited using a collocated NIST traceable BP sensor. The difference between the NIST sensor and the station sensor are compared to the PSD limit of  $\pm 3$  mbar.

### **3.1.7 Precipitation**

The tipping precipitation gauge is audited by slowly adding precisely measured volumes of water to the gauge opening using a dripping Nova Lynx Model 260-2595 Rain Gauge Calibrator. The predicted millimeters of precipitation corresponding to the measured

volume added are calculated using the diameter of the gauge opening. The tare reading from the DAS is initially recorded and subsequent DAS readings are recorded after each test run. The percent difference between the predicted audit value and the DAS value is compared to the PSD limit of  $\pm 10\%$ .

### **3.1.8 Evaporation**

The evaporation gauge is first checked to confirm that the pan and gauge are level. The accuracy is checked by first removing enough water to bring the initial level to approximately 50 mm, the minimum for this gauge. An accurate millimeter scale is taped to the inside of the evaporation pan and the water level on the scale is compared to the DAS output. Water is added to the pan to raise the level by 10-20mm and another set of readings are taken. This process is repeated until the level in the pan reaches the upper limit of approximately 240mm. The resultant suite of DAS and scaled water level readings are then input into a custom spreadsheet which calculates a linear regression for the data. The evaporation gauge reads change in water level due to evaporation and rainfall, so the calculated intercept must be removed from measured water levels. The adjusted level is compared to the DAS output with a maximum allowable error of  $\pm 10\%$  of input and the slope of resultant line has a limit of  $1.0 \pm 0.1$ .

### **3.1.9 Solar Radiation**

Outputs of the station sensor are compared to the output of a level collocated audit solar radiation sensor. The audit sensor is connected to an independent audit datalogger with the scan interval and clock synchronized with the station DAS. Hourly average solar radiation readings and instantaneous readings are recorded during the audit and then input into a custom spreadsheet to calculate a linear regression for the data. The PSD limit for solar radiation audits is  $\pm 5\%$  of observed, but this standard is very difficult to obtain at the northern latitude of this installation. This EPA standard is currently undergoing review and is expected to change. A well excepted substitute is that individual DAS and audit data pairs are compared to a limit of  $\pm 5\%$  of observed + **EPA minimum instrument resolution (10W/m<sup>2</sup>)**. Individual data pairs are evaluated against this standard, but the overall set is restricted to a 5% error by limiting allowable linear slope to  $1.0 \pm 0.05$ .

### **3.2 Performance Audit Results**

The initial performance audit was conducted at the Pebble 1 station on June 10, 2005, shortly after startup. Dominic Shallies and Jared Cockman of HCG and Terry Wassilie of NDM assisted. Some station instruments were also audited during July of 2005. The relative humidity sensor was audited on July 18, 2005 because the transfer standard was not available in early June. On July 21, 2005 the thermistors were rewired to bypass the Met-One aspirator junction box and were subsequently audited. The bypass wiring was prompted by temperature errors observed while using identical junction boxes at the NDM Port meteorological monitoring station; the Pebble 1 station modifications were preventative. All sensors, except the solar radiation sensor, were challenged with certified audit equipment and yielded errors below the PSD limits. The solar radiation audit was not completed because adequate audit equipment was not available at the time of the audit. Summary audit results are contained in Table 3-2 and complete audit reports and audit equipment calibration certificates are contained in Appendix B and Appendix C respectively.

### **3.3 Performance Audit Recommendations**

- None.

**Table 3-2 Pebble 1 June 10, 2005 & July 2005 Performance Audit Summary**

Parameter	Limit	Units	Max Err	Status
Datalogger Time	≤ ±5:00	Min:Sec	-0:03	Pass
2-m Temperature Accuracy	≤ ±0.5	°C	0.35	Pass
10-m Temperature Accuracy	≤ ±0.5	°C	0.35	Pass
Air Temperature Difference	≤ ±0.1	°C	0.00	Pass
2-m Temperature Accuracy <sup>1</sup>	≤ ±0.5	°C	0.30	Pass
10-m Temperature Accuracy <sup>1</sup>	≤ ±0.5	°C	0.30	Pass
Air Temperature Difference <sup>1</sup>	≤ ±0.1	°C	0.00	Pass
<b>Climatronics Wind System</b>				
Wind Speed Torque	≤ 0.0049	oz-in	<<0.003	Pass
Low Wind Spd. Accuracy (≤5m/s)	≤ ±0.2	m/s	0.00	Pass
High Wind Spd. Accuracy (>5m/s)	≤ ±5	% input	0.0	Pass
Wind Direction Torque	≤ 0.104	oz-in	0.060	Pass
Wind Dir. Azim. Align. (as-found)	≤ ±5	Degree	-3.3	Pass
Wind Direction Accuracy	≤ ±5	Degree	1.5	Pass
Wind Direction Linearity	≤ 3	Degree	0.5	Pass
Wind Dir. Azim. Align. (as-left)	≤ ±5	Degree	3.3	Pass
<b>RM Young Wind System</b>				
Wind Speed Torque	≤ 0.014	oz-in	0.006	Pass
Low Wind Spd. Accuracy (≤5m/s)	≤ ±0.2	m/s	0.00	Pass
High Wind Spd. Accuracy (>5m/s)	≤ ±5	% input	0.0	Pass
Wind Direction Torque	≤ 11	g-cm	5.0	Pass
Wind Dir. Azim. Align. (as-found)	≤ ±5	Degree	2.0	Pass
Wind Direction Accuracy	≤ ±5	Degree	-2.4	Pass
Wind Direction Linearity	≤ 3	Degree	1.6	Pass
Wind Dir. Azim. Align. (as-left)	≤ ±5	Degree	3.0	Pass
Relative Humidity (dew point) <sup>2</sup>	≤ ±1.5	°C	0.4	Pass
Barometric Pressure <sup>2</sup>	≤ ±3	Mbar	1.4	Pass
Tipping Precipitation <sup>3</sup>	≤ ±10	% input	-8.5	Pass
Evaporation	≤ ±10	% input	-5.0	Pass
Solar Radiation	≤ ±5+Res	% input	No Test	N/A

1. Thermistors rewired on 07/21/05 to temporarily bypass aspirator junction box.
2. Relative humidity tested and barometric pressure retested on 07/18/05.
3. Tipping precipitation gauge tested on 06/10-11/05 and 07/20/05.

#### **4.0 REFERENCES**

*"Draft Quality Assurance Project Plan for the Pebble Project Meteorological Monitoring Program"*, Hoefler Consulting Group, Inc.

*"Quality Assurance Manual for Ambient Air Quality Monitoring"* ADEC, August 1996.

*"Elements for Ambient Air Monitoring Quality Assurance Project Plan (QAPP)"*, ADEC, September 2004.

*"Ambient Air and/or Meteorological Monitoring Quality Assurance Project Plan (QAPP) Review Checklist"*, ADEC, September 2004.

*"Ambient Monitoring Guidelines for Prevention of Significant Deterioration (PSD)"*, EPA-450/4-87-007, May 1987.

*"Quality Assurance Requirements for Prevention of Significant Deterioration (PSD) Air Monitoring"*, EPA-40 CFR Part 58, Appendix B, November 2004.

*"On-Site Meteorological Program Guidance for Regulatory Modeling Applications"*, EPA-450/4-87-013, August 1995.

*"Meteorological Monitoring Guidance for Regulatory Modeling Applications"*, EPA-454/R-99-005, February 2000.

*"Quality Assurance Handbook for Air Pollution Measurement Systems, Volume II: Part I, Ambient Air Quality Monitoring Program Quality System Development"*, EPA-454/R-98-004, August 1998.

*"Quality Assurance Handbook for Air Pollution Measurement Systems, Volume IV: Meteorological Measurements"*, EPA/600/R-94/038d, March 1995.

*"Quality Assurance Handbook for Air Pollution Measurement Systems, Volume V: Precipitation Measurement Systems"*, EPA/600/R-94/038e, April 1994.

**APPENDIX A  
SYSTEMS AUDIT DATA SHEETS**

# Pebble 1 PSD Meteorological Station Systems Audit

Owner: NDM

Operator: Dominic Shallies

Alternate: Steve Mackey

Audit Date: 10-Jun-05

Witnesses: D. Shallies, Jared Cockman, Terry Wassilie

Auditor: Eric Brudie

## TABLE OF CONTENTS

<b>1.0</b>	<b>GENERAL PROGRAM INFORMATION .....</b>	<b>2</b>
1.1	Site Description.....	2
1.2	Site Location .....	2
1.2.1	Coordinates .....	2
1.2.2	Appearance and Safety .....	2
<b>2.0</b>	<b>MONITORING PROGRAM STAFF ORGANIZATION .....</b>	<b>3</b>
<b>3.0</b>	<b>METEOROLOGICAL MONITORING STATION EQUIPMENT .....</b>	<b>3</b>
3.1	Inventory.....	3
3.2	Equipment Evaluation .....	4
3.2.1	Data Acquisition System (DAS) and Communications System.....	4
3.2.2	Power Supply System .....	4
3.2.3	Meteorological Monitoring Sensors .....	4
3.2.4	EPA PSD Meteorological Instrument Standards.....	5
3.3	Station Location and Siting.....	6
3.3.1	Tower.....	6
3.3.2	Temperature and Relative Humidity Sensors .....	6
3.3.3	Wind Speed and Wind Direction Sensors.....	7
3.3.4	Relative Humidity and Barometric Pressure .....	7
3.3.5	Precipitation.....	7
3.3.6	Evaporation .....	7
3.3.7	Solar Radiation.....	8
<b>4.0</b>	<b>STANDARD OPERATING PROCEDURES .....</b>	<b>8</b>
4.1	General .....	8
4.2	DAS and Meteorological Sensors.....	8
<b>5.0</b>	<b>DOCUMENTATION.....</b>	<b>9</b>
5.1	System Reference and Maintenance Manuals.....	9
5.2	Station Monitoring Plan and Report Forms .....	9
<b>6.0</b>	<b>DATA PROCESSING AND VALIDATAION.....</b>	<b>10</b>
6.1	Overall Data Management .....	10
6.2	Data Collection and Initial Data Review .....	11
6.3	Corrective Actions .....	11
6.4	Data Validation .....	11
6.5	Data Capture.....	12
6.6	Data Reporting .....	12
<b>7.0</b>	<b>QUALITY ASSURANCE AND QUALITY CONTROL .....</b>	<b>12</b>
7.1	Quality Assurance Program.....	12
7.2	Quality Assurance Methods and Audits .....	13
<b>8.0</b>	<b>COMMENTS AND SUGGESTIONS.....</b>	<b>13</b>



# Pebble 1 PSD Meteorological Station Systems Audit

Owner: NDM

Operator: Dominic Shallies

Alternate: Steve Mackey

Audit Date: 10-Jun-05

Witnesses: D. Shallies, Jared Cockman, Terry Wassilie

Auditor: Eric Brudie

## 1.0 GENERAL PROGRAM INFORMATION

### 1.1 Site Description

The Pebble 1 station is located on the crest of a gentle knoll immediately west of the mine ore body. The site is wind swept and treeless with very little organics. There are virtually no obstructions around the station.

### 1.2 Site Location

#### 1.2.1 Coordinates

Indicated by Operator	Determined by Auditor
59° 54' N	59° 54.180' N
155° 20' W	155° 19.804' W
Elevation: 1,600 feet	Elevation: 1,550 feet

#### 1.2.2 Appearance and Safety

Does the site appear clean, organized and well maintained?

Yes    Comments: None.  
 No

Does the site appear to be safe and reasonably hazard free?

Yes    Comments: None.  
 No

Does the site have a shelter for operators?

Yes    Comments: None.  
 No

Does the site have emergency equipment such as a first aid kit available?

Yes    Comments: None.  
 No

Does the site have adequate measures to prevent human tampering?

Yes    Comments: Remote site.  
 No

Does the site have adequate measures to prevent damage from animals?

Yes    Comments: Cables protected in liquid-tight conduit and electronics inside shelter.  
 No

# Pebble 1 PSD Meteorological Station Systems Audit

Owner: NDM

Operator: Dominic Shallies

Alternate: Steve Mackey

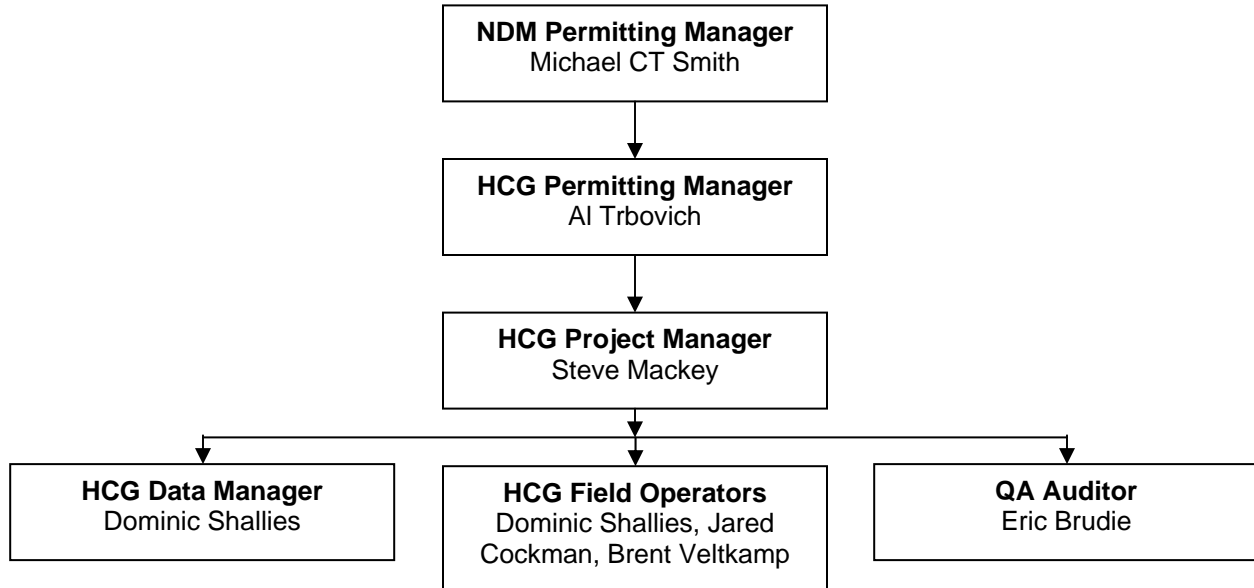
Audit Date: 10-Jun-05

Witnesses: D. Shallies, Jared Cockman, Terry Wassilie

Auditor: Eric Brudie

## 2.0 MONITORING PROGRAM STAFF ORGANIZATION

- Draw diagram indicating the organizational structure of the monitoring program. Include names and titles:



## 3.0 METEOROLOGICAL MONITORING STATION EQUIPMENT

### 3.1 Inventory

Parameter	Make	Model	Serial No.
DAS	Campbell Scientific	CR10X	X43107
DAS Wiring Panel	Campbell Scientific	CR10X	32768
Temperature (2-meter)	Met One	062MP	E3383, ID #1/2
Temperature (10-meter)	Met One	062MP	E3383, ID #2/2
Temperature Aspirators	Met One	076B-4	E3489 & E3490
Primary Wind Speed	Climatronics	F460-100075	5007
Primary Wind Speed Cups	Climatronics	HD Al. P/N 101287	2284
Primary Wind Direction	Climatronics	F460-100076	4691
Primary Wind Direction Vane	Climatronics	HD P/N 101288	1440
Wind Sigma	Campbell Scientific	DAS Calculated	N/A
Backup Wind Speed	RM Young	05305 Wind Mon-AQ	66725
Backup Wind Speed Prop	RM Young	08254	63047
Backup Wind Direction	RM Young	05305 Wind Mon-AQ	66725
Relative Humidity	Vaisala	HMP45AC	A1040018
Barometric Pressure	Vaisala	PTB101B	A0710039
Precipitation-Tipping	Met-One	370	D5874
Evaporation Gauge	NovaLynx	255-100	695
Evaporation Pan	NovaLynx	255-200	None
Solar Radiation	LI-COR	Li-200SX	PY49464

# Pebble 1 PSD Meteorological Station Systems Audit

Owner: NDM

Operator: Dominic Shallies

Alternate: Steve Mackey

Audit Date: 10-Jun-05

Witnesses: D. Shallies, Jared Cockman, Terry Wassilie

Auditor: Eric Brudie

## 3.2 Equipment Evaluation

### 3.2.1 Data Acquisition System (DAS) and Communications System

- Is the DAS well protected from the elements with adequate room for maintenance?  Yes  No Comments: DAS inside of a weatherproof building, mounted on a 4'x4' wiring panel.
- Is the DAS rated for operation in the expected local temperature range?  Yes  No Comments: -55°C to + 85°C.
- Are all sensor cables neatly and securely connected to the correct DAS channels?  Yes  No Comments: Well organized wiring panel.
- Is remote communication to the DAS system available to operators?  Yes  No Comments: DAS to SC932A interface to FreeWave RF network to SixNet modem.
- Are all components of the DAS and communications system operational?  Yes  No Comments: None.
- Are the DAS and communication equipment properly grounded?  Yes  No Comments: 8' ground rod wired to central ground buss.
- Are the DAS and communication equipment protected from lightning?  Yes  No Comments: There is no lightning protection, but area not prone to strikes.

### 3.2.2 Power Supply System

- Does the system have a stable power supply or line power?  Yes  No Comments: Very robust alternative power supply described below.

- Describe the meteorological monitoring station power supply system.  
The DAS, communications equipment and meteorological sensors are powered by one 50-Watt solar panel, buffered through five 100 amp-hr deep cycle gel cell batteries. The aspirator fans and Climatronics wind sensor heaters are powered by three 50-Watt solar panels buffered through two 200 amp-hr deep cycle gel cell batteries. During the winter months (November through April), the aspirator/heater system is also powered by a 21-Watt propane Thermo-Electric Generator (TEG). The isolated DAS and Aspirator power systems can be interconnected during upset conditions through an array of relays managed through the DAS control ports. The DAS monitors battery levels and can shunt the two power systems should one run low. The DAS also has algorithms programmed to assess weather conditions and limit heater use when not required.

### 3.2.3 Meteorological Monitoring Sensors

- Do all sensors appear to be clean, intact, in good condition and well maintained?  Yes  No Comments: None.
- Are all sensors operational, online and reporting data?  Yes  No Comments: None.
- Do all sensors meet EPA criteria for PSD quality sensors?  Yes  No Comments: See table below.
- Are spare parts stocked for items which are frequently worn out or broken?  Yes  No Comments: Spare props, cups and vanes onsite and spare bearings at HCG office.

# Pebble 1 PSD Meteorological Station Systems Audit

Owner: NDM

Operator: Dominic Shallies

Alternate: Steve Mackey

Audit Date: 10-Jun-05

Witnesses: D. Shallies, Jared Cockman, Terry Wassilie

Auditor: Eric Brudie

## 3.2.4 EPA PSD Meteorological Instrument Standards

Parameter	Instrument Specifications	EPA Standard	Pass?
<b>Air Temperature (2-M, 10-M &amp; Delta-T) – Met One Mdl. 062MP</b>			
Accuracy (2-m & 10-m):	±0.05 °C	±0.5 °C	Yes
Accuracy (Delta-T):	±0.02 °C	±0.1 °C	Yes
Range (Operating Temp):	-50°C to +50°C	-20°C to +30°C	Yes
*Resol. (2-m & 10-m):	0.01°C	0.1°C	Yes
*Resolution (Delta-T):	0.01°C	0.02°C	Yes
Response Time:	10 seconds	≤1 minute	Yes
<b>Wind Speed – Climatronics Mdl. F460-100075</b>			
Accuracy:	±0.07 m/s or ±1% of obs.	±0.2 m/s + 5% of observed	Yes
Range:	0.0 m/s to 65 m/s	0.5 m/s to 50 m/s	Yes
*Resolution:	0.01m/s	0.1 m/s	Yes
Threshold Speed:	0.22 m/s	≤0.5 m/s	Yes
Distance Constant:	<4.0 m (HD Alum. Cups)	≤5 m	Yes
Operating Temperatures:	-40°C to +60°C	-30°C to + 30°C	Yes
<b>Wind Direction – Climatronics Mdl. F460-100076</b>			
Accuracy:	±2°	±5°	Yes
Range:	0° to 360°	0° to 360°	Yes
*Resolution:	0.1°	1°	Yes
Threshold Speed:	0.22 m/s	≤0.5 m/s	Yes
Distance Constant:	<2.5 m (Heavy Duty Vane)	≤5 m	Yes
Damping Ratio:	>0.4 @10° initial angle	0.4 to 0.7	Yes
Operating Temperatures:	-50°C to +60°C	-30°C to + 30°C	Yes
<b>Wind Speed – RM Young Mdl. 05305 Wind Monitor-AQ</b>			
Accuracy:	±0.2 m/s or 1% of observed	±0.2 m/s + 5% of observed	Yes
Range:	0.0 m/s to 50 m/s	0.5 m/s to 50 m/s	Yes
*Resolution:	0.01m/s	0.1 m/s	Yes
Threshold Speed:	0.4 m/s	≤0.5 m/s	Yes
Distance Constant:	2.1 m	≤5 m	Yes
Operating Temperatures:	-50°C to +50°C	-30°C to + 30°C	Yes
<b>Wind Direction – RM Young Mdl. 05305 Wind Monitor-AQ</b>			
Accuracy:	±3°	±5°	Yes
Range:	0° to 360°	0° to 360°	Yes
*Resolution:	0.1°	1°	Yes
Threshold Speed:	0.5 m/s @10° displacement	≤0.5 m/s	Yes
Distance Constant:	1.2 m	≤5 m	Yes
Damping Ratio:	0.45	0.4 to 0.7	Yes
Operating Temperatures:	-50°C to +50°C	-30°C to + 30°C	Yes
<b>Relative Humidity – Vaisala Mdl. HMP45AC</b>			
Accuracy:	±2/3% at 0-90/90-100% RH	±1.5°C Dew Point**	Yes
Range:	0.8% to 100% RH	-30°C to +30°C Dew Point**	Yes
*Resolution:	0.1% RH	1% RH	Yes
Response Time:	10 sec	≤30 minutes	Yes
Operating Temperatures:	-40°C to +60°C	-30°C to + 30°C	Yes
** EPA criteria in units of dew point, RH and operating temperature ranges meet these criteria.			
<b>Barometric Pressure – Vaisala Mdl. PTB101B</b>			
Accuracy:	±0.5 mbar	±3 mbar	Yes
Range:	600 mbar to 1060 mbar	Not Specified	N/A
*Resolution:	0.1 mbar	0.5 mbar	Yes
Response Time:	300 msec	Not Specified	N/A
Operating Temperatures:	-40°C to +60°C	Not Specified	N/A

# Pebble 1 PSD Meteorological Station Systems Audit

Owner: NDM

Operator: Dominic Shallies

Alternate: Steve Mackey

Audit Date: 10-Jun-05

Witnesses: D. Shallies, Jared Cockman, Terry Wassilie

Auditor: Eric Brudie

## EPA Recommended Meteorological Instrument Standards (Continued)

Parameter	Instrument Specifications	EPA Standard	Pass?
<b>Precipitation – Met One Mdl. 370-0.2mm</b>			
Accuracy:	±1% of 1-3 in/hr (±0.5mm)	±10% observed or ±0.5 mm	Yes
Range:	0-76 mm/hr (0-3 in/hr)	0-50 mm/hr (0-2 in/hr)	Yes
*Resolution:	0.2 mm	0.3 mm	Yes
Operating Temperatures:	-50°C to +50°C	Not Specified	N/A
<b>Evaporation – NovaLynx Mdl. 255-100/200</b>			
Accuracy:	±0.25% over 10" range	Not Specified	N/A
Range:	2" to 10"	Not Specified	N/A
*Resolution:	0.1 mm	Not Specified	N/A
Operating Temperatures:	0°C to +60°C	Not Specified	N/A
<b>Solar Radiation – LI-COR Mdl. Li-200SX Pyranometer</b>			
Accuracy:	±5% Observed	±5% Observed	Yes
Range:	0 W/m <sup>2</sup> to 3000 W/m <sup>2</sup>	Not Specified	N/A
*Resolution:	1 W/m <sup>2</sup>	10 W/m <sup>2</sup>	Yes
Response Time:	10 μs	5 seconds	Yes
Spectral Response:	400 nm to 1,100 nm	285 nm to 2800 nm	No
Operating Temperatures:	-40°C to +65°C	-20°C to +40°C	Yes
* For all instruments; resolutions are the result of instrument type, configuration and DAS programming.			

### 3.3 Station Location and Siting

#### 3.3.1 Tower

- Do all obstructions exist below a 1:10 slope away from the tower base?       Yes      Comments: None.  
 No
- Is the height of the tower 10 meters above the ground?       Yes      Comments: None.  
 No
- Is the tower stable and plumb?       Yes      Comments: None.  
 No
- Is the tower protected from lightning?       Yes      Comments: There is no lightning protection, but area not prone to strikes.  
 No

#### 3.3.2 Temperature and Relative Humidity Sensors

- Are the sensors mounted at least 2-m above open level ground at least 9-m in diameter?       Yes      Comments: None.  
 No
- Are the temperature difference probes at heights of 2-m and 10-m above the ground?       Yes      Comments: None.  
 No
- Are the sensors at a distance greater than four times the height of any obstruction?       Yes      Comments: None.  
 No
- Is the ground beneath the temperature sensors natural native material?       Yes      Comments: None.  
 No
- Is the site free of any natural features that could bias temperature data (e.g. open water, sloping ridge, etc.)?       Yes      Comments: None.  
 No
- Is the site free of any man-made features that could bias temperature data (e.g. asphalt, concrete, exhaust plumes, etc.)?       Yes      Comments: None.  
 No

# Pebble 1 PSD Meteorological Station Systems Audit

Owner: NDM

Operator: Dominic Shallies

Alternate: Steve Mackey

Audit Date: 10-Jun-05

Witnesses: D. Shallies, Jared Cockman, Terry Wassilie

Auditor: Eric Brudie

Are the sensors located at least 30 meters from large paved areas?  Yes Comments: None.  
 No

Is the ambient temperature sensor protected from the influence of solar radiation?  Yes Comments: Housed in Met One Mdl 076B-4 Motor Aspirated Radiation Shield.  
 No

Are the temperature difference sensors located in identical aspirated shields?  Yes Comments: Housed in Met One Mdl 076B-4 Motor Aspirated Radiation Shields.  
 No

### 3.3.3 Wind Speed and Wind Direction Sensors

Is the horizontal distance between the instruments and any obstruction at least 10 times the height of the obstruction?  Yes Comments: None.  
 No

Are the instruments at least 1.5 times nearby building height(s) above the building roof(s), or 10-m high?  Yes Comments: None.  
 No

Are the wind speed and wind direction sensors stable and plumb?  Yes Comments: None.  
 No

Is the distance of the sensor on the cross-arm at least twice the diameter of the tower?  Yes Comments: Climatronics Sensors mounted on a crossarm which meets this criterion.  
 No

Is the distance of the sensor on the cross-arm at least twice the diameter of the tower?  Yes Comments: RM Young sensor mounted on an extension arm which meets this criterion.  
 No

Is the wind direction sigma theta data being collected according to EPA requirements?  Yes Comments: DAS calculated using Yamartino method and a one-second scan interval.  
 No

### 3.3.4 Relative Humidity and Barometric Pressure

Is the relative humidity sensor open to the atmosphere & protected from precipitation?  Yes Comments: Housed in 2-m aspirated shield with temperature sensor.  
 No

Is the barometric pressure sensor open to atmosphere & protected from precipitation?  Yes Comments: Housed in unsealed shelter, mounted on wiring panel.  
 No

### 3.3.5 Precipitation

Are all obstructions to the wind farther away from the gauge than the obstruction height?  Yes Comments: None.  
 No

If located in an open and windy area, is a windshield being used?  Yes Comments: Wyoming Wind screen surrounds the gauge.  
 No

Is the area surrounding the rain gauge covered by natural vegetation or gravel?  Yes Comments: None.  
 No

Is the instrument mounted at least 30 cm above the ground?  Yes Comments: None.  
 No

Is the instrument mounted level?  Yes Comments: None.  
 No

### 3.3.6 Evaporation

Is the evaporation pan above the plane of any obstructions that could cast shadows?  Yes Comments: None.  
 No

# Pebble 1 PSD Meteorological Station Systems Audit

Owner: NDM

Operator: Dominic Shallies

Alternate: Steve Mackey

Audit Date: 10-Jun-05

Witnesses: D. Shallies, Jared Cockman, Terry Wassilie

Auditor: Eric Brudie

Are the pan and gauge mounted on a stable and level platform?  Yes  No Comments: Mounted on a 6' x 8' deck supported on adjustable pier blocks.

Is the evaporation pan protected from animals?  Yes  No Comments: Six-foot fence surrounds evaporation pan and gauge.

### 3.3.7 Solar Radiation

Is the instrument situated above the plane of any obstructions that could cast shadows?  Yes  No Comments: None.

Is the sensor situated south of the tower to minimize obstruction from the tower?  Yes  No Comments: None.

## 4.0 STANDARD OPERATING PROCEDURES

### 4.1 General

Is the station visited on a preset schedule?  Yes  No Comments: None.

Have standard SOPs been developed, and are they being followed by the operators?  Yes  No Comments: None.

Does the operator follow a preventative maintenance schedule?  Yes  No Comments: None.

Are site visits and maintenance activities properly documented in a Station Log?  Yes  No Comments: Site visit memos are compiled.

Are station operators knowledgeable and competent regarding effective operation?  Yes  No Comments: None.

Have operators attended any formal training for operating met monitoring stations?  Yes  No Comments: All operators have one to two years onsite experience.

Are copies of the NIST certifications for the calibration equipment made available?  Yes  No Comments: Attached.

### 4.2 DAS and Meteorological Sensors

Are regular multipoint QC checks performed on the DAS?  Yes  No Comments: DAS audited by virtue of the instrument output values.

Are regular multipoint QC checks performed on the meteorological sensors?  Yes  No Comments: None.

Are the sensors visually inspected for defects and problems?  Yes  No Comments: None.

Are ambient conditions compared with sensor readings from the DAS?  Yes  No Comments: DAS output compared to Iliamna Airport weather station.

Are data frequently reviewed for reasonableness and completeness?  Yes  No Comments: None.

Is a copy of the datalogger program made available for review?  Yes  No Comments: None.

# Pebble 1 PSD Meteorological Station Systems Audit

Owner: NDM

Operator: Dominic Shallies

Alternate: Steve Mackey

Audit Date: 10-Jun-05

Witnesses: D. Shallies, Jared Cockman, Terry Wassilie

Auditor: Eric Brudie

## 5.0 DOCUMENTATION

### 5.1 System Reference and Maintenance Manuals

Does the operator have all required DAS and meteorological instrument manuals?  Yes  No Comments: On-site and at HCG offices.

Does the operator have configuration and wiring schematics specific to the station?  Yes  No Comments: Operator carries wiring schematics.

### 5.2 Station Monitoring Plan and Report Forms

Is the Monitoring/QA plan comprehensive and reflective of the actual installation?  Yes  No Comments: None.

Does the Monitoring/QA plan indicate the intended use for the data collected during the monitoring program?  Yes  No Comments: Collect PSD quality data to meet dispersion modeling requirements and satisfy mine/transportation design requirements.

Does the system outlined in the QA plan meet the objectives outlined above?  Yes  No Comments: PSD quality installation.

Does the QA Plan indicate the intended schedule for reports to be submitted?  Yes  No Comments: None.

Does the station have an activity log?  Yes  No Comments: Site visit memos written after each visit to supplant a log book.

Does the station have a formal Site Visit and Checklist Form?  Yes  No Comments: No formal checklist used.

Does the station have an adequate Operations Manual?  Yes  No Comments: Monitoring/QA plan and equipment manuals.

Does the station have an adequate Calibration Report Form and copies of previous calibrations and audits?  Yes  No Comments: None.

Are report forms and site logs properly completed and current?  Yes  No Comments: None.



# Pebble 1 PSD Meteorological Station Systems Audit

Owner: NDM

Operator: Dominic Shallies

Alternate: Steve Mackey

Audit Date: 10-Jun-05

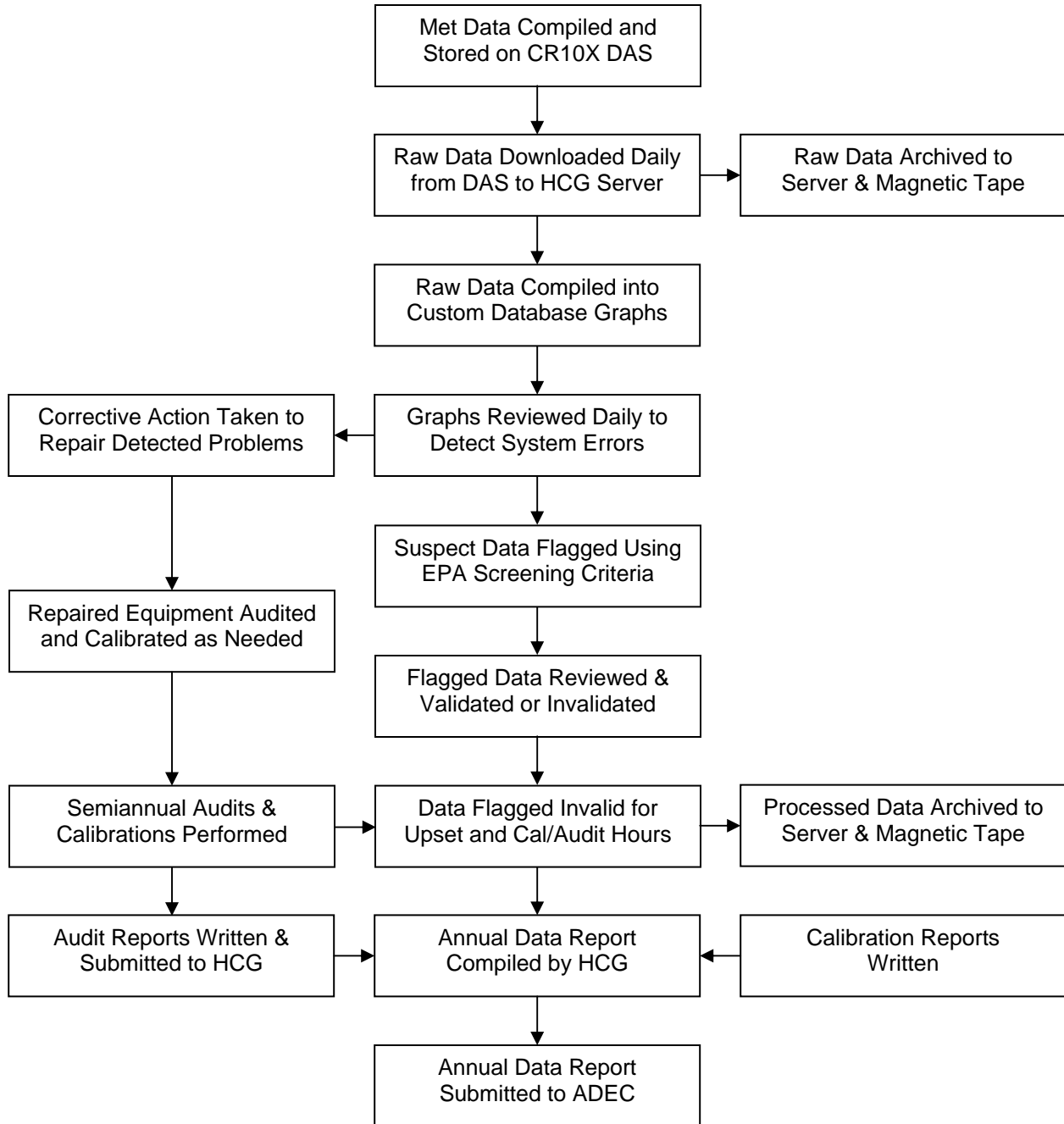
Witnesses: D. Shallies, Jared Cockman, Terry Wassilie

Auditor: Eric Brudie

## 6.0 DATA PROCESSING and VALIDATAION

### 6.1 Overall Data Management

- Diagram the flow of data from monitoring equipment to submission of a final report.



# Pebble 1 PSD Meteorological Station Systems Audit

Owner: NDM

Operator: Dominic Shallies

Alternate: Steve Mackey

Audit Date: 10-Jun-05

Witnesses: D. Shallies, Jared Cockman, Terry Wassilie

Auditor: Eric Brudie

## 6.2 Data Collection and Initial Data Review

- Is the station polled and data downloaded on a regular basis?  Yes  No Comments: Daily via RF modem and telephony modem.
- Are the monitoring station data reviewed on a regular basis?  Yes  No Comments: Data imported into custom graphs and reviewed 5-6 days per week.
- Are the monitoring station data screened on a regular basis?  Yes  No Comments: Data screened using EPA criteria prior to summary compilations.
- Are procedures in place for backing up raw data?  Yes  No Comments: Raw data files are backed up on the HCG server and on magnetic tape.
- Are written procedures for data handling available for the project?  Yes  No Comments: None.

- Describe the data polling process and initial data evaluation.

Data is downloaded from the station on a daily basis using a dedicated data polling computer located at the HCG office. The raw \*.dat file is appended to the existing raw station data file located on the HCG server, which is backed up to tape daily. The raw data are copied to an Access/Excel database file which generates custom graphs of the various meteorological and operational parameters. These graphs are reviewed 5-6 days per week in order to identify station problems. This graphical data review is the frontline of maintaining a complete and defensible dataset. Station upsets are instantly identified and repaired within days. Copies of both the raw unadjusted data and the custom database files are retained for a minimum of 5 years.

## 6.3 Corrective Actions

- Are procedures established for initiating corrective actions during data processing?  Yes  No Comments: Daily graphical data review and subsequent reactions.

- Describe procedures for initiating, tracking and closing corrective actions.

When nonconformance issues are recognized during graphical review, the Lead Operator/Data Manager plans and executes corrective action. A calibration check is performed on any sensor which is repaired or replaced during the action. A site visit memo outlining the nature of the problem and repairs undertaken is written and saved to the station file. Any quantifiable error is also documented for possible data validation. The Operator/Data Manager ensures the erroneous data are flagged for the period from initial noncompliance until repair and calibration.

## 6.4 Data Validation

- Are data validation procedures established and in use?  Yes  No Comments: None.
- Are adjusted and unadjusted data sets maintained?  Yes  No Comments: Both are backed up on the HCG server and magnetic tape.

- Describe the initial data validation procedure.

Data is compiled in a custom Excel spreadsheet programmed to evaluate meteorological data against EPA recommended PSD data screening criteria. The data are screened for events such as: extended periods of zero wind speed (indicating icing or worn bearings), temperatures outside of the known monthly max/min for the area, etc. Nonconforming data are flagged by the screening program for further investigation. Also, data periods for individual parameters are flagged for times when the corresponding instrument was undergoing field servicing, calibrations or audits. Periods when instruments are known to have been out of calibration or malfunctioning are also flagged.



# Pebble 1 PSD Meteorological Station Systems Audit

Owner: NDM

Operator: Dominic Shallies

Alternate: Steve Mackey

Audit Date: 10-Jun-05

Witnesses: D. Shallies, Jared Cockman, Terry Wassilie

Auditor: Eric Brudie

## 7.2 Quality Assurance Methods and Audits

Have adequate audit procedures been identified within the quality assurance plan?  Yes Comments: None.  
 No

Does the Plan correctly document PSD accuracy limits for calibrating and auditing?  Yes Comments: None.  
 No

Have audits been conducted on the suggested schedule of every six months?  Yes Comments: None.  
 No

- Identify the person(s) responsible for conducting audits on the monitoring instrumentation.

Name: Eric Brudie

Position: Field Auditor

Affiliation: Hoefler Consulting Group, Inc.

## 8.0 COMMENTS AND SUGGESTIONS

- Prepare and compile site specific station checklists and visit forms.

**APPENDIX B**  
**PERFORMANCE AUDIT DATA SHEETS and ALIGNMENT MAP**

# METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

**Owner:** Northern Dynasty  
**Auditor:** Eric Brudie

**Operator:** Dominic Shallies **Alternate:** Steve Mackey  
**Witness(s):** D. Shallies, Jared Cockman, Terry Wassili

**Station Site:** Station 1 (Mine)  
**Audit Date:** Jun-Jul, 2005

## • DAS TIME AUDIT

**PSD Limits:** DAS time = Alaska Standard Time (AST) +/- 5 minutes.

**Conversions:** Winter; (AST) = (DST), Summer; (AST) = (DST) - 1 hr.

**Comments:** All tests in this audit on 06/10/05 unless otherwise noted.

DAS TIME vs. NOAA CLOCK			
AST Time	DAS Time	Error Min:Sec	Pass/Fail?
13:05:00	13:04:57	-00:03	PASS

## • TEMPERATURE SENSORS & ΔT AUDIT

**Lower Height:** 2.0 Meters

**Upper Height:** 10.0 Meters

**2-M Thermistor:** **Make:** Met One **Model:** 062MP **S.N.#:** E3383 # 1/2 **Range:** -50 to 50 °C  
**10-M Thermistor:** **Make:** Met One **Model:** 062MP **S.N.#:** E3383 # 2/2 **Range:** -50 to 50 °C  
**Audit Digital Thermometer:** **Make:** Van Waters & Rogers **Model:** 61220-601 **S.N.#:** 51091749 **Range:** -40 to 150 °C  
**Audit Probe:** **Make:** Van Waters & Rogers **Model:** 61220-604 **S.N.#:** 51091789 **Range:** -40 to 150 °C

COLLOCATED THERMISTOR TEST										
Thermal Input			Station Response (2M)			Station Response (10M)			Station (Delta T)	
Temp Range	Target °C	Input °C	DAS °C	Error °C	Pass/Fail?	DAS °C	Error °C	Pass/Fail?	Delta T °C	Pass/Fail?
Ice Bath	0	-0.18	0.17	0.35	Pass	0.17	0.35	Pass	0.00	Pass
Warm	15 to 25	23.77	23.98	0.21	Pass	23.98	0.21	Pass	0.00	Pass
Hot	35 to 45	38.49	38.77	0.28	Pass	38.77	0.28	Pass	0.00	Pass
<b>Max Abs. Error</b>				0.35	<b>PASS</b>		0.35	<b>PASS</b>	0.00	<b>PASS</b>

**Date:** 06/10/05  
**Begin:** 1400  
**End:** 1420

Ice Bath	0	-0.11	0.12	0.23	Pass	0.12	0.23	Pass	0.00	Pass
Warm	15 to 25	16.53	16.73	0.20	Pass	16.73	0.20	Pass	0.00	Pass
Hot	35 to 45	41.53	41.83	0.30	Pass	41.83	0.30	Pass	0.00	Pass
<b>Max Abs. Error</b>				0.30	<b>PASS</b>		0.30	<b>PASS</b>	0.00	<b>PASS</b>

**Date:** 07/21/05  
**Begin:** 1300  
**End:** 1315

**PSD Limits:** Max Absolute Error > 0.5 °C (Sensor Accuracy); Max Absolute Error > 0.1 °C (Delta Temperature).

**Comments:** Met-One motor aspirated shields Model 076B-4; 2-m SN E3490, 10-m SN E3489. More tests run on 07/21/05 after bypassing Met-One aspirator junction box.

## • RELATIVE HUMIDITY SENSOR AUDIT

**Height:** 2.0 Meters

**RH Sensor:** **Make:** Vaisala **Model:** HMP45ASP **S.N.#:** A1040018 **Range:** 0.8 to 100 % RH  
**Audit Equipment:** **Make:** Vaisala **Model:** HMI 41 **S.N.#:** X0650080 **Range:** 0 to 100 % RH  
**Audit Equipment:** **Probe#** HMI41 X07450015

COLLOCATED STANDARD TEST									
Date:	Reading Time	Input %RH	Input AT (°C)	Input DP (°C)	DAS %RH	DAS AT (°C)	DAS DP (°C)	Error DP (°C)	Pass/Fail?
07/18/05	1440	69.2	12.1	6.6	70.9	12.1	7.0	0.4	Pass
07/18/05	1445	70.2	12.0	6.7	71.4	12.0	7.0	0.2	Pass
<b>Max Abs. Error</b>								0.4	<b>PASS</b>

**PSD Limits:** Max Absolute Error > 1.5°C Dew Point.

**Conversions:** Td=DP(°C), Ta=AT(°C), RH=Fraction: Td=b\*ψ/(a-ψ), where ψ=a\*Ta/(b + Ta) + ln(RH), and a = 17.27, b=237.7°C.

**Comments:** None.

# METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

**Owner:** Northern Dynasty  
**Auditor:** Eric Brudie

**Operator:** Dominic Shallies **Alternate:** Steve Mackey  
**Witness(s):** D. Shallies, Jared Cockman, Terry Wassili

**Station Site:** Station 1 (Mine)  
**Audit Date:** Jun-Jul, 2005

● **BAROMETRIC PRESSURE SENSOR AUDIT**

**Height:**     N/A     Meters

**Pressure Sensor:** **Make:** Vaisala **Model:** PTB101B **S.N.#:** A0710039 **Range:** 600-1060 hPa  
**Audit Equipment:** **Make:** PRETEL **Model:** AltiPlus A2 **S.N.#:** 27806 **Range:** 470-1040 hPa

Audit Inst Cal Data	
Cal. Date: 05/23/05	
Audit Inst	Offset Amount
24.13	-0.13
26.18	-0.13
28.12	-0.12
30.12	-0.12
<b>Intercept</b>	<b>-0.18</b>
<b>Slope</b>	<b>0.0020</b>

COLLOCATED STANDARD TEST							
Date:	Reading Time	Raw Input in Hg	Adj Input in Hg	Adj Input mb	DAS mb	Error mb	Pass/Fail?
06/10/05	1430	28.21	28.09	951.1	952.0	0.9	Pass
07/18/05	1430	28.53	28.41	962.0	963.4	1.4	Pass
						<b>Max Abs. Error</b>	<b>1.4</b>
							<b>PASS</b>

**PSD Limits:** Max Absolute Error > 3mb (0.3kPa).

**Comments:** None.

● **HORIZONTAL WIND SPEED SENSOR AUDIT - CLIMATRONICS**

**Height:**     11.0     Meters

**Wind Spd Sensor:** **Make:** Climatronics **Model:** 100075 **S.N.#:** 5007 **Cup #:** 2284 **Range:** 0-60 m/s  
**Audit Equipment:** **Low Spd:** RM Young **Model:** 18811 **S.N.#:** CA02136 **Torque:** Watters Mdl 366-3 **S.N.#:** 4864  
**Audit Equipment:** **High Spd:** RM Young **Model:** 18801 **S.N.#:** CA06174

**Date:** 06/10/05  
**Begin:** 1445  
**End:** 1455

TORQUE TEST			
Bearings Replaced?	Limit oz-in	Torque oz-in	Pass/Fail?
In-Situ	0.0049	<<0.003	<b>PASS</b>
New	0.0049	N/A	N/A

SYNCHRONOUS MOTOR TEST					
Input rpm	Input m/s	DAS m/s	Error m/s	Error % Input	Pass/Fail?
0	0.22	0.22	0.00	N/A	Pass
100	2.57	2.57	0.00	N/A	Pass
200	4.92	4.92	0.00	N/A	Pass
400	9.62	9.62	N/A	0.0	Pass
1000	23.72	23.72	N/A	0.0	Pass
2000	47.22	47.21	N/A	0.0	Pass
			<b>Max Abs. Error</b>	<b>0.00</b>	<b>0.0</b>
					<b>PASS</b>

**PSD Limits:** Threshold Torque >0.35gm-cm (0.0049oz-in) @ 0.50m/s. Max Absolute Error > 0.20m/s @ WS<=5m/s or > 5% of input @ WS>5m/s.

**Conversions:** Heavy Duty Al Cups: m/s = rpm÷42.55+0.22. gm-cm=72\*oz-in.

**Comments:** None.

● **HORIZONTAL WIND SPEED SENSOR AUDIT - RM YOUNG**

**Height:**     10.5     Meters

**Wind Spd Sensor:** **Make:** RM Young **Model:** 05305 AQ **S.N.#:** 66725 **Prop #:** 63047 **Range:** 0-50 m/s  
**Audit Equipment:** **Low Spd:** RM Young **Model:** 18811 **S.N.#:** CA02136 **Torque:** Watters Mdl 366-3 **S.N.#:** 4864  
**Audit Equipment:** **High Spd:** RM Young **Model:** 18801 **S.N.#:** CA06174

**Date:** 06/10/05  
**Begin:** 1550  
**End:** 1605

TORQUE TEST			
Bearings Replaced?	Limit oz-in	Torque oz-in	Pass/Fail?
In-Situ	0.014	0.006	<b>PASS</b>
New	0.014	N/A	N/A

SYNCHRONOUS MOTOR TEST					
Input rpm	Input m/s	DAS m/s	Error m/s	Error % Input	Pass/Fail?
0	0.00	0.00	0.00	N/A	Pass
400	2.05	2.05	0.00	N/A	Pass
1000	5.12	5.12	N/A	0.0	Pass
2000	10.24	10.24	N/A	0.0	Pass
5000	25.60	25.60	N/A	0.0	Pass
8000	40.96	40.96	N/A	0.0	Pass
			<b>Max Abs. Error</b>	<b>0.00</b>	<b>0.0</b>
					<b>PASS</b>

**PSD Limits:** Threshold Torque >1.0gm-cm (0.014oz-in) @ 0.50m/s. Max Absolute Error > 0.20m/s @ WS<=5m/s or > 5% of input @ WS>5m/s.

**Conversions:** Model 08254 Prop: m/s = 0.00512\*rpm. gm-cm=72\*oz-in.

**Comments:** Broke prop SN 62965 during initial install and replaced with prop SN 63047.

# METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

**Owner:** Northern Dynasty  
**Auditor:** Eric Brudie

**Operator:** Dominic Shallies **Alternate:** Steve Mackey  
**Witness(s):** D. Shallies, Jared Cockman, Terry Wassili

**Station Site:** Station 1 (Mine)  
**Audit Date:** Jun-Jul, 2005

● **HORIZONTAL WIND DIRECTION SENSOR AUDIT - CLIMATRONICS**

**Height:** 11.0 Meters

**Wind Dir Sensor:** **Make:** Climatronics **Model:** 100076 **S.N.#:** 4691 **Vane #:** 1440 **Range:** 0-360 **Deg**  
**Audit Equipment:** **Linearity:** Climatronics **Model:** 101984 **S.N.#:** 145 **Torque:** Honeywell Mdl 366-0 **S.N.#:** 5042  
**Compass:** Brunton **Model:** 11-F5008 **S.N.#:** 5080799319 **Magnetic Declin:** 17.8 **E of N**

TORQUE TEST			
Bearings Replaced?	Limit oz-in	Torque oz-in	Pass/Fail?
In-Situ	0.104	0.060	<b>PASS</b>
New	0.104	N/A	N/A

IN SITU AZIMUTH ALIGNMENT TEST				
Description	Input Deg	DAS Deg	Error Deg	Pass/Fail?
Compass	89.0	91.6	2.6	Pass
Compass	164.0	166.2	2.2	Pass
Compass	262.0	264.4	2.4	Pass
Compass	8.0	8.3	0.3	Pass
Cone Mtn	144.3	145.6	1.3	Pass
BM Pig	241.9	238.6	-3.3	Pass
Peak El 1984	9.8	11.9	2.1	Pass
Compass	88.5	89.2	0.7	Pass

**Date:** 06/10/05 **Time:** Begin: 1345 End: 1450

<b>Max Abs. Error</b>	<b>3.3</b>	<b>PASS</b>
<b>Mean Abs. Error</b>	<b>1.9</b>	<b>GOOD</b>

CROSSARM-VANE ACCUR. & LIN. TEST				
Input Dir	Input Deg	DAS Deg	Error Deg	Pass/Fail?
South	180.0	179.4	-0.6	Pass
West	270.0	270.4	0.4	Pass
North	360.0	359.7	-0.3	Pass
East	90.0	89.2	-0.8	Pass
North	360.0	359.6	-0.4	Pass
West	270.0	269.8	-0.2	Pass
South	180.0	179.2	-0.8	Pass
East	90.0	89.0	-1.0	Pass
<b>Max Abs. Error</b>			<b>1.0</b>	<b>PASS</b>
<b>Mean Abs. Error</b>			<b>0.6</b>	<b>PASS</b>

**Time:** Begin: 1528 End: 1533  
**Date:** 06/10/05

BENCH STAND ACCURACY & LINEARITY TEST							
Input Deg	DAS Deg	Error Deg	Pass/Fail?	Input Deg	DAS Deg	Error Deg	Pass/Fail?
30.0	29.4	-0.6	Pass	330.0	331.5	1.5	Pass
60.0	59.8	-0.2	Pass	360.0	0.1	0.1	Pass
90.0	90.2	0.2	Pass	30.0	29.5	-0.5	Pass
120.0	120.4	0.4	Pass	60.0	60.0	0.0	Pass
150.0	150.3	0.3	Pass	90.0	90.2	0.2	Pass
180.0	180.5	0.5	Pass	120.0	120.7	0.7	Pass
210.0	210.6	0.6	Pass	150.0	150.3	0.3	Pass
240.0	240.9	0.9	Pass	180.0	180.6	0.6	Pass
270.0	270.7	0.7	Pass	<b>Max Abs. Error</b>		<b>1.5</b>	<b>PASS</b>
300.0	301.1	1.1	Pass	<b>Mean Abs. Error</b>		<b>0.5</b>	<b>PASS</b>

**Date:** 06/10/05 **Time:** Begin: 1515 End: 1520

POST-AUDIT AZIMUTH ALIGNMENT TEST				
Description	Input Deg	DAS Deg	Error Deg	Pass/Fail?
Compass	1.0	2.8	1.8	Pass
Compass	107.0	107.8	0.8	Pass
Compass	166.0	166.4	0.4	Pass
Compass	285.0	288.3	3.3	Pass
Compass	323.0	325.9	2.9	Pass

**Date:** 06/11/05 **Time:** Begin: 815 End: 900

<b>Max Abs. Error</b>	<b>3.3</b>	<b>PASS</b>
<b>Mean Abs. Error</b>	<b>1.8</b>	<b>GOOD</b>

**PSD Limits:** Threshold Torque >7.5 gm-cm (.104 oz-in) @ 0.5 m/s. Max Absolute Error >5° from True Azimuth (alignment).  
 Max Absolute Error >5° (accuracy). Mean Absolute Error >3° (linearity). Azimuth Mean Absolute Error calculated for information only.  
**Comments:** Wind direction azimuth rechecked on 6/11/05.



# METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

**Owner:** Northern Dynasty  
**Auditor:** Eric Brudie

**Operator:** Dominic Shallies **Alternate:** Steve Mackey  
**Witness(s):** D. Shallies, Jared Cockman, Terry Wassili

**Station Site:** Station 1 (Mine)  
**Audit Date:** Jun-Jul, 2005

• **HORIZONTAL WIND DIRECTION SENSOR AUDIT - RM YOUNG**

**Height:** 10.5 Meters

**Wind Dir Sensor:** **Make:** RM Young **Model:** 05305 AQ **S.N.#:** 66725 **Vane #:** N/A **Range:** 0-360 **Deg**  
**Audit Equipment:** **Linearity:** RMY Mdl 18112 Bench Stand **S.N.#:** None **Torque:** RMY Mdl 18331 Torque Gauge **S.N.#:** None  
**Compass:** Brunton **Model:** 11-F5008 **S.N.#:** 5080799319 **Magnetic Declin:** 17.8 **E of N**

TORQUE TEST			
Bearings Replaced?	Limit gm-cm	Torque gm-cm	Pass/Fail?
In-Situ	11.0	5.0	<b>PASS</b>
New	11.0	N/A	N/A

IN SITU AZIMUTH ALIGNMENT TEST				
Description	Input Deg	DAS Deg	Error Deg	Pass/Fail?
Compass	89.0	90.4	1.4	Pass
Compass	164.0	166.0	2.0	Pass
Compass	262.0	262.7	0.7	Pass
Compass	8.0	7.7	-0.3	Pass
Compass	101.0	100.6	-0.4	Pass

**Date:** 06/10/05 **Max Abs. Error** **2.0** **PASS**  
**Time:** Begin: 1345 End: 1450 **Mean Abs. Error** **1.0** **GOOD**

BENCH STAND ACCURACY & LINEARITY TEST											
Input Deg	DAS Deg	Error Deg	Pass/Fail?	Input Deg	DAS Deg	Error Deg	Pass/Fail?	Input Deg	DAS Deg	Error Deg	Pass/Fail?
30.0	28.9	-1.1	Pass	150.0	147.6	-2.4	Pass	270.0	268.6	-1.4	Pass
60.0	58.9	-1.1	Pass	180.0	177.6	-2.4	Pass	300.0	298.2	-1.8	Pass
90.0	88.3	-1.7	Pass	210.0	208.2	-1.8	Pass	330.0	329.1	-0.9	Pass
120.0	118.0	-2.0	Pass	240.0	237.9	-2.1	Pass	355.0	354.0	-1.0	Pass

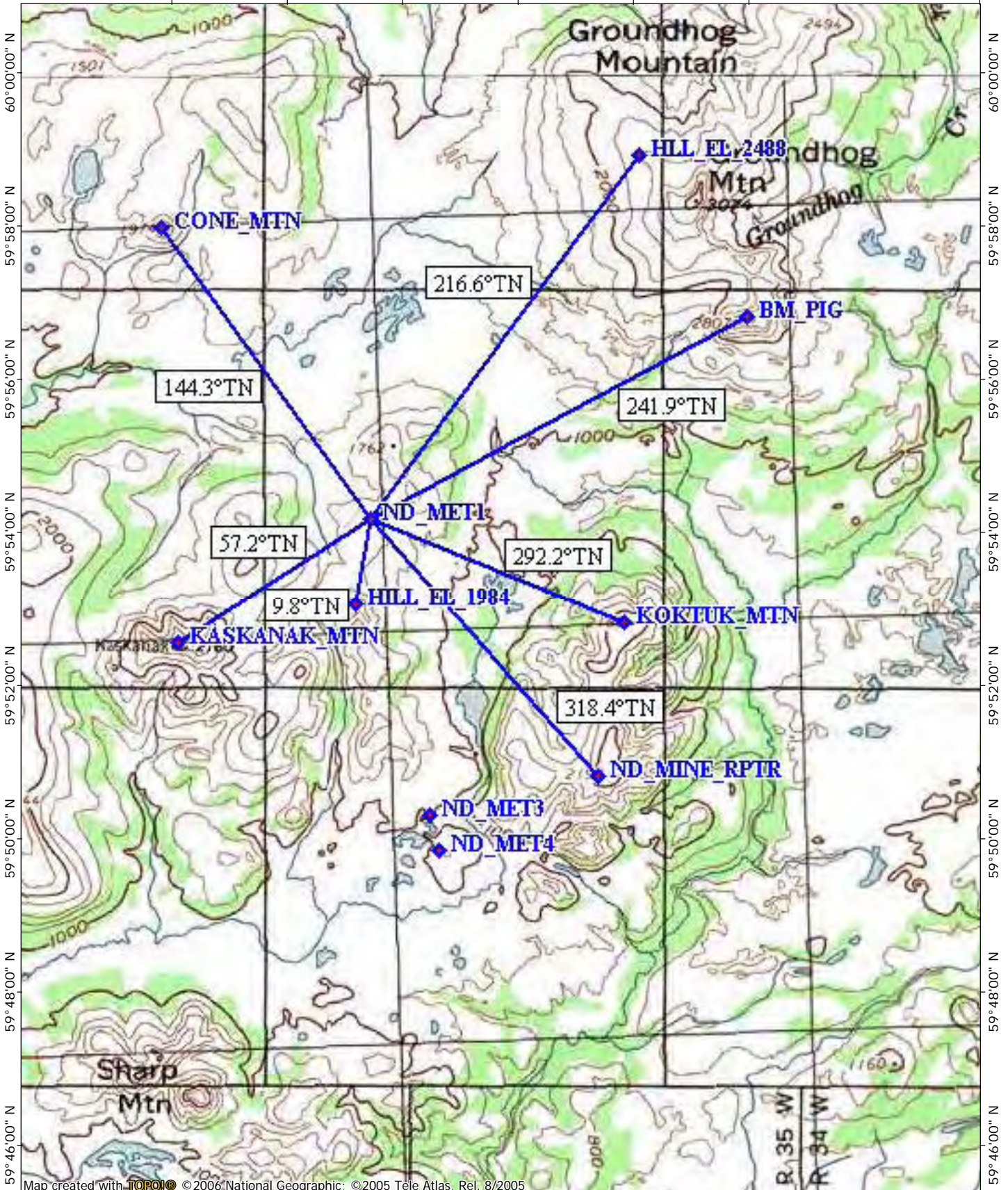
**Date:** 06/10/05 **Max Abs. Error** **2.4** **PASS**  
**Time:** Begin: 1608 End: 1620 **Mean Abs. Error** **1.6** **PASS**

POST-AUDIT AZIMUTH ALIGNMENT TEST				
Description	Input Deg	DAS Deg	Error Deg	Pass/Fail?
Compass	3.0	4.6	1.6	Pass
Compass	75.0	76.4	1.4	Pass
Compass	107.0	106.9	-0.1	Pass
Compass	167.0	165.8	-1.2	Pass
Compass	284.0	285.3	1.3	Pass
Compass	327.0	330.0	3.0	Pass

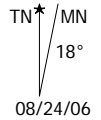
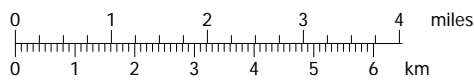
**Date:** 06/11/05 **Max Abs. Error** **3.0** **PASS**  
**Time:** Begin: 815 End: 900 **Mean Abs. Error** **1.4** **GOOD**

**PSD Limits:** Threshold Torque >11.0 gm-cm (0.153 oz-in) @ 0.5 m/s. Max Absolute Error >5° from True Azimuth (alignment).  
 Max Absolute Error >5° (accuracy). Mean Absolute Error >3° (linearity). Azimuth Mean Absolute Error calculated for information only.  
**Comments:** Wind direction azimuth rechecked on 6/11/05.





Map created with TOPO! © 2006 National Geographic; © 2005 Tele Atlas, Rel. 8/2005



**APPENDIX C**  
**AUDIT EQUIPMENT CALIBRATION CERTIFICATES**



**Calibration complies with  
ISO 17025**



**Cert. No.:4000-1103531**

**Traceable® Certificate of Calibration for Digital Thermometer**

**Instrument Identification:**

Model: 61220-601      S/N: 51091749      Manufacturer : Control Company  
 Model: 61220-604      S/N: 51091789

**Standards/Equipment:**

Description	Serial Number	Due Date	NIST Traceable Reference
Temperature Probe	128	10/18/05	A4A12029
Thermistor Module	A27129	6/24/05	1000171514
Temperature Calibration Bath	A42238		
Temperature Probe	149	7/20/05	A4715024
Thermistor Module	A27129	6/24/05	1000171514
Temperature Calibration Bath	93139		

**Certificate Information:**

Technician: 68      Procedure: CAL-06      Cal Date: 4/27/05      Cal Due: 4/27/07  
 Test Conditions: 24.0°C      41.0 %RH      1016 mBar

**Calibration Data: (New Instrument)**

Unit(s)	Nominal	As Found	In Tol	Nominal	As Left	In Tol	Min	Max	±uc	TUR
°C		N.A.		0.001	0.003	Y	-0.049	0.051	0.013	3.8:1
°C		N.A.		25.001	25.002	Y	24.951	25.051	0.013	3.8:1
°C		N.A.		59.999	59.999	Y	59.949	60.049	0.013	3.8:1
°C		N.A.		100.001	100.007	Y	99.951	100.051	0.013	3.8:1

**This Instrument was calibrated using Instruments Traceable to National Institute of Standards and Technology.**

A Test Uncertainty Ratio of at least 4:1 is maintained unless otherwise stated and is calculated using the expanded measurement uncertainty. Uncertainty evaluation includes the instrument under test and is calculated in accordance with the ISO "Guide to the Expression of Uncertainty in Measurement" (GUM). The uncertainty represents an expanded uncertainty using a coverage factor k=2 to approximate a 95% confidence level. In tolerance conditions are based on test results falling within specified limits with no reduction by the uncertainty of the measurement. The results contained herein relate only to the item calibrated. This certificate shall not be reproduced except in full.

*Wallace Berry*  
 Wallace Berry, Technical Manager

**Maintaining Accuracy:**

In our opinion once calibrated your Digital Thermometer should maintain its accuracy. There is no exact way to determine how long calibration will be maintained. Digital Thermometers change little, if any at all, but can be affected by aging, temperature, shock, and contamination.

**Recalibration:**

For factory calibration and re-certification traceable to National Institute of Standards and Technology contact Control Company.

**CONTROL COMPANY 4455 Rex Road Friendswood, TX 77546 USA**  
**Phone 281 482-1714 Fax 281 482-9448 service@control3.com www.control3.com**



# Certificate of Calibration

Report #: 101705-X0740015-RH RMA #: 95-49728

Calibration Date: Oct-17-2005

Model #: HMI41/HMP45

Serial #: X0650080 / X0740015

Instrument Type: Humidity Transmitter  
Instrument Range: 0 to 100%RH

Calibration Procedure: 11603100  
Recommended Calibration Due Date: Oct-17-2006

Customer: HOEFLER CONSULTING GROUP  
City, State: ANCHORAGE, AK

This unit was calibrated by adjusting its reading at 0%\* against a dry-air line and at 75% against reference humidity and temperature instrument, Vaisala model HMP233. Additional instrument verification checkpoints were made against HMP233 reference at 11%RH, 33%RH and 97%\* RH. Calibration and instrument verification sequences utilize a dry-air line and a set of controlled aqueous salt solutions Vaisala model HMK13B. Laboratory ambient conditions are humidity and temperature controlled. The calibration uncertainty is presented at 95% confidence level, k=2. The standard uncertainty of the measurement has been determined in accordance with U.S. Guide to the Expression of Uncertainty in Measurement. \*Note: the 0% and 97% RH points are not ISO17025 Accredited.

Calibration Data (As Found)				
Out of Tolerance: NO				
Temperature Calibration, °C				
Reference	Unit Under Test	Error	± Tolerance, °C	± Uncertainty, °C
21.35	21.50	0.15	0.20	0.07
Humidity Calibration, %RH				
Reference	Unit Under Test	Error	± Tolerance, %	± Uncertainty %
11.13	11.40	0.27	2.00	0.92
32.70	33.10	0.40	2.00	1.01
75.44	75.00	-0.44	2.00	1.02
97.60	97.50	-0.10	3.00	N/A *
Calibration Data (As Left)				
Temperature Calibration, °C				
Reference	Unit Under Test	Error	± Tolerance, °C	± Uncertainty, °C
21.35	21.50	0.15	0.20	0.07
Humidity Calibration, %RH				
Reference	Unit Under Test	Error	± Tolerance, %	± Uncertainty %
11.13	11.40	0.27	2.00	0.92
32.70	33.10	0.40	2.00	1.01
75.44	75.00	-0.44	2.00	1.02
97.60	97.50	-0.10	3.00	N/A *

Problem Noted: None  
Action Taken: No Adjustment Was Necessary

The results of this calibration are related only to the items being calibrated, and, are traceable to the National Institute of Standards and Technology through NIST Test Report Number 270953-05, dated Oct. 29, 2004. Vaisala's calibration system has been established to meet the requirements of ANSI/NCSL Z540-1-1994. This certificate can not be reproduced, except in full, without the expressed written consent of Vaisala. The certificate was established to comply with the requirements of ISO/IEC17025. Vaisala is ISO 9001:2000 certified.

Calibration Equipment Used: Workstation 1B			
Model Number	Serial Number	Calibration Date	Due Date
Power Supply	TW14949	Nov. 24, 2004	Nov. 24, 2006
Fluke 45	7405014	Aug. 16, 2005	Aug. 16, 2006
HMK13B	500004	Sep. 2, 2005	Mar. 5, 2006
HMP233	V4210040	Jul. 21, 2005	Oct. 21, 2005

Ambient Conditions	
Temperature:	21.50 °C
Humidity:	50.00 %RH

Approved By

Technical Operator  
Jari Siltavuori





**R.M. Young Company**  
2801 Aero Park Drive  
Traverse City, Michigan 49686 USA

### Certificate of Calibration and Testing

<b>Test Unit:</b>			
Model:	18811	Serial Number:	CA02136
Description:	Anemometer Drive - 20 to 990 Rpm - Comprised of Models 18820A Control Unit & 18831A Motor Assembly		

R.M. Young Company certifies that the above equipment has been inspected and calibrated using standards whose accuracies are traceable to the National Institute of Standards and Technologies (NIST).

Nominal Motor Rpm	27106D Output Frequency Hz (1)	Calculated Rpm (2)	Indicated Rpm (3)
30.0	5	30.0	30.0
150.0	25	150.0	150.0
300.0	50	300.0	300.0
450.0	75	450.0	450.0
600.0	100	600.0	600.0
750.0	125	750.0	750.0
990.0	165	990.0	990.0

Clockwise and Counterclockwise rotation verified

- (1) Measured frequency output of RM Young Model 27106D standard anemometer attached to motor shaft
- (2) 27106D produces 10 pulses per revolution of anemometer shaft
- (3) Indicated on the Control Unit LCD display

\*Indicates out of tolerance

No Calibration Adjustments Required       As Found       As Left

Traceable frequency meter used in calibration      DP4863

Date of inspection      3 May 2005

Tested By





Certificate of Calibration and Testing

<b>Test Unit:</b>			
Model:	18801	Serial Number:	CA01674
Description:	Anemometer Drive - 10 to 10,000 Rpm - Comprised of Models 18820 Control Unit & 18830 Motor Assembly		

R.M. Young Company certifies that the above equipment has been inspected and calibrated using standards whose accuracies are traceable to the National Institute of Standards and Technologies (NIST).

Nominal Motor Rpm	Output Frequency (1) Hz	Calculated Rpm (2)	Indicated Rpm (3)
600	320	600	600
1200	640	1200	1200
2400	1280	2400	2400
4200	2240	4200	4200
6000	3200	6000	6000
8100	4320	8100	8100
9900	5280	9900	9900
<input checked="" type="checkbox"/> Clockwise and Counterclockwise rotation verified			

- (1) Measured at the optical encoder output
- (2) Frequency output produces 32 pulses per revolution of the motor shaft
- (3) Indicated on the Control Unit LCD display

\*Indicates out of tolerance

No Calibration Adjustments Required       As Found       As Left

Traceable frequency meter used in calibration      DP4863

Date of inspection      29 October 2004

Tested By     EJC

## Certificate of Calibration

### Customer Identification

Customer: Houston Precision

P.O.#:6632

### Product Identification

Product Type: Torque Watch  
Serial Number: 4864

Model Number: 366-3  
Part Number: 060-SQF41199-01  
Order Code: TQ3663

### Product Specifications

Full Scale Range: 0.003-0.03 OZ IN  
Calibrated At: 0.003-0.03 OZ IN

Supply: N/A  
Output: Display

### Calibration Results

*See data on page 2 of this report.*

### Equipment Information

Test Equipment #: GW150

Accuracy of Standard: +/- 1% FS

### Certificate Information

Type of Calibration: Standard  
Calibration Date: 09/02/04

Certificate Number: 086-6000-01  
Calibration Procedure: 072-LC75-29

*This report certifies that the product identified above has been inspected to +/- 5% of full scale reading and found to be accurate.*

*Instruments used in the calibration of this product have been calibrated to standards traceable to the National Institute of Standards and Technology (NIST), Report #822/254480. Calibration procedures are in compliance with ANSI/NCSS Z540-1-1994.*

*This is a quality record.*

Approved and Certified By: Michael A. Stanley  
Factory Supervisor

LOW RANGE TORQUE WATCH DIAL SETTINGS vs. OUTPUT OF LOW RANGE STANDARD

MODEL: 366-3 SERIAL NUMBER: 4864 Units = oz in Accuracy = 10 % FS

Set Dial To	Low Limit	CW Rdg	CCW Rdg	High Limit
.000	-.0002	.0000	.0000	.0002
.003	-.0000	.0036	.0031	.0060
.006	.0030	.0058	.0062	.0090
.009	.0060	.0086	.0092	.0120
.012	.0090	.0128	.0127	.0150
.015	.0120	.0162	.0161	.0180
.018	.0150	.0195	.0197	.0210
.021	.0180	.0225	.0219	.0240
.024	.0210	.0257	.0246	.0270
.027	.0240	.0296	.0288	.0300
.030	.0270	.0320	.0322	.0330

Max pos error (% FS) = 8.7 % at .027  
 Max neg error (% FS) = -1.2 % at .009

Torque Watch is a: PASS

## Certificate of Calibration

### Customer Identification

Customer: Houston Precision

P.O.#:6743

---

### Product Identification

Product Type: Torque Watch  
Serial Number: 5042

Model Number: 366-0  
Part Number: 060-SQF41201-01  
Order Code: TQ3660

---

### Product Specifications

Full Scale Range: 0.06-0.6 IN OZ  
Calibrated At: 0.06-0.6 IN OZ

Supply: N/A  
Output: Display

---

### Calibration Results

*See data on page 2 of this report.*

---

### Equipment Information

Test Equipment #: GW151

Accuracy of Standard: +/- 1% FS

---

### Certificate Information

Type of Calibration: Standard  
Calibration Date: 12/01/04

Certificate Number: 086-6000-01  
Calibration Procedure: 072-LC75-29

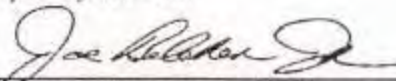
---

*This report certifies that the product identified above has been inspected to +/- 5% of full scale reading and found to be accurate.*

*Instruments used in the calibration of this product have been calibrated to standards traceable to the National Institute of Standards and Technology (NIST), Report #822/254480. Calibration procedures are in compliance with ANSI/NCSS Z540-1-1994.*

*This is a quality record.*

Approved and Certified By:

  
Joe Belcher Jr., Quality Manager

LOW RANGE TORQUE WATCH DIAL SETTINGS vs. OUTPUT OF LOW RANGE STANDARD

MODEL: 366-0 SERIAL NUMBER: 5042 Units = oz in Accuracy = 5 % FS

Set Dial To	Low Limit	CW Rdg	CCW Rdg	High Limit
.00	-.003	0.000	0.000	.003
.06	.030	.056	.060	.090
.12	.090	.121	.121	.150
.18	.150	.168	.180	.210
.24	.210	.223	.255	.270
.30	.270	.299	.319	.330
.36	.330	.359	.373	.390
.42	.390	.407	.424	.450
.48	.450	.481	.494	.510
.54	.510	.531	.537	.570
.60	.570	.592	.610	.630

Max pos error (% FS) = 3.1 % at .300  
 Max neg error (% FS) = -2.9 % at .240

Torque Watch is a: PASS

# THE BRUNTON COMPANY

## Certificate Of Calibration

Equipment Owner: Hoefler Consulting Group  
Name: \_\_\_\_\_

Address: 3401 Minnesota Drive Ste. 300

City, State, Zip: Anchorage, AK 99503

Calibration traceable to the National Institute of Standards and Technology in accordance with Mil-STD-45662A has been accomplished on the instrument listed below by comparison with standards maintained by The Brunton Co. The accuracy and stability of all standards maintained by The Brunton Co. are traceable to national standards maintained by the National Institute of Standards and Technology in Washington, D.C. and Boulder, CO. Complete record of all work performed is maintained by The Brunton Co. and is available for inspection upon request.

This Unit has been calibrated to Lietz TM10E serial number 30937 traceable to N.B.S. no. 738 227675 this 12<sup>th</sup> Day of July 2005

DESCRIPTION: Pocket Transit

PURCHASE ORDER: S. Mackay

ORDER NUMBER: 176322

LOT NUMBER: 19680

MODEL NUMBER: 11-F5008

SERIAL NUMBER: 5080799319

CALIBRATION DATE: 7/12/05

RECALIBRATION DUE DATE: 7/12/06

Signed: Raelene White  
QUALITY CONTROL MANAGER

**Pebble 1  
PSD Meteorological  
Monitoring Station**

**January 2006**

**Quality Assurance  
Performance Audit**



*for the*

**Pebble Project  
Meteorological  
Monitoring Program  
Iliamna, Alaska**

*prepared for*

**Northern Dynasty Mines, Inc.**

**Pebble 1 PSD Meteorological Monitoring Station  
January 2006  
Quality Assurance Performance Audit**

*Prepared for:*

**Northern Dynasty Mines, Inc.  
Anchorage, Alaska**

*Prepared by:*

**Hoefler Consulting Group, Inc.  
3401 Minnesota Drive, Suite 300  
Anchorage, Alaska 99503**



## TABLE of CONTENTS

<b>1.0 INTRODUCTION .....</b>	<b>1</b>
<b>2.0 PERFORMANCE AUDIT.....</b>	<b>2</b>
<b>2.1 Performance Audit Methodology.....</b>	<b>2</b>
2.1.1 Data Acquisition System .....	3
2.1.2 Air Temperature and Air Temperature Difference .....	3
2.1.3 Wind Speed.....	3
2.1.4 Wind Direction.....	4
2.1.5 Relative Humidity .....	5
2.1.6 Barometric Pressure.....	5
2.1.7 Precipitation .....	5
2.1.8 Evaporation .....	6
2.1.9 Solar Radiation.....	6
<b>2.2 Performance Audit Results .....</b>	<b>7</b>
<b>2.3 Performance Audit Recommendations .....</b>	<b>7</b>
<b>3.0 REFERENCES .....</b>	<b>10</b>

## LIST of FIGURES and TABLES

Table 2-1 Performance Audit Methods and Acceptable Limits.....	2
Table 2-2 Pebble 1 January 15, 2006 Performance Audit Summary .....	8
Table 2-3 Pebble 1 Fall 2005 Supplemental Audit Summaries .....	9

## LIST of APPENDICES

- A PERFORMANCE AUDIT DATA SHEETS and ALIGNMENT MAP
- B AUDIT EQUIPMENT CALIBRATION CERTIFICATES

## **1.0 INTRODUCTION**

Hoefler Consulting Group, Inc. (HCG) operates meteorological monitoring stations for Northern Dynasty Mines, Inc. (NDM) in support of the Pebble Mine Project near Iliamna, Alaska. The air monitoring program is one component of ongoing baseline environmental studies being conducted to support mine permitting, mine design and mine transportation infrastructure development. The stations meet Prevention of Significant Deterioration (PSD) guidelines, although PSD permits may not be required. This report covers the Pebble 1 Station (Pebble 1) located near the proposed mine site.

Pebble 1 is located just west of the mine ore body on top of a gentle, wind swept knoll at about 1,550 foot elevation. The station consists of an instrumented 11-meter sectional tower secured with three guy wires. A precipitation gauge is located approximately 75 feet west of the tower and an evaporation pan is located roughly 125 feet south of the tower. Between the tower and the precipitation gauge is a 6' by 8' insulated building which houses the datalogger and power supply system. Pebble 1 is instrumented with PSD quality sensors monitoring the following parameters:

- Ambient Temperature (°C): Met One 062MP Thermistor Probe at 2-m
- Temperature Difference (°C): Met One 062MP Thermistors at 2-m and 10-m
- Wind Speed 1 (m/s): Climatronics F460 P/N 100075 Wind Speed Sensor
- Wind Direction 1 (°): Climatronics F460 P/N 100076 Wind Direction Sensor
- Wind Speed 2 (m/s): RM Young 05305 Wind Monitor-AQ
- Wind Direction 2 (°): RM Young 05305 Wind Monitor-AQ
- Sigma Theta (°): Campbell Scientific CR10X DAS calculated (Yamartino)
- Relative Humidity (%RH): Vaisala HMP45AC Relative Humidity Sensor
- Barometric Pressure (mbar): Vaisala PT101B Barometric Pressure Sensor
- Precipitation (mm H<sub>2</sub>O): ETI Model Noah II Weighing Precipitation Gauge
- Evaporation (mm H<sub>2</sub>O): Nova-Lynx Model 255-100/200 Pan and Gauge
- Solar Radiation (W/m<sup>2</sup>): LI-COR Li-200SX Solar Radiation Pyranometer.

This report has been prepared for NDM to serve as a quantitative review of the Pebble 1 station. To that end, a Performance Audit was undertaken in order to demonstrate that the equipment installed at the meteorological monitoring station is operating correctly and meets the requirements set forth by the U.S. Environmental Protection Agency (EPA) and the Alaska Department of Environmental Conservation (ADEC).

## 2.0 PERFORMANCE AUDIT

### 2.1 Performance Audit Methodology

During the performance audit, the station datalogger is interfaced with a portable laptop computer to display the outputs for the meteorological sensors. The value of each meteorological sensor is compared to the output value from the appropriate piece of audit equipment or from calibrated instruments collocated with the sensor. The difference between the station's datalogger reading and the output from each audit instrument is compared with established PSD limits to determine the accuracy of each sensor. Additionally, threshold torques for wind speed and wind direction are measured with audit equipment and compared with manufacturer torques corresponding to the PSD threshold speed of 0.5 m/s. Table 2-1 provides a summary of the performance audit methods and limits used to audit each parameter at the stations.

**Table 2-1 Performance Audit Methods and Acceptable Limits**

Parameter	Audit Method	EPA/Manufacturer Limit
Datalogger Time	NOAA Clock	≤ ±5:00 minutes from AST
Temperature Accuracy	Collocated NIST thermistor	≤ ±0.5 °C
Temperature Difference	Collocated NIST thermistor	≤ ±0.1 °C
Wind Speed Accuracy	Synchronous rpm motor	≤ ±0.2 m/s + 5 % observed
Wind Spd Torque (Clim)	Torque watch	≤ 0.35 g-cm (0.0049 oz-in)
Wind Spd Torque (RMY)	Torque watch	≤ 1.0 g-cm (0.014 oz-in)
Wind Direction Alignment	GPS, compass or landmark	≤ ±5° from true azimuth
Wind Direction Accuracy	Linearity tester	≤ ±5° per audit point
Wind Direction Linearity	Linearity tester	≤ 3° mean absolute average
Wind Dir Torque (Clim)	Torque watch	≤ 7.5 g-cm (0.104 oz-in)
Wind Dir Torque (RMY)	Vane torque gauge	≤ 11 g-cm (0.153 oz-in)
Relative Humidity	Collocated NIST RH sensor	≤ ±1.5 °C of dew point
Barometric Pressure	Collocated NIST BP sensor	≤ ±3 mbar
Precipitation	Calibrated water volume	≤ ±10% of input
Evaporation	Measured water level	≤ ±10% of input
Solar Radiation <sup>1</sup>	Collocated NIST sensor	≤ ±5% of input+resolutuion <sup>2</sup>

1. Solar radiation not audited.
2. This audit limit is modified from PSD standard, as discussed below.

### **2.1.1 Data Acquisition System**

An audit of the datalogger is conducted by comparing all datalogger outputs to the audit standards, as described below. The datalogger time is checked against an instantaneous time reading from the National Oceanic and Atmospheric Administration (NOAA) clock in Boulder, Colorado, via a global positioning system (GPS) handheld unit or telephone contact with the NOAA clock.

### **2.1.2 Air Temperature and Air Temperature Difference**

The 2-meter and 10-meter thermistors are removed from their aspirator shields and collocated with a National Institute of Standards and Technology (NIST) traceable digital thermometer. The station thermistors and the transfer standard NIST thermometer are taped together and immersed in insulated thermoses containing a series of water baths; hot water (35°C to 45°C), warm water (15°C to 25°C), and a water/ice bath (0°C). Each water bath is agitated and allowed to equilibrate before simultaneous readings are taken from the three instruments. The difference between the individual station thermistors and the NIST standard are compared to the PSD temperature accuracy limit of  $\pm 0.5^\circ\text{C}$ . The difference between the two station thermistors (10-m°C minus 2-m°C) is compared to the PSD temperature difference limit of  $\pm 0.1^\circ\text{C}$ .

### **2.1.3 Wind Speed**

Anemometers are audited to determine their accuracies in reading known wind speeds and to ascertain the sensor's threshold torque. The Climatronics and RM Young sensors are audited in very similar manners and are discussed together. The instruments are tested after removal from the tower and after removal of the sensor's props or cups.

First, an RM Young synchronous motor is attached to the shaft of the anemometer by using brand specific coupling devices. The sensor shaft is rotated at several different known revolutions per minute (rpm). Each rotational speed in rpm is equated to a wind speed in meters per second (m/s) by using the anemometer manufacturer's linear calibration formula. The difference between the calculated input speed in m/s and the datalogger output is compared to established PSD limits for each input rpm.

Next, a high precision torque watch is attached to the shaft of the anemometer, once again using custom couplings. Torque readings are made in both directions in each quadrant along the axis of rotation of the shaft. The maximum reading is recorded for the torque required to turn the shaft of the anemometer. The torque value recorded

during the audit is compared to manufacturer's torque corresponding to the minimum PSD threshold speed of 0.5m/s.

#### **2.1.4 Wind Direction**

The wind direction sensors are first audited as-found to determine the accuracy of their alignment with respect to true north (true azimuth alignment) using one of four methods. In one method, a handheld GPS unit is used to measure the position of the auditor with respect to a waypoint captured under the wind sensor's position on the tower. Using binoculars, the tail of the wind vane is aligned with the auditor's position at a distance of several hundred feet from the tower. The GPS bearing back to the tower waypoint is then compared to the DAS reading. The difference between the two should not exceed  $\pm 5^\circ$  per audit point. This procedure is repeated at least 4 times, once per quadrant, generally near the cardinal directions. The second method uses a calibrated precision compass mounted on a gimbal and tripod. The compass declination is preset for the specific location and date using one of a variety of magnetic declination computer models. The sensor tail is aligned toward the auditor while auditor sights the compass toward the sensor and readings are taken in a similar manner to the GPS method.

Another option is to align the tail of the sensor with a distant identifiable landmark of known bearing. The bearing to the landmark may be ascertained using a variety of methods. One method involves physically capturing a distant GPS waypoint, such as at a discernable structure or emissions stack. Bearings to inaccessible natural landmarks, usually distant mountain peaks, are acquired through the use of various computer mapping programs, such as Natural Geographic's TOPO program or USGS digital raster graphics (DRGs) loaded into AutoCAD. The bearing from the station location to the landmark is compared to the DAS reading. This method yields the most accurate audit value, but is limited by weather and availability of discernable landmarks. The final method is to align the vane with the tower guy wires or preset survey markers, whose bearing has been ascertained using precision survey equipment.

The wind direction accuracy and linearity are subsequently audited after the wind direction sensor is removed from the tower. The Climatronics sensor is mounted on a Climatronics Model 101984 linearity tester and the RM Young sensor is mounted on an RM Young Model 18112 Vane Angle Bench Stand. Both test fixtures are keyed to their respective sensor and graduated from  $0^\circ$  to  $360^\circ$ . A series of readings starting at  $30^\circ$  and then clockwise in  $30^\circ$  increments are taken. The RM Young is read from  $30^\circ$  to  $360^\circ$  and the Climatronics is read from  $30^\circ$  to  $540^\circ$ . The Climatronics sensor is tested  $180^\circ$  past  $360^\circ$  in order to test the second potentiometer used in some DAS

programming. Although not required, the Climatronics sensor is also tested with the vane attached in order to ascertain sensor accuracy and linearity relative to the instrument crossarm. The vane is aligned along the axis of the crossarm to yield the 0°/360° and 180° values and against a square held to the crossarm for the 90° and 270° directions. Four readings are taken in a clockwise direction and four are taken counterclockwise to complete the test. For both the linearity test fixture and crossarm tests, individual error values are assessed for the PSD accuracy limit of  $\pm 5^\circ$  per point and the mean absolute average error is assessed against the linearity limit of  $3^\circ$ .

Next, the RM Young wind direction threshold is tested by measuring wind vane torque using an RM Young Model 18331 Vane Torque Gauge. This device saddles the wind vane and a calibrated spring is pulled to determine maximum torque from readings taken in both directions in all four quadrants. The Climatronics wind direction starting torque is measured with the vane removed by using a precision torque watch in the same manner as the wind speed torque. The highest torque readings are compared to specific manufacturer limits for instrument starting torque.

Finally, the wind direction sensors are placed back on the tower and as-left audits of the azimuth alignments are conducted to ensure the instruments are properly reinstalled.

### **2.1.5 Relative Humidity**

Relative humidity (RH) is audited using a collocated NIST traceable RH sensor. The NIST sensor and the field sensor are collocated out of direct sunlight to eliminate solar radiation effects, preferably inside of the motor aspirated shield. If the NIST standard reads directly in dew point °C, those readings are used; if not, relative humidity and temperature readings are used. For the audit, instantaneous readings of dew point, relative humidity and temperature are recorded from the transfer standard and the DAS. All relative humidity and temperature readings are converted to dew point in order to assess the PSD error limit of  $\pm 1.5^\circ\text{C}$  dew point.

### **2.1.6 Barometric Pressure**

Barometric pressure (BP) is audited using a collocated NIST traceable BP sensor. The difference between the NIST sensor and the station sensor are compared to the PSD limit of  $\pm 3$  mbar.

### **2.1.7 Precipitation**

The Met-One tipping precipitation gauge is audited by slowly adding precisely measured volumes of water to the gauge using a dripping Nova Lynx Model 260-2595 Rain Gauge Calibrator. The predicted millimeters of precipitation corresponding to the measured

volume added are calculated using the diameter of the gauge opening. The tare reading from the DAS is initially recorded and subsequent DAS readings are recorded after each test run.

The ETI weighing gauge is also audited using the calibrated bottle from the Nova Lynx Model 260-2595 Rain Gauge Calibrator, except the measured water volume is poured directly into the gauge opening. The DAS reading is recorded at the beginning of the test and after every 1/2" to 1" pour thereafter, up to the limit of the gauge. With both gauges, the percent difference between the predicted audit value and the DAS value is compared to the PSD limit of  $\pm 10\%$ .

### **2.1.8 Evaporation**

The evaporation gauge is first checked to confirm that the pan and gauge are level. The accuracy is checked by first removing enough water to bring the initial level to approximately 50 mm, the minimum for this gauge. An accurate millimeter scale is taped to the inside of the evaporation pan and the water level on the scale is compared to the DAS output. Water is added to the pan to raise the level by 10-20mm and another set of readings are taken. This process is repeated until the level in the pan reaches the upper limit of approximately 240mm. The resultant suite of DAS and scaled water level readings are then input into a custom spreadsheet which calculates a linear regression for the data. The evaporation gauge reads change in water level due to evaporation and rainfall, so the calculated intercept must be removed from measured water levels. The adjusted level is compared to the DAS output with a maximum allowable error of  $\pm 10\%$  of input and the slope of resultant line has a limit of  $1.0 \pm 0.1$ .

### **2.1.9 Solar Radiation**

Outputs of the station sensor are compared to the output of a level collocated audit solar radiation sensor. The audit sensor is connected to an independent audit datalogger with the scan interval and clock synchronized with the station DAS. Hourly average solar radiation readings and instantaneous readings are recorded during the audit and then input into a custom spreadsheet to calculate a linear regression for the data. The PSD limit for solar radiation audits is  $\pm 5\%$  of observed, but this standard is very difficult to obtain at the northern latitude of this installation. This EPA standard is currently undergoing review and is expected to change. A well excepted substitute is that individual DAS and audit data pairs are compared to a limit of  $\pm 5\%$  of observed + **EPA minimum instrument resolution (10W/m<sup>2</sup>)**. Individual data pairs are evaluated against this standard, but the overall set is restricted to a 5% error by limiting allowable linear slope to  $1.0 \pm 0.05$ .

## **2.2 Performance Audit Results**

The performance audit was conducted at the Pebble 1 station primarily on January 15, 2006, with Dominic Shallies of HCG assisting. Some station instruments were also audited during October and November of 2005. On October 8, 2005 the evaporation pan and tipping precipitation gauge were audited prior to winterization. The temperature sensors were audited on October 18, 2005 after thermistors were permanently rewired to bypass the Met-One aspirator junction box. The bypass wiring was prompted by temperature errors observed while using identical junction boxes at the NDM Port meteorological monitoring station; the Pebble 1 modifications were preventative. On November 20, 2005 the Met-One tipping Precipitation gauge was replaced with an ETI weighing precipitation gauge. The RM Young wind sensor had to be rewired through a pulse to millivolt converter in order to free up a pulse channel for the new gauge. Thus, both the new gauge and RM Young wind sensor were audited on that day.

All sensors, except the solar radiation sensor, were challenged with certified audit equipment and yielded errors below the PSD limits, except as noted. The exception was the as-found RM Young azimuth alignment tested on November 20, 2005. This sensor was knocked out of alignment during the audit while chipping ice from the mounting arm. The operator reviewed the wind direction data from both the RM Young and Climatronics sensors for the period prior to this event and found the data corroborated this conclusion. The solar radiation audit was not completed because adequate audit equipment was not available at the time of the audit. Table 2-2 contains summary data from the January 2006 audit and Table 2-3 summarizes the supplemental Fall 2005 tests. Complete audit reports and audit equipment calibration certificates are contained in Appendix A and Appendix B respectively.

## **2.3 Performance Audit Recommendations**

- None.



**Table 2-2 Pebble 1 January 15, 2006 Performance Audit Summary**

Parameter	Limit	Units	Max Err	Status
Datalogger Time	≤ ±5:00	Min:Sec	-0:03	Pass
2-m Temperature Accuracy	≤ ±0.5	°C	0.11	Pass
10-m Temperature Accuracy	≤ ±0.5	°C	0.11	Pass
Air Temperature Difference	≤ ±0.1	°C	0.00	Pass
<b>Climatronics Wind System</b>				
Wind Speed Torque	≤ 0.0049	oz-in	<<0.003	Pass
Low Wind Spd. Accuracy (≤5m/s)	≤ ±0.2	m/s	0.00	Pass
High Wind Spd. Accuracy (>5m/s)	≤ ±5	% input	-0.2	Pass
Wind Direction Torque	≤ 0.104	oz-in	0.070	Pass
Wind Dir. Azim. Align. (as-found)	≤ ±5	Degree	-2.3	Pass
Wind Direction Accuracy	≤ ±5	Degree	3.0	Pass
Wind Direction Linearity	≤ 3	Degree	1.3	Pass
Wind Dir. Azim. Align. (as-left)	≤ ±5	Degree	3.1	Pass
<b>RM Young Wind System</b>				
Wind Speed Torque	≤ 0.014	oz-in	0.010	Pass
Low Wind Spd. Accuracy (≤5m/s)	≤ ±0.2	m/s	0.02	Pass
High Wind Spd. Accuracy (>5m/s)	≤ ±5	% input	-0.4	Pass
Wind Direction Torque	≤ 11	g-cm	10.0	Pass
Wind Dir. Azim. Align. (as-found)	≤ ±5	Degree	-4.2	Pass
Wind Direction Accuracy	≤ ±5	Degree	4.8	Pass
Wind Direction Linearity	≤ 3	Degree	2.4	Pass
Wind Dir. Azim. Align. (as-left)	≤ ±5	Degree	-3.0	Pass
Relative Humidity (dew point)	≤ ±1.5	°C	1.0	Pass
Barometric Pressure	≤ ±3	Mbar	1.2	Pass
Weighing Precipitation	≤ ±10	% input	9.5	Pass
Solar Radiation	≤ ±5+Res	% input	No Test	N/A

**Table 2-3 Pebble 1 Fall 2005 Supplemental Audit Summaries**

Parameter	Limit	Units	Max Err	Status
Datalogger Time	≤ ±5:00	Min:Sec	-0:14	Pass
2-m Temperature Accuracy <sup>1</sup>	≤ ±0.5	°C	0.13	Pass
10-m Temperature Accuracy <sup>1</sup>	≤ ±0.5	°C	0.13	Pass
Air Temperature Difference <sup>1</sup>	≤ ±0.1	°C	0.00	Pass
<b>RM Young Wind System Before Rewiring<sup>2</sup></b>				
Low Wind Spd. Accuracy (≤5m/s)	≤ ±0.2	m/s	0.00	Pass
High Wind Spd. Accuracy (>5m/s)	≤ ±5	% input	0.0	Pass
Wind Dir. Azim. Align. (as-found)	≤ ±5	Degree	14.7	Fail <sup>4</sup>
Wind Direction Accuracy	≤ ±5	Degree	4.9	Pass
Wind Direction Linearity	≤ 3	Degree	2.7	Pass
<b>RM Young Wind System After Rewiring<sup>2</sup></b>				
Low Wind Spd. Accuracy (≤5m/s)	≤ ±0.2	m/s	-0.06	Pass
High Wind Spd. Accuracy (>5m/s)	≤ ±5	% input	1.4	Pass
Wind Direction Accuracy	≤ ±5	Degree	4.4	Pass
Wind Direction Linearity	≤ 3	Degree	2.1	Pass
Wind Dir. Azim. Align. (as-left)	≤ ±5	Degree	-4.4	Pass
Weighing Precipitation <sup>2</sup>	≤ ±10	% input	-7.3	Pass
Tipping Precipitation <sup>3</sup>	≤ ±10	% input	3.0	Pass
Evaporation <sup>3</sup>	≤ ±10	% input	3.7	Pass

1. Thermistors rewired on 10/18/05 to permanently bypass aspirator junction box.
2. RM Young and weighing precipitation gauge tested on 11/20/05.
3. Tipping precipitation gauge and evaporation gauge tested on 10/08/05.
4. RM Young knocked out of alignment just prior to test.

### **3.0 REFERENCES**

*"Draft Quality Assurance Project Plan for the Pebble Project Meteorological Monitoring Program"*, Hoefler Consulting Group, Inc.

*"Quality Assurance Manual for Ambient Air Quality Monitoring"* ADEC, August 1996.

*"Elements for Ambient Air Monitoring Quality Assurance Project Plan (QAPP)"*, ADEC, September 2004.

*"Ambient Air and/or Meteorological Monitoring Quality Assurance Project Plan (QAPP) Review Checklist"*, ADEC, September 2004.

*"Ambient Monitoring Guidelines for Prevention of Significant Deterioration (PSD)"*, EPA-450/4-87-007, May 1987.

*"Quality Assurance Requirements for Prevention of Significant Deterioration (PSD) Air Monitoring"*, EPA-40 CFR Part 58, Appendix B, November 2004.

*"On-Site Meteorological Program Guidance for Regulatory Modeling Applications"*, EPA-450/4-87-013, August 1995.

*"Meteorological Monitoring Guidance for Regulatory Modeling Applications"*, EPA-454/R-99-005, February 2000.

*"Quality Assurance Handbook for Air Pollution Measurement Systems, Volume II: Part I, Ambient Air Quality Monitoring Program Quality System Development"*, EPA-454/R-98-004, August 1998.

*"Quality Assurance Handbook for Air Pollution Measurement Systems, Volume IV: Meteorological Measurements"*, EPA/600/R-94/038d, March 1995.

*"Quality Assurance Handbook for Air Pollution Measurement Systems, Volume V: Precipitation Measurement Systems"*, EPA/600/R-94/038e, April 1994.

**APPENDIX A**  
**PERFORMANCE AUDIT DATA SHEETS and ALIGNMENT MAP**

# METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

**Owner:** Northern Dynasty  
**Auditor:** Eric Brudie

**Operator:** Dominic Shallies **Alternate:** Steve Mackey  
**Witness(s):** Dominic Shallies

**Station Site:** Station 1 (Mine)  
**Audit Date:** 15-Jan-06

● **DAS TIME AUDIT**

**PSD Limits:** DAS time = Alaska Standard Time (AST) +/- 5 minutes.  
**Conversions:** Winter; (AST) = (DST), Summer; (AST) = (DST) - 1 hr.  
**Comments:** None.

DAS TIME vs. NOAA CLOCK			
AST Time	DAS Time	Error Min:Sec	Pass/Fail?
15:40:00	15:39:57	-00:03	PASS

● **TEMPERATURE SENSORS & ΔT AUDIT**

**Lower Height:** 2.0 Meters

**Upper Height:** 10.0 Meters

**2-M Thermistor:**           **Make:** Met One           **Model:** 062MP           **S.N.#:** E3383 # 1/2           **Range:** -50 to 50 °C  
**10-M Thermistor:**       **Make:** Met One           **Model:** 062MP           **S.N.#:** E3383 # 2/2           **Range:** -50 to 50 °C  
**Audit Digital Thermometer:** **Make:** Van Waters & Rogers   **Model:** 61220-601   **S.N.#:** 51091749           **Range:** -40 to 150 °C  
**Audit Probe:**           **Make:** Van Waters & Rogers   **Model:** 61220-604   **S.N.#:** 51091789           **Range:** -40 to 150 °C

COLLOCATED THERMISTOR TEST										
Thermal Input			Station Response (2M)			Station Response (10M)			Station (Delta T)	
Temp Range	Target °C	Input °C	DAS °C	Error °C	Pass/Fail?	DAS °C	Error °C	Pass/Fail?	Delta T °C	Pass/Fail?
Ice Bath	0	-0.01	0.10	0.11	Pass	0.10	0.11	Pass	0.00	Pass
Warm	15 to 25	22.64	22.68	0.04	Pass	22.68	0.04	Pass	0.00	Pass
Hot	35 to 45	37.77	37.87	0.10	Pass	37.87	0.10	Pass	0.00	Pass
<b>Max Abs. Error</b>				0.11	<b>PASS</b>		0.11	<b>PASS</b>	0.00	<b>PASS</b>

Begin: 1420  
 End: 1440

**PSD Limits:** Max Absolute Error > 0.5 °C (Sensor Accuracy); Max Absolute Error > 0.1 °C (Delta Temperature).  
**Comments:** Met-One motor aspirated shields Model 076B-4; 2-m SN E3490, 10-m SN E3489.

● **RELATIVE HUMIDITY SENSOR AUDIT**

**Height:** 2.0 Meters

**RH Sensor:**           **Make:** Vaisala           **Model:** HMP45ASP           **S.N.#:** A1040018           **Range:** 0.8 to 100 % RH  
**Audit Equipment:**   **Make:** Vaisala           **Model:** HMI 41           **S.N.#:** X0650080           **Range:** 0 to 100 % RH  
**Audit Equipment:**   **Probe#** HMI41 X07450015

COLLOCATED STANDARD TEST									
Reading Time	Input %RH	Input AT (°C)	Input DP (°C)	DAS %RH	DAS AT (°C)	DAS DP (°C)	Error DP (°C)	Pass/Fail?	
1645	81.0	-1.8	-4.6	87.8	-1.9	-3.6	1.0	Pass	
1705	81.6	-1.9	-4.6	87.2	-2.1	-3.9	0.7	Pass	
<b>Max Abs. Error</b>							1.0	<b>PASS</b>	

**PSD Limits:** Max Absolute Error > 1.5°C Dew Point.  
**Conversions:** Td=DP(°C), Ta=AT(°C), RH=Fraction:  $Td = b \cdot \gamma / (a - \gamma)$ , where  $\gamma = a \cdot Ta / (b + Ta) + \ln(RH)$ , and a = 17.27, b=237.7°C.  
**Comments:** None.

# METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

**Owner:** Northern Dynasty  
**Auditor:** Eric Brudie

**Operator:** Dominic Shallies **Alternate:** Steve Mackey  
**Witness(s):** Dominic Shallies

**Station Site:** Station 1 (Mine)  
**Audit Date:** 15-Jan-06

● **BAROMETRIC PRESSURE SENSOR AUDIT**

**Height:**     N/A     Meters

**Pressure Sensor:** **Make:** Vaisala **Model:** PTB101B **S.N.#:** A0710039 **Range:** 600-1060 hPa  
**Audit Equipment:** **Make:** PRETEL **Model:** AltiPlus A2 **S.N.#:** 27806 **Range:** 470-1040 hPa

Audit Inst Cal Data	
Cal. Date: 05/23/05	
Audit Inst	Offset Amount
24.13	-0.13
26.18	-0.13
28.12	-0.12
30.12	-0.12
<b>Intercept</b>	<b>-0.18</b>
<b>Slope</b>	<b>0.0020</b>

COLLOCATED STANDARD TEST						
Reading Time	Raw Input in Hg	Adj Input in Hg	Adj Input mb	DAS mb	Error mb	Pass/Fail?
1535	27.79	27.67	936.9	938.1	1.2	Pass
					<b>Max Abs. Error</b>	<b>1.2</b>
						<b>PASS</b>

**PSD Limits:** Max Absolute Error > 3mb (0.3kPa).

**Comments:** None.

● **HORIZONTAL WIND SPEED SENSOR AUDIT - CLIMATRONICS**

**Height:**     11.0     Meters

**Wind Spd Sensor:** **Make:** Climatronics **Model:** 100075 **S.N.#:** 5007 **Cup #:** 2284 **Range:** 0-60 m/s  
**Audit Equipment:** **Low Spd:** RM Young **Model:** 18811 **S.N.#:** CA02136 **Torque:** Watters Mdl 366-3 **S.N.#:** 4864  
**Audit Equipment:** **High Spd:** RM Young **Model:** 18801 **S.N.#:** CA06174

TORQUE TEST			
Bearings Replaced?	Limit oz-in	Torque oz-in	Pass/Fail?
In-Situ	0.0049	<<0.003	<b>PASS</b>
New	0.0049	N/A	N/A

SYNCHRONOUS MOTOR TEST					
Input rpm	Input m/s	DAS m/s	Error m/s	Error % Input	Pass/Fail?
0	0.22	0.22	0.00	N/A	Pass
100	2.57	2.57	0.00	N/A	Pass
200	4.92	4.92	0.00	N/A	Pass
400	9.62	9.62	N/A	0.0	Pass
1000	23.72	23.67	N/A	-0.2	Pass
2000	47.22	47.21	N/A	0.0	Pass
<b>Max Abs. Error</b>			<b>0.00</b>	<b>0.2</b>	<b>PASS</b>

Begin:     1445      
 End:     1450    

**PSD Limits:** Threshold Torque >0.35gm-cm (0.0049oz-in) @ 0.50m/s. Max Absolute Error > 0.20m/s @ WS<=5m/s or > 5% of input @ WS>5m/s.

**Conversions:** Heavy Duty Al Cups: m/s = rpm÷42.55+0.22. gm-cm=72\*oz-in.

**Comments:** None.

● **HORIZONTAL WIND SPEED SENSOR AUDIT - RM YOUNG**

**Height:**     10.5     Meters

**Wind Spd Sensor:** **Make:** RM Young **Model:** 05305 AQ **S.N.#:** 66725 **Prop #:** 63047 **Range:** 0-50 m/s  
**Audit Equipment:** **Low Spd:** RM Young **Model:** 18811 **S.N.#:** CA02136 **Torque:** Watters Mdl 366-3 **S.N.#:** 4864  
**Audit Equipment:** **High Spd:** RM Young **Model:** 18801 **S.N.#:** CA06174

TORQUE TEST			
Bearings Replaced?	Limit oz-in	Torque oz-in	Pass/Fail?
In-Situ	0.014	0.010	<b>PASS</b>
New	0.014	N/A	N/A

SYNCHRONOUS MOTOR TEST					
Input rpm	Input m/s	DAS m/s	Error m/s	Error % Input	Pass/Fail?
0	0.00	0.00	0.00	N/A	Pass
400	2.05	2.07	0.02	N/A	Pass
1000	5.12	5.11	N/A	-0.2	Pass
2000	10.24	10.20	N/A	-0.4	Pass
5000	25.60	25.70	N/A	0.4	Pass
10000	51.20	51.23	N/A	0.1	Pass
<b>Max Abs. Error</b>			<b>0.02</b>	<b>0.4</b>	<b>PASS</b>

Begin:     1515      
 End:     1530    

**PSD Limits:** Threshold Torque >1.0gm-cm (0.014oz-in) @ 0.50m/s. Max Absolute Error > 0.20m/s @ WS<=5m/s or > 5% of input @ WS>5m/s.

**Conversions:** Model 08254 Prop: m/s = 0.00512\*rpm. gm-cm=72\*oz-in.

**Comments:** None.

# METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

**Owner:** Northern Dynasty  
**Auditor:** Eric Brudie

**Operator:** Dominic Shallies **Alternate:** Steve Mackey  
**Witness(s):** Dominic Shallies

**Station Site:** Station 1 (Mine)  
**Audit Date:** 15-Jan-06

● **HORIZONTAL WIND DIRECTION SENSOR AUDIT - CLIMATRONICS**

**Height:** 11.0 Meters

**Wind Dir Sensor:** **Make:** Climatronics **Model:** 100076 **S.N.#:** 4691 **Vane #:** 1440 **Range:** 0-360 **Deg**  
**Audit Equipment:** **Linearity:** Climatronics **Model:** 101984 **S.N.#:** 145 **Torque:** Honeywell Mdl 366-0 **S.N.#:** 5042  
**Compass:** Brunton **Model:** 11-F5008 **S.N.#:** 5080799319 **Magnetic Declin:** 17.7 **E of N**

TORQUE TEST			
Bearings Replaced?	Limit oz-in	Torque oz-in	Pass/Fail?
In-Situ	0.104	0.070	<b>PASS</b>
New	0.104	N/A	N/A

IN SITU AZIMUTH ALIGNMENT TEST				
Description	Input Deg	DAS Deg	Error Deg	Pass/Fail?
Compass	102.0	100.6	-1.4	Pass
Compass	167.5	166.1	-1.4	Pass
Compass	265.0	262.7	-2.3	Pass
Compass	341.0	339.0	-2.0	Pass
<b>Max Abs. Error</b>			<b>2.3</b>	<b>PASS</b>
<b>Mean Abs. Error</b>			<b>1.8</b>	<b>GOOD</b>

**Time:** Begin: 1200 End: 1300

CROSSARM-VANE ACCUR. & LIN. TEST				
Input Dir	Input Deg	DAS Deg	Error Deg	Pass/Fail?
South	180.0			
West	270.0			
North	360.0			
East	90.0			
North	360.0			
West	270.0			
South	180.0			
East	90.0			
<b>Max Abs. Error</b>				
<b>Mean Abs. Error</b>				

**Time:** Begin:            End:           

BENCH STAND ACCURACY & LINEARITY TEST							
Input Deg	DAS Deg	Error Deg	Pass/Fail?	Input Deg	DAS Deg	Error Deg	Pass/Fail?
30.0	30.4	0.4	Pass	330.0	333.0	3.0	Pass
60.0	60.7	0.7	Pass	355.0	357.3	2.3	Pass
90.0	91.2	1.2	Pass	30.0	30.5	0.5	Pass
120.0	121.5	1.5	Pass	60.0	60.8	0.8	Pass
150.0	150.9	0.9	Pass	90.0	91.3	1.3	Pass
180.0	181.2	1.2	Pass	120.0	121.2	1.2	Pass
210.0	210.7	0.7	Pass	150.0	150.8	0.8	Pass
240.0	241.7	1.7	Pass	180.0	181.3	1.3	Pass
270.0	272.0	2.0	Pass	<b>Max Abs. Error</b>		<b>3.0</b>	<b>PASS</b>
300.0	302.0	2.0	Pass	<b>Mean Abs. Error</b>		<b>1.3</b>	<b>PASS</b>

**Time:** Begin: 1504 End: 1510

POST-AUDIT AZIMUTH ALIGNMENT TEST				
Description	Input Deg	DAS Deg	Error Deg	Pass/Fail?
Compass	113.5	110.5	-3.0	Pass
Compass	294.0	297.1	3.1	Pass
<b>Max Abs. Error</b>			<b>3.1</b>	<b>PASS</b>
<b>Mean Abs. Error</b>			<b>3.1</b>	<b>ALERT</b>

**Time:** Begin: 1630 End: 900

**PSD Limits:** Threshold Torque >7.5 gm-cm (.104 oz-in) @ 0.5 m/s. Max Absolute Error >5° from True Azimuth (alignment).  
 Max Absolute Error >5° (accuracy). Mean Absolute Error >3° (linearity). Azimuth Mean Absolute Error calculated for information only.  
**Comments:** Few data points for post-audit alignment test on a windy day, yielding an alert for a high average.







# METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

**Owner:** Northern Dynasty  
**Auditor:** Eric Brudie

**Operator:** Dominic Shallies **Alternate:** Steve Mackey  
**Witness(s):** Dominic Shallies

**Station Site:** Station 1 (Mine)  
**Audit Date:** Oct-Nov, 2005

● **GENERAL NOTES:**

- 1) On 10/08/05 the Nova Lynx evaporation pan and Met-One tipping precipitation gauge were audited and winterized.
- 2) On 10/18/05 the temperature sensors were audited after permanent bypass of the Met-One aspirator junction box.
- 3) On 11/20/05 the Met-One tipping precipitation gauge was replaced with an ETI weighing gauge. The RM Young wind sensor was rewired through a converter in order to free up a channel for the ETI device and was thus audited before and after rewiring.

● **TIPPING PRECIPITATION GAUGE AUDIT**

**Height:** 1.0 Meters

**Precipitation Gauge:** **Make:** Met-One **Model:** 370 - 0.2mm **S.N.#:** D5874 **Range:** 3 Inches per Hour  
**Audit Equipment:** **Make:** Nova Lynx Corp. **Model:** 260-2595 **S.N.#:** 936 **Range:** 2 Inches per Hour  
**Diameter:** 8.00 Inches **Volume Rate** 32.43 ml/mm **Int1/Int2:** DAS hourly data and/or adjustments.

PRECIPITATION GAUGE VOLUME TEST											
Start Time	Input Vol ml	Input mm	Begin mm	Int 1 mm	Int 2 mm	End mm	End Time	Final mm	Error % Input	Pass/Fail?	Notes
1205	800	24.7	0.0	0.0	0.0	24.6	1300	24.6	-0.4%	Pass	Date: 10/08/2005
1305	800	24.7	0.0	0.0	0.0	24.6	1400	24.6	-0.4%	Pass	Date: 10/08/2005
1710	650	20.0	1.6	0.0	0.0	22.2	1800	20.6	3.0%	Pass	Date: 11/03/2005
									<b>Max Abs. Error</b>	<b>3.0%</b>	<b>PASS</b>

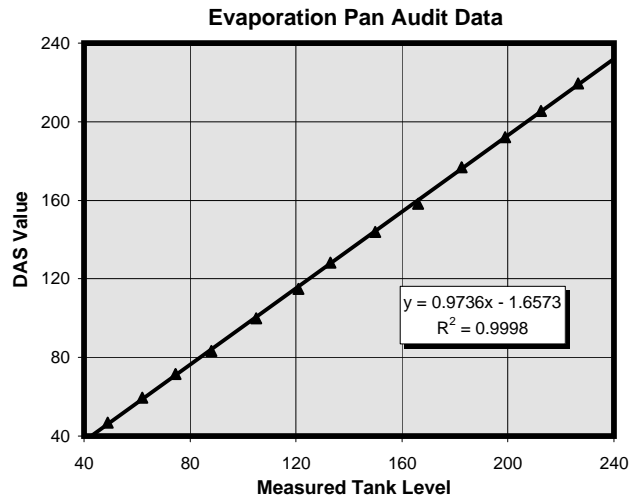
**PSD Limits:** Max Absolute Error > 10 % of Input.  
**Comments:** Tests run on 10/8/05 and 11/03/05.

● **EVAPORATION GAUGE AUDIT**

**Height:** 0.5 Meters

**Evaporation Gauge:** **Make:** NovaLynx **Model:** 255-100 **S.N.#:** 695 **Range:** 40-254 mm  
**Evaporation Pan:** **Make:** NovaLynx **Model:** 255-200 **S.N.#:** None **Range:** 0-254 mm

EVAPORATION PAN STAGE HEIGHT TEST					
Pan Level	DAS mm	Level + Intcpt	Error mm	Error % Input	Pass/Fail?
49.0	46.93	47.3	0.4	0.9%	Pass
62.0	59.44	60.3	0.9	1.5%	Pass
74.5	71.58	72.8	1.3	1.7%	Pass
88.0	83.20	86.3	3.1	3.6%	Pass
105.0	99.80	103.3	3.5	3.4%	Pass
121.0	115.06	119.3	4.3	3.6%	Pass
133.0	128.15	131.3	3.2	2.4%	Pass
150.0	144.06	148.3	4.3	2.9%	Pass
166.0	158.30	164.3	6.0	3.7%	Pass
182.5	176.94	180.8	3.9	2.2%	Pass
199.0	192.01	197.3	5.3	2.7%	Pass
212.5	205.41	210.8	5.4	2.6%	Pass
226.5	219.59	224.8	5.3	2.3%	Pass
241.0	233.31	239.3	6.0	2.5%	Pass
<b>Max Abs. Error</b>			<b>6.0</b>	<b>3.7%</b>	<b>PASS</b>
<b>Intercept</b>		<b>-1.7</b>	<b>Slope</b>		<b>0.9736</b>
					<b>PASS</b>



**Date:** 10/08/05 **Time:** Begin: 1233 End: 1315

**PSD Limits:** Max Absolute Error > 10 % of Input adjusted for slope/intercept.  
**Comments:** Instrument audited before winterization.

# METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

**Owner:** Northern Dynasty  
**Auditor:** Eric Brudie

**Operator:** Dominic Shallies **Alternate:** Steve Mackey  
**Witness(s):** Dominic Shallies

**Station Site:** Station 1 (Mine)  
**Audit Date:** Oct-Nov, 2005

● **DAS TIME AUDIT**

**PSD Limits:** DAS time = Alaska Standard Time (AST) +/- 5 minutes.  
**Conversions:** Winter; (AST) = (DST), Summer; (AST) = (DST) - 1 hr.  
**Comments:** Date: 10/08/05.

DAS TIME vs. NOAA CLOCK			
AST Time	DAS Time	Error Min:Sec	Pass/Fail?
16:22:24	16:22:10	-00:14	PASS

● **WEIGHING PRECIPITATION GAUGE AUDIT**

**Height:** 1.5 Meters

**Precipitation Gauge:** **Make:** ETI **Model:** 8205-00710 Noah II **S.N.#:** 334 **Range:** 6 Inches per Hour  
**Audit Equipment:** **Make:** Nova Lynx Corp. **Model:** 260-2595 **S.N.#:** 936 **Range:** 2 Inches per Hour  
**Diameter:** 12.00 Inches **Volume Rate** 72.97 ml/mm

PRECIPITATION GAUGE VOLUME TEST										
Reading Time	Approx in	Input Vol ml	Input mm	Begin mm	End mm	Delta mm	Error % Input	Pass/Fail?	Notes	
1628	4.75	500	6.9	100.58	106.93	6.35	-7.3%	Pass	Date: 11/20/05.	
<b>Max Abs. Error</b>							<b>7.3%</b>	<b>PASS</b>		

**PSD Limits:** Max Absolute Error > 10 % of Input.  
**Comments:** Instrument installed on 11/20/05. Time for only one audit point due to weather and helicopter schedule.

● **TEMPERATURE SENSORS & AT AUDIT**

**Lower Height:** 2.0 Meters **Upper Height:** 10.0 Meters

**2-M Thermistor:** **Make:** Met One **Model:** 062MP **S.N.#:** E3383 # 1/2 **Range:** -50 to 50 °C  
**10-M Thermistor:** **Make:** Met One **Model:** 062MP **S.N.#:** E3383 # 2/2 **Range:** -50 to 50 °C  
**Audit Digital Thermometer:** **Make:** Van Waters & Rogers **Model:** 61220-601 **S.N.#:** 51091749 **Range:** -40 to 150 °C  
**Audit Probe:** **Make:** Van Waters & Rogers **Model:** 61220-604 **S.N.#:** 51091789 **Range:** -40 to 150 °C

COLLOCATED THERMISTOR TEST										
Thermal Input			Station Response (2M)			Station Response (10M)			Station (Delta T)	
Temp Range	Target °C	Input °C	DAS °C	Error °C	Pass/Fail?	DAS °C	Error °C	Pass/Fail?	Delta T °C	Pass/Fail?
Ice Bath	0	0.00	0.08	0.08	Pass	0.08	0.08	Pass	0.00	Pass
Warm	15 to 25	19.87	19.88	0.01	Pass	19.88	0.01	Pass	0.00	Pass
Hot	35 to 45	40.55	40.68	0.13	Pass	40.68	0.13	Pass	0.00	Pass
<b>Max Abs. Error</b>				<b>0.13</b>	<b>PASS</b>		<b>0.13</b>	<b>PASS</b>	<b>0.00</b>	<b>PASS</b>

**Date:** 10/18/05  
**Begin:** 1603  
**End:** 1625

**PSD Limits:** Max Absolute Error > 0.5 °C (Sensor Accuracy); Max Absolute Error > 0.1 °C (Delta Temperature).  
**Comments:** Checked thermistors after permanent bypass of Met-One aspirator junction box.

# METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

**Owner:** Northern Dynasty  
**Auditor:** Eric Brudie

**Operator:** Dominic Shallies **Alternate:** Steve Mackey  
**Witness(s):** Dominic Shallies

**Station Site:** Station 1 (Mine)  
**Audit Date:** Oct-Nov, 2005

● **HORIZONTAL WIND SPEED SENSOR AUDIT - RM YOUNG (Pre-Conversion)**

**Height:** 10.5 Meters

**Wind Spd Sensor:** **Make:** RM Young **Model:** 05305 AQ **S.N.#:** 66725 **Prop #:** 63047 **Range:** 0-50 m/s  
**Audit Equipment:** **Low Spd:** RM Young **Model:** 18811 **S.N.#:** CA02136 **Torque:** Watters Mdl 366-3 **S.N.#:** 4864  
**Audit Equipment:** **High Spd:** RM Young **Model:** 18801 **S.N.#:** CA06174

**Date:** 11/20/05  
**Begin:** 1115  
**End:** 1120

**PSD Limits:** Threshold Torque >1.0gm-cm (0.014oz-in) @ 0.50m/s. Max Absolute Error > 0.20m/s @ WS<=5m/s or > 5% of input @ WS>5m/s.

**Conversions:** Model 08254 Prop: m/s = 0.00512\*rpm. gm-cm=72\*oz-in.  
**Comments:** Values before installing pulse to mv converter.

SYNCHRONOUS MOTOR TEST					
Input rpm	Input m/s	DAS m/s	Error m/s	Error % Input	Pass/Fail?
0	0.00	0.00	0.00	N/A	Pass
400	2.05	2.05	0.00	N/A	Pass
1000	5.12	5.12	N/A	0.0	Pass
2000	10.24	10.24	N/A	0.0	Pass
5000	25.60	25.60	N/A	0.0	Pass
10000	51.20	51.20	N/A	0.0	Pass
<b>Max Abs. Error</b>			<b>0.00</b>	<b>0.0</b>	<b>PASS</b>

● **HORIZONTAL WIND DIRECTION SENSOR AUDIT - RM YOUNG (Pre-Conversion)**

**Height:** 10.5 Meters

**Wind Dir Sensor:** **Make:** RM Young **Model:** 05305 AQ **S.N.#:** 66725 **Vane #:** N/A **Range:** 0-360 Deg  
**Audit Equipment:** **Linearity:** RMY Mdl 18112 Bench Stand **S.N.#:** None **Torque:** RMY Mdl 18331 Torque Gauge **S.N.#:** None  
**Compass:** Brunton **Model:** 11-F5008 **S.N.#:** 5080799319 **Magnetic Declin:** 17.7 E of N

IN SITU AZIMUTH ALIGNMENT TEST				
Description	Input Deg	DAS Deg	Error Deg	Pass/Fail?
Compass	104.5	118.6	14.1	Fail
Compass	169.0	182.5	13.5	Fail
Compass	270.0	284.1	14.1	Fail
Compass	9.5	24.2	14.7	Fail
<b>Max Abs. Error</b>			<b>14.7</b>	<b>FAIL</b>
<b>Mean Abs. Error</b>			<b>14.1</b>	<b>ALERT</b>

**Prior to installing converter** **Date:** 11/20/05 **Time:** **Begin:** 1040 **End:** 1105

BENCH STAND ACCURACY & LINEARITY TEST											
Input Deg	DAS Deg	Error Deg	Pass/Fail?	Input Deg	DAS Deg	Error Deg	Pass/Fail?	Input Deg	DAS Deg	Error Deg	Pass/Fail?
30.0	34.9	4.9	Pass	150.0	149.9	-0.1	Pass	270.0	274.9	4.9	Pass
60.0	63.1	3.1	Pass	180.0	180.4	0.4	Pass	300.0	303.8	3.8	Pass
90.0	92.8	2.8	Pass	210.0	212.1	2.1	Pass	330.0	334.2	4.2	Pass
120.0	121.8	1.8	Pass	240.0	242.1	2.1	Pass	355.0	357.0	2.0	Pass
<b>Max Abs. Error</b>									<b>4.9</b>	<b>PASS</b>	
<b>Mean Abs. Error</b>									<b>2.7</b>	<b>PASS</b>	

**Prior to installing converter** **Date:** 11/20/05 **Time:** **Begin:** 1120 **End:** 1125

**PSD Limits:** Threshold Torque >11.0 gm-cm (0.153 oz-in) @ 0.5 m/s. Max Absolute Error >5° from True Azimuth (alignment).

Max Absolute Error >5° (accuracy). Mean Absolute Error >3° (linearity). Azimuth Mean Absolute Error calculated for information only.

**Comments:** RM Young wind sensor placed on a pulse to mv converter in order to free a DAS channel for the ETI Noah gauge. The RM Young extension arm was frozen up and knocked out of alignment just prior to in-situ azimuth audit.

# METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

**Owner:** Northern Dynasty  
**Auditor:** Eric Brudie

**Operator:** Dominic Shallies **Alternate:** Steve Mackey  
**Witness(s):** Dominic Shallies

**Station Site:** Station 1 (Mine)  
**Audit Date:** Oct-Nov, 2005

● **HORIZONTAL WIND SPEED SENSOR AUDIT - RM YOUNG (Post-Conversion)**

**Height:** 10.5 Meters

**Wind Spd Sensor:** **Make:** RM Young **Model:** 05305 AQ **S.N.#:** 66725 **Prop #:** 63047 **Range:** 0-50 m/s  
**Audit Equipment:** **Low Spd:** RM Young **Model:** 18811 **S.N.#:** CA02136 **Torque:** Watters Mdl 366-3 **S.N.#:** 4864  
**Audit Equipment:** **High Spd:** RM Young **Model:** 18801 **S.N.#:** CA06174

**Date:** 11/20/05  
**Begin:** 1305  
**End:** 1310

**PSD Limits:** Threshold Torque >1.0gm-cm (0.014oz-in) @ 0.50m/s. Max Absolute Error > 0.20m/s @ WS<=5m/s or > 5% of input @ WS>5m/s.

**Conversions:** Model 08254 Prop: m/s = 0.00512\*rpm. gm-cm=72\*oz-in.  
**Comments:** Values after installing pulse to mv converter.

SYNCHRONOUS MOTOR TEST					
Input rpm	Input m/s	DAS m/s	Error m/s	Error % Input	Pass/Fail?
0	0.00	0.00	0.00	N/A	Pass
400	2.05	1.99	-0.06	N/A	Pass
1000	5.12	5.19	N/A	1.4	Pass
2000	10.24	10.24	N/A	0.0	Pass
5000	25.60	25.66	N/A	0.2	Pass
10000	51.20	51.22	N/A	0.0	Pass
<b>Max Abs. Error</b>			<b>0.06</b>	<b>1.4</b>	<b>PASS</b>

● **HORIZONTAL WIND DIRECTION SENSOR AUDIT - RM YOUNG (Post-Conversion)**

**Height:** 10.5 Meters

**Wind Dir Sensor:** **Make:** RM Young **Model:** 05305 AQ **S.N.#:** 66725 **Vane #:** N/A **Range:** 0-360 Deg  
**Audit Equipment:** **Linearity:** RMY Mdl 18112 Bench Stand **S.N.#:** None **Torque:** RMY Mdl 18331 Torque Gauge **S.N.#:** None  
**Compass:** Brunton **Model:** 11-F5008 **S.N.#:** 5080799319 **Magnetic Declin:** 17.7 E of N

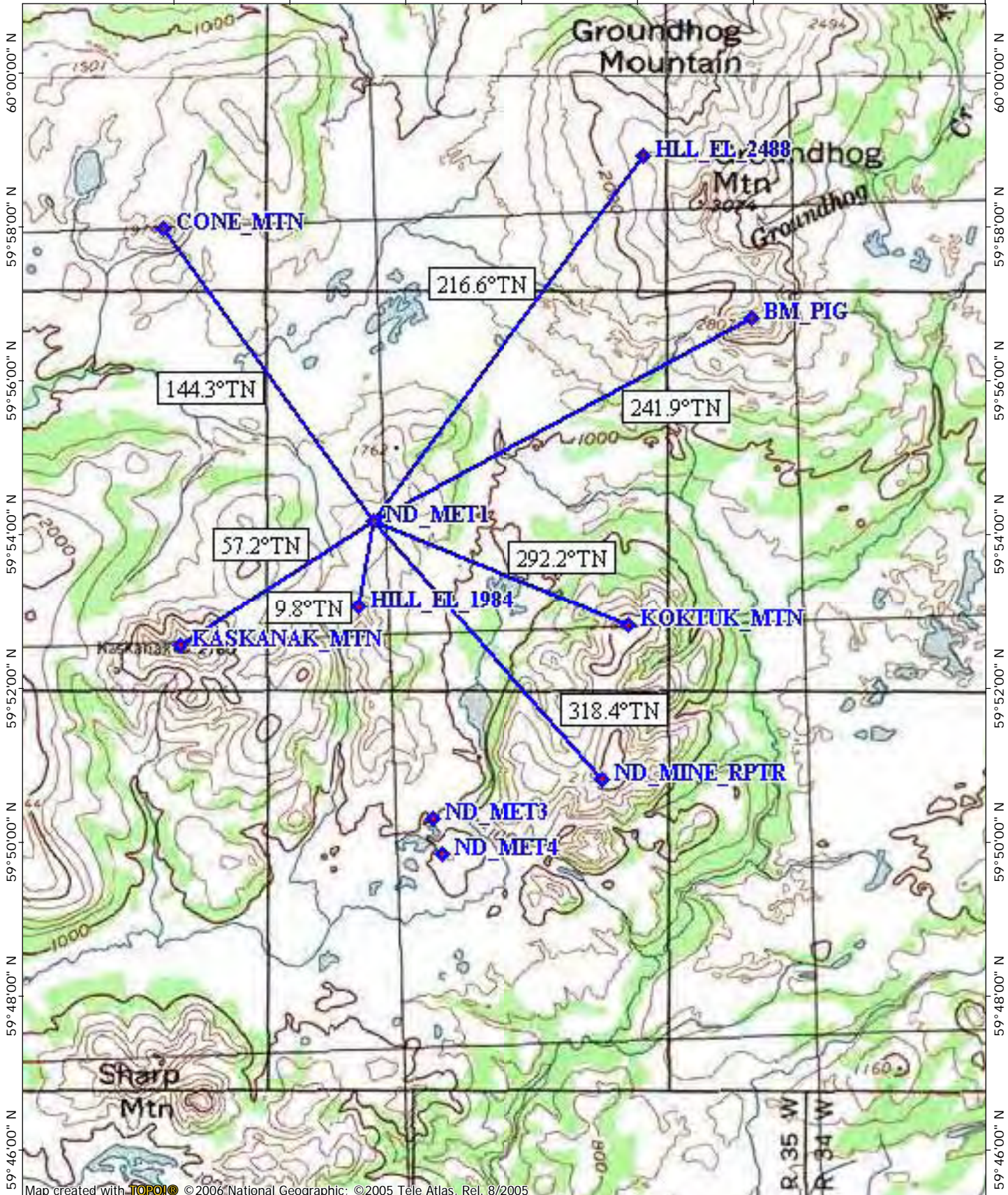
BENCH STAND ACCURACY & LINEARITY TEST											
Input Deg	DAS Deg	Error Deg	Pass/Fail?	Input Deg	DAS Deg	Error Deg	Pass/Fail?	Input Deg	DAS Deg	Error Deg	Pass/Fail?
30.0	32.3	2.3	Pass	150.0	153.2	3.2	Pass	270.0	272.0	2.0	Pass
60.0	61.2	1.2	Pass	180.0	182.1	2.1	Pass	300.0	301.2	1.2	Pass
90.0	93.9	3.9	Pass	210.0	212.2	2.2	Pass	330.0	330.8	0.8	Pass
120.0	124.4	4.4	Pass	240.0	242.3	2.3	Pass	355.0	355.1	0.1	Pass
<b>Max Abs. Error</b>									<b>4.4</b>	<b>PASS</b>	
<b>Mean Abs. Error</b>									<b>2.1</b>	<b>PASS</b>	

**After installing converter** **Date:** 11/20/05 **Time:** **Begin:** 1315 **End:** 1320

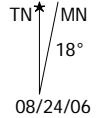
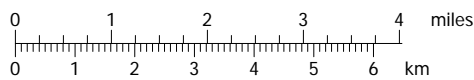
POST-AUDIT AZIMUTH ALIGNMENT TEST				
Description	Input Deg	DAS Deg	Error Deg	Pass/Fail?
Compass	96.0	95.4	-0.6	Pass
Compass	167.5	165.4	-2.1	Pass
Compass	259.5	256.0	-3.5	Pass
Compass	6.0	1.6	-4.4	Pass
<b>Max Abs. Error</b>		<b>4.4</b>	<b>PASS</b>	
<b>Mean Abs. Error</b>		<b>2.7</b>	<b>GOOD</b>	

**After installing converter** **Date:** 11/20/05 **Time:** **Begin:** 1445 **End:** 1515

**PSD Limits:** Threshold Torque >11.0 gm-cm (0.153 oz-in) @ 0.5 m/s. Max Absolute Error >5° from True Azimuth (alignment).  
 Max Absolute Error >5° (accuracy). Mean Absolute Error >3° (linearity). Azimuth Mean Absolute Error calculated for information only.  
**Comments:** RM Young wind sensor placed on a pulse to mv converter in order to make room for the ETI Noah gauge.



Map created with TOPO! © 2006 National Geographic; © 2005 Tele Atlas, Rel. 8/2005



**APPENDIX B**  
**AUDIT EQUIPMENT CALIBRATION CERTIFICATES**



## Calibration complies with ISO 17025



Cert. No.:4000-1103531

### Traceable® Certificate of Calibration for Digital Thermometer

#### Instrument Identification:

Model: 61220-601      S/N: 51091749      Manufacturer : Control Company  
 Model: 61220-604      S/N: 51091789

#### Standards/Equipment:

Description	Serial Number	Due Date	NIST Traceable Reference
Temperature Probe	128	10/18/05	A4A12029
Thermistor Module	A27129	6/24/05	1000171514
Temperature Calibration Bath	A42238		
Temperature Probe	149	7/20/05	A4715024
Thermistor Module	A27129	6/24/05	1000171514
Temperature Calibration Bath	93139		

#### Certificate Information:

Technician: 68      Procedure: CAL-06      Cal Date: 4/27/05      Cal Due: 4/27/07  
 Test Conditions:    24.0°C    41.0 %RH    1016 mBar

#### Calibration Data: (New Instrument)

Unit(s)	Nominal	As Found	In Tol	Nominal	As Left	In Tol	Min	Max	±uc	TUR
°C		N.A.		0.001	0.003	Y	-0.049	0.051	0.013	3.8:1
°C		N.A.		25.001	25.002	Y	24.951	25.051	0.013	3.8:1
°C		N.A.		59.999	59.999	Y	59.949	60.049	0.013	3.8:1
°C		N.A.		100.001	100.007	Y	99.951	100.051	0.013	3.8:1

#### This Instrument was calibrated using Instruments Traceable to National Institute of Standards and Technology.

A Test Uncertainty Ratio of at least 4:1 is maintained unless otherwise stated and is calculated using the expanded measurement uncertainty. Uncertainty evaluation includes the instrument under test and is calculated in accordance with the ISO "Guide to the Expression of Uncertainty in Measurement" (GUM). The uncertainty represents an expanded uncertainty using a coverage factor k=2 to approximate a 95% confidence level. In tolerance conditions are based on test results falling within specified limits with no reduction by the uncertainty of the measurement. The results contained herein relate only to the item calibrated. This certificate shall not be reproduced except in full.

*Wallace Berry*  
Wallace Berry, Technical Manager

#### Maintaining Accuracy:

In our opinion once calibrated your Digital Thermometer should maintain its accuracy. There is no exact way to determine how long calibration will be maintained. Digital Thermometers change little, if any at all, but can be affected by aging, temperature, shock, and contamination.

#### Recalibration:

For factory calibration and re-certification traceable to National Institute of Standards and Technology contact Control Company.

**CONTROL COMPANY 4455 Rex Road Friendswood, TX 77546 USA**  
**Phone 281 482-1714 Fax 281 482-9448 service@control3.com www.control3.com**

Control Company is an ISO 17025 Calibration Laboratory Accredited by (A2LA) American Association for Laboratory Accreditation, Certificate No. 1750.01.  
 Control Company is ISO 9001 Quality Certified by (DNV) Det Norske Veritas, Certificate No. CERT-01805-AQ-HOU.





# Certificate of Calibration

Report #: 101705-X0740015-RH RMA #: 95-49728

Calibration Date: Oct-17-2005

Model #: HMI41/HMP45

Serial #: X0650080 / X0740015

Instrument Type: Humidity Transmitter  
Instrument Range: 0 to 100%RH

Calibration Procedure: 11603100  
Recommended Calibration Due Date: Oct-17-2006

Customer: HOEFLER CONSULTING GROUP  
City, State: ANCHORAGE, AK

This unit was calibrated by adjusting its reading at 0%\* against a dry-air line and at 75% against reference humidity and temperature instrument, Vaisala model HMP233. Additional instrument verification checkpoints were made against HMP233 reference at 11%RH, 33%RH and 97%\* RH. Calibration and instrument verification sequences utilize a dry-air line and a set of controlled aqueous salt solutions Vaisala model HMK13B. Laboratory ambient conditions are humidity and temperature controlled. The calibration uncertainty is presented at 95% confidence level, k=2. The standard uncertainty of the measurement has been determined in accordance with U.S. Guide to the Expression of Uncertainty in Measurement. \*Note: the 0% and 97% RH points are not ISO17025 Accredited.

Calibration Data (As Found)				
Out of Tolerance: NO				
Temperature Calibration, °C				
Reference	Unit Under Test	Error	± Tolerance, °C	± Uncertainty, °C
21.35	21.50	0.15	0.20	0.07
Humidity Calibration, %RH				
Reference	Unit Under Test	Error	± Tolerance, %	± Uncertainty %
11.13	11.40	0.27	2.00	0.92
32.70	33.10	0.40	2.00	1.01
75.44	75.00	-0.44	2.00	1.02
97.60	97.50	-0.10	3.00	N/A *
Calibration Data (As Left)				
Temperature Calibration, °C				
Reference	Unit Under Test	Error	± Tolerance, °C	± Uncertainty, °C
21.35	21.50	0.15	0.20	0.07
Humidity Calibration, %RH				
Reference	Unit Under Test	Error	± Tolerance, %	± Uncertainty %
11.13	11.40	0.27	2.00	0.92
32.70	33.10	0.40	2.00	1.01
75.44	75.00	-0.44	2.00	1.02
97.60	97.50	-0.10	3.00	N/A *

Problem Noted: None  
Action Taken: No Adjustment Was Necessary

The results of this calibration are related only to the items being calibrated, and, are traceable to the National Institute of Standards and Technology through NIST Test Report Number 270953-05, dated Oct. 29, 2004. Vaisala's calibration system has been established to meet the requirements of ANSI/NCSL Z540-1-1994. This certificate can not be reproduced, except in full, without the expressed written consent of Vaisala. The certificate was established to comply with the requirements of ISO/IEC17025. Vaisala is ISO 9001:2000 certified.

Calibration Equipment Used: Workstation 1B			
Model Number	Serial Number	Calibration Date	Due Date
Power Supply	TW14949	Nov. 24, 2004	Nov. 24, 2006
Fluke 45	7405014	Aug. 16, 2005	Aug. 16, 2006
HMK13B	500004	Sep. 2, 2005	Mar. 5, 2006
HMP233	V4210040	Jul. 21, 2005	Oct. 21, 2005

Ambient Conditions	
Temperature:	21.50 °C
Humidity:	50.00 %RH

Approved By

Technical Operator  
Jari Siltavuori





**R.M. Young Company**  
2801 Aero Park Drive  
Traverse City, Michigan 49686 USA

### Certificate of Calibration and Testing

<b>Test Unit:</b>			
Model:	18811	Serial Number:	CA02136
Description:	Anemometer Drive - 20 to 990 Rpm - Comprised of Models 18820A Control Unit & 18831A Motor Assembly		

R.M. Young Company certifies that the above equipment has been inspected and calibrated using standards whose accuracies are traceable to the National Institute of Standards and Technologies (NIST).

Nominal Motor Rpm	27106D Output Frequency Hz (1)	Calculated Rpm (2)	Indicated Rpm (3)
30.0	5	30.0	30.0
150.0	25	150.0	150.0
300.0	50	300.0	300.0
450.0	75	450.0	450.0
600.0	100	600.0	600.0
750.0	125	750.0	750.0
990.0	165	990.0	990.0

Clockwise and Counterclockwise rotation verified

- (1) Measured frequency output of RM Young Model 27106D standard anemometer attached to motor shaft
- (2) 27106D produces 10 pulses per revolution of anemometer shaft
- (3) Indicated on the Control Unit LCD display

\*Indicates out of tolerance

No Calibration Adjustments Required       As Found       As Left

Traceable frequency meter used in calibration      DP4863

Date of inspection      3 May 2005

Tested By



**R.M. Young Company**  
2801 Aero Park Drive  
Traverse City, Michigan 49686 USA

### Certificate of Calibration and Testing

<b>Test Unit:</b>			
Model:	18801	Serial Number:	CA01674
Description:	Anemometer Drive - 10 to 10,000 RPM - Comprised of Models 18820 Control Unit & 18830 Motor Assembly		

R.M. Young Company certifies that the above equipment has been inspected and calibrated using standards whose accuracies are traceable to the National Institute of Standards and Technologies (NIST).

Nominal Motor Rpm	Output Frequency (1) Hz	Calculated Rpm (2)	Indicated Rpm (3)
600	320	600	600
1200	640	1200	1200
2400	1280	2400	2400
4200	2240	4200	4200
6000	3200	6000	6000
8100	4320	8100	8100
9900	5280	9900	9900

Clockwise and Counterclockwise rotation verified

- (1) Measured at the optical encoder output
- (2) Frequency output produces 32 pulses per revolution of the motor shaft
- (3) Indicated on the Control Unit LCD display

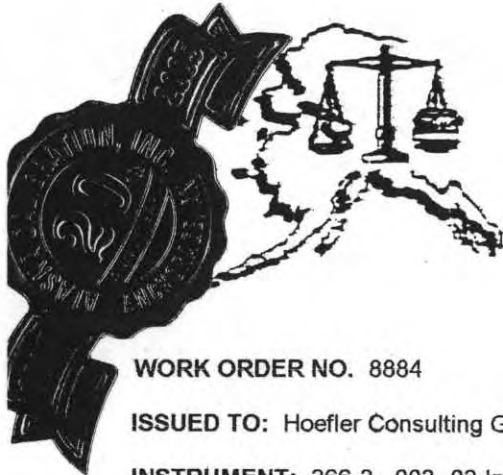
\*Indicates out of tolerance

No Calibration Adjustments Required       As Found       As Left

Traceable frequency meter used in calibration      DP4863

Date of inspection      17 November 2005

Tested By EP



# Alaska Calibration, Inc.

Troubleshooting, Repair and Calibration of  
Test & Measurement Equipment

## CERTIFICATE OF CALIBRATION

WORK ORDER NO. 8884

TRACEABILITY CERTIFICATE NO. 05090203

ISSUED TO: Hoefler Consulting Group

INSTRUMENT: 366-3, .003-.03 Inch Ounces Torque Watch, Waters Manufacturing, Inc, S/N 4864

DATE DONE: September 02, 2005

DATE DUE: September 01, 2006

CERTIFIED BY METROLOGIST: *E.P. Young*  
E.P. Young

TEMPERATURE: 72 °F HUMIDITY: 43% RH

INCOMING STATUS: This instrument was in (XX) was out of ( ) tolerance when received.

PROCEDURE/LIMITATIONS/ACCURACY STATEMENT: T.O. 33k6-4-2630-1. Accuracy: +/- 10 % of Full Scale.

### COMPLIANCE

Alaska Calibration, Inc.'s calibration practices and procedures comply with the requirements of ANSI/SO/Z540-1 and ANSI/ISO/IEC17025: 2000 and relevant requirements of ISO 9002: 1994. The standards used are certified as being traceable to the National Institute of Standards and Technology (NIST), by comparison to SI units through laboratory standards in an unbroken chain of calibrations through appropriate primary and national measurement standards, derived from an acceptable value of a natural physical constant, or derived by the ratio type of self calibration techniques. This Certificate shall not be reproduced, except in full, without the written approval of Alaska Calibration, Inc.

4706 Harding Drive, Suite A, Anchorage, Alaska 99517-3119 (907) 677-1993

# Houston Precision, Inc.

8729 Gulf Freeway  
Houston, TX 77017-6504

# Calibration Report

<b>Company:</b> Hoefler Consulting Group	<b>Doc #:</b> 33479
<b>Address:</b> 3401 Minnesota Drive Suite 300 Anchorage, AK 99503	<b>Date:</b> 12/20/2005
<b>Contact:</b> Chris Lindsey	<b>PO#:</b> Verbal
<b>Dept:</b>	<b>Page:</b> 1
<b>Gage:</b> .06-.60 oz Torque Watch	<b>Control:</b> 5042
<b>Mfg:</b> Honeywell	<b>Model:</b> .06-.60 oz Torque Watch
<b>Location:</b>	<b>Serial #:</b> 5042

## Parameters:

Parameter:

## Text:

## Comments:

Calibration Completed by: Cal-Tech Calibration, INC  
Original Certificate (attached) # 1768

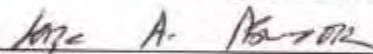
Reference HPI S/O # 13385

We certify the equipment used for this calibration is traceable to NIST through one or more of the following numbers:

Last / Next Cal Dates: -->

**Gage Status: PASS**

**Next Calibration Due: 12/20/2006**

Certified By: Jorge Ashook Signature: 

This certificate is not valid unless all 1 page(s) are present.

\*Laboratory Environmental Conditions: Temperature: 21C +/- 2C, Relative Humidity: between 40% and 60%.

\*Calibration measurements are performed in accordance with guidelines set forth in ANSI/NCSL Z540-1-1994, ISO10012-1, and Houston Precision's Quality manual.

\*If additional information regarding this calibration is required, please contact this laboratory.

\*All calibrations have been performed under the supervision and authority of Gary Deterling Lab Manager.

\*This Report shall not be reproduced except in full, or with the expressed written permission of Houston Precision, Inc.

End of document.


## *Certificate of Calibration*

The instrument listed below meets or exceeds published specifications and has been calibrated under controlled conditions and is traceable to the National Institute of Standards and Technology(N.I.S.T.), or to accepted intrinsic standards of measurement, or by the ratio type of self-calibration techniques. Cal-Tech Calibration conforms to the following, ANSI/NCSL Z540-1-1994, ISO/IEC 25/17025.

Customer: Houston Precision  
Certificate Number: 1768  
Instrument Make: Honeywell  
Model: .06-.60" oz Torque Watch  
S/N: None  
ID: 5042

Date: 12-20-05  
Temp: 74 Deg f  
Humidity: 40%  
Rec. In Tol.  
Due Date: 12-20-06

This report may not be reproduced, except in full without written permission from Cal-Tec Calibration.

Certification by: 

Accuracy:  $\pm$  5% of full scale.

Comments:

Standards Used	Model	Certification Number	Due Date
----------------	-------	----------------------	----------

Troemner	1g-100g	822/265036-01	3-22-06
----------	---------	---------------	---------

Inch Oz. Range	As Found	After Adjust	Final Reading
.06	.05	none	.05
.18	.17	none	.17
.36	.35	none	.35
.48	.47	none	.47
.60	.59	none	.59

**Cal-Tech Calibration, Inc.**

1314 FM 646 West /Ste. 15 / Dickinson, Texas 77539 /Phone 281-614-0050 / Fax 281-614-0046

# THE BRUNTON COMPANY

## Certificate Of Calibration

Equipment Owner: Hoefler Consulting Group  
Name: \_\_\_\_\_

Address: 3401 Minnesota Drive Ste. 300

City, State, Zip: Anchorage, AK 99503

Calibration traceable to the National Institute of Standards and Technology in accordance with Mil-STD-45662A has been accomplished on the instrument listed below by comparison with standards maintained by The Brunton Co. The accuracy and stability of all standards maintained by The Brunton Co. are traceable to national standards maintained by the National Institute of Standards and Technology in Washington, D.C. and Boulder, CO. Complete record of all work performed is maintained by The Brunton Co. and is available for inspection upon request.

This Unit has been calibrated to Lietz TM10E serial number 30937 traceable to N.B.S. no. 738 227675 this 12<sup>th</sup> Day of July 2005

DESCRIPTION: Pocket Transit

PURCHASE ORDER: S. Mackay

ORDER NUMBER: 176322

LOT NUMBER: 19680

MODEL NUMBER: 11-F5008

SERIAL NUMBER: 5080799319

CALIBRATION DATE: 7/12/05

RECALIBRATION DUE DATE: 7/12/06

Signed: Raelene White  
QUALITY CONTROL MANAGER



**Pebble 1  
PSD Meteorological  
Monitoring Station**

**July 2006**

**Quality Assurance  
Systems Audit and  
Performance Audit**



*for the*

**Pebble Project  
Meteorological  
Monitoring Program  
Iliamna, Alaska**

*prepared for*

**Northern Dynasty Mines, Inc.**

**Pebble 1 PSD Meteorological Monitoring Station  
July 2006  
Quality Assurance Systems Audit  
and Performance Audit**

*Prepared for:*

**Northern Dynasty Mines, Inc.  
Anchorage, Alaska**

*Prepared by:*

**Hoefler Consulting Group, Inc.  
3401 Minnesota Drive, Suite 300  
Anchorage, Alaska 99503**

## TABLE of CONTENTS

<b>1.0 INTRODUCTION .....</b>	<b>1</b>
<b>2.0 SYSTEMS AUDIT.....</b>	<b>2</b>
<b>2.1 Systems Audit Methodology.....</b>	<b>2</b>
<b>2.2 Meteorological Station On-Site Systems Audit.....</b>	<b>2</b>
<b>2.3 Operations, Data Management and Documentation Systems Audit .....</b>	<b>4</b>
<b>2.4 Comments and Suggestions.....</b>	<b>5</b>
<b>3.0 PERFORMANCE AUDIT.....</b>	<b>6</b>
<b>3.1 Performance Audit Methodology.....</b>	<b>6</b>
3.1.1 Data Acquisition System .....	7
3.1.2 Air Temperature and Air Temperature Difference .....	7
3.1.3 Wind Speed.....	7
3.1.4 Wind Direction .....	8
3.1.5 Relative Humidity .....	9
3.1.6 Barometric Pressure.....	10
3.1.7 Precipitation .....	10
3.1.8 Evaporation .....	10
3.1.9 Solar Radiation.....	11
<b>3.2 Performance Audit Results .....</b>	<b>11</b>
<b>3.3 Performance Audit Recommendations .....</b>	<b>11</b>
<b>4.0 REFERENCES .....</b>	<b>13</b>

## LIST of FIGURES and TABLES

Figure 2-1 Pebble 1 Station DAS Wiring Panel .....	3
Table 3-1 Performance Audit Methods and Acceptable Limits.....	6
Table 3-2 Pebble 1 July 10-12, 2006 Performance Audit Summary.....	12

## LIST of APPENDICES

- A SYSTEMS AUDIT DATA SHEETS
- B PERFORMANCE AUDIT DATA SHEETS and ALIGNMENT MAP
- C AUDIT EQUIPMENT CALIBRATION CERTIFICATES

## **1.0 INTRODUCTION**

Hoefler Consulting Group, Inc. (HCG) operates meteorological monitoring stations for Northern Dynasty Mines, Inc. (NDM) in support of the Pebble Mine Project near Iliamna, Alaska. The air monitoring program is one component of ongoing baseline environmental studies being conducted to support mine permitting, mine design and mine transportation infrastructure development. The stations meet Prevention of Significant Deterioration (PSD) guidelines, although PSD permits may not be required. This report covers the Pebble 1 Station (Pebble 1) located near the proposed mine site.

Pebble Station 1 is located just west of the mine ore body on top of a gentle, wind swept knoll at about 1,550 foot elevation. The station consists of an instrumented 11-meter sectional tower secured with three guy wires. A weighing precipitation gauge is located approximately 75 feet west of the tower and an evaporation pan is collocated with a tipping precipitation gauge roughly 125 feet south of the tower. Between the tower and the weighing precipitation gauge is a 6' by 8' insulated building which houses the datalogger and power supply system. Pebble 1 is instrumented with PSD quality sensors monitoring the following parameters:

- Ambient Temperature (°C): Met One 062MP Thermistor Probe at 2-m
- Temperature Difference (°C): Met One 062MP Thermistors at 2-m and 10-m
- Wind Speed 1 (m/s): Climatronics F460 P/N 100075 Wind Speed Sensor
- Wind Direction 1 (°): Climatronics F460 P/N 100076 Wind Direction Sensor
- Wind Speed 2 (m/s): RM Young 05305 Wind Monitor-AQ
- Wind Direction 2 (°): RM Young 05305 Wind Monitor-AQ
- Sigma Theta (°): Campbell Scientific CR10X DAS calculated (Yamartino)
- Relative Humidity (%RH): Vaisala HMP45AC Relative Humidity Sensor
- Barometric Pressure (mbar): Vaisala PT101B Barometric Pressure Sensor
- Precipitation 1 (mm H<sub>2</sub>O): ETI Model Noah II Weighing Gauge
- Precipitation 2 (mm H<sub>2</sub>O): Met One Model 370 Tipping Gauge
- Evaporation (mm H<sub>2</sub>O): Nova-Lynx Model 255-100/200 Pan and Gauge
- Solar Radiation (W/m<sup>2</sup>): LI-COR Li-200SX Solar Radiation Pyranometer.

This report has been prepared for NDM to serve as an official review of the Pebble 1 station and a review of the overall Pebble Project Meteorological Monitoring Program. To that end, Systems and Performance Audits were undertaken in order to help demonstrate that the equipment and procedures used for collecting meteorological data by HCG meet the requirements set forth by the U.S. Environmental Protection Agency (EPA) and the Alaska Department of Environmental Conservation (ADEC).

## **2.0 SYSTEMS AUDIT**

### **2.1 Systems Audit Methodology**

In the *Quality Assurance Handbook for Air Pollution Measurement Systems* and the *Meteorological Monitoring Guidance for Regulatory Modeling Applications*, EPA provides guidance for conducting systems audits. EPA recommends that a systems audit be conducted to serve as a qualitative review of all aspects of a meteorological monitoring program. The systems audit includes a review of the program plan, station site, facilities, equipment, personnel, procedures, record keeping, data validation and data reporting. The systems audit should be completed within the first 30 days of operation and every year thereafter.

The *Quality Assurance Project Plan for the Pebble Project Meteorological Monitoring Program* was completed by HCG in August 2006. This systems audit consisted of a review of this document, site visits and personnel interviews. Personnel were also observed during station maintenance and calibration operations. All aspects of the program not specifically mentioned in the Plan were reviewed to determine consistency with EPA and ADEC guidelines. The complete systems audit report contained in Appendix A is organized into six major sections; 1) General Program Information, 2) Monitoring Program Staff Organization, 3) Meteorological Monitoring Station Equipment, 4) Standard Operating Procedures, 5) Documentation, 6) Data Processing and Validation, 7) Quality Assurance and Quality Control (QA/QC), and 8) Comments and Suggestions. Each section consists of a question-answer format with additional comments to provide clarity. Flow charts are also used to accurately document program staff organization and the data handling process. A complete list of the references used for the systems audit is contained in Section 4.

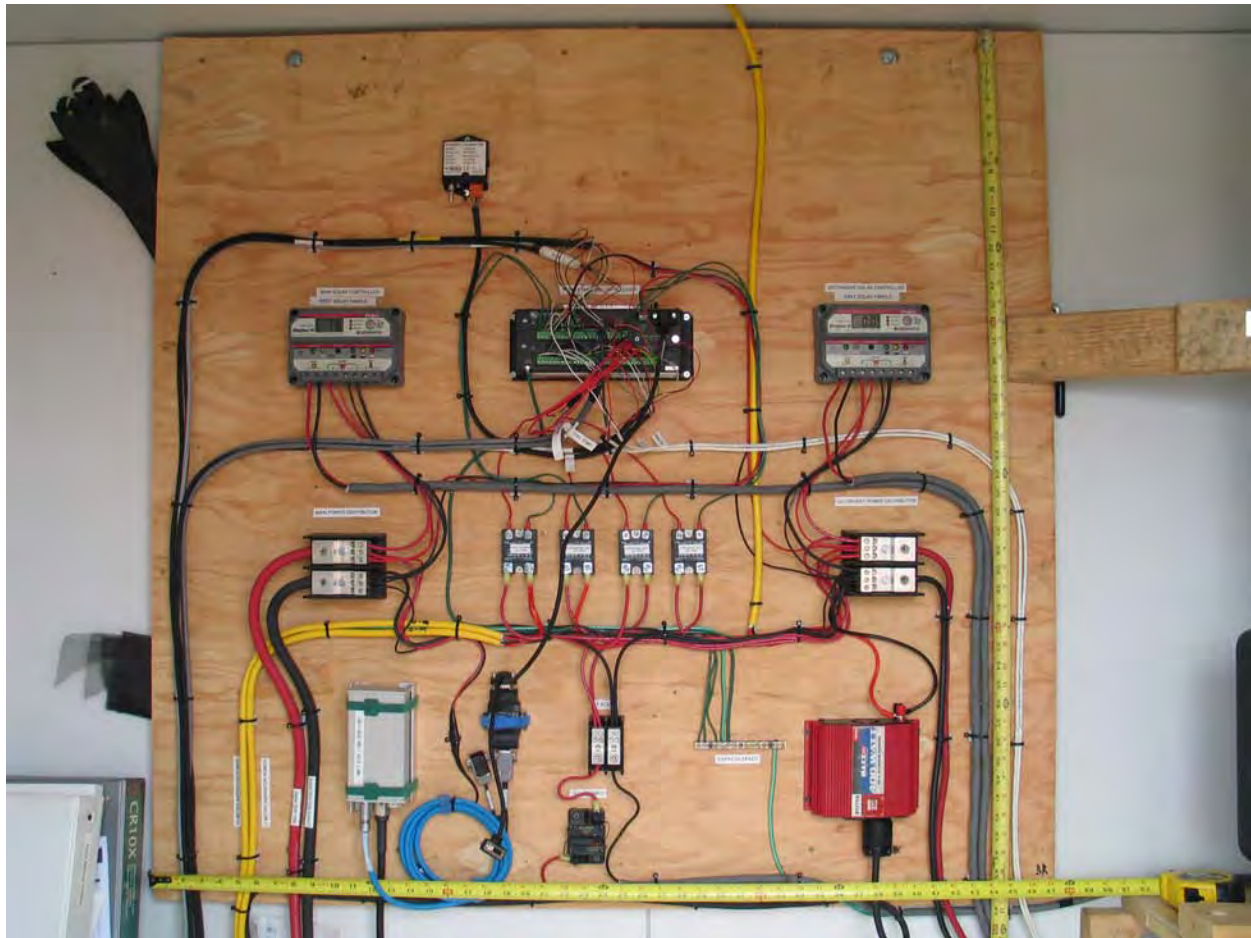
### **2.2 Meteorological Station On-Site Systems Audit**

The on-site systems audit of the Pebble 1 station was conducted on July 10-12, 2006. Eric Brudie of HCG completed the systems audit with Dominic Shallies of HCG assisting and witnessing. Mr. Brudie serves as an independent auditor on this project and is not involved with day to day operations of the station.

The Pebble 1 meteorological monitoring station is founded on a stable, well anchored tower with PSD quality sensors securely affixed. The weighing precipitation gauge is shielded from high winds by a 20' diameter Wyoming Wind Screen. The evaporation pan, evaporation gauge and a tipping precipitation gauge are mounted on a 6' by 8' deck supported on four adjustable pier blocks, which allow leveling. The evaporation deck is surrounded by a 6' high fence to repel thirsty animals. All instrumentation wires

from the tower, precipitation gauge and evaporation gauge are housed in conduit in order to repel hungry animals. These conduits all converge at a 6' by 8' insulated prefab building. The data acquisition system (DAS), communications system, solar controllers and power distribution system are mounted on a 4' by 4' plywood wiring panel mounted in the building, see photo.

**Figure 2-1 Pebble 1 Station DAS Wiring Panel**



The Campbell Scientific CR10X DAS wiring is well organized and needs no further discussion. Constant communication between the DAS and a dedicated polling computer in the HCG office is integral to this installation. A Campbell Scientific SC932A interface converts the DAS signal to a RS-232 DCE modem signal. Three FreeWave spread spectrum radio modems transmit the signal to a SixNet industrial phone modem which is linked to the grid in Iliamna. The met station radio and base radio rely on directional Yagi antennas focused on an omni-directional antenna at the repeater radio. The repeater radio is powered by one 35-Watt solar panel buffered through a solar controller and five 100 Amp-Hr deep cycle gel cell batteries.

Power generation at the meteorological monitoring station consists of four 50-Watt solar panels and a 21-Watt Global Thermoelectric Model 5030 Thermo-Electric Generator (TEG). One solar panel is dedicated to the DAS and meteorological instrumentation; wired through a Morningstar ProStar-15 solar controller and buffered through five 100 Amp-Hr deep cycle gel cell batteries. Three panels are dedicated to the aspirator fans, Climatronics heaters, shelter lighting and 120VAC power; wired through a Morningstar ProStar-15 solar controller and buffered through two 200 Amp-Hr deep cycle gel cell batteries. The shelter lights and 120VAC inverter for laptop use are routed through manual timers to ensure use only when operators are on site. During the winter months, November through April, the TEG is turned on to supplement the aspirator/heater power system. Aspirator fans and heaters are controlled through relays connected to the DAS control ports. Logic programmed into the DAS reduces power consumption by limiting heater use to weather conditions conducive to icing and turns fans off at night when voltage is low, considered an upset condition. Also the TEG power is routed through relays which shunt power to the critical DAS/sensor system during upset conditions.

### **2.3 Operations, Data Management and Documentation Systems Audit**

This phase of the systems audit consists of a review of the HCG *Quality Assurance Project Plan for the Pebble Project Meteorological Monitoring Program (Plan)*, and other system documentation, and a review of system operations. System operations include physically running the station and subsequent data management.

The Plan is a comprehensive document which adequately details the Pebble meteorological monitoring program. Program objectives, installations, operations, data management and quality assurance are all clearly outlined. Equally, the Pebble 1 station is representative of the Plan design. The Plan provides standard operating procedures and standard forms for all equipment field calibrations and audits. Station operators also had complete DAS and meteorological sensor manuals on hand at the station. Plan and documentation review are covered further in Appendix A.

Station operators were observed during calibration and maintenance procedures and appeared knowledgeable about all facets of operating the monitoring station. Data are downloaded daily using an automated script on a dedicated polling computer located at the HCG office. The raw data are appended to a station file located on the HCG server, which is backed up daily. The data manager copies the raw data to a custom Access/Excel database, leaving the raw data unaltered. The custom database creates a series of graphs of all meteorological data as well as some station operational parameters. These plots are reviewed 5-6 days per week in order to immediately

identify station upsets. An example is a graph of solar radiation and battery voltage; which reveals potential problems with daily charge cycles. Both the Climatronics and RM Young Wind sensor data are plotted together to indicate problems with one of the sensors. All station parameters are plotted with ranges and pairings intended to best reveal upset conditions. Problems are immediately identified and corrective action planned and executed. Steps are taken to flag data which may have been identified as suspect during this graphical data review. Data generated during station maintenance, audits and calibrations are also flagged as invalid.

Prior to compilation of data summary reports, data are screened using EPA recommended screening criteria. Data flagged as outliers by the screening program are further reviewed for consistency with prevailing conditions and then permanently invalidated or validated. Data ultimately invalidated are permanently removed from the database and the reasoning is codified in a special column in the database. This cleaned dataset is used for all subsequent data summaries, wind roses, data reports and capture rate calculations. More detailed discussion of the operations and data management are contained in the Systems Audit Appendix A.

#### **2.4 Comments and Suggestions**

The Pebble 1 station is a well designed and operated meteorological monitoring station. The remote station is equipped with a robust and sophisticated power supply. The systems audit revealed that HCG possesses the necessary organization, personnel, training, equipment, quality assurance, and quality control procedures to accurately collect and report PSD quality data. HCG adequately maintains the Pebble 1 station and practices sufficient data review and preventive maintenance to avoid unnecessary data loss.

The following recommendations are made to the program in order to improve the operation of the stations and ensure their operation is in accordance with standards:

- Create custom site visit checklists
- Keep files on site containing copies of previous checklists.



### 3.0 PERFORMANCE AUDIT

#### 3.1 Performance Audit Methodology

During the performance audit, the station datalogger is interfaced with a portable laptop computer to display the outputs for the meteorological sensors. The value of each meteorological sensor is compared to the output value from the appropriate piece of audit equipment or from calibrated instruments collocated with the sensor. The difference between the station’s datalogger reading and the output from each audit instrument is compared with established PSD limits to determine the accuracy of each sensor. Additionally, threshold torques for wind speed and wind direction are measured with audit equipment and compared with manufacturer torques corresponding to the PSD threshold speed of 0.5 m/s. Table 3-1 provides a summary of the performance audit methods and limits used to audit each parameter at the stations.

**Table 3-1 Performance Audit Methods and Acceptable Limits**

Parameter	Audit Method	EPA/Manufacturer Limit
Datalogger Time	NOAA Clock	≤ ±5:00 minutes from AST
Temperature Accuracy	Collocated NIST thermistor	≤ ±0.5 °C
Temperature Difference	Collocated NIST thermistor	≤ ±0.1 °C
Wind Speed Accuracy	Synchronous rpm motor	≤ ±0.2 m/s + 5 % observed
Wind Spd Torque (Clim)	Torque watch	≤ 0.35 g-cm (0.0049 oz-in)
Wind Spd Torque (RMY)	Torque watch	≤ 1.0 g-cm (0.014 oz-in)
Wind Direction Alignment	GPS, compass or landmark	≤ ±5° from true azimuth
Wind Direction Accuracy	Linearity tester	≤ ±5° per audit point
Wind Direction Linearity	Linearity tester	≤ 3° mean absolute average
Wind Dir Torque (Clim)	Torque watch	≤ 7.5 g-cm (0.104 oz-in)
Wind Dir Torque (RMY)	Vane torque gauge	≤ 11 g-cm (0.153 oz-in)
Relative Humidity	Collocated NIST RH sensor	≤ ±1.5 °C of dew point
Barometric Pressure	Collocated NIST BP sensor	≤ ±3 mbar
Precipitation	Calibrated water volume	≤ ±10% of input
Evaporation	Measured water level	≤ ±10% of input
Solar Radiation	Collocated NIST sensor	≤ ±5% of input+resolutuion <sup>1</sup>

1. This audit limit is modified from PSD standard, as discussed below.

### **3.1.1 Data Acquisition System**

An audit of the datalogger is conducted by comparing all datalogger outputs to the audit standards, as described below. The datalogger time is checked against an instantaneous time reading from the National Oceanic and Atmospheric Administration (NOAA) clock in Boulder, Colorado, via a global positioning system (GPS) handheld unit or telephone contact with the NOAA clock.

### **3.1.2 Air Temperature and Air Temperature Difference**

The 2-meter and 10-meter thermistors are removed from their aspirator shields and collocated with a National Institute of Standards and Technology (NIST) traceable digital thermometer. The station thermistors and the transfer standard NIST thermometer are taped together and immersed in insulated thermoses containing a series of fluid baths; hot water (35°C to 45°C), warm water (15°C to 25°C), water/ice bath (0°C), cold glycol (-15°C to -25°C) and very cold glycol (-35°C to -45°C). Dry ice is used to cool the glycol baths. Each liquid bath is agitated and allowed to equilibrate before simultaneous readings are taken from the three instruments.

An alternate method can also be used for the low temperature audits, employing a Thermal Mass Device (TMD). The TMD consists of a 6" diameter by 9" high solid aluminum block milled to fit snugly inside of an insulated Dewar flask. On the top of the TMD, and in corresponding locations on the flask lid, are holes sized to accommodate a variety of Campbell, Climatronics, Met-One and VWR thermistors. The TMD is cooled to the target temperatures by contact with dry ice and then placed in the insulated flask. The audit and station thermistors are inserted through the flask lid and into the appropriate holes in the TMD. After the TMD and the thermistors are allowed to equilibrate, readings for all thermistors are simultaneously taken. The aluminum TMD has a very high thermal conductivity and when allowed to equilibrate inside of the insulated flask, thermal gradients across the TMD are very small.

In all cases, the difference between the individual station thermistors and the NIST standard are compared to the PSD temperature accuracy limit of  $\pm 0.5^{\circ}\text{C}$ . The difference between the two station thermistors (10-m $^{\circ}\text{C}$  minus 2-m $^{\circ}\text{C}$ ) is compared to the PSD temperature difference limit of  $\pm 0.1^{\circ}\text{C}$ .

### **3.1.3 Wind Speed**

Anemometers are audited to determine their accuracies in reading known wind speeds and to ascertain the sensor's threshold torque. The Climatronics and RM Young sensors are audited in very similar manners and are discussed together. The

instruments are tested after removal from the tower and after removal of the sensor's props or cups.

First, an RM Young synchronous motor is attached to the shaft of the anemometer by using brand specific coupling devices. The sensor shaft is rotated at several different known revolutions per minute (rpm). Each rotational speed in rpm is equated to a wind speed in meters per second (m/s) by using the anemometer manufacturer's linear calibration formula. The difference between the calculated input speed in m/s and the datalogger output is compared to established PSD limits for each input rpm.

Next, a high precision torque watch is attached to the shaft of the anemometer, once again using custom couplings. Torque readings are made in both directions in each quadrant along the axis of rotation of the shaft. The maximum reading is recorded for the torque required to turn the shaft of the anemometer. The torque value recorded during the audit is compared to manufacturer's torque corresponding to the minimum PSD threshold speed of 0.5m/s.

#### **3.1.4 Wind Direction**

The wind direction sensors are first audited as-found to determine the accuracy of their alignment with respect to true north (true azimuth alignment) using one of four methods. In one method, a handheld GPS unit is used to measure the position of the auditor with respect to a waypoint captured under the wind sensor's position on the tower. Using binoculars, the tail of the wind vane is aligned with the auditor's position at a distance of several hundred feet from the tower. The GPS bearing back to the tower waypoint is then compared to the DAS reading. The difference between the two should not exceed  $\pm 5^\circ$  per audit point. This procedure is repeated at least 4 times, once per quadrant, generally near the cardinal directions. The second method uses a calibrated precision compass mounted on a gimbal and tripod. The compass declination is preset for the specific location and date using one of a variety of magnetic declination computer models. The sensor tail is aligned toward the auditor while auditor sights the compass toward the sensor and readings are taken in a similar manner to the GPS method.

Another option is to align the tail of the sensor with a distant identifiable landmark of known bearing. The bearing to the landmark may be ascertained using a variety of methods. One method involves physically capturing a distant GPS waypoint, such as at a discernable structure or emissions stack. Bearings to inaccessible natural landmarks, usually distant mountain peaks, are acquired through the use of various computer mapping programs, such as Natural Geographic's TOPO program or USGS digital

raster graphics (DRGs) loaded into AutoCAD. The bearing from the station location to the landmark is compared to the DAS reading. This method yields the most accurate audit value, but is limited by weather and availability of discernable landmarks. The final method is to align the vane with the tower guy wires or preset survey markers, whose bearing has been ascertained using precision survey equipment.

The wind direction accuracy and linearity are subsequently audited after the wind direction sensor is removed from the tower. The Climatronics sensor is mounted on a Climatronics Model 101984 linearity tester and the RM Young sensor is mounted on an RM Young Model 18112 Vane Angle Bench Stand. Both test fixtures are keyed to their respective sensor and graduated from 0° to 360°. A series of readings starting at 30° and then clockwise in 30° increments are taken. The RM Young is read from 30° to 360° and the Climatronics is read from 30° to 540°. The Climatronics sensor is tested 180° past 360° in order to test the second potentiometer used in some DAS programming. Although not required, the Climatronics sensor is also tested with the vane attached in order to ascertain sensor accuracy and linearity relative to the instrument crossarm. The vane is aligned along the axis of the crossarm to yield the 0°/360° and 180° values and against a square held to the crossarm for the 90° and 270° directions. Four readings are taken in a clockwise direction and four are taken counterclockwise to complete the test. For both the linearity test fixture and crossarm tests, individual error values are assessed for the PSD accuracy limit of  $\pm 5^\circ$  per point and the mean absolute average error is assessed against the linearity limit of 3°.

Next, the RM Young wind direction threshold is tested by measuring wind vane torque using an RM Young Model 18331 Vane Torque Gauge. This device saddles the wind vane and a calibrated spring is pulled to determine maximum torque from readings taken in both directions in all four quadrants. The Climatronics wind direction starting torque is measured with the vane removed by using a precision torque watch in the same manner as the wind speed torque. The highest torque readings are compared to specific manufacturer limits for instrument starting torque.

Finally, the wind direction sensors are placed back on the tower and as-left audits of the azimuth alignments are conducted to ensure the instruments are properly reinstalled.

### **3.1.5 Relative Humidity**

Relative humidity (RH) is audited using a collocated NIST traceable RH sensor. The NIST sensor and the field sensor are collocated out of direct sunlight to eliminate solar radiation effects, preferably inside of the motor aspirated shield. If the NIST standard reads directly in dew point °C, those readings are used; if not, relative humidity and

temperature readings are used. For the audit, instantaneous readings of dew point, relative humidity and temperature are recorded from the transfer standard and the DAS. All relative humidity and temperature readings are converted to dew point in order to assess the PSD error limit of  $\pm 1.5^{\circ}\text{C}$  dew point.

### **3.1.6 Barometric Pressure**

Barometric pressure (BP) is audited using a collocated NIST traceable BP sensor. The difference between the NIST sensor and the station sensor are compared to the PSD limit of  $\pm 3$  mbar.

### **3.1.7 Precipitation**

The Met-One tipping precipitation gauge is audited by slowly adding precisely measured volumes of water to the gauge using a dripping Nova Lynx Model 260-2595 Rain Gauge Calibrator. The predicted millimeters of precipitation corresponding to the measured volume added are calculated using the diameter of the gauge opening. The tare reading from the DAS is initially recorded and subsequent DAS readings are recorded after each test run.

The ETI weighing gauge is also audited using the calibrated bottle from the Nova Lynx Model 260-2595 Rain Gauge Calibrator, except the measured water volume is poured directly into the gauge opening. The DAS reading is recorded at the beginning of the test and after every 1/2" to 1" pour thereafter, up to the limit of the gauge. With both gauges, the percent difference between the predicted audit value and the DAS value is compared to the PSD limit of  $\pm 10\%$ .

### **3.1.8 Evaporation**

The evaporation gauge is first checked to confirm that the pan and gauge are level. The accuracy is checked by first removing enough water to bring the initial level to approximately 50 mm, the minimum for this gauge. An accurate millimeter scale is taped to the inside of the evaporation pan and the water level on the scale is compared to the DAS output. Water is added to the pan to raise the level by 10-20mm and another set of readings are taken. This process is repeated until the level in the pan reaches the upper limit of approximately 240mm. The resultant suite of DAS and scaled water level readings are then input into a custom spreadsheet which calculates a linear regression for the data. The evaporation gauge reads change in water level due to evaporation and rainfall, so the calculated intercept must be removed from measured water levels. The adjusted level is compared to the DAS output with a maximum allowable error of  $\pm 10\%$  of input and the slope of resultant line has a limit of  $1.0 \pm 0.1$ .

### **3.1.9 Solar Radiation**

Outputs of the station sensor are compared to the output of a level collocated audit solar radiation sensor. The audit sensor is connected to an independent audit datalogger with the scan interval and clock synchronized with the station DAS. Hourly average solar radiation readings and instantaneous readings are recorded during the audit and then input into a custom spreadsheet to calculate a linear regression for the data. The PSD limit for solar radiation audits is  $\pm 5\%$  of observed, but this standard is very difficult to obtain at the northern latitude of this installation. This EPA standard is currently undergoing review and is expected to change. A well excepted substitute is that individual DAS and audit data pairs are compared to a limit of  $\pm 5\%$  of observed + **EPA minimum instrument resolution (10W/m<sup>2</sup>)**. Individual data pairs are evaluated against this standard, but the overall set is restricted to a 5% error by limiting allowable linear slope to  $1.0 \pm 0.05$ .

### **3.2 Performance Audit Results**

The performance audit was conducted at the Pebble 1 station on July 10-12, 2005 with Dominic Shallies of HCG assisting. All sensors were challenged with certified audit equipment and yielded errors below the PSD limits, except the ETI weighing precipitation gauge. The ETI gauge was found out of compliance, replaced and then re-audited. Summary audit results are contained in Table 3-2 and complete audit reports and audit equipment calibration certificates are contained in Appendix B and Appendix C respectively.

### **3.3 Performance Audit Recommendations**

- None.

**Table 3-2 Pebble 1 July 10-12, 2006 Performance Audit Summary**

Parameter	Limit	Units	Max Err	Status
Datalogger Time (pre-adjustment)	≤ ±5:00	Min:Sec	-3:05	Pass
Datalogger Time (post-adjustment)	≤ ±5:00	Min:Sec	0:06	Pass
2-m Temperature Accuracy	≤ ±0.5	°C	0.48	Pass
10-m Temperature Accuracy	≤ ±0.5	°C	0.48	Pass
Air Temperature Difference	≤ ±0.1	°C	0.00	Pass
<b>Climatronics Wind System</b>				
Wind Speed Torque	≤ 0.0049	oz-in	<<0.003	Pass
Low Wind Spd. Accuracy (≤5m/s)	≤ ±0.2	m/s	0.00	Pass
High Wind Spd. Accuracy (>5m/s)	≤ ±5	% input	0.0	Pass
Wind Direction Torque (old bearings)	≤ 0.104	oz-in	0.070	Pass
Wind Direction Torque (new bearings)	≤ 0.104	oz-in	0.010	Pass
Wind Dir. Azim. Align. (as-found)	≤ ±5	Degree	4.7	Pass
Wind Direction Accuracy	≤ ±5	Degree	2.1	Pass
Wind Direction Linearity	≤ 3	Degree	0.6	Pass
Wind Dir. Azim. Align. (as-left)	≤ ±5	Degree	2.2	Pass
<b>RM Young Wind System</b>				
Wind Speed Torque (old bearings)	≤ 0.014	oz-in	0.013	Pass
Wind Speed Torque (new bearings)	≤ 0.014	oz-in	0.012	Pass
Low Wind Spd. Accuracy (≤5m/s)	≤ ±0.2	m/s	0.02	Pass
High Wind Spd. Accuracy (>5m/s)	≤ ±5	% input	1.2	Pass
Wind Direction Torque (old bearings)	≤ 11	g-cm	11.0	Pass
Wind Direction Torque (new bearings)	≤ 11	g-cm	3.0	Pass
Wind Dir. Azim. Align. (as-found)	≤ ±5	Degree	2.1	Pass
Wind Direction Accuracy	≤ ±5	Degree	4.3	Pass
Wind Direction Linearity	≤ 3	Degree	2.1	Pass
Wind Dir. Azim. Align. (as-left)	≤ ±5	Degree	-3.8	Pass
Relative Humidity (dew point)	≤ ±1.5	°C	0.5	Pass
Barometric Pressure	≤ ±3	Mbar	0.5	Pass
Weighing Precipitation (old gauge)	≤ ±10	% input	-17.8	Fail
Weighing Precipitation (new gauge)	≤ ±10	% input	8.8	Pass
Tipping Precipitation	≤ ±10	% input	-6.9	Pass
Evaporation	≤ ±10	% input	2.3	Pass
Solar Radiation	≤ ±5+Res	% input	-5.8	Pass

#### **4.0 REFERENCES**

*“Quality Assurance Project Plan for the Pebble Project Meteorological Monitoring Program”*, Hoefler Consulting Group, Inc., August 2006.

*“Quality Assurance Manual for Ambient Air Quality Monitoring”* ADEC, August 1996.

*“Elements for Ambient Air Monitoring Quality Assurance Project Plan (QAPP)”*, ADEC, September 2004.

*“Ambient Air and/or Meteorological Monitoring Quality Assurance Project Plan (QAPP) Review Checklist”*, ADEC, September 2004.

*“Ambient Monitoring Guidelines for Prevention of Significant Deterioration (PSD)”*, EPA-450/4-87-007, May 1987.

*“Quality Assurance Requirements for Prevention of Significant Deterioration (PSD) Air Monitoring”*, EPA-40 CFR Part 58, Appendix B, November 2004.

*“On-Site Meteorological Program Guidance for Regulatory Modeling Applications”*, EPA-450/4-87-013, August 1995.

*“Meteorological Monitoring Guidance for Regulatory Modeling Applications”*, EPA-454/R-99-005, February 2000.

*“Quality Assurance Handbook for Air Pollution Measurement Systems, Volume II: Part I, Ambient Air Quality Monitoring Program Quality System Development”*, EPA-454/R-98-004, August 1998.

*“Quality Assurance Handbook for Air Pollution Measurement Systems, Volume IV: Meteorological Measurements”*, EPA/600/R-94/038d, March 1995.

*“Quality Assurance Handbook for Air Pollution Measurement Systems, Volume V: Precipitation Measurement Systems”*, EPA/600/R-94/038e, April 1994.



**APPENDIX A  
SYSTEMS AUDIT DATA SHEETS**

# Pebble 1 PSD Meteorological Station Systems Audit

Owner: NDM

Operator: Dominic Shallies

Alternate: Steve Mackey

Audit Date: 10-Jul-06

Witnesses: Dominic Shallies

Auditor: Eric Brudie

## TABLE OF CONTENTS

<b>1.0</b>	<b>GENERAL PROGRAM INFORMATION .....</b>	<b>2</b>
1.1	Site Description.....	2
1.2	Site Location .....	2
1.2.1	Coordinates.....	2
1.2.2	Appearance and Safety.....	2
<b>2.0</b>	<b>MONITORING PROGRAM STAFF ORGANIZATION .....</b>	<b>3</b>
<b>3.0</b>	<b>METEOROLOGICAL MONITORING STATION EQUIPMENT .....</b>	<b>3</b>
3.1	Inventory.....	3
3.2	Equipment Evaluation .....	4
3.2.1	Data Acquisition System (DAS) and Communications System .....	4
3.2.2	Power Supply System .....	4
3.2.3	Meteorological Monitoring Sensors .....	4
3.2.4	EPA PSD Meteorological Instrument Standards .....	5
3.3	Station Location and Siting.....	6
3.3.1	Tower .....	6
3.3.2	Temperature and Relative Humidity Sensors.....	6
3.3.3	Wind Speed and Wind Direction Sensors .....	7
3.3.4	Relative Humidity and Barometric Pressure.....	7
3.3.5	Precipitation .....	7
3.3.6	Evaporation .....	8
3.3.7	Solar Radiation.....	8
<b>4.0</b>	<b>STANDARD OPERATING PROCEDURES .....</b>	<b>8</b>
4.1	General .....	8
4.2	DAS and Meteorological Sensors.....	8
<b>5.0</b>	<b>DOCUMENTATION.....</b>	<b>9</b>
5.1	System Reference and Maintenance Manuals.....	9
5.2	Station Monitoring Plan and Report Forms .....	9
<b>6.0</b>	<b>DATA PROCESSING AND VALIDATAION.....</b>	<b>10</b>
6.1	Overall Data Management .....	10
6.2	Data Collection and Initial Data Review .....	11
6.3	Corrective Actions .....	11
6.4	Data Validation .....	11
6.5	Data Capture.....	12
6.6	Data Reporting .....	12
<b>7.0</b>	<b>QUALITY ASSURANCE AND QUALITY CONTROL .....</b>	<b>12</b>
7.1	Quality Assurance Program.....	12
7.2	Quality Assurance Methods and Audits .....	13
<b>8.0</b>	<b>COMMENTS AND SUGGESTIONS.....</b>	<b>13</b>

# Pebble 1 PSD Meteorological Station Systems Audit

Owner: NDM

Operator: Dominic Shallies  
 Witnesses: Dominic Shallies

Alternate: Steve Mackey

Audit Date: 10-Jul-06  
 Auditor: Eric Brudie

## 1.0 GENERAL PROGRAM INFORMATION

### 1.1 Site Description

The Pebble 1 station is located on the crest of a gentle knoll immediately west of the mine ore body. The site is wind swept and treeless with very little organics. There are virtually no obstructions around the station.

### 1.2 Site Location

#### 1.2.1 Coordinates

Indicated by Operator	Determined by Auditor
59° 54' N	59° 54.180' N
155° 20' W	155° 19.804' W
Elevation: 1,600 feet	Elevation: 1,550 feet

#### 1.2.2 Appearance and Safety

- |   |  |   |
|---|--|---|
| Does the site appear clean, organized and well maintained?                | <input checked="" type="checkbox"/> Yes<br><input type="checkbox"/> No | Comments: <u>None.</u>  |
| Does the site appear to be safe and reasonably hazard free?               | <input checked="" type="checkbox"/> Yes<br><input type="checkbox"/> No | Comments: <u>None.</u>  |
| Does the site have a shelter for operators?                               | <input checked="" type="checkbox"/> Yes<br><input type="checkbox"/> No | Comments: <u>None.</u>  |
| Does the site have emergency equipment such as a first aid kit available? | <input checked="" type="checkbox"/> Yes<br><input type="checkbox"/> No | Comments: <u>None.</u>  |
| Does the site have adequate measures to prevent human tampering?          | <input checked="" type="checkbox"/> Yes<br><input type="checkbox"/> No | Comments: <u>Remote site.</u>   |
| Does the site have adequate measures to prevent damage from animals?      | <input checked="" type="checkbox"/> Yes<br><input type="checkbox"/> No | Comments: <u>Cables protected in liquid-tight conduit and electronics inside shelter.</u> |

# Pebble 1 PSD Meteorological Station Systems Audit

Owner: NDM

Operator: Dominic Shallies  
Witnesses: Dominic Shallies

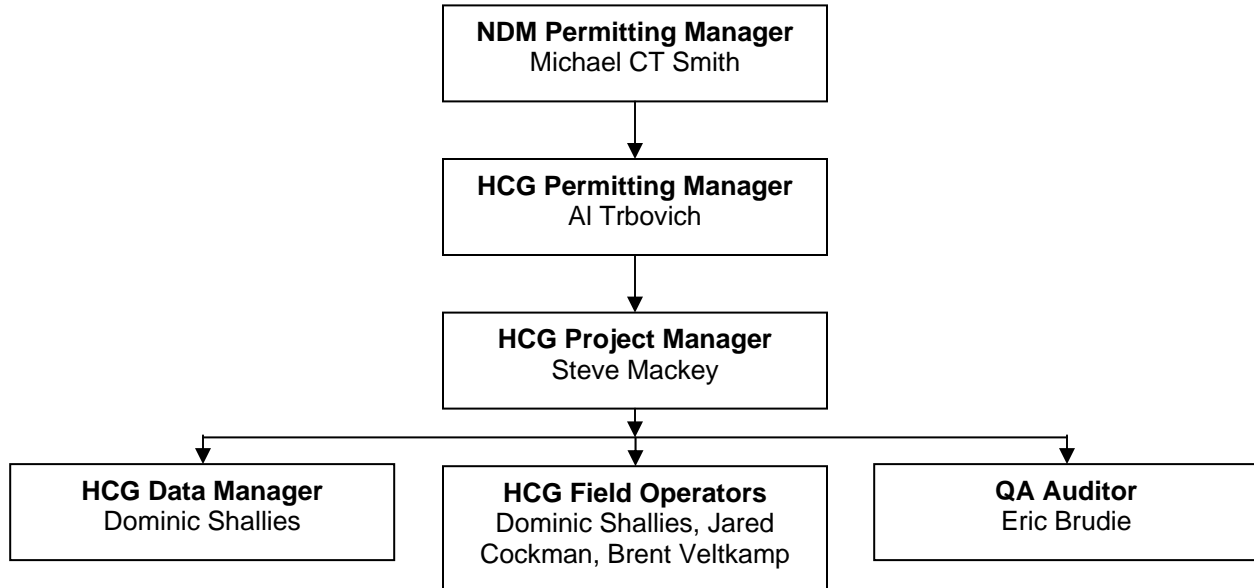
Alternate: Steve Mackey

Audit Date: 10-Jul-06

Auditor: Eric Brudie

## 2.0 MONITORING PROGRAM STAFF ORGANIZATION

- Draw diagram indicating the organizational structure of the monitoring program. Include names and titles:



## 3.0 METEOROLOGICAL MONITORING STATION EQUIPMENT

### 3.1 Inventory

Parameter	Make	Model	Serial No.
DAS	Campbell Scientific	CR10X	X43107
DAS Wiring Panel	Campbell Scientific	CR10X	32768
Temperature (2-meter)	Met One	062MP	E3383, ID #1/2
Temperature (10-meter)	Met One	062MP	E3383, ID #2/2
Temperature Aspirators	Met One	076B-4	E3489 & E3490
Primary Wind Speed	Climatronics	F460-100075	5007
Primary Wind Speed Cups	Climatronics	HD Al. P/N 101287	2284
Primary Wind Direction	Climatronics	F460-100076	4691
Primary Wind Direction Vane	Climatronics	HD P/N 101288	1440
Wind Sigma	Campbell Scientific	DAS Calculated	N/A
Backup Wind Speed	RM Young	05305 Wind Mon-AQ	66725
Backup Wind Spd Prop (Old) <sup>1</sup>	RM Young	08254	63047
Backup Wind Spd Prop (New) <sup>1</sup>	RM Young	08254	63112
Backup Wind Direction	RM Young	05305 Wind Mon-AQ	66725
Relative Humidity	Vaisala	HMP45AC	A1040018
Barometric Pressure	Vaisala	PTB101B	A0710039
Precipitation-Tipping	Met-One	370	D5874
Precip Tipping Wind Screen	NovaLynx	260-952 Alter Type	N/A
Precipitation-Weighing	ETI	8205-00710 Noah II	334 – Original
Precipitation-Weighing	ETI	8205-00710 Noah II	343 – Replacement
Precip Weighing Wind Screen	Custom made.	Wyom. Wind Screen	N/A
Evaporation Gauge	NovaLynx	255-100	695
Evaporation Pan	NovaLynx	255-200	None
Solar Radiation	LI-COR	Li-200SX	PY49464

1. Prop SN 63047 broken during audit and replaced.

# Pebble 1 PSD Meteorological Station Systems Audit

Owner: NDM

Operator: Dominic Shallies  
Witnesses: Dominic Shallies

Alternate: Steve Mackey

Audit Date: 10-Jul-06  
Auditor: Eric Brudie

## 3.2 Equipment Evaluation

### 3.2.1 Data Acquisition System (DAS) and Communications System

- Is the DAS well protected from the elements with adequate room for maintenance?  Yes  No Comments: DAS inside of a weatherproof building, mounted on a 4'x4' wiring panel.
- Is the DAS rated for operation in the expected local temperature range?  Yes  No Comments: -55°C to + 85°C.
- Are all sensor cables neatly and securely connected to the correct DAS channels?  Yes  No Comments: Well organized wiring panel.
- Is remote communication to the DAS system available to operators?  Yes  No Comments: DAS to SC932A interface to FreeWave RF network to SixNet modem.
- Are all components of the DAS and communications system operational?  Yes  No Comments: None.
- Are the DAS and communication equipment properly grounded?  Yes  No Comments: 8' ground rod wired to central ground buss.
- Are the DAS and communication equipment protected from lightning?  Yes  No Comments: There is no lightning protection, but area not prone to strikes.

### 3.2.2 Power Supply System

- Does the system have a stable power supply or line power?  Yes  No Comments: Very robust alternative power supply described below.

- Describe the meteorological monitoring station power supply system. The DAS, communications equipment and meteorological sensors are powered by one 50-Watt solar panel, buffered through five 100 amp-hr deep cycle gel cell batteries. The aspirator fans and Climatronics wind sensor heaters are powered by three 50-Watt solar panels buffered through two 200 amp-hr deep cycle gel cell batteries. During the winter months (November through April), the aspirator/heater system is also powered by a 21-Watt propane Thermo-Electric Generator (TEG). The isolated DAS and Aspirator power systems can be interconnected during upset conditions through an array of relays managed through the DAS control ports. The DAS monitors battery levels and can shunt the two power systems should one run low. The DAS also has algorithms programmed to assess weather conditions and limit heater use when not required.

### 3.2.3 Meteorological Monitoring Sensors

- Do all sensors appear to be clean, intact, in good condition and well maintained?  Yes  No Comments: None.
- Are all sensors operational, online and reporting data?  Yes  No Comments: None.
- Do all sensors meet EPA criteria for PSD quality sensors?  Yes  No Comments: See table below.
- Are spare parts stocked for items which are frequently worn out or broken?  Yes  No Comments: Spare props, cups and vanes onsite and spare bearings at HCG office.

# Pebble 1 PSD Meteorological Station Systems Audit

Owner: NDM

Operator: Dominic Shallies  
Witnesses: Dominic Shallies

Alternate: Steve Mackey

Audit Date: 10-Jul-06  
Auditor: Eric Brudie

## 3.2.4 EPA PSD Meteorological Instrument Standards

Parameter	Instrument Specifications	EPA Standard	Pass?
<b>Air Temperature (2-M, 10-M &amp; Delta-T) – Met One Mdl. 062MP</b>			
Accuracy (2-m & 10-m):	±0.05 °C	±0.5 °C	Yes
Accuracy (Delta-T):	±0.02 °C	±0.1 °C	Yes
Range (Operating Temp):	-50°C to +50°C	-20°C to +30°C	Yes
*Resol. (2-m & 10-m):	0.01°C	0.1°C	Yes
*Resolution (Delta-T):	0.01°C	0.02°C	Yes
Response Time:	10 seconds	≤1 minute	Yes
<b>Wind Speed – Climatronics Mdl. F460-100075</b>			
Accuracy:	±0.07 m/s or ±1% of obs.	±0.2 m/s + 5% of observed	Yes
Range:	0.0 m/s to 65 m/s	0.5 m/s to 50 m/s	Yes
*Resolution:	0.01m/s	0.1 m/s	Yes
Threshold Speed:	0.22 m/s	≤0.5 m/s	Yes
Distance Constant:	<4.0 m (HD Alum. Cups)	≤5 m	Yes
Operating Temperatures:	-40°C to +60°C	-30°C to + 30°C	Yes
<b>Wind Direction – Climatronics Mdl. F460-100076</b>			
Accuracy:	±2°	±5°	Yes
Range:	0° to 360°	0° to 360°	Yes
*Resolution:	0.1°	1°	Yes
Threshold Speed:	0.22 m/s	≤0.5 m/s	Yes
Distance Constant:	<2.5 m (Heavy Duty Vane)	≤5 m	Yes
Damping Ratio:	>0.4 @10° initial angle	0.4 to 0.7	Yes
Operating Temperatures:	-50°C to +60°C	-30°C to + 30°C	Yes
<b>Wind Speed – RM Young Mdl. 05305 Wind Monitor-AQ</b>			
Accuracy:	±0.2 m/s or 1% of observed	±0.2 m/s + 5% of observed	Yes
Range:	0.0 m/s to 50 m/s	0.5 m/s to 50 m/s	Yes
*Resolution:	0.01m/s	0.1 m/s	Yes
Threshold Speed:	0.4 m/s	≤0.5 m/s	Yes
Distance Constant:	2.1 m	≤5 m	Yes
Operating Temperatures:	-50°C to +50°C	-30°C to + 30°C	Yes
<b>Wind Direction – RM Young Mdl. 05305 Wind Monitor-AQ</b>			
Accuracy:	±3°	±5°	Yes
Range:	0° to 360°	0° to 360°	Yes
*Resolution:	0.1°	1°	Yes
Threshold Speed:	0.5 m/s @10° displacement	≤0.5 m/s	Yes
Distance Constant:	1.2 m	≤5 m	Yes
Damping Ratio:	0.45	0.4 to 0.7	Yes
Operating Temperatures:	-50°C to +50°C	-30°C to + 30°C	Yes
<b>Relative Humidity – Vaisala Mdl. HMP45AC</b>			
Accuracy:	±2/3% at 0-90/90-100% RH	±1.5°C Dew Point**	Yes
Range:	0.8% to 100% RH	-30°C to +30°C Dew Point**	Yes
*Resolution:	0.1% RH	1% RH	Yes
Response Time:	10 sec	≤30 minutes	Yes
Operating Temperatures:	-40°C to +60°C	-30°C to + 30°C	Yes
** EPA criteria in units of dew point, RH and operating temperature ranges meet these criteria.			
<b>Barometric Pressure – Vaisala Mdl. PTB101B</b>			
Accuracy:	±0.5 mbar	±3 mbar	Yes
Range:	600 mbar to 1060 mbar	Not Specified	N/A
*Resolution:	0.1 mbar	0.5 mbar	Yes
Response Time:	300 msec	Not Specified	N/A
Operating Temperatures:	-40°C to +60°C	Not Specified	N/A

# Pebble 1 PSD Meteorological Station Systems Audit

Owner: NDM

Operator: Dominic Shallies  
Witnesses: Dominic Shallies

Alternate: Steve Mackey

Audit Date: 10-Jul-06  
Auditor: Eric Brudie

## EPA Recommended Meteorological Instrument Standards (Continued)

Parameter	Instrument Specifications	EPA Standard	Pass?
<b>Tipping Precipitation – Met One Mdl. 370-0.2mm</b>			
Accuracy:	±1% of 1-3 in/hr (±0.5mm)	±10% observed or ±0.5 mm	Yes
Range:	0-76 mm/hr (0-3 in/hr)	0-50 mm/hr (0-2 in/hr)	Yes
*Resolution:	0.2 mm	0.3 mm	Yes
Operating Temperatures:	-50°C to +50°C	Not Specified	N/A
<b>Weighing Precipitation – ETI Mdl. 8205-00710 Noah II</b>			
Accuracy:	±0.01 in (0.254mm)	±10% observed or ±0.5 mm	Yes
Range:	0-152 mm/hr (0-6 in/hr)	0-50 mm/hr (0-2 in/hr)	Yes
*Resolution:	0.01in (0.254mm)	0.3 mm	Yes
Operating Temperatures:	-30°C to +50°C	Not Specified	N/A
<b>Evaporation – NovaLynx Mdl. 255-100/200</b>			
Accuracy:	±0.25% over 10" range	Not Specified	N/A
Range:	2" to 10"	Not Specified	N/A
*Resolution:	0.1 mm	Not Specified	N/A
Operating Temperatures:	0°C to +60°C	Not Specified	N/A
<b>Solar Radiation – LI-COR Mdl. Li-200SX Pyranometer</b>			
Accuracy:	±5% Observed	±5% Observed	Yes
Range:	0 W/m <sup>2</sup> to 3000 W/m <sup>2</sup>	Not Specified	N/A
*Resolution:	1 W/m <sup>2</sup>	10 W/m <sup>2</sup>	Yes
Response Time:	10 μs	5 seconds	Yes
Spectral Response:	400 nm to 1,100 nm	285 nm to 2800 nm	No
Operating Temperatures:	-40°C to +65°C	-20°C to +40°C	Yes
* For all instruments; resolutions are the result of instrument type, configuration and DAS programming.			

### 3.3 Station Location and Siting

#### 3.3.1 Tower

- Do all obstructions exist below a 1:10 slope away from the tower base?       Yes      Comments: None.  
 No
- Is the height of the tower 10 meters above the ground?       Yes      Comments: None.  
 No
- Is the tower stable and plumb?       Yes      Comments: None.  
 No
- Is the tower protected from lightning?       Yes      Comments: There is no lighting protection, but area not prone to strikes.  
 No

#### 3.3.2 Temperature and Relative Humidity Sensors

- Are the sensors mounted at least 2-m above open level ground at least 9-m in diameter?       Yes      Comments: None.  
 No
- Are the temperature difference probes at heights of 2-m and 10-m above the ground?       Yes      Comments: None.  
 No
- Are the sensors at a distance greater than four times the height of any obstruction?       Yes      Comments: None.  
 No
- Is the ground beneath the temperature sensors natural native material?       Yes      Comments: None.  
 No

# Pebble 1 PSD Meteorological Station Systems Audit

Owner: NDM

Operator: Dominic Shallies  
Witnesses: Dominic Shallies

Alternate: Steve Mackey

Audit Date: 10-Jul-06  
Auditor: Eric Brudie

Is the site free of any natural features that could bias temperature data (e.g. open water, sloping ridge, etc.)?  Yes  No Comments: None.

Is the site free of any man-made features that could bias temperature data (e.g. asphalt, concrete, exhaust plumes, etc.)?  Yes  No Comments: None.

Are the sensors located at least 30 meters from large paved areas?  Yes  No Comments: None.

Is the ambient temperature sensor protected from the influence of solar radiation?  Yes  No Comments: Housed in Met One Mdl 076B-4 Motor Aspirated Radiation Shield.

Are the temperature difference sensors located in identical aspirated shields?  Yes  No Comments: Housed in Met One Mdl 076B-4 Motor Aspirated Radiation Shields.

### 3.3.3 Wind Speed and Wind Direction Sensors

Is the horizontal distance between the instruments and any obstruction at least 10 times the height of the obstruction?  Yes  No Comments: None.

Are the instruments at least 1.5 times nearby building height(s) above the building roof(s), or 10-m high?  Yes  No Comments: None.

Are the wind speed and wind direction sensors stable and plumb?  Yes  No Comments: None.

Is the distance of the sensor on the cross-arm at least twice the diameter of the tower?  Yes  No Comments: Climatronics Sensors mounted on a crossarm which meets this criterion.

Is the distance of the sensor on the cross-arm at least twice the diameter of the tower?  Yes  No Comments: RM Young sensor mounted on an extension arm which meets this criterion.

Is the wind direction sigma theta data being collected according to EPA requirements?  Yes  No Comments: DAS calculated using Yamartino method and a one-second scan interval.

### 3.3.4 Relative Humidity and Barometric Pressure

Is the relative humidity sensor open to the atmosphere & protected from precipitation?  Yes  No Comments: Housed in 2-m aspirated shield with temperature sensor.

Is the barometric pressure sensor open to atmosphere & protected from precipitation?  Yes  No Comments: Housed in unsealed shelter, mounted on wiring panel.

### 3.3.5 Precipitation

Are all obstructions to the wind farther away from the gauge than the obstruction height?  Yes  No Comments: None.

If located in an open and windy area, is a windshield being used?  Yes  No Comments: Wyoming Wind screen surrounds ETI gauge and Alter type around Met-One.

Is the area surrounding the rain gauge covered by natural vegetation or gravel?  Yes  No Comments: None.



# Pebble 1 PSD Meteorological Station Systems Audit

Owner: NDM

Operator: Dominic Shallies  
Witnesses: Dominic Shallies

Alternate: Steve Mackey

Audit Date: 10-Jul-06  
Auditor: Eric Brudie

Is the instrument mounted at least 30 cm above the ground?  Yes Comments: None.  
 No

Is the instrument mounted level?  Yes Comments: None.  
 No

### 3.3.6 Evaporation

Is the evaporation pan above the plane of any obstructions that could cast shadows?  Yes Comments: None.  
 No

Are the pan and gauge mounted on a stable and level platform?  Yes Comments: Mounted on a 6' x 8' deck supported on adjustable pier blocks.  
 No

Is the evaporation pan protected from animals?  Yes Comments: Six-foot fence surrounds evaporation pan and gauge.  
 No

### 3.3.7 Solar Radiation

Is the instrument situated above the plane of any obstructions that could cast shadows?  Yes Comments: None.  
 No

Is the sensor situated south of the tower to minimize obstruction from the tower?  Yes Comments: None.  
 No

## 4.0 STANDARD OPERATING PROCEDURES

### 4.1 General

Is the station visited on a preset schedule?  Yes Comments: None.  
 No

Have standard SOPs been developed, and are they being followed by the operators?  Yes Comments: None.  
 No

Does the operator follow a preventative maintenance schedule?  Yes Comments: None.  
 No

Are site visits and maintenance activities properly documented in a Station Log?  Yes Comments: Site visit memos are compiled.  
 No

Are station operators knowledgeable and competent regarding effective operation?  Yes Comments: None.  
 No

Have operators attended any formal training for operating met monitoring stations?  Yes Comments: All operators have at least two years onsite experience.  
 No

Are copies of the NIST certifications for the calibration equipment made available?  Yes Comments: Attached.  
 No

### 4.2 DAS and Meteorological Sensors

Are regular multipoint QC checks performed on the DAS?  Yes Comments: DAS audited by virtue of the instrument output values.  
 No

Are regular multipoint QC checks performed on the meteorological sensors?  Yes Comments: None.  
 No

# Pebble 1 PSD Meteorological Station Systems Audit

Owner: NDM

Operator: Dominic Shallies  
Witnesses: Dominic Shallies

Alternate: Steve Mackey

Audit Date: 10-Jul-06  
Auditor: Eric Brudie

- Are the sensors visually inspected for defects and problems?  Yes  No Comments: None.
- Are ambient conditions compared with sensor readings from the DAS?  Yes  No Comments: DAS output compared to Iliamna Airport weather station.
- Are data frequently reviewed for reasonableness and completeness?  Yes  No Comments: None.
- Is a copy of the datalogger program made available for review?  Yes  No Comments: None.

## 5.0 DOCUMENTATION

### 5.1 System Reference and Maintenance Manuals

- Does the operator have all required DAS and meteorological instrument manuals?  Yes  No Comments: On-site and at HCG offices.
- Does the operator have configuration and wiring schematics specific to the station?  Yes  No Comments: Operator carries wiring schematics.

### 5.2 Station Monitoring Plan and Report Forms

- Is the Monitoring/QA plan comprehensive and reflective of the actual installation?  Yes  No Comments: None.
- Does the Monitoring/QA plan indicate the intended use for the data collected during the monitoring program?  Yes  No Comments: Collect PSD quality data to meet dispersion modeling requirements and satisfy mine/transportation design requirements.
- Does the system outlined in the QA plan meet the objectives outlined above?  Yes  No Comments: PSD quality installation.
- Does the QA Plan indicate the intended schedule for reports to be submitted?  Yes  No Comments: None.
- Does the station have an activity log?  Yes  No Comments: Site visit memos written after each visit to supplant a log book.
- Does the station have a formal Site Visit and Checklist Form?  Yes  No Comments: No formal checklist used.
- Does the station have an adequate Operations Manual?  Yes  No Comments: Monitoring/QA plan and equipment manuals.
- Does the station have an adequate Calibration Report Form and copies of previous calibrations and audits?  Yes  No Comments: None.
- Are report forms and site logs properly completed and current?  Yes  No Comments: None.

# Pebble 1 PSD Meteorological Station Systems Audit

Owner: NDM

Operator: Dominic Shallies

Alternate: Steve Mackey

Audit Date: 10-Jul-06

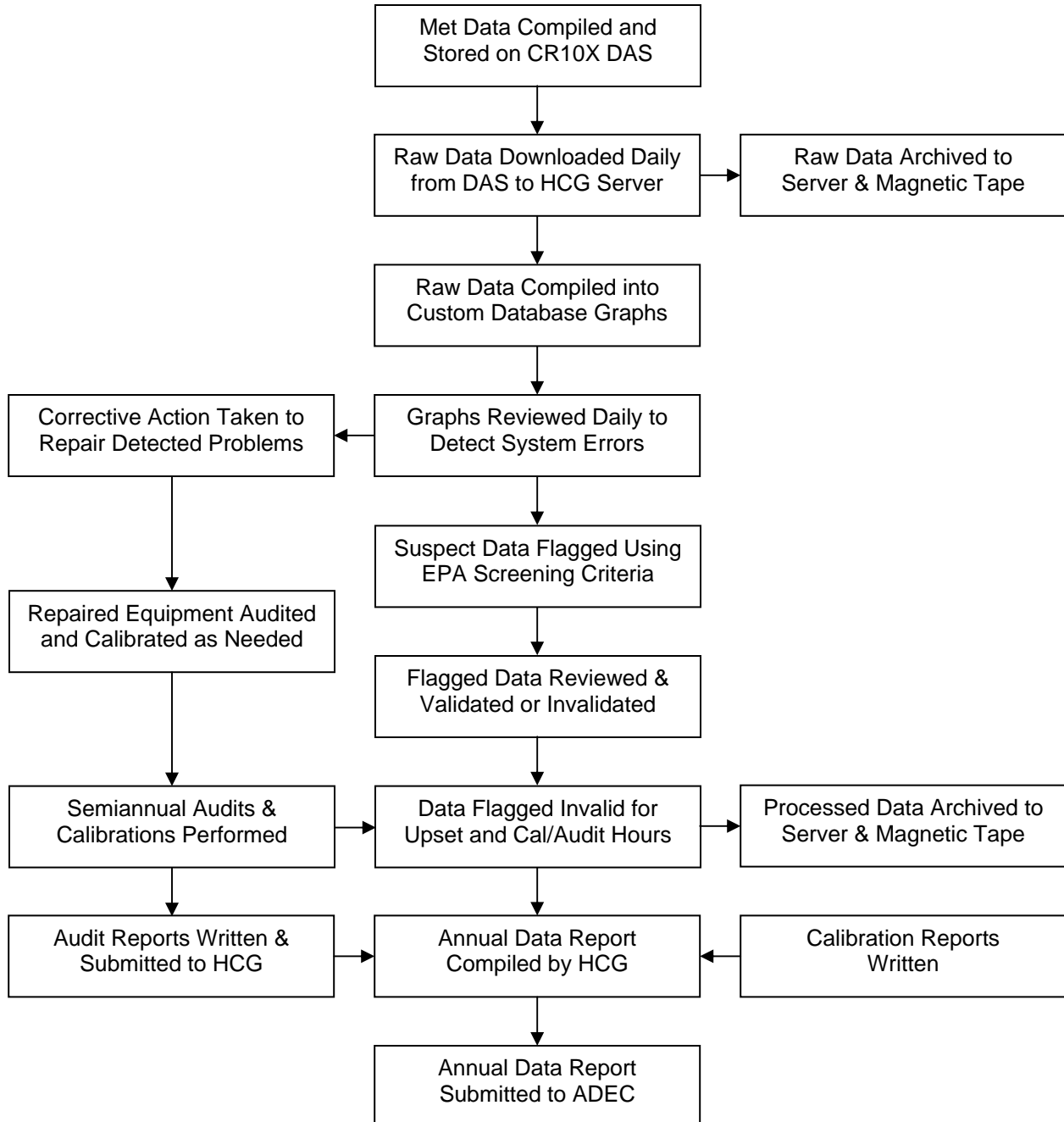
Witnesses: Dominic Shallies

Auditor: Eric Brudie

## 6.0 DATA PROCESSING and VALIDATAION

### 6.1 Overall Data Management

- Diagram the flow of data from monitoring equipment to submission of a final report.



# Pebble 1 PSD Meteorological Station Systems Audit

Owner: NDM

Operator: Dominic Shallies  
Witnesses: Dominic Shallies

Alternate: Steve Mackey

Audit Date: 10-Jul-06  
Auditor: Eric Brudie

## 6.2 Data Collection and Initial Data Review

- Is the station polled and data downloaded on a regular basis?  Yes  No Comments: Daily via RF modem and telephony modem.
- Are the monitoring station data reviewed on a regular basis?  Yes  No Comments: Data imported into custom graphs and reviewed 5-6 days per week.
- Are the monitoring station data screened on a regular basis?  Yes  No Comments: Data screened using EPA criteria prior to summary compilations.
- Are procedures in place for backing up raw data?  Yes  No Comments: Raw data files are backed up on the HCG server and on magnetic tape.
- Are written procedures for data handling available for the project?  Yes  No Comments: None.

- Describe the data polling process and initial data evaluation.  
Data is downloaded from the station on a daily basis using a dedicated data polling computer located at the HCG office. The raw \*.dat file is appended to the existing raw station data file located on the HCG server, which is backed up to tape daily. The raw data are copied to an Access/Excel database file which generates custom graphs of the various meteorological and operational parameters. These graphs are reviewed 5-6 days per week in order to identify station problems. This graphical data review is the frontline of maintaining a complete and defensible dataset. Station upsets are instantly identified and repaired within days. Copies of both the raw unadjusted data and the custom database files are retained for a minimum of 5 years.

## 6.3 Corrective Actions

- Are procedures established for initiating corrective actions during data processing?  Yes  No Comments: Daily graphical data review and subsequent reactions.

- Describe procedures for initiating, tracking and closing corrective actions.  
When nonconformance issues are recognized during graphical review, the Lead Operator/Data Manager plans and executes corrective action. A calibration check is performed on any sensor which is repaired or replaced during the action. A site visit memo outlining the nature of the problem and repairs undertaken is written and saved to the station file. Any quantifiable error is also documented for possible data validation. The Operator/Data Manager ensures the erroneous data are flagged for the period from initial noncompliance until repair and calibration.

## 6.4 Data Validation

- Are data validation procedures established and in use?  Yes  No Comments: None.
- Are adjusted and unadjusted data sets maintained?  Yes  No Comments: Both are backed up on the HCG server and magnetic tape.

- Describe the initial data validation procedure.  
Data is compiled in a custom Excel spreadsheet programmed to evaluate meteorological data against EPA recommended PSD data screening criteria. The data are screened for events such as: extended periods of zero wind speed (indicating icing or worn bearings), temperatures outside of the known monthly max/min for the area, etc. Nonconforming data are flagged by the screening program for further investigation. Also, data periods for individual parameters are flagged for times when the corresponding instrument was undergoing field servicing, calibrations or audits. Periods when instruments are known to have been out of calibration or malfunctioning are also flagged.



# Pebble 1 PSD Meteorological Station Systems Audit

Owner: NDM

Operator: Dominic Shallies  
Witnesses: Dominic Shallies

Alternate: Steve Mackey

Audit Date: 10-Jul-06

Auditor: Eric Brudie

## 7.2 Quality Assurance Methods and Audits

Have adequate audit procedures been identified within the quality assurance plan?  Yes  No Comments: None.

Does the Plan correctly document PSD accuracy limits for calibrating and auditing?  Yes  No Comments: None.

Have audits been conducted on the suggested schedule of every six months?  Yes  No Comments: None.

- Identify the person(s) responsible for conducting audits on the monitoring instrumentation.

Name: Eric Brudie

Position: Field Auditor

Affiliation: Hoefler Consulting Group, Inc.

## 8.0 COMMENTS AND SUGGESTIONS

- Prepare and compile site specific station checklists and visit forms.

**APPENDIX B**  
**PERFORMANCE AUDIT DATA SHEETS and ALIGNMENT MAP**

# METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

**Owner:** Northern Dynasty  
**Auditor:** Eric Brudie

**Operator:** Dominic Shallies **Alternate:** Steve Mackey  
**Witness(s):** Dominic Shallies

**Station Site:** Station 1 (Mine)  
**Audit Date:** July 10-12, 2006

• **DAS TIME AUDIT**

**PSD Limits:** DAS time = Alaska Standard Time (AST) +/- 5 minutes.  
**Conversions:** Winter; (AST) = (DST), Summer; (AST) = (DST) - 1 hr.  
**Comments:** Time check on 7/11/06 and reset and re-audited.

DAS TIME vs. NOAA CLOCK			
AST Time	DAS Time	Error Min:Sec	Pass/Fail?
9:23:30	9:20:25	-03:05	PASS
9:25:00	9:25:06	00:06	PASS

• **TEMPERATURE SENSORS & ΔT AUDIT**

**Lower Height:** 2.0 Meters

**Upper Height:** 10.0 Meters

**2-M Thermistor:** **Make:** Met One **Model:** 062MP **S.N.#:** E3383 # 1/2 **Range:** -50 to 50 °C  
**10-M Thermistor:** **Make:** Met One **Model:** 062MP **S.N.#:** E3383 # 2/2 **Range:** -50 to 50 °C  
**Audit Digital Thermometer:** **Make:** Van Waters & Rogers **Model:** 61220-601 **S.N.#:** 51091749 **Range:** -40 to 150 °C  
**Audit Probe:** **Make:** Van Waters & Rogers **Model:** 61220-604 **S.N.#:** 240301145 **Range:** -40 to 150 °C

COLLOCATED THERMISTOR TEST										
Thermal Input			Station Response (2M)			Station Response (10M)			Station (Delta T)	
Temp Range	Target °C	Input °C	DAS °C	Error °C	Pass/Fail?	DAS °C	Error °C	Pass/Fail?	Delta T °C	Pass/Fail?
Very Cold	-35 to -45	-16.65	-16.18	0.47	Pass	-16.18	0.47	Pass	0.00	Pass
Cold	-15 to -25	-15.65	-15.17	0.48	Pass	-15.17	0.48	Pass	0.00	Pass
Ice Bath	0	-0.02	0.11	0.13	Pass	0.11	0.13	Pass	0.00	Pass
Warm	15 to 25	23.48	23.55	0.07	Pass	23.55	0.07	Pass	0.00	Pass
Hot	35 to 45	38.78	38.92	0.14	Pass	38.92	0.14	Pass	0.00	Pass
<b>Max Abs. Error</b>				0.48	<b>PASS</b>		0.48	<b>PASS</b>	0.00	<b>PASS</b>

**Date:** 07/11/06  
**Begin:** 1100  
**End:** 1130

**Date:** 07/10/06  
**Begin:** 1540  
**End:** 1700

**PSD Limits:** Max Absolute Error > 0.5 °C (Sensor Accuracy); Max Absolute Error > 0.1 °C (Delta Temperature).  
**Comments:** Very cold test done on 7/11/06 with limited dry ice available, all other tests on 7/10/06.

• **RELATIVE HUMIDITY SENSOR AUDIT**

**Height:** 2.0 Meters

**RH Sensor:** **Make:** Vaisala **Model:** HMP45ASP **S.N.#:** A1040018 **Range:** 0.8 to 100 % RH  
**Audit Equipment:** **Make:** Vaisala **Model:** HMI 41 **S.N.#:** X0650080 **Range:** 0 to 100 % RH  
**Audit Equipment:** **Probe#** HMI41 X07450015

COLLOCATED STANDARD TEST									
Date:	Reading Time	Input %RH	Input AT (°C)	Input DP (°C)	DAS %RH	DAS AT (°C)	DAS DP (°C)	Error DP (°C)	Pass/Fail?
07/10/06	1610	68.1	N/A	6.8	69.5	12.7	7.3	0.5	Pass
07/10/06	1615	69.6	N/A	7.1	71.5	12.6	7.6	0.5	Pass
<b>Max Abs. Error</b>								0.5	<b>PASS</b>

**PSD Limits:** Max Absolute Error > 1.5°C Dew Point.  
**Conversions:** Td=DP(°C), Ta=AT(°C), RH=Fraction: Td=b\*ν/(a-ν), where ν=a\*Ta/(b + Ta) + ln(RH), and a = 17.27, b=237.7°C.  
**Comments:** None.



# METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

Owner: Northern Dynasty  
Auditor: Eric Brudie

Operator: Dominic Shallies Alternate: Steve Mackey  
Witness(s): Dominic Shallies

Station Site: Station 1 (Mine)  
Audit Date: July 10-12, 2006

## • BAROMETRIC PRESSURE SENSOR AUDIT

Height:     N/A     Meters

Pressure Sensor: Make: Vaisala Model: PTB101B S.N.#: A0710039 Range: 600-1060 hPa  
Audit Equipment: Make: PRETEL Model: AltiPlus A2 S.N.#: 27806 Range: 470-1040 hPa

Audit Inst Cal Data	
Cal. Date: 05/24/06	
Audit Inst	Offset Amount
24.13	-0.13
26.24	-0.13
28.12	-0.12
30.11	-0.11
Intercept	<b>-0.22</b>
Slope	<b>0.0035</b>

COLLOCATED STANDARD TEST							
Date:	Reading Time	Raw Input in Hg	Adj Input in Hg	Adj Input mb	DAS mb	Error mb	Pass/Fail?
07/10/06	1558	28.13	28.01	948.6	949.1	0.5	Pass
07/11/06	1540	28.17	28.05	949.9	949.9	0.0	Pass
						<b>Max Abs. Error</b>	<b>0.5</b>
							<b>PASS</b>

PSD Limits: Max Absolute Error > 3mb (0.3kPa).

Comments: None.

## • HORIZONTAL WIND SPEED SENSOR AUDIT - CLIMATRONICS

Height:     11.0     Meters

Wind Spd Sensor: Make: Climatronics Model: 100075 S.N.#: 5007 Cup #: 2284 Range: 0-60 m/s  
Audit Equipment: Low Spd: RM Young Model: 18811 S.N.#: CA02136 Torque: Watters Mdl 366-3 S.N.#: 4864  
Audit Equipment: High Spd: RM Young Model: 18801 S.N.#: CA06174

Date: 07/10/06  
Begin: 1635  
End: 1645

TORQUE TEST			
Bearings Replaced?	Limit oz-in	Torque oz-in	Pass/Fail?
In-Situ	0.0049	<<0.003	<b>PASS</b>
New	0.0049	N/A	N/A

SYNCHRONOUS MOTOR TEST					
Input rpm	Input m/s	DAS m/s	Error m/s	Error % Input	Pass/Fail?
0	0.22	0.22	0.00	N/A	Pass
100	2.57	2.57	0.00	N/A	Pass
200	4.92	4.92	0.00	N/A	Pass
400	9.62	9.62	N/A	0.0	Pass
1000	23.72	23.72	N/A	0.0	Pass
2000	47.22	47.21	N/A	0.0	Pass
			<b>Max Abs. Error</b>	<b>0.00</b>	<b>0.0</b>
					<b>PASS</b>

PSD Limits: Threshold Torque >0.35gm-cm (0.0049oz-in) @ 0.50m/s. Max Absolute Error > 0.20m/s @ WS<=5m/s or > 5% of input @ WS>5m/s.

Conversions: Heavy Duty Al Cups: m/s = rpm÷42.55+0.22. gm-cm=72\*oz-in.

Comments: None.

## • HORIZONTAL WIND SPEED SENSOR AUDIT - RM YOUNG

Height:     10.5     Meters

Wind Spd Sensor: Make: RM Young Model: 05305 AQ S.N.#: 66725 Prop #: 63112\* Range: 0-50 m/s  
Audit Equipment: Low Spd: RM Young Model: 18811 S.N.#: CA02136 Torque: Watters Mdl 366-3 S.N.#: 4864  
Audit Equipment: High Spd: RM Young Model: 18801 S.N.#: CA06174

Date: 07/10/06  
Begin: 1645  
End: 1655

TORQUE TEST			
Bearings Replaced?	Limit oz-in	Torque oz-in	Pass/Fail?
In-Situ	0.014	0.013	<b>PASS</b>
New	0.014	0.012	<b>PASS</b>

SYNCHRONOUS MOTOR TEST					
Input rpm	Input m/s	DAS m/s	Error m/s	Error % Input	Pass/Fail?
0	0.00	0.00	0.00	N/A	Pass
400	2.05	2.07	0.02	N/A	Pass
1000	5.12	5.18	N/A	1.2	Pass
2000	10.24	10.24	N/A	0.0	Pass
5000	25.60	25.58	N/A	-0.1	Pass
10000	51.20	51.30	N/A	0.2	Pass
			<b>Max Abs. Error</b>	<b>0.02</b>	<b>1.2</b>
					<b>PASS</b>

PSD Limits: Threshold Torque >1.0gm-cm (0.014oz-in) @ 0.50m/s. Max Absolute Error > 0.20m/s @ WS<=5m/s or > 5% of input @ WS>5m/s.

Conversions: Model 08254 Prop: m/s = 0.00512\*rpm. gm-cm=72\*oz-in.

Comments: \*Prop # 63047 broken during audit & replaced with prop # 63112.

# METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

**Owner:** Northern Dynasty  
**Auditor:** Eric Brudie

**Operator:** Dominic Shallies **Alternate:** Steve Mackey  
**Witness(s):** Dominic Shallies

**Station Site:** Station 1 (Mine)  
**Audit Date:** July 10-12, 2006

● **HORIZONTAL WIND DIRECTION SENSOR AUDIT - CLIMATRONICS**

**Height:** 11.0 Meters

**Wind Dir Sensor:** **Make:** Climatronics **Model:** 100076 **S.N.#:** 4691 **Vane #:** 1440 **Range:** 0-360 **Deg**  
**Audit Equipment:** **Linearity:** Climatronics **Model:** 101984 **S.N.#:** 145 **Torque:** Honeywell Mdl 366-0 **S.N.#:** 5042  
**Compass:** Brunton **Model:** 11-F5008 **S.N.#:** 5080799319 **Magnetic Declin:** 17.6 **E of N**

TORQUE TEST			
Bearings Replaced?	Limit oz-in	Torque oz-in	Pass/Fail?
In-Situ	0.104	0.070	<b>PASS</b>
New	0.104	0.010	<b>PASS</b>

IN SITU AZIMUTH ALIGNMENT TEST				
Description	Input Deg	DAS Deg	Error Deg	Pass/Fail?
Compass (Before removal-07/10/06)	122.5	126.0	3.5	Pass
Cone Mtn (Before removal-7/10/06)	144.3	149.0	4.7	Pass
Cone Mtn (Before removal-7/11/06)	144.3	148.9	4.6	Pass

**Date:** 7/10/06 & 07/11/06 **Max Abs. Error** **4.7** **PASS**  
**Time:** Begin: 1425 End: 1550 **Mean Abs. Error** **4.3** **ALERT**

CROSSARM-VANE ACCUR. & LIN. TEST				
Input Dir	Input Deg	DAS Deg	Error Deg	Pass/Fail?
South	180.0	180.8	0.8	Pass
West	270.0	272.1	2.1	Pass
North	360.0	0.1	0.1	Pass
East	90.0	91.3	1.3	Pass
North	360.0	0.1	0.1	Pass
West	270.0	271.8	1.8	Pass
South	180.0	180.8	0.8	Pass
East	90.0	91.8	1.8	Pass
<b>Max Abs. Error</b>			<b>2.1</b>	<b>PASS</b>
<b>Mean Abs. Error</b>			<b>1.1</b>	<b>PASS</b>

**Time:** Begin: 1556 End: 1600  
**Date:** 07/10/06

BENCH STAND ACCURACY & LINEARITY TEST							
Input Deg	DAS Deg	Error Deg	Pass/Fail?	Input Deg	DAS Deg	Error Deg	Pass/Fail?
30.0	30.2	0.2	Pass	330.0	332.1	2.1	Pass
60.0	60.0	0.0	Pass	355.0	356.3	1.3	Pass
90.0	90.6	0.6	Pass	30.0	29.7	-0.3	Pass
120.0	120.3	0.3	Pass	60.0	60.8	0.8	Pass
150.0	150.0	0.0	Pass	90.0	91.4	1.4	Pass
180.0	180.5	0.5	Pass	120.0	121.2	1.2	Pass
210.0	210.0	0.0	Pass	150.0	150.3	0.3	Pass
240.0	240.4	0.4	Pass	180.0	180.3	0.3	Pass
270.0	270.6	0.6	Pass	<b>Max Abs. Error</b>		<b>2.1</b>	<b>PASS</b>
300.0	300.4	0.4	Pass	<b>Mean Abs. Error</b>		<b>0.6</b>	<b>PASS</b>

**Date:** 07/10/06 **Time:** Begin: 1550 End: 1553

POST-AUDIT AZIMUTH ALIGNMENT TEST				
Description	Input Deg	DAS Deg	Error Deg	Pass/Fail?
Cone Mtn	144.3	145.3	1.0	Pass
Peak 1984	9.8	9.1	-0.7	Pass
Koktuk Mtn	292.2	293.6	1.4	Pass
Hill 2488	216.5	218.0	1.5	Pass
BM Pig	241.9	243.3	1.4	Pass
Compass	81.0	82.0	1.0	Pass
Met repeater	318.4	320.6	2.2	Pass

**Date:** 07/11/06 **Max Abs. Error** **2.2** **PASS**  
**Time:** Begin: 1450 End: 1530 **Mean Abs. Error** **1.3** **GOOD**

**PSD Limits:** Threshold Torque >7.5 gm-cm (.104 oz-in) @ 0.5 m/s. Max Absolute Error >5° from True Azimuth (alignment).  
 Max Absolute Error >5° (accuracy). Mean Absolute Error >3° (linearity). Azimuth Mean Absolute Error calculated for information only.  
**Comments:** Extremely windy on 07/10/06, only able to capture two points on that day prior to removal from the tower. On 07/11/06 one single point checked and then crossarm re-aligned on muffler clamp and re-audited.

# METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

**Owner:** Northern Dynasty  
**Auditor:** Eric Brudie

**Operator:** Dominic Shallies **Alternate:** Steve Mackey  
**Witness(s):** Dominic Shallies

**Station Site:** Station 1 (Mine)  
**Audit Date:** July 10-12, 2006

• **HORIZONTAL WIND DIRECTION SENSOR AUDIT - RM YOUNG**

**Height:** 10.5 Meters

**Wind Dir Sensor:** **Make:** RM Young **Model:** 05305 AQ **S.N.#:** 66725 **Vane #:** N/A **Range:** 0-360 **Deg**  
**Audit Equipment:** **Linearity:** RMY Mdl 18112 Bench Stand **S.N.#:** None **Torque:** RMY Mdl 18331 Torque Gauge **S.N.#:** None  
**Compass:** Brunton **Model:** 11-F5008 **S.N.#:** 5080799319 **Magnetic Declin:** 17.6 **E of N**

TORQUE TEST			
Bearings Replaced?	Limit gm-cm	Torque gm-cm	Pass/Fail?
In-Situ	11.0	11.0	<b>PASS</b>
New	11.0	3.0	<b>PASS</b>

IN SITU AZIMUTH ALIGNMENT TEST				
Description	Input Deg	DAS Deg	Error Deg	Pass/Fail?
Compass	122.5	123.5	1.0	Pass
Compass	120.0	121.6	1.6	Pass
Cone Mtn	144.3	146.4	2.1	Pass
Cone Mtn - Post Audit	144.3	145.8	1.5	Pass

**Date:** 07/10/06  
**Time:** Begin: 1420 End: 1550

<b>Max Abs. Error</b>	<b>2.1</b>	<b>PASS</b>
<b>Mean Abs. Error</b>	<b>1.6</b>	<b>GOOD</b>

BENCH STAND ACCURACY & LINEARITY TEST											
Input Deg	DAS Deg	Error Deg	Pass/Fail?	Input Deg	DAS Deg	Error Deg	Pass/Fail?	Input Deg	DAS Deg	Error Deg	Pass/Fail?
30.0	31.5	1.5	Pass	150.0	154.3	4.3	Pass	270.0	271.4	1.4	Pass
60.0	62.4	2.4	Pass	180.0	183.1	3.1	Pass	300.0	300.9	0.9	Pass
90.0	93.5	3.5	Pass	210.0	212.7	2.7	Pass	330.0	330.1	0.1	Pass
120.0	123.8	3.8	Pass	240.0	241.7	1.7	Pass	355.0	354.6	-0.4	Pass

**Date:** 07/10/06  
**Time:** Begin: 1700 End: 1710

<b>Max Abs. Error</b>	<b>4.3</b>	<b>PASS</b>
<b>Mean Abs. Error</b>	<b>2.1</b>	<b>PASS</b>

POST-AUDIT AZIMUTH ALIGNMENT TEST				
Description	Input Deg	DAS Deg	Error Deg	Pass/Fail?
Cone Mtn	144.3	144.8	0.5	Pass
Peak 1984	9.8	10.4	0.6	Pass
Koktuk Mtn	292.2	290.6	-1.6	Pass
Hill 2488	216.6	213.4	-3.2	Pass
BM Pig	241.9	238.1	-3.8	Pass
Compass	81.0	82.8	1.8	Pass
Met repeater	318.4	317.7	-0.7	Pass

**Date:** 07/11/06  
**Time:** Begin: 1440 End: 1530

<b>Max Abs. Error</b>	<b>3.8</b>	<b>PASS</b>
<b>Mean Abs. Error</b>	<b>1.7</b>	<b>GOOD</b>

**PSD Limits:** Threshold Torque >11.0 gm-cm (0.153 oz-in) @ 0.5 m/s. Max Absolute Error >5° from True Azimuth (alignment).  
 Max Absolute Error >5° (accuracy). Mean Absolute Error >3° (linearity). Azimuth Mean Absolute Error calculated for information only.  
**Comments:** Few data points taken under extremely windy conditions on 07/10/06. Bearings replaced and instrument returned to tower and single post-audit point taken after return to tower. Full suite of post-audit values taken under less windy conditions on 07/11/06.

# METEOROLOGICAL STATION - INSTRUMENT PERFORMANCE AUDIT (11-M)

**Owner:** Northern Dynasty  
**Auditor:** Eric Brudie

**Operator:** Dominic Shallies **Alternate:** Steve Mackey  
**Witness(s):** Dominic Shallies

**Station Site:** Station 1 (Mine)  
**Audit Date:** July 10-12, 2006

● **WEIGHING PRECIPITATION GAUGE AUDIT (PRE-REPLACEMENT)**

**Height:** 1.5 Meters

**Precipitation Gauge:** **Make:** ETI **Model:** 8205-00710 Noah II **S.N.#:** 334 **Range:** 6 **Inches per Hour**  
**Audit Equipment:** **Make:** Nova Lynx Corp. **Model:** 260-2595 **S.N.#:** 936 **Range:** 2 **Inches per Hour**  
**Diameter:** 12.00 **Inches** **Volume Rate** 72.97 **ml/mm**

PRECIPITATION GAUGE VOLUME TEST										
Reading Time	Approx in	Input Vol ml	Input mm	Begin mm	End mm	Delta mm	Error % Input	Pass/Fail?	Notes	
1450	2.25	1600	21.9	0.00	19.30	19.30	-12.0%	Fail		
1455		1600	21.9	19.30	38.61	19.31	-11.9%	Fail		
1501		1600	21.9	0.00	19.30	19.30	-12.0%	Fail		
1505	5.75	1600	21.9	19.30	33.02	13.72	N/A	Fail	Bottle poured in too fast, very low reading.	
1512		1600	21.9	33.02	51.56	18.54	-15.5%	Fail		
1530		1600	21.9	51.56	69.85	18.29	-16.6%	Fail		
1545	8.50	1600	21.9	69.85	88.14	18.29	-16.6%	Fail		
1610		1600	21.9	0.00	18.29	18.29	-16.6%	Fail		
1625		1600	21.9	18.29	36.32	18.03	-17.8%	Fail		
1633	11.00	1600	21.9	36.32	46.99	10.67	N/A	Fail	Instrument stopped working at 11".	
<b>Max Abs. Error</b>							<b>17.8%</b>	<b>FAIL</b>		

**PSD Limits:** Max Absolute Error > 10 % of Input.

**Comments:** Audit date 07/11/06. Instrument had quit working at 11", before being drained for audit. Instrument consistently read low with extreme low values disregarded as noted.

● **WEIGHING PRECIPITATION GAUGE AUDIT (POST-REPLACEMENT)**

**Height:** 1.5 Meters

**Precipitation Gauge:** **Make:** ETI **Model:** 8205-00710 Noah II **S.N.#:** 343 **Range:** 6 **Inches per Hour**  
**Audit Equipment:** **Make:** Nova Lynx Corp. **Model:** 260-2595 **S.N.#:** 936 **Range:** 2 **Inches per Hour**  
**Diameter:** 12.00 **Inches** **Volume Rate** 72.97 **ml/mm**

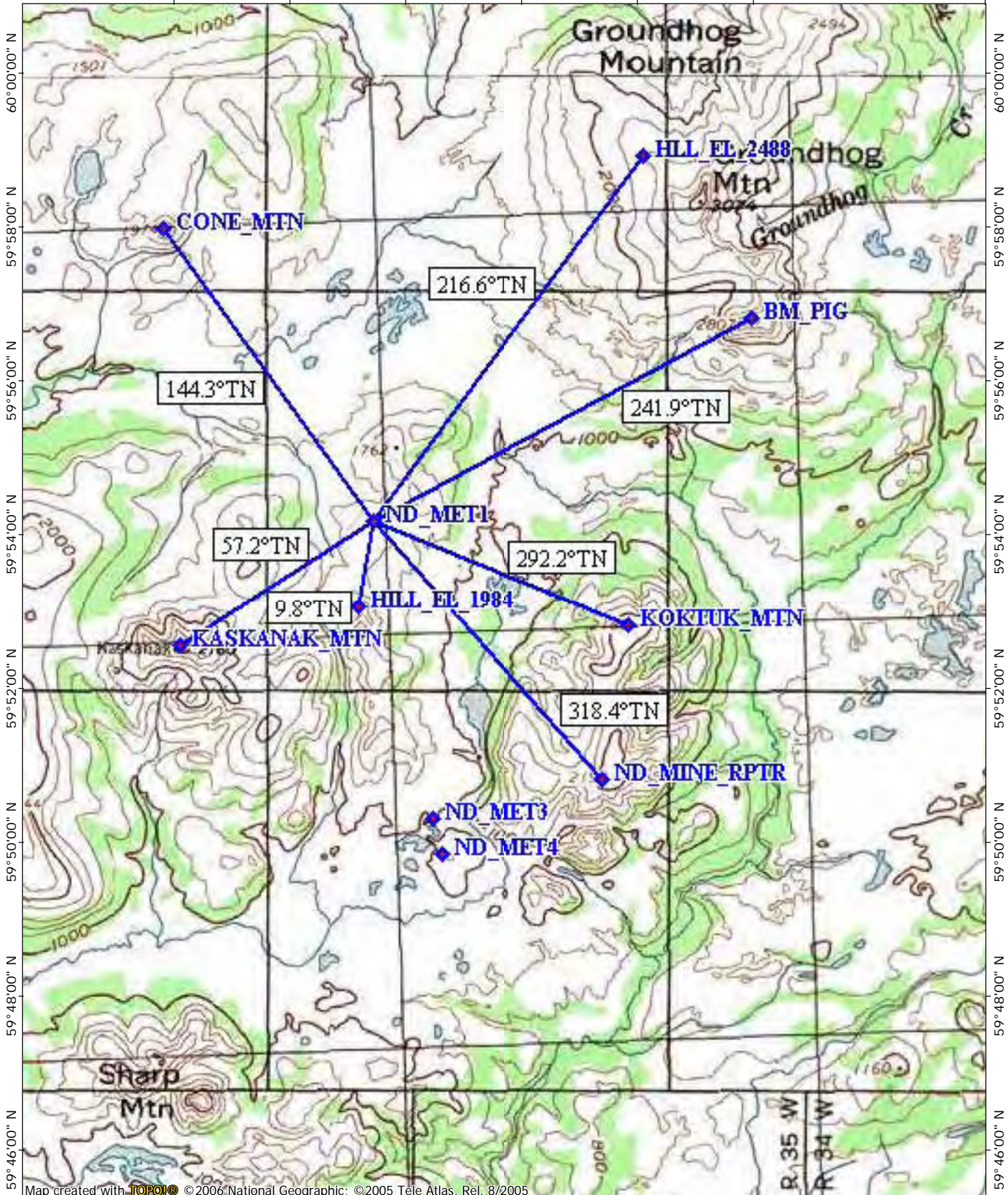
PRECIPITATION GAUGE VOLUME TEST										
Reading Time	Approx in	Input Vol ml	Input mm	Begin mm	End mm	Delta mm	Error % Input	Pass/Fail?	Notes	
1650	2.00	1600	21.9	48.77	72.64	23.87	8.8%	Pass	Date: 07/11/06.	
1655		1600	21.9	72.64	96.51	23.87	8.8%	Pass	Date: 07/11/06.	
0650		1600	21.9	0.00	22.35	22.35	1.9%	Pass	Date: 07/12/06.	
0701	5.50	1600	21.9	0.25	23.37	23.12	5.4%	Pass	Date: 07/12/06.	
0710		1600	21.9	23.37	46.23	22.86	4.2%	Pass	Date: 07/12/06.	
0721	7.25	1600	21.9	46.23	69.34	23.11	5.4%	Pass	Date: 07/12/06.	
0729		1600	21.9	69.34	92.20	22.86	4.2%	Pass	Date: 07/12/06.	
0735	9.13	1600	21.9	92.20	115.06	22.86	4.2%	Pass	Date: 07/12/06.	
0741		1600	21.9	115.06	135.64	20.58	-6.2%	Pass	Date: 07/12/06.	
0749	10.75	1600	21.9	135.64	158.50	22.86	4.2%	Pass	Date: 07/12/06.	
<b>Max Abs. Error</b>							<b>8.8%</b>	<b>PASS</b>		

**PSD Limits:** Max Absolute Error > 10 % of Input.

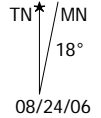
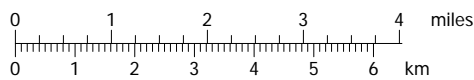
**Comments:** Gauge left with 3.75" of water, glycol & oil.







Map created with TOPO! © 2006 National Geographic; © 2005 Tele Atlas, Rel. 8/2005



**APPENDIX C**  
**AUDIT EQUIPMENT CALIBRATION CERTIFICATES**





**Calibration complies with  
ISO/IEC 17025 AND ANSI/NCSL Z540-1**



**Cert. No.: 4000-1338226**

**Traceable® Certificate of Calibration for Digital Thermometer**

**Instrument Identification:**

**Hoefler Consulting Group, 3401 Minnesota Dr, Suite300, Attn: Dominic Shallies, Anchorage, AK 99503 U.S.A. (RMA:933478)**

Model: 61220-601      S/N: 51091749      Manufacturer : Control Company  
 Model: 61220-604      S/N: 240301145

**Standards/Equipment:**

Description	Serial Number	Due Date	NIST Traceable Reference
Temperature Probe	128	12/08/06	A5B28010-1
Thermistor Module	A17118	8/12/06	A5819038
Temperature Calibration Bath TC179	A45240		
Temperature Calibration Bath TC191	A42238		
Temperature Probe	157	9/01/06	A5815063
Thermistor Module	A27129	7/05/06	1000189003

**Certificate Information:**

Technician: 68      Procedure: CAL-06      Cal Date: 6/07/06      Cal Due: 6/07/07  
 Test Conditions:    25.5°C    39.0 %RH    1013 mBar

**Calibration Data:**

Unit(s)	Nominal	As Found	In Tol	Nominal	As Left	In Tol	Min	Max	±uc	TUR
°C	0.000	0.072	N	0.000	-0.004	Y	-0.050	0.050	0.013	3.8:1
°C	25.000	25.020	Y	25.000	24.999	Y	24.950	25.050	0.013	3.8:1
°C	60.002	59.999	Y	60.001	59.999	Y	59.951	60.051	0.013	3.8:1
°C	100.002	100.001	Y	100.002	100.004	Y	99.952	100.052	0.013	3.8:1

**This Instrument was calibrated using Instruments Traceable to National Institute of Standards and Technology.**

A Test Uncertainty Ratio of at least 4:1 is maintained unless otherwise stated and is calculated using the expanded measurement uncertainty. Uncertainty evaluation includes the instrument under test and is calculated in accordance with the ISO "Guide to the Expression of Uncertainty in Measurement" (GUM). The uncertainty represents an expanded uncertainty using a coverage factor k=2 to approximate a 95% confidence level. In tolerance conditions are based on test results falling within specified limits with no reduction by the uncertainty of the measurement. The results contained herein relate only to the item calibrated. This certificate shall not be reproduced except in full, without written approval of Control Company.

Nominal=Standard's Reading; As Left=Instrument's Reading; In Tol=In Tolerance; Min/Max=Acceptance Range; ±uc=Measurement Uncertainty; TUR=Test Uncertainty Ratio; Accuracy=±(Max-Min)/2

*Wallace Berry*  
Wallace Berry, Technical Manager

**Maintaining Accuracy:**

In our opinion once calibrated your Digital Thermometer should maintain its accuracy. There is no exact way to determine how long calibration will be maintained. Digital Thermometers change little, if any at all, but can be affected by aging, temperature, shock, and contamination.

**Recalibration:**

For factory calibration and re-certification traceable to National Institute of Standards and Technology contact Control Company.

**CONTROL COMPANY 4455 Rex Road Friendswood, TX 77546 USA  
 Phone 281 482-1714 Fax 281 482-9448 service@control3.com www.control3.com**

Control Company is an ISO 17025 Calibration Laboratory Accredited by (A2LA) American Association for Laboratory Accreditation, Certificate No. 1750.01.  
 Control Company is ISO 9001 Quality Certified by (DNV) Det Norske Veritas, Certificate No. CERT-01805-AQ-HOU.  
 International Laboratory Accreditation Cooperation (ILAC) - Multilateral Recognition Arrangement (MRA).



# Certificate of Calibration

Report #: 101705-X0740015-RH RMA #: 95-49728

Calibration Date: Oct-17-2005

Model #: HMI41/HMP45

Serial #: X0650080 / X0740015

Instrument Type: Humidity Transmitter  
Instrument Range: 0 to 100%RH

Calibration Procedure: 11603100  
Recommended Calibration Due Date: Oct-17-2006

Customer: HOEFLER CONSULTING GROUP  
City, State: ANCHORAGE, AK

This unit was calibrated by adjusting its reading at 0%\* against a dry-air line and at 75% against reference humidity and temperature instrument, Vaisala model HMP233. Additional instrument verification checkpoints were made against HMP233 reference at 11%RH, 33%RH and 97%\* RH. Calibration and instrument verification sequences utilize a dry-air line and a set of controlled aqueous salt solutions Vaisala model HMK13B. Laboratory ambient conditions are humidity and temperature controlled. The calibration uncertainty is presented at 95% confidence level, k=2. The standard uncertainty of the measurement has been determined in accordance with U.S. Guide to the Expression of Uncertainty in Measurement. \*Note: the 0% and 97% RH points are not ISO17025 Accredited.

Calibration Data (As Found)				
Out of Tolerance: NO				
Temperature Calibration, °C				
Reference	Unit Under Test	Error	± Tolerance, °C	± Uncertainty, °C
21.35	21.50	0.15	0.20	0.07
Humidity Calibration, %RH				
Reference	Unit Under Test	Error	± Tolerance, %	± Uncertainty %
11.13	11.40	0.27	2.00	0.92
32.70	33.10	0.40	2.00	1.01
75.44	75.00	-0.44	2.00	1.02
97.60	97.50	-0.10	3.00	N/A *
Calibration Data (As Left)				
Temperature Calibration, °C				
Reference	Unit Under Test	Error	± Tolerance, °C	± Uncertainty, °C
21.35	21.50	0.15	0.20	0.07
Humidity Calibration, %RH				
Reference	Unit Under Test	Error	± Tolerance, %	± Uncertainty %
11.13	11.40	0.27	2.00	0.92
32.70	33.10	0.40	2.00	1.01
75.44	75.00	-0.44	2.00	1.02
97.60	97.50	-0.10	3.00	N/A *

Problem Noted: None  
Action Taken: No Adjustment Was Necessary

The results of this calibration are related only to the items being calibrated, and, are traceable to the National Institute of Standards and Technology through NIST Test Report Number 270953-05, dated Oct. 29, 2004. Vaisala's calibration system has been established to meet the requirements of ANSI/NCSL Z540-1-1994. This certificate can not be reproduced, except in full, without the expressed written consent of Vaisala. The certificate was established to comply with the requirements of ISO/IEC17025. Vaisala is ISO 9001:2000 certified.

Calibration Equipment Used: Workstation 1B			
Model Number	Serial Number	Calibration Date	Due Date
Power Supply	TW14949	Nov. 24, 2004	Nov. 24, 2006
Fluke 45	7405014	Aug. 16, 2005	Aug. 16, 2006
HMK13B	500004	Sep. 2, 2005	Mar. 5, 2006
HMP233	V4210040	Jul. 21, 2005	Oct. 21, 2005

Ambient Conditions	
Temperature:	21.50 °C
Humidity:	50.00 %RH

Approved By

Technical Operator  
Jari Siltavuori







**R.M. Young Company**  
2801 Aero Park Drive  
Traverse City, Michigan 49686 USA

### Certificate of Calibration and Testing

<b>Test Unit:</b>			
Model:	18801	Serial Number:	CA01674
Description:	Anemometer Drive - 10 to 10,000 RPM - Comprised of Models 18820 Control Unit & 18830 Motor Assembly		

R.M. Young Company certifies that the above equipment has been inspected and calibrated using standards whose accuracies are traceable to the National Institute of Standards and Technologies (NIST).

Nominal Motor Rpm	Output Frequency (1) Hz	Calculated Rpm (2)	Indicated Rpm (3)
600	320	600	600
1200	640	1200	1200
2400	1280	2400	2400
4200	2240	4200	4200
6000	3200	6000	6000
8100	4320	8100	8100
9900	5280	9900	9900

Clockwise and Counterclockwise rotation verified

- (1) Measured at the optical encoder output
- (2) Frequency output produces 32 pulses per revolution of the motor shaft
- (3) Indicated on the Control Unit LCD display

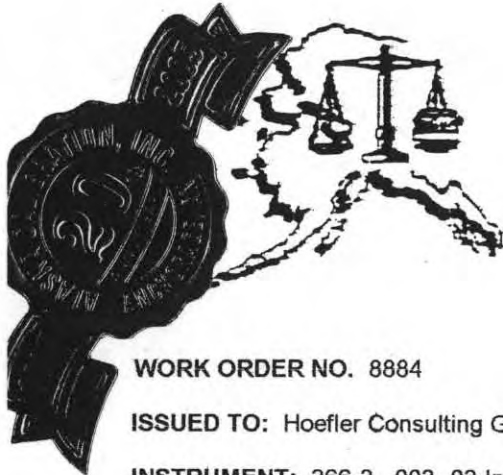
\*Indicates out of tolerance

No Calibration Adjustments Required       As Found       As Left

Traceable frequency meter used in calibration      DP4863

Date of inspection      17 November 2005

Tested By EP



# Alaska Calibration, Inc.

Troubleshooting, Repair and Calibration of  
Test & Measurement Equipment

## CERTIFICATE OF CALIBRATION

WORK ORDER NO. 8884

TRACEABILITY CERTIFICATE NO. 05090203

ISSUED TO: Hoefler Consulting Group

INSTRUMENT: 366-3, .003-.03 Inch Ounces Torque Watch, Waters Manufacturing, Inc, S/N 4864

DATE DONE: September 02, 2005

DATE DUE: September 01, 2006

CERTIFIED BY METROLOGIST: *E.P. Young*  
E.P. Young

TEMPERATURE: 72 °F HUMIDITY: 43% RH

INCOMING STATUS: This instrument was in (XX) was out of ( ) tolerance when received.

PROCEDURE/LIMITATIONS/ACCURACY STATEMENT: T.O. 33k6-4-2630-1. Accuracy: +/- 10 % of Full Scale.

### COMPLIANCE

Alaska Calibration, Inc.'s calibration practices and procedures comply with the requirements of ANSI/SO/Z540-1 and ANSI/ISO/IEC17025: 2000 and relevant requirements of ISO 9002: 1994. The standards used are certified as being traceable to the National Institute of Standards and Technology (NIST), by comparison to SI units through laboratory standards in an unbroken chain of calibrations through appropriate primary and national measurement standards, derived from an acceptable value of a natural physical constant, or derived by the ratio type of self calibration techniques. This Certificate shall not be reproduced, except in full, without the written approval of Alaska Calibration, Inc.

4706 Harding Drive, Suite A, Anchorage, Alaska 99517-3119 (907) 677-1993

# Houston Precision, Inc.

8729 Gulf Freeway  
Houston, TX 77017-6504

# Calibration Report

<b>Company:</b> Hoefler Consulting Group	<b>Doc #:</b> 33479
<b>Address:</b> 3401 Minnesota Drive Suite 300 Anchorage, AK 99503	<b>Date:</b> 12/20/2005
<b>Contact:</b> Chris Lindsey	<b>PO#:</b> Verbal
<b>Dept:</b>	<b>Page:</b> 1
<b>Gage:</b> .06-.60 oz Torque Watch	<b>Control:</b> 5042
<b>Mfg:</b> Honeywell	<b>Model:</b> .06-.60 oz Torque Watch
<b>Location:</b>	<b>Serial #:</b> 5042

## Parameters:

Parameter:

## Text:

## Comments:

Calibration Completed by: Cal-Tech Calibration, INC  
Original Certificate (attached) # 1768

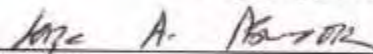
Reference HPI S/O # 13385

We certify the equipment used for this calibration is traceable to NIST through one or more of the following numbers:

Last / Next Cal Dates: -->

**Gage Status: PASS**

**Next Calibration Due: 12/20/2006**

Certified By: Jorge Ashook Signature: 

This certificate is not valid unless all 1 page(s) are present.

\*Laboratory Environmental Conditions: Temperature: 21C +/- 2C, Relative Humidity: between 40% and 60%.

\*Calibration measurements are performed in accordance with guidelines set forth in ANSI/NCSL Z540-1-1994, ISO10012-1, and Houston Precision's Quality manual.

\*If additional information regarding this calibration is required, please contact this laboratory.

\*All calibrations have been performed under the supervision and authority of Gary Deterling Lab Manager.

\*This Report shall not be reproduced except in full, or with the expressed written permission of Houston Precision, Inc.

End of document.


## Certificate of Calibration

The instrument listed below meets or exceeds published specifications and has been calibrated under controlled conditions and is traceable to the National Institute of Standards and Technology(N.I.S.T.), or to accepted intrinsic standards of measurement, or by the ratio type of self-calibration techniques. Cal-Tech Calibration conforms to the following, ANSI/NCSL Z540-1-1994, ISO/IEC 25/17025.

Customer: Houston Precision  
Certificate Number: 1768  
Instrument Make: Honeywell  
Model: .06-.60" oz Torque Watch  
S/N: None  
ID: 5042

Date: 12-20-05  
Temp: 74 Deg f  
Humidity: 40%  
Rec. In Tol.  
Due Date: 12-20-06

This report may not be reproduced, except in full without written permission from Cal-Tec Calibration.

Certification by: 

Accuracy:  $\pm$  5% of full scale.

Comments:

Standards Used	Model	Certification Number	Due Date
----------------	-------	----------------------	----------

Troemner	1g-100g	822/265036-01	3-22-06
----------	---------	---------------	---------

Inch Oz. Range	As Found	After Adjust	Final Reading
.06	.05	none	.05
.18	.17	none	.17
.36	.35	none	.35
.48	.47	none	.47
.60	.59	none	.59

**Cal-Tech Calibration, Inc.**

1314 FM 646 West /Ste. 15 / Dickinson, Texas 77539 /Phone 281-614-0050 / Fax 281-614-0046



# THE BRUNTON COMPANY

## Certificate Of Calibration

Equipment Owner: Hoefler Consulting Group  
Name: Hoefler Consulting Group  
Address: 3401 Minnesota Drive Ste. 300  
City, State, Zip: Anchorage, AK 99503

Calibration traceable to the National Institute of Standards and Technology in accordance with Mil-STD-45662A has been accomplished on the instrument listed below by comparison with standards maintained by The Brunton Co. The accuracy and stability of all standards maintained by The Brunton Co. are traceable to national standards maintained by the National Institute of Standards and Technology in Washington, D.C. and Boulder, CO. Complete record of all work performed is maintained by The Brunton Co. and is available for inspection upon request.

This Unit has been calibrated to Lietz TM10E serial number 30937 traceable to N.B.S. no. 738 227675 this 12<sup>th</sup> Day of July 20 05

DESCRIPTION: Pocket Transit

PURCHASE ORDER: S. Mackay

ORDER NUMBER: 176322

LOT NUMBER: 19680

MODEL NUMBER: 11-F5008

SERIAL NUMBER: 5080799319

CALIBRATION DATE: 7/12/05

RECALIBRATION DUE DATE: 7/12/06

Signed: Raelene White  
QUALITY CONTROL MANAGER

# THE EPPLEY LABORATORY, INC.

12 Sheffield Ave., P.O. Box 419, Newport, RI 02840 USA

Telephone: 401-847-1020

Fax: 401-847-1031

Email: info@eppleylab.com

Internet: www.eppleylab.com



Scientific Instruments  
for Precision Measurements  
Since 1917

## STANDARDIZATION OF EPPLEY PRECISION SPECTRAL PYRANOMETER Model PSP

Serial Number: 34377F3

Resistance: 603  $\Omega$  at 23  $^{\circ}\text{C}$

Temperature Compensation Range: -20 to 40  $^{\circ}\text{C}$

This radiometer has been compared with Standard Precision Spectral Pyranometer, Serial Number 21231F3 in Eppley's Integrating Hemisphere under radiation intensities of approximately 700 watts meter<sup>-2</sup> (roughly one-half a solar constant). The adopted calibration temperature is 25  $^{\circ}\text{C}$ .

As a result of a series of comparisons, it has been found to have a sensitivity of:

$$9.33 \times 10^{-6} \text{ volts/watts meter}^{-2}$$

The calculation of this constant is based on the fact that the relationship between radiation intensity and emf is rectilinear to intensities of 1400 watts meter<sup>-2</sup>. This radiometer is linear to within  $\pm 0.5\%$  up to this intensity.

The calibration of this instrument is traceable to standard self-calibrating cavity pyrhemometers in terms of the Systems Internationale des Unites (SI units), which participated in the Ninth International Pyrhemometric Comparisons (IPC IX) at Davos, Switzerland in September-October 2000.

Useful conversion facts: 1 cal cm<sup>-2</sup> min<sup>-1</sup> = 697.3 watts meter<sup>-2</sup>  
1 BTU/ft<sup>2</sup>-hr<sup>-1</sup> = 3.153 watts meter<sup>-2</sup>.

Shipped to:  
Hoefler Consulting Group  
Anchorage, AK

Date of Test: October 20, 2005

In Charge of Test: *R.T. Eppley*

S.O. Number: 60557  
Date: January 11, 2006

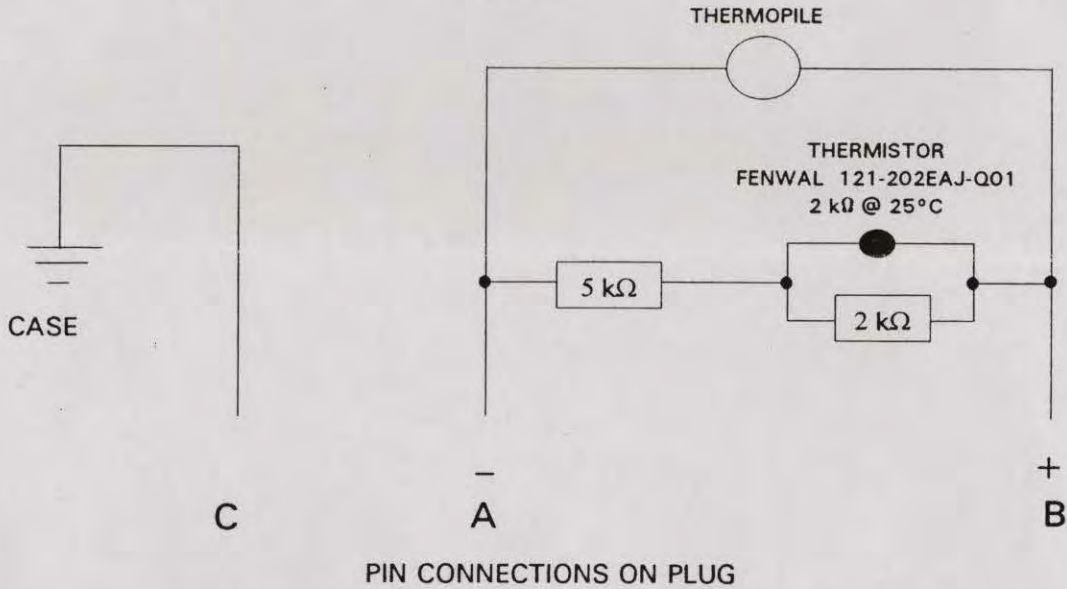
Reviewed by: *George L. Furb*

Remarks:

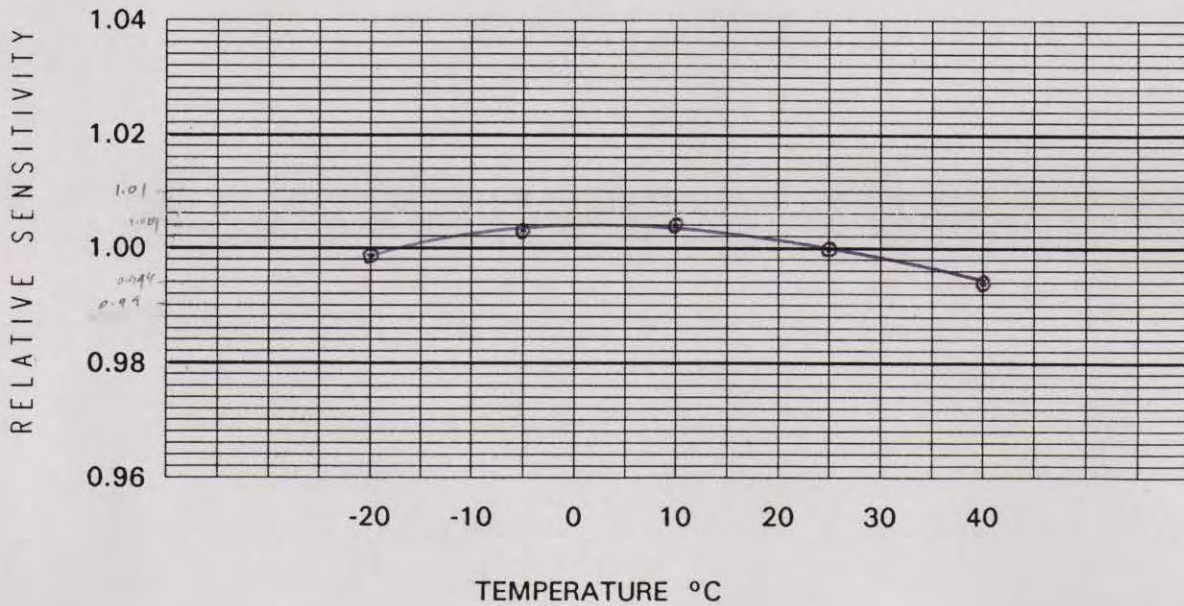
# PRECISION SPECTRAL PYRANOMETER MODEL PSP

INSTRUMENT SERIAL NUMBER: 34377F3

## INTERNAL WIRING

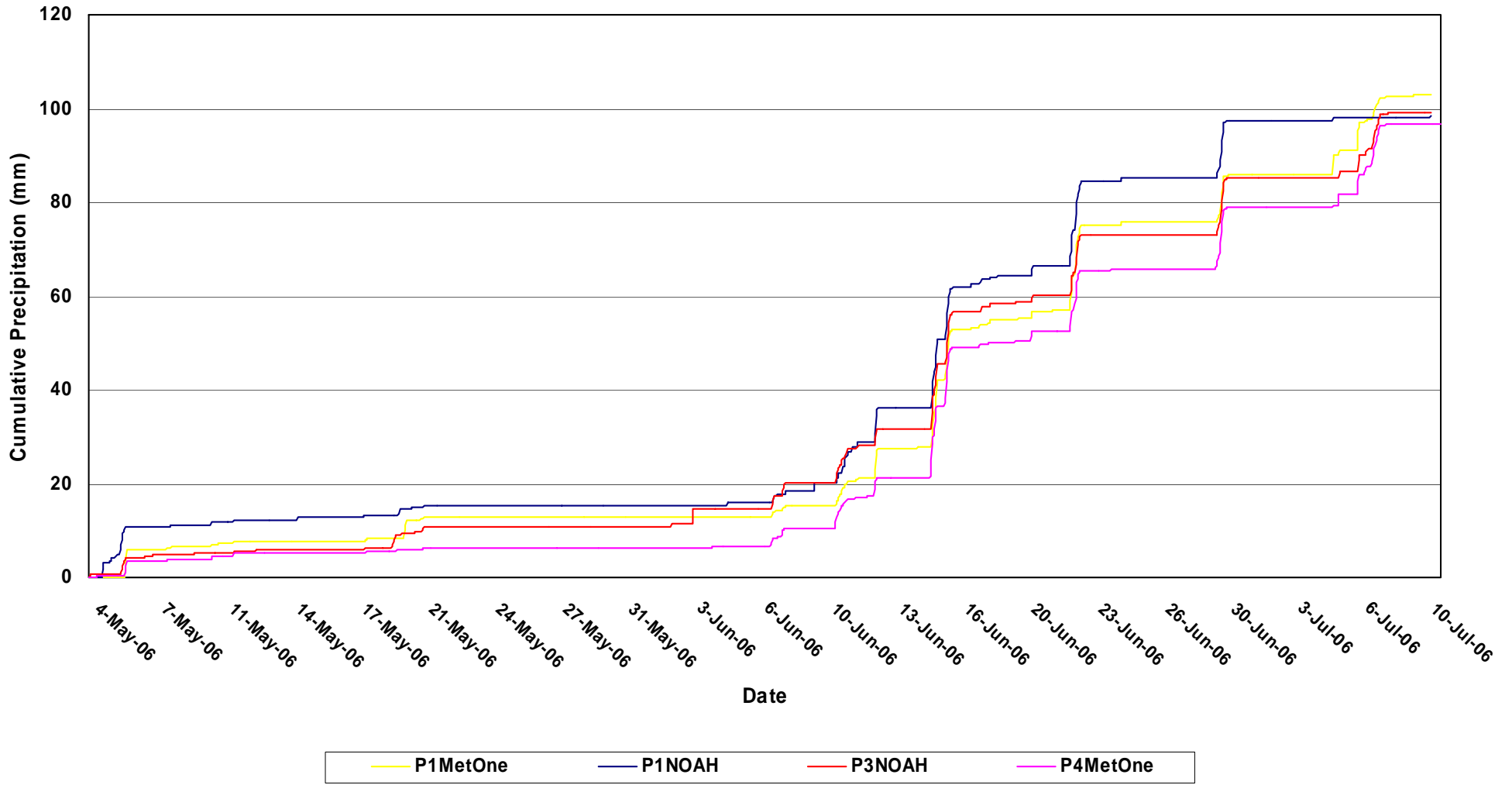


## TEMPERATURE DEPENDENCE



TESTED BY: R. Egeman  
DATE: Oct 18, 2005

### Pebble 1 NOAH II Precipitation Gauge Comparison



## **Appendix D**

### **Validated Continuous Data Summaries**

## Northern Dynasty Mines Pebble 1 Meterological Station - Temperature at 2 meters (deg. C)

*August 2005*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	9.8	9.5	10.0	9.5	9.0	9.3	9.6	10.0	10.1	11.1	11.4	11.8	12.1	12.5	12.3	12.1	13.3	12.8	12.3	11.8	11.4	10.8	10.4	10.3	13.3	9.0	11.0	
2	9.9	9.9	9.9	9.7	9.2	8.8	9.4	10.2	11.0	11.6	12.2	12.7	12.5	11.4	12.6	12.2	11.5	11.5	11.6	11.8	11.2	10.7	10.5	10.3	12.7	8.8	10.9	
3	10.3	10.1	9.3	9.4	9.3	9.2	9.2	9.4	10.2	11.4	12.8	14.6	14.2	14.3	14.4	14.1	13.1	13.6	13.5	12.9	12.3	11.5	10.9	10.4	14.6	9.2	11.7	
4	9.7	9.8	9.6	9.5	9.6	9.9	10.2	10.9	11.5	11.9	12.2	12.7	12.7	13.1	13.2	13.2	13.3	12.2	11.5	12.2	12.3	11.7	10.6	10.4	13.3	9.5	11.4	
5	10.2	10.1	10.0	10.2	10.2	10.2	10.3	10.8	11.2	11.3				13.6	14.1	14.5	14.7	14.8	15.0	14.2	13.2	12.6	11.4	11.0	15.0	10.0	12.1	
6	10.9	10.5	10.1	9.4	9.1	8.9	8.8	10.2	11.1	12.0	12.9	13.5	14.5	15.1	15.7	15.7	15.4	14.9	14.8	13.7	13.5	12.4	11.5	10.9	15.7	8.8	12.3	
7	10.9	10.6	10.7	10.5	9.9	9.4	9.1	9.3	10.2	10.9	12.0	12.2	12.8	13.3	14.1	14.5	15.4	15.4	15.2	14.9	13.7	12.2	11.0	11.0	15.4	9.1	12.0	
8	10.8	11.1	10.3	10.3	10.2	10.2	10.8	11.9	13.4	14.6	15.7	16.8	18.2	19.1	19.9	20.5	20.7	20.6	20.2	19.0	18.4	17.5	16.0	15.3	20.7	10.2	15.5	
9	15.0	14.3	14.4	14.2	14.5	14.2	14.4	15.2	16.2	17.2	18.1	18.6	19.2	19.6	19.9	20.2	20.1	19.8	18.7	17.2	15.8	14.7	13.7	13.0	20.2	13.0	16.6	
10	11.9	12.3	11.5	10.7	10.2	9.9	10.5	10.7	11.4	13.4	15.2	16.0	17.1	17.9	18.4	18.8	18.7	18.9	19.1	18.1	16.1	15.0	13.9	12.7	19.1	9.9	14.5	
11	12.4	11.8	11.3	11.4	11.1	10.9	11.5	12.9	14.4	15.8	17.1	18.1	19.2	20.4	21.4	22.3	23.2	23.5	23.6	23.2	21.2	19.8	18.5	18.0	23.6	10.9	17.2	
12	17.9	16.6	15.7	15.2	15.0	14.8	16.0	17.2	18.0	19.1	20.4	21.5	22.4	22.8	23.0	22.7	22.3	21.5	20.4	18.8	17.4	16.5	15.8	15.4	23.0	14.8	18.6	
13	15.2	15.3	15.6	16.0	15.7	15.0	16.3	17.2	17.1	18.4	20.0	21.2	22.1	22.6	22.6	21.6	20.9	18.5	17.8	16.5	14.8	14.5	14.9	14.8	22.6	14.5	17.7	
14	14.5	14.1	13.8	13.1	12.0	11.0	13.2	9.4	10.1	12.6	14.9	16.8	18.7	19.6	20.2	20.6	20.3	19.5	19.1	16.9	14.3	13.0	12.0	13.0	20.6	9.4	15.1	
15	13.7	12.9	10.2	9.6	9.0	9.3	9.7																		13.7	9.0	10.6	
16																												
17																												
18																												
19											14.6	16.1	17.5	18.4	18.3	17.9	17.0	16.2	14.7	13.0	11.1	9.0	8.6	7.9	18.4	7.9	14.3	
20	7.5	8.1	7.8	8.3	8.4	8.2	8.9	9.1	9.8			12.1	12.7	13.1	13.3	13.3	13.3	12.9	12.4	11.0	10.1	9.8	9.8	9.7	13.3	7.5	10.4	
21	9.1	8.8	8.8	8.8	8.6	8.3	7.9	7.6	8.1	9.1	10.6	11.4	11.1	12.1	12.5	13.3	13.8	14.1	13.9	12.2	10.5	8.4	7.7	7.5	14.1	7.5	10.2	
22	7.3	7.5	7.9	8.1	8.3	8.1	7.7	7.4	7.6	8.5	8.6	9.7	10.4	9.5	9.3	8.8	8.3	8.3	8.3	8.3	8.8	9.4	9.8	10.3	10.4	7.3	8.6	
23	10.6	10.6	10.7	10.7	10.7	9.5	8.5	7.7	7.8	7.9	7.9	8.0	8.0	8.1	8.0	8.1	8.1	8.0	7.9	7.7	7.4	7.1	6.8	6.6	10.7	6.6	8.4	
24	6.5	6.5	6.8	7.0	7.3	7.6	7.7	7.9	8.2	8.9	8.8	8.5	8.9	10.3	10.6	11.2	10.9	10.7	10.3	9.9	7.8	6.3	5.5	5.0	11.2	5.0	8.3	
25	4.9	4.7	4.8	4.3	5.1	5.4	5.8	6.0	7.1	8.1	9.1	9.6	10.1	10.7	11.1	10.8	11.7	11.5	11.3	10.1	8.1	6.6	5.8	5.6	11.7	4.3	7.8	
26	5.3	5.0	4.4	3.4	2.5	2.5	2.4	3.9	4.9	6.4	7.8	9.2	10.6	11.4	11.9	12.1	10.4	8.7	7.6	7.4	7.6	7.5	6.5	5.6	12.1	2.4	6.9	
27	5.0	5.1	4.5	4.4	4.2	3.8	3.2	4.6	6.2	7.5	8.7	9.9	10.9	11.2	11.3	10.5	9.9	9.0	8.2	8.0	7.8	7.5	7.3	7.1	11.3	3.2	7.3	
28	7.2	7.4	7.4	7.4	7.5	7.3	7.4	7.9	8.0	8.6	9.2	10.3	10.7	11.3	11.4	10.1	9.0	8.2	8.1	7.6	7.3	7.2	7.1	7.0	11.4	7.0	8.4	
29	7.2	7.2	7.1	6.8	6.7	6.8	7.1	7.2	7.3	7.6	7.7	8.1	8.4	8.6	8.9	9.4	9.6	9.5	9.5	9.2	8.7	8.4	8.2	7.9	9.6	6.7	8.0	
30	7.6	7.2	7.1	7.2	7.2	6.9	6.8	7.1	7.5	8.8	9.0	9.5	9.5	10.7	10.6	10.7	10.6	10.7	10.5	10.4	9.8	8.7	8.1	7.9	10.7	6.8	8.7	
31	7.1	6.7	6.5	6.9	7.4	7.0	6.3	6.1	6.8	7.5	8.2	8.3	9.1	10.1	9.9	9.5	9.1	8.5	9.4	8.0	6.9	5.7	5.1	4.0	10.1	4.0	7.5	
<b>Max.</b>	<b>17.9</b>	<b>16.6</b>	<b>15.7</b>	<b>16.0</b>	<b>15.7</b>	<b>15.0</b>	<b>16.3</b>	<b>17.2</b>	<b>18.0</b>	<b>19.1</b>	<b>20.4</b>	<b>21.5</b>	<b>22.4</b>	<b>22.8</b>	<b>23.0</b>	<b>22.7</b>	<b>23.2</b>	<b>23.5</b>	<b>23.6</b>	<b>23.2</b>	<b>21.2</b>	<b>19.8</b>	<b>18.5</b>	<b>18.0</b>	<b>23.6</b>			
<b>Min.</b>	<b>4.9</b>	<b>4.7</b>	<b>4.4</b>	<b>3.4</b>	<b>2.5</b>	<b>2.5</b>	<b>2.4</b>	<b>3.9</b>	<b>4.9</b>	<b>6.4</b>	<b>7.7</b>	<b>8.0</b>	<b>8.0</b>	<b>8.1</b>	<b>8.0</b>	<b>8.1</b>	<b>8.1</b>	<b>8.0</b>	<b>7.6</b>	<b>7.4</b>	<b>6.9</b>	<b>5.7</b>	<b>5.1</b>	<b>4.0</b>		<b>2.4</b>		
<b>Avg.</b>	<b>9.9</b>	<b>9.8</b>	<b>9.5</b>	<b>9.3</b>	<b>9.2</b>	<b>9.0</b>	<b>9.2</b>	<b>9.5</b>	<b>10.2</b>	<b>11.2</b>	<b>12.2</b>	<b>13.0</b>	<b>13.6</b>	<b>14.1</b>	<b>14.4</b>	<b>14.4</b>	<b>14.2</b>	<b>13.8</b>	<b>13.5</b>	<b>12.7</b>	<b>11.7</b>	<b>10.9</b>	<b>10.3</b>	<b>9.9</b>			<b>11.5</b>	

**Total Hours in Month** 744 **Hours Data Available** 640 **Data Recovery** 86.0%

## Northern Dynasty Mines Pebble 1 Meterological Station - Temperature at 2 meters (deg. C)

*September 2005*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	2.5	1.8	0.9	0.9	0.4	-0.3	-0.4	1.2	2.7	4.4	6.0	7.4	8.3	9.2	9.7	10.2	10.3	10.2	9.6	8.3	5.5	4.2	3.9	3.5	10.3	-0.4	5.0
2	3.5	3.7	3.8	3.6	3.5	3.1	3.3	4.2	5.2	6.4	7.7	8.6	9.5	10.2	10.3	10.0	9.5	9.3	9.1	8.6	8.2	8.0	7.2	6.8	10.3	3.1	6.8
3	6.5	6.2	6.0	5.7	5.3	5.2	5.4	5.3	5.5	5.8	6.0	5.8	6.0	6.7	7.1	7.2	7.6	8.0	7.9	7.5	7.5	7.7	7.7	7.6	8.0	5.2	6.5
4	7.6	7.6	7.6	7.3	7.1	7.2	7.3	7.1	7.7	8.3	8.7	8.8	9.7	10.2	10.3	10.4	10.7	10.3	9.6	9.0	8.6	8.1	8.0	7.8	10.7	7.1	8.5
5	7.9	8.1	8.1	8.0	7.9	7.9	7.7	7.7	7.8	8.0	8.1	8.8	8.7	9.0	8.6	8.5	8.5	8.6	8.5	8.3	8.0	7.7	7.6	7.6	9.0	7.6	8.1
6	7.8	7.6	7.3	7.2	6.5	6.2	6.3	6.9	8.9	7.8	8.0	8.2	8.1	8.2	8.3	8.5	8.3	8.1	8.2	7.8	7.5	7.6	7.5	7.2	8.9	6.2	7.7
7	7.0	6.8	6.7	6.6	6.6	6.5	6.7	6.5	7.0	8.1	8.6	9.9	9.9	9.7	10.8	11.1	10.4	10.4	10.1	9.7	8.3	7.7	6.9	6.5	11.1	6.5	8.3
8	6.6	5.9	5.9	5.9	6.0	5.7	5.8	6.5	7.8	9.6	10.5	10.7	10.8	11.3	11.6	11.2	10.7	9.7	8.2	8.0	8.3	7.6	7.1	7.1	11.6	5.7	8.3
9	7.0	7.0	7.2	7.5	7.8	7.9	8.0	8.2	8.4	8.7	9.0	9.5	10.2	10.3	10.7	10.7	10.3	10.1	9.9	9.0	8.2	7.4	7.2	7.3	10.7	7.0	8.6
10	7.6	7.3	7.0	7.0	6.9	6.9	6.9	7.0	7.1	6.9	6.8	8.1	8.3	8.2	8.2	8.2	8.9	9.0	8.6	7.6	6.9	6.9	6.8	6.7	9.0	6.7	7.5
11	6.5	6.1	6.4	6.9	7.2	7.7	7.8	7.9	8.8	9.4	9.3	9.1	9.3	9.8	10.1	10.1	9.6	9.2	9.0	9.0	9.0	9.2	9.3	8.6	10.1	6.1	8.6
12	8.2	7.4	6.0	5.4	5.7	5.5	5.3	5.6	6.1	6.1	6.2	6.8	7.0	7.3	7.7	7.8	7.7	7.5	7.3	7.0	6.6	5.8	5.4	5.4	8.2	5.3	6.5
13	5.1	4.9	4.8	4.7	4.6	5.0	5.3	5.4	5.6	5.8	6.0	6.4	7.2	8.5	9.0	8.7	8.8	8.5	7.9	7.1	6.7	6.6	6.1	6.5	9.0	4.6	6.5
14	5.9	5.6	5.4	6.0	5.8	5.4	5.5	5.8	6.2	7.1	8.8	10.3	10.8	12.7	13.3	13.4	12.9	11.9	10.6	9.4	9.2	9.4	9.2	8.7	13.4	5.4	8.7
15	8.2	8.1	8.2	8.4	8.6	8.9	8.9	8.9	8.9	9.1	8.8	8.4	8.1	8.4	8.3	8.6	8.9	9.0	8.5	8.2	8.0	8.2	8.5	8.7	9.1	8.0	8.5
16	6.4	5.7	5.6	5.5	5.5	5.1	4.9	4.7	5.0	5.7	6.5	7.2	7.4	8.6	8.5	8.6	8.7	8.1	7.7	6.7	5.5	5.4	5.3	5.1	8.7	4.7	6.4
17	4.8	4.6	4.5	4.2	4.0	3.8	3.7	3.7	4.0	4.4	5.5	6.9	8.3	8.0	7.0	6.5	6.1	6.2	6.1	5.8	5.4	5.6	5.6	5.4	8.3	3.7	5.4
18	4.8	4.6	4.3	4.4	3.8	3.4	2.7	2.1	2.7	5.1	6.8	7.7	8.4	9.0	9.3	8.4	8.9	8.8	7.5	5.8	4.3	3.7	3.4	3.5	9.3	2.1	5.6
19	3.4	3.4	3.4	3.4	2.9	3.4	3.4	4.0	5.2	6.1	7.1	8.2	8.9	9.1	9.2	9.4	8.7	8.3	7.8	6.4	5.7	4.6	3.4	4.2	9.4	2.9	5.8
20	4.0	4.1	4.1	3.3	2.3	2.2	2.3	2.4	3.0	5.5	7.2	7.8	8.5	9.3	8.4	9.0	9.0	8.6	8.5	6.6	6.1	6.2	5.9	5.1	9.3	2.2	5.8
21	4.5	3.9	3.6	3.9	4.9	5.0	4.9	5.1	5.4	5.6	5.8	5.2	5.8	6.1	6.4	6.6	6.5	6.3	6.2	6.1	6.2	6.0	5.9	6.1	6.6	3.6	5.5
22	6.1	6.3	6.3	6.3	6.3	6.2	6.6	6.7	7.2	7.9	8.2	8.1	8.4	8.3	8.2	8.3	8.7	9.4	9.5	8.1	7.3	6.6	6.6	6.9	9.5	6.1	7.4
23	6.7	6.6	6.5	6.7	6.8	6.8	6.8	6.8	6.8	6.8	7.3	7.8	8.4	9.2	9.7	9.3	8.4	8.1	7.8	6.7	6.3	5.1	4.2	3.8	9.7	3.8	7.0
24	3.9	3.8	3.8	3.8	3.4	3.5	3.6	3.5	4.1	4.6	5.1	5.6	6.1	5.9	5.8	6.0	6.2	5.9	5.4	5.1	4.9	4.9	4.6	4.6	6.2	3.4	4.8
25	4.8	4.8	4.6	4.4	4.4	4.4	4.2	4.3	4.6	4.8	5.1	5.3	5.5	5.9	6.2	6.3	6.2	6.0	5.5	5.1	4.9	4.7	4.3	3.8	6.3	3.8	5.0
26	3.1	3.1	3.0	3.0	3.2	2.8	2.7	2.4	2.6	3.3	4.1	5.6	6.2	6.5	6.3	6.0	5.3	5.4	6.0	6.2	6.3	6.2	5.4	5.9	6.5	2.4	4.6
27	5.8	6.0	6.2	6.4	6.8	6.8	7.3	7.0	6.5	7.2	7.5	7.8	7.5	7.2	6.6	7.0	5.9	4.8	4.2	4.0	3.9	3.8	3.7	3.6	7.8	3.6	6.0
28	3.5	3.4	3.5	3.1	2.5	3.0	3.5	3.8	3.9	4.5	5.3	6.7	7.3	8.5	7.9	7.4	6.9	7.0	6.9	6.6	6.4	6.3	6.1	6.1	8.5	2.5	5.4
29	5.8	5.6	5.2	4.9	4.7	3.8	3.7	3.7	3.7	4.1	4.4	4.0	3.6	3.4	3.8	4.1	4.3	4.1	3.8	3.0	2.4	2.2	2.3	2.7	5.8	2.2	3.9
30	2.6	2.3	2.1	1.7	1.3	0.7	0.6	0.4	1.6	3.3	4.9	3.3	3.9	5.2	5.1	5.6	5.5	3.7	2.5	2.2	1.1	0.2	-0.6	-1.1	5.6	-1.1	2.4
<b>Max.</b>	<b>8.2</b>	<b>8.1</b>	<b>8.2</b>	<b>8.4</b>	<b>8.6</b>	<b>8.9</b>	<b>8.9</b>	<b>8.9</b>	<b>8.9</b>	<b>9.6</b>	<b>10.5</b>	<b>10.7</b>	<b>10.8</b>	<b>12.7</b>	<b>13.3</b>	<b>13.4</b>	<b>12.9</b>	<b>11.9</b>	<b>10.6</b>	<b>9.7</b>	<b>9.2</b>	<b>9.4</b>	<b>9.3</b>	<b>8.7</b>	<b>13.4</b>		
<b>Min.</b>	<b>2.5</b>	<b>1.8</b>	<b>0.9</b>	<b>0.9</b>	<b>0.4</b>	<b>-0.3</b>	<b>-0.4</b>	<b>0.4</b>	<b>1.6</b>	<b>3.3</b>	<b>4.1</b>	<b>3.3</b>	<b>3.6</b>	<b>3.4</b>	<b>3.8</b>	<b>4.1</b>	<b>4.3</b>	<b>3.7</b>	<b>2.5</b>	<b>2.2</b>	<b>1.1</b>	<b>0.2</b>	<b>-0.6</b>	<b>-1.1</b>		<b>-1.1</b>	
<b>Avg.</b>	<b>5.6</b>	<b>5.4</b>	<b>5.3</b>	<b>5.2</b>	<b>5.1</b>	<b>5.0</b>	<b>5.0</b>	<b>5.2</b>	<b>5.7</b>	<b>6.3</b>	<b>7.0</b>	<b>7.5</b>	<b>7.9</b>	<b>8.3</b>	<b>8.4</b>	<b>8.4</b>	<b>8.3</b>	<b>8.0</b>	<b>7.6</b>	<b>7.0</b>	<b>6.4</b>	<b>6.1</b>	<b>5.8</b>	<b>5.7</b>			<b>6.5</b>

Total Hours in Month

720

Hours Data Available

720

Data Recovery

100.0%

HCG, Inc.





# Northern Dynasty Mines Pebble 1 Meterological Station - Temperature at 2 meters (deg. C)

November 2005

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	-13.2	-13.2	-12.4	-12.5	-11.7	-11.2	-12.0	-11.6	-11.1	-11.3	-10.5	-9.3	-8.9	-8.7	-8.7	-8.0	-7.5	-7.8	-8.4	-8.9	-9.4	-9.6	-10.2	-10.2	-7.5	-13.2	-10.3
2	-10.0	-9.3	-8.9	-8.8	-8.9	-7.3	-7.1	-8.2	-8.2	-7.1	-6.0	-6.3	-6.3	-6.0	-5.6	-6.2	-7.4	-8.2	-8.0	-7.7	-8.3	-9.2	-9.1	-8.8	-5.6	-10.0	-7.8
3	-8.0	-8.3	-8.8	-10.6	-11.6	-13.2	-14.0	-15.3	-17.0	-18.5	-18.5	-17.8	-17.7	-17.7	-17.3	-17.0	-17.1	-17.2	-17.3	-17.3	-17.4	-17.6	-17.8	-18.0	-8.0	-18.5	-15.4
4	-18.1	-18.2	-18.4	-18.4	-18.4	-18.3	-18.4	-18.2	-18.2	-17.8	-17.7	-17.1	-16.4	-15.2	-14.7	-14.6	-15.2	-15.4	-16.0	-16.6	-16.9	-17.6	-17.5	-17.5	-14.6	-18.4	-17.1
5	-17.6	-17.7	-17.7	-18.1	-18.2	-18.5	-18.6	-18.9	-19.1	-18.8	-18.3	-17.9	-16.9	-16.0	-15.6	-15.3	-15.6	-15.9	-16.0	-15.4	-14.5	-13.4	-12.7	-12.7	-12.7	-19.1	-16.6
6	-11.5	-11.5	-11.0	-10.8	-5.1	-2.6	-2.7	-3.3	-5.4	-6.1	-7.7	-8.3	-7.9	-8.1	-8.3	-8.4	-8.2	-8.6	-9.1	-10.7	-12.2	-14.3	-16.1	-16.8	-2.6	-16.8	-8.9
7	-17.8	-18.8	-20.0	-21.0	-21.9	-22.4	-22.7	-23.2	-23.4	-23.7	-24.0	-23.4	-23.4	-23.2	-22.5	-22.7	-22.6	-22.2	-22.4	-22.2	-22.1	-22.0	-21.8	-21.7	-17.8	-24.0	-22.1
8	-21.5	-21.2	-21.0	-20.7	-21.1	-20.3	-20.0	-19.2	-18.5	-17.4	-16.8	-16.0	-15.9	-15.6	-14.3	-14.6	-14.6	-14.9	-14.9	-15.3	-15.4	-16.0	-16.3	-17.0	-14.3	-21.5	-17.4
9	-17.8	-18.0	-18.1	-18.0	-18.0	-17.6	-17.7	-17.6	-17.9	-18.0	-17.5	-17.1	-16.8	-16.3	-16.3	-16.1	-15.9	-15.8	-15.6	-15.8	-16.0	-15.8	-15.7	-15.5	-15.5	-18.1	-16.9
10	-15.5	-15.3	-15.5	-15.8	-15.9	-15.7	-15.5	-15.6	-15.7	-15.7	-15.5	-15.3	-15.2	-14.6	-14.4	-14.4	-14.7	-15.2	-15.5	-15.5	-15.8	-16.0	-15.8	-15.8	-14.4	-16.0	-15.4
11	-16.3	-16.8	-16.9	-16.0	-15.6	-15.3	-15.2	-15.4	-15.4	-15.4	-15.3	-15.2	-15.0	-14.7	-14.6	-14.4	-14.4	-14.2	-14.4	-14.4	-14.5	-14.4	-14.2	-14.0	-14.0	-16.9	-15.1
12	-13.8	-13.5	-13.3	-13.0	-13.0	-13.1	-13.0	-12.6	-12.1	-12.1	-11.4	-11.8	-12.2	-11.4	-11.6	-11.6	-12.2	-12.7	-13.9	-14.8	-15.3	-15.8	-16.4	-16.9	-11.4	-16.9	-13.2
13	-16.7	-17.1	-16.8	-17.8	-17.7	-17.9	-18.5	-18.4	-18.2	-18.1	-18.0	-17.7	-18.2	-16.5	-16.1	-16.5	-15.0	-14.4	-14.2	-13.8	-13.4	-13.4	-13.3	-10.6	-10.6	-18.5	-16.2
14	-9.3	-8.4	-7.2	-7.7	-7.9	-7.4	-6.6	-6.9	-5.9	-5.3	-4.6	-4.2	-3.8	-2.9	-2.1	-1.6	-1.6	-1.6	-1.0	-0.8	-0.8	-0.5	-0.7	-1.2	-0.5	-9.3	-4.2
15	-0.4	-1.1	-1.8	-2.1	-2.0	-1.8	-1.6	-1.9	-3.7	-4.6	-4.9	-5.0	-5.3	-5.3	-4.7	-6.8	-6.3	-6.3	-7.6	-6.8	-6.4	-6.1	-5.4	-5.0	-0.4	-7.6	-4.3
16	-5.5	-5.1	-4.6	-3.8	-3.6	-3.2	-2.3	-1.8	-1.5	-1.0	-0.5	-0.4	-0.1	0.2	0.6	1.0	1.0	1.2	1.4	1.4	1.4	1.5	1.6	1.6	1.6	-5.5	-0.9
17	1.7	1.3	1.3	1.3	1.1	1.1	0.9	0.5	0.1	0.0	-1.0	-1.5	-1.9	-2.3	-3.3	-3.9	-4.6	-4.8	-5.2	-5.4	-5.5	-5.6	-5.6	-5.4	1.7	-5.6	-1.9
18	-5.4	-5.0	-4.1	-3.2	-4.1	-4.5	-2.5	-1.6	-2.0	-1.6	-0.3	0.1	0.1	0.6	0.6	0.1	-1.0	-2.4	-3.4	-5.4	-7.3	-9.5	-10.0	-11.0	0.6	-11.0	-3.5
19	-10.7	-9.5	-8.5	-8.3	-7.9	-7.7	-7.7	-8.2	-9.3	-9.7	-10.0	-9.9	-11.3	-12.3	-12.4	-12.5	-13.1	-13.4	-13.6	-13.2	-13.8	-13.1	-12.2	-11.5	-7.7	-13.8	-10.8
20	-11.0	-10.6	-9.6	-9.0	-9.7	-10.6	-10.6	-10.8	-9.8	-8.9	-8.0	-7.4	-7.4	-7.4	-7.4	-7.4	-7.6	-7.8	-7.8	-7.6	-7.7	-7.6	-7.5	-7.8	-7.4	-11.0	-8.6
21	-8.0	-9.3	-9.1	-9.6	-10.2	-11.1	-11.2	-10.8	-10.6	-11.3	-11.4	-11.9	-11.7	-12.6	-13.1	-13.6	-13.8	-14.0	-13.8	-13.3	-13.8	-15.5	-16.4	-17.0	-8.0	-17.0	-12.2
22	-16.8	-17.3	-17.6	-16.8	-17.2	-17.3	-17.5	-16.4	-16.7	-17.0	-16.0	-15.0	-14.5	-14.2	-16.2	-16.2	-16.1	-17.7	-18.5	-19.3	-20.1	-21.5	-22.0	-22.9	-14.2	-22.9	-17.5
23	-24.3	-24.6	-25.2	-24.2	-24.2	-24.3	-23.8	-23.1	-22.5	-22.4	-22.3	-22.0	-22.0	-21.5	-21.3	-21.1	-21.2	-21.6	-21.8	-22.4	-21.5	-21.1	-21.5	-21.9	-21.1	-25.2	-22.6
24	-22.4	-22.7	-23.2	-24.0	-24.9	-25.0	-24.8	-24.6	-24.5	-24.6	-24.6	-24.8	-25.0	-25.3	-25.6	-26.1	-26.2	-25.7	-24.9	-24.4	-24.0	-23.8	-24.2	-24.4	-22.4	-26.2	-24.6
25	-24.7	-25.0	-25.3	-25.2	-25.0	-25.3	-24.8	-24.5	-23.8	-23.8	-23.9	-23.9	-23.4	-23.1	-23.6	-23.5	-23.1	-22.6	-22.1	-22.7	-22.4	-22.0	-21.8	-22.2	-21.8	-25.3	-23.7
26	-22.3	-22.3	-22.2	-22.4	-22.2	-21.7	-21.2	-20.9	-21.5	-21.7	-22.3	-22.5	-22.0	-21.7	-21.4	-21.5	-21.6	-21.5	-21.8	-22.0	-21.6	-21.5	-21.4	-21.8	-20.9	-22.5	-21.8
27	-21.9	-21.5	-21.5	-21.3	-21.1	-21.7	-21.4	-21.6	-21.8	-21.5	-21.2	-20.9	-20.5	-21.0	-20.7	-18.5	-17.2	-17.9	-17.6	-16.9	-16.3	-14.9	-13.1	-11.5	-11.5	-21.9	-19.3
28	-10.4	-9.8	-9.5	-9.5	-9.4	-8.8	-8.3	-8.2	-7.9	-7.8	-7.5	-7.0	-6.8	-6.7	-6.7	-6.5	-6.8	-7.1	-7.5	-7.2	-7.3	-7.5	-6.9	-7.1	-6.5	-10.4	-7.8
29	-7.1	-6.9	-6.7	-5.7	-5.6	-6.4	-6.4	-6.8	-6.8	-7.0	-7.3	-7.6	-8.3	-8.9	-7.6	-6.5	-6.8	-6.7	-6.4	-8.3	-7.4	-7.1	-8.0	-8.2	-5.6	-8.9	-7.1
30	-6.6	-5.8	-5.8	-5.8	-5.9	-5.9	-5.9	-6.0	-6.0	-6.1	-6.3	-6.3	-6.7	-6.9	-7.1	-7.1	-7.1	-7.5	-7.8	-8.0	-8.1	-8.2	-8.4	-8.6	-5.8	-8.6	-6.8
<b>Max.</b>	<b>1.7</b>	<b>1.3</b>	<b>1.3</b>	<b>1.3</b>	<b>1.1</b>	<b>1.1</b>	<b>0.9</b>	<b>0.5</b>	<b>0.1</b>	<b>0.0</b>	<b>-0.3</b>	<b>0.1</b>	<b>0.1</b>	<b>0.6</b>	<b>0.6</b>	<b>1.0</b>	<b>1.0</b>	<b>1.2</b>	<b>1.4</b>	<b>1.4</b>	<b>1.4</b>	<b>1.5</b>	<b>1.6</b>	<b>1.6</b>	<b>1.7</b>		
<b>Min.</b>	<b>-24.7</b>	<b>-25.0</b>	<b>-25.3</b>	<b>-25.2</b>	<b>-25.0</b>	<b>-25.3</b>	<b>-24.8</b>	<b>-24.6</b>	<b>-24.5</b>	<b>-24.6</b>	<b>-24.6</b>	<b>-24.8</b>	<b>-25.0</b>	<b>-25.3</b>	<b>-25.6</b>	<b>-26.1</b>	<b>-26.2</b>	<b>-25.7</b>	<b>-24.9</b>	<b>-24.4</b>	<b>-24.0</b>	<b>-23.8</b>	<b>-24.2</b>	<b>-24.4</b>		<b>-26.2</b>	
<b>Avg.</b>	<b>-13.4</b>	<b>-13.4</b>	<b>-13.3</b>	<b>-13.3</b>	<b>-13.2</b>	<b>-13.2</b>	<b>-13.0</b>	<b>-13.0</b>	<b>-13.1</b>	<b>-13.1</b>	<b>-13.0</b>	<b>-12.8</b>	<b>-12.7</b>	<b>-12.5</b>	<b>-12.4</b>	<b>-12.4</b>	<b>-12.4</b>	<b>-12.7</b>	<b>-12.8</b>	<b>-13.0</b>	<b>-13.1</b>	<b>-13.3</b>	<b>-13.3</b>	<b>-13.4</b>			<b>-13.0</b>

**Total Hours in Month** 720 **Hours Data Available** 720 **Data Recovery** 100.0%

## Northern Dynasty Mines Pebble 1 Meterological Station - Temperature at 2 meters (deg. C)

*December 2005*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	-8.8	-9.1	-9.3	-9.5	-10.1	-10.9	-11.7	-12.4	-13.3	-14.1	-13.9	-13.0	-13.2	-13.2	-12.4	-11.7	-12.0	-13.2	-14.3	-14.2	-14.0	-14.1	-14.2	-14.1	-8.8	-14.3	-12.3
2	-13.6	-13.0	-12.9	-12.6	-12.1	-12.6	-13.7	-14.3	-14.6	-14.8	-15.6	-16.4	-16.9	-17.6	-18.3	-19.1	-19.4	-20.0	-20.4	-20.7	-21.1	-21.2	-20.5	-20.4	-12.1	-21.2	-16.7
3	-20.6	-20.7	-20.8	-21.0	-20.9	-20.8	-22.3	-23.5	-23.7	-23.6	-23.8	-23.8	-23.9	-23.7	-23.9	-24.1	-24.0	-24.8	-25.5	-25.4	-25.3	-25.5	-25.7	-25.4	-20.6	-25.7	-23.4
4	-25.3	-25.4	-25.5	-24.9	-23.5	-23.1	-21.9	-20.3	-16.7	-15.9	-15.1	-12.8	-12.1	-10.1	-9.4	-8.9	-8.3	-6.9	-6.1	-5.6	-5.2	-5.0	-4.6	-4.1	-4.1	-25.5	-14.0
5	-3.8	-3.4	-3.2	-2.8	-2.6	-2.4	-2.2	-2.0	-1.9	-1.8	-1.7	-1.6	-1.4	-1.4	-1.4	-1.3	-1.0	-0.6	-0.2	0.1	0.1	0.1	0.5	1.3	1.3	-3.8	-1.4
6	1.7	1.7	1.8	1.9	1.4	1.3	1.7	1.9	1.4	1.2	0.8	0.2	0.0	0.1	0.2	-0.3	-0.4	-0.6	-0.1	-0.1	-0.1	-0.1	0.2	0.7	1.9	-0.6	0.7
7	1.0	1.0	1.2	1.2	1.4	1.8	1.4	1.1	1.2	1.5	2.0	1.4	1.7	1.9	1.5	1.1	1.6	1.4	1.0	1.5	1.9	2.0	1.6	1.4	2.0	1.0	1.4
8	1.4	1.2	0.8	0.6	0.9	0.7	0.9	1.0	1.1	1.0	1.2	1.4	1.9	2.3	1.9	1.6	1.7	1.8	1.9	1.7	1.9	2.0	2.0	2.1	2.3	0.6	1.5
9	2.2	2.2	2.3	2.0	2.0	2.0	1.6	1.1	0.6	0.9	0.7	0.9	1.4	1.8	1.6	1.5	1.2	1.1	1.1	0.8	0.7	0.7	0.7	0.4	2.3	0.4	1.3
10	0.2	0.0	-0.1	-0.3	-0.7	-0.9	-1.0	-0.9	-0.5	-0.2	0.3	1.2	0.9	0.7	0.6	0.5	0.8	0.5	0.2	0.5	0.5	0.1	0.1	-0.1	1.2	-1.0	0.1
11	-0.2	-0.1	-0.6	-1.0	-1.3	-2.9	-4.4	-5.4	-6.3	-7.5	-8.6	-9.7	-10.5	-10.5	-10.2	-10.6	-11.0	-11.6	-11.8	-12.1	-12.5	-12.7	-13.5	-15.2	-0.1	-15.2	-7.9
12	-16.2	-17.6	-17.1	-17.3	-17.5	-18.7	-18.2	-17.4	-17.8	-17.7	-17.0	-14.7	-12.8	-11.9	-11.8	-10.5	-10.9	-11.7	-11.2	-10.8	-11.7	-11.3	-10.6	-10.4	-10.4	-18.7	-14.3
13	-10.5	-10.7	-9.9	-10.1	-10.6	-10.7	-10.1	-10.1	-10.0	-8.9	-7.8	-6.1	-5.8	-5.2	-4.1	-3.3	-2.7	-2.5	-2.3	-2.0	-1.6	-1.3	-1.1	-1.0	-1.0	-10.7	-6.2
14	-0.4	-0.3	-0.3	0.3	-0.2	-1.1	-0.1	-0.5	-0.5	0.0	0.7	1.3	1.4	2.5	1.8	0.9	1.7	1.4	1.6	1.4	1.3	1.4	2.4	2.1	2.5	-1.1	0.8
15	1.7	1.6	1.4	1.6	2.0	2.8	2.7	1.7	1.0	1.3	1.0	0.9	1.6	1.6	1.6	1.8	2.0	1.7	2.2	3.6	3.6	3.3	3.6	3.5	3.6	0.9	2.1
16	3.7	3.5	2.8	3.0	3.0	3.1	2.8	2.8	2.4	1.5	0.6	0.1	-0.2	-0.9	-1.0	-1.5	-1.5	-1.6	-1.8	-1.9	-2.0	-2.3	-2.4	-2.7	3.7	-2.7	0.4
17	-2.9	-3.2	-3.5	-3.7	-3.5	-3.6	-4.0	-4.0	-3.5	-3.3	-3.1	-2.9	-2.7	-1.9	0.5	0.7	-0.2	-0.5	-0.1	-0.1	-0.2	-0.5	0.5	0.3	0.7	-4.0	-1.9
18	0.2	0.0	0.3	0.2	0.8	1.0	0.8	1.3	1.3	0.8	0.9	1.6	1.7	1.8	2.1	2.3	2.3	2.5	2.7	2.7	2.5	3.1	2.9	2.7	3.1	0.0	1.6
19	2.8	2.6	3.5	3.0	2.7	2.4	1.9	1.9	1.9	1.9	2.0	2.2	2.3	2.0	1.7	1.5	1.4	0.9	1.1	1.1	0.7	0.9	0.9	0.2	3.5	0.2	1.8
20	-0.9	-1.3	-1.3	-1.1	-1.8	-1.9	-2.0	-2.1	-2.2	-1.8	-1.8	-1.8	-1.6	-0.7	-0.1	-1.4	-2.2	-3.3	-4.4	-4.0	-4.0	-4.0	-3.3	-3.7	-0.1	-4.4	-2.2
21	-3.2	-2.6	-2.2	-2.0	-1.9	-2.0	-1.9	-2.6	-3.2	-3.7	-3.4	-3.0	-2.3	-2.1	-2.3	-3.1	-3.5	-4.5	-4.1	-4.8	-4.6	-5.5	-5.3	-5.6	-1.9	-5.6	-3.3
22	-5.8	-6.2	-6.0	-6.3	-6.1	-5.8	-6.0	-6.2	-6.7	-7.0	-6.9	-7.2	-6.8	-6.6	-6.8	-6.5	-6.2	-6.2	-5.9	-5.7	-5.4	-5.2	-4.0	-3.9	-3.9	-7.2	-6.1
23	-4.1	-4.1	-3.9	-4.1	-3.9	-3.7	-2.9	-2.8	-3.0	-3.0	-2.8	-2.7	-2.7	-3.1	-3.0	-2.8	-2.8	-2.7	-2.7	-3.0	-2.9	-3.1	-3.3	-2.9	-2.7	-4.1	-3.2
24	-2.5	-2.3	-2.3	-2.1	-1.8	-2.0	-1.8	-1.6	-1.4	-1.4	-1.6	-1.1	-0.8	-0.8	-0.7	-0.6	-1.5	-2.6	-3.2	-2.2	-1.6	-1.6	-1.1	-0.9	-0.6	-3.2	-1.6
25	-0.9	-0.7	-0.4	-0.3	-0.1	-0.2	-1.1	-0.6	-0.2	-0.9	-1.1	0.2	0.7	0.3	0.6	0.6	1.2	1.4	0.9	0.7	0.5	1.2	1.9	1.1	1.9	-1.1	0.2
26	0.6	0.4	1.6	1.8	2.0	1.6	1.1	1.0	1.1	0.6	0.7	1.3	1.2	1.5	1.1	0.4	0.8	-0.3	-0.1	0.0	0.0	0.1	0.4	0.7	2.0	-0.3	0.8
27	1.4	1.6	1.5	1.7	2.2	1.9	2.7	2.6	1.7	0.7	1.9	1.6	0.8	1.1	-0.8	-0.9	-0.2	0.8	1.6	1.6	1.8	2.1	2.4	1.8	2.7	-0.9	1.4
28	1.4	0.7	1.3	1.5	1.7	1.8	1.6	1.7	1.0	0.7	1.4	2.5	2.1	2.2	1.9	2.2	2.6	2.6	2.4	1.9	2.0	1.8	1.6	1.8	2.6	0.7	1.8
29	1.9	1.9	1.2	0.5	0.3	0.4	0.2	0.6	0.3	0.2	0.2	0.2	0.1	0.3	0.5	0.5	0.5	0.4	0.5	0.4	0.1	0.1	-0.3	0.1	1.9	-0.3	0.5
30	0.8	1.0	1.7	1.8	1.4	1.6	2.4	2.9	1.1	-0.1	0.3	-0.6	-0.8	-0.1	0.8	0.2	0.0	1.3	1.6	1.4	1.7	2.2	2.2	2.3	2.9	-0.8	1.1
31	1.4	-1.2	0.6	1.7	0.8	0.1	-0.1	0.4	0.0	-0.3	-0.2	1.4	1.2	0.8	0.5	-0.3	-0.1	-1.0	-1.6	-1.8	-1.9	-1.7	-2.4	-2.0	1.7	-2.4	-0.2
<b>Max.</b>	<b>3.7</b>	<b>3.5</b>	<b>3.5</b>	<b>3.0</b>	<b>3.0</b>	<b>3.1</b>	<b>2.8</b>	<b>2.9</b>	<b>2.4</b>	<b>1.9</b>	<b>2.0</b>	<b>2.5</b>	<b>2.3</b>	<b>2.5</b>	<b>2.1</b>	<b>2.3</b>	<b>2.6</b>	<b>2.6</b>	<b>2.7</b>	<b>3.6</b>	<b>3.6</b>	<b>3.3</b>	<b>3.6</b>	<b>3.5</b>	<b>3.7</b>		
<b>Min.</b>	<b>-25.3</b>	<b>-25.4</b>	<b>-25.5</b>	<b>-24.9</b>	<b>-23.5</b>	<b>-23.1</b>	<b>-22.3</b>	<b>-23.5</b>	<b>-23.7</b>	<b>-23.6</b>	<b>-23.8</b>	<b>-23.8</b>	<b>-23.9</b>	<b>-23.7</b>	<b>-23.9</b>	<b>-24.1</b>	<b>-24.0</b>	<b>-24.8</b>	<b>-25.5</b>	<b>-25.4</b>	<b>-25.3</b>	<b>-25.5</b>	<b>-25.7</b>	<b>-25.4</b>		<b>-25.7</b>	
<b>Avg.</b>	<b>-3.1</b>	<b>-3.3</b>	<b>-3.1</b>	<b>-3.1</b>	<b>-3.1</b>	<b>-3.2</b>	<b>-3.3</b>	<b>-3.4</b>	<b>-3.5</b>	<b>-3.7</b>	<b>-3.5</b>	<b>-3.2</b>	<b>-3.1</b>	<b>-2.9</b>	<b>-2.8</b>	<b>-2.9</b>	<b>-2.9</b>	<b>-3.1</b>	<b>-3.1</b>	<b>-3.1</b>	<b>-3.1</b>	<b>-3.0</b>	<b>-2.8</b>	<b>-2.9</b>			<b>-3.1</b>

**Total Hours in Month** 744 **Hours Data Available** 744 **Data Recovery** 100.0%

## Northern Dynasty Mines Pebble 1 Meterological Station - Temperature at 2 meters (deg. C)

*January 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	-0.9	-0.9	-1.3	-1.5	-1.1	-1.3	-1.3	-1.4	-1.3	-1.0	-1.0	-1.3	-0.8	-0.4	-0.9	-0.6	-0.7	-1.5	-2.0	-2.1	-1.7	-1.6	-1.7	-1.8	-0.4	-2.1	-1.3
2	-1.4	-1.6	-1.7	-1.1	-1.7	-2.0	-1.6	-1.3	-1.4	-0.9	-0.6	0.1	-0.2	-0.4	-0.4	0.1	-0.6	-0.6	-0.6	-0.8	-0.7	-0.7	-1.0	-1.9	0.1	-2.0	-1.0
3	-1.8	-2.2	-2.3	-2.3	-2.2	-2.2	-2.2	-2.2	-2.1	-2.1	-2.0	-1.9	-1.8	-1.6	-1.4	-1.0	-1.1	-1.1	-1.0	-1.2	-1.2	-1.1	-1.2	-1.1	-1.0	-2.3	-1.7
4	-1.4	-1.3	-1.2	-1.1	-1.4	-2.7	-3.6	-2.9	-2.8	-3.2	-3.4	-2.4	-3.1	-3.3	-3.5	-3.4	-3.6	-3.9	-4.6	-5.0	-4.8	-4.9	-4.6	-4.1	-1.1	-5.0	-3.2
5	-3.8	-3.0	-3.4	-2.8	-3.3	-3.3	-2.8	-2.7	-3.1	-3.0	-2.8	-2.8	-2.6	-4.1	-4.2	-5.2	-4.9	-5.5	-4.9	-5.2	-6.7	-6.8	-6.2	-6.6	-2.6	-6.8	-4.2
6	-6.4	-5.9	-6.0	-6.7	-6.3	-5.2	-5.1	-5.6	-5.8	-5.7	-5.8	-5.0	-5.4	-4.5	-4.5	-4.4	-3.7	-3.7	-4.6	-4.4	-3.8	-3.7	-4.1	-4.1	-3.7	-6.7	-5.0
7	-3.5	-3.3	-4.1	-4.8	-4.5	-4.4	-4.6	-4.5	-4.1	-4.0	-2.5	-1.9	-1.6	-1.9	-0.8	-0.9	-0.9	-1.4	-1.4	-2.5	-1.6	-0.4	0.0	0.4	0.4	-4.8	-2.5
8	0.2	-1.7	-0.7	-2.6	-1.7	-1.3	1.3	0.4	0.6	-0.1	-1.8	-2.6	-3.6	-3.6	-3.4	-2.6	-3.3	-4.7	-5.5	-5.8	-6.5	-6.5	-6.9	-7.7	1.3	-7.7	-2.9
9	-7.9	-7.6	-6.9	-5.7	-7.4	-6.5	-5.7	-6.0	-7.0	-5.2	-4.4	-3.1	-2.1	-2.0	-2.0	-2.5	-4.2	-5.4	-3.3	-2.7	-4.1	-4.1	-3.7	-3.2	-2.0	-7.9	-4.7
10	-4.2	-3.5	-2.2	-1.7	-1.6	-1.5	-1.4	-1.6	-1.6	-1.9	-2.8	-3.2	-4.0	-4.9	-5.3	-6.8	-7.3	-8.5	-9.1	-9.5	-9.5	-9.3	-9.1	-9.0	-1.4	-9.5	-5.0
11	-8.9	-9.1	-9.0	-9.3	-9.4	-9.5	-9.7	-10.2	-10.7	-10.2	-9.8	-9.8	-9.9	-10.2	-9.8	-9.8	-10.0	-9.7	-10.1	-11.2	-11.5	-11.4	-11.5	-11.6	-8.9	-11.6	-10.1
12	-11.4	-11.9	-12.2	-12.5	-12.6	-12.7	-13.1	-13.4	-13.5	-14.1	-14.5	-14.8	-15.2	-15.3	-15.4	-15.7	-16.0	-16.4	-17.3	-18.0	-18.6	-18.2	-18.4	-18.4	-11.4	-18.6	-15.0
13	-19.2	-20.2	-20.7	-21.0	-20.8	-20.8	-21.2	-21.5	-21.5	-21.5	-21.3	-21.2	-20.9	-20.6	-20.8	-21.0	-21.1	-21.2	-21.4	-21.1	-21.1	-21.3	-21.4	-21.5	-19.2	-21.5	-21.0
14	-21.7	-21.8	-20.7	-19.0	-19.1	-17.9	-16.7	-13.5	-12.0	-10.7	-9.8	-8.8	-8.6	-8.7	-8.3	-8.0	-7.5	-7.2	-6.8	-6.3	-6.4	-6.2	-5.9	-5.7	-5.7	-21.8	-11.6
15	-5.5	-5.5	-5.2	-4.9	-4.7	-4.4	-4.3	-4.1	-3.7	-3.7	-3.6	-3.3	-2.6	-2.5				-2.2	-2.0	-1.8	-1.7	-1.9	-2.7	-2.8	-1.7	-5.5	-3.5
16	-2.1	-2.2	-2.1	-1.9	-2.1	-2.2	-2.1	-1.8	-1.8	-1.6	-1.7	-1.6	-2.8	-4.3	-3.6	-3.3	-3.0	-3.6	-4.1	-4.9	-6.3	-7.6	-9.1	-10.2	-1.6	-10.2	-3.6
17	-11.3	-11.7	-12.2	-13.1	-13.3	-13.4	-14.2	-14.8	-15.4	-16.6	-16.5	-16.6	-16.9	-17.2	-17.4	-18.2	-19.8	-20.9	-21.4	-21.8	-21.4	-21.0	-19.2	-20.5	-11.3	-21.8	-16.9
18	-21.2	-21.4	-22.1	-22.3	-22.6	-22.0	-21.6	-21.2	-21.5	-22.1	-23.1	-22.8	-22.3	-21.6	-21.5	-21.3	-22.1	-22.1	-22.0	-22.3	-22.0	-22.7	-23.1	-23.7	-21.2	-23.7	-22.1
19	-23.7	-23.3	-23.4	-23.9	-24.3	-25.0	-25.7	-25.8	-25.9	-25.8	-25.9	-25.8	-25.7	-25.2	-24.8	-25.1	-25.8	-26.4	-26.4	-26.2	-26.2	-26.6	-26.7	-26.1	-23.3	-26.7	-25.4
20	-26.4	-26.2	-25.9	-25.4	-24.0	-25.5	-26.1	-25.9	-25.8	-25.3	-25.4	-25.3	-24.7	-24.1	-24.4	-23.6	-23.2	-23.2	-23.3	-23.0	-22.5	-23.3	-23.1	-22.9	-22.5	-26.4	-24.5
21	-22.8	-22.5	-23.1	-23.1	-22.8	-22.9	-23.1	-23.2	-23.4	-23.8	-24.3	-25.3	-25.8	-26.1	-25.8	-25.9	-25.9	-25.9	-25.9	-26.5	-27.1	-27.6	-28.2	-29.0	-22.5	-29.0	-25.0
22	-29.4	-29.9	-29.8	-29.7	-29.7	-29.6	-29.3	-29.1	-29.0	-29.0	-29.1	-29.2	-29.3	-29.5	-29.6	-29.7	-29.7	-29.7	-29.9	-30.2	-30.4	-30.4	-30.3	-30.5	-29.0	-30.5	-29.7
23	-30.7	-30.8	-30.8	-30.7	-30.6	-30.6	-30.7	-30.7	-30.0	-30.1	-30.0	-30.3	-29.1	-28.3	-27.6	-27.0	-26.8	-26.7	-26.6	-25.8	-26.7	-26.6	-26.2	-26.2	-25.8	-30.8	-28.7
24	-26.1	-25.8	-25.4	-25.8	-26.1	-26.2	-26.1	-26.0	-25.9	-25.8	-26.2	-26.0	-25.9	-25.6	-25.3	-25.5	-25.9	-26.2	-26.6	-27.2	-28.2	-28.7	-28.6	-28.7	-25.3	-28.7	-26.4
25	-29.3	-29.5	-29.3	-29.8	-29.6	-30.1	-30.3	-30.9	-30.5	-30.4	-29.4	-28.5	-28.5	-28.3	-27.3	-27.7	-27.7	-27.5	-28.8	-29.2	-29.8	-30.6	-30.2	-29.6	-27.3	-30.9	-29.3
26	-29.7	-29.2	-29.7	-30.3	-30.9	-29.9	-30.0	-29.8	-29.8	-29.5	-28.9	-27.5	-26.6	-26.2	-26.8	-26.2	-26.2	-26.4	-26.6	-28.0	-28.1	-28.0	-29.3	-30.1	-26.2	-30.9	-28.5
27	-29.7	-30.4	-31.1	-31.6	-31.5	-31.9	-32.9	-33.5	-33.5	-33.8	-33.9	-34.0	-34.0	-33.9	-33.4	-33.3	-33.2	-33.2	-33.0	-32.8	-33.0	-32.5	-32.2	-32.1	-29.7	-34.0	-32.7
28	-31.8	-32.1	-32.6	-32.7	-33.0	-33.2	-33.7	-34.1	-34.2	-34.8	-35.3	-34.8	-34.1	-33.4	-32.1	-32.1	-32.5	-33.2	-33.1	-33.1	-33.4	-33.1	-33.1	-33.3	-31.8	-35.3	-33.3
29	-33.3	-33.1	-33.1	-32.9	-32.7	-32.6	-32.5	-32.1	-31.9	-32.1	-32.1	-30.7	-30.7	-30.4	-30.3	-29.8	-29.6	-30.3	-29.6	-30.4	-30.2	-30.0	-30.6	-30.5	-29.6	-33.3	-31.3
30	-29.1	-29.2	-29.2	-28.7	-28.9	-29.3	-29.6	-29.4	-28.9	-28.7	-28.1	-26.8	-26.7	-26.7	-26.4	-26.7	-26.9	-23.5	-20.7	-20.8	-23.1	-23.1	-21.5	-20.1	-20.1	-29.6	-26.3
31	-20.0	-19.8	-19.0	-19.0	-18.2	-17.9	-17.8	-17.5	-17.6	-18.9	-19.8	-19.7	-19.3	-19.3	-20.2	-20.2	-21.4	-22.1	-23.0	-23.3	-25.1	-26.9	-27.4	-27.0	-17.5	-27.4	-20.8
<b>Max.</b>	<b>0.2</b>	<b>-0.9</b>	<b>-0.7</b>	<b>-1.1</b>	<b>-1.1</b>	<b>-1.3</b>	<b>1.3</b>	<b>0.4</b>	<b>0.6</b>	<b>-0.1</b>	<b>-0.6</b>	<b>0.1</b>	<b>-0.2</b>	<b>-0.4</b>	<b>-0.4</b>	<b>0.1</b>	<b>-0.6</b>	<b>-0.6</b>	<b>-0.6</b>	<b>-0.8</b>	<b>-0.7</b>	<b>-0.4</b>	<b>0.0</b>	<b>0.4</b>	<b>1.3</b>		
<b>Min.</b>	<b>-33.3</b>	<b>-33.1</b>	<b>-33.1</b>	<b>-32.9</b>	<b>-33.0</b>	<b>-33.2</b>	<b>-33.7</b>	<b>-34.1</b>	<b>-34.2</b>	<b>-34.8</b>	<b>-35.3</b>	<b>-34.8</b>	<b>-34.1</b>	<b>-33.9</b>	<b>-33.4</b>	<b>-33.3</b>	<b>-33.2</b>	<b>-33.2</b>	<b>-33.1</b>	<b>-33.1</b>	<b>-33.4</b>	<b>-33.1</b>	<b>-33.1</b>	<b>-33.3</b>		<b>-35.3</b>	
<b>Avg.</b>	<b>-16.0</b>	<b>-16.0</b>	<b>-16.0</b>	<b>-16.1</b>	<b>-16.1</b>	<b>-16.1</b>	<b>-16.0</b>	<b>-16.0</b>	<b>-16.0</b>	<b>-16.0</b>	<b>-16.0</b>	<b>-15.7</b>	<b>-15.6</b>	<b>-15.6</b>	<b>-15.9</b>	<b>-15.9</b>	<b>-16.2</b>	<b>-15.9</b>	<b>-16.0</b>	<b>-16.2</b>	<b>-16.5</b>	<b>-16.7</b>	<b>-16.7</b>	<b>-16.8</b>			<b>-16.0</b>

Total Hours in Month

744

Hours Data Available

741

Data Recovery

99.6%

HCG, Inc.

## Northern Dynasty Mines Pebble 1 Meterological Station - Temperature at 2 meters (deg. C)

*February 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	-27.3	-28.5	-28.9	-28.4	-29.3	-29.6	-29.9	-30.3	-30.7	-30.9	-31.2	-30.6	-29.9	-29.5	-29.2	-29.2	-29.5	-30.1	-30.4	-31.0	-31.5	-31.4	-31.5	-31.6	-27.3	-31.6	-30.0	
2	-31.2	-31.2	-31.2	-31.6	-31.5	-31.6	-31.5	-31.2	-31.0	-30.4	-29.6	-29.4	-28.0	-27.5	-26.4	-24.5	-24.3	-25.0	-26.0	-26.3	-25.7	-25.1	-25.0	-23.0	-23.0	-31.6	-28.3	
3	-19.5	-18.3	-17.1	-15.9	-15.8	-14.5	-13.4	-12.7	-12.4	-12.2	-11.8	-11.2	-10.6	-10.1	-9.6	-9.5	-9.5	-9.5	-9.0	-8.3	-8.0	-7.8	-7.7	-7.8	-7.7	-19.5	-11.8	
4	-7.6	-7.6	-7.6	-7.5	-7.4	-7.2	-7.1	-6.9	-6.9	-6.5	-6.2	-5.9	-5.6	-4.6	-4.0	-4.1	-4.0	-3.9	-3.9	-3.7	-3.4	-2.9	-2.8	-2.5	-2.5	-7.6	-5.4	
5	-2.4	-2.9	-2.9	-2.6	-2.5	-2.3	-1.9	-2.2	-1.8	-2.8	-3.1	-2.2	-1.6	-1.3	-1.5	-1.4	-1.0	-0.9	-1.3	-1.6	-1.5	-0.3	0.0	-0.4	0.0	-3.1	-1.8	
6	-0.5	-0.8	-1.4	-1.0	-1.0	-1.3	-1.2	-1.2	-1.2	-1.2	-3.2	-3.6	-4.0	-4.4	-4.9	-5.1	-5.4	-5.8	-6.2	-6.9	-6.5	-6.5	-6.7	-6.8	-0.5	-6.9	-3.6	
7	-6.8	-6.5	-6.5	-6.3	-6.6	-6.9	-6.6	-6.9	-7.5	-7.8	-8.4	-9.1	-9.3	-9.3	-9.2	-9.6	-10.2	-11.3	-11.6	-11.6	-11.3	-10.6	-10.6	-10.3	-6.3	-11.6	-8.8	
8	-10.1	-10.0	-10.4	-11.0	-10.8	-10.5	-10.8	-10.2	-9.3	-7.9	-7.3	-7.6	-7.4	-6.8	-5.9	-5.8	-5.6	-5.2	-4.9	-4.6	-4.3	-4.0	-3.9	-4.0	-3.9	-11.0	-7.4	
9	-3.5	-3.6	-3.4	-3.1	-2.8	-2.6	-2.3	-2.7	-2.7	-3.1	-2.6	-2.7	-2.0	-1.4	-0.7	-0.2	0.3	0.5	0.7	0.7	1.4	1.0	0.4	-0.6	1.4	-3.6	-1.5	
10	-1.0	-1.3	-1.2	-1.1	-0.7	-0.2	0.0	0.0	-0.7	-1.1	-1.0	-1.0	-1.1	-1.1	-0.7	-0.6	-0.5	-0.5	-0.7	-0.6	-0.6	-0.7	-0.8	-0.8	0.0	-1.3	-0.7	
11	-1.4	-1.5	-1.7	-1.6	-1.5	-1.5	-1.5	-1.9	-2.1	-2.1	-2.2	-1.8	-1.7	-1.4	-1.4	-1.3	-1.1	-0.8	-0.4	-0.5	-0.4	-0.1	0.0	0.1	0.1	-2.2	-1.2	
12	0.1	0.0	-0.3	-0.5	-0.6	-0.9	-1.6	-2.3	-4.2	-5.1	-5.2	-5.4	-5.8	-6.3	-6.5	-6.5	-6.8	-6.8	-7.9	-9.0	-9.8	-10.4	-10.9	-10.4	0.1	-10.9	-5.1	
13	-9.6	-9.8	-9.6	-8.6	-8.3	-8.0	-8.0	-7.9	-7.7	-6.8	-5.5	-3.4	-4.2	-2.8	-2.3	-1.5	-1.2	-1.0	-0.9	-0.5	-0.4	-0.2	0.1	0.1	0.1	-9.8	-4.5	
14	0.3	0.6	0.7	0.4	0.0	-0.1	-0.1	-0.1	0.1	0.1	0.0	0.1	0.3	0.2	0.1	0.2	0.1	0.0	0.0	0.3	0.3	0.3	0.2	0.1	0.7	-0.1	0.2	
15	0.0	0.4	0.2	0.5	1.0	1.0	0.7	0.6	0.6	0.8	0.7	0.8	0.8	0.6	0.5	0.6	0.5	0.1	-0.1	-0.6	-0.6	-0.4	-0.4	-0.3	1.0	-0.6	0.3	
16	-0.3	-0.4	-0.4	-0.4	-0.4	-0.5	-0.5	-0.5	-0.6	-0.6	-0.9	-1.2	-0.8	-0.5	-0.5	-0.3	-0.5	-0.9	-1.1	-2.0	-2.4	-2.4	-2.7	-3.1	-0.3	-3.1	-1.0	
17	-3.3	-3.2	-2.5	-2.4	-1.9	-1.6	-0.9	-0.8	-0.5	0.1	0.0	0.2	0.4	0.4	0.5	0.3	0.1	-0.2	-0.4	-0.4	-0.6	-0.7	-0.9	-1.0	0.5	-3.3	-0.8	
18	-0.9	-0.9	-0.9	-0.8	-0.9	-0.9	-0.9	-0.9	-0.9	-0.7	-0.5	-0.2	-0.1	0.2	0.2	-0.3	-0.8	-0.7	-1.0	-1.2	-1.2	-0.7	0.1	0.3	0.0	0.3	-1.2	-0.6
19	-0.7	-1.3	-1.8	-2.1	-2.5	-3.2	-3.9	-4.6	-5.0	-5.5	-5.2	-4.4	-3.2	-3.3	-3.1	-2.9	-2.6	-2.6	-2.9	-3.2	-4.0	-5.1	-5.1	-5.5	-0.7	-5.5	-3.5	
20	-5.2	-5.0	-4.8	-4.9	-5.1	-5.4	-5.6	-5.0	-4.9	-4.3	-4.0	-3.5	-3.5	-3.5	-3.2	-3.3	-3.8	-5.0	-5.6	-6.7	-7.6	-8.2	-8.4	-8.6	-3.2	-8.6	-5.2	
21	-9.5	-9.9	-10.5	-11.2	-11.7	-12.3	-12.2	-11.4	-11.7	-10.6	-9.0	-7.9	-6.2	-7.2	-7.2	-7.6	-7.3	-7.8	-9.0	-8.7	-8.9	-9.1	-9.8	-9.6	-6.2	-12.3	-9.4	
22	-9.9	-9.8	-9.6	-9.8	-9.5	-9.6	-9.3	-10.0	-9.6	-8.8	-8.1	-7.6	-6.5	-6.2	-6.4	-6.9	-7.3	-8.2	-7.9	-7.6	-7.3	-7.8	-8.2	-8.5	-6.2	-10.0	-8.4	
23	-8.5	-8.3	-8.0	-7.9	-7.5	-7.1	-6.2	-7.4	-8.5	-7.9	-8.0	-8.3	-6.9	-6.7	-7.3	-7.6	-8.2	-8.8	-8.5	-8.8	-9.4	-9.3	-9.8	-11.6	-6.2	-11.6	-8.2	
24	-12.7	-14.0	-13.8	-14.1	-15.0	-15.0	-15.8	-15.8	-15.6	-13.7	-12.4	-10.8	-8.7	-6.8	-6.6	-6.5	-6.9	-9.5	-11.3	-11.6	-10.9	-11.1	-11.2	-10.7	-6.5	-15.8	-11.7	
25	-10.7	-10.3	-10.7	-10.5	-9.8	-9.1	-9.0	-8.5	-8.0	-7.4	-6.3	-3.5	-3.7	-5.5	-6.6	-7.3	-8.0	-8.6	-9.9	-10.8	-10.3	-9.7	-8.9	-8.9	-3.5	-10.8	-8.4	
26	-9.8	-9.7	-9.0	-9.1	-9.6	-10.6	-10.5	-10.2	-9.7	-9.6	-9.2	-8.4	-7.3	-6.7	-5.9	-5.4	-6.2	-8.2	-8.9	-9.0	-8.9	-8.5	-7.7	-6.4	-5.4	-10.6	-8.5	
27	-6.3	-6.1	-5.6	-6.5	-8.4	-9.7	-11.8	-13.0	-14.5	-15.8	-16.5	-17.2	-18.2	-18.4	-18.4	-18.8	-19.0	-19.1	-19.4	-20.0	-20.3	-20.6	-20.9	-21.2	-5.6	-21.2	-15.2	
28	-21.6	-21.7	-21.7	-21.6	-22.1	-21.9	-22.0	-22.2	-22.3	-22.0	-21.3	-20.5	-20.0	-18.8	-17.7	-18.0	-18.4	-19.2	-20.1	-21.3	-21.9	-21.9	-22.7	-22.6	-17.7	-22.7	-21.0	
<b>Max.</b>	<b>0.3</b>	<b>0.6</b>	<b>0.7</b>	<b>0.5</b>	<b>1.0</b>	<b>1.0</b>	<b>0.7</b>	<b>0.6</b>	<b>0.6</b>	<b>0.8</b>	<b>0.7</b>	<b>0.8</b>	<b>0.8</b>	<b>0.6</b>	<b>0.5</b>	<b>0.6</b>	<b>0.5</b>	<b>0.5</b>	<b>0.7</b>	<b>0.7</b>	<b>1.4</b>	<b>1.0</b>	<b>0.4</b>	<b>0.1</b>	<b>1.4</b>			
<b>Min.</b>	<b>-31.2</b>	<b>-31.2</b>	<b>-31.2</b>	<b>-31.6</b>	<b>-31.5</b>	<b>-31.6</b>	<b>-31.5</b>	<b>-31.2</b>	<b>-31.0</b>	<b>-30.9</b>	<b>-31.2</b>	<b>-30.6</b>	<b>-29.9</b>	<b>-29.5</b>	<b>-29.2</b>	<b>-29.2</b>	<b>-29.5</b>	<b>-30.1</b>	<b>-30.4</b>	<b>-31.0</b>	<b>-31.5</b>	<b>-31.4</b>	<b>-31.5</b>	<b>-31.6</b>		<b>-31.6</b>		
<b>Avg.</b>	<b>-7.9</b>	<b>-7.9</b>	<b>-7.9</b>	<b>-7.8</b>	<b>-7.9</b>	<b>-8.0</b>	<b>-8.0</b>	<b>-8.1</b>	<b>-8.2</b>	<b>-8.0</b>	<b>-7.8</b>	<b>-7.4</b>	<b>-6.9</b>	<b>-6.7</b>	<b>-6.6</b>	<b>-6.5</b>	<b>-6.7</b>	<b>-7.1</b>	<b>-7.5</b>	<b>-7.7</b>	<b>-7.7</b>	<b>-7.6</b>	<b>-7.7</b>	<b>-7.7</b>			<b>-7.6</b>	
<b>Total Hours in Month</b>					672				<b>Hours Data Available</b>				672				<b>Data Recovery</b>				100.0%							

**HCG, Inc.**

## Northern Dynasty Mines Pebble 1 Meterological Station - Temperature at 2 meters (deg. C)

March 2006

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	-22.7	-23.2	-23.2	-23.0	-22.9	-22.8	-22.3	-21.9	-21.2	-19.7	-16.7	-12.0	-11.3	-13.5	-15.0	-15.0	-14.5	-13.6	-13.2	-12.0	-11.6	-11.6	-11.2	-10.8	-10.8	-23.2	-16.9
2	-10.3	-10.1	-10.1	-10.0	-9.7	-9.3	-9.1	-8.6	-8.0	-7.2	-6.4	-5.8	-5.4	-5.0	-4.9	-4.7	-4.5	-4.4	-4.3	-4.1	-4.0	-4.0	-3.7	-3.5	-3.5	-10.3	-6.5
3	-3.5	-3.4	-3.3	-3.4	-3.5	-3.6	-3.8	-4.4	-4.7	-4.5	-4.2	-3.9	-3.8	-4.0	-4.2	-5.0	-5.5	-5.6	-5.8	-6.4	-6.7	-7.0	-6.9	-6.7	-3.3	-7.0	-4.7
4	-6.7	-6.7	-6.6	-6.6	-6.3	-5.6	-5.4	-5.4	-5.0	-4.9	-4.4	-4.1	-3.9	-3.6	-3.7	-3.8	-4.0	-4.2	-4.0	-4.0	-4.0	-4.0	-4.0	-3.9	-3.6	-6.7	-4.8
5	-3.9	-3.9	-4.0	-4.0	-4.1	-4.1	-4.4	-4.7	-4.9	-4.9	-4.7	-3.9	-3.3	-3.0	-2.9	-2.8	-3.6	-4.6	-4.7	-5.0	-5.1	-5.1	-5.0	-5.1	-2.8	-5.1	-4.2
6	-5.2	-5.9	-7.1	-7.3	-7.7	-8.2	-9.3	-9.8	-10.0	-8.3	-7.1	-6.4	-3.1	-3.4	-2.0	-1.8	-3.8	-7.2	-9.2	-9.7	-9.7	-9.4	-9.7	-10.2	-1.8	-10.2	-7.1
7	-10.7	-10.6	-10.8	-10.8	-11.0	-11.0	-11.1	-11.0	-11.2	-11.6	-12.5	-12.2	-12.1	-12.8	-13.0	-12.7	-13.6	-15.3	-16.2	-16.8	-17.7	-18.5	-19.6	-20.1	-10.6	-20.1	-13.5
8	-20.0	-19.3	-18.7	-18.4	-18.2	-18.0	-17.9	-18.1	-18.4	-19.1	-19.0	-18.0	-17.9	-16.4	-15.5	-15.5	-15.9	-16.2	-16.8	-17.8	-18.8	-20.3	-20.8	-21.3	-15.5	-21.3	-18.2
9	-21.8	-22.0	-22.3	-22.5	-22.9	-23.2	-23.4	-23.8	-23.7	-23.2	-22.5	-21.3	-20.0	-19.5	-18.9	-17.8	-17.5	-17.5	-18.4	-19.1	-19.6	-19.7	-20.1	-20.3	-17.5	-23.8	-20.9
10	-20.9	-20.9	-20.9	-20.7	-20.3	-20.0	-18.9	-18.5	-17.9	-16.8	-15.5	-13.1	-12.6	-11.5	-10.5	-9.8	-9.7	-10.0	-10.3	-10.9	-11.1	-10.7	-9.8	-9.5	-9.5	-20.9	-14.6
11	-9.1	-8.9	-8.4	-8.2	-8.3	-8.3	-8.1	-8.2	-7.7	-7.4	-7.6	-7.3	-7.0	-6.4	-6.2	-6.1	-6.2	-6.3	-6.2	-6.2	-6.2	-6.2	-6.1	-6.1	-6.1	-9.1	-7.2
12	-5.8	-5.6	-5.3	-5.2	-5.4	-5.3	-4.8	-4.6	-4.4	-4.2	-4.0	-4.2	-4.4	-4.4	-4.0	-3.8	-3.6	-3.8	-3.8	-3.7	-3.8	-4.6	-5.3	-5.9	-3.6	-5.9	-4.6
13	-5.6	-5.2	-4.7	-4.7	-4.6	-4.8	-5.6	-5.8	-5.7	-6.5	-6.7	-6.7	-7.4	-7.5	-6.9	-7.1	-7.3	-7.8	-9.1	-9.9	-10.5	-11.0	-12.6	-13.7	-4.6	-13.7	-7.4
14	-14.6	-14.0	-14.4	-14.9	-15.2	-14.9	-15.4	-15.9	-15.5	-15.8	-16.2	-14.8	-13.9	-13.6	-13.3	-12.5	-12.3	-12.1	-11.6	-11.7	-12.4	-12.6	-12.5	-12.5	-11.6	-16.2	-13.9
15	-12.9	-13.5	-13.9	-14.4	-14.5	-15.1	-15.6	-15.3	-14.4	-14.2	-14.1	-13.4	-13.7	-13.1	-12.5	-11.9	-11.4	-11.7	-12.0	-11.6	-11.7	-11.6	-11.7	-11.7	-11.4	-15.6	-13.2
16	-11.1	-10.8	-11.4	-11.8	-11.8	-11.6	-11.6	-12.1	-11.0	-10.5	-10.1	-9.4	-8.2	-7.3	-6.6	-6.8	-6.8	-7.1	-7.8	-9.0	-9.4	-9.1	-8.8	-9.4	-6.6	-12.1	-9.6
17	-9.1	-8.8	-9.1	-9.2	-9.9	-10.6	-10.6	-10.3	-9.4	-8.3	-7.2	-7.1	-7.3	-7.7	-6.7	-6.5	-6.1	-5.9	-6.1	-6.1	-6.0	-6.1	-6.0	-6.1	-5.9	-10.6	-7.8
18	-6.2	-6.4	-6.2	-6.2	-6.3	-7.3	-7.2	-7.5	-7.7	-7.0	-6.5	-6.1	-5.9	-5.5	-5.1	-4.6	-4.1	-4.2	-4.6	-4.9	-5.7	-6.2	-6.5	-7.1	-4.1	-7.7	-6.1
19	-6.9	-6.7	-6.8	-6.5	-6.7	-8.0	-8.4	-8.6	-8.0	-7.4	-6.6	-5.7	-5.2	-5.0	-4.5	-4.6	-4.4	-4.4	-4.5	-4.5	-4.4	-4.1	-4.4	-4.4	-4.1	-8.6	-5.9
20	-4.4	-4.6	-4.5	-4.8	-5.1	-4.8	-4.6	-4.6	-4.8	-4.4	-4.1	-3.8	-3.7	-3.4	-4.1	-4.7	-6.1	-7.3	-8.3	-9.1	-9.9	-10.4	-10.9	-11.4	-3.4	-11.4	-6.0
21	-11.5	-11.5	-11.3	-11.5	-11.9	-12.0	-12.1	-12.3	-12.3	-11.9	-11.6	-11.1	-10.4	-9.5	-8.8	-8.7	-8.5	-8.6	-8.8	-9.5	-10.2	-10.9	-11.5	-11.9	-8.5	-12.3	-10.8
22	-12.1	-12.8	-13.1	-13.6	-13.6	-14.2	-14.0	-13.6	-13.1	-12.6	-11.9	-11.4	-10.7	-10.3	-9.9	-9.4	-9.2	-9.0	-9.3	-10.3	-10.6	-10.7	-11.2	-11.2	-9.0	-14.2	-11.6
23	-10.5	-9.4	-9.3	-10.0	-11.1	-10.9	-9.4	-9.4	-9.0	-10.4	-10.8	-9.9	-8.9	-8.8	-8.3	-8.1	-8.3	-9.1	-9.9	-10.7	-11.6	-11.2	-9.8	-10.0	-8.1	-11.6	-9.8
24	-11.6	-11.0	-11.7	-12.1	-12.2	-13.6	-13.8	-13.2	-13.6	-12.7	-11.2	-10.2	-9.4	-8.8	-8.4	-8.2	-8.0	-8.0	-8.7	-9.8	-10.9	-12.0	-11.9	-12.3	-8.0	-13.8	-11.0
25	-12.7	-13.3	-12.6	-12.5	-13.2	-12.7	-12.6	-12.8	-13.0	-12.8	-12.4	-11.5	-10.5	-9.6	-8.9	-8.6	-8.7	-8.9	-9.3	-10.2	-10.9	-11.3	-12.3	-12.9	-8.6	-13.3	-11.4
26	-13.7	-14.3	-14.6	-15.1	-15.1	-15.3	-15.5	-15.6	-15.2	-14.5	-13.8	-13.0	-12.0	-10.8	-10.0	-9.5	-9.1	-9.2	-9.5	-9.8	-10.0	-9.5	-9.4	-9.0	-9.0	-15.6	-12.2
27	-9.1	-8.8	-8.4	-8.7	-8.9	-8.8	-8.0	-7.4	-6.0	-3.0	-2.1	-2.0	-1.7	-1.4	-0.8	-0.8	-0.5	-0.7	-0.9	-1.9	-3.0	-3.4	-3.7	-3.6	-0.5	-9.1	-4.3
28	-3.9	-3.9	-4.2	-4.2	-3.3	-3.5	-3.4	-3.5	-2.9	-2.4	-2.3	-1.7	-1.1	-0.5	-0.2	0.0	0.0	-0.6	-1.2	-1.9	-2.2	-3.0	-3.5	-3.7	0.0	-4.2	-2.4
29	-4.0	-5.0	-5.3	-5.0	-5.8	-6.1	-6.4	-5.6	-6.0	-5.9	-4.5	-3.5	-3.1	-3.0	-2.9	-2.5	-2.9	-3.5	-3.8	-4.3	-4.8	-5.6	-6.0	-5.9	-2.5	-6.4	-4.6
30	-5.6	-4.7	-4.2	-3.9	-3.8	-3.1	-2.8	-2.7	-2.4	-2.3	-2.0	-1.6	-1.5	-1.4	-1.5	-1.6	-1.7	-1.8	-1.9	-1.9	-1.8	-1.8	-1.8	-1.5	-1.4	-5.6	-2.5
31	-1.4	-1.4	-1.4	-1.4	-1.5	-1.5	-1.6	-1.7	-1.6	-2.7	-3.8	-4.2	-4.2	-4.4	-4.3	-4.3	-4.2	-4.2	-4.6	-4.8	-4.7	-5.1	-5.2	-5.0	-1.4	-5.2	-3.3
<b>Max.</b>	<b>-1.4</b>	<b>-1.4</b>	<b>-1.4</b>	<b>-1.4</b>	<b>-1.5</b>	<b>-1.5</b>	<b>-1.6</b>	<b>-1.7</b>	<b>-1.6</b>	<b>-2.3</b>	<b>-2.0</b>	<b>-1.6</b>	<b>-1.1</b>	<b>-0.5</b>	<b>-0.2</b>	<b>0.0</b>	<b>0.0</b>	<b>-0.6</b>	<b>-0.9</b>	<b>-1.9</b>	<b>-1.8</b>	<b>-1.8</b>	<b>-1.8</b>	<b>-1.5</b>	<b>0.0</b>		
<b>Min.</b>	<b>-22.7</b>	<b>-23.2</b>	<b>-23.2</b>	<b>-23.0</b>	<b>-22.9</b>	<b>-23.2</b>	<b>-23.4</b>	<b>-23.8</b>	<b>-23.7</b>	<b>-23.2</b>	<b>-22.5</b>	<b>-21.3</b>	<b>-20.0</b>	<b>-19.5</b>	<b>-18.9</b>	<b>-17.8</b>	<b>-17.5</b>	<b>-17.5</b>	<b>-18.4</b>	<b>-19.1</b>	<b>-19.6</b>	<b>-20.3</b>	<b>-20.8</b>	<b>-21.3</b>		<b>-23.8</b>	
<b>Avg.</b>	<b>-9.9</b>	<b>-9.9</b>	<b>-9.9</b>	<b>-10.0</b>	<b>-10.2</b>	<b>-10.3</b>	<b>-10.2</b>	<b>-10.2</b>	<b>-10.0</b>	<b>-9.6</b>	<b>-9.1</b>	<b>-8.4</b>	<b>-7.9</b>	<b>-7.6</b>	<b>-7.2</b>	<b>-7.1</b>	<b>-7.2</b>	<b>-7.5</b>	<b>-7.9</b>	<b>-8.3</b>	<b>-8.7</b>	<b>-8.9</b>	<b>-9.1</b>	<b>-9.2</b>			<b>-8.9</b>

**Total Hours in Month** 744 **Hours Data Available** 744 **Data Recovery** 100.0%



## Northern Dynasty Mines Pebble 1 Meterological Station - Temperature at 2 meters (deg. C)

*May 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	-1.2	-1.4	-1.9	-2.1	-2.0	-1.4	-0.9	-0.4	0.3	1.1	1.9	2.3	2.6	2.2	2.5	2.8	2.8	2.6	2.1	1.7	1.0	0.6	0.1	-0.2	2.8	-2.1	0.6
2	-0.3	-0.1	0.3	0.1	-0.4	-0.1	0.2	0.5	0.9	1.6	1.6	1.5	1.9	2.1	2.1	2.2	1.9	1.8	1.9	1.3	1.2	0.8	0.8	0.1	2.2	-0.4	1.0
3	0.0	-0.2	-0.2	0.1	0.4	0.4	0.6	1.4	1.8	2.4	3.2	4.2	4.8	4.9	4.9	4.9	5.0	4.4	4.6	2.8	1.6	0.9	0.8	0.4	5.0	-0.2	2.2
4	0.4	0.2	0.3	0.0	-0.4	0.0	0.2	0.3	0.4	0.3	0.2	0.3	0.3	0.5	0.7	0.6	0.6	0.6	0.7	0.3	0.2	0.0	-0.1	-0.3	0.7	-0.4	0.3
5	-0.2	-0.2	-0.5	-0.5	-0.4	-0.1	0.3	0.5	1.0	1.2	1.5	2.4	2.0	1.6	2.1	1.7	1.6	1.6	1.5	1.0	0.8	0.2	0.1	-0.1	2.4	-0.5	0.8
6	-0.2	-0.2	-0.2	-0.2	-0.3	-0.3	-0.4	-0.4	-0.4	-0.4	-0.8	-0.7	-0.7	-0.5	-0.5	-0.3	-0.1	-0.5	-0.8	-1.5	-2.3	-3.4	-3.5	-3.6	-0.1	-3.6	-0.9
7	-4.0	-4.1	-4.5	-4.6	-4.9	-5.2	-5.4	-5.3	-5.1	-5.0	-4.8	-4.3	-4.2	-4.5	-4.4	-4.5	-4.3	-4.2	-4.2	-4.0	-4.3	-4.4	-4.7	-5.5	-4.0	-5.5	-4.6
8	-5.9	-6.5	-6.9	-6.9	-7.2	-6.8	-6.0	-5.2	-4.1	-3.3	-2.0	-1.3	-1.0	-1.6	-1.3	-1.1	-0.7	0.4	0.8	0.5	0.2	0.3	0.4	0.2	0.8	-7.2	-2.7
9	0.1	0.1	0.7	0.8	0.8	0.8	0.9	1.3	1.9	2.5	2.5	2.7	2.8	3.2	3.5	3.3	3.5	3.1	3.1	2.5	1.9	2.7	2.7	2.7	3.5	0.1	2.1
10	2.5	2.4	2.2	2.0	2.0	2.2	2.1	1.8	1.9	2.9	2.9	2.8	3.5	4.1	4.6	3.0	1.7	2.4	2.3	2.5	2.8	2.3	2.0	2.4	4.6	1.7	2.6
11	2.6	1.3	0.3	0.5	0.5	1.3	2.3	2.8	3.1	3.2	3.6	3.6	4.2	3.9	5.0	5.3	4.3	4.3	3.3	3.3	2.6	2.8	2.8	3.1	5.3	0.3	2.9
12	2.6	2.8	3.1	2.6	2.2	2.1	2.0	2.1	3.0	4.0	4.8	5.4	5.9	6.5	6.7	7.1	7.0	6.5	6.1	4.7	4.1	2.9	2.3	2.6	7.1	2.0	4.1
13	2.1	1.4	0.6	0.7	0.5	0.5	1.4	2.0	2.8	3.8	4.1	4.2	4.9	5.6	6.0	5.7	6.3	6.0	5.9	5.4	4.9	4.4	3.6	2.9	6.3	0.5	3.6
14	3.0	2.6	2.5	2.3	2.0	3.2	3.3	3.7	3.9	4.4	5.2	6.0	6.5	6.9	7.0	6.2	5.7	5.1	4.5	3.5	2.2	1.8	1.1	0.7	7.0	0.7	3.9
15	0.9	0.6	0.6	0.7	0.7	0.9	0.8	1.7	2.1	2.2	2.7	3.6	4.2	4.8	5.3	6.2	6.6	6.4	5.9	5.8	4.3	3.8	3.2	2.3	6.6	0.6	3.2
16	1.7	1.4	0.9	0.4	-0.2	-0.8	-0.7	0.1	0.7	1.2	1.6	2.8	3.8	4.5	5.1	5.0	5.3	5.2	5.3	4.7	3.5	2.7	1.9	1.2	5.3	-0.8	2.4
17	0.8	0.5	0.2	-0.3	-0.2	-0.1	-0.3	1.3	2.3	3.0	3.5	3.9	4.1	4.5	4.5	4.0	4.0	3.6	3.1	2.2	1.3	1.1	0.9	0.9	4.5	-0.3	2.0
18	0.6	0.6	0.2	0.1	0.4	0.3	0.4	0.4	1.1	1.4	2.0	2.2	2.6	2.5	2.6	3.9	3.8	3.3	2.6	2.2	1.6	0.8	0.5	0.4	3.9	0.1	1.5
19	0.5	0.0	0.0	-0.7	-0.6	-0.9	-0.2	0.5	1.3	1.9	1.6	1.9	2.4	3.1	3.2	2.6	0.3	-0.2	-0.2	-0.1	-0.2	-0.4	-0.2	-0.2	3.2	-0.9	0.6
20	-0.2	-0.1	0.1	0.3	0.3	0.6	0.7	1.0	1.3	1.9	2.3	3.1	3.9	4.2	4.3	4.4	4.1	3.7	4.0	3.7	3.4	2.5	2.2	2.1	4.4	-0.2	2.2
21	1.7	1.5	1.0	0.4	0.2	0.3	0.2	0.1	0.2	0.4	1.3	2.2	2.8	3.1	4.0	4.1	4.6	3.7	4.5	4.8	4.5	4.2	3.6	3.2	4.8	0.1	2.4
22	2.5	2.0	1.7	1.1	0.8	1.1	1.5	2.5	3.4	4.4	5.1	5.7	6.7	8.3	9.6	10.4	10.7	11.1	11.1	10.1	8.1	7.0	5.5	4.6	11.1	0.8	5.6
23	4.4	3.2	2.1	2.3	2.4	4.0	4.6	6.0	7.5	9.7	12.0	13.9	16.0	17.4	17.4	17.7	18.0	17.1	16.5	15.9	14.1	12.6	11.7	10.9	18.0	2.1	10.7
24	10.2	10.2	10.6	9.9	9.8	10.9	11.8	11.6	12.1	13.5	15.2	15.9	16.9	17.7	18.7	18.9	19.1	18.8	18.1	15.8	15.2	14.5	14.4	13.5	19.1	9.8	14.3
25	12.9	12.0	11.1	10.9	10.0	10.5	10.7	11.4	12.8	14.0	15.3	16.7	17.7	18.5	19.5	19.9	20.1	19.4	18.1	17.4	17.9	16.4	15.5	15.0	20.1	10.0	15.1
26	13.7	12.7	11.5	11.3	10.5	11.1	11.2	12.7	14.4	16.5	18.5	20.6	21.7	22.5	22.8	23.0	22.7	21.8	21.0	19.5	17.8	15.8	15.5	13.8	23.0	10.5	16.8
27	11.8	12.1	11.5	9.9	10.2	9.9	10.5	10.3	11.2	13.3	14.1	15.5	17.0	16.7	17.6	19.1	19.4	19.9	18.8	17.0	16.6	14.9	12.8	12.4	19.9	9.9	14.3
28	11.7	11.0	11.3	11.4	12.1	11.3	11.6	12.8	13.2	14.0	15.3	16.7	18.3	19.0	19.7	20.3	20.4	20.6	20.6	18.6	16.7	14.9	13.8	12.9	20.6	11.0	15.3
29	12.2	11.8	11.5	10.9	10.3	9.9	11.0	12.2	13.0	13.9	14.9	15.7	16.2	16.5	16.3	16.0	15.8	15.1	14.1	12.8	11.2	9.8	9.0	8.2	16.5	8.2	12.8
30	7.6	7.1	6.7	6.2	6.0	6.6	7.2	9.4	10.6	11.5	12.4	12.6	13.9	14.6	14.3	13.6	12.8	11.8	10.2	8.9	8.2	7.3	6.7	6.6	14.6	6.0	9.7
31	6.5	6.4	6.1	5.4	5.0	4.6	4.2	4.2	4.1	3.8	3.7	3.6	3.2	2.8	3.3	3.5	3.7	3.8	3.9	3.9	3.8	3.6	3.4	3.1	6.5	2.8	4.2
<b>Max.</b>	<b>13.7</b>	<b>12.7</b>	<b>11.5</b>	<b>11.4</b>	<b>12.1</b>	<b>11.3</b>	<b>11.8</b>	<b>12.8</b>	<b>14.4</b>	<b>16.5</b>	<b>18.5</b>	<b>20.6</b>	<b>21.7</b>	<b>22.5</b>	<b>22.8</b>	<b>23.0</b>	<b>22.7</b>	<b>21.8</b>	<b>21.0</b>	<b>19.5</b>	<b>17.9</b>	<b>16.4</b>	<b>15.5</b>	<b>15.0</b>	<b>23.0</b>		
<b>Min.</b>	<b>-5.9</b>	<b>-6.5</b>	<b>-6.9</b>	<b>-6.9</b>	<b>-7.2</b>	<b>-6.8</b>	<b>-6.0</b>	<b>-5.3</b>	<b>-5.1</b>	<b>-5.0</b>	<b>-4.8</b>	<b>-4.3</b>	<b>-4.2</b>	<b>-4.5</b>	<b>-4.4</b>	<b>-4.5</b>	<b>-4.3</b>	<b>-4.2</b>	<b>-4.2</b>	<b>-4.0</b>	<b>-4.3</b>	<b>-4.4</b>	<b>-4.7</b>	<b>-5.5</b>		<b>-7.2</b>	
<b>Avg.</b>	<b>3.3</b>	<b>2.9</b>	<b>2.7</b>	<b>2.4</b>	<b>2.3</b>	<b>2.5</b>	<b>2.8</b>	<b>3.3</b>	<b>4.0</b>	<b>4.7</b>	<b>5.3</b>	<b>6.0</b>	<b>6.6</b>	<b>7.0</b>	<b>7.3</b>	<b>7.4</b>	<b>7.3</b>	<b>7.1</b>	<b>6.8</b>	<b>6.0</b>	<b>5.3</b>	<b>4.6</b>	<b>4.2</b>	<b>3.7</b>			<b>4.8</b>

**Total Hours in Month** 744 **Hours Data Available** 744 **Data Recovery** 100.0%





## Northern Dynasty Mines Pebble 1 Meterological Station - Temperature at 2 meters (deg. C)

July 2006

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	6.8	6.4	6.5	6.3	6.2	6.2	6.3	6.4	6.8	7.0	8.6	11.3	13.3	15.0	16.0	16.9	17.5	17.4	17.1	16.5	15.2	14.0	12.3	11.1	17.5	6.2	11.1
2	9.9	10.4	9.6	8.9	9.1	9.5	9.9	11.0	12.5	13.7	15.1	16.2	17.0	17.6	18.2	18.8	19.0	18.9	18.8	18.1	17.1	14.4	12.6	11.8	19.0	8.9	14.1
3	11.7	11.4	10.6	9.5	8.7	8.9	9.8	11.0	11.6	14.1	15.4	16.6	17.6	18.7	19.9	20.2	20.2	19.9	20.1	19.9	19.2	16.1	13.1	12.3	20.2	8.7	14.8
4	11.4	11.1	10.7	10.2	9.9	10.4	12.7	14.0	15.2	16.5	18.0	19.0	20.2	20.9	21.6	21.9	22.4	22.2	22.0	21.2	18.4	16.3	14.7	14.1	22.4	9.9	16.5
5	13.1	12.7	12.2	11.6	10.8	10.2	10.3	11.0	11.6	12.4	14.2	17.0	19.1	20.0	21.4	21.7	15.7	15.1	16.3	15.9	14.9	14.4	13.9	14.6	21.7	10.2	14.6
6	14.3	13.6	13.7	13.6	12.7	12.9	13.5	14.1	13.8	14.7	15.1	16.6	17.1	17.3	18.0	18.5	17.9	15.4	15.2	15.7	14.7	13.6	12.4	11.8	18.5	11.8	14.8
7	11.2	10.4	10.0	9.7	9.5	9.4	9.5	9.7	9.5	9.7	9.9	10.2	10.6	10.8	10.5	10.1	10.2	10.1	9.8	9.7	9.6	9.6	9.2	8.6	11.2	8.6	9.9
8	8.4	8.0	7.6	7.3	7.2	7.1	7.0	7.2	7.3	7.7	8.1	8.6	9.1	9.5	9.8	10.4	10.7	10.8	11.0	11.2	11.8	10.2	9.9	9.8	11.8	7.0	9.0
9	9.9	9.9	9.3	8.7	8.9	9.4	9.9	10.3	11.4	12.8	14.3	15.9	17.4	17.3	17.2	18.0	17.6	16.6	15.3	14.0	13.1	12.0	11.3	10.4	18.0	8.7	12.9
10	9.9	9.7	9.3	9.1									9.3	9.3	9.3	9.5	10.2	11.2	10.9	11.9	12.1	12.6	12.2	12.7	12.7	9.1	10.6
11			11.9	11.3	9.9	9.0	8.0	7.8	7.6		7.6	7.7	7.8	7.9	7.9	8.3	8.7	9.1	10.5				13.1	13.8	13.8	7.6	9.3
12	13.5	13.0	12.0	12.2	12.6	11.7	10.6	10.1	9.1	8.4	8.8	8.9	8.5	8.7	9.2	9.9	11.4	12.3	13.5	14.9	16.5	17.7	18.5	19.4	19.4	8.4	12.1
13	20.4	21.0	19.8	19.3	17.9	16.4	14.8	14.5	14.3	13.2	12.6	12.4	12.7	12.6	12.8	11.2	9.8	9.3	9.1	9.2	8.9	8.7	9.2	9.5	21.0	8.7	13.3
14	9.0	8.7	8.6	8.5	8.4	8.1	7.9	7.7	7.3	6.8	6.5	6.3	6.3	6.2	6.0	6.2	6.3	6.4	6.7	6.9	7.0	7.1	7.2	7.4	9.0	6.0	7.2
15	7.6	7.5	7.4	7.2	7.3	7.5	7.4	7.1	6.9	6.8	6.8	6.7	6.6	6.4	6.3	6.5	6.5	6.8	7.3	7.8	8.6	8.7	9.2	9.5	9.5	6.3	7.3
16	10.2	11.1	11.6	11.2	10.4	9.7	9.6	9.1	8.9	8.0	7.8	7.6	7.6	7.7	7.8	7.9	8.1	8.6	9.2	9.9	10.6	10.9	10.3	10.9	11.6	7.6	9.4
17	10.8	10.2	9.1	8.6	8.1	7.7	7.5	7.3	7.2	7.1	6.9	6.6	6.3	6.1	6.2	6.5	6.9	7.2	7.7	8.5	9.1	9.2	9.8	9.7	10.8	6.1	7.9
18	9.3	9.3	8.4	8.2	8.1	8.0	7.9	8.0	8.0	8.5	8.4	8.2	8.0	7.8	8.1	8.4	8.5	9.0	9.6	10.4	10.5	10.2	10.6	9.7	10.6	7.8	8.8
19	9.1	9.1	9.1	9.0	8.4	8.2	8.2	8.0	7.7	8.0	7.9	7.7	7.4	7.2	7.4	8.2	9.1	9.7	10.6	12.0	12.6	13.0	13.4	13.4	13.4	7.2	9.3
20	13.9	13.3	13.3	13.5	12.7	11.9	11.3	11.2	9.9	9.5	8.8	8.2	8.4	7.9	8.1	9.1	11.2	13.8	15.1	15.6	16.5	16.4	17.5	17.3	17.5	7.9	12.3
21	17.2	17.6	17.4	15.8	14.2	12.7	11.3	9.9	9.2	8.8	8.7	9.4	9.8	9.3	10.5	10.5	11.3	12.9	13.7	14.4	15.1	13.1	12.9	13.6	17.6	8.7	12.5
22	14.1	13.0	12.3	11.5	10.9	10.9	10.5	10.3	10.1	10.3	10.2	9.9	9.9	9.3	9.6	9.8	10.7	11.7	12.2	12.2	12.0	12.1	12.3	10.5	14.1	9.3	11.1
23	10.0	8.7	8.2	8.3	8.4	8.3	7.7	7.3	7.3	7.6	7.8	7.3	7.2	7.2	7.0	7.2	7.6	7.9	8.3	9.0	9.5	9.5	10.4	10.5	10.5	7.0	8.3
24	10.8	11.1	10.6	10.0	9.7	9.5	9.3	9.2	9.2	9.1	9.1	8.7	8.6	8.4	8.1	8.3	8.3	8.5	8.7	8.7	9.4	9.6	9.5	9.8	11.1	8.1	9.2
25	9.9	9.1	8.6	8.2	8.1	8.0	7.6	7.3	7.2	7.3	7.5	7.6	7.7	7.3	7.3	7.5	7.6	7.8	8.1	8.0	8.6	8.9	9.3	10.4	10.4	7.2	8.1
26	10.8	10.7	10.6	10.2	9.7	9.3	8.6	8.2	8.1	8.1	8.1	8.2	8.5	8.6	8.2	7.9	7.9	8.5	8.8	9.3	10.0	11.0	11.2	11.4	11.4	7.9	9.2
27	11.9	11.9	10.9	10.3	10.0	9.2	8.3	8.1	7.8	7.4	7.2	7.3	7.5	7.2	7.0	7.0	7.7	8.5	9.1	9.5	10.2	10.9	12.2	13.0	13.0	7.0	9.2
28	13.7	14.2	14.3	14.0	12.6	11.7	10.4	9.6	9.1	9.3	8.9	8.9	8.4	8.4	9.4	9.7	10.9	11.9	13.0	13.5	13.7	13.4	13.5	13.6	14.3	8.4	11.5
29	12.5	12.1	11.5	11.0	9.4	8.5	7.8	7.5	7.2	7.0	6.9	6.6	6.4	6.3	6.2	6.3	6.4	6.6	7.0	8.1	9.4	11.3	13.2	13.7	13.7	6.2	8.7
30	12.8	11.5	11.5	10.1	8.3	7.5	7.0	6.8	6.7	6.6	6.5	6.4	6.2	6.0	5.9	5.9	5.9	6.1	6.2	6.5	6.7	7.1	7.5	8.4	12.8	5.9	7.5
31	9.1	9.6	11.3	10.5	11.0	9.2	7.6	6.4	5.7	6.4	6.2	6.7	7.2	7.3	7.3	7.5	7.9	8.8	9.1	9.3	9.8	10.0	11.2	10.6	11.3	5.7	8.6
<b>Max.</b>	<b>20.4</b>	<b>21.0</b>	<b>19.8</b>	<b>19.3</b>	<b>17.9</b>	<b>16.4</b>	<b>14.8</b>	<b>14.5</b>	<b>15.2</b>	<b>16.5</b>	<b>18.0</b>	<b>19.0</b>	<b>20.2</b>	<b>20.9</b>	<b>21.6</b>	<b>21.9</b>	<b>22.4</b>	<b>22.2</b>	<b>22.0</b>	<b>21.2</b>	<b>19.2</b>	<b>17.7</b>	<b>18.5</b>	<b>19.4</b>	<b>22.4</b>		
<b>Min.</b>	<b>6.8</b>	<b>6.4</b>	<b>6.5</b>	<b>6.3</b>	<b>6.2</b>	<b>6.2</b>	<b>6.3</b>	<b>6.4</b>	<b>5.7</b>	<b>6.4</b>	<b>6.2</b>	<b>6.3</b>	<b>6.2</b>	<b>6.0</b>	<b>5.9</b>	<b>5.9</b>	<b>5.9</b>	<b>6.1</b>	<b>6.2</b>	<b>6.5</b>	<b>6.7</b>	<b>7.1</b>	<b>7.2</b>	<b>7.4</b>		<b>5.7</b>	
<b>Avg.</b>	<b>11.4</b>	<b>11.2</b>	<b>10.9</b>	<b>10.4</b>	<b>10.0</b>	<b>9.6</b>	<b>9.3</b>	<b>9.2</b>	<b>9.1</b>	<b>9.4</b>	<b>9.6</b>	<b>10.0</b>	<b>10.2</b>	<b>10.3</b>	<b>10.6</b>	<b>10.8</b>	<b>11.0</b>	<b>11.3</b>	<b>11.6</b>	<b>11.9</b>	<b>12.0</b>	<b>11.7</b>	<b>11.7</b>	<b>11.7</b>			<b>10.6</b>

Total Hours in Month

744

Hours Data Available

730

Data Recovery

98.1%

HCG, Inc.

## Northern Dynasty Mines Pebble 1 Meterological Station - Temperature at 10 meters (deg. C)

*August 2005*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	10.4	10.4	10.4	9.9	9.4	9.5	9.7	9.9	9.8	10.7	11.1	11.4	11.3	11.6	11.5	11.6	12.6	12.4	12.0	11.6	11.3	10.8	10.4	10.2	12.6	9.4	10.8
2	10.0	9.9	10.0	9.8	9.3	9.0	9.4	9.9	10.5	11.1	11.6	12.1	12.0	11.2	12.1	11.9	11.2	11.2	11.4	11.8	11.3	10.8	10.5	10.3	12.1	9.0	10.8
3	10.4	10.5	9.4	9.9	9.7	9.4	9.4	9.5	10.0	11.0	12.3	14.0	13.7	13.9	14.1	13.7	12.7	13.1	13.1	12.6	12.2	11.5	11.1	10.6	14.1	9.4	11.6
4	9.8	10.1	9.8	9.7	9.9	10.2	10.3	10.7	11.3	11.6	12.0	12.3	12.5	12.9	12.9	13.0	13.1	12.1	11.4	12.1	12.2	11.6	10.6	10.5	13.1	9.7	11.4
5	10.3	10.4	10.2	10.4	10.3	10.2	10.3	10.6	10.9	11.0				13.6	13.1	13.6	14.1	14.2	14.3	13.7	13.0	12.4	11.5	11.1	14.3	10.2	11.9
6	10.9	10.5	10.3	9.7	9.1	9.0	8.9	9.6	10.2	11.1	11.7	12.6	13.7	14.3	14.8	14.7	14.7	14.4	14.4	13.6	13.3	12.9	11.9	11.5	14.8	8.9	12.0
7	11.3	11.0	11.2	10.7	9.9	9.5	8.9	8.9	9.5	9.9	11.0	11.2	11.7	12.0	12.9	13.7	14.4	14.5	14.6	14.5	13.7	12.8	12.0	11.9	14.6	8.9	11.7
8	11.6	11.4	11.1	11.0	11.2	10.8	11.2	11.4	12.3	13.4	14.6	15.8	17.4	18.4	19.1	19.7	19.9	19.9	19.7	19.0	18.9	17.7	16.6	16.0	19.9	10.8	15.3
9	15.8	15.4	15.3	15.4	15.4	15.0	14.8	14.9	15.6	16.4	17.1	17.5	18.2	18.5	18.8	19.1	19.3	19.2	18.4	17.4	16.6	15.5	14.3	14.0	19.3	14.0	16.6
10	12.6	13.0	12.3	11.4	10.7	10.4	10.6	10.3	10.8	12.6	14.3	15.1	16.1	16.8	17.3	17.7	17.9	18.3	18.5	17.8	16.8	15.8	14.6	13.9	18.5	10.3	14.4
11	13.7	13.1	12.7	12.6	12.6	12.3	12.5	12.8	13.8	15.0	16.1	17.0	18.2	19.5	20.7	21.6	22.5	22.9	23.1	23.0	21.7	20.3	19.1	19.4	23.1	12.3	17.3
12	18.9	17.1	16.3	15.8	15.6	15.4	16.8	17.1	17.7	18.5	19.5	20.4	21.3	21.7	21.9	21.7	21.4	20.8	20.1	18.9	18.1	17.3	16.8	16.3	21.9	15.4	18.6
13	16.2	16.5	16.6	16.6	16.3	15.8	16.8	17.1	16.8	17.9	19.3	20.3	21.1	21.5	21.5	20.5	20.0	18.0	17.5	16.4	15.1	15.4	16.0	15.7	21.5	15.1	17.7
14	15.5	15.5	14.9	14.4	13.6	12.2	14.2	9.4	9.9	12.5	14.4	16.0	17.8	18.9	19.3	19.8	19.3	18.6	18.5	16.8	15.1	13.6	12.9	13.9	19.8	9.4	15.3
15	14.6	13.7	10.7	10.0	9.6	9.8	9.7	10.2	10.4	10.5	11.0	12.4	13.9	14.3	14.0	13.3	13.7	13.4	12.6	11.7	11.3	10.9	10.7	10.8	14.6	9.6	11.8
16	10.8	11.0	11.0	11.1	11.1	11.1	11.2	11.7	12.0	12.5	12.9	12.7	12.5	12.3	12.7	12.4	12.3	12.0	11.8	11.7	11.4	11.1	10.9	11.0	12.9	10.8	11.7
17	10.9	11.0	10.6	10.7	10.8	9.9	9.7	9.7	10.2	10.8	11.1	11.5	11.6	11.3	11.8	12.0	12.6	12.7	12.2	12.4	12.2	11.9	11.8	12.0	12.7	9.7	11.3
18	11.9	12.0	12.0	11.8	11.2	11.1	11.3	11.3	11.0	10.6	11.4	12.2	13.3	14.0	13.4	13.4	13.4	14.0	14.0	12.8	12.3	12.4	12.2	12.4	14.0	10.6	12.3
19	12.1	11.9	11.3	11.4	11.3	11.0	10.9	10.7	10.0	10.1	10.7	12.0	13.0	14.0	14.4	14.8	15.0	15.0	14.4	13.2	11.7	10.0	9.7	9.5	15.0	9.5	12.0
20	8.6	8.8	8.5	8.6	8.7	8.1	8.3	8.4	8.9			12.1	11.8	12.4	12.7	12.7	12.8	12.6	12.2	10.7	9.8	9.7	9.7	9.5	12.8	8.1	10.3
21	9.0	8.7	8.7	8.7	8.5	8.2	7.8	7.4	7.8	8.7	9.9	10.7	10.5	11.3	11.9	12.4	13.0	13.3	13.4	12.2	10.9	9.7	9.4	8.8	13.4	7.4	10.0
22	8.5	8.1	8.5	8.7	8.8	8.6	8.1	7.5	7.6	8.5	8.4	9.5	10.3	9.3	9.1	8.7	8.2	8.2	8.3	8.3	8.9	9.3	9.8	10.2	10.3	7.5	8.7
23	10.5	10.6	10.6	10.7	10.7	9.4	8.4	7.5	7.7	7.8	7.8	7.8	7.8	7.9	7.9	7.9	7.9	7.8	7.8	7.6	7.3	7.0	6.7	6.6	10.7	6.6	8.3
24	6.4	6.5	6.7	6.9	7.3	7.6	7.7	7.8	8.1	8.8	8.5	8.1	8.5	9.4	9.8	10.6	10.6	10.5	10.2	9.8	8.3	6.8	6.2	5.8	10.6	5.8	8.2
25	5.7	5.4	5.3	5.1	5.5	5.9	6.1	6.4	6.8	7.6	8.6	9.0	9.3	9.9	10.3	10.3	11.0	11.0	11.0	10.1	8.9	8.0	7.3	6.8	11.0	5.1	8.0
26	6.3	5.7	5.2	4.1	3.4	3.3	3.0	3.7	4.5	6.1	7.5	8.7	9.6	10.4	11.0	11.3	10.0	8.5	7.5	7.3	7.6	7.6	6.7	5.9	11.3	3.0	6.9
27	5.6	5.5	5.2	5.1	4.9	4.4	3.7	4.8	5.9	7.0	7.8	8.9	9.8	10.3	10.6	10.0	9.5	8.8	8.1	7.8	7.7	7.4	7.2	7.0	10.6	3.7	7.2
28	7.1	7.3	7.4	7.4	7.4	7.2	7.3	7.8	7.9	8.5	9.0	10.1	10.4	11.0	11.0	9.9	8.7	8.0	7.9	7.5	7.2	7.1	7.0	6.9	11.0	6.9	8.2
29	7.1	7.2	7.1	6.8	6.7	6.8	7.1	7.1	7.2	7.4	7.5	7.8	8.2	8.2	8.5	9.0	9.3	9.3	9.5	9.2	8.8	8.5	8.2	7.8	9.5	6.7	7.9
30	7.7	7.4	7.3	7.2	7.2	6.8	6.7	6.9	7.2	8.1	8.3	8.9	9.0	9.9	10.0	10.3	10.3	10.5	10.4	10.0	9.7	9.0	8.4	8.2	10.5	6.7	8.6
31	7.3	7.1	6.8	7.0	7.3	6.9	6.2	6.1	6.7	7.0	7.6	7.8	8.3	8.9	8.7	8.5	8.3	8.3	9.0	7.9	7.0	6.2	5.8	4.6	9.0	4.6	7.3
<b>Max.</b>	<b>18.9</b>	<b>17.1</b>	<b>16.6</b>	<b>16.6</b>	<b>16.3</b>	<b>15.8</b>	<b>16.8</b>	<b>17.1</b>	<b>17.7</b>	<b>18.5</b>	<b>19.5</b>	<b>20.4</b>	<b>21.3</b>	<b>21.7</b>	<b>21.9</b>	<b>21.7</b>	<b>22.5</b>	<b>22.9</b>	<b>23.1</b>	<b>23.0</b>	<b>21.7</b>	<b>20.3</b>	<b>19.1</b>	<b>19.4</b>	<b>23.1</b>		
<b>Min.</b>	<b>5.6</b>	<b>5.4</b>	<b>5.2</b>	<b>4.1</b>	<b>3.4</b>	<b>3.3</b>	<b>3.0</b>	<b>3.7</b>	<b>4.5</b>	<b>6.1</b>	<b>7.5</b>	<b>7.8</b>	<b>7.8</b>	<b>7.9</b>	<b>7.9</b>	<b>7.9</b>	<b>7.9</b>	<b>7.8</b>	<b>7.5</b>	<b>7.3</b>	<b>7.0</b>	<b>6.2</b>	<b>5.8</b>	<b>4.6</b>		<b>3.0</b>	
<b>Avg.</b>	<b>10.6</b>	<b>10.4</b>	<b>10.1</b>	<b>9.9</b>	<b>9.8</b>	<b>9.5</b>	<b>9.6</b>	<b>9.6</b>	<b>10.0</b>	<b>10.8</b>	<b>11.5</b>	<b>12.2</b>	<b>12.7</b>	<b>13.2</b>	<b>13.5</b>	<b>13.5</b>	<b>13.5</b>	<b>13.3</b>	<b>13.1</b>	<b>12.6</b>	<b>11.9</b>	<b>11.3</b>	<b>10.8</b>	<b>10.6</b>			<b>11.4</b>

**Total Hours in Month** 744      **Hours Data Available** 739      **Data Recovery** 99.3%

# Northern Dynasty Mines Pebble 1 Meterological Station - Temperature at 10 meters (deg. C)

*September 2005*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	3.3	2.7	1.9	1.7	1.4	0.6	0.6	1.3	2.1	3.5	4.9	6.1	6.9	7.5	8.1	8.7	9.0	9.1	8.9	7.9	6.1	5.3	5.2	4.7	9.1	0.6	4.9
2	5.1	4.8	4.6	4.6	4.4	3.5	3.8	3.9	4.0	5.2	6.6	7.7	8.6	9.4	9.6	9.5	9.1	9.1	8.8	8.5	8.2	8.1	7.3	6.9	9.6	3.5	6.7
3	6.6	6.3	6.0	5.7	5.3	5.2	5.4	5.3	5.5	5.9	5.9	5.6	6.0	6.6	7.0	7.2	7.5	7.9	7.8	7.4	7.4	7.6	7.6	7.6	7.9	5.2	6.5
4	7.6	7.6	7.5	7.3	7.3	7.3	7.2	7.1	7.3	7.2	7.4	7.6	8.3	8.9	9.4	9.9	10.1	9.7	9.1	8.8	8.5	8.1	7.9	7.8	10.1	7.1	8.1
5	7.9	8.0	8.0	7.9	7.8	7.8	7.6	7.6	7.7	7.7	7.7	8.0	8.3	8.6	8.4	8.3	8.4	8.5	8.4	8.3	7.9	7.7	7.5	7.6	8.6	7.5	8.0
6	7.8	7.5	7.2	7.1	6.4	6.2	6.2	6.6	7.1	7.3	7.5	7.6	7.7	7.9	7.9	8.0	7.9	7.8	8.0	7.7	7.6	7.7	7.6	7.3	8.0	6.2	7.4
7	6.9	6.8	6.6	6.6	6.5	6.4	6.6	6.4	6.7	7.5	8.0	9.1	9.1	9.4	10.2	10.5	10.0	10.2	10.1	9.6	8.9	8.3	7.2	7.0	10.5	6.4	8.1
8	6.7	6.0	5.9	6.1	6.2	5.8	5.9	6.2	6.6	7.8	8.6	9.3	9.2	9.8	10.5	10.3	10.1	9.2	8.0	8.2	8.5	7.7	7.1	7.1	10.5	5.8	7.8
9	6.9	6.9	7.2	7.5	7.8	7.8	7.9	8.1	8.3	8.6	8.9	9.3	9.9	10.1	10.5	10.5	10.2	10.2	10.1	9.1	8.5	7.8	7.6	7.6	10.5	6.9	8.6
10	7.7	7.4	7.1	6.9	6.9	6.8	6.8	6.9	7.0	7.0	7.2	7.8	7.7	7.8	7.7	8.1	8.5	8.5	8.4	7.6	7.2	7.3	7.2	7.1	8.5	6.8	7.4
11	7.0	6.9	7.5	7.5	7.7	8.0	8.0	8.1	8.7	9.1	9.1	9.0	9.3	9.7	9.9	9.8	9.5	9.1	8.9	9.0	9.0	9.2	9.2	8.5	9.9	6.9	8.6
12	8.1	7.5	6.3	6.3	6.5	5.9	5.6	5.7	6.0	6.0	6.0	6.5	6.8	7.1	7.4	7.6	7.5	7.4	7.2	7.0	6.6	5.9	5.6	5.6	8.1	5.6	6.6
13	5.4	5.1	5.1	4.9	5.0	5.2	5.4	5.5	5.5	5.6	5.7	6.1	6.8	7.5	7.8	7.8	8.0	7.8	7.5	7.1	7.0	6.8	6.5	6.7	8.0	4.9	6.3
14	5.9	5.7	5.7	6.2	6.0	5.7	5.7	5.9	6.1	6.7	8.3	9.5	10.0	11.4	12.4	12.6	12.4	11.5	10.5	9.4	9.2	9.3	9.2	8.7	12.6	5.7	8.5
15	8.2	8.1	8.2	8.4	8.6	8.8	8.9	8.9	8.8	9.0	8.7	8.2	8.0	8.3	8.2	8.5	8.9	8.9	8.3	8.1	8.0	8.2	8.4	8.6	9.0	8.0	8.5
16	6.3	5.8	5.6	5.6	5.6	5.0	4.8	4.8	4.9	5.4	6.2	6.6	6.9	7.7	7.9	8.1	8.2	8.0	7.5	6.8	5.9	5.6	5.4	5.2	8.2	4.8	6.2
17	4.9	4.8	4.5	4.3	4.0	3.9	3.8	3.8	4.1	4.4	5.3	6.1	7.2	6.6	6.2	5.9	5.9	6.1	6.3	6.0	5.8	5.9	5.8	5.6	7.2	3.8	5.3
18	5.2	4.9	4.8	4.8	4.7	4.1	3.3	2.8	3.2	4.7	5.8	6.4	7.2	7.7	8.0	7.9	8.4	8.5	7.3	6.6	5.8	4.9	4.4	4.4	8.5	2.8	5.7
19	4.3	4.3	4.5	4.6	4.4	4.5	4.3	4.7	5.1	6.1	6.6	7.1	7.8	8.0	8.2	8.3	8.3	8.1	7.6	6.8	6.1	5.3	4.1	4.8	8.3	4.1	6.0
20	4.5	4.3	4.4	3.6	2.8	3.0	2.8	3.0	3.8	4.9	6.1	6.7	7.4	8.1	7.7	8.3	8.3	8.3	8.1	7.4	6.9	6.7	6.3	5.9	8.3	2.8	5.8
21	5.7	4.9	4.1	4.6	5.1	5.0	4.8	5.1	5.3	5.5	5.6	5.1	5.7	5.9	6.3	6.5	6.4	6.3	6.1	6.0	6.2	5.9	6.0	6.1	6.5	4.1	5.6
22	6.1	6.3	6.3	6.3	6.5	6.3	6.9	7.1	7.5	8.0	8.2	8.1	8.4	8.3	8.1	8.2	8.6	9.4	9.5	8.1	7.3	6.7	6.7	6.9	9.5	6.1	7.5
23	6.7	6.6	6.5	6.7	6.7	6.7	6.7	6.7	6.7	6.8	7.6	8.0	8.5	9.1	9.5	9.1	8.3	8.0	7.8	6.9	6.6	5.4	4.5	4.2	9.5	4.2	7.1
24	4.3	3.9	3.9	3.9	3.5	3.5	3.5	3.6	4.1	4.4	4.9	5.3	5.9	5.8	5.7	5.9	6.2	6.0	5.3	5.1	4.9	4.8	4.6	4.6	6.2	3.5	4.7
25	4.7	4.7	4.5	4.3	4.4	4.3	4.1	4.2	4.5	4.6	4.8	5.0	5.2	5.6	5.9	6.1	6.1	6.0	5.6	5.2	5.0	4.8	4.4	4.0	6.1	4.0	4.9
26	3.5	3.3	3.3	3.2	3.3	2.9	3.0	2.6	2.5	3.2	4.0	5.6	6.3	6.6	6.4	6.0	5.2	5.4	6.0	6.3	6.4	6.3	5.4	6.0	6.6	2.5	4.7
27	5.9	6.1	6.3	6.5	6.9	7.0	7.5	7.1	6.7	7.4	7.6	7.5	7.3	7.1	6.8	7.0	5.9	4.8	4.2	4.1	4.0	3.9	3.8	3.7	7.6	3.7	6.0
28	3.6	3.4	3.8	3.6	3.5	3.7	4.1	4.0	4.1	4.6	5.4	6.2	6.8	7.7	7.7	7.4	7.1	7.3	7.1	6.8	6.6	6.5	6.4	6.2	7.7	3.4	5.6
29	5.9	5.7	5.2	4.9	4.6	3.7	3.6	3.6	3.5	3.7	4.0	3.6	3.2	3.0	3.5	3.7	4.1	4.1	3.9	3.5	2.9	2.6	2.7	3.1	5.9	2.6	3.8
30	2.9	2.6	2.4	2.3	1.9	1.1	1.0	0.9	1.7	2.2	2.5	2.1	3.2	3.9	4.2	4.7	4.4	3.4	2.4	2.1	0.9	0.1	-0.8	-1.3	4.7	-1.3	2.1
<b>Max.</b>	<b>8.2</b>	<b>8.1</b>	<b>8.2</b>	<b>8.4</b>	<b>8.6</b>	<b>8.8</b>	<b>8.9</b>	<b>8.9</b>	<b>8.8</b>	<b>9.1</b>	<b>9.1</b>	<b>9.5</b>	<b>10.0</b>	<b>11.4</b>	<b>12.4</b>	<b>12.6</b>	<b>12.4</b>	<b>11.5</b>	<b>10.5</b>	<b>9.6</b>	<b>9.2</b>	<b>9.3</b>	<b>9.2</b>	<b>8.7</b>	<b>12.6</b>		
<b>Min.</b>	<b>2.9</b>	<b>2.6</b>	<b>1.9</b>	<b>1.7</b>	<b>1.4</b>	<b>0.6</b>	<b>0.6</b>	<b>0.9</b>	<b>1.7</b>	<b>2.2</b>	<b>2.5</b>	<b>2.1</b>	<b>3.2</b>	<b>3.0</b>	<b>3.5</b>	<b>3.7</b>	<b>4.1</b>	<b>3.4</b>	<b>2.4</b>	<b>2.1</b>	<b>0.9</b>	<b>0.1</b>	<b>-0.8</b>	<b>-1.3</b>		<b>-1.3</b>	
<b>Avg.</b>	<b>5.9</b>	<b>5.6</b>	<b>5.5</b>	<b>5.5</b>	<b>5.4</b>	<b>5.2</b>	<b>5.2</b>	<b>5.2</b>	<b>5.5</b>	<b>6.0</b>	<b>6.5</b>	<b>6.9</b>	<b>7.3</b>	<b>7.7</b>	<b>7.9</b>	<b>8.0</b>	<b>7.9</b>	<b>7.8</b>	<b>7.5</b>	<b>7.0</b>	<b>6.7</b>	<b>6.3</b>	<b>6.0</b>	<b>5.9</b>			<b>6.4</b>

**Total Hours in Month**

720

**Hours Data Available**

720

**Data Recovery**

100.0%

**HCG, Inc.**

# Northern Dynasty Mines Pebble 1 Meterological Station - Temperature at 10 meters (deg. C)

October 2005

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	-1.7	-2.0	-2.2	-2.5	-2.8	-3.2	-3.2	-3.2	-3.3	-3.0	-2.8	-2.2	-1.6	-1.0	-0.5	-0.5	-0.3	-0.7	-1.5	-2.3	-2.0	-1.8	-1.9	-2.0	-0.3	-3.3	-2.0
2	-2.2	-2.9	-3.9	-4.2	-4.2	-4.6	-4.6	-4.7	-4.0	-3.2	-1.5	-0.5	-0.7	-0.4	0.4	0.8	0.2	-0.6	-1.0	-1.6	-2.2	-2.4	-3.3	-3.8	0.8	-4.7	-2.3
3	-3.7	-2.8	-2.5	-2.7	-3.1	-2.6	-1.5	-1.4	-1.0	-0.7	0.4	1.7	3.3	4.7	5.3	5.4	5.3	5.4	4.6	3.4	3.3	3.7	3.3	2.8	5.4	-3.7	1.3
4	3.6	2.9	3.2	3.0	3.4	3.3	3.5	3.6	4.6	5.2	5.1	5.7	7.1	7.2	7.1	6.9	7.0	7.0	6.2	5.5	5.1	5.2	5.2	5.1	7.2	2.9	5.1
5	5.0	4.9	4.5	3.7	3.7	4.0	3.9	3.6	3.8	4.1	4.3	4.4	4.4	5.0	5.3	5.5	5.2	4.8	4.3	3.9	3.7	3.6	3.8	3.8	5.5	3.6	4.3
6	3.8	4.0	3.8	3.7	3.6	3.7	3.5	3.5	3.6	3.5	3.6	3.4	3.6	3.8	4.3	4.3	4.4	4.1	3.6	3.0	2.6	2.7	2.4	2.3	4.4	2.3	3.5
7	2.1	2.6	2.7	2.7	3.7	3.9	3.9	3.8	3.8	4.0	4.3	4.6	4.5	4.6	4.5	3.3	2.7	2.2	2.3	2.2	2.0	1.8	1.6	1.4	4.6	1.4	3.1
8	1.2	1.1	1.1	1.0	1.1	1.2	1.0	1.0	0.9	1.2	1.5	1.7	2.0	2.1	1.6	1.5	1.4	1.2	0.9	0.9	1.0	0.9	0.6	0.6	2.1	0.6	1.2
9	0.8	0.8	0.7	0.6	0.4	0.2	-0.1	-0.1	-0.2	-0.5	-0.4	-0.3	-0.4	-0.3	-0.2	-0.4	-0.5	-0.5	-0.6	-1.1	-1.8	-2.8	-3.4	-3.8	0.8	-3.8	-0.6
10	-4.0	-4.2	-4.3	-4.7	-4.8	-4.7	-4.7	-4.6	-4.5	-4.1	-3.7	-2.8	-1.7	-1.0	-0.1	0.5	0.6	0.7	0.2	0.0	0.5	0.9	1.2	1.1	1.2	-4.8	-2.0
11	1.0	1.0	0.9	0.4	0.4	0.7	1.1	1.0	1.1	1.3	1.6	1.7	2.0	1.9	0.3	-0.5	-1.7	-2.7	-3.1	-3.5	-3.8	-3.9	-4.1	-4.1	2.0	-4.1	-0.4
12	-4.4	-4.6	-4.9	-5.4	-5.3	-5.3	-5.4	-5.7	-5.5	-5.0	-4.5	-3.9	-3.2	-2.5	-1.9	-1.8	-1.8	-2.1	-3.4	-4.0	-4.2	-4.3	-4.5	-4.2	-1.8	-5.7	-4.1
13	-4.1	-3.8	-3.6	-3.9	-3.9	-3.6	-3.6	-4.0	-4.6	-4.5	-3.7	-2.7	-1.6	-0.9	-0.3	0.0	-0.6	-0.7	-1.1	-1.4	-1.7	-1.8	-1.6	-1.3	0.0	-4.6	-2.5
14	-1.3	-1.1	-1.0	-0.7	-0.5	-0.2	-0.4	-0.4	0.0	1.0	0.9	1.0	0.5	0.6	0.8	1.1	1.0	0.9	1.1	1.4	1.6	1.9	2.0	2.2	2.2	-1.3	0.5
15	2.3	2.5	2.6	2.5	2.1	1.9	2.0	2.1	1.9	2.2	2.5	2.6	2.9	3.4	3.4	3.9	3.9	3.0	1.5	1.0	0.5	0.3	-0.1	-0.9	3.9	-0.9	2.1
16	-2.0	-2.5	-2.7	-2.7	-3.2	-3.4	-3.2	-2.6	-1.8	-1.1	-0.3	0.5	1.1	1.3	1.6	1.3	1.0	1.2	1.5	1.6	1.5	1.8	1.8	1.7	1.8	-3.4	-0.3
17	0.7	0.7	0.8	0.7	1.2	1.7	2.0	2.2	2.7	3.3	3.6	3.4	3.4	2.7	2.4	2.1	1.7	1.5	1.1	0.8	0.5	0.3	0.3	0.5	3.6	0.3	1.7
18	0.6	0.7	0.5	0.4	0.2	0.1	-0.1	-0.6	-0.9	-0.5	0.0	0.5	1.0	1.3			1.9	2.1	2.2	1.8	1.7	2.2	2.1	1.7	2.2	-0.9	0.9
19	1.8	1.7	1.8	1.9	2.1	2.3	2.3	2.6	2.9	3.1	3.4	3.4	3.8	3.8	3.1	2.9	3.3	3.6	3.7	3.6	3.5	3.3	3.0	2.7	3.8	1.7	2.9
20	2.7	2.8	3.1	3.1	2.9	2.9	2.9	3.9	4.3	4.1	4.7	5.6	6.1	5.5	5.8	5.8	5.5	5.7	5.1	5.4	5.6	5.7	4.4	3.9	6.1	2.7	4.5
21	4.1	4.4	3.4	2.9	2.9	3.2	1.9	1.4	1.1	0.3	-0.3	-0.3	-0.3	-0.2	-0.1	-0.1	-0.2	-0.7	-1.3	-1.3	-1.6	-1.6	-2.1	-2.9	4.4	-2.9	0.5
22	-3.4	-3.4	-3.9	-4.2	-4.8	-4.8	-4.3	-4.3	-5.0	-5.1	-5.1	-4.7	-4.3	-3.8	-3.5	-3.4	-3.6	-4.1	-4.7	-4.7	-5.4	-5.6	-5.1	-5.6	-3.4	-5.6	-4.4
23	-5.2	-5.4	-6.0	-6.3	-6.5	-6.6	-7.7	-7.4	-6.7	-6.3	-6.2	-6.0	-5.6	-5.3	-5.3	-5.0	-5.0	-5.2	-5.2	-4.9	-4.9	-5.0	-5.0	-5.0	-4.9	-7.7	-5.7
24	-5.0	-5.1	-5.3	-6.0	-6.5	-6.3	-6.7	-7.2	-7.5	-7.3	-8.0	-7.1	-7.1	-6.6	-6.0	-5.8	-5.8	-5.7	-6.4	-6.5	-6.4	-6.3	-6.5	-6.5	-5.0	-8.0	-6.4
25	-7.1	-6.8	-6.5	-6.3	-6.6	-6.3	-6.0	-6.1	-6.2	-5.7	-5.3	-4.8	-4.5	-4.4	-4.2	-4.0	-3.7	-3.7	-3.5	-3.4	-3.4	-3.5	-3.9	-4.1	-3.4	-7.1	-5.0
26	-4.2	-4.4	-4.4	-4.4	-4.6	-4.8	-5.1	-5.7	-5.6	-5.6	-4.6	-4.4	-4.2	-4.2	-4.3	-4.4	-4.6	-5.0	-5.7	-6.3	-7.1	-6.9	-6.7	-7.1	-4.2	-7.1	-5.2
27	-7.3	-7.4	-7.7	-7.7	-8.1	-7.9	-7.5	-7.0	-7.2	-7.1	-7.5	-7.6	-6.8	-5.6	-4.9	-4.6	-4.7	-4.7	-4.4	-4.2	-4.2	-4.2	-5.2	-5.6	-4.2	-8.1	-6.2
28	-5.3	-4.3	-4.2	-4.4	-4.6	-5.1	-6.0	-6.0	-6.1	-5.7	-5.6	-6.0	-6.2	-6.4	-6.8	-7.2	-7.7	-8.2	-8.4	-8.8	-9.0	-9.0	-8.5	-8.3	-4.2	-9.0	-6.6
29	-8.4	-8.6	-9.0	-9.1	-9.0	-9.0	-9.7	-10.4	-10.7	-10.6	-10.7	-10.4	-10.4	-10.1	-9.9	-9.8	-9.7	-9.8	-9.9	-9.8	-9.7	-9.4	-8.9	-9.1	-8.4	-10.7	-9.7
30	-9.4	-9.4	-9.3	-9.3	-9.2	-9.2	-9.0	-9.0	-9.4	-9.4	-9.3	-9.4	-9.2	-9.1	-9.0	-9.0	-9.0	-9.5	-9.9	-10.6	-11.0	-11.5	-11.9	-11.9	-9.0	-11.9	-9.7
31	-11.9	-12.2	-12.4	-12.9	-13.3	-13.5	-14.1	-14.0	-14.1	-14.2	-13.8	-13.3	-12.6	-12.0	-11.5	-11.6	-11.6	-12.3	-12.9	-13.8	-13.2	-13.2	-13.2	-13.2	-11.5	-14.2	-12.9
<b>Max.</b>	<b>5.0</b>	<b>4.9</b>	<b>4.5</b>	<b>3.7</b>	<b>3.7</b>	<b>4.0</b>	<b>3.9</b>	<b>3.9</b>	<b>4.6</b>	<b>5.2</b>	<b>5.1</b>	<b>5.7</b>	<b>7.1</b>	<b>7.2</b>	<b>7.1</b>	<b>6.9</b>	<b>7.0</b>	<b>7.0</b>	<b>6.2</b>	<b>5.5</b>	<b>5.6</b>	<b>5.7</b>	<b>5.2</b>	<b>5.1</b>	<b>7.2</b>		
<b>Min.</b>	<b>-11.9</b>	<b>-12.2</b>	<b>-12.4</b>	<b>-12.9</b>	<b>-13.3</b>	<b>-13.5</b>	<b>-14.1</b>	<b>-14.0</b>	<b>-14.1</b>	<b>-14.2</b>	<b>-13.8</b>	<b>-13.3</b>	<b>-12.6</b>	<b>-12.0</b>	<b>-11.5</b>	<b>-11.6</b>	<b>-11.6</b>	<b>-12.3</b>	<b>-12.9</b>	<b>-13.8</b>	<b>-13.2</b>	<b>-13.2</b>	<b>-13.2</b>	<b>-13.2</b>		<b>-14.2</b>	
<b>Avg.</b>	<b>-2.0</b>	<b>-2.0</b>	<b>-2.1</b>	<b>-2.3</b>	<b>-2.4</b>	<b>-2.3</b>	<b>-2.4</b>	<b>-2.4</b>	<b>-2.4</b>	<b>-2.1</b>	<b>-1.8</b>	<b>-1.5</b>	<b>-1.1</b>	<b>-0.8</b>	<b>-0.8</b>	<b>-0.8</b>	<b>-0.8</b>	<b>-1.1</b>	<b>-1.4</b>	<b>-1.7</b>	<b>-1.9</b>	<b>-1.9</b>	<b>-2.1</b>	<b>-2.2</b>			<b>-1.8</b>

**Total Hours in Month** 744 **Hours Data Available** 742 **Data Recovery** 99.7%

# Northern Dynasty Mines Pebble 1 Meterological Station - Temperature at 10 meters (deg. C)

November 2005

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	-13.1	-13.1	-12.4	-12.4	-11.3	-10.6	-11.5	-11.1	-10.4	-10.8	-10.3	-9.4	-9.1	-9.0	-9.0	-8.3	-7.8	-8.0	-8.2	-8.8	-9.3	-9.5	-9.8	-9.8	-7.8	-13.1	-10.1	
2	-9.7	-9.3	-8.9	-8.7	-8.6	-6.2	-6.4	-8.0	-7.4	-6.5	-6.1	-6.4	-6.4	-6.2	-5.6	-6.0	-6.7	-7.5	-7.1	-6.7	-7.1	-7.8	-8.1	-7.9	-5.6	-9.7	-7.3	
3	-7.8	-8.2	-8.8	-10.5	-11.5	-13.1	-14.1	-15.3	-17.0	-18.5	-18.5	-18.0	-18.0	-17.8	-17.2	-17.0	-17.1	-17.2	-17.2	-17.3	-17.4	-17.5	-17.8	-18.0	-7.8	-18.5	-15.4	
4	-18.0	-18.1	-18.3	-18.4	-18.3	-18.2	-18.3	-18.0	-18.0	-17.7	-17.6	-17.1	-16.5	-15.3	-14.8	-14.6	-15.0	-15.2	-15.8	-16.4	-16.7	-17.4	-17.3	-17.3	-14.6	-18.4	-17.0	
5	-17.4	-17.6	-17.5	-18.0	-18.0	-18.3	-18.3	-18.7	-18.8	-18.7	-18.2	-17.9	-17.0	-16.1	-15.7	-15.3	-15.4	-15.7	-15.6	-15.0	-14.1	-13.3	-12.7	-12.6	-12.6	-18.8	-16.5	
6	-11.5	-11.6	-11.0	-10.8	-4.8	-2.6	-2.8	-3.4	-5.5	-6.2	-7.8	-8.4	-8.1	-8.3	-8.2	-8.3	-8.2	-8.5	-9.1	-10.9	-12.3	-14.1	-15.8	-16.6	-2.6	-16.6	-8.9	
7	-17.5	-18.6	-19.9	-20.9	-21.7	-22.1	-22.6	-23.1	-23.2	-23.7	-24.1	-23.6	-23.6	-23.5	-22.6	-22.5	-22.4	-22.2	-22.6	-22.4	-22.3	-22.2	-22.0	-21.9	-17.5	-24.1	-22.1	
8	-21.7	-21.6	-21.1	-20.8	-20.5	-20.1	-19.8	-19.1	-17.9	-17.0	-16.6	-16.0	-15.8	-15.0	-14.2	-14.1	-14.3	-14.9	-14.9	-15.3	-15.6	-16.2	-16.5	-17.2	-14.1	-21.7	-17.3	
9	-17.9	-18.1	-18.2	-18.1	-18.2	-17.9	-17.9	-17.8	-18.1	-18.2	-17.7	-17.3	-16.9	-16.4	-16.3	-16.2	-16.1	-16.0	-15.8	-16.0	-16.1	-15.9	-15.8	-15.6	-15.6	-18.2	-17.0	
10	-15.6	-15.5	-15.6	-15.8	-15.8	-15.6	-15.5	-15.6	-15.6	-15.6	-15.5	-15.2	-15.1	-14.5	-14.2	-14.4	-14.6	-15.0	-15.3	-15.4	-15.6	-15.8	-15.7	-15.7	-14.2	-15.8	-15.4	
11	-16.2	-16.6	-16.8	-16.1	-15.8	-15.5	-15.4	-15.5	-15.6	-15.6	-15.5	-15.4	-15.3	-15.0	-14.9	-14.7	-14.6	-14.4	-14.5	-14.5	-14.6	-14.5	-14.4	-14.2	-14.2	-16.8	-15.2	
12	-14.0	-13.7	-13.5	-13.2	-13.1	-13.2	-13.1	-12.7	-12.1	-12.1	-11.2	-11.9	-12.1	-11.5	-11.6	-11.4	-11.6	-11.6	-13.2	-14.1	-14.4	-15.3	-15.8	-16.4	-11.2	-16.4	-13.0	
13	-16.4	-16.5	-16.4	-17.1	-16.6	-17.4	-17.9	-18.0	-17.8	-17.7	-17.6	-17.4	-17.4	-15.8	-15.1	-15.4	-14.9	-14.4	-14.2	-13.8	-13.5	-13.5	-12.9	-10.0	-10.0	-18.0	-15.7	
14	-8.9	-7.8	-6.6	-6.7	-7.1	-6.8	-6.1	-6.4	-5.2	-4.7	-4.2	-3.9	-3.7	-2.6	-1.8	-1.4	-1.4	-1.3	-0.7	-0.5	-0.5	-0.2	-0.5	-1.0	-0.2	-8.9	-3.7	
15	-0.1	-0.7	-1.5	-1.8	-1.8	-1.5	-1.2	-1.5	-3.6	-4.3	-4.9	-5.0	-5.3	-4.9	-4.3	-6.6	-5.7	-5.7	-6.0	-5.4	-5.6	-5.5	-5.2	-5.0	-0.1	-6.6	-3.9	
16	-5.4	-4.8	-4.5	-3.7	-3.6	-3.2	-2.3	-1.8	-1.5	-1.0	-0.6	-0.5	-0.1	0.2	0.7	1.1	1.1	1.3	1.5	1.6	1.7	1.7	1.9	1.9	1.9	-5.4	-0.8	
17	1.9	1.5	1.4	1.4	1.3	1.2	1.0	0.5	0.1	-0.1	-1.3	-1.7	-2.0	-2.5	-3.5	-4.2	-4.7	-4.9	-5.3	-5.5	-5.6	-5.7	-5.7	-5.6	1.9	-5.7	-2.0	
18	-5.5	-5.1	-4.1	-3.2	-3.8	-4.1	-2.4	-1.6	-2.0	-1.5	-0.3	0.1	0.3	0.6	0.7	0.1	-1.1	-2.6	-3.7	-5.6	-7.4	-9.6	-9.9	-10.9	0.7	-10.9	-3.4	
19	-10.7	-9.4	-8.5	-8.3	-8.0	-7.8	-7.8	-8.3	-9.4	-9.8	-10.1	-10.2	-11.6	-12.5	-12.7	-13.0	-13.0	-13.2	-13.4	-13.2	-13.3	-13.0	-12.2	-11.5	-7.8	-13.4	-10.9	
20	-11.0	-10.6	-9.6	-9.0	-9.6	-10.2	-10.1	-10.1	-9.5	-8.7	-7.8	-7.2	-7.4	-7.5	-7.4	-7.5	-7.7	-7.7	-7.7	-7.5	-7.6	-7.5	-7.3	-7.4	-7.2	-11.0	-8.5	
21	-7.8	-8.7	-8.8	-9.7	-10.2	-10.8	-11.0	-10.7	-10.4	-10.5	-10.3	-10.9	-10.5	-11.2	-11.5	-11.8	-12.5	-13.5	-13.5	-13.1	-13.4	-14.9	-15.7	-15.6	-7.8	-15.7	-11.5	
22	-16.3	-16.9	-17.1	-16.3	-16.9	-16.6	-16.9	-16.0	-16.3	-16.6	-15.7	-14.9	-14.3	-13.9	-15.4	-15.7	-15.8	-17.3	-18.5	-18.6	-19.1	-20.3	-20.8	-21.4	-13.9	-21.4	-17.0	
23	-23.4	-24.0	-24.3	-23.9	-24.0	-24.1	-23.8	-23.1	-22.6	-22.5	-22.5	-22.1	-22.0	-21.6	-21.4	-21.2	-21.2	-21.4	-21.5	-21.8	-21.3	-21.0	-21.1	-21.4	-21.0	-24.3	-22.4	
24	-21.8	-22.1	-22.6	-23.7	-24.2	-24.4	-24.3	-24.0	-24.1	-24.2	-24.2	-24.5	-24.8	-25.0	-25.4	-25.9	-26.0	-25.5	-24.7	-24.2	-23.7	-23.8	-24.2	-24.5	-21.8	-26.0	-24.2	
25	-24.7	-24.8	-25.1	-25.0	-24.9	-25.1	-24.7	-24.5	-23.8	-23.7	-23.9	-23.9	-23.3	-23.1	-23.4	-23.2	-22.8	-22.3	-21.9	-22.4	-22.2	-21.8	-21.7	-22.0	-21.7	-25.1	-23.5	
26	-22.0	-22.0	-22.0	-22.1	-21.8	-21.3	-20.9	-20.5	-21.1	-21.3	-21.9	-22.1	-21.7	-21.5	-21.2	-21.3	-21.2	-21.1	-21.3	-21.6	-21.2	-21.0	-21.0	-21.3	-20.5	-22.1	-21.4	
27	-21.1	-20.7	-20.8	-20.5	-20.4	-20.8	-20.4	-20.9	-20.8	-20.5	-20.1	-20.1	-19.0	-19.6	-19.4	-17.1	-16.4	-17.4	-16.9	-16.1	-15.7	-14.4	-12.2	-10.4	-10.4	-21.1	-18.4	
28	-9.6	-9.1	-9.0	-8.9	-8.9	-8.5	-8.2	-8.0	-7.8	-7.7	-7.4	-6.9	-6.6	-6.6	-6.5	-6.4	-6.8	-7.0	-7.4	-7.1	-7.2	-7.3	-6.6	-6.8	-6.4	-9.6	-7.6	
29	-6.9	-6.6	-6.4	-5.5	-5.4	-6.3	-6.2	-6.7	-6.6	-6.9	-7.3	-7.6	-7.9	-8.1	-7.3	-6.5	-6.6	-6.5	-6.2	-7.4	-6.8	-6.9	-7.0	-7.1	-5.4	-8.1	-6.8	
30	-6.5	-5.9	-5.8	-5.9	-6.0	-6.0	-6.0	-6.0	-6.0	-6.1	-6.3	-6.4	-6.6	-6.9	-7.0	-7.1	-7.2	-7.5	-7.7	-8.0	-8.1	-8.3	-8.4	-8.6	-5.8	-8.6	-6.8	
<b>Max.</b>	<b>1.9</b>	<b>1.5</b>	<b>1.4</b>	<b>1.4</b>	<b>1.3</b>	<b>1.2</b>	<b>1.0</b>	<b>0.5</b>	<b>0.1</b>	<b>-0.1</b>	<b>-0.3</b>	<b>0.1</b>	<b>0.3</b>	<b>0.6</b>	<b>0.7</b>	<b>1.1</b>	<b>1.1</b>	<b>1.3</b>	<b>1.5</b>	<b>1.6</b>	<b>1.7</b>	<b>1.7</b>	<b>1.9</b>	<b>1.9</b>	<b>1.9</b>			
<b>Min.</b>	<b>-24.7</b>	<b>-24.8</b>	<b>-25.1</b>	<b>-25.0</b>	<b>-24.9</b>	<b>-25.1</b>	<b>-24.7</b>	<b>-24.5</b>	<b>-24.1</b>	<b>-24.2</b>	<b>-24.2</b>	<b>-24.5</b>	<b>-24.8</b>	<b>-25.0</b>	<b>-25.4</b>	<b>-25.9</b>	<b>-26.0</b>	<b>-25.5</b>	<b>-24.7</b>	<b>-24.2</b>	<b>-23.7</b>	<b>-23.8</b>	<b>-24.2</b>	<b>-24.5</b>		<b>-26.0</b>		
<b>Avg.</b>	<b>-13.2</b>	<b>-13.2</b>	<b>-13.1</b>	<b>-13.1</b>	<b>-13.0</b>	<b>-12.9</b>	<b>-12.8</b>	<b>-12.9</b>	<b>-12.9</b>	<b>-12.9</b>	<b>-12.8</b>	<b>-12.7</b>	<b>-12.6</b>	<b>-12.4</b>	<b>-12.2</b>	<b>-12.2</b>	<b>-12.2</b>	<b>-12.2</b>	<b>-12.5</b>	<b>-12.6</b>	<b>-12.8</b>	<b>-12.9</b>	<b>-13.1</b>	<b>-13.1</b>	<b>-13.1</b>		<b>-12.8</b>	

Total Hours in Month

720

Hours Data Available

720

Data Recovery

100.0%

HCG, Inc.













## Northern Dynasty Mines Pebble 1 Meterological Station - Temperature at 10 meters (deg. C)

*May 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	-1.1	-1.2	-1.7	-1.7	-1.7	-1.1	-0.6	-0.2	0.4	1.1	1.8	2.1	2.3	2.2	2.5	2.8	2.8	2.8	2.3	2.1	1.3	1.0	0.3	0.1	2.8	-1.7	0.8
2	0.0	0.2	0.6	0.3	-0.1	0.2	0.5	0.5	0.8	1.5	1.4	1.3	1.7	1.8	1.9	2.0	1.8	1.8	2.0	1.6	1.7	1.3	1.1	0.2	2.0	-0.1	1.1
3	0.0	-0.1	0.0	0.2	0.5	0.6	0.8	1.4	1.5	2.0	2.4	3.3	3.7	4.1	4.3	4.3	4.4	4.5	4.6	3.0	2.2	1.2	0.9	0.6	4.6	-0.1	2.1
4	0.6	0.6	0.3	-0.1	-0.4	0.0	0.2	0.4	0.6	0.3	0.2	0.3	0.3	0.5	0.7	0.5	0.5	0.6	0.7	0.3	0.2	-0.1	-0.2	-0.3	0.7	-0.4	0.3
5	-0.2	-0.2	-0.6	-0.6	-0.4	0.0	0.4	0.6	1.1	1.3	1.5	2.3	1.9	1.5	1.9	1.6	1.4	1.5	1.5	1.0	0.9	0.2	0.1	-0.2	2.3	-0.6	0.8
6	-0.3	-0.2	-0.2	-0.2	-0.4	-0.3	-0.4	-0.4	-0.5	-0.5	-0.9	-0.8	-0.9	-0.6	-0.8	-0.8	-0.7	-0.9	-1.1	-1.7	-2.5	-3.6	-3.7	-3.9	-0.2	-3.9	-1.1
7	-4.2	-4.4	-4.7	-4.9	-5.2	-5.4	-5.6	-5.6	-5.4	-5.3	-5.2	-4.9	-4.8	-4.9	-4.9	-4.8	-4.6	-4.6	-4.4	-4.2	-4.4	-4.6	-4.8	-5.6	-4.2	-5.6	-4.9
8	-5.9	-6.4	-6.7	-6.6	-6.8	-6.4	-5.8	-5.4	-4.6	-3.8	-2.6	-1.9	-1.6	-2.1	-1.9	-1.6	-1.2	0.2	0.8	0.5	0.3	0.4	0.7	0.5	0.8	-6.8	-2.8
9	0.4	0.5	0.8	1.0	1.0	1.1	1.1	1.4	1.8	2.4	2.5	2.5	2.6	3.0	3.2	3.0	3.4	3.0	2.9	2.5	2.5	3.1	3.1	3.0	3.4	0.4	2.2
10	2.8	2.8	2.5	2.3	2.3	2.5	2.4	2.1	1.9	2.4	2.9	3.2	3.8	4.4	4.8	3.0	2.2	2.7	2.9	3.1	3.3	3.2	2.9	3.2	4.8	1.9	2.9
11	3.1	1.4	0.5	0.8	0.5	1.3	2.2	2.6	2.9	3.0	3.3	3.9	4.4	5.2	5.8	5.5	5.5	5.3	4.3	4.6	3.9	4.5	4.2	3.8	5.8	0.5	3.4
12	3.4	4.2	3.8	3.4	3.1	3.0	2.7	2.6	3.5	4.4	5.2	6.0	6.5	7.0	7.3	7.7	7.7	7.5	7.2	6.3	5.2	3.8	3.5	3.6	7.7	2.6	4.9
13	3.4	3.0	2.4	1.9	1.8	1.6	1.8	2.1	2.6	3.6	3.5	3.7	4.6	5.3	5.4	5.3	5.7	5.8	5.9	5.5	5.1	4.6	3.8	3.2	5.9	1.6	3.8
14	3.4	3.2	3.2	3.1	2.6	3.6	3.5	3.6	3.8	4.0	4.8	5.6	6.1	6.5	6.6	5.8	5.5	5.0	4.6	3.8	2.5	2.2	1.3	0.9	6.6	0.9	4.0
15	1.1	0.9	1.1	1.1	0.9	1.1	1.0	1.4	1.7	2.1	2.6	3.3	3.5	4.3	4.8	5.6	5.8	5.6	5.5	5.6	4.9	4.6	3.8	2.8	5.8	0.9	3.1
16	2.1	1.6	1.1	0.7	-0.2	-0.7	-0.9	0.0	0.2	0.6	1.2	2.0	2.5	3.3	4.0	4.5	4.5	4.4	4.6	4.4	4.1	3.9	2.9	2.6	4.6	-0.9	2.2
17	1.6	0.9	0.8	0.6	0.4	0.3	-0.2	1.0	1.8	2.4	3.0	3.1	3.4	3.8	4.0	3.7	3.5	3.3	3.0	2.2	1.5	1.3	1.0	1.1	4.0	-0.2	2.0
18	1.0	1.0	0.8	0.8	0.7	0.4	0.5	0.3	0.9	1.0	1.5	1.6	1.7	1.8	1.9	2.8	3.4	3.2	2.8	2.3	1.8	1.2	0.9	0.7	3.4	0.3	1.5
19	0.7	0.3	0.3	-0.5	-0.5	-0.2	0.0	0.3	0.8	1.2	0.9	1.3	2.1	2.9	3.1	2.5	0.3	-0.2	-0.2	-0.2	-0.2	-0.4	-0.3	-0.3	3.1	-0.5	0.6
20	-0.2	-0.1	0.1	0.3	0.3	0.6	0.9	1.2	1.5	2.0	2.4	3.1	3.7	3.8	4.1	4.2	4.1	3.6	3.9	3.8	3.8	2.8	2.5	2.3	4.2	-0.2	2.3
21	1.9	1.6	1.0	0.4	0.1	0.2	0.2	0.0	0.1	0.4	1.1	1.7	2.2	2.7	3.4	3.9	4.5	3.7	4.5	4.8	4.8	4.5	3.9	3.6	4.8	0.0	2.3
22	3.0	2.5	2.1	1.5	1.2	1.3	1.5	2.3	3.0	3.8	4.4	5.1	6.0	7.4	8.7	9.7	10.3	10.8	10.9	10.3	8.9	7.9	6.5	5.8	10.9	1.2	5.6
23	5.3	4.3	3.5	3.4	3.6	4.6	5.2	5.9	7.0	9.2	11.4	13.3	15.2	16.4	16.9	17.3	17.5	17.2	16.7	16.3	14.8	14.0	13.3	13.0	17.5	3.4	11.0
24	12.8	11.8	11.7	11.4	11.0	11.7	12.3	11.5	11.8	13.1	14.7	15.4	16.3	17.0	17.9	18.0	18.8	18.7	18.1	17.2	16.9	16.2	15.7	15.5	18.8	11.0	14.8
25	15.1	13.9	13.5	12.8	12.4	12.4	11.8	11.3	12.5	13.6	14.8	16.0	17.0	17.8	18.8	19.1	19.2	18.7	18.0	17.5	18.4	17.7	17.4	16.7	19.2	11.3	15.7
26	15.8	15.1	14.1	13.7	13.4	12.0	11.7	12.6	14.0	16.0	17.9	19.8	20.7	21.5	22.0	22.2	22.1	21.7	21.2	20.2	18.8	17.1	16.2	15.2	22.2	11.7	17.3
27	13.7	13.1	12.1	11.0	11.1	10.7	10.8	10.5	11.0	12.7	13.6	14.9	16.0	15.9	16.6	17.9	18.7	19.3	18.6	17.4	17.4	16.5	15.1	14.1	19.3	10.5	14.5
28	13.3	12.4	12.3	12.2	13.0	12.0	11.7	12.4	12.5	13.3	14.7	16.0	17.4	18.1	18.8	19.4	19.6	19.9	20.1	18.2	16.9	15.6	14.9	14.2	20.1	11.7	15.4
29	13.6	13.2	12.9	12.1	11.4	10.5	10.8	11.6	12.2	12.9	13.8	14.5	14.9	15.2	15.1	14.9	14.8	14.4	13.7	12.7	11.4	10.3	9.7	9.1	15.2	9.1	12.7
30	8.6	8.0	7.8	6.8	6.4	6.9	7.2	9.0	10.0	10.6	11.1	11.4	12.8	13.5	13.2	12.6	12.2	11.3	10.0	8.9	8.2	7.4	6.9	7.0	13.5	6.4	9.5
31	6.7	6.5	6.2	5.4	5.0	4.5	4.0	3.9	3.8	3.5	3.2	3.1	2.7	2.4	2.8	3.2	3.5	3.5	3.7	3.7	3.7	3.4	3.3	3.0	6.7	2.4	3.9
<b>Max.</b>	<b>15.8</b>	<b>15.1</b>	<b>14.1</b>	<b>13.7</b>	<b>13.4</b>	<b>12.4</b>	<b>12.3</b>	<b>12.6</b>	<b>14.0</b>	<b>16.0</b>	<b>17.9</b>	<b>19.8</b>	<b>20.7</b>	<b>21.5</b>	<b>22.0</b>	<b>22.2</b>	<b>22.1</b>	<b>21.7</b>	<b>21.2</b>	<b>20.2</b>	<b>18.8</b>	<b>17.7</b>	<b>17.4</b>	<b>16.7</b>	<b>22.2</b>		
<b>Min.</b>	<b>-5.9</b>	<b>-6.4</b>	<b>-6.7</b>	<b>-6.6</b>	<b>-6.8</b>	<b>-6.4</b>	<b>-5.8</b>	<b>-5.6</b>	<b>-5.4</b>	<b>-5.3</b>	<b>-5.2</b>	<b>-4.9</b>	<b>-4.8</b>	<b>-4.9</b>	<b>-4.9</b>	<b>-4.8</b>	<b>-4.6</b>	<b>-4.6</b>	<b>-4.4</b>	<b>-4.2</b>	<b>-4.4</b>	<b>-4.6</b>	<b>-4.8</b>	<b>-5.6</b>		<b>-6.8</b>	
<b>Avg.</b>	<b>3.9</b>	<b>3.6</b>	<b>3.3</b>	<b>3.0</b>	<b>2.8</b>	<b>2.9</b>	<b>3.0</b>	<b>3.3</b>	<b>3.7</b>	<b>4.3</b>	<b>4.9</b>	<b>5.6</b>	<b>6.1</b>	<b>6.5</b>	<b>6.9</b>	<b>7.0</b>	<b>7.0</b>	<b>6.9</b>	<b>6.7</b>	<b>6.3</b>	<b>5.8</b>	<b>5.2</b>	<b>4.7</b>	<b>4.4</b>			<b>4.9</b>

**Total Hours in Month** 744      **Hours Data Available** 744      **Data Recovery** 100.0%

## Northern Dynasty Mines Pebble 1 Meterological Station - Temperature at 10 meters (deg. C)

*June 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	2.9	2.8	2.4	2.2	2.6	2.8	3.0	3.3	3.7	4.1	4.6	5.5	6.8	8.4	9.8	10.7	11.4	12.4	12.0	12.0	11.2	10.3	9.6	8.8	12.4	2.2	6.8
2	9.6	9.4	9.2	9.0	8.7	9.0	9.0	9.7	10.8	11.4	12.6	13.3	13.7	14.1	14.4	14.5	14.9	14.6	14.3	13.3	12.9	11.1	9.6	8.1	14.9	8.1	11.5
3	7.0	6.2	5.0	4.4	3.8	3.4	3.8	4.1	4.8	5.2	6.8	7.8	8.6	9.1	9.2	9.3	9.9	10.1	9.8	9.4	8.6	7.1	5.5	3.8	10.1	3.4	6.8
4	2.9	2.0	1.5	1.2	0.7	1.0	1.8	2.5	3.4	4.5	5.8	6.9	7.9	8.7	9.6	10.0	10.2	10.3	10.1	9.6	8.8	7.3	5.2	3.9	10.3	0.7	5.7
5	3.4	3.3	3.2	2.5	1.8	1.7	2.6	3.6	4.5	5.9	6.8	7.6	8.6	9.7	10.7	11.1	11.6	12.0	12.0	12.0	11.6	10.5	9.5	9.1	12.0	1.7	7.3
6	9.0	8.5	7.8	7.5	7.4	6.5	6.5	7.3	8.6	9.9	11.0	11.5	11.9	12.4	12.8	12.8	12.6	12.2	11.5	10.5	9.5	8.6	7.8	6.6	12.8	6.5	9.6
7	5.8	5.5	5.3	5.3	5.2	4.9	4.8	5.2	5.6	5.4	5.6	5.6	5.5	6.0	5.7	4.8	4.4	4.1	3.8	3.8	3.8	4.0	3.9	3.9	6.0	3.8	4.9
8	4.0	4.1	4.1	3.9	3.9	3.9	3.9	4.1	4.5	5.1	5.4	5.9	6.7	7.0	7.2	7.3	6.8	7.6	7.7	7.2	6.9	6.6	6.9	6.9	7.7	3.9	5.7
9	7.1	7.0	6.8	6.6	6.3	6.3	5.8	5.7	6.4	6.9	7.6	8.2	9.5	9.1	9.3	9.3	8.8	8.2	6.6	6.4	5.4	5.2	4.9	5.2	9.5	4.9	7.0
10	5.0	5.0	4.7	4.4	4.5	4.6	4.6	5.1	5.7	6.2	6.3	6.3	6.3	6.4	6.5	6.3	5.7	5.4	4.9	4.5	3.4	3.2	3.3	3.1	6.5	3.1	5.1
11	3.1	3.2	3.3	3.2	3.2	3.3	3.4	3.5	3.9	4.4	4.5	4.9	4.9	5.4	5.6	5.8	6.0	6.1	5.6	5.4	5.4	5.4	5.3	5.1	6.1	3.1	4.6
12	5.3	5.7	5.6	5.8	5.7	5.6	6.0	6.0	6.2	6.4	6.3	6.4	6.5	6.5	6.5	6.4	6.5	6.2	5.9	5.9	5.9	5.7	5.7	5.6	6.5	5.3	6.0
13	5.5	5.4	5.3	5.4	5.4	5.4	5.5	6.2	6.9	6.9	7.5	8.6	9.3	9.6	9.8	10.3	10.6	10.3	9.7	9.3	9.3	9.1	9.2	8.6	10.6	5.3	7.9
14	8.5	8.3	8.8	7.8	7.9	8.1	8.2	8.8	9.0	9.9	10.3	11.4	11.6	11.8	12.1	12.6	12.8	12.9	12.3	12.1	11.8	11.3	11.0	9.6	12.9	7.8	10.4
15	9.4	9.5	9.3	9.5	9.5	9.4	10.0	10.7	11.4	12.8	14.4	16.0	17.2	18.2	18.7	14.0	12.8	11.6	11.4	10.7	9.4	9.1	9.3	8.8	18.7	8.8	11.8
16	8.7	8.5	8.7	8.8	8.7	8.5	8.3	8.1	7.8	7.5	7.5	7.5	7.6	8.0	8.3	8.2	8.0	7.6	7.7	7.9	7.8	7.5	7.4	7.1	8.8	7.1	8.0
17	7.6	7.9	8.2	8.6	8.9	9.3	9.2	8.9	8.5	8.5	9.6	10.9	11.7	10.9	8.9	9.8	10.3	9.6	9.0	8.4	7.8	7.4	7.4	7.2	11.7	7.2	8.9
18	7.1	6.9	6.9	7.0	7.7	7.9	7.9	8.6	9.4	9.7	9.6	10.0	9.2	8.9	9.8	10.9	10.1	9.5	9.1	8.7	8.2	7.9	7.6	6.9	10.9	6.9	8.6
19	6.7	7.3	7.3	6.7	6.6	6.8	7.3	7.8	8.6	9.3	10.7	11.0	11.6	12.1	12.6	12.7	13.1	12.8	13.0	11.7	8.2	6.7	5.9	5.8	13.1	5.8	9.3
20	5.9	6.3	6.7	6.2	6.9	7.1	7.4	8.0	8.6	9.5	10.1	11.0	12.1	12.0	9.5	6.5	5.7	5.7	5.8	6.4	6.1	5.6	5.0	4.2	12.1	4.2	7.4
21	4.3	4.0	3.5	3.3	4.2	4.7	5.1	6.1	7.3	8.2	8.9	9.9	11.2	11.6	11.7	12.2	12.1	12.6	13.2	12.8	13.2	12.9	11.7	10.3	13.2	3.3	9.0
22	10.3	9.7	8.9	8.9	9.0	9.1	9.8	10.1	10.6	10.3	10.2	9.8	9.8	8.2	6.6	5.9	5.8	5.7	5.9	5.7	5.8	5.7	5.6	5.2	10.6	5.2	8.0
23	5.0	5.3	5.6	5.8	5.6	5.6	5.6	5.8	6.0	6.3	6.4	7.0	7.7	8.2	8.6	8.6	8.8	8.9	9.1	8.5	7.7	6.8	6.1	5.2	9.1	5.0	6.8
24	4.8	4.9	4.9	5.0	5.2	5.0	5.8	6.8	8.1	8.8	9.8	10.8	11.7	12.3	13.0	13.2	12.9	12.5	11.8	12.1	11.9	11.6	11.5	10.9	13.2	4.8	9.4
25	10.7	10.0	9.4	9.3	9.3	9.4	9.3	10.2	11.6	12.3	12.8	13.3	13.8	13.8	13.7	13.4	13.5	13.0	12.1	10.7	9.7	9.0	8.6	7.8	13.8	7.8	11.1
26	7.2	6.9	6.3	6.3	5.9	6.6	6.1	6.9	8.9	11.1	11.9	12.6	13.5	13.6	13.9	14.1	14.2	14.9	15.1	12.9	10.8	9.7	9.2	8.4	15.1	5.9	10.3
27	7.8	7.8	8.4	7.5	7.1	7.0	6.4	6.9	8.4	9.7	11.4	12.6	13.7	13.8	14.5	14.8	14.8	14.8	14.8	14.0	12.9	11.3	9.8	8.7	14.8	6.4	10.8
28	8.0	7.1	7.4	6.6	6.6	6.8	6.9	6.2	5.8	6.0	6.0	6.9	6.9	7.0	7.8	7.6	8.2	8.5	8.9	9.3	9.3	9.1	8.9	8.8	9.3	5.8	7.5
29	8.3	7.8	7.5	7.3	7.3	7.0	7.0	7.4	8.1	8.7	9.3	9.9	10.9	12.7	13.6	15.1	14.0	12.5	10.7	9.5	8.5	7.6	7.3	7.1	15.1	7.0	9.4
30	7.0	7.0	6.9	7.0	7.0	7.3	7.2	7.2	7.1	7.1	7.0	7.0	7.3	7.0	7.3	7.4	7.5	7.8	8.1	8.4	8.4	7.9	7.5	7.2	8.4	6.9	7.4
<b>Max.</b>	<b>10.7</b>	<b>10.0</b>	<b>9.4</b>	<b>9.5</b>	<b>9.5</b>	<b>9.4</b>	<b>10.0</b>	<b>10.7</b>	<b>11.6</b>	<b>12.8</b>	<b>14.4</b>	<b>16.0</b>	<b>17.2</b>	<b>18.2</b>	<b>18.7</b>	<b>15.1</b>	<b>14.9</b>	<b>14.9</b>	<b>15.1</b>	<b>14.0</b>	<b>13.2</b>	<b>12.9</b>	<b>11.7</b>	<b>10.9</b>	<b>18.7</b>		
<b>Min.</b>	<b>2.9</b>	<b>2.0</b>	<b>1.5</b>	<b>1.2</b>	<b>0.7</b>	<b>1.0</b>	<b>1.8</b>	<b>2.5</b>	<b>3.4</b>	<b>4.1</b>	<b>4.5</b>	<b>4.9</b>	<b>4.9</b>	<b>5.4</b>	<b>5.6</b>	<b>4.8</b>	<b>4.4</b>	<b>4.1</b>	<b>3.8</b>	<b>3.8</b>	<b>3.4</b>	<b>3.2</b>	<b>3.3</b>	<b>3.1</b>		<b>0.7</b>	
<b>Avg.</b>	<b>6.6</b>	<b>6.4</b>	<b>6.3</b>	<b>6.1</b>	<b>6.1</b>	<b>6.1</b>	<b>6.3</b>	<b>6.7</b>	<b>7.3</b>	<b>7.9</b>	<b>8.6</b>	<b>9.2</b>	<b>9.8</b>	<b>10.1</b>	<b>10.2</b>	<b>10.2</b>	<b>10.1</b>	<b>10.0</b>	<b>9.7</b>	<b>9.3</b>	<b>8.7</b>	<b>8.0</b>	<b>7.5</b>	<b>6.9</b>			<b>8.1</b>

**Total Hours in Month** 720 **Hours Data Available** 720 **Data Recovery** 100.0%

**HCG, Inc.**

**Northern Dynasty Mines Pebble 1 Meterological Station - Temperature at 10 meters (deg. C)**

*July 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	6.6	6.3	6.3	6.2	6.1	6.1	6.1	6.2	6.5	6.7	8.0	10.8	12.7	14.0	15.1	15.9	16.5	16.5	16.3	15.8	14.9	14.2	12.8	11.8	16.5	6.1	10.8
2	10.6	11.0	10.8	10.0	9.9	10.2	9.8	10.5	11.8	12.8	14.1	15.1	15.8	16.5	17.0	17.6	17.9	17.9	18.0	17.6	17.1	14.9	13.4	12.4	18.0	9.8	13.9
3	12.2	11.9	11.2	10.2	9.6	9.4	9.6	10.5	11.1	13.2	14.5	15.6	16.7	17.8	18.9	19.4	19.4	19.1	19.3	19.4	19.0	16.5	14.0	13.0	19.4	9.4	14.6
4	12.2	12.1	11.8	11.1	10.4	11.1	12.9	13.7	14.7	15.9	17.2	18.2	19.2	19.9	20.6	20.9	21.1	21.2	21.2	20.7	18.2	16.5	15.1	14.5	21.2	10.4	16.3
5	13.6	13.2	12.6	12.2	11.8	10.8	10.4	10.8	11.3	12.0	13.7	16.4	18.5	19.3	20.3	20.6	15.8	15.5	16.3	15.8	15.0	14.7	14.2	15.3	20.6	10.4	14.6
6	15.1	14.6	14.5	14.5	13.5	14.2	13.5	13.8	13.4	14.0	14.4	16.0	16.6	16.5	16.8	17.3	17.2	15.3	15.1	15.6	14.7	13.4	12.5	11.9	17.3	11.9	14.8
7	11.1	10.3	9.9	9.6	9.4	9.3	9.4	9.6	9.4	9.6	9.7	10.0	10.3	10.6	10.3	9.8	9.9	10.0	9.6	9.6	9.5	9.5	9.1	8.5	11.1	8.5	9.8
8	8.3	7.9	7.4	7.2	7.2	7.0	6.9	6.9	7.0	7.3	7.8	8.3	8.7	9.1	9.5	10.1	10.4	10.3	10.6	10.8	11.4	10.4	10.2	10.0	11.4	6.9	8.8
9	10.0	10.0	9.7	9.2	9.5	9.5	9.7	10.0	10.9	12.4	13.7	15.0	16.3	16.2	16.3	16.8	16.7	15.8	14.8	13.7	13.2	12.2	11.5	10.6	16.8	9.2	12.7
10	10.0	9.8	9.4	9.2									9.3	9.2	9.1	9.4	10.0	10.7	10.4	11.1	11.2	11.4	11.9	13.3	13.3	9.1	10.3
11			11.4	10.9	9.7	8.8	8.0	7.9	7.7		7.6	7.7	7.8	7.9	7.9	8.2	8.5	8.9	11.1				12.4	12.8	12.8	7.6	9.2
12	12.4	12.1	11.3	11.5	11.9	11.4	10.7	10.3	9.3	8.7	8.9	9.2	8.9	9.1	9.4	9.7	10.9	11.6	12.6	13.9	15.4	16.5	17.3	18.3	18.3	8.7	11.7
13	19.5	20.1	19.5	18.7	17.5	16.4	15.4	15.7	15.6	14.3	14.1	13.9	14.0	14.1	13.2	11.5	9.5	8.9	8.7	8.7	8.3	8.2	8.3	8.7	20.1	8.2	13.4
14	8.6	8.4	8.3	8.3	8.1	8.0	7.8	7.6	7.2	6.7	6.4	6.2	6.2	6.1	5.9	6.0	6.0	6.1	6.3	6.4	6.5	6.6	6.7	7.0	8.6	5.9	7.0
15	7.3	7.2	7.2	7.1	7.2	7.4	7.2	7.0	6.8	6.7	6.8	6.7	6.5	6.4	6.3	6.3	6.3	6.4	6.9	7.3	7.9	8.1	8.4	8.7	8.7	6.3	7.1
16	9.5	10.3	10.8	10.6	10.1	9.6	9.5	9.0	8.8	7.9	7.7	7.6	7.7	7.8	7.9	7.9	8.0	8.5	9.1	9.5	10.1	10.2	9.8	10.1	10.8	7.6	9.1
17	10.0	9.5	8.8	8.4	8.0	7.7	7.5	7.3	7.2	7.1	6.9	6.6	6.2	6.0	6.2	6.5	6.8	7.1	7.5	8.0	8.7	8.8	9.2	9.1	10.0	6.0	7.7
18	9.0	9.0	8.2	8.1	8.0	7.9	7.9	8.0	8.0	8.5	8.4	8.1	8.0	7.8	8.0	8.3	8.4	8.8	9.1	9.7	9.9	9.8	9.8	9.2	9.9	7.8	8.6
19	8.8	8.9	9.0	8.8	8.3	8.2	8.1	8.0	7.8	8.1	7.9	7.7	7.5	7.3	7.6	8.4	8.9	9.4	10.1	11.3	12.1	12.4	12.8	12.9	12.9	7.3	9.2
20	13.1	12.6	12.7	13.0	12.5	12.2	12.1	11.5	10.1	10.1	9.8	9.0	9.3	9.0	9.7	9.7	11.0	13.2	14.3	14.8	15.5	15.7	16.4	16.4	16.4	9.0	12.2
21	16.3	16.8	16.8	15.5	13.9	12.6	11.2	9.8	9.1	8.6	8.7	9.7	10.2	9.8	11.0	10.9	11.0	12.4	13.1	13.7	14.4	12.8	12.6	13.3	16.8	8.6	12.3
22	13.5	12.5	11.9	11.2	10.7	10.8	10.9	10.6	10.6	10.8	10.6	10.2	10.2	9.7	10.0	10.1	10.7	11.5	11.7	11.8	11.5	11.6	11.5	9.8	13.5	9.7	11.0
23	9.5	8.4	8.0	8.1	8.3	8.2	7.8	7.5	7.5	7.7	7.9	7.4	7.3	7.3	7.0	7.1	7.5	7.8	8.0	8.7	9.2	9.3	10.3	10.3	10.3	7.0	8.2
24	10.6	10.8	10.5	9.8	9.6	9.5	9.3	9.3	9.2	9.1	9.1	8.7	8.6	8.4	8.2	8.4	8.4	8.5	8.5	8.6	9.2	9.3	9.3	9.5	10.8	8.2	9.2
25	9.6	8.9	8.4	8.1	8.0	7.9	7.5	7.2	7.1	7.2	7.5	7.6	7.7	7.3	7.4	7.6	7.5	7.6	7.8	7.7	8.2	8.5	8.8	9.7	9.7	7.1	7.9
26	10.1	10.1	10.0	9.7	9.3	9.1	8.6	8.2	8.1	8.1	8.2	8.5	8.6	8.8	8.4	8.1	7.8	8.3	8.3	8.7	9.2	9.9	10.2	10.4	10.4	7.8	8.9
27	10.6	10.7	9.8	9.4	9.4	9.0	8.3	8.0	7.6	7.3	7.1	7.2	7.6	7.2	7.1	7.1	7.5	8.1	8.7	9.2	9.7	10.4	11.5	12.2	12.2	7.1	8.8
28	13.0	13.5	13.7	13.5	12.4	11.7	10.8	10.0	9.3	9.5	9.1	9.2	8.7	8.7	9.6	9.8	10.6	11.4	12.4	12.9	13.0	12.7	12.4	12.6	13.7	8.7	11.3
29	12.0	11.8	11.1	10.6	9.2	8.3	7.7	7.4	7.1	6.9	6.9	6.6	6.4	6.2	6.2	6.2	6.3	6.4	6.8	7.8	9.1	10.6	12.1	12.7	12.7	6.2	8.4
30	11.9	10.7	10.5	9.3	8.0	7.3	6.9	6.7	6.6	6.5	6.4	6.3	6.2	5.9	5.8	5.7	5.8	5.9	5.9	6.1	6.3	6.6	7.0	7.8	11.9	5.7	7.2
31	8.5	9.1	10.6	10.2	10.7	9.3	7.9	6.8	6.3	6.7	6.6	6.8	7.4	7.3	7.3	7.3	7.7	8.4	8.7	8.9	9.2	9.5	10.4	9.9	10.7	6.3	8.4
<b>Max.</b>	<b>19.5</b>	<b>20.1</b>	<b>19.5</b>	<b>18.7</b>	<b>17.5</b>	<b>16.4</b>	<b>15.4</b>	<b>15.7</b>	<b>15.6</b>	<b>15.9</b>	<b>17.2</b>	<b>18.2</b>	<b>19.2</b>	<b>19.9</b>	<b>20.6</b>	<b>20.9</b>	<b>21.1</b>	<b>21.2</b>	<b>21.2</b>	<b>20.7</b>	<b>19.0</b>	<b>16.5</b>	<b>17.3</b>	<b>18.3</b>	<b>21.2</b>		
<b>Min.</b>	<b>6.6</b>	<b>6.3</b>	<b>6.3</b>	<b>6.2</b>	<b>6.1</b>	<b>6.1</b>	<b>6.1</b>	<b>6.2</b>	<b>6.3</b>	<b>6.5</b>	<b>6.4</b>	<b>6.2</b>	<b>6.2</b>	<b>5.9</b>	<b>5.8</b>	<b>5.7</b>	<b>5.8</b>	<b>5.9</b>	<b>5.9</b>	<b>6.1</b>	<b>6.3</b>	<b>6.6</b>	<b>6.7</b>	<b>7.0</b>		<b>5.7</b>	
<b>Avg.</b>	<b>11.1</b>	<b>10.9</b>	<b>10.7</b>	<b>10.3</b>	<b>9.9</b>	<b>9.6</b>	<b>9.3</b>	<b>9.2</b>	<b>9.1</b>	<b>9.3</b>	<b>9.5</b>	<b>9.9</b>	<b>10.2</b>	<b>10.2</b>	<b>10.4</b>	<b>10.6</b>	<b>10.6</b>	<b>10.9</b>	<b>11.2</b>	<b>11.5</b>	<b>11.6</b>	<b>11.4</b>	<b>11.3</b>	<b>11.4</b>			<b>10.4</b>

Total Hours in Month

744

Hours Data Available

730

Data Recovery

98.1%

HCG, Inc.

# Northern Dynasty Mines Pebble 1 Meterological Station - Temperature Difference 2-meter to 10-meter (deg. C)

*August 2005*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	0.55	0.86	0.39	0.37	0.39	0.26	0.09	-0.14	-0.24	-0.38	-0.32	-0.43	-0.76	-0.91	-0.75	-0.51	-0.67	-0.42	-0.32	-0.22	-0.08	0.02	-0.01	-0.08	0.86	-0.91	-0.14	
2	0.06	0.06	0.02	0.07	0.09	0.21	0.09	-0.28	-0.45	-0.53	-0.54	-0.54	-0.46	-0.21	-0.46	-0.31	-0.29	-0.30	-0.26	0.01	0.05	0.06	0.09	0.02	0.21	-0.54	-0.16	
3	0.07	0.44	0.14	0.54	0.44	0.16	0.18	0.08	-0.16	-0.33	-0.44	-0.52	-0.42	-0.36	-0.29	-0.36	-0.39	-0.52	-0.34	-0.29	-0.12	-0.03	0.21	0.20	0.54	-0.52	-0.09	
4	0.09	0.29	0.19	0.18	0.32	0.29	0.11	-0.22	-0.26	-0.27	-0.26	-0.41	-0.27	-0.24	-0.33	-0.23	-0.21	-0.09	-0.09	-0.12	-0.05	-0.11	0.07	0.14	0.32	-0.41	-0.06	
5	0.11	0.24	0.21	0.17	0.12	0.08	-0.06	-0.24	-0.22	-0.37				0.09	-0.98	-0.87	-0.61	-0.58	-0.69	-0.50	-0.20	-0.25	0.14	0.16	0.24	-0.98	-0.20	
6	-0.05	0.02	0.16	0.28	0.05	0.12	0.08	-0.53	-0.87	-0.97	-1.13	-0.81	-0.78	-0.86	-0.86	-1.02	-0.65	-0.49	-0.40	-0.04	-0.20	0.55	0.43	0.63	0.63	-1.13	-0.31	
7	0.42	0.38	0.50	0.17	-0.01	0.08	-0.16	-0.45	-0.69	-0.95	-1.00	-0.95	-1.17	-1.36	-1.19	-0.77	-0.98	-0.85	-0.66	-0.45	-0.02	0.64	0.96	0.90	0.96	-1.36	-0.32	
8	0.78	0.35	0.73	0.75	0.98	0.58	0.45	-0.53	-1.10	-1.20	-1.14	-0.95	-0.82	-0.65	-0.76	-0.74	-0.80	-0.66	-0.46	0.01	0.54	0.25	0.53	0.71	0.98	-1.20	-0.13	
9	0.84	1.04	0.93	1.20	0.88	0.79	0.46	-0.29	-0.60	-0.80	-1.02	-1.04	-1.06	-1.09	-1.16	-1.05	-0.83	-0.60	-0.28	0.17	0.78	0.77	0.66	0.99	1.20	-1.16	-0.01	
10	0.76	0.76	0.77	0.69	0.46	0.48	0.12	-0.41	-0.61	-0.79	-0.98	-0.85	-0.97	-1.07	-1.15	-1.10	-0.88	-0.59	-0.54	-0.31	0.66	0.73	0.67	1.17	1.17	-1.15	-0.12	
11	1.25	1.31	1.37	1.19	1.55	1.41	0.93	-0.06	-0.55	-0.81	-0.96	-1.07	-1.04	-0.90	-0.78	-0.71	-0.73	-0.66	-0.52	-0.17	0.50	0.48	0.65	1.39	1.55	-1.07	0.13	
12	1.05	0.55	0.63	0.58	0.57	0.55	0.83	-0.03	-0.36	-0.67	-0.92	-1.01	-1.17	-1.14	-1.10	-1.00	-0.92	-0.63	-0.30	0.15	0.63	0.78	1.01	0.96	1.05	-1.17	-0.04	
13	1.00	1.19	0.99	0.65	0.61	0.82	0.51	-0.11	-0.31	-0.52	-0.69	-0.89	-1.03	-1.05	-1.13	-1.09	-0.92	-0.57	-0.33	-0.13	0.30	0.90	1.09	0.91	1.19	-1.13	0.01	
14	1.05	1.36	1.13	1.25	1.53	1.24	1.02	-0.02	-0.24	-0.07	-0.44	-0.78	-0.90	-0.80	-0.88	-0.82	-0.95	-0.87	-0.58	-0.09	0.76	0.67	0.83	0.88	1.53	-0.95	0.18	
15	0.95	0.76	0.50	0.42	0.58	0.52	0.03																		0.95	0.03	0.54	
16																												
17																												
18																												
19											-3.92	-4.18	-4.50	-4.44	-3.87	-3.07	-2.04	-1.16	-0.31	0.20	0.63	0.98	1.10	1.57	1.57	-4.50	-1.64	
20	1.10	0.75	0.64	0.39	0.33	-0.09	-0.54	-0.68	-0.91			0.05	-0.92	-0.71	-0.60	-0.58	-0.47	-0.23	-0.20	-0.26	-0.25	-0.17	-0.12	-0.12	1.10	-0.92	-0.16	
21	-0.13	-0.13	-0.11	-0.11	-0.11	-0.11	-0.16	-0.19	-0.22	-0.48	-0.65	-0.70	-0.61	-0.79	-0.68	-0.91	-0.84	-0.73	-0.45	0.00	0.48	1.35	1.62	1.31	1.62	-0.91	-0.14	
22	1.21	0.63	0.62	0.55	0.41	0.41	0.42	0.10	0.00	-0.03	-0.17	-0.22	-0.12	-0.14	-0.18	-0.06	-0.07	-0.09	-0.03	0.04	0.06	-0.03	-0.05	-0.04	1.21	-0.22	0.13	
23	-0.04	-0.03	0.00	-0.01	-0.03	-0.08	-0.09	-0.14	-0.19	-0.13	-0.14	-0.25	-0.24	-0.23	-0.18	-0.14	-0.16	-0.13	-0.07	-0.09	-0.07	-0.06	-0.08	-0.07	0.00	-0.25	-0.11	
24	-0.07	-0.06	-0.06	-0.05	-0.04	-0.02	-0.05	-0.07	-0.13	-0.16	-0.32	-0.34	-0.46	-0.91	-0.80	-0.66	-0.32	-0.20	-0.11	-0.11	0.48	0.54	0.68	0.78	0.78	-0.91	-0.10	
25	0.78	0.68	0.58	0.82	0.42	0.53	0.39	0.42	-0.30	-0.49	-0.55	-0.65	-0.79	-0.82	-0.81	-0.51	-0.72	-0.51	-0.35	0.07	0.84	1.40	1.50	1.23	1.50	-0.82	0.13	
26	0.96	0.76	0.87	0.72	0.94	0.85	0.67	-0.16	-0.33	-0.25	-0.33	-0.59	-0.97	-0.98	-0.89	-0.78	-0.40	-0.24	-0.19	-0.09	0.03	0.10	0.22	0.32	0.96	-0.98	0.01	
27	0.54	0.39	0.78	0.63	0.67	0.56	0.49	0.22	-0.24	-0.56	-0.84	-1.03	-1.09	-0.84	-0.74	-0.55	-0.41	-0.22	-0.13	-0.16	-0.10	-0.07	-0.09	-0.10	0.78	-1.09	-0.12	
28	-0.09	-0.08	-0.09	-0.08	-0.07	-0.08	-0.06	-0.07	-0.09	-0.11	-0.18	-0.27	-0.32	-0.38	-0.39	-0.28	-0.25	-0.20	-0.14	-0.13	-0.11	-0.09	-0.09	-0.09	-0.06	-0.39	-0.16	
29	-0.09	-0.07	-0.05	-0.01	-0.03	0.01	-0.01	-0.11	-0.10	-0.20	-0.21	-0.26	-0.24	-0.32	-0.38	-0.37	-0.28	-0.13	-0.06	0.02	0.04	0.08	0.00	-0.04	0.08	-0.38	-0.12	
30	0.08	0.29	0.20	0.06	0.01	-0.12	-0.11	-0.18	-0.31	-0.66	-0.69	-0.62	-0.44	-0.73	-0.52	-0.44	-0.31	-0.21	-0.06	-0.38	-0.11	0.27	0.32	0.28	0.32	-0.73	-0.18	
31	0.25	0.43	0.33	0.14	-0.04	-0.11	-0.06	0.04	-0.13	-0.51	-0.58	-0.51	-0.82	-1.27	-1.18	-0.97	-0.85	-0.19	-0.47	-0.08	0.16	0.41	0.65	0.59	0.65	-1.27	-0.20	
<b>Max.</b>	<b>1.25</b>	<b>1.36</b>	<b>1.37</b>	<b>1.25</b>	<b>1.55</b>	<b>1.41</b>	<b>1.02</b>	<b>0.42</b>	<b>0.00</b>	<b>-0.03</b>	<b>-0.14</b>	<b>0.05</b>	<b>-0.12</b>	<b>0.09</b>	<b>-0.18</b>	<b>-0.06</b>	<b>-0.07</b>	<b>-0.09</b>	<b>-0.03</b>	<b>0.20</b>	<b>0.84</b>	<b>1.40</b>	<b>1.62</b>	<b>1.57</b>	<b>1.62</b>			
<b>Min.</b>	<b>-0.13</b>	<b>-0.13</b>	<b>-0.11</b>	<b>-0.11</b>	<b>-0.11</b>	<b>-0.12</b>	<b>-0.54</b>	<b>-0.68</b>	<b>-1.10</b>	<b>-1.20</b>	<b>-3.92</b>	<b>-4.18</b>	<b>-4.50</b>	<b>-4.44</b>	<b>-3.87</b>	<b>-3.07</b>	<b>-2.04</b>	<b>-1.16</b>	<b>-0.69</b>	<b>-0.50</b>	<b>-0.25</b>	<b>-0.25</b>	<b>-0.12</b>	<b>-0.12</b>		<b>-4.50</b>		
<b>Avg.</b>	<b>0.50</b>	<b>0.49</b>	<b>0.46</b>	<b>0.43</b>	<b>0.41</b>	<b>0.35</b>	<b>0.21</b>	<b>-0.16</b>	<b>-0.37</b>	<b>-0.49</b>	<b>-0.74</b>	<b>-0.76</b>	<b>-0.86</b>	<b>-0.86</b>	<b>-0.85</b>	<b>-0.74</b>	<b>-0.63</b>	<b>-0.45</b>	<b>-0.31</b>	<b>-0.11</b>	<b>0.21</b>	<b>0.38</b>	<b>0.48</b>	<b>0.54</b>			<b>-0.12</b>	

Total Hours in Month

744

Hours Data Available

640

Data Recovery

86.0%

HCG, Inc.



# Northern Dynasty Mines Pebble 1 Meterological Station - Temperature Difference 2-meter to 10-meter (deg. C)

October 2005

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	-0.21	-0.22	-0.15	-0.08	-0.11	-0.12	-0.13	-0.17	-0.19	-0.21	-0.26	-0.36	-0.61	-0.66	-0.60	-0.41	-0.21	-0.01	0.21	0.39	0.22	0.10	-0.01	-0.04	0.39	-0.66	-0.16
2	-0.05	0.02	0.34	0.57	0.71	0.50	0.58	0.67	0.13	-0.94	-1.05	-0.91	-0.73	-0.67	-1.17	-1.23	-0.71	-0.55	0.12	0.50	0.73	0.74	0.82	0.91	0.91	-1.23	-0.03
3	0.70	0.59	0.37	0.31	0.52	0.62	0.42	0.28	0.30	-0.01	-1.08	-1.13	-1.05	-1.01	-0.80	-0.99	-0.42	-0.41	0.48	0.22	0.22	0.45	0.39	0.60	0.70	-1.13	-0.02
4	1.12	1.02	0.74	0.72	1.21	1.05	0.77	0.50	0.42	0.07	0.21	-0.05	-0.71	-0.45	-0.32	-0.25	0.05	0.00	0.10	0.23	0.31	0.19	0.13	0.12	1.21	-0.71	0.30
5	0.11	0.12	0.03	0.09	0.10	0.14	0.19	0.08	0.04	0.12	-0.20	-0.28	-0.35	-0.38	-0.53	-0.42	-0.48	-0.24	-0.09	-0.04	-0.03	0.21	0.16	0.10	0.21	-0.53	-0.07
6	0.01	0.03	0.03	0.04	0.03	0.07	0.13	0.12	-0.06	-0.17	-0.29	-0.52	-0.60	-0.64	-0.46	-0.60	-0.56	-0.33	-0.10	0.25	0.36	0.53	0.29	0.25	0.53	-0.64	-0.09
7	0.48	0.34	0.27	0.29	0.33	0.17	0.14	0.08	0.02	-0.04	-0.08	-0.11	-0.17	-0.14	-0.09	-0.27	-0.22	-0.15	-0.13	-0.11	-0.13	-0.12	-0.10	-0.13	0.48	-0.27	0.01
8	-0.09	-0.07	-0.10	-0.03	-0.06	-0.04	-0.10	-0.10	-0.12	-0.09	-0.13	-0.35	-0.26	-0.09	-0.29	-0.26	-0.25	-0.22	-0.10	-0.02	0.06	0.02	-0.09	-0.03	0.06	-0.35	-0.12
9	-0.07	0.07	0.11	0.08	0.07	-0.05	-0.11	-0.12	-0.16	-0.41	-0.52	-0.62	-0.62	-0.52	-0.42	-0.38	-0.28	-0.21	-0.20	-0.19	-0.17	-0.20	-0.23	-0.24	0.11	-0.62	-0.23
10	-0.18	-0.09	-0.03	0.04	-0.01	-0.10	-0.13	-0.12	-0.21	-0.25	-0.33	-0.37	-0.35	-0.41	-0.31	-0.30	-0.22	-0.12	-0.24	-0.10	0.16	0.15	0.32	0.21	0.32	-0.41	-0.12
11	0.17	0.11	0.09	-0.02	0.03	0.09	0.11	0.06	0.07	-0.11	-0.45	-0.49	-0.58	-0.73	-0.52	-0.45	-0.40	-0.34	-0.26	-0.27	-0.25	-0.24	-0.23	-0.21	0.17	-0.73	-0.20
12	-0.20	-0.18	-0.10	-0.03	-0.09	-0.09	-0.09	0.03	-0.04	-0.05	-0.32	-0.48	-0.59	-0.55	-0.79	-0.65	-0.30	0.09	0.56	0.64	0.57	0.50	0.39	0.57	0.64	-0.79	-0.05
13	0.68	0.77	0.91	0.94	0.63	0.50	0.43	0.07	-0.10	-0.16	-0.38	-0.52	-0.55	-0.48	-0.51	-0.34	0.01	0.03	0.08	0.03	-0.09	-0.09	-0.06	-0.07	0.94	-0.55	0.07
14	-0.08	-0.06	-0.03	-0.01	-0.02	-0.03	-0.08	-0.05	0.01	0.25	-0.23	0.01	-0.01	-0.03	-0.03	-0.01	0.03	0.13	0.18	0.23	0.26	0.34	0.31	0.42	0.42	-0.23	0.06
15	0.33	0.34	0.35	0.37	0.37	0.48	0.80	0.92	0.84	0.48	0.26	0.23	-0.04	0.31	0.56	0.44	0.74	0.66	0.91	0.95	1.14	0.83	0.79	0.73	1.14	-0.04	0.58
16	0.47	0.67	0.21	0.11	0.16	0.57	0.48	0.56	0.84	0.77	0.20	-0.01	0.05	0.15	0.19	0.09	0.07	-0.01	0.12	0.07	0.06	0.10	0.09	0.08	0.84	-0.01	0.25
17	0.00	0.00	0.00	-0.01	0.04	0.07	0.07	0.06	0.05	0.03	0.02	0.13	0.14	0.15	0.10	0.20	0.18	0.26	0.15	0.10	0.05	0.01	0.00	0.02	0.26	-0.01	0.08
18	0.05	0.17	0.19	0.17	0.15	0.15	0.14	0.10	0.31	0.21	0.00	-0.16	-0.22	-0.16			-0.12	-0.03	0.01	0.05	0.07	0.01	-0.03	-0.03	0.31	-0.22	0.05
19	0.26	0.11	0.16	0.21	0.17	0.17	0.09	0.15	0.11	0.07	0.00	-0.01	-0.09	-0.10	-0.06	-0.06	-0.04	0.01	0.04	-0.01	-0.04	-0.01	-0.03	-0.05	0.26	-0.10	0.04
20	-0.05	-0.03	-0.03	-0.03	-0.03	-0.01	-0.01	0.12	0.14	0.08	0.10	0.17	0.18	0.19	0.22	0.17	0.14	0.28	0.23	0.32	0.29	0.25	0.22	0.33	0.33	-0.05	0.13
21	0.35	0.20	0.08	0.08	0.23	0.47	0.77	0.57	0.25	-0.08	-0.15	-0.15	-0.17	-0.15	-0.12	-0.12	-0.20	-0.17	-0.15	-0.09	-0.08	-0.08	-0.05	0.08	0.77	-0.20	0.06
22	0.28	0.33	0.51	0.37	0.30	0.27	-0.05	-0.09	-0.06	-0.13	-0.13	-0.13	-0.10	-0.14	-0.11	-0.05	0.12	0.36	0.69	0.85	0.82	0.87	1.03	1.15	1.15	-0.14	0.29
23	1.10	1.12	0.97	0.95	1.20	1.01	0.40	0.48	0.02	-0.11	-0.13	-0.13	-0.19	-0.18	-0.10	-0.06	-0.17	-0.16	-0.12	-0.09	-0.12	-0.11	-0.11	-0.10	1.20	-0.19	0.22
24	-0.08	-0.06	0.13	0.69	0.86	0.82	1.10	0.89	0.79	0.66	0.34	0.18	0.06	-0.19	-0.22	-0.18	-0.13	-0.17	-0.15	-0.09	-0.12	-0.12	-0.10	-0.02	1.10	-0.22	0.20
25	0.20	0.19	0.16	0.16	0.21	0.01	-0.04	0.02	0.14	-0.03	-0.16	-0.22	-0.21	-0.20	-0.20	-0.16	-0.06	-0.05	-0.03	-0.05	-0.05	-0.08	-0.09	-0.09	0.21	-0.22	-0.03
26	-0.07	-0.03	-0.07	-0.07	-0.08	0.01	0.16	0.43	0.62	0.35	0.06	0.04	0.06	0.01	-0.14	-0.12	-0.03	0.04	0.26	0.51	0.82	0.82	0.81	0.72	0.82	-0.14	0.21
27	0.51	0.53	0.42	0.58	0.37	0.37	0.17	0.39	0.32	0.26	-0.11	-0.25	-0.12	-0.15	-0.08	0.09	0.45	0.32	0.40	0.47	0.37	0.46	0.70	0.36	0.70	-0.25	0.28
28	0.48	0.86	0.26	0.10	0.13	0.25	0.04	0.01	-0.02	-0.01	-0.08	-0.27	-0.27	-0.32	-0.29	-0.26	-0.23	-0.27	-0.20	-0.22	-0.21	-0.20	-0.09	-0.09	0.86	-0.32	-0.04
29	-0.16	-0.12	0.04	-0.11	-0.10	-0.11	-0.27	-0.27	-0.23	-0.25	-0.24	-0.30	-0.35	-0.36	-0.35	-0.32	-0.26	-0.26	-0.28	-0.27	-0.25	-0.16	-0.14	-0.25	0.04	-0.36	-0.22
30	-0.25	-0.23	-0.21	-0.19	-0.21	-0.20	-0.19	-0.22	-0.22	-0.22	-0.14	-0.22	-0.25	0.02	-0.01	0.20	0.48	0.57	0.55	0.66	0.37	0.37	0.32	0.25	0.66	-0.25	0.04
31	0.20	0.20	0.22	0.23	0.21	0.19	0.35	0.29	0.22	0.30	0.05	-0.02	-0.04	-0.03	-0.03	0.08	0.31	0.46	0.54	0.51	0.27	0.34	0.47	0.33	0.54	-0.04	0.24
<b>Max.</b>	<b>1.12</b>	<b>1.12</b>	<b>0.97</b>	<b>0.95</b>	<b>1.21</b>	<b>1.05</b>	<b>1.10</b>	<b>0.92</b>	<b>0.84</b>	<b>0.77</b>	<b>0.34</b>	<b>0.23</b>	<b>0.18</b>	<b>0.31</b>	<b>0.56</b>	<b>0.44</b>	<b>0.74</b>	<b>0.66</b>	<b>0.91</b>	<b>0.95</b>	<b>1.14</b>	<b>0.87</b>	<b>1.03</b>	<b>1.15</b>	<b>1.21</b>		
<b>Min.</b>	<b>-0.25</b>	<b>-0.23</b>	<b>-0.21</b>	<b>-0.19</b>	<b>-0.21</b>	<b>-0.20</b>	<b>-0.27</b>	<b>-0.27</b>	<b>-0.23</b>	<b>-0.94</b>	<b>-1.08</b>	<b>-1.13</b>	<b>-1.05</b>	<b>-1.01</b>	<b>-1.17</b>	<b>-1.23</b>	<b>-0.71</b>	<b>-0.55</b>	<b>-0.28</b>	<b>-0.27</b>	<b>-0.25</b>	<b>-0.24</b>	<b>-0.23</b>	<b>-0.25</b>		<b>-1.23</b>	
<b>Avg.</b>	<b>0.19</b>	<b>0.22</b>	<b>0.19</b>	<b>0.21</b>	<b>0.24</b>	<b>0.23</b>	<b>0.20</b>	<b>0.18</b>	<b>0.14</b>	<b>0.01</b>	<b>-0.17</b>	<b>-0.24</b>	<b>-0.28</b>	<b>-0.26</b>	<b>-0.25</b>	<b>-0.22</b>	<b>-0.09</b>	<b>-0.02</b>	<b>0.12</b>	<b>0.17</b>	<b>0.18</b>	<b>0.19</b>	<b>0.19</b>	<b>0.19</b>			<b>0.06</b>

Total Hours in Month

744

Hours Data Available

742

Data Recovery

99.7%

HCG, Inc.



# Northern Dynasty Mines Pebble 1 Meterological Station - Temperature Difference 2-meter to 10-meter (deg. C)

*November 2005*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	0.11	0.15	0.04	0.15	0.39	0.59	0.49	0.53	0.69	0.49	0.17	-0.01	-0.21	-0.26	-0.29	-0.26	-0.27	-0.19	0.13	0.02	0.14	0.09	0.36	0.46	0.69	-0.29	0.15
2	0.27	-0.02	-0.03	0.11	0.34	1.11	0.74	0.14	0.85	0.63	-0.09	-0.08	-0.18	-0.20	-0.07	0.23	0.69	0.71	0.90	0.97	1.28	1.40	0.99	0.83	1.40	-0.20	0.48
3	0.19	0.07	-0.04	0.12	0.14	0.04	-0.07	0.01	0.05	-0.05	0.00	-0.20	-0.28	-0.19	0.04	0.00	0.01	0.02	0.06	0.06	0.06	0.08	0.02	0.01	0.19	-0.28	0.01
4	0.04	0.11	0.14	0.09	0.10	0.11	0.13	0.12	0.16	0.06	0.02	-0.05	-0.10	-0.09	-0.06	0.02	0.17	0.25	0.19	0.19	0.16	0.24	0.19	0.17	0.25	-0.10	0.10
5	0.17	0.15	0.14	0.14	0.19	0.19	0.22	0.28	0.22	0.09	0.04	-0.06	-0.10	-0.09	-0.07	0.00	0.18	0.28	0.42	0.36	0.32	0.12	-0.02	0.09	0.42	-0.10	0.13
6	0.01	-0.03	-0.07	0.02	0.33	-0.02	-0.02	-0.07	-0.13	-0.07	-0.07	-0.09	-0.23	-0.20	0.03	0.08	-0.01	0.12	-0.03	-0.20	-0.10	0.18	0.37	0.28	0.37	-0.23	0.00
7	0.33	0.21	0.09	0.07	0.28	0.25	0.12	0.17	0.22	-0.07	-0.08	-0.24	-0.19	-0.31	-0.15	0.10	0.19	-0.03	-0.22	-0.21	-0.28	-0.19	-0.16	-0.16	0.33	-0.31	-0.01
8	-0.23	-0.32	-0.07	-0.07	0.57	0.18	0.18	0.12	0.57	0.41	0.18	-0.07	0.10	0.56	0.03	0.50	0.36	0.01	0.03	0.03	-0.14	-0.20	-0.20	-0.25	0.57	-0.32	0.09
9	-0.15	-0.17	-0.14	-0.18	-0.20	-0.24	-0.19	-0.21	-0.22	-0.22	-0.19	-0.16	-0.13	-0.11	-0.08	-0.03	-0.19	-0.21	-0.19	-0.17	-0.14	-0.14	-0.15	-0.13	-0.03	-0.24	-0.16
10	-0.15	-0.14	-0.10	0.01	0.10	0.07	0.02	0.08	0.10	0.07	0.07	0.07	0.10	0.11	0.13	0.06	0.10	0.17	0.16	0.13	0.15	0.15	0.07	0.09	0.17	-0.15	0.07
11	0.15	0.19	0.13	-0.13	-0.18	-0.16	-0.17	-0.17	-0.19	-0.20	-0.24	-0.27	-0.30	-0.35	-0.34	-0.31	-0.24	-0.21	-0.11	-0.12	-0.06	-0.13	-0.19	-0.19	0.19	-0.35	-0.16
12	-0.19	-0.20	-0.22	-0.20	-0.17	-0.06	-0.06	-0.08	-0.03	-0.02	0.16	-0.11	0.12	-0.04	0.08	0.26	0.70	1.12	0.70	0.72	0.89	0.53	0.64	0.44	1.12	-0.22	0.21
13	0.30	0.53	0.42	0.71	1.01	0.51	0.52	0.42	0.46	0.41	0.40	0.33	0.79	0.74	1.00	1.18	0.05	0.00	-0.06	-0.09	-0.07	-0.09	0.46	0.56	1.18	-0.09	0.44
14	0.43	0.59	0.60	1.02	0.78	0.57	0.56	0.57	0.69	0.60	0.47	0.25	0.13	0.35	0.27	0.23	0.18	0.22	0.33	0.31	0.28	0.29	0.20	0.24	1.02	0.13	0.42
15	0.33	0.42	0.38	0.36	0.22	0.28	0.45	0.40	0.06	0.30	-0.05	-0.02	0.00	0.37	0.45	0.25	0.58	0.58	1.64	1.33	0.81	0.64	0.26	0.04	1.64	-0.05	0.42
16	0.01	0.29	0.16	0.07	0.05	-0.01	-0.02	-0.04	-0.04	-0.04	-0.05	-0.05	-0.03	0.00	0.10	0.09	0.07	0.12	0.15	0.18	0.23	0.24	0.26	0.27	0.29	-0.05	0.08
17	0.21	0.13	0.13	0.16	0.12	0.11	0.07	0.01	-0.03	-0.13	-0.31	-0.21	-0.16	-0.17	-0.20	-0.27	-0.11	-0.08	-0.08	-0.12	-0.16	-0.11	-0.13	-0.14	0.21	-0.31	-0.06
18	-0.12	-0.10	-0.03	-0.02	0.31	0.42	0.08	0.02	0.02	0.08	-0.01	0.02	0.17	0.09	0.14	0.00	-0.15	-0.16	-0.30	-0.19	-0.13	-0.12	0.15	0.11	0.42	-0.30	0.01
19	0.00	0.09	-0.04	-0.02	-0.08	-0.07	-0.04	-0.04	-0.06	-0.08	-0.07	-0.33	-0.27	-0.21	-0.31	-0.56	0.08	0.20	0.22	0.01	0.48	0.12	0.03	-0.01	0.48	-0.56	-0.04
20	0.00	-0.03	0.01	0.02	0.15	0.34	0.50	0.64	0.32	0.13	0.15	0.26	-0.01	-0.08	-0.05	-0.10	-0.02	0.08	0.10	0.14	0.07	0.12	0.27	0.38	0.64	-0.10	0.14
21	0.19	0.61	0.32	-0.07	0.00	0.22	0.24	0.08	0.19	0.79	1.09	0.99	1.17	1.43	1.57	1.89	1.37	0.52	0.33	0.17	0.34	0.61	0.67	1.38	1.89	-0.07	0.67
22	0.55	0.43	0.53	0.41	0.33	0.62	0.57	0.40	0.32	0.35	0.32	0.08	0.20	0.26	0.82	0.53	0.34	0.39	0.05	0.67	1.03	1.13	1.16	1.47	1.47	0.05	0.54
23	0.91	0.62	0.88	0.34	0.28	0.25	0.09	-0.02	-0.11	-0.12	-0.14	-0.09	0.07	-0.08	-0.09	-0.10	0.00	0.18	0.33	0.56	0.27	0.15	0.39	0.48	0.91	-0.14	0.21
24	0.60	0.65	0.60	0.37	0.70	0.58	0.57	0.60	0.43	0.40	0.34	0.28	0.25	0.24	0.25	0.21	0.22	0.17	0.18	0.19	0.20	0.00	-0.05	-0.06	0.70	-0.06	0.33
25	0.04	0.18	0.12	0.12	0.13	0.16	0.07	0.07	0.03	0.08	0.03	0.09	0.01	0.03	0.23	0.30	0.24	0.33	0.29	0.32	0.24	0.17	0.09	0.21	0.33	0.01	0.15
26	0.29	0.32	0.27	0.39	0.42	0.35	0.35	0.46	0.42	0.42	0.44	0.47	0.29	0.25	0.20	0.26	0.41	0.36	0.54	0.46	0.40	0.46	0.43	0.52	0.54	0.20	0.38
27	0.86	0.80	0.70	0.73	0.72	0.85	0.95	0.74	1.04	0.97	1.16	0.79	1.53	1.40	1.28	1.38	0.75	0.53	0.64	0.85	0.59	0.50	0.89	1.05	1.53	0.50	0.90
28	0.77	0.64	0.52	0.60	0.47	0.28	0.15	0.16	0.07	0.05	0.11	0.15	0.13	0.09	0.15	0.11	0.02	0.04	0.04	0.17	0.11	0.19	0.31	0.27	0.77	0.02	0.23
29	0.20	0.21	0.26	0.21	0.17	0.11	0.20	0.14	0.12	0.06	-0.03	0.01	0.38	0.85	0.36	0.04	0.18	0.17	0.20	0.92	0.59	0.20	1.00	1.15	1.15	-0.03	0.32
30	0.07	-0.04	-0.04	-0.05	-0.07	-0.05	-0.06	0.03	-0.03	0.00	0.01	-0.05	0.06	-0.03	0.06	-0.02	-0.07	0.01	0.09	0.04	-0.06	-0.06	-0.05	-0.07	0.09	-0.07	-0.02
<b>Max.</b>	<b>0.91</b>	<b>0.80</b>	<b>0.88</b>	<b>1.02</b>	<b>1.01</b>	<b>1.11</b>	<b>0.95</b>	<b>0.74</b>	<b>1.04</b>	<b>0.97</b>	<b>1.16</b>	<b>0.99</b>	<b>1.53</b>	<b>1.43</b>	<b>1.57</b>	<b>1.89</b>	<b>1.37</b>	<b>1.12</b>	<b>1.64</b>	<b>1.33</b>	<b>1.28</b>	<b>1.40</b>	<b>1.16</b>	<b>1.47</b>	<b>1.89</b>		
<b>Min.</b>	<b>-0.23</b>	<b>-0.32</b>	<b>-0.22</b>	<b>-0.20</b>	<b>-0.20</b>	<b>-0.24</b>	<b>-0.19</b>	<b>-0.21</b>	<b>-0.22</b>	<b>-0.22</b>	<b>-0.31</b>	<b>-0.33</b>	<b>-0.30</b>	<b>-0.35</b>	<b>-0.34</b>	<b>-0.56</b>	<b>-0.27</b>	<b>-0.21</b>	<b>-0.30</b>	<b>-0.21</b>	<b>-0.28</b>	<b>-0.20</b>	<b>-0.20</b>	<b>-0.25</b>		<b>-0.56</b>	
<b>Avg.</b>	<b>0.21</b>	<b>0.21</b>	<b>0.19</b>	<b>0.18</b>	<b>0.25</b>	<b>0.25</b>	<b>0.22</b>	<b>0.18</b>	<b>0.21</b>	<b>0.18</b>	<b>0.13</b>	<b>0.06</b>	<b>0.11</b>	<b>0.15</b>	<b>0.18</b>	<b>0.20</b>	<b>0.19</b>	<b>0.19</b>	<b>0.22</b>	<b>0.26</b>	<b>0.25</b>	<b>0.22</b>	<b>0.27</b>	<b>0.32</b>			<b>0.20</b>
<b>Total Hours in Month</b>				720			<b>Hours Data Available</b>						720						<b>Data Recovery</b>						100.0%		

**HCG, Inc.**

# Northern Dynasty Mines Pebble 1 Meterological Station - Temperature Difference 2-meter to 10-meter (deg. C)

*December 2005*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	-0.07	-0.07	-0.03	-0.08	-0.08	-0.04	0.18	0.30	0.47	0.95	0.49	0.16	0.31	0.57	0.09	-0.05	0.13	0.99	1.35	1.34	0.93	0.70	0.44	0.19	1.35	-0.08	0.38
2	0.28	0.23	-0.01	0.09	0.01	-0.17	-0.16	-0.10	-0.11	-0.15	-0.22	-0.14	-0.15	-0.05	0.05	0.14	-0.06	0.00	-0.01	0.04	0.12	0.22	0.01	-0.08	0.28	-0.22	-0.01
3	-0.10	-0.08	-0.09	0.01	0.01	-0.06	-0.05	0.23	0.23	0.23	0.29	0.29	0.21	0.18	0.27	0.34	0.28	0.41	0.59	0.97	0.85	0.76	0.87	0.83	0.97	-0.10	0.31
4	0.75	0.83	1.23	1.39	0.57	0.54	0.86	1.10	0.86	0.85	1.53	0.93	0.39	0.11	0.11	0.01	0.06	0.01	0.00	-0.01	-0.02	-0.02	-0.02	-0.02	1.53	-0.02	0.50
5	-0.02	-0.03	-0.03	-0.04	-0.01	0.00	-0.04	-0.05	-0.04	-0.03	-0.05	-0.05	0.00	-0.01	0.00	0.03	-0.04	0.00	0.01	-0.03	-0.04	0.23	0.70	0.34	0.70	-0.05	0.03
6	0.33	0.30	0.24	0.21	0.15	0.14	0.20	0.21	0.12	0.10	0.03	0.00	-0.10	-0.44	-0.28	-0.15	-0.09	-0.13	-0.06	-0.06	-0.08	-0.02	-0.07	0.09	0.33	-0.44	0.03
7	0.08	0.10	0.15	0.11	0.11	0.07	0.08	0.03	0.05	0.08	0.15	0.05	0.05	0.11	0.10	0.16	0.29	0.18	0.08	0.15	0.19	0.19	0.14	0.12	0.29	0.03	0.12
8	0.11	0.07	0.04	0.03	0.06	0.02	0.07	0.10	0.06	0.09	0.17	0.31	0.24	0.20	0.24	0.19	0.25	0.26	0.18	0.13	0.15	0.14	0.09	0.13	0.31	0.02	0.14
9	0.13	0.14	0.19	0.17	0.14	0.11	0.06	0.01	0.01	0.01	0.00	0.03	0.26	0.31	0.32	0.52	0.38	0.32	0.25	0.17	0.15	0.14	0.10	-0.02	0.52	-0.02	0.16
10	-0.07	-0.14	-0.10	-0.08	0.03	0.00	0.02	0.04	-0.01	-0.03	0.07	0.10	0.10	0.17	0.14	0.15	0.01	0.19	0.22	0.10	0.00	-0.02	-0.02	-0.07	0.22	-0.14	0.03
11	-0.06	-0.05	-0.09	-0.06	-0.04	0.18	-0.03	-0.04	-0.14	-0.14	-0.19	-0.22	-0.16	-0.15	-0.18	-0.23	-0.17	-0.11	-0.02	-0.05	-0.08	-0.11	-0.11	0.15	0.18	-0.23	-0.09
12	0.20	0.64	0.71	0.94	1.39	1.61	1.58	1.19	1.60	1.34	0.99	0.56	0.50	0.30	0.29	0.08	-0.06	0.31	0.47	0.26	0.40	0.64	0.67	0.74	1.61	-0.06	0.72
13	0.54	0.53	0.26	0.37	0.35	0.61	0.44	0.40	0.33	0.30	0.07	-0.24	-0.32	-0.10	-0.09	0.05	0.23	0.49	0.61	0.55	0.58	0.53	0.43	0.39	0.61	-0.32	0.30
14	0.37	0.37	0.39	0.43	0.30	0.36	0.49	0.37	0.41	0.36	0.32	0.29	0.38	0.28	0.27	0.27	0.27	0.17	0.19	0.16	0.16	0.25	0.23	0.16	0.49	0.16	0.30
15	0.12	0.09	0.07	0.13	0.22	0.27	0.26	0.09	0.02	0.16	0.10	0.12	0.25	0.21	0.19	0.22	0.26	0.22	0.40	0.88	0.57	0.47	0.32	0.22	0.88	0.02	0.24
16	0.22	0.17	0.12	0.13	0.08	0.09	0.06	0.05	0.04	0.02	0.00	-0.01	-0.42	-0.12	-0.01	0.06	-0.01	-0.03	-0.05	-0.05	-0.02	0.00	0.03	0.17	0.22	-0.42	0.02
17	0.28	0.45	0.69	0.63	0.75	0.62	0.90	0.61	0.34	0.25	0.46	0.38	0.95	1.07	0.40	0.12	0.21	0.20	0.12	0.21	0.24	0.45	0.34	0.05	1.07	0.05	0.45
18	0.11	0.25	0.40	0.31	0.60	0.53	0.38	0.32	0.16	0.05	0.22	0.19	0.15	0.21	0.24	0.23	0.27	0.32	0.27	0.34	0.31	0.85	0.50	0.48	0.85	0.05	0.32
19	0.44	0.56	0.39	0.43	0.35	0.35	0.28	0.27	0.26	0.22	0.24	0.25	0.23	0.18	0.12	0.15	0.12	0.13	0.26	0.28	0.28	0.31	0.30	0.28	0.56	0.12	0.28
20	0.38	0.50	0.61	0.66	0.66	0.79	0.80	0.67	0.60	0.70	0.88	0.80	0.96	0.80	0.52	1.12	0.48	0.53	0.72	1.03	1.26	1.07	0.91	1.02	1.26	0.38	0.77
21	0.73	0.77	0.42	0.32	0.33	0.41	0.22	0.16	0.32	0.39	0.26	0.21	0.05	-0.02	0.10	0.21	0.02	0.06	0.24	0.15	0.16	0.26	0.31	0.59	0.77	-0.02	0.28
22	0.93	0.30	0.19	-0.09	-0.07	-0.05	-0.18	-0.17	-0.30	-0.20	0.18	-0.25	-0.26	-0.26	-0.14	-0.01	-0.04	0.17	-0.10	0.48	0.19	0.70	0.65	0.44	0.93	-0.30	0.09
23	0.78	0.72	0.62	0.35	0.16	0.16	0.43	0.36	0.11	0.02	0.02	-0.03	-0.08	-0.02	-0.11	-0.06	-0.06	-0.02	-0.05	0.06	0.03	0.09	0.18	0.18	0.78	-0.11	0.16
24	0.04	-0.02	-0.05	-0.05	-0.05	-0.04	-0.04	-0.05	0.00	0.13	0.21	0.34	0.37	0.41	0.31	0.52	1.18	0.84	0.69	0.44	0.27	0.34	0.30	0.20	1.18	-0.05	0.26
25	0.29	0.37	0.45	0.46	0.44	0.15	0.02	0.11	0.22	0.21	0.47	0.30	0.21	0.17	0.20	0.34	0.29	0.23	0.19	0.19	0.40	0.41	0.39	0.50	0.50	0.02	0.29
26	0.46	0.33	0.31	0.28	0.27	0.17	0.17	0.21	0.13	0.36	0.98	0.47	0.27	0.22	0.37	0.76	0.20	0.36	0.59	0.71	0.64	0.79	0.48	0.57	0.98	0.13	0.42
27	0.36	0.31	0.25	0.33	0.34	0.43	0.43	0.30	0.29	0.60	0.57	0.53	0.62	0.46	0.29	0.59	0.45	0.41	0.49	0.45	0.53	0.51	0.20	0.47	0.62	0.20	0.42
28	0.35	0.58	0.54	0.58	0.49	0.37	0.32	0.31	0.38	0.59	0.61	0.35	0.19	0.39	0.17	0.24	0.26	0.29	0.14	0.32	0.24	0.25	0.31	0.30	0.61	0.14	0.36
29	0.26	0.19	0.06	0.00	0.01	0.03	0.01	0.10	-0.02	-0.03	-0.04	-0.01	-0.01	0.01	0.15	0.22	0.09	0.04	0.06	0.11	0.20	0.32	0.57	0.66	0.66	-0.04	0.12
30	0.60	0.47	0.41	0.31	0.35	0.53	0.46	0.40	0.23	0.91	0.74	0.93	0.68	0.56	0.78	1.05	0.97	0.49	0.34	0.28	0.42	0.45	0.43	0.43	1.05	0.23	0.55
31	0.55	0.72	0.85	0.30	0.56	0.78	0.65	0.63	0.72	0.59	0.68	0.31	0.34	0.48	0.66	0.85	0.25	0.94	0.74	0.72	0.88	0.76	0.87	0.88	0.94	0.25	0.65
<b>Max.</b>	<b>0.93</b>	<b>0.83</b>	<b>1.23</b>	<b>1.39</b>	<b>1.39</b>	<b>1.61</b>	<b>1.58</b>	<b>1.19</b>	<b>1.60</b>	<b>1.34</b>	<b>1.53</b>	<b>0.93</b>	<b>0.96</b>	<b>1.07</b>	<b>0.78</b>	<b>1.12</b>	<b>1.18</b>	<b>0.99</b>	<b>1.35</b>	<b>1.34</b>	<b>1.26</b>	<b>1.07</b>	<b>0.91</b>	<b>1.02</b>	<b>1.61</b>		
<b>Min.</b>	<b>-0.10</b>	<b>-0.14</b>	<b>-0.10</b>	<b>-0.09</b>	<b>-0.08</b>	<b>-0.17</b>	<b>-0.18</b>	<b>-0.17</b>	<b>-0.30</b>	<b>-0.20</b>	<b>-0.22</b>	<b>-0.25</b>	<b>-0.42</b>	<b>-0.44</b>	<b>-0.28</b>	<b>-0.23</b>	<b>-0.17</b>	<b>-0.13</b>	<b>-0.10</b>	<b>-0.06</b>	<b>-0.08</b>	<b>-0.11</b>	<b>-0.11</b>	<b>-0.08</b>		<b>-0.44</b>	
<b>Avg.</b>	<b>0.30</b>	<b>0.31</b>	<b>0.30</b>	<b>0.28</b>	<b>0.27</b>	<b>0.29</b>	<b>0.29</b>	<b>0.26</b>	<b>0.24</b>	<b>0.29</b>	<b>0.33</b>	<b>0.22</b>	<b>0.20</b>	<b>0.20</b>	<b>0.18</b>	<b>0.26</b>	<b>0.21</b>	<b>0.27</b>	<b>0.29</b>	<b>0.33</b>	<b>0.32</b>	<b>0.37</b>	<b>0.34</b>	<b>0.33</b>			<b>0.28</b>

**Total Hours in Month**

744

**Hours Data Available**

744

**Data Recovery**

100.0%

**HCG, Inc.**

## Northern Dynasty Mines Pebble 1 Meterological Station - Temperature Difference 2-meter to 10-meter (deg. C)

*January 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	0.46	0.19	0.10	0.13	0.15	-0.01	-0.01	0.01	0.03	0.29	0.33	0.45	0.48	0.46	0.56	0.45	0.42	0.57	0.43	0.73	0.61	0.87	0.90	0.87	0.90	-0.01	0.39
2	0.92	0.95	0.76	0.75	0.95	0.83	0.58	0.07	0.48	0.65	0.19	0.09	0.20	0.09	0.30	0.23	0.43	0.28	0.23	0.08	0.11	0.08	0.08	0.25	0.95	0.07	0.40
3	0.14	0.09	0.16	0.11	-0.03	-0.05	-0.03	0.04	0.07	0.06	0.01	-0.03	-0.04	0.09	0.06	0.18	0.00	0.21	0.31	0.50	0.54	0.41	0.48	0.61	0.61	-0.05	0.16
4	0.59	0.41	0.19	0.17	0.23	0.44	0.49	0.65	0.41	0.47	0.58	0.43	0.44	0.57	0.74	0.56	0.78	0.30	0.72	0.73	0.72	0.77	0.67	0.75	0.78	0.17	0.53
5	0.57	0.43	0.61	0.55	0.51	0.67	0.54	0.44	0.42	0.55	0.39	0.38	0.18	0.18	0.61	0.89	0.94	1.54	1.60	1.49	1.19	1.74	1.53	1.44	1.74	0.18	0.81
6	1.02	0.72	0.38	0.53	0.91	0.75	0.55	0.54	0.70	0.58	0.72	0.52	1.39	0.48	0.60	0.61	0.57	0.27	0.39	0.38	0.22	0.05	0.07	0.18	1.39	0.05	0.55
7	0.19	0.05	0.40	0.48	0.52	0.41	0.66	0.83	0.89	1.02	0.82	0.53	0.48	0.72	0.41	0.43	0.34	0.24	0.43	0.92	0.85	0.40	0.13	0.35	1.02	0.05	0.52
8	0.30	0.49	0.34	0.34	0.21	0.31	0.28	0.09	0.32	0.32	0.35	0.82	1.06	1.33	0.85	1.07	1.83	1.02	1.70	1.72	1.49	1.54	1.21	1.62	1.83	0.09	0.86
9	2.50	2.06	2.49	1.54	1.84	1.73	1.86	1.70	1.52	1.68	1.84	1.23	0.41	0.93	0.90	0.56	0.59	0.50	0.26	0.28	1.69	1.20	0.73	0.36	2.50	0.26	1.27
10	0.83	0.71	0.32	0.08	0.07	0.06	0.04	0.08	0.11	0.08	0.08	0.29	0.19	0.00	0.16	-0.13	-0.02	-0.19	-0.12	-0.13	-0.09	-0.10	-0.10	-0.03	0.83	-0.19	0.09
11	-0.09	-0.10	-0.12	-0.15	-0.09	-0.15	-0.07	0.27	0.54	0.31	0.05	0.33	0.36	0.72	0.27	0.12	0.26	0.24	0.38	0.41	0.21	0.33	0.41	0.66	0.72	-0.15	0.21
12	0.69	0.57	0.49	0.08	-0.11	-0.15	-0.09	-0.13	-0.15	-0.19	-0.17	-0.21	-0.23	-0.24	-0.23	-0.23	-0.21	-0.15	-0.04	0.10	-0.03	-0.09	-0.03	-0.02	0.69	-0.24	-0.03
13	0.28	0.36	0.40	0.53	0.63	0.64	0.69	0.73	0.70	0.60	0.40	0.27	0.22	0.18	0.16	0.29	0.65	0.46	0.71	0.72	0.77	0.85	0.98	1.14	1.14	0.16	0.56
14	1.80	1.14	1.42	0.72	0.57	1.16	1.84	1.11	0.76	0.42	0.14	0.25	0.11	-0.04	0.03	0.02	0.03	0.01	0.01	-0.02	-0.02	0.02	-0.01	0.01	1.84	-0.04	0.48
15	0.02	-0.02	-0.01	0.01	-0.01	-0.02	-0.02	-0.03	-0.03	-0.03	0.06	0.16	0.25	-0.01				0.01	-0.02	-0.01	0.01	0.12	0.16	0.50	0.50	-0.03	0.05
16	0.09	0.06	0.19	0.15	0.08	0.11	0.23	0.36	0.26	0.27	0.41	0.58	0.96	0.75	0.46	0.26	0.47	0.76	0.86	0.85	1.09	1.49	0.63	0.50	1.49	0.06	0.49
17	0.12	0.27	-0.09	0.22	0.40	0.87	1.35	1.24	0.99	0.65	0.37	0.16	0.49	0.95	0.43	0.46	0.43	0.53	0.60	0.69	0.60	0.18	-0.02	0.31	1.35	-0.09	0.51
18	1.06	0.83	0.73	1.14	0.50	0.09	-0.03	-0.16	-0.12	0.01	0.41	0.28	0.21	0.22	0.36	0.41	0.49	1.01	0.65	0.65	0.61	0.64	0.81	0.83	1.14	-0.16	0.48
19	0.71	0.48	0.35	0.44	0.40	0.46	0.36	0.33	0.33	0.35	0.39	0.42	0.39	0.29	0.26	0.49	0.59	0.51	0.48	0.29	0.05	0.13	0.14	0.02	0.71	0.02	0.36
20	0.28	0.41	0.69	0.66	0.77	0.78	0.52	0.31	0.33	0.77	0.52	1.17	0.18	-0.11	0.09	-0.09	-0.15	0.08	-0.16	-0.10	0.09	-0.29	0.23	-0.05	1.17	-0.29	0.29
21	0.08	-0.18	-0.17	-0.16	-0.20	-0.25	-0.19	-0.22	-0.23	-0.23	-0.20	-0.13	-0.15	-0.23	-0.17	-0.17	-0.15	-0.18	-0.23	-0.27	-0.28	-0.27	-0.29	-0.29	0.08	-0.29	-0.20
22	-0.28	-0.26	-0.23	-0.22	-0.24	-0.23	-0.22	-0.20	-0.21	-0.20	-0.07	-0.08	-0.06	-0.14	-0.18	-0.09	-0.14	-0.20	-0.16	-0.11	-0.12	-0.16	-0.11	-0.06	-0.06	-0.28	-0.16
23	-0.06	-0.03	-0.04	-0.01	0.02	-0.04	-0.02	0.07	0.06	0.01	0.05	-0.01	-0.02	-0.05	-0.04	0.00	0.14	0.08	0.13	0.06	0.12	0.21	0.19	0.14	0.21	-0.06	0.04
24	0.18	0.16	0.09	0.11	0.18	0.23	0.31	0.28	0.30	0.32	0.20	0.20	0.10	0.07	0.05	0.11	0.15	0.18	0.27	0.24	0.39	0.29	0.17	0.18	0.39	0.05	0.20
25	0.29	0.45	0.51	0.54	0.42	0.27	0.83	0.92	1.03	1.09	0.97	0.84	0.09	0.27	0.15	0.14	0.67	0.96	0.47	0.78	0.60	0.45	0.58	0.23	1.09	0.09	0.56
26	0.23	0.25	0.39	0.44	0.65	1.17	1.18	1.08	0.94	1.17	1.24	1.15	1.06	0.30	0.37	0.41	0.41	0.98	0.83	1.00	0.85	0.62	0.32	0.60	1.24	0.23	0.74
27	0.47	0.30	0.36	0.22	0.08	0.08	0.09	0.11	0.09	0.11	0.13	0.07	0.16	0.19	0.23	0.20	0.21	0.02	0.00	-0.01	0.03	0.09	0.03	-0.01	0.47	-0.01	0.14
28	-0.01	-0.03	0.00	-0.01	0.03	-0.02	-0.03	0.02	-0.02	-0.04	-0.04	-0.07	-0.13	-0.15	-0.31	-0.33	-0.16	0.04	-0.05	-0.06	0.09	0.00	0.14	0.20	0.20	-0.33	-0.04
29	0.18	0.06	0.04	0.07	0.07	0.16	0.34	0.37	0.51	0.40	0.43	0.30	0.10	-0.06	-0.16	0.16	0.29	0.85	0.56	0.81	0.46	0.60	0.35	0.49	0.85	-0.16	0.31
30	0.87	0.77	0.96	0.86	0.72	0.77	0.55	0.87	1.07	0.67	1.19	0.86	0.57	0.15	0.08	0.20	1.50	1.84	0.34	1.60	2.27	2.01	2.77	3.02	3.02	0.08	1.11
31	2.77	2.40	1.85	1.54	0.97	1.09	0.82	0.73	0.70	1.44	1.28	0.92	0.69	0.58	0.17	0.45	0.50	0.19	-0.08	-0.01	0.40	0.42	0.46	0.94	2.77	-0.08	0.88
<b>Max.</b>	<b>2.77</b>	<b>2.40</b>	<b>2.49</b>	<b>1.54</b>	<b>1.84</b>	<b>1.73</b>	<b>1.86</b>	<b>1.70</b>	<b>1.52</b>	<b>1.68</b>	<b>1.84</b>	<b>1.23</b>	<b>1.39</b>	<b>1.33</b>	<b>0.90</b>	<b>1.07</b>	<b>1.83</b>	<b>1.84</b>	<b>1.70</b>	<b>1.72</b>	<b>2.27</b>	<b>2.01</b>	<b>2.77</b>	<b>3.02</b>	<b>3.02</b>		
<b>Min.</b>	<b>-0.28</b>	<b>-0.26</b>	<b>-0.23</b>	<b>-0.22</b>	<b>-0.24</b>	<b>-0.25</b>	<b>-0.22</b>	<b>-0.22</b>	<b>-0.23</b>	<b>-0.23</b>	<b>-0.20</b>	<b>-0.21</b>	<b>-0.23</b>	<b>-0.24</b>	<b>-0.31</b>	<b>-0.33</b>	<b>-0.21</b>	<b>-0.20</b>	<b>-0.23</b>	<b>-0.27</b>	<b>-0.28</b>	<b>-0.29</b>	<b>-0.29</b>	<b>-0.29</b>		<b>-0.33</b>	
<b>Avg.</b>	<b>0.55</b>	<b>0.45</b>	<b>0.44</b>	<b>0.38</b>	<b>0.36</b>	<b>0.39</b>	<b>0.43</b>	<b>0.40</b>	<b>0.41</b>	<b>0.44</b>	<b>0.42</b>	<b>0.39</b>	<b>0.33</b>	<b>0.27</b>	<b>0.24</b>	<b>0.25</b>	<b>0.40</b>	<b>0.42</b>	<b>0.37</b>	<b>0.46</b>	<b>0.50</b>	<b>0.47</b>	<b>0.44</b>	<b>0.51</b>			<b>0.40</b>

**Total Hours in Month** 744 **Hours Data Available** 741 **Data Recovery** 99.6%

# Northern Dynasty Mines Pebble 1 Meterological Station - Temperature Difference 2-meter to 10-meter (deg. C)

February 2006

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	0.55	0.50	0.70	0.31	0.22	0.15	0.10	0.12	0.16	0.14	0.08	0.06	-0.01	-0.06	-0.04	0.00	0.08	0.16	0.24	0.19	0.26	0.23	0.28	0.22	0.70	-0.06	0.19
2	0.26	0.27	0.28	0.35	0.38	0.41	0.67	0.69	0.74	0.72	0.78	0.74	0.27	0.66	0.80	0.35	0.41	0.41	0.71	0.74	1.33	0.81	1.38	1.45	1.45	0.26	0.65
3	1.27	0.90	0.63	0.36	0.41	0.38	0.22	0.19	0.13	0.08	0.08	0.10	0.09	0.07	0.06	0.06	0.08	0.12	0.20	0.25	0.27	0.35	0.32	0.29	1.27	0.06	0.29
4	0.35	0.35	0.35	0.35	0.29	0.23	0.26	0.30	0.33	0.46	0.49	0.48	0.49	0.52	0.48	0.39	0.30	0.26	0.43	0.69	0.73	0.76	0.75	0.74	0.76	0.23	0.45
5	0.65	0.45	0.47	0.56	0.71	0.83	0.72	0.77	0.82	0.60	0.52	0.43	0.15	0.19	0.21	0.26	0.36	0.54	0.63	0.65	0.51	0.41	0.28	0.18	0.83	0.15	0.50
6	0.14	0.08	0.02	0.19	0.02	-0.03	-0.03	-0.02	-0.01	-0.04	-0.06	-0.01	-0.03	-0.03	-0.22	-0.12	-0.03	0.02	0.05	0.20	0.13	0.09	0.03	-0.01	0.20	-0.22	0.01
7	0.01	0.02	0.07	-0.01	-0.06	-0.06	-0.05	-0.07	-0.07	-0.06	-0.04	0.11	0.12	0.08	0.22	0.45	0.87	1.00	1.12	1.13	0.88	0.64	0.67	1.15	1.15	-0.07	0.34
8	0.52	0.49	0.34	0.38	0.65	0.70	0.86	0.98	0.99	1.01	0.90	0.40	0.71	0.69	0.95	0.99	0.73	0.51	0.45	0.41	0.34	0.33	0.33	0.24	1.01	0.24	0.62
9	0.22	0.21	0.28	0.34	0.31	0.35	0.31	0.20	0.22	0.11	0.19	0.09	0.07	0.07	0.05	0.13	0.27	0.30	0.22	0.16	0.14	0.05	0.04	-0.04	0.35	-0.04	0.18
10	-0.02	-0.05	-0.07	-0.03	0.05	0.12	0.07	0.03	-0.01	-0.05	-0.05	-0.06	-0.06	-0.11	-0.11	0.01	0.07	0.08	0.11	0.13	0.10	0.11	0.14	0.05	0.14	-0.11	0.02
11	0.00	0.01	-0.04	-0.04	0.08	0.11	0.27	0.00	-0.03	-0.01	-0.05	-0.05	-0.05	-0.07	-0.05	-0.05	-0.04	0.01	0.01	-0.02	-0.06	-0.05	-0.03	-0.03	0.27	-0.07	-0.01
12	-0.01	-0.02	-0.03	0.01	0.04	-0.07	-0.09	-0.07	-0.07	-0.15	-0.17	-0.18	-0.18	-0.19	-0.22	-0.19	-0.17	-0.17	0.15	0.34	0.50	0.46	0.62	0.52	0.62	-0.22	0.03
13	0.44	0.42	0.38	0.31	0.29	0.20	0.18	0.29	0.27	0.15	0.27	-0.44	-0.03	-0.32	-0.17	-0.12	-0.13	-0.10	-0.07	-0.04	-0.03	0.01	0.00	0.03	0.44	-0.44	0.08
14	0.09	0.07	0.15	0.19	0.29	0.29	0.22	0.24	0.23	0.17	0.14	0.13	0.07	0.01	-0.01	-0.05	0.01	0.10	0.15	0.13	0.15	0.19	0.23	0.54	0.54	-0.05	0.16
15	0.78	0.81	0.78	0.85	0.69	0.69	0.77	0.81	0.87	0.84	0.93	0.67	0.54	0.58	0.20	0.04	-0.01	-0.03	0.00	-0.01	-0.04	-0.04	-0.05	-0.05	0.93	-0.05	0.44
16	-0.09	-0.08	-0.03	-0.02	-0.05	-0.04	-0.04	-0.04	-0.04	-0.03	-0.05	0.18	0.07	0.01	0.11	0.22	0.36	0.60	0.58	0.47	0.30	0.10	0.03	0.13	0.60	-0.09	0.11
17	0.10	0.22	0.31	0.28	0.24	0.22	0.21	0.17	0.11	0.09	0.09	0.06	0.02	0.03	-0.01	-0.04	-0.04	-0.01	0.11	0.09	0.02	-0.05	-0.06	-0.06	0.31	-0.06	0.09
18	-0.06	-0.06	-0.05	-0.05	-0.05	-0.03	0.00	0.01	0.04	-0.03	0.00	-0.03	-0.03	0.00	0.01	-0.10	-0.16	-0.08	-0.08	-0.06	-0.04	-0.02	-0.03	-0.06	0.04	-0.16	-0.04
19	-0.11	-0.12	-0.12	-0.12	-0.11	-0.09	-0.10	-0.03	0.01	0.05	-0.02	-0.03	-0.35	-0.23	-0.14	-0.15	-0.13	-0.03	-0.08	0.02	0.26	0.88	0.63	0.61	0.88	-0.35	0.02
20	0.18	0.06	0.13	0.11	0.21	0.26	0.36	0.03	-0.05	-0.20	-0.06	-0.07	-0.03	-0.03	-0.02	-0.03	-0.07	0.40	0.46	0.55	0.63	0.58	0.49	0.45	0.63	-0.20	0.18
21	0.70	0.62	0.72	0.99	0.78	0.99	1.11	0.59	0.75	0.24	0.15	-0.09	0.05	0.52	0.02	0.30	0.26	0.46	1.28	1.62	0.86	0.27	1.44	1.62	1.62	-0.09	0.68
22	1.30	1.16	0.65	1.33	1.49	1.23	0.92	1.12	0.96	0.66	0.24	-0.01	-0.50	-0.27	-0.35	0.18	0.07	0.15	-0.03	-0.05	-0.08	-0.08	-0.06	-0.05	1.49	-0.50	0.42
23	-0.05	-0.06	-0.04	0.02	0.08	0.06	-0.04	0.41	0.94	0.52	-0.17	-0.09	-1.37	-1.77	-0.68	-0.23	-0.06	0.01	-0.06	-0.02	0.04	-0.03	0.07	0.50	0.94	-1.77	-0.08
24	0.84	0.85	0.87	1.03	1.38	1.38	1.56	1.57	1.07	0.41	0.12	-0.51	-2.02	-3.68	-4.07	-3.91	-3.58	-1.12	0.52	0.71	0.55	0.34	0.22	0.44	1.57	-4.07	-0.21
25	0.23	0.19	0.02	-0.05	0.05	-0.09	-0.08	-0.10	-0.06	-0.49	-0.20	-0.04	-0.20	-0.29	0.07	0.39	0.64	1.19	1.93	2.73	2.02	1.73	0.89	0.66	2.73	-0.49	0.46
26	0.82	0.86	0.57	0.54	1.07	1.13	1.34	1.68	1.69	0.75	1.25	0.62	-0.08	-0.38	-1.34	-2.06	-1.61	-0.89	-0.33	-0.05	0.00	0.06	0.03	-0.02	1.69	-2.06	0.24
27	-0.03	0.00	0.04	-0.12	-0.22	-0.23	-0.35	-0.31	-0.33	-0.34	-0.40	-0.75	-0.40	-0.21	-0.24	0.02	0.01	-0.07	-0.20	0.06	0.15	0.17	0.19	0.20	0.20	-0.75	-0.14
28	0.17	0.21	0.21	0.17	0.22	0.14	0.10	0.03	-0.03	-0.07	-0.26	-0.57	-0.65	-0.61	-0.99	-0.77	-0.64	-0.03	0.05	0.25	0.51	0.21	0.62	0.49	0.62	-0.99	-0.05
<b>Max.</b>	<b>1.30</b>	<b>1.16</b>	<b>0.87</b>	<b>1.33</b>	<b>1.49</b>	<b>1.38</b>	<b>1.56</b>	<b>1.68</b>	<b>1.69</b>	<b>1.01</b>	<b>1.25</b>	<b>0.74</b>	<b>0.71</b>	<b>0.69</b>	<b>0.95</b>	<b>0.99</b>	<b>0.87</b>	<b>1.19</b>	<b>1.93</b>	<b>2.73</b>	<b>2.02</b>	<b>1.73</b>	<b>1.44</b>	<b>1.62</b>	<b>2.73</b>		
<b>Min.</b>	<b>-0.11</b>	<b>-0.12</b>	<b>-0.12</b>	<b>-0.12</b>	<b>-0.22</b>	<b>-0.23</b>	<b>-0.35</b>	<b>-0.31</b>	<b>-0.33</b>	<b>-0.49</b>	<b>-0.40</b>	<b>-0.75</b>	<b>-2.02</b>	<b>-3.68</b>	<b>-4.07</b>	<b>-3.91</b>	<b>-3.58</b>	<b>-1.12</b>	<b>-0.33</b>	<b>-0.06</b>	<b>-0.08</b>	<b>-0.08</b>	<b>-0.06</b>	<b>-0.06</b>		<b>-4.07</b>	
<b>Avg.</b>	<b>0.33</b>	<b>0.30</b>	<b>0.27</b>	<b>0.29</b>	<b>0.34</b>	<b>0.33</b>	<b>0.34</b>	<b>0.34</b>	<b>0.34</b>	<b>0.20</b>	<b>0.17</b>	<b>0.04</b>	<b>-0.12</b>	<b>-0.17</b>	<b>-0.19</b>	<b>-0.14</b>	<b>-0.08</b>	<b>0.14</b>	<b>0.30</b>	<b>0.40</b>	<b>0.37</b>	<b>0.30</b>	<b>0.34</b>	<b>0.36</b>			<b>0.20</b>

Total Hours in Month

672

Hours Data Available

672

Data Recovery

100.0%

HCG, Inc.

# Northern Dynasty Mines Pebble 1 Meterological Station - Temperature Difference 2-meter to 10-meter (deg. C)

*March 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	0.50	0.66	0.82	0.63	0.55	0.55	0.77	1.23	1.51	0.56	-1.23	-5.35	-5.93	-4.43	-2.33	-1.14	-0.12	0.37	0.72	1.01	0.98	0.88	0.77	0.50	1.51	-5.93	-0.31
2	0.50	0.58	0.65	0.85	0.71	0.44	0.38	0.02	-0.01	-0.02	-0.02	-0.06	-0.07	-0.13	-0.15	-0.08	-0.04	-0.05	-0.03	0.00	-0.04	-0.01	0.01	-0.03	0.85	-0.15	0.14
3	-0.02	-0.03	-0.04	-0.04	-0.04	-0.04	-0.04	-0.07	-0.01	-0.02	-0.07	-0.11	-0.13	-0.30	-0.56	-0.36	-0.24	-0.12	-0.05	-0.01	0.03	0.05	0.05	-0.03	0.05	-0.56	-0.09
4	-0.03	-0.02	0.01	0.02	0.05	0.01	-0.03	-0.03	-0.01	-0.02	-0.01	-0.07	-0.04	-0.11	-0.12	-0.11	-0.08	-0.07	-0.06	-0.06	-0.05	-0.06	-0.05	-0.05	0.05	-0.12	-0.04
5	-0.05	-0.05	-0.06	-0.05	-0.05	-0.07	-0.05	-0.06	-0.06	0.04	0.11	0.13	0.15	0.06	0.09	-0.03	-0.32	-0.09	-0.14	-0.16	0.01	0.14	0.03	0.13	0.15	-0.32	-0.02
6	0.04	0.09	0.38	0.33	0.27	0.21	0.73	0.48	0.83	0.72	0.96	0.45	-1.81	-1.57	-0.98	-0.50	0.08	-0.15	-0.12	0.22	0.22	0.11	-0.02	0.09	0.96	-1.81	0.04
7	0.30	0.13	0.22	0.33	0.22	0.17	0.12	0.02	-0.25	-0.65	-0.66	-1.36	-1.82	-1.03	-0.79	-1.16	-0.92	-0.55	0.05	0.16	0.15	0.16	0.08	0.13	0.33	-1.82	-0.29
8	0.13	0.16	0.07	-0.02	0.04	-0.07	-0.08	-0.07	-0.21	-0.16	-0.06	-0.33	-0.26	-1.14	-0.73	-0.35	-0.15	-0.27	-0.16	-0.26	-0.44	-0.07	0.10	-0.01	0.16	-1.14	-0.18
9	0.13	0.21	0.20	0.26	0.25	0.36	0.25	0.38	0.22	0.14	-0.12	-0.36	-0.65	-0.44	-0.43	-0.82	-0.87	-0.69	-0.03	0.24	0.20	0.37	0.18	0.38	0.38	-0.87	-0.03
10	0.40	0.47	0.65	0.64	0.68	0.82	1.09	0.77	0.50	-0.59	-0.59	-1.96	-2.33	-2.92	-3.02	-2.53	-2.03	-0.69	-0.12	0.30	0.56	0.84	0.96	1.12	1.12	-3.02	-0.29
11	0.74	0.96	1.50	1.39	1.25	1.36	1.43	1.97	1.69	1.08	0.33	0.71	0.38	0.46	0.68	0.86	0.83	0.82	0.69	0.86	0.80	0.77	0.54	0.33	1.97	0.33	0.93
12	0.71	0.70	0.89	0.61	0.11	0.00	-0.02	0.01	-0.02	-0.04	0.58	0.70	0.51	0.14	0.02	-0.25	-0.19	0.10	0.25	0.17	0.11	0.05	0.11	0.13	0.89	-0.25	0.22
13	0.33	0.36	0.29	0.12	0.12	-0.08	0.05	0.13	0.15	-0.04	-0.18	-0.15	-0.08	-0.05	-0.02	0.47	0.75	1.14	1.78	1.71	1.52	1.38	1.53	1.39	1.78	-0.18	0.53
14	1.27	1.92	1.27	1.26	1.50	1.46	1.33	1.50	1.29	0.59	0.40	0.83	0.93	0.47	0.14	0.25	0.47	0.70	0.68	0.70	0.66	0.69	0.66	0.53	1.92	0.14	0.90
15	0.38	0.56	0.37	0.60	0.44	0.47	0.54	0.44	0.21	0.23	0.11	0.08	0.12	0.06	-0.12	-0.05	0.21	0.54	0.74	0.98	1.12	1.05	1.47	1.61	1.61	-0.12	0.51
16	1.36	1.12	0.98	0.98	1.17	1.17	1.12	0.79	0.54	0.30	0.30	0.07	0.08	0.06	0.19	0.47	0.41	0.44	0.71	1.01	0.93	0.77	0.70	0.91	1.36	0.06	0.69
17	0.83	0.62	0.56	0.61	1.01	1.04	0.99	1.20	0.72	0.35	0.13	0.01	-0.10	-0.18	-0.17	-0.14	-0.12	-0.09	-0.06	-0.05	-0.05	-0.05	-0.04	0.02	1.20	-0.18	0.29
18	0.16	0.05	0.14	0.13	0.16	0.13	0.00	-0.01	0.08	-0.04	-0.09	-0.16	-0.17	-0.12	-0.25	-0.18	-0.04	-0.01	0.03	0.08	0.12	0.26	0.47	0.75	0.75	-0.25	0.06
19	0.54	0.46	0.36	0.26	0.15	0.24	0.34	0.52	0.22	0.21	0.06	-0.03	-0.12	-0.15	-0.07	-0.10	-0.10	-0.10	-0.07	-0.07	-0.03	-0.01	-0.05	-0.05	0.54	-0.15	0.10
20	-0.05	-0.05	-0.05	-0.04	-0.01	-0.04	-0.03	0.03	0.24	0.48	0.89	1.22	2.20	3.07	1.12	0.32	0.19	0.21	0.04	0.07	0.08	0.15	0.08	0.21	3.07	-0.05	0.43
21	0.21	0.10	0.06	0.09	0.16	0.02	0.01	0.05	0.07	0.00	0.03	0.19	0.28	0.64	0.81	0.73	0.75	0.58	0.47	0.58	0.69	0.85	0.78	0.83	0.85	0.00	0.37
22	0.58	0.50	0.45	0.54	0.41	0.53	0.38	0.38	0.38	0.40	0.36	0.37	0.41	0.39	0.38	0.40	0.56	0.60	0.73	0.92	1.15	1.32	1.26	1.32	1.32	0.36	0.61
23	1.40	0.94	1.01	1.40	1.57	1.62	1.49	1.62	1.21	2.82	1.34	1.41	3.91	2.99	2.24	1.89	0.94	0.78	0.97	0.79	0.88	0.97	0.59	0.51	3.91	0.51	1.47
24	1.07	0.77	0.67	0.79	0.35	0.41	0.51	0.62	0.88	0.83	0.60	0.54	0.58	0.56	0.60	0.56	0.59	0.33	0.35	0.54	0.83	1.03	1.08	1.05	1.08	0.33	0.67
25	1.03	1.20	0.57	0.46	0.39	0.01	-0.08	0.08	0.12	0.02	0.02	-0.08	-0.13	-0.07	-0.07	0.00	0.12	0.27	0.39	0.50	0.68	0.77	0.57	0.61	1.20	-0.13	0.31
26	0.80	0.94	0.96	1.03	0.95	1.02	0.91	0.65	0.41	0.20	-0.02	-0.18	-0.28	-0.33	-0.38	-0.30	-0.08	0.40	1.02	1.26	1.26	1.01	0.93	0.98	1.26	-0.38	0.55
27	1.57	1.19	0.82	0.81	0.78	0.70	0.59	1.13	1.57	0.51	0.12	0.05	0.00	0.04	-0.02	0.07	0.17	0.41	0.56	0.84	0.65	0.65	0.57	0.59	1.57	-0.02	0.60
28	0.55	0.67	0.74	0.41	0.62	0.45	0.46	0.76	0.66	0.35	-0.05	-0.10	-0.15	-0.16	-0.09	-0.01	0.16	0.66	1.14	1.57	0.83	1.06	1.42	1.43	1.57	-0.16	0.56
29	1.32	1.68	1.90	1.75	1.82	1.63	1.68	1.73	1.36	1.17	0.55	0.02	-0.27	-0.12	-0.13	-0.27	-0.18	0.29	0.84	0.74	0.38	0.57	0.98	0.93	1.90	-0.27	0.85
30	0.72	0.52	0.31	0.21	0.14	0.12	0.08	0.05	-0.05	-0.08	-0.08	-0.10	-0.08	-0.02	-0.10	-0.09	-0.06	-0.05	-0.03	-0.01	-0.04	-0.04	-0.04	-0.04	0.72	-0.10	0.05
31	-0.04	-0.04	-0.03	-0.04	-0.05	-0.05	-0.05	-0.05	-0.07	0.09	0.37	0.49	0.80	0.63	0.95	1.58	0.52	0.45	0.33	0.37	0.13	0.12	0.31	0.17	1.58	-0.07	0.29
<b>Max.</b>	<b>1.57</b>	<b>1.92</b>	<b>1.90</b>	<b>1.75</b>	<b>1.82</b>	<b>1.63</b>	<b>1.68</b>	<b>1.97</b>	<b>1.69</b>	<b>2.82</b>	<b>1.34</b>	<b>1.41</b>	<b>3.91</b>	<b>3.07</b>	<b>2.24</b>	<b>1.89</b>	<b>0.94</b>	<b>1.14</b>	<b>1.78</b>	<b>1.71</b>	<b>1.52</b>	<b>1.38</b>	<b>1.53</b>	<b>1.61</b>	<b>3.91</b>		
<b>Min.</b>	<b>-0.05</b>	<b>-0.05</b>	<b>-0.06</b>	<b>-0.05</b>	<b>-0.05</b>	<b>-0.08</b>	<b>-0.08</b>	<b>-0.07</b>	<b>-0.25</b>	<b>-0.65</b>	<b>-1.23</b>	<b>-5.35</b>	<b>-5.93</b>	<b>-4.43</b>	<b>-3.02</b>	<b>-2.53</b>	<b>-2.03</b>	<b>-0.69</b>	<b>-0.16</b>	<b>-0.26</b>	<b>-0.44</b>	<b>-0.07</b>	<b>-0.05</b>	<b>-0.05</b>		<b>-5.93</b>	
<b>Avg.</b>	<b>0.56</b>	<b>0.56</b>	<b>0.54</b>	<b>0.53</b>	<b>0.51</b>	<b>0.47</b>	<b>0.48</b>	<b>0.52</b>	<b>0.46</b>	<b>0.30</b>	<b>0.13</b>	<b>-0.10</b>	<b>-0.13</b>	<b>-0.12</b>	<b>-0.11</b>	<b>-0.03</b>	<b>0.04</b>	<b>0.20</b>	<b>0.38</b>	<b>0.48</b>	<b>0.46</b>	<b>0.51</b>	<b>0.52</b>	<b>0.53</b>			<b>0.32</b>

**Total Hours in Month** 744 **Hours Data Available** 744 **Data Recovery** 100.0%

## Northern Dynasty Mines Pebble 1 Meterological Station - Temperature Difference 2-meter to 10-meter (deg. C)

*April 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	0.06	0.08	0.21	0.34	0.16	0.16	0.39	0.45	0.69	1.09	1.60	2.20	1.13	2.61	-0.30	-0.34	-0.28	0.20	0.44	0.60	0.22	0.30	0.45	0.01	2.61	-0.34	0.52
2	-0.02	0.01	0.02	-0.01	0.21	0.17	0.46	1.03	1.47	2.22	2.66	2.47	2.93	2.81	5.33	3.80	2.82	2.36	0.64	0.45	0.04	-0.29	-0.35	-0.39	5.33	-0.39	1.28
3	-0.55	-0.38	-0.15	-0.10	-0.04	0.00	-0.05	0.08	-0.03	-0.05	-0.01	-0.05	-0.01	-0.05	-0.07	-0.07	-0.10	-0.11	-0.07	-0.06	-0.02	0.04	0.03	-0.02	0.08	-0.55	-0.08
4	-0.04	-0.03	0.01	-0.02	-0.05	-0.07	-0.01	-0.03	-0.13	-0.30	-0.26	-0.20	-0.17	-0.23	-0.28	-0.10	-0.20	-0.08	0.06	0.20	0.22	0.13	0.09	0.06	0.22	-0.30	-0.06
5	-0.16	-0.29	-0.30	-0.11	-0.16	-0.25	-0.25	-0.24	-0.22	-0.29	-0.26	-0.23	-0.41	-0.38	-0.35	-0.25	-0.12	0.04	0.24	0.41	0.33	0.44	0.47	0.51	0.51	-0.41	-0.08
6	0.40	0.38	0.35	0.40	0.44	0.52	0.72	0.55	0.21	-0.09	-0.25	-0.52	-0.75	-0.83	-0.80	-0.78	-0.69	-0.37	0.14	0.52	0.30	0.44	0.51	0.31	0.72	-0.83	0.05
7	0.41	0.32	0.27	0.63	0.90	0.63	0.63	1.01	0.20	-0.01	-0.29	-0.42	-0.50	-0.43	-0.32	-0.23	-0.06	-0.08	0.02	0.12	0.12	0.11	0.11	0.06	1.01	-0.50	0.13
8	0.07	0.03	0.07	0.10	0.02	-0.06	-0.06	-0.07	-0.06	-0.07	-0.11	-0.10	-0.08	-0.04	-0.06	-0.05	-0.12	-0.18	-0.16	-0.11	-0.08	-0.07	-0.06	-0.05	0.10	-0.18	-0.05
9	-0.05	-0.05	-0.06	-0.05	-0.07	-0.05	-0.09	-0.11	-0.12	-0.17	-0.34	-0.53	-0.58	-0.61	-0.62	-0.62	-0.79	-0.77	-0.58	-0.03	-0.08	-0.05	0.13	-0.04	0.13	-0.79	-0.26
10	-0.06	-0.07	0.04	0.01	0.04	0.07	-0.11	-0.46	-0.43	-0.50	-0.73	-0.43	-0.82	-0.52	0.06	-0.20	-0.11	0.15	0.74	1.24	1.40	0.54	0.75	1.35	1.40	-0.82	0.08
11	1.39	0.96	0.47	0.27	0.14	-0.01	-0.30	-0.38	-0.64	-0.82	-0.94	-1.16	-0.81	-0.93	0.01	-0.10	-0.09	-0.10	-0.10	-0.08	-0.06	-0.04	-0.04	-0.04	1.39	-1.16	-0.14
12	-0.04	-0.03	-0.04	-0.04	-0.04	-0.02	0.00	-0.06	-0.15	-0.14	-0.14	-0.21	-0.23	-0.33	-0.27	-0.41	-0.29	-0.35	-0.25	-0.14	-0.04	0.09	0.33	0.65	0.65	-0.41	-0.09
13	0.30	0.46	0.17	0.06	0.01	0.06	-0.04	-0.19	-0.38	-0.42	-0.68	-0.84	-0.86	-0.99	-1.31	-1.42	-1.07	-0.92	-0.89	-0.44	-0.20	-0.17	-0.23	0.00	0.46	-1.42	-0.41
14	-0.06	-0.12	-0.12	-0.14	-0.10	-0.09	-0.12	-0.20	-0.31	-0.46	-0.32	-0.55	-0.52	-0.41	-0.74	-0.52	-0.24	-0.16	-0.31	-0.18	0.14	0.35	0.54	0.40	0.54	-0.74	-0.18
15	0.31	0.31	0.48	0.48	0.41	0.34	0.32	-0.21	-0.32	-0.03	-0.60	0.00	-0.34	-0.28	-0.10	-0.89	-0.30	0.09	0.11	-0.08	0.92	1.01	1.04	0.97	1.04	-0.89	0.15
16	0.82	0.90	1.03	1.09	0.27	0.32	0.61	0.63	0.96	0.62	0.25	0.39	0.47	0.17	0.25	0.63	0.85	0.79	0.84	0.73	0.49	0.44	0.33	0.39	1.09	0.17	0.59
17	0.48	0.61	0.66	0.63	0.57	0.41	0.70	0.55	0.29	0.16	0.03	-0.15	-0.25	-0.04	0.08	0.28	0.55	0.72	0.81	1.14	1.30	1.01	0.88	1.93	1.93	-0.25	0.56
18	2.14	2.26	1.82	0.95	1.05	1.37	0.96	0.70	0.30	0.19	0.03	-0.21	-0.40	-0.36	-0.02	0.07	0.11	0.20	0.49	0.70	0.55	0.58	0.66	0.68	2.26	-0.40	0.62
19	0.47	0.58	0.38	0.08	0.01	-0.04	-0.10	-0.11	-0.13	-0.17	-0.29	-0.37	-0.40	-0.24	-0.16	-0.23	-0.21	-0.32	-0.42	-0.26	-0.21	-0.17	-0.19	-0.20	0.58	-0.42	-0.11
20	-0.17	-0.15	-0.12	-0.11	-0.10	0.02	0.03	0.08	-0.12	-0.21	-0.37	-0.42	-0.40	-0.29	-0.09	-0.03	-0.07	-0.11	-0.10	-0.08	-0.06	-0.06	-0.05	-0.05	0.08	-0.42	-0.13
21	-0.05	-0.01	0.15	0.44	0.48	0.64	0.72	0.70	0.52	0.71	0.49	0.12	0.13	-0.08	-0.06	0.03	-0.11	-0.10	-0.13	-0.07	-0.05	0.00	0.09	0.66	0.72	-0.13	0.22
22	0.54	0.21	0.05	0.05	0.08	0.12	0.15	0.23	0.11	-0.21	-0.17	-0.11	-0.45	-0.39	-0.15	-0.16	-0.42	-0.33	-0.13	0.10	0.18	0.23	0.36	0.47	0.54	-0.45	0.01
23	0.35	0.20	0.23	0.25	0.27	0.47	0.53	0.23	0.27	-0.02	-0.17	-0.21	-0.23	-0.32	-0.22	-0.24	-0.28	-0.31	-0.08	0.47	0.76	0.91	0.86	1.14	1.14	-0.32	0.20
24	0.79	0.54	0.61	0.64	0.48	0.51	0.30	0.11	-0.02	-0.25	-0.29	-0.33	-0.37	-0.43	-0.37	-0.22	-0.26	-0.27	-0.19	-0.10	-0.06	-0.13	-0.23	-0.18	0.79	-0.43	0.01
25	-0.16	-0.18	-0.18	-0.18	-0.19	-0.17	-0.20	-0.18	-0.20	-0.26	-0.31	-0.28	-0.28	-0.32	-0.27	-0.22	-0.16	-0.12	-0.09	-0.06	0.01	0.00	0.05	0.05	0.05	-0.32	-0.16
26	0.08	0.04	-0.04	0.08	0.13	0.33	0.24	0.40	0.32	0.06	-0.18	-0.13	-0.11	-0.17	-0.23	-0.11	0.02	0.17	0.28	0.37	0.87	0.74	0.64	0.33	0.87	-0.23	0.17
27	0.46	0.29	0.34	0.77	0.78	0.52	0.23	0.37	0.29	-0.05	-0.23	-0.24	-0.13	-0.11	0.18	0.07	0.11	0.19	0.32	0.58	1.09	0.79	1.02	0.98	1.09	-0.24	0.36
28	0.77	0.89	1.01	0.97	0.97	1.01	0.94	0.69	0.18	-0.11	-0.42	-0.34	-0.41	-0.40	-0.25	-0.33	-0.31	-0.32	-0.32	-0.03	0.24	0.35	0.33	0.30	1.01	-0.42	0.23
29	0.73	1.07	1.05	1.01	1.16	1.35	1.24	0.74	0.59	0.45	0.34	0.35	0.42	0.28	0.08	0.06	0.12	0.29	0.40	0.86	1.37	1.78	1.27	1.66	1.78	0.06	0.78
30	1.29	1.51	1.70	1.54	0.96	0.96	0.28	0.04	0.00	-0.24	-0.23	-0.30	-0.32	-0.30	-0.37	-0.46	-0.41	-0.19	-0.03	0.08	0.18	0.15	0.16	0.19	1.70	-0.46	0.26
<b>Max.</b>	<b>2.14</b>	<b>2.26</b>	<b>1.82</b>	<b>1.54</b>	<b>1.16</b>	<b>1.37</b>	<b>1.24</b>	<b>1.03</b>	<b>1.47</b>	<b>2.22</b>	<b>2.66</b>	<b>2.47</b>	<b>2.93</b>	<b>2.81</b>	<b>5.33</b>	<b>3.80</b>	<b>2.82</b>	<b>2.36</b>	<b>0.84</b>	<b>1.24</b>	<b>1.40</b>	<b>1.78</b>	<b>1.27</b>	<b>1.93</b>	<b>5.33</b>		
<b>Min.</b>	<b>-0.55</b>	<b>-0.38</b>	<b>-0.30</b>	<b>-0.18</b>	<b>-0.19</b>	<b>-0.25</b>	<b>-0.30</b>	<b>-0.46</b>	<b>-0.64</b>	<b>-0.82</b>	<b>-0.94</b>	<b>-1.16</b>	<b>-0.86</b>	<b>-0.99</b>	<b>-1.31</b>	<b>-1.42</b>	<b>-1.07</b>	<b>-0.92</b>	<b>-0.89</b>	<b>-0.44</b>	<b>-0.21</b>	<b>-0.29</b>	<b>-0.35</b>	<b>-0.39</b>		<b>-1.42</b>	
<b>Avg.</b>	<b>0.35</b>	<b>0.34</b>	<b>0.34</b>	<b>0.33</b>	<b>0.29</b>	<b>0.31</b>	<b>0.27</b>	<b>0.21</b>	<b>0.11</b>	<b>0.02</b>	<b>-0.07</b>	<b>-0.09</b>	<b>-0.16</b>	<b>-0.12</b>	<b>-0.05</b>	<b>-0.10</b>	<b>-0.07</b>	<b>0.00</b>	<b>0.06</b>	<b>0.23</b>	<b>0.33</b>	<b>0.32</b>	<b>0.33</b>	<b>0.40</b>			<b>0.15</b>

Total Hours in Month

720

Hours Data Available

720

Data Recovery

100.0%

HCG, Inc.

# Northern Dynasty Mines Pebble 1 Meterological Station - Temperature Difference 2-meter to 10-meter (deg. C)

May 2006

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	0.12	0.17	0.24	0.34	0.36	0.33	0.27	0.14	0.06	-0.01	-0.07	-0.15	-0.22	0.02	0.07	0.03	0.01	0.18	0.19	0.35	0.34	0.39	0.25	0.28	0.39	-0.22	0.15
2	0.32	0.30	0.25	0.19	0.25	0.32	0.27	0.05	-0.10	-0.11	-0.20	-0.20	-0.21	-0.29	-0.20	-0.20	-0.10	0.05	0.08	0.33	0.45	0.45	0.34	0.08	0.45	-0.29	0.09
3	0.02	0.12	0.19	0.10	0.18	0.21	0.12	-0.07	-0.24	-0.44	-0.76	-0.84	-1.04	-0.81	-0.60	-0.57	-0.53	0.08	-0.03	0.12	0.64	0.27	0.20	0.16	0.64	-1.04	-0.15
4	0.15	0.38	0.05	-0.06	-0.06	0.02	-0.01	0.09	0.14	0.02	0.02	-0.01	-0.04	-0.05	-0.03	-0.03	-0.07	-0.04	0.03	0.00	0.01	-0.07	-0.04	-0.05	0.38	-0.07	0.01
5	-0.02	-0.05	-0.09	-0.05	-0.03	0.04	0.08	0.07	0.10	0.07	0.06	-0.15	-0.11	-0.12	-0.17	-0.16	-0.17	-0.09	-0.08	0.02	0.07	0.00	-0.01	-0.09	0.10	-0.17	-0.04
6	-0.07	0.00	0.04	-0.01	-0.04	0.01	-0.01	-0.02	-0.09	-0.07	-0.13	-0.10	-0.11	-0.08	-0.27	-0.47	-0.56	-0.48	-0.32	-0.23	-0.21	-0.20	-0.16	-0.23	0.04	-0.56	-0.16
7	-0.22	-0.23	-0.23	-0.24	-0.24	-0.22	-0.24	-0.25	-0.30	-0.28	-0.38	-0.53	-0.68	-0.45	-0.48	-0.31	-0.32	-0.32	-0.17	-0.17	-0.10	-0.15	-0.15	-0.07	-0.07	-0.68	-0.28
8	0.02	0.11	0.19	0.30	0.35	0.44	0.15	-0.16	-0.54	-0.50	-0.60	-0.55	-0.62	-0.54	-0.59	-0.50	-0.49	-0.22	-0.04	0.02	0.06	0.16	0.26	0.28	0.44	-0.62	-0.12
9	0.28	0.40	0.17	0.18	0.23	0.24	0.19	0.12	-0.08	-0.10	-0.06	-0.23	-0.23	-0.21	-0.23	-0.24	-0.15	-0.03	-0.15	0.00	0.55	0.41	0.43	0.34	0.55	-0.24	0.08
10	0.31	0.42	0.33	0.24	0.36	0.33	0.24	0.35	-0.09	-0.43	0.04	0.38	0.25	0.29	0.22	0.08	0.47	0.33	0.56	0.59	0.52	0.94	0.89	0.78	0.94	-0.43	0.35
11	0.47	0.09	0.25	0.37	0.03	0.01	-0.11	-0.16	-0.23	-0.28	-0.26	0.34	0.23	1.26	0.84	0.21	1.15	0.94	0.98	1.30	1.32	1.66	1.48	0.75	1.66	-0.28	0.53
12	0.85	1.48	0.75	0.85	0.97	0.95	0.66	0.48	0.44	0.45	0.41	0.60	0.54	0.52	0.62	0.63	0.64	0.98	1.09	1.61	1.13	0.87	1.13	1.00	1.61	0.41	0.82
13	1.31	1.62	1.83	1.24	1.35	1.10	0.34	0.12	-0.22	-0.11	-0.60	-0.46	-0.28	-0.27	-0.52	-0.49	-0.61	-0.20	-0.03	0.16	0.20	0.24	0.21	0.33	1.83	-0.61	0.26
14	0.48	0.58	0.63	0.82	0.56	0.47	0.15	-0.05	-0.11	-0.33	-0.43	-0.45	-0.38	-0.41	-0.37	-0.38	-0.26	-0.08	0.07	0.25	0.29	0.42	0.26	0.20	0.82	-0.45	0.08
15	0.20	0.36	0.46	0.37	0.17	0.19	0.19	-0.21	-0.33	-0.13	-0.17	-0.24	-0.72	-0.55	-0.55	-0.64	-0.80	-0.76	-0.38	-0.20	0.61	0.88	0.61	0.44	0.88	-0.80	-0.05
16	0.34	0.18	0.17	0.23	0.01	0.10	-0.20	-0.09	-0.47	-0.57	-0.39	-0.85	-1.31	-1.20	-1.09	-0.53	-0.80	-0.81	-0.62	-0.25	0.64	1.27	0.95	1.35	1.35	-1.31	-0.16
17	0.79	0.45	0.58	0.91	0.60	0.46	0.10	-0.28	-0.50	-0.59	-0.54	-0.75	-0.71	-0.69	-0.50	-0.33	-0.53	-0.32	-0.14	0.00	0.19	0.16	0.17	0.22	0.91	-0.75	-0.05
18	0.33	0.38	0.64	0.72	0.26	0.04	0.03	-0.06	-0.16	-0.46	-0.48	-0.64	-0.89	-0.70	-0.72	-1.09	-0.46	-0.07	0.21	0.12	0.21	0.34	0.43	0.23	0.72	-1.09	-0.08
19	0.16	0.30	0.28	0.19	0.15	0.61	0.26	-0.20	-0.50	-0.68	-0.73	-0.56	-0.33	-0.21	-0.07	-0.08	-0.02	-0.04	-0.05	-0.03	-0.02	-0.05	-0.06	-0.05	0.61	-0.73	-0.07
20	-0.02	-0.01	0.01	0.01	0.00	0.05	0.13	0.20	0.16	0.13	0.07	-0.01	-0.15	-0.32	-0.25	-0.16	-0.02	-0.05	-0.14	0.13	0.39	0.33	0.25	0.20	0.39	-0.32	0.04
21	0.18	0.12	0.04	-0.04	-0.05	-0.02	-0.02	-0.08	-0.07	-0.08	-0.19	-0.44	-0.53	-0.42	-0.62	-0.25	-0.09	0.02	-0.04	0.07	0.24	0.29	0.37	0.41	0.41	-0.62	-0.05
22	0.50	0.46	0.42	0.37	0.35	0.22	0.02	-0.16	-0.37	-0.53	-0.69	-0.59	-0.74	-0.85	-0.82	-0.66	-0.40	-0.35	-0.14	0.25	0.81	0.86	1.03	1.20	1.20	-0.85	0.01
23	0.93	1.08	1.39	1.02	1.20	0.60	0.57	-0.18	-0.44	-0.47	-0.55	-0.65	-0.80	-0.97	-0.57	-0.49	-0.44	0.09	0.24	0.37	0.72	1.41	1.61	2.12	2.12	-0.97	0.33
24	2.58	1.51	1.13	1.43	1.27	0.85	0.50	-0.12	-0.29	-0.34	-0.49	-0.48	-0.61	-0.70	-0.81	-0.86	-0.31	-0.05	0.09	1.37	1.75	1.76	1.31	2.01	2.58	-0.86	0.52
25	2.15	1.93	2.37	1.92	2.41	1.89	1.02	-0.08	-0.32	-0.37	-0.54	-0.65	-0.72	-0.67	-0.66	-0.80	-0.91	-0.78	-0.11	0.10	0.57	1.25	1.91	1.70	2.41	-0.91	0.53
26	2.10	2.37	2.61	2.47	2.87	0.94	0.57	-0.05	-0.41	-0.53	-0.63	-0.80	-1.02	-0.98	-0.85	-0.77	-0.54	-0.16	0.12	0.70	1.06	1.25	0.71	1.45	2.87	-1.02	0.52
27	1.98	1.08	0.64	1.11	0.87	0.83	0.38	0.23	-0.18	-0.56	-0.55	-0.60	-0.99	-0.80	-0.96	-1.12	-0.68	-0.58	-0.21	0.49	0.79	1.65	2.33	1.74	2.33	-1.12	0.29
28	1.62	1.43	0.97	0.76	0.88	0.71	0.16	-0.44	-0.72	-0.69	-0.65	-0.72	-0.89	-0.90	-0.89	-0.85	-0.74	-0.66	-0.51	-0.35	0.23	0.69	1.08	1.30	1.62	-0.90	0.03
29	1.47	1.43	1.36	1.25	1.08	0.56	-0.12	-0.57	-0.82	-1.00	-1.13	-1.23	-1.29	-1.32	-1.24	-1.12	-0.95	-0.71	-0.38	-0.09	0.24	0.50	0.66	0.93	1.47	-1.32	-0.10
30	0.97	0.97	1.05	0.65	0.43	0.38	-0.06	-0.42	-0.64	-0.91	-1.22	-1.22	-1.11	-1.13	-1.03	-0.93	-0.57	-0.46	-0.16	-0.03	-0.02	0.04	0.22	0.42	1.05	-1.22	-0.20
31	0.19	0.07	0.11	0.00	0.00	-0.11	-0.19	-0.35	-0.30	-0.33	-0.42	-0.52	-0.42	-0.40	-0.45	-0.34	-0.27	-0.27	-0.24	-0.19	-0.15	-0.12	-0.10	-0.09	0.19	-0.52	-0.20
<b>Max.</b>	<b>2.58</b>	<b>2.37</b>	<b>2.61</b>	<b>2.47</b>	<b>2.87</b>	<b>1.89</b>	<b>1.02</b>	<b>0.48</b>	<b>0.44</b>	<b>0.45</b>	<b>0.41</b>	<b>0.60</b>	<b>0.54</b>	<b>1.26</b>	<b>0.84</b>	<b>0.63</b>	<b>1.15</b>	<b>0.98</b>	<b>1.09</b>	<b>1.61</b>	<b>1.75</b>	<b>1.76</b>	<b>2.33</b>	<b>2.12</b>	<b>2.87</b>		
<b>Min.</b>	<b>-0.22</b>	<b>-0.23</b>	<b>-0.23</b>	<b>-0.24</b>	<b>-0.24</b>	<b>-0.22</b>	<b>-0.24</b>	<b>-0.57</b>	<b>-0.82</b>	<b>-1.00</b>	<b>-1.22</b>	<b>-1.23</b>	<b>-1.31</b>	<b>-1.32</b>	<b>-1.24</b>	<b>-1.12</b>	<b>-0.95</b>	<b>-0.81</b>	<b>-0.62</b>	<b>-0.35</b>	<b>-0.21</b>	<b>-0.20</b>	<b>-0.16</b>	<b>-0.23</b>		<b>-1.32</b>	
<b>Avg.</b>	<b>0.66</b>	<b>0.63</b>	<b>0.61</b>	<b>0.57</b>	<b>0.54</b>	<b>0.41</b>	<b>0.18</b>	<b>-0.07</b>	<b>-0.24</b>	<b>-0.33</b>	<b>-0.39</b>	<b>-0.43</b>	<b>-0.52</b>	<b>-0.45</b>	<b>-0.44</b>	<b>-0.43</b>	<b>-0.31</b>	<b>-0.16</b>	<b>-0.01</b>	<b>0.22</b>	<b>0.44</b>	<b>0.58</b>	<b>0.60</b>	<b>0.62</b>			<b>0.09</b>

**Total Hours in Month** 744 **Hours Data Available** 744 **Data Recovery** 100.0%





# Northern Dynasty Mines Pebble 1 Meterological Station - Temperature Difference 2-meter to 10-meter (deg. C)

July 2006

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	-0.16	-0.10	-0.13	-0.11	-0.10	-0.15	-0.17	-0.19	-0.30	-0.28	-0.55	-0.55	-0.56	-1.01	-0.96	-0.97	-1.01	-0.93	-0.81	-0.61	-0.28	0.18	0.48	0.64	0.64	-1.01	-0.36
2	0.62	0.65	1.17	1.08	0.75	0.70	-0.13	-0.53	-0.74	-0.89	-0.97	-1.12	-1.21	-1.18	-1.24	-1.18	-1.06	-0.95	-0.76	-0.44	-0.04	0.43	0.79	0.65	1.17	-1.24	-0.23
3	0.48	0.47	0.62	0.76	0.89	0.42	-0.18	-0.47	-0.51	-0.89	-0.92	-0.95	-0.85	-0.91	-1.02	-0.80	-0.71	-0.78	-0.73	-0.47	-0.20	0.42	0.88	0.72	0.89	-1.02	-0.20
4	0.76	0.94	1.19	0.93	0.53	0.71	0.16	-0.28	-0.45	-0.59	-0.76	-0.77	-0.98	-1.02	-0.96	-1.03	-1.27	-1.03	-0.84	-0.54	-0.19	0.21	0.34	0.38	1.19	-1.27	-0.19
5	0.49	0.46	0.42	0.67	0.98	0.61	0.07	-0.20	-0.25	-0.38	-0.49	-0.66	-0.61	-0.71	-1.07	-1.10	0.07	0.40	0.01	-0.10	0.19	0.27	0.30	0.65	0.98	-1.10	0.00
6	0.80	0.99	0.75	0.87	0.75	1.34	0.03	-0.31	-0.47	-0.66	-0.63	-0.65	-0.55	-0.85	-1.21	-1.16	-0.67	-0.07	-0.10	-0.08	0.01	-0.11	0.06	0.04	1.34	-1.21	-0.08
7	-0.09	-0.13	-0.13	-0.13	-0.11	-0.10	-0.13	-0.14	-0.16	-0.16	-0.20	-0.20	-0.25	-0.14	-0.21	-0.24	-0.25	-0.15	-0.15	-0.13	-0.10	-0.09	-0.11	-0.11	-0.09	-0.25	-0.15
8	-0.10	-0.12	-0.12	-0.11	-0.09	-0.12	-0.16	-0.20	-0.33	-0.41	-0.30	-0.30	-0.41	-0.43	-0.34	-0.30	-0.33	-0.45	-0.41	-0.38	-0.32	0.25	0.34	0.21	0.34	-0.45	-0.21
9	0.09	0.14	0.41	0.51	0.67	0.13	-0.18	-0.36	-0.53	-0.40	-0.62	-0.87	-1.03	-1.07	-0.91	-1.13	-0.98	-0.81	-0.50	-0.21	0.04	0.24	0.20	0.15	0.67	-1.13	-0.29
10	0.12	0.13	0.10	0.13									0.03	-0.09	-0.12	-0.15	-0.26	-0.55	-0.47	-0.81	-0.91	-1.18	-0.33	0.59	0.59	-1.18	-0.24
11			-0.54	-0.41	-0.15	-0.15	0.00	0.06	0.05		-0.02	-0.06	-0.04	0.00	-0.01	-0.06	-0.17	-0.22	0.58				-0.74	-1.07	0.58	-1.07	-0.16
12	-1.08	-0.87	-0.71	-0.66	-0.65	-0.23	0.04	0.23	0.25	0.29	0.17	0.29	0.33	0.45	0.21	-0.24	-0.53	-0.67	-0.88	-1.02	-1.07	-1.15	-1.11	-1.07	0.45	-1.15	-0.40
13	-0.97	-0.92	-0.31	-0.59	-0.38	0.03	0.55	1.25	1.23	1.15	1.46	1.54	1.31	1.44	0.42	0.29	-0.28	-0.33	-0.45	-0.53	-0.57	-0.54	-0.83	-0.78	1.54	-0.97	0.13
14	-0.43	-0.31	-0.31	-0.27	-0.23	-0.12	-0.10	-0.10	-0.08	-0.08	-0.09	-0.08	-0.08	-0.09	-0.11	-0.20	-0.25	-0.29	-0.36	-0.44	-0.51	-0.52	-0.50	-0.38	-0.08	-0.52	-0.25
15	-0.31	-0.27	-0.22	-0.18	-0.16	-0.13	-0.11	-0.10	-0.09	-0.08	-0.04	-0.04	-0.06	-0.07	-0.08	-0.19	-0.29	-0.35	-0.39	-0.56	-0.68	-0.60	-0.77	-0.76	-0.04	-0.77	-0.27
16	-0.74	-0.83	-0.75	-0.62	-0.36	-0.15	-0.12	-0.11	-0.06	-0.14	-0.10	-0.06	0.10	0.13	0.04	-0.03	-0.13	-0.15	-0.18	-0.42	-0.56	-0.62	-0.52	-0.76	0.13	-0.83	-0.30
17	-0.77	-0.66	-0.33	-0.19	-0.09	-0.04	-0.02	0.01	0.01	0.01	0.01	-0.02	-0.03	-0.04	0.01	-0.01	-0.08	-0.16	-0.24	-0.49	-0.39	-0.36	-0.57	-0.53	0.01	-0.77	-0.21
18	-0.31	-0.29	-0.14	-0.12	-0.10	-0.07	-0.06	-0.03	-0.03	-0.01	-0.03	-0.05	-0.06	-0.06	-0.05	-0.07	-0.10	-0.22	-0.50	-0.70	-0.54	-0.38	-0.77	-0.48	-0.01	-0.77	-0.21
19	-0.29	-0.19	-0.15	-0.13	-0.11	-0.06	-0.02	0.02	0.04	0.06	0.07	0.06	0.08	0.07	0.26	0.13	-0.15	-0.37	-0.48	-0.63	-0.49	-0.62	-0.64	-0.46	0.26	-0.64	-0.17
20	-0.79	-0.68	-0.62	-0.50	-0.15	0.25	0.73	0.27	0.21	0.65	1.06	0.88	0.93	1.10	1.62	0.58	-0.23	-0.57	-0.78	-0.75	-1.00	-0.72	-1.09	-0.93	1.62	-1.09	-0.02
21	-0.87	-0.85	-0.60	-0.31	-0.27	-0.03	-0.03	-0.05	-0.14	-0.14	0.06	0.35	0.49	0.50	0.45	0.42	-0.31	-0.53	-0.60	-0.77	-0.71	-0.28	-0.23	-0.32	0.50	-0.87	-0.20
22	-0.58	-0.45	-0.46	-0.32	-0.17	-0.03	0.32	0.32	0.46	0.48	0.44	0.30	0.35	0.33	0.39	0.32	0.00	-0.21	-0.47	-0.46	-0.54	-0.52	-0.82	-0.80	0.48	-0.82	-0.09
23	-0.56	-0.37	-0.26	-0.17	-0.12	-0.04	0.06	0.14	0.17	0.18	0.12	0.06	0.05	0.06	-0.03	-0.06	-0.13	-0.11	-0.30	-0.28	-0.29	-0.22	-0.13	-0.19	0.18	-0.56	-0.10
24	-0.22	-0.22	-0.12	-0.15	-0.09	-0.05	-0.02	0.07	0.07	0.01	-0.02	-0.02	-0.01	0.04	0.09	0.15	0.05	0.01	-0.14	-0.17	-0.26	-0.27	-0.20	-0.23	0.15	-0.27	-0.07
25	-0.25	-0.23	-0.20	-0.15	-0.12	-0.10	-0.09	-0.05	-0.04	-0.06	-0.04	0.01	0.02	-0.01	0.05	0.05	-0.11	-0.17	-0.30	-0.31	-0.41	-0.42	-0.52	-0.74	0.05	-0.74	-0.17
26	-0.67	-0.57	-0.58	-0.51	-0.32	-0.20	-0.06	0.03	0.02	0.02	0.16	0.25	0.13	0.24	0.20	0.16	-0.07	-0.17	-0.45	-0.67	-0.88	-1.05	-1.01	-1.02	0.25	-1.05	-0.29
27	-1.29	-1.26	-1.10	-0.91	-0.62	-0.24	-0.05	-0.15	-0.18	-0.16	-0.13	-0.04	0.08	0.03	0.09	0.05	-0.26	-0.34	-0.43	-0.31	-0.48	-0.54	-0.77	-0.77	0.09	-1.29	-0.41
28	-0.76	-0.70	-0.62	-0.46	-0.21	-0.01	0.41	0.44	0.24	0.18	0.19	0.29	0.29	0.39	0.22	0.11	-0.30	-0.50	-0.60	-0.61	-0.65	-0.69	-1.09	-0.99	0.44	-1.09	-0.23
29	-0.48	-0.29	-0.36	-0.40	-0.26	-0.21	-0.14	-0.10	-0.10	-0.09	-0.09	-0.04	-0.04	-0.08	-0.09	-0.11	-0.14	-0.19	-0.24	-0.23	-0.32	-0.71	-1.10	-1.00	-0.04	-1.10	-0.28
30	-0.91	-0.80	-1.06	-0.76	-0.29	-0.24	-0.16	-0.10	-0.05	-0.05	-0.04	-0.04	-0.06	-0.10	-0.11	-0.17	-0.15	-0.20	-0.27	-0.35	-0.39	-0.45	-0.56	-0.64	-0.04	-1.06	-0.33
31	-0.62	-0.47	-0.71	-0.29	-0.31	0.08	0.30	0.40	0.60	0.34	0.35	0.12	0.15	-0.01	-0.04	-0.12	-0.20	-0.37	-0.40	-0.39	-0.53	-0.51	-0.83	-0.66	0.60	-0.83	-0.17
<b>Max.</b>	<b>0.80</b>	<b>0.99</b>	<b>1.19</b>	<b>1.08</b>	<b>0.98</b>	<b>1.34</b>	<b>0.73</b>	<b>1.25</b>	<b>1.23</b>	<b>1.15</b>	<b>1.46</b>	<b>1.54</b>	<b>1.31</b>	<b>1.44</b>	<b>1.62</b>	<b>0.58</b>	<b>0.07</b>	<b>0.40</b>	<b>0.58</b>	<b>-0.08</b>	<b>0.19</b>	<b>0.43</b>	<b>0.88</b>	<b>0.72</b>	<b>1.62</b>		
<b>Min.</b>	<b>-1.29</b>	<b>-1.26</b>	<b>-1.10</b>	<b>-0.91</b>	<b>-0.65</b>	<b>-0.24</b>	<b>-0.18</b>	<b>-0.53</b>	<b>-0.74</b>	<b>-0.89</b>	<b>-0.97</b>	<b>-1.12</b>	<b>-1.21</b>	<b>-1.18</b>	<b>-1.24</b>	<b>-1.18</b>	<b>-1.27</b>	<b>-1.03</b>	<b>-0.88</b>	<b>-1.02</b>	<b>-1.07</b>	<b>-1.18</b>	<b>-1.11</b>	<b>-1.07</b>		<b>-1.29</b>	
<b>Avg.</b>	<b>-0.33</b>	<b>-0.26</b>	<b>-0.19</b>	<b>-0.11</b>	<b>-0.03</b>	<b>0.06</b>	<b>0.02</b>	<b>-0.01</b>	<b>-0.04</b>	<b>-0.07</b>	<b>-0.06</b>	<b>-0.08</b>	<b>-0.08</b>	<b>-0.10</b>	<b>-0.15</b>	<b>-0.23</b>	<b>-0.33</b>	<b>-0.37</b>	<b>-0.41</b>	<b>-0.46</b>	<b>-0.43</b>	<b>-0.35</b>	<b>-0.38</b>	<b>-0.34</b>			<b>-0.20</b>

Total Hours in Month

744

Hours Data Available

730

Data Recovery

98.1%

HCG, Inc.

## Northern Dynasty Mines Pebble 1 Meterological Station - Relative Humidity (%)

*August 2005*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	89.6	92.0	92.5	95.8	99.0	99.2	98.3	96.3	98.3	95.2	93.6	92.0	92.5	88.6	88.2	87.7	80.0	80.4	80.1	87.8	91.7	94.9	97.0	99.0	99.2	80.0	92.1	
2	97.2	95.6	93.4	93.3	93.3	93.5	90.6	86.7	84.6	81.4	78.9	76.6	78.2	87.3	81.9	82.5	85.3	84.4	84.8	81.3	77.7	77.4	77.5	77.8	97.2	76.6	85.1	
3	76.7	79.9	86.0	84.3	85.6	86.8	87.2	87.6	84.5	78.8	72.8	60.9	61.7	63.9	64.9	74.5	83.1	75.6	77.8	79.3	81.9	84.2	82.4	86.7	87.6	60.9	78.6	
4	93.3	92.6	94.2	94.9	95.0	95.2	95.0	96.0	94.4	92.5	91.1	89.7	89.2	90.7	91.6	91.4	87.9	88.9	87.1	88.6	93.0	94.4	96.2	97.4	97.4	87.1	92.5	
5	97.8	98.0	98.2	98.4	98.4	98.5	98.5	98.1	95.2	96.7				85.5	82.0	79.7	78.9	79.3	79.2	82.8	86.6	87.2	89.9	90.1	98.5	78.9	90.4	
6	91.1	89.1	89.4	93.8	93.6	93.5	92.0	88.6	86.6	83.4	79.9	76.4	71.5	65.7	62.4	64.6	63.6	63.4	63.5	73.6	78.8	82.6	84.8	87.5	93.8	62.4	80.0	
7	86.6	88.8	90.1	90.8	91.5	89.9	92.0	91.0	86.6	84.4	80.7	80.2	77.6	74.6	71.7	70.1	66.8	68.5	70.8	74.0	80.5	85.2	88.1	89.3	92.0	66.8	82.1	
8	89.3	88.3	91.9	93.4	93.5	94.5	92.5	91.9	88.4	79.1	71.2	68.2	62.5	60.0	61.3	59.6	59.6	60.1	60.6	61.8	60.0	60.8	61.2	69.0	94.5	59.6	74.1	
9	68.9	68.5	69.7	70.8	68.8	70.6	76.8	74.8	69.3	65.5	62.3	62.9	60.7	59.9	60.2	59.1	53.1	50.2	54.2	59.2	68.3	73.6	74.1	75.9	76.8	50.2	65.7	
10	81.8	83.9	84.6	88.9	90.9	93.6	93.2	94.3	93.5	85.8	74.1	66.8	60.8	56.1	51.3	48.8	49.7	51.5	55.8	58.5	62.2	61.2	67.2	74.6	94.3	48.8	72.1	
11	76.0	81.3	84.1	84.9	84.6	86.2	85.4	84.2	78.5	74.2	67.3	60.5	55.3	48.6	45.2	41.4	35.0	34.2	36.4	39.2	51.4	54.5	60.8	61.4	86.2	34.2	62.9	
12	59.0	68.9	75.6	75.2	73.5	75.6	68.0	67.0	67.0	64.6	54.8	52.5	48.4	46.0	46.7	49.2	51.1	54.3	58.1	64.1	68.5	71.2	72.2	71.4	75.6	46.0	62.6	
13	69.5	69.0	70.1	69.7	71.0	75.1	72.4	71.5	73.6	69.3	60.7	56.9	54.3	53.9	56.3	58.8	60.5	65.5	61.0	66.5	70.7	73.1	74.7	75.7	75.7	53.9	66.7	
14	74.6	71.0	67.8	67.3	75.0	81.6	68.3	97.1	99.1	93.3	82.3	75.3	69.4	64.3	62.0	59.4	62.5	61.4	61.6	73.0	82.3	84.5	89.7	85.3	99.1	59.4	75.3	
15	74.5	77.1	92.2	96.3	96.1	97.9	98.4	98.8	99.1	99.2	98.7	89.4	81.0	77.9	78.0	80.2	77.8	81.7	86.0	89.2	91.8	92.5	93.9	93.3	99.2	74.5	89.2	
16	91.0	92.0	91.7	91.6	92.5	91.1	91.3	90.0	86.9	82.5	78.7	81.2	82.8	84.9	82.2	84.0	85.5	86.4	87.7	85.6	87.1	89.0	89.6	89.4	92.5	78.7	87.3	
17	89.3	86.7	91.3	91.0	89.5	95.2	96.5	97.2	95.4	93.2	92.7	90.0	91.1	95.4	93.3	92.0	87.8	87.0	89.7	86.3	90.4	91.2	90.6	88.3	97.2	86.3	91.3	
18	88.8	88.8	88.0	89.4	92.2	93.6	91.5	92.5	95.2	96.3	90.8	86.5	82.3	82.0	88.6	92.6	93.7	90.4	89.4	92.6	95.6	97.1	97.9	98.2	98.2	82.0	91.4	
19	98.3	98.5	98.6	98.8	98.7	98.7	99.0	98.7	94.2	89.6	87.2	76.7	62.7	52.6	47.2	48.3	46.8	46.7	52.4	61.9	67.1	72.9	74.9	78.4	99.0	46.7	77.0	
20	80.5	80.5	84.6	85.4	85.6	93.2	95.7	97.2	94.7			81.4	78.5	74.2	73.0	72.4	75.2	78.9	84.9	94.2	94.4	95.7	97.0	97.6	97.6	72.4	86.1	
21	97.3	97.1	97.8	97.7	97.6	97.3	97.3	95.0	89.7	83.8	74.5	65.9	71.4	65.8	63.7	62.3	57.6	55.2	53.4	65.3	73.8	77.3	77.8	77.7	97.8	53.4	78.8	
22	77.0	77.5	77.3	77.4	75.8	77.8	81.4	85.7	87.4	90.3	95.8	87.1	82.0	88.3	90.9	93.7	97.1	98.0	97.5	97.4	97.7	98.4	98.8	99.0	99.0	75.8	88.7	
23	99.0	99.1	99.0	98.9	98.9	98.8	98.8	98.8	96.7	96.5	97.0	98.0	98.5	98.4	98.4	98.1	97.9	98.1	98.4	98.7	98.8	98.9	99.1	99.2	99.2	96.5	98.4	
24	99.3	99.3	99.4	99.4	99.4																				99.4	99.3	99.4	
25																												
26														47.7	45.2	44.2	58.4	73.1	83.9	84.2	79.5	77.5	82.1	84.0	84.2	44.2	69.1	
27	85.2	83.3	83.8	82.4	83.3	84.2	86.5	82.4	75.9	66.3	61.4	55.9	49.9	47.4	45.3	49.9	52.0	63.2	73.8	74.7	74.7	77.6	79.3	81.6	86.5	45.3	70.8	
28	82.5	83.5	83.6	83.6	82.5	82.4	82.3	81.5	81.1	80.0	78.8	76.8	75.6	73.7	72.4	73.5	73.8	71.6	69.0	70.9	70.5	68.8	66.8	64.3	83.6	64.3	76.2	
29	61.0	57.2	54.6	52.9	50.8																				61.0	50.8	55.3	
30																					82.4	88.5	92.8	93.2	93.2	82.4	89.2	
31	95.4	95.7	95.9	96.9	97.2	97.2	96.9	96.4	91.3	88.2	81.6	75.2	73.6	64.5	64.0	64.3	66.9	67.9	55.5	60.7	67.5	71.3	70.7	66.9	97.2	55.5	79.2	
<b>Max.</b>	<b>99.3</b>	<b>99.3</b>	<b>99.4</b>	<b>99.4</b>	<b>99.4</b>	<b>99.2</b>	<b>99.0</b>	<b>98.8</b>	<b>99.1</b>	<b>99.2</b>	<b>98.7</b>	<b>98.0</b>	<b>98.5</b>	<b>98.4</b>	<b>98.4</b>	<b>98.1</b>	<b>97.9</b>	<b>98.1</b>	<b>98.4</b>	<b>98.7</b>	<b>98.8</b>	<b>98.9</b>	<b>99.1</b>	<b>99.2</b>	<b>99.4</b>			
<b>Min.</b>	<b>59.0</b>	<b>57.2</b>	<b>54.6</b>	<b>52.9</b>	<b>50.8</b>	<b>70.6</b>	<b>68.0</b>	<b>67.0</b>	<b>67.0</b>	<b>64.6</b>	<b>54.8</b>	<b>52.5</b>	<b>48.4</b>	<b>46.0</b>	<b>45.2</b>	<b>41.4</b>	35.0	34.2	<b>36.4</b>	<b>39.2</b>	<b>51.4</b>	<b>54.5</b>	<b>60.8</b>	<b>61.4</b>		<b>34.2</b>		
<b>Avg.</b>	<b>84.7</b>	<b>85.1</b>	<b>86.6</b>	<b>87.3</b>	<b>87.6</b>	<b>90.0</b>	<b>89.5</b>	<b>90.0</b>	<b>88.0</b>	<b>84.4</b>	<b>79.5</b>	<b>75.3</b>	<b>72.5</b>	<b>70.3</b>	<b>69.2</b>	<b>69.7</b>	<b>69.9</b>	<b>71.0</b>	<b>72.3</b>	<b>76.0</b>	<b>79.5</b>	<b>81.5</b>	<b>83.1</b>	<b>84.0</b>			<b>80.3</b>	

**Total Hours in Month**

744

**Hours Data Available**

644

**Data Recovery**

86.6%

**HCG, Inc.**

# Northern Dynasty Mines Pebble 1 Meterological Station - Relative Humidity (%)

*September 2005*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	74.0	76.9	80.8	79.9	82.2	85.2	86.6	79.3	73.1	66.3	61.3	54.9	47.8	46.2	40.4	36.0	35.0	35.9	38.5	46.1	58.1	62.2	62.8	64.7	86.6	35.0	61.4
2	65.1	65.4	66.8	67.6	68.6	71.9	70.8	72.5	72.5	76.5	74.0	71.0	67.7	61.2	56.9	57.7	57.5	55.6	57.9	65.6	69.2	72.8	79.3	84.8	84.8	55.6	67.9
3	87.1	86.9	89.8	92.3	90.9	93.4	92.5	88.5	86.7	87.0	87.4	92.0	94.5	95.3	92.4	90.4	86.4	86.6	91.1	96.0	97.6	98.1	98.3	98.5	98.5	86.4	91.7
4	98.6	98.7	98.8	98.8	98.9	98.9	99.0	99.0	99.1	99.1	99.1	99.1	98.6	94.9	91.9	91.2	90.7	92.5	94.0	96.8	98.3	98.4	98.7	98.9	99.1	90.7	97.2
5	99.1	99.2	99.3	99.3	99.3	99.4	99.4	99.5	99.5	99.5	99.5	98.5	98.1	98.0	98.5	99.0	99.3	99.4	99.5	99.5	99.6	99.6	99.6	99.7	99.7	98.0	99.2
6	99.7	99.7	99.7	99.7	99.5	99.5	99.6	99.7	99.6	99.6	99.6	99.3	99.2	98.9	98.6	96.7	95.8	97.7	97.8	97.4	98.2	98.6	98.0	97.9	99.7	95.8	98.8
7	98.8	98.9	99.2	99.4	99.5	99.6	99.5	99.4	99.7	99.5	96.7	90.0	86.3	88.5	82.0	78.0	82.6	81.5	81.4	84.2	87.4	90.2	93.4	96.0	99.7	78.0	92.2
8	95.1	97.2	98.3	97.6	96.2	96.7	96.4	94.5	90.3	85.1	78.6	77.9	81.3	78.0	75.2	77.4	80.8	83.6	90.8	91.2	87.9	90.3	97.5	96.6	98.3	75.2	88.9
9	97.1	98.3	99.0	99.3	99.4	99.5	99.5	99.6	99.7	99.7	99.8	99.8	99.8	99.8	99.8	99.7	99.7	99.6	98.4	97.4	97.1	96.9	97.8	97.5	99.8	96.9	98.9
10	98.2	96.8	97.2	98.7	99.3	99.5	99.6	99.7	99.7	99.5	97.9	94.6	95.3	94.2	92.8	90.8	87.3	84.8	86.7	93.0	94.1	92.3	92.7	92.8	99.7	84.8	94.9
11	92.6	94.0	93.1	92.5	93.2	93.4	94.3	91.6	89.2	86.2	86.2	85.9	87.1	87.0	87.6	88.5	91.1	95.4	98.0	98.2	98.7	99.2	99.4	99.1	99.4	85.9	92.6
12	99.2	98.2	92.9	88.0	89.2	94.9	96.6	98.0	96.1	96.2	98.1	98.8	98.9	98.8	98.2	98.0	97.7	97.5	97.9	96.4	94.7	95.0	94.6	92.5	99.2	88.0	96.1
13	89.8	91.0	93.1	95.9	97.1	96.4	95.6	94.5	95.8	96.4	95.9	93.0	86.1	78.8	71.5	75.4	75.4	78.9	83.9	88.1	90.0	89.7	88.5	86.3	97.1	71.5	88.6
14	93.1	94.1	95.2	95.5	94.5	95.2	94.2	92.6	91.3	89.7	80.2	74.3	74.1	65.1	59.2	58.9	60.8	65.8	71.1	82.6	87.1	88.1	91.4	96.9	96.9	58.9	83.0
15	97.4	97.5	98.1	98.6	98.8	99.0	99.1	98.8	98.3	98.8	98.6	98.5	98.4	98.2	97.8	97.7	97.6	98.9	98.6	98.9	99.1	99.3	99.4	99.5	99.5	97.4	98.5
16	96.8	92.0	95.1	95.7	95.2	96.8	98.0	97.2	97.7	98.0	91.3	86.7	86.4	76.5	72.7	70.5	73.5	79.4	86.1	91.9	91.9	97.0	96.4	97.0	98.0	70.5	90.0
17	97.2	97.6	97.4	97.8	98.7	99.0	99.1	99.4	99.6	99.4	97.3	91.7	78.1	80.1	88.2	87.4	88.5	88.5	86.1	84.8	89.1	87.7	88.4	88.8	99.6	78.1	92.1
18	90.2	91.3	90.9	89.1	87.8	90.6	93.0	96.4	97.1	89.0	83.2	76.0	69.5	66.7	64.9	70.6	67.1	64.2	72.6	77.6	82.8	84.5	84.7	83.6	97.1	64.2	81.8
19	83.1	83.2	82.6	81.1	83.5	81.8	81.3	81.2	78.8	77.4	73.4	67.4	63.6	60.5	60.9	60.8	62.1	64.4	68.8	75.3	79.6	83.6	89.0	87.1	89.0	60.5	75.4
20	88.2	88.1	86.9	88.8	92.1	91.9	92.0	92.0	92.1	85.1	78.5	75.4	70.8	61.9	70.8	62.3	61.3	62.7	64.2	71.1	74.9	77.1	80.2	83.0	92.1	61.3	78.8
21	83.9	86.9	89.5	97.2	98.7	98.8	98.9	99.1	99.2	99.3	99.4	99.2	99.4	99.4	99.2	98.6	98.4	97.6	97.4	97.2	97.9	98.3	97.6	97.8	99.4	83.9	97.0
22	98.7	99.1	99.2	98.8	96.4	97.1	94.7	93.0	92.6	93.8	94.6	97.2	96.7	97.7	98.7	99.1	99.3	99.5	99.2	98.0	97.6	95.3	95.4	95.5	99.5	92.6	97.0
23	96.0	97.5	98.1	98.3	98.8	99.2	99.4	99.4	99.5	99.3	98.2	94.8	89.7	84.9	83.3	87.1	96.6	98.8	98.8	97.1	97.8	97.2	96.9	97.9	99.5	83.3	96.0
24	98.3	99.1	99.1	98.4	98.4	99.6	99.8	99.6	99.7	99.8	99.4	98.3	96.4	95.6	95.3	95.2	93.2	91.8	95.2	96.8	98.5	98.6	98.5	99.0	99.8	91.8	97.7
25	99.4	99.4	99.6	99.7	99.8	99.9	99.9	100.0	99.9	99.9	99.8	99.7	99.5	98.8	97.1	96.1	95.5	96.4	96.9	98.0	98.1	98.1	98.7	99.2	100.0	95.5	98.7
26	99.4	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	95.5	88.8	84.0	79.9	80.7	88.5	88.3	82.0	77.8	76.5	75.6	82.4	75.6	100.0	75.6	90.6
27	77.5	75.4	72.7	72.5	69.7	69.9	66.5	68.2	72.0	68.1	66.9	66.8	68.4	68.1	74.1	69.1	80.6	88.5	92.8	95.1	96.5	97.1	97.5	98.1	98.1	66.5	78.0
28	98.3	99.1	98.7	95.8	95.5	96.7	95.0	94.6	95.8	98.2	98.7	97.5	91.9	87.6	88.1	88.8	90.6	89.6	90.6	91.4	93.4	94.6	95.9	96.1	99.1	87.6	94.3
29	97.3	98.2	98.4	98.6	98.9	98.9	99.5	99.7	99.8	99.8	99.3	98.7	98.5	97.5	96.7	96.5	93.9	95.1	95.9	97.4	98.1	98.0	98.7	96.3	99.8	93.9	97.9
30	97.2	98.6	99.2	99.0	98.2	98.7	98.9	99.5	99.1	93.4	85.4	88.2	89.5	81.1	81.6	76.4	79.5	91.0	95.6	98.8	98.9	99.7	100.0	100.0	100.0	76.4	93.6
<b>Max.</b>	<b>99.7</b>	<b>99.9</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>99.8</b>	<b>99.8</b>	<b>99.8</b>	<b>99.8</b>	<b>99.7</b>	<b>99.7</b>	<b>99.6</b>	<b>99.5</b>	<b>99.5</b>	<b>99.6</b>	<b>99.7</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>		
<b>Min.</b>	<b>65.1</b>	<b>65.4</b>	<b>66.8</b>	<b>67.6</b>	<b>68.6</b>	<b>69.9</b>	<b>66.5</b>	<b>68.2</b>	<b>72.0</b>	<b>66.3</b>	<b>61.3</b>	<b>54.9</b>	<b>47.8</b>	<b>46.2</b>	<b>40.4</b>	<b>36.0</b>	<b>35.0</b>	<b>35.9</b>	<b>38.5</b>	<b>46.1</b>	<b>58.1</b>	<b>62.2</b>	<b>62.8</b>	<b>64.7</b>		<b>35.0</b>	
<b>Avg.</b>	<b>92.9</b>	<b>93.3</b>	<b>93.6</b>	<b>93.8</b>	<b>93.9</b>	<b>94.7</b>	<b>94.6</b>	<b>94.2</b>	<b>93.8</b>	<b>92.7</b>	<b>90.6</b>	<b>88.7</b>	<b>86.7</b>	<b>84.1</b>	<b>83.1</b>	<b>82.5</b>	<b>83.5</b>	<b>85.0</b>	<b>86.9</b>	<b>89.3</b>	<b>91.0</b>	<b>91.8</b>	<b>93.1</b>	<b>93.2</b>			<b>90.3</b>

**Total Hours in Month**                      720    **Hours Data Available**                      720    **Data Recovery**                      100.0%

# Northern Dynasty Mines Pebble 1 Meterological Station - Relative Humidity (%)

*October 2005*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	100.0	99.7	98.4	98.1	97.7	98.0	98.4	97.8	97.6	96.1	94.1	89.7	85.1	78.7	75.6	74.2	72.1	72.1	75.4	82.0	86.5	85.2	84.3	86.5	100.0	72.1	88.5	
2	87.3	89.4	93.2	93.3	92.9	93.0	92.1	91.5	86.4	82.6	73.0	68.9	72.7	72.4	67.3	65.4	72.9	87.1	88.0	89.9	92.2	86.6	87.2	90.3	93.3	65.4	84.0	
3	90.4	87.5	86.4	89.6	89.2	84.7	76.4	75.9	77.1	84.9	77.1	72.6	68.7	66.2	67.0	67.1	72.1	70.5	78.0	82.2	82.5	80.6	90.7	93.1	93.1	66.2	79.6	
4	84.1	85.5	84.5	86.1	83.8	82.9	79.2	76.6	69.8	66.7	69.8	67.2	55.0	54.7	55.5	56.9	55.4	54.0	59.3	63.8	64.8	62.0	59.5	59.8	86.1	54.0	68.2	
5	62.2	64.3	72.1	85.6	85.2	84.5	86.0	89.4	89.6	88.8	89.3	92.6	93.7	92.9	89.2	88.3	88.7	93.4	94.4	97.0	98.1	98.0	98.7	99.0	99.0	62.2	88.4	
6	99.1	99.2	99.1	98.9	99.0	99.1	99.2	99.1	99.0	99.0	98.1	96.9	95.1	93.1	91.6	92.0	92.7	93.4	96.1	97.3	99.1	99.6	99.8	100.0	100.0	91.6	97.3	
7	100.0	100.0	100.0	99.9	97.1	95.6	92.7	93.6	96.8	97.4	97.9	96.9	96.3	97.1	97.4	97.7	98.3	98.9	99.7	100.0	100.0	100.0	100.0	100.0	100.0	92.7	98.1	
8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.6	99.4	99.4	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.4	99.9
9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
10	99.9	99.8	99.6	99.6	99.5	99.5	99.5	99.5	99.4	99.7	96.8	93.7	92.3	86.0	85.5	83.7	82.8	83.8	86.4	88.3	88.3	89.6	88.7	89.5	90.4	99.9	82.8	92.6
11	93.2	96.5	97.7	98.1	100.0	100.0	100.0	100.0	100.0	99.8	97.0	94.3	91.6	92.0	99.7	100.0	98.1	95.9	94.4	96.8	95.3	95.0	97.9	98.3	100.0	91.6	97.2	
12	96.4	94.1	91.3	94.2	92.4	91.7	91.2	86.6	82.3	80.0	78.3	74.4	70.9	68.2	65.7	63.5	62.8	67.0	77.0	78.3	78.0	78.4	78.5	77.8	96.4	62.8	80.0	
13	77.3	75.1	73.8	74.1	72.7	68.6	68.9	79.6	89.2	91.3	86.8	84.3	78.9	74.5	71.1	70.4	75.7	83.1	87.2	87.5	96.7	99.8	100.0	100.0	100.0	68.6	81.9	
14	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.7	98.6	100.0	98.6	99.9	
15	98.3	97.7	97.0	96.0	95.9	96.4	95.9	92.6	91.3	79.9	75.0	76.0	73.5	73.8	75.7	69.6	70.1	78.6	85.6	86.4	89.9	88.1	88.1	92.2	98.3	69.6	86.0	
16	94.3	98.4	100.0	100.0	100.0	100.0	97.7	92.2	86.1	80.6	76.0	71.7	74.2	73.3	79.0	90.3	93.9	97.2	98.5	98.6	99.6	100.0	100.0	100.0	100.0	100.0	71.7	91.7
17	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.8	98.7	98.1	97.4	97.7	96.8	97.9	98.2	98.7	99.5	100.0	99.9	100.0	96.8	99.3	
18	99.3	96.9	95.4	94.4	94.8	93.2	92.1	91.8	90.6	86.3	82.9	81.8	80.4	80.4	80.7	80.1	94.2	97.4	97.7	97.6	98.6	98.1	98.6	99.2	99.3	80.1	91.8	
19	93.4	94.3	92.0	90.4	89.5	90.6	92.3	89.9	87.9	88.3	84.9	84.9	85.8	86.0	93.2	96.0	94.6	90.8	91.5	92.9	93.1	93.3	96.1	97.4	97.4	84.9	91.2	
20	97.4	96.9	96.9	96.1	95.4	95.0	94.4	88.8	86.0	86.1	81.1	72.4	68.4	72.4	69.4	67.3	67.0	64.3	66.8	63.0	61.4	61.2	68.8	72.5	97.4	61.2	78.7	
21	71.3	67.7	75.7	80.5	79.2	75.4	83.0	85.7	85.9	91.8	99.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.8	97.1	100.0	67.7	91.3	
22	97.4	96.9	97.6	97.6	98.2	99.8	99.9	99.7	98.9	99.2	99.4	99.6	98.7	96.1	93.5	93.1	91.6	90.5	94.6	93.5	94.7	93.6	88.3	90.0	99.9	88.3	95.9	
23	86.8	89.2	93.8	92.6	93.9	95.0	97.9	99.1	99.5	99.2	99.1	97.2	96.9	95.8	98.1	98.4	98.9	98.6	98.7	98.9	98.8	98.7	98.8	98.7	99.5	86.8	96.8	
24	98.7	98.6	98.2	97.3	97.1	97.3	96.8	96.5	96.8	97.2	97.8	97.5	97.7	98.4	98.6	98.5	98.4	98.3	97.8	97.8	97.9	97.9	97.8	97.7	98.7	96.5	97.8	
25	97.2	97.5	97.6	97.7	97.5	97.9	98.1	98.0	97.8	98.4	98.8	99.0	99.1	99.2	99.3	99.3	99.5	99.5	99.6	99.6	99.7	99.6	99.4	99.3	99.7	97.2	98.7	
26	99.2	99.0	99.1	99.1	98.9	98.7	98.5	97.9	98.1	98.3	98.8	98.6	98.3	95.1	93.8	94.7	94.8	94.9	95.7	95.5	96.8	97.5	97.4	97.0	99.2	93.8	97.3	
27	97.9	97.6	97.5	97.5	97.0	97.3	97.3	97.2	97.0	97.1	99.3	99.4	99.9	99.4	98.7	96.6	98.2	98.4	98.7	98.5	98.8	98.3	97.6	98.2	99.9	96.6	98.1	
28	97.6	99.1	98.7	98.4	98.1	97.1	97.4	97.3	97.5	97.5	92.3	94.3	95.4	95.7	94.6	95.5	97.2	96.8	98.1	97.3	97.0	96.9	97.4	96.6	99.1	92.3	96.8	
29	97.1	96.3	95.6	96.9	96.5	96.7	95.9	95.8	96.3	96.4	98.9	97.7	96.3	95.9	95.9	95.8	95.8	95.7	95.7	95.7	95.7	96.0	96.3	96.1	98.9	95.6	96.3	
30	95.9	95.9	96.0	96.0	96.0	96.1	96.2	96.1	95.9	96.0	95.9	96.0	96.1	95.8	96.2	95.8	95.5	95.0	95.0	94.1	94.4	93.9	93.7	93.8	96.2	93.7	95.5	
31	93.8	93.5	93.3	92.9	92.8	92.4	92.1	92.3	92.0	92.2	92.7	93.0	93.5	93.4	91.5	88.6	88.3	89.4	90.9	92.7	93.3	92.8	93.0	92.7	93.8	88.3	92.2	
<b>Max.</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>		
<b>Min.</b>	<b>62.2</b>	<b>64.3</b>	<b>72.1</b>	<b>74.1</b>	<b>72.7</b>	<b>68.6</b>	<b>68.9</b>	<b>75.9</b>	<b>69.8</b>	<b>66.7</b>	<b>69.8</b>	<b>67.2</b>	<b>55.0</b>	<b>54.7</b>	<b>55.5</b>	<b>56.9</b>	<b>55.4</b>	<b>54.0</b>	<b>59.3</b>	<b>63.0</b>	<b>61.4</b>	<b>61.2</b>	<b>59.5</b>	<b>59.8</b>		<b>54.0</b>		
<b>Avg.</b>	<b>93.7</b>	<b>93.8</b>	<b>94.2</b>	<b>94.9</b>	<b>94.5</b>	<b>94.1</b>	<b>93.8</b>	<b>93.6</b>	<b>93.1</b>	<b>92.5</b>	<b>91.2</b>	<b>90.0</b>	<b>88.6</b>	<b>87.9</b>	<b>87.7</b>	<b>87.6</b>	<b>88.6</b>	<b>89.8</b>	<b>91.6</b>	<b>92.4</b>	<b>93.3</b>	<b>92.9</b>	<b>93.4</b>	<b>93.9</b>			<b>92.0</b>	

**Total Hours in Month**

744

**Hours Data Available**

744

**Data Recovery**

100.0%



# Northern Dynasty Mines Pebble 1 Meterological Station - Relative Humidity (%)

*December 2005*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	96.1	96.0	95.8	95.7	95.3	94.7	94.1	93.6	92.9	92.3	92.7	93.2	92.9	93.2	93.8	94.1	93.8	92.9	92.0	92.3	92.3	92.2	92.2	92.4	96.1	92.0	93.6	
2	92.8	93.2	93.1	93.5	93.8	93.3	92.6	92.1	91.9	91.7	91.1	90.4	90.0	89.4	88.8	88.1	88.0	87.5	87.2	86.9	86.5	86.5	87.1	87.1	93.8	86.5	90.1	
3	86.9	86.9	86.8	86.6	86.7	86.7	85.3	84.3	84.2	84.2	84.0	84.0	83.8	84.0	83.8	83.7	83.7	83.0	82.3	82.5	82.5	82.3	82.1	82.4	86.9	82.1	84.3	
4	82.5	82.3	82.3	83.0	84.2	84.5	85.5	87.3	90.3	90.6	91.6	93.5	93.9	95.4	95.7	96.0	96.6	97.3	97.8	98.1	98.4	98.5	98.8	99.0	99.0	82.3	91.8	
5	99.2	99.4	99.6	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.4	95.9	100.0	95.9	99.7	
6	92.6	91.0	90.5	91.0	94.5	94.8	91.9	89.8	94.1	95.2	98.1	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.6	98.7	95.3	100.0	89.8	96.5	
7	97.1	98.8	96.8	95.8	93.3	90.5	94.2	96.6	96.3	95.1	91.9	96.7	96.0	94.5	95.7	99.3	97.2	97.9	99.4	99.6	99.0	98.6	99.1	99.1	99.6	90.5	96.6	
8	99.2	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.8	95.1	89.3	86.5	88.1	90.4	88.7	87.7	88.5	89.8	88.3	89.1	91.3	89.1	100.0	86.5	94.2	
9	86.6	86.2	84.5	86.7	91.6	95.9	98.2	99.5	100.0	100.0	100.0	99.4	94.7	91.2	91.1	91.4	94.9	95.6	94.6	96.3	97.7	98.3	98.8	99.7	100.0	84.5	94.7	
10	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.7	93.5	95.6	96.2	97.4	98.3	96.8	96.2	96.3	96.5	98.1	100.0	100.0	100.0	100.0	100.0	93.5	98.5
11	100.0	100.0	100.0	100.0	100.0	98.9	97.7	97.5	97.0	95.2	95.0	93.4	94.0	93.5	95.1	93.6	94.0	93.2	93.7	93.9	93.7	93.8	92.6	91.2	100.0	91.2	95.7	
12	91.0	90.2	90.4	90.5	89.4	89.2	89.6	90.0	89.5	89.8	90.5	92.4	93.6	93.7	93.9	94.6	90.0	86.5	87.3	85.6	85.8	91.2	91.0	93.2	94.6	85.6	90.4	
13	90.9	93.8	94.8	92.6	95.5	94.6	90.7	89.8	89.2	91.9	89.0	87.2	91.6	97.4	95.8	93.3	89.2	85.2	83.8	81.9	80.1	77.6	75.0	73.4	97.4	73.4	88.5	
14	72.4	71.3	71.6	68.4	67.6	71.2	67.7	71.4	72.8	72.2	70.2	66.8	67.7	64.5	69.5	76.4	72.6	75.8	75.4	78.4	79.7	80.8	78.9	81.5	81.5	64.5	72.7	
15	86.7	89.0	91.3	89.6	86.5	79.6	79.3	87.5	94.9	97.5	97.7	99.1	94.7	95.1	95.7	96.9	98.5	99.2	98.3	94.8	93.2	92.8	92.0	95.4	99.2	79.3	92.7	
16	94.6	96.0	97.8	98.1	99.0	98.7	99.4	99.0	99.8	100.0	100.0	100.0	99.8	99.7	99.9	100.0	100.0	100.0	100.0	100.0	100.0	99.9	100.0	100.0	100.0	94.6	99.2	
17	99.8	100.0	100.0	99.9	99.9	99.8	99.6	99.8	100.0	99.8	100.0	99.9	100.0	99.7	90.8	90.5	96.3	97.7	99.5	98.8	98.6	97.7	95.8	99.1	100.0	90.5	98.5	
18	98.6	97.6	92.9	94.4	89.3	86.4	88.3	85.9	89.1	94.5	94.3	95.0	94.4	92.9	88.9	87.3	87.1	85.3	85.0	84.9	86.1	81.1	79.1	81.0	98.6	79.1	89.1	
19	81.3	82.5	77.9	81.6	84.5	87.3	93.7	92.5	91.0	89.7	86.7	82.2	80.5	83.0	86.1	87.0	86.7	89.9	85.4	83.0	84.3	82.3	81.5	85.5	93.7	77.9	85.3	
20	90.7	91.9	90.9	88.5	91.2	86.4	80.5	79.1	76.4	72.3	72.3	69.3	67.6	59.5	51.8	62.3	82.2	82.5	88.1	87.9	88.4	89.7	85.1	84.6	91.9	51.8	80.0	
21	84.7	78.9	79.0	78.6	77.0	77.9	77.1	80.0	82.1	83.7	82.7	82.1	78.1	82.3	86.4	90.1	88.8	93.5	92.5	94.7	92.6	96.3	95.2	95.4	96.3	77.0	85.4	
22	92.1	91.6	92.1	89.3	87.3	87.5	88.3	91.1	92.4	94.1	94.6	95.3	94.0	95.3	96.5	95.7	95.3	95.1	94.6	95.4	94.5	95.5	99.1	97.0	99.1	87.3	93.5	
23	99.3	99.5	98.9	99.7	99.6	99.7	99.9	99.6	99.6	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.8	99.9	99.8	99.7	99.9	100.0	98.9	99.8	
24	99.8	99.8	100.0	100.0	100.0	100.0	100.0	99.8	98.9	96.0	91.3	80.5	76.8	75.1	73.5	70.6	74.4	80.9	84.6	85.2	81.6	81.8	81.2	81.6	100.0	70.6	88.1	
25	81.5	82.0	80.0	79.9	79.4	80.1	94.7	98.5	92.4	89.5	89.6	84.7	82.0	83.9	80.0	77.9	74.5	73.0	75.4	77.7	77.8	75.3	71.6	75.9	98.5	71.6	81.6	
26	80.3	83.2	80.6	79.7	78.3	81.1	84.4	85.2	86.1	83.8	76.2	70.9	75.5	75.9	77.2	78.0	76.9	82.2	83.2	79.8	79.0	78.6	76.4	75.3	86.1	70.9	79.5	
27	71.5	68.4	68.4	67.1	66.1	65.0	61.1	60.1	61.9	64.7	58.7	60.1	63.2	60.8	71.2	71.7	64.9	59.6	57.8	58.0	59.8	60.0	62.9	69.3	71.7	57.8	63.8	
28	72.6	76.1	77.1	77.5	74.8	74.1	75.4	76.4	79.5	76.9	69.5	64.6	67.4	64.0	65.4	64.4	60.8	59.9	60.8	63.3	60.2	60.1	62.2	62.0	79.5	59.9	68.5	
29	62.4	67.6	81.8	91.6	96.0	94.3	95.0	94.3	98.6	100.0	100.0	99.9	99.0	96.3	92.6	90.1	94.5	96.6	95.2	95.1	95.1	93.5	91.4	86.8	100.0	62.4	92.0	
30	82.2	78.4	70.7	67.9	67.5	62.1	54.6	48.4	66.2	69.9	65.4	72.1	71.7	66.7	59.5	64.8	66.0	67.1	68.1	68.7	66.2	64.2	63.7	62.8	82.2	48.4	66.5	
31	64.7	73.6	69.5	65.9	71.0	73.8	76.6	75.0	76.4	77.9	76.6	67.6	68.2	68.8	69.9	75.1	74.5	77.8	80.6	81.4	81.0	80.1	81.7	82.5	82.5	64.7	74.6	
<b>Max.</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>		
<b>Min.</b>	<b>62.4</b>	<b>67.6</b>	<b>68.4</b>	<b>65.9</b>	<b>66.1</b>	<b>62.1</b>	<b>54.6</b>	<b>48.4</b>	<b>61.9</b>	<b>64.7</b>	<b>58.7</b>	<b>60.1</b>	<b>63.2</b>	<b>59.5</b>	<b>51.8</b>	<b>62.3</b>	<b>60.8</b>	<b>59.6</b>	<b>57.8</b>	<b>58.0</b>	<b>59.8</b>	<b>60.0</b>	<b>62.2</b>	<b>62.0</b>		<b>48.4</b>		
<b>Avg.</b>	<b>88.1</b>	<b>88.5</b>	<b>88.2</b>	<b>88.2</b>	<b>88.4</b>	<b>88.0</b>	<b>88.2</b>	<b>88.5</b>	<b>89.8</b>	<b>89.9</b>	<b>88.7</b>	<b>87.4</b>	<b>87.0</b>	<b>86.4</b>	<b>86.3</b>	<b>87.1</b>	<b>87.3</b>	<b>87.7</b>	<b>88.0</b>	<b>88.1</b>	<b>87.8</b>	<b>87.7</b>	<b>87.2</b>	<b>87.5</b>			<b>87.9</b>	

**Total Hours in Month**

744

**Hours Data Available**

744

**Data Recovery**

100.0%

**HCG, Inc.**

# Northern Dynasty Mines Pebble 1 Meterological Station - Relative Humidity (%)

*January 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	78.6	86.3	95.3	98.3	97.2	98.5	99.8	100.0	99.5	91.6	86.4	86.3	82.6	78.3	79.7	77.3	76.3	80.5	81.7	81.1	78.4	74.6	73.8	77.8	100.0	73.8	85.8
2	79.1	80.0	82.6	78.3	84.8	87.7	86.2	89.9	91.9	83.2	79.4	76.7	78.2	83.7	84.7	77.4	81.4	80.5	80.2	84.7	88.2	90.1	88.1	89.1	91.9	76.7	83.6
3	92.4	97.3	93.9	95.2	99.8	100.0	99.9	98.9	98.3	98.0	99.2	100.0	100.0	95.3	93.9	90.1	94.2	91.0	87.0	88.1	87.4	86.8	84.9	82.1	100.0	82.1	93.9
4	82.1	80.8	81.2	79.7	81.6	84.7	90.2	87.0	81.0	79.0	80.6	73.1	77.8	89.8	91.2	89.3	88.9	88.8	89.3	88.4	81.2	76.2	74.1	71.4	91.2	71.4	82.8
5	67.7	63.4	65.3	62.1	62.5	63.2	62.1	60.9	63.6	63.6	69.9	81.5	82.3	81.1	72.9	78.3	72.5	71.5	63.8	63.0	68.2	66.9	63.0	64.0	82.3	60.9	68.0
6	63.4	63.2	68.3	77.3	80.6	87.1	93.6	95.2	95.3	94.4	95.0	90.9	89.2	81.1	78.8	73.5	63.5	62.7	65.6	70.4	69.8	74.9	85.3	90.8	95.3	62.7	79.6
7	90.4	89.8	92.6	98.1	99.2	98.5	98.4	99.2	98.3	95.7	88.9	82.1	80.3	81.2	78.1	77.9	79.7	83.4	81.1	85.4	81.8	76.7	73.5	69.8	99.2	69.8	86.7
8	70.2	75.8	74.7	79.1	73.7	72.4	68.0	78.8	79.3	79.9	79.6	81.5	84.1	81.3	77.6	73.9	75.3	77.7	80.7	80.7	80.8	81.2	80.7	80.7	84.1	68.0	77.8
9	82.1	81.0	82.6	80.2	82.4	81.6	83.7	79.4	85.7	84.3	80.1	75.7	74.8	75.4	76.5	80.4	84.0	93.8	98.1	97.8	96.7	98.5	98.4	95.5	98.5	74.8	85.4
10	92.9	98.3	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.3	98.1	98.2	96.8	96.7	95.8	95.6	95.4	95.6	95.6	95.8	95.8	100.0	92.9	97.9
11	95.7	95.6	95.6	95.3	95.4	95.2	95.2	94.6	94.3	95.2	95.2	94.9	94.9	95.0	94.8	95.1	94.8	95.4	94.3	94.0	93.8	94.3	93.9	93.9	95.7	93.8	94.9
12	94.1	93.4	93.2	93.2	93.4	92.7	92.4	92.5	92.3	91.3	91.4	91.1	90.9	90.9	90.7	90.5	90.3	89.7	88.3	88.4	88.3	88.8	88.5	88.2	94.1	88.2	91.0
13	86.6	86.2	86.3	86.3	87.0	86.5	85.7	85.7	86.0	85.9	86.1	85.8	86.1	86.1	85.9	85.8	85.8	86.3	85.9	86.3	85.9	85.7	86.0	85.5	87.0	85.5	86.1
14	85.1	86.0	87.7	88.1	88.3	89.2	90.5	92.7	93.5	93.9	93.4	93.9	95.8	95.7	96.4	96.3	97.0	97.0	97.3	97.4	97.3	97.7	97.7	97.9	97.9	85.1	93.6
15	97.9	98.0	98.1	98.4	98.5	98.6	98.7	98.7	99.0	98.9	98.9	99.6	98.2	94.0	94.3	89.5	87.2	87.1	85.6	83.0	82.0	81.2	82.6	80.6	99.6	80.6	92.9
16	76.0	75.5	75.7	74.6	75.5	74.9	72.6	70.0	70.0	70.6	72.1	71.8	75.5	74.0	72.3	69.5	67.2	69.4	70.9	72.9	76.3	79.1	81.9	85.0	85.0	67.2	73.9
17	87.1	88.8	87.8	89.5	89.7	87.4	88.2	89.9	88.9	91.6	92.2	92.0	91.5	90.9	90.7	90.1	89.1	87.0	86.1	86.3	86.6	87.0	86.4	85.1	92.2	85.1	88.7
18	85.2	84.6	84.5	84.6	84.2	85.1	85.2	85.5	85.6	85.0	85.0	84.7	84.3	83.6	82.9	82.2	83.2	84.2	83.2	84.0	84.0	83.2	84.0	84.0	85.6	82.2	84.3
19	84.1	83.8	83.2	82.9	82.7	82.0	82.0	81.8	81.5	81.6	81.7	81.8	81.7	81.9	81.7	81.6	81.7	81.2	80.9	81.2	80.9	80.5	80.6	80.5	84.1	80.5	81.8
20	79.3	79.0	78.1	77.2	72.5	72.9	75.8	74.7	75.8	74.9	73.2	73.6	72.1	71.2	72.3	70.9	70.2	72.4	78.2	81.6	84.6	83.1	85.2	84.4	85.2	70.2	76.4
21	84.6	84.6	84.3	84.2	84.5	84.2	84.2	83.9	83.8	83.3	83.0	82.1	81.5	81.2	81.5	81.3	81.5	81.4	81.3	80.8	80.1	79.6	78.9	78.2	84.6	78.2	82.3
22	77.8	77.4	77.5	77.5	77.5	77.6	77.9	78.1	78.1	78.1	78.0	78.0	77.9	77.6	77.6	77.4	77.4	77.3	77.2	76.9	76.7	76.7	76.7	76.6	78.1	76.6	77.5
23	76.3	76.2	76.2	76.3	76.4	76.4	76.3	76.4	77.0	76.8	77.0	76.8	78.1	78.8	79.4	80.0	80.2	80.3	80.5	81.1	80.3	80.5	80.8	80.9	81.1	76.2	78.3
24	80.9	81.3	81.6	81.2	80.9	80.9	81.0	81.1	81.1	81.2	80.9	81.1	81.2	81.5	81.7	81.5	81.1	80.8	80.4	79.8	78.8	78.4	78.5	78.4	81.7	78.4	80.6
25	77.7	77.7	77.8	77.3	77.3	76.8	76.8	76.1	76.6	76.7	77.8	78.5	78.4	78.8	79.4	79.1	78.9	79.1	77.9	77.9	77.2	76.4	77.2	77.4	79.4	76.1	77.7
26	77.4	77.8	77.2	76.5	76.3	77.3	76.9	77.2	77.1	77.6	78.2	79.2	79.6	79.4	79.3	79.2	78.5	79.2	79.4	78.7	78.9	78.7	78.0	77.4	79.6	76.3	78.1
27	77.8	76.7	76.1	75.7	75.7	74.9	74.1	73.5	73.6	73.2	73.1	72.8	73.0	73.1	73.6	73.6	73.7	73.7	73.9	74.0	73.8	74.4	74.6	74.8	77.8	72.8	74.3
28	75.0	74.7	74.3	74.1	73.9	73.6	73.0	72.8	72.6	71.9	71.5	72.2	72.7	73.4	74.8	74.6	74.1	73.6	73.9	73.6	73.5	73.8	73.7	73.5	75.0	71.5	73.5
29	73.6	73.8	73.7	74.0	74.1	74.3	74.4	74.8	75.0	74.7	74.7	75.2	74.0	74.2	74.1	75.1	75.3	76.3	77.1	76.7	76.9	77.2	76.6	77.0	77.2	73.6	75.1
30	78.5	77.8	78.1	78.3	78.4	77.7	77.4	77.9	78.3	78.5	79.8	80.7	80.8	80.7	81.1	80.7	80.5	84.0	86.0	85.3	83.8	83.9	85.3	86.6	86.6	77.4	80.8
31	86.4	86.7	87.4	87.4	88.2	88.3	88.5	88.8	88.4	86.9	83.2	81.9	81.6	81.1	82.0	84.3	83.2	83.3	83.3	82.3	81.3	81.2	80.9	81.2	88.8	80.9	84.5
<b>Max.</b>	<b>97.9</b>	<b>98.3</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>98.1</b>	<b>98.2</b>	<b>96.8</b>	<b>97.0</b>	<b>97.0</b>	<b>98.1</b>	<b>97.8</b>	<b>97.3</b>	<b>98.5</b>	<b>98.4</b>	<b>97.9</b>	<b>100.0</b>		
<b>Min.</b>	<b>63.4</b>	<b>63.2</b>	<b>65.3</b>	<b>62.1</b>	<b>62.5</b>	<b>63.2</b>	<b>62.1</b>	<b>60.9</b>	<b>63.6</b>	<b>63.6</b>	<b>69.9</b>	<b>71.8</b>	<b>72.1</b>	<b>71.2</b>	<b>72.3</b>	<b>69.5</b>	<b>63.5</b>	<b>62.7</b>	<b>63.8</b>	<b>63.0</b>	<b>68.2</b>	<b>66.9</b>	<b>63.0</b>	<b>64.0</b>		<b>60.9</b>	
<b>Avg.</b>	<b>81.8</b>	<b>82.3</b>	<b>82.9</b>	<b>83.3</b>	<b>83.6</b>	<b>83.9</b>	<b>84.2</b>	<b>84.4</b>	<b>84.6</b>	<b>83.8</b>	<b>83.4</b>	<b>83.1</b>	<b>83.2</b>	<b>82.9</b>	<b>82.5</b>	<b>81.7</b>	<b>81.4</b>	<b>82.1</b>	<b>82.1</b>	<b>82.5</b>	<b>82.2</b>	<b>82.0</b>	<b>82.1</b>	<b>82.1</b>			<b>82.8</b>

**Total Hours in Month**

744

**Hours Data Available**

744

**Data Recovery**

100.0%

**HCG, Inc.**

# Northern Dynasty Mines Pebble 1 Meterological Station - Relative Humidity (%)

*February 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	79.6	79.4	79.5	79.8	78.6	78.4	78.3	77.4	77.0	76.7	76.5	77.0	77.5	77.7	77.9	77.8	77.2	76.7	76.7	76.1	75.9	75.9	76.0	75.7	79.8	75.7	77.5	
2	76.2	75.9	75.9	75.5	75.7	75.5	75.6	75.9	76.0	75.8	73.4	72.9	71.2	70.8	68.4	61.9	59.9	63.4	68.2	72.6	73.6	72.2	71.9	73.0	76.2	59.9	72.1	
3	76.6	78.9	82.3	82.6	84.3	86.4	87.4	87.8	88.8	90.5	90.1	86.1	82.5	81.2	80.8	82.7	83.9	87.3	90.4	89.4	88.3	87.0	87.8	88.5	90.5	76.6	85.5	
4	87.2	86.7	86.3	86.6	88.3	90.0	88.7	86.6	86.3	82.9	80.3	79.5	79.6	76.8	74.9	78.5	81.7	81.4	83.7	81.6	81.1	79.1	78.1	77.5	90.0	74.9	82.6	
5	78.7	80.4	82.2	78.3	75.3	73.1	71.0	70.2	68.9	73.4	75.9	81.1	86.9	83.0	83.4	81.6	78.0	75.1	74.1	75.7	79.1	78.5	82.1	88.3	88.3	68.9	78.1	
6	91.1	92.7	97.6	93.0	97.2	99.5	100.0	100.0	100.0	100.0	98.5	98.6	98.5	98.3	97.8	97.3	95.3	94.6	93.7	92.8	96.0	96.6	97.1	97.3	100.0	91.1	96.8	
7	97.1	97.1	95.6	96.4	97.0	97.0	97.4	96.6	96.3	96.2	95.3	94.8	95.5	96.1	93.7	90.2	86.1	89.5	91.1	89.1	86.8	78.8	77.5	92.6	97.4	77.5	92.7	
8	93.3	95.7	92.4	88.4	89.1	85.9	82.1	75.3	70.0	49.0	41.3	43.6	59.8	67.2	73.6	73.2	79.4	81.8	82.8	80.5	81.3	80.6	80.4	83.9	95.7	41.3	76.3	
9	82.7	83.2	77.3	74.8	73.3	71.1	70.0	74.1	75.8	82.6	81.7	86.9	85.2	84.0	80.2	79.5	78.9	79.6	79.6	84.1	84.0	84.6	82.3	91.0	91.0	70.0	80.3	
10	89.6	97.0	97.7	95.7	91.0	85.0	86.7	89.3	97.6	99.7	100.0	100.0	100.0	97.5	95.1	93.4	89.2	87.6	90.7	88.2	87.5	88.6	87.9	91.0	100.0	85.0	92.8	
11	94.9	92.9	99.3	99.6	97.9	95.5	93.5	97.7	99.5	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	92.9	98.8	
12	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.6	98.8	98.5	98.3	98.1	97.7	97.5	97.4	97.1	97.0	96.2	95.6	95.2	94.6	94.4	94.7	100.0	94.4	97.9	
13	95.4	95.0	95.4	96.1	96.2	96.1	95.9	96.0	94.8	90.6	86.5	79.8	81.6	84.0	87.9	93.9	96.1	96.5	95.2	93.4	93.6	94.8	93.2	92.3	96.5	79.8	92.5	
14	89.1	87.1	87.6	88.5	90.3	89.8	88.1	85.7	84.8	84.4	85.1	84.0	83.8	85.5	87.6	86.6	85.3	83.5	80.1	75.9	76.4	75.1	74.6	75.3	90.3	74.6	83.9	
15	77.5	72.6	68.3	65.4	66.5	65.9	69.0	63.1	60.4	57.7	60.1	61.4	66.8	76.4	81.2	80.7	83.8	91.7	93.3	97.8	99.5	100.0	100.0	100.0	100.0	57.7	77.5	
16	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.7	97.1	92.8	90.7	90.0	90.6	96.1	99.0	99.8	99.9	99.8	100.0	90.0	98.1	
17	100.0	96.1	88.0	86.5	84.3	80.8	78.7	81.7	87.7	85.7	89.7	90.5	90.5	90.1	89.0	88.6	90.4	94.6	96.2	97.4	98.7	99.9	100.0	100.0	100.0	78.7	91.0	
18	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9	99.8	99.5	98.6	97.9	94.9	92.1	95.0	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	92.1	99.1
19	100.0	100.0	100.0	100.0	100.0	99.8	99.4	98.5	98.1	97.4	97.9	96.3	97.3	97.0	97.1	97.4	98.4	96.5	95.4	94.0	93.8	94.5	96.3	96.4	100.0	93.8	97.6	
20	99.4	99.0	99.0	98.7	98.7	97.9	98.6	98.7	98.6	98.7	98.0	97.1	95.9	97.4	98.3	98.2	98.0	96.6	96.6	95.3	93.8	94.8	95.1	94.1	99.4	93.8	97.4	
21	90.1	92.6	91.0	91.4	91.3	91.3	91.8	92.1	93.1	93.6	91.1	89.4	80.8	83.4	84.3	85.2	85.6	85.5	88.5	88.4	88.7	88.7	87.2	84.7	93.6	80.8	88.7	
22	88.1	89.3	84.5	83.2	82.5	83.6	82.4	81.6	80.3	77.3	74.9	75.6	71.6	69.0	69.7	71.7	78.4	91.0	96.8	97.2	97.0	96.0	96.0	95.9	97.2	69.0	83.9	
23	96.2	96.2	96.4	96.4	96.7	97.0	97.6	95.9	95.7	96.5	95.6	95.4	96.7	94.2	94.0	93.0	93.7	94.9	95.9	95.6	95.2	96.0	94.4	93.0	97.6	93.0	95.5	
24	91.9	92.1	92.9	91.6	91.2	91.3	90.6	90.8	91.6	92.6	93.1	92.2	87.3	85.4	82.2	78.6	75.8	76.6	83.5	85.1	82.4	81.7	83.0	83.4	93.1	75.8	87.0	
25	82.3	84.2	89.5	94.8	95.5	96.0	95.6	96.5	96.4	97.0	97.9	98.9	98.0	94.6	89.1	86.8	84.5	84.4	82.2	84.8	81.7	84.3	86.0	83.9	98.9	81.7	90.2	
26	86.7	88.8	87.6	87.8	87.7	87.8	89.4	88.6	81.7	79.9	79.4	80.6	77.6	79.0	79.9	80.9	82.1	91.2	95.2	95.6	95.9	96.2	96.8	97.7	97.7	77.6	87.3	
27	97.2	97.5	97.9	96.5	95.3	94.7	92.9	92.4	91.1	90.3	90.0	89.2	88.6	88.6	88.5	88.1	87.9	87.8	87.5	87.0	86.9	86.6	86.3	86.0	97.9	86.0	90.6	
28	85.7	85.6	85.6	85.6	85.2	85.4	85.3	85.1	84.9	85.4	86.1	86.8	87.3	88.5	89.2	88.5	88.1	87.1	86.5	85.5	85.4	85.0	84.5	84.7	89.2	84.5	86.1	
<b>Max.</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>			
<b>Min.</b>	<b>76.2</b>	<b>72.6</b>	<b>68.3</b>	<b>65.4</b>	<b>66.5</b>	<b>65.9</b>	<b>69.0</b>	<b>63.1</b>	<b>60.4</b>	<b>49.0</b>	<b>41.3</b>	<b>43.6</b>	<b>59.8</b>	<b>67.2</b>	<b>68.4</b>	<b>61.9</b>	59.9	63.4	<b>68.2</b>	<b>72.6</b>	<b>73.6</b>	<b>72.2</b>	<b>71.9</b>	<b>73.0</b>		<b>41.3</b>		
<b>Avg.</b>	<b>90.2</b>	<b>90.6</b>	<b>90.3</b>	<b>89.8</b>	<b>89.6</b>	<b>89.1</b>	<b>88.8</b>	<b>88.5</b>	<b>88.4</b>	<b>87.6</b>	<b>87.0</b>	<b>86.9</b>	<b>86.9</b>	<b>87.0</b>	<b>86.9</b>	<b>86.6</b>	<b>86.6</b>	<b>87.9</b>	<b>89.0</b>	<b>89.1</b>	<b>89.2</b>	<b>88.9</b>	<b>88.9</b>	<b>90.0</b>			<b>88.5</b>	

**Total Hours in Month**                      672    **Hours Data Available**                      672    **Data Recovery**                      100.0%

**HCG, Inc.**



## Northern Dynasty Mines Pebble 1 Meterological Station - Relative Humidity (%)

*March 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	84.6	83.9	84.3	84.4	84.3	84.6	85.1	85.4	86.2	87.8	91.4	94.5	94.2	92.1	91.5	91.7	91.6	92.4	92.5	93.0	91.3	90.6	91.7	92.6	94.5	83.9	89.2	
2	92.3	92.0	91.4	91.4	92.1	93.1	94.3	96.0	96.6	97.2	97.6	97.8	98.1	98.2	98.3	98.4	98.5	98.6	98.6	98.8	98.9	98.9	99.2	99.2	99.2	99.2	91.4	96.5
3	99.2	99.3	99.3	99.2	99.2	99.2	99.0	98.5	98.5	98.8	98.9	99.0	98.9	98.5	98.6	97.2	97.6	97.9	97.7	97.5	97.2	97.1	97.2	97.3	99.3	97.1	98.4	
4	97.3	97.3	97.3	97.3	97.7	98.2	98.1	98.2	98.6	98.6	99.0	98.9	99.1	98.9	98.8	98.8	98.8	98.8	99.0	99.0	99.0	99.0	99.0	99.0	99.0	99.1	97.3	98.5
5	99.1	99.1	99.0	99.0	99.0	98.9	98.7	98.5	98.5	98.5	98.7	99.3	99.7	99.9	100.0	100.0	99.7	98.9	98.8	98.5	98.4	98.4	98.4	98.4	100.0	98.4	99.0	
6	98.3	97.7	97.0	96.9	96.6	96.2	95.5	95.1	95.2	96.7	97.7	98.4	99.9	99.8	100.0	100.0	99.4	97.2	95.7	95.4	95.5	95.7	95.4	94.9	100.0	94.9	97.1	
7	94.7	94.7	94.6	94.6	94.4	94.4	94.4	94.4	94.2	93.9	93.4	94.0	94.1	93.3	93.3	93.6	92.7	91.1	90.4	90.0	89.2	88.5	87.6	87.4	94.7	87.4	92.6	
8	87.4	88.1	88.6	88.7	88.9	89.1	89.1	88.9	88.6	88.0	88.5	89.4	89.6	91.0	91.4	91.2	90.9	90.4	89.7	88.9	87.9	86.7	86.5	85.9	91.4	85.9	88.9	
9	85.6	85.5	85.1	85.0	84.6	84.4	84.0	83.8	84.0	84.6	85.4	86.6	87.6	87.9	88.6	89.5	89.5	89.2	88.5	87.8	87.3	87.6	86.8	87.0	89.5	83.8	86.5	
10	86.2	86.5	86.3	86.6	87.0	87.2	88.5	88.2	89.1	90.1	91.4	93.1	93.5	94.3	95.1	95.3	95.3	95.0	94.5	94.2	94.2	94.6	94.8	95.0	95.3	86.2	91.5	
11	95.1	95.6	96.2	96.2	96.0	96.2	96.2	96.1	96.5	96.6	96.6	96.7	96.9	97.1	96.9	97.1	97.0	97.1	97.1	97.3	97.2	97.3	97.4	97.4	97.4	95.1	96.7	
12	97.5	97.5	97.6	97.8	97.8	98.2	98.4	98.6	98.6	98.7	98.3	98.0	97.9	97.7	98.4	99.0	99.3	99.3	99.4	99.2	98.9	98.4	98.0	97.7	99.4	97.5	98.3	
13	98.1	98.2	98.5	98.5	98.5	98.2	97.8	97.9	98.2	97.3	97.4	95.4	92.8	90.1	85.7	83.2	81.2	81.8	79.2	84.6	85.2	85.5	84.2	82.4	98.5	79.2	91.2	
14	82.8	82.4	81.2	80.0	80.2	81.2	81.5	78.5	73.2	73.3	74.5	74.1	73.0	73.6	73.7	70.9	71.2	70.2	67.2	69.3	77.8	78.7	81.7	80.9	82.8	67.2	76.3	
15	74.1	79.4	83.5	87.2	87.0	88.1	89.0	85.9	78.1	77.4	77.2	75.1	74.7	72.4	69.5	69.0	70.9	71.9	74.0	76.6	84.1	85.9	85.7	86.7	89.0	69.0	79.3	
16	85.7	76.4	78.7	80.7	75.0	68.2	70.0	74.9	63.2	54.4	50.1	51.5	51.9	52.5	55.8	56.8	57.7	57.0	57.4	58.9	59.9	52.9	42.3	40.3	85.7	40.3	61.3	
17	38.3	36.8	39.0	40.8	39.3	41.9	44.5	52.5	57.1	63.2	69.0	71.3	77.8	94.0	93.4	95.3	96.1	96.7	97.9	97.7	97.5	97.5	97.4	96.7	97.9	36.8	72.2	
18	93.3	94.8	90.2	89.1	90.5	95.9	97.2	97.5	98.4	97.7	97.7	98.0	98.0	97.7	97.1	91.7	84.6	84.2	91.1	92.2	95.9	97.2	96.4	96.2	98.4	84.2	94.3	
19	98.3	98.1	97.5	97.9	96.9	96.1	97.0	97.1	98.5	97.3	97.2	97.4	97.8	98.1	98.8	98.6	98.7	98.7	98.6	98.9	98.7	98.9	98.7	98.7	98.9	96.1	98.0	
20	98.7	98.6	98.6	98.4	98.3	98.5	98.6	98.6	98.7	98.9	99.0	99.1	99.1	99.0	98.5	98.5	96.9	96.1	95.2	95.6	94.9	94.7	94.4	94.0	99.1	94.0	97.5	
21	94.1	94.1	94.2	93.9	93.7	93.6	93.6	93.4	93.5	93.7	93.8	93.7	93.4	92.5	91.7	91.0	90.4	89.2	87.3	86.6	88.9	89.1	89.3	90.6	94.2	86.6	91.9	
22	90.2	90.6	90.1	91.0	90.9	91.7	91.9	92.2	91.9	92.0	91.5	91.1	90.1	89.5	89.4	89.2	88.0	87.7	86.8	87.6	88.8	88.1	87.5	87.9	92.2	86.8	89.8	
23	88.7	89.1	87.1	84.9	85.8	87.0	87.5	82.5	78.1	80.9	83.5	81.6	79.4	81.1	81.0	83.4	84.1	84.1	87.1	88.5	89.6	91.1	87.1	86.6	91.1	78.1	85.0	
24	89.2	90.3	90.9	93.3	91.2	92.0	94.0	93.0	92.7	93.2	92.4	88.3	86.2	84.2	83.9	83.7	83.6	83.0	86.0	88.6	90.2	92.7	92.7	92.8	94.0	83.0	89.5	
25	92.1	90.9	91.1	88.6	89.4	90.1	90.8	91.5	91.7	90.4	88.5	86.2	83.8	81.7	80.8	80.0	79.4	79.2	79.3	80.5	82.9	84.1	84.6	84.6	92.1	79.2	85.9	
26	85.1	86.4	87.6	88.4	88.6	88.6	89.1	89.4	89.1	88.1	87.3	85.8	84.8	82.4	80.3	79.9	79.0	77.8	77.5	77.5	79.4	79.2	77.4	77.5	89.4	77.4	83.6	
27	76.9	76.1	75.4	75.6	77.0	77.9	76.3	71.5	69.6	65.0	64.6	65.4	66.2	65.8	65.2	64.2	64.8	64.8	64.0	67.5	75.8	79.5	81.2	80.7	81.2	64.0	71.3	
28	80.3	77.7	76.2	75.7	73.4	73.9	74.4	70.9	70.0	74.4	75.6	73.7	72.4	72.9	75.2	76.3	75.8	77.8	78.4	80.2	81.3	74.5	70.3	68.2	81.3	68.2	75.0	
29	67.7	71.3	73.2	71.1	74.6	74.3	74.2	66.6	67.6	68.7	63.1	57.4	56.4	62.3	68.9	68.2	67.9	67.8	70.3	72.3	75.3	79.3	80.0	86.3	86.3	56.4	70.2	
30	86.2	82.5	82.1	80.6	82.2	85.4	86.5	91.4	97.7	99.5	99.4	98.9	98.1	96.9	97.3	98.5	99.1	99.2	99.4	99.6	99.8	100.0	100.0	100.0	100.0	80.6	94.2	
31	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.3	98.3	98.2	97.8	97.2	95.8	96.7	96.2	96.2	97.0	97.9	97.9	98.5	99.3	100.0	95.8	98.6	
<b>Max.</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>99.4</b>	<b>99.3</b>	<b>99.9</b>	<b>99.9</b>	<b>100.0</b>	<b>100.0</b>	<b>99.7</b>	<b>99.3</b>	<b>99.4</b>	<b>99.6</b>	<b>99.8</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>			
<b>Min.</b>	<b>38.3</b>	<b>36.8</b>	<b>39.0</b>	<b>40.8</b>	<b>39.3</b>	<b>41.9</b>	<b>44.5</b>	<b>52.5</b>	<b>57.1</b>	<b>54.4</b>	<b>50.1</b>	<b>51.5</b>	<b>51.9</b>	<b>52.5</b>	<b>55.8</b>	<b>56.8</b>	<b>57.7</b>	<b>57.0</b>	<b>57.4</b>	<b>58.9</b>	<b>59.9</b>	<b>52.9</b>	<b>42.3</b>	<b>40.3</b>		<b>36.8</b>		
<b>Avg.</b>	<b>88.3</b>	<b>88.1</b>	<b>88.1</b>	<b>88.2</b>	<b>88.1</b>	<b>88.5</b>	<b>88.9</b>	<b>88.6</b>	<b>88.1</b>	<b>88.2</b>	<b>88.3</b>	<b>88.0</b>	<b>87.9</b>	<b>88.2</b>	<b>88.2</b>	<b>87.9</b>	<b>87.6</b>	<b>87.4</b>	<b>87.6</b>	<b>88.4</b>	<b>89.6</b>	<b>89.7</b>	<b>89.1</b>	<b>89.1</b>			<b>88.3</b>	

**Total Hours in Month**

744

**Hours Data Available**

744

**Data Recovery**

100.0%

**HCG, Inc.**

## Northern Dynasty Mines Pebble 1 Meterological Station - Relative Humidity (%)

*April 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	98.8	97.6	97.3	97.2	97.4	97.2	97.9	98.3	97.6	93.6	87.4	80.3	78.9	78.9	85.0	83.3	78.9	87.9	89.3	86.7	93.3	94.7	97.3	97.5	98.8	78.9	91.3	
2	97.2	98.2	97.9	98.2	96.8	96.8	96.4	96.4	96.6	95.7	96.1	96.7	96.8	96.9	96.9	96.7	96.1	92.0	90.5	83.7	82.3	83.0	77.3	76.0	98.2	76.0	93.0	
3	70.9	80.8	88.8	92.9	97.2	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	70.9	97.1	
4	100.0	100.0	100.0	100.0	100.0	99.1	96.1	92.8	91.9	88.5	88.3	89.3	91.0	92.1	90.6	91.5	93.2	98.3	100.0	100.0	100.0	100.0	100.0	100.0	100.0	88.3	95.9	
5	100.0	100.0	99.4	97.5	98.1	98.1	97.5	96.8	94.7	89.8	88.3	85.9	82.4	79.2	71.9	66.3	65.3	65.5	66.4	64.2	61.8	66.8	67.9	72.5	100.0	61.8	82.3	
6	76.0	76.9	79.3	81.6	83.0	83.6	84.0	82.8	80.7	79.8	76.9	74.2	71.5	69.4	68.4	69.0	66.7	67.1	64.4	64.0	63.0	64.4	63.6	60.2	84.0	60.2	72.9	
7	62.2	63.1	62.7	64.8	70.2	73.8	74.3	69.3	68.7	79.9	80.2	80.2	80.6	82.4	82.9	85.5	87.1	85.5	86.0	86.0	85.6	84.5	84.3	89.4	89.4	62.2	77.9	
8	90.0	89.8	87.1	84.1	93.0	100.0	100.0	100.0	100.0	99.9	98.6	100.0	100.0	99.4	97.9	98.0	99.8	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	84.1	97.4	
9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.0	98.5	97.5	97.9	97.4	97.8	100.0	99.9	99.3	100.0	100.0	97.4	99.5	
10	99.9	100.0	100.0	100.0	100.0	99.8	99.2	98.3	97.7	97.2	96.4	96.4	94.1	89.7	83.6	91.2	91.6	90.1	90.1	90.1	91.1	92.6	84.2	88.1	100.0	83.6	94.2	
11	93.5	94.1	96.4	96.2	96.2	96.3	96.4	95.1	92.9	89.9	88.2	87.4	87.4	87.1	90.3	96.8	98.3	99.5	100.0	100.0	100.0	100.0	100.0	100.0	100.0	87.1	95.1	
12	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9	99.8	99.8	99.5	99.7	99.6	98.7	98.4	98.2	100.0	98.2	99.7	
13	98.9	98.5	98.9	98.7	98.6	99.2	99.4	98.0	97.8	97.8	97.7	97.8	97.6	97.6	97.8	97.5	96.7	96.4	95.6	95.1	94.6	94.4	93.8	94.4	99.4	93.8	97.2	
14	94.0	93.6	93.5	93.2	93.2	92.8	93.2	92.8	93.1	92.9	93.1	94.4	93.5	94.3	94.7	94.5	94.5	94.4	93.7	92.9	92.2	91.1	90.9	91.0	94.7	90.9	93.2	
15	91.3	91.0	91.4	91.1	90.1	90.2	90.9	90.5	89.8	90.5	90.2	90.3	91.5	90.6	91.0	91.0	90.4	91.1	90.4	89.8	88.8	90.0	91.1	89.6	91.5	88.8	90.5	
16	84.7	84.9	87.5	86.4	83.3	88.6	91.0	93.4	94.5	94.8	95.4	95.9	95.9	96.7	96.9	96.3	96.0	96.9	96.9	93.1	92.4	93.7	95.4	96.4	96.9	83.3	92.8	
17	94.9	93.7	94.3	94.9	95.6	95.9	94.7	94.2	96.3	94.9	96.1	95.8	97.1	94.9	95.4	91.0	86.0	81.3	84.1	81.6	76.4	90.6	91.1	86.9	97.1	76.4	91.6	
18	90.9	93.5	95.9	94.6	96.5	96.1	89.7	85.3	87.8	85.1	82.3	83.3	86.8	86.0	80.8	78.5	81.4	79.9	77.0	67.4	63.4	80.1	79.9	80.0	96.5	63.4	84.3	
19	89.2	94.9	97.0	97.6	97.1	97.1	99.6	98.9	97.7	97.3	97.4	97.6	97.6	97.5	97.7	96.8	96.9	96.4	95.6	95.8	95.4	95.6	94.5	94.7	99.6	89.2	96.5	
20	94.1	92.9	92.3	92.6	93.4	92.5	89.8	89.6	90.3	92.8	95.8	95.8	93.7	91.8	85.6	87.6	93.2	99.1	100.0	100.0	100.0	100.0	100.0	100.0	100.0	85.6	94.3	
21	100.0	100.0	100.0	96.2	89.8	86.4	84.7	85.4	77.9	83.4	87.1	93.5	95.2	99.3	99.0	92.3	96.4	99.1	100.0	100.0	100.0	100.0	100.0	100.0	100.0	77.9	94.4	
22	100.0	100.0	100.0	100.0	100.0	100.0	97.0	93.3	92.9	93.8	93.2	97.4	94.1	92.6	89.8	85.8	94.9	93.6	91.6	92.3	95.3	95.8	98.6	100.0	100.0	85.8	95.5	
23	100.0	100.0	100.0	98.7	95.3	93.5	93.7	95.6	95.5	93.0	90.9	90.4	90.6	90.6	89.0	90.4	89.4	87.3	87.6	90.6	92.3	91.0	88.8	89.3	100.0	87.3	92.6	
24	88.7	89.7	92.8	93.3	90.8	91.0	92.0	94.3	95.0	95.8	95.6	95.8	95.9	94.8	93.0	91.9	90.2	94.2	96.1	95.4	97.3	97.6	97.4	97.1	97.6	88.7	94.0	
25	96.9	96.7	96.6	96.2	95.7	95.5	96.3	96.2	96.1	95.6	93.7	91.0	89.6	96.0	99.2	93.1	89.7	97.0	98.7	98.3	96.4	96.8	95.7	95.3	99.2	89.6	95.5	
26	94.0	94.4	98.1	98.3	97.0	88.6	86.6	82.7	81.0	77.2	73.1	69.1	71.4	69.1	66.6	65.9	65.3	65.3	66.1	57.8	57.3	55.0	53.0	53.4	98.3	53.0	74.4	
27	53.0	52.1	49.8	54.0	53.0	51.8	52.2	55.4	55.9	55.9	63.1	65.0	64.1	64.5	68.2	66.0	65.4	66.9	67.3	69.0	72.6	72.8	78.0	79.1	79.1	49.8	62.3	
28	78.5	82.8	86.2	86.8	87.7	88.5	84.9	85.5	84.1	82.2	79.8	82.3	82.4	82.1	79.7	87.9	85.9	87.5	87.6	87.3	84.8	88.9	94.9	96.8	96.8	78.5	85.6	
29	95.6	92.9	92.7	93.1	93.8	90.2	86.8	88.8	84.0	81.7	78.1	73.6	71.0	69.0	64.3	64.2	64.2	66.2	71.2	74.2	74.1	77.7	78.6	76.9	95.6	64.2	79.3	
30	74.1	71.6	70.1	69.7	65.9	64.8	62.1	72.2	85.3	93.0	99.5	97.6	94.3	91.7	89.5	87.9	85.6	84.3	83.3	82.9	84.0	82.2	82.3	84.9	99.5	62.1	81.6	
<b>Max.</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>		
<b>Min.</b>	<b>53.0</b>	<b>52.1</b>	<b>49.8</b>	<b>54.0</b>	<b>53.0</b>	<b>51.8</b>	<b>52.2</b>	<b>55.4</b>	<b>55.9</b>	<b>55.9</b>	<b>63.1</b>	<b>65.0</b>	<b>64.1</b>	<b>64.5</b>	<b>64.3</b>	<b>64.2</b>	64.2	65.3	<b>64.4</b>	<b>57.8</b>	<b>57.3</b>	<b>55.0</b>	<b>53.0</b>	<b>53.4</b>		<b>49.8</b>		
<b>Avg.</b>	<b>90.2</b>	<b>90.8</b>	<b>91.5</b>	<b>91.6</b>	<b>91.6</b>	<b>91.6</b>	<b>90.9</b>	<b>90.7</b>	<b>90.5</b>	<b>90.4</b>	<b>90.1</b>	<b>89.9</b>	<b>89.5</b>	<b>89.1</b>	<b>88.2</b>	<b>87.8</b>	<b>87.9</b>	<b>88.7</b>	<b>88.9</b>	<b>87.9</b>	<b>87.8</b>	<b>89.3</b>	<b>89.2</b>	<b>89.6</b>			<b>89.7</b>	

**Total Hours in Month**

720

**Hours Data Available**

720

**Data Recovery**

100.0%

**HCG, Inc.**

## Northern Dynasty Mines Pebble 1 Meterological Station - Relative Humidity (%)

*May 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	90.4	90.5	88.8	84.7	83.9	82.1	78.4	78.6	76.0	72.5	68.7	65.9	62.3	62.0	58.5	56.4	56.3	56.3	60.9	62.5	70.2	72.9	78.0	78.8	90.5	56.3	72.3	
2	78.6	77.9	76.3	77.0	78.3	78.7	77.3	75.9	75.6	72.7	77.8	81.8	80.0	79.5	78.7	78.3	80.8	80.7	79.9	82.2	81.3	82.3	83.9	92.5	92.5	72.7	79.5	
3	98.6	99.8	96.8	94.1	89.3	86.1	82.9	76.6	75.4	72.6	70.0	60.9	56.2	55.3	55.0	54.7	53.0	53.2	49.3	65.9	77.5	84.3	88.4	93.8	99.8	49.3	74.6	
4	93.6	96.9	97.5	99.3	100.0	100.0	100.0	100.0	98.1	98.8	100.0	100.0	100.0	100.0	96.9	97.2	96.7	96.2	94.5	96.1	97.4	99.9	99.1	100.0	100.0	93.6	98.3	
5	99.7	99.4	100.0	100.0	98.4	94.1	91.9	90.5	87.2	88.3	88.0	85.5	87.9	90.5	87.2	89.4	89.0	87.1	86.3	90.2	90.5	95.7	94.4	97.0	100.0	85.5	92.0	
6	99.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.6	99.8	99.2	98.9	98.3	100.0	99.7	97.8	99.5	97.0	98.6	97.5	96.9	97.8	97.8	100.0	96.9	99.1	
7	97.6	97.7	98.1	98.8	99.0	98.6	97.5	95.4	93.0	92.1	91.9	92.8	95.1	94.9	95.3	94.1	91.9	88.8	83.9	83.2	83.0	83.0	81.0	84.3	99.0	81.0	92.1	
8	86.0	87.2	89.6	90.6	92.0	90.3	85.3	83.2	78.9	75.3	71.5	69.7	81.7	96.2	100.0	100.0	99.7	91.3	83.9	85.5	86.4	81.9	79.4	79.9	100.0	69.7	86.1	
9	80.5	79.4	76.6	76.6	76.1	76.1	76.1	75.2	73.6	72.1	71.5	73.4	77.6	76.3	72.8	73.5	70.6	74.2	74.2	78.7	81.6	70.6	67.8	67.0	81.6	67.0	74.7	
10	69.1	70.0	71.1	71.7	75.1	74.9	75.1	77.6	78.6	74.5	73.7	75.7	68.2	65.0	68.6	84.1	91.6	86.6	87.0	86.2	82.0	83.4	83.8	80.6	91.6	65.0	77.3	
11	81.3	89.6	96.3	97.9	98.0	95.7	89.1	87.9	87.1	87.5	85.5	83.2	80.6	80.5	76.6	76.3	77.2	75.3	80.6	79.3	82.0	79.5	78.6	76.9	98.0	75.3	84.3	
12	78.9	78.6	76.9	78.9	80.4	81.0	81.6	82.6	77.6	73.0	70.3	68.4	66.6	65.1	64.3	60.7	56.8	59.2	58.8	65.5	67.5	70.9	72.5	71.2	82.6	56.8	71.1	
13	72.9	75.7	78.8	77.5	78.0	76.9	73.1	73.6	70.4	66.7	72.7	72.6	67.7	64.6	67.7	71.2	68.3	69.7	66.2	68.1	68.9	66.8	69.9	71.4	78.8	64.6	71.2	
14	69.4	73.5	74.0	73.9	74.3	68.6	69.6	68.7	70.4	70.1	65.7	64.0	66.2	66.8	64.4	70.6	72.1	74.7	76.1	81.8	87.2	86.6	91.0	95.6	95.6	64.0	74.0	
15	95.2	95.4	96.4	97.6	97.3	98.2	99.9	98.6	94.7	90.3	86.3	80.7	76.9	70.6	66.9	62.6	63.5	65.4	64.9	61.9	67.8	68.1	71.8	75.1	99.9	61.9	81.1	
16	75.9	76.5	78.2	81.7	87.8	93.3	95.5	92.9	91.0	87.5	85.2	80.7	73.9	67.0	60.9	58.3	59.1	61.1	55.8	59.2	63.2	66.0	68.1	70.9	95.5	55.8	74.6	
17	73.2	83.6	86.5	90.4	89.4	90.6	93.4	88.5	79.5	75.7	66.3	61.9	62.9	62.6	61.8	65.0	69.0	71.8	75.3	82.5	86.3	86.2	86.5	84.4	93.4	61.8	78.1	
18	85.8	86.1	86.3	87.9	91.5	95.6	97.7	99.1	99.7	99.8	99.9	99.5	100.0	97.3	90.2	77.1	75.1	76.0	78.4	79.1	84.6	89.0	90.0	88.0	100.0	75.1	89.7	
19	88.9	90.6	89.6	92.1	92.6	92.5	90.6	89.8	86.8	85.1	89.5	83.5	80.6	73.5	63.6	68.7	96.0	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	63.6	89.7	
20	100.0	100.0	99.5	98.4	99.4	98.9	98.3	99.0	97.4	92.6	89.8	84.8	80.0	78.1	76.7	76.4	78.2	83.5	82.9	83.6	88.5	98.2	100.0	100.0	100.0	76.4	91.0	
21	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	98.5	93.2	88.9	86.6	81.8	80.2	79.4	83.4	81.0	78.4	79.2	79.6	81.7	83.3	100.0	78.4	90.6	
22	86.2	88.0	89.4	92.0	93.5	93.2	91.3	86.0	82.2	78.4	75.8	73.4	69.7	64.0	59.5	55.5	54.2	52.4	52.6	55.9	62.5	65.2	70.5	74.2	93.5	52.4	73.6	
23	74.6	79.3	84.8	84.6	84.2	77.0	76.5	72.7	68.9	61.6	54.5	48.8	40.6	34.5	36.2	36.6	34.8	39.9	43.5	45.0	51.8	54.9	56.0	58.2	84.8	34.5	58.3	
24	59.7	61.1	60.3	61.9	63.0	59.3	55.8	59.0	58.5	51.1	44.0	43.1	40.4	37.1	34.3	33.9	29.2	30.0	32.6	42.6	42.1	42.1	42.0	44.3	63.0	29.2	47.0	
25	45.8	49.4	52.9	53.0	56.7	55.2	55.9	56.3	50.5	47.3	44.3	41.2	36.5	33.9	31.4	34.0	35.0	38.3	40.7	41.1	37.0	39.8	41.2	40.2	56.7	31.4	44.1	
26	42.7	45.5	50.5	52.9	58.3	57.7	61.3	58.6	54.2	46.8	41.8	33.2	30.4	30.8	29.8	28.8	26.0	20.2	18.5	22.6	27.1	32.3	33.0	41.8	61.3	18.5	39.4	
27	52.7	54.8	58.3	66.1	64.3	66.8	65.3	66.6	64.5	59.2	57.1	53.2	48.6	49.9	47.6	42.6	39.3	36.9	39.5	45.0	44.6	52.2	58.8	59.4	66.8	36.9	53.9	
28	62.4	64.2	61.5	60.5	57.6	55.9	53.6	41.3	41.2	41.3	39.5	37.4	35.6	33.6	32.8	33.3	33.1	32.9	33.0	37.9	42.0	41.3	38.1	34.7	64.2	32.8	43.5	
29	33.0	34.2	37.6	40.0	39.4	40.7	39.4	39.0	36.7	31.9	28.9	25.5	26.1	26.3	29.2	32.0	31.9	33.1	36.7	42.6	49.6	55.5	59.7	61.9	61.9	25.5	38.0	
30	66.1	72.1	75.7	77.9	79.6	76.9	73.0	61.5	54.7	55.2	54.2	50.9	42.4	42.0	47.3	52.9	57.2	62.5	69.4	75.9	79.1	83.7	84.8	83.0	84.8	42.0	65.7	
31	81.9	83.4	85.3	87.9	90.2	93.3	96.4	97.4	98.4	99.1	99.3	99.3	99.4	99.7	99.7	99.8	99.8	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	81.9	96.3	
<b>Max.</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>99.8</b>	<b>99.9</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>		
<b>Min.</b>	<b>33.0</b>	<b>34.2</b>	<b>37.6</b>	<b>40.0</b>	<b>39.4</b>	<b>40.7</b>	<b>39.4</b>	<b>39.0</b>	<b>36.7</b>	<b>31.9</b>	<b>28.9</b>	<b>25.5</b>	<b>26.1</b>	<b>26.3</b>	<b>29.2</b>	<b>28.8</b>	<b>26.0</b>	<b>20.2</b>	<b>18.5</b>	<b>22.6</b>	<b>27.1</b>	<b>32.3</b>	<b>33.0</b>	<b>34.7</b>		<b>18.5</b>		
<b>Avg.</b>	<b>78.1</b>	<b>80.0</b>	<b>81.1</b>	<b>82.1</b>	<b>82.8</b>	<b>82.2</b>	<b>81.3</b>	<b>79.7</b>	<b>77.4</b>	<b>74.8</b>	<b>73.0</b>	<b>70.4</b>	<b>68.4</b>	<b>67.2</b>	<b>65.7</b>	<b>65.9</b>	<b>66.5</b>	<b>67.1</b>	<b>67.2</b>	<b>70.2</b>	<b>72.8</b>	<b>74.5</b>	<b>75.7</b>	<b>77.0</b>			<b>74.2</b>	

**Total Hours in Month**                      744    **Hours Data Available**                      744    **Data Recovery**                      100.0%

## Northern Dynasty Mines Pebble 1 Meterological Station - Relative Humidity (%)

*June 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	97.5	94.6	88.9	81.0	73.7	67.3	63.0	60.5	54.8	55.4	64.8	69.7	75.3	76.3	71.6	100.0	54.8	83.1	
2	61.5	57.4	60.5	64.3	64.1	59.9	62.5	54.8	50.7	48.6	43.6	39.9	40.1	37.6	35.3	35.0	33.6	37.7	41.5	48.5	48.8	57.4	67.0	74.1	74.1	33.6	51.0	
3	81.7	84.1	88.7	91.2	91.8	91.5	85.3	83.6	77.3	73.8	64.0	56.3	52.1	50.3	50.6	47.9	41.8	36.1	34.6	35.0	35.6	40.3	45.0	50.5	91.8	34.6	62.0	
4	53.2	60.0	59.8	61.0	62.7	60.1	52.7	46.8	41.8	38.0	33.7	31.0	29.8	29.0	27.8	27.5	27.1	26.8	27.6	28.8	33.9	42.6	52.7	58.6	62.7	26.8	42.2	
5	58.9	58.6	57.0	61.1	66.3	65.5	58.7	54.0	49.5	43.2	39.3	36.7	34.3	30.2	28.3	27.3	24.1	21.1	22.6	24.6	28.0	35.4	38.8	37.0	66.3	21.1	41.7	
6	36.5	39.9	41.9	44.4	39.6	42.7	47.1	49.4	51.0	47.2	40.0	33.0	31.0	30.4	28.8	28.1	29.5	34.5	41.6	46.0	50.5	57.0	63.5	69.9	69.9	28.1	42.6	
7	73.8	71.0	68.2	70.5	75.3	80.4	82.0	78.0	72.1	73.5	75.5	76.1	78.6	75.3	78.9	92.2	95.9	97.6	97.2	97.0	97.0	97.0	97.7	97.9	97.9	68.2	83.3	
8	97.0	94.6	93.1	94.6	95.6	96.1	95.9	94.5	92.6	88.5	87.5	84.2	78.5	74.0	72.9	73.6	80.1	72.8	71.0	74.9	77.1	78.2	74.0	73.0	97.0	71.0	83.9	
9	71.8	73.8	74.6	76.0	77.8	77.9	83.5	84.5	77.2	72.7	67.6	65.3	59.9	63.1	63.8	65.9	71.1	75.3	86.4	87.7	92.1	92.9	94.8	90.3	94.8	59.9	76.9	
10	89.7	89.1	91.4	94.8	93.8	92.2	92.9	89.5	83.4	77.0	75.2	73.2	72.2	69.1	67.9	66.4	71.2	72.4	77.1	83.0	94.8	92.3	89.2	89.9	94.8	66.4	82.8	
11	94.0	93.2	92.3	93.0	92.3	89.9	91.3	93.4	92.8	92.2	91.0	89.2	88.9	86.5	84.5	84.1	82.4	82.2	88.7	92.2	93.8	95.2	94.6	96.0	96.0	82.2	90.6	
12	94.0	91.1	91.6	90.0	91.3	93.6	91.2	91.7	90.4	90.6	93.3	95.1	94.4	94.0	94.7	93.7	93.4	95.7	98.5	98.9	98.8	99.0	99.1	99.1	99.1	90.0	94.3	
13	99.1	99.1	99.1	99.1	99.2	99.3	99.7	97.3	90.2	88.6	87.1	82.0	77.6	75.5	74.1	70.9	69.6	73.0	75.9	77.7	77.8	81.2	80.5	81.2	99.7	69.6	85.6	
14	84.5	84.5	83.2	85.9	88.0	87.7	86.3	85.1	84.6	81.5	80.0	71.5	70.9	69.6	66.5	62.0	62.9	64.8	72.6	75.1	80.1	83.6	83.5	91.0	91.0	62.0	78.6	
15	91.9	90.9	95.3	97.3	98.0	97.9	95.4	90.1	87.6	78.0	71.2	61.5	54.8	46.0	47.2	83.6	92.2	96.6	90.9	96.3	98.7	99.1	99.8	100.0	100.0	46.0	85.8	
16	100.0	100.0	100.0	100.0	99.0	96.6	98.0	99.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.9	98.1	96.9	97.0	97.3	100.0	96.6	99.3	
17	97.5	96.5	95.3	93.6	89.9	86.9	87.2	92.6	96.5	97.7	90.3	81.8	78.9	81.9	94.6	90.1	83.4	85.5	87.8	92.8	96.2	98.2	97.8	98.2	98.2	78.9	91.3	
18	98.6	98.8	98.8	98.8	96.2	92.5	94.9	94.6	88.3	84.4	85.9	79.5	84.6	86.8	79.2	70.4	70.9	75.1	77.5	79.7	82.8	83.3	83.5	86.7	98.8	70.4	86.3	
19	88.6	84.0	83.7	88.5	89.7	86.2	81.8	78.8	74.4	70.0	62.3	61.7	54.9	52.8	51.6	55.4	52.8	61.7	60.3	65.2	86.1	96.0	97.8	97.0	97.8	51.6	74.2	
20	96.6	94.4	88.6	90.6	85.3	81.7	80.5	76.1	72.5	70.6	68.8	60.9	51.6	58.4	78.5	96.0	94.9	92.4	88.6	79.2	78.2	81.2	83.1	86.3	96.6	51.6	80.6	
21	86.2	88.4	91.0	91.3	83.5	78.6	79.3	70.9	66.1	56.5	57.2	56.9	51.1	50.9	54.5	53.8	58.7	55.3	48.9	53.0	48.4	54.4	61.0	64.3	91.3	48.4	65.0	
22	62.6	63.0	65.8	68.3	71.4	74.7	72.4	74.3	73.1	78.0	80.3	75.7	77.7	89.9	96.4	97.9	97.5	96.8	95.9	96.5	96.4	96.9	95.6	95.8	97.9	62.6	83.0	
23	95.8	92.8	89.7	89.3	89.9	90.0	91.7	90.5	88.6	84.1	81.3	80.2	73.4	70.7	67.5	66.3	66.3	68.0	68.6	73.9	82.3	84.8	87.6	92.1	95.8	66.3	81.9	
24	95.7	95.2	93.5	91.1	88.6	90.5	83.9	79.4	74.6	72.7	68.0	63.6	57.3	53.4	50.5	50.6	56.2	63.9	70.8	65.4	67.0	69.0	64.3	67.7	95.7	50.5	72.2	
25	67.8	72.6	87.5	93.7	87.4	83.4	85.6	79.1	67.3	60.9	57.1	49.8	48.3	48.7	51.4	53.1	51.1	53.6	59.3	66.8	73.4	75.3	76.2	78.3	93.7	48.3	67.8	
26	81.1	84.3	88.2	91.4	93.7	93.7	95.6	90.1	79.4	57.8	52.5	51.4	48.4	51.0	53.1	56.2	55.1	44.7	41.7	61.6	77.0	82.9	86.0	87.7	95.6	41.7	71.0	
27	89.7	85.1	78.1	75.2	76.6	79.3	82.1	78.7	68.3	63.9	58.5	58.1	55.6	55.7	54.1	51.2	50.5	50.1	47.0	52.8	56.0	65.3	70.4	75.9	89.7	47.0	65.8	
28	80.3	85.7	87.8	91.2	87.3	85.6	85.5	89.3	94.3	94.3	97.7	86.5	83.3	82.4	80.1	83.3	82.4	84.3	84.1	82.3	83.1	86.2	87.5	87.8	97.7	80.1	86.3	
29	90.5	93.8	97.0	97.8	98.3	98.9	99.1	99.1	95.5	89.6	90.2	91.0	86.9	76.7	71.6	62.2	64.8	69.8	76.5	82.0	89.4	95.5	97.6	98.2	99.1	62.2	88.0	
30	98.6	98.8	98.9	98.9	99.0	99.1	99.2	99.1	99.1	99.0	98.6	96.9	94.7	94.4	91.6	92.6	91.2	88.7	87.6	86.9	87.2	90.3	93.2	93.4	99.2	86.9	94.9	
<b>Max.</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>99.9</b>	<b>98.8</b>	<b>99.1</b>	<b>99.8</b>	<b>100.0</b>	<b>100.0</b>			
<b>Min.</b>	<b>36.5</b>	<b>39.9</b>	<b>41.9</b>	<b>44.4</b>	<b>39.6</b>	<b>42.7</b>	<b>47.1</b>	<b>46.8</b>	<b>41.8</b>	<b>38.0</b>	<b>33.7</b>	<b>31.0</b>	<b>29.8</b>	<b>29.0</b>	<b>27.8</b>	<b>27.3</b>	<b>24.1</b>	<b>21.1</b>	<b>22.6</b>	<b>24.6</b>	<b>28.0</b>	<b>35.4</b>	<b>38.8</b>	<b>37.0</b>		<b>21.1</b>		
<b>Avg.</b>	<b>83.9</b>	<b>84.0</b>	<b>84.7</b>	<b>86.1</b>	<b>85.7</b>	<b>85.1</b>	<b>84.7</b>	<b>82.8</b>	<b>79.3</b>	<b>75.7</b>	<b>73.1</b>	<b>69.3</b>	<b>66.4</b>	<b>65.3</b>	<b>65.4</b>	<b>66.7</b>	<b>67.0</b>	<b>67.7</b>	<b>69.2</b>	<b>72.3</b>	<b>75.9</b>	<b>79.4</b>	<b>81.2</b>	<b>82.9</b>			<b>76.4</b>	

**Total Hours in Month**

720

**Hours Data Available**

720

**Data Recovery**

100.0%

**HCG, Inc.**

## Northern Dynasty Mines Pebble 1 Meterological Station - Relative Humidity (%)

*July 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	94.5	95.6	96.8	97.8	98.3	99.0	99.2	99.3	99.4	99.5	96.9	86.7	79.3	70.3	61.0	56.9	51.4	51.5	58.1	60.4	65.6	67.1	72.4	71.6	99.5	51.4	80.4	
2	77.3	75.8	79.3	86.3	88.4	87.0	87.6	85.5	80.7	72.8	66.5	61.3	58.9	57.1	54.3	53.8	54.3	53.4	52.7	54.5	58.1	71.5	77.7	82.4	88.4	52.7	69.9	
3	83.8	83.4	86.3	91.2	94.2	95.1	93.9	88.8	86.8	75.6	70.0	65.1	61.0	57.0	52.3	49.0	55.8	58.5	57.1	57.2	56.6	69.2	80.3	81.2	95.1	49.0	72.9	
4	83.6	83.2	84.9	87.5	90.8	91.1	82.4	78.4	71.8	69.5	63.9	60.4	49.6	47.1	45.0	47.0	48.1	50.0	49.7	52.3	65.5	72.4	76.0	76.6	91.1	45.0	67.8	
5	81.0	83.8	86.7	88.3	92.2	96.8	98.5	99.0	99.1	97.7	87.6	75.3	66.2	63.9	56.5	56.4	72.3	84.5	77.4	84.6	90.2	86.7	88.5	80.4	99.1	56.4	83.1	
6	81.1	83.2	81.2	80.9	84.3	85.7	86.1	91.1	93.0	90.7	87.7	81.4	80.7	80.2	77.2	73.9	72.2	76.6	77.6	78.8	86.1	92.5	94.4	96.3	96.3	72.2	83.9	
7	96.7	97.5	97.9	98.2	98.4	98.7	99.0	99.2	99.2	99.3	99.4	99.4	99.4	99.0	98.7	99.1	99.2	99.3	99.4	99.4	99.4	99.4	99.5	99.5	99.5	99.5	96.7	98.9
8	99.5	99.5	99.5	99.5	99.5	99.5	99.6	99.6	99.6	99.7	99.7	99.7	99.6	99.6	98.1	94.3	92.4	92.6	90.2	88.0	86.9	94.4	95.8	96.6	99.7	86.9	96.8	
9	97.4	97.7	97.9	98.3	98.9	99.2	99.4	99.4	97.5	86.6	82.0	74.6	66.1	63.7	64.9	61.7	62.1	65.5	71.1	75.5	76.6	77.5	79.1	84.3	99.4	61.7	82.4	
10	86.1	88.6	91.2	92.9									91.8	93.1	93.3	91.1	86.6	81.1	81.2	76.2	75.2	73.5	72.3	70.9	93.3	70.9	84.1	
11	69.3	70.2	71.9	74.7	82.8	88.8	93.9	93.9	95.0		95.8	96.0	94.5	93.4	92.4	89.6	87.6	85.5	78.4	72.5	69.4	67.1	66.1	65.9	96.0	65.9	82.4	
12	67.3	70.7	74.6	72.6	71.0	75.4	79.7	78.3	81.2	86.7	83.4	81.0	81.4	81.9	79.0	78.2	69.9	67.4	66.7	65.9	65.1	63.1	60.8	56.8	86.7	56.8	73.3	
13	52.8	49.7	52.7	56.1	59.5	68.5	75.2	75.4	72.2	75.9	75.4	74.7	72.0	70.5	74.1	90.2	98.1	98.4	98.9	99.0	98.6	98.4	96.4	95.6	99.0	49.7	78.3	
14	98.1	98.9	99.1	99.2	99.3	99.3	99.3	99.1	99.1	99.0	99.1	99.1	99.1	99.1	99.1	99.3	99.4	99.4	99.5	99.5	99.6	99.6	99.6	98.5	97.8	99.6	97.8	99.1
15	98.1	97.8	97.7	98.2	98.7	98.7	98.8	99.0	99.0	99.1	99.1	99.1	99.1	99.1	99.3	99.4	99.4	99.5	99.5	98.8	96.8	96.5	94.8	91.0	99.5	91.0	98.2	
16	84.5	79.2	78.0	80.1	85.4	88.6	88.7	91.1	91.0	96.3	98.2	98.4	96.4	92.9	90.3	88.6	86.8	86.6	85.0	82.6	79.5	77.7	79.7	73.2	98.4	73.2	86.6	
17	70.8	70.7	72.3	73.2	77.4	79.6	80.3	80.3	81.0	83.1	85.4	87.8	93.3	96.8	94.3	92.6	91.4	89.6	86.4	82.9	74.5	73.9	70.9	74.4	96.8	70.7	81.8	
18	78.7	81.3	89.2	90.5	91.0	91.9	91.3	89.5	90.3	87.1	88.7	90.8	93.2	95.1	93.2	91.2	90.3	88.4	86.5	81.1	79.2	78.5	76.7	81.5	95.1	76.7	87.3	
19	83.5	82.3	81.9	79.5	83.7	85.3	85.2	85.4	87.1	85.6	86.2	87.5	89.1	90.6	89.1	83.6	79.0	78.2	73.6	59.9	55.3	55.6	54.0	55.6	90.6	54.0	78.2	
20	57.0	60.6	59.6	58.3	62.3	66.9	67.8	66.0	71.6	72.6	74.1	80.4	76.6	76.5	76.4	73.9	62.6	52.0	49.5	48.9	46.3	46.4	44.4	47.0	80.4	44.4	62.4	
21	49.1	47.0	47.2	58.8	67.8	74.9	82.8	90.2	95.2	97.1	97.3	93.3	89.4	90.3	83.4	82.6	83.8	74.7	65.6	62.9	60.4	78.9	79.9	72.4	97.3	47.0	76.0	
22	70.4	76.4	79.8	83.9	85.8	83.5	83.4	83.7	82.0	78.8	78.5	80.0	80.0	83.9	82.7	84.0	80.7	74.3	73.2	72.8	77.3	77.3	80.3	92.5	92.5	70.4	80.2	
23	96.5	98.5	99.0	99.0	95.5	92.8	91.8	90.2	87.8	86.0	85.6	90.9	92.7	93.8	96.5	96.2	94.9	92.6	91.6	87.1	83.2	87.5	82.7	86.6	99.0	82.7	91.6	
24	88.9	88.8	91.5	95.8	97.5	98.5	99.0	99.1	99.1	99.1	99.0	98.7	98.3	96.6	96.6	94.8	94.1	93.0	93.9	96.0	92.9	93.7	93.1	93.2	99.1	88.8	95.5	
25	93.8	98.1	99.0	99.2	99.3	99.4	99.4	99.5	99.5	99.4	98.5	96.3	95.2	97.3	97.9	97.5	98.7	98.6	95.9	93.9	90.5	85.1	81.7	78.5	99.5	78.5	95.5	
26	75.2	78.0	78.2	82.0	84.8	87.3	90.8	92.0	91.2	88.4	87.0	84.7	83.7	82.4	84.7	89.1	93.7	94.4	97.9	95.0	90.0	84.4	84.0	84.5	97.9	75.2	86.8	
27	83.5	82.2	86.0	87.2	87.3	91.8	94.9	96.0	96.0	96.7	97.8	97.8	92.9	93.7	94.4	94.4	94.1	89.7	85.4	83.7	82.6	79.9	76.4	73.3	97.8	73.3	89.1	
28	71.9	70.7	70.4	72.1	76.1	78.4	84.5	87.8	90.7	89.5	90.4	90.3	93.7	94.3	89.4	89.5	87.2	80.5	75.2	70.7	72.3	74.6	77.1	81.6	94.3	70.4	81.6	
29	89.2	94.2	96.7	94.3	96.9	97.8	98.6	98.7	98.7	98.8	98.9	98.7	97.8	98.6	98.7	98.7	98.8	98.7	98.2	94.7	89.2	81.4	71.3	67.2	98.9	67.2	93.9	
30	74.7	81.8	82.5	86.4	93.1	96.3	97.7	97.0	96.7	96.6	96.3	96.5	96.9	97.6	98.1	98.8	99.1	99.2	99.2	99.0	98.0	98.1	97.4	91.9	99.2	74.7	94.5	
31	86.8	82.5	74.5	80.4	73.7	80.4	87.1	91.2	96.3	97.8	98.2	98.6	97.1	96.9	97.4	97.6	96.3	93.8	91.2	89.9	87.3	88.1	83.0	85.2	98.6	73.7	89.6	
<b>Max.</b>	<b>99.5</b>	<b>99.5</b>	<b>99.5</b>	<b>99.5</b>	<b>99.5</b>	<b>99.5</b>	<b>99.6</b>	<b>99.6</b>	<b>99.6</b>	<b>99.7</b>	<b>99.7</b>	<b>99.7</b>	<b>99.6</b>	<b>99.6</b>	<b>99.3</b>	<b>99.4</b>	<b>99.4</b>	<b>99.5</b>	<b>99.5</b>	<b>99.6</b>	<b>99.6</b>	<b>99.6</b>	<b>99.5</b>	<b>99.5</b>	<b>99.7</b>			
<b>Min.</b>	<b>49.1</b>	<b>47.0</b>	<b>47.2</b>	<b>56.1</b>	<b>59.5</b>	<b>66.9</b>	<b>67.8</b>	<b>66.0</b>	<b>71.6</b>	<b>69.5</b>	<b>63.9</b>	<b>60.4</b>	<b>49.6</b>	<b>47.1</b>	<b>45.0</b>	<b>47.0</b>	<b>48.1</b>	<b>50.0</b>	<b>49.5</b>	<b>48.9</b>	<b>46.3</b>	<b>46.4</b>	<b>44.4</b>	<b>47.0</b>		<b>44.4</b>		
<b>Avg.</b>	<b>81.3</b>	<b>82.2</b>	<b>83.3</b>	<b>85.2</b>	<b>87.1</b>	<b>89.2</b>	<b>90.5</b>	<b>90.8</b>	<b>90.9</b>	<b>89.8</b>	<b>88.9</b>	<b>87.5</b>	<b>86.0</b>	<b>85.6</b>	<b>84.1</b>	<b>83.6</b>	<b>83.2</b>	<b>82.2</b>	<b>80.8</b>	<b>79.5</b>	<b>79.0</b>	<b>80.3</b>	<b>80.2</b>	<b>80.2</b>			<b>84.6</b>	

**Total Hours in Month**

744

**Hours Data Available**

735

**Data Recovery**

98.8%

**HCG, Inc.**

# Northern Dynasty Mines Pebble 1 Meterological Station - Solar (Watts/m<sup>2</sup>)

*August 2005*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	0	0	0	0	0	8	37	90	165	333	195	245	433	547	354	255	335	187	135	79	27	7	0	0	547	0	143
2	0	0	0	0	0	14	91	179	235	255	259	240	226	205	360	249	184	170	161	56	16	3	0	0	360	0	121
3	0	0	0	0	0	4	23	48	128	255	384	351	270	233	273	179	277	278	160	151	65	9	0	0	384	0	129
4	0	0	0	0	0	8	64	185	200	153	151	309	198	214	265	128	138	61	82	120	54	8	0	0	309	0	97
5	0	0	0	0	0	11	59	126	111	193	189	405	406	524	647	471	254	212	306	195	54	7	0	0	647	0	174
6	0	0	0	0	0	14	94	211	319	489	515	317	380	399	547	526	322	255	233	69	78	20	0	0	547	0	199
7	0	0	0	0	0	8	54	120	177	305	350	257	359	553	617	539	506	445	251	167	68	7	0	0	617	0	199
8	0	0	0	0	0	7	71	208	333	448	565	651	699	698	693	638	541	438	310	188	74	8	0	0	699	0	274
9	0	0	0	0	0	9	85	201	325	449	555	638	689	706	683	623	546	438	312	186	70	6	0	0	706	0	272
10	0	0	0	0	0	8	81	201	324	450	561	645	697	714	696	636	554	442	317	182	59	3	0	0	714	0	274
11	0	0	0	0	0	7	80	198	324	448	556	639	691	706	685	625	543	431	304	180	64	5	0	0	706	0	270
12	0	0	0	0	0	6	75	193	319	443	551	633	682	697	676	615	532	421	295	169	55	4	0	0	697	0	265
13	0	0	0	0	0	5	70	186	311	434	541	623	670	686	665	602	519	253	286	180	37	3	0	0	686	0	253
14	0	0	0	0	0	7	67	145	237	420	537	616	666	682	660	597	511	400	275	148	37	2	0	0	682	0	250
15	0	0	0	0	0	3	22	49	68	148	223	516	553	546	445	343	518	279	104	69	23	2	0	0	553	0	163
16	0	0	0	0	0	3	37	67	68	132	171	180	94	148	256	191	179	104	89	118	31	3	0	0	256	0	78
17	0	0	0	0	0	2	5	19	40	49	69	86	47	138	174	179	193	58	55	52	23	0	0	0	193	0	50
18	0	0	0	0	0	1	11	70	57	121	146	330	526	381	461	131	106	128	35	6	2	0	0	0	526	0	105
19	0	0	0	0	0	2	18	36	109	265	417	551	594	604	564	493	391	299	162	80	21	0	0	0	604	0	192
20	0	0	0	0	0	0	4	23	91	214	305	395	443	288	247	237	166	72	23	15	4	0	0	0	443	0	105
21	0	0	0	0	0	0	8	51	157	388	532	472	434	519	441	520	474	394	262	116	20	0	0	0	532	0	199
22	0	0	0	0	0	1	15	41	53	55	122	267	206	89	87	56	31	23	13	8	1	0	0	0	267	0	44
23	0	0	0	0	0	0	6	44	63	56	87	170	159	146	103	98	136	92	29	19	2	0	0	0	170	0	50
24	0	0	0	0	0	0	4	17	43	58	143	123	168	437	354	390	189	145	128	119	18	0	0	0	437	0	97
25	0	0	0	0	0	0	20	83	250	365	491	386	554	518	603	241	360	282	234	115	17	0	0	0	603	0	188
26	0	0	0	0	0	0	27	135	96	113	228	405	635	626	524	415	183	96	86	18	3	0	0	0	635	0	150
27	0	0	0	0	0	1	25	140	263	383	488	558	548	406	314	204	135	95	53	20	2	0	0	0	558	0	151
28	0	0	0	0	0	0	3	15	24	34	100	143	189	275	272	126	96	60	21	18	3	0	0	0	275	0	57
29	0	0	0	0	0	0	5	18	46	106	111	122	107	141	168	157	128	86	59	24	4	0	0	0	168	0	53
30	0	0	0	0	0	0	8	68	187	437	328	284	182	318	218	215	163	116	80	26	3	0	0	0	437	0	110
31	0	0	0	0	0	0	6	57	93	183	250	221	430	591	362	381	251	88	189	53	4	0	0	0	591	0	132
<b>Max.</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>94</b>	<b>211</b>	<b>333</b>	<b>489</b>	<b>565</b>	<b>651</b>	<b>699</b>	<b>714</b>	<b>696</b>	<b>638</b>	<b>554</b>	<b>445</b>	<b>317</b>	<b>195</b>	<b>78</b>	<b>20</b>	<b>0</b>	<b>0</b>	<b>714</b>		
<b>Min.</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>15</b>	<b>24</b>	<b>34</b>	<b>69</b>	<b>86</b>	<b>47</b>	<b>89</b>	<b>87</b>	<b>56</b>	<b>31</b>	<b>23</b>	<b>13</b>	<b>6</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>		<b>0</b>	
<b>Avg.</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>38</b>	<b>104</b>	<b>168</b>	<b>264</b>	<b>326</b>	<b>380</b>	<b>417</b>	<b>443</b>	<b>433</b>	<b>357</b>	<b>305</b>	<b>221</b>	<b>163</b>	<b>95</b>	<b>30</b>	<b>3</b>	<b>0</b>	<b>0</b>			<b>156</b>

**Total Hours in Month** 744      **Hours Data Available** 744      **Data Recovery** 100.0%

# Northern Dynasty Mines Pebble 1 Meterological Station - Solar (Watts/m<sup>2</sup>)

*September 2005*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	0	0	0	0	0	0	17	121	246	371	479	560	609	622	597	531	441	327	201	76	3	0	0	0	622	0	217	
2	0	0	0	0	0	0	21	109	198	338	338	339	407	360	331	196	117	84	65	21	1	0	0	0	407	0	122	
3	0	0	0	0	0	0	1	10	12	25	33	58	59	99	94	103	79	55	23	7	0	0	0	0	103	0	27	
4	0	0	0	0	0	0	1	15	62	116	126	238	409	413	222	136	193	98	42	10	0	0	0	0	413	0	87	
5	0	0	0	0	0	0	4	10	21	39	69	85	97	113	50	43	51	20	13	5	0	0	0	0	113	0	26	
6	0	0	0	0	0	0	2	40	74	135	180	175	125	164	207	291	243	67	73	16	0	0	0	0	291	0	75	
7	0	0	0	0	0	0	4	30	90	140	244	309	326	255	317	400	267	136	78	45	1	0	0	0	400	0	110	
8	0	0	0	0	0	0	7	78	188	313	402	316	369	421	369	232	148	61	20	6	0	0	0	0	421	0	122	
9	0	0	0	0	0	0	0	1	7	18	28	55	71	103	110	97	78	111	88	13	0	0	0	0	111	0	33	
10	0	0	0	0	0	0	2	21	27	36	112	384	255	179	175	157	136	119	35	9	0	0	0	0	384	0	69	
11	0	0	0	0	0	0	4	21	188	152	92	53	66	92	144	105	62	32	10	2	0	0	0	0	188	0	43	
12	0	0	0	0	0	0	1	30	119	70	99	147	118	114	196	170	149	133	59	15	0	0	0	0	196	0	59	
13	0	0	0	0	0	0	2	17	45	66	108	144	260	380	289	140	207	79	45	8	0	0	0	0	380	0	75	
14	0	0	0	0	0	0	1	20	90	133	285	240	396	535	491	427	297	148	77	5	0	0	0	0	535	0	131	
15	0	0	0	0	0	0	0	3	16	16	31	111	95	87	57	75	50	24	17	2	0	0	0	0	111	0	24	
16	0	0	0	0	0	0	0	14	54	74	165	157	271	294	185	165	106	47	41	6	0	0	0	0	294	0	66	
17	0	0	0	0	0	0	1	10	33	88	193	265	264	115	237	136	66	44	36	5	0	0	0	0	265	0	62	
18	0	0	0	0	0	0	1	28	75	266	389	509	460	511	402	270	295	165	74	12	0	0	0	0	511	0	144	
19	0	0	0	0	0	0	1	31	70	160	255	459	480	414	454	329	140	121	75	5	0	0	0	0	480	0	125	
20	0	0	0	0	0	0	1	28	130	267	335	273	327	297	163	208	183	78	66	6	0	0	0	0	335	0	98	
21	0	0	0	0	0	0	0	4	14	34	47	34	44	93	90	71	58	50	15	1	0	0	0	0	93	0	23	
22	0	0	0	0	0	0	0	6	33	47	39	40	91	49	32	33	39	25	20	11	0	0	0	0	91	0	19	
23	0	0	0	0	0	0	0	1	23	55	119	122	219	233	260	70	36	8	2	0	0	0	0	0	260	0	48	
24	0	0	0	0	0	0	0	20	41	72	162	201	185	190	271	224	221	92	24	1	0	0	0	0	271	0	71	
25	0	0	0	0	0	0	0	5	32	60	112	121	110	240	180	157	99	71	18	1	0	0	0	0	240	0	50	
26	0	0	0	0	0	0	0	12	48	100	195	310	287	345	162	62	54	28	10	0	0	0	0	0	345	0	67	
27	0	0	0	0	0	0	0	1	15	32	67	110	150	89	77	45	36	18	6	0	0	0	0	0	150	0	27	
28	0	0	0	0	0	0	0	3	19	47	126	202	313	261	75	60	53	42	8	0	0	0	0	0	313	0	50	
29	0	0	0	0	0	0	0	5	30	152	109	99	117	142	109	135	98	66	13	0	0	0	0	0	152	0	45	
30	0	0	0	0	0	0	0	13	116	220	268	131	193	243	182	205	114	58	19	0	0	0	0	0	268	0	73	
<b>Max.</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>21</b>	<b>121</b>	<b>246</b>	<b>371</b>	<b>479</b>	<b>560</b>	<b>609</b>	<b>622</b>	<b>597</b>	<b>531</b>	<b>441</b>	<b>327</b>	<b>201</b>	<b>76</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>622</b>		
<b>Min.</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>7</b>	<b>16</b>	<b>28</b>	<b>34</b>	<b>44</b>	<b>49</b>	<b>32</b>	<b>33</b>	<b>36</b>	<b>8</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		<b>0</b>	
<b>Avg.</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>24</b>	<b>70</b>	<b>121</b>	<b>173</b>	<b>208</b>	<b>239</b>	<b>248</b>	<b>218</b>	<b>176</b>	<b>137</b>	<b>80</b>	<b>42</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>			<b>73</b>

Total Hours in Month                      720                      Hours Data Available                      720                      Data Recovery                      100.0%

# Northern Dynasty Mines Pebble 1 Meterological Station - Solar (Watts/m^2)

October 2005

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	0	0	0	0	0	0	0	2	21	55	93	165	319	292	238	159	113	43	11	0	0	0	0	0	319	0	63
2	0	0	0	0	0	0	0	8	90	204	309	291	205	238	416	339	144	112	19	0	0	0	0	0	416	0	99
3	0	0	0	0	0	0	0	5	45	178	299	373	331	394	278	198	152	77	12	0	0	0	0	0	394	0	98
4	0	0	0	0	0	0	0	1	53	150	81	189	384	150	127	107	68	55	4	0	0	0	0	0	384	0	57
5	0	0	0	0	0	0	0	1	12	42	104	145	152	179	164	98	58	29	5	0	0	0	0	0	179	0	41
6	0	0	0	0	0	0	0	2	15	49	63	104	132	98	143	97	89	31	9	0	0	0	0	0	143	0	35
7	0	0	0	0	0	0	0	1	7	24	68	58	75	77	77	80	34	14	3	0	0	0	0	0	80	0	22
8	0	0	0	0	0	0	0	1	11	26	38	59	106	92	66	59	29	16	2	0	0	0	0	0	106	0	21
9	0	0	0	0	0	0	0	1	21	157	255	246	217	157	136	86	47	15	2	0	0	0	0	0	255	0	56
10	0	0	0	0	0	0	0	1	18	49	107	200	213	165	133	115	70	31	2	0	0	0	0	0	213	0	46
11	0	0	0	0	0	0	0	0	19	107	209	191	235	311	139	124	82	34	2	0	0	0	0	0	311	0	60
12	0	0	0	0	0	0	0	1	48	99	254	302	341	268	427	313	154	64	3	0	0	0	0	0	427	0	95
13	0	0	0	0	0	0	0	0	15	68	219	319	342	287	245	198	59	25	1	0	0	0	0	0	342	0	74
14	0	0	0	0	0	0	0	0	17	77	123	156	148	149	164	136	78	24	1	0	0	0	0	0	164	0	45
15	0	0	0	0	0	0	0	0	22	87	147	219	313	341	309	242	155	47	2	0	0	0	0	0	341	0	79
16	0	0	0	0	0	0	0	1	25	122	207	210	219	183	172	80	36	5	0	0	0	0	0	0	219	0	52
17	0	0	0	0	0	0	0	0	2	7	13	28	74	92	121	50	32	13	0	0	0	0	0	0	121	0	18
18	0	0	0	0	0	0	0	0	15	100	203	292	245	171	198	97	24	3	0	0	0	0	0	0	292	0	56
19	0	0	0	0	0	0	0	0	2	13	58	44	91	99	45	26	11	2	0	0	0	0	0	0	99	0	16
20	0	0	0	0	0	0	0	0	4	16	25	31	31	29	28	21	8	2	0	0	0	0	0	0	31	0	8
21	0	0	0	0	0	0	0	0	3	14	46	70	97	79	72	43	26	12	0	0	0	0	0	0	97	0	19
22	0	0	0	0	0	0	0	0	7	46	94	129	172	202	197	133	67	22	0	0	0	0	0	0	202	0	45
23	0	0	0	0	0	0	0	0	9	62	91	130	145	158	121	85	37	11	0	0	0	0	0	0	158	0	35
24	0	0	0	0	0	0	0	0	10	53	98	118	165	167	113	66	40	6	0	0	0	0	0	0	167	0	35
25	0	0	0	0	0	0	0	0	8	50	59	102	93	95	96	72	31	5	0	0	0	0	0	0	102	0	25
26	0	0	0	0	0	0	0	0	9	63	72	78	129	125	110	83	39	7	0	0	0	0	0	0	129	0	30
27	0	0	0	0	0	0	0	0	4	25	57	97	129	140	150	69	40	6	0	0	0	0	0	0	150	0	30
28	0	0	0	0	0	0	0	0	3	25	66	115	145	147	109	66	29	4	0	0	0	0	0	0	147	0	30
29	0	0	0	0	0	0	0	0	2	19	47	74	95	94	80	49	23	3	0	0	0	0	0	0	95	0	20
30	0	0	0	0	0	0	0	0	1	24	49	78	101	90	65	51	56	4	0	0	0	0	0	0	101	0	22
31	0	0	0	0	0	0	0	0	2	78	131	161	179	166	109	78	40	4	0	0	0	0	0	0	179	0	40
<b>Max.</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>90</b>	<b>204</b>	<b>309</b>	<b>373</b>	<b>384</b>	<b>394</b>	<b>427</b>	<b>339</b>	<b>155</b>	<b>112</b>	<b>19</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>427</b>		
<b>Min.</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>7</b>	<b>13</b>	<b>28</b>	<b>31</b>	<b>29</b>	<b>28</b>	<b>21</b>	<b>8</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		<b>0</b>	
<b>Avg.</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>17</b>	<b>67</b>	<b>119</b>	<b>154</b>	<b>181</b>	<b>169</b>	<b>156</b>	<b>110</b>	<b>60</b>	<b>23</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>			<b>44</b>

Total Hours in Month

744

Hours Data Available

744

Data Recovery

100.0%

HCG, Inc.



# Northern Dynasty Mines Pebble 1 Meterological Station - Solar (Watts/m<sup>2</sup>)

*November 2005*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	0	0	0	0	0	0	0	0	2	32	79	122	132	173	116	98	31	3	0	0	0	0	0	0	173	0	33
2	0	0	0	0	0	0	0	0	2	21	47	88	103	120	130	65	33	3	0	0	0	0	0	0	130	0	25
3	0	0	0	0	0	0	0	0	1	29	72	122	174	214	218	162	54	4	0	0	0	0	0	0	218	0	44
4	0	0	0	0	0	0	0	0	2	41	135	203	240	243	210	147	49	3	0	0	0	0	0	0	243	0	53
5	0	0	0	0	0	0	0	0	2	37	128	193	230	223	169	125	37	2	0	0	0	0	0	0	230	0	48
6	0	0	0	0	0	0	0	0	0	10	106	264	232	223	183	102	37	1	0	0	0	0	0	0	264	0	48
7	0	0	0	0	0	0	0	0	1	19	69	110	142	113	121	62	18	1	0	0	0	0	0	0	142	0	27
8	0	0	0	0	0	0	0	0	0	18	57	100	129	136	86	60	16	1	0	0	0	0	0	0	136	0	25
9	0	0	0	0	0	0	0	0	0	12	50	88	103	95	62	44	13	1	0	0	0	0	0	0	103	0	20
10	0	0	0	0	0	0	0	0	0	29	68	125	117	164	183	119	26	1	0	0	0	0	0	0	183	0	35
11	0	0	0	0	0	0	0	0	0	7	36	69	74	99	59	47	16	1	0	0	0	0	0	0	99	0	17
12	0	0	0	0	0	0	0	0	0	9	46	128	146	184	150	117	28	1	0	0	0	0	0	0	184	0	34
13	0	0	0	0	0	0	0	0	0	20	96	165	199	202	166	73	21	1	0	0	0	0	0	0	202	0	39
14	0	0	0	0	0	0	0	0	0	12	41	75	146	108	90	45	17	0	0	0	0	0	0	0	146	0	22
15	0	0	0	0	0	0	0	0	0	7	28	68	116	111	85	50	13	0	0	0	0	0	0	0	116	0	20
16	0	0	0	0	0	0	0	0	0	3	21	47	57	61	52	28	9	0	0	0	0	0	0	0	61	0	12
17	0	0	0	0	0	0	0	0	0	4	28	82	139	82	112	54	7	1	0	0	0	0	0	0	139	0	21
18	0	0	0	0	0	0	0	0	0	3	30	43	71	59	38	27	6	0	0	0	0	0	0	0	71	0	12
19	0	0	0	0	0	0	0	0	0	4	23	56	82	100	137	68	8	0	0	0	0	0	0	0	137	0	20
20	0	0	0	0	0	0	0	0	0	4	28	41	64	60	61	35	8	0	0	0	0	0	0	0	64	0	12
21	0	0	0	0	0	0	0	0	0	2	40	78	102	76	98	59	6	0	0	0	0	0	0	0	102	0	19
22	0	0	0	0	0	0	0	0	0	3	25	57	76	77	66	33	6	0	0	0	0	0	0	0	77	0	14
23	0	0	0	0	0	0	0	0	0	2	14	36	31	56	43	21	4	0	0	0	0	0	0	0	56	0	9
24	0	0	0	0	0	0	0	0	0	2	26	44	54	58	45	24	3	0	0	0	0	0	0	0	58	0	11
25	0	0	0	0	0	0	0	0	0	1	8	15	41	43	31	16	3	0	0	0	0	0	0	0	43	0	7
26	0	0	0	0	0	0	0	0	0	1	14	28	37	40	34	21	3	0	0	0	0	0	0	0	40	0	7
27	0	0	0	0	0	0	0	0	0	1	18	41	60	67	58	32	2	0	0	0	0	0	0	0	67	0	12
28	0	0	0	0	0	0	0	0	0	1	9	28	46	54	49	23	4	0	0	0	0	0	0	0	54	0	9
29	0	0	0	0	0	0	0	0	0	1	13	71	59	57	45	16	2	0	0	0	0	0	0	0	71	0	11
30	0	0	0	0	0	0	0	0	0	1	6	18	27	22	19	9	1	0	0	0	0	0	0	0	27	0	4
<b>Max.</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>41</b>	<b>135</b>	<b>264</b>	<b>240</b>	<b>243</b>	<b>218</b>	<b>162</b>	<b>54</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>264</b>		
<b>Min.</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>6</b>	<b>15</b>	<b>27</b>	<b>22</b>	<b>19</b>	<b>9</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		<b>0</b>	
<b>Avg.</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>11</b>	<b>45</b>	<b>87</b>	<b>108</b>	<b>111</b>	<b>97</b>	<b>59</b>	<b>16</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>			<b>22</b>

Total Hours in Month

720

Hours Data Available

720

Data Recovery

100.0%

HCG, Inc.

# Northern Dynasty Mines Pebble 1 Meterological Station - Solar (Watts/m<sup>2</sup>)

*December 2005*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	0	0	0	0	0	0	0	0	0	1	18	46	54	42	15	10	1	0	0	0	0	0	0	0	54	0	8
2	0	0	0	0	0	0	0	0	0	0	3	11	16	13	8	6	1	0	0	0	0	0	0	0	16	0	2
3	0	0	0	0	0	0	0	0	0	0	10	28	40	44	37	21	1	0	0	0	0	0	0	0	44	0	8
4	0	0	0	0	0	0	0	0	0	0	4	11	16	15	12	7	1	0	0	0	0	0	0	0	16	0	3
5	0	0	0	0	0	0	0	0	0	0	10	16	33	29	23	9	1	0	0	0	0	0	0	0	33	0	5
6	0	0	0	0	0	0	0	0	0	0	6	33	49	102	36	16	3	0	0	0	0	0	0	0	102	0	10
7	0	0	0	0	0	0	0	0	0	0	1	5	8	10	8	4	1	0	0	0	0	0	0	0	10	0	2
8	0	0	0	0	0	0	0	0	0	1	16	19	56	122	26	16	1	0	0	0	0	0	0	0	122	0	11
9	0	0	0	0	0	0	0	0	0	0	4	26	35	48	38	18	1	0	0	0	0	0	0	0	48	0	7
10	0	0	0	0	0	0	0	0	0	0	4	22	41	52	51	21	2	0	0	0	0	0	0	0	52	0	8
11	0	0	0	0	0	0	0	0	0	0	10	23	46	46	27	13	2	0	0	0	0	0	0	0	46	0	7
12	0	0	0	0	0	0	0	0	0	0	10	31	44	52	42	30	4	0	0	0	0	0	0	0	52	0	9
13	0	0	0	0	0	0	0	0	0	0	3	20	38	56	51	21	1	0	0	0	0	0	0	0	56	0	8
14	0	0	0	0	0	0	0	0	0	0	7	19	27	78	62	18	2	0	0	0	0	0	0	0	78	0	9
15	0	0	0	0	0	0	0	0	0	0	1	6	9	8	9	8	1	0	0	0	0	0	0	0	9	0	2
16	0	0	0	0	0	0	0	0	0	0	1	6	15	16	10	5	1	0	0	0	0	0	0	0	16	0	2
17	0	0	0	0	0	0	0	0	0	0	2	6	17	8	10	5	0	0	0	0	0	0	0	0	17	0	2
18	0	0	0	0	0	0	0	0	0	0	5	31	30	42	32	18	2	0	0	0	0	0	0	0	42	0	7
19	0	0	0	0	0	0	0	0	0	0	2	10	18	24	21	11	1	0	0	0	0	0	0	0	24	0	4
20	0	0	0	0	0	0	0	0	0	0	5	26	48	51	41	20	2	0	0	0	0	0	0	0	51	0	8
21	0	0	0	0	0	0	0	0	0	0	3	18	32	33	34	14	3	0	0	0	0	0	0	0	34	0	6
22	0	0	0	0	0	0	0	0	0	0	5	17	43	43	33	13	2	0	0	0	0	0	0	0	43	0	6
23	0	0	0	0	0	0	0	0	0	0	6	47	34	29	27	12	2	0	0	0	0	0	0	0	47	0	7
24	0	0	0	0	0	0	0	0	0	0	5	26	70	78	34	23	3	0	0	0	0	0	0	0	78	0	10
25	0	0	0	0	0	0	0	0	0	0	6	19	20	24	22	9	2	0	0	0	0	0	0	0	24	0	4
26	0	0	0	0	0	0	0	0	0	0	8	32	52	66	48	24	3	0	0	0	0	0	0	0	66	0	10
27	0	0	0	0	0	0	0	0	0	0	3	15	32	34	24	12	1	0	0	0	0	0	0	0	34	0	5
28	0	0	0	0	0	0	0	0	0	0	5	28	37	42	33	14	2	0	0	0	0	0	0	0	42	0	7
29	0	0	0	0	0	0	0	0	0	0	2	12	31	47	28	8	2	0	0	0	0	0	0	0	47	0	5
30	0	0	0	0	0	0	0	0	0	0	2	20	43	25	30	19	3	0	0	0	0	0	0	0	43	0	6
31	0	0	0	0	0	0	0	0	0	0	5	35	93	70	78	19	4	0	0	0	0	0	0	0	93	0	13
<b>Max.</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>18</b>	<b>47</b>	<b>93</b>	<b>122</b>	<b>78</b>	<b>30</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>122</b>		
<b>Min.</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>5</b>	<b>8</b>	<b>8</b>	<b>8</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		<b>0</b>	
<b>Avg.</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>21</b>	<b>36</b>	<b>44</b>	<b>31</b>	<b>14</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>			<b>6</b>

Total Hours in Month

744

Hours Data Available

744

Data Recovery

100.0%

HCG, Inc.

# Northern Dynasty Mines Pebble 1 Meterological Station - Solar (Watts/m<sup>2</sup>)

January 2006

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	0	0	0	0	0	0	0	0	0	0	7	39	90	96	56	32	4	0	0	0	0	0	0	0	96	0	13	
2	0	0	0	0	0	0	0	0	0	0	5	24	37	42	41	20	3	0	0	0	0	0	0	0	42	0	7	
3	0	0	0	0	0	0	0	0	0	0	3	19	38	55	53	33	5	0	0	0	0	0	0	0	55	0	9	
4	0	0	0	0	0	0	0	0	0	0	8	37	57	88	76	50	7	0	0	0	0	0	0	0	88	0	13	
5	0	0	0	0	0	0	0	0	0	0	5	44	47	64	58	63	14	0	0	0	0	0	0	0	64	0	12	
6	0	0	0	0	0	0	0	0	0	0	10	21	40	61	81	82	19	0	0	0	0	0	0	0	82	0	13	
7	0	0	0	0	0	0	0	0	0	0	8	32	59	87	49	42	4	0	0	0	0	0	0	0	87	0	12	
8	0	0	0	0	0	0	0	0	0	0	15	54	100	120	119	54	11	0	0	0	0	0	0	0	120	0	20	
9	0	0	0	0	0	0	0	0	0	0	6	27	47	47	67	26	5	0	0	0	0	0	0	0	67	0	9	
10	0	0	0	0	0	0	0	0	0	0	6	21	36	24	20	11	2	0	0	0	0	0	0	0	36	0	5	
11	0	0	0	0	0	0	0	0	0	0	3	14	26	30	21	13	4	0	0	0	0	0	0	0	30	0	5	
12	0	0	0	0	0	0	0	0	0	0	4	16	22	29	22	17	8	0	0	0	0	0	0	0	29	0	5	
13	0	0	0	0	0	0	0	0	0	0	9	34	51	57	53	38	10	0	0	0	0	0	0	0	57	0	10	
14	0	0	0	0	0	0	0	0	0	0	1	5	8	16	15	21	6	0	0	0	0	0	0	0	21	0	3	
15	0	0	0	0	0	0	0	0	0	0	11	52	63	77	46	34	11	0	0	0	0	0	0	0	77	0	12	
16	0	0	0	0	0	0	0	0	0	0	5	22	47	64	65	27	14	1	0	0	0	0	0	0	65	0	10	
17	0	0	0	0	0	0	0	0	0	1	22	50	129	165	150	55	25	1	0	0	0	0	0	0	165	0	25	
18	0	0	0	0	0	0	0	0	0	1	22	87	147	172	160	103	27	1	0	0	0	0	0	0	172	0	30	
19	0	0	0	0	0	0	0	0	0	1	26	93	133	160	154	87	33	1	0	0	0	0	0	0	160	0	29	
20	0	0	0	0	0	0	0	0	0	1	20	63	94	107	77	48	15	1	0	0	0	0	0	0	107	0	18	
21	0	0	0	0	0	0	0	0	0	1	13	36	57	73	69	39	14	1	0	0	0	0	0	0	73	0	13	
22	0	0	0	0	0	0	0	0	0	0	11	28	45	50	41	46	19	0	0	0	0	0	0	0	50	0	10	
23	0	0	0	0	0	0	0	0	0	1	28	92	142	162	154	115	41	2	0	0	0	0	0	0	162	0	31	
24	0	0	0	0	0	0	0	0	0	1	30	86	136	158	154	122	52	2	0	0	0	0	0	0	158	0	31	
25	0	0	0	0	0	0	0	0	0	1	30	76	115	139	143	118	57	2	0	0	0	0	0	0	143	0	28	
26	0	0	0	0	0	0	0	0	0	1	39	89	125	150	154	133	60	2	0	0	0	0	0	0	154	0	31	
27	0	0	0	0	0	0	0	0	0	1	16	28	38	103	127	83	35	2	0	0	0	0	0	0	127	0	18	
28	0	0	0	0	0	0	0	0	0	1	22	70	139	173	155	132	58	4	0	0	0	0	0	0	173	0	31	
29	0	0	0	0	0	0	0	0	0	5	55	124	183	207	199	156	57	5	0	0	0	0	0	0	207	0	41	
30	0	0	0	0	0	0	0	0	0	5	48	105	159	172	166	134	60	6	0	0	0	0	0	0	172	0	36	
31	0	0	0	0	0	0	0	0	0	5	63	130	116	122	137	122	54	7	0	0	0	0	0	0	137	0	31	
<b>Max.</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>63</b>	<b>130</b>	<b>183</b>	<b>207</b>	<b>199</b>	<b>156</b>	<b>60</b>	<b>7</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>207</b>		
<b>Min.</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>5</b>	<b>8</b>	<b>16</b>	<b>15</b>	<b>11</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		<b>0</b>	
<b>Avg.</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>18</b>	<b>52</b>	<b>81</b>	<b>99</b>	<b>93</b>	<b>66</b>	<b>24</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>			<b>18</b>

Total Hours in Month

744

Hours Data Available

744

Data Recovery

100.0%

# Northern Dynasty Mines Pebble 1 Meterological Station - Solar (Watts/m<sup>2</sup>)

*February 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	0	0	0	0	0	0	0	0	0	5	52	130	195	218	208	169	90	6	0	0	0	0	0	0	218	0	45
2	0	0	0	0	0	0	0	0	0	8	61	138	187	207	203	171	94	7	0	0	0	0	0	0	207	0	45
3	0	0	0	0	0	0	0	0	0	4	39	73	131	157	171	106	48	8	0	0	0	0	0	0	171	0	31
4	0	0	0	0	0	0	0	0	0	4	29	56	77	127	100	50	34	15	0	0	0	0	0	0	127	0	20
5	0	0	0	0	0	0	0	0	0	6	31	51	146	177	94	57	24	6	0	0	0	0	0	0	177	0	25
6	0	0	0	0	0	0	0	0	0	7	39	92	117	95	116	109	44	11	0	0	0	0	0	0	117	0	26
7	0	0	0	0	0	0	0	0	0	8	55	154	259	183	261	197	109	16	0	0	0	0	0	0	261	0	52
8	0	0	0	0	0	0	0	0	0	16	61	102	137	142	108	70	33	7	0	0	0	0	0	0	142	0	28
9	0	0	0	0	0	0	0	0	0	5	32	53	58	112	91	93	58	8	0	0	0	0	0	0	112	0	21
10	0	0	0	0	0	0	0	0	0	8	32	60	71	138	156	105	65	40	1	0	0	0	0	0	156	0	28
11	0	0	0	0	0	0	0	0	0	6	34	62	76	95	84	67	39	11	0	0	0	0	0	0	95	0	20
12	0	0	0	0	0	0	0	0	0	7	29	68	85	62	91	67	33	11	0	0	0	0	0	0	91	0	19
13	0	0	0	0	0	0	0	0	1	13	50	81	114	128	157	108	48	16	0	0	0	0	0	0	157	0	30
14	0	0	0	0	0	0	0	0	1	13	52	86	121	122	94	100	56	13	0	0	0	0	0	0	122	0	27
15	0	0	0	0	0	0	0	0	0	11	37	72	88	127	91	73	41	17	0	0	0	0	0	0	127	0	23
16	0	0	0	0	0	0	0	0	1	17	66	165	213	307	292	233	152	43	2	0	0	0	0	0	307	0	62
17	0	0	0	0	0	0	0	0	1	23	72	106	161	141	128	70	51	13	1	0	0	0	0	0	161	0	32
18	0	0	0	0	0	0	0	0	1	29	65	112	204	174	124	83	52	16	1	0	0	0	0	0	204	0	36
19	0	0	1	1	2	1	1	1	3	31	135	245	188	169	156	143	84	44	4	0	0	0	0	0	245	0	50
20	0	0	1	1	1	1	1	1	3	18	125	211	243	140	132	118	112	47	4	0	0	0	0	0	243	0	48
21	0	0	0	0	0	0	0	0	4	39	99	244	326	334	355	273	162	56	4	0	0	0	0	0	355	0	79
22	0	0	0	0	0	0	0	0	7	70	151	208	337	344	315	223	164	56	5	0	0	0	0	0	344	0	78
23	0	0	0	0	0	0	0	0	9	66	118	227	402	282	320	216	187	80	5	0	0	0	0	0	402	0	80
24	0	0	0	0	0	0	0	0	6	45	116	198	260	286	277	261	197	94	9	0	0	0	0	0	286	0	73
25	0	0	0	0	0	0	0	0	3	24	61	134	209	382	358	275	180	77	10	0	0	0	0	0	382	0	71
26	0	0	0	0	0	0	0	0	7	58	101	210	261	279	227	217	117	55	7	0	0	0	0	0	279	0	64
27	0	0	0	0	0	0	0	0	7	50	131	204	297	271	247	203	241	135	21	0	0	0	0	0	297	0	75
28	0	0	0	0	0	0	0	0	18	118	240	331	381	395	373	308	214	104	14	0	0	0	0	0	395	0	104
<b>Max.</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>18</b>	<b>118</b>	<b>240</b>	<b>331</b>	<b>402</b>	<b>395</b>	<b>373</b>	<b>308</b>	<b>241</b>	<b>135</b>	<b>21</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>402</b>		
<b>Min.</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>29</b>	<b>51</b>	<b>58</b>	<b>62</b>	<b>84</b>	<b>50</b>	<b>24</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		<b>0</b>	
<b>Avg.</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>25</b>	<b>76</b>	<b>138</b>	<b>191</b>	<b>200</b>	<b>190</b>	<b>149</b>	<b>97</b>	<b>36</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>			<b>46</b>

**Total Hours in Month** 672      **Hours Data Available** 672      **Data Recovery** 100.0%

**HCG, Inc.**

# Northern Dynasty Mines Pebble 1 Meterological Station - Solar (Watts/m<sup>2</sup>)

March 2006

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	0	0	0	0	0	0	0	0	15	93	209	293	328	298	251	217	139	79	12	0	0	0	0	0	328	0	81	
2	0	0	0	0	0	0	0	0	8	41	82	127	153	207	197	125	91	37	8	0	0	0	0	0	207	0	45	
3	0	0	0	0	0	0	0	0	9	78	169	247	317	386	421	397	257	100	27	0	0	0	0	0	421	0	100	
4	0	0	0	0	0	0	0	0	13	41	86	130	219	250	181	176	128	56	15	0	0	0	0	0	250	0	54	
5	0	0	0	0	0	0	0	0	8	32	159	195	286	317	364	334	261	80	27	0	0	0	0	0	364	0	86	
6	0	0	0	0	0	0	0	1	38	119	254	333	420	441	420	357	254	96	23	1	0	0	0	0	441	0	115	
7	0	0	0	0	0	0	0	1	19	74	164	335	377	224	231	338	285	107	26	1	0	0	0	0	377	0	91	
8	0	0	0	0	0	0	0	1	23	54	157	334	404	452	433	424	282	136	27	1	0	0	0	0	452	0	114	
9	0	0	0	0	0	0	0	2	54	179	286	372	432	451	432	370	282	168	45	1	0	0	0	0	451	0	128	
10	0	0	0	0	0	0	0	2	56	175	271	350	433	463	439	265	173	102	29	1	0	0	0	0	463	0	115	
11	0	0	0	0	0	0	0	1	28	74	118	158	210	279	213	163	123	73	24	1	0	0	0	0	279	0	61	
12	0	0	0	0	0	0	0	1	32	103	139	211	281	328	348	289	225	96	38	2	0	0	0	0	348	0	87	
13	0	0	0	0	0	0	0	2	23	61	129	202	225	339	356	327	196	104	35	3	0	0	0	0	356	0	83	
14	0	0	0	0	0	0	0	6	79	206	321	414	473	491	466	404	311	194	69	4	0	0	0	0	491	0	143	
15	0	0	0	0	0	0	0	5	83	210	326	420	480	499	476	412	319	198	72	4	0	0	0	0	499	0	146	
16	0	0	0	0	0	0	0	7	84	187	292	431	491	515	440	300	272	228	60	6	0	0	0	0	515	0	138	
17	0	0	0	0	0	0	0	9	81	135	210	246	282	270	262	224	166	86	23	2	0	0	0	0	282	0	83	
18	0	0	0	0	0	0	0	5	32	120	227	304	387	411	344	319	179	142	55	5	0	0	0	0	411	0	105	
19	0	0	0	0	0	0	0	17	83	141	197	250	445	390	231	201	141	98	37	5	0	0	0	0	445	0	93	
20	0	0	0	0	0	0	0	8	35	134	231	333	462	633	395	316	159	127	108	13	0	0	0	0	633	0	123	
21	0	0	0	0	0	0	0	7	39	133	197	321	433	515	525	432	350	230	115	12	0	0	0	0	525	0	138	
22	0	0	0	0	0	0	0	27	150	276	345	473	533	550	526	460	364	241	110	13	0	0	0	0	550	0	170	
23	0	0	0	0	0	0	0	35	115	287	259	439	498	508	487	452	379	247	116	15	0	0	0	0	508	0	160	
24	0	0	0	0	0	0	0	30	141	273	391	477	546	562	539	473	376	254	122	18	0	0	0	0	562	0	175	
25	0	0	0	0	0	0	0	15	100	228	345	488	547	548	544	470	374	253	121	20	0	0	0	0	548	0	169	
26	0	0	0	0	0	0	1	37	157	286	405	495	553	571	544	476	380	255	127	21	0	0	0	0	571	0	179	
27	0	0	0	0	0	0	1	42	170	300	416	506	563	582	556	488	391	269	138	25	0	0	0	0	582	0	185	
28	0	0	0	0	0	0	1	46	172	323	421	518	587	587	562	490	394	271	141	27	0	0	0	0	587	0	189	
29	0	0	0	0	0	0	2	59	184	310	430	524	581	601	574	506	406	278	134	25	0	0	0	0	601	0	192	
30	0	0	0	0	0	0	1	16	57	89	145	236	247	265	210	159	118	89	36	11	0	0	0	0	265	0	70	
31	0	0	0	0	0	0	1	17	69	139	233	319	371	365	370	331	272	164	78	19	0	0	0	0	371	0	115	
<b>Max.</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>59</b>	<b>184</b>	<b>323</b>	<b>430</b>	<b>524</b>	<b>587</b>	<b>633</b>	<b>574</b>	<b>506</b>	<b>406</b>	<b>278</b>	<b>141</b>	<b>27</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>633</b>		
<b>Min.</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>8</b>	<b>32</b>	<b>82</b>	<b>127</b>	<b>153</b>	<b>207</b>	<b>181</b>	<b>125</b>	<b>91</b>	<b>37</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		<b>0</b>	
<b>Avg.</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>13</b>	<b>70</b>	<b>158</b>	<b>246</b>	<b>338</b>	<b>405</b>	<b>429</b>	<b>398</b>	<b>345</b>	<b>260</b>	<b>157</b>	<b>65</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>			<b>120</b>	

Total Hours in Month

744

Hours Data Available

744

Data Recovery

100.0%

# Northern Dynasty Mines Pebble 1 Meterological Station - Solar (Watts/m<sup>2</sup>)

*April 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	0	0	0	0	0	0	2	40	106	190	364	548	625	624	593	526	426	284	158	50	1	0	0	0	625	0	189
2	0	0	0	0	0	0	4	44	144	267	359	410	420	491	623	438	371	235	103	37	1	0	0	0	623	0	164
3	0	0	0	0	0	0	2	33	108	190	221	242	288	335	339	324	284	185	61	16	1	0	0	0	339	0	110
4	0	0	0	0	0	0	4	76	227	240	259	310	326	592	518	326	197	173	113	47	1	0	0	0	592	0	142
5	0	0	0	0	0	0	3	35	234	371	440	427	643	647	628	551	454	327	191	60	2	0	0	0	647	0	209
6	0	0	0	0	0	0	10	101	236	367	488	580	609	635	613	554	444	314	162	32	2	0	0	0	635	0	214
7	0	0	0	0	0	0	4	75	228	275	388	555	547	594	603	486	246	245	105	30	1	0	0	0	603	0	183
8	0	0	0	0	0	0	3	28	76	106	164	174	241	274	288	281	276	200	164	43	2	0	0	0	288	0	97
9	0	0	0	0	0	0	10	56	151	230	430	581	656	706	652	684	361	285	213	76	4	0	0	0	706	0	212
10	0	0	0	0	0	0	10	50	180	384	574	576	714	716	528	470	402	343	215	80	5	0	0	0	716	0	219
11	0	0	0	0	0	0	12	84	158	210	300	379	390	388	399	371	237	174	105	38	4	0	0	0	399	0	135
12	0	0	0	0	0	0	10	56	126	216	302	404	434	402	403	463	356	292	145	48	7	0	0	0	463	0	153
13	0	0	0	0	0	0	17	56	182	247	345	425	541	743	687	587	439	329	216	85	9	0	0	0	743	0	205
14	0	0	0	0	0	1	43	153	385	543	585	616	721	698	670	603	505	377	231	97	11	0	0	0	721	0	260
15	0	0	0	0	0	1	35	158	296	434	549	638	692	708	679	606	510	386	238	105	10	0	0	0	708	0	252
16	0	0	0	0	0	1	20	85	173	262	350	362	534	526	328	317	253	169	93	39	5	0	0	0	534	0	147
17	0	0	0	0	0	1	33	108	196	290	302	409	510	676	568	636	554	341	262	122	20	0	0	0	676	0	209
18	0	0	0	0	0	2	40	172	360	301	516	598	706	713	688	621	520	393	257	115	12	0	0	0	713	0	250
19	0	0	0	0	0	2	23	84	143	253	365	469	485	481	493	423	335	247	141	55	10	0	0	0	493	0	167
20	0	0	0	0	0	2	50	147	227	272	369	487	419	421	485	409	330	216	118	53	9	0	0	0	487	0	167
21	0	0	0	0	0	1	19	86	166	195	298	455	465	426	459	436	280	228	278	47	11	0	0	0	465	0	160
22	0	0	0	0	0	3	45	129	244	457	361	448	734	640	558	542	377	307	168	66	18	0	0	0	734	0	212
23	0	0	0	0	0	4	33	107	172	352	543	693	679	755	729	624	546	338	279	124	26	1	0	0	755	0	250
24	0	0	0	0	0	2	31	120	311	538	521	523	613	738	633	413	498	355	231	130	38	1	0	0	738	0	237
25	0	0	0	0	0	3	33	95	191	312	422	527	597	590	495	446	311	197	117	55	15	0	0	0	597	0	184
26	0	0	0	0	0	5	50	155	324	495	640	556	641	711	793	612	439	313	206	116	31	1	0	0	793	0	254
27	0	0	0	0	0	5	51	143	244	433	581	654	680	611	678	609	495	406	277	129	26	1	0	0	680	0	251
28	0	0	0	0	0	7	83	209	346	488	605	637	702	615	498	438	347	293	240	86	27	1	0	0	702	0	234
29	0	0	0	0	0	10	50	153	355	491	464	641	681	647	577	615	569	437	304	164	42	2	0	0	681	0	258
30	0	0	0	0	0	12	98	221	342	495	609	741	800	776	725	656	561	441	335	195	61	2	0	0	800	0	295
<b>Max.</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>98</b>	<b>221</b>	<b>385</b>	<b>543</b>	<b>640</b>	<b>741</b>	<b>800</b>	<b>776</b>	<b>793</b>	<b>684</b>	<b>569</b>	<b>441</b>	<b>335</b>	<b>195</b>	<b>61</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>800</b>		
<b>Min.</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>28</b>	<b>76</b>	<b>106</b>	<b>164</b>	<b>174</b>	<b>241</b>	<b>274</b>	<b>288</b>	<b>281</b>	<b>197</b>	<b>169</b>	<b>61</b>	<b>16</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>		<b>0</b>	
<b>Avg.</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>28</b>	<b>102</b>	<b>221</b>	<b>330</b>	<b>424</b>	<b>502</b>	<b>570</b>	<b>596</b>	<b>564</b>	<b>502</b>	<b>397</b>	<b>294</b>	<b>191</b>	<b>78</b>	<b>14</b>	<b>0</b>	<b>0</b>	<b>0</b>			<b>201</b>

Total Hours in Month

720

Hours Data Available

720

Data Recovery

100.0%

HCG, Inc.

# Northern Dynasty Mines Pebble 1 Meterological Station - Solar (Watts/m<sup>2</sup>)

*May 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	0	0	0	0	0	14	58	147	271	385	495	573	662	452	407	365	300	210	136	63	22	1	0	0	662	0	190
2	0	0	0	0	0	9	58	138	238	379	351	356	657	708	693	682	562	439	398	107	36	3	0	0	708	0	242
3	0	0	0	0	0	12	49	189	265	331	443	638	597	685	651	483	420	193	178	85	38	3	0	0	685	0	219
4	0	0	0	0	0	7	85	141	182	203	356	398	372	322	335	264	241	187	150	54	24	1	0	0	398	0	138
5	0	0	0	0	0	16	53	132	128	179	225	687	427	426	502	384	420	344	203	94	33	2	0	0	687	0	177
6	0	0	0	0	0	3	16	39	97	213	496	676	588	652	636	451	280	234	211	100	26	4	0	0	676	0	197
7	0	0	0	0	0	6	35	128	245	278	361	429	501	494	385	278	236	201	153	82	28	3	0	0	501	0	160
8	0	0	0	0	1	30	134	272	406	467	555	555	577	408	378	361	339	289	210	88	30	5	0	0	577	0	213
9	0	0	0	0	0	13	52	165	278	294	225	374	383	456	436	362	350	226	143	84	36	6	0	0	456	0	162
10	0	0	0	0	1	13	47	117	304	549	643	728	780	803	648	312	446	360	243	146	94	7	0	0	803	0	260
11	0	0	0	0	156	253	530	649	726	733	762	744	682	629	219	99	168	59	10	0	0	0	0	0	762	0	267
12	0	0	0	0	2	40	150	276	412	540	649	731	774	783	755	687	599	480	346	212	90	12	0	0	783	0	314
13	0	0	0	0	3	51	170	300	391	501	643	641	710	638	628	675	489	300	195	147	65	9	0	0	710	0	273
14	0	0	0	0	3	51	170	235	285	496	631	711	774	778	747	695	593	481	350	211	73	13	0	0	778	0	304
15	0	0	0	0	2	24	150	276	255	383	551	519	422	701	767	635	605	336	208	103	30	4	0	0	767	0	249
16	0	0	0	0	3	28	106	157	308	494	570	760	792	801	708	699	602	481	352	216	93	15	0	0	801	0	299
17	0	0	0	0	5	41	110	324	442	516	629	731	761	771	534	306	546	456	308	161	44	10	0	0	771	0	279
18	0	0	0	0	2	7	47	107	250	270	250	280	454	453	471	709	428	449	180	170	94	19	1	0	709	0	193
19	0	0	0	0	6	54	150	293	420	528	559	411	333	259	219	164	40	39	49	18	11	4	0	0	559	0	148
20	0	0	0	0	5	25	55	113	205	239	248	354	409	487	348	283	158	128	138	64	46	7	0	0	487	0	138
21	0	0	0	0	3	21	48	104	158	248	447	716	681	472	637	334	365	166	329	192	102	23	1	0	716	0	210
22	0	0	0	0	8	61	173	299	433	560	700	656	783	799	760	678	553	511	372	194	86	23	1	0	799	0	319
23	0	0	0	0	7	64	172	296	428	553	658	735	784	796	613	596	489	271	365	235	120	28	2	0	796	0	301
24	0	0	0	0	8	73	181	307	412	531	638	707	705	699	714	610	492	405	275	193	133	29	2	0	714	0	296
25	0	0	0	0	10	71	173	299	430	553	658	735	782	790	764	694	609	494	363	234	121	29	2	0	790	0	325
26	0	0	0	0	8	66	168	293	427	550	649	719	779	783	759	692	600	484	358	229	118	31	2	0	783	0	321
27	0	0	0	0	7	44	108	139	277	443	436	549	685	606	652	767	526	491	267	94	88	26	2	0	767	0	259
28	0	0	0	1	15	50	152	300	411	529	665	742	787	796	769	702	622	500	380	246	129	41	5	0	796	0	327
29	0	0	0	0	12	80	187	310	441	563	665	740	785	794	765	700	611	500	374	247	133	36	3	0	794	0	331
30	0	0	0	0	12	70	168	304	405	566	665	644	603	591	561	513	287	206	71	38	42	17	1	0	665	0	240
31	0	0	0	0	2	20	37	94	75	124	165	173	126	117	142	100	77	73	51	31	19	7	0	0	173	0	60
<b>Max.</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>156</b>	<b>253</b>	<b>530</b>	<b>649</b>	<b>726</b>	<b>733</b>	<b>762</b>	<b>760</b>	<b>792</b>	<b>803</b>	<b>769</b>	<b>767</b>	<b>622</b>	<b>511</b>	<b>398</b>	<b>247</b>	<b>133</b>	<b>41</b>	<b>5</b>	<b>0</b>	<b>803</b>		
<b>Min.</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>16</b>	<b>39</b>	<b>75</b>	<b>124</b>	<b>165</b>	<b>173</b>	<b>126</b>	<b>117</b>	<b>142</b>	<b>99</b>	<b>40</b>	<b>39</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	
<b>Avg.</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>43</b>	<b>122</b>	<b>224</b>	<b>323</b>	<b>426</b>	<b>516</b>	<b>594</b>	<b>618</b>	<b>611</b>	<b>568</b>	<b>493</b>	<b>421</b>	<b>322</b>	<b>238</b>	<b>133</b>	<b>65</b>	<b>14</b>	<b>1</b>	<b>0</b>		<b>239</b>	

Total Hours in Month

744

Hours Data Available

744

Data Recovery

100.0%

# Northern Dynasty Mines Pebble 1 Meterological Station - Solar (Watts/m<sup>2</sup>)

*June 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	0	0	0	0	10	56	69	115	195	242	250	448	683	751	806	626	529	429	222	204	94	45	4	0	806	0	241
2	0	0	0	1	14	80	186	311	437	552	661	628	483	562	318	326	482	217	274	137	128	40	5	0	661	0	243
3	0	0	0	1	14	96	170	219	459	503	676	740	785	801	765	707	628	516	389	268	152	47	6	0	801	0	331
4	0	0	0	1	19	96	204	331	462	584	690	774	813	827	797	728	633	522	395	267	154	50	5	0	827	0	348
5	0	0	0	1	20	93	175	239	353	435	550	599	659	791	763	631	642	526	398	268	150	52	5	0	791	0	306
6	0	0	0	1	14	76	199	317	454	532	656	752	786	797	778	712	628	517	392	263	80	22	1	0	797	0	332
7	0	0	0	0	7	35	57	112	236	138	150	244	162	233	162	122	85	86	80	37	20	7	1	0	244	0	82
8	0	0	0	0	4	28	73	98	156	293	296	334	351	284	177	130	110	62	44	22	21	11	1	0	351	0	104
9	0	0	0	0	3	18	39	72	111	292	251	409	785	372	435	153	110	117	61	93	13	8	2	0	785	0	139
10	0	0	0	0	3	15	24	125	220	430	456	436	389	546	513	525	219	192	91	32	13	4	1	0	546	0	176
11	0	0	0	0	5	20	29	61	92	158	181	287	176	176	149	166	138	86	44	38	30	14	1	0	287	0	77
12	0	0	0	0	1	11	19	39	65	96	114	70	110	165	141	103	77	58	41	41	9	7	2	0	165	0	49
13	0	0	0	0	8	29	82	138	347	154	257	299	532	515	467	520	422	257	173	114	57	29	8	0	532	0	184
14	0	0	0	1	6	25	80	141	206	267	310	538	414	347	307	255	196	126	79	131	69	18	3	0	538	0	147
15	0	0	0	1	15	41	114	155	252	519	643	646	629	376	373	67	62	78	101	30	12	4	1	0	646	0	172
16	0	0	0	1	10	23	36	63	36	61	95	101	119	118	144	145	106	70	68	82	45	27	7	0	145	0	57
17	0	0	0	1	8	30	59	193	209	320	614	384	504	635	242	467	331	153	82	45	23	14	3	0	635	0	180
18	0	0	0	1	19	54	112	187	322	302	351	357	264	347	412	442	300	262	189	114	74	38	9	0	442	0	173
19	0	0	0	1	14	68	126	196	308	318	382	314	367	515	482	579	278	333	402	79	67	30	2	0	579	0	202
20	0	0	0	1	13	86	206	268	403	491	255	475	509	413	272	169	172	153	141	278	121	36	11	0	509	0	186
21	0	0	0	1	11	79	203	309	462	459	574	661	536	214	519	547	470	331	309	222	184	91	11	0	661	0	258
22	0	0	0	1	15	55	132	124	190	223	408	422	514	126	70	47	52	47	68	15	13	7	3	0	514	0	106
23	0	0	0	0	4	16	32	58	85	148	223	377	378	572	393	316	197	205	161	197	172	53	13	1	572	0	150
24	0	0	0	1	10	52	185	309	461	519	672	688	594	559	465	367	468	116	78	118	101	25	2	0	688	0	241
25	0	0	0	1	22	99	202	324	449	609	587	491	568	609	640	664	642	335	101	73	44	29	6	0	664	0	271
26	0	0	0	1	6	51	147	249	453	566	662	731	796	489	246	301	225	405	423	286	166	76	9	1	796	0	262
27	0	0	0	1	18	94	197	319	445	568	657	712	897	336	740	738	627	532	410	232	158	64	12	0	897	0	323
28	0	0	0	2	19	96	208	324	253	232	190	428	424	422	227	155	143	109	78	53	39	20	4	0	428	0	143
29	0	0	0	1	6	33	61	112	206	222	232	258	294	425	433	645	350	307	147	55	13	5	1	0	645	0	159
30	0	0	0	0	3	11	16	27	67	198	177	284	430	324	341	235	223	224	174	116	57	17	4	0	430	0	122
<b>Max.</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>22</b>	<b>99</b>	<b>208</b>	<b>331</b>	<b>462</b>	<b>609</b>	<b>690</b>	<b>774</b>	<b>897</b>	<b>827</b>	<b>806</b>	<b>738</b>	<b>642</b>	<b>532</b>	<b>423</b>	<b>286</b>	<b>184</b>	<b>91</b>	<b>13</b>	<b>1</b>	<b>897</b>		
<b>Min.</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>11</b>	<b>16</b>	<b>27</b>	<b>36</b>	<b>61</b>	<b>95</b>	<b>70</b>	<b>110</b>	<b>118</b>	<b>70</b>	<b>47</b>	<b>52</b>	<b>47</b>	<b>41</b>	<b>15</b>	<b>9</b>	<b>4</b>	<b>1</b>	<b>0</b>	<b>0</b>		
<b>Avg.</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>11</b>	<b>52</b>	<b>115</b>	<b>184</b>	<b>280</b>	<b>348</b>	<b>407</b>	<b>463</b>	<b>498</b>	<b>455</b>	<b>419</b>	<b>386</b>	<b>318</b>	<b>246</b>	<b>187</b>	<b>130</b>	<b>76</b>	<b>30</b>	<b>5</b>	<b>0</b>			<b>192</b>

Total Hours in Month

720

Hours Data Available

720

Data Recovery

100.0%

HCG, Inc.



# Northern Dynasty Mines Pebble 1 Meterological Station - Solar (Watts/m<sup>2</sup>)

*July 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	0	0	0	0	5	25	59	87	182	297	447	768	756	812	794	736	650	535	418	290	171	68	10	0	812	0	296
2	0	0	0	1	15	89	192	313	441	560	647	739	728	734	773	712	559	509	392	245	131	37	11	0	773	0	326
3	0	0	0	1	9	52	167	256	299	522	609	706	693	695	731	593	566	454	407	273	155	59	8	0	731	0	302
4	0	0	0	1	14	85	182	304	428	544	625	565	802	728	613	645	677	524	392	269	166	64	8	0	802	0	318
5	0	0	0	0	7	42	86	128	203	258	516	637	759	757	768	628	17	55	177	168	130	46	3	0	768	0	224
6	0	0	0	0	10	31	137	291	429	541	646	438	321	571	756	712	306	31	107	91	20	3	3	0	756	0	227
7	0	0	0	0	1	6	23	37	43	51	82	79	116	85	85	103	121	41	22	21	13	13	0	0	121	0	39
8	0	0	0	0	2	12	25	48	112	171	158	179	249	207	167	200	167	154	131	169	148	22	4	0	249	0	97
9	0	0	0	1	6	23	66	239	348	314	618	703	740	744	580	723	633	517	389	266	163	56	6	0	744	0	297
10	0	0	0	1									5	44	47	70	163	305	333	480	461	750	465	688	750	0	238
11	754	575	452	276	61	31	5	0	0		0	0	0	10	18	45	84	128	311	388	468	407	434	658	754	0	222
12	672	435	310	390	341	103	36	3	0	0	0	0	0	10	53	153	288	336	529	634	707	741	700	718	741	0	298
13	623	522	201	348	200	79	29	5	0	0	0	0	0	5	22	75	103	158	216	273	226	196	324	255	623	0	161
14	136	90	116	88	69	16	8	3	0	0	0	0	0	1	12	63	79	101	140	179	223	200	173	132	223	0	76
15	100	98	70	49	39	29	10	2	0	0	0	0	0	2	21	64	87	129	199	272	367	300	396	337	396	0	107
16	381	474	409	314	155	82	15	1	0	0	0	0	0	2	15	54	100	112	132	283	343	349	284	500	500	0	167
17	462	403	169	104	38	17	3	0	0	0	0	0	0	1	7	26	63	97	165	285	225	246	353	261	462	0	122
18	166	149	72	46	24	11	7	1	0	0	0	0	0	1	21	27	49	121	362	404	278	254	411	232	411	0	110
19	145	101	93	77	50	32	20	2	0	0	0	0	0	2	15	53	101	196	244	353	286	327	352	252	353	0	113
20	516	339	381	386	258	145	28	2	0	0	0	0	0	4	49	153	271	378	459	445	544	425	610	483	610	0	245
21	470	485	315	149	98	31	17	2	0	0	0	0	0	2	22	65	276	435	509	556	563	142	210	367	563	0	196
22	412	248	228	133	87	54	23	3	0	0	0	0	0	1	13	41	84	173	248	250	280	296	477	319	477	0	140
23	309	141	76	52	50	54	11	1	0	0	0	0	0	1	12	53	82	84	151	148	168	151	152	135	309	0	76
24	155	130	66	59	36	21	7	0	0	0	0	0	0	0	4	21	37	54	77	112	158	137	134	164	164	0	57
25	139	74	56	34	19	16	9	1	0	0	0	0	0	0	6	23	32	80	157	215	267	282	328	465	465	0	92
26	407	357	337	239	107	52	20	1	0	0	0	0	0	0	7	22	54	111	189	320	472	588	518	477	588	0	178
27	604	605	403	337	244	94	24	1	0	0	0	0	0	1	34	88	111	154	184	212	301	394	666	651	666	0	213
28	680	579	466	290	163	78	16	0	0	0	0	0	0	1	24	76	190	284	270	279	288	278	493	362	680	0	201
29	103	103	199	144	108	44	10	0	0	0	0	0	0	0	4	20	29	55	94	127	181	448	569	483	569	0	113
30	429	325	466	238	49	23	4	0	0	0	0	0	0	0	6	26	26	57	70	107	138	188	258	375	466	0	116
31	308	283	421	198	237	40	11	0	0	0	0	0	0	0	6	40	70	161	154	147	226	271	426	290	426	0	137
<b>Max.</b>	<b>754</b>	<b>605</b>	<b>466</b>	<b>390</b>	<b>341</b>	<b>145</b>	<b>192</b>	<b>313</b>	<b>441</b>	<b>560</b>	<b>647</b>	<b>768</b>	<b>802</b>	<b>812</b>	<b>794</b>	<b>736</b>	<b>677</b>	<b>535</b>	<b>529</b>	<b>634</b>	<b>707</b>	<b>750</b>	<b>700</b>	<b>718</b>	<b>812</b>		
<b>Min.</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>6</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>20</b>	<b>17</b>	<b>31</b>	<b>22</b>	<b>21</b>	<b>13</b>	<b>3</b>	<b>0</b>	<b>0</b>		<b>0</b>	
<b>Avg.</b>	<b>257</b>	<b>210</b>	<b>171</b>	<b>128</b>	<b>83</b>	<b>47</b>	<b>42</b>	<b>58</b>	<b>83</b>	<b>112</b>	<b>145</b>	<b>160</b>	<b>167</b>	<b>175</b>	<b>183</b>	<b>204</b>	<b>196</b>	<b>211</b>	<b>246</b>	<b>266</b>	<b>267</b>	<b>250</b>	<b>283</b>	<b>278</b>			<b>177</b>

Total Hours in Month

744

Hours Data Available

735

Data Recovery

98.8%

# Northern Dynasty Mines Pebble 1 Meterological Station - Barometric Pressure (mbar)

*August 2005*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.		
1	951	951	951	951	951	951	951	951	952	952	952	952	952	952	952	952	952	952	952	953	953	953	953	953	953	951	951.9		
2	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	952	952	952	951	951	951	951	951	951	953	951	952.5	
3	950	950	950	949	949	949	948	948	948	948	948	948	948	948	947	947	947	947	948	948	948	949	949	949	949	950	947	948.3	
4	949	949	950	950	950	950	950	951	951	951	951	951	951	952	952	952	952	953	953	953	953	954	955	955	955	955	949	951.5	
5	955	956	956	957	957	957	958	958	959	960	960	960	961	961	962	962	962	962	962	962	963	963	964	964	964	964	955	960.1	
6	965	965	965	965	965	966	966	966	966	967	967	967	967	967	967	967	967	967	967	967	968	968	968	969	969	969	965	966.6	
7	969	969	969	969	969	969	969	970	970	970	970	971	971	971	971	970	970	970	970	970	970	970	970	970	970	971	969	969.9	
8	971	970	970	970	970	970	970	970	970	970	970	970	970	969	969	969	968	968	968	968	968	968	968	968	968	971	968	969.4	
9	968	968	968	968	968	968	968	969	969	969	969	969	969	969	969	968	968	968	968	968	968	969	969	969	969	969	968	968.3	
10	969	969	969	969	969	969	969	969	969	970	970	970	970	969	969	969	969	969	969	969	969	970	970	970	970	970	969	969.3	
11	970	970	970	970	970	970	970	970	970	970	971	970	970	970	970	969	969	969	968	968	968	968	968	968	968	971	968	969.5	
12	968	968	968	968	968	968	968	968	968	968	968	967	967	967	967	967	966	966	966	966	965	966	965	965	965	968	965	967.0	
13	965	965	964	964	964	964	963	963	963	963	963	962	962	961	961	961	960	960	959	960	959	959	959	959	959	965	959	961.8	
14	959	959	958	958	958	958	958	957	957	957	957	957	957	956	956	956	955	955	955	955	955	955	955	955	955	959	955	956.7	
15	955	955	955	955	955	956	956	956	956	957	957	957	957	957	957	957	958	957	957	958	958	958	959	960	960	960	955	956.8	
16	959	959	959	959	959	959	958	959	959	958	959	958	959	958	958	958	958	958	957	957	957	957	957	956	956	959	956	958.2	
17	956	955	955	954	954	953	953	952	951	951	951	950	950	949	948	948	947	947	946	946	946	946	946	946	946	956	946	950.1	
18	947	947	947	947	947	947	947	946	947	947	947	947	946	946	946	946	946	946	946	946	947	947	947	948	948	948	946	946.6	
19	947	948	948	948	948	948	948	948	948	948	948	949	949	949	949	948	949	948	949	949	949	950	950	950	950	950	947	948.4	
20	950	950	950	950	950	951	951	951	951	952	952	952	952	952	952	952	952	951	951	950	950	950	949	949	948	952	948	950.7	
21	949	948	948	948	948	948	949	950	950	950	951	952	952	952	952	953	953	953	953	954	954	955	955	955	955	955	948	951.2	
22	955	955	954	954	954	953	953	953	953	953	952	951	950	950	949	947	946	946	944	945	944	943	943	942	942	955	942	949.5	
23	942	941	940	940	941	941	941	941	942	941	941	942	942	942	942	943	942	942	943	942	942	942	942	942	942	943	940	941.6	
24	942	942	943	943	944	944	945	946	947	948	948	949	949	950	950	951	951	951	951	951	952	952	952	952	952	952	942	948.0	
25	952	952	952	951	951	951	950	950	950	950	950	949	949	949	948	948	948	948	948	948	949	949	950	950	950	952	948	949.7	
26	950	951	952	952	953	953	954	955	956	956	957	957	958	958	959	959	959	960	960	961	962	963	963	964	964	964	950	957.2	
27	965	965	965	965	965	965	966	965	966	966	966	966	965	965	965	965	965	964	964	963	963	962	961	961	961	966	961	964.4	
28	960	960	959	958	958	957	956	956	955	955	954	953	953	952	952	951	952	951	951	950	950	950	949	949	949	960	949	953.7	
29	948	947	947	947	947	946	946	947	947	947	947	947	947	947	947	947	947	947	947	947	947	947	947	947	947	948	946	947.0	
30	948	948	948	948	948	949	949	949	949	950	950	951	951	951	952	952	952	952	953	953	953	954	954	954	954	954	948	950.7	
31	954	955	955	955	955	955	956	955	956	956	955	956	955	955	956	956	956	956	956	957	957	957	957	957	957	957	954	955.7	
<b>Max.</b>	<b>971</b>	<b>970</b>	<b>970</b>	<b>970</b>	<b>970</b>	<b>970</b>	<b>970</b>	<b>970</b>	<b>970</b>	<b>970</b>	<b>971</b>	<b>971</b>	<b>971</b>	<b>971</b>	<b>971</b>	<b>970</b>	<b>970</b>	<b>970</b>	<b>970</b>	<b>970</b>	<b>970</b>	<b>970</b>	<b>970</b>	<b>970</b>	<b>970</b>	<b>971</b>			
<b>Min.</b>	<b>942</b>	<b>941</b>	<b>940</b>	<b>940</b>	<b>941</b>	<b>941</b>	<b>941</b>	<b>941</b>	<b>941</b>	<b>942</b>	<b>941</b>	<b>941</b>	<b>942</b>	<b>942</b>	<b>942</b>	<b>943</b>	<b>942</b>	<b>942</b>	<b>942</b>	<b>943</b>	<b>942</b>	<b>942</b>	<b>942</b>	<b>942</b>	<b>942</b>	<b>942</b>	<b>940</b>		
<b>Avg.</b>	<b>956</b>	<b>956</b>	<b>956</b>	<b>956</b>	<b>956</b>	<b>956</b>	<b>956</b>	<b>956</b>	<b>956</b>	<b>956</b>	<b>957</b>	<b>957</b>	<b>956</b>	<b>956</b>	<b>956</b>	<b>956</b>	<b>956</b>	<b>956</b>	<b>956</b>	<b>956</b>	<b>956</b>	<b>956</b>	<b>956</b>	<b>956</b>	<b>956</b>			<b>956.2</b>	

**Total Hours in Month**                      744                      **Hours Data Available**                      744                      **Data Recovery**                      100.0%

# Northern Dynasty Mines Pebble 1 Meterological Station - Barometric Pressure (mbar)

*September 2005*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.		
1	957	957	957	957	957	957	957	957	957	957	957	957	957	957	956	956	956	955	955	955	955	955	955	954	957	954	956.2		
2	954	953	953	952	952	952	952	952	951	951	950	950	949	949	948	948	948	948	948	946	946	946	945	945	954	945	949.4		
3	946	946	946	946	946	946	945	945	945	945	945	944	944	943	943	943	943	942	942	942	942	942	942	942	946	942	943.9		
4	942	942	942	942	943	943	943	943	944	944	945	945	945	946	946	946	946	946	946	946	946	947	947	947	947	947	942	944.7	
5	947	947	946	947	946	946	946	946	945	945	944	943	943	943	942	942	942	942	942	941	941	941	941	941	947	941	943.8		
6	941	941	941	941	942	942	942	942	942	942	942	942	942	943	943	943	943	943	943	944	944	945	945	946	946	941	942.6		
7	947	947	947	948	949	949	950	951	952	953	953	954	955	955	956	957	957	958	959	960	961	961	962	963	963	947	954.3		
8	964	964	964	964	964	964	965	965	965	964	964	964	963	963	962	962	961	961	960	959	958	958	957	957	965	957	962.1		
9	956	956	956	956	956	956	955	954	953	953	953	953	952	952	952	952	952	952	953	953	954	954	955	955	956	952	953.8		
10	956	956	957	957	957	957	958	959	960	961	961	962	962	962	962	962	961	961	961	960	961	960	959	959	962	956	959.6		
11	958	958	958	957	957	957	956	956	955	955	955	954	954	954	953	953	952	952	952	952	951	952	952	953	958	951	954.5		
12	953	953	953	953	953	954	954	954	954	954	954	953	953	953	954	954	954	954	955	955	957	958	959	960	960	953	954.4		
13	960	961	961	961	961	962	962	962	962	962	962	962	962	961	961	961	961	961	960	960	960	960	960	960	962	960	961.0		
14	960	960	960	960	960	960	960	960	960	960	959	959	959	958	957	957	956	955	955	954	953	953	953	952	960	952	957.5		
15	951	950	949	948	948	947	947	947	946	945	945	945	945	945	944	944	945	946	946	946	946	946	946	946	951	944	946.3		
16	946	946	946	946	947	947	947	947	947	947	947	947	947	947	947	946	946	946	946	945	945	945	944	944	947	944	946.0		
17	943	943	942	941	941	940	940	939	939	939	939	939	939	939	939	939	939	940	940	940	940	940	940	940	943	939	940.1		
18	940	941	941	941	941	941	941	941	941	941	941	941	941	941	941	941	941	941	941	941	941	942	942	942	943	943	940	941.1	
19	943	943	944	944	944	945	945	946	946	947	947	948	949	949	950	950	951	951	952	953	954	954	955	956	956	943	948.7		
20	957	958	958	959	960	961	961	962	963	963	964	964	964	965	965	965	965	965	966	966	966	966	966	966	966	966	957	963.1	
21	966	966	966	966	966	966	966	966	965	965	965	965	964	964	963	963	963	962	962	962	961	961	961	961	961	966	961	963.8	
22	960	960	959	958	958	957	957	955	954	952	950	948	949	949	948	949	949	949	950	950	951	952	952	953	960	948	952.9		
23	953	953	953	952	952	952	952	951	950	949	948	947	946	945	943	942	940	939	939	939	939	940	941	942	953	939	946.2		
24	942	943	943	943	944	944	945	946	947	947	948	949	949	950	949	950	950	950	950	951	951	952	952	953	953	942	947.8		
25	953	953	953	953	953	953	954	954	955	955	956	956	956	956	956	956	956	956	957	957	957	957	957	957	957	953	955.4		
26	957	957	957	956	956	955	955	954	953	953	952	951	950	948	947	947	945	943	942	940	939	936	935	935	957	935	948.5		
27	933	932	931	929	928	926	927	927	926	926	925	924	923	922	922	921	920	921	921	921	921	921	921	922	922	933	920	924.6	
28	922	922	922	922	923	923	924	924	925	926	926	927	928	928	929	929	929	930	930	931	931	932	932	933	933	933	922	927.0	
29	933	933	933	934	934	934	934	935	935	935	935	936	936	936	936	936	937	937	937	937	937	937	937	937	937	933	935.5		
30	937	937	937	937	936	936	936	936	936	936	936	936	936	936	936	936	936	936	937	937	937	937	938	938	938	936	936.6		
<b>Max.</b>	<b>966</b>	<b>966</b>	<b>966</b>	<b>966</b>	<b>966</b>	<b>966</b>	<b>966</b>	<b>965</b>	<b>965</b>	<b>965</b>	<b>965</b>	<b>964</b>	<b>964</b>	<b>965</b>	<b>965</b>	<b>965</b>	<b>965</b>	<b>965</b>	<b>966</b>	<b>966</b>	<b>966</b>	<b>966</b>	<b>966</b>	<b>966</b>	<b>966</b>				
<b>Min.</b>	<b>922</b>	<b>922</b>	<b>922</b>	<b>922</b>	<b>923</b>	<b>923</b>	<b>924</b>	<b>924</b>	<b>925</b>	<b>926</b>	<b>925</b>	<b>924</b>	<b>923</b>	<b>922</b>	<b>922</b>	<b>921</b>	<b>920</b>	<b>921</b>	<b>921</b>	<b>921</b>	<b>921</b>	<b>921</b>	<b>921</b>	<b>922</b>	<b>922</b>	<b>920</b>			
<b>Avg.</b>	<b>949</b>	<b>949</b>	<b>949</b>	<b>949</b>	<b>949</b>	<b>949</b>	<b>949</b>	<b>949</b>	<b>949</b>	<b>949</b>	<b>949</b>	<b>949</b>	<b>949</b>	<b>949</b>	<b>948</b>	<b>948</b>	<b>948</b>	<b>948</b>	<b>948</b>	<b>948</b>	<b>948</b>	<b>948</b>	<b>948</b>	<b>949</b>	<b>949</b>			<b>948.7</b>	

Total Hours in Month

720

Hours Data Available

720

Data Recovery

100.0%

HCG, Inc.

# Northern Dynasty Mines Pebble 1 Meterological Station - Barometric Pressure (mbar)

*October 2005*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	939	939	939	939	940	940	941	942	943	944	945	946	946	947	948	949	950	951	952	953	953	954	955	955	955	939	946.2	
2	956	956	957	957	958	958	958	958	959	959	959	959	959	959	959	959	959	959	959	958	958	958	958	957	959	956	958.0	
3	957	957	957	956	956	956	955	955	955	954	954	954	953	952	952	952	951	951	951	951	951	951	951	951	957	951	953.5	
4	951	951	950	949	949	948	948	948	947	947	946	945	944	943	943	942	941	940	939	938	937	936	935	934	951	934	943.8	
5	934	934	933	932	931	930	930	930	929	929	929	929	929	929	930	930	930	931	931	932	933	934	934	935	935	929	931.2	
6	936	936	937	938	938	939	939	940	940	941	941	942	942	942	942	941	941	941	941	940	940	940	939	939	942	936	939.7	
7	939	938	938	937	936	936	936	936	937	936	937	937	937	937	937	938	938	938	938	938	938	939	939	939	939	936	937.5	
8	939	939	938	938	938	938	938	938	938	938	938	938	938	938	937	937	937	937	937	937	937	937	937	937	939	937	937.6	
9	937	937	937	937	937	936	936	936	936	935	935	935	934	934	934	933	933	933	933	932	932	932	932	932	937	932	934.6	
10	932	932	932	932	932	932	932	932	932	932	932	932	932	932	931	931	931	931	931	931	931	931	931	932	932	931	931.6	
11	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	932	933	933	934	934	934	935	935	935	932.5	
12	936	936	937	937	937	937	937	938	938	939	939	940	940	941	940	941	941	942	942	942	942	943	943	944	944	936	939.6	
13	944	944	944	945	945	946	947	947	948	949	950	950	951	952	952	953	953	953	954	954	954	954	954	954	954	944	949.9	
14	955	955	955	955	955	956	956	956	956	957	957	956	956	956	955	954	954	953	953	953	953	953	952	952	957	952	954.8	
15	952	951	951	950	950	949	949	949	949	949	949	949	949	949	948	948	948	948	949	949	949	949	950	949	952	948	949.3	
16	950	950	950	951	951	951	951	951	951	952	951	951	951	951	950	949	949	948	948	947	946	944	943	942	952	942	949.1	
17	941	939	938	936	935	933	932	931	930	929	930	930	929	930	929	930	930	931	932	932	932	932	932	933	941	929	932.3	
18	934	934	936	937	938	940	941	942	944	945	945	946	946	945	945	945	945	945	944	944	944	943	943	942	946	934	942.3	
19	942	941	940	940	940	940	939	939	939	939	938	939	938	937	936	936	935	934	934	934	935	935	935	935	942	934	937.5	
20	935	935	936	936	936	936	936	937	936	935	938	938	939	939	939	939	938	938	938	937	937	937	936	936	939	935	937.0	
21	935	935	934	933	933	931	931	930	930	930	929	929	928	928	928	928	928	928	929	929	930	929	930	929	935	928	930.2	
22	929	929	928	927	926	926	925	925	925	925	925	925	925	925	925	926	926	926	926	926	926	927	927	927	929	925	926.1	
23	927	927	926	926	926	926	926	926	926	926	926	926	926	926	926	927	928	929	930	931	932	933	934	935	935	926	927.9	
24	936	937	938	939	940	940	941	941	942	943	943	943	943	943	943	943	943	943	942	943	943	942	942	941	943	936	941.4	
25	941	941	941	941	940	940	940	940	940	940	940	939	940	939	939	939	939	940	940	940	940	941	941	941	941	939	940.0	
26	941	942	942	943	943	944	945	945	946	946	946	947	947	947	948	948	948	949	949	949	949	949	949	949	949	941	946.4	
27	949	949	949	949	948	948	948	948	947	947	947	946	946	946	945	945	944	944	944	943	943	943	942	942	949	942	945.9	
28	942	941	941	941	940	940	940	939	939	939	939	939	939	939	938	938	938	938	938	938	938	938	938	938	942	938	939.2	
29	938	938	939	938	939	939	939	939	939	940	940	941	941	941	942	942	942	943	943	944	944	945	945	945	946	946	938	941.3
30	946	946	947	947	947	948	948	948	949	950	950	950	951	951	951	951	952	952	953	953	954	954	954	954	954	946	950.3	
31	955	954	954	955	955	955	955	955	954	955	955	955	955	955	954	954	953	953	953	951	952	951	950	950	955	950	953.6	
<b>Max.</b>	<b>957</b>	<b>957</b>	<b>957</b>	<b>957</b>	<b>958</b>	<b>958</b>	<b>958</b>	<b>958</b>	<b>959</b>	<b>959</b>	<b>959</b>	<b>959</b>	<b>959</b>	<b>959</b>	<b>959</b>	<b>959</b>	<b>959</b>	<b>959</b>	<b>959</b>	<b>958</b>	<b>958</b>	<b>958</b>	<b>958</b>	<b>957</b>	<b>959</b>			
<b>Min.</b>	<b>927</b>	<b>927</b>	<b>926</b>	<b>926</b>	<b>926</b>	<b>926</b>	<b>925</b>	<b>925</b>	<b>925</b>	<b>925</b>	<b>925</b>	<b>925</b>	<b>925</b>	<b>925</b>	<b>925</b>	<b>926</b>	<b>926</b>	<b>926</b>	<b>926</b>	<b>926</b>	<b>926</b>	<b>927</b>	<b>927</b>	<b>927</b>	<b>927</b>	<b>925</b>		
<b>Avg.</b>	<b>941</b>	<b>941</b>	<b>941</b>	<b>941</b>	<b>941</b>	<b>941</b>	<b>941</b>	<b>941</b>	<b>941</b>	<b>941</b>	<b>941</b>	<b>942</b>	<b>942</b>	<b>941</b>	<b>941</b>	<b>941</b>	<b>941</b>	<b>941</b>	<b>941</b>	<b>941</b>	<b>941</b>	<b>942</b>	<b>942</b>	<b>942</b>	<b>942</b>		<b>941.3</b>	

**Total Hours in Month**

744

**Hours Data Available**

744

**Data Recovery**

100.0%

# Northern Dynasty Mines Pebble 1 Meterological Station - Barometric Pressure (mbar)

*November 2005*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	949	948	948	947	946	946	945	945	945	945	945	945	945	945	945	944	944	944	944	944	944	943	943	943	949	943	945.1	
2	944	944	943	943	943	943	942	942	942	942	942	942	942	942	941	941	941	941	941	941	941	941	941	941	941	944	941	941.9
3	941	941	941	940	940	940	941	941	942	942	941	942	943	943	944	944	945	945	946	947	947	947	947	947	947	947	940	943.2
4	949	949	949	950	950	950	950	950	951	951	951	952	951	952	951	952	952	952	953	953	953	953	953	953	953	953	949	951.3
5	953	954	955	955	955	955	955	956	956	957	958	958	958	958	959	959	959	960	960	960	960	959	958	957	960	953	957.2	
6	955	953	952	950	948	947	947	947	947	946	947	948	949	948	949	949	949	949	951	951	951	950	950	949	955	946	949.3	
7	948	947	946	946	945	944	943	941	939	939	937	936	935	934	933	933	932	932	932	931	931	931	930	930	948	930	937.3	
8	930	929	929	928	928	927	926	926	926	925	925	925	924	924	923	923	922	922	922	922	922	922	922	922	921	930	921	924.7
9	921	921	920	920	920	920	920	920	920	921	921	921	921	921	921	921	922	922	923	923	924	925	925	926	926	920	921.7	
10	927	928	928	929	929	929	930	930	931	932	933	933	934	934	935	935	935	936	936	936	937	938	939	939	939	927	933.0	
11	939	940	940	940	940	940	940	940	941	941	942	942	942	942	943	943	943	943	943	944	944	944	945	946	946	939	941.9	
12	946	946	947	947	947	948	948	949	949	950	950	951	952	952	952	952	952	952	953	953	953	954	954	954	954	946	950.4	
13	954	955	955	955	955	955	956	956	957	957	958	959	959	959	959	960	960	960	961	961	961	961	962	962	962	954	958.2	
14	961	961	961	961	960	959	958	958	957	957	957	956	955	954	952	951	951	950	949	949	949	948	948	948	961	948	954.5	
15	948	947	947	947	947	947	947	947	948	948	949	949	949	949	949	950	950	950	950	950	950	949	949	948	950	947	948.5	
16	947	945	944	943	941	939	938	937	937	937	936	936	936	935	935	934	934	934	933	933	932	932	931	931	947	931	936.7	
17	931	930	930	930	929	929	930	931	931	932	933	934	935	936	937	938	939	938	938	938	938	939	938	938	936	939	929	934.2
18	936	935	933	932	929	927	925	923	921	919	918	917	916	916	916	916	916	916	917	919	920	922	923	925	936	916	922.3	
19	925	926	927	928	929	929	930	930	931	933	935	935	937	938	940	941	942	943	945	945	947	947	947	948	948	925	936.6	
20	948	948	948	948	948	947	947	947	946	946	946	945	945	945	944	944	943	943	943	943	943	942	942	942	948	942	945.1	
21	941	941	941	941	940	940	940	940	940	941	940	941	940	941	940	940	941	941	941	941	941	941	941	942	942	942	940	940.7
22	942	941	942	942	941	942	942	942	941	941	941	940	939	938	937	937	936	935	934	933	932	932	931	930	942	930	938.0	
23	929	928	927	927	927	927	927	927	928	930	931	932	933	934	935	935	936	937	938	938	939	939	939	938	939	927	932.4	
24	938	937	936	935	934	933	933	933	932	931	931	930	929	930	931	931	931	932	933	933	933	933	934	934	938	929	932.9	
25	935	935	936	936	937	937	938	939	940	941	942	943	944	945	945	946	946	947	948	948	948	949	950	951	951	935	942.7	
26	951	952	953	954	954	955	956	956	957	958	959	959	960	960	961	961	961	962	963	963	964	964	965	965	965	951	958.9	
27	966	966	966	966	967	967	967	967	968	968	968	968	968	968	968	968	968	967	968	968	968	968	968	968	968	966	967.4	
28	968	969	969	969	969	969	969	969	969	970	970	970	970	970	970	970	970	970	970	970	970	969	969	969	970	968	969.4	
29	969	968	968	968	968	967	967	967	967	968	968	968	968	968	968	968	967	968	967	967	967	968	968	967	968	969	967	967.6
30	968	967	967	967	967	966	966	966	965	965	965	965	965	964	963	963	963	963	962	962	962	962	962	962	968	962	964.5	
<b>Max.</b>	<b>969</b>	<b>969</b>	<b>969</b>	<b>969</b>	<b>969</b>	<b>969</b>	<b>969</b>	<b>969</b>	<b>969</b>	<b>970</b>	<b>970</b>	<b>970</b>	<b>970</b>	<b>970</b>	<b>970</b>	<b>970</b>	<b>970</b>	<b>970</b>	<b>970</b>	<b>970</b>	<b>970</b>	<b>969</b>	<b>969</b>	<b>969</b>	<b>970</b>			
<b>Min.</b>	<b>921</b>	<b>921</b>	<b>920</b>	<b>920</b>	<b>920</b>	<b>920</b>	<b>920</b>	<b>920</b>	<b>920</b>	<b>919</b>	<b>918</b>	<b>917</b>	<b>916</b>	<b>916</b>	<b>916</b>	<b>916</b>	<b>916</b>	<b>916</b>	<b>917</b>	<b>919</b>	<b>920</b>	<b>922</b>	<b>922</b>	<b>921</b>		<b>916</b>		
<b>Avg.</b>	<b>945</b>	<b>945</b>	<b>945</b>	<b>945</b>	<b>944</b>	<b>944</b>	<b>944</b>	<b>944</b>	<b>944</b>	<b>944</b>	<b>944</b>	<b>945</b>	<b>945</b>	<b>945</b>	<b>945</b>	<b>945</b>	<b>945</b>	<b>945</b>	<b>945</b>	<b>946</b>	<b>946</b>	<b>946</b>	<b>946</b>	<b>946</b>			<b>944.9</b>	

**Total Hours in Month**

720

**Hours Data Available**

720

**Data Recovery**

100.0%

**HCG, Inc.**

# Northern Dynasty Mines Pebble 1 Meterological Station - Barometric Pressure (mbar)

*December 2005*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	962	961	961	961	960	960	960	959	960	960	960	959	959	958	958	957	956	956	955	955	954	954	953	952	962	952	957.9	
2	952	951	950	950	949	949	949	948	948	948	949	949	949	948	948	948	948	949	948	948	948	949	949	950	952	948	948.9	
3	950	950	950	951	951	952	952	951	952	953	953	953	954	954	954	955	954	955	955	955	955	956	956	956	956	956	950	953.3
4	957	957	957	957	957	957	957	957	957	957	957	957	957	956	956	956	956	955	954	954	954	955	955	956	957	954	956.1	
5	956	956	956	955	954	954	955	954	954	953	952	953	951	951	949	949	949	947	946	946	945	943	942	941	956	941	950.4	
6	939	937	937	937	936	936	936	935	936	936	938	938	938	939	939	939	939	939	939	939	939	937	937	935	934	939	934	937.3
7	931	929	927	924	920	919	916	915	915	915	915	913	912	911	911	909	910	910	910	910	912	911	912	913	931	909	915.4	
8	915	916	918	920	920	921	922	922	923	923	924	924	925	924	925	925	925	925	925	925	924	925	925	926	926	915	922.8	
9	926	926	926	926	926	926	926	926	926	926	927	927	926	927	927	928	928	929	930	930	931	932	933	934	935	935	926	928.2
10	935	936	937	937	938	938	939	939	940	940	941	942	942	942	943	943	943	943	943	943	943	943	943	944	944	935	940.7	
11	944	943	943	943	943	943	943	943	944	944	945	945	946	947	947	947	948	949	949	950	950	951	952	953	953	943	946.4	
12	954	954	955	956	957	957	957	958	958	959	959	959	959	959	959	959	959	960	960	960	960	960	960	961	961	954	958.2	
13	961	961	960	960	959	959	959	958	958	957	956	957	956	955	953	952	951	950	948	947	945	946	946	945	961	945	954.2	
14	943	944	944	943	942	942	939	939	938	937	936	935	933	932	931	930	930	930	931	931	930	930	929	930	944	929	935.4	
15	930	931	931	930	930	929	929	928	927	926	925	924	924	923	922	921	921	920	919	918	920	919	918	919	931	918	924.4	
16	920	919	919	919	921	922	922	923	925	926	927	927	928	929	929	930	931	931	932	933	934	935	936	936	936	919	927.2	
17	937	937	938	938	939	939	940	940	941	942	942	943	943	944	944	945	945	946	946	947	947	947	948	948	948	937	942.8	
18	949	949	948	948	948	949	949	949	949	950	950	950	951	952	952	952	952	953	953	953	952	952	951	951	953	948	950.5	
19	951	949	949	948	948	947	947	946	945	947	946	946	945	945	945	945	945	945	944	944	944	944	943	943	951	943	945.8	
20	942	941	940	940	938	937	936	935	935	934	933	932	930	930	929	928	927	927	926	925	925	924	924	924	942	924	931.8	
21	923	923	923	922	923	922	922	922	922	923	923	923	923	923	923	923	923	923	923	923	923	924	924	924	924	924	922	923.0
22	924	925	925	925	925	926	926	926	926	926	927	928	928	929	929	929	929	930	930	931	931	932	932	932	932	924	928.1	
23	933	933	933	933	933	933	933	933	933	933	934	934	934	934	933	933	933	933	933	932	932	932	932	932	931	934	931	932.9
24	931	931	931	930	929	929	928	928	927	928	927	927	926	926	925	924	924	924	924	923	923	923	923	923	923	931	923	926.5
25	924	924	924	924	924	924	924	923	923	924	924	924	924	923	923	923	922	921	922	921	921	920	921	921	924	920	922.7	
26	920	920	919	920	921	922	921	922	923	924	924	924	925	925	925	925	925	926	926	927	927	927	927	927	927	919	923.8	
27	927	927	926	927	926	926	925	925	925	926	925	925	925	925	924	924	924	924	924	924	924	924	924	924	925	927	924	925.1
28	925	925	925	924	924	923	924	924	924	924	923	923	923	922	922	922	922	921	921	921	920	920	920	919	919	925	919	922.4
29	919	919	919	919	919	919	919	919	919	920	921	921	922	922	922	922	922	922	922	921	921	921	922	922	922	922	919	920.6
30	921	920	919	919	919	918	918	916	916	916	915	915	914	914	914	914	914	915	915	915	915	915	915	916	921	914	916.2	
31	916	916	916	916	916	917	917	917	917	918	918	918	918	918	918	919	919	919	919	919	919	919	920	920	920	916	917.9	
<b>Max.</b>	<b>962</b>	<b>961</b>	<b>961</b>	<b>961</b>	<b>960</b>	<b>960</b>	<b>960</b>	<b>959</b>	<b>960</b>	<b>960</b>	<b>960</b>	<b>959</b>	<b>959</b>	<b>959</b>	<b>959</b>	<b>959</b>	<b>959</b>	<b>960</b>	<b>960</b>	<b>960</b>	<b>960</b>	<b>960</b>	<b>960</b>	<b>961</b>	<b>962</b>			
<b>Min.</b>	<b>915</b>	<b>916</b>	<b>916</b>	<b>916</b>	<b>916</b>	<b>917</b>	<b>916</b>	<b>915</b>	<b>915</b>	<b>915</b>	<b>915</b>	<b>913</b>	<b>912</b>	<b>911</b>	<b>911</b>	<b>909</b>	<b>910</b>	<b>910</b>	<b>910</b>	<b>910</b>	<b>912</b>	<b>911</b>	<b>912</b>	<b>913</b>		<b>909</b>		
<b>Avg.</b>	<b>936</b>	<b>936</b>	<b>936</b>	<b>936</b>	<b>935</b>	<b>935</b>	<b>935</b>	<b>935</b>	<b>935</b>	<b>935</b>	<b>935</b>	<b>935</b>	<b>935</b>	<b>935</b>	<b>935</b>	<b>935</b>	<b>935</b>	<b>935</b>	<b>935</b>	<b>935</b>	<b>935</b>	<b>934</b>	<b>935</b>	<b>935</b>			<b>935.1</b>	

**Total Hours in Month**

744

**Hours Data Available**

744

**Data Recovery**

100.0%

# Northern Dynasty Mines Pebble 1 Meterological Station - Barometric Pressure (mbar)

*January 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.		
1	920	920	920	920	921	921	921	921	921	922	922	922	922	922	922	922	922	922	923	923	923	923	923	923	923	920	921.7		
2	923	924	924	924	924	924	925	925	925	926	926	927	927	928	928	928	929	930	931	931	931	933	934	935	935	923	927.5		
3	936	937	937	938	939	940	941	941	942	943	943	944	944	945	945	946	946	946	947	947	948	948	949	949	949	936	943.4		
4	949	950	950	950	950	950	950	950	951	951	951	951	951	951	951	951	951	950	950	950	949	949	948	948	951	948	950.1		
5	947	946	945	945	944	943	942	942	941	941	940	940	939	939	938	938	938	937	937	937	937	937	937	937	937	937	940.3		
6	937	937	937	937	937	937	937	937	938	938	939	939	939	939	939	939	939	939	938	938	938	938	938	938	938	939	937	938.0	
7	937	937	937	936	936	935	934	933	933	933	933	932	932	932	931	931	931	930	930	930	930	930	929	929	937	929	932.6		
8	929	929	929	929	928	928	928	928	929	929	929	929	929	929	929	929	928	928	928	928	928	928	928	928	928	929	928	928.3	
9	928	927	927	927	927	927	927	927	927	927	927	927	927	927	927	927	927	927	927	927	927	928	928	928	928	928	927	927.1	
10	928	928	929	929	929	929	929	929	929	930	930	931	931	931	932	932	933	933	934	934	935	935	936	936	936	936	928	931.7	
11	937	937	938	938	938	938	938	939	939	939	940	940	940	940	941	941	941	941	942	942	943	943	944	944	944	944	937	940.2	
12	944	945	945	945	946	946	947	947	947	948	948	948	949	949	948	948	948	948	948	948	948	948	947	948	949	944	947.3		
13	948	948	948	948	948	947	947	947	947	947	947	947	947	946	947	946	946	946	945	945	945	945	945	945	945	948	945	946.5	
14	945	944	944	944	943	943	943	942	942	942	942	942	941	941	940	940	940	940	940	940	940	940	940	940	940	945	940	941.7	
15	940	940	939	939	939	939	939	939	939	939	939	939	939	939	939	938	939	939	939	939	940	940	940	940	940	940	938	939.2	
16	940	940	940	941	940	940	940	940	940	940	940	941	940	941	940	940	940	940	940	940	940	940	940	940	940	941	940	940.3	
17	940	941	940	940	940	940	940	940	941	941	941	941	941	942	942	942	942	943	943	943	944	944	944	944	945	945	940	941.7	
18	945	945	945	946	945	945	946	946	946	947	947	947	947	948	948	948	948	948	949	949	949	950	951	951	951	945	947.3		
19	951	951	952	952	952	952	952	952	952	953	953	953	953	953	953	952	952	952	951	950	950	950	949	949	949	953	949	951.6	
20	948	948	947	947	946	946	945	944	944	943	943	943	942	942	941	940	940	939	938	937	937	936	935	934	948	934	941.9		
21	932	931	930	929	928	927	926	925	925	924	925	924	924	923	922	922	921	920	920	920	922	921	923	924	932	920	924.6		
22	925	926	927	927	928	930	931	933	935	937	938	941	940	943	943	944	947	947	948	948	949	950	952	952	952	952	925	939.2	
23	952	952	953	954	955	955	957	957	958	959	958	959	960	960	960	960	960	960	960	960	961	960	960	960	961	952	958.0		
24	959	959	959	959	958	957	957	957	956	956	955	954	954	953	953	952	951	950	950	949	949	947	947	947	959	947	953.8		
25	946	945	944	943	942	942	941	941	940	940	940	939	939	939	939	939	939	940	940	941	941	942	942	942	946	939	941.2		
26	943	944	944	945	945	945	945	946	946	946	946	946	946	945	945	945	944	944	944	943	943	943	943	943	946	943	944.6		
27	943	943	943	943	944	944	944	944	944	944	944	944	943	944	943	943	944	944	944	944	944	943	943	943	944	940	943.5		
28	940	940	940	940	938	939	937	937	938	937	937	937	936	936	936	935	935	936	936	935	935	935	935	935	936	940	935	936.9	
29	936	935	935	935	935	935	935	935	935	936	936	936	936	936	935	935	935	935	935	935	935	934	934	934	934	936	934	935.2	
30	933	933	933	932	932	931	931	930	930	930	929	929	929	928	928	927	927	927	927	927	927	927	927	927	926	933	926	929.2	
31	926	926	926	926	926	925	925	924	924	924	924	924	924	923	923	923	923	923	922	922	922	922	922	922	922	926	922	923.8	
<b>Max.</b>	<b>959</b>	<b>959</b>	<b>959</b>	<b>959</b>	<b>958</b>	<b>957</b>	<b>957</b>	<b>957</b>	<b>958</b>	<b>959</b>	<b>958</b>	<b>959</b>	<b>960</b>	<b>960</b>	<b>960</b>	<b>960</b>	<b>960</b>	<b>960</b>	<b>960</b>	<b>960</b>	<b>961</b>	<b>960</b>	<b>960</b>	<b>960</b>	<b>961</b>				
<b>Min.</b>	<b>920</b>	<b>920</b>	<b>920</b>	<b>920</b>	<b>921</b>	<b>921</b>	<b>921</b>	<b>921</b>	<b>921</b>	<b>922</b>	<b>922</b>	<b>922</b>	<b>922</b>	<b>922</b>	<b>922</b>	<b>922</b>	<b>921</b>	<b>920</b>	<b>920</b>	<b>920</b>	<b>922</b>	<b>921</b>	<b>922</b>	<b>922</b>	<b>922</b>	<b>920</b>			
<b>Avg.</b>	<b>939</b>	<b>939</b>	<b>939</b>	<b>939</b>	<b>939</b>	<b>939</b>	<b>939</b>	<b>939</b>	<b>939</b>	<b>939</b>	<b>939</b>	<b>939</b>	<b>939</b>	<b>939</b>	<b>939</b>	<b>939</b>	<b>939</b>	<b>939</b>	<b>939</b>	<b>939</b>	<b>939</b>	<b>939</b>	<b>939</b>	<b>939</b>	<b>939</b>			<b>939.0</b>	

**Total Hours in Month**                      744                      **Hours Data Available**                      744                      **Data Recovery**                      100.0%

# Northern Dynasty Mines Pebble 1 Meterological Station - Barometric Pressure (mbar)

*February 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	922	922	922	922	922	922	922	922	923	923	923	924	925	925	927	927	927	928	929	930	930	931	931	932	932	922	925.4	
2	933	934	935	935	936	936	937	937	938	939	939	940	940	940	940	940	941	940	940	940	940	940	940	940	940	941	933	938.3
3	939	940	939	939	939	939	939	939	940	942	942	943	944	944	944	944	943	943	942	942	942	942	942	941	944	939	941.4	
4	941	940	940	939	937	937	937	936	935	934	933	933	931	931	930	928	927	927	926	927	927	926	927	927	941	926	932.4	
5	926	926	925	924	923	922	921	921	921	921	921	921	921	920	921	920	919	918	917	915	913	911	910	911	926	910	919.4	
6	911	911	910	909	909	908	907	907	908	909	910	911	912	914	916	919	920	922	923	924	925	926	927	928	928	907	915.1	
7	929	930	930	931	931	932	933	934	935	936	937	938	939	941	941	943	944	945	946	947	949	950	951	953	953	929	939.3	
8	954	955	955	956	956	957	957	956	957	958	958	958	956	955	954	953	952	953	952	951	952	951	951	952	958	951	954.5	
9	950	948	947	944	944	943	940	940	938	937	935	934	933	933	933	933	934	934	935	934	934	935	934	935	950	933	937.7	
10	935	935	934	934	933	930	930	930	929	930	930	930	931	932	933	934	936	936	937	938	938	939	939	939	939	929	933.8	
11	939	939	939	938	938	937	936	935	934	933	932	931	930	929	929	928	928	928	929	929	929	929	929	930	930	939	928	932.6
12	931	932	932	932	933	934	934	935	937	939	941	942	944	945	947	948	949	950	950	951	952	953	953	954	954	931	942.3	
13	955	957	958	959	960	960	962	963	964	965	965	966	966	965	966	966	967	967	967	969	968	968	969	969	969	955	964.2	
14	970	970	970	971	971	971	972	972	973	973	974	975	975	974	973	972	972	972	972	972	972	972	972	971	975	970	972.1	
15	971	971	970	970	970	969	968	968	967	966	967	965	962	964	965	965	966	967	969	970	971	973	974	975	975	962	968.3	
16	976	976	977	978	978	978	978	979	979	980	980	980	980	980	979	978	978	978	978	978	977	977	976	975	980	975	978.1	
17	974	973	973	972	970	969	969	966	965	965	965	965	964	964	962	961	961	962	962	961	962	962	963	963	974	961	965.5	
18	964	964	964	964	964	962	961	960	959	958	958	957	955	956	955	955	956	956	956	956	957	958	958	959	964	955	958.9	
19	960	961	962	961	961	962	962	962	963	964	964	964	964	964	964	964	964	964	965	965	965	965	965	965	965	960	963.3	
20	965	965	964	964	964	963	963	963	963	964	964	963	963	963	962	962	963	963	964	964	965	965	966	967	967	962	963.9	
21	968	968	969	969	971	972	972	973	974	974	974	975	974	974	974	974	974	974	974	974	974	975	975	975	975	975	968	972.9
22	975	975	974	974	974	973	973	973	973	974	974	974	974	973	973	972	972	972	971	971	970	969	969	968	975	968	972.5	
23	967	966	965	965	965	964	964	965	965	966	966	966	967	967	967	968	969	969	970	970	971	971	972	972	972	964	967.3	
24	973	973	973	973	973	973	973	973	973	973	974	974	974	974	973	973	973	973	973	973	973	973	972	972	974	972	973.2	
25	972	971	970	970	968	968	967	966	965	964	963	963	963	963	963	963	963	963	963	963	963	963	963	962	972	962	965.0	
26	962	962	962	962	961	961	961	960	959	958	958	957	956	955	953	952	950	948	946	944	943	941	939	937	962	937	953.5	
27	936	935	933	934	933	934	935	936	937	937	938	937	939	939	939	939	941	942	943	944	944	945	947	948	948	933	938.8	
28	949	950	951	951	952	952	954	955	955	955	956	957	957	958	958	959	958	959	960	960	961	962	962	962	962	949	956.3	
<b>Max.</b>	<b>976</b>	<b>976</b>	<b>977</b>	<b>978</b>	<b>978</b>	<b>978</b>	<b>978</b>	<b>979</b>	<b>979</b>	<b>980</b>	<b>980</b>	<b>980</b>	<b>980</b>	<b>980</b>	<b>979</b>	<b>978</b>	<b>978</b>	<b>978</b>	<b>978</b>	<b>978</b>	<b>977</b>	<b>977</b>	<b>976</b>	<b>975</b>	<b>980</b>			
<b>Min.</b>	<b>911</b>	<b>911</b>	<b>910</b>	<b>909</b>	<b>909</b>	<b>908</b>	<b>907</b>	<b>907</b>	<b>908</b>	<b>909</b>	<b>910</b>	<b>911</b>	<b>912</b>	<b>914</b>	<b>916</b>	<b>919</b>	<b>919</b>	<b>918</b>	<b>917</b>	<b>915</b>	<b>913</b>	<b>911</b>	<b>910</b>	<b>911</b>		<b>907</b>		
<b>Avg.</b>	<b>952</b>	<b>952</b>	<b>952</b>	<b>951</b>	<b>951</b>	<b>951</b>	<b>951</b>	<b>951</b>	<b>951</b>	<b>951</b>	<b>951</b>	<b>951</b>	<b>951</b>	<b>952</b>	<b>951</b>	<b>951</b>	<b>952</b>	<b>952</b>	<b>952</b>	<b>952</b>	<b>952</b>	<b>952</b>	<b>953</b>	<b>953</b>			<b>951.6</b>	

**Total Hours in Month**

672

**Hours Data Available**

672

**Data Recovery**

100.0%

**HCG, Inc.**



# Northern Dynasty Mines Pebble 1 Meterological Station - Barometric Pressure (mbar)

*March 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	962	962	962	962	961	962	962	962	962	962	961	961	961	960	959	958	958	957	956	956	955	955	954	955	962	954	959.4	
2	954	953	952	951	950	950	949	949	948	948	947	947	946	946	946	946	946	945	945	946	946	946	946	946	946	954	945	947.9
3	947	947	947	948	948	949	950	950	950	950	951	951	951	952	952	952	952	953	953	952	953	953	953	952	953	947	950.7	
4	952	952	951	951	950	949	949	949	949	948	947	947	946	946	945	944	943	942	942	942	941	941	941	941	952	941	946.1	
5	940	940	940	940	940	939	940	940	940	940	940	940	940	941	940	941	941	941	942	942	942	943	943	944	944	939	940.8	
6	944	944	945	945	945	945	945	944	944	944	944	944	943	942	942	941	941	940	940	940	940	940	939	939	945	939	942.4	
7	939	939	939	938	938	938	938	938	938	938	938	938	937	937	937	937	936	936	935	935	936	936	935	935	939	935	937.1	
8	934	934	935	936	937	937	938	939	940	940	942	941	943	944	945	945	946	946	948	948	949	950	951	953	953	934	942.5	
9	954	955	956	957	958	959	961	961	962	962	963	963	963	964	965	966	967	966	966	967	967	967	967	967	967	967	954	962.6
10	968	968	968	968	968	968	968	967	967	967	967	967	967	965	965	964	964	963	962	962	961	960	959	959	968	959	965.0	
11	958	956	956	956	955	955	953	952	952	952	953	953	952	952	951	952	951	951	951	951	951	951	951	952	950	958	950	952.7
12	950	951	949	951	951	951	951	951	951	952	952	953	953	954	954	954	954	955	955	956	956	956	957	958	958	949	953.0	
13	958	958	959	959	959	959	959	959	960	960	960	961	961	961	961	961	961	961	961	961	961	961	961	961	961	961	958	960.1
14	961	961	961	961	961	961	961	960	960	960	960	960	960	960	960	959	959	959	959	959	959	958	958	958	958	961	958	959.8
15	958	958	958	957	957	957	957	957	956	956	956	956	957	956	956	956	955	955	955	955	955	955	955	955	955	958	955	956.2
16	955	955	955	955	955	955	954	954	954	954	955	955	954	954	953	953	954	953	953	953	954	954	954	954	955	953	954.2	
17	954	954	954	953	953	953	952	952	952	952	951	951	951	950	949	948	948	948	948	948	947	947	948	949	954	947	950.6	
18	948	948	948	948	948	947	947	947	946	946	946	945	945	945	944	944	944	944	944	944	944	944	943	943	948	943	945.5	
19	943	943	942	942	942	941	940	939	938	937	936	935	934	933	932	932	932	932	932	932	932	932	932	932	931	943	931	936.0
20	932	933	933	934	934	935	935	936	936	937	937	938	938	938	938	939	940	940	940	941	941	941	942	942	942	942	932	937.4
21	943	943	944	944	944	945	946	947	948	949	950	950	951	952	952	953	954	954	954	955	956	956	956	955	956	943	950.0	
22	955	956	956	955	954	955	954	954	954	954	953	954	954	954	953	954	955	955	955	956	957	957	957	958	958	953	954.9	
23	958	958	958	958	958	958	959	959	959	959	959	959	959	958	958	958	958	957	957	957	957	956	956	956	959	956	957.8	
24	955	955	955	955	954	954	953	953	953	953	952	953	953	952	952	951	951	951	951	951	951	950	950	950	955	950	952.4	
25	950	950	950	950	950	949	949	949	949	949	950	950	950	950	950	950	950	949	950	950	950	951	951	951	951	949	949.9	
26	952	952	952	952	952	952	953	953	953	953	954	954	955	955	955	955	955	955	956	956	957	957	957	957	957	957	952	954.2
27	957	958	958	957	958	958	958	958	958	958	958	958	958	958	958	958	957	957	957	957	957	957	957	957	957	958	957	957.5
28	956	956	955	955	954	954	954	954	953	953	953	953	953	952	952	951	951	950	951	951	951	951	951	951	956	950	952.6	
29	951	950	950	950	950	950	950	950	950	950	950	950	950	950	950	950	949	949	949	949	949	949	948	948	947	951	947	949.6
30	946	946	945	944	943	943	942	942	941	941	939	939	937	937	936	934	932	932	931	930	930	931	931	930	946	930	937.6	
31	930	930	930	930	929	930	930	931	932	935	935	936	936	937	937	938	939	939	940	941	941	942	943	943	943	943	929	935.6
<b>Max.</b>	<b>968</b>	<b>968</b>	<b>968</b>	<b>968</b>	<b>968</b>	<b>968</b>	<b>968</b>	<b>967</b>	<b>967</b>	<b>967</b>	<b>967</b>	<b>967</b>	<b>967</b>	<b>965</b>	<b>965</b>	<b>966</b>	<b>967</b>	<b>966</b>	<b>966</b>	<b>967</b>	<b>967</b>	<b>967</b>	<b>967</b>	<b>967</b>	<b>967</b>	<b>968</b>		
<b>Min.</b>	<b>930</b>	<b>930</b>	<b>930</b>	<b>930</b>	<b>929</b>	<b>930</b>	<b>930</b>	<b>931</b>	<b>932</b>	<b>935</b>	<b>935</b>	<b>935</b>	<b>934</b>	<b>933</b>	<b>932</b>	<b>932</b>	<b>932</b>	<b>932</b>	<b>931</b>	<b>930</b>	<b>930</b>	<b>931</b>	<b>931</b>	<b>930</b>		<b>929</b>		
<b>Avg.</b>	<b>950</b>	<b>950</b>	<b>950</b>	<b>950</b>	<b>950</b>	<b>950</b>	<b>950</b>	<b>950</b>	<b>950</b>	<b>950</b>	<b>950</b>	<b>950</b>	<b>950</b>	<b>950</b>	<b>950</b>	<b>950</b>	<b>950</b>	<b>950</b>	<b>950</b>	<b>950</b>	<b>950</b>	<b>950</b>	<b>950</b>	<b>950</b>			<b>950.1</b>	

**Total Hours in Month**                      744                      **Hours Data Available**                      744                      **Data Recovery**                      100.0%

# Northern Dynasty Mines Pebble 1 Meterological Station - Barometric Pressure (mbar)

*April 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	944	944	945	946	946	947	948	948	949	949	950	950	951	951	952	952	952	953	954	954	954	954	955	955	955	944	950.2
2	955	955	956	956	956	956	956	956	956	957	956	956	956	956	955	954	954	953	953	953	952	952	951	950	957	950	954.6
3	949	949	948	947	946	945	945	943	941	940	939	938	938	938	938	937	937	937	937	937	937	937	937	936	949	936	940.5
4	936	936	937	937	938	938	938	938	939	939	940	940	941	942	942	943	943	944	945	945	946	946	946	947	947	936	941.2
5	948	948	948	948	948	950	950	950	950	950	950	951	951	951	951	951	951	950	950	951	952	952	952	951	952	948	950.2
6	950	951	951	951	950	950	950	950	950	950	950	950	950	950	950	950	950	950	951	951	952	952	952	953	953	950	950.5
7	953	953	953	953	953	954	954	954	954	955	954	954	954	954	953	952	951	951	951	950	949	948	948	946	955	946	952.1
8	946	945	944	945	944	944	943	942	943	942	942	943	943	942	942	943	942	942	942	942	943	942	943	943	946	942	943.0
9	943	943	943	943	943	943	943	943	944	944	944	944	945	945	945	945	945	946	946	946	947	947	948	948	948	943	944.8
10	949	949	950	950	950	950	950	950	951	951	952	953	954	955	955	956	956	956	957	957	957	958	958	959	959	949	953.4
11	958	958	957	957	956	956	954	953	952	952	951	949	948	946	944	942	941	940	939	938	937	937	936	936	958	936	947.3
12	935	935	935	934	934	934	933	933	933	932	932	931	931	931	931	931	931	931	930	930	930	931	931	931	935	930	932.1
13	931	931	931	931	932	932	933	933	934	934	935	935	935	935	935	936	937	937	937	938	939	939	940	939	940	931	934.9
14	939	939	940	940	940	940	940	941	942	941	942	941	943	942	944	943	944	945	946	946	946	947	948	948	948	939	942.8
15	949	949	948	949	949	950	950	950	950	950	951	950	951	950	951	950	949	949	950	949	948	947	946	945	951	945	949.1
16	943	942	940	939	938	936	935	933	931	931	930	929	928	928	926	926	924	924	923	924	924	923	923	922	943	922	930.0
17	922	922	921	921	922	922	923	924	925	925	927	927	928	929	930	930	931	932	933	934	935	935	936	936	936	921	927.8
18	937	937	938	939	939	939	940	940	941	942	942	943	943	943	944	944	944	945	945	946	946	947	947	948	948	937	942.5
19	948	949	949	949	950	950	950	950	951	951	951	951	951	951	951	951	951	950	950	950	950	950	950	949	951	948	950.1
20	949	949	949	948	948	948	947	947	947	947	946	945	945	945	944	944	944	943	943	942	942	942	942	941	949	941	945.4
21	941	940	940	940	939	939	938	938	938	938	939	939	940	940	941	941	942	942	943	943	943	944	944	944	944	938	940.6
22	944	944	944	944	944	944	944	945	945	945	945	945	946	946	946	947	947	947	948	949	950	950	951	951	951	944	946.3
23	952	952	952	952	952	952	953	953	953	953	953	953	953	953	952	952	951	950	950	949	949	948	948	947	953	947	951.3
24	946	945	945	944	944	943	943	943	943	943	943	943	944	944	944	945	945	945	946	946	947	947	947	948	948	943	944.6
25	948	948	948	948	949	948	949	949	949	949	949	949	949	949	949	949	949	948	948	948	948	948	949	948	949	948	948.5
26	948	948	948	948	947	948	948	948	948	948	948	948	948	948	948	947	947	947	947	946	946	946	946	945	948	945	947.3
27	945	945	945	944	944	943	943	943	942	942	942	941	941	940	939	939	938	938	937	937	937	937	936	936	945	936	940.5
28	936	936	937	937	938	938	938	939	939	940	941	942	942	943	944	944	945	945	946	946	947	947	948	948	948	936	941.9
29	949	949	949	949	950	950	950	950	951	951	951	951	951	951	952	952	951	952	952	952	952	952	953	953	953	949	950.9
30	953	953	953	953	953	953	953	953	954	954	954	954	954	954	954	954	954	954	954	954	954	955	955	954	955	953	953.8
<b>Max.</b>	<b>958</b>	<b>958</b>	<b>957</b>	<b>957</b>	<b>956</b>	<b>956</b>	<b>956</b>	<b>956</b>	<b>956</b>	<b>957</b>	<b>956</b>	<b>956</b>	<b>956</b>	<b>956</b>	<b>955</b>	<b>956</b>	<b>956</b>	<b>956</b>	<b>957</b>	<b>957</b>	<b>957</b>	<b>958</b>	<b>958</b>	<b>959</b>	<b>959</b>		
<b>Min.</b>	<b>922</b>	<b>922</b>	<b>921</b>	<b>921</b>	<b>922</b>	<b>922</b>	<b>923</b>	<b>924</b>	<b>925</b>	<b>925</b>	<b>927</b>	<b>927</b>	<b>928</b>	<b>928</b>	<b>926</b>	<b>926</b>	<b>924</b>	<b>924</b>	<b>923</b>	<b>924</b>	<b>924</b>	<b>923</b>	<b>923</b>	<b>922</b>	<b>921</b>		
<b>Avg.</b>	<b>945</b>	<b>945</b>	<b>945</b>	<b>945</b>	<b>945</b>	<b>945</b>	<b>945</b>	<b>945</b>	<b>945</b>	<b>945</b>	<b>945</b>	<b>945</b>	<b>945</b>	<b>945</b>	<b>945</b>	<b>945</b>	<b>945</b>	<b>945</b>	<b>945</b>	<b>945</b>	<b>945</b>	<b>945</b>	<b>945</b>	<b>945</b>			<b>945.0</b>

**Total Hours in Month**                      720                      **Hours Data Available**                      720                      **Data Recovery**                      100.0%

# Northern Dynasty Mines Pebble 1 Meterological Station - Barometric Pressure (mbar)

May 2006

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	954	954	954	953	953	952	951	951	950	950	950	949	949	950	950	950	949	949	949	949	949	949	948	949	954	948	950.4	
2	948	948	948	949	949	948	949	950	950	950	951	950	950	951	951	951	951	951	951	951	951	952	952	952	952	952	948	950.2
3	952	952	951	951	951	951	951	950	950	949	948	947	946	945	944	943	942	942	941	940	940	940	939	939	952	939	946.0	
4	939	939	938	938	938	937	936	936	936	936	936	936	935	936	936	935	934	933	932	932	931	931	929	929	939	929	934.8	
5	928	927	926	926	925	926	927	928	927	927	927	928	928	928	929	928	929	928	928	929	929	930	930	930	930	925	927.8	
6	930	930	930	930	930	930	930	931	931	932	932	933	934	935	935	936	936	936	937	937	938	939	939	940	940	930	933.7	
7	940	940	940	941	941	941	942	942	942	943	943	943	944	944	945	945	945	945	945	945	946	946	946	946	946	946	940	943.4
8	946	947	947	947	947	947	947	948	948	948	949	949	949	949	949	949	949	948	948	949	949	949	949	949	949	949	946	948.1
9	949	949	948	948	949	948	949	949	949	950	950	950	950	950	951	951	951	951	951	951	951	951	951	951	951	951	948	949.9
10	951	952	951	952	952	952	952	952	952	953	953	953	953	952	952	953	953	953	953	953	953	954	954	954	955	955	951	952.7
11	955	955	955	956	957	957	958	958	958	958	958	959	958	959	959	959	959	960	961	961	962	962	962	962	963	963	955	958.9
12	964	962	963	964	964	965	966	966	966	967	967	967	967	968	968	968	968	969	969	969	969	969	970	970	971	971	962	966.9
13	971	970	971	970	971	971	971	971	971	971	971	971	971	970	970	970	970	969	969	968	968	968	968	968	967	971	967	969.9
14	967	966	965	965	965	965	964	964	964	964	964	964	964	964	964	965	964	965	966	966	966	966	967	968	969	969	964	965.2
15	970	970	971	971	971	971	971	971	971	971	971	970	970	970	969	969	968	968	967	967	967	966	966	966	965	971	965	969.3
16	965	964	964	963	963	963	962	962	961	960	960	959	958	958	957	956	956	955	955	955	955	954	954	954	954	965	954	958.8
17	954	954	954	954	954	954	954	954	953	953	953	953	954	954	954	954	954	954	955	955	955	955	956	956	956	956	953	954.1
18	957	957	957	957	957	957	958	958	958	958	958	958	958	959	959	959	959	960	960	960	961	961	961	962	962	962	957	958.9
19	962	962	962	961	961	961	960	959	959	958	956	955	954	953	950	951	950	949	948	947	948	947	947	947	948	962	947	954.5
20	947	947	946	946	945	945	944	944	943	943	943	943	943	943	943	944	944	945	946	947	948	949	950	950	951	951	943	945.7
21	951	952	952	953	953	953	954	955	955	955	955	956	954	955	956	956	956	956	956	956	957	957	957	957	957	957	951	955.0
22	957	957	957	956	956	956	955	955	955	955	955	954	954	954	954	953	953	953	952	952	952	952	952	952	951	957	951	954.1
23	951	951	951	951	952	952	953	953	954	955	955	956	956	956	956	956	956	957	957	957	958	958	958	959	959	959	951	954.9
24	959	959	959	959	960	960	960	960	961	961	961	961	961	961	961	961	961	961	961	961	961	961	962	962	962	962	959	960.6
25	962	962	962	963	963	963	963	963	964	964	964	964	964	964	964	963	963	963	963	963	963	963	964	964	964	964	962	963.3
26	964	965	965	965	965	965	965	965	965	965	965	965	965	964	964	963	963	963	963	963	963	963	963	963	963	965	963	964.1
27	962	962	961	961	960	960	960	960	960	960	959	958	957	957	956	956	955	955	955	955	955	955	955	955	955	962	955	957.9
28	955	955	955	955	955	955	956	956	956	956	956	956	956	955	955	955	955	954	955	955	955	955	955	955	956	956	954	955.2
29	956	956	956	956	956	957	957	958	958	958	958	958	958	958	959	959	958	958	958	958	958	958	958	959	959	959	956	957.7
30	959	959	959	959	959	959	959	959	959	959	959	958	958	958	958	958	957	957	957	957	957	957	957	957	957	959	957	958.1
31	957	956	956	956	956	956	956	956	956	955	956	956	956	956	956	956	956	956	956	956	956	956	956	956	956	957	955	955.9
<b>Max.</b>	<b>971</b>	<b>970</b>	<b>971</b>	<b>971</b>	<b>971</b>	<b>971</b>	<b>971</b>	<b>971</b>	<b>971</b>	<b>971</b>	<b>971</b>	<b>971</b>	<b>971</b>	<b>970</b>	<b>970</b>	<b>970</b>	<b>970</b>	<b>969</b>	<b>969</b>	<b>969</b>	<b>969</b>	<b>970</b>	<b>970</b>	<b>971</b>	<b>971</b>			
<b>Min.</b>	<b>928</b>	<b>927</b>	<b>926</b>	<b>926</b>	<b>925</b>	<b>926</b>	<b>927</b>	<b>928</b>	<b>927</b>	<b>927</b>	<b>927</b>	<b>928</b>	<b>928</b>	<b>928</b>	<b>929</b>	<b>928</b>	<b>929</b>	<b>928</b>	<b>928</b>	<b>928</b>	<b>929</b>	<b>929</b>	<b>930</b>	<b>929</b>	<b>929</b>		<b>925</b>	
<b>Avg.</b>	<b>954</b>	<b>954</b>	<b>954</b>	<b>954</b>	<b>954</b>	<b>954</b>	<b>954</b>	<b>954</b>	<b>954</b>	<b>954</b>	<b>954</b>	<b>954</b>	<b>954</b>	<b>954</b>	<b>954</b>	<b>954</b>	<b>954</b>	<b>954</b>	<b>954</b>	<b>954</b>	<b>954</b>	<b>954</b>	<b>954</b>	<b>954</b>	<b>954</b>			<b>954.1</b>

Total Hours in Month

744

Hours Data Available

744

Data Recovery

100.0%

# Northern Dynasty Mines Pebble 1 Meterological Station - Barometric Pressure (mbar)

*June 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	956	956	956	956	956	956	956	956	957	957	957	957	957	956	956	956	955	955	955	955	954	955	954	954	957	954	955.8	
2	954	954	954	954	954	954	954	953	953	953	953	953	953	953	952	952	952	952	952	952	952	953	953	954	954	952	953.0	
3	954	954	954	955	955	956	956	955	956	956	957	957	957	958	957	957	957	957	957	957	958	958	958	959	959	954	956.4	
4	959	959	959	959	959	959	959	959	959	959	958	959	959	959	959	958	958	958	957	958	958	958	958	957	959	957	958.5	
5	957	957	958	958	957	958	958	957	958	958	957	957	957	957	957	956	956	956	956	956	956	956	956	956	958	956	956.8	
6	956	956	956	956	956	956	956	956	956	956	956	956	955	955	955	955	955	954	954	955	955	955	956	957	957	954	955.5	
7	957	956	956	956	955	956	956	956	956	956	957	956	956	957	956	956	957	956	957	957	957	958	957	957	958	955	956.5	
8	957	956	956	956	956	956	955	956	955	956	955	955	954	954	953	952	952	950	949	949	949	947	947	945	957	945	952.9	
9	946	946	945	945	944	944	944	944	943	942	943	942	943	941	943	943	944	945	945	945	945	946	947	947	947	941	944.2	
10	949	949	948	948	948	949	949	949	950	951	951	952	953	953	953	954	954	954	955	955	955	955	955	955	955	955	948	951.9
11	954	954	953	953	952	953	953	953	953	953	954	953	954	953	953	954	953	953	953	952	953	952	953	952	954	952	953.0	
12	952	951	951	952	952	952	952	952	953	952	953	953	953	953	954	954	954	954	955	955	955	955	955	955	955	955	951	953.3
13	955	955	955	955	955	955	955	955	955	955	955	955	955	954	954	954	954	954	954	954	954	954	954	954	955	954	954.5	
14	954	953	953	953	953	953	953	953	953	953	953	952	952	952	952	952	952	951	951	951	951	951	951	951	954	951	952.2	
15	950	950	950	949	949	949	949	948	948	948	947	947	946	946	946	946	946	946	946	946	945	945	945	945	950	945	947.2	
16	945	945	944	944	943	943	943	942	942	942	942	942	943	943	944	944	944	944	945	945	945	946	946	947	947	942	943.9	
17	947	947	947	947	947	947	948	948	949	949	949	949	949	950	950	950	950	951	951	952	952	952	952	953	953	947	949.4	
18	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	952	952	953	952	953	953	954	954	955	955	952	952.9	
19	955	955	955	955	955	955	955	955	955	955	955	955	955	955	955	954	954	954	955	955	956	957	957	958	958	954	955.3	
20	958	958	958	958	958	958	959	959	959	959	959	959	959	959	960	960	961	961	961	962	961	961	961	962	962	958	959.6	
21	962	962	962	962	961	961	961	961	961	961	961	960	960	960	960	959	959	959	959	959	959	959	959	958	962	958	960.2	
22	958	958	958	958	958	958	958	959	959	960	960	960	960	961	961	961	962	962	962	963	963	963	964	964	964	958	960.5	
23	964	964	964	964	965	965	965	965	966	966	966	966	966	966	966	966	966	966	966	966	966	966	967	967	967	964	965.6	
24	967	967	967	966	966	966	966	966	966	966	966	966	966	965	965	965	964	964	964	964	964	964	964	964	967	964	965.4	
25	964	964	964	964	963	963	964	964	964	964	964	964	964	964	964	964	963	964	964	964	964	965	965	965	965	963	963.8	
26	965	965	965	965	965	965	965	965	965	965	965	965	965	964	964	964	964	964	963	963	963	964	963	964	965	963	964.4	
27	964	964	964	964	963	963	963	963	963	963	963	963	963	962	962	962	962	963	963	962	963	963	963	964	964	962	963.0	
28	964	964	964	964	964	964	964	964	964	964	964	964	964	964	964	964	964	964	964	964	964	963	963	963	964	963	963.9	
29	964	963	964	964	964	964	964	964	964	964	964	964	963	963	962	961	962	961	961	962	962	962	962	962	964	961	962.9	
30	962	962	962	963	963	964	964	965	965	965	965	966	966	967	967	967	967	968	968	968	968	968	968	969	969	962	965.7	
<b>Max.</b>	<b>967</b>	<b>967</b>	<b>967</b>	<b>966</b>	<b>966</b>	<b>966</b>	<b>966</b>	<b>966</b>	<b>966</b>	<b>966</b>	<b>966</b>	<b>966</b>	<b>966</b>	<b>967</b>	<b>967</b>	<b>967</b>	<b>967</b>	<b>968</b>	<b>968</b>	<b>968</b>	<b>968</b>	<b>968</b>	<b>968</b>	<b>969</b>	<b>969</b>			
<b>Min.</b>	<b>945</b>	<b>945</b>	<b>944</b>	<b>944</b>	<b>943</b>	<b>943</b>	<b>943</b>	<b>942</b>	<b>942</b>	<b>942</b>	<b>942</b>	<b>942</b>	<b>943</b>	<b>941</b>	<b>943</b>	<b>943</b>	<b>944</b>	<b>944</b>	<b>945</b>	<b>945</b>	<b>945</b>	<b>945</b>	<b>945</b>	<b>945</b>	<b>945</b>	<b>941</b>		
<b>Avg.</b>	<b>957</b>	<b>957</b>	<b>956</b>	<b>956</b>	<b>956</b>	<b>956</b>	<b>957</b>	<b>957</b>	<b>957</b>	<b>957</b>	<b>957</b>	<b>957</b>	<b>957</b>	<b>957</b>	<b>957</b>	<b>957</b>	<b>957</b>	<b>956</b>	<b>956</b>	<b>957</b>	<b>957</b>	<b>957</b>	<b>957</b>	<b>957</b>			<b>956.6</b>	

**Total Hours in Month**                      720                      **Hours Data Available**                      720                      **Data Recovery**                      100.0%

# Northern Dynasty Mines Pebble 1 Meterological Station - Barometric Pressure (mbar)

*July 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	969	969	969	969	969	969	969	969	969	969	969	969	969	969	968	968	968	968	967	967	967	967	967	967	969	967	968.3	
2	967	967	967	967	967	967	966	967	967	966	966	966	966	965	965	965	964	964	964	964	964	964	964	964	964	967	964	965.4
3	963	963	963	964	963	963	964	964	963	964	964	963	963	963	963	963	963	963	963	963	963	963	964	964	964	964	963	963.3
4	964	964	964	964	964	964	965	965	965	965	965	965	965	965	965	964	964	964	964	964	964	964	964	964	964	965	964	964.3
5	964	964	964	964	964	964	963	964	963	963	963	963	962	962	961	961	961	961	960	960	960	960	960	960	959	964	959	962.1
6	959	959	958	958	958	958	958	957	957	957	957	957	956	956	956	956	956	956	956	956	956	956	956	956	956	959	956	956.9
7	956	956	956	957	957	957	957	957	957	957	958	958	958	958	958	958	958	958	958	958	958	958	958	958	958	958	956	957.4
8	958	958	958	958	958	958	959	959	959	959	960	960	960	960	960	960	960	960	960	960	961	960	961	961	961	961	958	959.5
9	961	960	960	960	960	960	959	959	959	958	958	958	958	957	957	956	956	955	955	955	955	954	954	954	954	961	954	957.5
10	953	952	952	952									951	951	951	950	950	950	949	950	949	950	949	949	953	949	950.6	
11	949	948	948	948	948	948	948	948	949		948	948	948	948	948	948	949	949	949	949	949	949	950	950	950	950	948	948.6
12	950	950	950	951	951	951	952	952	952	952	952	952	952	952	952	952	952	952	951	951	951	951	951	951	951	952	950	951.3
13	950	950	949	950	950	950	951	951	951	951	951	951	951	951	952	952	952	952	953	953	953	953	953	953	953	953	949	951.5
14	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	953	954	953	954	954	954	954	954	954	953	953.1
15	953	953	953	953	953	953	953	953	954	954	954	954	955	955	955	955	956	956	956	957	957	958	958	958	958	958	953	954.8
16	958	958	958	958	959	959	959	960	960	960	960	960	960	960	960	960	961	961	961	961	961	961	961	961	961	961	958	959.9
17	961	961	961	962	962	962	962	962	962	962	961	961	960	960	960	959	959	959	959	959	959	959	959	960	960	962	959	960.6
18	959	959	959	959	959	959	959	958	957	958	957	956	958	958	957	957	957	956	956	956	956	956	956	956	956	959	956	957.5
19	955	956	956	956	955	955	955	956	955	956	955	955	956	956	956	955	956	956	955	955	955	955	955	955	954	956	954	955.3
20	954	954	954	953	953	953	953	953	953	952	952	952	951	951	950	950	950	950	950	950	950	950	950	950	951	954	950	951.6
21	951	951	951	951	952	952	953	954	954	955	955	955	955	955	956	956	956	957	957	957	957	957	958	958	958	958	951	954.7
22	958	958	958	958	958	958	958	958	958	958	958	958	958	957	957	957	957	957	957	957	957	957	957	956	956	958	956	957.4
23	956	956	955	955	955	955	956	955	955	955	955	954	954	953	953	953	953	952	952	951	950	949	949	948	956	948	953.3	
24	947	946	946	945	945	945	944	944	944	944	943	943	943	943	943	943	943	943	943	943	943	943	943	943	943	947	943	943.8
25	943	942	942	942	942	942	942	942	942	941	941	941	941	941	941	941	942	942	942	942	943	943	943	943	943	943	941	941.9
26	944	944	945	945	946	947	947	948	949	949	950	951	951	952	953	953	954	955	955	956	957	958	958	959	959	959	944	951.1
27	960	960	961	961	962	962	963	964	964	965	966	966	966	966	966	966	967	967	968	967	967	967	967	967	967	968	960	964.8
28	967	966	966	966	966	965	965	965	965	964	964	964	964	964	964	963	963	963	963	963	963	964	963	963	963	967	963	964.3
29	963	963	962	962	961	961	962	962	962	961	961	960	960	960	960	960	960	959	960	960	960	959	960	959	963	959	960.7	
30	959	958	958	958	957	957	956	957	956	956	955	955	954	954	953	952	952	951	950	949	949	949	948	948	959	948	953.7	
31	947	947	947	947	947	947	948	949	949	949	950	950	950	950	951	951	951	951	951	951	951	951	951	951	951	951	947	949.5
<b>Max.</b>	<b>969</b>	<b>969</b>	<b>969</b>	<b>969</b>	<b>969</b>	<b>969</b>	<b>969</b>	<b>969</b>	<b>969</b>	<b>969</b>	<b>969</b>	<b>969</b>	<b>969</b>	<b>969</b>	<b>968</b>	<b>968</b>	<b>968</b>	<b>968</b>	<b>968</b>	<b>967</b>	<b>967</b>	<b>967</b>	<b>967</b>	<b>967</b>	<b>967</b>	<b>969</b>		
<b>Min.</b>	<b>943</b>	<b>942</b>	<b>942</b>	<b>942</b>	<b>942</b>	<b>942</b>	<b>942</b>	<b>942</b>	<b>942</b>	<b>941</b>	<b>941</b>	<b>941</b>	<b>941</b>	<b>941</b>	<b>941</b>	<b>941</b>	<b>941</b>	<b>942</b>	<b>942</b>	<b>942</b>	<b>942</b>	<b>943</b>	<b>943</b>	<b>943</b>	<b>943</b>	<b>941</b>		
<b>Avg.</b>	<b>956</b>	<b>956</b>	<b>956</b>	<b>956</b>	<b>956</b>	<b>956</b>	<b>957</b>	<b>957</b>	<b>957</b>	<b>957</b>	<b>957</b>	<b>957</b>	<b>956</b>	<b>956</b>	<b>956</b>	<b>956</b>	<b>956</b>	<b>956</b>	<b>956</b>	<b>956</b>	<b>956</b>	<b>956</b>	<b>956</b>	<b>956</b>	<b>956</b>			<b>956.4</b>

**Total Hours in Month**                      744                      **Hours Data Available**                      735                      **Data Recovery**                      98.8%

## Northern Dynasty Mines Pebble 1 Meterological Station - Wind Speed (Climtrncs) (m/s)

*August 2005*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	2.4	2.6	1.5	2.1	2.5	2.6	1.4	1.5	1.6	2.2	2.0	2.8	3.9	4.6	4.0	3.3	4.5	5.7	5.8	5.5	5.3	5.2	4.8	5.1	5.8	1.4	3.5
2	9.1	9.7	8.2	8.3	9.0	8.0	7.9	5.7	5.7	5.1	5.9	4.5	6.4	5.7	5.0	6.3	4.3	3.7	1.7	4.0	2.9	3.6	3.5	2.7	9.7	1.7	5.7
3	3.6	5.6	2.5	4.4	3.2	2.4	3.0	3.1	2.3	2.3	3.1	3.6	2.6	1.8	1.9	4.0	5.0	4.5	3.2	4.2	3.2	3.2	2.6	1.9	5.6	1.8	3.2
4	2.0	2.4	2.6	2.2	2.0	3.2	1.4	1.4	1.4	1.7	1.4	2.6	1.3	1.4	2.3	2.3	2.9	4.2	2.1	2.0	2.0	2.3	1.3	1.0	4.2	1.0	2.1
5	1.2	2.4	1.2	1.6	2.0	1.7	1.9	2.3	1.4	2.6	2.6	2.7	4.1	3.3	4.6	4.9	4.5	4.8	5.8	6.7	6.1	5.9	4.1	2.5	6.7	1.2	3.4
6	1.4	2.9	2.4	1.9	1.3	1.4	2.0	1.4	2.0	1.7	2.1	1.3	1.4	2.8	3.5	5.3	3.7	3.9	3.6	4.4	3.2	3.1	2.0	2.3	5.3	1.3	2.5
7	1.5	1.6	2.2	1.7	2.9	3.5	2.6	5.1	5.2	4.3	2.6	2.8	4.5	4.6	3.3	2.1	4.1	3.8	3.6	3.4	4.0	4.3	3.9	3.8	5.2	1.5	3.4
8	2.9	2.9	2.7	3.1	3.5	3.1	3.3	3.2	3.1	3.5	1.9	1.1	1.8	1.9	2.8	3.0	4.1	4.0	3.7	3.0	2.1	0.8	2.3	2.6	4.1	0.8	2.8
9	4.7	4.7	3.8	3.2	3.0	3.0	3.0	3.5	4.5	5.2	5.4	5.5	5.6	5.6	6.4	7.6	8.7	7.5	6.8	7.1	7.8	4.8	6.2	5.5	8.7	3.0	5.4
10	2.2	2.8	2.6	1.6	1.4	2.1	1.8	3.0	2.6	2.1	2.7	2.8	4.0	4.7	5.7	5.9	4.4	2.8	3.0	3.5	3.6	3.1	3.2	3.4	5.9	1.4	3.1
11	3.7	3.6	3.4	3.4	4.0	3.9	4.0	4.0	4.7	5.0	5.1	5.4	5.1	3.4	2.0	2.0	2.8	2.6	2.4	2.6	2.4	2.5	3.3	4.2	5.4	2.0	3.6
12	2.6	1.5	1.7	1.6	1.6	1.9	2.2	1.8	2.3	3.6	5.2	4.9	6.2	6.5	6.9	5.9	6.1	6.0	5.1	5.6	5.7	5.4	5.3	5.4	6.9	1.5	4.2
13	4.5	5.1	2.3	2.7	2.5	1.8	2.5	2.2	1.7	2.2	3.0	4.2	4.6	4.5	5.6	6.4	6.4	6.1	7.0	7.0	6.0	3.9	3.9	4.0	7.0	1.7	4.2
14	4.5	4.0	3.2	3.2	2.8	1.9	1.2	2.4	2.1	1.8	2.5	2.9	3.3	2.8	3.5	3.2	4.6	4.8	4.1	2.6	2.3	2.7	3.2	2.8	4.8	1.2	3.0
15	4.1	4.8	4.4	5.4	4.8	5.1	5.3	6.6	5.8	6.3	7.4	7.8	8.1	8.2	9.8	9.0	9.1	8.8	11.2	10.4	8.3	9.5	7.6	4.8	11.2	4.1	7.2
16	5.3	6.1	5.9	6.9	8.6	9.0	8.7	8.7	9.6	11.0	11.9	13.0	13.5	13.3	13.7	13.9	14.1	13.9	12.8	12.9	13.1	11.5	12.0	12.6	14.1	5.3	10.9
17	13.7	14.0	12.6	12.5	9.6	5.4	4.4	3.7	4.3	4.9	4.1	3.0	4.0	5.4	6.0	5.3	4.4	4.1	5.0	3.7	3.0	3.2	2.1	2.0	14.0	2.0	5.9
18	1.9	3.6	2.7	2.1	2.6	1.3	1.9	1.8	2.8	3.9	2.7	3.1	6.1	6.9	6.5	4.1	4.5	2.3	2.8	2.5	2.2	1.9	1.4	1.0	6.9	1.0	3.0
19	1.1	2.0	1.1	1.4	1.3	2.4	4.0	4.5	4.5	4.2	5.5	8.3	8.9	8.1	9.8	9.5	10.5	10.2	8.8	7.0	6.9	6.6	6.3	6.5	10.5	1.1	5.8
20	5.5	5.7	5.1	4.9	5.3	5.9	5.6	6.7	5.6	5.8	5.4	6.2	6.0	6.4	6.0	6.1	5.4	5.1	3.6	7.6	10.4	9.9	11.2	10.3	11.2	3.6	6.5
21	10.8	11.1	11.4	10.4	9.5	7.5	7.5	8.5	8.1	9.4	11.3	10.5	9.7	9.3	8.5	7.9	8.2	7.7	7.5	6.3	5.1	5.9	4.9	3.7	11.4	3.7	8.4
22	2.8	1.4	2.5	2.9	2.7	2.8	3.1	4.4	4.9	6.2	9.1	12.2	15.6	15.3	15.6	16.9	17.8	18.0	19.0	17.9	16.3	16.7	18.1	16.5	19.0	1.4	10.8
23	17.7	17.6	17.5	18.2	14.3	9.4	13.0	14.9	14.2	12.7	14.7	16.2	15.6	14.7	14.7	13.9	14.8	14.3	13.1	13.1	14.2	13.7	13.2	13.3	18.2	9.4	14.5
24	14.1	11.3	9.1	6.5	3.6	2.3	2.5	1.6	1.7	3.8	10.3	11.2	11.0	10.3	10.0	9.4	8.7	8.6	8.7	8.0	6.6	4.9	5.1	4.7	14.1	1.6	7.2
25	3.8	2.8	3.2	2.5	2.3	2.9	2.0	2.3	2.4	2.7	2.6	4.4	3.9	4.4	3.8	3.6	4.9	5.2	6.3	6.3	5.4	5.9	6.1	6.9	6.9	2.0	4.0
26	7.2	8.2	8.6	7.3	5.4	6.1	5.7	6.3	6.3	10.3	13.5	14.8	14.9	13.3	13.0	13.7	15.7	15.5	16.7	13.8	11.6	10.1	8.3	8.2	16.7	5.4	10.6
27	5.9	5.5	5.7	7.7	7.5	4.7	4.9	5.2	9.8	8.5	8.2	7.6	7.5	7.3	6.2	7.3	6.1	5.4	5.0	3.3	1.9	2.5	3.2	3.8	9.8	1.9	5.9
28	4.2	4.7	3.7	4.8	5.6	6.0	6.5	6.8	7.0	7.3	6.8	9.4	7.8	11.1	12.9	13.1	13.5	13.2	9.9	11.5	10.1	11.4	11.0	9.1	13.5	3.7	8.6
29	9.3	8.9	9.3	10.0	7.8	7.6	7.2	6.9	7.1	8.3	8.2	7.8	6.7	6.3	6.2	4.7	5.8	6.8	4.7	6.0	7.6	6.4	6.3	5.5	10.0	4.7	7.1
30	3.9	3.1	3.4	4.1	4.0	4.4	4.2	6.1	7.1	9.1	10.0	8.7	8.6	10.4	10.3	10.8	10.1	8.8	9.2	7.0	8.5	9.3	8.8	9.4	10.8	3.1	7.5
31	8.7	7.8	6.3	8.4	8.1	9.2	7.4	9.8	11.1	10.5	12.3	12.5	13.5	14.4	12.9	14.2	12.8	9.9	11.2	8.7	5.8	6.4	10.5	11.8	14.4	5.8	10.2
<b>Max.</b>	<b>17.7</b>	<b>17.6</b>	<b>17.5</b>	<b>18.2</b>	<b>14.3</b>	<b>9.4</b>	<b>13.0</b>	<b>14.9</b>	<b>14.2</b>	<b>12.7</b>	<b>14.7</b>	<b>16.2</b>	<b>15.6</b>	<b>15.3</b>	<b>15.6</b>	<b>16.9</b>	<b>17.8</b>	<b>18.0</b>	<b>19.0</b>	<b>17.9</b>	<b>16.3</b>	<b>16.7</b>	<b>18.1</b>	<b>16.5</b>	<b>19.0</b>		
<b>Min.</b>	<b>1.1</b>	<b>1.4</b>	<b>1.1</b>	<b>1.4</b>	<b>1.3</b>	<b>1.3</b>	<b>1.2</b>	<b>1.4</b>	<b>1.4</b>	<b>1.7</b>	<b>1.4</b>	<b>1.1</b>	<b>1.3</b>	<b>1.4</b>	<b>1.9</b>	<b>2.0</b>	<b>2.8</b>	<b>2.3</b>	<b>1.7</b>	<b>2.0</b>	<b>1.9</b>	<b>0.8</b>	<b>1.3</b>	<b>1.0</b>		<b>0.8</b>	
<b>Avg.</b>	<b>5.4</b>	<b>5.5</b>	<b>4.9</b>	<b>5.1</b>	<b>4.7</b>	<b>4.3</b>	<b>4.3</b>	<b>4.7</b>	<b>4.9</b>	<b>5.4</b>	<b>6.1</b>	<b>6.6</b>	<b>7.0</b>	<b>7.0</b>	<b>7.2</b>	<b>7.3</b>	<b>7.5</b>	<b>7.2</b>	<b>6.9</b>	<b>6.7</b>	<b>6.2</b>	<b>6.0</b>	<b>6.0</b>	<b>5.7</b>			<b>5.9</b>

Total Hours in Month 744

Hours Data Available 744

Data Recovery 100.0%

# Northern Dynasty Mines Pebble 1 Meterological Station - Wind Speed (Climtrncs) (m/s)

*September 2005*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	10.2	9.9	8.8	8.8	8.5	6.6	6.9	7.5	9.0	10.0	9.9	11.3	10.6	9.1	8.9	9.0	9.0	9.4	8.8	6.4	4.4	4.3	4.5	3.5	11.3	3.5	8.1
2	3.6	3.0	2.9	2.9	1.5	1.1	2.0	2.6	3.2	5.0	7.0	9.9	11.7	12.7	14.5	15.3	12.1	12.1	10.8	11.8	14.1	14.5	14.6	16.1	16.1	1.1	8.5
3	15.6	14.8	11.4	10.7	12.3	10.8	11.4	12.9	12.8	14.0	14.2	13.3	14.1	15.6	17.4	16.4	14.8	14.7	13.0	10.5	8.9	8.0	6.9	5.0	17.4	5.0	12.5
4	2.6	2.1	1.5	0.8	1.0	1.1	1.5	0.8	0.7	1.6	2.1	3.7	3.9	4.6	4.8	4.2	4.8	5.7	5.7	5.6	6.0	5.8	6.1	6.8	6.8	0.7	3.5
5	6.5	6.9	6.7	7.1	6.8	7.9	8.9	6.9	7.8	8.6	11.8	13.7	13.2	13.6	13.9	13.9	11.1	8.6	9.8	10.1	10.4	7.6	7.1	5.9	13.9	5.9	9.4
6	6.7	3.1	2.5	4.2	5.2	3.4	2.2	2.4	3.6	7.3	6.9	6.4	6.7	7.8	7.2	7.5	8.3	7.4	6.1	6.5	7.1	8.6	8.3	7.6	8.6	2.2	6.0
7	5.9	4.7	4.8	3.0	4.0	1.9	2.4	2.0	2.4	2.8	3.7	4.7	5.6	4.7	6.7	8.0	8.6	8.0	6.9	5.6	5.6	3.9	4.0	3.6	8.6	1.9	4.7
8	1.5	2.7	2.7	3.5	4.3	3.6	2.5	2.7	1.8	1.8	3.0	3.4	3.8	5.6	7.9	8.4	8.2	9.4	9.8	12.5	16.3	16.3	14.7	15.0	16.3	1.5	6.7
9	16.0	15.7	11.9	10.6	10.5	8.3	10.3	9.8	10.8	10.2	11.2	8.7	8.5	8.7	7.7	6.9	7.2	6.5	5.9	7.2	7.6	6.9	6.7	7.9	16.0	5.9	9.2
10	7.3	7.7	9.4	9.5	10.1	13.4	13.4	8.5	3.1	3.6	5.3	6.1	4.1	5.2	5.1	3.9	2.2	2.2	2.4	3.2	1.6	1.2	2.7	3.2	13.4	1.2	5.6
11	4.7	3.9	7.5	8.5	9.3	8.9	9.4	10.5	12.9	15.4	15.3	15.4	14.7	14.4	14.7	14.2	15.3	15.0	12.5	11.8	12.6	14.8	12.8	5.8	15.4	3.9	11.7
12	5.2	6.3	5.7	7.6	7.0	5.6	6.8	7.3	8.3	9.5	9.4	9.5	10.6	11.2	11.9	13.1	13.7	14.1	14.3	14.8	15.1	15.1	11.8	9.3	15.1	5.2	10.1
13	8.5	8.1	9.7	10.6	9.3	4.6	2.5	6.7	4.2	2.6	2.9	4.2	5.0	5.5	4.0	3.4	3.1	3.4	2.9	2.4	3.4	2.5	1.8	1.9	10.6	1.8	4.7
14	1.5	2.4	2.8	3.4	3.2	3.1	2.3	2.4	3.7	3.8	4.6	5.0	6.3	8.1	9.6	10.7	11.2	10.4	11.3	13.4	16.7	16.5	16.3	16.0	16.7	1.5	7.7
15	18.9	19.8	19.3	20.3	21.3	20.4	19.5	18.8	18.2	17.7	19.8	20.0	18.9	18.1	18.9	18.9	17.2	11.6	4.7	3.8	4.4	5.0	5.0	5.1	21.3	3.8	15.2
16	9.0	8.6	5.9	6.8	4.7	1.2	2.1	2.7	1.6	1.8	3.8	4.6	5.8	5.7	6.0	5.6	4.7	3.7	4.3	4.8	4.6	5.3	4.8	4.3	9.0	1.2	4.7
17	3.6	3.4	1.9	1.6	1.5	1.3	0.9	1.2	1.0	1.7	1.6	1.9	1.6	1.8	3.1	3.9	2.1	2.1	1.7	1.9	2.5	3.8	4.1	4.3	4.3	0.9	2.3
18	4.7	4.6	7.1	5.8	6.0	5.5	5.0	3.9	4.1	6.0	6.7	8.3	8.8	8.9	8.3	7.7	8.2	8.0	6.4	6.0	6.8	5.6	4.7	4.3	8.9	3.9	6.3
19	4.0	3.6	4.2	4.0	3.4	3.2	3.2	3.0	2.7	4.5	5.4	7.5	8.0	8.9	9.1	9.0	8.5	8.2	7.8	6.9	6.2	7.0	5.9	7.9	9.1	2.7	5.9
20	8.3	7.8	8.6	6.2	5.0	3.6	3.1	3.8	4.6	4.8	4.5	4.5	6.0	6.8	6.0	7.2	6.2	5.2	4.0	2.9	2.7	3.4	3.4	4.9	8.6	2.7	5.2
21	4.0	2.8	2.7	4.1	3.0	1.8	1.9	3.6	4.3	4.9	5.2	4.0	4.6	5.6	6.1	5.5	5.7	7.4	6.4	6.9	8.2	8.2	7.5	7.5	8.2	1.8	5.1
22	7.3	7.3	6.6	6.5	7.8	6.4	7.2	7.7	11.2	14.8	17.1	19.5	19.5	17.1	16.0	12.6	11.7	10.9	13.4	12.4	9.8	10.6	8.4	9.5	19.5	6.4	11.3
23	7.5	7.5	5.6	5.7	4.9	4.7	4.4	3.9	4.5	5.8	6.7	7.3	9.0	11.8	12.8	11.6	10.4	9.3	8.5	7.7	9.9	11.0	11.7	13.0	13.0	3.9	8.1
24	11.4	9.5	9.4	11.5	12.9	11.2	11.5	10.0	9.0	10.3	10.8	9.6	9.1	9.4	10.7	9.5	10.2	8.6	9.4	9.0	10.2	10.0	9.5	9.5	12.9	8.6	10.1
25	9.9	10.3	10.0	10.9	11.0	10.9	10.8	9.1	8.4	8.6	8.8	8.3	8.0	8.0	7.8	7.3	6.9	7.2	6.3	6.1	5.9	7.4	7.2	6.3	11.0	5.9	8.4
26	4.8	2.6	2.7	3.0	3.7	3.3	3.1	3.3	5.3	6.3	9.2	12.3	15.1	17.2	18.8	17.0	18.0	17.5	20.8	20.0	19.8	21.9	22.9	19.8	22.9	2.6	12.0
27	19.5	20.3	19.6	21.4	21.7	18.9	14.9	6.3	5.4	5.4	2.6	5.2	9.7	11.6	9.1	8.5	8.0	7.3	6.2	6.2	3.5	2.3	1.6	1.5	21.7	1.5	9.9
28	2.3	2.8	2.3	2.5	4.3	4.4	3.8	2.6	1.7	1.7	2.2	2.8	2.7	2.5	3.1	2.8	2.9	1.6	1.1	1.7	1.1	2.2	2.3	1.1	4.4	1.1	2.4
29	1.9	2.6	3.4	3.5	5.0	5.5	3.7	4.7	5.3	5.9	5.5	6.5	7.9	7.8	6.1	6.8	6.3	5.1	3.5	2.9	2.9	1.4	1.6	2.8	7.9	1.4	4.5
30	2.0	1.2	1.4	2.5	1.6	1.5	1.4	1.3	1.3	1.3	1.3	2.1	2.0	2.4	2.3	2.4	5.1	7.1	5.9	7.1	8.7	10.5	10.6	10.8	10.8	1.2	3.9
<b>Max.</b>	<b>19.5</b>	<b>20.3</b>	<b>19.6</b>	<b>21.4</b>	<b>21.7</b>	<b>20.4</b>	<b>19.5</b>	<b>18.8</b>	<b>18.2</b>	<b>17.7</b>	<b>19.8</b>	<b>20.0</b>	<b>19.5</b>	<b>18.1</b>	<b>18.9</b>	<b>18.9</b>	<b>18.0</b>	<b>17.5</b>	<b>20.8</b>	<b>20.0</b>	<b>19.8</b>	<b>21.9</b>	<b>22.9</b>	<b>19.8</b>	<b>22.9</b>		
<b>Min.</b>	<b>1.5</b>	<b>1.2</b>	<b>1.4</b>	<b>0.8</b>	<b>1.0</b>	<b>1.1</b>	<b>0.9</b>	<b>0.8</b>	<b>0.7</b>	<b>1.3</b>	<b>1.3</b>	<b>1.9</b>	<b>1.6</b>	<b>1.8</b>	<b>2.3</b>	<b>2.4</b>	<b>2.1</b>	<b>1.6</b>	<b>1.1</b>	<b>1.7</b>	<b>1.1</b>	<b>1.2</b>	<b>1.6</b>	<b>1.1</b>		<b>0.7</b>	
<b>Avg.</b>	<b>7.2</b>	<b>6.9</b>	<b>6.6</b>	<b>6.9</b>	<b>7.0</b>	<b>6.1</b>	<b>6.0</b>	<b>5.6</b>	<b>5.8</b>	<b>6.6</b>	<b>7.3</b>	<b>8.0</b>	<b>8.5</b>	<b>9.0</b>	<b>9.3</b>	<b>9.0</b>	<b>8.7</b>	<b>8.3</b>	<b>7.7</b>	<b>7.6</b>	<b>7.9</b>	<b>8.1</b>	<b>7.6</b>	<b>7.3</b>			<b>7.5</b>

Total Hours in Month 720

Hours Data Available 720

Data Recovery 100.0%

## Northern Dynasty Mines Pebble 1 Meterological Station - Wind Speed (Climtrncs) (m/s)

October 2005

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	11.2	12.6	12.3	13.6	14.5	14.6	14.0	13.3	11.8	12.4	11.8	12.4	12.8	13.4	12.2	11.5	12.6	11.7	9.9	8.5	8.5	8.3	9.0	7.8	14.6	7.8	11.7	
2	7.8	7.1	7.1	6.8	5.8	3.9	4.5	2.9	2.9	2.5	5.1	7.1	6.2	6.4	7.9	6.7	6.5	4.8	4.0	3.6	4.2	4.7	3.3	3.3	7.9	2.5	5.2	
3	2.0	2.3	2.7	2.1	1.5	1.3	1.4	1.2	2.0	2.3	3.2	2.9	2.5	2.6	2.1	2.3	1.4	1.9	2.3	1.0	1.0	2.1	2.5	1.8	3.2	1.0	2.0	
4	2.9	2.2	2.8	2.7	3.8	4.6	5.7	3.7	5.1	6.1	7.0	5.7	7.0	6.5	6.1	6.7	5.6	6.8	4.6	4.1	7.2	8.8	9.8	10.2	10.2	2.2	5.7	
5	8.7	5.5	4.5	4.9	3.7	3.6	3.8	2.8	4.4	3.4	3.7	4.3	4.5	3.9	3.8	3.3	2.6	2.9	2.6	3.0	1.8	0.9	1.6	1.7	8.7	0.9	3.6	
6	1.6	2.5	1.9	1.3	1.1	1.2	1.7	1.5	2.1	3.1	2.8	2.5	2.0	3.4	3.0	4.1	4.0	4.4	4.0	2.7	2.7	2.8	2.2	3.7	4.4	1.1	2.6	
7	5.6	5.1	3.5	5.5	9.3	9.9	11.3	9.8	9.6	11.0	11.4	10.5	9.9	9.0	8.9	6.5	4.5	3.2	1.9	1.7	1.9	1.5	1.6	1.5	11.4	1.5	6.4	
8	1.4	1.7	1.8	1.3	1.7	1.7	2.1	2.0	2.1	1.3	0.8	0.8	2.0	2.3	2.5	2.1	2.2	1.3	1.4	0.7	1.0	1.3	1.8	1.9	2.5	0.7	1.6	
9	1.6	1.8	2.0	1.3	1.4	2.2	2.6					6.1	7.8	7.8	7.3	7.9					6.2	7.2	7.6	7.3	7.9	1.3	4.9	
10		6.9	6.6	4.9																		6.8	7.6	6.2	7.6	4.9	6.5	
11	4.5	4.2	4.0	3.8	3.8	3.9	3.8	4.1	4.9	5.1	4.6	4.8	5.0	4.5	5.6										5.6	3.8	4.4	
12															9.6	8.0	6.7	5.2	3.1	2.7	2.0	1.7	1.8	1.9	9.6	1.7	4.3	
13	1.9	3.0	3.1	3.0	2.7	2.7	2.5	2.3	2.9	3.3	3.5	2.7	3.0	2.9	3.0	3.0	3.6	3.3	4.3	3.0	3.8	5.4	6.0	6.4	6.4	1.9	3.4	
14	6.4	6.3	5.7	4.3	3.3	3.7	2.3	1.9	4.0	5.8	4.2	3.0	3.4	4.2	2.9	2.3	2.8	5.2	7.0	8.4	8.4	9.1	7.4	8.4	9.1	1.9	5.0	
15	5.9	4.9	3.1	3.4	4.2	3.6	3.3	4.2	4.7	5.3	1.8	1.6	2.0	2.7	4.2	4.4	4.7	5.3	4.6	4.1	6.9	7.7	7.2	7.5	7.7	1.6	4.5	
16	6.1	5.7	5.2	5.6	4.0	3.9	3.3	3.2	3.5	3.3	1.8	1.3	2.7	3.5	5.4	3.8	4.5	2.9	5.7	2.8	3.2	5.9	8.5	8.7	8.7	1.3	4.4	
17	9.8	11.9	12.3	11.1	13.3	14.9	15.8	16.5	16.1	15.4	12.4	11.3	14.7	16.7	15.4	16.2	14.7	14.0	12.3	12.2	14.6	14.6	15.0	15.0	16.7	9.8	14.0	
18	13.4	14.4	15.3	14.9	13.4	12.9	12.1	10.5	10.9	11.2	11.2	6.3	2.9	6.1	8.8	8.0	5.5	5.9	6.4	7.8	6.6	6.9	6.4	6.0	15.3	2.9	9.3	
19	7.6	8.8	9.0	10.4	9.8	9.0	8.4	9.7	10.9	11.8	14.1	12.7	14.3	17.4	18.6	18.4	20.5								20.5	7.6	12.4	
20												18.1	13.6	4.5	5.0	4.7	4.0	7.7	8.4	8.7	9.1	9.0	6.5	7.4	18.1	4.0	8.2	
21		6.9	6.0	1.2	3.0	4.1	3.8	4.2	5.9	5.5	4.5	4.2	4.1	3.2	2.3	1.7				7.7	7.7	8.1	7.2	5.7	8.1	1.2	4.9	
22	7.2	6.2	4.6	4.8	5.9	7.1										9.9	8.2	8.0	6.0	7.5	6.5	5.9	6.4	5.7	9.9	4.6	6.7	
23	5.2	5.3	4.7	4.5	6.1	7.0	6.8	7.5	6.5					13.5	13.9	13.5	13.3	14.9	13.2	11.6	9.7	8.2	6.6		14.9	4.5	9.1	
24		2.6	2.3	2.0	2.5	2.1	3.2																			3.2	2.0	2.5
25																												
26																												
27					0.7	0.5	0.6	0.5	0.6	0.6	0.7	0.8	0.5	0.7	0.6	0.6	0.5	0.5	0.5	0.6	1.0	0.8	0.5	0.4	1.0	0.4	0.6	
28	1.0	1.2	0.9	0.8	0.8	1.2	1.3	1.3	1.2	1.0					4.2	4.8	4.4	4.0	3.5	2.8	2.1	1.9	0.9	1.3	4.8	0.8	2.0	
29	1.5	1.1	1.1	2.1	2.0	2.3	2.1	2.2	2.2	2.2	1.9	1.8										1.3	1.2		2.3	1.1	1.8	
30							1.8			2.1	2.2	2.0	1.9													2.2	1.8	2.0
31																							6.2	4.7		6.2	4.7	5.4
<b>Max.</b>	<b>13.4</b>	<b>14.4</b>	<b>15.3</b>	<b>14.9</b>	<b>14.5</b>	<b>14.9</b>	<b>15.8</b>	<b>16.5</b>	<b>16.1</b>	<b>15.4</b>	<b>14.1</b>	<b>18.1</b>	<b>14.7</b>	<b>17.4</b>	<b>18.6</b>	<b>18.4</b>	<b>20.5</b>	<b>14.9</b>	<b>13.2</b>	<b>12.2</b>	<b>14.6</b>	<b>14.6</b>	<b>15.0</b>	<b>15.0</b>	<b>20.5</b>			
<b>Min.</b>	<b>1.0</b>	<b>1.1</b>	<b>0.9</b>	<b>0.8</b>	<b>0.7</b>	<b>0.5</b>	<b>0.6</b>	<b>0.5</b>	<b>0.6</b>	<b>0.6</b>	<b>0.7</b>	<b>0.8</b>	<b>0.5</b>	<b>0.7</b>	<b>0.6</b>	<b>0.6</b>	<b>0.5</b>	<b>0.5</b>	<b>0.5</b>	<b>0.6</b>	<b>1.0</b>	<b>0.8</b>	<b>0.5</b>	<b>0.4</b>		<b>0.4</b>		
<b>Avg.</b>	<b>5.4</b>	<b>5.4</b>	<b>5.1</b>	<b>4.9</b>	<b>4.9</b>	<b>5.1</b>	<b>4.9</b>	<b>5.0</b>	<b>5.4</b>	<b>5.5</b>	<b>5.4</b>	<b>5.6</b>	<b>5.8</b>	<b>6.4</b>	<b>6.7</b>	<b>6.5</b>	<b>6.3</b>	<b>5.7</b>	<b>5.3</b>	<b>5.0</b>	<b>5.3</b>	<b>5.4</b>	<b>5.4</b>	<b>5.4</b>			<b>5.5</b>	
<b>Total Hours in Month</b>	744		<b>Hours Data Available</b>									534									<b>Data Recovery</b>					71.8%		



## Northern Dynasty Mines Pebble 1 Meterological Station - Wind Speed (Climtrncs) (m/s)

*November 2005*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	5.8	5.6	5.5	4.3	3.8	3.8	3.9	3.1	3.4	4.5	3.9	3.9	4.0	3.7	2.7	2.5	2.9	3.0	3.2	4.3	4.7	5.2	4.9	5.0	5.8	2.5	4.1	
2	3.8	3.9	3.2	3.2	2.6	3.2	2.9	3.4	3.3	3.5	3.1	3.2	3.4	2.7	2.4	3.5	3.7	3.8	3.6	3.5				4.4	4.4	2.4	3.3	
3														20.5	18.6	17.0	18.5	20.3	18.2	17.3	16.8	17.9	21.4	21.5	21.5	16.8	18.9	
4	18.8	16.3	16.6	16.1	14.0	14.8	14.9	16.0	14.8	16.0	15.7	15.0	13.6	15.1	17.3	16.5	14.5	16.8	16.1	14.6	14.3	12.9	15.8	16.6	18.8	12.9	15.5	
5	14.9	16.6	15.9	14.8	16.8	15.7	16.6	16.4	16.2	15.8	14.7	14.0	13.9	14.2	13.8	13.7	12.2	11.6	10.1	10.2	7.3	3.8	2.2	2.9	16.8	2.2	12.7	
6	4.2	4.9	5.8	4.2	12.9	14.8	11.0	12.6	11.6	13.0	18.0	17.4	18.4	17.4	15.3	16.2	16.0	16.6	14.0	10.5	8.4	7.8	9.1	9.6	18.4	4.2	12.1	
7	10.3	12.9	12.7	6.7	6.9	8.2	8.8	7.8	9.5	7.9	7.8	8.6	6.3	4.7	5.2	5.9	5.7	5.3	6.0	5.5	5.8	5.9	6.0	5.5	12.9	4.7	7.3	
8	5.1	5.0	4.5	4.6	4.2	3.8	4.2	4.1	4.1	3.8	3.7	3.8	3.7	4.1	3.9	3.8	4.9	5.8	6.4	7.2	7.8	7.6	8.5	8.4	8.5	3.7	5.1	
9	9.2	10.5	11.9	12.6	12.8	12.0	13.2	14.9	15.6	15.1	15.0	15.5	15.7	15.9	16.6	18.2	18.9	19.2	18.6	18.1	18.7	17.3	17.5	17.7	19.2	9.2	15.4	
10	14.6	13.8	13.7	12.4	13.5	14.2	14.9	14.5	13.2	12.4	12.3	12.9	13.6	13.5	14.2	13.1	13.2	14.0	14.2	13.5	12.9	11.6	10.2	10.8	14.9	10.2	13.2	
11	9.3	8.9	8.7	10.0	9.9	9.4	9.5	9.2	8.8	8.4	8.4	8.1	7.8	7.0	6.9	6.6	7.4	6.9	5.9	6.3	5.8	6.0	6.0	5.8	10.0	5.8	7.8	
12	5.4	5.5										6.2	5.1	5.5	5.6	6.3	6.4	7.0	7.8	8.5	8.7	8.9	7.6	8.6	8.9	5.1	6.9	
13	8.4	6.8	8.2	7.4	9.3	8.0	6.7	7.3	7.3	5.8	5.8	5.3	3.3	2.1	1.3	1.2	2.0	1.9	1.2	1.5	1.6	1.6			9.3	1.2	4.7	
14			6.0	6.7	7.0	7.8	10.1	7.4	6.1	4.3	3.8	3.1	2.6	5.8	10.0	10.3	7.0	7.9	13.0	13.8	13.2	12.2	10.1	8.5	13.8	2.6	8.0	
15	9.3	7.3	6.8	5.4	3.4	1.5	0.9	2.7	3.5	3.3	3.8	3.6	3.3	3.5	2.9	3.6	2.1	2.4	2.6	1.2	1.8	2.3	3.2	2.1	9.3	0.9	3.4	
16	2.6	3.3	4.8	4.4	6.6	5.2	6.9	8.5	7.8	8.3				8.9	10.8	10.0	9.2	8.5	8.8	7.6	7.2	6.7	7.2	7.3	10.8	2.6	7.2	
17	8.2	8.2	9.3	8.6	7.5	9.4	9.3	8.6	6.9																	9.4	6.9	8.4
18																												
19																												
20																												
21																												
22																												
23																												
24																												
25																												
26																												
27																												
28																												
29																												
30																												
<b>Max.</b>	<b>18.8</b>	<b>16.6</b>	<b>16.6</b>	<b>16.1</b>	<b>16.8</b>	<b>15.7</b>	<b>16.6</b>	<b>16.4</b>	<b>16.2</b>	<b>16.0</b>	<b>18.0</b>	<b>17.4</b>	<b>18.4</b>	<b>20.5</b>	<b>18.6</b>	<b>18.2</b>	<b>18.9</b>	<b>20.3</b>	<b>18.6</b>	<b>18.1</b>	<b>18.7</b>	<b>17.9</b>	<b>21.4</b>	<b>21.5</b>	<b>21.5</b>			
<b>Min.</b>	<b>2.6</b>	<b>3.3</b>	<b>3.2</b>	<b>3.2</b>	<b>2.6</b>	<b>1.5</b>	<b>0.9</b>	<b>2.7</b>	<b>3.3</b>	<b>3.3</b>	<b>3.1</b>	<b>3.1</b>	<b>2.6</b>	<b>2.1</b>	<b>1.3</b>	<b>1.2</b>	<b>2.0</b>	<b>1.9</b>	<b>1.2</b>	<b>1.2</b>	<b>1.6</b>	<b>1.6</b>	<b>2.2</b>	<b>2.1</b>		<b>0.9</b>		
<b>Avg.</b>	<b>8.7</b>	<b>8.6</b>	<b>8.9</b>	<b>8.1</b>	<b>8.7</b>	<b>8.8</b>	<b>8.9</b>	<b>9.1</b>	<b>8.8</b>	<b>8.7</b>	<b>8.9</b>	<b>8.6</b>	<b>8.2</b>	<b>9.0</b>	<b>9.2</b>	<b>9.3</b>	<b>9.0</b>	<b>9.4</b>	<b>9.4</b>	<b>9.0</b>	<b>9.0</b>	<b>8.5</b>	<b>9.3</b>	<b>9.0</b>			<b>8.9</b>	
<b>Total Hours in Month</b>	720		<b>Hours Data Available</b>										<b>Data Recovery</b>				50.1%											



## Northern Dynasty Mines Pebble 1 Meterological Station - Wind Speed (Climtrncs) (m/s)

*January 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	1.9	2.0	1.9	2.8	3.0	2.7	2.1	3.2	4.6	6.1	5.7	6.7	5.3	3.8	3.1	2.6	1.6	2.1	2.2	2.4	1.8	2.0	3.0	3.7	6.7	1.6	3.2	
2	3.8	2.8	2.0	4.1	5.4	2.3	2.0	3.0	4.5	3.5	2.7	2.7	2.1	3.9	4.1	4.0	4.8	4.1	3.3	3.9	9.2	13.9	10.7	7.2	13.9	2.0	4.6	
3	9.4	7.2	9.2	10.0	10.1	4.5	3.9	4.0	5.9	2.8	2.7	3.8	2.9	3.1	3.6	5.1	5.6	5.7	5.4	3.9	3.3	3.1	3.2	4.4	10.1	2.7	5.1	
4	3.5	1.6	1.0	0.8	1.3	1.0	0.7	1.8	1.2	0.9	1.3	2.0	2.4	4.2	3.2	1.7	1.7	1.9	2.1	1.7	1.8	2.1	2.3	2.2	4.2	0.7	1.9	
5	0.8	1.4	1.7	1.5	1.8	1.5	1.1	1.4	2.3	2.8	2.1	1.1	1.2	4.0	4.7	5.0	4.2	5.3	6.3	5.5	4.9	4.4	4.0	3.1	6.3	0.8	3.0	
6	1.7	1.1	2.4	3.2	3.4	5.5	4.7	2.6	2.2	1.7	1.2	1.0	2.1	1.4	2.8	2.5	1.7	1.3	0.7	1.1	1.6	2.7	1.3	0.8	5.5	0.7	2.1	
7	1.0	1.1	1.5	1.4	0.8	1.4	1.7	1.8	1.6	2.4	1.3	1.2	1.2	2.0	4.2	3.8	4.1	3.1	2.5	4.2	6.3	5.9	4.8	10.5	10.5	0.8	2.9	
8	8.7	4.3	6.4	3.5	2.9	4.0	7.1	4.2	3.8	1.9	2.6	3.1	3.5	4.7	4.5	4.4	4.1	4.2	4.8	4.5	4.4	4.9	3.6	4.0	8.7	1.9	4.3	
9	3.0	3.5	3.2	2.6	3.4	3.6	3.2	3.1	2.0	2.2	2.8	1.2	1.1	1.1	1.1	0.8	2.5	2.6	1.6	1.1	1.1	1.5	1.5	1.8	3.6	0.8	2.1	
10	1.3	1.1	0.9	1.2	0.8	1.2	1.0	1.0	0.8	1.2	0.9	0.8	1.0	1.3	1.1	1.3	1.7	1.7	1.3	1.2	0.8	0.8	0.5	0.5	1.7	0.5	1.1	
11	0.4	0.4	0.5	0.8	0.9	1.2	0.9	0.7	0.6	1.0	0.7	0.8	0.6	0.5	0.7	0.5	1.2								1.2	0.4	0.7	
12																												
13																												
14																												
15																												
16																												
17						5.5	5.9	5.5	6.1	6.0	5.7	6.4	6.9	5.4	5.7	5.7	6.9	7.2	6.8	6.6	5.1	5.4	5.2	4.3	7.2	4.3	5.9	
18	5.3	8.0	6.9	7.2	7.9	11.4	11.2	9.9	10.0	7.2	6.3	7.2	9.7	10.4	10.3	11.0	8.1	7.0	6.6	9.3	10.2	8.1	7.2	7.0	11.4	5.3	8.5	
19	7.4	10.5	9.4	7.9	7.3	6.5	8.8	9.4	8.3	7.0	7.4	7.0	6.2	6.9	7.1	6.2	5.7	5.7	7.4	10.0	10.4	9.5	8.1	7.2	10.5	5.7	7.8	
20	7.8	7.3	7.3	7.8	6.7	6.2	6.6	6.9	6.2	5.8	6.6	5.8	5.7	6.2	5.9	6.6	6.9	5.0	5.5	5.4	6.1	6.1	5.5	5.9	7.8	5.0	6.3	
21	5.4	6.8	7.9	8.6	9.0	10.1	10.8	11.5	11.3	11.5	11.7	12.1	13.3	14.7	15.5	15.8	16.9	18.6	19.6	19.4	17.6	16.1	15.5	16.9	19.6	5.4	13.2	
22	18.9	19.9	18.8	21.0	23.8	23.7	23.0	21.4	20.5	20.3	18.3	16.0	16.5	15.7	15.0	16.5	15.8	15.6	17.5	18.8	20.1	17.6	16.4	21.3	23.8	15.0	18.9	
23	21.0	20.3	21.1	19.9	19.6	18.9	17.6	13.3	14.8	12.6	19.9	16.5	14.1	13.4	14.9	15.4	11.6	15.1	15.2	15.5	14.0	12.8	14.1	14.0	21.1	11.6	16.1	
24	14.0	14.1	13.7	12.2	12.0	13.2	13.2	12.0	13.6	15.4	15.4	15.8	15.8	14.9	12.4	13.8	14.0	13.1	12.1	13.3	10.1	12.5	11.3	7.6	15.8	7.6	13.1	
25	7.2	7.6	6.0	6.7	6.9	7.0	5.5	5.4	6.3	6.3	5.9	6.8	7.2	5.9	5.7	6.3	6.2	7.2	7.2	8.0	6.8	6.5	9.6	11.2	11.2	5.4	6.9	
26	9.6	10.9	10.1	9.6	6.6	7.5	7.2	7.6	6.0	4.7	4.6	5.2	5.0	5.1	4.7	3.8	3.4	4.5	5.2	5.1	6.4	7.7	6.6	7.9	10.9	3.4	6.5	
27	9.3	9.7	9.1	10.9	11.1	12.5	12.7	13.7	13.7	14.6	17.1	18.4	18.9	20.0	20.1	21.5	19.9	20.1	20.6	19.7	18.4	20.2	20.7	22.1	22.1	9.1	16.5	
28	26.8	23.5	23.4	20.3	22.3	21.9	17.5	18.4	17.6	11.8	11.5	11.3	9.2	10.8	10.9	9.4	8.8	6.1	4.7	5.4	4.4	5.6	6.1	4.9	26.8	4.4	13.0	
29	5.2	6.9	7.0	7.5	7.5	7.3	7.1	6.2	6.5	5.2	6.9	7.0	5.3	5.5	4.8	7.3	7.3	7.9	8.0	6.7	6.6	6.7	6.4	6.0	8.0	4.8	6.6	
30	7.1	6.7	7.1	6.7	4.8	6.4	6.4	4.1	5.3	5.0	5.0	4.2	4.4	5.4	4.9	4.7	4.8	3.5	2.5	2.3	2.8	2.9	1.4	0.9	7.1	0.9	4.6	
31	1.1	2.2	2.7	3.3	2.9	3.4	3.8	3.3	3.0	3.5	4.6	4.4	4.7	5.3	6.0	4.7	5.3	5.6	7.2	8.7	8.4	7.9	6.5	4.7	8.7	1.1	4.7	
<b>Max.</b>	<b>26.8</b>	<b>23.5</b>	<b>23.4</b>	<b>21.0</b>	<b>23.8</b>	<b>23.7</b>	<b>23.0</b>	<b>21.4</b>	<b>20.5</b>	<b>20.3</b>	<b>19.9</b>	<b>18.4</b>	<b>18.9</b>	<b>20.0</b>	<b>20.1</b>	<b>21.5</b>	<b>19.9</b>	<b>20.1</b>	<b>20.6</b>	<b>19.7</b>	<b>20.1</b>	<b>20.2</b>	<b>20.7</b>	<b>22.1</b>	<b>26.8</b>			
<b>Min.</b>	<b>0.4</b>	<b>0.4</b>	<b>0.5</b>	<b>0.8</b>	<b>0.8</b>	<b>1.0</b>	<b>0.7</b>	<b>0.7</b>	<b>0.6</b>	<b>0.9</b>	<b>0.7</b>	<b>0.8</b>	<b>0.6</b>	<b>0.5</b>	<b>0.7</b>	<b>0.5</b>	<b>1.2</b>	<b>1.3</b>	<b>0.7</b>	<b>1.1</b>	<b>0.8</b>	<b>0.8</b>	<b>0.5</b>	<b>0.5</b>		<b>0.4</b>		
<b>Avg.</b>	<b>7.3</b>	<b>7.2</b>	<b>7.2</b>	<b>7.3</b>	<b>7.3</b>	<b>7.3</b>	<b>7.1</b>	<b>6.7</b>	<b>6.9</b>	<b>6.3</b>	<b>6.6</b>	<b>6.5</b>	<b>6.4</b>	<b>6.7</b>	<b>6.8</b>	<b>6.9</b>	<b>6.7</b>	<b>7.0</b>	<b>7.0</b>	<b>7.3</b>	<b>7.3</b>	<b>7.5</b>	<b>7.0</b>	<b>7.2</b>			<b>7.0</b>	

Total Hours in Month 744

Hours Data Available 612

Data Recovery 82.3%

## Northern Dynasty Mines Pebble 1 Meterological Station - Wind Speed (Climtrncs) (m/s)

*February 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	3.9	5.5	6.3	7.4	8.3	7.3	9.9	10.0	10.4	11.1	13.4	12.9	13.9	13.1	10.8	12.1	14.8	14.2	13.8	12.8	11.8	12.5	13.4	12.8	14.8	3.9	10.9	
2	12.6	10.9	9.6	8.8	8.3	7.2	7.5	7.6	6.7	5.7	5.8	5.0	3.4	4.2	3.3	2.1	1.5	1.8	2.5	3.2	2.7	4.7	6.2	7.8	12.6	1.5	5.8	
3	10.7	10.8	11.0	13.4	14.7	15.5	17.5	18.1	16.8	14.5	14.0	13.0	12.8	11.4	12.8	13.4	10.8	11.8	13.2	14.3	15.0	15.9	16.8	17.0	18.1	10.7	14.0	
4	18.5	16.5	17.9	18.2	19.5	21.6	20.5	19.9	23.3	24.9	23.7	24.4	26.3	26.6	25.3	27.1	29.7	29.1	30.8	25.8	25.6	25.4	23.3	17.9	30.8	16.5	23.4	
5	17.8	17.8	17.5	19.7	21.4	20.2	20.5	16.7	16.6	15.3	13.6	15.7	18.1	19.1	17.1	16.0	15.9	14.7	10.4	8.3	9.7	15.0	17.5	15.7	21.4	8.3	16.3	
6	13.4	11.1	8.1	8.8	8.5	6.2	6.5	3.8	4.1	6.9	11.8	13.4	16.9	16.7	15.6	11.9	12.2	11.3	7.7	6.8	6.9	6.2	6.3	6.7	16.9	3.8	9.5	
7	6.2	5.1	6.0	8.0	7.5	7.0	8.5	9.3	8.3	8.6	11.0	12.2	11.2	8.7	8.5	9.4	7.7	4.3	3.9	3.6	2.4	2.4	3.0	3.7	12.2	2.4	6.9	
8	1.7	1.9	2.8	3.6	3.3	3.6	4.6	5.3	5.0	5.1	5.0	4.3	13.0	16.6	22.2	24.2	26.3	25.7	27.8	27.9	27.3	28.3	29.5	27.0	29.5	1.7	14.2	
9	26.1	29.3	28.7	30.5	27.1	20.7	18.4	16.6	12.2	10.6	9.3	9.3	10.8	10.6	9.4	10.1	11.9	15.5	16.1	17.1	21.0	24.4	27.7	28.7	30.5	9.3	18.4	
10	30.0	29.6	25.6	27.3	24.1	26.2	24.8	22.9	19.7	14.8	14.5	16.1	15.6	16.3	15.8	17.2	17.7	18.1	17.2	16.9	16.7	16.6	17.2	16.9	30.0	14.5	19.9	
11	14.9	15.2	14.0	10.6	6.1	1.7	1.8	3.0	3.3	5.7	7.5	7.8	6.0	4.7	4.2	3.1	2.8	2.1	2.0	2.2	1.2	1.7	2.5	2.6	15.2	1.2	5.3	
12																												
13												6.7	5.6	9.8	13.0	14.5	17.9	17.6	17.7	18.8	19.6	20.8	20.5	19.3	20.8	5.6	15.5	
14	20.7	21.4	23.6	22.1	23.1	21.2	20.4	20.1	20.8	21.1	20.5	18.0	17.7	17.9	19.4	21.9	22.2	19.0	19.1	20.7	20.7	20.8	20.3	22.3	23.6	17.7	20.6	
15	22.8	21.5	20.4	20.6	19.7	20.7	21.7	21.9	23.4	22.9	25.4	24.9	26.3	30.9	29.1	26.9	25.2	23.1	22.2	18.1	17.4	15.1	12.7	9.6	30.9	9.6	21.8	
16	5.8	5.8	4.8	3.6	0.4																				5.8	0.4	4.1	
17			5.1	5.4	5.2	11.4	14.5	16.0	20.7	20.3	19.3	18.8	20.3	20.2	22.0	22.6	22.7	19.6	19.2	20.2	20.1	18.9	16.9	15.5	22.7	5.1	17.0	
18	12.3	12.7	13.0	11.2	10.8	11.5	14.6	16.2	18.3	20.4	21.1	19.8	23.1	24.6	21.5	19.0	17.6	14.4	11.8	13.0	12.2	12.6	15.2	14.8	24.6	10.8	15.9	
19	10.9	7.9	7.1	6.7	7.9	7.4	6.8	9.8	7.6	4.7	6.0	6.8	3.9	7.0	8.3	7.2	7.6	8.0	6.1	6.7	6.2	7.6	8.4	6.7	10.9	3.9	7.2	
20	7.4	5.2	5.9	5.1	4.5	3.2	3.6	3.3	3.1	3.4	3.4	2.7	4.7	5.1	6.2	8.1	6.3	6.9	7.5	8.6	11.1	11.4	12.1	11.8	12.1	2.7	6.3	
21	11.8	11.0	13.6	13.3	10.9	8.3	7.0	6.9	5.8	3.0	2.1	2.0	5.4	11.5	7.2	9.8	6.8	5.0	9.1	10.3	6.7	5.6	7.6	8.6	13.6	2.0	7.9	
22	4.6	3.8	4.6	6.9	10.9	11.5	10.8	11.0	12.3	8.6	6.6	6.9	7.0	7.7	6.9	8.0	9.5	8.6	7.1	6.3	7.5	6.3	5.0	4.9	12.3	3.8	7.6	
23	5.9	7.3	6.8	6.9	5.6	3.8	8.6	8.1	7.1	6.2	4.8	7.5	5.5	5.6	8.6	9.5	9.3	8.6	8.6	8.3	6.9	7.5	10.0	10.6	10.6	3.8	7.4	
24	8.6	6.3	6.2	6.5	6.1	7.1	7.1	7.1	3.5	3.1	4.1	3.3	2.3	1.7	1.3	1.0	1.4	2.2	2.1	1.8	1.9	2.6	3.2	4.0	8.6	1.0	3.9	
25	4.2	3.3	4.5	5.8	7.4	5.8	5.1	4.8	3.1	2.9	1.1	10.6	13.1	11.2	12.6	14.2	11.7	10.5	7.3	6.6	8.4	10.4	9.5	10.2	14.2	1.1	7.7	
26	10.6	9.8	9.0	8.6	7.2	5.4	5.8	6.6	5.8	3.5	6.4	8.0	6.7	6.7	3.0	1.6	2.8	4.8	6.8	7.2	6.0	5.2	5.6	8.0	10.6	1.6	6.3	
27	7.9	6.1	6.2	10.3	13.3	18.1	18.2	16.9	17.1	18.6	18.5	19.1	20.2	17.4	18.1	19.9	21.2	19.1	18.5	20.2	20.5	22.2	20.2	20.0	22.2	6.1	17.0	
28	19.9	19.0	19.1	18.2	18.8	20.4	17.8	15.2	12.8	16.0	18.3	18.4	17.1	16.5	16.2	19.1	18.5	18.7	16.7	15.9	14.3	9.4	9.1	9.8	20.4	9.1	16.5	
<b>Max.</b>	<b>30.0</b>	<b>29.6</b>	<b>28.7</b>	<b>30.5</b>	<b>27.1</b>	<b>26.2</b>	<b>24.8</b>	<b>22.9</b>	<b>23.4</b>	<b>24.9</b>	<b>25.4</b>	<b>24.9</b>	<b>26.3</b>	<b>30.9</b>	<b>29.1</b>	<b>27.1</b>	<b>29.7</b>	<b>29.1</b>	<b>30.8</b>	<b>27.9</b>	<b>27.3</b>	<b>28.3</b>	<b>29.5</b>	<b>28.7</b>	<b>30.9</b>			
<b>Min.</b>	<b>1.7</b>	<b>1.9</b>	<b>2.8</b>	<b>3.6</b>	<b>0.4</b>	<b>1.7</b>	<b>1.8</b>	<b>3.0</b>	<b>3.1</b>	<b>2.9</b>	<b>1.1</b>	<b>2.0</b>	<b>2.3</b>	<b>1.7</b>	<b>1.3</b>	<b>1.0</b>	<b>1.4</b>	<b>1.8</b>	<b>2.0</b>	<b>1.8</b>	<b>1.2</b>	<b>1.7</b>	<b>2.5</b>	<b>2.6</b>		<b>0.4</b>		
<b>Avg.</b>	<b>12.4</b>	<b>11.8</b>	<b>11.4</b>	<b>11.8</b>	<b>11.6</b>	<b>11.7</b>	<b>12.1</b>	<b>11.9</b>	<b>11.5</b>	<b>11.1</b>	<b>11.5</b>	<b>11.8</b>	<b>12.6</b>	<b>13.2</b>	<b>13.0</b>	<b>13.5</b>	<b>13.5</b>	<b>12.9</b>	<b>12.5</b>	<b>12.4</b>	<b>12.3</b>	<b>12.7</b>	<b>13.1</b>	<b>12.8</b>			<b>12.3</b>	
<b>Total Hours in Month</b>	672		<b>Hours Data Available</b>									616									<b>Data Recovery</b>				91.7%			

## Northern Dynasty Mines Pebble 1 Meterological Station - Wind Speed (Climtrncs) (m/s)

*March 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.		
1	10.4	9.5	9.4	9.6	10.8	11.1	7.1	5.7	4.3	3.5	1.2	0.7	1.6	2.8	3.7	3.9	5.1	5.3	5.0	8.2	9.5	10.8	12.0	13.1	13.1	0.7	6.9		
2	13.2	12.9	12.8	12.6	12.7	12.3	13.3	13.0	12.5	11.2	12.5	12.6	12.5	13.7	12.0	9.6	9.6	8.7	9.6	9.8	9.6	8.8	9.8	9.0	13.7	8.7	11.4		
3	8.2	8.2	8.8	8.5	8.1	7.9	5.9	5.5	6.3	7.0	7.9	7.5	8.5	8.2	8.4	7.3	5.5	3.6	2.8	2.0	2.2	1.5	1.2	1.4	8.8	1.2	5.9		
4	1.7	2.1	2.4	2.7	4.1	6.5	6.5	6.2	6.0	4.8	6.0	5.9	6.8	7.8	7.6	7.9	8.7	8.3	9.0	9.2	9.9	8.5	7.8	7.6	9.9	1.7	6.4		
5	7.1	6.6	5.2	4.0	3.8	4.3	3.9	3.4	3.5	3.0	2.4	2.4	2.2	2.5	2.4	2.6	3.4	3.7	2.4	2.6	1.4	2.1	2.1	2.5	7.1	1.4	3.3		
6	2.7	2.8	1.9	2.3	2.8	2.2	1.6	1.3	0.9	1.1	2.1	1.3	1.2	1.0	0.6	0.3	0.9	1.1	1.0	1.0	0.7	0.9	1.3	1.9	2.8	0.3	1.4		
7	2.1	2.0	2.4	2.4	2.5	2.8	2.7	3.3	4.5	4.6	4.3	5.6	5.6	6.1	5.9	6.5	6.0	7.9	9.3	8.8	8.1	7.2	9.2	10.0	10.0	2.0	5.4		
8	11.8	16.4	18.1	17.8	16.0	14.3	15.8	15.3	15.4	13.6	11.2	12.4	12.5	11.3	11.1	10.8	11.0	14.7	15.0	14.9	15.3	15.2	15.8	15.3	18.1	10.8	14.2		
9	15.6	14.9	16.0	17.2	17.1	16.2	15.0	15.2	15.4	17.1	15.2	16.3	18.2	18.4	17.5	14.9	13.2	14.2	15.2	15.7	15.9	16.2	15.2	14.7	18.4	13.2	15.9		
10	11.4	12.0	10.8	9.6	8.3	7.8	8.3	10.0	9.7	6.3	5.7	5.8	6.4	5.6	4.7	3.4	2.3	2.1	4.8	5.0	5.4	6.4	10.4	12.0	12.0	2.1	7.3		
11	11.2	14.1	17.7	16.9	17.4	17.5	18.9	22.9	23.5	24.9	22.2	20.7	20.6	20.1	22.7	21.0	19.3	20.4	18.0	21.3	20.1	18.7	14.5	16.9	24.9	11.2	19.2		
12	18.1	17.5	17.7	16.8	13.1	14.1	13.5	12.6	10.8	11.0	10.5	7.5	7.8	4.8	5.3	3.7	4.2	4.0	3.4	3.6	2.0	2.0	1.7	1.3	18.1	1.3	8.6		
13	0.9	1.1	1.2	1.1	1.4	1.5	1.7	1.4	2.0	2.3	1.8	1.7	2.2	2.4	2.6	3.2	3.4	5.6	5.5	6.6	5.4	5.7	7.2	7.6	7.6	0.9	3.1		
14	7.4	7.0	7.3	7.4	5.6	5.3	5.4	5.1	4.4	4.0	4.1	2.7	2.0	2.3	3.5	2.3	3.6	3.4	2.9	2.1	2.1	1.9	1.4	1.1	7.4	1.1	3.9		
15	1.6	2.1	2.3	1.9	2.8	1.7	1.3	1.3	1.3	1.9	2.1	1.3	0.9	1.2	2.0	1.8	2.2	3.1	3.7	4.1	3.8	4.6	6.0	7.3	7.3	0.9	2.6		
16	8.7	8.6	5.7	5.0	5.4	5.5	5.4	4.4	3.0	3.3	4.7	4.9	6.6	8.1	10.0	10.9	10.7	11.0	9.9	10.5	10.3	9.8	9.7	9.0	11.0	3.0	7.5		
17	9.9	10.1	10.4	9.6	10.4	9.4	9.6	9.8	10.3	9.6	10.8	9.3	8.1	7.3	10.8	11.4	11.1	10.4	12.3	13.1	13.9	14.6	15.5	12.9	15.5	7.3	10.9		
18	13.2	13.2	10.4	7.6	9.3	8.5	6.5	2.4	4.0	5.9	5.9	5.2	1.9	1.3	0.9	1.1	3.1	4.4	1.1	2.5	2.4	1.4	1.4	2.9	13.2	0.9	4.8		
19	2.5	1.7	1.0	1.7	2.1	1.9	2.2	2.3	3.1	4.9	5.8	12.2	13.0	11.5	13.6	13.7	12.0	10.1	9.0	8.2	7.7	7.6	9.3	10.3	13.7	1.0	7.0		
20	12.7	9.8	8.8	7.0	5.5	6.2	6.8	6.2	4.6	3.4	2.9	2.6	2.1	1.6	0.4			1.7	11.8	13.1	16.4	19.5	18.5	16.7	19.5	0.4	8.1		
21	17.0	15.7	16.9	16.6	16.8	17.5	17.3	16.1	15.4	15.3	12.4	10.4	10.1	7.6	8.3	8.9	8.2	9.3	10.1	8.7	8.9	6.9	5.9	8.2	17.5	5.9	12.0		
22	11.9	8.1	8.4	9.5	13.3	16.1	14.9	17.5	14.5	18.5	16.1	17.0	16.1	16.0	16.3	14.4	11.2	10.8	9.3	6.5	5.9	5.8	6.1	4.9	18.5	4.9	12.0		
23	3.4	3.1	3.4	4.2	5.5	4.2	2.9	2.0	2.0	2.9	4.2	3.6	1.7	2.5	2.5	2.9	5.6	8.0	6.7	3.7	4.7	8.7	9.4	11.2	11.2	1.7	4.5		
24	10.5	11.1	10.0	8.9	8.9	5.8	8.3	12.1	9.5	7.4	11.0	11.8	10.1	9.6	9.3	10.7	9.7	12.5	12.2	10.0	9.2	6.3	6.8	6.3	12.5	5.8	9.5		
25	7.2	6.8	6.7	7.7	8.0	8.2	8.8	9.2	9.8	9.3	9.9	7.4	7.4	8.6	8.2	8.8	9.4	10.1	9.3	8.5	9.9	9.7	6.4	7.3	10.1	6.4	8.4		
26	6.6	5.9	5.9	6.2	6.9	7.5	7.9	7.5	7.7	7.4	7.1	6.6	6.1	5.7	4.9	4.7	4.3	4.4	5.3	5.1	4.3	3.2	2.8	2.2	7.9	2.2	5.7		
27	3.3	3.5	3.4	3.3	3.6	3.7	3.4	3.2	1.6	1.4	1.8	2.0	2.3	1.4	1.3	1.6	1.7	2.1	2.6	3.3	2.5	2.3	1.9	2.2	3.7	1.3	2.5		
28	2.8	4.4	4.2	3.5	6.5	6.1	5.2	4.6	4.7	4.7	3.9	3.4	2.8	2.7	3.1	1.4	1.6	1.3	1.4	1.8	2.7	3.8	4.3	3.9	6.5	1.3	3.5		
29	4.1	4.1	3.9	4.5	4.7	4.0	4.8	5.2	4.3	3.4	2.8	2.1	1.3	1.5	1.4	0.9	1.5	2.3	3.1	3.4	2.1	2.9	5.9	8.7	8.7	0.9	3.5		
30	12.2	12.1	12.2	12.4	15.1	17.1	18.3	16.4	17.6	17.0	19.6	23.0	24.4	26.3	26.2	28.8	30.6	31.2	31.2	31.9	30.4	29.2	28.4	28.6	31.9	12.1	22.5		
31	28.5	27.2	27.0	26.2	25.1	25.5	24.2	22.1	20.9	10.0	5.6	4.5	4.2	4.5	3.0	2.7	3.9	3.7	4.1	2.9	1.5	1.7	2.4	4.9	28.5	1.5	11.9		
<b>Max.</b>	<b>28.5</b>	<b>27.2</b>	<b>27.0</b>	<b>26.2</b>	<b>25.1</b>	<b>25.5</b>	<b>24.2</b>	<b>22.9</b>	<b>23.5</b>	<b>24.9</b>	<b>22.2</b>	<b>23.0</b>	<b>24.4</b>	<b>26.3</b>	<b>26.2</b>	<b>28.8</b>	<b>30.6</b>	<b>31.2</b>	<b>31.2</b>	<b>31.9</b>	<b>30.4</b>	<b>29.2</b>	<b>28.4</b>	<b>28.6</b>	<b>31.9</b>				
<b>Min.</b>	<b>0.9</b>	<b>1.1</b>	<b>1.0</b>	<b>1.1</b>	<b>1.4</b>	<b>1.5</b>	<b>1.3</b>	<b>1.3</b>	<b>0.9</b>	<b>1.1</b>	<b>1.2</b>	<b>0.7</b>	<b>0.9</b>	<b>1.0</b>	<b>0.4</b>	<b>0.3</b>	<b>0.9</b>	<b>1.1</b>	<b>1.0</b>	<b>1.0</b>	<b>0.7</b>	<b>0.9</b>	<b>1.2</b>	<b>1.1</b>		<b>0.3</b>			
<b>Avg.</b>	<b>9.0</b>	<b>8.9</b>	<b>8.8</b>	<b>8.5</b>	<b>8.8</b>	<b>8.8</b>	<b>8.6</b>	<b>8.5</b>	<b>8.2</b>	<b>7.8</b>	<b>7.5</b>	<b>7.4</b>	<b>7.3</b>	<b>7.2</b>	<b>7.4</b>	<b>7.4</b>	<b>7.4</b>	<b>7.7</b>	<b>8.0</b>	<b>8.0</b>	<b>7.9</b>	<b>7.9</b>	<b>8.1</b>	<b>8.4</b>				<b>8.1</b>	

Total Hours in Month 744

Hours Data Available 742

Data Recovery 99.7%

## Northern Dynasty Mines Pebble 1 Meterological Station - Wind Speed (Climtrncs) (m/s)

*April 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	6.8	6.6	8.3	6.3	4.2	5.9	6.7	7.9	5.1	3.6	3.9	2.8	3.5	2.2											8.3	2.2	5.3	
2																	1.4	2.2	4.6	4.5	6.3	5.6	9.0	10.0	10.0	1.4	5.4	
3	9.0	9.4	10.5	11.1	10.0	11.0	7.2	7.2	13.7	19.8	20.0	20.0	18.7	17.5	17.5	16.2	16.3	16.7	14.6	12.5	11.5	12.8	13.4	14.6	20.0	7.2	13.8	
4	14.5	17.0	16.5	13.8	12.9	10.4	9.1	9.3	7.0	4.1	9.5	7.9	8.4	7.0	4.4	1.5	2.0	5.0	4.8	4.6	4.9	5.9	6.6	8.3	17.0	1.5	8.1	
5	7.2	7.5	9.8	11.9	11.3	11.2	10.2	10.5	10.9	14.8	14.4	11.9	11.6	13.9	14.0	14.2	15.3	17.0	18.8	17.3	12.8	12.5	12.2	13.2	18.8	7.2	12.7	
6	17.5	13.5	11.1	11.4	10.4	9.4	9.6	8.9	7.3	7.5	7.9	5.5	4.6	3.5	3.7	3.0	2.6	2.4	2.2	2.7	2.2	1.2	2.3	2.2	17.5	1.2	6.4	
7	2.5	2.0	2.3	3.8	6.0	4.4	6.0	6.1	3.1	5.1	5.0	5.9	5.9	7.7	8.7	10.2	10.9	11.5	10.3	13.0	14.1	16.6	18.1	16.7	18.1	2.0	8.2	
8	19.3	21.7	20.9	19.2	17.9	17.1	15.3	15.5	14.9	16.2	17.7	14.7	10.8	11.1	11.0	9.5	9.0	8.9	9.2	7.5	7.6	7.6	8.7	7.4	21.7	7.4	13.3	
9	7.8	6.8	6.7	7.6	7.4	7.6	6.9	7.2	6.8	6.3	6.9	7.4	7.5	7.6	7.0	6.6	4.8	4.7	5.0	4.3	2.9	5.5	6.5	5.8	7.8	2.9	6.4	
10	2.2	2.8	3.2	4.1	5.3	7.3	9.4	10.3	10.9	10.3	10.5	10.9	8.4	8.9	8.3	9.4	9.5	8.3	6.5	6.1	3.5	1.3	2.6	5.5	10.9	1.3	6.9	
11	5.3	2.0	1.7	1.5	2.6	3.7	6.1	6.7	7.1	6.8	6.9	5.9	6.9	7.2	10.3	13.1	14.4	13.6	11.8	10.5	11.0	10.9	10.0	9.3	14.4	1.5	7.7	
12	8.8	8.3	7.0	6.9	6.6	5.4	5.2	6.1	7.6	8.8	9.3	9.9	11.0	11.6	9.8	8.2	8.2	6.8	6.0	5.5	5.5	4.9	4.3	2.4	11.6	2.4	7.2	
13	2.5	1.9	0.4			2.4	6.1	7.0	8.2	9.1	9.4	10.4	12.2	16.3	18.7	18.9	16.9	15.3	16.5	15.1	14.8	13.4	11.0	10.9	18.9	0.4	10.8	
14	12.8	14.8	13.8	13.2	16.4	15.9	14.7	17.1	16.2	18.2	19.3	19.6	18.6	18.0	15.8	20.2	18.4	18.0	15.5	13.3	15.8	13.0	11.2	10.7	20.2	10.7	15.8	
15	11.2	9.6	12.1	14.4	13.4	12.2	14.3	11.8	14.7	15.8	16.1	18.1	15.5	16.7	14.0	13.0	15.9	16.1	8.8	6.3	6.9	4.2	2.1	2.6	18.1	2.1	11.9	
16	6.7	7.4	9.0	11.4	11.5	13.1	17.9	17.5	21.0	22.5	23.0	21.8	23.2	22.9	21.1	20.9	22.7	23.2	22.5	16.1	11.3	9.1	10.4	12.0	23.2	6.7	16.6	
17	11.1	11.7	14.2	15.0	14.4	12.3	9.1	8.3	8.5	7.2	9.9	7.8	11.8	9.6	8.5	6.6	7.3	7.7	5.6	4.4	3.2	1.3	2.1	4.4	15.0	1.3	8.4	
18	5.2	4.9	2.8	3.9	2.6	2.6	1.8	1.4	2.0	1.0	1.0	1.0	1.5	1.3	1.4	1.1	1.5	1.5	1.7	2.1	2.1	1.2	1.9	2.0	5.2	1.0	2.1	
19	1.9	2.2	1.7	2.2	1.5	2.1	2.5	2.4	3.8	3.5	1.6	1.1	1.7	5.2	4.1	3.8	3.0	2.8	4.8	5.3	4.5	3.8	3.8	3.8	5.3	1.1	3.0	
20	3.3	3.6	2.3	1.7	1.8	2.2	1.6	1.9	2.4	3.0	3.3	5.0	7.9	9.8	14.4	14.9	13.7	14.5	15.3	15.4	16.8	16.0	14.8	15.9	16.8	1.6	8.4	
21	16.9	17.0	17.5	15.1	13.3	14.1	15.1	16.3	12.3	14.9	17.5	14.2	13.7	13.4	11.7	13.3	11.3	6.2	5.3	4.2	3.5	6.8	7.0	7.3	17.5	3.5	12.0	
22	4.6	2.6	1.7	0.4	0.7			0.6	0.6	0.8	0.8	0.7	1.1	0.8	0.8	0.7	2.1	1.6	1.3	1.0	1.5	1.5	2.6	2.7	4.6	0.4	1.4	
23	3.6	3.8	4.0	3.9	3.0	3.8	3.7	3.6	4.0	4.3	4.8	4.8	4.8	3.9	2.2	1.6	1.5	2.0	3.6	3.6	5.5	8.1	8.2	7.3	8.2	1.5	4.1	
24	6.9	6.4	6.6	8.1	8.3	10.6	10.7	10.6	11.2	11.6	12.0	11.6	11.2	11.6	11.5	9.2	11.0	10.5	10.1	11.6	11.0	11.6	10.5	8.7	12.0	6.4	10.1	
25	6.2	4.2	3.5	2.8	2.8	2.6	2.7	2.3	2.0	2.0	2.3	3.3	4.3	4.4	3.4	3.4	4.4	8.5	9.3	9.6	10.0	10.4	11.0	10.0	11.0	2.0	5.2	
26	9.1	9.1	7.5	7.3	7.9	9.6	7.0	7.9	5.3	5.7	6.0	5.1	3.9	2.8	3.0	2.5	2.9	3.2	3.1	4.1	6.1	5.3	5.6	5.9	9.6	2.5	5.7	
27	8.1	4.5	5.9	4.6	5.0	5.1	2.0	2.2	2.3	2.6	3.9	4.8	5.7	6.6	7.3	8.2	8.0	9.2	8.8	6.8	6.2	6.3	8.2	10.3	10.3	2.0	5.9	
28	10.3	9.7	8.7	7.3	7.3	7.0	6.4	5.2	4.7	4.1	1.5	2.6	3.1	2.6	2.4	3.0	2.5	2.1	1.7	0.6	1.3	0.9	1.0	1.0	10.3	0.6	4.0	
29	1.6	2.5	3.2	3.7	5.0	5.7	4.4	4.0	4.9	6.7	9.6	10.5	10.6	9.6	8.0	7.4	8.9	8.6	7.6	6.5	6.3	6.5	6.0	5.6	10.6	1.6	6.4	
30	4.3	4.3	4.1	3.9	3.2	2.1	1.4	1.9	2.5	2.5	1.9	2.4	2.6	2.9	3.1	4.1	6.0	7.2	9.6	11.3	10.6	10.3	10.1	10.5	11.3	1.4	5.1	
<b>Max.</b>	<b>19.3</b>	<b>21.7</b>	<b>20.9</b>	<b>19.2</b>	<b>17.9</b>	<b>17.1</b>	<b>17.9</b>	<b>17.5</b>	<b>21.0</b>	<b>22.5</b>	<b>23.0</b>	<b>21.8</b>	<b>23.2</b>	<b>22.9</b>	<b>21.1</b>	<b>20.9</b>	<b>22.7</b>	<b>23.2</b>	<b>22.5</b>	<b>17.3</b>	<b>16.8</b>	<b>16.6</b>	<b>18.1</b>	<b>16.7</b>	<b>23.2</b>			
<b>Min.</b>	<b>1.6</b>	<b>1.9</b>	<b>0.4</b>	<b>0.4</b>	<b>0.7</b>	<b>2.1</b>	<b>1.4</b>	<b>0.6</b>	<b>0.6</b>	<b>0.8</b>	<b>0.8</b>	<b>0.7</b>	<b>1.1</b>	<b>0.8</b>	<b>0.8</b>	<b>0.7</b>	<b>1.4</b>	<b>1.5</b>	<b>1.3</b>	<b>0.6</b>	<b>1.3</b>	<b>0.9</b>	<b>1.0</b>	<b>1.0</b>		<b>0.4</b>		
<b>Avg.</b>	<b>7.8</b>	<b>7.5</b>	<b>7.5</b>	<b>7.7</b>	<b>7.6</b>	<b>7.7</b>	<b>7.6</b>	<b>7.5</b>	<b>7.6</b>	<b>8.2</b>	<b>8.8</b>	<b>8.5</b>	<b>8.6</b>	<b>8.8</b>	<b>8.8</b>	<b>8.7</b>	<b>8.7</b>	<b>8.8</b>	<b>8.4</b>	<b>7.8</b>	<b>7.6</b>	<b>7.4</b>	<b>7.6</b>	<b>7.8</b>			<b>8.1</b>	
<b>Total Hours in Month</b>	720		<b>Hours Data Available</b>									690									<b>Data Recovery</b>				95.8%			

## Northern Dynasty Mines Pebble 1 Meterological Station - Wind Speed (Climtrncs) (m/s)

*May 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	12.8	13.8	14.0	15.2	16.6	18.5	20.1	21.8	20.6	19.5	20.8	22.8	24.3	20.7	16.1	13.5	12.2	13.6	7.8	8.8	9.3	8.3	8.1	7.0	24.3	7.0	15.3
2	7.2	9.5	8.6	6.2	3.8	7.6	7.2	3.3	2.2	1.4	3.9	7.1	11.6	11.5	12.3	11.9	10.8	9.8	9.8	10.9	13.1	11.4	10.5	10.4	13.1	1.4	8.4
3	11.6	12.0	12.6	11.4	9.7	6.1	5.3	3.9	2.6	2.5	3.0	4.2	5.4	5.7	5.9	5.2	4.1	4.4	4.1	3.8	2.9	2.8	2.1	2.0	12.6	2.0	5.6
4	2.3	1.4	0.9	1.0	1.5	7.2	12.7	14.8	15.2	16.2	14.3	13.1	12.9	14.2	13.0	13.7	14.4	16.3	18.4	18.6	19.7	19.7	21.2	21.1	21.2	0.9	12.7
5	20.9	23.1	24.0	24.9	23.3	21.2	18.1	17.0	17.4	16.8	16.9	17.1	16.7	16.6	15.9	15.5	14.0	13.6	12.8	11.9	8.5	5.1	4.2	3.3	24.9	3.3	15.8
6	3.9	3.1	1.3	1.5	0.8	0.6	0.6	0.4	1.5	2.1	4.2	6.3	7.1	6.8	7.6	8.0	7.0	8.0	8.5	8.5	9.4	9.0	7.5	7.8	9.4	0.4	5.1
7	7.1	6.9	7.9	8.4	9.5	8.1	7.4	6.8	6.7	7.2	6.1	6.9	7.6	6.9	6.6	5.6	5.3	5.6	4.1	3.8	3.9	2.9	1.7	0.8	9.5	0.8	6.0
8	1.0	1.2	1.6	2.0	2.0	2.2	2.2	2.8	4.3	4.8	6.1	7.3	9.1	6.8	5.6	4.2	4.8	8.6	12.0	8.5	6.8	6.9	6.7	4.6	12.0	1.0	5.1
9	4.4	3.1	4.9	7.4	6.8	6.8	8.8	8.7	7.6	8.0	7.3	4.3	5.0	6.9	5.6	3.6	1.8	2.0	2.5	1.7	2.2	2.9	5.8	6.8	8.8	1.7	5.2
10	6.1	3.5	2.0	1.5	1.8	1.8	1.1	1.3	2.0	1.7	1.5	2.6	2.2	2.8	4.3	5.3	6.7	6.4	6.4	5.2	3.8	4.1	4.0	2.7	6.7	1.1	3.4
11	2.7	1.9	1.5	2.6	1.8	1.2	1.8	1.1	1.4	2.5	2.7	2.7	3.8	5.9	4.0	3.3	3.5	6.5	5.9	6.8	6.6	7.0	7.8	8.2	8.2	1.1	3.9
12	8.3	7.8	8.2	8.3	8.0	9.0	8.8	8.9	10.4	8.9	8.1	9.2	9.4	8.9	8.8	10.0	10.2	9.2	8.2	8.6	9.0	6.5	7.7	6.3	10.4	6.3	8.6
13	6.1	7.9	7.2	6.0	6.1	4.8	3.1	2.9	1.7	1.0	2.5	2.4	1.2	1.3	2.3	4.1	3.8	3.5	2.1	3.2	3.2	1.5	2.1	1.9	7.9	1.0	3.4
14	2.8	2.7	3.3	3.4	2.5	3.2	3.0	3.8	5.6	5.4	5.3	5.7	6.0	6.5	8.0	7.4	8.9	9.9	10.1	11.2	10.5	13.7	12.5	8.6	13.7	2.5	6.7
15	6.2	5.0	5.0	3.8	1.9	1.9	1.8	1.7	2.4	3.1	3.4	1.5	2.0	1.3	1.8	2.5	2.7	4.0	3.7	3.1	4.6	3.9	6.4	8.7	8.7	1.3	3.4
16	6.6	1.2	1.1	2.6	3.2	4.1	3.6	3.6	4.5	3.4	2.4	1.9	2.9	2.7	2.4	2.1	2.8	4.4	4.4	4.0	3.0	4.1	3.0	3.6	6.6	1.1	3.2
17	2.5	2.7	2.7	2.1	2.7	3.0	2.4	2.2	2.5	3.9	5.6	7.2	7.8	7.9	7.5	8.3	9.3	8.0	7.7	7.4	7.0	6.8	5.3	5.4	9.3	2.1	5.3
18	5.0	4.3	4.2	4.5	4.2	2.9	2.2	1.3	1.5	2.4	3.7	5.2	5.2	6.3	7.7	7.0	7.0	9.5	8.1	8.6	8.8	8.6	6.3	2.2	9.5	1.3	5.3
19	2.6	3.4	2.6	1.1	1.4	1.3	0.9	1.8	3.4	5.7	7.0	9.1	11.6	11.0	17.4	19.9	14.1	14.7	16.4	17.8	16.9	13.5	13.9	11.8	19.9	0.9	9.1
20	11.4	11.4	11.7	11.8	12.4	16.3	16.2	16.5	16.4	15.6	13.8	14.0	10.8	11.5	11.4	9.5	7.1	4.1	3.1	2.2	4.8	8.5	8.3	9.1	16.5	2.2	10.7
21	10.5	9.8	10.5	10.6	11.1	11.9	13.2	13.1	14.0	15.9	16.7	20.4	21.0	16.5	17.5	15.2	17.2	17.4	17.1	16.6	14.0	11.5	14.4	12.9	21.0	9.8	14.5
22	14.1	13.0	11.9	11.9	12.4	14.2	13.9	16.3	15.6	14.7	15.9	17.2	16.9	13.6	12.5	11.8	12.3	11.8	11.4	10.9	12.3	10.7	11.0	9.2	17.2	9.2	13.1
23	10.4	7.0	6.4	4.6	4.0	3.4	4.0	4.2	4.0	4.5	5.0	5.0	3.8	3.1	2.6	2.3	4.2	6.2	8.7	7.6	6.0	5.9	5.5	5.7	10.4	2.3	5.2
24	6.1	4.7	3.3	4.1	3.9	2.4	1.6	2.8	4.0	2.2	2.0	2.0	2.5	2.6	3.2	3.7	4.0	5.1	4.2	6.1	6.9	5.0	4.0	4.9	6.9	1.6	3.8
25	5.1	5.2	4.9	5.9	5.9	4.8	5.0	3.8	3.2	3.0	2.4	2.5	2.7	2.5	2.4	3.8	4.8	5.1	6.0	3.8	2.9	4.0	4.7	4.9	6.0	2.4	4.1
26	5.0	6.0	5.7	6.0	7.2	4.0	4.8	5.2	6.8	7.0	8.4	9.7	8.9	7.4	8.8	9.2	10.4	11.2	10.7	9.7	7.7	7.3	6.7	8.9	11.2	4.0	7.6
27	8.1	6.4	8.0	12.4	14.0	13.5	12.3	12.8	11.1	9.7	10.6	12.9	14.5	15.8	15.3	15.2	14.7	12.9	10.6	9.3	8.4	6.8	8.0	7.1	15.8	6.4	11.3
28	6.7	5.1	3.6	2.0	2.9	3.4	3.7	6.3	5.2	3.4	1.9	1.9	3.2	4.2	3.8	3.6	4.2	3.6	3.5	6.0	6.6	5.1	5.9	6.0	6.7	1.9	4.2
29	5.7	5.6	6.6	6.6	7.7	7.1	7.3	6.1	6.9	7.7	7.6	8.2	8.5	8.5	8.3	7.9	7.6	7.9	8.0	7.8	7.0	7.5	7.6	6.4	8.5	5.6	7.3
30	6.3	6.3	5.8	3.6	2.6	2.9	2.0	3.1	5.5	4.6	6.2	6.6	7.2	8.1	7.7	7.7	6.8	7.2	7.2	6.3	5.7	5.4	4.7	7.4	8.1	2.0	5.7
31	7.4	7.6	7.5	4.5	7.0	8.1	7.0	7.5	6.6	8.1	8.9	7.8	6.1	5.9	6.1	5.0	4.3	5.0	3.9	3.1	3.5	3.4	1.9	2.0	8.9	1.9	5.8
<b>Max.</b>	<b>20.9</b>	<b>23.1</b>	<b>24.0</b>	<b>24.9</b>	<b>23.3</b>	<b>21.2</b>	<b>20.1</b>	<b>21.8</b>	<b>20.6</b>	<b>19.5</b>	<b>20.8</b>	<b>22.8</b>	<b>24.3</b>	<b>20.7</b>	<b>17.5</b>	<b>19.9</b>	<b>17.2</b>	<b>17.4</b>	<b>18.4</b>	<b>18.6</b>	<b>19.7</b>	<b>19.7</b>	<b>21.2</b>	<b>21.1</b>	<b>24.9</b>		
<b>Min.</b>	<b>1.0</b>	<b>1.2</b>	<b>0.9</b>	<b>1.0</b>	<b>0.8</b>	<b>0.6</b>	<b>0.6</b>	<b>0.4</b>	<b>1.4</b>	<b>1.0</b>	<b>1.5</b>	<b>1.5</b>	<b>1.2</b>	<b>1.3</b>	<b>1.8</b>	<b>2.1</b>	<b>1.8</b>	<b>2.0</b>	<b>2.1</b>	<b>1.7</b>	<b>2.2</b>	<b>1.5</b>	<b>1.7</b>	<b>0.8</b>		<b>0.4</b>	
<b>Avg.</b>	<b>7.0</b>	<b>6.5</b>	<b>6.4</b>	<b>6.4</b>	<b>6.4</b>	<b>6.6</b>	<b>6.5</b>	<b>6.6</b>	<b>6.9</b>	<b>6.9</b>	<b>7.2</b>	<b>7.9</b>	<b>8.3</b>	<b>8.1</b>	<b>8.1</b>	<b>7.9</b>	<b>7.8</b>	<b>8.2</b>	<b>8.0</b>	<b>7.8</b>	<b>7.6</b>	<b>7.1</b>	<b>7.1</b>	<b>6.7</b>			<b>7.3</b>

Total Hours in Month 744

Hours Data Available 744

Data Recovery 100.0%

## Northern Dynasty Mines Pebble 1 Meterological Station - Wind Speed (Climtrncs) (m/s)

*June 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.		
1	1.7	1.5	1.3	2.6	2.5	2.3	2.8	2.7	3.3	3.7	3.9	3.8	4.3	3.7	3.8	4.1	3.5	3.9	6.2	5.7	6.1	7.1	5.7	1.7	7.1	1.3	3.7		
2	2.8	3.2	3.5	3.1	3.5	3.8	4.3	3.4	3.4	4.2	5.8	5.6	5.4	5.7	6.3	7.1	7.4	7.9	9.6	7.7	7.1	6.9	6.6	6.6	9.6	2.8	5.4		
3	7.4	8.6	8.5	10.8	10.4	10.2	10.8	12.8	15.1	14.2	13.7	12.8	11.8	11.6	11.8	11.3	11.2	12.3	12.3	12.2	12.3	11.0	10.5	9.0	15.1	7.4	11.3		
4	8.9	8.2	8.2	8.2	7.5	8.6	10.0	12.1	11.2	12.0	12.8	13.3	12.0	11.8	12.0	11.2	11.2	11.7	11.8	11.1	10.2	8.3	8.8	10.4	13.3	7.5	10.5		
5	11.0	10.1	8.6	6.2	6.8	6.4	6.5	7.3	7.0	6.5	4.5	3.2	3.5	3.6	3.7	4.5	4.4	4.1	3.3	3.5	2.9	3.4	3.8	3.8	11.0	2.9	5.4		
6	3.6	3.5	2.9	2.4	2.1	2.7	2.8	3.2	4.2	4.2	4.2	5.4	7.7	9.0	9.1	9.9	10.0	10.5	11.0	10.2	10.1	9.9	9.7	8.2	11.0	2.1	6.5		
7	6.9	7.7	11.8	12.7	13.2	12.6	10.5	12.3	15.6	15.1	16.1	16.1	15.1	15.8	15.2	14.8	13.6	14.4	14.3	13.4	11.2	9.7	10.2	12.0	16.1	6.9	12.9		
8	13.9	15.2	16.5	16.6	15.8	16.7	16.0	16.9	16.9	17.9	18.2	18.8	18.9	19.6	19.2	18.4	18.8	19.8	20.5	21.4	22.0	23.8	26.1	25.9	26.1	13.9	18.9		
9	24.1	21.9	23.0	22.6	19.9	19.4	20.9	19.7	20.7	21.7	20.8	22.9	23.8	24.7	24.9	22.4	21.7	22.8	15.9	20.8	17.5	20.1	20.3	20.3	24.9	15.9	21.4		
10	15.8	16.5	17.0	17.4	18.4	18.5	17.0	19.3	20.2	19.5	17.8	18.4	19.8	21.2	21.3	21.0	19.1	20.9	20.0	18.0	17.5	19.1	18.7	18.6	21.3	15.8	18.8		
11	19.0	20.7	20.6	20.1	21.1	21.5	20.4	19.2	19.4	19.3	19.7	20.8	19.5	18.4	18.8	18.6	18.1	16.7	17.2	16.2	15.3	15.1	12.5	15.0	21.5	12.5	18.5		
12	15.4	14.4	14.4	13.2	12.0	12.2	12.1	11.6	11.5	11.2	10.8	8.4	11.2	11.6	12.1	11.3	11.2	8.4	6.4	6.9	6.4	5.6	6.1	5.8	15.4	5.6	10.4		
13	5.6	4.9	5.1	5.2	5.1	5.1	3.8	4.7	6.8	7.9	4.8	4.6	4.9	5.2	5.5	4.7	4.8	4.8	4.6	3.4	1.6	2.0	1.2	2.0	7.9	1.2	4.5		
14	1.8	1.1	1.7	1.1	2.0	2.7	2.0	1.6	2.5	2.1	3.3	3.2	3.4	3.1	2.0	2.0	2.6	1.9	2.9	1.3	1.2	2.2	3.0	3.0	3.4	1.1	2.2		
15	3.4	4.2	4.5	4.7	4.6	5.1	5.1	4.5	5.1	5.6	5.0	5.9	4.0	4.9	5.3	5.2	2.6	3.7	4.4	5.2	4.9	3.8	3.5	3.3	5.9	2.6	4.5		
16	3.5	4.1	4.4	3.9	4.9	4.3	4.3	4.2	3.9	4.5	5.4	6.9	8.2	8.9	8.9	10.0	10.4	10.8	10.2	9.6	8.8	8.5	6.4	5.6	10.8	3.5	6.7		
17	5.2	4.8	4.4	3.3	2.2	2.7	2.9	5.0	5.2	5.4	5.1	5.6	5.8	7.7	6.9	7.0	7.9	7.9	7.7	6.7	6.4	6.6	6.3	6.3	7.9	2.2	5.6		
18	4.5	2.3	1.5	1.5	2.1	2.1	1.7	2.2	3.1	4.6	6.1	7.9	10.0	9.4	11.0	14.3	16.7	15.2	15.3	14.0	13.3	11.1	4.8	2.1	16.7	1.5	7.4		
19	2.5	4.4	4.6	4.2	3.9	2.7	2.0	1.8	1.6	1.9	4.3	3.1	2.6	3.8	3.9	3.8	3.2	5.0	4.1	5.8	8.7	5.6	3.4	4.2	8.7	1.6	3.8		
20	3.9	3.9	4.3	3.4	3.2	2.1	2.1	1.6	1.7	1.6	2.0	2.1	3.7	4.2	9.0	11.8	8.9	9.2	8.4	8.6	8.0	8.0	6.7	5.3	11.8	1.6	5.2		
21	4.4	4.9	4.1	2.1	2.1	1.2	1.2	1.7	2.8	4.6	5.0	4.3	3.2	2.0	3.0	4.4	6.1	4.4	2.6	4.9	3.4	3.8	6.4	6.4	6.4	1.2	3.7		
22	8.2	10.1	6.4	6.0	5.7	6.4	6.3	5.5	6.0	3.6	3.0	6.0	7.0	8.1	8.9	9.0	7.8	8.0	8.5	7.7	7.5	6.9	6.0	5.8	10.1	3.0	6.8		
23	5.2	5.4	7.2	7.1	6.1	6.3	7.0	6.2	6.1	6.6	7.2	6.4	7.1	6.4	6.0	6.2	5.6	4.5	5.4	6.1	6.7	6.6	6.5	4.6	7.2	4.5	6.2		
24	3.5	3.9	3.5	3.9	3.3	1.8	1.3	2.3	3.4	3.8	3.8	3.1	3.1	2.3	2.9	2.6	5.2	4.1	2.4	1.8	2.6	2.2	1.9	2.6	5.2	1.3	3.0		
25	1.8	2.2	3.3	4.0	3.9	2.4	1.8	2.2	2.0	3.0	3.7	3.4	3.7	6.0	6.1	6.5	7.1	7.3	6.2	5.4	4.7	4.4	5.0	5.5	7.3	1.8	4.2		
26	5.0	5.0	4.0	4.0	2.6	2.4	2.0	1.4	2.4	2.9	2.7	3.6	3.7	3.2	3.0	4.2	3.3	2.4	5.4	7.0	6.5	6.8	6.1	5.3	7.0	1.4	4.0		
27	4.6	1.9	3.0	1.3	2.8	2.4	3.2	3.7	3.5	2.6	1.6	1.9	1.8	2.7	4.4	4.7	5.8	6.0	5.8	6.6	8.0	6.7	5.1	4.6	8.0	1.3	3.9		
28	4.6	3.2	5.4	3.7	1.0	1.2	2.3	4.3	6.3	5.4	5.3	6.9	5.8	6.1	4.7	4.6	4.5	3.5	2.7	4.9	4.8	2.4	3.6	3.7	6.9	1.0	4.2		
29	3.8	4.8	5.8	3.4	4.7	3.7	3.5	4.2	4.2	4.4	4.0	3.6	3.6	5.1	7.2	11.0	12.3	12.8	11.9	12.0	11.6	10.1	8.0	10.9	12.8	3.4	6.9		
30	10.8	8.6	8.6	9.4	9.0	7.5	8.9	8.6	6.2	5.9	5.7	6.5	6.0	5.8	5.0	3.2	3.7	3.6	1.9	1.7	1.8	2.2	2.0	2.3	10.8	1.7	5.6		
<b>Max.</b>	<b>24.1</b>	<b>21.9</b>	<b>23.0</b>	<b>22.6</b>	<b>21.1</b>	<b>21.5</b>	<b>20.9</b>	<b>19.7</b>	<b>20.7</b>	<b>21.7</b>	<b>20.8</b>	<b>22.9</b>	<b>23.8</b>	<b>24.7</b>	<b>24.9</b>	<b>22.4</b>	<b>21.7</b>	<b>22.8</b>	<b>20.5</b>	<b>21.4</b>	<b>22.0</b>	<b>23.8</b>	<b>26.1</b>	<b>25.9</b>	<b>26.1</b>				
<b>Min.</b>	<b>1.7</b>	<b>1.1</b>	<b>1.3</b>	<b>1.1</b>	<b>1.0</b>	<b>1.2</b>	<b>1.2</b>	<b>1.4</b>	<b>1.6</b>	<b>1.6</b>	<b>1.6</b>	<b>1.9</b>	<b>1.8</b>	<b>2.0</b>	<b>2.0</b>	<b>2.0</b>	<b>2.6</b>	<b>1.9</b>	<b>1.9</b>	<b>1.3</b>	<b>1.2</b>	<b>2.0</b>	<b>1.2</b>	<b>1.7</b>		<b>1.0</b>			
<b>Avg.</b>	<b>7.1</b>	<b>7.0</b>	<b>7.3</b>	<b>6.9</b>	<b>6.7</b>	<b>6.6</b>	<b>6.5</b>	<b>6.9</b>	<b>7.4</b>	<b>7.5</b>	<b>7.5</b>	<b>7.8</b>	<b>8.0</b>	<b>8.4</b>	<b>8.7</b>	<b>9.0</b>	<b>8.9</b>	<b>8.9</b>	<b>8.6</b>	<b>8.7</b>	<b>8.3</b>	<b>8.0</b>	<b>7.5</b>	<b>7.4</b>				<b>7.7</b>	
<b>Total Hours in Month</b>	720		<b>Hours Data Available</b>										720		<b>Data Recovery</b>										100.0%				



## Northern Dynasty Mines Pebble 1 Meterological Station - Wind Speed (Climtrncs) (m/s)

*July 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	2.5	1.3	2.1	3.2	2.0	1.6	1.2	1.5	1.5	1.1	1.3	1.6	1.8	3.0	2.8	3.0	3.9	4.2	5.2	5.5	5.6	5.6	5.4	3.5	5.6	1.1	2.9
2	1.8	2.5	3.6	3.1	2.8	3.6	3.8	3.8	4.7	5.3	5.3	5.3	5.5	6.4	6.2	6.0	8.0	9.4	9.4	8.6	7.9	7.6	8.8	8.9	9.4	1.8	5.8
3	10.5	9.9	8.2	6.3	5.8	5.6	5.1	4.2	6.1	6.3	4.8	4.5	3.5	3.3	3.3	2.8	3.5	5.3	5.3	4.7	4.6	3.6	1.6	1.9	10.5	1.6	5.0
4	2.0	1.3	1.2	1.7	2.0	1.7	1.1	1.1	1.7	1.8	2.0	2.6	3.1	3.5	3.1	4.3	5.4	6.1	6.1	5.5	6.2	4.6	4.1	2.1	6.2	1.1	3.1
5	2.5	1.5	1.6	2.2	2.4	2.5	2.7	2.1	2.0	2.5	2.3	2.3	1.7	2.4	3.4	5.5	4.6	3.9	1.9	1.7	2.1	2.0	1.6	1.8	5.5	1.5	2.5
6	1.0	2.3	2.2	1.8	1.8	1.0	1.7	1.4	2.6	2.9	2.7	2.0	2.8	5.5	6.5	6.6	5.0	5.2	2.1	2.3	3.1	2.5	3.9	3.8	6.6	1.0	3.0
7	3.8	3.8	4.2	4.9	5.8	4.1	4.1	5.4	6.6	7.6	7.6	6.7	6.9	7.6	7.5	8.0	8.5	7.0	4.5	4.5	6.2	6.1	4.8	6.7	8.5	3.8	6.0
8	7.2	6.5	3.7	6.4	4.1	4.2	5.2	5.0	5.5	4.5	2.3	1.9	2.4	2.4	1.6	1.4	2.2	3.0	3.1	3.3	2.4	3.7	4.0	2.1	7.2	1.4	3.7
9	1.5	2.3	3.1	3.4	3.9	3.7	3.8	3.3	2.6	1.7	2.6	3.8	5.4	5.5	7.2	8.0	8.1	8.5	9.5	9.8	9.5	8.6	11.3	12.5	12.5	1.5	5.8
10	13.8	15.0	15.8	13.3									13.2	13.8	13.3	12.2	14.1	15.3	17.5	17.5	16.0	15.1			17.5	12.2	14.7
11		16.2	15.9	14.6	13.6	12.8	8.8	8.2	8.8		6.3	5.6	7.4	7.1	5.5	4.5	5.4	4.7	5.2	3.4	4.1	5.2	5.4	6.2	16.2	3.4	8.0
12	5.5	6.2	5.4	4.1	4.3	4.2	2.5	2.6	1.5	2.9	2.2	1.2	1.4	1.9	2.1	3.0	3.3	4.0	3.2	3.6	3.8	4.4	4.6	4.2	6.2	1.2	3.4
13	3.4	4.6	7.9	9.3	6.6	6.1	5.7	3.6	4.6	4.8	4.8	4.6	4.4	4.0	3.2	1.9	4.3	6.3	5.9	5.1	6.1	6.3	7.3	6.6	9.3	1.9	5.3
14	6.7	6.5	8.0	9.1	9.9	9.6	8.8	8.6	12.2	11.9	9.2	9.6	8.8	7.8	8.2	8.5	6.9	6.5	6.1	6.9	7.1	6.5	6.2	5.7	12.2	5.7	8.1
15	6.6	7.5	6.5	6.8	6.5	7.3	7.8	6.5	6.6	6.0	5.1	4.8	5.4	4.5	3.9	3.4	5.5	4.7	3.9	5.0	5.1	5.3	5.8	5.0	7.8	3.4	5.7
16	4.5	5.3	5.9	5.3	4.9	5.5	3.7	3.2	4.6	5.9	5.7	6.0	6.5	7.8	9.9	11.1	11.0	12.2	13.9	13.3	13.5	13.5	14.3	15.1	15.1	3.2	8.4
17	15.6	14.6	12.4	11.1	8.5	8.6	6.9	7.4	7.5	8.8	8.8	10.6	11.1	12.0	13.1	12.8	13.8	13.8	15.3	16.7	16.8	15.5	16.0	15.0	16.8	6.9	12.2
18	15.3	15.4	14.5	13.9	14.5	11.4	12.5	13.0	18.3	18.7	17.8	18.0	14.1	12.3	12.9	12.7	14.8	14.7	16.4	17.1	16.4	15.7	17.1	14.3	18.7	11.4	15.1
19	15.3	14.7	14.4	14.6	13.9	14.3	13.0	12.1	11.0	13.0	10.8	10.5	8.0	6.8	3.9	3.5	3.8	3.0	3.8	5.4	6.9	6.4	5.4	5.4	15.3	3.0	9.2
20	5.2	4.9	5.0	5.3	4.5	3.5	2.6	1.7	1.5	2.6	3.9	3.6	2.9	3.8	4.8	4.7	5.0	5.4	5.7	5.0	7.0	7.6	7.1	6.2	7.6	1.5	4.6
21	4.9	5.8	5.1	5.0	5.7	5.6	5.1	6.0	6.3	4.2	2.9	2.5	2.7	0.8	0.9	0.9	2.1	2.0	2.6	2.9	2.8	2.8	2.6	6.3	6.3	0.8	3.7
22	7.6	7.2	7.0	7.2	6.7	4.6	3.0	3.3	3.2	2.8	1.9	1.1	1.2	2.5	2.1	2.0	1.9	3.2	4.1	5.0	4.0	3.7	5.8	6.0	7.6	1.1	4.0
23	6.3	5.9	4.9	5.1	6.6	8.2	7.4	6.4	6.9	9.2	9.7	7.7	7.7	9.4	9.6	9.9	6.7	6.1	3.6	2.7	2.1	1.5	5.0	3.6	9.9	1.5	6.3
24	3.3	3.4	3.8	3.5	2.2	2.4	1.8	2.0	3.1	1.5	3.6	3.5	6.1	6.0	5.5	5.3	5.0	4.7	3.0	1.8	2.6	3.7	5.2	6.0	6.1	1.5	3.7
25	5.7	6.1	5.5	5.6	5.4	8.8	9.3	8.4	7.2	9.0	10.5	10.3	9.0	4.4	3.7	2.7	3.9	5.5	6.3	7.0	7.3	7.1	6.3	6.3	10.5	2.7	6.7
26	6.3	5.7	5.1	4.6	3.2	2.8	3.1	3.1	3.3	2.4	2.6	2.4	2.7	3.1	1.9	1.3	1.6	1.5	4.5	5.0	5.0	5.4	5.8	6.2	6.3	1.3	3.7
27	7.4	8.2	9.0	8.7	7.1	6.0	5.8	6.0	6.7	6.9	6.4	5.3	4.3	3.6	1.8	1.5	1.3	1.3	2.1	1.4	2.6	2.7	2.5	2.4	9.0	1.3	4.6
28	2.7	3.0	3.0	2.5	2.2	2.1	1.8	1.4	0.9	1.6	1.5	1.7	1.4	1.3	0.9	1.7	2.4	4.4	4.4	4.8	5.4	6.8	8.7	9.4	9.4	0.9	3.2
29	7.4	7.2	8.9	10.8	9.7	11.7	8.3	9.4	11.6	10.5	10.8	12.7	14.8	14.0	13.4	12.2	9.8	8.4	9.4	7.0	6.7	8.8	9.7	8.4	14.8	6.7	10.1
30	10.0	11.5	11.6	12.2	10.6	11.0	9.2	7.8	6.7	6.7	6.7	6.2	7.4	5.5	3.5	1.7	1.5	1.6	2.4	3.7	4.9	4.7	6.0	7.4	12.2	1.5	6.7
31	9.7	10.8	12.9	10.4	13.1	12.4	12.0	7.7	6.8	7.3	5.8	6.5	5.8	4.6	5.2	4.0	4.0	5.1	6.2	5.7	5.3	5.5	6.3	7.5	13.1	4.0	7.5
<b>Max.</b>	<b>15.6</b>	<b>16.2</b>	<b>15.9</b>	<b>14.6</b>	<b>14.5</b>	<b>14.3</b>	<b>13.0</b>	<b>13.0</b>	<b>18.3</b>	<b>18.7</b>	<b>17.8</b>	<b>18.0</b>	<b>14.8</b>	<b>14.0</b>	<b>13.4</b>	<b>12.8</b>	<b>14.8</b>	<b>15.3</b>	<b>17.5</b>	<b>17.5</b>	<b>16.8</b>	<b>15.7</b>	<b>17.1</b>	<b>15.1</b>	<b>18.7</b>		
<b>Min.</b>	<b>1.0</b>	<b>1.3</b>	<b>1.2</b>	<b>1.7</b>	<b>1.8</b>	<b>1.0</b>	<b>1.1</b>	<b>1.1</b>	<b>0.9</b>	<b>1.1</b>	<b>1.3</b>	<b>1.1</b>	<b>1.2</b>	<b>0.8</b>	<b>0.9</b>	<b>0.9</b>	<b>1.3</b>	<b>1.3</b>	<b>1.9</b>	<b>1.4</b>	<b>2.1</b>	<b>1.5</b>	<b>1.6</b>	<b>1.8</b>		<b>0.8</b>	
<b>Avg.</b>	<b>6.5</b>	<b>7.0</b>	<b>7.0</b>	<b>7.0</b>	<b>6.3</b>	<b>6.2</b>	<b>5.6</b>	<b>5.2</b>	<b>5.8</b>	<b>5.9</b>	<b>5.6</b>	<b>5.5</b>	<b>5.8</b>	<b>5.7</b>	<b>5.5</b>	<b>5.4</b>	<b>5.7</b>	<b>6.0</b>	<b>6.2</b>	<b>6.2</b>	<b>6.4</b>	<b>6.4</b>	<b>6.6</b>	<b>6.5</b>			<b>6.1</b>

Total Hours in Month 744

Hours Data Available 732

Data Recovery 98.4%

# Northern Dynasty Mines Pebble 1 Meterological Station - Resultant Wind Direction (Climtrncs) (Degrees)

*August 2005*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
1	209.9	258.9	298.6	309.7	306.3	328.0	357.4	96.4	97.2	104.3	109.1	148.0	167.1	168.9	180.2	191.9	168.7	163.9	150.4	155.7	150.0	145.6	132.0	142.3
2	126.9	124.3	130.1	124.8	129.3	123.6	113.4	107.6	109.2	108.0	107.2	103.0	134.9	128.8	134.3	133.5	143.4	148.5	84.8	43.7	42.4	42.2	70.3	69.7
3	55.5	16.5	313.9	4.3	307.9	289.2	291.7	297.1	304.0	319.9	350.3	357.9	22.0	236.4	147.5	172.4	175.1	200.9	182.0	207.0	190.6	209.4	208.0	153.1
4	141.7	150.8	150.4	150.7	168.4	201.0	188.4	145.2	120.8	136.2	216.9	223.0	218.2	112.0	125.3	151.1	209.3	314.6	169.8	146.8	196.5	324.1	169.0	121.5
5	150.4	229.2	146.8	176.9	247.5	144.2	156.6	232.4	244.1	118.1	143.2	169.8	215.7	213.8	208.8	190.4	217.6	217.3	205.7	218.7	222.1	226.1	241.6	218.6
6	138.9	233.1	246.2	347.1	104.1	225.8	316.8	239.0	298.7	12.5	320.9	34.0	256.9	271.6	222.1	245.5	233.6	222.8	235.2	275.1	285.0	280.8	290.4	260.5
7	240.5	234.4	181.9	180.5	162.4	190.3	92.7	276.2	274.7	279.0	251.8	297.7	273.7	279.9	267.7	240.4	282.6	277.4	293.0	286.8	293.3	301.6	301.7	303.0
8	294.1	303.9	306.3	304.8	309.5	305.8	311.3	314.8	325.1	339.9	336.2	295.1	61.3	129.1	139.4	131.1	144.1	167.8	174.5	171.1	194.7	139.1	155.2	163.1
9	171.0	175.1	177.2	178.3	168.2	158.7	160.2	151.3	144.4	123.5	136.8	148.1	151.1	152.5	156.6	151.3	154.7	158.7	161.8	162.9	165.0	161.1	159.9	147.9
10	143.8	214.2	320.9	317.6	109.3	131.1	118.2	102.3	112.4	112.2	140.6	149.5	150.5	156.2	153.3	162.4	167.7	169.6	197.5	230.9	240.4	272.6	313.9	309.6
11	321.6	328.7	329.3	320.3	316.7	308.4	305.7	304.3	311.8	328.1	335.0	347.3	355.7	358.0	354.5	349.1	353.6	349.0	335.1	329.8	297.2	296.2	301.4	306.0
12	311.0	102.7	142.7	139.3	106.4	116.5	170.0	142.0	136.4	141.1	144.9	141.1	126.3	133.3	153.7	158.8	169.3	160.3	156.3	169.9	169.3	158.6	163.1	165.2
13	167.7	166.8	120.0	104.5	123.1	137.8	112.0	125.4	120.1	107.1	115.9	130.9	123.4	133.9	154.1	166.9	164.5	187.6	159.7	166.2	169.4	178.7	148.1	154.7
14	152.7	153.5	141.9	152.9	153.6	165.9	172.4	117.9	127.1	129.2	121.7	125.6	128.7	142.6	137.9	150.9	180.1	184.3	208.7	147.4	142.3	134.8	157.9	140.8
15	154.8	158.9	143.2	160.9	147.7	156.8	153.4	158.5	162.0	161.3	147.7	138.7	144.3	147.8	144.0	143.1	156.2	139.7	137.4	133.7	138.4	130.6	137.6	158.1
16	136.9	141.6	151.3	145.9	131.0	132.1	127.2	119.6	128.8	126.8	124.9	127.5	126.8	123.5	120.6	124.0	123.6	120.6	122.8	121.0	122.4	118.3	118.3	116.5
17	119.0	117.4	115.9	121.4	111.3	96.9	94.4	82.7	54.9	54.3	56.3	54.9	61.7	54.8	77.6	79.0	69.1	82.2	75.8	78.9	94.2	76.7	113.3	102.4
18	113.4	114.6	117.3	126.3	144.2	92.1	130.7	173.6	276.7	324.9	304.0	306.5	313.3	314.3	314.7	315.5	321.7	310.6	293.7	352.4	307.4	247.4	140.7	319.5
19	148.0	284.3	114.4	110.5	209.8	275.5	311.0	317.1	303.7	308.4	300.4	316.7	323.9	325.9	327.6	331.4	328.3	331.5	331.0	327.3	319.0	318.3	317.9	318.0
20	314.6	317.9	319.4	304.5	312.3	320.2	328.6	318.4	321.0	327.7	324.5	325.5	326.9	315.8	292.4	281.4	270.0	271.1	237.7	218.2	238.7	235.3	234.6	232.2
21	232.2	225.3	234.0	248.9	265.1	285.4	289.2	300.8	307.5	317.6	317.7	307.7	305.8	304.5	319.3	325.2	318.6	329.3	312.6	327.3	323.2	322.5	323.8	314.2
22	316.5	53.6	115.4	117.1	113.7	142.6	130.4	123.2	119.8	149.7	136.4	128.4	123.0	124.6	125.5	123.2	122.6	123.1	124.2	123.2	119.3	119.7	118.8	126.4
23	127.6	124.4	132.6	130.2	152.5	203.6	221.0	210.9	199.3	187.0	183.8	185.4	182.1	186.3	184.0	188.4	187.5	182.4	168.6	177.8	172.8	163.2	159.5	159.4
24	154.7	140.4	130.8	135.2	116.0	108.6	95.4	119.7	129.6	259.4	306.4	312.2	312.0	309.3	313.9	312.9	309.7	313.4	309.5	315.7	302.6	303.1	301.5	306.2
25	305.8	309.0	306.2	311.0	291.6	302.4	307.1	315.6	323.1	334.9	1.5	348.3	342.2	347.8	2.1	345.4	329.1	343.3	339.0	330.9	328.4	318.6	318.2	316.6
26	312.8	310.9	310.1	321.1	332.2	313.5	314.1	330.2	343.1	341.7	330.9	336.3	336.1	340.1	333.0	328.9	329.0	327.7	319.3	320.0	318.1	326.5	315.4	322.4
27	317.7	314.8	297.0	332.3	332.7	318.6	305.7	321.7	332.3	325.3	323.2	327.7	325.0	313.4	301.4	289.4	287.4	288.2	285.9	308.3	178.4	165.8	170.5	160.8
28	163.5	187.8	151.5	138.9	145.6	153.3	157.1	159.9	159.4	160.3	159.1	174.8	151.6	176.2	203.2	219.2	216.1	223.4	214.0	221.5	216.1	218.8	224.0	222.3
29	217.7	227.4	237.6	241.4	248.7	249.4	251.8	259.5	263.8	266.9	265.6	262.7	260.0	265.9	265.8	272.3	283.3	275.6	261.4	257.5	267.6	267.8	268.8	273.3
30	288.1	309.9	313.8	307.6	319.4	320.9	311.5	307.9	316.7	326.1	323.5	330.5	333.7	329.5	331.7	328.8	333.8	335.2	325.8	313.9	305.8	305.7	303.6	314.1
31	312.6	315.4	323.2	307.1	310.7	309.6	315.9	321.6	329.6	325.9	331.5	335.0	333.3	331.7	320.8	327.8	321.6	327.0	334.2	335.0	331.3	324.1	325.2	333.4

**Total Hours in Month**      744

**Hours Data Available**      744

**Data Recovery** 100.0%

**HCG, Inc.**

# Northern Dynasty Mines Pebble 1 Meterological Station - Resultant Wind Direction (Climtrncs) (Degrees)

*September 2005*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
1	332.2	322.0	317.4	316.7	318.0	322.7	323.1	322.4	319.1	323.7	331.6	332.3	331.4	323.3	327.2	330.4	333.5	329.7	334.7	332.6	319.7	312.7	313.0	324.3
2	316.4	300.7	293.9	308.2	304.1	120.4	122.7	115.1	121.3	126.7	143.3	135.4	131.6	134.5	140.6	144.1	138.7	132.2	128.0	125.2	128.5	131.4	131.2	131.9
3	130.8	130.2	131.5	135.5	137.9	135.3	133.6	133.8	130.3	125.9	121.1	121.5	117.0	112.4	113.8	115.8	118.2	120.2	118.3	114.0	118.6	122.4	120.9	126.1
4	123.2	113.8	143.9	195.3	128.0	105.3	135.3	123.7	66.3	96.1	106.9	106.0	103.8	103.3	107.0	116.9	145.6	157.5	162.1	157.9	148.7	150.5	148.6	143.5
5	135.8	141.9	145.6	142.8	144.8	147.6	139.3	136.3	130.7	127.2	121.8	121.9	126.1	129.8	133.3	137.0	136.0	136.4	135.1	127.8	126.9	140.1	131.6	144.6
6	147.3	196.7	229.8	224.2	222.8	227.0	218.4	169.9	195.0	223.1	230.0	219.1	207.8	210.3	208.3	202.0	201.3	198.2	198.0	214.1	226.5	234.0	243.3	237.8
7	236.7	236.1	237.7	258.4	266.9	222.4	221.8	339.8	318.3	303.8	299.0	300.1	306.9	293.3	292.6	293.5	300.4	304.4	310.5	307.5	294.5	273.6	238.1	233.7
8	267.5	324.8	324.1	307.7	307.8	306.4	301.9	315.5	353.1	23.5	356.3	57.6	101.6	106.5	122.5	126.3	131.4	145.8	147.4	118.8	123.4	126.4	126.0	128.2
9	128.6	128.4	133.5	130.5	134.2	129.0	119.5	115.8	119.7	140.0	140.2	150.6	148.8	151.3	149.9	162.7	202.0	224.0	229.5	235.6	233.1	231.0	226.6	221.9
10	217.4	222.1	230.8	226.3	222.0	230.6	224.9	232.3	169.7	227.4	226.0	227.5	221.2	192.2	207.7	214.4	175.7	124.2	128.3	95.2	97.6	151.9	118.0	106.0
11	118.9	139.8	125.9	138.9	139.1	132.9	133.7	133.9	132.3	127.8	126.9	123.3	126.5	127.0	128.9	133.1	127.5	127.3	134.0	135.5	130.2	126.9	143.7	198.6
12	197.7	240.8	256.3	257.5	245.9	213.9	215.7	203.1	208.3	201.3	196.9	203.1	218.6	229.0	235.7	238.3	240.4	240.7	242.9	251.2	250.1	251.6	254.6	255.7
13	249.6	251.8	259.2	265.8	263.4	240.9	229.2	249.9	246.6	227.1	217.9	222.9	222.6	229.4	216.5	217.4	220.7	205.0	183.2	158.1	185.4	190.5	216.6	170.6
14	121.6	134.5	131.1	153.5	145.0	126.4	122.1	106.7	119.4	109.0	110.5	123.5	121.3	128.1	130.9	139.1	140.2	138.3	130.5	129.5	126.9	120.0	121.4	124.1
15	121.3	118.9	120.7	121.1	121.9	123.1	122.6	127.1	126.2	129.3	126.6	124.9	122.1	118.8	117.1	119.3	122.9	139.9	183.9	147.6	161.5	149.8	157.0	155.5
16	260.0	260.3	242.9	264.0	258.0	29.1	284.0	265.4	107.7	130.1	267.3	262.1	267.4	253.6	257.5	263.8	226.9	237.8	212.3	215.8	235.2	228.9	225.1	217.4
17	223.2	197.4	160.1	128.7	275.6	2.4	24.4	308.0	304.0	309.2	299.6	319.7	103.1	221.6	302.4	315.8	261.1	293.7	257.5	280.8	300.3	298.5	286.5	300.1
18	297.2	308.2	299.5	295.3	294.2	296.9	307.2	314.7	317.4	305.6	311.9	310.7	306.7	309.9	302.9	299.7	293.7	298.3	299.0	298.9	290.7	298.7	299.4	299.3
19	299.9	302.2	298.2	308.3	313.9	302.3	304.6	299.4	316.2	313.3	344.1	333.2	338.2	337.8	350.4	334.8	334.6	341.4	335.5	330.3	320.5	311.6	307.6	302.1
20	301.8	300.6	304.7	313.5	307.6	310.1	302.0	302.6	299.3	301.7	308.2	324.0	312.4	322.7	331.0	308.1	294.2	308.9	318.1	293.5	270.5	271.6	261.8	238.4
21	227.1	211.2	197.1	223.0	210.2	163.9	124.7	119.3	150.4	155.6	146.8	113.6	130.9	138.8	151.9	157.4	147.4	149.9	148.9	147.2	151.2	145.3	131.1	148.8
22	155.8	151.7	144.0	147.0	161.1	144.5	137.6	134.9	132.4	122.7	123.7	123.0	124.6	126.6	127.9	145.1	157.5	179.0	216.0	209.5	206.6	215.6	204.6	198.3
23	203.8	207.6	184.3	182.9	168.6	165.8	162.4	163.4	149.8	128.0	120.9	121.1	128.9	127.1	130.1	126.7	128.2	138.4	184.9	237.9	251.6	246.5	246.4	250.4
24	240.9	233.6	231.2	230.7	230.9	228.3	232.4	235.3	217.8	222.8	231.5	239.1	237.8	238.5	230.5	222.6	227.2	226.4	218.7	223.6	225.9	228.5	230.1	227.1
25	226.6	229.8	226.9	226.9	230.6	231.1	223.9	225.9	221.3	222.1	225.8	222.5	220.4	216.7	211.4	208.2	206.1	210.2	205.1	208.5	214.6	223.8	219.0	223.8
26	208.6	132.2	132.3	108.4	106.7	108.5	104.2	113.1	112.8	116.7	109.9	113.6	116.3	119.1	115.2	113.9	112.3	114.7	111.8	109.7	109.4	111.3	110.6	113.8
27	113.5	112.0	114.0	117.1	117.2	119.1	114.0	79.0	54.6	82.9	93.9	52.3	48.8	49.6	39.7	34.8	31.6	61.6	70.0	72.6	81.9	67.3	358.5	310.5
28	319.1	325.9	321.3	302.1	308.6	303.1	306.0	308.8	261.5	268.6	292.2	324.6	311.2	325.9	333.3	321.3	326.4	339.9	277.4	269.4	137.7	221.6	238.0	158.3
29	170.8	213.3	210.3	225.9	227.3	213.0	198.4	213.1	209.0	210.3	220.3	261.8	272.2	281.9	291.5	290.8	298.6	296.2	299.8	282.7	272.3	169.2	293.4	262.5
30	257.4	146.1	172.6	218.1	213.2	142.8	183.3	183.8	140.2	118.6	325.3	329.1	332.0	318.0	320.0	324.2	318.3	320.6	329.3	333.0	338.8	325.3	322.3	322.3

**Total Hours in Month**      720

**Hours Data Available**      720

**Data Recovery**    100.0%

**HCG, Inc.**

# Northern Dynasty Mines Pebble 1 Meterological Station - Resultant Wind Direction (Climtrncs) (Degrees)

October 2005

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
1	322.0	321.8	321.7	320.1	321.0	321.9	321.2	325.9	326.4	326.1	325.7	326.1	322.4	326.1	324.6	329.1	323.5	327.8	322.5	306.8	311.2	315.0	309.0	312.1
2	309.2	308.3	302.7	298.8	298.3	318.6	308.1	314.8	316.5	321.8	314.0	317.9	314.2	313.7	320.6	323.9	334.8	326.8	294.4	302.4	326.5	341.0	324.8	317.5
3	349.3	86.9	121.7	109.8	330.8	179.5	108.0	320.6	307.3	308.3	310.0	327.8	318.5	343.4	324.7	144.2	171.1	150.3	157.2	220.7	320.3	207.3	108.4	50.9
4	43.8	25.2	93.6	61.9	47.9	61.0	64.4	90.3	71.0	99.1	85.3	88.6	104.4	108.8	118.1	96.5	66.4	80.9	86.3	81.9	49.5	52.7	56.4	59.5
5	54.6	54.0	63.3	50.5	41.1	23.4	31.6	17.9	36.9	30.2	8.1	353.4	348.3	2.9	357.8	357.9	14.5	32.1	352.3	356.5	320.7	239.9	140.8	143.9
6	149.2	201.0	231.5	334.0	110.7	130.9	209.4	174.5	196.5	208.9	211.6	227.4	195.6	215.9	216.1	220.1	204.3	204.0	181.2	141.8	137.9	137.6	126.9	122.3
7	110.2	117.6	117.2	126.1	123.1	122.6	124.2	127.6	120.4	121.6	123.4	126.6	124.8	123.9	138.5	179.0	193.4	171.9	133.2	145.6	172.4	149.6	114.1	114.9
8	120.5	111.0	114.6	88.1	97.3	95.8	91.7	93.1	98.7	112.3	95.1	114.8	349.6	328.6	336.1	331.0	325.6	307.6	301.3	291.8	149.6	127.5	117.7	102.5
9	103.5	104.1	101.1	4.5	344.3	325.0	322.8	323.3	314.0	321.2	312.6	313.8	320.9	322.4	314.2	322.3	317.4	319.0	322.6	329.1	333.4	326.4	322.3	323.8
10	327.9	316.3	324.4	321.2	311.6	303.7							52.4	61.2	84.1	102.3	101.5	110.4	145.2	125.9	115.5	123.7	128.2	119.3
11	120.2	129.9	122.7	150.1	148.8	126.8	129.2	133.8	158.0	170.5	178.5	214.4	211.1	209.0	247.1	289.4	306.3	304.9	300.1	294.0	302.7	304.5	305.7	309.6
12	309.4	308.6	310.0	313.8	316.5	316.6	313.2	312.6	315.7	315.2	316.2	317.2	317.3	317.3	306.6	306.2	313.9	316.0	336.8	310.4	302.8	314.9	332.6	300.2
13	315.0	303.5	316.0	316.9	305.2	322.0	308.5	324.2	315.5	313.7	313.8	321.6	317.7	326.5	299.9	287.9	232.3	186.2	181.3	132.6	155.1	145.4	146.2	150.4
14	149.5	162.8	163.8	152.8	138.2	157.4	136.7	119.5	174.6	194.8	144.2	124.1	86.0	83.0	101.4	105.7	111.8	116.2	117.8	114.6	118.9	122.2	110.0	112.3
15	111.8	112.2	107.8	159.2	117.6	92.1	52.1	44.4	66.1	54.6	60.7	338.5	317.0	344.5	349.0	325.8	335.2	324.6	323.0	310.7	318.8	313.6	304.2	309.1
16	314.7	310.3	310.2	318.6	307.2	298.9	300.5	297.2	312.4	311.7	317.5	148.9	193.2	179.1	202.3	187.2	207.6	175.4	204.0	146.2	147.9	161.8	166.6	162.1
17	166.1	147.3	142.7	138.8	121.1	117.1	121.1	121.9	128.7	131.9	155.0	194.6	196.1	205.0	210.8	215.9	215.9	218.5	213.9	213.5	218.2	217.9	219.1	232.7
18	241.6	249.3	260.8	264.0	260.5	261.2	261.2	255.4	253.2	262.4	266.8	253.2	241.8	240.8	250.9	237.7	212.2	206.1	206.9	220.3	195.2	187.4	175.3	157.6
19	143.0	130.9	140.1	136.5	140.2	152.1	154.0	138.8	130.6	129.9	126.5	129.9	124.7	121.3	117.8	115.8	113.6	117.7	116.6	117.9	117.1	116.8	114.7	111.6
20	111.3	112.1	113.3	114.7	115.8	113.4	111.8	112.9	115.7	118.4	119.5	114.7	110.7	65.7	52.3	56.0	18.5	32.5	23.5	24.6	32.5	32.2	0.3	357.2
21	9.6	38.9	38.5	93.7	20.9	12.1	323.7	326.3	317.4	314.5	303.5	298.9	301.1	301.3	297.9	289.5	308.3	295.0	294.7	296.9	298.8	295.6	305.2	318.5
22	310.6	309.9	313.9	312.3	312.6	318.4	311.4	310.0	308.9	312.0	312.2	307.3	309.8	308.5	306.6	303.5	306.3	313.2	305.5	300.4	302.9	299.0	298.9	310.6
23	309.7	314.8	311.2	304.4	304.6	311.8	318.2	315.2	308.9	306.0	318.9	319.3	326.7	324.5	327.0	327.3	328.1	326.6	326.8	326.5	325.8	326.0	326.1	324.0
24	312.7	301.2	306.2	312.1	303.5	305.5	304.0	306.4	321.1	310.1	312.7	307.0	322.7	312.7	310.3	317.3	321.5	327.6	317.3	311.7	319.4	322.6	322.8	327.4
25	326.2	321.9	325.1	323.0	316.2	318.1	322.7	324.9	312.8	308.8	309.1	318.4	322.1	337.1	333.2	333.2	330.4	328.5	327.7	327.9	331.8	333.3	334.7	328.4
26	332.3	330.6	332.9	336.4	335.4	333.1	332.3	329.9	324.9	321.0	323.7	330.4	337.9	342.6	340.5	334.8	332.9	334.6	327.4	325.0	327.9	309.0	298.4	301.4
27	302.3	307.9	305.8	310.0	307.4	219.5	307.3	211.8	294.7	263.8	277.9	273.3	227.6	120.6	120.7	107.3	126.0	83.8	127.3	116.2	120.3	104.4	139.4	206.3
28	310.6	265.9	277.5	338.1	309.8	314.5	312.5	314.3	317.3	317.3	356.8	336.1	347.7	343.7	345.3	345.0	343.5	337.0	347.7	350.8	328.5	331.2	298.6	271.9
29	304.9	278.1	276.6	316.0	342.4	343.7	312.2	316.7	312.6	311.2	311.8	312.4	312.8	310.4	327.2	326.9	329.0	322.1	321.5	316.6	316.1	295.5	294.7	312.2
30	311.6	310.0	309.8	314.2	312.5	307.6	308.9	305.9	307.8	314.5	312.2	318.4	312.0	316.4	311.3	310.6	299.0	309.7	309.6	317.8	313.7	309.4	312.4	316.4
31	316.2	314.3	316.2	308.2	311.5	312.2	309.8	322.6	320.0	300.2	309.9	315.1	319.8	313.4	317.5	329.0	299.2	312.8	314.6	320.1	315.8	318.9	303.8	297.2

**Total Hours in Month**      744

**Hours Data Available**      738

**Data Recovery**      99.2%

**HCG, Inc.**

# Northern Dynasty Mines Pebble 1 Meterological Station - Resultant Wind Direction (Climtrncs) (Degrees)

*November 2005*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
1	306.3	304.9	309.1	315.0	302.1	313.0	313.0	317.2	316.0	313.1	310.1	311.1	317.4	309.4	310.2	303.7	311.1	315.9	321.8	314.0	310.9	315.9	320.4	319.2
2	321.0	321.5	320.8	319.0	309.3	303.3	312.9	317.4	307.0	308.5	302.9	317.5	315.1	308.7	313.3	315.5	328.8	307.1	308.7	310.7	311.9	311.3	308.7	309.8
3	305.0	317.5	325.0	327.9	316.7	320.6	321.0	323.9	323.9	319.7	323.2	331.0	329.1	325.3	324.1	325.3	317.4	321.6	318.3	316.1	316.9	330.2	330.1	326.8
4	326.7	322.8	323.5	326.3	325.0	323.0	316.1	315.5	315.6	322.0	320.6	319.8	321.8	315.8	321.1	320.5	312.5	320.0	330.2	326.6	329.9	323.5	327.3	326.6
5	322.6	321.8	313.8	319.3	322.8	317.2	322.5	321.8	321.1	318.7	318.5	314.8	316.7	316.8	311.9	314.6	315.1	311.7	312.8	308.9	302.7	288.5	165.8	152.0
6	149.5	121.8	116.6	141.4	237.9	261.4	274.4	296.0	305.8	307.9	311.1	305.9	309.2	311.1	315.9	312.7	309.7	313.8	324.7	336.7	337.9	326.8	316.0	310.6
7	313.4	321.1	327.7	317.7	320.2	315.8	316.9	315.5	314.5	311.9	320.0	316.7	335.3	311.6	314.2	303.7	303.2	310.4	310.4	313.3	311.3	310.3	310.8	314.4
8	315.2	315.5	318.4	316.7	310.3	306.9	308.6	308.2	307.6	302.8	300.1	304.6	305.5	311.4	309.6	309.5	311.0	313.1	313.7	313.2	312.8	310.1	308.4	321.6
9	329.6	330.3	337.3	336.4	336.4	329.7	336.0	337.5	339.6	339.3	327.6	330.4	326.4	329.5	324.4	323.7	329.5	325.6	326.0	322.8	323.6	322.8	325.5	324.3
10	317.3	320.4	318.8	317.4	316.8	317.7	317.4	318.5	316.5	313.9	315.6	318.0	319.4	323.4	326.5	321.6	322.6	321.9	322.0	321.3	322.8	321.8	322.3	324.6
11	322.1	329.7	322.3	317.5	319.5	324.6	328.8	326.2	324.9	320.8	317.4	318.6	322.3	321.6	322.9	327.1	335.2	327.2	317.8	315.3	311.8	309.6	301.3	301.3
12	305.2	303.7	302.5	307.2	309.1	303.6	312.4	307.4	306.0	307.8	316.1	315.1	311.8	313.7	313.9	316.3	307.2	311.2	317.2	321.7	326.6	331.4	320.6	323.6
13	324.8	323.0	324.3	315.2	317.7	321.2	323.5	329.2	338.7	328.0	340.3	337.8	308.7	311.1	26.8	55.7	111.3	120.5	120.2	127.0	125.7	119.0	129.0	121.4
14	117.5	122.1	126.1	134.1	129.1	129.5	124.9	117.7	105.1	104.8	116.2	112.6	117.8	53.8	58.6	62.0	87.4	80.0	48.9	48.0	49.5	43.1	30.9	6.0
15	30.7	12.5	356.1	358.4	350.6	344.4	286.3	312.0	316.0	313.5	307.5	316.3	316.8	306.4	310.6	313.8	316.5	321.4	315.6	199.8	141.1	109.9	100.3	105.9
16	98.9	103.7	109.8	112.1	91.1	98.4	102.8	109.4	111.7	116.0	121.4	126.7	128.7	125.0	127.8	129.4	126.0	123.6	128.5	125.4	123.6	125.1	124.7	125.3
17	129.0	138.0	139.5	145.0	157.3	157.7	154.6	169.9	160.5	188.6	221.6	208.5	201.5	208.0	218.1	221.1	212.3	200.7	189.0	189.4	185.7	196.1	152.5	151.1
18	150.7	111.3	101.3	95.2	83.4	22.9	39.7	47.8	33.9	35.6	96.2	92.8	36.3	73.4	71.1	331.2	320.0	311.4	317.7	287.1	313.1	278.1	279.6	280.4
19	273.5	181.2	162.0	178.8	173.2	193.2	209.3	216.7	208.4	205.0	208.9	201.1	223.9	221.7	207.3	190.7	198.9	198.9	188.2	160.0	155.5	119.2	95.8	102.3
20	109.1	108.7	126.1	148.7	137.2	115.3	111.3	121.6	123.1	116.9	113.9	114.0	121.9	328.2	312.8	314.2	313.5	302.9	314.7	305.9	227.4	233.9	254.0	266.7
21	294.5	318.8	323.7	301.4	303.3	308.8	308.2	308.8	296.6	289.9	293.1	290.3	271.0	285.8	299.5	280.6	268.9	280.1	292.6	290.4	279.7	239.1	194.7	206.2
22	230.6	132.4	124.9	144.5	291.6	279.8	154.7	62.5	314.9	64.1	92.7	113.0	138.5	116.6	319.2	318.2	320.6	311.2	313.5	327.3	311.6	325.4	316.8	311.4
23	310.0	319.2	314.5	313.0	310.7	310.6	317.1	318.5	318.5	317.1	313.8	311.8	313.4	314.3	312.0	312.1	312.5	300.3	295.8	305.0	297.0	298.8	297.2	305.9
24	304.3	307.8	317.9	318.4	316.0	312.1	308.0	317.9	313.3	308.3	306.3	314.2	311.0	306.6	305.5	305.3	304.6	300.9	294.4	303.5	306.1	309.6	318.0	310.7
25	310.9	317.2	311.6	313.2	320.8	307.9	309.0	310.7	307.8	309.8	314.0	314.3	314.5	317.9	314.1	311.8	312.5	311.2	313.2	314.8	313.8	314.0	315.3	328.6
26	326.5	326.8	322.9	330.1	318.8	316.3	320.5	324.6	322.7	315.5	314.0	311.9	308.5	311.1	305.9	309.2	309.2	309.3	309.7	309.0	316.8	309.2	301.4	306.0
27	305.5	308.0	307.9	307.9	306.6	315.5	300.2	313.1	315.2	305.7	310.2	319.6	308.6	318.7	312.6	298.0	129.3	114.4	110.1	130.2	120.7	138.5	154.0	157.3
28	155.6	154.6	153.1	156.7	158.3	156.1	159.5	162.3	167.2	167.6	165.5	163.2	165.7	162.6	163.1	176.3	150.4	157.3	136.8	175.2	141.9	157.2	157.5	136.3
29	159.9	137.8	110.6	85.6	298.3	303.7	301.7	309.9	300.0	305.7	319.9	324.6	317.7	313.5	308.8	315.0	319.4	326.7	328.5	317.8	315.6	323.2	311.3	316.3
30	321.2	306.1	307.1	310.4	303.1	304.9	301.9	296.0	293.8	296.6	300.7	303.1	303.7	311.3	316.2	309.7	299.3	310.6	315.0	311.0	309.8	318.7	323.7	318.5

**Total Hours in Month**      720

**Hours Data Available**      720

**Data Recovery**      100.0%

**HCG, Inc.**

# Northern Dynasty Mines Pebble 1 Meterological Station - Resultant Wind Direction (Climtrncs) (Degrees)

*December 2005*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
1	311.1	302.2	325.6	326.1	325.9	323.4	320.6	329.7	321.9	325.2	300.3	302.6	315.7	308.1	314.8	321.1	316.3	312.6	306.2	299.2	299.4	293.8	305.9	296.8
2	314.1	115.2	110.5	110.6	157.2	180.8	201.1	265.3	355.7	321.3	305.7	309.1	318.4	314.0	306.3	305.1	308.8	310.1	305.5	309.0	314.8	314.9	313.1	309.9
3	307.3	311.7	307.8	309.8	313.3	315.0	316.5	311.9	308.2	309.6	305.7	313.8	305.1	308.4	306.2	307.1	312.0	326.6	324.3	320.2	308.5	306.5	298.2	301.0
4	303.0	301.5	313.1	302.8	295.6	184.4	92.5	107.8	110.9	116.6	124.8	133.7	136.5	122.8	121.5	122.2	116.5	118.5	119.7	120.3	122.1	119.2	119.5	118.8
5	116.3	115.5	116.2	116.6	119.0	117.6	117.8	120.4	115.4	114.8	116.8	116.5	115.4	118.7	121.8	122.4	124.1	126.9	124.8	120.7	120.3	120.9	118.5	119.5
6	117.4	115.9	115.8	117.8	121.9	119.5	118.9	123.4	124.2	127.0	134.2	140.1	148.7	150.6	150.4	152.9	148.0	146.6	136.9	140.9	129.4	119.9	113.6	113.5
7	114.6	113.7	112.5	114.6	111.8	114.0	113.4	114.1	115.2	112.4	113.8	112.8	114.4	117.2	118.3	115.5	119.7	118.9	121.6	120.2	117.7	117.6	118.5	120.1
8	126.3	148.1	151.0	171.0	191.6	160.5	152.0	150.1	137.3	124.8	125.9	127.6	134.3	133.1	128.1	127.6	123.2	117.2	120.2	125.7	125.9	125.5	123.7	124.2
9	126.2	127.7	128.5	126.1	128.5	128.8	121.9	120.4	122.6	123.7	122.6	129.3	130.7	137.0	151.8	177.1	191.6	187.7	185.2	191.7	190.5	195.3	180.5	157.8
10	179.3	156.2	175.7	190.8	141.2	123.0	124.2	112.2	112.7	113.5	128.4	141.8	143.1	160.6	158.0	136.9	117.1	113.1	120.8	120.0	116.1	125.8	124.8	120.3
11	129.5	146.8	149.7	160.7	121.7	219.2	230.1	181.8	89.5	234.8	213.6	215.4	222.7	221.0	181.3	226.8	280.1	270.1	286.8	291.7	296.6	297.5	297.1	300.7
12	304.4	306.0	306.9	303.0	308.2	313.1	305.4	308.2	308.5	311.6	324.4	305.3	309.5	303.0	275.6	168.1	299.5	315.5	319.6	314.1	307.1	329.8	321.6	82.6
13	316.5	161.8	123.2	117.6	116.6	112.3	105.9	115.9	109.9	113.4	115.9	113.5	109.7	113.8	107.8	109.5	112.1	114.0	115.4	115.8	116.6	115.7	112.9	112.1
14	112.5	112.0	112.6	109.9	101.3	82.3	100.4	91.4	85.2	96.2	105.2	109.3	104.5	74.1	66.6	59.3	69.1	62.4	84.5	105.6	100.0	106.0	109.3	111.6
15	113.3	116.3	119.4	116.1	115.9	116.6	115.9	88.0	59.8	52.7	24.8	33.9	57.8	68.3	72.9	73.2	89.3	100.2	107.7	111.5	104.6	104.0	110.7	112.3
16	118.2	119.9	112.4	114.3	122.6	127.6	128.8	129.3	141.2	149.7	158.6	169.4	215.5	233.4	238.2	136.1	115.0	134.0	204.0	174.9	207.9	231.6	21.7	327.0
17	315.3	311.3	316.0	316.5	313.8	304.7	309.9	313.9	312.0	307.8	309.8	301.8	285.5	331.3	91.4	110.3	107.3	116.7	114.0	111.1	100.3	106.4	125.9	131.6
18	101.6	91.5	68.7	92.2	64.3	88.3	115.5	110.7	110.0	104.3	113.0	113.8	122.7	126.4	127.9	122.6	124.1	125.4	133.7	135.3	103.5	80.7	99.1	95.8
19	85.8	71.0	88.1	113.3	127.1	126.8	131.7	125.8	124.5	120.6	122.0	123.2	126.2	128.0	130.4	129.8	132.8	144.8	151.3	144.1	132.1	139.4	136.3	135.9
20	138.6	134.1	134.2	91.8	330.2	330.5	320.2	313.2	287.4	309.5	308.4	312.6	316.3	303.7	302.7	202.4	201.2	299.7	320.6	302.8	319.8	314.7	295.5	321.2
21	321.9	338.3	122.1	91.3	135.2	178.2	79.2	107.3	133.8	115.1	118.1	79.2	98.7	116.8	231.4	322.3	302.6	311.1	319.7	304.3	308.3	308.6	321.6	317.0
22	319.4	313.3	306.2	301.4	314.0	304.9	315.2	306.7	314.8	315.0	297.9	324.3	312.2	313.4	310.1	308.8	308.2	308.5	300.9	317.7	308.8	218.5	109.2	317.3
23	29.1	338.0	325.3	312.0	313.1	310.5	219.1	122.8	114.5	118.0	112.7	137.1	134.5	115.0	120.4	130.9	121.5	120.0	109.6	124.0	131.0	121.2	118.6	118.3
24	117.2	114.2	112.2	117.9	122.7	108.2	113.9	129.1	128.8	122.2	113.9	117.3	106.7	106.2	99.4	67.0	360.0	314.9	315.2	336.9	328.2	321.0	59.0	119.6
25	108.6	70.1	56.4	76.4	105.1	124.5	125.4	113.7	119.4	102.8	105.9	109.9	110.0	92.5	90.2	95.7	90.3	93.6	93.2	74.7	74.6	87.7	97.7	79.8
26	79.4	93.8	103.9	110.0	110.5	122.0	122.7	121.1	125.9	9.1	41.9	99.7	115.8	96.9	96.1	97.4	101.7	119.6	94.0	91.8	95.4	91.3	84.1	67.3
27	73.5	55.1	62.1	61.3	49.0	33.8	46.8	39.3	349.7	18.0	36.6	5.8	324.8	308.4	304.0	303.7	292.5	291.8	2.1	331.1	3.8	51.3	72.6	95.7
28	99.2	85.5	71.8	76.4	96.6	101.8	105.8	86.5	91.6	85.8	68.2	63.0	97.6	70.2	98.6	115.4	73.3	76.7	101.3	57.9	68.5	88.9	95.8	81.6
29	93.5	83.0	67.6	62.5	70.6	96.1	107.6	110.8	110.3	111.2	111.2	114.2	119.4	119.8	116.0	89.6	81.9	89.6	100.4	106.6	106.2	76.9	81.8	87.8
30	62.8	50.4	49.0	50.5	19.5	15.0	30.3	51.0	337.4	327.5	334.2	315.1	324.6	297.5	49.8	32.5	8.3	43.0	55.0	77.4	70.9	65.6	62.0	59.6
31	3.5	342.0	42.3	77.3	58.6	346.9	94.5	111.5	107.4	92.1	75.0	73.1	98.3	42.1	72.6	89.9	91.7	82.1	327.5	16.1	355.5	7.5	335.8	59.8

**Total Hours in Month**      744

**Hours Data Available**      744

**Data Recovery**    100.0%

**HCG, Inc.**

# Northern Dynasty Mines Pebble 1 Meterological Station - Resultant Wind Direction (Climtrncs) (Degrees)

*January 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
1	93.1	125.1	104.7	35.2	85.6	88.6	112.8	112.7	118.6	113.8	127.1	119.5	120.8	119.8	99.2	103.0	65.6	109.7	95.8	70.9	83.8	55.6	69.4	90.7
2	80.5	93.1	96.7	57.7	62.8	79.8	92.4	93.0	78.4	93.3	129.0	135.1	108.9	117.3	122.6	131.2	112.9	120.8	115.8	101.6	114.5	116.5	111.6	104.3
3	107.3	105.2	99.0	102.9	103.1	125.2	133.6	133.7	115.1	104.7	110.1	111.5	111.0	117.3	117.1	129.9	127.3	133.7	115.6	117.7	114.4	113.8	119.0	124.9
4	129.4	138.9	126.9	240.4	292.7	325.6	42.0	99.4	98.8	351.1	106.2	119.8	159.5	159.6	166.1	250.1	285.6	294.2	314.4	111.3	105.6	116.6	122.0	114.3
5	25.0	296.3	1.6	336.7	330.6	301.5	349.8	265.3	138.0	120.0	154.7	141.0	240.1	313.0	308.6	307.8	306.4	307.3	306.6	306.8	312.8	307.9	313.8	314.9
6	334.0	125.3	108.7	109.0	150.8	165.5	171.7	177.8	197.3	190.8	132.2	208.3	253.2	318.7	312.0	312.1	325.7	307.0	173.6	117.4	132.7	106.7	128.6	67.2
7	359.2	302.7	297.6	306.7	109.9	291.1	317.8	296.3	311.3	299.2	27.4	337.0	340.1	9.1	59.0	35.0	44.9	80.4	5.5	41.8	59.3	49.8	42.7	40.6
8	23.7	340.3	356.7	311.6	306.2	349.6	66.7	86.7	70.7	77.2	313.4	309.3	307.2	309.2	303.8	300.7	308.6	314.5	313.1	313.6	313.6	309.6	315.3	311.6
9	309.5	310.4	307.4	316.5	310.4	309.3	310.1	311.2	306.1	308.1	314.9	316.7	136.0	333.4	309.9	94.0	131.7	133.4	123.3	334.0	11.5	318.9	309.1	312.9
10	286.3	115.8	106.6	109.5	120.7	104.8	118.6	120.9	144.7	126.5	135.2	176.1	359.8	140.0	107.4	114.2	122.2	117.9	130.0	120.5	83.7	97.1	36.4	184.0
11	182.9	91.9	271.9	327.0	327.1	313.9	282.8	266.4	186.3	114.9	170.2	266.9	294.6	312.0	327.7	336.4	305.8	320.2	312.3	303.0	313.4	309.8	306.1	315.0
12	322.1	313.6	316.8	314.0	312.3	318.2	311.4	301.8	313.4	311.0	310.5	316.8	309.2	316.2	312.2	315.9	312.2	314.9	306.5	303.4	301.6	304.2	304.6	306.5
13	306.9	304.9	297.7	302.1	294.7	301.1	304.4	305.2	302.7	301.8	299.7	304.0	301.3	301.0	302.7	312.0	308.0	308.2	316.3	300.5	303.9	311.5	304.8	308.5
14	309.9	307.4	305.8	299.2	305.3	311.3	133.5	118.6	133.6	119.2	134.7	127.4	124.2	117.1	117.1	113.4	114.2	122.7	125.3	125.8	110.3	114.0	116.5	120.4
15	118.3	126.0	120.2	116.1	107.8	120.8	128.7	123.7	119.7	115.5	114.0								107.3	108.6	99.7	93.4	98.4	79.6
16	83.6	71.4	72.5	70.0	96.5	95.8	66.4	63.0	70.0	64.8	62.6	48.5	9.7	317.4	307.7	301.3	317.7	308.0	320.8	311.7	310.4	309.4	313.3	312.2
17	310.7	317.0	314.8	314.1	310.4	311.8	312.0	311.0	312.5	309.7	309.4	306.3	311.9	309.8	310.3	314.9	322.1	315.9	313.8	316.4	322.7	303.4	311.9	313.4
18	321.1	336.5	317.4	320.8	316.3	306.9	309.4	313.9	315.0	321.6	317.3	317.5	321.7	322.2	315.2	314.6	310.2	308.5	315.7	318.4	311.4	316.2	310.8	316.6
19	321.5	320.4	319.1	312.1	315.2	304.7	307.2	315.9	309.1	306.9	303.4	303.2	309.4	308.6	307.0	322.6	316.3	309.1	311.8	315.2	319.5	318.7	310.4	299.6
20	309.5	306.6	317.0	313.3	310.6	319.6	316.7	315.3	319.0	318.5	317.2	318.9	317.0	318.1	321.0	317.0	316.8	314.6	314.9	317.6	316.6	313.3	315.0	317.8
21	318.3	317.1	313.9	314.1	312.5	308.8	306.4	304.3	305.7	308.4	312.8	334.3	341.1	343.7	345.1	340.8	338.2	338.0	335.1	330.6	326.9	324.7	318.6	319.1
22	325.6	330.3	325.5	319.4	318.6	320.9	322.1	321.1	319.7	322.0	321.4	321.6	326.7	329.5	323.2	326.1	327.2	325.6	329.1	327.2	319.5	317.3	325.2	330.1
23	319.4	323.5	325.3	322.4	324.7	327.4	327.0	322.3	323.1	329.0	330.0	330.0	328.4	331.0	327.8	321.3	337.3	330.0	326.1	340.1	327.7	317.6	317.1	320.6
24	320.6	314.3	316.6	311.6	307.8	315.6	323.3	310.1	322.0	329.9	322.0	327.8	330.1	330.8	331.8	330.7	325.6	326.5	317.6	323.2	326.3	320.4	318.5	316.0
25	315.0	312.0	314.8	306.5	314.0	308.6	315.8	320.0	316.4	318.1	320.4	319.8	314.6	312.0	312.1	316.0	307.4	311.7	318.7	316.0	323.2	324.2	318.9	313.1
26	309.6	308.0	314.8	316.4	315.4	319.8	318.7	320.5	314.2	315.8	314.3	308.7	316.5	322.4	317.4	312.6	317.5	312.5	318.5	319.9	306.4	307.0	315.0	314.7
27	311.2	316.3	314.3	314.4	311.5	317.1	320.5	322.4	322.8	323.1	322.1	327.7	319.9	318.0	319.4	322.7	323.4	329.9	332.5	331.7	330.0	327.8	325.4	324.4
28	326.6	327.6	331.7	324.5	324.2	328.5	324.6	328.0	329.6	329.3	321.8	322.8	322.6	325.5	330.6	330.2	332.0	334.9	335.9	324.6	312.5	301.2	309.0	309.4
29	303.4	301.6	305.1	301.3	299.8	308.9	316.1	313.6	321.1	326.6	310.5	311.6	323.7	316.6	318.0	312.4	316.4	313.2	312.2	318.3	314.1	317.8	326.4	328.8
30	326.8	326.8	327.6	334.8	336.6	331.1	342.2	326.0	320.1	328.8	313.6	313.9	316.2	311.4	313.2	309.3	307.8	310.6	301.4	305.5	315.2	316.2	297.7	82.0
31	321.0	305.4	305.7	324.4	315.6	315.0	323.0	313.5	312.8	308.7	311.1	314.4	311.4	311.9	308.2	316.4	314.7	312.7	311.6	305.8	313.1	312.5	320.3	313.5

**Total Hours in Month**      744

**Hours Data Available**      737

**Data Recovery**      99.1%

**HCG, Inc.**

# Northern Dynasty Mines Pebble 1 Meterological Station - Resultant Wind Direction (Climtrncs) (Degrees)

*February 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
1	318.8	319.2	313.4	300.2	310.4	305.6	301.3	304.1	313.2	316.9	319.3	321.5	325.3	322.4	331.4	321.7	323.0	323.8	322.7	316.3	324.3	319.3	314.8	318.5
2	313.3	319.6	319.2	313.7	312.0	312.1	310.2	310.7	298.5	309.3	309.0	311.7	294.8	310.3	301.8	297.7	271.2	154.4	131.5	119.1	133.1	116.6	118.9	118.7
3	134.0	138.1	143.0	156.0	162.2	151.7	144.5	147.0	135.0	124.1	126.6	122.2	123.6	125.0	126.6	125.7	116.5	118.5	127.1	131.3	127.6	127.5	115.1	114.4
4	116.9	110.3	110.4	112.9	113.8	114.4	111.4	111.9	111.1	111.1	111.8	112.2	114.0	113.9	114.7	114.0	113.9	109.8	111.2	113.0	111.7	112.5	112.3	106.2
5	99.7	98.7	103.0	105.1	110.9	110.0	103.7	104.1	104.5	101.4	101.8	112.6	112.8	112.5	112.9	115.1	115.5	111.5	100.0	83.4	67.0	89.5	105.5	101.3
6	100.0	94.4	91.1	90.3	106.3	98.8	103.5	119.1	142.5	154.5	205.7	213.8	223.0	221.8	220.1	215.3	198.2	196.5	181.7	183.7	184.2	180.9	176.3	168.9
7	162.6	158.8	146.8	143.2	158.0	174.1	200.4	221.6	226.3	236.9	239.4	258.7	267.6	273.3	281.3	290.2	303.6	312.8	308.4	311.9	295.4	256.0	224.3	241.8
8	128.3	144.1	114.1	105.2	110.5	111.6	116.2	116.3	124.3	132.4	150.8	125.2	115.1	111.4	115.3	115.4	111.5	111.6	113.6	114.2	115.5	116.1	113.3	110.1
9	111.0	112.1	115.6	114.4	112.4	112.2	110.1	103.2	82.9	62.0	91.8	108.9	102.2	108.2	110.3	122.9	121.2	118.3	123.4	122.4	117.6	120.2	113.7	121.7
10	125.6	120.2	117.4	118.9	115.7	114.4	115.3	113.1	122.8	126.3	122.7	119.5	118.6	126.1	130.8	127.5	128.7	124.7	123.2	121.7	126.0	128.2	130.1	135.4
11	128.3	119.1	118.6	123.4	138.5	107.8	22.8	347.7	326.8	329.7	327.3	342.6	333.2	329.2	327.5	316.7	312.1	351.8	94.1	118.6	129.0	121.0	118.5	128.5
12	154.0	2.9	313.0	304.3	315.9	326.2	327.0	310.1	290.6	297.7	295.8	293.9	292.5	285.1	287.0	278.7	261.3	243.9	175.1	155.0	85.4	359.0	351.7	351.7
13	8.3	108.5	108.1	110.8	104.4	104.9	103.8	119.8	129.7	112.2	131.2	152.8	122.5	126.6	130.8	126.3	129.3	124.6	125.5	125.0	127.9	132.5	134.3	137.9
14	133.3	134.7	132.6	133.8	135.5	136.8	139.5	137.9	138.9	134.3	130.9	128.5	130.7	131.9	131.6	128.1	123.6	125.6	124.0	128.7	129.2	131.1	134.1	132.5
15	130.7	129.5	124.8	123.8	124.5	122.5	122.9	128.3	129.0	129.7	126.7	126.8	130.9	128.4	125.6	127.0	127.9	134.1	127.7	130.3	137.5	140.3	149.2	147.4
16	151.8	150.4	158.7	158.2	163.2	165.2	164.2	152.1	140.8	139.5	121.6	145.0	143.7	155.3	151.0	141.6	150.5	149.5	145.6	159.9	154.1	159.8	164.0	148.3
17	149.7	133.5	118.7	128.4	121.3	127.9	122.0	123.3	117.3	119.2	118.3	120.0	123.8	123.2	120.6	120.0	119.9	121.1	118.8	123.9	122.6	122.6	126.4	127.9
18	135.6	137.3	134.2	136.6	139.8	137.7	130.6	128.2	129.5	131.1	128.7	130.0	130.3	126.6	128.0	132.1	136.1	140.0	154.2	160.7	173.6	194.5	210.1	207.3
19	217.1	219.7	211.0	207.3	204.8	220.7	228.5	236.1	230.2	219.7	218.3	229.9	192.5	206.6	222.1	214.7	220.7	242.9	253.1	256.9	248.4	238.7	247.5	241.8
20	230.6	226.9	226.5	219.6	222.7	210.7	212.9	194.1	200.4	220.2	238.5	217.3	227.0	223.8	226.7	252.9	282.1	274.9	268.0	267.6	268.1	269.5	277.5	290.4
21	289.3	279.4	277.1	284.3	296.3	297.0	300.4	304.9	311.0	308.9	236.8	143.0	241.2	261.6	300.2	277.2	279.6	290.4	268.8	270.1	293.1	303.3	279.5	282.5
22	320.0	310.8	292.2	285.5	272.6	273.4	278.5	277.5	276.6	294.2	313.2	308.3	299.7	286.8	279.8	270.1	264.5	244.1	224.8	217.2	213.6	171.3	167.8	149.8
23	158.5	163.5	164.7	175.7	187.3	201.4	280.7	293.5	294.4	299.5	312.9	314.0	321.5	317.3	314.7	327.0	309.8	311.1	306.9	321.1	316.6	311.6	336.2	338.4
24	334.6	312.1	321.7	328.2	316.1	311.6	319.3	320.0	301.6	304.2	301.2	310.5	315.6	161.4	152.6	172.5	78.0	131.2	129.4	140.3	139.0	130.6	133.0	141.7
25	133.5	135.6	124.8	133.2	171.4	164.5	158.1	165.9	155.0	127.0	162.0	255.5	292.8	315.9	305.4	321.1	320.9	309.7	287.9	282.7	273.5	263.3	265.0	265.6
26	267.1	263.6	262.3	262.4	264.0	280.7	281.3	266.9	271.5	247.7	264.5	256.5	253.7	246.6	263.3	101.3	91.7	92.0	100.5	101.7	105.1	107.1	112.3	151.4
27	164.6	174.3	243.1	306.0	312.9	321.7	322.5	324.1	325.9	325.2	323.8	322.2	330.6	336.2	330.3	335.9	332.7	328.6	326.8	327.7	326.0	329.2	329.2	327.2
28	330.4	327.0	329.6	319.2	319.5	310.3	305.6	303.5	296.4	291.5	309.4	313.2	322.8	323.2	317.5	322.8	320.5	331.1	320.7	320.0	332.9	329.4	326.9	318.5

**Total Hours in Month**      672

**Hours Data Available**      672

**Data Recovery**      100.0%

**HCG, Inc.**



# Northern Dynasty Mines Pebble 1 Meterological Station - Resultant Wind Direction (Climtrncs) (Degrees)

*March 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
1	323.6	326.1	320.9	307.8	307.1	307.3	302.8	313.7	301.4	312.7	24.9	70.4	147.7	122.3	114.9	122.5	137.6	119.7	122.2	134.4	149.1	160.2	151.2	154.5
2	153.7	163.0	147.2	143.6	143.9	144.5	140.6	137.1	123.8	119.0	123.1	122.1	120.5	121.2	120.8	123.2	120.7	120.9	123.8	124.6	123.5	123.3	126.4	125.2
3	125.8	130.1	130.8	126.3	127.3	130.3	142.8	159.6	161.3	169.0	169.8	171.0	173.0	181.7	192.0	202.6	203.8	212.9	185.5	130.7	141.0	139.1	117.2	128.3
4	132.3	146.9	144.2	138.2	144.1	149.7	151.6	149.5	154.2	160.9	146.0	145.0	151.7	144.9	141.3	144.1	150.1	148.4	136.7	135.3	128.6	134.6	140.0	139.4
5	134.6	136.7	149.7	149.3	174.2	193.0	192.8	206.2	213.6	197.7	186.7	193.4	183.1	211.2	204.4	218.6	248.3	246.7	258.7	278.7	292.7	276.8	279.9	278.0
6	297.9	293.4	326.3	321.4	312.6	315.1	300.3	299.3	270.6	238.0	215.9	231.3	307.3	134.7	72.1	38.0	260.8	249.5	304.7	308.8	352.1	340.0	320.7	317.5
7	312.8	311.6	314.5	319.8	313.0	320.3	309.5	319.6	313.2	309.4	320.7	313.5	313.3	314.1	321.3	308.1	302.8	310.6	307.9	315.0	317.9	319.1	324.9	330.1
8	317.7	317.8	316.7	318.8	316.0	318.9	327.3	331.1	328.3	335.3	308.6	333.6	334.1	318.1	315.4	335.0	331.8	325.3	324.2	321.7	322.8	315.1	321.0	318.1
9	324.3	315.8	313.4	318.0	322.2	324.7	315.9	324.6	330.5	327.1	325.9	319.9	320.9	326.3	326.1	319.3	324.2	329.2	335.7	334.2	333.5	339.3	335.7	334.3
10	322.7	324.0	324.8	314.4	308.4	304.8	300.3	308.5	310.3	302.6	302.0	313.3	318.9	320.2	306.1	311.9	307.5	156.9	126.8	120.2	122.5	125.9	140.4	136.3
11	135.9	135.5	125.3	124.7	131.3	126.9	127.8	122.4	122.6	119.7	113.9	116.0	116.6	119.3	121.1	117.0	115.3	115.9	117.5	118.3	120.8	118.4	115.6	123.4
12	121.1	116.8	125.8	128.8	129.4	122.4	122.2	121.5	117.2	122.3	125.4	141.5	142.2	130.9	111.9	113.5	105.3	103.9	106.9	109.9	152.0	146.5	122.7	168.6
13	150.7	111.6	46.9	133.3	135.0	290.3	311.7	301.8	304.1	309.5	292.5	307.2	308.4	312.7	306.0	310.7	314.9	325.3	325.3	303.0	304.6	303.1	307.1	311.5
14	314.2	316.0	323.3	333.9	325.7	306.8	321.7	323.9	315.6	316.0	318.3	310.4	328.3	320.2	323.2	305.9	313.0	315.3	330.7	315.4	313.5	306.5	317.4	122.1
15	144.5	153.9	136.3	146.7	124.5	157.8	210.1	177.8	142.8	128.1	135.5	163.1	340.3	89.9	124.6	129.0	145.1	148.1	143.6	142.8	143.1	145.0	146.6	143.9
16	149.3	154.6	136.6	132.3	130.3	138.2	140.4	119.7	126.1	129.8	113.4	116.2	117.6	112.4	118.7	126.2	133.8	133.6	128.9	131.7	146.5	133.6	135.0	134.6
17	128.0	129.6	126.9	128.5	126.4	131.1	128.3	129.6	128.8	129.0	135.4	131.4	142.0	148.6	127.6	130.9	136.6	135.6	126.9	126.6	125.0	129.2	130.9	132.5
18	130.2	133.9	129.0	126.4	124.4	128.7	134.3	126.7	106.3	102.3	104.4	102.7	102.7	130.1	345.8	357.4	61.7	83.2	85.2	111.9	120.5	180.3	270.3	312.6
19	309.4	308.1	302.5	136.0	140.3	136.2	130.9	120.1	121.4	118.6	121.8	137.8	134.5	133.8	139.7	145.3	149.6	156.4	146.1	148.9	163.6	156.2	159.8	146.8
20	157.5	170.6	168.0	160.9	143.4	135.6	137.6	148.2	140.2	132.7	94.7	95.6	109.7	99.1	312.5	315.4	336.0	327.9	325.0	321.5	330.7	336.8	331.1	327.2
21	323.2	325.0	324.1	324.1	326.8	327.5	329.8	330.1	329.8	332.0	333.9	323.2	320.2	324.4	328.3	329.7	327.3	318.1	317.7	312.9	316.8	317.1	309.3	316.1
22	315.6	300.8	309.9	309.4	309.2	318.7	319.6	319.5	319.1	326.9	323.0	328.1	330.9	331.5	331.5	334.2	335.2	335.4	334.8	323.6	305.5	304.5	306.4	306.7
23	307.4	303.8	307.0	310.8	309.6	308.0	303.2	314.0	206.7	317.1	309.8	318.1	325.9	305.8	313.2	314.3	307.9	295.7	299.1	305.5	318.6	314.5	309.6	307.3
24	316.1	310.7	322.8	317.4	312.1	314.3	315.2	329.6	330.3	321.2	327.5	333.1	323.4	321.0	325.0	335.3	335.4	334.6	331.9	330.8	332.0	335.5	333.3	310.0
25	311.0	309.7	306.6	303.2	300.3	302.5	303.8	303.2	302.8	310.1	312.4	331.1	327.1	326.8	331.9	332.9	334.3	328.2	320.6	313.5	316.3	311.4	316.5	316.3
26	316.1	312.6	304.9	306.1	306.3	310.9	303.6	302.0	304.2	308.8	305.5	306.2	303.7	311.0	307.5	302.1	301.6	295.8	302.3	304.6	306.3	303.4	308.5	307.3
27	309.3	309.9	305.8	309.3	309.0	307.4	304.2	313.1	261.1	121.0	116.4	105.1	108.9	121.6	113.9	145.0	135.8	115.5	141.6	149.8	158.9	177.7	137.1	112.4
28	118.3	111.8	123.7	112.0	114.4	125.6	114.7	127.9	133.4	141.1	125.6	115.0	117.9	105.7	101.5	119.4	114.3	205.5	225.7	281.2	295.6	299.5	302.4	302.2
29	305.8	324.5	315.7	310.4	312.5	311.1	302.2	307.3	313.5	297.1	301.9	306.9	317.6	150.0	130.8	6.3	100.2	143.2	173.5	158.2	153.7	155.1	142.0	128.5
30	125.3	128.6	134.2	131.5	124.9	127.0	121.9	120.6	121.3	116.7	119.1	120.9	118.6	117.5	115.6	116.7	117.9	117.0	118.8	117.8	118.6	117.9	115.8	116.6
31	117.0	117.3	117.7	119.7	122.5	121.8	121.5	120.1	122.1	169.6	206.2	205.2	204.7	222.7	243.3	251.1	256.1	260.1	263.1	264.5	272.6	316.1	309.7	307.8

**Total Hours in Month**      744

**Hours Data Available**      744

**Data Recovery**      100.0%

**HCG, Inc.**

# Northern Dynasty Mines Pebble 1 Meterological Station - Resultant Wind Direction (Climtrncs) (Degrees)

*April 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
1	307.6	318.0	310.4	310.4	310.2	305.8	305.1	310.1	313.4	298.4	286.2	263.8	268.3	289.3	263.3	248.3	253.9	248.8	218.5	152.8	200.2	219.5	198.3	138.8
2	127.0	191.2	184.9	211.7	243.8	162.9	198.9	170.4	126.5	131.1	129.2	116.9	143.4	163.4	131.7	103.4	116.8	119.4	113.2	137.4	115.6	116.7	108.2	112.3
3	109.9	116.5	115.5	112.6	113.4	114.9	111.9	114.4	113.0	116.9	117.0	118.7	116.2	117.9	122.8	130.5	137.5	144.4	144.2	131.1	125.8	134.0	124.2	123.9
4	133.4	140.2	136.8	129.4	131.1	132.5	144.0	147.1	129.3	102.6	145.5	147.4	138.2	137.6	142.2	235.6	313.9	355.0	355.5	333.2	323.7	321.9	324.9	315.6
5	322.0	311.2	315.2	320.6	325.6	319.7	322.4	325.8	325.2	333.7	325.5	324.4	321.7	321.7	326.6	326.8	327.8	328.9	329.0	326.7	316.7	318.3	321.5	328.7
6	324.8	330.9	324.5	320.9	318.6	323.6	324.7	310.3	311.8	322.7	309.7	307.7	317.9	316.6	321.2	316.0	313.1	306.6	303.6	310.8	310.1	247.4	131.3	110.2
7	106.3	109.7	121.0	129.1	141.4	136.1	155.3	165.7	142.2	157.9	164.3	147.5	129.6	132.3	138.1	142.8	134.1	126.0	124.6	131.0	129.5	126.4	120.9	120.7
8	127.1	125.7	126.9	127.3	122.2	123.8	119.9	115.0	115.9	121.1	120.6	125.9	133.0	130.0	128.6	133.9	143.4	154.5	157.7	157.5	147.8	156.7	161.6	178.7
9	196.5	186.1	172.5	182.1	174.1	182.8	177.2	174.0	189.1	188.1	196.6	202.5	210.2	212.0	217.9	215.9	194.4	190.2	215.8	209.9	198.0	206.3	204.0	205.7
10	123.2	143.0	202.0	199.7	219.1	229.4	230.1	232.3	233.1	237.2	240.8	274.5	301.9	289.5	293.5	268.1	266.7	268.7	267.9	269.6	283.8	313.0	214.8	217.1
11	234.1	157.2	171.0	127.5	121.4	112.4	94.7	91.2	99.0	98.6	99.9	113.2	110.9	111.9	112.2	115.0	117.4	113.3	107.2	106.9	107.3	110.7	109.7	111.8
12	113.6	114.2	116.8	116.9	117.8	111.1	109.5	115.0	117.7	117.7	122.1	129.8	142.4	147.7	160.8	189.5	201.5	204.2	209.9	213.7	215.3	217.1	223.6	184.2
13	202.5	201.1	270.1	324.6	323.0	316.4	326.7	318.5	314.1	313.1	309.0	310.5	316.0	315.9	316.2	317.5	322.4	320.3	312.8	314.8	314.6	311.9	314.3	327.1
14	333.0	335.3	333.1	331.6	331.9	337.8	335.3	333.0	334.1	333.8	337.6	325.5	332.6	329.8	326.6	330.4	327.8	327.0	325.2	323.6	320.6	310.3	308.6	306.9
15	314.6	322.0	322.9	319.0	313.3	320.5	322.8	322.0	333.2	331.5	321.3	333.0	327.2	331.5	332.4	323.6	329.9	334.8	339.1	317.2	313.6	307.6	306.1	106.7
16	119.8	139.6	118.1	125.5	128.7	123.3	125.0	122.9	119.7	121.4	121.4	116.9	115.5	114.2	113.7	114.7	114.4	117.0	113.4	106.7	90.7	80.2	70.7	58.7
17	51.1	53.6	54.0	51.9	52.9	62.8	84.3	103.8	112.5	123.3	108.4	112.0	129.9	123.6	132.4	137.1	128.6	129.0	146.6	136.9	153.4	80.6	315.0	326.2
18	318.5	318.0	317.7	299.2	309.8	322.9	303.7	342.9	311.6	86.7	129.0	257.5	287.7	241.0	173.5	189.7	217.7	253.7	245.9	238.5	252.3	224.3	239.4	255.4
19	283.9	72.2	144.2	172.2	209.7	223.7	157.2	267.1	270.8	258.6	262.4	331.4	290.0	226.1	233.6	225.5	207.5	178.4	200.7	222.7	229.9	228.7	216.9	210.3
20	222.0	213.4	197.4	109.1	121.7	139.4	97.7	117.9	131.5	121.6	114.6	121.1	144.8	139.6	127.5	127.2	122.2	124.8	122.8	118.9	117.6	120.1	119.5	115.1
21	115.2	116.6	115.6	108.8	109.5	111.4	113.8	115.9	113.2	115.3	119.1	120.2	121.3	121.6	120.7	124.1	148.5	171.7	162.6	160.0	106.1	120.0	125.4	139.7
22	130.9	125.4	109.1	125.5	112.9	121.7	142.7	160.0	147.3	278.8	79.9	146.4	286.0	283.6	258.9	244.8	302.5	296.2	302.4	170.1	139.6	171.1	165.0	165.8
23	166.5	159.2	138.1	139.2	129.4	138.9	134.9	124.7	123.8	123.2	142.4	147.5	147.1	139.9	145.8	231.0	238.2	298.3	315.8	324.3	315.7	310.4	310.0	314.4
24	315.0	314.2	312.3	323.3	318.6	312.4	307.0	308.8	315.1	308.9	307.6	304.7	300.0	297.4	292.1	281.8	259.8	250.7	241.5	236.6	227.6	223.1	222.4	226.4
25	219.2	206.5	200.8	185.6	187.9	172.9	166.6	157.5	147.4	131.7	119.5	118.5	124.2	144.5	145.0	128.2	129.5	124.7	117.7	114.7	116.2	116.3	116.9	105.2
26	105.2	104.8	106.2	112.1	111.2	114.0	94.8	103.5	101.5	94.6	90.6	100.0	139.0	130.7	146.2	160.4	169.4	169.2	166.6	90.6	69.3	61.6	57.4	61.1
27	57.4	53.2	36.7	12.2	24.0	40.3	337.2	350.2	306.2	321.9	313.1	307.5	332.1	342.0	330.6	339.7	349.4	347.3	342.9	347.7	343.0	328.3	328.0	327.8
28	321.5	319.6	312.6	306.1	304.8	304.0	315.4	313.2	308.9	309.5	282.0	164.0	168.5	180.7	152.8	141.1	123.5	115.8	93.2	38.8	110.6	202.4	299.4	284.4
29	256.4	313.9	307.7	305.9	303.1	299.8	308.9	315.7	317.1	309.7	316.9	322.4	326.7	330.1	328.8	326.8	311.6	314.6	317.0	320.4	308.5	301.0	297.9	301.9
30	306.9	309.3	312.4	307.8	306.9	314.4	328.8	130.3	116.2	120.3	124.8	118.5	141.6	141.7	133.2	140.5	147.6	139.5	120.2	119.4	121.6	125.7	122.5	118.1

**Total Hours in Month**      720

**Hours Data Available**      720

**Data Recovery**      100.0%

**HCG, Inc.**

# Northern Dynasty Mines Pebble 1 Meterological Station - Resultant Wind Direction (Climtrncs) (Degrees)

*May 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
1	112.4	117.0	120.4	115.5	121.8	120.2	114.8	114.7	112.7	112.1	112.3	112.2	111.1	110.9	108.8	106.3	104.7	106.0	101.7	93.2	91.3	93.9	97.2	99.5
2	91.0	91.1	81.7	82.8	82.7	85.0	81.9	100.7	138.2	133.7	130.4	131.3	126.4	127.7	132.6	120.1	128.7	124.5	120.9	124.6	121.5	124.3	125.9	131.0
3	127.6	123.8	122.9	126.6	113.0	103.9	95.5	84.6	95.8	85.3	68.5	76.0	59.0	68.3	73.7	66.2	66.9	79.4	68.9	157.4	235.3	180.7	236.8	299.5
4	330.7	354.3	49.9	67.8	109.6	124.6	124.6	122.9	124.6	130.8	130.1	131.9	135.9	133.6	130.9	127.2	126.1	120.5	118.1	119.2	117.8	114.8	114.7	114.2
5	113.5	117.0	117.7	118.3	117.5	121.9	121.5	118.0	117.7	115.9	118.6	115.2	117.3	122.6	125.0	126.3	127.1	124.6	119.3	129.5	131.3	112.0	129.8	169.8
6	158.9	158.1	111.8	111.8	108.9	123.9	127.9	121.3	140.1	176.6	201.3	222.1	227.8	223.3	218.2	215.0	203.7	208.0	213.7	221.5	220.6	220.7	219.2	217.7
7	211.8	201.5	213.1	215.3	222.3	220.8	213.9	213.6	214.8	221.3	215.6	210.1	209.3	224.5	217.9	225.6	219.3	216.6	226.7	218.7	224.8	226.3	219.4	247.0
8	140.1	121.9	116.6	124.7	130.2	127.5	122.5	117.8	104.4	114.8	114.2	117.7	119.5	111.3	98.3	100.0	102.1	115.2	113.7	102.7	78.5	93.7	102.6	83.0
9	86.0	69.6	70.9	67.9	73.8	79.4	96.2	89.5	99.1	93.3	103.0	134.7	153.2	130.7	121.9	124.5	129.0	206.7	90.3	173.4	251.8	42.1	70.7	75.7
10	79.5	71.1	91.0	78.3	29.0	20.4	120.7	318.8	324.9	316.2	268.0	249.6	258.3	271.5	312.3	318.5	273.4	293.7	297.7	306.7	307.4	306.9	318.2	325.1
11	54.9	82.9	149.9	161.0	117.7	175.6	261.0	185.5	255.4	231.5	231.1	251.4	254.0	265.5	235.7	67.3	275.2	340.6	320.3	314.2	313.8	308.2	310.3	317.4
12	319.2	310.3	317.4	319.2	318.2	317.7	318.6	321.4	323.0	321.1	326.8	328.8	327.8	333.8	329.2	338.0	339.0	331.2	317.9	297.6	301.8	300.3	324.2	314.5
13	323.7	320.3	313.9	310.9	307.8	305.2	307.6	302.9	337.9	304.9	225.3	232.7	248.0	239.7	225.9	224.3	220.7	221.7	183.8	178.3	171.0	238.4	149.4	142.6
14	143.4	147.6	156.4	141.9	128.7	142.0	159.3	151.3	143.5	145.9	139.5	141.4	149.6	157.1	135.8	136.3	145.2	142.7	147.0	139.7	144.7	143.9	147.3	155.2
15	161.8	167.6	170.6	174.7	169.4	153.5	174.7	207.4	306.3	282.8	281.6	268.9	242.9	239.3	251.3	224.1	227.0	217.7	209.9	201.4	221.8	227.6	253.1	262.3
16	261.9	153.4	162.5	325.5	327.9	322.4	316.3	299.3	295.9	293.5	275.2	255.5	248.5	250.3	246.2	262.0	251.6	227.2	218.3	209.9	185.0	201.8	191.5	213.9
17	228.6	289.2	312.1	325.0	309.4	322.0	336.3	12.2	86.7	119.5	141.3	133.4	147.0	155.1	147.9	131.9	124.4	136.5	144.6	145.1	147.7	153.3	161.3	153.2
18	163.6	160.1	161.1	169.7	175.1	189.4	152.7	130.2	183.8	220.4	191.1	213.6	223.5	242.5	248.4	246.1	252.2	262.0	255.7	248.6	251.3	247.0	246.4	189.3
19	256.5	278.4	289.0	299.0	242.3	222.1	131.0	120.6	115.2	137.0	152.9	134.7	137.5	134.1	129.7	129.1	121.5	117.8	117.3	117.2	118.4	117.7	118.2	125.3
20	128.7	132.9	132.1	126.1	127.5	130.4	129.7	127.7	123.1	127.5	128.8	125.9	127.6	123.8	120.5	126.8	143.2	145.2	162.0	255.4	311.7	313.2	312.6	315.2
21	314.7	310.2	312.0	313.3	314.6	319.5	330.5	334.8	337.7	340.1	334.7	334.5	335.6	332.9	341.1	339.9	332.2	329.8	335.9	339.2	335.9	337.4	343.3	336.5
22	329.4	327.8	327.6	327.5	331.1	331.7	335.3	341.5	342.9	337.4	333.2	335.5	343.9	347.6	353.6	356.3	343.4	347.3	347.6	347.6	337.3	342.3	339.2	332.8
23	328.6	333.3	319.4	310.3	316.8	308.0	311.9	323.9	308.9	314.4	329.7	351.0	21.3	49.4	359.2	343.0	2.7	343.1	338.4	342.6	326.6	313.1	309.8	315.5
24	311.2	294.5	304.0	308.7	300.1	307.7	318.9	318.2	313.0	323.7	322.9	257.0	251.4	240.2	227.5	239.9	309.6	310.3	292.7	275.3	284.2	299.1	310.5	310.3
25	308.6	309.9	310.5	304.6	307.4	310.4	316.3	309.2	328.8	322.4	327.8	350.8	2.6	339.8	330.8	203.5	220.6	228.8	256.8	264.1	290.7	306.4	318.5	323.1
26	320.3	309.9	312.2	316.0	313.1	297.8	298.0	316.7	333.9	331.1	335.4	344.4	352.1	349.6	342.2	341.0	340.0	338.3	340.5	337.2	328.8	314.4	325.7	329.0
27	337.3	320.0	321.3	335.6	343.1	341.9	339.3	331.0	329.1	331.6	333.4	333.6	339.2	337.5	345.0	347.4	348.1	354.4	348.2	349.4	358.1	350.3	343.2	327.9
28	324.1	303.0	300.4	291.7	162.8	147.7	146.4	162.2	172.2	177.3	244.7	337.0	326.1	296.9	304.1	307.8	308.2	302.7	278.5	203.9	216.6	177.6	174.2	172.5
29	173.4	172.7	168.5	164.3	164.5	163.1	157.6	154.1	147.6	149.6	151.8	156.5	156.3	160.0	154.9	151.1	153.9	160.6	158.8	170.2	177.3	177.1	168.1	164.3
30	167.4	174.6	173.7	153.6	137.2	163.4	158.5	189.3	207.8	168.3	166.1	161.0	176.5	186.8	175.9	157.1	160.2	161.2	165.7	163.4	163.7	155.7	150.3	191.5
31	197.8	192.7	191.4	136.5	181.9	189.7	190.1	189.2	185.2	199.2	208.2	204.5	209.6	227.2	226.5	227.4	231.0	228.9	233.0	230.3	220.6	220.5	268.3	251.2

**Total Hours in Month**      744

**Hours Data Available**      744

**Data Recovery**      100.0%

**HCG, Inc.**

# Northern Dynasty Mines Pebble 1 Meterological Station - Resultant Wind Direction (Climtrncs) (Degrees)

June 2006

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
1	259.8	326.8	320.1	305.7	318.1	312.3	315.7	331.0	340.3	343.1	331.4	340.5	337.8	342.7	338.0	332.6	313.8	302.8	304.0	264.2	267.1	269.6	272.7	296.3
2	294.4	296.4	298.5	304.8	307.6	305.5	308.2	316.1	329.1	0.1	352.6	335.2	329.9	308.5	313.1	317.4	305.3	320.2	314.2	321.9	319.3	303.2	310.0	323.0
3	326.8	321.1	320.3	328.9	324.5	325.0	336.9	336.9	335.3	341.2	342.0	335.6	335.7	329.6	327.3	325.0	327.5	332.6	338.4	337.2	338.0	328.4	324.0	328.0
4	328.4	328.0	321.2	324.7	330.1	344.8	346.3	338.2	333.2	332.5	336.2	341.3	343.3	337.3	339.0	340.8	344.4	346.0	347.3	349.8	342.7	338.0	330.3	326.6
5	326.2	321.1	329.3	325.8	315.4	315.6	318.3	319.1	319.9	329.8	330.4	354.5	347.9	328.8	342.1	333.2	326.8	324.4	337.6	321.0	311.6	272.8	273.2	268.9
6	258.9	229.7	199.0	186.2	125.1	112.0	112.6	121.4	125.7	137.2	184.6	177.5	164.0	157.5	154.1	143.9	142.1	141.2	142.7	141.2	143.0	146.4	148.3	143.7
7	143.0	141.9	137.3	127.8	131.2	135.0	137.4	127.8	121.9	124.0	126.3	125.1	128.9	130.3	129.5	126.3	127.5	125.4	125.6	118.5	114.7	118.3	119.6	123.5
8	125.1	126.3	123.0	119.8	121.6	123.3	122.7	122.3	121.7	119.9	121.6	120.3	119.6	117.4	120.0	119.7	116.9	118.8	119.8	121.0	121.5	120.4	115.2	113.4
9	113.7	118.7	118.1	120.3	121.6	122.6	121.5	123.5	120.4	117.5	122.0	120.4	118.0	116.8	116.3	115.7	118.6	126.1	131.3	128.4	133.7	132.0	128.6	123.4
10	127.8	123.1	124.4	121.9	122.4	123.6	124.8	122.1	122.7	123.2	126.2	126.1	122.5	123.2	118.9	122.8	120.8	121.8	118.8	118.2	118.5	118.6	119.4	118.7
11	116.9	117.1	117.1	118.2	117.4	118.8	120.7	123.3	124.3	123.3	124.4	125.6	125.4	122.7	123.3	122.8	124.3	127.7	124.1	122.8	122.4	122.1	125.8	123.5
12	122.5	122.8	125.8	125.1	120.7	122.7	125.9	127.4	132.8	133.2	133.1	136.3	137.6	140.2	140.5	143.2	143.9	148.8	145.1	140.7	151.0	152.7	146.4	151.6
13	151.0	146.4	150.5	151.8	154.4	146.4	146.8	124.0	123.0	132.3	128.9	135.6	152.2	157.5	152.2	152.8	160.2	172.4	170.9	196.6	174.3	232.9	295.7	299.2
14	329.3	329.3	331.2	306.4	324.4	319.6	307.6	325.4	335.6	18.4	4.7	64.4	73.4	81.4	76.4	91.3	89.3	39.0	114.4	164.7	150.2	57.4	5.6	316.7
15	312.5	310.7	309.4	310.3	306.1	314.0	317.0	318.3	311.7	345.6	347.7	0.0	11.4	344.6	4.2	145.2	159.7	129.6	174.3	165.3	170.6	173.5	162.9	168.0
16	154.0	155.8	153.8	159.6	169.3	172.9	160.2	158.1	144.4	160.1	154.7	152.0	153.1	144.7	144.8	146.5	139.5	125.1	129.5	136.0	133.5	129.5	146.1	163.1
17	157.4	138.2	135.6	127.8	123.3	130.6	142.6	160.4	164.3	161.5	150.3	148.6	153.6	169.5	168.9	162.6	157.3	158.5	154.1	152.4	150.0	151.5	156.9	154.6
18	155.9	147.2	62.8	351.4	10.3	98.3	120.8	118.1	105.5	118.5	132.4	124.5	127.5	125.0	119.7	126.3	127.6	128.6	134.8	137.3	139.7	142.5	116.0	83.3
19	109.4	135.2	133.4	131.7	125.3	121.2	137.1	144.1	341.6	23.9	60.6	82.8	89.7	133.1	131.9	172.8	97.8	193.3	188.4	163.6	166.1	175.0	169.1	158.7
20	160.5	134.8	126.7	137.4	126.1	116.2	110.7	107.6	119.4	10.1	336.6	320.2	81.9	162.5	164.6	149.0	149.7	133.7	128.4	129.1	130.1	126.2	132.6	136.5
21	153.3	150.7	155.8	173.2	183.5	279.8	327.5	337.3	345.5	351.1	353.4	351.1	3.5	358.4	268.6	314.6	303.9	315.2	323.3	338.9	315.8	302.5	297.9	299.2
22	297.1	300.6	312.8	323.0	318.2	319.8	319.8	321.9	336.0	20.3	139.2	171.5	161.1	152.2	147.4	148.9	140.3	141.3	131.7	127.8	135.7	133.7	135.8	129.5
23	128.6	131.4	136.2	137.4	147.6	144.1	148.7	147.0	144.3	151.6	154.0	151.7	147.4	145.7	141.4	152.4	145.3	143.3	154.4	163.3	164.2	158.3	165.8	154.8
24	143.6	151.4	165.5	172.8	156.3	128.4	298.0	329.2	342.4	355.2	351.0	2.8	34.4	58.0	7.3	30.1	206.6	198.6	238.1	300.0	271.8	295.7	279.8	288.5
25	316.2	309.6	298.2	309.5	3.5	323.8	315.6	324.2	60.6	113.4	155.0	183.5	207.9	194.2	186.8	186.3	186.6	167.1	159.9	160.3	158.6	170.9	168.3	172.3
26	176.6	169.7	152.1	155.8	152.0	165.9	120.3	121.2	144.6	305.6	306.0	320.9	266.2	296.3	262.6	229.4	251.4	201.4	178.9	169.2	167.9	179.9	175.4	186.1
27	184.6	269.0	275.8	283.8	313.8	313.5	326.6	330.2	324.0	323.4	339.3	9.3	256.4	312.7	266.3	222.9	224.7	225.6	231.4	264.6	272.8	286.5	323.7	319.4
28	286.7	291.1	277.1	294.8	294.6	124.9	129.0	178.9	219.7	188.9	196.4	185.5	203.7	252.5	241.1	236.0	236.2	211.9	197.1	232.1	225.5	176.1	160.9	170.2
29	162.9	172.6	189.6	181.9	176.7	171.0	141.0	157.5	151.4	142.5	161.2	166.7	144.1	147.1	147.9	139.9	135.1	130.7	137.7	142.1	152.7	163.3	152.8	143.6
30	139.7	148.4	155.6	160.6	170.3	177.8	187.9	191.8	197.1	206.5	200.6	204.1	220.1	225.3	221.5	213.7	275.9	290.7	324.0	7.0	335.3	298.4	253.7	211.3

Total Hours in Month 720

Hours Data Available 720

Data Recovery 100.0%

HCG, Inc.

# Northern Dynasty Mines Pebble 1 Meterological Station - Resultant Wind Direction (Climtrncs) (Degrees)

July 2006

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
1	243.5	288.3	325.6	314.0	336.5	1.3	43.9	120.7	358.6	350.7	343.3	60.4	24.3	325.7	330.0	301.4	292.5	263.9	270.8	260.7	259.5	270.0	270.3	308.0
2	294.5	284.8	316.2	316.9	318.0	311.1	318.7	311.7	319.8	309.8	314.3	316.7	297.9	315.7	304.7	314.5	317.0	314.1	328.8	333.6	329.5	328.0	333.3	330.7
3	322.7	313.9	308.3	312.4	314.0	310.1	306.2	320.9	322.4	328.3	357.6	0.1	0.1	350.0	322.2	331.1	166.9	171.9	190.4	222.8	268.6	237.2	132.5	146.1
4	139.1	126.2	141.5	139.1	139.8	125.3	52.1	1.7	347.6	331.0	330.1	322.0	330.0	311.9	302.0	280.3	270.7	255.2	258.0	239.3	213.3	178.8	143.8	142.9
5	141.9	130.4	128.8	139.4	144.9	140.1	131.7	129.6	138.0	125.9	123.6	117.2	124.5	157.2	257.7	197.2	257.2	206.5	241.3	112.8	103.6	114.4	74.1	273.2
6	345.5	254.6	294.6	218.3	145.3	312.8	323.0	109.9	117.9	114.8	111.1	16.2	150.1	163.5	164.3	180.3	200.1	12.4	256.3	170.2	184.3	137.1	158.4	175.5
7	144.1	125.3	138.0	156.6	155.2	148.5	145.0	147.2	154.1	151.8	155.9	157.4	153.4	147.0	159.7	164.2	154.4	149.4	177.1	167.8	173.3	165.5	180.9	191.0
8	197.2	201.3	203.8	214.9	212.0	217.5	216.1	217.1	218.2	221.4	216.8	257.9	27.2	82.2	227.5	157.5	341.1	308.6	295.7	308.6	299.5	294.3	287.9	311.6
9	344.0	308.7	312.3	311.8	304.9	316.8	312.3	322.6	328.6	40.2	84.3	103.6	134.4	146.5	150.5	146.3	150.9	158.8	151.0	148.3	137.6	139.5	139.6	133.1
10	131.1	120.4	118.7	120.1									118.7	124.2	120.0	116.9	118.9	126.6	119.7	121.0	124.2	129.1		
11		130.7	129.2	127.3	132.3	140.1	129.5	119.0	112.5		104.9	92.6	109.0	120.3	121.6	126.5	128.8	125.2	126.1	94.0	135.5	149.5	167.1	189.2
12	163.4	163.2	167.3	179.2	198.7	202.4	172.8	170.4	129.8	139.0	176.8	250.3	300.0	322.5	309.5	317.4	312.1	314.2	312.9	315.4	316.3	328.8	341.7	339.8
13	328.5	298.9	314.2	297.8	352.6	354.7	356.6	306.3	310.8	311.6	310.2	308.9	314.6	302.7	247.4	350.2	174.5	219.1	211.6	213.5	212.7	212.1	216.0	220.5
14	218.3	213.4	212.1	219.4	219.3	215.9	206.9	207.5	222.3	225.2	225.0	216.2	219.4	219.3	216.0	219.1	219.3	213.0	217.3	213.6	217.5	214.7	204.1	200.3
15	202.4	210.0	204.7	200.2	200.2	216.6	228.2	220.3	215.7	217.9	230.5	231.7	223.4	217.3	213.5	205.3	222.7	205.8	198.4	190.8	193.0	211.2	216.1	203.7
16	189.1	182.4	176.4	173.8	166.0	171.0	168.7	163.1	162.9	157.6	151.0	139.9	136.1	129.8	133.6	127.7	121.8	117.9	116.0	120.5	121.8	122.2	120.3	120.7
17	118.9	124.5	127.1	114.5	116.5	117.1	113.6	115.3	114.4	111.0	113.0	115.9	117.6	116.9	117.9	118.6	118.9	119.1	118.0	119.4	121.6	120.7	120.0	119.2
18	121.9	122.7	119.8	119.8	118.5	118.2	117.4	113.8	122.7	121.3	119.4	122.3	125.5	119.2	118.7	119.7	118.7	118.7	118.8	121.4	120.0	122.2	123.5	127.0
19	124.7	123.7	127.3	127.3	127.1	127.1	121.3	128.0	130.2	132.2	136.9	132.7	110.5	98.4	102.4	90.5	95.6	90.4	96.6	84.5	96.3	100.9	89.7	110.2
20	135.0	152.6	136.3	138.6	146.8	169.9	191.8	159.2	278.3	319.9	317.7	310.3	344.4	345.0	345.4	347.8	357.0	17.0	34.0	81.8	78.9	79.4	85.7	94.5
21	117.4	90.8	98.2	159.0	182.2	168.4	175.3	170.4	169.0	178.8	161.3	133.4	108.5	94.5	142.4	290.8	320.5	217.0	162.8	124.9	132.6	312.6	59.0	136.3
22	153.0	155.5	158.1	162.5	151.8	126.9	119.6	120.0	112.8	108.5	103.7	345.9	352.2	310.2	310.8	336.9	14.9	74.3	109.8	137.4	140.6	138.0	147.9	171.7
23	156.1	161.7	163.2	144.1	129.1	117.2	125.2	121.8	128.6	113.5	115.2	109.2	112.9	119.4	109.1	110.0	97.7	100.3	94.8	111.8	129.1	63.7	63.5	91.6
24	98.9	102.5	126.1	108.5	121.6	142.0	142.6	148.4	143.8	113.1	116.5	125.7	122.1	110.6	113.8	111.4	113.5	111.0	104.8	106.9	95.0	111.9	121.5	124.2
25	124.8	155.7	157.0	144.3	128.0	116.8	123.9	121.2	126.0	130.9	131.0	128.3	122.4	104.3	116.0	118.5	116.8	113.8	113.8	121.1	121.1	125.6	120.2	118.2
26	126.0	143.3	151.6	161.2	166.4	178.6	173.6	193.6	189.0	173.1	201.1	188.0	192.2	163.0	166.4	124.1	144.8	151.2	219.1	218.5	210.0	210.3	214.5	221.3
27	222.8	215.5	216.3	219.9	219.7	220.0	220.0	227.8	228.9	229.4	228.6	228.8	226.4	209.8	173.4	160.5	346.6	328.0	309.2	127.9	132.0	108.3	179.2	146.6
28	126.2	163.4	152.4	170.6	171.7	171.4	163.1	261.4	116.2	144.1	156.5	139.6	137.0	138.3	136.4	135.3	140.2	153.4	163.9	172.8	200.7	197.6	193.7	197.2
29	199.0	202.9	211.5	214.1	189.6	203.5	190.3	216.8	223.5	222.8	237.3	243.9	235.9	234.2	236.1	247.9	256.0	267.2	276.0	270.3	265.8	266.2	261.7	260.8
30	234.7	225.0	229.5	230.9	221.0	221.8	236.4	239.4	241.5	244.2	252.4	272.2	274.7	285.4	296.6	328.6	213.6	201.5	222.2	315.5	306.8	310.6	315.9	312.3
31	316.6	315.4	312.6	312.6	309.8	306.6	304.3	306.9	299.9	303.8	301.6	298.9	304.1	301.6	303.1	304.0	305.1	308.0	304.0	306.2	306.4	294.9	292.5	294.2

Total Hours in Month 744

Hours Data Available 732

Data Recovery 98.4%

**HCG, Inc.**

## Northern Dynasty Mines Pebble 1 Meterological Station - Wind Sigma (Climtrncs)

*August 2005*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	12.4	16.7	16.8	7.0	3.6	6.5	16.9	9.3	14.3	12.9	15.3	27.7	11.0	10.4	13.3	13.6	8.0	6.8	6.3	6.0	5.3	5.5	5.0	6.4	27.7	3.6	10.7
2	4.4	5.5	6.5	4.5	3.9	5.9	4.4	5.8	5.7	8.6	8.9	9.6	6.9	5.9	7.7	7.9	7.1	6.8	40.1	8.4	17.9	17.1	15.4	19.1	40.1	3.9	9.7
3	21.8	16.1	21.5	9.0	10.8	9.8	8.7	7.4	12.4	13.6	15.0	14.6	23.7	28.3	29.5	15.1	8.5	8.0	11.7	5.2	12.5	9.8	8.9	14.5	29.5	5.2	14.0
4	8.8	8.8	8.9	9.9	16.3	13.1	25.7	16.4	22.9	30.9	49.6	19.7	49.9	17.9	12.3	13.7	8.6	20.8	31.8	34.4	24.0	13.8	22.7	36.5	49.9	8.6	21.6
5	25.2	16.5	22.1	17.6	34.9	14.1	13.4	34.4	36.9	26.1	9.4	15.0	12.5	17.2	11.9	10.3	11.0	7.8	6.9	6.7	6.6	5.7	12.9	12.0	36.9	5.7	16.1
6	25.6	17.6	17.7	10.6	11.9	19.0	13.5	40.1	32.4	47.8	32.1	44.5	51.8	25.8	13.1	16.5	17.1	11.2	11.2	5.2	4.9	3.1	7.5	6.8	51.8	3.1	20.3
7	11.6	11.7	11.7	48.2	22.5	28.0	36.7	7.9	6.5	10.6	39.2	38.4	10.6	14.0	26.8	50.9	16.5	12.3	13.3	10.1	3.6	2.0	3.5	2.8	50.9	2.0	18.3
8	3.2	3.4	4.2	2.5	2.9	3.2	3.1	3.9	7.3	9.1	19.8	46.3	47.2	46.6	26.8	20.9	13.4	8.5	9.6	6.3	16.5	37.0	10.4	9.6	47.2	2.5	15.1
9	4.7	5.1	5.0	4.3	3.3	4.7	4.7	6.2	6.0	9.8	10.7	11.0	10.5	12.4	10.7	8.9	7.6	7.3	5.6	4.6	3.3	12.9	9.4	5.0	12.9	3.3	7.2
10	14.5	13.4	18.2	19.8	26.5	8.2	13.5	7.0	10.9	24.4	24.3	22.2	18.4	14.8	10.1	9.8	9.6	11.0	13.1	8.3	4.5	5.9	6.6	3.8	26.5	3.8	13.3
11	5.0	3.7	4.4	4.6	2.6	2.5	2.5	3.3	5.5	7.4	9.0	9.1	9.7	19.9	46.3	46.6	20.0	31.0	28.8	9.5	8.9	5.1	4.0	2.2	46.6	2.2	12.1
12	23.1	16.7	6.0	8.3	7.6	6.2	10.7	9.5	13.4	10.3	8.7	13.8	9.9	11.2	8.5	11.5	8.9	7.9	7.4	5.0	6.1	4.2	4.2	3.3	23.1	3.3	9.3
13	2.8	3.2	9.0	6.7	6.5	12.0	6.1	7.8	14.2	12.2	14.2	14.1	17.2	16.5	11.5	7.3	6.4	11.6	6.6	5.8	6.2	11.4	7.2	3.7	17.2	2.8	9.2
14	4.1	4.0	7.6	9.8	8.1	8.7	21.8	6.7	8.5	12.8	13.1	14.8	16.4	29.4	17.0	21.0	10.4	7.4	11.0	46.9	14.3	10.0	4.6	5.9	46.9	4.0	13.1
15	5.0	6.0	6.5	5.3	5.0	4.9	7.3	5.4	7.0	7.4	8.1	7.5	10.2	10.4	7.7	8.0	8.2	7.4	5.3	5.1	6.7	6.3	7.0	9.8	10.4	4.9	7.0
16	11.1	9.2	8.7	8.0	4.2	4.4	4.5	4.9	5.0	5.7	5.6	4.9	5.4	5.8	5.5	5.3	5.5	5.1	4.5	4.8	4.6	4.7	4.4	4.6	11.1	4.2	5.7
17	4.6	4.5	4.4	4.4	5.2	4.2	4.1	5.2	10.0	5.9	6.4	12.0	7.1	7.7	6.5	7.5	11.9	8.1	10.7	11.5	5.9	10.7	15.6	13.6	15.6	4.1	7.8
18	12.1	7.5	12.2	9.9	9.6	18.4	13.5	19.0	17.7	5.7	9.6	8.0	7.3	7.5	6.8	5.9	7.9	8.6	12.2	32.2	23.0	39.5	33.9	36.0	39.5	5.7	15.2
19	40.1	30.8	49.6	11.6	19.0	8.7	5.7	6.4	4.9	7.1	7.5	6.4	7.2	8.0	6.2	7.2	6.6	5.0	3.5	4.5	4.1	4.0	4.5	4.4	49.6	3.5	11.0
20	8.5	7.5	5.3	5.9	7.8	7.0	6.5	4.5	7.7	8.4	6.9	8.2	9.1	9.8	9.0	5.8	8.0	5.8	10.6	7.2	5.2	5.0	4.6	4.9	10.6	4.5	7.1
21	5.0	5.5	5.4	7.0	5.3	5.8	5.0	4.8	5.7	5.8	6.2	8.3	5.6	12.1	10.5	11.8	9.7	10.4	8.9	4.5	5.4	3.5	3.7	6.5	12.1	3.5	6.7
22	9.1	22.7	16.8	6.2	7.7	12.7	11.2	7.3	7.8	6.4	5.0	5.1	4.7	4.5	4.7	5.0	5.1	5.1	5.4	5.9	5.9	5.2	5.0	5.6	22.7	4.5	7.5
23	5.5	5.5	8.6	6.2	7.0	10.9	5.9	6.8	6.1	7.6	6.5	6.4	8.2	8.7	7.7	7.9	6.9	7.5	7.7	7.9	6.3	5.8	5.7	5.5	10.9	5.5	7.0
24	5.1	5.2	5.8	6.2	10.7	22.8	14.7	15.4	12.4	17.7	3.8	3.7	4.0	4.9	6.1	6.2	5.5	6.3	5.5	4.8	3.6	5.1	4.8	4.5	22.8	3.6	7.7
25	4.7	5.7	4.1	6.4	6.9	7.8	22.3	8.6	7.8	12.1	21.4	20.5	16.5	13.2	24.0	8.7	12.8	11.4	7.4	3.4	3.8	2.9	5.1	3.3	24.0	2.9	10.0
26	3.3	3.4	3.7	3.5	7.0	6.5	7.2	5.4	7.1	5.7	5.4	7.7	6.6	8.3	7.1	6.1	5.9	4.5	3.7	4.0	3.8	4.0	4.7	3.8	8.3	3.3	5.4
27	5.3	7.2	6.7	4.7	4.0	13.6	6.1	9.0	4.6	7.0	7.8	9.8	10.5	9.6	11.1	5.5	5.4	5.0	6.7	11.8	30.3	11.3	11.8	10.9	30.3	4.0	9.0
28	9.1	6.5	9.3	7.4	7.3	5.2	6.0	5.8	6.9	5.6	7.1	7.6	6.6	8.5	6.8	5.9	7.2	6.1	8.6	5.5	6.8	5.2	5.1	5.9	9.3	5.1	6.7
29	5.8	6.2	5.1	5.1	5.4	5.3	4.8	5.2	5.4	5.2	4.5	4.9	5.6	5.4	5.4	6.8	7.7	5.3	6.8	6.0	5.0	4.6	4.9	3.8	7.7	3.8	5.4
30	5.7	6.4	5.7	4.4	5.8	5.1	4.4	4.4	4.9	5.4	6.0	6.0	5.7	5.5	5.1	6.0	5.1	5.8	4.3	5.2	4.1	4.2	4.3	4.0	6.4	4.0	5.1
31	4.0	5.0	6.7	5.2	4.5	4.0	4.6	3.6	4.5	6.0	6.0	5.3	6.6	5.9	5.8	6.1	6.0	4.9	5.1	4.4	5.3	6.7	3.3	3.2	6.7	3.2	5.1
<b>Max.</b>	<b>40.1</b>	<b>30.8</b>	<b>49.6</b>	<b>48.2</b>	<b>34.9</b>	<b>28.0</b>	<b>36.7</b>	<b>40.1</b>	<b>36.9</b>	<b>47.8</b>	<b>49.6</b>	<b>46.3</b>	<b>51.8</b>	<b>46.6</b>	<b>46.3</b>	<b>50.9</b>	<b>20.0</b>	<b>31.0</b>	<b>40.1</b>	<b>46.9</b>	<b>30.3</b>	<b>39.5</b>	<b>33.9</b>	<b>36.5</b>	<b>51.8</b>		
<b>Min.</b>	<b>2.8</b>	<b>3.2</b>	<b>3.7</b>	<b>2.5</b>	<b>2.6</b>	<b>2.5</b>	<b>2.5</b>	<b>3.3</b>	<b>4.5</b>	<b>5.2</b>	<b>3.8</b>	<b>3.7</b>	<b>4.0</b>	<b>4.5</b>	<b>4.7</b>	<b>5.0</b>	<b>5.1</b>	<b>4.5</b>	<b>3.5</b>	<b>3.4</b>	<b>3.3</b>	<b>2.0</b>	<b>3.3</b>	<b>2.2</b>		<b>2.0</b>	
<b>Avg.</b>	<b>10.0</b>	<b>9.3</b>	<b>10.5</b>	<b>8.7</b>	<b>9.1</b>	<b>9.3</b>	<b>10.2</b>	<b>9.3</b>	<b>10.4</b>	<b>11.6</b>	<b>12.7</b>	<b>14.0</b>	<b>13.6</b>	<b>13.1</b>	<b>12.3</b>	<b>11.9</b>	<b>9.0</b>	<b>8.7</b>	<b>10.3</b>	<b>9.4</b>	<b>8.5</b>	<b>8.8</b>	<b>8.1</b>	<b>8.4</b>			<b>10.3</b>

**Total Hours in Month** 744 **Hours Data Available** 744 **Data Recovery** 100.0%

## Northern Dynasty Mines Pebble 1 Meterological Station - Wind Sigma (Climtrncs)

*September 2005*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	2.8	3.2	4.8	3.8	4.5	5.9	3.9	4.5	4.6	5.4	5.9	7.2	9.0	8.6	9.7	9.2	7.8	6.6	5.6	3.9	6.4	6.2	7.1	6.8	9.7	2.8	6.0	
2	4.7	6.5	5.0	7.0	32.8	50.7	7.6	11.2	8.9	10.1	7.8	6.9	7.5	7.4	6.0	5.0	5.6	5.2	5.4	5.6	5.0	4.8	4.8	4.5	50.7	4.5	9.4	
3	4.9	5.8	5.8	5.8	6.1	5.1	5.1	4.9	4.6	4.7	4.3	4.5	4.5	4.8	4.8	5.6	5.0	4.8	4.6	3.9	4.0	4.5	4.9	4.4	6.1	3.9	4.9	
4	10.0	10.2	17.9	39.3	22.9	12.1	12.9	23.0	43.0	17.8	9.8	8.1	10.1	8.4	9.7	10.7	14.2	5.7	5.3	5.6	5.2	5.0	5.6	5.1	43.0	5.0	13.2	
5	5.5	5.1	5.4	6.2	6.0	5.5	4.8	4.8	5.0	4.8	4.3	4.5	5.1	5.4	5.3	5.3	5.3	5.8	5.8	5.3	5.1	7.4	5.6	7.5	7.5	4.3	5.4	
6	5.8	12.6	22.5	12.3	7.4	8.8	31.7	20.6	16.5	5.5	6.0	5.3	6.9	7.2	8.6	7.5	6.4	6.4	7.7	5.6	5.3	6.0	5.1	5.5	31.7	5.1	9.7	
7	5.8	7.1	5.3	20.7	7.5	23.6	46.7	27.1	9.7	12.4	8.6	9.2	8.3	10.1	8.2	7.8	6.6	6.1	4.4	3.8	3.2	9.2	7.5	8.0	46.7	3.2	11.1	
8	31.8	9.3	13.5	6.2	3.8	4.8	3.9	4.5	20.9	22.2	9.4	21.2	9.9	8.8	8.3	7.0	6.3	4.6	6.0	5.4	4.9	6.0	5.7	6.3	31.8	3.8	9.6	
9	5.9	5.6	6.9	6.8	6.6	7.6	6.0	5.7	5.4	6.6	6.1	5.1	5.8	5.3	6.8	9.9	9.8	6.4	6.8	5.9	6.0	5.0	5.4	6.1	9.9	5.0	6.4	
10	9.4	7.7	5.9	5.0	5.1	4.0	4.4	10.2	54.6	59.1	23.1	15.0	15.9	13.4	14.9	11.1	22.1	12.9	10.9	5.7	22.5	15.2	7.5	6.4	59.1	4.0	15.1	
11	6.4	6.8	5.3	6.3	4.9	5.6	4.6	5.3	5.1	5.1	5.4	4.9	5.2	5.9	6.1	6.4	5.3	5.5	6.2	6.3	5.8	5.5	7.1	7.5	7.5	4.6	5.8	
12	9.8	9.0	7.4	7.0	6.7	8.0	7.9	8.5	8.0	7.9	7.4	7.1	6.4	7.2	5.9	6.6	5.7	5.8	5.3	5.0	4.8	4.6	5.1	6.2	9.8	4.6	6.8	
13	8.4	7.6	5.2	3.6	4.7	15.2	26.1	5.4	6.9	9.5	10.8	12.6	12.7	10.3	12.8	9.0	10.9	10.9	12.2	18.6	5.1	7.1	8.7	17.2	26.1	3.6	10.5	
14	9.7	6.6	9.8	5.7	7.5	6.2	9.9	7.6	6.2	6.3	9.7	12.3	10.3	9.9	7.7	6.5	6.7	5.5	5.2	5.1	4.8	4.8	4.8	5.2	12.3	4.8	7.2	
15	4.8	4.8	4.6	4.5	4.6	4.9	4.7	5.1	5.3	5.5	5.0	5.3	5.1	5.0	4.7	4.9	4.6	11.9	8.1	5.7	5.9	4.9	5.9	17.9	17.9	4.5	6.0	
16	5.2	8.2	19.1	6.8	8.3	41.6	42.4	18.8	24.7	41.2	9.6	13.9	9.5	8.4	7.5	8.4	10.5	7.7	8.2	6.2	3.9	5.9	4.5	5.8	42.4	3.9	13.6	
17	5.9	9.0	18.4	13.5	17.9	17.6	39.1	10.4	12.7	5.8	22.1	19.9	41.6	48.9	15.1	4.9	33.6	8.7	8.4	7.6	5.5	4.3	3.6	7.0	48.9	3.6	15.9	
18	5.0	8.1	2.6	3.5	2.1	2.0	8.0	6.1	5.8	3.8	7.4	4.6	6.6	7.3	7.3	6.6	6.1	6.4	2.8	1.7	1.8	4.5	3.4	4.1	8.1	1.7	4.9	
19	4.2	4.7	3.0	3.7	3.0	3.9	3.7	5.0	9.2	8.3	15.8	8.5	9.4	7.3	7.4	7.3	6.2	5.2	4.4	3.5	3.6	3.9	5.2	2.5	15.8	2.5	5.8	
20	3.3	3.5	3.4	6.2	6.8	7.7	7.7	3.4	2.7	4.5	8.5	10.1	10.0	8.3	9.9	7.8	6.7	5.3	6.3	5.4	10.2	5.8	11.4	5.2	11.4	2.7	6.7	
21	6.9	13.7	17.9	6.0	6.3	16.8	10.4	8.3	6.4	5.8	8.6	10.0	8.9	6.5	5.2	5.3	5.2	6.7	6.0	6.9	6.0	5.1	5.3	3.8	17.9	3.8	7.8	
22	4.7	5.4	6.5	8.1	8.3	6.6	5.6	5.5	5.6	4.6	4.6	4.8	4.8	5.5	5.4	9.3	8.4	10.1	5.3	6.1	7.9	6.6	9.8	8.2	10.1	4.6	6.6	
23	12.3	10.2	9.9	9.1	8.5	7.2	6.6	8.2	6.0	4.9	5.5	7.3	6.2	6.1	6.5	5.3	5.3	6.0	16.4	6.3	7.7	6.8	6.6	6.2	16.4	4.9	7.5	
24	5.8	5.9	6.3	5.8	5.0	5.2	5.0	5.3	6.4	5.3	6.2	5.8	7.6	7.4	7.3	7.0	6.4	7.2	7.0	7.2	5.7	6.2	5.8	4.9	7.6	4.9	6.2	
25	5.5	5.2	5.8	4.8	4.8	4.6	4.0	4.6	6.3	5.2	5.1	5.5	5.9	6.0	8.9	8.9	7.6	6.0	5.8	9.1	7.0	6.1	4.6	3.4	9.1	3.4	5.9	
26	7.4	12.7	9.2	6.6	6.1	6.6	5.6	5.6	4.9	4.7	4.4	5.3	6.0	5.9	5.6	5.3	4.6	4.7	4.6	4.6	4.9	4.7	4.5	4.5	12.7	4.4	5.8	
27	4.6	4.7	4.8	4.7	4.7	4.7	5.1	10.9	11.4	7.6	47.3	23.1	6.6	5.8	6.8	6.3	8.9	6.4	6.6	5.6	8.3	7.3	14.3	6.9	47.3	4.6	9.3	
28	8.3	10.7	15.3	14.1	3.8	4.6	5.8	7.5	11.2	10.6	9.8	8.4	11.2	18.5	6.9	9.3	7.2	8.7	33.6	10.7	36.1	12.8	19.2	33.3	36.1	3.8	13.2	
29	16.0	20.7	9.2	8.8	4.5	6.5	10.6	6.6	5.2	5.9	6.0	8.9	5.2	7.7	7.0	6.8	6.3	4.5	3.8	6.3	7.2	43.9	35.7	21.6	43.9	3.8	11.0	
30	32.5	22.2	21.3	5.8	26.5	12.8	18.7	14.9	9.8	20.7	27.1	6.8	13.9	26.1	22.6	16.2	8.2	5.6	6.6	6.1	4.0	3.0	3.0	3.3	32.5	3.0	14.1	
<b>Max.</b>	<b>32.5</b>	<b>22.2</b>	<b>22.5</b>	<b>39.3</b>	<b>32.8</b>	<b>50.7</b>	<b>46.7</b>	<b>27.1</b>	<b>54.6</b>	<b>59.1</b>	<b>47.3</b>	<b>23.1</b>	<b>41.6</b>	<b>48.9</b>	<b>22.6</b>	<b>16.2</b>	<b>33.6</b>	<b>12.9</b>	<b>33.6</b>	<b>18.6</b>	<b>36.1</b>	<b>43.9</b>	<b>35.7</b>	<b>33.3</b>	<b>59.1</b>			
<b>Min.</b>	<b>2.8</b>	<b>3.2</b>	<b>2.6</b>	<b>3.5</b>	<b>2.1</b>	<b>2.0</b>	<b>3.7</b>	<b>3.4</b>	<b>2.7</b>	<b>3.8</b>	<b>4.3</b>	<b>4.5</b>	<b>4.5</b>	<b>4.8</b>	<b>4.7</b>	<b>4.9</b>	<b>4.6</b>	<b>4.5</b>	<b>2.8</b>	<b>1.7</b>	<b>1.8</b>	<b>3.0</b>	<b>3.0</b>	<b>2.5</b>		<b>1.7</b>		
<b>Avg.</b>	<b>8.4</b>	<b>8.4</b>	<b>9.3</b>	<b>8.3</b>	<b>8.2</b>	<b>10.5</b>	<b>12.0</b>	<b>9.0</b>	<b>11.1</b>	<b>10.7</b>	<b>10.4</b>	<b>9.1</b>	<b>9.2</b>	<b>9.8</b>	<b>8.3</b>	<b>7.6</b>	<b>8.5</b>	<b>6.8</b>	<b>7.5</b>	<b>6.1</b>	<b>7.1</b>	<b>7.4</b>	<b>7.6</b>	<b>7.8</b>			<b>8.7</b>	
<b>Total Hours in Month</b>	720		<b>Hours Data Available</b>										720										<b>Data Recovery</b>					100.0%

## Northern Dynasty Mines Pebble 1 Meterological Station - Wind Sigma (Climtrncs)

*October 2005*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	3.4	3.4	3.3	3.3	3.6	3.6	3.7	4.2	4.2	4.7	5.3	5.2	5.3	5.9	5.8	5.7	5.5	4.1	4.0	3.8	3.6	3.7	3.7	3.7	5.9	3.3	4.3	
2	3.6	3.6	2.7	2.6	3.7	9.4	5.1	6.7	5.0	7.5	6.9	6.0	6.1	6.0	8.5	11.8	6.4	6.8	7.7	6.7	5.5	6.1	8.9	5.7	11.8	2.6	6.2	
3	29.4	9.4	7.7	13.3	39.2	32.5	40.0	37.0	8.5	10.6	7.5	8.2	12.2	16.9	45.0	25.1	21.7	11.8	11.5	43.9	36.6	17.1	27.0	12.9	45.0	7.5	21.9	
4	16.6	25.5	7.5	12.5	4.3	6.0	10.1	11.1	15.4	9.4	11.5	8.5	7.7	7.0	7.3	11.4	15.2	9.1	6.9	8.9	5.2	4.9	5.0	4.7	25.5	4.3	9.7	
5	5.3	36.6	18.7	9.9	13.5	13.0	8.8	18.8	8.6	10.1	15.0	13.6	8.8	8.0	6.7	5.9	8.0	6.5	11.2	6.5	15.5	17.7	11.3	5.5	36.6	5.3	11.8	
6	12.2	12.1	21.0	9.3	21.4	19.3	12.5	16.7	15.6	8.8	8.0	7.2	14.8	6.8	13.7	5.3	8.6	8.7	5.3	10.9	10.1	5.4	18.2	7.3	21.4	5.3	11.6	
7	2.9	5.4	13.5	8.0	4.9	4.6	4.4	4.8	4.5	4.2	4.4	4.9	4.6	4.7	9.5	7.3	8.1	9.5	8.6	12.4	18.8	27.5	10.7	6.6	27.5	2.9	8.1	
8	7.4	6.3	7.6	24.3	13.1	13.3	7.5	7.8	6.3	7.7	21.5	12.9	22.3	8.6	7.2	7.8	6.2	8.3	10.6	35.5	24.0	5.8	8.8	7.9	35.5	5.8	12.0	
9	8.8	10.4	8.3	28.5	16.5	9.1	12.2	10.4	6.3	4.6	8.0	7.0	5.5	4.9	6.6	6.2	5.0	5.5	6.2	6.4	5.7	4.4	3.8	4.0	28.5	3.8	8.1	
10	5.1	3.9	3.9	3.9	6.5	0.1	0.1	0.0	0.1	0.1	0.1	0.1	13.5	1.3	15.4	14.9	7.8	10.1	18.8	5.5	4.1	3.6	3.2	5.1	18.8	0.0	5.3	
11	6.5	4.9	5.5	8.1	9.3	7.5	8.2	4.6	5.7	6.5	7.6	7.4	6.1	7.5	7.8	6.9	6.4	4.2	3.7	3.9	4.3	4.4	3.8	3.7	9.3	3.7	6.0	
12	3.6	3.6	3.4	4.0	3.1	3.1	4.4	3.0	3.5	3.8	4.3	4.9	6.6	7.7	8.0	7.4	7.1	6.4	8.7	7.5	7.7	11.1	16.8	11.8	16.8	3.0	6.3	
13	8.3	8.0	5.2	3.3	4.6	7.2	4.1	11.5	6.1	4.6	7.2	11.7	14.4	11.6	15.2	14.2	5.6	16.4	10.0	10.5	9.0	4.8	4.5	4.4	16.4	3.3	8.4	
14	3.9	5.2	5.0	7.2	9.0	5.0	9.8	9.9	18.6	7.9	15.6	9.5	6.4	5.3	5.9	8.1	4.3	3.4	3.7	3.4	4.8	5.6	10.3	6.6	18.6	3.4	7.3	
15	8.7	22.2	36.1	29.2	11.9	6.7	9.3	5.3	6.7	24.1	28.7	22.1	9.8	6.1	6.5	6.3	5.3	3.3	4.2	6.6	4.3	3.7	4.3	3.4	36.1	3.3	11.5	
16	8.8	3.1	6.1	5.2	4.8	5.3	5.1	4.6	4.6	4.5	47.0	19.9	11.6	10.5	4.7	8.1	6.1	35.5	7.3	13.8	12.8	8.1	6.0	6.4	47.0	3.1	10.4	
17	5.6	4.7	4.6	5.3	4.3	4.6	5.3	5.0	4.7	5.1	13.2	11.9	6.8	6.2	6.9	5.6	6.1	6.1	8.0	6.9	6.0	5.8	5.6	5.5	13.2	4.3	6.2	
18	5.1	5.0	4.4	4.4	4.5	4.0	4.0	4.7	4.0	3.1	3.8	10.1	31.4	18.5	6.8	5.4	6.8	7.6	9.1	5.6	8.1	7.9	6.3	5.6	31.4	3.1	7.3	
19	5.9	5.3	6.7	5.1	5.9	5.0	6.0	4.9	5.1	5.4	5.2	5.7	5.3	4.9	4.6	4.5	4.7	4.8	4.7	4.9	4.8	4.9	4.8	4.4	6.7	4.4	5.1	
20	4.4	4.4	4.7	4.4	4.7	4.7	4.4	4.5	4.8	4.9	4.9	5.3	5.0	11.0	6.4	11.3	25.2	6.6	8.8	5.2	4.6	5.3	4.7	3.6	25.2	3.6	6.4	
21	5.8	8.6	6.3	24.7	23.6	8.7	6.8	5.1	5.9	4.9	3.3	3.7	3.1	2.6	3.9	9.8	7.3	4.2	3.7	3.2	3.0	3.5	3.9	5.7	24.7	2.6	6.7	
22	3.4	4.6	6.9	6.4	4.8	3.6	3.9	3.9	3.3	3.1	3.0	3.6	3.9	3.7	3.2	4.0	3.2	3.3	5.4	3.1	2.7	2.8	1.9	3.6	6.9	1.9	3.8	
23	5.5	2.7	5.4	3.8	2.2	2.0	3.7	2.5	3.2	3.9	3.9	4.0	3.3	3.4	3.5	3.1	3.0	3.4	3.0	2.9	2.9	3.6	3.2	3.5	5.5	2.0	3.4	
24	3.5	3.7	3.4	3.8	3.1	4.4	3.1	2.9	4.8	7.9	4.7	4.1	5.0	3.6	5.1	5.0	4.5	7.2	4.3	4.6	4.8	4.7	4.3	3.1	7.9	2.9	4.4	
25	3.0	2.9	3.4	3.0	2.7	4.0	4.2	4.6	4.0	5.1	4.2	3.8	4.9	5.2	4.5	4.2	3.8	3.5	3.7	3.7	3.8	5.0	3.9	4.5	5.2	2.7	4.0	
26	3.9	4.2	4.1	4.0	3.3	3.6	3.6	2.6	2.9	3.5	3.7	4.8	4.5	5.7	6.5	4.8	3.4	3.1	3.3	3.7	5.7	3.8	5.3	5.5	6.5	2.6	4.1	
27	4.3	6.0	4.5	7.5	9.9	49.8	43.0	46.7	25.4	35.0	14.6	6.9	29.2	12.6	17.6	8.5	28.2	25.7	24.6	19.4	7.8	31.7	55.1	33.2	55.1	4.3	22.8	
28	25.6	9.4	14.0	19.8	20.2	19.0	5.1	6.0	7.5	20.7	8.3	6.9	4.4	7.8	9.5	11.6	10.5	12.1	13.6	12.1	9.8	5.0	44.9	9.5	44.9	4.4	13.0	
29	7.1	13.6	33.6	7.3	13.7	9.7	5.5	4.4	4.1	4.3	4.6	5.1	6.2	4.9	5.6	5.7	4.5	3.8	4.7	5.4	5.3	7.4	9.4	5.1	33.6	3.8	7.5	
30	4.0	3.8	4.0	4.1	3.9	4.1	4.8	5.5	6.3	4.4	5.6	3.9	4.4	3.3	3.1	2.8	2.5	2.6	3.4	4.6	3.0	3.0	5.2	4.3	6.3	2.5	4.0	
31	3.7	3.9	4.2	3.9	3.8	3.5	4.4	5.8	7.6	5.0	5.2	5.7	4.9	3.3	4.3	8.2	6.2	3.4	4.1	4.8	5.3	5.0	3.4	6.9	8.2	3.3	4.8	
<b>Max.</b>	<b>29.4</b>	<b>36.6</b>	<b>36.1</b>	<b>29.2</b>	<b>39.2</b>	<b>49.8</b>	<b>43.0</b>	<b>46.7</b>	<b>25.4</b>	<b>35.0</b>	<b>47.0</b>	<b>22.1</b>	<b>31.4</b>	<b>18.5</b>	<b>45.0</b>	<b>25.1</b>	<b>28.2</b>	<b>35.5</b>	<b>24.6</b>	<b>43.9</b>	<b>36.6</b>	<b>31.7</b>	<b>55.1</b>	<b>33.2</b>	<b>55.1</b>			
<b>Min.</b>	<b>2.9</b>	<b>2.7</b>	<b>2.7</b>	<b>2.6</b>	<b>2.2</b>	<b>0.1</b>	<b>0.1</b>	<b>0.0</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>0.1</b>	<b>3.1</b>	<b>1.3</b>	<b>3.1</b>	<b>2.8</b>	<b>2.5</b>	<b>2.6</b>	<b>3.0</b>	<b>2.9</b>	<b>2.7</b>	<b>2.8</b>	<b>1.9</b>	<b>3.1</b>		<b>0.0</b>		
<b>Avg.</b>	<b>7.3</b>	<b>7.9</b>	<b>8.6</b>	<b>9.0</b>	<b>9.0</b>	<b>8.9</b>	<b>8.2</b>	<b>8.6</b>	<b>6.9</b>	<b>7.6</b>	<b>9.2</b>	<b>7.6</b>	<b>9.0</b>	<b>7.0</b>	<b>8.5</b>	<b>8.0</b>	<b>8.0</b>	<b>8.0</b>	<b>8.0</b>	<b>7.5</b>	<b>8.9</b>	<b>8.0</b>	<b>7.5</b>	<b>9.9</b>	<b>6.6</b>		<b>8.2</b>	

**Total Hours in Month** 744      **Hours Data Available** 744      **Data Recovery** 100.0%



## Northern Dynasty Mines Pebble 1 Meterological Station - Wind Sigma (Climtrncs)

*November 2005*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	4.1	4.0	3.0	3.2	6.0	3.3	4.0	3.9	3.7	3.1	2.7	3.6	3.4	4.4	6.7	8.7	4.4	3.2	4.2	4.9	2.9	3.7	3.8	4.6	8.7	2.7	4.1
2	3.8	4.0	4.6	5.6	9.0	3.7	5.0	3.9	4.4	4.0	3.5	3.9	4.9	6.1	6.4	4.4	6.2	4.9	2.5	2.8	2.1	4.4	3.3	4.9	9.0	2.1	4.5
3	3.5	5.6	6.0	5.2	5.1	3.1	6.0	5.5	4.6	3.7	4.1	3.8	4.4	3.9	3.6	4.5	4.2	3.6	4.1	4.1	5.8	3.8	3.3	3.4	6.0	3.1	4.4
4	4.2	3.3	2.8	3.6	6.1	4.0	4.3	4.5	4.5	4.1	4.4	4.7	4.0	3.6	3.1	3.2	3.9	4.5	3.0	3.0	3.0	3.1	2.8	2.5	6.1	2.5	3.8
5	3.7	3.5	3.8	3.9	3.1	3.7	2.5	2.2	2.7	3.2	3.4	2.7	3.1	3.4	2.4	2.7	2.8	2.6	3.1	4.0	6.3	4.7	21.8	23.1	23.1	2.2	4.9
6	12.7	8.3	8.3	14.3	15.0	3.7	4.3	3.4	3.5	3.4	3.2	3.1	3.1	3.1	3.2	3.0	2.6	2.7	6.6	4.1	4.3	3.6	3.6	4.0	15.0	2.6	5.3
7	5.2	3.8	3.7	7.0	6.6	5.3	6.8	5.4	4.4	5.0	3.7	5.0	6.9	6.2	4.9	3.6	3.1	3.6	3.0	3.4	2.8	2.8	3.0	3.1	7.0	2.8	4.5
8	3.8	3.6	3.2	3.0	2.9	4.2	2.8	3.3	3.3	4.9	6.6	5.0	3.9	4.5	5.3	4.1	4.0	2.6	2.6	3.2	3.7	5.3	5.0	5.3	6.6	2.6	4.0
9	4.9	6.8	5.4	4.5	3.8	4.6	4.5	3.4	3.0	3.8	4.3	4.1	3.9	2.7	2.8	2.8	4.0	3.4	3.7	3.5	3.3	3.4	3.2	3.5	6.8	2.7	3.9
10	4.1	4.0	4.0	3.9	3.4	2.9	2.8	2.9	2.9	3.1	3.3	3.1	2.9	3.2	3.0	3.0	3.2	2.9	2.8	2.8	2.7	2.9	3.2	3.0	4.1	2.7	3.2
11	3.2	3.2	2.8	3.0	3.1	3.8	3.4	3.6	3.6	3.2	3.4	3.6	3.5	3.9	3.5	4.2	3.6	3.6	4.5	3.0	4.1	3.4	2.9	2.9	4.5	2.8	3.5
12	3.5	3.0	3.3	3.4	2.8	3.2	3.6	4.1	4.4	4.2	3.9	4.5	4.5	4.2	3.3	3.3	2.7	2.8	3.5	3.9	3.6	5.5	4.7	6.2	6.2	2.7	3.8
13	4.5	4.4	8.0	7.6	3.6	5.7	4.9	6.6	6.1	7.8	9.8	8.5	4.4	10.5	28.6	21.2	8.8	8.2	11.9	12.9	7.2	6.4	6.2	5.1	28.6	3.6	8.7
14	4.9	4.3	4.3	4.3	5.8	6.6	5.5	4.1	3.5	4.8	10.0	8.6	10.6	23.7	5.4	7.8	14.9	15.9	4.9	5.1	5.1	5.3	11.1	11.6	23.7	3.5	7.8
15	6.7	7.1	5.5	8.1	13.0	17.5	29.1	9.4	3.3	3.3	3.5	3.3	2.9	3.8	4.7	2.8	16.9	8.9	4.7	31.3	6.1	7.1	5.7	12.1	31.3	2.8	9.0
16	19.1	16.7	5.9	6.5	6.7	6.9	7.0	3.9	4.6	4.5	4.4	3.7	4.2	4.2	4.4	4.9	4.4	3.9	3.9	3.9	3.8	3.9	4.7	4.9	19.1	3.7	5.9
17	7.4	5.5	5.0	5.2	4.9	4.5	4.7	5.5	5.0	9.3	5.4	6.3	5.5	5.7	7.8	5.2	5.5	5.6	6.3	8.5	9.8	14.1	0.7	0.2	14.1	0.2	6.0
18	0.1	9.3	5.8	8.8	13.9	10.4	6.9	11.2	6.1	10.9	16.4	5.3	33.1	24.7	9.6	19.7	7.1	3.1	3.9	51.5	33.6	10.5	10.7	18.6	51.5	0.1	13.8
19	36.3	19.5	26.2	13.2	23.4	17.8	5.4	4.5	3.6	4.7	4.8	6.8	4.1	3.5	6.8	9.7	4.7	5.5	8.2	14.0	11.7	10.9	5.1	7.8	36.3	3.5	10.8
20	8.2	4.8	9.3	6.6	11.3	9.0	8.4	6.4	5.7	6.7	9.0	7.0	11.2	5.8	12.3	3.3	5.2	5.9	10.8	19.8	38.1	7.2	9.6	6.9	38.1	3.3	9.5
21	11.9	15.8	3.2	3.7	3.5	4.2	5.5	6.1	5.4	6.1	2.1	9.2	9.0	2.6	4.3	4.0	8.9	16.3	38.2	15.0	14.2	44.0	9.7	8.2	44.0	2.1	10.5
22	15.7	43.1	29.7	58.8	27.3	30.1	54.3	54.6	36.0	35.4	28.0	7.7	49.2	15.9	7.5	7.6	7.6	4.4	3.9	6.2	4.6	5.2	3.8	2.7	58.8	2.7	22.5
23	5.0	4.1	2.5	3.1	3.7	3.3	2.3	2.4	3.0	3.0	3.0	2.6	2.6	3.2	2.5	2.4	2.9	2.0	2.9	4.4	3.2	2.9	2.2	1.7	5.0	1.7	3.0
24	2.8	4.5	5.4	4.0	2.4	3.5	2.8	3.7	3.7	2.5	3.4	2.4	2.9	2.1	2.3	2.8	2.6	2.8	3.2	3.5	3.7	2.8	2.6	2.1	5.4	2.1	3.1
25	2.0	2.3	2.7	3.1	3.2	2.6	2.3	2.2	1.9	2.1	2.3	2.4	2.5	2.6	2.4	2.3	2.1	2.6	3.3	2.1	2.5	3.0	3.1	2.8	3.3	1.9	2.5
26	2.3	2.9	2.8	2.2	2.5	2.8	2.9	2.9	3.0	2.5	2.2	2.8	2.1	3.4	5.8	4.7	2.8	3.2	3.7	3.0	3.6	3.4	3.9	3.4	5.8	2.1	3.1
27	3.5	3.0	3.6	3.4	4.8	4.0	5.8	6.1	7.1	6.4	3.7	4.5	5.4	3.2	3.2	28.9	7.6	6.1	5.2	8.4	7.7	4.4	5.2	3.6	28.9	3.0	6.0
28	3.9	2.8	2.6	2.9	3.5	3.6	3.9	4.1	5.4	5.2	5.6	4.9	4.2	5.7	9.0	12.3	6.1	12.6	10.0	22.8	13.2	18.5	22.1	7.2	22.8	2.6	8.0
29	12.0	9.3	10.4	30.6	27.9	3.9	1.8	4.6	2.5	3.5	5.0	4.5	2.8	2.2	2.6	3.0	7.0	4.7	5.2	5.2	4.8	7.9	4.0	3.1	30.6	1.8	7.0
30	6.6	3.1	4.9	4.3	3.9	2.7	2.8	3.3	2.4	1.9	2.2	2.6	3.0	4.2	2.9	2.6	5.7	7.6	6.6	3.0	4.4	3.3	4.4	5.6	7.6	1.9	3.9
<b>Max.</b>	<b>36.3</b>	<b>43.1</b>	<b>29.7</b>	<b>58.8</b>	<b>27.9</b>	<b>30.1</b>	<b>54.3</b>	<b>54.6</b>	<b>36.0</b>	<b>35.4</b>	<b>28.0</b>	<b>9.2</b>	<b>49.2</b>	<b>24.7</b>	<b>28.6</b>	<b>28.9</b>	<b>16.9</b>	<b>16.3</b>	<b>38.2</b>	<b>51.5</b>	<b>38.1</b>	<b>44.0</b>	<b>22.1</b>	<b>23.1</b>	<b>58.8</b>		
<b>Min.</b>	<b>0.1</b>	<b>2.3</b>	<b>2.5</b>	<b>2.2</b>	<b>2.4</b>	<b>2.6</b>	<b>1.8</b>	<b>2.2</b>	<b>1.9</b>	<b>1.9</b>	<b>2.1</b>	<b>2.4</b>	<b>2.1</b>	<b>2.1</b>	<b>2.3</b>	<b>2.3</b>	<b>2.1</b>	<b>2.0</b>	<b>2.5</b>	<b>2.1</b>	<b>2.1</b>	<b>2.8</b>	<b>0.7</b>	<b>0.2</b>		<b>0.1</b>	
<b>Avg.</b>	<b>7.0</b>	<b>7.2</b>	<b>6.3</b>	<b>7.9</b>	<b>7.7</b>	<b>6.2</b>	<b>6.9</b>	<b>6.3</b>	<b>5.1</b>	<b>5.5</b>	<b>5.6</b>	<b>4.7</b>	<b>6.9</b>	<b>5.9</b>	<b>5.7</b>	<b>6.4</b>	<b>5.5</b>	<b>5.3</b>	<b>6.0</b>	<b>8.8</b>	<b>7.4</b>	<b>6.9</b>	<b>5.8</b>	<b>5.8</b>			<b>6.4</b>
<b>Total Hours in Month</b>	720		<b>Hours Data Available</b>										720		<b>Data Recovery</b>										100.0%		



## Northern Dynasty Mines Pebble 1 Meterological Station - Wind Sigma (Climtrncs)

January 2006

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	12.4	17.8	26.8	10.3	11.5	6.5	9.8	6.2	5.6	8.1	6.4	4.2	5.7	10.2	10.1	7.4	19.1	13.1	10.7	11.2	9.7	12.6	7.1	15.8	26.8	4.2	10.8
2	7.6	10.3	17.2	12.8	3.7	10.8	12.4	11.8	4.1	7.8	9.1	13.0	16.3	9.7	4.8	11.0	7.4	7.4	7.9	7.3	7.4	3.8	4.2	6.0	17.2	3.7	8.9
3	4.8	4.7	4.1	3.8	4.8	21.8	13.1	13.6	5.2	6.9	7.3	6.7	11.8	10.7	7.9	6.9	7.8	3.6	6.0	3.4	4.0	3.3	3.6	3.1	21.8	3.1	7.0
4	3.4	10.7	11.9	45.8	17.4	23.7	40.5	4.5	43.4	33.0	30.7	9.3	11.1	7.1	10.0	47.6	22.0	12.0	4.9	48.9	11.4	16.7	9.2	33.2	48.9	3.4	21.2
5	77.9	35.4	28.2	49.8	29.5	17.6	34.3	46.5	15.4	8.8	21.7	23.8	30.7	5.5	3.3	2.1	3.2	2.4	2.6	2.6	3.3	3.1	2.6	3.3	77.9	2.1	18.9
6	13.9	30.7	5.2	5.3	8.1	3.5	4.5	11.9	9.0	17.7	35.4	36.8	23.2	19.9	3.6	6.6	20.1	11.2	53.0	21.1	52.3	5.9	21.5	63.6	63.6	3.5	20.2
7	16.0	32.3	42.8	27.5	72.3	12.1	6.5	16.5	21.0	6.8	47.8	47.1	22.9	27.6	12.5	25.4	8.7	7.3	23.3	16.4	5.2	10.7	18.8	6.3	72.3	5.2	22.2
8	9.8	13.0	21.8	21.3	18.3	26.7	16.6	11.7	7.9	38.4	8.1	6.2	3.5	3.9	3.8	3.2	4.5	3.2	2.5	3.2	4.8	4.0	4.7	4.6	38.4	2.5	10.2
9	4.5	4.8	3.3	6.9	3.8	3.7	2.5	3.0	5.0	4.0	3.6	44.1	30.9	21.0	35.9	34.9	11.9	8.1	12.4	32.5	36.5	28.9	9.9	6.6	44.1	2.5	15.0
10	7.5	35.7	18.7	4.2	7.2	6.4	7.2	24.8	30.5	10.5	36.3	26.7	67.1	25.1	9.6	7.0	9.7	4.8	7.4	7.1	29.3	13.5	50.0	28.5	67.1	4.2	19.8
11	29.0	23.7	29.0	9.8	9.9	7.3	8.2	32.7	46.0	8.0	18.8	25.7	31.8	38.4	20.9	38.8	12.8	4.4	6.7	5.4	7.5	4.3	5.3	6.2	46.0	4.3	17.9
12	6.1	6.1	4.9	4.0	4.1	4.1	3.0	3.1	4.7	3.9	3.0	3.3	2.9	3.4	3.7	3.5	3.1	3.9	4.6	3.5	3.3	3.5	4.1	3.6	6.1	2.9	3.9
13	3.0	2.5	2.9	2.8	3.9	3.5	3.0	2.7	2.9	3.4	3.1	3.9	3.9	2.9	2.2	3.2	3.4	4.6	6.0	3.2	3.6	4.5	5.7	5.5	6.0	2.2	3.6
14	4.2	4.5	5.0	4.8	7.1	29.8	18.8	11.1	7.5	8.2	13.6	10.7	5.6	5.0	4.6	4.9	5.6	7.6	7.1	7.7	5.9	7.9	8.3	9.0	29.8	4.2	8.5
15	6.8	6.1	7.1	3.1	4.6	9.2	5.7	5.3	6.0	4.8	4.4								3.5	3.4	5.0	4.4	4.2	6.1	9.2	3.1	5.3
16	11.3	6.5	10.3	8.4	15.4	16.6	10.0	8.3	5.2	9.3	6.2	4.7	15.4	23.0	7.2	7.6	12.4	7.6	43.0	7.9	2.7	3.6	2.6	2.5	43.0	2.5	10.3
17	2.8	4.0	3.9	3.3	2.3	3.2	3.5	3.3	2.6	3.3	3.5	3.3	3.4	5.2	4.3	4.7	3.0	3.0	3.7	3.5	4.6	5.5	5.7	7.0	7.0	2.3	3.9
18	5.6	4.2	5.4	3.7	4.5	3.0	2.3	2.9	2.2	4.6	4.5	6.0	5.1	3.3	3.4	2.6	4.0	3.6	4.9	3.5	3.6	3.3	4.5	4.4	6.0	2.2	4.0
19	4.4	3.1	3.7	4.3	5.4	4.3	3.9	4.1	4.8	5.9	4.0	4.2	3.9	3.9	4.2	4.5	5.4	4.3	3.3	2.7	3.5	3.1	4.5	4.0	5.9	2.7	4.1
20	3.4	4.0	3.1	3.8	3.8	3.8	2.8	2.4	3.3	2.1	2.0	1.7	2.5	2.1	2.7	3.3	2.9	3.2	2.3	2.5	2.4	2.9	2.9	3.0	4.0	1.7	2.9
21	2.7	3.1	3.3	2.9	3.6	2.7	4.2	5.4	4.2	4.3	6.6	5.7	5.1	4.0	4.4	5.8	5.9	4.7	4.7	3.6	3.6	3.5	3.6	3.5	6.6	2.7	4.2
22	3.5	3.5	3.8	3.2	2.7	2.3	2.0	2.4	2.7	2.6	2.6	2.7	4.0	3.4	3.0	3.2	3.4	3.1	2.8	3.1	2.2	3.0	3.2	2.7	4.0	2.0	3.0
23	2.6	2.2	2.4	2.2	2.2	2.6	2.7	3.5	2.5	3.6	2.4	2.1	3.2	2.9	2.4	2.8	4.4	3.5	4.3	5.6	3.5	5.2	3.3	2.5	5.6	2.1	3.1
24	2.5	4.1	4.7	4.1	3.5	3.2	2.7	4.2	2.3	3.7	2.3	2.8	2.4	2.7	4.2	3.3	3.0	3.7	3.1	2.2	3.2	2.3	2.5	6.1	6.1	2.2	3.3
25	4.2	3.5	5.4	5.1	4.8	4.9	4.3	2.4	2.6	2.4	2.0	1.7	3.9	2.7	3.0	2.8	3.2	3.1	2.7	2.7	5.1	3.5	2.9	2.7	5.4	1.7	3.4
26	3.3	2.5	3.1	2.8	2.6	3.5	2.2	1.9	4.2	3.8	4.1	4.1	4.0	2.9	3.5	5.5	6.0	3.2	1.7	3.0	3.6	2.9	4.6	2.6	6.0	1.7	3.4
27	4.0	2.8	4.0	2.3	3.9	5.0	1.8	1.8	1.8	2.6	3.0	2.7	3.0	2.0	2.3	2.4	2.6	2.9	2.9	3.2	2.8	2.5	2.7	3.0	5.0	1.8	2.8
28	2.6	2.9	3.3	2.5	2.3	2.5	2.9	3.4	3.2	3.8	3.9	3.6	5.2	4.2	3.9	3.6	4.2	3.4	4.5	4.1	4.4	2.9	3.8	5.6	5.6	2.3	3.6
29	4.1	2.5	3.1	2.9	3.3	3.5	4.6	3.4	3.6	5.2	2.8	3.3	7.3	7.9	10.7	3.5	3.2	2.1	2.9	5.1	3.0	4.5	5.8	6.6	10.7	2.1	4.4
30	7.0	5.8	3.3	4.8	6.7	6.3	4.8	7.5	3.6	6.3	2.2	3.7	3.9	2.4	2.6	2.3	2.7	5.0	3.9	3.7	3.9	5.6	32.3	59.7	59.7	2.2	7.9
31	43.7	15.0	12.1	3.9	8.6	3.4	6.1	5.1	5.9	4.7	3.2	3.0	4.0	3.9	2.6	4.9	3.2	3.2	2.9	2.8	2.5	2.3	3.6	6.9	43.7	2.3	6.5
<b>Max.</b>	<b>77.9</b>	<b>35.7</b>	<b>42.8</b>	<b>49.8</b>	<b>72.3</b>	<b>29.8</b>	<b>40.5</b>	<b>46.5</b>	<b>46.0</b>	<b>38.4</b>	<b>47.8</b>	<b>47.1</b>	<b>67.1</b>	<b>38.4</b>	<b>35.9</b>	<b>47.6</b>	<b>22.0</b>	<b>13.1</b>	<b>53.0</b>	<b>48.9</b>	<b>52.3</b>	<b>28.9</b>	<b>50.0</b>	<b>63.6</b>	<b>77.9</b>		
<b>Min.</b>	<b>2.5</b>	<b>2.2</b>	<b>2.4</b>	<b>2.2</b>	<b>2.2</b>	<b>2.3</b>	<b>1.8</b>	<b>1.8</b>	<b>1.8</b>	<b>2.1</b>	<b>2.0</b>	<b>1.7</b>	<b>2.4</b>	<b>2.0</b>	<b>2.2</b>	<b>2.1</b>	<b>2.6</b>	<b>2.1</b>	<b>1.7</b>	<b>2.2</b>	<b>2.2</b>	<b>2.3</b>	<b>2.5</b>	<b>2.5</b>		<b>1.7</b>	
<b>Avg.</b>	<b>10.1</b>	<b>9.9</b>	<b>9.8</b>	<b>8.8</b>	<b>9.1</b>	<b>8.3</b>	<b>8.0</b>	<b>8.6</b>	<b>8.7</b>	<b>7.7</b>	<b>9.8</b>	<b>10.6</b>	<b>11.5</b>	<b>8.9</b>	<b>6.6</b>	<b>8.8</b>	<b>7.0</b>	<b>5.1</b>	<b>8.1</b>	<b>7.6</b>	<b>7.9</b>	<b>5.9</b>	<b>8.0</b>	<b>10.5</b>			<b>8.6</b>

Total Hours in Month 744

Hours Data Available 737

Data Recovery 99.1%

HCG, Inc.

## Northern Dynasty Mines Pebble 1 Meterological Station - Wind Sigma (Climtrncs)

*February 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.			
1	4.9	3.3	3.5	3.9	3.6	3.9	2.8	3.1	3.4	3.1	3.2	3.7	3.7	2.4	4.3	2.7	2.2	2.2	3.1	2.9	3.7	3.2	2.2	3.6	4.9	2.2	3.3			
2	3.0	3.6	4.4	2.7	3.6	2.7	3.2	2.9	4.6	4.7	4.5	3.4	4.7	3.8	4.5	9.6	20.2	17.9	5.2	4.2	13.2	4.9	4.3	5.0	20.2	2.7	5.9			
3	6.6	4.7	6.7	5.4	4.4	4.8	4.3	4.4	4.7	4.2	4.2	4.4	4.2	4.9	4.6	4.0	4.6	4.6	5.1	4.7	4.3	4.3	4.6	4.0	6.7	4.0	4.7			
4	4.1	3.7	3.7	3.8	3.5	3.9	4.0	4.3	3.9	4.1	4.1	4.3	4.2	4.5	4.3	4.1	4.0	4.5	4.3	4.1	3.9	4.8	4.3	6.4	6.4	3.5	4.2			
5	5.0	5.9	5.3	5.1	5.1	4.6	4.8	4.7	5.1	6.0	5.9	5.2	4.6	4.2	3.8	3.9	3.6	3.5	6.5	10.3	7.4	6.1	5.7	4.2	10.3	3.5	5.3			
6	4.3	6.7	6.5	8.1	6.3	5.7	6.4	12.5	10.1	8.3	3.6	4.5	3.5	4.2	4.5	5.9	4.9	5.0	4.8	6.2	5.6	6.9	5.4	5.0	12.5	3.5	6.0			
7	4.7	6.7	5.4	3.7	3.5	5.1	6.2	4.8	4.5	3.4	3.5	3.7	3.4	2.7	2.7	2.3	3.9	5.7	5.9	7.7	6.8	16.0	13.2	6.9	16.0	2.3	5.5			
8	23.0	9.3	6.3	7.4	4.1	5.5	5.3	5.4	5.7	8.8	9.2	12.8	4.3	3.4	3.3	3.4	3.3	3.6	3.7	3.9	4.1	4.0	4.1	4.0	23.0	3.3	6.2			
9	4.4	3.9	4.1	4.2	4.3	4.4	3.9	4.1	7.6	5.7	8.9	5.9	5.4	4.7	5.3	4.2	4.6	4.7	3.6	4.0	4.0	4.3	4.4	4.2	8.9	3.6	4.8			
10	4.0	4.5	4.4	4.0	4.1	3.8	3.9	3.8	3.9	3.9	3.8	3.8	4.1	4.6	4.4	4.3	4.1	4.0	3.5	3.8	4.4	4.3	4.5	4.8	4.8	3.5	4.1			
11	5.0	4.0	3.6	3.8	9.6	17.1	25.4	19.1	4.8	6.8	4.6	3.6	5.3	4.8	8.1	10.6	12.0	19.3	10.6	5.6	13.3	11.0	6.1	8.9	25.4	3.6	9.3			
12	44.3	20.7	6.8	8.0	4.6	6.1	6.8	4.6	2.5	2.6	2.9	2.9	2.9	2.6	3.5	5.4	4.3	10.4	34.5	35.5	26.5	19.1	0.3	0.1	44.3	0.1	10.7			
13	13.0	8.2	5.9	4.7	9.4	9.8	7.6	6.0	5.2	8.8	7.9	5.8	8.1	4.8	4.5	3.7	3.9	3.8	3.9	4.2	4.2	4.4	4.4	4.4	13.0	3.7	6.1			
14	4.4	4.4	4.0	4.5	4.3	4.5	4.6	4.6	4.7	4.2	3.7	3.9	4.3	4.4	4.3	3.8	3.6	3.5	3.6	3.8	4.0	4.1	4.1	4.0	4.7	3.5	4.1			
15	4.0	3.9	3.5	3.8	3.5	3.7	3.9	4.1	4.0	3.9	3.9	3.8	4.3	4.0	3.6	3.7	4.0	4.9	4.5	5.0	5.2	4.3	4.0	4.5	5.2	3.5	4.1			
16	7.3	5.3	4.2	5.4	6.2	5.9	4.5	4.9	4.2	8.8	5.4	7.2	5.6	4.7	5.9	5.7	5.6	5.0	6.4	7.7	6.5	5.8	5.8	4.8	8.8	4.2	5.8			
17	3.6	5.0	9.1	10.7	10.5	7.5	4.1	3.6	3.6	3.8	3.9	3.8	4.2	3.9	3.9	4.0	3.9	3.7	4.1	3.7	3.9	3.8	3.9	4.3	10.7	3.6	4.8			
18	4.5	4.5	4.1	4.0	3.8	4.1	3.7	3.4	3.7	4.1	4.5	4.3	4.1	4.0	4.3	4.3	4.1	4.6	6.7	11.6	5.4	5.7	5.0	5.1	11.6	3.4	4.7			
19	7.1	5.8	5.6	7.1	6.0	6.5	8.3	5.5	5.1	12.2	6.1	5.1	8.1	6.0	4.0	3.8	4.3	5.4	6.4	6.9	5.0	3.7	4.2	5.3	12.2	3.7	6.0			
20	3.6	4.7	3.5	3.4	3.7	7.7	6.2	10.5	8.9	7.6	8.6	17.5	7.5	4.6	4.0	4.4	7.4	2.7	2.7	2.1	2.2	2.5	2.8	2.3	17.5	2.1	5.5			
21	2.1	2.1	1.5	1.9	2.6	2.8	2.1	2.4	2.8	7.9	19.5	19.1	33.7	3.6	12.5	4.1	2.2	12.2	2.1	1.3	9.9	9.1	2.7	6.2	33.7	1.3	6.9			
22	6.3	6.1	7.7	9.9	1.9	1.4	2.9	1.5	1.6	6.7	8.1	3.5	4.5	3.3	6.2	5.2	3.3	4.8	5.1	4.6	4.7	5.1	5.6	5.7	9.9	1.4	4.8			
23	4.2	3.6	4.2	3.4	3.9	13.8	4.2	1.7	3.0	2.8	4.4	3.3	7.7	8.0	2.6	3.9	2.9	3.2	2.6	3.6	3.6	3.7	4.6	4.6	13.8	1.7	4.3			
24	6.7	5.9	6.7	5.1	5.4	2.2	2.6	2.3	8.6	7.8	3.3	4.0	22.2	9.7	25.7	43.2	41.0	5.1	7.4	8.2	11.9	14.1	9.3	10.1	43.2	2.2	11.2			
25	9.8	9.3	8.3	10.4	3.2	3.6	3.4	3.6	6.2	6.4	21.1	6.4	5.9	4.1	3.7	3.7	2.4	4.4	3.2	2.7	2.1	2.2	2.2	3.9	21.1	2.1	5.5			
26	2.8	2.2	1.7	1.9	3.8	5.1	5.1	2.9	4.7	19.4	21.0	2.7	4.0	4.2	29.5	33.3	8.9	3.7	4.3	4.5	8.4	11.0	16.3	6.9	33.3	1.7	8.7			
27	5.6	4.2	23.3	4.7	4.0	3.6	4.2	3.5	4.1	2.8	2.6	3.0	2.9	3.7	3.3	3.1	3.1	2.9	3.2	3.1	2.7	2.3	2.6	2.8	23.3	2.3	4.2			
28	2.7	2.8	4.2	3.8	3.3	5.5	5.3	8.5	7.6	4.5	5.6	3.9	2.9	3.0	3.0	2.5	2.6	2.1	2.6	1.9	3.0	5.2	3.8	2.6	8.5	1.9	3.9			
<b>Max.</b>	<b>44.3</b>	<b>20.7</b>	<b>23.3</b>	<b>10.7</b>	<b>10.5</b>	<b>17.1</b>	<b>25.4</b>	<b>19.1</b>	<b>10.1</b>	<b>19.4</b>	<b>21.1</b>	<b>19.1</b>	<b>33.7</b>	<b>9.7</b>	<b>29.5</b>	<b>43.2</b>	<b>41.0</b>	<b>19.3</b>	<b>34.5</b>	<b>35.5</b>	<b>26.5</b>	<b>19.1</b>	<b>16.3</b>	<b>10.1</b>	<b>44.3</b>					
<b>Min.</b>	<b>2.1</b>	<b>2.1</b>	<b>1.5</b>	<b>1.9</b>	<b>1.9</b>	<b>1.4</b>	<b>2.1</b>	<b>1.5</b>	<b>1.6</b>	<b>2.6</b>	<b>2.6</b>	<b>2.7</b>	<b>2.9</b>	<b>2.4</b>	<b>2.6</b>	<b>2.3</b>	<b>2.2</b>	<b>2.1</b>	<b>2.1</b>	<b>1.3</b>	<b>2.1</b>	<b>2.2</b>	<b>0.3</b>	<b>0.1</b>		<b>0.1</b>				
<b>Avg.</b>	<b>7.2</b>	<b>5.5</b>	<b>5.6</b>	<b>5.2</b>	<b>4.7</b>	<b>5.5</b>	<b>5.3</b>	<b>5.1</b>	<b>5.0</b>	<b>6.2</b>	<b>6.7</b>	<b>5.6</b>	<b>6.4</b>	<b>4.4</b>	<b>6.2</b>	<b>6.9</b>	<b>6.2</b>	<b>5.6</b>	<b>5.7</b>	<b>6.0</b>	<b>6.4</b>	<b>6.3</b>	<b>5.0</b>	<b>4.8</b>			<b>5.7</b>			
<b>Total Hours in Month</b>	672			<b>Hours Data Available</b>										672										<b>Data Recovery</b>				100.0%		

**HCG, Inc.**



## Northern Dynasty Mines Pebble 1 Meterological Station - Wind Sigma (Climtrncs)

*April 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	3.1	2.9	2.9	3.0	5.4	3.0	3.7	3.9	5.1	4.9	14.3	6.4	9.2	34.0	3.0	3.4	3.0	3.1	30.7	60.0	10.9	9.5	12.7	24.0	60.0	2.9	10.9	
2	12.4	11.5	6.7	5.3	39.4	28.5	9.0	21.4	8.7	9.5	26.4	32.2	13.7	13.3	18.8	6.8	5.8	14.7	6.1	8.7	5.3	6.2	3.7	3.0	39.4	3.0	13.2	
3	3.2	4.1	2.9	3.6	3.7	5.9	9.2	8.8	3.0	3.2	3.0	3.0	3.3	3.4	3.1	3.9	3.6	3.6	3.8	5.8	4.5	4.6	4.0	3.7	9.2	2.9	4.2	
4	3.5	4.1	4.2	4.5	4.1	4.1	4.4	4.3	12.7	14.7	3.5	4.5	2.8	3.2	5.7	23.3	8.4	3.0	2.7	4.9	3.5	4.8	2.9	3.1	23.3	2.7	5.7	
5	4.7	4.6	4.0	4.6	3.7	4.2	4.4	3.5	4.1	3.6	2.8	3.3	4.3	3.9	3.8	4.3	2.7	2.7	2.4	4.0	5.9	4.5	4.5	4.5	5.9	2.4	4.0	
6	3.2	3.7	4.2	3.9	5.5	4.9	3.1	4.4	5.8	5.3	4.4	6.9	5.3	6.4	6.6	8.2	6.8	7.3	7.8	6.0	10.6	27.3	10.2	7.1	27.3	3.1	6.9	
7	5.7	5.7	5.3	2.7	3.5	7.1	3.8	5.4	12.9	8.7	6.1	4.6	4.4	4.1	4.0	3.5	4.3	5.0	6.8	4.4	3.8	3.8	3.4	3.4	12.9	2.7	5.1	
8	3.6	3.3	3.2	3.3	3.6	4.1	4.1	3.8	4.2	3.7	3.1	3.7	4.3	4.3	3.9	4.1	4.0	4.2	4.0	4.8	4.9	4.7	3.9	5.1	5.1	3.1	4.0	
9	4.9	4.8	3.3	4.1	3.9	4.5	3.9	4.0	4.4	3.9	4.7	4.6	5.5	5.6	6.1	4.9	5.2	4.7	8.4	7.9	12.0	7.9	4.3	4.2	12.0	3.3	5.3	
10	28.8	16.0	6.3	14.6	3.6	4.0	3.2	2.8	2.7	2.5	3.6	4.5	3.6	4.2	4.8	4.0	3.4	3.9	3.3	3.5	9.5	28.0	8.0	6.8	28.8	2.5	7.3	
11	5.5	30.4	20.4	18.3	8.6	11.7	4.7	3.0	4.6	4.8	4.3	5.8	3.6	5.0	3.1	3.4	2.6	2.9	2.9	3.3	2.9	2.0	2.1	2.1	30.4	2.0	6.6	
12	2.0	2.2	2.4	2.2	2.1	3.4	3.9	4.0	3.6	4.0	2.8	2.9	3.8	4.0	4.2	4.3	4.3	4.5	4.1	7.9	3.4	3.2	3.7	15.5	15.5	2.0	4.1	
13	10.8	16.8	34.8	50.1	8.3	4.0	3.9	3.1	2.1	2.1	2.2	2.3	2.0	2.2	2.2	2.3	2.8	3.0	2.4	2.4	2.3	2.3	2.6	3.5	50.1	2.0	7.1	
14	3.4	2.9	2.6	2.8	2.9	3.0	3.3	3.1	3.2	3.1	3.3	3.1	3.4	3.3	3.8	3.2	3.0	2.3	3.7	5.7	3.8	3.3	3.6	6.0	6.0	2.3	3.4	
15	7.3	5.4	4.1	3.0	3.6	4.3	4.5	6.2	3.6	3.4	4.0	2.6	3.1	3.6	3.8	4.2	3.4	2.7	7.2	15.3	8.8	16.9	39.0	23.7	39.0	2.6	7.6	
16	9.3	7.4	4.9	5.0	4.1	3.2	2.4	2.7	2.8	3.0	3.1	3.1	3.5	3.3	3.3	3.0	3.2	2.9	2.9	3.6	4.1	6.7	8.8	3.6	9.3	2.4	4.2	
17	3.7	4.0	3.6	3.8	3.6	5.5	8.2	4.4	4.1	4.3	8.1	7.7	4.2	3.6	5.2	4.8	5.1	3.4	6.7	6.4	20.8	20.5	34.3	2.8	34.3	2.8	7.4	
18	2.7	2.2	9.8	5.6	7.5	4.3	12.5	32.2	44.4	43.7	30.2	29.6	6.1	15.8	17.0	26.1	32.4	12.4	11.3	9.6	22.2	71.2	40.8	48.3	71.2	2.2	22.4	
19	51.5	38.2	41.5	39.9	24.3	17.6	14.6	13.2	5.9	8.2	18.7	31.6	19.2	3.5	8.3	5.4	17.5	18.3	7.8	4.9	4.1	5.4	7.1	9.7	51.5	3.5	17.3	
20	8.7	8.2	16.4	24.6	29.7	12.2	20.7	8.9	8.0	6.3	5.5	5.1	4.7	4.6	3.9	3.6	2.9	2.8	2.6	3.0	2.9	2.6	2.6	2.4	29.7	2.4	8.0	
21	2.5	2.6	2.7	3.7	2.8	2.6	2.8	3.2	4.5	4.0	4.1	3.3	3.1	3.0	3.1	3.4	6.2	7.7	4.9	4.6	15.7	3.2	2.6	2.5	15.7	2.5	4.1	
22	4.5	4.6	5.3	8.6	4.6	7.0	17.0	23.6	52.4	35.7	12.6	34.1	13.1	9.9	8.9	12.2	7.0	5.9	8.3	33.0	6.8	13.0	5.5	4.6	52.4	4.5	14.1	
23	3.4	4.1	7.8	8.5	5.7	5.2	4.3	4.1	4.0	4.6	5.9	4.0	4.6	4.2	8.8	16.2	18.6	17.9	5.7	4.6	2.6	2.4	2.7	3.2	18.6	2.4	6.4	
24	4.1	4.6	2.8	3.6	3.6	2.1	2.3	3.5	3.4	2.6	2.7	3.3	3.1	2.7	2.6	4.6	3.0	3.7	3.5	2.5	4.6	4.0	2.9	3.4	4.6	2.1	3.3	
25	6.0	8.0	9.2	10.7	10.4	9.8	8.2	10.2	6.0	6.6	5.5	5.3	6.5	4.7	4.6	6.7	5.1	3.3	3.8	3.8	3.1	2.9	3.4	4.2	10.7	2.9	6.2	
26	3.6	4.6	3.8	4.7	5.0	4.0	3.4	3.4	3.7	3.9	3.9	8.3	9.8	7.4	5.7	6.4	4.0	3.7	5.0	10.4	4.1	4.8	7.5	7.8	10.4	3.4	5.4	
27	4.8	61.0	20.0	19.4	9.9	11.1	37.9	42.5	19.2	7.5	5.4	3.3	4.4	4.0	3.5	3.2	3.9	3.1	3.1	3.2	2.7	4.6	4.1	4.6	61.0	2.7	11.9	
28	4.7	4.3	5.2	3.7	2.7	2.8	4.0	4.6	5.3	4.1	32.7	16.8	14.6	16.6	13.0	10.7	10.1	17.0	11.2	32.0	51.0	31.2	35.3	14.0	51.0	2.7	14.5	
29	12.2	6.5	7.4	2.8	4.2	3.2	5.4	6.1	9.7	3.7	3.3	3.6	2.3	2.6	2.9	2.9	4.3	2.8	3.6	3.5	2.4	1.8	3.0	2.2	12.2	1.8	4.3	
30	3.2	2.2	2.6	1.7	2.9	4.2	24.2	6.7	8.4	7.8	9.4	10.2	12.5	8.0	8.1	6.9	4.1	4.7	3.5	3.0	2.5	2.9	3.3	3.4	24.2	1.7	6.1	
<b>Max.</b>	<b>51.5</b>	<b>61.0</b>	<b>41.5</b>	<b>50.1</b>	<b>39.4</b>	<b>28.5</b>	<b>37.9</b>	<b>42.5</b>	<b>52.4</b>	<b>43.7</b>	<b>32.7</b>	<b>34.1</b>	<b>19.2</b>	<b>34.0</b>	<b>18.8</b>	<b>26.1</b>	<b>32.4</b>	<b>18.3</b>	<b>30.7</b>	<b>60.0</b>	<b>51.0</b>	<b>71.2</b>	<b>40.8</b>	<b>48.3</b>	<b>71.2</b>			
<b>Min.</b>	<b>2.0</b>	<b>2.2</b>	<b>2.4</b>	<b>1.7</b>	<b>2.1</b>	<b>2.1</b>	<b>2.3</b>	<b>2.7</b>	<b>2.1</b>	<b>2.1</b>	<b>2.2</b>	<b>2.3</b>	<b>2.0</b>	<b>2.2</b>	<b>2.2</b>	<b>2.3</b>	<b>2.6</b>	<b>2.3</b>	<b>2.4</b>	<b>2.4</b>	<b>2.3</b>	<b>1.8</b>	<b>2.1</b>	<b>2.1</b>		<b>1.7</b>		
<b>Avg.</b>	<b>7.6</b>	<b>9.4</b>	<b>8.3</b>	<b>9.1</b>	<b>7.4</b>	<b>6.4</b>	<b>7.9</b>	<b>8.4</b>	<b>8.8</b>	<b>7.4</b>	<b>8.0</b>	<b>8.7</b>	<b>6.1</b>	<b>6.5</b>	<b>5.9</b>	<b>6.7</b>	<b>6.4</b>	<b>5.9</b>	<b>6.0</b>	<b>9.1</b>	<b>8.1</b>	<b>10.2</b>	<b>9.1</b>	<b>7.7</b>			<b>7.7</b>	
<b>Total Hours in Month</b>	720		<b>Hours Data Available</b>										720		<b>Data Recovery</b>										100.0%			

## Northern Dynasty Mines Pebble 1 Meterological Station - Wind Sigma (Climtrncs)

May 2006

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.		
1	3.2	3.3	3.1	3.0	2.9	3.2	3.2	3.0	3.1	3.1	3.6	3.7	3.6	3.3	4.0	4.3	4.1	3.3	4.5	5.3	3.6	4.2	5.0	5.1	5.3	2.9	3.7		
2	5.1	5.7	7.3	7.8	13.9	7.1	5.2	11.8	13.3	19.1	9.0	7.3	3.2	3.1	3.9	4.2	3.9	4.1	3.8	3.2	3.1	3.3	3.3	3.3	19.1	3.1	6.4		
3	3.0	3.0	3.0	3.0	7.3	5.7	7.1	7.3	9.9	10.6	7.6	10.1	4.8	5.3	5.2	5.1	6.5	6.9	16.0	24.4	44.4	18.0	12.1	15.6	44.4	3.0	10.1		
4	6.4	22.4	29.3	17.4	9.0	5.0	3.2	3.1	3.2	3.6	3.5	3.7	3.9	3.6	4.0	3.5	3.6	3.1	3.3	3.3	3.3	3.3	3.4	3.3	29.3	3.1	6.3		
5	3.4	3.4	3.4	3.5	3.6	3.3	3.2	3.1	3.5	3.7	3.3	3.8	3.4	3.5	3.4	3.2	3.8	3.9	3.1	3.1	3.7	6.2	10.7	15.8	15.8	3.1	4.4		
6	4.1	5.1	9.7	20.9	16.2	20.2	11.0	13.0	9.8	9.0	7.5	5.0	3.4	4.7	4.4	4.3	5.7	4.9	4.2	3.4	3.8	3.5	5.5	5.8	20.9	3.4	7.7		
7	11.1	9.5	6.8	5.8	4.0	4.6	6.0	7.8	6.8	8.2	7.3	7.4	6.3	6.2	7.5	8.3	7.2	6.6	7.5	8.1	15.3	21.0	21.0	16.3	21.0	4.0	9.0		
8	17.8	11.9	5.7	5.6	7.9	5.5	5.7	5.8	5.8	5.4	6.4	4.8	4.8	4.7	4.7	5.8	5.0	3.8	4.0	8.3	6.8	4.8	5.6	5.0	17.8	3.8	6.3		
9	5.1	15.4	15.4	7.0	6.1	6.6	4.7	5.1	6.6	6.5	6.8	8.4	5.4	5.3	4.0	6.4	28.1	32.1	20.9	28.2	23.3	12.6	10.4	10.8	32.1	4.0	11.7		
10	7.8	6.6	8.9	35.3	12.1	16.2	26.5	9.7	8.4	7.8	6.0	3.8	5.4	18.0	8.6	34.8	6.1	7.9	3.0	3.7	4.6	3.2	3.8	9.5	35.3	3.0	10.7		
11	25.5	16.2	37.6	5.9	9.3	27.3	30.9	54.9	34.2	4.4	6.6	7.2	10.1	4.0	16.5	25.5	10.3	8.5	5.9	3.8	2.6	2.7	4.7	6.7	54.9	2.6	15.1		
12	4.5	4.7	6.7	4.5	4.8	4.0	4.2	2.9	2.5	2.7	3.6	3.8	3.8	3.8	3.8	3.6	3.4	3.0	4.1	3.9	5.1	4.7	6.3	7.1	7.1	2.5	4.2		
13	4.9	4.4	4.5	4.9	3.7	3.2	9.7	6.7	8.7	57.3	7.4	9.9	15.8	20.9	5.9	2.8	3.6	3.9	14.2	17.6	24.9	37.4	18.5	6.6	57.3	2.8	12.4		
14	6.9	6.0	4.7	7.1	9.6	9.3	6.5	6.8	4.7	5.9	8.2	7.2	8.3	8.6	6.1	5.9	5.2	4.4	4.2	3.8	4.1	3.0	3.3	4.2	9.6	3.0	6.0		
15	5.7	6.0	4.4	8.6	8.9	11.9	11.1	24.8	12.4	5.9	4.9	42.0	10.1	56.8	12.1	12.0	10.6	5.7	9.2	8.2	4.4	3.9	6.7	3.5	56.8	3.5	12.1		
16	5.1	60.9	11.7	33.4	3.6	3.7	7.4	7.8	5.3	4.9	9.5	6.5	3.8	3.9	5.6	10.1	5.5	4.4	3.7	4.8	7.6	3.2	15.8	4.6	60.9	3.2	9.7		
17	21.4	8.2	5.0	14.3	7.8	6.4	18.6	32.0	13.0	14.9	11.4	8.3	9.2	7.5	8.0	5.6	5.1	5.9	4.9	4.7	4.1	4.2	5.2	4.6	32.0	4.1	9.6		
18	3.7	3.8	4.3	3.0	4.6	8.6	9.6	16.9	22.8	17.5	11.9	6.4	4.2	5.2	4.6	4.8	5.0	3.0	3.9	4.2	2.8	2.6	3.4	56.6	56.6	2.6	8.9		
19	16.1	4.4	16.9	30.1	16.8	38.9	51.7	11.9	9.4	7.1	5.6	6.2	5.4	5.2	4.7	4.3	4.5	4.3	4.2	4.0	3.7	4.2	4.4	4.8	51.7	3.7	11.2		
20	5.1	5.3	4.5	3.7	3.4	3.2	3.1	3.1	3.6	3.9	4.4	4.1	6.5	4.6	4.5	3.9	5.1	6.0	6.5	16.2	4.5	2.5	3.5	2.9	16.2	2.5	4.8		
21	2.3	3.0	2.9	2.8	2.9	3.0	3.3	3.4	3.9	3.7	3.8	3.7	4.0	5.0	4.9	4.4	3.8	4.1	3.8	3.6	4.1	5.1	3.9	3.9	5.1	2.3	3.7		
22	3.5	3.7	5.3	4.2	3.1	3.1	3.9	3.9	4.1	5.1	5.0	4.8	5.7	6.2	5.6	6.3	5.2	5.2	5.3	4.2	3.2	3.5	2.9	3.5	6.3	2.9	4.4		
23	3.2	3.8	2.9	4.7	3.8	4.8	4.1	4.9	5.1	7.0	7.6	8.4	15.4	23.9	26.5	14.9	15.6	9.2	3.9	3.3	4.1	4.6	3.9	3.5	26.5	2.9	7.9		
24	3.2	5.6	4.5	5.2	3.3	5.2	6.7	3.7	5.1	11.3	24.1	11.0	11.6	12.2	11.0	10.1	20.7	16.6	9.3	3.7	3.6	4.8	4.0	2.1	24.1	2.1	8.3		
25	2.9	3.1	3.0	2.6	3.0	2.9	3.0	6.6	8.5	13.7	26.3	33.6	20.7	27.0	30.1	39.3	10.2	9.5	6.9	26.8	18.2	6.1	4.3	4.2	39.3	2.6	13.0		
26	2.6	2.9	3.5	2.9	3.0	7.9	4.9	5.3	5.4	4.9	7.3	7.0	8.0	12.5	11.4	10.7	7.2	6.4	3.8	3.1	4.4	7.6	10.6	7.5	12.5	2.6	6.3		
27	4.0	12.0	10.3	3.4	2.7	3.0	3.8	3.3	3.5	5.7	5.4	5.9	6.2	5.0	5.1	4.7	6.3	5.6	5.6	4.6	4.3	5.3	3.5	5.3	12.0	2.7	5.2		
28	9.1	6.6	4.6	19.0	9.7	5.0	7.4	7.2	8.6	13.0	40.7	50.4	39.9	21.6	23.5	21.1	20.3	18.6	19.5	7.3	5.7	18.6	4.1	3.4	50.4	3.4	16.0		
29	3.3	3.7	2.9	2.9	4.1	3.2	3.6	5.7	6.9	7.6	7.7	8.6	8.4	9.0	10.0	9.6	10.0	6.9	5.4	4.6	4.6	4.5	3.3	3.7	10.0	2.9	5.8		
30	2.7	3.2	3.3	7.5	7.8	13.9	22.9	24.0	8.8	13.0	11.2	11.5	11.2	9.2	11.5	9.2	7.4	6.6	5.3	5.0	4.8	5.2	7.1	6.6	24.0	2.7	9.1		
31	4.3	8.2	7.5	18.2	14.7	7.9	7.8	5.8	6.3	7.6	4.5	7.5	8.9	6.0	7.6	6.6	7.9	6.0	8.1	7.6	6.6	15.8	18.3	13.1	18.3	4.3	8.9		
<b>Max.</b>	<b>25.5</b>	<b>60.9</b>	<b>37.6</b>	<b>35.3</b>	<b>16.8</b>	<b>38.9</b>	<b>51.7</b>	<b>54.9</b>	<b>34.2</b>	<b>57.3</b>	<b>40.7</b>	<b>50.4</b>	<b>39.9</b>	<b>56.8</b>	<b>30.1</b>	<b>39.3</b>	<b>28.1</b>	<b>32.1</b>	<b>20.9</b>	<b>28.2</b>	<b>44.4</b>	<b>37.4</b>	<b>21.0</b>	<b>56.6</b>	<b>60.9</b>				
<b>Min.</b>	<b>2.3</b>	<b>2.9</b>	<b>2.9</b>	<b>2.6</b>	<b>2.7</b>	<b>2.9</b>	<b>3.0</b>	<b>2.9</b>	<b>2.5</b>	<b>2.7</b>	<b>3.3</b>	<b>3.7</b>	<b>3.2</b>	<b>3.1</b>	<b>3.4</b>	<b>2.8</b>	<b>3.4</b>	<b>3.0</b>	<b>3.0</b>	<b>3.1</b>	<b>2.6</b>	<b>2.5</b>	<b>2.9</b>	<b>2.1</b>		<b>2.1</b>			
<b>Avg.</b>	<b>6.7</b>	<b>8.4</b>	<b>7.9</b>	<b>9.6</b>	<b>6.9</b>	<b>8.2</b>	<b>9.7</b>	<b>10.0</b>	<b>8.2</b>	<b>9.5</b>	<b>9.0</b>	<b>10.1</b>	<b>8.4</b>	<b>10.2</b>	<b>8.7</b>	<b>9.5</b>	<b>8.0</b>	<b>7.1</b>	<b>6.7</b>	<b>7.6</b>	<b>7.7</b>	<b>7.4</b>	<b>7.1</b>	<b>8.0</b>				<b>8.4</b>	

**Total Hours in Month** 744      **Hours Data Available** 744      **Data Recovery** 100.0%

## Northern Dynasty Mines Pebble 1 Meterological Station - Wind Sigma (Climtrncs)

*June 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	23.2	4.6	64.1	4.9	5.7	5.5	7.5	12.9	13.1	11.6	15.8	14.7	14.9	27.1	17.7	16.6	25.0	23.7	11.0	5.7	4.7	3.9	6.1	44.9	64.1	3.9	16.0	
2	3.2	3.7	4.0	3.1	3.9	2.2	3.0	5.5	9.8	9.4	11.4	16.8	13.5	13.6	12.7	7.2	9.0	6.8	5.9	4.6	4.4	4.5	5.1	4.7	16.8	2.2	7.0	
3	4.1	6.7	4.2	3.8	5.3	4.6	7.2	5.0	5.5	6.0	7.1	8.7	10.1	8.3	11.7	9.9	10.7	8.6	6.8	6.5	4.6	3.3	2.7	3.4	11.7	2.7	6.4	
4	3.3	4.3	4.8	5.1	4.5	4.3	4.3	4.2	6.0	6.1	6.9	8.1	8.3	9.8	9.4	9.6	9.8	8.7	7.2	5.3	4.9	3.7	3.0	2.8	9.8	2.8	6.0	
5	2.6	3.5	4.0	3.9	2.8	3.5	4.0	4.5	6.3	9.3	21.1	21.0	23.3	28.4	25.6	33.5	21.2	23.5	20.6	21.6	20.8	7.2	4.2	3.4	33.5	2.6	13.3	
6	4.0	7.2	15.0	19.1	10.0	6.6	12.1	10.6	12.2	12.4	21.5	19.6	13.4	11.7	13.3	9.1	8.7	8.3	7.5	7.2	5.9	5.9	6.2	6.5	21.5	4.0	10.6	
7	6.8	6.1	4.8	4.5	4.8	5.0	5.8	5.0	5.0	4.9	6.3	5.7	5.5	5.8	6.0	4.9	5.1	4.5	4.2	4.5	5.0	5.2	4.5	4.2	6.8	4.2	5.2	
8	4.0	4.3	4.5	4.5	4.6	4.5	4.6	4.5	4.7	4.7	4.8	5.0	5.6	5.4	5.2	5.0	5.0	5.1	4.9	4.7	5.0	4.9	4.3	4.5	5.6	4.0	4.8	
9	4.4	4.5	4.4	4.7	4.9	5.0	5.0	5.1	5.0	5.1	5.3	5.2	5.6	5.6	5.0	5.5	5.4	5.0	5.8	4.7	5.2	5.2	4.6	4.6	5.8	4.4	5.0	
10	4.8	4.9	4.7	4.7	5.1	4.8	4.9	5.1	5.2	5.7	5.8	6.1	5.6	5.6	6.0	5.9	5.8	4.9	5.4	5.2	5.1	5.1	5.0	4.9	6.1	4.7	5.3	
11	4.7	4.6	4.5	4.8	4.9	4.8	4.8	4.7	4.7	5.2	4.9	4.7	5.2	5.5	5.0	5.2	5.3	5.3	4.7	4.7	4.9	4.6	5.2	4.5	5.5	4.5	4.9	
12	4.3	4.5	4.6	4.2	4.5	3.8	4.9	5.4	4.9	4.7	5.7	6.4	5.9	5.4	5.6	5.7	5.5	6.8	6.2	6.9	7.5	5.4	6.2	4.8	7.5	3.8	5.4	
13	4.5	4.7	3.4	4.6	2.9	4.6	6.7	6.1	7.3	6.1	9.3	12.6	15.8	12.7	12.7	15.0	13.1	10.2	8.1	8.3	21.9	7.9	10.4	5.3	21.9	2.9	8.9	
14	17.6	22.9	27.0	54.6	5.3	3.6	5.7	20.8	7.9	22.3	9.0	25.1	14.8	14.5	23.1	26.0	20.4	26.4	16.9	53.7	34.3	10.9	14.9	6.9	54.6	3.6	20.2	
15	7.4	3.9	3.2	3.4	4.2	3.4	5.1	5.8	7.6	6.8	9.9	10.5	21.8	13.5	15.6	16.3	29.2	11.2	7.1	6.5	6.4	13.1	10.3	7.8	29.2	3.2	9.6	
16	5.2	4.8	4.5	3.5	4.1	5.4	4.2	6.4	6.2	5.4	5.7	6.2	5.4	6.2	5.2	4.5	5.5	4.3	4.7	5.4	5.1	3.8	6.4	7.8	7.8	3.5	5.2	
17	8.0	6.8	5.3	3.6	7.3	3.5	5.9	7.2	6.5	7.5	10.3	12.4	13.1	9.0	9.2	9.0	8.5	7.7	7.0	6.4	6.3	6.0	6.1	6.2	13.1	3.5	7.5	
18	5.6	14.1	56.4	26.3	16.9	15.0	11.7	10.1	11.8	8.6	8.1	7.0	5.4	7.5	6.8	6.3	5.7	5.4	5.3	5.2	5.2	5.7	18.6	19.6	56.4	5.2	12.0	
19	26.7	12.9	5.4	6.1	5.4	6.6	10.0	14.6	41.9	29.0	17.1	21.9	27.7	18.2	21.5	28.1	37.6	14.8	13.3	9.5	6.0	8.5	15.2	6.6	41.9	5.4	16.9	
20	5.2	11.2	7.4	6.0	5.3	5.3	9.9	18.2	29.1	34.8	23.2	49.3	34.3	38.4	10.0	5.0	7.7	5.8	6.1	6.5	6.0	4.7	7.6	20.2	49.3	4.7	14.9	
21	5.3	4.3	5.6	18.4	7.8	28.0	18.4	17.9	14.2	10.0	9.6	15.3	24.8	43.3	20.7	23.0	12.1	23.2	43.5	16.3	7.5	3.2	2.1	3.7	43.5	2.1	15.7	
22	3.2	3.0	5.5	4.1	4.1	3.4	5.4	5.8	5.9	11.5	22.6	9.7	9.7	6.2	5.9	5.9	6.1	5.9	6.0	5.9	5.1	5.8	6.4	6.0	22.6	3.0	6.6	
23	5.7	5.3	4.8	5.4	5.3	4.4	4.8	4.6	4.9	5.0	6.0	8.0	7.0	10.7	10.5	8.4	7.4	8.4	7.4	6.9	5.6	6.1	4.0	5.9	10.7	4.0	6.4	
24	5.4	4.1	5.1	5.1	8.9	6.6	38.0	10.1	13.8	14.6	17.8	23.9	44.9	54.0	22.1	49.3	14.3	9.1	24.5	20.0	9.4	9.4	8.5	13.1	54.0	4.1	18.0	
25	13.6	4.3	4.7	3.9	7.4	28.0	16.8	11.1	27.2	21.7	24.3	24.8	26.8	16.3	14.9	13.2	13.4	9.3	8.5	5.6	6.7	6.8	5.1	4.3	28.0	3.9	13.3	
26	5.7	5.3	5.9	8.3	10.1	12.9	16.0	16.3	16.0	43.4	28.0	25.3	27.6	34.8	18.7	11.4	15.4	28.8	15.3	5.8	5.1	5.7	10.2	11.0	43.4	5.1	15.9	
27	10.9	34.5	11.9	47.4	9.2	6.7	5.2	7.2	11.8	22.7	63.8	44.8	50.0	23.0	21.2	17.5	11.7	12.0	10.5	7.3	5.1	5.6	10.5	11.3	63.8	5.1	19.2	
28	4.9	18.4	2.8	10.6	39.5	34.1	12.2	15.0	5.7	10.8	10.6	8.8	13.7	13.5	10.8	12.5	11.5	12.0	18.9	8.7	7.2	17.1	15.8	15.8	39.5	2.8	13.8	
29	16.4	12.9	8.0	10.7	8.7	14.9	9.3	17.6	9.2	10.3	13.0	11.3	12.6	12.1	8.5	8.4	8.2	6.5	6.5	5.8	6.0	6.0	6.9	7.3	17.6	5.8	9.9	
30	5.8	6.7	6.9	6.5	5.3	7.2	6.6	7.1	11.0	11.5	14.0	12.4	11.6	8.6	11.6	17.0	18.4	17.0	30.9	26.7	23.4	15.5	10.2	9.2	30.9	5.3	12.5	
<b>Max.</b>	<b>26.7</b>	<b>34.5</b>	<b>64.1</b>	<b>54.6</b>	<b>39.5</b>	<b>34.1</b>	<b>38.0</b>	<b>20.8</b>	<b>41.9</b>	<b>43.4</b>	<b>63.8</b>	<b>49.3</b>	<b>50.0</b>	<b>54.0</b>	<b>25.6</b>	<b>49.3</b>	<b>37.6</b>	<b>28.8</b>	<b>43.5</b>	<b>53.7</b>	<b>34.3</b>	<b>17.1</b>	<b>18.6</b>	<b>44.9</b>	<b>64.1</b>			
<b>Min.</b>	<b>2.6</b>	<b>3.0</b>	<b>2.8</b>	<b>3.1</b>	<b>2.8</b>	<b>2.2</b>	<b>3.0</b>	<b>4.2</b>	<b>4.7</b>	<b>4.7</b>	<b>4.8</b>	<b>4.7</b>	<b>5.2</b>	<b>5.4</b>	<b>5.0</b>	<b>4.5</b>	<b>5.0</b>	<b>4.3</b>	<b>4.2</b>	<b>4.5</b>	<b>4.4</b>	<b>3.2</b>	<b>2.1</b>	<b>2.8</b>		<b>2.1</b>		
<b>Avg.</b>	<b>7.6</b>	<b>8.0</b>	<b>9.9</b>	<b>9.9</b>	<b>7.3</b>	<b>8.3</b>	<b>8.7</b>	<b>9.1</b>	<b>10.7</b>	<b>12.2</b>	<b>14.0</b>	<b>15.0</b>	<b>16.1</b>	<b>15.8</b>	<b>12.4</b>	<b>13.2</b>	<b>12.1</b>	<b>11.0</b>	<b>11.0</b>	<b>9.7</b>	<b>8.3</b>	<b>6.7</b>	<b>7.5</b>	<b>8.7</b>			<b>10.5</b>	
<b>Total Hours in Month</b>	720		<b>Hours Data Available</b>										720		<b>Data Recovery</b>										100.0%			



## Northern Dynasty Mines Pebble 1 Meterological Station - Wind Sigma (Climtrncs)

July 2006

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	11.1	15.6	14.7	9.3	12.9	23.0	33.3	21.2	42.3	45.7	48.0	42.7	54.5	20.3	23.8	34.1	21.2	12.3	9.9	8.6	5.3	6.6	6.2	17.8	54.5	5.3	22.5
2	16.9	12.3	5.6	6.7	8.1	5.0	3.2	7.3	9.1	8.4	12.8	14.5	14.5	11.8	12.6	16.0	14.3	8.9	8.5	5.9	5.1	4.1	4.0	4.5	16.9	3.2	9.2
3	3.3	4.0	5.8	6.2	4.4	5.2	4.4	9.4	6.1	8.7	12.0	10.6	20.6	21.4	27.0	25.0	46.8	10.2	7.9	25.8	14.0	10.6	37.5	12.1	46.8	3.3	14.1
4	11.2	15.1	24.7	18.3	6.1	9.7	45.4	40.5	45.3	37.6	42.3	45.2	36.1	33.4	41.2	34.7	14.4	13.5	10.6	8.6	5.8	23.4	21.2	22.3	45.4	5.8	25.3
5	15.3	24.9	9.9	11.2	11.0	21.8	10.7	9.1	10.4	8.8	13.7	27.6	52.9	33.5	42.6	16.0	29.5	11.2	27.7	25.8	10.9	14.2	34.0	49.1	52.9	8.8	21.7
6	46.3	10.3	14.6	17.2	14.2	29.5	25.9	24.8	10.2	13.5	16.2	45.8	44.3	11.4	10.8	11.9	9.6	46.0	18.8	13.1	42.1	42.5	7.8	18.2	46.3	7.8	22.7
7	12.5	6.6	8.0	6.2	4.5	5.6	5.0	5.6	5.8	6.1	5.3	5.9	6.8	5.9	6.4	5.5	5.0	6.0	8.1	6.9	6.8	7.5	12.8	6.7	12.8	4.5	6.7
8	6.1	9.1	29.0	9.7	13.5	6.6	5.4	5.5	4.5	5.5	18.5	29.1	16.8	26.4	46.9	48.9	43.6	14.3	14.2	15.0	11.4	6.4	9.9	15.5	48.9	4.5	17.1
9	10.4	6.0	5.9	4.2	3.2	4.9	5.1	7.1	14.7	26.9	25.9	13.4	12.1	11.6	10.6	13.6	8.8	7.7	6.2	5.8	8.4	8.1	5.3	4.8	26.9	3.2	9.6
10	4.7	4.5	3.9	4.1									4.4	4.3	5.0	5.5	5.5	6.1	5.0	5.6	6.3	31.1			31.1	3.9	6.9
11		5.2	5.1	5.2	5.3	5.3	7.5	6.8	5.9		7.5	7.0	6.5	5.8	5.3	6.5	5.9	6.8	7.8	21.2	16.2	16.1	32.5	59.8	59.8	5.1	11.4
12	11.2	8.3	8.4	14.3	11.0	9.1	18.5	20.4	34.8	9.5	19.6	16.1	20.8	4.9	4.3	6.8	8.0	9.0	13.9	14.3	17.2	14.8	20.0	22.1	34.8	4.3	14.0
13	24.2	16.1	8.7	5.2	17.0	7.6	13.5	5.8	3.8	5.0	3.7	3.3	3.8	7.4	19.4	48.6	14.1	8.0	6.9	10.2	6.7	5.7	6.0	5.9	48.6	3.3	10.7
14	5.9	6.5	6.5	4.4	4.8	5.6	6.4	7.6	4.9	4.4	10.6	6.2	6.6	5.7	6.2	5.2	6.9	6.4	5.9	6.0	5.9	8.1	8.8	8.3	10.6	4.4	6.4
15	8.7	7.1	8.0	6.7	6.9	5.4	4.4	6.1	5.5	6.4	5.3	4.7	4.2	5.2	9.1	16.2	4.1	7.4	8.9	11.0	11.4	10.0	9.2	11.8	16.2	4.1	7.6
16	15.5	12.5	9.9	9.7	8.4	6.2	7.2	10.0	7.0	5.4	4.8	5.2	4.2	4.5	4.5	4.8	5.3	5.7	4.8	5.5	6.1	7.5	5.6	7.0	15.5	4.2	7.0
17	6.3	6.2	6.0	7.1	8.3	6.9	7.8	7.0	7.2	5.4	5.1	4.8	4.4	4.4	4.1	4.5	4.4	4.7	5.1	5.7	5.7	5.9	6.7	5.3	8.3	4.1	5.8
18	4.7	4.7	4.7	5.3	5.0	5.5	5.7	5.9	5.3	4.2	3.8	4.2	5.0	5.0	4.5	4.7	4.4	5.1	5.2	5.2	5.7	6.3	5.7	5.8	6.3	3.8	5.1
19	5.2	5.5	4.9	5.0	4.4	5.2	4.7	4.7	4.3	4.9	5.4	5.7	6.2	9.9	5.3	6.5	6.3	10.0	9.0	13.0	9.1	8.4	14.3	9.2	14.3	4.3	7.0
20	14.4	10.5	8.7	11.0	6.3	7.5	6.9	22.5	11.0	5.9	5.5	7.4	19.3	9.4	4.3	4.5	4.9	7.4	11.0	15.2	11.8	9.4	13.2	11.2	22.5	4.3	10.0
21	22.2	11.6	8.7	15.9	6.4	13.4	12.0	6.8	5.7	7.2	10.7	8.4	10.6	28.7	27.9	27.1	10.6	21.4	23.1	48.2	53.0	30.7	30.6	8.5	53.0	5.7	18.7
22	9.3	5.7	6.2	5.1	6.8	9.1	7.1	8.7	4.4	8.0	7.0	36.5	34.7	5.8	5.0	10.7	19.7	8.5	9.6	9.8	11.5	10.1	9.4	9.1	36.5	4.4	10.7
23	5.8	6.3	6.0	8.4	6.4	5.0	5.5	10.4	8.3	6.0	5.6	5.7	5.8	4.6	5.3	6.1	8.5	7.2	8.2	7.6	16.6	38.0	8.2	11.1	38.0	4.6	8.6
24	9.3	6.5	10.1	8.8	5.2	5.2	8.7	7.1	5.5	15.6	13.0	7.9	6.3	5.7	5.6	5.1	4.9	5.8	8.3	13.3	6.9	8.0	5.2	5.5	15.6	4.9	7.7
25	6.5	11.0	5.2	6.5	7.1	4.6	4.2	4.3	4.7	4.1	3.8	3.9	5.5	5.5	4.7	4.2	7.6	6.3	6.4	5.3	5.8	6.5	8.2	10.5	11.0	3.8	5.9
26	10.7	9.5	9.3	8.6	7.3	8.8	5.9	8.8	10.3	24.8	8.6	10.3	14.6	13.6	21.2	49.1	15.0	30.0	7.0	7.3	8.5	8.3	8.2	8.9	49.1	5.9	13.1
27	9.9	7.3	5.4	5.8	5.6	5.0	4.7	4.2	3.8	3.8	3.5	3.9	5.4	23.1	22.9	16.0	16.9	22.0	24.6	36.8	20.1	25.6	30.9	42.9	42.9	3.5	14.6
28	27.1	19.2	13.7	21.4	26.5	15.7	14.9	40.8	34.5	10.1	13.6	12.0	10.6	14.7	37.8	15.7	12.6	11.4	10.3	8.1	10.6	7.5	6.0	8.4	40.8	6.0	16.8
29	6.5	9.8	9.5	6.3	10.5	6.8	14.3	15.1	5.6	7.0	6.6	5.8	4.7	4.3	4.3	4.8	6.1	7.5	6.0	6.8	8.9	5.9	7.3	7.2	15.1	4.3	7.4
30	9.7	6.9	5.6	6.1	7.7	5.7	5.4	5.4	5.6	6.6	5.3	5.7	4.2	6.2	5.6	12.8	37.5	18.0	19.8	13.9	5.4	5.8	6.2	6.5	37.5	4.2	9.1
31	5.8	5.3	6.8	4.9	4.9	3.2	2.8	3.2	3.5	3.6	3.7	4.3	5.1	4.3	5.5	5.7	7.4	6.9	5.6	7.0	7.2	7.3	7.4	5.4	7.4	2.8	5.3
<b>Max.</b>	<b>46.3</b>	<b>24.9</b>	<b>29.0</b>	<b>21.4</b>	<b>26.5</b>	<b>29.5</b>	<b>45.4</b>	<b>40.8</b>	<b>45.3</b>	<b>45.7</b>	<b>48.0</b>	<b>45.8</b>	<b>54.5</b>	<b>33.5</b>	<b>46.9</b>	<b>49.1</b>	<b>46.8</b>	<b>46.0</b>	<b>27.7</b>	<b>48.2</b>	<b>53.0</b>	<b>42.5</b>	<b>37.5</b>	<b>59.8</b>	<b>59.8</b>		
<b>Min.</b>	<b>3.3</b>	<b>4.0</b>	<b>3.9</b>	<b>4.1</b>	<b>3.2</b>	<b>3.2</b>	<b>2.8</b>	<b>3.2</b>	<b>3.5</b>	<b>3.6</b>	<b>3.5</b>	<b>3.3</b>	<b>3.8</b>	<b>4.3</b>	<b>4.1</b>	<b>4.2</b>	<b>4.1</b>	<b>4.7</b>	<b>4.8</b>	<b>5.2</b>	<b>5.1</b>	<b>4.1</b>	<b>4.0</b>	<b>4.5</b>		<b>2.8</b>	
<b>Avg.</b>	<b>11.9</b>	<b>9.4</b>	<b>9.0</b>	<b>8.5</b>	<b>8.3</b>	<b>8.6</b>	<b>10.2</b>	<b>11.4</b>	<b>11.0</b>	<b>10.7</b>	<b>11.6</b>	<b>13.5</b>	<b>14.6</b>	<b>11.6</b>	<b>14.2</b>	<b>15.4</b>	<b>13.2</b>	<b>11.3</b>	<b>10.5</b>	<b>12.7</b>	<b>11.8</b>	<b>12.9</b>	<b>12.9</b>	<b>14.1</b>			<b>11.6</b>

Total Hours in Month 744

Hours Data Available 732

Data Recovery 98.4%

HCG, Inc.

# Northern Dynasty Mines Pebble 1 Meterological Station - Maximum Instantaneous Wind Speed (Climtrncs) (m/s)

*August 2005*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	4.3	4.7	2.5	3.8	3.6	3.5	2.4	2.4	2.5	3.8	3.5	6.1	5.9	6.7	5.9	5.1	7.0	7.6	7.7	7.6	6.9	7.3	7.2	7.7	7.7	2.4	5.2
2	11.6	13.2	12.8	11.4	12.0	10.7	9.8	9.0	7.4	8.7	9.6	6.6	9.3	9.0	7.1	9.2	7.1	5.0	4.2	6.8	5.6	8.9	7.5	5.5	13.2	4.2	8.7
3	9.6	9.6	6.1	7.6	5.8	3.5	4.2	4.4	3.4	3.6	7.0	6.9	4.9	3.7	5.4	7.7	7.3	6.5	5.3	5.3	4.7	4.5	3.5	3.3	9.6	3.3	5.6
4	3.1	3.7	3.7	3.4	3.7	5.2	2.5	2.4	2.8	3.3	3.5	4.4	2.9	2.7	3.7	4.0	5.4	10.0	4.4	4.4	3.9	3.4	2.5	2.0	10.0	2.0	3.8
5	2.3	4.3	2.0	2.6	3.7	3.5	3.6	4.1	3.2	4.6	4.0	4.8	6.2	6.1	7.6	7.1	6.6	6.6	8.0	8.3	8.9	8.0	8.1	5.1	8.9	2.0	5.4
6	2.5	5.9	4.1	2.5	1.8	2.4	2.8	3.0	4.1	3.4	4.4	2.9	3.0	5.3	7.7	8.7	6.5	6.2	6.1	6.9	4.9	3.7	3.3	3.5	8.7	1.8	4.4
7	2.3	2.5	3.2	3.7	8.4	7.7	5.4	7.7	7.2	6.7	5.6	7.2	7.6	7.0	6.8	7.1	6.5	6.2	5.3	4.8	5.3	5.2	4.9	4.5	8.4	2.3	5.8
8	3.8	3.7	3.3	4.1	4.0	3.5	3.9	3.7	4.4	4.9	3.6	3.5	4.5	4.8	5.8	5.5	6.9	6.0	5.2	4.2	3.4	2.7	4.1	4.2	6.9	2.7	4.3
9	5.8	5.9	5.1	4.0	3.5	3.7	4.1	5.1	6.5	7.9	7.6	8.5	8.2	8.4	9.1	10.8	12.1	10.4	10.0	9.3	9.5	8.1	10.6	7.7	12.1	3.5	7.6
10	4.7	4.4	3.7	2.3	2.4	3.3	2.5	4.2	4.0	5.9	4.6	5.4	7.4	7.7	8.6	8.6	6.8	4.3	4.4	4.5	4.6	4.2	4.4	4.3	8.6	2.3	4.9
11	4.8	4.7	4.2	4.4	4.7	4.4	4.9	4.8	6.3	6.5	7.4	7.1	7.1	5.7	4.9	4.4	5.4	5.2	4.7	3.8	3.4	3.5	4.0	5.1	7.4	3.4	5.1
12	4.0	2.2	2.2	2.3	2.8	2.2	3.4	2.8	4.2	5.5	7.0	10.4	9.9	10.6	10.1	9.0	8.6	8.3	7.2	7.5	8.4	7.6	6.8	6.6	10.6	2.2	6.2
13	5.7	6.3	4.2	4.4	3.4	3.7	3.7	3.1	3.0	3.5	5.5	7.0	7.2	8.4	8.2	9.2	9.0	9.1	9.6	9.7	9.2	7.8	5.3	4.9	9.7	3.0	6.3
14	6.1	5.5	5.1	5.3	4.3	3.0	2.3	3.3	3.2	3.7	4.1	4.8	5.6	5.9	5.9	5.3	6.8	7.8	6.2	5.7	3.8	4.1	4.4	3.7	7.8	2.3	4.8
15	5.7	6.2	6.4	7.5	7.6	7.3	7.5	9.0	7.5	8.7	9.7	11.8	11.0	11.0	13.6	12.8	14.1	13.1	15.2	14.4	13.5	13.8	11.6	9.6	15.2	5.7	10.4
16	8.7	10.0	9.8	10.5	11.6	12.3	12.2	11.6	13.6	14.5	16.6	17.5	18.9	17.5	18.9	18.0	19.6	18.6	16.9	17.0	16.6	15.9	15.7	17.3	19.6	8.7	15.0
17	18.2	19.1	16.8	17.5	16.1	7.3	6.2	5.5	6.9	7.0	5.9	5.4	7.8	10.3	8.5	8.7	7.1	6.9	7.7	7.8	4.2	4.8	3.7	3.7	19.1	3.7	8.9
18	3.0	6.0	4.9	3.4	4.1	2.5	2.8	2.6	5.6	5.0	3.7	6.0	8.7	9.4	9.0	7.5	8.3	3.5	5.0	6.0	3.5	3.0	2.3	2.3	9.4	2.3	4.9
19	1.9	3.2	1.9	2.0	2.2	3.7	6.3	5.9	5.9	5.9	7.7	10.7	13.0	10.6	13.4	12.5	13.4	12.4	12.3	9.7	8.9	9.2	7.8	8.5	13.4	1.9	7.9
20	8.2	8.8	7.1	6.9	7.3	8.2	8.3	9.4	9.2	8.2	7.5	9.0	8.9	8.6	8.5	8.7	7.6	8.7	6.5	12.5	13.9	14.1	16.1	14.6	16.1	6.5	9.4
21	14.8	16.0	17.7	15.1	13.1	10.8	13.7	11.8	12.8	13.6	16.1	14.9	13.1	15.3	12.4	12.3	12.9	12.0	10.3	8.5	7.4	7.3	6.8	4.9	17.7	4.9	12.2
22	3.9	2.5	3.7	4.2	4.2	4.0	5.1	6.5	8.4	11.6	12.5	17.6	20.3	20.2	21.0	22.2	26.6	25.6	28.1	27.8	24.6	22.7	24.8	24.1	28.1	2.5	15.5
23	25.3	25.6	26.5	27.0	20.4	17.3	19.3	26.7	21.3	19.8	20.7	22.4	26.0	23.1	23.1	22.6	22.5	21.1	20.9	21.9	19.9	20.2	18.5	19.5	27.0	17.3	22.2
24	18.9	16.2	14.0	11.4	6.5	4.7	4.0	3.2	2.9	10.0	14.7	14.3	13.7	13.3	13.6	12.7	11.5	11.5	11.2	11.2	8.5	6.4	6.8	6.4	18.9	2.9	10.3
25	5.8	4.1	3.8	3.2	2.9	4.4	3.3	3.3	3.7	4.2	5.5	8.6	7.0	7.9	7.3	8.0	8.9	8.0	8.9	7.7	6.9	7.1	7.7	8.2	8.9	2.9	6.1
26	9.3	10.2	10.7	10.4	7.6	10.0	9.3	8.4	11.2	15.4	18.8	19.6	20.1	18.6	17.2	18.2	20.5	20.6	22.1	18.0	14.8	15.0	10.0	11.3	22.1	7.6	14.5
27	10.8	8.5	8.2	10.0	10.4	8.7	7.6	8.9	13.7	12.3	11.2	10.8	11.4	10.0	8.9	9.2	7.8	8.1	6.8	5.3	3.2	5.2	4.9	6.5	13.7	3.2	8.7
28	8.0	7.5	5.7	7.2	8.1	8.2	9.2	9.4	10.0	10.5	11.0	14.7	11.7	20.8	19.5	19.2	20.6	19.2	15.7	16.2	16.0	16.2	14.9	14.2	20.8	5.7	13.1
29	13.5	12.7	13.5	13.8	12.1	10.8	10.2	9.8	9.8	11.5	10.6	10.2	9.2	8.6	8.4	6.3	8.4	9.7	7.8	9.0	10.2	8.8	8.6	7.7	13.8	6.3	10.0
30	5.8	3.8	4.0	5.4	6.6	5.9	5.7	8.8	10.3	11.4	13.4	11.3	11.5	13.7	14.4	13.7	13.4	12.2	12.7	10.0	11.4	12.6	11.9	11.9	14.4	3.8	10.1
31	12.5	11.5	10.5	12.2	10.5	12.0	11.6	14.9	15.0	16.8	17.4	15.9	17.7	18.9	16.6	18.7	16.6	14.1	15.2	12.7	8.6	10.6	13.8	14.6	18.9	8.6	14.1
<b>Max.</b>	<b>25.3</b>	<b>25.6</b>	<b>26.5</b>	<b>27.0</b>	<b>20.4</b>	<b>17.3</b>	<b>19.3</b>	<b>26.7</b>	<b>21.3</b>	<b>19.8</b>	<b>20.7</b>	<b>22.4</b>	<b>26.0</b>	<b>23.1</b>	<b>23.1</b>	<b>22.6</b>	<b>26.6</b>	<b>25.6</b>	<b>28.1</b>	<b>27.8</b>	<b>24.6</b>	<b>22.7</b>	<b>24.8</b>	<b>24.1</b>	<b>28.1</b>		
<b>Min.</b>	<b>1.9</b>	<b>2.2</b>	<b>1.9</b>	<b>2.0</b>	<b>1.8</b>	<b>2.2</b>	<b>2.3</b>	<b>2.4</b>	<b>2.5</b>	<b>3.3</b>	<b>3.5</b>	<b>2.9</b>	<b>2.9</b>	<b>2.7</b>	<b>3.7</b>	<b>4.0</b>	<b>5.4</b>	<b>3.5</b>	<b>4.2</b>	<b>3.8</b>	<b>3.2</b>	<b>2.7</b>	<b>2.3</b>	<b>2.0</b>		<b>1.8</b>	
<b>Avg.</b>	<b>7.9</b>	<b>8.0</b>	<b>7.3</b>	<b>7.4</b>	<b>6.9</b>	<b>6.4</b>	<b>6.4</b>	<b>7.0</b>	<b>7.4</b>	<b>8.3</b>	<b>9.1</b>	<b>9.9</b>	<b>10.3</b>	<b>10.6</b>	<b>10.7</b>	<b>10.7</b>	<b>11.0</b>	<b>10.5</b>	<b>10.1</b>	<b>9.8</b>	<b>8.9</b>	<b>8.8</b>	<b>8.5</b>	<b>8.2</b>			<b>8.7</b>

**Total Hours in Month**

744

**Hours Data Available**

744

**Data Recovery** 100.0%

# Northern Dynasty Mines Pebble 1 Meterological Station - Maximum Instantaneous Wind Speed (Climtrncs) (m/s)

*September 2005*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	12.7	13.0	11.4	11.1	11.3	9.2	8.5	9.7	11.9	13.0	13.7	15.9	14.4	15.0	13.8	14.7	12.0	12.3	11.5	10.6	7.1	6.9	6.3	4.4	15.9	4.4	11.3	
2	4.4	4.0	3.7	4.1	2.5	2.2	2.8	3.9	5.1	7.7	9.8	14.2	17.5	19.1	20.5	20.6	17.1	20.2	15.7	18.5	18.3	21.1	20.3	21.8	21.8	2.2	12.3	
3	21.3	21.4	17.0	17.1	18.1	15.4	18.0	17.0	18.0	18.8	19.1	17.6	18.9	21.2	22.7	22.5	20.5	19.9	19.1	14.9	12.5	12.4	10.8	7.1	22.7	7.1	17.6	
4	4.5	4.8	2.4	2.3	1.8	2.6	3.0	2.3	1.6	2.9	4.0	5.1	5.9	6.6	6.9	7.3	6.7	7.3	7.4	8.4	8.4	7.8	8.4	9.9	9.9	1.6	5.3	
5	9.0	10.4	10.5	10.3	10.0	11.6	12.0	10.3	11.4	12.3	16.0	18.2	18.6	18.8	19.4	19.9	17.0	14.4	15.1	15.2	14.4	12.1	11.0	9.2	19.9	9.0	13.6	
6	9.4	7.1	4.0	8.2	8.3	5.5	4.6	5.1	8.2	10.5	10.0	9.3	9.8	10.8	10.5	10.8	11.2	9.9	9.1	9.4	9.2	12.9	11.6	11.2	12.9	4.0	9.0	
7	8.5	8.3	6.6	6.5	5.9	4.3	4.8	4.4	3.8	5.4	5.3	6.7	8.7	8.9	10.5	11.8	11.4	11.0	9.7	7.6	6.5	6.4	6.3	5.7	11.8	3.8	7.3	
8	3.6	3.7	4.5	4.6	5.2	5.2	3.0	3.9	3.1	3.8	4.9	5.7	5.7	8.2	12.6	12.8	11.7	12.1	13.1	19.2	23.0	23.0	22.4	22.4	23.0	3.0	9.9	
9	23.3	24.8	17.9	15.8	17.0	13.8	14.7	14.8	14.5	17.3	16.4	12.4	11.6	10.9	11.7	10.4	10.9	9.5	9.2	11.3	11.5	10.1	9.3	11.8	24.8	9.2	13.8	
10	11.4	12.3	13.0	13.0	17.0	18.2	18.5	14.1	8.9	9.5	11.9	9.4	7.0	8.8	7.5	7.2	4.1	3.7	4.9	5.2	3.0	2.3	3.7	4.5	18.5	2.3	9.1	
11	6.7	6.5	11.0	12.3	13.6	12.6	12.5	15.2	17.5	20.4	20.7	20.1	20.6	19.7	20.9	21.5	21.7	20.7	18.8	17.5	19.9	21.8	19.1	15.5	21.8	6.5	16.9	
12	8.3	10.3	10.0	11.0	10.8	9.2	11.8	12.7	12.9	15.9	13.6	15.2	15.9	19.3	17.5	17.6	19.9	20.1	20.3	21.2	21.8	22.4	18.0	15.6	22.4	8.3	15.5	
13	16.1	14.4	13.6	13.9	12.6	8.9	6.6	10.0	6.3	3.8	6.2	7.8	7.8	9.0	8.0	5.1	5.2	4.9	4.7	4.4	4.4	3.4	2.9	3.7	16.1	2.9	7.6	
14	2.2	3.1	3.5	4.4	4.4	3.8	3.6	4.3	4.7	5.3	6.8	7.6	8.8	11.5	13.5	14.0	15.9	15.0	16.7	19.5	22.1	22.9	22.4	23.1	23.1	2.2	10.8	
15	24.8	26.6	26.2	26.7	27.4	27.7	27.7	26.5	29.8	25.6	27.0	26.4	26.1	23.9	25.3	26.7	24.7	18.6	6.5	5.4	5.9	6.8	6.7	8.6	29.8	5.4	21.1	
16	13.0	12.7	12.3	12.1	7.9	2.5	5.3	5.1	3.5	4.7	5.1	7.4	8.5	8.7	8.4	10.1	7.8	6.2	6.9	7.5	7.0	8.3	6.3	7.6	13.0	2.5	7.7	
17	5.4	4.7	4.0	2.4	2.2	2.1	1.8	1.6	1.4	2.3	2.7	3.8	3.5	4.5	4.9	5.2	5.2	3.1	2.7	2.8	3.1	5.1	5.2	5.7	5.7	1.4	3.6	
18	6.6	6.8	8.4	7.6	6.9	6.4	6.7	5.3	6.2	7.2	9.5	10.1	11.7	12.3	14.3	12.8	11.5	12.2	9.8	7.0	8.0	6.6	5.9	6.2	14.3	5.3	8.6	
19	5.5	5.3	5.2	4.8	4.0	3.7	3.8	3.6	4.9	7.0	9.4	10.8	11.7	12.3	12.3	12.5	11.4	10.5	10.2	9.0	8.2	8.8	8.6	9.8	12.5	3.6	8.1	
20	10.8	9.5	10.6	9.7	7.0	5.8	5.2	5.0	5.9	7.3	6.8	7.5	8.7	9.1	9.6	10.0	9.2	7.0	5.6	3.6	3.9	5.1	5.5	6.5	10.8	3.6	7.3	
21	6.2	5.3	7.0	7.6	4.8	3.7	3.3	6.4	5.9	6.6	7.4	5.8	6.6	8.1	7.8	7.3	7.7	11.2	9.1	10.3	11.9	11.5	9.9	9.4	11.9	3.3	7.5	
22	10.1	10.5	9.9	10.6	11.2	9.9	11.2	12.4	17.7	21.3	23.2	27.9	26.9	24.9	22.1	20.1	19.1	19.6	20.1	17.4	16.2	16.0	17.4	16.2	27.9	9.9	17.2	
23	16.2	11.8	10.2	8.8	7.7	7.4	7.1	6.4	5.8	8.0	10.0	10.1	13.4	18.3	17.0	15.5	15.7	14.0	13.4	12.0	16.4	16.3	19.9	19.1	19.9	5.8	12.5	
24	15.5	14.1	14.6	18.1	19.4	15.5	15.6	14.4	13.6	15.1	14.8	13.8	13.2	15.0	18.7	15.0	14.2	13.9	13.9	13.9	14.7	13.9	14.1	12.7	19.4	12.7	14.9	
25	14.0	14.4	14.7	15.4	16.2	15.3	14.7	12.9	13.7	11.9	11.6	11.8	11.4	11.6	11.2	10.9	10.2	10.8	9.4	10.6	9.1	10.9	9.8	9.4	16.2	9.1	12.2	
26	7.0	4.3	4.2	4.1	5.2	4.9	4.6	5.7	8.1	10.0	12.4	18.6	22.0	24.1	26.1	24.0	25.5	24.9	28.8	27.8	27.1	33.7	32.2	27.1	33.7	4.1	17.2	
27	26.7	27.5	26.6	28.7	29.7	27.3	30.8	12.3	7.9	8.5	6.5	11.1	14.5	15.4	14.4	13.1	12.3	10.9	9.0	8.3	6.8	4.1	2.8	2.2	30.8	2.2	14.9	
28	3.4	3.6	3.4	4.3	5.7	5.2	4.7	4.5	2.8	2.4	2.9	4.0	4.1	4.1	4.2	3.9	4.0	2.5	1.9	3.9	3.0	3.5	3.6	2.0	5.7	1.9	3.6	
29	3.7	3.9	5.2	6.2	7.9	8.1	6.3	6.7	7.2	7.6	7.2	9.2	11.9	12.0	8.5	9.9	9.9	6.8	4.6	3.7	4.1	3.6	3.8	5.1	12.0	3.6	6.8	
30	3.9	2.3	2.8	3.7	3.1	2.2	2.2	2.1	2.1	2.1	1.9	2.8	3.0	4.6	4.5	4.5	7.6	9.2	7.8	9.8	11.5	12.5	12.8	13.1	13.1	1.9	5.5	
<b>Max.</b>	<b>26.7</b>	<b>27.5</b>	<b>26.6</b>	<b>28.7</b>	<b>29.7</b>	<b>27.7</b>	<b>30.8</b>	<b>26.5</b>	<b>29.8</b>	<b>25.6</b>	<b>27.0</b>	<b>27.9</b>	<b>26.9</b>	<b>24.9</b>	<b>26.1</b>	<b>26.7</b>	<b>25.5</b>	<b>24.9</b>	<b>28.8</b>	<b>27.8</b>	<b>27.1</b>	<b>33.7</b>	<b>32.2</b>	<b>27.1</b>	<b>33.7</b>			
<b>Min.</b>	<b>2.2</b>	<b>2.3</b>	<b>2.4</b>	<b>2.3</b>	<b>1.8</b>	<b>2.1</b>	<b>1.8</b>	<b>1.6</b>	<b>1.4</b>	<b>2.1</b>	<b>1.9</b>	<b>2.8</b>	<b>3.0</b>	<b>4.1</b>	<b>4.2</b>	<b>3.9</b>	<b>4.0</b>	<b>2.5</b>	<b>1.9</b>	<b>2.8</b>	<b>3.0</b>	<b>2.3</b>	<b>2.8</b>	<b>2.0</b>		<b>1.4</b>		
<b>Avg.</b>	<b>10.5</b>	<b>10.2</b>	<b>9.8</b>	<b>10.2</b>	<b>10.1</b>	<b>9.0</b>	<b>9.2</b>	<b>8.6</b>	<b>8.8</b>	<b>9.8</b>	<b>10.5</b>	<b>11.5</b>	<b>12.3</b>	<b>13.2</b>	<b>13.5</b>	<b>13.3</b>	<b>12.7</b>	<b>12.1</b>	<b>11.2</b>	<b>11.2</b>	<b>11.3</b>	<b>11.7</b>	<b>11.2</b>	<b>10.9</b>			<b>11.0</b>	

Total Hours in Month

720

Hours Data Available

720

Data Recovery 100.0%

# Northern Dynasty Mines Pebble 1 Meterological Station - Maximum Instantaneous Wind Speed (Climtrncs) (m/s)

October 2005

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	14.3	15.5	15.0	18.2	18.1	18.6	17.9	17.0	15.3	15.8	15.7	15.6	16.1	17.0	15.6	14.7	16.0	15.7	12.8	10.5	10.8	11.2	11.4	10.5	18.6	10.5	15.0	
2	10.2	9.1	9.1	8.7	7.3	5.7	6.5	4.3	3.6	3.5	8.2	9.1	8.2	8.1	11.3	10.5	10.4	7.2	5.3	4.8	6.5	6.5	5.9	4.6	11.3	3.5	7.3	
3	4.8	3.3	4.3	3.8	2.5	3.1	3.3	2.1	2.8	3.8	4.3	4.1	3.9	4.8	4.2	4.4	3.3	3.5	4.0	2.4	1.7	5.0	6.2	3.2	6.2	1.7	3.7	
4	4.7	4.1	4.4	4.1	5.3	6.7	8.3	7.7	11.0	9.8	12.5	10.8	10.4	9.5	8.9	11.1	11.2	11.4	10.0	6.2	11.3	11.8	13.2	13.8	13.8	4.1	9.1	
5	12.8	9.9	8.4	8.8	6.7	5.8	5.9	6.0	7.4	6.4	8.3	8.8	7.2	5.7	5.5	4.3	3.7	4.3	3.7	4.0	3.5	2.3	2.1	2.1	12.8	2.1	6.0	
6	3.2	3.7	2.9	2.0	1.7	2.1	2.8	2.8	4.2	5.1	4.3	3.7	3.1	4.6	5.2	5.5	6.0	6.8	5.9	3.7	3.7	3.4	3.8	6.0	6.8	1.7	4.0	
7	7.1	7.6	5.8	9.3	13.7	14.4	17.0	15.4	13.2	15.3	15.9	14.7	13.1	12.8	13.2	9.4	6.4	5.4	3.3	2.9	3.6	2.9	2.4	1.9	17.0	1.9	9.4	
8	2.0	2.9	2.9	2.0	2.4	2.9	3.2	3.3	3.4	2.1	1.2	1.3	3.3	3.3	4.0	3.7	3.1	2.4	1.9	1.2	1.8	1.8	2.7	2.8	4.0	1.2	2.6	
9	2.6	3.2	2.9	2.6	2.3	3.4	4.0	5.2	0.2	0.2	6.3	8.2	9.9	10.0	9.1	10.7	12.0	11.1	9.3	9.6	8.0	9.1	10.1	9.3	12.0	0.2	6.6	
10	8.9	8.9	8.3	6.9	4.6	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	8.0	9.1	9.0	8.7	9.1	0.2	3.2
11	6.9	6.6	6.0	5.9	5.6	7.0	5.8	6.3	6.7	7.3	7.7	6.2	6.4	7.3	7.8	6.6	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	7.8	0.2	4.5	
12	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	11.5	13.2	11.5	9.2	7.5	4.6	4.0	3.3	2.2	2.8	2.9	13.2	0.2	3.2
13	2.8	3.9	3.6	3.5	3.3	3.6	3.5	3.6	3.9	4.0	4.8	4.5	4.7	4.4	5.0	5.3	4.8	5.5	6.4	6.8	6.7	8.2	7.9	8.1	8.2	2.8	4.9	
14	8.3	8.2	8.5	6.1	5.3	5.1	3.3	2.6	8.8	9.1	7.1	4.9	5.2	5.7	5.2	3.4	3.8	7.7	8.7	10.7	12.1	13.2	12.0	12.2	13.2	2.6	7.4	
15	10.5	10.1	8.9	8.3	9.0	5.1	4.6	5.8	8.1	8.1	5.3	2.9	2.9	4.5	5.1	6.1	6.0	6.6	6.8	6.4	8.8	10.2	9.3	9.6	10.5	2.9	7.0	
16	8.2	7.9	7.1	8.4	5.1	4.9	4.4	4.0	4.6	3.9	2.7	2.7	4.5	5.9	7.1	5.9	6.9	7.4	8.2	5.2	7.6	11.5	13.3	14.1	14.1	2.7	6.7	
17	13.7	16.9	16.8	16.4	18.2	21.4	21.5	23.4	23.3	22.4	21.8	22.3	22.1	24.2	23.0	24.4	21.7	21.3	20.4	19.9	20.5	20.5	21.1	21.7	24.4	13.7	20.8	
18	19.7	21.3	20.9	21.1	18.0	16.8	17.2	15.0	15.2	13.7	15.0	10.8	8.4	11.6	13.1	11.5	8.6	9.8	12.3	11.9	10.5	11.2	9.8	9.1	21.3	8.4	13.9	
19	10.9	13.4	15.2	15.5	15.6	13.4	13.5	13.9	15.7	16.6	20.2	19.3	19.9	24.3	25.4	25.0	29.0	30.8	31.7	31.9	31.3	31.8	31.2	29.7	31.9	10.9	21.9	
20	29.9	29.5	29.1	29.2	29.4	29.7	28.2	28.5	31.4	31.2	33.6	27.0	23.8	7.3	9.2	7.6	9.1	11.6	12.5	11.7	11.9	11.8	8.6	9.7	33.6	7.3	20.5	
21	10.0	11.6	8.9	3.3	7.1	5.4	4.9	5.3	8.6	7.6	5.6	4.9	5.1	4.2	3.2	2.6	2.8	9.4	9.7	9.6	9.9	11.0	9.4	8.4	11.6	2.6	7.0	
22	9.9	10.2	7.0	8.3	9.0	9.2	9.8	8.8	8.5	8.0	7.9	7.6	6.4	10.5	13.5	12.9	10.4	11.0	7.6	9.3	8.3	7.0	7.5	6.5	13.5	6.4	9.0	
23	6.4	6.1	5.4	6.2	7.5	7.6	7.6	8.5	7.8	7.7	8.1	11.7	15.6	16.8	16.6	16.6	16.2	18.8	15.5	14.3	12.0	10.3	9.0	5.5	18.8	5.4	10.7	
24	4.0	3.4	2.8	2.9	2.9	2.7	3.8	4.0	4.3	4.4	4.6	5.0	4.5	6.6	6.0	7.5	6.8	5.0	4.5	4.0	4.3	4.0	4.4	4.4	7.5	2.7	4.5	
25	4.3	4.9	4.7	4.3	3.7	3.9	3.9	3.4	2.3	2.4	2.4	2.6	2.3	2.6	2.9	3.4	3.0	3.1	2.4	2.5	2.6	2.4	2.9	3.3	4.9	2.3	3.2	
26	3.4	3.4	3.5	3.2	3.3	3.4	2.8	2.4	2.6	3.1	3.7	4.0	3.3	3.8	4.0	3.7	4.9	5.0	4.4	4.9	3.8	2.9	2.4	2.5	5.0	2.4	3.5	
27	2.2	1.8	1.6	1.2	1.1	0.8	0.9	1.0	1.0	1.0	1.2	1.0	1.0	1.1	0.9	0.8	0.9	1.0	0.9	1.0	1.4	1.3	1.5	0.7	2.2	0.7	1.1	
28	1.5	1.7	1.6	1.6	1.7	2.1	1.6	1.7	1.7	2.6	2.9	3.2	5.4	6.1	5.5	6.7	6.4	6.4	5.2	4.4	3.7	2.6	1.8	1.9	6.7	1.5	3.3	
29	2.2	1.9	2.0	2.8	3.6	3.3	2.9	2.9	2.6	2.6	2.6	2.3	2.2	2.0	2.3	2.5	2.5	2.3	2.3	2.2	2.1	1.7	1.5	2.1	3.6	1.5	2.4	
30	2.1	2.4	2.5	2.6	2.5	2.3	2.4	2.5	2.9	2.6	2.7	2.5	2.3	3.3	5.8	6.9	7.3	7.8	9.3	9.9	10.8	9.3	8.4	12.7	12.7	2.1	5.2	
31	11.4	12.3	12.0	12.4	10.0	10.9	8.6	10.2	8.4	8.0	9.3	10.0	10.9	12.7	11.6	6.8	8.8	11.0	10.0	15.1	16.7	11.2	7.9	5.9	16.7	5.9	10.5	
<b>Max.</b>	<b>29.9</b>	<b>29.5</b>	<b>29.1</b>	<b>29.2</b>	<b>29.4</b>	<b>29.7</b>	<b>28.2</b>	<b>28.5</b>	<b>31.4</b>	<b>31.2</b>	<b>33.6</b>	<b>27.0</b>	<b>23.8</b>	<b>24.3</b>	<b>25.4</b>	<b>25.0</b>	<b>29.0</b>	<b>30.8</b>	<b>31.7</b>	<b>31.9</b>	<b>31.3</b>	<b>31.8</b>	<b>31.2</b>	<b>29.7</b>	<b>33.6</b>			
<b>Min.</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>		<b>0.2</b>		
<b>Avg.</b>	<b>7.7</b>	<b>7.9</b>	<b>7.5</b>	<b>7.4</b>	<b>7.3</b>	<b>7.1</b>	<b>7.1</b>	<b>7.0</b>	<b>7.4</b>	<b>7.4</b>	<b>8.0</b>	<b>7.5</b>	<b>7.5</b>	<b>8.1</b>	<b>8.5</b>	<b>8.1</b>	<b>7.8</b>	<b>8.3</b>	<b>7.7</b>	<b>7.5</b>	<b>8.0</b>	<b>8.0</b>	<b>7.7</b>	<b>7.6</b>			<b>7.7</b>	

Total Hours in Month

744

Hours Data Available

744

Data Recovery 100.0%

HCG, Inc.



# Northern Dynasty Mines Pebble 1 Meterological Station - Maximum Instantaneous Wind Speed (Climtrncs) (m/s)

December 2005

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	2.6	3.5	4.0	4.1	4.0	3.2	3.1	3.2	2.5	1.6	1.3	0.5	0.5	0.6	2.3	1.9	0.5	0.4	0.5	0.4	0.4	0.2	0.2	0.2	4.1	0.2	1.7	
2	0.2	0.2	0.2	0.2	0.7	0.8	0.5	0.4	0.2	0.5	0.6	0.5	0.5	0.5	0.5	0.5	1.1	1.2	1.3	1.4	1.5	1.4	1.4	1.4	1.5	0.2	0.7	
3	1.3	1.5	1.5	1.5	1.5	1.5	1.2	1.4	2.4	2.3	1.3	2.2	2.0	2.1	2.2	2.1	2.2	1.2	1.0	0.9	1.1	1.0	0.9	0.9	2.4	0.9	1.5	
4	1.4	1.4	1.3	0.5	0.5	0.4	0.4	0.5	0.4	0.6	0.7	0.6	0.8	0.6	0.6	0.6	0.8	1.0	0.7	0.9	1.0	0.9	0.9	0.8	1.4	0.4	0.8	
5	0.7	0.6	0.6	0.7	12.1	14.1	13.0	13.4	17.3	18.0	19.7	19.2	18.5	18.7	17.8	18.4	18.7	18.9	19.5	24.0	23.5	24.9	26.2	26.9	26.9	0.6	16.1	
6	28.1	31.5	31.0	30.2	27.2	28.4	27.2	25.2	23.1	23.9	20.4	12.8	12.9	9.0	10.0	8.4	8.1	5.9	0.2	0.2	0.2	0.2	0.2	22.7	31.5	0.2	16.1	
7	30.8	32.4	33.4	34.1	37.1	38.6	39.3	40.0	36.9	34.0	32.9	33.6	32.4	29.0	27.6	27.1	29.5	27.5	24.4	23.3	23.0	22.2	21.1	19.1	40.0	19.1	30.4	
8	17.5	14.6	15.0	12.4	11.7	9.0	9.4	10.0	14.5	15.5	18.5	18.5	22.3	21.6	21.1	22.0	22.1	23.8	26.7	25.6	27.8	27.3	29.0	29.6	29.6	9.0	19.4	
9	28.5	30.0	28.1	28.2	24.8	22.6	21.9	21.5	20.1	21.9	19.6	17.5	16.6	14.2	11.3	6.9	9.3	9.6	9.2	9.9	9.6	8.9	8.4	6.8	30.0	6.8	16.9	
10	6.9	5.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	7.4	9.5	7.3	6.8	5.2	6.4	7.4	10.0	9.9	12.6	13.2	10.3	10.8	11.0	13.2	0.2	5.9	
11	8.5	8.8	5.2	3.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	8.8	0.2	1.3	
12	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
13	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	13.5	13.9	11.4	13.6	15.6	20.6	24.4	28.1	31.9	32.0	36.7	36.6	34.5	32.3	36.7	0.2	14.5	
14	35.7	33.1	26.4	29.8	27.1	13.2	20.6	16.9	17.4	19.9	18.8	18.3	20.9	21.9	21.7	19.4	21.1	21.6	17.8	14.9	13.9	19.6	30.4	29.8	35.7	13.2	22.1	
15	27.7	25.7	24.4	25.8	23.5	22.8	18.8	10.3	8.8	16.7	14.5	7.7	8.9	8.4	8.2	8.1	8.9	12.3	15.7	28.9	28.0	29.2	30.2	31.1	31.1	7.7	18.5	
16	30.2	27.2	27.6	28.2	26.8	23.6	23.4	23.3	18.9	16.4	11.2	9.4	7.9	6.3	4.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	30.2	0.2	11.9	
17	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	8.8	14.1	12.2	10.5	13.4	16.2	17.4	17.4	0.2	4.0	
18	14.1	9.9	7.9	6.8	7.6	6.5	8.9	12.4	13.5	9.7	14.8	20.6	19.7	17.6	15.4	14.0	16.3	15.0	17.6	11.5	9.4	5.1	6.6	4.8	20.6	4.8	11.9	
19	6.1	10.8	17.5	18.2	18.6	24.8	19.6	25.0	24.0	22.9	22.7	22.7	21.1	23.1	19.4	20.8	21.1	13.8	16.0	19.2	13.1	16.1	17.3	12.9	25.0	6.1	18.6	
20	8.5	8.3	3.8	4.0	2.6	3.6	3.7	3.1	1.8	3.7	4.2	4.6	5.2	4.8	3.9	3.9	9.0	6.2	3.8	2.8	3.6	3.8	2.4	3.7	9.0	1.8	4.4	
21	3.2	2.4	1.9	2.1	2.6	3.4	2.8	1.5	2.1	2.4	2.0	2.0	1.8	2.4	1.9	1.9	3.2	3.1	3.0	3.7	5.7	6.0	6.3	6.9	6.9	1.5	3.1	
22	6.0	5.7	6.3	7.6	6.2	5.5	4.6	5.2	6.1	6.2	3.1	4.7	5.2	5.0	4.1	3.4	2.7	2.7	2.8	2.5	3.0	1.6	1.5	1.4	7.6	1.4	4.3	
23	1.3	2.1	2.7	2.6	2.3	2.1	1.3	1.8	3.1	2.5	2.4	2.3	2.5	3.5	3.1	4.5	3.1	4.1	4.5	3.2	3.3	5.4	6.3	8.7	8.7	1.3	3.3	
24	12.3	13.9	10.6	11.8	12.9	12.0	9.6	11.5	10.8	11.4	7.8	7.0	6.2	5.7	4.9	4.3	2.3	2.7	5.2	5.9	3.8	3.3	2.1	2.2	13.9	2.1	7.5	
25	2.5	2.2	3.9	4.3	3.7	4.7	9.6	13.7	14.0	13.3	13.0	12.0	12.2	8.3	7.0	7.8	14.3	14.8	11.3	10.5	10.3	13.2	13.1	12.6	14.8	2.2	9.7	
26	13.0	13.7	20.9	24.8	22.3	22.5	20.6	22.1	15.7	5.2	5.6	6.6	6.3	4.5	7.2	4.5	4.4	5.2	6.0	5.0	5.2	5.2	6.6	9.9	24.8	4.4	11.0	
27	9.3	11.3	12.9	12.2	13.7	16.6	16.4	16.5	11.0	8.5	8.5	8.8	3.9	4.7	5.0	5.2	5.3	5.1	5.4	4.5	5.6	11.4	12.9	12.6	16.6	3.9	9.5	
28	6.7	8.3	9.7	13.8	16.0	17.3	15.9	16.2	12.6	7.7	11.3	12.1	9.1	10.7	10.0	8.8	10.8	13.9	14.3	11.8	12.6	13.1	12.6	12.1	17.3	6.7	12.0	
29	12.9	10.2	9.4	11.6	11.3	9.8	14.2	20.8	21.7	19.2	20.1	19.6	19.6	17.1	18.2	13.6	12.7	12.4	12.8	10.7	10.5	7.1	7.2	10.2	21.7	7.1	13.9	
30	9.9	13.8	14.7	15.5	12.8	14.8	14.5	14.2	11.4	5.9	5.0	4.4	4.3	4.7	4.2	5.7	8.7	14.7	16.7	11.5	14.2	12.4	8.5	12.3	16.7	4.2	10.6	
31	6.7	5.9	13.4	12.4	5.7	3.8	2.9	3.7	3.7	1.8	2.2	4.1	3.0	2.9	4.5	4.6	4.2	4.1	2.6	2.6	3.2	3.4	2.8	2.2	13.4	1.8	4.4	
<b>Max.</b>	<b>35.7</b>	<b>33.1</b>	<b>33.4</b>	<b>34.1</b>	<b>37.1</b>	<b>38.6</b>	<b>39.3</b>	<b>40.0</b>	<b>36.9</b>	<b>34.0</b>	<b>32.9</b>	<b>33.6</b>	<b>32.4</b>	<b>29.0</b>	<b>27.6</b>	<b>27.1</b>	<b>29.5</b>	<b>28.1</b>	<b>31.9</b>	<b>32.0</b>	<b>36.7</b>	<b>36.6</b>	<b>34.5</b>	<b>32.3</b>	<b>40.0</b>			
<b>Min.</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>		<b>0.2</b>		
<b>Avg.</b>	<b>10.7</b>	<b>10.8</b>	<b>10.8</b>	<b>11.2</b>	<b>10.9</b>	<b>10.5</b>	<b>10.5</b>	<b>10.8</b>	<b>10.2</b>	<b>9.4</b>	<b>9.8</b>	<b>9.6</b>	<b>9.1</b>	<b>8.7</b>	<b>8.3</b>	<b>7.9</b>	<b>8.8</b>	<b>9.3</b>	<b>9.5</b>	<b>9.5</b>	<b>9.5</b>	<b>9.8</b>	<b>10.2</b>	<b>11.1</b>			<b>9.9</b>	

Total Hours in Month

744

Hours Data Available

744

Data Recovery 100.0%

HCG, Inc.

# Northern Dynasty Mines Pebble 1 Meterological Station - Maximum Instantaneous Wind Speed (Climtrncs) (m/s)

January 2006

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	3.7	4.0	4.4	4.7	4.8	3.9	3.3	4.6	8.0	10.3	8.6	10.2	8.0	7.6	5.7	5.5	3.1	3.7	3.8	4.0	2.6	3.7	4.6	7.3	10.3	2.6	5.4
2	6.2	4.8	3.2	6.1	7.4	4.6	3.7	5.0	6.3	5.4	4.3	6.0	3.4	6.7	5.6	7.7	6.7	6.4	4.8	6.2	17.3	18.4	14.9	11.0	18.4	3.2	7.2
3	15.0	9.4	13.0	14.1	14.0	9.9	6.8	7.8	9.4	4.8	3.7	6.2	6.1	5.3	6.2	7.5	9.5	7.7	8.6	4.7	4.6	4.1	4.8	6.0	15.0	3.7	7.9
4	5.0	3.1	2.1	2.4	2.0	1.7	1.9	2.3	2.0	1.6	2.4	3.1	4.4	5.6	5.0	3.7	2.8	2.5	2.9	3.1	2.9	3.8	3.9	4.7	5.6	1.6	3.1
5	1.9	2.5	3.6	3.4	3.0	2.5	2.5	2.8	3.5	3.6	3.6	2.0	2.1	4.9	5.5	6.0	5.2	6.5	7.2	6.6	6.3	5.2	4.5	4.1	7.2	1.9	4.1
6	2.7	2.1	4.0	4.2	5.5	7.0	6.3	4.7	3.3	2.4	2.0	2.1	3.2	2.7	3.4	2.9	2.5	1.8	1.4	3.2	4.2	4.5	2.4	2.2	7.0	1.4	3.4
7	1.4	1.7	2.6	2.5	1.6	2.0	2.3	2.7	2.6	3.2	3.6	3.6	2.4	5.5	6.0	9.5	7.8	5.4	5.2	7.8	8.3	11.5	14.0	15.8	15.8	1.4	5.4
8	15.3	7.5	15.1	6.6	5.2	14.9	15.4	6.8	6.5	3.1	3.7	3.7	4.5	5.8	5.5	5.2	5.0	5.4	5.8	5.4	5.5	6.1	4.4	5.1	15.4	3.1	7.0
9	4.0	4.0	3.9	4.5	4.3	4.6	3.9	3.7	2.9	2.9	3.4	2.4	2.1	1.5	1.7	1.6	3.5	3.6	2.9	2.1	1.8	2.4	1.8	2.3	4.6	1.5	3.0
10	2.0	1.7	2.0	1.5	1.1	1.5	1.2	1.5	1.3	1.6	1.5	1.4	2.5	2.1	1.8	2.4	2.6	2.3	1.6	1.7	1.5	1.3	1.0	0.9	2.6	0.9	1.7
11	0.8	0.7	1.0	1.3	1.2	1.7	1.3	1.2	1.2	1.5	1.1	1.3	1.1	1.0	1.2	0.9	1.8	1.7	2.1	1.8	1.6	1.7	1.8	1.6	2.1	0.7	1.4
12	1.4	1.7	1.9	2.4	2.4	3.0	3.0	3.0	3.5	3.7	3.9	4.5	4.4	2.8	2.6	2.5	2.3	2.6	2.6	2.7	3.5	3.6	3.7	3.8	4.5	1.4	3.0
13	3.5	3.7	3.5	3.1	2.9	3.1	3.2	3.1	2.9	3.0	3.3	3.3	3.7	3.9	3.9	2.8	3.7	3.0	3.2	3.0	2.5	2.3	2.2	2.0	3.9	2.0	3.1
14	2.4	2.4	2.1	2.1	1.8	1.8	1.9	1.4	2.8	3.0	3.8	3.6	3.6	6.4	7.4	7.8	8.2	8.8	8.6	8.2	9.2	10.1	9.4	8.4	10.1	1.4	5.2
15	7.8	5.9	8.2	8.4	9.7	7.6	6.6	6.5	5.6	6.8	7.3	8.5	11.6	12.1	47.9	23.8	12.8	14.4	12.0	11.9	8.7	6.9	5.9	9.5	47.9	5.6	11.1
16	10.0	12.3	12.0	12.1	6.9	9.3	13.7	14.2	11.8	9.2	6.5	7.1	6.4	4.8	4.1	2.9	2.9	2.8	2.0	4.0	4.9	5.7	6.1	6.7	14.2	2.0	7.4
17	6.7	6.8	7.1	6.6	6.4	6.2	7.1	6.6	7.2	7.1	6.4	8.4	8.9	6.8	6.9	7.7	7.8	8.1	8.0	8.4	6.2	7.1	7.7	6.0	8.9	6.0	7.2
18	7.2	9.7	8.5	9.3	11.6	13.5	12.6	11.8	11.7	9.7	7.9	9.6	11.8	12.1	13.4	12.9	11.0	9.9	9.8	13.2	13.0	10.8	9.5	10.6	13.5	7.2	10.9
19	10.3	13.5	13.4	11.5	10.8	8.6	12.1	11.9	10.4	9.3	9.2	9.1	7.8	8.9	8.6	9.4	7.6	7.0	9.5	11.8	12.7	10.8	10.1	8.8	13.5	7.0	10.1
20	9.5	8.6	8.5	9.5	8.8	8.1	7.8	7.9	7.7	6.5	7.6	6.3	6.6	7.1	6.8	8.1	8.0	7.4	6.5	6.6	8.7	8.3	7.4	7.3	9.5	6.3	7.7
21	6.9	8.5	9.2	10.1	10.8	12.1	13.5	14.4	13.7	15.2	15.4	16.4	16.8	18.6	19.2	20.7	22.1	23.1	24.8	23.5	22.6	21.0	20.5	20.8	24.8	6.9	16.7
22	22.9	25.2	24.2	25.7	28.0	27.5	27.0	25.3	25.1	25.2	21.5	20.4	21.4	20.8	19.1	20.1	20.8	18.8	20.8	22.3	22.8	22.1	21.8	25.6	28.0	18.8	23.1
23	24.8	24.9	24.3	23.4	22.7	23.2	22.4	19.8	18.4	16.2	25.1	20.3	17.2	16.8	17.5	19.2	14.3	19.9	19.5	22.1	16.7	16.0	17.4	17.8	25.1	14.3	20.0
24	17.0	17.4	18.0	15.9	15.8	16.2	17.6	14.5	16.6	18.7	19.0	18.7	18.2	18.4	14.7	16.7	16.5	15.7	14.9	16.2	12.0	14.7	14.3	11.9	19.0	11.9	16.2
25	9.2	9.1	7.5	9.5	9.4	9.2	6.8	7.1	7.5	7.7	8.1	8.7	9.3	7.4	6.8	7.5	7.2	9.0	8.9	10.2	10.7	8.4	13.5	13.4	13.5	6.8	8.8
26	12.6	12.9	11.4	11.8	7.8	8.8	8.3	8.6	7.4	5.9	5.4	6.1	6.4	6.2	5.8	5.0	4.2	5.5	6.5	6.5	7.5	9.8	8.4	11.3	12.9	4.2	7.9
27	10.9	11.6	11.7	12.7	14.3	16.0	14.9	17.0	16.8	18.7	20.7	21.3	24.1	24.0	23.6	26.2	23.1	24.0	23.9	23.9	20.9	25.3	24.4	29.2	29.2	10.9	20.0
28	30.1	29.2	29.8	23.9	26.3	25.9	22.3	22.5	21.7	15.4	15.3	14.7	13.7	13.9	59.2	12.9	11.5	8.7	5.8	7.0	5.8	6.8	7.0	6.6	59.2	5.8	18.2
29	6.1	8.9	8.4	8.8	9.5	9.3	8.4	7.6	8.1	6.8	8.1	9.1	7.2	7.7	7.3	8.7	8.5	9.3	9.7	8.1	8.1	8.4	9.3	8.0	9.7	6.1	8.3
30	9.8	9.0	8.4	9.4	8.5	10.1	9.5	6.6	6.8	6.7	6.0	5.1	5.2	6.4	5.7	5.6	5.4	5.3	3.4	2.8	3.8	4.1	2.9	2.0	10.1	2.0	6.2
31	2.3	3.1	4.3	3.9	3.6	3.9	4.5	4.2	3.7	5.0	5.3	4.9	5.7	6.5	7.0	7.0	6.4	7.0	9.9	10.2	9.6	9.4	8.7	6.8	10.2	2.3	6.0
<b>Max.</b>	<b>30.1</b>	<b>29.2</b>	<b>29.8</b>	<b>25.7</b>	<b>28.0</b>	<b>27.5</b>	<b>27.0</b>	<b>25.3</b>	<b>25.1</b>	<b>25.2</b>	<b>25.1</b>	<b>21.3</b>	<b>24.1</b>	<b>24.0</b>	<b>59.2</b>	<b>26.2</b>	<b>23.1</b>	<b>24.0</b>	<b>24.8</b>	<b>23.9</b>	<b>22.8</b>	<b>25.3</b>	<b>24.4</b>	<b>29.2</b>	<b>59.2</b>		
<b>Min.</b>	<b>0.8</b>	<b>0.7</b>	<b>1.0</b>	<b>1.3</b>	<b>1.1</b>	<b>1.5</b>	<b>1.2</b>	<b>1.2</b>	<b>1.2</b>	<b>1.5</b>	<b>1.1</b>	<b>1.3</b>	<b>1.1</b>	<b>1.0</b>	<b>1.2</b>	<b>0.9</b>	<b>1.8</b>	<b>1.7</b>	<b>1.4</b>	<b>1.7</b>	<b>1.5</b>	<b>1.3</b>	<b>1.0</b>	<b>0.9</b>		<b>0.7</b>	
<b>Avg.</b>	<b>8.7</b>	<b>8.6</b>	<b>8.9</b>	<b>8.8</b>	<b>8.6</b>	<b>9.0</b>	<b>8.8</b>	<b>8.3</b>	<b>8.3</b>	<b>7.7</b>	<b>7.9</b>	<b>8.0</b>	<b>8.1</b>	<b>8.4</b>	<b>10.8</b>	<b>9.0</b>	<b>8.2</b>	<b>8.3</b>	<b>8.3</b>	<b>8.7</b>	<b>8.6</b>	<b>8.8</b>	<b>8.7</b>	<b>9.0</b>			<b>8.6</b>

**Total Hours in Month** 744 **Hours Data Available** 744 **Data Recovery** 100.0%

# Northern Dynasty Mines Pebble 1 Meterological Station - Maximum Instantaneous Wind Speed (Climtrncs) (m/s)

*February 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	5.5	7.0	8.1	9.6	10.6	10.1	13.0	12.2	13.2	14.6	16.9	16.4	17.1	15.3	14.3	14.3	17.2	16.6	16.2	15.3	14.5	16.1	15.2	15.1	17.2	5.5	13.5	
2	15.3	14.1	12.7	10.9	10.7	8.6	9.0	9.8	8.4	7.8	7.4	6.6	4.7	5.0	4.7	2.9	2.5	2.9	3.3	4.2	3.9	6.5	10.0	11.3	15.3	2.5	7.6	
3	16.3	14.1	17.2	18.4	18.2	21.7	24.0	23.6	23.1	23.9	18.5	19.3	17.5	15.5	16.9	17.6	14.7	17.9	18.7	20.8	20.2	21.3	23.1	22.4	24.0	14.1	19.4	
4	23.7	21.4	23.7	24.5	27.0	29.0	27.0	26.7	32.2	31.2	31.3	32.0	36.1	38.8	31.9	35.1	37.0	37.3	40.8	33.1	31.3	33.7	31.7	28.0	40.8	21.4	31.0	
5	27.4	26.7	24.7	30.3	29.9	29.5	27.9	24.3	25.6	22.1	18.9	25.3	24.3	25.6	23.9	20.7	21.0	19.7	16.9	16.2	16.2	21.8	26.5	23.7	30.3	16.2	23.7	
6	17.6	15.0	12.9	14.5	13.1	10.5	10.0	7.6	7.7	12.4	15.3	18.3	20.9	21.0	20.3	17.3	16.5	15.0	12.3	10.1	9.5	8.8	9.2	9.0	21.0	7.6	13.5	
7	8.2	7.3	8.5	10.0	9.7	10.8	12.7	12.0	11.1	10.9	14.1	15.3	13.8	13.2	10.3	11.7	10.6	5.7	5.1	4.7	3.5	3.4	5.4	5.4	15.3	3.4	9.3	
8	3.2	2.5	5.0	5.2	4.5	5.7	5.9	6.9	7.7	7.7	9.2	9.2	21.6	24.0	27.6	29.1	34.2	32.0	34.5	34.5	35.1	36.7	37.1	37.5	37.5	2.5	19.0	
9	33.8	36.2	36.0	39.4	36.0	29.0	27.1	24.0	18.2	15.1	15.3	13.2	16.2	14.7	14.0	14.6	17.0	21.1	21.4	22.3	30.5	33.7	36.2	37.0	39.4	13.2	25.1	
10	42.5	37.6	35.7	35.0	31.2	34.6	33.4	29.6	26.4	19.0	18.6	22.6	21.4	22.3	22.0	22.9	23.1	24.9	21.6	21.2	21.5	22.7	22.5	23.1	42.5	18.6	26.5	
11	19.6	19.7	17.7	15.0	10.0	3.1	4.3	4.6	5.2	7.7	10.2	9.8	8.5	6.4	6.5	6.1	4.2	3.5	3.9	4.7	2.2	2.7	4.1	5.4	19.7	2.2	7.7	
12	3.6	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	3.6	0.2	0.4	
13	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	8.5	10.5	14.9	16.4	20.9	23.3	22.2	24.0	25.3	25.4	27.2	27.0	28.0	28.0	0.2	11.5	
14	26.9	29.0	32.0	28.5	29.9	27.7	27.0	29.5	29.1	27.9	28.5	24.7	23.3	23.9	26.2	28.3	29.3	27.7	26.0	27.0	26.8	26.9	27.9	29.3	32.0	23.3	27.6	
15	30.4	27.8	27.7	26.8	26.0	28.3	28.5	28.9	30.0	30.4	33.6	33.1	39.1	39.9	36.4	34.3	32.4	30.9	29.9	24.9	25.6	21.6	17.7	13.2	39.9	13.2	29.1	
16	10.1	7.8	7.1	5.3	2.8	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	10.1	0.2	1.6	
17	0.2	0.2	13.4	9.0	11.2	16.1	20.1	23.3	27.8	26.3	24.7	25.0	27.5	27.8	30.3	30.8	28.1	25.9	25.1	26.9	27.0	25.3	21.7	22.5	30.8	0.2	21.5	
18	18.5	17.1	17.2	14.8	14.3	16.4	18.9	20.3	24.2	27.0	29.9	27.5	30.6	32.0	29.0	26.9	23.5	20.3	17.0	21.1	17.3	20.6	20.3	20.7	32.0	14.3	21.9	
19	16.3	12.6	9.9	11.1	12.0	11.7	10.5	13.6	11.1	9.1	10.0	10.2	6.2	11.0	11.1	9.8	10.4	12.8	9.2	9.3	8.8	10.3	11.4	10.9	16.3	6.2	10.8	
20	9.8	7.3	7.6	6.8	6.0	5.4	5.2	5.1	4.8	5.0	5.2	4.2	6.7	6.5	7.9	10.5	8.7	8.3	9.7	10.2	13.7	13.9	14.8	14.2	14.8	4.2	8.2	
21	13.6	13.5	15.3	15.3	14.4	9.4	8.6	8.4	8.1	3.7	3.4	3.3	12.5	14.6	12.3	11.7	8.9	8.3	10.8	11.7	9.9	8.6	8.8	10.5	15.3	3.3	10.2	
22	8.0	5.3	7.9	10.7	13.1	13.6	14.0	13.3	14.4	12.9	10.2	8.6	9.6	9.2	9.0	10.1	12.8	12.4	10.0	8.7	10.3	9.2	6.4	6.4	14.4	5.3	10.2	
23	7.8	9.3	8.5	8.8	7.8	8.3	11.3	9.0	8.4	7.1	6.8	9.7	9.2	9.2	10.5	13.4	12.2	10.8	10.4	10.0	8.3	9.7	13.0	12.8	13.4	6.8	9.7	
24	11.1	8.1	9.2	7.9	7.5	7.8	8.2	8.4	5.9	4.5	4.8	3.9	3.8	2.4	2.2	2.0	2.2	2.8	2.7	2.4	3.4	3.3	4.3	7.9	11.1	2.0	5.3	
25	5.9	5.2	7.4	8.2	9.1	7.1	6.4	6.1	4.4	4.8	9.7	14.0	19.3	16.1	16.2	18.9	15.6	13.6	8.7	7.9	10.6	11.4	11.3	12.4	19.3	4.4	10.4	
26	12.5	11.5	10.3	10.0	9.2	7.1	7.2	8.2	7.7	6.4	8.5	9.6	8.8	8.9	6.3	3.1	4.9	6.4	9.2	9.5	8.6	8.1	9.6	11.3	12.5	3.1	8.5	
27	11.0	9.2	11.1	13.6	18.7	24.8	24.0	20.8	21.5	22.9	22.7	23.8	24.1	21.5	22.8	23.3	24.7	22.8	23.1	24.7	25.7	25.9	24.1	25.3	25.9	9.2	21.3	
28	23.3	22.7	26.6	23.0	22.5	28.2	26.4	24.9	20.1	21.8	24.7	21.9	20.1	19.7	21.6	22.0	22.2	21.4	19.2	19.0	16.9	13.8	11.4	11.5	28.2	11.4	21.0	
<b>Max.</b>	<b>42.5</b>	<b>37.6</b>	<b>36.0</b>	<b>39.4</b>	<b>36.0</b>	<b>34.6</b>	<b>33.4</b>	<b>29.6</b>	<b>32.2</b>	<b>31.2</b>	<b>33.6</b>	<b>33.1</b>	<b>39.1</b>	<b>39.9</b>	<b>36.4</b>	<b>35.1</b>	<b>37.0</b>	<b>37.3</b>	<b>40.8</b>	<b>34.5</b>	<b>35.1</b>	<b>36.7</b>	<b>37.1</b>	<b>37.5</b>	<b>42.5</b>			
<b>Min.</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>		<b>0.2</b>		
<b>Avg.</b>	<b>15.1</b>	<b>13.9</b>	<b>14.8</b>	<b>14.7</b>	<b>14.5</b>	<b>14.5</b>	<b>14.7</b>	<b>14.3</b>	<b>14.2</b>	<b>13.7</b>	<b>14.2</b>	<b>14.9</b>	<b>16.2</b>	<b>16.4</b>	<b>16.1</b>	<b>16.4</b>	<b>16.3</b>	<b>15.8</b>	<b>15.4</b>	<b>15.2</b>	<b>15.3</b>	<b>15.8</b>	<b>16.1</b>	<b>16.3</b>				<b>15.2</b>
<b>Total Hours in Month</b>			672				<b>Hours Data Available</b>						672				<b>Data Recovery</b> 100.0%											



# Northern Dynasty Mines Pebble 1 Meterological Station - Maximum Instantaneous Wind Speed (Climtrncs) (m/s)

*March 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.		
1	12.7	11.2	10.9	11.2	12.4	13.1	10.6	7.0	5.9	4.3	2.7	1.5	3.2	4.2	5.3	6.4	8.4	7.5	9.2	12.7	15.7	14.5	18.0	20.5	20.5	1.5	9.5		
2	16.8	18.3	16.5	16.0	18.1	15.9	16.6	16.6	16.0	14.9	15.8	15.7	15.9	17.6	16.3	13.1	12.0	11.6	12.2	11.7	12.3	11.4	12.1	11.8	18.3	11.4	14.8		
3	10.2	10.2	10.6	10.5	10.2	9.8	7.3	6.7	8.5	9.8	9.9	9.6	10.8	10.2	11.2	9.3	8.1	6.4	5.4	4.4	3.9	2.8	1.7	1.9	11.2	1.7	7.9		
4	2.1	3.0	2.8	3.8	6.4	8.2	8.0	8.2	7.6	6.7	8.1	7.6	9.0	9.2	9.5	10.4	12.1	11.0	11.3	11.7	12.5	11.1	9.8	9.3	12.5	2.1	8.3		
5	8.6	8.3	6.3	5.1	5.1	5.9	5.0	4.4	4.6	4.0	4.1	3.6	3.6	3.5	3.6	4.3	4.4	4.8	3.5	4.2	2.1	3.5	3.7	3.4	8.6	2.1	4.6		
6	4.1	3.9	2.6	2.9	3.4	3.2	2.1	1.6	1.6	1.6	3.1	2.6	1.9	2.1	1.1	0.7	1.3	1.3	1.3	2.2	1.5	1.6	2.6	2.6	4.1	0.7	2.2		
7	2.6	2.7	2.8	2.9	2.9	3.7	3.3	4.5	5.4	5.6	5.2	6.5	6.3	7.1	6.9	7.6	7.1	10.2	10.5	10.1	9.6	9.1	11.9	11.8	11.9	2.6	6.5		
8	15.3	20.0	20.7	21.2	18.6	16.9	19.3	18.7	18.2	16.6	16.1	18.0	15.7	14.4	14.1	15.0	14.3	17.2	18.6	19.2	19.0	18.8	20.5	20.4	21.2	14.1	17.8		
9	18.6	18.2	20.2	20.8	19.4	19.3	18.1	18.6	18.9	21.8	17.9	19.3	21.0	21.1	21.0	18.6	16.2	20.9	19.2	19.9	18.9	20.9	17.9	17.2	21.8	16.2	19.3		
10	13.5	14.8	13.9	12.0	11.4	10.1	10.4	11.8	11.8	8.8	7.4	6.9	7.7	6.7	5.9	7.2	4.1	4.4	6.5	6.4	6.8	10.9	13.9	15.0	15.0	4.1	9.5		
11	15.5	19.4	26.5	24.0	22.4	21.4	24.5	28.5	27.6	29.9	27.4	26.1	27.9	25.5	28.4	26.8	24.5	24.8	22.7	25.2	24.4	23.1	18.7	22.4	29.9	15.5	24.5		
12	22.1	22.4	24.0	24.5	17.1	16.7	16.6	15.6	14.5	14.1	14.0	11.0	10.0	8.7	8.9	4.4	5.5	4.9	4.7	5.5	3.3	2.9	2.7	3.6	24.5	2.7	11.6		
13	2.5	1.8	2.0	2.1	2.6	2.8	2.5	1.9	3.0	3.0	2.4	2.3	2.7	3.0	3.4	3.8	5.1	6.4	6.6	8.2	6.8	8.4	8.8	9.4	9.4	1.8	4.2		
14	9.2	8.1	8.8	9.4	7.7	6.2	7.2	6.1	5.4	5.3	5.7	4.2	3.1	3.8	4.8	3.3	4.4	4.4	4.5	3.1	2.5	2.5	1.9	2.0	9.4	1.9	5.1		
15	2.1	2.9	3.4	3.3	3.6	2.5	2.1	2.1	2.1	2.7	2.9	2.2	1.8	2.2	2.8	3.0	3.0	4.9	4.5	6.0	4.8	6.1	7.8	8.8	8.8	1.8	3.7		
16	10.4	10.7	8.9	6.5	6.7	7.4	6.7	5.7	4.1	4.9	6.2	6.4	8.8	10.2	12.1	13.2	12.8	13.5	12.6	14.4	13.8	12.9	14.1	12.6	14.4	4.1	9.8		
17	12.9	12.4	12.3	12.1	12.1	11.3	11.4	11.4	12.4	12.3	13.3	12.0	10.1	11.1	13.6	15.2	14.5	14.9	16.5	16.6	17.3	18.7	19.1	17.6	19.1	10.1	13.8		
18	17.7	17.8	14.4	11.5	11.5	11.2	9.2	4.6	6.2	7.7	7.2	6.5	4.0	2.6	1.6	2.3	7.7	7.3	2.9	4.4	3.3	2.8	2.9	3.7	17.8	1.6	7.1		
19	3.0	2.3	2.1	2.5	2.9	2.6	2.7	3.2	4.6	6.8	11.3	16.2	17.3	14.9	19.2	19.2	17.5	14.7	12.8	11.4	10.5	11.0	12.5	13.5	19.2	2.1	9.8		
20	16.9	13.3	11.0	10.1	8.2	7.9	8.5	7.8	6.3	4.6	3.8	3.2	2.8	6.4	6.0	0.2	0.2	12.9	13.5	16.8	18.8	27.0	22.6	19.7	27.0	0.2	10.4		
21	19.4	18.1	19.9	19.3	20.1	20.7	20.6	19.6	19.2	18.5	15.1	13.9	12.7	9.7	10.9	11.1	10.4	11.5	12.7	11.4	12.0	8.9	7.5	14.6	20.7	7.5	14.9		
22	15.2	13.8	11.4	13.2	17.4	19.3	21.1	21.0	17.9	21.7	21.6	20.2	19.7	18.9	19.1	19.7	13.7	13.9	11.6	8.6	7.2	7.3	7.5	6.8	21.7	6.8	15.3		
23	4.4	3.8	4.4	5.4	6.6	5.0	3.9	3.5	3.6	4.6	5.0	5.2	2.5	3.4	3.2	4.0	8.0	9.2	9.0	5.5	6.0	11.7	13.2	14.7	14.7	2.5	6.1		
24	12.2	13.4	12.7	11.6	12.3	9.1	13.0	15.8	13.0	10.4	14.9	15.9	13.4	12.0	11.2	13.8	12.8	14.9	14.4	12.2	12.2	9.0	9.0	8.2	15.9	8.2	12.4		
25	10.4	8.2	7.8	9.7	9.2	10.1	10.5	11.1	12.1	11.6	12.2	10.7	10.4	10.6	10.0	11.1	11.5	12.3	11.8	10.7	11.9	11.6	9.1	10.0	12.3	7.8	10.6		
26	9.8	8.0	7.6	7.7	8.4	9.1	9.4	10.0	9.2	8.7	9.3	7.8	7.3	6.8	5.9	5.6	5.1	5.6	5.8	5.9	5.3	3.7	3.5	2.7	10.0	2.7	7.0		
27	4.0	4.1	4.0	4.2	4.4	4.5	4.2	4.6	3.1	2.5	2.5	2.8	3.3	2.5	2.0	2.3	2.7	3.2	3.8	5.1	4.2	3.1	2.8	3.2	5.1	2.0	3.5		
28	4.3	6.4	5.9	6.2	8.8	8.3	7.8	6.5	6.2	6.3	6.8	4.5	4.5	3.7	4.1	2.6	2.4	2.1	2.0	2.4	3.7	4.8	5.3	4.4	8.8	2.0	5.0		
29	4.8	4.8	4.6	5.1	5.6	5.1	6.0	6.0	5.7	4.4	3.6	2.7	2.2	2.5	2.5	2.1	2.6	3.1	4.5	4.4	3.0	4.4	8.8	12.4	12.4	2.1	4.6		
30	15.4	15.3	15.1	16.6	19.1	21.7	23.3	21.6	21.9	22.2	24.7	28.8	31.5	31.9	32.8	36.2	37.6	38.9	38.3	40.0	38.0	38.1	37.7	36.8	40.0	15.1	28.5		
31	36.4	35.2	33.8	32.3	30.6	30.2	29.4	27.4	25.2	21.7	7.6	7.1	5.7	6.0	5.1	5.5	5.5	5.4	6.0	4.4	2.6	2.3	4.2	7.5	36.4	2.3	15.7		
<b>Max.</b>	<b>36.4</b>	<b>35.2</b>	<b>33.8</b>	<b>32.3</b>	<b>30.6</b>	<b>30.2</b>	<b>29.4</b>	<b>28.5</b>	<b>27.6</b>	<b>29.9</b>	<b>27.4</b>	<b>28.8</b>	<b>31.5</b>	<b>31.9</b>	<b>32.8</b>	<b>36.2</b>	<b>37.6</b>	<b>38.9</b>	<b>38.3</b>	<b>40.0</b>	<b>38.0</b>	<b>38.1</b>	<b>37.7</b>	<b>36.8</b>	<b>40.0</b>				
<b>Min.</b>	<b>2.1</b>	<b>1.8</b>	<b>2.0</b>	<b>2.1</b>	<b>2.6</b>	<b>2.5</b>	<b>2.1</b>	<b>1.6</b>	<b>1.6</b>	<b>1.6</b>	<b>2.4</b>	<b>1.5</b>	<b>1.8</b>	<b>2.1</b>	<b>1.1</b>	<b>0.2</b>	<b>0.2</b>	<b>1.3</b>	<b>1.3</b>	<b>2.2</b>	<b>1.5</b>	<b>1.6</b>	<b>1.7</b>	<b>1.9</b>		<b>0.2</b>			
<b>Avg.</b>	<b>11.4</b>	<b>11.4</b>	<b>11.2</b>	<b>11.1</b>	<b>11.1</b>	<b>10.9</b>	<b>11.0</b>	<b>10.7</b>	<b>10.4</b>	<b>10.3</b>	<b>9.9</b>	<b>9.7</b>	<b>9.6</b>	<b>9.4</b>	<b>9.8</b>	<b>9.6</b>	<b>9.5</b>	<b>10.5</b>	<b>10.3</b>	<b>10.5</b>	<b>10.1</b>	<b>10.5</b>	<b>10.7</b>	<b>11.2</b>				<b>10.4</b>	

**Total Hours in Month** 744      **Hours Data Available** 744      **Data Recovery** 100.0%



# Northern Dynasty Mines Pebble 1 Meterological Station - Maximum Instantaneous Wind Speed (Climtrncs) (m/s)

*May 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	16.1	17.0	17.8	19.2	20.3	23.3	26.3	26.8	24.7	23.8	26.6	28.8	29.5	28.4	23.2	20.0	20.0	20.0	15.2	14.8	12.6	10.9	11.1	10.6	29.5	10.6	20.3
2	12.6	13.3	13.6	10.7	7.5	11.6	11.0	7.3	3.7	3.0	7.2	13.2	14.6	14.7	17.7	17.3	14.1	13.0	12.5	14.1	16.9	14.1	13.9	13.3	17.7	3.0	12.1
3	14.7	14.8	16.5	16.5	14.1	9.9	8.6	6.8	4.7	4.9	4.9	6.6	7.6	7.5	8.2	7.5	6.1	9.0	8.5	6.7	5.7	4.7	3.7	2.6	16.5	2.6	8.4
4	3.1	2.4	1.5	1.5	3.5	14.0	15.7	18.6	19.4	20.5	17.6	17.7	19.9	19.4	16.8	18.6	18.2	21.0	23.4	23.2	24.7	24.3	25.8	25.9	25.9	1.5	16.5
5	25.5	28.3	29.9	31.0	28.5	28.7	24.1	21.3	22.0	22.7	22.0	22.5	21.5	20.4	20.1	20.1	17.5	16.8	15.5	15.0	11.4	8.9	7.6	6.3	31.0	6.3	20.3
6	5.2	4.6	2.0	2.2	1.3	1.0	1.1	0.7	2.9	3.0	7.1	8.1	8.8	9.1	10.2	10.2	9.2	10.6	10.8	11.1	11.7	12.2	11.5	11.0	12.2	0.7	6.9
7	11.2	11.1	11.6	11.8	12.8	10.8	9.7	10.4	10.9	10.8	9.2	11.4	9.7	9.0	10.1	8.2	7.2	7.5	6.9	5.9	6.2	6.7	4.0	1.1	12.8	1.1	8.9
8	1.7	1.8	2.2	3.4	3.3	2.7	3.1	4.5	6.4	6.1	8.6	10.2	11.4	9.5	7.6	6.7	7.0	13.5	15.6	13.5	9.7	9.2	8.4	7.2	15.6	1.7	7.2
9	6.3	6.5	11.0	11.0	11.3	13.2	12.3	13.2	12.3	11.8	10.9	9.1	7.9	9.4	7.9	5.1	3.2	3.4	5.4	2.7	3.8	6.1	9.7	12.4	13.2	2.7	8.6
10	9.7	5.2	3.1	3.7	3.1	3.8	2.3	2.1	2.9	2.5	2.1	3.6	2.9	7.1	5.9	12.8	9.7	9.8	8.2	8.2	4.4	5.2	4.9	5.3	12.8	2.1	5.4
11	5.8	3.6	3.5	3.2	2.3	2.7	3.3	2.8	2.2	3.2	3.3	2.5	3.3	3.7	3.7	6.0	7.8	7.1	11.4	4.6	10.2	8.3	9.2	8.1	11.4	2.2	5.1
12	8.5	12.3	12.0	11.0	11.8	11.7	11.2	10.9	12.3	11.6	10.9	11.5	12.2	11.5	11.6	12.4	12.6	11.4	10.2	10.3	11.7	10.2	10.3	9.7	12.6	8.5	11.2
13	8.1	10.1	9.0	8.6	8.1	6.4	5.0	4.4	2.2	2.7	3.8	3.9	2.1	2.5	3.7	5.4	5.2	4.7	3.6	5.4	5.2	4.4	3.5	3.1	10.1	2.1	5.0
14	3.4	4.4	4.7	5.3	3.6	5.9	4.7	5.0	7.3	6.9	7.2	8.1	9.0	9.9	10.6	10.0	13.1	12.2	12.2	14.3	14.1	17.7	17.5	12.2	17.7	3.4	9.1
15	8.7	6.6	6.8	5.8	3.5	2.9	2.8	2.9	3.3	4.4	4.8	3.2	2.7	2.7	3.7	4.5	4.0	5.8	5.5	4.5	5.8	5.5	11.0	11.8	11.8	2.7	5.1
16	10.2	3.9	2.9	6.0	4.3	5.3	5.1	4.7	6.0	4.8	3.9	2.5	3.5	3.5	3.2	3.0	3.9	5.9	5.4	5.7	4.1	4.6	4.3	4.8	10.2	2.5	4.7
17	3.9	3.9	4.0	2.8	3.7	4.0	4.4	3.8	4.8	6.4	9.0	9.4	11.0	11.0	10.6	11.2	11.6	10.3	10.2	10.2	8.6	9.1	7.5	7.4	11.6	2.8	7.4
18	6.0	5.8	5.1	5.6	5.6	4.7	3.7	2.2	2.9	4.4	5.7	7.4	6.7	8.0	11.9	9.7	10.2	12.6	10.0	10.7	10.6	10.5	8.7	7.4	12.6	2.2	7.3
19	5.5	5.2	4.5	2.1	2.8	2.3	1.6	3.0	5.5	8.4	9.0	12.7	15.4	16.3	26.3	26.2	21.1	20.2	23.0	23.2	23.0	18.6	19.4	16.1	26.3	1.6	13.0
20	16.5	17.7	15.0	14.7	16.0	19.8	19.3	19.9	20.1	19.3	18.3	18.1	15.2	15.1	15.4	11.7	10.2	6.8	4.3	3.6	8.3	10.6	10.9	11.4	20.1	3.6	14.1
21	12.3	12.2	12.4	12.3	13.3	14.2	17.0	18.0	19.3	19.3	20.2	26.2	26.2	24.1	23.2	19.9	21.6	22.2	22.1	21.8	17.9	17.2	18.9	18.1	26.2	12.2	18.7
22	17.9	17.6	17.2	15.3	15.5	17.8	19.1	20.1	20.1	18.7	19.8	21.8	23.5	17.4	16.6	15.6	16.4	15.4	16.1	14.4	16.3	14.5	13.7	13.1	23.5	13.1	17.2
23	13.4	9.9	8.5	5.6	5.0	4.4	5.2	5.7	5.6	6.3	7.0	7.0	7.8	6.6	7.1	8.4	8.5	11.4	11.5	9.8	7.9	9.3	7.2	7.1	13.4	4.4	7.8
24	7.6	6.6	4.3	5.3	4.7	3.0	2.5	4.3	5.1	3.6	3.4	3.5	3.6	4.5	4.4	5.4	8.1	8.4	6.9	7.8	8.7	7.7	5.6	5.5	8.7	2.5	5.4
25	6.2	6.5	5.7	7.3	6.9	6.2	6.2	5.6	4.6	4.5	4.1	6.1	5.8	5.1	4.8	8.2	7.8	7.9	8.3	7.2	4.8	6.3	5.7	6.6	8.3	4.1	6.2
26	5.8	7.8	6.6	7.8	8.4	6.3	6.2	7.3	8.4	10.6	11.8	13.6	13.1	12.4	16.5	14.5	14.3	15.1	14.4	12.7	10.7	10.3	10.8	13.5	16.5	5.8	10.8
27	10.9	10.7	14.7	15.8	16.9	15.8	15.7	16.4	13.4	13.3	14.8	18.9	19.0	20.0	20.4	19.4	20.3	17.6	15.7	13.0	13.9	9.4	10.4	11.1	20.4	9.4	15.3
28	10.9	6.8	4.3	3.8	5.8	5.6	6.2	9.0	7.6	5.7	3.9	4.9	7.3	8.3	6.8	7.6	8.2	6.5	7.8	8.0	8.4	8.3	7.2	7.7	10.9	3.8	6.9
29	6.6	6.8	7.6	7.7	10.8	9.2	9.1	8.5	9.1	10.5	10.5	10.8	11.8	12.0	11.1	11.0	10.4	10.6	10.1	10.3	9.2	9.9	9.5	7.8	12.0	6.6	9.6
30	7.6	7.5	7.0	6.2	4.1	5.0	4.0	7.7	7.8	8.7	9.0	9.3	11.0	11.6	12.4	11.9	9.8	9.3	9.2	8.7	7.6	7.6	7.1	11.0	12.4	4.0	8.4
31	9.7	10.6	11.2	9.2	11.0	11.8	11.2	10.0	9.6	12.3	12.3	10.3	8.7	8.0	10.1	7.3	7.6	7.8	5.4	4.7	5.1	5.0	3.0	3.5	12.3	3.0	8.6
<b>Max.</b>	<b>25.5</b>	<b>28.3</b>	<b>29.9</b>	<b>31.0</b>	<b>28.5</b>	<b>28.7</b>	<b>26.3</b>	<b>26.8</b>	<b>24.7</b>	<b>23.8</b>	<b>26.6</b>	<b>28.8</b>	<b>29.5</b>	<b>28.4</b>	<b>26.3</b>	<b>26.2</b>	<b>21.6</b>	<b>22.2</b>	<b>23.4</b>	<b>23.2</b>	<b>24.7</b>	<b>24.3</b>	<b>25.8</b>	<b>25.9</b>	<b>31.0</b>		
<b>Min.</b>	<b>1.7</b>	<b>1.8</b>	<b>1.5</b>	<b>1.5</b>	<b>1.3</b>	<b>1.0</b>	<b>1.1</b>	<b>0.7</b>	<b>2.2</b>	<b>2.5</b>	<b>2.1</b>	<b>2.5</b>	<b>2.1</b>	<b>2.5</b>	<b>3.2</b>	<b>3.0</b>	<b>3.2</b>	<b>3.4</b>	<b>3.6</b>	<b>2.7</b>	<b>3.8</b>	<b>4.4</b>	<b>3.0</b>	<b>1.1</b>		<b>0.7</b>	
<b>Avg.</b>	<b>9.4</b>	<b>9.1</b>	<b>8.9</b>	<b>8.8</b>	<b>8.7</b>	<b>9.2</b>	<b>9.0</b>	<b>9.2</b>	<b>9.3</b>	<b>9.5</b>	<b>10.0</b>	<b>11.1</b>	<b>11.4</b>	<b>11.2</b>	<b>11.7</b>	<b>11.5</b>	<b>11.1</b>	<b>11.4</b>	<b>11.1</b>	<b>10.5</b>	<b>10.3</b>	<b>9.9</b>	<b>9.7</b>	<b>9.4</b>			<b>10.1</b>

**Total Hours in Month** 744      **Hours Data Available** 744      **Data Recovery** 100.0%

# Northern Dynasty Mines Pebble 1 Meterological Station - Maximum Instantaneous Wind Speed (Climtrncs) (m/s)

*June 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.		
1	2.7	2.1	3.5	3.9	3.4	3.6	4.4	4.8	4.7	5.6	5.7	7.8	7.0	6.2	6.4	7.3	6.8	7.3	10.7	7.8	8.7	9.3	8.1	3.5	10.7	2.1	5.9		
2	3.7	4.1	4.1	3.8	4.2	4.3	5.4	4.5	5.4	6.4	8.9	9.8	10.5	9.1	10.1	10.2	10.4	11.6	12.6	11.6	10.5	8.9	9.8	9.2	12.6	3.7	7.9		
3	10.2	12.7	10.8	14.2	14.2	13.7	15.0	17.7	18.6	17.9	18.0	18.0	15.9	15.8	17.6	17.1	15.3	16.0	16.5	15.8	15.4	14.5	12.5	11.6	18.6	10.2	15.2		
4	11.4	10.8	10.4	11.5	10.3	11.3	13.6	14.7	14.4	15.8	17.2	18.6	16.9	17.6	17.1	16.4	17.3	16.6	15.0	13.9	13.9	12.0	11.4	13.1	18.6	10.3	14.2		
5	13.5	13.3	13.0	8.1	8.6	7.9	8.9	9.0	8.8	8.6	7.8	6.8	7.2	7.9	8.6	8.8	7.9	8.0	6.7	6.5	5.3	4.6	4.9	4.7	13.5	4.6	8.1		
6	4.4	4.5	4.9	4.3	3.4	3.7	4.0	4.6	6.1	6.0	7.6	11.1	13.1	13.8	15.1	15.6	13.7	14.4	16.2	15.8	15.4	13.8	13.4	13.3	16.2	3.4	9.9		
7	11.5	13.8	17.5	17.5	18.9	18.5	13.4	17.6	20.2	20.1	21.5	22.2	21.2	22.0	21.6	22.1	18.2	20.0	19.7	18.4	15.4	13.1	13.9	15.9	22.2	11.5	18.1		
8	18.7	20.9	22.7	21.1	20.9	21.6	20.5	23.0	23.0	24.8	24.9	24.0	26.2	29.4	26.6	24.8	26.2	27.3	27.2	29.0	31.7	31.6	32.8	33.2	33.2	18.7	25.5		
9	31.0	28.6	30.5	29.8	27.2	26.5	29.5	27.6	29.1	29.9	29.0	30.6	31.8	32.5	32.9	30.5	31.6	31.7	26.3	28.1	26.6	27.4	27.5	27.2	32.9	26.3	29.3		
10	22.0	22.3	22.7	22.8	25.0	24.0	22.7	27.0	27.1	27.2	24.0	26.3	26.9	28.2	28.3	27.1	24.7	27.5	27.1	23.7	23.6	25.4	25.7	24.3	28.3	22.0	25.2		
11	25.5	27.1	26.9	28.5	27.4	29.1	27.0	27.2	26.7	26.7	27.6	27.6	26.0	25.2	24.7	25.5	24.0	22.8	23.0	22.0	21.6	20.3	17.9	20.5	29.1	17.9	25.0		
12	21.3	20.1	18.8	17.4	16.4	16.0	16.7	15.3	15.8	14.9	16.2	12.6	15.6	16.8	16.2	16.0	15.2	14.9	10.0	10.3	11.6	7.6	9.0	7.1	21.3	7.1	14.7		
13	7.3	7.3	6.2	6.7	6.4	6.3	5.6	6.2	11.4	11.6	7.7	7.8	7.6	8.7	9.4	8.9	7.6	7.2	6.4	5.0	3.1	2.7	1.6	3.5	11.6	1.6	6.8		
14	3.9	2.5	2.5	2.2	2.7	3.2	2.6	2.7	3.3	4.0	4.7	6.5	6.1	5.2	3.7	4.4	5.5	5.0	7.2	2.8	2.6	3.8	5.3	5.5	7.2	2.2	4.1		
15	4.5	5.3	5.1	5.4	5.5	6.6	7.1	6.0	7.1	7.5	7.7	8.8	7.5	8.4	9.7	8.7	5.3	5.9	7.1	7.3	7.0	5.6	5.6	5.2	9.7	4.5	6.7		
16	5.3	5.9	5.5	4.8	6.0	6.0	6.2	5.3	5.0	5.6	7.1	9.6	11.5	13.1	12.5	13.0	14.0	14.1	14.6	13.9	12.7	11.3	9.3	7.8	14.6	4.8	9.2		
17	8.7	7.5	7.2	5.5	3.5	3.7	4.3	6.9	7.3	7.2	7.4	8.8	9.8	11.3	9.7	9.7	11.1	10.6	11.2	10.3	10.0	9.3	9.2	9.9	11.3	3.5	8.3		
18	6.6	3.6	3.5	3.4	3.3	3.8	2.5	3.3	5.5	7.8	8.7	11.7	14.0	13.3	15.7	20.7	23.9	20.3	22.1	20.1	18.3	16.9	10.4	5.2	23.9	2.5	11.0		
19	5.7	9.7	7.3	6.1	4.8	5.0	3.4	2.8	3.9	4.0	8.5	6.9	7.3	8.5	7.6	8.6	9.1	7.8	6.2	13.4	12.9	8.3	7.3	5.4	13.4	2.8	7.1		
20	5.4	7.4	8.9	4.8	4.2	3.2	3.1	2.9	3.5	3.0	4.3	5.4	9.1	7.7	17.7	15.5	13.6	12.3	11.4	12.5	11.1	10.7	10.0	8.7	17.7	2.9	8.2		
21	7.0	7.4	5.7	3.4	3.0	2.4	2.2	3.7	4.9	7.2	7.5	8.4	6.6	4.3	6.1	10.0	10.4	7.8	7.1	8.4	4.9	6.1	7.4	9.1	10.4	2.2	6.3		
22	11.1	12.5	9.9	7.8	7.5	7.7	8.4	7.6	7.8	6.7	6.3	8.3	9.9	11.8	12.6	13.4	11.3	11.8	11.8	10.7	10.5	9.4	8.7	7.8	13.4	6.3	9.6		
23	7.8	7.9	10.1	11.3	8.5	8.8	9.8	8.3	8.1	8.6	9.5	9.2	9.4	9.2	8.9	8.7	8.4	6.3	7.2	8.2	9.0	9.7	9.4	6.3	11.3	6.3	8.7		
24	5.4	5.1	4.8	6.3	5.8	2.5	2.1	3.6	5.5	5.9	6.6	6.6	7.0	4.8	5.8	6.8	8.2	6.2	4.8	3.1	4.0	3.5	3.4	3.6	8.2	2.1	5.1		
25	3.2	3.4	5.2	6.2	5.6	5.0	2.8	3.2	4.7	6.1	7.5	6.4	7.5	10.9	11.5	10.4	11.1	11.8	9.8	8.1	6.3	6.2	6.8	7.1	11.8	2.8	6.9		
26	7.2	6.6	5.6	5.7	4.3	3.5	2.9	3.0	4.6	7.3	5.5	7.6	7.0	6.9	6.0	6.4	5.6	5.3	9.4	9.2	8.5	9.2	8.2	9.7	9.7	2.9	6.5		
27	7.6	5.4	6.3	2.7	4.5	3.3	4.1	4.7	5.1	4.4	3.8	4.3	4.4	5.7	9.5	8.4	9.3	9.2	8.5	9.2	11.0	10.3	7.6	7.2	11.0	2.7	6.5		
28	6.8	5.9	6.4	6.5	2.4	2.3	4.9	7.2	9.3	8.3	8.7	10.6	9.1	10.6	8.0	7.4	8.8	6.3	4.8	7.6	8.6	5.1	7.6	6.8	10.6	2.3	7.1		
29	6.9	8.2	9.1	5.7	7.8	6.3	5.3	6.2	5.9	6.5	5.9	5.8	6.1	8.6	12.7	16.4	17.8	17.6	17.2	17.8	17.5	13.7	14.2	16.0	17.8	5.3	10.6		
30	15.4	13.9	14.2	14.1	13.0	13.2	13.1	13.9	11.5	9.6	10.2	10.8	10.9	8.6	8.1	5.9	6.1	5.9	4.8	3.5	3.7	3.8	2.9	3.7	15.4	2.9	9.2		
<b>Max.</b>	<b>31.0</b>	<b>28.6</b>	<b>30.5</b>	<b>29.8</b>	<b>27.4</b>	<b>29.1</b>	<b>29.5</b>	<b>27.6</b>	<b>29.1</b>	<b>29.9</b>	<b>29.0</b>	<b>30.6</b>	<b>31.8</b>	<b>32.5</b>	<b>32.9</b>	<b>30.5</b>	<b>31.6</b>	<b>31.7</b>	<b>27.2</b>	<b>29.0</b>	<b>31.7</b>	<b>31.6</b>	<b>32.8</b>	<b>33.2</b>	<b>33.2</b>				
<b>Min.</b>	<b>2.7</b>	<b>2.1</b>	<b>2.5</b>	<b>2.2</b>	<b>2.4</b>	<b>2.3</b>	<b>2.1</b>	<b>2.7</b>	<b>3.3</b>	<b>3.0</b>	<b>3.8</b>	<b>4.3</b>	<b>4.4</b>	<b>4.3</b>	<b>3.7</b>	<b>4.4</b>	<b>5.3</b>	<b>5.0</b>	<b>4.8</b>	<b>2.8</b>	<b>2.6</b>	<b>2.7</b>	<b>1.6</b>	<b>3.5</b>		<b>1.6</b>			
<b>Avg.</b>	<b>10.1</b>	<b>10.2</b>	<b>10.3</b>	<b>9.7</b>	<b>9.3</b>	<b>9.1</b>	<b>9.0</b>	<b>9.7</b>	<b>10.5</b>	<b>10.8</b>	<b>11.2</b>	<b>12.0</b>	<b>12.3</b>	<b>12.7</b>	<b>13.3</b>	<b>13.5</b>	<b>13.3</b>	<b>13.0</b>	<b>12.7</b>	<b>12.5</b>	<b>12.0</b>	<b>11.1</b>	<b>10.7</b>	<b>10.4</b>				<b>11.2</b>	

**Total Hours in Month**

720

**Hours Data Available**

720

**Data Recovery** 100.0%

**HCG, Inc.**

# Northern Dynasty Mines Pebble 1 Meterological Station - Maximum Instantaneous Wind Speed (Climtrncs) (m/s)

July 2006

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	3.8	2.3	3.8	4.7	3.5	3.1	2.2	2.5	3.0	2.9	2.9	3.6	4.5	6.1	4.9	6.4	6.9	7.1	9.3	7.3	7.6	7.7	7.8	6.8	9.3	2.2	5.0
2	3.3	3.7	4.4	3.8	3.7	4.3	4.6	5.1	7.2	7.4	8.1	9.4	10.4	9.9	10.0	10.7	12.2	13.9	13.4	12.6	10.4	10.1	11.0	11.3	13.9	3.3	8.4
3	13.1	13.0	10.9	8.1	7.9	6.8	6.2	6.3	7.8	8.8	7.1	6.7	7.2	6.4	6.2	6.0	8.4	7.4	7.2	6.9	6.7	6.0	3.2	3.1	13.1	3.1	7.4
4	2.7	2.1	2.1	2.5	2.7	2.2	1.7	2.9	3.3	4.4	4.6	5.9	7.5	7.2	6.3	9.4	8.6	9.1	9.2	8.3	8.6	7.6	7.5	4.5	9.4	1.7	5.5
5	4.2	2.5	2.1	3.2	3.1	3.5	3.8	3.2	3.0	3.5	4.1	4.3	4.6	10.4	6.5	9.9	15.5	6.2	3.8	2.8	3.1	2.9	2.7	4.0	15.5	2.1	4.7
6	2.2	3.8	4.4	3.1	3.1	1.7	3.2	2.9	4.0	4.8	4.6	6.8	6.7	9.2	9.6	9.9	8.4	9.4	4.9	4.0	5.4	4.6	6.2	6.3	9.9	1.7	5.4
7	6.3	5.0	6.2	7.0	7.6	6.0	5.3	7.7	9.6	10.3	10.7	8.8	10.2	11.1	10.5	10.5	11.2	10.2	8.1	6.8	8.4	9.1	7.7	9.9	11.2	5.0	8.5
8	10.4	10.8	7.8	11.3	11.0	6.6	7.6	7.1	7.2	7.0	4.3	3.8	4.0	4.4	3.7	4.7	4.5	4.4	4.9	5.6	4.0	6.3	5.7	4.2	11.3	3.7	6.3
9	2.0	2.9	4.2	3.9	4.7	4.7	4.6	4.7	4.6	3.8	5.3	6.8	9.0	9.1	10.9	11.6	11.8	11.7	12.9	12.7	15.4	14.7	15.2	18.3	18.3	2.0	8.6
10	18.4	19.6	19.7	18.4									21.0	19.5	32.9	47.3	22.0	21.9	21.6	20.2	18.5	18.3	13.9	14.2	47.3	13.9	21.7
11	13.5	10.8	8.4	10.0	10.3	7.2	7.3	8.2	7.1		7.7	7.5	8.0	8.7	9.5	9.1	8.7	8.2	6.6	6.3	5.8	4.6	5.3	4.0	13.5	4.0	7.9
12	4.6	4.8	2.3	1.8	2.5	3.0	4.5	5.3	7.0	5.1	6.2	6.7	7.5	7.9	7.5	7.6	9.2	12.2	12.1	10.0	8.6	8.7	4.9	5.8	12.2	1.8	6.5
13	6.0	5.6	5.3	5.3	4.8	5.7	4.3	8.7	9.7	8.8	7.2	9.1	8.5	9.5	9.2	9.2	9.4	10.9	11.7	12.9	12.9	11.7	13.5	16.9	16.9	4.3	9.0
14	15.7	14.5	13.6	13.4	11.8	11.5	12.2	10.3	8.9	8.4	9.1	9.3	8.9	8.5	8.6	9.8	10.8	10.0	10.2	10.5	10.9	10.9	10.7	9.6	15.7	8.4	10.8
15	8.7	6.7	6.5	6.8	5.8	5.5	6.2	7.0	6.4	6.5	7.2	7.4	7.6	8.3	7.3	7.8	8.8	9.2	8.0	6.8	7.1	5.9	5.9	7.0	9.2	5.5	7.1
16	7.7	7.7	8.4	8.3	10.6	14.5	14.5	14.9	16.2	17.4	17.6	17.6	18.8	19.6	19.9	20.8	20.6	18.0	16.7	14.1	13.0	11.9	11.8	10.6	20.8	7.7	14.6
17	12.5	13.3	15.7	15.7	17.0	17.3	17.0	18.3	18.5	21.0	22.5	23.1	20.9	21.5	18.6	19.8	20.2	18.8	18.9	19.3	17.2	16.9	18.2	26.6	26.6	12.5	18.7
18	24.0	22.3	22.8	23.3	16.4	16.5	17.4	21.4	19.6	21.6	22.8	22.1	21.6	23.3	20.2	20.9	20.3	19.7	19.1	19.3	20.2	17.4	17.5	15.5	24.0	15.5	20.2
19	17.4	15.5	14.8	11.7	10.1	6.6	5.5	5.6	4.7	5.8	10.0	10.8	9.2	9.1	7.6	8.0	8.0	7.5	8.1	6.4	4.6	4.1	3.3	2.9	17.4	2.9	8.2
20	3.6	5.2	5.3	5.2	5.0	6.4	6.5	7.7	8.2	8.8	9.7	12.2	11.2	10.7	10.0	9.1	8.9	8.6	8.1	7.9	8.4	8.0	9.0	8.1	12.2	3.6	8.0
21	6.9	6.0	4.8	4.1	1.5	1.6	1.3	3.3	5.2	5.2	6.3	7.2	4.3	10.1	9.0	10.8	10.4	9.8	9.4	10.0	9.2	5.0	6.4	4.4	10.8	1.3	6.3
22	4.3	3.2	1.7	2.2	3.4	3.1	3.1	4.4	5.2	5.7	8.2	6.3	7.0	8.8	9.0	8.7	8.0	6.6	7.7	10.0	11.9	11.3	11.5	12.2	12.2	1.7	6.8
23	13.3	13.6	11.8	12.2	13.0	13.1	14.1	10.0	9.4	5.7	4.1	3.7	3.7	9.1	5.8	5.3	5.0	5.5	5.9	3.2	3.0	2.9	3.2	5.1	14.1	2.9	7.6
24	3.8	7.0	5.3	9.5	10.1	7.6	7.4	6.8	7.8	4.7	2.8	4.3	5.4	7.2	7.8	7.7	8.6	7.2	8.3	9.0	12.1	11.7	11.9	10.3	12.1	2.8	7.7
25	11.5	13.3	13.0	12.8	6.3	5.2	3.3	7.5	7.5	8.1	9.7	9.7	10.3	8.6	9.2	9.7	8.1	7.2	6.9	4.7	4.0	4.1	4.1	4.5	13.3	3.3	7.9
26	4.4	3.7	4.0	4.7	4.6	3.3	2.6	2.5	3.7	7.0	7.7	7.1	7.6	8.1	9.3	10.1	11.2	11.7	10.9	10.2	8.1	7.6	7.9	9.4	11.7	2.5	7.0
27	9.4	8.7	7.4	6.2	6.6	3.4	3.6	2.3	2.1	3.7	3.1	5.4	6.0	5.2	6.4	5.6	5.6	5.3	4.5	5.3	3.8	3.2	2.8	1.7	9.4	1.7	4.9
28	2.7	2.2	2.4	1.8	1.8	1.7	3.1	3.8	7.2	6.9	6.9	8.5	10.8	11.3	12.1	11.0	12.0	13.7	15.6	15.5	16.8	15.8	15.5	15.8	16.8	1.7	9.0
29	16.1	16.2	17.9	19.7	18.7	17.9	16.8	15.0	14.2	13.9	10.5	9.7	11.7	13.1	11.3	15.0	15.7	15.5	17.0	15.7	15.0	13.6	11.6	9.7	19.7	9.7	14.6
30	9.8	11.4	8.6	9.4	8.0	5.3	2.9	3.6	2.7	3.7	5.5	6.1	6.8	7.9	10.3	14.7	14.4	16.4	15.3	17.3	16.1	14.9	12.2	9.2	17.3	2.7	9.7
31	9.3	8.2	8.9	8.1	6.7	7.6	6.9	6.2	7.6	8.4	8.4	7.6	7.1	11.1	10.2	8.7	7.3	5.7	5.3	4.9	3.8	3.4	2.5	3.7	11.1	2.5	7.0
<b>Max.</b>	<b>24.0</b>	<b>22.3</b>	<b>22.8</b>	<b>23.3</b>	<b>18.7</b>	<b>17.9</b>	<b>17.4</b>	<b>21.4</b>	<b>19.6</b>	<b>21.6</b>	<b>22.8</b>	<b>23.1</b>	<b>21.6</b>	<b>23.3</b>	<b>32.9</b>	<b>47.3</b>	<b>22.0</b>	<b>21.9</b>	<b>21.6</b>	<b>20.2</b>	<b>20.2</b>	<b>18.3</b>	<b>18.2</b>	<b>26.6</b>	<b>47.3</b>		
<b>Min.</b>	<b>2.0</b>	<b>2.1</b>	<b>1.7</b>	<b>1.8</b>	<b>1.5</b>	<b>1.6</b>	<b>1.3</b>	<b>2.3</b>	<b>2.1</b>	<b>2.9</b>	<b>2.8</b>	<b>3.6</b>	<b>3.7</b>	<b>4.4</b>	<b>3.7</b>	<b>4.7</b>	<b>4.5</b>	<b>4.4</b>	<b>3.8</b>	<b>2.8</b>	<b>3.0</b>	<b>2.9</b>	<b>2.5</b>	<b>1.7</b>		<b>1.3</b>	
<b>Avg.</b>	<b>8.8</b>	<b>8.6</b>	<b>8.2</b>	<b>8.3</b>	<b>7.4</b>	<b>6.8</b>	<b>6.7</b>	<b>7.2</b>	<b>7.6</b>	<b>7.9</b>	<b>8.2</b>	<b>8.6</b>	<b>9.3</b>	<b>10.3</b>	<b>10.3</b>	<b>11.5</b>	<b>11.0</b>	<b>10.6</b>	<b>10.4</b>	<b>9.9</b>	<b>9.7</b>	<b>9.1</b>	<b>8.7</b>	<b>8.9</b>			<b>8.9</b>

Total Hours in Month

744

Hours Data Available

735

Data Recovery

98.8%

HCG, Inc.

## Northern Dynasty Mines Pebble 1 Meterological Station - Maximum 1 Minute Wind Speed (m/s)

*August 2005*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.		
1	4.0	4.5	2.0	3.4	3.5	3.4	2.1	2.1	2.3	3.3	3.1	5.4	5.2	5.5	5.1	4.5	5.9	6.9	6.9	6.4	6.4	6.4	6.8	6.7	6.9	2.0	4.7		
2	10.5	11.8	10.9	10.0	10.3	9.3	8.8	8.3	6.8	6.9	8.5	6.0	8.4	8.0	6.3	8.2	6.5	4.4	3.9	6.1	4.9	7.1	5.6	4.4	11.8	3.9	7.6		
3	8.4	7.9	4.9	5.8	4.5	3.3	4.0	4.0	2.8	3.0	6.0	5.3	4.2	3.2	4.8	6.3	7.0	6.0	4.5	4.8	4.1	4.2	3.3	2.9	8.4	2.8	4.8		
4	2.8	3.4	3.6	3.1	3.2	4.8	2.2	2.0	2.2	2.9	3.0	4.1	2.3	2.4	3.1	3.4	4.9	8.5	4.2	3.8	3.6	3.3	2.3	1.9	8.5	1.9	3.4		
5	2.2	3.8	1.9	2.4	3.4	3.3	3.2	3.8	2.8	3.7	3.6	3.8	5.4	5.1	6.0	6.0	5.6	5.8	7.0	7.7	7.9	7.1	7.3	4.7	7.9	1.9	4.7		
6	2.4	5.3	3.7	2.4	1.7	2.1	2.7	2.7	3.4	3.0	3.5	2.6	2.2	4.7	5.5	7.3	5.6	5.5	5.1	6.5	4.7	3.6	3.0	3.4	7.3	1.7	3.9		
7	2.3	2.4	3.0	3.5	6.4	6.0	4.5	6.8	6.4	5.9	4.6	5.1	6.5	6.4	6.0	4.1	5.5	5.6	4.8	4.3	5.1	5.0	4.7	4.4	6.8	2.3	5.0		
8	3.7	3.6	3.2	4.0	3.9	3.4	3.6	3.6	3.8	4.1	3.1	2.9	3.9	3.6	4.6	4.8	5.6	5.3	4.6	3.7	3.1	2.3	3.8	3.9	5.6	2.3	3.8		
9	5.4	5.5	4.7	3.8	3.3	3.6	3.9	4.5	5.4	7.0	6.7	7.2	7.0	7.2	8.1	9.6	11.0	9.6	8.6	8.3	8.9	6.6	9.6	7.6	11.0	3.3	6.8		
10	4.6	4.2	3.0	2.3	2.3	3.0	2.3	3.8	3.5	3.0	4.0	4.3	5.4	6.8	8.0	7.3	6.1	3.5	4.0	4.1	4.2	3.9	4.2	3.9	8.0	2.3	4.2		
11	4.5	4.2	4.0	4.2	4.6	4.3	4.7	4.4	5.7	5.8	6.2	6.3	6.1	5.2	4.1	3.6	4.3	4.3	4.0	3.3	3.2	3.2	3.7	4.8	6.3	3.2	4.5		
12	3.9	2.1	2.2	2.3	2.5	2.1	3.0	2.4	3.6	4.6	6.3	6.9	8.9	8.9	8.6	8.5	7.5	7.4	6.3	6.6	7.4	6.6	6.4	6.3	8.9	2.1	5.5		
13	5.3	6.0	4.2	3.7	3.2	3.3	3.3	2.9	2.4	3.0	4.5	6.0	6.3	6.6	7.3	8.1	8.0	8.1	8.3	8.5	7.6	7.0	4.9	4.5	8.5	2.4	5.5		
14	5.7	5.0	4.7	4.5	4.1	2.9	2.2	3.0	3.0	3.1	3.2	3.9	4.8	5.0	4.8	4.8	6.0	7.1	5.4	5.4	3.6	3.9	4.2	3.5	7.1	2.2	4.3		
15	5.2	5.8	5.6	6.6	6.9	6.7	6.7	8.1	6.7	8.0	8.8	9.7	9.3	9.7	11.5	11.4	12.6	11.7	13.4	13.1	11.9	12.1	10.4	7.4	13.4	5.2	9.1		
16	7.4	8.0	8.4	9.5	10.4	11.2	11.0	10.7	12.0	12.9	14.7	15.8	16.9	15.5	16.8	16.6	16.8	16.0	15.4	15.4	14.8	14.0	14.1	15.5	16.9	7.4	13.3		
17	15.7	17.0	15.9	14.2	13.6	6.8	5.6	4.9	6.0	6.4	5.3	4.6	7.0	7.6	7.4	7.7	6.2	6.1	6.8	6.9	3.6	4.5	3.2	3.2	17.0	3.2	7.8		
18	2.5	5.2	4.2	3.2	3.9	2.2	2.5	2.4	4.5	4.8	3.7	5.4	7.9	8.6	8.0	6.9	7.6	3.2	4.6	5.0	3.1	2.8	2.2	2.1	8.6	2.1	4.4		
19	1.7	2.9	1.8	1.9	1.9	3.5	5.8	5.4	5.5	5.1	7.1	9.4	10.5	9.5	11.6	11.0	11.8	11.5	11.4	8.3	8.1	8.0	7.3	8.1	11.8	1.7	7.0		
20	7.6	7.6	6.3	5.9	6.3	7.2	7.3	8.1	8.2	7.2	6.7	7.8	7.3	7.7	7.5	7.8	6.7	7.3	5.4	10.9	12.2	12.5	14.5	12.7	14.5	5.4	8.3		
21	13.5	13.9	15.1	13.3	11.9	9.4	11.0	11.1	11.5	11.9	14.5	13.6	11.8	14.3	10.8	11.4	11.5	9.6	9.8	7.9	6.6	6.7	6.2	4.5	15.1	4.5	10.9		
22	3.7	2.1	3.3	3.8	3.7	3.5	4.2	5.2	7.2	10.0	11.0	15.3	18.1	17.8	18.1	19.7	22.8	22.3	24.0	25.3	19.4	19.6	22.0	21.4	25.3	2.1	13.5		
23	21.7	21.7	22.1	22.3	17.7	14.0	16.7	23.2	17.4	16.3	17.3	19.0	19.8	20.1	18.4	18.9	19.3	18.5	16.3	17.5	16.6	16.4	15.1	16.7	23.2	14.0	18.5		
24	16.0	15.2	12.3	9.8	5.5	4.7	3.7	2.4	2.7	9.2	13.3	12.9	12.4	12.1	11.7	11.4	10.3	10.8	10.5	10.0	7.5	5.6	6.3	5.8	16.0	2.4	9.2		
25	5.4	3.8	3.6	3.0	2.9	4.1	3.2	3.1	3.3	3.4	4.3	6.5	5.8	6.5	5.8	6.6	7.9	6.8	8.1	7.0	6.2	6.7	6.9	7.5	8.1	2.9	5.4		
26	8.4	9.1	10.1	9.6	6.6	8.5	8.5	7.4	10.0	13.0	16.7	17.4	18.0	16.5	14.8	16.3	17.7	19.0	20.1	16.4	13.1	13.3	9.2	10.0	20.1	6.6	12.9		
27	9.6	7.7	6.7	9.3	9.5	8.2	6.6	7.8	12.3	10.8	9.9	9.9	10.0	8.9	8.0	8.4	7.3	7.4	6.3	5.0	3.0	4.5	4.3	5.7	12.3	3.0	7.8		
28	7.0	7.0	5.0	6.1	7.6	7.3	8.4	8.6	9.3	8.4	9.0	13.5	9.7	17.5	15.8	16.6	18.2	16.1	13.8	14.4	13.2	13.9	13.4	12.0	18.2	5.0	11.3		
29	11.2	11.6	12.0	12.3	10.4	9.5	9.2	8.8	9.1	10.1	9.4	9.4	8.4	7.9	7.7	5.8	7.7	8.4	6.9	8.2	9.4	8.3	7.8	6.8	12.3	5.8	9.0		
30	5.3	3.5	3.8	4.9	5.9	5.5	5.3	7.8	9.5	10.5	11.8	10.2	10.0	12.3	12.6	12.2	12.6	11.1	11.1	8.8	10.3	10.9	10.3	10.8	12.6	3.5	9.0		
31	11.6	10.7	8.9	10.2	9.7	11.0	9.5	13.0	13.0	13.8	15.8	14.4	16.4	16.9	15.4	17.7	14.8	12.4	13.9	11.1	7.2	9.8	11.8	13.2	17.7	7.2	12.6		
<b>Max.</b>	<b>21.7</b>	<b>21.7</b>	<b>22.1</b>	<b>22.3</b>	<b>17.7</b>	<b>14.0</b>	<b>16.7</b>	<b>23.2</b>	<b>17.4</b>	<b>16.3</b>	<b>17.3</b>	<b>19.0</b>	<b>19.8</b>	<b>20.1</b>	<b>18.4</b>	<b>19.7</b>	<b>22.8</b>	<b>22.3</b>	<b>24.0</b>	<b>25.3</b>	<b>19.4</b>	<b>19.6</b>	<b>22.0</b>	<b>21.4</b>	<b>25.3</b>				
<b>Min.</b>	<b>1.7</b>	<b>2.1</b>	<b>1.8</b>	<b>1.9</b>	<b>1.7</b>	<b>2.1</b>	<b>2.1</b>	<b>2.0</b>	<b>2.2</b>	<b>2.9</b>	<b>3.0</b>	<b>2.6</b>	<b>2.2</b>	<b>2.4</b>	<b>3.1</b>	<b>3.4</b>	<b>4.3</b>	<b>3.2</b>	<b>3.9</b>	<b>3.3</b>	<b>3.0</b>	<b>2.3</b>	<b>2.2</b>	<b>1.9</b>		<b>1.7</b>			
<b>Avg.</b>	<b>7.1</b>	<b>7.2</b>	<b>6.5</b>	<b>6.5</b>	<b>6.2</b>	<b>5.7</b>	<b>5.7</b>	<b>6.2</b>	<b>6.5</b>	<b>7.1</b>	<b>7.9</b>	<b>8.5</b>	<b>8.9</b>	<b>9.3</b>	<b>9.2</b>	<b>9.4</b>	<b>9.7</b>	<b>9.2</b>	<b>8.9</b>	<b>8.7</b>	<b>7.8</b>	<b>7.7</b>	<b>7.6</b>	<b>7.3</b>			<b>7.7</b>		

Total Hours in Month

744

Hours Data Available

744

Data Recovery 100.0%

HCG, Inc.



# Northern Dynasty Mines Pebble 1 Meterological Station - Maximum 1 Minute Wind Speed (m/s)

October 2005

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.		
1	12.7	14.2	13.4	16.5	17.0	16.8	15.6	15.3	14.1	14.8	14.4	14.1	14.6	14.8	14.0	13.5	14.3	14.6	11.3	9.7	9.5	10.1	10.2	9.3	17.0	9.3	13.5		
2	9.1	8.4	8.4	8.1	6.7	5.0	5.3	3.7	3.4	3.2	7.6	8.5	7.4	7.3	9.9	9.2	9.0	6.4	4.9	4.4	5.7	6.2	5.6	4.0	9.9	3.2	6.6		
3	4.1	3.0	3.7	3.1	2.3	2.6	2.9	2.0	2.4	3.4	4.0	3.7	3.4	4.2	4.2	3.6	3.0	3.2	3.7	2.0	1.5	4.6	5.6	2.9	5.6	1.5	3.3		
4	4.3	3.6	4.2	3.8	5.0	5.8	7.4	5.4	8.6	8.0	10.4	8.6	9.5	8.5	8.2	9.7	8.3	9.6	8.7	5.6	10.1	10.2	11.4	12.1	12.1	3.6	7.8		
5	11.3	8.4	7.4	7.7	5.7	5.0	5.0	5.1	6.8	5.1	7.1	7.0	6.2	5.0	4.7	3.8	3.5	4.0	3.4	3.8	3.3	2.0	2.1	2.0	11.3	2.0	5.2		
6	2.8	3.6	2.6	2.0	1.6	1.9	2.7	2.6	3.9	4.5	3.7	3.4	2.7	4.3	4.9	5.3	5.6	6.4	5.5	3.5	3.5	3.2	3.5	5.2	6.4	1.6	3.7		
7	6.4	7.2	5.1	8.5	12.1	12.2	13.9	12.3	11.2	13.9	14.2	12.8	12.0	11.4	11.5	8.5	5.7	5.2	3.0	2.6	3.0	2.5	2.2	1.8	14.2	1.8	8.3		
8	1.8	2.8	2.8	1.8	2.2	2.8	3.0	2.9	3.1	2.0	1.0	1.2	2.9	2.9	3.2	3.1	2.8	2.2	1.8	1.1	1.6	1.7	2.5	2.3	3.2	1.0	2.3		
9	2.4	2.9	2.7	2.1	2.2	3.1	3.6	4.6	0.2	0.2	5.9	7.5	9.2	9.3	8.4	9.1	10.8	9.9	8.5	8.6	7.5	8.4	9.0	8.7	10.8	0.2	6.0		
10	7.8	8.2	7.5	6.4	4.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	7.2	8.3	8.5	8.3	8.5	0.2	2.9		
11	5.9	5.5	4.8	5.6	4.9	6.3	5.1	5.6	6.0	6.2	6.5	5.7	5.8	6.2	7.0	5.9	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	7.0	0.2	3.9		
12	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	10.5	11.6	10.6	8.5	6.7	4.2	3.3	2.7	2.1	2.5	2.6	11.6	0.2	2.8		
13	2.4	3.6	3.3	3.3	3.2	3.5	3.3	3.3	3.6	3.8	4.4	3.9	3.9	3.9	4.2	4.7	4.5	5.0	6.0	5.3	5.9	6.9	7.0	7.3	7.3	2.4	4.4		
14	7.6	7.3	7.5	5.6	4.7	4.6	2.7	2.5	7.9	7.9	6.6	4.0	4.8	5.2	4.7	3.0	3.5	6.8	8.2	9.7	10.5	10.8	9.8	10.4	10.8	2.5	6.5		
15	8.4	8.4	5.5	6.3	7.5	4.7	4.2	5.4	7.4	7.5	5.2	2.8	2.6	4.2	4.8	5.5	5.6	6.0	5.9	5.9	8.1	9.2	8.2	8.7	9.2	2.6	6.2		
16	7.9	6.6	6.5	6.8	4.7	4.6	4.1	3.6	4.4	3.8	2.6	2.3	3.9	5.1	6.4	5.4	6.2	5.1	7.3	4.3	5.8	9.5	11.5	12.4	12.4	2.3	5.9		
17	12.5	14.2	15.0	14.0	16.1	18.6	18.6	19.9	20.4	18.8	17.3	18.9	18.2	21.5	18.9	20.5	19.1	18.3	17.9	16.5	17.9	17.4	18.7	18.3	21.5	12.5	17.8		
18	16.3	17.9	17.6	18.4	16.7	15.0	14.8	13.3	13.5	12.5	14.0	9.6	6.8	9.9	12.2	10.1	8.1	8.3	10.5	10.1	9.2	10.0	8.3	8.3	18.4	6.8	12.1		
19	9.2	11.6	12.9	13.8	12.6	11.6	11.1	12.3	13.5	14.5	17.5	17.0	17.8	22.1	22.7	21.8	24.2	27.3	26.3	27.8	27.0	27.4	27.2	26.7	27.8	9.2	19.0		
20	26.2	26.6	25.8	26.1	26.2	25.5	25.2	25.0	26.4	27.8	30.3	23.3	20.3	6.9	8.7	6.8	8.1	9.9	10.6	10.1	10.5	10.5	8.0	8.7	30.3	6.8	18.1		
21	8.9	9.8	7.9	2.7	6.3	4.9	4.6	4.9	7.5	6.8	5.2	4.5	4.8	4.0	3.0	2.3	2.5	8.8	9.1	9.0	9.2	10.1	8.1	7.6	10.1	2.3	6.3		
22	9.1	9.1	6.1	6.9	7.6	8.4	8.7	8.0	7.7	7.5	7.3	7.1	5.6	9.5	12.6	11.8	9.5	10.0	6.9	8.7	7.8	6.8	7.2	6.3	12.6	5.6	8.2		
23	6.2	6.0	5.2	5.9	7.0	7.4	7.3	8.0	7.5	6.8	7.5	10.3	14.6	15.5	15.3	15.3	15.1	17.3	14.7	13.1	10.8	9.4	8.1	5.2	17.3	5.2	10.0		
24	3.8	3.2	2.7	2.7	2.8	2.5	3.7	3.8	3.7	4.3	4.1	4.5	4.4	6.3	5.6	7.0	6.3	4.7	3.9	3.6	3.8	3.7	3.8	4.2	7.0	2.5	4.1		
25	4.0	4.3	4.3	4.0	3.5	3.5	3.6	3.0	2.1	2.2	2.3	2.4	2.2	2.3	2.6	3.0	2.8	2.8	2.3	2.3	2.3	2.1	2.5	2.8	4.3	2.1	2.9		
26	3.0	3.0	3.0	2.8	2.9	3.0	2.5	2.2	2.4	2.8	3.3	3.6	3.2	3.5	3.7	3.4	4.5	4.5	4.1	4.1	3.7	2.7	2.3	2.4	4.5	2.2	3.2		
27	2.1	1.6	1.6	1.1	1.0	0.7	0.8	0.9	0.9	0.9	1.1	0.9	0.9	0.9	0.8	0.8	0.8	0.9	0.8	0.9	1.4	1.2	1.4	0.7	2.1	0.7	1.1		
28	1.4	1.7	1.5	1.3	1.4	1.9	1.6	1.6	1.7	1.6	2.7	3.0	4.9	5.6	5.0	5.9	5.8	5.7	4.6	3.9	3.4	2.5	1.7	1.7	5.9	1.3	3.0		
29	2.1	1.7	1.7	2.6	3.1	2.9	2.8	2.7	2.5	2.5	2.4	2.1	2.1	1.7	2.0	2.2	2.3	2.1	2.2	2.0	2.0	1.6	1.4	1.9	3.1	1.4	2.2		
30	2.0	2.2	2.4	2.4	2.4	2.2	2.2	2.4	2.7	2.6	2.5	2.4	2.2	3.2	5.5	6.7	6.8	7.5	8.7	8.8	9.7	8.7	7.7	11.5	11.5	2.0	4.8		
31	10.6	10.6	10.8	11.3	9.2	10.2	7.8	9.1	7.7	7.3	8.1	9.2	10.1	12.3	10.6	5.8	8.0	10.5	9.4	13.8	15.0	9.7	7.3	5.6	15.0	5.6	9.6		
<b>Max.</b>	<b>26.2</b>	<b>26.6</b>	<b>25.8</b>	<b>26.1</b>	<b>26.2</b>	<b>25.5</b>	<b>25.2</b>	<b>25.0</b>	<b>26.4</b>	<b>27.8</b>	<b>30.3</b>	<b>23.3</b>	<b>20.3</b>	<b>22.1</b>	<b>22.7</b>	<b>21.8</b>	<b>24.2</b>	<b>27.3</b>	<b>26.3</b>	<b>27.8</b>	<b>27.0</b>	<b>27.4</b>	<b>27.2</b>	<b>26.7</b>	<b>30.3</b>				
<b>Min.</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>		<b>0.2</b>			
<b>Avg.</b>	<b>6.9</b>	<b>7.0</b>	<b>6.6</b>	<b>6.6</b>	<b>6.6</b>	<b>6.4</b>	<b>6.3</b>	<b>6.2</b>	<b>6.6</b>	<b>6.6</b>	<b>7.1</b>	<b>6.6</b>	<b>6.7</b>	<b>7.4</b>	<b>7.6</b>	<b>7.3</b>	<b>7.0</b>	<b>7.4</b>	<b>6.9</b>	<b>6.6</b>	<b>7.1</b>	<b>7.1</b>	<b>6.9</b>	<b>6.8</b>			<b>6.8</b>		
<b>Total Hours in Month</b>			744				<b>Hours Data Available</b>					744					<b>Data Recovery</b> 100.0%												







# Northern Dynasty Mines Pebble 1 Meterological Station - Maximum 1 Minute Wind Speed (m/s)

January 2006

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.		
1	3.3	3.3	3.9	4.3	4.3	3.4	2.8	3.9	7.3	9.1	7.2	9.0	7.2	6.2	5.5	5.1	2.5	3.4	3.2	3.3	2.4	3.5	4.4	6.8	9.1	2.4	4.8		
2	6.0	4.6	3.1	5.7	6.8	5.0	3.5	4.5	5.5	5.0	3.8	5.4	3.1	5.5	5.0	6.1	6.1	5.3	4.1	5.7	15.7	16.4	12.9	9.2	16.4	3.1	6.4		
3	11.9	8.1	11.1	12.4	12.1	7.9	5.7	7.0	7.8	4.0	3.3	5.7	5.6	4.3	4.9	6.7	8.1	7.2	7.1	4.6	4.1	3.6	4.7	5.5	12.4	3.3	6.8		
4	4.6	3.1	1.8	2.2	1.8	1.6	1.7	2.2	1.9	1.6	2.2	2.9	4.0	5.3	4.6	3.5	2.5	2.4	2.9	2.8	2.5	3.6	3.5	4.1	5.3	1.6	2.9		
5	1.6	2.3	3.2	2.6	2.8	2.3	2.4	2.6	3.2	3.3	3.0	1.9	2.0	4.8	5.3	5.8	5.1	5.9	6.9	6.0	6.0	5.0	4.5	4.0	6.9	1.6	3.9		
6	2.5	1.8	3.5	3.8	5.2	6.3	5.5	4.2	3.1	2.3	1.8	2.0	3.0	2.6	3.3	2.8	2.3	1.7	1.1	2.9	3.5	3.9	2.1	1.6	6.3	1.1	3.0		
7	1.4	1.5	2.5	2.4	1.4	1.9	2.3	2.6	2.6	3.1	2.7	3.1	2.3	4.4	5.4	7.6	5.9	5.1	4.8	7.2	7.6	9.5	11.8	13.3	13.3	1.4	4.7		
8	13.2	6.2	13.0	5.7	4.0	12.4	12.3	5.5	5.6	2.6	3.5	3.6	4.4	5.4	5.3	5.0	4.7	5.1	5.6	5.1	5.1	5.9	4.0	4.6	13.2	2.6	6.2		
9	3.9	3.9	3.8	4.4	4.2	4.5	3.7	3.6	2.9	2.8	3.3	2.4	2.0	1.5	1.7	1.4	3.3	3.5	2.4	2.1	1.7	2.3	1.7	2.2	4.5	1.4	2.9		
10	1.9	1.5	1.6	1.4	1.2	1.4	1.2	1.4	1.2	1.6	1.4	1.3	2.3	1.9	1.6	2.1	2.4	2.1	1.6	1.5	1.4	1.2	0.9	0.8	2.4	0.8	1.5		
11	0.8	0.7	1.0	1.3	1.1	1.7	1.3	1.1	1.1	1.3	1.0	1.3	1.0	1.0	1.2	0.8	1.7	1.6	2.1	1.8	1.6	1.6	1.7	1.6	2.1	0.7	1.3		
12	1.3	1.6	1.7	2.3	2.2	2.8	2.8	2.9	3.3	3.5	3.8	4.3	4.3	2.7	2.5	2.4	2.1	2.5	2.4	2.5	3.1	3.3	3.3	3.5	4.3	1.3	2.8		
13	3.2	3.5	3.3	3.0	2.7	2.9	3.0	2.9	2.8	2.9	3.1	3.1	3.2	3.7	3.7	2.7	3.3	2.9	2.9	2.7	2.5	2.2	2.1	2.0	3.7	2.0	2.9		
14	2.3	2.3	2.0	1.9	1.7	1.6	1.5	1.3	2.5	2.5	3.6	3.4	3.4	6.0	6.8	7.0	6.9	7.4	7.2	7.5	7.8	7.7	7.3	7.5	7.8	1.3	4.6		
15	6.6	5.5	7.2	7.8	7.9	6.8	6.0	5.9	5.1	6.2	6.4	7.4	10.3	10.8	21.6	12.9	11.7	11.5	11.0	10.4	7.7	6.1	5.2	8.6	21.6	5.1	8.6		
16	8.2	10.8	9.8	9.8	5.6	7.5	11.7	12.6	10.5	8.4	6.1	6.3	5.7	3.8	3.8	2.6	2.7	2.7	1.8	3.8	4.7	5.5	5.7	6.3	12.6	1.8	6.5		
17	6.2	6.4	6.4	6.3	6.1	6.0	6.8	6.4	6.7	6.8	6.1	7.8	8.6	6.5	6.8	7.4	7.5	7.8	7.7	8.0	5.9	6.5	7.2	5.7	8.6	5.7	6.8		
18	6.9	9.4	8.5	8.9	10.6	12.4	12.1	11.2	11.2	9.1	7.5	9.2	11.1	11.3	12.0	11.8	10.6	9.1	9.2	12.2	12.1	10.1	8.9	9.7	12.4	6.9	10.2		
19	9.7	12.3	12.1	10.5	9.1	7.4	10.8	10.5	9.6	8.5	8.6	8.4	7.2	8.1	8.2	8.9	6.9	6.7	8.8	11.0	11.4	10.2	9.3	8.0	12.3	6.7	9.3		
20	9.2	8.0	8.1	8.7	8.0	7.8	7.3	7.5	7.4	6.3	7.4	6.1	6.3	6.8	6.5	7.7	7.7	7.1	6.2	6.3	8.3	8.1	7.0	7.0	9.2	6.1	7.4		
21	6.4	7.9	8.7	9.2	10.3	11.5	12.3	13.2	12.8	14.2	14.6	14.1	14.7	15.8	17.2	17.8	19.4	21.6	22.5	21.4	20.8	19.6	18.5	18.9	22.5	6.4	15.1		
22	21.3	23.2	22.1	22.8	26.5	25.5	25.0	24.4	23.6	22.4	20.9	18.0	20.0	18.7	17.4	18.7	19.4	17.4	19.7	20.9	21.4	20.6	19.5	23.9	26.5	17.4	21.4		
23	23.4	23.5	22.9	21.6	21.2	21.6	20.6	17.8	16.5	14.5	23.3	18.6	17.3	15.6	16.8	18.2	13.5	17.2	18.0	18.4	15.3	14.2	16.5	16.4	23.5	13.5	18.4		
24	15.8	16.2	15.4	13.8	13.8	14.7	15.9	13.2	15.0	16.9	16.8	17.4	16.8	17.3	13.7	15.0	15.4	14.4	13.9	15.0	11.6	14.0	13.5	10.4	17.4	10.4	14.8		
25	8.9	8.4	7.2	8.6	9.0	8.7	6.5	6.5	7.1	7.4	7.8	8.4	8.8	7.1	6.4	6.8	6.6	8.2	8.2	9.5	10.4	7.9	12.6	12.8	12.8	6.4	8.3		
26	11.9	12.2	10.9	11.6	7.5	8.3	7.8	8.4	7.2	5.6	5.2	5.8	6.0	5.7	5.5	4.8	3.9	5.1	6.3	6.3	7.2	9.2	8.1	10.9	12.2	3.9	7.6		
27	10.2	10.9	11.2	12.2	12.6	14.5	13.9	15.8	15.7	16.6	18.5	19.7	21.6	22.3	22.1	23.8	21.3	21.9	22.6	21.5	20.0	23.0	22.4	27.9	27.9	10.2	18.4		
28	28.6	26.4	27.4	22.0	25.1	24.9	21.4	21.7	20.2	13.5	14.2	13.7	12.3	12.5	59.2	11.9	10.4	8.0	5.3	6.4	5.3	6.5	6.7	6.0	59.2	5.3	17.1		
29	5.8	8.5	7.6	8.2	8.9	8.5	7.9	7.1	7.5	6.4	7.8	8.6	6.9	6.9	7.0	8.2	8.1	8.9	8.9	7.7	7.7	7.9	8.7	7.4	8.9	5.8	7.8		
30	8.8	8.5	8.1	9.0	8.2	9.0	8.4	6.4	6.4	6.3	5.8	4.8	5.0	6.1	5.4	5.4	5.2	5.1	2.9	2.7	3.6	3.8	2.7	1.7	9.0	1.7	5.8		
31	2.1	3.0	4.1	3.6	3.5	3.7	4.3	4.1	3.4	4.8	5.1	4.7	5.4	6.2	6.6	6.5	6.1	6.4	9.4	9.5	9.2	9.2	8.0	5.8	9.5	2.1	5.6		
<b>Max.</b>	<b>28.6</b>	<b>26.4</b>	<b>27.4</b>	<b>22.8</b>	<b>26.5</b>	<b>25.5</b>	<b>25.0</b>	<b>24.4</b>	<b>23.6</b>	<b>22.4</b>	<b>23.3</b>	<b>19.7</b>	<b>21.6</b>	<b>22.3</b>	<b>59.2</b>	<b>23.8</b>	<b>21.3</b>	<b>21.9</b>	<b>22.6</b>	<b>21.5</b>	<b>21.4</b>	<b>23.0</b>	<b>22.4</b>	<b>27.9</b>	<b>59.2</b>				
<b>Min.</b>	<b>0.8</b>	<b>0.7</b>	<b>1.0</b>	<b>1.3</b>	<b>1.1</b>	<b>1.4</b>	<b>1.2</b>	<b>1.1</b>	<b>1.1</b>	<b>1.3</b>	<b>1.0</b>	<b>1.3</b>	<b>1.0</b>	<b>1.0</b>	<b>1.2</b>	<b>0.8</b>	<b>1.7</b>	<b>1.6</b>	<b>1.1</b>	<b>1.5</b>	<b>1.4</b>	<b>1.2</b>	<b>0.9</b>	<b>0.8</b>		<b>0.7</b>			
<b>Avg.</b>	<b>8.0</b>	<b>7.9</b>	<b>8.2</b>	<b>8.0</b>	<b>7.9</b>	<b>8.2</b>	<b>8.0</b>	<b>7.7</b>	<b>7.6</b>	<b>7.1</b>	<b>7.3</b>	<b>7.4</b>	<b>7.5</b>	<b>7.6</b>	<b>9.4</b>	<b>8.0</b>	<b>7.5</b>	<b>7.6</b>	<b>7.6</b>	<b>7.9</b>	<b>8.0</b>	<b>8.1</b>	<b>7.9</b>	<b>8.2</b>			<b>7.9</b>		
<b>Total Hours in Month</b>	744			<b>Hours Data Available</b>										744										<b>Data Recovery</b> 100.0%					

# Northern Dynasty Mines Pebble 1 Meterological Station - Maximum 1 Minute Wind Speed (m/s)

*February 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	5.3	6.6	7.8	8.5	10.2	9.3	12.0	11.0	12.2	13.5	15.6	15.7	15.6	14.8	13.4	13.3	16.1	15.5	14.8	14.0	13.6	14.6	14.1	13.8	16.1	5.3	12.5
2	13.7	12.3	10.5	10.0	9.4	8.2	8.4	8.7	7.6	7.5	6.5	6.3	4.5	4.8	4.0	2.8	2.4	2.7	3.2	3.9	3.7	6.0	9.1	9.5	13.7	2.4	6.9
3	13.2	12.8	14.1	16.0	15.9	19.0	20.3	20.8	20.8	18.2	16.7	16.7	14.8	13.6	15.0	15.1	13.1	15.0	16.1	17.0	17.3	18.7	20.2	19.6	20.8	12.8	16.7
4	21.1	19.0	21.5	21.5	23.9	26.9	24.0	23.7	28.4	28.7	26.6	27.6	33.1	34.3	29.1	30.4	34.0	33.7	34.6	30.7	28.2	28.3	27.8	22.9	34.6	19.0	27.5
5	23.3	23.5	20.9	26.8	25.8	25.1	24.7	21.3	21.8	19.3	16.4	22.2	20.9	23.3	21.2	18.2	18.1	17.2	14.7	14.1	14.3	18.9	23.9	20.7	26.8	14.1	20.7
6	15.3	13.8	11.2	12.3	12.1	9.2	8.6	6.6	6.9	11.5	13.5	16.5	18.8	18.8	17.9	16.6	14.4	13.7	10.8	8.6	8.3	8.0	8.2	7.8	18.8	6.6	12.0
7	7.4	6.8	7.6	9.0	8.9	9.9	11.2	10.9	10.3	10.2	13.1	13.5	12.8	12.6	9.6	11.0	9.8	5.4	4.9	4.4	3.4	3.1	4.8	4.9	13.5	3.1	8.6
8	3.0	2.3	3.9	4.4	4.1	5.2	5.5	6.0	6.5	6.7	7.6	6.9	19.2	21.6	25.3	26.9	29.9	28.8	30.9	30.9	31.4	32.8	32.4	33.6	33.6	2.3	16.9
9	30.4	32.9	32.3	34.8	32.9	26.6	22.9	21.1	15.6	13.6	12.9	11.7	13.6	13.5	12.4	11.7	14.5	18.5	19.3	19.9	26.6	29.5	32.2	33.5	34.8	11.7	22.2
10	37.7	34.2	31.7	32.1	27.9	30.3	30.8	27.7	23.3	17.4	16.3	19.7	19.5	19.1	18.6	20.7	20.7	23.0	19.6	19.3	19.1	20.0	20.2	20.2	37.7	16.3	23.7
11	17.6	17.3	16.4	13.8	9.4	2.9	3.9	3.9	4.7	7.3	9.0	8.7	8.0	5.8	5.8	4.2	3.7	3.0	3.5	4.2	2.0	2.1	3.6	4.7	17.6	2.0	6.9
12	3.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	3.4	0.2	0.4
13	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	7.8	9.0	13.2	14.9	18.7	21.1	19.5	20.6	22.4	22.6	24.4	23.9	24.0	24.4	0.2	10.2
14	23.8	24.9	26.5	25.1	26.9	25.2	23.7	24.2	25.4	24.5	23.8	21.5	20.3	20.7	23.4	24.5	25.6	24.1	22.5	22.9	23.6	23.6	24.6	25.4	26.9	20.3	24.0
15	26.3	24.4	23.3	23.0	23.5	25.2	25.1	25.0	26.9	27.3	30.6	29.7	32.0	35.4	33.2	30.1	28.9	27.5	25.3	22.1	22.1	18.4	15.4	11.7	35.4	11.7	25.5
16	9.4	7.0	6.4	4.6	2.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	9.4	0.2	1.4
17	0.2	0.2	11.5	7.7	9.6	14.1	18.4	20.3	24.7	24.0	22.1	22.0	24.6	24.6	26.7	27.3	25.9	22.6	23.3	23.9	23.8	21.3	19.7	18.9	27.3	0.2	19.1
18	16.7	15.2	15.4	13.2	12.8	15.2	17.0	18.2	21.5	24.6	24.0	24.2	27.3	28.6	25.3	22.6	20.5	18.4	14.8	16.7	15.5	16.7	18.1	17.9	28.6	12.8	19.2
19	13.7	11.2	8.7	9.7	10.9	10.3	9.3	13.2	10.4	7.7	9.4	9.4	5.5	9.9	9.7	8.8	9.2	10.2	8.3	8.6	8.0	9.6	10.8	8.9	13.7	5.5	9.6
20	8.9	6.6	7.2	6.3	5.5	4.9	5.0	4.4	4.5	4.5	4.7	4.0	6.4	6.0	7.3	9.5	8.7	8.0	8.8	9.7	12.7	12.8	13.5	13.2	13.5	4.0	7.6
21	12.8	13.1	14.4	14.6	13.9	8.9	8.1	7.8	7.6	3.5	2.9	3.1	11.1	13.5	11.6	11.3	8.4	7.6	10.4	11.2	9.7	6.9	8.3	9.9	14.6	2.9	9.6
22	7.0	4.9	7.4	10.1	12.5	13.1	13.5	12.7	13.6	12.0	8.6	8.1	8.0	8.7	8.6	9.9	11.6	11.3	8.9	7.8	9.3	7.9	5.9	5.6	13.6	4.9	9.5
23	7.2	8.6	7.4	7.8	7.3	7.4	10.3	8.6	8.1	6.9	6.4	9.0	8.9	8.5	9.7	12.0	11.6	10.3	9.9	9.0	7.7	8.7	12.0	11.6	12.0	6.4	9.0
24	10.7	7.6	7.7	7.2	6.8	7.6	7.9	8.0	5.9	4.4	4.7	3.8	3.6	2.3	2.1	1.9	2.2	2.7	2.6	2.3	3.1	3.1	3.8	6.0	10.7	1.9	4.9
25	5.1	5.0	6.6	6.9	8.7	6.7	6.0	5.7	3.9	4.0	8.2	13.1	18.0	15.3	14.5	17.3	14.2	12.9	8.0	7.8	10.2	11.2	10.8	11.8	18.0	3.9	9.7
26	12.1	11.0	9.7	9.4	8.7	6.4	6.8	7.9	7.5	5.2	8.1	9.2	8.5	8.1	5.4	2.7	4.5	6.0	8.1	8.9	7.9	6.5	7.6	9.8	12.1	2.7	7.7
27	9.0	8.3	10.5	12.6	17.3	23.1	22.3	19.5	19.3	20.8	21.0	22.3	22.7	19.9	21.5	22.1	23.2	20.9	21.2	22.9	23.1	23.9	22.4	22.0	23.9	8.3	19.7
28	21.5	21.0	24.5	21.0	20.5	23.1	21.6	19.2	17.1	18.0	21.0	20.3	18.6	18.5	19.7	20.9	21.4	20.2	18.1	17.5	15.8	12.8	10.4	10.9	24.5	10.4	18.9
<b>Max.</b>	<b>37.7</b>	<b>34.2</b>	<b>32.3</b>	<b>34.8</b>	<b>32.9</b>	<b>30.3</b>	<b>30.8</b>	<b>27.7</b>	<b>28.4</b>	<b>28.7</b>	<b>30.6</b>	<b>29.7</b>	<b>33.1</b>	<b>35.4</b>	<b>33.2</b>	<b>30.4</b>	<b>34.0</b>	<b>33.7</b>	<b>34.6</b>	<b>30.9</b>	<b>31.4</b>	<b>32.8</b>	<b>32.4</b>	<b>33.6</b>	<b>37.7</b>		
<b>Min.</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>		<b>0.2</b>	
<b>Avg.</b>	<b>13.4</b>	<b>12.5</b>	<b>13.0</b>	<b>13.2</b>	<b>13.1</b>	<b>13.0</b>	<b>13.1</b>	<b>12.8</b>	<b>12.7</b>	<b>12.2</b>	<b>12.5</b>	<b>13.3</b>	<b>14.5</b>	<b>14.8</b>	<b>14.5</b>	<b>14.7</b>	<b>14.8</b>	<b>14.3</b>	<b>13.7</b>	<b>13.6</b>	<b>13.7</b>	<b>13.9</b>	<b>14.4</b>	<b>14.3</b>			<b>13.6</b>
<b>Total Hours in Month</b>	672		<b>Hours Data Available</b>										672										<b>Data Recovery</b> 100.0%				



# Northern Dynasty Mines Pebble 1 Meterological Station - Maximum 1 Minute Wind Speed (m/s)

*April 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	7.4	7.9	9.2	7.9	5.3	7.2	8.7	8.9	8.1	4.9	5.6	3.9	4.6	8.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	9.2	0.2	4.2
2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	2.7	3.7	6.0	5.9	7.4	7.2	11.5	12.2	12.2	0.2	2.5
3	10.9	10.7	12.2	13.0	11.3	12.7	10.6	12.0	18.4	22.0	21.9	21.9	20.7	20.1	19.9	17.9	18.6	18.9	17.6	14.7	13.2	15.8	16.0	18.7	22.0	10.6	16.2
4	18.2	22.2	19.7	17.3	14.9	13.3	12.0	11.1	9.9	6.6	12.1	10.2	9.5	8.3	6.2	2.2	2.9	6.6	5.7	5.6	6.1	6.6	8.3	9.3	22.2	2.2	10.2
5	9.1	8.7	13.2	13.4	12.8	15.3	12.1	12.7	13.5	17.5	16.3	14.8	14.4	15.9	16.9	16.7	17.3	19.4	20.8	20.4	15.5	14.4	14.6	15.9	20.8	8.7	15.1
6	19.7	16.8	14.7	14.1	12.4	12.4	12.4	10.6	9.9	9.4	9.3	7.7	5.5	4.4	4.7	4.1	3.2	2.9	2.5	3.5	2.7	1.8	3.5	3.3	19.7	1.8	8.0
7	3.1	2.6	3.0	4.3	7.3	6.0	7.1	7.0	6.3	7.0	5.9	6.7	8.0	8.9	10.9	11.3	12.6	13.2	13.4	15.1	17.3	19.6	21.1	20.1	21.1	2.6	9.9
8	22.1	24.0	22.7	21.4	20.4	19.8	18.9	18.9	17.7	18.3	19.8	17.5	13.1	12.7	12.8	11.7	10.3	10.2	10.7	9.8	9.0	9.1	10.4	9.3	24.0	9.0	15.4
9	9.5	7.9	8.7	9.0	9.2	9.0	7.9	9.0	8.4	7.6	8.4	8.5	8.9	9.2	8.2	8.2	5.9	5.8	5.9	6.0	4.1	7.5	7.5	7.0	9.5	4.1	7.8
10	4.1	3.5	4.2	7.2	6.5	9.4	11.3	11.6	11.9	11.5	11.6	13.1	9.5	10.6	9.9	10.6	11.7	10.2	7.9	7.4	5.7	2.6	3.9	8.1	13.1	2.6	8.5
11	7.2	3.9	2.5	2.4	3.2	5.0	7.3	7.7	8.4	9.2	8.0	7.3	8.0	9.4	11.7	14.6	15.5	15.0	13.2	12.0	12.0	12.0	10.8	10.3	15.5	2.4	9.0
12	9.4	9.2	7.8	7.8	7.2	7.2	6.5	7.9	9.3	10.1	10.7	10.9	12.9	13.8	13.0	10.1	9.5	7.8	7.5	7.5	6.1	5.9	5.4	3.9	13.8	3.9	8.6
13	3.4	3.2	1.2	0.2	0.2	5.0	7.1	8.3	8.9	10.0	10.4	11.5	14.4	18.9	20.0	20.1	19.6	17.9	18.2	16.5	15.8	15.0	13.7	12.0	20.1	0.2	11.3
14	15.6	17.3	15.7	15.5	19.0	17.3	17.6	20.3	19.7	20.6	21.3	22.1	21.5	21.1	20.4	24.3	22.1	20.4	18.6	17.1	18.1	16.2	12.4	13.7	24.3	12.4	18.7
15	14.9	11.6	15.5	17.0	15.4	15.2	17.8	16.1	16.6	17.6	17.7	20.3	18.1	19.0	17.5	16.0	19.4	17.7	16.2	8.3	9.1	6.8	4.4	5.1	20.3	4.4	14.7
16	10.0	9.1	11.3	13.4	13.2	16.5	19.9	21.5	24.6	25.9	25.8	25.2	27.2	26.5	24.5	23.8	26.6	26.4	25.5	21.5	13.8	12.8	13.9	13.5	27.2	9.1	19.7
17	13.3	13.9	15.8	16.7	16.5	14.7	12.1	9.8	10.4	11.9	13.1	10.6	15.2	10.6	10.7	7.7	10.6	10.3	7.0	5.5	4.7	3.1	4.4	5.1	16.7	3.1	10.6
18	6.2	5.9	4.2	4.7	3.8	3.0	2.5	2.3	2.6	1.7	2.6	1.7	1.9	1.8	1.8	1.7	2.6	2.5	2.6	3.0	3.1	2.5	4.3	5.2	6.2	1.7	3.1
19	4.6	4.0	3.3	4.9	4.4	3.5	4.1	3.7	6.3	5.3	3.3	2.1	5.4	6.3	5.5	5.1	4.9	3.8	6.3	6.2	5.6	4.7	5.0	4.9	6.3	2.1	4.7
20	4.3	4.6	4.0	2.4	3.3	3.4	2.2	2.7	3.0	3.6	4.3	8.0	10.1	12.4	16.9	17.4	15.2	16.3	16.6	17.2	18.9	17.6	16.5	17.7	18.9	2.2	9.9
21	18.1	18.7	19.4	18.5	14.9	15.3	16.8	19.0	14.4	18.5	21.0	16.5	15.6	15.3	14.1	15.8	15.7	9.1	6.6	4.7	4.7	8.7	8.3	8.8	21.0	4.7	14.1
22	6.2	3.8	3.4	1.6	2.0	0.2	0.2	1.3	1.0	1.3	1.3	1.2	1.7	1.6	1.0	1.9	3.2	2.2	1.7	1.7	1.8	2.0	3.5	3.3	6.2	0.2	2.0
23	4.8	4.4	5.5	5.2	4.7	4.2	4.2	4.3	4.6	5.5	6.0	6.4	5.6	4.7	3.9	2.4	2.3	3.6	4.2	4.5	7.8	8.6	8.7	8.3	8.7	2.3	5.2
24	7.8	7.3	7.2	9.7	10.0	11.6	11.7	12.3	12.9	13.0	13.1	12.5	12.2	12.7	13.1	11.5	12.1	11.7	11.8	13.1	13.2	13.7	13.1	10.2	13.7	7.2	11.6
25	8.7	5.7	4.8	3.9	3.4	3.4	3.7	3.4	2.5	2.4	2.7	4.0	5.9	5.5	4.4	4.8	8.0	9.7	11.2	11.4	11.7	12.8	13.7	12.9	13.7	2.4	6.7
26	14.0	13.0	9.4	10.7	9.7	11.5	8.4	10.6	6.4	7.2	7.4	7.3	5.7	3.7	4.4	3.0	3.6	3.9	3.8	6.4	7.4	7.1	7.0	8.2	14.0	3.0	7.5
27	9.5	9.0	8.5	6.1	7.5	7.3	5.1	3.7	3.4	3.1	5.4	5.6	6.5	7.5	8.7	9.0	9.3	10.3	10.0	8.2	7.3	7.1	10.5	12.1	12.1	3.1	7.5
28	12.0	11.2	10.4	7.9	8.1	7.9	7.0	6.7	5.5	4.7	3.2	4.0	4.5	3.5	3.9	4.0	3.4	3.2	2.5	1.7	2.1	1.4	1.4	1.4	12.0	1.4	5.1
29	2.3	3.8	3.9	4.2	6.3	6.5	6.5	6.2	6.4	9.1	10.8	12.0	12.1	11.1	8.8	8.7	10.4	9.9	8.8	7.4	6.7	7.1	7.1	6.9	12.1	2.3	7.6
30	5.1	4.8	4.7	4.2	3.8	2.9	2.1	3.4	3.8	3.2	2.9	2.7	3.7	3.6	3.7	6.2	7.2	10.0	11.6	12.5	11.5	12.1	12.2	14.6	14.6	2.1	6.3
<b>Max.</b>	<b>22.1</b>	<b>24.0</b>	<b>22.7</b>	<b>21.4</b>	<b>20.4</b>	<b>19.8</b>	<b>19.9</b>	<b>21.5</b>	<b>24.6</b>	<b>25.9</b>	<b>25.8</b>	<b>25.2</b>	<b>27.2</b>	<b>26.5</b>	<b>24.5</b>	<b>24.3</b>	<b>26.6</b>	<b>26.4</b>	<b>25.5</b>	<b>21.5</b>	<b>18.9</b>	<b>19.6</b>	<b>21.1</b>	<b>20.1</b>	<b>27.2</b>		
<b>Min.</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>		
<b>Avg.</b>	<b>9.4</b>	<b>9.0</b>	<b>8.9</b>	<b>8.8</b>	<b>8.6</b>	<b>8.9</b>	<b>8.8</b>	<b>9.1</b>	<b>9.2</b>	<b>9.6</b>	<b>10.1</b>	<b>9.9</b>	<b>10.1</b>	<b>10.2</b>	<b>9.9</b>	<b>9.7</b>	<b>10.2</b>	<b>10.1</b>	<b>9.8</b>	<b>9.2</b>	<b>8.7</b>	<b>8.7</b>	<b>9.1</b>	<b>9.4</b>	<b>9.4</b>		
<b>Total Hours in Month</b>	720		<b>Hours Data Available</b>										720										<b>Data Recovery</b> 100.0%				

# Northern Dynasty Mines Pebble 1 Meterological Station - Maximum 1 Minute Wind Speed (m/s)

*May 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	15.0	15.9	15.6	17.7	18.6	22.0	23.1	24.1	22.8	22.0	24.5	26.0	27.2	25.7	19.9	17.0	17.0	18.9	12.8	12.3	10.9	9.9	9.8	9.2	27.2	9.2	18.2
2	10.7	12.0	11.0	9.6	6.4	10.0	9.9	6.2	2.9	2.7	6.7	11.6	13.2	13.6	15.4	15.4	12.4	11.8	11.4	12.7	15.2	12.6	12.3	12.1	15.4	2.7	10.7
3	13.7	13.9	14.3	15.3	12.7	7.7	7.6	5.9	3.9	4.2	4.3	5.8	6.8	6.9	7.2	7.0	5.5	7.5	6.6	6.1	5.0	4.3	3.5	2.5	15.3	2.5	7.4
4	3.0	2.0	1.3	1.3	2.9	12.8	14.9	16.5	17.6	18.5	16.0	15.7	17.1	17.1	14.8	16.5	16.5	19.3	20.3	21.1	22.1	22.1	23.6	23.8	23.8	1.3	14.9
5	23.3	26.6	26.4	27.5	25.8	25.9	21.7	20.1	19.3	20.0	19.8	20.1	19.3	18.9	18.2	18.0	15.4	15.7	15.0	13.8	10.4	8.1	6.9	5.6	27.5	5.6	18.4
6	4.9	4.3	1.9	2.0	1.2	0.9	1.0	0.7	2.8	2.8	6.7	7.6	8.3	8.2	9.2	9.1	8.2	9.7	9.9	10.6	10.9	11.1	10.5	9.9	11.1	0.7	6.3
7	10.1	9.7	10.4	9.9	11.6	10.1	8.5	9.0	8.5	10.1	8.3	8.6	8.9	8.2	9.2	7.1	6.6	6.7	6.3	5.2	5.7	6.2	2.9	1.0	11.6	1.0	7.9
8	1.5	1.7	2.0	2.8	3.1	2.5	3.0	4.2	6.1	5.7	8.2	9.3	10.5	9.2	7.1	6.1	6.6	12.1	14.0	12.5	8.8	8.3	7.4	6.4	14.0	1.5	6.6
9	5.9	5.4	9.4	9.8	9.2	11.1	10.9	11.9	11.1	10.6	9.7	8.0	7.2	8.2	7.3	4.7	2.8	3.1	4.9	2.5	3.4	4.8	8.1	9.2	11.9	2.5	7.5
10	8.4	4.8	2.7	3.4	2.7	3.3	2.1	2.1	2.6	2.4	2.1	3.4	2.7	5.9	5.7	11.4	8.5	9.0	7.5	7.5	4.3	4.8	4.6	5.0	11.4	2.1	4.9
11	5.4	3.2	3.0	3.1	2.2	2.6	2.9	2.5	2.1	2.5	2.2	2.2	3.1	3.6	3.4	5.2	7.2	6.6	9.1	4.4	9.2	7.8	8.0	7.7	9.2	2.1	4.5
12	7.6	10.5	9.8	9.8	9.3	10.1	10.2	10.5	11.4	11.0	10.0	10.6	10.5	10.6	10.7	11.6	11.5	10.3	9.4	9.7	10.6	9.3	9.1	8.5	11.6	7.6	10.1
13	7.1	9.1	8.4	8.0	7.3	6.3	4.9	4.3	2.1	2.5	3.5	3.7	1.8	2.3	3.5	5.1	4.6	4.5	3.5	5.2	4.8	3.4	3.3	3.0	9.1	1.8	4.7
14	3.3	3.8	4.1	4.5	3.2	5.2	4.4	4.7	6.5	6.2	6.5	7.1	7.9	8.7	9.7	9.1	12.0	11.4	11.2	12.8	12.6	16.6	15.5	10.8	16.6	3.2	8.2
15	8.0	6.0	5.9	5.2	3.4	2.6	2.6	2.6	3.1	4.1	4.4	3.1	2.5	2.5	3.2	3.2	3.5	5.4	4.9	4.2	5.5	5.2	9.8	10.9	10.9	2.5	4.7
16	8.9	3.5	2.6	5.0	4.0	4.8	4.6	4.5	5.8	4.3	3.5	2.3	3.4	3.3	3.0	2.7	3.7	5.7	5.1	5.3	3.9	4.5	4.2	4.2	8.9	2.3	4.3
17	3.8	3.5	3.6	2.7	3.5	3.7	3.8	3.6	4.0	5.6	7.9	8.6	9.7	9.7	9.1	10.2	10.7	9.4	9.0	9.3	7.8	8.1	6.3	6.7	10.7	2.7	6.7
18	5.6	5.2	4.7	5.2	5.0	4.4	3.5	2.0	2.4	4.0	5.1	7.0	6.3	7.4	10.3	8.7	9.6	11.6	9.4	9.8	10.0	9.7	8.2	6.8	11.6	2.0	6.7
19	5.1	4.8	4.3	1.9	2.7	2.2	1.5	2.7	5.0	7.5	7.9	11.5	13.3	13.8	22.5	23.2	19.0	17.0	20.1	20.9	20.8	16.3	16.7	14.4	23.2	1.5	11.5
20	14.5	15.0	13.6	13.4	14.7	17.8	17.5	18.6	18.6	17.8	16.5	16.2	13.7	13.2	13.7	10.7	9.5	5.9	3.9	3.4	7.7	9.9	9.8	10.5	18.6	3.4	12.8
21	11.4	10.8	11.3	11.4	12.1	13.0	15.5	16.4	17.5	17.8	19.2	24.7	24.3	20.5	21.0	18.1	19.9	20.1	19.9	20.2	16.3	15.4	16.9	16.3	24.7	10.8	17.1
22	16.0	14.9	14.6	14.0	14.0	16.2	16.4	19.0	18.5	17.4	18.1	20.2	21.1	15.5	15.0	13.7	14.3	13.8	13.9	12.9	13.8	13.1	12.1	11.7	21.1	11.7	15.4
23	11.7	8.8	8.0	5.3	4.5	4.0	4.6	5.2	5.2	5.5	6.2	6.1	5.7	5.4	6.3	6.7	7.3	10.5	10.4	8.9	7.1	7.3	6.4	6.7	11.7	4.0	6.8
24	7.1	6.1	4.1	5.1	4.5	2.9	2.3	4.0	4.7	3.4	3.0	2.5	3.2	4.0	4.0	4.9	6.5	6.9	6.2	7.2	8.1	7.1	4.6	5.2	8.1	2.3	4.9
25	5.9	5.9	5.5	7.0	6.7	5.8	5.9	5.3	4.2	3.9	3.5	5.0	4.4	4.3	3.9	6.3	7.1	7.0	7.5	6.5	4.5	5.5	5.2	5.6	7.5	3.5	5.5
26	5.5	7.5	6.3	7.6	7.8	6.2	5.9	7.0	7.7	9.4	10.4	11.9	11.3	10.7	11.8	11.9	12.7	13.8	13.3	11.5	9.6	9.4	8.8	11.5	13.8	5.5	9.6
27	9.9	9.4	12.5	14.0	15.1	14.9	14.0	14.8	12.6	12.2	13.6	16.1	17.4	17.7	17.5	17.4	18.3	15.5	13.3	11.5	11.9	8.1	9.4	9.9	18.3	8.1	13.6
28	9.1	6.4	4.1	3.6	5.1	5.2	5.4	7.6	6.9	5.1	3.2	4.1	6.2	7.0	5.5	6.8	7.1	5.7	7.2	7.3	7.8	7.8	6.6	7.2	9.1	3.2	6.2
29	6.2	6.1	7.2	7.2	9.2	8.2	8.0	7.9	8.5	8.9	9.2	10.2	10.4	10.3	9.6	9.4	9.0	9.8	9.3	9.0	8.2	8.9	8.5	7.1	10.4	6.1	8.6
30	7.1	6.8	6.5	5.8	3.8	4.5	3.0	7.0	7.2	6.6	7.8	8.2	9.4	9.9	10.0	10.7	8.2	8.5	8.4	7.6	7.0	6.9	6.3	9.7	10.7	3.0	7.4
31	8.9	9.3	9.6	7.0	9.4	10.3	9.8	8.9	8.2	11.3	11.1	9.3	7.8	7.2	9.5	6.8	6.9	7.3	5.0	4.4	4.6	4.5	2.7	3.3	11.3	2.7	7.6
<b>Max.</b>	<b>23.3</b>	<b>26.6</b>	<b>26.4</b>	<b>27.5</b>	<b>25.8</b>	<b>25.9</b>	<b>23.1</b>	<b>24.1</b>	<b>22.8</b>	<b>22.0</b>	<b>24.5</b>	<b>26.0</b>	<b>27.2</b>	<b>25.7</b>	<b>22.5</b>	<b>23.2</b>	<b>19.9</b>	<b>20.1</b>	<b>20.3</b>	<b>21.1</b>	<b>22.1</b>	<b>22.1</b>	<b>23.6</b>	<b>23.8</b>	<b>27.5</b>		
<b>Min.</b>	<b>1.5</b>	<b>1.7</b>	<b>1.3</b>	<b>1.3</b>	<b>1.2</b>	<b>0.9</b>	<b>1.0</b>	<b>0.7</b>	<b>2.1</b>	<b>2.4</b>	<b>2.1</b>	<b>2.2</b>	<b>1.8</b>	<b>2.3</b>	<b>3.0</b>	<b>2.7</b>	<b>2.8</b>	<b>3.1</b>	<b>3.5</b>	<b>2.5</b>	<b>3.4</b>	<b>3.4</b>	<b>2.7</b>	<b>1.0</b>		<b>0.7</b>	
<b>Avg.</b>	<b>8.5</b>	<b>8.1</b>	<b>7.9</b>	<b>7.9</b>	<b>7.8</b>	<b>8.3</b>	<b>8.0</b>	<b>8.4</b>	<b>8.4</b>	<b>8.6</b>	<b>9.0</b>	<b>9.9</b>	<b>10.1</b>	<b>10.0</b>	<b>10.2</b>	<b>10.2</b>	<b>9.9</b>	<b>10.3</b>	<b>10.0</b>	<b>9.6</b>	<b>9.3</b>	<b>8.9</b>	<b>8.6</b>	<b>8.5</b>			<b>9.0</b>

**Total Hours in Month** 744 **Hours Data Available** 744 **Data Recovery** 100.0%

# Northern Dynasty Mines Pebble 1 Meterological Station - Maximum 1 Minute Wind Speed (m/s)

*June 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	2.5	2.0	3.4	3.5	3.1	3.4	4.0	4.2	4.3	5.0	5.1	5.7	6.0	5.3	5.5	6.3	6.1	6.4	10.0	7.2	8.2	8.3	7.5	3.3	10.0	2.0	5.3
2	3.3	3.7	4.0	3.7	4.1	4.2	5.0	4.0	4.3	4.9	7.4	8.7	9.1	8.3	8.5	9.3	9.5	10.4	11.9	10.7	9.5	7.8	8.3	8.0	11.9	3.3	7.0
3	9.4	11.0	9.6	13.0	12.7	11.7	13.5	16.6	17.0	15.8	15.8	15.9	13.8	14.1	15.4	15.1	13.3	14.6	14.8	14.3	13.9	13.0	11.5	10.3	17.0	9.4	13.6
4	9.8	9.9	9.0	9.4	9.1	10.0	12.2	13.5	13.1	13.8	15.3	15.9	14.6	14.5	15.0	14.1	14.1	14.7	13.5	12.5	12.7	10.8	10.7	12.0	15.9	9.0	12.5
5	12.7	11.9	12.1	7.4	7.6	7.3	8.1	8.2	8.0	7.7	6.3	5.3	5.9	6.5	6.0	6.7	6.4	6.3	5.8	5.5	4.8	4.0	4.5	4.3	12.7	4.0	7.1
6	4.0	4.4	4.7	3.8	3.1	3.3	3.5	3.9	5.4	5.2	6.6	8.4	11.0	12.2	12.5	13.7	12.0	12.6	13.0	13.6	12.9	12.3	11.6	10.7	13.7	3.1	8.5
7	9.7	12.0	14.6	14.8	15.9	16.1	12.1	15.9	18.5	18.0	19.1	19.2	18.3	19.0	18.4	18.9	15.9	17.2	17.0	16.0	13.6	11.9	12.2	14.1	19.2	9.7	15.8
8	16.8	19.4	19.7	19.9	18.4	19.3	18.3	20.3	19.6	20.9	21.5	21.3	22.3	23.4	23.0	22.0	22.5	22.5	22.9	25.1	27.0	27.6	30.4	29.2	30.4	16.8	22.2
9	27.6	25.2	27.3	25.5	23.5	23.3	24.4	24.0	25.4	26.2	25.0	27.4	27.8	28.8	28.7	26.2	26.3	26.9	22.2	24.2	22.6	24.4	24.7	23.7	28.8	22.2	25.5
10	19.4	19.1	20.5	20.4	21.2	21.5	19.7	23.2	23.4	23.2	21.3	23.0	22.8	25.0	25.0	24.2	22.1	24.6	23.3	20.8	21.0	22.0	22.1	21.8	25.0	19.1	22.1
11	22.0	23.7	24.1	23.1	24.2	25.6	24.1	23.4	23.3	22.7	23.2	23.9	22.9	21.9	21.3	22.8	20.9	19.5	20.6	19.4	18.1	18.1	16.6	17.7	25.6	16.6	21.8
12	18.6	17.1	16.5	15.6	14.8	14.1	14.3	13.7	14.1	13.1	14.3	11.2	13.7	14.5	14.0	13.7	13.3	12.1	8.9	8.8	9.5	6.8	7.1	6.6	18.6	6.6	12.8
13	6.5	6.2	5.7	5.9	5.9	5.9	4.7	5.7	10.4	10.5	6.5	7.1	6.6	7.2	8.0	6.9	6.6	6.6	5.8	4.7	2.8	2.5	1.5	3.3	10.5	1.5	6.0
14	3.8	2.3	2.3	2.0	2.5	3.1	2.4	2.5	3.0	3.5	4.0	5.5	5.3	4.5	3.3	3.7	4.6	4.2	5.8	2.5	2.3	3.3	4.7	4.2	5.8	2.0	3.6
15	4.1	5.0	4.8	5.1	5.3	6.1	6.2	5.6	6.3	6.9	6.4	7.5	6.3	7.6	8.5	7.7	4.6	5.1	6.5	6.6	6.5	5.3	5.2	4.4	8.5	4.1	6.0
16	4.8	5.4	5.2	4.6	5.5	5.6	5.9	5.0	4.5	5.2	6.4	8.7	10.6	11.2	10.7	12.0	12.3	12.6	12.7	11.9	11.5	10.1	8.4	6.6	12.7	4.5	8.2
17	6.7	6.6	6.0	4.8	2.8	3.5	3.6	6.4	6.7	6.4	6.3	8.1	8.3	9.3	8.6	8.6	10.1	9.6	9.7	8.7	8.7	8.5	8.3	8.8	10.1	2.8	7.3
18	5.7	3.1	3.2	3.2	3.2	3.7	2.2	2.9	4.9	7.1	7.9	10.3	12.1	11.7	14.0	18.4	20.8	18.1	18.3	17.7	15.4	13.8	9.2	4.0	20.8	2.2	9.6
19	4.6	7.9	6.4	5.5	4.5	4.4	2.8	2.6	3.2	3.2	7.3	6.1	6.5	7.6	6.0	7.7	7.9	7.2	5.5	11.7	12.2	7.5	6.1	5.0	12.2	2.6	6.2
20	4.8	6.2	7.3	4.3	4.0	2.7	2.8	2.3	2.9	2.6	3.6	4.3	7.8	7.1	15.7	13.6	12.1	10.9	10.4	10.8	9.8	9.8	8.9	8.0	15.7	2.3	7.2
21	6.2	6.3	4.7	3.3	2.8	2.3	2.1	3.2	4.2	6.0	6.5	6.3	5.6	3.6	5.3	7.7	9.1	6.3	4.7	7.6	4.3	5.5	7.0	7.9	9.1	2.1	5.4
22	10.1	11.3	9.4	7.0	6.5	7.1	7.3	6.6	7.3	6.0	5.4	7.5	8.0	10.1	11.5	11.2	10.1	10.4	10.3	9.6	9.5	8.4	7.7	6.9	11.5	5.4	8.5
23	6.6	7.1	9.2	10.0	7.2	8.0	8.3	7.8	7.5	7.6	8.9	8.1	8.4	8.1	7.9	7.6	7.2	5.7	6.7	7.4	8.0	8.4	8.3	5.8	10.0	5.7	7.7
24	4.9	4.7	4.4	5.8	5.4	2.3	1.7	3.3	4.7	5.3	5.6	5.1	6.1	4.3	5.0	6.3	6.9	5.5	4.4	2.9	3.7	3.2	3.1	3.4	6.9	1.7	4.5
25	3.0	3.0	4.4	6.0	5.3	4.3	2.9	3.0	3.9	5.0	5.8	5.9	6.2	8.7	9.1	8.7	9.9	9.5	8.1	6.9	5.5	5.3	6.0	6.4	9.9	2.9	6.0
26	6.5	6.2	5.3	5.5	3.7	3.3	2.7	2.6	3.8	5.1	5.0	5.5	6.2	5.9	5.1	5.5	4.8	4.4	8.9	8.5	7.6	8.3	7.7	8.7	8.9	2.6	5.7
27	6.7	4.4	5.7	2.4	3.8	3.2	3.9	4.3	4.5	4.0	3.0	3.1	3.2	4.3	7.0	7.6	7.8	7.6	7.6	8.2	9.6	9.1	6.3	5.4	9.6	2.4	5.5
28	5.6	4.6	6.1	6.1	2.0	1.8	4.0	6.3	7.9	7.5	7.7	8.9	7.3	9.2	6.9	6.6	6.5	5.6	4.0	6.4	7.4	4.2	5.6	6.1	9.2	1.8	6.0
29	5.8	7.2	7.9	4.7	6.4	5.5	4.8	5.7	5.3	5.8	5.1	4.9	5.4	7.6	10.5	14.7	15.1	15.6	14.5	15.5	15.1	12.0	11.7	13.4	15.6	4.7	9.2
30	12.4	11.9	12.3	12.2	11.5	10.8	11.5	12.3	9.7	7.7	8.8	9.3	9.4	7.8	7.2	5.4	5.3	5.2	4.3	3.3	3.5	3.4	2.6	3.4	12.4	2.6	8.0
<b>Max.</b>	<b>27.6</b>	<b>25.2</b>	<b>27.3</b>	<b>25.5</b>	<b>24.2</b>	<b>25.6</b>	<b>24.4</b>	<b>24.0</b>	<b>25.4</b>	<b>26.2</b>	<b>25.0</b>	<b>27.4</b>	<b>27.8</b>	<b>28.8</b>	<b>28.7</b>	<b>26.2</b>	<b>26.3</b>	<b>26.9</b>	<b>23.3</b>	<b>25.1</b>	<b>27.0</b>	<b>27.6</b>	<b>30.4</b>	<b>29.2</b>	<b>30.4</b>		
<b>Min.</b>	<b>2.5</b>	<b>2.0</b>	<b>2.3</b>	<b>2.0</b>	<b>2.0</b>	<b>1.8</b>	<b>1.7</b>	<b>2.3</b>	<b>2.9</b>	<b>2.6</b>	<b>3.0</b>	<b>3.1</b>	<b>3.2</b>	<b>3.6</b>	<b>3.3</b>	<b>3.7</b>	<b>4.6</b>	<b>4.2</b>	<b>4.0</b>	<b>2.5</b>	<b>2.3</b>	<b>2.5</b>	<b>1.5</b>	<b>3.3</b>	<b>1.5</b>		
<b>Avg.</b>	<b>8.8</b>	<b>9.0</b>	<b>9.2</b>	<b>8.6</b>	<b>8.2</b>	<b>8.1</b>	<b>8.0</b>	<b>8.6</b>	<b>9.2</b>	<b>9.4</b>	<b>9.7</b>	<b>10.3</b>	<b>10.6</b>	<b>11.0</b>	<b>11.5</b>	<b>11.8</b>	<b>11.5</b>	<b>11.3</b>	<b>11.1</b>	<b>11.0</b>	<b>10.6</b>	<b>9.8</b>	<b>9.5</b>	<b>9.1</b>	<b>9.8</b>		

**Total Hours in Month** 720      **Hours Data Available** 720      **Data Recovery** 100.0%



# Northern Dynasty Mines Pebble 1 Meterological Station - Maximum 1 Minute Wind Speed (m/s)

July 2006

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	3.6	2.1	3.4	4.3	3.1	3.0	2.0	2.2	2.7	2.6	2.4	3.0	3.7	4.8	4.3	5.0	5.5	5.9	7.2	6.7	6.8	7.0	6.2	5.7	7.2	2.0	4.3
2	3.0	3.4	4.1	3.6	3.5	4.1	4.4	4.6	6.1	6.3	7.1	8.4	7.5	8.5	7.9	9.2	10.6	12.4	11.8	10.9	9.4	9.4	10.2	10.2	12.4	3.0	7.4
3	11.5	11.3	10.2	7.7	6.7	6.5	5.8	6.0	7.3	7.8	6.0	6.0	6.2	5.6	5.2	5.0	6.4	6.7	6.3	6.1	6.4	4.9	2.5	2.7	11.5	2.5	6.5
4	2.6	2.0	1.8	2.4	2.6	2.1	1.5	2.3	2.7	3.3	3.9	4.8	6.8	6.6	5.6	8.1	7.4	8.2	8.2	7.0	7.5	6.9	6.7	3.4	8.2	1.5	4.8
5	3.7	2.4	2.0	3.1	3.0	3.2	3.5	3.0	2.7	3.0	3.2	3.5	3.6	5.5	5.7	8.1	13.6	5.8	3.4	2.5	2.8	2.6	2.5	3.2	13.6	2.0	4.0
6	1.8	3.5	4.0	2.9	2.9	1.4	2.9	2.6	3.4	3.7	4.0	4.6	5.9	7.2	7.8	8.0	7.3	8.1	4.4	3.6	4.6	4.0	5.7	5.9	8.1	1.4	4.6
7	5.5	4.6	5.7	6.5	7.0	5.4	4.9	6.4	8.3	9.7	9.5	7.8	8.5	9.3	9.2	9.4	9.8	9.0	6.6	5.9	7.8	8.3	7.1	8.6	9.8	4.6	7.5
8	8.5	9.6	6.1	9.7	9.5	6.1	6.5	6.5	6.5	6.3	3.9	3.2	3.6	3.8	2.8	3.3	4.1	4.0	4.6	5.0	3.6	5.5	5.1	3.9	9.7	2.8	5.5
9	1.9	2.7	3.7	3.8	4.5	4.4	4.2	4.5	3.7	3.3	4.3	6.0	7.6	7.9	9.3	10.3	9.9	9.9	10.9	11.8	12.4	12.1	13.5	16.0	16.0	1.9	7.4
10	16.1	17.4	17.8	16.3									18.4	17.4	17.5	30.7	17.7	18.3	18.8	17.1	16.4	15.8	12.0	11.5	30.7	11.5	17.4
11	11.2	8.8	7.4	9.2	9.7	6.7	6.5	7.0	6.2		6.9	6.4	7.1	7.2	8.4	7.4	7.5	7.1	5.7	5.6	5.3	4.0	4.8	2.9	11.2	2.9	6.9
12	4.0	4.3	2.2	1.7	2.4	2.9	3.7	4.4	5.7	4.2	5.0	5.5	6.1	7.1	6.5	5.5	7.4	11.1	11.2	8.7	7.7	7.7	4.7	5.1	11.2	1.7	5.6
13	5.6	5.3	5.0	5.1	4.5	4.9	3.5	7.9	8.1	7.9	6.3	8.0	7.5	8.6	8.3	8.5	8.0	9.7	11.0	11.8	11.5	10.6	12.0	14.9	14.9	3.5	8.1
14	13.7	13.2	12.0	11.3	10.2	10.4	10.1	9.0	8.0	7.7	8.2	8.3	8.0	7.8	7.7	8.6	9.5	9.0	9.0	8.3	9.5	9.4	9.9	8.3	13.7	7.7	9.5
15	8.2	6.2	6.1	6.1	5.3	5.0	5.4	6.5	5.9	5.5	6.3	6.4	7.1	7.2	6.5	6.9	7.4	7.9	7.1	6.1	6.5	5.4	4.8	6.3	8.2	4.8	6.3
16	7.1	6.8	7.6	7.5	9.4	12.7	13.0	13.4	14.6	15.7	15.6	15.7	16.2	16.7	17.6	17.8	17.8	16.1	13.9	12.2	11.1	9.9	9.7	9.6	17.8	6.8	12.8
17	11.0	11.8	14.7	13.5	14.7	15.3	14.7	15.9	16.3	18.4	19.6	21.3	18.5	19.2	17.0	17.8	17.8	17.0	17.0	17.2	13.8	14.7	15.8	23.9	23.9	11.0	16.5
18	21.9	20.3	20.4	20.6	14.4	15.0	15.2	18.3	17.5	19.6	20.7	19.1	19.2	19.7	17.5	18.4	17.7	17.1	17.2	17.0	17.2	15.2	14.7	13.5	21.9	13.5	17.8
19	15.1	13.5	13.2	9.9	8.6	6.1	5.1	5.0	4.3	5.1	8.1	8.7	8.2	8.3	6.6	6.9	7.2	6.9	6.7	5.9	4.2	4.0	3.0	2.7	15.1	2.7	7.2
20	3.4	5.0	5.1	4.6	4.6	5.7	5.8	6.2	6.8	7.4	8.5	10.1	9.2	9.4	8.7	7.4	8.1	7.9	7.0	7.1	7.4	7.3	7.5	7.5	10.1	3.4	7.0
21	6.0	5.7	4.2	3.4	1.4	1.5	1.3	2.9	3.9	4.4	5.6	5.5	4.1	9.2	8.0	9.1	9.2	8.5	8.5	8.1	7.9	4.3	5.1	4.0	9.2	1.3	5.5
22	3.9	3.1	1.6	2.1	3.2	2.9	3.0	4.0	4.8	5.2	7.1	5.6	5.7	7.8	8.1	7.8	7.3	5.8	6.9	8.9	10.7	9.8	9.5	11.0	11.0	1.6	6.1
23	11.8	11.6	9.9	10.3	11.8	12.0	12.2	9.0	8.5	5.3	3.6	3.4	3.1	7.7	5.1	4.6	4.5	4.8	5.1	3.0	2.8	2.7	3.0	4.7	12.2	2.7	6.7
24	3.4	6.2	4.9	8.2	9.0	6.8	6.4	5.9	6.3	4.3	2.4	3.8	4.8	6.0	7.1	7.0	7.8	6.5	7.3	8.0	10.8	10.5	11.1	9.3	11.1	2.4	6.8
25	10.3	11.9	11.7	11.6	5.7	4.6	3.1	6.2	6.8	7.3	8.8	8.8	9.1	7.4	8.1	8.4	7.0	6.5	6.3	4.2	3.5	3.9	3.9	4.3	11.9	3.1	7.1
26	4.0	3.4	3.4	4.1	4.2	2.8	2.3	2.3	3.5	5.9	6.6	6.4	6.7	7.1	8.3	9.3	10.2	10.2	10.0	9.0	7.5	7.0	7.0	8.7	10.2	2.3	6.2
27	8.6	7.9	6.9	5.7	6.0	3.1	3.3	1.8	2.0	3.1	2.8	4.5	5.1	4.3	4.9	4.3	4.8	4.2	3.9	4.6	3.3	3.0	2.6	1.5	8.6	1.5	4.3
28	2.3	2.1	2.2	1.7	1.7	1.6	2.6	3.4	6.4	6.1	6.3	7.1	9.5	10.4	11.2	10.0	10.2	11.5	13.6	12.5	14.3	13.3	13.2	13.7	14.3	1.6	7.8
29	14.2	13.5	15.6	17.7	16.9	15.6	15.2	12.8	12.3	12.5	9.3	8.8	10.7	11.3	10.4	13.6	14.0	13.6	15.5	13.1	14.1	12.1	10.3	8.7	17.7	8.7	13.0
30	8.3	10.4	7.7	8.7	7.4	5.1	2.8	3.4	2.5	3.4	5.2	5.5	6.1	7.1	9.3	13.7	13.4	14.8	14.5	15.3	14.1	13.3	10.7	8.4	15.3	2.5	8.8
31	8.4	7.5	8.0	7.4	5.8	6.8	6.1	5.5	7.1	7.4	7.0	6.7	6.5	10.0	9.3	7.8	6.7	5.2	5.0	4.6	3.7	3.3	2.2	3.3	10.0	2.2	6.3
<b>Max.</b>	<b>21.9</b>	<b>20.3</b>	<b>20.4</b>	<b>20.6</b>	<b>16.9</b>	<b>15.6</b>	<b>15.2</b>	<b>18.3</b>	<b>17.5</b>	<b>19.6</b>	<b>20.7</b>	<b>21.3</b>	<b>19.2</b>	<b>19.7</b>	<b>17.6</b>	<b>30.7</b>	<b>17.8</b>	<b>18.3</b>	<b>18.8</b>	<b>17.2</b>	<b>17.2</b>	<b>15.8</b>	<b>15.8</b>	<b>23.9</b>	<b>30.7</b>		
<b>Min.</b>	<b>1.8</b>	<b>2.0</b>	<b>1.6</b>	<b>1.7</b>	<b>1.4</b>	<b>1.4</b>	<b>1.3</b>	<b>1.8</b>	<b>2.0</b>	<b>2.6</b>	<b>2.4</b>	<b>3.0</b>	<b>3.1</b>	<b>3.8</b>	<b>2.8</b>	<b>3.3</b>	<b>4.1</b>	<b>4.0</b>	<b>3.4</b>	<b>2.5</b>	<b>2.8</b>	<b>2.6</b>	<b>2.2</b>	<b>1.5</b>		<b>1.3</b>	
<b>Avg.</b>	<b>7.8</b>	<b>7.7</b>	<b>7.4</b>	<b>7.4</b>	<b>6.7</b>	<b>6.1</b>	<b>5.9</b>	<b>6.3</b>	<b>6.7</b>	<b>7.0</b>	<b>7.1</b>	<b>7.4</b>	<b>8.1</b>	<b>8.9</b>	<b>8.7</b>	<b>9.6</b>	<b>9.5</b>	<b>9.3</b>	<b>9.2</b>	<b>8.6</b>	<b>8.5</b>	<b>8.0</b>	<b>7.6</b>	<b>7.9</b>			<b>7.8</b>

Total Hours in Month

744

Hours Data Available

735

Data Recovery

98.8%

HCG, Inc.

# Northern Dynasty Mines Pebble 1 Meterological Station - Wind Speed (RMYoung) (m/s)

*August 2005*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	2.4	2.6	1.4	2.1	2.5	2.6	1.3	1.4	1.4	2.1	1.9	2.7	3.9	4.6	3.9	3.2	4.5	5.7	5.8	5.5	5.3	5.3	4.8	5.1	5.8	1.3	3.4
2	9.1	9.7	8.2	8.3	8.9	8.0	7.9	5.8	5.8	5.1	6.0	4.6	6.4	5.7	5.0	6.3	4.3	3.7	1.6	4.1	2.8	3.6	3.5	2.5	9.7	1.6	5.7
3	3.5	5.5	2.3	4.1	3.2	2.4	3.1	3.1	2.3	2.3	3.0	3.5	2.5	1.7	1.7	3.9	5.0	4.5	3.2	4.2	3.2	3.2	2.5	1.7	5.5	1.7	3.2
4	1.9	2.3	2.5	2.1	1.8	3.1	1.3	1.2	1.2	1.5	1.3	2.5	1.1	1.3	2.2	2.2	2.9	4.1	2.0	1.8	1.9	2.3	1.2	0.9	4.1	0.9	1.9
5	1.0	2.3	1.0	1.5	1.9	1.6	1.8	2.2	1.2	2.5	2.5	2.7	4.1	3.8	4.8	4.9	4.4	4.8	5.8	6.7	6.1	5.9	4.1	2.4	6.7	1.0	3.3
6	1.3	2.8	2.4	1.8	1.1	1.2	1.9	1.3	1.8	1.4	1.9	1.1	1.1	2.7	4.0	5.3	3.6	3.9	3.6	4.5	3.3	3.1	2.0	2.2	5.3	1.1	2.5
7	1.4	1.4	2.1	1.6	2.8	3.5	2.6	5.2	5.4	4.3	2.4	2.7	4.5	4.7	3.2	1.9	4.1	3.8	3.6	3.4	4.1	4.5	4.0	3.9	5.4	1.4	3.4
8	2.9	2.9	2.7	3.1	3.6	3.2	3.4	3.3	3.2	3.6	2.1	1.2	1.6	1.7	2.6	2.9	4.1	4.0	3.7	2.9	2.0	0.7	2.2	2.5	4.1	0.7	2.7
9	4.7	4.7	3.8	3.2	3.0	2.9	3.0	3.4	4.4	5.2	5.4	5.5	5.6	5.5	6.4	7.6	8.6	7.5	6.8	7.1	7.8	4.7	6.2	5.5	8.6	2.9	5.4
10	2.1	2.7	2.6	1.5	1.2	2.0	1.7	2.9	2.5	1.9	2.5	2.7	3.9	4.6	5.7	5.9	4.4	2.7	2.9	3.5	3.6	3.1	3.3	3.5	5.9	1.2	3.1
11	3.8	3.7	3.5	3.5	4.2	4.0	4.1	4.1	4.8	5.2	5.3	5.5	4.9	3.2	2.1	1.8	2.6	2.5	2.3	2.6	2.4	2.5	3.3	4.3	5.5	1.8	3.6
12	2.6	1.4	1.6	1.5	1.5	1.8	2.0	1.7	2.2	3.5	5.2	4.8	6.2	6.5	6.9	5.9	6.1	6.0	5.1	5.7	5.7	5.4	5.3	5.4	6.9	1.4	4.2
13	4.5	5.2	2.2	2.6	2.5	1.7	2.5	2.1	1.5	2.1	2.9	4.1	4.6	4.5	5.6	6.5	6.4	6.1	7.0	7.0	6.0	3.9	3.9	4.1	7.0	1.5	4.1
14	4.6	4.0	3.2	3.1	2.7	1.8	1.0	2.3	2.0	1.7	2.3	2.8	3.2	2.7	3.4	3.0	4.6	4.8	4.1	2.5	2.2	2.6	3.1	2.8	4.8	1.0	2.9
15	4.1	4.8	4.3	5.4	4.7	5.1	5.3	6.6	5.8	6.4	7.4	7.8	8.0	8.1	9.7	8.9	9.0	8.8	11.0	10.3	8.2	9.4	7.6	4.8	11.0	4.1	7.1
16	5.3	6.1	5.9	6.8	8.5	8.9	8.7	8.7	9.5	10.9	11.7	12.8	13.2	13.0	13.4	13.6	13.8	13.6	12.5	12.7	12.8	11.3	11.9	12.4	13.8	5.3	10.7
17	13.5	13.8	12.5	12.3	9.5	5.5	4.5	3.8	4.4	5.0	4.2	3.1	4.1	5.5	6.1	5.4	4.4	4.1	5.1	3.8	3.0	3.2	2.0	1.9	13.8	1.9	5.9
18	1.8	3.6	2.6	2.1	2.6	1.2	1.7	1.8	2.8	4.1	2.7	3.2	6.3	7.2	6.8	4.2	4.7	2.3	2.8	2.5	2.2	1.8	1.2	0.8	7.2	0.8	3.0
19	1.0	1.9	1.0	1.2	1.2	2.4	4.1	4.7	4.7	4.4	5.7	8.6	9.3	8.5	10.1	9.8	10.9	10.5	9.1	7.3	7.2	6.8	6.5	6.8	10.9	1.0	6.0
20	5.6	5.8	5.3	5.1	5.5	6.1	5.8	6.9	5.9	6.0	5.6	6.5	6.2	6.6	6.1	6.2	5.5	5.2	3.6	7.6	10.3	9.9	11.1	10.2	11.1	3.6	6.6
21	10.7	10.9	11.2	10.3	9.6	7.7	7.7	8.7	8.3	9.6	11.6	10.8	9.9	9.5	8.7	8.1	8.4	7.9	7.8	6.5	5.3	6.1	5.0	3.8	11.6	3.8	8.5
22	2.8	1.2	2.5	2.9	2.6	2.7	3.0	4.3	4.9	6.2	9.0	12.0	15.2	14.9	15.2	16.4	17.3	17.4	18.3	17.3	15.8	16.2	17.5	15.9	18.3	1.2	10.5
23	17.0	17.0	16.8	17.5	13.9	9.3	12.7	14.5	13.8	12.4	14.3	15.6	15.1	14.3	14.3	13.5	14.3	14.0	12.8	12.9	13.9	13.4	12.8	12.9	17.5	9.3	14.1
24	13.7	11.1	9.0	6.5	3.5	2.2	2.4	1.5	1.6	3.8	10.5	11.4	11.2	10.6	10.3	9.7	8.9	8.9	8.9	8.2	6.7	4.9	5.2	4.8	13.7	1.5	7.3
25	3.8	2.8	3.3	2.5	2.2	2.9	2.0	2.3	2.4	2.6	2.4	4.3	3.9	4.2	3.7	3.4	5.0	5.2	6.4	6.5	5.5	6.1	6.3	7.1	7.1	2.0	4.0
26	7.4	8.5	8.8	7.5	5.5	6.3	5.9	6.6	6.4	10.5	13.6	14.9	15.0	13.5	13.2	13.9	15.8	15.6	16.7	14.0	11.8	10.3	8.5	8.4	16.7	5.5	10.8
27	6.0	5.6	5.8	7.9	7.7	4.8	5.0	5.3	10.0	8.7	8.4	7.9	7.7	7.5	6.4	7.5	6.2	5.5	5.1	3.3	1.8	2.4	3.2	3.8	10.0	1.8	6.0
28	4.2	4.7	3.7	4.8	5.6	6.0	6.6	6.8	6.9	7.3	6.8	9.3	7.7	10.8	12.5	12.8	13.2	12.9	9.8	11.3	10.0	11.2	10.9	9.0	13.2	3.7	8.5
29	9.1	8.8	9.3	10.0	7.9	7.6	7.2	6.9	7.1	8.3	8.3	7.9	6.8	6.4	6.3	4.8	6.0	6.9	4.7	6.1	7.7	6.4	6.4	5.6	10.0	4.7	7.2
30	4.0	3.2	3.5	4.2	4.1	4.6	4.4	6.3	7.3	9.4	10.3	9.0	8.9	10.7	10.6	11.1	10.4	9.1	9.5	7.2	8.7	9.5	9.0	9.6	11.1	3.2	7.7
31	8.9	8.0	6.5	8.6	8.3	9.4	7.6	10.1	11.4	10.7	12.5	12.7	13.7	14.6	13.1	14.3	13.0	10.2	11.4	9.0	6.0	6.6	10.7	12.0	14.6	6.0	10.4
<b>Max.</b>	<b>17.0</b>	<b>17.0</b>	<b>16.8</b>	<b>17.5</b>	<b>13.9</b>	<b>9.4</b>	<b>12.7</b>	<b>14.5</b>	<b>13.8</b>	<b>12.4</b>	<b>14.3</b>	<b>15.6</b>	<b>15.2</b>	<b>14.9</b>	<b>15.2</b>	<b>16.4</b>	<b>17.3</b>	<b>17.4</b>	<b>18.3</b>	<b>17.3</b>	<b>15.8</b>	<b>16.2</b>	<b>17.5</b>	<b>15.9</b>	<b>18.3</b>		
<b>Min.</b>	<b>1.0</b>	<b>1.2</b>	<b>1.0</b>	<b>1.2</b>	<b>1.1</b>	<b>1.2</b>	<b>1.0</b>	<b>1.2</b>	<b>1.2</b>	<b>1.4</b>	<b>1.3</b>	<b>1.1</b>	<b>1.1</b>	<b>1.3</b>	<b>1.7</b>	<b>1.8</b>	<b>2.6</b>	<b>2.3</b>	<b>1.6</b>	<b>1.8</b>	<b>1.8</b>	<b>0.7</b>	<b>1.2</b>	<b>0.8</b>		<b>0.7</b>	
<b>Avg.</b>	<b>5.3</b>	<b>5.5</b>	<b>4.9</b>	<b>5.0</b>	<b>4.6</b>	<b>4.3</b>	<b>4.3</b>	<b>4.7</b>	<b>4.9</b>	<b>5.4</b>	<b>6.1</b>	<b>6.6</b>	<b>7.0</b>	<b>7.1</b>	<b>7.2</b>	<b>7.3</b>	<b>7.5</b>	<b>7.2</b>	<b>6.9</b>	<b>6.7</b>	<b>6.2</b>	<b>6.0</b>	<b>6.0</b>	<b>5.7</b>			<b>5.9</b>

Total Hours in Month 744

Hours Data Available 744

Data Recovery 100.0%

# Northern Dynasty Mines Pebble 1 Meterological Station - Wind Speed (RMYoung) (m/s)

*September 2005*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	10.4	10.0	9.0	9.0	8.7	6.8	7.1	7.8	9.2	10.2	10.1	11.5	10.9	9.3	9.1	9.2	9.2	9.6	9.1	6.6	4.5	4.4	4.6	3.6	11.5	3.6	8.3	
2	3.7	3.0	2.9	2.9	1.4	0.9	1.9	2.5	3.1	4.9	6.9	9.8	11.5	12.3	14.1	14.7	11.8	11.8	10.6	11.6	13.7	14.0	14.1	15.6	15.6	0.9	8.3	
3	15.1	14.5	11.2	10.6	12.0	10.7	11.2	12.6	12.5	13.7	13.9	13.1	13.9	15.3	16.9	15.9	14.4	14.3	12.8	10.5	8.9	8.1	6.9	5.1	16.9	5.1	12.2	
4	2.6	2.0	1.4	0.6	0.8	0.9	1.3	0.6	0.5	1.5	2.0	3.7	3.9	4.6	4.8	4.2	4.7	5.7	5.7	5.6	6.0	5.8	6.1	6.8	6.8	0.5	3.4	
5	6.5	6.9	6.7	7.0	6.8	7.8	8.8	6.9	7.8	8.6	11.7	13.5	12.9	13.3	13.5	13.5	10.9	8.6	9.7	10.0	10.3	7.6	7.1	5.9	13.5	5.9	9.3	
6	6.7	3.1	2.5	4.1	5.2	3.4	2.1	2.3	3.5	7.3	7.0	6.5	6.7	7.8	7.2	7.4	8.3	7.3	6.1	6.5	7.1	8.6	8.3	7.6	8.6	2.1	5.9	
7	6.0	4.7	4.8	2.9	4.0	1.8	2.3	1.9	2.4	2.8	3.8	4.8	5.8	4.8	6.9	8.2	8.8	8.2	7.2	5.7	5.7	3.9	4.0	3.6	8.8	1.8	4.8	
8	1.4	2.7	2.7	3.6	4.4	3.6	2.5	2.7	1.7	1.6	2.8	3.3	3.8	5.6	7.9	8.4	8.2	9.3	9.7	12.3	15.8	15.8	14.3	14.6	15.8	1.4	6.6	
9	15.5	15.2	11.6	10.5	10.3	8.3	10.2	9.8	10.6	10.1	11.1	8.7	8.4	8.6	7.6	6.9	7.2	6.5	5.9	7.3	7.6	6.9	6.7	7.8	15.5	5.9	9.1	
10	7.2	7.7	9.4	9.4	10.0	13.0	13.0	8.4	2.9	3.4	5.2	6.0	4.1	5.2	5.1	3.9	2.1	2.1	2.4	3.2	1.4	1.1	2.6	3.2	13.0	1.1	5.5	
11	4.7	3.9	7.5	8.4	9.2	8.8	9.4	10.4	12.6	14.9	14.8	15.0	14.3	14.0	14.2	13.8	14.8	14.6	12.2	11.6	12.3	14.3	12.4	5.8	15.0	3.9	11.4	
12	5.2	6.4	5.6	7.6	7.0	5.5	6.7	7.2	8.2	9.4	9.3	9.4	10.4	11.1	11.7	12.8	13.5	13.8	14.0	14.5	14.7	14.7	11.7	9.3	14.7	5.2	10.0	
13	8.4	8.0	9.6	10.6	9.3	4.6	2.3	6.7	4.2	2.5	2.9	4.2	4.9	5.5	3.9	3.4	3.0	3.3	2.9	2.2	3.4	2.5	1.7	1.8	10.6	1.7	4.7	
14	1.4	2.4	2.7	3.4	3.2	3.0	2.3	2.3	3.7	3.8	4.6	5.0	6.3	8.1	9.5	10.5	11.0	10.2	11.0	13.0	16.1	15.9	15.8	15.5	16.1	1.4	7.5	
15	18.2	19.0	18.5	19.4	20.3	19.5	18.7	18.0	17.5	17.1	18.9	19.1	18.2	17.5	18.2	18.2	16.6	11.4	4.8	3.8	4.5	5.1	5.1	5.1	20.3	3.8	14.7	
16	9.0	8.5	5.7	6.8	4.7	1.0	2.0	2.6	1.4	1.6	3.8	4.6	5.8	5.8	6.1	5.7	4.7	3.6	4.3	4.8	4.7	5.3	4.9	4.3	9.0	1.0	4.7	
17	3.6	3.4	1.8	1.5	1.4	1.1	0.8	1.1	0.9	1.6	1.4	1.8	1.4	1.7	3.1	4.1	2.1	2.1	1.6	1.8	2.5	3.9	4.2	4.3	4.3	0.8	2.2	
18	4.8	4.6	7.3	5.9	6.1	5.6	5.1	4.0	4.2	6.2	6.9	8.6	9.0	9.1	8.6	7.9	8.4	8.2	6.6	6.2	7.0	5.8	4.7	4.4	9.1	4.0	6.5	
19	4.1	3.6	4.3	4.1	3.4	3.2	3.3	3.0	2.7	4.6	5.4	7.8	8.2	9.2	9.1	9.3	8.8	8.5	8.0	7.1	6.3	7.1	6.0	8.0	9.3	2.7	6.0	
20	8.5	8.0	8.8	6.3	5.1	3.7	3.1	3.9	4.7	4.9	4.7	4.6	6.2	7.0	6.2	7.4	6.4	5.4	4.1	2.9	2.6	3.4	3.4	5.0	8.8	2.6	5.3	
21	4.1	2.7	2.6	4.1	3.0	1.7	1.9	3.6	4.3	5.0	5.2	4.0	4.6	5.6	6.2	5.5	5.8	7.4	6.4	6.9	8.2	8.2	7.5	7.6	8.2	1.7	5.1	
22	7.3	7.3	6.6	6.5	7.8	6.4	7.2	7.7	11.0	14.4	16.5	18.8	18.7	16.5	15.4	12.3	11.5	10.7	13.1	12.1	9.6	10.4	8.3	9.4	18.8	6.4	11.1	
23	7.5	7.5	5.6	5.7	4.9	4.7	4.4	3.9	4.5	5.8	6.7	7.3	8.9	11.6	12.5	11.5	10.2	9.3	8.5	7.7	9.9	10.9	11.6	12.9	12.9	3.9	8.1	
24	11.3	9.4	9.3	11.3	12.6	11.0	11.4	9.9	8.9	10.1	10.7	9.6	9.1	9.4	10.6	9.4	10.1	8.5	9.3	9.0	10.1	9.9	9.5	9.4	12.6	8.5	10.0	
25	9.8	10.2	9.8	10.6	10.8	10.7	10.6	9.0	8.3	8.5	8.7	8.3	8.0	8.0	7.7	7.2	6.8	7.2	6.2	6.1	5.8	7.3	7.2	6.3	10.8	5.8	8.3	
26	4.7	2.5	2.6	3.0	3.7	3.3	3.1	3.3	5.3	6.3	9.2	12.2	14.8	16.7	18.1	16.5	17.4	16.9	19.9	19.2	19.1	20.9	21.8	19.0	21.8	2.5	11.6	
27	18.7	19.5	18.9	20.4	20.7	18.2	14.6	6.4	5.5	5.4	2.5	5.3	9.8	11.8	9.3	8.7	8.1	7.4	6.3	6.2	3.5	2.3	1.5	1.5	20.7	1.5	9.7	
28	2.3	2.9	2.3	2.5	4.5	4.6	3.9	2.7	1.7	1.7	2.2	2.8	2.8	2.4	3.2	2.9	2.9	1.6	0.9	1.6	0.9	2.1	2.2	0.9	4.6	0.9	2.4	
29	1.8	2.5	3.4	3.5	5.0	5.5	3.7	4.7	5.4	5.9	5.5	6.6	8.0	8.0	6.2	6.9	6.4	5.3	3.5	2.9	2.9	1.3	1.4	2.7	8.0	1.3	4.5	
30	1.9	1.1	1.3	2.4	1.5	1.4	1.3	1.2	1.2	1.1	1.1	2.1	1.9	2.3	2.2	2.3	5.3	7.4	6.1	7.3	9.1	10.8	10.9	11.1	11.1	1.1	3.9	
<b>Max.</b>	<b>18.7</b>	<b>19.5</b>	<b>18.9</b>	<b>20.4</b>	<b>20.7</b>	<b>19.5</b>	<b>18.7</b>	<b>18.0</b>	<b>17.5</b>	<b>17.1</b>	<b>18.9</b>	<b>19.1</b>	<b>18.7</b>	<b>17.5</b>	<b>18.2</b>	<b>18.2</b>	<b>17.4</b>	<b>16.9</b>	<b>19.9</b>	<b>19.2</b>	<b>19.1</b>	<b>20.9</b>	<b>21.8</b>	<b>19.0</b>	<b>21.8</b>			
<b>Min.</b>	<b>1.4</b>	<b>1.1</b>	<b>1.3</b>	<b>0.6</b>	<b>0.8</b>	<b>0.9</b>	<b>0.8</b>	<b>0.6</b>	<b>0.5</b>	<b>1.1</b>	<b>1.1</b>	<b>1.8</b>	<b>1.4</b>	<b>1.7</b>	<b>2.2</b>	<b>2.3</b>	<b>2.1</b>	<b>1.6</b>	<b>0.9</b>	<b>1.6</b>	<b>0.9</b>	<b>1.1</b>	<b>1.4</b>	<b>0.9</b>		<b>0.5</b>		
<b>Avg.</b>	<b>7.1</b>	<b>6.8</b>	<b>6.5</b>	<b>6.8</b>	<b>6.9</b>	<b>6.0</b>	<b>5.9</b>	<b>5.6</b>	<b>5.7</b>	<b>6.5</b>	<b>7.2</b>	<b>7.9</b>	<b>8.4</b>	<b>8.9</b>	<b>9.2</b>	<b>9.0</b>	<b>8.6</b>	<b>8.2</b>	<b>7.6</b>	<b>7.5</b>	<b>7.8</b>	<b>7.9</b>	<b>7.5</b>	<b>7.3</b>			<b>7.4</b>	
<b>Total Hours in Month</b>	720		<b>Hours Data Available</b>										720		<b>Data Recovery</b>										100.0%			

# Northern Dynasty Mines Pebble 1 Meterological Station - Wind Speed (RMYoung) (m/s)

October 2005

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	11.6	12.9	12.6	13.9	14.8	14.8	14.1	13.5	12.1	12.6	12.0	12.7	12.9	13.6	12.4	11.7	12.8	12.0	10.1	8.7	8.7	8.6	9.2	8.0	14.8	8.0	11.9	
2	8.0	7.2	7.3	7.0	5.9	3.9	4.6	2.9	2.9	2.5	5.2	7.3	6.4	6.6	8.2	6.9	6.6	5.0	4.1	3.7	4.4	4.8	3.3	3.4	8.2	2.5	5.3	
3	1.8	2.2	2.6	2.0	1.3	1.2	1.3	1.0	1.9	2.3	3.2	3.0	2.5	2.4	2.0	2.2	1.3	1.8	2.2	0.8	0.9	2.1	2.4	1.7	3.2	0.8	1.9	
4	2.8	2.1	2.8	2.6	3.9	4.7	5.8	3.6	5.1	6.1	7.0	5.8	7.1	6.6	6.1	6.7	5.7	6.9	4.6	4.1	7.4	9.1	10.0	10.4	10.4	2.1	5.7	
5	8.8	5.6	4.5	5.0	3.7	3.5	3.8	2.8	4.5	3.4	3.7	4.3	4.6	3.6	3.5	3.1	2.5	2.9	2.5	2.8	1.7	0.7	1.5	1.7	8.8	0.7	3.5	
6	1.5	2.4	1.8	1.2	1.0	1.1	1.7	1.4	2.0	3.1	2.7	2.4	1.9	3.4	2.9	4.1	4.0	4.3	4.0	2.7	2.7	2.8	2.1	3.7	4.3	1.0	2.5	
7	5.8	5.1	3.4	5.4	9.2	9.9	11.2	9.7	9.6	11.0	11.3	10.4	9.9	9.0	8.8	6.6	4.5	3.2	1.8	1.6	1.8	1.3	1.5	1.5	11.3	1.3	6.4	
8	1.3	1.6	1.8	1.1	1.6	1.6	2.1	2.0	2.0	1.2	0.6	0.5	1.9	2.3	2.6	2.2	2.3	1.2	1.3	0.4	0.8	1.2	1.7	1.8	2.6	0.4	1.5	
9	1.5	1.7	1.9	1.1	1.3	2.2	2.6	3.8	4.6	4.5	4.9	6.2	7.8	7.8	7.2	7.7	6.8	5.9	5.7	5.5	5.4	6.6	7.3	7.3	7.8	1.1	4.9	
10	6.0	6.8	6.4	5.1	3.2	2.4	1.5	0.3	0.2	0.7	1.4	0.5	0.0	0.0	0.5	1.6	2.2	1.8	0.7	3.1	6.1	6.9	7.6	6.2	7.6	0.0	3.0	
11	4.6	4.2	4.0	4.0	3.9	3.9	3.8	4.1	4.9	5.1	4.7	4.8	5.0	4.5	5.7	6.2	8.5	9.9	11.9	10.6	8.6	8.7	9.1	8.7	11.9	3.8	6.2	
12	8.5	8.6	9.6	9.6	9.4	10.1	11.1	11.6	12.5	12.9	13.1	12.0	10.4	9.1	9.9	8.2	7.0	5.3	3.1	2.7	2.0	1.7	1.6	1.9	13.1	1.6	8.0	
13	1.9	3.0	3.2	3.1	2.7	2.8	2.5	2.2	3.0	3.4	3.6	2.7	3.0	2.9	3.0	3.0	3.6	3.2	4.2	2.9	3.9	5.4	6.0	6.2	6.2	1.9	3.4	
14	6.2	6.2	5.7	4.5	3.8	4.5	2.9	2.3	4.6	6.2	4.2	3.0	3.4	4.2	2.9	2.2	2.8	5.3	7.1	8.5	8.4	9.0	7.4	8.3	9.0	2.2	5.1	
15	5.8	4.8	3.0	3.2	4.2	3.6	3.3	4.4	4.8	5.3	1.7	1.5	1.9	2.7	4.3	4.5	4.9	5.4	4.7	4.2	7.2	7.9	7.4	7.7	7.9	1.5	4.5	
16	6.2	5.9	5.4	5.9	4.2	4.0	3.4	3.2	3.6	3.4	1.7	1.2	2.6	3.5	5.4	3.8	4.5	2.7	5.7	2.8	3.1	5.9	8.5	8.6	8.6	1.2	4.4	
17	9.8	11.7	12.1	11.0	13.1	14.6	15.4	15.9	15.6	14.9	12.1	11.1	14.3	16.1	15.0	15.6	14.3	13.6	12.1	11.9	14.2	14.2	14.8	14.6	16.1	9.8	13.7	
18	13.1	14.1	15.1	14.7	13.3	12.9	12.0	10.5	10.8	11.2	11.2	6.3	2.8	6.0	8.8	8.0	5.5	5.9	6.4	7.8	6.6	6.9	6.4	6.0	15.1	2.8	9.3	
19	7.5	8.7	8.8	10.2	9.6	8.9	8.4	9.6	10.7	11.6	13.8	12.4	14.0	16.9	18.0	17.8	19.7	20.8	21.7	23.0	22.8	22.2	21.5	22.2	23.0	7.5	15.0	
20	21.9	21.3	21.2	22.3	21.7	21.5	20.5	20.8	20.6	22.2	21.6	17.5	13.3	4.6	5.2	4.8	4.0	7.9	8.3	8.8	9.3	9.2	5.8	7.1	22.3	4.0	14.2	
21	5.4	7.1	6.2	1.1	2.9	4.2	3.9	4.4	6.1	5.8	5.0	4.6	4.6	3.6	2.5	1.9	3.0	6.9	8.0	8.4	8.4	8.8	7.9	6.5	8.8	1.1	5.3	
22	7.8	6.8	5.2	5.5	6.5	7.7	9.1	9.2	9.4	10.0	10.4	9.1	9.8	11.6	12.5	10.2	8.6	8.4	6.4	7.9	6.9	6.2	6.8	6.0	12.5	5.2	8.2	
23	5.4	5.6	4.9	4.7	6.4	7.4	6.9	7.4	6.7	6.4	8.8	12.8	13.5	14.3	14.5	14.0	13.8	15.4	13.7	12.2	10.2	8.6	7.4	5.4	15.4	4.7	9.4	
24	4.4	3.0	2.4	2.0	2.2	1.8	2.5	2.4	2.2	2.3	4.5	7.1	7.5	8.2	6.9	8.3	8.0	7.1	7.0	7.1	7.6	7.2	8.5	10.0	10.0	1.8	5.4	
25	9.2	11.7	11.6	10.3	9.5	9.3	8.6	6.8	4.5	4.5	5.3	6.4	5.3	4.9	8.4	10.3	11.0	9.7	8.6	8.7	9.0	8.4	10.2	11.1	11.7	4.5	8.5	
26	12.7	11.5	11.9	11.2	12.2	11.9	9.7	8.7	8.7	9.1	11.4	11.9	9.6	8.6	8.8	8.4	10.2	8.3	7.8	7.7	5.0	4.7	3.7	4.1	12.7	3.7	9.1	
27	3.5	2.6	2.2	1.7	1.3	0.7	0.9	0.7	1.0	1.0	1.2	1.3	0.8	1.2	1.1	1.1	0.8	0.7	0.7	1.0	1.7	1.3	0.7	0.6	3.5	0.6	1.2	
28	1.7	2.0	1.5	1.2	1.2	2.0	2.1	2.1	1.8	1.5	3.1	3.6	5.2	5.6	4.7	5.2	4.9	4.4	3.6	2.9	2.2	2.0	0.9	1.3	5.6	0.9	2.8	
29	1.5	1.1	1.2	2.3	2.1	2.7	2.4	2.5	2.5	2.6	2.1	2.0	2.7	2.5	3.0	3.1	3.2	3.2	3.1	2.8	2.7	2.0	1.8	2.4	3.2	1.1	2.4	
30	2.8	3.0	3.4	3.3	2.9	2.9	2.6	3.0	3.2	2.9	3.0	2.6	2.5	4.0	5.8	5.7	6.6	7.6	8.5	8.1	9.9	8.3	7.6	10.4	10.4	2.5	5.0	
31	10.1	10.3	10.6	10.6	9.3	9.9	7.6	9.1	7.9	7.9	8.6	11.0	12.3	12.8	10.1	4.5	6.6	8.8	8.8	10.5	11.3	8.5	6.9	5.2	12.8	4.5	9.1	
<b>Max.</b>	<b>21.9</b>	<b>21.3</b>	<b>21.2</b>	<b>22.3</b>	<b>21.7</b>	<b>21.5</b>	<b>20.5</b>	<b>20.8</b>	<b>20.6</b>	<b>22.2</b>	<b>21.6</b>	<b>17.5</b>	<b>14.3</b>	<b>16.9</b>	<b>18.0</b>	<b>17.8</b>	<b>19.7</b>	<b>20.8</b>	<b>21.7</b>	<b>23.0</b>	<b>22.8</b>	<b>22.2</b>	<b>21.5</b>	<b>22.2</b>	<b>23.0</b>			
<b>Min.</b>	<b>1.3</b>	<b>1.1</b>	<b>1.2</b>	<b>1.1</b>	<b>1.0</b>	<b>0.7</b>	<b>0.9</b>	<b>0.3</b>	<b>0.2</b>	<b>0.7</b>	<b>0.6</b>	<b>0.5</b>	<b>0.0</b>	<b>0.0</b>	<b>0.5</b>	<b>1.1</b>	<b>0.8</b>	<b>0.7</b>	<b>0.4</b>	<b>0.8</b>	<b>0.7</b>	<b>0.7</b>	<b>0.6</b>		<b>0.0</b>			
<b>Avg.</b>	<b>6.4</b>	<b>6.5</b>	<b>6.3</b>	<b>6.0</b>	<b>6.1</b>	<b>6.2</b>	<b>6.1</b>	<b>5.9</b>	<b>6.1</b>	<b>6.4</b>	<b>6.5</b>	<b>6.4</b>	<b>6.4</b>	<b>6.6</b>	<b>6.8</b>	<b>6.4</b>	<b>6.5</b>	<b>6.6</b>	<b>6.4</b>	<b>6.2</b>	<b>6.5</b>	<b>6.5</b>	<b>6.4</b>	<b>6.5</b>			<b>6.4</b>	

Total Hours in Month 744

Hours Data Available 744

Data Recovery 100.0%

# Northern Dynasty Mines Pebble 1 Meterological Station - Wind Speed (RMYoung) (m/s)

*November 2005*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	6.5	6.2	6.1	4.7	4.1	4.0	4.2	3.2	3.5	4.7	4.1	4.1	4.1	3.8	2.8	2.5	3.0	3.2	3.3	4.5	5.1	5.7	5.3	5.4	6.5	2.5	4.3	
2	4.1	4.2	3.4	3.5	2.8	3.4	3.1	3.7	3.6	3.9	3.4	3.5	3.7	2.9	2.7	4.2	4.4	4.6	4.3	4.2	5.4	5.2	5.8	5.2	5.8	2.7	4.0	
3	6.7	6.7	7.8	7.5	10.2	13.1	13.5	10.6	12.6	14.5	18.3	20.5	19.6	20.8	18.9	17.3	18.6	20.2	18.2	17.3	16.8	17.9	21.1	21.2	21.2	6.7	15.4	
4	18.7	16.3	16.6	16.1	14.2	15.0	15.0	16.0	14.9	16.0	15.8	15.1	13.7	15.1	17.2	16.4	14.6	16.8	16.1	14.6	14.4	13.0	15.8	16.6	18.7	13.0	15.6	
5	14.9	16.5	15.9	14.9	16.7	15.7	16.6	16.4	16.2	15.7	14.8	14.1	14.0	14.3	13.9	13.8	12.3	11.8	10.4	10.4	7.4	3.9	2.1	2.8	16.7	2.1	12.7	
6	4.2	4.9	5.8	4.2	12.4	14.2	11.2	13.0	12.1	13.8	18.1	16.9	17.8	17.0	15.1	15.8	15.7	16.3	13.8	10.5	8.4	7.8	9.1	9.6	18.1	4.2	12.0	
7	10.2	12.6	12.5	6.8	7.1	8.4	9.1	8.1	10.0	8.3	8.4	9.4	6.8	5.1	5.6	6.3	6.1	5.7	6.5	5.9	6.2	6.4	6.5	6.0	12.6	5.1	7.7	
8	5.6	5.5	4.9	4.9	4.4	3.9	4.3	4.1	4.2	3.8	3.8	3.8	3.7	4.2	4.0	3.8	5.0	5.9	6.5	7.3	7.9	7.7	8.7	8.5	8.7	3.7	5.3	
9	9.3	10.5	11.8	12.4	12.7	12.0	13.1	14.8	15.5	14.9	14.8	15.2	15.4	15.6	16.1	17.6	18.2	18.5	18.0	17.5	18.1	16.9	17.1	17.3	18.5	9.3	15.1	
10	14.4	13.7	13.7	12.4	13.5	14.2	14.8	14.5	13.4	12.7	12.4	12.9	13.5	13.5	14.2	13.2	13.3	14.1	14.2	13.6	13.0	11.8	10.4	11.0	14.8	10.4	13.3	
11	9.5	9.1	8.8	10.2	10.2	9.9	10.0	9.7	9.2	8.9	8.9	8.6	8.2	7.3	7.2	6.9	7.7	7.1	6.1	6.5	6.0	6.2	6.2	6.0	10.2	6.0	8.1	
12	5.6	5.9	5.1	4.1	4.2	3.8	3.2	3.7	4.9	6.6	5.9	6.7	5.3	5.7	5.8	6.6	6.7	7.3	8.1	8.8	9.0	9.0	7.8	8.8	9.0	3.2	6.2	
13	8.5	7.0	8.5	7.6	9.5	8.2	6.9	7.5	7.5	5.9	5.8	5.4	3.3	2.1	1.1	1.1	2.1	2.3	1.4	1.9	1.8	2.2	2.8	3.4	9.5	1.1	4.7	
14	4.4	6.2	6.6	7.1	7.0	7.6	10.0	7.4	6.1	4.4	3.8	3.0	2.5	5.8	10.1	10.4	7.0	7.9	13.1	13.9	13.4	12.4	10.0	7.9	13.9	2.5	7.8	
15	9.5	7.0	6.5	5.1	3.3	1.3	0.7	2.7	3.6	3.4	4.0	3.8	3.5	3.6	3.0	3.7	2.1	2.4	2.7	1.0	1.6	2.2	3.1	2.1	9.5	0.7	3.4	
16	2.5	3.3	4.9	4.4	6.4	5.4	7.1	8.5	8.0	8.6	10.5	10.1	9.6	9.6	10.7	9.9	9.2	8.5	8.8	7.6	7.3	6.7	7.2	7.3	10.7	2.5	7.6	
17	8.2	8.1	9.2	8.6	7.5	9.4	9.2	8.5	7.0	5.6	9.0	9.6	11.0	11.0	8.6	8.4	6.6	6.5	5.2	4.3	3.6	3.2	1.3	0.7	11.0	0.7	7.1	
18	1.0	1.2	0.7	0.0	0.0	1.7	3.5	3.6	3.7	3.4	3.1	4.9	2.0	2.6	2.7	2.6	3.3	3.2	4.0	2.4	3.2	5.8	6.0	3.8	6.0	0.0	2.8	
19	1.4	3.0	2.5	5.5	3.7	4.0	5.6	10.0	12.9	10.8	8.4	8.9	12.1	13.7	9.2	6.4	9.3	8.0	5.8	2.7	3.6	2.3	4.3	3.2	13.7	1.4	6.6	
20	3.4	4.8	5.2	5.4	4.5	5.4	4.7	4.0	4.2	4.3						2.7	2.3	1.9	2.3	1.0	0.7	1.0	1.6	2.2	5.4	0.7	3.2	
21	2.4	3.0	4.9	4.9	4.5	4.3	3.4	2.8	2.3	1.5	2.5	1.9	2.1	4.4	6.2	5.8	4.5	1.8	2.9	3.1	3.5	1.5	3.1	4.2	6.2	1.5	3.4	
22	2.2	1.2	1.3	1.0	1.4	1.6	1.0	0.7	1.6	1.5	1.4	2.6	1.5	1.8	3.3	3.5	3.3	4.4	4.8	4.9	5.1	6.6	6.4	7.3	7.3	0.7	2.9	
23	7.8	8.4	10.8	12.8	10.9	11.3	11.9	14.3	14.2	12.2	10.6	11.7	10.1	8.7	9.4	7.9	7.3	6.7	4.5	3.5	3.2	3.1	3.3	4.1	14.3	3.1	8.7	
24	4.4	3.7	4.7	6.0	7.9	9.8	11.0	11.0	9.2	10.0	11.9	12.4	13.8	13.8	11.3	9.8	10.8	10.4	10.0	10.6	10.8	11.9	12.3	12.2	13.8	3.7	10.0	
25	12.6	14.0	11.9	11.7	13.5	13.6	13.5	13.3	14.4	15.6	14.6	12.8	11.3	10.0	9.8	11.0	11.2	11.9	12.3	12.9	15.3	15.9	13.7	15.0	15.9	9.8	13.0	
26	16.7	15.9	15.0	15.4	14.3	14.7	15.5	15.1	14.9	14.5	12.7	12.3	13.1	12.9	10.6	12.0	14.0	11.7	11.2	12.1	12.4	12.0	9.7	8.9	16.7	8.9	13.2	
27	7.8	8.5	8.9	9.3	8.4	7.4	7.1	6.6	6.5	6.2	6.3	5.7	4.7	4.9	4.5	1.6	1.4	2.4	2.3	2.1	2.2	2.9	4.7	7.0	9.3	1.4	5.4	
28	8.0	7.7	7.4	7.7	7.4	7.7	8.0	7.4	6.3	5.4	5.1	5.1	5.0	4.5	2.7	3.0	2.3	1.8	2.5	3.0	1.5	2.1	1.4	1.7	8.0	1.4	4.8	
29	2.4	1.4	1.2	0.6	1.4	2.9	4.4	5.2	6.5	6.3	5.0	5.5	6.7	5.9	5.3	5.8	4.8	5.1	6.9	5.0	4.1	4.4	4.0	3.9	6.9	0.6	4.4	
30	3.7	5.4	5.7	3.8	4.4	5.2	5.9	6.8	7.1	8.0	8.1	6.7	5.0	4.2	6.5	7.4	4.9	4.9	5.7	7.2	6.2	6.3	6.0	4.9	8.1	3.7	5.8	
<b>Max.</b>	<b>18.7</b>	<b>16.5</b>	<b>16.6</b>	<b>16.1</b>	<b>16.7</b>	<b>15.7</b>	<b>16.6</b>	<b>16.4</b>	<b>16.2</b>	<b>16.0</b>	<b>18.3</b>	<b>20.5</b>	<b>19.6</b>	<b>20.8</b>	<b>18.9</b>	<b>17.6</b>	<b>18.6</b>	<b>20.2</b>	<b>18.2</b>	<b>17.5</b>	<b>18.1</b>	<b>17.9</b>	<b>21.1</b>	<b>21.2</b>	<b>21.2</b>			
<b>Min.</b>	<b>1.0</b>	<b>1.2</b>	<b>0.7</b>	<b>0.0</b>	<b>0.0</b>	<b>1.3</b>	<b>0.7</b>	<b>0.7</b>	<b>1.6</b>	<b>1.5</b>	<b>1.4</b>	<b>1.9</b>	<b>1.5</b>	<b>1.8</b>	<b>1.1</b>	<b>1.1</b>	<b>1.4</b>	<b>1.8</b>	<b>1.4</b>	<b>1.0</b>	<b>0.7</b>	<b>1.0</b>	<b>1.3</b>	<b>0.7</b>		<b>0.0</b>		
<b>Avg.</b>	<b>7.2</b>	<b>7.4</b>	<b>7.6</b>	<b>7.3</b>	<b>7.6</b>	<b>8.0</b>	<b>8.2</b>	<b>8.4</b>	<b>8.5</b>	<b>8.4</b>	<b>8.7</b>	<b>8.7</b>	<b>8.4</b>	<b>8.4</b>	<b>8.2</b>	<b>7.9</b>	<b>7.7</b>	<b>7.8</b>	<b>7.7</b>	<b>7.3</b>	<b>7.2</b>	<b>7.1</b>	<b>7.2</b>	<b>7.3</b>			<b>7.8</b>	
<b>Total Hours in Month</b>	720																											
	<b>Hours Data Available</b>										715										<b>Data Recovery</b>					99.3%		

# Northern Dynasty Mines Pebble 1 Meterological Station - Wind Speed (RMYoung) (m/s)

*December 2005*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	4.4	4.7	7.4	8.4	9.3	8.8	9.1	8.5	6.4	5.2	4.0	4.7	4.1	4.2	5.6	5.2	3.1	2.5	2.0	1.7	0.7	0.8	0.6	0.2	9.3	0.2	4.7
2	0.1	0.0	0.3	0.2	0.3	1.0	0.8	0.4	0.0	0.8	1.2	1.4	1.8	1.8	2.1	2.4	7.6	8.6	9.9	12.0	12.8	12.4	10.4	10.8	12.8	0.0	4.1
3	10.9	12.5	12.4	12.7	12.6	11.5	9.6	10.5	11.1	9.7	9.9	10.8	9.0	7.2	7.8	8.0	8.3	7.1	4.6	4.8	5.7	4.8	4.7	4.6	12.7	4.6	8.8
4	4.8	4.1	3.2	2.3	2.1	1.3	1.7	2.2	3.2	3.3	4.8	6.5	6.5	9.4	12.0	11.8	13.5	16.9	18.4	18.6	20.1	17.3	16.7	15.5	20.1	1.3	9.0
5	15.1	15.2	15.3	14.7	19.1	18.8	14.4	12.2	15.6	17.4	18.9	17.9	17.5	18.0	17.0	17.3	17.0	17.0	17.1	18.9	17.6	17.9	19.4	20.4	20.4	12.2	17.1
6	21.2	22.9	23.5	22.5	20.6	20.5	20.4	18.9	17.5	17.5	13.1	9.6	9.6	8.4	7.8	7.2	5.7	5.0	6.2	8.1	12.4	15.2	14.8	17.9	23.5	5.0	14.4
7	21.7	23.4	24.8	26.1	26.0	28.6	29.5	30.2	27.3	25.0	24.6	24.2	23.5	22.5	20.7	20.0	20.7	20.1	17.0	18.0	16.4	16.4	15.7	14.2	30.2	14.2	22.3
8	12.7	9.9	9.4	7.4	7.6	5.6	5.4	6.3	7.8	10.9	12.0	13.0	14.8	15.7	15.9	14.7	16.2	17.3	18.3	18.6	20.1	20.3	20.4	20.7	20.7	5.4	13.4
9	21.1	20.7	20.1	19.1	17.9	15.6	15.4	16.1	15.2	15.2	14.6	13.1	12.3	9.7	7.6	5.5	5.7	7.4	6.3	7.3	7.4	6.8	5.1	2.7	21.1	2.7	12.0
10	4.5	2.6	1.1	1.6	2.2	2.4	2.7	3.0	3.2	3.8	6.1	6.2	5.4	5.4	3.9	4.1	4.1	7.1	6.7	9.0	9.9	8.2	8.4	8.2	9.9	1.1	5.0
11	6.1	5.9	3.9	2.4	1.3	3.7	3.6	2.5	1.1	3.3	5.0	6.6	6.4	4.7	2.0	2.6	1.8	4.8	7.7	9.0	11.5	12.0	9.9	11.1	12.0	1.1	5.4
12	11.4	10.0	9.5	7.9	6.7	5.5	6.7	6.3	6.0	4.7	4.2	3.2	2.6	3.0	1.9	1.5	2.0	2.0	1.6	2.1	1.8	0.9	1.0	1.0	11.4	0.9	4.3
13	1.6	0.9	2.1	2.0	1.2	2.9	2.9	3.3	5.6	7.0	10.6	8.4	8.0	10.5	12.3	14.1	16.8	20.1	21.8	22.2	26.4	25.9	23.0	21.6	26.4	0.9	11.3
14	25.7	21.3	19.5	19.0	15.1	6.9	12.6	12.9	11.0	12.8	9.4	10.7	11.5	15.7	16.0	14.6	15.7	15.9	10.5	9.7	9.9	11.7	21.4	20.4	25.7	6.9	14.6
15	20.4	19.1	17.9	19.0	17.3	16.2	10.0	6.2	6.1	7.8	7.0	3.2	5.2	6.0	4.8	4.4	6.0	7.8	11.1	18.8	19.3	19.5	20.8	22.8	22.8	3.2	12.4
16	21.2	20.0	21.2	20.6	19.3	16.7	16.5	15.5	11.8	10.2	7.8	6.1	7.1	5.8	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.2	0.0	8.4
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.8	2.9	5.7	11.4	9.8	7.0	7.8	10.9	12.2	12.2	0.0	2.9
18	8.3	5.6	4.1	2.5	5.0	4.2	4.4	8.7	9.5	4.1	7.9	14.2	14.3	13.5	10.8	8.3	10.7	7.6	7.5	6.0	3.4	3.7	4.2	2.9	14.3	2.5	7.1
19	3.2	3.8	7.0	12.6	13.4	17.2	14.5	17.6	18.1	16.3	13.9	15.4	14.5	16.0	14.2	14.1	14.3	8.9	9.5	12.0	8.6	10.2	10.7	8.3	18.1	3.2	12.3
20	6.5	5.2	2.8	2.6	1.0	1.3	2.1	1.9	0.7	2.2	3.5	3.8	4.5	3.8	1.7	1.7	5.0	3.2	2.4	1.3	2.9	2.4	1.4	3.0	6.5	0.7	2.8
21	2.3	1.5	0.9	0.5	1.4	2.1	0.8	0.7	1.2	1.6	1.0	1.4	0.9	1.1	1.1	0.8	2.1	2.5	2.6	3.2	4.1	5.2	5.2	6.0	6.0	0.5	2.1
22	5.2	4.9	5.5	6.4	5.2	4.7	4.0	4.1	4.9	3.8	2.2	3.7	4.5	4.2	3.3	1.9	2.1	2.0	1.9	1.8	2.1	0.6	0.6	0.7	6.4	0.6	3.3
23	0.3	1.0	1.8	2.0	1.9	1.4	0.4	0.8	1.6	1.6	1.3	1.4	1.3	2.0	2.2	2.4	2.3	2.7	3.1	2.1	1.9	3.1	5.0	7.6	7.6	0.3	2.1
24	9.6	9.4	7.4	7.5	9.7	5.4	6.9	7.0	8.0	7.4	4.7	5.4	4.2	4.0	3.4	1.8	1.0	0.9	2.9	2.8	2.0	1.7	1.0	1.2	9.7	0.9	4.8
25	1.0	1.0	1.5	1.9	2.6	3.1	4.6	8.7	10.5	9.7	9.7	9.3	9.1	5.6	4.5	5.2	8.2	10.3	4.9	4.4	4.9	8.6	9.4	8.1	10.5	1.0	6.1
26	9.0	7.7	13.8	17.0	14.0	16.1	15.5	15.6	9.4	2.4	4.0	2.0	2.7	2.4	3.3	2.9	2.6	3.7	4.4	3.2	3.5	2.9	2.7	6.8	17.0	2.0	7.0
27	5.7	7.3	5.8	7.1	9.1	8.0	11.2	8.0	5.0	3.4	3.8	3.2	2.4	2.8	3.8	4.3	3.1	2.4	2.6	1.8	2.5	5.4	5.9	4.6	11.2	1.8	5.0
28	2.7	3.2	5.5	8.5	9.3	10.6	10.0	10.1	7.7	4.1	5.9	6.9	3.8	6.6	2.4	3.7	6.1	7.4	4.1	7.9	6.6	5.4	5.9	5.6	10.6	2.4	6.3
29	5.5	4.1	4.9	6.0	6.5	6.1	9.4	15.3	15.8	15.3	16.1	15.9	14.9	13.3	11.9	6.5	8.7	8.2	9.7	8.7	7.6	3.4	4.1	5.0	16.1	3.4	9.3
30	5.9	9.2	11.0	11.7	7.8	7.6	8.2	7.2	5.1	4.5	3.2	3.5	3.5	2.6	2.6	3.5	3.8	6.9	10.5	5.2	8.0	7.5	4.4	5.9	11.7	2.6	6.2
31	2.8	2.9	5.8	3.8	3.0	1.6	1.1	2.2	1.8	0.8	1.0	1.3	1.7	1.2	2.1	2.6	1.6	2.5	1.3	1.1	1.3	1.6	1.6	1.0	5.8	0.8	2.0
<b>Max.</b>	<b>25.7</b>	<b>23.4</b>	<b>24.8</b>	<b>26.1</b>	<b>26.0</b>	<b>28.6</b>	<b>29.5</b>	<b>30.2</b>	<b>27.3</b>	<b>25.0</b>	<b>24.6</b>	<b>24.2</b>	<b>23.5</b>	<b>22.5</b>	<b>20.7</b>	<b>20.0</b>	<b>20.7</b>	<b>20.1</b>	<b>21.8</b>	<b>22.2</b>	<b>26.4</b>	<b>25.9</b>	<b>23.0</b>	<b>22.8</b>	<b>30.2</b>		
<b>Min.</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.6</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>		<b>0.0</b>	
<b>Avg.</b>	<b>8.7</b>	<b>8.4</b>	<b>8.7</b>	<b>8.9</b>	<b>8.7</b>	<b>8.2</b>	<b>8.2</b>	<b>8.5</b>	<b>8.0</b>	<b>7.5</b>	<b>7.5</b>	<b>7.5</b>	<b>7.3</b>	<b>7.3</b>	<b>6.7</b>	<b>6.3</b>	<b>7.1</b>	<b>7.6</b>	<b>7.7</b>	<b>8.1</b>	<b>8.3</b>	<b>8.4</b>	<b>8.6</b>	<b>8.7</b>			<b>7.9</b>

**Total Hours in Month** 744 **Hours Data Available** 744 **Data Recovery** 100.0%

## Northern Dynasty Mines Pebble 1 Meterological Station - Wind Speed (RMYoung) (m/s)

*January 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	1.8	1.9	1.8	2.8	3.0	2.7	2.0	3.3	4.8	6.3	5.8	6.8	5.3	3.8	3.0	2.5	1.5	2.0	2.1	2.4	1.7	1.9	3.0	3.7	6.8	1.5	3.2
2	3.8	2.8	1.8	4.2	5.5	2.3	1.9	3.0	4.5	3.5	2.7	2.6	2.0	3.8	4.1	4.0	4.8	4.1	3.2	3.9	9.1	13.7	10.7	7.2	13.7	1.8	4.5
3	9.4	7.2	9.2	10.0	9.8	4.3	3.8	3.9	6.2	2.9	2.8	4.1	3.1	3.3	3.8	5.4	5.8	5.9	5.6	4.0	3.3	3.0	3.2	4.4	10.0	2.8	5.2
4	3.5	1.5	0.9	0.6	1.1	0.9	0.6	1.6	1.0	0.7	1.1	1.9	2.3	4.2	3.1	1.5	1.6	1.8	2.1	1.5	1.7	2.0	2.3	2.1	4.2	0.6	1.7
5	0.5	1.3	1.5	1.2	1.8	1.4	0.9	1.3	2.2	2.7	2.0	0.9	1.1	4.1	4.8	5.2	4.3	5.5	6.5	5.7	5.1	4.5	4.2	3.1	6.5	0.5	3.0
6	1.5	0.9	2.3	3.1	3.3	5.5	4.7	2.5	2.1	1.6	1.0	0.9	2.1	1.3	2.9	2.5	1.7	1.2	0.5	0.9	1.4	2.7	1.1	0.5	5.5	0.5	2.0
7	0.8	1.0	1.4	1.3	0.6	1.3	1.7	1.7	1.5	2.5	1.1	1.0	1.1	1.8	4.3	3.7	4.2	3.1	2.4	4.3	6.5	6.1	4.7	10.7	10.7	0.6	2.9
8	8.8	4.3	6.5	3.5	2.8	3.8	7.2	4.2	3.8	1.7	2.6	3.1	3.6	4.8	4.7	4.6	4.2	4.3	4.9	4.7	4.5	5.0	3.7	4.0	8.8	1.7	4.4
9	3.0	3.5	3.3	2.6	3.5	3.7	3.3	3.3	2.0	2.2	2.8	1.1	1.0	0.9	1.0	0.6	2.4	2.5	1.4	1.0	0.9	1.4	1.4	1.7	3.7	0.6	2.1
10	1.2	1.0	0.7	1.2	0.7	1.2	1.0	1.1	0.8	1.3	0.9	0.8	1.1	1.7	1.3	1.6	2.2	2.2	1.6	1.6					2.2	0.7	1.3
11																		1.9	2.2	1.8	1.6	1.9	1.8	1.4	2.2	1.4	1.8
12	1.4	1.7	1.8	3.2	3.1	3.2	2.9	2.7	4.1	5.5	5.9	7.3	7.6	6.0	5.8	6.1	5.8	6.0	5.5	5.9	5.7	6.1	6.1	6.5	7.6	1.4	4.8
13	5.7	6.3	5.9	4.9	4.6	5.1	4.9	5.1	4.9	4.9	5.4	5.4	5.3	6.1	7.4	6.2	7.1	6.9	5.7	5.8	5.2	5.0	4.0	3.7	7.4	3.7	5.5
14	5.0	5.4	4.6	4.1	3.5	2.9	2.0	2.6	4.0	4.6	4.9	4.8	4.4	7.1	8.5	8.6	8.4	7.8	8.0	8.2	8.5	8.1	7.3	7.6	8.6	2.0	5.9
15	7.5	6.5	6.8	9.8	8.6	5.7	6.8	6.8	5.3	6.7	7.6	8.9	6.4	1.5	0.0	0.7	0.7	7.4	9.4	8.8	6.4	5.1	4.4	5.4	9.8	0.0	6.0
16	5.3	8.1	6.4	7.5	3.5	4.1	6.9	9.2	8.9	5.0	4.9	5.5	3.5	2.2	2.9	2.0	1.9	1.8	1.1	2.6	4.0	4.1	5.3	6.0	9.2	1.1	4.7
17	6.0	6.1	6.2	5.9	5.7	5.7	6.1	5.7	6.3	6.1	5.8	6.4	7.0	5.6	5.8	5.9	7.1	7.3	6.9	6.6	5.1	5.3	5.2	4.4	7.3	4.4	6.0
18	5.5	8.3	7.1	7.4	8.1	11.6	11.4	10.1	10.3	7.3	6.5	7.4	10.1	10.6	10.6	11.2	8.3	7.3	6.8	9.5	10.4	8.3	7.4	7.3	11.6	5.5	8.7
19	7.7	10.9	9.8	8.3	7.7	6.8	9.1	9.7	8.6	7.3	7.7	7.3	6.7	7.6	7.7	6.8	6.1	6.2	8.1	10.8	11.3	10.4	8.8	7.8	11.3	6.1	8.3
20	8.5	7.8	7.7	8.1	7.0	6.5	6.9	7.1	6.5	6.0	6.9	6.0	5.9	6.5	6.2	6.9	7.2	5.2	5.7	5.6	6.3	6.3	5.7	6.1	8.5	5.2	6.6
21	5.7	7.1	8.2	8.9	9.2	10.3	11.0	11.5	11.4	11.6	11.8	12.3	13.4	14.7	15.4	15.7	16.8	18.4	19.3	19.1	17.3	15.9	15.4	16.7	19.3	5.7	13.2
22	18.6	19.5	18.5	20.5	23.1	23.1	22.4	20.8	19.9	19.8	18.0	15.8	16.3	15.5	14.9	16.3	15.7	15.5	17.4	18.6	19.9	17.5	16.3	21.0	23.1	14.9	18.5
23	20.7	20.0	20.8	19.6	19.4	18.7	17.6	13.5	14.9	12.9	19.9	16.6	14.3	13.6	15.0	15.4	11.8	15.0	15.2	15.5	14.0	12.9	14.2	14.2	20.8	11.8	16.1
24	14.3	14.4	13.9	12.5	12.4	13.7	13.8	12.5	14.3	16.0	15.8	16.1	15.9	15.0	12.6	13.9	14.1	13.2	12.3	13.5	10.2	12.7	11.6	7.8	16.1	7.8	13.4
25	7.5	7.9	6.3	7.1	7.3	7.4	5.9	5.8	6.7	6.8	6.4	7.4	7.9	6.4	6.0	6.6	6.4	7.4	7.5	8.3	7.0	6.8	9.8	11.4	11.4	5.8	7.2
26	9.8	11.1	10.5	10.0	6.9	7.9	7.7	8.0	6.3	4.9	4.9	5.4	5.2	5.2	4.9	3.9	3.5	4.7	5.4	5.3	6.6	8.0	6.8	8.1	11.1	3.5	6.7
27	9.6	10.0	9.4	11.2	11.3	12.7	12.9	13.9	13.8	14.7	17.1	18.3	18.8	19.9	20.0	21.2	19.6	19.8	20.4	19.5	18.3	20.1	20.6	21.9	21.9	9.4	16.5
28	26.3	23.0	23.0	20.0	22.0	21.6	17.4	18.2	17.5	12.1	11.8	11.6	9.5	11.1	11.1	9.7	9.1	6.3	4.9	5.6	4.5	5.8	6.4	5.1	26.3	4.5	13.1
29	5.4	7.2	7.2	7.8	7.7	7.5	7.4	6.4	6.7	5.4	7.1	7.3	5.5	5.7	4.9	7.6	7.5	8.2	8.2	6.9	6.8	6.9	6.6	6.1	8.2	4.9	6.8
30	7.3	6.8	7.3	6.9	4.9	6.7	6.7	4.2	5.5	5.3	5.2	4.4	4.7	5.9	5.5	5.4	5.5	4.2	2.9	2.6	3.1	3.1	1.4	0.7	7.3	0.7	4.8
31	1.0	2.3	2.7	3.4	2.9	3.5	3.9	3.4	3.1	3.6	4.8	4.6	4.9	5.5	6.2	4.8	5.5	5.8	7.5	8.9	8.6	8.0	6.6	4.8	8.9	1.0	4.8
<b>Max.</b>	<b>26.3</b>	<b>23.0</b>	<b>23.0</b>	<b>20.5</b>	<b>23.1</b>	<b>23.1</b>	<b>22.4</b>	<b>20.8</b>	<b>19.9</b>	<b>19.8</b>	<b>19.9</b>	<b>18.3</b>	<b>18.8</b>	<b>19.9</b>	<b>20.0</b>	<b>21.2</b>	<b>19.6</b>	<b>19.8</b>	<b>20.4</b>	<b>19.5</b>	<b>19.9</b>	<b>20.1</b>	<b>20.6</b>	<b>21.9</b>	<b>26.3</b>		
<b>Min.</b>	<b>0.5</b>	<b>0.9</b>	<b>0.7</b>	<b>0.6</b>	<b>0.6</b>	<b>0.9</b>	<b>0.6</b>	<b>1.1</b>	<b>0.8</b>	<b>0.7</b>	<b>0.9</b>	<b>0.8</b>	<b>1.0</b>	<b>0.9</b>	<b>0.0</b>	<b>0.6</b>	<b>0.7</b>	<b>1.2</b>	<b>0.5</b>	<b>0.9</b>	<b>0.9</b>	<b>1.4</b>	<b>1.1</b>	<b>0.5</b>		<b>0.0</b>	
<b>Avg.</b>	<b>7.1</b>	<b>7.2</b>	<b>7.1</b>	<b>7.2</b>	<b>7.0</b>	<b>7.1</b>	<b>7.0</b>	<b>6.8</b>	<b>6.9</b>	<b>6.4</b>	<b>6.7</b>	<b>6.7</b>	<b>6.5</b>	<b>6.7</b>	<b>6.8</b>	<b>6.9</b>	<b>6.7</b>	<b>6.7</b>	<b>6.8</b>	<b>7.1</b>	<b>7.2</b>	<b>7.3</b>	<b>6.9</b>	<b>7.0</b>			<b>6.9</b>

Total Hours in Month 744

Hours Data Available 723

Data Recovery 97.2%

## Northern Dynasty Mines Pebble 1 Meterological Station - Wind Speed (RMYoung) (m/s)

*February 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	4.0	5.6	6.4	7.5	8.4	7.4	10.1	10.2	10.9	11.8	14.5	14.1	15.4	14.7	12.2	13.6	15.8	15.0	14.5	13.5	12.5	13.3	14.2	13.7	15.8	4.0	11.6	
2	13.5	11.8	10.3	9.5	8.9	7.7	8.0	8.3	7.3	6.2	6.3	5.4	3.6	4.4	3.5	2.1	1.4	1.7	2.4	3.1	2.6	4.7	6.1	7.8	13.5	1.4	6.1	
3	10.5	10.7	10.9	13.2	14.4	15.0	16.9	17.4	16.2	14.2	13.6	12.8	12.6	11.3	12.6	13.1	10.8	11.7	12.9	14.0	14.6	15.5	16.3	16.5	17.4	10.5	13.7	
4	17.9	16.1	17.4	17.7	18.9	20.7	19.7	19.2	22.3	23.7	22.6	23.3	25.0	25.4	24.1	25.8	28.2	27.6	29.2	24.6	24.4	24.2	22.3	17.4	29.2	16.1	22.4	
5	17.4	17.3	17.0	19.1	20.6	19.5	19.8	16.3	16.2	15.0	13.4	15.3	17.6	18.5	16.7	15.6	15.6	14.5	10.4	8.4	9.7	14.8	17.0	15.4	20.6	8.4	15.9	
6	13.3	11.1	8.3	8.8	8.7	6.5	6.7	3.8	4.3	7.2	12.8	14.5	17.9	17.4	16.0	12.1	12.3	11.5	8.0	7.1	7.2	6.4	6.6	7.1	17.9	3.8	9.8	
7	6.5	5.4	6.2	8.3	7.8	7.3	8.6	9.5	8.6	9.0	11.2	12.3	11.5	9.0	8.9	9.7	8.0	4.4	4.0	3.7	2.4	2.4	3.0	3.7	12.3	2.4	7.1	
8	1.5	1.8	2.7	3.5	3.3	3.5	4.6	5.3	5.0	5.1	5.0	4.3	12.7	16.1	21.2	23.0	25.0	24.5	26.4	26.4	25.9	26.8	28.0	25.7	28.0	1.5	13.6	
9	24.9	27.8	27.3	28.9	25.8	20.0	17.9	16.2	12.2	10.6	9.2	9.3	10.8	10.6	9.4	10.1	11.8	15.2	15.7	16.7	20.2	23.3	26.4	27.2	28.9	9.2	17.8	
10	28.5	28.2	24.4	26.0	23.0	25.0	23.7	22.0	19.1	14.4	14.3	15.8	15.4	16.0	15.5	16.8	17.2	17.6	16.8	16.5	16.2	16.2	16.7	16.4	28.5	14.3	19.2	
11	14.6	14.9	13.9	10.6	6.1	1.6	1.6	3.2	3.8	6.1	7.8	8.2	6.3	5.1	4.6	3.4	3.1	2.2	2.6	2.9	1.5	2.2	3.5	3.4	14.9	1.5	5.6	
12	1.6																									1.6	1.6	1.6
13											8.8	7.3	12.1	15.1	15.8	18.9	18.5	18.3	18.8	19.3	20.2	19.9	18.7		20.2	7.3	16.3	
14	19.8	20.4	22.4	21.1	21.9	20.2	19.5	19.2	19.8	20.2	19.7	17.4	17.1	17.3	18.6	20.9	21.3	18.3	18.4	19.9	19.8	19.9	19.5	21.3	22.4	17.1	19.7	
15	21.7	20.6	19.6	19.8	19.0	19.9	20.8	20.9	22.3	21.8	24.1	23.7	24.9	29.3	27.5	25.5	23.9	22.0	21.3	17.7	17.1	14.8	12.5	9.4	29.3	9.4	20.8	
16	5.4	4.5	2.9	2.3	2.3	1.9	2.1	2.0	1.7	1.1	0.3	2.0	3.6	5.7	4.8	4.8	6.0	7.7	7.6	6.3	6.6	5.9	7.0	9.1	9.1	0.3	4.3	
17	10.4	10.6	8.7	5.9	5.7	12.0	14.9	16.2	20.5	20.0	18.8	18.5	19.9	19.4	21.1	21.7	21.7	19.0	18.8	19.6	19.5	18.3	16.3	15.1	21.7	5.7	16.4	
18	12.3	12.6	12.8	11.2	10.8	11.5	14.3	15.9	17.8	19.6	20.3	19.1	22.1	23.4	20.6	18.3	17.2	14.1	11.7	12.9	11.6	12.8	15.1	14.3	23.4	10.8	15.5	
19	10.7	7.9	7.1	6.6	7.4	6.7	6.6	8.9	7.1	4.6	6.0	7.0	4.2	7.6	8.8	7.7	8.1	8.7	6.7	7.2	6.7	8.1	8.9	7.1	10.7	4.2	7.3	
20	7.5	5.1	5.7	5.1	4.7	3.3	4.9	4.5	4.2	4.8	5.6	4.6	8.4	9.0	10.1	14.1	11.3	12.1	12.9	13.5	14.0	12.7	13.3	12.7	14.1	3.3	8.5	
21	12.3	11.2	13.3	12.9	10.8	8.4	7.2	7.0	6.0	3.0	2.0	1.8	5.3	11.2	7.1	9.6	6.7	4.9	8.8	10.1	6.6	5.6	7.5	8.4	13.3	1.8	7.8	
22	4.6	3.7	4.6	6.9	10.7	11.4	10.7	10.9	12.1	8.6	6.7	7.0	7.1	7.8	7.0	8.1	9.5	8.7	7.2	6.4	7.6	6.4	5.1	5.0	12.1	3.7	7.7	
23	6.1	7.4	6.9	7.2	5.7	3.9	8.8	8.4	7.5	6.6	5.1	7.9	5.7	5.8	8.9	9.9	9.6	8.9	8.9	8.6	7.2	7.9	10.6	11.4	11.4	3.9	7.7	
24	9.4	6.8	7.0	7.5	7.1	8.2	8.5	8.5	4.1	3.7	4.8	3.6	2.2	1.4	0.8	0.5	0.9	1.9	1.8	1.4	1.6	2.4	3.2	3.9	9.4	0.5	4.2	
25	4.2	3.2	4.6	5.9	7.6	5.8	4.8	4.8	3.6	3.4	3.5	10.4	12.9	11.8	13.0	14.3	12.1	10.8	7.3	6.6	8.2	10.0	9.1	9.9	14.3	3.2	7.8	
26	10.4	9.7	9.0	8.6	7.2	5.4	5.9	6.7	5.8	3.3	6.4	8.0	6.7	6.7	2.8	1.4	2.7	4.8	6.8	7.3	6.1	5.3	5.7	8.2	10.4	1.4	6.3	
27	8.1	6.3	6.3	10.7	13.7	18.3	18.5	17.2	17.5	18.9	18.6	19.1	20.1	17.3	17.9	19.7	20.9	19.0	18.3	19.9	20.3	21.9	20.1	20.1	21.9	6.3	17.0	
28	19.9	19.1	19.2	18.2	18.8	20.3	17.7	15.1	12.8	15.9	18.1	18.2	17.1	16.6	16.2	18.9	18.3	18.5	16.7	15.9	14.4	9.6	9.3	10.0	20.3	9.3	16.4	
<b>Max.</b>	<b>28.5</b>	<b>28.2</b>	<b>27.3</b>	<b>28.9</b>	<b>25.8</b>	<b>25.0</b>	<b>23.7</b>	<b>22.0</b>	<b>22.3</b>	<b>23.7</b>	<b>24.1</b>	<b>23.7</b>	<b>25.0</b>	<b>29.3</b>	<b>27.5</b>	<b>25.8</b>	<b>28.2</b>	<b>27.6</b>	<b>29.2</b>	<b>26.4</b>	<b>25.9</b>	<b>26.8</b>	<b>28.0</b>	<b>27.2</b>	<b>29.3</b>			
<b>Min.</b>	<b>1.5</b>	<b>1.8</b>	<b>2.7</b>	<b>2.3</b>	<b>2.3</b>	<b>1.6</b>	<b>1.6</b>	<b>2.0</b>	<b>1.7</b>	<b>1.1</b>	<b>0.3</b>	<b>1.8</b>	<b>2.2</b>	<b>1.4</b>	<b>0.8</b>	<b>0.5</b>	<b>0.9</b>	<b>1.7</b>	<b>1.8</b>	<b>1.4</b>	<b>1.5</b>	<b>2.2</b>	<b>3.0</b>	<b>3.4</b>		<b>0.3</b>		
<b>Avg.</b>	<b>11.7</b>	<b>11.5</b>	<b>11.3</b>	<b>11.6</b>	<b>11.5</b>	<b>11.2</b>	<b>11.6</b>	<b>11.5</b>	<b>11.1</b>	<b>10.7</b>	<b>11.2</b>	<b>11.6</b>	<b>12.3</b>	<b>13.0</b>	<b>12.8</b>	<b>13.2</b>	<b>13.3</b>	<b>12.7</b>	<b>12.4</b>	<b>12.2</b>	<b>12.0</b>	<b>12.3</b>	<b>12.7</b>	<b>12.6</b>			<b>12.0</b>	
<b>Total Hours in Month</b>	<b>672</b>		<b>Hours Data Available</b>									<b>638</b>									<b>Data Recovery</b>				<b>94.9%</b>			

**HCG, Inc.**



## Northern Dynasty Mines Pebble 1 Meterological Station - Wind Speed (RMYoung) (m/s)

*March 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.		
1	10.7	9.7	9.7	9.8	11.0	11.3	7.3	5.9	4.4	3.6	1.0	0.4	1.3	2.8	3.7	3.9	5.1	5.3	5.0	8.2	9.5	10.7	11.8	12.9	12.9	0.4	6.9		
2	13.0	12.7	12.6	12.4	12.5	12.1	13.1	12.7	12.2	11.2	12.4	12.6	12.5	13.6	11.9	9.6	9.6	8.8	9.6	9.9	9.7	8.9	9.8	8.9	13.6	8.8	11.3		
3	8.1	8.2	8.9	9.0	8.5	8.4	6.3	5.9	6.8	7.5	8.4	7.9	8.9	8.4	8.6	7.5	5.6	3.5	2.7	1.9	2.1	1.4	1.1	1.3	9.0	1.1	6.1		
4	1.7	2.1	2.4	2.9	4.5	7.2	7.4	7.2	8.0	6.9	7.8	7.6	11.3	13.6	12.6	12.3	14.2	13.4	14.2	14.5	15.6	13.5	12.3	12.0	15.6	1.7	9.4		
5	11.1	10.3	8.1	6.3	6.0	6.7	6.1	5.3	5.6	4.9	4.1	4.1	4.0	5.5	5.2	5.6	7.3	7.5	4.4	4.6	2.3	3.7	3.5	4.3	11.1	2.3	5.7		
6	4.7	4.7	3.2	4.0	4.8	3.7	2.5	2.0	1.2	1.7	3.8	2.0	1.9	1.4	0.7	0.1	1.2	1.6	1.4	1.5	0.9	1.1	1.9	3.0	4.8	0.1	2.3		
7	3.3	3.2	3.7	3.8	3.9	4.4	4.2	5.3	7.3	7.5	7.2	9.8	9.8	10.7	10.2	10.8	9.6	12.7	15.1	14.3	13.1	11.9	15.1	16.4	16.4	3.2	8.9		
8	18.9	22.0	22.4	21.9	19.6	17.7	19.6	19.1	19.2	17.1	14.1	15.5	15.7	14.1	13.4	12.8	12.7	16.4	16.3	16.1	16.4	16.3	16.8	16.2	22.4	12.7	17.1		
9	16.5	15.7	16.7	17.8	17.6	16.7	15.6	15.8	15.9	17.4	15.7	16.6	18.4	18.5	17.6	15.0	13.4	14.3	15.3	15.7	16.0	16.3	15.3	14.8	18.5	13.4	16.2		
10	11.6	12.2	11.1	9.9	8.5	8.0	8.6	10.3	9.9	6.4	5.9	6.1	6.6	5.8	4.8	3.5	2.3	2.0	4.8	5.0	5.5	6.5	10.4	11.9	12.2	2.0	7.4		
11	11.1	13.8	17.2	16.4	16.9	17.0	18.2	21.9	22.3	23.7	21.2	19.9	19.8	19.3	21.7	20.2	18.6	19.7	17.5	20.4	19.3	18.1	14.2	16.5	23.7	11.1	18.5		
12	17.5	17.0	17.2	16.3	12.9	13.9	13.4	12.6	11.0	11.1	10.7	7.7	7.8	4.9	5.4	3.8	4.3	4.1	3.4	3.7	1.9	1.9	1.6	1.1	17.5	1.1	8.5		
13	0.7	0.9	1.1	0.9	1.3	1.5	1.7	1.4	2.0	2.5	1.9	1.7	2.3	2.5	2.7	3.3	3.5	5.9	5.7	6.8	5.6	5.9	7.5	7.8	7.8	0.7	3.2		
14	7.7	7.3	7.6	7.6	5.8	5.5	5.6	5.3	4.5	4.1	4.2	2.8	2.0	2.3	3.6	2.2	3.6	3.5	2.9	2.1	2.0	1.8	1.3	0.9	7.7	0.9	4.0		
15	1.4	1.9	2.3	1.7	2.7	1.6	1.1	1.1	1.1	1.8	2.0	1.1	0.7	1.0	1.9	1.6	2.1	3.0	3.7	4.1	3.9	4.7	6.0	7.4	7.4	0.7	2.5		
16	8.8	8.7	5.7	5.0	5.5	5.5	5.4	4.4	2.9	3.3	4.7	4.9	6.6	8.2	10.0	10.9	10.7	11.0	9.9	10.4	10.2	9.8	9.6	9.0	11.0	2.9	7.5		
17	9.9	10.1	10.3	9.6	10.4	9.3	9.5	9.8	10.3	9.6	10.7	9.3	8.1	7.3	10.8	11.3	11.0	10.4	12.2	12.9	13.7	14.6	15.2	12.8	15.2	7.3	10.8		
18	13.0	13.0	10.3	7.7	9.3	8.5	6.5	2.4	4.0	6.1	6.1	5.3	1.8	1.1	0.6	0.9	3.0	4.4	0.8	2.4	2.3	1.3	1.2	3.0	13.0	0.6	4.8		
19	2.6	1.7	0.8	1.6	2.0	1.8	2.2	2.3	3.2	5.4	6.4	12.2	12.8	11.4	13.3	13.2	11.7	10.0	8.9	8.2	7.9	7.8	9.4	10.3	13.3	0.8	7.0		
20	12.5	9.9	9.0	7.2	5.7	6.4	7.0	6.4	4.8	3.6	2.9	2.6	2.3	1.5	6.9	7.8	11.2	11.9	13.1	14.1	16.8	19.6	18.5	16.9	19.6	1.5	9.1		
21	17.2	16.2	17.2	16.9	17.1	17.7	17.5	16.4	15.7	15.5	12.9	10.9	10.5	7.9	8.6	9.1	8.4	9.6	10.3	8.9	9.2	7.1	6.0	8.4	17.7	6.0	12.3		
22	12.1	8.2	8.6	9.7	13.4	16.2	15.0	17.5	14.5	18.3	16.1	16.9	16.1	16.0	16.3	14.5	11.5	11.1	9.5	6.7	6.1	6.0	6.3	5.1	18.3	5.1	12.2		
23	3.5	3.2	3.5	4.3	5.6	4.3	3.0	2.0	1.9	2.9	4.4	3.7	1.6	2.5	2.5	2.9	5.8	8.2	6.9	3.7	4.8	8.9	9.6	11.4	11.4	1.6	4.6		
24	10.8	11.3	10.3	9.1	9.1	5.9	8.4	12.4	10.3	8.2	11.3	12.0	10.4	9.9	9.6	11.0	10.0	12.7	12.4	10.2	9.4	6.4	7.0	6.5	12.7	5.9	9.8		
25	7.4	7.1	7.0	8.0	8.2	8.5	9.1	9.4	10.0	9.6	10.2	7.7	7.7	9.0	8.5	9.1	9.6	10.4	9.6	8.7	10.1	10.0	6.6	7.5	10.4	6.6	8.7		
26	6.8	6.1	6.1	6.5	7.2	7.8	8.2	7.8	8.0	7.6	7.3	6.9	6.3	5.9	5.1	4.9	4.4	4.5	5.5	5.2	4.4	3.3	2.9	2.2	8.2	2.2	5.9		
27	3.3	3.6	3.5	3.4	3.7	3.8	3.4	3.2	1.6	1.2	1.7	1.9	2.2	1.2	1.2	1.5	1.6	1.9	2.5	3.3	2.4	2.3	1.8	2.1	3.8	1.2	2.4		
28	2.7	4.4	4.2	3.5	6.6	6.1	5.2	4.6	4.7	4.7	3.9	3.4	2.8	2.7	3.1	1.2	1.4	1.2	1.3	1.7	2.7	3.8	4.4	3.9	6.6	1.2	3.5		
29	4.1	4.2	4.0	4.6	4.9	4.1	5.0	5.4	4.5	3.4	2.8	2.0	1.2	1.3	1.2	0.7	1.4	2.3	3.1	3.4	2.0	2.8	6.0	8.7	8.7	0.7	3.5		
30	12.1	12.0	12.1	12.3	14.8	16.7	17.8	16.0	17.1	16.6	18.8	22.0	23.2	25.0	24.9	27.5	28.8	29.6	29.9	30.8	29.4	28.3	27.5	27.6	30.8	12.0	21.7		
31	27.5	26.3	26.2	25.6	25.0	25.9	24.5	22.5	21.3	10.2	5.9	4.4	4.2	4.3	2.1	2.6	4.0	3.8	4.3	3.0	1.2	0.5	1.3	3.4	27.5	0.5	11.7		
<b>Max.</b>	<b>27.5</b>	<b>26.3</b>	<b>26.2</b>	<b>25.6</b>	<b>25.0</b>	<b>25.9</b>	<b>24.5</b>	<b>22.5</b>	<b>22.3</b>	<b>23.7</b>	<b>21.2</b>	<b>22.0</b>	<b>23.2</b>	<b>25.0</b>	<b>24.9</b>	<b>27.5</b>	<b>28.8</b>	<b>29.6</b>	<b>29.9</b>	<b>30.8</b>	<b>29.4</b>	<b>28.3</b>	<b>27.5</b>	<b>27.6</b>	<b>30.8</b>				
<b>Min.</b>	<b>0.7</b>	<b>0.9</b>	<b>0.8</b>	<b>0.9</b>	<b>1.3</b>	<b>1.5</b>	<b>1.1</b>	<b>1.1</b>	<b>1.1</b>	<b>1.2</b>	<b>1.0</b>	<b>0.4</b>	<b>0.7</b>	<b>1.0</b>	<b>0.6</b>	<b>0.1</b>	<b>1.2</b>	<b>1.2</b>	<b>0.8</b>	<b>1.5</b>	<b>0.9</b>	<b>0.5</b>	<b>1.1</b>	<b>0.9</b>		<b>0.1</b>			
<b>Avg.</b>	<b>9.4</b>	<b>9.3</b>	<b>9.1</b>	<b>8.9</b>	<b>9.2</b>	<b>9.2</b>	<b>9.0</b>	<b>8.8</b>	<b>8.6</b>	<b>8.2</b>	<b>8.0</b>	<b>7.8</b>	<b>7.8</b>	<b>7.7</b>	<b>8.0</b>	<b>7.8</b>	<b>8.0</b>	<b>8.5</b>	<b>8.5</b>	<b>8.5</b>	<b>8.3</b>	<b>8.2</b>	<b>8.4</b>	<b>8.8</b>				<b>8.5</b>	

Total Hours in Month

744

Hours Data Available

744

Data Recovery

100.0%

HCG, Inc.

## Northern Dynasty Mines Pebble 1 Meterological Station - Wind Speed (RMYoung) (m/s)

*April 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	5.5	5.9	9.0	6.8	4.5	6.4	7.1	8.2	5.6	3.9	4.0	2.7	3.5	3.0	9.0	9.1	9.0	10.0	3.3	0.8	3.5	4.3	3.8	0.7	10.0	0.7	5.4
2	0.4	4.1	3.8	4.0	2.1	0.6	2.5	1.4	0.7	0.9	1.4	0.8	1.8	2.1	1.4	2.3	2.2	2.2	4.8	4.6	6.4	5.7	9.0	10.0	10.0	0.4	3.1
3	9.0	9.5	10.5	11.1	10.0	10.9	7.2	7.2	13.4	19.2	19.3	19.2	18.1	17.0	17.1	15.8	15.9	16.3	14.4	12.5	11.5	12.6	13.4	14.5	19.3	7.2	13.6
4	14.3	16.6	16.2	13.8	12.9	10.5	9.2	9.3	7.0	4.1	9.5	7.9	8.5	7.1	4.4	1.4	1.9	5.1	5.0	4.8	5.1	6.1	6.8	8.6	16.6	1.4	8.2
5	7.4	7.7	10.1	12.2	11.6	11.5	10.8	11.1	11.4	15.0	14.7	12.2	11.8	14.1	14.2	14.4	15.5	17.1	18.7	17.3	13.0	12.8	12.4	13.4	18.7	7.4	12.9
6	17.5	13.7	11.3	11.6	10.7	9.7	9.9	9.1	7.5	7.8	8.2	5.7	4.8	3.6	3.8	3.0	2.6	2.4	2.2	2.7	2.2	1.1	2.2	2.1	17.5	1.1	6.5
7	2.4	1.9	2.1	3.8	6.1	4.4	6.0	6.2	3.0	5.1	5.1	5.9	6.0	7.7	8.7	10.2	10.8	11.4	10.3	12.8	13.9	16.2	17.6	16.4	17.6	1.9	8.1
8	18.7	20.8	20.1	18.6	17.4	16.5	15.0	15.2	15.0	15.8	17.2	14.5	10.8	11.1	11.0	9.6	9.0	8.9	9.1	7.4	7.6	7.5	8.5	7.3	20.8	7.3	13.0
9	8.3	7.2	6.9	7.9	7.6	7.9	7.1	7.6	7.1	7.2	8.0	8.6	8.7	8.6	7.7	7.1	5.1	5.0	5.3	4.5	3.0	5.7	6.8	6.1	8.7	3.0	6.9
10	2.2	2.9	3.5	4.4	5.8	7.9	10.1	11.3	12.4	12.6	13.3	12.8	9.8	9.6	8.5	9.3	9.4	8.3	6.6	6.2	3.5	1.1	2.5	5.5	13.3	1.1	7.5
11	5.4	1.9	1.6	1.4	2.6	3.8	6.2	6.9	7.1	6.8	6.9	6.0	7.0	7.3	10.4	13.0	14.2	13.4	11.5	10.2	11.1	11.0	10.0	9.8	14.2	1.4	7.7
12	9.4	8.7	7.3	7.1	6.8	5.5	5.3	6.5	8.4	11.0	12.0	12.8	14.5	15.5	13.6	11.8	11.7	9.7	8.5	7.2	7.1	6.4	5.6	2.9	15.5	2.9	9.0
13	3.2	2.3	1.4	1.4	2.7	4.9	11.2	12.6	15.0	17.0	17.5	18.9	20.4	21.1	21.7	20.7	17.8	16.0	17.1	15.5	15.2	13.9	11.4	11.3	21.7	1.4	12.9
14	13.2	15.2	14.2	13.6	16.8	16.4	15.4	17.7	16.5	18.3	19.3	19.7	18.6	18.1	16.0	20.1	18.3	17.9	15.6	13.4	15.9	13.2	11.4	10.9	20.1	10.9	16.1
15	11.4	9.8	12.3	14.5	13.6	12.3	14.4	11.9	14.8	15.9	16.1	18.1	15.5	16.8	14.2	13.2	16.0	16.2	9.0	6.5	7.1	4.3	2.1	2.5	18.1	2.1	12.0
16	6.7	7.5	9.0	11.3	11.4	12.9	17.4	17.0	20.2	21.6	22.0	20.9	22.2	21.8	20.3	20.2	21.7	22.2	21.6	15.8	11.2	9.1	10.4	12.1	22.2	6.7	16.1
17	11.3	11.9	14.3	15.1	14.5	12.4	9.1	8.4	8.6	7.2	9.9	7.9	11.8	9.6	8.5	6.6	7.4	7.8	5.7	4.4	3.1	1.1	2.0	4.5	15.1	1.1	8.5
18	5.5	5.1	2.8	3.9	2.6	2.6	1.8	1.2	2.0	0.7	1.1	0.8	1.4	1.1	1.2	0.9	1.3	1.4	1.4	2.0	1.9	0.9	1.7	1.9	5.5	0.7	2.0
19	1.7	2.2	1.5	2.0	1.2	2.0	2.3	2.2	4.1	4.1	1.7	1.0	1.5	5.3	4.1	3.8	2.9	2.7	4.8	5.4	4.6	3.8	3.8	3.8	5.4	1.0	3.0
20	3.2	3.6	2.2	1.6	1.6	2.1	1.5	1.8	2.3	3.0	3.3	5.1	8.0	9.8	14.2	14.6	13.5	14.2	14.8	14.9	16.3	15.9	15.2	16.7	16.7	1.5	8.3
21	17.9	17.7	17.3	14.8	13.2	13.9	14.9	16.0	12.3	14.7	17.2	14.4	14.1	13.8	12.8	13.2	11.3	6.5	5.5	4.3	3.7	7.0	7.3	7.9	17.9	3.7	12.1
22	5.5	3.8	2.9	2.1	2.4	2.0	1.4	0.7	0.3	0.1	0.2	0.0	0.9	0.5	0.0	0.1	2.1	1.5	1.2	0.8	1.4	1.4	2.6	2.7	5.5	0.0	1.5
23	3.7	3.8	4.0	3.9	2.9	3.8	3.7	3.6	4.0	4.4	4.8	4.8	4.8	3.9	2.1	1.5	1.4	2.0	3.7	3.7	5.7	8.3	8.5	7.6	8.5	1.4	4.2
24	7.1	6.7	6.9	8.3	8.5	10.9	11.0	10.9	11.5	11.8	12.3	11.8	11.4	11.8	11.7	9.4	11.0	10.5	10.1	11.5	10.8	11.3	10.4	8.9	12.3	6.7	10.3
25	6.8	5.0	4.4	3.9	3.8	3.8	3.8	3.3	2.9	3.0	3.5	5.3	5.6	4.9	3.6	3.5	4.5	8.6	9.4	9.7	10.1	10.4	11.0	10.0	11.0	2.9	5.9
26	9.1	9.1	7.8	7.5	8.1	9.7	7.1	8.0	5.4	5.8	6.0	5.1	3.9	2.8	3.0	2.5	2.9	3.2	3.1	4.1	6.2	5.5	5.7	6.0	9.7	2.5	5.7
27	8.2	4.5	5.9	4.3	4.9	5.2	1.9	2.0	2.2	2.6	4.0	4.9	5.9	6.9	7.6	8.5	8.3	9.6	9.1	7.1	6.5	6.6	8.5	10.6	10.6	1.9	6.1
28	10.6	10.0	9.0	7.5	7.6	7.3	6.6	5.4	4.8	4.2	1.3	2.5	3.0	2.5	2.3	3.0	2.4	2.0	1.5	0.4	1.1	0.6	0.9	0.9	10.6	0.4	4.1
29	1.5	2.5	3.3	3.7	5.2	5.9	4.5	4.0	5.0	6.9	9.9	10.9	10.9	9.9	8.3	7.7	9.2	8.9	7.9	6.8	6.5	6.7	6.2	5.7	10.9	1.5	6.6
30	4.4	4.4	4.2	4.0	3.2	2.1	1.3	1.8	2.4	2.4	1.8	2.2	2.5	2.8	3.1	4.1	6.1	7.2	9.6	11.2	10.5	10.3	10.1	10.5	11.2	1.3	5.1
<b>Max.</b>	<b>18.7</b>	<b>20.8</b>	<b>20.1</b>	<b>18.6</b>	<b>17.4</b>	<b>16.5</b>	<b>17.4</b>	<b>17.7</b>	<b>20.2</b>	<b>21.6</b>	<b>22.0</b>	<b>20.9</b>	<b>22.2</b>	<b>21.8</b>	<b>21.7</b>	<b>20.7</b>	<b>21.7</b>	<b>22.2</b>	<b>21.6</b>	<b>17.3</b>	<b>16.3</b>	<b>16.2</b>	<b>17.6</b>	<b>16.7</b>	<b>22.2</b>		
<b>Min.</b>	<b>0.4</b>	<b>1.9</b>	<b>1.4</b>	<b>1.4</b>	<b>1.2</b>	<b>0.6</b>	<b>1.3</b>	<b>0.7</b>	<b>0.3</b>	<b>0.1</b>	<b>0.2</b>	<b>0.0</b>	<b>0.9</b>	<b>0.5</b>	<b>0.0</b>	<b>0.1</b>	<b>1.3</b>	<b>1.4</b>	<b>1.2</b>	<b>0.4</b>	<b>1.1</b>	<b>0.6</b>	<b>0.9</b>	<b>0.7</b>		<b>0.0</b>	
<b>Avg.</b>	<b>7.7</b>	<b>7.5</b>	<b>7.5</b>	<b>7.5</b>	<b>7.4</b>	<b>7.5</b>	<b>7.5</b>	<b>7.6</b>	<b>7.8</b>	<b>8.4</b>	<b>9.0</b>	<b>8.8</b>	<b>8.9</b>	<b>9.0</b>	<b>8.8</b>	<b>8.7</b>	<b>8.8</b>	<b>8.9</b>	<b>8.3</b>	<b>7.6</b>	<b>7.5</b>	<b>7.4</b>	<b>7.6</b>	<b>7.7</b>			<b>8.1</b>

Total Hours in Month 720

Hours Data Available 720

Data Recovery 100.0%

## Northern Dynasty Mines Pebble 1 Meterological Station - Wind Speed (RMYoung) (m/s)

*May 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	12.7	13.7	13.8	15.0	16.2	18.0	19.4	20.9	19.8	18.8	20.0	21.8	23.1	19.9	15.8	13.4	12.1	13.4	7.8	8.8	9.3	8.3	8.1	7.0	23.1	7.0	14.9
2	7.2	9.5	8.7	6.3	3.8	7.7	7.2	3.2	2.1	1.2	3.9	7.1	11.5	11.5	12.2	11.8	10.8	9.8	9.8	10.9	12.9	11.3	10.5	10.3	12.9	1.2	8.4
3	11.6	11.9	12.5	11.3	9.7	6.2	5.3	3.9	2.5	2.4	3.0	4.3	5.6	5.8	6.0	5.3	4.2	4.4	4.1	3.8	2.8	2.8	2.0	1.9	12.5	1.9	5.5
4	2.3	1.2	0.8	1.3	1.8	8.6	12.7	14.6	14.9	15.8	14.0	12.9	12.7	14.0	12.9	13.6	14.2	16.0	17.9	18.0	19.1	19.0	20.5	20.5	20.5	0.8	12.5
5	20.3	22.3	23.1	23.9	22.6	20.6	17.9	16.7	17.0	16.4	16.5	16.7	16.4	16.3	15.6	15.2	13.8	13.5	12.7	11.8	8.6	5.1	4.1	3.3	23.9	3.3	15.4
6	3.9	3.2	1.5	1.8	0.5	0.0	0.0	0.0	1.6	2.1	4.2	6.3	7.2	6.9	7.7	8.0	7.0	8.0	8.5	8.5	9.4	9.0	7.5	7.8	9.4	0.0	5.0
7	7.1	6.8	7.8	8.2	9.2	8.0	7.3	6.8	6.7	7.1	6.1	6.9	7.6	7.0	6.6	5.6	5.4	5.7	4.1	3.8	3.9	2.8	1.6	0.6	9.2	0.6	5.9
8	0.9	1.0	1.5	1.9	1.9	2.1	2.1	2.7	4.3	4.9	6.2	7.4	9.2	6.9	5.7	4.2	4.9	8.7	11.9	8.5	6.9	6.9	6.8	4.7	11.9	0.9	5.1
9	4.4	3.1	4.9	7.5	6.9	6.8	8.8	8.8	7.6	8.0	7.4	4.4	5.0	7.0	5.7	3.6	1.6	1.8	2.4	1.5	2.1	2.8	5.9	6.9	8.8	1.5	5.2
10	6.2	3.5	1.9	1.3	1.7	1.6	0.9	1.2	1.9	1.6	1.4	2.6	2.1	2.7	4.4	5.4	6.8	6.6	6.6	5.4	3.9	4.2	4.1	2.7	6.8	0.9	3.4
11	2.7	1.8	1.3	2.5	1.7	1.0	1.7	0.9	1.2	2.5	2.7	2.7	3.8	6.0	4.0	3.3	3.5	6.7	6.1	7.1	6.9	7.3	8.1	8.4	8.4	0.9	3.9
12	8.6	8.1	8.4	8.6	8.3	9.3	9.1	9.2	10.7	9.2	8.4	9.5	9.7	9.2	9.1	10.2	10.5	9.5	8.4	8.8	9.2	6.7	7.9	6.5	10.7	6.5	8.9
13	6.4	8.2	7.4	6.2	6.3	5.0	3.1	2.9	1.6	0.8	2.5	2.3	1.0	1.1	2.2	4.1	3.7	3.4	2.0	3.1	3.1	1.3	2.0	1.8	8.2	0.8	3.4
14	2.7	2.7	3.3	3.4	2.5	3.1	2.9	3.8	5.6	5.4	5.3	5.7	6.0	6.5	8.0	7.4	8.9	9.9	10.1	11.1	10.4	13.4	12.2	8.6	13.4	2.5	6.6
15	6.2	5.0	5.1	3.7	1.7	1.8	1.7	1.6	2.4	3.1	3.5	1.3	1.9	1.1	1.6	2.3	2.6	4.0	3.6	3.0	4.6	3.9	6.5	8.7	8.7	1.1	3.4
16	6.6	1.0	1.0	2.6	3.3	4.3	3.7	3.6	4.6	3.5	2.4	1.8	2.9	2.7	2.3	2.0	2.8	4.3	4.4	4.0	3.0	4.1	2.9	3.6	6.6	1.0	3.2
17	2.4	2.6	2.8	2.0	2.7	3.0	2.3	1.8	2.4	3.8	5.6	7.2	7.8	7.9	7.5	8.4	9.3	8.0	7.8	7.4	7.0	6.8	5.3	5.4	9.3	1.8	5.3
18	5.0	4.4	4.3	4.6	4.2	2.9	2.2	1.1	1.4	2.3	3.6	5.2	5.2	6.4	7.8	7.1	7.1	9.6	8.2	8.7	8.9	8.6	6.4	1.9	9.6	1.1	5.3
19	2.5	3.4	2.5	0.9	1.3	1.2	0.7	1.7	3.3	5.7	7.0	9.1	11.5	11.0	16.9	19.1	14.2	15.3	16.8	18.2	17.3	14.0	15.0	13.1	19.1	0.7	9.2
20	12.7	13.1	13.7	13.9	14.7	16.0	15.8	16.1	16.0	15.2	13.6	13.8	10.8	11.5	11.4	9.5	7.1	4.1	3.0	2.1	4.9	8.8	8.6	9.4	16.1	2.1	11.1
21	10.7	10.0	10.6	10.9	11.8	12.7	13.5	13.4	14.2	16.0	16.8	20.3	20.8	16.5	17.5	15.3	17.3	17.4	17.1	16.7	14.2	11.7	14.6	13.2	20.8	10.0	14.7
22	14.3	13.3	12.1	12.1	12.6	14.4	14.1	16.5	15.7	14.9	16.1	17.2	17.0	13.7	12.5	11.5	12.5	12.1	11.6	11.1	12.5	11.0	11.2	9.4	17.2	9.4	13.3
23	10.7	7.3	6.6	4.8	4.1	3.4	4.1	4.3	4.1	4.6	5.2	4.9	3.8	3.5	3.4	4.4	4.8	6.7	9.0	7.8	6.1	6.1	5.6	6.0	10.7	3.4	5.5
24	6.3	4.7	3.3	4.2	4.0	2.4	1.5	2.8	4.1	2.2	1.8	1.8	2.4	2.5	3.1	3.7	4.1	5.2	4.2	6.3	7.0	5.1	4.1	5.0	7.0	1.5	3.8
25	5.3	5.4	5.0	6.1	6.1	4.9	5.1	3.8	3.3	3.0	2.3	2.3	2.4	2.4	2.2	3.8	4.7	5.1	6.0	3.7	2.9	4.0	4.9	5.1	6.1	2.2	4.2
26	5.3	6.2	5.9	6.2	7.5	4.0	4.9	5.3	7.1	7.3	8.7	9.9	8.9	7.5	9.0	9.4	10.7	11.5	11.0	9.9	7.8	7.5	6.8	9.1	11.5	4.0	7.8
27	8.3	6.5	8.2	12.6	14.1	13.7	12.6	13.0	11.4	10.0	10.8	13.1	14.7	16.0	15.4	15.4	14.8	12.8	10.8	9.4	7.8	7.0	8.2	7.4	16.0	6.5	11.4
28	6.9	5.2	3.7	1.9	2.8	3.4	3.7	6.3	5.2	3.3	1.7	1.7	3.0	4.2	3.8	3.6	4.2	3.6	3.5	6.0	6.6	5.1	6.0	6.1	6.9	1.7	4.2
29	5.8	5.6	6.6	6.6	7.7	7.1	7.4	6.1	6.9	7.7	7.7	8.3	8.5	8.5	8.2	7.9	7.6	7.9	8.1	7.8	7.1	7.5	7.6	6.5	8.5	5.6	7.4
30	6.4	6.4	6.0	3.5	2.6	2.9	1.9	3.0	5.5	4.6	6.2	6.6	7.2	8.1	7.7	7.7	6.8	7.2	7.2	6.3	5.7	5.4	4.7	7.4	8.1	1.9	5.7
31	7.4	7.6	7.5	4.4	6.9	8.0	6.9	7.4	6.6	8.1	8.9	7.8	6.1	6.0	6.1	5.0	4.3	5.0	4.0	3.1	3.6	3.3	1.8	2.0	8.9	1.8	5.7
<b>Max.</b>	<b>20.3</b>	<b>22.3</b>	<b>23.1</b>	<b>23.9</b>	<b>22.6</b>	<b>20.6</b>	<b>19.4</b>	<b>20.9</b>	<b>19.8</b>	<b>18.8</b>	<b>20.0</b>	<b>21.8</b>	<b>23.1</b>	<b>19.9</b>	<b>17.5</b>	<b>19.1</b>	<b>17.3</b>	<b>17.4</b>	<b>17.9</b>	<b>18.2</b>	<b>19.1</b>	<b>19.0</b>	<b>20.5</b>	<b>20.5</b>	<b>23.9</b>		
<b>Min.</b>	<b>0.9</b>	<b>1.0</b>	<b>0.8</b>	<b>0.9</b>	<b>0.5</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>1.2</b>	<b>0.8</b>	<b>1.4</b>	<b>1.3</b>	<b>1.0</b>	<b>1.1</b>	<b>1.6</b>	<b>2.0</b>	<b>1.6</b>	<b>1.8</b>	<b>2.0</b>	<b>1.5</b>	<b>2.1</b>	<b>1.3</b>	<b>1.6</b>	<b>0.6</b>		<b>0.0</b>	
<b>Avg.</b>	<b>7.1</b>	<b>6.6</b>	<b>6.5</b>	<b>6.5</b>	<b>6.5</b>	<b>6.6</b>	<b>6.5</b>	<b>6.6</b>	<b>6.8</b>	<b>6.8</b>	<b>7.2</b>	<b>7.8</b>	<b>8.2</b>	<b>8.1</b>	<b>8.1</b>	<b>8.0</b>	<b>7.8</b>	<b>8.3</b>	<b>8.0</b>	<b>7.8</b>	<b>7.6</b>	<b>7.1</b>	<b>7.1</b>	<b>6.8</b>			<b>7.3</b>

Total Hours in Month 744

Hours Data Available 744

Data Recovery 100.0%

## Northern Dynasty Mines Pebble 1 Meterological Station - Wind Speed (RMYoung) (m/s)

*June 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	1.6	1.4	1.2	2.6	2.5	2.3	2.8	2.7	3.3	3.7	4.0	3.8	4.3	3.6	3.7	4.2	3.5	3.9	6.4	5.8	6.1	7.1	5.7	1.6	7.1	1.2	3.7	
2	2.8	3.2	3.5	3.1	3.6	3.9	4.4	3.5	3.4	3.9	5.6	5.7	5.6	5.8	6.4	7.4	7.6	8.2	9.9	8.0	7.3	7.0	6.8	6.8	9.9	2.8	5.6	
3	7.7	8.9	8.7	11.1	10.6	10.5	11.1	13.0	15.3	14.4	13.9	13.0	12.0	11.8	12.0	11.6	11.4	12.6	12.6	12.4	12.6	11.2	10.7	9.2	15.3	7.7	11.6	
4	9.1	8.5	8.5	8.5	7.8	8.9	10.2	12.4	11.5	12.3	13.0	13.6	12.2	12.1	12.3	11.5	11.4	12.0	12.0	11.4	10.5	8.5	9.0	10.6	13.6	7.8	10.7	
5	11.2	10.3	8.8	6.4	7.1	6.6	6.8	7.5	7.3	6.8	4.6	3.1	3.3	3.5	3.6	4.4	4.4	4.1	3.3	3.5	2.9	3.3	3.8	3.8	11.2	2.9	5.4	
6	3.5	3.5	2.9	2.2	2.0	2.6	2.7	3.1	4.1	4.2	4.1	5.4	7.7	9.0	9.0	9.8	9.9	10.4	10.9	10.1	10.0	9.8	9.6	8.1	10.9	2.0	6.4	
7	6.9	7.6	11.6	12.5	12.9	12.4	10.4	12.1	15.3	14.8	15.6	15.7	14.7	15.3	14.7	14.4	13.4	14.1	14.0	13.2	11.2	9.6	10.2	11.9	15.7	6.9	12.7	
8	13.6	14.8	16.0	16.1	15.4	16.3	15.6	16.5	16.4	17.3	17.6	18.1	18.2	18.9	18.5	17.7	18.1	19.0	19.6	20.5	21.1	22.7	24.8	24.6	24.8	13.6	18.2	
9	23.0	20.9	21.9	21.6	19.1	18.7	20.1	19.0	19.8	20.8	20.0	21.8	22.6	23.5	23.7	21.4	20.8	21.7	15.4	19.9	16.9	19.2	19.4	19.5	23.7	15.4	20.5	
10	15.4	16.0	16.5	16.8	17.8	17.8	16.5	18.6	19.4	18.7	17.2	17.8	19.0	20.3	20.4	20.1	18.3	20.0	19.2	17.5	17.0	18.4	18.1	18.0	20.4	15.4	18.1	
11	18.4	19.9	19.8	19.3	20.2	20.6	19.6	18.6	18.7	18.6	19.0	20.0	18.7	17.8	18.2	17.9	17.5	16.1	16.7	15.8	15.0	14.8	12.3	14.7	20.6	12.3	17.8	
12	15.0	14.1	14.1	13.0	11.9	12.0	12.0	11.5	11.3	11.0	10.7	8.4	11.1	11.5	12.0	11.2	11.0	8.4	6.5	7.0	6.4	5.7	6.2	5.8	15.0	5.7	10.3	
13	5.7	5.0	5.2	5.3	5.2	5.2	3.9	4.8	6.9	7.9	4.7	4.6	4.9	5.2	5.5	4.7	4.8	4.8	4.7	3.3	1.4	2.0	1.0	1.9	7.9	1.0	4.5	
14	1.7	0.9	1.6	0.9	2.0	2.7	2.0	1.5	2.5	1.9	3.0	3.0	3.4	3.1	1.8	1.8	2.5	1.7	2.8	1.1	1.0	2.1	3.1	3.0	3.4	0.9	2.1	
15	3.4	4.3	4.6	4.8	4.7	5.3	5.2	4.7	5.3	5.8	5.0	5.6	3.8	4.9	5.0	5.3	2.6	3.7	4.5	5.3	5.0	3.8	3.5	3.3	5.8	2.6	4.5	
16	3.5	4.1	4.5	3.9	4.9	4.3	4.4	4.3	3.9	4.6	5.5	7.0	8.3	8.9	8.9	10.0	10.3	10.7	10.1	9.5	8.7	8.5	6.4	5.6	10.7	3.5	6.7	
17	5.3	4.8	4.4	3.2	2.1	2.6	2.9	5.0	5.2	5.4	5.1	5.6	5.8	7.7	7.0	7.0	7.9	7.9	7.7	6.7	6.5	6.6	6.4	6.3	7.9	2.1	5.6	
18	4.5	2.2	1.2	1.4	2.0	2.0	1.6	2.1	3.0	4.6	6.1	8.0	10.0	9.4	11.0	14.0	16.3	14.8	14.9	13.7	13.1	10.9	4.6	2.0	16.3	1.2	7.2	
19	2.3	4.3	4.7	4.3	3.9	2.6	1.9	1.6	1.4	1.7	4.3	3.0	2.5	3.7	3.8	3.7	3.0	5.0	4.0	5.8	8.7	5.6	3.4	4.2	8.7	1.4	3.7	
20	3.9	3.8	4.3	3.4	3.2	2.0	2.0	1.4	1.4	1.4	1.9	1.9	3.6	4.2	8.9	11.7	8.9	9.2	8.4	8.5	8.0	8.0	6.7	5.2	11.7	1.4	5.1	
21	4.4	4.9	4.0	2.0	2.1	1.1	1.0	1.6	2.7	4.5	4.9	4.2	3.0	1.8	2.9	4.4	6.3	4.4	2.6	4.7	3.5	3.9	6.5	6.5	6.5	1.0	3.7	
22	8.3	10.2	6.5	6.2	5.9	6.6	6.5	5.7	6.3	3.5	2.9	6.0	7.0	8.1	9.0	9.1	7.8	8.0	8.5	7.8	7.6	6.9	6.1	5.9	10.2	2.9	6.9	
23	5.3	5.5	7.2	7.1	6.1	6.4	7.0	6.3	6.1	6.6	7.2	6.4	7.1	6.4	6.0	6.2	5.6	4.5	5.4	6.2	6.7	6.6	6.5	4.6	7.2	4.5	6.2	
24	3.4	3.9	3.4	3.9	3.2	1.7	1.1	2.3	3.4	3.6	3.6	2.9	2.9	2.0	2.7	2.4	5.2	4.1	2.3	1.7	2.5	2.2	1.8	2.5	5.2	1.1	2.9	
25	1.7	2.1	3.4	4.1	3.7	2.3	1.7	2.2	1.8	2.8	3.6	3.3	3.6	6.0	6.1	6.5	7.1	7.3	6.2	5.4	4.6	4.4	5.0	5.5	7.3	1.7	4.2	
26	5.0	5.1	4.0	4.0	2.5	2.4	1.9	1.2	2.3	2.8	2.6	3.6	3.6	3.2	2.9	4.1	3.2	2.2	5.3	7.1	6.6	6.9	6.1	5.2	7.1	1.2	3.9	
27	4.6	1.7	2.9	1.1	2.8	2.4	3.2	3.8	3.6	2.5	1.3	1.6	1.5	2.6	4.4	4.7	5.7	6.0	5.8	6.6	8.1	6.8	5.2	4.7	8.1	1.1	3.9	
28	4.6	3.1	5.5	3.7	0.7	1.0	2.2	4.3	6.3	5.4	5.3	6.8	5.8	6.2	4.7	4.6	4.4	3.5	2.6	4.9	4.8	2.3	3.5	3.6	6.8	0.7	4.2	
29	3.8	4.7	5.8	3.5	4.8	3.7	3.5	4.2	4.2	4.4	4.0	3.5	3.5	5.1	7.2	10.9	12.1	12.5	11.6	11.8	11.4	10.0	8.1	10.8	12.5	3.5	6.9	
30	10.7	8.6	8.6	9.4	9.0	7.5	8.8	8.5	6.1	5.9	5.7	6.5	6.0	5.8	5.0	3.1	3.7	3.6	1.7	1.5	1.7	2.2	1.9	2.3	10.7	1.5	5.6	
<b>Max.</b>	<b>23.0</b>	<b>20.9</b>	<b>21.9</b>	<b>21.6</b>	<b>20.2</b>	<b>20.6</b>	<b>20.1</b>	<b>19.0</b>	<b>19.8</b>	<b>20.8</b>	<b>20.0</b>	<b>21.8</b>	<b>22.6</b>	<b>23.5</b>	<b>23.7</b>	<b>21.4</b>	<b>20.8</b>	<b>21.7</b>	<b>19.6</b>	<b>20.5</b>	<b>21.1</b>	<b>22.7</b>	<b>24.8</b>	<b>24.6</b>	<b>24.8</b>			
<b>Min.</b>	<b>1.6</b>	<b>0.9</b>	<b>1.2</b>	<b>0.9</b>	<b>0.7</b>	<b>1.0</b>	<b>1.0</b>	<b>1.2</b>	<b>1.4</b>	<b>1.4</b>	<b>1.3</b>	<b>1.6</b>	<b>1.5</b>	<b>1.8</b>	<b>1.8</b>	<b>2.5</b>	<b>1.7</b>	<b>1.7</b>	<b>1.1</b>	<b>1.0</b>	<b>2.0</b>	<b>1.0</b>	<b>1.6</b>			<b>0.7</b>		
<b>Avg.</b>	<b>7.0</b>	<b>6.9</b>	<b>7.2</b>	<b>6.8</b>	<b>6.7</b>	<b>6.5</b>	<b>6.4</b>	<b>6.8</b>	<b>7.3</b>	<b>7.4</b>	<b>7.4</b>	<b>7.7</b>	<b>7.9</b>	<b>8.2</b>	<b>8.6</b>	<b>8.9</b>	<b>8.8</b>	<b>8.8</b>	<b>8.5</b>	<b>8.6</b>	<b>8.2</b>	<b>7.9</b>	<b>7.4</b>	<b>7.3</b>				<b>7.6</b>

Total Hours in Month 720

Hours Data Available 720

Data Recovery 100.0%

## Northern Dynasty Mines Pebble 1 Meterological Station - Wind Speed (RMYoung) (m/s)

*July 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	2.5	1.2	2.1	3.3	2.0	1.5	1.0	1.3	1.2	0.9	1.1	1.3	1.5	2.9	2.7	2.9	3.9	4.2	5.3	5.6	5.6	5.6	5.4	3.5	5.6	0.9	2.9
2	1.7	2.5	3.7	3.1	2.8	3.7	3.9	3.9	4.9	5.4	5.5	5.4	5.6	6.6	6.4	6.2	8.2	9.6	9.7	8.9	8.1	7.8	9.0	9.2	9.7	1.7	5.9
3	10.7	10.2	8.4	6.5	6.0	5.7	5.3	4.3	6.3	6.5	4.6	4.2	3.3	3.1	3.2	2.7	3.3	5.3	5.2	4.7	4.6	3.5	1.4	1.7	10.7	1.4	5.0
4	1.9	1.2	1.0	1.5	1.9	1.6	0.8	0.8	1.5	1.6	1.9	2.4	3.0	3.4	3.0	4.3	5.5	6.1	6.1	5.6	6.2	4.5	4.0	1.9	6.2	0.8	3.0
5	2.4	1.4	1.5	2.1	2.3	2.4	2.6	2.0	1.9	2.4	2.1	2.1	1.4	2.2	3.2	5.5	4.5	3.9	1.8	1.5	2.0	1.9	1.4	1.7	5.5	1.4	2.3
6	0.8	2.3	2.1	1.6	1.7	0.8	1.6	1.2	2.5	2.7	2.5	1.7	2.7	5.5	6.5	6.6	5.0	4.7	2.0	2.2	3.0	2.5	4.0	3.8	6.6	0.8	2.9
7	3.9	3.9	4.2	5.0	5.9	4.1	4.1	5.5	6.6	7.6	7.6	6.8	6.9	7.6	7.5	8.0	8.5	7.0	4.5	4.6	6.3	6.1	4.8	6.7	8.5	3.9	6.0
8	7.2	6.4	3.5	6.4	4.1	4.2	5.3	5.0	5.6	4.5	2.2	1.8	2.3	2.3	1.4	1.1	2.0	3.0	3.1	3.3	2.4	3.8	4.0	2.0	7.2	1.1	3.6
9	1.3	2.2	3.1	3.5	4.0	3.8	3.9	3.4	2.5	1.5	2.4	3.7	5.3	5.5	7.3	8.0	8.1	8.6	9.5	9.8	9.5	8.6	11.1	12.3	12.3	1.3	5.8
10	13.5	14.6	15.4	13.1									13.0	13.6	13.1	12.1	13.9	14.9	16.9	16.9	15.5	12.7			16.9	12.1	14.2
11		15.7	15.5	14.3	13.3	12.5	8.8	8.2	8.8		6.3	5.7	7.4	7.2	5.5	4.5	5.4	4.5							15.7	4.5	9.0
12	5.5	6.2	5.4	4.1	4.2	4.2	2.3	2.5	1.3	2.8	2.1	1.0	1.2	1.8	2.0	3.0	3.4	4.1	3.2	3.6	3.9	4.4	4.6	4.1	6.2	1.0	3.4
13	3.3	4.6	8.1	9.5	6.7	5.9	5.1	3.7	4.8	4.9	5.0	4.7	4.5	4.1	3.1	1.7	4.3	6.3	6.0	5.1	6.1	6.3	7.3	6.7	9.5	1.7	5.3
14	6.8	6.5	8.0	9.1	9.8	9.5	8.7	8.5	11.9	11.6	9.0	9.4	8.7	7.7	8.2	8.4	6.9	6.5	6.1	6.9	7.1	6.5	6.2	5.8	11.9	5.8	8.1
15	6.6	7.5	6.5	6.8	6.6	7.3	7.8	6.5	6.6	6.0	5.1	4.9	5.5	4.5	3.9	3.4	5.6	4.7	3.9	5.0	5.1	5.4	5.8	5.1	7.8	3.4	5.7
16	4.4	5.3	6.0	5.3	4.9	5.5	3.8	3.1	4.6	6.0	5.7	6.1	6.6	7.8	9.8	11.0	11.0	12.1	13.8	13.1	13.3	13.3	14.0	14.7	14.7	3.1	8.4
17	15.2	14.2	12.2	11.0	8.4	8.6	6.9	7.4	7.5	8.8	8.7	10.5	11.0	11.9	12.9	12.7	13.6	13.6	14.9	16.2	16.3	15.2	15.6	14.6	16.3	6.9	12.0
18	14.9	15.0	14.2	13.6	14.2	11.3	12.4	12.8	17.7	18.0	17.3	17.4	13.8	12.1	12.8	12.6	14.5	14.4	15.9	16.6	16.0	15.3	16.6	14.0	18.0	11.3	14.7
19	14.9	14.4	14.1	14.2	13.6	14.0	12.8	11.9	10.9	12.7	10.6	10.4	8.0	6.9	3.9	3.5	3.8	3.0	3.8	5.5	6.9	6.4	5.5	5.4	14.9	3.0	9.0
20	5.2	4.9	5.0	5.3	4.5	3.5	2.5	1.5	1.4	2.6	3.9	3.7	2.8	3.7	4.9	4.7	4.7	5.3	5.6	5.0	7.1	7.7	7.2	6.2	7.7	1.4	4.5
21	4.9	5.8	5.2	5.0	5.7	5.6	5.1	6.0	6.3	4.2	2.8	2.4	2.6	0.6	0.7	0.7	2.0	1.8	2.5	2.8	2.6	2.8	2.5	6.3	6.3	0.6	3.6
22	7.6	7.2	7.0	7.2	6.8	4.6	3.0	3.2	3.1	2.8	1.8	0.9	0.9	2.5	2.0	1.9	1.7	3.2	4.1	5.0	4.0	3.7	5.8	6.0	7.6	0.9	4.0
23	6.3	6.0	5.0	5.1	6.7	8.3	7.4	6.4	6.8	9.2	9.7	7.7	7.8	9.4	9.7	9.9	6.7	6.2	3.6	2.7	2.0	1.4	5.1	3.6	9.9	1.4	6.3
24	3.3	3.4	3.8	3.5	2.1	2.4	1.8	2.0	3.1	1.4	3.5	3.5	6.1	6.0	5.5	5.3	5.0	4.7	3.0	1.7	2.6	3.7	5.3	6.0	6.1	1.4	3.7
25	5.8	6.2	5.6	5.7	5.5	8.9	9.4	8.5	7.2	9.0	10.5	10.2	9.0	4.4	3.8	2.7	3.9	5.6	6.4	7.1	7.4	7.1	6.3	6.4	10.5	2.7	6.8
26	6.4	5.7	5.1	4.6	3.1	2.8	3.1	3.1	3.2	2.2	2.5	2.3	2.6	3.0	1.8	1.1	1.4	1.3	4.6	5.0	5.0	5.4	5.8	6.2	6.4	1.1	3.6
27	7.4	8.2	9.0	8.7	7.1	6.0	5.9	6.1	6.7	6.9	6.4	5.3	4.3	3.5	1.6	1.4	1.1	1.1	2.0	1.2	2.4	2.6	2.3	2.2	9.0	1.1	4.6
28	2.5	2.9	2.9	2.4	2.1	2.0	1.7	1.3	0.7	1.5	1.4	1.6	1.2	1.1	0.7	1.6	2.3	4.4	4.4	4.8	5.4	6.8	8.7	9.3	9.3	0.7	3.1
29	7.4	7.1	8.8	10.7	9.6	11.5	8.2	9.2	11.4	10.3	10.7	12.6	14.5	13.8	13.2	12.2	9.8	8.5	9.6	7.1	6.8	8.9	9.7	8.4	14.5	6.8	10.0
30	10.0	11.4	11.5	12.0	10.5	10.8	9.2	7.9	6.8	6.8	6.8	6.3	7.5	5.6	3.6	1.6	1.3	1.5	2.4	3.8	5.0	4.9	6.2	7.7	12.0	1.3	6.7
31	10.0	11.0	13.1	10.7	13.3	12.6	12.2	7.9	6.9	7.5	6.0	6.7	6.0	4.7	5.4	4.1	4.1	5.2	6.4	5.9	5.5	5.7	6.4	7.7	13.3	4.1	7.7
<b>Max.</b>	<b>15.2</b>	<b>15.7</b>	<b>15.5</b>	<b>14.3</b>	<b>14.2</b>	<b>14.0</b>	<b>12.8</b>	<b>12.8</b>	<b>17.7</b>	<b>18.0</b>	<b>17.3</b>	<b>17.4</b>	<b>14.5</b>	<b>13.8</b>	<b>13.2</b>	<b>12.7</b>	<b>14.5</b>	<b>14.9</b>	<b>16.9</b>	<b>16.9</b>	<b>16.3</b>	<b>15.3</b>	<b>16.6</b>	<b>14.7</b>	<b>18.0</b>		
<b>Min.</b>	<b>0.8</b>	<b>1.2</b>	<b>1.0</b>	<b>1.5</b>	<b>1.7</b>	<b>0.8</b>	<b>0.8</b>	<b>0.8</b>	<b>0.7</b>	<b>0.9</b>	<b>1.1</b>	<b>0.9</b>	<b>0.9</b>	<b>0.6</b>	<b>0.7</b>	<b>0.7</b>	<b>1.1</b>	<b>1.1</b>	<b>1.8</b>	<b>1.2</b>	<b>2.0</b>	<b>1.4</b>	<b>1.4</b>	<b>1.7</b>		<b>0.6</b>	
<b>Avg.</b>	<b>6.5</b>	<b>6.9</b>	<b>7.0</b>	<b>6.9</b>	<b>6.3</b>	<b>6.2</b>	<b>5.5</b>	<b>5.2</b>	<b>5.7</b>	<b>5.8</b>	<b>5.5</b>	<b>5.4</b>	<b>5.7</b>	<b>5.6</b>	<b>5.5</b>	<b>5.3</b>	<b>5.7</b>	<b>6.0</b>	<b>6.2</b>	<b>6.2</b>	<b>6.5</b>	<b>6.4</b>	<b>6.6</b>	<b>6.5</b>			<b>6.0</b>

Total Hours in Month 744

Hours Data Available 726

Data Recovery 97.6%

# Northern Dynasty Mines Pebble 1 Meterological Station - Resultant Wind Direction (RMYoung) (Degrees)

*August 2005*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
1	210.8	259.9	300.3	310.7	307.3	327.9	356.7	96.1	97.0	103.5	108.6	147.5	166.5	168.2	179.5	191.7	168.1	163.4	149.7	155.1	149.3	144.8	130.9	141.4
2	125.7	123.2	129.3	123.8	128.4	122.8	112.5	106.6	108.3	107.1	106.4	102.0	134.0	127.7	133.4	132.7	142.6	147.8	83.0	43.7	42.4	42.3	70.1	69.7
3	55.2	17.1	313.3	4.8	308.1	289.5	292.5	297.9	304.2	320.4	350.6	358.2	22.4	237.8	147.2	171.8	174.4	201.2	181.7	207.8	190.3	210.2	208.6	152.1
4	140.7	149.8	149.4	149.5	167.3	201.2	187.8	144.8	120.5	135.6	217.7	223.7	215.3	112.3	124.6	150.5	209.6	314.7	171.1	145.7	196.8	324.2	169.9	122.8
5	150.4	230.3	149.2	177.9	249.9	144.0	156.2	234.3	247.5	117.3	142.7	169.4	216.7	214.2	209.3	190.1	218.5	218.3	206.4	219.6	223.1	227.3	242.4	219.8
6	138.4	234.2	246.7	346.6	104.0	228.2	317.9	241.7	299.1	13.4	321.0	33.5	257.1	272.6	222.9	246.5	234.6	223.7	236.2	276.5	286.2	281.9	291.6	261.0
7	242.3	235.9	181.6	179.2	161.8	190.2	91.8	277.4	275.9	280.1	252.3	298.7	274.7	280.9	268.5	240.3	283.6	278.3	294.2	288.0	294.5	302.7	302.9	304.1
8	294.6	305.3	307.9	306.4	310.4	306.7	312.5	315.4	325.5	339.6	336.5	295.2	62.1	129.8	138.9	130.4	143.1	167.3	174.0	170.6	195.2	141.4	154.9	163.1
9	171.1	175.2	177.1	178.2	168.4	158.9	160.1	150.7	143.8	122.3	136.0	147.3	150.5	151.8	155.9	150.5	154.0	158.1	161.4	162.5	164.8	160.5	159.2	147.5
10	143.3	214.9	321.2	317.2	108.6	130.8	117.6	101.6	111.6	111.5	140.2	147.8	149.7	155.6	152.6	161.8	167.0	168.9	197.1	231.9	241.4	273.8	315.2	310.8
11	322.4	328.6	329.0	320.2	316.9	309.2	306.4	305.4	312.6	328.4	335.0	347.0	356.2	358.3	355.2	349.8	354.1	349.8	335.8	330.3	297.9	297.2	302.6	306.8
12	311.0	103.4	142.6	138.0	105.7	115.8	170.1	141.2	135.6	140.5	144.2	140.3	125.2	132.2	153.1	158.1	168.6	159.7	155.8	169.7	169.0	158.4	163.1	165.3
13	167.9	166.9	120.0	104.1	122.4	137.6	110.9	124.4	119.6	106.4	115.2	130.1	122.4	133.0	153.4	166.5	164.0	187.4	159.1	165.8	169.1	179.3	147.7	154.8
14	152.6	153.4	141.5	153.1	153.2	165.6	174.0	116.6	126.0	128.2	120.9	124.7	128.0	142.0	136.9	150.2	179.3	183.3	209.4	146.5	141.3	134.0	157.5	140.8
15	154.8	158.7	142.3	160.5	146.7	156.3	152.6	157.9	161.6	161.0	146.8	137.6	143.5	146.9	143.0	142.1	155.4	138.6	136.4	132.7	137.2	129.4	136.6	157.6
16	135.9	140.7	150.7	145.2	129.8	131.2	126.0	118.2	127.7	125.6	123.7	126.2	125.7	122.2	119.3	122.7	122.4	119.4	121.6	119.8	121.2	117.0	117.1	115.3
17	117.7	116.2	114.7	120.3	110.2	95.6	93.4	82.1	54.8	54.3	56.3	55.1	61.8	54.9	77.3	78.4	69.4	81.8	75.4	78.7	93.4	76.5	113.1	102.0
18	113.0	113.9	116.8	126.2	143.9	92.4	130.5	173.8	277.7	325.4	304.9	307.5	314.2	315.2	315.5	316.2	322.2	311.5	294.5	352.1	306.7	247.3	140.7	319.9
19	147.8	284.0	115.8	111.2	211.9	275.4	311.6	317.9	304.7	309.2	301.3	317.3	324.3	326.4	328.0	331.7	328.7	331.8	331.3	327.6	319.3	318.7	318.7	318.8
20	315.7	319.0	320.3	305.3	312.8	320.5	328.9	319.2	321.6	328.0	325.0	325.8	327.2	316.5	293.3	282.1	270.8	272.0	238.6	219.0	239.5	236.3	235.6	233.1
21	233.1	226.3	235.0	250.0	266.2	286.3	290.1	301.8	308.2	318.1	318.3	308.6	306.7	305.4	319.9	325.7	319.3	329.6	313.4	327.7	323.4	322.8	324.1	314.3
22	316.5	52.5	115.4	116.9	113.1	142.4	129.6	122.4	119.1	149.0	135.2	127.2	121.6	123.3	124.3	122.0	121.5	122.0	123.0	122.2	118.3	118.7	117.7	125.3
23	126.5	123.3	131.7	129.2	152.0	203.9	221.7	211.6	199.4	186.4	183.0	184.6	181.5	185.7	183.3	187.8	186.6	181.7	168.3	177.1	172.3	162.9	159.0	159.0
24	154.2	139.5	129.8	134.2	115.0	109.1	95.1	119.7	129.8	259.8	307.4	313.0	312.8	310.3	314.9	314.0	310.8	314.4	310.6	316.6	303.5	304.1	302.5	307.1
25	306.8	309.9	307.1	312.2	292.0	303.4	307.6	316.1	323.5	335.4	1.9	348.8	342.5	348.6	2.5	345.8	329.7	343.5	339.4	331.4	328.6	319.2	318.6	317.1
26	313.5	311.6	310.9	321.7	332.2	314.0	314.6	330.5	343.1	341.3	331.2	336.3	336.2	339.8	333.3	329.4	329.5	328.2	320.1	320.8	318.8	327.1	316.3	323.1
27	318.1	315.2	297.8	332.5	333.0	318.7	306.4	321.8	332.4	325.9	323.9	328.2	325.7	314.4	302.5	290.5	288.5	289.3	287.0	309.2	179.2	165.6	170.1	160.2
28	162.8	187.1	150.9	138.2	144.9	152.7	156.7	159.5	159.2	160.0	158.5	174.4	150.9	175.6	203.5	220.1	216.9	224.3	214.8	222.5	217.0	219.7	225.0	223.3
29	218.7	228.4	238.8	242.5	249.9	250.6	253.1	260.8	265.1	268.0	266.8	264.0	261.2	267.0	266.9	273.2	284.2	276.5	262.4	258.7	268.7	268.9	269.9	274.3
30	289.1	311.2	315.1	308.5	319.7	321.5	312.2	308.6	317.2	326.5	324.1	330.9	334.0	330.0	332.0	329.2	334.0	335.2	326.4	314.8	306.8	306.6	304.6	314.8
31	313.4	316.2	323.6	308.0	311.6	310.5	316.6	322.1	329.9	326.3	331.8	335.1	333.5	332.1	321.5	328.3	322.3	327.4	334.4	335.1	331.7	324.5	325.6	333.6

**Total Hours in Month**      744

**Hours Data Available**      744

**Data Recovery** 100.0%

**HCG, Inc.**

# Northern Dynasty Mines Pebble 1 Meterological Station - Resultant Wind Direction (RMYoung) (Degrees)

*September 2005*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
1	332.4	322.6	318.2	317.2	318.5	323.2	323.7	322.8	319.8	324.2	331.9	332.6	331.7	324.2	328.0	331.0	334.0	330.4	335.1	333.1	319.9	313.2	313.6	324.6
2	316.8	301.5	294.3	308.3	303.9	119.6	122.5	114.7	120.5	125.8	142.7	134.4	130.5	133.6	139.8	143.3	137.7	131.3	126.9	124.0	127.5	130.5	130.2	130.8
3	129.7	129.1	130.3	134.5	136.9	134.3	132.6	132.9	129.3	124.8	119.9	120.3	115.9	111.3	112.8	114.7	117.0	118.9	117.2	113.0	117.5	121.2	119.7	125.2
4	122.7	113.8	144.9	203.6	131.4	106.3	136.3	131.4	67.7	96.0	106.8	105.2	102.9	102.4	106.2	116.2	145.1	157.0	161.8	157.5	147.9	149.9	147.8	142.6
5	134.8	140.9	144.8	141.9	144.0	146.9	138.4	135.4	129.7	126.1	120.7	120.8	124.9	128.8	132.3	136.1	135.1	135.4	134.2	126.7	126.0	139.2	130.6	143.8
6	146.5	196.8	230.9	225.1	223.8	228.0	219.1	169.4	195.2	224.0	231.1	220.1	208.6	211.1	208.9	202.3	201.4	198.0	197.9	214.9	227.4	235.0	244.2	238.7
7	237.6	237.0	238.5	259.2	267.8	222.7	222.4	342.0	319.4	304.7	299.9	301.0	307.9	294.1	293.5	294.5	301.4	305.3	311.3	308.4	295.1	274.1	238.5	234.4
8	268.9	325.3	324.2	308.4	308.6	307.1	302.6	316.2	353.2	23.5	356.2	57.5	101.0	105.8	121.7	125.4	130.6	144.9	146.8	117.9	122.4	125.6	125.2	127.4
9	127.7	127.6	132.7	129.7	133.4	128.2	118.8	115.2	119.1	139.2	139.4	149.9	148.0	150.6	149.3	162.2	202.2	224.9	230.5	236.6	234.2	232.1	227.7	222.8
10	218.2	223.0	231.8	227.3	222.8	231.7	225.8	233.1	170.6	228.4	226.7	228.5	221.9	192.2	208.0	215.0	175.5	124.1	128.3	95.2	98.7	153.0	118.2	106.3
11	118.8	139.8	125.2	138.2	138.5	132.3	133.1	133.2	131.6	127.1	126.2	122.5	125.8	126.3	128.2	132.4	126.8	126.5	133.1	134.8	129.4	126.1	142.9	198.8
12	197.6	241.8	257.5	258.5	246.9	214.6	216.5	203.3	208.7	201.4	196.8	203.5	219.3	230.0	236.8	239.4	241.6	241.8	244.0	252.5	251.5	253.1	255.9	257.0
13	250.6	252.8	260.6	267.1	264.7	241.7	229.4	251.0	247.8	227.8	218.5	223.7	223.3	230.3	217.1	218.1	221.3	205.2	182.8	157.3	185.1	190.6	217.3	170.2
14	121.8	134.1	130.7	153.3	144.5	125.8	121.8	106.8	118.9	108.6	110.0	122.8	120.4	126.9	129.8	138.0	139.2	137.4	129.6	128.6	125.9	119.0	120.4	123.2
15	120.3	118.0	119.7	120.1	120.9	122.1	121.6	126.2	125.2	128.4	125.6	124.0	121.1	117.9	116.2	118.5	122.0	139.0	183.4	146.8	161.1	149.1	156.7	155.0
16	261.0	260.9	243.2	265.0	258.9	30.4	284.3	266.3	108.3	130.0	268.1	262.8	268.4	254.6	258.5	264.8	227.7	238.7	212.8	216.4	236.2	229.7	225.8	218.0
17	223.9	197.4	159.9	128.7	276.5	2.0	22.5	307.6	303.7	309.3	299.3	319.7	103.9	222.0	302.9	316.6	261.9	294.4	258.5	281.5	301.3	299.6	287.2	300.9
18	298.3	309.4	300.5	296.4	294.8	297.8	308.2	315.7	318.3	306.5	312.6	311.5	307.6	310.8	303.9	300.7	294.7	299.3	300.0	299.8	291.3	299.7	300.4	300.3
19	300.9	303.3	299.0	309.1	314.7	303.1	305.5	300.3	316.9	313.7	344.2	333.1	338.0	337.6	349.9	334.9	334.5	340.9	335.5	330.6	320.8	312.2	308.7	303.1
20	302.7	301.5	305.6	314.3	308.5	311.1	302.8	303.7	300.4	302.8	309.1	324.5	313.3	323.3	331.2	309.0	295.2	309.6	318.9	293.7	271.2	272.6	262.9	239.1
21	227.8	211.2	197.5	223.5	210.7	163.6	124.6	118.8	149.6	155.1	146.4	113.6	130.2	138.1	151.2	156.9	146.5	149.1	148.2	146.3	150.6	144.4	130.1	148.0
22	155.2	151.1	143.0	146.2	160.7	143.6	136.8	134.1	131.6	121.7	122.7	122.1	123.6	125.7	127.0	144.3	157.1	178.3	216.5	209.9	206.9	216.2	204.7	198.1
23	203.9	207.9	183.6	182.2	168.2	165.5	161.9	163.1	149.4	127.2	120.1	120.3	128.0	126.2	129.3	126.0	127.4	137.6	184.7	239.0	252.8	247.7	247.5	251.5
24	241.9	234.6	232.2	231.7	231.8	229.2	233.4	236.3	218.6	223.7	232.6	240.1	238.9	239.6	231.4	223.4	228.2	227.2	219.6	224.4	226.8	229.4	231.1	228.1
25	227.5	230.9	227.9	227.9	231.6	232.1	224.8	226.9	222.1	223.0	226.7	223.5	221.4	217.6	212.1	208.8	206.7	211.0	205.7	209.1	215.5	224.8	220.0	224.9
26	208.9	131.9	132.1	108.5	106.8	108.5	104.0	112.7	112.3	116.1	109.3	112.9	115.6	118.2	114.6	113.2	111.6	113.9	111.2	109.0	108.7	110.6	109.8	113.0
27	112.6	111.1	113.1	116.1	116.3	118.2	113.2	78.5	54.9	82.6	94.0	52.4	49.3	49.9	40.4	35.8	32.5	62.1	70.2	72.7	81.7	67.9	357.4	310.1
28	318.9	325.2	320.4	302.0	308.9	303.6	306.6	308.9	262.0	268.7	293.0	324.8	311.8	325.8	333.3	321.6	326.7	339.3	276.6	270.2	137.6	222.6	238.6	158.6
29	171.0	213.6	210.7	226.8	228.4	213.6	198.4	213.9	209.7	211.0	221.1	262.8	273.2	282.7	292.3	291.6	299.5	297.2	300.8	283.0	273.0	168.3	293.3	263.3
30	258.0	146.4	171.8	219.0	213.8	142.3	183.0	184.1	140.1	119.1	324.2	329.4	331.9	318.2	319.3	324.2	318.9	321.1	329.2	333.0	338.5	325.6	322.8	322.6

**Total Hours in Month**      720

**Hours Data Available**      720

**Data Recovery**    100.0%

**HCG, Inc.**

# Northern Dynasty Mines Pebble 1 Meterological Station - Resultant Wind Direction (RMYoung) (Degrees)

*October 2005*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
1	322.4	322.2	322.1	320.5	321.5	322.3	321.5	326.0	326.6	326.5	326.2	326.6	323.0	326.6	325.1	329.5	324.0	328.1	323.0	307.5	312.0	315.7	309.8	312.8
2	310.0	309.2	303.7	299.6	299.2	319.8	309.3	315.7	317.5	322.6	314.8	318.7	315.0	314.6	321.4	324.6	335.1	327.3	294.8	303.3	326.9	340.5	324.3	317.6
3	348.1	86.7	121.5	109.7	330.1	179.9	107.7	319.8	306.5	307.2	310.5	327.9	318.7	343.6	324.9	143.8	171.1	150.4	157.5	221.3	316.7	208.3	108.4	50.5
4	44.0	23.6	93.1	61.8	48.1	61.2	64.3	90.1	70.9	98.3	84.9	88.0	103.2	107.7	117.1	95.8	66.5	80.5	85.7	81.3	49.7	52.8	56.4	59.4
5	54.7	54.5	63.5	50.8	41.7	24.0	32.3	17.9	37.6	31.1	8.4	353.2	347.9	3.6	358.1	358.1	15.3	33.0	351.5	356.2	319.9	240.6	141.5	143.8
6	148.8	201.3	232.5	333.3	111.1	132.2	211.2	174.5	197.1	209.5	212.1	228.4	195.6	216.8	216.9	221.0	204.6	204.3	180.6	141.9	137.6	137.4	126.9	121.9
7	109.8	116.7	117.0	125.4	122.2	121.6	123.1	126.6	119.3	120.5	122.3	125.5	123.7	122.7	137.5	178.3	193.4	171.6	132.5	145.3	172.1	149.5	114.5	115.3
8	120.5	111.3	114.6	89.6	97.4	96.2	91.7	93.2	98.7	113.4	98.1	117.9	349.3	328.9	336.1	331.1	325.9	307.2	301.4	292.3	151.6	128.5	118.3	103.2
9	104.1	104.8	101.3	2.3	342.5	324.9	323.0	323.6	315.0	322.1	313.6	314.8	321.8	323.4	315.2	323.7	320.2	322.0	325.5	331.5	335.4	328.8	324.7	326.2
10	329.9	318.8	326.5	323.5	302.7	303.2	274.8	261.2	22.9	57.7	0.7	335.5	195.9	195.4	157.4	103.1	102.1	110.5	147.6	126.1	115.5	123.6	128.2	119.2
11	120.0	129.9	122.5	150.3	148.9	126.6	129.3	133.7	158.0	170.3	178.1	215.5	212.1	209.8	248.1	290.5	307.3	305.8	300.9	295.0	303.5	305.4	306.4	310.4
12	310.1	309.2	310.6	314.4	317.0	317.0	313.9	313.1	316.0	315.7	316.7	317.7	318.0	318.0	307.6	307.3	314.6	316.4	335.5	309.7	301.8	314.0	330.7	299.8
13	314.3	303.6	315.8	316.9	305.3	322.0	308.4	322.9	314.9	313.4	314.1	321.5	318.1	326.5	301.2	289.1	233.9	186.4	181.1	132.5	154.9	145.1	146.0	150.6
14	149.8	163.6	164.0	152.9	137.9	157.4	135.9	119.3	174.7	194.5	143.6	123.4	85.6	82.5	100.7	105.0	111.1	115.4	116.7	113.7	118.0	121.4	109.4	111.5
15	111.1	111.8	107.5	158.6	117.2	91.6	52.6	45.0	66.2	54.5	60.1	337.4	318.0	344.0	348.1	326.4	335.2	324.9	323.1	310.5	319.4	314.3	304.9	309.9
16	315.4	311.3	310.7	319.0	307.4	299.7	301.0	297.5	312.7	312.2	317.8	149.0	193.1	178.5	202.7	186.8	208.3	175.1	204.4	145.2	146.9	161.3	166.3	161.8
17	165.8	146.5	141.7	137.9	120.0	116.2	120.1	120.9	127.7	131.1	154.3	194.5	195.9	205.3	211.5	216.6	216.6	219.4	214.6	214.4	219.1	218.9	219.9	233.8
18	242.6	250.4	262.0	265.1	261.7	262.5	262.7	257.0	254.9	263.8	267.9	254.2	242.4	241.9	252.2	239.0	213.0	206.6	207.5	221.4	195.3	187.0	174.7	157.1
19	142.4	130.0	139.6	135.9	139.6	151.7	153.6	138.1	129.8	129.1	125.6	129.1	123.8	120.4	116.9	114.9	112.8	116.9	115.7	117.0	116.2	116.0	113.9	110.9
20	110.6	111.3	112.5	113.8	114.9	112.6	111.0	112.1	114.8	117.5	118.6	114.0	109.9	65.6	52.7	56.1	18.2	33.5	24.4	25.7	33.5	33.3	1.1	357.0
21	10.9	40.0	39.5	94.3	20.8	11.7	323.4	326.1	317.7	314.8	304.2	299.6	301.8	302.3	299.2	290.7	309.0	295.9	295.6	297.9	300.0	296.6	306.1	319.0
22	311.2	310.5	314.4	312.7	313.1	319.3	312.7	311.3	310.3	313.3	313.4	308.9	310.7	309.1	307.5	304.4	307.1	313.8	306.3	301.2	303.8	299.9	299.8	311.6
23	310.7	315.6	311.9	305.2	305.4	312.4	318.7	316.1	310.4	307.2	320.0	319.5	326.9	324.8	327.2	327.6	328.4	327.0	327.1	326.9	326.4	326.6	327.0	325.3
24	315.1	304.6	309.5	315.4	306.6	308.6	307.1	309.6	322.8	313.1	315.1	308.6	322.7	313.0	310.6	317.9	323.2	328.6	318.9	313.4	321.4	324.9	324.9	329.4
25	328.5	323.3	326.5	324.4	317.5	319.9	324.7	327.6	315.6	311.9	312.6	321.6	324.5	338.2	334.6	334.3	331.5	329.7	328.9	329.1	333.0	334.6	335.9	329.6
26	333.2	331.5	333.9	337.5	336.4	334.0	333.0	330.2	325.1	321.3	324.4	331.1	338.5	343.3	340.5	335.0	332.9	334.6	327.7	325.5	328.1	309.1	298.7	301.6
27	302.5	308.1	306.1	309.7	306.4	228.8	310.2	256.3	294.9	266.9	279.3	275.4	235.1	121.0	121.7	107.1	126.5	83.1	129.7	117.8	120.4	101.1	191.6	213.8
28	311.4	267.6	278.8	337.0	309.1	314.7	312.6	314.3	317.4	317.0	356.5	335.8	346.7	343.1	344.6	345.0	343.0	336.9	347.6	350.8	329.3	331.9	294.1	274.2
29	305.8	280.4	278.6	316.9	342.6	344.1	314.4	318.8	314.8	313.3	313.7	314.5	314.4	312.4	328.9	328.5	330.6	324.1	323.6	318.9	318.3	297.6	296.8	314.8
30	314.2	312.6	312.5	316.7	315.1	310.7	312.0	309.1	310.8	317.1	314.9	320.7	314.2	317.8	312.4	311.5	300.4	310.8	311.0	319.1	314.5	310.7	313.6	317.4
31	317.0	315.2	317.0	309.7	313.0	314.0	312.5	324.2	321.5	303.5	313.2	317.5	320.8	314.4	318.3	329.6	300.0	313.2	314.8	320.2	316.1	319.2	304.7	298.2

**Total Hours in Month**      744

**Hours Data Available**      744

**Data Recovery**      100.0%

**HCG, Inc.**



# Northern Dynasty Mines Pebble 1 Meterological Station - Resultant Wind Direction (RMYoung) (Degrees)

*November 2005*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
1	307.0	305.6	309.9	315.5	303.0	313.8	313.6	317.5	317.2	314.2	311.3	312.2	318.5	310.4	311.2	304.6	312.2	316.9	322.2	315.1	312.0	317.0	321.7	320.5
2	322.4	322.9	322.2	320.4	311.1	305.2	314.6	318.2	309.1	309.7	304.2	318.4	316.0	310.1	314.6	317.1	329.4	308.7	310.2	312.3	313.5	312.9	310.5	311.6
3	306.9	319.1	326.3	329.1	318.3	322.3	322.8	325.5	325.7	321.5	324.8	332.0	329.8	326.3	325.0	326.2	318.4	322.4	319.1	317.0	317.8	330.8	330.8	327.6
4	327.5	323.6	324.3	327.1	325.8	324.0	317.1	316.3	316.5	322.9	321.5	320.7	322.7	316.9	322.1	321.5	313.7	320.9	330.7	327.3	330.5	324.3	328.0	327.3
5	323.5	322.7	314.7	320.1	323.6	318.1	323.4	322.6	322.0	319.5	319.4	315.7	317.7	317.8	313.0	315.7	316.2	312.6	313.8	310.0	303.8	289.1	165.3	151.0
6	149.2	121.1	115.9	140.7	239.1	263.0	275.8	297.3	306.8	309.2	312.0	307.1	310.3	312.3	316.9	313.8	310.7	314.8	325.3	337.0	338.0	327.4	316.8	311.7
7	314.3	322.2	328.7	318.7	321.2	317.0	318.0	316.8	315.8	313.2	321.2	318.0	335.9	313.1	315.7	305.3	304.7	311.9	311.8	314.7	312.7	311.6	312.1	315.7
8	316.3	316.7	319.5	318.0	311.4	308.3	309.9	309.2	308.5	303.4	300.7	305.5	306.2	312.4	310.8	310.9	312.2	314.1	314.9	314.5	313.9	311.2	309.6	322.7
9	330.5	330.9	337.4	336.7	336.6	330.3	336.1	337.7	339.6	339.4	328.4	331.1	327.3	330.2	325.4	324.6	330.3	326.6	326.8	323.8	324.6	323.8	326.4	325.2
10	318.3	321.5	319.8	318.5	317.9	318.7	318.3	319.2	317.3	314.7	316.4	319.0	320.4	324.5	327.6	322.7	323.5	322.8	322.9	322.3	323.8	322.9	323.3	325.6
11	323.1	330.5	323.4	318.7	320.6	325.5	329.5	327.1	325.9	321.9	318.6	319.8	323.4	322.9	324.2	328.1	335.7	328.2	318.9	316.5	313.0	311.0	302.6	302.6
12	306.7	305.5	305.5	310.7	313.3	309.3	317.0	311.8	310.2	309.8	317.2	316.3	313.3	315.1	315.4	317.9	308.7	312.5	318.5	323.1	328.0	331.9	321.5	324.3
13	325.6	323.8	325.0	316.2	318.5	322.2	324.5	329.7	338.7	328.4	339.9	337.6	309.8	312.0	23.5	55.5	111.3	120.6	120.2	127.2	126.1	117.9	128.7	121.2
14	117.0	121.1	125.2	133.6	128.7	129.0	124.2	117.2	104.7	104.4	115.8	112.3	117.7	53.5	58.8	62.3	87.2	80.1	49.7	48.9	50.2	44.3	32.1	6.7
15	32.2	13.4	356.0	358.6	350.0	343.6	287.8	312.6	317.0	314.4	308.8	317.5	317.7	308.0	312.0	314.9	317.7	321.2	314.8	200.7	140.6	109.5	99.8	106.0
16	99.5	104.3	110.1	112.1	91.0	97.8	102.2	109.1	111.4	115.6	121.0	125.9	127.8	123.9	126.6	128.2	124.6	122.2	127.1	124.1	122.3	123.9	123.6	124.1
17	127.9	137.0	138.5	143.9	156.4	156.9	153.6	168.9	159.6	188.1	222.1	208.7	201.5	208.5	218.9	221.9	212.9	201.3	189.3	190.0	187.9	198.7	164.6	164.4
18	164.0	162.6	160.7	160.5	160.5	41.4	43.8	51.3	38.2	39.6	96.9	91.9	33.6	73.3	71.4	331.1	320.5	311.6	317.7	287.1	313.7	278.5	279.9	280.7
19	274.6	180.0	160.9	177.9	172.6	193.1	209.9	217.8	209.0	205.5	209.6	201.5	225.0	222.7	207.7	190.2	199.0	199.0	187.7	159.4	154.7	118.7	95.1	101.7
20	108.6	108.3	125.4	148.3	136.5	114.8	110.7	121.0	122.3	116.2						306.9	307.7	297.4	308.5	300.8	226.6	230.1	249.5	260.7
21	289.2	313.0	317.5	296.8	298.8	304.0	303.2	304.5	292.9	285.4	290.3	287.0	268.6	281.5	294.1	275.6	264.4	275.0	287.3	285.7	274.9	236.2	190.5	202.3
22	226.8	127.5	120.9	140.7	286.4	277.4	155.2	56.5	308.1	59.1	87.4	108.2	135.4	112.7	312.9	311.5	314.2	305.8	308.2	321.7	306.7	319.9	311.8	306.4
23	305.4	314.3	309.8	308.2	305.9	305.8	312.1	313.5	313.4	312.0	308.8	306.8	308.4	309.3	307.0	307.0	307.4	295.9	291.9	300.7	293.4	295.0	293.7	301.7
24	300.1	303.5	313.2	313.9	311.5	307.8	303.8	313.4	309.1	304.4	302.5	310.0	307.0	302.8	301.6	301.5	300.6	296.9	290.7	299.5	302.0	305.3	313.4	306.3
25	306.5	312.6	307.2	308.7	315.9	303.6	304.7	306.5	303.7	305.6	309.8	310.1	310.4	313.7	310.1	307.8	308.5	307.1	309.1	310.7	309.7	309.9	311.3	324.0
26	322.0	322.3	318.5	325.5	314.6	312.3	316.2	320.0	318.2	311.4	310.0	308.0	304.6	307.1	302.0	305.3	305.1	305.0	305.2	304.5	312.1	304.4	297.0	301.3
27	301.2	303.4	303.3	303.0	302.0	310.6	296.1	308.4	310.1	301.1	305.3	314.1	303.9	314.1	308.1	301.3	124.3	110.0	105.2	125.3	116.2	134.6	150.6	154.3
28	152.6	151.5	150.0	153.7	155.2	153.0	156.2	158.6	163.2	163.5	161.5	159.1	161.5	158.2	158.8	172.0	146.1	152.8	131.9	170.8	137.1	152.3	151.8	132.0
29	155.5	133.1	106.8	80.4	293.1	299.1	297.2	305.2	296.1	301.5	314.9	319.7	312.5	309.1	304.5	310.0	314.2	320.9	322.6	312.8	311.2	318.0	307.3	312.0
30	317.3	303.2	304.2	307.8	301.2	302.9	299.5	293.8	291.3	293.9	298.1	300.6	301.1	308.3	313.1	306.8	296.9	307.7	311.6	308.1	307.0	314.8	319.7	314.9

**Total Hours in Month**      720

**Hours Data Available**      715

**Data Recovery**      99.3%

**HCG, Inc.**

# Northern Dynasty Mines Pebble 1 Meterological Station - Resultant Wind Direction (RMYoung) (Degrees)

*December 2005*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
1	308.5	300.2	321.1	321.2	321.1	318.4	315.9	325.0	316.9	320.0	299.1	301.4	311.9	306.4	311.2	318.0	313.2	310.8	307.1	299.0	299.9	292.9	303.3	289.7
2	311.6	72.3	101.5	100.6	153.2	176.0	197.2	260.2	340.7	312.4	300.5	303.7	311.9	308.0	301.9	301.4	303.2	305.4	302.5	305.4	310.6	310.4	307.8	304.9
3	302.9	306.4	303.0	304.5	307.5	309.3	311.1	306.9	303.5	304.7	301.6	308.4	301.7	304.4	302.8	303.7	308.2	322.4	320.7	316.5	305.2	303.8	296.7	299.3
4	300.8	299.9	311.8	302.7	296.5	51.2	80.1	100.2	105.1	111.5	120.3	129.5	132.2	119.0	119.0	119.7	112.9	114.3	115.3	116.0	117.8	115.0	115.3	114.6
5	112.4	111.4	112.1	112.4	115.0	113.6	113.8	116.3	111.3	110.7	112.5	112.2	111.2	114.4	117.4	118.0	119.7	122.7	120.7	116.6	116.1	116.6	114.3	115.3
6	113.1	111.7	111.7	113.5	117.6	115.2	114.6	119.0	119.8	122.6	129.9	135.9	144.6	146.5	146.7	149.6	144.7	144.8	142.3	139.1	125.0	116.3	109.3	109.1
7	110.3	109.6	108.3	110.4	107.6	109.9	109.1	109.8	111.0	108.2	109.6	108.6	110.2	113.0	114.0	111.1	115.4	114.7	117.3	115.8	113.4	113.2	114.1	115.8
8	121.9	144.0	146.8	167.1	187.7	156.5	147.9	146.1	133.0	120.7	121.8	123.5	130.3	129.0	124.0	123.5	119.1	113.1	116.1	121.6	121.8	121.4	119.5	120.0
9	122.0	123.5	124.5	122.0	124.4	124.7	117.7	116.1	118.3	119.4	118.3	125.1	126.5	132.9	147.9	173.6	187.8	184.1	181.1	187.5	186.5	191.6	176.4	153.4
10	175.3	151.7	177.1	168.2	104.0	118.7	120.2	108.5	108.8	109.4	123.9	137.6	139.0	156.8	154.0	132.8	112.9	108.7	116.6	115.8	111.5	121.4	120.3	115.8
11	125.2	142.7	145.4	156.3	114.6	216.6	227.4	178.1	82.9	232.7	210.6	212.3	219.6	217.9	177.9	223.5	275.9	266.2	282.4	287.4	292.2	293.1	292.8	296.4
12	300.0	301.6	302.8	299.1	304.3	309.7	301.9	304.2	304.6	307.6	319.7	301.5	304.9	298.2	271.8	161.7	295.2	310.6	314.0	309.0	301.1	323.8	313.8	50.6
13	310.4	159.9	119.1	115.0	114.1	108.3	101.5	111.4	105.4	108.9	111.5	108.9	105.0	109.3	103.1	105.0	107.7	109.6	111.0	111.3	112.2	111.2	108.6	107.8
14	108.2	107.7	108.3	105.6	96.7	77.5	95.6	86.6	80.4	91.5	100.8	104.8	100.1	69.7	61.8	54.6	64.6	57.5	79.9	100.9	94.9	101.3	104.7	107.1
15	108.8	111.9	114.9	111.7	111.5	112.3	111.5	83.3	55.3	48.2	19.9	28.4	53.1	63.6	68.1	68.6	84.4	95.2	103.0	107.2	100.0	99.4	106.3	108.0
16	114.0	115.6	108.2	110.1	118.3	123.3	124.6	125.1	137.2	145.7	154.8	165.6	213.0	230.6	270.7	136.9	109.6	128.4	199.9	170.0	203.7	227.8	22.6	321.5
17	310.5	306.0	310.5	310.7	308.7	300.7	305.5	309.3	307.4	302.8	308.3	299.0	284.0	331.4	86.7	105.7	103.1	112.9	110.1	107.2	95.8	102.0	121.7	127.3
18	96.5	86.4	63.5	87.3	59.5	83.7	111.4	106.3	105.7	99.9	108.9	109.5	118.5	122.1	123.7	118.3	119.8	121.1	129.7	132.4	99.9	75.9	94.6	91.3
19	81.4	66.0	83.3	108.9	122.8	122.3	127.4	121.2	120.0	116.2	117.6	118.8	121.8	123.7	126.1	125.6	128.6	140.7	147.3	140.0	127.9	135.2	132.1	131.7
20	134.4	130.0	130.4	87.1	321.3	323.2	313.4	306.6	284.1	304.2	302.9	307.0	310.9	298.6	295.3	196.8	197.7	294.0	315.0	298.9	314.8	309.7	291.1	315.5
21	315.4	331.9	120.1	77.9	131.3	174.1	76.8	104.1	129.3	111.9	112.9	75.4	95.6	113.3	228.4	308.4	298.2	306.6	313.9	299.4	303.3	303.7	316.4	312.2
22	314.3	308.4	301.4	296.5	309.0	300.2	310.1	301.9	309.6	310.0	292.8	318.7	306.9	308.1	304.9	302.1	302.4	302.5	295.3	312.0	302.5	230.7	107.7	311.8
23	343.3	328.6	318.0	306.0	307.1	305.3	222.9	120.2	111.2	114.4	109.4	133.6	131.2	112.2	117.3	127.4	118.3	116.9	106.4	120.9	127.9	118.3	115.7	114.9
24	113.0	109.9	107.9	113.6	118.6	103.5	109.5	124.9	124.6	117.9	109.8	113.1	102.1	101.7	95.1	60.5	350.9	305.5	308.9	329.6	320.8	314.2	51.4	115.7
25	106.5	64.9	50.2	71.8	100.6	120.1	121.2	109.2	115.0	97.9	101.2	105.4	105.6	87.5	85.4	90.6	85.6	88.7	88.7	70.0	69.7	82.8	92.7	75.0
26	74.6	88.8	99.1	105.5	105.9	117.6	118.2	116.7	121.6	2.3	36.4	95.2	111.5	92.4	91.6	93.1	97.3	115.6	89.1	87.1	90.9	88.2	80.0	62.5
27	69.1	50.3	57.5	56.8	44.3	28.8	42.3	34.6	343.5	11.6	31.2	358.4	317.6	302.6	298.1	297.9	286.4	285.9	354.8	323.1	356.5	46.3	68.0	91.6
28	93.9	80.9	67.0	71.7	91.8	97.1	101.2	81.9	86.7	81.2	63.5	58.3	93.2	65.3	94.4	111.4	68.6	72.1	97.0	53.3	64.3	84.7	91.6	77.0
29	89.2	78.5	62.9	57.9	66.2	91.7	103.4	106.5	106.0	107.0	106.6	109.9	115.0	115.7	111.8	84.8	77.2	84.7	95.8	102.4	102.0	71.6	77.2	83.3
30	57.8	45.8	44.4	45.8	14.1	9.7	25.6	46.4	331.2	321.1	327.3	309.9	318.5	292.5	44.7	26.5	1.5	38.3	50.6	74.0	66.5	61.2	57.5	55.2
31	356.1	334.8	37.1	73.0	54.0	339.3	88.2	107.7	103.9	88.5	69.9	68.0	93.8	35.1	68.3	85.0	87.7	78.1	321.4	9.0	348.0	0.2	327.9	53.9

**Total Hours in Month**      744

**Hours Data Available**      744

**Data Recovery** 100.0%

**HCG, Inc.**

# Northern Dynasty Mines Pebble 1 Meterological Station - Resultant Wind Direction (RMYoung) (Degrees)

*January 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
1	88.5	120.8	104.2	30.1	80.9	84.0	108.8	108.7	114.3	109.5	123.2	115.3	116.6	115.8	95.0	98.5	60.7	105.7	91.7	66.7	79.5	50.9	64.9	86.2
2	76.3	88.7	92.3	53.0	58.1	75.3	88.6	88.7	74.0	89.0	125.0	131.4	104.7	113.0	118.6	127.1	108.6	116.7	111.8	97.0	109.9	112.2	107.1	99.6
3	102.8	100.6	94.0	98.1	98.4	121.4	129.8	129.9	110.8	100.1	105.6	107.1	106.6	113.0	113.0	125.8	123.0	129.5	111.3	113.3	110.2	109.3	114.7	120.6
4	125.7	135.7	122.9	243.0	286.8	319.7	27.3	94.5	94.4	344.0	105.3	115.5	155.9	155.7	162.4	246.3	279.5	288.8	308.4	107.0	101.9	112.5	117.7	111.9
5	5.8	288.3	350.8	329.3	323.7	296.7	343.4	261.8	134.7	115.8	151.1	134.8	236.2	307.4	303.4	302.7	301.2	302.2	301.4	301.5	307.6	302.9	308.3	309.4
6	325.3	122.9	104.7	104.8	146.7	161.9	168.1	174.5	194.4	187.3	128.6	204.6	248.6	313.5	306.5	306.0	319.4	302.6	170.0	114.4	129.0	101.9	127.0	74.9
7	352.8	297.1	293.2	301.0	110.6	286.9	312.2	291.3	304.1	295.1	20.5	324.5	332.6	0.4	54.2	29.2	40.1	75.5	358.4	36.1	54.2	44.9	37.6	36.0
8	18.5	333.2	350.2	304.8	299.7	341.8	62.3	82.2	65.7	72.5	307.4	303.1	301.7	303.5	298.5	295.3	303.0	309.1	307.8	308.3	308.4	304.5	310.4	306.9
9	304.8	305.2	302.0	310.4	304.6	303.9	304.5	305.6	301.0	302.5	308.7	307.6	132.6	324.6	302.5	91.5	128.0	129.5	120.0	344.1	360.0	311.1	301.1	307.2
10	283.8	111.9	102.7	105.5	115.2	99.9	114.1	116.6	140.6	122.1	130.0	173.2	354.2	136.1	103.1	110.2	117.9	114.2	126.4	115.8	76.9	90.5	24.4	173.4
11	189.2	53.2	278.7	321.2	321.6	309.6	279.9	265.2	192.9	110.6	167.0	273.0	293.1	308.4	320.9	332.8	303.3	314.7	307.6	300.1	310.3	307.0	303.8	312.9
12	319.3	310.5	314.2	311.4	309.7	315.3	309.3	300.5	309.7	306.7	306.2	312.1	305.3	312.1	308.2	312.3	309.0	312.2	303.8	301.0	299.2	301.4	301.7	303.5
13	303.9	302.1	295.3	299.6	292.7	298.8	302.1	303.0	300.9	299.9	298.0	302.1	299.8	299.6	300.8	309.0	305.3	305.7	313.0	298.7	301.7	308.8	302.6	306.1
14	307.3	305.3	303.4	296.7	301.3	307.4	128.6	113.1	128.4	114.2	130.5	123.2	119.9	113.0	112.8	108.9	109.8	118.6	121.0	121.4	106.0	109.7	112.3	116.3
15	114.1	122.2	116.3	112.3	103.8	116.8	124.6	119.4	115.5	111.3	109.7								102.5	103.9	94.7	88.1	93.4	74.9
16	78.4	66.7	67.7	65.1	91.6	91.1	61.7	58.4	65.3	59.8	57.7	43.5	2.3	309.1	302.2	295.6	310.9	302.5	314.3	306.1	304.9	303.9	307.7	306.6
17	305.1	311.2	309.1	308.4	305.1	306.6	306.2	305.5	307.0	304.5	304.2	301.3	306.7	304.5	305.0	309.2	315.9	310.1	308.3	311.0	316.8	298.0	306.4	307.9
18	315.2	329.5	310.9	314.7	310.4	301.5	303.9	308.2	309.1	315.6	311.4	311.6	315.6	316.0	309.4	308.8	304.5	303.0	310.0	312.5	305.8	310.4	305.1	310.7
19	315.5	314.4	313.2	306.4	309.4	299.4	302.0	310.3	303.9	301.5	298.5	298.3	304.1	303.3	301.8	316.6	310.3	303.6	306.3	309.6	313.8	313.1	304.9	294.5
20	304.3	301.4	311.6	307.8	305.2	314.1	311.2	309.7	313.5	313.0	311.7	313.3	311.5	312.5	315.5	311.4	311.1	309.2	309.2	312.0	310.8	307.8	309.6	312.3
21	312.7	311.5	308.4	308.7	307.2	303.7	301.3	299.3	300.6	303.3	307.4	327.7	333.9	336.2	337.3	333.4	331.0	330.9	328.2	324.0	320.6	318.5	312.7	313.2
22	319.4	323.7	319.2	313.5	312.6	314.5	315.5	314.2	312.4	315.3	314.7	314.9	320.5	323.3	317.0	320.1	321.1	319.6	323.0	321.0	312.5	310.2	319.1	323.9
23	312.4	317.3	319.0	316.0	318.8	321.6	321.0	315.9	317.0	323.1	323.9	323.9	322.4	325.0	322.0	314.9	330.6	323.7	319.7	333.2	321.3	310.9	310.1	313.9
24	313.7	307.0	309.3	304.5	300.8	308.2	316.6	303.1	315.3	323.6	315.3	321.7	323.8	324.5	325.4	324.6	319.5	320.2	310.5	317.0	320.1	313.6	311.3	309.0
25	308.1	305.1	308.1	300.1	307.7	302.0	309.1	313.6	309.4	311.5	314.1	313.2	307.5	305.4	305.4	309.1	300.8	304.7	311.9	309.5	316.7	318.1	312.1	306.0
26	302.8	301.3	307.6	309.4	308.6	313.6	311.8	313.8	307.6	308.9	307.4	302.2	310.3	316.6	310.5	306.0	310.8	305.4	311.4	312.7	299.4	300.0	308.0	307.4
27	304.0	309.0	307.3	307.0	304.4	310.1	313.2	315.9	316.5	316.9	315.6	321.8	313.7	311.2	312.7	317.0	317.7	324.0	326.4	325.8	324.2	322.4	320.0	318.9
28	321.0	322.0	325.7	319.1	318.6	323.0	318.8	322.3	323.7	323.3	316.0	317.0	316.6	319.6	324.5	323.9	325.6	328.3	329.2	318.6	306.8	296.0	303.6	304.1
29	298.0	296.6	300.0	296.1	294.7	303.5	310.6	308.4	315.4	320.6	305.1	306.2	317.5	311.3	312.6	306.9	310.9	307.7	306.5	312.4	308.2	312.3	320.1	322.2
30	320.9	320.6	321.5	328.5	330.1	324.6	335.6	320.0	314.7	322.9	308.7	309.2	311.3	306.5	308.4	304.7	302.9	305.2	296.1	300.3	310.8	310.9	295.2	67.5
31	312.6	302.2	300.7	317.0	308.6	309.6	316.3	307.7	306.8	303.1	305.7	309.0	306.2	306.6	303.1	311.2	309.4	307.6	306.3	300.6	307.9	307.4	314.7	308.2

**Total Hours in Month**      744

**Hours Data Available**      737

**Data Recovery**      99.1%

**HCG, Inc.**

# Northern Dynasty Mines Pebble 1 Meterological Station - Resultant Wind Direction (RMYoung) (Degrees)

*February 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
1	313.3	313.6	308.2	295.3	305.3	300.7	296.6	299.4	308.1	311.6	313.9	316.1	319.8	317.0	325.3	316.1	317.2	317.9	316.9	310.6	318.3	313.6	309.4	312.9
2	307.9	313.9	313.5	308.3	306.8	307.0	305.1	305.6	293.6	304.2	303.8	306.4	290.1	305.4	296.8	291.3	265.9	150.1	126.8	114.7	128.2	112.0	114.0	113.7
3	129.2	133.5	138.5	151.7	158.0	147.4	140.2	142.8	130.6	119.4	122.0	117.6	119.0	120.4	122.0	121.1	111.9	114.0	122.6	126.9	123.0	123.0	110.6	109.9
4	112.3	105.6	105.7	108.3	109.2	109.8	106.8	107.3	106.5	106.6	107.3	107.7	109.4	109.4	110.2	109.5	109.2	105.0	106.5	108.2	106.9	107.8	107.5	101.3
5	94.6	93.7	98.0	100.2	106.1	105.3	98.7	99.1	99.6	96.5	96.8	107.8	108.1	107.7	108.3	110.6	110.9	106.8	95.2	78.5	62.4	84.7	100.6	96.3
6	95.0	89.6	86.2	85.6	101.6	94.0	98.9	114.7	138.4	150.5	202.0	210.2	219.6	218.4	216.7	211.8	193.9	192.3	177.9	179.5	180.1	176.7	172.2	164.9
7	158.5	154.6	142.4	138.8	153.8	170.1	196.5	218.0	222.7	233.0	235.3	254.3	263.2	268.6	276.6	285.3	298.7	307.5	303.1	306.9	291.0	251.4	220.5	238.0
8	124.0	140.1	110.0	100.8	105.6	107.2	111.7	112.0	120.0	128.1	146.6	120.9	110.8	106.9	110.8	110.9	107.0	107.1	109.1	109.6	111.0	111.5	108.8	105.4
9	106.4	107.5	111.1	109.8	107.9	107.5	105.4	98.3	78.4	57.5	87.4	104.3	97.4	103.6	105.9	118.4	116.7	113.7	118.8	117.8	113.1	115.6	109.2	117.2
10	121.0	115.6	112.8	114.2	111.0	109.8	110.8	108.5	118.2	121.8	118.2	115.0	114.0	121.7	126.4	122.9	124.3	120.3	118.7	117.1	121.6	123.8	125.8	131.1
11	123.9	114.6	114.0	119.0	134.2	103.5	7.7	341.7	320.6	323.4	321.5	336.1	327.1	323.4	321.6	310.9	306.6	345.6	89.4	114.6	124.7	116.8	114.0	124.2
12	152.7	4.1	308.8	299.6	311.1	320.5	321.1	305.2	286.5	293.6	291.9	290.2	288.6	281.5	283.4	274.9	257.8	240.9	172.3	152.5	84.8	178.8	289.1	44.4
13	120.8	104.6	104.4	107.4	100.8	101.1	100.1	115.8	125.0	108.3	126.9	148.6	118.3	122.1	126.2	121.8	124.9	120.0	120.9	120.5	123.4	128.1	130.0	133.8
14	129.0	130.4	128.2	129.5	131.3	132.7	135.4	133.7	134.7	130.0	126.5	124.0	126.2	127.5	127.2	123.6	119.0	121.0	119.4	124.3	124.7	126.7	129.9	128.1
15	126.4	125.1	120.2	119.2	119.9	117.8	118.3	123.8	124.6	125.3	122.3	122.3	126.7	124.2	121.1	122.5	123.5	129.8	123.1	125.5	132.9	135.9	144.9	143.0
16	148.0	147.5	156.8	156.0	160.7	163.5	162.6	149.5	138.2	138.9	134.2	141.0	137.9	150.8	146.5	136.7	146.2	145.5	141.6	156.2	150.2	156.0	160.2	144.2
17	145.8	129.2	114.3	124.1	117.2	123.7	117.5	118.8	112.7	114.5	113.6	115.3	119.2	118.6	115.9	115.4	115.2	116.5	114.2	119.4	118.0	118.1	122.0	123.5
18	131.3	133.0	129.9	132.4	135.5	133.3	126.1	123.8	125.2	126.8	124.3	125.7	126.0	122.1	123.7	128.0	132.0	135.9	150.3	156.8	170.1	190.4	206.2	203.3
19	213.3	216.0	207.4	203.7	201.5	217.9	225.8	233.3	227.3	216.3	214.9	226.5	188.1	202.6	218.4	210.9	217.0	239.0	248.9	252.5	244.3	234.9	243.3	237.9
20	227.4	224.3	224.5	217.8	221.4	209.2	210.9	191.6	198.5	219.3	236.4	214.7	224.7	221.7	224.9	249.5	277.5	270.3	263.6	263.2	263.3	264.7	272.2	284.8
21	283.7	274.2	271.9	279.0	291.0	291.7	295.1	299.3	305.3	303.7	232.5	137.8	237.1	257.5	295.1	272.6	274.7	285.7	264.2	265.2	288.1	298.4	274.4	277.3
22	314.5	305.4	287.4	280.4	267.7	268.5	273.6	272.6	271.8	289.1	307.8	303.0	294.5	281.7	275.2	265.6	260.2	240.2	221.6	214.0	210.4	167.3	163.5	145.5
23	154.3	159.5	160.7	171.9	183.5	197.6	275.9	288.1	289.1	294.2	307.7	308.5	315.8	311.5	309.0	320.9	304.4	305.5	301.5	315.4	311.1	306.2	329.7	331.8
24	328.1	307.1	316.2	322.2	310.5	306.3	313.9	314.6	296.8	299.5	296.4	305.5	311.7	157.0	147.7	152.1	74.0	127.3	124.8	136.0	134.5	126.3	128.8	137.2
25	128.9	131.3	120.6	129.2	167.9	161.1	154.7	162.8	149.2	123.0	157.9	251.8	288.1	310.6	300.4	315.8	315.8	304.8	282.6	277.5	268.7	258.8	260.6	261.2
26	262.6	259.2	258.0	258.0	259.6	276.8	276.6	262.3	267.1	243.6	260.4	252.4	249.8	242.7	258.6	96.4	87.1	87.3	96.2	97.4	100.7	102.8	108.4	147.4
27	160.9	170.8	238.6	300.8	307.6	316.0	316.7	318.3	319.9	319.4	318.1	316.4	324.4	329.6	324.2	329.4	326.5	322.8	321.0	321.8	320.2	323.2	323.1	321.3
28	324.4	321.3	323.6	313.8	314.1	305.2	300.6	298.4	291.4	286.6	304.3	308.0	317.4	317.8	312.4	317.4	315.2	325.1	315.3	314.5	326.7	323.5	321.2	313.1

**Total Hours in Month**      672

**Hours Data Available**      672

**Data Recovery**      100.0%

**HCG, Inc.**

# Northern Dynasty Mines Pebble 1 Meterological Station - Resultant Wind Direction (RMYoung) (Degrees)

*March 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
1	318.0	320.6	315.5	302.7	302.0	302.3	298.0	308.7	296.9	307.9	46.5	73.8	125.4	118.3	111.2	118.5	133.3	115.6	118.3	130.3	145.0	156.3	147.2	150.5
2	149.7	159.3	143.1	139.4	139.7	140.3	136.6	133.2	119.8	115.0	119.0	118.0	116.3	117.0	116.7	119.1	116.5	116.8	119.8	120.4	119.4	119.3	122.4	121.2
3	121.9	126.4	127.1	122.4	123.4	126.4	138.7	155.4	157.3	165.2	166.1	167.3	169.2	177.9	188.0	199.0	200.2	209.4	181.5	126.3	136.9	134.4	112.9	124.7
4	129.3	143.4	140.2	134.4	140.0	145.8	147.6	145.5	150.4	157.7	142.6	141.6	147.6	140.8	137.1	140.1	146.3	144.8	133.1	131.7	125.0	130.9	136.3	135.8
5	131.0	133.1	146.1	145.6	170.4	189.6	189.5	204.0	211.6	195.5	183.8	190.9	179.9	208.4	200.9	215.1	244.3	242.8	254.8	273.9	287.9	272.4	275.1	273.4
6	293.0	288.2	321.1	316.7	308.2	310.4	295.2	295.1	273.4	234.7	212.8	227.9	302.7	130.5	67.6	345.0	257.9	246.4	300.3	302.3	345.0	332.2	315.2	312.0
7	307.5	306.8	309.2	314.4	307.8	315.3	304.6	314.4	308.1	304.5	315.4	308.2	308.0	308.7	315.9	303.5	298.3	305.9	303.1	310.1	312.9	314.0	319.6	324.5
8	312.7	312.8	311.7	313.6	310.9	313.7	321.8	325.2	322.7	329.2	303.8	327.6	328.0	313.0	310.4	328.9	325.9	319.8	318.6	316.2	317.2	310.0	315.6	312.9
9	318.8	310.7	308.4	312.8	316.7	319.1	310.8	319.1	324.5	321.4	320.3	314.6	315.6	320.9	320.7	314.2	318.9	323.4	329.2	327.8	327.2	332.5	329.3	328.0
10	317.2	318.4	319.2	309.2	303.5	300.0	295.6	303.8	305.4	297.8	297.4	308.5	313.9	315.0	301.4	306.3	301.3	154.7	123.0	116.5	118.7	122.0	136.8	132.6
11	132.1	131.9	121.4	120.7	127.4	122.9	123.9	118.2	118.3	115.4	109.9	111.8	112.4	115.0	116.8	112.8	111.2	111.8	113.4	114.1	116.6	114.3	111.6	119.2
12	116.9	112.7	121.7	124.7	125.3	118.2	118.0	117.3	113.1	118.1	121.2	137.7	138.3	126.7	107.4	109.2	100.9	99.5	102.9	105.8	148.5	141.9	117.8	158.8
13	133.2	105.9	41.1	130.9	131.6	284.6	307.0	297.7	299.4	304.4	288.3	302.4	303.7	307.2	301.1	305.7	309.5	319.1	319.0	298.0	299.8	298.2	301.9	306.3
14	309.1	310.8	317.8	327.8	320.2	302.0	316.2	318.3	310.7	310.8	313.0	305.3	322.2	313.6	317.1	300.1	307.4	309.8	324.0	308.9	307.8	301.6	311.8	123.4
15	140.8	150.0	131.8	143.5	120.5	152.7	207.7	173.6	140.5	123.3	131.0	158.5	330.2	85.3	120.7	125.5	141.4	143.6	139.0	138.8	139.3	141.6	143.0	140.0
16	145.4	150.9	132.7	128.5	126.5	134.5	136.8	115.9	122.6	126.3	109.1	112.2	113.3	108.0	114.2	122.0	129.7	129.5	124.8	127.7	142.7	129.5	131.1	130.8
17	124.0	125.6	122.8	124.5	122.4	127.5	124.6	125.6	124.9	124.9	131.4	127.3	137.9	144.7	123.5	126.9	132.7	131.6	122.8	122.5	120.9	125.2	126.9	128.5
18	126.2	130.1	125.0	122.4	120.5	124.8	130.6	123.8	102.2	98.0	100.1	98.3	99.5	126.9	339.1	347.9	56.7	78.6	87.8	108.1	116.8	178.6	264.5	307.3
19	304.2	302.3	301.5	131.2	135.4	130.5	126.1	115.8	118.0	114.8	118.0	133.7	130.4	129.7	135.8	141.6	145.8	152.6	142.2	144.9	159.8	152.3	156.2	143.1
20	154.1	167.4	164.6	157.3	139.6	131.9	134.1	144.6	136.4	128.9	90.3	90.7	107.9	99.1	307.1	309.7	329.3	321.8	319.2	315.7	324.4	329.7	324.5	321.2
21	317.4	318.9	317.8	318.1	320.9	321.4	323.5	323.9	323.7	325.6	327.4	317.4	314.6	318.6	322.4	323.7	321.5	312.5	312.1	307.5	311.2	311.6	304.0	310.4
22	310.1	295.6	304.5	303.9	304.0	313.1	314.0	313.9	313.2	320.8	317.2	322.0	324.7	325.3	325.4	327.8	328.9	329.0	328.3	317.4	300.4	299.4	301.3	301.7
23	302.2	298.5	301.8	305.4	304.5	303.1	298.1	308.6	204.2	311.2	304.4	312.2	319.3	300.9	308.4	309.4	303.0	290.9	294.2	300.2	313.2	309.2	304.4	302.4
24	310.8	305.6	317.4	312.2	307.0	308.9	310.0	323.8	324.3	315.1	321.4	326.8	317.9	315.6	319.4	328.9	329.1	328.3	325.6	324.6	325.6	328.6	326.7	304.9
25	305.9	304.5	301.6	298.3	295.4	297.7	299.1	298.4	298.0	305.1	307.3	325.0	321.3	321.2	325.8	326.8	328.1	322.4	315.1	308.2	310.7	306.2	311.2	310.9
26	310.7	307.3	300.1	301.1	301.3	305.8	298.8	297.2	299.4	303.9	300.7	301.4	299.0	306.1	302.8	297.4	296.8	290.8	297.7	299.8	301.5	298.6	303.6	302.7
27	304.2	304.7	300.9	304.3	303.3	301.6	298.4	306.3	255.7	117.7	112.7	100.6	104.4	117.0	109.2	141.1	131.3	111.5	138.0	146.2	155.3	174.7	133.8	108.7
28	114.7	107.9	120.0	108.1	110.3	121.4	110.4	123.9	129.4	136.9	121.2	110.4	113.2	100.8	96.3	115.2	110.4	204.2	222.7	275.7	290.4	294.2	297.1	297.0
29	300.5	318.1	310.3	305.1	306.9	305.7	297.1	302.1	307.9	291.7	297.1	301.9	312.0	146.7	126.7	1.0	95.9	139.8	170.2	154.6	150.1	151.6	138.4	124.4
30	120.8	124.2	129.9	127.2	120.4	122.6	117.5	116.1	116.8	112.2	114.5	116.2	114.0	112.8	111.0	112.1	113.3	112.4	114.2	113.2	114.1	113.3	111.3	112.1
31	112.5	112.9	113.3	115.3	117.9	117.3	116.9	115.7	117.7	164.7	195.0	198.4	197.9	198.8	199.9	232.1	243.3	248.3	255.9	254.5	248.3	248.9	255.8	263.4

**Total Hours in Month**      744

**Hours Data Available**      744

**Data Recovery**      100.0%

**HCG, Inc.**

# Northern Dynasty Mines Pebble 1 Meterological Station - Resultant Wind Direction (RMYoung) (Degrees)

*April 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
1	270.1	293.1	304.8	304.7	304.7	300.5	299.6	304.7	308.4	293.6	280.8	259.3	263.0	273.1	259.6	244.9	250.2	245.0	224.5	196.3	202.7	217.9	203.7	194.8
2	194.1	195.2	182.5	209.5	247.6	266.6	204.3	193.5	179.5	175.9	167.6	163.2	160.5	165.0	126.9	98.6	112.7	115.1	109.0	133.4	111.4	112.6	103.8	108.1
3	105.7	112.4	111.4	108.3	109.1	110.6	107.6	110.2	108.8	112.7	112.8	114.5	112.0	113.6	118.5	126.3	133.4	140.4	140.3	127.1	121.7	130.0	120.0	119.7
4	129.4	136.2	132.8	125.2	126.9	128.5	139.9	142.8	125.1	98.2	141.3	143.1	133.9	133.2	137.9	231.1	307.8	346.9	347.4	326.6	317.7	316.0	319.0	310.0
5	316.1	305.8	309.7	314.7	319.4	314.0	316.7	320.1	319.3	326.6	319.2	318.8	316.2	316.2	320.9	321.2	322.3	323.2	323.2	320.8	311.5	312.9	316.1	322.9
6	319.2	324.9	318.9	315.6	313.5	318.1	319.1	305.1	306.6	317.2	304.8	302.8	312.8	311.5	316.0	310.8	308.0	301.3	297.8	305.3	304.0	243.9	127.7	106.3
7	102.0	105.7	117.1	124.8	137.2	131.6	151.0	162.2	137.6	153.8	160.2	143.1	125.0	127.8	133.4	138.3	129.8	121.6	120.2	126.7	125.3	122.2	116.7	116.4
8	122.9	121.4	122.6	123.1	118.0	119.6	115.7	110.9	111.6	116.7	116.4	121.6	128.8	125.6	124.2	129.4	138.8	150.1	153.5	153.5	143.5	152.7	157.8	175.2
9	192.3	182.2	169.0	178.6	170.5	179.3	173.7	170.5	185.4	183.8	192.5	199.1	207.0	208.8	214.7	212.7	190.6	186.1	212.1	206.3	194.3	202.8	200.1	202.3
10	118.5	138.4	198.6	196.2	216.0	226.2	226.7	229.1	230.1	233.6	237.1	269.6	296.9	284.5	288.4	263.5	262.0	264.1	262.8	264.4	278.6	309.4	211.4	213.5
11	230.4	153.1	166.9	123.0	116.9	108.4	90.1	86.5	94.3	93.9	95.1	108.9	106.7	107.6	108.0	110.8	113.2	109.0	102.9	102.8	102.9	106.7	105.8	107.8
12	109.8	110.6	113.5	113.4	114.4	107.0	105.1	110.9	113.8	113.7	118.3	126.3	139.4	144.3	157.1	184.9	197.3	200.4	206.3	209.9	211.6	213.4	219.9	179.9
13	198.3	197.3	259.4	295.4	318.6	312.6	320.8	313.0	308.5	307.7	303.8	305.0	310.5	310.8	310.6	311.9	316.7	314.6	307.4	309.1	309.0	306.5	308.7	321.0
14	326.6	328.6	326.6	325.2	325.4	330.9	328.6	326.4	327.3	327.0	330.6	319.3	326.1	323.7	320.8	324.3	321.9	321.1	319.4	317.8	314.7	304.7	303.1	301.5
15	309.1	316.2	317.1	313.3	307.7	314.7	316.9	316.1	326.5	325.1	315.5	326.6	321.4	325.5	326.4	318.2	324.2	328.6	332.7	311.5	308.1	302.3	299.7	102.8
16	115.7	135.3	114.0	120.9	124.2	118.8	120.6	118.5	115.3	117.0	117.0	112.6	111.2	109.8	109.3	110.3	110.1	112.6	109.1	102.2	86.1	75.8	66.5	54.5
17	46.8	49.4	49.8	47.7	48.7	58.6	80.0	99.2	108.0	118.9	103.8	107.3	125.5	118.9	127.8	132.5	123.9	124.5	142.2	132.6	148.7	74.5	307.9	320.1
18	312.6	312.2	311.0	293.5	304.0	316.4	297.3	335.9	304.6	83.9	122.5	251.6	282.9	237.9	169.2	185.5	210.9	250.1	242.0	234.7	247.8	220.0	235.3	251.5
19	280.0	65.8	155.4	168.8	207.4	220.4	153.5	263.2	266.4	254.6	258.4	324.9	284.9	222.5	229.9	221.9	203.7	174.3	196.8	219.1	226.2	225.0	213.2	206.5
20	218.4	209.8	193.6	104.6	117.1	135.2	93.6	113.9	127.4	117.4	110.2	116.5	140.4	135.2	123.0	122.8	117.7	120.3	118.3	114.4	113.0	115.7	115.2	110.9
21	111.0	112.4	111.1	104.1	104.9	106.9	109.4	111.5	108.7	110.8	114.7	115.7	116.8	117.1	116.1	119.8	144.4	167.6	158.6	156.1	101.6	115.8	121.1	135.4
22	126.6	121.1	104.8	121.7	108.9	117.9	139.7	158.1	147.0	279.7	77.5	145.0	281.5	279.7	255.7	241.4	297.1	291.3	297.6	166.9	135.2	168.3	161.4	162.4
23	162.8	155.2	134.1	135.2	125.2	135.0	131.2	120.7	119.7	118.9	138.2	143.1	142.6	135.3	141.4	227.9	235.4	293.4	310.3	318.2	309.8	304.9	304.5	308.7
24	309.3	308.4	306.6	317.3	312.8	306.8	301.7	303.4	309.3	303.4	302.1	299.3	294.7	292.1	286.8	276.7	255.2	246.3	237.3	232.6	223.7	219.1	218.4	222.8
25	216.0	203.5	197.7	182.1	184.5	169.0	162.6	153.1	142.7	127.3	115.4	113.8	119.4	139.8	140.5	123.8	125.0	120.1	113.3	110.3	111.8	112.0	112.5	100.5
26	100.5	100.1	101.6	107.8	106.6	109.5	89.5	98.6	96.5	89.3	85.4	95.2	134.4	126.1	141.5	156.2	165.7	165.6	163.0	86.4	64.9	57.2	53.2	56.9
27	53.4	47.9	32.0	6.8	18.7	35.7	330.5	343.4	299.7	315.5	307.2	301.9	325.5	334.8	324.3	332.8	341.9	340.1	336.0	340.4	335.9	322.0	321.5	321.3
28	315.6	313.7	306.8	300.5	299.2	298.4	309.5	307.3	303.3	304.3	276.1	159.9	164.4	176.8	148.4	136.7	119.1	111.4	89.0	36.2	107.7	202.5	293.9	281.7
29	252.2	308.5	302.1	300.6	298.0	294.5	303.6	310.2	311.3	304.1	311.1	316.5	320.6	323.8	322.7	320.8	306.3	309.2	311.4	314.4	302.8	295.4	292.3	296.4
30	301.3	303.7	306.7	302.3	301.3	309.2	321.6	126.4	112.3	116.2	120.5	114.1	137.0	137.1	128.3	135.8	142.9	135.0	115.7	114.9	117.1	121.3	118.0	113.7

**Total Hours in Month**      720

**Hours Data Available**      720

**Data Recovery**      100.0%

**HCG, Inc.**

# Northern Dynasty Mines Pebble 1 Meterological Station - Resultant Wind Direction (RMYoung) (Degrees)

*May 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
1	108.0	112.5	115.9	111.1	117.3	115.6	110.4	110.3	108.3	107.7	108.0	107.9	106.8	106.6	104.5	101.8	100.1	101.4	96.9	88.5	86.4	89.0	92.4	94.8
2	86.1	86.5	77.2	78.3	78.5	80.5	77.4	96.3	134.1	129.6	126.0	126.9	121.8	123.0	128.1	115.5	124.1	119.9	116.4	120.2	117.1	119.9	121.5	126.7
3	123.2	119.2	118.3	122.1	108.2	99.0	90.7	80.0	91.2	80.8	63.8	71.2	54.2	63.7	69.1	61.6	62.3	74.9	64.3	153.2	230.6	176.9	232.0	293.6
4	324.2	345.3	44.6	61.8	104.8	119.5	120.1	118.4	120.2	126.3	125.6	127.5	131.6	129.3	126.5	122.6	121.6	116.0	113.6	114.8	113.5	110.5	110.3	109.7
5	109.1	112.5	113.1	113.7	113.0	117.3	117.1	113.6	113.3	111.5	114.1	110.8	113.0	118.2	120.6	121.9	122.6	120.1	114.9	125.1	126.9	107.5	125.4	165.8
6	154.9	154.2	106.4	106.8	104.4	120.1	123.9	119.6	135.5	173.0	197.5	218.7	224.1	219.6	214.4	211.1	199.5	204.0	209.8	217.6	216.7	216.8	215.3	213.7
7	207.8	197.2	209.1	211.4	218.4	217.0	210.1	209.9	210.9	217.4	211.7	206.1	205.3	220.7	214.0	221.8	215.4	212.7	222.8	214.9	220.8	222.3	215.1	244.0
8	136.5	117.9	112.4	120.3	125.3	123.1	118.3	113.7	99.7	110.3	109.5	113.0	115.0	106.5	93.3	95.1	97.2	110.6	109.3	98.3	74.0	88.9	98.1	78.4
9	81.2	65.0	66.8	63.8	69.6	75.4	91.7	85.0	94.7	89.0	98.4	130.3	149.0	126.3	117.3	120.1	126.1	203.1	85.9	169.8	247.2	37.0	66.7	71.7
10	75.4	66.8	86.4	74.1	23.2	13.6	117.2	313.1	318.0	309.6	262.8	245.3	253.6	266.4	306.3	313.1	268.2	288.2	292.1	301.0	301.7	301.4	312.7	318.5
11	53.0	78.0	147.7	157.3	112.7	171.1	255.0	186.3	250.6	228.2	227.6	247.3	249.5	260.5	230.8	62.9	269.4	333.3	313.7	308.1	307.7	302.4	304.3	311.2
12	313.0	304.3	311.2	313.0	312.2	311.5	312.3	315.0	316.5	314.8	320.3	322.2	321.4	327.0	322.9	331.2	332.2	324.9	312.0	291.6	295.8	294.5	317.7	308.3
13	317.4	313.9	307.8	304.9	301.9	299.3	301.6	297.7	331.4	297.3	222.0	229.2	243.5	236.1	222.3	220.7	216.9	218.2	180.2	174.2	166.8	235.8	145.3	138.9
14	139.1	143.6	152.6	137.7	124.6	137.6	155.3	147.3	139.3	141.6	135.2	137.0	145.3	152.7	131.2	131.7	140.8	138.3	142.6	135.5	140.5	139.8	143.1	151.2
15	157.9	163.7	166.9	170.8	165.2	149.2	171.2	203.6	300.2	277.5	276.1	264.1	238.7	235.0	247.4	220.3	223.4	214.0	206.4	197.7	218.0	223.7	248.4	257.3
16	257.0	150.3	158.7	319.3	321.4	316.4	310.4	293.6	290.2	287.8	269.6	250.3	244.3	246.1	241.9	256.9	247.1	223.2	214.4	206.3	181.2	197.8	187.6	210.0
17	224.6	284.0	306.5	317.9	303.1	315.0	328.2	5.8	82.1	115.1	137.1	128.9	142.7	150.9	143.6	127.6	119.7	132.0	140.2	140.8	143.5	149.1	157.3	149.2
18	159.8	156.3	157.4	166.1	171.1	185.6	148.4	125.3	179.6	216.5	186.6	209.5	219.7	238.1	243.9	241.7	247.6	257.0	250.9	244.1	246.6	242.4	241.7	185.1
19	251.3	273.1	283.5	292.9	238.9	218.9	127.7	116.6	110.8	132.7	148.7	130.4	133.3	129.8	125.3	124.7	116.8	112.9	112.4	112.0	113.2	112.8	113.4	120.5
20	124.1	128.4	127.5	121.4	122.8	126.0	125.3	123.1	118.5	123.0	124.5	121.4	123.3	119.3	116.1	122.4	139.1	141.0	158.2	250.5	305.7	307.2	306.6	309.1
21	308.8	304.4	306.1	307.3	308.2	312.9	324.1	327.9	330.9	333.1	327.8	327.4	328.4	326.0	333.6	332.6	325.3	323.0	328.8	331.9	328.7	330.3	335.7	329.4
22	322.7	321.1	321.0	320.8	324.2	324.7	328.0	333.7	335.1	330.0	326.2	328.4	336.2	340.0	346.0	348.9	336.3	339.9	340.1	340.0	330.2	334.9	331.8	325.7
23	321.9	326.1	312.7	304.2	310.6	301.8	306.0	317.4	302.9	308.4	322.8	343.5	15.0	44.4	352.9	336.2	356.2	335.9	331.5	335.5	320.2	307.0	304.0	309.5
24	305.2	288.4	298.2	302.7	294.3	302.4	313.3	312.3	307.1	317.3	316.4	252.4	247.1	236.0	223.8	236.0	303.8	304.5	287.2	270.1	278.7	293.2	304.6	304.6
25	302.9	304.3	304.8	299.1	301.8	304.7	310.3	303.5	322.4	316.0	321.4	344.9	356.2	333.3	324.5	200.2	216.9	224.8	252.2	259.1	284.7	301.1	312.2	316.8
26	314.0	304.2	306.3	310.0	307.2	291.9	292.2	310.8	327.1	324.5	328.4	337.0	344.7	342.5	335.2	334.1	333.0	331.4	333.5	330.2	322.1	308.2	319.1	322.3
27	330.1	313.0	314.7	328.5	335.6	334.4	331.9	324.2	322.6	324.9	326.6	326.8	332.0	330.4	337.6	339.9	340.6	346.8	340.7	341.7	351.1	342.6	335.6	321.2
28	317.4	297.1	295.0	288.5	159.9	143.8	142.1	158.4	168.2	172.8	239.6	331.4	320.2	291.5	298.4	302.2	302.8	297.1	273.2	199.9	213.2	173.6	170.5	168.8
29	169.8	169.0	164.9	160.7	160.8	159.4	153.8	150.4	143.7	145.6	147.9	152.6	152.3	155.9	150.6	146.7	149.7	156.5	154.7	166.2	173.3	173.2	164.4	160.7
30	163.7	171.0	170.1	149.3	132.5	159.2	154.2	185.2	204.2	164.3	162.1	157.0	172.3	182.6	171.8	153.0	156.2	157.2	161.7	159.6	159.9	151.8	146.2	187.4
31	193.4	188.4	187.0	132.2	177.5	185.4	185.8	184.9	181.0	194.9	204.4	200.5	205.8	223.5	222.8	223.6	227.1	225.1	229.3	226.7	217.0	216.7	264.1	247.3

**Total Hours in Month**      744

**Hours Data Available**      744

**Data Recovery**    100.0%

**HCG, Inc.**

# Northern Dynasty Mines Pebble 1 Meterological Station - Resultant Wind Direction (RMYoung) (Degrees)

*June 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400
1	255.5	321.5	317.1	300.4	312.0	306.6	309.9	324.6	333.6	336.4	325.0	333.8	331.2	336.5	331.6	326.3	307.9	297.3	298.5	259.5	262.5	265.0	268.0	291.2
2	289.0	291.4	293.6	299.9	302.7	300.4	302.9	310.4	322.6	353.3	346.0	328.5	323.4	303.0	307.4	311.6	299.9	314.1	308.3	315.7	313.3	297.5	304.2	316.5
3	320.2	314.8	314.1	322.2	318.0	318.6	329.8	329.8	328.3	333.8	334.5	328.6	328.8	323.1	320.9	318.8	321.3	326.1	331.6	330.4	331.0	321.8	317.7	321.6
4	321.8	321.2	314.8	318.2	323.4	337.3	338.7	330.9	326.2	325.6	329.1	333.9	336.0	330.4	332.1	334.0	337.4	338.6	340.0	342.3	335.5	331.0	323.3	320.0
5	319.6	314.9	322.8	319.4	309.3	309.7	312.3	313.0	313.8	323.3	323.9	348.3	341.6	322.5	335.9	326.9	320.5	318.3	331.8	315.1	306.1	267.4	268.4	264.0
6	254.0	225.6	194.5	181.7	120.6	108.0	108.5	117.3	121.6	132.9	180.7	173.4	159.9	153.4	149.8	139.5	137.7	136.9	138.4	137.0	139.0	142.4	144.3	139.7
7	138.9	137.9	133.2	123.3	127.0	130.9	133.2	123.3	117.2	119.3	121.7	120.4	124.4	125.9	125.0	121.6	122.8	120.5	120.8	113.5	109.8	113.6	114.9	118.7
8	120.2	121.8	118.3	114.8	116.6	118.4	117.8	117.3	116.7	115.0	116.6	115.4	114.8	112.5	115.2	114.8	112.0	113.9	114.9	116.0	116.6	115.5	110.3	108.5
9	108.7	113.7	113.2	115.4	116.8	117.6	116.5	118.6	115.5	112.6	117.2	115.5	113.0	111.8	111.4	110.8	113.8	121.5	126.9	123.9	129.5	127.7	124.1	118.6
10	123.3	118.4	119.7	117.1	117.6	119.0	120.1	117.3	118.0	118.5	121.6	121.5	117.7	118.3	114.1	118.0	116.1	117.0	114.0	113.3	113.7	113.8	114.4	113.7
11	112.0	112.2	112.1	113.3	112.4	114.0	115.9	118.4	119.5	118.4	119.5	120.7	120.7	118.0	118.7	118.1	119.6	123.2	119.3	118.0	117.6	117.2	121.1	118.7
12	117.7	118.1	121.2	120.5	115.8	117.8	121.3	122.8	128.6	128.9	128.7	132.1	133.4	136.0	136.2	139.1	139.7	144.6	140.9	136.4	146.8	148.5	142.2	147.3
13	146.7	142.0	146.4	147.7	150.4	142.0	142.6	119.1	118.2	127.7	124.3	131.1	148.0	153.3	148.0	148.5	155.9	168.2	166.8	192.7	170.5	229.1	288.9	293.4
14	322.7	327.2	325.2	287.8	317.2	313.1	301.8	319.0	328.8	13.0	358.3	59.4	68.5	76.5	71.9	86.7	84.7	35.3	109.8	161.5	146.4	52.8	359.9	310.3
15	305.7	304.5	303.4	304.5	300.5	307.9	310.9	312.1	305.8	338.2	340.4	353.2	5.0	337.8	358.1	140.9	155.1	125.0	170.2	161.0	166.5	169.1	158.6	163.8
16	149.8	151.7	150.0	155.9	165.4	168.8	156.1	153.6	139.7	155.7	150.3	147.7	148.8	140.3	140.2	142.0	134.8	120.1	124.8	131.4	128.9	124.8	141.8	159.2
17	153.3	133.5	131.4	123.3	118.9	126.6	138.2	156.2	160.1	157.4	146.1	144.3	149.3	165.3	164.7	158.4	153.1	154.3	150.0	148.1	145.8	147.2	152.7	150.3
18	151.6	142.8	54.7	343.2	3.4	93.5	116.7	113.7	100.8	113.8	127.9	119.7	122.8	120.3	114.8	121.6	123.0	123.9	130.5	133.1	135.4	138.3	111.6	78.9
19	105.8	131.1	129.2	127.5	120.9	117.0	133.0	140.3	333.7	18.0	55.9	78.2	85.0	128.7	127.3	168.7	93.0	189.2	184.1	159.6	162.1	171.0	164.9	154.6
20	156.9	130.4	122.2	133.8	122.0	111.6	106.5	103.6	115.0	3.7	330.0	312.8	77.1	158.7	160.5	144.9	145.6	129.2	123.7	124.5	125.6	121.6	128.3	132.0
21	149.5	146.8	151.8	169.5	180.3	274.0	322.7	330.8	338.3	343.8	346.2	344.4	357.2	353.6	264.0	308.7	298.5	309.5	317.2	332.8	310.0	297.1	292.6	294.1
22	291.6	295.1	307.2	316.8	312.2	313.7	313.8	315.9	329.3	14.3	135.1	167.6	157.1	148.0	143.1	144.6	136.0	136.9	127.1	123.2	131.4	129.3	131.6	125.0
23	124.1	127.0	131.9	133.0	143.4	139.8	144.5	142.7	139.9	147.3	149.9	147.5	143.0	141.3	136.9	148.3	141.0	139.0	150.3	159.1	160.1	154.2	161.8	150.6
24	139.2	147.4	161.5	168.9	151.9	123.2	293.9	322.7	335.5	348.4	344.0	356.2	28.8	55.1	1.3	25.3	202.7	194.7	233.5	294.7	267.1	290.7	273.5	283.4
25	310.8	304.0	292.5	303.5	357.0	317.2	309.1	317.8	55.9	108.9	150.6	179.5	204.0	190.2	182.7	182.0	182.4	162.9	156.0	156.3	154.3	166.8	164.5	168.6
26	172.9	166.0	148.1	151.7	147.6	161.6	115.1	117.3	140.6	299.2	299.7	314.7	261.4	291.0	258.0	225.6	247.3	197.3	174.7	165.0	163.8	175.9	171.4	182.3
27	180.7	263.6	270.7	279.2	308.2	308.6	320.3	323.7	317.5	316.9	330.3	2.9	253.5	307.0	261.9	219.1	220.9	221.8	227.6	260.0	268.0	281.5	317.7	313.9
28	282.0	286.1	272.2	290.1	294.0	121.3	125.0	174.9	216.0	184.7	192.2	181.1	199.8	248.1	236.9	231.9	232.2	208.1	193.1	228.2	221.6	171.8	156.7	165.9
29	158.7	168.0	185.2	177.6	172.4	166.7	136.5	153.2	147.3	138.1	157.0	162.5	139.8	142.8	143.7	135.3	130.4	125.8	133.3	137.8	148.6	159.3	148.8	139.3
30	135.5	144.3	151.6	156.6	166.2	173.4	183.6	187.5	192.7	202.4	196.3	199.8	216.2	221.3	217.5	209.5	270.6	285.1	317.4	1.4	329.8	293.0	249.3	207.7

**Total Hours in Month**      720

**Hours Data Available**      720

**Data Recovery**    100.0%

**HCG, Inc.**



# Northern Dynasty Mines Pebble 1 Meterological Station - Resultant Wind Direction (RMYoung) (Degrees)

*July 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	
1	239.3	283.5	319.3	308.0	329.8	354.9	40.1	117.2	350.8	347.0	337.5	54.7	18.1	318.9	323.5	296.3	287.1	259.0	265.8	256.0	255.0	265.2	265.3	302.7	
2	289.5	280.0	310.8	311.3	312.6	305.8	312.5	306.0	313.6	304.0	308.4	310.6	292.4	309.8	299.3	308.7	311.1	308.3	322.4	326.9	322.7	321.0	326.0	323.6	
3	316.1	307.8	302.4	306.4	308.0	304.3	300.6	314.7	316.2	321.7	351.1	353.3	353.6	343.2	315.8	324.6	163.3	167.6	185.9	218.3	263.8	232.8	125.8	140.7	
4	133.8	120.2	135.3	133.3	135.3	119.8	45.0	356.6	340.1	325.2	323.9	315.4	323.0	305.9	295.6	275.1	266.1	250.8	253.5	235.1	209.3	174.1	139.5	137.4	
5	137.2	125.3	124.8	134.2	140.1	134.8	126.2	124.8	133.7	121.3	119.1	112.4	125.9	152.9	252.8	193.1	265.6	202.8	237.3	108.3	98.5	109.3	70.6	266.6	
6	339.8	249.3	289.9	214.6	142.2	304.2	316.5	106.4	113.1	110.2	106.5	9.0	146.0	159.3	160.1	176.0	195.8	6.7	253.3	165.8	181.9	133.7	154.2	171.6	
7	139.5	120.4	133.5	152.5	151.1	144.1	140.7	142.9	150.0	147.7	151.9	153.4	149.3	142.8	155.6	160.0	150.2	145.1	172.8	163.6	169.0	161.2	176.5	186.6	
8	192.7	197.0	198.8	210.8	207.8	213.6	212.2	213.3	214.3	217.4	212.7	253.3	21.8	77.2	223.5	153.2	332.2	302.9	290.3	303.0	294.1	289.1	282.7	306.3	
9	337.6	303.3	307.0	306.6	299.4	310.5	306.5	316.3	321.9	35.8	79.5	98.8	130.1	142.3	146.3	142.0	146.7	154.7	146.9	144.2	133.2	135.1	135.4	128.8	
10	126.7	115.8	114.0	115.6									114.1	119.6	115.4	112.4	114.3	122.2	115.0	116.3	119.5	120.1			
11		125.4	123.7	122.0	127.0	134.9	124.3	113.9	107.1		99.5	87.0	103.6	114.9	116.3	121.3	123.5	119.9							
12	161.1	161.1	165.2	177.0	196.8	200.9	170.5	168.1	126.5	136.5	174.6	250.9	297.5	320.7	307.7	315.6	310.6	312.6	310.8	313.4	314.2	326.4	339.8	337.7	
13	326.3	297.2	312.5	296.2	351.5	352.4	355.5	304.0	309.4	310.2	308.5	307.0	312.8	300.8	245.9	353.2	172.7	217.6	210.2	212.1	211.4	210.9	214.7	219.0	
14	216.9	212.1	210.7	218.0	217.8	214.6	205.3	205.9	220.7	223.5	223.6	214.7	218.0	217.9	214.6	217.7	218.2	211.9	216.1	212.4	216.3	213.2	202.5	198.8	
15	201.0	208.7	203.2	198.6	198.5	215.4	227.0	219.0	214.4	216.4	229.2	230.3	222.0	215.9	212.1	203.7	221.2	204.5	196.7	189.0	190.9	209.7	214.6	202.1	
16	187.1	180.2	174.3	171.6	164.0	168.7	166.5	161.0	160.9	155.6	148.7	137.7	134.0	127.7	131.5	125.4	119.5	115.7	113.9	118.3	119.5	120.1	118.1	118.5	
17	116.8	122.4	125.0	112.7	114.6	115.2	111.9	113.5	112.6	109.2	111.1	114.0	115.5	114.8	115.8	116.5	116.7	116.9	115.9	117.1	119.4	118.4	117.7	117.0	
18	119.7	120.4	117.4	117.6	116.2	116.0	115.4	111.8	120.6	119.1	117.2	120.0	123.1	117.1	116.5	117.5	116.4	116.5	116.6	119.1	117.7	119.9	121.2	124.8	
19	122.4	121.3	125.0	125.0	124.7	124.8	119.0	125.7	128.1	130.1	134.8	130.5	108.6	96.5	100.5	89.0	93.9	88.9	94.8	82.9	94.5	99.0	88.0	108.0	
20	132.8	150.6	134.0	136.4	144.6	168.4	190.5	160.6	275.9	317.8	315.4	308.0	341.7	340.9	342.1	344.3	354.0	16.1	32.9	80.3	77.5	77.9	83.9	92.7	
21	115.3	89.0	96.0	156.8	179.8	166.3	173.2	168.5	167.4	176.8	159.9	131.5	106.7	94.9	142.7	289.5	318.2	216.4	161.2	123.1	130.8	310.7	53.4	134.1	
22	151.0	153.6	156.3	160.9	149.9	124.8	117.6	117.9	111.1	106.7	102.2	343.4	347.6	308.8	309.3	333.6	11.7	73.2	107.9	135.2	138.5	136.0	145.9	169.8	
23	154.2	159.9	161.4	142.1	126.9	115.1	123.1	119.8	126.6	111.5	113.1	107.2	110.8	117.3	106.9	107.9	95.8	98.4	92.7	109.8	127.4	61.7	62.4	89.7	
24	96.9	100.4	124.0	106.3	119.2	139.6	140.4	147.1	141.7	112.1	114.4	123.5	119.9	108.7	111.8	109.5	111.6	109.1	102.9	105.4	92.9	109.9	119.3	121.9	
25	122.6	153.8	155.1	142.1	125.9	114.5	121.5	119.0	123.8	128.8	128.8	126.1	120.4	102.8	114.4	117.0	114.9	112.0	111.8	118.9	119.0	123.4	118.1	116.1	
26	123.9	141.2	149.5	159.2	164.4	176.7	171.9	191.6	187.0	170.4	199.9	186.4	190.5	161.0	164.4	119.5	142.5	148.0	217.8	217.0	208.6	208.8	213.0	219.7	
27	221.2	213.8	214.6	218.2	217.9	218.3	218.5	226.3	227.5	228.0	227.2	227.4	225.0	208.2	171.8	159.2	344.9	325.3	307.4	127.0	130.1	106.5	177.0	144.3	
28	124.2	161.2	150.1	168.3	169.9	169.8	161.4	262.3	114.8	141.9	154.9	137.8	135.1	136.4	133.0	133.6	137.8	151.2	161.8	170.8	198.9	195.7	191.6	195.1	
29	197.0	201.0	209.8	212.5	187.6	201.6	188.3	215.1	221.8	221.0	235.7	242.5	234.3	232.7	234.6	246.4	254.7	265.9	274.6	268.9	264.5	264.8	260.4	259.4	
30	233.1	223.4	227.9	229.2	219.4	220.2	234.9	237.8	239.9	242.7	251.0	270.9	273.4	284.2	295.2	326.8	214.6	200.6	220.9	313.8	305.5	309.0	314.2	310.7	
31	314.8	313.6	311.0	310.9	308.2	305.1	302.9	305.4	298.3	302.5	300.0	297.4	302.7	300.2	301.8	302.5	303.7	306.6	302.6	304.8	304.9	293.5	290.9	292.7	

**Total Hours in Month**      744

**Hours Data Available**      726

**Data Recovery**      97.6%

**HCG, Inc.**

# Northern Dynasty Mines Pebble 1 Meterological Station - Wind Sigma (RMYoung)

*August 2005*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	12.7	16.4	16.4	7.1	3.4	6.2	17.0	9.0	14.2	13.0	15.4	27.7	11.0	10.3	13.5	14.2	7.9	6.8	6.4	6.1	5.5	5.7	5.0	6.5	27.7	3.4	10.7
2	4.6	5.7	6.5	4.6	4.1	5.9	4.2	5.9	5.6	8.5	8.9	9.8	6.9	6.0	7.7	8.0	7.3	7.0	39.1	8.2	17.5	16.9	15.1	18.8	39.1	4.1	9.7
3	21.6	16.6	22.2	9.9	10.6	9.8	8.4	7.4	12.1	12.0	15.3	15.3	23.5	28.4	29.8	15.2	8.5	8.5	11.9	5.5	12.8	10.2	8.8	14.7	29.8	5.5	14.1
4	9.0	9.1	9.1	10.3	16.6	13.9	26.1	16.7	22.6	31.4	50.4	19.5	47.4	18.0	12.1	13.6	8.8	21.0	32.2	34.8	24.6	13.5	23.5	36.6	50.4	8.8	21.7
5	24.9	16.2	21.4	17.8	35.2	14.4	13.6	34.7	37.3	26.0	9.4	15.1	12.8	17.8	12.4	10.7	11.2	7.8	7.3	6.7	6.7	5.8	12.4	12.3	37.3	5.8	16.2
6	25.7	18.4	17.9	10.4	12.1	19.6	13.5	40.1	32.8	48.6	32.8	44.5	51.6	25.9	13.1	16.6	17.3	11.3	11.5	5.2	5.0	3.0	7.3	6.8	51.6	3.0	20.5
7	11.6	11.8	11.9	49.7	22.7	29.1	37.1	7.9	6.4	10.7	39.8	39.3	10.5	14.2	27.3	51.5	17.0	12.3	13.3	10.2	3.6	2.0	3.4	2.8	51.5	2.0	18.6
8	3.3	3.4	4.3	2.6	2.7	3.1	2.9	3.8	6.9	8.9	20.3	47.4	48.2	48.1	27.2	20.9	13.5	8.4	9.6	6.3	16.6	38.1	11.1	9.8	48.2	2.6	15.3
9	4.7	4.9	4.6	4.3	3.3	4.9	4.9	6.5	6.1	10.0	10.9	11.3	10.8	12.6	10.8	9.1	7.8	7.4	5.6	4.6	3.2	13.0	9.5	4.9	13.0	3.2	7.3
10	14.6	13.6	17.8	18.8	27.5	8.3	13.8	7.2	11.0	24.5	24.5	24.3	18.6	15.1	10.5	10.1	9.4	10.9	13.7	8.4	4.5	5.8	6.3	3.8	27.5	3.8	13.5
11	4.8	3.6	4.2	4.6	2.5	2.4	2.4	3.2	5.3	7.2	8.6	9.7	11.0	20.6	47.5	47.8	20.4	31.3	29.1	9.7	8.9	5.1	4.0	2.2	47.8	2.2	12.3
12	23.5	16.1	6.1	8.8	7.6	6.2	11.2	9.7	13.5	10.5	8.9	14.0	9.9	11.4	8.7	11.6	8.8	8.0	7.5	4.8	5.9	4.2	4.2	3.4	23.5	3.4	9.3
13	2.9	3.2	9.0	6.9	6.6	12.0	6.1	7.7	14.3	12.4	14.4	14.2	17.3	16.5	11.8	7.4	6.5	11.8	6.7	5.8	6.1	11.7	7.3	3.7	17.3	2.9	9.3
14	4.1	4.1	7.7	10.0	8.4	9.1	21.7	6.8	8.5	12.8	13.0	15.0	16.4	30.3	17.2	21.2	10.6	7.5	11.4	47.3	14.8	10.3	4.6	6.0	47.3	4.1	13.3
15	5.1	6.3	6.6	5.4	5.2	4.9	7.5	5.6	7.2	7.5	8.3	7.8	10.4	10.6	7.9	8.2	8.4	7.5	5.4	5.0	6.6	6.4	7.0	9.9	10.6	4.9	7.1
16	11.3	9.4	8.9	8.1	4.3	4.5	4.7	4.8	5.2	5.8	5.8	5.1	5.6	5.8	5.6	5.4	5.7	5.1	4.5	4.9	4.6	4.6	4.4	4.6	11.3	4.3	5.8
17	4.5	4.5	4.2	4.5	5.1	4.3	4.1	4.8	10.1	5.9	6.3	11.9	7.0	7.6	6.1	7.1	11.7	8.0	10.5	11.5	5.8	10.8	15.6	13.7	15.6	4.1	7.7
18	12.1	7.5	12.4	9.9	9.5	18.0	13.6	19.6	17.4	5.6	9.5	8.0	7.2	7.4	6.7	5.7	7.6	8.4	12.2	31.8	23.1	39.1	33.3	36.2	39.1	5.6	15.1
19	38.1	31.2	49.4	12.2	18.8	8.5	5.7	6.2	4.8	7.1	7.5	6.2	6.8	7.7	5.8	6.8	6.2	4.7	3.3	4.4	3.9	3.9	4.5	4.3	49.4	3.3	10.7
20	8.4	7.4	5.2	5.7	7.6	6.8	6.1	4.3	7.3	8.0	6.7	7.8	8.8	9.6	9.1	5.8	7.9	5.8	10.7	7.3	5.3	5.0	4.7	5.0	10.7	4.3	6.9
21	5.0	5.6	5.3	7.1	5.2	5.8	5.2	4.8	5.6	5.6	5.9	8.1	5.4	11.8	10.1	11.3	9.3	10.0	8.7	4.3	5.2	3.5	3.6	6.1	11.8	3.5	6.6
22	8.7	22.7	17.3	6.2	7.7	12.9	11.4	7.3	7.8	6.5	5.1	5.1	4.7	4.6	4.7	5.0	5.0	5.1	5.4	6.0	5.9	5.1	4.9	5.6	22.7	4.6	7.5
23	5.6	5.4	8.8	6.2	7.2	11.2	6.2	6.9	6.5	7.7	6.3	6.4	8.1	8.8	7.7	8.2	7.1	7.3	7.5	7.7	6.1	5.9	5.8	5.6	11.2	5.4	7.1
24	5.2	5.3	5.9	6.3	10.6	23.2	15.0	15.3	12.2	18.0	3.7	3.5	3.8	4.8	6.0	6.2	5.4	6.2	5.4	4.8	3.6	5.2	4.7	4.4	23.2	3.5	7.7
25	4.6	5.5	4.1	6.4	7.1	7.9	21.5	8.2	7.7	12.2	21.9	21.1	16.6	13.9	24.7	9.0	12.7	11.8	7.8	3.2	3.5	2.8	4.8	3.2	24.7	2.8	10.1
26	3.2	3.2	3.6	3.3	6.7	6.4	7.1	5.2	7.7	5.4	5.1	7.2	6.3	8.7	6.7	5.8	5.6	4.3	3.7	4.0	3.8	3.8	4.6	3.7	8.7	3.2	5.2
27	5.2	7.1	6.5	4.6	3.9	13.8	6.0	8.7	4.4	6.8	7.5	9.4	10.1	9.4	11.0	5.7	5.6	5.1	6.8	11.8	30.4	11.4	11.7	10.9	30.4	3.9	8.9
28	9.2	6.6	9.5	7.5	7.4	5.4	6.1	5.8	6.9	5.7	7.2	7.7	6.8	8.5	7.1	5.9	7.2	6.1	8.8	5.6	7.0	5.2	5.2	5.9	9.5	5.2	6.9
29	5.7	6.2	5.1	5.1	5.5	5.5	4.9	5.1	5.3	5.1	4.4	4.8	5.6	5.3	5.3	6.8	7.7	5.2	6.8	6.0	4.9	4.5	4.8	3.8	7.7	3.8	5.4
30	5.7	6.2	5.5	4.2	5.7	5.0	4.3	4.3	4.8	5.2	5.9	5.7	5.4	5.3	4.8	5.8	4.8	5.6	4.1	5.1	3.9	4.1	4.2	3.8	6.2	3.8	5.0
31	3.9	4.8	6.4	5.1	4.4	3.8	4.5	3.5	4.2	5.8	5.6	5.0	6.2	5.7	5.6	5.9	5.9	4.7	4.7	4.1	5.0	6.5	3.1	3.1	6.5	3.1	4.9
<b>Max.</b>	<b>38.1</b>	<b>31.2</b>	<b>49.4</b>	<b>49.7</b>	<b>35.2</b>	<b>29.1</b>	<b>37.1</b>	<b>40.1</b>	<b>37.3</b>	<b>48.6</b>	<b>50.4</b>	<b>47.4</b>	<b>51.6</b>	<b>48.1</b>	<b>47.5</b>	<b>51.5</b>	<b>20.4</b>	<b>31.3</b>	<b>39.1</b>	<b>47.3</b>	<b>30.4</b>	<b>39.1</b>	<b>33.3</b>	<b>36.6</b>	<b>51.6</b>		
<b>Min.</b>	<b>2.9</b>	<b>3.2</b>	<b>3.6</b>	<b>2.6</b>	<b>2.5</b>	<b>2.4</b>	<b>2.4</b>	<b>3.2</b>	<b>4.2</b>	<b>5.1</b>	<b>3.7</b>	<b>3.5</b>	<b>3.8</b>	<b>4.6</b>	<b>4.7</b>	<b>5.0</b>	<b>4.8</b>	<b>4.3</b>	<b>3.3</b>	<b>3.2</b>	<b>3.2</b>	<b>2.0</b>	<b>3.1</b>	<b>2.2</b>		<b>2.0</b>	
<b>Avg.</b>	<b>10.0</b>	<b>9.3</b>	<b>10.4</b>	<b>8.8</b>	<b>9.2</b>	<b>9.4</b>	<b>10.2</b>	<b>9.3</b>	<b>10.4</b>	<b>11.6</b>	<b>12.7</b>	<b>14.1</b>	<b>13.6</b>	<b>13.2</b>	<b>12.4</b>	<b>12.0</b>	<b>9.0</b>	<b>8.7</b>	<b>10.4</b>	<b>9.4</b>	<b>8.5</b>	<b>8.8</b>	<b>8.1</b>	<b>8.5</b>			<b>10.3</b>

**Total Hours in Month** 744 **Hours Data Available** 744 **Data Recovery** 100.0%

## Northern Dynasty Mines Pebble 1 Meterological Station - Wind Sigma (RMYoung)

*September 2005*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	2.6	3.1	4.7	3.7	4.4	5.8	3.8	4.3	4.4	5.2	5.7	6.7	8.7	8.3	9.5	8.9	7.4	6.3	5.2	3.6	6.1	6.1	7.0	6.6	9.5	2.6	5.8	
2	4.6	6.5	5.1	7.4	32.8	48.7	7.5	11.4	8.8	10.2	8.0	7.1	7.7	7.5	6.0	5.1	5.8	5.4	5.6	5.7	5.2	5.0	4.9	4.7	48.7	4.6	9.4	
3	5.0	6.0	5.9	5.9	6.1	5.2	5.2	5.0	4.7	4.8	4.3	4.4	4.5	4.7	4.7	5.4	4.9	4.7	4.6	3.8	3.9	4.6	4.8	4.5	6.1	3.8	4.9	
4	10.1	10.1	18.9	41.3	24.9	12.6	12.8	24.7	53.3	17.4	9.8	8.2	10.2	8.3	9.7	10.8	14.3	5.8	5.4	5.7	5.4	5.2	5.8	5.1	53.3	5.1	14.0	
5	5.6	5.2	5.5	6.2	6.1	5.8	4.8	4.9	5.1	5.0	4.3	4.5	5.2	5.6	5.4	5.4	5.3	5.8	5.8	5.4	5.2	7.4	5.6	7.5	7.5	4.3	5.5	
6	5.9	12.9	22.8	12.4	7.5	8.9	31.3	20.5	16.6	5.6	6.1	5.3	7.2	7.3	8.8	7.9	6.8	6.8	8.2	5.7	5.4	6.1	5.2	5.3	31.3	5.2	9.9	
7	5.8	7.1	5.3	21.9	7.7	23.8	46.4	26.4	9.5	12.3	8.6	9.2	8.3	10.2	8.3	7.8	6.6	6.1	4.3	3.7	3.3	9.2	7.4	8.1	46.4	3.3	11.1	
8	31.9	8.8	13.5	6.1	3.7	4.6	3.8	4.5	21.5	22.5	10.6	21.5	10.0	8.8	8.4	7.1	6.4	4.7	6.1	5.4	4.8	6.0	5.7	6.3	31.9	3.7	9.7	
9	5.9	5.6	6.9	6.7	6.7	7.6	6.0	5.6	5.3	6.5	6.0	5.3	6.0	5.5	6.8	10.0	10.0	6.5	7.0	5.9	6.0	5.0	5.4	6.2	10.0	5.0	6.4	
10	9.6	7.8	6.0	5.1	5.2	4.0	4.6	10.4	54.6	59.0	23.4	15.1	16.2	13.8	15.6	11.4	22.3	12.8	11.0	5.8	19.8	15.4	7.5	6.5	59.0	4.0	15.1	
11	6.4	6.7	5.4	6.3	4.8	5.6	4.7	5.2	5.2	5.2	5.4	5.0	5.2	6.0	6.1	6.3	5.4	5.5	6.2	6.4	5.8	5.6	7.1	7.6	7.6	4.7	5.8	
12	10.3	9.1	7.5	7.1	6.7	8.2	8.0	8.8	8.3	8.4	7.9	7.4	6.4	7.3	5.8	6.6	5.7	5.8	5.4	5.0	5.0	4.7	5.1	6.2	10.3	4.7	6.9	
13	8.4	7.8	5.2	3.7	4.6	15.4	25.9	5.6	6.9	9.8	10.9	12.7	13.0	10.4	13.3	9.3	11.1	11.2	12.3	18.3	5.1	7.0	9.0	17.2	25.9	3.7	10.6	
14	9.7	6.5	9.9	5.8	7.4	6.0	9.8	7.8	6.1	6.2	9.6	12.2	10.3	10.0	7.8	6.6	6.8	5.5	5.3	5.2	4.9	4.7	4.7	5.3	12.2	4.7	7.3	
15	4.7	4.8	4.6	4.4	4.6	4.9	4.7	5.2	5.4	5.5	5.1	5.3	5.1	4.8	4.6	4.9	4.6	11.8	8.2	5.8	6.0	5.0	6.0	18.3	18.3	4.4	6.0	
16	5.1	8.4	19.5	6.8	8.4	41.5	46.4	19.2	24.8	41.5	9.6	13.8	9.3	8.5	7.5	8.3	10.6	7.8	8.5	6.3	3.8	6.0	4.7	5.9	46.4	3.8	13.8	
17	5.9	9.2	18.5	13.4	18.0	19.0	40.9	10.2	12.2	5.7	22.1	20.2	41.8	48.9	15.1	4.9	34.0	8.7	8.4	7.4	5.6	4.3	3.6	7.1	48.9	3.6	16.0	
18	5.0	8.0	2.5	3.5	2.2	2.0	7.8	6.1	5.6	3.7	7.3	4.5	6.6	7.1	7.3	6.6	6.3	6.3	2.8	1.7	1.8	4.6	3.3	4.0	8.0	1.7	4.9	
19	4.1	4.7	2.9	3.6	3.0	3.8	3.6	5.0	8.9	8.1	16.0	8.1	9.1	7.8	8.9	6.9	5.8	5.0	4.1	3.2	3.5	3.9	5.1	2.4	16.0	2.4	5.7	
20	3.3	3.5	3.3	6.1	6.6	7.7	7.6	3.3	2.7	4.5	8.4	9.7	9.8	8.0	9.7	7.7	6.8	5.3	6.2	5.7	10.0	5.9	11.5	5.2	11.5	2.7	6.6	
21	6.9	13.8	18.2	6.0	6.4	17.0	10.5	8.4	6.5	5.9	8.6	10.1	8.9	6.6	5.4	5.3	5.3	6.8	6.1	7.1	6.3	5.2	5.4	3.9	18.2	3.9	7.9	
22	4.8	5.5	6.5	8.2	8.2	6.7	5.7	5.6	5.6	4.6	4.7	4.7	4.9	5.4	5.5	9.2	8.6	10.2	5.4	6.3	8.2	6.7	10.3	8.7	10.3	4.6	6.7	
23	12.7	10.5	10.0	9.0	8.4	7.1	6.6	8.0	6.1	5.0	5.4	7.2	6.3	6.1	6.6	5.4	5.4	6.0	16.8	6.4	7.7	6.9	6.7	6.2	16.8	5.0	7.6	
24	5.8	5.9	6.4	5.9	5.1	5.2	5.1	5.3	6.4	5.4	6.2	5.6	7.6	7.5	7.4	7.1	6.4	7.2	7.0	7.2	5.9	6.2	5.7	5.0	7.6	5.0	6.2	
25	5.6	5.3	5.9	4.9	4.8	4.6	4.1	4.8	6.3	5.3	5.1	5.5	6.0	6.2	9.1	9.3	7.9	6.2	6.1	9.4	7.1	6.1	4.6	3.5	9.4	3.5	6.0	
26	7.6	12.5	9.2	6.6	6.2	6.6	5.7	5.5	4.7	4.7	4.3	5.2	5.8	5.8	5.4	5.2	4.5	4.6	4.5	4.5	4.9	4.6	4.5	4.4	12.5	4.3	5.7	
27	4.5	4.6	4.7	4.7	4.5	4.6	5.0	10.8	11.3	7.4	47.8	22.8	6.4	5.5	6.7	6.1	8.8	6.3	6.5	5.3	7.9	7.2	14.4	6.5	47.8	4.5	9.2	
28	7.9	10.6	15.0	13.6	3.6	4.6	5.6	7.4	10.7	10.3	9.8	8.3	11.2	18.7	6.6	8.9	6.9	8.3	34.6	10.7	36.8	13.1	19.3	33.2	36.8	3.6	13.1	
29	16.0	20.8	9.6	8.9	4.6	6.8	11.1	6.7	5.3	6.0	6.1	8.9	5.1	7.7	7.0	6.8	6.3	4.5	3.9	6.3	7.1	41.7	37.3	22.1	41.7	3.9	11.1	
30	32.8	22.9	21.3	5.9	27.0	12.6	18.8	15.0	9.8	21.0	28.3	6.5	13.7	25.8	26.1	16.1	8.2	5.4	6.4	5.8	3.7	3.0	3.1	3.3	32.8	3.0	14.2	
<b>Max.</b>	<b>32.8</b>	<b>22.9</b>	<b>22.8</b>	<b>41.3</b>	<b>32.8</b>	<b>48.7</b>	<b>46.4</b>	<b>26.4</b>	<b>54.6</b>	<b>59.0</b>	<b>47.8</b>	<b>22.8</b>	<b>41.8</b>	<b>48.9</b>	<b>26.1</b>	<b>16.1</b>	<b>34.0</b>	<b>12.8</b>	<b>34.6</b>	<b>18.3</b>	<b>36.8</b>	<b>41.7</b>	<b>37.3</b>	<b>33.2</b>	<b>59.0</b>			
<b>Min.</b>	<b>2.6</b>	<b>3.1</b>	<b>2.5</b>	<b>3.5</b>	<b>2.2</b>	<b>2.0</b>	<b>3.6</b>	<b>3.3</b>	<b>2.7</b>	<b>3.7</b>	<b>4.3</b>	<b>4.4</b>	<b>4.5</b>	<b>4.7</b>	<b>4.6</b>	<b>4.9</b>	<b>4.5</b>	<b>4.5</b>	<b>2.8</b>	<b>1.7</b>	<b>1.8</b>	<b>3.0</b>	<b>3.1</b>	<b>2.4</b>		<b>1.7</b>		
<b>Avg.</b>	<b>8.5</b>	<b>8.5</b>	<b>9.4</b>	<b>8.4</b>	<b>8.3</b>	<b>10.6</b>	<b>12.1</b>	<b>9.0</b>	<b>11.4</b>	<b>10.8</b>	<b>10.5</b>	<b>9.0</b>	<b>9.2</b>	<b>9.8</b>	<b>8.5</b>	<b>7.6</b>	<b>8.5</b>	<b>6.8</b>	<b>7.6</b>	<b>6.2</b>	<b>7.1</b>	<b>7.4</b>	<b>7.7</b>	<b>7.9</b>				<b>8.8</b>
<b>Total Hours in Month</b>	720		<b>Hours Data Available</b>										720		<b>Data Recovery</b>										100.0%			



## Northern Dynasty Mines Pebble 1 Meterological Station - Wind Sigma (RMYoung)

*November 2005*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	3.9	3.9	2.9	3.1	5.9	3.1	3.7	3.8	3.6	2.9	2.6	3.4	3.4	4.3	6.6	8.6	4.2	3.1	4.1	4.9	2.7	3.6	3.8	4.6	8.6	2.6	4.0	
2	3.8	4.0	4.5	5.4	8.8	3.6	5.0	4.0	4.4	3.9	3.4	3.8	4.7	5.9	6.0	4.2	6.2	4.8	2.4	2.7	2.1	4.3	3.2	4.9	8.8	2.1	4.4	
3	3.5	5.4	5.7	5.0	5.0	3.1	6.0	5.3	4.5	3.6	3.9	3.5	4.1	3.8	3.4	4.4	4.1	3.6	4.0	4.0	5.7	3.6	3.0	3.2	6.0	3.0	4.2	
4	4.0	3.2	2.7	3.4	5.8	3.9	4.1	4.3	4.4	3.9	4.2	4.6	3.8	3.5	3.1	3.1	3.8	4.3	2.8	2.9	2.8	2.9	2.6	2.3	5.8	2.3	3.6	
5	3.6	3.4	3.7	3.7	3.0	3.7	2.4	2.2	2.6	3.1	3.3	2.6	3.0	3.3	2.3	2.6	2.8	2.4	3.0	4.0	6.2	4.9	22.4	23.3	23.3	2.2	4.9	
6	12.9	8.4	8.3	14.3	15.4	3.5	4.3	3.4	3.4	3.3	3.1	3.0	3.0	2.9	3.1	2.9	2.6	2.6	6.4	3.8	4.3	3.4	3.5	3.9	15.4	2.6	5.2	
7	5.1	3.6	3.5	6.9	6.3	5.1	6.6	5.3	4.3	4.9	3.5	4.9	6.8	6.1	4.8	3.5	3.0	3.5	2.9	3.3	2.7	2.8	3.0	3.0	6.9	2.7	4.4	
8	3.7	3.5	3.2	3.0	2.8	4.3	2.6	3.2	3.2	4.9	6.6	4.9	3.8	4.3	5.3	4.0	4.0	2.4	2.6	3.2	3.6	5.2	4.8	5.2	6.6	2.4	3.9	
9	4.6	6.6	5.1	4.1	3.5	4.4	4.2	3.2	2.7	3.6	4.1	3.9	3.7	2.5	2.7	2.6	3.7	3.2	3.5	3.3	3.2	3.3	3.0	3.3	6.6	2.5	3.7	
10	4.1	3.8	3.9	3.8	3.4	2.8	2.8	2.9	2.9	3.0	3.3	3.0	2.9	3.0	2.8	2.9	3.0	2.7	2.7	2.8	2.5	2.8	3.1	2.9	4.1	2.5	3.1	
11	3.1	2.9	2.7	3.0	3.1	3.7	3.1	3.4	3.4	3.1	3.4	3.6	3.5	3.7	3.3	3.9	3.3	3.4	4.4	3.0	4.1	3.4	3.0	2.9	4.4	2.7	3.3	
12	3.5	2.9	3.2	3.2	2.6	3.2	3.4	4.1	4.5	4.1	3.8	4.6	4.4	4.1	3.3	3.2	2.7	2.8	3.5	3.8	3.4	5.3	4.7	6.2	6.2	2.6	3.8	
13	4.5	4.3	7.8	7.5	3.5	5.5	4.9	6.5	5.9	7.6	10.5	8.4	4.2	10.1	30.4	22.2	8.8	8.1	11.9	13.0	7.1	6.3	6.4	5.1	30.4	3.5	8.8	
14	5.0	4.5	4.5	4.5	6.1	6.7	5.6	4.1	3.5	4.9	9.9	8.5	10.4	24.5	5.3	7.7	14.8	15.6	4.5	4.8	4.6	4.9	11.1	12.6	24.5	3.5	7.9	
15	6.6	7.9	7.5	9.8	13.9	17.5	29.4	9.4	3.2	3.1	3.4	3.3	2.9	3.8	4.6	2.8	15.0	8.8	4.5	30.9	6.3	7.2	5.9	12.8	30.9	2.8	9.2	
16	19.3	16.9	5.7	6.3	6.6	7.0	7.1	3.8	4.5	4.5	4.4	3.7	4.3	4.2	4.4	4.9	4.4	3.9	4.0	4.0	3.7	3.9	4.8	4.9	19.3	3.7	5.9	
17	7.5	5.5	4.9	5.1	4.9	4.5	4.8	5.3	5.0	9.6	5.4	6.4	5.8	5.9	7.9	5.4	6.3	6.0	6.6	8.7	9.7	13.3	0.1	0.1	13.3	0.1	6.0	
18	0.1	0.3	0.2	0.1	0.2	25.6	6.7	11.2	6.3	10.6	17.0	5.3	34.2	25.1	9.3	19.8	7.1	3.1	4.2	51.5	33.0	10.3	10.7	15.4	51.5	0.1	12.8	
19	35.2	19.3	26.5	13.2	23.6	18.4	5.6	4.5	3.7	4.8	4.9	7.2	4.1	3.6	7.2	10.0	4.9	5.8	8.4	14.0	11.9	11.2	5.5	7.9	35.2	3.6	10.9	
20	8.3	4.7	9.1	6.8	11.3	9.1	8.2	6.3	5.6	6.5						46.8	4.9	5.4	9.9	19.3	33.7	6.2	9.7	6.7	46.8	4.7	11.5	
21	11.5	14.6	3.0	3.5	3.1	3.6	4.8	5.5	5.1	6.5	2.1	9.0	9.1	2.4	4.2	4.0	8.8	16.4	38.4	14.8	14.0	44.1	9.6	8.3	44.1	2.1	10.3	
22	15.5	43.0	29.5	56.4	27.2	32.0	54.9	52.3	32.0	35.5	28.3	8.0	49.7	15.9	6.9	7.4	7.3	4.3	3.7	5.9	4.4	5.0	3.7	2.6	56.4	2.6	22.1	
23	4.8	4.0	2.4	3.0	3.5	3.2	2.2	2.3	2.9	2.9	2.9	2.5	2.6	3.0	2.4	2.3	2.8	1.9	2.5	4.2	3.0	2.6	2.1	1.7	4.8	1.7	2.8	
24	2.7	4.2	5.2	3.8	2.3	3.4	2.7	3.5	3.5	2.4	3.3	2.4	2.8	2.0	2.3	2.7	2.6	2.7	3.1	3.4	3.6	2.7	2.5	2.0	5.2	2.0	3.0	
25	2.0	2.1	2.6	3.0	3.0	2.6	2.2	2.1	1.9	2.1	2.3	2.3	2.5	2.4	2.4	2.2	2.0	2.6	3.1	2.0	2.4	2.9	2.9	2.8	3.1	1.9	2.4	
26	2.3	2.8	2.6	2.2	2.4	2.6	2.7	2.8	2.8	2.4	2.2	2.8	2.0	3.3	5.5	4.6	2.8	3.1	3.6	2.9	3.5	3.3	3.7	3.2	5.5	2.0	3.0	
27	3.3	2.9	3.4	3.2	4.5	3.9	5.6	5.7	6.9	6.2	3.5	4.2	5.3	3.1	3.1	43.6	7.6	6.5	5.6	8.8	8.0	4.4	5.4	3.6	43.6	2.9	6.6	
28	4.1	2.9	2.7	3.0	3.5	3.7	4.0	4.1	5.3	5.1	5.6	4.9	4.2	5.7	9.0	12.1	6.2	12.8	10.1	23.1	13.3	18.8	22.0	7.1	23.1	2.7	8.0	
29	12.2	10.0	10.8	27.6	26.9	3.7	1.7	4.4	2.4	3.3	4.6	4.2	2.7	2.0	2.3	2.8	6.6	4.4	5.0	5.0	4.5	7.6	3.7	3.0	27.6	1.7	6.7	
30	6.3	2.9	4.5	4.0	3.8	2.7	2.8	3.3	2.6	2.0	2.2	2.5	2.9	3.7	2.7	2.3	5.5	7.0	6.0	2.7	3.9	3.0	4.3	5.1	7.0	2.0	3.7	
<b>Max.</b>	<b>35.2</b>	<b>43.0</b>	<b>29.5</b>	<b>56.4</b>	<b>27.2</b>	<b>32.0</b>	<b>54.9</b>	<b>52.3</b>	<b>32.0</b>	<b>35.5</b>	<b>28.3</b>	<b>9.0</b>	<b>49.7</b>	<b>25.1</b>	<b>30.4</b>	<b>46.8</b>	<b>15.0</b>	<b>16.4</b>	<b>38.4</b>	<b>51.5</b>	<b>33.7</b>	<b>44.1</b>	<b>22.4</b>	<b>23.3</b>	<b>56.4</b>			
<b>Min.</b>	<b>0.1</b>	<b>0.3</b>	<b>0.2</b>	<b>0.1</b>	<b>0.2</b>	<b>2.6</b>	<b>1.7</b>	<b>2.1</b>	<b>1.9</b>	<b>2.0</b>	<b>2.1</b>	<b>2.3</b>	<b>2.0</b>	<b>2.0</b>	<b>2.3</b>	<b>2.2</b>	<b>2.0</b>	<b>1.9</b>	<b>2.4</b>	<b>2.0</b>	<b>2.1</b>	<b>2.6</b>	<b>0.1</b>	<b>0.1</b>		<b>0.1</b>		
<b>Avg.</b>	<b>6.9</b>	<b>6.8</b>	<b>6.1</b>	<b>7.4</b>	<b>7.2</b>	<b>6.7</b>	<b>6.8</b>	<b>6.1</b>	<b>4.9</b>	<b>5.5</b>	<b>5.4</b>	<b>4.5</b>	<b>6.8</b>	<b>5.8</b>	<b>5.4</b>	<b>8.3</b>	<b>5.4</b>	<b>5.2</b>	<b>5.9</b>	<b>8.7</b>	<b>7.1</b>	<b>6.8</b>	<b>5.8</b>	<b>5.7</b>			<b>6.3</b>	
<b>Total Hours in Month</b>	720		<b>Hours Data Available</b>									715					<b>Data Recovery</b>					99.3%						



## Northern Dynasty Mines Pebble 1 Meterological Station - Wind Sigma (RMYoung)

January 2006

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.	
1	12.8	18.3	21.3	10.5	11.7	6.5	10.0	6.2	5.6	8.3	6.5	4.2	5.8	10.3	10.3	7.6	20.0	13.2	11.0	11.4	9.8	12.4	7.2	15.9	21.3	4.2	10.7	
2	7.7	10.4	17.5	13.2	3.7	10.8	12.6	11.9	4.0	8.0	9.2	13.0	16.6	10.0	4.9	11.0	7.4	7.5	8.0	7.5	7.5	3.7	4.3	6.1	17.5	3.7	9.0	
3	5.0	4.9	4.2	4.0	5.0	21.7	13.2	13.7	5.1	6.9	7.5	6.8	12.0	10.7	8.1	6.9	7.8	3.6	6.0	3.4	4.1	3.4	3.8	3.1	21.7	3.1	7.1	
4	3.5	10.6	11.7	44.6	13.6	25.2	38.6	4.5	42.4	31.9	29.8	9.5	11.2	7.3	10.2	45.8	23.6	11.8	4.5	48.7	11.7	17.5	9.3	32.7	48.7	3.5	20.8	
5	80.2	27.9	31.8	49.0	29.1	17.1	33.9	46.7	15.7	8.9	22.2	23.9	30.0	5.2	3.1	2.0	3.0	2.3	2.5	2.4	3.2	2.9	2.5	3.1	80.2	2.0	18.7	
6	13.4	30.5	5.5	5.5	8.3	3.5	4.5	12.1	9.2	17.5	36.0	35.9	21.2	19.9	3.4	6.3	19.5	9.6	54.4	22.0	49.6	6.2	19.0	65.1	65.1	3.4	19.9	
7	16.5	33.0	45.8	25.1	75.0	11.5	6.0	14.6	19.3	6.5	47.3	44.6	23.8	27.3	13.1	26.9	10.1	7.2	23.0	17.6	5.3	10.9	19.7	6.3	75.0	5.3	22.3	
8	10.0	12.7	22.8	20.5	18.2	27.5	16.7	11.8	7.7	38.7	7.8	5.6	3.3	3.6	3.8	3.2	4.3	3.0	2.4	3.1	4.7	3.8	4.4	4.4	38.7	2.4	10.1	
9	4.5	4.7	3.1	6.4	3.5	3.4	2.3	2.7	4.7	3.7	3.3	46.3	32.5	20.7	37.2	36.7	12.3	8.2	12.7	23.8	39.8	28.6	9.5	6.2	46.3	2.3	14.9	
10	5.9	36.2	18.7	4.4	6.9	6.6	7.1	24.6	31.2	10.6	36.9	28.3	65.0	25.3	9.7	6.7	9.4	4.7	7.5	7.0	29.0	13.2	46.0	21.1	65.0	4.4	19.2	
11	27.7	29.7	38.9	9.0	9.2	6.8	7.3	28.0	54.7	7.8	18.7	17.7	31.5	27.6	17.5	26.3	10.0	4.2	6.2	4.8	7.0	4.1	4.7	5.6	54.7	4.1	16.9	
12	6.0	5.7	4.7	3.7	3.7	3.8	2.7	3.0	4.2	3.5	2.7	3.1	2.9	3.5	3.8	3.7	3.2	3.9	4.4	3.7	3.4	3.4	3.9	3.3	6.0	2.7	3.7	
13	2.7	2.4	3.0	2.7	3.8	3.5	2.8	2.6	2.8	3.2	3.2	3.8	3.9	3.1	2.3	3.0	3.2	4.4	5.6	3.2	3.6	4.1	5.5	5.0	5.6	2.3	3.5	
14	3.9	4.1	4.7	4.5	6.7	23.1	23.4	11.7	7.8	8.6	14.2	11.1	5.7	5.0	4.7	5.0	5.5	7.7	7.3	8.0	5.9	7.9	8.4	9.2	23.4	3.9	8.5	
15	6.9	6.1	7.1	3.1	4.8	9.3	5.9	5.4	6.0	4.7	4.4								3.5	3.4	5.0	4.3	4.3	6.1	9.3	3.1	5.3	
16	11.3	6.5	10.3	8.4	15.7	16.7	9.9	8.4	5.2	9.4	6.3	4.7	15.4	21.1	6.9	7.2	11.0	7.2	36.2	7.3	2.5	3.3	2.3	2.2	36.2	2.2	9.8	
17	2.6	3.8	3.6	3.2	2.1	3.0	3.3	3.1	2.4	3.2	3.4	3.1	3.2	4.9	4.0	4.4	3.0	2.8	3.5	3.3	4.5	5.4	5.5	6.8	6.8	2.1	3.7	
18	5.3	4.0	5.2	3.5	4.1	2.9	2.1	2.7	2.1	4.4	4.3	5.8	4.7	3.1	3.2	2.5	3.8	3.4	4.7	3.4	3.4	3.2	4.3	4.3	5.8	2.1	3.8	
19	4.2	3.0	3.6	4.1	5.2	4.2	3.7	3.9	4.5	5.7	3.8	4.0	3.7	3.7	3.9	4.3	5.1	4.1	3.0	2.6	3.4	3.0	4.4	4.0	5.7	2.6	4.0	
20	3.2	3.8	3.0	3.6	3.6	3.7	2.7	2.2	3.3	2.0	1.9	1.6	2.4	2.0	2.6	3.2	2.8	3.1	2.1	2.4	2.3	2.7	2.8	2.9	3.8	1.6	2.7	
21	2.7	3.0	3.0	2.7	3.4	2.5	3.9	5.2	4.1	4.0	6.2	5.4	4.7	3.7	4.0	5.3	5.5	4.4	4.3	3.3	3.4	3.3	3.4	3.3	6.2	2.5	3.9	
22	3.3	3.2	3.5	3.0	2.5	2.5	2.6	2.9	3.1	3.3	3.0	3.4	4.1	3.3	3.5	3.2	3.3	3.1	2.6	3.0	2.4	3.2	3.4	2.6	4.1	2.4	3.1	
23	2.9	2.5	2.6	2.6	2.3	2.4	2.7	4.0	3.0	3.3	2.1	1.9	3.1	2.6	2.3	3.2	4.3	3.3	4.4	5.2	3.4	5.4	3.4	2.9	5.4	1.9	3.2	
24	2.8	3.9	4.7	3.9	3.3	3.1	3.0	4.0	2.6	3.4	3.0	2.7	2.2	2.5	4.2	3.1	3.0	3.8	3.3	2.7	3.4	2.8	2.7	6.4	6.4	2.2	3.4	
25	4.3	3.3	5.5	4.9	5.2	4.7	4.1	2.8	2.4	2.6	2.4	2.1	3.7	2.4	2.7	2.7	3.0	2.9	3.0	2.8	5.6	3.8	2.8	2.5	5.6	2.1	3.4	
26	3.1	2.4	3.1	3.0	2.5	3.7	2.4	2.6	4.3	3.8	3.9	3.9	4.2	3.2	3.7	5.7	6.1	3.0	1.9	3.3	3.4	2.8	4.7	2.5	6.1	1.9	3.5	
27	3.7	2.9	4.2	2.1	3.7	5.2	2.3	2.2	2.2	3.0	3.3	2.5	3.1	2.2	2.5	2.8	2.9	2.5	2.7	2.8	2.5	2.2	2.7	3.2	5.2	2.1	2.9	
28	2.5	2.7	3.0	2.6	2.5	2.3	3.1	3.2	2.8	3.6	4.0	3.5	5.1	4.0	3.7	3.3	3.9	3.2	4.2	3.9	4.3	2.9	3.6	5.3	5.3	2.3	3.5	
29	4.0	2.4	3.0	2.9	3.4	3.3	4.4	3.2	3.3	4.9	2.6	3.1	7.0	7.5	10.8	3.4	3.1	2.0	2.7	5.0	2.9	4.2	5.5	6.3	10.8	2.0	4.2	
30	6.5	5.4	3.0	4.5	6.4	6.0	4.6	7.5	3.6	6.0	2.1	3.5	3.7	2.2	2.4	2.1	2.4	4.8	3.7	3.7	3.4	5.2	23.3	53.3	53.3	2.1	7.0	
31	36.4	10.1	11.2	3.5	8.5	3.2	5.8	4.8	5.7	4.5	2.9	2.7	3.8	3.7	2.3	4.6	3.0	3.0	2.7	2.7	2.4	2.2	3.5	6.6	36.4	2.2	5.8	
<b>Max.</b>	<b>80.2</b>	<b>36.2</b>	<b>45.8</b>	<b>49.0</b>	<b>75.0</b>	<b>27.5</b>	<b>38.6</b>	<b>46.7</b>	<b>54.7</b>	<b>38.7</b>	<b>47.3</b>	<b>46.3</b>	<b>65.0</b>	<b>27.6</b>	<b>37.2</b>	<b>45.8</b>	<b>23.6</b>	<b>13.2</b>	<b>54.4</b>	<b>48.7</b>	<b>49.6</b>	<b>28.6</b>	<b>46.0</b>	<b>65.1</b>	<b>80.2</b>			
<b>Min.</b>	<b>2.5</b>	<b>2.4</b>	<b>2.6</b>	<b>2.1</b>	<b>2.1</b>	<b>2.3</b>	<b>2.1</b>	<b>2.2</b>	<b>2.1</b>	<b>2.0</b>	<b>1.9</b>	<b>1.6</b>	<b>2.2</b>	<b>2.0</b>	<b>2.3</b>	<b>2.0</b>	<b>2.4</b>	<b>2.0</b>	<b>1.9</b>	<b>2.4</b>	<b>2.3</b>	<b>2.2</b>	<b>2.3</b>	<b>2.2</b>		<b>1.6</b>		
<b>Avg.</b>	<b>9.9</b>	<b>9.7</b>	<b>10.1</b>	<b>8.5</b>	<b>9.0</b>	<b>8.1</b>	<b>8.0</b>	<b>8.5</b>	<b>8.9</b>	<b>7.6</b>	<b>9.8</b>	<b>10.3</b>	<b>11.3</b>	<b>8.4</b>	<b>6.5</b>	<b>8.4</b>	<b>6.9</b>	<b>4.9</b>	<b>7.9</b>	<b>7.3</b>	<b>7.8</b>	<b>5.9</b>	<b>7.4</b>	<b>9.9</b>			<b>8.4</b>	
<b>Total Hours in Month</b>	744			<b>Hours Data Available</b>								737				<b>Data Recovery</b>						99.1%						

# Northern Dynasty Mines Pebble 1 Meterological Station - Wind Sigma (RMYoung)

*February 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	4.6	3.1	3.4	3.7	3.4	3.8	2.7	3.0	3.2	3.0	3.1	3.6	3.5	2.4	4.1	2.6	2.1	2.1	3.0	2.7	3.5	3.0	2.0	3.4	4.6	2.0	3.1
2	2.9	3.5	4.1	2.6	3.3	2.5	3.0	2.6	4.6	4.5	4.3	3.3	4.6	3.5	4.4	9.4	20.2	18.3	5.5	4.4	13.4	4.9	4.3	4.9	20.2	2.5	5.8
3	6.7	4.7	6.7	5.5	4.4	4.9	4.3	4.4	4.7	4.2	4.3	4.3	4.3	4.9	4.6	4.0	4.6	4.5	5.0	4.8	4.3	4.4	4.6	4.1	6.7	4.0	4.7
4	4.2	3.8	3.8	3.8	3.6	3.9	4.1	4.4	3.9	4.2	4.1	4.3	4.1	4.4	4.3	4.2	3.9	4.5	4.4	4.1	3.9	4.8	4.4	6.5	6.5	3.6	4.2
5	5.0	5.9	5.3	5.2	5.2	4.7	4.9	4.8	5.2	6.0	6.0	5.3	4.6	4.2	3.8	3.8	3.5	3.6	6.3	10.4	7.4	5.9	5.8	4.2	10.4	3.5	5.3
6	4.4	6.7	6.5	8.1	6.4	5.7	6.5	12.5	10.2	8.2	3.7	4.6	3.6	4.2	4.5	6.0	4.9	5.0	4.6	6.0	5.4	6.9	5.3	5.0	12.5	3.6	6.0
7	4.7	6.8	5.4	3.6	3.5	5.1	6.1	4.8	4.4	3.2	3.3	3.6	3.4	2.6	2.6	2.3	3.8	5.5	5.8	7.4	6.9	15.6	13.0	6.7	15.6	2.3	5.4
8	22.7	9.6	6.5	7.9	4.2	5.6	5.4	5.4	5.7	9.0	9.2	13.0	4.3	3.4	3.2	3.3	3.3	3.5	3.7	3.8	3.9	3.9	4.1	4.0	22.7	3.2	6.2
9	4.4	3.8	4.0	4.1	4.3	4.4	4.0	4.3	7.5	5.7	8.8	6.1	5.5	4.8	5.4	4.1	4.5	4.8	3.6	3.9	3.9	4.3	4.3	4.2	8.8	3.6	4.8
10	4.1	4.4	4.3	3.9	4.0	3.7	3.8	3.8	3.9	3.9	3.8	3.8	4.0	4.6	4.5	4.4	4.2	4.1	3.6	3.7	4.3	4.3	4.5	4.9	4.9	3.6	4.1
11	5.1	4.0	3.5	3.8	9.7	17.5	20.7	19.4	4.4	6.5	4.3	3.4	5.0	4.5	7.7	10.2	11.0	19.5	10.8	5.4	13.3	11.2	5.9	8.7	20.7	3.4	9.0
12	49.7	17.3	6.2	7.7	4.2	5.6	6.4	4.4	2.5	2.7	2.9	3.1	3.0	2.6	3.5	5.4	4.4	10.2	33.8	36.3	22.2	45.0	21.5	25.7	49.7	2.5	13.6
13	11.8	9.0	6.5	5.1	10.3	10.3	8.2	6.1	5.4	9.4	8.2	6.2	8.3	4.9	4.6	3.7	3.9	3.7	3.8	4.2	4.2	4.5	4.5	4.4	11.8	3.7	6.3
14	4.4	4.4	4.1	4.6	4.3	4.5	4.6	4.5	4.7	4.2	3.8	4.0	4.4	4.4	4.4	3.9	3.6	3.5	3.6	3.9	4.0	4.2	4.1	4.0	4.7	3.5	4.2
15	4.1	3.9	3.5	3.8	3.5	3.7	3.9	4.2	4.0	4.0	4.0	3.9	4.4	4.1	3.7	3.7	4.1	5.0	4.5	5.1	5.3	4.3	4.0	4.6	5.3	3.5	4.1
16	7.5	5.7	4.6	5.8	6.4	6.1	4.9	5.1	3.6	6.8	7.4	7.4	5.7	5.0	6.1	5.7	5.6	5.0	6.5	7.7	6.7	5.8	5.8	4.8	7.7	3.6	5.9
17	3.6	5.0	9.2	10.8	10.4	7.6	4.1	3.6	3.4	3.7	3.8	3.7	4.2	3.8	3.9	3.9	3.8	3.6	4.2	3.7	3.8	3.8	4.0	4.3	10.8	3.4	4.8
18	4.5	4.5	4.0	3.9	3.8	4.0	3.7	3.4	3.7	4.2	4.6	4.3	4.2	4.0	4.4	4.3	4.2	4.6	6.7	11.5	5.3	5.7	5.1	5.3	11.5	3.4	4.7
19	7.1	5.7	5.7	7.3	6.2	6.4	8.3	5.3	5.0	12.2	6.3	5.1	8.1	6.1	4.1	3.7	4.2	5.2	6.2	6.7	4.8	3.6	4.1	5.1	12.2	3.6	5.9
20	3.6	4.6	3.6	3.4	3.7	8.0	6.4	11.1	9.6	7.7	8.4	18.0	7.4	4.5	3.8	4.1	7.3	2.6	2.6	2.0	2.1	2.3	2.7	2.3	18.0	2.0	5.5
21	2.1	2.0	1.5	1.8	2.6	2.8	2.1	2.3	2.8	7.6	19.5	18.6	33.3	3.5	12.0	4.0	2.1	12.0	2.1	1.3	9.7	8.7	2.5	6.1	33.3	1.3	6.8
22	6.0	5.9	7.6	9.7	1.8	1.4	2.8	1.4	1.6	6.7	7.9	3.4	4.5	3.2	6.1	5.2	3.3	4.6	5.1	4.6	4.7	5.1	5.6	5.7	9.7	1.4	4.7
23	4.2	3.6	4.2	3.4	3.7	13.9	4.2	1.7	3.0	2.8	4.2	3.2	7.4	7.8	2.5	3.6	2.9	3.0	2.5	3.5	3.5	3.6	4.3	4.3	13.9	1.7	4.2
24	6.5	5.7	6.3	4.8	5.3	2.1	2.5	2.3	8.5	7.9	3.3	3.9	19.6	18.5	25.4	38.0	40.7	5.5	6.9	8.2	12.3	14.0	9.1	10.1	40.7	2.1	11.1
25	9.8	9.3	8.4	10.3	3.1	3.6	3.5	3.9	6.4	6.4	21.3	6.2	5.6	3.9	3.6	3.5	2.3	4.3	3.2	2.6	2.1	2.2	2.2	3.9	21.3	2.1	5.5
26	2.7	2.1	1.7	1.8	3.8	5.1	5.0	2.9	4.6	19.3	20.6	2.7	3.9	4.2	28.9	33.2	8.8	3.6	4.3	4.7	8.5	11.1	16.5	7.0	33.2	1.7	8.6
27	5.7	4.1	23.6	4.7	3.9	3.4	4.1	3.3	3.8	2.7	2.5	2.9	2.5	3.5	3.0	2.9	2.8	2.7	3.0	2.8	2.5	2.1	2.3	2.6	23.6	2.1	4.1
28	2.5	2.7	3.8	3.7	3.2	5.3	5.1	8.3	7.5	4.4	5.4	3.8	2.7	2.9	3.0	2.4	2.5	1.9	2.5	1.9	2.8	4.8	3.6	2.5	8.3	1.9	3.7
<b>Max.</b>	<b>49.7</b>	<b>17.3</b>	<b>23.6</b>	<b>10.8</b>	<b>10.4</b>	<b>17.5</b>	<b>20.7</b>	<b>19.4</b>	<b>10.2</b>	<b>19.3</b>	<b>21.3</b>	<b>18.6</b>	<b>33.3</b>	<b>18.5</b>	<b>28.9</b>	<b>38.0</b>	<b>40.7</b>	<b>19.5</b>	<b>33.8</b>	<b>36.3</b>	<b>22.2</b>	<b>45.0</b>	<b>21.5</b>	<b>25.7</b>	<b>49.7</b>		
<b>Min.</b>	<b>2.1</b>	<b>2.0</b>	<b>1.5</b>	<b>1.8</b>	<b>1.8</b>	<b>1.4</b>	<b>2.1</b>	<b>1.4</b>	<b>1.6</b>	<b>2.7</b>	<b>2.5</b>	<b>2.7</b>	<b>2.5</b>	<b>2.4</b>	<b>2.5</b>	<b>2.3</b>	<b>2.1</b>	<b>1.9</b>	<b>2.1</b>	<b>1.3</b>	<b>2.1</b>	<b>2.1</b>	<b>2.0</b>	<b>2.3</b>		<b>1.3</b>	
<b>Avg.</b>	<b>7.3</b>	<b>5.4</b>	<b>5.6</b>	<b>5.2</b>	<b>4.7</b>	<b>5.6</b>	<b>5.2</b>	<b>5.1</b>	<b>4.9</b>	<b>6.1</b>	<b>6.7</b>	<b>5.6</b>	<b>6.3</b>	<b>4.7</b>	<b>6.1</b>	<b>6.6</b>	<b>6.2</b>	<b>5.6</b>	<b>5.6</b>	<b>6.0</b>	<b>6.2</b>	<b>7.1</b>	<b>5.7</b>	<b>5.7</b>			<b>5.8</b>
<b>Total Hours in Month</b>	672			<b>Hours Data Available</b>									672			<b>Data Recovery</b>					100.0%						

**HCG, Inc.**







## Northern Dynasty Mines Pebble 1 Meterological Station - Wind Sigma (RMYoung)

May 2006

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	Max.	Min.	Avg.
1	3.2	3.2	3.0	2.8	2.9	3.1	3.1	3.0	3.1	3.2	3.6	3.7	3.7	3.4	4.1	4.5	4.2	3.3	4.7	5.2	3.4	4.2	5.0	5.2	5.2	2.8	3.7
2	4.9	5.5	7.1	7.6	13.9	6.9	5.1	11.9	13.3	19.2	9.0	7.3	3.2	3.1	4.0	4.2	3.9	4.0	3.5	3.1	3.0	3.2	3.4	3.3	19.2	3.0	6.4
3	3.0	3.0	3.0	3.0	7.3	5.9	7.1	7.3	10.1	10.5	7.6	10.1	4.8	5.2	5.2	5.2	6.5	6.6	15.9	24.6	43.3	18.4	12.3	15.9	43.3	3.0	10.1
4	6.1	21.6	30.6	17.0	9.2	4.9	3.2	3.1	3.1	3.7	3.6	3.7	3.9	3.6	4.1	3.6	3.7	3.0	3.1	3.2	3.2	3.2	3.4	3.2	30.6	3.0	6.3
5	3.4	3.3	3.3	3.4	3.5	3.3	3.2	3.0	3.4	3.6	3.2	3.6	3.3	3.4	3.4	3.2	3.8	3.8	3.0	3.1	3.7	6.2	10.7	15.7	15.7	3.0	4.3
6	4.1	5.0	9.8	21.1	16.6	19.4	10.5	14.8	9.9	9.0	7.7	5.0	3.4	4.5	4.3	4.3	5.9	5.0	4.1	3.4	3.8	3.5	5.5	5.8	21.1	3.4	7.8
7	11.2	9.6	6.9	5.8	4.0	4.6	6.1	7.8	6.9	8.3	7.3	7.5	6.3	6.2	7.5	8.2	7.3	6.7	7.4	8.0	15.1	20.8	20.7	15.3	20.8	4.0	9.0
8	18.3	11.6	5.6	5.6	8.3	5.6	5.7	6.0	6.1	5.4	6.5	4.7	4.7	4.8	4.8	6.0	5.3	3.8	4.0	8.3	6.6	4.7	5.6	4.8	18.3	3.8	6.4
9	5.0	15.4	15.3	7.0	6.0	6.6	4.7	4.9	6.6	6.4	6.8	8.5	5.4	5.3	3.8	6.4	26.1	31.4	21.0	27.6	22.4	13.5	10.3	10.7	31.4	3.8	11.5
10	7.6	6.5	8.8	35.9	12.2	17.0	26.4	9.1	7.8	7.5	5.8	3.6	5.0	17.5	8.3	35.1	6.0	7.8	3.0	3.6	4.5	3.1	3.7	10.1	35.9	3.0	10.7
11	20.8	16.2	37.3	5.9	9.1	27.1	29.3	55.1	33.8	4.2	6.4	6.9	9.7	3.9	16.3	25.9	10.0	8.1	5.6	3.7	2.6	2.6	4.5	6.4	55.1	2.6	14.6
12	4.3	4.5	6.4	4.3	4.6	3.9	4.0	2.7	2.4	2.6	3.3	3.5	3.5	3.5	3.5	3.4	3.1	2.7	4.0	3.8	5.0	4.6	6.1	6.9	6.9	2.4	4.0
13	4.7	4.2	4.4	4.8	3.5	3.1	9.3	6.6	8.4	55.6	7.1	9.5	15.1	18.0	5.8	2.8	3.6	3.8	14.3	17.6	25.3	36.7	18.6	6.6	55.6	2.8	12.1
14	7.0	6.0	4.7	7.1	9.6	9.4	6.5	6.9	4.7	6.0	8.2	7.2	8.4	8.6	6.2	5.8	5.1	4.3	4.2	3.8	4.1	3.0	3.2	4.2	9.6	3.0	6.0
15	5.8	6.1	4.3	8.4	8.9	11.7	10.9	24.5	12.3	5.8	4.7	41.8	9.7	55.7	11.8	12.3	10.7	5.6	9.4	8.3	4.5	3.9	6.4	3.4	55.7	3.4	11.9
16	4.9	61.6	11.1	34.1	3.3	3.5	7.0	7.7	5.3	4.9	9.2	5.9	3.6	3.8	5.3	9.7	5.3	4.4	3.6	5.0	7.8	3.2	15.8	4.7	61.6	3.2	9.6
17	21.5	8.2	4.8	13.6	7.6	6.1	18.4	33.3	13.2	15.1	11.5	8.4	9.4	7.6	8.1	5.7	5.0	5.9	4.7	4.7	4.1	4.2	5.2	4.6	33.3	4.1	9.6
18	3.7	3.7	4.3	2.9	4.4	8.6	9.5	16.6	22.8	17.8	12.0	6.5	4.2	5.1	4.5	4.6	4.8	2.9	3.8	4.2	2.7	2.5	3.4	55.7	55.7	2.5	8.8
19	15.9	4.4	17.0	32.4	16.6	38.6	50.7	12.1	9.5	7.1	5.6	6.2	5.5	5.2	4.9	4.4	4.4	4.3	4.1	3.9	3.6	4.1	4.4	4.8	50.7	3.6	11.2
20	5.3	5.5	4.6	3.7	3.5	3.4	3.2	3.2	3.7	4.0	4.5	4.1	6.5	4.7	4.4	3.9	5.0	5.9	6.4	16.2	4.2	2.3	3.3	2.7	16.2	2.3	4.8
21	2.1	2.8	2.7	2.6	2.7	2.9	3.2	3.2	3.8	3.5	3.6	3.4	3.7	4.6	4.6	4.0	3.5	3.8	3.5	3.3	3.8	4.8	3.6	3.6	4.8	2.1	3.5
22	3.2	3.4	4.9	3.8	2.8	2.8	3.6	3.6	3.8	4.7	4.5	4.4	5.3	5.9	6.1	8.9	4.9	5.3	5.0	3.8	3.0	3.2	2.7	3.3	8.9	2.7	4.3
23	2.9	3.6	2.9	4.5	3.6	4.5	3.9	4.6	4.9	6.6	7.2	9.2	16.1	24.7	27.1	15.2	16.1	9.6	3.8	3.3	3.9	4.4	3.7	3.4	27.1	2.9	7.9
24	3.1	5.5	4.3	5.3	3.2	5.1	6.1	3.6	4.9	10.9	24.3	10.9	11.2	12.0	11.0	9.8	20.2	16.1	8.8	3.5	3.4	4.6	3.8	1.9	24.3	1.9	8.1
25	2.8	2.9	2.7	2.6	2.9	2.8	2.8	6.3	8.1	13.3	26.0	33.6	21.9	27.6	30.4	39.1	10.3	9.0	6.7	25.9	17.6	6.0	4.0	4.0	39.1	2.6	12.9
26	2.4	2.7	3.2	2.8	2.8	7.8	4.9	5.1	5.1	4.6	6.9	6.6	9.4	13.1	11.2	11.3	6.9	6.0	3.6	3.0	4.0	7.3	10.3	7.1	13.1	2.4	6.2
27	3.7	11.8	9.9	3.2	2.5	2.9	3.6	3.0	3.3	5.4	5.1	5.4	5.7	4.7	4.7	4.4	5.7	7.0	5.2	4.3	7.5	5.3	3.3	5.0	11.8	2.5	5.1
28	8.9	6.5	4.6	18.3	9.9	5.0	7.3	7.1	8.4	13.0	40.7	48.9	39.6	21.3	23.2	21.0	20.3	18.6	19.2	7.5	5.7	18.8	3.9	3.3	48.9	3.3	15.9
29	3.2	3.5	2.8	2.8	4.0	3.1	3.5	5.7	7.0	7.7	7.8	8.6	8.4	9.0	10.0	9.6	10.1	6.9	5.4	4.4	4.4	4.4	3.2	3.6	10.1	2.8	5.8
30	2.6	3.1	3.1	7.4	7.8	13.9	23.2	24.1	8.8	12.9	11.2	11.6	11.1	9.1	11.5	9.1	7.3	6.5	5.2	4.9	4.8	5.2	7.3	6.5	24.1	2.6	9.1
31	4.4	8.2	7.4	18.3	14.5	7.7	7.7	5.6	6.1	7.7	4.8	7.7	9.0	6.0	7.6	6.4	7.7	5.9	8.0	7.4	6.5	15.6	17.8	12.8	18.3	4.4	8.8
<b>Max.</b>	<b>21.5</b>	<b>61.6</b>	<b>37.3</b>	<b>35.9</b>	<b>16.6</b>	<b>38.6</b>	<b>50.7</b>	<b>55.1</b>	<b>33.8</b>	<b>55.6</b>	<b>40.7</b>	<b>48.9</b>	<b>39.6</b>	<b>55.7</b>	<b>30.4</b>	<b>39.1</b>	<b>26.1</b>	<b>31.4</b>	<b>21.0</b>	<b>27.6</b>	<b>43.3</b>	<b>36.7</b>	<b>20.7</b>	<b>55.7</b>	<b>61.6</b>		
<b>Min.</b>	<b>2.1</b>	<b>2.7</b>	<b>2.7</b>	<b>2.6</b>	<b>2.5</b>	<b>2.8</b>	<b>2.8</b>	<b>2.7</b>	<b>2.4</b>	<b>2.6</b>	<b>3.2</b>	<b>3.4</b>	<b>3.2</b>	<b>3.1</b>	<b>3.4</b>	<b>2.8</b>	<b>3.1</b>	<b>2.7</b>	<b>3.0</b>	<b>3.0</b>	<b>2.6</b>	<b>2.3</b>	<b>2.7</b>	<b>1.9</b>		<b>1.9</b>	
<b>Avg.</b>	<b>6.4</b>	<b>8.4</b>	<b>7.8</b>	<b>9.6</b>	<b>6.8</b>	<b>8.1</b>	<b>9.5</b>	<b>10.0</b>	<b>8.1</b>	<b>9.4</b>	<b>8.9</b>	<b>9.9</b>	<b>8.4</b>	<b>10.0</b>	<b>8.6</b>	<b>9.6</b>	<b>7.8</b>	<b>7.0</b>	<b>6.6</b>	<b>7.5</b>	<b>7.7</b>	<b>7.3</b>	<b>6.9</b>	<b>7.9</b>			<b>8.3</b>

**Total Hours in Month** 744      **Hours Data Available** 744      **Data Recovery** 100.0%





## Northern Dynasty Mines Pebble 1 Meterological Station - Total Precipitation (mm)

*August 2005*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	DailyTotal
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	1.00
3	0.2	0.2	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.6	0.6	1.6	1.0	0.8	0.8	0.0	4.2	0.6	0.0	0.0	0.0	0.0	0.0	0.0	10.40
5	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.20
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
17	0.0	0.0	0.0	0.0	0.2	1.8	0.8	0.2	0.2	0.0	0.2	1.4	1.2	0.2	0.4	0.0	0.6	0.4	0.0	0.4	0.0	0.0	0.0	0.0	8.00
18	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.2	2.0	0.0	1.4	10.4	0.6	0.0	0.0	0.0	0.0	16.20
19	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.20
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.2	0.2	0.4	0.2	0.0	0.2	0.0	2.60
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.6	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.2	0.2	0.2	0.2	0.4	1.6	0.8	5.00
23	0.4	0.8	0.4	1.8	1.0	0.2	0.2	0.0	0.0	0.2	0.2	0.8	1.2	0.8	3.4	0.0	0.6	0.2	1.0	0.0	1.0	1.2	0.6	0.8	16.80
24	0.4	0.4	1.2	1.2	0.4	0.4	1.2	0.2	3.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.20
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.8	0.8	0.8	3.80
28	1.2	2.8	1.6	1.0	0.2	0.6	0.4	0.4	0.2	0.2	0.6	0.2	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.2	0.8	0.4	0.4	0.4	12.20
29	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.60
30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00

Total Precipitation (mm) = 86.80

Total Hours in Month

744

Hours Data Available

744

Data Recovery

100.0%

## Northern Dynasty Mines Pebble 1 Meterological Station - Total Precipitation (mm)

*September 2005*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	DailyTotal	
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.4	0.60
3	0.6	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.0	1.4	2.4	2.4	6.60
4	2.6	3.4	3.6	2.6	1.4	1.0	1.0	0.2	0.6	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.80
5	0.6	1.4	0.4	1.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.4	0.4	0.6	2.4	1.6	0.6	2.6	3.2	3.8	1.2	1.4	22.40	
6	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.4	0.4	1.4	1.2	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	4.40
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.4	0.4	0.4	1.20
9	1.4	2.4	1.6	2.4	2.6	1.0	1.4	1.4	2.8	3.2	3.4	1.8	1.6	0.0	0.8	1.8	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	30.60
10	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.20
11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.2	0.0	3.0	2.2	2.8	2.8	8.60
12	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.2	1.0	1.2	0.4	0.6	0.2	0.4	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.00
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.20
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.20
15	0.2	0.2	0.6	0.8	0.6	0.8	0.8	1.0	0.8	0.8	0.2	0.2	0.0	0.2	0.0	0.0	1.8	0.4	0.6	0.2	0.0	0.0	0.6	0.0	0.0	10.80
16	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.4	0.0	0.0	0.0	0.0	1.20
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.20
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.2	0.2	0.6	0.6	1.0	0.2	0.4	0.0	0.2	0.2	0.0	0.2	0.0	0.0	4.00
22	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.0	1.4	1.0	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.00
23	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	3.4	5.2	1.6	1.0	0.0	0.0	0.0	0.0	0.0	11.80
24	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.2	0.0	0.2	0.4	1.8	0.6	0.0	0.0	0.4	0.0	0.6	0.0	0.0	0.2	0.0	0.2	0.2	4.80
25	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.2	0.0	0.6	0.4	0.4	0.2	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	3.80
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.20
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.2	0.8	0.6	0.4	0.8	0.2	0.2	0.2	4.80
28	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.40
29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00

Total Precipitation (mm) = 146.80

Total Hours in Month

720

Hours Data Available

720

Data Recovery

100.0%

**HCG, Inc.**

## Northern Dynasty Mines Pebble 1 Meterological Station - Total Precipitation (mm)

*October 2005*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	DailyTotal	
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
5	0.0	0.0	0.0	0.0	0.2	0.4	0.6	0.4	0.4	0.0	0.2	0.0	0.0	0.0	0.0	0.2	0.4	0.2	0.4	0.4	0.4	0.6	0.6	0.2	5.60	
6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.20
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.8	0.6	1.0	1.2	0.8	0.6	1.0	0.6	0.4	0.6	0.8	9.00	
8	0.6	0.2	0.0	0.0	0.0	0.0	0.2	0.2	0.4	0.6	0.8			0.6	0.4	0.4	0.6	0.0	0.4	0.0	0.0	0.0	0.2	0.0	5.60	
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.20	
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.20
12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.60
14	0.6	0.6	0.4	0.6	0.6	0.6	0.6	0.2	3.0	0.2	0.4	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.00
15	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.20
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	1.20	
17	0.8	0.4	0.2	0.0	0.0	0.0	0.2	1.6	2.2	5.0	4.8	0.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.20
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.20
19	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.2	0.0	0.0	0.80
20	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.40
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.80
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.20
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2		0.20
24																										
25																										
26																										
27																										
28																										
29																										
30																										
31																										

Total Precipitation (mm) = 52.60

Total Hours in Month 744

Hours Data Available 548

Data Recovery 73.7%



## Northern Dynasty Mines Pebble 1 Meterological Station - Total Precipitation (mm)

*November 2005*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	DailyTotal		
1																											
2																											
3																		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.20	
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	
6	0.0	0.0	0.0	1.0	0.4	0.2	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.80	
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	
10	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	
11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	
12	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.20	
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.80	
15	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.20	
16	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.2	0.2	0.4	0.4	0.2	0.4	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	2.80	
17	0.0	0.2	0.0	0.2	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.80	
18	0.0	0.0	0.0	0.0	0.8	0.4	0.6	0.4	0.2	0.0	0.2	0.2	0.6	0.4	0.4	0.2	0.2	0.4	1.6	0.4	0.4	0.2	0.0	0.0	0.0	7.60	
19	0.0	0.0	0.0	0.2	0.0	0.4	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.00	
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.4	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.60	
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	
23	0.0	0.0	0.5	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.76	
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	1.27	
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.3	0.0	0.0	1.52	
26	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.76	
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.25	
29	0.0	0.0	0.3	1.0	0.0	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.79	
30	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.76	

Total Precipitation (mm) = 24.13

Total Hours in Month

720

Hours Data Available

652

Data Recovery

90.6%

**HCG, Inc.**

## Northern Dynasty Mines Pebble 1 Meterological Station - Total Precipitation (mm)

*December 2005*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	DailyTotal	
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.51
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.5	0.0	0.3	0.0	0.3	0.0	0.0	0.5	0.5	0.0	0.0	0.0	0.0	2.54
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
5	0.0	0.0	0.0	0.0	0.0	2.0	2.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.11
6	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	1.0	0.0	3.3	0.8	2.5	1.0	0.5	1.0	1.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.70
7	0.0	0.0	0.8	0.0	0.0	0.0	0.0	6.9	2.0	0.8	0.8	0.0	1.8	0.0	1.8	2.0	0.0	0.8	2.5	1.0	0.0	0.8	0.8	2.0	0.0	24.64
8	1.3	1.0	2.8	2.3	1.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.89
9	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	1.3	1.3	0.0	1.3	0.5	0.5	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.10
10	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.27
11	0.0	0.8	0.3	0.3	0.0	0.5	0.8	0.0	0.5	0.5	0.0	0.5	0.0	0.5	0.5	0.3	0.3	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.10
12	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.25
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8	0.0	4.83
14	0.0	0.0	0.8	0.0	3.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.83
15	0.0	0.0	0.8	0.0	1.0	0.0	2.5	0.8	0.3	1.3	0.0	0.3	0.8	1.0	1.8	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	11.94
16	1.0	0.8	0.0	0.0	2.0	0.8	0.3	0.0	1.8	1.0	0.5	1.0	0.0	1.0	1.8	0.5	1.3	1.0	0.5	0.8	0.3	0.0	0.0	0.0	0.0	16.26
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
18	0.0	0.0	0.0	0.3	0.0	0.0	0.0	1.5	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.54
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	1.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.29
20	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.25
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.25
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.51
27	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.76
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
29	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	1.5	0.3	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	3.30
30	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.51
31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00

Total Precipitation (mm) = 118.36

Total Hours in Month

744

Hours Data Available

744

Data Recovery

100.0%

## Northern Dynasty Mines Pebble 1 Meterological Station - Total Precipitation (mm)

*January 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	DailyTotal
1	0.0	0.0	0.3	0.0	0.0	0.5	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.02
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.25
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.76
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
8	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.51
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.25
10	0.0	0.0	0.5	1.0	0.5	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.29
11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.25
12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.25
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
21	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.3	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.03
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.02
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
28	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.25
29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.25

Total Precipitation (mm) = 9.14

Total Hours in Month

744

Hours Data Available

741

Data Recovery

99.6%

## Northern Dynasty Mines Pebble 1 Meterological Station - Total Precipitation (mm)

*February 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	DailyTotal	
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	
2	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.51
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
4	0.0	0.8	0.0	0.0	0.0	0.0	1.3	1.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	1.8	0.0	2.0	0.0	1.8	2.5	3.8	15.75	
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	2.0	0.0	0.0	0.0	0.0	0.0	4.06	
6	0.0	1.0	0.5	0.0	0.0	0.8	1.0	0.5	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.86	
7	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.02	
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.8	0.0	0.0	0.0	0.0	2.3	3.81	
9	0.8	0.0	0.0	0.0	0.0	5.8	3.8	1.3	0.8	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	15.49	
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.4	4.1	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.43	
11	0.0	0.0	0.0	0.8	0.8	0.0	0.0	1.3	1.8	1.0	0.8	0.0	0.0	1.8	1.8	1.3	1.8	1.8	1.8	0.8	0.0	0.3	0.0	0.3	17.78	
12	0.8	0.5	0.0	0.3	0.0	0.8	0.8	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.56	
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	1.3	2.79	
14	0.0	0.0	0.0	0.0	0.0	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.02	
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	2.0	0.5	0.8	1.3	0.0	7.87	
16	1.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	1.52	
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	2.0	7.37	
18	0.5	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.8	0.0	2.0	0.0	0.0	0.0	0.0	2.0	2.0	2.3	1.3	0.0	1.5	0.0	0.0	12.95	
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	
20	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.02	
21	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.51	
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.5	0.0	0.76	
23	0.5	0.5	0.8	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.54	
24	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.25	
25	0.0	0.0	0.0	0.8	0.5	0.0	0.0	0.0	1.3	1.3	0.0	0.0	0.3	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.32	
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.8	2.5	4.06	
27	1.3	0.8	0.3	0.0	0.0	0.8	0.0	0.0	0.8	0.0	0.0	0.0	1.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.86	
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0	1.27	

Total Precipitation (mm) = 135.38

Total Hours in Month

672

Hours Data Available

671

Data Recovery

99.9%

**HCG, Inc.**

## Northern Dynasty Mines Pebble 1 Meterological Station - Total Precipitation (mm)

*March 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	DailyTotal	
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.76
2	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	2.03
3	0.3	0.3	0.0	0.0	0.0	0.0	0.5	0.5	0.0	0.3	0.3	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.29
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.5	0.0	0.8	0.5	0.3	0.8	0.0	0.0	0.0	4.06
5	0.5	0.0	0.5	1.8	0.5	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	1.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.83
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.25
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.29
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	1.5	0.0	0.0	3.05
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.8	0.0	5.59
12	0.0	0.0	0.0	1.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.3	0.3	0.0	0.0	0.3	0.0	0.0	0.0	0.0	3.30
13	0.0	0.3	0.0	0.3	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.76
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.25
18	0.0	0.0	0.0	0.5	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	2.29
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	1.3	1.0	1.5	2.3	0.5	1.0	1.5	0.0	0.0	11.43
20	1.0	0.5	0.0	0.3	0.0	0.8	0.3	0.5	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.5	0.0	0.0	0.0				0.0	0.0	4.57
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.25
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.76
31	1.8	1.3	0.0	0.0	0.0	0.0	0.0	2.5	1.3	7.9	1.0	1.0	1.3	0.5	0.5	0.5	0.3	0.3	0.0	0.3	0.5	0.0	0.3	0.0	0.0	21.08

Total Precipitation (mm) = 69.85

Total Hours in Month

744

Hours Data Available

742

Data Recovery

99.7%

HCG, Inc.

## Northern Dynasty Mines Pebble 1 Meterological Station - Total Precipitation (mm)

*April 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	DailyTotal
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	1.8	0.0	1.0	1.0	0.8	0.8	0.3	0.3	0.0	0.0	0.0	0.0	6.10
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.8	0.5	1.5	1.0	0.0	1.8	0.8	0.8	0.5	8.89
9	0.3	0.0	0.8	0.5	0.5	0.5	0.5	0.5	0.3	0.5	0.8	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.10
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.8	0.5	2.29
12	0.0	0.0	1.0	0.5	0.5	1.3	0.5	0.0	1.0	0.0	0.0	0.0	0.0	1.5	2.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.14
13	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.3	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.03
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.54
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	2.8	1.8	0.0	0.0	0.0	5.33
17	0.0	0.0	0.0	0.0	0.0	2.3	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.79
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
21	0.0	0.0	0.0	1.3	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.8	0.0	1.3	0.0	0.0	0.0	0.0	6.10
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00

Total Precipitation (mm) = 51.31

Total Hours in Month 720

Hours Data Available 720

Data Recovery 100.0%

## Northern Dynasty Mines Pebble 1 Meterological Station - Total Precipitation (mm)

*May 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	DailyTotal
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	1.5	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	3.30
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
4	0.0	0.0	1.0	1.3	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.30
5	0.0	0.0	0.0	0.0	0.0	1.8	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.0	0.8	0.0	0.0	0.0	0.0	0.3	0.0	0.3	4.83
6	0.0	0.0	1.0	1.0	1.3	1.3	0.3	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.84
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.51
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.51
11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.51
12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.51
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
18	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.51
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
20	0.5	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.78
21	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.25
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00

Total Precipitation (mm) = 21.84

Total Hours in Month

744

Hours Data Available

744

Data Recovery

100.0%

## Northern Dynasty Mines Pebble 1 Meterological Station - Total Precipitation (mm)

*June 2006*

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	DailyTotal	
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00	
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	1.0	0.0	0.0	0.5	0.0	0.0	1.78
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.76
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	1.52
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	1.3	2.29
11	0.0	0.0	0.0	0.0	1.3	0.0	0.0	1.8	0.5	0.0	0.3	0.8	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	6.35
12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	3.8	1.3	0.3	0.0	7.37
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.25
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	3.0	1.8	0.5	1.0	2.3	2.8	0.8	0.0	0.0	14.48
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	2.3	2.8	2.0	1.5	1.0	0.5	0.3	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.18
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.51
18	0.0	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	1.78
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.25
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.78
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.25
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	1.0	3.6	0.8	0.0	0.3	3.3	2.5	1.3	0.5	1.0	16.26
23	0.8	0.8	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.78
24	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
25	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.76
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.8	0.3	1.78
30	0.5	1.5	1.8	2.3	1.8	2.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.16

Total Precipitation (mm) = 81.28

Total Hours in Month

720

Hours Data Available

719

Data Recovery

99.9%

**HCG, Inc.**



## Northern Dynasty Mines Pebble 1 Meterological Station - Total Precipitation (mm)

July 2006

Day	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	2400	DailyTotal
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.76
6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
10	0.0	0.0	0.0	0.0																		0.0	0.0	0.0	0.00
11	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.51
12				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0					0.0	0.0	0.0	0.0	0.0	0.0	0.00
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
15	0.0	0.0	0.5	0.0	0.3	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.02
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
19	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.76
20	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.5	0.0	1.27
22	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	1.27
24	0.0	0.0	0.3	0.8	0.3	0.5	0.5	0.0	0.3	0.3	0.5	0.5	0.0	0.3	0.0	0.8	0.5	0.0	0.3	0.0	0.0	0.0	0.0	0.0	8.38
25	0.0	1.0	1.0	1.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.8	0.5	0.0	0.3	0.0	0.0	0.0	0.0	0.0	5.08
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.00
29	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.25
30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.25
31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.25

Total Precipitation (mm) = 19.81

Total Hours in Month

744

Hours Data Available

720

Data Recovery

96.8%

HCG, Inc.

## Northern Dynasty Mines Pebble 1 Meteorological Station - Daily Total Pan Evaporation (mm)

*August 2005- July 2006*

Day	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
1	1.6	3.3	0.0	-	-	-	-	-	-	-	0.2	1.0
2	0.0	1.5	0.0	-	-	-	-	-	-	-	4.1	5.6
3	0.0	0.0	0.8	-	-	-	-	-	-	-	5.5	6.6
4	0.0	0.0	7.9	-	-	-	-	-	-	-	9.0	4.5
5	1.1	0.0	0.0	-	-	-	-	-	-	-	6.6	5.6
6	3.6	0.0	0.0	-	-	-	-	-	-	-	6.2	0.0
7	3.3	0.5	0.0	-	-	-	-	-	-	-	7.2	0.0
8	3.8	0.0	0.0	-	-	-	-	-	-	-	0.0	0.0
9	8.1	0.0	-	-	-	-	-	-	-	-	4.1	1.1
10	4.6	0.0	-	-	-	-	-	-	-	-	2.9	7.2
11	5.3	0.0	-	-	-	-	-	-	-	-	0.0	4.1
12	7.5	0.0	-	-	-	-	-	-	-	2.0	0.0	0.2
13	6.0	0.1	-	-	-	-	-	-	-	7.6	0.0	5.5
14	4.7	1.6	-	-	-	-	-	-	-	4.0	1.3	0.0
15	3.8	0.0	-	-	-	-	-	-	-	4.6	0.0	0.0
16	2.9	0.0	-	-	-	-	-	-	-	1.9	0.0	0.4
17	0.0	0.0	-	-	-	-	-	-	-	2.1	0.0	3.4
18	0.0	0.7	-	-	-	-	-	-	-	0.3	0.0	2.7
19	3.3	2.2	-	-	-	-	-	-	-	2.4	1.8	3.7
20	0.0	1.4	-	-	-	-	-	-	-	0.0	1.0	6.8
21	1.8	0.0	-	-	-	-	-	-	-	0.0	1.1	0.0
22	0.0	0.0	-	-	-	-	-	-	-	3.1	0.0	1.3
23	0.0	0.0	-	-	-	-	-	-	-	4.0	0.0	0.0
24	0.0	0.0	-	-	-	-	-	-	-	4.5	1.3	0.0
25	3.1	0.0	-	-	-	-	-	-	-	6.0	2.3	0.0
26	5.1	4.0	-	-	-	-	-	-	-	8.4	5.2	3.8
27	0.0	0.0	-	-	-	-	-	-	-	9.8	4.0	1.0
28	0.0	0.0	-	-	-	-	-	-	-	6.9	6.0	4.8
29	0.0	0.0	-	-	-	-	-	-	-	10.1	0.0	0.6
30	0.7	0.0	-	-	-	-	-	-	-	6.8	0.0	0.0
31	3.1		-		-	-		-		3.7		0.6
Total	73.7	15.4	8.7	-	-	-	-	-	-	88.1	69.8	70.4

## **Appendix E**

### **Validated Manual Particulate Data**

Not Applicable.