



PEREGRINE
DIAMONDS LTD.

**BAFFIN ISLAND WEATHER-MONITORING PROJECT
ANNUAL REPORT FOR 2012 AS PER
NUNAVUT RESEARCH INSTITUTE LICENCE #01-002-12R-M**

**Issued to: Shirley Standafer-Pfister
Peregrine Diamonds Ltd.
#201 – 1250 Homer Street
Vancouver, BC V6B 1C6**

Date: 02 October 2012



BAFFIN ISLAND WEATHER-MONITORING PROJECT ANNUAL REPORT FOR 2012

Introduction

In 2010, Peregrine Diamonds Ltd. (Peregrine) was invited by Baffinland Iron Mines (Baffinland) to take part in a pilot weather-research project, “The Baffin Island Intelligent Monitoring Project”, led by Laurentian University and conducted by remote-sensing service provider, Symboticware Incorporated (Symboticware), of Sudbury, ON. The purpose of the research initiative is development of intelligent remote-monitoring technology to provide critical weather data for exploration and mining projects in remote areas of Baffin Island, where extreme cold and sustained periods of darkness predominate and effects of climate change have been observed but not scientifically tracked: This presents risk to projects and their personnel. Meteorological data will add to understanding of climate trends and changes, and assist Peregrine in activity planning and potential future environmental assessment, should Peregrine’s Chidliak Project on the Hall Peninsula advance toward development.

To that end, in July 2010, a tripod-mounted meteorological station was tested at Peregrine’s Discovery Camp, approximately 120km north of Iqaluit. In 2011, Peregrine commenced a formal pilot project, “The Baffin Island Weather-Monitoring Project”, under Nunavut Research Institute (NRI) Licence #01-083-11N-M. The focus of this report is followup work conducted in Year Two by Symboticware and Laurentian University environmental-monitoring professor Dr. Charles Ramcharan between 09 and 10 August 2012.

Station Details

Location: 300m northwest of Discovery Camp.

Infrastructure: Two 3m-tall tripods with 330cm leg diameter (one tripod for dataloggers, one tripod for power).

Power system: Two solar panels (85W each), 12V/345Ahr battery bank for Symbot Lite (Symboticware proprietary datalogging unit) and sensors, and a 12V/115Ahr battery bank for a backup CR10X Campbell Scientific datalogger.

Dataloggers: Symbot Lite, CR10X (backup unit).

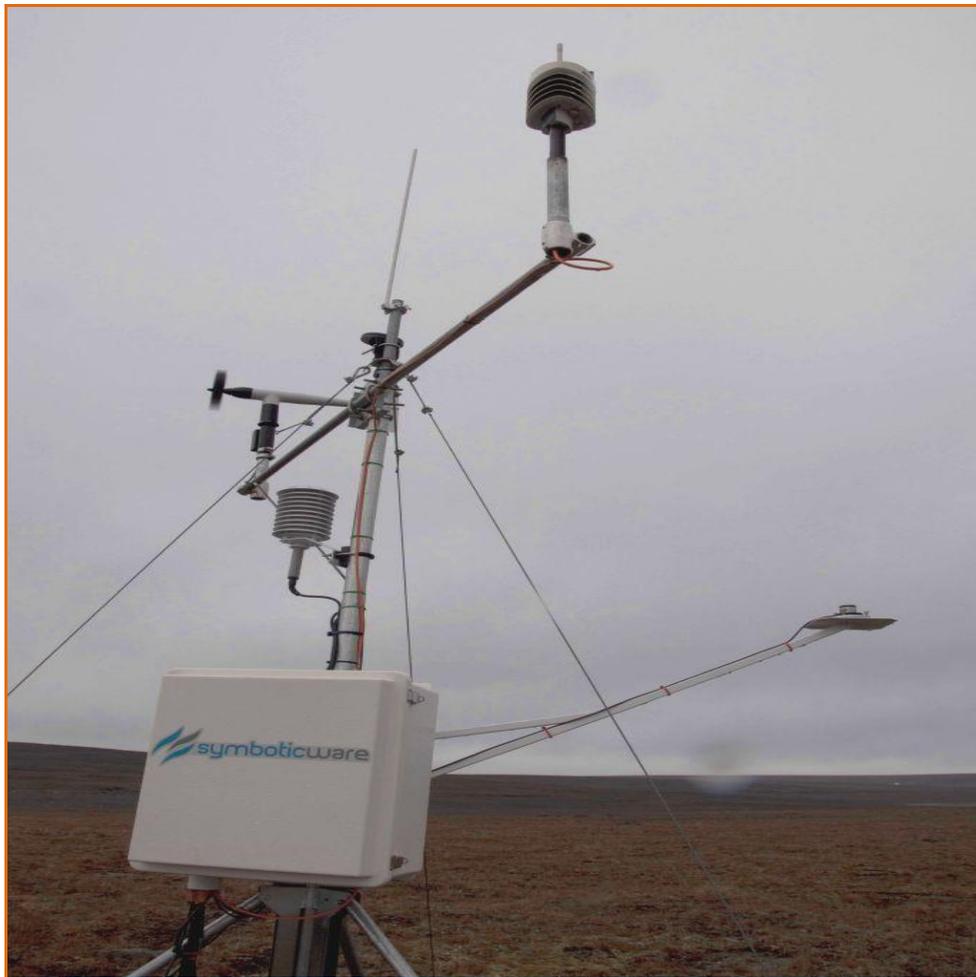
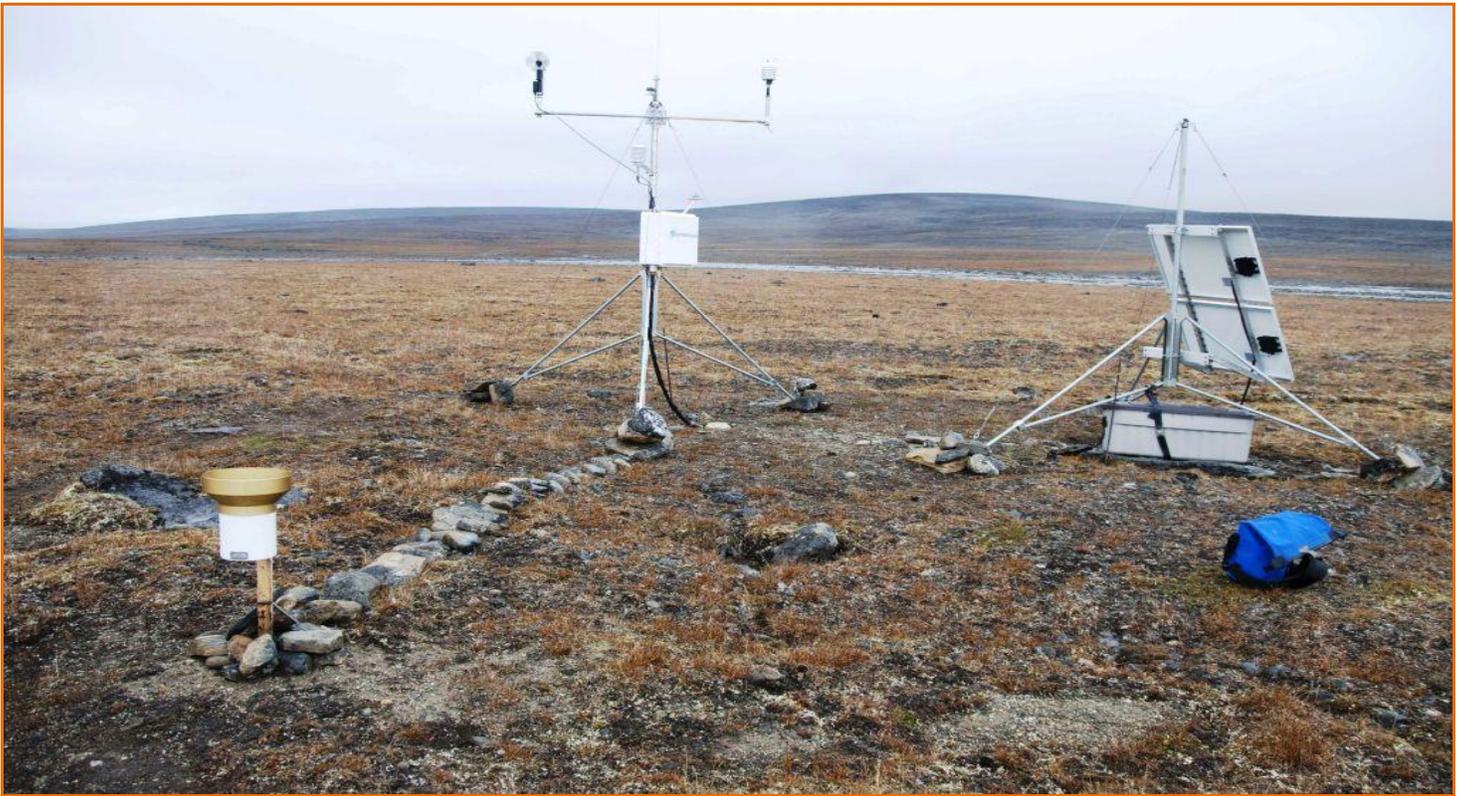
Sensors: Wind Speed, Wind Direction, Solar Radiation, Rain, Temperature/Humidity and Multi-Value Sensor (Vaisala WXT520).

Personnel for 2012: Dr. Ramcharan of Laurentian University and Andrew Tiernay, a Symboticware technician.

Accessing the data: The data collected is available to Peregrine and Dr. Ramcharan via Symboticware’s web portal, Symsite.

Work Completed in 2012

The purpose of the visit was threefold – checkup, maintenance and verification of satellite connectivity and accurate data transmission. Visual inspection revealed no problems. The battery compartment was secure, although there was water inside; some holes were drilled in the bottom to allow drainage. All other components, including the two tripods, solar panels, Vaisala WXT-520 sensing unit, antenna and controller box were intact and secure. The station appeared undamaged, despite heavy snow accumulation and high winds during the preceding winter, which was an improvement over the condition of the station in 2011. During the visit, the station was transmitting data accurately and regularly. Prior to the visit, several occurrences of inaccurate wind-speed data had arisen; this was investigated and the wind-speed corrected back to metres per second, the base unit for wind speed on the Symsite. A reported temperature error also was investigated; it appeared that the readings reported were an anomaly. One failure discovered was that the backup CR10X datalogger was not collecting data due to communication issues, though no loss of existing data is expected. Focus of the 2013 service trip should be collection of the CR10X data and the CR10X programme (the latter, in order to plan for sensor replacement in future).



TOP: Tripods with rain gauge in foreground. ABOVE: Sensor tripod with instruments and Vaisala weather unit.