

FORM 53-901F
MATERIAL CHANGE REPORT UNDER
SECTION 85(1) OF THE *SECURITIES ACT* (BRITISH COLUMBIA)

1. Reporting Issuer

ARCTIC STAR DIAMOND CORP.
Suite 1818, 701 West Georgia Street
Vancouver, British Columbia, V7Y 1C6

2. Date of Material Change

February 22, 2010

3. Press Release

The Press Release dated February 22, 2010 was disseminated via Market News Publishing and Canada Stockwatch.

A copy of the news release is attached as Schedule "A".

4. Summary of Material Change

The Company announces results from 2009 indicator mineral in till sampling, further confirm and focus the source area of the alpha train at Credit Lake.

5. Full Description of Material Change

For a full description of the material change, please see Schedule "A".

6. Reliance on Section 85(2) of the Act

Not Applicable

7. Omitted Information

Not Applicable

8. Senior Officers

Patrick Power, President and Director
Binny Jassal, CFO
(604) 689-1799

9. Statement of Senior Officer

The foregoing accurately discloses the material change referred to herein.

Dated at Vancouver, British Columbia on the 22nd day of February, 2010.

ARCTIC STAR DIAMOND CORP.

Per:

"Patrick Power"
PATRICK POWER

SCHEDULE "A"

ARCTIC STAR DIAMOND CORP.
Suite 1818 – 701 West Georgia Street,
P.O. Box 10144
Vancouver, British Columbia
V7Y 1C6
Tel: 604-689-1799
Fax: 604-689-8199

February 22, 2010

TSX.V: ADD

RESULTS FROM 2009 INDICATOR MINERAL IN TILL SAMPLING, FURTHER CONFIRM AND FOCUS THE SOURCE AREA OF THE ALPHA TRAIN AT CREDIT LAKE, NT

Arctic Star Diamond Corp. ("Arctic" or the "Company") is pleased to report that detailed kimberlite indicator mineral (KIM) sampling at the head of the South Coppermine River indicator mineral Train (aka "Alpha" train) has narrowed exploration to a small area about 2 by 2 kilometers in the SE part of the Credit Lake property NT. The Alpha train is an extensive kimberlite indicator mineral dispersal train that extends from a source in the SE part of the Credit Lake property for 20 kilometers down-ice.

New results from 71 till samples collected in 2009 at the head of the Alpha train returned two highly anomalous samples. Sample 31679 returned 100 KIM grains (including 75 pyrope garnets), and sample 31644 returned 67 KIM grains (including 35 pyrope garnets). Although KIM grains have not yet been probe confirmed, they are consistent with previous samples in the area. The samples are located in the northern part of the head of the Alpha train. The remaining samples returned background counts of kimberlitic indicator minerals, closing the train off to the east.

Buddy Doyle, VP Exploration for Arctic said, "The current KIM sample database suggests kimberlites sampled by glaciation likely occur in a small cluster at the head of the Alpha Train. The Abyss topographic target, and conductive and magnetic geophysical anomalies that are well positioned relative to anomalous till samples, will be tested during an exploration program that is planned to commence next month."

Another 25 regional diamond till samples were collected from the Crown Claims, north of the E'kati™ Diamond Mine. From 25 till samples one anomalous sample with 83 KIMs (3 pyrope, 1 orthopyroxene and 79 olivine). Although the KIMs are not yet probe confirmed, the results warrant follow-up exploration on the Crown Claims.

Arctic Star will present the Credit Lake diamond exploration program at a Prospectors & Developers Association of Canada (PDAC) Exchange Forum Presentation on Tuesday, March 9, 2010, at 2:20PM in Room 803 AB Diamonds in the South Building of the Metro Toronto Convention Centre.

The Qualified person for this news release as per the guidelines of the NI 43-101 is Buddy Doyle.

Neither TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this release.

Statements Regarding Forward-Looking Information: *Some statements contained in this news release are forward-looking statements. Investors are cautioned that forward-looking statements are inherently uncertain and involve risks and uncertainties that could cause actual results to differ materially. There can be no assurances that future developments affecting Arctic will be those anticipated by management.*