FOLLOWING INDICATOR MINERALS TO CHIDLIAK, CANADA’S NEWEST DIAMOND DISTRICT

Indicator Mineral Workshop
24th Annual IAGS
Fredericton, NB, Canada
May 31, 2009
CHIDLIAK PROJECT

ACKNOWLEDGEMENTS

PEREGRINE TEAM
Lauren Anonby
Robert Boyd
Alan Carter
Jonathan Challis
Tabiana Chernenko
Brooke Clements
Rod Davey
Eric Friedland
Julie Gammer
Hugo Grenon
Peter Holmes
Gordon Keep
Lacey Kelly
Karen Kwasnicki
Eric Lam
Betty MacArthur
Wendy Mathison
Duncan McBean
Sophia Morris
Sonya Neilson
JenniferPELL
Maiko Sell
Greg Shenton
Shirley Standafer-Pfister
Lorraine Tam
Students and contract employees

CONTRACTORS
CF Minerals
Discovery Mining Services
Fugro Airborne Surveys
Heli-Inter
Matrix Helicopter Solution
Overburden Drilling
Management
Qikiqtaaluk Logistics
Remote Camp Services
Saskatchewan Research Council
Unaalik Aviation

bhpbilliton
resourcing the future
• Chidliak Discovery History
• Chidliak kimberlites geology and diamond content
• 2009 Chidliak Exploration programme
• Conclusions
In 2005, BHP Billiton and Peregrine co-funded a regional reconnaissance till sampling program over the southern half of Baffin Island for diamonds and metals. BHP Billiton was operator. Between 2006 and 2008, Peregrine acquired permits in 5 project areas (2.7 M ha), 100%-owned, operated and funded by Peregrine, subject to BHP Billiton earn-in rights.

- **Chidliak** (Diamond, Pt, Pd, Cu, Pb-Zn, Au)
  - Flint Lake Project (U, Cu, Au)
  - Mirage Project (Diamond)
  - Kimmirut Project (U, Cu, Ni)
  - Timmijuq Project (Cu)

**Chidliak**
- Prospecting Permits
- Other Peregrine Projects
- Communities
- Community Air Strip
- DEW Line Air Strip
• 100% owned by Peregrine

• BHP Billiton has exercised earn-in rights
  • BHP Billiton must spend $22.3 Million (5X Peregrine’s previous expenditures) over 5 years to earn a 51% interest
  • BHP Billiton can earn an additional 7% by sole-financing a fully engineered bankable feasibility study on the property

• Each party markets their pro-rata share of the diamonds. If BHP Billiton sole-finances a feasibility study, they retain 100% of the marketing rights for only the first 3 years of production.
REGIONAL GEOLOGY

Modified from Chorlton, 2007; Scott et. al., 2002; Berman et. al., 2005; and St-Onge et. al., in press

Kimberlite Fields

Major Faults

Somerset Island early 1970’s
Brodeur Peninsula 1975
Borden 2000
Erichsen Lake ~2004
Amaruk 2006
Aviat 2002
Wales Island 2004
Qialuligaq 2003
Churchill & Meliadine 2003
NANUQ/NANUQ NORTH 2007/2008

Greenland
Rae Craton
Disko Bay
Garnet Lake
Maniitsoq

CHIDLIAK 2008

700 km
North Atlantic Craton

Geology Legend:
- Phanerzoic Cover
- Proterozoic Intracratonic Basins
- Proterozoic Intrusions
- Proterozoic Mobile Belts
- Proterozoic Metasediments and Associated Basement
- Archean with Proterozoic Overprint
- Archean
- Glacier

Modified from Chorlton, 2007; Scott et. al., 2002; Berman et. al., 2005; and St-Onge et. al., in press
DIAMONDS DISCOVERED BY TILL SAMPLING FOLLOWED BY GEOPHYSICS, PROSPECTING AND MINI-BULK SAMPLING
EXPLORATION HISTORY
2005-2997 INDICATOR MINERAL SAMPLING

GLACIAL HISTORY
Major ice divide transects project area
Short glacial transport distances

Kimberlite Indicator Minerals (KIMs) Probe Confirmed
- 70
- 88
- 1
- Garnet
- Chrome Diopside
- Irunite
- Chromite
- Negative Sample

Dominant Ice Flow Vectors

Chidiak Property Boundary
Glacier
ICE MOVEMENT
CHIDLIAK INDICATORS FROM TILL SAMPLES

- FRESH
- COARSE
- ANGULAR
- MULTIPLE SPECIES
- ALTERATION RIM ON ILMENITE
- KELYPHITE ON GARNET

= LOCAL SOURCE

5 MM
10.5% G10s
N = 3330

After Gurney, 1984 and Grütter et. al., 2004
EXPLORATION HISTORY

2008 AIRBORNE GEOPHYSICS

Helicopter-borne Magnetics and EM flown on areas with abundant KIMs

Only 15% of project area covered by geophysics

More than 170 kimberlite pipe-type anomalies identified

Three distinct clusters of KIMs
TRUE MAGNETIC N

4 DAYS AFTER SURVEY STARTED CH-1 KIMBERLITE PIPE DISCOVERED

LARGE PIPES CH-1 = 6 ha; CH-2 = 3 ha AS ESTIMATED FROM GEOPHYSICAL SIGNATURES (MAG + EM)

OTHER PIPE-TYPE ANOMALIES PRESENT IN CLOSE PROXIMITY

AIRBORNE MAGNETICS

CH-1
CH-2

MAGNETIC N TRUE N
CH-1B  IN FROST BOILS IN A LARGE AREA OVER THE GEOPHYSICAL ANOMALY

CH-1 & 2 Multi-phase Kimberlites

Olivine
Pyrope garnet

MAIKO SELL AT CH-1A OUTCROP
COHERENT KIMBERLITE
CH-1A: MONTICELLITE SERPENITINE KIMBERLITE
CH-1B: CARBONATE +/- SERPENTINE KIMBERLITE

DISCOVERY
CH-1 Mantle Signature

- Eclogite Nodule
- Chrome diopside megacryst
- Olivine megacryst
- Lherzolite Nodule
- Kimberlite host

Eclogite Nodule

Eclogite Nodule

Kimberlite host
CH-1 KIMBERLITE
CH-1C
FOUND AS BOULDERS

PALEOZOIC CARBONATES ON WEST BAFFIN ARE ORDOVICIAN
KIMBERLITES MUST BE YOUNGER
LESS THAN ~475 MA

Pyrope garnets

Paleozoic Carbonate Fragments
IDEALIZED MODEL OF A CANADIAN KIMBERLITE

CH-1 KIMBERLITE

CH-1C
PYROCLASTIC KIMBERLITE

Broken olivine grains

Primary pyroclast

Rock fragment

PYROCLASTIC KIMBERLITE INFILLS PIPE VENT

CRATER
Resedimented Volcaniclastic Kimberlite +/- Pyroclastic Kimberlite

VENT
Volcaniclastic / Pyroclastic Kimberlite

HYPABYSSAL
Coherent Kimberlite
~12 KM FROM CH-1

MAGNETIC TRUE
N N

CH-3 = 2 ha (ESTIMATED) PIPE-TYPE ANOMALY ALONG THE SIDE OF A DIABASE DYKE

CH-3 COHERENT KIMBERLITE

OTHER PIPE-TYPE ANOMALIES IN THE IMMEDIATE VICINITY
HUGO GRENON AND PETER HOLMES AT THE CH-3 DISCOVERY, SEPTEMBER 9, 2009
### INITIAL CAUSTIC FUSION DIAMOND RESULTS

<table>
<thead>
<tr>
<th>Sample</th>
<th>Sample Weight (kg)</th>
<th>Numbers of Diamonds According to Sieve Size Fraction (mm)</th>
<th>Total Carats &gt;0.850 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>0.075 0.6</td>
<td>0.6 -0.85</td>
</tr>
<tr>
<td>CH-1A(1)</td>
<td>100</td>
<td>42</td>
<td>2</td>
</tr>
<tr>
<td>CH-1B(1)</td>
<td>94.9</td>
<td>136</td>
<td>4</td>
</tr>
<tr>
<td>CH-1C</td>
<td>94</td>
<td>169</td>
<td>8</td>
</tr>
<tr>
<td>CH-2</td>
<td>356.6</td>
<td>369</td>
<td>2</td>
</tr>
<tr>
<td>CH-3</td>
<td>253.7</td>
<td>189</td>
<td>0</td>
</tr>
</tbody>
</table>

The microdiamond analyses were completed by the Saskatchewan Research Council Geoanalytical Laboratories (SRC), which is accredited to the ISO/IEC 17025 standard for microdiamond recovery via caustic fusion.
# CHIDLIAK

## CH-1 MINI-BULK SAMPLE DIAMOND RESULTS

<table>
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<tr>
<th>Sample</th>
<th>Sample Weight (kg)</th>
<th>Numbers of Diamonds According to Sieve Size Fraction (mm)</th>
<th>Total Diamonds</th>
<th>Total Carats &gt;0.850 mm</th>
<th>Total Carats &gt;1.18 mm</th>
<th>Diamond Content (+0.85mm) (cpt)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CH-1A</td>
<td>1,174</td>
<td>69 -0.85, 9 -1.18, 5 1.18, 1 2.36, 1 4.75</td>
<td>85</td>
<td>2.55</td>
<td>2.45</td>
<td>2.17</td>
</tr>
<tr>
<td>CH-1B</td>
<td>1,106</td>
<td>65 -0.85, 9 -1.18, 7 1.18, 2 2.36, 0 4.75</td>
<td>83</td>
<td>1</td>
<td>0.8</td>
<td>0.9</td>
</tr>
<tr>
<td>TOTAL</td>
<td>2,280</td>
<td>134 -0.85, 18 -1.18, 12 1.18, 3 2.36, 1 4.75</td>
<td>168</td>
<td>3.55</td>
<td>3.25</td>
<td>1.56</td>
</tr>
</tbody>
</table>

The diamond analyses were completed by the Saskatchewan Research Council Geoanalytical Laboratories (SRC), which is accredited to the ISO/IEC 17025 standard for microdiamond recovery via caustic fusion.

2.01 ct diamond recovered from CH-1 kimberlite

0.02 ct diamond recovered from CH-1 kimberlite
2009 PROGRAM, $9.2 M BUDGET

PROGRAM FULLY FUNDED BY BHP BILLITON
WITH PEREGRINE AS OPERATOR

MOBILIZATION COMMENCED APRIL 15

• EVALUATE KNOWN KIMBERLITES
  ➢ 50 tonne sample from CH-1 by trenching, results anticipated in 3rd quarter 2009
  ➢ Age dating, mineral chemistry, petrographic studies
  ➢ Core drilling and diamond testing of core

• DISCOVER NEW KIMBERLITES
  ➢ Ground geophysical surveys over priority anomalies
  ➢ Evaluate over 100 anomalies by prospecting and geochemical sampling
  ➢ Drill highest priority anomalies
    ➢ Prioritize by size, mineral chemistry and geophysical signature
  ➢ +1200 till samples to increase sample density across property in preparation for 2010 drilling and additional airborne geophysics

• CONTINUE WORKING WITH LOCAL COMMUNITIES

• ENVIRONMENTAL BASELINE STUDIES
Mobilization with DC-3 aircraft

Overland mobilization

Sunrise camp

4m of snow over CH-1 outcrop, May 12, 2009

Ground geophysics
QILAQ PROJECT
12,500 km²
Buffer Claims
100% PEREGRINE

Chidliak- 9,800 km²
Ekati- 3,500 km²

HIGHLY PROSPECTIVE
STABLE ARCHEAN CRATON

POTENTIAL TO HOST
MULTIPLE KIMBERLITE FIELDS

Legend

★ Kimberlite in Mine Plan
★ Kimberlite
★ Ekati Property
Chidliak Property Boundary
Ekati Property Boundary
Glacier

LAC DE GRAS KIMBERLITE FIELD TRANSPOSED 2000 KM
CONCLUSIONS

SIGNIFICANT NEW DIAMOND DISTRICT ESTABLISHED: 3 KIMBERLITES DISCOVERED DEMONSTRATE GOOD GRADE, TONNAGE AND VALUE POTENTIAL

GREAT ADDITIONAL DISCOVERY POTENTIAL - 50 KM LONG KIM TREND, <15% OF PROPERTY FLOWN

AT THIS EARLY STAGE, CHIDLIAK HAS THE POTENTIAL TO HOST A MAJOR DIAMOND DEPOSIT

17 YEARS AFTER THE INITIAL DISCOVERIES AT LAC DE GRAS, A NEW HIGHLY PROSPECTIVE KIMBERLITE FIELD HAS BEEN DISCOVERED USING CONVENTIONAL INDICATOR MINERAL TECHNIQUES

STILL POTENTIAL FOR MAJOR DIAMOND DISCOVERIES IN OTHER PARTS OF NORTH AMERICA AND THE WORLD BY INDICATOR MINERAL SAMPLING