

Supplementary Appendix 4. Assessment input data for the Baffin Bay Basin Assessment Unit.

[MMBO, million barrels of oil; BCFG, billion cubic feet of gas; MMBNGL, million barrels of natural-gas liquids; MMBOE, million barrels of oil equivalent; NGL, natural gas liquids; CFG/BO, cubic feet of gas per barrel of oil; BNGL/MMCFG, barrels of natural gas liquids per million cubic feet of gas; BLIQ/MMCFG, barrels of liquids per million cubic feet of gas; AU, assessment unit; TPS, total petroleum system. F75 denotes a 75-percent chance; F25 denotes a 25-percent chance.]

Appendix 7.
CIRCUM-ARCTIC RESOURCE ASSESSMENT
GEOLOGIC DATA FORM FOR CONVENTIONAL ASSESSMENT UNITS (Version 5.1, June 4, 2007)

IDENTIFICATION INFORMATION

Assessment Geologist:	C.J. Schenk	Date:	13-Dec-07
Region:	North America	Number:	5
Province:	West Greenland-East Canada	Number:	5208
Total Petroleum System:	Mesozoic-Cenozoic Composite	Number:	520801
Assessment Unit:	Baffin Bay Basin	Number:	52080104
Scenario:		Number:	
Based on Data as of:			
Notes from Assessor:			

CHARACTERISTICS OF ASSESSMENT UNIT

Area of assessment unit: 252,000 square kilometers

Minimum assessed accumulation size: 50 MMBOE (grown)

No. of discovered accumulations exceeding minimum size: Oil: 0 Gas: 0

Uncertainty Class:	Check One	Number
Producing fields	<u> </u>	<u> </u>
Discoveries	<u> </u>	<u> </u>
Wells	<u> </u>	<u> </u>
Seismic	<u> X </u>	<u> </u>
No seismic	<u> </u>	<u> </u>

Median size (grown) of discovered oil accumulations (MMBO):

1st 3rd	<u> </u>	2nd 3rd	<u> </u>	3rd 3rd	<u> </u>
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Median size (grown) of discovered gas accumulations (BCFG):

1st 3rd	<u> </u>	2nd 3rd	<u> </u>	3rd 3rd	<u> </u>
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ANALOGS USED IN ESTIMATING INPUT

<u>Purpose</u>	<u>Analog or Analog Set</u>
1 <u>Number of Accumulations</u>	<u>Deltas</u> _____ _____ _____
2 <u>Sizes of Accumulations</u>	<u>Deltas</u> _____ _____ _____
3 <u>Ancillary Data</u>	<u>World averages</u> _____ _____ _____
4 _____	_____ _____ _____
Assessment Unit (name, no.)	<u>Baffin Bay Basin, 52080104</u>
Scenario (name, no.)	_____

Probability of occurrence (0-1.0)

Scenario Probability: _____

Assessment-Unit Probabilities: (Adequacy for at least one undiscovered field of minimum size)

<u>Attribute</u>	<u>Probability of occurrence (0-1.0)</u>
1. CHARGE: Adequate petroleum charge:	<u>0.4</u>
2. ROCKS: Adequate reservoirs, traps, and seals:	<u>0.7</u>
3. TIMING OF GEOLOGIC EVENTS: Favorable timing:	<u>1.0</u>
Assessment-Unit GEOLOGIC Probability (Product of 1, 2, and 3):	<u>0.28</u>

UNDISCOVERED ACCUMULATIONS

Number of Undiscovered Accumulations: How many undiscovered accumulations exist that are at least the minimum size?: (uncertainty of fixed but unknown values)

Total Accumulations:	minimum (>0)	<u>1</u>	median	<u>40</u>	maximum	<u>140</u>
Oil/Gas Mix:	minimum (>0)	<u>10</u>	mode	<u>50</u>	maximum	<u>90</u>
	X	no. of oil accumulations / no. of total accumulations				
		no. of oil accumulations / no. of gas accumulations				
		no. of gas accumulations / no. of oil accumulations				
Oil Accumulations:	minimum (>0)	<u>1</u>	median	<u>20</u>	maximum	<u>125</u>
Gas Accumulations:	minimum (>0)	<u>1</u>	median	<u>20</u>	maximum	<u>125</u>

Sizes of Undiscovered Accumulations: What are the sizes (**grown**) of the above accumulations?: (variations in the sizes of undiscovered accumulations)

Oil in Oil Accumulations (MMBO):	minimum	<u>50</u>	median	<u>120</u>	maximum	<u>6000</u>
Gas in Gas Accumulations (BCFG):	minimum	<u>300</u>	median	<u>720</u>	maximum	<u>36000</u>

RATIOS FOR UNDISCOVERED ACCUMULATIONS, TO ASSESS COPRODUCTS

(variations in the properties of undiscovered accumulations)

<u>Oil Accumulations:</u>	minimum	median	maximum
Gas/oil ratio (CFG/BO):	<u>500</u>	<u>1600</u>	<u>10000</u>
NGL/gas ratio (BNGL/MMCFG):	<u>4</u>	<u>15</u>	<u>22</u>
<u>Gas Accumulations:</u>	minimum	median	maximum
Liquids/gas ratio (BLIQ/MMCFG):	<u>3</u>	<u>20</u>	<u>80</u>

Assessment Unit (name, no.)	<u>Baffin Bay Basin, 52080104</u>
Scenario (name, no.)	<u></u>

SELECTED ANCILLARY DATA FOR UNDISCOVERED ACCUMULATIONS

(variations in the properties of undiscovered accumulations)

<u>Oil Accumulations:</u>	minimum		median		maximum
API gravity (degrees):	<u>23</u>		<u>40</u>		<u>55</u>
Viscosity (centipoise)	<u>120</u>		<u>280</u>		<u>8200</u>
Sulfur content of oil (%):	<u>0.24</u>		<u>0.7</u>		<u>5</u>
Depth (m) of water (if applicable):	<u>700</u>		<u>1500</u>		<u>2200</u>
	minimum	F75	median	F25	maximum
Drilling Depth (m):	<u>500</u>		<u>2000</u>		<u>5000</u>

<u>Gas Accumulations:</u>	minimum		median		maximum
Inert gas content (%):	<u>1.5</u>		<u>3.8</u>		<u>17</u>
Carbon dioxide content (%):	<u>1.4</u>		<u>5</u>		<u>28</u>
Hydrogen sulfide content (%):	<u>0.7</u>		<u>1.5</u>		<u>6</u>
Depth (m) of water (if applicable):	<u>700</u>		<u>1500</u>		<u>2200</u>
	minimum	F75	median	F25	maximum
Drilling Depth (m):	<u>500</u>		<u>2500</u>		<u>9000</u>

Assessment Unit (name, no.)	<u>Baffin Bay Basin, 52080104</u>
Scenario (name, no.)	<u></u>

ALLOCATIONS OF POTENTIAL ADDITIONS TO RESERVES TO ARCTIC AREA

1 North of Arctic Circle

100 area % of the AU

Oil in Oil Accumulations: 100 volume % of the AU

Gas in Gas Accumulations: 100 volume % of the AU

2 South of Arctic Circle

0 area % of the AU

Oil in Oil Accumulations: 0 volume % of the AU

Gas in Gas Accumulations: 0 volume % of the AU

Assessment Unit (name, no.)	<u>Baffin Bay Basin (52080104)</u>
Scenario (name, no.)	<u></u>

ALLOCATIONS OF POTENTIAL ADDITIONS TO RESERVES TO COUNTRIES

1 Offshore portion of

100 area % of the AU

Oil in Oil Accumulations: 100 volume % of the AU

Gas in Gas Accumulations: 100 volume % of the AU

2 Onshore portion of:

_____ area % of the AU

Oil in Oil Accumulations: _____ volume % of the AU

Gas in Gas Accumulations: _____ volume % of the AU

3 Offshore portion of:

_____ area % of the AU

Oil in Oil Accumulations: _____ volume % of the AU

Gas in Gas Accumulations: _____ volume % of the AU

4 Onshore portion of:

_____ area % of the AU

Oil in Oil Accumulations: _____ volume % of the AU

Gas in Gas Accumulations: _____ volume % of the AU

5 Onshore portion of:

_____ area % of the AU

Oil in Oil Accumulations: _____ volume % of the AU

Gas in Gas Accumulations: _____ volume % of the AU

6 Onshore portion of:

_____ area % of the AU

Oil in Oil Accumulations: _____ volume % of the AU

Gas in Gas Accumulations: _____ volume % of the AU

Assessment Unit (name, no.)

Baffin Bay Basin, 52080104

Scenario (name, no.)

ALLOCATIONS OF POTENTIAL ADDITIONS TO RESERVES TO PROVINCES

1 ONSHORE portion of: West Greenland-East Canada

0 area % of the AU

Oil in Oil Accumulations: 0 volume % of the AU

Gas in Gas Accumulations: 0 volume % of the AU

OFFSHORE portion of: West Greenland-East Canada

100 area % of the AU

Oil in Oil Accumulations: 100 volume % of the AU

Gas in Gas Accumulations: 100 volume % of the AU

2 ONSHORE portion of: _____

_____ area % of the AU

Oil in Oil Accumulations: _____ volume % of the AU

Gas in Gas Accumulations: _____ volume % of the AU

OFFSHORE portion of: _____

_____ area % of the AU

Oil in Oil Accumulations: _____ volume % of the AU

Gas in Gas Accumulations: _____ volume % of the AU

3 ONSHORE portion of: _____

_____ area % of the AU

Oil in Oil Accumulations: _____ volume % of the AU

Gas in Gas Accumulations: _____ volume % of the AU

OFFSHORE portion of: _____

_____ area % of the AU

Oil in Oil Accumulations: _____ volume % of the AU

Gas in Gas Accumulations: _____ volume % of the AU

Assessment Unit (name, no.)

Baffin Bay Basin, 52080104

Scenario (name, no.)

ALLOCATIONS OF POTENTIAL ADDITIONS TO RESERVES TO PROVINCES

4 ONSHORE portion of: _____

_____ area % of the AU

Oil in Oil Accumulations: _____ volume % of the AU

Gas in Gas Accumulations: _____ volume % of the AU

OFFSHORE portion of: _____

_____ area % of the AU

Oil in Oil Accumulations: _____ volume % of the AU

Gas in Gas Accumulations: _____ volume % of the AU

5 ONSHORE portion of: _____

_____ area % of the AU

Oil in Oil Accumulations: _____ volume % of the AU

Gas in Gas Accumulations: _____ volume % of the AU

OFFSHORE portion of: _____

_____ area % of the AU

Oil in Oil Accumulations: _____ volume % of the AU

Gas in Gas Accumulations: _____ volume % of the AU

6 ONSHORE portion of: _____

_____ area % of the AU

Oil in Oil Accumulations: _____ volume % of the AU

Gas in Gas Accumulations: _____ volume % of the AU

OFFSHORE portion of: _____

_____ area % of the AU

Oil in Oil Accumulations: _____ volume % of the AU

Gas in Gas Accumulations: _____ volume % of the AU

Assessment Unit (name, no.)

Baffin Bay Basin, 52080104

Scenario (name, no.)

ALLOCATIONS OF POTENTIAL ADDITIONS TO RESERVES TO ICE CONDITIONS

1 Province: West Greenland-East Canada

Permanent sea ice	<u>0</u>	area % of the AU
Oil in Oil Accumulations:	<u>0</u>	volume % of the AU
Gas in Gas Accumulations:	<u>0</u>	volume % of the AU
Semi-permanent sea ice	<u>100</u>	area % of the AU
Oil in Oil Accumulations:	<u>100</u>	volume % of the AU
Gas in Gas Accumulations:	<u>100</u>	volume % of the AU

2 Province: _____

Permanent sea ice	_____	area % of the AU
Oil in Oil Accumulations:	_____	volume % of the AU
Gas in Gas Accumulations:	_____	volume % of the AU
Semi-permanent sea ice	_____	area % of the AU
Oil in Oil Accumulations:	_____	volume % of the AU
Gas in Gas Accumulations:	_____	volume % of the AU

3 Province: _____

Permanent sea ice	_____	area % of the AU
Oil in Oil Accumulations:	_____	volume % of the AU
Gas in Gas Accumulations:	_____	volume % of the AU
Semi-permanent sea ice	_____	area % of the AU
Oil in Oil Accumulations:	_____	volume % of the AU
Gas in Gas Accumulations:	_____	volume % of the AU