

**USGS WORLD PETROLEUM RESOURCES ASSESSMENT
INPUT FORM FOR CONVENTIONAL ASSESSMENT UNITS (Version 6.0, September 2, 2008)**

IDENTIFICATION INFORMATION

Assessment Geologist:	<u>C.J. Schenk</u>	Date:	<u>5/18/2009</u>
Region:	<u>Asia Pacific</u>	Number:	<u>3</u>
Province:	<u>Baram Delta/Brunei-Sabah Basin</u>	Number:	<u>3701</u>
Total Petroleum System:	<u>Setap Composite</u>	Number:	<u>370101</u>
Assessment Unit:	<u>Brunei-Sabah Turbidites</u>	Number:	<u>37010102</u>
Scenario:	<u></u>	Number:	<u></u>
Based on Data as of:	<u>IHS Energy (2008)</u>		
Notes from Assessor:	<u>NRG Fields Reserve Growth Factors, 30 yr.</u>		

CHARACTERISTICS OF ASSESSMENT UNIT

Area of assessment unit: 69,511 square kilometers

Minimum assessed accumulation size: 5 MMBOE (grown)

No. of discovered accumulations exceeding minimum size: Oil: 22 Gas: 11

Uncertainty Class:	Check One	Number
Producing fields	<u>X</u>	<u>33</u>
Discoveries	<u></u>	<u></u>
Wells	<u></u>	<u></u>
Seismic	<u></u>	<u></u>
No seismic	<u></u>	<u></u>

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

1st 3rd	<u>33.6</u>	2nd 3rd	<u>93.9</u>	3rd 3rd	<u>178.2</u>
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Median size (grown) of discovered gas accumulations (BCFG):

1st 3rd	<u>386.7</u>	2nd 3rd	<u>1119.4</u>	3rd 3rd	<u></u>
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ANALOGS USED IN ESTIMATING INPUT

<u>Purpose</u>	<u>Analog or Analog Set</u>
1 _____	_____ _____ _____
2 _____	_____ _____ _____
3 _____	_____ _____ _____
4 _____	_____ _____ _____

Assessment Unit (name, no.)
 Scenario (name, no.)

Brunei-Sabah Turbidites, 37010102

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>1.0</u>
2. ROCKS: Adequate reservoirs, traps, and seals:	<u>1.0</u>
3. TIMING OF GEOLOGIC EVENTS: Favorable timing:	<u>1.0</u>
Assessment-Unit GEOLOGIC Probability (Product of 1, 2, and 3):	<u>1.0</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> </u>	median <u> </u>	maximum <u> </u>
Oil/Gas Mix:	minimum <u> </u>	mode <u> </u>	maximum <u> </u>
	<u> </u> number of oil accumulations / number of total accumulations		
	<u> </u> number of oil accumulations / number of gas accumulations		
	<u> </u> number of gas accumulations / number of oil accumulations		
Oil Accumulations:	minimum <u> 1 </u>	median <u> 50 </u>	maximum <u> 130 </u>
Gas Accumulations:	minimum <u> 1 </u>	median <u> 30 </u>	maximum <u> 100 </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> 5 </u>	median <u> 35 </u>	maximum <u> 1500 </u>
Gas in Gas Accumulations (BCFG):	minimum <u> 30 </u>	median <u> 150 </u>	maximum <u> 4000 </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> 100 </u>	<u> 2500 </u>	<u> 14000 </u>
NGL/gas ratio (BNGL/MMCFG):	<u> 5 </u>	<u> 18 </u>	<u> 50 </u>
<u>Gas Accumulations:</u>	minimum	median	maximum
Liquids/gas ratio (BLIQ/MMCFG):	<u> 2 </u>	<u> 36 </u>	<u> 120 </u>

SELECTED ANCILLARY DATA FOR UNDISCOVERED ACCUMULATIONS

(variations in the properties of undiscovered accumulations)

Oil Accumulations:

	minimum	median	maximum
API gravity (degrees):	20	32	44
Viscosity (centipoise)			
Sulfur content of oil (%):	0.01	0.1	1
Depth (m) of water (if applicable):	200	1000	1500

	minimum	F75	median	F25	maximum
Drilling Depth (m):	2000		3000		4500

Gas Accumulations:

	minimum	median	maximum
Inert gas content (%):			
Carbon dioxide content (%):	0.1	0.5	1
Hydrogen sulfide content (%):			
Depth (m) of water (if applicable):	200	1000	1500

	minimum	F75	median	F25	maximum
Drilling Depth (m):	2000		3000		4500

ALLOCATIONS OF POTENTIAL ADDITIONS TO RESERVES TO COUNTRIES

1 Offshore

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 Onshore 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.)
Scenario (name, no.)

Brunei-Sabah Turbidites, 37010102

ALLOCATIONS OF POTENTIAL ADDITIONS TO RESERVES TO PROVINCES

1 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: Baram Delta/Brunei-Sabah Basin, 3701
_____ 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

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