

**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>17-Nov-11</u>
Region:	<u>Central and South America</u>	Number:	<u>6</u>
Province:	<u>Putumayo-Oriente-Maranon Basin</u>	Number:	<u>6041</u>
Total Petroleum System:	<u>Mesozoic Composite</u>	Number:	<u>604101</u>
Assessment Unit:	<u>Mesozoic-Cenozoic Reservoirs</u>	Number:	<u>60410101</u>
Scenario:		Number:	
Based on Data as of:	<u>IHS (2009)</u>		
Notes from Assessor:	<u>NRG Field Reserve Growth Function, 30 years</u>		

CHARACTERISTICS OF ASSESSMENT UNIT

Area of assessment unit: 504,198 square kilometers

Minimum assessed accumulation size: 5 MMBOE (grown)

No. of discovered accumulations exceeding minimum size: Oil: 141 Gas: 0

Uncertainty Class:	Check One	Number
Producing fields	<u>X</u>	<u> </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>34</u>	2nd 3rd	<u>12</u>	3rd 3rd	<u>8</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>Sizes/Numbers</u>	<u>Foreland basins</u>
	<u> </u>
	<u> </u>
2 <u> </u>	<u> </u>
	<u> </u>
	<u> </u>
3 <u> </u>	<u> </u>
	<u> </u>
	<u> </u>
4 <u> </u>	<u> </u>
	<u> </u>
	<u> </u>

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

Mesozoic-Cenozoic Reservoirs, 60410101

Probability of occurrence (0-1.0)

Scenario Probability:

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

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

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) _____ median _____ maximum _____

Oil/Gas Mix: minimum _____ mode _____ maximum _____
_____ number of oil accumulations / number of total accumulations
_____ number of oil accumulations / number of gas accumulations
_____ number of gas accumulations / number of oil accumulations

Oil Accumulations: minimum 1 median 360 maximum 720
Gas Accumulations: minimum 0 median 0 maximum 0

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 5 median 10 maximum 100
Gas in Gas Accumulations (BCFG): minimum _____ median _____ maximum _____

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>300</u>	<u>6000</u>
NGL/gas ratio (BNGL/MMCFG):	<u>5</u>	<u>25</u>	<u>75</u>
<u>Gas Accumulations:</u>	minimum	median	maximum
Liquids/gas ratio (BLIQ/MMCFG):	_____	_____	_____

SELECTED ANCILLARY DATA FOR UNDISCOVERED ACCUMULATIONS

(variations in the properties of undiscovered accumulations)

Oil Accumulations:

	minimum	median	maximum
API gravity (degrees):	15	24	45
Viscosity (centipoise)	2	15	30
Sulfur content of oil (%):	0.2	0.9	3
Depth (m) of water (if applicable):			

	minimum	F75	median	F25	maximum
Drilling Depth (m):	1000		4000		5500

Gas Accumulations:

	minimum	median	maximum
Inert gas content (%):			
Carbon dioxide content (%):			
Hydrogen sulfide content (%):			
Depth (m) of water (if applicable):			

	minimum	F75	median	F25	maximum
Drilling Depth (m):					

ALLOCATIONS OF POTENTIAL ADDITIONS TO RESERVES TO COUNTRIES

1 Offshore

0 area % of the AU

Oil in Oil Accumulations: 0 volume % of the AU

Gas in Gas Accumulations: volume % of the AU

2 Onshore portion of:

Peru

53.54 area % of the AU

Oil in Oil Accumulations: 57.00 volume % of the AU

Gas in Gas Accumulations: volume % of the AU

3 Onshore portion of:

Colombia

29.98 area % of the AU

Oil in Oil Accumulations: 38.00 volume % of the AU

Gas in Gas Accumulations: volume % of the AU

4 Onshore portion of:

Ecuador

15.15 area % of the AU

Oil in Oil Accumulations: 5.00 volume % of the AU

Gas in Gas Accumulations: volume % of the AU

5 Onshore portion of:

Brazil

1.33 area % of the AU

Oil in Oil Accumulations: 0 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

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