

**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>18-Aug-09</u>
Region:	<u>Central and South America</u>	Number:	<u>6</u>
Province:	<u>Campos Basin</u>	Number:	<u>6035</u>
Total Petroleum System:	<u>Lagoa Feia</u>	Number:	<u>603501</u>
Assessment Unit:	<u>Late Cretaceous-Tertiary Turbidites</u>	Number:	<u>60350101</u>
Scenario:	<u></u>	Number:	<u></u>
Based on Data as of:	<u>IHS Energy (2008)</u>		
Notes from Assessor:	<u>NRG Fields monotone growth function</u>		

**CHARACTERISTICS OF ASSESSMENT UNIT**

Area of assessment unit: 107,166 square kilometers

Minimum assessed accumulation size: 5 MMBOE (grown)

No. of discovered accumulations exceeding minimum size: Oil: 72 Gas: 5

<b>Uncertainty Class:</b>	Check One	Number
Producing fields	<u>X</u>	<u>77</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>77</u>	2nd 3rd	<u>123</u>	3rd 3rd	<u>238</u>
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Median size (grown) of discovered gas accumulations (BCFG):

1st 3rd	<u>41</u>	2nd 3rd	<u>30</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></u>	<u></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.)

Late Cretaceous-Tertiary Turbidites, 60350101

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. <b>CHARGE:</b> Adequate petroleum charge:	<u>1.0</u>
2. <b>ROCKS:</b> Adequate reservoirs, traps, and seals:	<u>1.0</u>
3. <b>TIMING OF GEOLOGIC EVENTS:</b> Favorable timing:	<u>1.0</u>
<b>Assessment-Unit GEOLOGIC Probability</b> (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>    70   </u>	maximum <u>   200   </u>
Gas Accumulations:	minimum <u>    1    </u>	median <u>    3    </u>	maximum <u>    10   </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>    15   </u>	maximum <u>  2500  </u>
Gas in Gas Accumulations (BCFG):	minimum <u>   30   </u>	median <u>    90   </u>	maximum <u> 15000  </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>   180   </u>	<u>   520   </u>	<u>  1600   </u>
NGL/gas ratio (BNGL/MMCFG):	<u>    10   </u>	<u>    20   </u>	<u>    30   </u>
 <u>Gas Accumulations:</u>	 minimum	 median	 maximum
Liquids/gas ratio (BLIQ/MMCFG):	<u>    10   </u>	<u>    36   </u>	<u>    60   </u>

**SELECTED ANCILLARY DATA FOR UNDISCOVERED ACCUMULATIONS**

(variations in the properties of undiscovered accumulations)

Oil Accumulations:

	minimum	median	maximum
API gravity (degrees):	15	24	40
Viscosity (centipoise)			
Sulfur content of oil (%):			
Depth (m) of water (if applicable):	300	1200	3600

	minimum	F75	median	F25	maximum
Drilling Depth (m):	2000		4000		6000

Gas Accumulations:

	minimum	median	maximum
Inert gas content (%):	0.1	0.6	1
Carbon dioxide content (%):	0	0.15	0.5
Hydrogen sulfide content (%):			
Depth (m) of water (if applicable):	300	1200	3600

	minimum	F75	median	F25	maximum
Drilling Depth (m):	2000		4000		6000

**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

**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: Campos Basin, 6035  
\_\_\_\_\_ 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