

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

**IDENTIFICATION INFORMATION**

Assessment Geologist:	<u>T.R. Klett</u>	Date:	<u>9-Nov-09</u>
Region:	<u>Former Soviet Union</u>	Number:	<u>1</u>
Province:	<u>Middle Caspian Basin</u>	Number:	<u>1109</u>
Total Petroleum System:	<u>Stavropol-Prikumsk</u>	Number:	<u>110903</u>
Assessment Unit:	<u>Stavropol-Prikumsk</u>	Number:	<u>11090301</u>
Scenario:	<u></u>	Number:	<u></u>
Based on Data as of:	<u>IHS Energy (2008)</u>		
Notes from Assessor:	<u>NRG Field Monotone reserve growth factor, 30 years</u>		
	<u>Median sizes of discovery thirds for fields &gt;0.5 MMBOE</u>		

**CHARACTERISTICS OF ASSESSMENT UNIT**

Area of assessment unit: 172,807 square kilometers

Minimum assessed accumulation size: 1 MMBOE (grown)

No. of discovered accumulations exceeding minimum size: Oil: 95 Gas: 38

<b>Uncertainty Class:</b>	Check One	Number
Producing fields	<u>X</u>	<u>89 prod., 5 aband., 17 shut-in, 3 await develop.</u>
Discoveries	<u></u>	<u>19</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>18.3</u>	2nd 3rd	<u>5.3</u>	3rd 3rd	<u>2.8</u>
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Median size (grown) of discovered gas accumulations (BCFG):

1st 3rd	<u>66.4</u>	2nd 3rd	<u>21.2</u>	3rd 3rd	<u>24.8</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.)

Stavropol-Prikumsk, 11090301

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. <b>CHARGE:</b> Adequate petroleum charge:	1.0
2. <b>ROCKS:</b> Adequate reservoirs, traps, and seals:	1.0
3. <b>TIMING OF GEOLOGIC EVENTS:</b> Favorable timing:	1.0
<b>Assessment-Unit GEOLOGIC Probability</b> (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	_____
		_____				_____
		_____				_____
		_____				_____
Oil Accumulations:	minimum	1	median	50	maximum	140
Gas Accumulations:	minimum	1	median	20	maximum	60

**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	1	median	3	maximum	2000
Gas in Gas Accumulations (BCFG):	minimum	6	median	18	maximum	6000

### 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):		100		2000		10000
NGL/gas ratio (BNGL/MMCFG):		0.1		40		250
<u>Gas Accumulations:</u>	minimum	_____	median	_____	maximum	_____
Liquids/gas ratio (BLIQ/MMCFG):		3		35		130

**SELECTED ANCILLARY DATA FOR UNDISCOVERED ACCUMULATIONS**

(variations in the properties of undiscovered accumulations)

Oil Accumulations:

	minimum	median	maximum
API gravity (degrees):	10	40	55
Viscosity (centipoise): cs	0.3	8	80
Sulfur content of oil (%):	0	0.2	5
Depth (m) of water (if applicable):	0	20	150

	minimum	F75	median	F25	maximum
Drilling Depth (m):	500		4000		5500

Gas Accumulations:

	minimum	median	maximum
Inert gas content (%):	0	3	35
Carbon dioxide content (%):	0.1	2	15
Hydrogen sulfide content (%):	0	1.3	7.5
Depth (m) of water (if applicable):	0	20	150

	minimum	F75	median	F25	maximum
Drilling Depth (m):	300		3500		4500

**ALLOCATIONS OF POTENTIAL ADDITIONS TO RESERVES TO COUNTRIES**

1 Offshore

42.86 area % of the AU

Oil in Oil Accumulations: 90.00 volume % of the AU  
Gas in Gas Accumulations: 90.00 volume % of the AU

2 Onshore portion of:

Kazakhstan

0.28 area % of the AU

Oil in Oil Accumulations: 0 volume % of the AU  
Gas in Gas Accumulations: 0 volume % of the AU

3 Onshore portion of:

Russia

55.30 area % of the AU

Oil in Oil Accumulations: 10.00 volume % of the AU  
Gas in Gas Accumulations: 10.00 volume % of the AU

4 Onshore portion of:

Turkmenistan

1.56 area % of the AU

Oil in Oil Accumulations: 0 volume % of the AU  
Gas in Gas Accumulations: 0 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.)

Stavropol-Prikumsk, 11090301

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### ALLOCATIONS OF POTENTIAL ADDITIONS TO RESERVES TO PROVINCES

1 ONSHORE portion of: Middle Caspian Basin, 1109

57.14 area % of the AU

Oil in Oil Accumulations: 10.00 volume % of the AU

Gas in Gas Accumulations: 10.00 volume % of the AU

OFFSHORE portion of: Middle Caspian Basin, 1109

42.86 area % of the AU

Oil in Oil Accumulations: 90.00 volume % of the AU

Gas in Gas Accumulations: 90.00 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