

**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>Terek-Caspian</u>	Number:	<u>110901</u>
Assessment Unit:	<u>Foldbelt-Foothills</u>	Number:	<u>11090101</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 >0.5 MMBOE</u>		

CHARACTERISTICS OF ASSESSMENT UNIT

Area of assessment unit: 50,342 square kilometers

Minimum assessed accumulation size: 1 MMBOE (grown)

No. of discovered accumulations exceeding minimum size: Oil: 41 Gas: 11

Uncertainty Class:	Check One	Number
Producing fields	<u>X</u>	<u>31 prod., 8 shut-in, 3 awaiting develop.</u>
Discoveries	<u></u>	<u>10</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>70.7</u>	2nd 3rd	<u>28.3</u>	3rd 3rd	<u>9.7</u>
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Median size (grown) of discovered gas accumulations (BCFG):

1st 3rd	<u>29.5</u>	2nd 3rd	<u>76.6</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.)

Foldbelt-Foothills, 11090101

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	median	maximum
Gas Accumulations:	minimum	median	maximum

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	median	maximum
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):	100	2000	14500
NGL/gas ratio (BNGL/MMCFG):	1	20	50
<u>Gas Accumulations:</u>	minimum	median	maximum
Liquids/gas ratio (BLIQ/MMCFG):	2	25	70

SELECTED ANCILLARY DATA FOR UNDISCOVERED ACCUMULATIONS
 (variations in the properties of undiscovered accumulations)

<u>Oil Accumulations:</u>	minimum	median	maximum
API gravity (degrees):	<u>20</u>	<u>40</u>	<u>50</u>
Viscosity (centipoise): cs	<u>0.4</u>	<u>6</u>	<u>36</u>
Sulfur content of oil (%):	<u>0.01</u>	<u>0.2</u>	<u>2</u>
Depth (m) of water (if applicable):	<u>0</u>	<u>20</u>	<u>50</u>

	minimum	F75	median	F25	maximum
Drilling Depth (m):	<u>300</u>		<u>4600</u>		<u>6000</u>

<u>Gas Accumulations:</u>	minimum	median	maximum
Inert gas content (%):	<u>0</u>	<u>3</u>	<u>30</u>
Carbon dioxide content (%):	<u>0.1</u>	<u>3</u>	<u>15</u>
Hydrogen sulfide content (%):	<u>0</u>	<u>1</u>	<u>1.5</u>
Depth (m) of water (if applicable):	<u>0</u>	<u>20</u>	<u>50</u>

	minimum	F75	median	F25	maximum
Drilling Depth (m):	<u>2000</u>		<u>4000</u>		<u>6000</u>

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

Foldbelt-Foothills, 11090101

ALLOCATIONS OF POTENTIAL ADDITIONS TO RESERVES TO COUNTRIES

1 Offshore

4.93 area % of the AU

Oil in Oil Accumulations: 4.93 volume % of the AU
Gas in Gas Accumulations: 4.93 volume % of the AU

2 Onshore portion of:

Azerbaijan

10.92 area % of the AU

Oil in Oil Accumulations: 10.92 volume % of the AU
Gas in Gas Accumulations: 10.92 volume % of the AU

3 Onshore portion of:

Georgia

0.02 area % of the AU

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

4 Onshore portion of:

Russia

84.13 area % of the AU

Oil in Oil Accumulations: 84.15 volume % of the AU
Gas in Gas Accumulations: 84.15 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.)

Foldbelt-Foothills, 11090101

ALLOCATIONS OF POTENTIAL ADDITIONS TO RESERVES TO PROVINCES

1 ONSHORE portion of: Middle Caspian Basin, 1109
95.07 area % of the AU
Oil in Oil Accumulations: 95.07 volume % of the AU
Gas in Gas Accumulations: 95.07 volume % of the AU

OFFSHORE portion of: Middle Caspian Basin, 1109
4.93 area % of the AU
Oil in Oil Accumulations: 4.93 volume % of the AU
Gas in Gas Accumulations: 4.93 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