

**Eocene-Miocene Cambay Deltaic, Assessment Unit 80430102**  
**Assessment Results Summary**

[MMBO, million barrels of oil. BCFG, billion cubic feet of gas. MMBNGL, million barrels of natural gas liquids. MFS, minimum field size assessed (MMBO or BCFG). Prob., probability (including both geologic and accessibility probabilities) of at least one field equal to or greater than the MFS. Results shown are fully risked estimates. For gas fields, all liquids are included under the NGL (natural gas liquids) category. F95 represents a 95 percent chance of at least the amount tabulated. Other fractiles are defined similarly. Fractiles are additive under the assumption of perfect positive correlation. Shading indicates not applicable]

Field Type	MFS	Prob. (0-1)	Undiscovered Resources												Largest Undiscovered Field (MMBO or BCFG)			
			Oil (MMBO)				Gas (BCFG)				NGL (MMBNGL)				F95	F50	F5	Mean
			F95	F50	F5	Mean	F95	F50	F5	Mean	F95	F50	F5	Mean				
Oil Fields	1	1.00	107	426	1,031	479	282	1,155	3,035	1,340	16	67	190	80	24	84	272	106
Gas Fields	6		107	426	1,031	479	517	2,055	4,945	2,305	8	32	83	37	131	425	1,291	524
Total		1.00	107	426	1,031	479	799	3,210	7,980	3,645	24	99	273	117				

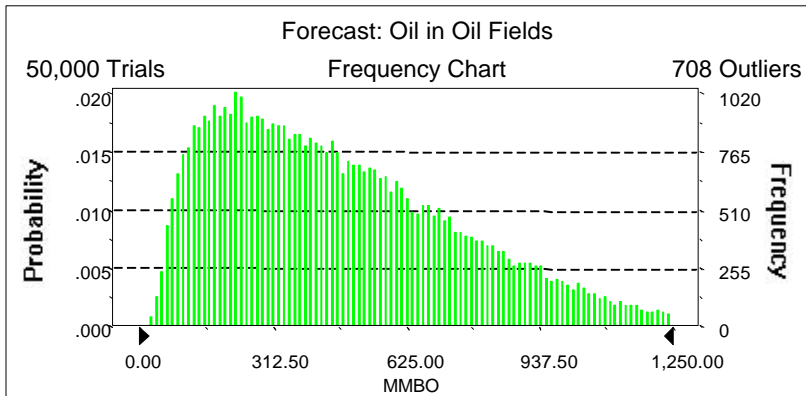
**80430102**  
**Eocene-Miocene Cambay Deltaic**  
**Monte Carlo Results**

**Forecast: Oil in Oil Fields**

Summary:

Display range is from 0.00 to 1,250.00 MMBO  
Entire range is from 18.39 to 2,211.11 MMBO  
After 50,000 trials, the standard error of the mean is 1.31

Statistics:	Value
Trials	50000
Mean	479.09
Median	426.06
Mode	---
Standard Deviation	292.86
Variance	85,766.45
Skewness	0.86
Kurtosis	3.50
Coefficient of Variability	0.61
Range Minimum	18.39
Range Maximum	2,211.11
Range Width	2,192.73
Mean Standard Error	1.31



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**Forecast: Oil in Oil Fields (cont'd)**

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	18.39
95%	107.29
90%	144.60
85%	179.39
80%	212.42
75%	244.18
70%	278.00
65%	313.44
60%	349.12
55%	386.71
50%	426.06
45%	465.95
40%	510.24
35%	555.31
30%	604.56
25%	661.48
20%	722.32
15%	797.77
10%	892.94
5%	1,031.35
0%	2,211.11

End of Forecast

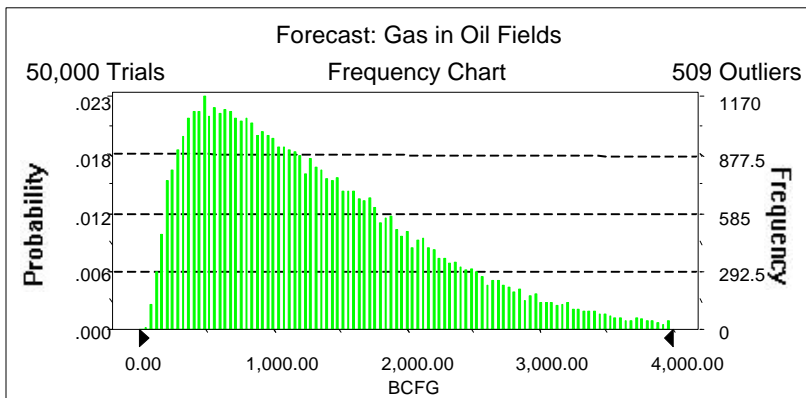
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**Monte Carlo Results**

**Forecast: Gas in Oil Fields**

Summary:

Display range is from 0.00 to 4,000.00 BCFG  
Entire range is from 52.63 to 8,456.71 BCFG  
After 50,000 trials, the standard error of the mean is 3.93

Statistics:	Value
Trials	50000
Mean	1,340.46
Median	1,155.06
Mode	---
Standard Deviation	878.98
Variance	772,601.18
Skewness	1.11
Kurtosis	4.46
Coefficient of Variability	0.66
Range Minimum	52.63
Range Maximum	8,456.71
Range Width	8,404.08
Mean Standard Error	3.93



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**Monte Carlo Results**

**Forecast: Gas in Oil Fields (cont'd)**

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	52.63
95%	281.57
90%	384.58
85%	477.02
80%	566.41
75%	656.22
70%	748.17
65%	842.96
60%	943.21
55%	1,046.73
50%	1,155.06
45%	1,272.55
40%	1,394.59
35%	1,526.72
30%	1,670.96
25%	1,832.68
20%	2,021.09
15%	2,252.17
10%	2,555.21
5%	3,034.99
0%	8,456.71

End of Forecast

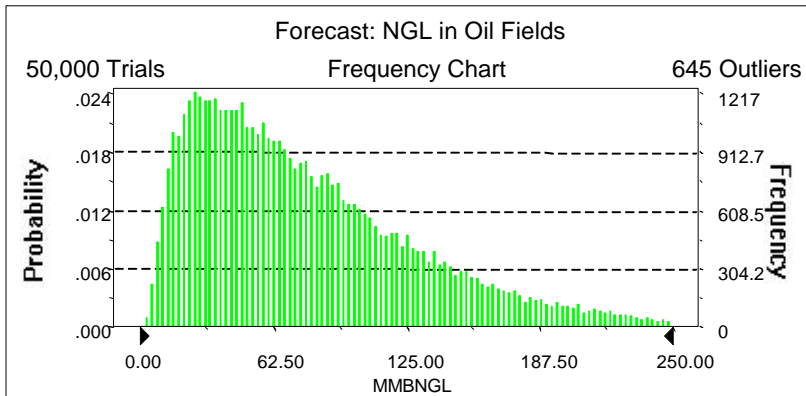
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**Monte Carlo Results**

**Forecast: NGL in Oil Fields**

Summary:

Display range is from 0.00 to 250.00 MMBNGL  
Entire range is from 2.71 to 587.67 MMBNGL  
After 50,000 trials, the standard error of the mean is 0.25

Statistics:	Value
Trials	50000
Mean	80.40
Median	67.24
Mode	---
Standard Deviation	56.20
Variance	3,158.21
Skewness	1.33
Kurtosis	5.43
Coefficient of Variability	0.70
Range Minimum	2.71
Range Maximum	587.67
Range Width	584.96
Mean Standard Error	0.25



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**Monte Carlo Results**

**Forecast: NGL in Oil Fields (cont'd)**

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	2.71
95%	15.83
90%	21.92
85%	27.14
80%	32.43
75%	37.74
70%	43.23
65%	48.79
60%	54.65
55%	60.85
50%	67.24
45%	74.34
40%	81.83
35%	89.99
30%	98.98
25%	109.13
20%	121.62
15%	136.72
10%	156.65
5%	189.97
0%	587.67

End of Forecast

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**Monte Carlo Results**

**Forecast: Largest Oil Field**

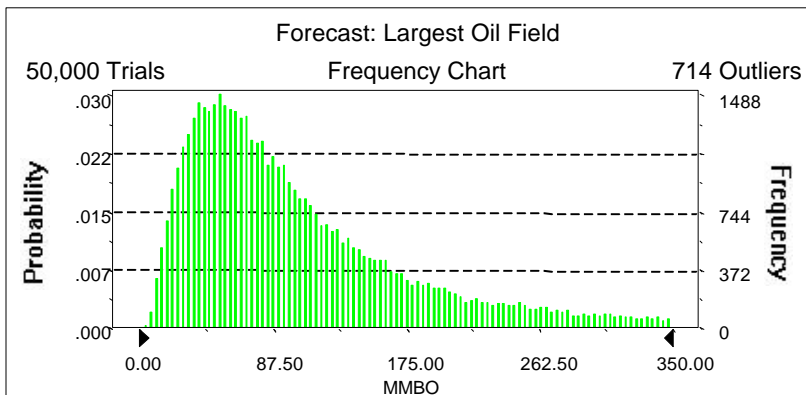
Summary:

Display range is from 0.00 to 350.00 MMBO

Entire range is from 4.17 to 399.92 MMBO

After 50,000 trials, the standard error of the mean is 0.34

Statistics:	Value
Trials	50000
Mean	106.39
Median	84.48
Mode	---
Standard Deviation	76.52
Variance	5,855.38
Skewness	1.42
Kurtosis	4.84
Coefficient of Variability	0.72
Range Minimum	4.17
Range Maximum	399.92
Range Width	395.75
Mean Standard Error	0.34





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**Monte Carlo Results**

**Forecast: Largest Oil Field (cont'd)**

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	4.17
95%	24.38
90%	32.41
85%	38.98
80%	45.20
75%	51.39
70%	57.34
65%	63.69
60%	70.10
55%	76.98
50%	84.48
45%	92.76
40%	101.52
35%	111.93
30%	124.07
25%	138.53
20%	156.70
15%	180.16
10%	214.44
5%	272.37
0%	399.92

End of Forecast

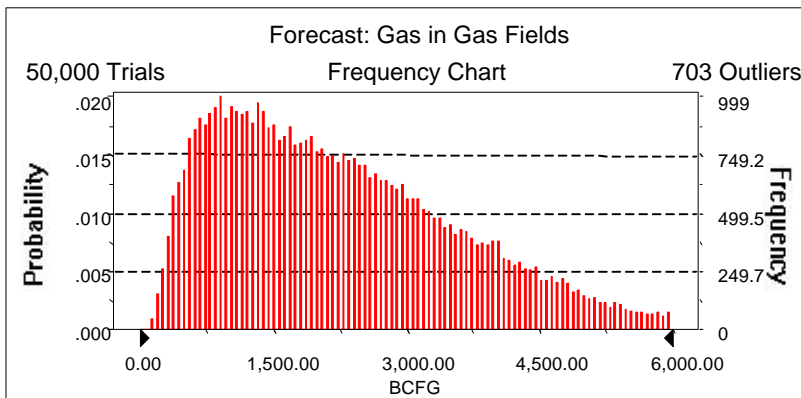
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**Monte Carlo Results**

**Forecast: Gas in Gas Fields**

Summary:

Display range is from 0.00 to 6,000.00 BCFG  
Entire range is from 100.41 to 10,161.87 BCFG  
After 50,000 trials, the standard error of the mean is 6.28

Statistics:	Value
Trials	50000
Mean	2,304.67
Median	2,055.00
Mode	---
Standard Deviation	1,403.94
Variance	1,971,056.07
Skewness	0.83
Kurtosis	3.38
Coefficient of Variability	0.61
Range Minimum	100.41
Range Maximum	10,161.87
Range Width	10,061.46
Mean Standard Error	6.28



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**Monte Carlo Results**

**Forecast: Gas in Gas Fields (cont'd)**

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	100.41
95%	517.21
90%	696.35
85%	861.68
80%	1,018.96
75%	1,179.19
70%	1,341.51
65%	1,505.09
60%	1,683.63
55%	1,865.55
50%	2,055.00
45%	2,254.92
40%	2,458.43
35%	2,678.48
30%	2,915.43
25%	3,175.94
20%	3,481.65
15%	3,843.74
10%	4,281.20
5%	4,944.76
0%	10,161.87

End of Forecast

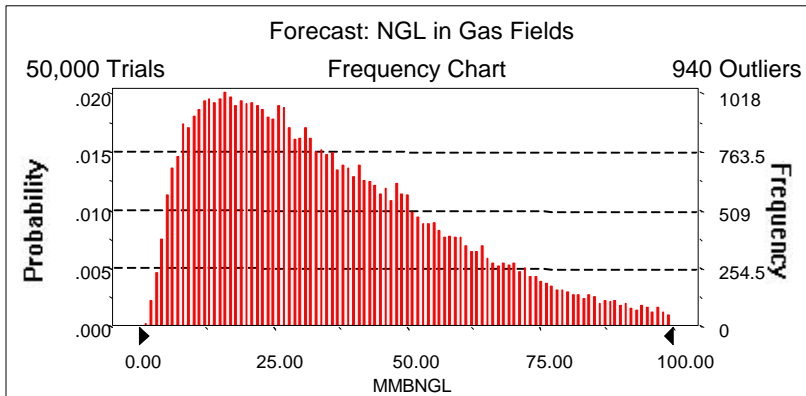
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**Monte Carlo Results**

**Forecast: NGL in Gas Fields**

Summary:

Display range is from 0.00 to 100.00 MMBNGL  
Entire range is from 1.38 to 233.14 MMBNGL  
After 50,000 trials, the standard error of the mean is 0.11

Statistics:	Value
Trials	50000
Mean	36.88
Median	31.77
Mode	---
Standard Deviation	24.11
Variance	581.09
Skewness	1.09
Kurtosis	4.39
Coefficient of Variability	0.65
Range Minimum	1.38
Range Maximum	233.14
Range Width	231.76
Mean Standard Error	0.11



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**Eocene-Miocene Cambay Deltaic**  
**Monte Carlo Results**

**Forecast: NGL in Gas Fields (cont'd)**

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	1.38
95%	7.69
90%	10.54
85%	13.18
80%	15.72
75%	18.20
70%	20.74
65%	23.36
60%	26.09
55%	28.75
50%	31.77
45%	34.93
40%	38.35
35%	42.01
30%	46.08
25%	50.39
20%	55.63
15%	61.94
10%	70.24
5%	83.42
0%	233.14

End of Forecast

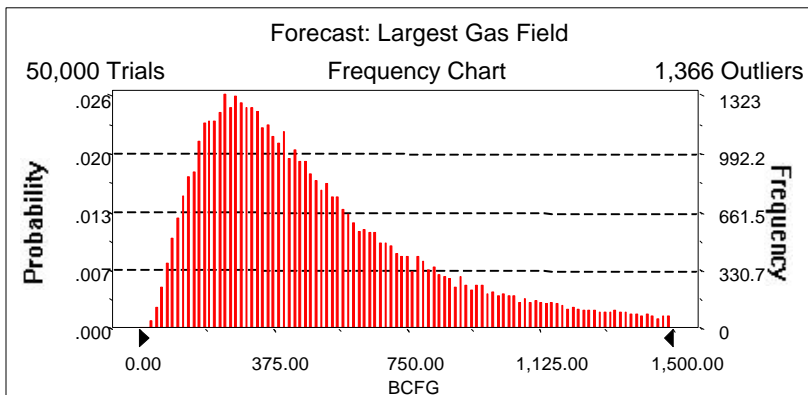
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**Forecast: Largest Gas Field**

Summary:

Display range is from 0.00 to 1,500.00 BCFG  
Entire range is from 26.54 to 1,999.08 BCFG  
After 50,000 trials, the standard error of the mean is 1.61

Statistics:	Value
Trials	50000
Mean	524.29
Median	424.86
Mode	---
Standard Deviation	361.00
Variance	130,319.81
Skewness	1.44
Kurtosis	5.08
Coefficient of Variability	0.69
Range Minimum	26.54
Range Maximum	1,999.08
Range Width	1,972.55
Mean Standard Error	1.61



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**Monte Carlo Results**

**Forecast: Largest Gas Field (cont'd)**

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	26.54
95%	131.20
90%	173.07
85%	205.63
80%	237.44
75%	266.29
70%	295.08
65%	324.44
60%	356.52
55%	389.97
50%	424.86
45%	463.98
40%	505.65
35%	553.70
30%	609.46
25%	677.00
20%	759.46
15%	866.65
10%	1,025.52
5%	1,291.13
0%	1,999.08

End of Forecast

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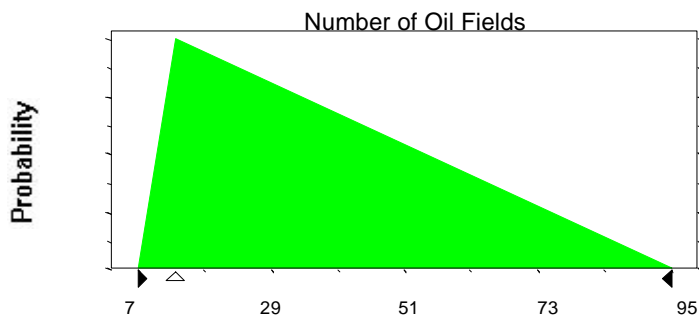
Assumptions

**Assumption: Number of Oil Fields**

Triangular distribution with parameters:

Minimum	7
Likeliest	13
Maximum	95

Selected range is from 7 to 95  
Mean value in simulation was 38



**Assumption: Sizes of Oil Fields**

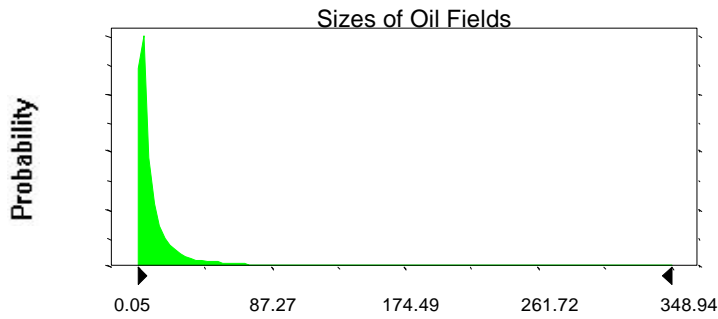
Lognormal distribution with parameters:	Shifted parameters	
Mean	12.13	13.13
Standard Deviation	34.72	34.72

Selected range is from 0.00 to 399.00                      1.00 to 400.00  
Mean value in simulation was 11.54                              12.54



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Assumption: Sizes of Oil Fields (cont'd)

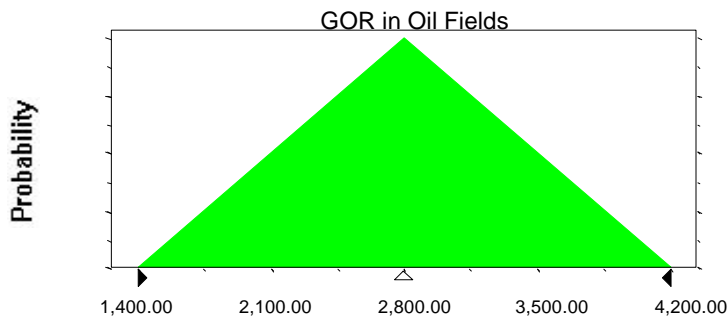


Assumption: GOR in Oil Fields

Triangular distribution with parameters:

Minimum	1,400.00
Likeliest	2,800.00
Maximum	4,200.00

Selected range is from 1,400.00 to 4,200.00  
Mean value in simulation was 2,797.83



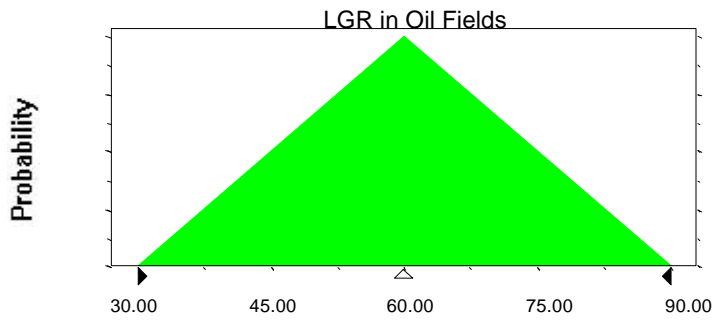
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**Assumption: LGR in Oil Fields**

Triangular distribution with parameters:

Minimum	30.00
Likeliest	60.00
Maximum	90.00

Selected range is from 30.00 to 90.00  
Mean value in simulation was 60.00



**Assumption: Number of Gas Fields**

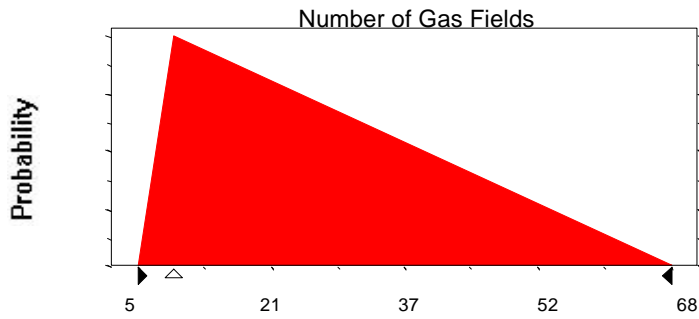
Triangular distribution with parameters:

Minimum	5
Likeliest	9
Maximum	68

Selected range is from 5 to 68  
Mean value in simulation was 27

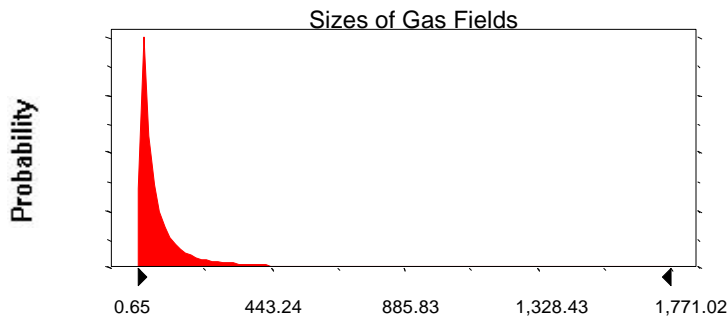
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Monte Carlo Results

Assumption: Number of Gas Fields (cont'd)



Assumption: Sizes of Gas Fields

Lognormal distribution with parameters:		Shifted parameters	
Mean	81.00		87
Standard Deviation	175.15		175.15
Selected range is from 0.00 to 1,994.00		6.00 to 2,000.00	
Mean value in simulation was 78.15		84.15	



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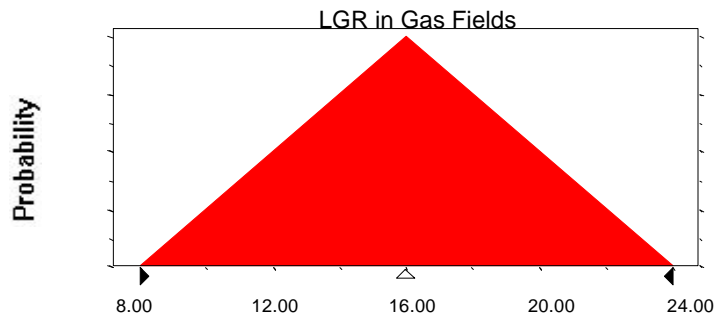
**Assumption: LGR in Gas Fields**

Triangular distribution with parameters:

Minimum	8.00
Likeliest	16.00
Maximum	24.00

Selected range is from 8.00 to 24.00

Mean value in simulation was 16.01



End of Assumptions

Simulation started on 8/20/99 at 12:43:44  
Simulation stopped on 8/20/99 at 13:28:23