

**Apsheron-Pribalkhan Zone, Assessment Unit 11120101  
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	5	1.00	892	2,839	6,097	3,091	989	3,308	7,805	3,710	55	193	491	222	193	602	1,953	765
Gas Fields	30						961	3,604	9,529	4,197	18	70	197	84	337	1,127	3,996	1,489
Total		1.00	892	2,839	6,097	3,091	1,950	6,912	17,335	7,908	73	263	688	306				

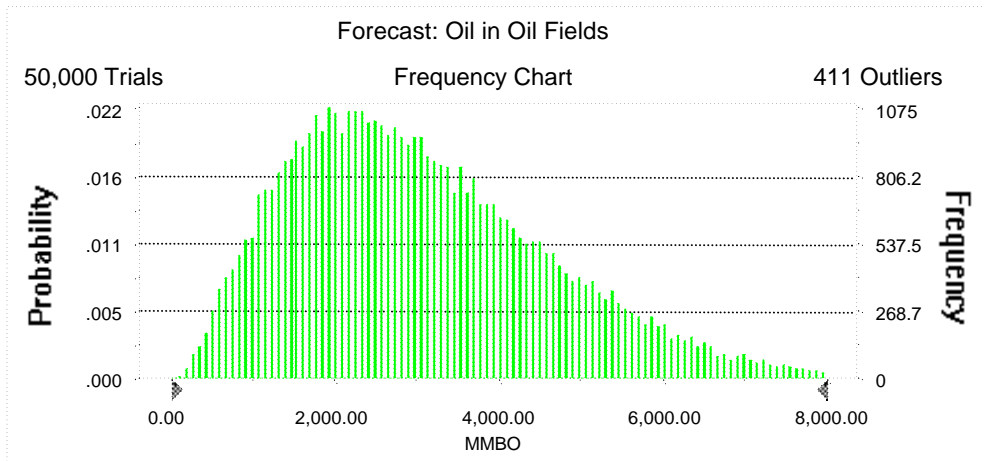
**11120101**  
**Apsheron-Pribalkhan Zone**  
**Monte Carlo Results**

**Forecast: Oil in Oil Fields**

Summary:

Display range is from 0.00 to 8,000.00 MMBO  
Entire range is from 102.88 to 12,960.41 MMBO  
After 50,000 trials, the standard error of the mean is 7.29

Statistics:	Value
Trials	50000
Mean	3,090.68
Median	2,839.17
Mode	---
Standard Deviation	1,630.13
Variance	2,657,324.18
Skewness	0.83
Kurtosis	3.78
Coefficient of Variability	0.53
Range Minimum	102.88
Range Maximum	12,960.41
Range Width	12,857.53
Mean Standard Error	7.29



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

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	102.88
95%	891.59
90%	1,198.08
85%	1,445.21
80%	1,662.42
75%	1,863.68
70%	2,054.56
65%	2,249.15
60%	2,438.61
55%	2,636.33
50%	2,839.17
45%	3,050.93
40%	3,271.82
35%	3,515.90
30%	3,771.36
25%	4,065.99
20%	4,406.88
15%	4,799.45
10%	5,329.21
5%	6,096.87
0%	12,960.41

End of Forecast

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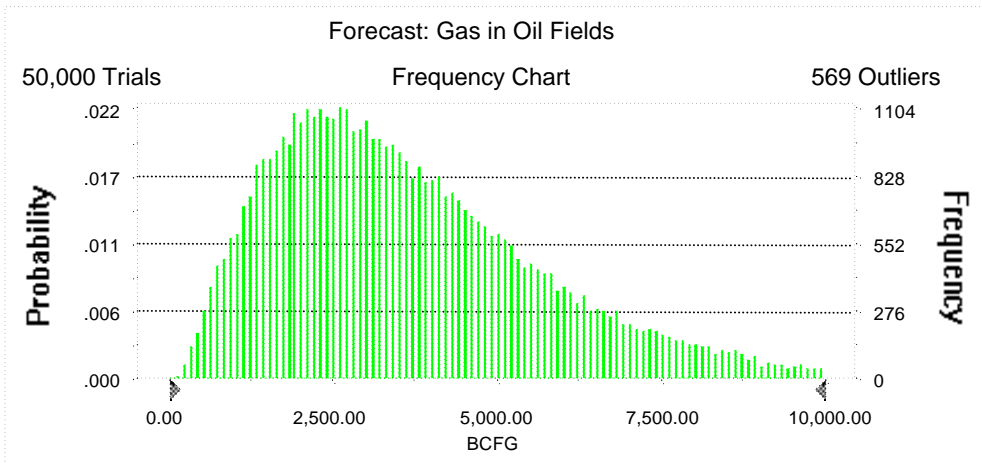
**Forecast: Gas in Oil Fields**

Summary:

Display range is from 0.00 to 10,000.00 BCFG  
 Entire range is from 120.48 to 17,122.46 BCFG  
 After 50,000 trials, the standard error of the mean is 9.56

Statistics:

	<u>Value</u>
Trials	50000
Mean	3,710.42
Median	3,307.71
Mode	---
Standard Deviation	2,138.34
Variance	4,572,487.15
Skewness	1.07
Kurtosis	4.49
Coefficient of Variability	0.58
Range Minimum	120.48
Range Maximum	17,122.46
Range Width	17,001.98
Mean Standard Error	9.56



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

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	120.48
95%	988.92
90%	1,347.11
85%	1,624.74
80%	1,882.08
75%	2,121.44
70%	2,351.73
65%	2,582.78
60%	2,811.22
55%	3,055.42
50%	3,307.71
45%	3,574.33
40%	3,861.29
35%	4,165.16
30%	4,501.15
25%	4,883.78
20%	5,322.90
15%	5,870.63
10%	6,628.07
5%	7,805.25
0%	17,122.46

End of Forecast

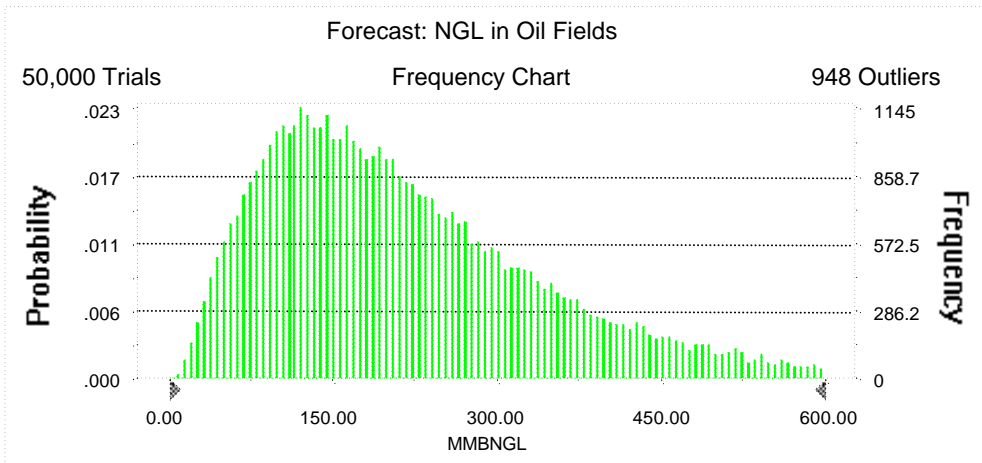
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**Forecast: NGL in Oil Fields**

Summary:

Display range is from 0.00 to 600.00 MMBNGL  
Entire range is from 4.31 to 1,231.75 MMBNGL  
After 50,000 trials, the standard error of the mean is 0.62

Statistics:	<u>Value</u>
Trials	50000
Mean	222.34
Median	192.94
Mode	---
Standard Deviation	138.46
Variance	19,170.14
Skewness	1.28
Kurtosis	5.32
Coefficient of Variability	0.62
Range Minimum	4.31
Range Maximum	1,231.75
Range Width	1,227.43
Mean Standard Error	0.62



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

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	4.31
95%	55.41
90%	75.82
85%	92.29
80%	106.74
75%	120.75
70%	134.18
65%	148.16
60%	162.58
55%	177.23
50%	192.94
45%	208.85
40%	226.54
35%	245.81
30%	267.62
25%	292.78
20%	322.36
15%	358.41
10%	409.42
5%	490.92
0%	1,231.75

End of Forecast

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**Monte Carlo Results**

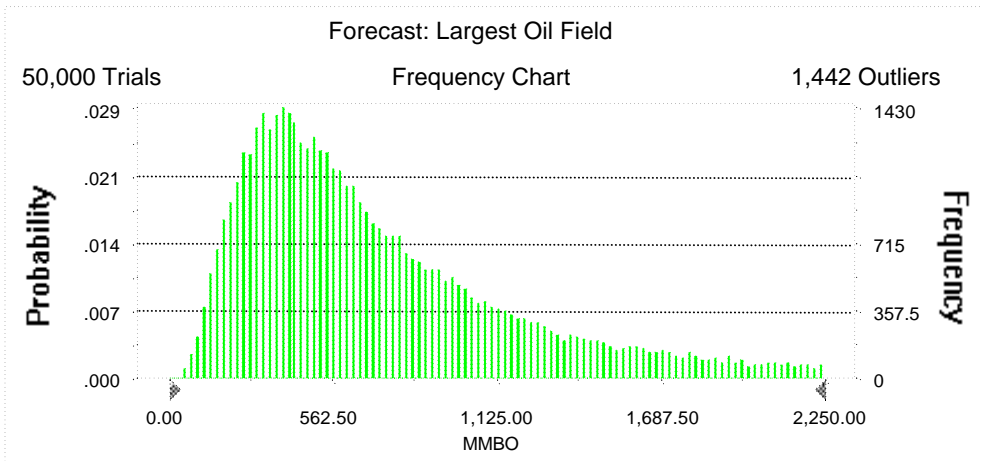
**Forecast: Largest Oil Field**

Summary:

Display range is from 0.00 to 2,250.00 MMBO  
 Entire range is from 28.96 to 2,998.97 MMBO  
 After 50,000 trials, the standard error of the mean is 2.45

Statistics:

	<u>Value</u>
Trials	50000
Mean	765.08
Median	602.19
Mode	---
Standard Deviation	547.85
Variance	300,134.41
Skewness	1.53
Kurtosis	5.34
Coefficient of Variability	0.72
Range Minimum	28.96
Range Maximum	2,998.97
Range Width	2,970.01
Mean Standard Error	2.45





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**Monte Carlo Results**

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

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	28.96
95%	192.62
90%	250.29
85%	296.99
80%	337.98
75%	379.13
70%	419.00
65%	461.13
60%	506.22
55%	552.29
50%	602.19
45%	657.43
40%	722.00
35%	795.31
30%	880.64
25%	981.55
20%	1,108.30
15%	1,275.35
10%	1,525.44
5%	1,953.25
0%	2,998.97

End of Forecast

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**Monte Carlo Results**

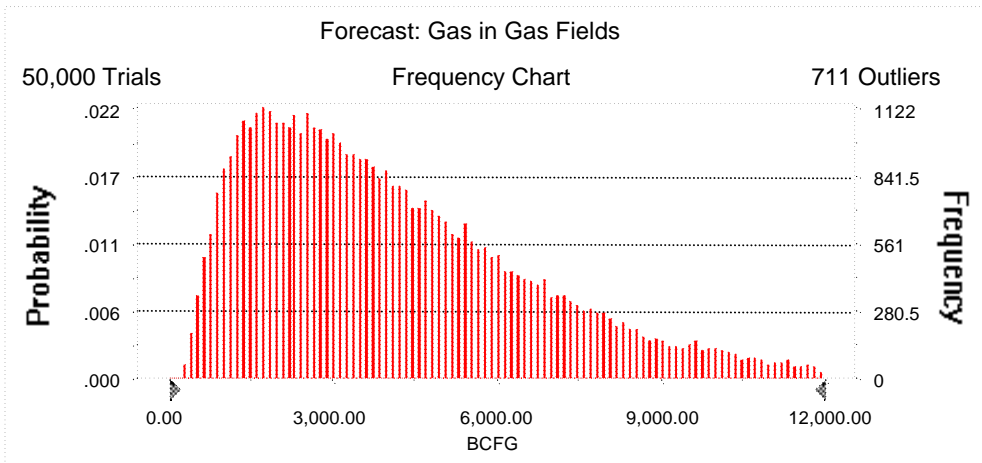
**Forecast: Gas in Gas Fields**

Summary:

Display range is from 0.00 to 12,000.00 BCFG  
 Entire range is from 187.31 to 24,316.82 BCFG  
 After 50,000 trials, the standard error of the mean is 12.15

Statistics:

	<u>Value</u>
Trials	50000
Mean	4,197.16
Median	3,604.40
Mode	---
Standard Deviation	2,717.04
Variance	7,382,330.58
Skewness	1.17
Kurtosis	4.64
Coefficient of Variability	0.65
Range Minimum	187.31
Range Maximum	24,316.82
Range Width	24,129.51
Mean Standard Error	12.15



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

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	187.31
95%	961.23
90%	1,286.51
85%	1,567.74
80%	1,837.77
75%	2,115.49
70%	2,399.16
65%	2,680.12
60%	2,974.51
55%	3,280.81
50%	3,604.40
45%	3,944.64
40%	4,312.69
35%	4,719.36
30%	5,157.75
25%	5,659.64
20%	6,250.73
15%	6,977.10
10%	7,931.01
5%	9,529.35
0%	24,316.82

End of Forecast

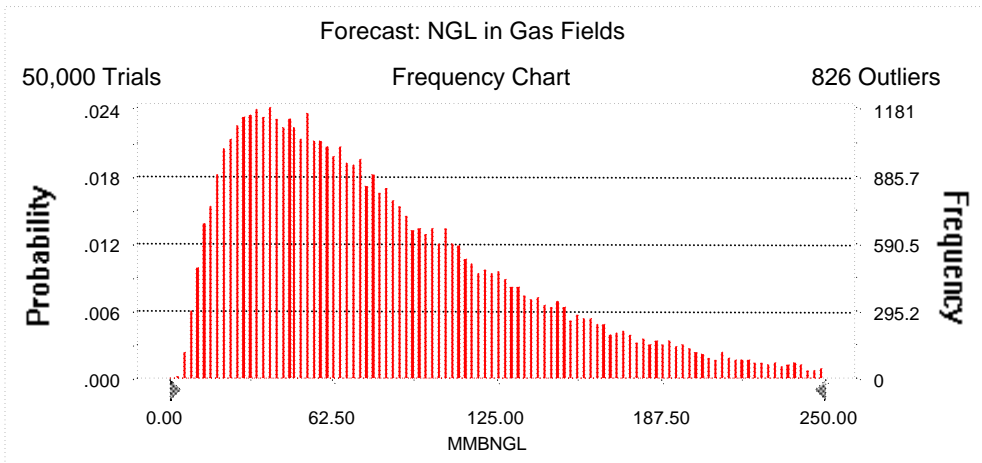
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**Forecast: NGL in Gas Fields**

Summary:

Display range is from 0.00 to 250.00 MMBNGL  
Entire range is from 2.97 to 504.48 MMBNGL  
After 50,000 trials, the standard error of the mean is 0.26

Statistics:	<u>Value</u>
Trials	50000
Mean	84.08
Median	70.33
Mode	---
Standard Deviation	57.89
Variance	3,351.59
Skewness	1.36
Kurtosis	5.49
Coefficient of Variability	0.69
Range Minimum	2.97
Range Maximum	504.48
Range Width	501.51
Mean Standard Error	0.26



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

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	2.97
95%	17.99
90%	24.37
85%	29.87
80%	35.31
75%	40.65
70%	46.24
65%	52.03
60%	57.73
55%	63.90
50%	70.33
45%	77.17
40%	84.55
35%	92.84
30%	102.49
25%	112.79
20%	125.84
15%	141.54
10%	162.62
5%	197.07
0%	504.48

End of Forecast

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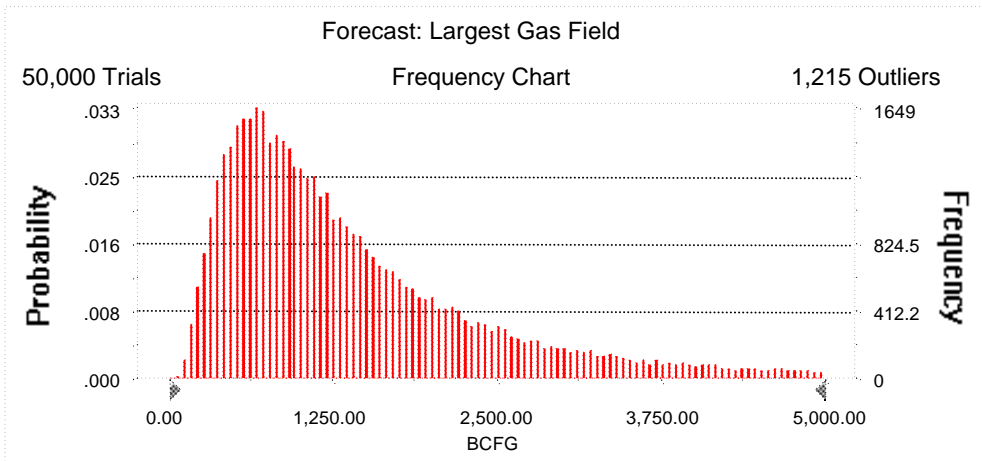
**Forecast: Largest Gas Field**

Summary:

Display range is from 0.00 to 5,000.00 BCFG  
 Entire range is from 77.69 to 7,993.89 BCFG  
 After 50,000 trials, the standard error of the mean is 5.40

Statistics:

	<u>Value</u>
Trials	50000
Mean	1,489.23
Median	1,127.17
Mode	---
Standard Deviation	1,206.91
Variance	1,456,624.55
Skewness	2.01
Kurtosis	7.97
Coefficient of Variability	0.81
Range Minimum	77.69
Range Maximum	7,993.89
Range Width	7,916.20
Mean Standard Error	5.40



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

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	77.69
95%	336.85
90%	437.39
85%	523.79
80%	602.53
75%	680.26
70%	757.52
65%	843.21
60%	929.91
55%	1,024.98
50%	1,127.17
45%	1,234.32
40%	1,360.70
35%	1,501.50
30%	1,671.09
25%	1,877.94
20%	2,142.51
15%	2,488.96
10%	3,012.96
5%	3,995.56
0%	7,993.89

End of Forecast

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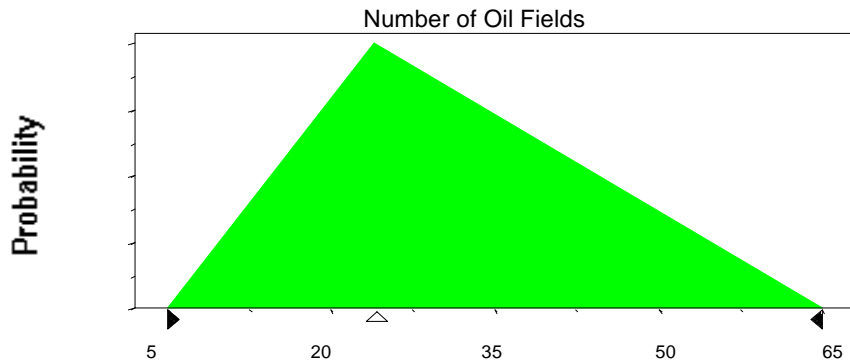
**Assumptions**

**Assumption: Number of Oil Fields**

Triangular distribution with parameters:

Minimum	5
Likeliest	24
Maximum	65

Selected range is from 5 to 65  
Mean value in simulation was 31



**Assumption: Sizes of Oil Fields**

Lognormal distribution with parameters:

Mean	98.69
Standard Deviation	260.22

Shifted parameters

103.69
260.22

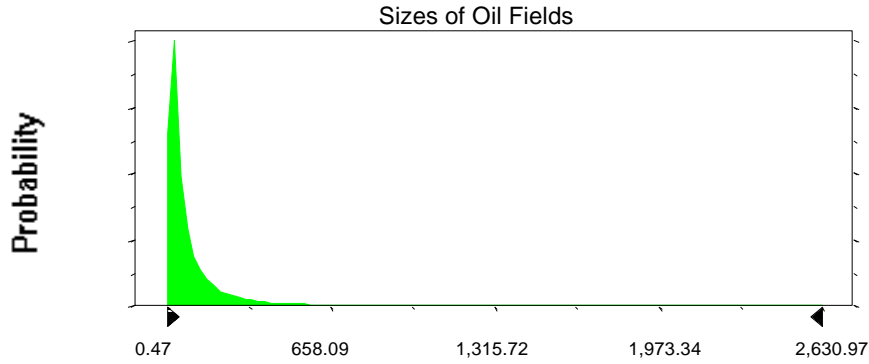
Selected range is from 0.00 to 2,995.00  
Mean value in simulation was 92.70

5.00 to 3,000.00  
97.7



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**Assumption: Sizes of Oil Fields (cont'd)**



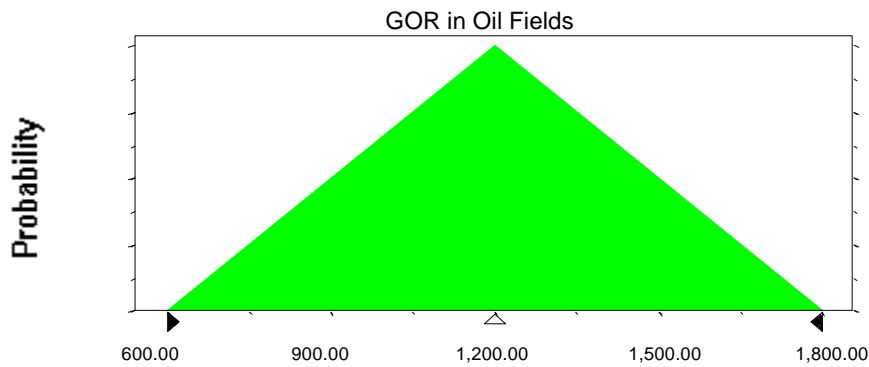
**Assumption: GOR in Oil Fields**

Triangular distribution with parameters:

Minimum	600.00
Likeliest	1,200.00
Maximum	1,800.00

Selected range is from 600.00 to 1,800.00

Mean value in simulation was 1,199.76



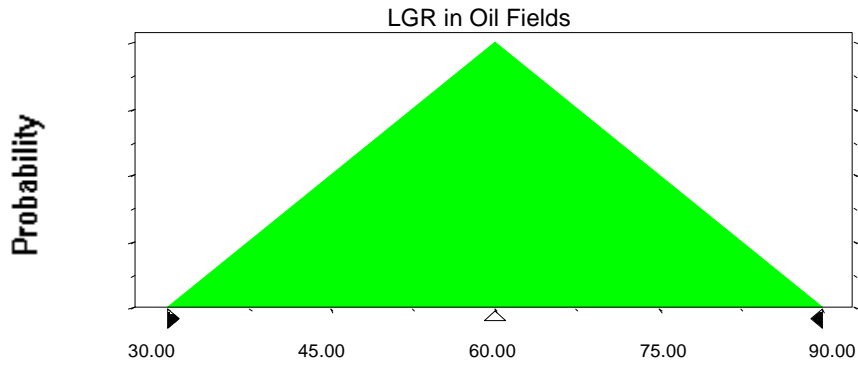
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**Assumption: LGR in Oil Fields**

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 59.94



**Assumption: Number of Gas Fields**

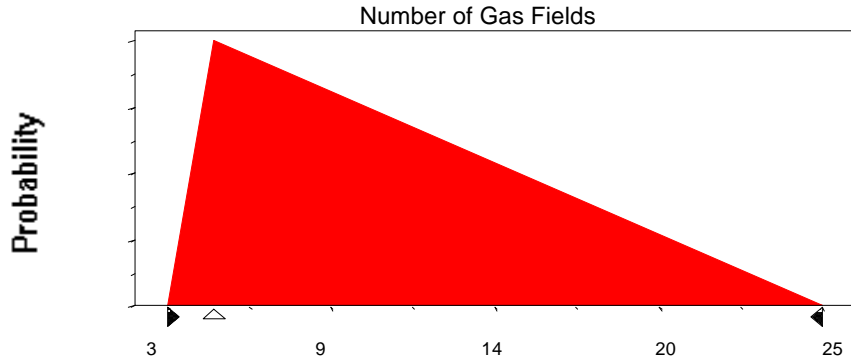
Triangular distribution with parameters:

Minimum	3
Likeliest	5
Maximum	25

Selected range is from 3 to 25  
Mean value in simulation was 11

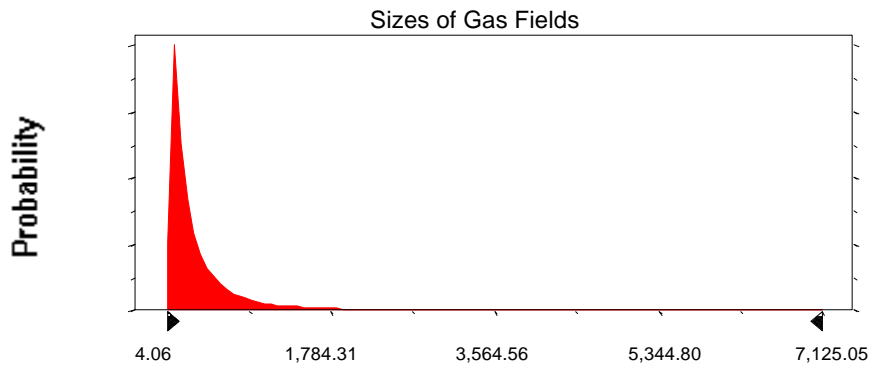
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**Assumption: Number of Gas Fields (cont'd)**



**Assumption: Sizes of Gas Fields**

Lognormal distribution with parameters:		Shifted parameters
Mean	369.09	399.09
Standard Deviation	711.29	711.29
Selected range is from 0.00 to 7,970.00		30.00 to 8,000.00
Mean value in simulation was 356.05		386.05



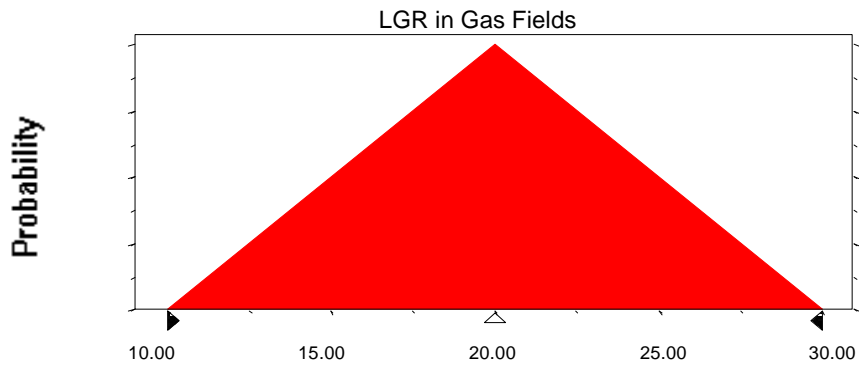
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**Assumption: LGR in Gas Fields**

Triangular distribution with parameters:

Minimum	10.00
Likeliest	20.00
Maximum	30.00

Selected range is from 10.00 to 30.00  
Mean value in simulation was 20.04



End of Assumptions

Simulation started on 1/17/00 at 20:37:36  
Simulation stopped on 1/17/00 at 21:03:29