

**Kolguyev Terrace, Assessment Unit 10500101**  
**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	10	1.00	121	500	1,216	563	290	1,226	3,128	1,406	16	71	197	84	34	109	377	143
Gas Fields	60						3,612	14,574	33,745	16,148	135	566	1,429	647	695	2,364	7,136	2,910
Total		1.00	121	500	1,216	563	3,902	15,799	36,873	17,554	151	637	1,626	731				

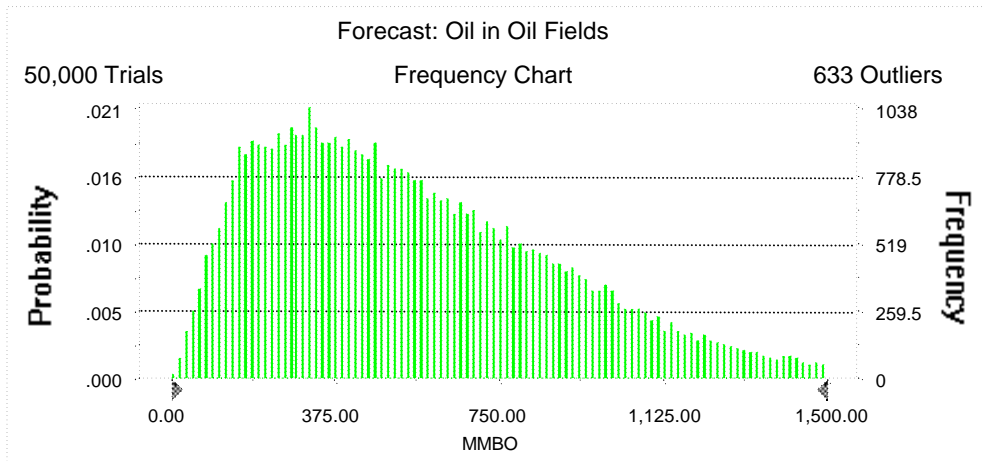
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**Monte Carlo Results**

**Forecast: Oil in Oil Fields**

Summary:

Display range is from 0.00 to 1,500.00 MMBO  
Entire range is from 10.44 to 2,509.01 MMBO  
After 50,000 trials, the standard error of the mean is 1.54

Statistics:	Value
Trials	50000
Mean	562.52
Median	500.19
Mode	---
Standard Deviation	345.31
Variance	119,242.21
Skewness	0.87
Kurtosis	3.61
Coefficient of Variability	0.61
Range Minimum	10.44
Range Maximum	2,509.01
Range Width	2,498.57
Mean Standard Error	1.54



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

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	10.44
95%	121.07
90%	168.43
85%	210.94
80%	252.19
75%	293.06
70%	331.17
65%	371.27
60%	412.32
55%	455.36
50%	500.19
45%	545.56
40%	595.97
35%	650.45
30%	708.49
25%	773.76
20%	848.19
15%	932.41
10%	1,041.82
5%	1,216.21
0%	2,509.01

End of Forecast

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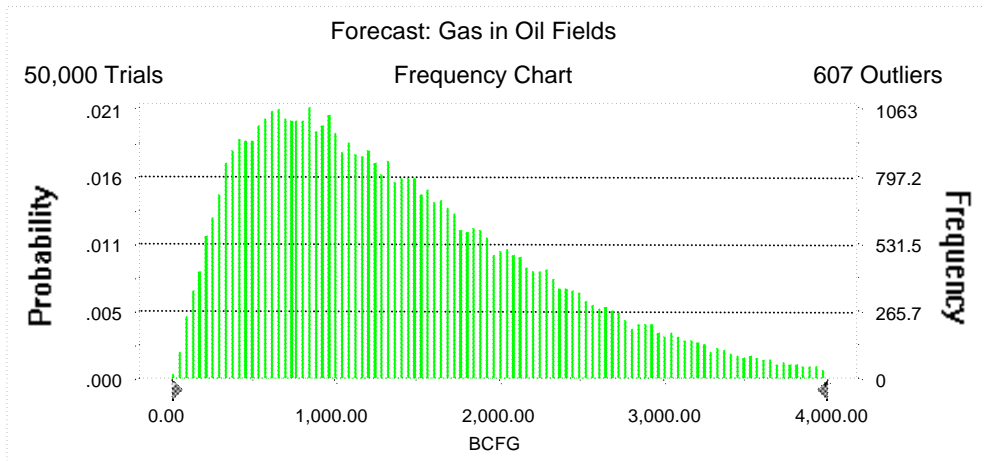
**Forecast: Gas in Oil Fields**

Summary:

Display range is from 0.00 to 4,000.00 BCFG  
Entire range is from 19.64 to 7,676.39 BCFG  
After 50,000 trials, the standard error of the mean is 4.04

Statistics:

	<u>Value</u>
Trials	50000
Mean	1,405.99
Median	1,225.53
Mode	---
Standard Deviation	903.29
Variance	815,935.23
Skewness	1.05
Kurtosis	4.28
Coefficient of Variability	0.64
Range Minimum	19.64
Range Maximum	7,676.39
Range Width	7,656.74
Mean Standard Error	4.04



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

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	19.64
95%	290.11
90%	408.16
85%	514.27
80%	613.32
75%	709.68
70%	807.00
65%	905.64
60%	1,004.25
55%	1,111.51
50%	1,225.53
45%	1,344.76
40%	1,471.02
35%	1,603.83
30%	1,750.44
25%	1,920.74
20%	2,117.41
15%	2,348.57
10%	2,656.35
5%	3,127.76
0%	7,676.39

End of Forecast

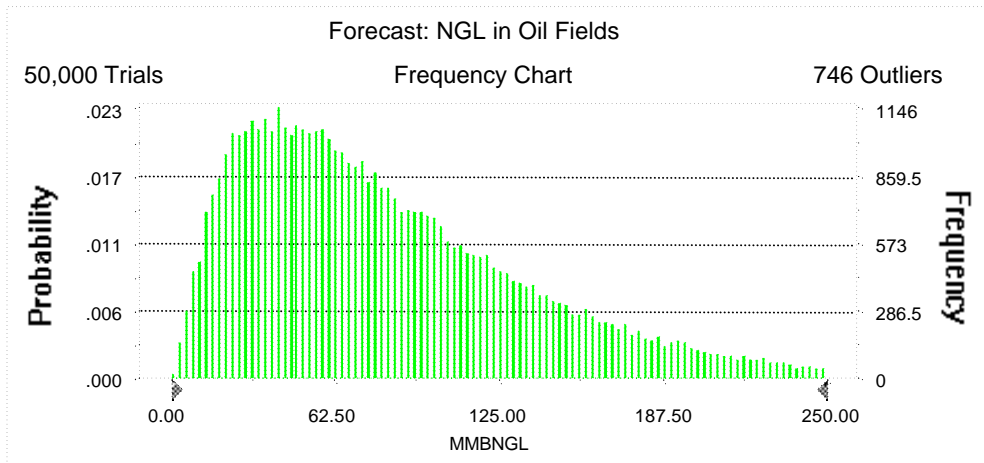
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**Forecast: NGL in Oil Fields**

Summary:

Display range is from 0.00 to 250.00 MMBNGL  
Entire range is from 0.79 to 534.89 MMBNGL  
After 50,000 trials, the standard error of the mean is 0.26

Statistics:	Value
Trials	50000
Mean	84.46
Median	71.26
Mode	---
Standard Deviation	58.03
Variance	3,367.49
Skewness	1.27
Kurtosis	5.19
Coefficient of Variability	0.69
Range Minimum	0.79
Range Maximum	534.89
Range Width	534.10
Mean Standard Error	0.26



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

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	0.79
95%	16.20
90%	23.24
85%	29.18
80%	35.03
75%	40.78
70%	46.60
65%	52.44
60%	58.39
55%	64.58
50%	71.26
45%	78.35
40%	86.01
35%	94.76
30%	103.81
25%	114.80
20%	127.32
15%	142.99
10%	164.01
5%	196.98
0%	534.89

End of Forecast

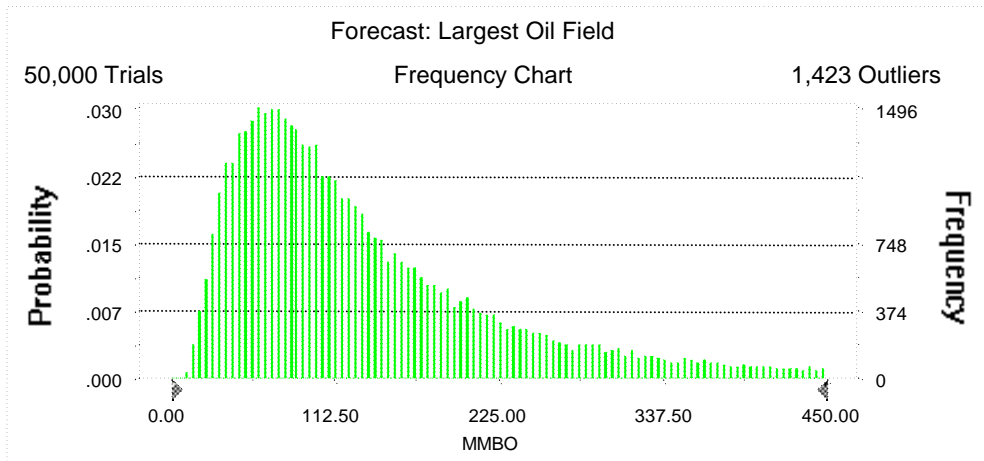
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**Forecast: Largest Oil Field**

Summary:

Display range is from 0.00 to 450.00 MMBO  
Entire range is from 10.44 to 700.00 MMBO  
After 50,000 trials, the standard error of the mean is 0.50

Statistics:	Value
Trials	50000
Mean	142.88
Median	109.18
Mode	---
Standard Deviation	111.72
Variance	12,482.44
Skewness	1.89
Kurtosis	7.25
Coefficient of Variability	0.78
Range Minimum	10.44
Range Maximum	700.00
Range Width	689.56
Mean Standard Error	0.50





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

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	10.44
95%	33.87
90%	43.67
85%	52.03
80%	59.88
75%	67.47
70%	75.02
65%	82.86
60%	90.98
55%	99.71
50%	109.18
45%	119.54
40%	131.13
35%	144.69
30%	161.08
25%	180.51
20%	204.85
15%	237.47
10%	287.90
5%	377.06
0%	700.00

End of Forecast

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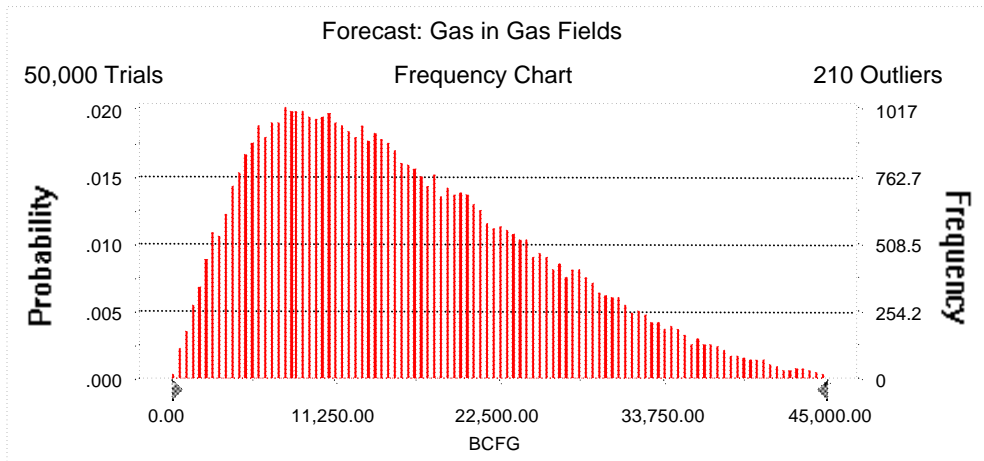
**Forecast: Gas in Gas Fields**

Summary:

Display range is from 0.00 to 45,000.00 BCFG  
 Entire range is from 202.19 to 62,404.62 BCFG  
 After 50,000 trials, the standard error of the mean is 42.06

Statistics:

	<u>Value</u>
Trials	50000
Mean	16,147.73
Median	14,573.96
Mode	---
Standard Deviation	9,405.12
Variance	88,456,276.86
Skewness	0.70
Kurtosis	3.07
Coefficient of Variability	0.58
Range Minimum	202.19
Range Maximum	62,404.62
Range Width	62,202.43
Mean Standard Error	42.06



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

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	202.19
95%	3,611.74
90%	5,170.16
85%	6,395.51
80%	7,595.99
75%	8,704.79
70%	9,829.94
65%	10,982.69
60%	12,143.88
55%	13,350.44
50%	14,573.96
45%	15,883.52
40%	17,280.50
35%	18,803.86
30%	20,415.54
25%	22,190.12
20%	24,227.45
15%	26,625.91
10%	29,521.23
5%	33,744.97
0%	62,404.62

End of Forecast

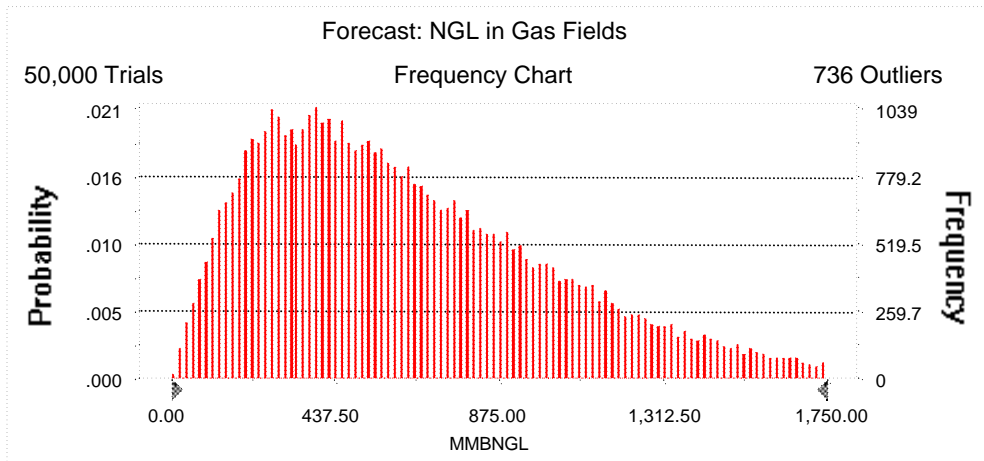
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**Forecast: NGL in Gas Fields**

Summary:

Display range is from 0.00 to 1,750.00 MMBNGL  
 Entire range is from 8.80 to 2,981.64 MMBNGL  
 After 50,000 trials, the standard error of the mean is 1.82

Statistics:	<u>Value</u>
Trials	50000
Mean	646.74
Median	565.64
Mode	---
Standard Deviation	405.93
Variance	164,780.67
Skewness	0.96
Kurtosis	3.86
Coefficient of Variability	0.63
Range Minimum	8.80
Range Maximum	2,981.64
Range Width	2,972.84
Mean Standard Error	1.82



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

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	8.80
95%	135.28
90%	195.61
85%	243.98
80%	288.74
75%	333.94
70%	379.69
65%	422.91
60%	468.46
55%	517.65
50%	565.64
45%	618.53
40%	675.41
35%	739.21
30%	806.53
25%	884.34
20%	971.36
15%	1,076.24
10%	1,210.60
5%	1,429.15
0%	2,981.64

End of Forecast

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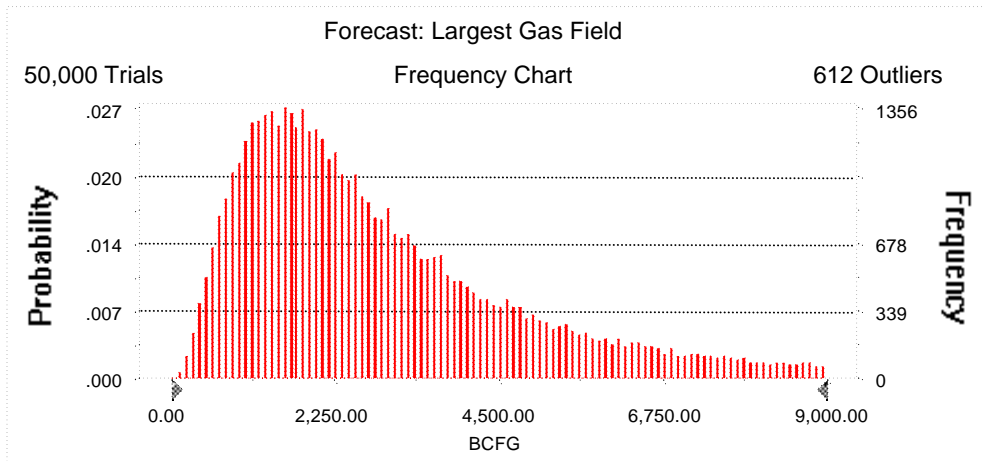
**Forecast: Largest Gas Field**

Summary:

Display range is from 0.00 to 9,000.00 BCFG  
Entire range is from 100.10 to 9,999.96 BCFG  
After 50,000 trials, the standard error of the mean is 8.82

Statistics:

	<u>Value</u>
Trials	50000
Mean	2,909.92
Median	2,363.73
Mode	---
Standard Deviation	1,973.30
Variance	3,893,925.83
Skewness	1.25
Kurtosis	4.24
Coefficient of Variability	0.68
Range Minimum	100.10
Range Maximum	9,999.96
Range Width	9,899.86
Mean Standard Error	8.82



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

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	100.10
95%	695.46
90%	927.29
85%	1,118.14
80%	1,291.56
75%	1,460.91
70%	1,630.05
65%	1,805.48
60%	1,979.31
55%	2,162.69
50%	2,363.73
45%	2,588.65
40%	2,839.68
35%	3,120.32
30%	3,445.29
25%	3,817.38
20%	4,309.06
15%	4,913.78
10%	5,764.28
5%	7,135.96
0%	9,999.96

End of Forecast

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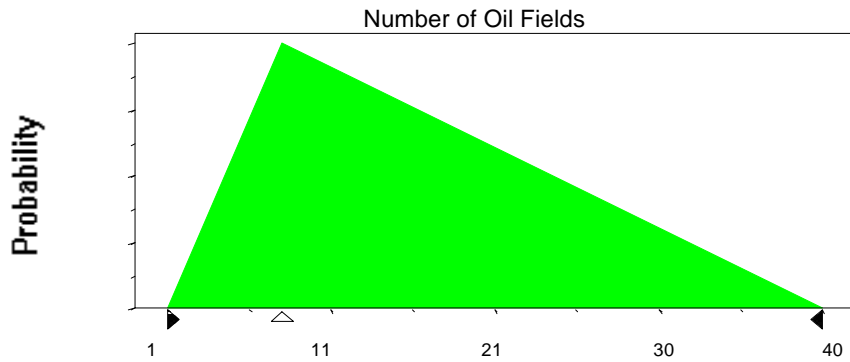
Assumptions

**Assumption: Number of Oil Fields**

Triangular distribution with parameters:

Minimum	1
Likeliest	8
Maximum	40

Selected range is from 1 to 40  
Mean value in simulation was 16



**Assumption: Sizes of Oil Fields**

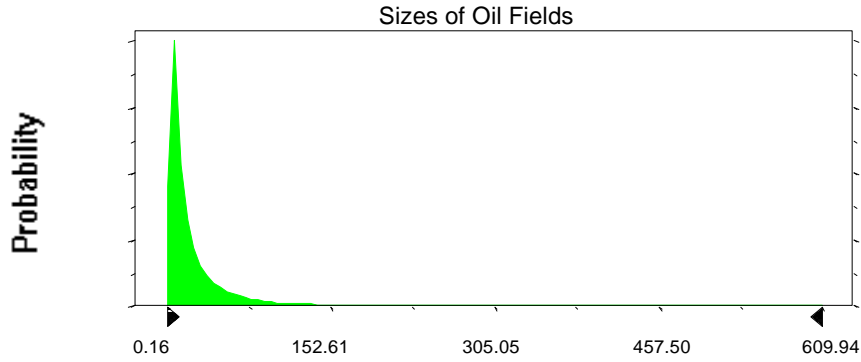
Lognormal distribution with parameters:		Shifted parameters
Mean	25.57	35.57
Standard Deviation	60.17	60.17

Selected range is from 0.00 to 690.00                      10.00 to 700.00  
Mean value in simulation was 24.49                                      34.49



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Assumption: Sizes of Oil Fields (cont'd)



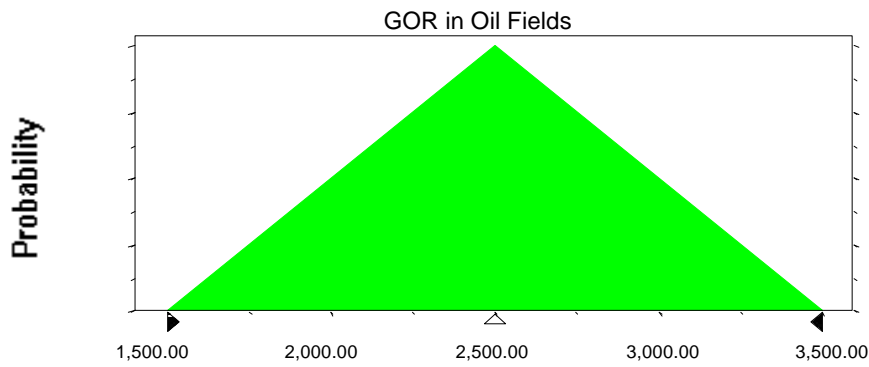
Assumption: GOR in Oil Fields

Triangular distribution with parameters:

Minimum	1,500.00
Likeliest	2,500.00
Maximum	3,500.00

Selected range is from 1,500.00 to 3,500.00

Mean value in simulation was 2,500.29



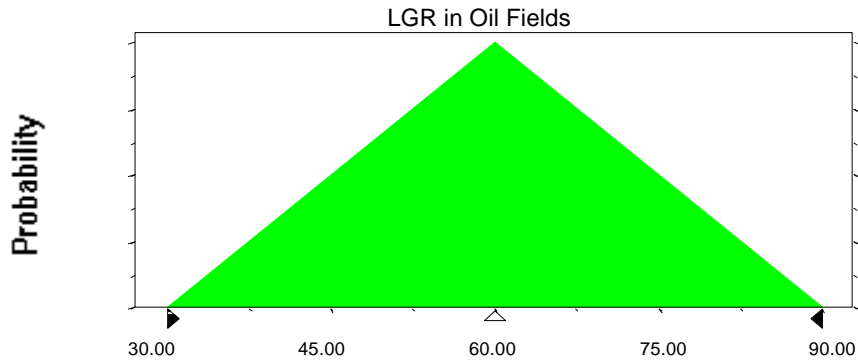
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**Assumption: LGR in Oil Fields**

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 60.03



**Assumption: Number of Gas Fields**

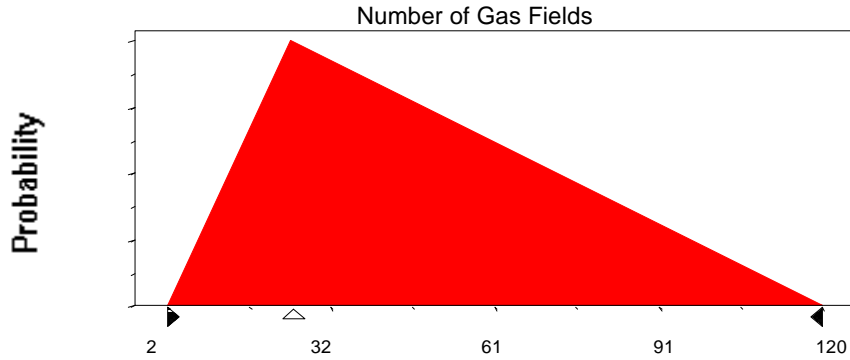
Triangular distribution with parameters:

Minimum	2
Likeliest	25
Maximum	120

Selected range is from 2 to 120  
Mean value in simulation was 49

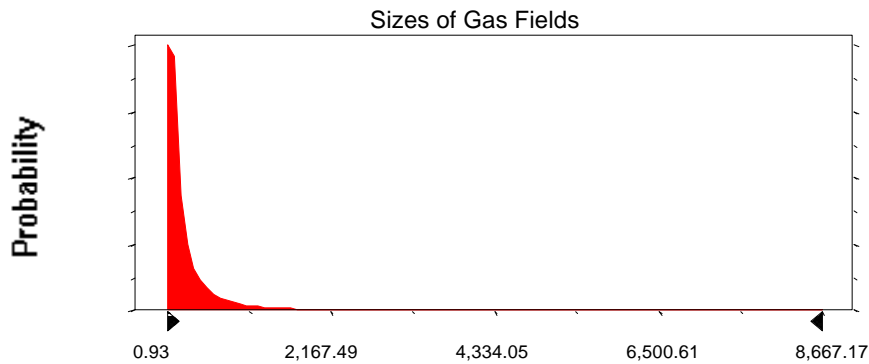
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Assumption: Number of Gas Fields (cont'd)



Assumption: Sizes of Gas Fields

Lognormal distribution with parameters:		Shifted parameters	
Mean	286.81		346.81
Standard Deviation	867.81		867.81
Selected range is from 0.00 to 9,940.00		60.00 to 10,000.00	
Mean value in simulation was 274.99		334.99	



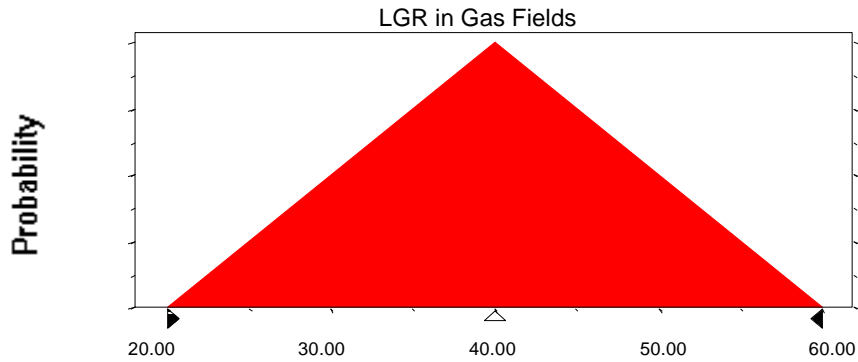
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**Assumption: LGR in Gas Fields**

Triangular distribution with parameters:

Minimum	20.00
Likeliest	40.00
Maximum	60.00

Selected range is from 20.00 to 60.00  
Mean value in simulation was 40.06



End of Assumptions

Simulation started on 1/28/00 at 14:26:26  
Simulation stopped on 1/28/00 at 15:08:29