

**Pre-Upper Jurassic, Assessment Unit 11740201
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	2,325	6,828	14,724	7,474	1,286	4,043	9,821	4,597	71	236	613	276	179	434	744	446
Gas Fields	30						271	830	1,860	919	11	36	86	40	79	190	541	233
Total		1.00	2,325	6,828	14,724	7,474	1,558	4,873	11,681	5,516	82	272	700	316				

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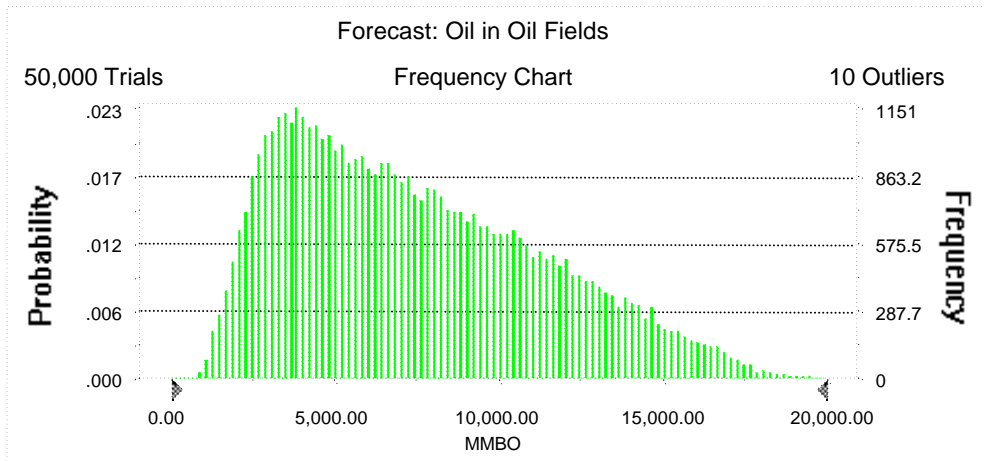
Forecast: Oil in Oil Fields

Summary:

Display range is from 0.00 to 20,000.00 MMBO
Entire range is from 731.50 to 20,640.49 MMBO
After 50,000 trials, the standard error of the mean is 17.44

Statistics:

	<u>Value</u>
Trials	50000
Mean	7,473.65
Median	6,828.09
Mode	---
Standard Deviation	3,900.52
Variance	15,214,088.66
Skewness	0.57
Kurtosis	2.51
Coefficient of Variability	0.52
Range Minimum	731.50
Range Maximum	20,640.49
Range Width	19,909.00
Mean Standard Error	17.44



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Forecast: Oil in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	731.50
95%	2,324.53
90%	2,872.26
85%	3,339.56
80%	3,788.99
75%	4,235.61
70%	4,706.36
65%	5,202.90
60%	5,722.10
55%	6,274.47
50%	6,828.09
45%	7,409.18
40%	8,050.71
35%	8,709.13
30%	9,433.61
25%	10,222.90
20%	11,049.83
15%	12,020.59
10%	13,177.05
5%	14,724.46
0%	20,640.49

End of Forecast

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Forecast: Gas in Oil Fields

Summary:

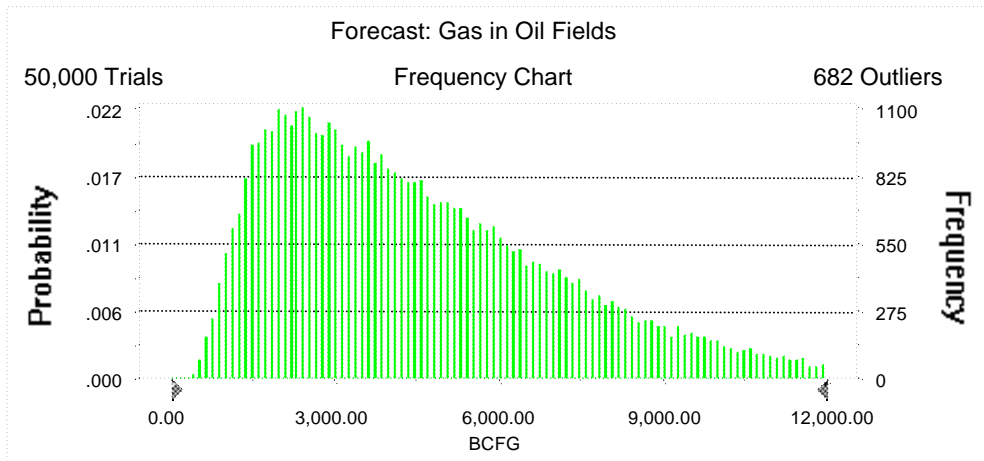
Display range is from 0.00 to 12,000.00 BCFG

Entire range is from 381.98 to 17,847.58 BCFG

After 50,000 trials, the standard error of the mean is 12.03

Statistics:

	<u>Value</u>
Trials	50000
Mean	4,597.44
Median	4,042.73
Mode	---
Standard Deviation	2,690.37
Variance	7,238,069.01
Skewness	0.96
Kurtosis	3.70
Coefficient of Variability	0.59
Range Minimum	381.98
Range Maximum	17,847.58
Range Width	17,465.60
Mean Standard Error	12.03



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Forecast: Gas in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	381.98
95%	1,286.42
90%	1,626.60
85%	1,925.87
80%	2,207.74
75%	2,484.91
70%	2,772.04
65%	3,069.97
60%	3,385.49
55%	3,704.76
50%	4,042.73
45%	4,406.04
40%	4,787.83
35%	5,208.72
30%	5,663.86
25%	6,161.87
20%	6,762.53
15%	7,462.91
10%	8,382.16
5%	9,821.10
0%	17,847.58

End of Forecast

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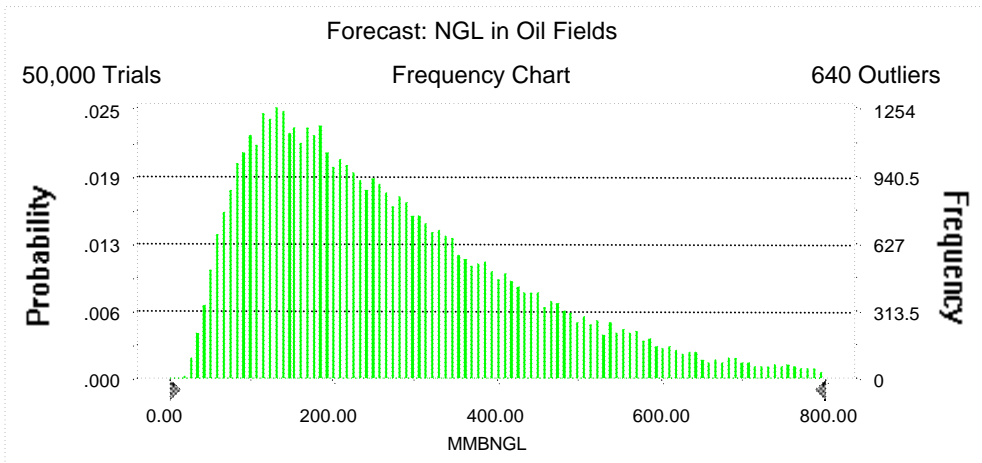
Forecast: NGL in Oil Fields

Summary:

Display range is from 0.00 to 800.00 MMBNGL
Entire range is from 19.52 to 1,457.21 MMBNGL
After 50,000 trials, the standard error of the mean is 0.78

Statistics:

	<u>Value</u>
Trials	50000
Mean	275.70
Median	236.25
Mode	---
Standard Deviation	174.33
Variance	30,391.84
Skewness	1.22
Kurtosis	4.81
Coefficient of Variability	0.63
Range Minimum	19.52
Range Maximum	1,457.21
Range Width	1,437.70
Mean Standard Error	0.78



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Forecast: NGL in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	19.52
95%	70.62
90%	92.18
85%	110.23
80%	126.89
75%	143.00
70%	160.18
65%	177.91
60%	195.26
55%	215.30
50%	236.25
45%	258.09
40%	281.56
35%	306.66
30%	334.82
25%	367.29
20%	406.04
15%	452.63
10%	515.58
5%	613.46
0%	1,457.21

End of Forecast

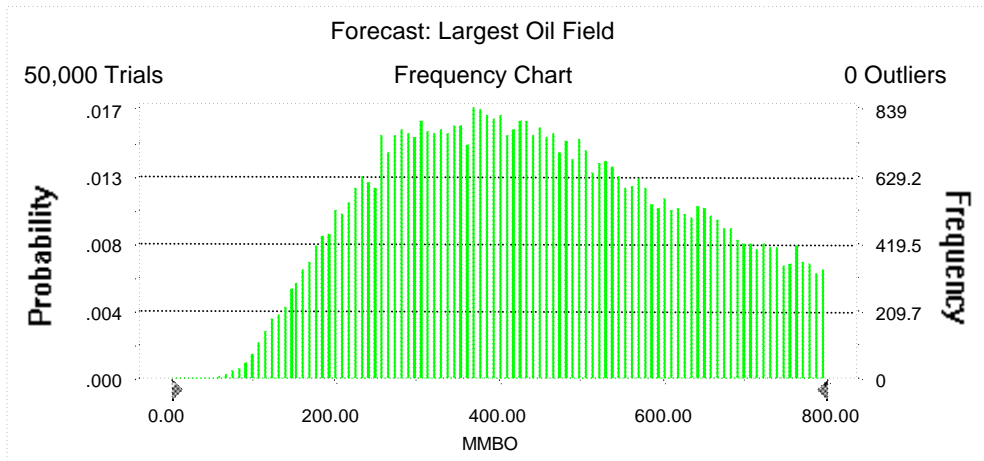
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Forecast: Largest Oil Field

Summary:

Display range is from 0.00 to 800.00 MMBO
Entire range is from 54.22 to 799.97 MMBO
After 50,000 trials, the standard error of the mean is 0.78

Statistics:	Value
Trials	50000
Mean	445.57
Median	434.04
Mode	---
Standard Deviation	173.59
Variance	30,133.13
Skewness	0.15
Kurtosis	2.11
Coefficient of Variability	0.39
Range Minimum	54.22
Range Maximum	799.97
Range Width	745.75
Mean Standard Error	0.78



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Forecast: Largest Oil Field (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	54.22
95%	178.97
90%	220.37
85%	253.94
80%	281.19
75%	307.50
70%	333.11
65%	358.98
60%	383.83
55%	408.38
50%	434.04
45%	460.24
40%	487.10
35%	515.45
30%	545.89
25%	578.65
20%	615.38
15%	653.76
10%	695.87
5%	744.37
0%	799.97

End of Forecast

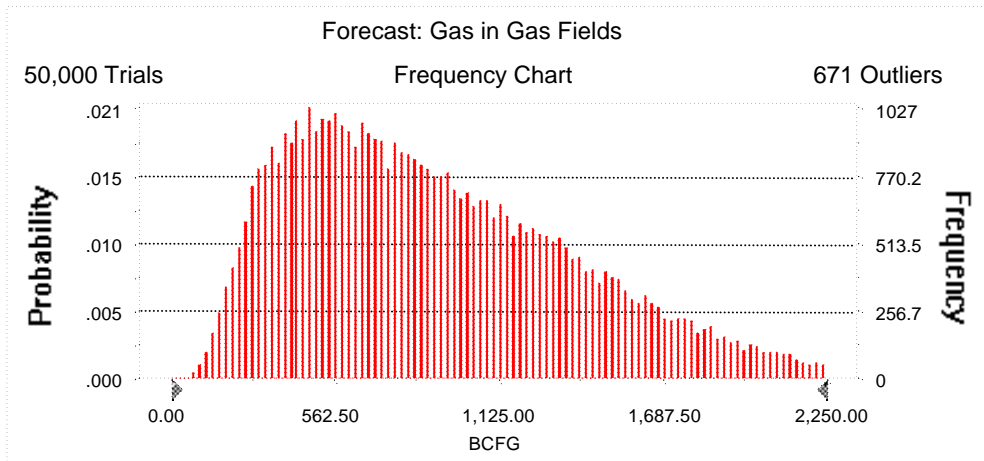
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Forecast: Gas in Gas Fields

Summary:

Display range is from 0.00 to 2,250.00 BCFG
Entire range is from 70.94 to 3,498.11 BCFG
After 50,000 trials, the standard error of the mean is 2.25

Statistics:	Value
Trials	50000
Mean	918.92
Median	830.25
Mode	---
Standard Deviation	502.19
Variance	252,196.05
Skewness	0.82
Kurtosis	3.45
Coefficient of Variability	0.55
Range Minimum	70.94
Range Maximum	3,498.11
Range Width	3,427.18
Mean Standard Error	2.25



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Forecast: Gas in Gas Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	70.94
95%	271.14
90%	342.12
85%	406.25
80%	466.62
75%	524.31
70%	581.18
65%	641.22
60%	701.19
55%	765.24
50%	830.25
45%	898.92
40%	971.57
35%	1,053.34
30%	1,138.95
25%	1,234.45
20%	1,337.73
15%	1,460.85
10%	1,621.34
5%	1,859.92
0%	3,498.11

End of Forecast

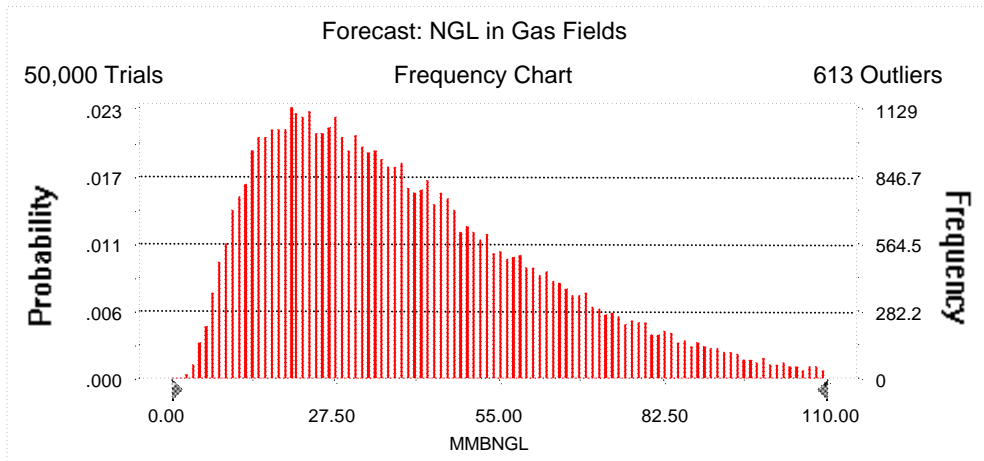
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Forecast: NGL in Gas Fields

Summary:

Display range is from 0.00 to 110.00 MMBNGL
Entire range is from 2.04 to 182.64 MMBNGL
After 50,000 trials, the standard error of the mean is 0.11

Statistics:	Value
Trials	50000
Mean	40.41
Median	35.54
Mode	---
Standard Deviation	23.97
Variance	574.38
Skewness	1.06
Kurtosis	4.24
Coefficient of Variability	0.59
Range Minimum	2.04
Range Maximum	182.64
Range Width	180.60
Mean Standard Error	0.11



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Forecast: NGL in Gas Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	2.04
95%	10.88
90%	14.19
85%	16.91
80%	19.54
75%	22.03
70%	24.52
65%	27.19
60%	29.84
55%	32.63
50%	35.54
45%	38.58
40%	41.92
35%	45.48
30%	49.33
25%	53.84
20%	59.19
15%	65.35
10%	73.61
5%	86.41
0%	182.64

End of Forecast

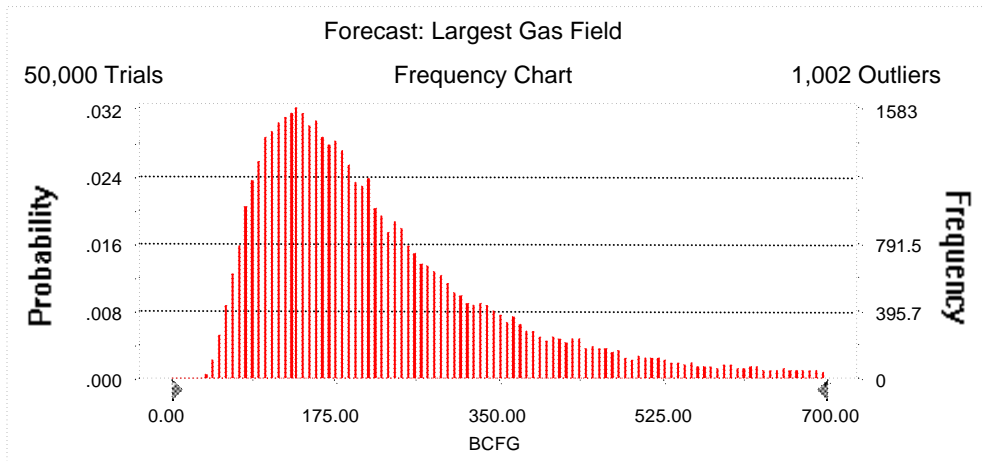
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Forecast: Largest Gas Field

Summary:

Display range is from 0.00 to 700.00 BCFG
Entire range is from 35.93 to 999.60 BCFG
After 50,000 trials, the standard error of the mean is 0.67

Statistics:	Value
Trials	50000
Mean	232.57
Median	190.20
Mode	---
Standard Deviation	150.75
Variance	22,726.00
Skewness	1.84
Kurtosis	7.18
Coefficient of Variability	0.65
Range Minimum	35.93
Range Maximum	999.60
Range Width	963.68
Mean Standard Error	0.67



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Forecast: Largest Gas Field (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	35.93
95%	79.13
90%	94.32
85%	106.94
80%	118.79
75%	130.16
70%	141.30
65%	152.90
60%	164.67
55%	177.17
50%	190.20
45%	204.91
40%	220.55
35%	239.32
30%	260.11
25%	285.92
20%	319.50
15%	362.26
10%	426.28
5%	541.06
0%	999.60

End of Forecast

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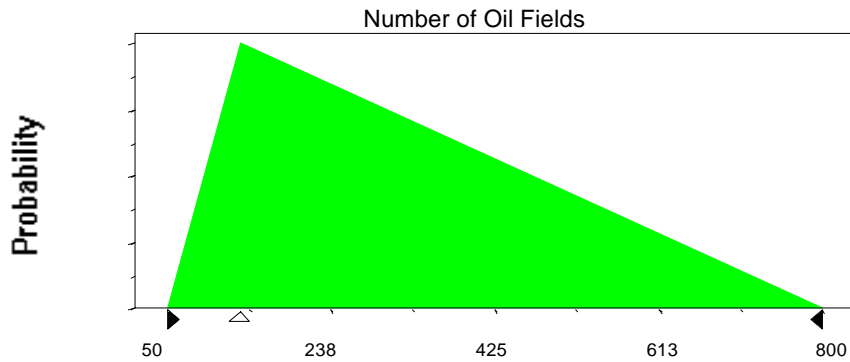
Assumptions

Assumption: Number of Oil Fields

Triangular distribution with parameters:

Minimum	50
Likeliest	133
Maximum	800

Selected range is from 50 to 800
Mean value in simulation was 328



Assumption: Sizes of Oil Fields

Lognormal distribution with parameters:

Mean	19.20
Standard Deviation	71.19

Shifted parameters

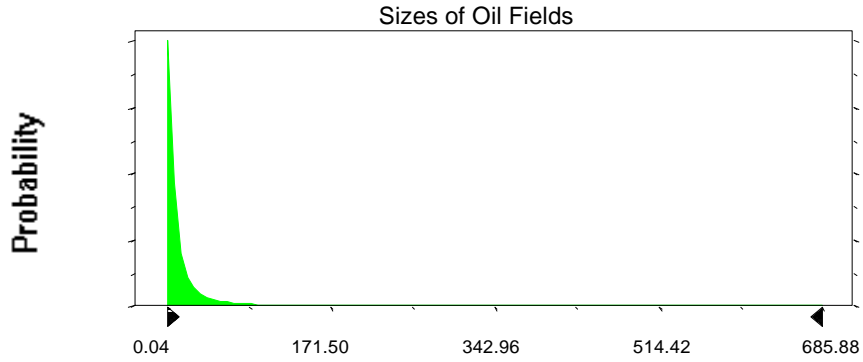
24.2
71.19

Selected range is from 0.00 to 795.00
Mean value in simulation was 17.52

5.00 to 800.00
22.52

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Assumption: Sizes of Oil Fields (cont'd)



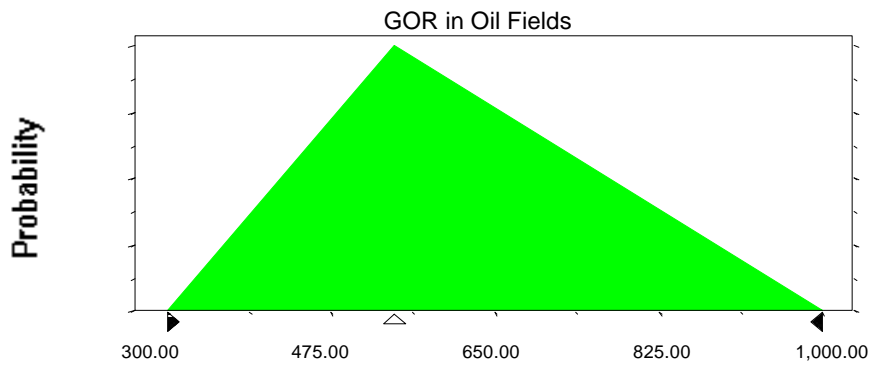
Assumption: GOR in Oil Fields

Triangular distribution with parameters:

Minimum	300.00
Likeliest	542.86
Maximum	1,000.00

Selected range is from 300.00 to 1,000.00

Mean value in simulation was 615.40



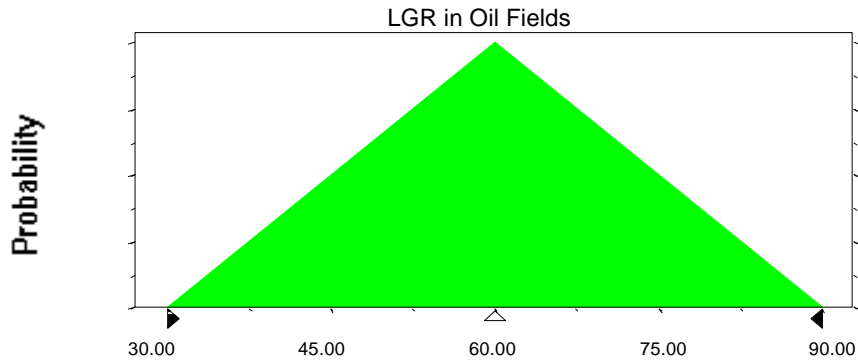
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Assumption: LGR in Oil Fields

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 59.97



Assumption: Number of Gas Fields

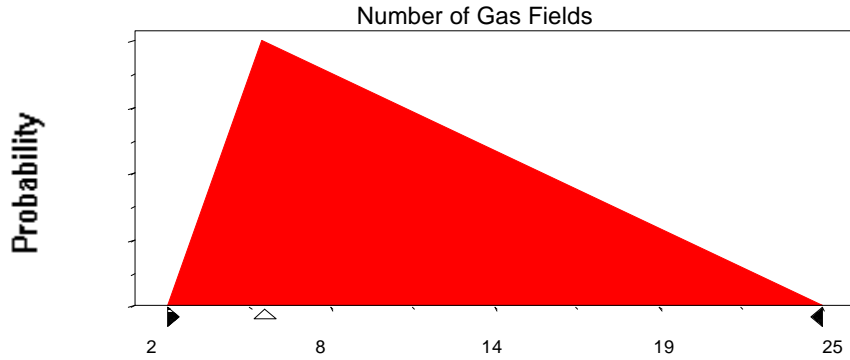
Triangular distribution with parameters:

Minimum	2
Likeliest	5
Maximum	25

Selected range is from 2 to 25
Mean value in simulation was 11

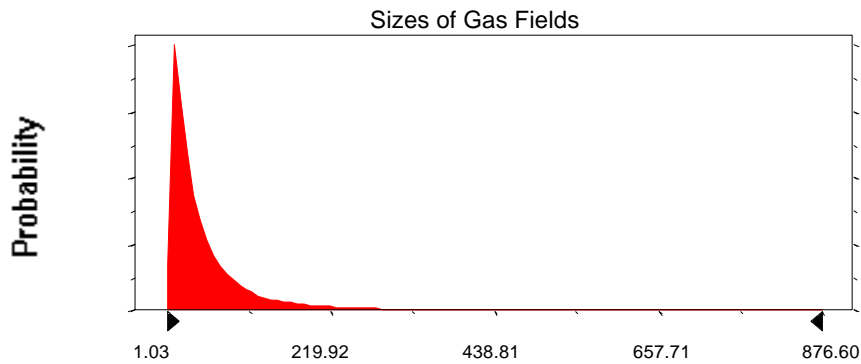
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Assumption: Number of Gas Fields (cont'd)



Assumption: Sizes of Gas Fields

Lognormal distribution with parameters:		Shifted parameters
Mean	56.48	86.48
Standard Deviation	90.11	90.11
Selected range is from 0.00 to 970.00		30.00 to 1,000.00
Mean value in simulation was 55.22		85.22



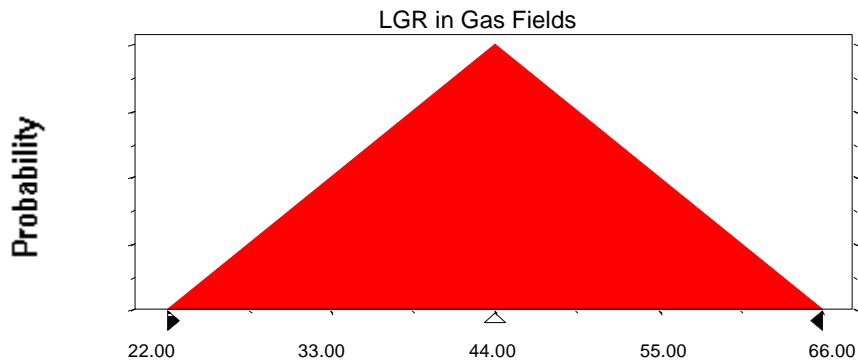
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Assumption: LGR in Gas Fields

Triangular distribution with parameters:

Minimum	22.00
Likeliest	44.00
Maximum	66.00

Selected range is from 22.00 to 66.00
Mean value in simulation was 43.98



End of Assumptions

Simulation started on 12/14/99 at 10:17:32
Simulation stopped on 12/14/99 at 13:18:57