

Central Offshore, Assessment Unit 11120104
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	1,536	5,969	12,682	6,410	5,821	23,142	53,699	25,639	326	1,347	3,378	1,536	341	1,126	3,457	1,397
Gas Fields	60		1,536	5,969	12,682	6,410	15,569	54,168	108,217	57,197	640	2,318	5,047	2,516	2,803	8,429	22,769	9,982
Total		1.00	1,536	5,969	12,682	6,410	21,390	77,310	161,915	82,836	967	3,665	8,426	4,051				

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Monte Carlo Results

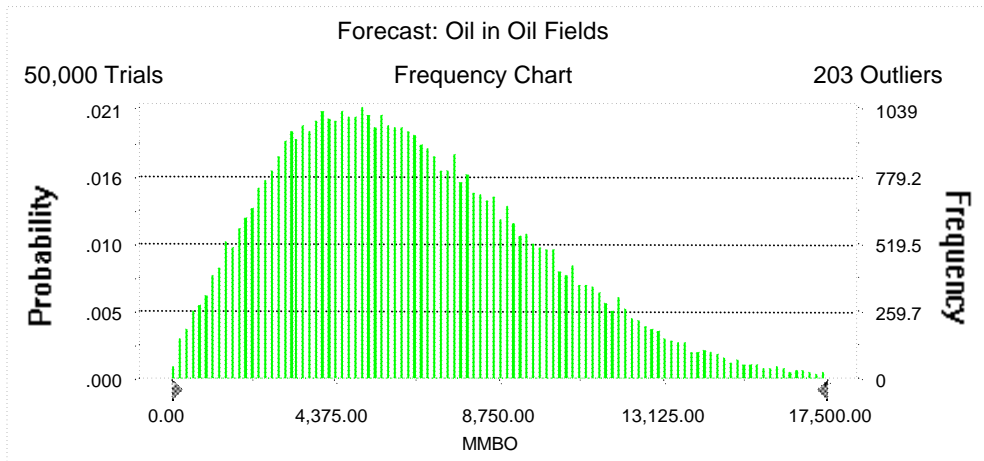
Forecast: Oil in Oil Fields

Summary:

Display range is from 0.00 to 17,500.00 MMBO
Entire range is from 35.10 to 25,000.30 MMBO
After 50,000 trials, the standard error of the mean is 15.45

Statistics:

	<u>Value</u>
Trials	50000
Mean	6,409.98
Median	5,968.76
Mode	---
Standard Deviation	3,455.45
Variance	11,940,139.95
Skewness	0.67
Kurtosis	3.32
Coefficient of Variability	0.54
Range Minimum	35.10
Range Maximum	25,000.30
Range Width	24,965.20
Mean Standard Error	15.45



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Forecast: Oil in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	35.10
95%	1,535.58
90%	2,281.04
85%	2,847.55
80%	3,326.40
75%	3,785.36
70%	4,228.59
65%	4,655.69
60%	5,095.92
55%	5,526.63
50%	5,968.76
45%	6,423.82
40%	6,906.67
35%	7,429.59
30%	7,973.50
25%	8,589.83
20%	9,264.67
15%	10,094.63
10%	11,140.32
5%	12,681.68
0%	25,000.30

End of Forecast

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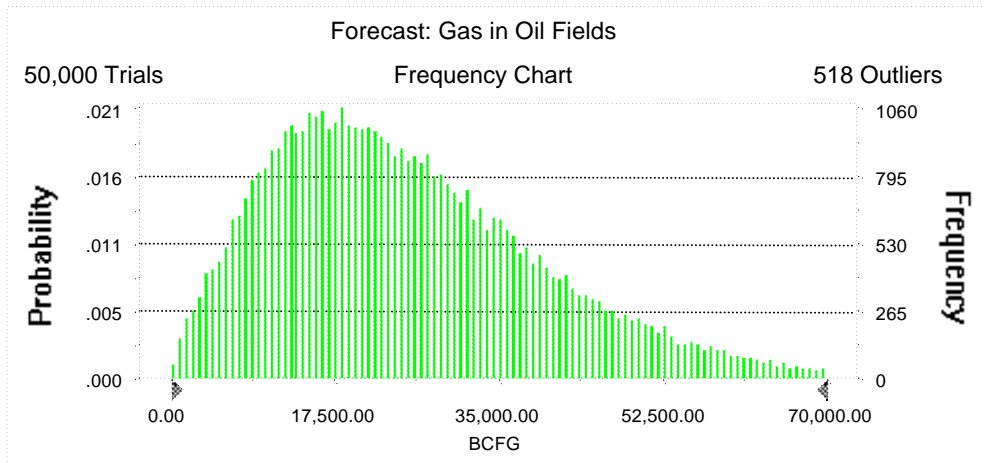
Forecast: Gas in Oil Fields

Summary:

Display range is from 0.00 to 70,000.00 BCFG
 Entire range is from 117.79 to 116,901.37 BCFG
 After 50,000 trials, the standard error of the mean is 67.16

Statistics:

	<u>Value</u>
Trials	50000
Mean	25,639.39
Median	23,141.97
Mode	---
Standard Deviation	15,018.50
Variance	225,555,464.45
Skewness	0.94
Kurtosis	4.09
Coefficient of Variability	0.59
Range Minimum	117.79
Range Maximum	116,901.37
Range Width	116,783.58
Mean Standard Error	67.16



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Forecast: Gas in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	117.79
95%	5,821.01
90%	8,576.30
85%	10,736.00
80%	12,603.93
75%	14,400.30
70%	16,111.88
65%	17,832.31
60%	19,557.04
55%	21,338.65
50%	23,141.97
45%	25,117.93
40%	27,129.72
35%	29,240.21
30%	31,620.59
25%	34,324.63
20%	37,260.51
15%	41,053.16
10%	45,967.03
5%	53,698.66
0%	116,901.37

End of Forecast

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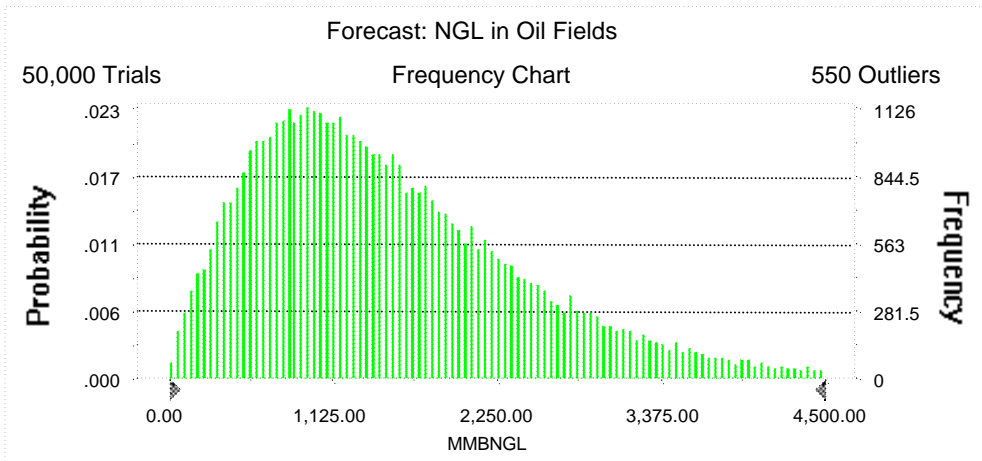
Forecast: NGL in Oil Fields

Summary:

Display range is from 0.00 to 4,500.00 MMBNGL
 Entire range is from 8.24 to 8,393.93 MMBNGL
 After 50,000 trials, the standard error of the mean is 4.33

Statistics:

	<u>Value</u>
Trials	50000
Mean	1,535.94
Median	1,346.97
Mode	---
Standard Deviation	968.10
Variance	937,214.85
Skewness	1.18
Kurtosis	5.01
Coefficient of Variability	0.63
Range Minimum	8.24
Range Maximum	8,393.93
Range Width	8,385.69
Mean Standard Error	4.33



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Forecast: NGL in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	8.24
95%	326.21
90%	480.50
85%	608.03
80%	717.88
75%	821.97
70%	925.88
65%	1,026.17
60%	1,129.75
55%	1,236.41
50%	1,346.97
45%	1,466.41
40%	1,588.47
35%	1,728.00
30%	1,876.72
25%	2,053.31
20%	2,249.66
15%	2,497.71
10%	2,837.44
5%	3,378.27
0%	8,393.93

End of Forecast

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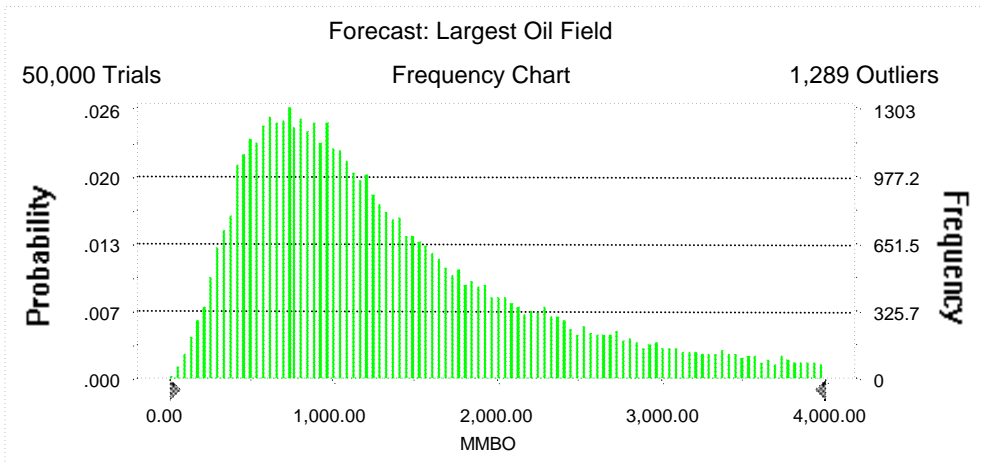
Forecast: Largest Oil Field

Summary:

Display range is from 0.00 to 4,000.00 MMBO
 Entire range is from 20.27 to 4,998.83 MMBO
 After 50,000 trials, the standard error of the mean is 4.30

Statistics:

	<u>Value</u>
Trials	50000
Mean	1,396.84
Median	1,126.37
Mode	---
Standard Deviation	960.93
Variance	923,394.83
Skewness	1.34
Kurtosis	4.57
Coefficient of Variability	0.69
Range Minimum	20.27
Range Maximum	4,998.83
Range Width	4,978.56
Mean Standard Error	4.30



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Forecast: Largest Oil Field (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	20.27
95%	340.51
90%	452.25
85%	540.55
80%	622.05
75%	702.73
70%	782.83
65%	864.26
60%	947.67
55%	1,033.34
50%	1,126.37
45%	1,228.52
40%	1,345.30
35%	1,478.53
30%	1,632.22
25%	1,821.50
20%	2,052.77
15%	2,349.35
10%	2,772.38
5%	3,457.22
0%	4,998.83

End of Forecast

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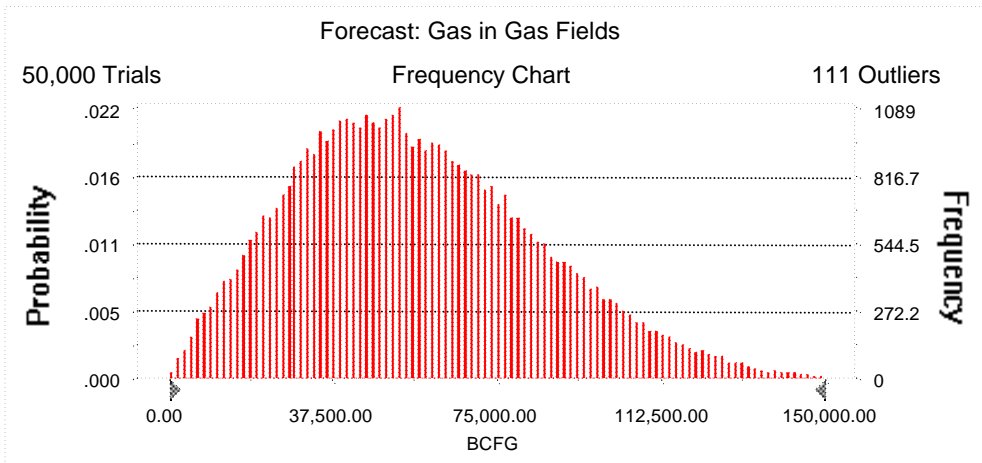
Forecast: Gas in Gas Fields

Summary:

Display range is from 0.00 to 150,000.00 BCFG
 Entire range is from 545.24 to 195,969.01 BCFG
 After 50,000 trials, the standard error of the mean is 126.62

Statistics:

	<u>Value</u>
Trials	50000
Mean	57,196.66
Median	54,167.74
Mode	---
Standard Deviation	28,314.11
Variance	801,688,606.34
Skewness	0.52
Kurtosis	3.01
Coefficient of Variability	0.50
Range Minimum	545.24
Range Maximum	195,969.01
Range Width	195,423.77
Mean Standard Error	126.62



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Forecast: Gas in Gas Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	545.24
95%	15,569.04
90%	22,315.88
85%	27,636.08
80%	32,037.30
75%	36,010.19
70%	39,755.40
65%	43,407.96
60%	47,037.77
55%	50,659.82
50%	54,167.74
45%	58,066.72
40%	62,051.04
35%	66,216.72
30%	70,693.90
25%	75,530.28
20%	80,992.02
15%	87,620.42
10%	95,925.86
5%	108,216.60
0%	195,969.01

End of Forecast

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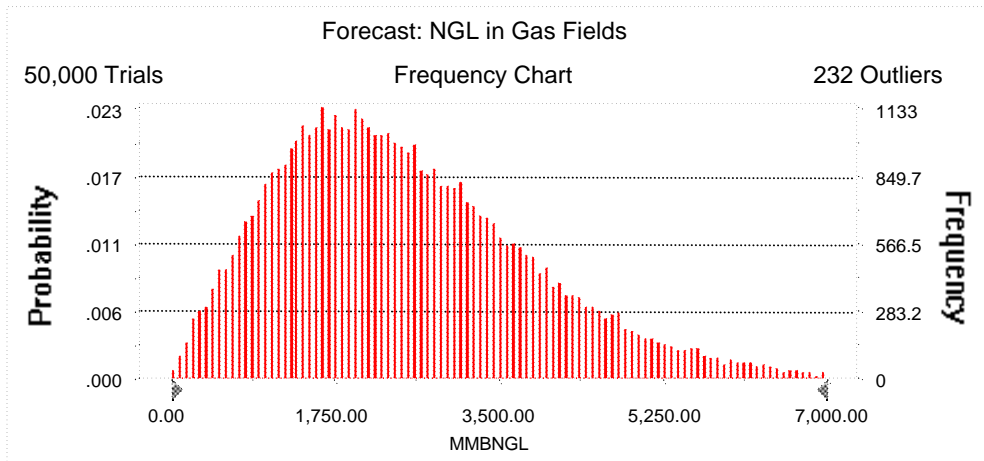
Forecast: NGL in Gas Fields

Summary:

Display range is from 0.00 to 7,000.00 MMBNGL
 Entire range is from 17.42 to 10,831.81 MMBNGL
 After 50,000 trials, the standard error of the mean is 6.11

Statistics:

	<u>Value</u>
Trials	50000
Mean	2,515.54
Median	2,318.38
Mode	---
Standard Deviation	1,366.49
Variance	1,867,296.39
Skewness	0.80
Kurtosis	3.72
Coefficient of Variability	0.54
Range Minimum	17.42
Range Maximum	10,831.81
Range Width	10,814.39
Mean Standard Error	6.11



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Forecast: NGL in Gas Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	17.42
95%	640.48
90%	919.78
85%	1,135.90
80%	1,326.81
75%	1,497.14
70%	1,659.63
65%	1,821.19
60%	1,986.18
55%	2,146.64
50%	2,318.38
45%	2,492.36
40%	2,674.82
35%	2,877.90
30%	3,095.18
25%	3,327.94
20%	3,607.41
15%	3,931.91
10%	4,373.68
5%	5,047.50
0%	10,831.81

End of Forecast

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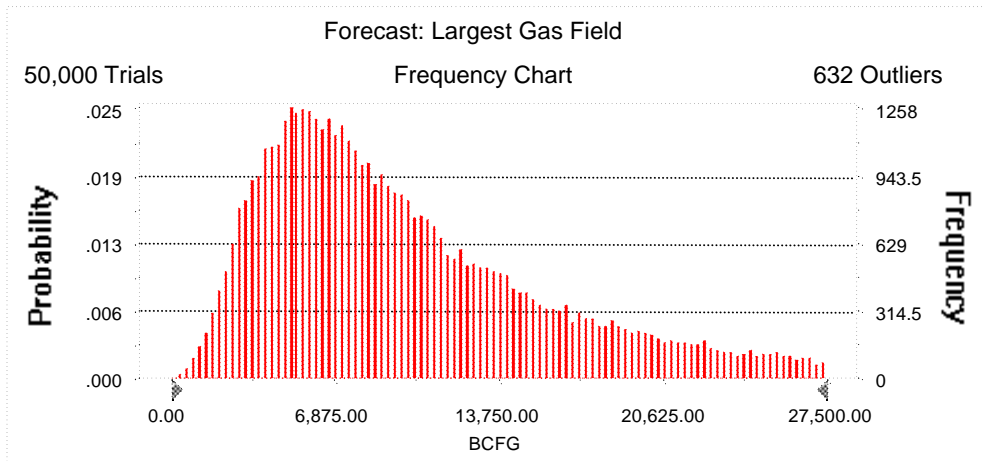
Forecast: Largest Gas Field

Summary:

Display range is from 0.00 to 27,500.00 BCFG
Entire range is from 201.55 to 29,990.49 BCFG
After 50,000 trials, the standard error of the mean is 27.22

Statistics:

	<u>Value</u>
Trials	50000
Mean	9,982.35
Median	8,428.73
Mode	---
Standard Deviation	6,086.93
Variance	37,050,750.95
Skewness	1.06
Kurtosis	3.63
Coefficient of Variability	0.61
Range Minimum	201.55
Range Maximum	29,990.49
Range Width	29,788.94
Mean Standard Error	27.22



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Forecast: Largest Gas Field (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	201.55
95%	2,802.71
90%	3,597.69
85%	4,264.64
80%	4,885.93
75%	5,432.26
70%	5,988.27
65%	6,562.32
60%	7,150.28
55%	7,756.71
50%	8,428.73
45%	9,167.15
40%	9,955.73
35%	10,848.17
30%	11,888.29
25%	13,159.98
20%	14,573.28
15%	16,517.84
10%	19,048.41
5%	22,769.36
0%	29,990.49

End of Forecast

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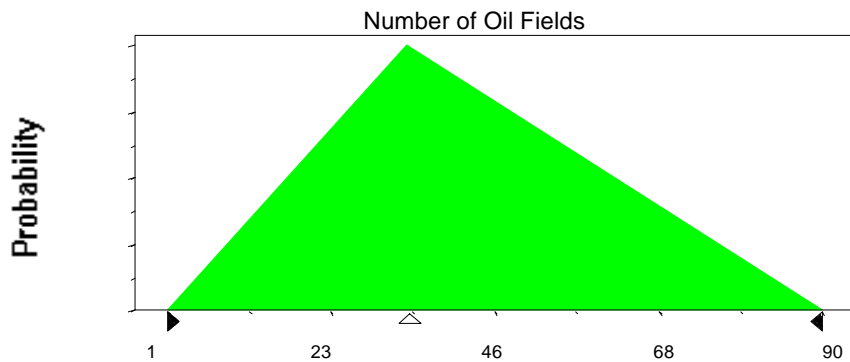
Assumptions

Assumption: Number of Oil Fields

Triangular distribution with parameters:

Minimum	1
Likeliest	34
Maximum	90

Selected range is from 1 to 90
Mean value in simulation was 42



Assumption: Sizes of Oil Fields

Lognormal distribution with parameters:

Mean	151.66
Standard Deviation	434.28

Shifted parameters

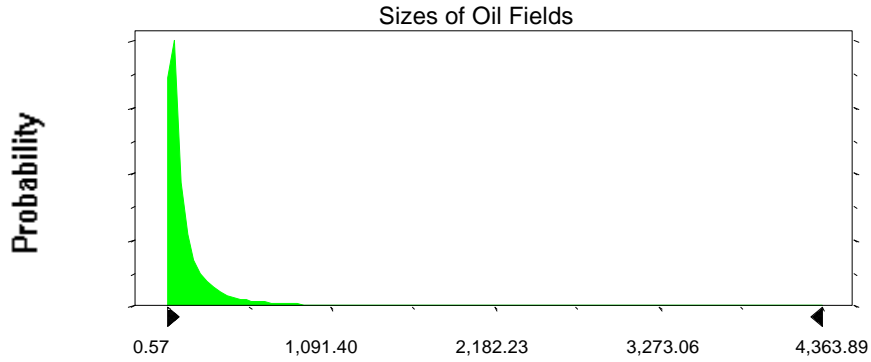
161.66
434.28

Selected range is from 0.00 to 4,990.00
Mean value in simulation was 141.22

10.00 to 5,000.00
151.22

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Assumption: Sizes of Oil Fields (cont'd)



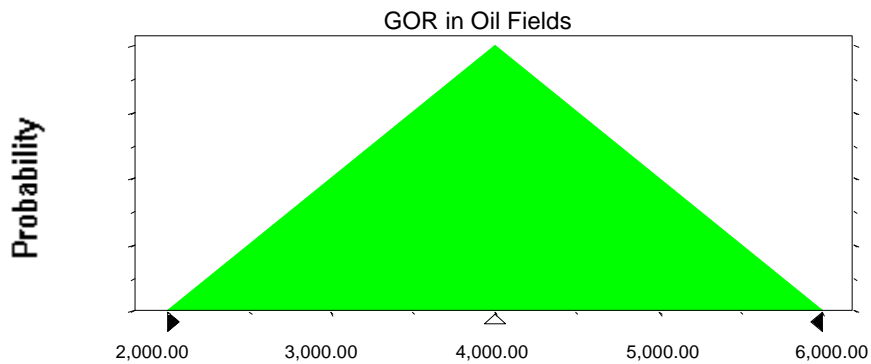
Assumption: GOR in Oil Fields

Triangular distribution with parameters:

Minimum	2,000.00
Likeliest	4,000.00
Maximum	6,000.00

Selected range is from 2,000.00 to 6,000.00

Mean value in simulation was 4,001.78



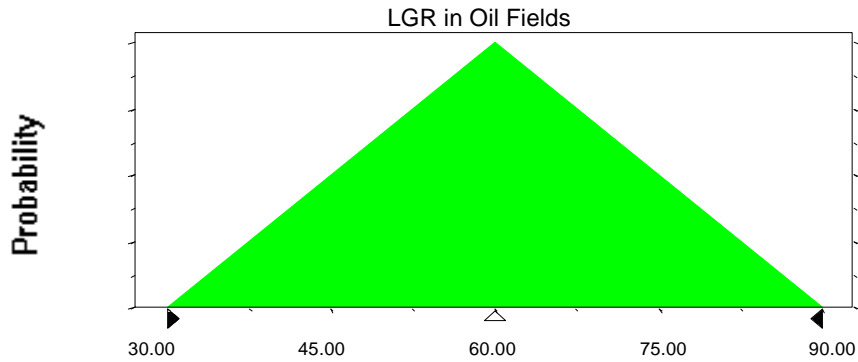
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Assumption: LGR in Oil Fields

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 59.95



Assumption: Number of Gas Fields

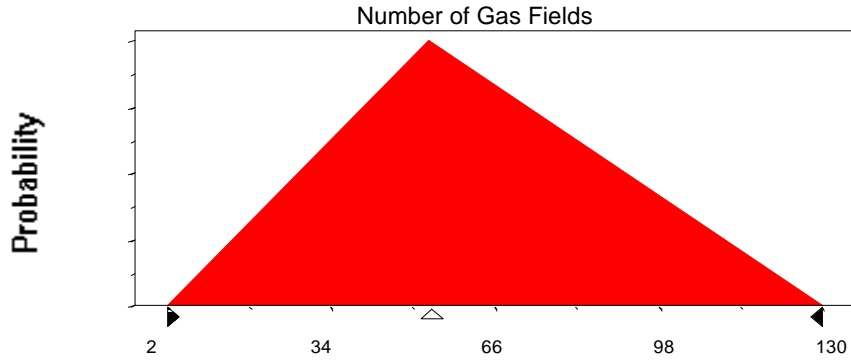
Triangular distribution with parameters:

Minimum	2
Likeliest	53
Maximum	130

Selected range is from 2 to 130
Mean value in simulation was 62

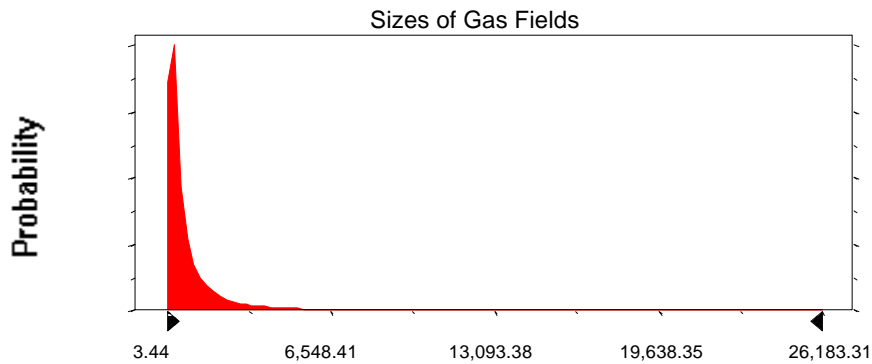
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Assumption: Number of Gas Fields (cont'd)



Assumption: Sizes of Gas Fields

Lognormal distribution with parameters:		Shifted parameters
Mean	909.94	969.94
Standard Deviation	2,605.68	2,605.68
Selected range is from 0.00 to 29,940.00		60.00 to 30,000.00
Mean value in simulation was 869.52		929.52



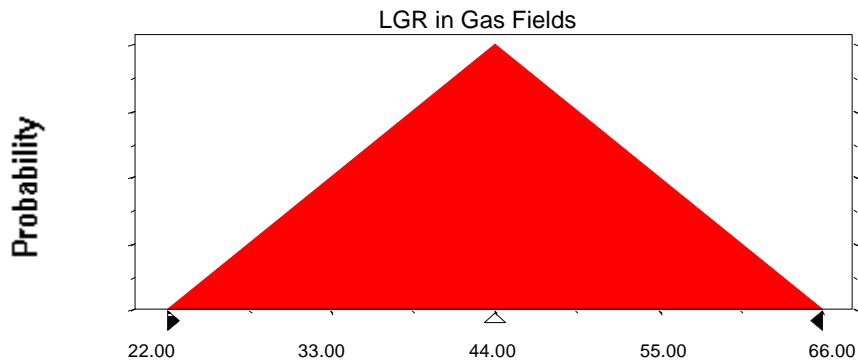
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Assumption: LGR in Gas Fields

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 44.01



End of Assumptions

Simulation started on 1/18/00 at 11:57:04
Simulation stopped on 1/18/00 at 12:50:25