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Tanezzuft-Ghadames Structural/Stratigraphic, Assessment Unit 20540301
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	990	3,993	9,520	4,461	1,274	5,292	13,733	6,110	48	206	576	244	197	679	1,939	817
Gas Fields	6						1,403	5,311	12,469	5,925	148	576	1,480	664	299	865	2,285	1,014
Total		1.00	990	3,993	9,520	4,461	2,677	10,603	26,201	12,035	196	782	2,055	908				

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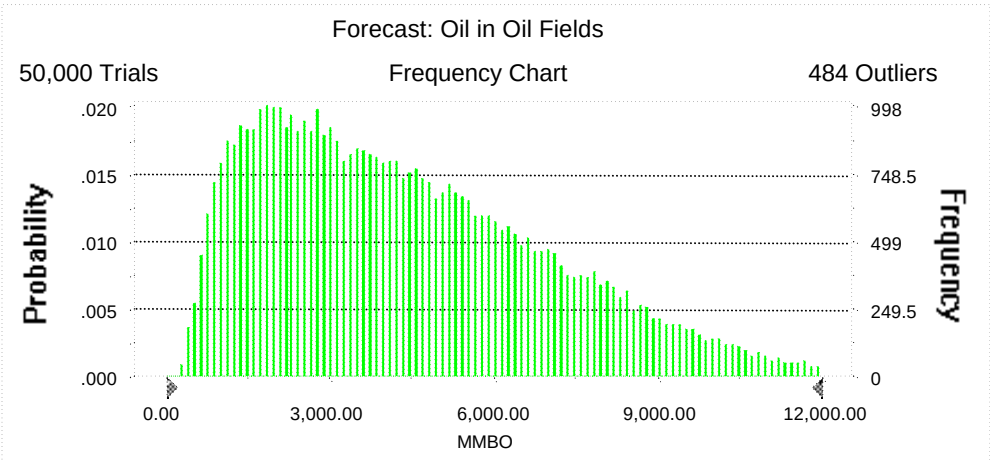
Forecast: Oil in Oil Fields

Summary:

Display range is from 0.00 to 12,000.00 MMBO
Entire range is from 146.85 to 17,505.86 MMBO
After 50,000 trials, the standard error of the mean is 12.06

Statistics:	Value
Trials	50000
Mean	4,461.48
Median	3,992.58
Mode	---
Standard Deviation	2,697.60
Variance	7,277,028.78
Skewness	0.79
Kurtosis	3.24
Coefficient of Variability	0.60
Range Minimum	146.85
Range Maximum	17,505.86
Range Width	17,359.01
Mean Standard Error	12.06



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Forecast: Oil in Oil Fields (cont'd)

Percentiles:

Percentile	MMBO
100%	146.85
95%	989.91
90%	1,344.86
85%	1,673.94
80%	1,973.18
75%	2,285.97
70%	2,604.53
65%	2,924.51
60%	3,261.82
55%	3,626.74
50%	3,992.58
45%	4,376.33
40%	4,776.23
35%	5,210.99
30%	5,656.71
25%	6,172.93
20%	6,751.38
15%	7,432.81
10%	8,262.98
5%	9,520.06
0%	17,505.86

End of Forecast

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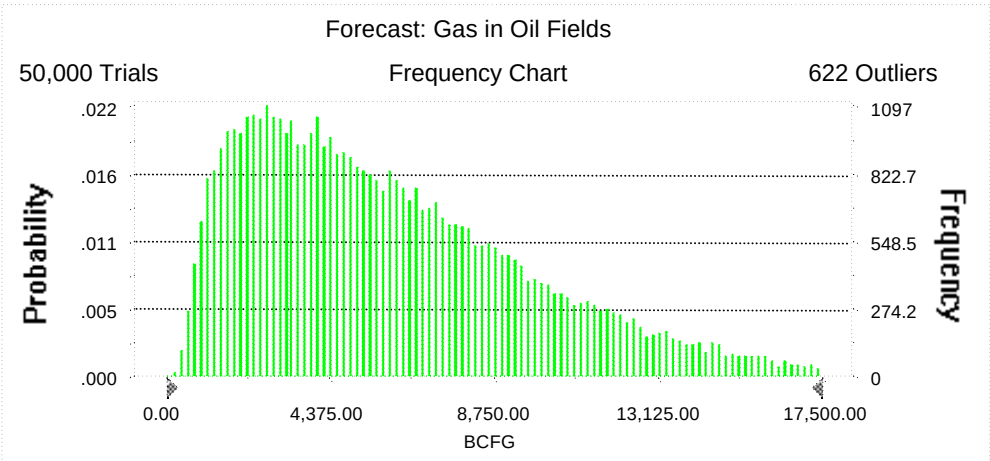
Forecast: Gas in Oil Fields

Summary:

Display range is from 0.00 to 17,500.00 BCFG
Entire range is from 206.21 to 29,276.95 BCFG
After 50,000 trials, the standard error of the mean is 17.74

Statistics:	Value
Trials	50000
Mean	6,110.02
Median	5,291.99
Mode	---
Standard Deviation	3,965.92
Variance	15,728,499.58
Skewness	1.04
Kurtosis	4.12
Coefficient of Variability	0.65
Range Minimum	206.21
Range Maximum	29,276.95
Range Width	29,070.73
Mean Standard Error	17.74



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Monte Carlo Results

Forecast: Gas in Oil Fields (cont'd)

Percentiles:

Percentile	BCFG
100%	206.21
95%	1,273.81
90%	1,741.46
85%	2,177.80
80%	2,594.19
75%	3,001.33
70%	3,429.14
65%	3,886.66
60%	4,328.26
55%	4,795.93
50%	5,291.99
45%	5,838.16
40%	6,383.15
35%	6,984.93
30%	7,638.98
25%	8,364.30
20%	9,215.08
15%	10,252.03
10%	11,659.44
5%	13,732.80
0%	29,276.95

End of Forecast

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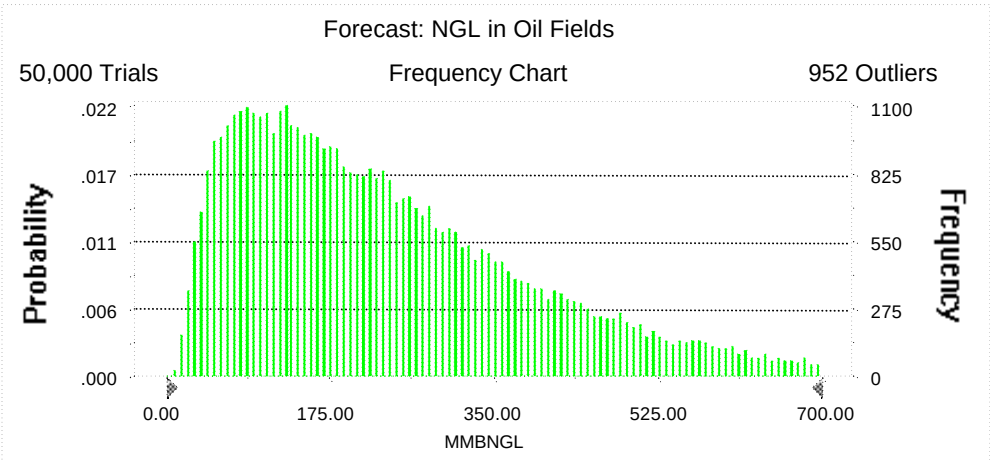
Forecast: NGL in Oil Fields

Summary:

Display range is from 0.00 to 700.00 MMBNGL
Entire range is from 5.74 to 1,492.04 MMBNGL
After 50,000 trials, the standard error of the mean is 0.76

Statistics:	Value
Trials	50000
Mean	244.39
Median	206.01
Mode	---
Standard Deviation	169.46
Variance	28,717.56
Skewness	1.28
Kurtosis	5.16
Coefficient of Variability	0.69
Range Minimum	5.74
Range Maximum	1,492.04
Range Width	1,486.30
Mean Standard Error	0.76



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Monte Carlo Results

Forecast: NGL in Oil Fields (cont'd)

Percentiles:

Percentile	MMBNGL
100%	5.74
95%	47.98
90%	66.32
85%	82.57
80%	98.67
75%	115.23
70%	131.77
65%	148.90
60%	166.89
55%	185.48
50%	206.01
45%	227.10
40%	249.42
35%	273.68
30%	301.26
25%	332.73
20%	369.06
15%	416.48
10%	477.53
5%	575.72
0%	1,492.04

End of Forecast

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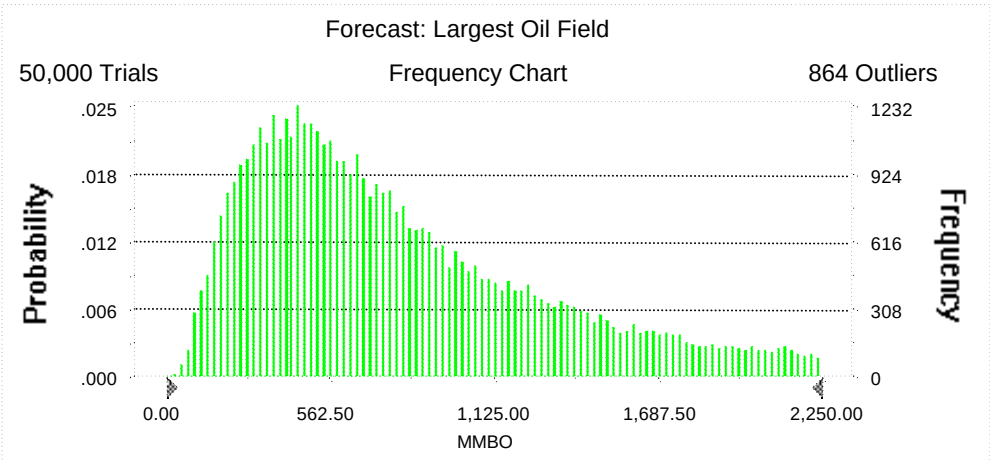
Monte Carlo Results

Forecast: Largest Oil Field

Summary:

Display range is from 0.00 to 2,250.00 MMBO
Entire range is from 22.41 to 2,487.94 MMBO
After 50,000 trials, the standard error of the mean is 2.36

Statistics:	Value
Trials	50000
Mean	817.29
Median	678.67
Mode	---
Standard Deviation	528.46
Variance	279,265.44
Skewness	1.03
Kurtosis	3.48
Coefficient of Variability	0.65
Range Minimum	22.41
Range Maximum	2,487.94
Range Width	2,465.53
Mean Standard Error	2.36



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Tanezzuft-Ghadames Structural/Stratigraphic
Monte Carlo Results

Forecast: Largest Oil Field (cont'd)

Percentiles:

Percentile	MMBO
100%	22.41
95%	197.16
90%	261.09
85%	316.81
80%	367.32
75%	417.40
70%	465.00
65%	513.76
60%	564.93
55%	621.42
50%	678.67
45%	743.81
40%	812.44
35%	892.72
30%	988.01
25%	1,098.87
20%	1,235.13
15%	1,393.13
10%	1,611.24
5%	1,938.98
0%	2,487.94

End of Forecast

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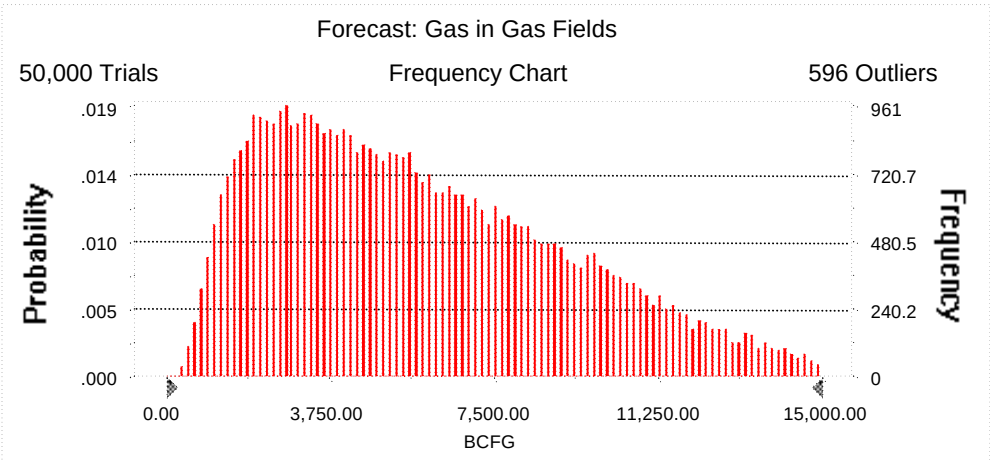
Monte Carlo Results

Forecast: Gas in Gas Fields

Summary:

Display range is from 0.00 to 15,000.00 BCFG
Entire range is from 218.55 to 23,479.02 BCFG
After 50,000 trials, the standard error of the mean is 15.60

Statistics:	Value
Trials	50000
Mean	5,924.75
Median	5,310.73
Mode	---
Standard Deviation	3,488.41
Variance	12,168,985.81
Skewness	0.72
Kurtosis	3.01
Coefficient of Variability	0.59
Range Minimum	218.55
Range Maximum	23,479.02
Range Width	23,260.48
Mean Standard Error	15.60



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Monte Carlo Results

Forecast: Gas in Gas Fields (cont'd)

Percentiles:

Percentile	BCFG
100%	218.55
95%	1,403.44
90%	1,880.96
85%	2,293.47
80%	2,698.24
75%	3,108.45
70%	3,514.65
65%	3,940.71
60%	4,373.42
55%	4,835.86
50%	5,310.73
45%	5,799.71
40%	6,336.75
35%	6,909.42
30%	7,535.47
25%	8,207.10
20%	8,974.01
15%	9,850.88
10%	10,895.12
5%	12,468.60
0%	23,479.02

End of Forecast

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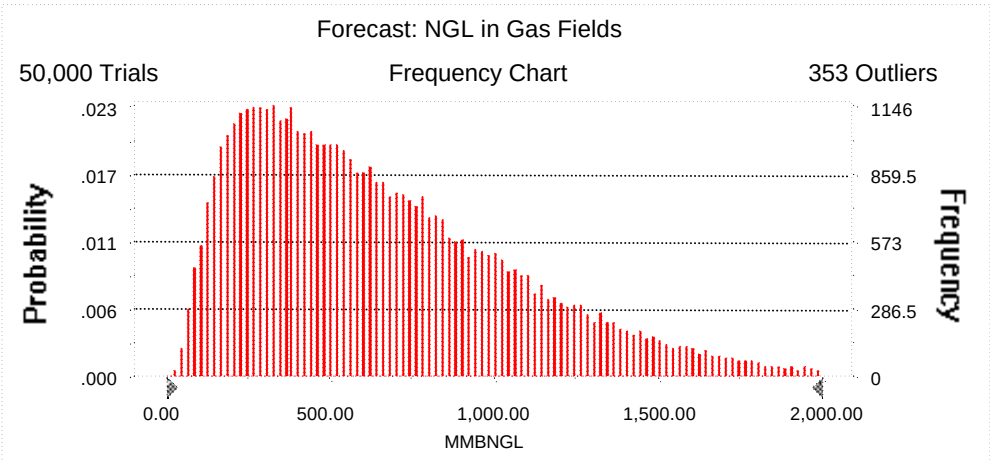
Forecast: NGL in Gas Fields

Summary:

Display range is from 0.00 to 2,000.00 MMBNGL
Entire range is from 21.32 to 3,339.96 MMBNGL
After 50,000 trials, the standard error of the mean is 1.89

Statistics:	Value
Trials	50000
Mean	664.07
Median	575.51
Mode	---
Standard Deviation	422.60
Variance	178,590.80
Skewness	1.00
Kurtosis	3.94
Coefficient of Variability	0.64
Range Minimum	21.32
Range Maximum	3,339.96
Range Width	3,318.64
Mean Standard Error	1.89



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Forecast: NGL in Gas Fields (cont'd)

Percentiles:

Percentile	MMBNGL
100%	21.32
95%	147.99
90%	198.92
85%	244.90
80%	288.68
75%	332.47
70%	377.93
65%	424.52
60%	472.88
55%	523.54
50%	575.51
45%	632.47
40%	693.85
35%	758.96
30%	828.73
25%	909.28
20%	1,002.90
15%	1,110.17
10%	1,257.76
5%	1,479.76
0%	3,339.96

End of Forecast

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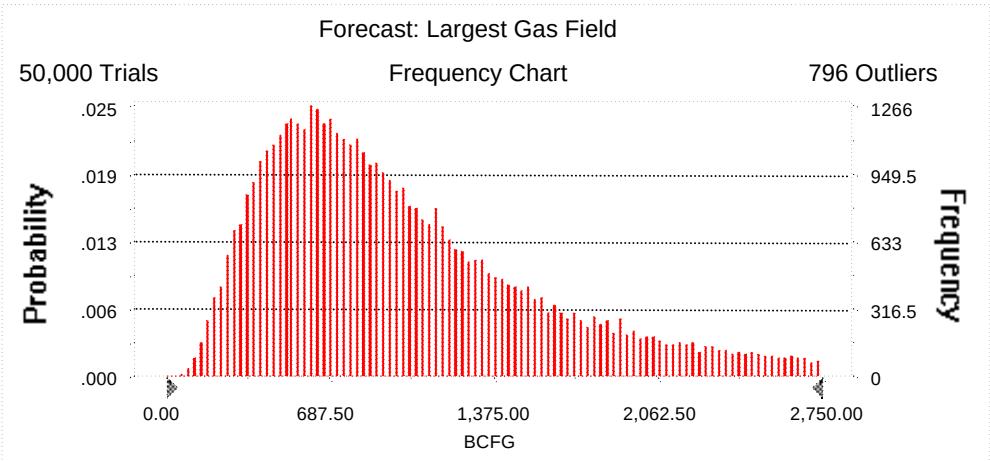
Forecast: Largest Gas Field

Summary:

Display range is from 0.00 to 2,750.00 BCFG
Entire range is from 49.41 to 3,109.38 BCFG
After 50,000 trials, the standard error of the mean is 2.70

Statistics:	Value
Trials	50000
Mean	1,013.81
Median	865.17
Mode	---
Standard Deviation	604.00
Variance	364,821.55
Skewness	1.12
Kurtosis	3.90
Coefficient of Variability	0.60
Range Minimum	49.41
Range Maximum	3,109.38
Range Width	3,059.98
Mean Standard Error	2.70



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Forecast: Largest Gas Field (cont'd)

Percentiles:

Percentile	BCFG
100%	49.41
95%	299.05
90%	382.41
85%	449.62
80%	509.22
75%	566.53
70%	625.42
65%	679.69
60%	738.32
55%	800.27
50%	865.17
45%	935.37
40%	1,012.09
35%	1,100.08
30%	1,194.25
25%	1,311.62
20%	1,456.25
15%	1,639.12
10%	1,894.14
5%	2,284.81
0%	3,109.38

End of Forecast

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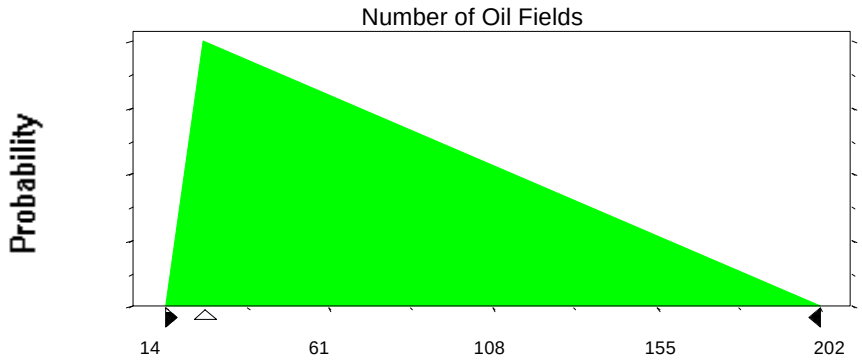
Assumptions

Assumption: Number of Oil Fields

Triangular distribution with parameters:

Minimum	14
Likeliest	25
Maximum	202

Selected range is from 14 to 202
Mean value in simulation was 80



Assumption: Sizes of Oil Fields

Lognormal distribution with parameters:		Shifted parameters
Mean	58.90	59.9
Standard Deviation	223.67	223.67
Selected range is from	0.00 to 2,487.00	1.00 to 2,488.00
Mean value in simulation was	54.82	55.82

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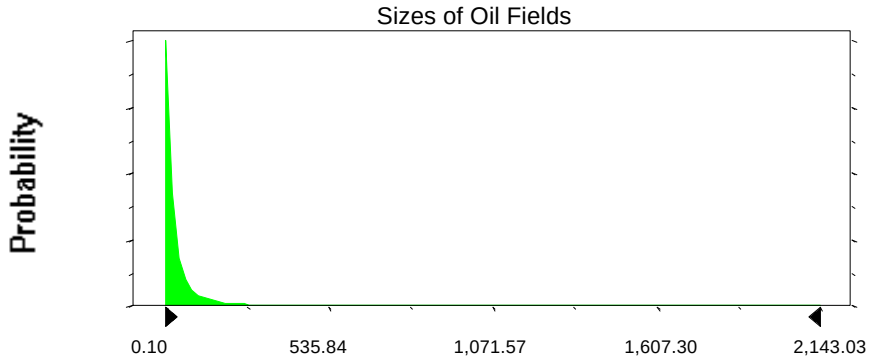
Assumption: Sizes of Oil Fields (cont'd)

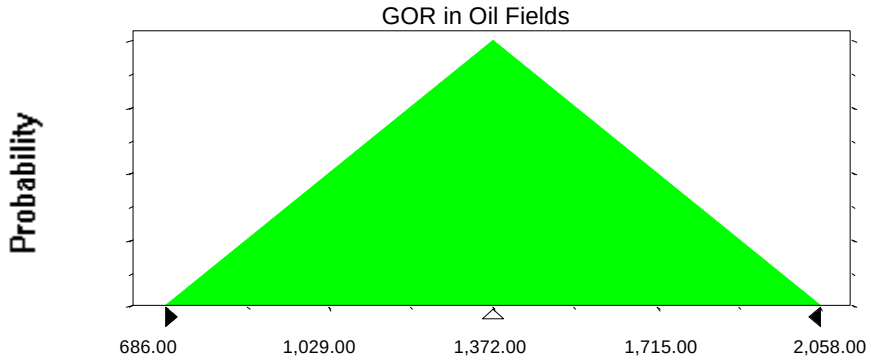


Assumption: GOR in Oil Fields

Triangular distribution with parameters:

Minimum	686.00
Likeliest	1,372.00
Maximum	2,058.00

Selected range is from 686.00 to 2,058.00
Mean value in simulation was 1,370.11



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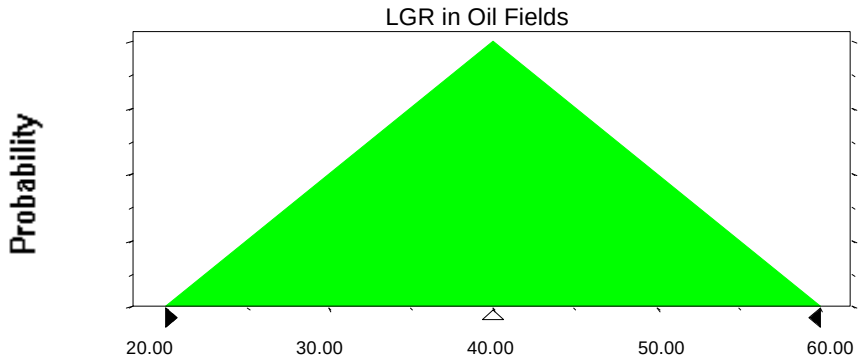
Assumption: LGR in Oil Fields

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 40.00



Assumption: Number of Gas Fields

Triangular distribution with parameters:

Minimum	6
Likeliest	14
Maximum	105

Selected range is from 6 to 105
Mean value in simulation was 42

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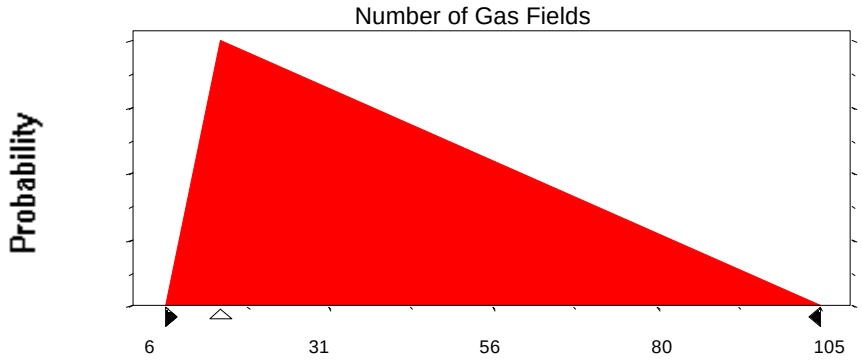
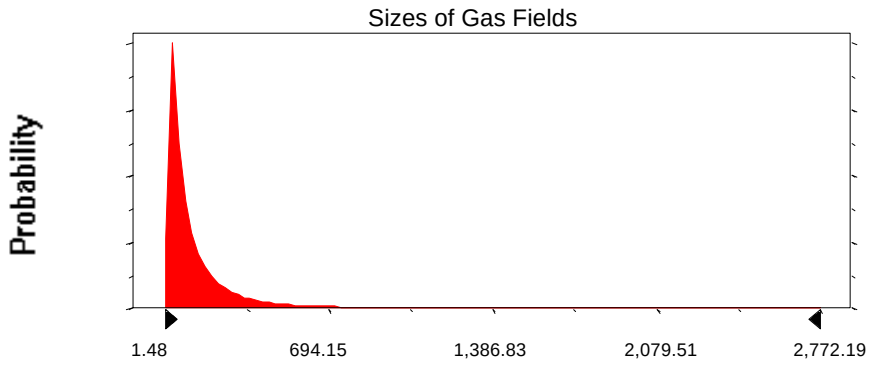
Assumption: Number of Gas Fields (cont'd)



Assumption: Sizes of Gas Fields

Lognormal distribution with parameters:		Shifted parameters
Mean	140.87	146.87
Standard Deviation	276.24	276.24
Selected range is from 0.00 to 3,104.00		6.00 to 3,110.00
Mean value in simulation was 136.30		142.3



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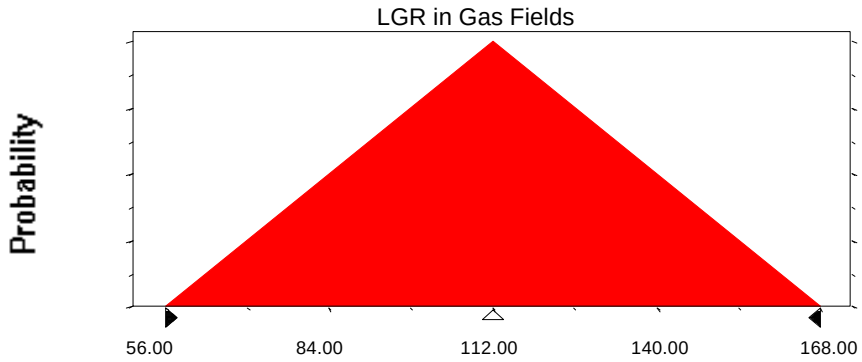
Assumption: LGR in Gas Fields

Triangular distribution with parameters:

Minimum	56.00
Likeliest	112.00
Maximum	168.00

Selected range is from 56.00 to 168.00
Mean value in simulation was 111.99



End of Assumptions

Simulation started on 1/27/99 at 12:13:00
Simulation stopped on 1/27/99 at 13:23:34