

Exshaw-Rundle Oil and Gas, Assessment Unit 52430302
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	48	116	234	126	20	51	112	56	1	3	7	3	4	9	21	11
Gas Fields	3						160	377	768	410	4	11	25	12	12	23	42	24
Total		1.00	48	116	234	126	179	428	880	466	5	14	32	16				

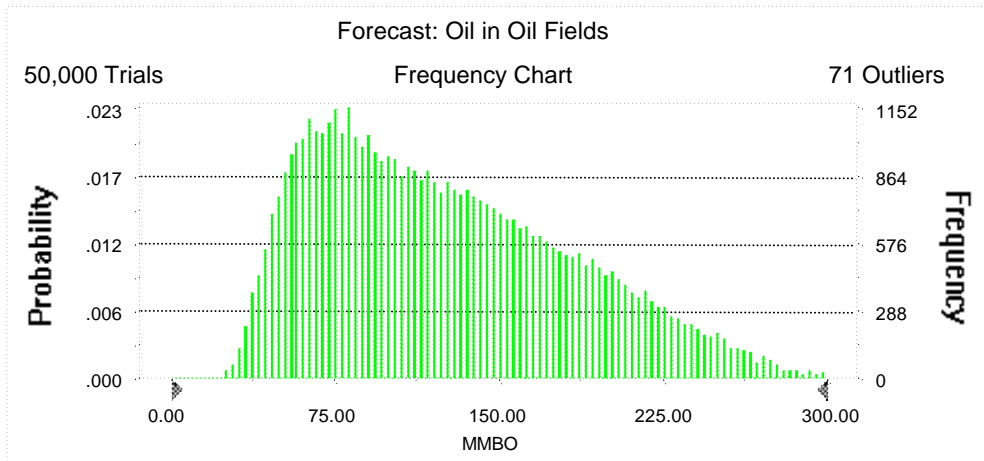
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Forecast: Oil in Oil Fields

Summary:

Display range is from 0.00 to 300.00 MMBO
Entire range is from 21.07 to 357.17 MMBO
After 50,000 trials, the standard error of the mean is 0.26

Statistics:	Value
Trials	50000
Mean	125.76
Median	116.49
Mode	---
Standard Deviation	58.43
Variance	3,414.37
Skewness	0.57
Kurtosis	2.57
Coefficient of Variability	0.46
Range Minimum	21.07
Range Maximum	357.17
Range Width	336.10
Mean Standard Error	0.26



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Forecast: Oil in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	21.07
95%	47.91
90%	56.60
85%	63.96
80%	70.90
75%	77.69
70%	84.53
65%	91.91
60%	99.74
55%	107.98
50%	116.49
45%	125.32
40%	134.72
35%	144.28
30%	154.71
25%	166.30
20%	179.08
15%	193.71
10%	210.52
5%	234.15
0%	357.17

End of Forecast

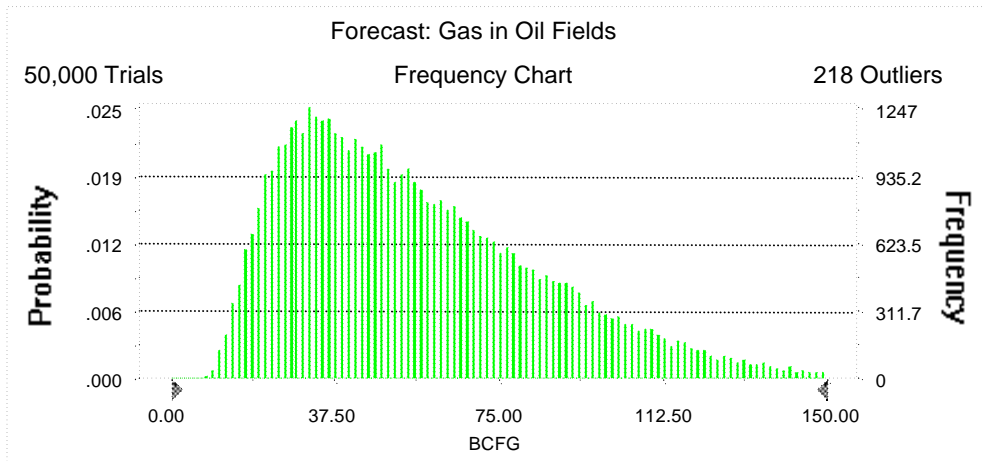
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Forecast: Gas in Oil Fields

Summary:

Display range is from 0.00 to 150.00 BCFG
Entire range is from 6.52 to 191.23 BCFG
After 50,000 trials, the standard error of the mean is 0.13

Statistics:	Value
Trials	50000
Mean	56.48
Median	50.69
Mode	---
Standard Deviation	29.11
Variance	847.22
Skewness	0.86
Kurtosis	3.41
Coefficient of Variability	0.52
Range Minimum	6.52
Range Maximum	191.23
Range Width	184.71
Mean Standard Error	0.13



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Forecast: Gas in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	6.52
95%	19.63
90%	23.76
85%	27.27
80%	30.53
75%	33.59
70%	36.79
65%	40.04
60%	43.51
55%	47.08
50%	50.69
45%	54.76
40%	58.93
35%	63.62
30%	68.48
25%	74.13
20%	80.57
15%	88.36
10%	97.70
5%	112.23
0%	191.23

End of Forecast

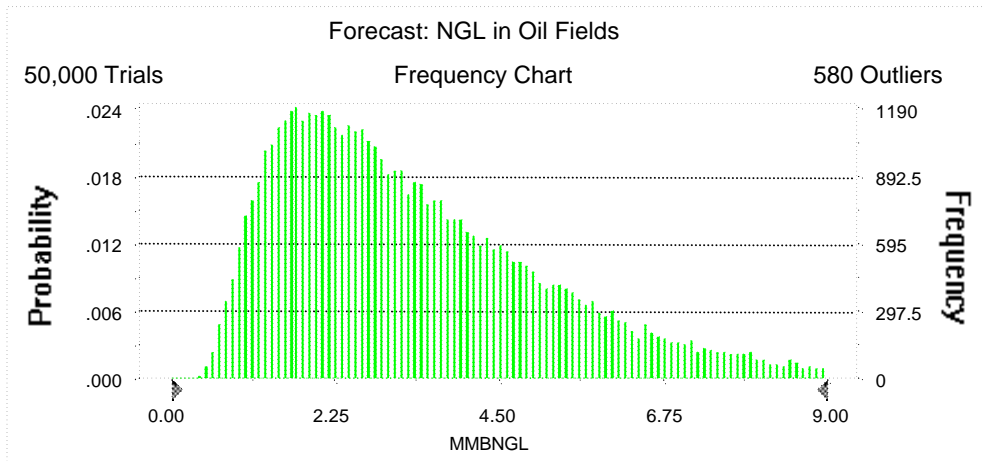
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Forecast: NGL in Oil Fields

Summary:

Display range is from 0.00 to 9.00 MMBNGL
Entire range is from 0.26 to 15.73 MMBNGL
After 50,000 trials, the standard error of the mean is 0.01

Statistics:	<u>Value</u>
Trials	50000
Mean	3.39
Median	2.96
Mode	---
Standard Deviation	1.91
Variance	3.65
Skewness	1.12
Kurtosis	4.45
Coefficient of Variability	0.56
Range Minimum	0.26
Range Maximum	15.73
Range Width	15.46
Mean Standard Error	0.01



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Forecast: NGL in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	0.26
95%	1.08
90%	1.33
85%	1.55
80%	1.74
75%	1.93
70%	2.12
65%	2.32
60%	2.53
55%	2.73
50%	2.96
45%	3.21
40%	3.47
35%	3.75
30%	4.07
25%	4.44
20%	4.85
15%	5.36
10%	6.03
5%	7.12
0%	15.73

End of Forecast

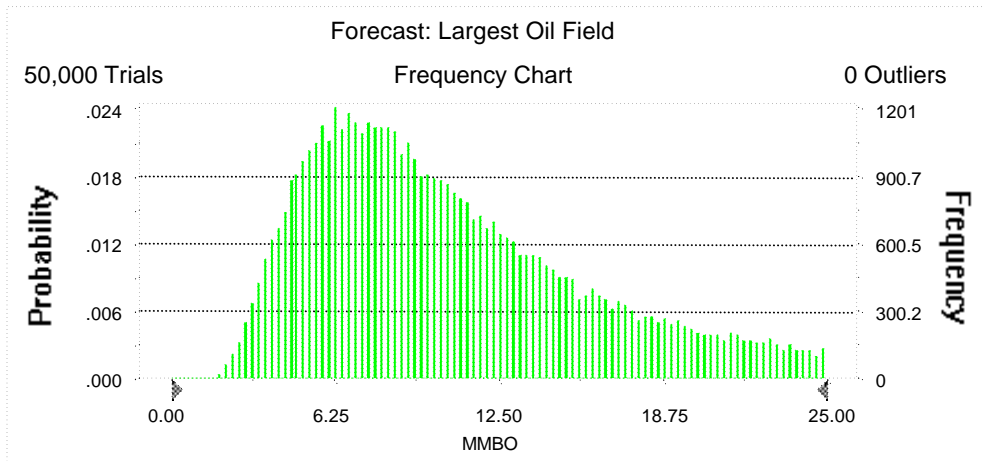
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Forecast: Largest Oil Field

Summary:

Display range is from 0.00 to 25.00 MMBO
Entire range is from 1.32 to 25.00 MMBO
After 50,000 trials, the standard error of the mean is 0.02

Statistics:	<u>Value</u>
Trials	50000
Mean	10.53
Median	9.43
Mode	---
Standard Deviation	5.11
Variance	26.08
Skewness	0.78
Kurtosis	2.93
Coefficient of Variability	0.49
Range Minimum	1.32
Range Maximum	25.00
Range Width	23.68
Mean Standard Error	0.02



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Forecast: Largest Oil Field (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	1.32
95%	3.99
90%	4.80
85%	5.46
80%	6.03
75%	6.58
70%	7.14
65%	7.68
60%	8.24
55%	8.81
50%	9.43
45%	10.12
40%	10.84
35%	11.64
30%	12.53
25%	13.56
20%	14.76
15%	16.30
10%	18.25
5%	20.95
0%	25.00

End of Forecast

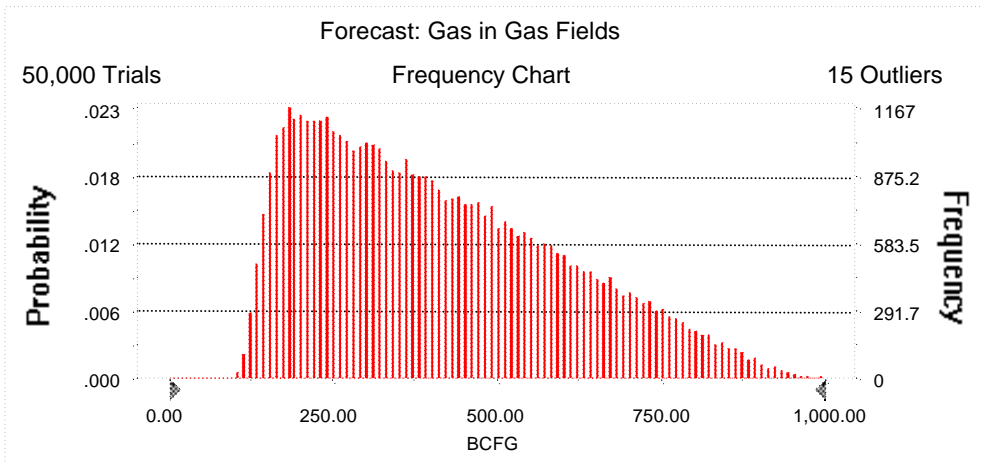
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Forecast: Gas in Gas Fields

Summary:

Display range is from 0.00 to 1,000.00 BCFG
 Entire range is from 95.05 to 1,077.23 BCFG
 After 50,000 trials, the standard error of the mean is 0.86

Statistics:	<u>Value</u>
Trials	50000
Mean	409.61
Median	377.10
Mode	---
Standard Deviation	191.23
Variance	36,568.39
Skewness	0.58
Kurtosis	2.50
Coefficient of Variability	0.47
Range Minimum	95.05
Range Maximum	1,077.23
Range Width	982.18
Mean Standard Error	0.86



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Forecast: Gas in Gas Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	95.05
95%	159.59
90%	183.00
85%	204.79
80%	226.96
75%	249.60
70%	273.21
65%	298.27
60%	323.05
55%	349.61
50%	377.10
45%	405.80
40%	437.30
35%	469.80
30%	504.09
25%	542.66
20%	584.84
15%	633.09
10%	691.84
5%	768.21
0%	1,077.23

End of Forecast

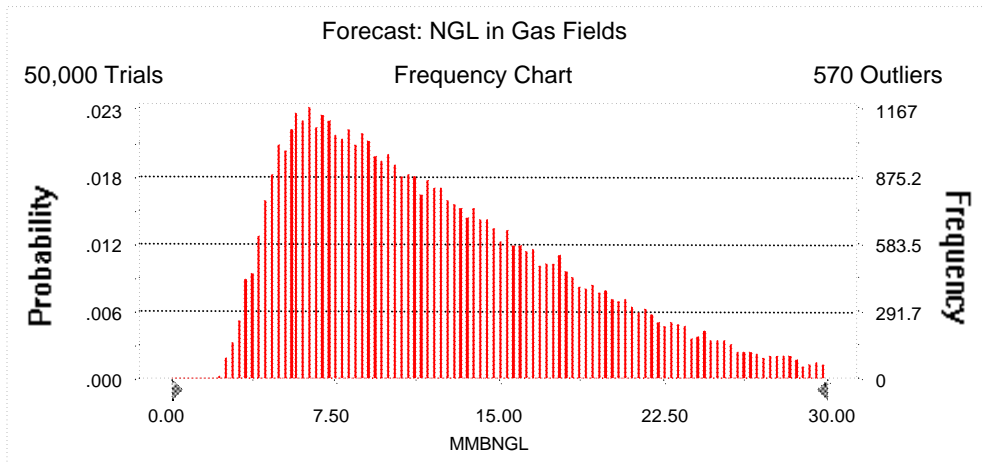
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Forecast: NGL in Gas Fields

Summary:

Display range is from 0.00 to 30.00 MMBNGL
Entire range is from 1.71 to 42.41 MMBNGL
After 50,000 trials, the standard error of the mean is 0.03

Statistics:	<u>Value</u>
Trials	50000
Mean	12.29
Median	10.98
Mode	---
Standard Deviation	6.37
Variance	40.61
Skewness	0.88
Kurtosis	3.41
Coefficient of Variability	0.52
Range Minimum	1.71
Range Maximum	42.41
Range Width	40.69
Mean Standard Error	0.03



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Forecast: NGL in Gas Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	1.71
95%	4.39
90%	5.20
85%	5.90
80%	6.55
75%	7.22
70%	7.92
65%	8.63
60%	9.36
55%	10.15
50%	10.98
45%	11.87
40%	12.79
35%	13.82
30%	14.91
25%	16.15
20%	17.59
15%	19.26
10%	21.40
5%	24.58
0%	42.41

End of Forecast

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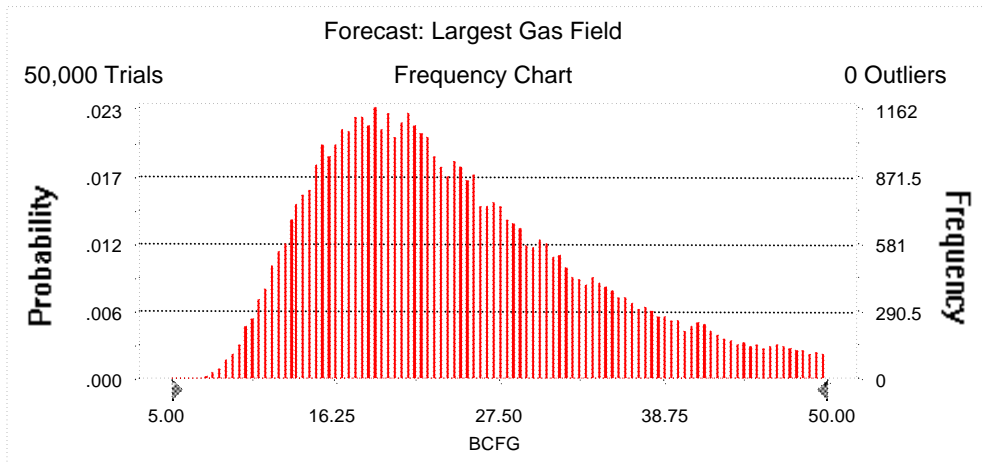
Forecast: Largest Gas Field

Summary:

Display range is from 5.00 to 50.00 BCFG
Entire range is from 6.54 to 50.00 BCFG
After 50,000 trials, the standard error of the mean is 0.04

Statistics:

	<u>Value</u>
Trials	50000
Mean	24.45
Median	22.79
Mode	---
Standard Deviation	8.93
Variance	79.78
Skewness	0.70
Kurtosis	2.90
Coefficient of Variability	0.37
Range Minimum	6.54
Range Maximum	50.00
Range Width	43.46
Mean Standard Error	0.04



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Forecast: Largest Gas Field (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	6.54
95%	12.50
90%	14.18
85%	15.48
80%	16.62
75%	17.67
70%	18.69
65%	19.68
60%	20.72
55%	21.73
50%	22.79
45%	23.98
40%	25.22
35%	26.57
30%	28.08
25%	29.85
20%	31.86
15%	34.42
10%	37.64
5%	42.11
0%	50.00

End of Forecast

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Assumptions

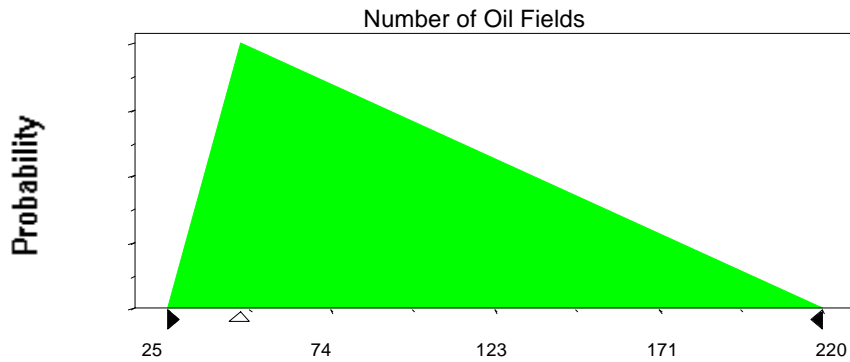
Assumption: Number of Oil Fields

Triangular distribution with parameters:

Minimum	25
Likeliest	47
Maximum	220

Selected range is from 25 to 220

Mean value in simulation was 98



Assumption: Sizes of Oil Fields

Lognormal distribution with parameters:

Mean	0.83	Shifted parameters	1.33
Standard Deviation	2.13		2.13

Selected range is from 0.00 to 24.50

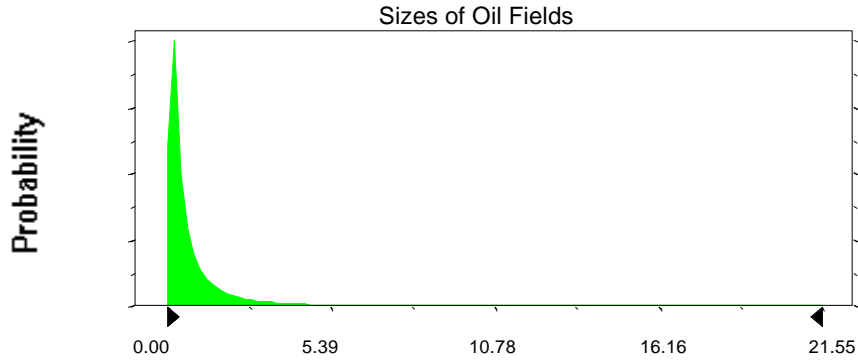
0.50 to 25.00

Mean value in simulation was 0.78

1.28

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Assumption: Sizes of Oil Fields (cont'd)



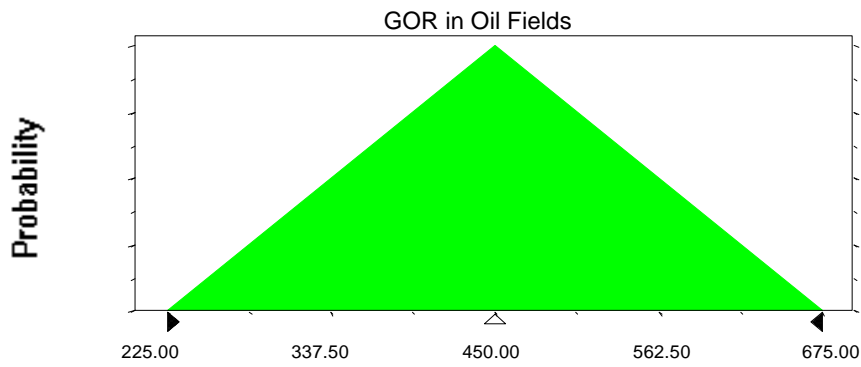
Assumption: GOR in Oil Fields

Triangular distribution with parameters:

Minimum	225.00
Likeliest	450.00
Maximum	675.00

Selected range is from 225.00 to 675.00

Mean value in simulation was 449.40



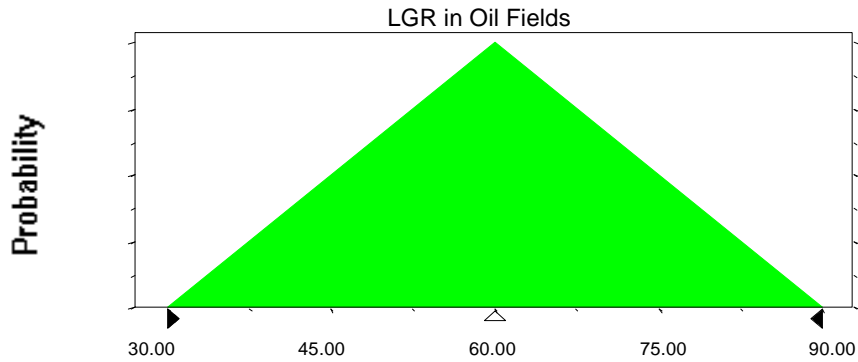
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Assumption: LGR in Oil Fields

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 59.96



Assumption: Number of Gas Fields

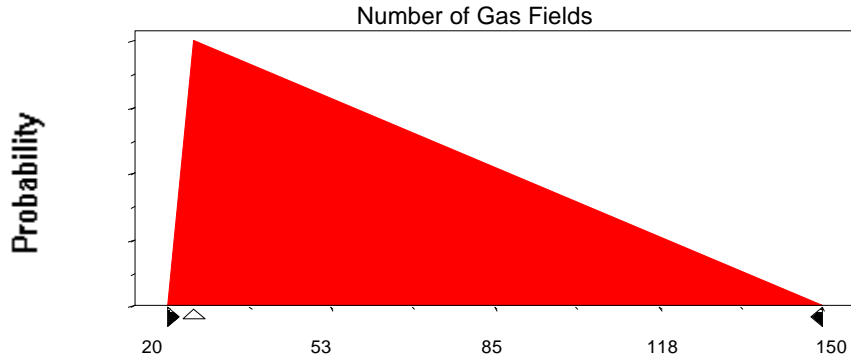
Triangular distribution with parameters:

Minimum	20
Likeliest	25
Maximum	150

Selected range is from 20 to 150
Mean value in simulation was 65

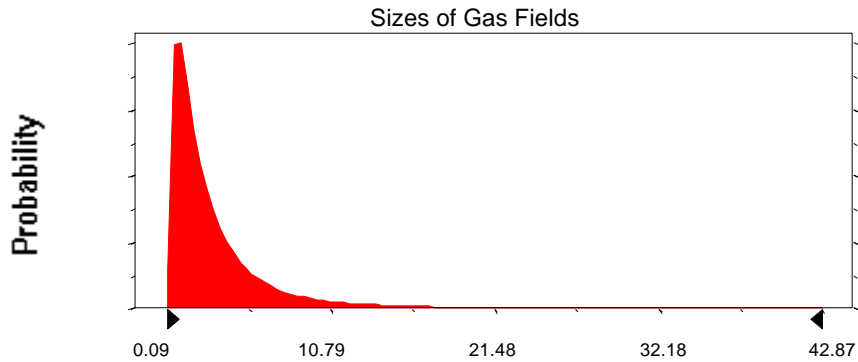
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Assumption: Number of Gas Fields (cont'd)



Assumption: Sizes of Gas Fields

Lognormal distribution with parameters:		Shifted parameters
Mean	3.37	6.37
Standard Deviation	4.57	4.57
Selected range is from 0.00 to 47.00		3.00 to 50.00
Mean value in simulation was 3.28		6.28



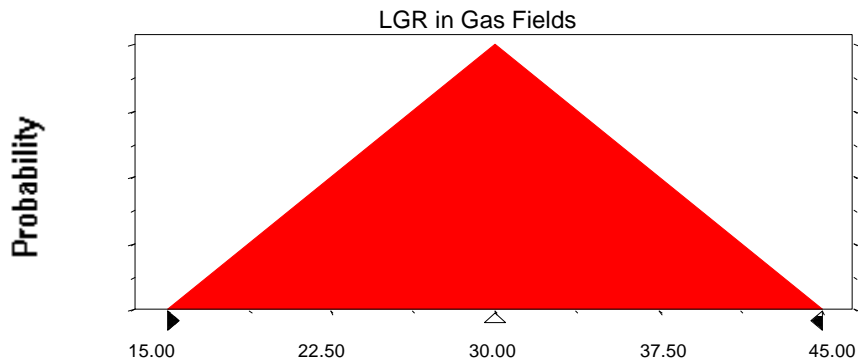
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Assumption: LGR in Gas Fields

Triangular distribution with parameters:

Minimum	15.00
Likeliest	30.00
Maximum	45.00

Selected range is from 15.00 to 45.00
Mean value in simulation was 30.00



End of Assumptions

Simulation started on 10/21/99 at 11:51:21
Simulation stopped on 10/21/99 at 13:13:16