

**Cretaceous Carbonates, Assessment Unit 60350102
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	3	1.00	230	865	1,852	932	215	840	1,964	932	6	24	62	28	45	122	309	141
Gas Fields	18						130	689	1,898	811	3	15	43	18	56	197	699	260
Total		1.00	230	865	1,852	932	345	1,529	3,862	1,743	9	39	105	46				

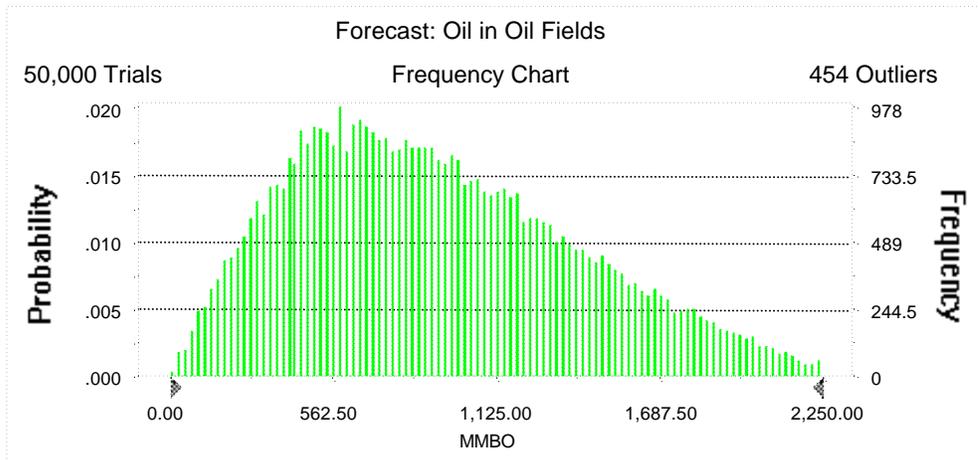
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Forecast: Oil in Oil Fields

Summary:

Display range is from 0.00 to 2,250.00 MMBO
Entire range is from 7.61 to 2,908.14 MMBO
After 50,000 trials, the standard error of the mean is 2.23

Statistics:	Value
Trials	50000
Mean	931.57
Median	864.92
Mode	---
Standard Deviation	498.78
Variance	248,785.92
Skewness	0.57
Kurtosis	2.84
Coefficient of Variability	0.54
Range Minimum	7.61
Range Maximum	2,908.14
Range Width	2,900.53
Mean Standard Error	2.23



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Forecast: Oil in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	7.61
95%	230.28
90%	330.80
85%	412.80
80%	479.78
75%	543.31
70%	605.68
65%	668.77
60%	731.86
55%	798.17
50%	864.92
45%	933.64
40%	1,005.12
35%	1,083.50
30%	1,167.29
25%	1,258.03
20%	1,363.00
15%	1,487.03
10%	1,637.31
5%	1,851.98
0%	2,908.14

End of Forecast

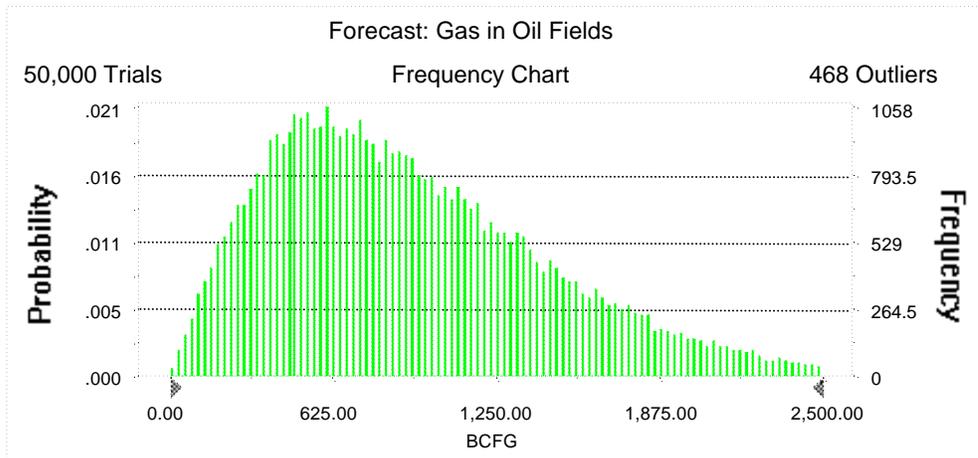
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Forecast: Gas in Oil Fields

Summary:

Display range is from 0.00 to 2,500.00 BCFG
Entire range is from 4.85 to 3,970.82 BCFG
After 50,000 trials, the standard error of the mean is 2.43

Statistics:	Value
Trials	50000
Mean	932.01
Median	839.54
Mode	---
Standard Deviation	543.41
Variance	295,294.34
Skewness	0.85
Kurtosis	3.63
Coefficient of Variability	0.58
Range Minimum	4.85
Range Maximum	3,970.82
Range Width	3,965.97
Mean Standard Error	2.43



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Forecast: Gas in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	4.85
95%	215.22
90%	310.19
85%	387.63
80%	454.95
75%	516.79
70%	578.80
65%	640.98
60%	705.14
55%	769.45
50%	839.54
45%	910.70
40%	985.60
35%	1,068.21
30%	1,156.00
25%	1,256.00
20%	1,368.70
15%	1,506.12
10%	1,688.76
5%	1,964.15
0%	3,970.82

End of Forecast

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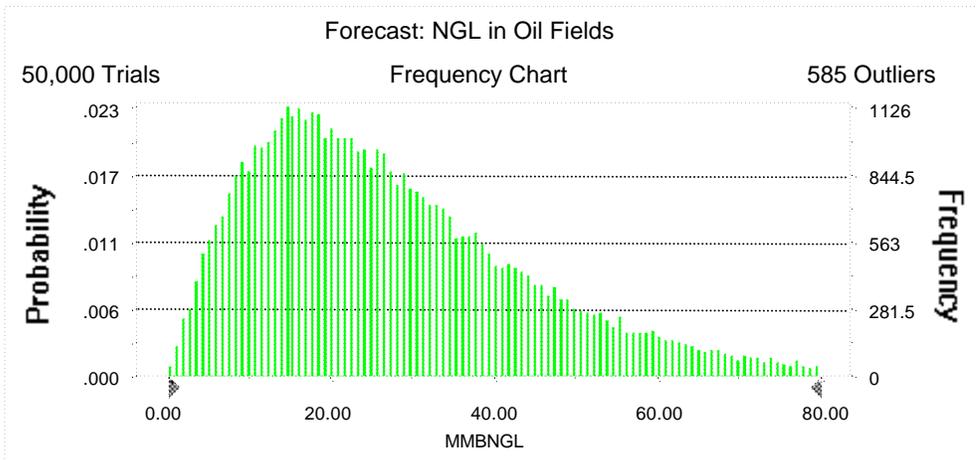
Forecast: NGL in Oil Fields

Summary:

Display range is from 0.00 to 80.00 MMBNGL
 Entire range is from 0.13 to 154.57 MMBNGL
 After 50,000 trials, the standard error of the mean is 0.08

Statistics:

	<u>Value</u>
Trials	50000
Mean	27.95
Median	24.43
Mode	---
Standard Deviation	17.60
Variance	309.70
Skewness	1.11
Kurtosis	4.54
Coefficient of Variability	0.63
Range Minimum	0.13
Range Maximum	154.57
Range Width	154.44
Mean Standard Error	0.08



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Forecast: NGL in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	0.13
95%	5.99
90%	8.70
85%	10.94
80%	12.96
75%	14.82
70%	16.63
65%	18.46
60%	20.38
55%	22.37
50%	24.43
45%	26.61
40%	28.92
35%	31.43
30%	34.21
25%	37.48
20%	41.29
15%	45.88
10%	52.13
5%	61.97
0%	154.57

End of Forecast

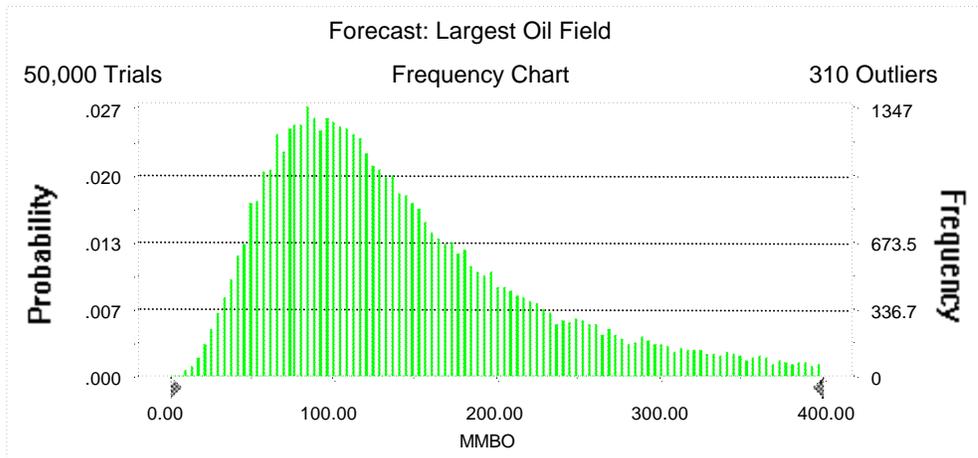
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Forecast: Largest Oil Field

Summary:

Display range is from 0.00 to 400.00 MMBO
Entire range is from 3.93 to 419.94 MMBO
After 50,000 trials, the standard error of the mean is 0.36

Statistics:	Value
Trials	50000
Mean	141.49
Median	122.47
Mode	---
Standard Deviation	80.40
Variance	6,463.95
Skewness	1.09
Kurtosis	3.88
Coefficient of Variability	0.57
Range Minimum	3.93
Range Maximum	419.94
Range Width	416.01
Mean Standard Error	0.36



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Forecast: Largest Oil Field (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	3.93
95%	44.81
90%	56.72
85%	65.99
80%	74.55
75%	82.53
70%	90.09
65%	97.96
60%	105.76
55%	113.96
50%	122.47
45%	131.84
40%	141.88
35%	153.22
30%	166.36
25%	181.80
20%	200.16
15%	224.13
10%	257.59
5%	309.15
0%	419.94

End of Forecast

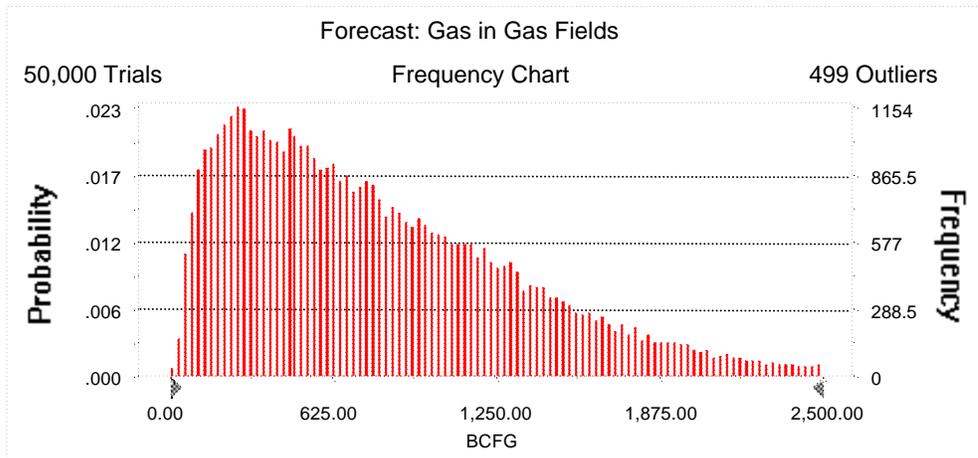
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Forecast: Gas in Gas Fields

Summary:

Display range is from 0.00 to 2,500.00 BCFG
 Entire range is from 19.01 to 4,643.37 BCFG
 After 50,000 trials, the standard error of the mean is 2.53

Statistics:	<u>Value</u>
Trials	50000
Mean	810.53
Median	689.21
Mode	---
Standard Deviation	565.74
Variance	320,064.66
Skewness	1.06
Kurtosis	4.18
Coefficient of Variability	0.70
Range Minimum	19.01
Range Maximum	4,643.37
Range Width	4,624.35
Mean Standard Error	2.53



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Forecast: Gas in Gas Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	19.01
95%	129.53
90%	192.36
85%	249.48
80%	304.36
75%	363.12
70%	425.20
65%	486.52
60%	549.20
55%	617.90
50%	689.21
45%	765.69
40%	847.06
35%	937.86
30%	1,033.98
25%	1,141.87
20%	1,260.97
15%	1,403.75
10%	1,593.08
5%	1,898.21
0%	4,643.37

End of Forecast

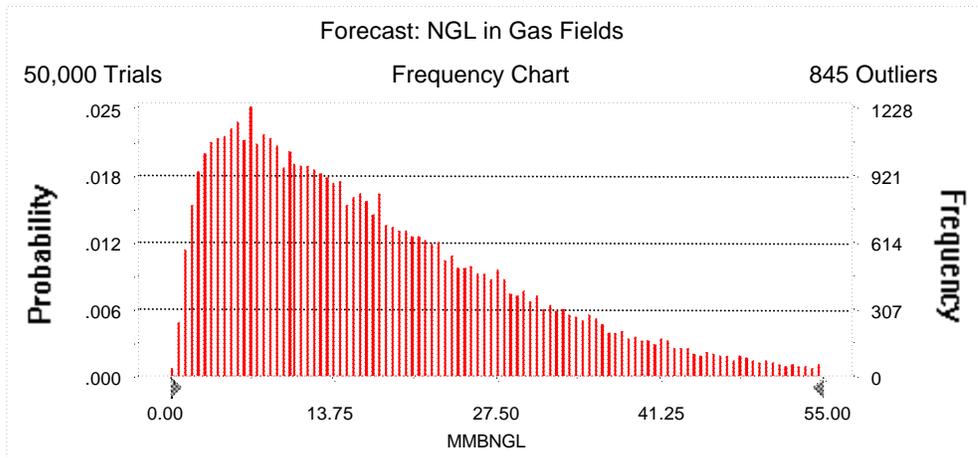
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Forecast: NGL in Gas Fields

Summary:

Display range is from 0.00 to 55.00 MMBNGL
Entire range is from 0.27 to 134.20 MMBNGL
After 50,000 trials, the standard error of the mean is 0.06

Statistics:	Value
Trials	50000
Mean	17.83
Median	14.70
Mode	---
Standard Deviation	13.22
Variance	174.89
Skewness	1.31
Kurtosis	5.29
Coefficient of Variability	0.74
Range Minimum	0.27
Range Maximum	134.20
Range Width	133.93
Mean Standard Error	0.06



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Forecast: NGL in Gas Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	0.27
95%	2.71
90%	4.01
85%	5.25
80%	6.48
75%	7.68
70%	8.94
65%	10.32
60%	11.73
55%	13.17
50%	14.70
45%	16.39
40%	18.12
35%	20.14
30%	22.32
25%	24.80
20%	27.67
15%	31.16
10%	35.81
5%	43.35
0%	134.20

End of Forecast

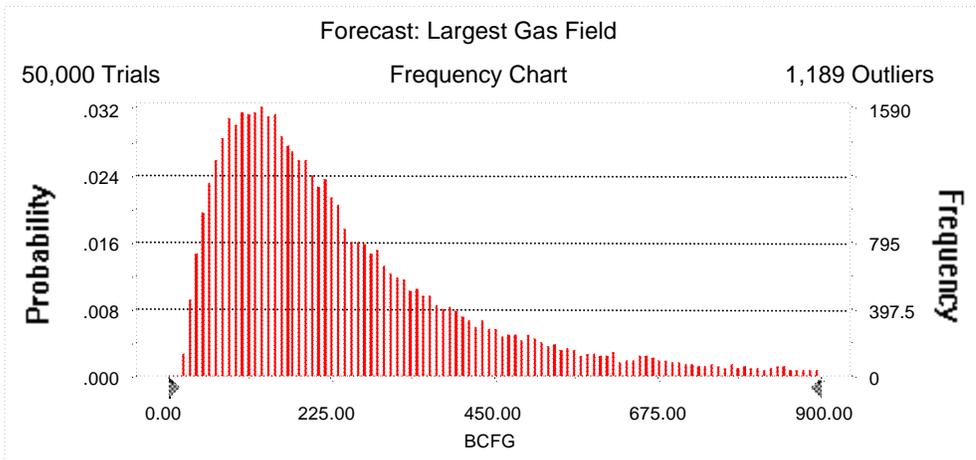
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Forecast: Largest Gas Field

Summary:

Display range is from 0.00 to 900.00 BCFG
 Entire range is from 19.01 to 1,436.71 BCFG
 After 50,000 trials, the standard error of the mean is 0.96

Statistics:	<u>Value</u>
Trials	50000
Mean	260.27
Median	196.88
Mode	---
Standard Deviation	214.06
Variance	45,820.30
Skewness	2.07
Kurtosis	8.36
Coefficient of Variability	0.82
Range Minimum	19.01
Range Maximum	1,436.71
Range Width	1,417.69
Mean Standard Error	0.96



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Forecast: Largest Gas Field (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	19.01
95%	55.67
90%	73.87
85%	89.17
80%	104.01
75%	118.58
70%	132.72
65%	147.17
60%	162.69
55%	179.37
50%	196.88
45%	216.30
40%	236.65
35%	262.22
30%	291.61
25%	327.33
20%	371.71
15%	432.87
10%	522.35
5%	699.23
0%	1,436.71

End of Forecast

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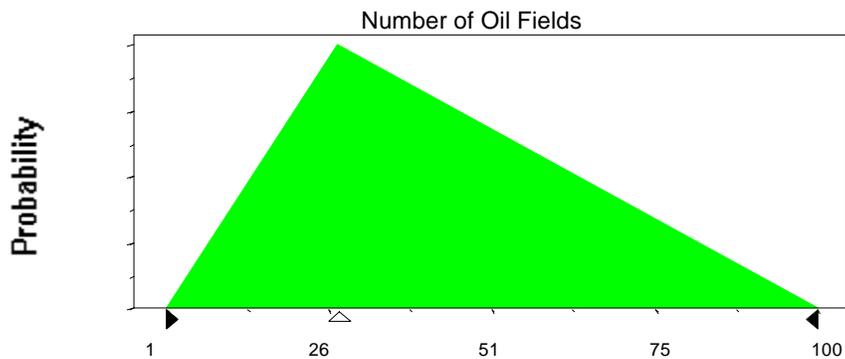
Assumptions

Assumption: Number of Oil Fields

Triangular distribution with parameters:

Minimum	1
Likeliest	27
Maximum	100

Selected range is from 1 to 100
Mean value in simulation was 43



Assumption: Sizes of Oil Fields

Lognormal distribution with parameters:

Mean	19.45
Standard Deviation	37.25

Shifted parameters

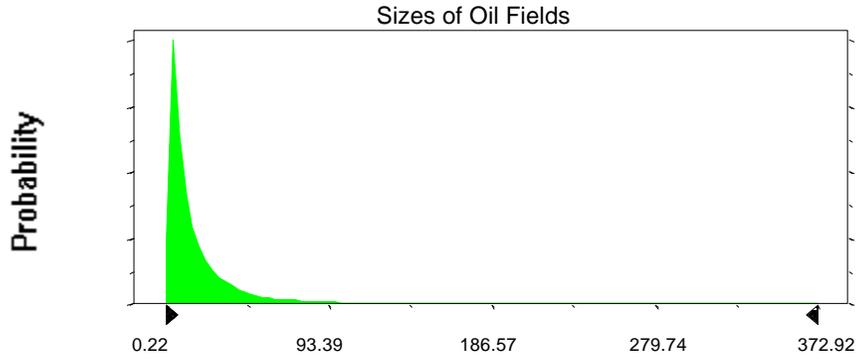
22.45
37.25

Selected range is from 0.00 to 417.00
Mean value in simulation was 18.74

3.00 to 420.00
21.74

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Assumption: Sizes of Oil Fields (cont'd)



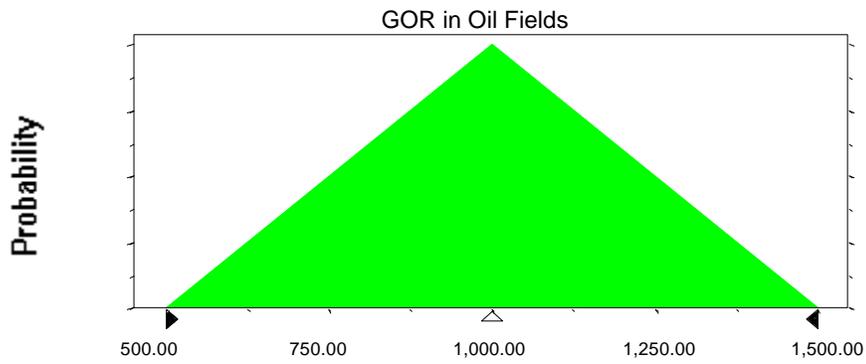
Assumption: GOR in Oil Fields

Triangular distribution with parameters:

Minimum	500.00
Likeliest	1,000.00
Maximum	1,500.00

Selected range is from 500.00 to 1,500.00

Mean value in simulation was 1,000.65



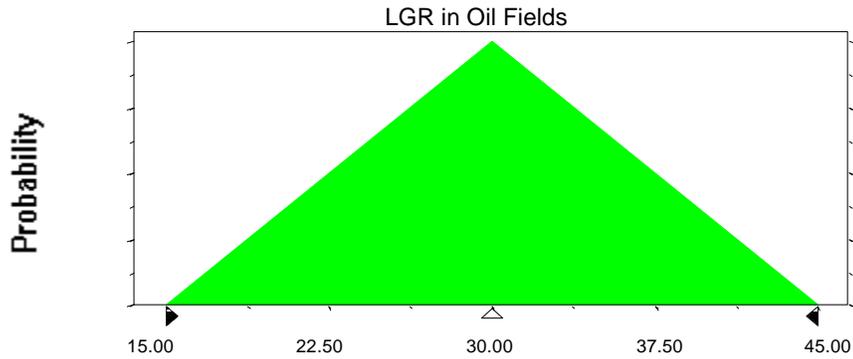
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Assumption: LGR in Oil Fields

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 29.98



Assumption: Number of Gas Fields

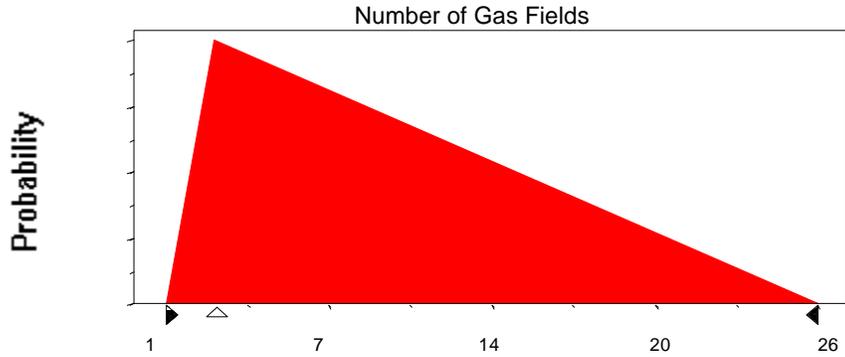
Triangular distribution with parameters:

Minimum	1
Likeliest	3
Maximum	26

Selected range is from 1 to 26
Mean value in simulation was 10

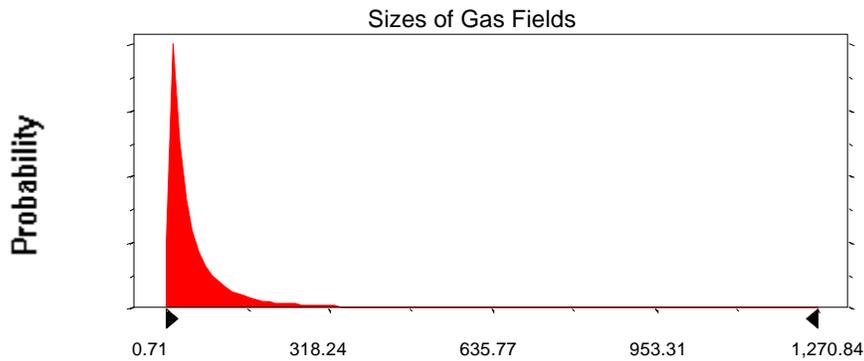
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Assumption: Number of Gas Fields (cont'd)



Assumption: Sizes of Gas Fields

Lognormal distribution with parameters:		Shifted parameters
Mean	65.42	83.42
Standard Deviation	126.79	126.79
Selected range is from 0.00 to 1,422.00		18.00 to 1,440.00
Mean value in simulation was 63.10		81.1



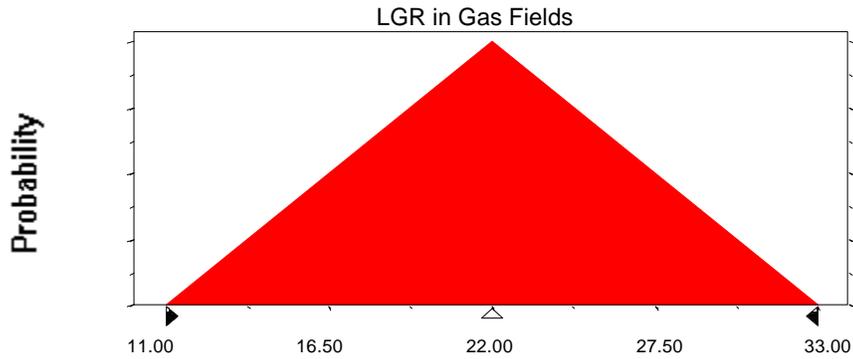
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Assumption: LGR in Gas Fields

Triangular distribution with parameters:

Minimum	11.00
Likeliest	22.00
Maximum	33.00

Selected range is from 11.00 to 33.00
Mean value in simulation was 22.00



End of Assumptions

Simulation started on 11/8/99 at 10:22:20
Simulation stopped on 11/8/99 at 10:54:08