

**Sub-Domanik Devonian Clastics, Assessment Unit 10150103
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	317	665	1,106	682	91	197	346	205	5	11	22	12	31	73	166	82
Gas Fields	6						84	402	1,208	490	4	20	64	25	40	157	627	220
Total		1.00	317	665	1,106	682	174	599	1,554	695	9	31	86	37				

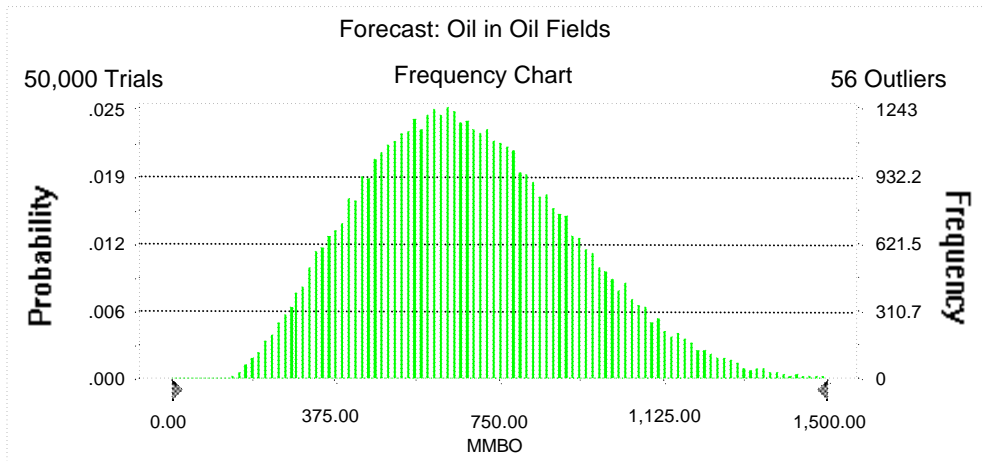
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Forecast: Oil in Oil Fields

Summary:

Display range is from 0.00 to 1,500.00 MMBO
Entire range is from 82.67 to 1,760.92 MMBO
After 50,000 trials, the standard error of the mean is 1.08

Statistics:	Value
Trials	50000
Mean	682.34
Median	664.99
Mode	---
Standard Deviation	240.55
Variance	57,862.83
Skewness	0.40
Kurtosis	2.92
Coefficient of Variability	0.35
Range Minimum	82.67
Range Maximum	1,760.92
Range Width	1,678.25
Mean Standard Error	1.08



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Forecast: Oil in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	82.67
95%	316.76
90%	379.87
85%	428.63
80%	469.59
75%	505.79
70%	539.80
65%	571.76
60%	603.18
55%	634.18
50%	664.99
45%	696.42
40%	729.12
35%	763.67
30%	799.22
25%	840.05
20%	885.68
15%	938.44
10%	1,006.28
5%	1,106.09
0%	1,760.92

End of Forecast

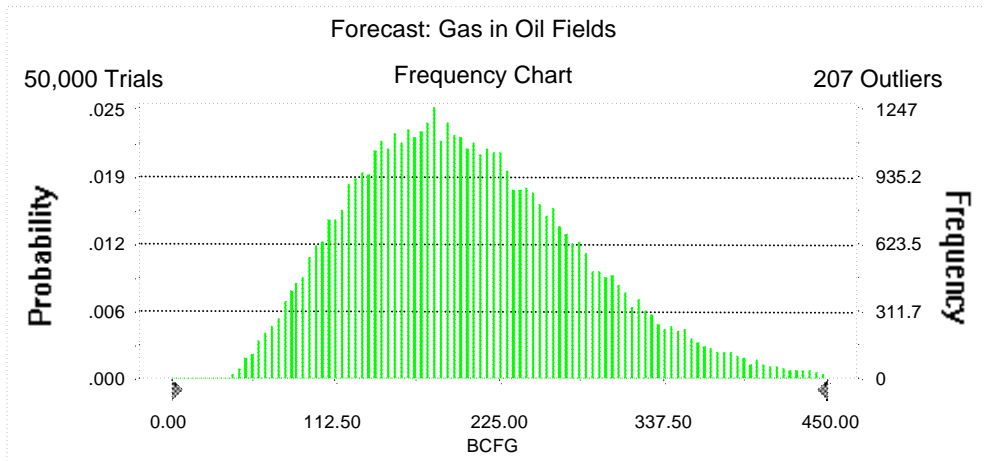
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Forecast: Gas in Oil Fields

Summary:

Display range is from 0.00 to 450.00 BCFG
Entire range is from 18.22 to 609.95 BCFG
After 50,000 trials, the standard error of the mean is 0.35

Statistics:	Value
Trials	50000
Mean	204.83
Median	196.71
Mode	---
Standard Deviation	78.04
Variance	6,089.72
Skewness	0.58
Kurtosis	3.28
Coefficient of Variability	0.38
Range Minimum	18.22
Range Maximum	609.95
Range Width	591.73
Mean Standard Error	0.35



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Forecast: Gas in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	18.22
95%	90.80
90%	109.90
85%	124.44
80%	136.47
75%	147.31
70%	157.55
65%	167.63
60%	177.57
55%	186.89
50%	196.71
45%	207.05
40%	217.72
35%	228.26
30%	240.76
25%	253.69
20%	268.53
15%	286.22
10%	309.45
5%	346.09
0%	609.95

End of Forecast

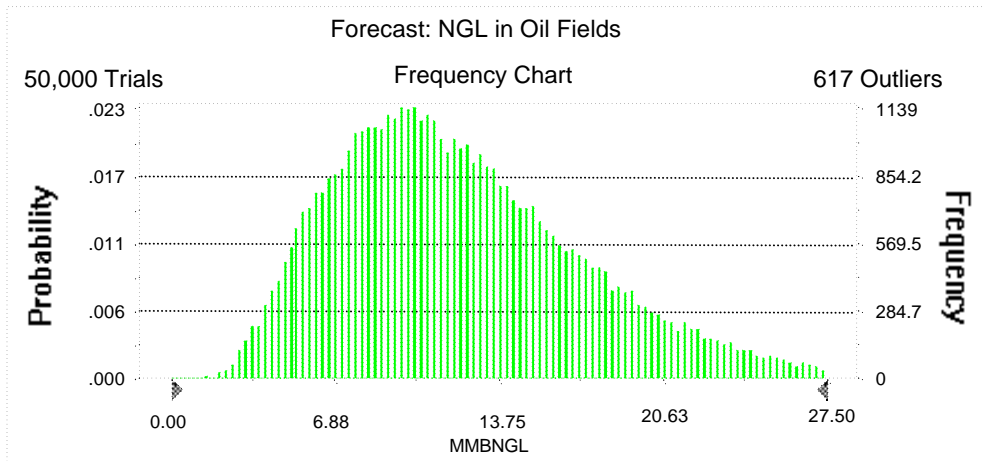
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Forecast: NGL in Oil Fields

Summary:

Display range is from 0.00 to 27.50 MMBNGL
Entire range is from 1.08 to 47.31 MMBNGL
After 50,000 trials, the standard error of the mean is 0.02

Statistics:	<u>Value</u>
Trials	50000
Mean	12.30
Median	11.45
Mode	---
Standard Deviation	5.43
Variance	29.49
Skewness	0.88
Kurtosis	4.06
Coefficient of Variability	0.44
Range Minimum	1.08
Range Maximum	47.31
Range Width	46.23
Mean Standard Error	0.02



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Forecast: NGL in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	1.08
95%	4.97
90%	6.02
85%	6.88
80%	7.65
75%	8.32
70%	8.95
65%	9.59
60%	10.19
55%	10.81
50%	11.45
45%	12.16
40%	12.87
35%	13.62
30%	14.47
25%	15.42
20%	16.54
15%	17.89
10%	19.62
5%	22.42
0%	47.31

End of Forecast

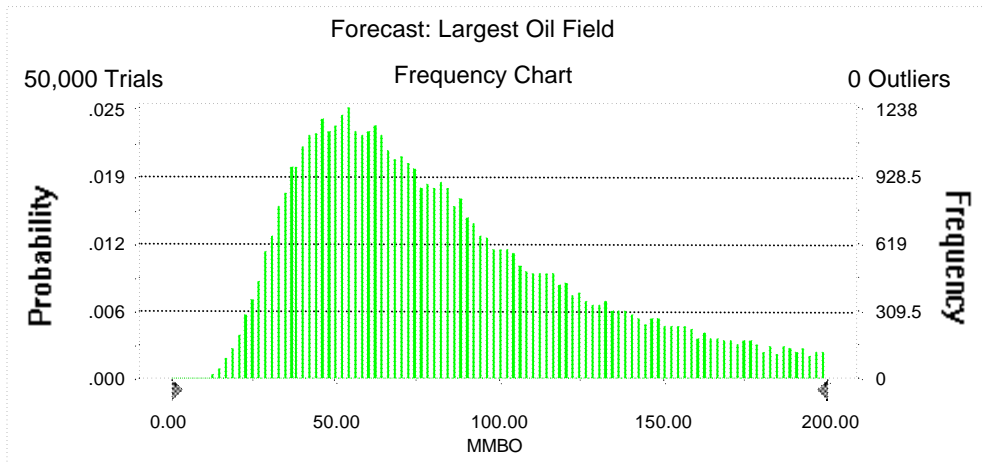
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Forecast: Largest Oil Field

Summary:

Display range is from 0.00 to 200.00 MMBO
Entire range is from 8.65 to 199.97 MMBO
After 50,000 trials, the standard error of the mean is 0.18

Statistics:	Value
Trials	50000
Mean	82.28
Median	73.29
Mode	---
Standard Deviation	40.91
Variance	1,673.88
Skewness	0.82
Kurtosis	2.99
Coefficient of Variability	0.50
Range Minimum	8.65
Range Maximum	199.97
Range Width	191.32
Mean Standard Error	0.18



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Forecast: Largest Oil Field (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	8.65
95%	30.98
90%	37.03
85%	42.00
80%	46.43
75%	50.77
70%	54.90
65%	59.24
60%	63.64
55%	68.22
50%	73.29
45%	78.61
40%	84.25
35%	90.38
30%	97.67
25%	106.09
20%	116.33
15%	128.52
10%	144.53
5%	165.81
0%	199.97

End of Forecast

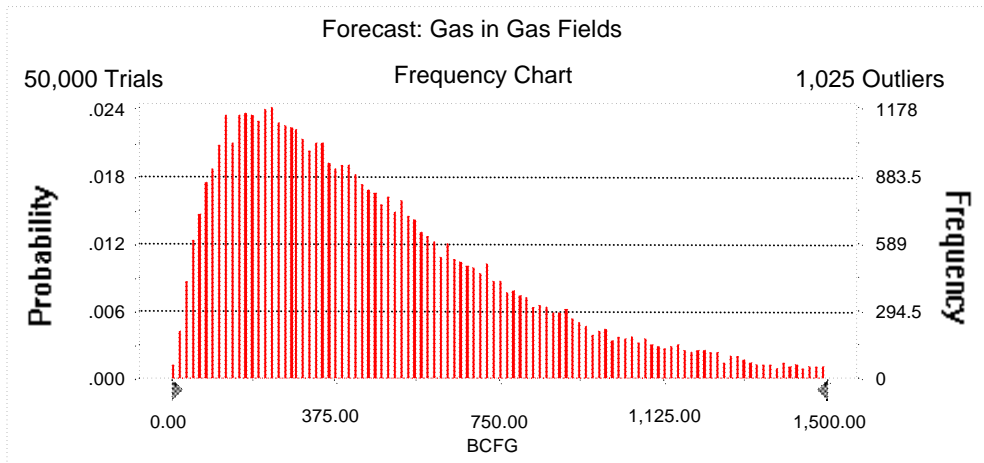
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Forecast: Gas in Gas Fields

Summary:

Display range is from 0.00 to 1,500.00 BCFG
 Entire range is from 6.71 to 3,206.47 BCFG
 After 50,000 trials, the standard error of the mean is 1.64

Statistics:	<u>Value</u>
Trials	50000
Mean	490.42
Median	402.17
Mode	---
Standard Deviation	365.63
Variance	133,682.74
Skewness	1.52
Kurtosis	6.32
Coefficient of Variability	0.75
Range Minimum	6.71
Range Maximum	3,206.47
Range Width	3,199.75
Mean Standard Error	1.64



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Forecast: Gas in Gas Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	6.71
95%	83.57
90%	122.36
85%	156.41
80%	189.28
75%	221.88
70%	254.71
65%	289.05
60%	324.80
55%	361.72
50%	402.17
45%	443.69
40%	490.32
35%	539.09
30%	595.41
25%	661.30
20%	738.15
15%	837.57
10%	975.30
5%	1,208.31
0%	3,206.47

End of Forecast

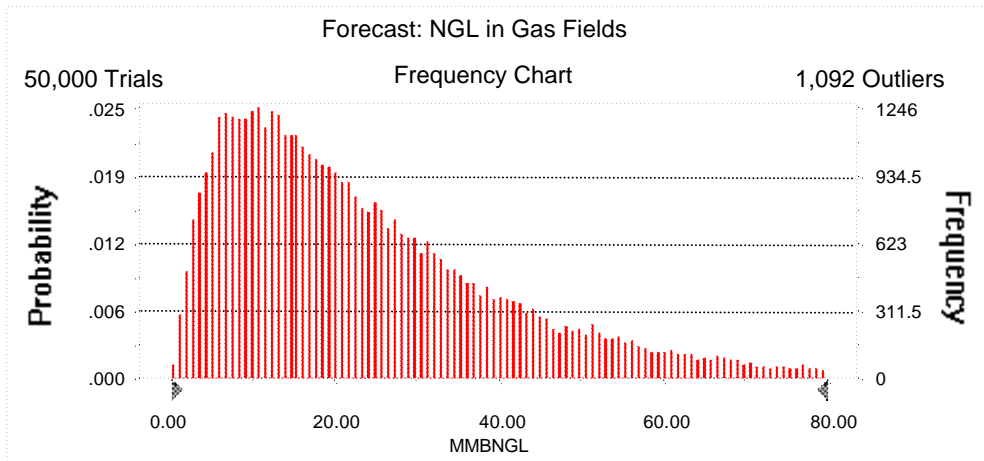
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Forecast: NGL in Gas Fields

Summary:

Display range is from 0.00 to 80.00 MMBNGL
Entire range is from 0.35 to 196.37 MMBNGL
After 50,000 trials, the standard error of the mean is 0.09

Statistics:	Value
Trials	50000
Mean	25.19
Median	20.02
Mode	---
Standard Deviation	19.92
Variance	396.63
Skewness	1.77
Kurtosis	7.75
Coefficient of Variability	0.79
Range Minimum	0.35
Range Maximum	196.37
Range Width	196.02
Mean Standard Error	0.09



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Forecast: NGL in Gas Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	0.35
95%	4.05
90%	5.98
85%	7.64
80%	9.29
75%	10.92
70%	12.59
65%	14.29
60%	16.07
55%	18.00
50%	20.02
45%	22.22
40%	24.67
35%	27.27
30%	30.25
25%	33.66
20%	37.92
15%	43.27
10%	51.19
5%	63.85
0%	196.37

End of Forecast

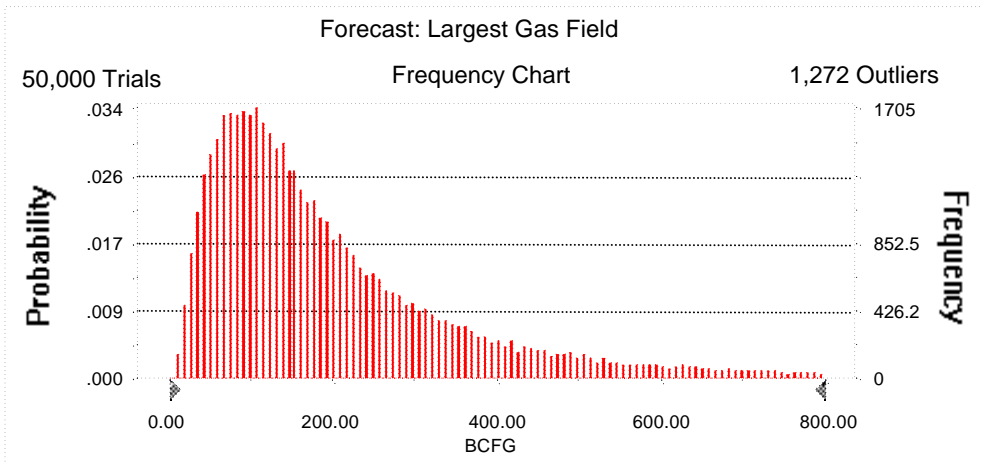
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Forecast: Largest Gas Field

Summary:

Display range is from 0.00 to 800.00 BCFG
 Entire range is from 6.71 to 1,499.88 BCFG
 After 50,000 trials, the standard error of the mean is 0.90

Statistics:	<u>Value</u>
Trials	50000
Mean	219.56
Median	157.21
Mode	---
Standard Deviation	201.87
Variance	40,751.88
Skewness	2.43
Kurtosis	10.76
Coefficient of Variability	0.92
Range Minimum	6.71
Range Maximum	1,499.88
Range Width	1,493.16
Mean Standard Error	0.90



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Forecast: Largest Gas Field (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	6.71
95%	40.19
90%	55.12
85%	67.95
80%	79.94
75%	91.84
70%	103.86
65%	115.75
60%	128.62
55%	142.34
50%	157.21
45%	174.06
40%	192.99
35%	214.52
30%	240.33
25%	272.44
20%	313.31
15%	368.35
10%	455.96
5%	626.81
0%	1,499.88

End of Forecast

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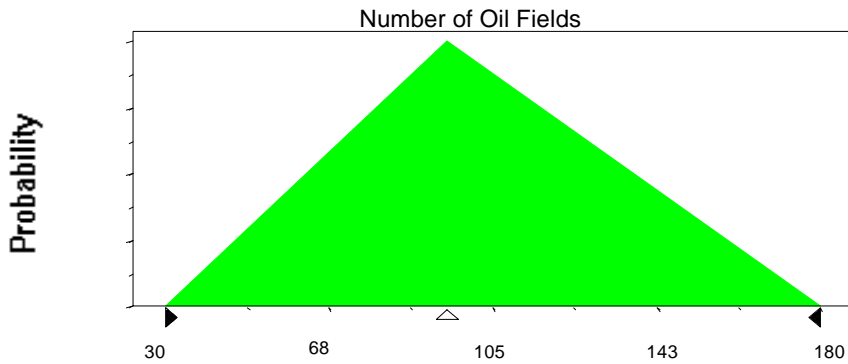
Assumptions

Assumption: Number of Oil Fields

Triangular distribution with parameters:

Minimum	30
Likeliest	95
Maximum	180

Selected range is from 30 to 180
Mean value in simulation was 101



Assumption: Sizes of Oil Fields

Lognormal distribution with parameters:

Mean	6.06
Standard Deviation	17.32

Shifted parameters

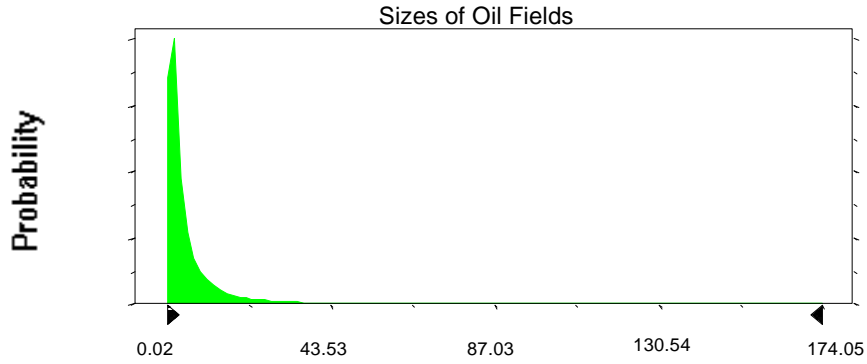
7.06
17.32

Selected range is from 0.00 to 199.00
Mean value in simulation was 5.69

1.00 to 200.00
6.69

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Assumption: Sizes of Oil Fields (cont'd)



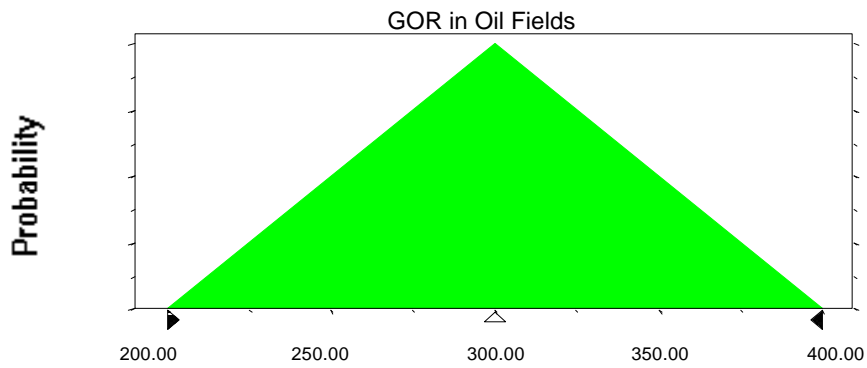
Assumption: GOR in Oil Fields

Triangular distribution with parameters:

Minimum	200.00
Likeliest	300.00
Maximum	400.00

Selected range is from 200.00 to 400.00

Mean value in simulation was 300.21



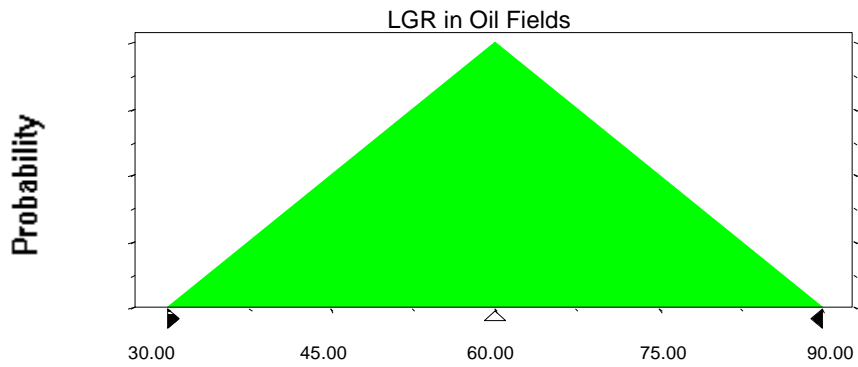
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Assumption: LGR in Oil Fields

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 60.02



Assumption: Number of Gas Fields

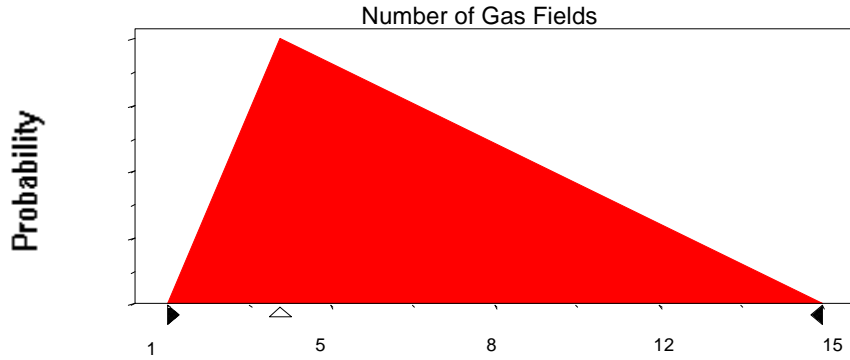
Triangular distribution with parameters:

Minimum	1
Likeliest	3
Maximum	15

Selected range is from 1 to 15
Mean value in simulation was 6

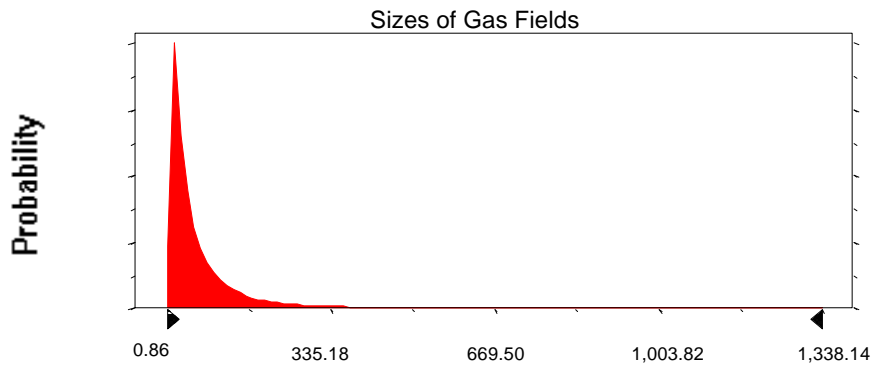
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Assumption: Number of Gas Fields (cont'd)



Assumption: Sizes of Gas Fields

Lognormal distribution with parameters:		Shifted parameters
Mean	71.93	77.93
Standard Deviation	134.11	134.11
Selected range is from 0.00 to 1,494.00		6.00 to 1,500.00
Mean value in simulation was 69.84		75.84



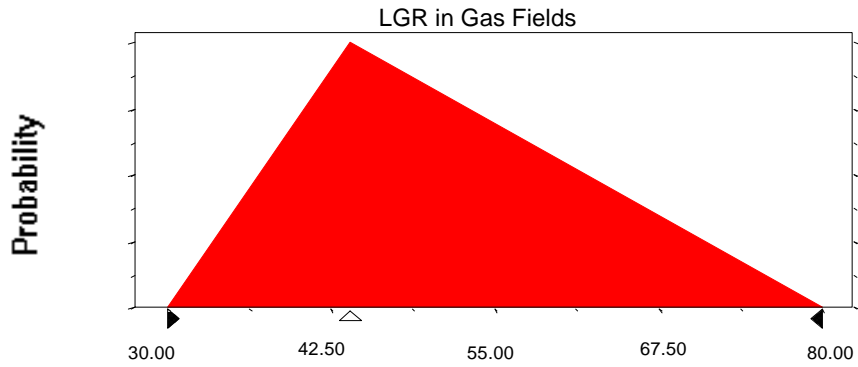
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Assumption: LGR in Gas Fields

Triangular distribution with parameters:

Minimum	30.00
Likeliest	44.00
Maximum	80.00

Selected range is from 30.00 to 80.00
Mean value in simulation was 51.31



End of Assumptions

Simulation started on 1/31/00 at 12:44:40
Simulation stopped on 1/31/00 at 13:34:13