

**Devonian Synrift, Assessment Unit 10090102**  
**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	7	0.90	0	784	1,886	848	0	1,513	3,957	1,694	0	88	248	102	59	172	507	210
Gas Fields	42					0	7,252	16,041	7,623	0	280	677	304	481	1,289	3,464	1,525	
Total		0.90	0	784	1,886	848	0	8,765	19,998	9,317	0	368	924	405				

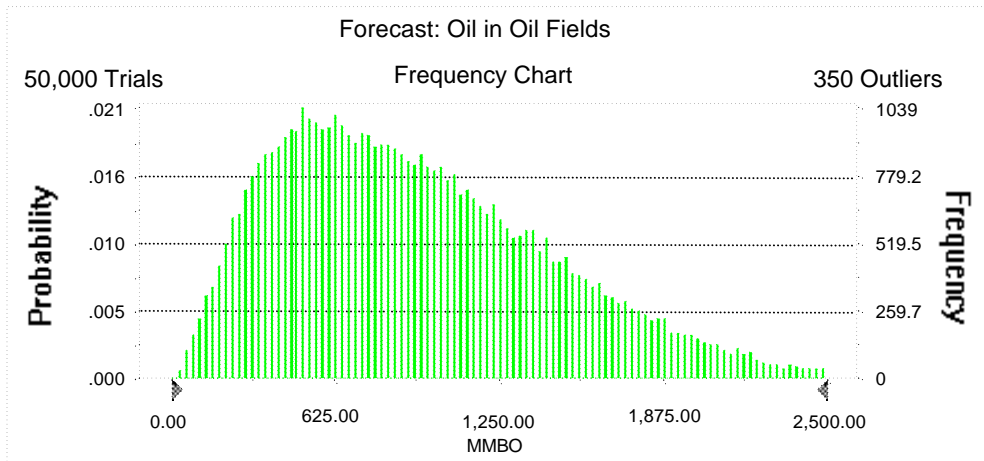
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**Monte Carlo Results**

**Forecast: Oil in Oil Fields**

Summary:

Display range is from 0.00 to 2,500.00 MMBO  
Entire range is from 26.64 to 4,292.28 MMBO  
After 50,000 trials, the standard error of the mean is 2.36

Statistics:	Value
Trials	50000
Mean	943.97
Median	862.55
Mode	---
Standard Deviation	527.98
Variance	278,766.78
Skewness	0.75
Kurtosis	3.36
Coefficient of Variability	0.56
Range Minimum	26.64
Range Maximum	4,292.28
Range Width	4,265.65
Mean Standard Error	2.36



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**Forecast: Oil in Oil Fields (cont'd)**

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	26.64
95%	238.38
90%	327.25
85%	400.57
80%	468.71
75%	530.47
70%	595.43
65%	658.15
60%	725.00
55%	791.82
50%	862.55
45%	935.83
40%	1,010.61
35%	1,089.55
30%	1,177.56
25%	1,274.54
20%	1,386.58
15%	1,513.24
10%	1,678.20
5%	1,925.02
0%	4,292.28

End of Forecast

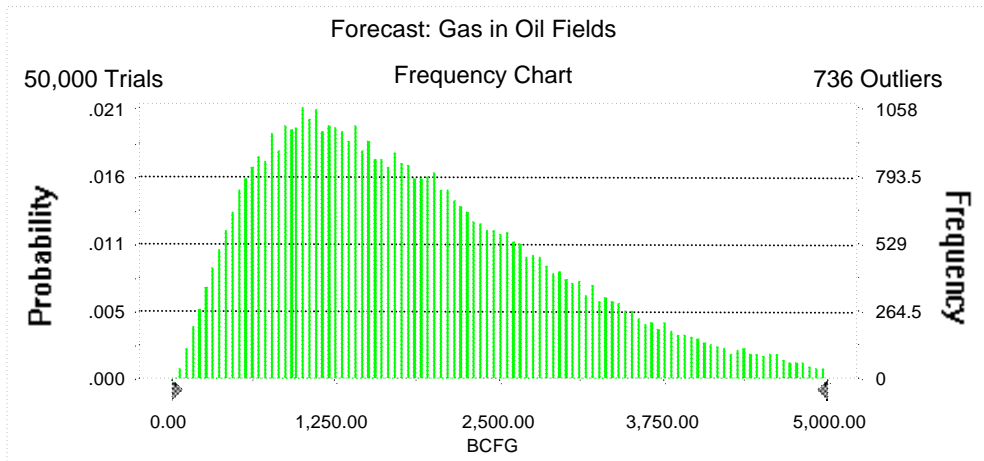
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**Forecast: Gas in Oil Fields**

Summary:

Display range is from 0.00 to 5,000.00 BCFG  
Entire range is from 38.33 to 9,164.97 BCFG  
After 50,000 trials, the standard error of the mean is 5.09

Statistics:	Value
Trials	50000
Mean	1,886.37
Median	1,672.56
Mode	---
Standard Deviation	1,138.41
Variance	1,295,968.60
Skewness	1.01
Kurtosis	4.22
Coefficient of Variability	0.60
Range Minimum	38.33
Range Maximum	9,164.97
Range Width	9,126.64
Mean Standard Error	5.09



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**Forecast: Gas in Oil Fields (cont'd)**

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	38.33
95%	447.40
90%	618.75
85%	763.18
80%	895.01
75%	1,019.66
70%	1,140.55
65%	1,265.84
60%	1,397.03
55%	1,531.32
50%	1,672.56
45%	1,819.44
40%	1,978.95
35%	2,141.55
30%	2,329.94
25%	2,538.88
20%	2,777.82
15%	3,068.94
10%	3,444.31
5%	4,043.91
0%	9,164.97

End of Forecast

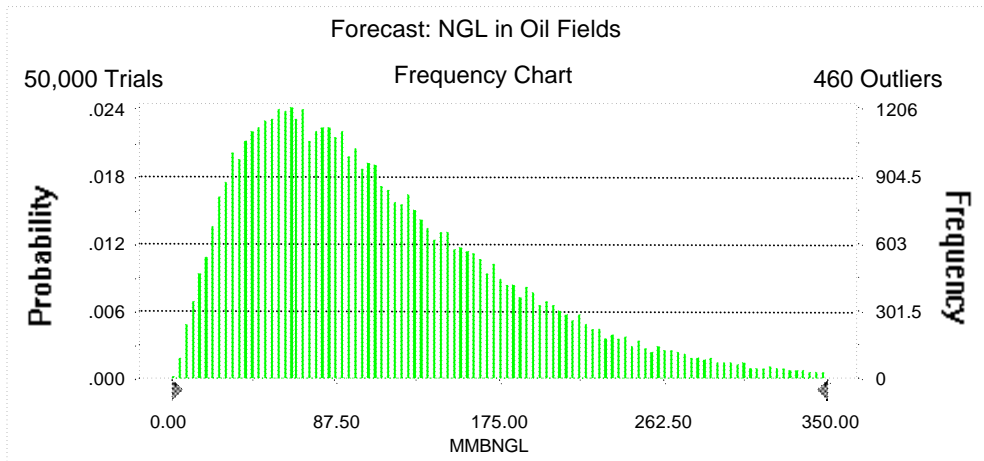
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**Forecast: NGL in Oil Fields**

Summary:

Display range is from 0.00 to 350.00 MMBNGL  
Entire range is from 1.80 to 702.46 MMBNGL  
After 50,000 trials, the standard error of the mean is 0.33

Statistics:	Value
Trials	50000
Mean	113.14
Median	97.15
Mode	---
Standard Deviation	73.30
Variance	5,372.35
Skewness	1.23
Kurtosis	5.08
Coefficient of Variability	0.65
Range Minimum	1.80
Range Maximum	702.46
Range Width	700.66
Mean Standard Error	0.33



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**Forecast: NGL in Oil Fields (cont'd)**

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	1.80
95%	24.99
90%	34.73
85%	43.11
80%	50.97
75%	58.40
70%	65.73
65%	73.13
60%	81.05
55%	89.10
50%	97.15
45%	106.18
40%	115.69
35%	126.57
30%	138.28
25%	151.94
20%	167.54
15%	187.15
10%	212.21
5%	254.73
0%	702.46

End of Forecast

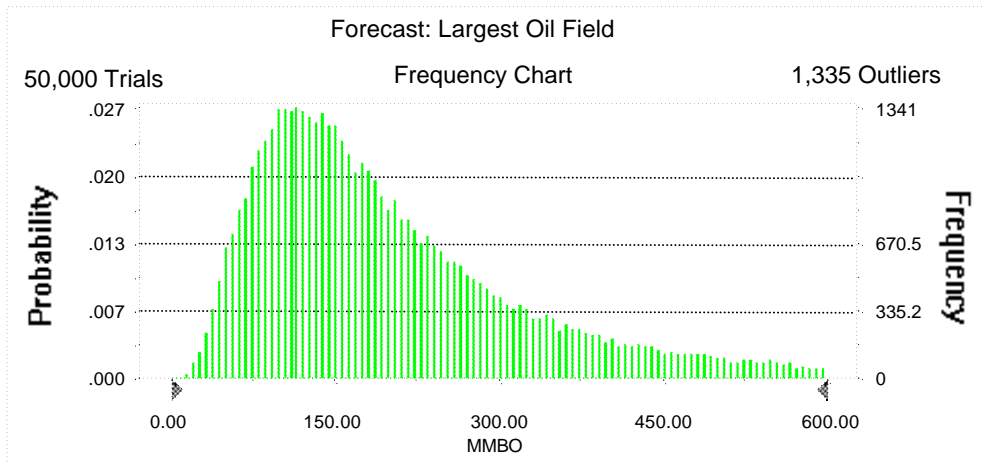
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**Forecast: Largest Oil Field**

Summary:

Display range is from 0.00 to 600.00 MMBO  
Entire range is from 11.26 to 799.85 MMBO  
After 50,000 trials, the standard error of the mean is 0.63

Statistics:	Value
Trials	50000
Mean	210.22
Median	171.78
Mode	---
Standard Deviation	140.18
Variance	19,651.42
Skewness	1.52
Kurtosis	5.45
Coefficient of Variability	0.67
Range Minimum	11.26
Range Maximum	799.85
Range Width	788.59
Mean Standard Error	0.63





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**Forecast: Largest Oil Field (cont'd)**

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	11.26
95%	58.58
90%	75.34
85%	88.77
80%	100.59
75%	111.88
70%	122.86
65%	134.46
60%	146.20
55%	158.21
50%	171.78
45%	186.12
40%	202.50
35%	220.64
30%	241.86
25%	266.71
20%	297.45
15%	340.00
10%	399.33
5%	506.71
0%	799.85

End of Forecast

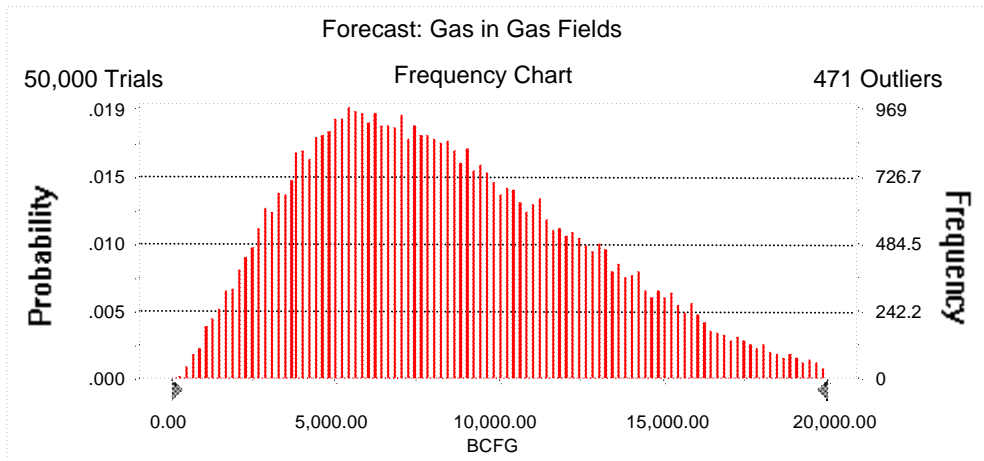
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**Forecast: Gas in Gas Fields**

Summary:

Display range is from 0.00 to 20,000.00 BCFG  
 Entire range is from 332.53 to 33,914.19 BCFG  
 After 50,000 trials, the standard error of the mean is 19.27

Statistics:	<u>Value</u>
Trials	50000
Mean	8,480.64
Median	7,892.77
Mode	---
Standard Deviation	4,308.29
Variance	18,561,393.35
Skewness	0.63
Kurtosis	3.11
Coefficient of Variability	0.51
Range Minimum	332.53
Range Maximum	33,914.19
Range Width	33,581.66
Mean Standard Error	19.27



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**Forecast: Gas in Gas Fields (cont'd)**

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	332.53
95%	2,455.51
90%	3,323.13
85%	4,014.59
80%	4,623.27
75%	5,182.77
70%	5,711.31
65%	6,234.71
60%	6,778.86
55%	7,331.18
50%	7,892.77
45%	8,491.00
40%	9,095.91
35%	9,755.63
30%	10,477.18
25%	11,275.64
20%	12,177.95
15%	13,197.66
10%	14,471.74
5%	16,290.81
0%	33,914.19

End of Forecast

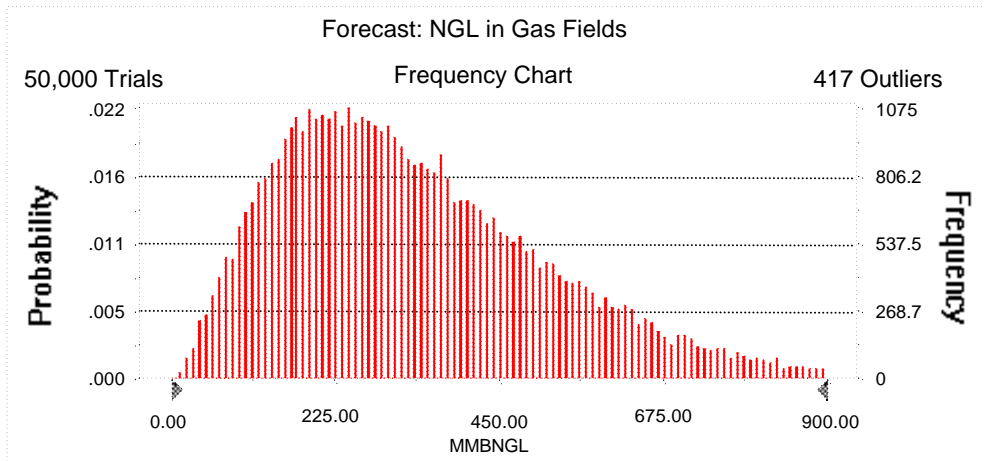
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**Forecast: NGL in Gas Fields**

Summary:

Display range is from 0.00 to 900.00 MMBNGL  
Entire range is from 11.89 to 1,518.93 MMBNGL  
After 50,000 trials, the standard error of the mean is 0.84

Statistics:	Value
Trials	50000
Mean	338.09
Median	305.15
Mode	---
Standard Deviation	187.85
Variance	35,286.11
Skewness	0.89
Kurtosis	3.85
Coefficient of Variability	0.56
Range Minimum	11.89
Range Maximum	1,518.93
Range Width	1,507.04
Mean Standard Error	0.84



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**Forecast: NGL in Gas Fields (cont'd)**

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	11.89
95%	91.76
90%	124.04
85%	151.21
80%	173.94
75%	195.79
70%	217.48
65%	239.22
60%	260.91
55%	282.87
50%	305.15
45%	329.57
40%	356.12
35%	382.80
30%	413.92
25%	448.19
20%	487.85
15%	535.91
10%	598.52
5%	694.16
0%	1,518.93

End of Forecast

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**Monte Carlo Results**

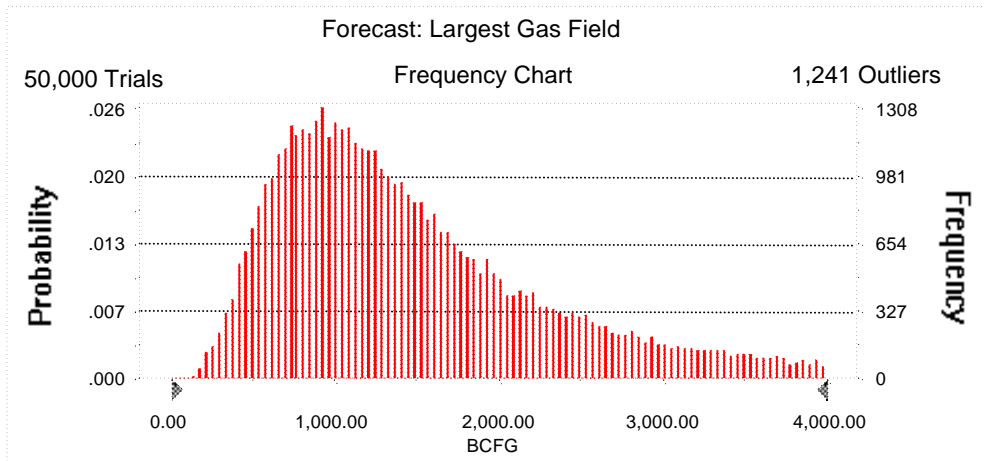
**Forecast: Largest Gas Field**

Summary:

Display range is from 0.00 to 4,000.00 BCFG  
Entire range is from 97.43 to 4,999.26 BCFG  
After 50,000 trials, the standard error of the mean is 4.09

Statistics:

	<u>Value</u>
Trials	50000
Mean	1,524.73
Median	1,288.61
Mode	---
Standard Deviation	914.95
Variance	837,138.80
Skewness	1.28
Kurtosis	4.48
Coefficient of Variability	0.60
Range Minimum	97.43
Range Maximum	4,999.26
Range Width	4,901.83
Mean Standard Error	4.09



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**Forecast: Largest Gas Field (cont'd)**

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	97.43
95%	481.26
90%	600.51
85%	698.18
80%	780.82
75%	864.54
70%	943.76
65%	1,026.78
60%	1,107.97
55%	1,196.15
50%	1,288.61
45%	1,390.55
40%	1,498.94
35%	1,622.54
30%	1,764.58
25%	1,939.21
20%	2,156.15
15%	2,438.25
10%	2,821.63
5%	3,463.71
0%	4,999.26

End of Forecast

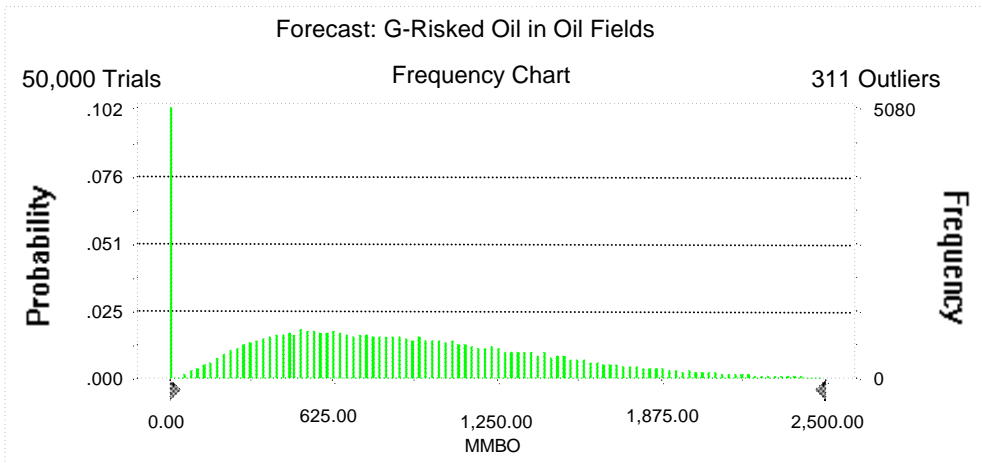
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**Forecast: G-Riskied Oil in Oil Fields**

Summary:

Display range is from 0.00 to 2,500.00 MMBO  
 Entire range is from 0.00 to 4,292.28 MMBO  
 After 50,000 trials, the standard error of the mean is 2.57

Statistics:	<u>Value</u>
Trials	50000
Mean	847.68
Median	783.78
Mode	0.00
Standard Deviation	575.18
Variance	330,832.86
Skewness	0.58
Kurtosis	3.08
Coefficient of Variability	0.68
Range Minimum	0.00
Range Maximum	4,292.28
Range Width	4,292.28
Mean Standard Error	2.57





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**Monte Carlo Results**

**Forecast: G-Risk Oil in Oil Fields (cont'd)**

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	0.00
95%	0.00
90%	0.00
85%	246.47
80%	341.85
75%	421.52
70%	496.23
65%	564.74
60%	635.22
55%	708.68
50%	783.78
45%	861.77
40%	943.42
35%	1,027.50
30%	1,117.39
25%	1,218.50
20%	1,333.75
15%	1,465.73
10%	1,634.90
5%	1,886.40
0%	4,292.28

End of Forecast

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**Devonian Synrift**  
**Monte Carlo Results**

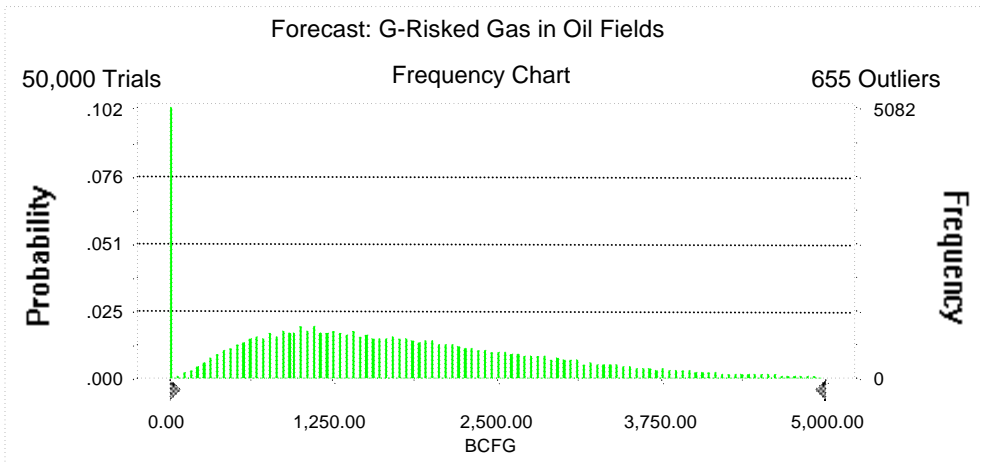
**Forecast: G-Riskied Gas in Oil Fields**

Summary:

Display range is from 0.00 to 5,000.00 BCFG  
Entire range is from 0.00 to 9,164.97 BCFG  
After 50,000 trials, the standard error of the mean is 5.45

Statistics:

	<u>Value</u>
Trials	50000
Mean	1,693.77
Median	1,512.71
Mode	0.00
Standard Deviation	1,218.71
Variance	1,485,265.56
Skewness	0.84
Kurtosis	3.83
Coefficient of Variability	0.72
Range Minimum	0.00
Range Maximum	9,164.97
Range Width	9,164.97
Mean Standard Error	5.45



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**Forecast: G-Risked Gas in Oil Fields (cont'd)**

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	0.00
95%	0.00
90%	0.00
85%	461.42
80%	646.22
75%	802.04
70%	947.60
65%	1,083.09
60%	1,222.21
55%	1,362.84
50%	1,512.71
45%	1,670.80
40%	1,835.16
35%	2,011.11
30%	2,197.17
25%	2,416.42
20%	2,662.09
15%	2,958.50
10%	3,348.05
5%	3,957.23
0%	9,164.97

End of Forecast

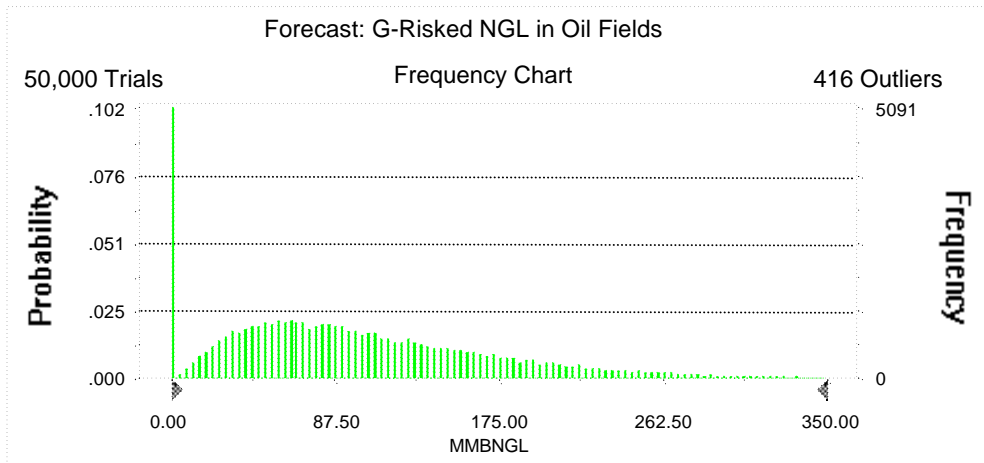
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**Forecast: G-Risked NGL in Oil Fields**

Summary:

Display range is from 0.00 to 350.00 MMBNGL  
 Entire range is from 0.00 to 702.46 MMBNGL  
 After 50,000 trials, the standard error of the mean is 0.35

Statistics:	<u>Value</u>
Trials	50000
Mean	101.60
Median	87.99
Mode	0.00
Standard Deviation	77.35
Variance	5,983.36
Skewness	1.07
Kurtosis	4.66
Coefficient of Variability	0.76
Range Minimum	0.00
Range Maximum	702.46
Range Width	702.46
Mean Standard Error	0.35



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**Forecast: G-Riskied NGL in Oil Fields (cont'd)**

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	0.00
95%	0.00
90%	0.00
85%	25.81
80%	36.53
75%	45.67
70%	54.31
65%	62.39
60%	70.50
55%	79.20
50%	87.99
45%	96.99
40%	106.95
35%	117.70
30%	130.02
25%	144.07
20%	160.18
15%	179.54
10%	205.45
5%	247.72
0%	702.46

End of Forecast

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**Forecast: G-Riskied Gas in Gas Fields**

Summary:

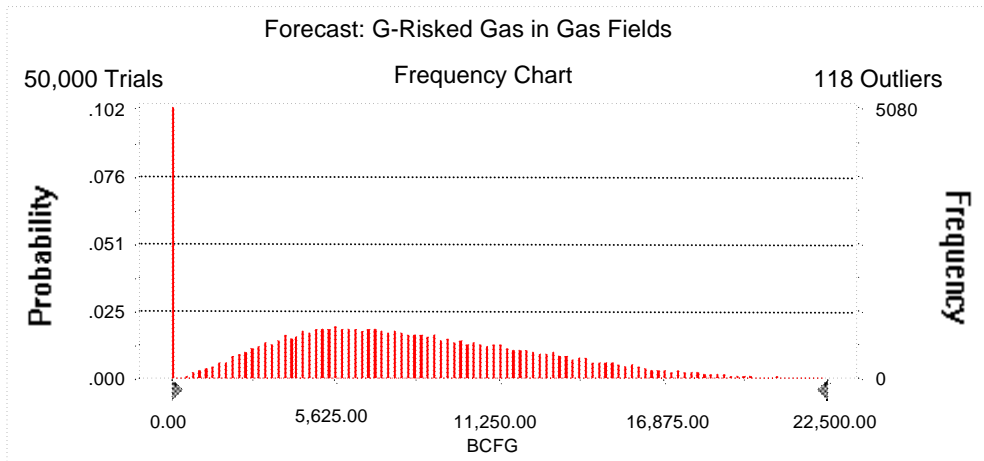
Display range is from 0.00 to 22,500.00 BCFG

Entire range is from 0.00 to 33,914.19 BCFG

After 50,000 trials, the standard error of the mean is 21.57

Statistics:

	<u>Value</u>
Trials	50000
Mean	7,622.83
Median	7,252.07
Mode	0.00
Standard Deviation	4,822.68
Variance	23,258,254.49
Skewness	0.39
Kurtosis	2.83
Coefficient of Variability	0.63
Range Minimum	0.00
Range Maximum	33,914.19
Range Width	33,914.19
Mean Standard Error	21.57



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**Forecast: G-Risked Gas in Gas Fields (cont'd)**

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	0.00
95%	0.00
90%	0.00
85%	2,536.46
80%	3,456.52
75%	4,203.83
70%	4,866.23
65%	5,467.57
60%	6,053.99
55%	6,654.06
50%	7,252.07
45%	7,881.38
40%	8,544.69
35%	9,226.48
30%	9,993.79
25%	10,834.02
20%	11,760.12
15%	12,855.54
10%	14,172.86
5%	16,041.18
0%	33,914.19

End of Forecast

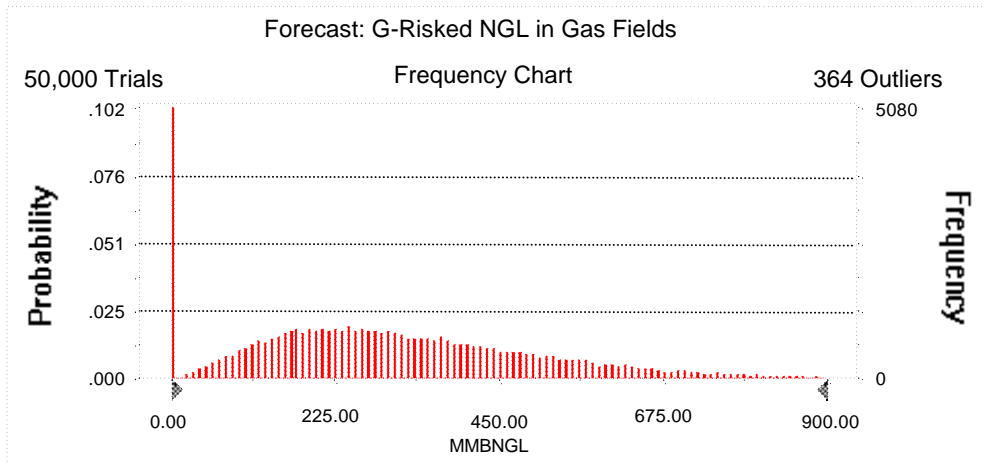
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**Forecast: G-Riskied NGL in Gas Fields**

Summary:

Display range is from 0.00 to 900.00 MMBNGL  
Entire range is from 0.00 to 1,518.93 MMBNGL  
After 50,000 trials, the standard error of the mean is 0.92

Statistics:	Value
Trials	50000
Mean	303.80
Median	279.92
Mode	0.00
Standard Deviation	205.17
Variance	42,095.54
Skewness	0.66
Kurtosis	3.43
Coefficient of Variability	0.68
Range Minimum	0.00
Range Maximum	1,518.93
Range Width	1,518.93
Mean Standard Error	0.92





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**Forecast: G-Riskied NGL in Gas Fields (cont'd)**

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	0.00
95%	0.00
90%	0.00
85%	94.54
80%	129.46
75%	158.10
70%	183.10
65%	207.52
60%	231.30
55%	255.73
50%	279.92
45%	304.90
40%	332.09
35%	361.72
30%	392.98
25%	428.76
20%	469.83
15%	518.53
10%	582.27
5%	676.71
0%	1,518.93

End of Forecast

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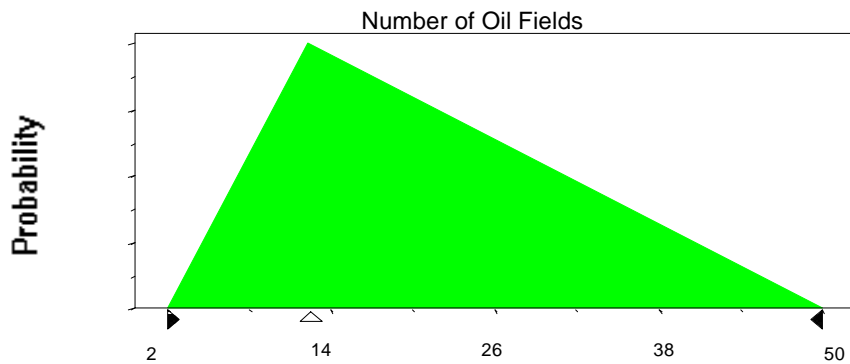
Assumptions

**Assumption: Number of Oil Fields**

Triangular distribution with parameters:

Minimum	2
Likeliest	13
Maximum	50

Selected range is from 2 to 50  
Mean value in simulation was 21



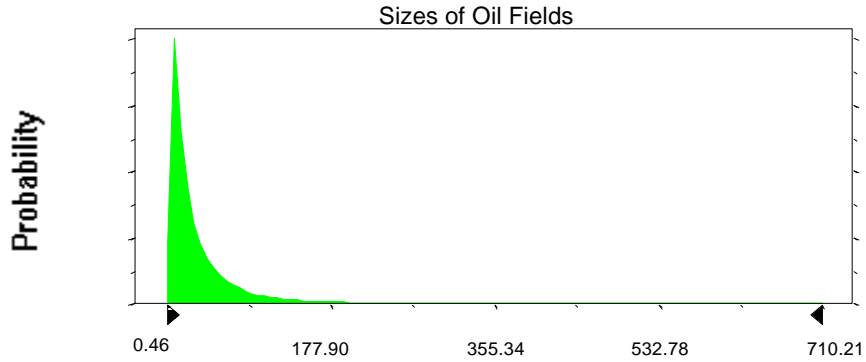
**Assumption: Sizes of Oil Fields**

Lognormal distribution with parameters:		Shifted parameters
Mean	38.12	45.12
Standard Deviation	71.17	71.17

Selected range is from 0.00 to 793.00                      7.00 to 800.00  
Mean value in simulation was 36.73                                      43.73

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Assumption: Sizes of Oil Fields (cont'd)



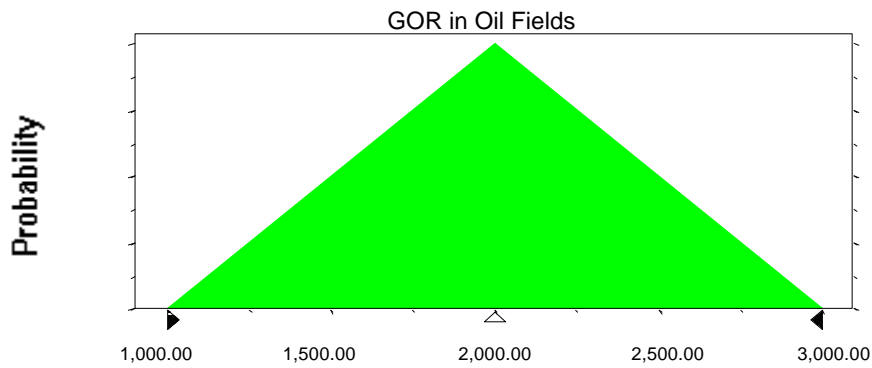
Assumption: GOR in Oil Fields

Triangular distribution with parameters:

Minimum	1,000.00
Likeliest	2,000.00
Maximum	3,000.00

Selected range is from 1,000.00 to 3,000.00

Mean value in simulation was 2,001.73



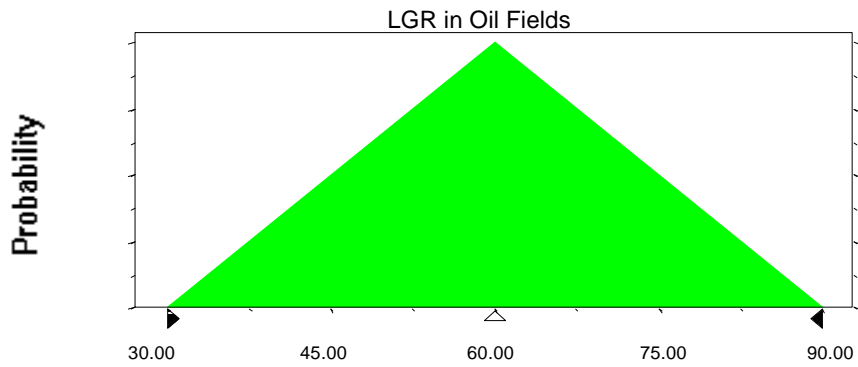
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**Assumption: LGR in Oil Fields**

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**

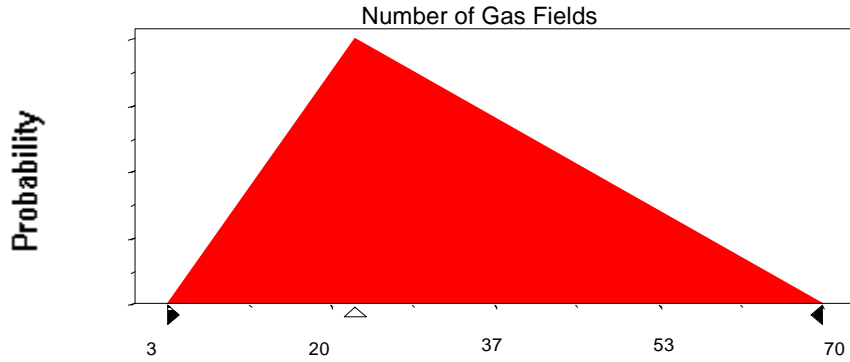
Triangular distribution with parameters:

Minimum	3
Likeliest	22
Maximum	70

Selected range is from 3 to 70  
Mean value in simulation was 32

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Monte Carlo Results

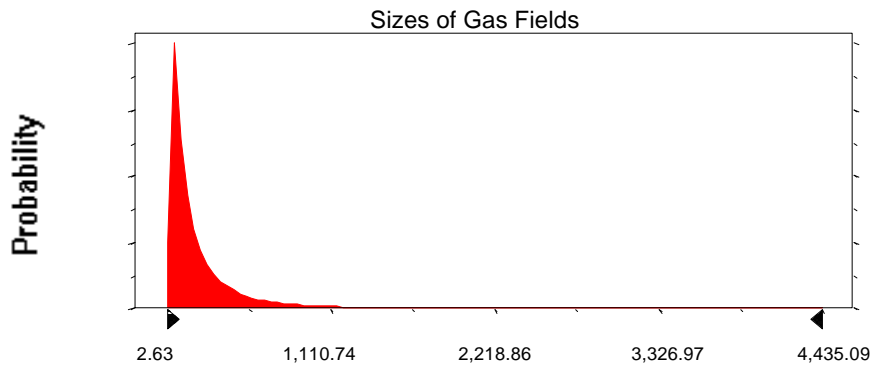
Assumption: Number of Gas Fields (cont'd)



Assumption: Sizes of Gas Fields

Lognormal distribution with parameters:	Shifted parameters	
Mean	232.51	274.51
Standard Deviation	443.29	443.29

Selected range is from 0.00 to 4,958.00                      42.00 to 5,000.00  
Mean value in simulation was 227.04                              269.04



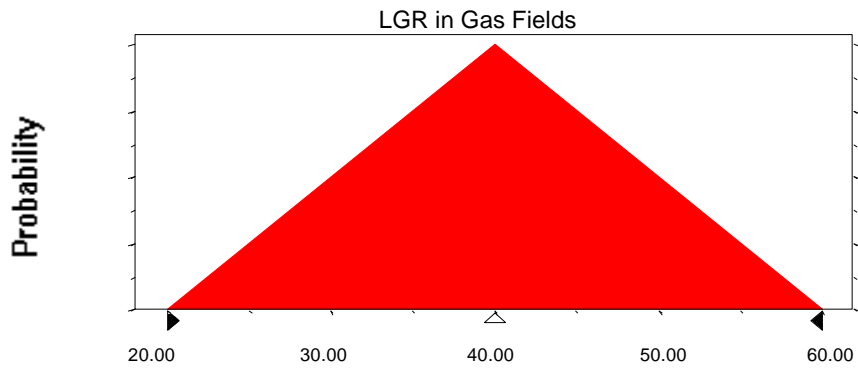
**10090102**  
**Devonian Synrift**  
**Monte Carlo Results**

**Assumption: LGR in Gas 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 39.90



End of Assumptions

Simulation started on 5/27/99 at 13:17:23  
Simulation stopped on 5/27/99 at 13:47:03