

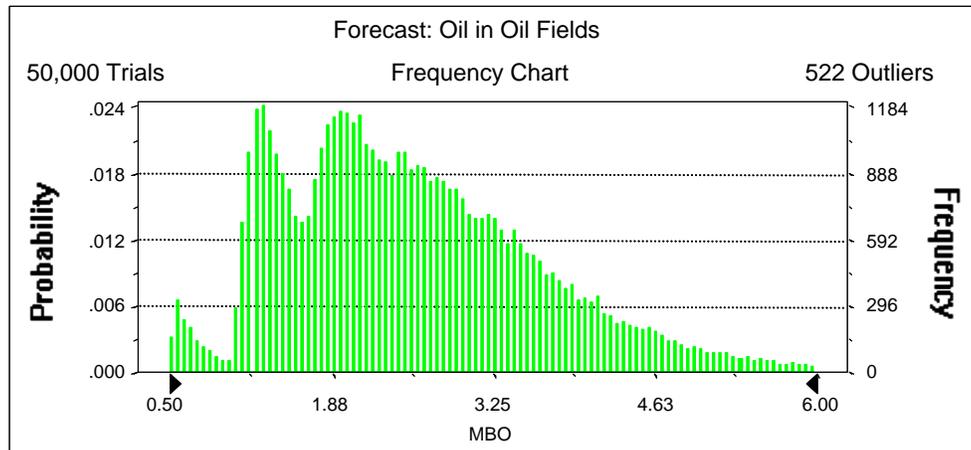
50390201  
Fractured Niobrara Limestone Transitional  
Monte Carlo Results

**Forecast: Oil in Oil Fields**

Summary:

Display range is from 0.50 to 6.00 MBO  
Entire range is from 0.51 to 11.29 MBO  
After 50,000 trials, the standard error of the mean is 0.01

Statistics:	Value
Trials	50000
Mean	2.59
Median	2.42
Mode	---
Standard Deviation	1.14
Variance	1.30
Skewness	0.96
Kurtosis	4.58
Coefficient of Variability	0.44
Range Minimum	0.51
Range Maximum	11.29
Range Width	10.78
Mean Standard Error	0.01



50390201  
Fractured Niobrara Limestone Transitional  
Monte Carlo Results

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

Percentiles:

<u>Percentile</u>	<u>MBO</u>
100%	0.51
95%	1.16
90%	1.29
85%	1.41
80%	1.58
75%	1.77
70%	1.90
65%	2.02
60%	2.14
55%	2.27
50%	2.42
45%	2.56
40%	2.72
35%	2.88
30%	3.05
25%	3.25
20%	3.47
15%	3.73
10%	4.10
5%	4.68
0%	11.29

End of Forecast

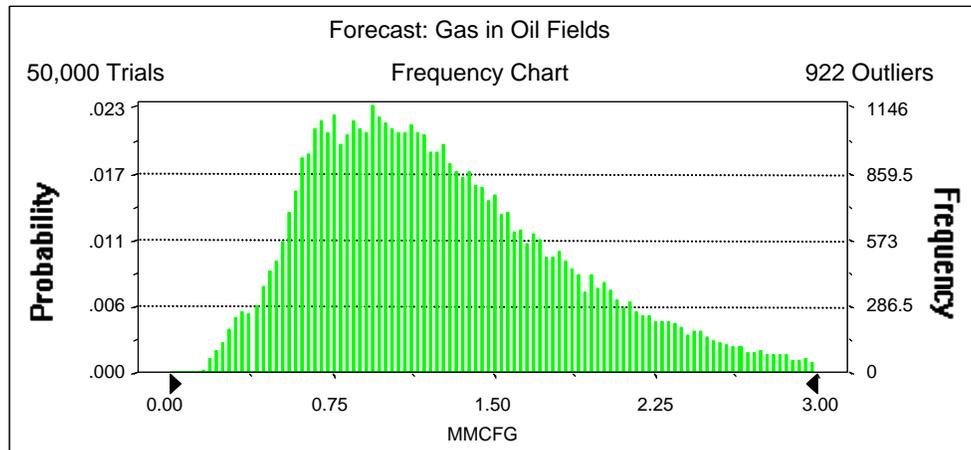
50390201  
Fractured Niobrara Limestone Transitional  
Monte Carlo Results

**Forecast: Gas in Oil Fields**

Summary:

Display range is from 0.00 to 3.00 MMCFG  
Entire range is from 0.15 to 6.45 MMCFG  
After 50,000 trials, the standard error of the mean is 0.00

Statistics:	Value
Trials	50000
Mean	1.30
Median	1.18
Mode	---
Standard Deviation	0.64
Variance	0.41
Skewness	1.15
Kurtosis	5.08
Coefficient of Variability	0.49
Range Minimum	0.15
Range Maximum	6.45
Range Width	6.30
Mean Standard Error	0.00



50390201  
Fractured Niobrara Limestone Transitional  
Monte Carlo Results

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

Percentiles:

<u>Percentile</u>	<u>MMCFG</u>
100%	0.15
95%	0.49
90%	0.60
85%	0.68
80%	0.75
75%	0.83
70%	0.90
65%	0.97
60%	1.03
55%	1.11
50%	1.18
45%	1.26
40%	1.34
35%	1.43
30%	1.52
25%	1.64
20%	1.77
15%	1.93
10%	2.14
5%	2.49
0%	6.45

End of Forecast

50390201  
Fractured Niobrara Limestone Transitional  
Monte Carlo Results

**Forecast: NGL in Oil Fields**

Summary:

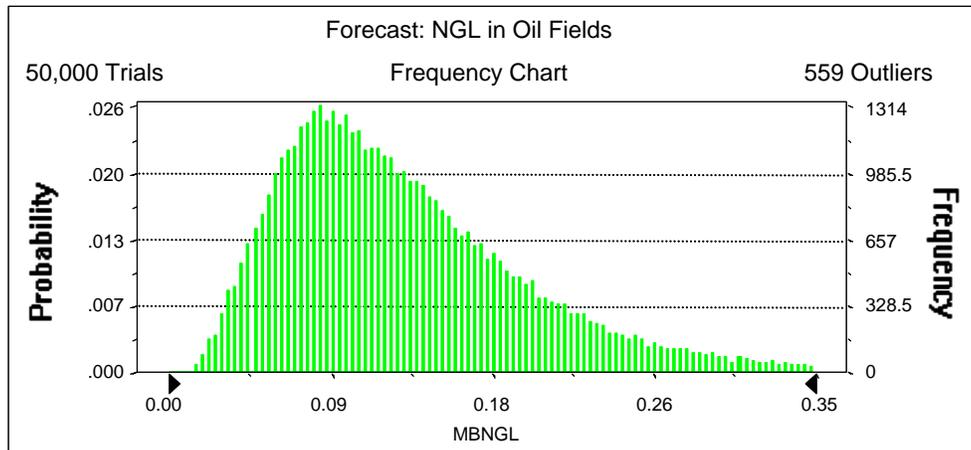
Display range is from 0.00 to 0.35 MBNGL

Entire range is from 0.01 to 0.66 MBNGL

After 50,000 trials, the standard error of the mean is 0.00

Statistics:

	<u>Value</u>
Trials	50000
Mean	0.13
Median	0.11
Mode	---
Standard Deviation	0.07
Variance	0.00
Skewness	1.34
Kurtosis	5.87
Coefficient of Variability	0.54
Range Minimum	0.01
Range Maximum	0.66
Range Width	0.65
Mean Standard Error	0.00



50390201  
Fractured Niobrara Limestone Transitional  
Monte Carlo Results

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

Percentiles:

<u>Percentile</u>	<u>MBNGL</u>
100%	0.01
95%	0.04
90%	0.06
85%	0.06
80%	0.07
75%	0.08
70%	0.09
65%	0.09
60%	0.10
55%	0.11
50%	0.11
45%	0.12
40%	0.13
35%	0.14
30%	0.15
25%	0.16
20%	0.18
15%	0.20
10%	0.22
5%	0.26
0%	0.66

End of Forecast

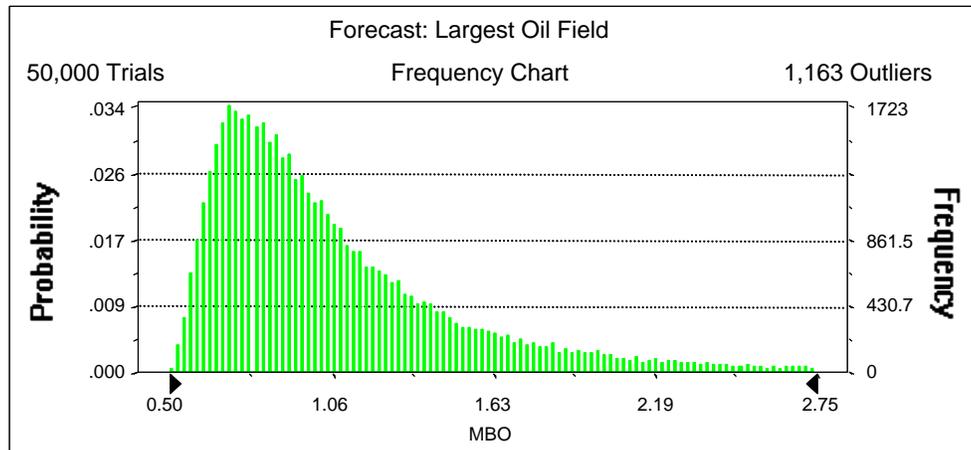
50390201  
Fractured Niobrara Limestone Transitional  
Monte Carlo Results

**Forecast: Largest Oil Field**

Summary:

Display range is from 0.50 to 2.75 MBO  
Entire range is from 0.51 to 4.99 MBO  
After 50,000 trials, the standard error of the mean is 0.00

Statistics:	Value
Trials	50000
Mean	1.12
Median	0.96
Mode	---
Standard Deviation	0.55
Variance	0.31
Skewness	2.50
Kurtosis	11.76
Coefficient of Variability	0.49
Range Minimum	0.51
Range Maximum	4.99
Range Width	4.48
Mean Standard Error	0.00



50390201  
Fractured Niobrara Limestone Transitional  
Monte Carlo Results

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

Percentiles:

<u>Percentile</u>	<u>MBO</u>
100%	0.51
95%	0.62
90%	0.67
85%	0.70
80%	0.73
75%	0.77
70%	0.80
65%	0.84
60%	0.87
55%	0.91
50%	0.96
45%	1.01
40%	1.06
35%	1.12
30%	1.19
25%	1.28
20%	1.39
15%	1.53
10%	1.76
5%	2.20
0%	4.99

End of Forecast

50390201  
Fractured Niobrara Limestone Transitional  
Monte Carlo Results

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

Summary:

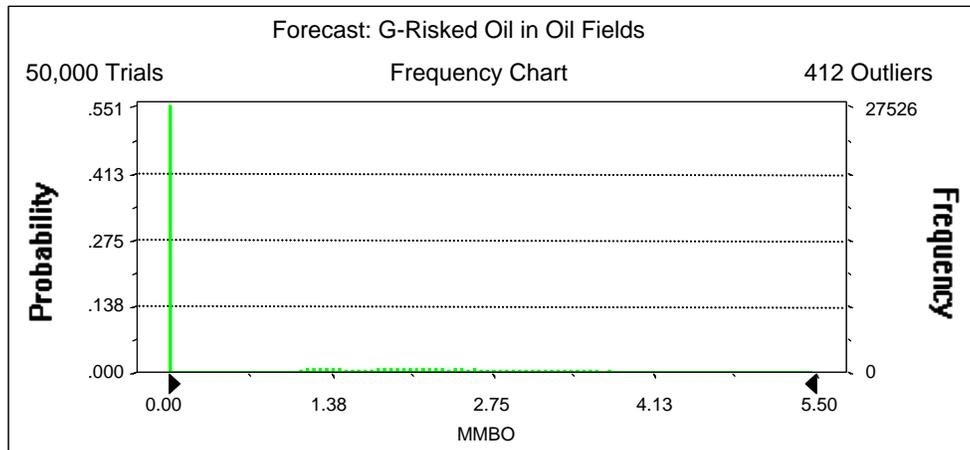
Display range is from 0.00 to 5.50 MMBO

Entire range is from 0.00 to 9.45 MMBO

After 50,000 trials, the standard error of the mean is 0.01

Statistics:

	<u>Value</u>
Trials	50000
Mean	1.16
Median	0.00
Mode	0.00
Standard Deviation	1.49
Variance	2.23
Skewness	1.07
Kurtosis	3.40
Coefficient of Variability	1.29
Range Minimum	0.00
Range Maximum	9.45
Range Width	9.45
Mean Standard Error	0.01



50390201  
Fractured Niobrara Limestone Transitional  
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%	0.00
80%	0.00
75%	0.00
70%	0.00
65%	0.00
60%	0.00
55%	0.00
50%	0.00
45%	0.00
40%	1.31
35%	1.66
30%	1.97
25%	2.24
20%	2.56
15%	2.92
10%	3.36
5%	3.99
0%	9.45

End of Forecast

50390201  
Fractured Niobrara Limestone Transitional  
Monte Carlo Results

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

Summary:

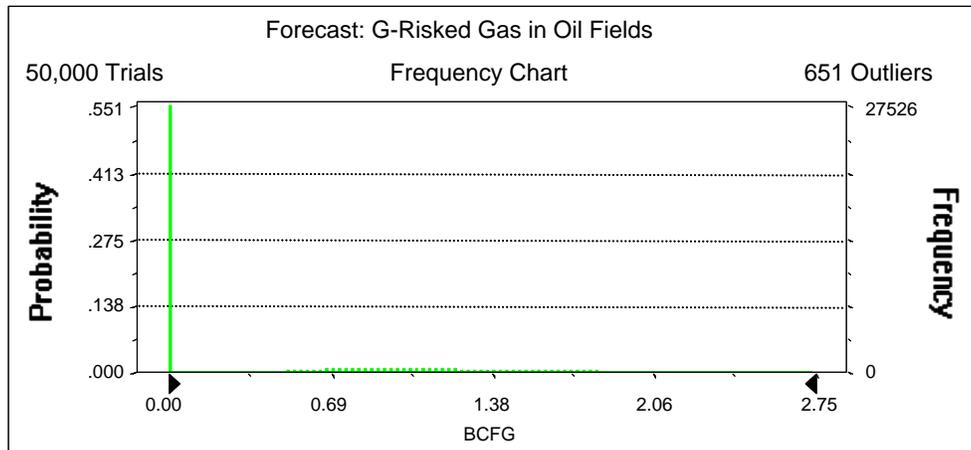
Display range is from 0.00 to 2.75 BCFG

Entire range is from 0.00 to 5.78 BCFG

After 50,000 trials, the standard error of the mean is 0.00

Statistics:

	<u>Value</u>
Trials	50000
Mean	0.58
Median	0.00
Mode	0.00
Standard Deviation	0.77
Variance	0.59
Skewness	1.26
Kurtosis	4.19
Coefficient of Variability	1.33
Range Minimum	0.00
Range Maximum	5.78
Range Width	5.78
Mean Standard Error	0.00



50390201  
Fractured Niobrara Limestone Transitional  
Monte Carlo Results

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

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	0.00
95%	0.00
90%	0.00
85%	0.00
80%	0.00
75%	0.00
70%	0.00
65%	0.00
60%	0.00
55%	0.00
50%	0.00
45%	0.00
40%	0.62
35%	0.78
30%	0.94
25%	1.09
20%	1.26
15%	1.45
10%	1.70
5%	2.08
0%	5.78

End of Forecast

50390201  
Fractured Niobrara Limestone Transitional  
Monte Carlo Results

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

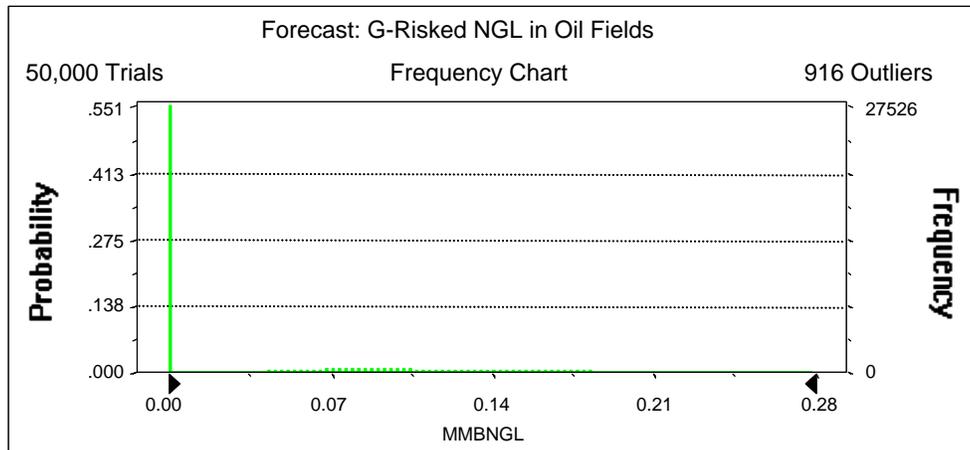
Summary:

Display range is from 0.00 to 0.28 MMBNGL

Entire range is from 0.00 to 0.63 MMBNGL

After 50,000 trials, the standard error of the mean is 0.00

Statistics:	Value
Trials	50000
Mean	0.06
Median	0.00
Mode	0.00
Standard Deviation	0.08
Variance	0.01
Skewness	1.45
Kurtosis	5.12
Coefficient of Variability	1.37
Range Minimum	0.00
Range Maximum	0.63
Range Width	0.63
Mean Standard Error	0.00



50390201  
Fractured Niobrara Limestone Transitional  
Monte Carlo Results

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

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	0.00
95%	0.00
90%	0.00
85%	0.00
80%	0.00
75%	0.00
70%	0.00
65%	0.00
60%	0.00
55%	0.00
50%	0.00
45%	0.00
40%	0.06
35%	0.07
30%	0.09
25%	0.11
20%	0.12
15%	0.14
10%	0.17
5%	0.21
0%	0.63

End of Forecast

50390201  
Fractured Niobrara Limestone Transitional  
Monte Carlo Results

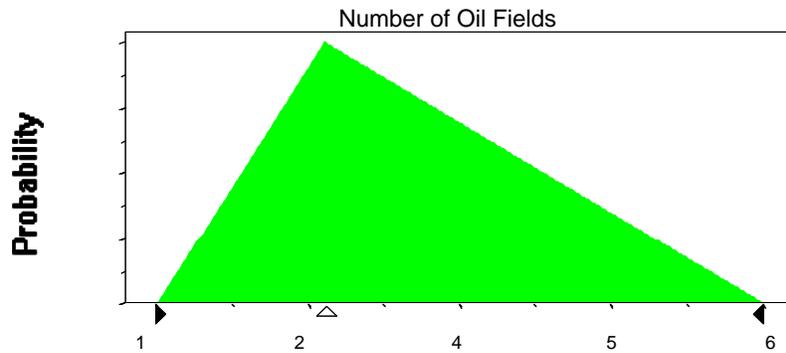
**Assumptions**

**Assumption: Number of Oil Fields**

Triangular distribution with parameters:

Minimum	1
Likeliest	2
Maximum	6

Selected range is from 1 to 6



**Assumption: Sizes of Oil Fields**

Lognormal distribution with parameters:

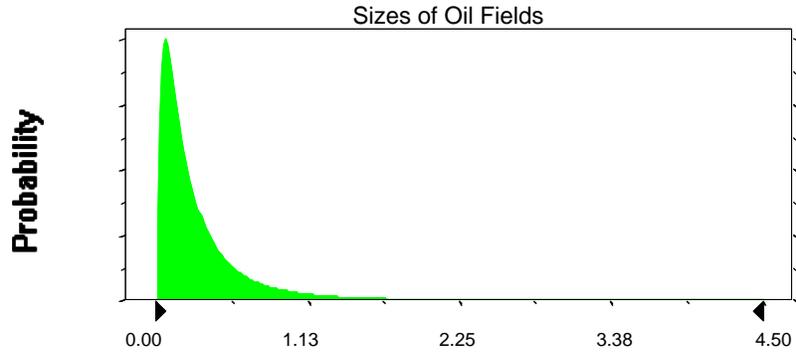
Mean	0.33	Shifted parameters	0.83
Standard Deviation	0.44		0.44

Selected range is from 0.00 to 4.50

0.50 to 5.00

50390201  
Fractured Niobrara Limestone Transitional  
Monte Carlo Results

**Assumption: Sizes of Oil Fields (cont'd)**

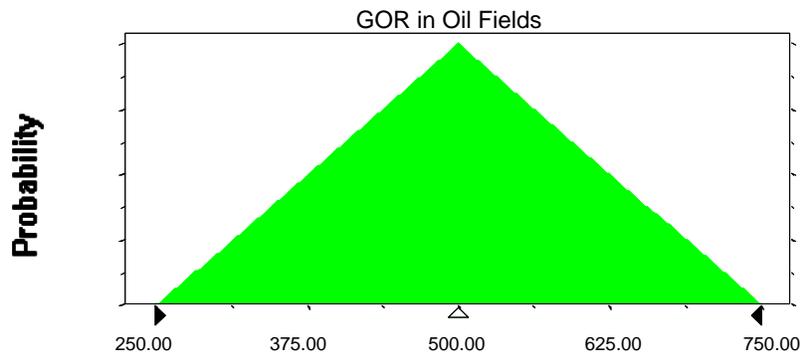


**Assumption: GOR in Oil Fields**

Triangular distribution with parameters:

Minimum	250.00
Likeliest	500.00
Maximum	750.00

Selected range is from 250.00 to 750.00



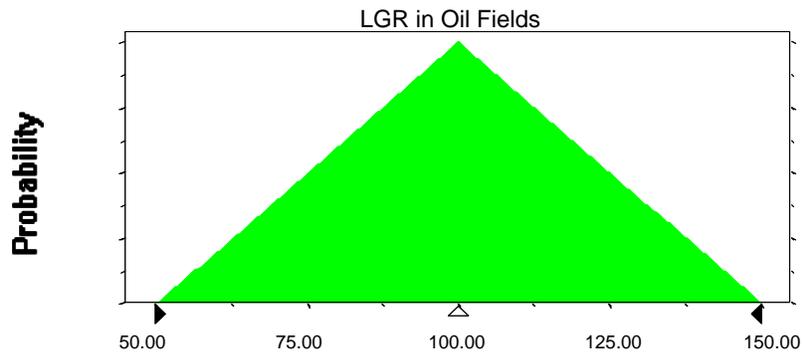
50390201  
Fractured Niobrara Limestone Transitional  
Monte Carlo Results

**Assumption: LGR in Oil Fields**

Triangular distribution with parameters:

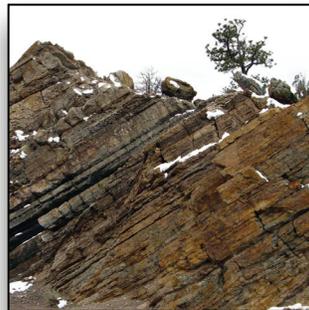
Minimum	50.00
Likeliest	100.00
Maximum	150.00

Selected range is from 50.00 to 150.00



End of Assumptions

Simulation started on 4/20/01 at 16:13:30  
Simulation stopped on 4/20/01 at 16:24:06



***Click here to return to  
Chapter 4***