

Tamaulipas-Like Basinal Limestone and Tertiary Strata Overlying Evaporites, Assessment Unit 53050106
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	2,180	7,199	15,419	7,823	2,841	9,743	22,997	10,941	159	569	1,447	658	352	1,082	2,820	1,264
Gas Fields	18		2,180	7,199	15,419	7,823	853	6,295	18,545	7,575	36	269	847	333	327	1,687	6,758	2,323
Total		1.00	2,180	7,199	15,419	7,823	3,694	16,038	41,542	18,516	194	838	2,294	990				

53050106
Tamaulipas-Like Basinal Limestone and Tertiary Strata Overlying Evaporites
Monte Carlo Results

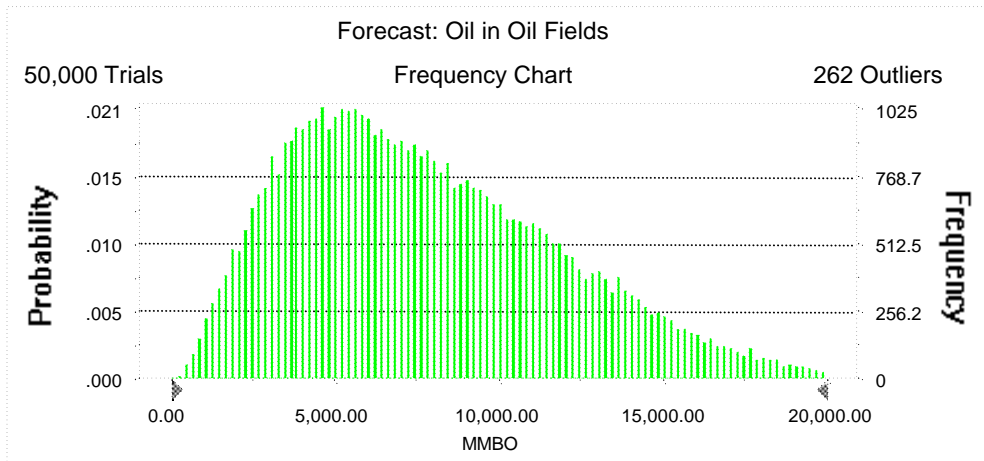
Forecast: Oil in Oil Fields

Summary:

Display range is from 0.00 to 20,000.00 MMBO
Entire range is from 235.79 to 29,732.92 MMBO
After 50,000 trials, the standard error of the mean is 18.46

Statistics:

	<u>Value</u>
Trials	50000
Mean	7,823.47
Median	7,199.03
Mode	---
Standard Deviation	4,127.10
Variance	17,032,928.47
Skewness	0.66
Kurtosis	3.06
Coefficient of Variability	0.53
Range Minimum	235.79
Range Maximum	29,732.92
Range Width	29,497.13
Mean Standard Error	18.46



53050106
Tamaulipas-Like Basinal Limestone and Tertiary Strata Overlying Evaporites
Monte Carlo Results

Forecast: Oil in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	235.79
95%	2,180.47
90%	2,952.59
85%	3,558.48
80%	4,100.96
75%	4,613.86
70%	5,116.47
65%	5,610.48
60%	6,114.46
55%	6,648.52
50%	7,199.03
45%	7,777.16
40%	8,385.16
35%	9,035.34
30%	9,735.76
25%	10,512.74
20%	11,358.39
15%	12,349.84
10%	13,649.46
5%	15,418.77
0%	29,732.92

End of Forecast

53050106
Tamaulipas-Like Basinal Limestone and Tertiary Strata Overlying Evaporites
Monte Carlo Results

Forecast: Gas in Oil Fields

Summary:

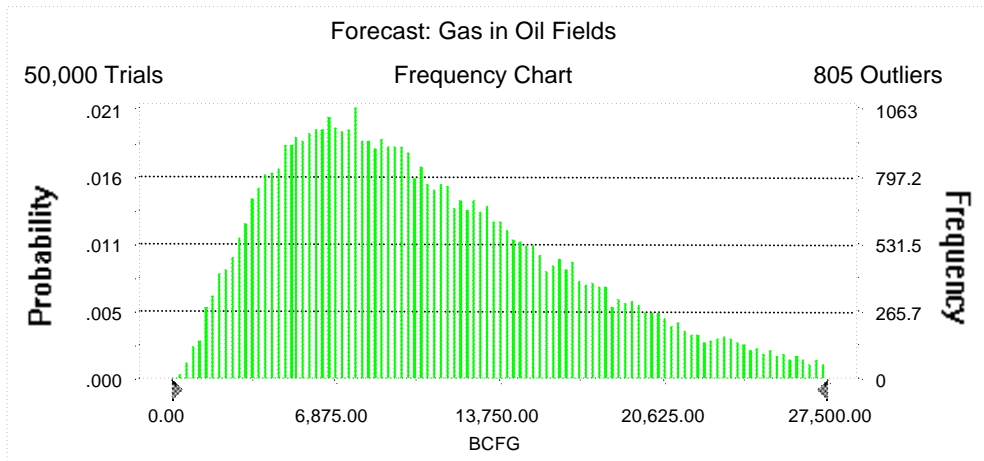
Display range is from 0.00 to 27,500.00 BCFG

Entire range is from 309.54 to 48,011.54 BCFG

After 50,000 trials, the standard error of the mean is 28.11

Statistics:

	<u>Value</u>
Trials	50000
Mean	10,941.07
Median	9,742.55
Mode	---
Standard Deviation	6,286.61
Variance	39,521,411.44
Skewness	0.93
Kurtosis	3.86
Coefficient of Variability	0.57
Range Minimum	309.54
Range Maximum	48,011.54
Range Width	47,702.00
Mean Standard Error	28.11



53050106
Tamaulipas-Like Basinal Limestone and Tertiary Strata Overlying Evaporites
Monte Carlo Results

Forecast: Gas in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	309.54
95%	2,841.42
90%	3,878.15
85%	4,713.83
80%	5,456.08
75%	6,167.82
70%	6,860.49
65%	7,566.26
60%	8,252.22
55%	9,000.23
50%	9,742.55
45%	10,551.56
40%	11,449.17
35%	12,418.64
30%	13,430.50
25%	14,588.15
20%	15,970.88
15%	17,591.93
10%	19,686.42
5%	22,997.02
0%	48,011.54

End of Forecast

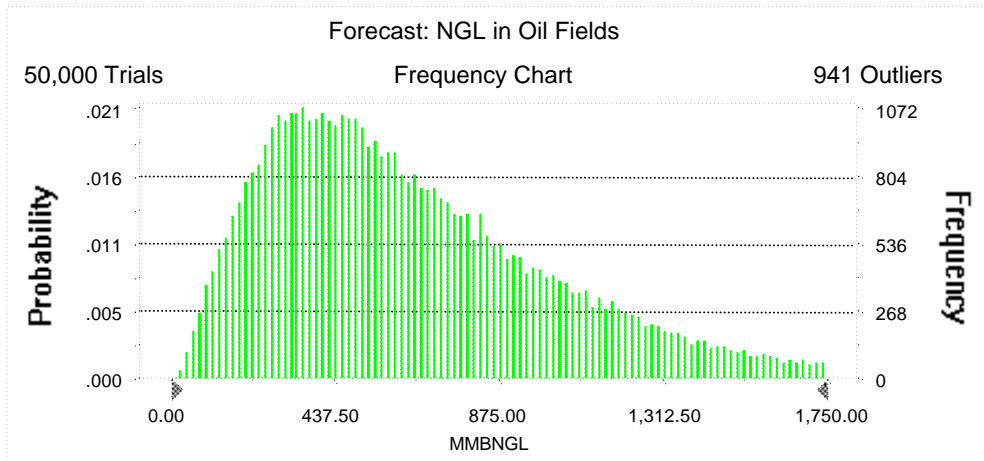
53050106
Tamaulipas-Like Basinal Limestone and Tertiary Strata Overlying Evaporites
Monte Carlo Results

Forecast: NGL in Oil Fields

Summary:

Display range is from 0.00 to 1,750.00 MMBNGL
 Entire range is from 12.72 to 4,018.36 MMBNGL
 After 50,000 trials, the standard error of the mean is 1.83

Statistics:	<u>Value</u>
Trials	50000
Mean	657.55
Median	568.98
Mode	---
Standard Deviation	408.80
Variance	167,117.33
Skewness	1.17
Kurtosis	4.83
Coefficient of Variability	0.62
Range Minimum	12.72
Range Maximum	4,018.36
Range Width	4,005.64
Mean Standard Error	1.83



53050106
Tamaulipas-Like Basinal Limestone and Tertiary Strata Overlying Evaporites
Monte Carlo Results

Forecast: NGL in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	12.72
95%	158.66
90%	219.23
85%	268.14
80%	310.99
75%	352.69
70%	394.23
65%	436.64
60%	479.07
55%	521.94
50%	568.98
45%	618.89
40%	674.14
35%	733.29
30%	799.76
25%	874.83
20%	966.39
15%	1,075.08
10%	1,217.54
5%	1,447.23
0%	4,018.36

End of Forecast

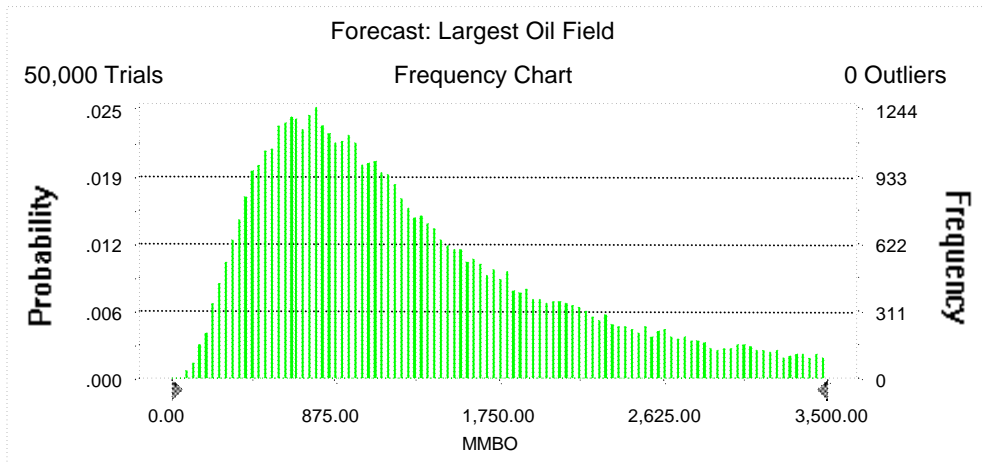
53050106
Tamaulipas-Like Basinal Limestone and Tertiary Strata Overlying Evaporites
Monte Carlo Results

Forecast: Largest Oil Field

Summary:

Display range is from 0.00 to 3,500.00 MMBO
 Entire range is from 46.60 to 3,499.27 MMBO
 After 50,000 trials, the standard error of the mean is 3.36

Statistics:	<u>Value</u>
Trials	50000
Mean	1,264.34
Median	1,081.84
Mode	---
Standard Deviation	750.28
Variance	562,918.19
Skewness	0.92
Kurtosis	3.18
Coefficient of Variability	0.59
Range Minimum	46.60
Range Maximum	3,499.27
Range Width	3,452.67
Mean Standard Error	3.36



53050106
Tamaulipas-Like Basinal Limestone and Tertiary Strata Overlying Evaporites
Monte Carlo Results

Forecast: Largest Oil Field (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	46.60
95%	351.79
90%	455.25
85%	541.12
80%	617.85
75%	689.84
70%	764.92
65%	836.64
60%	915.58
55%	994.20
50%	1,081.84
45%	1,171.44
40%	1,273.10
35%	1,388.87
30%	1,525.55
25%	1,683.53
20%	1,873.52
15%	2,109.02
10%	2,406.48
5%	2,820.41
0%	3,499.27

End of Forecast

53050106
Tamaulipas-Like Basinal Limestone and Tertiary Strata Overlying Evaporites
Monte Carlo Results

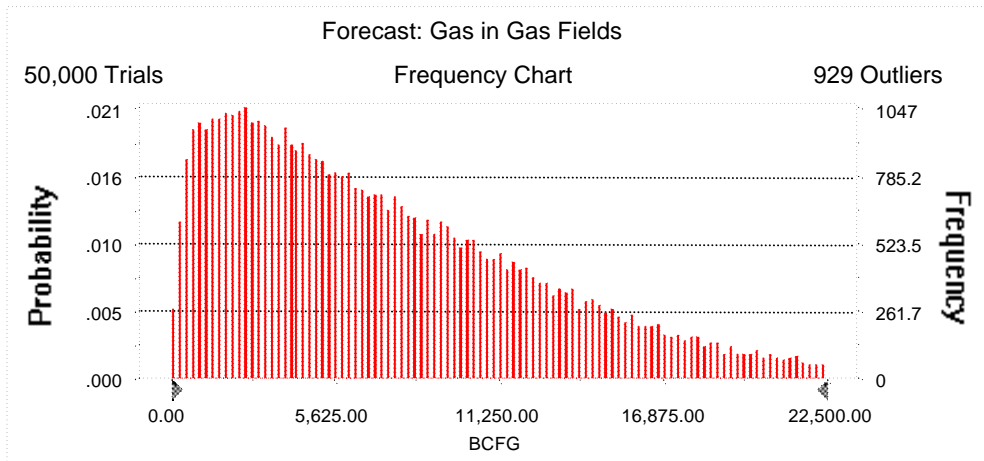
Forecast: Gas in Gas Fields

Summary:

Display range is from 0.00 to 22,500.00 BCFG
 Entire range is from 25.83 to 48,195.04 BCFG
 After 50,000 trials, the standard error of the mean is 25.42

Statistics:

	<u>Value</u>
Trials	50000
Mean	7,574.70
Median	6,294.97
Mode	---
Standard Deviation	5,683.57
Variance	32,302,981.84
Skewness	1.10
Kurtosis	4.31
Coefficient of Variability	0.75
Range Minimum	25.83
Range Maximum	48,195.04
Range Width	48,169.22
Mean Standard Error	25.42



53050106
Tamaulipas-Like Basinal Limestone and Tertiary Strata Overlying Evaporites
Monte Carlo Results

Forecast: Gas in Gas Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	25.83
95%	852.72
90%	1,427.39
85%	1,980.94
80%	2,530.14
75%	3,086.62
70%	3,673.36
65%	4,279.63
60%	4,907.66
55%	5,591.77
50%	6,294.97
45%	7,063.67
40%	7,878.16
35%	8,785.45
30%	9,738.68
25%	10,811.98
20%	12,048.45
15%	13,554.28
10%	15,487.22
5%	18,545.39
0%	48,195.04

End of Forecast

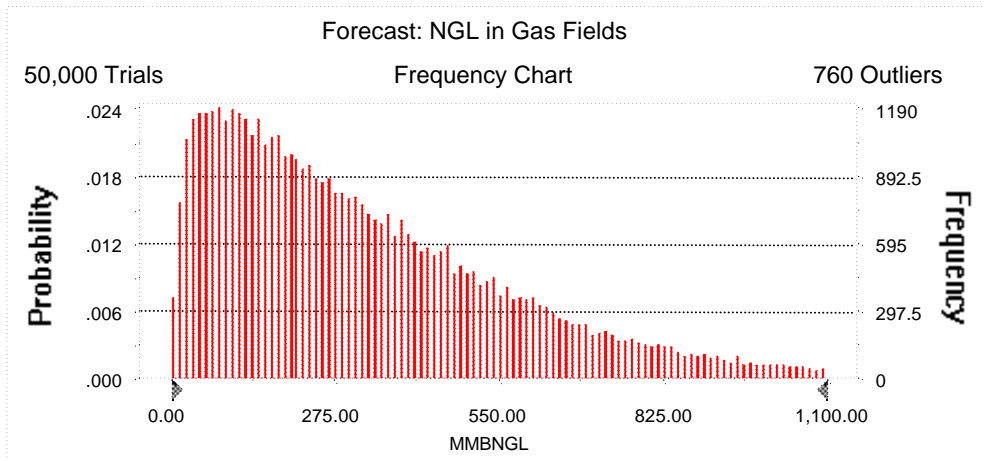
53050106
Tamaulipas-Like Basinal Limestone and Tertiary Strata Overlying Evaporites
Monte Carlo Results

Forecast: NGL in Gas Fields

Summary:

Display range is from 0.00 to 1,100.00 MMBNGL
 Entire range is from 0.95 to 2,579.88 MMBNGL
 After 50,000 trials, the standard error of the mean is 1.18

Statistics:	<u>Value</u>
Trials	50000
Mean	332.90
Median	268.91
Mode	---
Standard Deviation	263.57
Variance	69,470.91
Skewness	1.33
Kurtosis	5.32
Coefficient of Variability	0.79
Range Minimum	0.95
Range Maximum	2,579.88
Range Width	2,578.93
Mean Standard Error	1.18



53050106
Tamaulipas-Like Basinal Limestone and Tertiary Strata Overlying Evaporites
Monte Carlo Results

Forecast: NGL in Gas Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	0.95
95%	35.74
90%	59.83
85%	83.08
80%	107.04
75%	130.32
70%	155.22
65%	181.46
60%	208.84
55%	237.56
50%	268.91
45%	302.63
40%	337.87
35%	377.19
30%	420.10
25%	469.08
20%	527.39
15%	597.35
10%	691.10
5%	846.89
0%	2,579.88

End of Forecast

53050106
Tamaulipas-Like Basinal Limestone and Tertiary Strata Overlying Evaporites
Monte Carlo Results

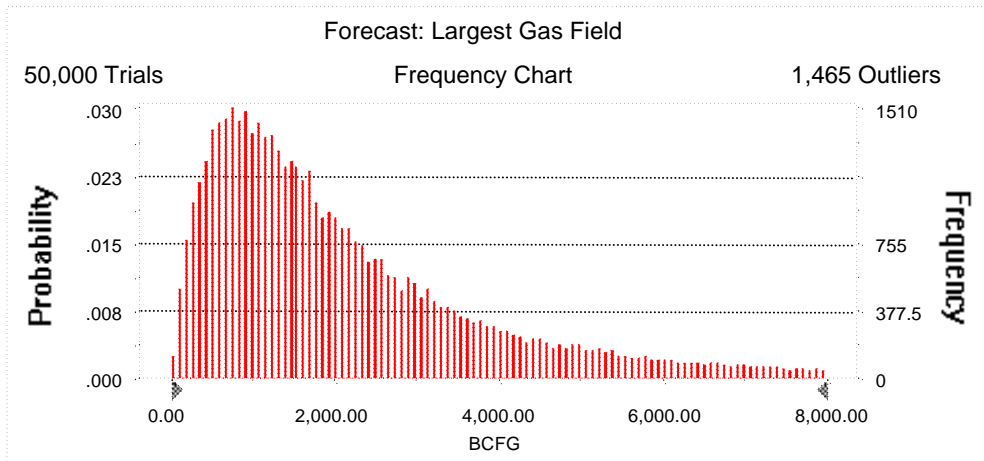
Forecast: Largest Gas Field

Summary:

Display range is from 0.00 to 8,000.00 BCFG
 Entire range is from 25.83 to 11,992.91 BCFG
 After 50,000 trials, the standard error of the mean is 9.21

Statistics:

	<u>Value</u>
Trials	50000
Mean	2,322.61
Median	1,686.88
Mode	---
Standard Deviation	2,058.77
Variance	4,238,526.14
Skewness	1.82
Kurtosis	6.69
Coefficient of Variability	0.89
Range Minimum	25.83
Range Maximum	11,992.91
Range Width	11,967.08
Mean Standard Error	9.21



53050106
Tamaulipas-Like Basinal Limestone and Tertiary Strata Overlying Evaporites
Monte Carlo Results

Forecast: Largest Gas Field (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	25.83
95%	327.24
90%	497.25
85%	638.71
80%	775.74
75%	911.75
70%	1,052.68
65%	1,196.90
60%	1,347.83
55%	1,513.59
50%	1,686.88
45%	1,884.61
40%	2,104.77
35%	2,352.20
30%	2,647.53
25%	3,011.09
20%	3,464.21
15%	4,094.70
10%	5,049.80
5%	6,757.72
0%	11,992.91

End of Forecast

53050106
Tamaulipas-Like Basinal Limestone and Tertiary Strata Overlying Evaporites
Monte Carlo Results

Assumptions

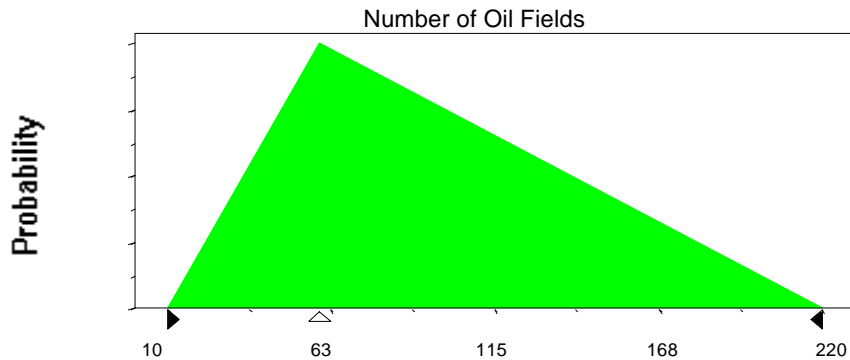
Assumption: Number of Oil Fields

Triangular distribution with parameters:

Minimum	10
Likeliest	59
Maximum	220

Selected range is from 10 to 220

Mean value in simulation was 96



Assumption: Sizes of Oil Fields

Lognormal distribution with parameters:

Mean	84.47
Standard Deviation	313.12

Shifted parameters

87.47
313.12

Selected range is from 0.00 to 3,497.00

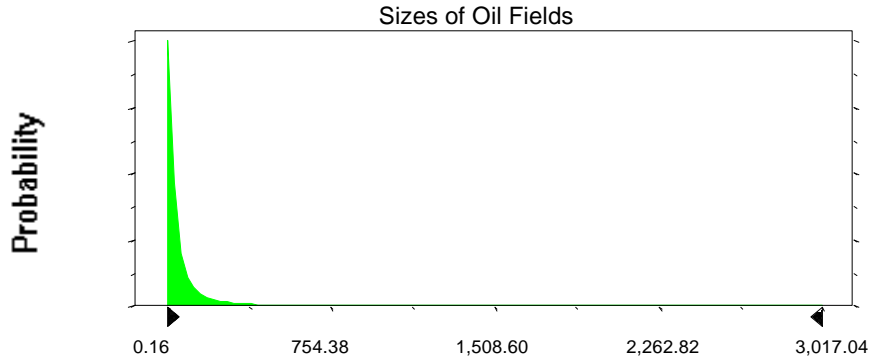
Mean value in simulation was 77.65

3.00 to 3,500.00

80.65

53050106
Tamaulipas-Like Basinal Limestone and Tertiary Strata Overlying Evaporites
Monte Carlo Results

Assumption: Sizes of Oil Fields (cont'd)



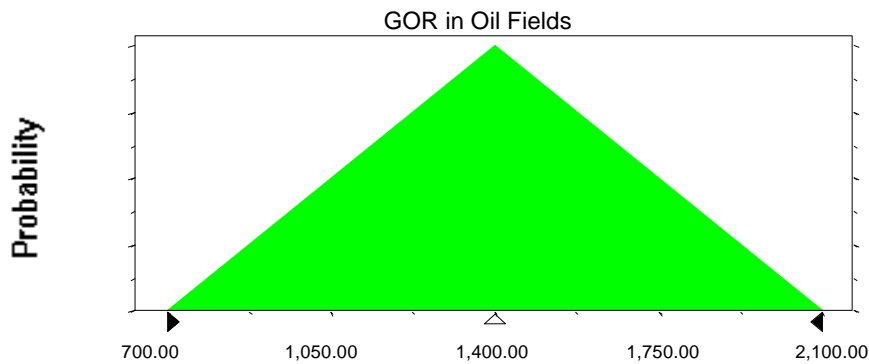
Assumption: GOR in Oil Fields

Triangular distribution with parameters:

Minimum	700.00
Likeliest	1,400.00
Maximum	2,100.00

Selected range is from 700.00 to 2,100.00

Mean value in simulation was 1,399.39



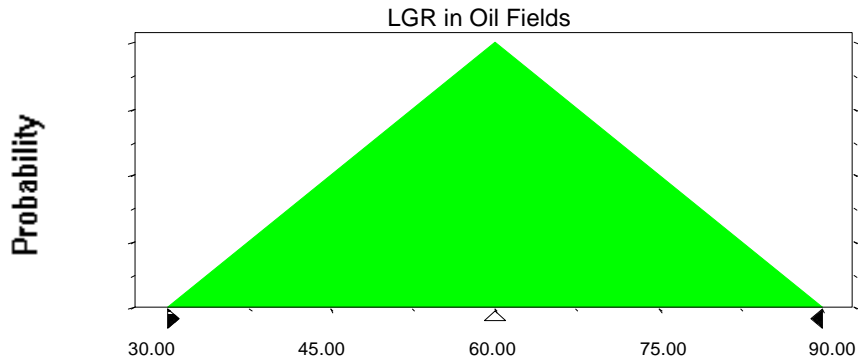
53050106
Tamaulipas-Like Basinal Limestone and Tertiary Strata Overlying Evaporites
Monte Carlo Results

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 60.08



Assumption: Number of Gas Fields

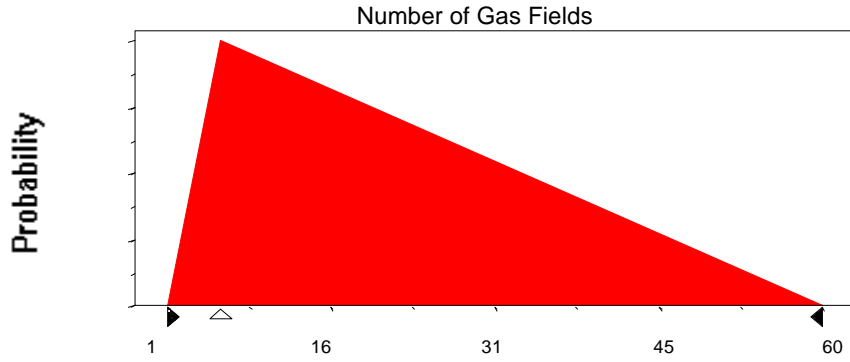
Triangular distribution with parameters:

Minimum	1
Likeliest	6
Maximum	60

Selected range is from 1 to 60
Mean value in simulation was 22

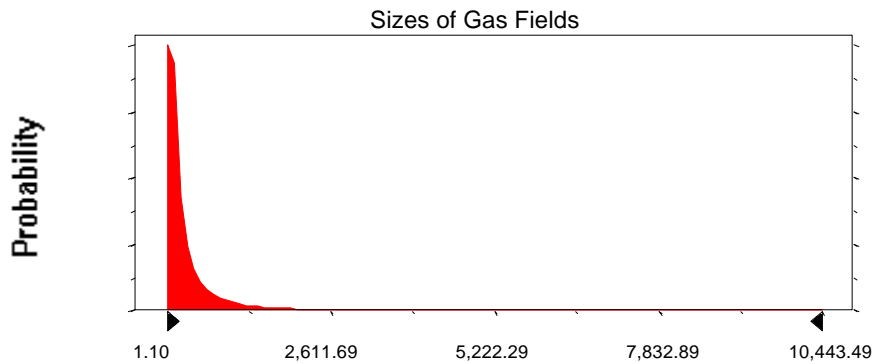
53050106
Tamaulipas-Like Basinal Limestone and Tertiary Strata Overlying Evaporites
Monte Carlo Results

Assumption: Number of Gas Fields (cont'd)



Assumption: Sizes of Gas Fields

Lognormal distribution with parameters:		Shifted parameters
Mean	343.31	361.31
Standard Deviation	1,046.67	1,046.67
Selected range is from 0.00 to 11,982.00		18.00 to 12,000.00
Mean value in simulation was 327.51		345.51



53050106
Tamaulipas-Like Basinal Limestone and Tertiary Strata Overlying Evaporites
Monte Carlo Results

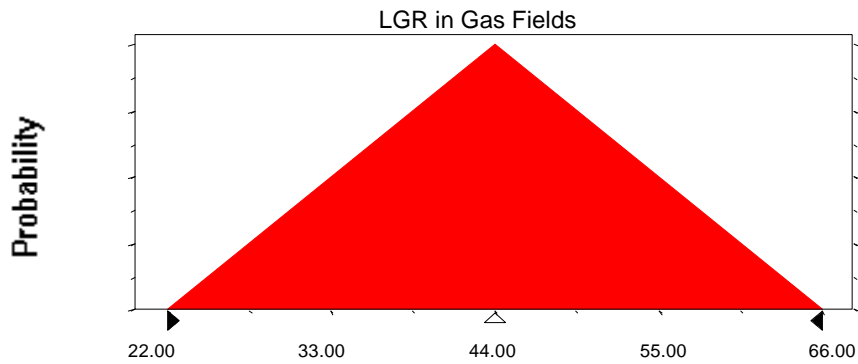
Assumption: LGR in Gas Fields

Triangular distribution with parameters:

Minimum	22.00
Likeliest	44.00
Maximum	66.00

Selected range is from 22.00 to 66.00

Mean value in simulation was 43.98



End of Assumptions

Simulation started on 12/2/99 at 13:46:20

Simulation stopped on 12/2/99 at 14:47:40