South Margin Subsalt, Assessment Unit 10160104
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	20	1.00	4,217	13,863	32,351	15,467	8,347	27,914	68,478	31,825	464	1,640	4,299	1,910	981	3,659	14,574	5,070
Gas Fields	120						8,763	30,318	81,810	35,696	211	748	2,078	892	1,965	8,681	42,692	13,408
Total		1.00	4,217	13,863	32,351	15,467	17,110	58,232	150,288	67,521	675	2,388	6,377	2,802				

Forecast: Oil in Oil Fields

Summary:
>   Display range is from 0.00 to 40,000.00 MMBO
>   Entire range is from 328.23 to 70,989.55 MMBO
>   After 50,000 trials, the standard error of the mean is 39.38

Statistics:	Value
Trials	50000
Mean	15,467.29
Median	13,863.37
Mode	---
Standard Deviation	8,805.67
Variance	77,539,748.21
Skewness	1.16
Kurtosis	4.98
Coefficient of Variability	0.57
Range Minimum	328.23
Range Maximum	70,989.55
Range Width	70,661.31
Mean Standard Error	39.38
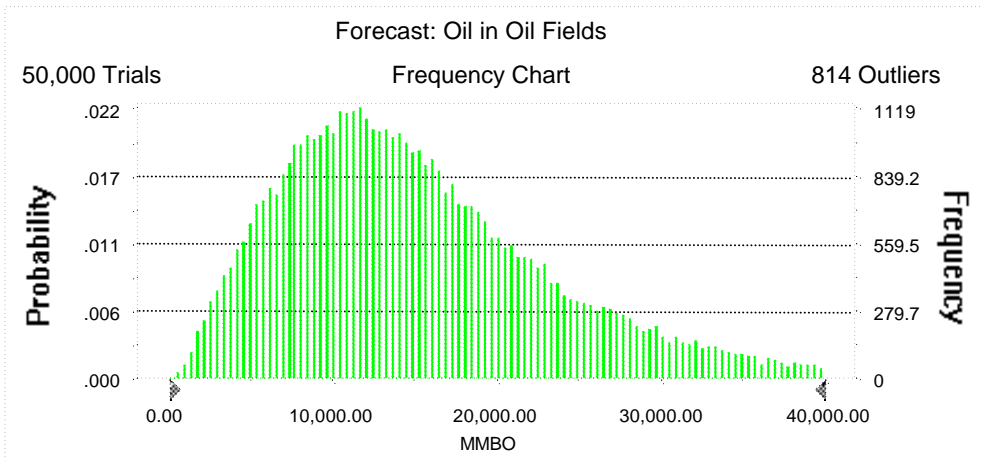
Forecast: Oil in Oil Fields

Forecast: Oil in Oil Fields (cont'd)

Percentiles:

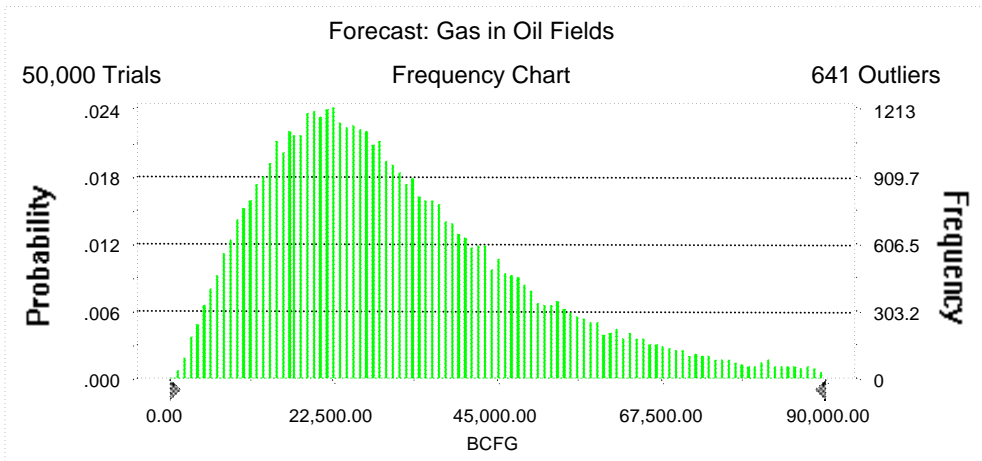| Percentile	MMBO
100%	328.23
95%	4,217.34
90%	5,773.50
85%	7,041.25
80%	8,128.68
75%	9,132.64
70%	10,104.45
65%	11,042.99
60%	11,938.58
55%	12,880.73
50%	13,863.37
45%	14,874.48
40%	15,947.13
35%	17,128.09
30%	18,469.22
25%	19,985.65
20%	21,850.05
15%	24,074.84
10%	27,319.42
5%	32,351.03
0%	70,989.55

End of Forecast

Forecast: Gas in Oil Fields

Summary:
>   Display range is from 0.00 to 90,000.00 BCFG
>   Entire range is from 588.38 to 186,249.53 BCFG
>   After 50,000 trials, the standard error of the mean is 85.53

Statistics:	Value
Trials	50000
Mean	31,824.64
Median	27,913.96
Mode	---
Standard Deviation	19,124.04
Variance	365,728,861.89
Skewness	1.34
Kurtosis	5.88
Coefficient of Variability	0.60
Range Minimum	588.38
Range Maximum	186,249.53
Range Width	185,661.15
Mean Standard Error	85.53

Forecast: Gas in Oil Fields

50,000 Trials   Frequency Chart   641 Outliers

Forecast: Gas in Oil Fields (cont'd)

Percentiles:

Percentile	BCFG
100%	588.38
95%	8,347.45
90%	11,463.77
85%	13,962.44
80%	16,162.87
75%	18,194.44
70%	20,139.61
65%	22,025.28
60%	23,925.77
55%	25,895.88
50%	27,913.96
45%	30,102.78
40%	32,438.54
35%	35,034.65
30%	37,887.23
25%	41,219.50
20%	45,158.59
15%	50,103.11
10%	57,089.65
5%	68,477.89
0%	186,249.53

End of Forecast

Forecast: NGL in Oil Fields

Summary:
Display range is from 0.00 to 5,500.00 MMBNGL
Entire range is from 36.70 to 13,360.32 MMBNGL
After 50,000 trials, the standard error of the mean is 5.51

Statistics:	Value
Trials	50000
Mean	1,909.52
Median	1,640.42
Mode	---
Standard Deviation	1,231.77
Variance	1,517,247.93
Skewness	1.50
Kurtosis	6.60
Coefficient of Variability	0.65
Range Minimum	36.70
Range Maximum	13,360.32
Range Width	13,323.62
Mean Standard Error	5.51
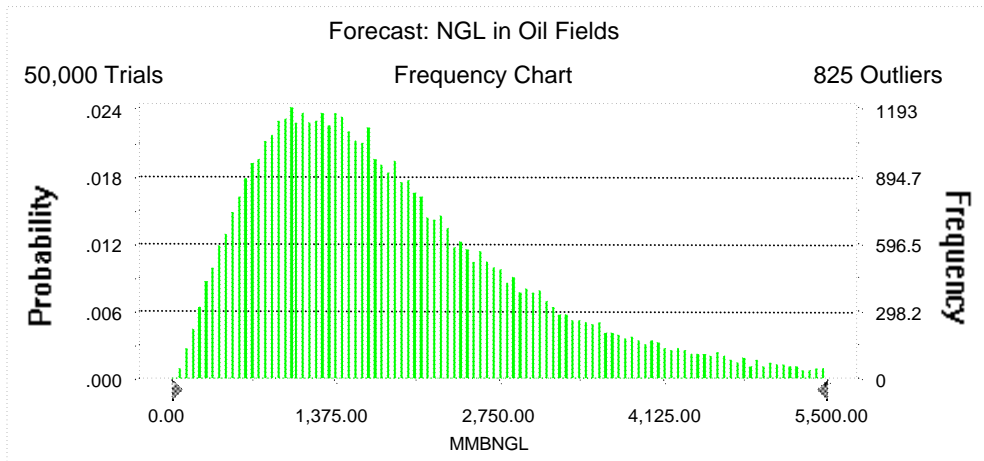
Forecast: NGL in Oil Fields

Forecast: NGL in Oil Fields (cont'd)

Percentiles:

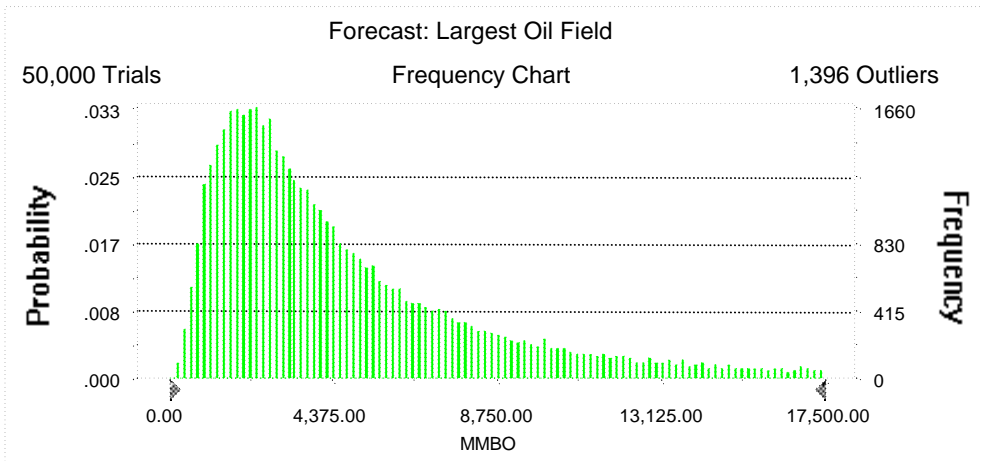| Percentile	MMBNGL
100%	36.70
95%	464.08
90%	642.24
85%	784.94
80%	911.93
75%	1,030.66
70%	1,148.27
65%	1,270.41
60%	1,391.56
55%	1,508.75
50%	1,640.42
45%	1,773.90
40%	1,920.73
35%	2,082.88
30%	2,266.38
25%	2,481.79
20%	2,740.16
15%	3,066.81
10%	3,527.68
5%	4,299.40
0%	13,360.32

End of Forecast

Forecast: Largest Oil Field

Summary:
    Display range is from 0.00 to 17,500.00 MMBO
    Entire range is from 119.59 to 24,980.84 MMBO
    After 50,000 trials, the standard error of the mean is 19.43

Statistics:	Value
Trials	50000
Mean	5,069.60
Median	3,658.54
Mode	---
Standard Deviation	4,343.88
Variance	18,869,266.56
Skewness	1.84
Kurtosis	6.63
Coefficient of Variability	0.86
Range Minimum	119.59
Range Maximum	24,980.84
Range Width	24,861.24
Mean Standard Error	19.43

Forecast: Largest Oil Field

50,000 Trials   Frequency Chart   1,396 Outliers

Forecast: Largest Oil Field (cont'd)

Percentiles:

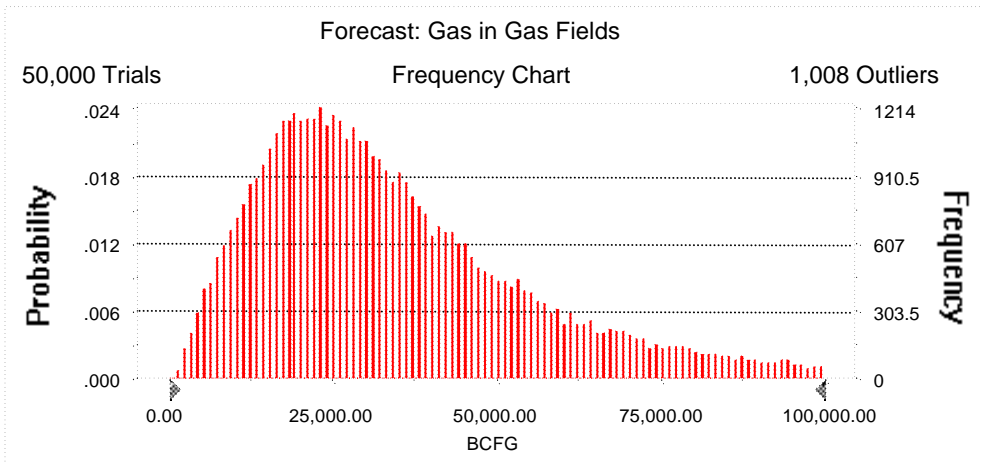| Percentile	MMBO
100%	119.59
95%	980.64
90%	1,306.15
85%	1,601.32
80%	1,866.63
75%	2,132.18
70%	2,396.66
65%	2,672.01
60%	2,965.05
55%	3,294.29
50%	3,658.54
45%	4,051.65
40%	4,502.16
35%	5,040.00
30%	5,666.74
25%	6,470.49
20%	7,471.44
15%	8,829.13
10%	10,842.12
5%	14,573.68
0%	24,980.84

End of Forecast

Forecast: Gas in Gas Fields

Summary:
    Display range is from 0.00 to 100,000.00 BCFG
    Entire range is from 1,106.08 to 223,123.45 BCFG
    After 50,000 trials, the standard error of the mean is 103.48

Statistics:	Value
Trials	50000
Mean	35,695.90
Median	30,318.45
Mode	---
Standard Deviation	23,139.19
Variance	535,421,897.14
Skewness	1.49
Kurtosis	6.21
Coefficient of Variability	0.65
Range Minimum	1,106.08
Range Maximum	223,123.45
Range Width	222,017.37
Mean Standard Error	103.48

Forecast: Gas in Gas Fields

50,000 Trials   Frequency Chart   1,008 Outliers

Forecast: Gas in Gas Fields (cont'd)

Percentiles:

Percentile	BCFG
100%	1,106.08
95%	8,762.54
90%	12,191.89
85%	14,926.29
80%	17,245.87
75%	19,389.09
70%	21,503.98
65%	23,633.20
60%	25,782.83
55%	28,018.92
50%	30,318.45
45%	32,771.02
40%	35,483.81
35%	38,393.38
30%	41,986.11
25%	45,949.68
20%	51,082.84
15%	57,261.01
10%	66,645.81
5%	81,810.05
0%	223,123.45

End of Forecast

Forecast: NGL in Gas Fields

Summary:
Display range is from 0.00 to 2,500.00 MMBNGL
Entire range is from 24.64 to 6,379.10 MMBNGL
After 50,000 trials, the standard error of the mean is 2.69

Statistics:	Value
Trials	50000
Mean	892.19
Median	747.73
Mode	---
Standard Deviation	602.45
Variance	362,940.51
Skewness	1.62
Kurtosis	6.94
Coefficient of Variability	0.68
Range Minimum	24.64
Range Maximum	6,379.10
Range Width	6,354.46
Mean Standard Error	2.69
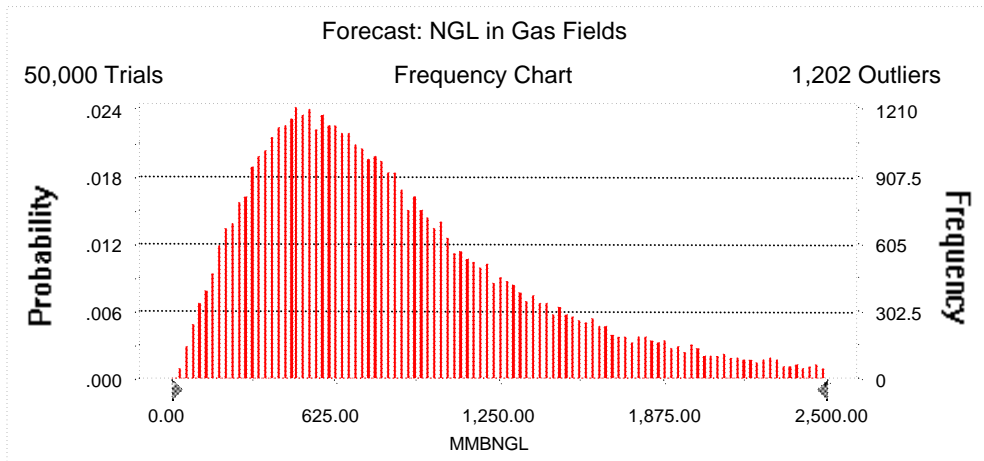
Forecast: NGL in Gas Fields

50,000 Trials — Frequency Chart — 1,202 Outliers

Forecast: NGL in Gas Fields (cont'd)

Percentiles:

Percentile	MMBNGL
100%	24.64
95%	210.76
90%	293.87
85%	358.87
80%	416.20
75%	471.43
70%	523.65
65%	577.36
60%	632.66
55%	688.35
50%	747.73
45%	810.92
40%	878.14
35%	956.29
30%	1,043.57
25%	1,151.38
20%	1,280.49
15%	1,446.93
10%	1,682.05
5%	2,077.86
0%	6,379.10

End of Forecast

Forecast: Largest Gas Field

Summary:
Display range is from 0.00 to 50,000.00 BCFG
Entire range is from 268.63 to 79,976.02 BCFG
After 50,000 trials, the standard error of the mean is 59.97

Statistics:	Value
Trials	50000
Mean	13,407.57
Median	8,681.43
Mode	---
Standard Deviation	13,410.37
Variance	179,838,127.07
Skewness	2.10
Kurtosis	7.88
Coefficient of Variability	1.00
Range Minimum	268.63
Range Maximum	79,976.02
Range Width	79,707.39
Mean Standard Error	59.97
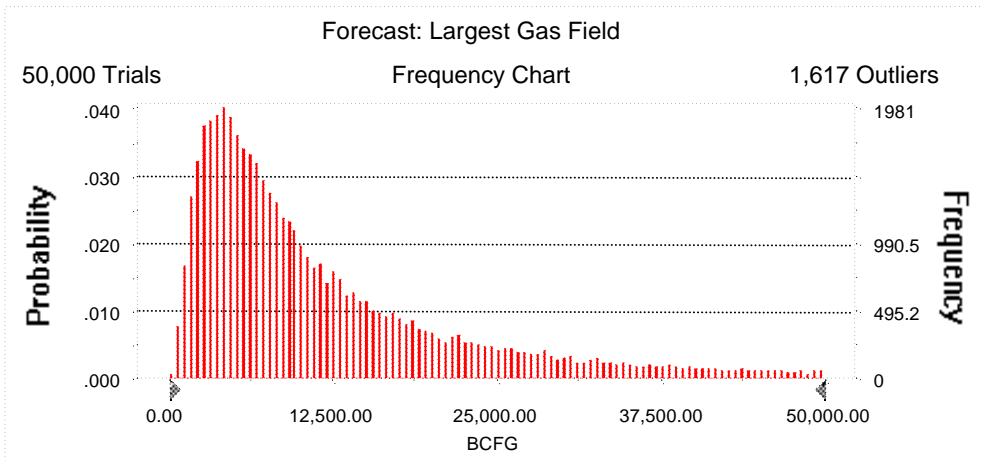
Forecast: Largest Gas Field

Forecast: Largest Gas Field (cont'd)

Percentiles:

Percentile	BCFG
100%	268.63
95%	1,965.08
90%	2,717.59
85%	3,383.98
80%	4,031.73
75%	4,654.45
70%	5,339.05
65%	6,078.19
60%	6,846.93
55%	7,711.35
50%	8,681.43
45%	9,773.19
40%	11,065.94
35%	12,676.15
30%	14,512.33
25%	16,934.50
20%	19,962.78
15%	24,292.43
10%	30,718.51
5%	42,692.04
0%	79,976.02

End of Forecast

Assumptions

Assumption: Number of Oil Fields

Triangular distribution with parameters:
Minimum	5
Likeliest	33
Maximum	50

Selected range is from 5 to 50
Mean value in simulation was 29

Number of Oil Fields
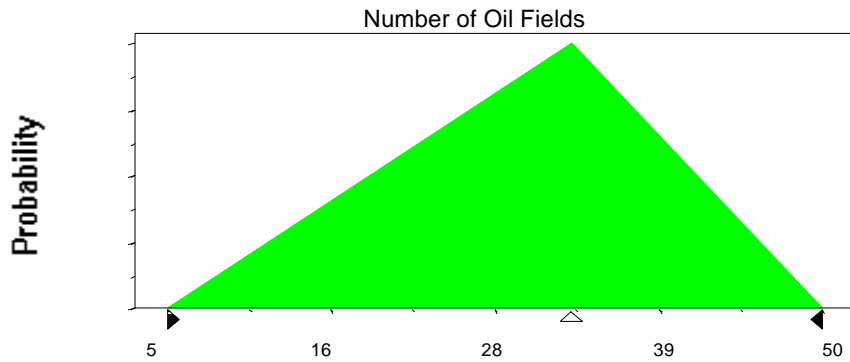
Assumption: Sizes of Oil Fields

Lognormal distribution with parameters:		Shifted parameters	
Mean	553.05		573.05
Standard Deviation	2,286.89		2,286.89

Selected range is from 0.00 to 24,980.00		20.00 to 25,000.00	
Mean value in simulation was 516.72		536.72	

Assumption: Sizes of Oil Fields (cont'd)

Sizes of Oil Fields

0.79	5,358.78	10,716.78	16,074.78	21,432.77
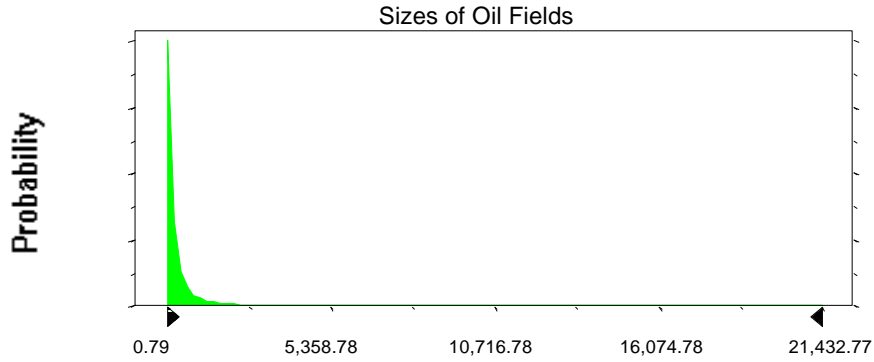
Assumption: GOR in Oil Fields

Triangular distribution with parameters:
Minimum	1,500.00
Likeliest	1,666.67
Maximum	3,000.00

Selected range is from 1,500.00 to 3,000.00
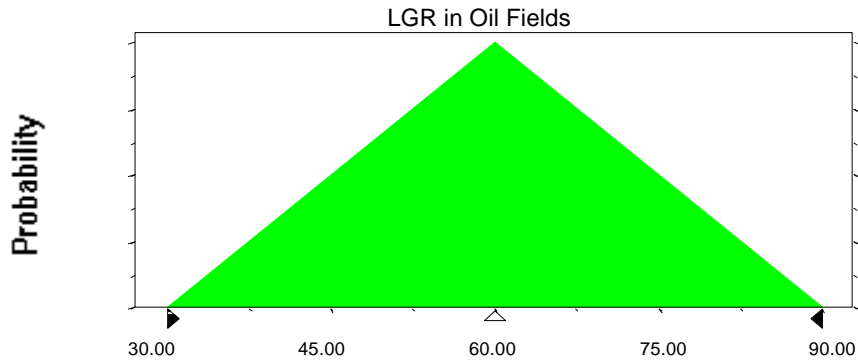Mean value in simulation was 2,056.45

GOR in Oil Fields

1,500.00	1,875.00	2,250.00	2,625.00	3,000.00
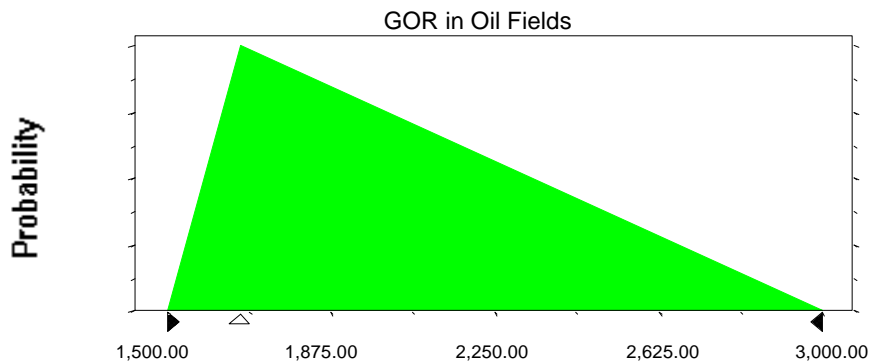
Assumption: LGR in Oil Fields

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 59.97
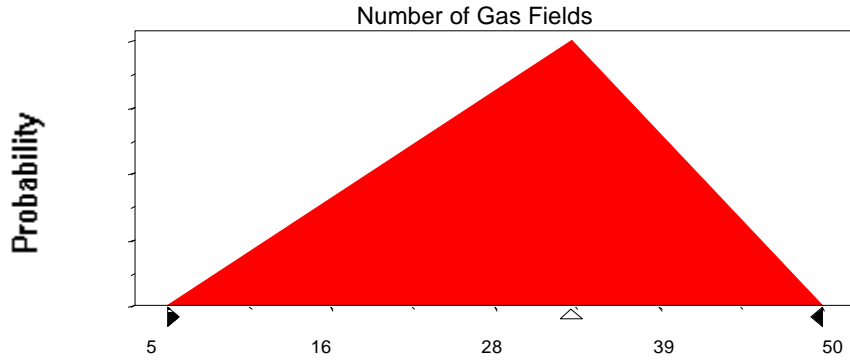

LGR in Oil Fields

Assumption: Number of Gas Fields

Triangular distribution with parameters:
Minimum	5
Likeliest	33
Maximum	50

Selected range is from 5 to 50
Mean value in simulation was 29

Assumption: Number of Gas Fields (cont'd)

Number of Gas Fields

Assumption: Sizes of Gas Fields

Lognormal distribution with parameters:		Shifted parameters	
Mean	1,259.57		1,379.57
Standard Deviation	8,723.52		8,723.52

Selected range is from 0.00 to 79,880.00		120.00 to 80,000.00
Mean value in simulation was 1,126.54		1,246.54
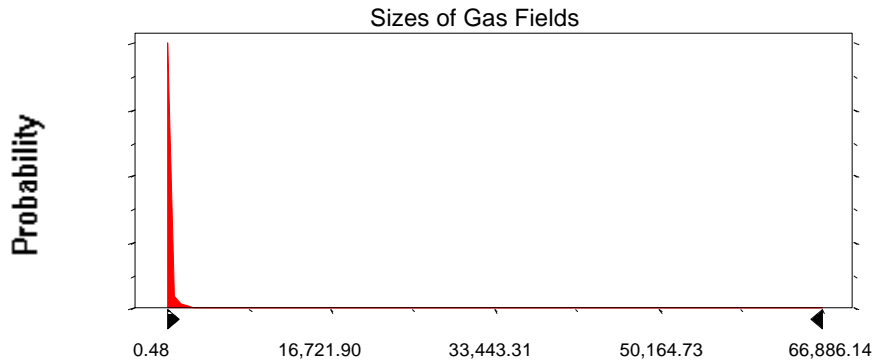
Sizes of Gas Fields

Assumption: LGR in Gas Fields

Triangular distribution with parameters:

Minimum	15.00
Likeliest	25.00
Maximum	35.00

Selected range is from 15.00 to 35.00
Mean value in simulation was 25.02

LGR in Gas Fields
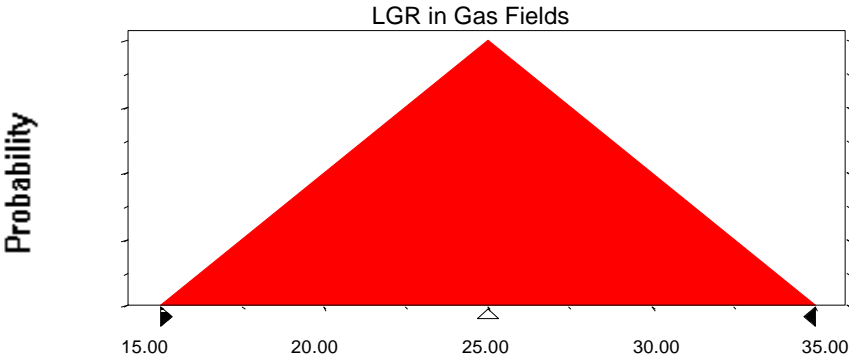
End of Assumptions

Simulation started on 1/20/99 at 12:29:22
Simulation stopped on 1/20/99 at 12:56:51