North Sumatra, Assessment Unit 38220101
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	48	104	204	112	87	202	431	223	5	12	27	13	8	21	62	26
Gas Fields	6						3,749	8,432	15,537	8,894	32	83	191	94	495	1,236	3,129	1,438
Total		1.00	48	104	204	112	3,835	8,634	15,969	9,117	37	95	218	107				

Forecast: Oil in Oil Fields

Summary:
        Display range is from 0.00 to 250.00 MMBO
        Entire range is from 19.41 to 403.96 MMBO
        After 50,000 trials, the standard error of the mean is 0.22

Statistics:	Value
Trials	50000
Mean	111.71
Median	103.82
Mode	---
Standard Deviation	48.63
Variance	2,364.71
Skewness	0.87
Kurtosis	3.76
Coefficient of Variability	0.44
Range Minimum	19.41
Range Maximum	403.96
Range Width	384.55
Mean Standard Error	0.22

Forecast: Oil in Oil Fields
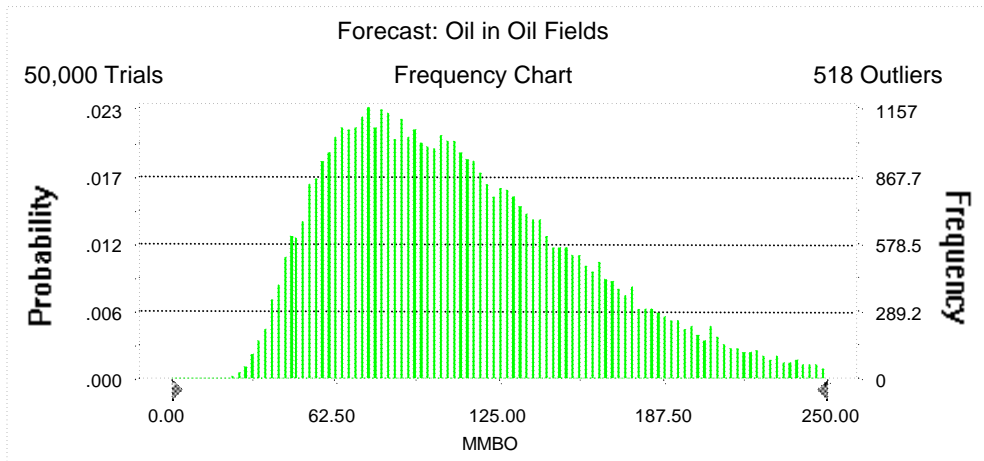
50,000 Trials   Frequency Chart   518 Outliers

Forecast: Oil in Oil Fields (cont'd)

Percentiles:

Percentile	MMBO
100%	19.41
95%	47.68
90%	56.27
85%	62.94
80%	68.87
75%	74.54
70%	80.15
65%	85.69
60%	91.54
55%	97.61
50%	103.82
45%	109.95
40%	116.54
35%	123.76
30%	131.60
25%	140.43
20%	150.94
15%	163.01
10%	178.58
5%	203.63
0%	403.96

End of Forecast
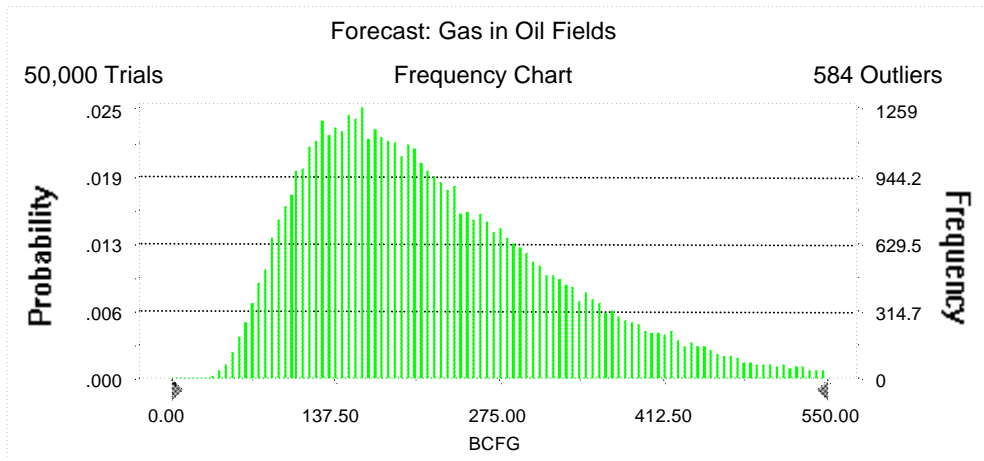
Forecast: Gas in Oil Fields

Summary:
    Display range is from 0.00 to 550.00 BCFG
    Entire range is from 29.69 to 1,138.60 BCFG
    After 50,000 trials, the standard error of the mean is 0.49

Statistics:	Value
Trials	50000
Mean	223.34
Median	201.96
Mode	---
Standard Deviation	109.26
Variance	11,938.54
Skewness	1.10
Kurtosis	4.66
Coefficient of Variability	0.49
Range Minimum	29.69
Range Maximum	1,138.60
Range Width	1,108.91
Mean Standard Error	0.49

Forecast: Gas in Oil Fields

Forecast: Gas in Oil Fields (cont'd)

Percentiles:

Percentile	BCFG
100%	29.69
95%	86.58
90%	103.98
85%	117.85
80%	130.05
75%	142.04
70%	153.57
65%	164.74
60%	176.63
55%	188.96
50%	201.96
45%	215.12
40%	229.83
35%	245.60
30%	263.76
25%	283.40
20%	306.23
15%	334.75
10%	372.29
5%	431.21
0%	1,138.60

End of Forecast
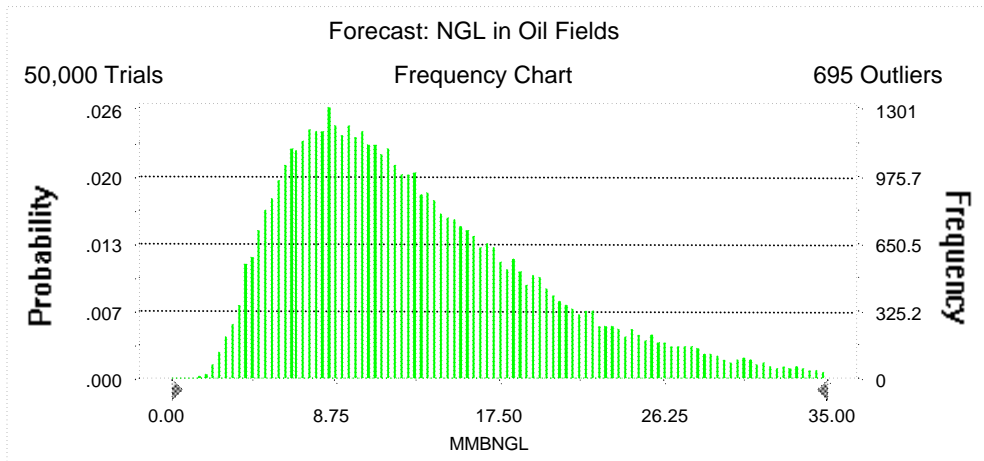
Forecast: NGL in Oil Fields

Summary:
    Display range is from 0.00 to 35.00 MMBNGL
    Entire range is from 1.44 to 68.09 MMBNGL
    After 50,000 trials, the standard error of the mean is 0.03

Statistics:	Value
Trials	50000
Mean	13.40
Median	11.82
Mode	---
Standard Deviation	7.26
Variance	52.75
Skewness	1.32
Kurtosis	5.58
Coefficient of Variability	0.54
Range Minimum	1.44
Range Maximum	68.09
Range Width	66.66
Mean Standard Error	0.03

Forecast: NGL in Oil Fields

Forecast: NGL in Oil Fields (cont'd)

Percentiles:

Percentile	MMBNGL
100%	1.44
95%	4.70
90%	5.74
85%	6.59
80%	7.37
75%	8.10
70%	8.80
65%	9.53
60%	10.27
55%	11.03
50%	11.82
45%	12.68
40%	13.61
35%	14.64
30%	15.78
25%	17.08
20%	18.62
15%	20.47
10%	23.14
5%	27.41
0%	68.09

End of Forecast
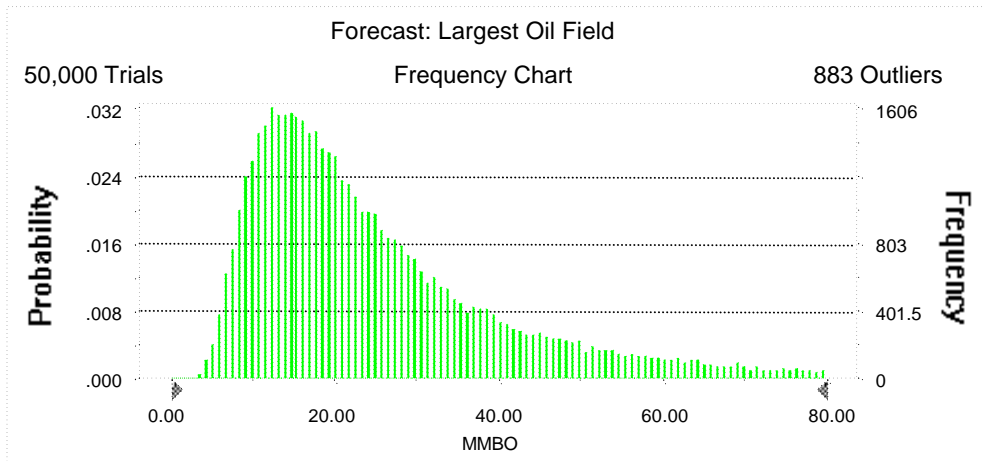
Forecast: Largest Oil Field

Summary:
　　Display range is from 0.00 to 80.00 MMBO
　　Entire range is from 2.76 to 99.98 MMBO
　　After 50,000 trials, the standard error of the mean is 0.08

Statistics:	Value
Trials	50000
Mean	25.85
Median	20.86
Mode	---
Standard Deviation	16.98
Variance	288.44
Skewness	1.62
Kurtosis	5.83
Coefficient of Variability	0.66
Range Minimum	2.76
Range Maximum	99.98
Range Width	97.22
Mean Standard Error	0.08

Forecast: Largest Oil Field

50,000 Trials	Frequency Chart	883 Outliers

Forecast: Largest Oil Field (cont'd)

Percentiles:

Percentile	MMBO
100%	2.76
95%	8.32
90%	10.04
85%	11.44
80%	12.71
75%	13.97
70%	15.27
65%	16.56
60%	17.91
55%	19.34
50%	20.86
45%	22.57
40%	24.56
35%	26.68
30%	29.19
25%	32.28
20%	36.20
15%	41.37
10%	48.94
5%	61.92
0%	99.98

End of Forecast

Forecast: Gas in Gas Fields

Summary:

Display range is from 0.00 to 20,000.00 BCFG

Entire range is from 836.35 to 28,510.08 BCFG

After 50,000 trials, the standard error of the mean is 16.30

Statistics:	Value
Trials	50000
Mean	8,894.01
Median	8,431.78
Mode	---
Standard Deviation	3,644.82
Variance	13,284,688.50
Skewness	0.61
Kurtosis	3.16
Coefficient of Variability	0.41
Range Minimum	836.35
Range Maximum	28,510.08
Range Width	27,673.73
Mean Standard Error	16.30
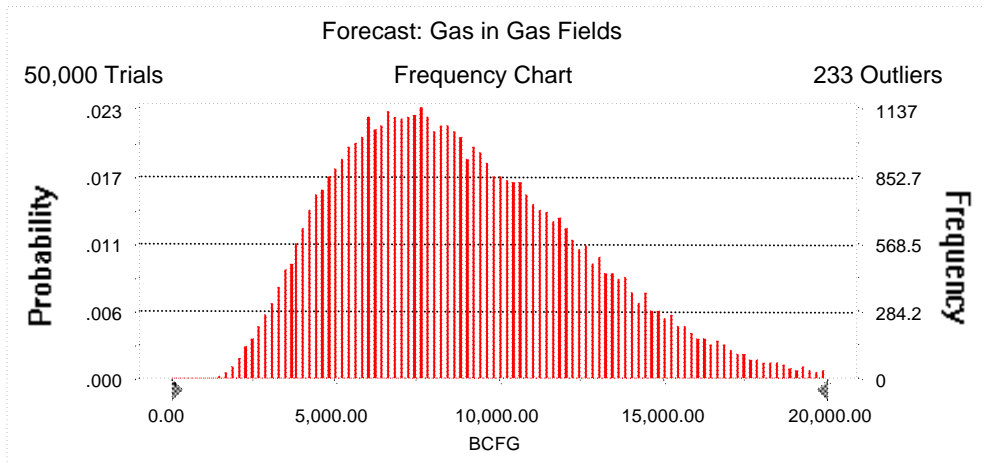
Forecast: Gas in Gas Fields

Forecast: Gas in Gas Fields (cont'd)

Percentiles:

Percentile	BCFG
100%	836.35
95%	3,748.72
90%	4,516.38
85%	5,120.46
80%	5,647.74
75%	6,135.72
70%	6,605.06
65%	7,062.99
60%	7,510.59
55%	7,954.99
50%	8,431.78
45%	8,914.00
40%	9,425.86
35%	9,983.07
30%	10,580.08
25%	11,224.20
20%	11,950.66
15%	12,809.18
10%	13,908.11
5%	15,537.48
0%	28,510.08

End of Forecast

Forecast: NGL in Gas Fields

Summary:

Display range is from 0.00 to 225.00 MMBNGL

Entire range is from 8.75 to 443.16 MMBNGL

After 50,000 trials, the standard error of the mean is 0.22

Statistics:	Value
Trials	50000
Mean	93.75
Median	83.36
Mode	---
Standard Deviation	49.97
Variance	2,497.24
Skewness	1.19
Kurtosis	4.89
Coefficient of Variability	0.53
Range Minimum	8.75
Range Maximum	443.16
Range Width	434.41
Mean Standard Error	0.22

Forecast: NGL in Gas Fields
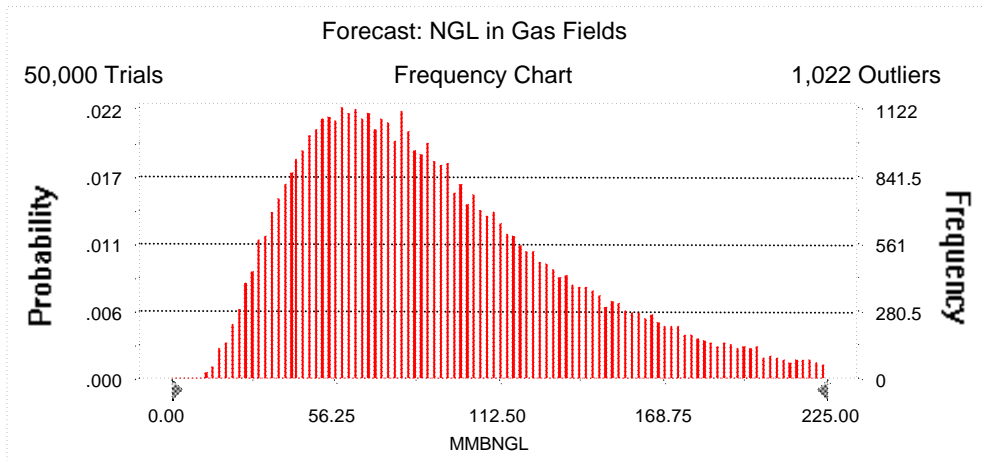
50,000 Trials — Frequency Chart — 1,022 Outliers

Forecast: NGL in Gas Fields (cont'd)

Percentiles:

Percentile	MMBNGL
100%	8.75
95%	32.29
90%	40.04
85%	46.38
80%	51.93
75%	57.10
70%	62.22
65%	67.38
60%	72.63
55%	78.06
50%	83.36
45%	89.28
40%	95.51
35%	102.51
30%	110.40
25%	119.32
20%	130.29
15%	143.93
10%	162.04
5%	191.05
0%	443.16

End of Forecast

Forecast: Largest Gas Field

Summary:

Display range is from 0.00 to 4,000.00 BCFG

Entire range is from 118.44 to 3,999.41 BCFG

After 50,000 trials, the standard error of the mean is 3.56

Statistics:	Value
Trials	50000
Mean	1,437.68
Median	1,235.61
Mode	---
Standard Deviation	796.64
Variance	634,642.12
Skewness	1.05
Kurtosis	3.59
Coefficient of Variability	0.55
Range Minimum	118.44
Range Maximum	3,999.41
Range Width	3,880.97
Mean Standard Error	3.56
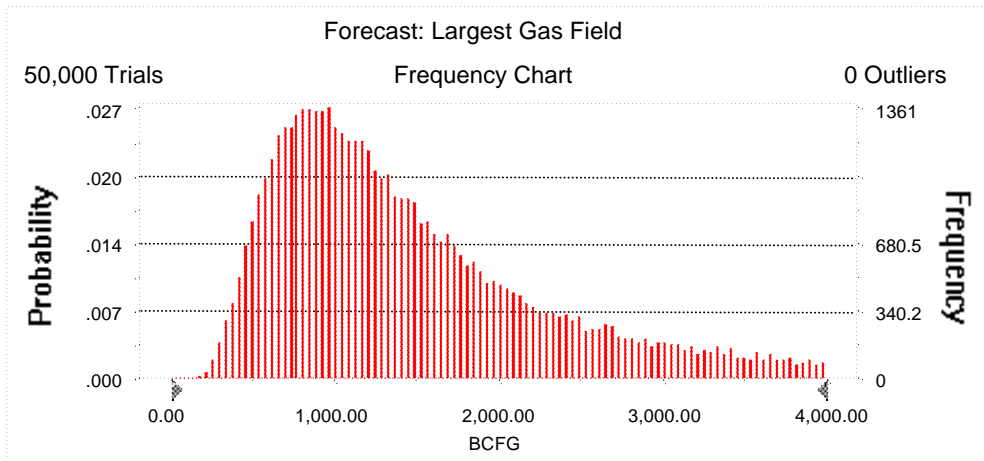
Forecast: Largest Gas Field

Forecast: Largest Gas Field (cont'd)

Percentiles:

Percentile	BCFG
100%	118.44
95%	495.02
90%	602.76
85%	687.30
80%	766.17
75%	840.47
70%	914.76
65%	988.48
60%	1,066.38
55%	1,149.76
50%	1,235.61
45%	1,331.22
40%	1,438.09
35%	1,553.69
30%	1,689.63
25%	1,846.52
20%	2,039.05
15%	2,292.61
10%	2,631.26
5%	3,129.10
0%	3,999.41

End of Forecast

Assumptions

Assumption: Number of Oil Fields

Triangular distribution with parameters:
Minimum	10
Likeliest	13
Maximum	40

Selected range is from 10 to 40
Mean value in simulation was 21

Number of Oil Fields
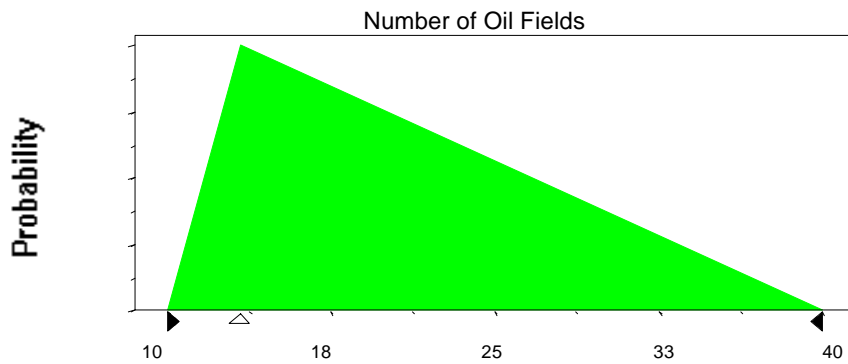
Assumption: Sizes of Oil Fields

Lognormal distribution with parameters: Shifted parameters

Mean	4.44	5.44
Standard Deviation	8.80	8.8

Selected range is from 0.00 to 99.00   1.00 to 100.00
Mean value in simulation was 4.28   5.28

Assumption: Sizes of Oil Fields (cont'd)

Sizes of Oil Fields

0.05	22.13	44.20	66.28	88.36
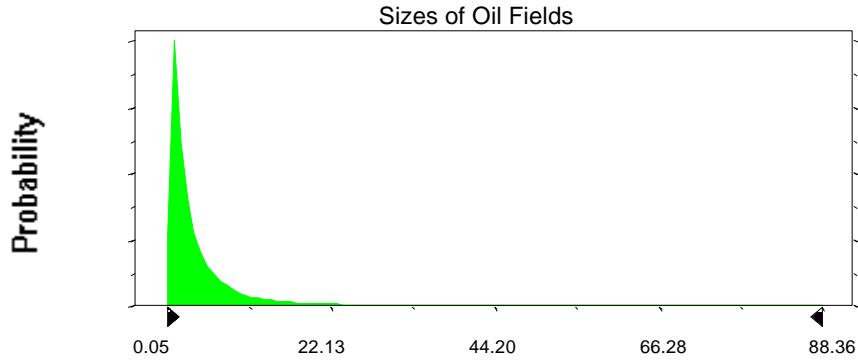
Assumption: GOR in Oil Fields

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
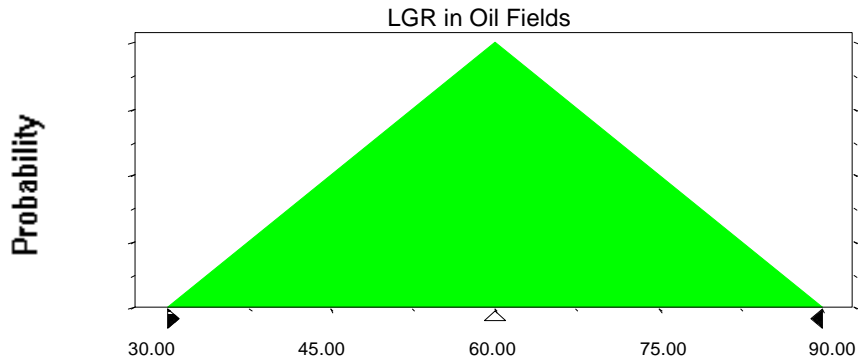Mean value in simulation was 1,999.23

GOR in Oil Fields

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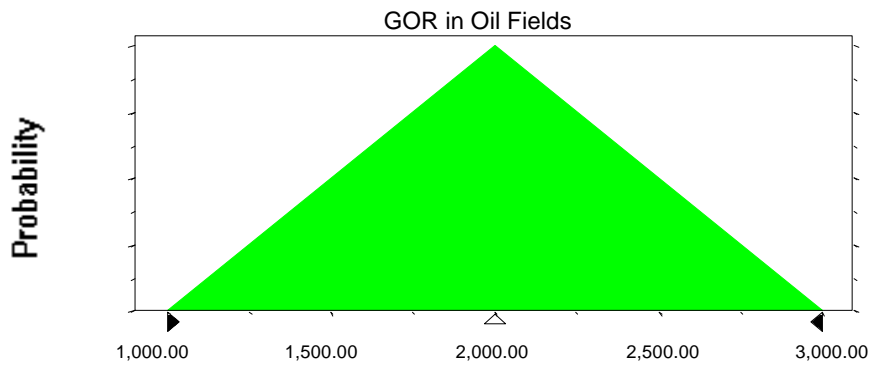
Assumption: LGR in Oil Fields

Triangular distribution with parameters:
Minimum	30.00
Likeliest	60.00
Maximum	90.00

Selected range is from 30.00 to 90.00
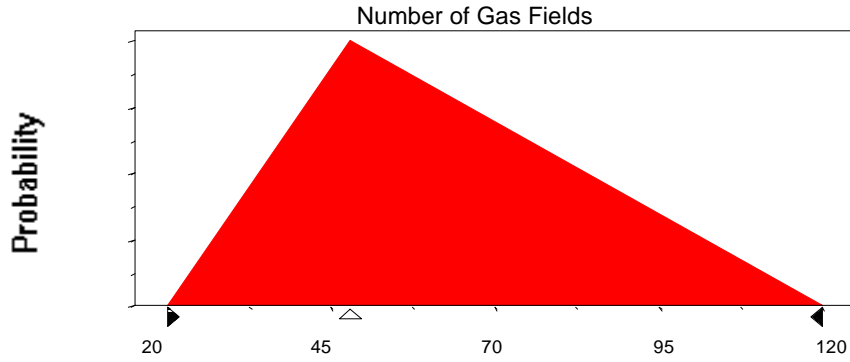Mean value in simulation was 59.97

LGR in Oil Fields

Assumption: Number of Gas Fields

Triangular distribution with parameters:
Minimum	20
Likeliest	48
Maximum	120

Selected range is from 20 to 120
Mean value in simulation was 63

Assumption: Number of Gas Fields (cont'd)

Number of Gas Fields

Assumption: Sizes of Gas Fields

Lognormal distribution with parameters:		Shifted parameters	
Mean	142.43		148.43
Standard Deviation	347.62		347.62

Selected range is from 0.00 to 3,994.00   6.00 to 4,000.00
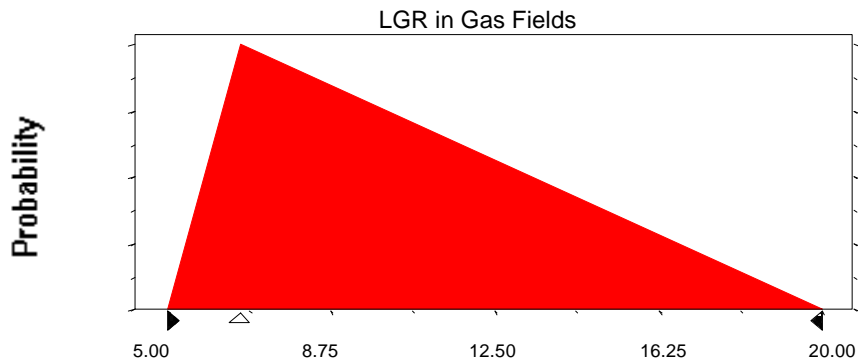Mean value in simulation was 135.03   141.03
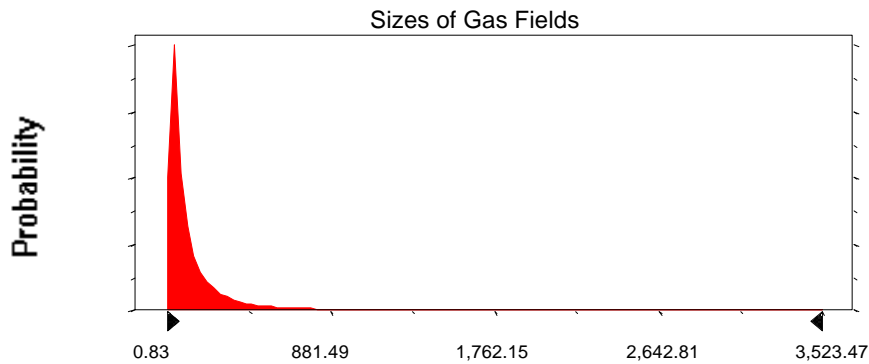
Sizes of Gas Fields

Assumption: LGR in Gas Fields

Triangular distribution with parameters:

Minimum	5.00
Likeliest	6.67
Maximum	20.00

Selected range is from 5.00 to 20.00
Mean value in simulation was 10.54

LGR in Gas Fields

End of Assumptions

Simulation started on 5/28/99 at 14:06:33
Simulation stopped on 5/28/99 at 14:49:23