

Late Cretaceous-Tertiary Turbidites, Assessment Unit 60350101
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	6	1.00	3,211	10,310	20,203	10,869	3,003	10,003	21,837	10,899	84	292	689	327	505	1,373	3,354	1,571
Gas Fields	36						398	2,547	7,215	3,018	8	54	166	66	166	685	2,491	909
Total		1.00	3,211	10,310	20,203	10,869	3,400	12,550	29,052	13,917	92	346	855	393				

60350101
Late Cretaceous-Tertiary Turbidites
Monte Carlo Results

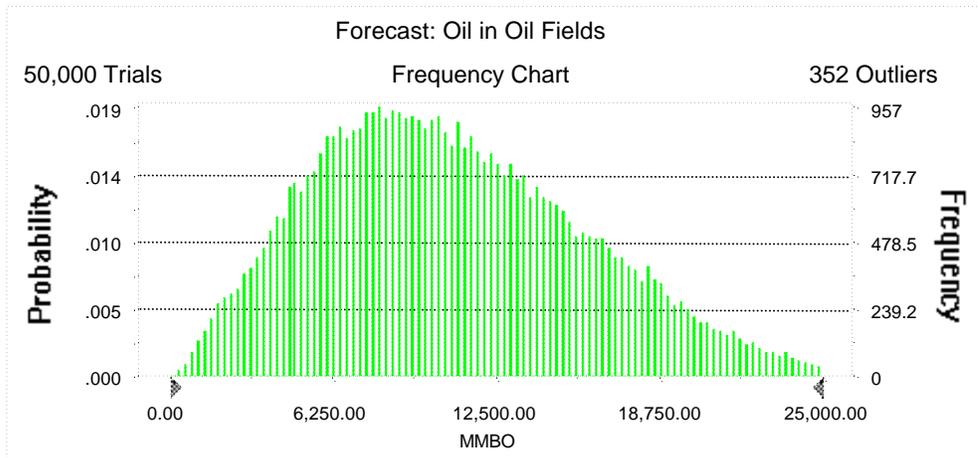
Forecast: Oil in Oil Fields

Summary:

Display range is from 0.00 to 25,000.00 MMBO
 Entire range is from 223.93 to 37,003.93 MMBO
 After 50,000 trials, the standard error of the mean is 23.37

Statistics:

	<u>Value</u>
Trials	50000
Mean	10,869.05
Median	10,309.82
Mode	---
Standard Deviation	5,226.51
Variance	27,316,436.95
Skewness	0.49
Kurtosis	2.88
Coefficient of Variability	0.48
Range Minimum	223.93
Range Maximum	37,003.93
Range Width	36,780.00
Mean Standard Error	23.37



60350101
Late Cretaceous-Tertiary Turbidites
Monte Carlo Results

Forecast: Oil in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	223.93
95%	3,211.46
90%	4,456.92
85%	5,378.85
80%	6,182.22
75%	6,905.99
70%	7,615.83
65%	8,276.37
60%	8,948.62
55%	9,622.60
50%	10,309.82
45%	11,033.53
40%	11,765.73
35%	12,560.40
30%	13,414.53
25%	14,327.75
20%	15,360.32
15%	16,605.68
10%	18,098.40
5%	20,203.10
0%	37,003.93

End of Forecast

60350101
Late Cretaceous-Tertiary Turbidites
Monte Carlo Results

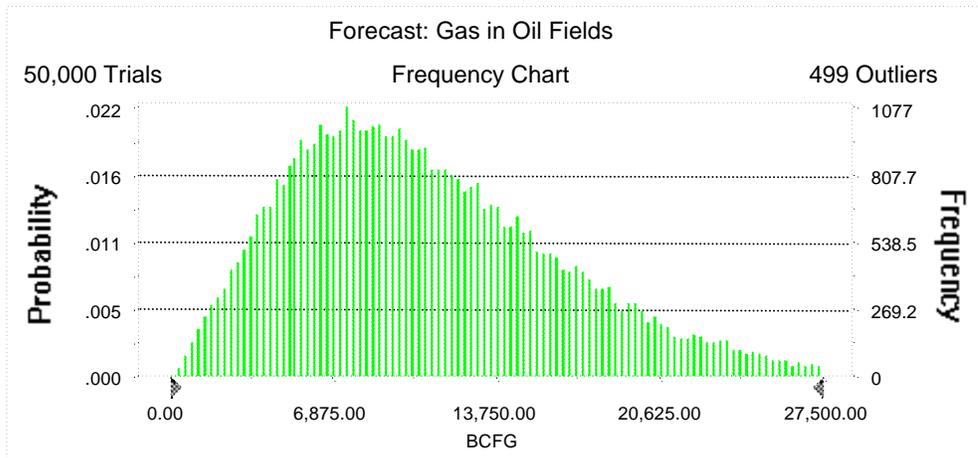
Forecast: Gas in Oil Fields

Summary:

Display range is from 0.00 to 27,500.00 BCFG
Entire range is from 218.69 to 43,294.13 BCFG
After 50,000 trials, the standard error of the mean is 25.97

Statistics:

	<u>Value</u>
Trials	50000
Mean	10,899.32
Median	10,002.96
Mode	---
Standard Deviation	5,807.34
Variance	33,725,233.95
Skewness	0.80
Kurtosis	3.61
Coefficient of Variability	0.53
Range Minimum	218.69
Range Maximum	43,294.13
Range Width	43,075.44
Mean Standard Error	25.97



60350101
Late Cretaceous-Tertiary Turbidites
Monte Carlo Results

Forecast: Gas in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	218.69
95%	3,002.57
90%	4,147.25
85%	5,053.69
80%	5,816.71
75%	6,549.35
70%	7,249.50
65%	7,909.26
60%	8,604.94
55%	9,296.44
50%	10,002.96
45%	10,754.39
40%	11,558.61
35%	12,415.51
30%	13,334.86
25%	14,376.25
20%	15,549.88
15%	17,027.82
10%	18,844.41
5%	21,837.13
0%	43,294.13

End of Forecast

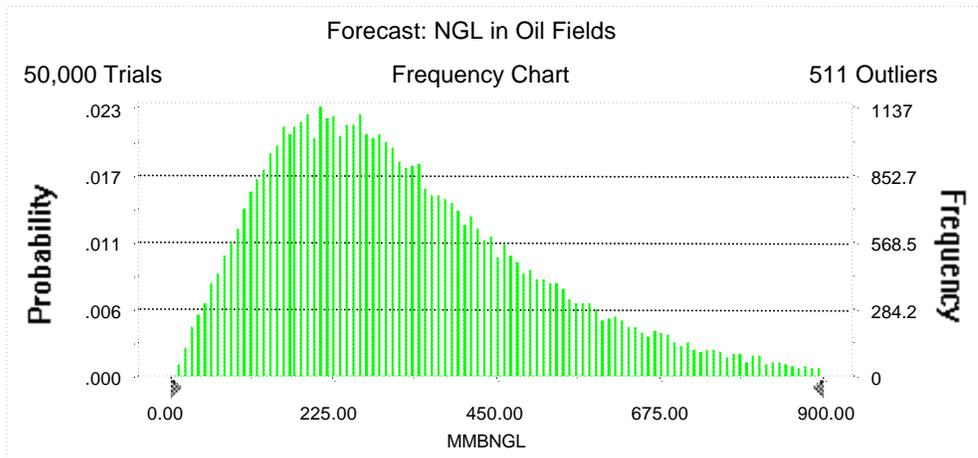
60350101
Late Cretaceous-Tertiary Turbidites
Monte Carlo Results

Forecast: NGL in Oil Fields

Summary:

Display range is from 0.00 to 900.00 MMBNGL
Entire range is from 5.95 to 1,430.79 MMBNGL
After 50,000 trials, the standard error of the mean is 0.85

Statistics:	<u>Value</u>
Trials	50000
Mean	326.91
Median	291.73
Mode	---
Standard Deviation	189.58
Variance	35,939.86
Skewness	1.04
Kurtosis	4.35
Coefficient of Variability	0.58
Range Minimum	5.95
Range Maximum	1,430.79
Range Width	1,424.84
Mean Standard Error	0.85



60350101
Late Cretaceous-Tertiary Turbidites
Monte Carlo Results

Forecast: NGL in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	5.95
95%	83.87
90%	117.03
85%	142.42
80%	164.81
75%	186.19
70%	207.36
65%	227.42
60%	248.98
55%	269.65
50%	291.73
45%	314.59
40%	339.75
35%	366.72
30%	396.47
25%	430.23
20%	470.32
15%	520.72
10%	585.75
5%	689.13
0%	1,430.79

End of Forecast

60350101
Late Cretaceous-Tertiary Turbidites
Monte Carlo Results

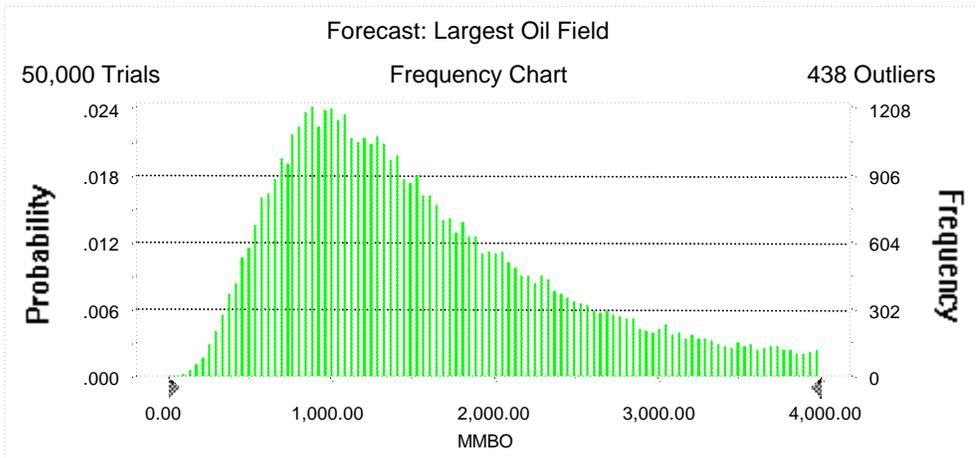
Forecast: Largest Oil Field

Summary:

Display range is from 0.00 to 4,000.00 MMBO
Entire range is from 74.44 to 4,199.69 MMBO
After 50,000 trials, the standard error of the mean is 3.84

Statistics:

	<u>Value</u>
Trials	50000
Mean	1,571.24
Median	1,372.64
Mode	---
Standard Deviation	859.47
Variance	738,688.82
Skewness	0.91
Kurtosis	3.28
Coefficient of Variability	0.55
Range Minimum	74.44
Range Maximum	4,199.69
Range Width	4,125.25
Mean Standard Error	3.84



60350101
Late Cretaceous-Tertiary Turbidites
Monte Carlo Results

Forecast: Largest Oil Field (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	74.44
95%	505.05
90%	638.14
85%	743.86
80%	837.57
75%	921.14
70%	1,008.19
65%	1,092.46
60%	1,182.80
55%	1,277.98
50%	1,372.64
45%	1,478.60
40%	1,594.04
35%	1,724.77
30%	1,875.00
25%	2,049.50
20%	2,254.40
15%	2,506.35
10%	2,850.16
5%	3,353.60
0%	4,199.69

End of Forecast

60350101
Late Cretaceous-Tertiary Turbidites
Monte Carlo Results

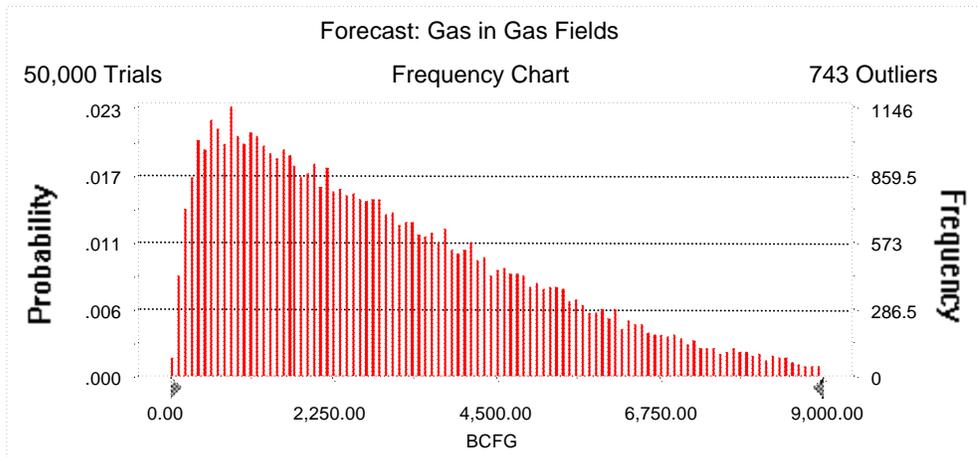
Forecast: Gas in Gas Fields

Summary:

Display range is from 0.00 to 9,000.00 BCFG
 Entire range is from 38.24 to 16,068.87 BCFG
 After 50,000 trials, the standard error of the mean is 9.81

Statistics:

	<u>Value</u>
Trials	50000
Mean	3,017.95
Median	2,546.77
Mode	---
Standard Deviation	2,193.35
Variance	4,810,776.53
Skewness	1.04
Kurtosis	4.04
Coefficient of Variability	0.73
Range Minimum	38.24
Range Maximum	16,068.87
Range Width	16,030.64
Mean Standard Error	9.81



60350101
Late Cretaceous-Tertiary Turbidites
Monte Carlo Results

Forecast: Gas in Gas Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	38.24
95%	397.75
90%	617.57
85%	832.95
80%	1,047.84
75%	1,266.46
70%	1,502.08
65%	1,738.69
60%	1,998.94
55%	2,259.97
50%	2,546.77
45%	2,840.54
40%	3,156.08
35%	3,507.29
30%	3,880.29
25%	4,301.85
20%	4,792.12
15%	5,359.34
10%	6,088.47
5%	7,215.07
0%	16,068.87

End of Forecast

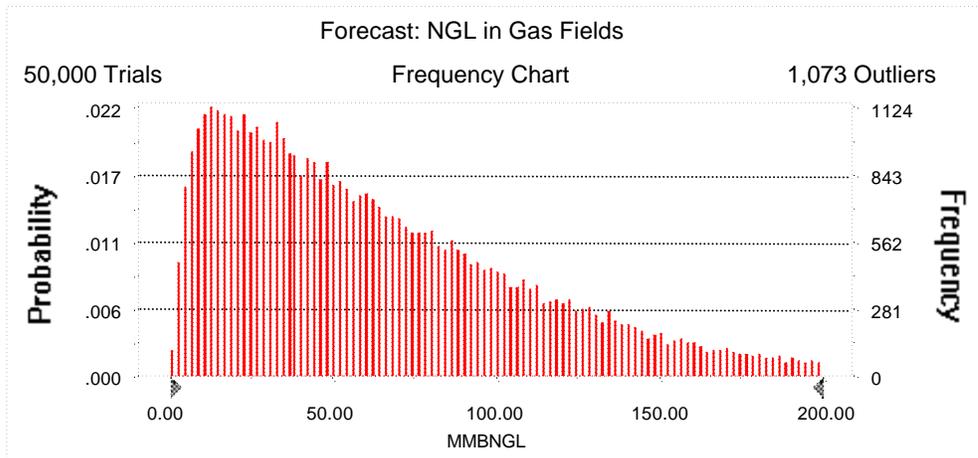
60350101
Late Cretaceous-Tertiary Turbidites
Monte Carlo Results

Forecast: NGL in Gas Fields

Summary:

Display range is from 0.00 to 200.00 MMBNGL
 Entire range is from 0.51 to 408.12 MMBNGL
 After 50,000 trials, the standard error of the mean is 0.23

Statistics:	<u>Value</u>
Trials	50000
Mean	66.44
Median	54.19
Mode	---
Standard Deviation	51.08
Variance	2,608.73
Skewness	1.27
Kurtosis	4.97
Coefficient of Variability	0.77
Range Minimum	0.51
Range Maximum	408.12
Range Width	407.61
Mean Standard Error	0.23



60350101
Late Cretaceous-Tertiary Turbidites
Monte Carlo Results

Forecast: NGL in Gas Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	0.51
95%	8.38
90%	12.95
85%	17.46
80%	22.19
75%	26.92
70%	31.93
65%	36.94
60%	42.49
55%	48.22
50%	54.19
45%	60.69
40%	67.76
35%	75.53
30%	84.02
25%	93.61
20%	104.80
15%	118.74
10%	136.49
5%	166.22
0%	408.12

End of Forecast

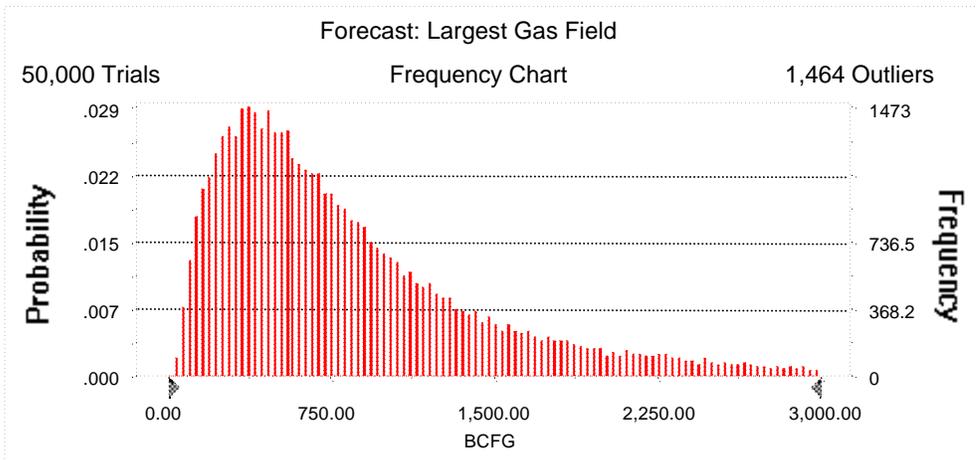
60350101
Late Cretaceous-Tertiary Turbidites
Monte Carlo Results

Forecast: Largest Gas Field

Summary:

Display range is from 0.00 to 3,000.00 BCFG
 Entire range is from 38.24 to 4,799.58 BCFG
 After 50,000 trials, the standard error of the mean is 3.40

Statistics:	<u>Value</u>
Trials	50000
Mean	908.60
Median	684.89
Mode	---
Standard Deviation	760.93
Variance	579,016.22
Skewness	1.93
Kurtosis	7.46
Coefficient of Variability	0.84
Range Minimum	38.24
Range Maximum	4,799.58
Range Width	4,761.35
Mean Standard Error	3.40



60350101
Late Cretaceous-Tertiary Turbidites
Monte Carlo Results

Forecast: Largest Gas Field (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	38.24
95%	165.75
90%	232.68
85%	288.43
80%	344.31
75%	394.34
70%	448.40
65%	501.67
60%	557.89
55%	619.40
50%	684.89
45%	757.07
40%	834.86
35%	923.74
30%	1,029.40
25%	1,157.16
20%	1,316.05
15%	1,542.18
10%	1,875.01
5%	2,490.74
0%	4,799.58

End of Forecast

60350101
Late Cretaceous-Tertiary Turbidites
Monte Carlo Results

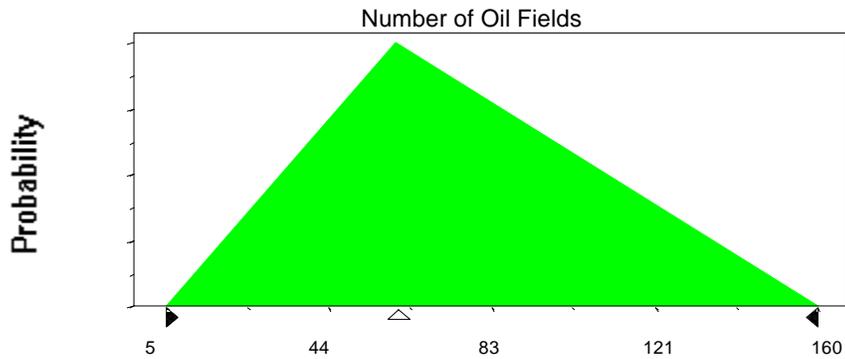
Assumptions

Assumption: Number of Oil Fields

Triangular distribution with parameters:

Minimum	5
Likeliest	60
Maximum	160

Selected range is from 5 to 160
Mean value in simulation was 75



Assumption: Sizes of Oil Fields

Lognormal distribution with parameters:

Mean	145.62
Standard Deviation	364.69

Shifted parameters

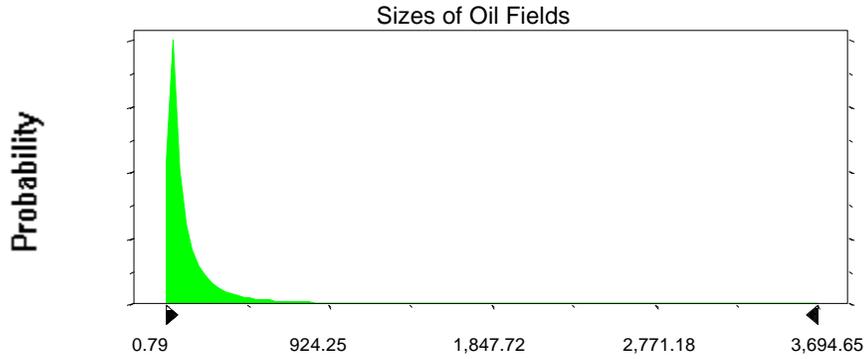
151.62
364.69

Selected range is from 0.00 to 4,194.00
Mean value in simulation was 141.07

6.00 to 4,200.00
147.07

60350101
Late Cretaceous-Tertiary Turbidites
Monte Carlo Results

Assumption: Sizes of Oil Fields (cont'd)



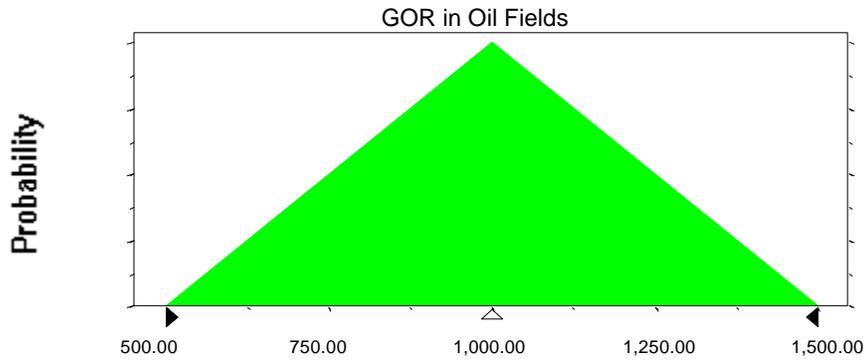
Assumption: GOR in Oil Fields

Triangular distribution with parameters:

Minimum	500.00
Likeliest	1,000.00
Maximum	1,500.00

Selected range is from 500.00 to 1,500.00

Mean value in simulation was 1,002.29



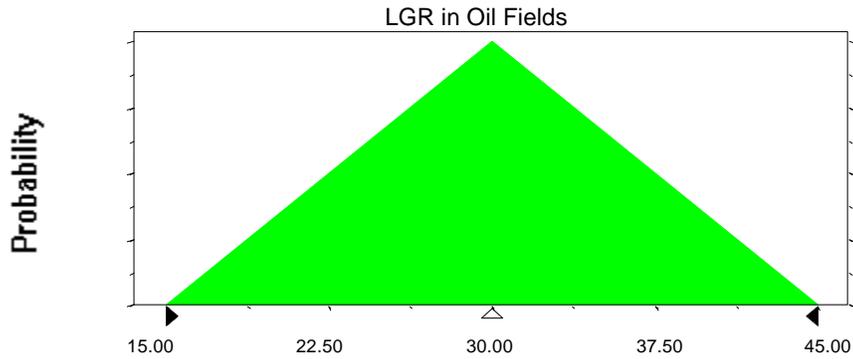
60350101
Late Cretaceous-Tertiary Turbidites
Monte Carlo Results

Assumption: LGR in Oil Fields

Triangular distribution with parameters:

Minimum	15.00
Likeliest	30.00
Maximum	45.00

Selected range is from 15.00 to 45.00
Mean value in simulation was 30.00



Assumption: Number of Gas Fields

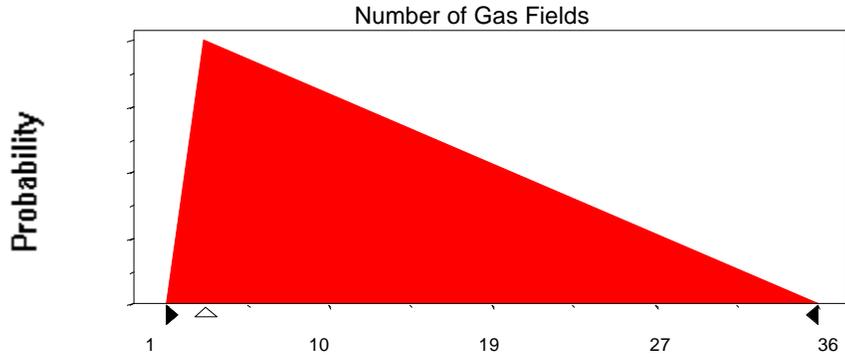
Triangular distribution with parameters:

Minimum	1
Likeliest	3
Maximum	36

Selected range is from 1 to 36
Mean value in simulation was 13

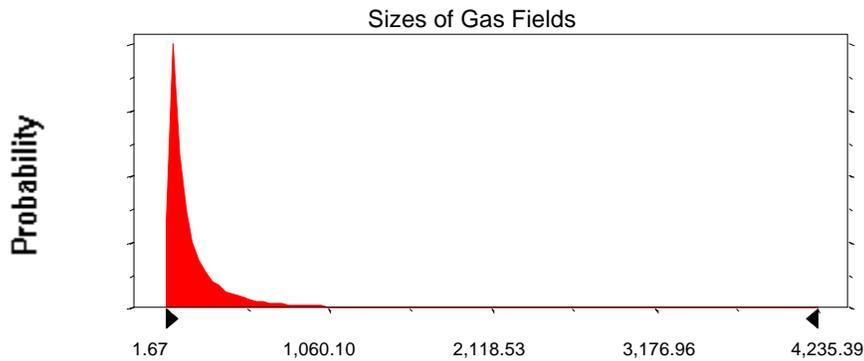
60350101
Late Cretaceous-Tertiary Turbidites
Monte Carlo Results

Assumption: Number of Gas Fields (cont'd)



Assumption: Sizes of Gas Fields

Lognormal distribution with parameters:		Shifted parameters
Mean	197.29	233.29
Standard Deviation	419.29	419.29
Selected range is from 0.00 to 4,764.00		36.00 to 4,800.00
Mean value in simulation was 191.26		227.26



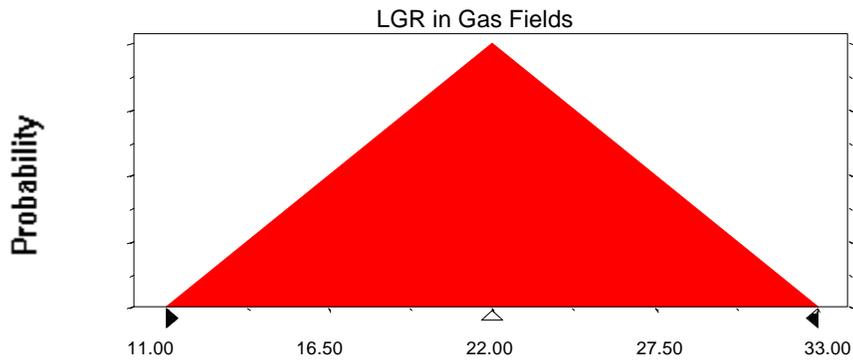
60350101
Late Cretaceous-Tertiary Turbidites
Monte Carlo Results

Assumption: LGR in Gas Fields

Triangular distribution with parameters:

Minimum	11.00
Likeliest	22.00
Maximum	33.00

Selected range is from 11.00 to 33.00
Mean value in simulation was 22.02



End of Assumptions

Simulation started on 11/8/99 at 9:10:41
Simulation stopped on 11/8/99 at 9:59:39