

**Offshore, Assessment Unit 73030101
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	8	1.00	23	87	312	116	46	186	701	256	3	11	43	15	14	44	210	69
Gas Fields	48						629	2,829	7,889	3,348	26	121	361	147	227	875	3,602	1,247
Total		1.00	23	87	312	116	675	3,015	8,590	3,603	28	132	404	163				

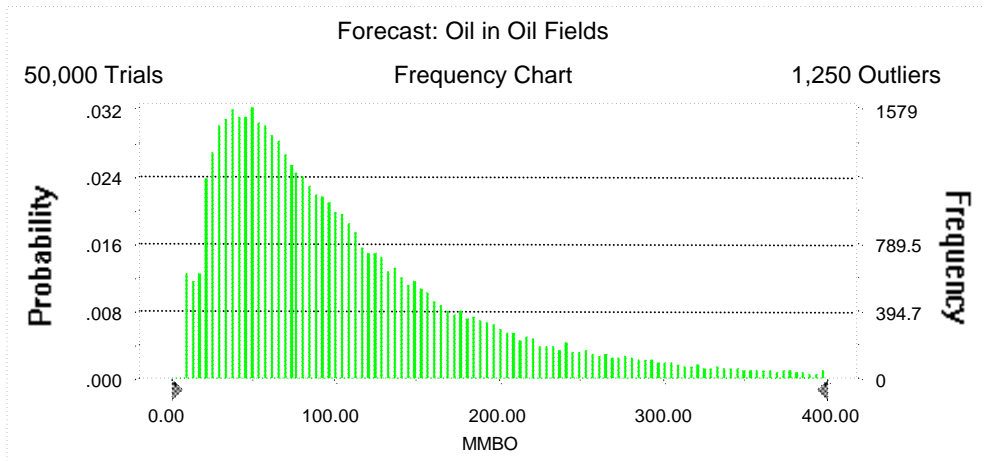
73030101
Offshore
Monte Carlo Results

Forecast: Oil in Oil Fields

Summary:

Display range is from 0.00 to 400.00 MMBO
Entire range is from 8.07 to 1,170.53 MMBO
After 50,000 trials, the standard error of the mean is 0.46

Statistics:	Value
Trials	50000
Mean	116.18
Median	86.81
Mode	---
Standard Deviation	102.42
Variance	10,489.64
Skewness	2.52
Kurtosis	12.76
Coefficient of Variability	0.88
Range Minimum	8.07
Range Maximum	1,170.53
Range Width	1,162.45
Mean Standard Error	0.46



73030101
Offshore
Monte Carlo Results

Forecast: Oil in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	8.07
95%	22.63
90%	29.93
85%	36.53
80%	43.05
75%	49.41
70%	56.09
65%	62.94
60%	70.15
55%	78.22
50%	86.81
45%	96.11
40%	106.19
35%	117.49
30%	131.12
25%	147.49
20%	167.40
15%	194.73
10%	235.49
5%	312.05
0%	1,170.53

End of Forecast

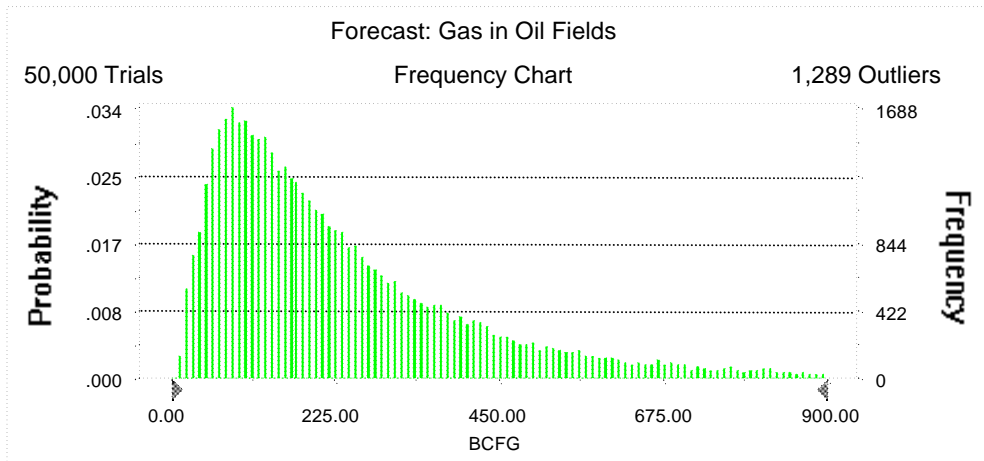
73030101
Offshore
Monte Carlo Results

Forecast: Gas in Oil Fields

Summary:

Display range is from 0.00 to 900.00 BCFG
Entire range is from 11.78 to 3,589.65 BCFG
After 50,000 trials, the standard error of the mean is 1.05

Statistics:	Value
Trials	50000
Mean	255.65
Median	186.42
Mode	---
Standard Deviation	235.10
Variance	55,269.85
Skewness	2.70
Kurtosis	14.73
Coefficient of Variability	0.92
Range Minimum	11.78
Range Maximum	3,589.65
Range Width	3,577.87
Mean Standard Error	1.05



**73030101
Offshore
Monte Carlo Results**

Forecast: Gas in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	11.78
95%	45.82
90%	62.76
85%	77.12
80%	90.60
75%	104.56
70%	119.12
65%	134.14
60%	150.53
55%	167.72
50%	186.42
45%	207.26
40%	230.32
35%	256.52
30%	286.80
25%	324.30
20%	371.19
15%	430.50
10%	524.02
5%	700.71
0%	3,589.65

End of Forecast

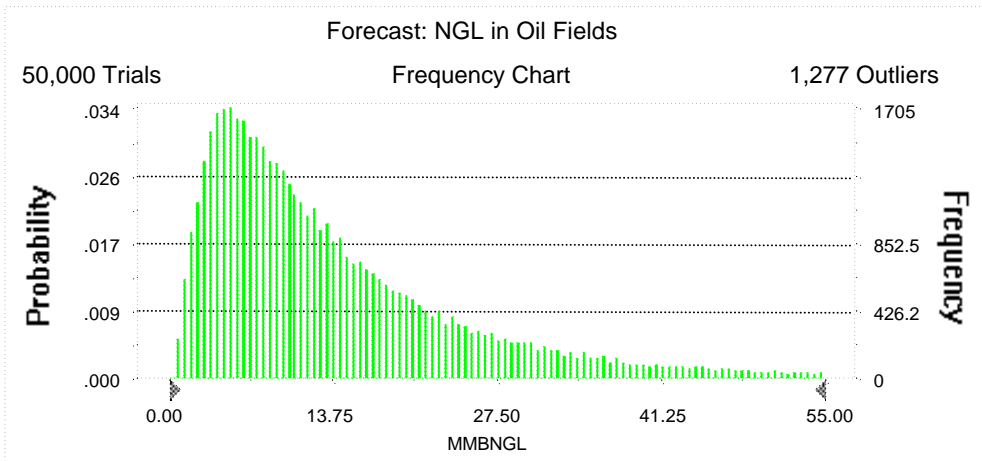
73030101
Offshore
Monte Carlo Results

Forecast: NGL in Oil Fields

Summary:

Display range is from 0.00 to 55.00 MMBNGL
Entire range is from 0.46 to 218.68 MMBNGL
After 50,000 trials, the standard error of the mean is 0.07

Statistics:	Value
Trials	50000
Mean	15.32
Median	10.92
Mode	---
Standard Deviation	14.75
Variance	217.47
Skewness	2.93
Kurtosis	17.32
Coefficient of Variability	0.96
Range Minimum	0.46
Range Maximum	218.68
Range Width	218.22
Mean Standard Error	0.07



73030101
Offshore
Monte Carlo Results

Forecast: NGL in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	0.46
95%	2.54
90%	3.54
85%	4.39
80%	5.19
75%	6.02
70%	6.88
65%	7.78
60%	8.75
55%	9.78
50%	10.92
45%	12.21
40%	13.58
35%	15.19
30%	17.08
25%	19.34
20%	22.17
15%	26.04
10%	31.77
5%	42.96
0%	218.68

End of Forecast

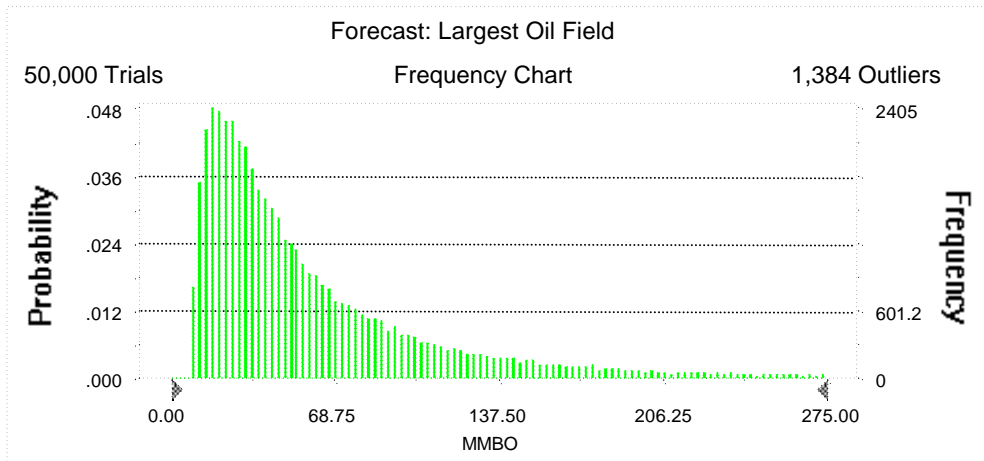
73030101
Offshore
Monte Carlo Results

Forecast: Largest Oil Field

Summary:

Display range is from 0.00 to 275.00 MMBO
Entire range is from 8.07 to 749.19 MMBO
After 50,000 trials, the standard error of the mean is 0.34

Statistics:	Value
Trials	50000
Mean	68.97
Median	43.98
Mode	---
Standard Deviation	76.85
Variance	5,906.58
Skewness	3.45
Kurtosis	19.59
Coefficient of Variability	1.11
Range Minimum	8.07
Range Maximum	749.19
Range Width	741.12
Mean Standard Error	0.34



**73030101
Offshore
Monte Carlo Results**

Forecast: Largest Oil Field (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	8.07
95%	13.62
90%	16.74
85%	19.62
80%	22.49
75%	25.51
70%	28.55
65%	31.89
60%	35.46
55%	39.60
50%	43.98
45%	49.11
40%	54.90
35%	61.92
30%	70.38
25%	81.17
20%	94.79
15%	113.86
10%	144.86
5%	209.62
0%	749.19

End of Forecast

**73030101
Offshore
Monte Carlo Results**

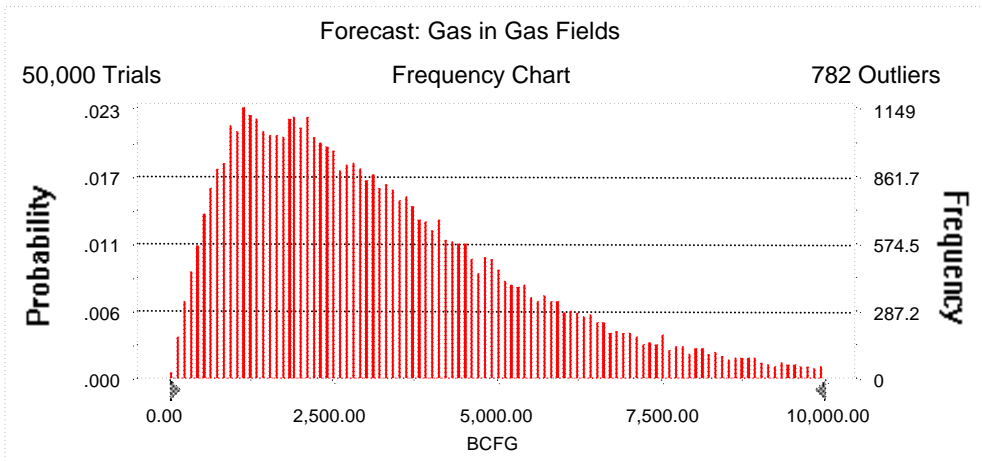
Forecast: Gas in Gas Fields

Summary:

Display range is from 0.00 to 10,000.00 BCFG
 Entire range is from 53.35 to 26,435.01 BCFG
 After 50,000 trials, the standard error of the mean is 10.43

Statistics:

	<u>Value</u>
Trials	50000
Mean	3,347.63
Median	2,828.52
Mode	---
Standard Deviation	2,332.17
Variance	5,439,014.71
Skewness	1.34
Kurtosis	5.66
Coefficient of Variability	0.70
Range Minimum	53.35
Range Maximum	26,435.01
Range Width	26,381.67
Mean Standard Error	10.43



73030101
Offshore
Monte Carlo Results

Forecast: Gas in Gas Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	53.35
95%	629.50
90%	908.78
85%	1,141.12
80%	1,361.56
75%	1,601.43
70%	1,841.57
65%	2,067.61
60%	2,302.20
55%	2,554.68
50%	2,828.52
45%	3,113.34
40%	3,413.02
35%	3,737.37
30%	4,111.85
25%	4,527.53
20%	5,025.14
15%	5,660.22
10%	6,486.80
5%	7,889.09
0%	26,435.01

End of Forecast

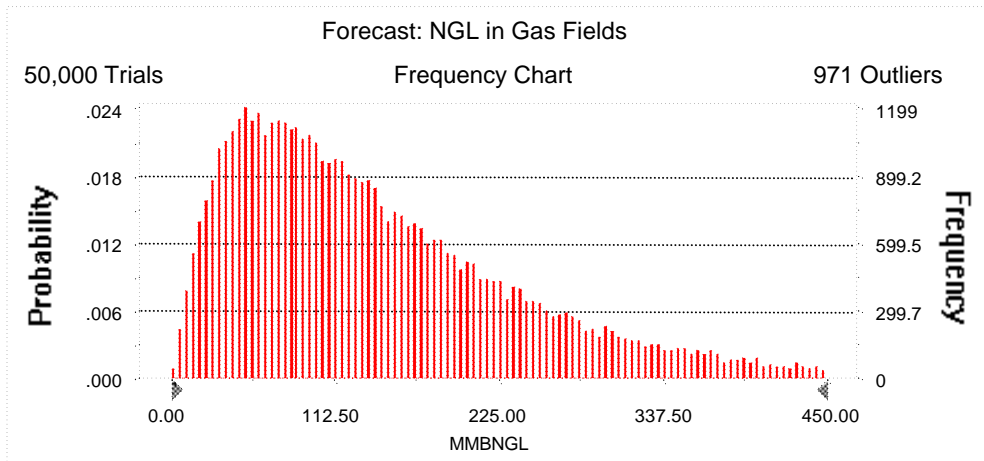
73030101
Offshore
Monte Carlo Results

Forecast: NGL in Gas Fields

Summary:

Display range is from 0.00 to 450.00 MMBNGL
Entire range is from 1.54 to 1,472.01 MMBNGL
After 50,000 trials, the standard error of the mean is 0.49

Statistics:	<u>Value</u>
Trials	50000
Mean	147.26
Median	120.68
Mode	---
Standard Deviation	108.96
Variance	11,871.35
Skewness	1.56
Kurtosis	6.91
Coefficient of Variability	0.74
Range Minimum	1.54
Range Maximum	1,472.01
Range Width	1,470.47
Mean Standard Error	0.49



73030101
Offshore
Monte Carlo Results

Forecast: NGL in Gas Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	1.54
95%	25.83
90%	37.75
85%	47.99
80%	57.55
75%	67.52
70%	77.37
65%	87.40
60%	97.76
55%	108.95
50%	120.68
45%	133.13
40%	146.53
35%	162.03
30%	179.00
25%	198.33
20%	221.74
15%	250.75
10%	291.41
5%	361.06
0%	1,472.01

End of Forecast

73030101
Offshore
Monte Carlo Results

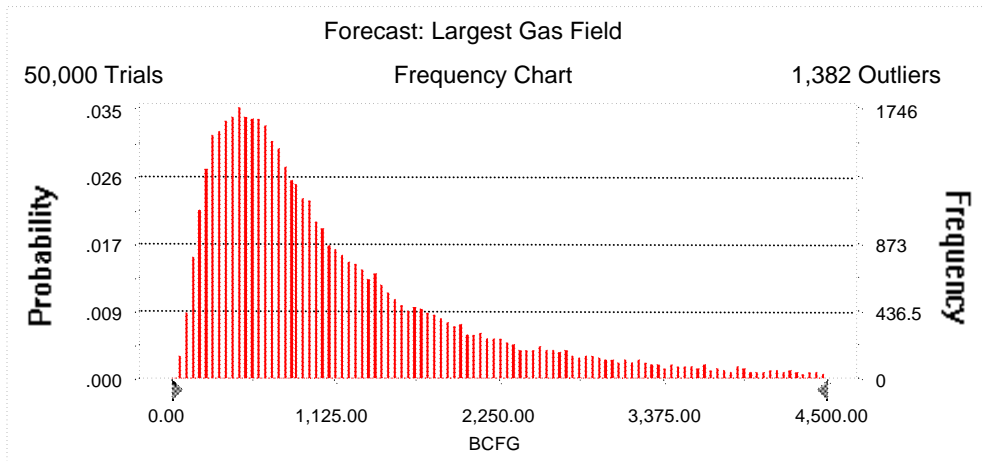
Forecast: Largest Gas Field

Summary:

Display range is from 0.00 to 4,500.00 BCFG
Entire range is from 52.26 to 7,996.84 BCFG
After 50,000 trials, the standard error of the mean is 5.15

Statistics:

	<u>Value</u>
Trials	50000
Mean	1,247.03
Median	875.44
Mode	---
Standard Deviation	1,152.34
Variance	1,327,897.15
Skewness	2.28
Kurtosis	9.56
Coefficient of Variability	0.92
Range Minimum	52.26
Range Maximum	7,996.84
Range Width	7,944.58
Mean Standard Error	5.15



73030101
Offshore
Monte Carlo Results

Forecast: Largest Gas Field (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	52.26
95%	226.53
90%	304.59
85%	374.49
80%	440.71
75%	506.48
70%	573.03
65%	640.03
60%	710.89
55%	788.03
50%	875.44
45%	971.59
40%	1,081.72
35%	1,217.25
30%	1,372.90
25%	1,559.34
20%	1,806.00
15%	2,135.66
10%	2,645.76
5%	3,601.97
0%	7,996.84

End of Forecast

73030101
Offshore
Monte Carlo Results

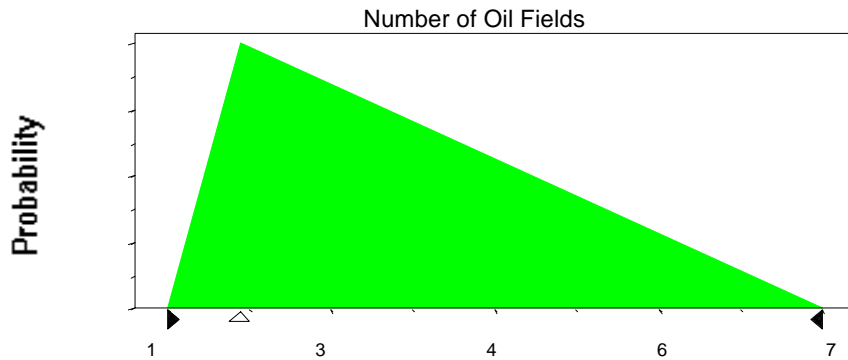
Assumptions

Assumption: Number of Oil Fields

Triangular distribution with parameters:

Minimum	1
Likeliest	2
Maximum	7

Selected range is from 1 to 7
Mean value in simulation was 3



Assumption: Sizes of Oil Fields

Lognormal distribution with parameters:

Mean	29.25
Standard Deviation	65.00

Shifted parameters

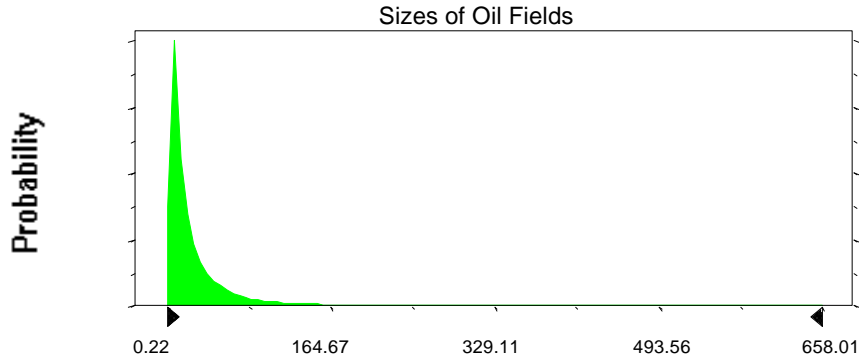
37.25
65

Selected range is from 0.00 to 742.00
Mean value in simulation was 27.95

8.00 to 750.00
35.95

73030101
Offshore
Monte Carlo Results

Assumption: Sizes of Oil Fields (cont'd)



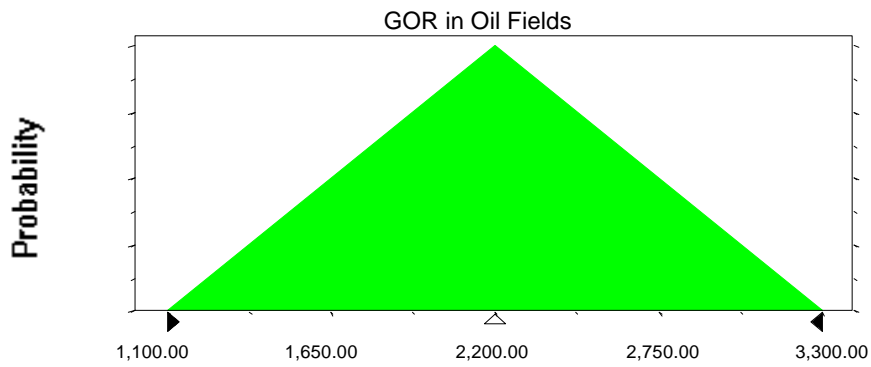
Assumption: GOR in Oil Fields

Triangular distribution with parameters:

Minimum	1,100.00
Likeliest	2,200.00
Maximum	3,300.00

Selected range is from 1,100.00 to 3,300.00

Mean value in simulation was 2,203.09



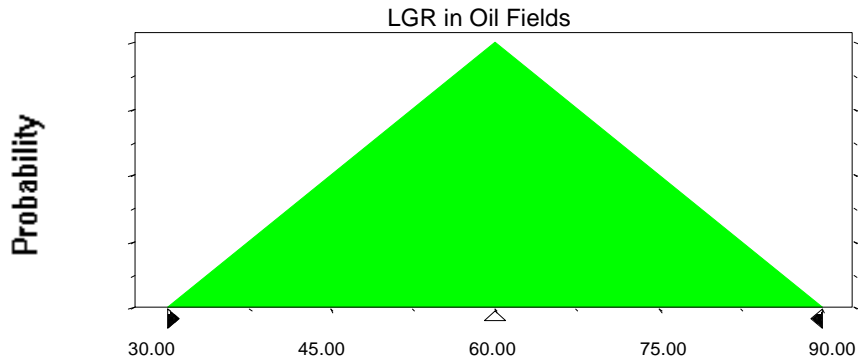
73030101
Offshore
Monte Carlo Results

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 59.91



Assumption: Number of Gas Fields

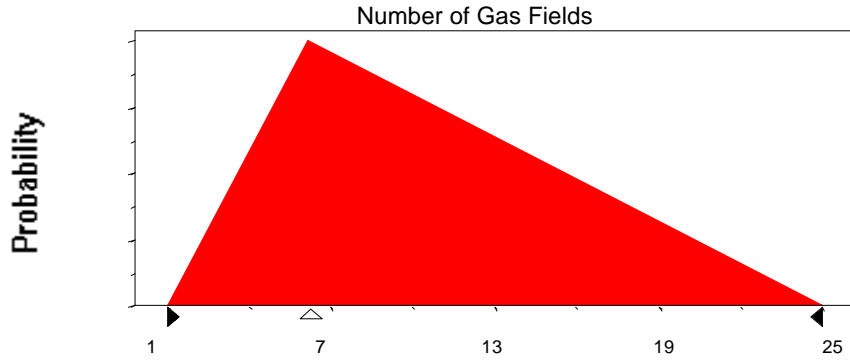
Triangular distribution with parameters:

Minimum	1
Likeliest	6
Maximum	25

Selected range is from 1 to 25
Mean value in simulation was 11

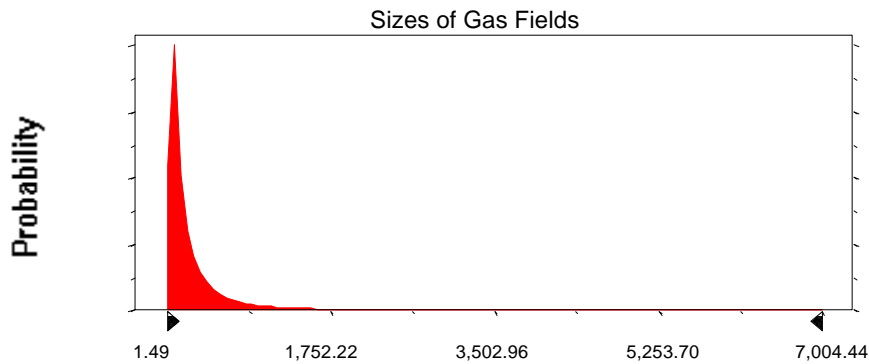
73030101
Offshore
Monte Carlo Results

Assumption: Number of Gas Fields (cont'd)



Assumption: Sizes of Gas Fields

Lognormal distribution with parameters:		Shifted parameters
Mean	275.53	323.53
Standard Deviation	691.42	691.42
Selected range is from 0.00 to 7,952.00		48.00 to 8,000.00
Mean value in simulation was 260.06		308.06



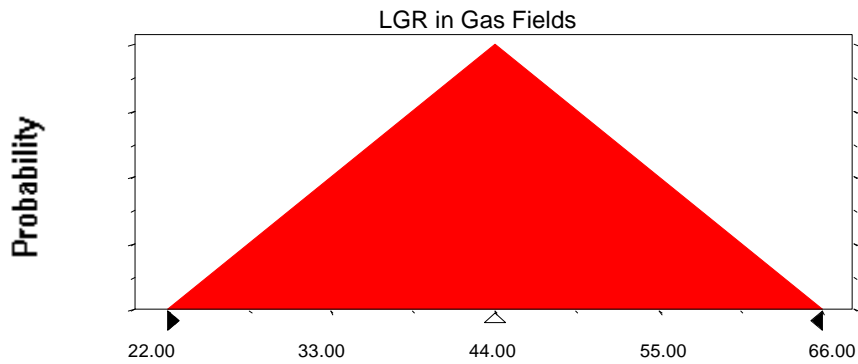
73030101
Offshore
Monte Carlo Results

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 43.99



End of Assumptions

Simulation started on 10/8/99 at 14:49:29
Simulation stopped on 10/8/99 at 15:06:10