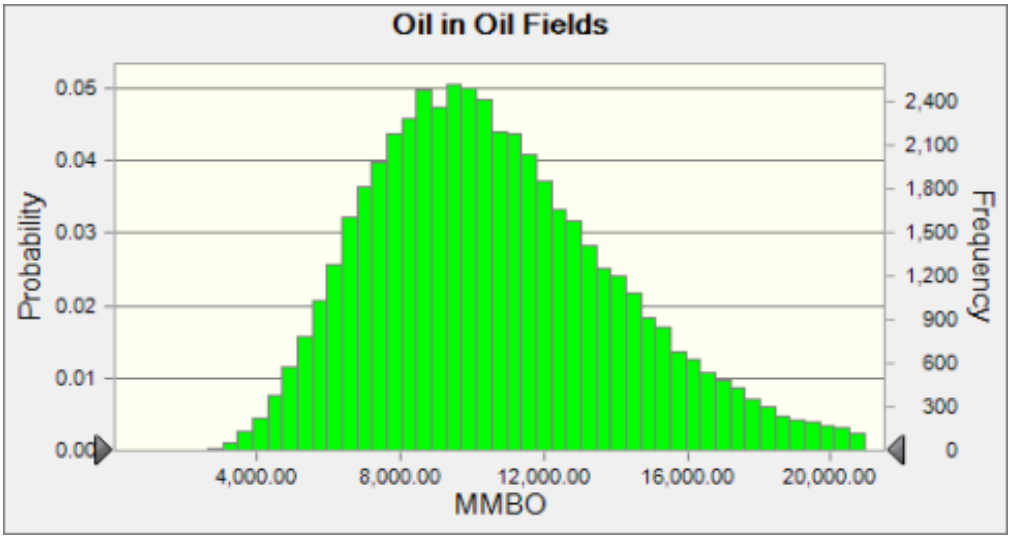
73730101
Mesozoic-Cenozoic Reservoirs
Monte Carlo Results

Forecast: Oil in Oil Fields

Summary:
Entire range is from 56.70 to 29,893.63
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 16.25



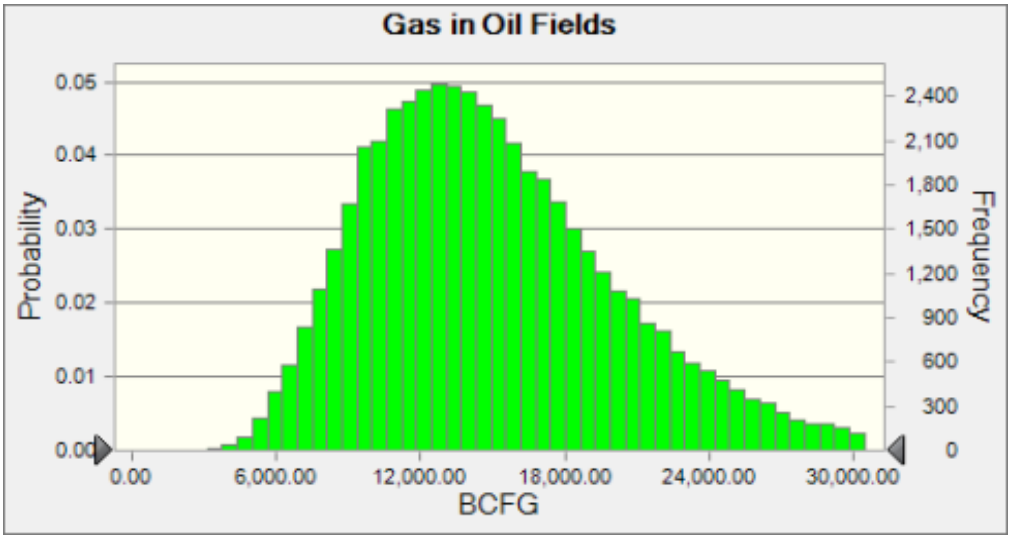
Statistics:	Forecast values
Trials	50,000
Mean	10,750.10
Median	10,255.09
Mode	---
Standard Deviation	3,634.55
Variance	13,209,929.92
Skewness	0.7929
Kurtosis	3.87
Coefficient of Variability	0.3381
Minimum	56.70
Maximum	29,893.63
Range Width	29,836.93
Mean Standard Error	16.25

Forecast: Oil in Oil Fields (continued)

Percentiles:	MMBO
100%	56.70
95%	5,700.62
90%	6,533.53
85%	7,138.32
80%	7,658.80
75%	8,134.73
70%	8,577.87
65%	8,996.57
60%	9,425.87
55%	9,832.58
50%	10,254.99
45%	10,698.52
40%	11,170.43
35%	11,665.53
30%	12,218.31
25%	12,845.49
20%	13,592.39
15%	14,442.12
10%	15,594.39
5%	17,455.06
0%	29,893.63

Forecast: Gas in Oil Fields

Summary:
Entire range is from 60.52 to 53,524.67
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 24.44



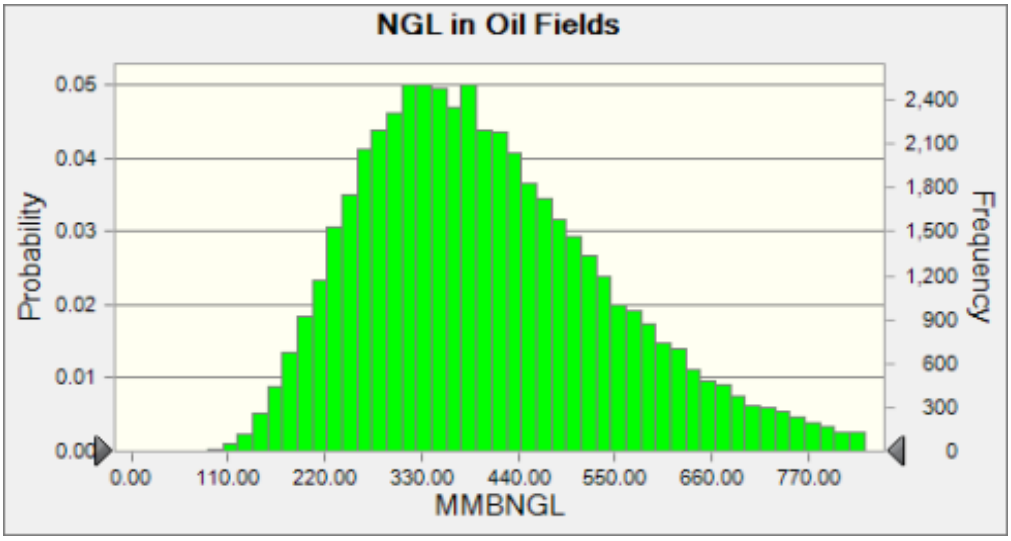
Statistics:	Forecast values
Trials	50,000
Mean	15,122.60
Median	14,325.28
Mode	---
Standard Deviation	5,464.75
Variance	29,863,479.82
Skewness	0.8636
Kurtosis	4.04
Coefficient of Variability	0.3614
Minimum	60.52
Maximum	53,524.67
Range Width	53,464.14
Mean Standard Error	24.44

Forecast: Gas in Oil Fields (continued)

Percentiles:	BCFG
100%	60.52
95%	7,686.26
90%	8,878.43
85%	9,715.70
80%	10,468.93
75%	11,145.75
70%	11,802.63
65%	12,435.99
60%	13,058.95
55%	13,685.64
50%	14,325.11
45%	14,979.75
40%	15,682.95
35%	16,437.87
30%	17,285.61
25%	18,199.18
20%	19,327.63
15%	20,682.44
10%	22,454.70
5%	25,323.20
0%	53,524.67

Forecast: NGL in Oil Fields

Summary:
Entire range is from 1.59 to 1,900.45
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 0.68



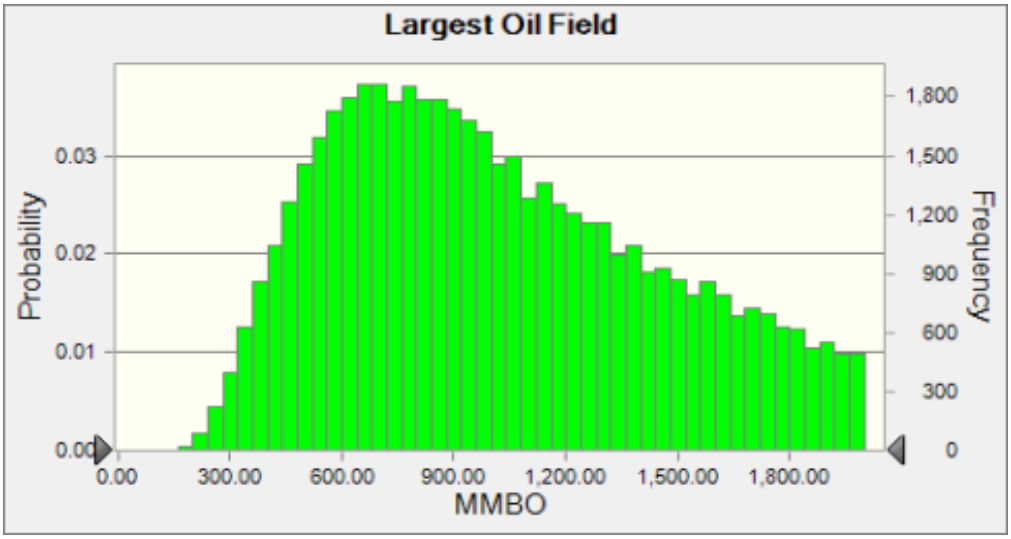
Statistics:	Forecast values
Trials	50,000
Mean	409.18
Median	386.01
Mode	---
Standard Deviation	151.52
Variance	22,957.25
Skewness	0.9277
Kurtosis	4.40
Coefficient of Variability	0.3703
Minimum	1.59
Maximum	1,900.45
Range Width	1,898.86
Mean Standard Error	0.68

Forecast: NGL in Oil Fields (continued)

Percentiles:	MMBNGL
100%	1.59
95%	205.10
90%	237.02
85%	260.58
80%	280.72
75%	299.73
70%	317.19
65%	333.83
60%	351.05
55%	368.65
50%	386.01
45%	404.18
40%	423.87
35%	444.69
30%	468.47
25%	494.51
20%	524.66
15%	562.57
10%	611.71
5%	693.03
0%	1,900.45

Forecast: Largest Oil Field

Summary:
Entire range is from 40.93 to 1,999.64
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 1.92



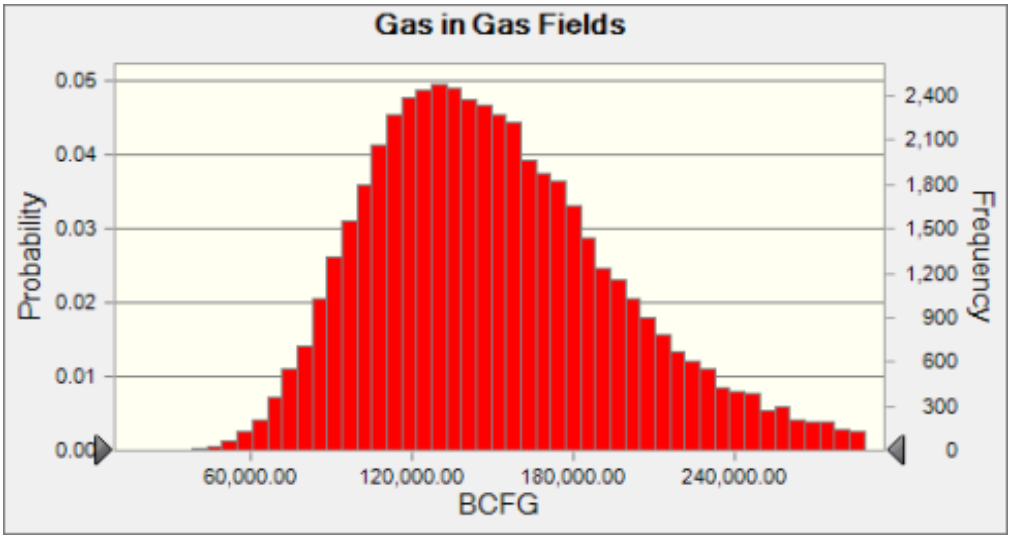
Statistics:	Forecast values
Trials	50,000
Mean	1,015.57
Median	949.47
Mode	---
Standard Deviation	429.12
Variance	184,143.02
Skewness	0.4173
Kurtosis	2.26
Coefficient of Variability	0.4225
Minimum	40.93
Maximum	1,999.64
Range Width	1,958.71
Mean Standard Error	1.92

Forecast: Largest Oil Field (continued)

Percentiles:	MMBO
100%	40.93
95%	413.24
90%	495.15
85%	559.13
80%	616.67
75%	670.94
70%	724.81
65%	781.03
60%	834.79
55%	891.24
50%	949.45
45%	1,013.82
40%	1,080.27
35%	1,156.19
30%	1,236.40
25%	1,323.51
20%	1,423.98
15%	1,537.41
10%	1,662.47
5%	1,809.28
0%	1,999.64

Forecast: Gas in Gas Fields

Summary:
Entire range is from 218.09 to 421,085.14
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 216.85



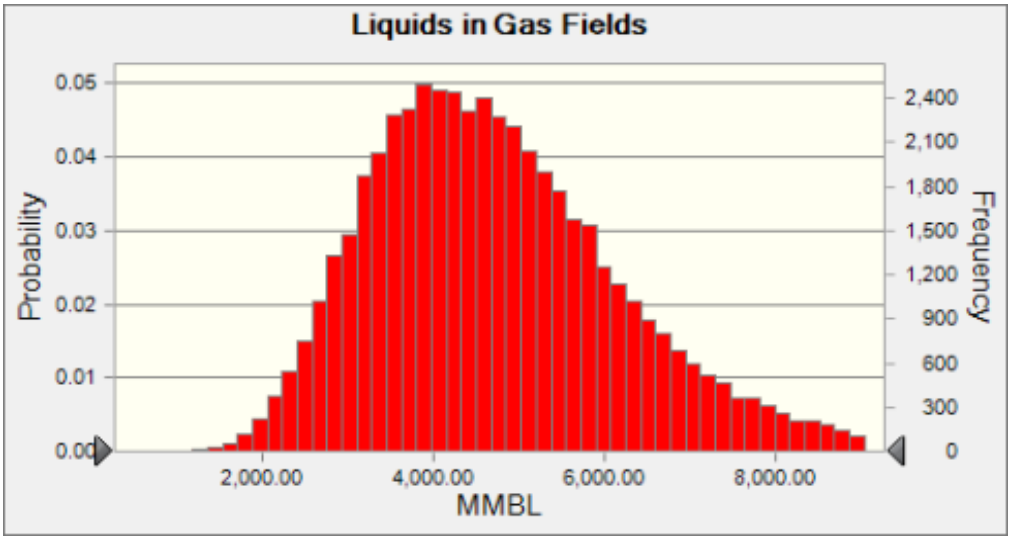
Statistics:	Forecast values
Trials	50,000
Mean	152,096.32
Median	145,683.26
Mode	---
Standard Deviation	48,488.77
Variance	2,351,160,814.66
Skewness	0.8153
Kurtosis	3.92
Coefficient of Variability	0.3188
Minimum	218.09
Maximum	421,085.14
Range Width	420,867.05
Mean Standard Error	216.85

Forecast: Gas in Gas Fields (continued)

Percentiles:	BCFG
100%	218.09
95%	85,291.39
90%	96,219.21
85%	104,280.10
80%	110,975.80
75%	117,136.46
70%	122,842.98
65%	128,463.98
60%	134,071.48
55%	139,810.44
50%	145,682.38
45%	151,643.78
40%	157,695.45
35%	164,392.58
30%	171,790.47
25%	179,580.06
20%	188,975.22
15%	200,884.80
10%	216,504.16
5%	242,886.67
0%	421,085.14

Forecast: Liquids in Gas Fields

Summary:
Entire range is from 6.76 to 13,018.91
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 6.83



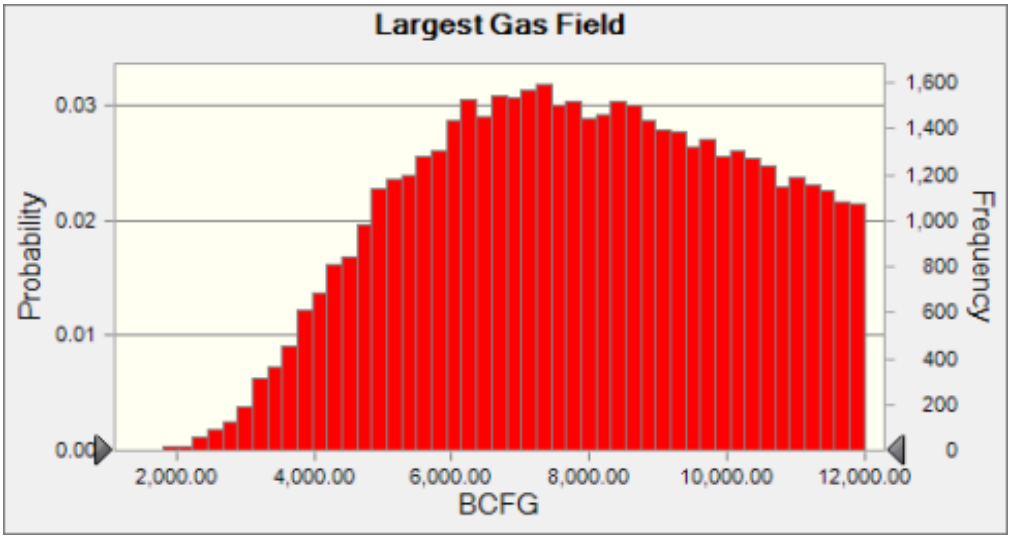
Statistics:	Forecast values
Trials	50,000
Mean	4,767.00
Median	4,569.18
Mode	---
Standard Deviation	1,526.69
Variance	2,330,774.38
Skewness	0.8153
Kurtosis	3.93
Coefficient of Variability	0.3203
Minimum	6.76
Maximum	13,018.91
Range Width	13,012.15
Mean Standard Error	6.83

Forecast: Liquids in Gas Fields (continued)

Percentiles:	MMBL
100%	6.76
95%	2,666.52
90%	3,004.57
85%	3,259.50
80%	3,473.88
75%	3,664.50
70%	3,843.62
65%	4,026.46
60%	4,199.93
55%	4,380.73
50%	4,569.16
45%	4,753.52
40%	4,946.77
35%	5,156.38
30%	5,381.55
25%	5,636.00
20%	5,922.68
15%	6,293.96
10%	6,791.99
5%	7,618.34
0%	13,018.91

Forecast: Largest Gas Field

Summary:
Entire range is from 168.82 to 11,999.84
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 10.33



Statistics:	Forecast values
Trials	50,000
Mean	7,836.75
Median	7,827.30
Mode	---
Standard Deviation	2,310.21
Variance	5,337,055.63
Skewness	-0.0816
Kurtosis	2.09
Coefficient of Variability	0.2948
Minimum	168.82
Maximum	11,999.84
Range Width	11,831.01
Mean Standard Error	10.33

Forecast: Largest Gas Field (continued)

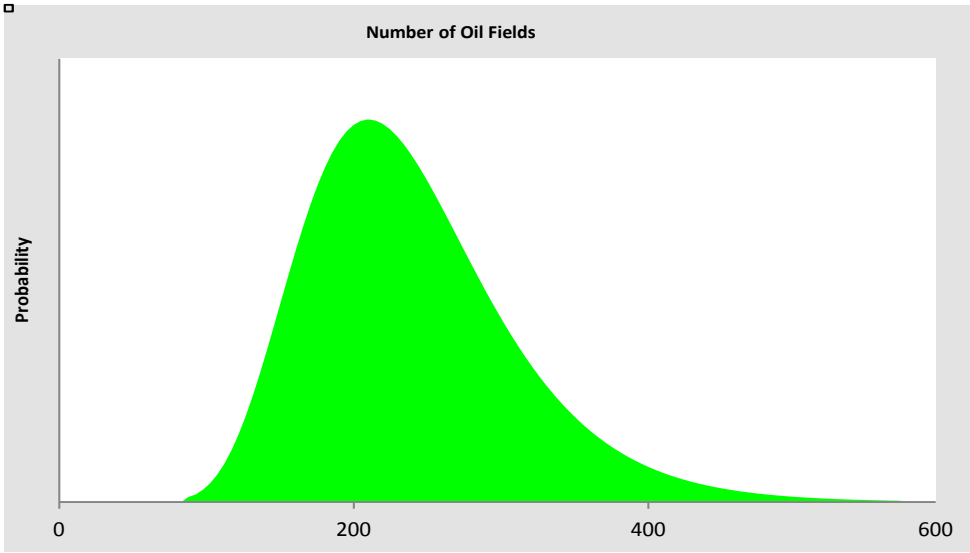
Percentiles:	BCFG
100%	168.82
95%	4,055.70
90%	4,717.01
85%	5,207.91
80%	5,649.76
75%	6,054.78
70%	6,417.03
65%	6,779.27
60%	7,127.51
55%	7,467.90
50%	7,827.13
45%	8,198.50
40%	8,563.02
35%	8,934.64
30%	9,317.51
25%	9,726.88
20%	10,140.02
15%	10,566.90
10%	11,030.34
5%	11,497.36
0%	11,999.84

End of Forecasts

Assumptions

Assumption: Number of Oil Fields

Lognormal distribution with parameters:		Shifted parameters
Location	0.00	1
Mean	239.35	240.35
Standard Deviation	72.78	72.78
Selected range is from -Infinity to 574.00		1.00 to 575.00



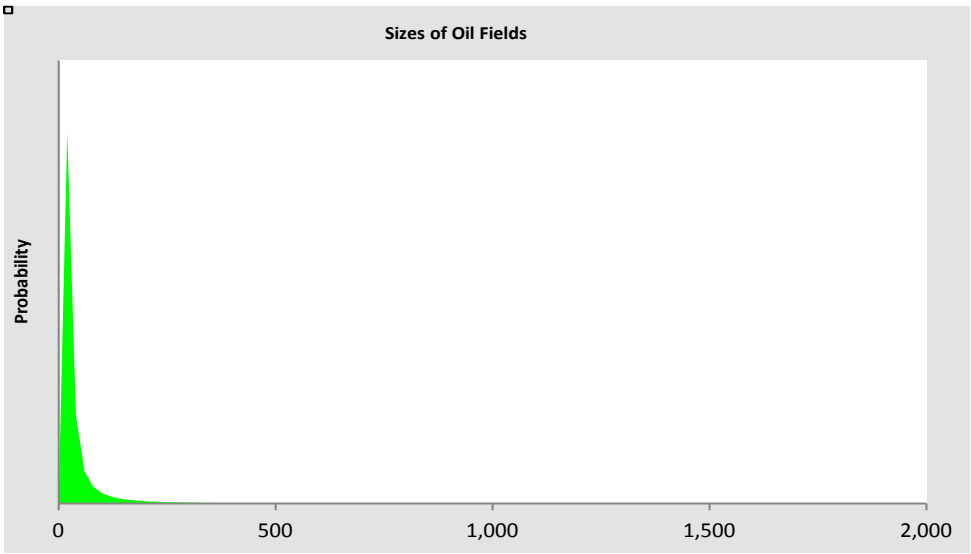
Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	239.90	239.97
Median	229.77	229.91
Mode	---	---
Standard Deviation	72.01	71.77
Variance	5,185.88	5,150.90
Skewness	0.8386	0.8328
Kurtosis	3.96	3.95
Coefficient of Variability	0.3002	0.2991
Minimum	65.00	1.00
Maximum	574.47	575.00
Range Width	509.47	574.00
Mean Standard Error	0.32	---

Assumption: Number of Oil Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	65.00	1.00
95%	141.22	141.39
90%	157.10	157.40
85%	169.12	169.23
80%	178.95	179.26
75%	188.11	188.34
70%	196.84	196.88
65%	205.02	205.15
60%	213.19	213.32
55%	221.49	221.53
50%	229.77	229.91
45%	238.32	238.62
40%	247.58	247.81
35%	257.47	257.67
30%	268.28	268.49
25%	280.46	280.67
20%	294.62	294.88
15%	312.65	312.33
10%	336.43	335.73
5%	373.49	373.47
0%	574.47	575.00

Assumption: Sizes of Oil Fields

Lognormal distribution with parameters:		Shifted parameters
Location	0.00	5
Mean	43.43	48.43
Standard Deviation	183.58	183.58
Selected range is from -Infinity to 1,995.00		5.00 to 2,000.00



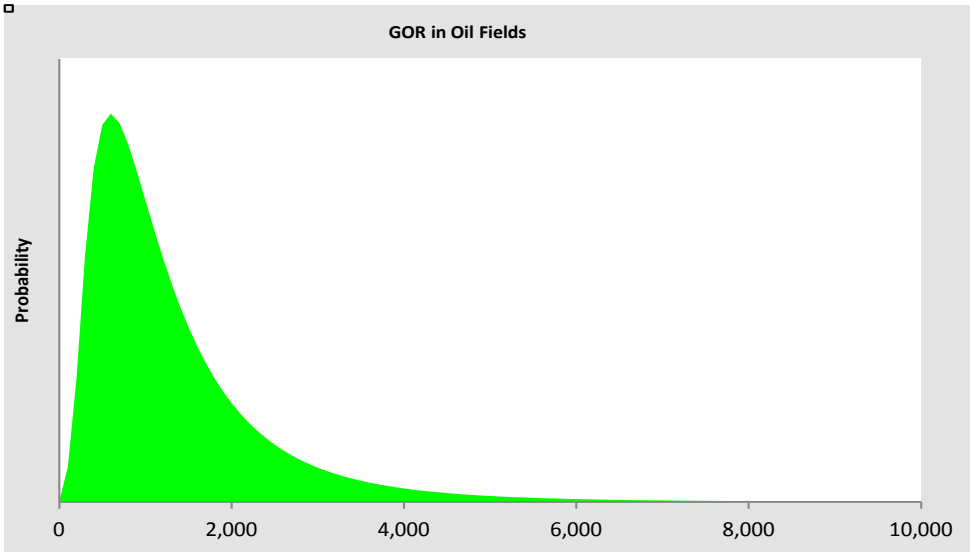
Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	45.26	45.17
Median	15.04	14.98
Mode	---	---
Standard Deviation	109.01	107.20
Variance	11,882.22	11,491.96
Skewness	7.82	7.80
Kurtosis	87.64	88.40
Coefficient of Variability	2.41	2.37
Minimum	5.01	5.00
Maximum	1,997.76	2,000.00
Range Width	1,992.76	1,995.00
Mean Standard Error	0.49	---

Assumption: Sizes of Oil Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	5.01	5.00
95%	5.59	5.60
90%	6.12	6.11
85%	6.70	6.69
80%	7.40	7.36
75%	8.20	8.14
70%	9.12	9.06
65%	10.24	10.16
60%	11.56	11.47
55%	13.12	13.05
50%	15.04	14.98
45%	17.42	17.37
40%	20.38	20.40
35%	24.51	24.30
30%	29.88	29.48
25%	37.12	36.64
20%	47.72	47.10
15%	64.36	63.71
10%	94.41	94.14
5%	171.18	170.00
0%	1,997.76	2,000.00

Assumption: GOR in Oil Fields

Lognormal distribution with parameters:		Shifted parameters
Location	0.00	100
Mean	1,316.82	1,416.82
Standard Deviation	1,128.19	1,128.19
Selected range is from -Infinity to 9,900.00		100.00 to 10,000.00



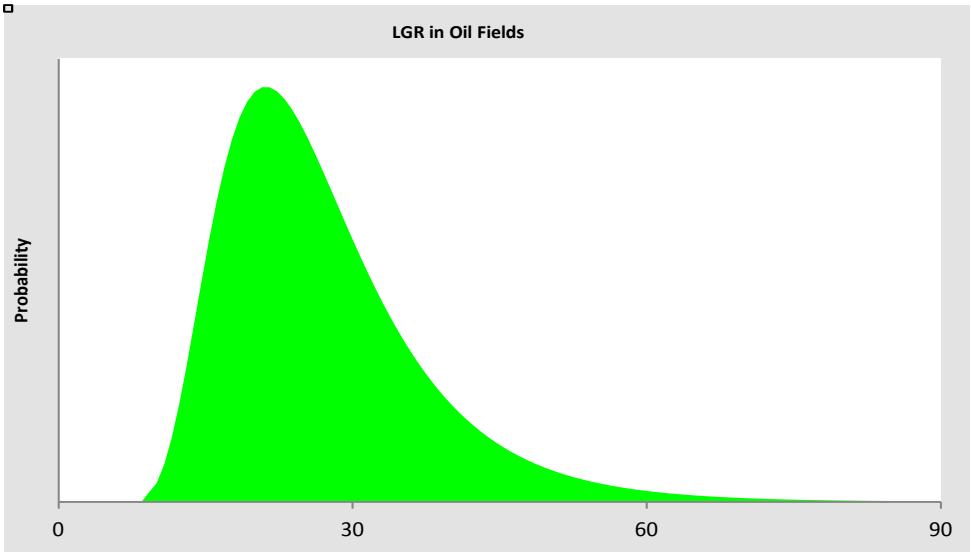
Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	1,410.23	1,405.70
Median	1,101.52	1,099.07
Mode	---	---
Standard Deviation	1,072.19	1,068.74
Variance	1,149,593.34	1,142,204.98
Skewness	2.37	2.38
Kurtosis	11.45	11.58
Coefficient of Variability	0.7603	0.7603
Minimum	140.82	100.00
Maximum	9,992.87	10,000.00
Range Width	9,852.05	9,900.00
Mean Standard Error	4.79	---

Assumption: GOR in Oil Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	140.82	100.00
95%	393.62	395.02
90%	486.32	486.26
85%	563.41	563.28
80%	633.37	635.29
75%	705.83	705.92
70%	777.05	777.26
65%	852.91	850.83
60%	929.41	928.01
55%	1,012.75	1,010.21
50%	1,101.51	1,099.07
45%	1,200.23	1,196.58
40%	1,311.88	1,305.40
35%	1,441.87	1,429.20
30%	1,581.68	1,573.40
25%	1,751.84	1,746.52
20%	1,973.96	1,963.20
15%	2,262.98	2,251.68
10%	2,683.54	2,678.00
5%	3,497.84	3,465.45
0%	9,992.87	10,000.00

Assumption: LGR in Oil Fields

Lognormal distribution with parameters:		Shifted parameters
Location	0.00	5
Mean	22.12	27.12
Standard Deviation	10.44	10.44
Selected range is from -Infinity to 80.00		5.00 to 85.00



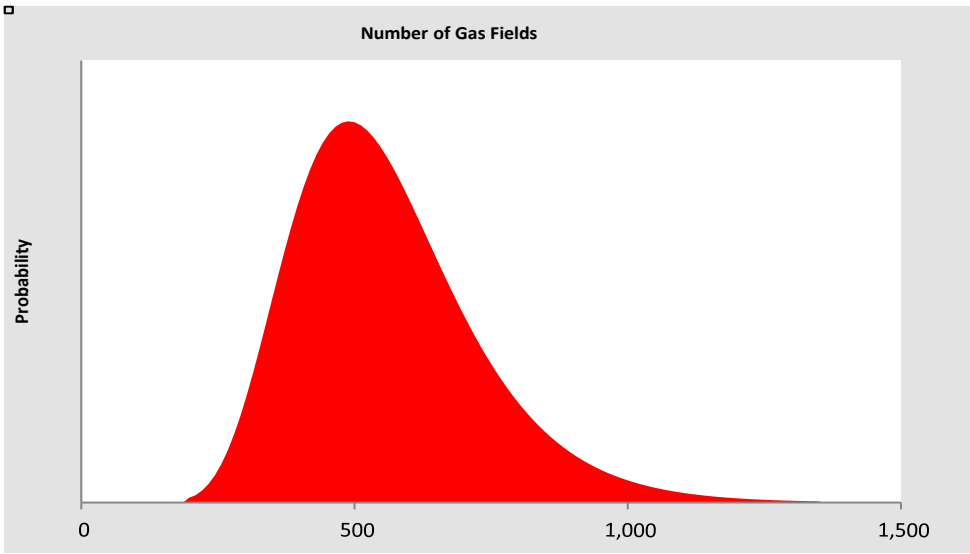
Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	27.05	27.05
Median	24.94	24.99
Mode	---	---
Standard Deviation	10.19	10.21
Variance	103.81	104.25
Skewness	1.29	1.31
Kurtosis	5.41	5.52
Coefficient of Variability	0.3767	0.3775
Minimum	8.28	5.00
Maximum	84.81	85.00
Range Width	76.53	80.00
Mean Standard Error	0.05	---

Assumption: LGR in Oil Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	8.28	5.00
95%	14.61	14.56
90%	16.32	16.25
85%	17.58	17.56
80%	18.71	18.71
75%	19.76	19.77
70%	20.77	20.80
65%	21.77	21.82
60%	22.79	22.84
55%	23.82	23.89
50%	24.94	24.99
45%	26.14	26.15
40%	27.43	27.39
35%	28.79	28.76
30%	30.30	30.28
25%	32.08	32.04
20%	34.16	34.14
15%	36.84	36.79
10%	40.53	40.46
5%	46.62	46.66
0%	84.81	85.00

Assumption: Number of Gas Fields

Lognormal distribution with parameters:		Shifted parameters
Location	0.00	1
Mean	563.29	564.29
Standard Deviation	170.99	170.99
Selected range is from -Infinity to 1,349.00		1.00 to 1,350.00



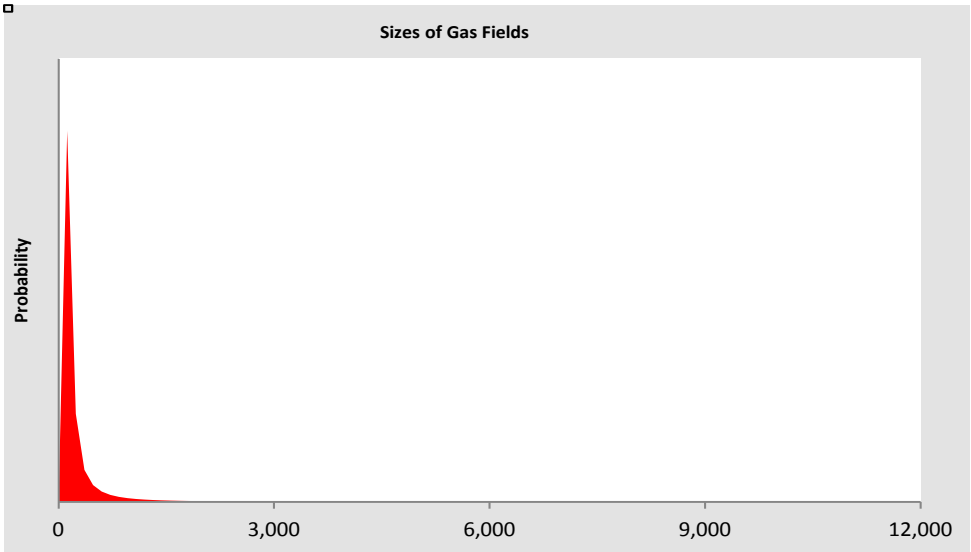
Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	565.63	563.38
Median	541.59	539.80
Mode	---	---
Standard Deviation	170.72	168.62
Variance	29,143.87	28,431.26
Skewness	0.8435	0.8314
Kurtosis	3.96	3.95
Coefficient of Variability	0.3018	0.2993
Minimum	157.33	1.00
Maximum	1,348.33	1,350.00
Range Width	1,191.00	1,349.00
Mean Standard Error	0.76	---

Assumption: Number of Gas Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	157.33	1.00
95%	332.07	331.70
90%	369.13	369.36
85%	397.94	397.16
80%	421.66	420.74
75%	442.45	442.08
70%	462.52	462.17
65%	481.97	481.60
60%	501.80	500.79
55%	521.57	520.09
50%	541.59	539.80
45%	562.51	560.26
40%	584.60	581.84
35%	607.02	605.01
30%	632.58	630.43
25%	662.04	659.04
20%	695.41	692.41
15%	736.75	733.41
10%	793.54	788.36
5%	883.76	876.98
0%	1,348.33	1,350.00

Assumption: Sizes of Gas Fields

Lognormal distribution with parameters:		Shifted parameters
Location	0.00	30
Mean	260.60	290.6
Standard Deviation	1,101.48	1,101.48
Selected range is from -Infinity to 11,970.00		30.00 to 12,000.00



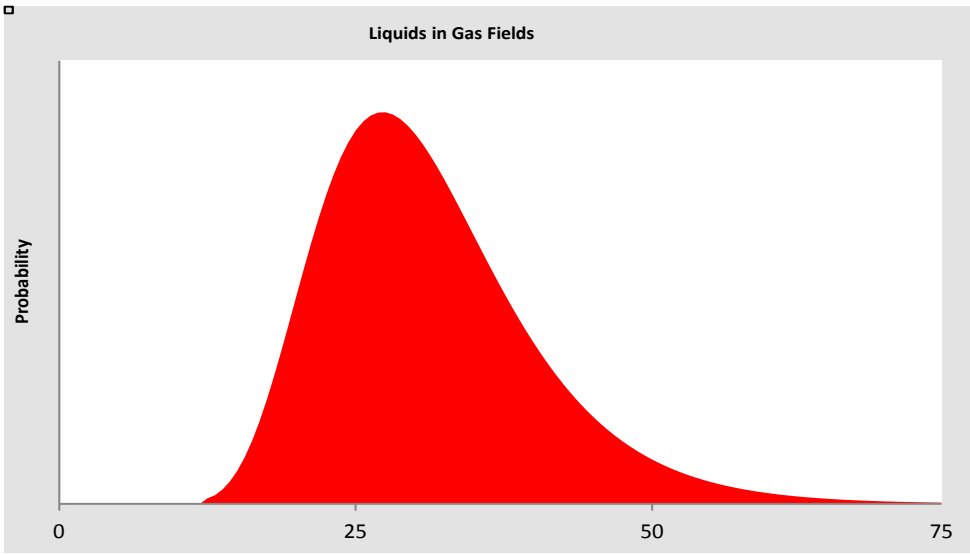
Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	271.46	271.04
Median	90.53	89.87
Mode	---	---
Standard Deviation	653.11	643.20
Variance	426,557.59	413,710.64
Skewness	7.83	7.80
Kurtosis	89.43	88.40
Coefficient of Variability	2.41	2.37
Minimum	30.07	30.00
Maximum	11,977.77	12,000.00
Range Width	11,947.70	11,970.00
Mean Standard Error	2.92	---

Assumption: Sizes of Gas Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	30.07	30.00
95%	33.56	33.58
90%	36.68	36.67
85%	40.29	40.14
80%	44.49	44.16
75%	49.22	48.86
70%	54.75	54.39
65%	61.38	60.95
60%	69.04	68.80
55%	78.85	78.28
50%	90.53	89.87
45%	104.55	104.24
40%	122.34	122.38
35%	146.02	145.78
30%	176.63	176.88
25%	218.71	219.86
20%	282.28	282.62
15%	385.50	382.27
10%	573.54	564.84
5%	1,023.85	1,020.00
0%	11,977.77	12,000.00

Assumption: Liquids in Gas Fields

Lognormal distribution with parameters:		Shifted parameters
Location	0.00	3
Mean	28.40	31.4
Standard Deviation	9.25	9.25
Selected range is from -Infinity to 72.00		3.00 to 75.00



Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	31.36	31.34
Median	30.02	29.99
Mode	---	---
Standard Deviation	9.10	9.11
Variance	82.87	82.96
Skewness	0.8861	0.8936
Kurtosis	4.11	4.11
Coefficient of Variability	0.2903	0.2906
Minimum	9.29	3.00
Maximum	74.95	75.00
Range Width	65.67	72.00
Mean Standard Error	0.04	---

Assumption: Liquids in Gas Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	9.29	3.00
95%	19.00	19.02
90%	21.00	20.97
85%	22.48	22.43
80%	23.69	23.67
75%	24.83	24.79
70%	25.86	25.85
65%	26.90	26.88
60%	27.94	27.91
55%	28.94	28.93
50%	30.02	29.99
45%	31.10	31.09
40%	32.24	32.25
35%	33.48	33.50
30%	34.89	34.87
25%	36.51	36.42
20%	38.31	38.24
15%	40.50	40.47
10%	43.51	43.49
5%	48.28	48.38
0%	74.95	75.00

End of Assumptions

Oil field simulation:
Simulation started on 9/21/2011 at 4:47 PM
Simulation stopped on 9/21/2011 at 4:57 PM

Gas field simulation:
Simulation started on 9/21/2011 at 3:53 PM
Simulation stopped on 9/21/2011 at 4:08 PM