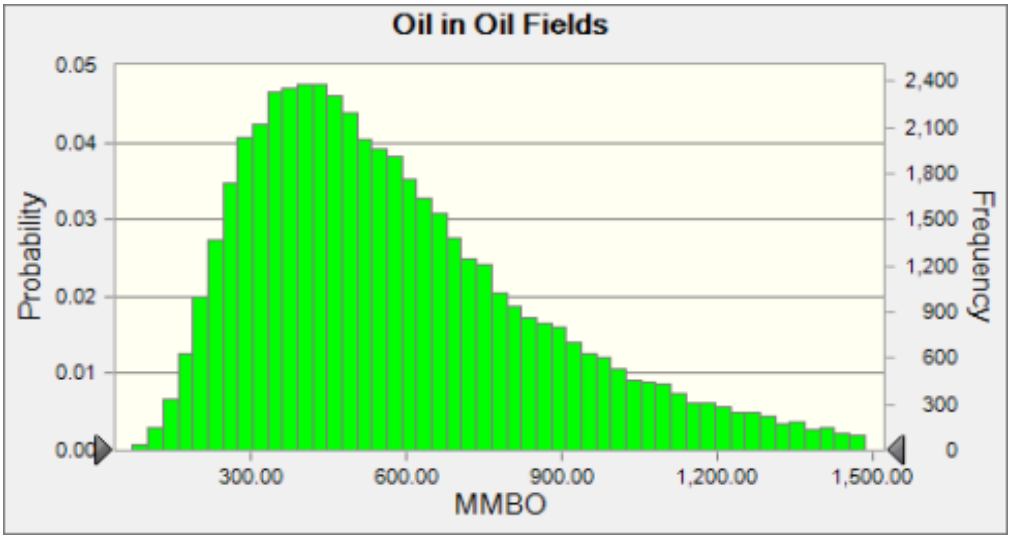
20200101
Central Arabia Paleozoic Reservoirs
Monte Carlo Results

Forecast: Oil in Oil Fields

Summary:
Entire range is from 73.18 to 2,867.93
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 1.41



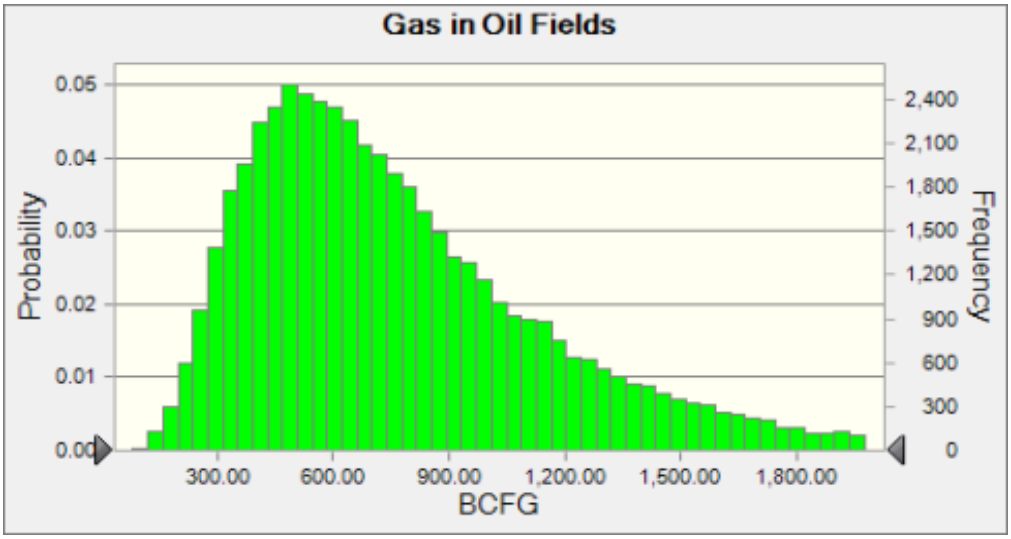
Statistics:	Forecast values
Trials	50,000
Mean	598.79
Median	527.78
Mode	---
Standard Deviation	316.02
Variance	99,866.71
Skewness	1.35
Kurtosis	5.57
Coefficient of Variability	0.5278
Minimum	73.18
Maximum	2,867.93
Range Width	2,794.75
Mean Standard Error	1.41

Forecast: Oil in Oil Fields (continued)

Percentiles:	MMBO
100%	73.18
95%	224.85
90%	270.49
85%	306.10
80%	339.71
75%	370.14
70%	401.34
65%	430.85
60%	461.20
55%	493.20
50%	527.78
45%	565.03
40%	603.85
35%	645.59
30%	693.22
25%	751.43
20%	821.67
15%	907.90
10%	1,026.36
5%	1,218.21
0%	2,867.93

Forecast: Gas in Oil Fields

Summary:
Entire range is from 81.86 to 4,306.52
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 1.90



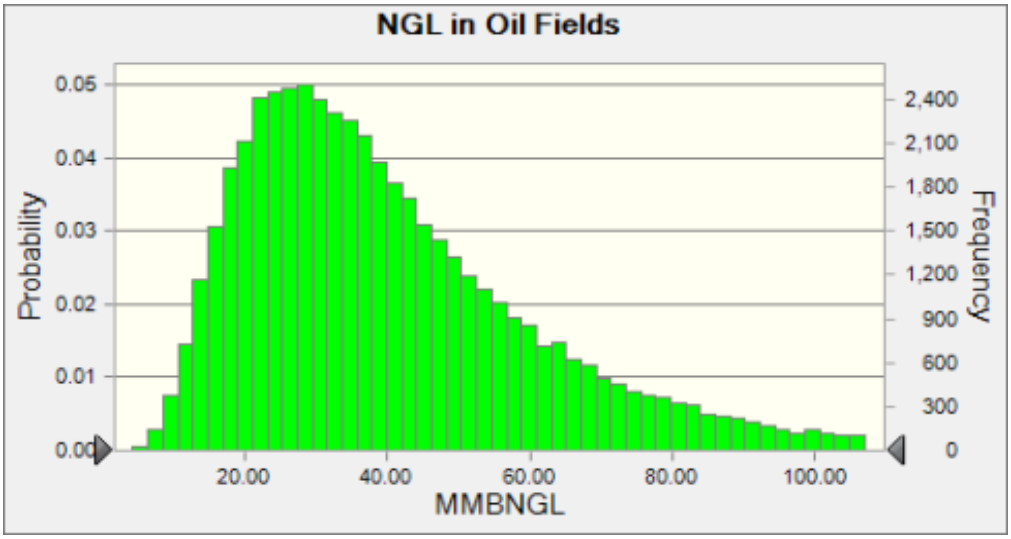
Statistics:	Forecast values
Trials	50,000
Mean	783.46
Median	686.25
Mode	---
Standard Deviation	425.00
Variance	180,623.84
Skewness	1.47
Kurtosis	6.32
Coefficient of Variability	0.5425
Minimum	81.86
Maximum	4,306.52
Range Width	4,224.66
Mean Standard Error	1.90

Forecast: Gas in Oil Fields (continued)

Percentiles:	BCFG
100%	81.86
95%	290.33
90%	348.91
85%	397.30
80%	440.60
75%	480.15
70%	518.88
65%	558.60
60%	599.49
55%	641.72
50%	686.25
45%	733.82
40%	784.17
35%	841.03
30%	905.35
25%	981.74
20%	1,076.15
15%	1,187.59
10%	1,349.34
5%	1,609.95
0%	4,306.52

Forecast: NGL in Oil Fields

Summary:
Entire range is from 4.28 to 259.76
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 0.10



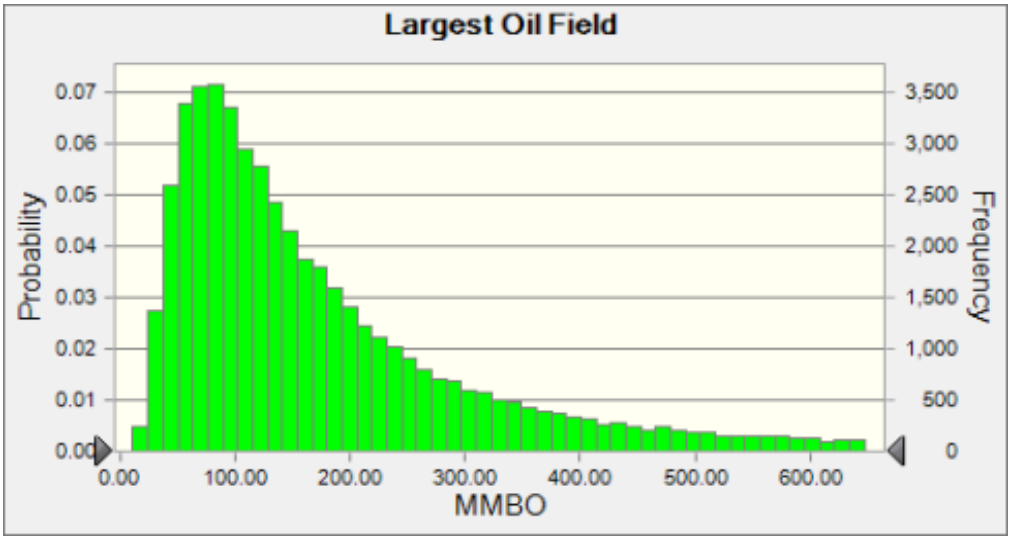
Statistics:	Forecast values
Trials	50,000
Mean	41.34
Median	35.88
Mode	---
Standard Deviation	23.43
Variance	548.89
Skewness	1.70
Kurtosis	7.85
Coefficient of Variability	0.5668
Minimum	4.28
Maximum	259.76
Range Width	255.48
Mean Standard Error	0.10

Forecast: NGL in Oil Fields (continued)

Percentiles:	MMBNGL
100%	4.28
95%	14.86
90%	18.01
85%	20.55
80%	22.79
75%	24.95
70%	27.03
65%	29.15
60%	31.28
55%	33.57
50%	35.88
45%	38.36
40%	41.14
35%	44.14
30%	47.60
25%	51.65
20%	56.53
15%	62.84
10%	71.41
5%	86.25
0%	259.76

Forecast: Largest Oil Field

Summary:
Entire range is from 10.78 to 999.75
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 0.73



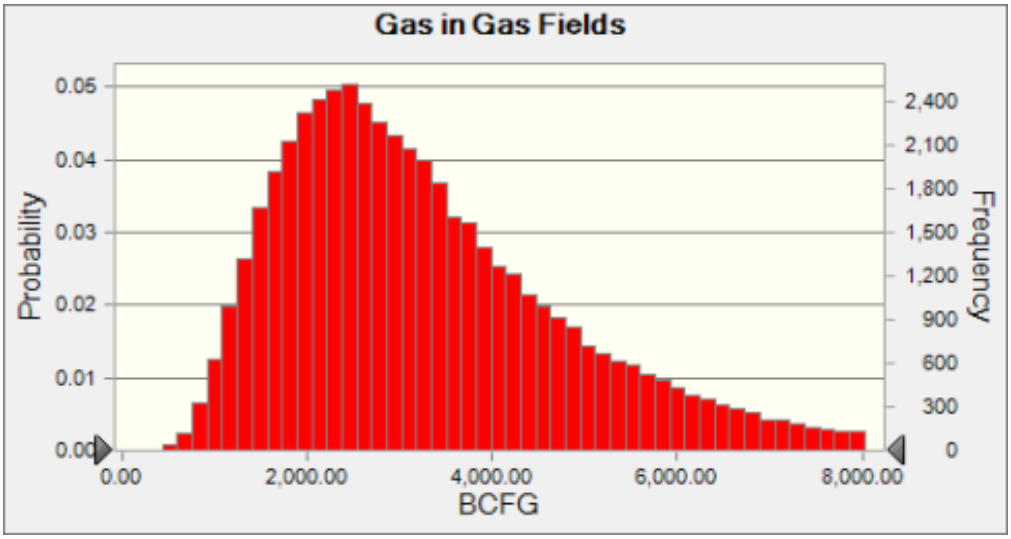
Statistics:	Forecast values
Trials	50,000
Mean	188.52
Median	134.07
Mode	---
Standard Deviation	163.80
Variance	26,830.74
Skewness	2.05
Kurtosis	7.78
Coefficient of Variability	0.8689
Minimum	10.78
Maximum	999.75
Range Width	988.97
Mean Standard Error	0.73

Forecast: Largest Oil Field (continued)

Percentiles:	MMBO
100%	10.78
95%	41.81
90%	53.11
85%	62.48
80%	71.77
75%	80.73
70%	89.78
65%	99.63
60%	110.23
55%	121.49
50%	134.06
45%	148.65
40%	165.36
35%	183.60
30%	205.96
25%	234.09
20%	270.09
15%	321.02
10%	397.95
5%	544.01
0%	999.75

Forecast: Gas in Gas Fields

Summary:
Entire range is from 123.93 to 15,490.07
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 7.49



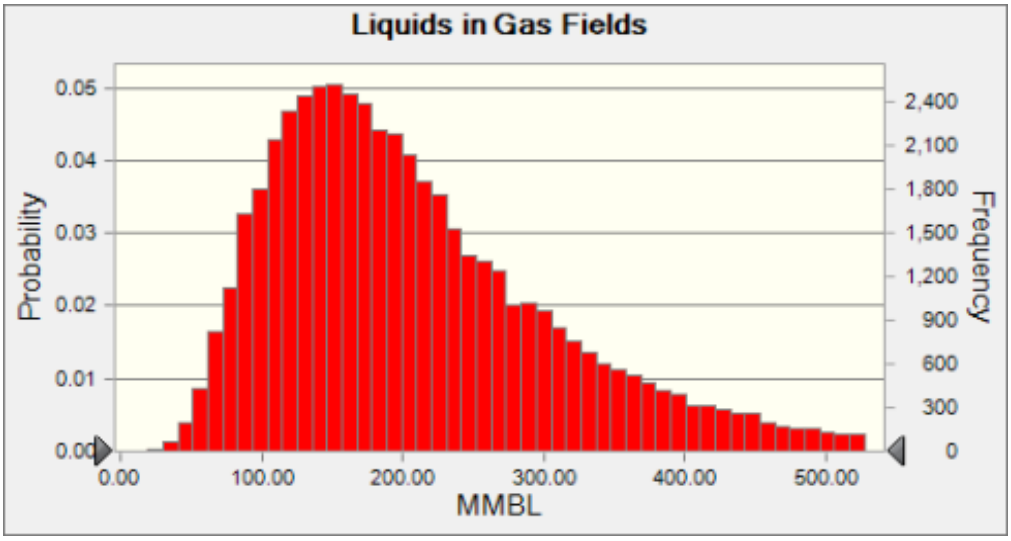
Statistics:	Forecast values
Trials	50,000
Mean	3,335.76
Median	2,976.09
Mode	---
Standard Deviation	1,673.78
Variance	2,801,542.64
Skewness	1.27
Kurtosis	5.28
Coefficient of Variability	0.5018
Minimum	123.93
Maximum	15,490.07
Range Width	15,366.14
Mean Standard Error	7.49

Forecast: Gas in Gas Fields (continued)

Percentiles:	BCFG
100%	123.93
95%	1,308.95
90%	1,567.15
85%	1,776.13
80%	1,959.34
75%	2,130.09
70%	2,294.53
65%	2,456.47
60%	2,618.15
55%	2,794.87
50%	2,976.06
45%	3,169.67
40%	3,371.25
35%	3,603.34
30%	3,862.47
25%	4,173.40
20%	4,531.94
15%	4,986.00
10%	5,612.86
5%	6,599.48
0%	15,490.07

Forecast: Liquids in Gas Fields

Summary:
Entire range is from 8.51 to 1,150.15
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 0.50



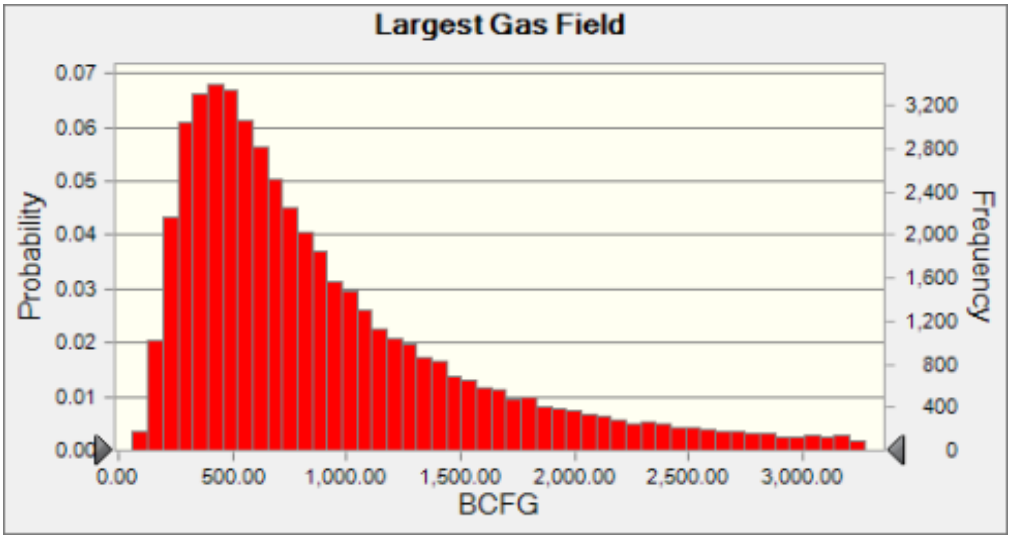
Statistics:	Forecast values
Trials	50,000
Mean	213.18
Median	188.23
Mode	---
Standard Deviation	112.27
Variance	12,603.92
Skewness	1.46
Kurtosis	6.32
Coefficient of Variability	0.5266
Minimum	8.51
Maximum	1,150.15
Range Width	1,141.64
Mean Standard Error	0.50

Forecast: Liquids in Gas Fields (continued)

Percentiles:	MMBL
100%	8.51
95%	81.31
90%	97.80
85%	111.02
80%	122.63
75%	133.57
70%	144.17
65%	154.52
60%	165.33
55%	176.33
50%	188.23
45%	200.33
40%	213.57
35%	228.44
30%	245.74
25%	265.98
20%	290.46
15%	319.87
10%	362.21
5%	431.55
0%	1,150.15

Forecast: Largest Gas Field

Summary:
Entire range is from 62.70 to 4,998.90
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 3.65



Statistics:	Forecast values
Trials	50,000
Mean	988.12
Median	720.52
Mode	---
Standard Deviation	815.31
Variance	664,728.62
Skewness	1.95
Kurtosis	7.26
Coefficient of Variability	0.8251
Minimum	62.70
Maximum	4,998.90
Range Width	4,936.20
Mean Standard Error	3.65

Forecast: Largest Gas Field (continued)

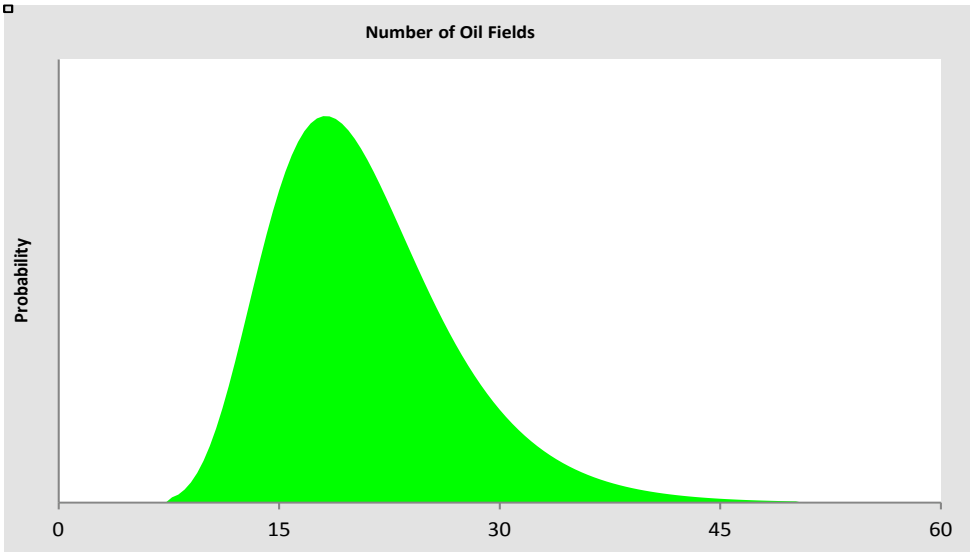
Percentiles:	BCFG
100%	62.70
95%	237.42
90%	295.53
85%	347.03
80%	395.69
75%	444.35
70%	491.66
65%	542.10
60%	597.65
55%	655.43
50%	720.52
45%	793.29
40%	876.33
35%	975.88
30%	1,088.94
25%	1,237.41
20%	1,421.00
15%	1,670.74
10%	2,062.81
5%	2,746.18
0%	4,998.90

End of Forecasts

Assumptions

Assumption: Number of Oil Fields

Lognormal distribution with parameters:		Shifted parameters
Location	0.00	1
Mean	19.91	20.91
Standard Deviation	6.25	6.25
Selected range is from -Infinity to 49.00		1.00 to 50.00



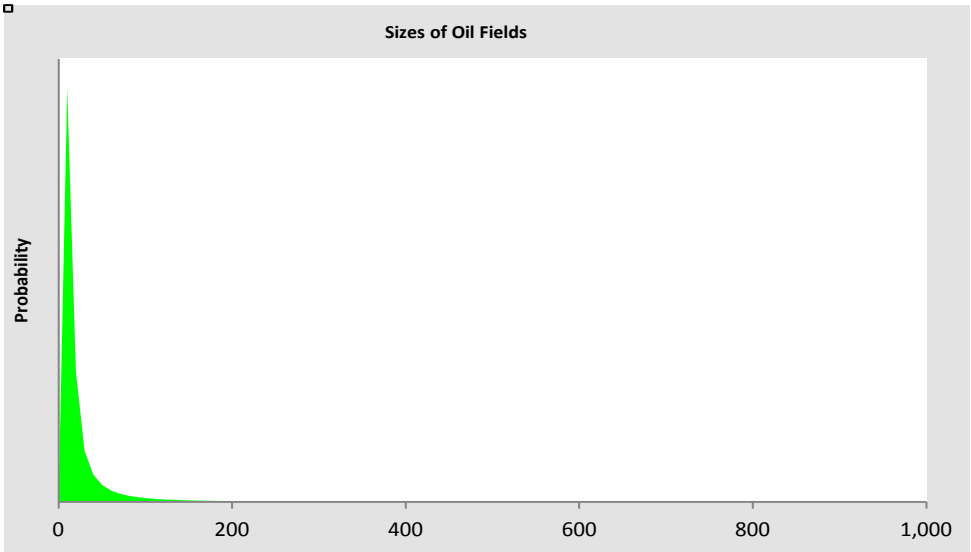
Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	20.88	20.88
Median	19.97	19.99
Mode	---	---
Standard Deviation	6.18	6.16
Variance	38.23	37.98
Skewness	0.8529	0.8607
Kurtosis	3.99	4.03
Coefficient of Variability	0.2962	0.2951
Minimum	4.81	1.00
Maximum	49.79	50.00
Range Width	44.98	49.00
Mean Standard Error	0.03	---

Assumption: Number of Oil Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	4.81	1.00
95%	12.45	12.47
90%	13.79	13.82
85%	14.80	14.82
80%	15.64	15.68
75%	16.41	16.45
70%	17.15	17.17
65%	17.85	17.88
60%	18.55	18.57
55%	19.26	19.28
50%	19.97	19.99
45%	20.72	20.74
40%	21.49	21.52
35%	22.37	22.37
30%	23.30	23.30
25%	24.38	24.35
20%	25.63	25.57
15%	27.16	27.08
10%	29.16	29.10
5%	32.44	32.37
0%	49.79	50.00

Assumption: Sizes of Oil Fields

Lognormal distribution with parameters:		Shifted parameters
Location	0.00	5
Mean	25.34	30.34
Standard Deviation	88.19	88.19
Selected range is from -Infinity to 995.00		5.00 to 1,000.00



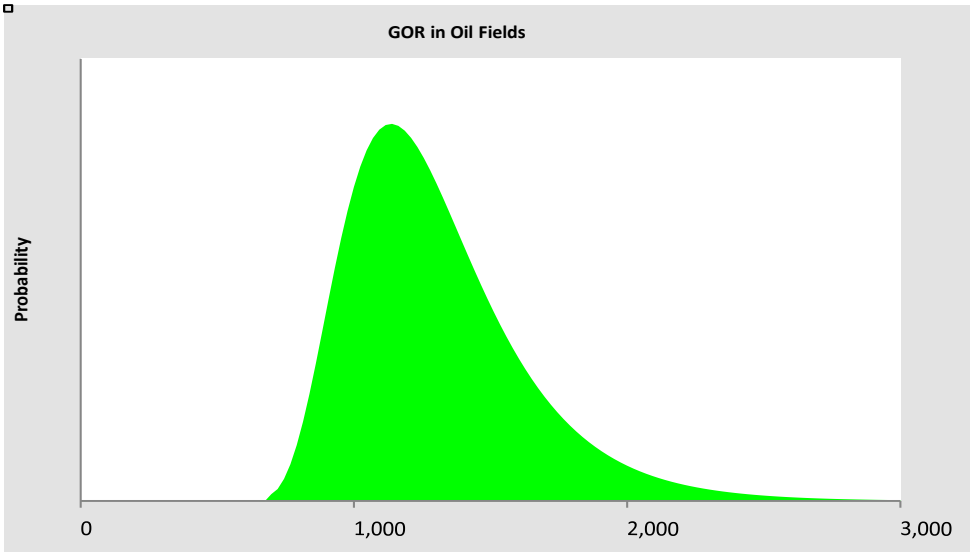
Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	28.32	28.73
Median	11.93	11.99
Mode	---	---
Standard Deviation	56.03	57.05
Variance	3,138.99	3,255.20
Skewness	7.09	7.08
Kurtosis	75.28	74.02
Coefficient of Variability	1.98	1.99
Minimum	5.01	5.00
Maximum	992.92	1,000.00
Range Width	987.91	995.00
Mean Standard Error	0.25	---

Assumption: Sizes of Oil Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	5.01	5.00
95%	5.49	5.50
90%	5.89	5.90
85%	6.33	6.33
80%	6.80	6.81
75%	7.36	7.37
70%	8.01	8.01
65%	8.76	8.77
60%	9.60	9.65
55%	10.66	10.71
50%	11.93	11.99
45%	13.48	13.54
40%	15.43	15.48
35%	17.84	17.95
30%	20.94	21.18
25%	25.28	25.58
20%	31.61	31.88
15%	41.62	41.70
10%	58.67	59.24
5%	100.79	101.53
0%	992.92	1,000.00

Assumption: GOR in Oil Fields

Lognormal distribution with parameters:		Shifted parameters
Location	0.00	500
Mean	809.15	1,309.15
Standard Deviation	327.63	327.63
Selected range is from -Infinity to 2,500.00		500.00 to 3,000.00



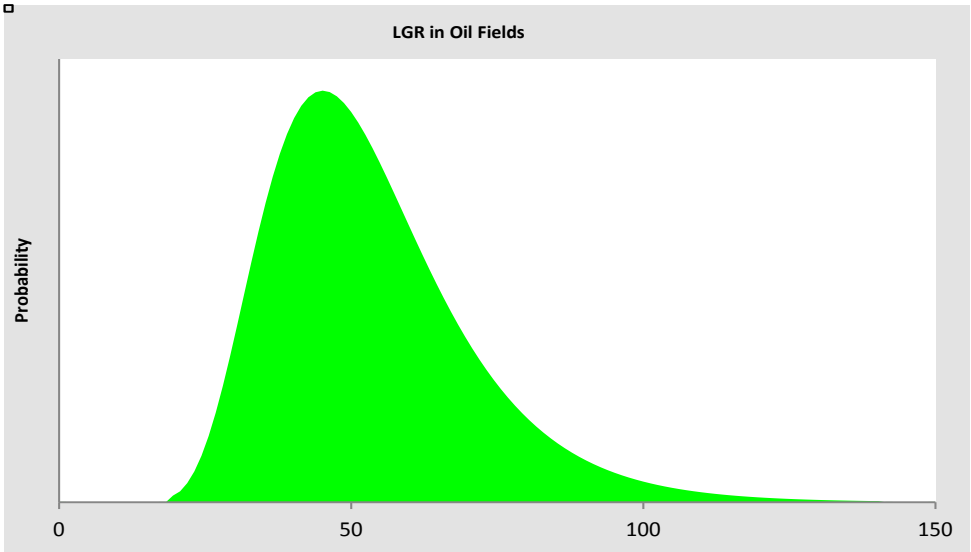
Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	1,307.86	1,307.15
Median	1,248.63	1,249.63
Mode	---	---
Standard Deviation	322.92	321.53
Variance	104,278.46	103,381.10
Skewness	1.14	1.12
Kurtosis	4.85	4.81
Coefficient of Variability	0.2469	0.2460
Minimum	673.03	500.00
Maximum	2,999.97	3,000.00
Range Width	2,326.93	2,500.00
Mean Standard Error	1.44	---

Assumption: GOR in Oil Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	673.03	500.00
95%	897.20	895.04
90%	956.32	955.10
85%	1,001.76	1,000.69
80%	1,041.25	1,040.16
75%	1,076.95	1,076.49
70%	1,111.51	1,111.19
65%	1,145.11	1,145.21
60%	1,178.28	1,179.23
55%	1,212.39	1,213.85
50%	1,248.61	1,249.63
45%	1,285.09	1,287.21
40%	1,326.27	1,327.31
35%	1,369.52	1,370.90
30%	1,418.08	1,419.30
25%	1,474.03	1,474.53
20%	1,543.11	1,539.91
15%	1,625.96	1,621.57
10%	1,737.96	1,733.26
5%	1,924.44	1,918.57
0%	2,999.97	3,000.00

Assumption: LGR in Oil Fields

Lognormal distribution with parameters:		Shifted parameters
Location	0.00	5
Mean	47.94	52.94
Standard Deviation	17.60	17.6
Selected range is from -Infinity to 135.00		5.00 to 140.00



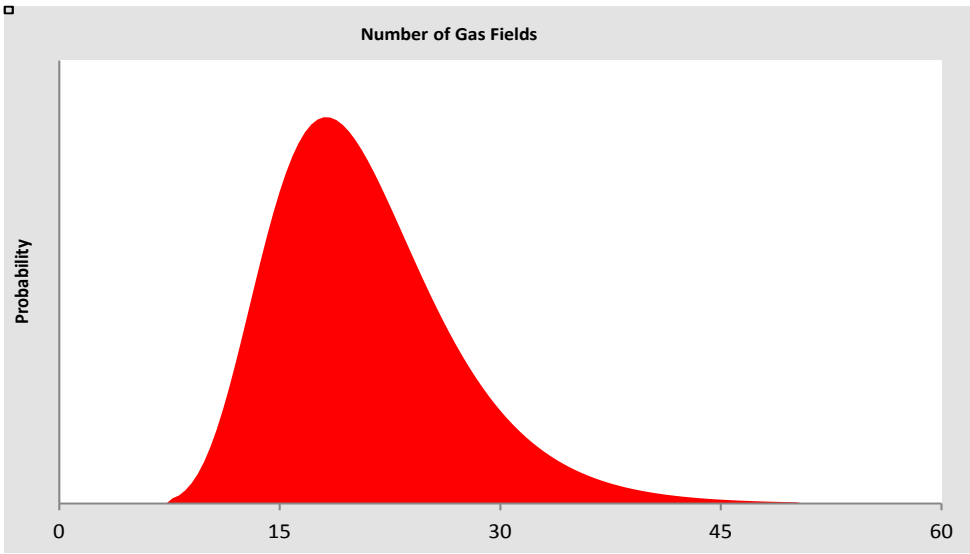
Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	52.64	52.83
Median	49.70	49.98
Mode	---	---
Standard Deviation	17.26	17.30
Variance	297.83	299.35
Skewness	1.02	1.01
Kurtosis	4.46	4.46
Coefficient of Variability	0.3278	0.3275
Minimum	13.13	5.00
Maximum	139.93	140.00
Range Width	126.80	135.00
Mean Standard Error	0.08	---

Assumption: LGR in Oil Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	13.13	5.00
95%	29.93	30.07
90%	33.39	33.53
85%	36.00	36.12
80%	38.23	38.35
75%	40.27	40.40
70%	42.20	42.33
65%	44.05	44.23
60%	45.87	46.11
55%	47.78	48.02
50%	49.70	49.98
45%	51.81	52.03
40%	53.96	54.21
35%	56.25	56.57
30%	58.87	59.18
25%	61.90	62.15
20%	65.42	65.64
15%	69.76	69.97
10%	75.75	75.84
5%	85.15	85.50
0%	139.93	140.00

Assumption: Number of Gas Fields

Lognormal distribution with parameters:		Shifted parameters
Location	0.00	1
Mean	19.91	20.91
Standard Deviation	6.25	6.25
Selected range is from -Infinity to 49.00		1.00 to 50.00



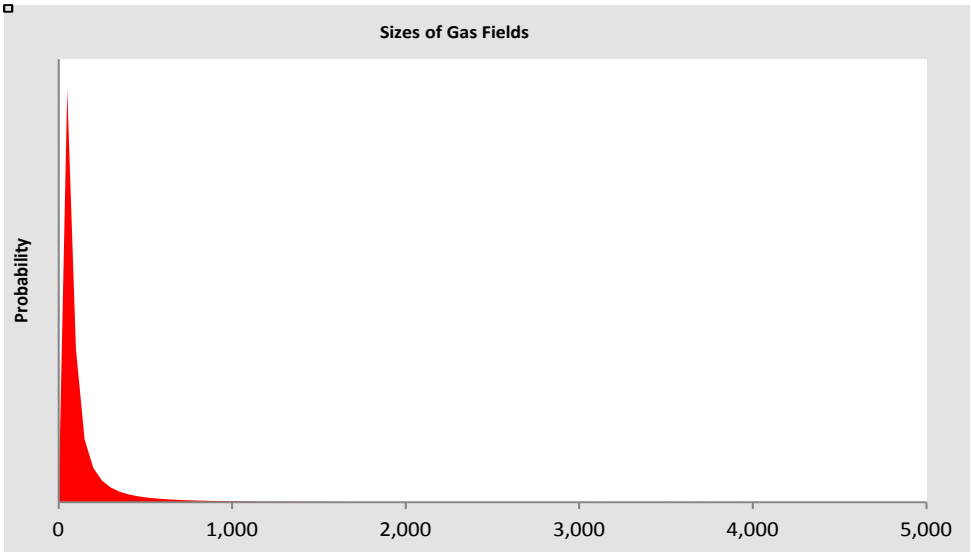
Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	20.85	20.88
Median	19.96	19.99
Mode	---	---
Standard Deviation	6.16	6.16
Variance	38.00	37.98
Skewness	0.8607	0.8607
Kurtosis	4.00	4.03
Coefficient of Variability	0.2956	0.2951
Minimum	6.29	1.00
Maximum	49.98	50.00
Range Width	43.69	49.00
Mean Standard Error	0.03	---

Assumption: Number of Gas Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	6.29	1.00
95%	12.47	12.47
90%	13.79	13.82
85%	14.79	14.82
80%	15.63	15.68
75%	16.42	16.45
70%	17.13	17.17
65%	17.82	17.88
60%	18.53	18.57
55%	19.25	19.28
50%	19.96	19.99
45%	20.72	20.74
40%	21.49	21.52
35%	22.33	22.37
30%	23.27	23.30
25%	24.32	24.35
20%	25.56	25.57
15%	27.06	27.08
10%	29.09	29.10
5%	32.34	32.37
0%	49.98	50.00

Assumption: Sizes of Gas Fields

Lognormal distribution with parameters:		Shifted parameters
Location	0.00	30
Mean	138.51	168.51
Standard Deviation	435.25	435.25
Selected range is from -Infinity to 4,970.00		30.00 to 5,000.00



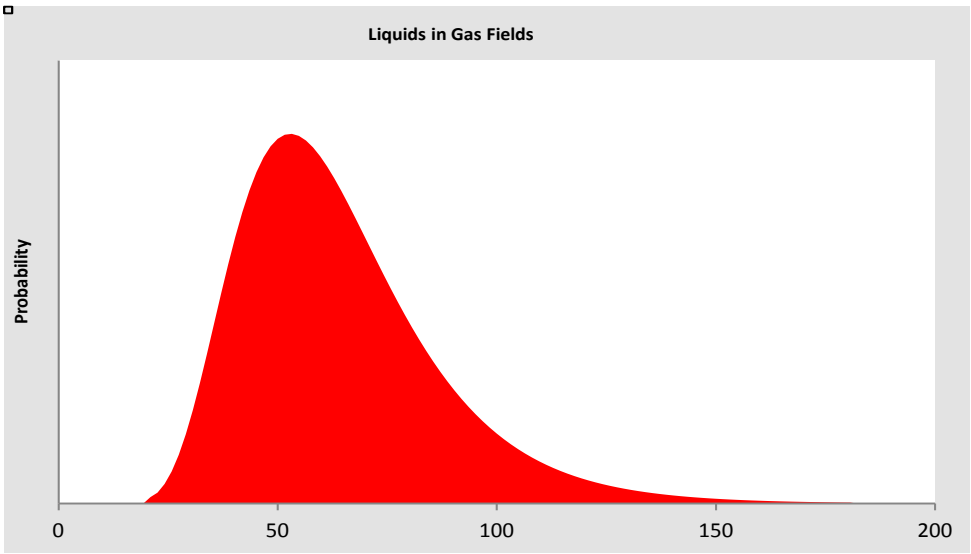
Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	160.68	160.52
Median	71.82	71.92
Mode	---	---
Standard Deviation	300.35	295.69
Variance	90,211.38	87,431.05
Skewness	6.76	6.69
Kurtosis	67.57	66.88
Coefficient of Variability	1.87	1.84
Minimum	30.07	30.00
Maximum	4,990.20	5,000.00
Range Width	4,960.13	4,970.00
Mean Standard Error	1.34	---

Assumption: Sizes of Gas Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	30.07	30.00
95%	33.24	33.31
90%	35.82	35.80
85%	38.45	38.46
80%	41.35	41.43
75%	44.73	44.80
70%	48.47	48.66
65%	52.94	53.13
60%	58.09	58.35
55%	64.31	64.53
50%	71.82	71.92
45%	80.91	80.89
40%	92.12	91.97
35%	106.11	105.96
30%	124.28	124.13
25%	149.18	148.63
20%	183.97	183.46
15%	237.01	237.09
10%	331.37	331.73
5%	550.71	555.60
0%	4,990.20	5,000.00

Assumption: Liquids in Gas Fields

Lognormal distribution with parameters:		Shifted parameters
Location	0.00	5
Mean	59.00	64
Standard Deviation	22.90	22.9
Selected range is from -Infinity to 175.00		5.00 to 180.00



Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	64.01	63.86
Median	60.17	59.97
Mode	---	---
Standard Deviation	22.61	22.49
Variance	511.10	505.84
Skewness	1.09	1.07
Kurtosis	4.72	4.65
Coefficient of Variability	0.3532	0.3522
Minimum	14.99	5.00
Maximum	179.86	180.00
Range Width	164.87	175.00
Mean Standard Error	0.10	---

Assumption: Liquids in Gas Fields (continued)

Percentiles:	Simulated values	Theoretical values
100%	14.99	5.00
95%	34.73	34.70
90%	39.06	39.02
85%	42.38	42.30
80%	45.21	45.12
75%	47.83	47.71
70%	50.31	50.18
65%	52.72	52.59
60%	55.18	55.00
55%	57.67	57.45
50%	60.17	59.97
45%	62.74	62.62
40%	65.55	65.44
35%	68.58	68.50
30%	72.04	71.89
25%	75.97	75.75
20%	80.35	80.30
15%	86.20	85.98
10%	93.74	93.72
5%	106.95	106.50
0%	179.86	180.00

End of Assumptions

Simulation started on 1/26/2012 at 2:58 PM
Simulation stopped on 1/26/2012 at 3:03 PM