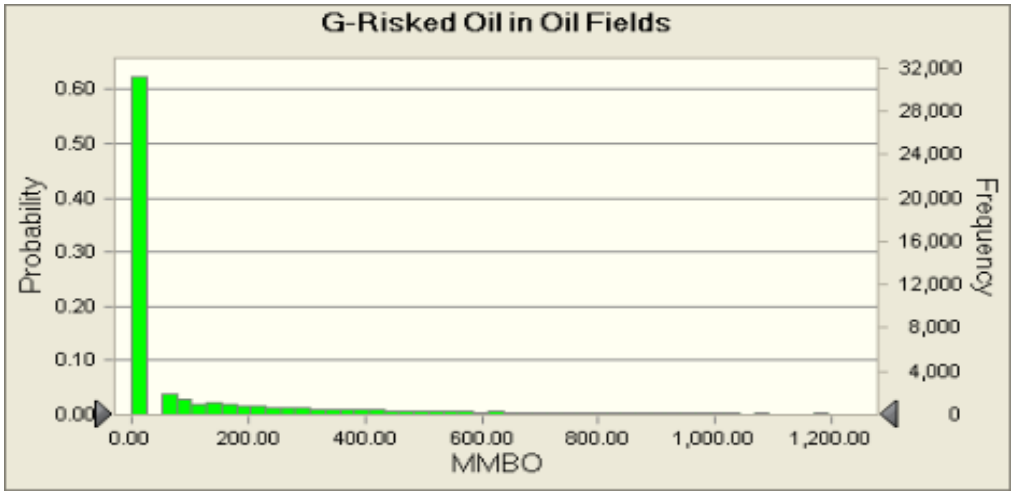
11760101
Northwest Laptev Sea Shelf
Monte Carlo Results

Forecast: G-Risked Oil in Oil Fields

Summary:
Entire range is from 0.00 to 5,577.92
After 50,000 trials, the standard error of the mean is 1.71



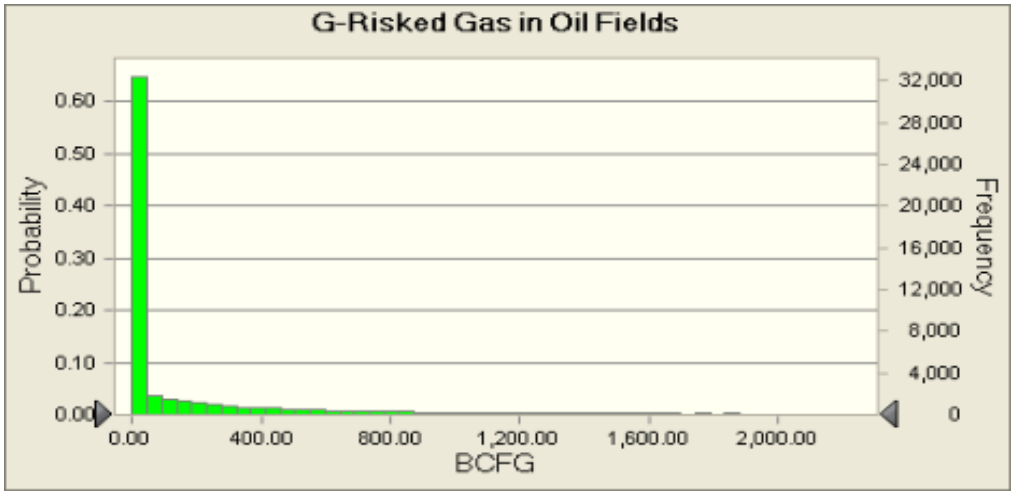
Statistics:	Forecast values
Trials	50,000
Mean	172.24
Median	0.00
Mode	0.00
Standard Deviation	383.30
Variance	146,921.28
Skewness	4.09
Kurtosis	27.14
Coefficient of Variability	2.23
Minimum	0.00
Maximum	5,577.92
Range Width	5,577.92
Mean Standard Error	1.71

Forecast: G-Risked Oil in Oil Fields (cont'd)

Percentiles:	MMBO
P100	0.00
P95	0.00
P90	0.00
P85	0.00
P80	0.00
P75	0.00
P70	0.00
P65	0.00
P60	0.00
P55	0.00
P50	0.00
P45	0.00
P40	0.00
P35	68.74
P30	115.86
P25	177.43
P20	261.00
P15	374.85
P10	550.28
P5	893.70
P0	5,577.92

Forecast: G-Risked Gas in Oil Fields

Summary:
Entire range is from 0.00 to 18,402.83
After 50,000 trials, the standard error of the mean is 3.16



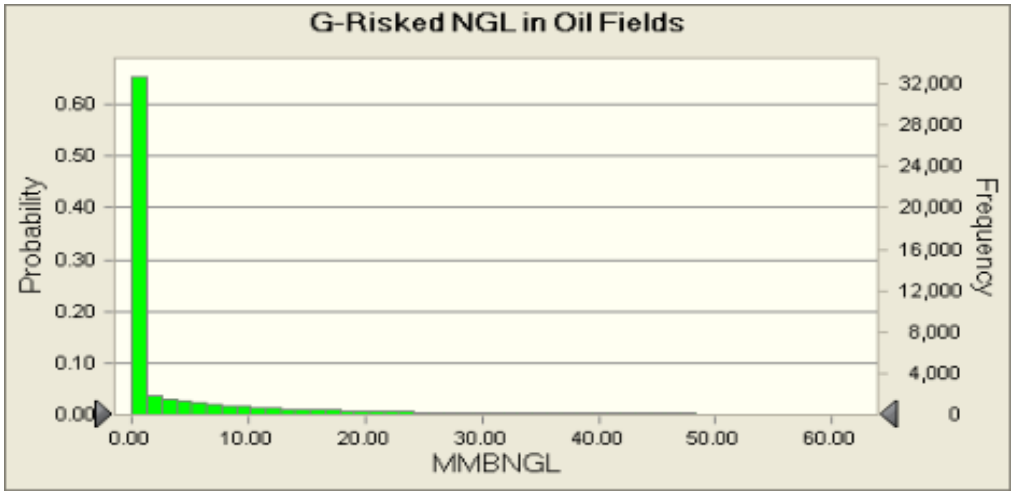
Statistics:	Forecast values
Trials	50,000
Mean	267.13
Median	0.00
Mode	0.00
Standard Deviation	707.26
Variance	500,214.60
Skewness	5.85
Kurtosis	59.15
Coefficient of Variability	2.65
Minimum	0.00
Maximum	18,402.83
Range Width	18,402.83
Mean Standard Error	3.16

Forecast: G-Risked Gas in Oil Fields (cont'd)

Percentiles:	BCFG
P100	0.00
P95	0.00
P90	0.00
P85	0.00
P80	0.00
P75	0.00
P70	0.00
P65	0.00
P60	0.00
P55	0.00
P50	0.00
P45	0.00
P40	0.00
P35	48.19
P30	116.71
P25	206.20
P20	327.73
P15	511.30
P10	805.08
P5	1,434.86
P0	18,402.83

Forecast: G-Risked NGL in Oil Fields

Summary:
Entire range is from 0.00 to 543.91
After 50,000 trials, the standard error of the mean is 0.09



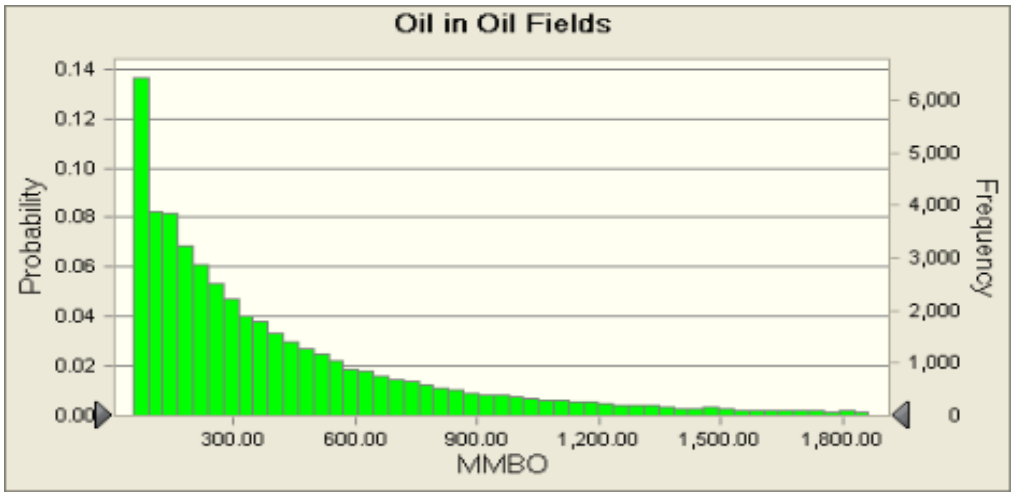
Statistics:	Forecast values
Trials	50,000
Mean	7.20
Median	0.00
Mode	0.00
Standard Deviation	19.65
Variance	386.12
Skewness	6.21
Kurtosis	66.27
Coefficient of Variability	2.73
Minimum	0.00
Maximum	543.91
Range Width	543.91
Mean Standard Error	0.09

Forecast: G-Risked NGL in Oil Fields (cont'd)

Percentiles:	MMBNGL
P100	0.00
P95	0.00
P90	0.00
P85	0.00
P80	0.00
P75	0.00
P70	0.00
P65	0.00
P60	0.00
P55	0.00
P50	0.00
P45	0.00
P40	0.00
P35	1.15
P30	2.92
P25	5.30
P20	8.58
P15	13.54
P10	21.50
P5	38.36
P0	543.91

Forecast: Conditional Oil in Oil Fields

Summary:
Entire range is from 50.78 to 5,778.66 (filtered)
Filter range is from 0.00 to Infinity
After 47,108 trials, the standard error of the mean is 2.32



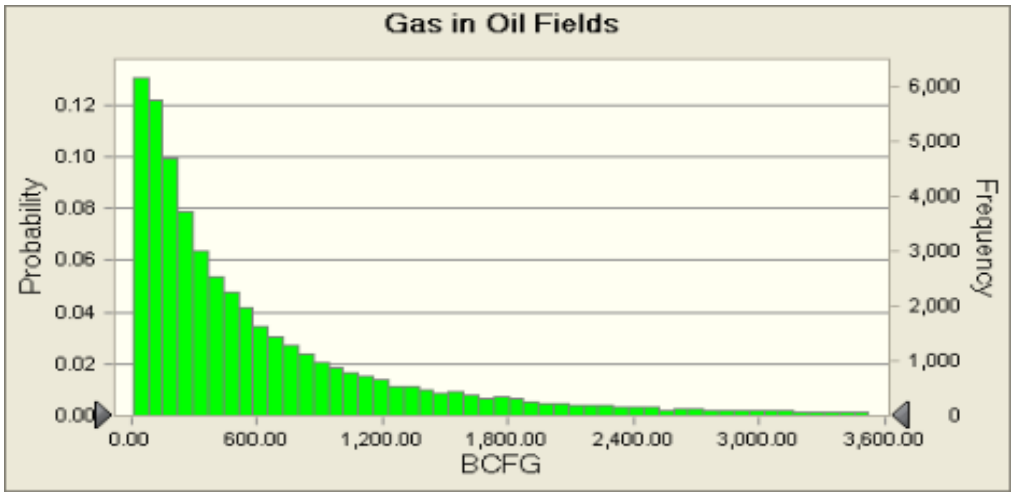
Statistics:	Forecast values
Trials	47,108
Mean	455.61
Median	285.82
Mode	---
Standard Deviation	502.75
Variance	252,756.69
Skewness	2.85
Kurtosis	15.02
Coefficient of Variability	1.10
Minimum	50.78
Maximum	5,778.66
Range Width	5,727.88
Mean Standard Error	2.32
Filtered Values	2892

Forecast: Conditional Oil in Oil Fields (cont'd)

Percentiles:	MMBO
P100	50.78
P95	64.63
P90	76.58
P85	92.74
P80	115.84
P75	138.32
P70	161.04
P65	187.50
P60	216.91
P55	248.91
P50	285.82
P45	327.10
P40	374.56
P35	430.11
P30	496.15
P25	576.69
P20	681.49
P15	822.77
P10	1,034.81
P5	1,430.37
P0	5,778.66

Forecast: Conditional Gas in Oil Fields

Summary:
Entire range is from 6.69 to 21,697.89 (filtered)
Filter range is from 0.00 to Infinity
After 47,108 trials, the standard error of the mean is 4.62



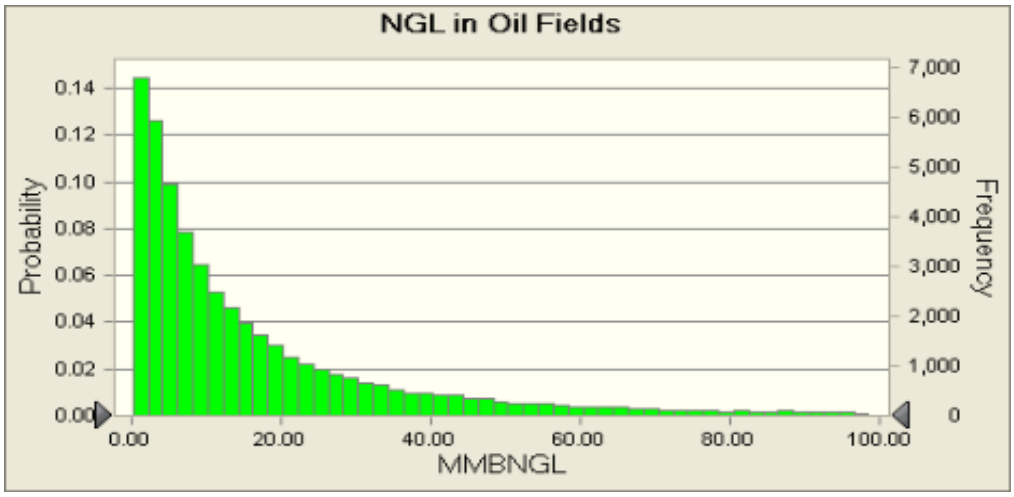
Statistics:	Forecast values
Trials	47,108
Mean	711.93
Median	372.62
Mode	---
Standard Deviation	1,003.70
Variance	1,007,406.38
Skewness	4.14
Kurtosis	33.45
Coefficient of Variability	1.41
Minimum	6.69
Maximum	21,697.89
Range Width	21,691.20
Mean Standard Error	4.62
Filtered Values	2892

Forecast: Conditional Gas in Oil Fields (cont'd)

Percentiles:	BCFG
P100	6.69
P95	40.23
P90	62.93
P85	89.25
P80	117.71
P75	148.77
P70	182.28
P65	221.05
P60	263.63
P55	314.00
P50	372.61
P45	441.68
P40	519.51
P35	609.46
P30	721.21
P25	861.76
P20	1,051.04
P15	1,316.27
P10	1,724.22
P5	2,500.04
P0	21,697.89

Forecast: Conditional NGL in Oil Fields

Summary:
Entire range is from 0.11 to 638.79 (filtered)
Filter range is from 0.00 to Infinity
After 47,108 trials, the standard error of the mean is 0.13



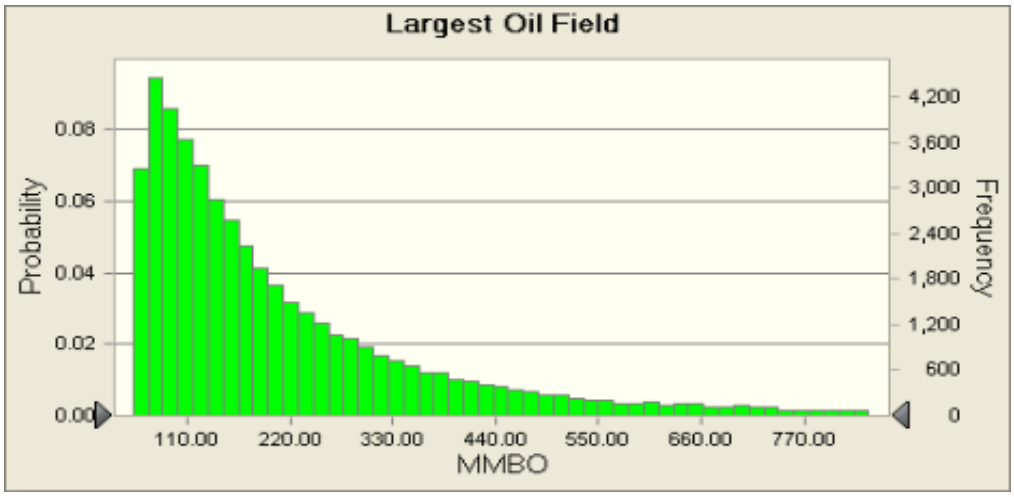
Statistics:	Forecast values
Trials	47,108
Mean	19.22
Median	9.75
Mode	---
Standard Deviation	28.35
Variance	803.66
Skewness	4.57
Kurtosis	41.95
Coefficient of Variability	1.47
Minimum	0.11
Maximum	638.79
Range Width	638.67
Mean Standard Error	0.13
Filtered Values	2892

Forecast: Conditional NGL in Oil Fields (cont'd)

Percentiles:	MMBNGL
P100	0.11
P95	0.95
P90	1.54
P85	2.20
P80	2.96
P75	3.76
P70	4.66
P65	5.69
P60	6.86
P55	8.20
P50	9.75
P45	11.53
P40	13.65
P35	16.11
P30	19.10
P25	23.03
P20	28.10
P15	35.29
P10	46.49
P5	68.78
P0	638.79

Forecast: Largest Oil Field

Summary:
Entire range is from 50.78 to 1,996.89 (filtered)
Filter range is from 0.00 to Infinity
After 47,108 trials, the standard error of the mean is 1.00



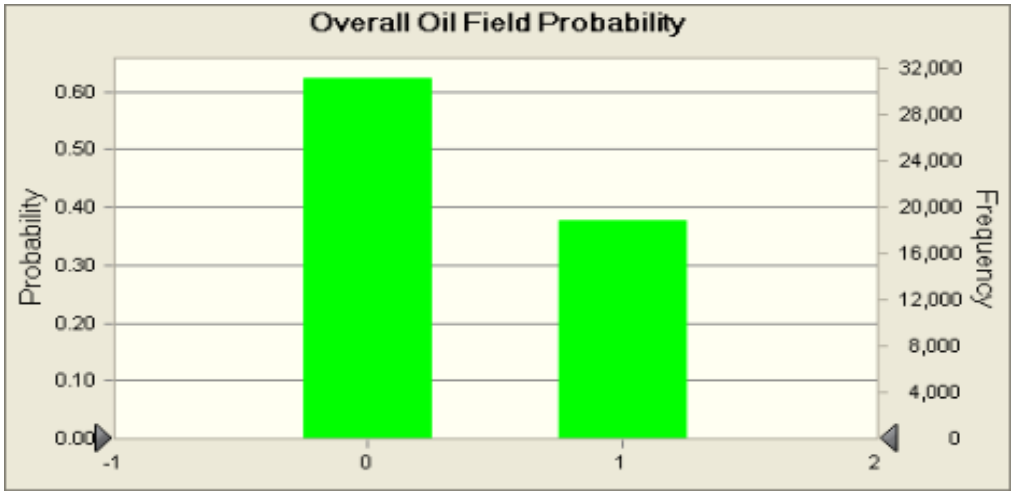
Statistics:	Forecast values
Trials	47,108
Mean	231.70
Median	159.81
Mode	---
Standard Deviation	217.13
Variance	47,146.02
Skewness	2.96
Kurtosis	15.19
Coefficient of Variability	0.9371
Minimum	50.78
Maximum	1,996.89
Range Width	1,946.11
Mean Standard Error	1.00
Filtered Values	2892

Forecast: Largest Oil Field (cont'd)

Percentiles:	MMBO
P100	50.78
P95	63.60
P90	72.15
P85	80.60
P80	89.78
P75	99.20
P70	109.37
P65	120.35
P60	132.05
P55	145.33
P50	159.80
P45	176.08
P40	195.47
P35	218.51
P30	245.65
P25	279.43
P20	320.22
P15	379.35
P10	467.93
P5	649.39
P0	1,996.89

Forecast: Overall Oil Field Probability

Summary:
Entire range is from 0.00 to 1.00
After 50,000 trials, the standard error of the mean is 0.00



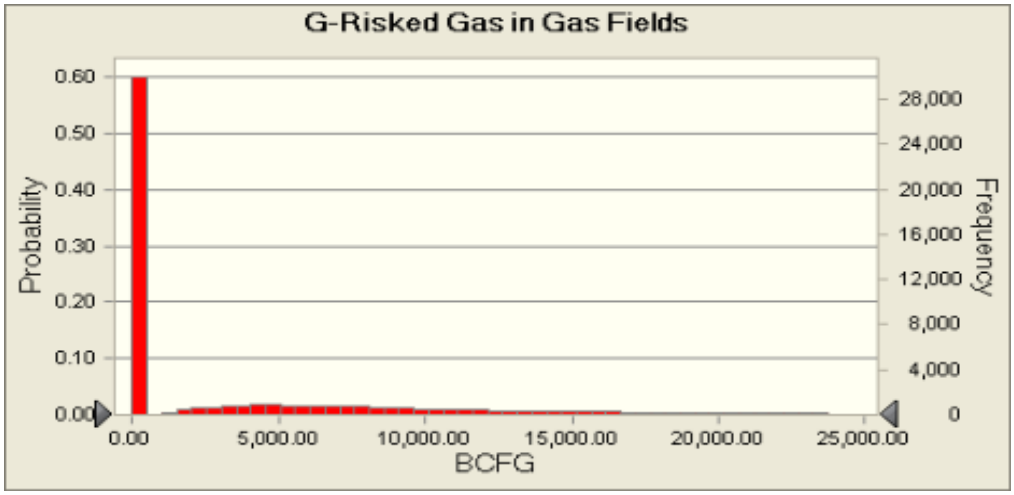
Statistics:	Forecast values	
Trials	50,000	
Mean	0.3760	= the probability of at least one undiscovered oil accumulation of minimum size or larger
Median	0.00	
Mode	0.00	
Standard Deviation	0.48	
Variance	0.23	
Skewness	0.5118	
Kurtosis	1.26	
Coefficient of Variability	1.29	
Minimum	0.00	
Maximum	1.00	
Range Width	1.00	
Mean Standard Error	0.00	

Forecast: Overall Oil Field Probability (cont'd)

Percentiles:	Forecast values
P100	0.00
P95	0.00
P90	0.00
P85	0.00
P80	0.00
P75	0.00
P70	0.00
P65	0.00
P60	0.00
P55	0.00
P50	0.00
P45	0.00
P40	0.00
P35	1.00
P30	1.00
P25	1.00
P20	1.00
P15	1.00
P10	1.00
P5	1.00
P0	1.00

Forecast: G-Risked Gas in Gas Fields

Summary:
Entire range is from 0.00 to 80,463.38
After 50,000 trials, the standard error of the mean is 32.79



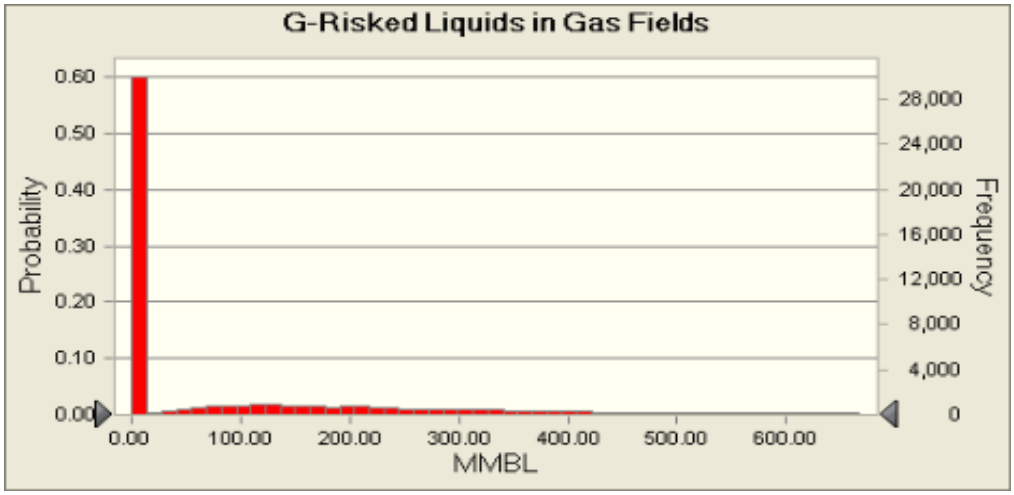
Statistics:	Forecast values
Trials	50,000
Mean	4,220.99
Median	0.00
Mode	0.00
Standard Deviation	7,332.33
Variance	53,763,003.41
Skewness	2.61
Kurtosis	12.64
Coefficient of Variability	1.74
Minimum	0.00
Maximum	80,463.38
Range Width	80,463.38
Mean Standard Error	32.79

Forecast: G-Risked Gas in Gas Fields (cont'd)

Percentiles:	BCFG
P100	0.00
P95	0.00
P90	0.00
P85	0.00
P80	0.00
P75	0.00
P70	0.00
P65	0.00
P60	0.00
P55	0.00
P50	0.00
P45	0.00
P40	0.00
P35	3,389.91
P30	4,897.57
P25	6,516.55
P20	8,258.99
P15	10,508.24
P10	13,675.28
P5	18,992.25
P0	80,463.38

Forecast: G-Risked Liquids in Gas Fields

Summary:
Entire range is from 0.00 to 2,290.64
After 50,000 trials, the standard error of the mean is 0.88



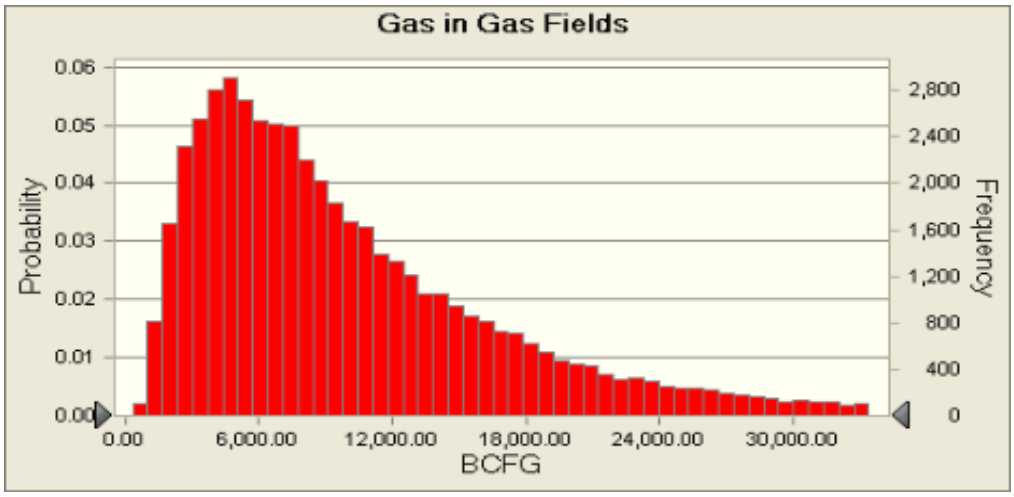
Statistics:	Forecast values
Trials	50,000
Mean	112.44
Median	0.00
Mode	0.00
Standard Deviation	197.66
Variance	39,068.82
Skewness	2.69
Kurtosis	13.40
Coefficient of Variability	1.76
Minimum	0.00
Maximum	2,290.64
Range Width	2,290.64
Mean Standard Error	0.88

Forecast: G-Risked Liquids in Gas Fields (cont'd)

Percentiles:	MMBL
P100	0.00
P95	0.00
P90	0.00
P85	0.00
P80	0.00
P75	0.00
P70	0.00
P65	0.00
P60	0.00
P55	0.00
P50	0.00
P45	0.00
P40	0.00
P35	87.03
P30	128.34
P25	170.28
P20	217.73
P15	278.66
P10	364.56
P5	513.09
P0	2,290.64

Forecast: Conditional Gas in Gas Fields

Summary:
Entire range is from 335.48 to 82,991.30
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 36.52



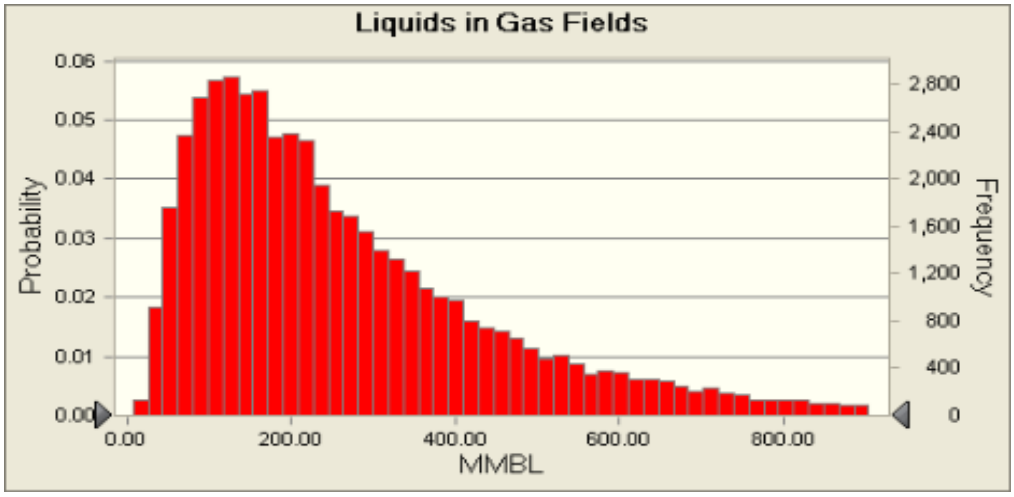
Statistics:	Forecast values
Trials	50,000
Mean	10,526.98
Median	8,234.28
Mode	---
Standard Deviation	8,165.28
Variance	66,671,787.08
Skewness	2.06
Kurtosis	9.57
Coefficient of Variability	0.7757
Minimum	335.48
Maximum	82,991.30
Range Width	82,655.82
Mean Standard Error	36.52

Forecast: Conditional Gas in Gas Fields (cont'd)

Percentiles:	BCFG
P100	335.48
P95	2,333.77
P90	3,066.50
P85	3,718.81
P80	4,313.96
P75	4,904.92
P70	5,503.13
P65	6,154.07
P60	6,820.71
P55	7,508.18
P50	8,234.24
P45	9,051.96
P40	9,989.90
P35	11,005.65
P30	12,230.63
P25	13,657.53
P20	15,375.04
P15	17,542.57
P10	20,726.34
P5	26,427.94
P0	82,991.30

Forecast: Conditional Liquids in Gas Fields

Summary:
Entire range is from 6.52 to 2,472.36
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 1.00



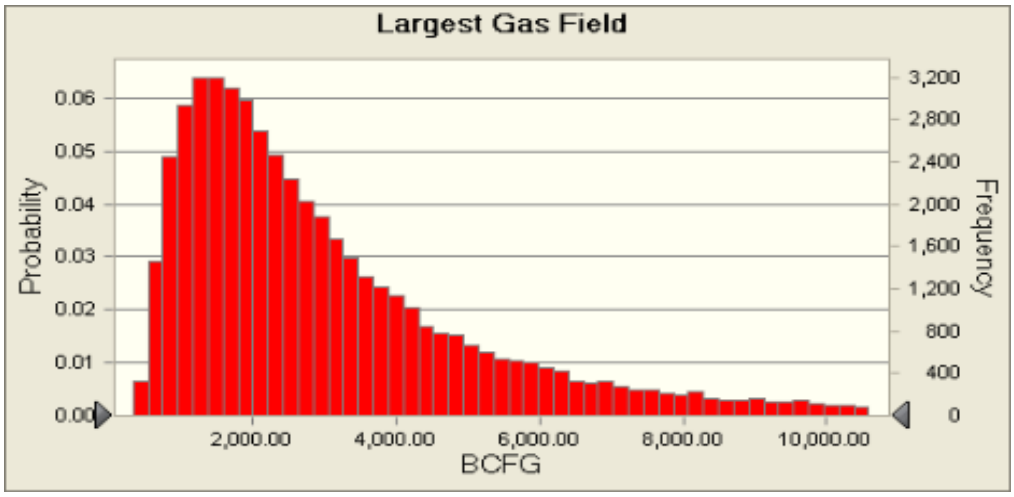
Statistics:	Forecast values
Trials	50,000
Mean	280.53
Median	217.48
Mode	---
Standard Deviation	222.81
Variance	49,643.65
Skewness	2.09
Kurtosis	9.83
Coefficient of Variability	0.7942
Minimum	6.52
Maximum	2,472.36
Range Width	2,465.84
Mean Standard Error	1.00

Forecast: Conditional Liquids in Gas Fields (cont'd)

Percentiles:	MMBL
P100	6.52
P95	58.73
P90	78.61
P85	95.76
P80	112.10
P75	128.14
P70	144.33
P65	160.83
P60	178.55
P55	197.87
P50	217.48
P45	239.65
P40	265.26
P35	293.15
P30	325.59
P25	363.31
P20	409.20
P15	470.81
P10	559.93
P5	713.64
P0	2,472.36

Forecast: Largest Gas Field

Summary:
Entire range is from 316.61 to 17,977.32
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 11.74



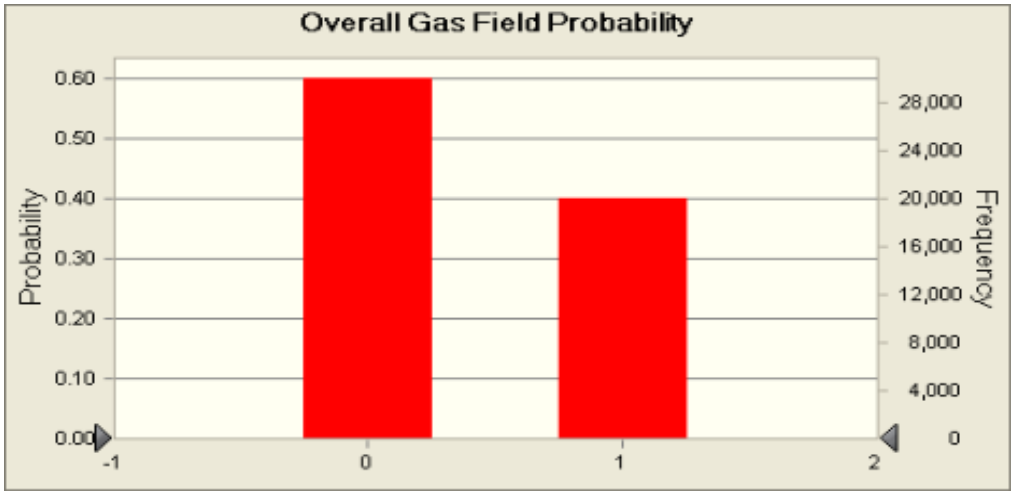
Statistics:	Forecast values
Trials	50,000
Mean	3,242.40
Median	2,431.18
Mode	---
Standard Deviation	2,624.88
Variance	6,889,988.36
Skewness	2.12
Kurtosis	8.62
Coefficient of Variability	0.8095
Minimum	316.61
Maximum	17,977.32
Range Width	17,660.71
Mean Standard Error	11.74

Forecast: Largest Gas Field (cont'd)

Percentiles:	BCFG
P100	316.61
P95	803.87
P90	1,006.57
P85	1,177.42
P80	1,340.97
P75	1,506.01
P70	1,672.87
P65	1,841.52
P60	2,020.63
P55	2,218.60
P50	2,431.12
P45	2,668.77
P40	2,932.05
P35	3,237.36
P30	3,603.14
P25	4,038.25
P20	4,597.55
P15	5,369.70
P10	6,470.29
P5	8,640.72
P0	17,977.32

Forecast: Overall Gas Field Probability

Summary:
Entire range is from 0.00 to 1.00
After 50,000 trials, the standard error of the mean is 0.00



Statistics:	Forecast values	
Trials	50,000	
Mean	0.3996	= the probability of at least one undiscovered gas accumulation of minimum size or larger
Median	0.00	
Mode	0.00	
Standard Deviation	0.49	
Variance	0.24	
Skewness	0.4099	
Kurtosis	1.17	
Coefficient of Variability	1.23	
Minimum	0.00	
Maximum	1.00	
Range Width	1.00	
Mean Standard Error	0.00	

Forecast: Overall Gas Field Probability (cont'd)

Percentiles:	Forecast values
P100	0.00
P95	0.00
P90	0.00
P85	0.00
P80	0.00
P75	0.00
P70	0.00
P65	0.00
P60	0.00
P55	0.00
P50	0.00
P45	0.00
P40	0.00
P35	1.00
P30	1.00
P25	1.00
P20	1.00
P15	1.00
P10	1.00
P5	1.00
P0	1.00

End of Forecasts

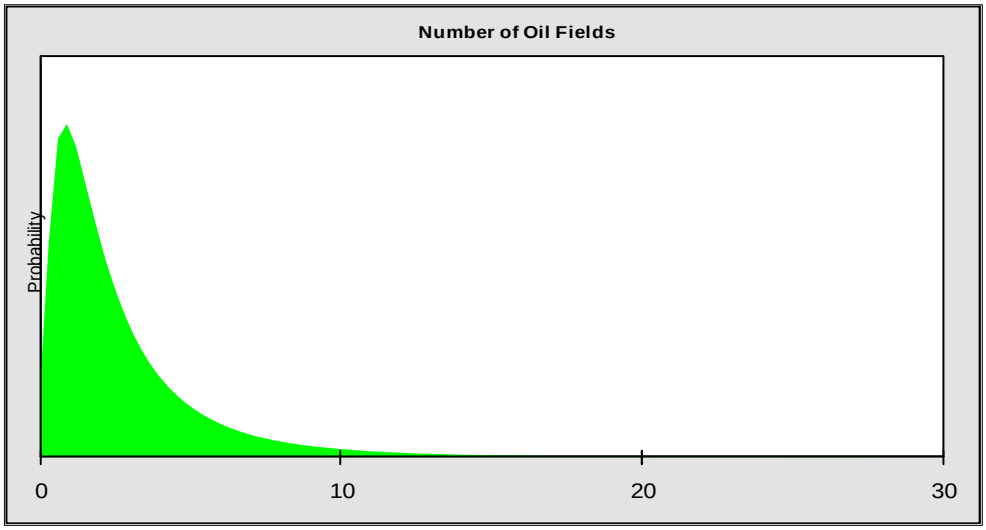
Assumptions

Assumption: Number of Oil Fields

Lognormal distribution with parameters:

Mean	2.94
Standard Deviation	3.16

Selected range is from 0.00 to 30.00



Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	2.90	2.90
Median	2.00	2.00
Mode	---	---
Standard Deviation	2.93	2.92
Variance	8.58	8.51
Skewness	2.97	2.96
Kurtosis	16.33	16.23
Coefficient of Variability	1.01	1.01
Minimum	0.03	0.00
Maximum	29.96	30.00
Range Width	29.93	30.00
Mean Standard Error	0.01	---

Assumption: Number of Oil Fields (cont'd)

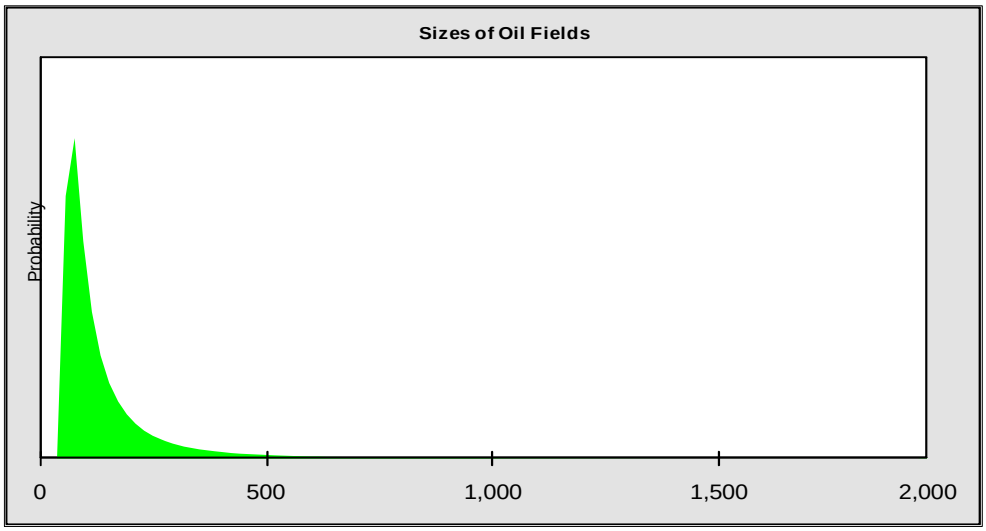
Percentiles:	Simulated values	Theoretical values
P100	0.03	0.00
P95	0.47	0.47
P90	0.64	0.65
P85	0.80	0.81
P80	0.95	0.96
P75	1.10	1.11
P70	1.26	1.26
P65	1.42	1.43
P60	1.59	1.60
P55	1.78	1.79
P50	2.00	2.00
P45	2.23	2.23
P40	2.50	2.49
P35	2.81	2.80
P30	3.16	3.16
P25	3.60	3.60
P20	4.17	4.17
P15	4.94	4.94
P10	6.14	6.12
P5	8.44	8.39
P0	29.96	30.00

Assumption: Sizes of Oil Fields

Lognormal distribution with parameters:

Mean	150.97
Standard Deviation	177.16

Selected range is from 50.00 to 2,000.00



Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	147.74	148.20
Median	99.65	99.93
Mode	---	---
Standard Deviation	147.01	148.85
Variance	21,613.32	22,155.11
Skewness	4.44	4.52
Kurtosis	32.07	33.25
Coefficient of Variability	1.00	1.00
Minimum	50.40	50.00
Maximum	1,970.15	2,000.00
Range Width	1,919.74	1,950.00
Mean Standard Error	0.66	---

Assumption: Sizes of Oil Fields (cont'd)

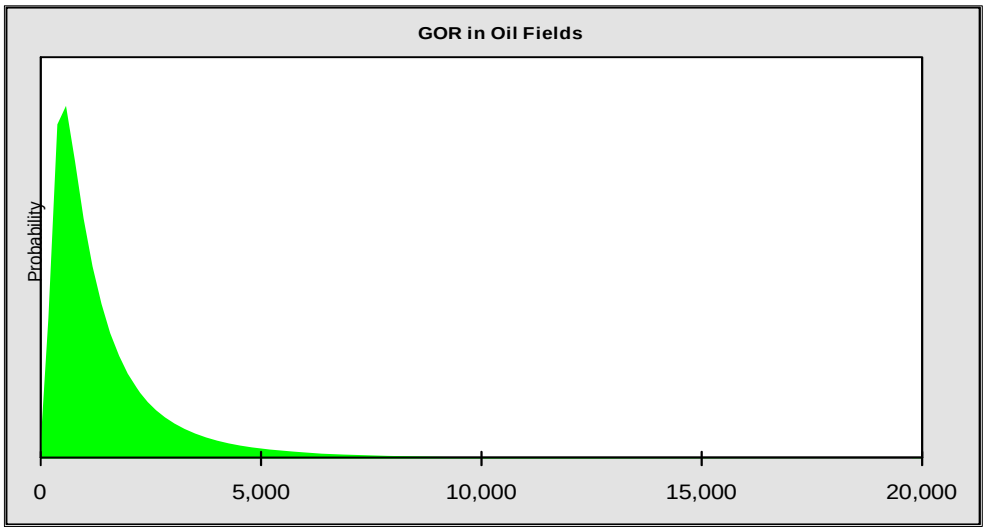
Percentiles:	Simulated values	Theoretical values
P100	50.40	50.00
P95	57.07	57.11
P90	60.94	60.93
P85	64.59	64.62
P80	68.35	68.42
P75	72.33	72.45
P70	76.69	76.82
P65	81.45	81.63
P60	86.80	86.98
P55	92.86	93.02
P50	99.65	99.93
P45	107.69	107.94
P40	117.40	117.39
P35	128.58	128.79
P30	142.92	142.89
P25	160.76	160.93
P20	184.46	185.16
P15	220.14	220.12
P10	278.60	277.10
P5	398.06	397.70
P0	1,970.15	2,000.00

Assumption: GOR in Oil Fields

Lognormal distribution with parameters:

Mean	1,586.77
Standard Deviation	1,954.99

Selected range is from 100.00 to 20,000.00



Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	1,564.00	1,560.86
Median	1,002.77	998.87
Mode	---	---
Standard Deviation	1,744.17	1,751.30
Variance	3,042,125.13	3,067,051.73
Skewness	3.52	3.56
Kurtosis	21.65	21.98
Coefficient of Variability	1.12	1.12
Minimum	110.93	100.00
Maximum	19,936.90	20,000.00
Range Width	19,825.97	19,900.00
Mean Standard Error	7.80	---

Assumption: GOR in Oil Fields (cont'd)

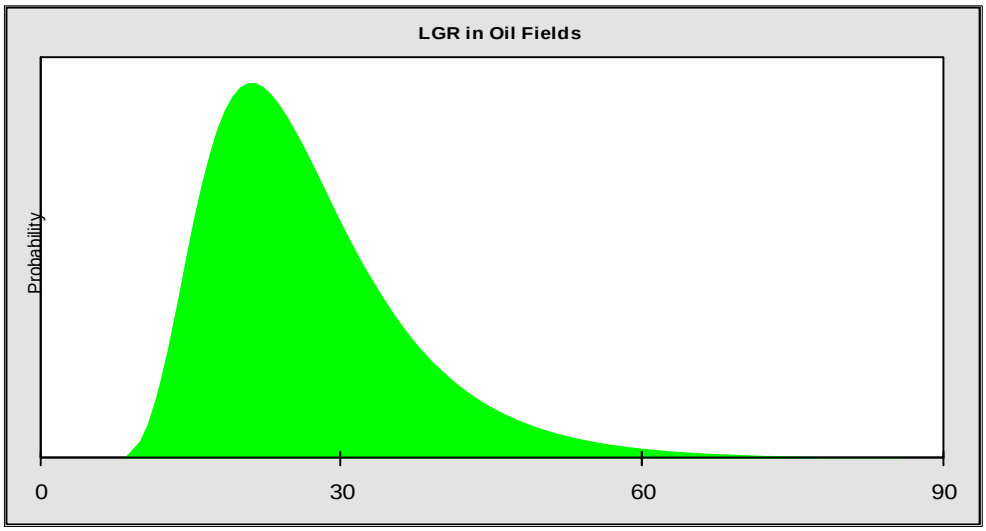
Percentiles:	Simulated values	Theoretical values
P100	110.93	100.00
P95	275.45	273.09
P90	350.56	349.07
P85	420.30	418.39
P80	488.79	486.99
P75	558.46	557.51
P70	635.34	631.71
P65	714.40	711.17
P60	801.30	797.51
P55	894.49	892.62
P50	1,002.73	998.87
P45	1,124.14	1,119.34
P40	1,260.82	1,258.27
P35	1,430.18	1,421.75
P30	1,625.23	1,619.00
P25	1,873.96	1,864.90
P20	2,189.20	2,185.60
P15	2,636.75	2,633.15
P10	3,350.55	3,333.57
P5	4,732.42	4,734.66
P0	19,936.90	20,000.00

Assumption: LGR in Oil Fields

Lognormal distribution with parameters:

Mean	27.12
Standard Deviation	10.44

Selected range is from 5.00 to 85.00



Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	26.98	27.05
Median	24.91	24.99
Mode	---	---
Standard Deviation	10.18	10.21
Variance	103.66	104.25
Skewness	1.32	1.31
Kurtosis	5.58	5.52
Coefficient of Variability	0.3774	0.3775
Minimum	8.01	5.00
Maximum	85.00	85.00
Range Width	76.99	80.00
Mean Standard Error	0.05	---

Assumption: LGR in Oil Fields (cont'd)

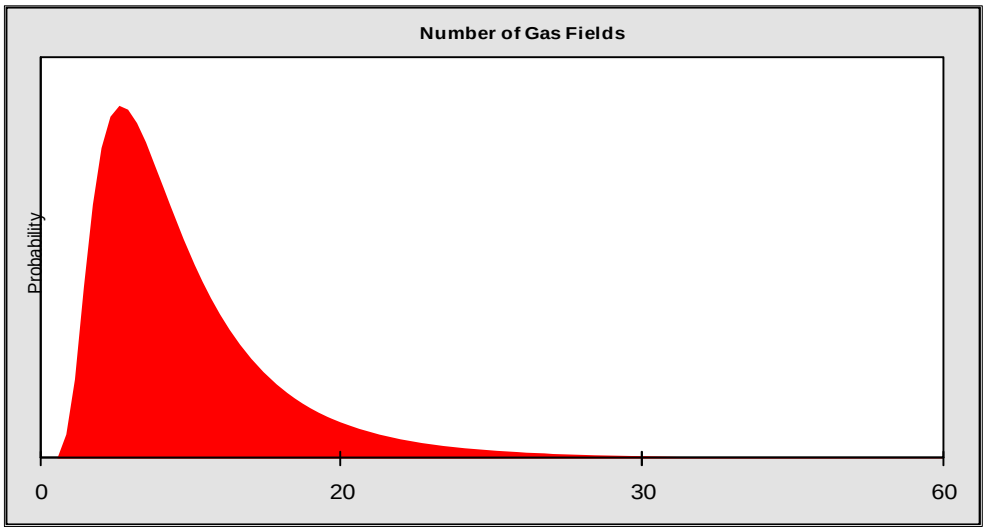
Percentiles:	Simulated values	Theoretical values
P100	8.01	5.00
P95	14.54	14.56
P90	16.20	16.25
P85	17.53	17.56
P80	18.68	18.71
P75	19.76	19.77
P70	20.79	20.80
P65	21.78	21.82
P60	22.80	22.84
P55	23.85	23.89
P50	24.91	24.99
P45	26.06	26.15
P40	27.29	27.39
P35	28.68	28.76
P30	30.16	30.28
P25	31.87	32.04
P20	34.02	34.14
P15	36.62	36.79
P10	40.30	40.46
P5	46.62	46.66
P0	85.00	85.00

Assumption: Number of Gas Fields

Lognormal distribution with parameters:

Mean	9.88
Standard Deviation	6.93

Selected range is from 1.00 to 60.00



Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	9.85	9.82
Median	8.04	7.99
Mode	---	---
Standard Deviation	6.64	6.62
Variance	44.11	43.79
Skewness	2.15	2.17
Kurtosis	9.91	10.14
Coefficient of Variability	0.6743	0.6741
Minimum	1.42	1.00
Maximum	59.81	60.00
Range Width	58.39	59.00
Mean Standard Error	0.03	---

Assumption: Number of Gas Fields (cont'd)

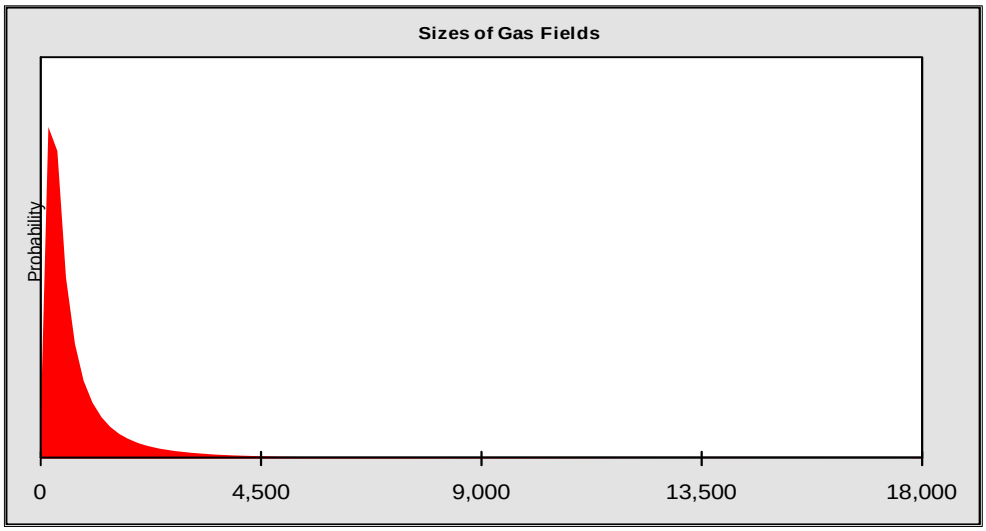
Percentiles:	Simulated values	Theoretical values
P100	1.42	1.00
P95	3.25	3.25
P90	3.89	3.89
P85	4.42	4.42
P80	4.91	4.92
P75	5.40	5.39
P70	5.88	5.87
P65	6.36	6.36
P60	6.87	6.87
P55	7.44	7.41
P50	8.04	7.99
P45	8.67	8.63
P40	9.39	9.33
P35	10.18	10.12
P30	11.10	11.04
P25	12.16	12.13
P20	13.50	13.49
P15	15.35	15.27
P10	17.98	17.89
P5	22.83	22.63
P0	59.81	60.00

Assumption: Sizes of Gas Fields

Lognormal distribution with parameters:

Mean	1,096.83
Standard Deviation	1,573.47

Selected range is from 300.00 to 18,000.00



Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	1,065.09	1,070.77
Median	655.14	659.43
Mode	---	---
Standard Deviation	1,267.64	1,278.04
Variance	1,606,913.62	1,633,396.34
Skewness	4.99	4.95
Kurtosis	40.07	38.95
Coefficient of Variability	1.19	1.19
Minimum	303.19	300.00
Maximum	17,855.96	18,000.00
Range Width	17,552.77	17,700.00
Mean Standard Error	5.67	---

Assumption: Sizes of Gas Fields (cont'd)

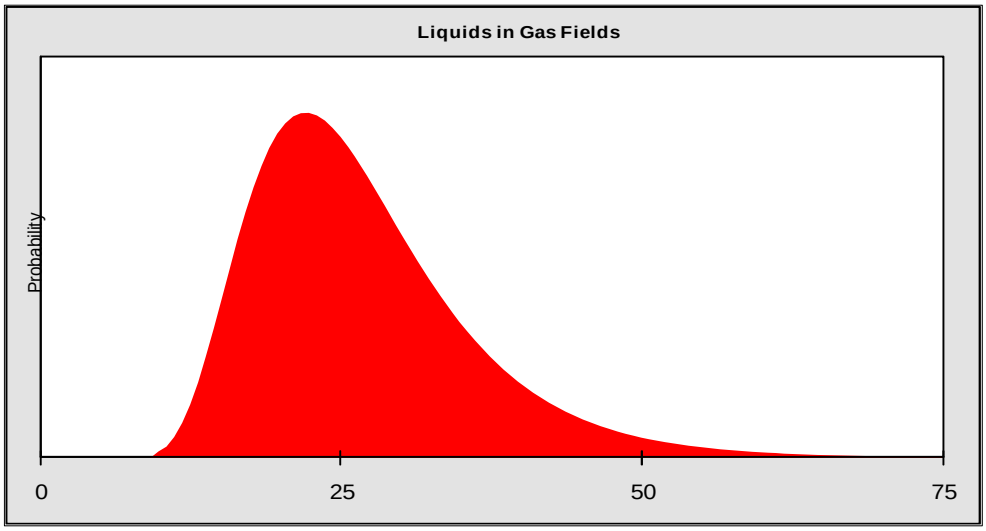
Percentiles:	Simulated values	Theoretical values
P100	303.19	300.00
P95	344.68	345.24
P90	370.52	371.51
P85	396.25	397.40
P80	422.88	424.49
P75	451.63	453.68
P70	483.59	485.67
P65	517.94	521.23
P60	557.88	561.24
P55	603.95	606.82
P50	655.13	659.43
P45	718.23	721.05
P40	789.15	794.48
P35	877.78	883.84
P30	991.59	995.49
P25	1,137.25	1,139.98
P20	1,332.60	1,336.33
P15	1,621.64	1,623.49
P10	2,086.32	2,099.32
P5	3,111.80	3,130.06
P0	17,855.96	18,000.00

Assumption: Liquids in Gas Fields

Lognormal distribution with parameters:

Mean	26.70
Standard Deviation	9.31

Selected range is from 4.00 to 75.00



Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	26.55	26.64
Median	24.92	24.99
Mode	---	---
Standard Deviation	9.10	9.13
Variance	82.85	83.38
Skewness	1.14	1.13
Kurtosis	4.87	4.86
Coefficient of Variability	0.3428	0.3428
Minimum	8.09	4.00
Maximum	75.00	75.00
Range Width	66.90	71.00
Mean Standard Error	0.04	---

Assumption: Liquids in Gas Fields (cont'd)

Percentiles:	Simulated values	Theoretical values
P100	8.09	4.00
P95	14.94	14.98
P90	16.65	16.67
P85	17.92	17.95
P80	18.99	19.07
P75	19.99	20.09
P70	20.96	21.07
P65	21.93	22.03
P60	22.92	23.00
P55	23.91	23.98
P50	24.92	24.99
P45	26.01	26.05
P40	27.07	27.19
P35	28.34	28.43
P30	29.71	29.80
P25	31.28	31.37
P20	33.13	33.23
P15	35.48	35.55
P10	38.58	38.73
P5	43.81	44.02
P0	75.00	75.00

End of Assumptions

Simulation started on 5/20/2008 at 10:26:26
Simulation stopped on 5/20/2008 at 10:38:19