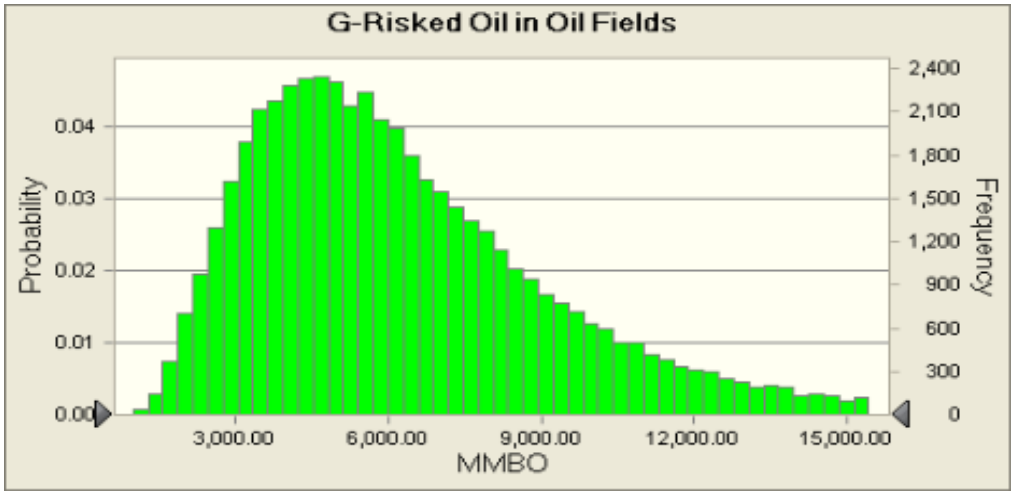
50790101
Canning-Mackenzie Deformed Margin
Monte Carlo Results

Forecast: G-Risked Oil in Oil Fields

Summary:
Entire range is from 978.26 to 34,068.90
After 50,000 trials, the standard error of the mean is 14.45



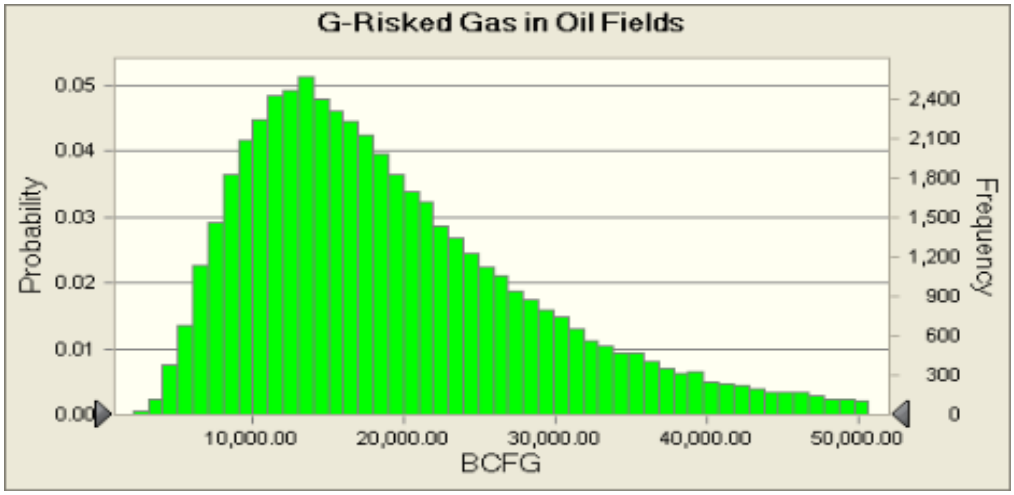
Statistics:	Forecast values
Trials	50,000
Mean	6,380.64
Median	5,697.36
Mode	---
Standard Deviation	3,230.00
Variance	10,432,908.72
Skewness	1.43
Kurtosis	6.24
Coefficient of Variability	0.5062
Minimum	978.26
Maximum	34,068.90
Range Width	33,090.63
Mean Standard Error	14.45

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

Percentiles:	MMBO
P100	978.26
P95	2,518.34
P90	3,021.43
P85	3,401.33
P80	3,744.32
P75	4,084.62
P70	4,398.58
P65	4,710.65
P60	5,025.81
P55	5,362.73
P50	5,697.25
P45	6,058.23
P40	6,447.25
P35	6,891.18
P30	7,375.17
P25	7,925.89
P20	8,586.78
P15	9,437.72
P10	10,595.54
P5	12,566.69
P0	34,068.90

Forecast: G-Risked Gas in Oil Fields

Summary:
Entire range is from 2,049.54 to 117,888.92
After 50,000 trials, the standard error of the mean is 49.31



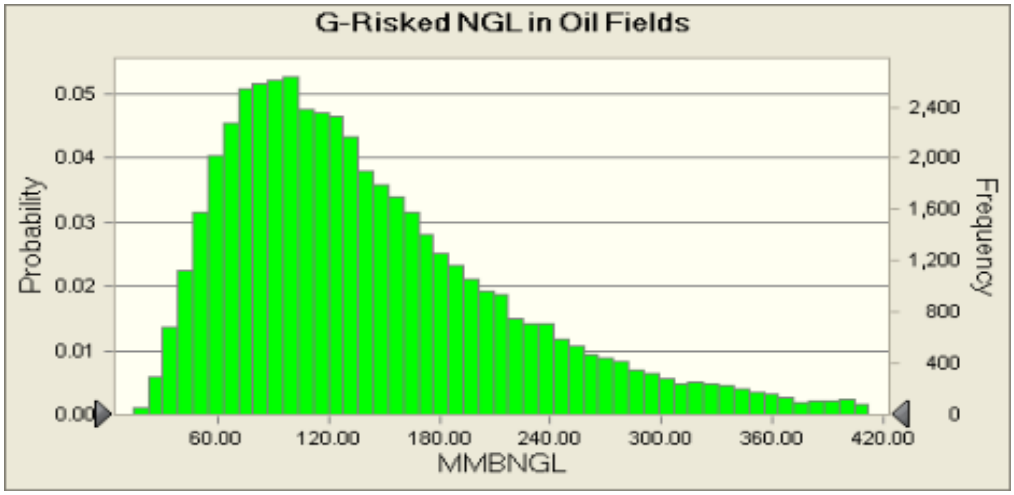
Statistics:	Forecast values
Trials	50,000
Mean	19,799.52
Median	17,229.69
Mode	---
Standard Deviation	11,026.40
Variance	121,581,542.19
Skewness	1.59
Kurtosis	7.14
Coefficient of Variability	0.5569
Minimum	2,049.54
Maximum	117,888.92
Range Width	115,839.38
Mean Standard Error	49.31

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

Percentiles:	BCFG
P100	2,049.54
P95	7,146.42
P90	8,685.63
P85	9,906.42
P80	11,008.52
P75	12,029.23
P70	13,034.05
P65	14,005.16
P60	15,035.63
P55	16,118.39
P50	17,229.62
P45	18,433.61
P40	19,777.63
P35	21,234.61
P30	22,889.46
P25	24,815.99
P20	27,120.58
P15	30,033.76
P10	34,153.37
P5	41,198.11
P0	117,888.92

Forecast: G-Risked NGL in Oil Fields

Summary:
Entire range is from 14.43 to 1,583.67
After 50,000 trials, the standard error of the mean is 0.42



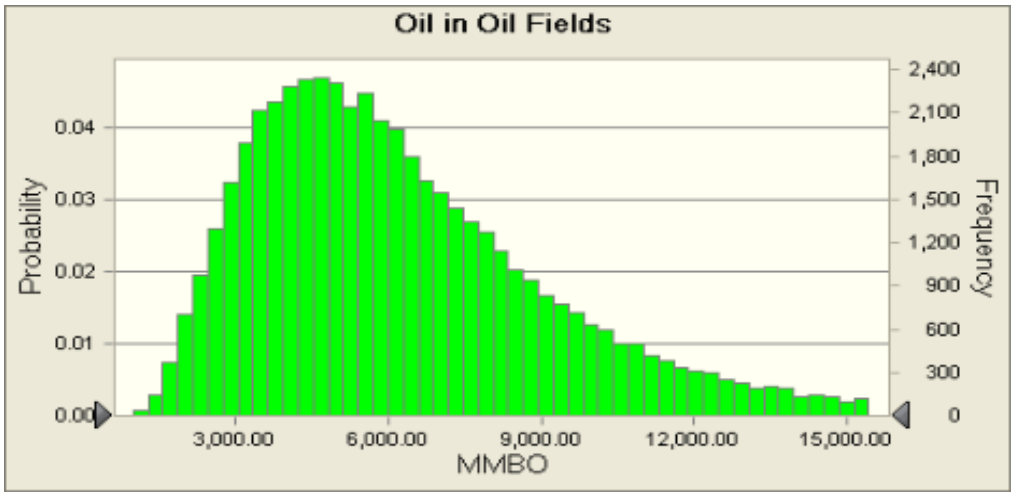
Statistics:	Forecast values
Trials	50,000
Mean	148.99
Median	126.32
Mode	---
Standard Deviation	93.86
Variance	8,809.56
Skewness	2.28
Kurtosis	14.50
Coefficient of Variability	0.6300
Minimum	14.43
Maximum	1,583.67
Range Width	1,569.24
Mean Standard Error	0.42

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

Percentiles:	MMBNGL
P100	14.43
P95	48.85
P90	60.36
P85	69.42
P80	77.60
P75	85.45
P70	93.18
P65	100.87
P60	108.99
P55	117.70
P50	126.32
P45	135.59
P40	146.35
P35	157.83
P30	170.85
P25	186.30
P20	205.16
P15	229.70
P10	263.99
P5	325.67
P0	1,583.67

Forecast: Conditional Oil in Oil Fields

Summary:
Entire range is from 978.26 to 34,068.90
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 14.45



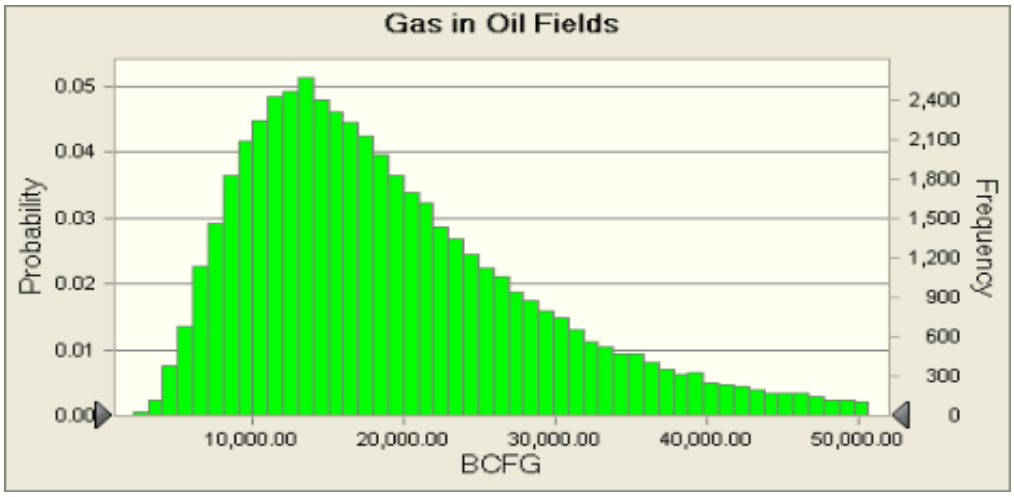
Statistics:	Forecast values
Trials	50,000
Mean	6,380.64
Median	5,697.36
Mode	---
Standard Deviation	3,230.00
Variance	10,432,908.72
Skewness	1.43
Kurtosis	6.24
Coefficient of Variability	0.5062
Minimum	978.26
Maximum	34,068.90
Range Width	33,090.63
Mean Standard Error	14.45

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

Percentiles:	MMBO
P100	978.26
P95	2,518.34
P90	3,021.43
P85	3,401.33
P80	3,744.32
P75	4,084.62
P70	4,398.58
P65	4,710.65
P60	5,025.81
P55	5,362.73
P50	5,697.25
P45	6,058.23
P40	6,447.25
P35	6,891.18
P30	7,375.17
P25	7,925.89
P20	8,586.78
P15	9,437.72
P10	10,595.54
P5	12,566.69
P0	34,068.90

Forecast: Conditional Gas in Oil Fields

Summary:
Entire range is from 2,049.54 to 117,888.92
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 49.31



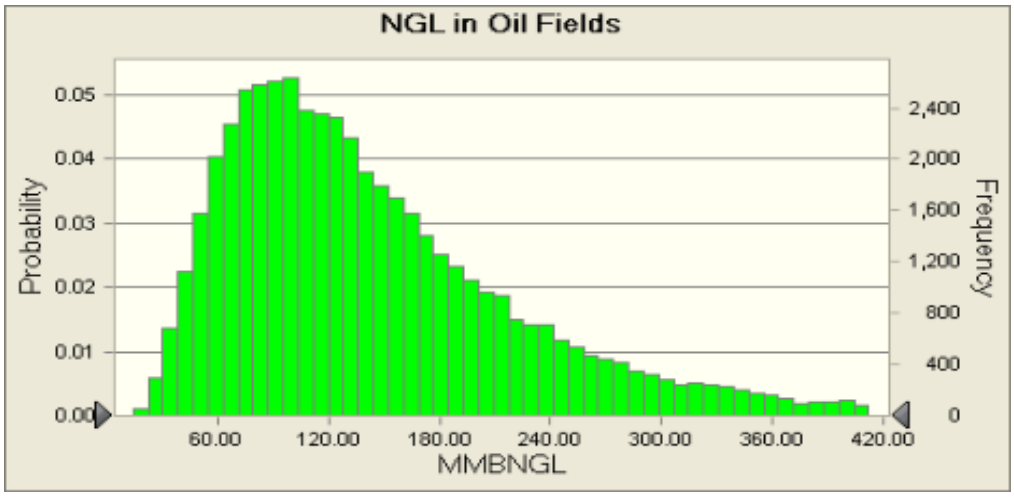
Statistics:	Forecast values
Trials	50,000
Mean	19,799.52
Median	17,229.69
Mode	---
Standard Deviation	11,026.40
Variance	121,581,542.19
Skewness	1.59
Kurtosis	7.14
Coefficient of Variability	0.5569
Minimum	2,049.54
Maximum	117,888.92
Range Width	115,839.38
Mean Standard Error	49.31

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

Percentiles:	BCFG
P100	2,049.54
P95	7,146.42
P90	8,685.63
P85	9,906.42
P80	11,008.52
P75	12,029.23
P70	13,034.05
P65	14,005.16
P60	15,035.63
P55	16,118.39
P50	17,229.62
P45	18,433.61
P40	19,777.63
P35	21,234.61
P30	22,889.46
P25	24,815.99
P20	27,120.58
P15	30,033.76
P10	34,153.37
P5	41,198.11
P0	117,888.92

Forecast: Conditional NGL in Oil Fields

Summary:
Entire range is from 14.43 to 1,583.67
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 0.42



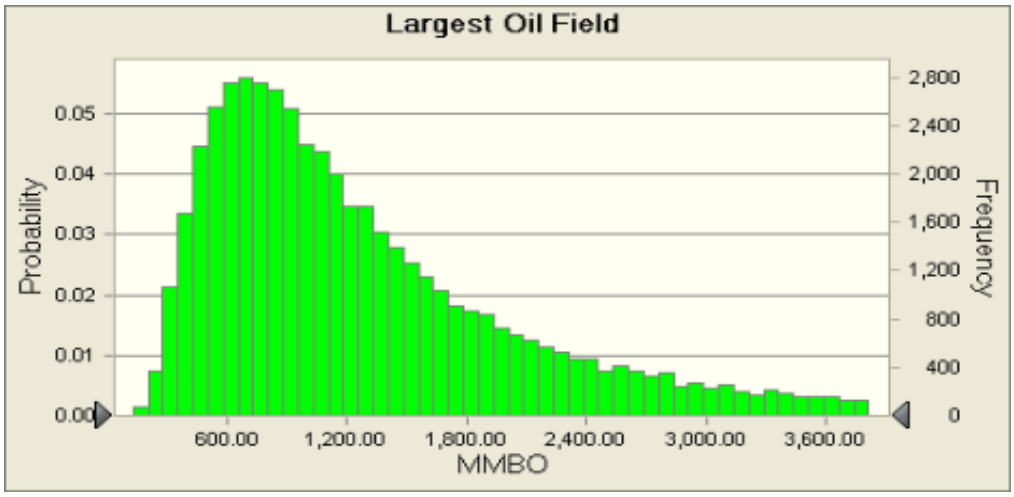
Statistics:	Forecast values
Trials	50,000
Mean	148.99
Median	126.32
Mode	---
Standard Deviation	93.86
Variance	8,809.56
Skewness	2.28
Kurtosis	14.50
Coefficient of Variability	0.6300
Minimum	14.43
Maximum	1,583.67
Range Width	1,569.24
Mean Standard Error	0.42

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

Percentiles:	MMBNGL
P100	14.43
P95	48.85
P90	60.36
P85	69.42
P80	77.60
P75	85.45
P70	93.18
P65	100.87
P60	108.99
P55	117.70
P50	126.32
P45	135.59
P40	146.35
P35	157.83
P30	170.85
P25	186.30
P20	205.16
P15	229.70
P10	263.99
P5	325.67
P0	1,583.67

Forecast: Largest Oil Field

Summary:
Entire range is from 129.11 to 4,999.41
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 3.96



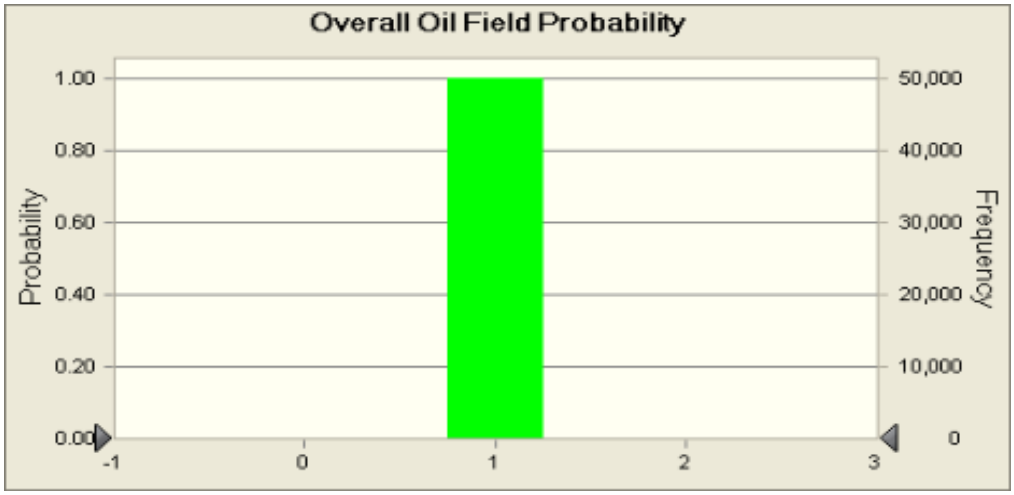
Statistics:	Forecast values
Trials	50,000
Mean	1,332.88
Median	1,074.64
Mode	---
Standard Deviation	886.38
Variance	785,664.80
Skewness	1.51
Kurtosis	5.28
Coefficient of Variability	0.6650
Minimum	129.11
Maximum	4,999.41
Range Width	4,870.29
Mean Standard Error	3.96

Forecast: Largest Oil Field (cont'd)

Percentiles:	MMBO
P100	129.11
P95	401.66
P90	492.25
P85	566.22
P80	636.81
P75	702.52
P70	771.37
P65	840.15
P60	911.69
P55	988.84
P50	1,074.63
P45	1,164.23
P40	1,271.44
P35	1,384.94
P30	1,522.44
P25	1,689.46
P20	1,898.65
P15	2,174.32
P10	2,571.73
P5	3,233.84
P0	4,999.41

Forecast: Overall Oil Field Probability

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



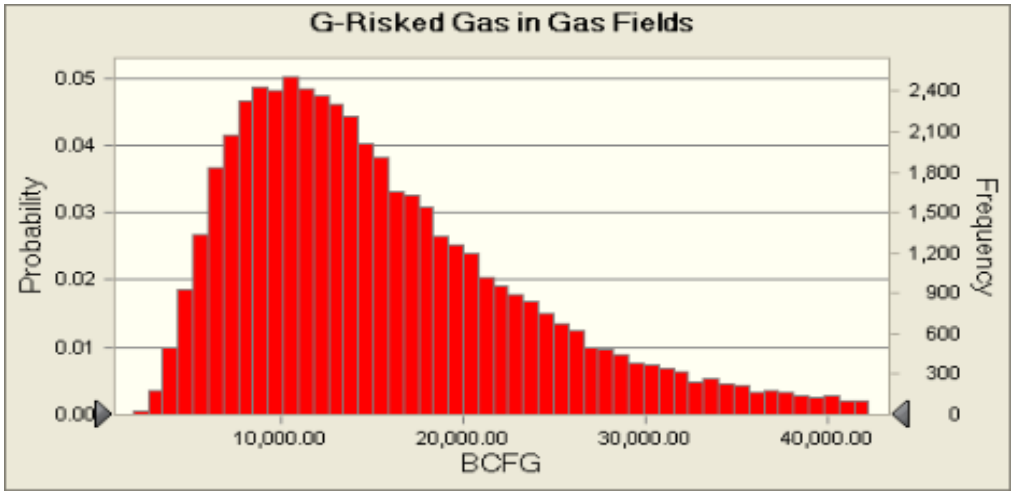
Statistics:	Forecast values	
Trials	50,000	
Mean	1.0000	= the probability of at least one undiscovered oil accumulation of minimum size or larger
Median	1.00	
Mode	1.00	
Standard Deviation	0.00	
Variance	0.00	
Skewness	---	
Kurtosis	---	
Coefficient of Variability	0.00	
Minimum	1.00	
Maximum	1.00	
Range Width	0.00	
Mean Standard Error	0.00	

Forecast: Overall Oil Field Probability (cont'd)

Percentiles:	Forecast values
P100	1.00
P95	1.00
P90	1.00
P85	1.00
P80	1.00
P75	1.00
P70	1.00
P65	1.00
P60	1.00
P55	1.00
P50	1.00
P45	1.00
P40	1.00
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 1,795.43 to 93,457.44
After 50,000 trials, the standard error of the mean is 41.77



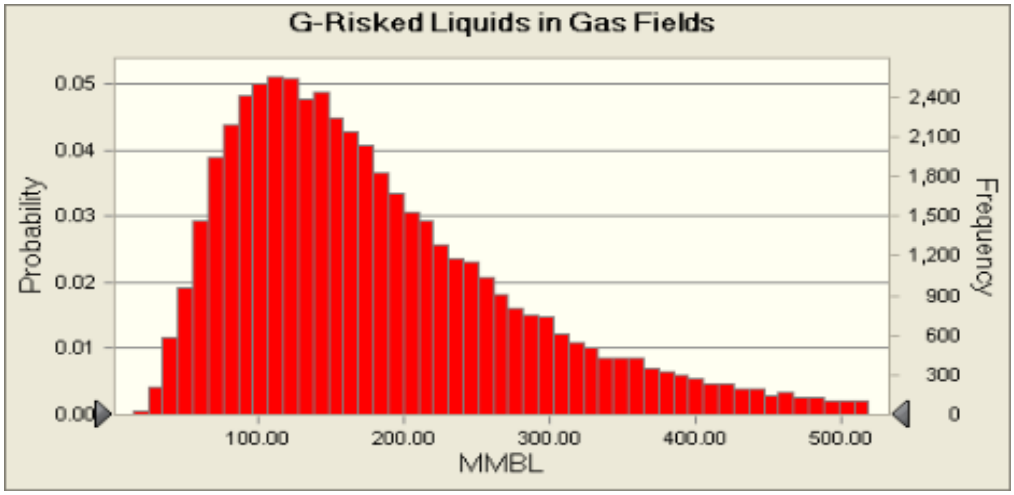
Statistics:	Forecast values
Trials	50,000
Mean	16,102.74
Median	13,867.14
Mode	---
Standard Deviation	9,339.49
Variance	87,225,995.66
Skewness	1.66
Kurtosis	7.21
Coefficient of Variability	0.5800
Minimum	1,795.43
Maximum	93,457.44
Range Width	91,662.01
Mean Standard Error	41.77

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

Percentiles:	BCFG
P100	1,795.43
P95	5,661.40
P90	6,836.15
P85	7,822.98
P80	8,676.34
P75	9,522.68
P70	10,365.82
P65	11,183.48
P60	12,057.17
P55	12,941.93
P50	13,866.71
P45	14,854.14
P40	15,946.49
P35	17,188.97
P30	18,561.54
P25	20,193.21
P20	22,152.71
P15	24,601.93
P10	28,115.22
P5	34,298.55
P0	93,457.44

Forecast: G-Risked Liquids in Gas Fields

Summary:
Entire range is from 14.38 to 1,196.17
After 50,000 trials, the standard error of the mean is 0.53



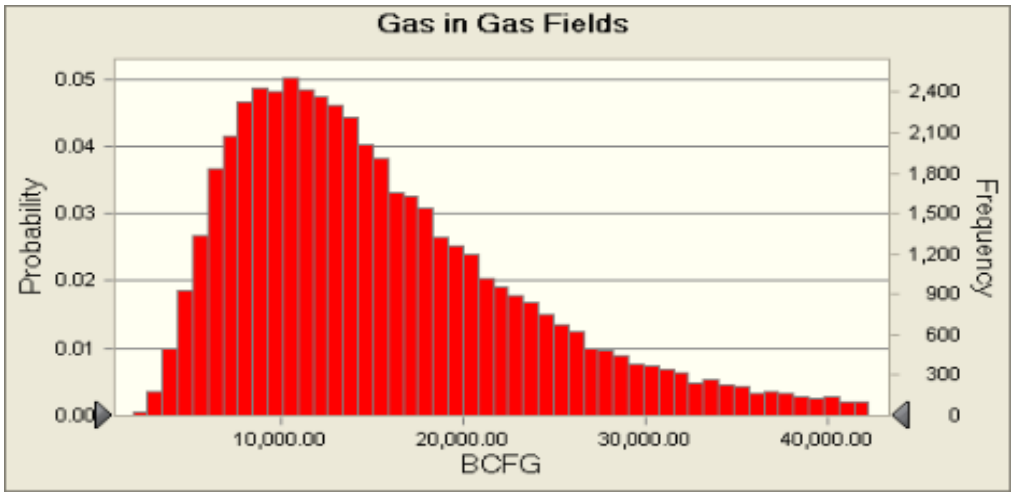
Statistics:	Forecast values
Trials	50,000
Mean	189.54
Median	160.86
Mode	---
Standard Deviation	117.40
Variance	13,783.34
Skewness	1.76
Kurtosis	7.90
Coefficient of Variability	0.6194
Minimum	14.38
Maximum	1,196.17
Range Width	1,181.79
Mean Standard Error	0.53

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

Percentiles:	MMBL
P100	14.38
P95	60.70
P90	75.12
P85	86.89
P80	97.47
P75	107.59
P70	117.74
P65	127.84
P60	138.62
P55	149.28
P50	160.86
P45	173.19
P40	186.36
P35	201.60
P30	218.94
P25	239.37
P20	262.95
P15	294.48
P10	340.63
P5	417.14
P0	1,196.17

Forecast: Conditional Gas in Gas Fields

Summary:
Entire range is from 1,795.43 to 93,457.44
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 41.77



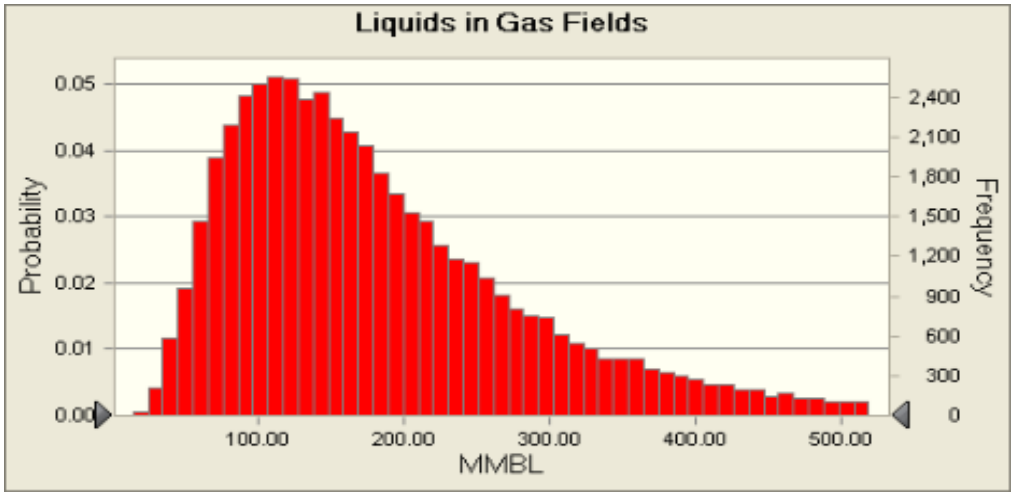
Statistics:	Forecast values
Trials	50,000
Mean	16,102.74
Median	13,867.14
Mode	---
Standard Deviation	9,339.49
Variance	87,225,995.66
Skewness	1.66
Kurtosis	7.21
Coefficient of Variability	0.5800
Minimum	1,795.43
Maximum	93,457.44
Range Width	91,662.01
Mean Standard Error	41.77

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

Percentiles:	BCFG
P100	1,795.43
P95	5,661.40
P90	6,836.15
P85	7,822.98
P80	8,676.34
P75	9,522.68
P70	10,365.82
P65	11,183.48
P60	12,057.17
P55	12,941.93
P50	13,866.71
P45	14,854.14
P40	15,946.49
P35	17,188.97
P30	18,561.54
P25	20,193.21
P20	22,152.71
P15	24,601.93
P10	28,115.22
P5	34,298.55
P0	93,457.44

Forecast: Conditional Liquids in Gas Fields

Summary:
Entire range is from 14.38 to 1,196.17
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 0.53



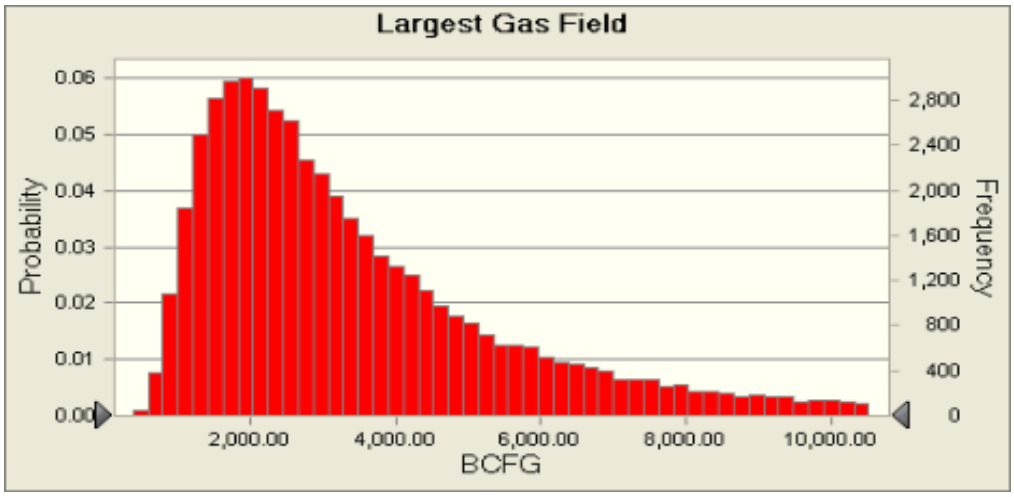
Statistics:	Forecast values
Trials	50,000
Mean	189.54
Median	160.86
Mode	---
Standard Deviation	117.40
Variance	13,783.34
Skewness	1.76
Kurtosis	7.90
Coefficient of Variability	0.6194
Minimum	14.38
Maximum	1,196.17
Range Width	1,181.79
Mean Standard Error	0.53

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

Percentiles:	MMBL
P100	14.38
P95	60.70
P90	75.12
P85	86.89
P80	97.47
P75	107.59
P70	117.74
P65	127.84
P60	138.62
P55	149.28
P50	160.86
P45	173.19
P40	186.36
P35	201.60
P30	218.94
P25	239.37
P20	262.95
P15	294.48
P10	340.63
P5	417.14
P0	1,196.17

Forecast: Largest Gas Field

Summary:
Entire range is from 385.09 to 14,981.31
Filter range is from 0.00 to Infinity
After 50,000 trials, the standard error of the mean is 11.05



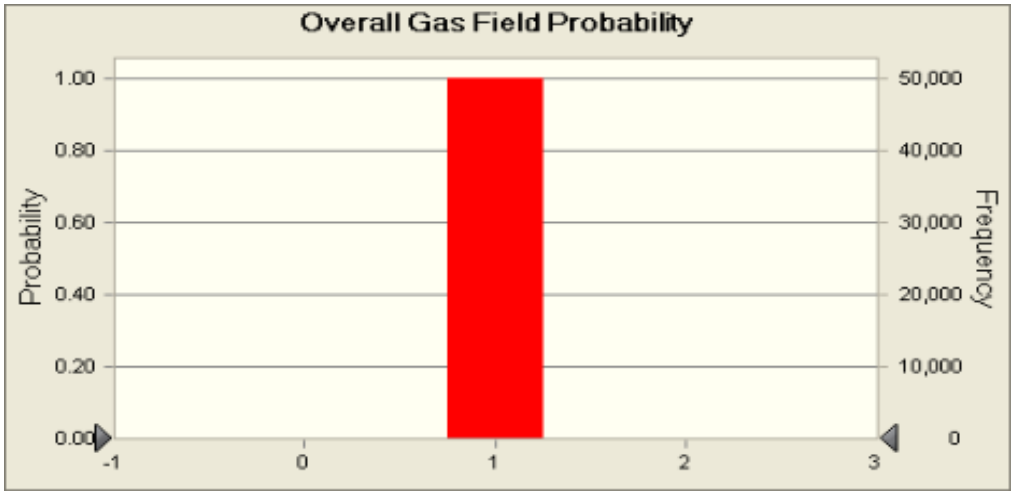
Statistics:	Forecast values
Trials	50,000
Mean	3,596.21
Median	2,852.91
Mode	---
Standard Deviation	2,470.22
Variance	6,101,998.32
Skewness	1.74
Kurtosis	6.38
Coefficient of Variability	0.6869
Minimum	385.09
Maximum	14,981.31
Range Width	14,596.22
Mean Standard Error	11.05

Forecast: Largest Gas Field (cont'd)

Percentiles:	BCFG
P100	385.09
P95	1,126.45
P90	1,353.42
P85	1,540.98
P80	1,719.53
P75	1,892.05
P70	2,064.35
P65	2,243.16
P60	2,432.53
P55	2,629.58
P50	2,852.88
P45	3,093.36
P40	3,367.89
P35	3,680.45
P30	4,051.05
P25	4,481.55
P20	5,039.98
P15	5,806.73
P10	6,874.75
P5	8,836.43
P0	14,981.31

Forecast: Overall Gas Field Probability

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



Statistics:	Forecast values	
Trials	50,000	
Mean	1.0000	= the probability of at least one undiscovered gas accumulation of minimum size or larger
Median	1.00	
Mode	1.00	
Standard Deviation	0.00	
Variance	0.00	
Skewness	---	
Kurtosis	---	
Coefficient of Variability	0.00	
Minimum	1.00	
Maximum	1.00	
Range Width	0.00	
Mean Standard Error	0.00	

Forecast: Overall Gas Field Probability (cont'd)

Percentiles:	Forecast values
P100	1.00
P95	1.00
P90	1.00
P85	1.00
P80	1.00
P75	1.00
P70	1.00
P65	1.00
P60	1.00
P55	1.00
P50	1.00
P45	1.00
P40	1.00
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

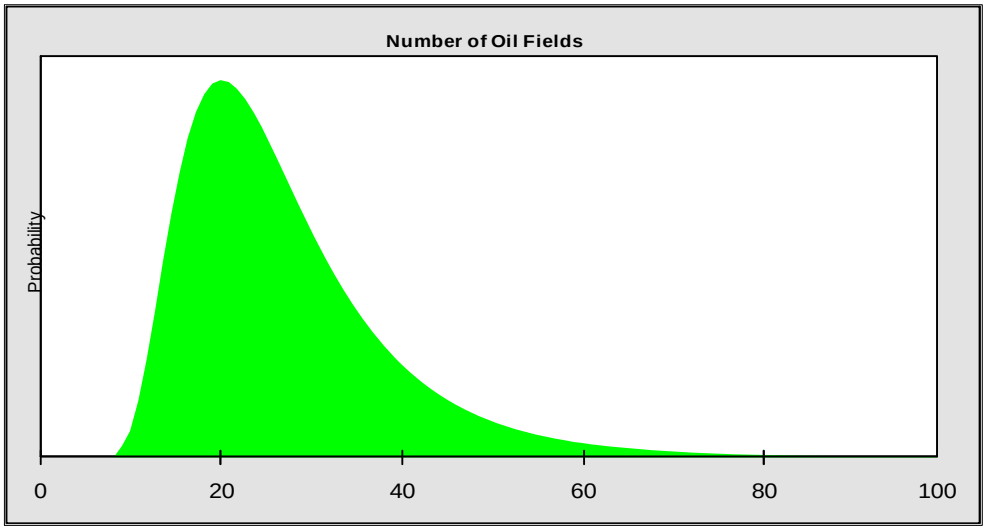
Assumptions

Assumption: Number of Oil Fields

Lognormal distribution with parameters:

Mean	27.72
Standard Deviation	12.04

Selected range is from 6.00 to 100.00



Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	27.61	27.63
Median	24.96	24.99
Mode	---	---
Standard Deviation	11.69	11.70
Variance	136.72	136.99
Skewness	1.57	1.54
Kurtosis	6.72	6.54
Coefficient of Variability	0.4235	0.4236
Minimum	8.08	6.00
Maximum	99.28	100.00
Range Width	91.20	94.00
Mean Standard Error	0.05	---

Assumption: Number of Oil Fields (cont'd)

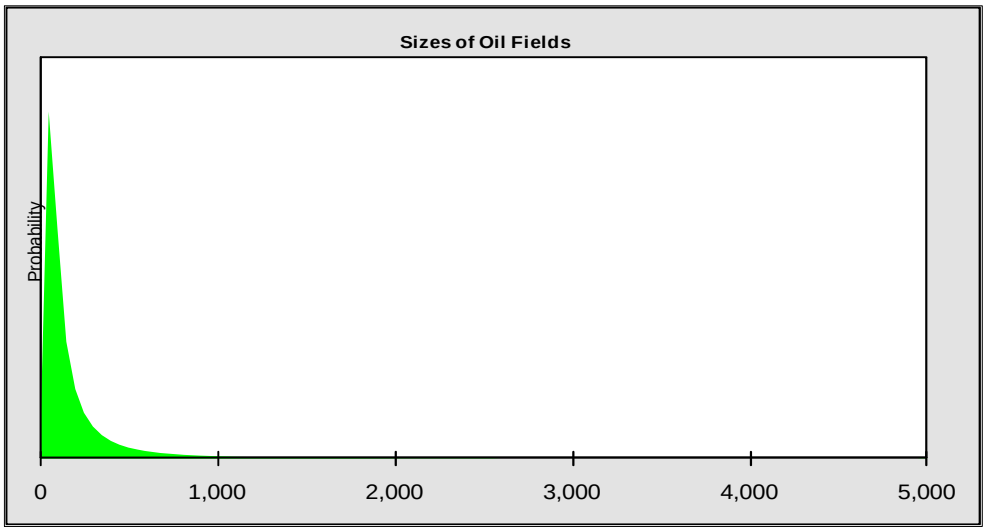
Percentiles:	Simulated values	Theoretical values
P100	8.08	6.00
P95	14.16	14.11
P90	15.79	15.79
P85	17.11	17.11
P80	18.27	18.29
P75	19.38	19.40
P70	20.48	20.48
P65	21.56	21.56
P60	22.66	22.66
P55	23.78	23.79
P50	24.96	24.99
P45	26.24	26.26
P40	27.62	27.64
P35	29.16	29.17
P30	30.92	30.90
P25	32.89	32.90
P20	35.26	35.32
P15	38.30	38.42
P10	42.65	42.78
P5	50.17	50.29
P0	99.28	100.00

Assumption: Sizes of Oil Fields

Lognormal distribution with parameters:

Mean	238.05
Standard Deviation	432.36

Selected range is from 50.00 to 5,000.00



Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	232.96	230.48
Median	125.63	124.87
Mode	---	---
Standard Deviation	342.83	333.92
Variance	117,532.76	111,501.50
Skewness	5.61	5.51
Kurtosis	48.65	47.17
Coefficient of Variability	1.47	1.45
Minimum	50.23	50.00
Maximum	4,995.78	5,000.00
Range Width	4,945.55	4,950.00
Mean Standard Error	1.53	---

Assumption: Sizes of Oil Fields (cont'd)

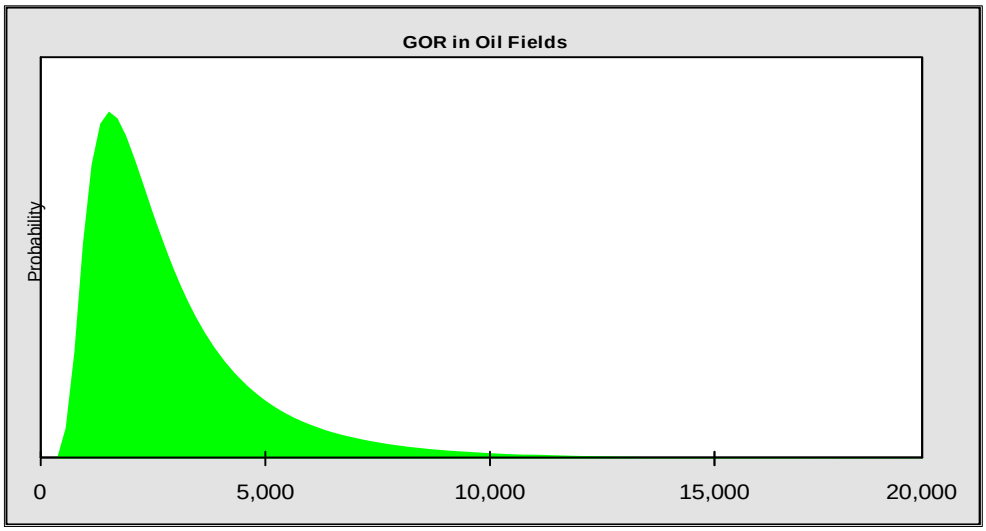
Percentiles:	Simulated values	Theoretical values
P100	50.23	50.00
P95	58.06	58.06
P90	63.15	63.19
P85	68.19	68.38
P80	74.02	73.94
P75	79.94	80.02
P70	86.61	86.79
P65	94.16	94.42
P60	103.12	103.12
P55	113.66	113.15
P50	125.63	124.87
P45	139.85	138.76
P40	156.96	155.52
P35	177.50	176.16
P30	203.83	202.29
P25	238.21	236.57
P20	285.08	283.87
P15	355.39	354.24
P10	476.61	473.34
P5	747.67	739.04
P0	4,995.78	5,000.00

Assumption: GOR in Oil Fields

Lognormal distribution with parameters:

Mean	3,124.04
Standard Deviation	2,228.74

Selected range is from 500.00 to 20,000.00



Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	3,089.30	3,102.20
Median	2,494.59	2,498.15
Mode	---	---
Standard Deviation	2,080.75	2,112.89
Variance	4,329,520.50	4,464,316.10
Skewness	2.34	2.36
Kurtosis	11.39	11.44
Coefficient of Variability	0.6735	0.6811
Minimum	622.69	500.00
Maximum	19,933.34	20,000.00
Range Width	19,310.65	19,500.00
Mean Standard Error	9.31	---

Assumption: GOR in Oil Fields (cont'd)

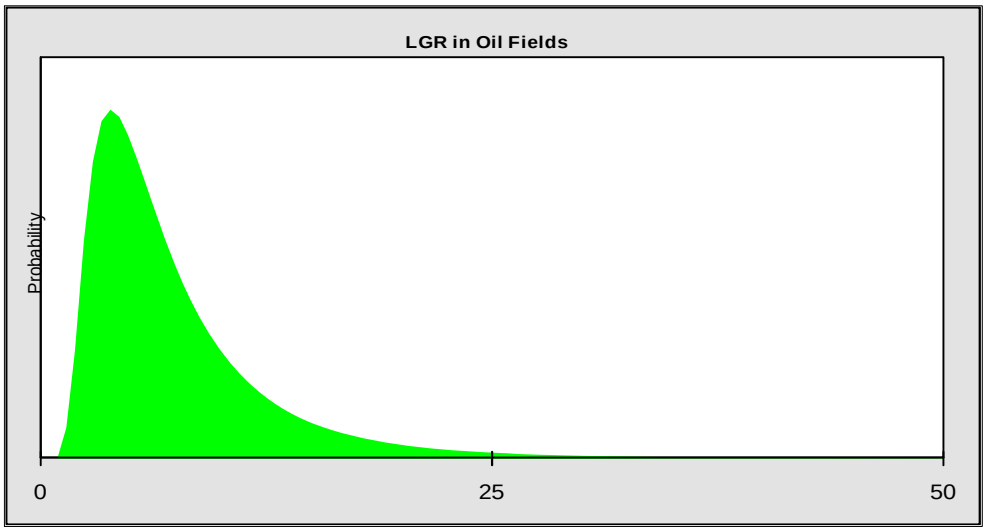
Percentiles:	Simulated values	Theoretical values
P100	622.69	500.00
P95	1,096.25	1,094.86
P90	1,282.72	1,277.44
P85	1,433.69	1,431.31
P80	1,576.53	1,575.04
P75	1,720.04	1,715.90
P70	1,858.95	1,858.03
P65	2,005.29	2,004.52
P60	2,159.75	2,158.10
P55	2,320.18	2,321.57
P50	2,494.54	2,498.15
P45	2,685.81	2,691.82
P40	2,901.57	2,907.80
P35	3,150.45	3,153.36
P30	3,433.29	3,439.19
P25	3,772.89	3,782.13
P20	4,200.85	4,210.99
P15	4,754.79	4,781.46
P10	5,590.34	5,623.59
P5	7,113.56	7,176.73
P0	19,933.34	20,000.00

Assumption: LGR in Oil Fields

Lognormal distribution with parameters:

Mean	7.57
Standard Deviation	5.59

Selected range is from 1.00 to 50.00



Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	7.53	7.51
Median	6.00	6.00
Mode	---	---
Standard Deviation	5.33	5.30
Variance	28.44	28.12
Skewness	2.35	2.37
Kurtosis	11.14	11.48
Coefficient of Variability	0.7078	0.7058
Minimum	1.28	1.00
Maximum	49.96	50.00
Range Width	48.68	49.00
Mean Standard Error	0.02	---

Assumption: LGR in Oil Fields (cont'd)

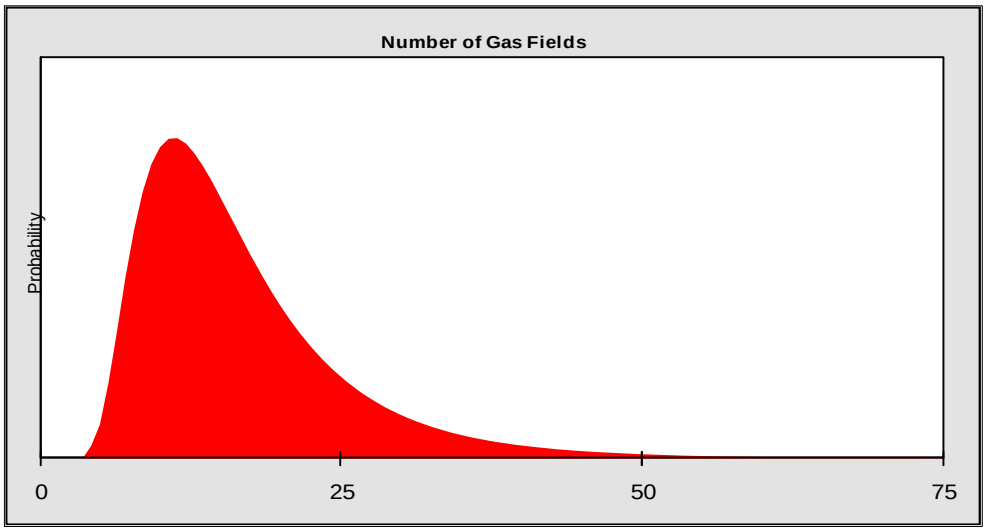
Percentiles:	Simulated values	Theoretical values
P100	1.28	1.00
P95	2.49	2.48
P90	2.95	2.94
P85	3.34	3.32
P80	3.69	3.68
P75	4.05	4.04
P70	4.40	4.39
P65	4.76	4.76
P60	5.15	5.14
P55	5.55	5.55
P50	6.00	6.00
P45	6.49	6.48
P40	7.02	7.02
P35	7.65	7.64
P30	8.38	8.35
P25	9.24	9.21
P20	10.29	10.29
P15	11.71	11.72
P10	13.81	13.84
P5	17.89	17.74
P0	49.96	50.00

Assumption: Number of Gas Fields

Lognormal distribution with parameters:

Mean	17.20
Standard Deviation	8.98

Selected range is from 3.00 to 75.00



Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	17.11	17.13
Median	14.97	14.99
Mode	---	---
Standard Deviation	8.70	8.68
Variance	75.74	75.30
Skewness	1.79	1.76
Kurtosis	7.81	7.65
Coefficient of Variability	0.5085	0.5067
Minimum	3.95	3.00
Maximum	74.75	75.00
Range Width	70.80	72.00
Mean Standard Error	0.04	---

Assumption: Number of Gas Fields (cont'd)

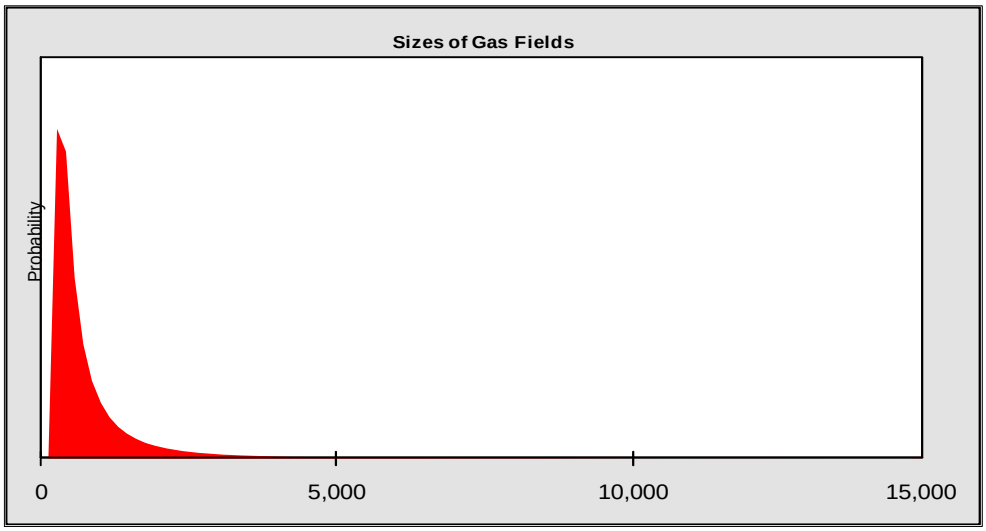
Percentiles:	Simulated values	Theoretical values
P100	3.95	3.00
P95	7.63	7.62
P90	8.73	8.71
P85	9.59	9.58
P80	10.39	10.36
P75	11.13	11.11
P70	11.84	11.85
P65	12.58	12.59
P60	13.30	13.35
P55	14.10	14.15
P50	14.97	14.99
P45	15.89	15.90
P40	16.87	16.89
P35	17.94	17.99
P30	19.17	19.25
P25	20.63	20.72
P20	22.46	22.52
P15	24.78	24.84
P10	28.19	28.16
P5	33.94	33.98
P0	74.75	75.00

Assumption: Sizes of Gas Fields

Lognormal distribution with parameters:

Mean	963.11
Standard Deviation	1,307.13

Selected range is from 300.00 to 15,000.00



Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	946.12	941.47
Median	602.10	599.53
Mode	---	---
Standard Deviation	1,084.72	1,062.28
Variance	1,176,628.01	1,128,433.91
Skewness	5.06	4.94
Kurtosis	39.89	38.86
Coefficient of Variability	1.15	1.13
Minimum	301.01	300.00
Maximum	14,824.11	15,000.00
Range Width	14,523.10	14,700.00
Mean Standard Error	4.85	---

Assumption: Sizes of Gas Fields (cont'd)

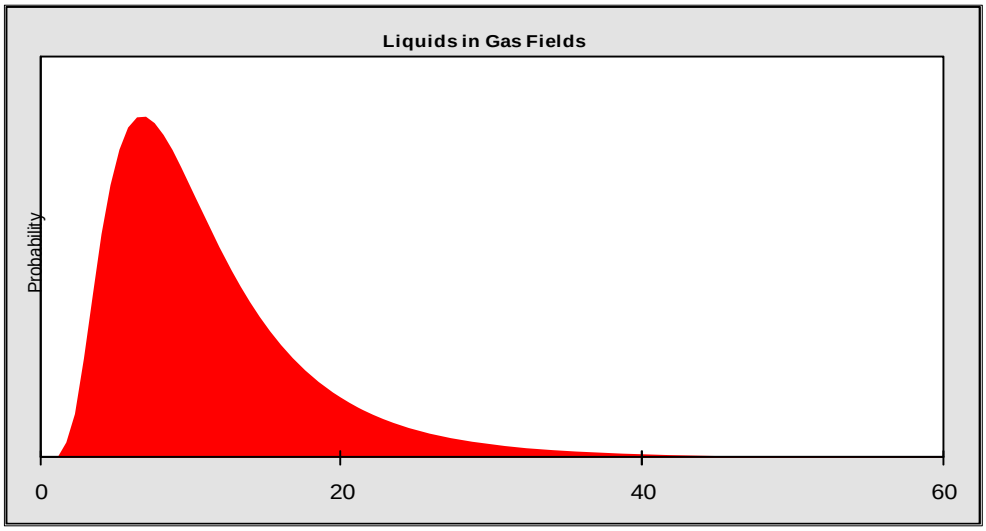
Percentiles:	Simulated values	Theoretical values
P100	301.01	300.00
P95	337.55	337.77
P90	359.16	359.68
P85	381.45	381.26
P80	403.35	403.84
P75	427.62	428.16
P70	454.65	454.81
P65	484.27	484.43
P60	518.47	517.76
P55	556.75	555.72
P50	602.10	599.53
P45	654.41	650.83
P40	716.20	711.95
P35	792.17	786.33
P30	884.02	879.24
P25	1,004.69	999.47
P20	1,170.39	1,162.81
P15	1,401.58	1,401.66
P10	1,796.56	1,797.33
P5	2,635.12	2,654.15
P0	14,824.11	15,000.00

Assumption: Liquids in Gas Fields

Lognormal distribution with parameters:

Mean	11.83
Standard Deviation	7.25

Selected range is from 1.00 to 60.00



Statistics:	Simulated values	Theoretical values
Trials	50,000	---
Mean	11.77	11.77
Median	9.99	9.99
Mode	---	---
Standard Deviation	7.00	6.99
Variance	48.99	48.85
Skewness	1.90	1.86
Kurtosis	8.46	8.23
Coefficient of Variability	0.5947	0.5938
Minimum	1.57	1.00
Maximum	59.67	60.00
Range Width	58.11	59.00
Mean Standard Error	0.03	---

Assumption: Liquids in Gas Fields (cont'd)

Percentiles:	Simulated values	Theoretical values
P100	1.57	1.00
P95	4.29	4.31
P90	5.11	5.12
P85	5.79	5.79
P80	6.41	6.39
P75	6.98	6.97
P70	7.55	7.54
P65	8.13	8.11
P60	8.73	8.71
P55	9.34	9.33
P50	9.99	9.99
P45	10.71	10.71
P40	11.51	11.49
P35	12.38	12.37
P30	13.37	13.37
P25	14.54	14.55
P20	15.94	15.99
P15	17.82	17.87
P10	20.53	20.57
P5	25.24	25.35
P0	59.67	60.00

End of Assumptions

Simulation started on 8/9/2007 at 10:16:18
Simulation stopped on 8/9/2007 at 10:48:42