Foreland Central Chaco High, Assessment Unit 60450103
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]

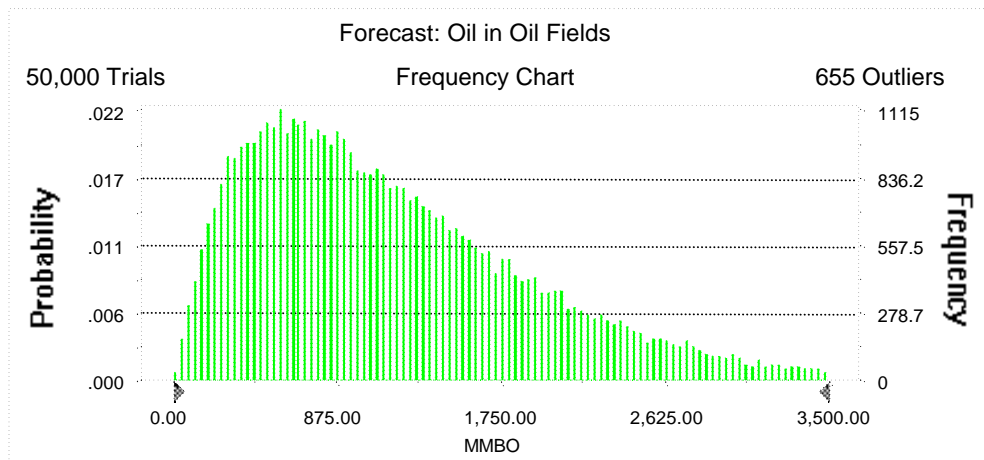| Field Type	MFS	Prob. (0-1)	Undiscovered Resources												Largest Undiscovered Field (MMBO or BCFG)			
			Oil (MMBO)				Gas (BCFG)				NGL (MMBNGL)							
			F95	F50	F5	Mean	F95	F50	F5	Mean	F95	F50	F5	Mean	F95	F50	F5	Mean
Oil Fields	3	0.60	0	446	2,390	711	0	1,101	6,355	1,845	0	63	394	111	68	279	1,110	387
Gas Fields	18						0	818	4,686	1,366	0	29	178	51	146	581	2,350	817
Total		0.60	0	446	2,390	711	0	1,919	11,040	3,211	0	91	572	161				

Forecast: Oil in Oil Fields

Summary:
Display range is from 0.00 to 3,500.00 MMBO
Entire range is from 10.50 to 6,684.18 MMBO
After 50,000 trials, the standard error of the mean is 3.55

Statistics:	Value
Trials	50000
Mean	1,192.59
Median	1,024.68
Mode	---
Standard Deviation	794.14
Variance	630,656.77
Skewness	1.15
Kurtosis	4.70
Coefficient of Variability	0.67
Range Minimum	10.50
Range Maximum	6,684.18
Range Width	6,673.68
Mean Standard Error	3.55

Forecast: Oil in Oil Fields

Forecast: Oil in Oil Fields (cont'd)

Percentiles:

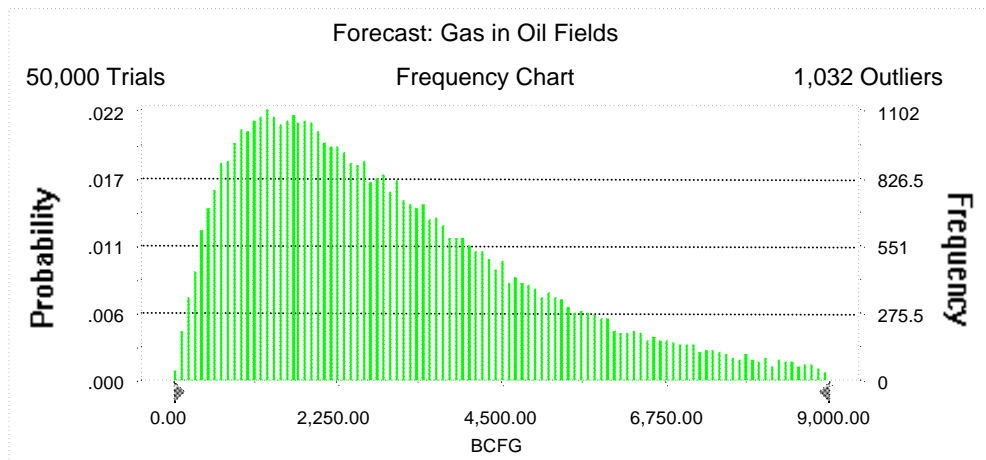| Percentile	MMBO
100%	10.50
95%	228.08
90%	331.51
85%	421.97
80%	508.81
75%	589.31
70%	672.40
65%	755.99
60%	841.53
55%	927.94
50%	1,024.68
45%	1,126.42
40%	1,234.36
35%	1,350.73
30%	1,477.58
25%	1,623.21
20%	1,794.96
15%	2,003.97
10%	2,284.08
5%	2,723.49
0%	6,684.18

End of Forecast

Forecast: Gas in Oil Fields

Summary:
Display range is from 0.00 to 9,000.00 BCFG
Entire range is from 26.35 to 20,172.11 BCFG
After 50,000 trials, the standard error of the mean is 9.83

Statistics:	Value
Trials	50000
Mean	3,097.60
Median	2,594.13
Mode	---
Standard Deviation	2,198.49
Variance	4,833,337.51
Skewness	1.38
Kurtosis	5.69
Coefficient of Variability	0.71
Range Minimum	26.35
Range Maximum	20,172.11
Range Width	20,145.75
Mean Standard Error	9.83

Forecast: Gas in Oil Fields

Forecast: Gas in Oil Fields (cont'd)

Percentiles:

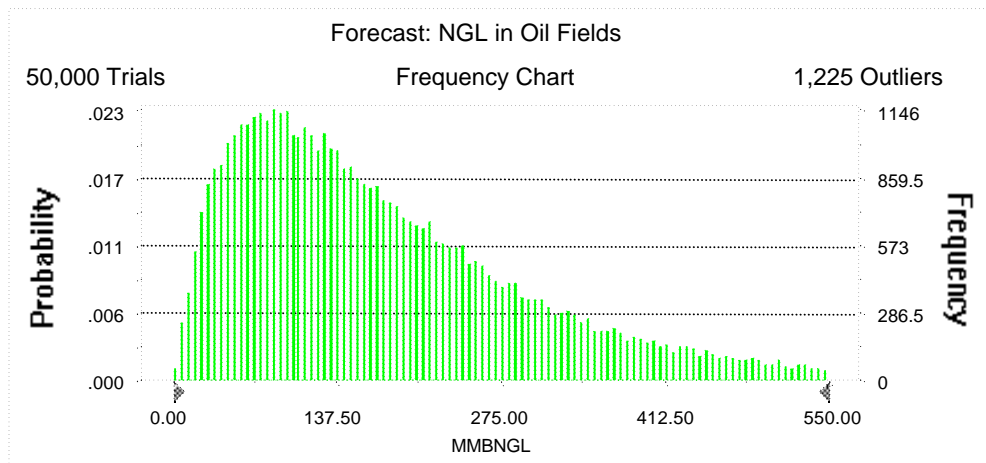| Percentile	BCFG
100%	26.35
95%	558.59
90%	816.16
85%	1,042.00
80%	1,255.14
75%	1,465.26
70%	1,677.41
65%	1,888.77
60%	2,107.25
55%	2,343.99
50%	2,594.13
45%	2,862.29
40%	3,138.65
35%	3,450.97
30%	3,791.84
25%	4,189.11
20%	4,653.55
15%	5,242.34
10%	6,037.06
5%	7,374.92
0%	20,172.11

End of Forecast

Forecast: NGL in Oil Fields

Summary:
　　Display range is from 0.00 to 550.00 MMBNGL
　　Entire range is from 1.45 to 1,446.17 MMBNGL
　　After 50,000 trials, the standard error of the mean is 0.62

Statistics:	Value
Trials	50000
Mean	185.57
Median	150.72
Mode	---
Standard Deviation	139.68
Variance	19,510.66
Skewness	1.59
Kurtosis	6.78
Coefficient of Variability	0.75
Range Minimum	1.45
Range Maximum	1,446.17
Range Width	1,444.71
Mean Standard Error	0.62

Forecast: NGL in Oil Fields

Forecast: NGL in Oil Fields (cont'd)

Percentiles:

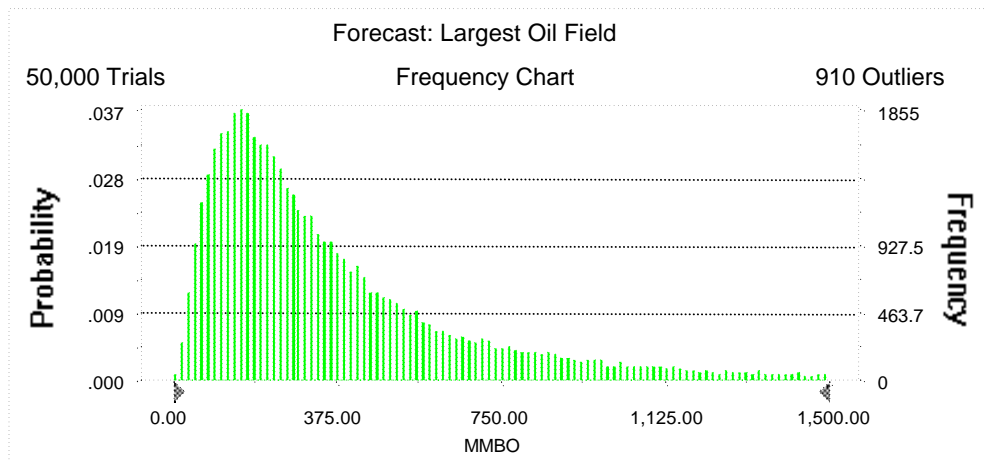| Percentile	MMBNGL
100%	1.45
95%	31.42
90%	46.33
85%	59.44
80%	71.90
75%	84.07
70%	96.09
65%	109.22
60%	122.35
55%	136.12
50%	150.72
45%	166.81
40%	184.24
35%	203.52
30%	224.95
25%	249.23
20%	279.16
15%	316.84
10%	369.80
5%	458.93
0%	1,446.17

End of Forecast

Forecast: Largest Oil Field

Summary:
Display range is from 0.00 to 1,500.00 MMBO
Entire range is from 4.57 to 1,999.93 MMBO
After 50,000 trials, the standard error of the mean is 1.51

Statistics:	Value
Trials	50000
Mean	386.84
Median	278.67
Mode	---
Standard Deviation	337.73
Variance	114,063.90
Skewness	1.91
Kurtosis	7.09
Coefficient of Variability	0.87
Range Minimum	4.57
Range Maximum	1,999.93
Range Width	1,995.35
Mean Standard Error	1.51

Forecast: Largest Oil Field

50,000 Trials   Frequency Chart   910 Outliers

Forecast: Largest Oil Field (cont'd)

Percentiles:

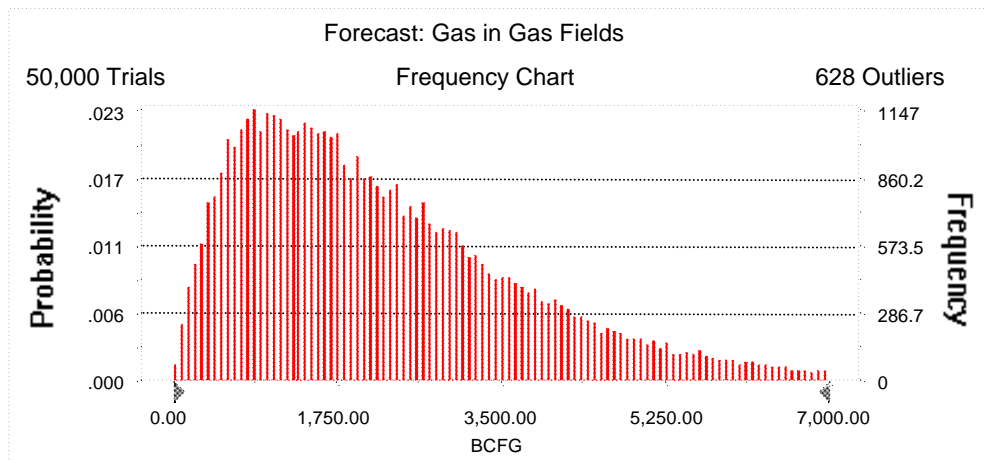| Percentile	MMBO
100%	4.57
95%	68.44
90%	95.31
85%	117.57
80%	139.12
75%	159.45
70%	179.84
65%	202.79
60%	225.82
55%	251.02
50%	278.67
45%	311.07
40%	346.06
35%	385.95
30%	433.37
25%	492.90
20%	566.67
15%	674.60
10%	831.50
5%	1,110.26
0%	1,999.93

End of Forecast

Forecast: Gas in Gas Fields

Summary:

Display range is from 0.00 to 7,000.00 BCFG

Entire range is from 21.37 to 13,231.80 BCFG

After 50,000 trials, the standard error of the mean is 7.05

Statistics:	Value
Trials	50000
Mean	2,285.23
Median	1,934.15
Mode	---
Standard Deviation	1,576.84
Variance	2,486,437.32
Skewness	1.26
Kurtosis	5.18
Coefficient of Variability	0.69
Range Minimum	21.37
Range Maximum	13,231.80
Range Width	13,210.42
Mean Standard Error	7.05

Forecast: Gas in Gas Fields

50,000 Trials   Frequency Chart   628 Outliers

Forecast: Gas in Gas Fields (cont'd)

Percentiles:

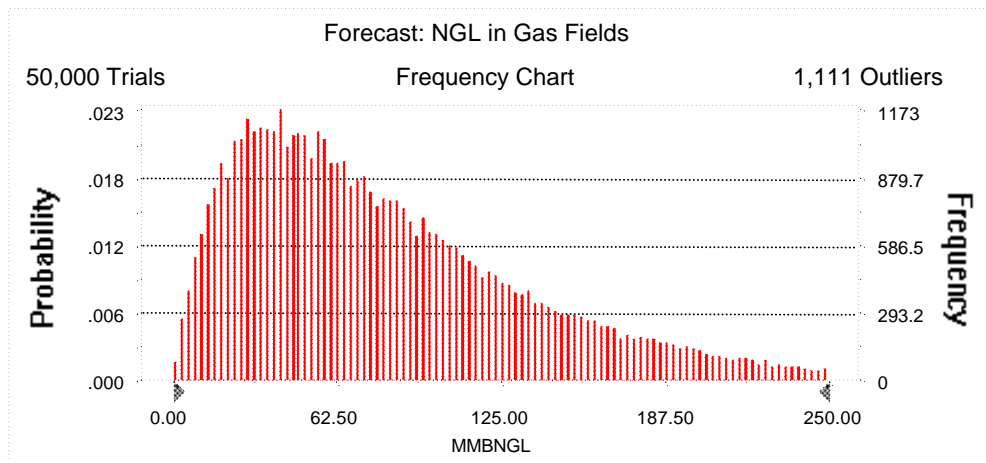| Percentile	BCFG
100%	21.37
95%	415.54
90%	614.00
85%	783.06
80%	940.64
75%	1,098.67
70%	1,256.40
65%	1,420.51
60%	1,583.89
55%	1,752.06
50%	1,934.15
45%	2,132.42
40%	2,346.49
35%	2,575.35
30%	2,824.45
25%	3,103.53
20%	3,443.08
15%	3,867.17
10%	4,416.59
5%	5,334.33
0%	13,231.80

End of Forecast

Forecast: NGL in Gas Fields

Summary:
Display range is from 0.00 to 250.00 MMBNGL
Entire range is from 0.68 to 649.51 MMBNGL
After 50,000 trials, the standard error of the mean is 0.28

Statistics:	Value
Trials	50000
Mean	84.59
Median	69.63
Mode	---
Standard Deviation	62.01
Variance	3,844.80
Skewness	1.49
Kurtosis	6.34
Coefficient of Variability	0.73
Range Minimum	0.68
Range Maximum	649.51
Range Width	648.82
Mean Standard Error	0.28

Forecast: NGL in Gas Fields

Forecast: NGL in Gas Fields (cont'd)

Percentiles:

| Percentile	MMBNGL
100%	0.68
95%	14.48
90%	21.55
85%	27.67
80%	33.29
75%	39.02
70%	44.74
65%	50.56
60%	56.70
55%	62.85
50%	69.63
45%	76.95
40%	84.96
35%	93.44
30%	103.06
25%	114.02
20%	127.51
15%	144.55
10%	167.55
5%	205.13
0%	649.51

End of Forecast

Forecast: Largest Gas Field

Summary:
Display range is from 0.00 to 2,750.00 BCFG
Entire range is from 21.37 to 4,798.15 BCFG
After 50,000 trials, the standard error of the mean is 3.30

Statistics:	Value
Trials	50000
Mean	817.02
Median	581.33
Mode	---
Standard Deviation	737.17
Variance	543,417.37
Skewness	2.14
Kurtosis	8.53
Coefficient of Variability	0.90
Range Minimum	21.37
Range Maximum	4,798.15
Range Width	4,776.78
Mean Standard Error	3.30

Forecast: Largest Gas Field

50,000 Trials   Frequency Chart   1,657 Outliers
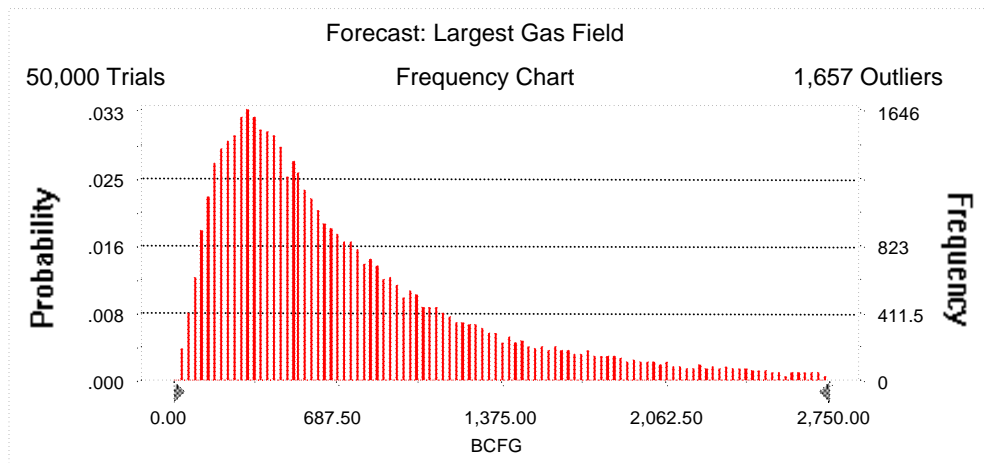
Forecast: Largest Gas Field (cont'd)

Percentiles:

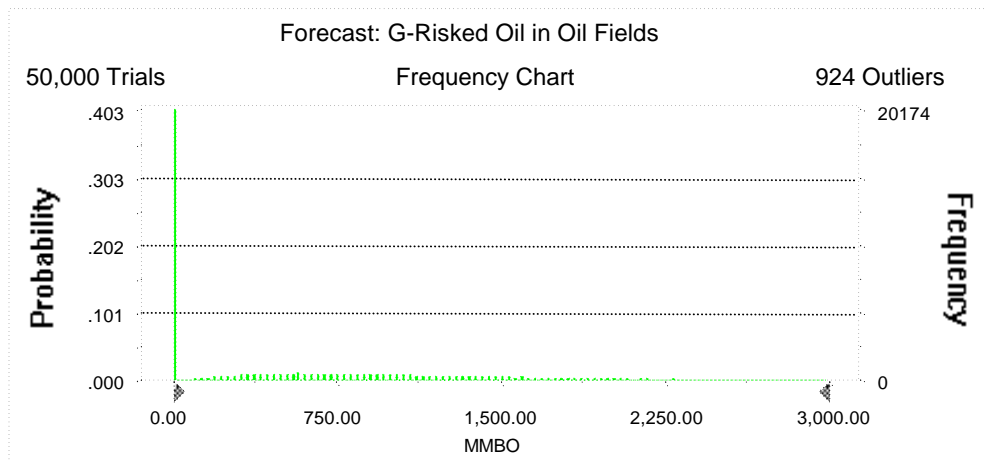| Percentile	BCFG
100%	21.37
95%	146.15
90%	199.78
85%	247.43
80%	292.01
75%	334.23
70%	377.89
65%	423.23
60%	471.50
55%	524.49
50%	581.33
45%	647.09
40%	722.64
35%	806.30
30%	906.56
25%	1,029.23
20%	1,186.10
15%	1,404.53
10%	1,735.60
5%	2,349.71
0%	4,798.15

End of Forecast

Forecast: G-Risked Oil in Oil Fields

Summary:
　　Display range is from 0.00 to 3,000.00 MMBO
　　Entire range is from 0.00 to 6,684.18 MMBO
　　After 50,000 trials, the standard error of the mean is 3.78

Statistics:	Value
Trials	50000
Mean	710.70
Median	446.50
Mode	0.00
Standard Deviation	846.08
Variance	715,845.94
Skewness	1.33
Kurtosis	4.75
Coefficient of Variability	1.19
Range Minimum	0.00
Range Maximum	6,684.18
Range Width	6,684.18
Mean Standard Error	3.78

Forecast: G-Risked Oil in Oil Fields

50,000 Trials   Frequency Chart   924 Outliers

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

Percentiles:

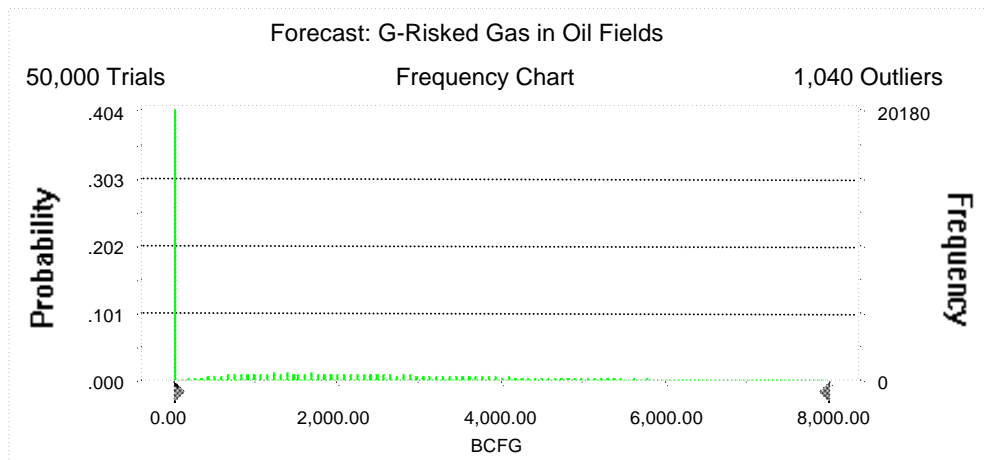| Percentile	MMBO
100%	0.00
95%	0.00
90%	0.00
85%	0.00
80%	0.00
75%	0.00
70%	0.00
65%	0.00
60%	0.00
55%	291.08
50%	446.50
45%	582.04
40%	717.64
35%	864.00
30%	1,017.93
25%	1,193.27
20%	1,385.16
15%	1,616.14
10%	1,924.74
5%	2,389.82
0%	6,684.18

End of Forecast

Forecast: G-Risked Gas in Oil Fields

Summary:
Display range is from 0.00 to 8,000.00 BCFG
Entire range is from 0.00 to 20,172.11 BCFG
After 50,000 trials, the standard error of the mean is 10.16

Statistics:	Value
Trials	50000
Mean	1,844.50
Median	1,101.09
Mode	0.00
Standard Deviation	2,271.52
Variance	5,159,812.39
Skewness	1.53
Kurtosis	5.80
Coefficient of Variability	1.23
Range Minimum	0.00
Range Maximum	20,172.11
Range Width	20,172.11
Mean Standard Error	10.16

Forecast: G-Risked Gas in Oil Fields

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

Percentiles:

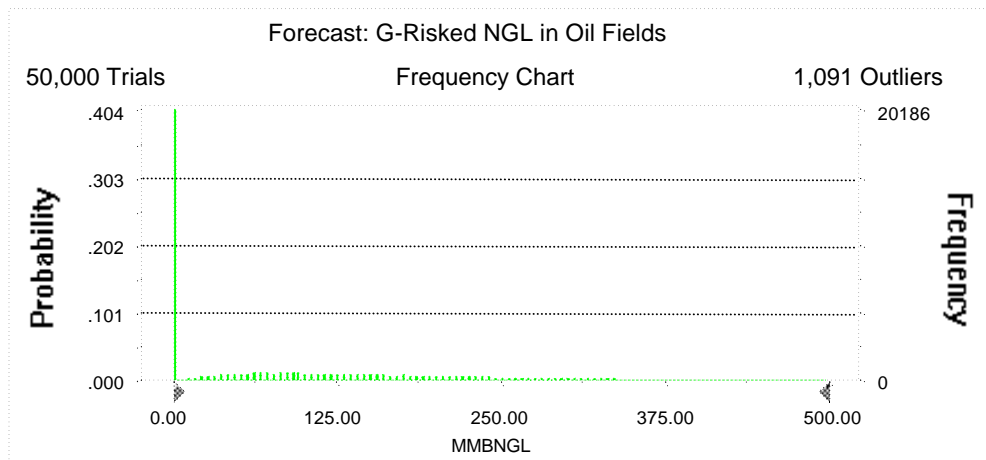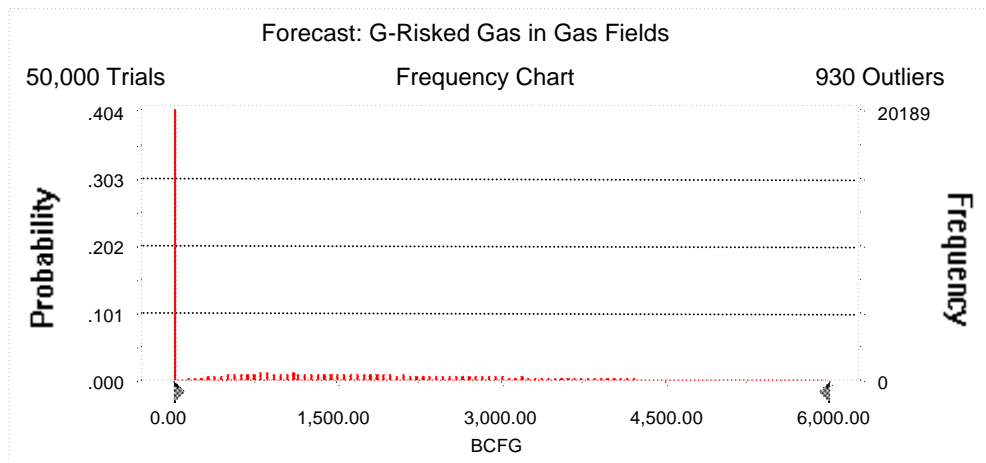| Percentile	BCFG
100%	0.00
95%	0.00
90%	0.00
85%	0.00
80%	0.00
75%	0.00
70%	0.00
65%	0.00
60%	0.00
55%	709.33
50%	1,101.09
45%	1,443.65
40%	1,797.93
35%	2,168.01
30%	2,576.24
25%	3,026.23
20%	3,534.58
15%	4,169.29
10%	5,019.25
5%	6,354.64
0%	20,172.11

End of Forecast

Forecast: G-Risked NGL in Oil Fields

Summary:
Display range is from 0.00 to 500.00 MMBNGL
Entire range is from 0.00 to 1,269.19 MMBNGL
After 50,000 trials, the standard error of the mean is 0.63

Statistics:	Value
Trials	50000
Mean	110.62
Median	62.51
Mode	0.00
Standard Deviation	140.71
Variance	19,799.95
Skewness	1.72
Kurtosis	6.80
Coefficient of Variability	1.27
Range Minimum	0.00
Range Maximum	1,269.19
Range Width	1,269.19
Mean Standard Error	0.63

Forecast: G-Risked NGL in Oil Fields

50,000 Trials   Frequency Chart   1,091 Outliers

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

Percentiles:

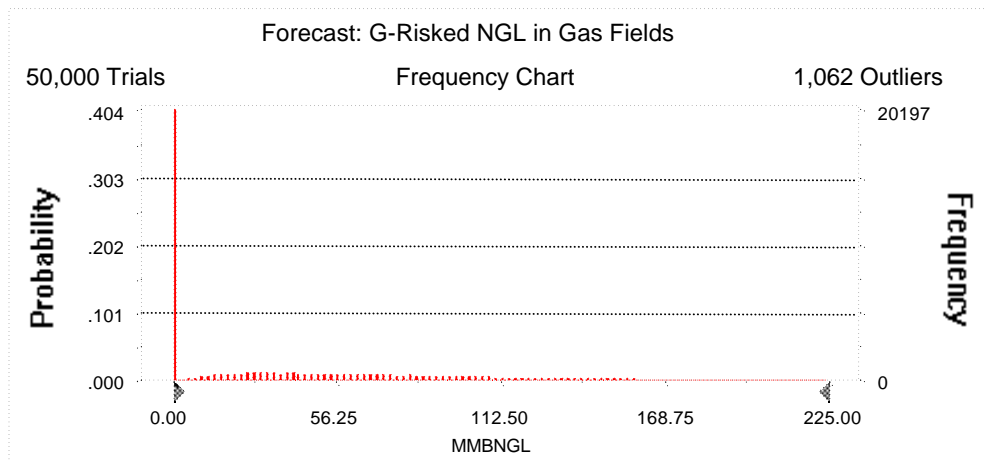| Percentile	MMBNGL
100%	0.00
95%	0.00
90%	0.00
85%	0.00
80%	0.00
75%	0.00
70%	0.00
65%	0.00
60%	0.00
55%	40.02
50%	62.51
45%	83.05
40%	103.42
35%	126.14
30%	149.60
25%	177.40
20%	209.47
15%	247.95
10%	302.92
5%	394.37
0%	1,269.19

End of Forecast

Forecast: G-Risked Gas in Gas Fields

Summary:

Display range is from 0.00 to 6,000.00 BCFG
Entire range is from 0.00 to 13,231.80 BCFG
After 50,000 trials, the standard error of the mean is 7.44

Statistics:	Value
Trials	50000
Mean	1,366.11
Median	817.62
Mode	0.00
Standard Deviation	1,664.06
Variance	2,769,091.89
Skewness	1.45
Kurtosis	5.31
Coefficient of Variability	1.22
Range Minimum	0.00
Range Maximum	13,231.80
Range Width	13,231.80
Mean Standard Error	7.44

Forecast: G-Risked Gas in Gas Fields

50,000 Trials · Frequency Chart · 930 Outliers

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

Percentiles:

Percentile	BCFG
100%	0.00
95%	0.00
90%	0.00
85%	0.00
80%	0.00
75%	0.00
70%	0.00
65%	0.00
60%	0.00
55%	535.38
50%	817.62
45%	1,080.19
40%	1,346.70
35%	1,623.21
30%	1,920.04
25%	2,260.02
20%	2,651.61
15%	3,116.02
10%	3,716.68
5%	4,685.57
0%	13,231.80

End of Forecast

Forecast: G-Risked NGL in Gas Fields

Summary:
Display range is from 0.00 to 225.00 MMBNGL
Entire range is from 0.00 to 603.05 MMBNGL
After 50,000 trials, the standard error of the mean is 0.28

Statistics:	Value
Trials	50000
Mean	50.51
Median	28.98
Mode	0.00
Standard Deviation	63.50
Variance	4,032.72
Skewness	1.64
Kurtosis	6.36
Coefficient of Variability	1.26
Range Minimum	0.00
Range Maximum	603.05
Range Width	603.05
Mean Standard Error	0.28

Forecast: G-Risked NGL in Gas Fields

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

Percentiles:

Percentile	MMBNGL
100%	0.00
95%	0.00
90%	0.00
85%	0.00
80%	0.00
75%	0.00
70%	0.00
65%	0.00
60%	0.00
55%	18.60
50%	28.98
45%	38.22
40%	47.85
35%	58.01
30%	69.15
25%	81.89
20%	96.59
15%	114.33
10%	138.15
5%	177.70
0%	603.05

End of Forecast

Assumptions

Assumption: Number of Oil Fields

Triangular distribution with parameters:
Minimum   2
Likeliest   13
Maximum   50

Selected range is from 2 to 50
Mean value in simulation was 21

Number of Oil Fields
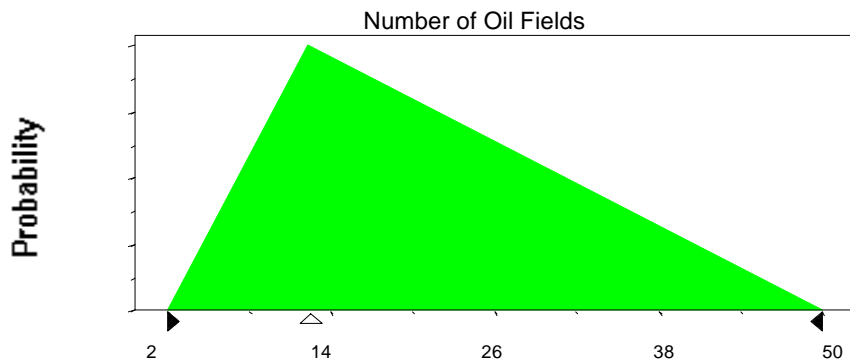
Assumption: Sizes of Oil Fields

Lognormal distribution with parameters: Shifted parameters
Mean   55.86   58.86
Standard Deviation   174.82   174.82

Selected range is from 0.00 to 1,997.00   3.00 to 2,000.00
Mean value in simulation was 53.40   56.4

Assumption: Sizes of Oil Fields (cont'd)

Sizes of Oil Fields

0.17	434.66	869.16	1,303.66	1,738.16
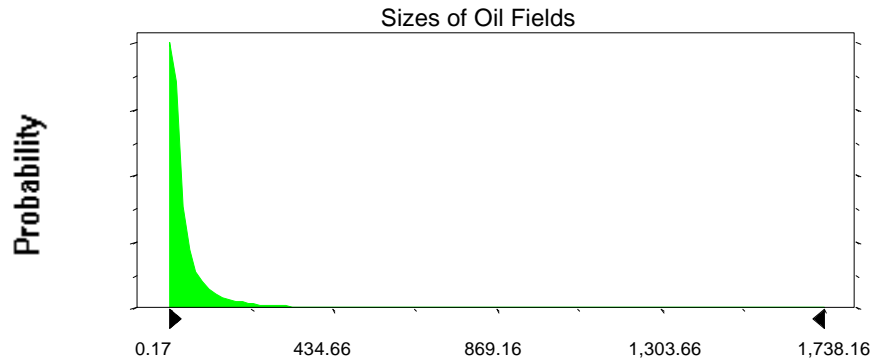
Assumption: GOR in Oil Fields

Triangular distribution with parameters:
Minimum	1,300.00
Likeliest	2,600.00
Maximum	3,900.00

Selected range is from 1,300.00 to 3,900.00
Mean value in simulation was 2,597.41

GOR in Oil Fields

1,300.00	1,950.00	2,600.00	3,250.00	3,900.00
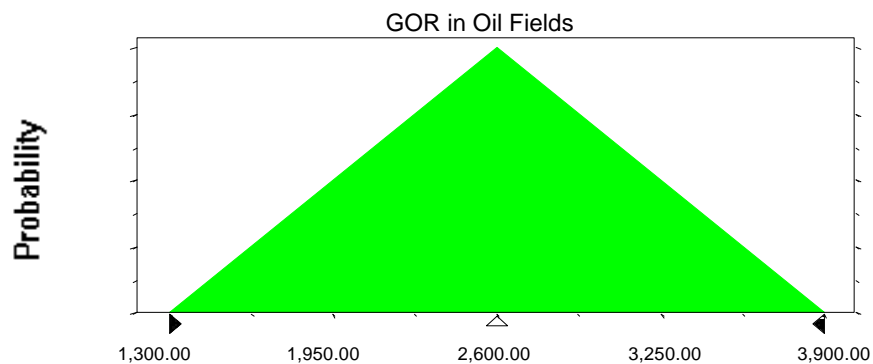
Assumption: LGR in Oil Fields

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 59.94

LGR in Oil Fields
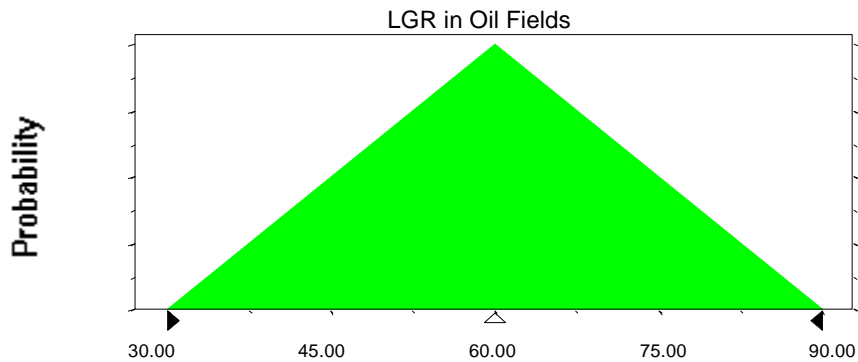
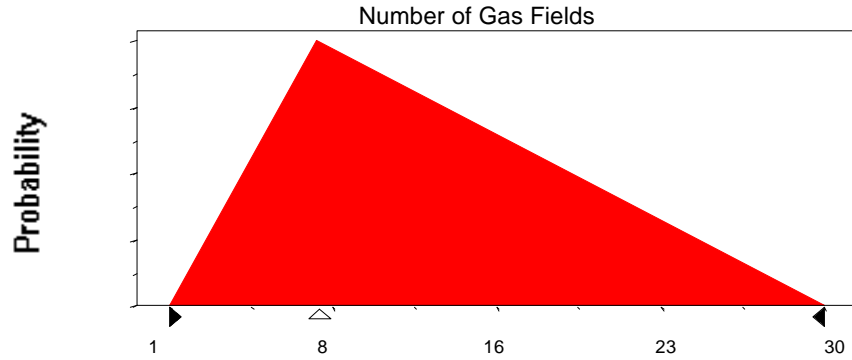**Assumption: Number of Gas Fields**

Triangular distribution with parameters:
Minimum	1
Likeliest	8
Maximum	30

Selected range is from 1 to 30
Mean value in simulation was 13

Assumption: Number of Gas Fields (cont'd)

Number of Gas Fields

Assumption: Sizes of Gas Fields

Lognormal distribution with parameters:		Shifted parameters	
Mean	166.66		184.66
Standard Deviation	415.86		415.86

Selected range is from 0.00 to 4,782.00   18.00 to 4,800.00
Mean value in simulation was 160.86   178.86
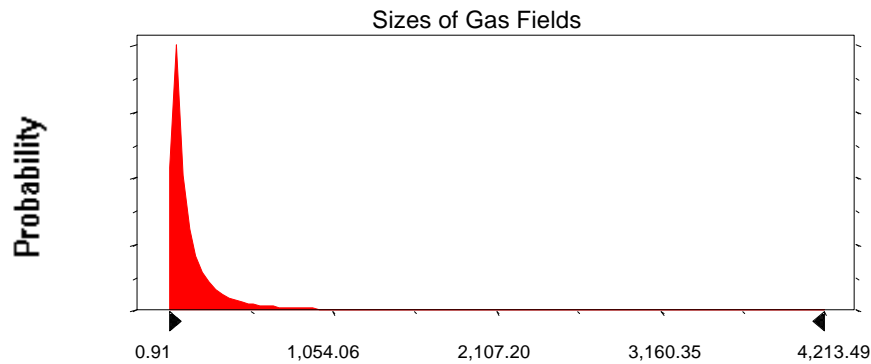
Sizes of Gas Fields

Assumption: LGR in Gas Fields

Triangular distribution with parameters:
Minimum	19.00
Likeliest	37.00
Maximum	55.00

Selected range is from 19.00 to 55.00
Mean value in simulation was 36.98

LGR in Gas Fields
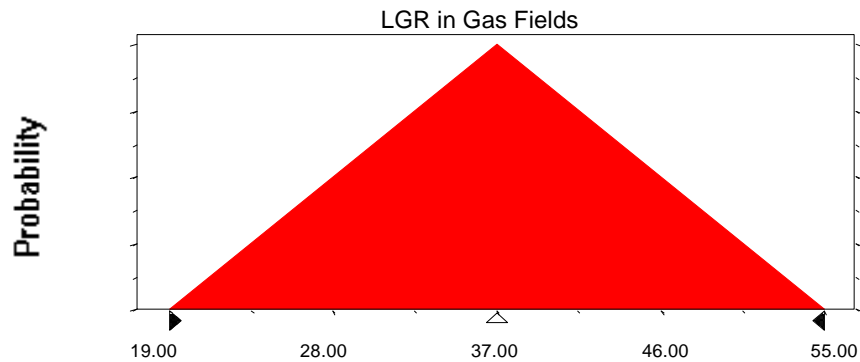
End of Assumptions

Simulation started on 3/16/99 at 15:33:17
Simulation stopped on 3/16/99 at 15:57:01