Anticlinal, Assessment Unit 31440102
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	5	1.00	141	286	460	291	42	92	166	96	2	5	11	6	25	48	102	53
Gas Fields	30						276	567	1,078	609	11	24	51	27	55	87	169	96
Total		1.00	141	286	460	291	318	659	1,244	705	13	30	62	33				

31440102
Anticlinal
Monte Carlo Results
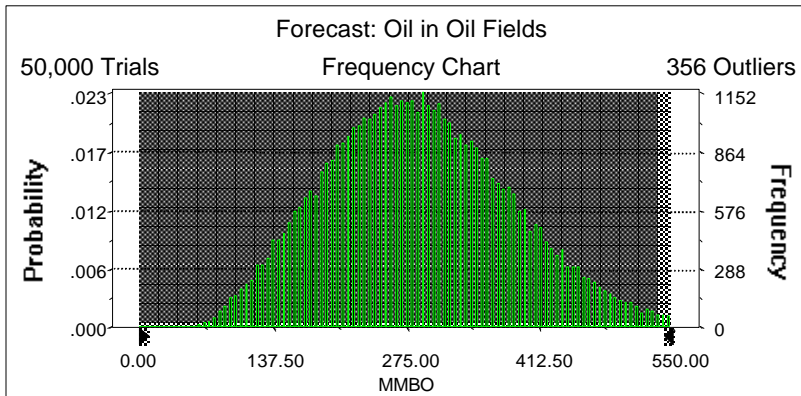
Forecast: Oil in Oil Fields

Summary:
    Display range is from 0.00 to 550.00 MMBO
    Entire range is from 40.77 to 735.46 MMBO
    After 50,000 trials, the standard error of the mean is 0.43

Statistics:	Value
Trials	50000
Mean	291.07
Median	285.51
Mode	---
Standard Deviation	96.57
Variance	9,325.83
Skewness	0.34
Kurtosis	2.92
Coefficient of Variability	0.33
Range Minimum	40.77
Range Maximum	735.46
Range Width	694.69
Mean Standard Error	0.43

Forecast: Oil in Oil Fields (cont'd)

Percentiles:

Percentile	MMBO
100%	40.77
95%	141.48
90%	168.65
85%	189.61
80%	206.21
75%	221.25
70%	235.04
65%	248.38
60%	260.79
55%	273.20
50%	285.51
45%	298.05
40%	310.98
35%	324.10
30%	338.83
25%	354.44
20%	372.23
15%	392.78
10%	419.35
5%	459.57
0%	735.46

End of Forecast
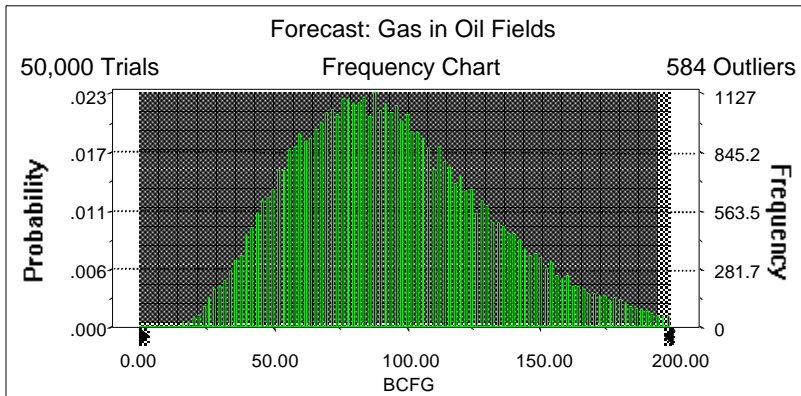
Forecast: Gas in Oil Fields

Summary:
Display range is from 0.00 to 200.00 BCFG
Entire range is from 11.20 to 295.07 BCFG
After 50,000 trials, the standard error of the mean is 0.17

Statistics:	Value
Trials	50000
Mean	96.42
Median	92.05
Mode	---
Standard Deviation	38.15
Variance	1,455.49
Skewness	0.69
Kurtosis	3.54
Coefficient of Variability	0.40
Range Minimum	11.20
Range Maximum	295.07
Range Width	283.87
Mean Standard Error	0.17

Forecast: Gas in Oil Fields
50,000 Trials — Frequency Chart — 584 Outliers

Forecast: Gas in Oil Fields (cont'd)

Percentiles:

Percentile	BCFG
100%	11.20
95%	42.34
90%	50.89
85%	57.51
80%	63.15
75%	68.47
70%	73.42
65%	78.08
60%	82.73
55%	87.38
50%	92.05
45%	96.77
40%	101.62
35%	107.00
30%	112.96
25%	119.48
20%	126.94
15%	136.02
10%	147.76
5%	166.10
0%	295.07

End of Forecast

Forecast: NGL in Oil Fields

Summary:
    Display range is from 0.00 to 15.00 MMBNGL
    Entire range is from 0.54 to 22.05 MMBNGL
    After 50,000 trials, the standard error of the mean is 0.01

Statistics:	Value
Trials	50000
Mean	5.79
Median	5.38
Mode	---
Standard Deviation	2.62
Variance	6.86
Skewness	0.92
Kurtosis	4.12
Coefficient of Variability	0.45
Range Minimum	0.54
Range Maximum	22.05
Range Width	21.50
Mean Standard Error	0.01
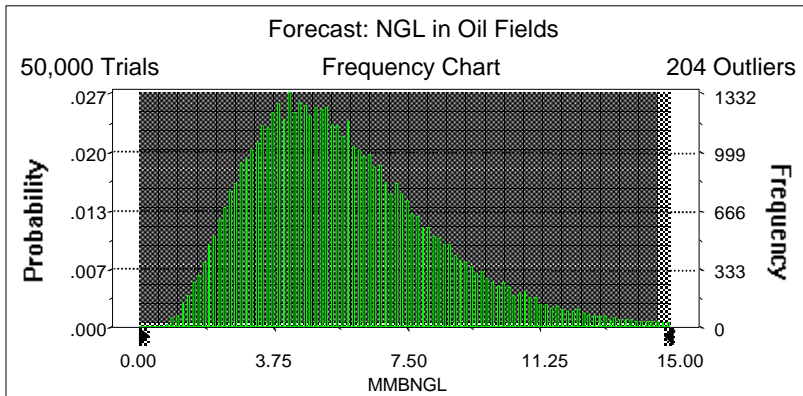
Forecast: NGL in Oil Fields

Forecast: NGL in Oil Fields (cont'd)

Percentiles:

| Percentile	MMBNGL
100%	0.54
95%	2.28
90%	2.80
85%	3.20
80%	3.55
75%	3.87
70%	4.18
65%	4.47
60%	4.77
55%	5.07
50%	5.38
45%	5.70
40%	6.03
35%	6.41
30%	6.81
25%	7.27
20%	7.79
15%	8.45
10%	9.31
5%	10.75
0%	22.05

End of Forecast

Forecast: Largest Oil Field

Summary:
Display range is from 10.00 to 120.00 MMBO
Entire range is from 11.08 to 149.98 MMBO
After 50,000 trials, the standard error of the mean is 0.11

Statistics:	Value
Trials	50000
Mean	53.29
Median	47.52
Mode	---
Standard Deviation	23.82
Variance	567.51
Skewness	1.29
Kurtosis	4.76
Coefficient of Variability	0.45
Range Minimum	11.08
Range Maximum	149.98
Range Width	138.90
Mean Standard Error	0.11
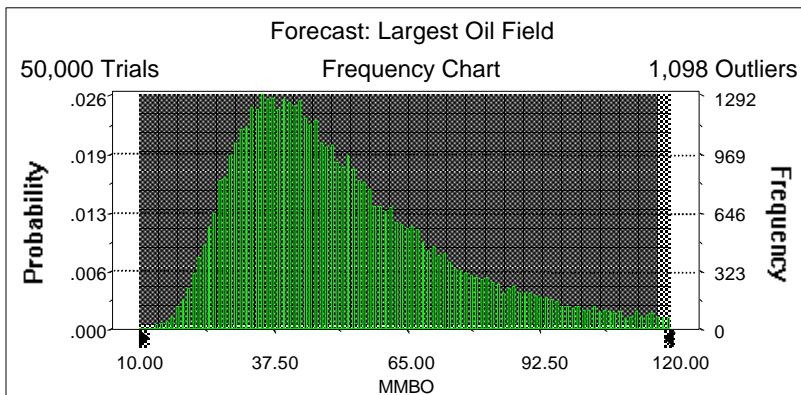
Forecast: Largest Oil Field
50,000 Trials   Frequency Chart   1,098 Outliers

Forecast: Largest Oil Field (cont'd)

Percentiles:

Percentile	MMBO
100%	11.08
95%	25.49
90%	29.00
85%	31.68
80%	34.05
75%	36.25
70%	38.43
65%	40.60
60%	42.84
55%	45.11
50%	47.52
45%	50.25
40%	53.17
35%	56.32
30%	60.05
25%	64.36
20%	69.39
15%	76.14
10%	86.09
5%	102.34
0%	149.98

End of Forecast
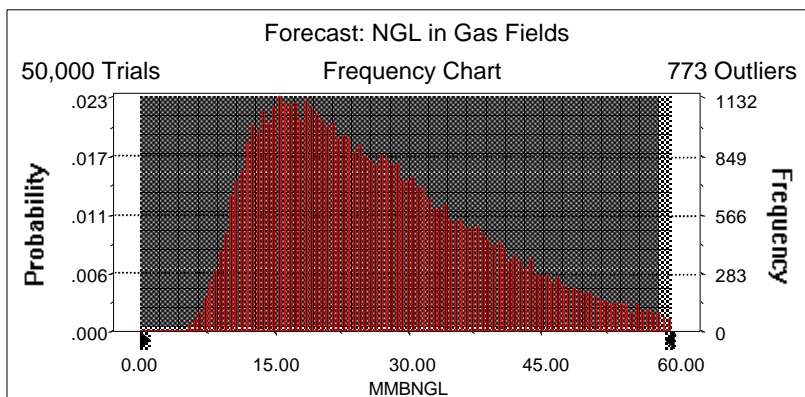
Forecast: Gas in Gas Fields

Summary:
Display range is from 100.00 to 1,300.00 BCFG
Entire range is from 178.37 to 1,615.77 BCFG
After 50,000 trials, the standard error of the mean is 1.13

Statistics:	Value
Trials	50000
Mean	608.87
Median	566.83
Mode	---
Standard Deviation	251.91
Variance	63,458.00
Skewness	0.61
Kurtosis	2.65
Coefficient of Variability	0.41
Range Minimum	178.37
Range Maximum	1,615.77
Range Width	1,437.41
Mean Standard Error	1.13
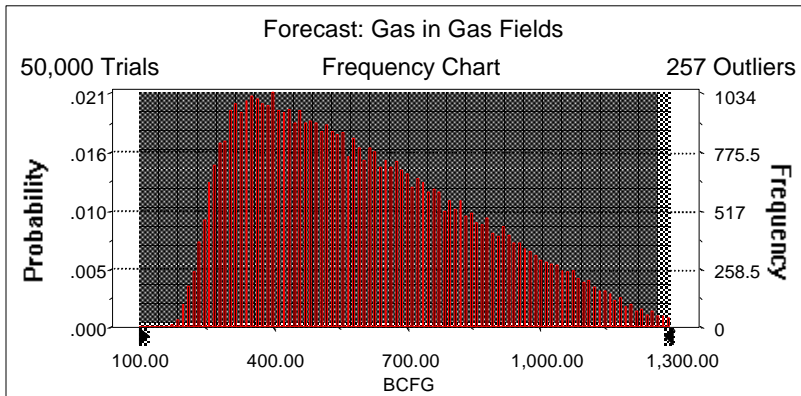
Forecast: Gas in Gas Fields
50,000 Trials   Frequency Chart   257 Outliers

Forecast: Gas in Gas Fields (cont'd)

Percentiles:

Percentile	BCFG
100%	178.37
95%	275.64
90%	311.55
85%	342.35
80%	372.37
75%	402.25
70%	433.43
65%	465.24
60%	497.95
55%	531.89
50%	566.83
45%	604.89
40%	644.28
35%	686.15
30%	731.30
25%	780.16
20%	835.74
15%	898.59
10%	974.36
5%	1,078.05
0%	1,615.77

End of Forecast

Forecast: NGL in Gas Fields

Summary:
   Display range is from 0.00 to 60.00 MMBNGL
   Entire range is from 4.25 to 93.13 MMBNGL
   After 50,000 trials, the standard error of the mean is 0.06

Statistics:	Value
Trials	50000
Mean	26.81
Median	24.36
Mode	---
Standard Deviation	12.59
Variance	158.63
Skewness	0.88
Kurtosis	3.52
Coefficient of Variability	0.47
Range Minimum	4.25
Range Maximum	93.13
Range Width	88.88
Mean Standard Error	0.06

Forecast: NGL in Gas Fields

50,000 Trials — Frequency Chart — 773 Outliers

Forecast: NGL in Gas Fields (cont'd)

Percentiles:

Percentile	MMBNGL
100%	4.25
95%	10.88
90%	12.70
85%	14.20
80%	15.63
75%	16.99
70%	18.36
65%	19.76
60%	21.20
55%	22.76
50%	24.36
45%	26.12
40%	27.95
35%	29.83
30%	31.96
25%	34.37
20%	37.13
15%	40.32
10%	44.49
5%	51.06
0%	93.13

End of Forecast

Forecast: Largest Gas Field

Summary:
Display range is from 25.00 to 200.00 BCFG
Entire range is from 37.50 to 249.94 BCFG
After 50,000 trials, the standard error of the mean is 0.16

Statistics:	Value
Trials	50000
Mean	96.03
Median	87.36
Mode	---
Standard Deviation	35.54
Variance	1,263.20
Skewness	1.38
Kurtosis	5.18
Coefficient of Variability	0.37
Range Minimum	37.50
Range Maximum	249.94
Range Width	212.44
Mean Standard Error	0.16
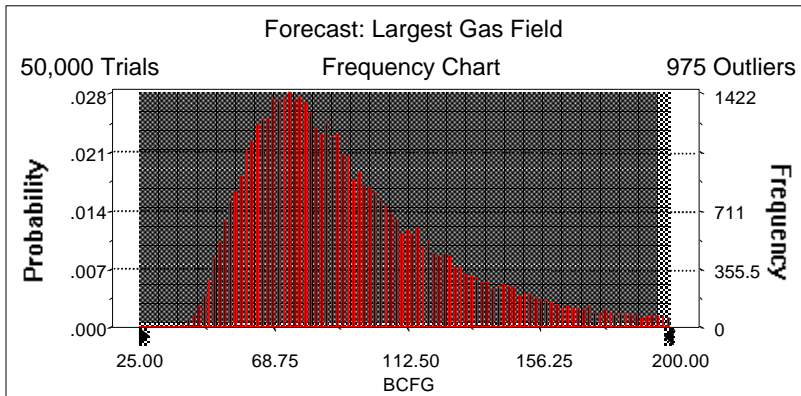
Forecast: Largest Gas Field

Forecast: Largest Gas Field (cont'd)

Percentiles:

Percentile	BCFG
100%	37.50
95%	55.08
90%	60.27
85%	64.11
80%	67.63
75%	70.88
70%	74.02
65%	77.14
60%	80.33
55%	83.73
50%	87.36
45%	91.07
40%	95.28
35%	100.15
30%	105.57
25%	112.08
20%	119.78
15%	129.49
10%	144.24
5%	168.66
0%	249.94

End of Forecast

Assumptions

Assumption: Number of Oil Fields

Triangular distribution with parameters:
Minimum	5
Likeliest	15
Maximum	25

Selected range is from 5 to 25
Mean value in simulation was 15

Number of Oil Fields
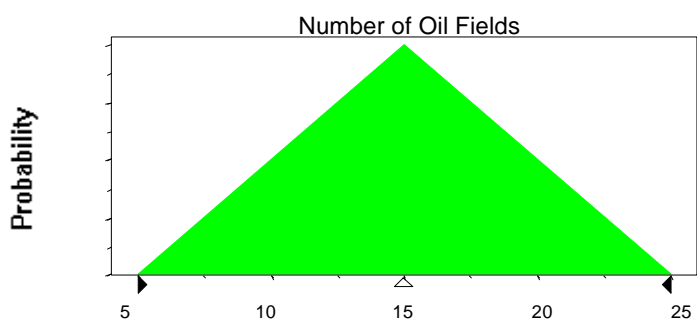
Assumption: Sizes of Oil Fields

Lognormal distribution with parameters:		Shifted parameters
Mean	14.54	19.54
Standard Deviation	15.35	15.35

Selected range is from 0.00 to 145.00	5.00 to 150.00
Mean value in simulation was 14.40	19.4

Assumption: Sizes of Oil Fields (cont'd)

Sizes of Oil Fields
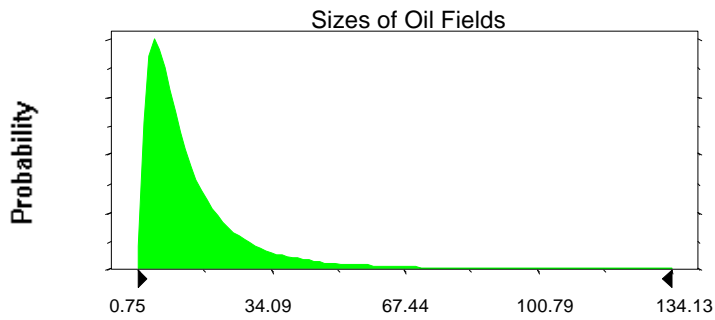
Assumption: GOR in Oil Fields

Triangular distribution with parameters:
Minimum	165.00
Likeliest	327.46
Maximum	500.00

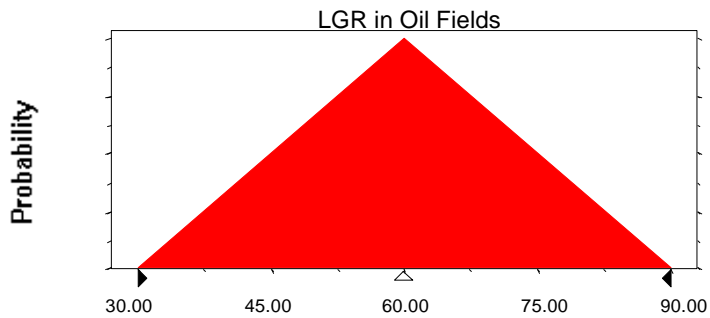Selected range is from 165.00 to 500.00
Mean value in simulation was 331.36
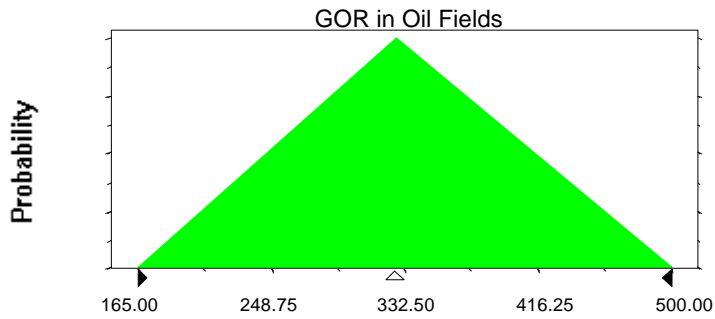
GOR in Oil Fields

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
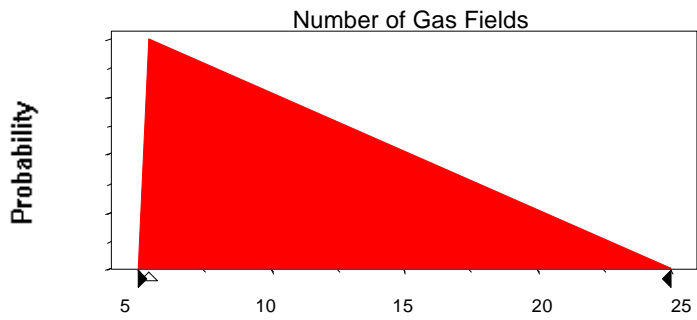Mean value in simulation was 60.03

LGR in Oil Fields

Assumption: Number of Gas Fields

Triangular distribution with parameters:
Minimum   5
Likeliest   5
Maximum   25

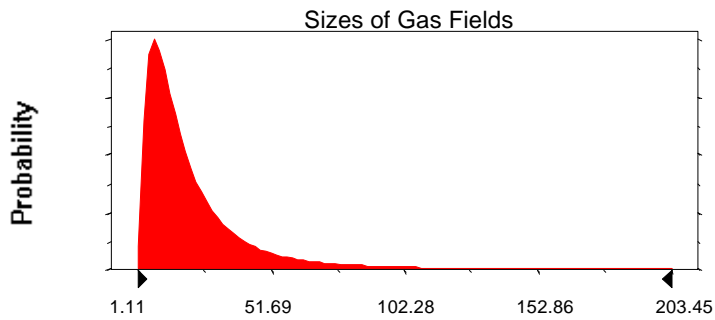Selected range is from 5 to 25
Mean value in simulation was 12

Assumption: Number of Gas Fields (cont'd)

Number of Gas Fields

Assumption: Sizes of Gas Fields

Lognormal distribution with parameters:		Shifted parameters	
Mean	21.88		51.88
Standard Deviation	23.25		23.25

Selected range is from 0.00 to 220.00   30.00 to 250.00
Mean value in simulation was 21.64   51.64

Sizes of Gas Fields

Assumption: LGR in Gas Fields

Triangular distribution with parameters:

Minimum	22.00
Likeliest	44.00
Maximum	66.00

Selected range is from 22.00 to 66.00
Mean value in simulation was 44.01
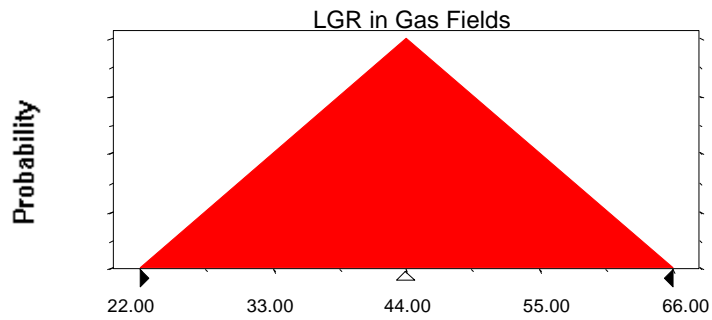
End of Assumptions

Simulation started on 12/8/98 at 12:52:54
Simulation stopped on 12/8/98 at 13:13:06