Brunei-Sabah Deltaics, Assessment Unit 37010101
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	1	1.00	680	1,998	4,032	2,137	1,767	5,432	12,055	5,989	97	317	764	359	87	247	561	276
Gas Fields	6						2,861	9,108	20,095	9,988	115	388	935	440	460	1,454	3,993	1,729
Total		1.00	680	1,998	4,032	2,137	4,628	14,540	32,150	15,977	212	706	1,699	799				

Forecast: Oil in Oil Fields

Summary:
Display range is from 0.00 to 5,000.00 MMBO
Entire range is from 92.11 to 6,945.58 MMBO
After 50,000 trials, the standard error of the mean is 4.63

Statistics:	Value
Trials	50000
Mean	2,137.41
Median	1,997.67
Mode	---
Standard Deviation	1,034.24
Variance	1,069,662.70
Skewness	0.58
Kurtosis	2.92
Coefficient of Variability	0.48
Range Minimum	92.11
Range Maximum	6,945.58
Range Width	6,853.47
Mean Standard Error	4.63
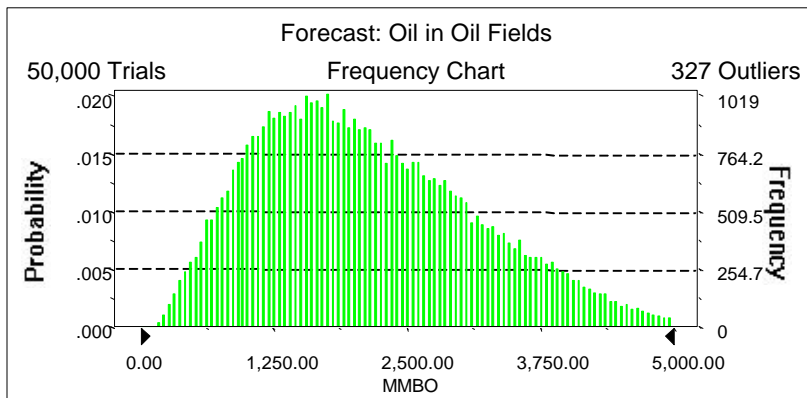
Forecast: Oil in Oil Fields

Forecast: Oil in Oil Fields (cont'd)

Percentiles:

Percentile	MMBO
100%	92.11
95%	679.97
90%	895.25
85%	1,060.94
80%	1,206.42
75%	1,339.29
70%	1,473.96
65%	1,601.55
60%	1,730.55
55%	1,860.47
50%	1,997.67
45%	2,139.74
40%	2,289.47
35%	2,452.16
30%	2,627.91
25%	2,817.66
20%	3,023.60
15%	3,278.54
10%	3,596.18
5%	4,032.31
0%	6,945.58

End of Forecast

Forecast: Gas in Oil Fields

Summary:
    Display range is from 0.00 to 15,000.00 BCFG
    Entire range is from 201.99 to 24,858.00 BCFG
    After 50,000 trials, the standard error of the mean is 14.35

Statistics:	Value
Trials	50000
Mean	5,988.52
Median	5,432.01
Mode	---
Standard Deviation	3,208.30
Variance	10,293,194.21
Skewness	0.87
Kurtosis	3.71
Coefficient of Variability	0.54
Range Minimum	201.99
Range Maximum	24,858.00
Range Width	24,656.01
Mean Standard Error	14.35
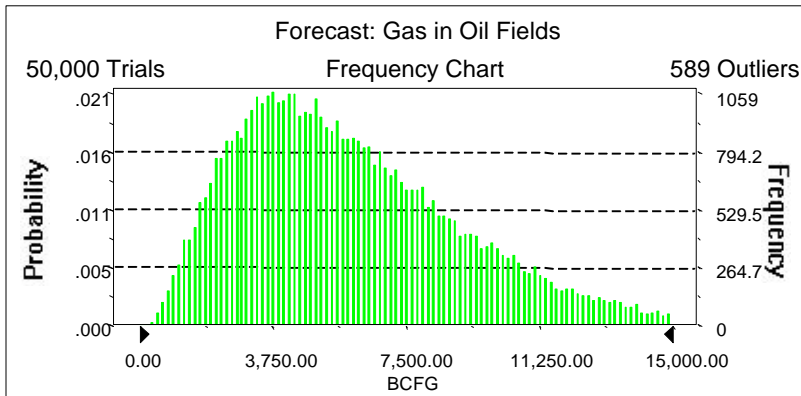
Forecast: Gas in Oil Fields

Forecast: Gas in Oil Fields (cont'd)

Percentiles:

Percentile	BCFG
100%	201.99
95%	1,766.73
90%	2,321.41
85%	2,775.94
80%	3,188.16
75%	3,560.47
70%	3,918.56
65%	4,282.19
60%	4,652.50
55%	5,036.80
50%	5,432.01
45%	5,857.06
40%	6,300.59
35%	6,777.76
30%	7,291.86
25%	7,887.80
20%	8,559.48
15%	9,376.95
10%	10,434.67
5%	12,055.03
0%	24,858.00

End of Forecast

Forecast: NGL in Oil Fields

Summary:
    Display range is from 0.00 to 1,000.00 MMBNGL
    Entire range is from 10.81 to 1,709.95 MMBNGL
    After 50,000 trials, the standard error of the mean is 0.94

Statistics:	Value
Trials	50000
Mean	359.28
Median	317.25
Mode	---
Standard Deviation	210.13
Variance	44,155.44
Skewness	1.13
Kurtosis	4.68
Coefficient of Variability	0.58
Range Minimum	10.81
Range Maximum	1,709.95
Range Width	1,699.14
Mean Standard Error	0.94
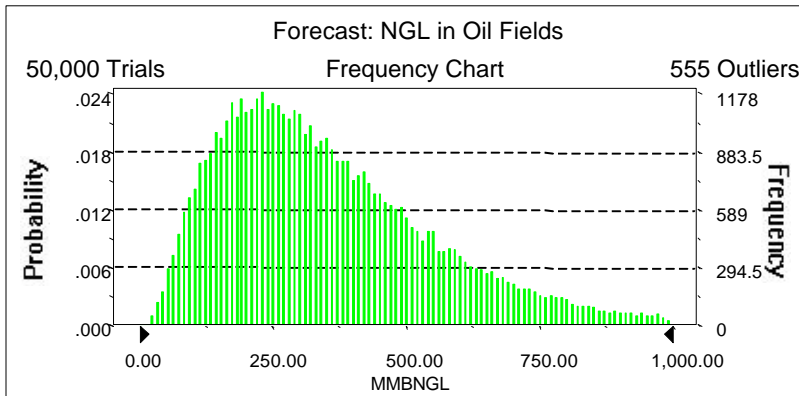
Forecast: NGL in Oil Fields
50,000 Trials   Frequency Chart   555 Outliers

Forecast: NGL in Oil Fields (cont'd)

Percentiles:

Percentile	MMBNGL
100%	10.81
95%	97.22
90%	129.75
85%	156.67
80%	180.12
75%	202.70
70%	225.46
65%	247.13
60%	269.81
55%	293.30
50%	317.25
45%	343.63
40%	370.74
35%	400.79
30%	433.96
25%	471.95
20%	515.41
15%	571.42
10%	644.73
5%	764.03
0%	1,709.95

End of Forecast

Forecast: Largest Oil Field

Summary:
    Display range is from 0.00 to 700.00 MMBO
    Entire range is from 13.39 to 649.99 MMBO
    After 50,000 trials, the standard error of the mean is 0.64

Statistics:	Value
Trials	50000
Mean	276.26
Median	247.30
Mode	---
Standard Deviation	144.17
Variance	20,786.32
Skewness	0.65
Kurtosis	2.61
Coefficient of Variability	0.52
Range Minimum	13.39
Range Maximum	649.99
Range Width	636.61
Mean Standard Error	0.64
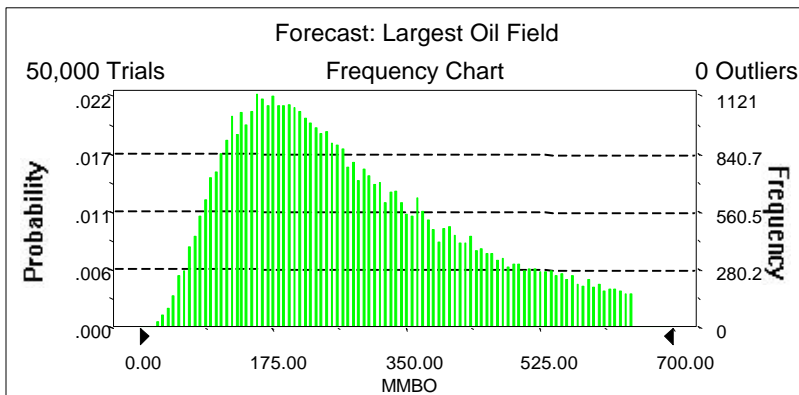
Forecast: Largest Oil Field

50,000 Trials   Frequency Chart   0 Outliers

Forecast: Largest Oil Field (cont'd)

Percentiles:

Percentile	MMBO
100%	13.39
95%	87.13
90%	110.64
85%	128.92
80%	146.73
75%	162.99
70%	178.82
65%	195.17
60%	211.74
55%	228.87
50%	247.30
45%	266.77
40%	288.68
35%	312.58
30%	338.99
25%	369.12
20%	404.66
15%	445.11
10%	497.18
5%	561.35
0%	649.99

End of Forecast

Forecast: Gas in Gas Fields

Summary:
Display range is from 0.00 to 25,000.00 BCFG
Entire range is from 443.17 to 35,067.98 BCFG
After 50,000 trials, the standard error of the mean is 24.03

Statistics:	Value
Trials	50000
Mean	9,988.39
Median	9,108.11
Mode	---
Standard Deviation	5,374.14
Variance	28,881,347.26
Skewness	0.71
Kurtosis	3.08
Coefficient of Variability	0.54
Range Minimum	443.17
Range Maximum	35,067.98
Range Width	34,624.81
Mean Standard Error	24.03
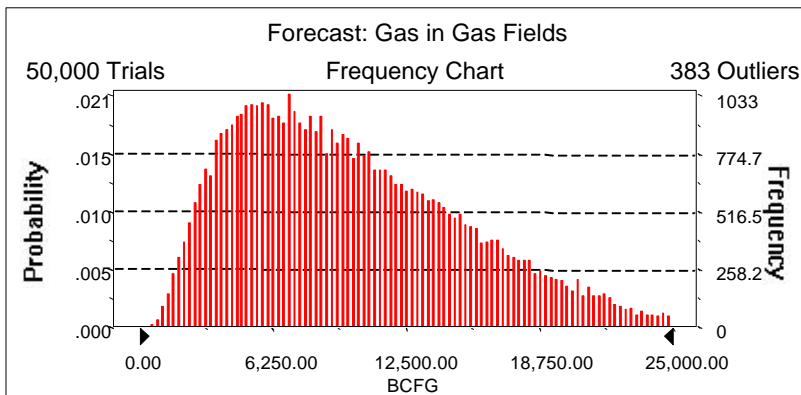
Forecast: Gas in Gas Fields

Forecast: Gas in Gas Fields (cont'd)

Percentiles:

Percentile	BCFG
100%	443.17
95%	2,860.88
90%	3,724.76
85%	4,442.84
80%	5,095.01
75%	5,733.78
70%	6,371.93
65%	7,034.10
60%	7,685.76
55%	8,381.85
50%	9,108.11
45%	9,851.85
40%	10,632.94
35%	11,490.76
30%	12,433.93
25%	13,461.89
20%	14,579.62
15%	15,904.90
10%	17,603.23
5%	20,095.08
0%	35,067.98

End of Forecast

Forecast: NGL in Gas Fields

Summary:
Display range is from 0.00 to 1,200.00 MMBNGL
Entire range is from 13.85 to 2,044.18 MMBNGL
After 50,000 trials, the standard error of the mean is 1.15

Statistics:	Value
Trials	50000
Mean	439.51
Median	388.45
Mode	---
Standard Deviation	258.04
Variance	66,586.21
Skewness	0.99
Kurtosis	3.96
Coefficient of Variability	0.59
Range Minimum	13.85
Range Maximum	2,044.18
Range Width	2,030.34
Mean Standard Error	1.15
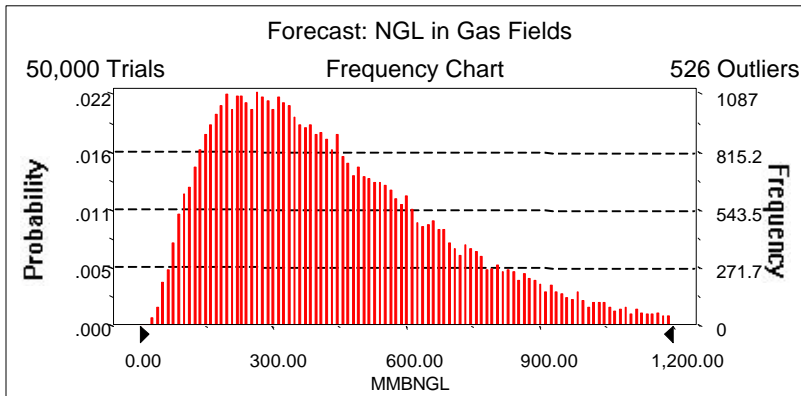
Forecast: NGL in Gas Fields

Forecast: NGL in Gas Fields (cont'd)

Percentiles:

Percentile	MMBNGL
100%	13.85
95%	115.16
90%	153.32
85%	184.43
80%	213.00
75%	241.20
70%	269.71
65%	298.14
60%	326.96
55%	356.49
50%	388.45
45%	421.82
40%	456.55
35%	497.07
30%	540.13
25%	587.30
20%	642.83
15%	709.70
10%	801.33
5%	935.08
0%	2,044.18

End of Forecast

Forecast: Largest Gas Field

Summary:
Display range is from 0.00 to 5,000.00 BCFG
Entire range is from 75.55 to 4,996.08 BCFG
After 50,000 trials, the standard error of the mean is 4.77

Statistics:	Value
Trials	50000
Mean	1,728.74
Median	1,454.48
Mode	---
Standard Deviation	1,067.25
Variance	1,139,020.03
Skewness	0.99
Kurtosis	3.37
Coefficient of Variability	0.62
Range Minimum	75.55
Range Maximum	4,996.08
Range Width	4,920.53
Mean Standard Error	4.77
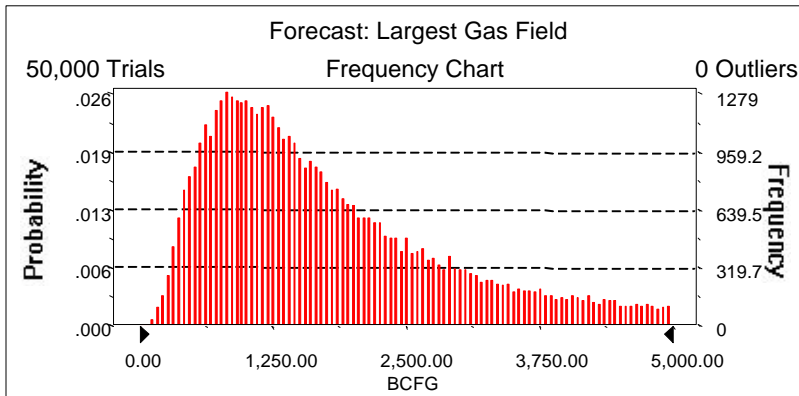
Forecast: Largest Gas Field

Forecast: Largest Gas Field (cont'd)

Percentiles:

Percentile	BCFG
100%	75.55
95%	459.63
90%	597.84
85%	714.03
80%	815.33
75%	914.16
70%	1,016.45
65%	1,119.05
60%	1,223.45
55%	1,334.21
50%	1,454.48
45%	1,590.17
40%	1,731.94
35%	1,893.77
30%	2,082.25
25%	2,299.25
20%	2,566.02
15%	2,903.19
10%	3,341.60
5%	3,992.81
0%	4,996.08

End of Forecast

Assumptions

Assumption: Number of Oil Fields

Triangular distribution with parameters:
Minimum	20
Likeliest	108
Maximum	350

Selected range is from 20 to 350
Mean value in simulation was 159

Number of Oil Fields
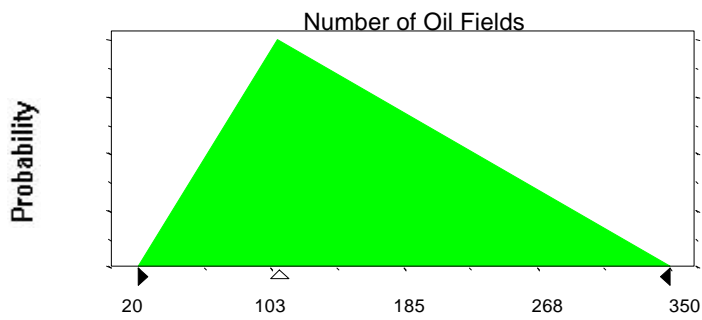
Assumption: Sizes of Oil Fields

Lognormal distribution with parameters:		Shifted parameters	
Mean	13.63		14.63
Standard Deviation	60.44		60.44
Selected range is from 0.00 to 649.00		1.00 to 650.00	
Mean value in simulation was 12.48		13.48	

Assumption: Sizes of Oil Fields (cont'd)

Sizes of Oil Fields

0.02	138.74	277.47	416.20	554.92
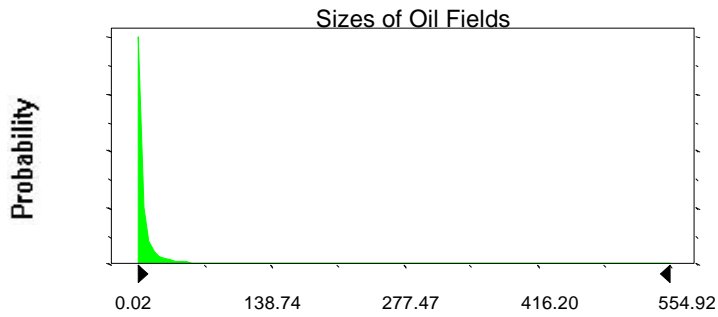
Assumption: GOR in Oil Fields

Triangular distribution with parameters:

Minimum	1,400.00
Likeliest	2,800.00
Maximum	4,200.00

Selected range is from 1,400.00 to 4,200.00
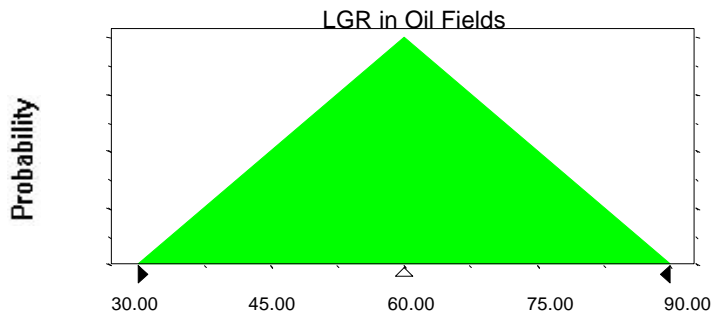Mean value in simulation was 2,799.88

GOR in Oil Fields

1,400.00	2,100.00	2,800.00	3,500.00	4,200.00
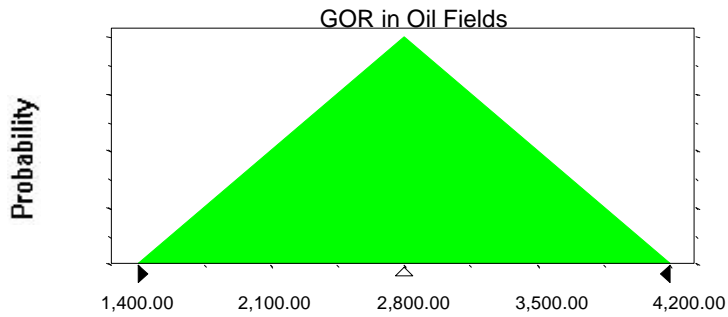
Assumption: LGR in Oil Fields

Triangular distribution with parameters:
Minimum	30.00
Likeliest	60.00
Maximum	90.00

Selected range is from 30.00 to 90.00
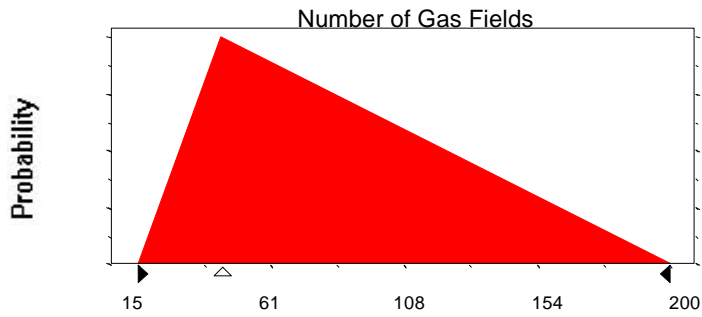Mean value in simulation was 59.99

LGR in Oil Fields

Assumption: Number of Gas Fields

Triangular distribution with parameters:
Minimum	15
Likeliest	44
Maximum	200

Selected range is from 15 to 200
Mean value in simulation was 87

Assumption: Number of Gas Fields (cont'd)

Number of Gas Fields

Assumption: Sizes of Gas Fields

Lognormal distribution with parameters:		Shifted parameters	
Mean	118.06		124.06
Standard Deviation	449.33		449.33

Selected range is from 0.00 to 4,994.00   6.00 to 5,000.00
Mean value in simulation was 109.83   115.83
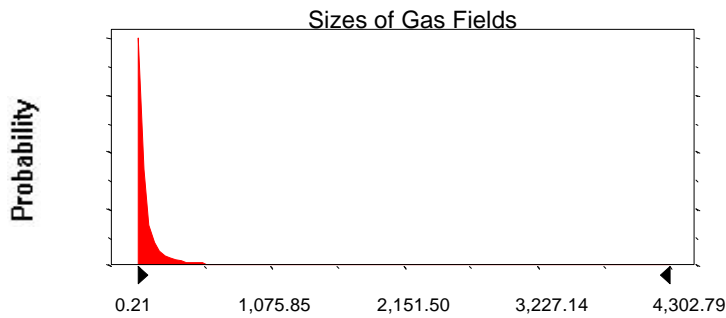
Sizes of Gas Fields

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 43.97
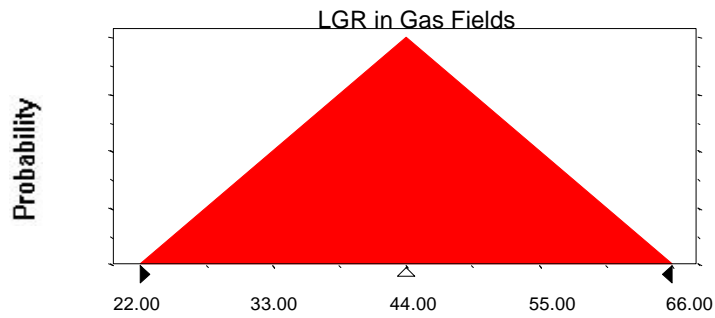
End of Assumptions

Simulation started on 7/20/99 at 9:18:23
Simulation stopped on 7/20/99 at 11:11:18