

**Cretaceous Reservoirs in Northwest Desert Anticlines, Assessment Unit 20190101
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	10	1.00	1,289	4,203	9,714	4,702	752	2,496	6,006	2,819	33	111	275	127	252	838	2,753	1,067
Gas Fields	60						0	0	0	0	0	0	0	0	NA	NA	NA	NA
Total		1.00	1,289	4,203	9,714	4,702	752	2,496	6,006	2,819	33	111	275	127				

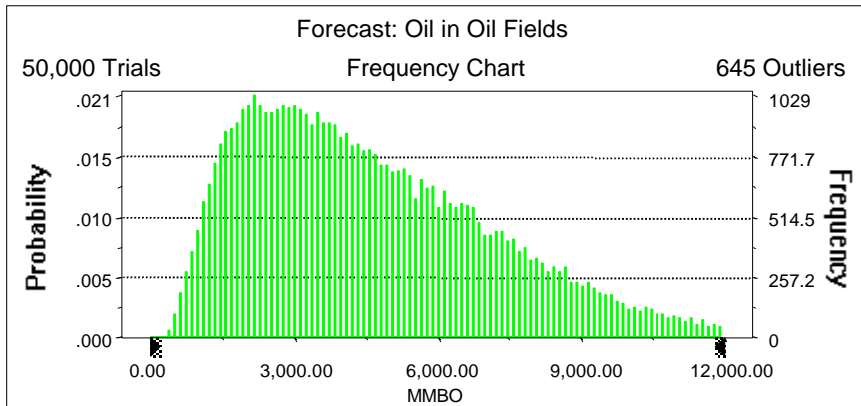
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Monte Carlo Results

Forecast: Oil in Oil Fields

Summary:

Display range is from 0.00 to 12,000.00 MMBO
Entire range is from 333.73 to 20,787.51 MMBO
After 50,000 trials, the standard error of the mean is 11.97

Statistics:	Value
Trials	50000
Mean	4,702.34
Median	4,202.77
Mode	---
Standard Deviation	2,675.88
Variance	7,160,354.36
Skewness	0.88
Kurtosis	3.62
Coefficient of Variability	0.57
Range Minimum	333.73
Range Maximum	20,787.51
Range Width	20,453.78
Mean Standard Error	11.97



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Forecast: Oil in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	333.73
95%	1,288.64
90%	1,664.52
85%	1,990.03
80%	2,291.32
75%	2,600.82
70%	2,906.82
65%	3,213.83
60%	3,533.63
55%	3,861.13
50%	4,202.77
45%	4,576.63
40%	4,964.11
35%	5,388.49
30%	5,848.44
25%	6,350.97
20%	6,897.04
15%	7,568.17
10%	8,435.24
5%	9,713.85
0%	20,787.51

End of Forecast

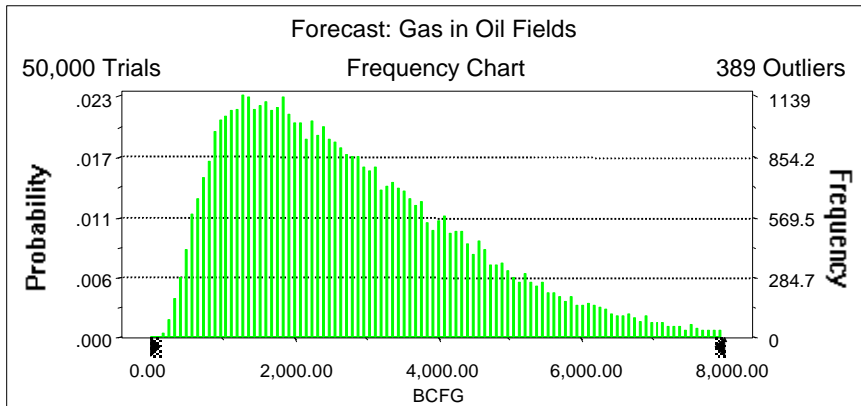
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Forecast: Gas in Oil Fields

Summary:

Display range is from 0.00 to 8,000.00 BCFG
 Entire range is from 194.09 to 12,235.47 BCFG
 After 50,000 trials, the standard error of the mean is 7.43

Statistics:	<u>Value</u>
Trials	50000
Mean	2,818.81
Median	2,496.24
Mode	---
Standard Deviation	1,661.34
Variance	2,760,036.77
Skewness	1.00
Kurtosis	4.03
Coefficient of Variability	0.59
Range Minimum	194.09
Range Maximum	12,235.47
Range Width	12,041.38
Mean Standard Error	7.43



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Forecast: Gas in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	194.09
95%	751.60
90%	975.89
85%	1,169.87
80%	1,348.88
75%	1,529.77
70%	1,712.84
65%	1,893.81
60%	2,087.91
55%	2,288.42
50%	2,496.24
45%	2,711.71
40%	2,945.45
35%	3,196.83
30%	3,474.58
25%	3,776.94
20%	4,139.23
15%	4,561.59
10%	5,116.21
5%	6,005.70
0%	12,235.47

End of Forecast

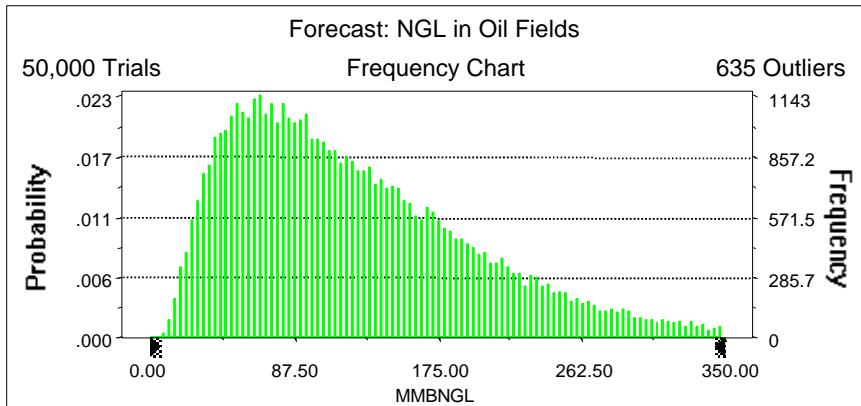
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Forecast: NGL in Oil Fields

Summary:

Display range is from 0.00 to 350.00 MMBNGL
 Entire range is from 7.35 to 608.52 MMBNGL
 After 50,000 trials, the standard error of the mean is 0.35

Statistics:	<u>Value</u>
Trials	50000
Mean	126.81
Median	110.62
Mode	---
Standard Deviation	77.34
Variance	5,982.03
Skewness	1.12
Kurtosis	4.57
Coefficient of Variability	0.61
Range Minimum	7.35
Range Maximum	608.52
Range Width	601.17
Mean Standard Error	0.35



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Forecast: NGL in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	7.35
95%	32.70
90%	42.77
85%	51.59
80%	59.68
75%	67.69
70%	75.67
65%	83.89
60%	92.39
55%	101.05
50%	110.62
45%	120.76
40%	131.58
35%	143.09
30%	155.50
25%	170.02
20%	186.23
15%	206.08
10%	233.02
5%	274.93
0%	608.52

End of Forecast

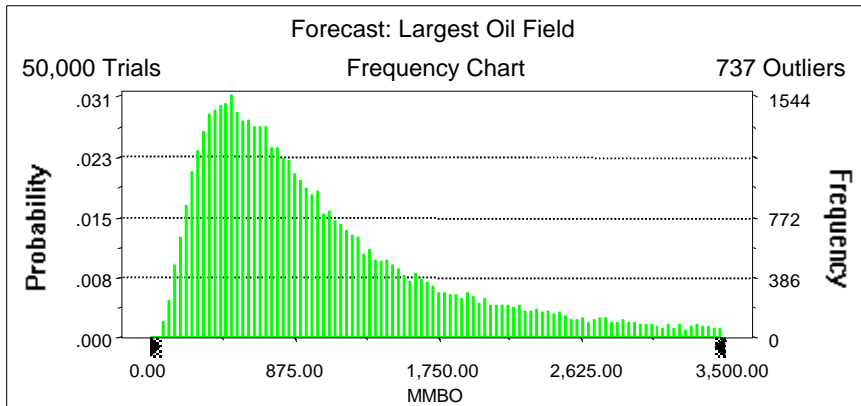
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Forecast: Largest Oil Field

Summary:

Display range is from 0.00 to 3,500.00 MMBO
 Entire range is from 48.97 to 3,998.89 MMBO
 After 50,000 trials, the standard error of the mean is 3.46

Statistics:	<u>Value</u>
Trials	50000
Mean	1,066.51
Median	837.79
Mode	---
Standard Deviation	774.12
Variance	599,264.04
Skewness	1.43
Kurtosis	4.80
Coefficient of Variability	0.73
Range Minimum	48.97
Range Maximum	3,998.89
Range Width	3,949.92
Mean Standard Error	3.46



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Forecast: Largest Oil Field (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	48.97
95%	252.14
90%	326.76
85%	389.29
80%	450.24
75%	507.47
70%	567.16
65%	630.56
60%	695.70
55%	762.83
50%	837.79
45%	918.17
40%	1,011.19
35%	1,114.73
30%	1,235.33
25%	1,382.60
20%	1,572.03
15%	1,827.08
10%	2,185.56
5%	2,753.23
0%	3,998.89

End of Forecast

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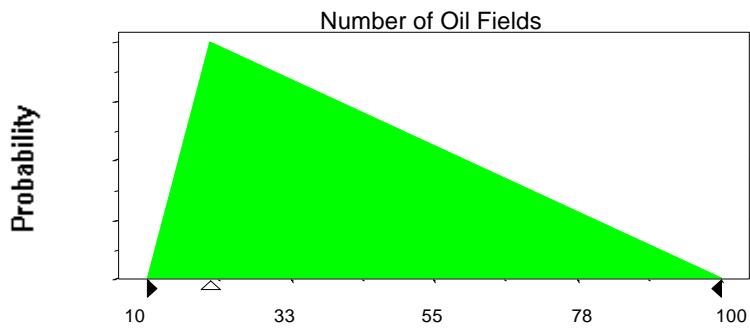
Assumptions

Assumption: Number of Oil Fields

Triangular distribution with parameters:

Minimum	10
Likeliest	20
Maximum	100

Selected range is from 10 to 100
Mean value in simulation was 43



Assumption: Sizes of Oil Fields

Lognormal distribution with parameters:

Mean	104.96
Standard Deviation	351.89

Shifted parameters

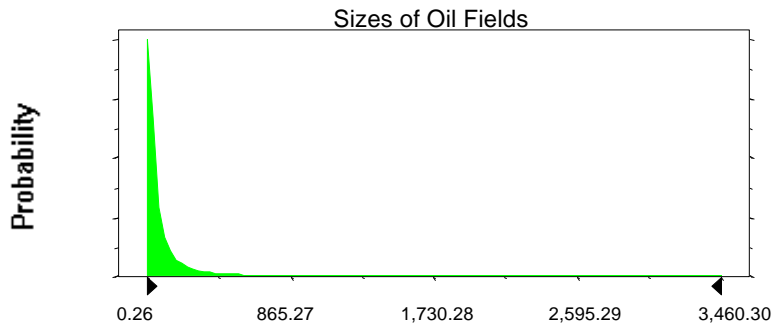
114.96
351.89

Selected range is from 0.00 to 3,990.00
Mean value in simulation was 97.92

10.00 to 4,000.00
107.92

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Assumption: Sizes of Oil Fields (cont'd)



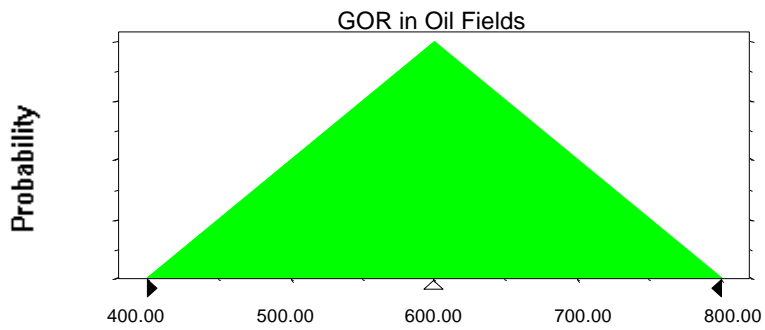
Assumption: GOR in Oil Fields

Triangular distribution with parameters:

Minimum	400.00
Likeliest	600.00
Maximum	800.00

Selected range is from 400.00 to 800.00

Mean value in simulation was 599.69



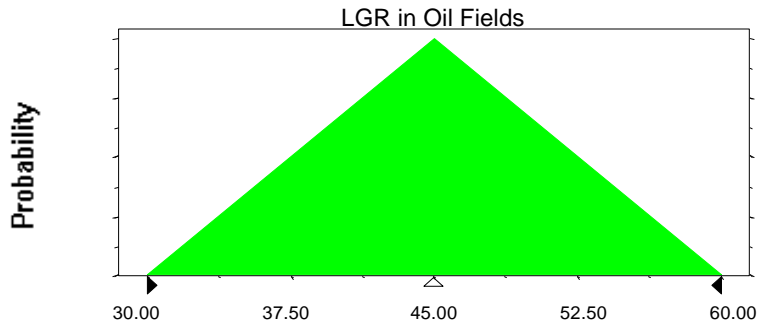
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Assumption: LGR in Oil Fields

Triangular distribution with parameters:

Minimum	30.00
Likeliest	45.00
Maximum	60.00

Selected range is from 30.00 to 60.00
Mean value in simulation was 45.00



End of Assumptions

Simulation started on 12/28/99 at 13:56:20
Simulation stopped on 12/28/99 at 14:22:08