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Sub-Andean Fold and Thrust Belt, Assessment Unit 60450101
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	66	174	317	181	168	464	938	497	9	27	60	30	10	24	61	28
Gas Fields	6						9,328	19,669	31,991	20,024	320	725	1,324	761	988	2,259	5,019	2,533
Total		1.00	66	174	317	181	9,496	20,133	32,929	20,521	329	752	1,384	791				

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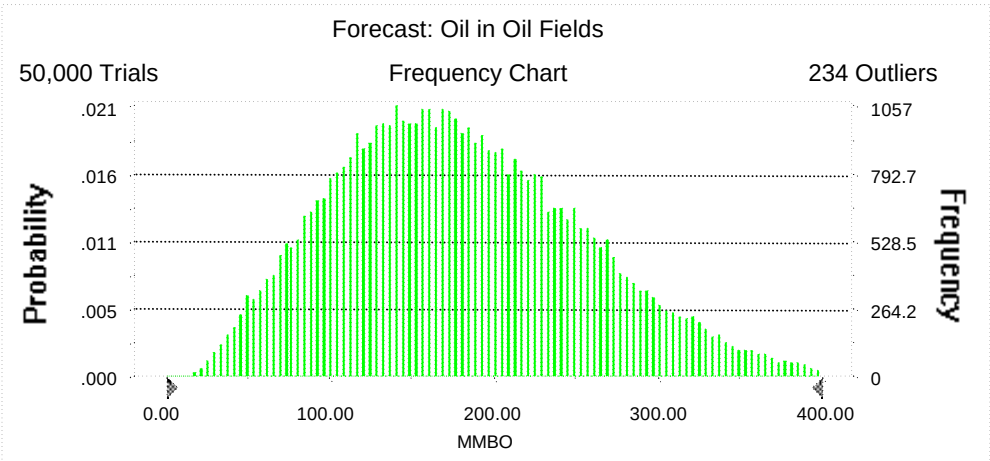
Sub-Andean Fold and Thrust Belt
Monte Carlo Results

Forecast: Oil in Oil Fields

Summary:

Display range is from 0.00 to 400.00 MMBO
Entire range is from 11.82 to 581.06 MMBO
After 50,000 trials, the standard error of the mean is 0.34

Statistics:	Value
Trials	50000
Mean	180.62
Median	173.84
Mode	---
Standard Deviation	76.36
Variance	5,831.16
Skewness	0.45
Kurtosis	2.96
Coefficient of Variability	0.42
Range Minimum	11.82
Range Maximum	581.06
Range Width	569.25
Mean Standard Error	0.34



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Sub-Andean Fold and Thrust Belt
Monte Carlo Results

Forecast: Oil in Oil Fields (cont'd)

Percentiles:

Percentile	MMBO
100%	11.82
95%	66.02
90%	85.91
85%	100.58
80%	113.04
75%	124.03
70%	134.42
65%	144.26
60%	154.32
55%	164.00
50%	173.84
45%	183.94
40%	194.45
35%	205.69
30%	217.83
25%	230.64
20%	245.59
15%	262.31
10%	283.59
5%	317.31
0%	581.06

End of Forecast

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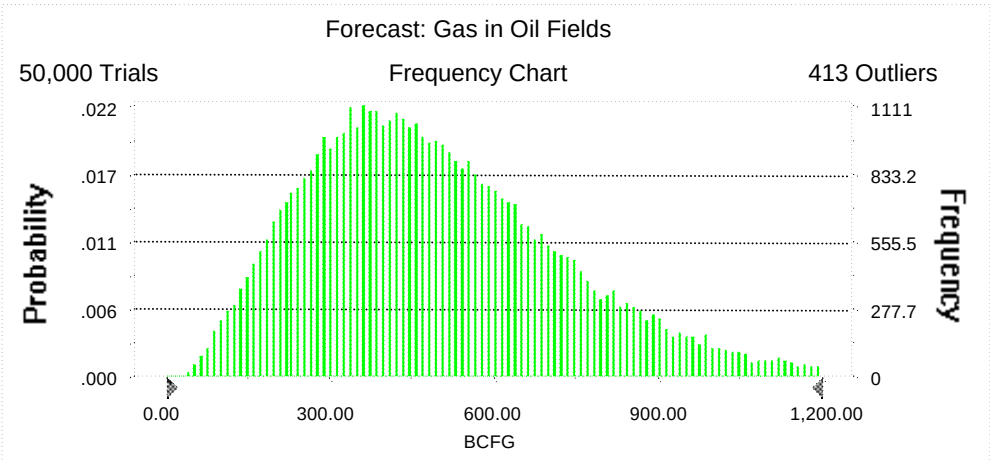
Sub-Andean Fold and Thrust Belt
Monte Carlo Results

Forecast: Gas in Oil Fields

Summary:

Display range is from 0.00 to 1,200.00 BCFG
Entire range is from 27.70 to 1,813.56 BCFG
After 50,000 trials, the standard error of the mean is 1.06

Statistics:	Value
Trials	50000
Mean	496.98
Median	463.80
Mode	---
Standard Deviation	237.27
Variance	56,298.92
Skewness	0.77
Kurtosis	3.63
Coefficient of Variability	0.48
Range Minimum	27.70
Range Maximum	1,813.56
Range Width	1,785.86
Mean Standard Error	1.06



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Sub-Andean Fold and Thrust Belt
Monte Carlo Results

Forecast: Gas in Oil Fields (cont'd)

Percentiles:

Percentile	BCFG
100%	27.70
95%	167.87
90%	217.68
85%	257.11
80%	291.55
75%	322.31
70%	350.93
65%	378.63
60%	406.60
55%	434.73
50%	463.80
45%	494.29
40%	526.03
35%	560.24
30%	597.00
25%	637.81
20%	685.41
15%	742.38
10%	819.79
5%	938.43
0%	1,813.56

End of Forecast

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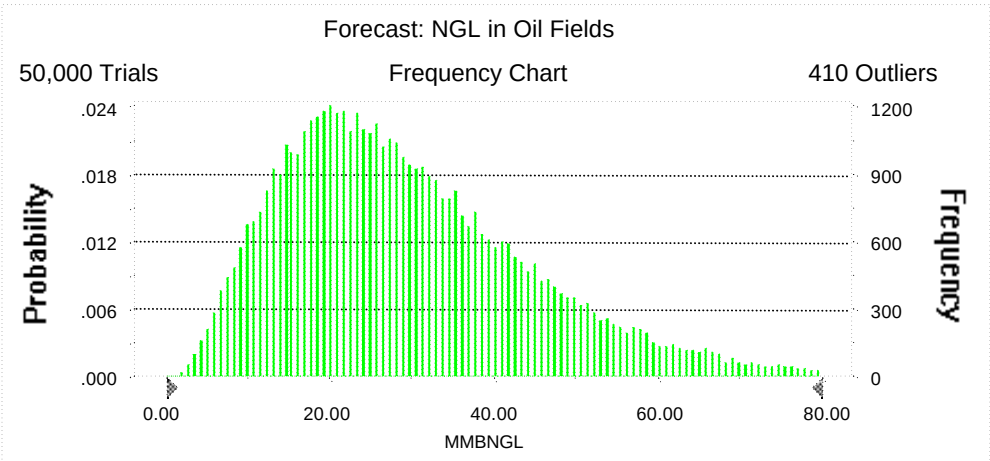
Sub-Andean Fold and Thrust Belt
Monte Carlo Results

Forecast: NGL in Oil Fields

Summary:

Display range is from 0.00 to 80.00 MMBNGL
Entire range is from 1.43 to 147.06 MMBNGL
After 50,000 trials, the standard error of the mean is 0.07

Statistics:	Value
Trials	50000
Mean	29.85
Median	27.05
Mode	---
Standard Deviation	15.78
Variance	249.02
Skewness	1.01
Kurtosis	4.38
Coefficient of Variability	0.53
Range Minimum	1.43
Range Maximum	147.06
Range Width	145.62
Mean Standard Error	0.07



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Sub-Andean Fold and Thrust Belt
Monte Carlo Results

Forecast: NGL in Oil Fields (cont'd)

Percentiles:

Percentile	MMBNGL
100%	1.43
95%	9.31
90%	12.18
85%	14.43
80%	16.42
75%	18.26
70%	19.97
65%	21.67
60%	23.43
55%	25.21
50%	27.05
45%	28.98
40%	31.08
35%	33.32
30%	35.78
25%	38.59
20%	41.92
15%	45.86
10%	51.14
5%	59.61
0%	147.06

End of Forecast

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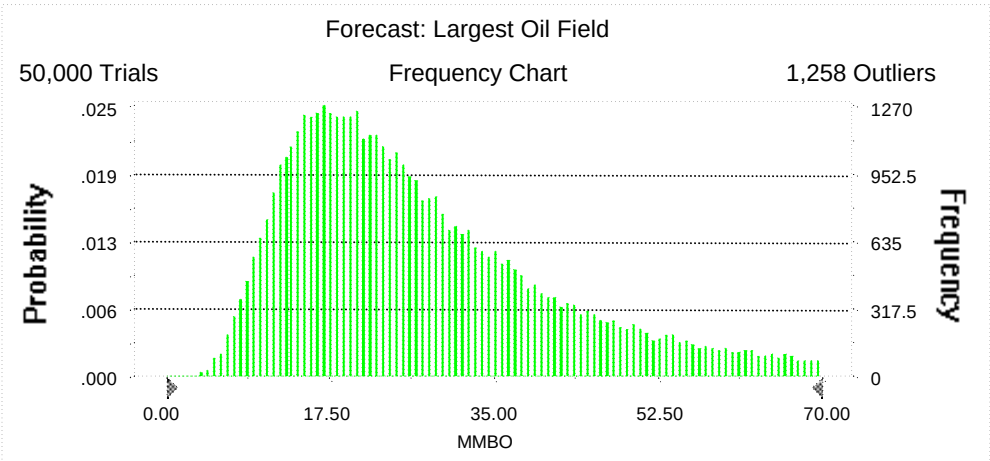
Sub-Andean Fold and Thrust Belt
Monte Carlo Results

Forecast: Largest Oil Field

Summary:

Display range is from 0.00 to 70.00 MMBO
Entire range is from 2.26 to 84.97 MMBO
After 50,000 trials, the standard error of the mean is 0.07

Statistics:	Value
Trials	50000
Mean	28.25
Median	24.33
Mode	---
Standard Deviation	15.57
Variance	242.34
Skewness	1.21
Kurtosis	4.25
Coefficient of Variability	0.55
Range Minimum	2.26
Range Maximum	84.97
Range Width	82.71
Mean Standard Error	0.07



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Sub-Andean Fold and Thrust Belt
Monte Carlo Results

Forecast: Largest Oil Field (cont'd)

Percentiles:

Percentile	MMBO
100%	2.26
95%	10.22
90%	12.33
85%	14.00
80%	15.48
75%	16.88
70%	18.28
65%	19.72
60%	21.14
55%	22.71
50%	24.33
45%	26.04
40%	28.00
35%	30.16
30%	32.70
25%	35.64
20%	39.17
15%	43.82
10%	50.45
5%	61.13
0%	84.97

End of Forecast

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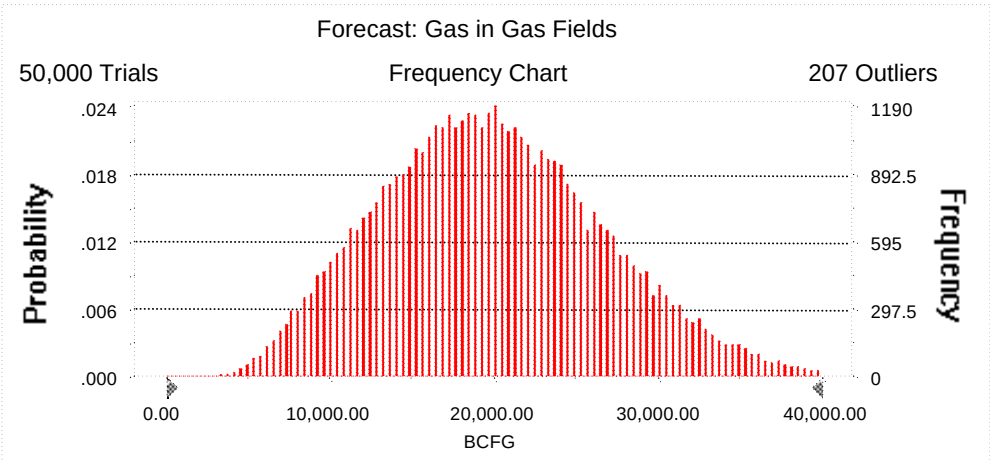
Sub-Andean Fold and Thrust Belt
Monte Carlo Results

Forecast: Gas in Gas Fields

Summary:

Display range is from 0.00 to 40,000.00 BCFG
Entire range is from 2,713.45 to 52,963.78 BCFG
After 50,000 trials, the standard error of the mean is 30.74

Statistics:	Value
Trials	50000
Mean	20,023.94
Median	19,668.81
Mode	---
Standard Deviation	6,873.57
Variance	47,245,911.65
Skewness	0.33
Kurtosis	2.93
Coefficient of Variability	0.34
Range Minimum	2,713.45
Range Maximum	52,963.78
Range Width	50,250.33
Mean Standard Error	30.74



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Sub-Andean Fold and Thrust Belt
Monte Carlo Results

Forecast: Gas in Gas Fields (cont'd)

Percentiles:

Percentile	BCFG
100%	2,713.45
95%	9,328.46
90%	11,277.90
85%	12,743.08
80%	13,964.39
75%	15,087.46
70%	16,094.96
65%	17,019.85
60%	17,907.38
55%	18,785.49
50%	19,668.81
45%	20,525.51
40%	21,432.92
35%	22,399.06
30%	23,439.74
25%	24,504.55
20%	25,777.42
15%	27,260.01
10%	29,175.98
5%	31,991.03
0%	52,963.78

End of Forecast

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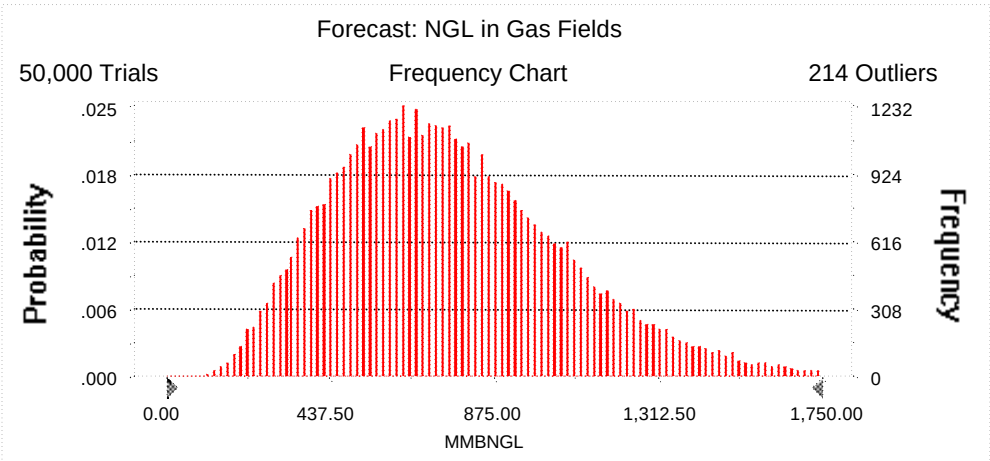
Sub-Andean Fold and Thrust Belt
Monte Carlo Results

Forecast: NGL in Gas Fields

Summary:

Display range is from 0.00 to 1,750.00 MMBNGL
Entire range is from 83.06 to 2,709.27 MMBNGL
After 50,000 trials, the standard error of the mean is 1.38

Statistics:	Value
Trials	50000
Mean	760.91
Median	725.35
Mode	---
Standard Deviation	308.43
Variance	95,126.55
Skewness	0.67
Kurtosis	3.53
Coefficient of Variability	0.41
Range Minimum	83.06
Range Maximum	2,709.27
Range Width	2,626.21
Mean Standard Error	1.38



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Sub-Andean Fold and Thrust Belt
Monte Carlo Results

Forecast: NGL in Gas Fields (cont'd)

Percentiles:

Percentile	MMBNGL
100%	83.06
95%	320.06
90%	391.82
85%	446.42
80%	493.32
75%	534.31
70%	574.59
65%	612.57
60%	648.77
55%	686.94
50%	725.35
45%	763.78
40%	804.35
35%	848.23
30%	896.06
25%	948.28
20%	1,010.11
15%	1,080.42
10%	1,175.79
5%	1,324.05
0%	2,709.27

End of Forecast

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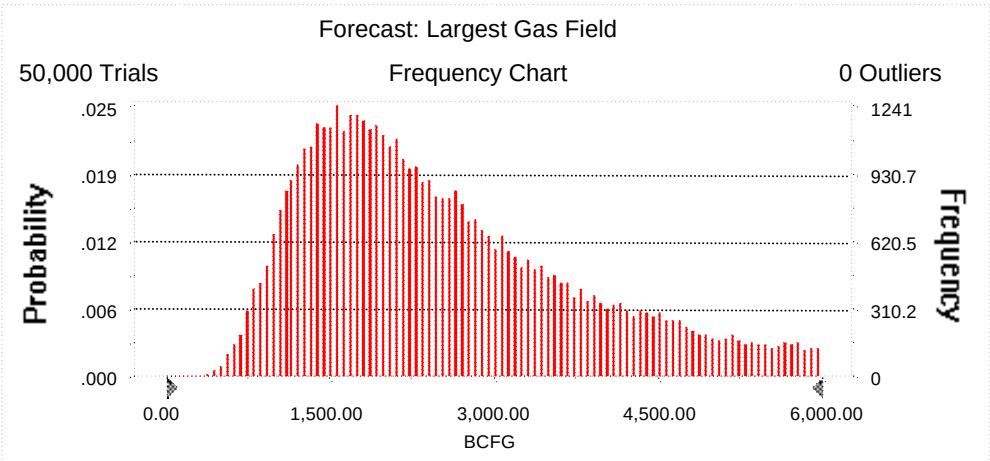
Sub-Andean Fold and Thrust Belt
Monte Carlo Results

Forecast: Largest Gas Field

Summary:

Display range is from 0.00 to 6,000.00 BCFG
Entire range is from 245.44 to 5,999.57 BCFG
After 50,000 trials, the standard error of the mean is 5.48

Statistics:	Value
Trials	50000
Mean	2,532.52
Median	2,259.36
Mode	---
Standard Deviation	1,225.33
Variance	1,501,441.02
Skewness	0.80
Kurtosis	2.95
Coefficient of Variability	0.48
Range Minimum	245.44
Range Maximum	5,999.57
Range Width	5,754.14
Mean Standard Error	5.48



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Sub-Andean Fold and Thrust Belt
Monte Carlo Results

Forecast: Largest Gas Field (cont'd)

Percentiles:

Percentile	BCFG
100%	245.44
95%	988.35
90%	1,176.18
85%	1,325.88
80%	1,460.23
75%	1,589.39
70%	1,717.26
65%	1,841.81
60%	1,974.23
55%	2,111.78
50%	2,259.36
45%	2,418.40
40%	2,597.70
35%	2,782.53
30%	3,001.65
25%	3,259.75
20%	3,557.86
15%	3,929.01
10%	4,399.07
5%	5,018.65
0%	5,999.57

End of Forecast

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Sub-Andean Fold and Thrust Belt
Monte Carlo Results

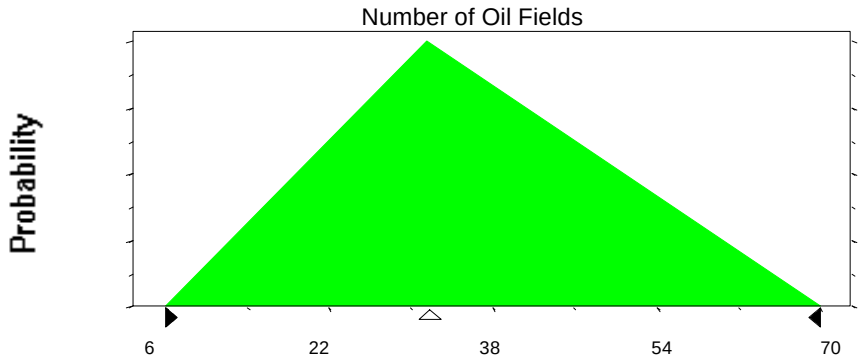
Assumptions

Assumption: Number of Oil Fields

Triangular distribution with parameters:

Minimum	6
Likeliest	32
Maximum	70

Selected range is from 6 to 70
Mean value in simulation was 36



Assumption: Sizes of Oil Fields

Lognormal distribution with parameters:		Shifted parameters
Mean	4.16	5.16
Standard Deviation	7.57	7.57
Selected range is from	0.00 to 84.00	1.00 to 85.00
Mean value in simulation was	4.06	5.06

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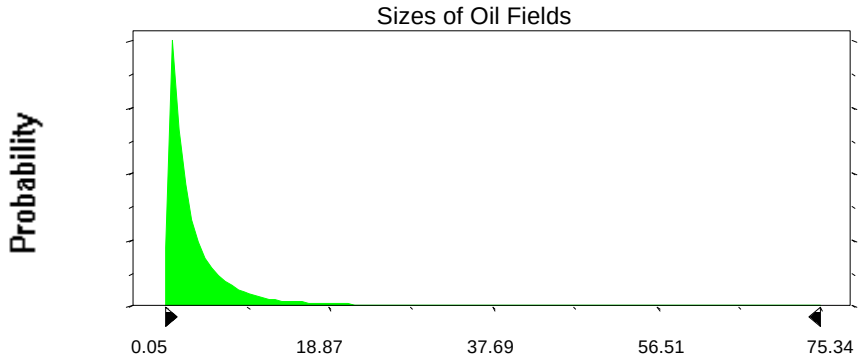
Assumption: Sizes of Oil Fields (cont'd)

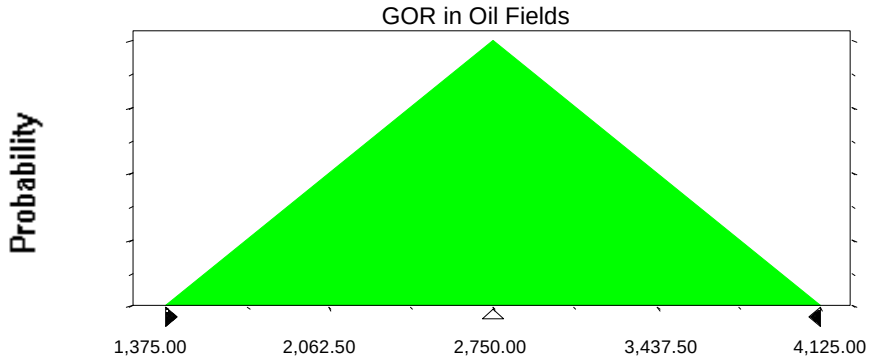


Assumption: GOR in Oil Fields

Triangular distribution with parameters:

Minimum	1,375.00
Likeliest	2,750.00
Maximum	4,125.00

Selected range is from 1,375.00 to 4,125.00
Mean value in simulation was 2,750.80



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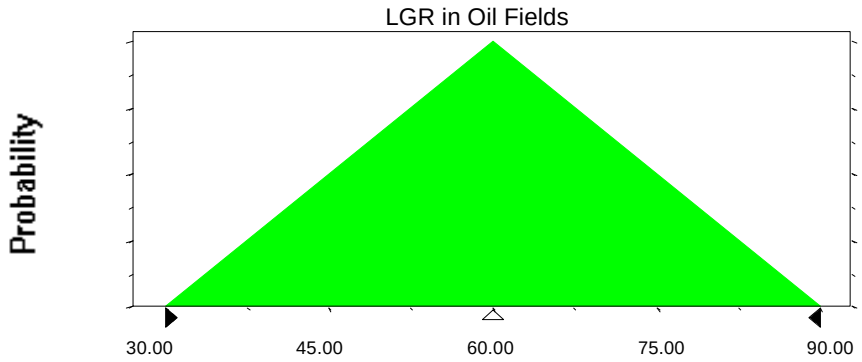
Sub-Andean Fold and Thrust Belt
Monte Carlo Results

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 60.04



Assumption: Number of Gas Fields

Triangular distribution with parameters:

Minimum	30
Likeliest	100
Maximum	170

Selected range is from 30 to 170
Mean value in simulation was 100

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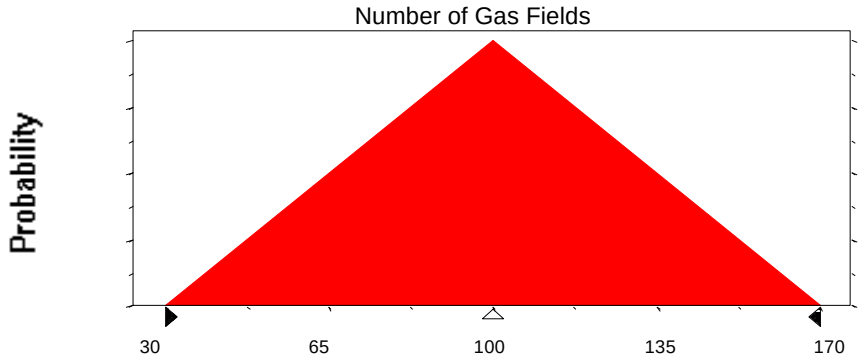
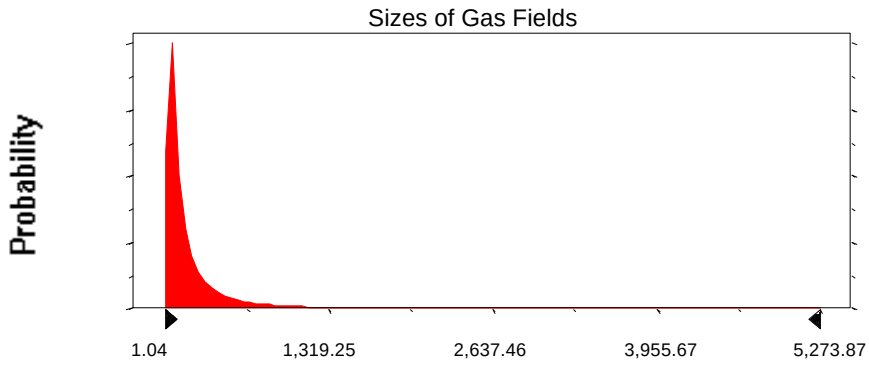
Assumption: Number of Gas Fields (cont'd)



Assumption: Sizes of Gas Fields

Lognormal distribution with parameters:		Shifted parameters
Mean	203.43	209.43
Standard Deviation	520.93	520.93
Selected range is from 0.00 to 5,994.00		6.00 to 6,000.00
Mean value in simulation was 192.05		198.05



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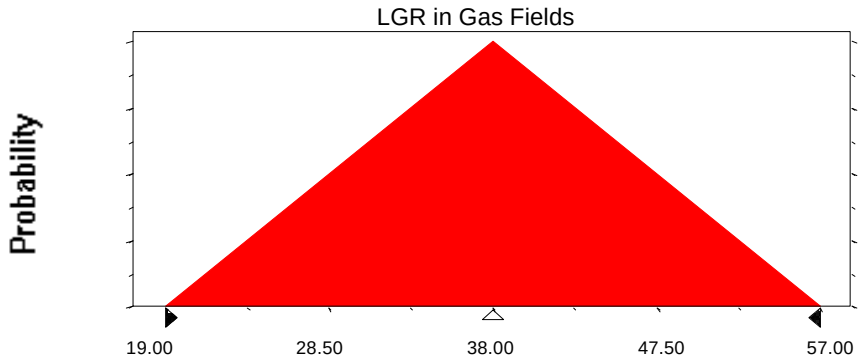
Monte Carlo Results

Assumption: LGR in Gas Fields

Triangular distribution with parameters:

Minimum	19.00
Likeliest	38.00
Maximum	57.00

Selected range is from 19.00 to 57.00
Mean value in simulation was 38.00



End of Assumptions

Simulation started on 3/16/99 at 9:14:14
Simulation stopped on 3/16/99 at 10:12:47