

Kutei Basin Deltaics, Assessment Unit 38170101
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	396	1,195	2,326	1,258	1,023	3,240	6,915	3,514	58	189	439	211	65	200	577	243
Gas Fields	6						10,963	30,557	59,150	32,243	262	746	1,552	806	1,603	4,751	12,313	5,557
Total		1.00	396	1,195	2,326	1,258	11,986	33,797	66,065	35,757	320	935	1,991	1,017				

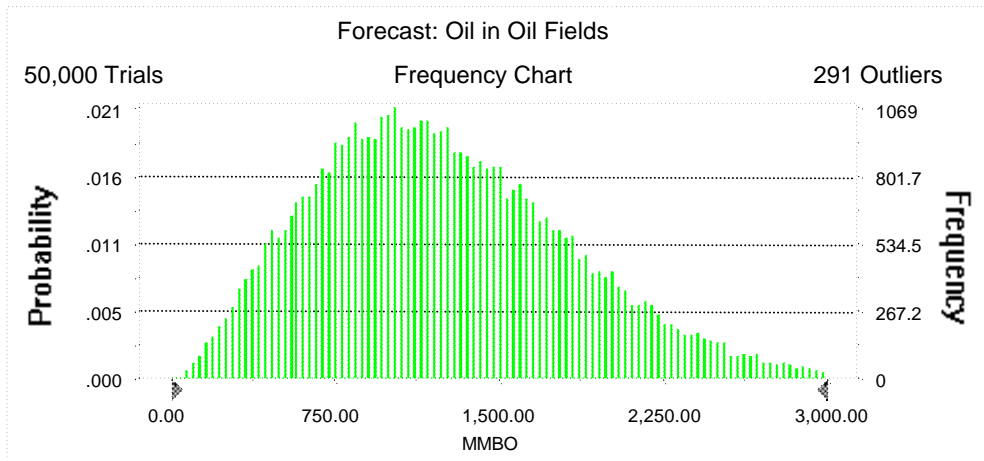
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Forecast: Oil in Oil Fields

Summary:

Display range is from 0.00 to 3,000.00 MMBO
Entire range is from 46.77 to 4,304.20 MMBO
After 50,000 trials, the standard error of the mean is 2.65

Statistics:	Value
Trials	50000
Mean	1,258.03
Median	1,195.25
Mode	---
Standard Deviation	591.46
Variance	349,823.38
Skewness	0.58
Kurtosis	3.22
Coefficient of Variability	0.47
Range Minimum	46.77
Range Maximum	4,304.20
Range Width	4,257.43
Mean Standard Error	2.65



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Forecast: Oil in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	46.77
95%	395.65
90%	532.35
85%	642.12
80%	737.20
75%	819.62
70%	896.20
65%	975.17
60%	1,046.08
55%	1,121.60
50%	1,195.25
45%	1,271.60
40%	1,353.25
35%	1,441.30
30%	1,530.99
25%	1,633.30
20%	1,747.02
15%	1,879.83
10%	2,056.46
5%	2,325.53
0%	4,304.20

End of Forecast

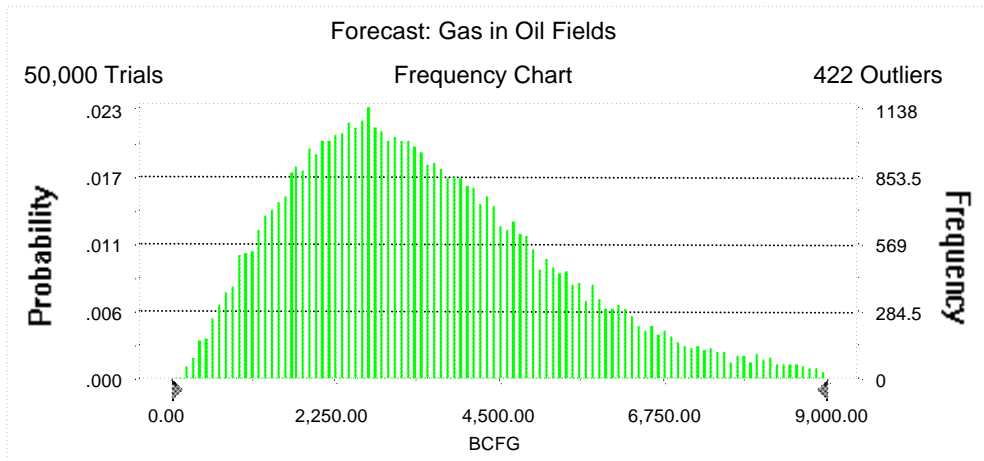
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Forecast: Gas in Oil Fields

Summary:

Display range is from 0.00 to 9,000.00 BCFG
Entire range is from 81.38 to 14,503.00 BCFG
After 50,000 trials, the standard error of the mean is 8.17

Statistics:	Value
Trials	50000
Mean	3,513.65
Median	3,240.40
Mode	---
Standard Deviation	1,827.47
Variance	3,339,642.40
Skewness	0.85
Kurtosis	3.89
Coefficient of Variability	0.52
Range Minimum	81.38
Range Maximum	14,503.00
Range Width	14,421.62
Mean Standard Error	8.17



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Forecast: Gas in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	81.38
95%	1,022.95
90%	1,388.54
85%	1,685.16
80%	1,932.75
75%	2,164.79
70%	2,385.63
65%	2,594.34
60%	2,800.08
55%	3,015.64
50%	3,240.40
45%	3,468.73
40%	3,717.88
35%	3,979.52
30%	4,259.99
25%	4,573.09
20%	4,931.97
15%	5,388.49
10%	5,982.13
5%	6,915.09
0%	14,503.00

End of Forecast

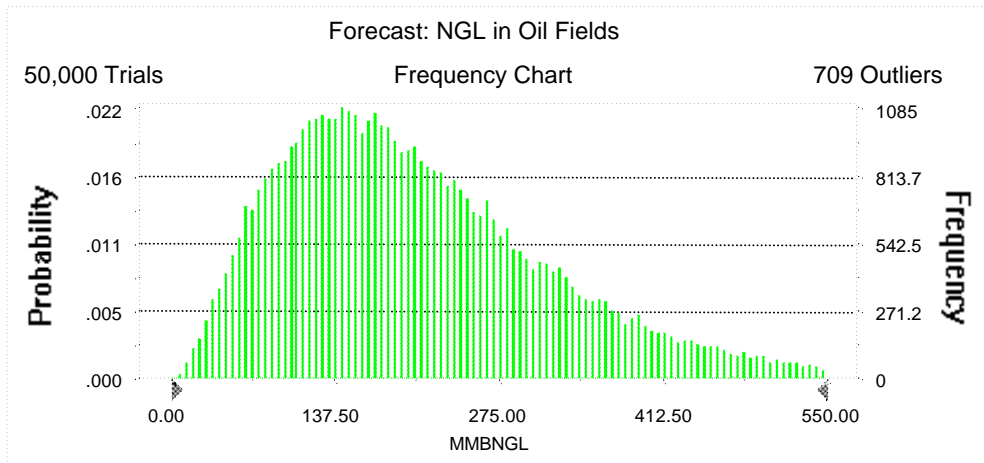
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Forecast: NGL in Oil Fields

Summary:

Display range is from 0.00 to 550.00 MMBNGL
Entire range is from 5.57 to 952.43 MMBNGL
After 50,000 trials, the standard error of the mean is 0.54

Statistics:	Value
Trials	50000
Mean	210.62
Median	188.53
Mode	---
Standard Deviation	119.69
Variance	14,325.15
Skewness	1.09
Kurtosis	4.63
Coefficient of Variability	0.57
Range Minimum	5.57
Range Maximum	952.43
Range Width	946.86
Mean Standard Error	0.54



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Forecast: NGL in Oil Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	5.57
95%	57.93
90%	77.84
85%	94.03
80%	108.99
75%	122.50
70%	135.80
65%	148.69
60%	161.64
55%	174.94
50%	188.53
45%	203.58
40%	219.00
35%	235.93
30%	254.03
25%	274.72
20%	300.06
15%	330.18
10%	371.48
5%	439.39
0%	952.43

End of Forecast

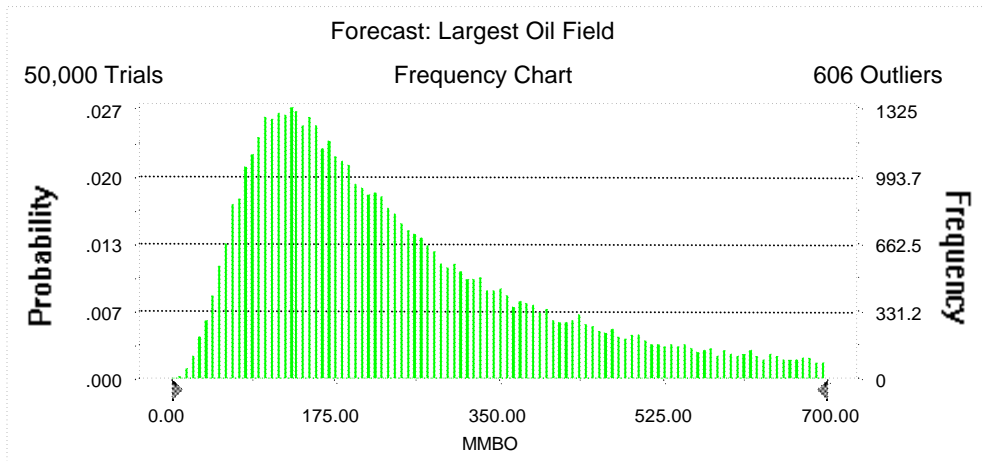
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Forecast: Largest Oil Field

Summary:

Display range is from 0.00 to 700.00 MMBO
Entire range is from 7.63 to 749.67 MMBO
After 50,000 trials, the standard error of the mean is 0.70

Statistics:	Value
Trials	50000
Mean	243.09
Median	200.25
Mode	---
Standard Deviation	156.20
Variance	24,399.87
Skewness	1.11
Kurtosis	3.70
Coefficient of Variability	0.64
Range Minimum	7.63
Range Maximum	749.67
Range Width	742.04
Mean Standard Error	0.70



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Forecast: Largest Oil Field (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBO</u>
100%	7.63
95%	64.71
90%	83.36
85%	98.71
80%	112.38
75%	125.95
70%	139.19
65%	152.99
60%	167.78
55%	183.38
50%	200.25
45%	219.20
40%	239.32
35%	262.41
30%	289.42
25%	322.13
20%	360.80
15%	410.35
10%	476.91
5%	577.47
0%	749.67

End of Forecast

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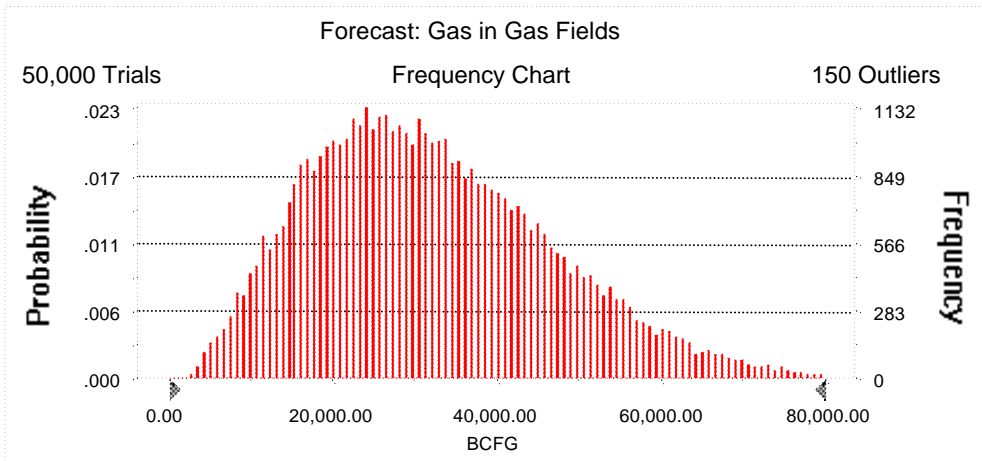
Forecast: Gas in Gas Fields

Summary:

Display range is from 0.00 to 80,000.00 BCFG
 Entire range is from 1,492.30 to 102,204.70 BCFG
 After 50,000 trials, the standard error of the mean is 66.29

Statistics:

	<u>Value</u>
Trials	50000
Mean	32,243.05
Median	30,556.58
Mode	---
Standard Deviation	14,823.95
Variance	219,749,555.69
Skewness	0.58
Kurtosis	3.10
Coefficient of Variability	0.46
Range Minimum	1,492.30
Range Maximum	102,204.70
Range Width	100,712.40
Mean Standard Error	66.29



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Forecast: Gas in Gas Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	1,492.30
95%	10,962.81
90%	14,376.90
85%	16,824.12
80%	19,037.08
75%	21,074.87
70%	23,018.90
65%	24,848.16
60%	26,692.43
55%	28,571.62
50%	30,556.58
45%	32,487.25
40%	34,517.74
35%	36,762.41
30%	39,158.25
25%	41,736.23
20%	44,668.22
15%	48,085.77
10%	52,595.79
5%	59,150.13
0%	102,204.70

End of Forecast

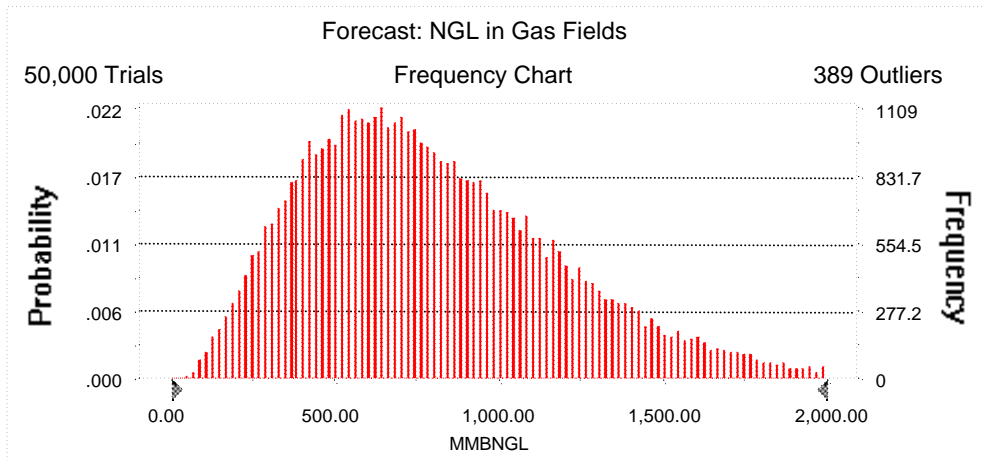
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Forecast: NGL in Gas Fields

Summary:

Display range is from 0.00 to 2,000.00 MMBNGL
Entire range is from 29.32 to 3,040.50 MMBNGL
After 50,000 trials, the standard error of the mean is 1.78

Statistics:	Value
Trials	50000
Mean	806.35
Median	746.48
Mode	---
Standard Deviation	398.56
Variance	158,851.68
Skewness	0.79
Kurtosis	3.64
Coefficient of Variability	0.49
Range Minimum	29.32
Range Maximum	3,040.50
Range Width	3,011.19
Mean Standard Error	1.78



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Forecast: NGL in Gas Fields (cont'd)

Percentiles:

<u>Percentile</u>	<u>MMBNGL</u>
100%	29.32
95%	261.82
90%	341.30
85%	404.54
80%	458.00
75%	509.83
70%	557.10
65%	604.15
60%	650.21
55%	698.11
50%	746.48
45%	797.26
40%	852.81
35%	910.83
30%	973.11
25%	1,045.84
20%	1,125.27
15%	1,220.93
10%	1,350.17
5%	1,551.80
0%	3,040.50

End of Forecast

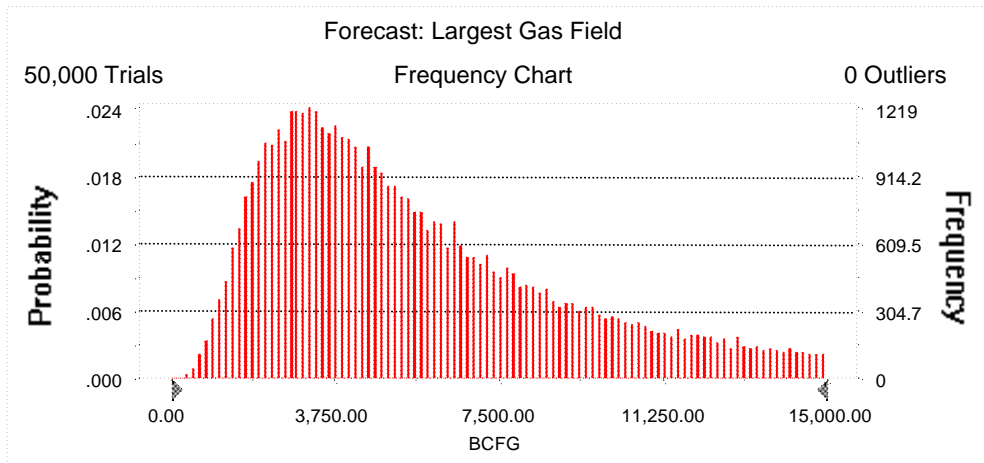
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Forecast: Largest Gas Field

Summary:

Display range is from 0.00 to 15,000.00 BCFG
 Entire range is from 257.44 to 15,000.00 BCFG
 After 50,000 trials, the standard error of the mean is 14.54

Statistics:	<u>Value</u>
Trials	50000
Mean	5,556.85
Median	4,750.95
Mode	---
Standard Deviation	3,252.21
Variance	10,576,888.63
Skewness	0.88
Kurtosis	3.07
Coefficient of Variability	0.59
Range Minimum	257.44
Range Maximum	15,000.00
Range Width	14,742.55
Mean Standard Error	14.54



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Forecast: Largest Gas Field (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	257.44
95%	1,602.94
90%	2,046.14
85%	2,396.30
80%	2,732.83
75%	3,046.81
70%	3,356.96
65%	3,685.69
60%	4,022.23
55%	4,376.01
50%	4,750.95
45%	5,168.74
40%	5,631.30
35%	6,151.63
30%	6,723.88
25%	7,420.04
20%	8,240.75
15%	9,249.59
10%	10,539.92
5%	12,313.20
0%	15,000.00

End of Forecast

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Assumptions

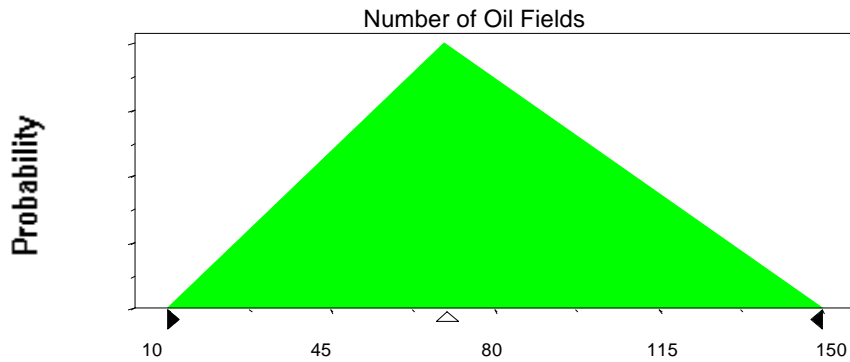
Assumption: Number of Oil Fields

Triangular distribution with parameters:

Minimum	10
Likeliest	70
Maximum	150

Selected range is from 10 to 150

Mean value in simulation was 77



Assumption: Sizes of Oil Fields

Lognormal distribution with parameters:

Mean	16.78
Standard Deviation	68.34

Shifted parameters

17.78
68.34

Selected range is from 0.00 to 749.00

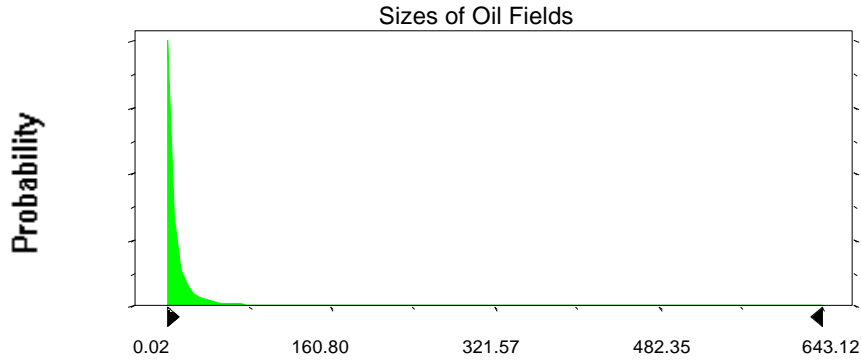
Mean value in simulation was 15.39

1.00 to 750.00

16.39

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Assumption: Sizes of Oil Fields (cont'd)



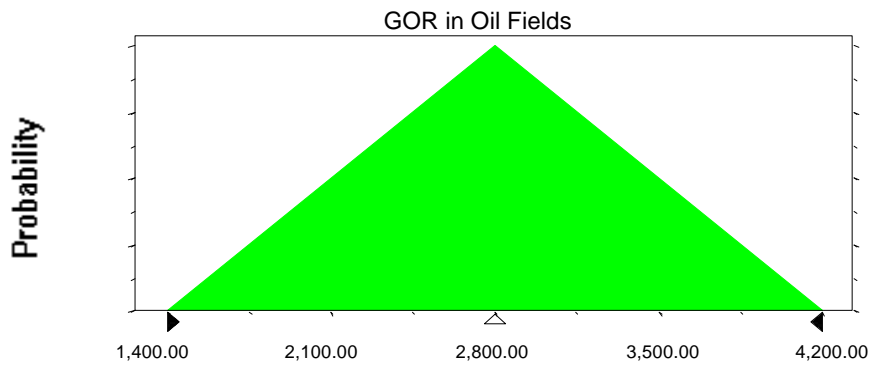
Assumption: GOR in Oil Fields

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 2,794.71



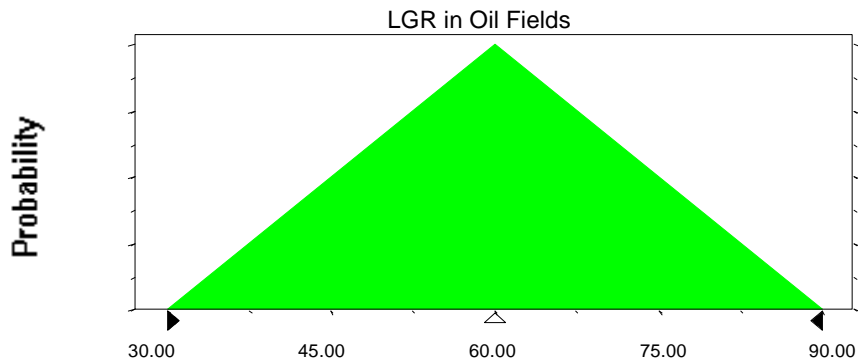
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Assumption: LGR in Oil Fields

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 59.96



Assumption: Number of Gas Fields

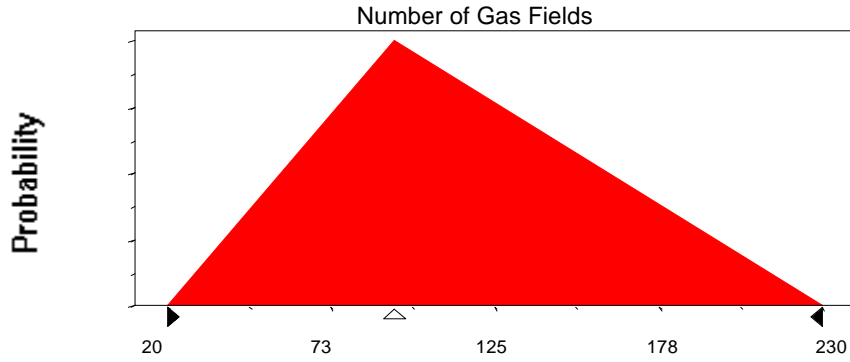
Triangular distribution with parameters:

Minimum	20
Likeliest	93
Maximum	230

Selected range is from 20 to 230
Mean value in simulation was 114

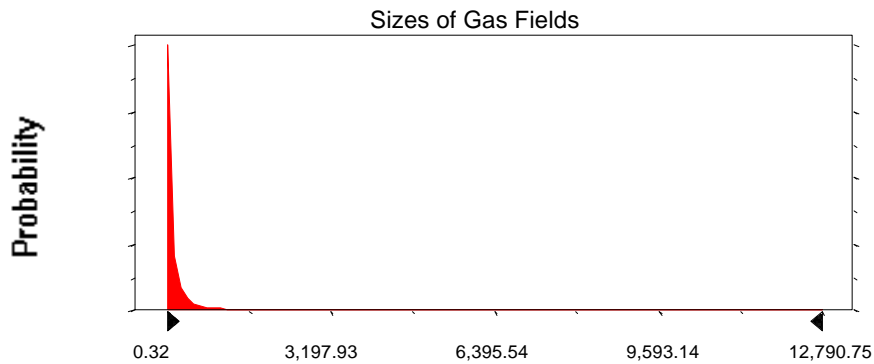
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Assumption: Number of Gas Fields (cont'd)



Assumption: Sizes of Gas Fields

Lognormal distribution with parameters:		Shifted parameters
Mean	304.30	310.3
Standard Deviation	1,414.51	1,414.51
Selected range is from 0.00 to 14,994.00		6.00 to 15,000.00
Mean value in simulation was 274.36		280.36



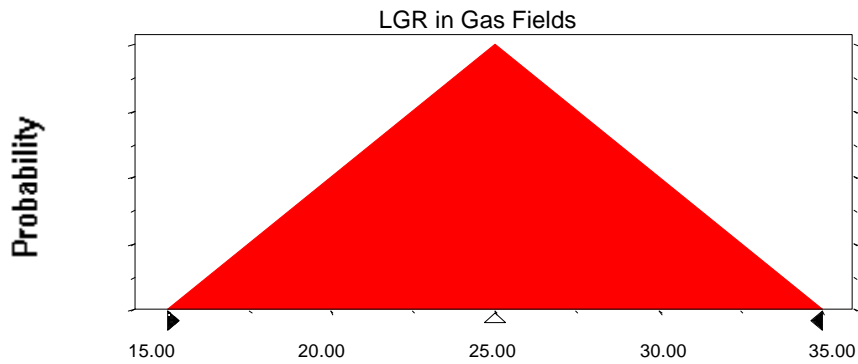
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Assumption: LGR in Gas Fields

Triangular distribution with parameters:

Minimum	15.00
Likeliest	25.00
Maximum	35.00

Selected range is from 15.00 to 35.00
Mean value in simulation was 25.01



End of Assumptions

Simulation started on 7/30/99 at 14:27:39
Simulation stopped on 7/30/99 at 15:53:23