Tanezzuft-Timimoun Structural/Stratigraphic, Assessment Unit 20580101
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			
			Oil (MMBO)				Gas (BCFG)				NGL (MMBNGL)				(MMBO or BCFG)			
			F95	F50	F5	Mean	F95	F50	F5	Mean	F95	F50	F5	Mean	F95	F50	F5	Mean
Oil Fields	4	1.00	7	25	80	31	24	90	307	118	1	5	19	7	6	15	59	21
Gas Fields	24						387	920	1,942	1,010	17	43	98	48	95	241	765	309
Total		1.00	7	25	80	31	410	1,010	2,249	1,128	18	48	117	56				

Forecast: Oil in Oil Fields

Summary:
    Display range is from 0.00 to 100.00 MMBO
    Entire range is from 4.08 to 292.13 MMBO
    After 50,000 trials, the standard error of the mean is 0.11

Statistics:	Value
Trials	50000
Mean	31.48
Median	24.72
Mode	---
Standard Deviation	25.27
Variance	638.58
Skewness	2.47
Kurtosis	12.42
Coefficient of Variability	0.80
Range Minimum	4.08
Range Maximum	292.13
Range Width	288.04
Mean Standard Error	0.11

Forecast: Oil in Oil Fields

50,000 Trials   Frequency Chart   1,280 Outliers

Forecast: Oil in Oil Fields (cont'd)

Percentiles:

Percentile	MMBO
100%	4.08
95%	6.54
90%	9.15
85%	11.61
80%	13.51
75%	15.31
70%	17.06
65%	18.84
60%	20.66
55%	22.67
50%	24.72
45%	26.92
40%	29.50
35%	32.21
30%	35.45
25%	39.30
20%	44.12
15%	50.62
10%	60.63
5%	79.53
0%	292.13

End of Forecast

Forecast: Gas in Oil Fields

Summary:
        Display range is from 0.00 to 400.00 BCFG
        Entire range is from 8.96 to 1,393.53 BCFG
        After 50,000 trials, the standard error of the mean is 0.45

Statistics:	Value
Trials	50000
Mean	118.01
Median	90.28
Mode	---
Standard Deviation	99.76
Variance	9,952.27
Skewness	2.61
Kurtosis	13.86
Coefficient of Variability	0.85
Range Minimum	8.96
Range Maximum	1,393.53
Range Width	1,384.57
Mean Standard Error	0.45
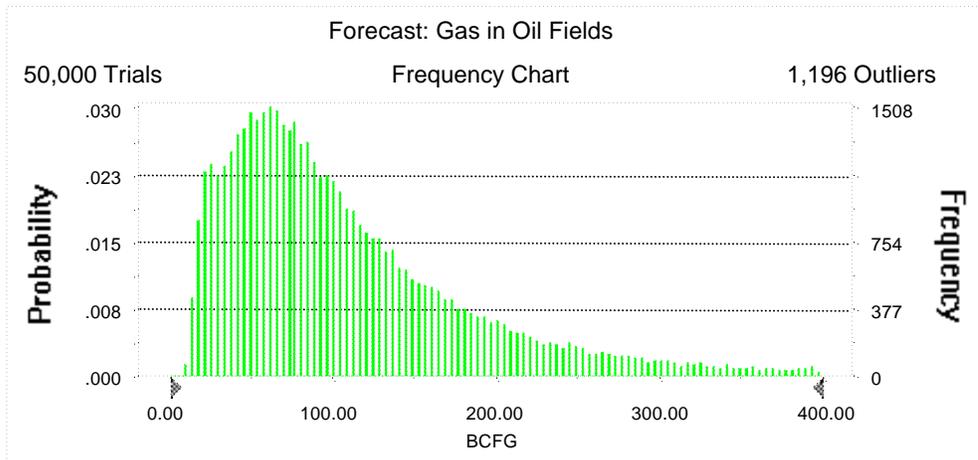
Forecast: Gas in Oil Fields

Forecast: Gas in Oil Fields (cont'd)

Percentiles:

Percentile	BCFG
100%	8.96
95%	23.88
90%	32.42
85%	40.58
80%	47.81
75%	54.66
70%	61.38
65%	68.11
60%	75.22
55%	82.49
50%	90.28
45%	99.07
40%	108.40
35%	119.49
30%	132.16
25%	147.42
20%	166.82
15%	192.63
10%	231.04
5%	306.71
0%	1,393.53

End of Forecast

Forecast: NGL in Oil Fields

Summary:
   Display range is from 0.00 to 25.00 MMBNGL
   Entire range is from 0.35 to 90.58 MMBNGL
   After 50,000 trials, the standard error of the mean is 0.03

Statistics:	Value
Trials	50000
Mean	7.09
Median	5.30
Mode	---
Standard Deviation	6.31
Variance	39.86
Skewness	2.87
Kurtosis	16.70
Coefficient of Variability	0.89
Range Minimum	0.35
Range Maximum	90.58
Range Width	90.23
Mean Standard Error	0.03
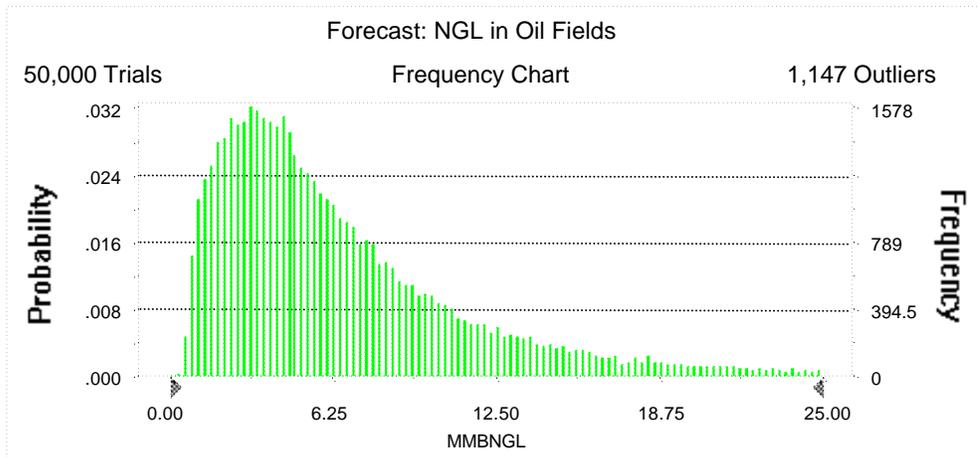
Forecast: NGL in Oil Fields

50,000 Trials   Frequency Chart   1,147 Outliers

Forecast: NGL in Oil Fields (cont'd)

Percentiles:

Percentile	MMBNGL
100%	0.35
95%	1.36
90%	1.85
85%	2.31
80%	2.72
75%	3.14
70%	3.53
65%	3.95
60%	4.36
55%	4.80
50%	5.30
45%	5.84
40%	6.45
35%	7.13
30%	7.90
25%	8.86
20%	10.06
15%	11.68
10%	14.10
5%	18.88
0%	90.58

End of Forecast

Forecast: Largest Oil Field

Summary:
    Display range is from 0.00 to 80.00 MMBO
    Entire range is from 4.08 to 198.76 MMBO
    After 50,000 trials, the standard error of the mean is 0.09

Statistics:	Value
Trials	50000
Mean	21.38
Median	15.10
Mode	---
Standard Deviation	20.03
Variance	401.24
Skewness	3.25
Kurtosis	18.03
Coefficient of Variability	0.94
Range Minimum	4.08
Range Maximum	198.76
Range Width	194.67
Mean Standard Error	0.09
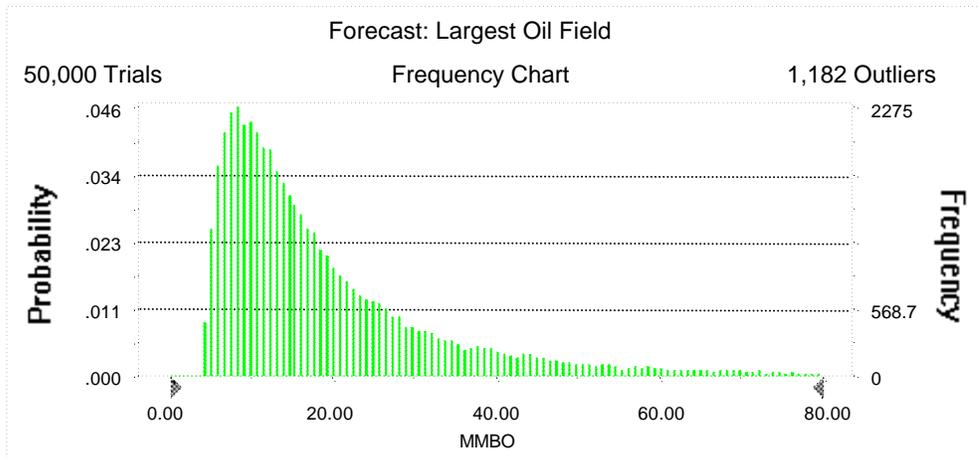
Forecast: Largest Oil Field

50,000 Trials   Frequency Chart   1,182 Outliers

Forecast: Largest Oil Field (cont'd)

Percentiles:

Percentile	MMBO
100%	4.08
95%	6.00
90%	6.98
85%	7.90
80%	8.77
75%	9.71
70%	10.64
65%	11.63
60%	12.67
55%	13.82
50%	15.10
45%	16.51
40%	18.09
35%	19.94
30%	22.24
25%	25.10
20%	28.65
15%	33.83
10%	41.98
5%	58.54
0%	198.76

End of Forecast

Forecast: Gas in Gas Fields

Summary:
Display range is from 0.00 to 2,500.00 BCFG
Entire range is from 137.24 to 5,168.15 BCFG
After 50,000 trials, the standard error of the mean is 2.20

Statistics:	Value
Trials	50000
Mean	1,009.51
Median	919.69
Mode	---
Standard Deviation	491.03
Variance	241,108.01
Skewness	1.09
Kurtosis	4.81
Coefficient of Variability	0.49
Range Minimum	137.24
Range Maximum	5,168.15
Range Width	5,030.91
Mean Standard Error	2.20
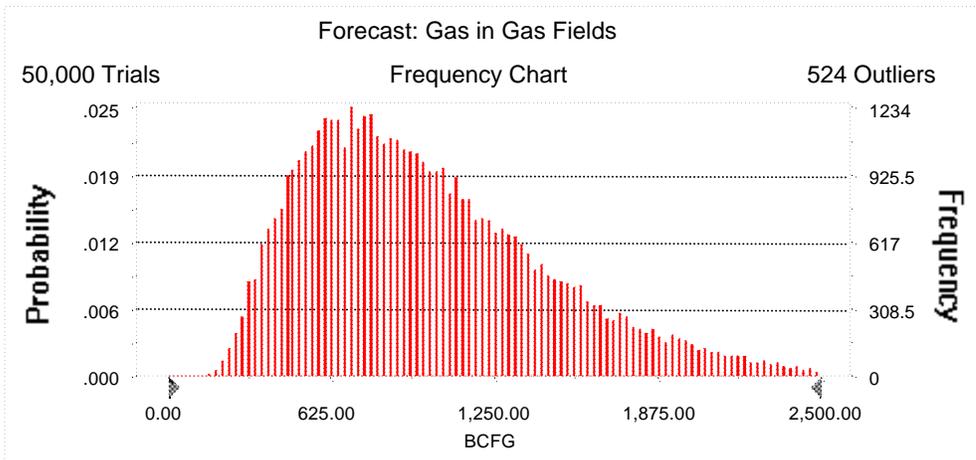
Forecast: Gas in Gas Fields

50,000 Trials — Frequency Chart — 524 Outliers

Forecast: Gas in Gas Fields (cont'd)

Percentiles:

Percentile	BCFG
100%	137.24
95%	386.62
90%	466.15
85%	531.02
80%	589.44
75%	643.07
70%	698.32
65%	751.21
60%	803.99
55%	862.24
50%	919.69
45%	980.27
40%	1,045.63
35%	1,114.52
30%	1,193.33
25%	1,281.73
20%	1,380.51
15%	1,508.01
10%	1,671.25
5%	1,942.04
0%	5,168.15

End of Forecast

Forecast: NGL in Gas Fields

Summary:
    Display range is from 0.00 to 120.00 MMBNGL
    Entire range is from 4.71 to 313.45 MMBNGL
    After 50,000 trials, the standard error of the mean is 0.12

Statistics:	Value
Trials	50000
Mean	48.44
Median	42.99
Mode	---
Standard Deviation	26.00
Variance	676.02
Skewness	1.30
Kurtosis	5.74
Coefficient of Variability	0.54
Range Minimum	4.71
Range Maximum	313.45
Range Width	308.74
Mean Standard Error	0.12
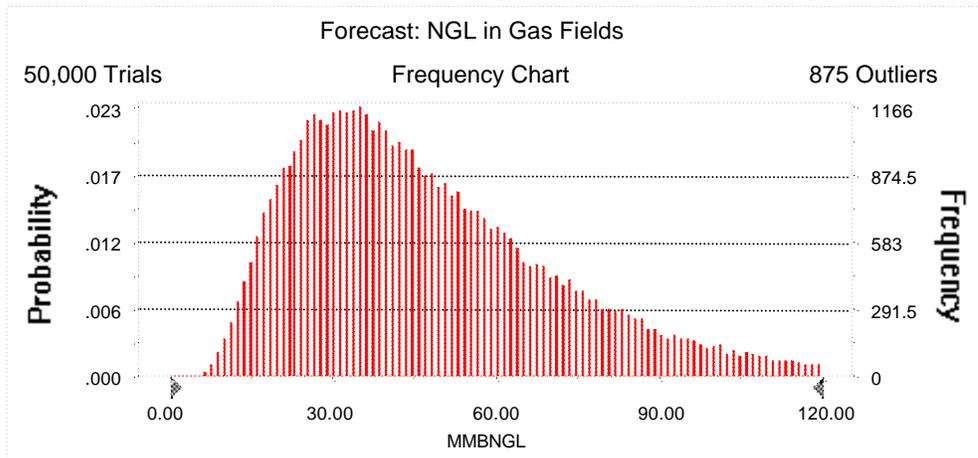
Forecast: NGL in Gas Fields

Forecast: NGL in Gas Fields (cont'd)

Percentiles:

Percentile	MMBNGL
100%	4.71
95%	16.89
90%	20.76
85%	23.92
80%	26.74
75%	29.42
70%	32.06
65%	34.66
60%	37.29
55%	40.08
50%	42.99
45%	46.07
40%	49.50
35%	53.17
30%	57.22
25%	61.79
20%	67.33
15%	74.04
10%	83.28
5%	98.12
0%	313.45

End of Forecast

Forecast: Largest Gas Field

Summary:
　　Display range is from 0.00 to 900.00 BCFG
　　Entire range is from 37.99 to 1,499.52 BCFG
　　After 50,000 trials, the standard error of the mean is 0.99

Statistics:	Value
Trials	50000
Mean	308.54
Median	241.43
Mode	---
Standard Deviation	222.04
Variance	49,303.41
Skewness	2.00
Kurtosis	7.92
Coefficient of Variability	0.72
Range Minimum	37.99
Range Maximum	1,499.52
Range Width	1,461.53
Mean Standard Error	0.99
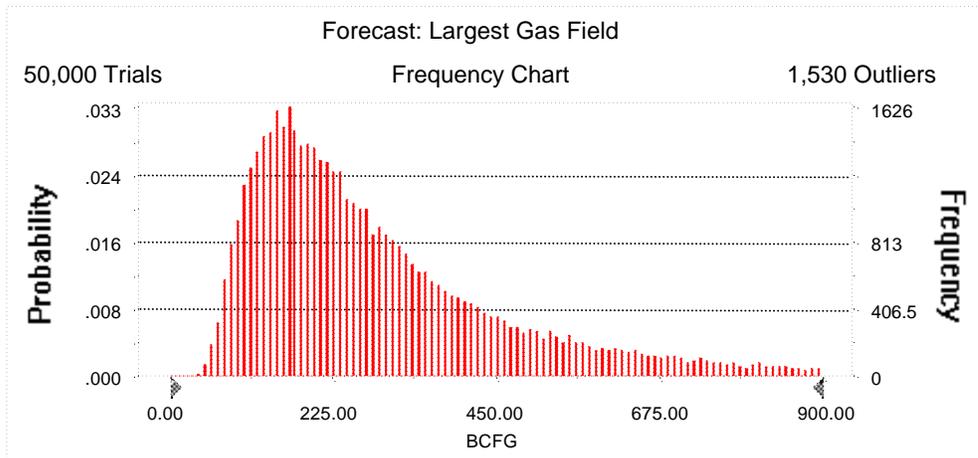
Forecast: Largest Gas Field (cont'd)

Percentiles:

Percentile	BCFG
100%	37.99
95%	94.94
90%	114.38
85%	130.78
80%	145.85
75%	160.29
70%	174.27
65%	190.30
60%	206.31
55%	223.51
50%	241.43
45%	262.60
40%	286.06
35%	311.77
30%	341.85
25%	379.68
20%	427.47
15%	493.72
10%	588.51
5%	764.85
0%	1,499.52

End of Forecast

Assumptions

Assumption: Number of Oil Fields

Triangular distribution with parameters:
Minimum   1
Likeliest   1
Maximum   4

Selected range is from 1 to 4
Mean value in simulation was 2

Number of Oil Fields
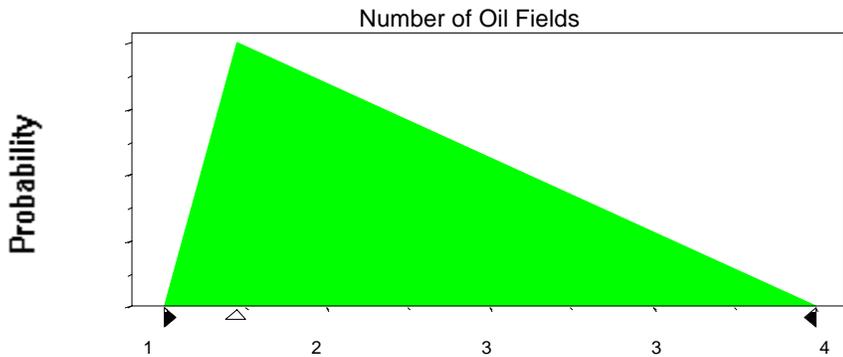
Assumption: Sizes of Oil Fields

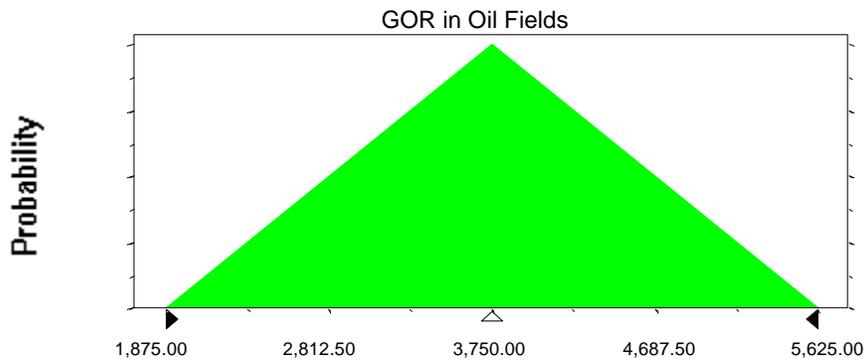Lognormal distribution with parameters: Shifted parameters
Mean   11.34   15.34
Standard Deviation   18.18   18.18

Selected range is from 0.00 to 196.00   4.00 to 200.00
Mean value in simulation was 11.02   15.02

Assumption: Sizes of Oil Fields (cont'd)

Sizes of Oil Fields
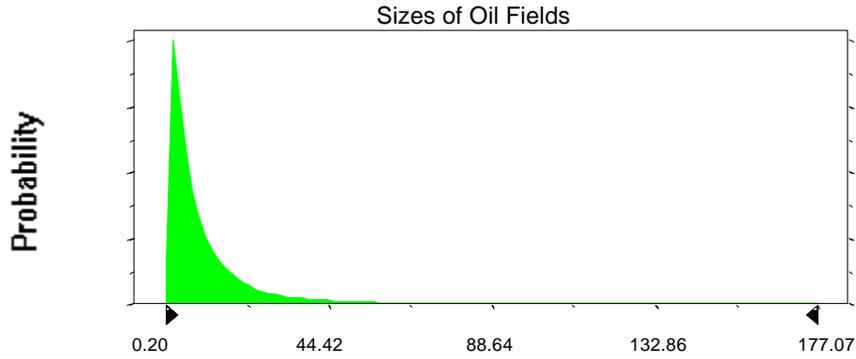
Assumption: GOR in Oil Fields

Triangular distribution with parameters:

Minimum	1,875.00
Likeliest	3,750.00
Maximum	5,625.00

Selected range is from 1,875.00 to 5,625.00
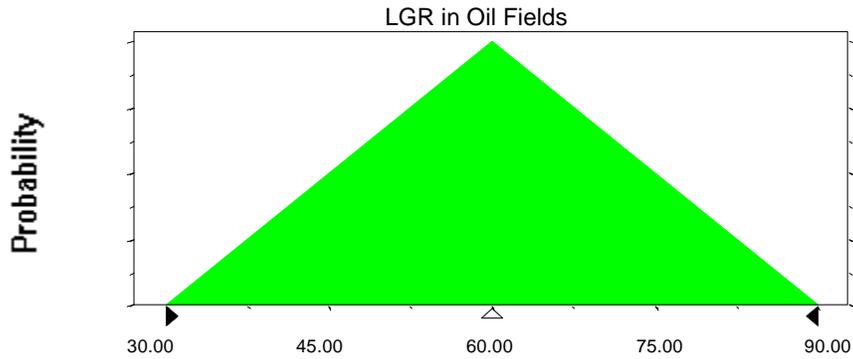Mean value in simulation was 3,745.92

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 60.01

LGR in Oil Fields

Assumption: Number of Gas Fields

Triangular distribution with parameters:
Minimum	4
Likeliest	8
Maximum	20

Selected range is from 4 to 20
Mean value in simulation was 11

Assumption: Number of Gas Fields (cont'd)

Number of Gas Fields
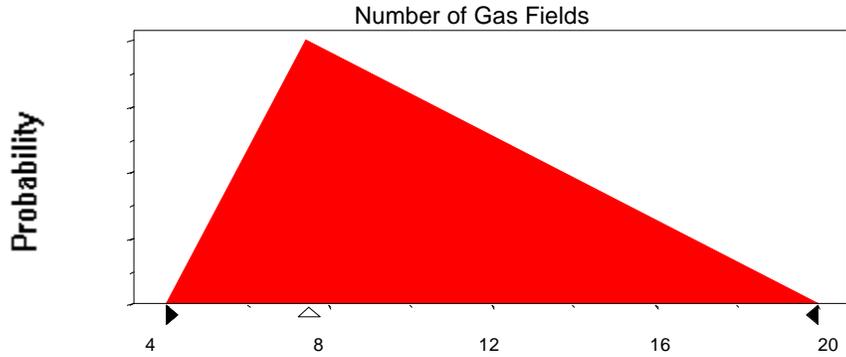
Assumption: Sizes of Gas Fields

Lognormal distribution with parameters:		Shifted parameters	
Mean	74.12		98.12
Standard Deviation	133.40		133.4

Selected range is from 0.00 to 1,476.00   24.00 to 1,500.00
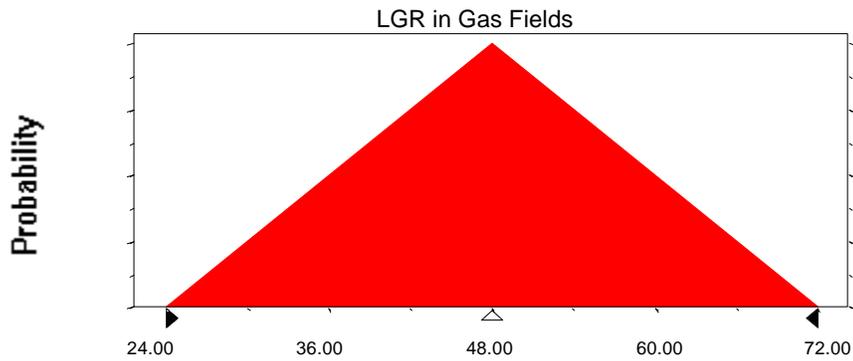Mean value in simulation was 72.15   96.15
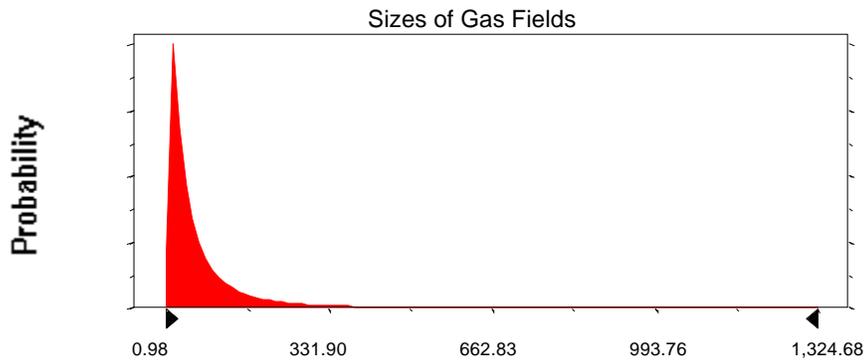
Sizes of Gas Fields

Assumption: LGR in Gas Fields

Triangular distribution with parameters:
Minimum   24.00
Likeliest   48.00
Maximum   72.00

Selected range is from 24.00 to 72.00
Mean value in simulation was 47.97

LGR in Gas Fields

| 24.00 | 36.00 | 48.00 | 60.00 | 72.00 |

End of Assumptions

Simulation started on 12/7/98 at 12:19:08
Simulation stopped on 12/7/98 at 12:33:42