# Gabon Suprasalt, Assessment Unit 72030201 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]

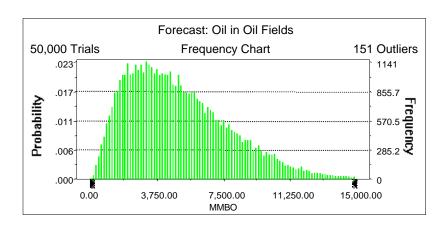
Field	MFS		Undiscovered Resources								Largest Undiscovered Field							
Type		Prob.	Oil (MMBO)			Gas (BCFG)			NGL (MMBNGL)			(MMBO or BCFG)						
. )   0		(0-1)	F95	F50	F5	Mean	F95	F50	F5	Mean	F95	F50	F5	Mean	F95	F50	F5	Mean
Oil Fields	1	1.00	1,241	4,545	10,429	5,031	1,615	6,169	15,492	7,049	75	300	806	353	234	898	2,758	1,112
Gas Fields	6						1,233	5,403	13,803	6,181	51	232	634	272	322	1,423	6,025	2,022
Total		1.00	1,241	4,545	10,429	5,031	2,848	11,572	29,295	13,230	127	532	1,441	625				

## Forecast: Oil in Oil Fields

## Summary:

Display range is from 0.00 to 15,000.00 MMBO
Entire range is from 128.93 to 24,686.98 MMBO
After 50,000 trials, the standard error of the mean is 12.95

Statistics: Trials Mean Median	<u>Value</u> 50000 5,030.99 4,544.89
Mode	
Standard Deviation	2,895.45
Variance	8,383,621.65
Skewness	0.83
Kurtosis	3.59
Coefficient of Variability	0.58
Range Minimum	128.93
Range Maximum	24,686.98
Range Width	24,558.05
Mean Standard Error	12.95



# Forecast: Oil in Oil Fields (cont'd)

Percentiles:

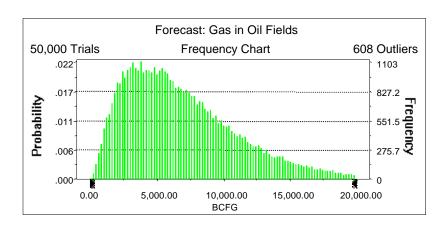
	14100
<u>Percentile</u>	<u>MMBO</u>
100%	128.93
95%	1,241.27
90%	1,693.46
85%	2,074.41
80%	2,426.41
75%	2,775.21
70%	3,124.96
65%	3,460.28
60%	3,814.49
55%	4,180.81
50%	4,544.89
45%	4,942.86
40%	5,341.49
35%	5,792.63
30%	6,258.63
25%	6,797.29
20%	7,421.36
15%	8,139.18
10%	9,070.16
5%	10,428.91
0%	24,686.98

## Forecast: Gas in Oil Fields

## Summary:

Display range is from 0.00 to 20,000.00 BCFG Entire range is from 174.75 to 32,159.47 BCFG After 50,000 trials, the standard error of the mean is 19.65

<u>Value</u> 50000
7,048.55
6,168.94
4,394.41
19,310,858.58
1.10
4.47
0.62
174.75
32,159.47
31,984.73
19.65



# Forecast: Gas in Oil Fields (cont'd)

Percentiles:

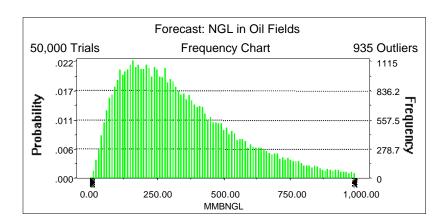
	2020
<u>Percentile</u>	<u>BCFG</u>
100%	174.75
95%	1,614.61
90%	2,225.60
85%	2,753.27
80%	3,232.75
75%	3,710.14
70%	4,187.89
65%	4,672.47
60%	5,170.00
55%	5,656.09
50%	6,168.94
45%	6,730.03
40%	7,325.83
35%	7,954.36
30%	8,648.57
25%	9,456.59
20%	10,396.61
15%	11,544.59
10%	13,049.68
5%	15,491.88
0%	32,159.47

## Forecast: NGL in Oil Fields

## Summary:

Display range is from 0.00 to 1,000.00 MMBNGL Entire range is from 8.29 to 2,095.75 MMBNGL After 50,000 trials, the standard error of the mean is 1.06

Statistics:	<u>Value</u>
Trials	50000
Mean	353.08
Median	300.41
Mode	
Standard Deviation	236.50
Variance	55,933.15
Skewness	1.35
Kurtosis	5.69
Coefficient of Variability	0.67
Range Minimum	8.29
Range Maximum	2,095.75
Range Width	2,087.46
Mean Standard Error	1.06



# Forecast: NGL in Oil Fields (cont'd)

#### Percentiles:

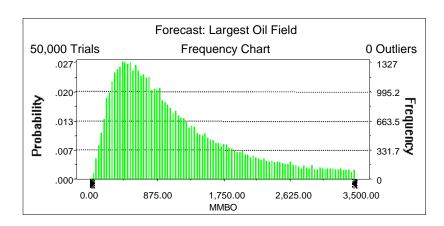
Percentile	MMBNGL
100%	8.29
95%	75.33
90%	104.91
85%	130.20
80%	154.58
75%	177.63
70%	201.17
65%	224.48
60%	249.35
55%	274.53
50%	300.41
45%	328.17
40%	358.84
35%	391.91
30%	428.68
25%	472.73
20%	522.72
15%	585.67
10%	671.92
5%	806.42
0%	2,095.75

# Forecast: Largest Oil Field

## Summary:

Display range is from 0.00 to 3,500.00 MMBO Entire range is from 29.28 to 3,498.97 MMBO After 50,000 trials, the standard error of the mean is 3.44

Statistics:	<u>Value</u>
Trials	50000
Mean	1,112.33
Median	898.23
Mode	
Standard Deviation	770.16
Variance	593,152.29
Skewness	1.06
Kurtosis	3.49
Coefficient of Variability	0.69
Range Minimum	29.28
Range Maximum	3,498.97
Range Width	3,469.70
Mean Standard Error	3.44



# Forecast: Largest Oil Field (cont'd)

Percentiles:

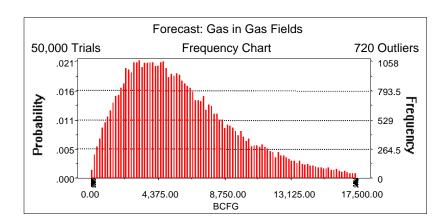
<u>Percentile</u>	MMBO
100%	29.28
95%	233.91
90%	318.28
85%	390.29
80%	456.82
75%	523.03
70%	592.45
65%	661.52
60%	735.94
55%	813.06
50%	898.23
45%	991.99
40%	1,096.38
35%	1,216.59
30%	1,353.86
25%	1,514.85
20%	1,711.15
15%	1,954.72
10%	2,286.87
5%	2,757.89
0%	3,498.97
0,0	5,1,5,7,

## Forecast: Gas in Gas Fields

## Summary:

Display range is from 0.00 to 17,500.00 BCFG Entire range is from 34.06 to 33,024.91 BCFG After 50,000 trials, the standard error of the mean is 17.73

Statistics:	<u>Value</u>
Trials	50000
Mean 6	,181.16
Median 5	,402.57
Mode	
Standard Deviation 3	3,965.60
Variance 15,725	,998.46
Skewness	1.17
Kurtosis	4.92
Coefficient of Variability	0.64
Range Minimum	34.06
Range Maximum 33	,024.91
Range Width 32	,990.84
Mean Standard Error	17.73



# Forecast: Gas in Gas Fields (cont'd)

Percentiles:

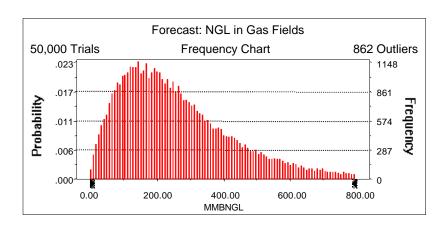
Doroomtilo	DCEC
<u>Percentile</u>	<u>BCFG</u>
100%	34.06
95%	1,233.26
90%	1,868.45
85%	2,375.47
80%	2,830.01
75%	3,245.45
70%	3,670.99
65%	4,091.73
60%	4,515.69
55%	4,938.22
50%	5,402.57
45%	5,870.28
40%	6,371.05
35%	6,927.23
30%	7,552.58
25%	8,256.17
20%	9,109.69
15%	10,134.05
10%	11,563.75
5%	13,803.25
0%	33,024.91

## Forecast: NGL in Gas Fields

## Summary:

Display range is from 0.00 to 800.00 MMBNGL Entire range is from 1.21 to 1,775.02 MMBNGL After 50,000 trials, the standard error of the mean is 0.84

Statistics: Trials Mean	<u>Value</u> 50000 272.37
Median	231.51
Mode	
Standard Deviation	187.00
Variance	34,968.88
Skewness	1.40
Kurtosis	6.00
Coefficient of Variability	0.69
Range Minimum	1.21
Range Maximum	1,775.02
Range Width	1,773.82
Mean Standard Error	0.84



# Forecast: NGL in Gas Fields (cont'd)

Percentiles:

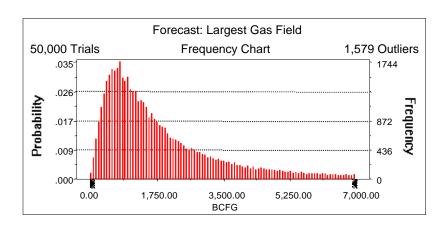
Percentile	MMBNGL
	1.21
100%	· · — ·
95%	51.31
90%	77.35
85%	98.80
80%	118.14
75%	136.43
70%	154.46
65%	173.07
60%	192.44
55%	211.31
50%	231.51
45%	252.96
40%	275.47
35%	301.20
30%	329.94
25%	362.84
20%	402.91
15%	451.83
10%	521.33
5%	634.09
0%	1,775.02

# Forecast: Largest Gas Field

## Summary:

Display range is from 0.00 to 7,000.00 BCFG Entire range is from 12.10 to 9,993.25 BCFG After 50,000 trials, the standard error of the mean is 8.10

Statistics: Trials	<u>Value</u>
	50000
Mean	2,021.80
Median	1,423.31
Mode	
Standard Deviation	1,812.28
Variance	3,284,367.79
Skewness	1.81
Kurtosis	6.37
Coefficient of Variability	0.90
Range Minimum	12.10
Range Maximum	9,993.25
Range Width	9,981.16
Mean Standard Error	8.10



# Forecast: Largest Gas Field (cont'd)

Percentiles:

<u>Percentile</u>	<u>BCFG</u>
100%	12.10
95%	321.84
90%	457.10
85%	572.88
80%	679.78
75%	784.33
70%	892.44
65%	1,010.78
60%	1,136.27
55%	1,271.52
50%	1,423.31
45%	1,593.72
40%	1,782.76
35%	1,999.09
30%	2,273.57
25%	2,611.24
20%	3,028.91
15%	3,607.31
10%	4,496.04
5%	6,024.55
0%	9,993.25

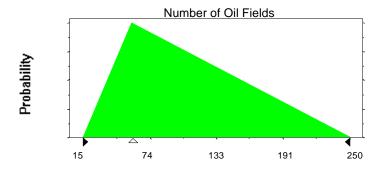
# **Assumptions**

# **Assumption: Number of Oil Fields**

Triangular distribution with parameters:

Minimum	15
Likeliest	59
Maximum	250

Selected range is from 15 to 250 Mean value in simulation was 108

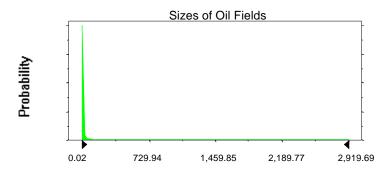


## Assumption: Sizes of Oil Fields

Lognormal distribution with parameters:		Shifted parameters
Mean	52.89	53.89
Standard Deviation	396.08	396.08

Selected range is from 0.00 to 3,499.00 1.00 to 3,500.00 Mean value in simulation was 45.29 46.29

## Assumption: Sizes of Oil Fields (cont'd)



## Assumption: GOR in Oil Fields

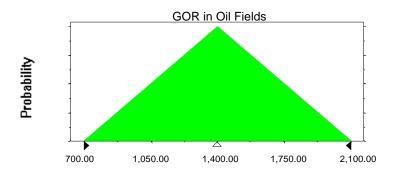
Triangular distribution with parameters:

 Minimum
 700.00

 Likeliest
 1,400.00

 Maximum
 2,100.00

Selected range is from 700.00 to 2,100.00 Mean value in simulation was 1,400.11

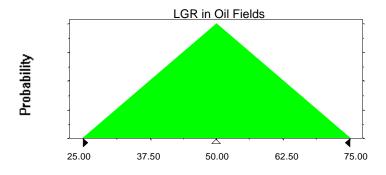


# Assumption: LGR in Oil Fields

Triangular distribution with parameters:

Minimum	25.00
Likeliest	50.00
Maximum	75.00

Selected range is from 25.00 to 75.00 Mean value in simulation was 50.08



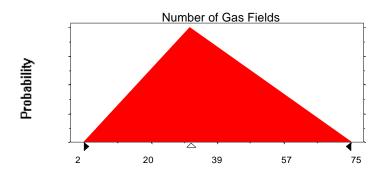
## Assumption: Number of Gas Fields

Triangular distribution with parameters:

Minimum	2
Likeliest	31
Maximum	75

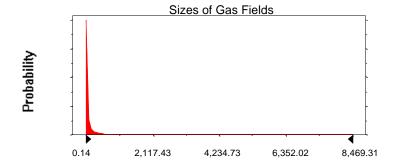
Selected range is from 2 to 75 Mean value in simulation was 36

# Assumption: Number of Gas Fields (cont'd)



## **Assumption: Sizes of Gas Fields**

Lognormal distribution with parameters:		Shifted parameters
Mean	184.53	190.53
Standard Deviation	984.42	984.42
Selected range is from 0.00 to 9,994.00		6.00 to 10,000.00
Mean value in simulation was 161.77		167.77

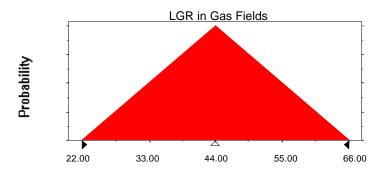


# Assumption: LGR in Gas Fields

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 44.05



End of Assumptions

Simulation started on 10/8/99 at 9:37:16 Simulation stopped on 10/8/99 at 10:48:11